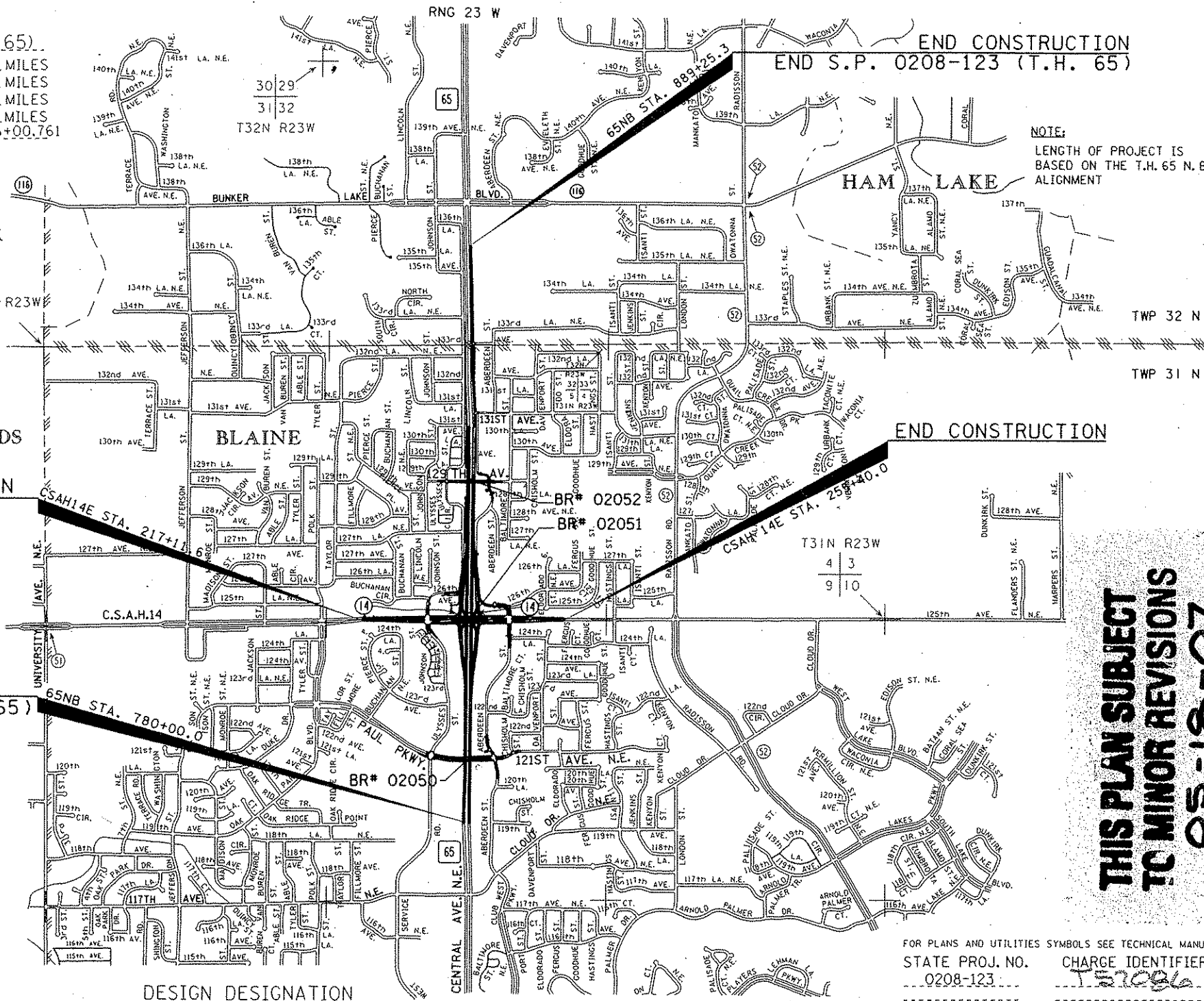


MINNESOTA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR GRADING, CONCRETE AND BITUMINOUS SURFACING, SIGNING, LIGHTING, TEMPORARY TRAFFIC SIGNAL AND BRIDGES NO. 02050, NO. 02051 AND NO. 02052

LOCATED ON T.H. 65 FROM 0.7 MI. S. OF C.S.A.H.14 TO 1.3 MI. N. OF C.S.A.H.14
AND ON C.S.A.H.14 FROM 0.4 MI. W. OF T.H. 65 TO 0.3 MI. E. OF T.H. 65

STATE PROJ. NO. 0208-123 (T.H. 65)
GROSS LENGTH 10,924.90 FEET 2.069 MILES
BRIDGES-LENGTH 0.0 FEET 0.000 MILES
EXCEPTIONS-LENGTH 0.0 FEET 0.000 MILES
NET LENGTH 10,924.90 FEET 2.069 MILES
REF. POINT 14+00.707 TO REF. POINT 16+00.761



NOTE:
LENGTH OF PROJECT IS
BASED ON THE T.H. 65 N.B.
ALIGNMENT

FED. PROJ. NO. *SAPE-1174-07*

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION 'STANDARD SPECIFICATIONS FOR CONSTRUCTION' SHALL GOVERN.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
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10	STANDARD PLATES
11-21	EARTHWORK TABULATIONS AND SUMMARY
22	SOILS AND CONSTRUCTION NOTES
23-33	TABULATIONS
34-51	INPLACE UTILITY TABULATIONS
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64-80	PROPOSED SANITARY SEWER AND WATERMAIN PLANS
81-97	TYPICAL SECTIONS
98-122A	STANDARD PLAN SHEETS
123-161	STAGING PLAN
162-182	ALIGNMENT TABULATION AND PLAN
183-194	REMOVAL PLANS
195-206	CONSTRUCTION PLANS
207-210	CONSTRUCTION PLAN DETAILS
211-222	INTERSECTION DETAILS
223-242	PROFILES
243-254	SUPERELEVATION PLANS
255-375	RETAINING WALL DETAILS, PLANS, PROFILES, AND TABULATION
376-383	NOISEWALL DETAILS, PROFILES, AND TABULATIONS
384-404	DRAINAGE PLANS AND DETAILS
405-443	DRAINAGE PROFILES, TABULATION, AND SUMMARY
444-447	POND CONTOURS
448	WATER RESOURCES NOTES
449	STORM WATER POLLUTION PREVENTION PLAN
450-461	EROSION CONTROL PLANS AND DETAILS
462-473	TURF ESTABLISHMENT PLANS
474-485	FENCING PLANS
486-577	TRAFFIC CONTROL PLAN
578-597	STRIPING PLANS
598-608	LIGHTING PLANS
609-647	SIGNING PLANS
648-681B	SIGNAL PLANS
682-686	CROSS SECTION MATCH LINE LAYOUT
XI-XI86	CROSS SECTIONS

THIS PLAN CONTAINS 874 SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: JOSEPHINE (JOEY) LUNDQUIST LICENSE # 20534
DATE: 2/2/07 SIGNATURE: *Josephine Lundquist*
DESIGN SQUAD: DARWIN YASIS

RECOMMENDED FOR APPROVAL *Alan C. Ellis* 2/8/2007 DISTRICT TRANSPORTATION ENGINEER

RECOMMENDED FOR APPROVAL *David L. Lauer* 2/10/2007 DISTRICT MATERIALS ENGINEER

RECOMMENDED FOR APPROVAL *James J. Wood* 2/5/2007 DISTRICT WATER RESOURCES ENGINEER

RECOMMENDED FOR APPROVAL *Anna Swor* 2/5/2007 DISTRICT TRAFFIC ENGINEER

RECOMMENDED FOR APPROVAL STATE PRE-LETTING ENGINEER 20

OFFICE OF LAND MANAGEMENT APPROVAL DIRECTOR, LAND MANAGEMENT 20

APPROVED 20 STATE DESIGN ENGINEER

DISTRICT STATE AID ENGINEER REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY 2-14-2007

APPROVED FOR STATE AID FUNDING STATE AID ENGINEER 2-14-2007

RECOMMENDED FOR APPROVAL *John M. Kelly* 2/14/2007 ANOKA COUNTY ENGINEER

RECOMMENDED FOR APPROVAL *John M. Kelly* 1/16/2007 CITY OF BLAINE ENGINEER

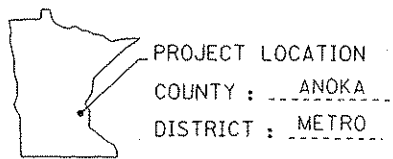
I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: _____ LICENSE # _____
DATE: _____ SIGNATURE: _____

THIS PLAN SUBJECT TO MINOR REVISIONS 05-18-07

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL
STATE PROJ. NO. 0208-123 CHARGE IDENTIFIER T52086

- SAP NO. 02-614-30
- SAP NO. 106-112-07
- SAP NO. 106-010-19
- SAP NO. 106-020-26



SCALES

PLAN	50'
PROFILE	100' HORIZ. 10' VERT.
INDEX MAP	1300'
GENERAL LAYOUT	300'




PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

DESIGN DESIGNATION

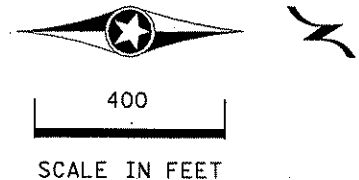
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ADT (Current Year) 2002	= 40,000
ADT (Future Year) 2025	= 66,000
DHV (Design Hr. Vol.)	= 5,800
D (Directional Distr.)	= 55.45%
T (Heavy Commercial)	= 5.5%
Design Speed	70 MPH
Based on	STOPPING Sight Distance
Height of eye	3.5' Height of object 0.5
Design Speed not achieved at:	
STA. TO STA.	MPH
STA. TO STA.	MPH

DISTRICT: METRO
I/PLOT NAME: 02080123_1.shp
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PLOTTED/REVISED: 05-FEB-2007 13:20

LEGEND

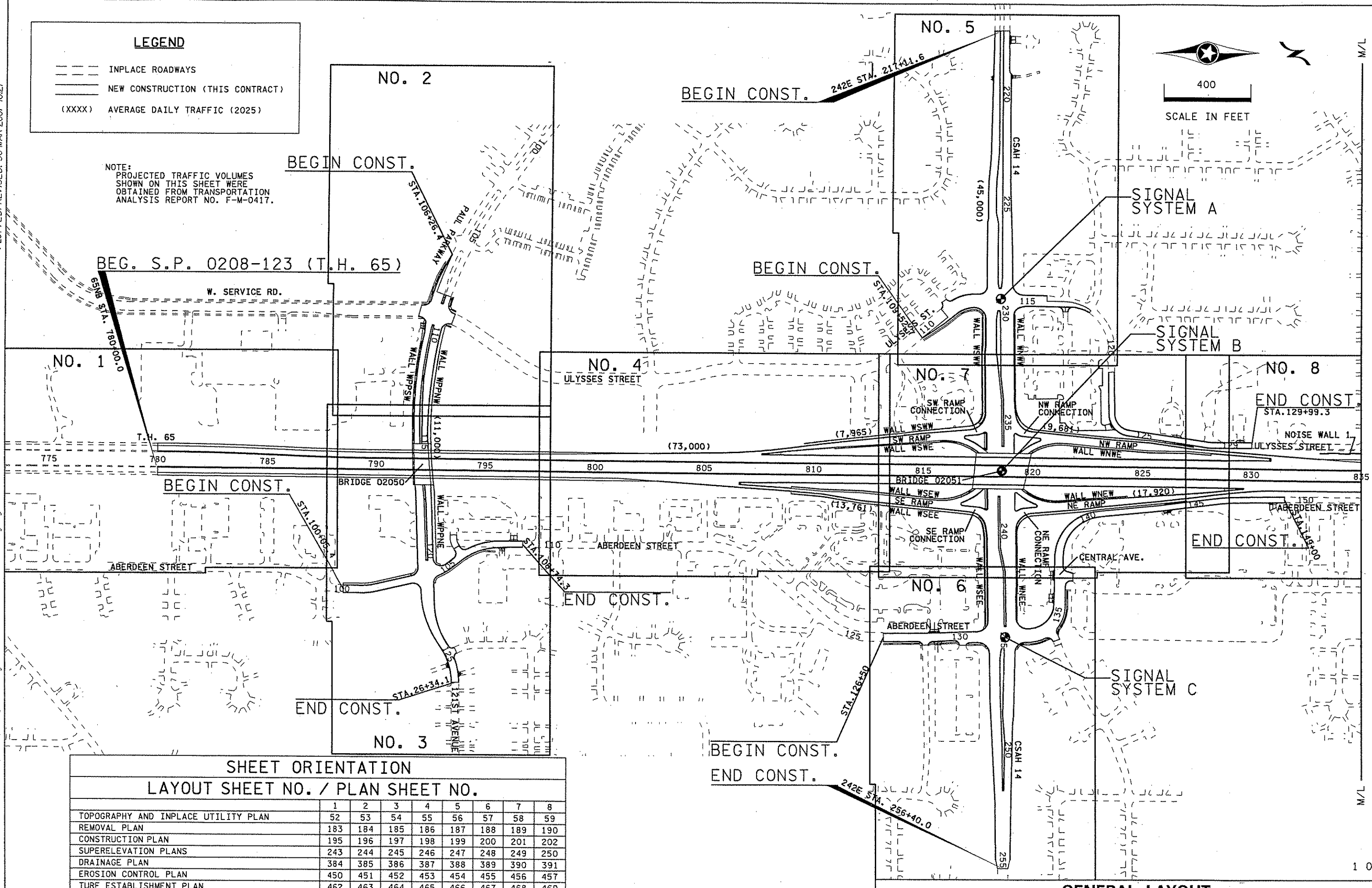
-  INPLACE ROADWAYS
-  NEW CONSTRUCTION (THIS CONTRACT)
-  (XXXX) AVERAGE DAILY TRAFFIC (2025)

NOTE:
PROJECTED TRAFFIC VOLUMES
SHOWN ON THIS SHEET WERE
OBTAINED FROM TRANSPORTATION
ANALYSIS REPORT NO. F-M-0417.



PLOTTED/REVISED: 30-MAR-2007 10:27

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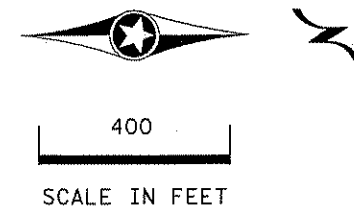
**SHEET ORIENTATION
LAYOUT SHEET NO. / PLAN SHEET NO.**

	1	2	3	4	5	6	7	8
TOPOGRAPHY AND INPLACE UTILITY PLAN	52	53	54	55	56	57	58	59
REMOVAL PLAN	183	184	185	186	187	188	189	190
CONSTRUCTION PLAN	195	196	197	198	199	200	201	202
SUPERELEVATION PLANS	243	244	245	246	247	248	249	250
DRAINAGE PLAN	384	385	386	387	388	389	390	391
EROSION CONTROL PLAN	450	451	452	453	454	455	456	457
TURF ESTABLISHMENT PLAN	462	463	464	465	466	467	468	469

GENERAL LAYOUT

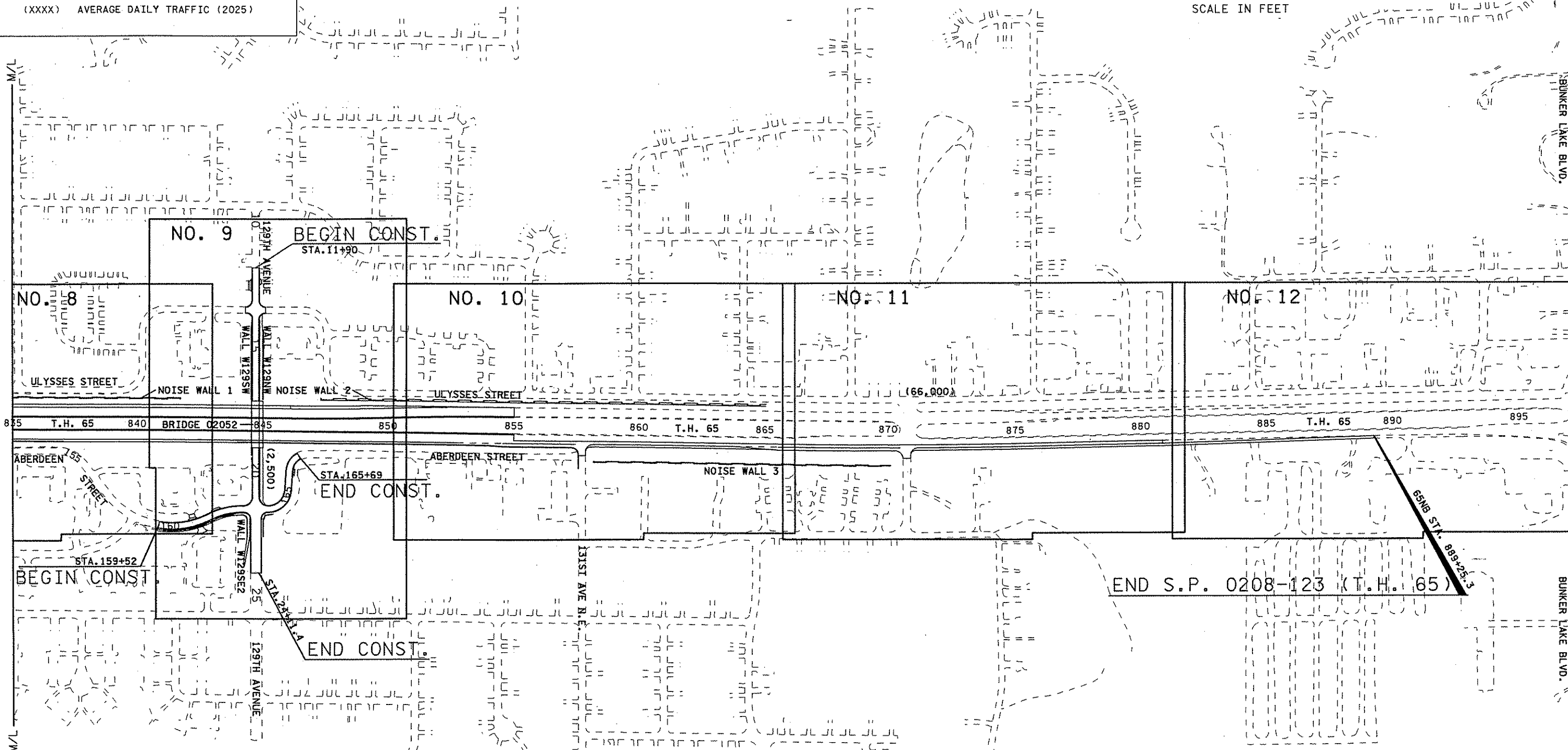
LEGEND

- INPLACE ROADWAYS
- ==== NEW CONSTRUCTION (THIS CONTRACT)
- (XXXX) AVERAGE DAILY TRAFFIC (2025)



PLOTTED/REVISED: 01-FEB-2007 13:36

DISTRICT #: METRO
 PLOT NAME: 0208123_g12
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123_g12.dgn



**SHEET ORIENTATION
 LAYOUT SHEET NO. / PLAN SHEET NO.**

	8	9	10	11	12
TOPOGRAPHY AND INPLACE UTILITY PLAN	59	60	61	62	63
REMOVAL PLAN	190	191	192	193	194
CONSTRUCTION PLAN	202	203	204	205	206
SUPERELEVATION PLANS	250	251	252	253	254
DRAINAGE PLAN	391	392	393	394	395
EROSION CONTROL PLAN	457	458	459	460	461
TURF ESTABLISHMENT PLAN	469	470	471	472	473

GENERAL LAYOUT

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	100% CITY (1)	HPP/STP (2)	HPP-UG (3)
		2016.621	CONTRACT TIME	DOLLARS				
		2021.501	MOBILIZATION	LUMP SUM	1			1
		2031.501	FIELD OFFICE TYPE D	EACH	1			1
		2031.501	FIELD OFFICE TYPE D-MODIFIED	EACH	1			1
		2031.503	FIELD LABORATORY TYPE DX	EACH	1			1
		2041.610	TRAINEES	HOUR	7700			
		2051.501	MAINT AND RESTORATION OF HAUL ROADS	LUMP SUM	1			1
D	24	2101.501	CLEARING	ACRE	2			2
D	24	2101.502	CLEARING	TREE	126		126	
D	24	2101.506	GRUBBING	ACRE	2			2
D	24	2101.507	GRUBBING	TREE	126		126	
AB	487	2102.501	PAVEMENT MARKING REMOVAL	SQ FT	816			816
AB	487	2102.502	PAVEMENT MARKING REMOVAL	LIN FT	29755			29755
B	23	2103.501	BUILDING REMOVAL A (4)	LUMP SUM	1			1
B	23	2103.501	BUILDING REMOVAL B (5)	LUMP SUM	1			1
B	23	2103.501	BUILDING REMOVAL C (5)	LUMP SUM	1			1
B	23	2103.501	BUILDING REMOVAL D (5)	LUMP SUM	1			1
B	23	2103.501	BUILDING REMOVAL E (6)	LUMP SUM	1			1
B	23	2103.505	DISCONNECT SEWER SERVICE	EACH	5			5
B	23	2103.507	DISCONNECT WATER SERVICE	EACH	5			5
P	49	2104.501	REMOVE CONCRETE CULVERT (P)	LIN FT	588			588
P,X	49,441	2104.501	REMOVE METAL CULVERT (P)	LIN FT	1584			1584
R	80	2104.501	REMOVE WATER MAIN (P)	LIN FT	445	445		
O,X	47-49,441	2104.501	REMOVE SEWER PIPE (STORM) (P)	LIN FT	5562			5562
R	80	2104.501	REMOVE SEWER PIPE (SANITARY) (P)	LIN FT	275	275		
B	23	2104.501	REMOVE GAS SUPPLY PIPE (P)	LIN FT	770			770
B,D,R	23,24,80	2104.501	REMOVE CURB AND GUTTER (P)	LIN FT	18875	75		18800
B	23	2104.501	REMOVE RETAINING WALL (P)	LIN FT	45			45
B	23	2104.501	REMOVE WOOD RETAINING WALL (P)	LIN FT	100			100
D	24	2104.501	REMOVE FENCE (P)	LIN FT	315			315
B	23	2104.501	REMOVE WOVEN WIRE FENCE (P)	LIN FT	92			92
B	23	2104.501	REMOVE WOOD FENCE (P)	LIN FT	74			74
AF	648	2104.501	REMOVE UNDERGROUND WIRE (P)	LIN FT	8500			8500
AD	598	2104.501	REMOVE OVERHEAD CABLE (P)	LIN FT	8225			8225
R	80	2104.501	REMOVE STEEL CASING (P)	LIN FT	25	25		
D	24	2104.505	REMOVE CONCRETE MEDIAN (P)	SQ YD	5012			5012
B	23	2104.505	REMOVE CONCRETE SLAB (P)	SQ YD	1319			1319
D	24	2104.505	REMOVE CONCRETE WALK (P)	SQ YD	2820			2820
D	24	2104.505	REMOVE PAVEMENT (P)	SQ YD	20294			20294
B	23	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT (P)	SQ YD	3525			3525
D	24	2104.505	REMOVE BITUMINOUS PAVEMENT (P) (7)	SQ YD	68697			68697
B	23	2104.507	REMOVE FOUNDATION	CU YD	1			1
O,P	47-49	2104.509	REMOVE CONCRETE APRON	EACH	32			32
X	441	2104.509	REMOVE METAL APRON	EACH	6			6
B	23	2104.509	REMOVE UNDERGROUND TANK	EACH	7			7
B	23	2104.509	REMOVE GAS PUMP	EACH	10			10
B	23	2104.509	REMOVE MISCELLANEOUS STRUCTURES	EACH	5			5
B	23	2104.509	REMOVE CANOPY	EACH	2			2
B	23	2104.509	REMOVE GUARD POST	EACH	12			12
B	23	2104.509	REMOVE LIGHT STANDARD	EACH	22			22
B	23	2104.509	REMOVE FLAGPOLE	EACH	3			3
O,R,X	47-49,80,441	2104.509	REMOVE MANHOLE OR CATCH BASIN	EACH	77	9		68
R	80	2104.509	REMOVE GATE VALVE & BOX	EACH	7	7		
AD	598	2104.509	REMOVE WOOD POLE	EACH	4			4
B	23	2104.509	REMOVE PEDESTAL FOUNDATION	EACH	2			2
B	23	2104.509	REMOVE CABINET FOUNDATION	EACH	4			4
B	23	2104.509	REMOVE SIGN	EACH	5			5
AE	609	2104.509	REMOVE SIGN TYPE D	EACH	2			2
AF	648	2104.509	REMOVE SIGNAL SYSTEM A	EACH	1			1
AF	648	2104.509	REMOVE SIGNAL SYSTEM B	EACH	1			1
AF	648	2104.509	REMOVE SIGNAL SYSTEM C	EACH	1			1
AF	648	2104.509	REMOVE SIGNAL SYSTEM D	EACH	1			1
C	24	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	48			48
C,Q,R	24,80	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	8280	1294		6986
O,X	47-49,441	2104.523	SALVAGE CASTING	EACH	26			26
R	80	2104.523	SALVAGE HYDRANT & VALVE	EACH	5	5		

(P) PLAN QUANTITY

- ① 100% CITY OF BLAINE
- ② LUMP SUM AGREEMENT ANOKA COUNTY/LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO. 02-614-30, SAP NO.106-112-07, SAP NO.106-010-19, SAP NO.106-020-26.
- ③ LUMP SUM AGREEMENT ANOKA COUNTY/ LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO.106-112-07, SAP NO.106-010-19.
- ④ FOR LOCATION SEE SHEET NO.185
- ⑤ FOR LOCATION SEE SHEET NO.189
- ⑥ FOR LOCATION SEE SHEET NO.191
- ⑦ THICKNESS OF 6" TO 12"

TABULATION INDEX

TAB	SHEET	DESCRIPTION
A	11	EARTHWORK ESTIMATED QUANTITIES
B	23	BUILDING REMOVAL QUANTITIES
C	24	SAWCUT
D	24	MISCELLANEOUS REMOVALS
E	25	FENCING
F	26	AGGREGATE
G	27-28	BITUMINOUS
H	29-30	CURB & GUTTER AND CONCRETE WALKS
I	31	PORTABLE PRECAST CONCRETE BARRIER
J	31	TRAFFIC BARRIER
K	32	EROSION CONTROL
L	32	APRON PROTECTION
M	33	TEMPORARY TURF ESTABLISHMENT
N	33	TURF ESTABLISHMENT
O	47-49	INPLACE STORM SEWER
P	49	EXISTING PIPE CULVERT
Q	80	SANITARY SEWER AND WATERMAIN RELOCATION
R	80	PROPOSED SANITARY SEWER AND WATERMAIN
S	208	BRIDGE APPROACH SUMMARY
T	375	RETAINING WALL SUMMARY
U	375	MODULAR BLOCK WALL SUMMARY
V	375	RETAINING WALL DRAINAGE SUMMARY
W	383	NOISEWALL SUMMARY
X	441	TEMPORARY DRAINAGE TABULATION
Y	441	STORM SEWER SUMMARY - DRAINAGE STRUCTURES
Z	442-443	STORM SEWER SUMMARY - PIPE SEWERS
AA	443	STORM SEWER SUMMARY - PIPE CULVERTS
AB	487	TRAFFIC CONTROL PAYITEMS
AC	579	PERMANENT PAVEMENT MARKING
AD	598	TABULATION OF LIGHTING QUANTITIES
AE	609	PERMANENT SIGNING QUANTITIES
AF	648	TABULATED SIGNAL QUANTITIES

ESTIMATED QUANTITIES

DRAWN BY: DY

CHECKED BY: JL

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/10/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 4 OF 872 SHEETS

PLOTTED/REVISED: 09-APR-2007 10:52

DISTRICT #: METRO
PLOT NAME: 0208123_est_01
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PLOTTED/REVISED: 10-APR-2007 15:32

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STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	100% CITY (1)	HPP/STP (2)	HPP-UG (3)
AD	598	2104.523	SALVAGE STEEL LIGHT BASE	EACH	24		24	
AD	598	2104.523	SALVAGE LIGHTING UNIT	EACH	24		24	
AD	598	2104.523	SALVAGE SERVICE CABINET	EACH	4		4	
AE	609	2104.523	SALVAGE SIGN TYPE C	EACH	6		6	
AE	609	2104.523	SALVAGE SIGN TYPE D	EACH	6		6	
B	23	2104.601	REGULATED WASTE EVALUATION A	LUMP SUM	1		1	
B	23	2104.601	REGULATED WASTE EVALUATION B	LUMP SUM	1		1	
B	23	2104.601	REGULATED WASTE EVALUATION C	LUMP SUM	1		1	
B	23	2104.601	REGULATED WASTE EVALUATION D	LUMP SUM	1		1	
B	23	2104.601	REGULATED WASTE EVALUATION E	LUMP SUM	1		1	
		2104.601	HAUL SALVAGED MATERIAL (12)	LUMP SUM	1			
Q,R	80	2104.603	ABANDON PIPE SEWER	LIN FT	1630	1630		
Q,R	80	2104.603	ABANDON WATER MAIN	LIN FT	4031	4031		
A	11	2105.501	COMMON EXCAVATION	CU YD	276417		274520	1897
A	11	2105.505	MUCK EXCAVATION	CU YD	26091		24173	1918
A	11	2105.507	SUBGRADE EXCAVATION	CU YD	52424		51922	502
K	32	2105.511	COMMON CHANNEL EXCAVATION	CU YD	35		35	
A	11	2105.521	GRANULAR BORROW (CV)	CU YD	77492		71000	6492
A	11	2105.522	SELECT GRANULAR BORROW (CV) (P)	CU YD	95921		93192	2729
A	11	2105.522	SELECT GRANULAR BORROW MOD 10% (CV) (P) (13)	CU YD	34429		31277	3152
A	11	2105.523	COMMON BORROW (CV) (P)	CU YD	33895		30505	3390
N	33	2105.550	SUBSIDING (P)	ACRE	1.3		1.3	
	397	2105.604	GEOTEXTILE FABRIC TYPE I	SQ YD	158		158	
	33	2105.607	TOPSOIL BORROW MOD (CV) (4)	CU YD	991		991	
	397	2105.607	EXCAVATION SPECIAL (14)	CU YD	22		22	
K	32	2130.501	WATER (5)	M GALLON	40		40	
K	32	2131.502	CALCIUM CHLORIDE SOLUTION (5)	GALLON	1000		1000	
F,Q,R	26,80	2211.503	AGGREGATE BASE (CV) CLASS 5 (P)	CU YD	9496	498	8361	637
F	26	2211.503	AGGREGATE BASE (CV) CLASS 6 (P)	CU YD	17498		17351	147
F	26	2221.503	AGGREGATE SHOULDERING (CV) CLASS 5 (P)	CU YD	7677		7677	
S	208	2301.553	BRIDGE APPROACH PANELS	SQ YD	1740		1310	430
G	27-28	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	23126		22492	634
K	32	2357.606	BITUMINOUS MATERIAL FOR SHOULDER TACK	GALLON	1501		1501	
G,Q,R	27-28,80	2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (4,F)	TON	47378	410	45667	1301
G,Q,R	27-28,80	2360.502	TYPE SP 19.0 NON WEARING COURSE MIXTURE (4,B)	TON	35255	276	34285	694
T	375	2401.513	TYPE MOD F (TL-4) RAILING CONCRETE (3Y46) (6)	LIN FT	7261		7083	178
T	375	2401.513	TYPE MOD P-1 (TL-2) RAILING CONCRETE (3Y46) (7)	LIN FT	2667		1675	992
A	11	2401.521	STRUCTURE EXCAVATION CLASS E	CU YD	5889		5337	552
H	29-30	2401.618	ARCHITECTURAL PAVEMENT (8)	SQ FT	17279		17279	
T	375	2411.501	STRUCTURAL CONCRETE (1A43) (P)	CU YD	3632		3200	432
T	375	2411.501	STRUCTURAL CONCRETE (3Y43) (P)	CU YD	8438		7458	980
T	375	2411.541	REINFORCEMENT BARS (P)	POUND	371895		327759	44136
T	375	2411.541	REINFORCEMENT BARS (EPOXY COATED) (P)	POUND	743489		656317	87172
U	375	2411.604	MODULAR BLOCK RETAINING WALL (9)	SQ YD	48		48	
T	375	2411.618	ANTI-GRAFFITI COATING (P)	SQ FT	52164		52164	
T	375	2411.618	ARCHITECTURAL SURFACE FINISH (MULTI COLOR) (P)	SQ FT	52164		52164	
T	375	2411.618	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE) (P) (10)	SQ FT	52164		52164	
AA	443	2412.511	6X4 PRECAST CONCRETE BOX CULVERT	LIN FT	230		230	
AA	443	2412.512	6X4 PRECAST CONCRETE BOX CULVERT END SECTION	EACH	2		2	
W	383	2422.603	CONCRETE POSTS 12"X18" (11)	LIN FT	6539		6539	
W	383	2422.618	WOOD NOISE BARRIER (11)	SQ FT	32563		32563	
U	375,397	2451.511	COARSE FILTER AGGREGATE (CV)	CU YD	42		42	
X	441	2501.511	18" CS PIPE CULVERT	LIN FT	826		826	
Z,AA	442-443	2501.515	15" RC PIPE APRON	EACH	5		5	
Z	442-443	2501.515	18" RC PIPE APRON	EACH	6		6	
Z	442-443	2501.515	21" RC PIPE APRON	EACH	1		1	
Z	442-443	2501.515	24" RC PIPE APRON	EACH	6		6	
Z	442-443	2501.515	30" RC PIPE APRON	EACH	1		1	
Z	442-443	2501.515	36" RC PIPE APRON	EACH	6		6	
Z	442-443	2501.515	42" RC PIPE APRON	EACH	2		2	

(P) PLAN QUANTITY

- ① 100% CITY OF BLAINE
- ② LUMP SUM AGREEMENT ANOKA COUNTY/LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO. 02-614-30, SAP NO.106-112-07, SAP NO.106-010-19, SAP NO.106-020-26.
- ③ LUMP SUM AGREEMENT ANOKA COUNTY/LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO.106-112-07, SAP NO.106-010-19.
- ④ FOR LOCATION SEE SHEET NOS. 472,473.
- ⑤ PROVIDED FOR DUST CONTROL
- ⑥ INCLUDES LIGHT ANCHORS AT NE, NW, SE AND SW RAMPS. CONDUIT SHALL BE INCIDENTAL. FOR LOCATIONS, SEE SHEET NOS. 282,308,332,363,665,667. FOR DETAILS, SEE SHEET NOS. 264, 270
- ⑦ FOR DETAILS, SEE SHEET NO. 263
- ⑧ FOR DETAILS, SEE SHEET NOS. 209,210.
- ⑨ FOR DETAILS, SEE SHEET NOS. 268,269.
- ⑩ FOR DETAILS, SEE SHEET NO. 270.
- ⑪ FOR DETAILS, SEE SHEET NOS. 118-120.
- ⑫ STATE FUNDED
- ⑬ SEE DETAIL ON SHEET 122A.
- ⑭ SEE DETAIL ON SHEET 397.

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AA	443	STORM SEWER SUMMARY - PIPE CULVERTS
AB	487	TRAFFIC CONTROL PAYITEMS
AC	579	PERMANENT PAVEMENT MARKING
AD	598	TABULATION OF LIGHTING QUANTITIES
AE	609	PERMANENT SIGNING QUANTITIES
AF	648	TABULATED SIGNAL QUANTITIES

ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	100% CITY ①	HPP/STP ②	HPP-UG ③
R	80	2503.603	20" STEEL CASING PIPE	LIN FT	70	70		
R	80	2503.603	24" STEEL CASING PIPE	LIN FT	600	600		
R	80	2503.603	30" STEEL CASING PIPE	LIN FT	145	145		
R	80	2503.603	36" STEEL CASING PIPE	LIN FT	160	160		
Q,R	80	2503.608	DUCTILE IRON FITTINGS	POUND	7700	7700		
Q,R	80	2504.602	CONNECT TO EXISTING WATER MAIN	EACH	25	25		
R	80	2504.602	HYDRANT	EACH	5	5		
R	80	2504.602	ADJUST GATE VALVE & BOX	EACH	3	3		
R	80	2504.602	8" CUT AND PLUG	EACH	3	3		
R	80	2504.602	12" CUT AND PLUG	EACH	16	16		
R	80	2504.602	16" CUT AND PLUG	EACH	2	2		
R	80	2504.602	20" CUT AND PLUG	EACH	1	1		
R	80	2504.602	16" BUTTERFLY VALVE AND BOX	EACH	3	3		
R	80	2504.602	20" BUTTERFLY VALVE AND BOX	EACH	3	3		
R	80	2504.602	12" WET TAP	EACH	2	2		
R	80	2504.602	6" GATE VALVE AND BOX	EACH	6	6		
R	80	2504.602	8" GATE VALVE AND BOX	EACH	2	2		
R	80	2504.602	12" GATE VALVE AND BOX	EACH	14	14		
R	80	2504.603	6" WATERMAIN DUCTILE IRON CL 52	LIN FT	115	115		
Q,R	80	2504.603	8" WATERMAIN DUCTILE IRON CL 52	LIN FT	330	330		
R	80	2504.603	12" WATERMAIN DUCTILE IRON CL 52	LIN FT	2232	2232		
R	80	2504.603	16" WATERMAIN DUCTILE IRON CL 52	LIN FT	965	965		
R	80	2504.603	20" WATERMAIN DUCTILE IRON CL 53	LIN FT	300	300		
B	23	2505.602	DISCONNECT GAS SERVICE CONNECTION	EACH	5		5	
Q,Y	80,441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN A OR F	LIN FT	497.2	50.6	446.6	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN C OR G	LIN FT	339.9		339.9	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN C G OR H	LIN FT	87.1		87.1	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN J	LIN FT	72.7		72.7	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL ④	LIN FT	264.8		264.8	
X,Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	438.6		438.6	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 54-4020	LIN FT	163.8		163.8	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 60-4020	LIN FT	108		108	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 66-4020	LIN FT	69.9		69.9	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 72-4020	LIN FT	27.8		27.8	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 78-4020	LIN FT	14.8		14.8	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 84-4020	LIN FT	50.2		50.2	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 90-4020	LIN FT	19.3		19.3	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 96-4020	LIN FT	31.4		31.4	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 108-4020	LIN FT	14		14	
Y	441	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN 120-4020	LIN FT	24.7		24.7	
Q,R	80	2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 5 ⑥	LIN FT	149	98	51	
Y	441	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1 ⑤	EACH	1		1	
Y	441	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 2 ⑤	EACH	1		1	
Y	441	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 3 ⑤	EACH	1		1	
R	80	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 4 ⑥	EACH	8	8		
R	80	2506.503	RECONSTRUCT DRAINAGE STRUCTURE ⑥	LIN FT	142	142		
Y	441	2506.516	CASTING ASSEMBLY	EACH	327		327	
O	47-49	2506.522	ADJUST FRAME & RING CASTING	EACH	9		9	
Z	442-443	2506.602	CONNECT INTO EXISTING STORM SEWER	EACH	26		26	
L	32	2511.501	RANDOM RIPRAP CLASS II	CU YD	79		79	
L	32	2511.501	RANDOM RIPRAP CLASS III	CU YD	44		44	
L	32	2511.501	RANDOM RIPRAP CLASS IV	CU YD	55		55	
L	32	2511.515	GEOTEXTILE FILTER TYPE II	SQ YD	237		237	
L	32	2511.515	GEOTEXTILE FILTER TYPE III	SQ YD	88		88	
L	32	2511.515	GEOTEXTILE FILTER TYPE IV	SQ YD	82		82	
H	29-30	2521.501	3" CONCRETE WALK	SQ FT	105169		105169	
H	29-30	2521.501	4" CONCRETE WALK	SQ FT	34889		34889	
H	29-30	2521.501	6" CONCRETE WALK	SQ FT	471		471	
C	24	2521.515	SAWING CONCRETE WALK	LIN FT	69		69	
R	80	2531.501	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	175	175		
H	29-30	2531.501	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	18460		18460	
H	29-30	2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	17027		17027	
H	29-30	2531.501	CONCRETE CURB & GUTTER DESIGN D424	LIN FT	8456		8456	
H	29-30	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	153		153	

(P) PLAN QUANTITY

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- ② LUMP SUM AGREEMENT ANOKA COUNTY/LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO. 02-614-30, SAP NO.106-112-07, SAP NO.106-010-19, SAP NO.106-020-26.
- ③ LUMP SUM AGREEMENT ANOKA COUNTY/ LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO.106-112-07, SAP NO.106-010-19.
- ④ FOR DETAILS, SEE SHEET NOS 399-401.
- ⑤ FOR DETAILS, SEE SHEET NO.396
- ⑥ FOR DETAILS SEE SHEET NO 65. FOR LOCATIONS SEE SHEET NOS 67-79.

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ESTIMATED QUANTITIES

PLOTTED/REVISED: 10-APR-2007 15:18

DISTRICT #: METRO
 PLOT NAME: 0208123_est_04
 PATH & FILENAME: S:\Design\065\0208\23\Final\0208123_est.dgn

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	100% CITY (1)	HPP/STP (2)	HPP-UG (3)
H	29-30	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	519		519	
H	29-30	2531.618	TRUNCATED DOMES	SQ FT	272		272	
I	31	2533.507	PORTABLE PRECAST CONCRETE BARRIER DESIGN 8337 (12)	LIN FT	10292		10292	
I	31	2533.508	RELOCATE PORTABLE PRECAST CONC BARRIER DESIGN 8337	LIN FT	14788		14788	
AD	598	2545.511	LIGHTING UNIT TYPE SPECIAL (10)	EACH	24		24	
AD	598	2545.511	LIGHTING UNIT TYPE 9-40	EACH	14		14	
AD	598	2545.511	LIGHTING UNIT TYPE VM-45	EACH	24		24	
AD	598	2545.515	LIGHT BASE DESIGN E	EACH	14		14	
AD	598	2545.515	LIGHT BASE DESIGN STEEL H	EACH	24		24	
AD	598	2545.523	2" NON-METALLIC CONDUIT	LIN FT	1240		1240	
AD	598	2545.523	3" NON-METALLIC CONDUIT	LIN FT	385		385	
AD	598	2545.523	3" NON-METALLIC CONDUIT (DIRECTIONAL BORE)	LIN FT	255		255	
AD	598	2545.531	UNDERGROUND WIRE 1 COND NO 2	LIN FT	1075		1075	
AD	598	2545.531	UNDERGROUND WIRE 1 COND NO 6	LIN FT	7295		7295	
AD	598	2545.533	ARMORED CABLE 4 COND NO 4	LIN FT	5295		5295	
AD	598	2545.537	OVERHEAD LIGHT CABLE 4 COND NO 4	LIN FT	8225		8225	
AD	598	2545.541	SERVICE CABINET SECONDARY TYPE B	EACH	4		4	
AD	598	2545.541	SERVICE CABINET SECONDARY TYPE B (MOD) (11)	EACH	3		3	
AD	598	2545.541	SERVICE CABINET SECONDARY TYPE L1	EACH	1		1	
AD	598	2545.545	EQUIPMENT PAD B	EACH	1		1	
AD	598	2545.545	EQUIPMENT PAD B (MOD) (11)	EACH	3		3	
AD	598	2545.553	HANDHOLE	EACH	8		8	
AD	598	2545.602	30' WOOD POLE	EACH	4		4	
AD	598	2545.602	INSTALL LIGHTING UNIT	EACH	10		10	
AD	598	2545.602	ELECTRICAL SERVICE	EACH	8		8	
J	31	2554.501	TRAFFIC BARRIER DESIGN SPECIAL	LIN FT	25		25	
J	31	2554.501	TRAFFIC BARRIER DESIGN BULLNOSE	LIN FT	600		600	
J	31	2554.501	TRAFFIC BARRIER DESIGN B8338	LIN FT	3379		3379	
X, Z, AA	441, 442-443	2554.509	GUIDE POST TYPE B	EACH	55		55	
J	31	2554.521	ANCHORAGE ASSEMBLY-PLATE BEAM	EACH	4		4	
J	31	2554.523	END TREATMENT-TANGENT TERMINAL (4)	EACH	5		5	
I	31	2554.615	IMPACT ATTENUATOR (5)	ASSEMBLY	5		5	
J	31	2554.615	IMPACT ATTENUATOR NO 1 (6)	ASSEMBLY	2		2	
I	31	2554.615	RELOCATE IMPACT ATTENUATOR	ASSEMBLY	6		6	
E	25	2557.501	WIRE FENCE DESIGN 32V-9322 (7)	LIN FT	2652		2652	
E	25	2557.501	WIRE FENCE DESIGN 60V-9322 (8)	LIN FT	15817		15817	
E	25	2557.517	VEHICULAR GATE-DOUBLE	EACH	5		5	
E	25	2557.523	METAL BRACE ASSEMBLY (CHAIN LINK FENCE)	EACH	133		133	
E	25	2557.527	ELECTRICAL GROUND	EACH	39		39	
I	31	2557.603	TEMPORARY GLARE SCREEN	LIN FT	3998		3998	
AB	487	2563.601	TRAFFIC CONTROL	LUMP SUM	1		1	
AB	487	2563.602	RAISED PAVEMENT MARKER TEMPORARY	EACH	405		405	
I	31	2563.602	MEDIAN BARRIER DELINEATOR	EACH	1572		1572	
AE	609	2564.522	STRUCTURAL STEEL-POSTS FOR OH SIGNS (DESIGN A) (P)	POUND	3990		3990	
AE	609	2564.531	SIGN PANELS TYPE A	SQ FT	390		390	
AE	609	2564.531	SIGN PANELS TYPE C	SQ FT	1071		1071	
AE	609	2564.531	SIGN PANELS TYPE D	SQ FT	410		410	
AE	609	2564.531	SIGN PANELS TYPE OVERLAY	SQ FT	52		52	
AE	609	2564.537	INSTALL SIGN TYPE C	EACH	6		6	
AE	609	2564.537	INSTALL SIGN TYPE D	EACH	6		6	
AE	609	2564.550	DELINEATOR TYPE X4-6	EACH	36		36	
AE	609	2564.551	REFERENCE POST MARKER	EACH	4		4	
AE	609	2564.552	HAZARD MARKER X4-2	EACH	18		18	
AF	648	2565.511	TRAFFIC CONTROL SIGNAL SYSTEM A	SIG SYS	1		1	
AF	648	2565.511	TRAFFIC CONTROL SIGNAL SYSTEM B	SIG SYS	1		1	
AF	648	2565.511	TRAFFIC CONTROL SIGNAL SYSTEM C	SIG SYS	1		1	
AF	648	2565.601	TRAFFIC CONTROL INTERCONNECTION	LUMP SUM	1		1	
E	25	2572.501	TEMPORARY FENCE (9)	LIN FT	1000		1000	

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- ③ LUMP SUM AGREEMENT ANOKA COUNTY/LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO.106-112-07, SAP NO.106-010-19.
- ④ USE ET-2000 OR SKT-350. SEE DETAILS ON SHEET NOS. 121,122.
- ⑤ CONSTRUCTION ZONE CRASH ATTENUATOR SHALL BE NON-GATING, REDIRECTIVE, NCHRP 350 TEST LEVEL 3 APPROVED; SUCH AS QS2405Y QUADGUARD, SCI 100 GM, REACT 350 WORK ZONE, OR EQUIVALENT.
- ⑥ PERMANENT CRASH ATTENUATOR SHALL BE NON-GATING, REDIRECTIVE, NCHRP350 TEST LEVEL 3 APPROVED; SUCH AS REACT 350 62-B-036 QS2407Y QUADGUARD, TRACC, OR EQUIVALENT.
- ⑦ BLACK VINYL CLAD FINISH REQUIRES 32" HIGH FENCE FABRIC.
- ⑧ BLACK VINYL CLAD FINISH REQUIRES 60" HIGH FENCE FABRIC.
- ⑨ CONSISTS OF FLUORESCENT ORANGE
- ⑩ SEE DETAIL ON SHEET 607
- ⑪ SEE DETAIL ON SHEET 606
- ⑫ TO REMAIN THE PROPERTY OF THE CONTRACTOR.

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ESTIMATED QUANTITIES

DRAWN BY: DY

CHECKED BY: JL

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/11/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 8 OF 872 SHEETS

PLOTTED/REVISED: 10-APR-2007 15:18

DISTRICT #: METRO
PLOT NAME: 0208123_est_05
PATH & FILENAME: S:\Design\05\0208123\Final\0208123_est.dgn

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TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	100% CITY ①	HPP/STP ②	HPP-UG ③
K	32	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	32193		32193	
K	32	2573.505	FLOTATION SILT CURTAIN TYPE MOVING WATER ④	LIN FT	140		140	
K	32	2573.512	TEMPORARY DITCH CHECK TYPE 1	LIN FT	500		500	
K	32	2573.512	TEMPORARY DITCH CHECK TYPE 2	LIN FT	3720		3720	
K	32	2573.530	STORM DRAIN INLET PROTECTION	EACH	287		287	
		2573.550	EROSION CONTROL SUPERVISOR	LUMP SUM	1		1	
M,N	33	2575.501	SEEDING (P)	ACRE	47.5		47.5	
N	33	2575.502	SEED MIXTURE 150	POUND	480		480	
N	33	2575.502	SEED MIXTURE 190	POUND	120		120	
N	33	2575.502	SEED MIXTURE 250	POUND	1848		1848	
N	33	2575.502	SEED MIXTURE 310	POUND	140		140	
N	33	2575.502	SEED MIXTURE 328	POUND	99		99	
N	33	2575.502	SEED MIXTURE 350	POUND	347		347	
L	32	2575.505	SODDING TYPE EROSION	SQ YD	435		435	
N,R	33,80	2575.505	SODDING TYPE LAWN	SQ YD	31187	500	30687	
N	33	2575.511	MULCH MATERIAL TYPE 1	TON	54.6		54.6	
M,N	33	2575.511	MULCH MATERIAL TYPE 3	TON	42.3		42.3	
N	33	2575.519	DISK ANCHORING (P)	ACRE	33.5		33.5	
K	32	2575.523	EROSION CONTROL BLANKETS CATEGORY 3	SQ YD	34394		34394	
K	32	2575.523	EROSION CONTROL BLANKETS CATEGORY 4	SQ YD	512		512	
K	32	2575.523	EROSION CONTROL BLANKETS CATEGORY 5	SQ YD	358		358	
M,N,R	33,80	2575.532	FERTILIZER TYPE 3	POUND	14212	37	14175	
N	33	2575.532	FERTILIZER TYPE 4	POUND	975		975	
M	33	2575.570	RAPID STABILIZATION METHOD 1	ACRE	13.5		13.5	
M	33	2575.570	RAPID STABILIZATION METHOD 2	ACRE	2.5		2.5	
M	33	2575.571	RAPID STABILIZATION METHOD 3	M GALLON	18		18	
AB	487	2581.501	REMOVABLE PREFORMED PLASTIC MARKING	LIN FT	1800		1800	
AB	487	2581.603	REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT	720		720	
AB	487	2582.501	PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	5		5	
AB	487	2582.501	PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	3		3	
AC	579	2582.501	PAVEMENT MESSAGE (LEFT ARROW) POLY PREFORM	EACH	14		14	
AC	579	2582.501	PAVEMENT MESSAGE (RIGHT ARROW) POLY PREFORM	EACH	9		9	
AB,AC	487,579	2582.501	PAVEMENT MESSAGE (LT ARROW) EPOXY	EACH	41		41	
AB,AC	487,579	2582.501	PAVEMENT MESSAGE (RT ARROW) EPOXY	EACH	24		24	
AB	487	2582.502	4" SOLID LINE WHITE-PAINT	LIN FT	35538		35538	
AB	487	2582.502	24" SOLID LINE WHITE-PAINT	LIN FT	56		56	
AB	487	2582.502	4" BROKEN LINE WHITE-PAINT	LIN FT	3696		3696	
AB	487	2582.502	8" BROKEN LINE WHITE-PAINT	LIN FT	1340		1340	
AB	487	2582.502	4" SOLID LINE YELLOW-PAINT	LIN FT	29423		29423	
AB	487	2582.502	4" DOUBLE SOLID LINE YELLOW-PAINT	LIN FT	4190		4190	
AC	579	2582.502	4" SOLID LINE WHITE-POLY PREFORM	LIN FT	2793		2793	
AB	487	2582.502	8" SOLID LINE WHITE-POLY PREFORM	LIN FT	3982		3982	
AC	579	2582.502	24" SOLID LINE WHITE-POLY PREFORM	LIN FT	26		26	
AB	464	2582.502	4" BROKEN LINE WHITE-POLY PREFORM	LIN FT	4660		4660	
AC	579	2582.502	8" DOTTED LINE WHITE-POLY PREFORM	LIN FT	513		513	
AB	487	2582.502	4" BROKEN LINE WHITE-POLY PREFORM (GROUND IN)	LIN FT	116		116	
AB,AC	487,579	2582.502	4" SOLID LINE WHITE-EPOXY	LIN FT	50396		50396	
AB,AC	487,579	2582.502	8" SOLID LINE WHITE-EPOXY	LIN FT	7030		7030	
AC	579	2582.502	24" SOLID LINE WHITE-EPOXY	LIN FT	592		592	
AB,AC	487,579	2582.502	4" BROKEN LINE WHITE-EPOXY	LIN FT	4000		4000	
AB	487	2582.502	8" BROKEN LINE WHITE-EPOXY	LIN FT	1360		1360	
AB,AC	487,579	2582.502	8" DOTTED LINE WHITE-EPOXY	LIN FT	585		585	
AB,AC	487,579	2582.502	4" SOLID LINE YELLOW-EPOXY	LIN FT	45451		45451	
AB	487	2582.502	8" SOLID LINE YELLOW-EPOXY	LIN FT	6714		6714	
AC	579	2582.502	24" SOLID LINE YELLOW-EPOXY	LIN FT	103		103	
AC	579	2582.502	4" BROKEN LINE YELLOW-EPOXY	LIN FT	805		805	
AC	579	2582.502	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT	2532		2532	
AC	579	2582.503	CROSSWALK MARKING-POLY PREFORM	SQ FT	180		180	
AC	579	2582.503	CROSSWALK MARKING-EPOXY	SQ FT	2898		2898	

(P) PLAN QUANTITY

- ① 100% CITY OF BLAINE
- ② LUMP SUM AGREEMENT ANOKA COUNTY/LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO. 02-614-30, SAP NO.106-112-07, SAP NO.106-010-19, SAP NO.106-020-26.
- ③ LUMP SUM AGREEMENT ANOKA COUNTY/ LUMP SUM AGREEMENT CITY OF BLAINE/SAP NO.106-112-07, SAP NO.106-010-19.
- ④ AVERAGE DEPTH - 2' TO 4'

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ESTIMATED QUANTITIES

PLOTTED/REVISED: 29-MAR-2007 11:3

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT	
STANDARD PLATES	
PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3007D	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3014J	REINFORCED CONCRETE PIPE ARCH (2 SHEETS)
3022C	PRECAST CONCRETE SAFETY APRON (3 SHEETS)
3040F	CORRUGATED METAL PIPE CULVERT (STANDARD 2-2/3" X 1/2" CORRUGATION)
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3123J	METAL APRON FOR C.S. PIPE
3124B	METAL APRON CONNECTION
3128H	METAL SAFETY APRON & GRATE (2 SHEETS)
3129A	METAL APRON FOR CORRUGATED POLYETHYLENE PIPE (USE AT ENTRANCES AND DRIVEWAYS)
3133C	RIPRAP AT RCP OUTLETS
3134C	RIPRAP AT CMP OUTLETS
3145F	CONCRETE PIPE TIES
3148A	SAFETY SLOPE METAL END SECTION FOR CIRCULAR & ARCHED PIPES (2 SHEETS)
3221C	CORRUGATED STEEL PIPE COUPLING BAND (3 SHEETS)
4000J	MANHOLE OR CATCH BASIN (MASONRY, FIELD CONSTRUCTED) - DESIGN A
4002F	MANHOLE OR CATCH BASIN (MASONRY, FIELD CONSTRUCTION) - DESIGN C
4003B	30" PRECAST CATCH BASIN - DESIGN N
4005L	MANHOLE OR CATCH BASIN TYPE A & B CONE SECTIONS PRECAST - DESIGN F
4006L	MANHOLE OR CATCH BASIN PRECAST - DESIGNS G AND H
4007C	PRECAST MECHANICAL JOINT SEWER MANHOLE
4009H	MANHOLE OR CATCH BASIN (SECTIONAL CONCRETE PIPE) - DESIGN J
4010H	CONCRETE SHORT CONE & ADJUSTING RING (SECTIONAL CONCRETE) ①
4011E	PRECAST CONCRETE BASE
4018A	MANHOLE OR CATCH BASIN (REDUCER CONE SECTION PRECAST) - DESIGN D
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS) (2 SHEETS)
4022A	MANHOLE OR CATCH BASIN COVER (3 ft. X 2 ft. OPENING) ②
4024A	48" DIA. PRECAST SHALLOW DEPTH CATCH BASIN - DESIGN SD
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS ①
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS)* CASTING NO. 715 AND 716
4132F	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 805
4140D	SPECIAL GRATE CASTINGS FOR CATCH BASIN (CONVEX AND CONCAVE) - CASTING NO. 720 AND 721
4143E	STOOL GRATE & CONCRETE FRAME (MEDIAN DRAINS) - CASTING NO. 731
4154B	CATCH BASIN GRATE CASTING - CASTING NO. 816
4180J	MANHOLE OR CATCH BASIN STEP ①

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT	
STANDARD PLATES	
PLATE NO.	DESCRIPTION
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036F	PEDESTRIAN CURB RAMP (2 SHEETS)
7100H	CONCRETE CURB AND GUTTER (DESIGN B and DESIGN V)
7102I	CONCRETE CURB AND GUTTER (DESIGN BR, D, S, B4, B5 AND D3 (2 SHEETS)
7107H	ENTRANCE NOSE (URBAN DESIGN)
7108F	EXIT NOSE (URBAN DESIGN)
7109C	MEDIAN NOSE AND ISLAND (UNDIVIDED TO DIVIDED ROADWAY)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
7113A	CONCRETE APPROACH NOSE DETAIL
8000I	STANDARD BARRICADES
8150C	INSTALLATION OF CULVERT MARKERS
8318C	GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S
8326D	FLEXIBLE PLASTIC GLARE SCREEN
8332B	ANCHOR BOLT CLUSTER FOR LIGHT POLES
8337B	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER (TYPE "F") (2 SHEETS)
8338C	W-BEAM GUARDRAIL & END ANCHORAGES (INSTALLATION WITH STEEL POSTS)
9102D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)
	CHAIN LINK FENCE (2 SHEETS)

FOR ADDITIONAL STANDARD PLATES SEE SHEETS 598 AND 648.

- ① FOR ADDITIONAL INFORMATION, SEE SHEET NO. 401.
- ② WHEN USING CASTING R-3076V OPENING SHALL BE CENTERED.

DISTRICT #: METRO
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DISTRICT #: METRO
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SUMMARY EARTHWORK QUANTITIES

STATION TO STATION	EXCAVATION				EMBANKMENT					TOTAL EXCAVATION CU YD	TOTAL EMBANKMENT CU YD	
	COMMON	SUB- GRADE	MUCK	STRUCT- URAL	SELECT GRANULAR	SELECT GRANULAR MOD 10%	SUITABLE GRADING	GRANULAR	TOP- SOIL			
	CU YD	CU YD		CU YD	CU YD	CU YD	CU YD	CU YD	CU YD			
T.H. 65 (REBUILD)	95539	26094	431		31012		7495	12904	14560	122064	65971	
T.H. 65 N.B. (WIDENING)	18145	2904			3831		2538	114	3384	21049	9867	
C.S.A.H. 14 (WEST OF 65)	6795	1555		603	6811	3401	39108	15982	955	8953	66257	
C.S.A.H. 14 (EAST OF 65)	6638	1399	35298		6128	2961	70798	18414	735	43335	99036	
129TH STREET (WEST OF 65)	287	138		304	589	1709	2682	985	198	729	6163	
129TH STREET (EAST OF 65)	572	102		133	799	524	9905	1758	445	807	13431	
PIPE POND EXCAVATION (5)	8995								559	8995	559	
ABERDEEN STREET (NEAR 121ST)	978	262	7237		1113		4393	5171	463	8477	11140	
ABERDEEN STREET (NEAR CR 14)	8060	2683			3858		1555	2005	887	10743	8305	
JOHN POND EXCAVATION (5)	9720								563	9720	563	
ABERDEEN STREET (NEAR 129TH)	587	271			935	37	2530	1515	306	858	5323	
ULYSSES AVE (NEAR TH 242)	1386	1699			2730		1042		298	3085	4070	
ULYSSES AVE (NEAR NWR)	1235	1571			1708		157		116	2806	1981	
BOWL (ENT OFF ULYSSES NEAR 121)	373	354			354		7			727	361	
PAUL PARKWAY/121ST (WEST OF 65)	1172	667		422	2140	2989	11467	3767	358	2261	20721	
PAUL PARKWAY/121ST (EAST OF 65)	1763	98	3836	245	1930	1929	27528	6474	786	5942	38647	
HOLIDAY POND EXCAVATION (5)	33405								1386	33405	1386	
NER & NER CON	1970	49	2126	1029	1267	2708	16402	6494	794	5174	27665	
NWR & NWR CON	2023	177	7046	958	1289	6725	24872	7298	761	10204	40945	
SER & SER CON	2279	37		837	1251	6214	20091	4603	706	3153	32865	
SWR & SWR CON	1970	142		1353	1106	5232	15779	3895	722	3465	26734	
SUBTOTAL	203892	40202	55974	5884	68851	34429	258349	91379	28982	305952	481990	
STAGING (SEE STAGING TAB)	72525	12222			27070			11037	11016	4446	84747	53569
PROJECT TOTAL	276417	52424	55974	5884	95921	34429	269386	102395	33428	390699	535559	

- ① INCLUDES 29,883 CU YD OF OVERBURDEN TO BE USED AS GRANULAR MATERIAL AND 26,091 CU YD OF UNSUITABLE MATERIAL TO BE HAULED OFF THE PROJECT.
- ② EXCESS TOPSOIL AVAILABLE ON PROJECT THAT IS TO BE PLACED ON SIDE SLOPES OUTSIDE OF SUITABLE GRADING MATERIAL. NO EXCESS TOPSOIL TO BE HAULED OFF PROJECT.
- ③ CONSISTS OF BITUMINOUS PAVEMENT LESS THAN 6 INCHES IN THICKNESS INCLUDED IN COMMON EXCAVATION TO BE HAULED OFF THE PROJECT OR RECYCLED TO THE EXTENT ALLOWED IN BASE AND SURFACING ITEMS IN ACCORDANCE WITH SPEC. 2104.3C3.
- ④ TOTAL EMBANKMENT (CV) REQUIRED FOR PROJECT.
- ⑤ FOR CONTOURS, SEE SHEETS NO. 444 - 447.
- ⑥ TOTAL BORROW (CV) REQUIRED FOR PROJECT.
- ⑦ 50% OF QUANTITIES FOR PAUL PARKWAY/121ST STREET AND 129TH STREET ASSIGNED TO HPP/UG
- ⑧ 10% OF THE TOTAL COMMON BORROW NEEDED ASSIGNED TO HPP/UG

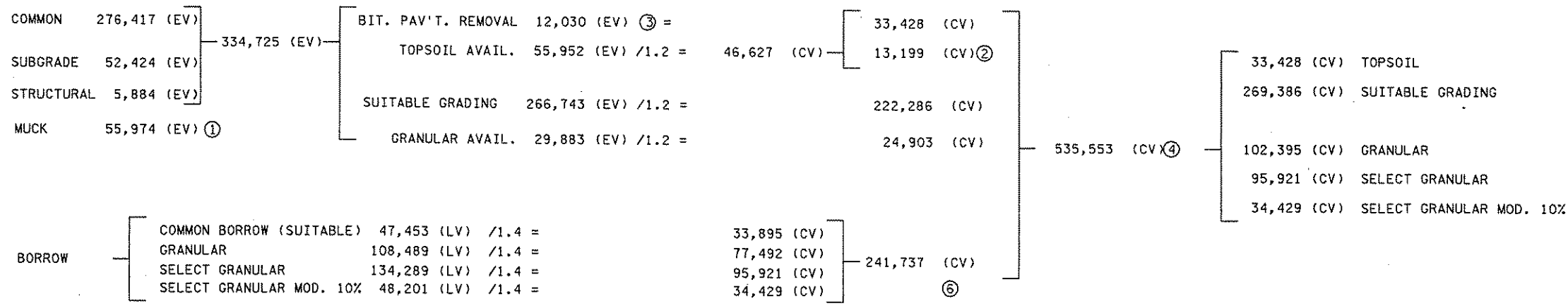
EARTHWORK QUANTITIES

	UNIT	HPP/STP	HPP/UG	TOTAL
COMMON EXCAVATION	CU YD	274,520	1,897	⑦ 276,417 (EV)
SUBGRADE EXCAVATION	CU YD	51,922	502	⑦ 52,424 (EV)
STRUCTURE EXCAVATION CLASS U	CU YD	5,337	552	⑦ 5,889 (EV)
MUCK EXCAVATION	CU YD	24,173	1,918	⑦ 26,091 (EV)
COMMON BORROW	CU YD	30,505	3,390	⑧ 33,895 (CV)
GRANULAR BORROW	CU YD	71,000	6,492	⑦ 77,492 (CV)
SELECT GRANULAR BORROW	CU YD	93,192	2,729	⑦ 95,921 (CV)
SELECT GRANULAR BORROW (MOD) 10%	CU YD	31,277	3,152	⑦ 34,429 (CV)

EARTHWORK BALANCE

EXCAVATION (CU. YDS.)

EMBANKMENT (CU. YDS.)



EARTHWORK SUMMARY AND BALANCE

PLOTTED/REVISED: 31-JAN-2007 07:42

DISTRICT *: METRO
 I/PLOT NAME: ewrtd02
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T.H. 65 EARTHWORK QUANTITIES								
STATION TO STATION	EXCAVATION		EMBANKMENT				TOTAL EXCAVATION	TOTAL EMBANKMENT
	COMMON	SUBGRADE	SELECT GRANULAR	SUITABLE GRADING	GRANULAR	TOPSOIL		
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
TH 65 (RECONSTRUCTION) (65NB)								
855 + 00 TO 855 + 06	15	9	12	2	5	1	24	20
855 + 06 TO 856 + 00	237	138	188	24		84	375	296
856 + 00 TO 857 + 00	302	149	201	43		98	451	342
857 + 00 TO 857 + 72	218	142	162	22		61	360	245
857 + 72 TO 858 + 00	171	58	60	5		34	229	99
858 + 00 TO 859 + 00	897	153	174	44		164	1050	382
859 + 00 TO 860 + 00	618	132	171	62		138	750	371
860 + 00 TO 861 + 00	343	126	170	68		111	469	349
861 + 00 TO 862 + 00	436	129	170	100		129	565	399
862 + 00 TO 863 + 00	473	95	128	96		113	568	337
863 + 00 TO 864 + 00	368	58	86	49		75	426	210
864 + 00 TO 865 + 00	319	57	86	42		74	376	202
865 + 00 TO 866 + 00	393	53	89	60	17	86	446	252
866 + 00 TO 867 + 00	420	53	90	139	36	101	473	366
867 + 00 TO 868 + 00	353	63	90	164	23	101	416	378
868 + 00 TO 869 + 00	520	65	90	95	13	102	585	300
869 + 00 TO 870 + 00	598	65	92	43	8	95	663	238
870 + 00 TO 870 + 70	224	98	107	48		30	323	185
870 + 70 TO 871 + 00	133	42	45	18		19	175	82
871 + 00 TO 872 + 00	822	67	87	39		129	889	255
872 + 00 TO 873 + 00	1056	61	85	73		128	1117	286
873 + 00 TO 874 + 00	1278	57	85	70		127	1335	282
874 + 00 TO 875 + 00	1255	58	85	66		128	1313	279
875 + 00 TO 876 + 00	1112	59	85	70		127	1171	282
876 + 00 TO 877 + 00	868	57	85	90		126	925	301
877 + 00 TO 878 + 00	496	55	85	132		126	551	343
878 + 00 TO 879 + 00	359	56	85	147		126	415	358
879 + 00 TO 880 + 00	527	58	85	113		126	585	324
880 + 00 TO 881 + 00	686	59	85	82		127	745	294
881 + 00 TO 882 + 00	467	119	170	98		64	586	332
882 + 00 TO 882 + 06	12	11	15	7			23	22
882 + 06 TO 883 + 00	528	116	154	91		62	644	307
883 + 00 TO 884 + 00	1023	54	72	60		134	1077	266
884 + 00 TO 884 + 55	338	49	56	33		37	387	126
884 + 55 TO 885 + 00	67	42	45	26		13	109	84
885 + 00 TO 886 + 00	188	57	61	48		60	245	169
886 + 00 TO 887 + 00	137	52	56	55		53	189	164
887 + 00 TO 888 + 00	89	48	50	60		42	137	152
888 + 00 TO 888 + 45	37	33	36	27		9	70	72
888 + 45 TO 889 + 00	48	40	43	23		13	88	79
889 + 00 TO 889 + 20	20	8	8	4	10	10	28	32
889 + 20 TO 889 + 25	4	2	2		2	1	6	5
TOTALS	18455	2904	3831	2538	114	3384	21359	9867

EARTHWORK TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY Josephine Lundquist LIC. NO. 20534 DATE 2/1/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 15 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 07:42

DISTRICT #: METRO
 IPLOT NAME: ewf0404
 PATH & FILENAME: S:\Design\065\0208\123\Final\0208123.tbl.dgn

PAUL PARKWAY/121st EARTHWORK QUANTITIES													
STATION TO STATION	EXCAVATION					EMBANKMENT						TOTAL EXCAVATION	TOTAL EMBANKMENT
	COMMON	SUBGRADE	STRUCTURAL	MUCK	SELECT GRANULAR	SELECT GRANULAR MOD 10%	SUITABLE GRADING	WALL GRANULAR	GRANULAR	SELECTED GRADING	TOPSOIL		
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD		
PAUL PARKWAY (EPAUL)													
106+ 50 TO 107+ 00	34	15			15		4			2	7	49	28
107+ 00 TO 107+ 50	58	24			24		2			2	7	82	35
107+ 50 TO 108+ 00	87	66			66		4			4	7	153	81
108+ 00 TO 108+ 50	110	135			135		19			5	11	245	170
108+ 50 TO 109+ 00	99	225			230		16			2	7	324	255
109+ 00 TO 109+ 50	65	172			226		33			1	9	237	269
109+ 50 TO 110+ 00	85	30			150		111		73	1	22	115	357
110+ 00 TO 110+ 50	102		13		143	11	201		221	4	33	115	613
110+ 50 TO 111+ 00	80		32		149	44	273		385	20	35	112	906
111+ 00 TO 111+ 50	73		40		151	92	452		465	31	30	113	1221
111+ 50 TO 112+ 00	48		35		144	151	757		442	31	28	83	1553
112+ 00 TO 112+ 50	45		36		136	211	1047		420	51	27	81	1892
112+ 50 TO 113+ 00	66		45		129	277	1305		397	70	26	111	2204
113+ 00 TO 113+ 50	64		44		120	362	1519		371	68	26	108	2466
113+ 50 TO 114+ 00	63		41		112	460	1709		345	67	26	104	2719
114+ 00 TO 114+ 50	58		49		103	583	1851		318	66	27	107	2948
114+ 50 TO 115+ 00	34		77		97	719	1960		300	65	27	111	3168
115+ 00 TO 115+ 5	1		10		10	79	204		30	7	3	11	333
SUBTOTAL	1172	667	422		2140	2989	11467	0	3767	497	358	2261	21218
121st STREET													
117+ 00 TO 117+ 50	95		61		122	584	2954		381	29	44	156	4114
117+ 50 TO 118+ 00	128		62		134	376	3481		419	26	62	190	4498
118+ 00 TO 118+ 50	124		65		136	336	3226		425	24	60	189	4207
118+ 50 TO 119+ 00	121		45		139	267	2824		434	24	57	166	3745
119+ 00 TO 119+ 50	112		12		143	182	2517	11	447	24	60	124	3384
119+ 50 TO 120+ 00	125			531	148	112	2538	216	460	24	67	656	3565
120+ 00 TO 120+ 50	140			955	153	56	2479	423	475	20	61	1095	3667
120+ 50 TO 121+ 00	112			793	184	16	2142	294	568	8	25	905	3237
121+ 00 TO 121+ 50	98			676	183		1847	123	562		22	774	2737
121+ 50 TO 122+ 00	108			594	137		1587	95	428		57	702	2304
122+ 00 TO 122+ 50	121			287	118		1061	47	377		72	408	1675
122+ 50 TO 123+ 00	113				108		517		236		66	113	927
123+ 00 TO 123+ 50	85	7			96		248		53		50	92	447
123+ 50 TO 124+ 00	58	47			85		76			2	31	105	194
124+ 00 TO 124+ 50	45	42			42		13			2	17	87	74
124+ 50 TO 125+ 00	52	2			2		5				12	54	19
125+ 00 TO 125+ 50	49						6				9	49	15
125+ 50 TO 126+ 00	44						5				7	44	12
126+ 00 TO 126+ 32	33						2				7	33	9
SUBTOTAL	1763	98	245	3836	1930	1929	27528	1209	5265	183	786	5942	38830
TOTALS	2935	765	667	3836	4070	4918	38995	1209	9032	680	1144	8203	60048

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DISTRICT #: METRO
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SOUTH EAST RAMP EARTHWORK QUANTITIES											
STATION TO STATION	EXCAVATION			EMBANKMENT						TOTAL EXCAVATION CU YD	TOTAL EMBANKMENT CU YD
	COMMON	SUB-GRADE	STRUCTURAL	SELECT GRANULAR	SELECT GRANULAR MOD 10%	SUITABLE GRADING	WALL GRANULAR	GRANULAR	TOP-SOIL		
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD		
SOUTH EAST RAMP (SER)											
6 + 60 TO 7 + 0	29	9		30		12		7	5	38	54
7 + 0 TO 7 + 50	44	12		38		17		23	9	56	87
7 + 50 TO 8 + 0	49	11		38		38		32	15	60	123
8 + 0 TO 8 + 50	60	5		38		79		45	22	65	184
8 + 50 TO 9 + 0	70		4	44	18	101		83	24	74	270
9 + 0 TO 9 + 50	73		5	46	46	146	10	127	22	78	397
9 + 50 TO 10 + 0	73		3	43	68	237	25	138	22	76	533
10 + 0 TO 10 + 50	76		12	41	95	308	31	133	23	88	631
10 + 50 TO 11 + 0	81		26	41	134	349	23	135	25	107	707
11 + 0 TO 11 + 50	80		41	43	183	364	8	141	22	121	761
11 + 50 TO 12 + 0	80		70	49	232	385		157	16	150	839
12 + 0 TO 12 + 50	84		111	55	281	420		176	15	195	947
12 + 50 TO 13 + 0	48		125	60	315	497		191	19	173	1082
13 + 0 TO 13 + 50	59		111	64	339	591		203	26	170	1223
13 + 50 TO 14 + 0	116		74	64	367	776	13	203	34	190	1457
14 + 0 TO 14 + 50	132		38	63	396	1093	52	200	44	170	1848
14 + 50 TO 15 + 0	145		36	61	436	1371	108	195	53	181	2224
15 + 0 TO 15 + 50	155		39	60	470	1586	172	191	61	194	2540
15 + 50 TO 16 + 0	168		21	62	496	1812	215	198	68	189	2851
16 + 0 TO 16 + 50	180		3	77	555	2148	191	243	69	183	3283
16 + 50 TO 16 + 69	56		1	27	162	720	54	85	21	57	1069
16 + 69 TO 17 + 0	65			29	165	877	53	93	23	65	1240
17 + 0 TO 17 + 50	104			35	336	1814	52	122	27	104	2386
S. E. RAMP CONN (SERCON)										0	0
16 + 77 TO 16 + 98										35	785
16 + 98 TO 17 + 24										44	1078
17 + 24 TO 17 + 50										52	1307
17 + 50 TO 17 + 75										50	1313
17 + 75 TO 18 + 0										42	1014
18 + 0 TO 18 + 21										29	632
TOTALS										2279	32865

SOUTH WEST RAMP EARTHWORK QUANTITIES											
STATION TO STATION	EXCAVATION			EMBANKMENT						TOTAL EXCAVATION CU YD	TOTAL EMBANKMENT CU YD
	COMMON	SUB-GRADE	STRUCTURAL	SELECT GRANULAR	SELECT GRANULAR MOD 10%	SUITABLE GRADING	WALL GRANULAR	GRANULAR	TOPSOIL		
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD		
SOUTH WEST RAMP (SWR)											
7 + 64 TO 8 + 0	37	27		27		2			4	64	33
8 + 0 TO 8 + 50	54	38		38		5			5	92	48
8 + 50 TO 9 + 0	48	38		38		8			9	86	55
9 + 0 TO 9 + 50	46	28		39		39			9	74	107
9 + 50 TO 10 + 0	59	10		42		93			39	69	206
10 + 0 TO 10 + 50	71	1		46		116			80	72	280
10 + 50 TO 11 + 0	80		38	49	30	136	10		130	35	390
11 + 0 TO 11 + 50	87		73	51	72	189	21		161	30	524
11 + 50 TO 12 + 0	89		74	50	106	252	11		162	31	612
12 + 0 TO 12 + 50	90		75	49	149	316			159	31	704
12 + 50 TO 13 + 0	90		80	49	189	383			158	29	808
13 + 0 TO 13 + 50	93		91	50	224	465			161	28	928
13 + 50 TO 14 + 0	100		89	50	276	567	8		162	30	1093
14 + 0 TO 14 + 49	111		89	50	332	703	53		162	37	1337
14 + 49 TO 15 + 0	123		103	51	375	885	126		166	45	1648
15 + 0 TO 15 + 50	134		107	52	417	1113	188		167	55	1992
15 + 50 TO 16 + 0	142		125	52	510	1306	197		166	63	2294
16 + 0 TO 16 + 51	141		130	57	588	1464	181		184	64	2538
16 + 51 TO 16 + 77	69		54	37	312	873	87		117	31	1457
16 + 77 TO 17 + 2	49		23	30	211	760	52		95	26	1174
17 + 2 TO 17 + 53	46		27	39	320	1402	30		133	36	1960
17 + 53 TO 17 + 67	4		19	10	113	448			34	6	611
17 + 67 TO 18 + 3	13		31	27	159	960			90	7	1243
S. W. RAMP CONN (SWRCON)											
16 + 95 TO 17 + 4										12	274
17 + 4 TO 17 + 27										37	843
17 + 27 TO 17 + 53										53	1330
17 + 53 TO 17 + 79										55	1418
17 + 79 TO 18 + 5										37	827
TOTALS										1970	26734

SOUTH EAST RAMP
SOUTH WEST RAMP

EARTHWORK TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/1/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 21 OF 872 SHEETS

SOILS AND CONSTRUCTION NOTES

PLOTTED/REVISED: 29-MAR-2007 10:26

DISTRICT #: METRO
 I/PLOT NAME: 0208123_constrnotes
 PATH & FILENAME: S:\Des\grn065\0208123\Final\sheet\CONSTR NOT ES\0208123_constrnotes.dgn

1. GROUND WATER DATA

GROUND WATER ELEVATIONS WERE MONITORED FOR THE PIEZOMETERS LISTED BELOW.

GROUND WATER ELEVATIONS ENCOUNTERED DURING CONSTRUCTION MAY VARY SOMEWHAT DEPENDING ON SEASONAL AND ANNUAL RAINFALL VARIATIONS.

THE FOLLOWING TABULATIONS OF PIEZOMETER READINGS SHOULD APPEAR IN THE PLANS OR SPECIAL PROVISIONS TO ALERT THE CONTRACTOR OF EXISTING GROUND WATER CONDITIONS. ADDITIONAL READINGS WILL BE FURNISHED ON REQUEST.

PIEZOMETER NO.	LOCATION	HIGH	LOW	LAST
P165	TH 65 STA. 796+50, 100' LT.	893.89 5-15-06	889.14 8-28-06	889.14 8-28-06
P265	TH 65 STA. 817+10, 100' LT.	893.01 6-7-06	891.66 6-8-05	892.56 8-28-06
P365	TH 65 STA. 843+75, 60' RT.	894.48 7-12-06	891.28 6-8-06	891.28 8-28-06
P465	TH 65 STA. 878+50, 50' RT.	894.71 6-7-06	892.61 9-13-05	894.71 8-28-06
P565	TH 65 STA. 868+40, 90' RT.	893.74 6-7-06	892.59 4-4-06	893.40 8-28-06

2. TOP OF THE GRADING SUBGRADE IS DEFINED AS THE BOTTOM OF THE CLASS 5 OR 6, AGGREGATE BASE.
3. SUITABLE GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED EXCEPT TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL.
4. GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B1.
5. SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B2.
6. UNLESS OTHERWISE REQUIRED, IN ANY NEW EMBANKMENT CONSTRUCTION THE UPPER 4.0' OF THE GRADING SUBGRADE SHALL BE CONSTRUCTED WITH GRANULAR MATERIAL. THE REMAINDER OF THE EMBANKMENT SHALL BE CONSTRUCTED WITH SUITABLE GRADING MATERIAL.
7. UNLESS OTHERWISE REQUIRED, IN ANY NEW EMBANKMENT CONSTRUCTION ON TH 65, TH 65 BYPASSES, CSAH 14 AND RAMPS AT CSAH 14 THE UPPER 4.0' OF THE GRADING SUBGRADE SHALL BE CONSTRUCTED WITH GRANULAR MATERIAL OF WHICH THE UPPER 1.0' SHALL BE SELECT GRANULAR MATERIAL. THE REMAINDER OF THE EMBANKMENT SHALL BE CONSTRUCTED WITH SUITABLE GRADING MATERIAL.
8. IN ANY NEW EMBANKMENT CONSTRUCTION WITHIN 50 FEET FROM AN APPROACH TO A BRIDGE ABUTMENT PROVIDE FOR SELECT GRANULAR MATERIAL WITHIN THE UPPER 4.0' OF THE GRADING SUBGRADE.
9. ALL SALVAGED ROADWAY MATERIALS SUCH AS CONCRETE, BITUMINOUS, AND AGGREGATES MAY BE UTILIZED ACCORDING TO MN/DOT SPECIFICATIONS AND PROJECT SPECIAL PROVISIONS. MATERIALS NOT UTILIZED ON THIS PROJECT WILL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE RIGHT OF WAY IN ACCORDANCE WITH MN/DOT SPECIFICATION 2104.3C3 AND AS AGREED UPON BY THE ENGINEER.
10. OBTAIN COMPACTION ON THE GRADING AND AGGREGATE BASE PORTIONS OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE "SPECIFIED DENSITY METHOD" REQUIREMENTS.
11. OBTAIN COMPACTION ON THE GRADING AND AGGREGATE BASE PORTIONS OF TEMPORARY CONSTRUCTION IN ACCORDANCE WITH THE "QUALITY COMPACTION METHOD" REQUIREMENTS.
12. TEST ROLLING SHALL BE REQUIRED ON THE TH 65 MAINLINE ROADWAY EMBANKMENT. TEST ROLLING WILL NOT BE REQUIRED ON OTHER ROADWAYS.

13. MUCK EXCAVATION

THE FOLLOWING TABLE LISTS THE KNOWN LOCATIONS OF ORGANIC SWAMP SOILS WITHIN THE PROPOSED CONSTRUCTION LIMITS. PROVIDE FOR THE TREATMENTS AS LISTED FOR THE VARIOUS ROADWAY SEGMENTS. UNLESS OTHERWISE REQUIRED USE THE STANDARD SWAMP EXCAVATION SECTION SHOWN IN THE MN/DOT ROAD DESIGN MANUAL, FIG. 4-2.02A.

ROADWAY	STA. TO STA.	OVER-BURDEN DEPTH (1) MAX. AVG.	UNSTABLE THICKNESS MAX. AVG.	UNSTABLE BOTTOM MATERIAL	TREATMENT
NW RAMP	19+50-22+00	12' 8'	4' 2.5'	ORGANIC	S 1
ABERDEEN ST.	101+50-107+50	7' 3'	12' 4'	PEAT	S 2
CSAH 14	238+00-245+00	11' 6'	8' 4'	PEAT	S 1

TREATMENT #1 REMOVE UNSTABLE MATERIALS TO A FIRM BOTTOM AS SHOWN IN THE PLANS. BACKFILL WITH GRANULAR MATERIAL UP TO LOCAL WATER LEVEL PLUS 2.0' OR TO THE BOTTOM OF THE ADJACENT RETAINING WALL FOOTINGS WHICHEVER IS HIGHER. UNLESS OTHERWISE REQUIRED, CONSTRUCT THE UPPER 4.0' OF THE GRADING SUBGRADE WITH GRANULAR MATERIAL OF WHICH THE UPPER 1.0' SHALL BE SELECT GRANULAR MATERIAL. THE REMAINING EMBANKMENT MAY BE CONSTRUCTED WITH SUITABLE GRADING MATERIAL, EXCEPT IN AREAS WHERE SELECT GRANULAR MODIFIED 10% MATERIAL IS REQUIRED ADJACENT TO RETAINING WALLS OR BRIDGE STRUCTURES.

WALL BACKFILL WILL BE IN ACCORDANCE WITH DETAIL F-1 PREPARED BY THE MN/DOT FOUNDATIONS UNIT. BRIDGE BACKFILL RECOMMENDATIONS ARE ALSO PROVIDED BY THE FOUNDATIONS UNIT.

LOCAL WATER LEVEL PLUS 2.0' IS APPROXIMATELY:

CSAH 14	238+00-245+00	893.0
NW RAMP	19+50-22+00	893.0

TREATMENT #2 REMOVE UNSTABLE MATERIALS TO A FIRM BOTTOM AS SHOWN IN THE PLANS. BACKFILL WITH GRANULAR MATERIAL UP TO LOCAL WATER LEVEL PLUS 2.0'. UNLESS OTHERWISE REQUIRED, THE REMAINING EMBANKMENT MAY BE CONSTRUCTED WITH SUITABLE GRADING MATERIAL OF WHICH THE UPPER 4.0' OF THE GRADING SUBGRADE SHALL BE GRANULAR MATERIAL.

LOCAL WATER LEVEL PLUS 2.0' IS APPROXIMATELY:
 ABERDEEN ST. 101+50-107+50 893.9

14. PROVIDE FOR 1V:20H TAPERS WHEN CHANGING SUBCUT DEPTHS.
15. AS A PRECAUTIONARY MEASURE FROM A SOILS STANDPOINT, TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING A 1V:2H OR GREATER (FLATTER) SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION.
16. IN ANY CASE WHERE GRANULAR EMBANKMENTS OR BACKFILL JOIN PLASTIC SOIL EMBANKMENTS OR BACKFILL, PROVIDE A 1V:20H TRANSITION TAPER BETWEEN THE CHANGE IN MATERIAL TO PREVENT AN ABRUPT SOILS DIFFERENTIAL. THE 1V:20H TAPER SHALL BE CONSTRUCTED SO THAT THE GRANULAR BACKFILL MATERIAL OVERLAYS THE ADJACENT PLASTIC SOIL BACKFILL.
17. IN ANY PROPOSED WIDENING CONSTRUCTION, THE CONTRACTOR SHOULD STRIVE TO SUBSTANTIALLY MATCH THE SOIL INPLACE IN THE UPPER 5.0' OF THE ROADWAYS TO BE WIDENED. GRANULAR BACKFILL SHALL NOT BE PERMITTED ADJACENT TO INPLACE NON-GRANULAR SOILS IN ORDER TO PREVENT AN ABRUPT SOILS DIFFERENTIAL.
18. IN AREAS WHERE FILL IS TO BE PLACED FOR NOISE WALL EMBANKMENTS REMOVE INPLACE TOPSOIL AND OTHER ORGANIC MATERIAL.

19. ANY NEW EMBANKMENT MATERIAL PLACED ADJACENT TO NOISE WALL POSTS SHALL CONSIST ENTIRELY OF SELECT GRANULAR MATERIAL.
20. COMPACTION FOR NOISE WALL BACKFILL AND/OR EMBANKMENTS SHALL BE BY THE "SPECIFIED DENSITY METHOD" REQUIREMENTS.
21. USE TACK COAT BETWEEN ALL BITUMINOUS LAYERS AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING PAVEMENT. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GAL/SQ.YD. BETWEEN BITUMINOUS LAYERS AND 0.07 TO 0.10 GAL/SQ.YD. ON MILLED BITUMINOUS SURFACES PRIOR TO BEING OVERLAID. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY) OR MC AND RC LIQUID ASPHALT. THE ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPEC. 2357.
22. PROVIDE A SAWCUT WHERE PLACING NEW PAVEMENT NEXT TO INPLACE PAVEMENT TO ENSURE A UNIFORM JOINT.
23. THE BITUMINOUS MIXTURES SHALL MEET THE MOST CURRENT SPEC. 2360 REQUIREMENTS. IN ADDITION, BITUMINOUS MIXTURES SHALL MEET THE MOST CURRENT ASPHALT FILM THICKNESS REQUIREMENTS AVAILABLE FROM THE OFFICE OF MATERIALS, BITUMINOUS UNIT.
24. STRIP ALL TOPSOIL AND INPLACE SLOPE DRESSING WHERE PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. IN AREAS WHERE TURF ESTABLISHMENT SOILS WERE ENCOUNTERED APPROXIMATE DIMENSIONS RANGE FROM A MINIMUM OF 3-1/2" TO A MAXIMUM OF 18" AND AVERAGE 8".
25. SLOPE DRESSING IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.

(1) OVERBURDEN MATERIAL CONSISTS PREDOMINATELY OF GRANULAR MATERIAL TO BE USED ON THE PROJECT

DRAWN BY: NJ CHECKED BY: DY CERTIFIED BY: *Josephine Lumbert* LIC. NO. 20534 DATE 4/3/07

SOILS AND CONSTRUCTION NOTES

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 22 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 09:39

DISTRICT #: METRO
 IPLOT NAME: 0208123.tbl_01
 PATH & FILENAME: S:\Design\0650208123\Final\0208123.tbl.dgn

BUILDING REMOVAL QUANTITIES				HPP/STP FUNDS					B
ITEM	NOTES	UNIT	PARCEL 22	PARCEL 43	PARCEL 44	PARCEL 50	PARCEL 76	TOTAL ESTIMATED QUANTITIES	
BUILDING REMOVAL A	PARCEL 22 (1)	LUMP SUM	1					1	
BUILDING REMOVAL B	PARCEL 43 (2)	LUMP SUM		1				1	
BUILDING REMOVAL C	PARCEL 44 (3)	LUMP SUM			1			1	
BUILDING REMOVAL D	PARCEL 50 (4)	LUMP SUM				1		1	
BUILDING REMOVAL E	PARCEL 76 (5)	LUMP SUM					1	1	
DISCONNECT SEWER SERVICE	(6)	EACH	1	1	1	1	1 (7)	5	
DISCONNECT WATER SERVICE	(6)	EACH	1	1	1	1	1 (7)	5	
DISCONNECT GAS SERVICE CONNECTION	(6)	EACH	1	1	1	1	1 (7)	5	
REMOVE GAS SUPPLY PIPE	(6) (P)	LIN. FT.	150	150	150	120	200 (7)	770	
REMOVE CURB AND GUTTER	(P)	LIN. FT.	686	514	680	940	600	3420	
REMOVE RETAINING WALL (CONC. MODULAR; 3' HIGH)	(P)	LIN. FT.	45					45	
REMOVE WOOD RETAINING WALL (APPROX. 3.5' HIGH)	(P)	LIN. FT.					100	100	
REMOVE WOVEN WIRE FENCE (APPROX. 4' HIGH)	(P)	LIN. FT.	92					92	
REMOVE WOOD FENCE (APPROX. 8' HIGH)	(P)	LIN. FT.	44			30		74	
REMOVE CONCRETE SLAB	(8) (P)	SO. YD.	157 (9)	237 (9)	140	155	630 (9)	1319	
REMOVE CONCRETE DRIVEWAY PAVEMENT	(8) (P)	SO. YD.	3325	200				3525	
REMOVE FOUNDATION (CAR-VAC)	(P)	CU. YD.					1	1	
REMOVE UNDERGROUND TANK	(10)	EACH	3				4	7	
REMOVE GAS PUMP		EACH	6				4	10	
REMOVE MISCELLANEOUS STRUCTURES	(11)	EACH	1	1	1	1	1	5	
REMOVE CANOPY	(12)	EACH	1				1	2	
REMOVE GUARD POST		EACH		2	3	2	5	12	
REMOVE LIGHT STANDARD		EACH	2	6	2	4	8	22	
REMOVE FLAGPOLE		EACH	1	1		1		3	
REMOVE PEDESTAL FOUNDATION (CURBSIDE PHONE)	(13)	EACH	1				1	2	
REMOVE CABINET FOUNDATION	(14)	EACH	1	1	1	1		4	
REMOVE SIGN (COMMERCIAL SITE LOGO)		EACH	1 (15)	1 (16)	1 (16) (17)	1 (15)	1 (15)	5	
REGULATED WASTE EVALUATION A	(1)	LUMP SUM	1					1	
REGULATED WASTE EVALUATION B	(2)	LUMP SUM		1				1	
REGULATED WASTE EVALUATION C	(3)	LUMP SUM			1			1	
REGULATED WASTE EVALUATION D	(4)	LUMP SUM				1		1	
REGULATED WASTE EVALUATION E	(5)	LUMP SUM					1	1	

GENERAL REMOVAL NOTES

- (A) ALL REMOVAL ITEMS TO INCLUDE ANY APPURTENANT FOUNDATIONS.
- (B) ALL BUILDING REMOVALS TO INCLUDE MISC. FURNISHINGS & MECHANICAL EQUIPMENT.
- (C) REGULATED WASTE EVALUATION ITEM INCLUDES ALL ABATEMENT ACTIVITIES.
- (P) PLAN QUANTITY.

NOTES

- (1) HOLIDAY STATION STORE (NB TH 65 STA. 790+00, 220' RT): REMOVE 1-STORY COMMERCIAL BUILDING, APPROX. 4085 SQ. FT.
- (2) TACO JOHN'S (NB TH 65 STA. 815+45, 180' RT): REMOVE 1-STORY COMMERCIAL BUILDING, APPROX. 2040 SQ. FT.
- (3) KFC (NB TH 65 STA. 817+10, 170' RT): REMOVE 1-STORY COMMERCIAL BUILDING, APPROX. 3366 SQ. FT.
- (4) PERKINS (NB TH 65 STA. 820+90, 165' RT): REMOVE 1-STORY COMMERCIAL BUILDING, APPROX. 5102 SQ. FT.
- (5) GAS STATION (NB TH 65 STA. 843+50, 190' RT): REMOVE 1-STORY COMMERCIAL BUILDING, APPROX. 612 SQ. FT., AND CAR WASH BUILDING, APPROX. 792 SQ. FT.
- (6) REMOVE PIPE TO MAIN.
- (7) INCLUDES ALL PIPES TO CAR WASH.
- (8) THICKNESSES UNKNOWN.
- (9) QUANTITY INCLUDES PUMP ISLANDS. REMOVAL OF RAISED CONCRETE PUMP GUARDS SHALL BE INCIDENTAL.
- (10) COMMERCIAL GASOLINE STORAGE TANKS; SIZES UNKNOWN; (INCLUDING ALL ASSOCIATED PIPING & VENTS).
- (11) TRASH ENCLOSURES WITH MASONRY WALLS AND CONCRETE FLOORS; VARIOUS SIZES, APPROXIMATELY 10' x 12' TO 14' x 22' x 8' AVERAGE HEIGHT.
- (12) GAS PUMP AREA CANOPIES; APPROXIMATELY 52' x 78' AND 40' x 86'.
- (13) PHONE EQUIPMENT TO BE REMOVED BY UTILITY COMPANY.
- (14) TRANSFORMERS, ELECTRIC GEAR TO BE REMOVED BY UTILITY COMPANY.
- (15) MASONRY MONUMENT TYPE.
- (16) STEEL POLE PYLON TYPE.
- (17) DRIVE-THROUGH SIGNAGE IS INCIDENTAL.

BUILDING REMOVAL QUANTITIES

TABULATIONS

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DISTRICT #: METRO
 PLOT NAME: d0208123.tbl_03
 PATH & FILENAME: S:\Design\065\0208\23\Final\0208123.tbl.dgn

FENCING								HPP/STP FUNDS	E
STATION	LOCATION	WIRE FENCE	WIRE FENCE	METAL BRACE ASSEMBLY	ELECTRICAL GROUND	VEHICULAR GATE - DOUBLE	TEMPORARY FENCE	REMARKS	
		DES 32V 9322 LIN FT	DES 60V 9322 LIN FT	(CH-LINK FE) EACH	EACH	EACH	LIN FT		
T.H. 65NB STATIONING									
T.H. 65 NB									
780+00 TO 791+63	170' LT		1162	4	1				
780+00 TO 789+35	77' RT		934	2	1				
HOLIDAY POND									
789+35 TO 789+43	77' - 509' RT		432	2	1				
789+43 TO 789+90	509' - 504' RT		48	2	1				
789+90 TO 791+68	504' - 460' RT		181	4	2	1			
791+68 TO 791+84	460' - 440' RT		356	2	1				
791+84 TO 791+71	440' - 84' RT		355	2	1				
W.B. PAUL PKWAY STATIONING									
109+45 TO 110+52	28' LT		28	2	1				
110+52 TO 112+55	27' TO 14' LT	201		2	1				
109+79 TO 110+28	71' - 66' RT		61	2	1				
110+28 TO 112+04	71' - 63' RT	180		2					
112+04 TO 114+91	63' - 49' RT	297		1					
117+01 TO 120+14	28' - 27' LT	314		2	1				
T.H. 65 NB									
792+66 TO 809+16	77' RT		1650	5	2				
792+47 TO 810+62	171' LT		1816	5	2				
810+32 TO 810+92	171' - 155' LT		35	2	1				
JOHN POND (TH 65 NB STATIONING)									
814+37 TO 815+58	127' - 300' RT		211	4	2	1			
815+58 TO 817+70	300' - 302' RT		211	2	1				
CSAH 14 E STATIONING									
CSAH 14									
229+86 TO 230+01	127' - 110' LT		22	2					
230+01 TO 230+35	110' - 102' LT		35	2	1				
244+05 TO 244+32	98' - 134' LT		45	2					
244+32 TO 244+43	53' - 87' RT		40	2	1				
T.H. 65NB STATIONING									
PERKINS POND									
819+37 TO 820+02	442' - 422' RT		70	2					
820+02 TO 820+58	422' - 355' RT		91	2					
820+58 TO 821+03	355' - 290' RT		80	2					
821+03 TO 821+31	290' - 229' RT		65	2					
821+31 TO 821+85	229' - 171' RT		83	2					
821+85 TO 822+36	171' - 143' RT		58	2	2	1			
T.H. 65 NB									
827+03 TO 829+61	87' - 47' RT		260	2					
829+61 TO 837+56	47' - 44' RT		795	2					
PIPE POND									
837+56 TO 838+05	44' - 104' RT		87	2	1				
838+05 TO 842+32	104' - 106' RT		427	4	2	1			
842+32 TO 842+32	106' - 227' RT		121	2					
842+32 TO 842+74	227' - 318' LT		100	2					
842+74 TO 843+23	318' - 297' RT		296	4	2	1			
843+23 TO 844+07	297' - 280' RT		74	2					
844+07 TO 844+34	280' - 271' RT		28	2					
844+34 TO 844+43	271' - 245' RT		27	2					
844+43 TO 844+42	245' - 138' RT		107	2					
844+42 TO 844+54	138' - 88' RT		52	2	1				
T.H. 65NB STATIONING									
T.H. 65 NB									
841+70 TO 842+25	141' - 148' LT		56	2					
842+25 TO 844+52	148' - 147' LT		228	2	1				

FENCING								HPP/STP FUNDS	E
STATION	LOCATION	WIRE FENCE	WIRE FENCE	METAL BRACE ASSEMBLY	ELECTRICAL GROUND	VEHICULAR GATE - DOUBLE	TEMPORARY FENCE	REMARKS	
		DES 32V 9322 LF	DES 60V 9322 LF	(CH-LINK FE) EACH	EACH	EACH	LIN FT		
129TH AVE STATIONING									
21+78 TO 21+77	80' - 49' RT	31		2					
21+77 TO 21+84	49' - 39' RT	12		2					
21+84 TO 21+94	39' - 34' RT	11		2					
21+94 TO 22+66	34' - 34' RT	73		2	1				
21+33 TO 21+35	67' - 46' LT		21	2					
21+35 TO 21+33	46' - 36' LT		11	2					
21+33 TO 21+23	36' - 28' LT		13	2					
21+23 TO 19+12	28' - 26' LT		212	2	1				
17+21 TO 14+40	28' LT	282		2	1				
14+40 TO 17+21	18' RT	281		2	1				
T.H. 65 NB									
845+01 TO 845+28	54' - 49' RT		28	2	1				
845+28 TO 857+07	49' - 50' RT		1179	4	1				
844+99 TO 870+22	144' RT		2524	4	1				
871+10 TO 882+12	105' - 102' RT		1102	4	1				
WALL WSWW									
17+63.3 TO 22+45.3		482							
WALL WSEE									
27+73 TO 32+61		488							
TOTAL		2652	15817	133	39	5	1000	①	

① PLACED UNDER THE DIRECTION OF CONSTRUCTION ENGINEER.

FENCING

TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/3/2007

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 25 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 09:39

DISTRICT #: METRO
 IPLOT NAME: 0208123.tbl_04
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123.tbl.dgn

AGGREGATE							HPP/STP FUNDS	F
ALIGN.	STATION TO STATION	LOCATION OR TIMING OF PLACEMENT	AGGREGATE	AGGREGATE	AGGREGATE	REMARKS		
			BASE CLASS 5	BASE CLASS 6	SHOULDERING CLASS 5			
			CU YD	CU YD	CU YD			
CSAH 14	217+12 - 230+00	STAGE 1A		1053				
CSAH 14	217+12 - 230+00	STAGE 1A SHOULDERS			220			
CSAH 14	230+00 - 236+50	STAGE 1A TEMPORARY	786					
CSAH 14	230+00 - 236+41	STAGE 1C		713				
CSAH 14	238+00 - 246+00	STAGE 1A TEMPORARY	750					
CSAH 14	238+06 - 244+00	STAGE 1B		684				
CSAH 14	244+00 - 255+40	STAGE 1A		800				
CSAH 14	244+00 - 255+40	STAGE 1A SHOULDERS			190			
65NB	780+00 - 800+00	STAGE 2B		926				
65NB	780+00 - 800+00	STAGE 2B OUTSIDE SHLD			556			
65NB	780+00 - 800+00	STAGE 2B INSIDE SHLD			389			
65NB	800+00 - 837+00	STAGE 1B		2094				
65NB	800+00 - 837+00	STAGE 1B OUTSIDE SHLD			792			
65NB	800+00 - 837+00	STAGE 1B INSIDE SHLD			719			
65NB	837+00 - 855+00	STAGE 2B		1267				
65NB	837+00 - 855+00	STAGE 2B OUTSIDE SHLD			317			
65NB	837+00 - 855+00	STAGE 2B INSIDE SHLD			666			
65NB	855+00 - 889+25	STAGE 2B		1033				
65NB	855+00 - 889+25	STAGE 2B OUTSIDE SHLD			587			
65SB	780+00 - 800+00	STAGE 2C		949				
65SB	780+00 - 800+00	STAGE 2C OUTSIDE SHLD			533			
65SB	780+00 - 800+00	STAGE 2C INSIDE SHLD			389			
65SB	800+00 - 836+50	STAGE 1C		2138				
65SB	800+00 - 836+50	STAGE 1C INSIDE SHLD			710			
65SB	800+00 - 836+50	STAGE 1C OUTSIDE SHLD			731			
65SB	836+50 - 855+00	STAGE 2C		1233				
65SB	836+50 - 855+00	STAGE 2C OUTSIDE SHLD			354			
65SB	836+50 - 855+00	STAGE 2C INSIDE SHLD			233			
ABERDEEN	100+05 - 103+46	STAGE 2B		145				
ABERDEEN	104+32 - 108+75	STAGE 2B		205				
ABERDEEN	126+50 - 131+21	STAGE 1A		255				
ABERDEEN	132+52 - 149+00	STAGE 1A		749				
ABERDEEN	159+50 - 163+24	STAGE 2B		121				
ABERDEEN	163+72 - 166+67	STAGE 2B		98				
ULYSSES	109+53 - 113+10	STAGE 1A		183				
ULYSSES	114+40 - 130+00	STAGE 1A		444				
PAUL PARKWAY	106+26 - 115+08	STAGE 2C		632			①	
PAUL PARKWAY	116+97 - 126+34	STAGE 2B		643			①	
129TH	11+90 - 17+21	STAGE 2C	137				①	
129TH	19+10 - 24+11	STAGE 2B	158				①	
SUB-TOTAL			1831	16365	7386			

① 1/2 OF THE QUANTITY ASSIGNED TO HPP-UG

AGGREGATE							HPP/STP FUNDS	F
ALIGN.	STATION TO STATION	LOCATION OR TIMING OF PLACEMENT	AGGREGATE	AGGREGATE	AGGREGATE	REMARKS		
			BASE CLASS 5	BASE CLASS 6	SHOULDERING CLASS 5			
			CU YD	CU YD	CU YD			
SE RAMP	6+58 - 17+90	STAGE 1B		256				
SE RAMP	6+58 - 17+90	STAGE 1B SHOULDER			89			
SE RAMP CONN	16+77 - 17+90	STAGE 1B		28				
SE RAMP CONN	16+77 - 17+90	STAGE 1B SHOULDER			15			
NE RAMP	18+97 - 29+62	STAGE 1B		261				
NE RAMP	18+97 - 29+62	STAGE 1B SHOULDER			33			
NE RAMP CONN	19+29 - 20+16	STAGE 1B		22				
NE RAMP CONN	19+29 - 20+16	STAGE 1B SHOULDER			11			
SW RAMP	7+60 - 18+06	STAGE 1C		252				
SW RAMP	7+60 - 18+06	STAGE 1C SHOULDER			38			
SW RAMP CONN	16+92 - 17+88	STAGE 1C		16				
SW RAMP CONN	16+92 - 17+88	STAGE 1C SHOULDER			11			
NW RAMP	19+28 - 30+90	STAGE 1C		278				
NW RAMP	19+28 - 30+90	STAGE 1C SHOULDER			80			
NW RAMP CONN	19+22 - 20+33	STAGE 1C		20				
NW RAMP CONN	19+22 - 20+33	STAGE 1C SHOULDER			14			
STAGING								
65SB	798+65 - 835+50	STAGE 1B WIDENING	1319					
65NB	802+00 - 834+50	STAGE 1C WIDENING	1003					
65SB	777+00 - 800+00	STAGE 2B WIDENING	823					
65SB	836+00 - 859+00	STAGE 2B WIDENING	823					
65NB	781+00 - 796+00	STAGE 2C WIDENING	463					
65NB	837+50 - 856+00	STAGE 2C WIDENING	548					
65NB BYPASS 1	773+56 TO 780+85	16' LT TO 83' LT	603					
65NB BYPASS 2	795+54 TO 803+83	16' LT TO 64' LT	491					
65NB BYPASS 3	833+50 TO 840+79	16' LT TO 64' LT	491					
65NB BYPASS 4	855+17 TO 862+46	15' LT TO 82' LT	603					
SUB-TOTAL			7167	1133	291			
PROJECT TOTALS			8998	17498	7677			

AGGREGATE

TABULATIONS

DRAWN BY: MLW	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 20534	DATE: 4/3/2007	STATE PROJ. NO. 0208-123 (T.H. 65)	SHEET NO. 26 OF 872 SHEETS
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PLOTTED/REVISED: 29-MAR-2007 09:39

DISTRICT: METRO
 IPLOT NAME: 0208123.tbl_05
 PATH & FILENAME: S:\Design\065\0208123\F\Ind\0208123.tbl.dgn

BITUMINOUS											②	G
ALIGNMENT	STATION TO STATION	LOCATION OR TIMING OF PLACEMENT	2360 TYPE SP 19.0 NON WEARING COURSE MIXTURE (4,B) (SPNWC430B)			2360 TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) (SPWEB440F)			TACK COAT		REMARKS	
			TOTAL AREA	MIX	DEPTH	TOTAL AREA	MIX	DEPTH	LIFTS	TACK COAT		
			SQ YD	TON	INCH	SQ YD	TON	INCH	EACH	GAL		
CSAH 14	217+12 - 230+00	STAGE 1A	9478.0	1204.9	2	9478.0	2142.0	4.0	3	948		
CSAH 14	217+12 - 230+00	STAGE 1A SHOULDERS				1586.0	380.8	4	2	79		
CSAH 14	230+00 - 236+50	STAGE 1A TEMPORARY	7069.0	898.6	2	7069.0	1198.2	3.0	3	707		
CSAH 14	230+00 - 236+41	STAGE 1C	8549.0	1086.8	2	8549.0	1932.1	4.0	3	855		
CSAH 14	238+00 - 246+00	STAGE 1A TEMPORARY	4953.0	629.7	2	4953.0	839.5	3.0	3	495		
CSAH 14	238+06 - 244+00	STAGE 1B	8205.0	1043.1	2	8205.0	1854.3	4.0	3	821		
CSAH 14	244+00 - 255+40	STAGE 1A	9607.0	1221.3	2	9607.0	2171.2	4.0	3	961		
CSAH 14	244+00 - 255+40	STAGE 1A SHOULDERS				1365.0	327.8	4	2	68		
65NB	780+00 - 800+00	STAGE 2B	5333.0	979.3	3	5333.0	1205.3	4.0	3	533		
65NB	780+00 - 800+00	STAGE 2B OUTSIDE SHLD	2667.0	489.7	3	2667.0	602.7	4	3	267		
65NB	780+00 - 800+00	STAGE 2B INSIDE SHLD				889.0	213.5	4	2	45		
65NB	800+00 - 837+00	STAGE 1B	12153.0	2231.6	3	12153.0	2746.6	4.0	3	1215		
65NB	800+00 - 837+00	STAGE 1B OUTSIDE SHLD	2595.0	476.5	3	2595.0	586.5	4	2	130		
65NB	800+00 - 837+00	STAGE 1B INSIDE SHLD				1644.0	394.8	4	2	82		
65NB	837+00 - 855+00	STAGE 2B	7376.0	1354.4	3	7376.0	1667.0	4.0	3	738		
65NB	837+00 - 855+00	STAGE 2B OUTSIDE SHLD	1610.0	295.6	3	1610.0	363.9	4	3	161		
65NB	837+00 - 855+00	STAGE 2B INSIDE SHLD				800.0	192.1	4	2	40		
65NB	855+00 - 889+25	STAGE 2B	5830.0	1070.5	3	5830.0	1317.6	4.0	3	583		
65NB	855+00 - 889+25	STAGE 2B OUTSIDE SHLD	2760.0	506.8	3	2760.0	623.8	4	3	276		
65SB	780+00 - 800+00	STAGE 2C	5470.0	1004.4	3	5470.0	1236.2	4.0	3	547		
65SB	780+00 - 800+00	STAGE 2C OUTSIDE SHLD	2531.0	464.8	3	2531.0	572.0	4	3	253		
65SB	780+00 - 800+00	STAGE 2C INSIDE SHLD				889.0	213.5	4	2	45		
65SB	800+00 - 836+50	STAGE 1C	12425.0	2281.5	3	12425.0	2808.1	4.0	3	1243		
65SB	800+00 - 836+50	STAGE 1C INSIDE SHLD				1622.0	389.5	4	2	81		
65SB	800+00 - 836+50	STAGE 1C OUTSIDE SHLD	3984.0	731.6	3	3984.0	900.4	4.0	3	398		
65SB	836+50 - 855+00	STAGE 2C	7203.0	1322.7	3	7203.0	1627.9	4.0	3	720		
65SB	836+50 - 855+00	STAGE 2C OUTSIDE SHLD	1525.0	280.0	3	1525.0	344.7	4	3	153		
65SB	836+50 - 855+00	STAGE 2C INSIDE SHLD				800.0	192.1	4	2	40		
ABERDEEN	100+05 - 103+46	STAGE 2B	1226.0	155.9	2	1226.0	207.8	3	3	123		
ABERDEEN	104+32 - 108+75	STAGE 2B	1750.0	222.5	2	1750.0	296.6	3	3	175		
ABERDEEN	126+50 - 131+21	STAGE 1A	2196.0	279.2	2	2196.0	372.2	3	3	220		
ABERDEEN	132+52 - 149+00	STAGE 1A	6379.0	810.9	2	6379.0	1081.2	3	3	638		
ABERDEEN	159+50 - 163+24	STAGE 2B	1010.0	128.4	2	1010.0	171.2	3	3	101		
ABERDEEN	163+72 - 166+67	STAGE 2B	813.0	103.4	2	813.0	137.8	3	3	81		
ULYSSES	109+53 - 113+10	STAGE 1A	1567.0	199.2	2	1567.0	265.6	3	3	157		
ULYSSES	114+40 - 130+00	STAGE 1A	3824.0	486.1	2	3824.0	648.2	3	3	382		
PAUL PARKWAY	106+26 - 115+08	STAGE 2C	5390.0	685.2	2	5390.0	913.6	3	3	539	③	
PAUL PARKWAY	116+97 - 126+34	STAGE 2B	5524.0	702.2	2	5524.0	936.3	3	3	552	③	
129TH	11+90 - 17+21	STAGE 2C				1652.0	350.0	3.5	2	83	③	
129TH	19+10 - 24+11	STAGE 2B				1900.0	402.6	3.5	2	95	③	
SUB TOTAL THIS SHEET				23347			34827			15630		

- ① 1/4" ADDED FOR COMPUTATIONAL PURPOSES ONLY TO THE FIRST LIFT PLACED.
- ② HPP/STP FUNDING UNLESS OTHERWISE NOTED
- ③ 50% ASSIGNED TO HPP/UG FUNDING

BITUMINOUS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/3/2007

TABULATIONS

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 27 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 09:39

DISTRICT #: METRO
 PLOT NAME: 0208123.tbl_06
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123.tbl.dgn

BITUMINOUS ②											
ALIGNMENT	STATION TO STATION	LOCATION OR TIMING OF PLACEMENT	2360 TYPE SP 19.0 NON WEARING COURSE MIXTURE (4,B) (SPNWC430B) ①			2360 TYPE SP 12.5 WEARING COURSE MIXTURE (4,F) (SPWEB440F)			TACK COAT		REMARKS
			TOTAL AREA	MIX	DEPTH	TOTAL AREA	MIX	DEPTH	LIFTS	TACK COAT	
			SQ YD	TON	INCH	SQ YD	TON	INCH	EACH	GAL	
SE RAMP	6+58 - 17+90	STAGE 1B	3073.0	390.7	2	3073.0	694.5	4.0	3	307	
SE RAMP	6+58 - 17+90	STAGE 1B SHOULDER				633.0	152.0	4	2	23	
SE RAMP CONN	16+77 - 17+90	STAGE 1B	343.0	43.6	2	343.0	77.5	4.0	3	34	
SE RAMP CONN	16+77 - 17+90	STAGE 1B SHOULDER				104.0	25.0	4	2	5	
NE RAMP	18+97 - 29+62	STAGE 1B	3133.0	398.3	2	3133.0	708.1	4.0	3	313	
NE RAMP	18+97 - 29+62	STAGE 1B SHOULDER				238.0	57.1	4	2	12	
NE RAMP CONN	19+29 - 20+16	STAGE 1B	258.0	32.8	2	258.0	58.3	4.0	3	26	
NE RAMP CONN	19+29 - 20+16	STAGE 1B SHOULDER				80.0	19.2	4	2	4	
SW RAMP	7+60 - 18+06	STAGE 1C	3025.0	384.6	2	3025.0	683.7	4.0	3	303	
SW RAMP	7+60 - 18+06	STAGE 1C SHOULDER				272.0	65.3	4	2	14	
SW RAMP CONN	16+92 - 17+88	STAGE 1C	186.0	23.6	2	186.0	42.0	4.0	3	19	
SW RAMP CONN	16+92 - 17+88	STAGE 1C SHOULDER				82.0	19.7	4	2	-4	
NW RAMP	19+28 - 30+90	STAGE 1C	3332.0	423.6	2	3332.0	753.0	4.0	3	333	
NW RAMP	19+28 - 30+90	STAGE 1C SHOULDER				574.0	137.8	4	2	29	
NW RAMP CONN	19+22 - 20+33	STAGE 1C	234.0	29.7	2	234.0	52.9	4.0	3	23	
NW RAMP CONN	19+22 - 20+33	STAGE 1C SHOULDER				104.0	25.0	4	2	5	
STAGING											
65SB	798+65 - 835+50	STAGE 1B WIDENING	10646.0	1353.4	2	10646.0	1804.5	3.0	3	1065	
65NB	802+00 - 834+50	STAGE 1C WIDENING	7944.0	1009.9	2	7944.0	1346.5	3.0	3	794	
65SB	777+00 - 800+00	STAGE 2B WIDENING	6644.0	844.6	2	6644.0	1126.2	3.0	3	664	
65SB	836+00 - 859+00	STAGE 2B WIDENING	6644.0	844.6	2	6644.0	1126.2	3.0	3	664	
65NB	781+00 - 796+00	STAGE 2C WIDENING	3667.0	466.2	2	3667.0	621.6	3.0	3	367	
65NB	837+50 - 856+00	STAGE 2C WIDENING	4278.0	543.8	2	4278.0	725.1	3.0	3	429	
CSAH 14 (PERKINS TEMP)			887.0	112.8	2	887.0	150.3	3.0	3	89	TEMP. ACCESS TO CENTRAL AVE
65NB CROSSOVER 1	773+56 TO 780+85	16' LT TO 83' LT	5427.0	1303.2	4	5427.0	459.9	1.5	3	543	
65NB CROSSOVER 2	795+54 TO 803+83	16' LT TO 64' LT	4421.3	1061.7	4	4421.3	374.7	1.5	3	442	
65NB CROSSOVER 3	833+50 TO 840+79	16' LT TO 64' LT	4421.3	1061.7	4	4421.3	374.7	1.5	3	442	
65NB CROSSOVER 4	855+17 TO 862+46	15' LT TO 82' LT	5427.0	1303.2	4	5427.0	459.9	1.5	3	543	
SUB TOTAL THIS SHEET				11632			12141			7496	
PROJECT TOTALS				34979			46968			23126	

① 1/4" ADDED FOR COMPUTATIONAL PURPOSES ONLY TO THE FIRST LIFT PLACED.

② HPP/STP FUNDING UNLESS OTHERWISE NOTED

BITUMINOUS

TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY Josephine Lundquist LIC. NO. 20534 DATE 4/3 2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 28 OF 872 SHEETS

PLOTTED/REVISED: 04-APR-2007 09:18

DISTRICT #: METRO
 IPLOT NAME: 0208123.tbl_07
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123.tbl.dgn

CURB & GUTTER AND CONCRETE WALKS														HPP/STP FUNDS		H
STATION TO STATION	LOCATION	CURB & GUTTER DESIGN B624	CURB & GUTTER DESIGN B424	CURB & GUTTER DESIGN D424	4" CONC WALK	3" CONC WALK (MEDIAN)	6" CONC WALK (NOSE)	6" CONCRETE DRIVEWAY PAVEMENT	8" CONCRETE DRIVEWAY PAVEMENT	ARCHITECTURAL PAVEMENT	PEDESTRIAN RAMPS				REMARKS	
		(2)									B624 CURB & GUTTER	B424 CURB & GUTTER	4" CONC WALK	TRUNCATED DOMES		
		LIN FT	LIN FT	LIN FT	SQ FT	SQ FT	SQ FT	SQ YD	SQ YD	SQ FT	LIN FT	LIN FT	SQ FT	SQ FT		
PAUL PARKWAY (EPAUL)																
106 + 26 TO 108 + 85	24' - 72' RT	283			1443	231	28						16	50	8	
108 + 09 TO 108 + 53	12' - 22' LT	87			260											
108 + 09 TO 108 + 81	46' - 90' LT	78			353								16	50	8	
109 + 37 TO 110 + 00	RIGHT	594			3028			28					16	50	8	
109 + 58 TO 115 + 09	0' - 11' LT	1102				4351	28									
109 + 31 TO 115 + 10	87' - 37' LT	540			184								16	50	8	
116 + 96 TO 120 + 98	RIGHT	388			2339								16	50	8	
116 + 97 TO 120 + 46	10' - 22' LT	698				2027	28									
116 + 98 TO 120 + 73	44' - 78' LT	389			111								16	50	8	
121 + 56 TO 126 + 34	28' - 18' RT	481						16								
121 + 28 TO 126 + 34	55' - 18' LT	500			142			18								
ABERDEEN (ABERD)																
100 + 05 TO 103 + 51	LT AND RT	692			3019											
104 + 71 TO 108 + 74	24' - 17' LT	403							27							
104 + 28 TO 108 + 74	22' - 13' RT	430			1900				22				16	50	8	
126 + 50 TO 131 + 12	20' - 43' LT	497							31							
126 + 50 TO 131 + 15	20' - 42' RT	356			1796				45				64	16	250	40
130 + 62 TO 131 + 04	73' - 38' LT				406											
132 + 71 TO 140 + 53	52' - 14' LT	782							66							
132 + 38 TO 140 + 53	38' - 14' RT	812			1769				66				40	8	150	24
140 + 53 TO 149 + 00	14' LT	847				2587										
140 + 53 TO 149 + 00	14' RT	847							54							
159 + 52 TO 163 + 25	14' - 24' LT	373							59							
159 + 52 TO 163 + 21	14' - 23' RT	369			1892				33							
163 + 74 TO 166 + 70	24' - 14' LT	288														
163 + 77 TO 166 + 70	23' - 14' RT	303							25							
ULYSSES (ULYSS)																
111 + 02 TO 113 + 02	26' - 36' LT	223			1044								48	150	24	
109 + 53 TO 112 + 93	26' - 51' RT	317			1507											
114 + 46 TO 115 + 90	42' - 26' LT	149														
114 + 51 TO 117 + 99	44' - 13' RT	342														
121 + 12 TO 130 + 00	14' LT	866							64							
121 + 12 TO 130 + 00	14' RT	909				1788			27							
129TH (129)																
11 + 90 TO 17 + 21	LT	531			236				19				32	100	16	
11 + 90 TO 17 + 16	RT	209			177				37				32	100	16	
19 + 10 TO 24 + 11	LT	458			328				35				32	100	16	
19 + 10 TO 24 + 11	RT	417			1650								16	50	8	
CSAH 14 EB (242E)																
217 + 12 TO 229 + 00	RT		1194													
217 + 12 TO 229 + 00	MEDIAN		1176			20546	39									
217 + 12 TO 229 + 00	LT		1191													
229 + 85 TO 236 + 37	RT		689	168	4783	3480						64	200	32		(1)
229 + 85 TO 236 + 37	MEDIAN		1238			6458	72			6530						
229 + 85 TO 236 + 37	LT		626	121		7148						16	50	8		(1)
238 + 06 TO 244 + 86	RT		635	220	4822	4790						64	200	32		(1)
238 + 06 TO 244 + 86	MEDIAN		1204			5624	72			3555						
238 + 06 TO 244 + 86	LT		605	203		4181										(1)
244 + 86 TO 255 + 40	RT		975													
244 + 86 TO 255 + 40	MEDIAN		1296			6555										
244 + 86 TO 255 + 40	LEFT		983													
SUB TOTAL THIS SHEET		16560	11812	712	33189	69766	267	153	519	10085	440	104	1700	272		

- (1) INCLUDES PORKCHOP ISLANDS
- (2) EXISTING C & G IS B618. A TRANSITION OF THE GUTTER WIDTH OF 10' (ONE PANEL LENGTH) IS TO BE CONSTRUCTED WHERE NEW B624 C & G MEETS EXISTING B618 C & G.

CURB & GUTTER,
CONCRETE WALKS

TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine L. Smith
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/2007

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 29 OF 872 SHEETS

PLOTTED/REVISED: 04-APR-2007 09:18

DISTRICT #: METRO
 IPLOT NAME: 0208123.tbl_08
 PATH & FILENAME: S:\Design\065\0208\123\Final\0208123.tbl.dgn

CURB & GUTTER AND CONCRETE WALKS											HPP/STP FUNDS				H	
STATION TO STATION	LOCATION	CURB & GUTTER DESIGN B624 ②	CURB & GUTTER DESIGN B424	CURB & GUTTER DESIGN D424	4" CONC WALK SQ FT	3" CONC WALK (MEDIAN) SQ FT	6" CONC WALK (NOSE) SQ FT	6" CONCRETE DRIVEWAY PAVEMENT SQ YD	8" CONCRETE DRIVEWAY PAVEMENT SQ YD	ARCHITECTURAL PAVEMENT SQ FT	PEDESTRIAN RAMPS				REMARKS	
											B624 CURB & GUTTER	B424 CURB & GUTTER	4" CONC WALK	TRUNCATED DOMES		
											LIN FT	LIN FT	SQ FT	SQ FT		
TH 65 NB (65NB)																
802 + 85 TO 806 + 60	24'-49' RT			376												
806 + 60 TO 829 + 66	26'-24' RT		2306				102									
829 + 66 TO 831 + 77	42'-34' RT			211												
831 + 77 TO 837 + 05	34' RT		528													
844 + 00 TO 857 + 40	34'-40' RT	18	1340													①
TH 65 SB (65SB)																
802 + 50 TO 807 + 61	24'-42' LT			511												
807 + 61 TO 830 + 89	24'-26' LT		2328				102									
830 + 89 TO 833 + 15	51'-36' LT			226												
SOUTH WEST RAMP (SWR)																
7 + 62 TO 17 + 64	8'-58' LT			1002		7730										
7 + 61 TO 10 + 98	8'-12' RT			337												
15 + 79 TO 17 + 82	20' RT			203		909										
SW RAMP CONN (SWRCON)																
16 + 79 TO 17 + 21	LEFT		42			902										
SOUTH EAST RAMP (SER)																
6 + 59 TO 8 + 81	LEFT			222												
16 + 00 TO 17 + 65	LEFT			164												
6 + 59 TO 16 + 69	RIGHT		1010			7867										
SE RAMP CONN (SERCON)																
16 + 46 TO 17 + 71	RIGHT			90		870										
NORTH WEST RAMP (NWR)																
19 + 55 TO 21 + 70	RIGHT			215		1160										
28 + 15 TO 30 + 90	RIGHT			275												
20 + 50 TO 30 + 90	LEFT			1040		5926										
NW RAMP CONN (NWRCON)																
19 + 25 TO 20 + 33	LEFT			100		1012										
NORTH EAST RAMP (NER)																
19 + 18 TO 21 + 29	LEFT			211		1499										
24 + 30 TO 29 + 66	LEFT			536												
20 + 20 TO 29 + 66	RIGHT			946		6798										
NE RAMP CONN (NERCON)																
19 + 40 TO 20 + 32	RIGHT			69		730										
PORK CHOP CSAH 14 SE																
										2540						
PORK CHOP CSAH 14 SW																
										1772						
PORK CHOP CSAH 14 NE																
										1427						
PORK CHOP CSAH 14 NW																
										1455						
SUB TOTAL THIS SHEET		18	6544	7744		35403	204			7194						
PROJECT TOTALS		16578	18356	8456	33189	105169	471	153	519	17279	440	104	1700	272		

- ① B624 C & G LOCATED ON THE FRONTAGE ROAD
- ② EXISTING C & G IS B618. A TRANSITION OF THE GUTTER WIDTH OF 10' (ONE PANEL LENGTH) IS TO BE CONSTRUCTED WHERE NEW B624 C & G MEETS EXISTING B618 C & G.

CURB & GUTTER,
CONCRETE WALKS

TABULATIONS

PLOTTED/REVISED: 29-MAR-2007 09:39

PORTABLE PRECAST CONCRETE BARRIER ② HPP/STP FUNDS I									
SITE NO.	STATION TO STATION	ROADWAY ①	PORTABLE PRECAST CONCRETE BARRIER	TEMPORARY GLARE SCREEN	RELOCATE PRECAST CONCRETE BARRIER	MEDIAN BARRIER DELINEATOR	IMPACT ATTENUATOR	RELOCATE IMPACT ATTENUATOR	REMARKS
			LIN FT	LIN FT	LIN FT	EACH	EACH	ASSEMBLY	
1A	216+50 TO 232+00	CSAH 14	1550			95			STAGE 1A
1B	242+50 TO 255+50	CSAH 14	1300			95			STAGE 1A
STAGE 1A TOTALS			2850			190			
1C	216+50 TO 232+00	CSAH 14			1550	95			STAGE 1AA
1D	242+50 TO 255+50	CSAH 14			1300	95			STAGE 1AA
STAGE 1AA TOTALS					2850	190			
1E	797+35 TO 837+33	TH 65	3998	3998		266	2		STAGE 1B
STAGE 1B TOTALS			3998	3998		266	2		
1F	799+25 TO 836+16	TH 65			3691	246		2	STAGE 1C
STAGE 1C TOTALS					3691	246		2	
2A	776+65 TO 799+36	TH 65			2271	152	1	1	STAGE 2B
2B	836+31 TO 857+95	TH 65	437		1727	144	1	1	STAGE 2B
2C	859+18 TO 889+25	TH 65	3007			100	1		STAGE 2B
STAGE 2B TOTALS			3444		3998	396	3	2	
2D	777+23 TO 798+71	TH 65			2148	144		2	STAGE 2C
2E	837+29 TO 858+30	TH 65			2101	140			STAGE 2C
STAGE 2C TOTALS					4249	284		2	
PROJECT TOTALS			10292	3998③	14788	1572	5	6	

- ① FOR EXACT LOCATION, SEE STAGING PLAN SHEET NOS.123 TO 161.
- ② BARRIERS USED FOR PROJECT STAGING
- ③ TOTAL QUANTITY FOR THE PROJECT. RELOCATION OF THE TEMPORARY GLARE SCREEN IS INCIDENTAL.

TRAFFIC BARRIER HPP/STP FUNDS J								
STATION TO STATION	LOCATION	FURNISH AND INSTALL						REMARKS
		END TREATMENT-TANGENT TERMINAL	TRAFFIC BARRIER-DESIGN 8338	TRAFFIC BARRIER-DESIGN BULLNOSE	ANCHORAGE ASSEMBLY-PLATE BEAM	TRAFFIC BARRIER DESIGN SPECIAL	IMPACT ATTENUATOR NO.1	
		EACH	LIN FT	LIN FT	EACH	LIN FT	ASSMBLY	
TH65 (65NB)								
787+40 TO 791+77	29' RT	1	387		1			
791+05 TO 793+20	36' LT		250	200			MEDIAN BULLNOSE	
808+49 TO 808+84	39' RT					1	CONNECT TO WALL WSEW	
813+90 TO 819+80	26' RT	1	540		1			
816+61 TO 820+51	43' LT		600	200			MEDIAN BULLNOSE	
817+50 TO 823+25	100' LT	1	525		1			
828+72 TO 829+07	116' LT					1	CONNECT TO WALL WNWE	
835+96 TO 844+59	36' RT	1	813		1			
843+85 TO 845+66	40' LT		176	200			MEDIAN BULLNOSE	
129TH AVE (129)								
19+43.5 TO 21+06	18' RT	1	88			25		
TOTAL		5	3379	600	4	25	2	

PORTABLE PRECAST CONCRETE BARRIER
PERMANENT TRAFFIC BARRIER

TABULATIONS

DISTRICT #: METRO
PLOT NAME: 0208123.tbl_09
PATH & FILENAME: S:\Design\065\0208123\Final\0208123.tbl.dgn

PLOTTED/REVISED: 10-APR-2007 15:20

DISTRICT #: METRO
 PLOT NAME: 0208123.tbl_10
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123.tbl.dgn

EROSION CONTROL													HPP/STP FUNDS	K
EROSION CONTROL SHEET NUMBER	SILT FENCE TYPE MACHINE SLICED	TEMPORARY DITCH CHECK TYPE 1 (SILT FENCE)	TEMPORARY DITCH CHECK TYPE 2 (BIOROLL)	INLET PROTECTION	EROSION CONTROL BLANKET CAT 3	EROSION CONTROL BLANKET CAT 4	EROSION CONTROL BLANKET CAT 5	BITUMINOUS MIXTURE SHOULDER TACK	COMMON CHANNEL EXCAVATION	FLOTATION SILT CURTAIN TYPE MOVING WATER	WATER	CALCIUM CHLORIDE SOLUTION	NOTES	
	① LIN FT	② LIN FT	③ LIN FT	EACH	SQ YD	SQ YD	SQ YD	⑦ GALLONS	⑤ CY YD	⑤ LIN FT	⑥ M GALLONS	⑥ GALLONS		
SHEET 1	2353		400		2108		127	190						
SHEET 2	760		40	12										
SHEET 3	4713		460	28	832	269		234						
SHEET 4	2740		400	20	1353			245						
SHEET 5	3425		200	50	625				35	140				
SHEET 6	3605		180	36	2523									
SHEET 7	3768		200	79	5095			168						
SHEET 8	2670		380	21	1745	143		208						
SHEET 9	3965		400	32	4956		131	175						
SHEET 10	2120		440	8	1726			134						
SHEET 11	1494		80	1	11263			93						
SHEET 12	580		40		2168			54						
MISCELLANEOUS		500	500			100	100			40	1000		④	
TOTAL	32193	500	3720	287	34394	512	358	1501	35	140	40	1000		

- ① FOR DETAILS SEE SHEET 108
- ② FOR DETAILS SEE SHEET 106
- ③ FOR DETAILS SEE SHEET 106
- ④ PLACED ON DIRECTION OF EROSION CONTROL SUPERVISOR
- ⑤ FOR SEDIMENT CLEANOUT IN EXISTING POND/CHANNEL ON SHEET 454
- ⑥ PROVIDED FOR DUST CONTROL
- ⑦ APPLIED AT THE RATE OF 0.18 GAL PER SQ YD

APRON PROTECTION										HPP/STP FUNDS	L
APRON NO. OR STRUCTURE	INLET OR OUTLET	APRON SIZE RC INCHES	RANDOM RIPRAP			GEOTEXTILE FILTER			SOD TYPE EROSION		
			CLASS II CU YD	CLASS III CU YD	CLASS IV CU YD	TYPE II SQ YD	TYPE III SQ YD	TYPE IV SQ YD			
5014	OUTLET	33	21.3			64					
5016	INLET	24							13		
5017	INLET	18							10		
5023	INLET	24							13		
5041	OUTLET	18	10.9			33					
5048	OUTLET	18	10.9			33					
5061	OUTLET	15							15		
5063	INLET	24							13		
5065	OUTLET	24	5.5			17					
5070	INLET	24							13		
5071	OUTLET	24							15		
5072	INLET	30							19		
5073	OUTLET	30							20		
5080	OUTLET	21	4.2			13					
5200	INLET	4' X 6' BOX							59		
5201	OUTLET	4' X 6' BOX							58		
5312	OUTLET	48			25.8			39			
5337	OUTLET	15							9		
5344	OUTLET	15							9		
5423	OUTLET	36		13.8			28				
5456	OUTLET	42		16.3			33				
5476	INLET	18							10		
5600	INLET	30							19		
5696	INLET	15							8		
5704	INLET	18							10		
5918	OUTLET	24	5.5			17					
5921	OUTLET	18							10		
5923	OUTLET	18							10		
5930	OUTLET	36		13.8			28				
5937	OUTLET	24	5.5			17					
5950	OUTLET	54			29.0			44			
5659	INLET	36							29		
5961	INLET	15							8		
5962	INLET	21							12		
5964	OUTLET	24	5.5			17					
5965	OUTLET	30							19		
5970	OUTLET	36	9.2			28					
5972	INLET	42							34		
PROJECT TOTALS			78.5	43.9	54.8	237	88	82	435		

EROSION CONTROL
APRON PROTECTION

TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist* LIC. NO. 20534 DATE 4/11/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 32 OF 872 SHEETS

TEMPORARY TURF ESTABLISHMENT

HPP/STP FUNDS

M

STATION TO STATION	LOCATION	SEEDING ACRE	SEED MIXTURE		FERTILIZER TYPE 3 ① POUND	MULCH MATERIAL TYPE 3 ② TON	RAPID STABILIZATION METHOD 1 ③ ACRE	RAPID STABILIZATION METHOD 2 ④ ACRE	RAPID STABILIZATION METHOD 3 ⑤ M GALLONS	REMARKS
			TYPE 150	TYPE 190						
			POUND	POUND						
T.H. 65										
STAGE 1A	EXISTING TH 65 SB WIDENING	1.20	48.0		240.0	2.45	1.20			
	SOUTH CROSSOVER	0.25		15.0	50.0	0.50	0.25			
	NORTH CROSSOVER	0.25		15.0	50.0	0.50	0.25			
	PONDS							6.00		
STAGE 1B	NEW TH 65 NB WIDENING	0.90	36.0		180.0	1.80	0.90			
STAGE 2A										
	INPLACE TH 65 SB WIDENING									
	N & S OF PAUL PARKWAY	0.70	28.0		140.0	1.40	0.70		6.00	
	N & S OF 129TH	0.70	28.0		140.0	1.40	0.70		4.00	
	SOUTH CROSSOVER	0.25		15.0	50.0	0.50	0.25			
	NORTH CROSSOVER	0.25		15.0	50.0	0.50	0.25			
STAGE 2B										
	NEW TH 65 NB WIDENING									
	N & S OF PAUL PARKWAY	0.60	24.0		120.0	1.20	0.60			
	N & S OF 129TH	0.60	24.0		120.0	1.20	0.60			
C.S.A.H. 14										
	EAST OF ABERDEEN	1.00	40.0		200.0	2.00	1.00			
	BETWEEN ABERDEEN & TH 65	0.90	36.0		180.0	1.80	0.90	1.00		
	WEST OF ULYSSES	1.10	44.0		220.0	2.25	1.10			
	BETWEEN ULYSSES AND TH 65	0.90	36.0		180.0	1.80	0.90	1.00		
PAUL PARKWAY										
	EAST OF TH 65	1.20	48.0		240.0	2.40	1.20			
	WEST OF TH 65	0.30	12.0		60.0	0.60	0.30			
129TH										
	EAST OF TH 65	0.50	20.0		100.0	1.00	0.50			
	WEST OF TH 65	0.40	16.0		80.0	0.80	0.40			
MISCELLANEOUS										
		2.00	40.0	60.0	400.0	4.00	1.50	0.50	2.00	⑥
STAGING TOTALS		14.0	480	120	2800	28.1	13.5	2.5	18	

- ① FERTILIZER ANALYSIS 10-10-20 APPLIED AT A RATE OF 200 LBS PER ACRE
- ② APPLIED AT A RATE OF 2 TONS PER ACRE
- ③ TYPE 1 MULCH @ 2 TONS/ACRE PLUS DISC ANCHORING
- ④ TYPE 1 MULCH @ 2 TONS/ACRE PLUS TYPE 5 HYDRAULIC SOIL STABILIZER @ 750 LBS/ACRE
- ⑤ TYPE 6 HYDRAULIC SOIL STABILIZER @ 160 LBS/ACRE SEED MIXTURE 190 @ 10 LBS/ 1000 GAL FERTILIZER 10-10-20 @ 50 LBS/ 1000 GAL WATER @ 875 GALLONS/ 1000 GAL NOTE: 1000 GAL COVERS 1/6 ACRE
- ⑥ USED AT THE DIRECTION OF EROSION CONTROL SUPERVISOR

TURF ESTABLISHMENT

HPP/STP FUNDS

N

TURF ESTABLISHMENT PLAN SHEETS	SODDING TYPE LAWN SQ YD.	SEEDING ACRE	SEED MIXTURE				MULCH MATERIAL TYPE 1 ⑧ TON	MULCH MATERIAL TYPE 3 ⑨ TON	DISK ANCHOR ACRE	FERTILIZER TYPE 3 ⑩ POUND	FERTILIZER TYPE 4 ⑪ POUND	FERTILIZER TYPE 4 ⑫ POUND	SUBSOILING ACRE ⑬	REMARKS
			TYPE 250	TYPE 310	TYPE 328 ⑦	TYPE 350								
			POUND	POUND	POUND	POUND								
1		4.3	301			8.6		4.3	1505					
2	1680								105					
3	6331	4.5	203	41		93	5.8	3.2	1470	165	60			
4	1084	4.6	322				9.2		1680					
5	5460								385					
6	4427								280					
7	4882	5.3	259	41		93	7.4	3.2	1645	165	60			
8	1279	3.6	224	25		8	6.4	0.8	1225	15	36			
9	5544	3.6	189	33		42	7.2	1.8	1330	75	48			
10		4.1	287				8.2		1435					
11		2.6	35		82	85	1.0	4.2	175	150	132	1.1		
12		0.9	28		17	26	0.8	1.0	140	45	24	0.2		
TOTALS		30687	33.5	1848	140	99	347	54.6	14.2	33.5	11375	615	360	1.3

- ⑦ APPLICATION RATE OF 84 POUNDS PER ACRE
- ⑧ APPLICATION RATE OF 2 TONS PER ACRE
- ⑨ APPLICATION RATE OF 2 TONS PER ACRE
- ⑩ FERTILIZER ANALYSIS OF 22-5-10 WITH APPLICATION RATE OF 350 POUNDS PER ACRE
- ⑪ FERTILIZER ANALYSIS OF 18-1-8 WITH APPLICATION RATE OF 150 POUNDS PER ACRE
- ⑫ FERTILIZER ANALYSIS OF 18-1-8 WITH APPLICATION RATE OF 120 POUNDS PER ACRE
- ⑬ 991 CU YD OF TOPSOIL BORROW MOD (CV) TO BE USED AS DIRECTED BY THE ENGINEER IN CREATION OF INFILTRATION PONDS ON SHEET NOS. 472 & 473.

TEMPORARY AND PERMANENT TURF ESTABLISHMENT

TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/1/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 33 OF 872 SHEETS

PLOTTED/REVISED: 10-APR-2007 15:51

DISTRICT #: METRO
PLOT NAME: 0208123.tbl
PATH & FILENAME: S:\design\065\0208\123\Final\0208123.tbl.dgn

WATERMAIN

Table with 6 columns: STATION TO STATION, OFFSET (FT), ITEM IN PLACE, REMARKS LEAVE AS IS, OWNERSHIP, NOTES. Contains utility tabulation data for Watermain.

WATERMAIN

Table with 6 columns: STATION TO STATION, OFFSET (FT), ITEM IN PLACE, REMARKS LEAVE AS IS, OWNERSHIP, NOTES. Contains utility tabulation data for Watermain.

NOTES:

- ① WORK TO BE DONE BY CONTRACTOR
② SEE SHEET NOS. 65 TO 79 FOR DETAILS

WATERMAIN

3 OF 18

INPLACE UTILITY TABULATIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY [Signature] LIC. NO. 20534

DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 36 OF 872 SHEETS

PLOTTED/REVISED: 02-APR-2007 09:18

DISTRICT #: METRO
I/PLOT NAME: 0208123_uf1_tab03
PATH & FILENAME: S:\DESIGN\065\0208\23\F\Inplace\0208123_uf1_tab.dgn

[Signature] LICENSED PROFESSIONAL ENGINEER

PLOTTED/REVISED: 02-APR-2007 09:18

DISTRICT #: METRO
 IPLOT NAME: 0208123_util Job05
 PATH & FILENAME: S:\DESIGN\065\0208123\UTIL\0208123_util Job.dgn

WATERMAIN

STATION TO STATION	OFFSET (FT)	ITEM IN PLACE	REMARKS		OWNERSHIP	NOTES ①
			LEAVE AS IS			
ABERDEEN ST. (ABERD)						
138 + 36	32 'RT	HYDRANT	X		CITY OF BLAINE	
138 + 36 TO 135 + 99	32 'RT TO 47 'RT	DIP WM	X		CITY OF BLAINE	
135 + 99	47 'RT	HYDRANT	X		CITY OF BLAINE	
135 + 99 TO 134 + 49	47 'RT TO 86 'RT	DIP WM	X		CITY OF BLAINE	
158 + 39 TO 160 + 24	5 'LT TO 6 'LT	DIP WM	X		CITY OF BLAINE	
160 + 24	6 'LT	VALVE	X		CITY OF BLAINE	
160 + 24 TO 160 + 33	6 'LT TO 5 'LT	DIP WM	X		CITY OF BLAINE	
160 + 33	5 'LT	VALVE	X		CITY OF BLAINE	
160 + 33 TO 161 + 47	5 'LT TO 9 'LT	DIP WM	X		CITY OF BLAINE	
161 + 47	9 'LT	HYDRANT	X		CITY OF BLAINE	
161 + 47 TO 161 + 65	9 'LT TO 6 'LT	DIP WM	X		CITY OF BLAINE	
161 + 65	6 'LT	VALVE	X		CITY OF BLAINE	
161 + 65 TO 162 + 09	6 'LT TO 9 'LT	DIP WM	X		CITY OF BLAINE	
162 + 09	9 'LT	VALVE	X		CITY OF BLAINE	
162 + 09 TO 162 + 99	9 'LT TO 9 'LT	DIP WM	X		CITY OF BLAINE	
162 + 99	9 'LT	VALVE	X		CITY OF BLAINE	
162 + 99 TO 163 + 62	9 'LT TO 9 'LT	VALVE	X		CITY OF BLAINE	
129TH AVE. (29)						
11 + 10	25 'RT	HYDRANT	X		CITY OF BLAINE	
11 + 10	25 'RT TO 13 'RT	DIP WM	X		CITY OF BLAINE	
11 + 10 TO 13 + 45	9 'RT TO 8 'RT	DIP WM	X		CITY OF BLAINE	
13 + 45	8 'RT	VALVE	X		CITY OF BLAINE	
13 + 45	8 'RT TO 24 'RT	DIP WM	X		CITY OF BLAINE	
13 + 45 TO 13 + 91	8 'RT TO 7 'RT	DIP WM	X		CITY OF BLAINE	
13 + 91	11 'RT	VALVE			CITY OF BLAINE	②
13 + 91	19 'RT	HYDRANT			CITY OF BLAINE	②
13 + 91 TO 16 + 79	7 'RT TO 8 'RT	DIP WM			CITY OF BLAINE	②
16 + 79 TO 19 + 80	8 'RT TO 12 'LT	DIP WM			CITY OF BLAINE	②
19 + 80	12 'LT TO 42 'LT	DIP WM			CITY OF BLAINE	②
19 + 80	42 'LT	VALVE			CITY OF BLAINE	②
19 + 80	47 'LT	HYDRANT			CITY OF BLAINE	②
19 + 80 TO 21 + 58	12 'LT TO 13 'LT	DIP WM	X		CITY OF BLAINE	
21 + 58	13 'LT TO 27 'LT	DIP WM	X		CITY OF BLAINE	
21 + 58	27 'LT	VALVE	X		CITY OF BLAINE	
21 + 58 TO 23 + 90	13 'LT TO 15 'LT	DIP WM	X		CITY OF BLAINE	
23 + 90	15 'LT	VALVE	X		CITY OF BLAINE	
23 + 90 TO 25 + 73	15 'RT TO 13 'RT	DIP WM	X		CITY OF BLAINE	
ULYSSES ST. (ULYSS)						
109 + 73	28 'LT	VALVE	X		CITY OF BLAINE	
109 + 73	28 'LT	HYDRANT	X		CITY OF BLAINE	
109 + 73 TO 111 + 34	28 'LT TO 32 'LT	DIP WM	X		CITY OF BLAINE	
111 + 34	32 'LT	VALVE	X		CITY OF BLAINE	
111 + 34 TO 112 + 53	32 'LT TO 27 'LT	DIP WM	X		CITY OF BLAINE	
112 + 53	32 'LT	VALVE	X		CITY OF BLAINE	
112 + 53	32 'LT	HYDRANT	X		CITY OF BLAINE	
112 + 53 TO 112 + 66	32 'LT TO 24 'LT	DIP WM	X		CITY OF BLAINE	
112 + 66	24 'LT	VALVE	X		CITY OF BLAINE	
112 + 66 TO 112 + 76	24 'LT TO 24 'LT	DIP WM	X		CITY OF BLAINE	
117 + 67	104 'RT	VALVE	X		CITY OF BLAINE	
117 + 67 TO 119 + 80	104 'LT TO 16 'LT	DIP WM	X		CITY OF BLAINE	
119 + 80	16 'RT	VALVE	X		CITY OF BLAINE	
119 + 80	22 'RT	VALVE	X		CITY OF BLAINE	
119 + 80	21 'RT TO 51 'RT	DIP WM	X		CITY OF BLAINE	
119 + 79	51 'RT	VALVE	X		CITY OF BLAINE	
119 + 80 TO 120 + 19	16 'RT TO 16 'RT	DIP WM	X		CITY OF BLAINE	
120 + 19	16 'RT	HYDRANT	X		CITY OF BLAINE	
120 + 19	20 'RT	VALVE	X		CITY OF BLAINE	
120 + 19 TO 120 + 94	16 'RT TO 14 'RT	DIP WM	X		CITY OF BLAINE	
120 + 94 TO 120 + 93	14 'RT TO 46 'RT	DIP WM	X		CITY OF BLAINE	
120 + 93	46 'RT	VALVE	X		CITY OF BLAINE	
120 + 93	49 'RT	VALVE	X		CITY OF BLAINE	
120 + 94 TO 122 + 98	46 'RT TO 8 'RT	DIP WM	X		CITY OF BLAINE	
122 + 98	8 'RT	HYDRANT	X		CITY OF BLAINE	
122 + 98 TO 123 + 87	8 'RT TO 74 'RT	DIP WM	X		CITY OF BLAINE	

NOTES:

- ① WORK TO BE DONE BY CONTRACTOR
- ② SEE SHEET NOS. 65 TO 79 FOR DETAILS

WATERMAIN
5 OF 18

INPLACE UTILITY TABULATIONS

DRAWN BY: LM CHECKED BY: MW CERTIFIED BY: Joseph Lundquist LIC. NO. 20534 DATE: 4/3/07 STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 38 OF 872 SHEETS

PLOTTED/REVISED: 02-APR-2007 08:51

DISTRICT #: METRO
PLOT NAME: 0208123_uf1_tab08
PATH & FILENAME: S:\des\gn\065\0208123\Final\sheet\T0FO_UT\IL\0208123_uf1_tab.dgn

TELEPHONE / CABLE TV table with columns: STATION TO STATION, OFFSET (FT), ITEM IN PLACE, RELOCATE, ADJUST, LEAVE AS IS, OWNERSHIP, NOTES. Includes sections for CSAH14 (242E) and ABERDEEN ST. (ABERD).

TELEPHONE / CABLE TV table with columns: STATION TO STATION, OFFSET (FT), ITEM IN PLACE, RELOCATE, ADJUST, LEAVE AS IS, OWNERSHIP, NOTES. Includes sections for ABERDEEN ST. (ABERD), 129TH AVE. (129), and ULYSSES ST. (ULYSS).

TELEPHONE / CABLE TV
8 OF 18

INPLACE UTILITY TABULATIONS

INPLACE STORM SEWER

HPP/STP FUNDING (4)

0

Table with 12 columns: STATION TO STATION, OFFSET (FT), ITEM INPLACE, LEAVE AS IS, ADJUST FRAME & RING CASTING, REMOVALS (MANHOLE OR CATCH BASIN, PIPE SEWER, CONC. APRON), SALVAGE (CSTG. ASSY.), FLOWLINE ELEV., TOP OF CASTING, NOTES. Includes sub-totals for 17 manholes, 1958 pipe lin ft, and 5 aprons.

INPLACE STORM SEWER

HPP/STP FUNDING (4)

0

Table with 12 columns: STATION TO STATION, OFFSET (FT), ITEM INPLACE, LEAVE AS IS, ADJUST FRAME & RING CASTING, REMOVALS (MANHOLE OR CATCH BASIN, PIPE SEWER, CONC. APRON), SALVAGE (CSTG. ASSY.), FLOWLINE ELEV., TOP OF CASTING, NOTES. Includes sub-totals for 5 manholes, 11 pipe lin ft, 760 aprons, and 2 castings.

NOTES:

- 1 EQUAL TO OR LARGER THAN 48"
2 CONNECTS TO ABERD
3 CASTINGS FROM STRUCTURES WHICH ARE TO BE REMOVED SHOULD BE SALVAGED AND SET ASIDE. THE CITY OF BLAINE PUBLIC WORKS DEPT. WILL COLLECT ALL SALVAGED CASTINGS.
4 WORK TO BE DONE BY CONTRACTOR

INPLACE STORM SEWER

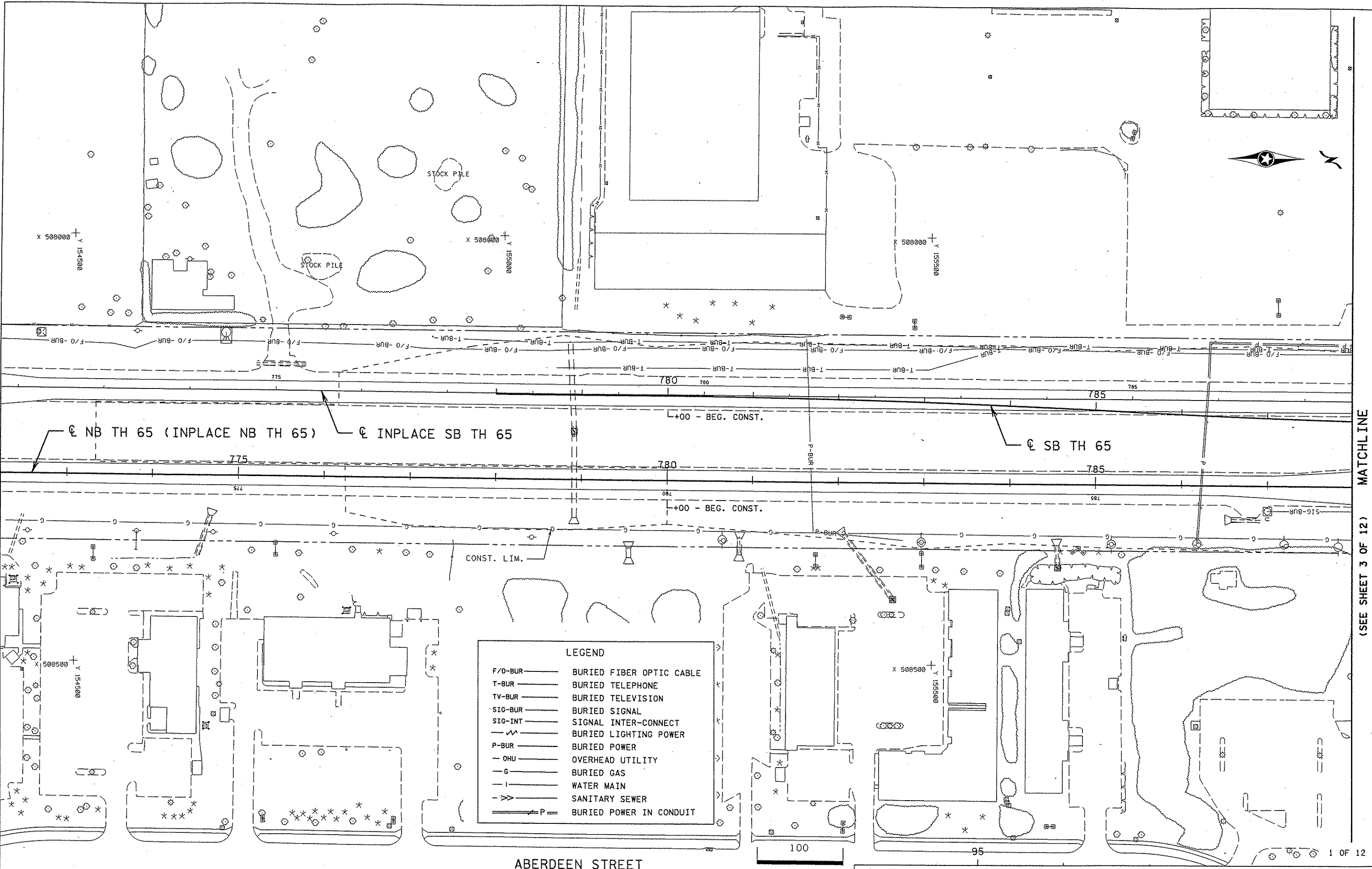
INPLACE UTILITY TABULATIONS

DRAWN BY: TP CHECKED BY: MW CERTIFIED BY: Josephine Lundquist LICENSED PROFESSIONAL ENGINEER LIC. NO. 20534 DATE 4/3/07 STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 48 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 02-APR-2007 08:02

DISTRICT #: METRO
PLOT NAME: 0208123_topA
PATH & FILENAME: S:\Design\065\0208123\TopA\Utilities\TOPO_UTL\0208123_topA.dgn



LEGEND

F/O-BUR	BURIED FIBER OPTIC CABLE
T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
(Symbol)	BURIED LIGHTING POWER
P-BUR	BURIED POWER
OHU	OVERHEAD UTILITY
(Symbol)	BURIED GAS
(Symbol)	WATER MAIN
(Symbol)	SANITARY SEWER
(Symbol)	BURIED POWER IN CONDUIT

(SEE SHEET 3 OF 12) MATCHLINE

1 OF 12

DRAWN BY: CJG CHECKED BY: DY CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE 4/3/07

SCALE IN FEET **TOPOGRAPHY AND INPLACE UTILITIES** STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 52 OF 872 SHEETS

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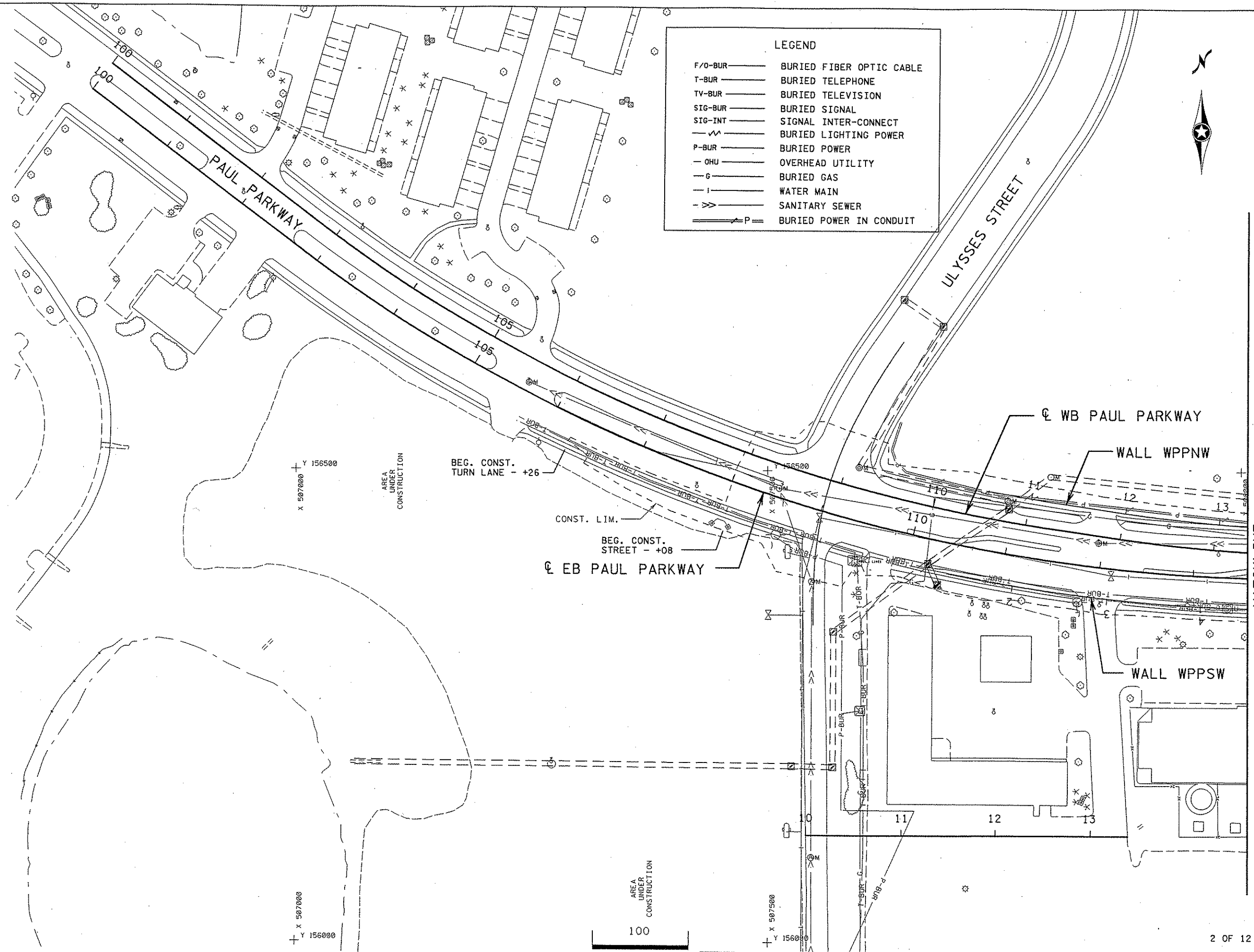
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Y 156500

X 507000
Y 156500

X 506500
Y 156000

X 507000
Y 156000

LEGEND	
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T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
~	BURIED LIGHTING POWER
P-BUR	BURIED POWER
-OHU	OVERHEAD UTILITY
-G	BURIED GAS
-I	WATER MAIN
-S	SANITARY SEWER
-P	BURIED POWER IN CONDUIT



SCALE IN FEET
100

MATCHLINE
(SEE SHEET 3 OF 12)

2 OF 12

DRAWN BY: CJG

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/3/07

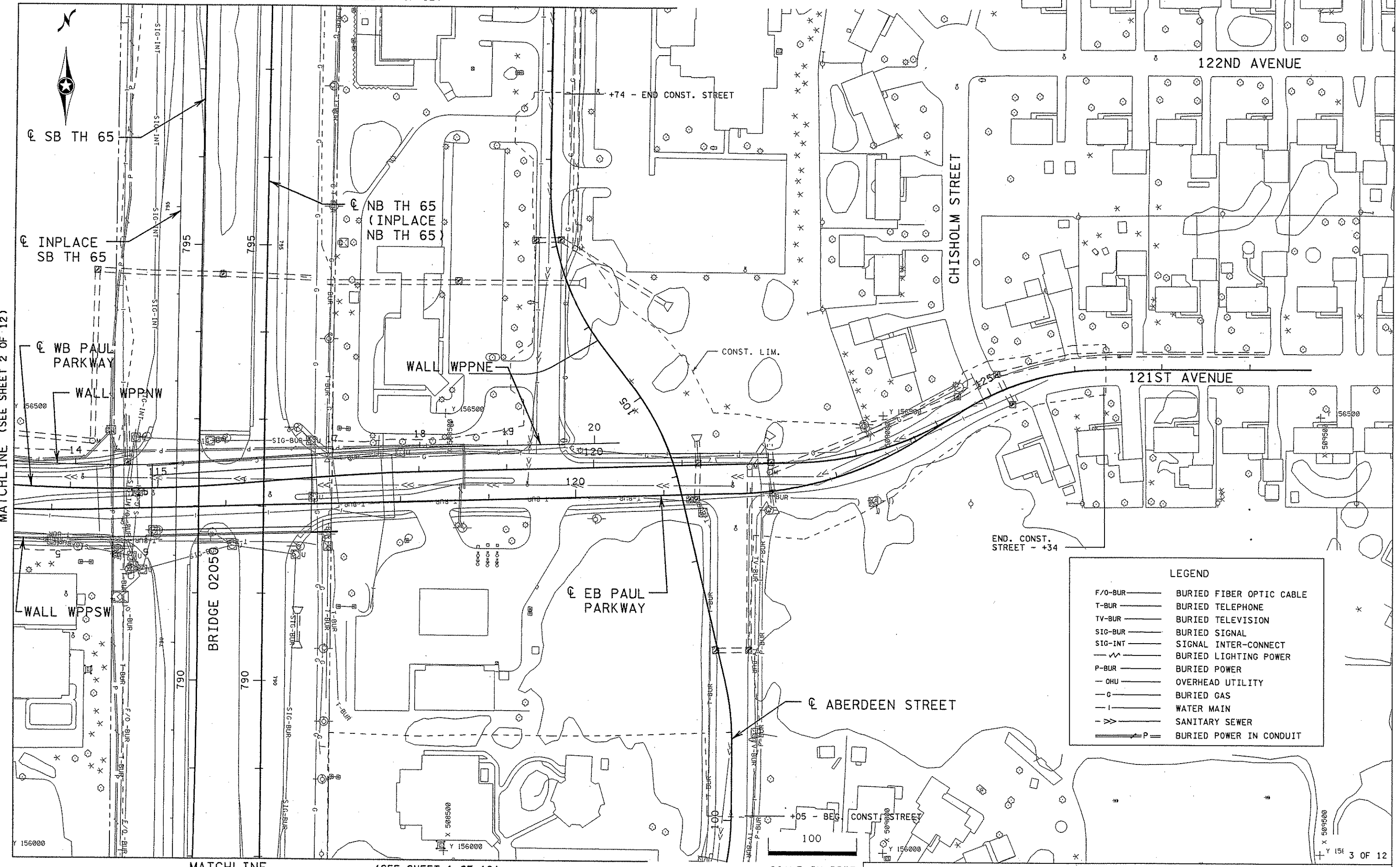
TOPOGRAPHY AND INPLACE UTILITIES
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 53 OF 872 SHEETS

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PLOTTED/REVISED: 02-APR-2007 08:02

MATCHLINE (SEE SHEET 2 OF 12)

MATCHLINE (SEE SHEET 4 OF 12)



MATCHLINE (SEE SHEET 1 OF 12)

SCALE IN FEET

LEGEND	
F/O-BUR	BURIED FIBER OPTIC CABLE
T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
---	BURIED LIGHTING POWER
P-BUR	BURIED POWER
OHU	OVERHEAD UTILITY
G	BURIED GAS
W	WATER MAIN
S	SANITARY SEWER
P	BURIED POWER IN CONDUIT

TOPOGRAPHY AND INPLACE UTILITIES

DRAWN BY: CJG CHECKED BY: OY CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 54 OF 872 SHEETS

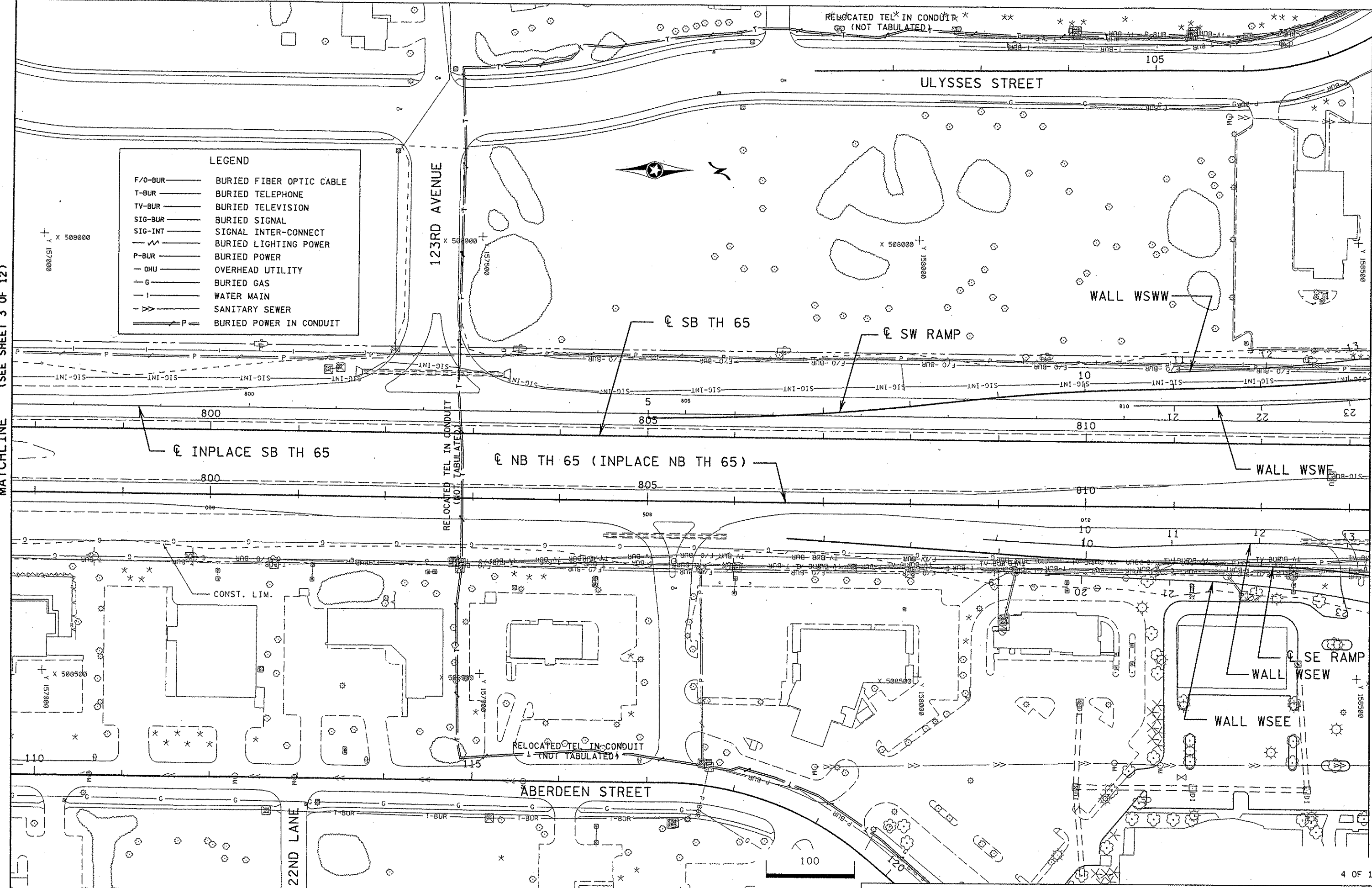
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PLOTTED/REVISED: 02-APR-2007 08:02

MATCHLINE (SEE SHEET 3 OF 12)

MATCHLINE (SEE SHEET 7 OF 12)

LEGEND	
F/O-BUR	BURIED FIBER OPTIC CABLE
T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
⚡	BURIED LIGHTING POWER
P-BUR	BURIED POWER
OHU	OVERHEAD UTILITY
G	BURIED GAS
W	WATER MAIN
S	SANITARY SEWER
P	BURIED POWER IN CONDUIT



DRAWN BY: CJG

CHECKED BY: DY

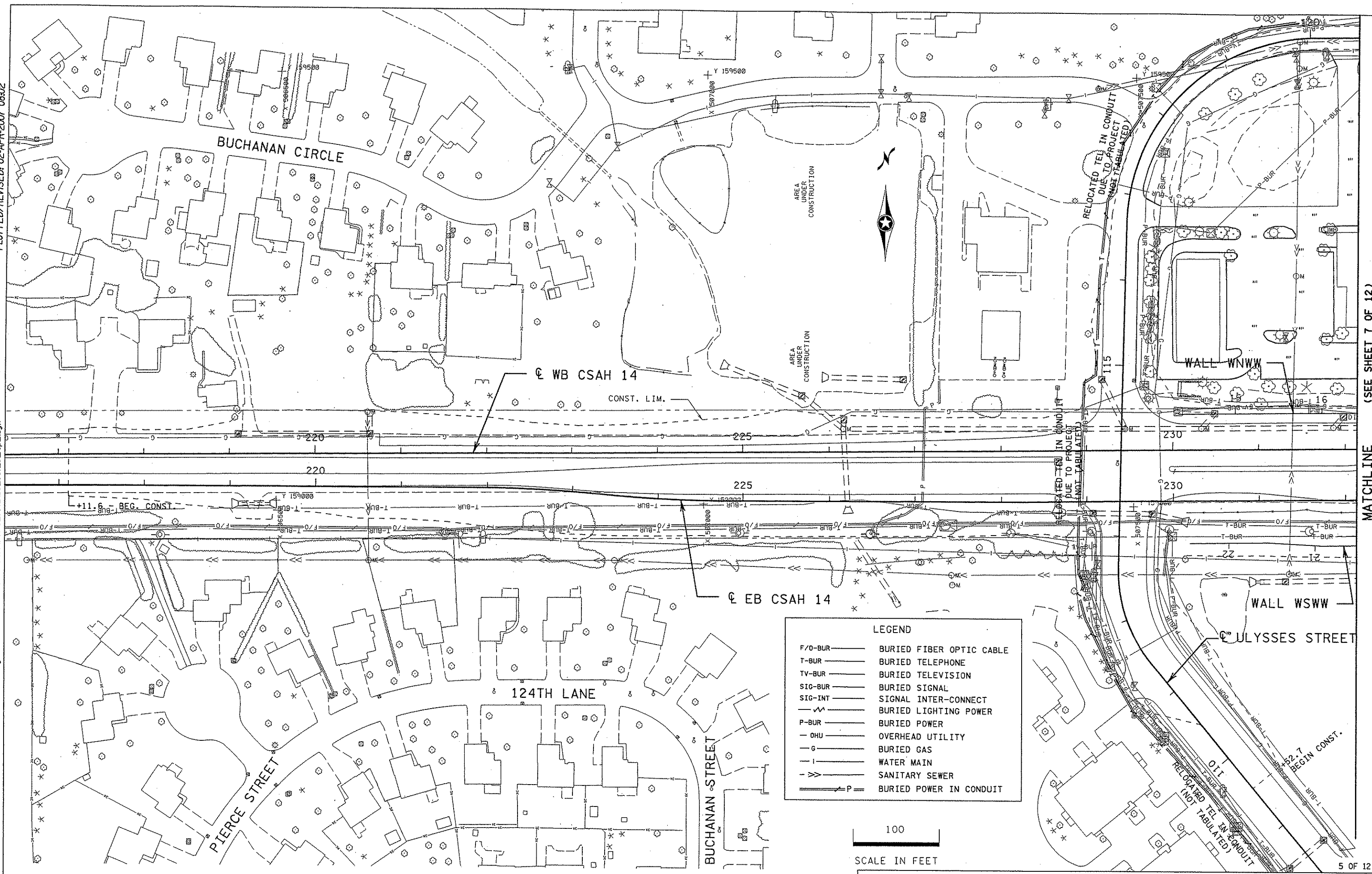
CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 55 OF 872 SHEETS

TOPOGRAPHY AND INPLACE UTILITIES

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 PLOTTED/REVISED: 02-APR-2007 08:02



LEGEND	
F/O-BUR	BURIED FIBER OPTIC CABLE
T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
—	BURIED LIGHTING POWER
P-BUR	BURIED POWER
— OHU	OVERHEAD UTILITY
— G	BURIED GAS
— W	WATER MAIN
— S	SANITARY SEWER
— P	BURIED POWER IN CONDUIT

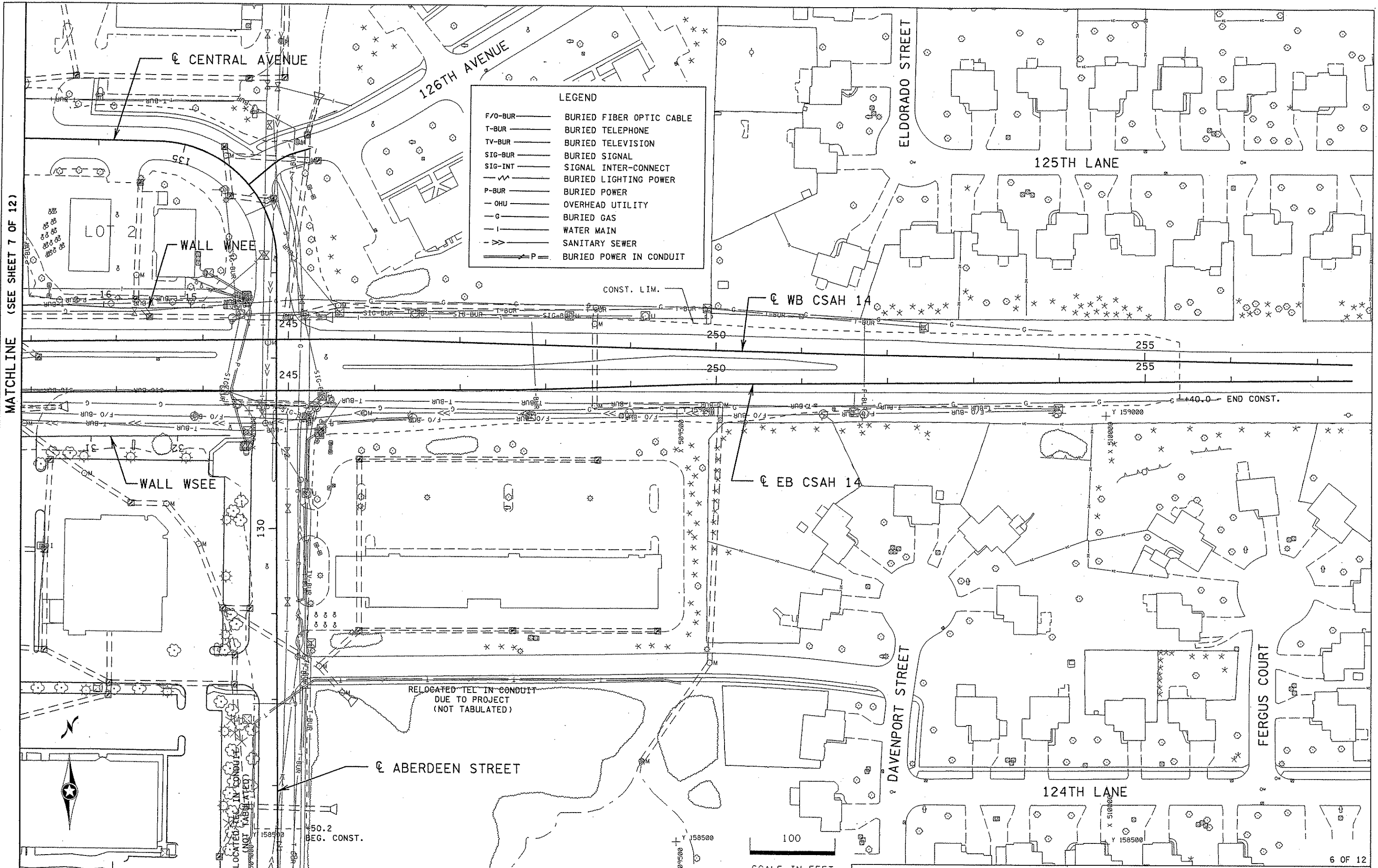
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SCALE IN FEET

TOPOGRAPHY AND INPLACE UTILITIES

MATCHLINE (SEE SHEET 7 OF 12)

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PLOTTED/REVISED: 02-APR-2007 08:02
(SEE SHEET 7 OF 12)



MATCHLINE (SEE SHEET 5 OF 12)



LEGEND

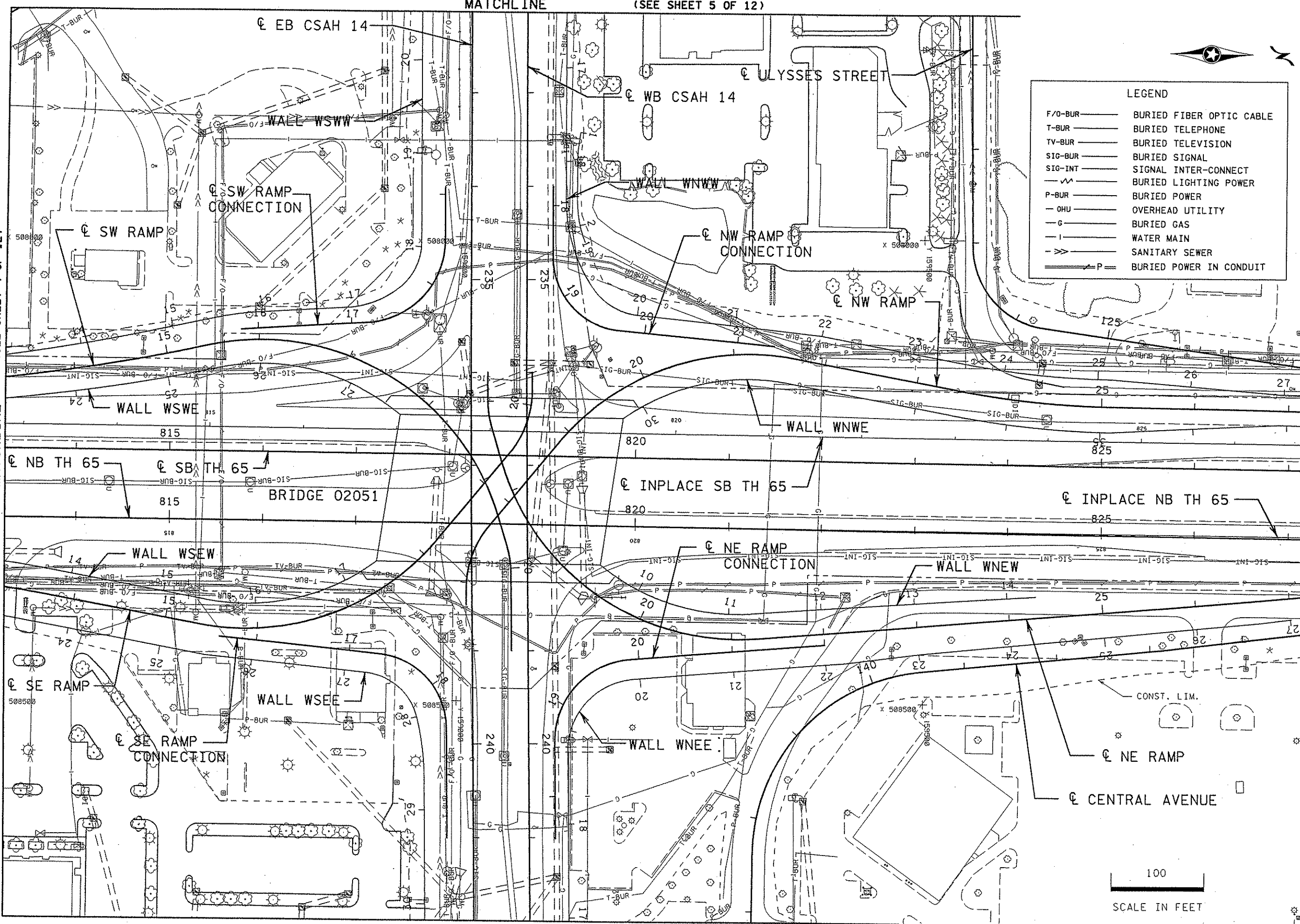
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T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
~	BURIED LIGHTING POWER
P-BUR	BURIED POWER
-OHU	OVERHEAD UTILITY
-G	BURIED GAS
-I	WATER MAIN
-S	SANITARY SEWER
-P	BURIED POWER IN CONDUIT

PLOTTED/REVISED: 02-APR-2007 08:02

(SEE SHEET 4 OF 12)

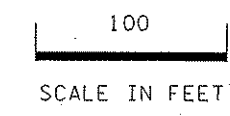
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(SEE SHEET 8 OF 12)

MATCHLINE



MATCHLINE (SEE SHEET 6 OF 12)

TOPOGRAPHY AND INPLACE UTILITIES

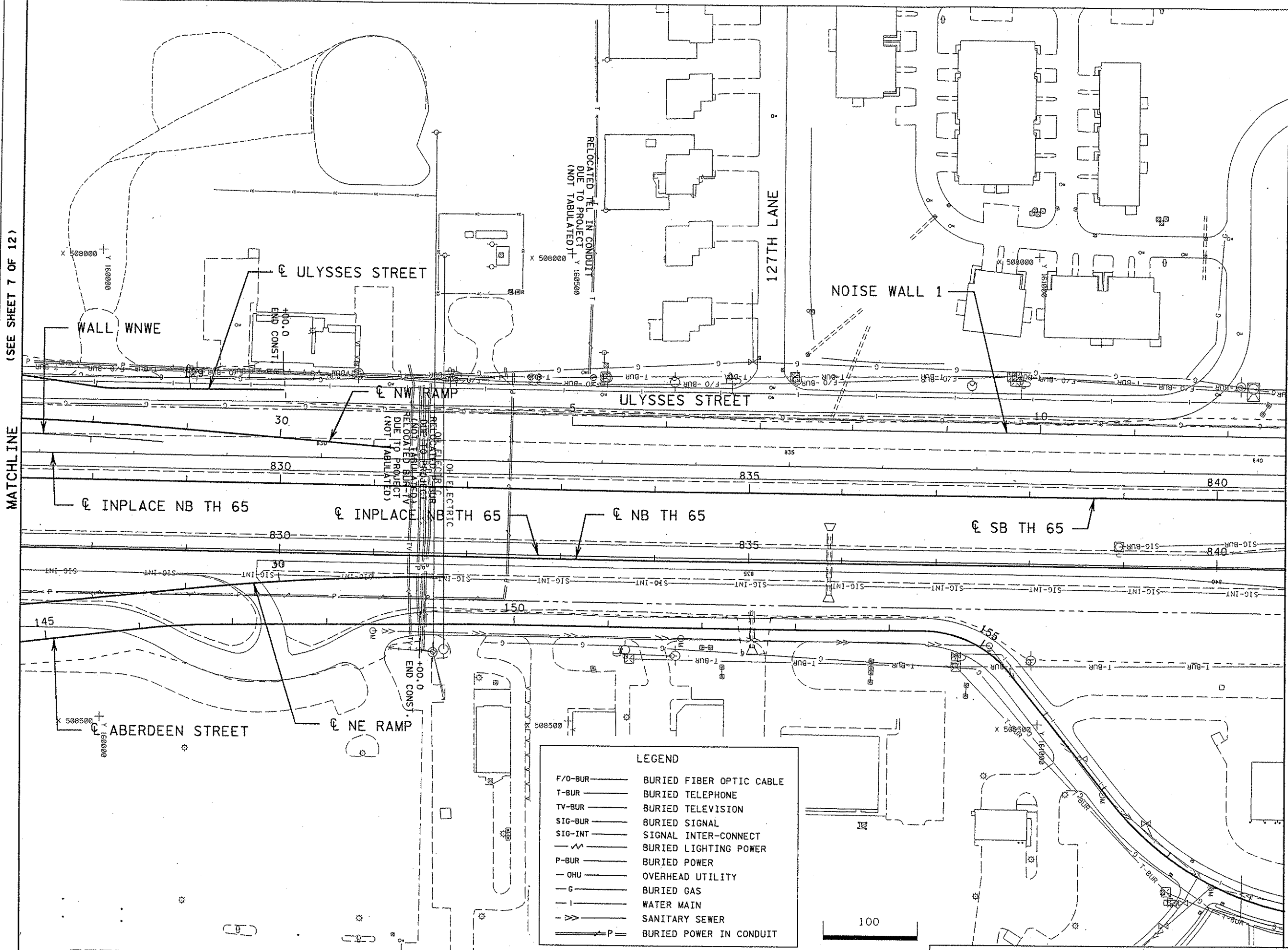
DRAWN BY: CJG

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

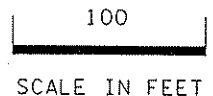
LIC. NO. 20534 DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 58 OF 872 SHEETS



LEGEND

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T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
—	BURIED LIGHTING POWER
P-BUR	BURIED POWER
— OHU	OVERHEAD UTILITY
— G	BURIED GAS
— W	WATER MAIN
— S	SANITARY SEWER
— P	BURIED POWER IN CONDUIT



TOPOGRAPHY AND INPLACE UTILITIES

DRAWN BY: CJG

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

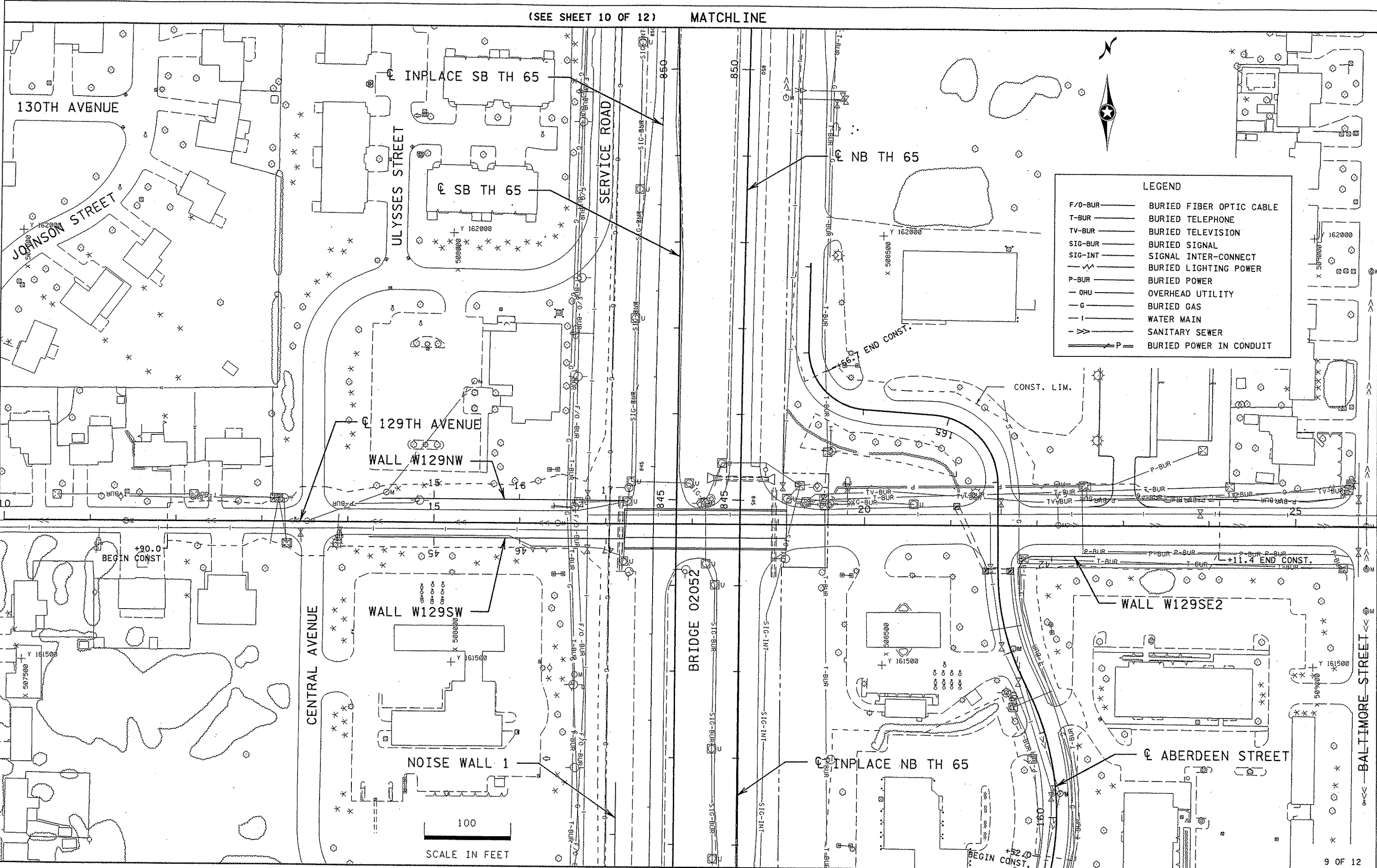
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STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 59 OF 872 SHEETS

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T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
—	BURIED LIGHTING POWER
P-BUR	BURIED POWER
—	OVERHEAD UTILITY
G	BURIED GAS
—	WATER MAIN
—	SANITARY SEWER
—	BURIED POWER IN CONDUIT

DISTRICT #: METRO
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TOPOGRAPHY AND INPLACE UTILITIES

DRAWN BY: CJG

CHECKED BY: *DY*

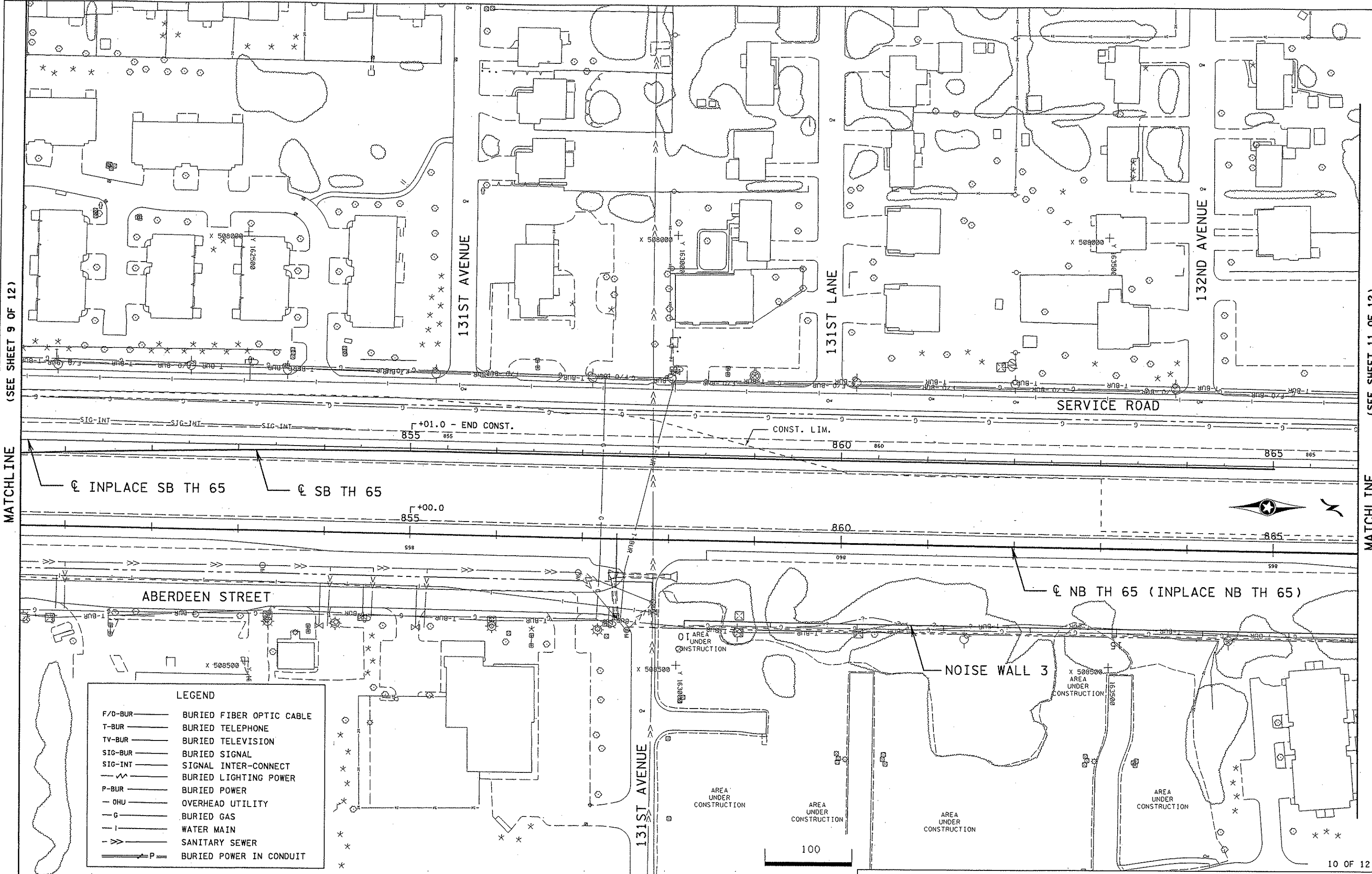
CERTIFIED BY: *Josephine Lundquist*

LIC. NO. 20534 DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 60 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 02-APR-2007 08:03



DRAWN BY: CJG

CHECKED BY: *oy*

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 61 OF 872 SHEETS

TOPOGRAPHY AND INPLACE UTILITIES

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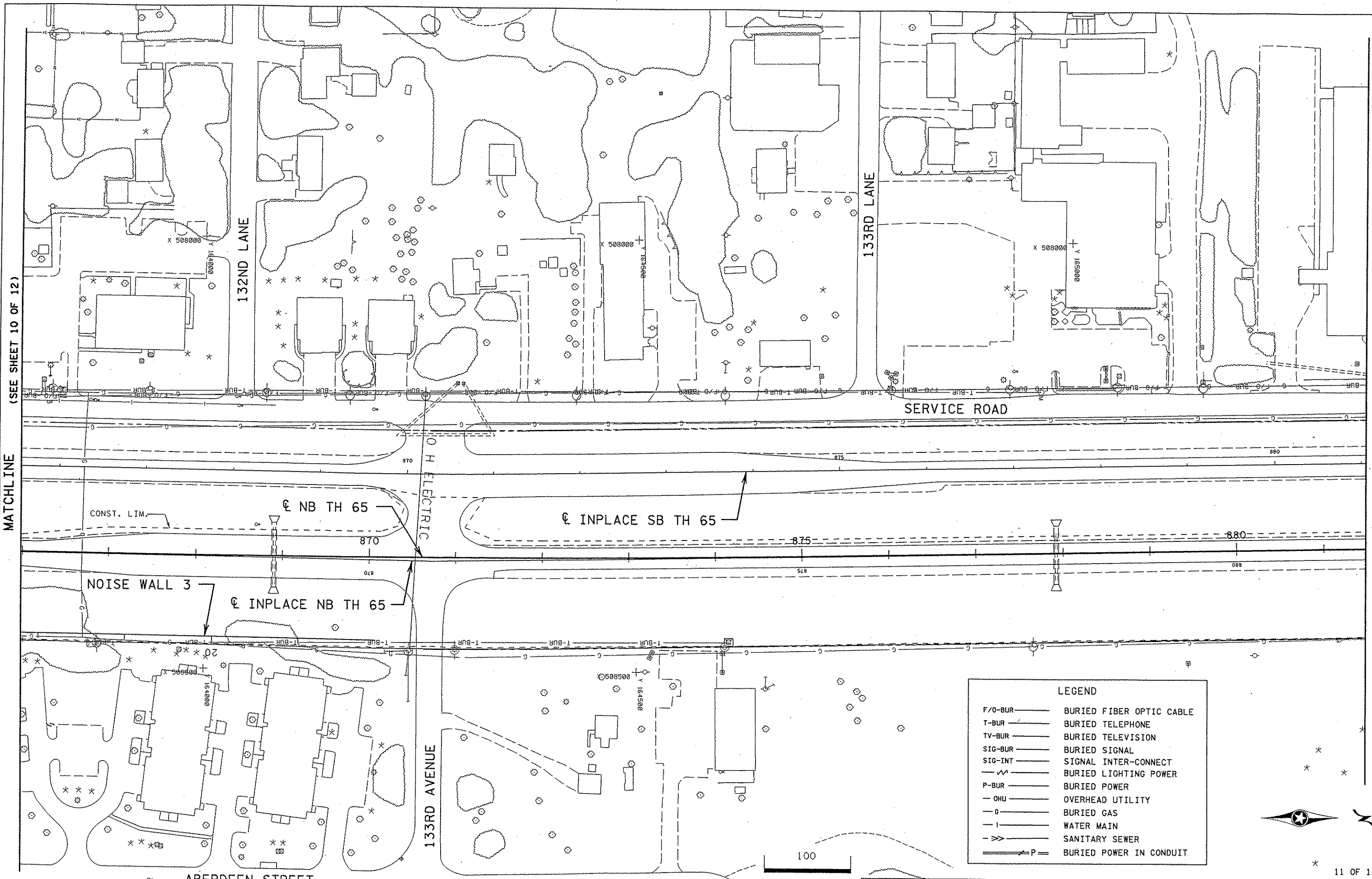
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(SEE SHEET 10 OF 12)

MATCHLINE

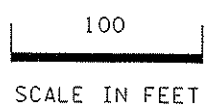
(SEE SHEET 12 OF 12)

MATCHLINE



LEGEND

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T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
—	BURIED LIGHTING POWER
P-BUR	BURIED POWER
— OHU	OVERHEAD UTILITY
— G	BURIED GAS
— W	WATER MAIN
— S	SANITARY SEWER
— P	BURIED POWER IN CONDUIT



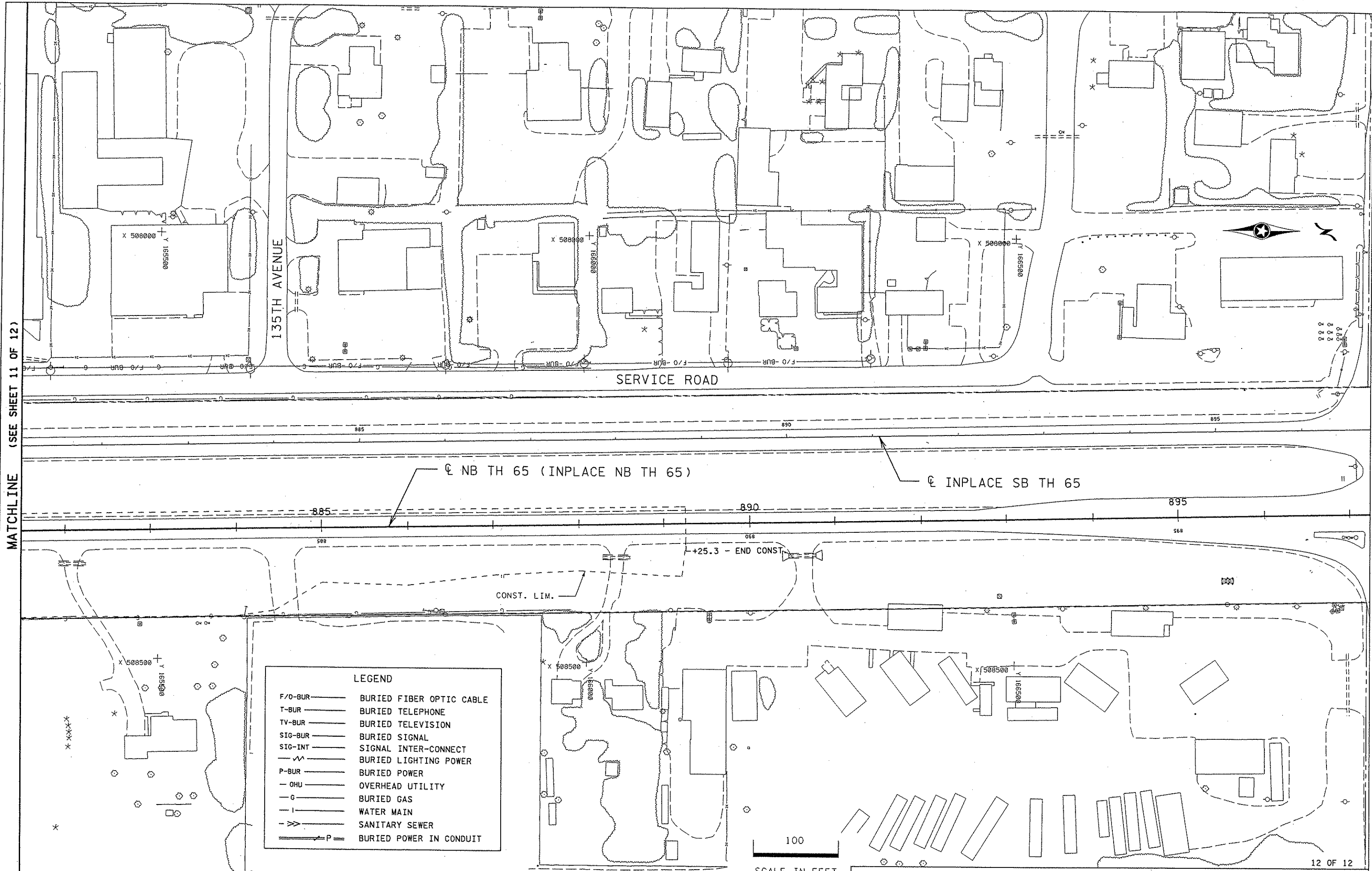
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CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/3/07

TOPOGRAPHY AND INPLACE UTILITIES



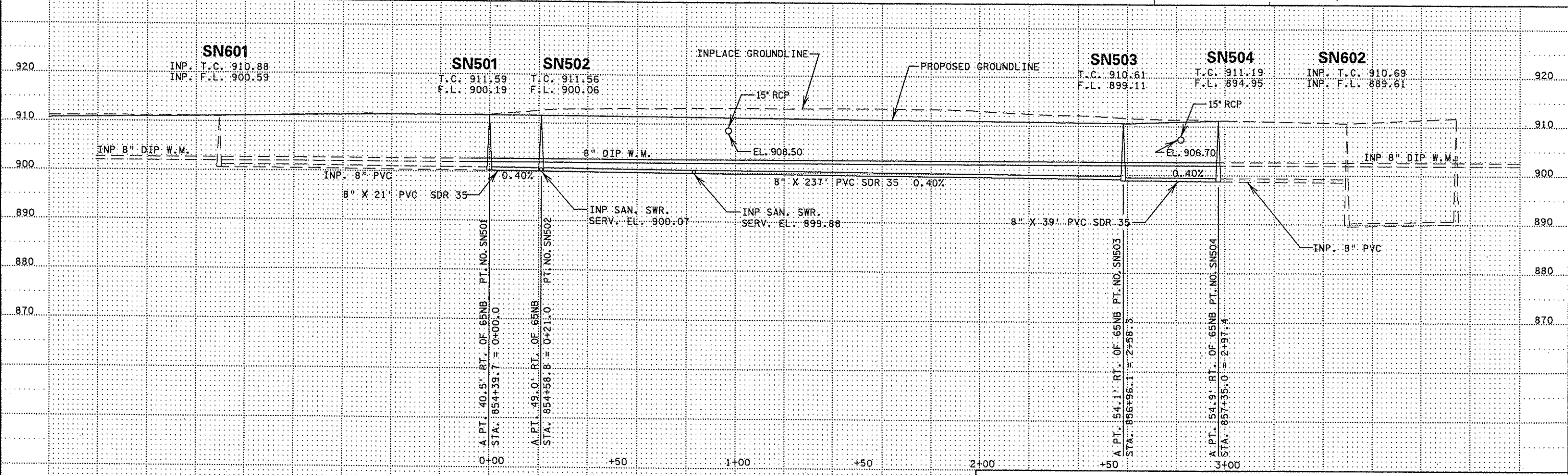
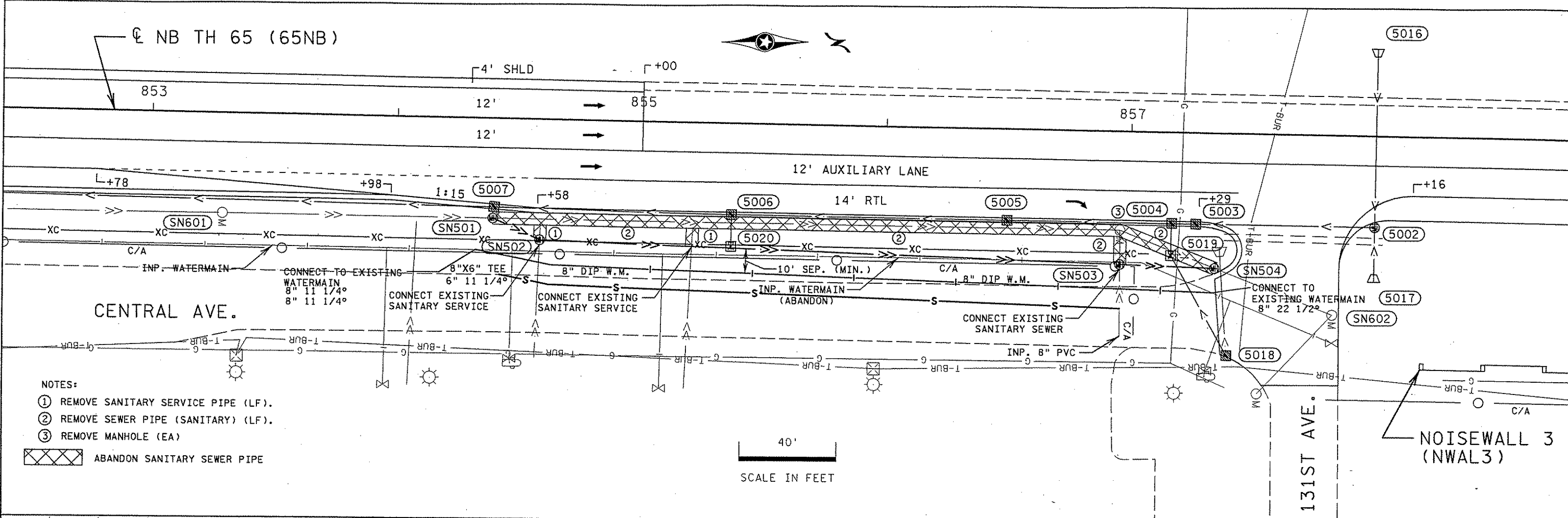
LEGEND

F/O-BUR	BURIED FIBER OPTIC CABLE
T-BUR	BURIED TELEPHONE
TV-BUR	BURIED TELEVISION
SIG-BUR	BURIED SIGNAL
SIG-INT	SIGNAL INTER-CONNECT
⚡	BURIED LIGHTING POWER
P-BUR	BURIED POWER
— OHU	OVERHEAD UTILITY
— G	BURIED GAS
— W	WATER MAIN
— S	SANITARY SEWER
— P	BURIED POWER IN CONDUIT

100
SCALE IN FEET

TOPOGRAPHY AND INPLACE UTILITIES

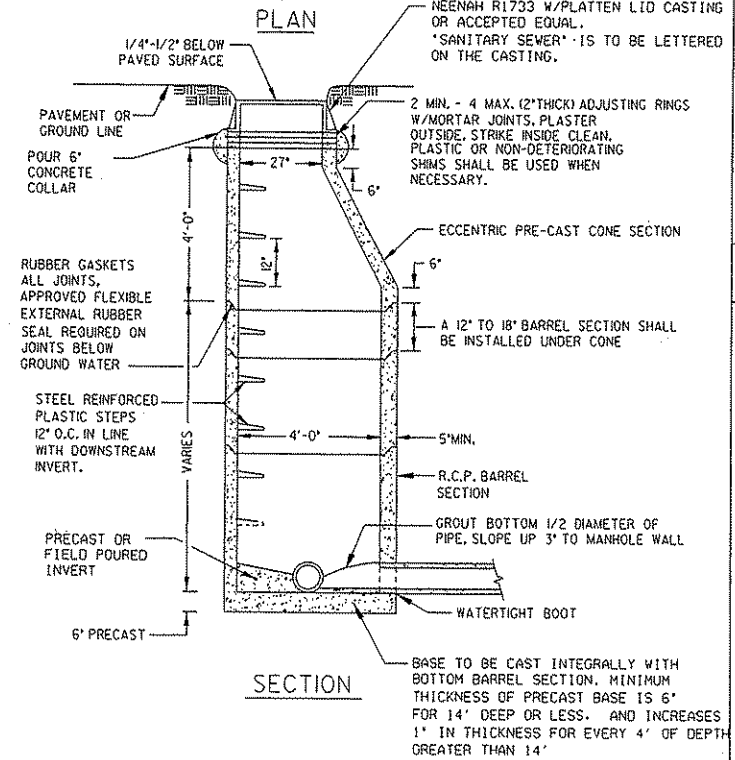
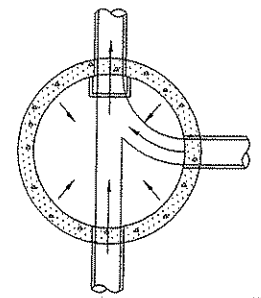
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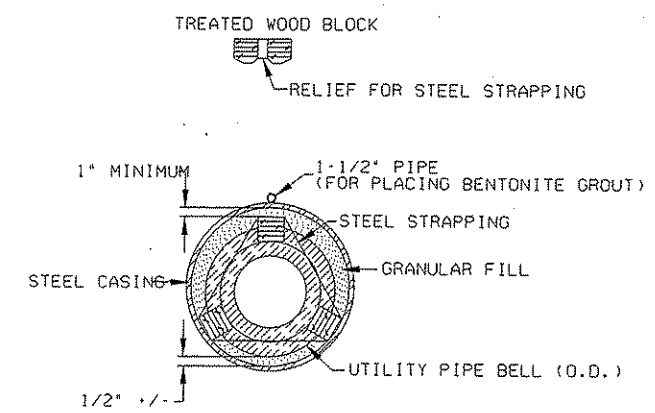
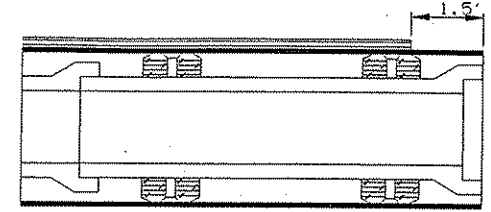
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PLOTTED/REVISED: 05-APR-2007 13:57

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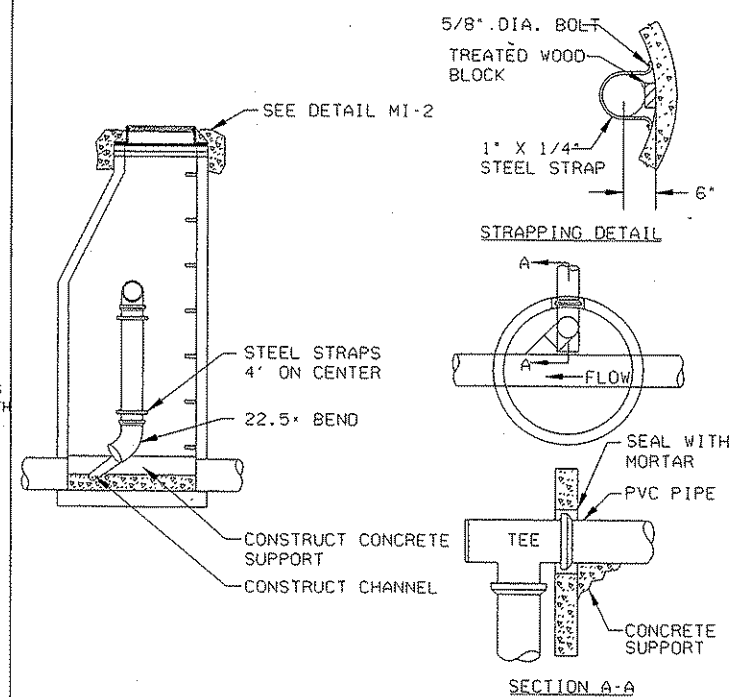


DRAINAGE STRUCTURE DESIGN SPECIAL 4 & 5
STANDARD SANITARY MANHOLE (ECCENTRIC)



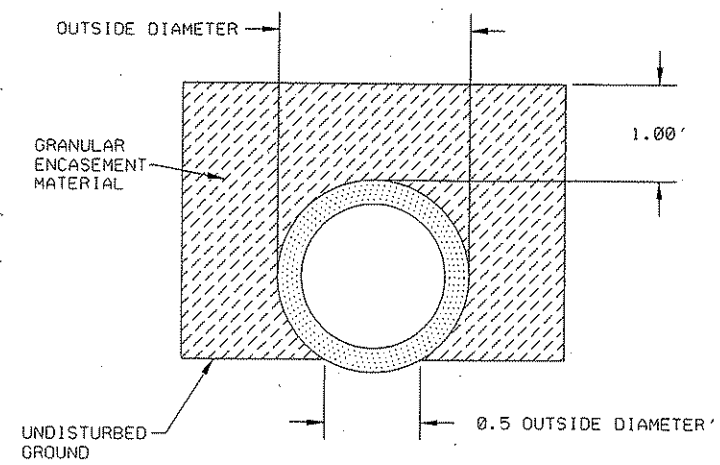
NOTE: BLOCKING & STRAPPING MATERIALS SHALL BE APPROVED BY ENGINEER PRIOR TO USE.
2 SETS OF WOOD BLOCKING ARE REQUIRED FOR EACH SECTION OF PIPE.

BLOCKING DETAIL FOR STEEL CASING



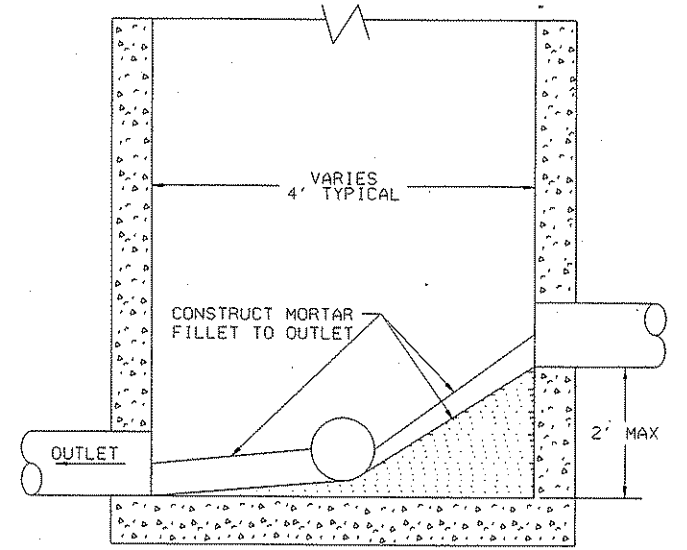
100% CITY FUNDS
NOTES:
1. INSIDE DROPS SHALL BE 'INTRAFLW' LOW-PROFILE DROP SYSTEMS AS MANUFACTURED BY ROYAL ENVIRONMENTAL SYSTEMS. SEE STANDARD SPECIFICATIONS.

INSIDE DROP EXISTING MANHOLE



NOTES:
THIS IS THE STANDARD PIPE BEDDING APPLICATION UNLESS OTHER BEDDING IS SPECIFIED.
THE BOTTOM OF THE TRENCH SHALL BE SHAPED TO FIT THE BARREL OF THE PIPE FOR AT LEAST 50% OF THE OUTSIDE DIAMETER OF THE PIPE. THE REMAINDER OF THE PIPE IS TO BE SURROUNDED TO A HEIGHT OF AT LEAST 1' ABOVE ITS TOP. GRANULAR ENCASEMENT MATERIAL SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS.

CLASS C PIPE BEDDING



TYPICAL SANITARY MANHOLE INVERT

I hereby certify that sheets 65-79 were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Certified By: *Greg Anderson* Lic. No. 26859
Printed Name: GREG ANDERSON Date: 4/5/07

DETAILS

FILE NO.
ABLAINE0704.00

DRAWN BY: JMK CHECKED BY: GA

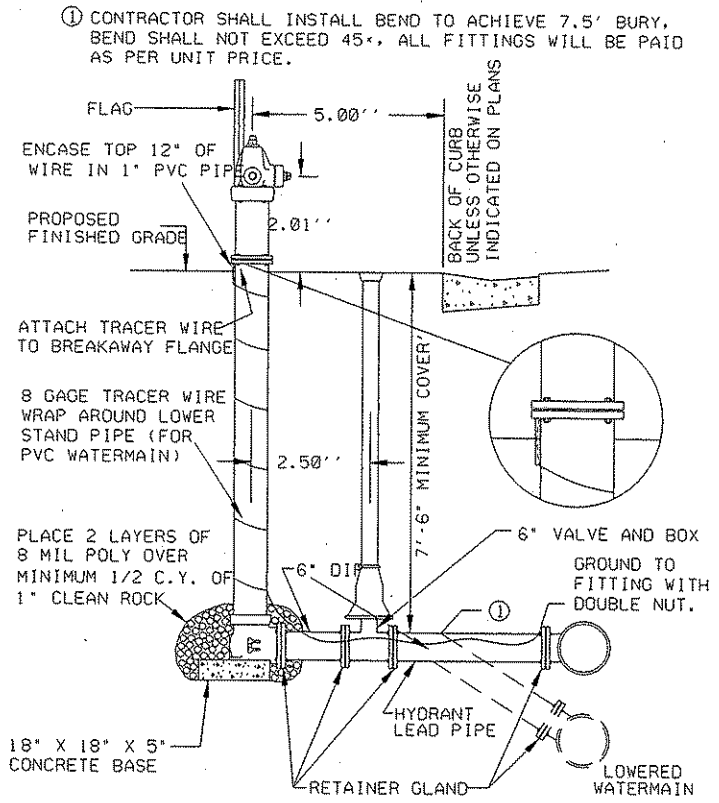
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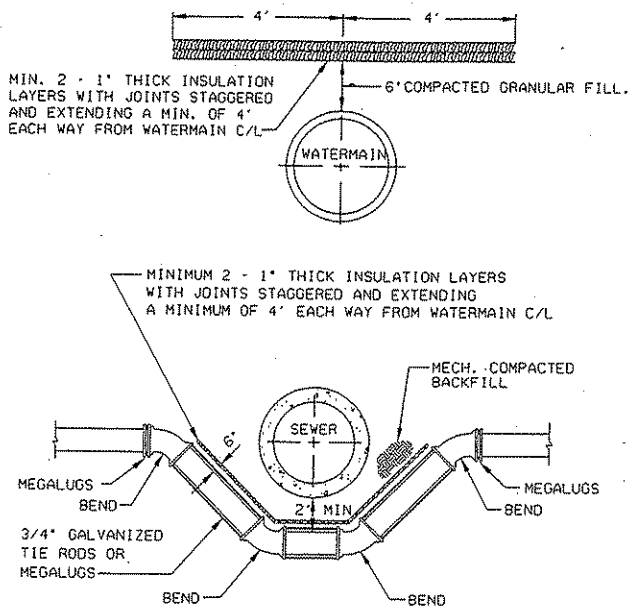
BENDS	PIPE SIZE									
	6"	8"	10"	12"	14"	16"	18"	20"	24"	
90°	39	57	89	108	210	264	335	400	565	
45°	32	46	70	86	164	202	250	305	405	
22 1/2°	32	46	64	84	148	178	255	310	412	
11 1/4°	30	42	58	74	130	158	205	245	315	
SLEEVES										
SHORT	28	38	49	56	111	130	160	195	255	
LONG	36	46	62	76	140	172	225	255	335	
PLUG CAP										
	18	26	36	46	85	93	130	153	202	
	17	25	35	44	79	100	122	202	214	
TEES										
RUN										
6"	56									
8"	72	86								
10"	90	105	120							
12"	110	125	140	160						
14"	130	150	170	234	280					
16"	150	180	200	264	316	322				
18"	170	210	240	335	380	405	435			
20"	190	240	280	395	440	505	535	535		
24"	240	300	360	500	550	625	660	720		
CROSS										
6"	80									
8"		105								
10"			145							
12"				215						
14"					335					
16"						385				
18"							XXX			
20"								XXX		
24"									XXX	
REDUCERS										
8"	36									
10"	47	50								
12"	60	60	64							
14"	100	100	100	100						
16"	124	124	124	124	140					
18"		190	190	190	190	195				
20"			220	220	200	200	225			
24"				305	310	320	305	300		

WEIGHTS TAKEN FROM AWWA C153
 WEIGHT DOES NOT INCLUDE GLANDS, GASKETS, BOLTS AND
 RESTRAINING DEVICES

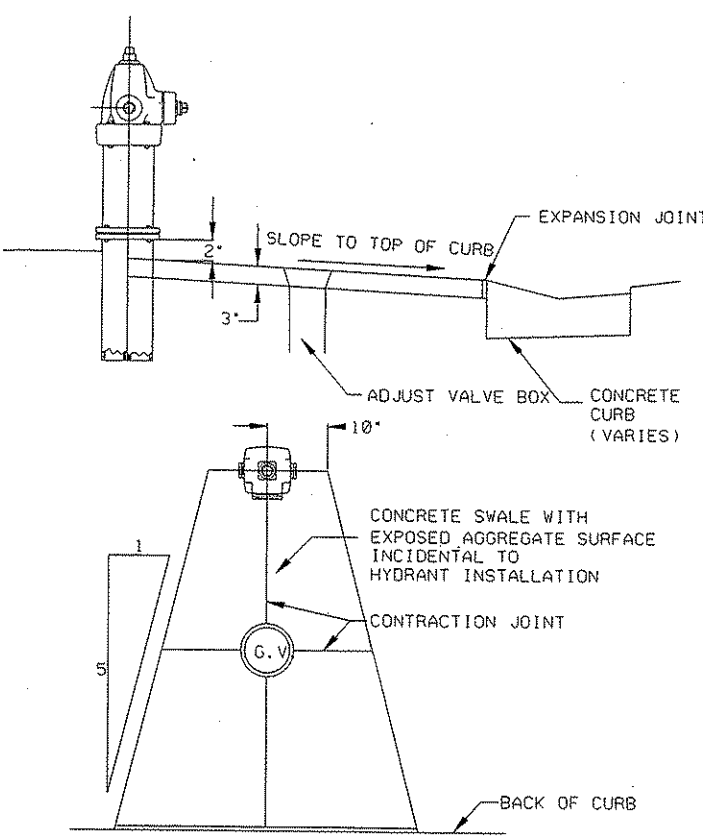
WATER MAIN FITTINGS



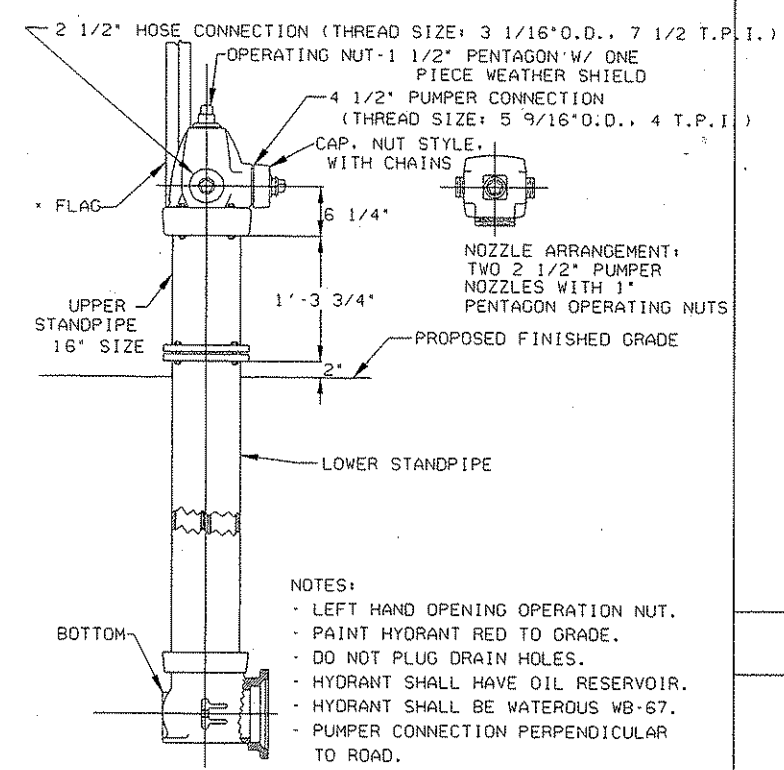
HYDRANT INSTALLATION



WATERMAIN INSULATION

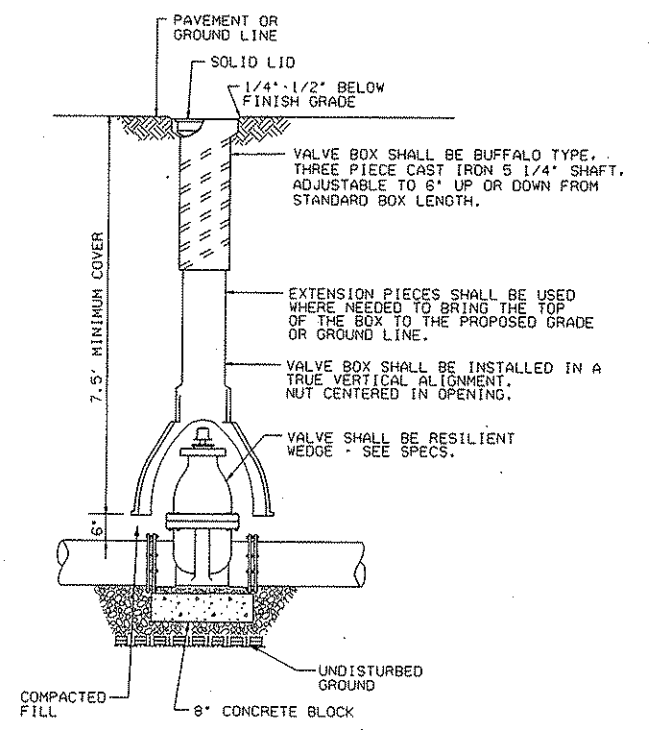


TYPICAL CONCRETE HYDRANT SWALE

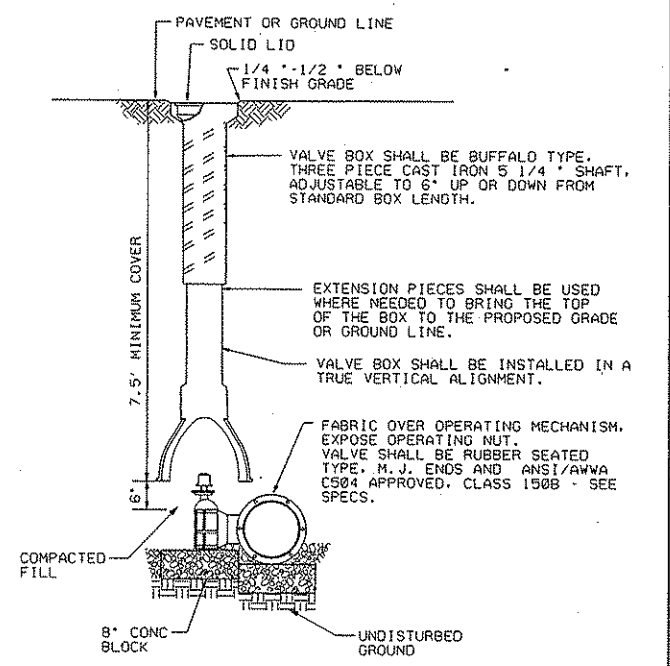


NOTES:
 - LEFT HAND OPENING OPERATION NUT.
 - PAINT HYDRANT RED TO GRADE.
 - DO NOT PLUG DRAIN HOLES.
 - HYDRANT SHALL HAVE OIL RESERVOIR.
 - HYDRANT SHALL BE WATEROUS WB-67.
 - PUMPER CONNECTION PERPENDICULAR TO ROAD.

TYPICAL HYDRANT



STANDARD DETAILS GATE VALVE & BOX

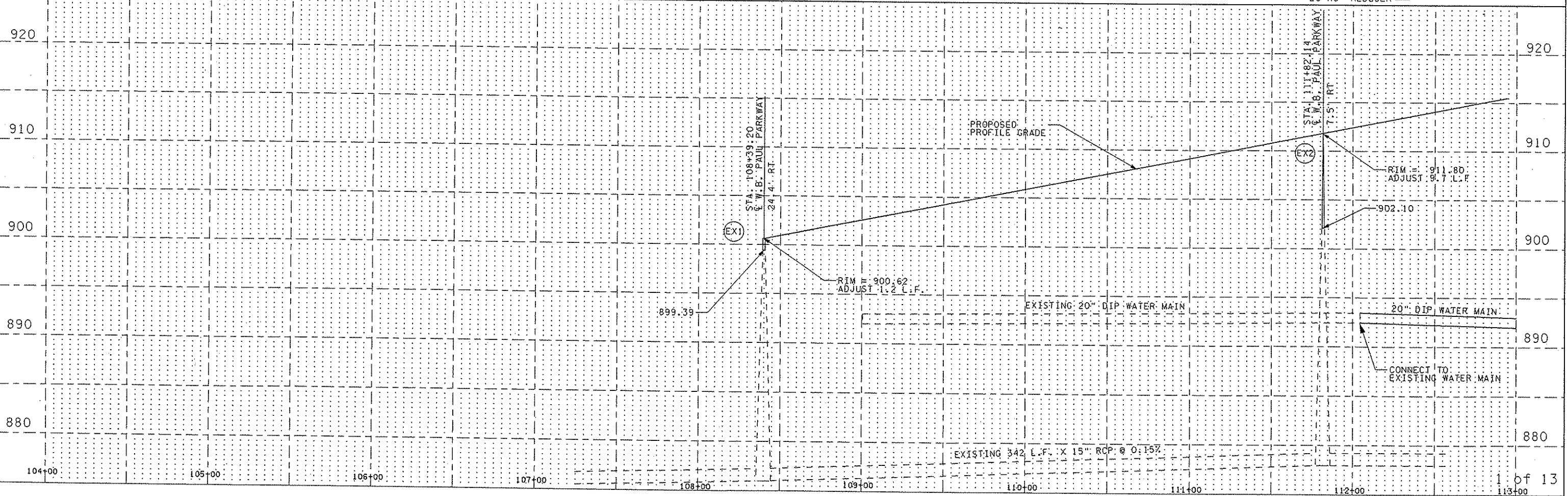
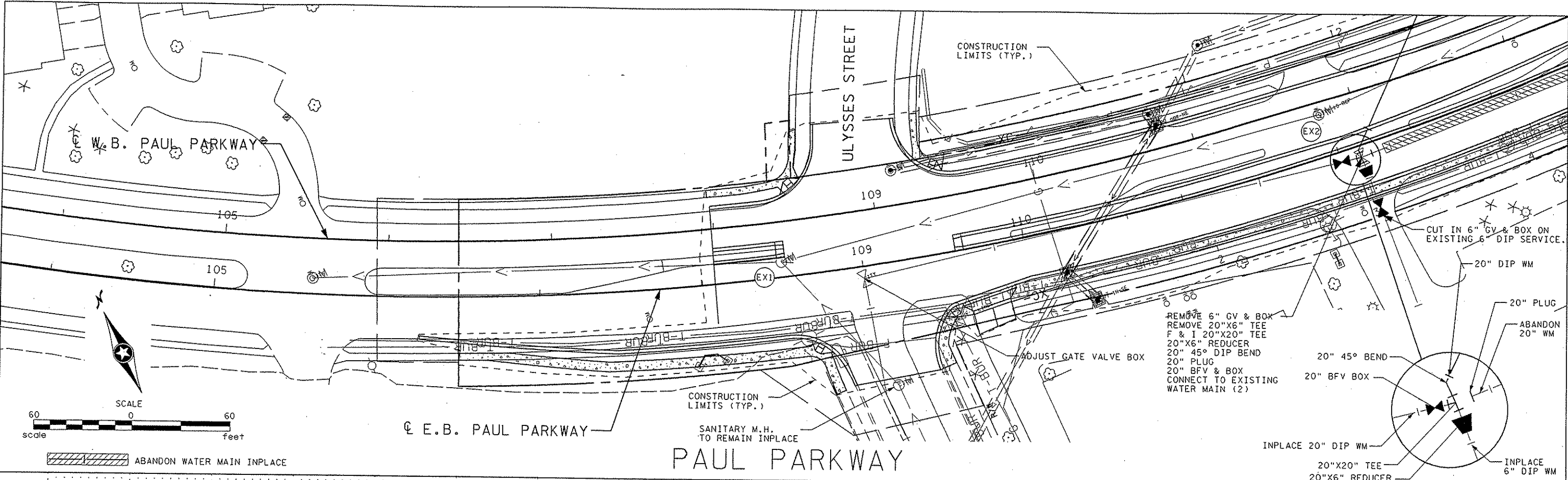


STANDARD DETAILS BUTTERFLY VALVE & BOX

I hereby certify that sheets 65-79 were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Illinois.
 Certified By: *Greg Anderson* Lic. No. 26859
 Printed Name: GREG ANDERSON Date: 4/5/07

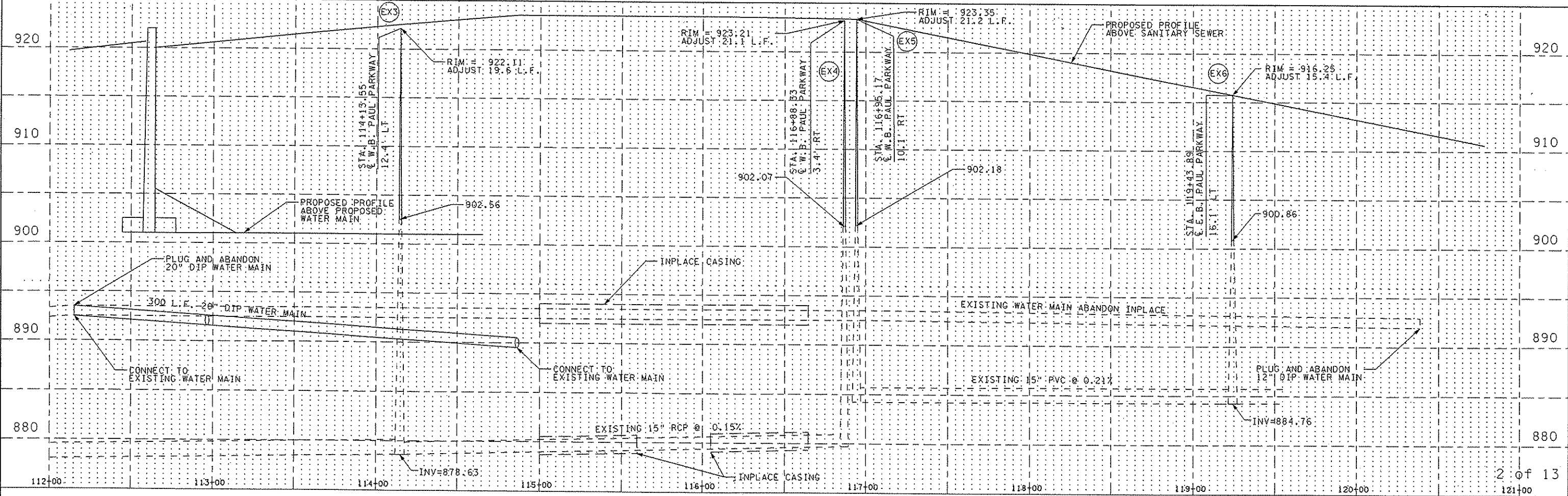
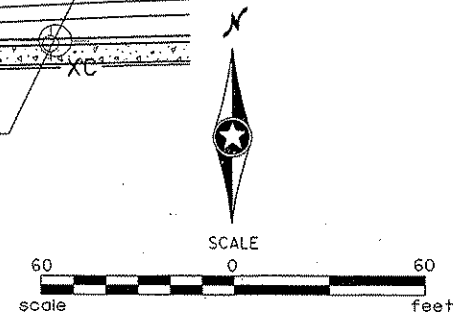
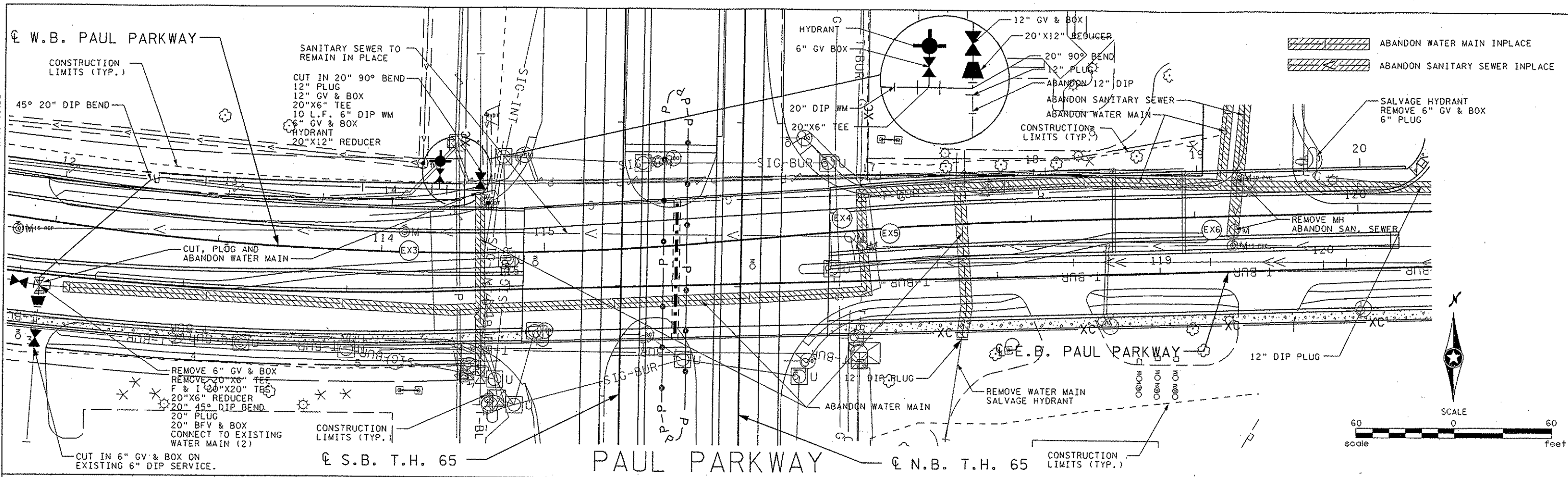
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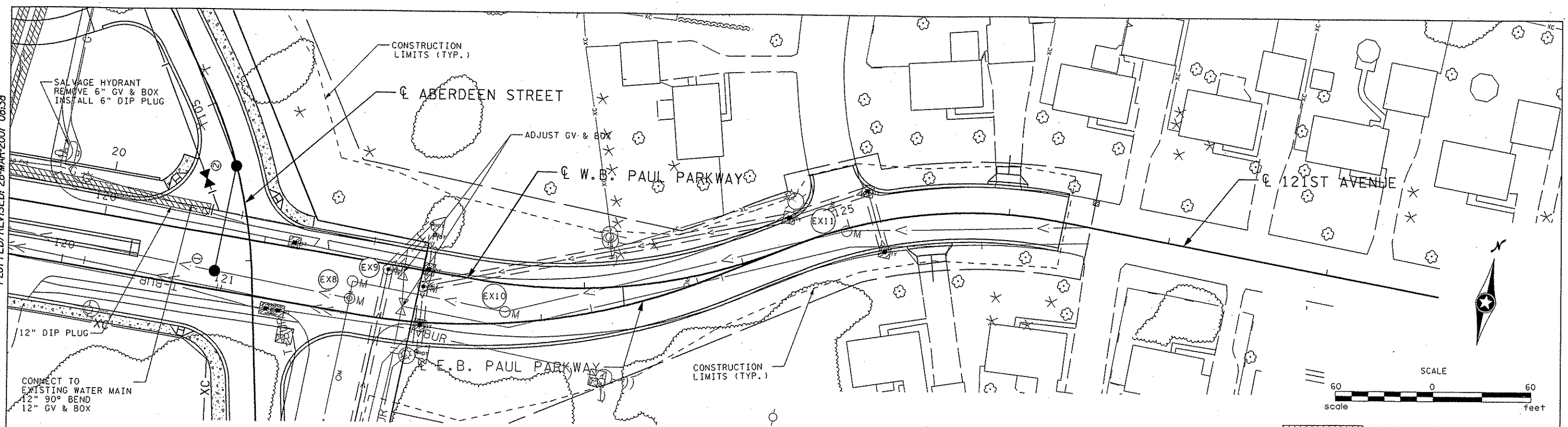
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2 of 13

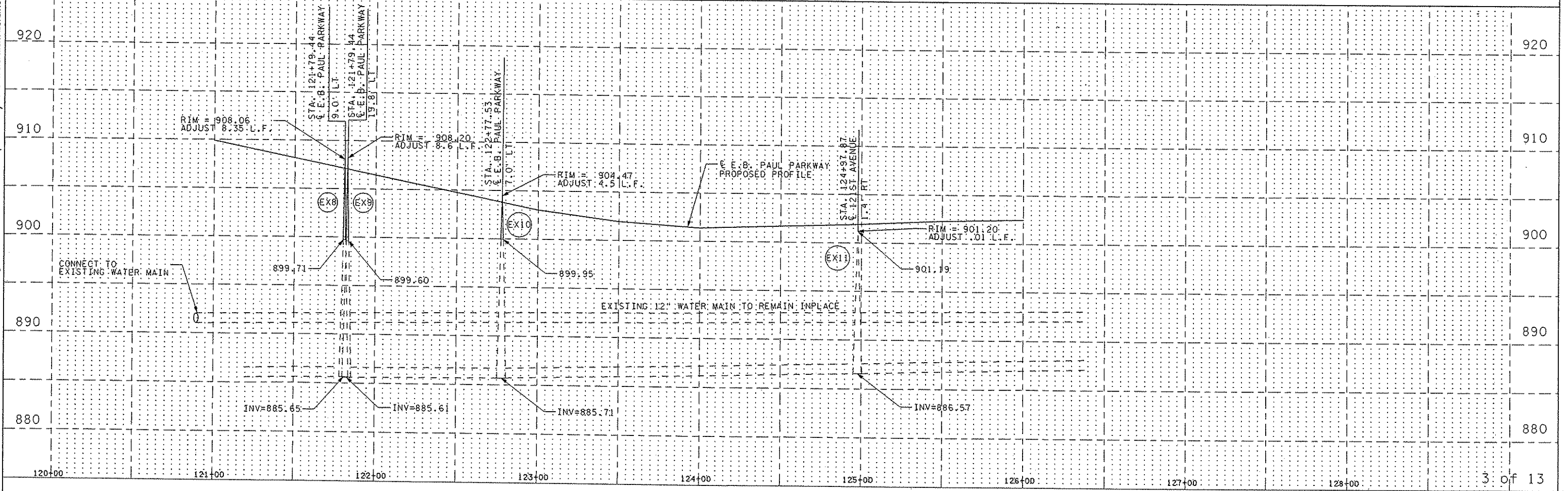
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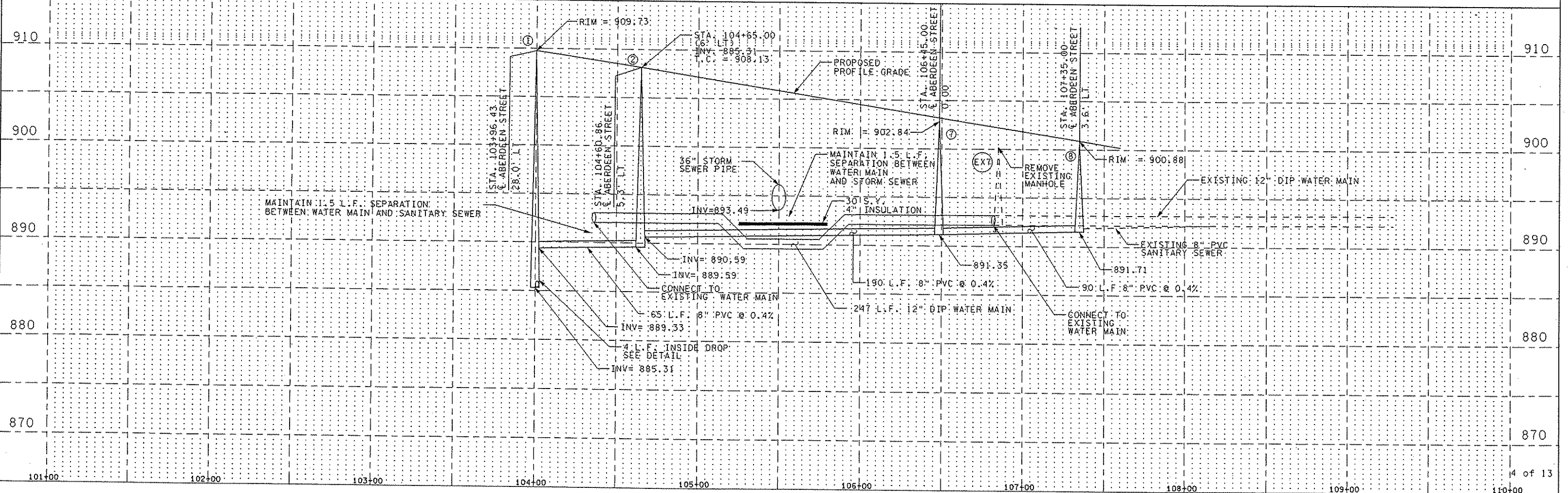
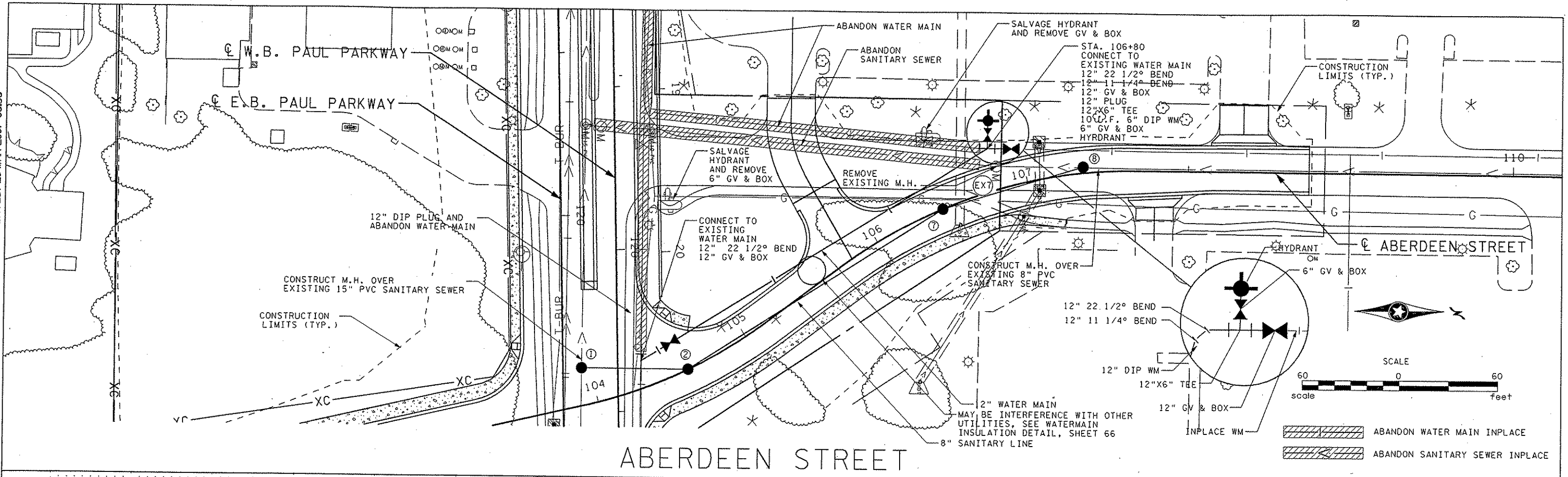
PAUL PARKWAY / 121ST AVENUE

ABANDON WATER MAIN INPLACE
 ABANDON SANITARY SEWER INPLACE



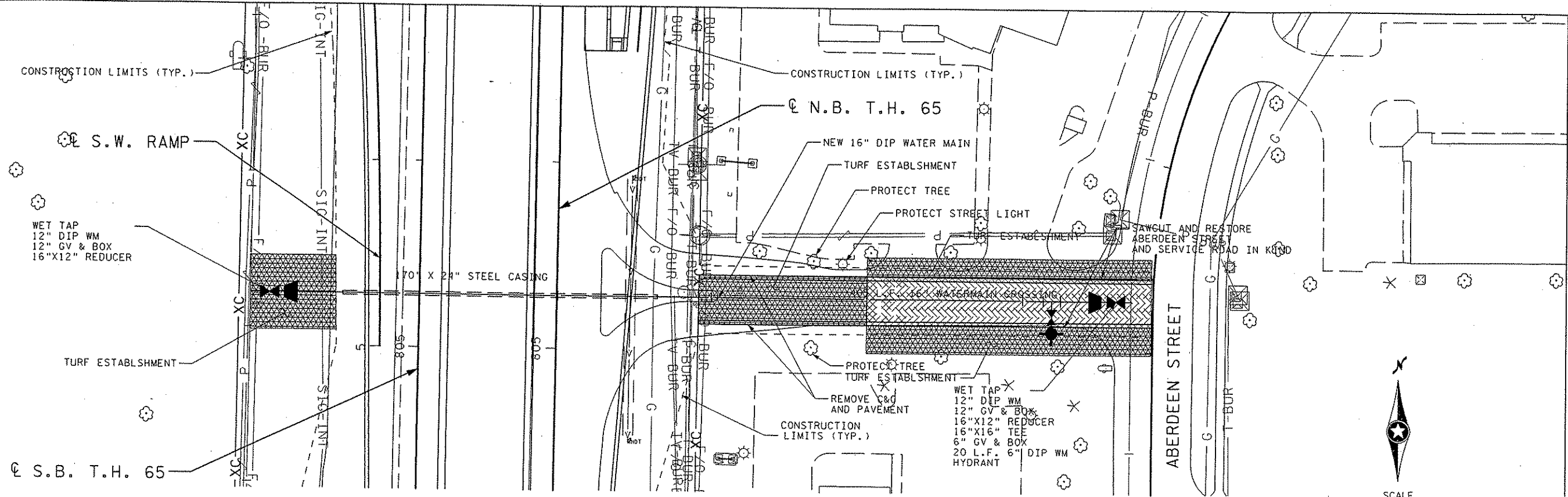
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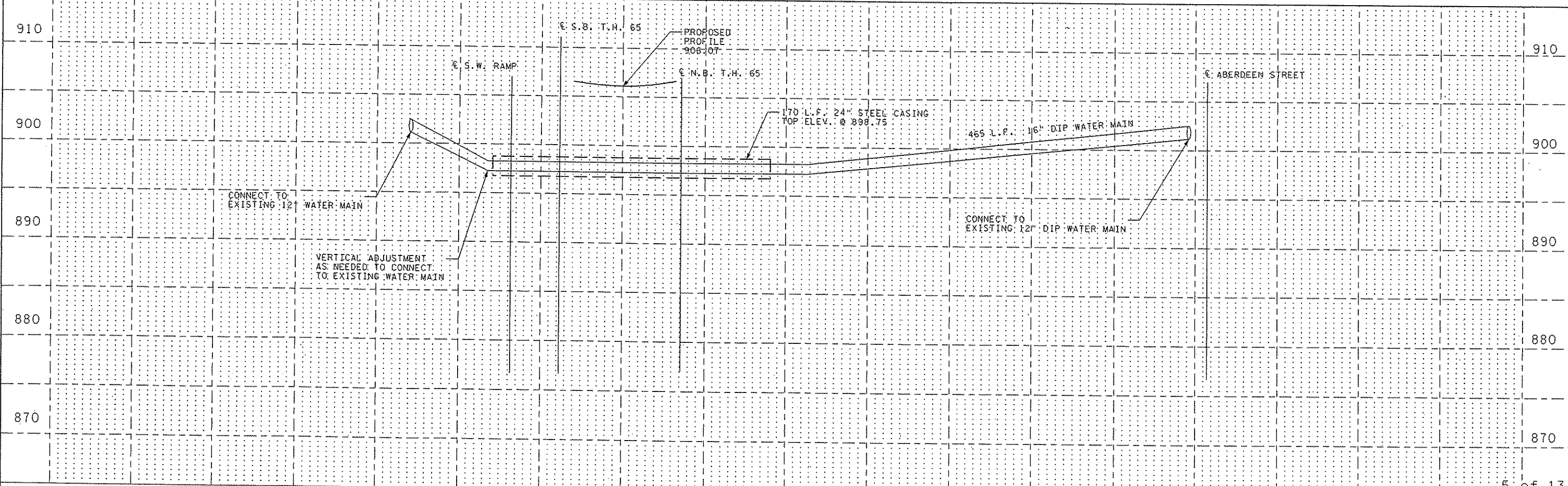
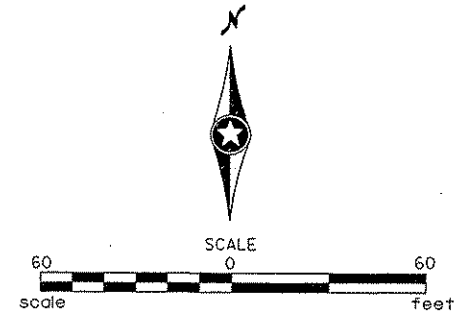


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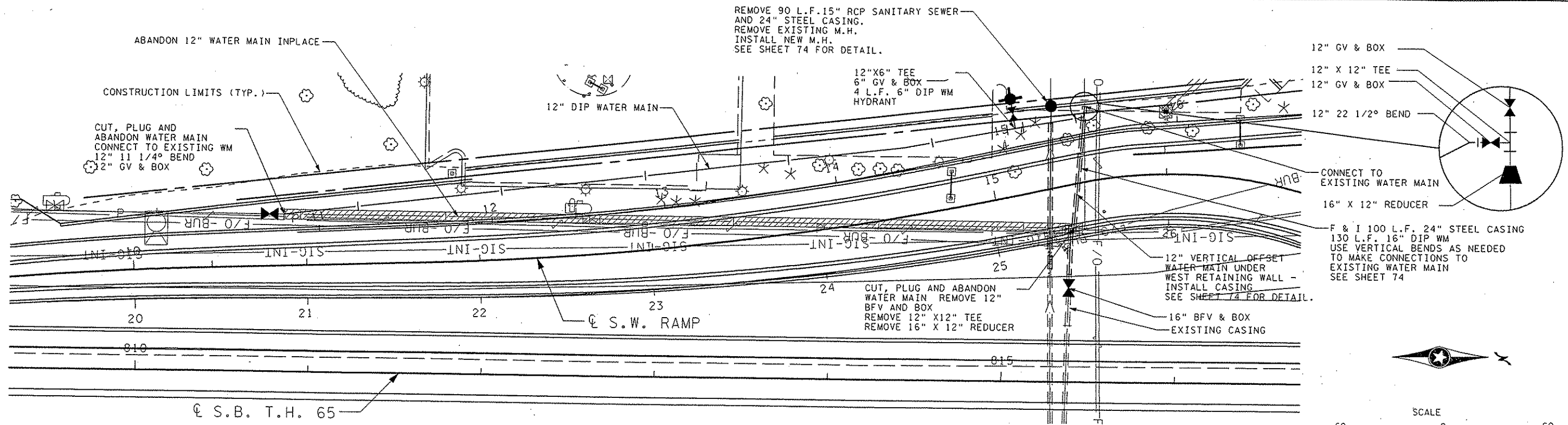
T.H. 65 - NEW 16" WATER MAIN CROSSING



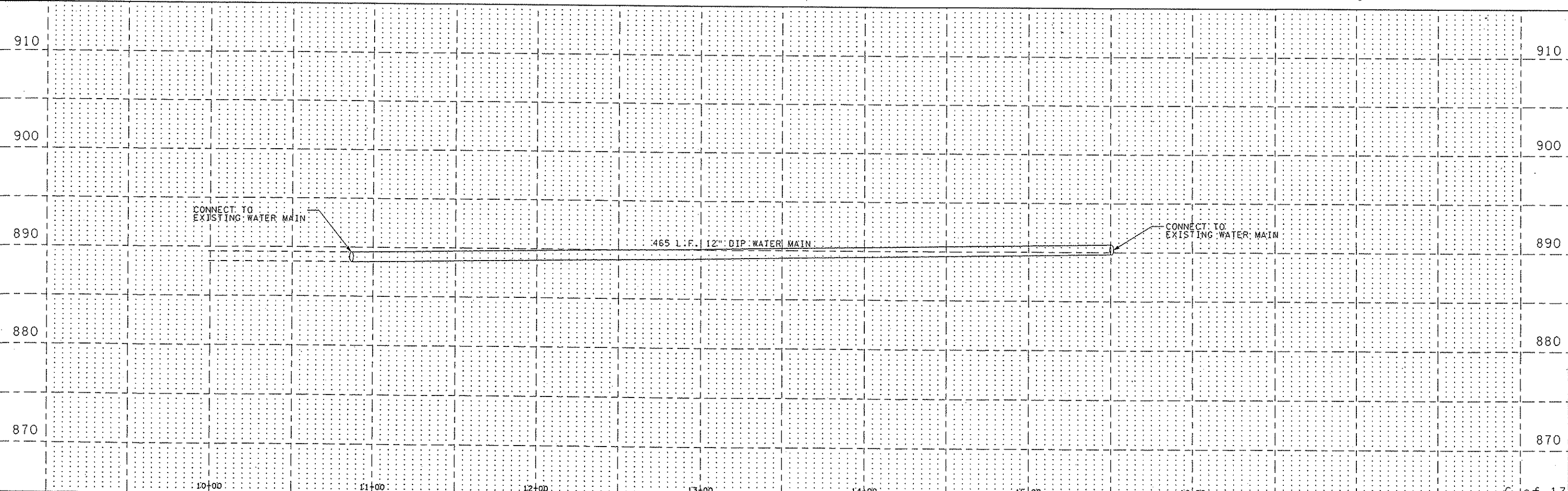
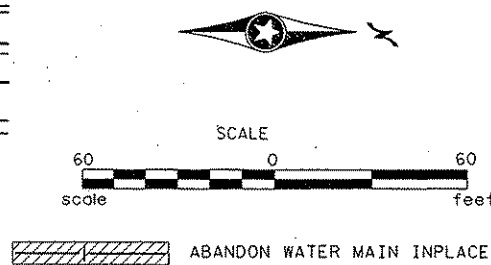
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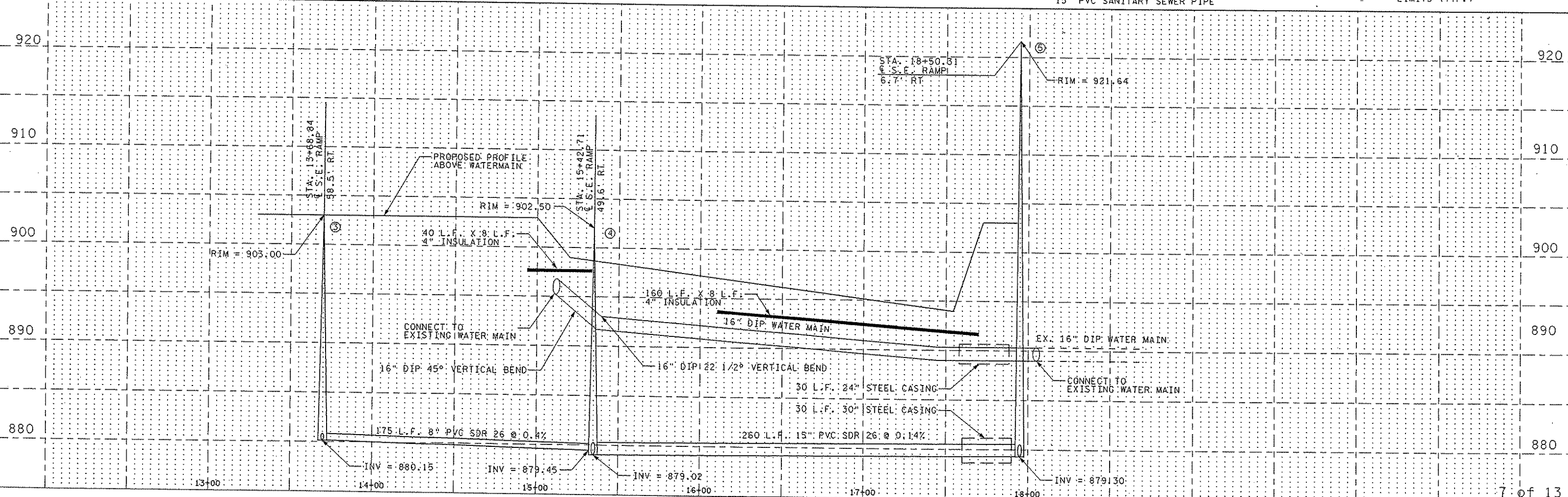
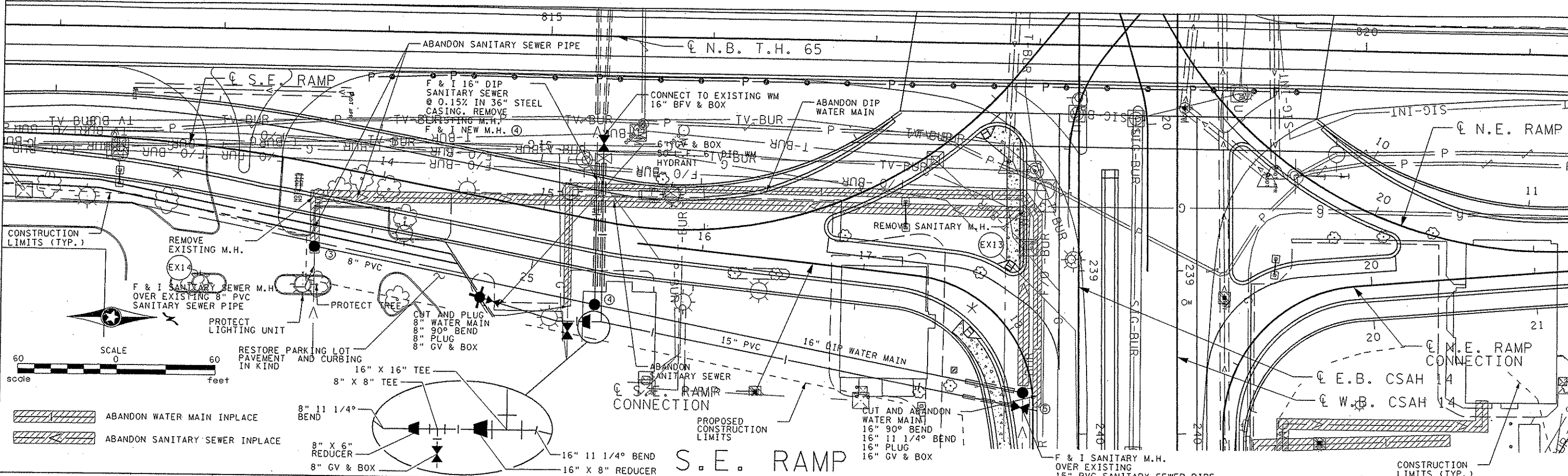


S.W. RAMP



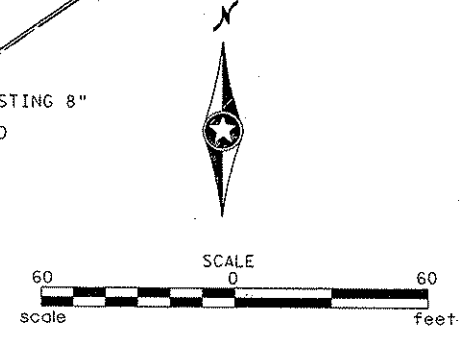
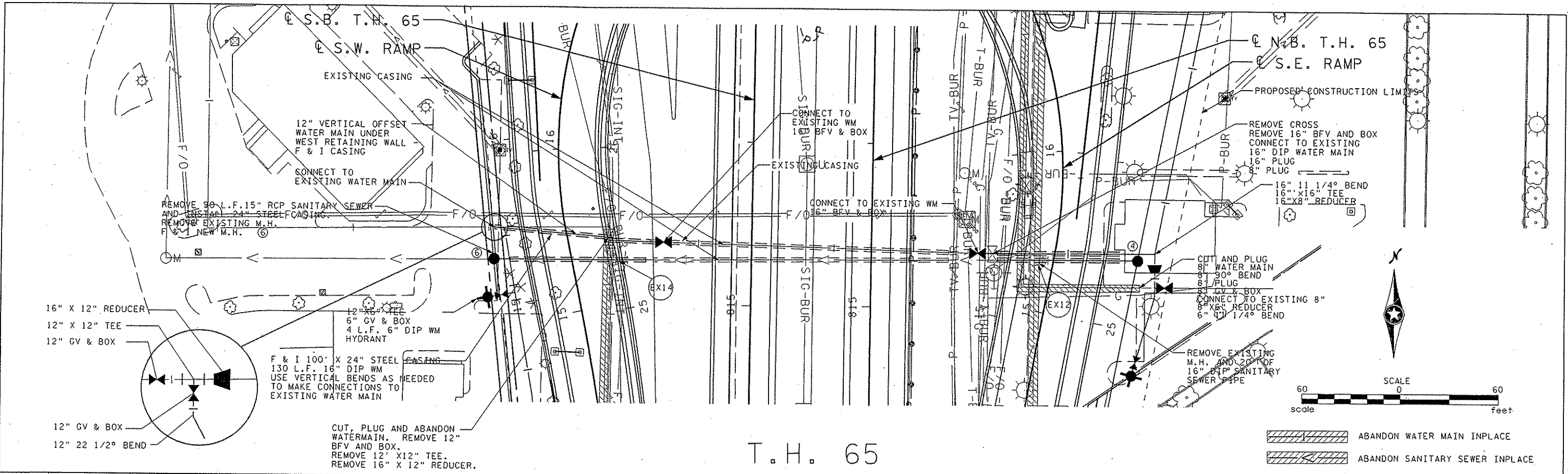
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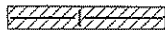
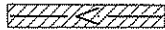
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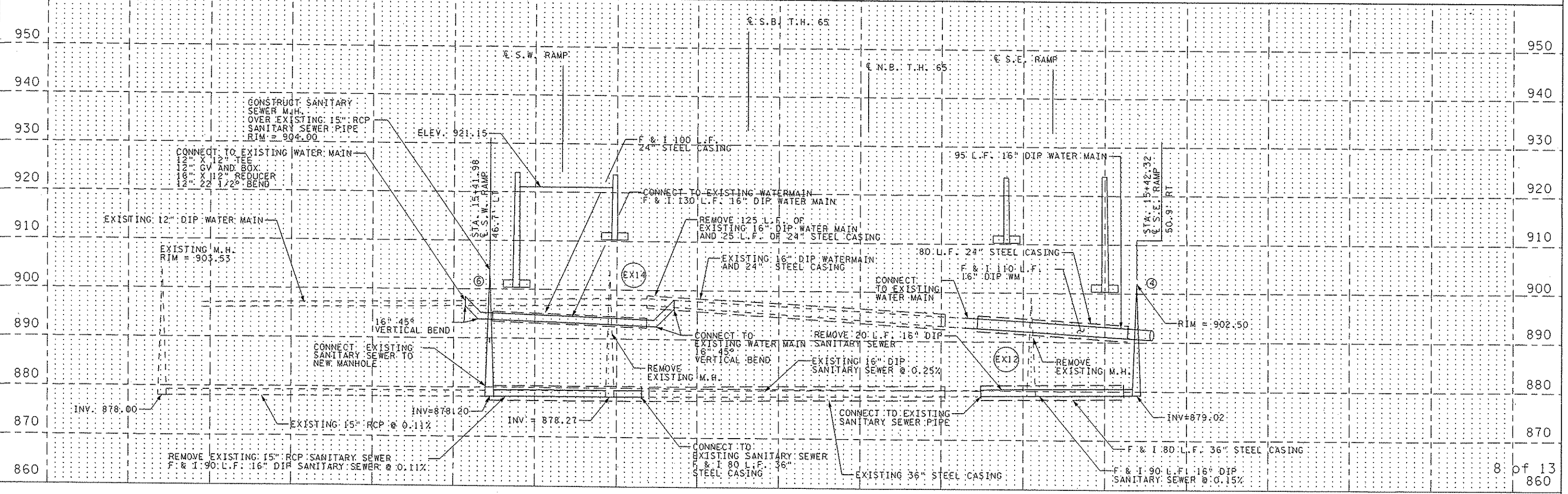
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 ABANDON WATER MAIN IN PLACE
 ABANDON SANITARY SEWER IN PLACE

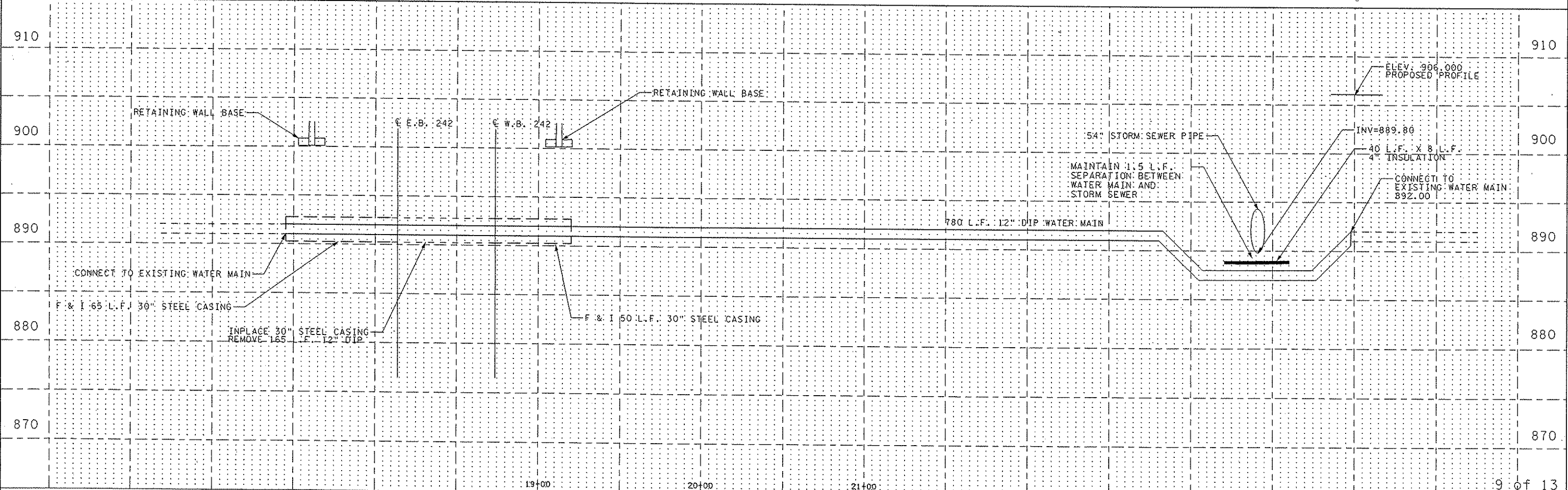
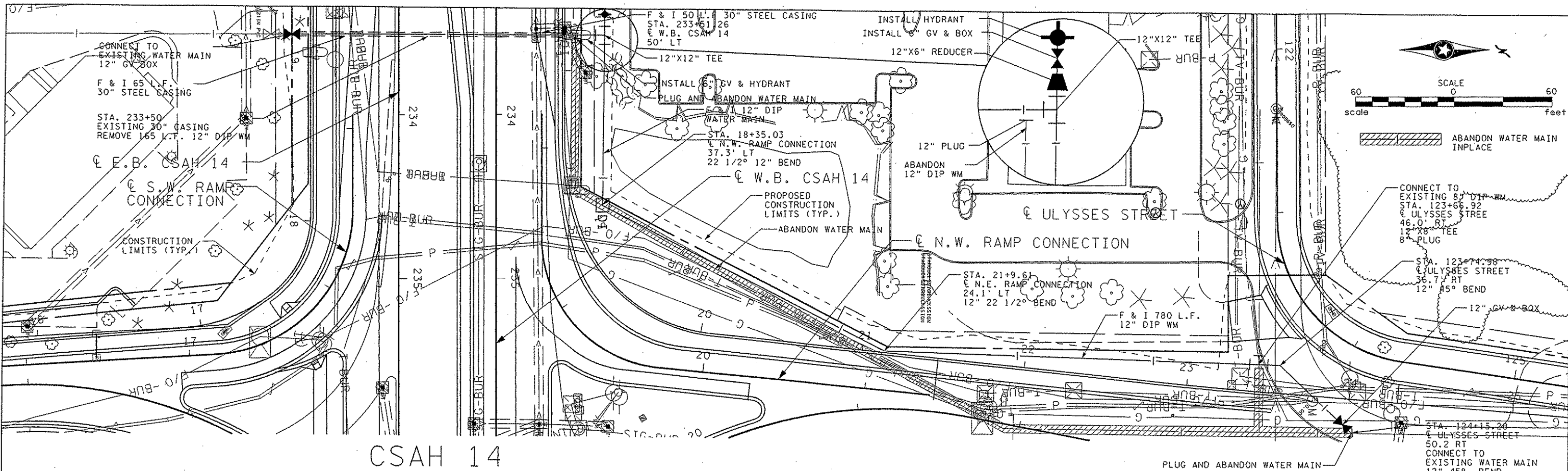
T.H. 65



SANITARY SEWER & WATER MAIN PLAN
 T.H. 65

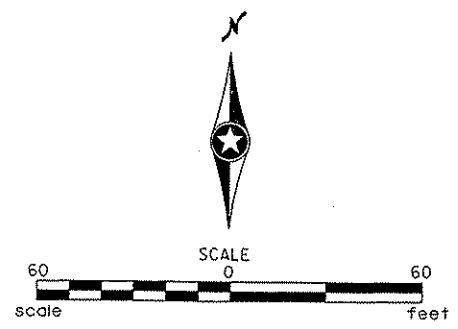
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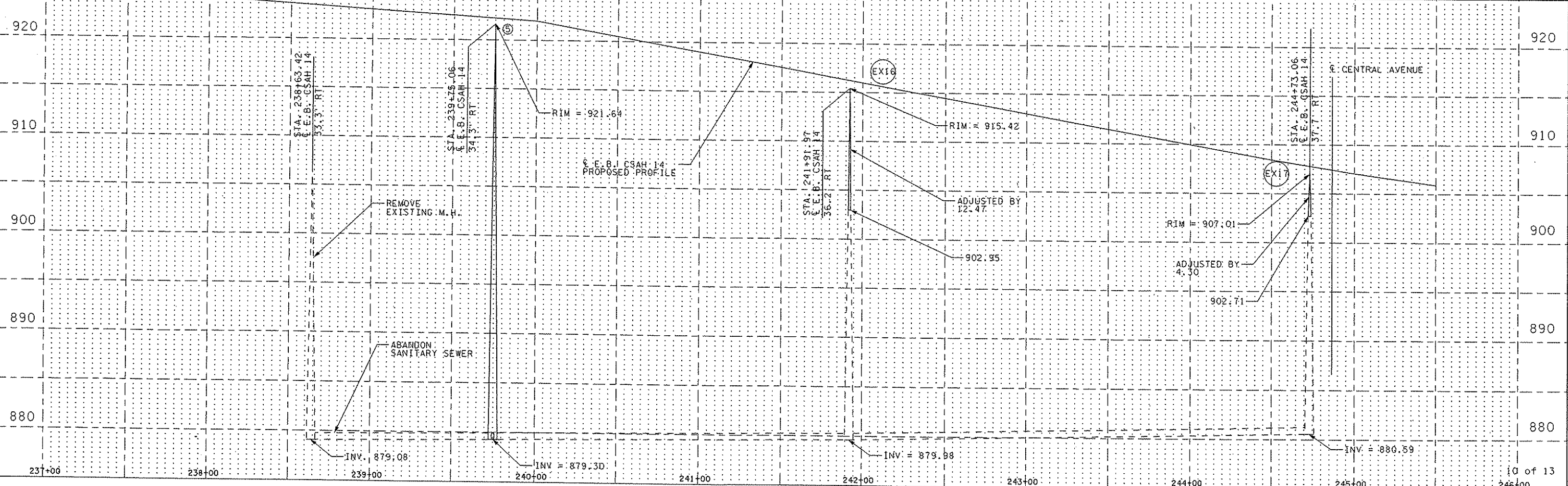
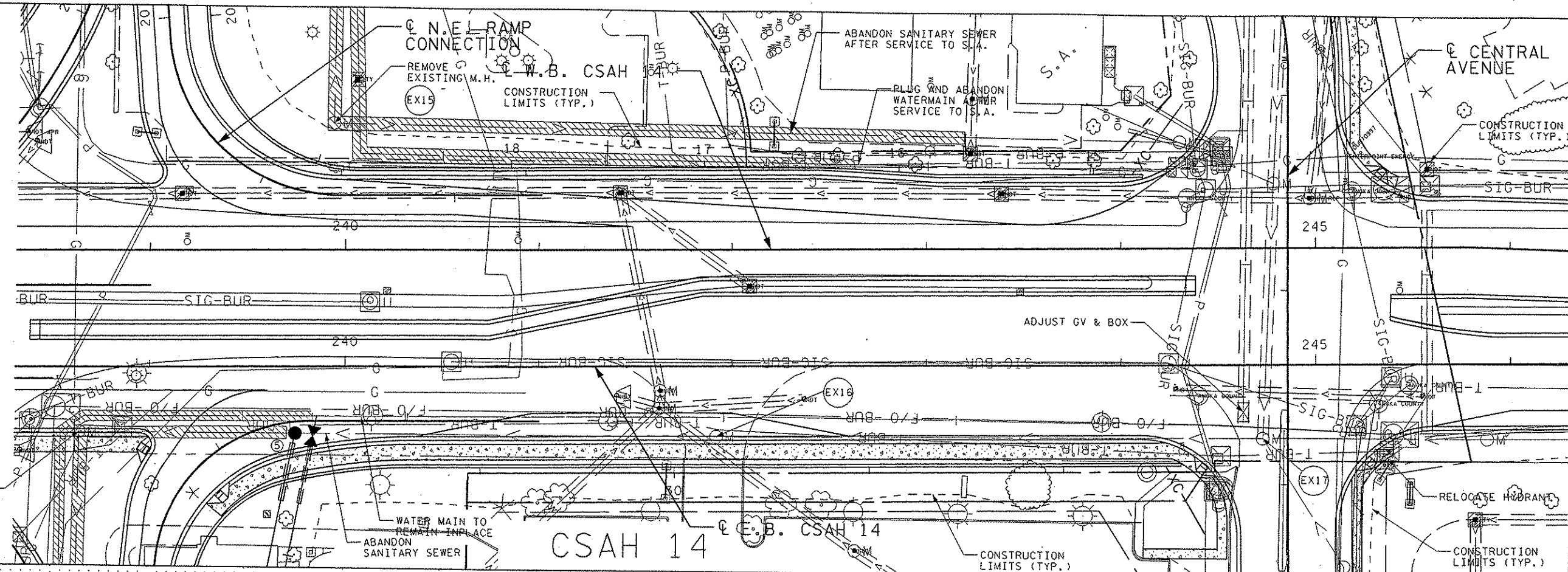


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ABANDON WATER MAIN INPLACE
ABANDON SANITARY SEWER INPLACE



FILE NO.
ABLAINE0704.00

SANITARY SEWER & WATER MAIN PLAN E.B. CSAH 14

DRAWN BY: JMK

CHECKED BY: GA

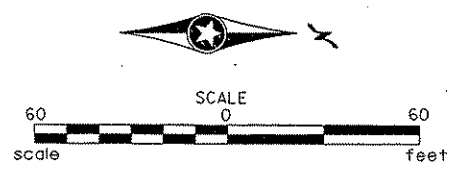
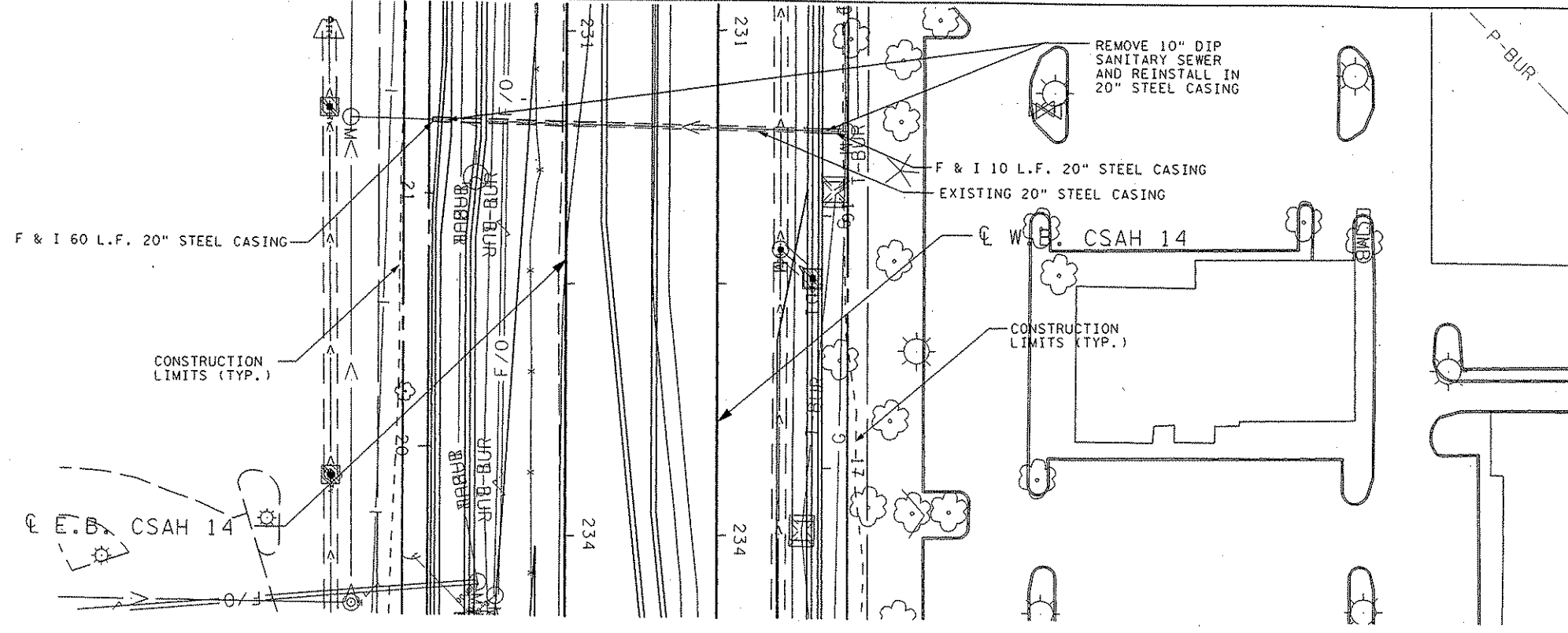
CERTIFIED BY: *[Signature]*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26859 DATE 4/5/07

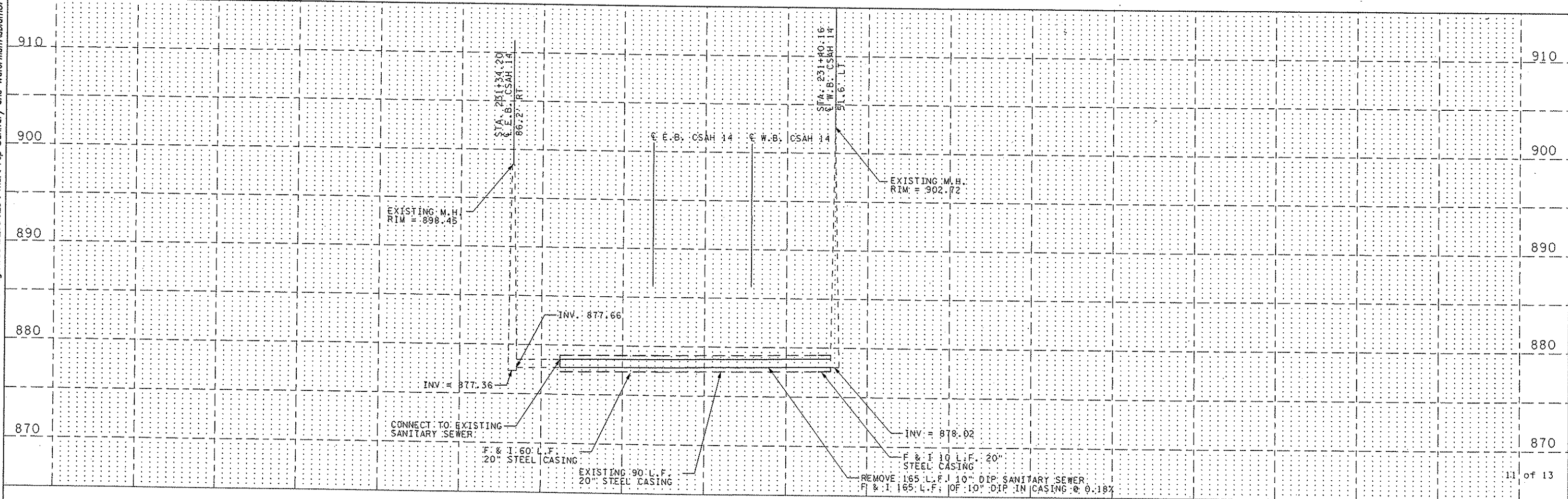
STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 76 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 08:39



CSAH 14

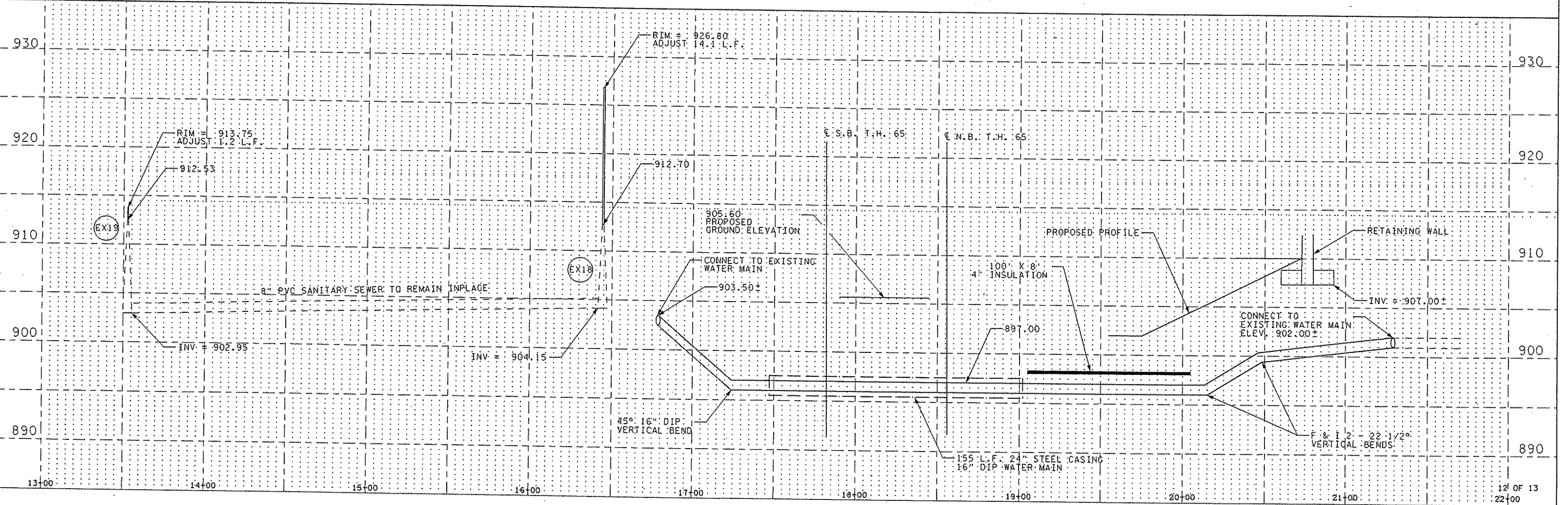
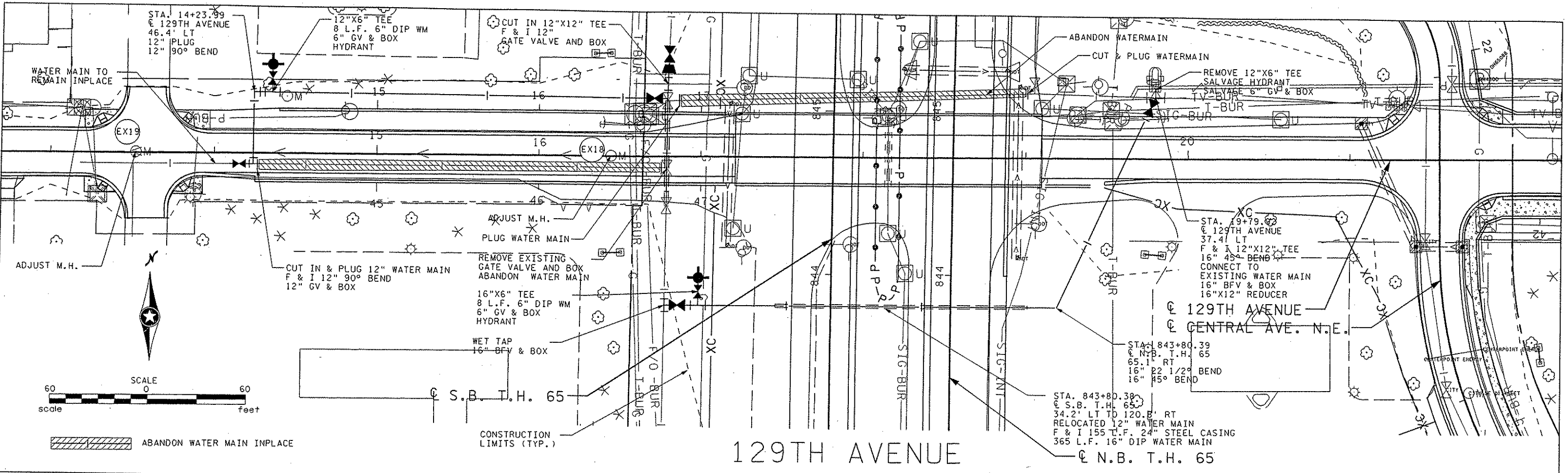


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FILE NO.
ABLAINE0704.00

DRAWN BY: JMK

CHECKED BY: GA

CERTIFIED BY *[Signature]*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26859 DATE 4/5/07

STATE PROJ. NO. 0208-123 (T.H. 65)

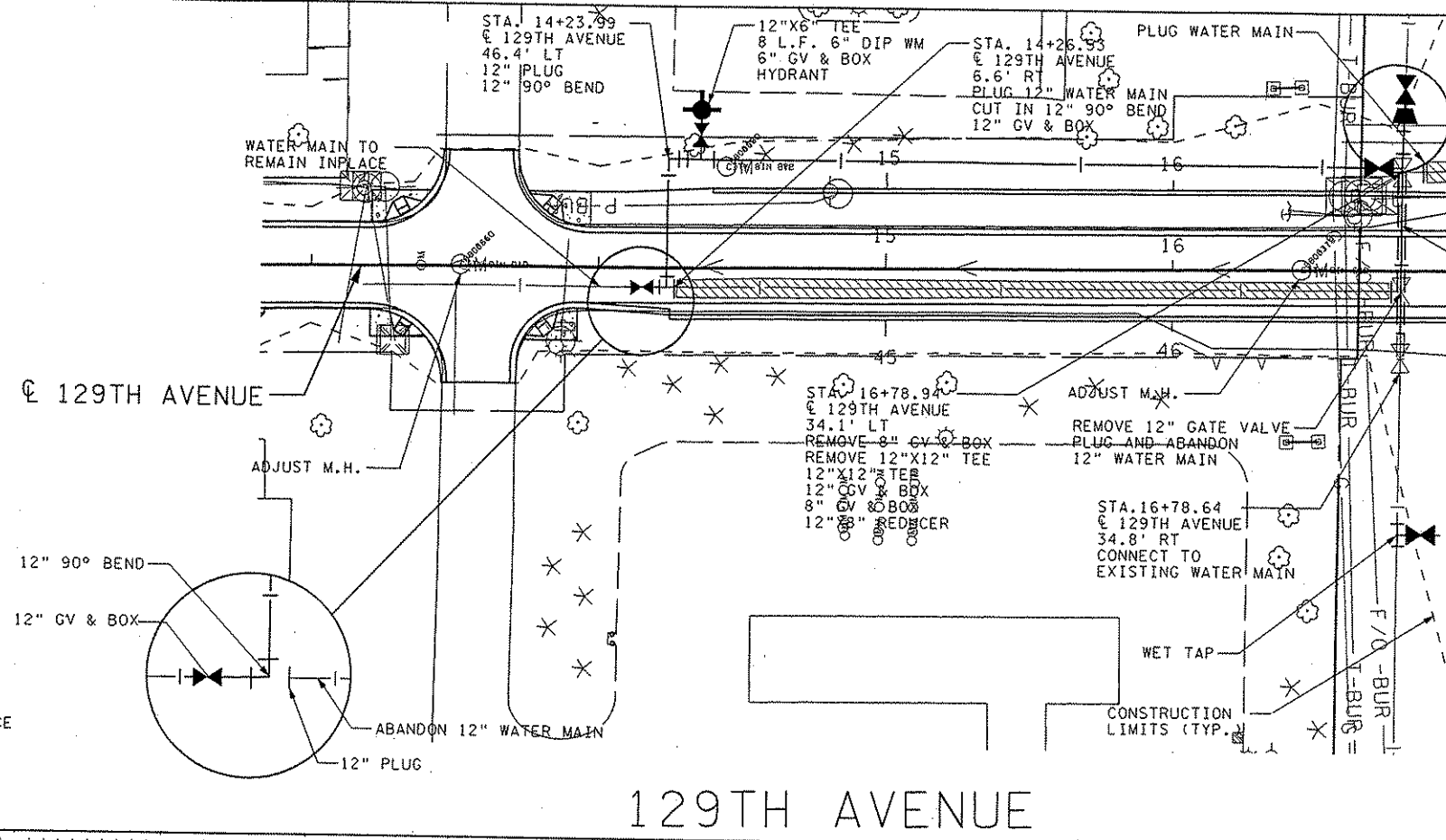
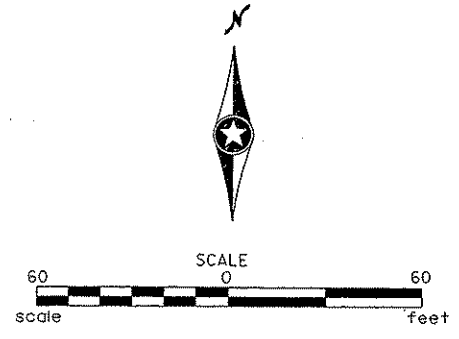
SHEET NO. 78 OF 872 SHEETS

SANITARY SEWER & WATER MAIN PLAN
129TH AVENUE

12 OF 13
22+00

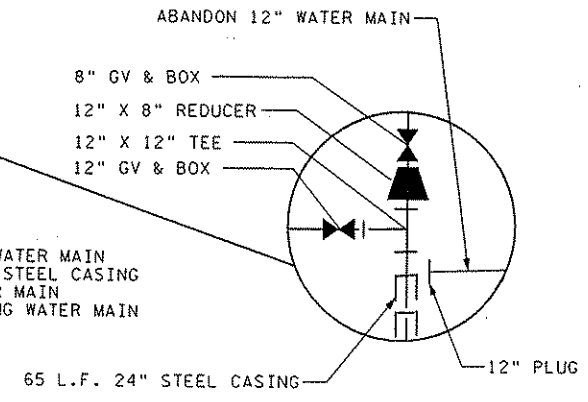
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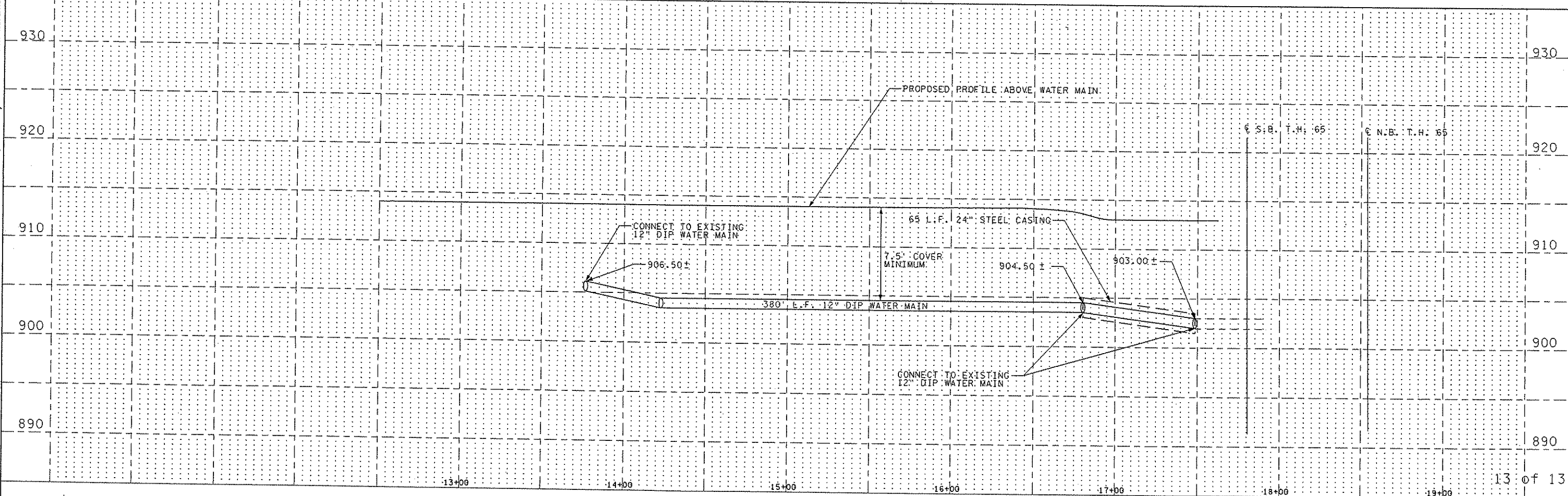


T.H. 65

REMOVE 65 L.F. OF EXISTING 12" DIP WATER MAIN F & I 65 L.F. 24" STEEL CASING WITH 12" DIP WATER MAIN CONNECT TO EXISTING WATER MAIN



129TH AVENUE



PLOTTED/REVISED: 10-APR-2007 15:22

DISTRICT *: METRO
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CITY OF BLAINE SANITARY SEWER AND WATERMAIN ② 100% CITY **R**

DESCRIPTION	UNIT	ESTIMATED QUANTITY	NOTES
REMOVE CURB AND GUTTER	LIN FT	75	
REMOVE BITUMINOUS PAVEMENT (4"-6")	SQ YD	2015	④
REMOVE SEWER PIPE (SANITARY)	LIN FT	275	
REMOVE WATER MAIN	LIN FT	445	
REMOVE STEEL CASING	LIN FT	25	
REMOVE MANHOLE OR CATCH BASIN	EACH	9	
REMOVE GATE VALVE & BOX	EACH	7	
SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	1040	
SALVAGE HYDRANT & VALVE ASSEMBLY	EACH	5	
ABANDON WATER MAIN	LIN FT	3720	
ABANDON PIPE SEWER	LIN FT	1330	
AGGREGATE BASE (CV) CLASS 5	CU YD	475	
TYPE SP 12.5 WEARING COURSE MIXTURE (4,F)	TON	382	
TYPE SP 19.0 NON WEARING COURSE MIXTURE (4,B)	TON	255	
8" PVC PIPE SANITARY SEWER (0'-15') DEEP (SDR26)	LIN FT	250	
10" DIP PIPE SANITARY SEWER (20'-30') DEEP (SDR26)	LIN FT	165	
15" DIP PIPE SANITARY SEWER (20'-30') DEEP (SDR26)	LIN FT	260	⑦
16" DIP PIPE SANITARY SEWER	LIN FT	190	⑦
CONNECT TO EXISTING SANITARY SEWER	EACH	8	
CONNECT TO EXISTING SANITARY SEWER MANHOLE	EACH	1	
CONSTRUCT 8" INSIDE DROP	LIN FT	4	
20" STEEL CASING PIPE	LIN FT	70	
24" STEEL CASING PIPE	LIN FT	600	
30" STEEL CASING PIPE	LIN FT	145	
36" STEEL CASING PIPE	LIN FT	160	
8" PVC PIPE SANITARY SEWER (20'-30') DEEP (SDR26)	LIN FT	175	
HYDRANT	EACH	5	
CONNECT TO EXISTING WATER MAIN	EACH	23	
WET TAP EXISTING 12" DIP WATER MAIN	EACH	2	
6" GATE VALVE & BOX	EACH	6	
8" GATE VALVE & BOX	EACH	2	
12" GATE VALVE & BOX	EACH	14	
16" BUTTERFLY VALVE & BOX	EACH	3	
20" BUTTERFLY VALVE & BOX	EACH	3	
8" CUT AND PLUG	EACH	3	
12" CUT AND PLUG	EACH	16	
16" CUT AND PLUG	EACH	2	
20" CUT AND PLUG	EACH	1	
6" WATER MAIN DUCTILE IRON CL. 52	LIN FT	115	
8" WATER MAIN DUCTILE IRON CL. 52	LIN FT	20	
12" WATER MAIN DUCTILE IRON CL. 52	LIN FT	2232	
16" WATER MAIN DUCTILE IRON CL. 52	LIN FT	965	
20" WATER MAIN DUCTILE IRON CL. 52	LIN FT	300	
ADJUST EXISTING GATE VALVE BOX	EACH	3	
4" INSULATION	SQ YD	333	
FITTINGS DUCTILE IRON	POUND	7000	
CONSTRUCT DRAINAGE STRUCTURE SPECIAL 4	EACH	8	⑤
CONSTRUCT DRAINAGE STRUCTURE SPECIAL 5	LIN FT	98	⑤
RECONSTRUCT DRAINAGE STRUCTURE	LIN FT	142	
CONCRETE CURB & GUTTER DESIGN B618	LIN FT	175	
SODDING TYPE LAWN	SQ YD	500	
FERTILIZER TYPE 3	POUND	37	⑥

SANITARY SEWER RELOCATION ③ 100% CITY **Q**

STRUCTURE NO.	STRUCTURE LOCATION			DRAINAGE STRUCTURES												REMARKS		
	FLOWS FROM	FLOWS TO	ALIGN.	STATION	OFFSET	DESIGN/PAY HEIGHT			CASTING ASSEMBLY TYPE	CONE TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.	8" PVC PIPE SEWER LIN FT		CONNECT TO EXISTING SAN SEWER EACH	
						TYPE ⑤	DESIGN	EST LIN FT										SANITARY LIN FT
SN501	SN502	65NB	854+39.7	40.5'	RT	MH	4007C	11.4	11.4	A-7	TYPE A	YES	911.59	900.19	911.59	21		①
SN502	SN503	65NB	854+58.8	49.0'	RT	MH	4007C	11.5	11.5	A-7	TYPE A	YES	911.56	900.06	900.11	237	2	
SN503	SN504	65NB	856+96.1	54.1'	RT	MH	4007C	11.5	11.5	A-7	TYPE A	YES	910.61	899.11	899.11	39	1	
SN504	SN602	65NB	857+35.1	54.9'	RT	MH	4007C	12.5	12.5	A-7	TYPE A	YES	911.19	898.74	898.73			①
TOTALS						⑧		50.6	50.6							297	3	

- ① CUT EXISTING 8" PVC SANITARY SEWER LINE AND BUILD STRUCTURE.
- ② FOR DETAILS, SEE SHEET NOS. 65 TO 79.
- ③ FOR DETAILS, SEE SHEET NO. 64.
- ④ FOR INFORMATIONAL PURPOSES - INCLUDED AS EXCAVATION FOR WATERMAIN OR SANITARY SEWER.
- ⑤ FOR DETAILS SEE SHEET NO. 65
- ⑥ FERTILIZER ANALYSIS OF 22-5-10 WITH APPLICATION RATE OF 350 POUNDS PER ACRE
- ⑦ COMBINED TOGETHER INTO 16" DIP SANITARY SEWER
- ⑧ DRAINAGE STRUCTURE DESIGN SPECIAL 5

WATERMAIN RELOCATION ③ 100% CITY **Q**

DESCRIPTION	UNIT	ESTIMATED QUANTITY	NOTES
REMOVE BITUMINOUS PAVEMENT (4"-6")	SQ YD	165	④
SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	254	
AGGREGATE BASE (CV) CLASS 5	CU YD	23	
TYPE SP 12.5 WEARING COURSE MIXTURE (4,F)	TON	28	
TYPE SP 19.0 NON WEARING COURSE MIXTURE (4,B)	TON	21	
ABANDON WATER MAIN	LIN FT	311	
ABANDON PIPE SEWER	LIN FT	300	
CONNECT TO EXISTING WATER MAIN	EACH	2	
8" WATER MAIN DUCTILE IRON CL. 52	LIN FT	310	
FITTINGS DUCTILE IRON	POUND	700	

SANITARY & WATERMAIN SUMMARY

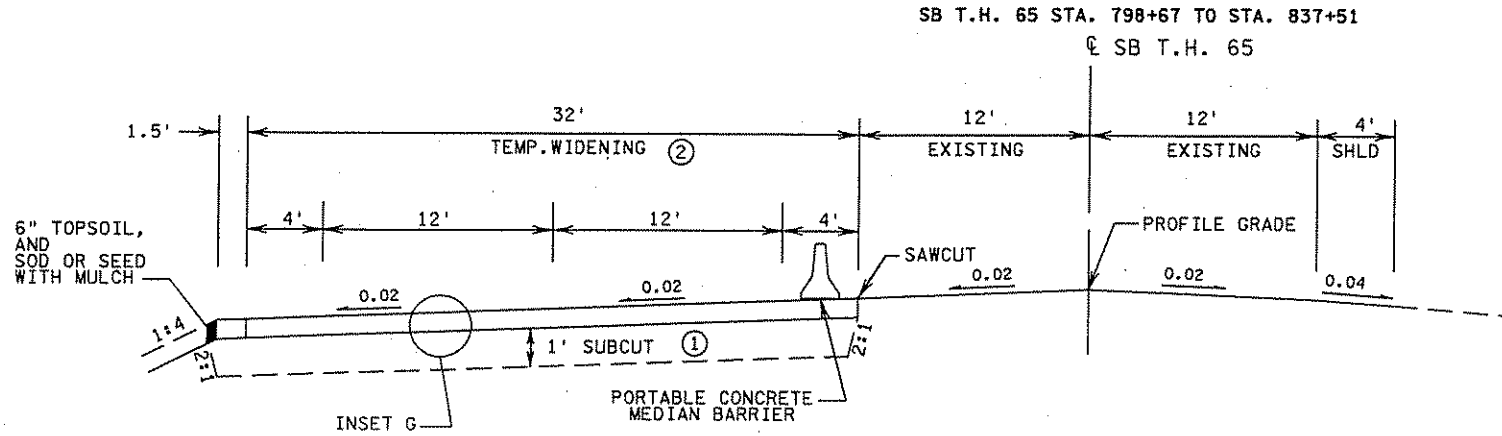
T.H. 65 TEMPORARY BYPASS

GENERAL TYPICAL SECTION NOTES:

- ALL CROSS SLOPES ARE IN FOOT PER FOOT.
- ALL SECTIONS ARE SHOWN FOR NORMAL CROWN. FOR SUPERELEVATION DETAILS AND TRANSITIONS, SEE SUPERELEVATION PLAN SHEET NO. 243 TO 254.
- FOR DITCH DETAILS, ELEVATIONS, AND SIDE SLOPE VARIATIONS, SEE CROSS SECTIONS.
- UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES WILL BE THE SAME AS THE DRIVING LANES.
- MAXIMUM SHOULDER SUPERELEVATION CROSSOVER SHALL BE 0.070 '/'.
- USE 6" LATERAL STEPPING ON BITUMINOUS LIFTS.
- FOR RETAINING WALL BACKFILL, SEE SHEET NO. 96 AND 97.
- ALL BITUMINOUS LIFTS 3" AND GREATER SHALL BE PLACED IN TWO EQUAL LIFTS.

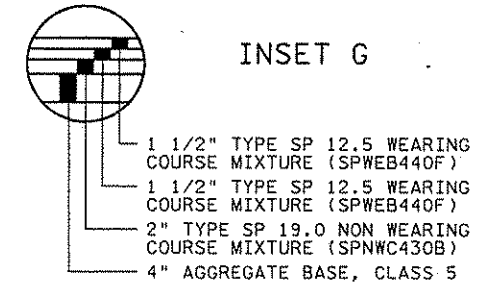
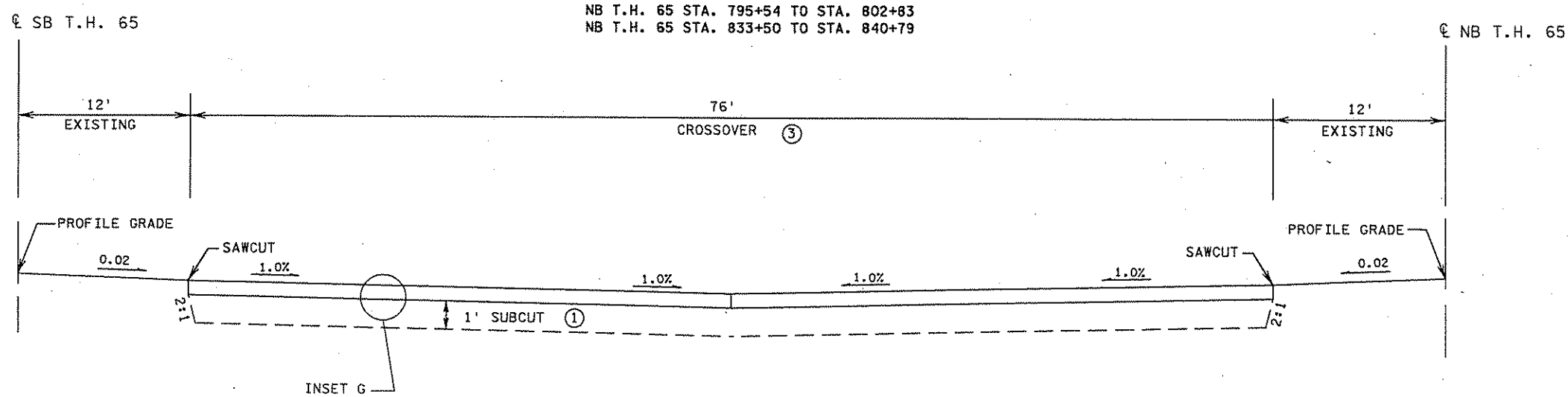
- ① 1' SUBCUT BACKFILL WITH SELECT GRANULAR
- ② TEMPORARY WIDENING TO BE CONSTRUCTED DURING STAGE 1A
- ③ MEDIAN CROSSOVERS TO BE CONSTRUCTED DURING STAGE 1A
- ④ TEMPORARY WIDENING TO BE CONSTRUCTED DURING STAGE 1B

STAGE 1A, 1B



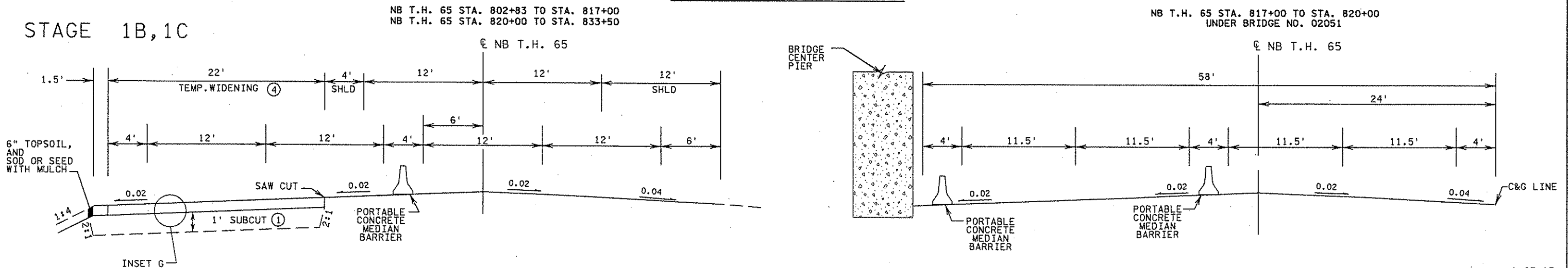
STAGE 1A, 1B, 1C

CROSSOVER



STAGE 1B, 1C

NEW NB T.H. 65



TYPICAL SECTIONS - STAGE 1A, 1B, 1C

DRAWN BY: AN

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65)

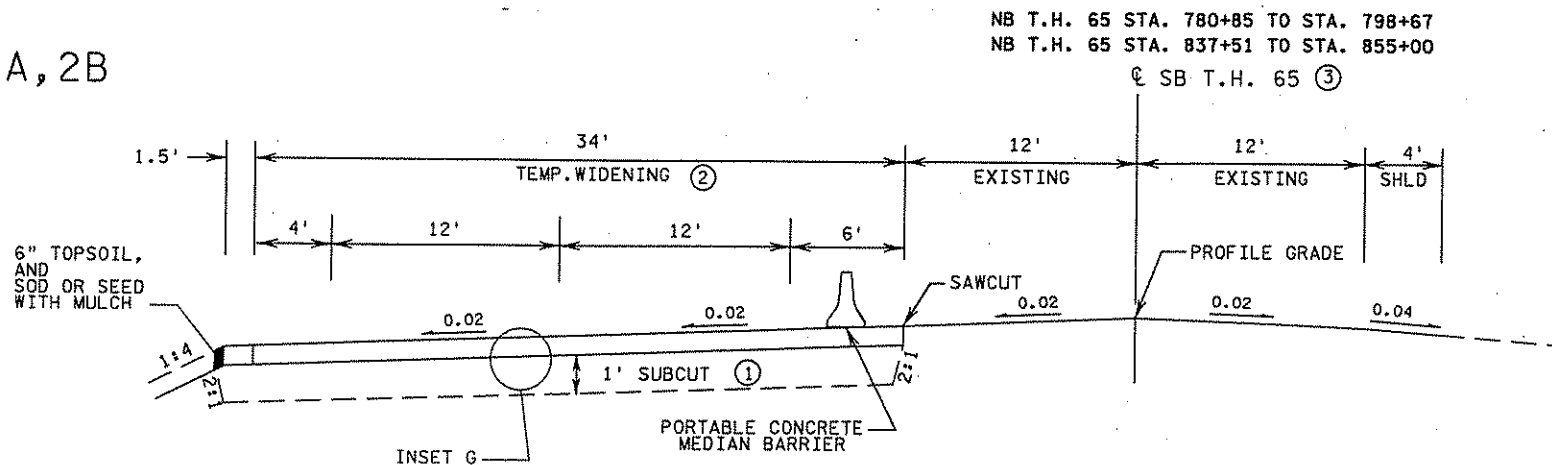
SHEET NO. 81 OF 872 SHEETS

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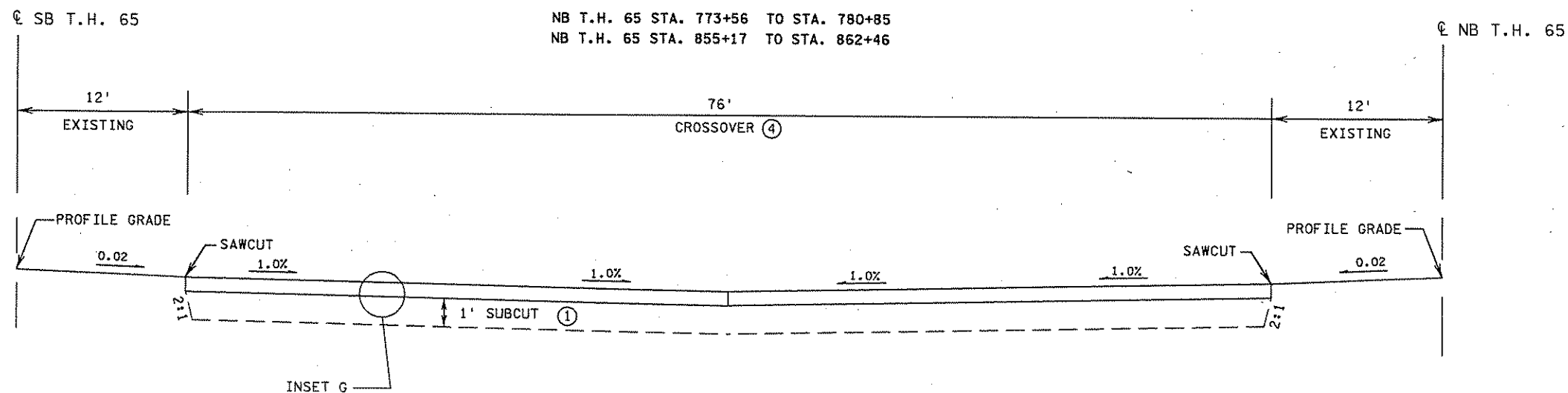
T.H. 65 TEMPORARY BYPASS

STAGE 2A, 2B



STAGE 1C/2B/2C

CROSSOVER



NOTE:

FOR GENERAL TYPICAL SECTION NOTES, SEE SHEET NO. 1 OF 15.

- (1) 1' SUBCUT BACKFILL WITH SELECT GRANULAR
- (2) TEMPORARY WIDENING TO BE CONSTRUCTED DURING STAGE 2A
- (3) STATION RANGE BASED ON NB TH65 ALIGNMENT
- (4) CROSSOVER TO BE CONSTRUCTED DURING STAGE 1C

INSET G

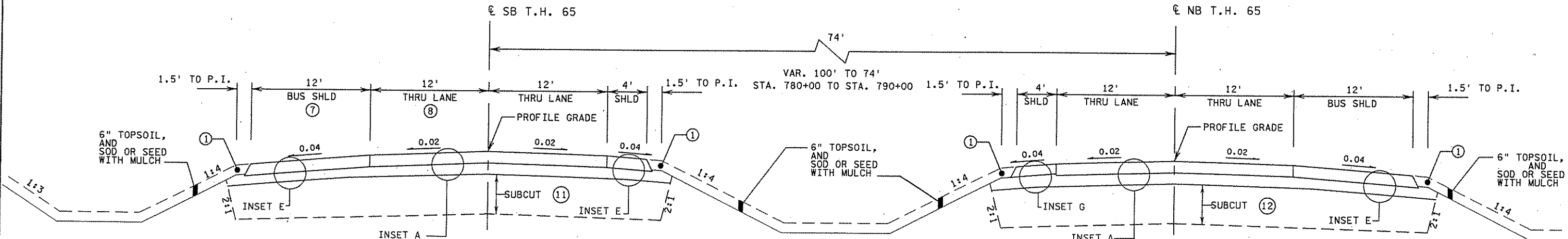


- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 4" AGGREGATE BASE, CLASS 5

T.H. 65

SB T.H. 65 STA. 780+00 TO STA. 802+50

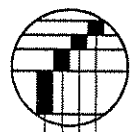
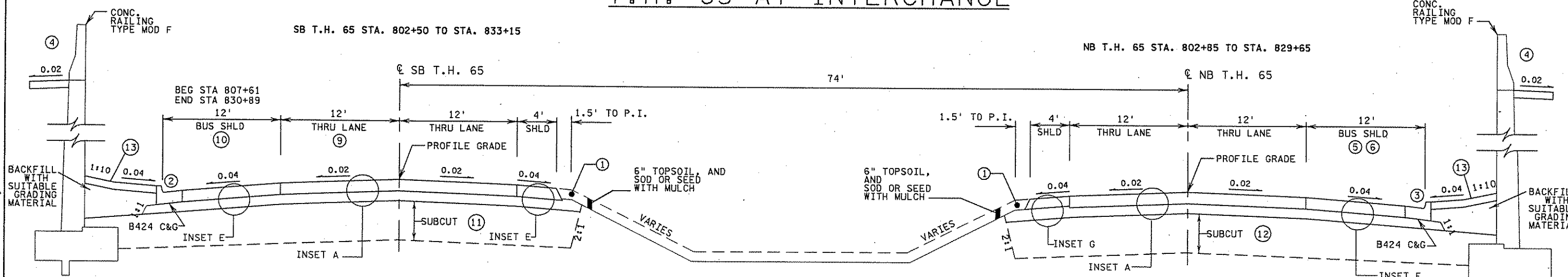
NB T.H. 65 STA. 780+00 TO STA. 802+85



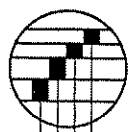
T.H. 65 AT INTERCHANGE

SB T.H. 65 STA. 802+50 TO STA. 833+15

NB T.H. 65 STA. 802+85 TO STA. 829+65



INSET A



INSET E



INSET G

- ① AGGREGATE SHOULDERING CLASS 5. USE ALL CLASS 5 AGGREGATE SHOULDERING IN LIEU OF CLASS 3 DUE TO THE SMALL QUANTITY.
- ② CONSTRUCT D424 C&G, SB T.H. 65 STA. 830+72.2 TO STA. 830+89.3.
- ③ CONSTRUCT D424 C&G, NB T.H. 65 STA. 806+60.0 TO STA. 806+77.0.
- ④ FOR RAMP TYPICAL SECTIONS, SEE SHEET NO. 87 TO 89.
- ⑤ VAR. SHLD. & LANE WIDTH FOR RAMP TAPER, NB T.H. 65 STA. 802+85 TO STA. 806+60.
- ⑥ VAR. TAPER 14' TO 12', NB T.H. 65 STA. 806+60 TO STA. 808+60.
- ⑦ VAR. SHLD. 12' - 0', SB T.H. 65 STA. 796+50 TO STA. 802+50.

- ⑧ VAR. LANE FOR RAMP ACCELERATION LANE 12' - 24', SB T.H. 65 STA. 796+50 TO STA. 802+50.
- ⑨ VAR. LANE FOR RAMP ACCELERATION LANE 24' - 42', SB T.H. 65 STA. 802+50 TO STA. 807+61.
- ⑩ VAR. TAPER 25' TO 12' SB STA. 830+89 TO STA. 833+15.
- ⑪ STA. 780+00 TO STA. 783+00 0' SUBCUT, EXCAVATE TO GRADING GRADE
 STA. 783+00 TO STA. 790+00 1' SUBCUT, SELECT GRANULAR
 STA. 790+00 TO STA. 794+00 2' SUBCUT, SELECT GRANULAR
 STA. 794+00 TO STA. 815+50 2' SUBCUT, GRANULAR, SELECT GRANULAR
 STA. 815+50 TO STA. 821+50 2' SUBCUT, SELECT GRANULAR
 STA. 821+50 TO STA. 833+15 2' SUBCUT, 1' GRANULAR, 1' SELECT GRANULAR

- ⑫ STA. 780+00 TO STA. 786+00 0' SUBCUT, EXCAVATE TO GRADING GRADE
 STA. 786+00 TO STA. 802+00 1' SUBCUT, SELECT GRANULAR
 STA. 802+00 TO STA. 807+00 2' SUBCUT, 1' GRANULAR, 1' SELECT GRANULAR
 STA. 807+00 TO STA. 816+00 1' SUBCUT, GRANULAR
 STA. 816+00 TO STA. 821+50 2' SUBCUT, SELECT GRANULAR
 STA. 821+50 TO STA. 829+65 1' SUBCUT, SELECT GRANULAR
- ⑬ PROVIDE TOPSOIL NB 65 STA. 802+50 TO STA. 817+25 AND STA. 819+80 TO STA. 829+65 SLOPE PAVING FROM STA. 817+25 TO STA. 819+80

TYPICAL SECTIONS

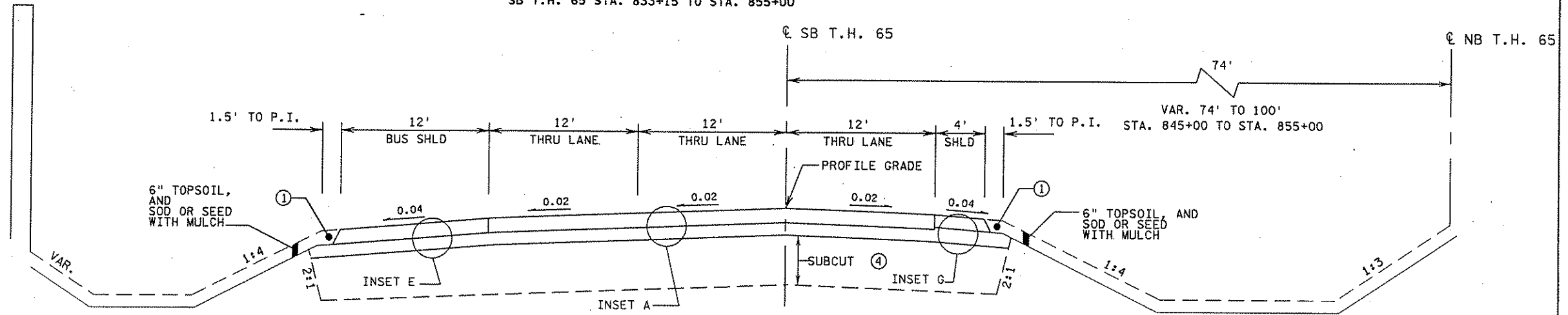
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 PLOTTED/REVISED: 23-MAR-2007 09:08

DISTRICT #: METRO
 PLOT NAME: 123.1502
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\0208123_1s1.dgn
 PLOTTED/REVISED: 23-MAR-2007 09:08

SB T.H. 65

SB T.H. 65 STA. 833+15 TO STA. 855+00

NOISE WALL 1
 STA. 833+10 TO STA. 841+70

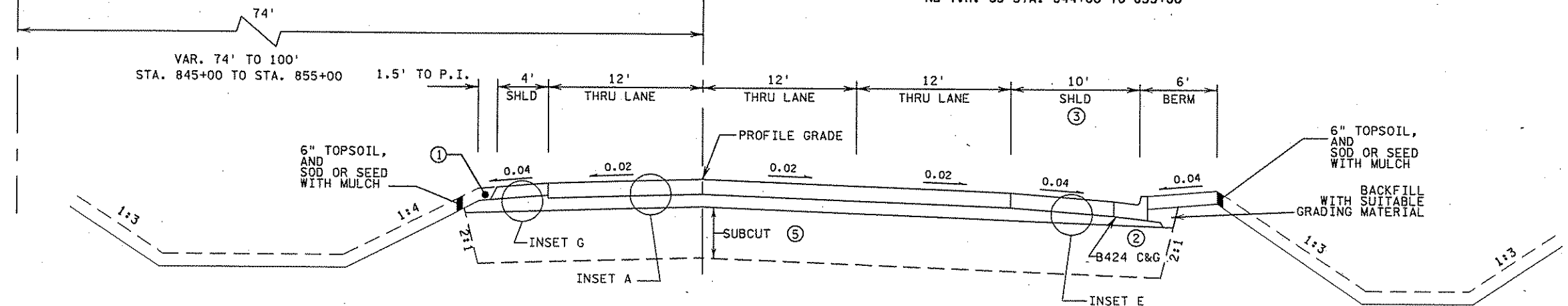


NB T.H. 65

NB T.H. 65 STA. 829+65 TO STA. 837+05

NB T.H. 65

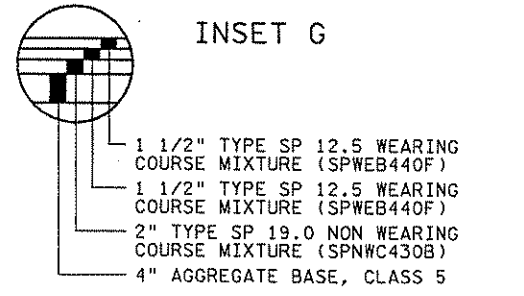
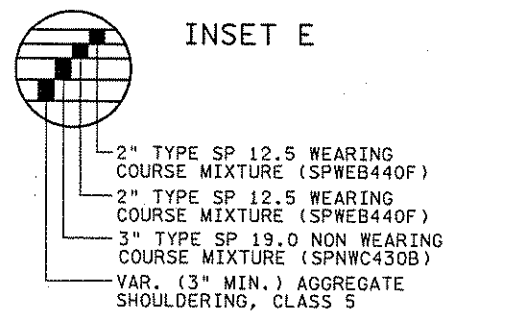
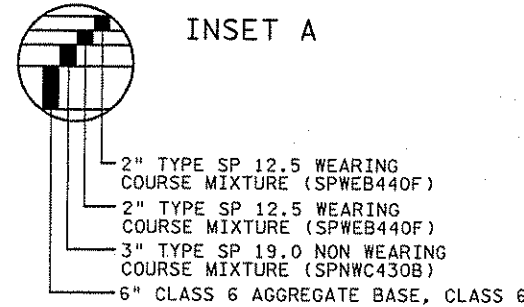
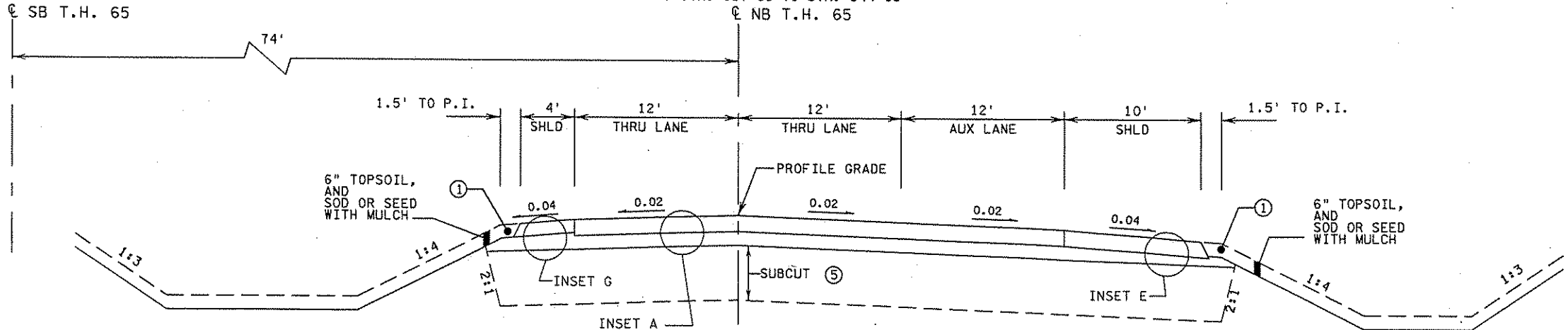
NB T.H. 65 STA. 844+00 TO 855+00



NB T.H. 65

NB T.H. 65 STA. 837+05 TO STA. 844+00

NB T.H. 65



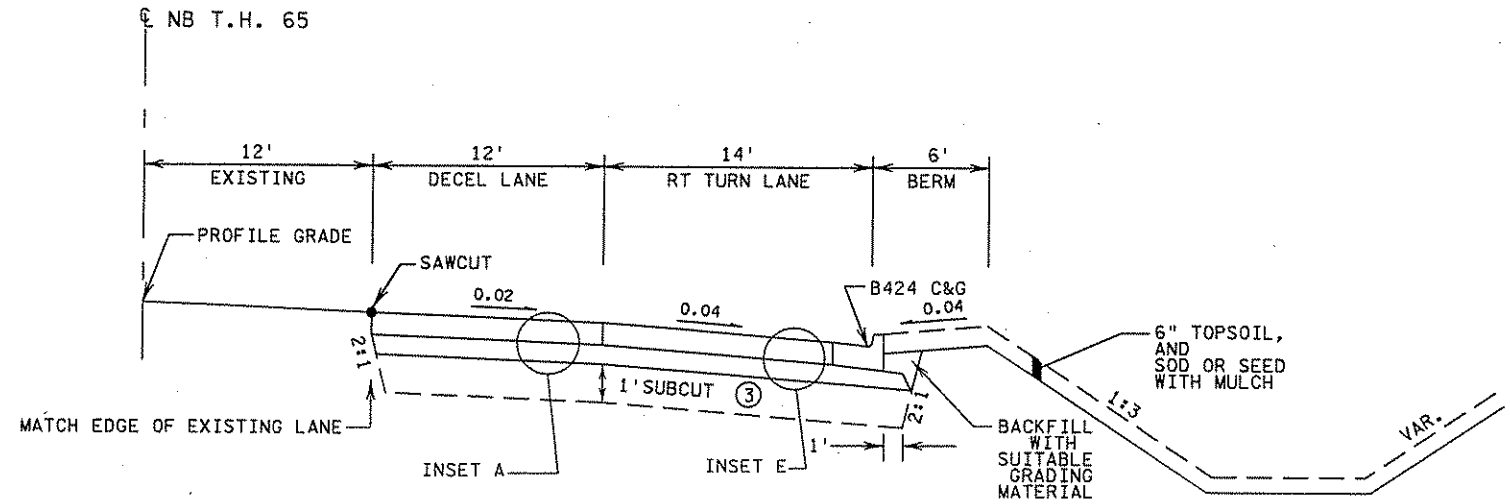
- ① AGGREGATE SHOULDERING, CLASS 5, SEE NOTE 1 ON SHEET NO. 83.
- ② CONSTRUCT D424 C&G NB T.H. 65 STA. 830+72.6 TO STA. 831+77.3.
- ③ VAR. WIDTH SHLD./TURN LANE NB T.H. 65 STA. 853+98 TO STA. 855+00.
- ④ STA. 833+15 TO STA. 843+00 2' SUBCUT, 1' GRANULAR, 1' SELECT GRANULAR
 STA. 843+00 TO STA. 846+50 2' SUBCUT, SELECT GRANULAR
 STA. 846+50 TO STA. 855+00 1' SUBCUT, 1' SELECT GRANULAR
- ⑤ STA. 829+65 TO STA. 837+05 2' SUBCUT, 1' GRANULAR, 1' SELECT GRANULAR
 STA. 837+05 TO STA. 855+00 1' SUBCUT, 1' SELECT GRANULAR

NOTE:
 FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

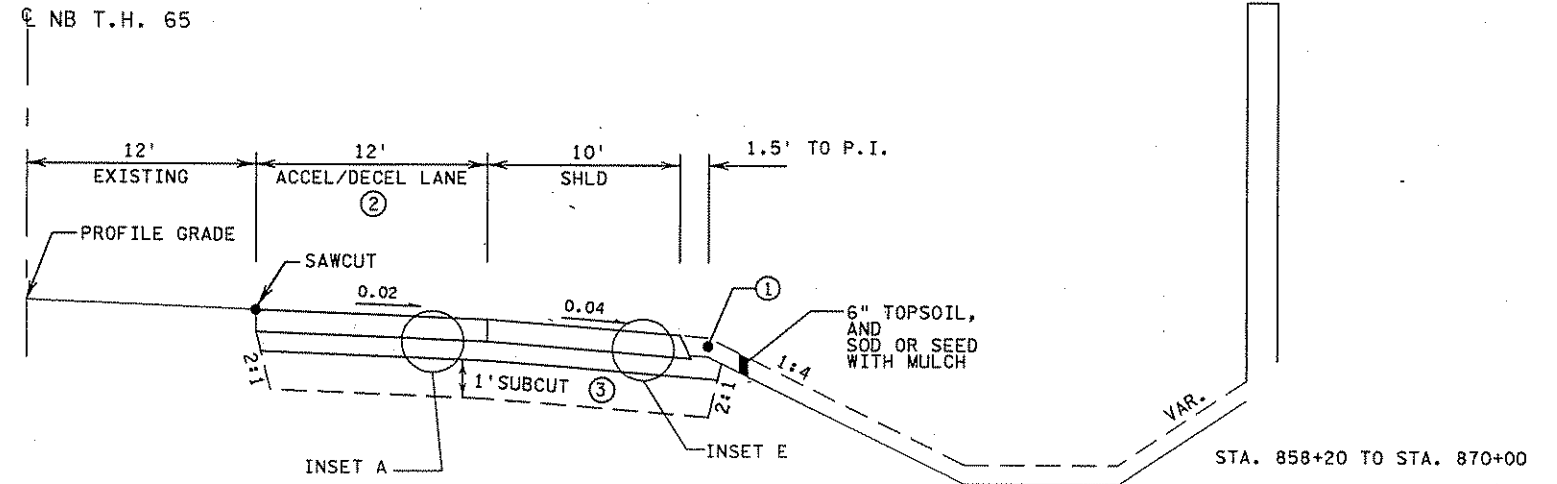
TYPICAL SECTIONS

NB T.H. 65

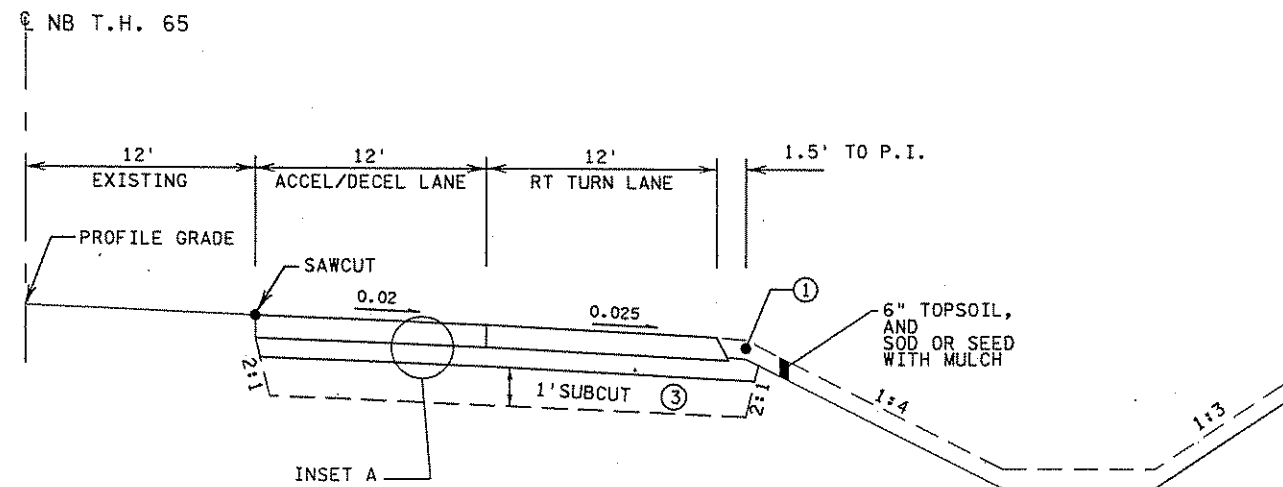
NB T.H. 65 STA. 855+00 TO STA. 858+00



NB T.H. 65 STA. 858+00 TO STA. 864+50
NB T.H. 65 STA. 871+00 TO STA. 889+25



NB T.H. 65 STA. 864+50 TO STA. 871+00



INSET A

- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 3" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 6" CLASS 6 AGGREGATE BASE, CLASS 6



INSET E

- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 3" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- VAR. (3" MIN.) AGGREGATE SHOULDERING, CLASS 5

NOTE:

- ① AGGREGATE SHOULDERING, CLASS 5, SEE NOTE 1 ON SHEET NO. 83.
- ② TAPERS FROM 12' TO 0' NB T.H. 65 STA. 880+85 TO STA. 889+25
- ③ 1' SUBCUT BACKFILL WITH SELECT GRANULAR

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

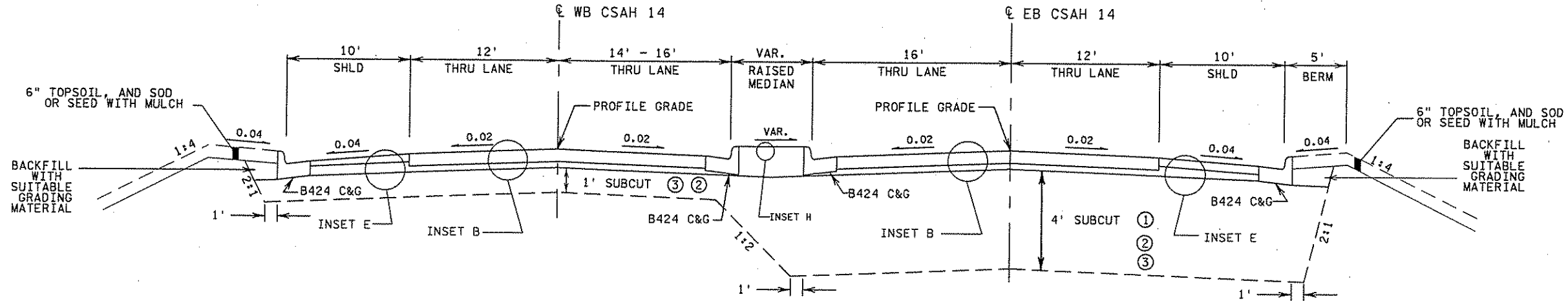
TYPICAL SECTIONS

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 PLOT NAME: 123.Js03
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 PLOTTED/REVISED: 23-MAR-2007 09:08

C.S.A.H. 14

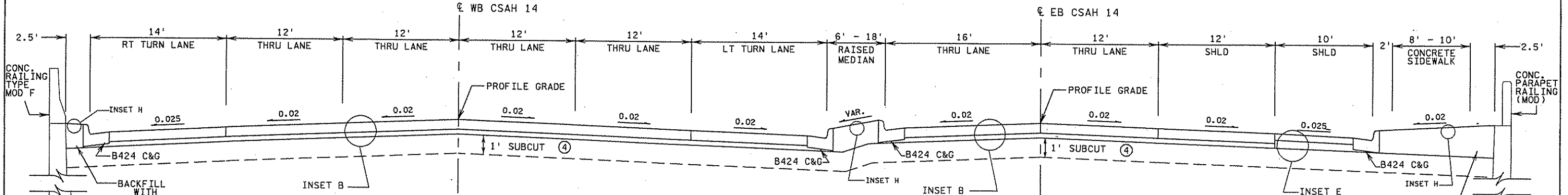
WB CSAH 14 STA. 217+12 TO STA. 229+90
WB CSAH 14 STA. 245+40 TO STA. 255+39

EB CSAH 14 STA. 217+12 TO STA. 229+90
EB CSAH 14 STA. 245+40 TO STA. 255+39



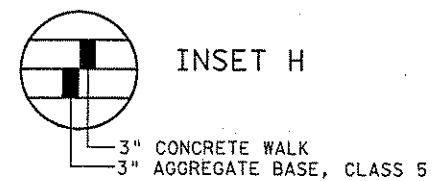
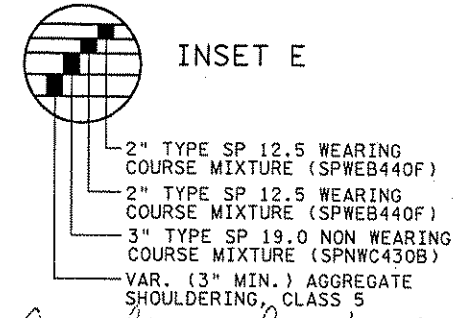
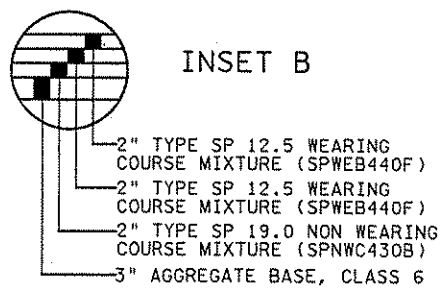
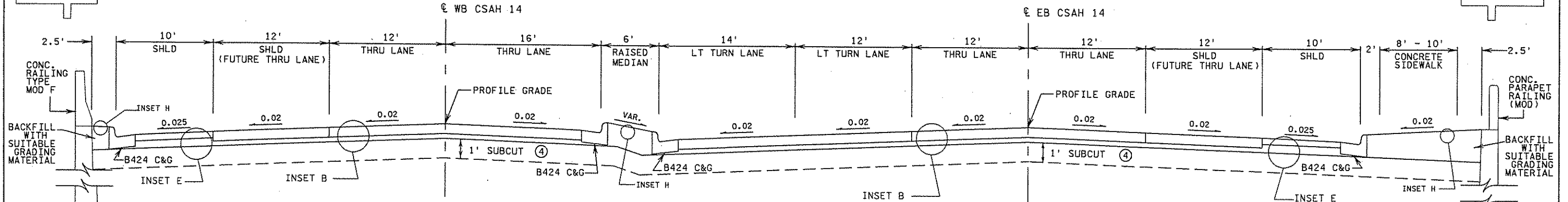
WB CSAH 14 STA. 229+90 TO STA. 232+90
WB CSAH 14 STA. 238+40 TO STA. 241+80

EB CSAH 14 STA. 229+90 TO STA. 232+90
EB CSAH 14 STA. 238+40 TO STA. 241+80



WB CSAH 14 STA. 232+90 TO STA. 236+10
WB CSAH 14 STA. 241+80 TO STA. 245+40

EB CSAH 14 STA. 232+90 TO STA. 236+10
EB CSAH 14 STA. 240+80 TO STA. 245+40



NOTE:

- ① EB STA. 220+00 TO STA. 230+00
4' SUBCUT
3' GRANULAR, 1' SELECT GRANULAR
- ② EB AND WB STA. 245+00 TO STA. 248+00
3' SUBCUT
2' GRANULAR, 1' SELECT GRANULAR
- ③ EB AND WB STA. 217+00 TO STA. 219+00
EB AND WB STA. 252+00 TO STA. 255+20
1' SUBCUT, BACKFILL WITH SELECT GRANULAR
- ④ 1' SUBCUT, BACKFILL WITH SELECT GRANULAR

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

6 OF 15

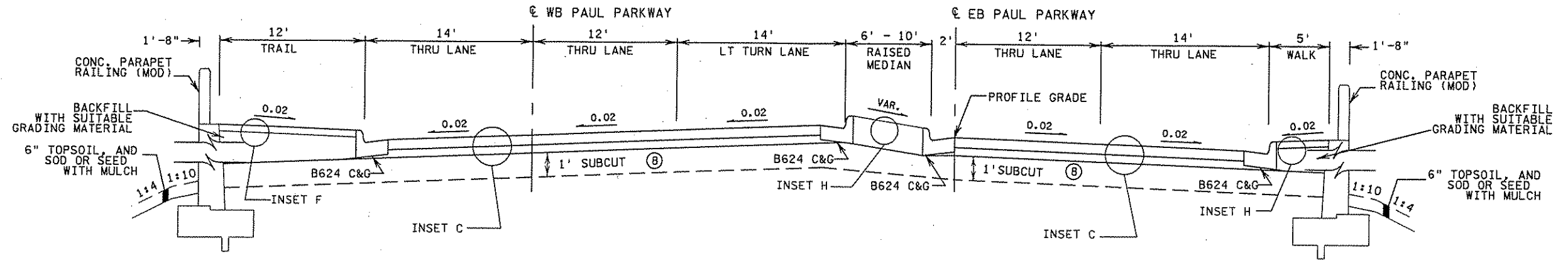
TYPICAL SECTIONS

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 PATH & FILENAME: S:\DESIGN\065\0208\23\Final\0208123.Js1.dgn
 PLOTTED/REVISED: 23-MAR-2007 09:08

PAUL PARKWAY/121ST AVE.

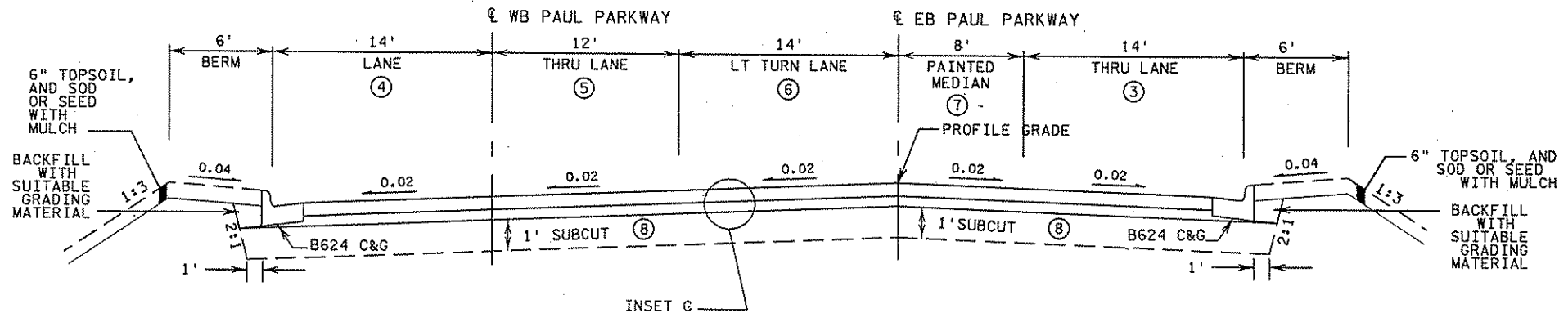
WB PAUL PARKWAY STA. 110+53 TO STA. 114+87
WB PAUL PARKWAY STA. 116+76 TO STA. 120+24

EB PAUL PARKWAY STA. 110+44 TO STA. 115+08
EB PAUL PARKWAY STA. 116+96 TO STA. 120+46



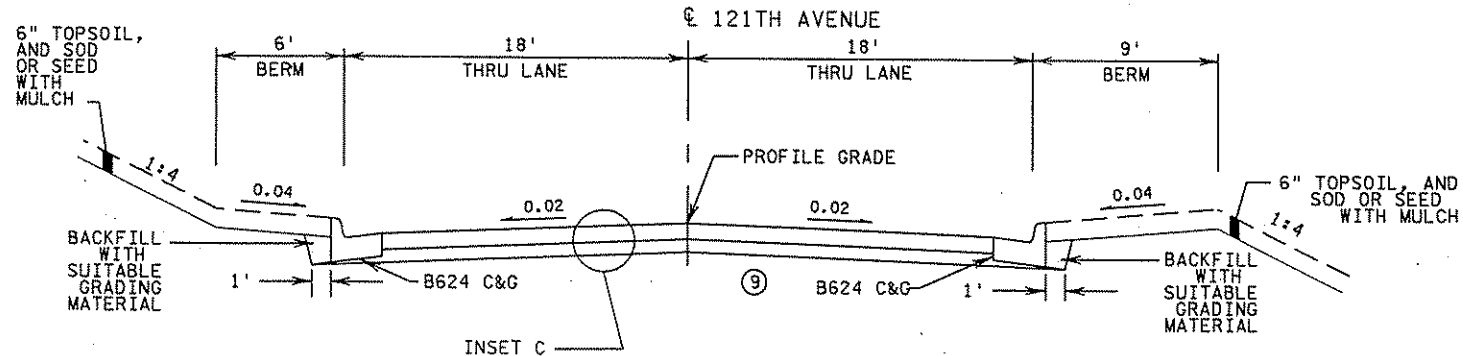
PAUL PARKWAY/121ST AVE.

EB PAUL PARKWAY STA. 120+46 TO STA. 124+45
WB PAUL PARKWAY STA. 120+24 TO STA. 124+15



121ST AVE.

121ST AVE. STA. 124+45 TO STA. 126+35



NOTE:
FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

- ① AGGREGATE SHOULDERING, CLASS 5, SEE NOTE 1 ON SHEET NO. 83.
- ② TAPERS FROM 34' TO 0' EB PAUL PARKWAY STA. 121+85 TO STA. 124+27.
- ③ TAPERS FROM 14' TO 18' EB PAUL PARKWAY STA. 123+00 TO STA. 124+45.
- ④ TAPERS FROM 14' TO 18' WB PAUL PARKWAY STA. 123+00 TO STA. 124+29.
- ⑤ TAPERS FROM 12' TO 0' WB PAUL PARKWAY STA. 123+24 TO STA. 124+29.
- ⑥ TAPERS FROM 14' TO 0' WB PAUL PARKWAY STA. 122+44 TO STA. 123+24.
- ⑦ TAPERS FROM 8' TO 0' EB PAUL PARKWAY STA. 121+84 TO STA. 122+66.
- ⑧ 1' SUBCUT BACKFILL WITH GRANULAR.
- ⑨ NO SUBCUT REQUIRED, EXCAVATE ONLY TO GRADING GRADE.

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Sundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 87 OF 872 SHEETS

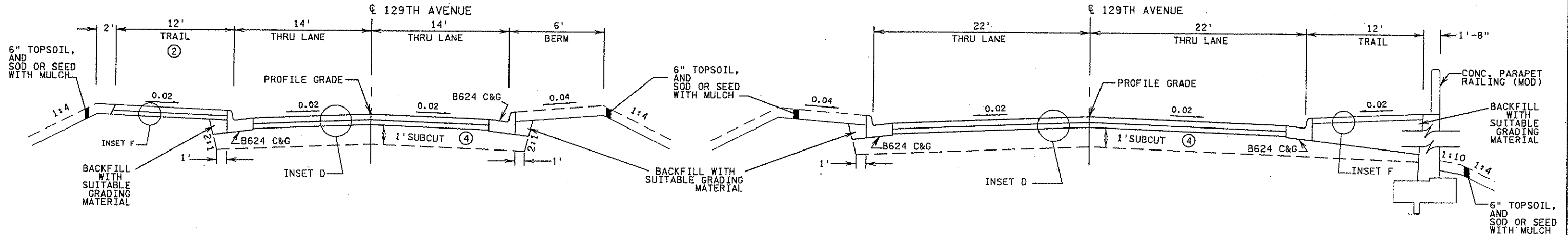
PLOTTED/REVISED: 26-MAR-2007 06:10

DISTRICT #: METRO
PLOT NAME: 0208123_1.spl
PATH & FILENAME: S:\Design\065\0208\23\Final\0208123_1.sldgn

129TH AVE.

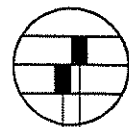
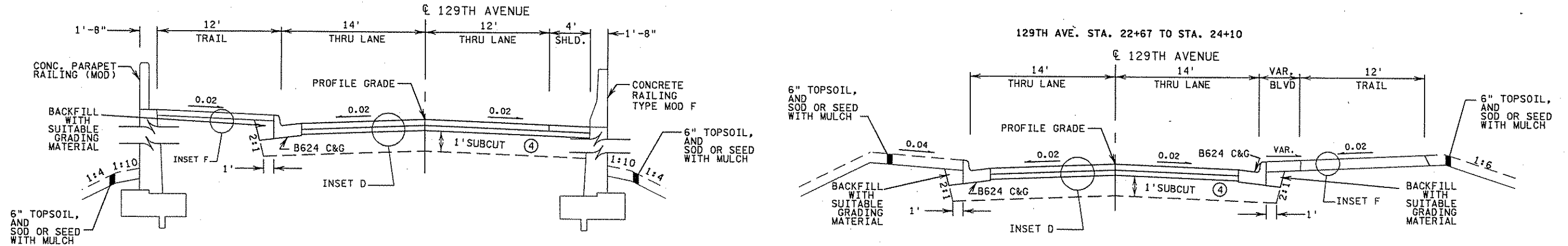
129TH AVE. STA. 11+90 TO STA. 13+87
129TH AVE. STA. 19+10 TO STA. 21+55

129TH AVE. STA. 21+55 TO STA. 22+67



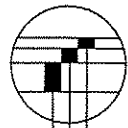
129TH AVE. STA. 13+87 TO STA. 17+22

129TH AVE. STA. 22+67 TO STA. 24+10



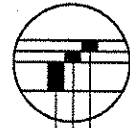
INSET H

3" CONCRETE WALK
3" AGGREGATE BASE, CLASS 5



INSET D

1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
3" AGGREGATE BASE, CLASS 5



INSET F

1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
VAR. (3" MIN) AGGREGATE SHOULDERING, CLASS 5

NOTE:

- ① AGGREGATE SHOULDERING, CLASS 5, SEE NOTE 1 ON SHEET NO. 83.
- ② TYPICAL 129TH AVE. STA. 19+09.7 LT TO STA. 21+55 LT.
- ③ TYPICAL 129TH AVE. L AND RT, STA. 11+90 TO STA. 13+87.4.
- ④ 1' SUBCUT, BACKFILL WITH GRANULAR

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

8 OF 15

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 88 OF 872 SHEETS

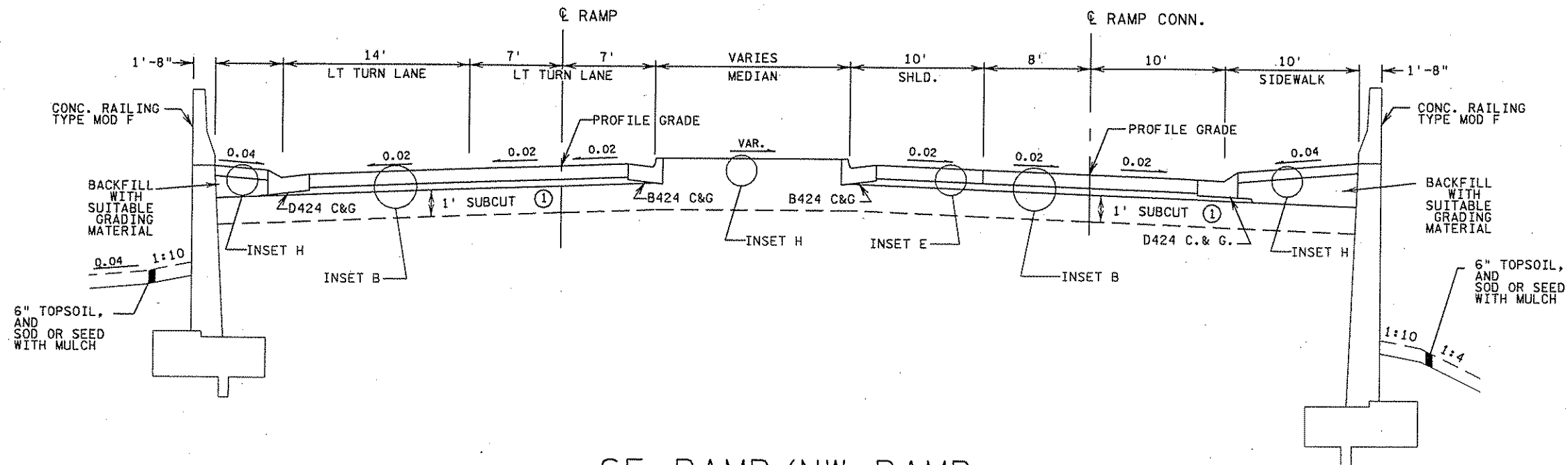
PLOTTED/REVISED: 26-MAR-2007 11:36

DISTRICT #: METRO
PLOT NAME: 0208123.tbl
PATH & FILENAME: S:\Design\065\0208\23\Final\0208123.tbl.dgn

SE, NE, SW, NW RAMP & RAMP CONNECTION

SE RAMP STA. 16+79 TO STA. 18+01
 NE RAMP STA. 19+14 TO STA. 20+14
 SW RAMP STA. 16+95 TO STA. 17+93
 NW RAMP STA. 19+06 TO STA. 20+30

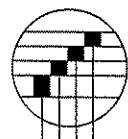
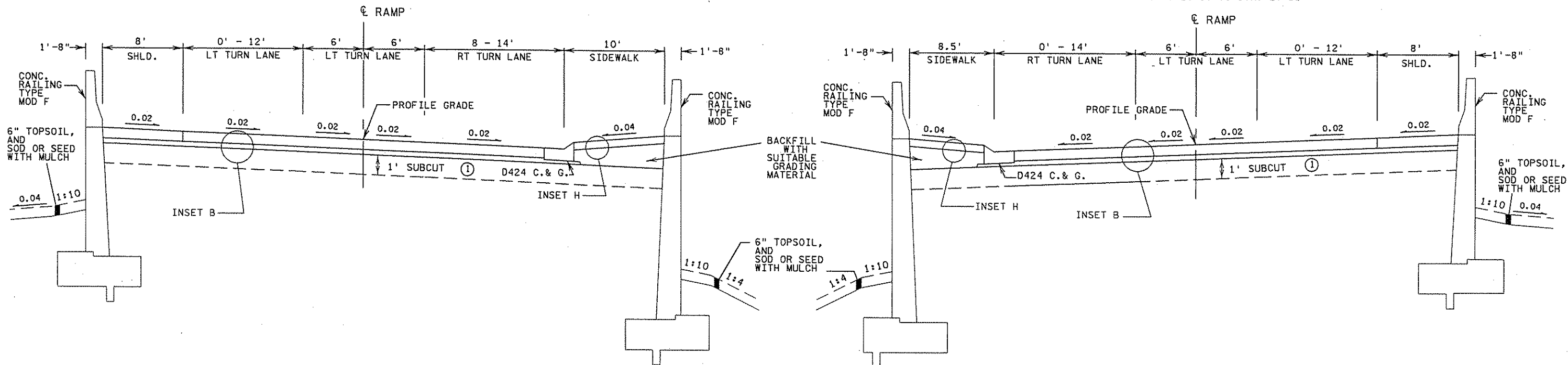
SE RAMP CONN. STA. 16+81 TO STA. 17+77
 NE RAMP CONN. STA. 19+38 TO STA. 20+11
 SW RAMP CONN. STA. 16+97 TO STA. 17+69
 NW RAMP CONN. STA. 19+31 TO STA. 20+28



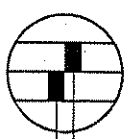
SE RAMP/NW RAMP

SE RAMP STA. 10+29 TO STA. 16+79

NW RAMP STA. 20+30 TO STA. 27+31



INSET B



INSET H

- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 3" AGGREGATE BASE, CLASS 6

- 3" CONCRETE WALK
- 3" AGGREGATE BASE, CLASS 5

NOTE:

① BACKFILL WITH GRANULAR

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

9 OF 15

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 9/4/07

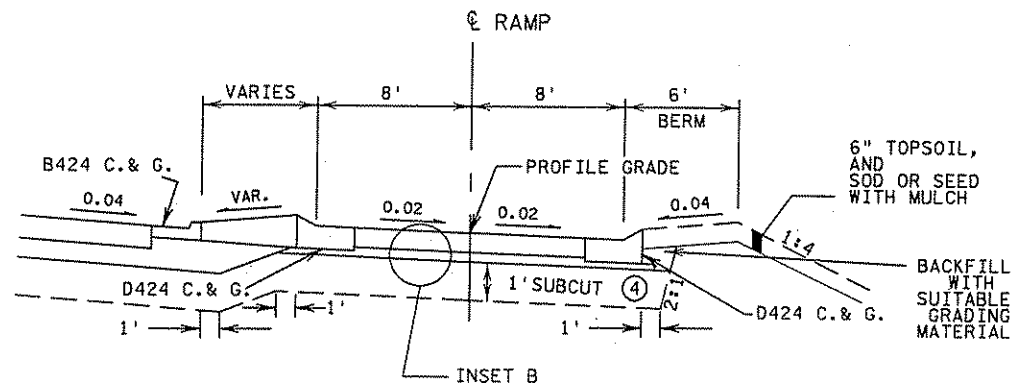
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 89 OF 872 SHEETS

PLOTTED/REVISED: 23-MAR-2007 09:08

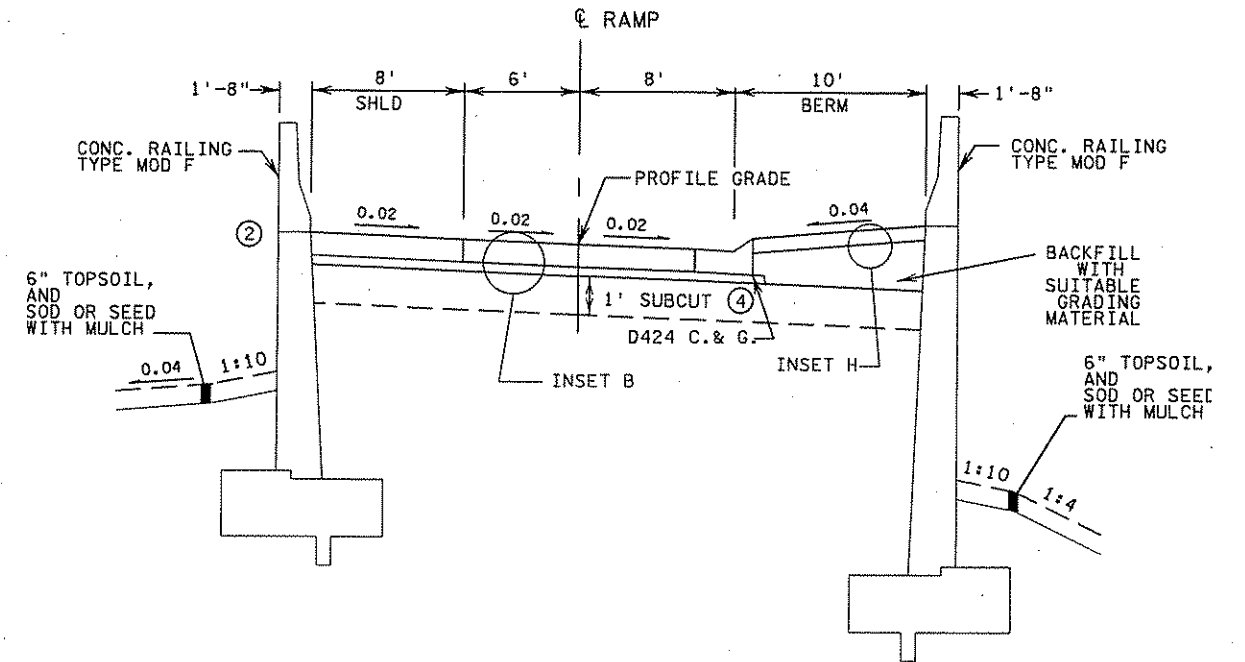
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 PLOT NAME: 123-1s07
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\0208\123_1s1.dgn

SE RAMP/NE RAMP

SE RAMP STA. 6+72 TO STA. 8+81
NE RAMP STA. 27+00 TO STA. 29+66



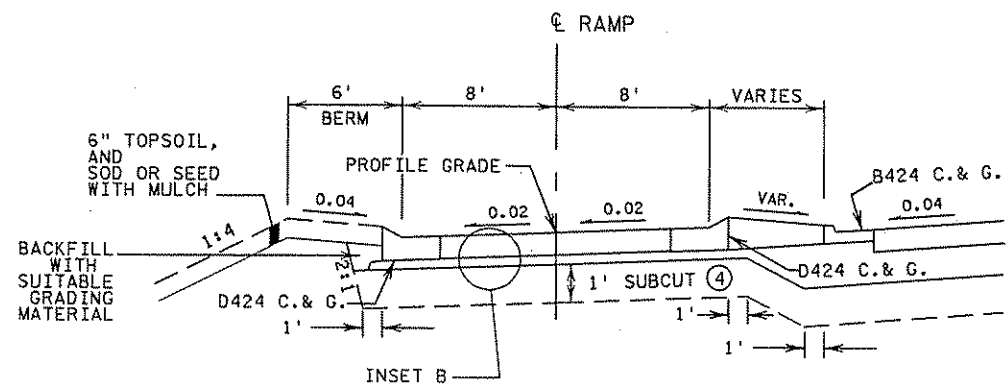
SE RAMP STA. 8+81 TO STA. 10+29



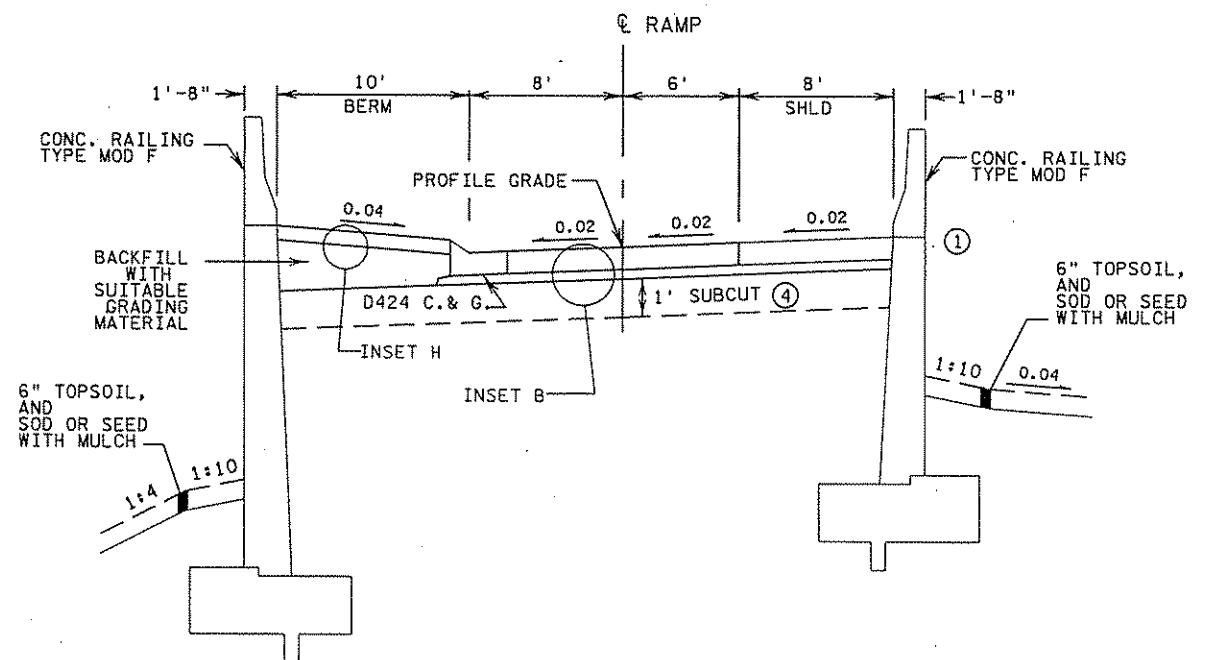
- ① FOR SW RAMP RETAINING WALL BEGINS AT STA. 10+98
- ② FOR NB T.H 65 TYPICAL SECTIONS, SEE SHEET NO. 83 TO 85.
- ③ FOR SB T.H 65 TYPICAL SECTIONS, SEE SHEET NO. 83 TO 85.
- ④ 1' SUBCUT BACKFILL WITH SELECT GRANULAR

SW RAMP/NW RAMP

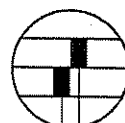
SW RAMP STA. 7+61 TO STA. 9+60
NW RAMP STA. 28+15 TO STA. 30+90



NW RAMP STA. 27+31 TO STA. 28+15



INSET B



INSET H

- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 3" AGGREGATE BASE, CLASS 6

- 3" CONCRETE WALK
- 3" AGGREGATE BASE, CLASS 5

NOTE:
FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

10 OF 15

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/9/07

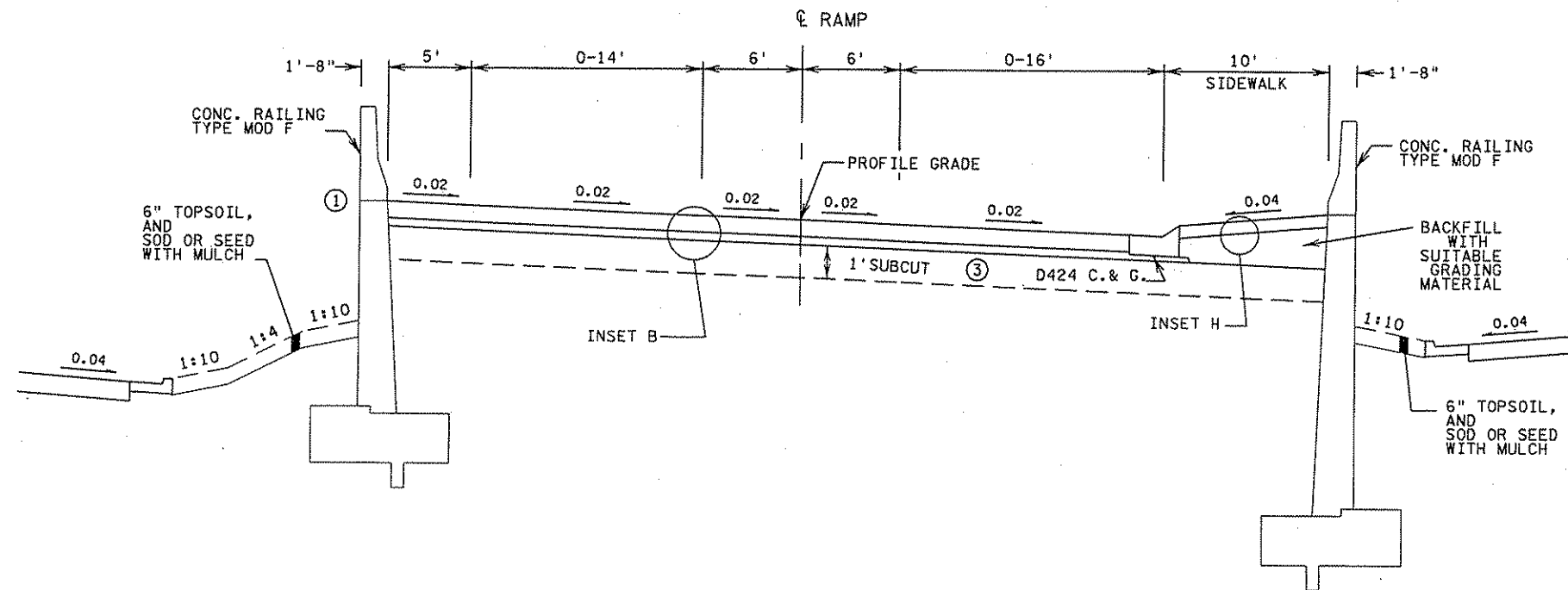
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 90 OF 872 SHEETS

PLOTTED/REVISED: 04-APR-2007 15:48

DISTRICT #: METRO
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PATH & FILENAME: S:\DESIGN\065\0208\23\Final\0208123.Js1.dgn

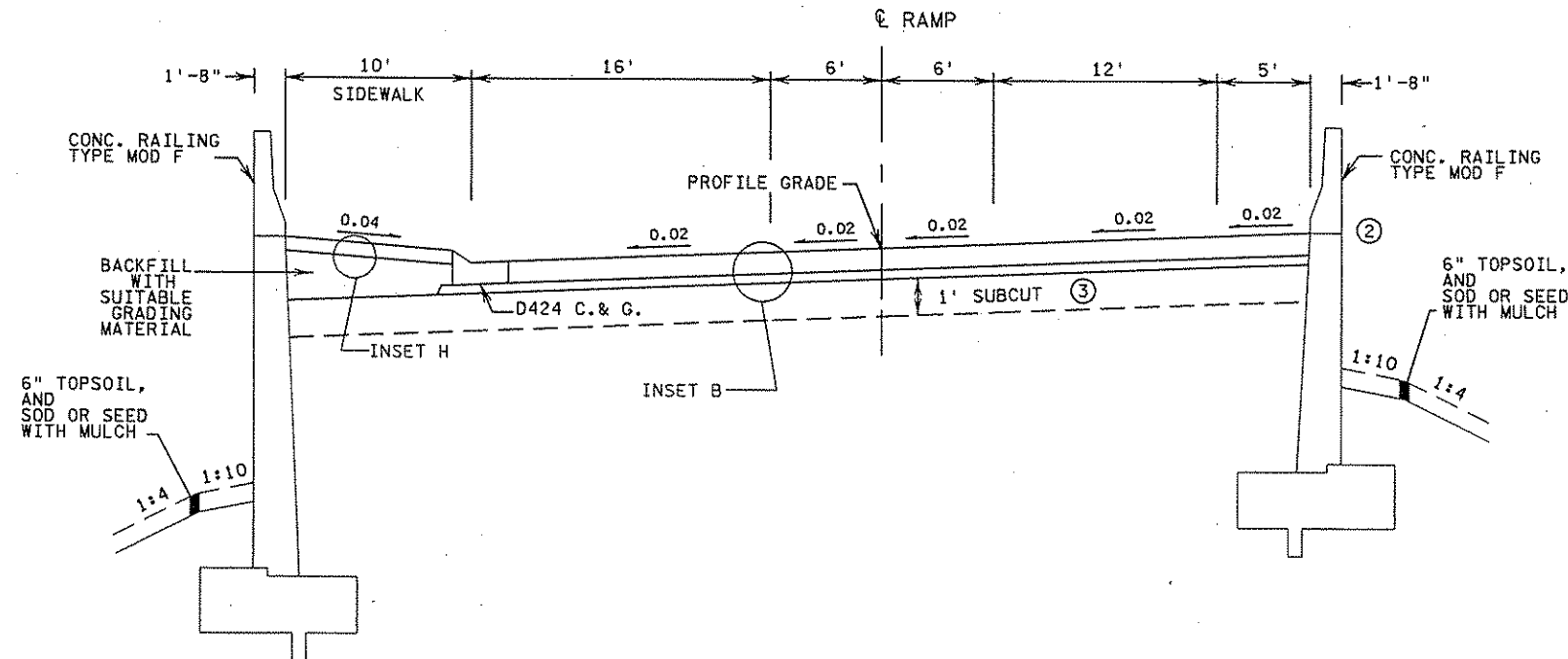
NE RAMP

NE RAMP STA. 20+14 TO STA. 27+00

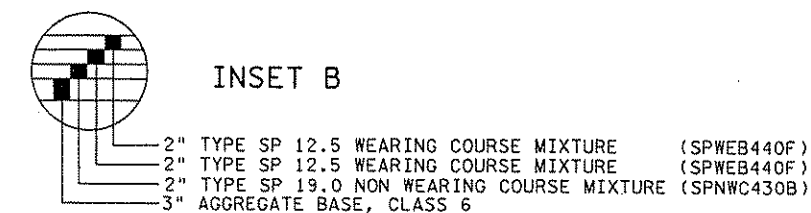
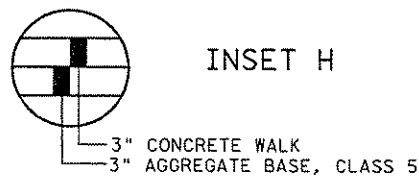


SW RAMP

SW RAMP STA. 9+60 TO STA. 16+95



- ① RETAINING WALL ENDS AT STA. 24+30
- ② RETAINING WALL BEGINS AT 10+98
- ③ 1' SUBCUT BACKFILL WITH SELECT GRANULAR



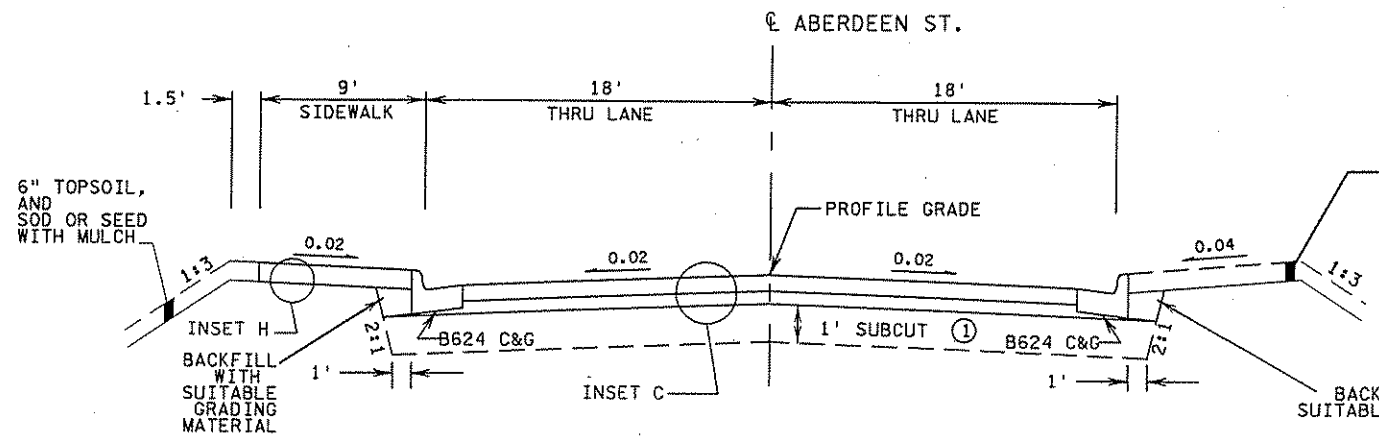
NOTE:
FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

TYPICAL SECTIONS

DISTRICT #: METRO
 IPLOT NAME: 123_1s10
 PATH & FILENAME: S:\DESIGN\065\0208\23\Final\0208123_1s1.dgn
 PLOTTED/REVISED: 23-MAR-2007 09:09

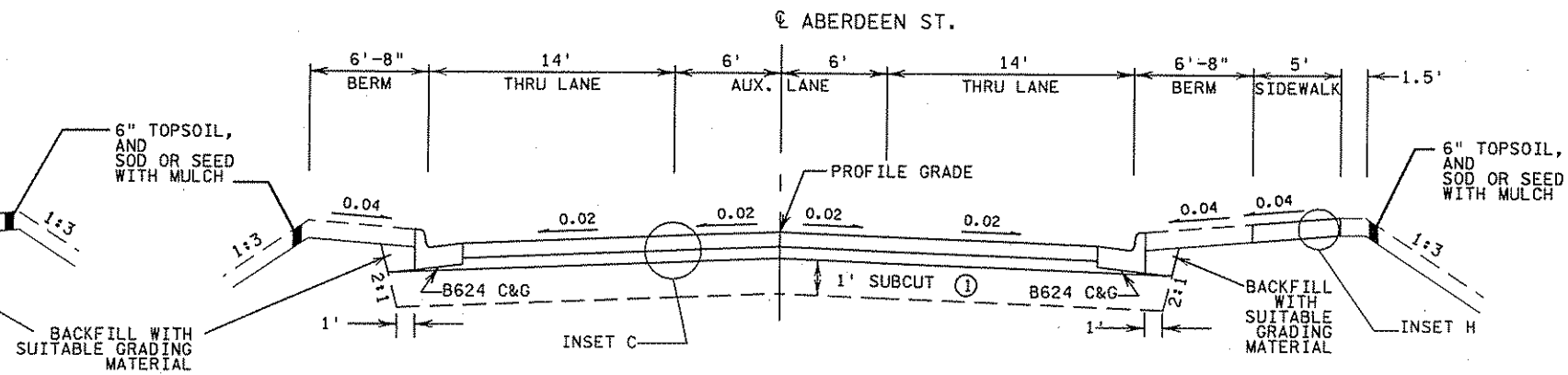
ABERDEEN ST. AT 121ST. AVE.

ABERDEEN ST. STA. 100+05 TO STA. 103+27



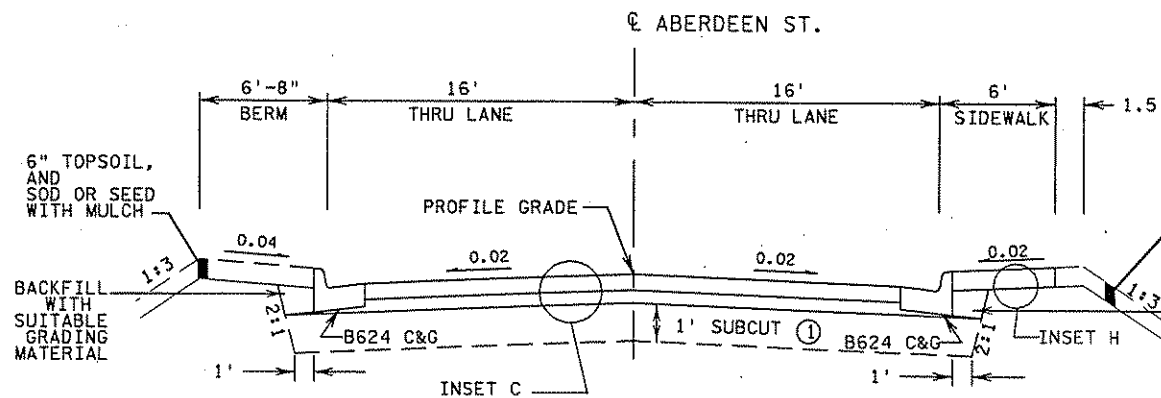
ABERDEEN ST.

ABERDEEN ST. STA. 126+50 TO STA. 129+71



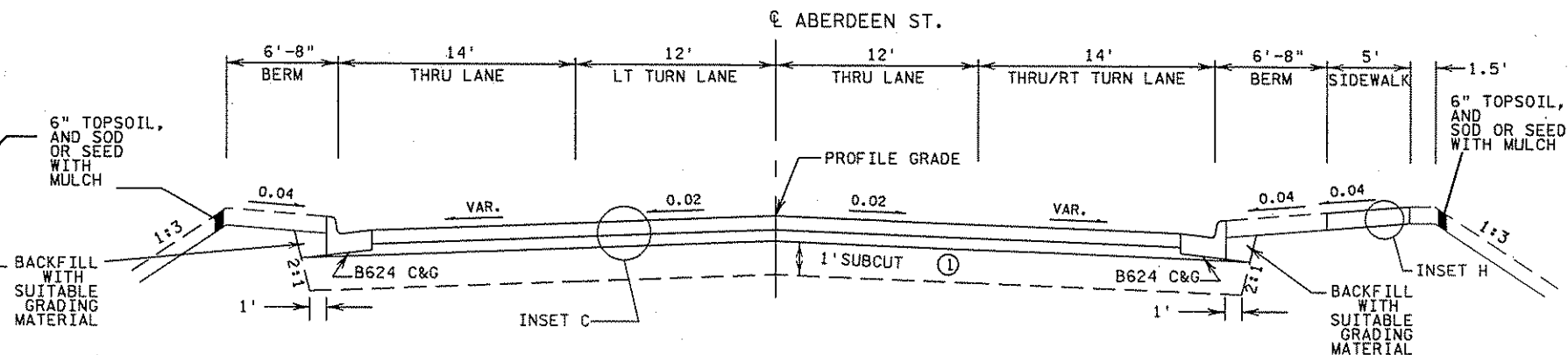
ABERDEEN ST. AT 121ST. AVE.

ABERDEEN ST. STA. 104+45 TO STA. 108+74



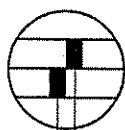
ABERDEEN ST. AT CSAH 14

ABERDEEN ST. STA. 129+71 TO STA. 131+15



INSET C

- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 4" AGGREGATE BASE, CLASS 6



INSET H

- 3" CONCRETE WALK
- 3" AGGREGATE BASE, CLASS 5

NOTE:

- ① 1' SUBCUT BACKFILL WITH GRANULAR

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

12 OF 15

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

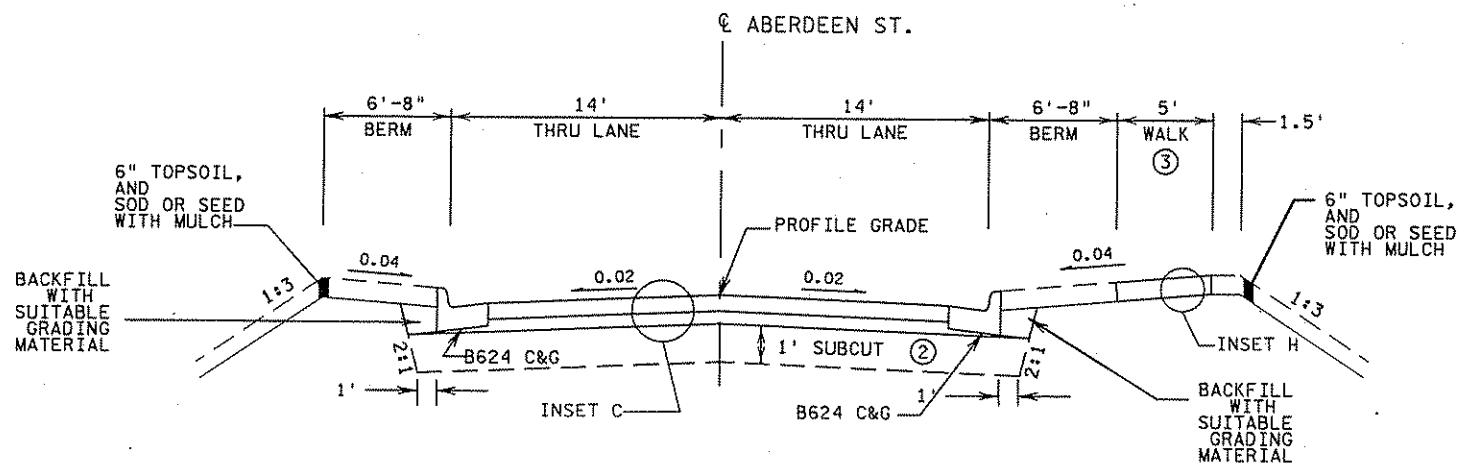
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 92 OF 872 SHEETS

PLOTTED/REVISED: 23-MAR-2007 09:09

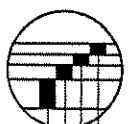
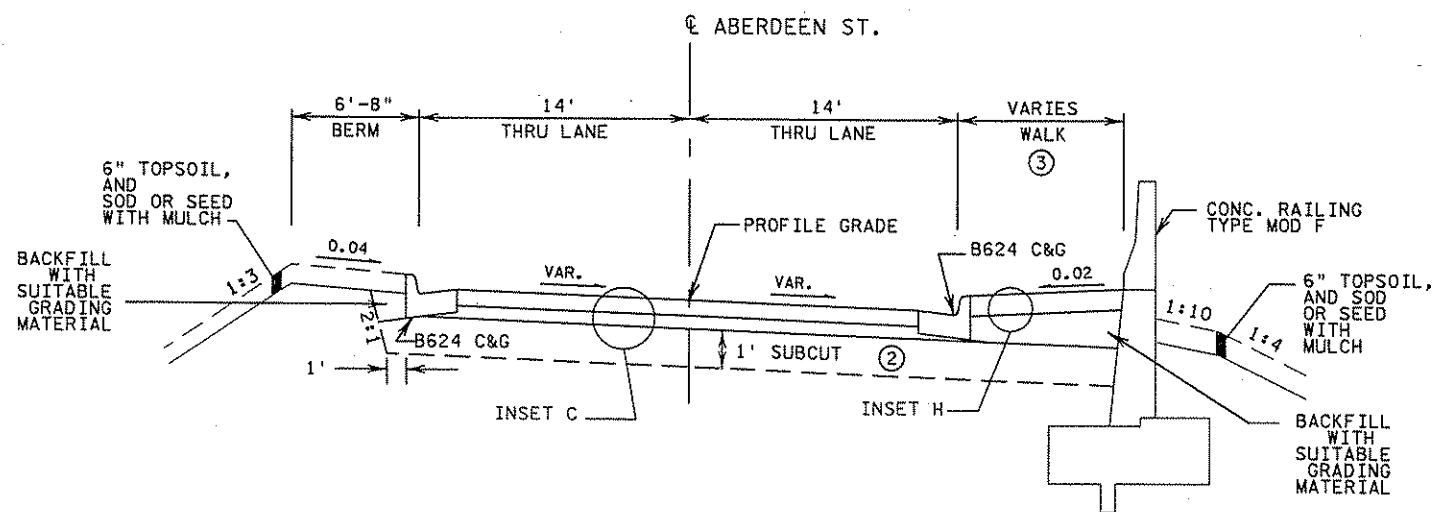
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PLOT NAME: 123_1s09
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\0208123_1s1.dgn

ABERDEEN ST. AT 129TH AVE.

ABERDEEN ST. STA. 159+52 TO STA. 162+04
 ABERDEEN ST. STA. 164+93 TO STA. 166+70

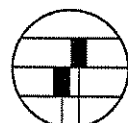


ABERDEEN ST. STA. 162+04 TO STA. 164+93



INSET C

- 1 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 4" AGGREGATE BASE, CLASS 6



INSET H

- 3" CONCRETE WALK
- 3" AGGREGATE BASE, CLASS 5

NOTE:

- ① VARIES 0' - 6', ABERD STA. 128+78.8 TO STA. 130+59.0.
- ② 1' SUBCUT BACKFILL WITH GRANULAR
- ③ SIDEWALK ENDS STA. 136+00

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

13 OF 15

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

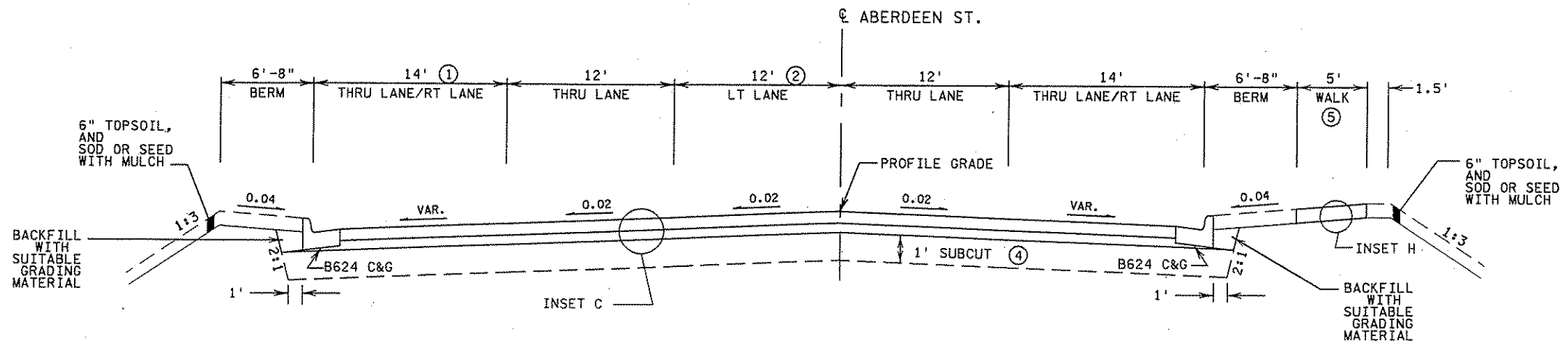
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 93 OF 872 SHEETS

PLOTTED/REVISED: 23-MAR-2007 09:09

DISTRICT #: METRO
 PLOT NAME: 123.tbl
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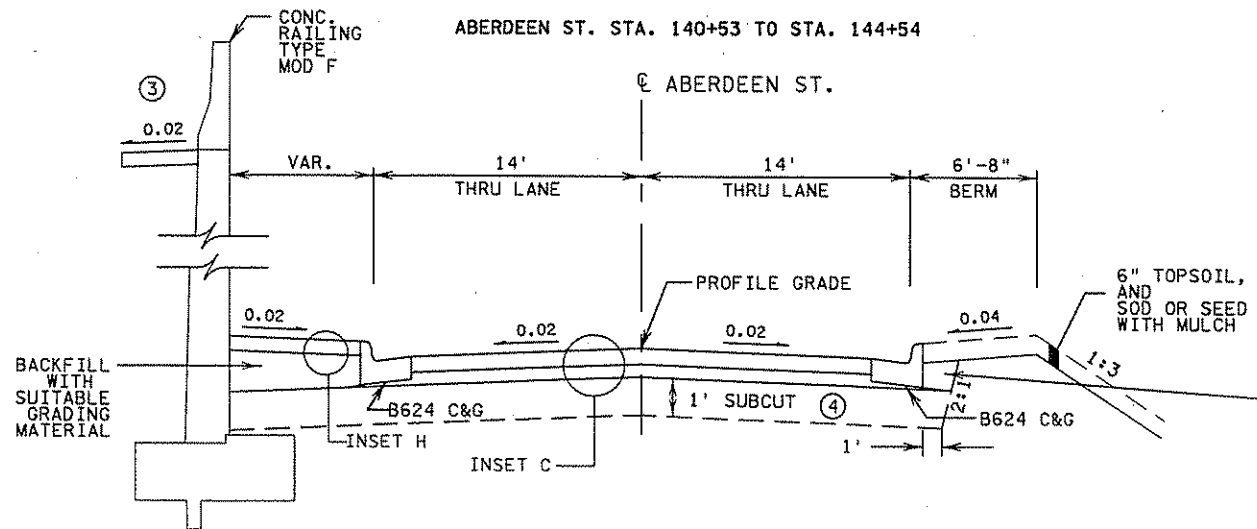
CENTRAL AVE. AT CSAH 14

ABERDEEN ST. STA. 132+60 TO STA. 140+53

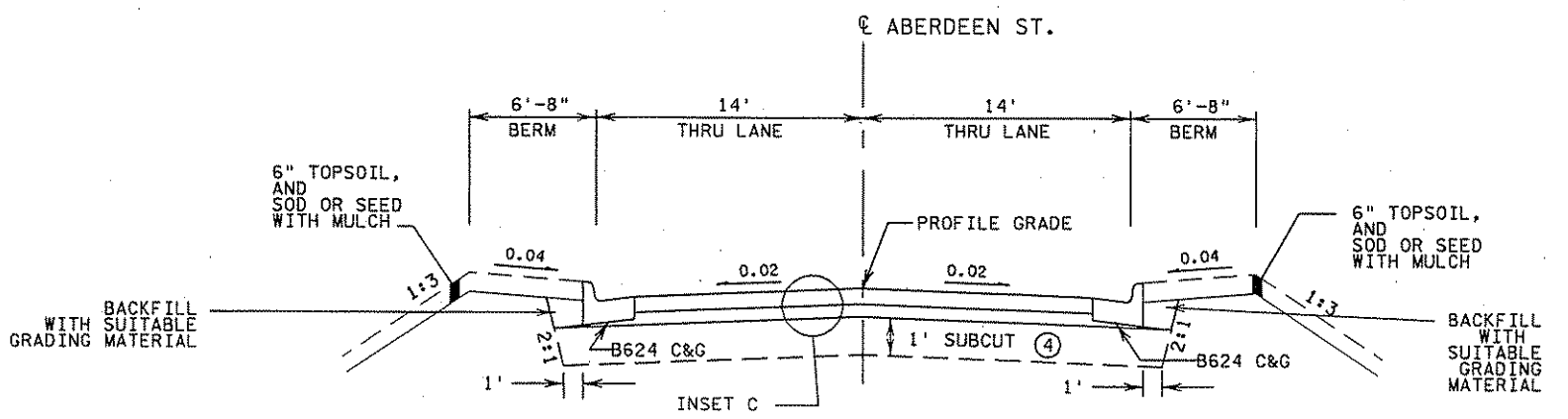


CENTRAL AVE.

ABERDEEN ST. STA. 140+53 TO STA. 144+54

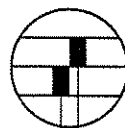


ABERDEEN ST. STA. 144+54 TO STA. 149+00



INSET C

- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 1 1/2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440F)
- 2" TYPE SP 19.0 NON WEARING COURSE MIXTURE (SPNWC430B)
- 4" AGGREGATE BASE, CLASS 6



INSET H

- 3" CONCRETE WALK
- 3" AGGREGATE BASE, CLASS 5

NOTE:

- ① TAPERS FROM 12' TO 0', ABER STA. 134+00.0 TO STA. 136+12.9.
- ② VAR. GORE AREA FROM ABERD STA. 137+61.0 TO STA. 140+53.3.
- ③ FOR NE RAMP TYPICAL SECTIONS, SEE SHEET NO. 7 OF 15 TO 9 OF 15.
- ④ 1' SUBCUT BACKFILL WITH GRANULAR
- ⑤ SIDEWALK ENDS STA. 136+00

FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

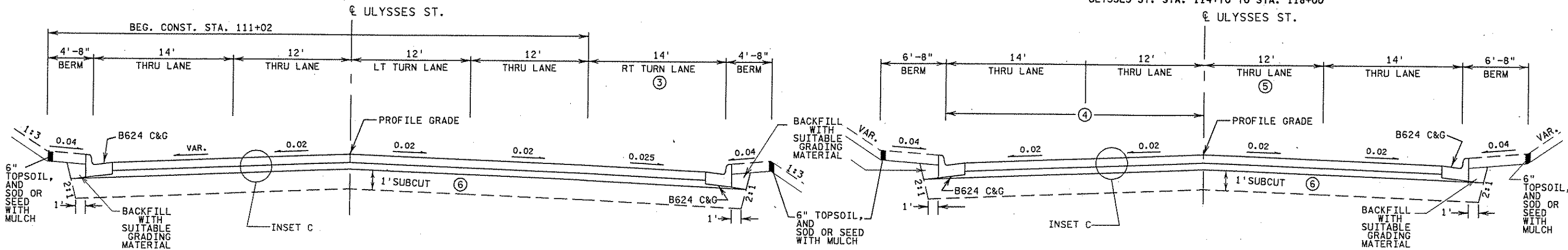
DATE 4/14/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 94 OF 872 SHEETS

ULYSSES ST. AT CSAH 14

ULYSSES ST. STA. 109+53 TO STA. 113+03

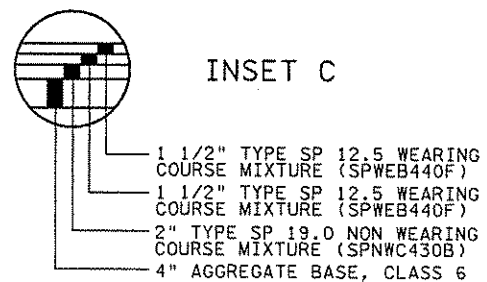
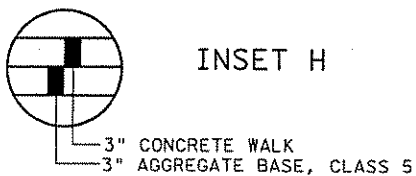
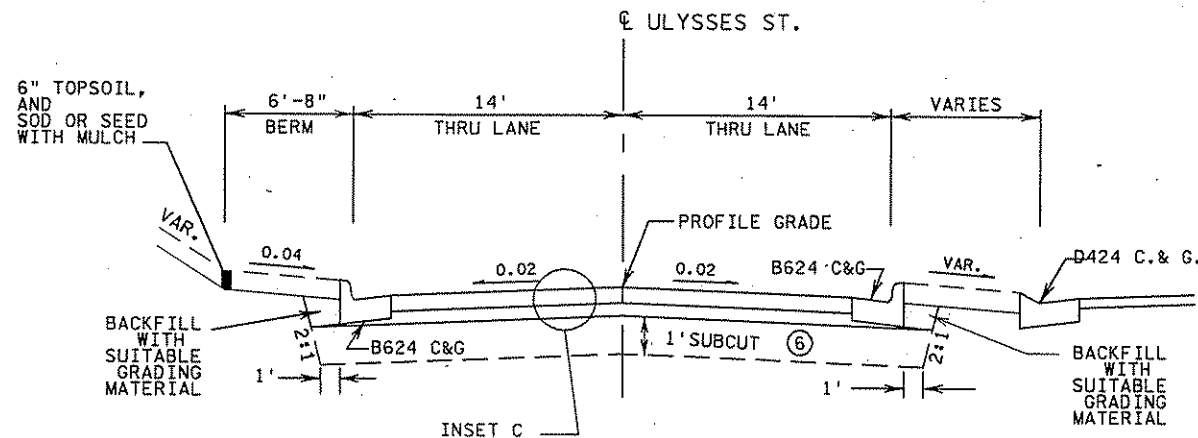
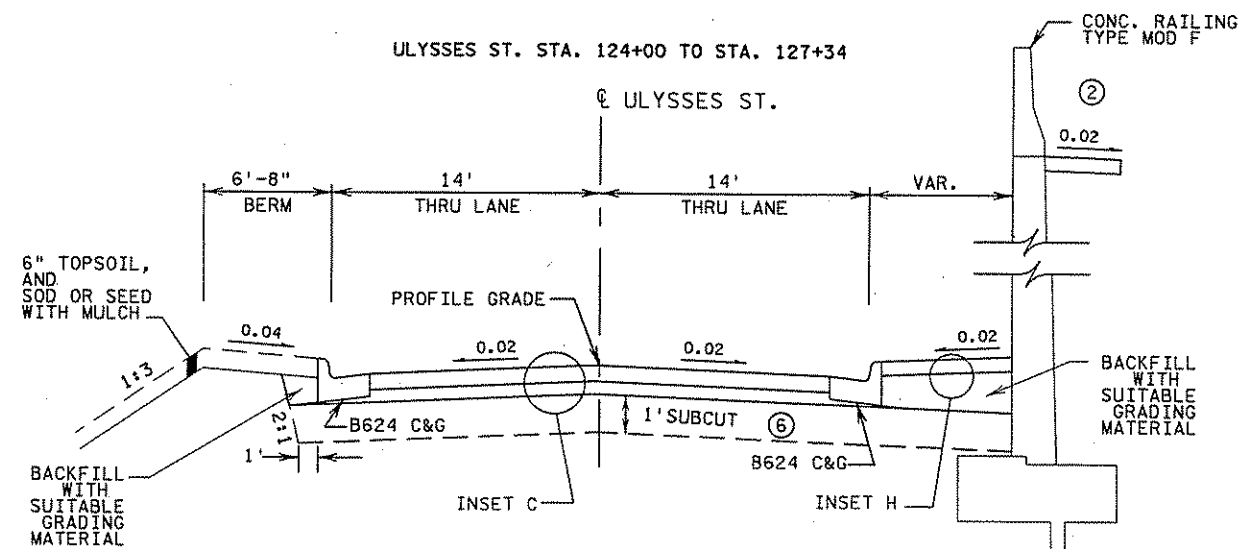
ULYSSES ST. STA. 114+70 TO STA. 118+00



ULYSSES ST.

ULYSSES ST. STA. 124+00 TO STA. 127+34

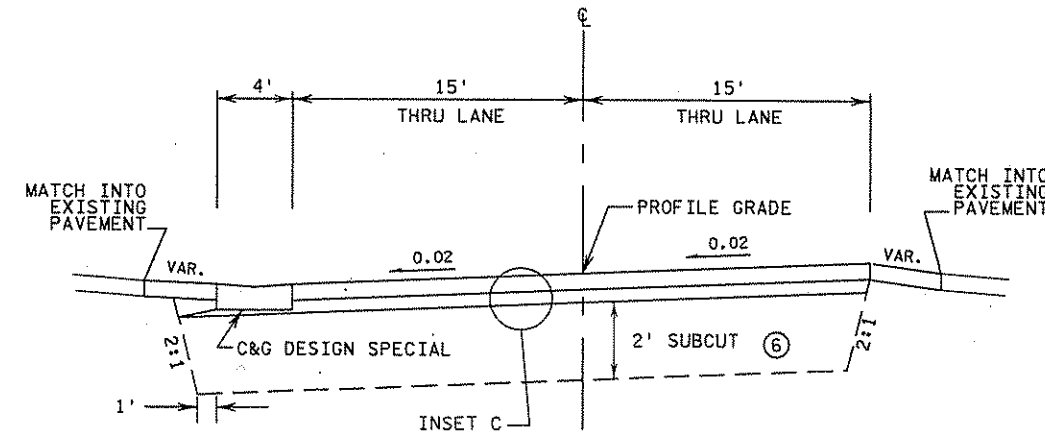
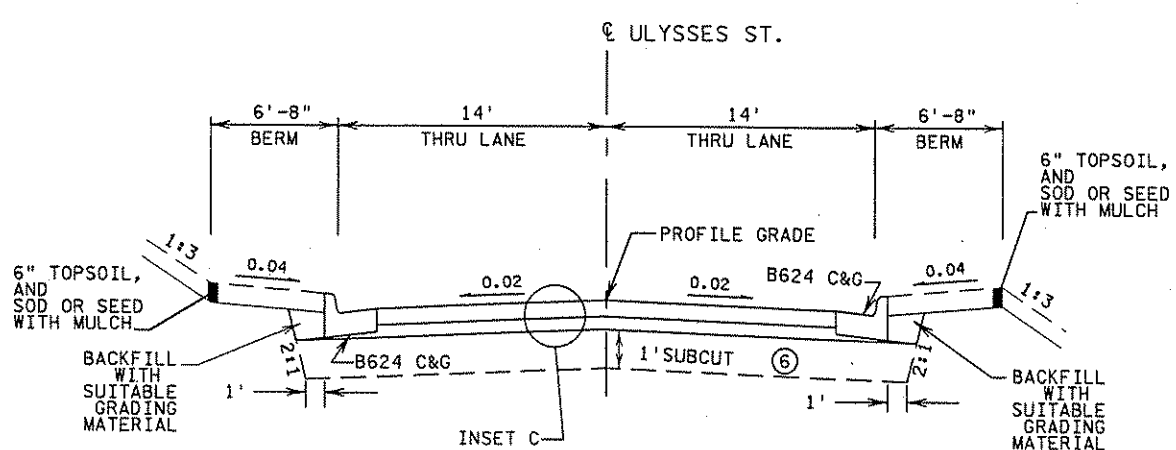
ULYSSES ST. STA. 127+34 TO STA. 129+99



ULYSSES ST. STA. 121+12 TO STA. 124+00

ULYSSES ST. ENTRANCE

ST. STA. 10+50 TO STA. 13+00



- ① FOR NW RAMP LEFT OF SB T.H. 65, SEE TYPICAL SECTION ON SHEET NOS. 89 & 90.
- ② FOR WNW WALL DETAILS, SEE SHEET NO. 308 TO 319.
- ③ VARIES 0' - 14', STA. 109+53 TO STA. 110+73.
- ④ CONST. ENDS THIS HALF, STA. 115+90.
- ⑤ VARIES 12' - 0' STA. 116+32 TO STA. 118+00.
- ⑥ BACKFILL WITH GRANULAR

NOTE: FOR GENERAL TYPICAL SECTIONS NOTES, SEE SHEET NO. 1 OF 15.

15 OF 15

TYPICAL SECTIONS

DRAWN BY: LM

CHECKED BY: MW

CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 95 OF 872 SHEETS

PLOTTED/REVISED: 23-MAR-2007 09:09

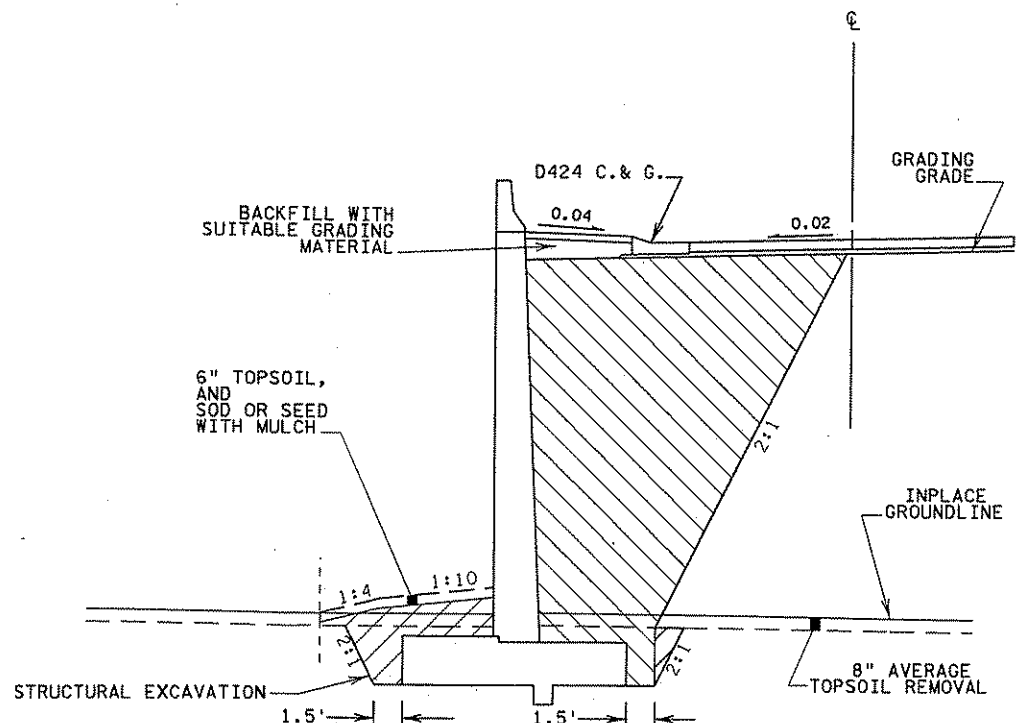
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PLOT NAME: 123.Js13
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\0208123.Js1.dgn

RETAINING WALL BACKFILL

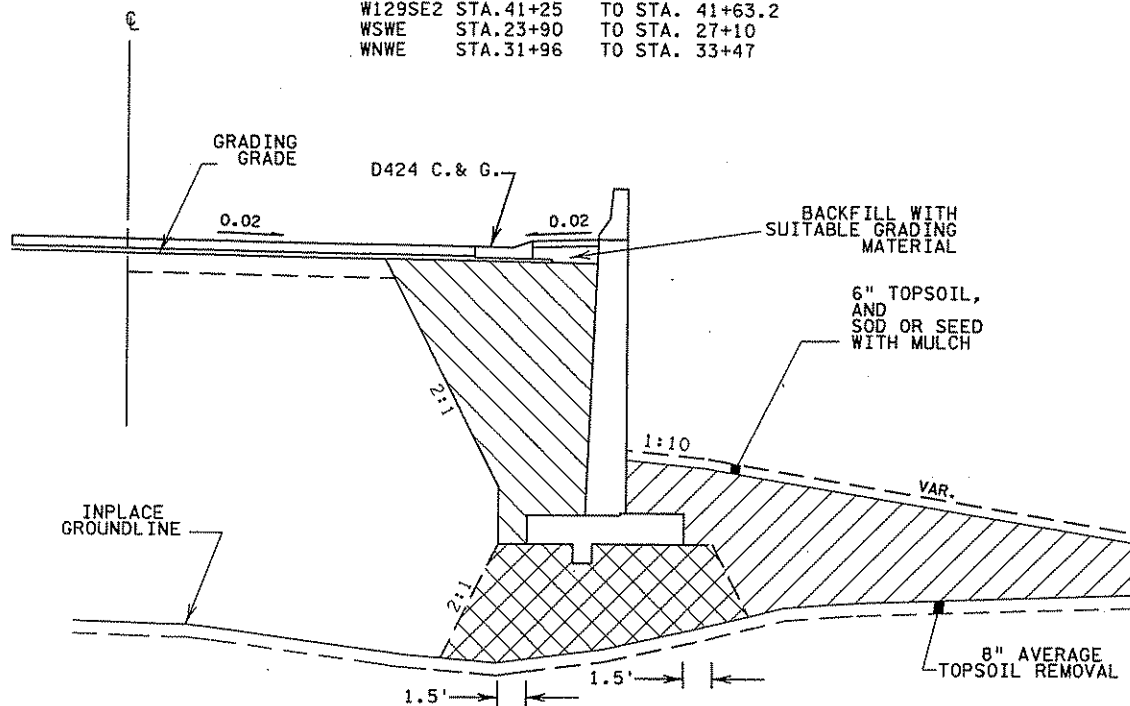
PLOTTED/REVISED: 31-JAN-2007 07:56

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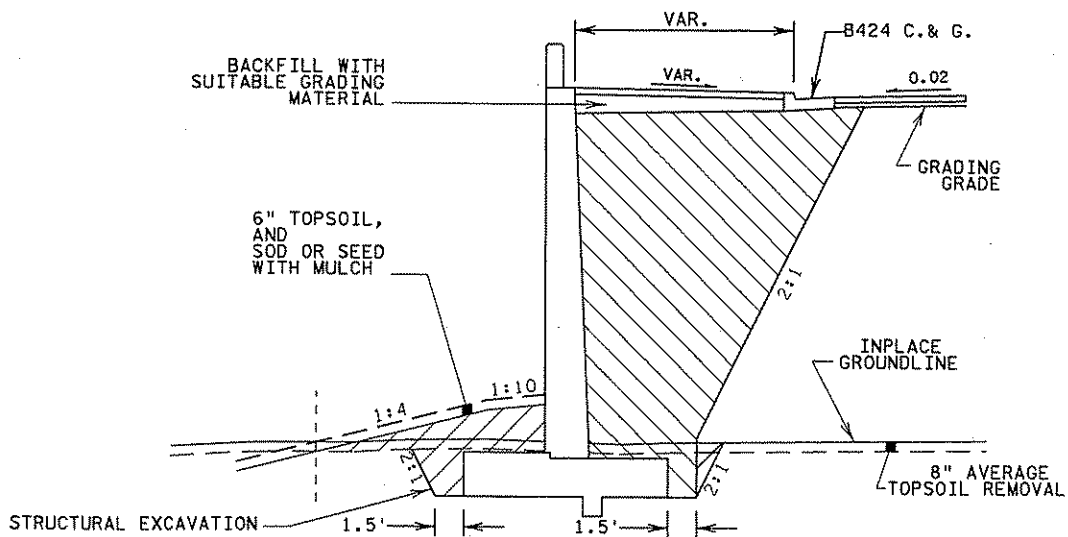
WSWW STA. 12+00 TO STA. 22+45



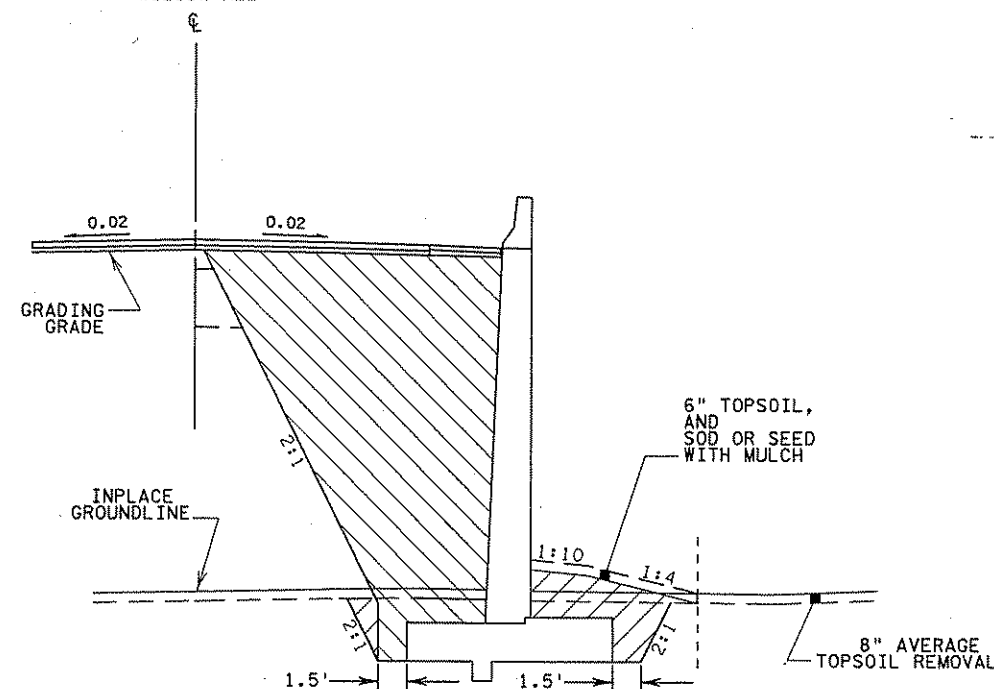
WSEW	STA. 9+40	TO STA. 11+21
WSW	STA. 13+97	TO STA. 17+33
WSWW	STA. 10+88	TO STA. 12+00
WPPNE	STA. 19+10	TO STA. 20+27.6
W129SE2	STA. 41+25	TO STA. 41+63.2
WSW	STA. 23+90	TO STA. 27+10
WNWE	STA. 31+96	TO STA. 33+47



W129SE ALL
 WPPNE STA. 16+81 TO STA. 19+10
 WPPNW ALL
 WPPSW ALL



W129SW ALL



LEGEND

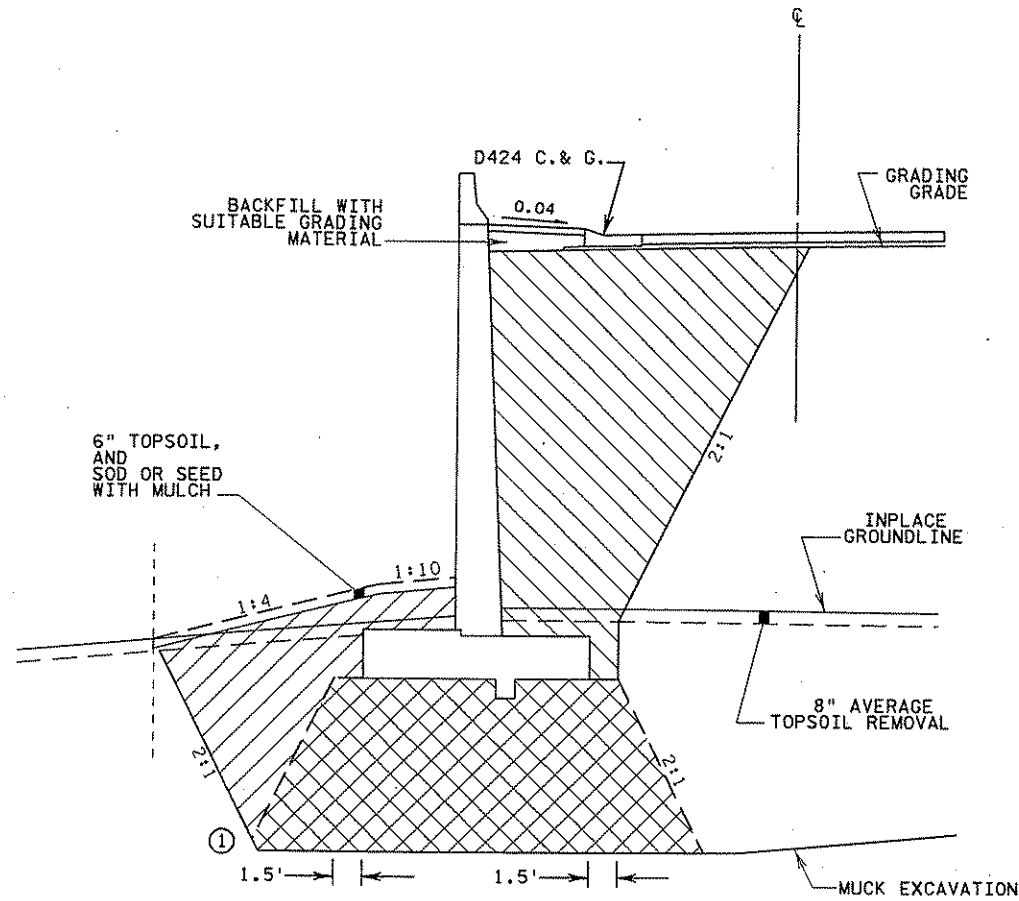
- GRANULAR MATERIAL
- SELECT GRANULAR MATERIAL MOD. 10%
- SUITABLE GRADING MATERIAL

RETAINING WALL BACKFILL TYPICAL SECTION

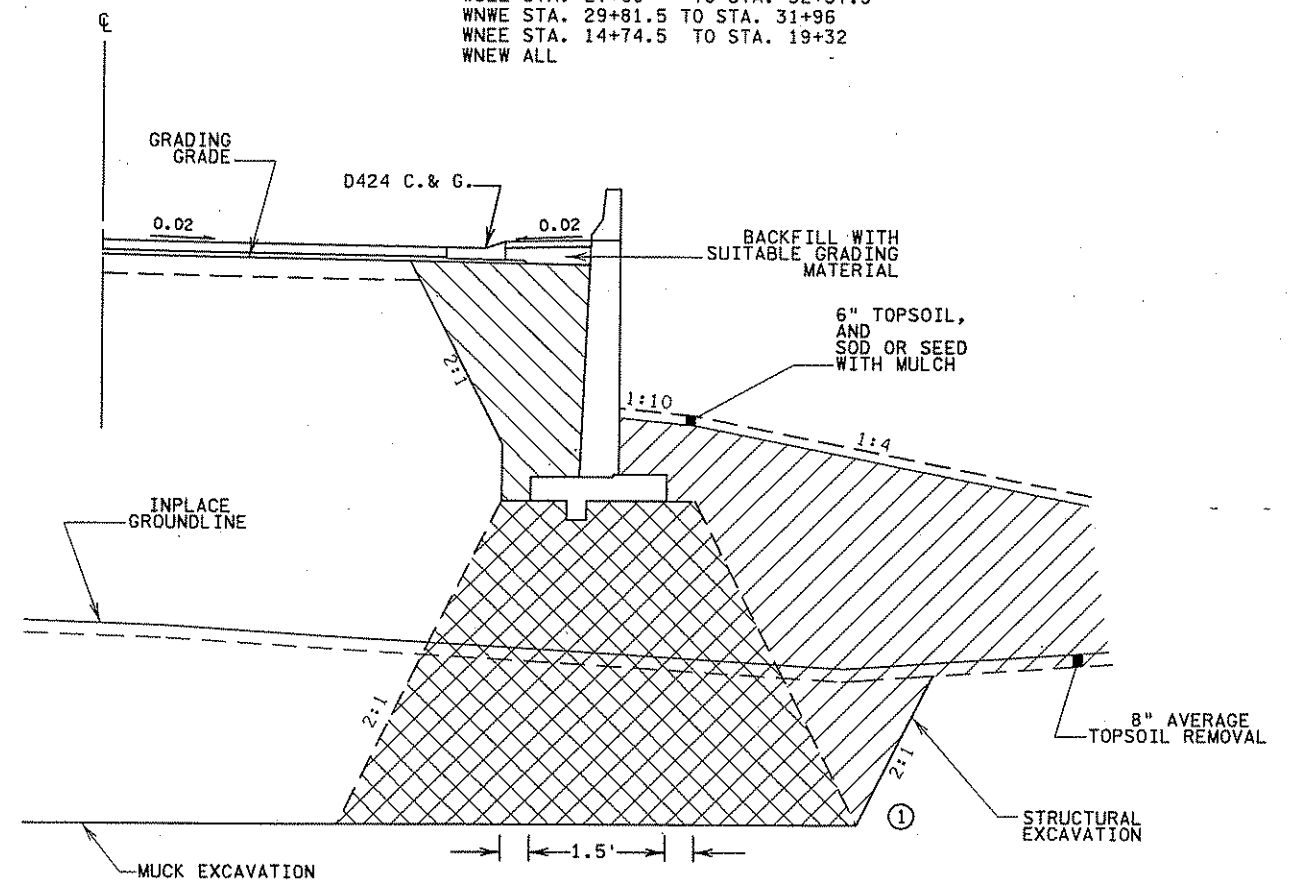
RETAINING WALL BACKFILL

PLOTTED/REVISED: 31-JAN-2007 07:56

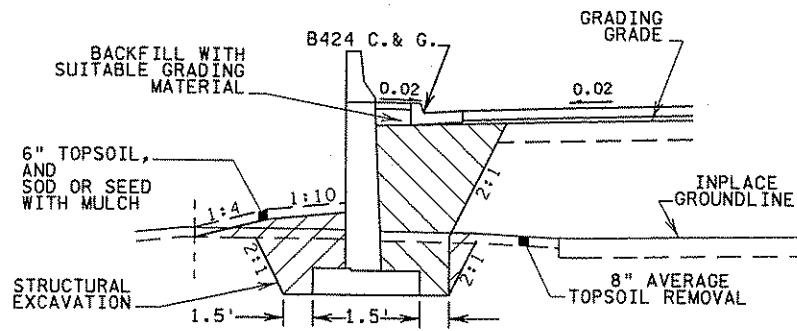
WNW STA. 19+50 TO STA. 22+09



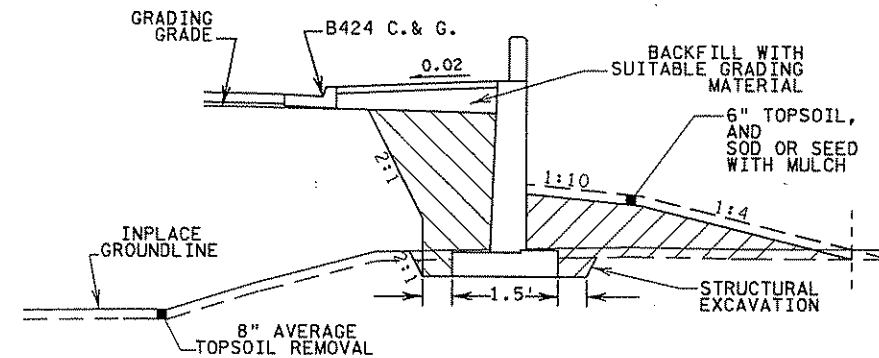
WSEE STA. 27+69 TO STA. 32+57.5
 WNWE STA. 29+81.5 TO STA. 31+96
 WNEE STA. 14+74.5 TO STA. 19+32
 WNEW ALL



WNW STA. 14+33.7 TO STA. 19+50
 WNW STA. 22+09 TO STA. 27+38.7



WSEE STA. 18+85 TO STA. 27+69
 WSEW STA. 8+85.1 TO STA. 9+40
 WSEW STA. 11+21 TO STA. 13+97.5
 WSWW STA. 20+55 TO STA. 23.90.5
 WNEE STA. 19+32 TO STA. 27+01.2
 W129SE2 STA. 41+63.2 TO STA. 42+48.9
 WNWE STA. 33+47 TO STA. 38+76



LEGEND

- GRANULAR MATERIAL
- SELECT GRANULAR MATERIAL MOD. 10%
- SUITABLE GRADING MATERIAL

① SLOPE 2:1 USED FOR COMPUTATIONAL PURPOSES.
 ACTUAL SLOPE TO BE DETERMINED DURING CONSTRUCTION

DRAWN BY: AN

CHECKED BY: MW

CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 2/1/07

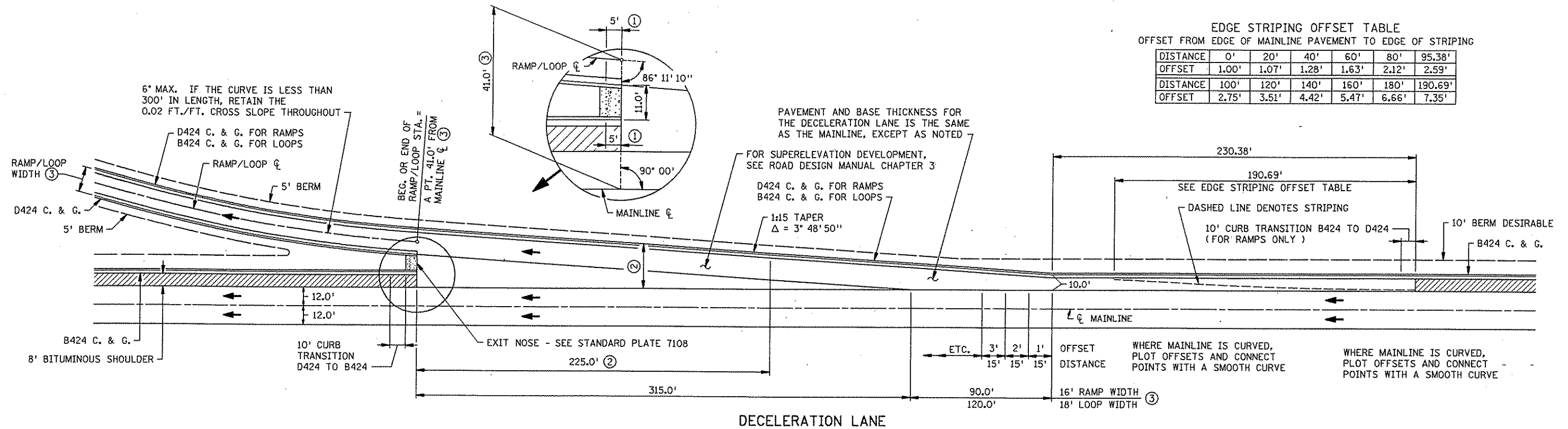
RETAINING WALL BACKFILL TYPICAL SECTION

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 97 OF 872 SHEETS

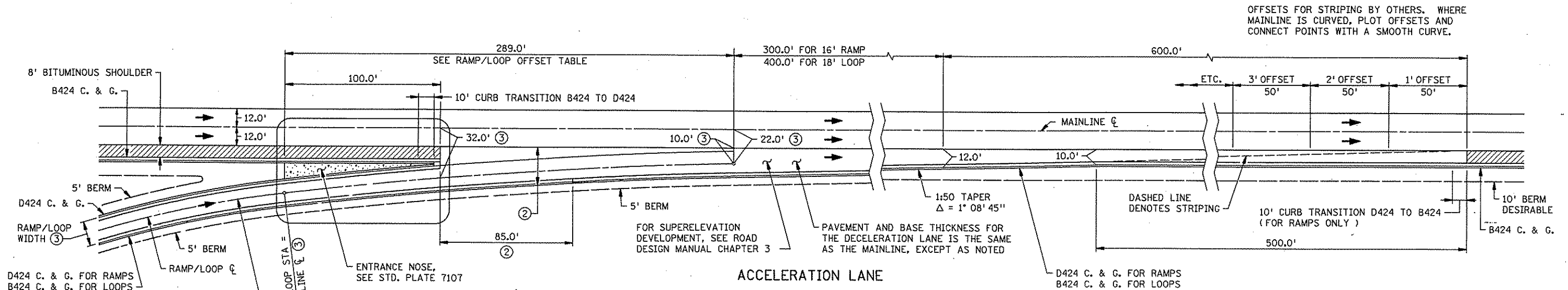
DISTRICT #: METRO
 PLOT NAME: RWALL_TS02
 PATH & FILENAME: S:\Design\065\0208\123\Final\0208123_1st.dgn

EDGE STRIPING OFFSET TABLE
OFFSET FROM EDGE OF MAINLINE PAVEMENT TO EDGE OF STRIPING

DISTANCE	0'	20'	40'	60'	80'	95.38'
OFFSET	1.00'	1.07'	1.28'	1.63'	2.12'	2.59'
DISTANCE	100'	120'	140'	160'	180'	190.69'
OFFSET	2.75'	3.51'	4.42'	5.47'	6.66'	7.35'



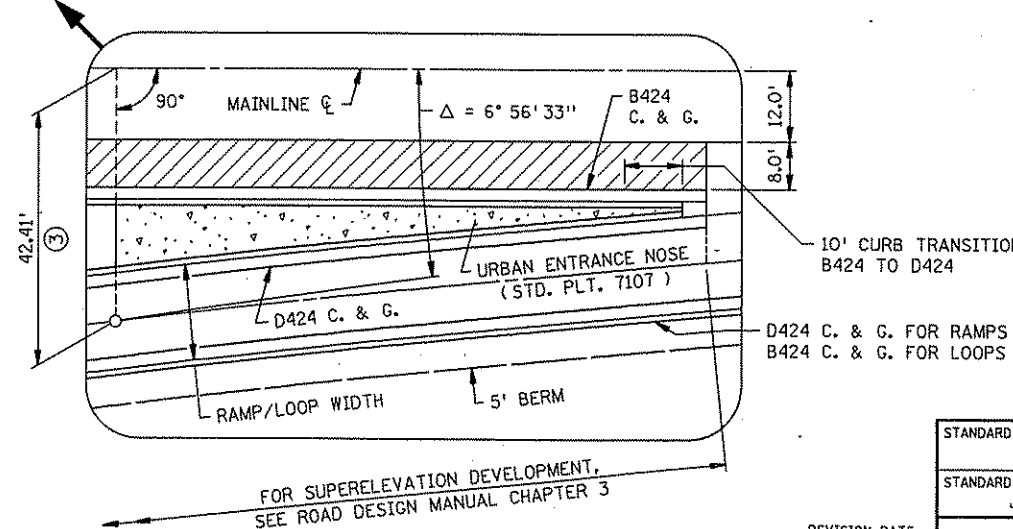
DECELERATION LANE



ACCELERATION LANE

16 FT. GUTTER TO GUTTER RAMP/LOOP OFFSET TABLE
FOR APPROX. 2" CURVE

DISTANCE	0'	20'	40'	60'	80'	100'	120'	140'	160'
OFFSET	22.00'	22.47'	23.08'	23.83'	24.72'	25.75'	26.91'	28.22'	29.67'
DISTANCE	180'	189'	200'	220'	240'	260'	280'	289'	
OFFSET	31.26'	32.00'	32.99'	34.86'	36.87'	39.02'	41.32'	42.41'	



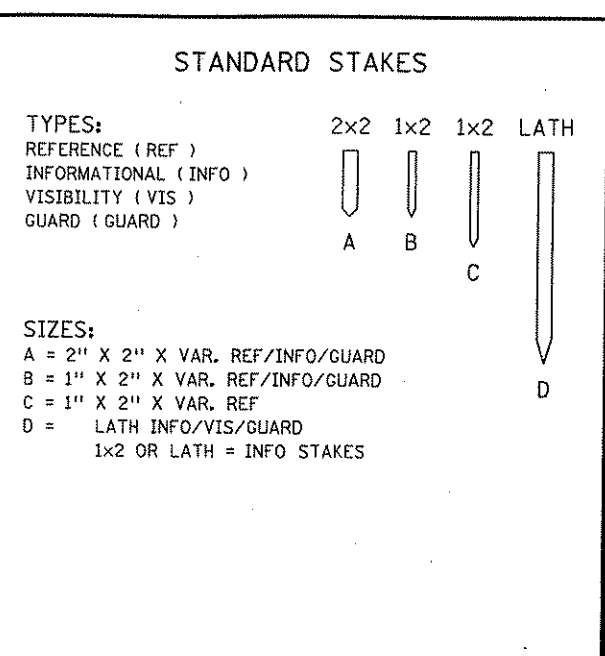
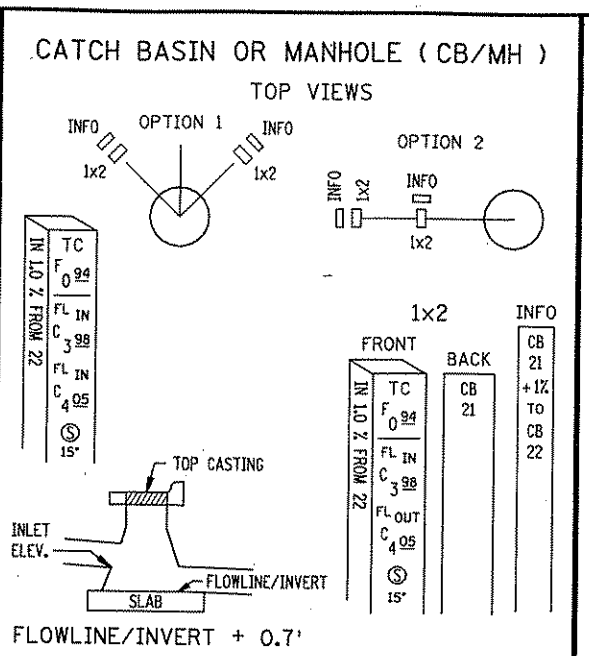
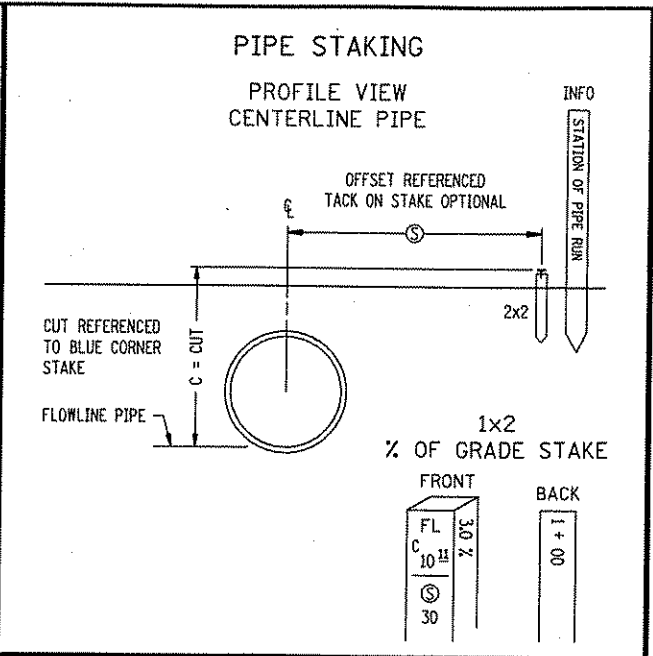
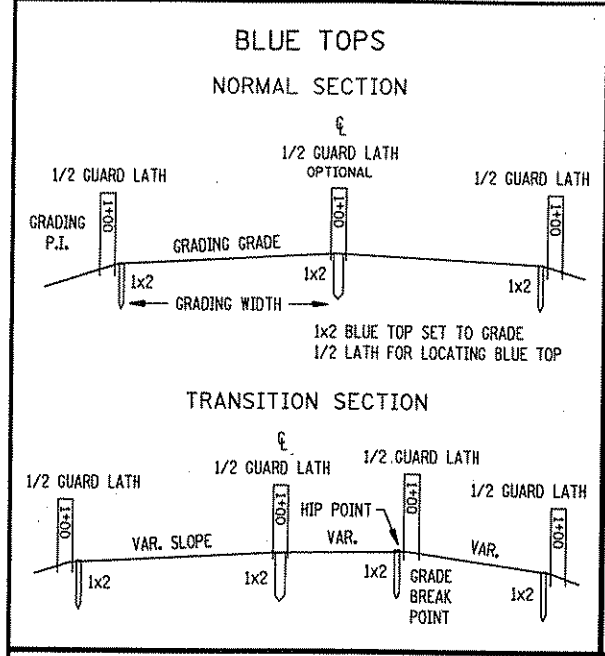
- NOTES:
- WHEN CONSTRUCTING D424 CURB & GUTTER, SLOPE FROM 0" TO 4" D CURB.
 - THE AREA SHOWN SHALL BE GRADED FOR MAINLINE DEPTH. RAMP PAVEMENT THICKNESS WILL BE USED, WITH ADDITIONAL DEPTH CORRECTED IN THE AGGREGATE BASE OR GRADING MATERIAL DEPENDING ON SURFACING TYPE.
 - WHEN IT IS NECESSARY FOR RAMPS/LOOPS TO BE WIDER, SEE ROAD DESIGN MANUAL CHAPTER 6. WIDENING SHALL BE DONE ON THE OUTSIDE AND THE TAPER LENGTH INCREASED ACCORDINGLY.

STANDARD SHEET NO. 5-297.108	STANDARD ACCELERATION AND DECELERATION LANES (URBAN) BITUMINOUS PAVEMENT
STANDARD APPROVED: JULY 30, 1991	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 98 OF 872 SHEETS	

FILE NAME: S108G91.SPN

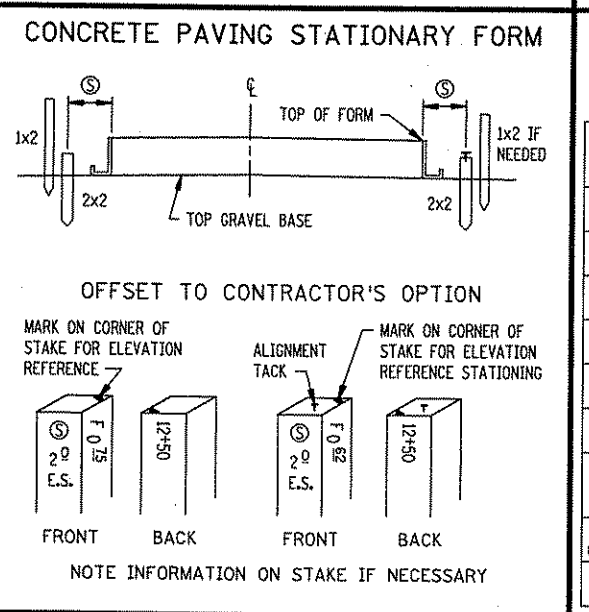
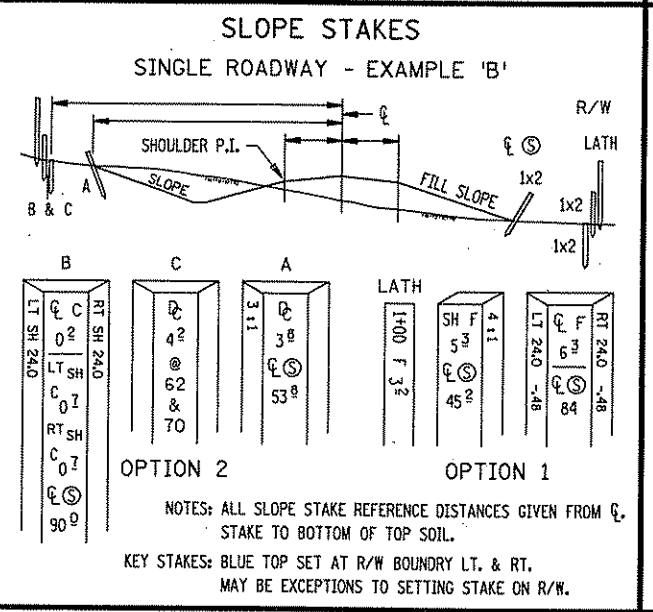
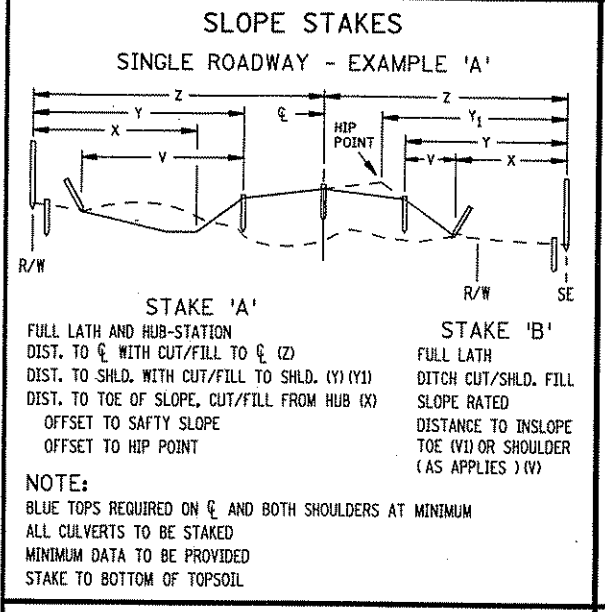
REVISION DATE
4-26-2001

I PLOT NAME: s1151194.spt
 FILE NAME S1151194.SPN
 PATH & FILE NAME: S:\Design\065\0208\123\Final\Standard Plans\1151194.spn.dgn
 PLOTTED/REVISED: 31-JAN-2007 07:58



ABBREVIATIONS

BBL = BARREL (PIPE)	HH = HANDHOLE
B.C. = BACK CURB	HP = HIP POINT
C & G = CURB & GUTTER	LT = LEFT
C = CUT	MH = MANHOLE
CAP = CORR. ALUM. PIPE	NB = NORTHBOUND
CB = CATCH BASIN	⊙ = OFFSET
CL = CENTERLINE	PAR = PARCEL
CL & GR = CLEAR & GRUB	% = PERCENT GRADE
CMP = CORR. METAL PIPE	P.E. = PERM. EASEMENT
COR = CORNER	RAD = RADIUS POINT
CR = CROWN	RCP = REINF. CONC. PIPE
CSP = CORR. STEEL PIPE	RP = REFERENCE POINT
⊕ = DITCH CUT	RSC = REINF. SECT. CONC.
D.E. = DRAINAGE EASEMENT	RT = RIGHT
DI = DROP INLET	R/W = RIGHT OF WAY
EB = EASTBOUND	SB = SOUTHBOUND
E.M. = EDGE BITUMINOUS MAT	SCP = SECT. CONC. PIPE
E.S. = EDGE CONCRETE SLAB	SH = SHOULDER
F = FILL	TC = TOP CASTING
FF = FRONT FACE	OR TOP CURB
FL = FLOW LINE	T.E. = TEMP. EASEMENT
FL IN = FLOWLINE INLET	3:1 = SLOPE (EXAMPLE)
FL OUT = FLOWLINE OUTLET	WB = WESTBOUND
GR = GRADE	WP = WORKING POINTS
GW = GRADING WIDTH	



RECOMMENDED STAKING INTERVALS

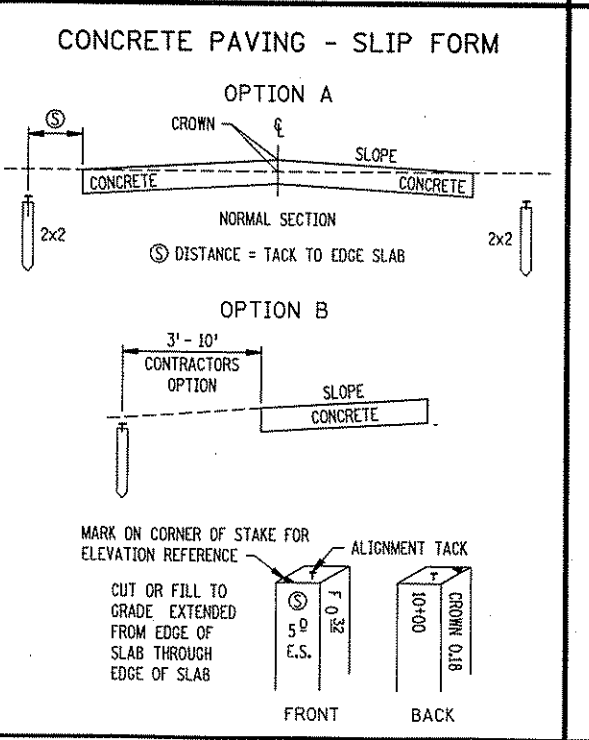
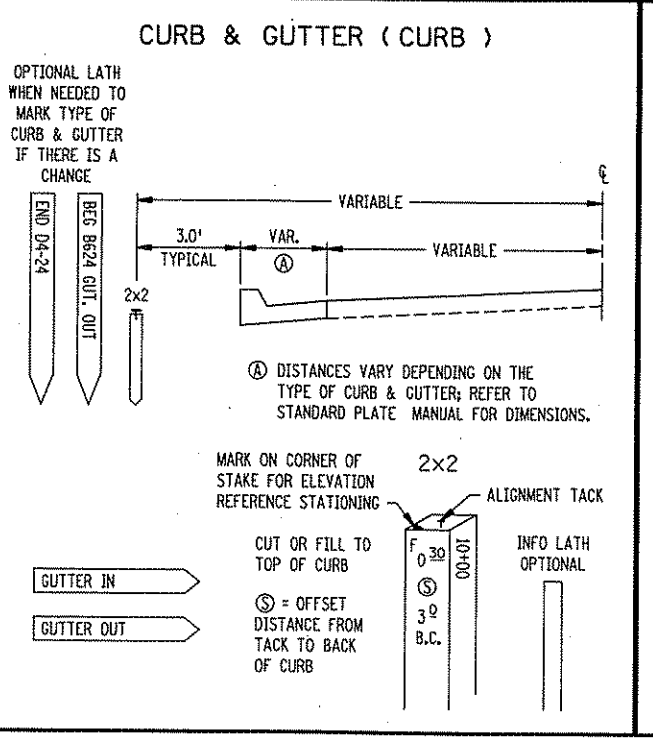
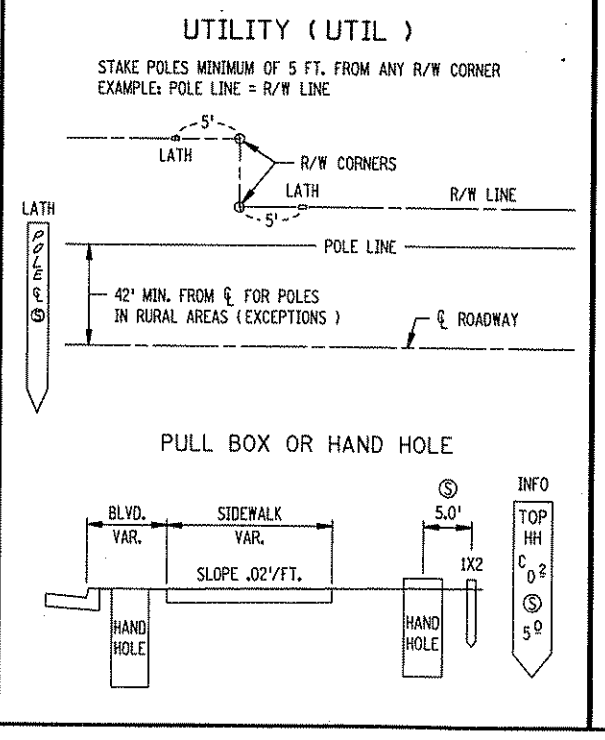
FIGURE A

	SLOPE STAKES	SUB GRADE B.T.	CLASS MATERIAL B.T.	CONC PAVT	CL & GR LIMITS	MUCK EXC.	R/W	TEMP. EASE.
TANGENT	100	100	100	50	50	ALL CORNERS	ALL CORNERS	ALL CORNERS
HORIZ. CURVE								
0 - 3'	100	100	100	50	50	ALL CORNERS	ALL CORNERS	ALL CORNERS
OVER 3' -	100	50	50	25	25	ALL CORNERS	ALL CORNERS	ALL CORNERS
VERT. CURVE								
M' 100' CHORD	100	100	100	50	50			
0 - .25								
M' OVER .25	100	50	50	25	25			
TRAN.		50	50					

STAKING TOLERANCES (FEET)

	HORIZONTAL	VERTICAL
CONSTRUCTION LIMITS	± 1.5	
CLEARING & GRUBBING	2.0	
SLOPE STAKES	2.0	± 0.2
KEY STAKES	0.2	0.03
DRAINAGE STAKES	0.05	0.05
CURB & GUTTER	0.07	0.03
PAVING	0.05	0.03
ALIGNMENT	0.07	
UTILITY	0.10	0.05
STRUCTURAL	0.02	0.02
GUARD RAIL	0.5	
BUILDINGS	0.04	
O.H. SIGNS	0.05	0.05
MUCK EXCAVATION LIMITS	2.0	
R/W B-POINTS	0.10	
NOISE WALLS	1.0	0.5

THE TOLERANCES ARE RELATIVE TO PROJECT DATUM



STANDARD SHEET NO. 5-297.115 (1 OF 2)
 STANDARD APPROVED: DECEMBER 21, 1994

TITLE: STAKING INFORMATION SHEET

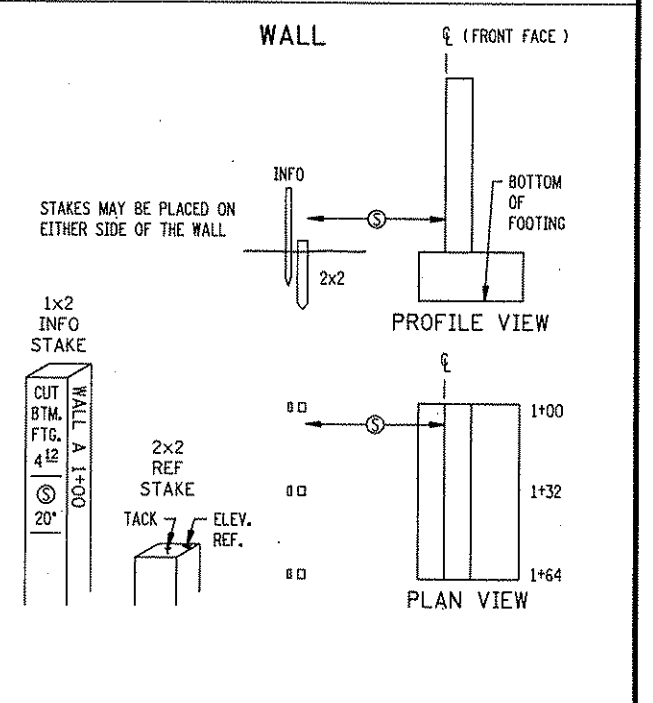
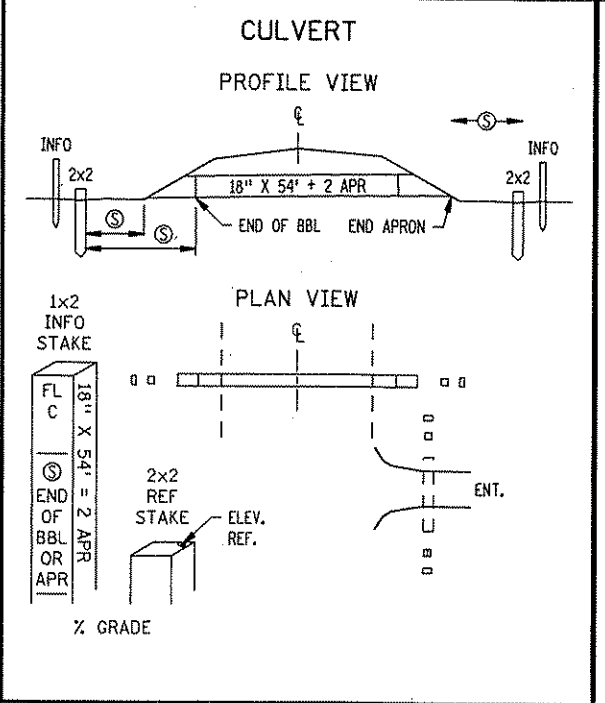
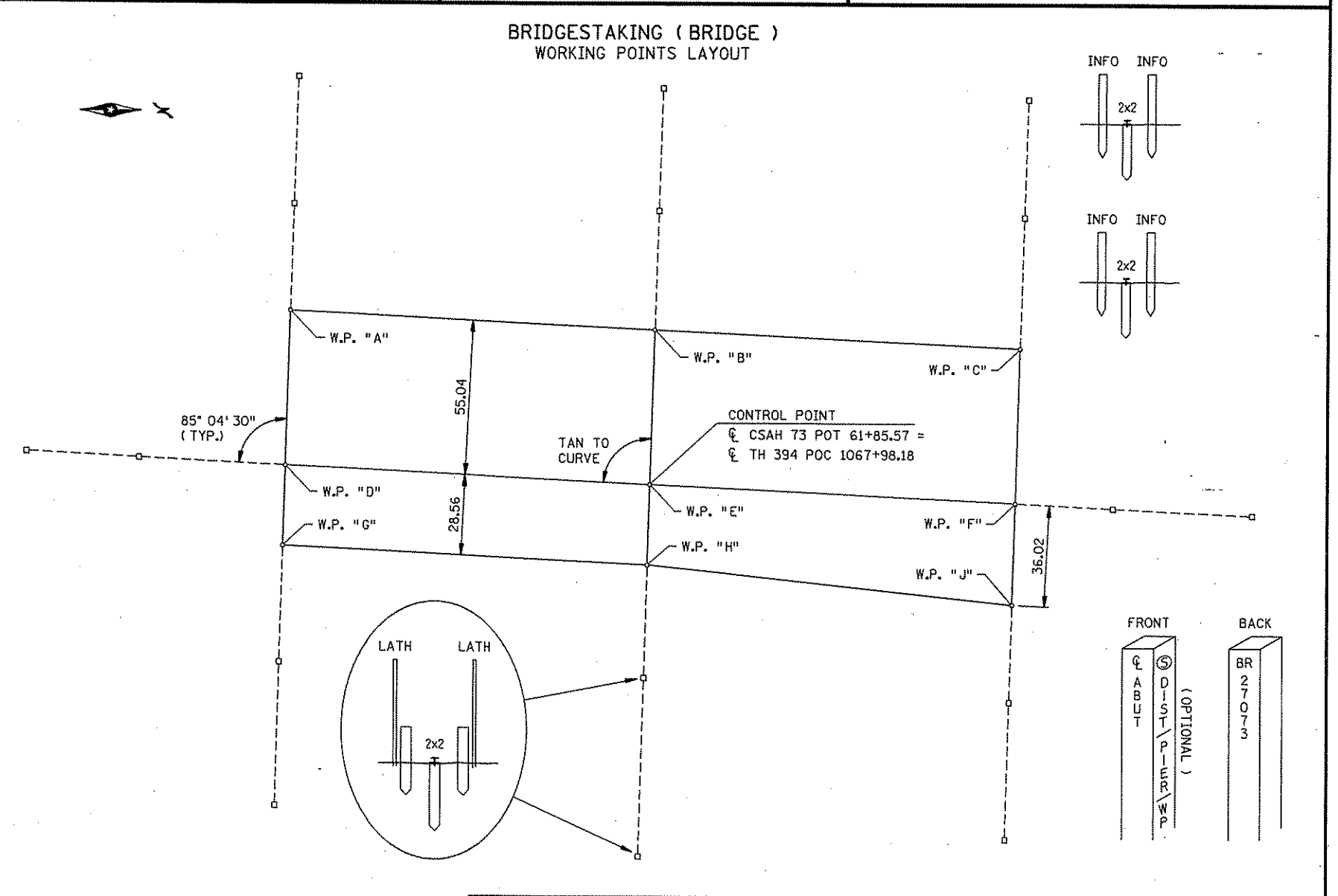
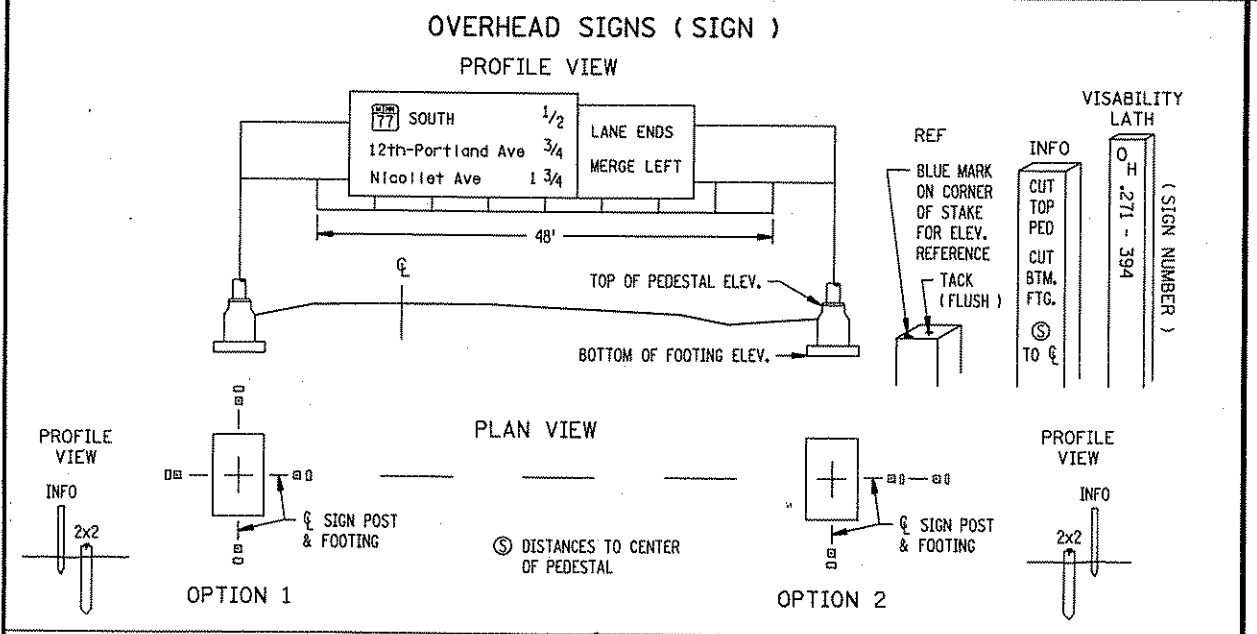
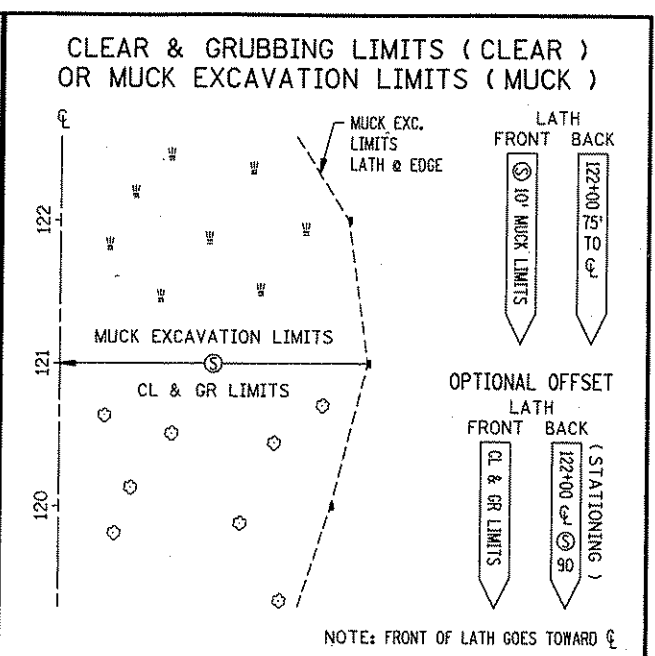
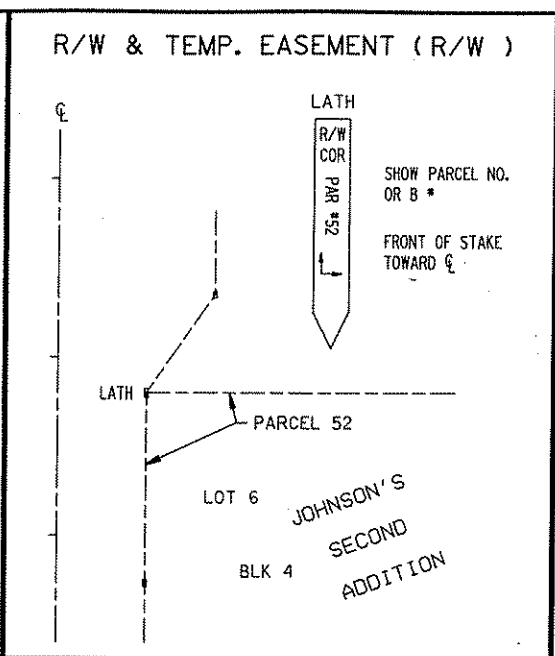
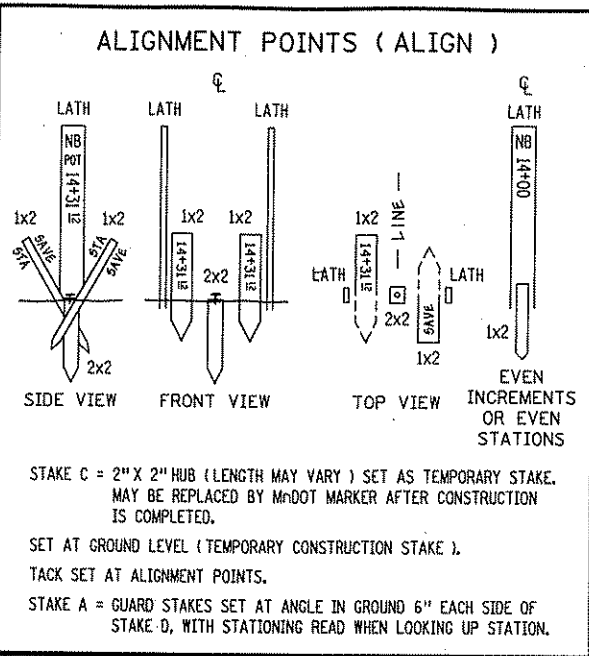
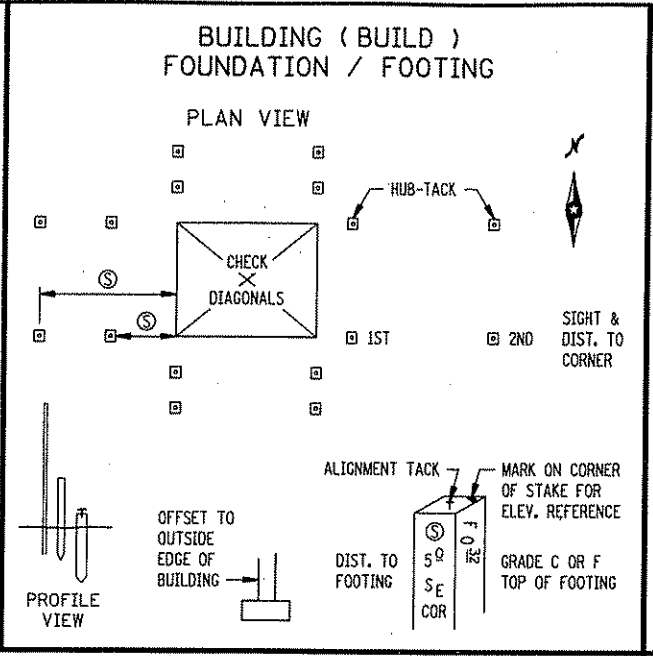
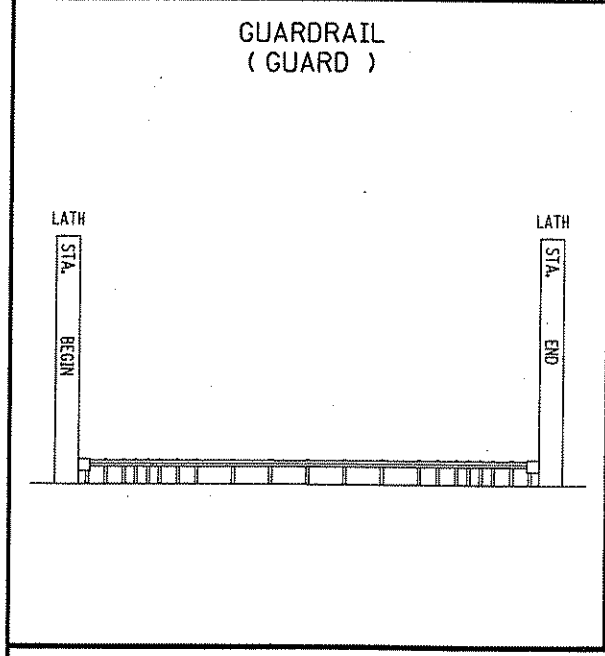
DISCLAIMER

THESE STAKING INFORMATION SHEETS ARE FOR INFORMATION PURPOSES ONLY. STAKING PROCEDURES VARY AND MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION BY CIRCUMSTANCES AND/OR AGREEMENTS BETWEEN SURVEY CREW AND CONTRACTOR.

STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 99 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 07:58

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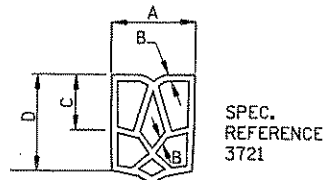


STANDARD SHEET NO. 5-297.115 (2 OF 2)	TITLE: STAKING INFORMATION SHEET
STANDARD APPROVED: DECEMBER 21, 1994	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 100 OF 872 SHEETS	

PLOT NAME: s2211f05.spr
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 PLOTTED/REVISED: 31-JAN-2007 07:58

REQUIRED DIMENSIONS

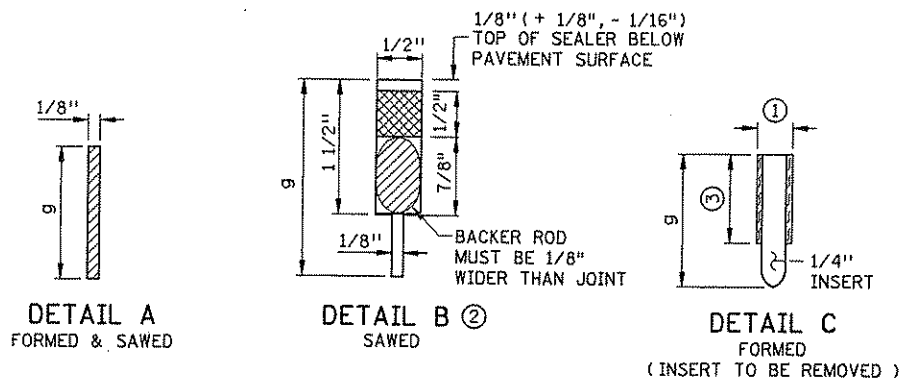
JOINT TYPE	TRANSVERSE
NOMINAL SEALER SIZE	11/16"
A	0.69" + 0.13" - 0.05"
B	0.08" ± 0.02"
C	0.25" MIN.
D	0.63" MIN.



TYPICAL SHAPE FOR SATISFACTORY INSTALLATION IN JOINT (5 CELL MIN.)

CONTRACTION JOINT SEALER
PREFORMED ELASTIC TYPE

NOTES:
 "A" DIMENSION SHALL APPLY AT ANY POINT THROUGHOUT "C" DEPTH. IN ITS FINAL POSITION, THE TOP CORNERS OF THE PREFORMED JOINT SEALER SHALL BE PLACED NOT LESS THAN 1/8 IN., NOR MORE THAN 5/16 IN. BELOW THE PAVEMENT SURFACE.
 SHARP INTERNAL CORNERS WILL NOT BE PERMITTED. ALL CORNERS SHALL BE PROVIDED WITH SUITABLE FILLET. CURRENTLY APPROVED CONFIGURATIONS ARE ON FILE IN THE MATERIALS ENGINEERING SECTION, MINNESOTA DEPARTMENT OF TRANSPORTATION.



CONTRACTION JOINT CLASS DESIGNATION, DETAIL & SEALER SPEC. TABLE

CLASS DESIGNATION WITHOUT DOWELS	CLASS DESIGNATION WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
C1A	C1A-D	A	UNSEALED
C2A	C2A-D	A	3725
C2B	C2B-D	B	3725
C2X	C2X-D	B OR C	3725
C3D	C3D-D	D	3721
C3X	C3X-D	C OR D	3721
C4E	C4E-D	E	3722

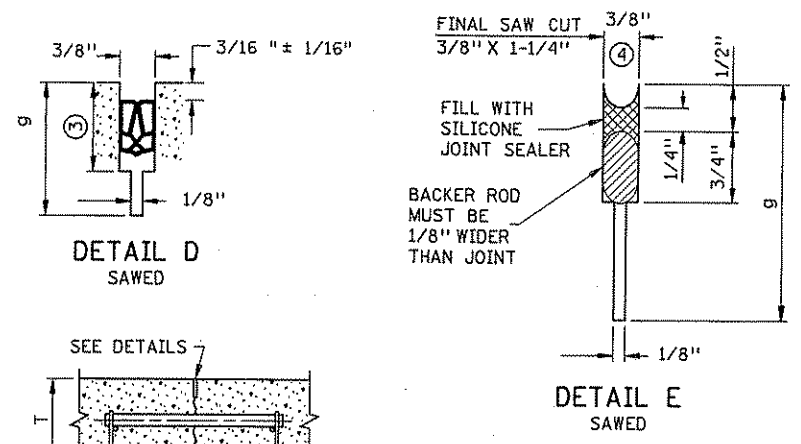
DOWEL BAR DIAMETER TABLE

PAVEMENT THICKNESS T	DOWEL BAR DIAMETER
6" - 6 1/2"	1"
7" - 10"	1 1/4"
10 1/2" - 14"	1 1/2"

LEGEND
 C = CONTRACTION JOINT NO. = SEALANT TYPE
 1 = UNSEALED
 2 = 3725
 3 = 3721
 4 = 3722

EXAMPLE
 C2B-D

LETTER = DETAIL
 X = MORE THAN 1 DETAIL
 -D = DOWEL BARS



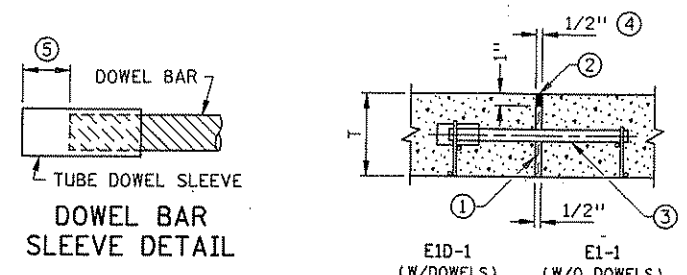
SECTION AT JOINT

GENERAL NOTES:

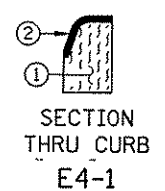
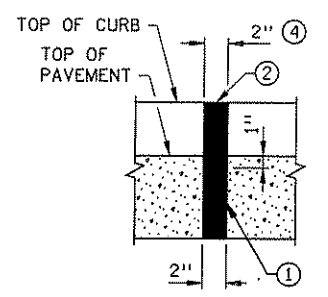
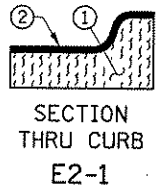
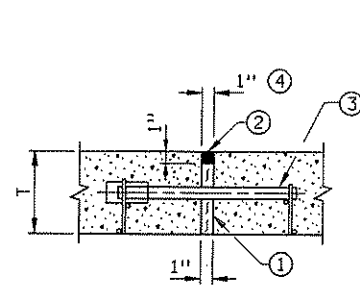
SEE STANDARD PLATE 1103, DOWEL BAR ASSEMBLY.
 SEE STANDARD PLATE 1150, CONSTRUCTION OF HEADER JOINTS. SEE STANDARD PLANS 5-297.217 AND 5-297.219, CONCRETE MAINLINE/RAMP PAVEMENT.
 SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATION TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.
 FOR UNBONDED OVERLAYS, THE JOINT DEPTH "g" SHALL BE T/3.
 FOR CONCRETE PAVEMENT, THE JOINT DEPTH "g" SHALL BE T/4.

NOTES:

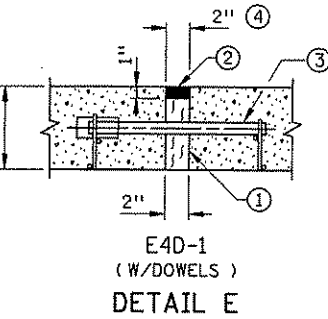
- DESIGN C3X OR C3X-D - PRIOR TO INSTALLING PREFORMED JOINT SEALER IN THE FORMED JOINT (DETAIL C), THE JOINT SHALL BE WIDENED TO A NOMINAL WIDTH OF 3/8" BY SAWING ALONG THE FULL LENGTH OF THE FORMED JOINT.
- DESIGN C2X OR C2X-D - PRIOR TO SEALING FORMED JOINT (DETAIL C) WITH HOT POUR SEALER THE JOINT SHALL BE WIDENED TO A NOMINAL WIDTH OF 1/2". SAW ALONG THE FULL LENGTH OF THE FORMED JOINT TO DEPTH OF 3/4" (+ 1/8", - 1/16"). THE SEALER SHALL BE FILLED TO THE SAME DEPTH AS SHOWN IN DETAIL B.
- DESIGN C2B OR C2B-D - PRIOR TO SEALING JOINT (DETAIL B) WITH HOT POUR JOINT SEALER, A 5/8" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 5/8" BELOW THE SURFACE OF THE PAVEMENT.
- WHEN USING PREFORMED JOINT SEALER, THE DEPTH SHALL BE 1/4" MORE THAN THE PREFORMED SEALER, WHEN COMPRESSED, TO FIT THE JOINT DESIGN WIDTH.
- THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2" BELOW THE SURFACE OF THE PAVEMENT. NON SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEALANT BEAD THICKNESS OF 1/4".



DETAIL A
 E1D-1 (W/DOWELS)
 E1-1 (W/O DOWELS)



DETAIL E
 E4D-1 (W/DOWELS)



EXPANSION JOINTS

CLASS DESIGNATION WITH DOWELS	CLASS DESIGNATION WITHOUT DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
E1D-1	E1-1	A	3723
E2D-1	E2-1	C	3723
	E4-1	D	3723
E4D-1		E	3723
	E8S-1	⑥	3725

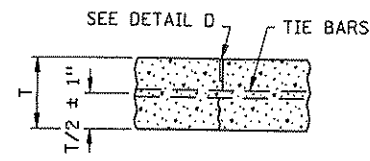
LEGEND
 E = EXPANSION JOINT NO. = JOINT REFERENCE
 D = DOWEL BARS
 S = CONCRETE SILL
 -1 = HOT POURED SEAL

EXAMPLE
 E1D-1
 HOT POURED SEAL
 DOWEL BARS
 JOINT REFERENCE
 EXPANSION JOINT

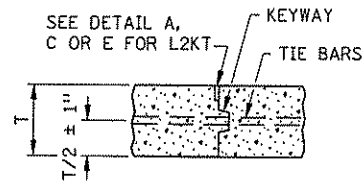
NOTES:

- PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.
- JOINT SEALER SPEC. 3723. TOP OF SEALER, FLUSH TO 1/8" BELOW TOP OF PAVEMENT SURFACE. MAKE TOP OF SEALER FOR CURB SECTION E JOINTS FLUSH WITH SURFACE ± 1/8".
- DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.
- THE FIRST NUMBER IN THE JOINT DESIGNATION IS EQUAL TO HALF OF THE JOINT NUMBER IN 1/2" INTERVALS (I.E. E1 = 1/2", E2 = 1", E4 = 2", AND E8 = 4").
- SPACE FROM END OF DOWEL BAR TO END OF SLEEVE TO BE EQUAL TO EXPANSION JOINT WIDTH.
- SEE STANDARD PLAN 5-297.223 FOR E8S JOINT DETAIL.

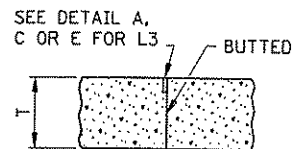
EXPANSION JOINTS
DESIGN E



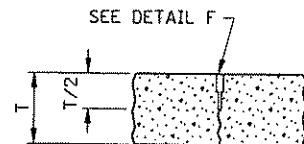
L1 & L1T



L2KT



L3



L4

LONGITUDINAL JOINT CLASS DESIGNATION, DETAIL & SEALER SPECIFICATION TABLE

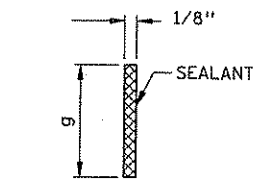
CLASS DESIGNATION				JOINT DETAIL	JOINT SEALER SPECIFICATION
WITHOUT TIE BARS	WITH TIE BARS	WITH KEYWAY & TIE BARS	BUTTED		
L1H	L1TH	L2KTH		B	3723
		L2KTS		D OR E	3723
			L3H	C	3722
			L3S	D OR E	3723
L4S				C	3722
				F	3722

LEGEND

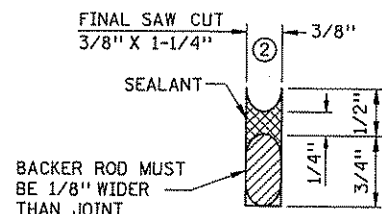
L = LONGITUDINAL JOINT
 NO. = JOINT REFERENCE
 K = KEYWAY
 T = TIE BARS
 U = UNSEALED
 H = HOT POUR (SEALANT)
 S = SILICONE (SEALANT)

JOINT REFERENCE NUMBERS

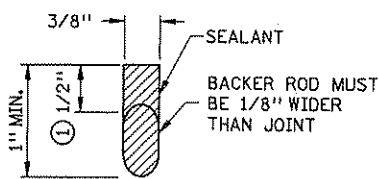
1 = SAWED TO A DEPTH OF T/3
 2 = KEYED CONSTRUCTION JOINT
 3 = BUTTED CONSTRUCTION JOINT
 4 = SAWED TO A DEPTH OF T/2



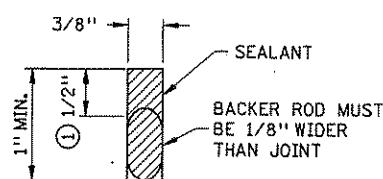
DETAIL B
(SAWED & SEALED WITH SPEC. 3723)



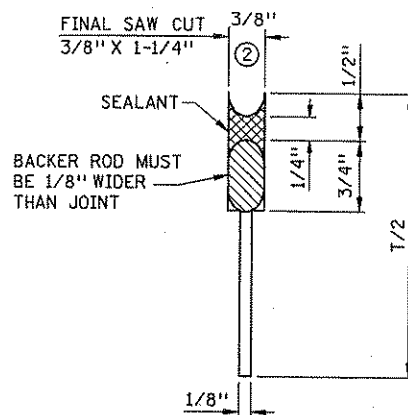
DETAIL C
(SAWED AND SEALED WITH SPEC. 3722)



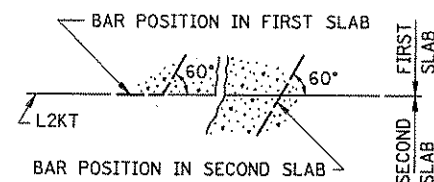
DETAIL D
(FORMED & SEALED WITH SPEC. 3723)



DETAIL E
(SAWED & SEALED WITH SPEC. 3723)



DETAIL F
(SAWED AND SEALED WITH SPEC. 3722)



TIE BAR BENDING DETAIL

LONGITUDINAL JOINT NOTES:

ALL REBARS ARE IN METRIC DESIGNATIONS

THE TIE BAR SPACING FOR ALL L2KT JOINTS SHALL BE 2'-6" CENTER TO CENTER AND BENT 60° AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

TIE BARS IN THE L2KT JOINTS SHALL BE THE SAME SIZE AND LENGTH AS USED FOR THE L1T JOINTS, WHEN TYING PAVEMENT TO PAVEMENT. TIE BARS IN THE L2KT JOINTS SHALL BE NO. 13 X 2'-6", WHEN TYING CURB & GUTTER TO PAVEMENT.

ALL TIE BARS SHALL MEET THE REQUIREMENTS OF GRADE 60 FOR AASHTO M-31 OR M-53.

NORMALLY, TIED PAVEMENT WIDTHS SHALL NOT EXCEED FOUR LANES, EXCEPT BRIDGE APPROACH PANELS AND PAVEMENT TAPERS.

JOINT WIDTH TOLERANCE IS + 1/16 IN. TO - 1/32 IN.

FOR CONCRETE PAVEMENT THE JOINT DEPTH "g" SHALL BE T/3 INCHES.

SPEC. 3723 SEALER - TOP OF SEALER FLUSH TO - 3/16 IN. BELOW TOP OF PAVEMENT SURFACE.

- THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. PRIOR TO SEALING THE JOINT, A CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F, WITH A DIAMETER 1/8 IN. LARGER THAN THE JOINT OPENING, MAY BE PLACED 1/2 IN. BELOW THE TOP OF THE PAVEMENT.
- THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. PRIOR TO SEALING THE JOINT, A 1/2 IN. DIAMETER CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2 IN. BELOW THE SURFACE OF THE PAVEMENT. NON-SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEALANT BEAD THICKNESS OF 1/4 IN.

GENERAL NOTES:

SEE STANDARD PLATE 1103, DOWEL BAR ASSEMBLY. SEE STANDARD PLATE 1141, PAVEMENT KEYWAY. SEE STANDARD PLANS 5-297.217 AND 5-297.219 FOR CONCRETE MAINLINE AND RAMP PAVEMENT.

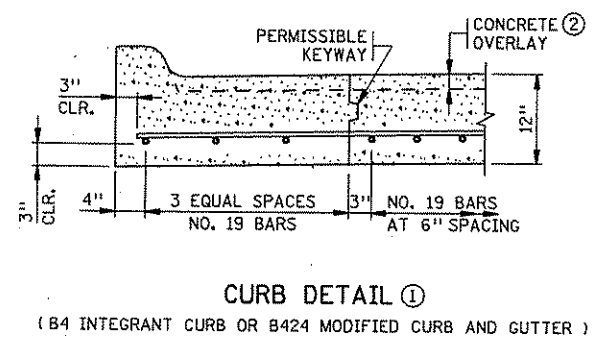
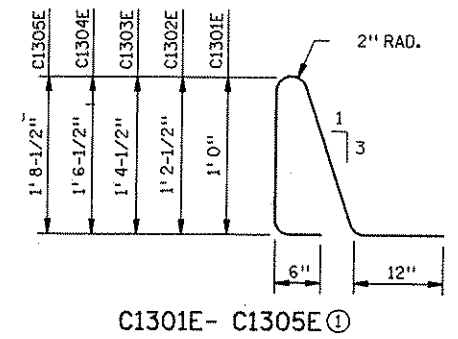
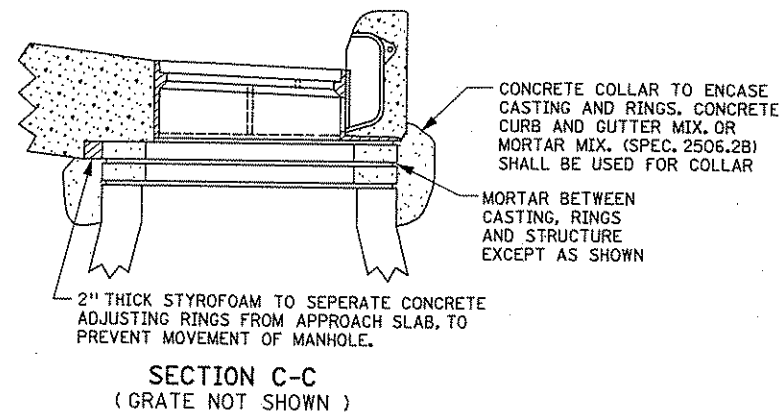
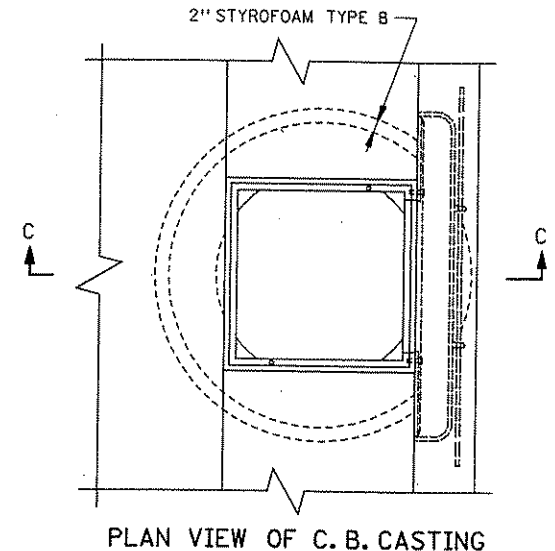
SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATIONS TO BE USED & SPECIAL REINFORCEMENT REQUIRED.

STANDARD SHEET NO. 5-297.221 (2 OF 2)	TITLE: PAVEMENT JOINTS LONGITUDINAL (DESIGN L)
STANDARD APPROVED: JUNE 6, 2005	
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 102 OF 872 SHEETS	

PLOTTED/REVISED: 31-JAN-2007 07:58

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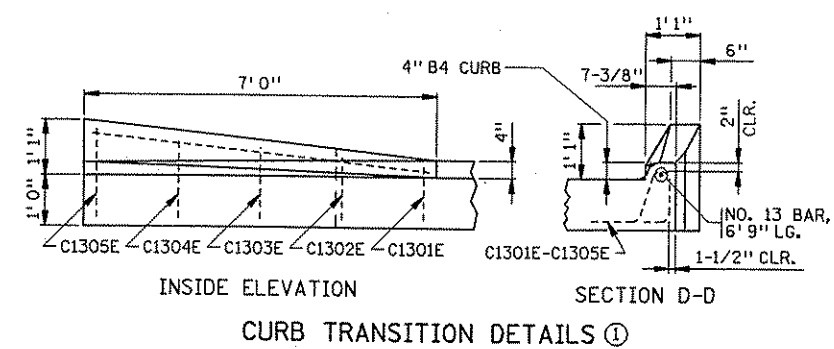
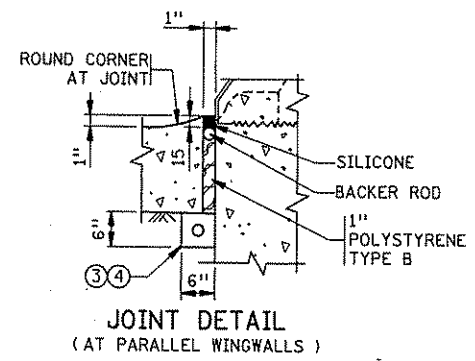
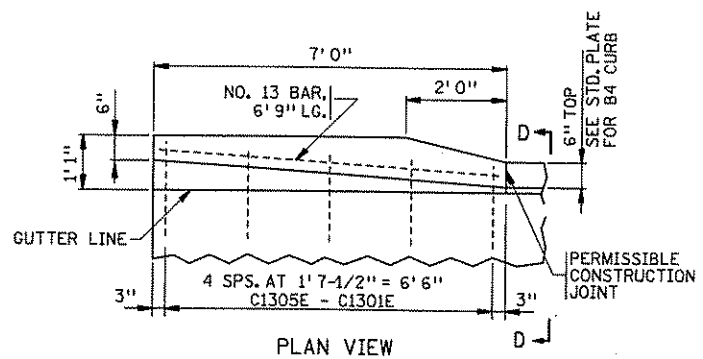
SUMMARY OF QUANTITIES FOR BRIDGE APPROACH PANEL	
CONCRETE MIX NO. 3X42	CU. YD.
REINFORCEMENT BARS	LBS.
CURB DESIGN B4 INTEGRANT	LIN. FT.
CURB DESIGN B424	LIN. FT.



NOTES:

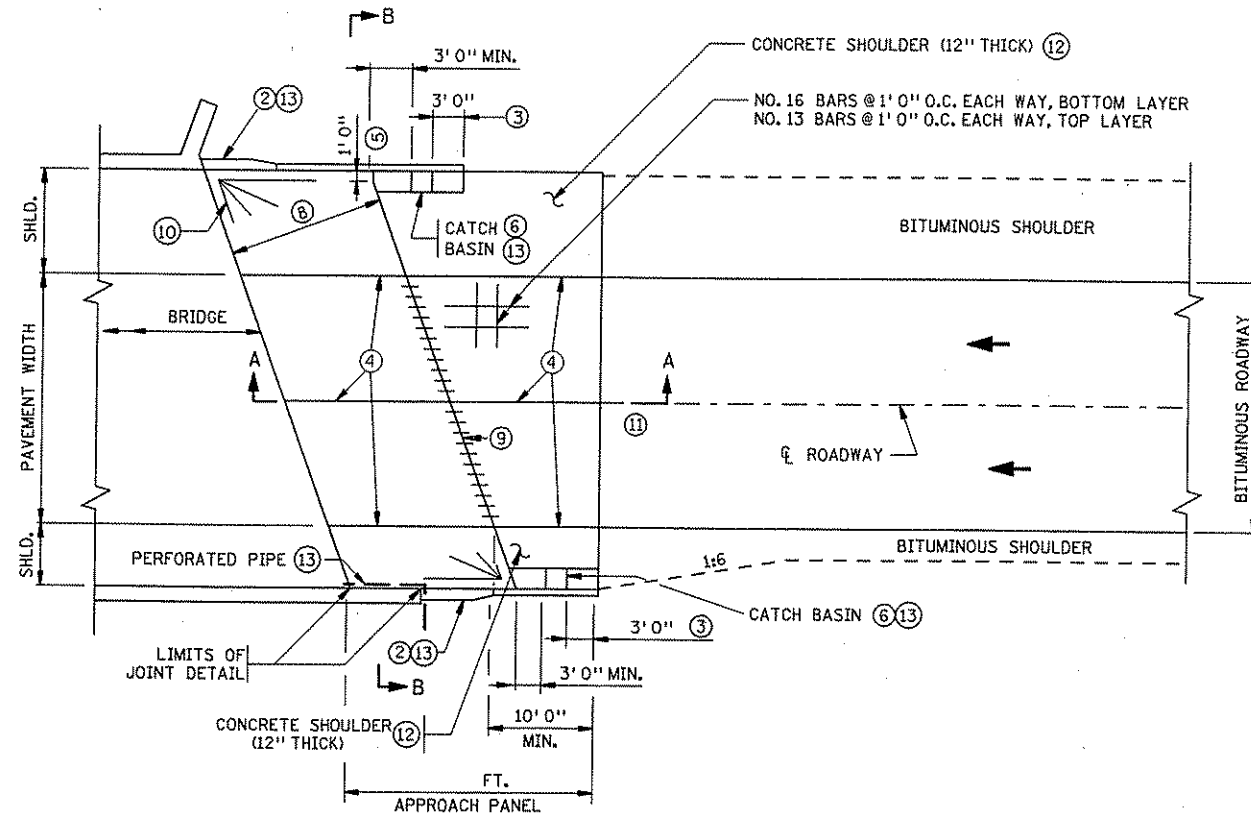
ALL REBARS ARE IN METRIC DESIGNATIONS

- ① ALL REINFORCEMENT IN APPROACH PANEL AND CURB SHALL BE GRADE 60 AND EPOXY COATED AS PER SPEC. 3301.
- ② APPROACH SLAB THICKNESS SHOWN INCLUDES ANY CONCRETE OVERLAY THAT MAY BE REQUIRED. SEE BRIDGE PLANS FOR REQUIREMENTS. CONCRETE OVERLAYS TO BE INCLUDED IN BRIDGE QUANTITIES AND DONE AT THE SAME TIME BY BRIDGE CONTRACTOR.
- ③ 2" NOMINAL DIA. THERMOPLASTIC PIPE, AS PER ASTM D1785M, SCHEDULE 40. SLOPE PIPE TO DITCH. FURNISHING AND INSTALLING DRAIN SYSTEM SHALL BE INCIDENTAL, WITH NO DIRECT PAYMENT. WRAP PERFORATED PIPE WITH GEOTEXTILE AS PER SPEC. 3733. 1/8" PER 12" MINIMUM SLOPE.
- ④ BACKFILL WITH FINE AGGREGATE, SPEC. 3149, MODIFIED TO 0-3% PASSING A NO. 200 SIEVE.

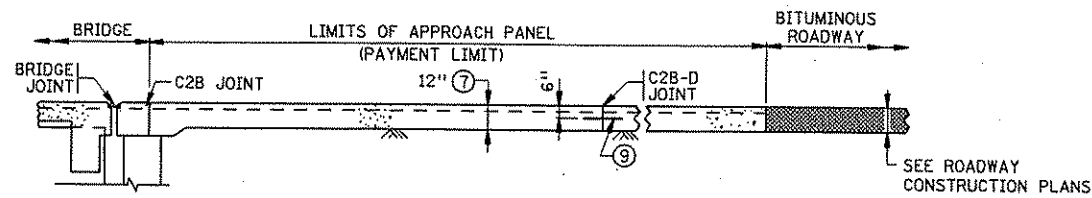


STANDARD SHEET NO. 5-297.224	TITLE: BRIDGE APPROACH PANEL BITUMINOUS MAINLINE ROADWAY (MISCELLANEOUS DETAILS)
STANDARD APPROVED: NOVEMBER 9, 1999	
REVISION DATE 2-7-2000	STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 103 OF 872 SHEETS

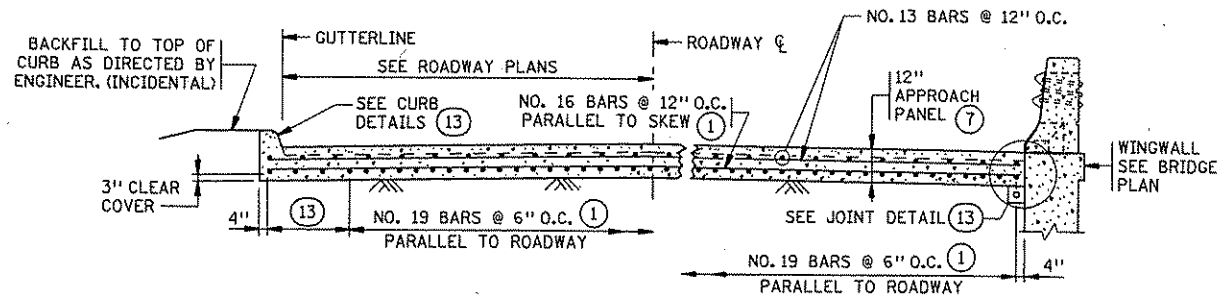
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 PLOTTED/REVISED: 31-JAN-2007 07:58



DIVIDED-URBAN ROADWAY PLAN
PARALLEL & NONPARALLEL WINGWALLS



SECTION A-A
(REINFORCEMENT NOT SHOWN)



SECTION B-B
(SEE ROADWAY PLAN VIEW)

NOTES:

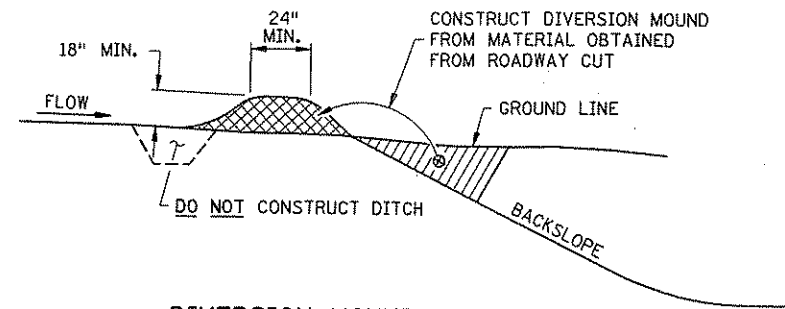
ALL REBARS ARE IN METRIC DESIGNATIONS

- ① ALL REINFORCEMENT IN APPROACH PANEL AND CURB SHALL BE GRADE 60 AND EPOXY COATED AS PER SPEC. 3301.
- ② TRANSITION FACE OF 4" CURB INTO PROFILE OF BRIDGE RAILING. SEE CURB TRANSITION DETAILS.
- ③ TRANSITION APPROACH PANEL CURB HEIGHT 4" TO 0" WHERE THERE IS NO ROADWAY CURB.
- ④ L2KT OR L1T LONGITUDINAL JOINT IS REQUIRED. SEE STANDARD PAVEMENT JOINT SHEET FOR DETAILS.
- ⑤ EDGE OF PANEL PERPENDICULAR TO GUTTER FOR SKEWS OVER 45°.
- ⑥ LOCATION MAY BE ON OR OFF THE APPROACH PANEL AS DETERMINED BY THE DESIGNER. SEE ROAD DESIGN MANUAL CHAPTER 7 FOR CATCH BASIN INFORMATION.
- ⑦ APPROACH SLAB THICKNESS SHOWN INCLUDES ANY CONCRETE OVERLAY THAT MAY BE REQUIRED. SEE BRIDGE PLANS FOR REQUIREMENTS. CONCRETE OVERLAYS TO BE INCLUDED IN BRIDGE QUANTITIES AND DONE AT THE SAME TIME BY BRIDGE CONTRACTOR.
- ⑧ 20 FEET TO 40' SKEWS, 15 FEET OVER 40' SKEWS.
- ⑨ CONTRACTION JOINT C2B-D WITH 1-1/2" DIA. X 1'6" LG. EPOXY COATED DOWEL BARS AT 12" SPACING PARALLEL TO ϕ OF ROADWAY. CAGES NOT REQUIRED.
- ⑩ FAN 4 - NO. 16 BARS 8'0" LONG AS SHOWN FOR SKEWS OVER 45°.
- ⑪ SEE PLAN SHEETS 207 & 208 FOR BRIDGE APPROACH ROADWAY INFORMATION.
- ⑫ CONCRETE SHOULDERS INCLUDED IN PAYMENT FOR APPROACH PANEL QUANTITY.
- ⑬ SEE SHEET 207 & 208 FOR REQUIRED MISCELLANEOUS DETAILS NOT SHOWN.

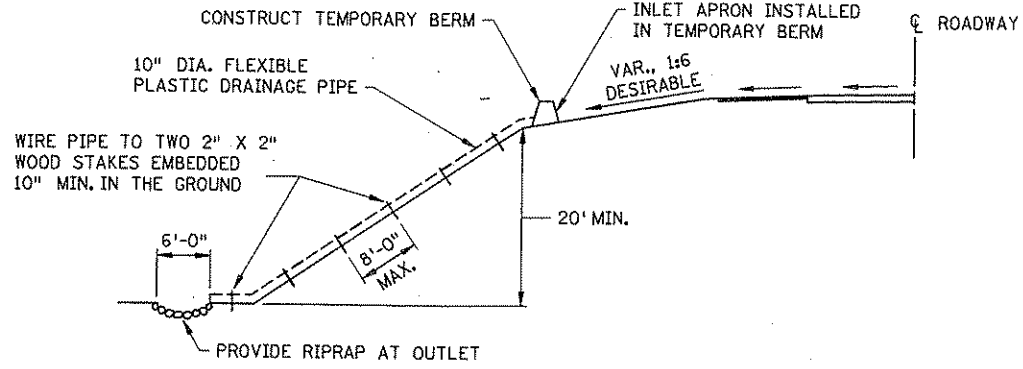
STANDARD SHEET NO. 5-297.230	TITLE: BRIDGE APPROACH PANEL BITUMINOUS MAINLINE - JOINT AT ABUTMENT OVER 10° - 60° SKEWS
STANDARD APPROVED: MAY 7, 2002	
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 104 OF 872 SHEETS	

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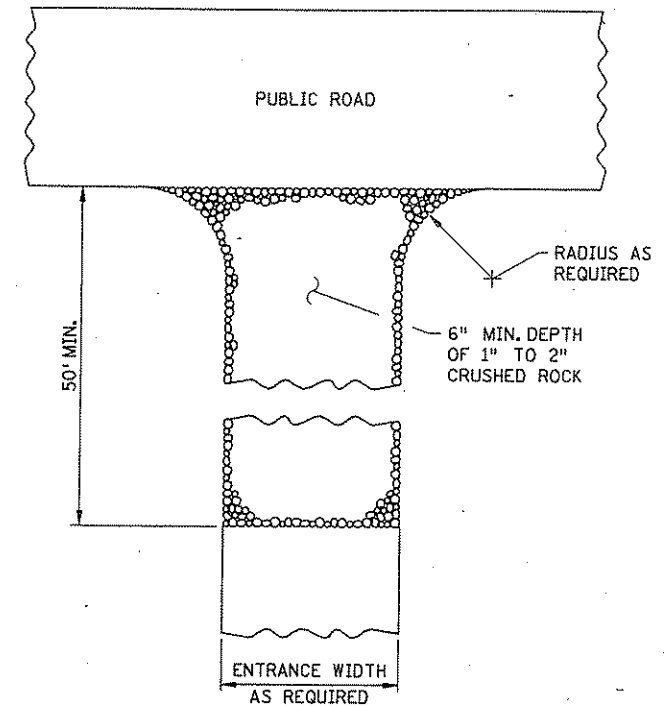


DIVERSION MOUND
DESIGN GUIDELINES:
STORM FREQUENCY: 10 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 5 ACRES
MAXIMUM DIVERSION: GRADE 5%

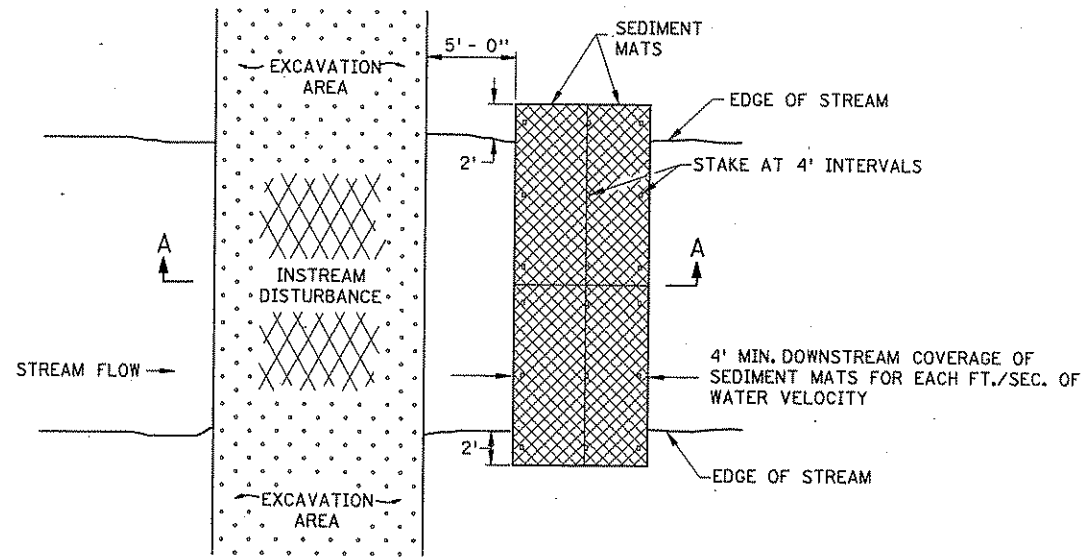


TEMPORARY DOWN DRAIN ON FILL SLOPE

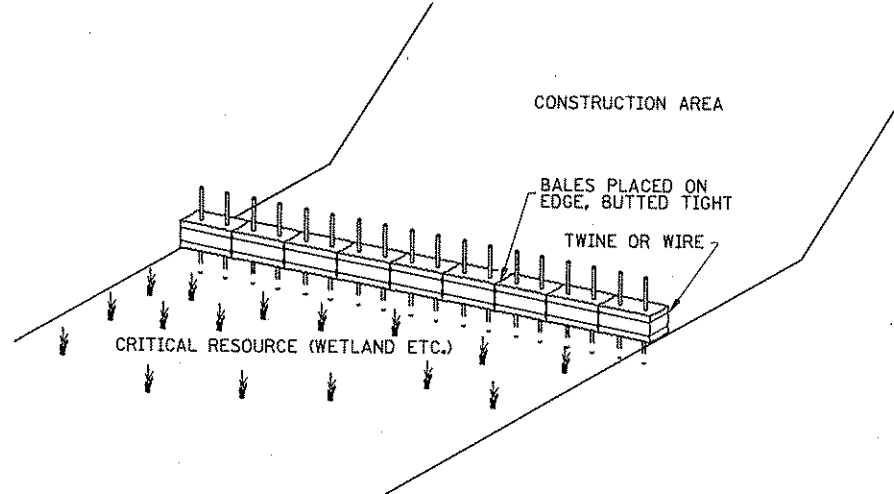
DESIGN GUIDELINES:
STORM FREQUENCY: 2 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 3 ACRES



ROCK CONSTRUCTION ENTRANCE ①

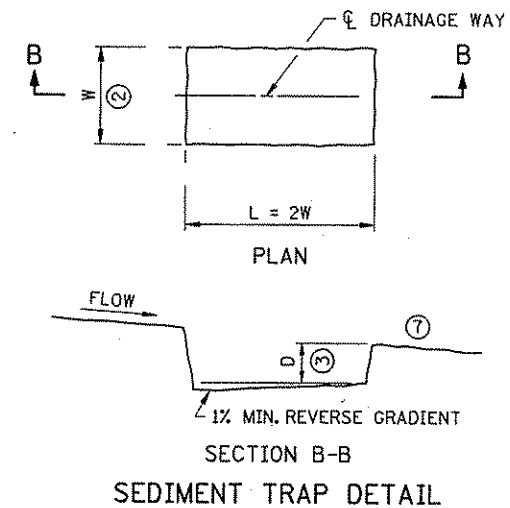


PLAN VIEW

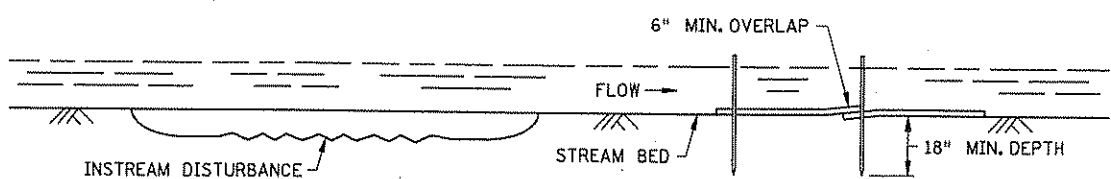


BALE BARRIERS

TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS



SEDIMENT TRAP DETAIL

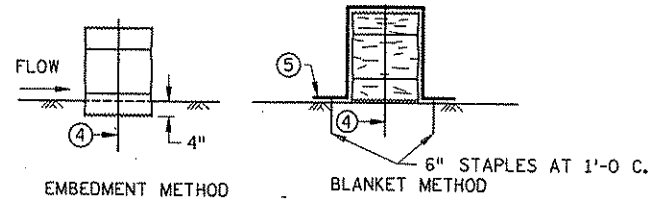


SECTION A-A

SEDIMENT MAT ⑥

TYPICAL STREAM BED INSTALLATION

DESIGN GUIDELINES:
MAXIMUM FLOW VELOCITY: 5 FT./SEC.
MAXIMUM FLOW DEPTH: 2 FT.



BALE BARRIER DETAIL

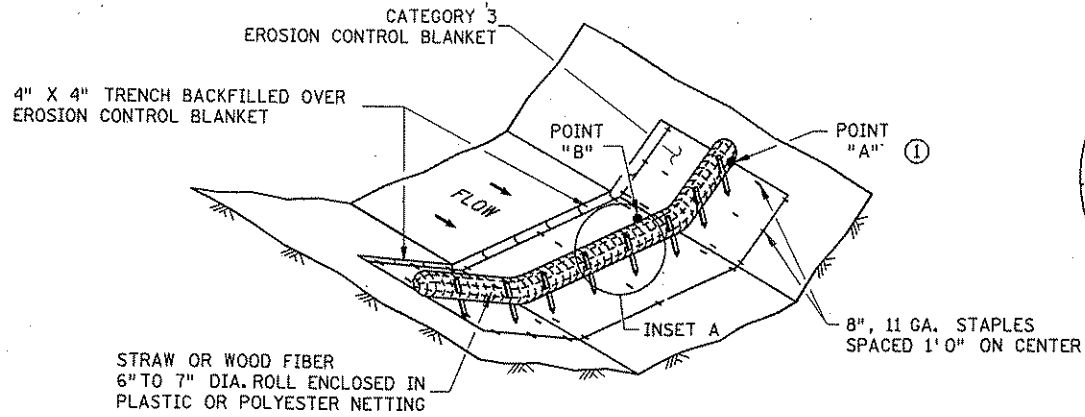
APPROX. BALE SIZE: 14" X 18" X 36" LONG

NOTES:

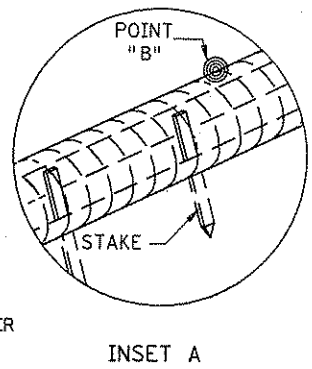
SEE SPECS. 2573, 3892, & 3894.

- ① ROCKS AT ENTRANCE CLEAN WORKSITE MUD OFF OF TRUCK TIRES BEFORE TRUCKS ENTER MAIN ROAD. KEEPING MUD OFF THE ROAD WILL PREVENT AUTO DAMAGE AND KEEP CONSTRUCTION SEDIMENT OUT OF DRAINAGE SYSTEMS AND WETLANDS. GEOTEXTILE MAY BE PLACED UNDER THE ROCK TO KEEP ROCKS SEPARATE FROM SOIL.
- ② W = 10 FT. MIN., 20 FT. MAX.
- ③ D = 2 FT.
- ④ TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE EMBEDDED 10 INCHES MINIMUM IN THE GROUND.
- ⑤ PLACE A CATEGORY 3 EROSION CONTROL BLANKET, 6 FT. WIDE MINIMUM, OVER THE BALE INSTEAD OF TRENCHING.
- ⑥ THIS DETAIL MAY NOT BE ACCEPTABLE FOR WORK ON PUBLIC WATERS, SEE GENERAL PUBLIC WATERS PERMIT (GP) 2004-0001.
- ⑦ LOCATION OF DOWNSTREAM TEMPORARY SEDIMENT CONTROL DEVICE.

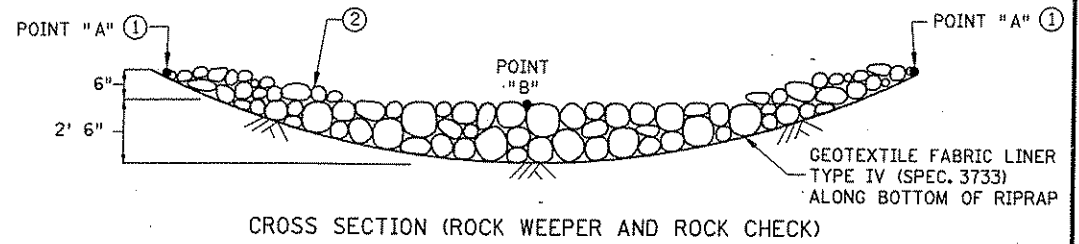
STANDARD SHEET NO. 5-297.405 (2 of 4)	TITLE: TEMPORARY SEDIMENT CONTROL MISCELLANEOUS DETAILS
STANDARD APPROVED: SEPTEMBER 27, 2006	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 105 OF 872 SHEETS	



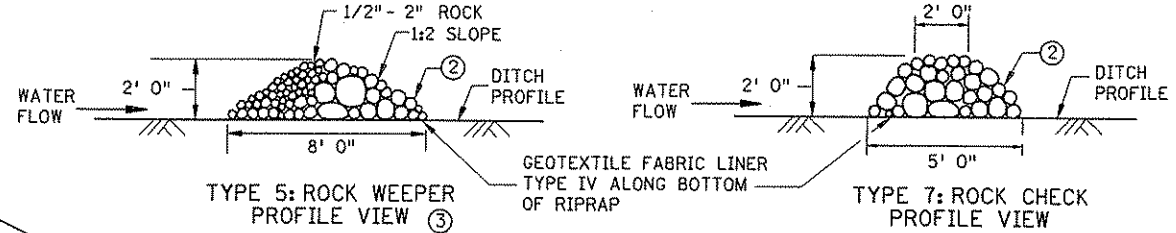
TYPE 3: BIOROLL BLANKET SYSTEM DITCH CHECK



INSET A



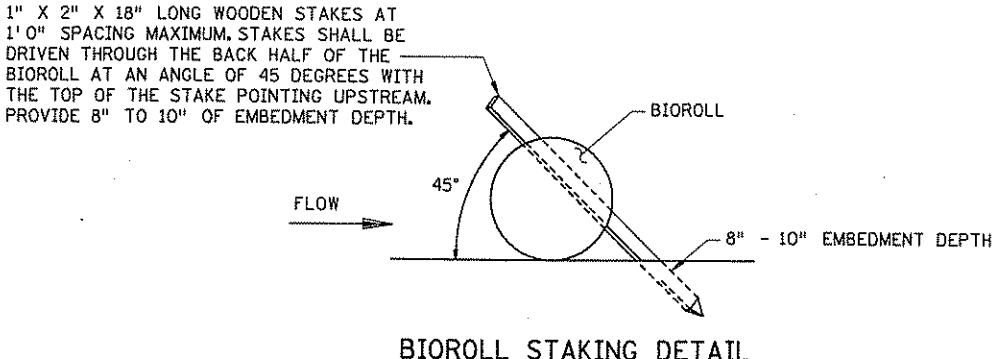
CROSS SECTION (ROCK WEEPER AND ROCK CHECK)



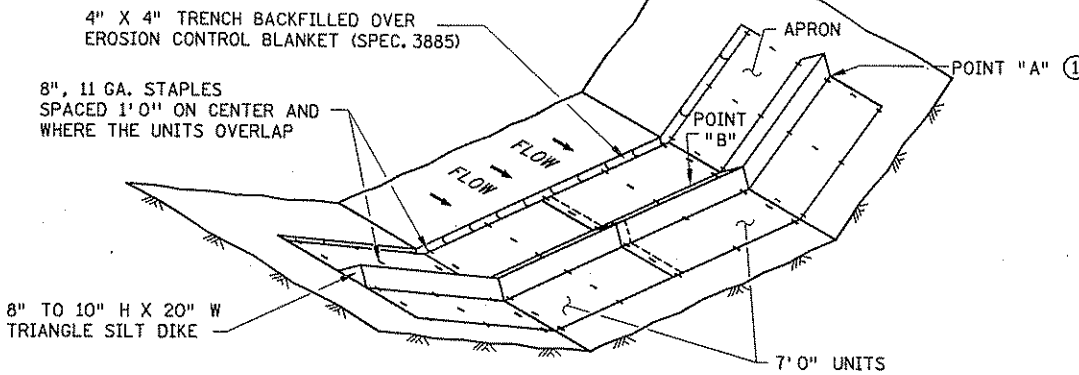
TYPE 5: ROCK WEEPER PROFILE VIEW ③

TYPE 7: ROCK CHECK PROFILE VIEW

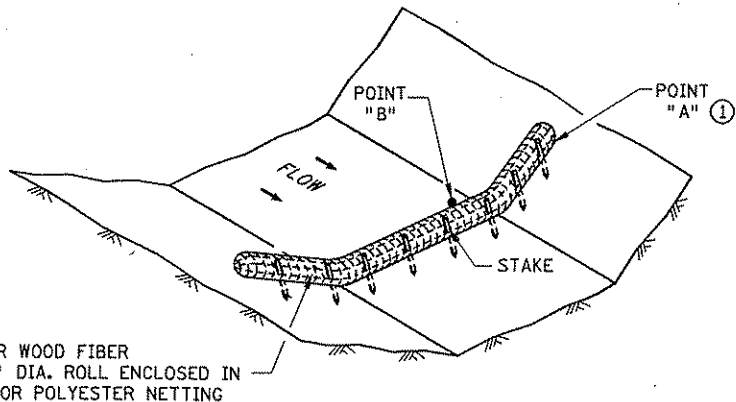
TYPE 5: ROCK WEEPER AND TYPE 7: ROCK CHECK DITCH CHECKS ④
USE ON ROUGH GRADED AREAS



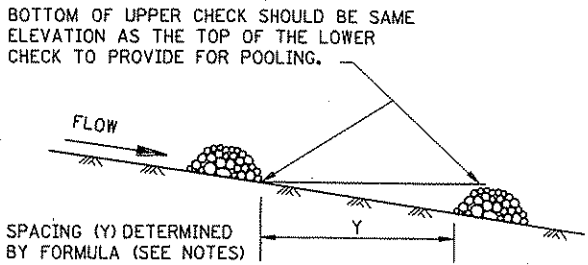
BIOROLL STAKING DETAIL



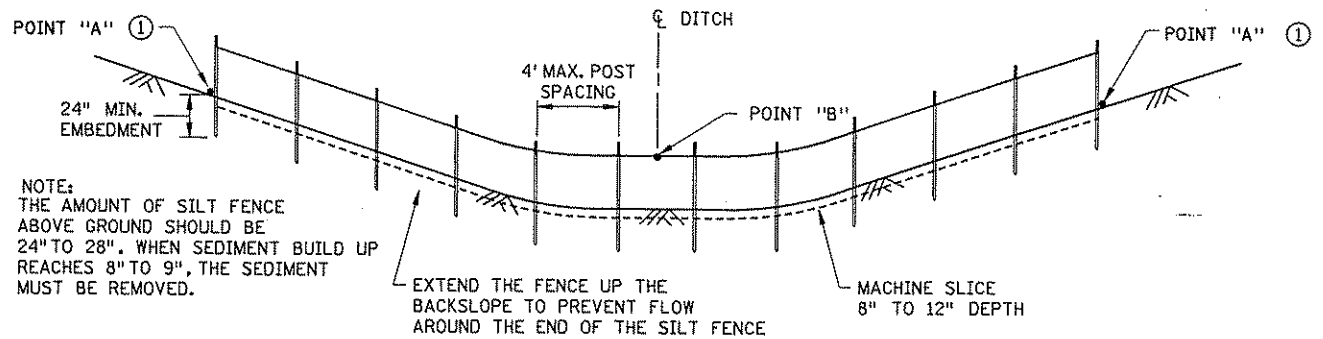
TYPE 6: GEOTEXTILE TRIANGULAR DIKE DITCH CHECK



TYPE 2: BIOROLL DITCH CHECK
USE ON ROUGH GRADED AREAS



DITCH CHECK SPACING ④



TYPE 1: SLICED IN SILT FENCE DITCH CHECK

NOTES:
SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.
APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:
APPROXIMATE SPACING OF DITCH CHECKS (FT.) = $Y = \frac{\text{DITCH CHECK HEIGHT (FT)}}{\% \text{ CHANNEL SLOPE}} \times 100$

- ① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- ② CLASS I - IV RIPRAP (SPEC. 3601) WITH GEOTEXTILE FABRIC LINER, TYPE IV (SPEC. 3733).
- ③ THE ROCK WEEPER FILTERS SEDIMENT OUT OF THE WATER BETTER THAN THE OTHER DITCH CHECKS. THE ROCK WEEPER COULD BE USED AS A PERMANENT WATER FILTERING FEATURE.
- ④ PERMANENT ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE WILL NEED TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

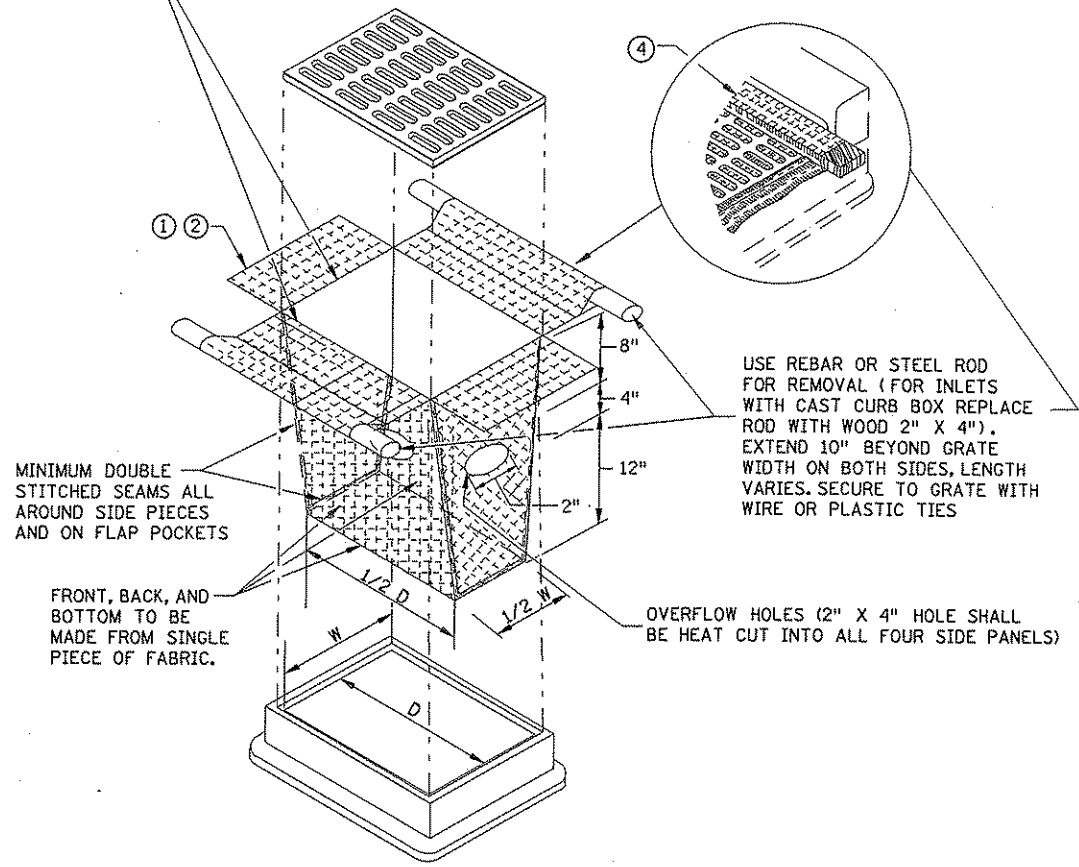
GENERAL DESIGN GUIDELINES						
DITCH CHECK TYPE	SILT FENCE	BIOROLL	BIOROLL BLANKET	TRIANGULAR DIKE	ROCK WEEPER	ROCK CHECK
STORM FREQUENCY:	2 YR. - 24 HR.	2 YR. - 24 HR.	2 YR. - 24 HR.	2 YR. - 24 HR.	5 YR. - 24 HR.	5 YR. - 24 HR.
MAX. FLOW VELOCITY:	< 1 FT./SECOND	1.5 FT./SECOND	4.5 FT./SECOND	1.5 FT./SECOND	12 FT./SECOND	12 FT./SECOND
MAX. DITCH GRADE:	0% - 0.5%	1.5% - 3%	1.5% - 3%	1.5% - 2.0%	3% - 5%	3% - 5%
MAX. DRAINAGE AREA:	1 ACRE	2 ACRE	2 ACRE	4 ACRE	4+ ACRE	4+ ACRE

PLOTTED/REVISED:
31-JAN-2007 07:58

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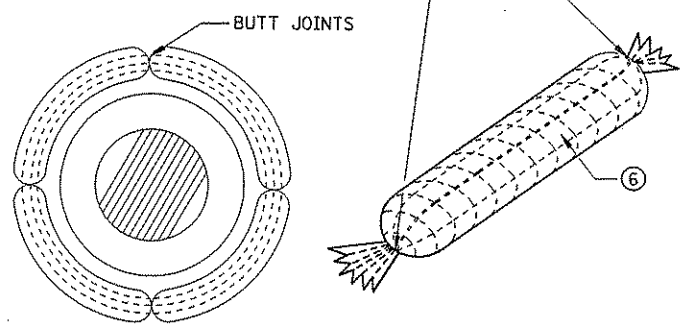
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INLET SPECIFICATIONS AS PER THE PLAN
DIMENSION LENGTH AND WIDTH TO MATCH
FLAP POCKET

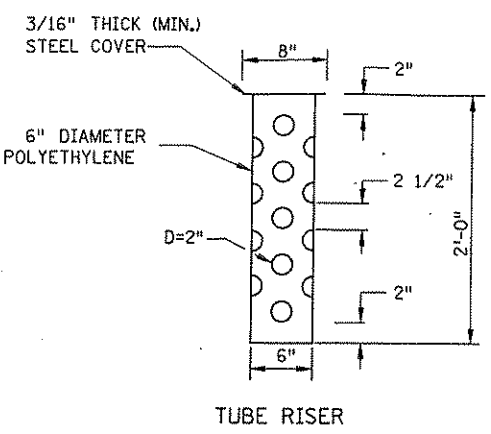


FILTER BAG INSERT ③
(CAN BE INSTALLED IN ANY INLET TYPE
WITH OR WITHOUT A CURB BOX)

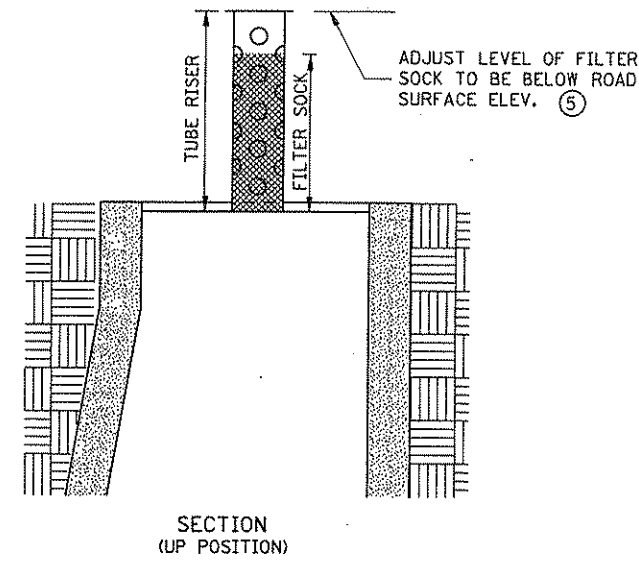
ENDS SECURELY CLOSED TO
PREVENT LOSS OF OPEN GRADED
AGGREGATE FILL. SECURED WITH
50 PSI. ZIP TIE.



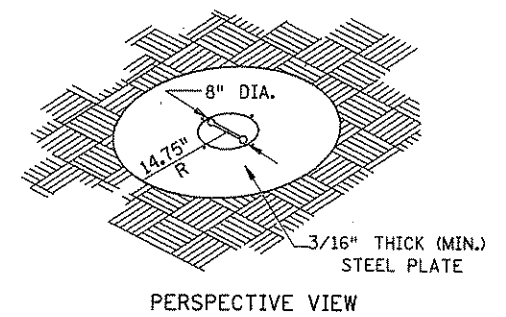
ROCK LOG/COMPOST LOG



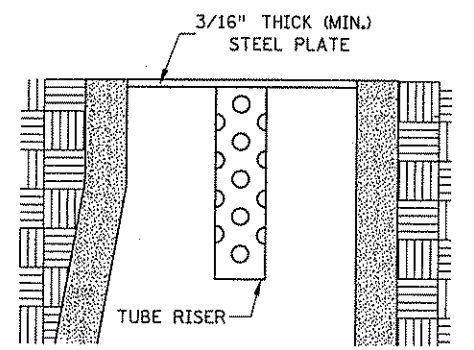
TUBE RISER



**SECTION
(UP POSITION)**

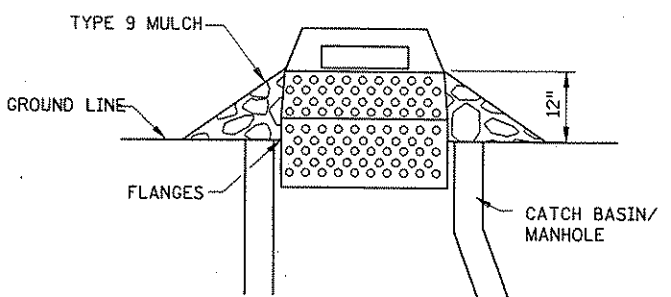


PERSPECTIVE VIEW



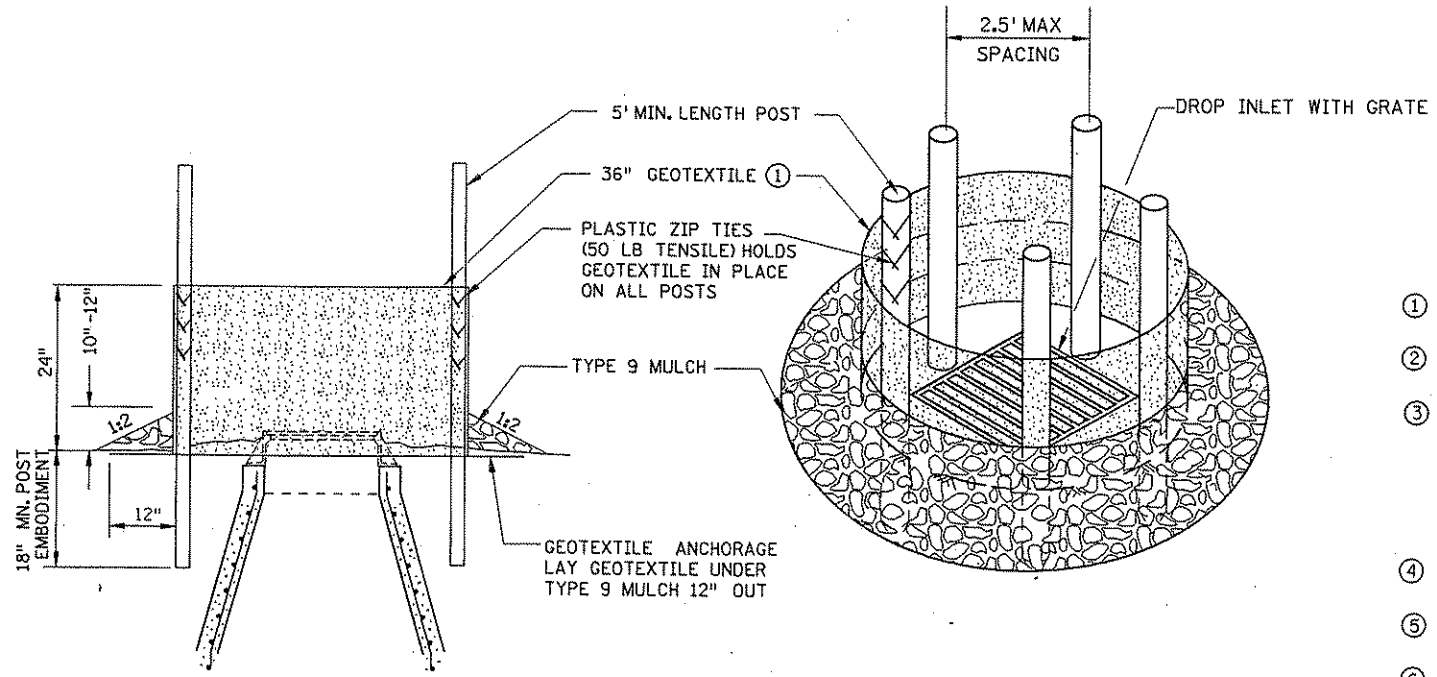
**SECTION
(DOWN POSITION)**

POP-UP HEAD



SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL
OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE
THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW
FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING,
FLANGES AND A LID/COVER.



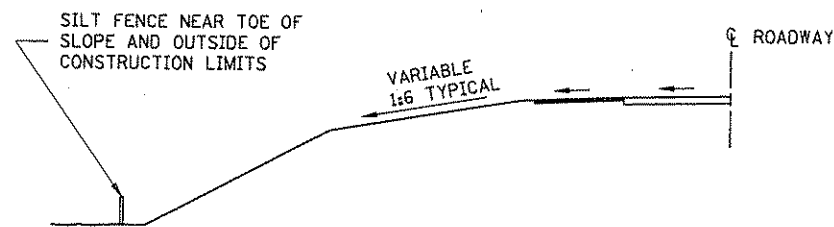
SILT FENCE RING AND ROCK FILTER BERM
USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 OR LESS

NOTES:

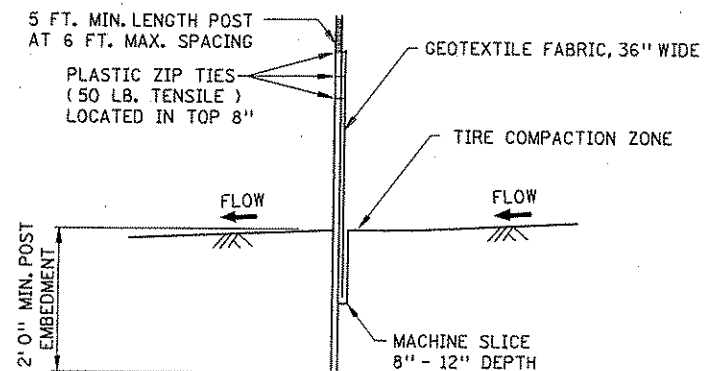
- SEE SPECS. 2573, 3137, 3886 & 3891.
- MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.
- ① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
- ② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ③ INSTALLATION NOTES:
DO NOT INSTALL FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
- ④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
- ⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
- ⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

STANDARD SHEET NO. 297.405 (4 OF 4)
STANDARD APPROVED: SEPTEMBER 27, 2006

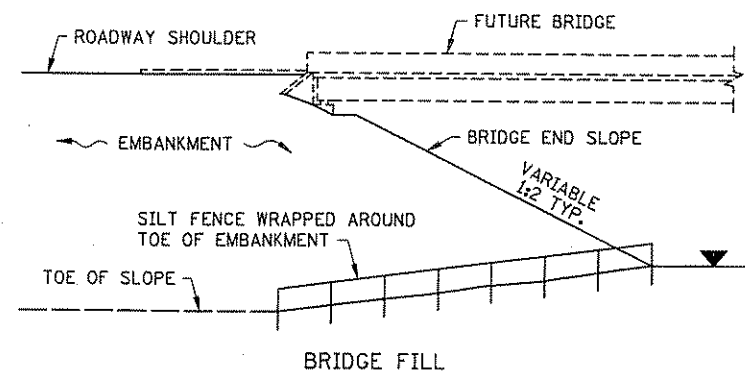
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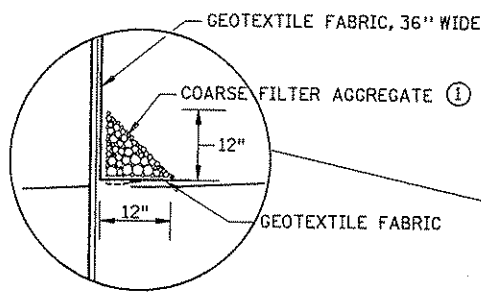
LOCATION OF SILT FENCE AT TOE OF ROADWAY EMBANKMENT



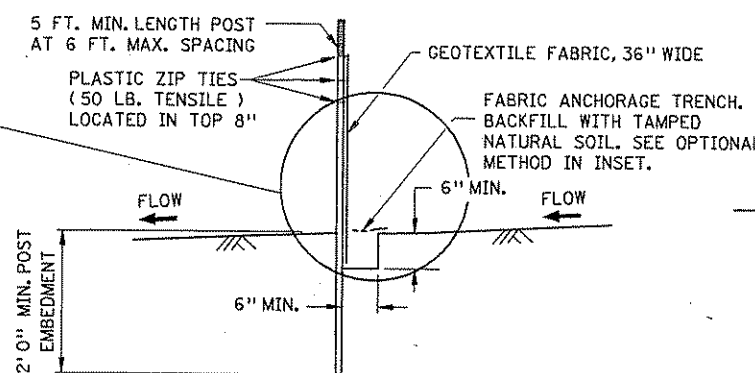
SILT FENCE, MACHINE SLICED
 DESIGN GUIDELINES:
 TO PROTECT AREAS FROM SHEET FLOW.
 MAXIMUM CONTRIBUTING AREA: 1 ACRE.



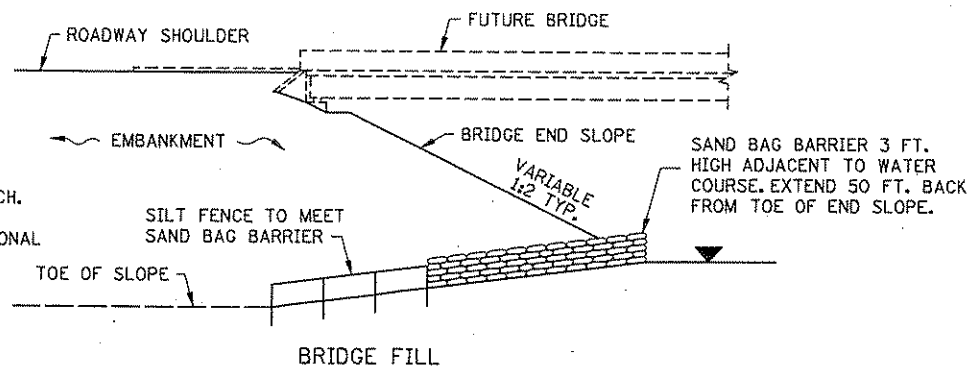
DESIGN GUIDELINES:
 WATER COURSE FLOW VELOCITY: STAGNANT
 CONTRIBUTING SLOPE AREA: 1/2 ACRE



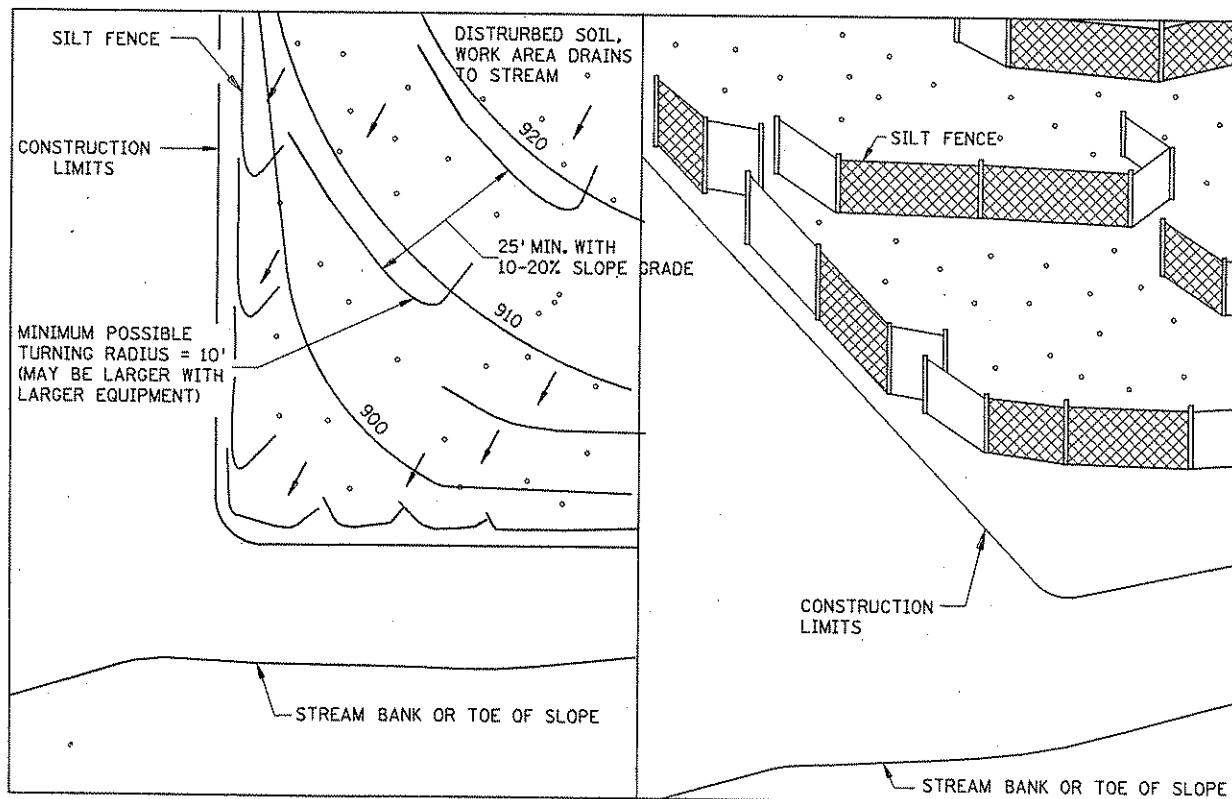
OPTIONAL METHOD FOR SILT FENCE, HEAVY DUTY



SILT FENCE, HEAVY DUTY (HAND INSTALLED)
 DESIGN GUIDELINES:
 TO PROTECT AREAS FROM SHEET FLOW.
 MAXIMUM CONTRIBUTING AREA: 1 ACRE.



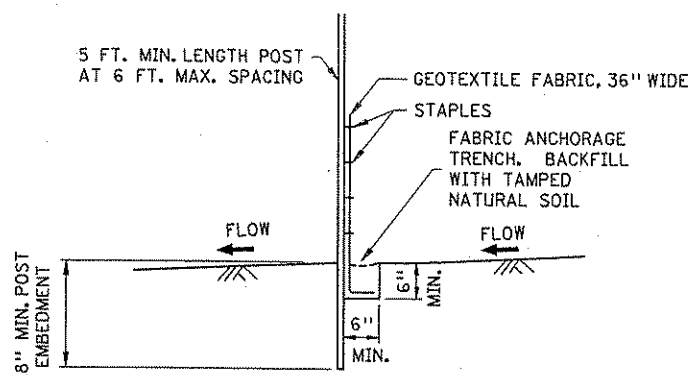
DESIGN GUIDELINES:
 WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
 CONTRIBUTING SLOPE AREA: 1 ACRE



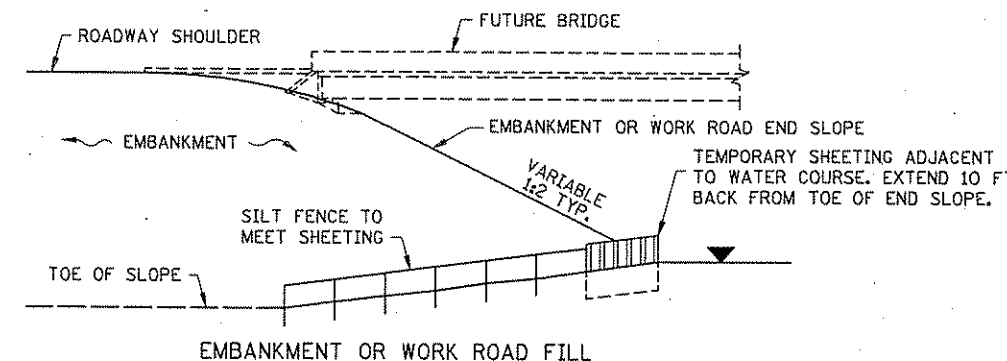
PLAN VIEW

SIDE VIEW

SILT FENCE, J-HOOK INSTALLATION



SILT FENCE, PREASSEMBLED
 DESIGN GUIDELINES:
 TO PROTECT AREAS FROM SHEET FLOW.
 MAXIMUM CONTRIBUTING AREA: 1 ACRE.



SILT FENCE AT BRIDGE EMBANKMENT ADJACENT TO WATER

DESIGN GUIDELINES:
 WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.
 CONTRIBUTING SLOPE AREA: 3 ACRES

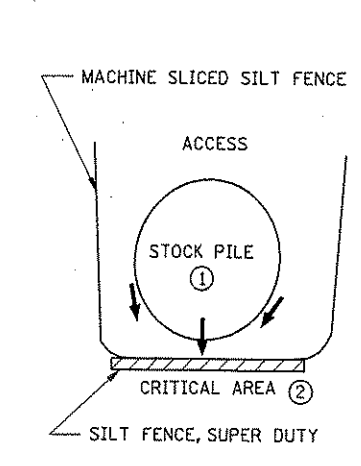
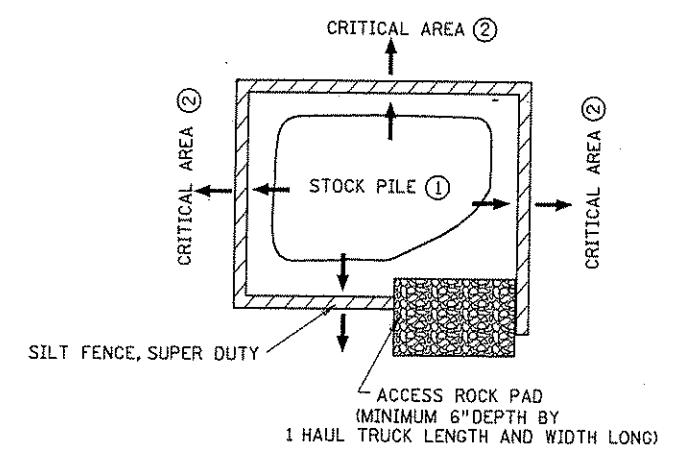
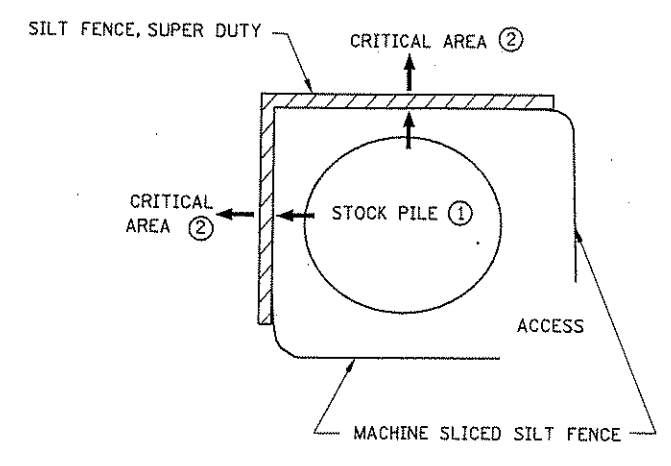
NOTES:

SEE SPECS. 2573, 3149 & 3886.

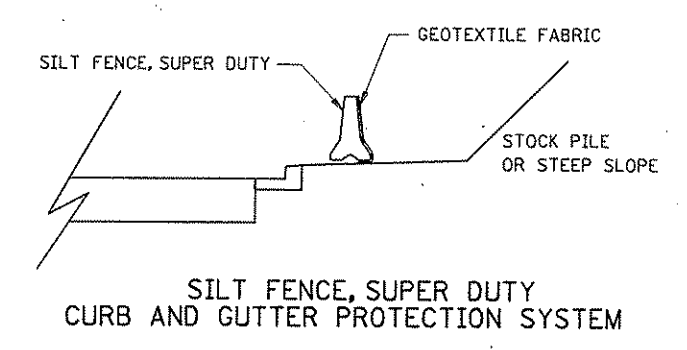
① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

STANDARD SHEET NO. 5-297.408 (1 OF 2)	TITLE: TEMPORARY SEDIMENT CONTROL SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 108 OF 872 SHEETS	

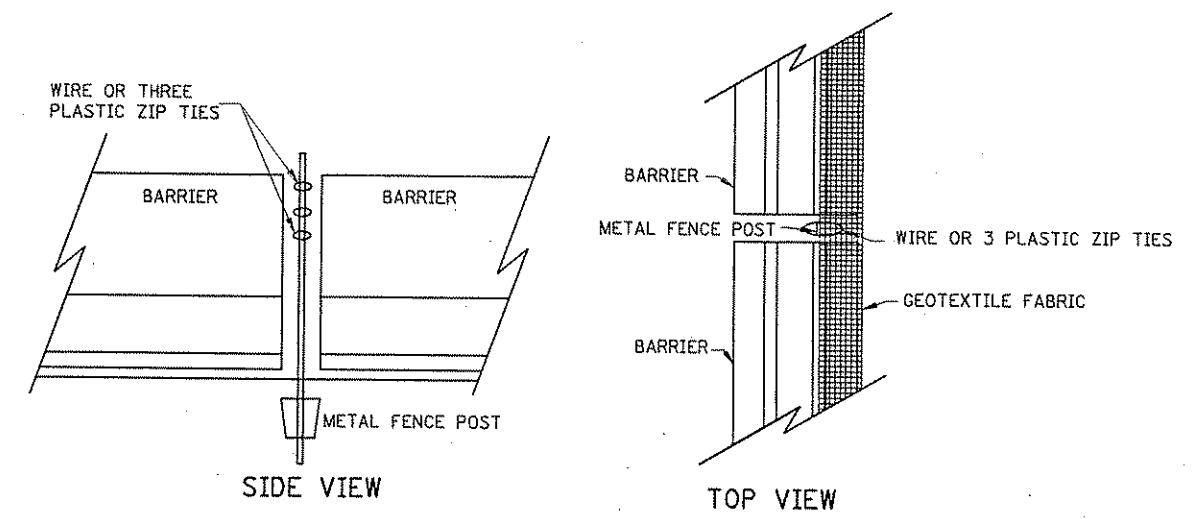
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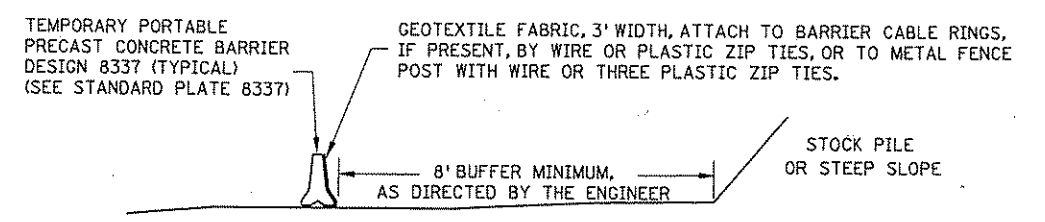
SILT FENCE, SUPER DUTY
STOCK PILE CONTAINMENT



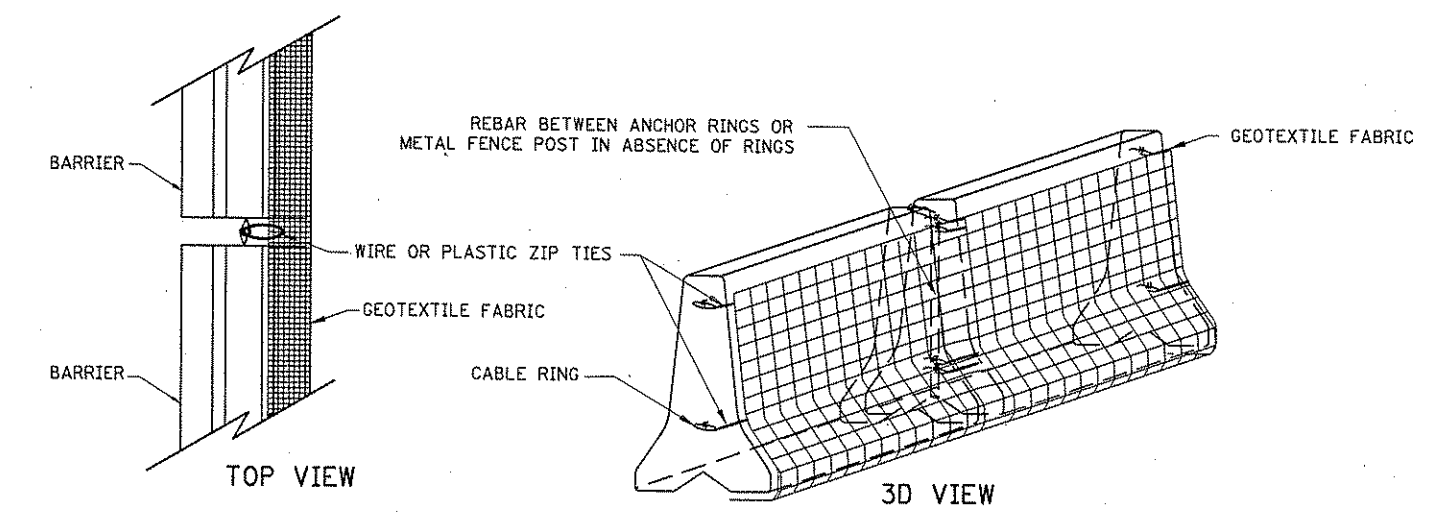
SILT FENCE, SUPER DUTY
CURB AND GUTTER PROTECTION SYSTEM



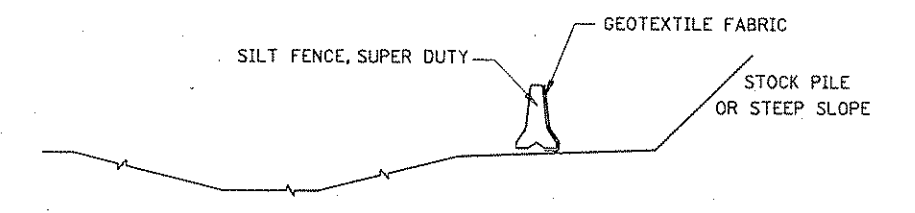
BARRIER WITHOUT CABLE RINGS



SILT FENCE, SUPER DUTY
STOCKPILE SEDIMENT CONTROL



BARRIER WITH CABLE RINGS
SILT FENCE, SUPER DUTY



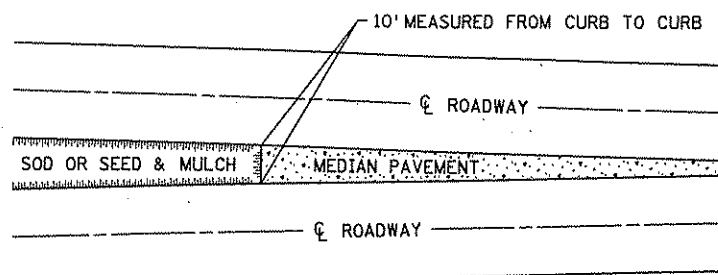
SILT FENCE, SUPER DUTY
DITCH PROTECTION SYSTEM

- NOTES:**
- SEE SPECS. 2533, 2573 & 3886.
 - PLACE SUPER DUTY SILT FENCE ALONG A CONSTANT ELEVATION.
 - SUPER DUTY SILT FENCE CAN UTILIZE EITHER A CONCRETE, OR WATER FILLED, TEMPORARY MEDIAN BARRIER.
 - ① PLACING STOCK PILES NEXT TO AN ENVIRONMENTALLY SENSITIVE AREA IS NOT RECOMMENDED. WHEN THERE ARE NO FEASIBLE ALTERNATIVES, THE SUPER DUTY SILT FENCE IS TO BE USED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 - ② CRITICAL AREAS INCLUDE WETLANDS, JUDICIAL DITCHES, STREAMS, WATER BODIES, AND OTHER AREAS REQUIRING PROTECTION.

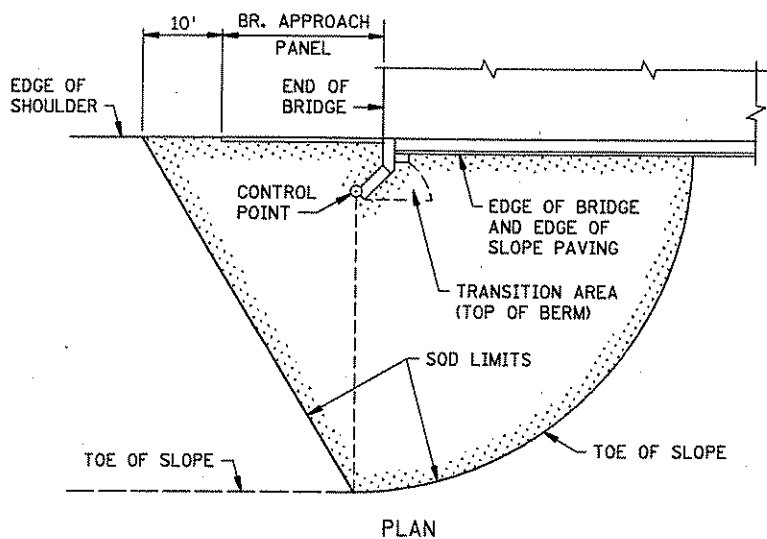
STANDARD SHEET NO. 5-297.408 (2 of 2)	TITLE: TEMPORARY SEDIMENT CONTROL SUPER DUTY SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 109 OF 872 SHEETS	

PLOTTED/REVISED: 31-JAN-2007 07:58

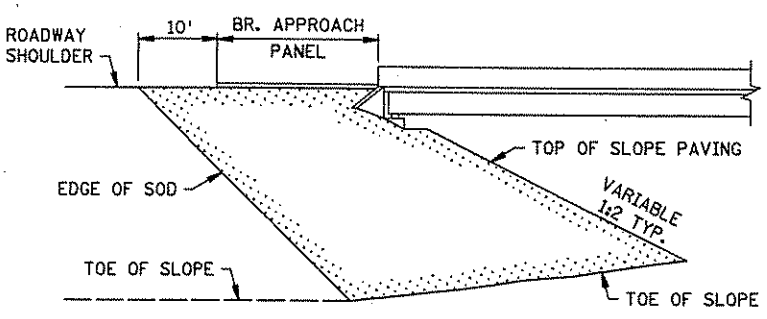
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SODDING LIMITS AT GORE AREA

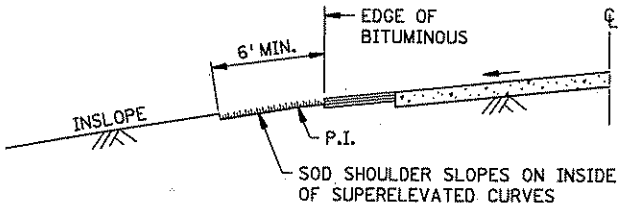


PLAN

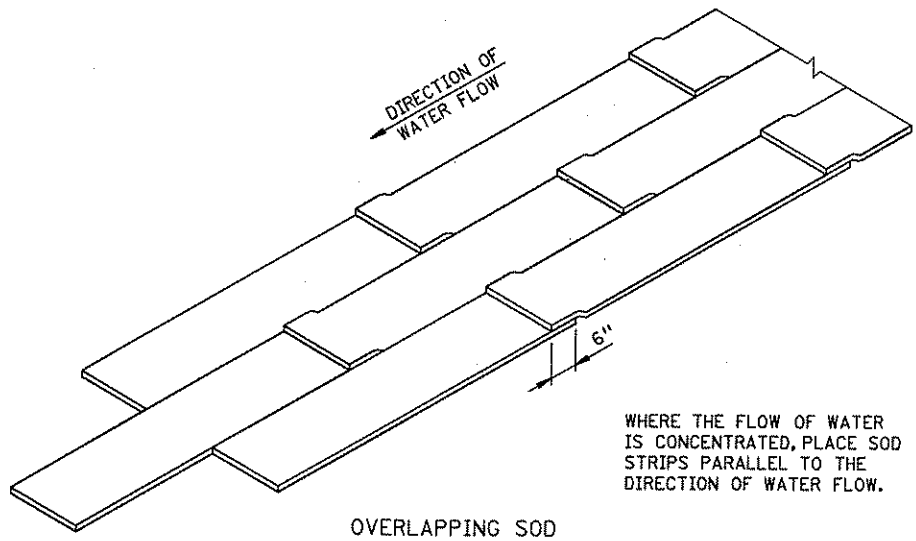


ELEVATION

SODDING LIMITS AT BRIDGE APPROACH FILLS

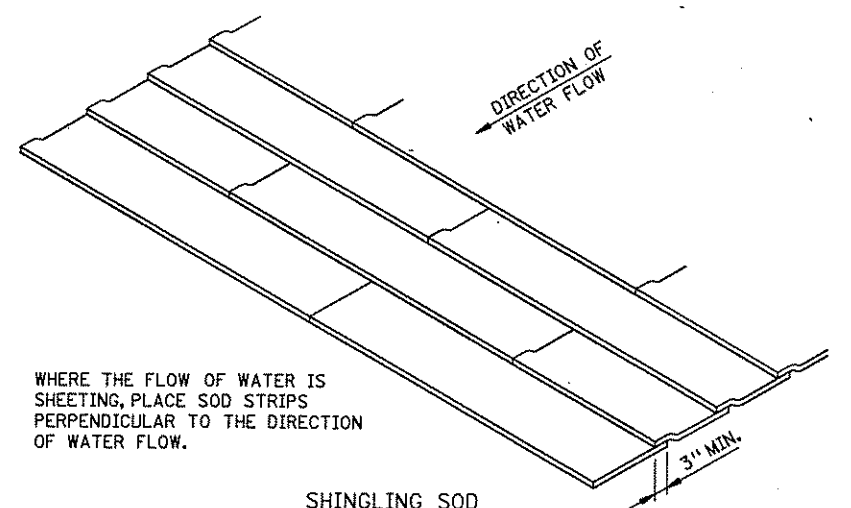


SODDING INSLOPES OF SUPERELEVATED CURVES



OVERLAPPING SOD

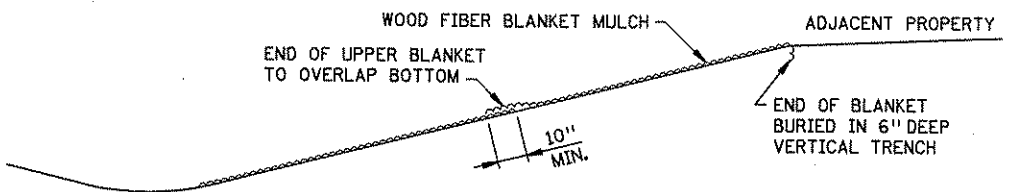
WHERE THE FLOW OF WATER IS CONCENTRATED, PLACE SOD STRIPS PARALLEL TO THE DIRECTION OF WATER FLOW.



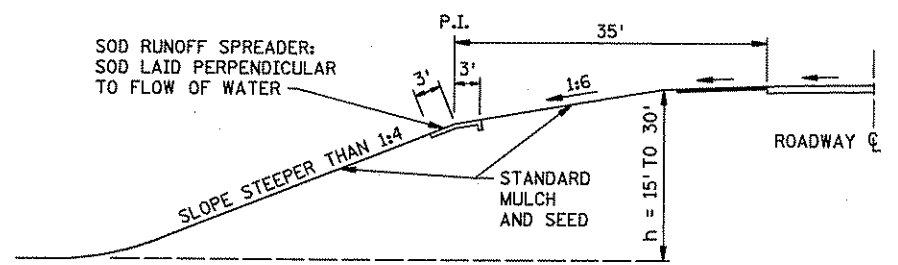
SHINGLING SOD

WHERE THE FLOW OF WATER IS SHEETING, PLACE SOD STRIPS PERPENDICULAR TO THE DIRECTION OF WATER FLOW.

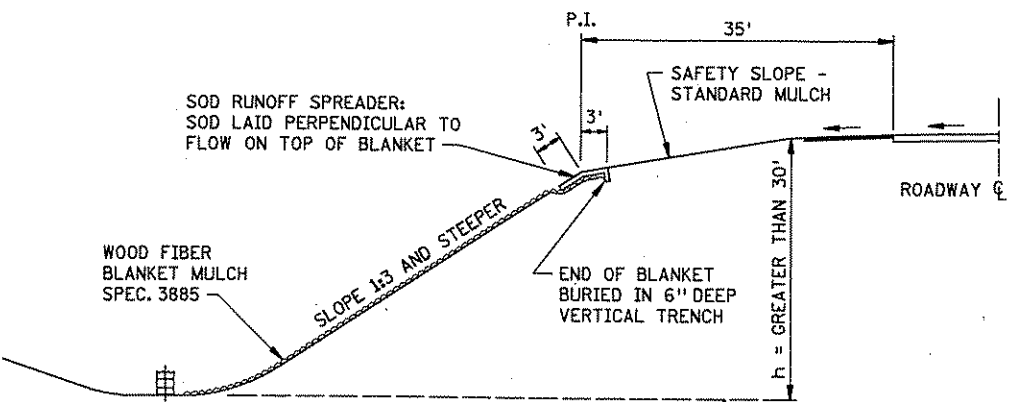
SPECIAL SOD PLACEMENT TECHNIQUES



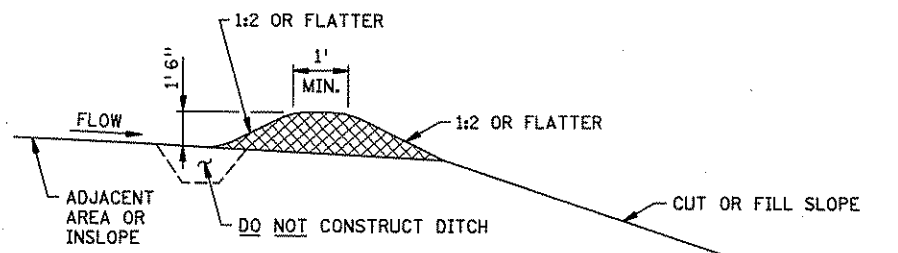
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE



BROKEN-BACK SAFETY FILL SLOPE



WOOD FIBER BLANKET INSTALLATION ON AN INSLOPE (WHEN REQUIRED)

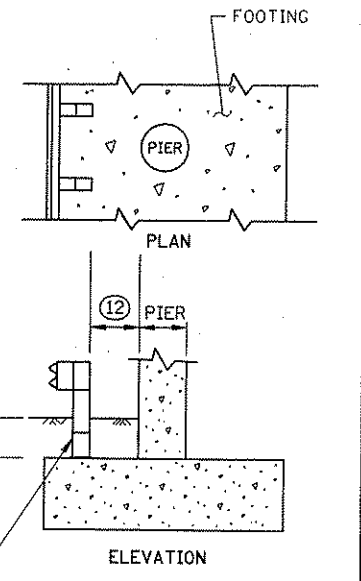
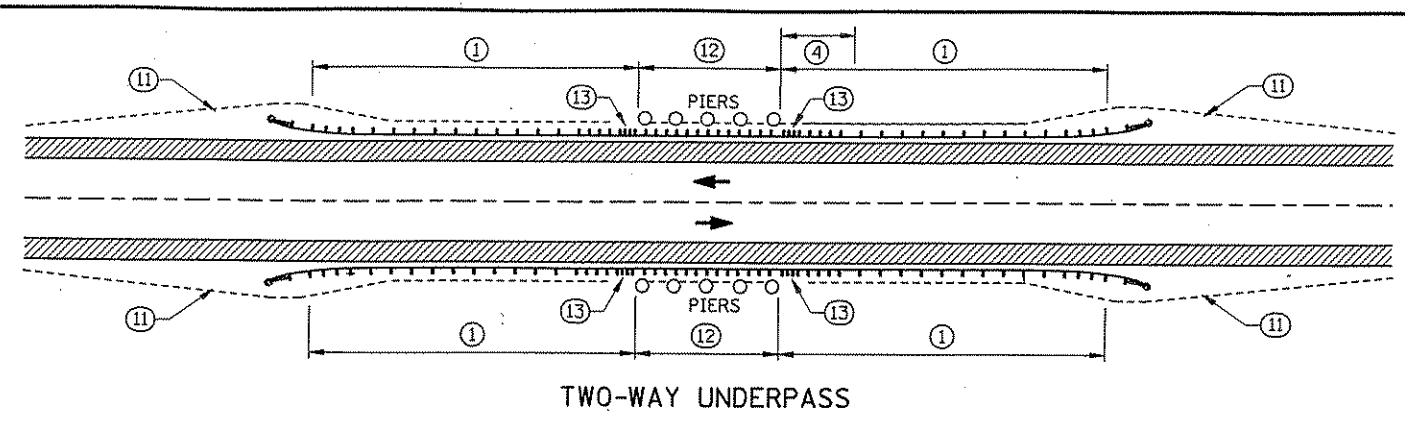
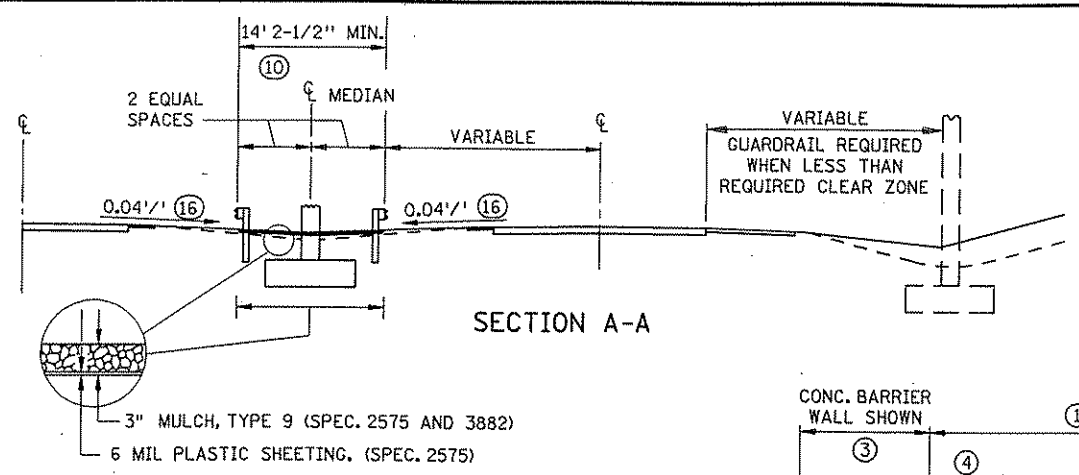


PERMANENT SLOPE PROTECTION DIKE

STANDARD SHEET NO. 5-297.406	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS AND AT GORE AREAS & BRIDGE APPROACH FILLS
STANDARD APPROVED: JANUARY 31, 1985	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 110 OF 872 SHEETS	

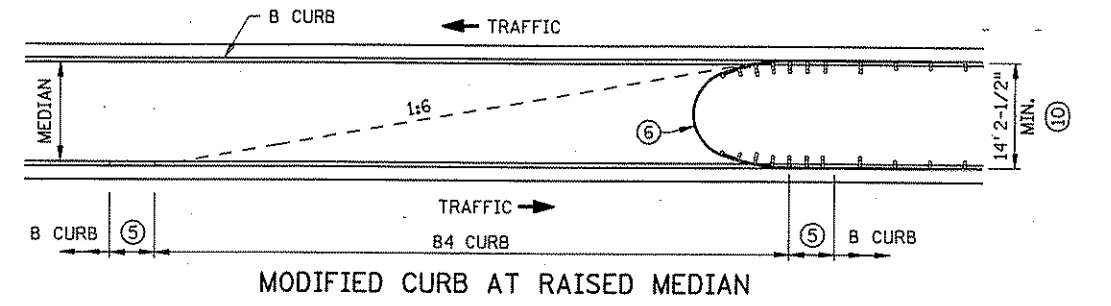
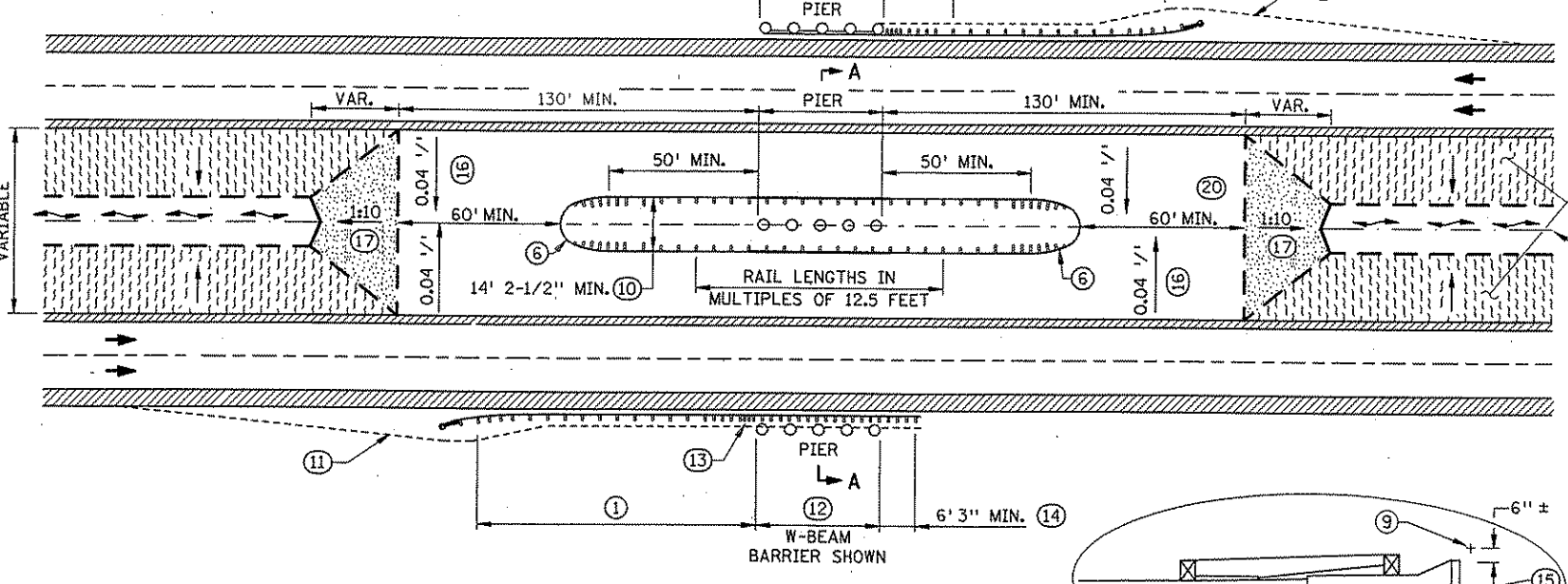
REVISION DATE
10-26-2000

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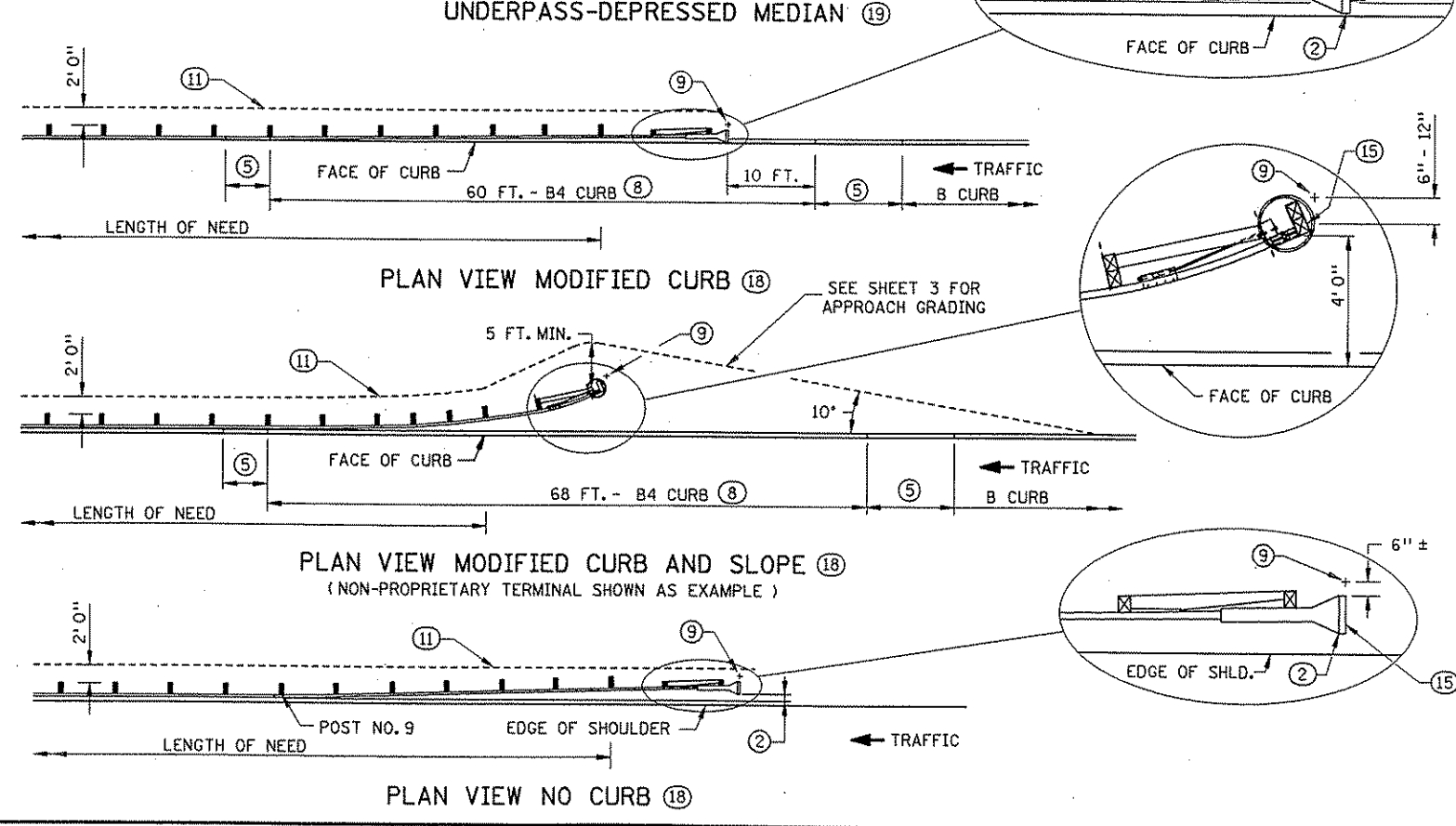


ESTIMATED DESIGN DEFLECTION TABLE FOR DESIGN B W-BEAM GUARDRAIL

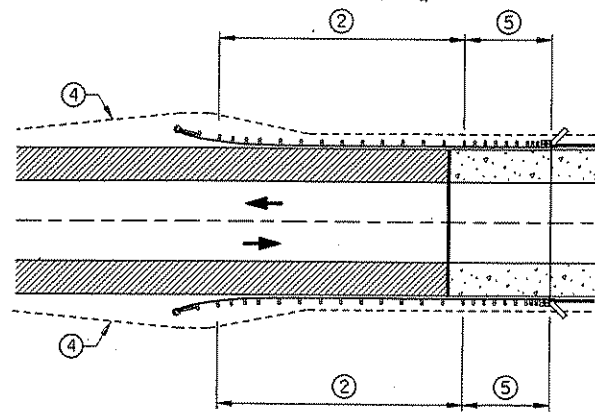
6' 3" POST SPACING	3' 0"
6' 3" POST SPACING WITH DOUBLE NESTED RAIL	2' 8"
MODIFIED 3' 1-1/2" POST SPACING	2' 3"
MODIFIED POST SPACING WITH DOUBLE NESTED RAIL	2' 0"



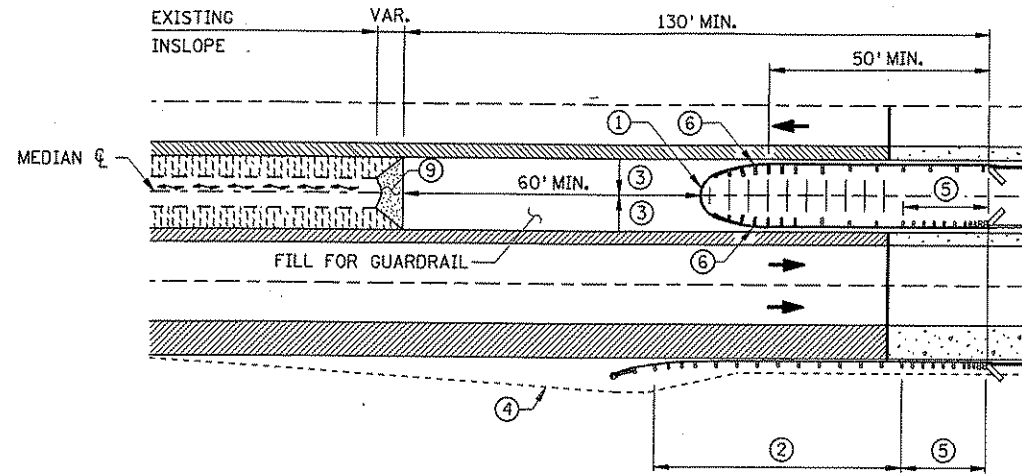
- NOTES:**
- ALL GUARDRAIL POSTS SHALL BE 6 FT. 3 IN. CENTER TO CENTER (DESIGN B), EXCEPT WHERE NOTED.
 - THE LATEST APPROVED VERSION OF STANDARD PLATES SHOWN OR AS INDICATED IN THE PLANS SHALL APPLY.
 - (1) FOR REQUIRED LENGTH OF INSTALLATION SEE ROAD DESIGN MANUAL CHAPTER 10.
 - (2) THE LAST 50 FT. OF TANGENT TERMINALS MAY BE FLARED AT 1:50 TAPER.
 - (3) CONC. BARRIER WALL BETWEEN PIER COLUMNS MAY BE USED, STD. PLAN 5-297.610. SEE SHEET NO. ___ FOR WALL DETAILS. CONNECT GUARDRAIL TO BARRIER WALL ANCHORAGE PLATE, SEE SHEET NO. 114 FOR DETAILS.
 - (4) AN APPROVED TRANSITION MUST BE USED.
 - (5) 10 FT. CURB TRANSITION, USE IF ADJACENT CURB IS GREATER THAN 4 INCHES.
 - (6) THREE BEAM BULLNOSE. SEE SHEET NO. 115 FOR DETAILS.
 - (7) IF EMBEDMENT IS GREATER THAN 3 FT. 0 IN., OR IF EMBEDMENT IS 2 FT. 6 IN. TO 3 FT. 0 IN. AND ADJACENT POSTS ARE EMBEDDED 3 FT. 0 IN. OR MORE, POST SEAT IS NOT REQUIRED.
 - (8) FOR CURB 6 IN. OR HIGHER, MILL TO 3 IN. HEIGHT.
 - (9) SNOWPLOW MARKER (X4-5) WITH A 2 LB./FT. DELINEATOR POST 8 FT. LONG (SPEC. 3401) DRIVEN INTO THE GROUND. EXTEND 3 FT. ABOVE TERMINAL. THE MARKER IS INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE.
 - (10) MEASUREMENT IS FROM BACK OF RAIL TO BACK OF RAIL.
 - (11) 1:10 OR FLATTER SLOPE P.I..
 - (12) SEE ESTIMATED DESIGN DEFLECTION TABLE FOR DESIGN B W-BEAM GUARDRAIL.
 - (13) WHEN CLOSE POST SPACING OR DOUBLE NESTED RAIL IS USED, THIS POST SPACING SHOULD EXTEND A MINIMUM OF 12 FT. IN THE DIRECTION OF APPROACHING TRAFFIC.
 - (14) THE ANCHOR ASSEMBLY MUST BE LOCATED DOWNSTREAM OF THE HAZARD.
 - (15) MARK THE APPROACH END OF PLATE BEAM GUARDRAIL INSTALLATIONS WITH A STRIPED OBJECT MARKER SIZED TO FIT THE END TERMINAL, HAVING ALTERNATING BLACK AND REFLECTIVE YELLOW (WIDE ANGLE PRISMATIC RETROREFLECTIVE SHEETING) STRIPES SLOPED DOWNWARD AT A 45 DEGREE ANGLE TOWARD THE SIDE ON WHICH TRAFFIC PASSES. FOR FLAT END TREATMENTS THE OBJECT MARKER SHALL FIT INSIDE THE RECESSED AREA. FOR ROUNDED END TREATMENTS THE OBJECT MARKER SHALL WRAP AROUND THE CIRCULAR END AND BE MOUNTED SO THE TOP OF THE OBJECT MARKER LINES UP WITH THE TOP OF THE END TREATMENT.
 - (16) 0.04 FT./FT. CROSS SLOPE TYPICAL. 0.10 FT./FT. CROSS SLOPE MAXIMUM.
 - (17) 1:10 SLOPE OR FLATTER.
 - (18) USE ONLY FOR RETROFITS WITH SITE RESTRICTIONS. FOR RETROFITS WITHOUT SITE RESTRICTIONS AND NEW CONSTRUCTION, SEE SHEET 3.
 - (19) MEDIAN GRADING DETAIL SHOWN APPLIES TO THREE-BEAM BULLNOSE ONLY.
 - (20) DRAINAGE DETAILS SHOWN ON GRADING PLAN.



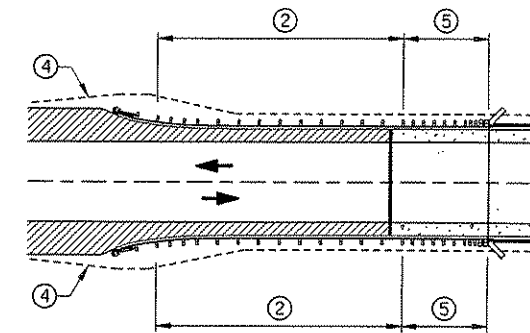
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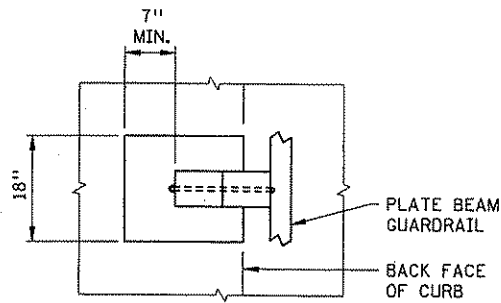
TWO - WAY BRIDGE
WITH FULL SHOULDERS



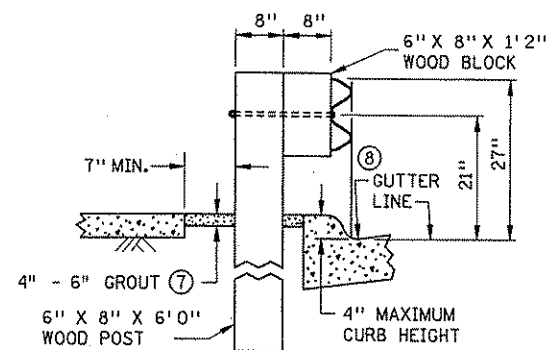
ONE - WAY BRIDGE
WITH FULL RIGHT SHOULDER
(FOR 14' 2-1/2" THREE BEAM BULLNOSE)



TWO - WAY BRIDGE
WITHOUT FULL SHOULDERS

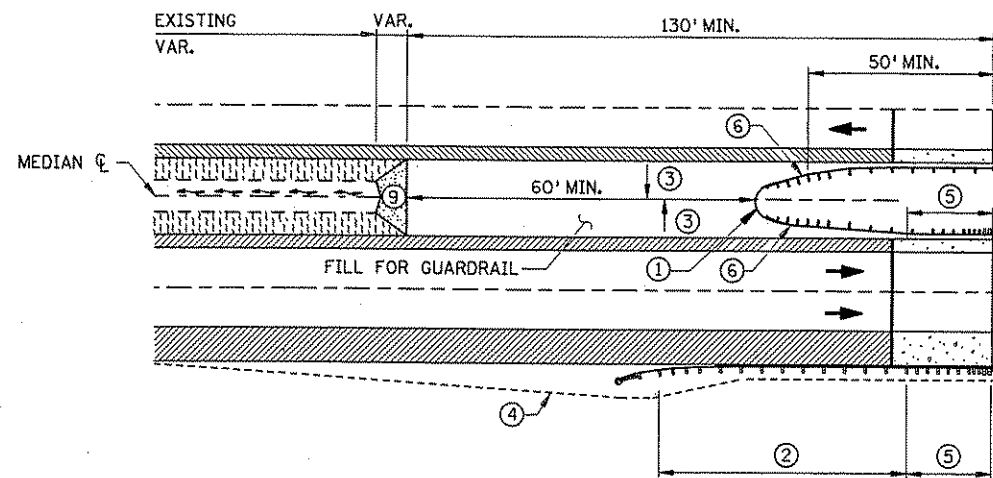


PLAN VIEW



ELEVATION

TYPICAL SECTION AT POST
SET IN CONCRETE

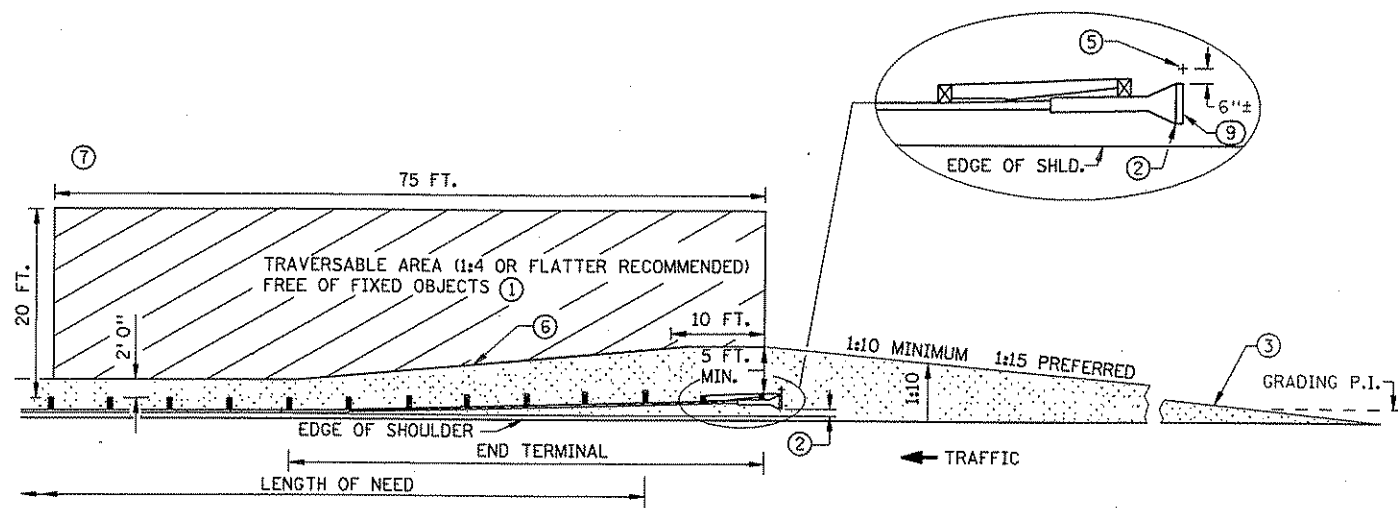


ONE - WAY BRIDGE
WITH FULL RIGHT SHOULDER
(FOR MEDIANS WIDER THAN 14' 2-1/2" THREE BEAM BULLNOSE)

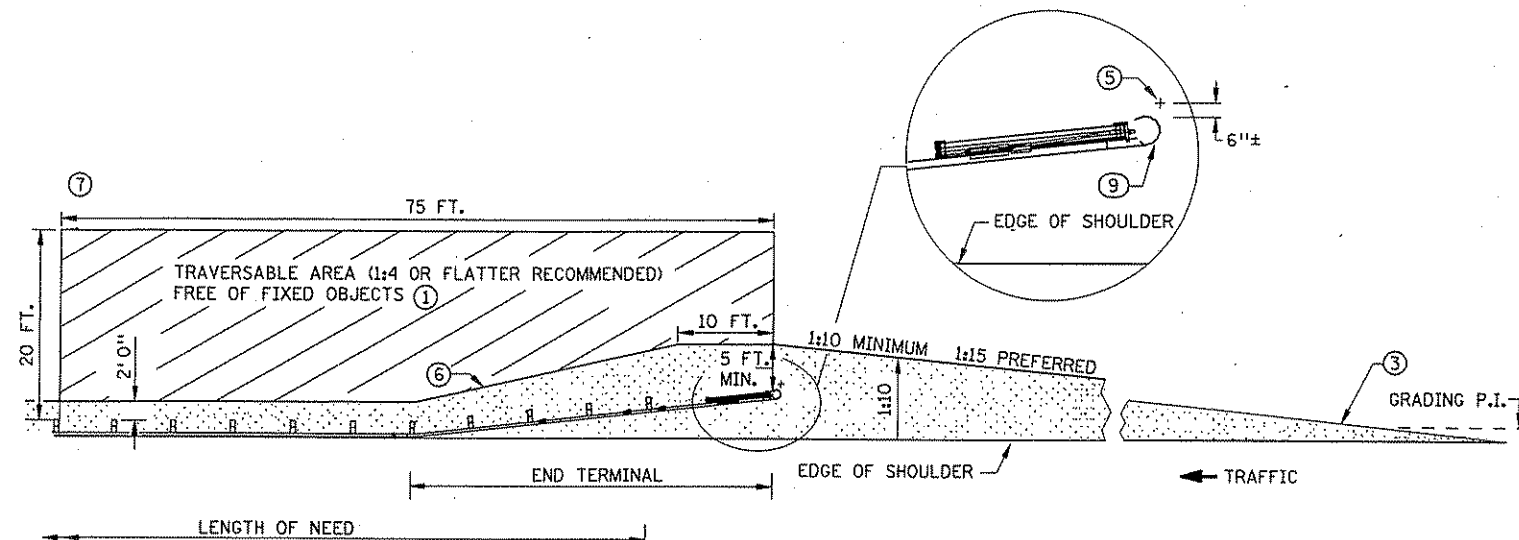
NOTES:

- ALL GUARDRAIL POSTS SHALL BE 6 FT. 3 IN. CENTER TO CENTER (DESIGN B), EXCEPT WHERE NOTED.
- THE LATEST APPROVED VERSION OF STANDARD PLATES SHOWN OR AS INDICATED IN THE PLANS SHALL APPLY.
- ① THREE BEAM BULLNOSE, SEE SHEET NO. 115 FOR DETAILS.
- ② FOR THE REQUIRED LENGTH SEE ROAD DESIGN MANUAL CHAPTER 10.
- ③ 0.04 FT./FT. CROSS SLOPE TYPICAL, 0.10 FT./FT. CROSS SLOPE MAXIMUM.
- ④ 1:10 OR FLATTER SLOPE P.I.. APPROACH GRADING VARIES WITH TERMINAL TYPE.
- ⑤ PLATE BEAM GUARDRAIL ATTACHMENTS TO FIXED OBJECTS REQUIRE AN APPROVED TRANSITION SECTION.
- ⑥ FOR MEDIANS WIDER THAN THE 14 FT. 2-1/2 IN., BEFORE TAPERING THE APPROACH SIDE TAPER THE OPPOSING SIDE AS SHOWN ON THE BULLNOSE DESIGN DETAIL. APPROACH TAPER SHOULD NOT EXCEED 1:25 IF THE BARRIER IS WITHIN THE SHY LINE OR 1:15 IF IT IS OUTSIDE.
- ⑦ TWO-SACK GROUT MIX (BY VOLUME: 1 PART CEMENT, 14 PARTS SAND, 5 PARTS WATER).
- ⑧ PLACE FRONT FACE OF W-BEAM DIRECTLY ABOVE FRONT FACE OF CURB.
- ⑨ 1:10 SLOPE OR FLATTER.

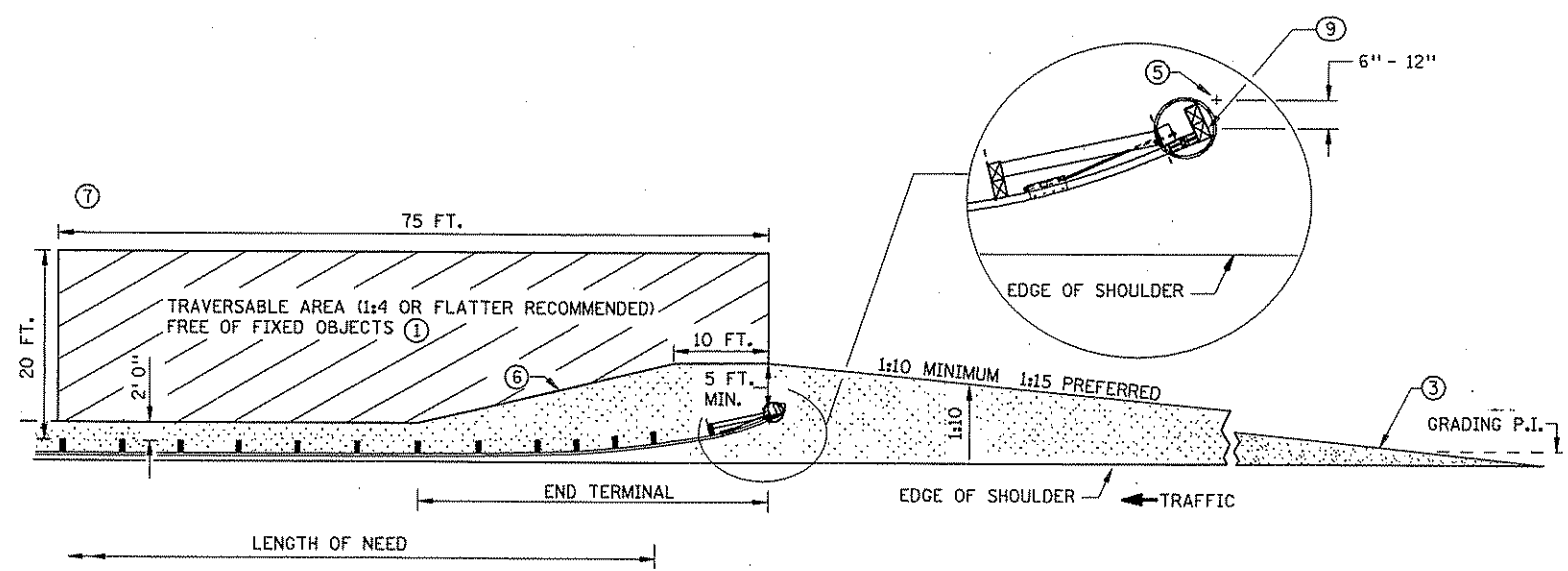
STANDARD SHEET NO. 5-297.601 (2 OF 3)	TITLE: GUARDRAIL INSTALLATIONS AT MEDIANS AND END TREATMENTS
STANDARD APPROVED: AUGUST 17, 2005	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 112 OF 872 SHEETS	



PLAN VIEW
(PROPRIETARY TANGENT TERMINAL SHOWN AS EXAMPLE)



PLAN VIEW ⑧
(PROPRIETARY FLARED TERMINAL SHOWN AS EXAMPLE)



PLAN VIEW ④ ⑧
(ELT)

NOTES:

ALL CROSS SLOPES ARE IN FOOT/FOOT UNLESS OTHERWISE NOTED.

ALL GUARDRAIL POSTS SHALL BE 6 FT. 3 IN. CENTER TO CENTER (DESIGN B), EXCEPT WHERE NOTED.

CHANGES (TO SUBJECTS COVERED BY THIS SHEET) INDICATED IN THE PLANS OR ON PLATES WITH MORE RECENT APPROVAL DATES SHALL APPLY.

GRADING AND DRAINAGE HARDWARE ARE NOT INCIDENTAL TO GUARDRAIL INSTALLATION.

① SLOPES BETWEEN 1:3 AND 1:4 PERMITTED WHEN 1:4 OR FLATTER IS NOT POSSIBLE. FOR SLOPES STEEPER THAN 1:3 THE AREA IMMEDIATELY BEHIND AND BEYOND THE END TERMINAL SHOULD, AT LEAST, BE SIMILAR IN CROSS SECTION TO THE UNSHIELDED ROADSIDE AREA UPSTREAM OF THE END TERMINAL.

② THE LAST 50 FT. OF TANGENT TERMINALS CAN BE FLARED AT 1:50 TAPER.

③ WHEN GRADING PLATFORMS ARE BUILT, THEY MUST BE SMOOTHLY TRANSITIONED TO EXISTING SIDE SLOPE SO THE ENTIRE ROADSIDE APPROACH TO THE BARRIER REMAINS TRAVERSABLE, AS WELL AS THE AREA IMMEDIATELY BEHIND IT.

④ SEE STANDARD PLATE 8329.

⑤ SNOWPLOW MARKER (X4-5) WITH A 2 LB./FT. DELINEATOR POST 8 FT. LONG (SPEC. 3401) DRIVEN INTO THE GROUND. EXTEND 3 FT. ABOVE TERMINAL. THE MARKER IS INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE. MARK BOTH THE BEGINNING AND END OF PLATE BEAM GUARDRAIL INSTALLATION.

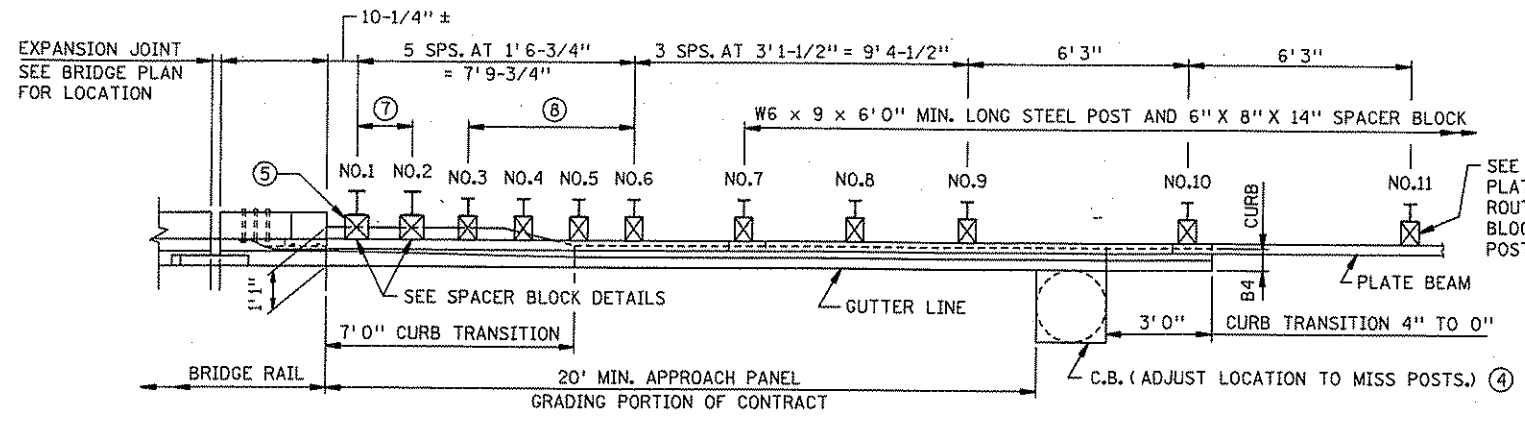
⑥ 1:10 OR FLATTER SLOPE P.I..

⑦ GRADUALLY BLEND SLOPE FROM TRAVERSABLE AREA TO STEEP EXISTING SLOPE (WHEN SLOPE IS STEEPER THAN 1:6).

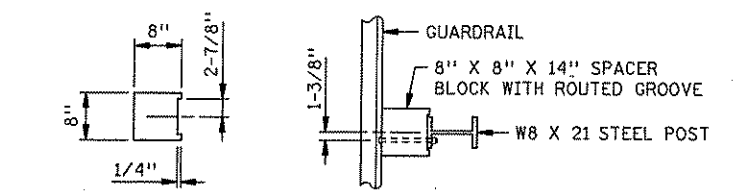
⑧ IF THE TERRAIN BEYOND THE TERMINAL END AND IMMEDIATELY BEHIND THE BARRIER IS NOT SAFELY TRAVERSABLE, A TANGENT (ENERGY- ABSORBING) TERMINAL SHALL BE USED.

⑨ MARK THE APPROACH END OF PLATE BEAM GUARDRAIL INSTALLATIONS WITH A STRIPED OBJECT MARKER SIZED TO FIT THE END TERMINAL, HAVING ALTERNATING BLACK AND REFLECTIVE YELLOW (WIDE ANGLE PRISMATIC RETROREFLECTIVE SHEETING). STRIPES SHALL SLOPE DOWNWARD AT A 45 DEGREE ANGLE TOWARD THE SIDE ON WHICH TRAFFIC PASSES. FOR FLAT END TREATMENTS THE OBJECT MARKER SHALL FIT INSIDE THE RECESSED AREA. FOR ROUNDED END TREATMENTS THE OBJECT MARKER SHALL WRAP AROUND THE CIRCULAR END AND BE MOUNTED SO THE TOP OF THE OBJECT MARKER LINES UP WITH THE TOP OF THE END TREATMENT.

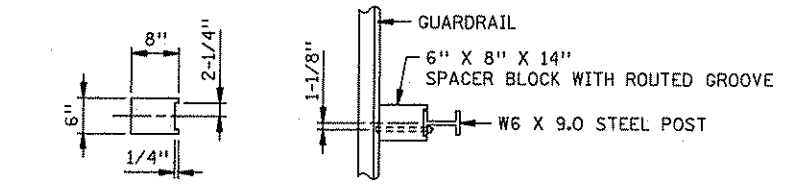
STANDARD SHEET NO. 5-297.601 (3 OF 3)	TITLE: GUARDRAIL INSTALLATIONS AT MEDIANS & END TREATMENTS (FOR NEW CONSTRUCTION AND RETROFITS WITHOUT SITE RESTRICTIONS)
STANDARD APPROVED: AUGUST 17, 2005	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 113 OF 872 SHEETS	



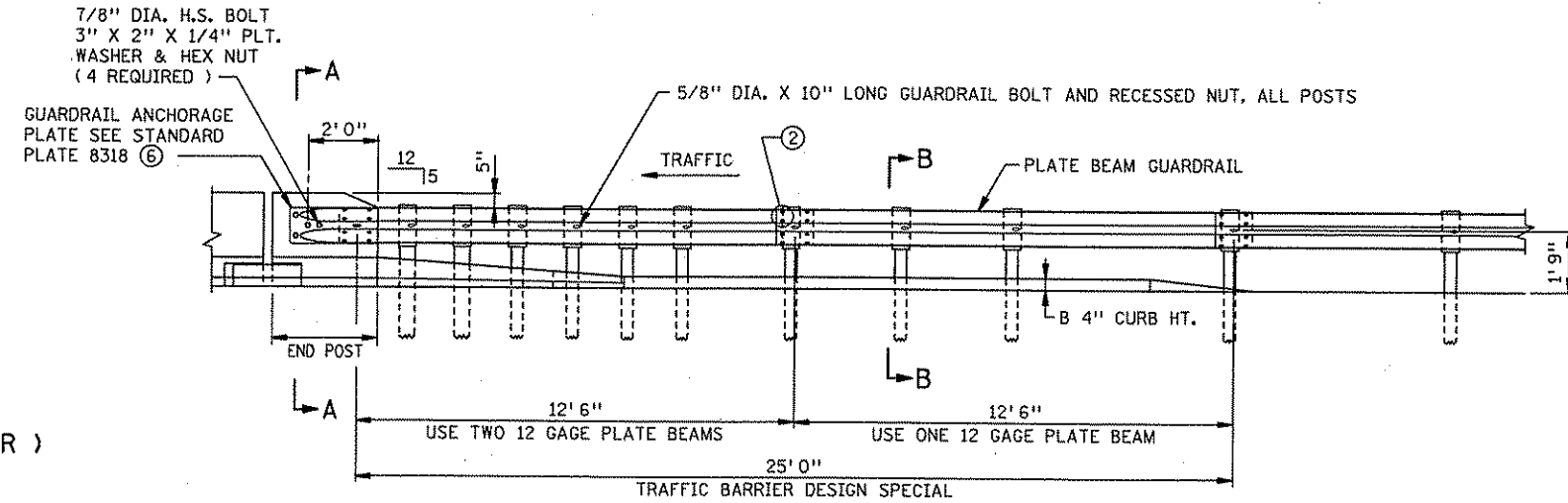
PLAN



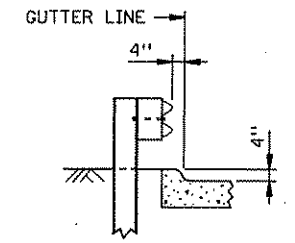
ROUTED GROOVE DETAIL - TOP VIEW
POSTS 1 AND 2



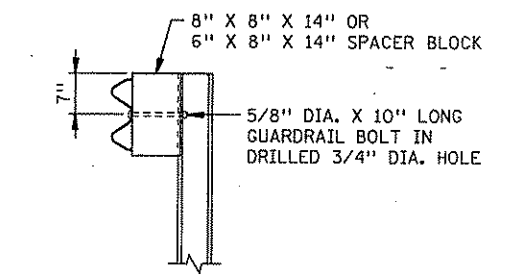
ROUTED GROOVE DETAIL - TOP VIEW
POSTS 3 - 11



ELEVATION

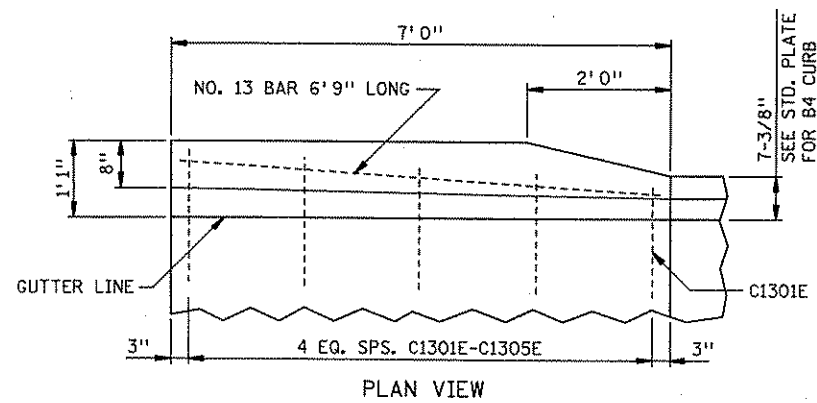


SECTION B-B
THE TRANSITION SECTION HAS BEEN TESTED AND APPROVED WITH THE CURB PLACED AS SHOWN

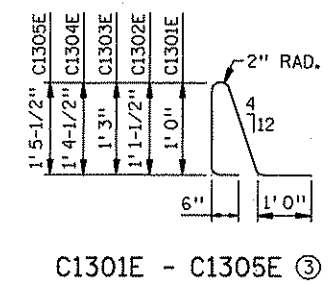


END VIEW
SPACER BLOCK DETAILS

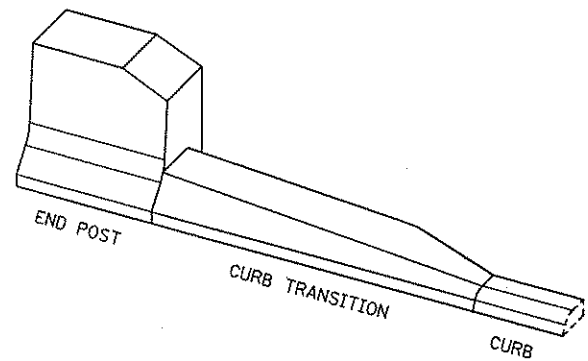
SECTION A - A
F SHAPE RAIL (F BARRIER)
(PARALLEL WINGWALL SHOWN)



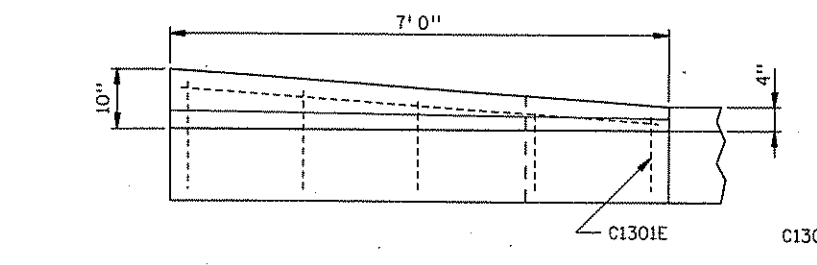
PLAN VIEW



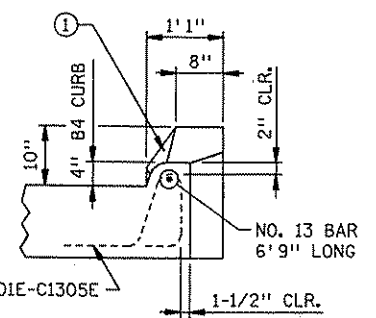
C1301E - C1305E ③



ISOMETRIC VIEW



INSIDE ELEVATION



END VIEW

CURB TRANSITION DETAILS

31-JAN-2007 07:59

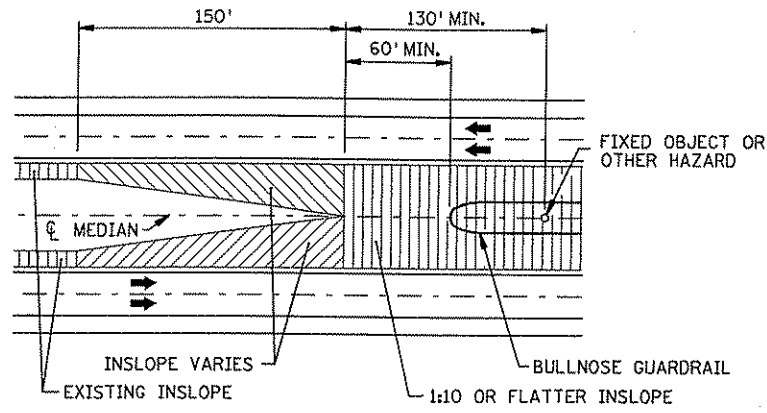
NOTES:

- ① ALL REBARS ARE IN METRIC DESIGNATIONS
- ① END OF TRANSITION TO MATCH BRIDGE RAIL SURFACE.
- ② 5/8" DIA. X 1-1/4" LONG GUARDRAIL BOLTS AND NUTS TYPICAL AT SPLICES.
- ③ REINFORCEMENT TO BE EPOXY COATED AS PER SPEC. 3301.
- ④ SEE ROAD PLANS TO VERIFY ACTUAL DIMENSION AND LOCATION.
- ⑤ ADDITIONAL BLOCKING MAY BE REQUIRED TO CLEAR BRIDGE STRUCTURE. VERIFY IN FIELD.
- ⑥ SANDWICH ANCHOR PLATE BETWEEN RAIL BEAMS.
- ⑦ POSTS 1 AND 2 TO BE W8 x 21 X 8'0" MINIMUM LONG STEEL POST AND 8" X 8" X 14" SPACER BLOCK.
- ⑧ POSTS 3, 4, 5, AND 6 TO BE W6 x 9 X 6'0" MIN. LONG STEEL POST AND 6" X 8" X 14" SPACER BLOCK.

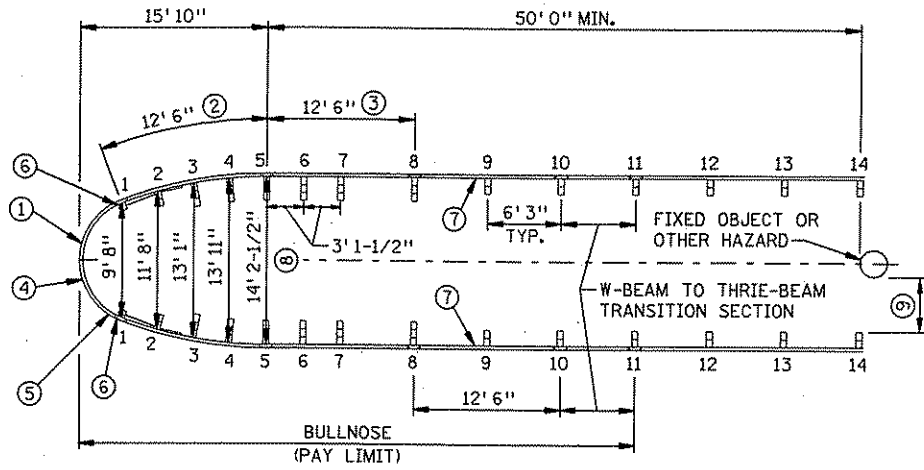
TRAFFIC BARRIER DESIGN SPECIAL

STANDARD SHEET NO. 5-297.603	TITLE: NEW W-BEAM TRANSITION TO CONCRETE F-SHAPE SAFETY RAIL WITH APPROACH CURB (STEEL POST)
STANDARD APPROVED: DECEMBER 20, 2001	
REVISION DATE 01-21-2006	
STATE PROJ. NO. 0208-123 (T.H.65)	SHEET NO. 114 OF 872 SHEETS

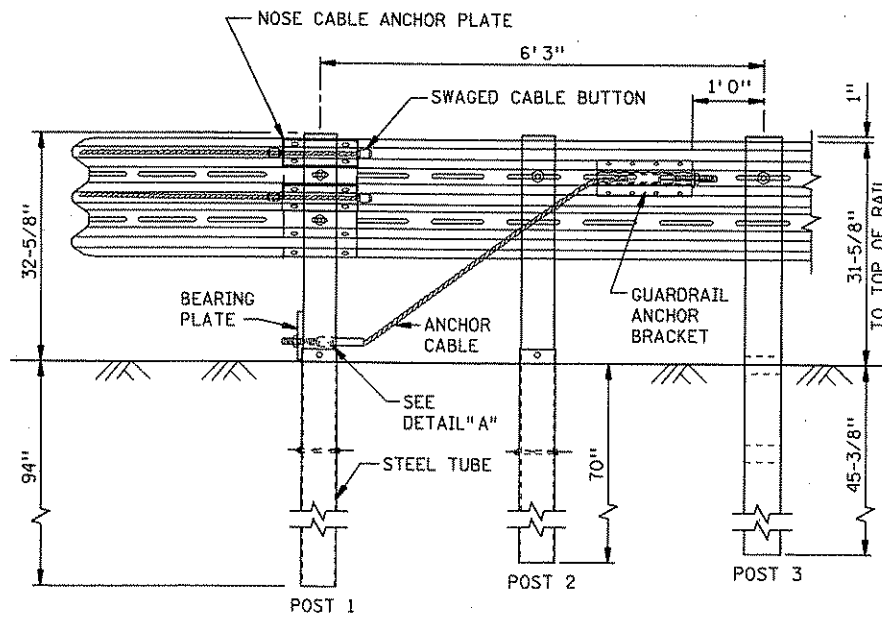
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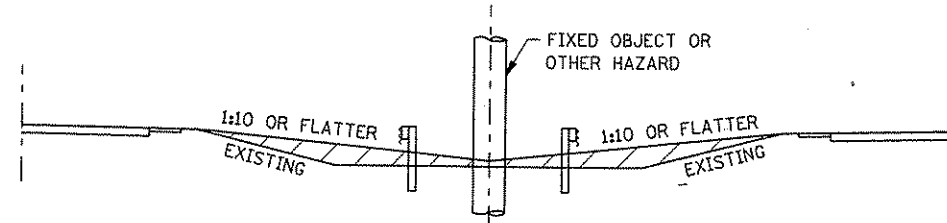
GRADING AT BULLNOSE (DEPRESSED MEDIAN)



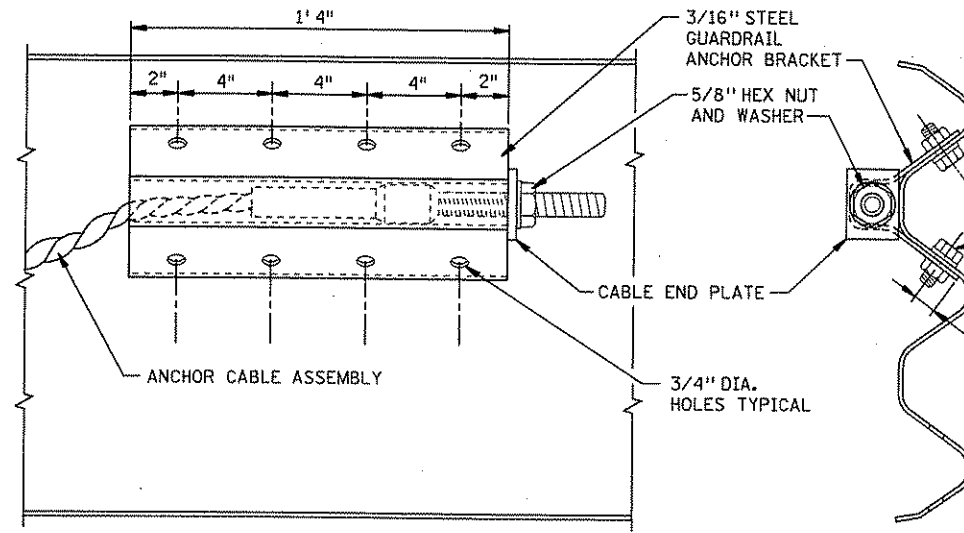
PLAN VIEW DETAILS OF BULLNOSE



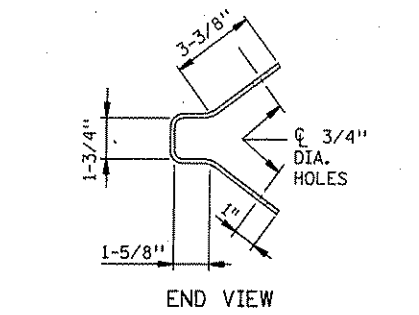
ELEVATION BULL NOSE ASSEMBLY



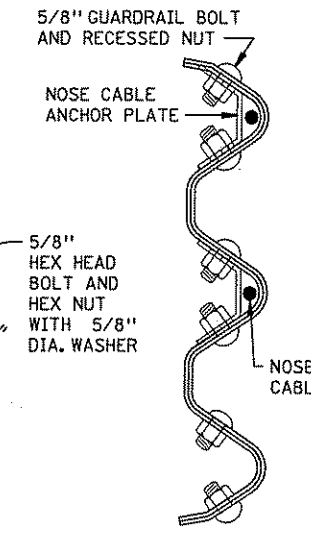
MEDIAN GRADING SECTION (AT FIXED OBJECT)



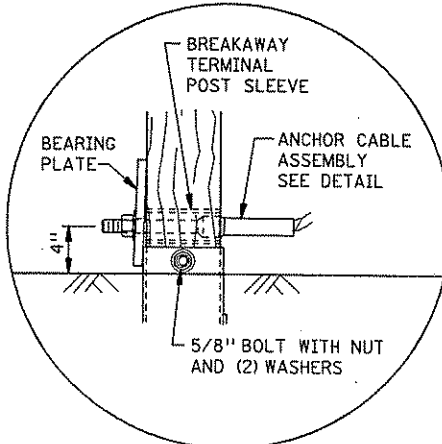
FRONT VIEW GUARDRAIL ANCHOR BRACKET DETAILS



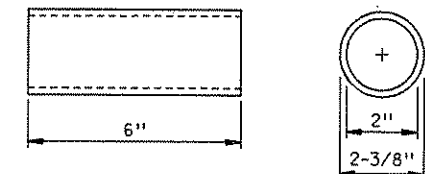
END VIEW GUARDRAIL ANCHOR BRACKET



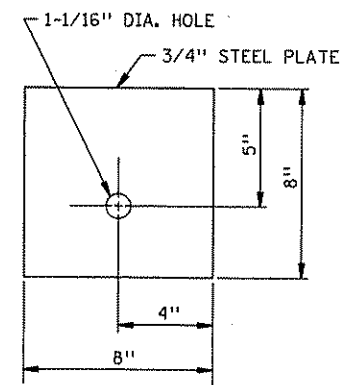
ASSEMBLY END VIEW NOSE CABLE ANCHOR PLATE DETAILS



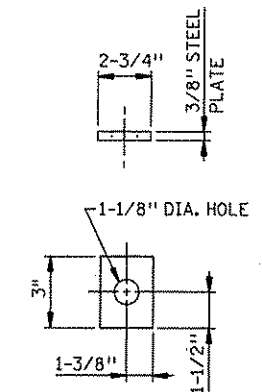
DETAIL "A"



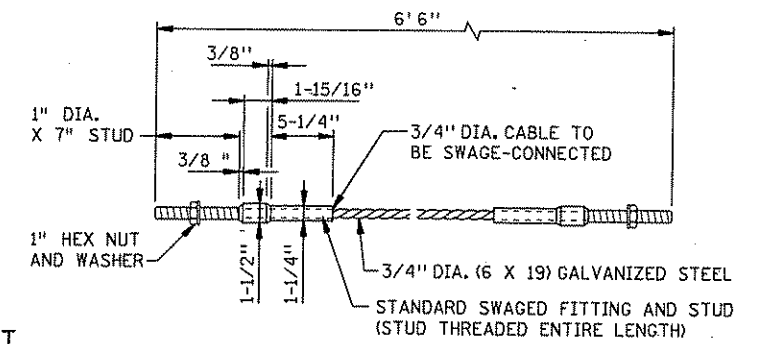
BREAKAWAY TERMINAL POST SLEEVE



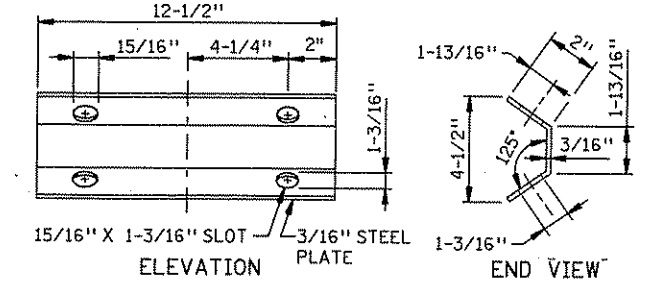
BEARING PLATE



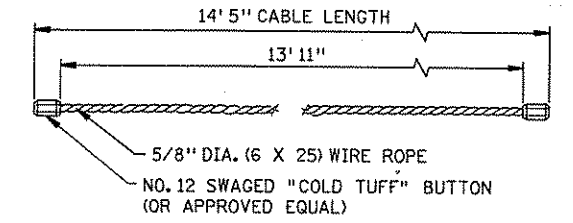
CABLE END PLATE



ANCHOR CABLE ASSEMBLY DETAILS



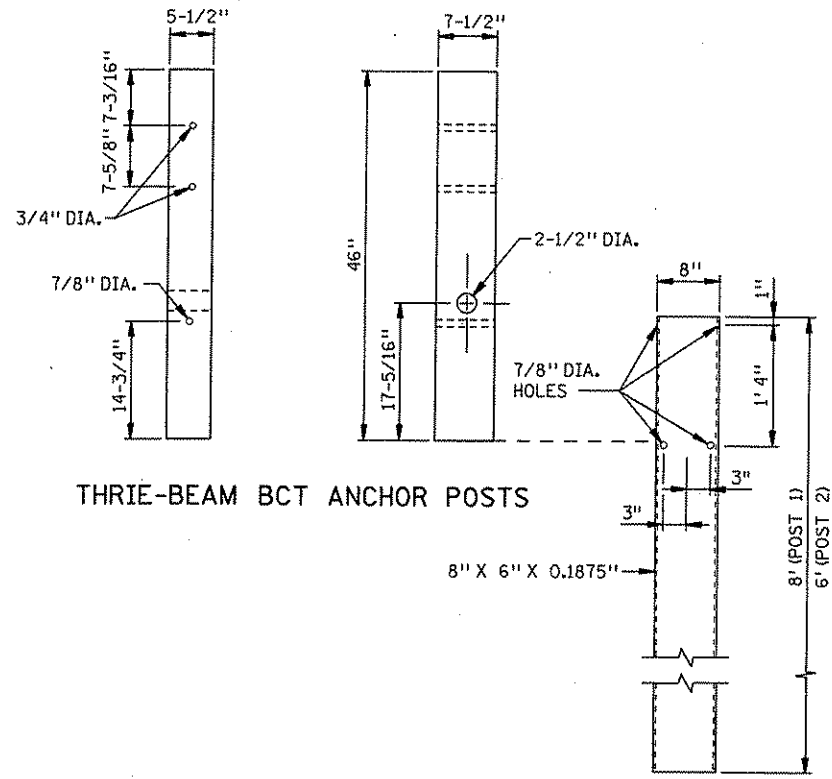
ELEVATION AND END VIEW NOSE CABLE ANCHOR PLATE



NOSE CABLE

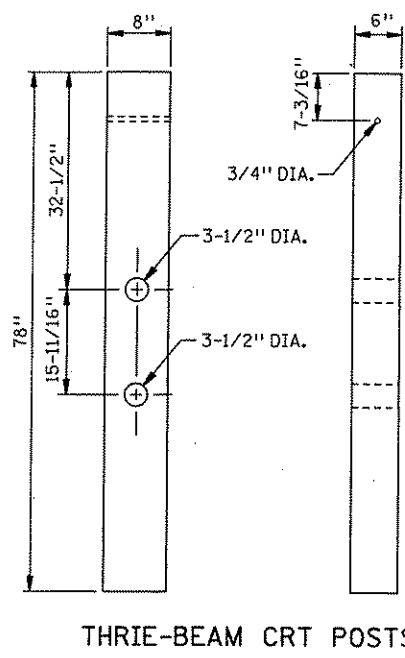
- NOTES:**
- OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.
 - ALTERNATE HARDWARE DESIGNS WILL BE CONSIDERED FOR APPROVAL PROVIDED THEIR CONNECTION DETAILS, FOR THE PURPOSE OF MAINTENANCE SUBSTITUTIONS, ARE COMPATIBLE WITH THE DETAILS OF THIS STANDARD AND THEIR OPERATING CHARACTERISTICS ARE SIMILAR TO THOSE OF THE HARDWARE SHOWN IN THIS STANDARD.
 - BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
 - SEE "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" FOR ADDITIONAL HARDWARE INFORMATION. THE MN/DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SHALL GOVERN.
 - ① SLOTTED RAIL NO. 1, 12' 6", SHOP BEND TO R=5' 3"
 - ② SLOTTED RAIL NO. 2, 12' 6", SHOP BEND TO R=34' 2"
 - ③ SLOTTED RAIL NO. 3, 12' 6", TANGENT
 - ④ U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
 - ⑤ NOSE CABLE W/SWAGED END BUTTONS
 - ⑥ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
 - ⑦ THRIE-BEAM GUARDRAIL, 12' 6".
 - ⑧ MEASUREMENTS ARE FROM BACK OF RAIL TO BACK OF RAIL. FOR GUARDRAIL LAPPING DETAIL, SEE SHEET 2 OF 2.
 - ⑨ MINIMUM DESIGN DEFLECTION FOR BARRIER USED.

STANDARD SHEET NO. 5-297.611 (1 OF 3)	THRIE BEAM BULLNOSE GUARDRAIL FOR MEDIANS (14' 2-1/2" WIDTH)
STANDARD APPROVED: AUGUST 20, 2001	
REVISION DATE 7-11-02	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 113 OF 872 SHEETS

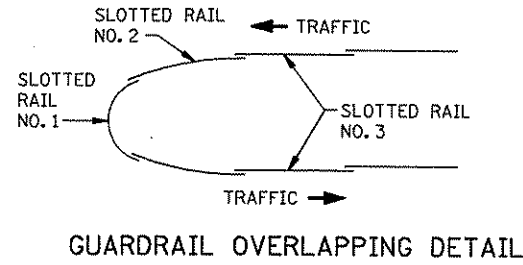


THRIE-BEAM BCT ANCHOR POSTS

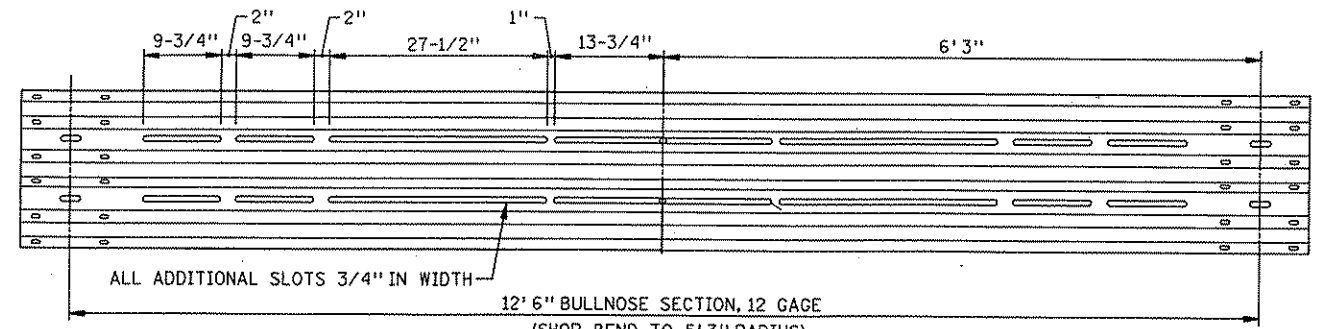
STEEL TUBE



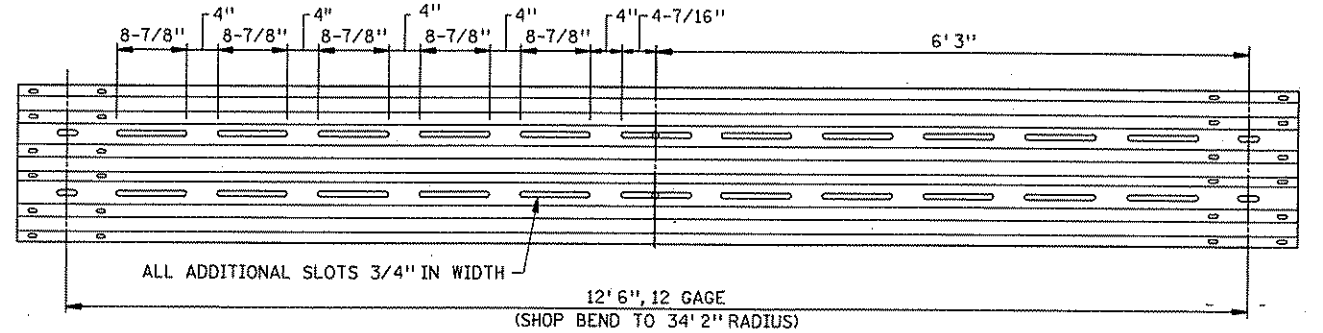
THRIE-BEAM CRT POSTS



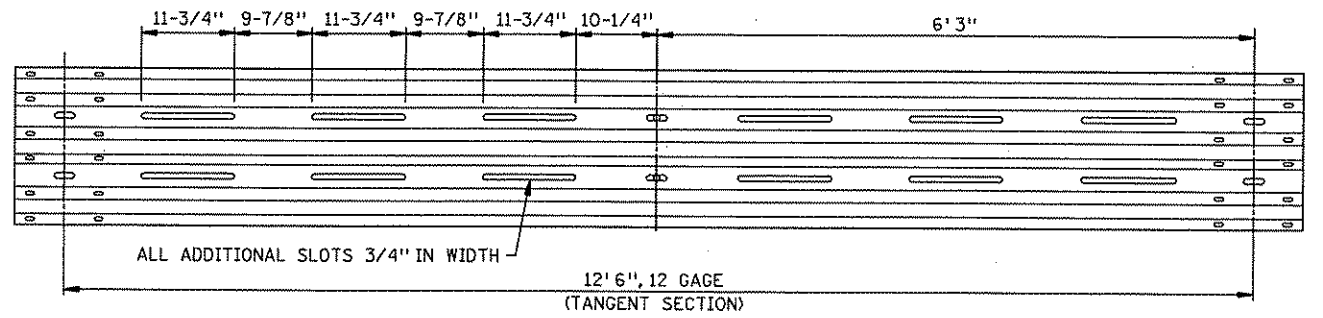
GUARDRAIL OVERLAPPING DETAIL



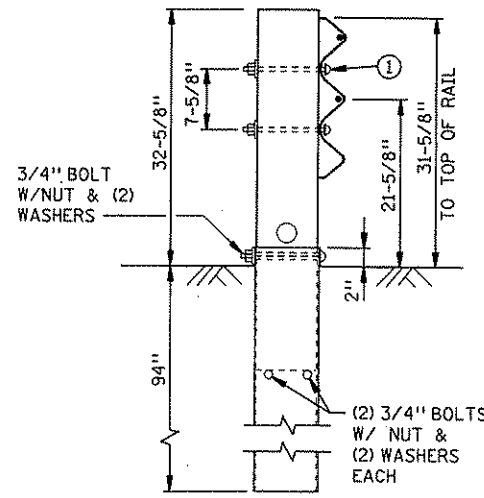
SLOTTED RAIL NO. 1



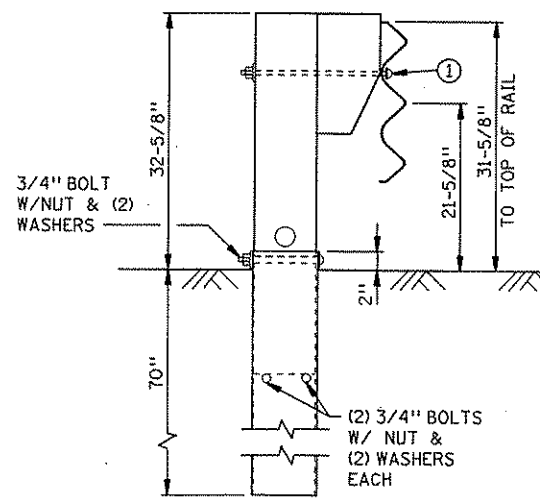
SLOTTED RAIL NO. 2



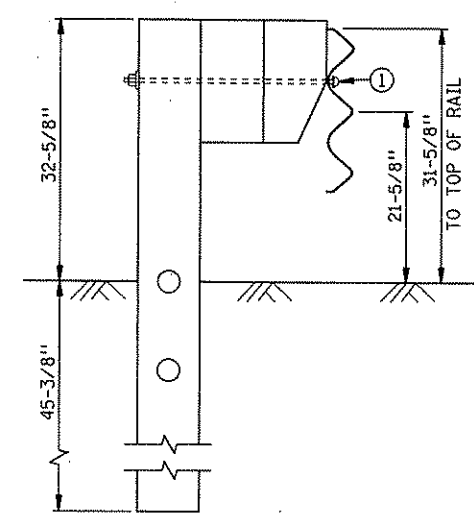
SLOTTED RAIL NO. 3



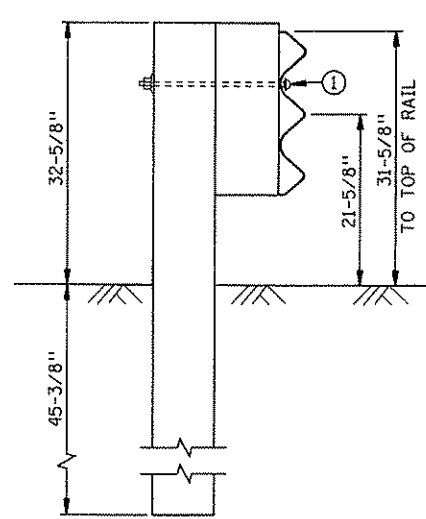
THRIE-BEAM BCT POST (WITH 96" STEEL TUBE) POST NO. 1



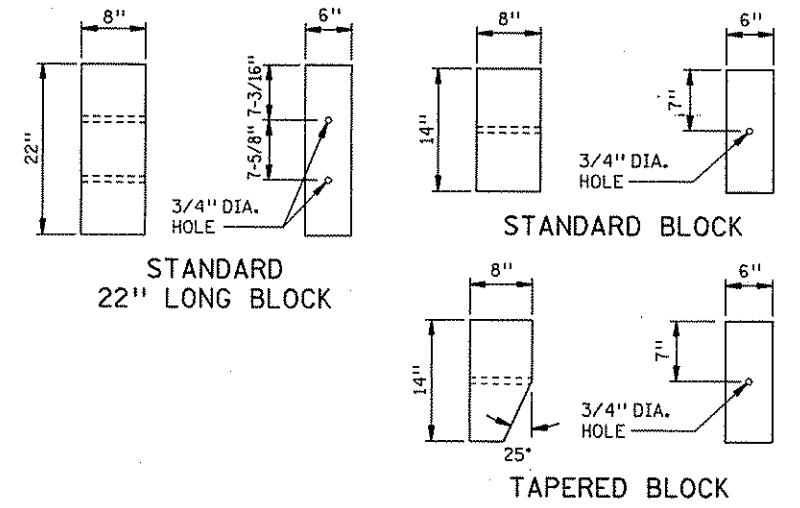
THRIE-BEAM BCT POST (WITH 72" STEEL TUBE AND 14" TAPERED BLOCK) POST NO. 2



THRIE-BEAM CRT POST (78" LONG WITH 14" BLOCK AND 14" TAPERED BLOCK) POST NO. 3, 4, 5, 6, 7, & 8

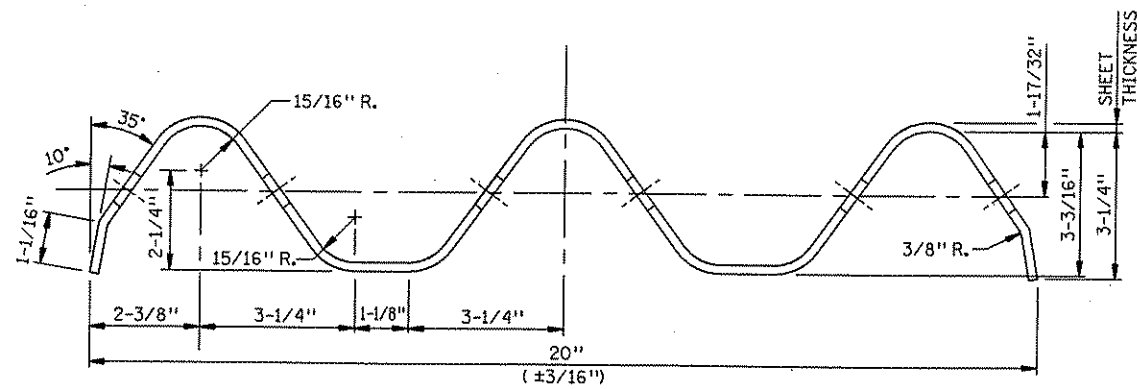


THRIE-BEAM POST (6" X 8" X 78" LONG POST WITH 6" X 8" X 22" BLOCK) POST NO. 9 & 10

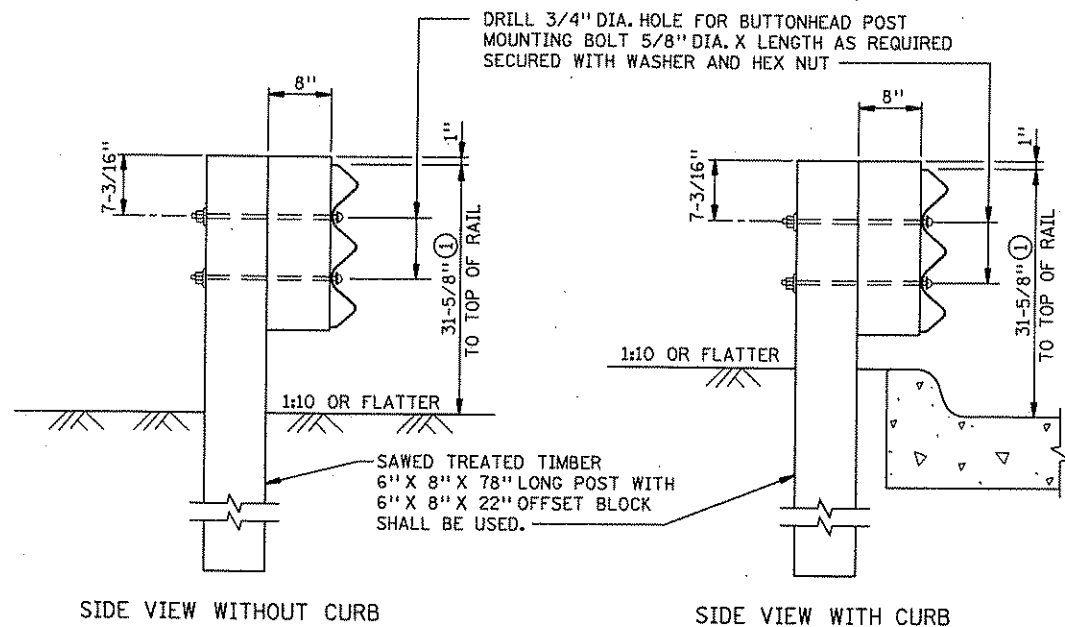


NOTES:
 ① 5/8" DIA. BUTTON HEAD BOLT X LENGTH AS REQUIRED, SECURED WITH WASHER AND HEX NUT.

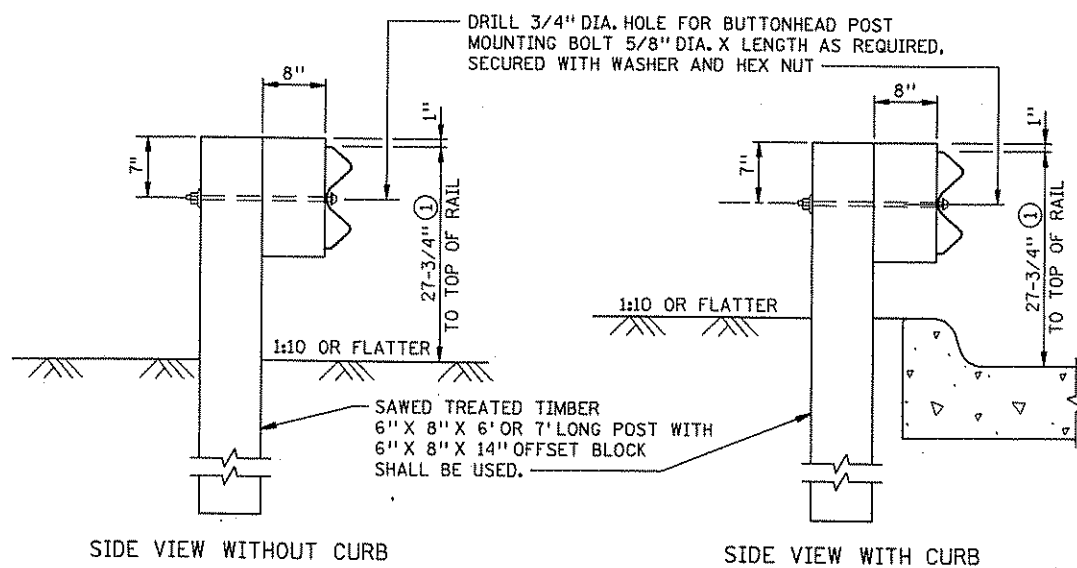
STANDARD SHEET NO. 5-297.611 (2 OF 3)	TITLE: THRIE BEAM BULLNOSE GUARDRAIL FOR MEDIANS (14' 2-1/2" WIDTH)
STANDARD APPROVED: AUGUST 20, 2001	
REVISION DATE: 7-11-2002	STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 116 OF 872 SHEETS



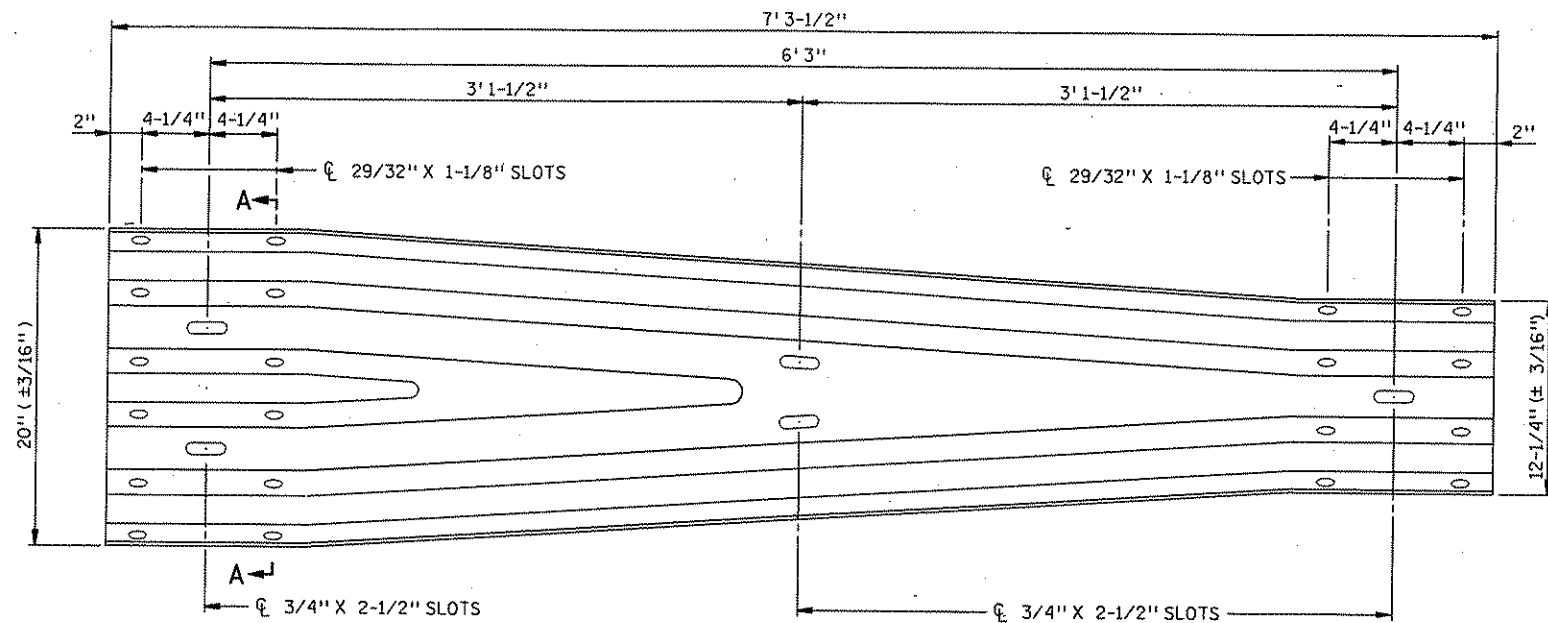
SECTION A-A



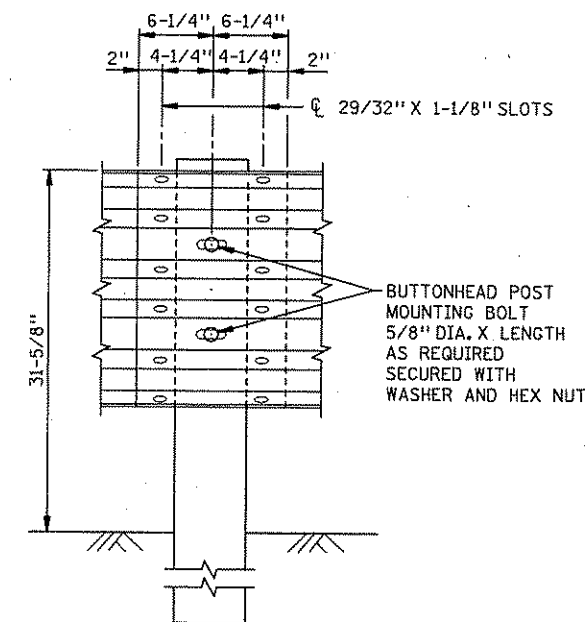
THRIE-BEAM AND POST ASSEMBLY



W-BEAM AND POST ASSEMBLY



DETAILS OF W-BEAM TO THRIE BEAM TRANSITION SECTION

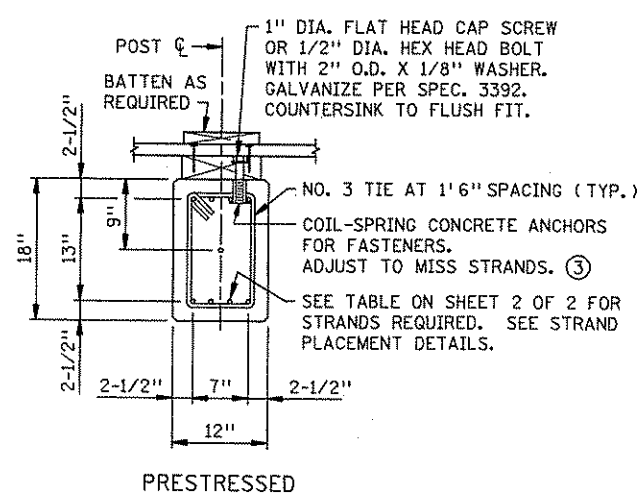
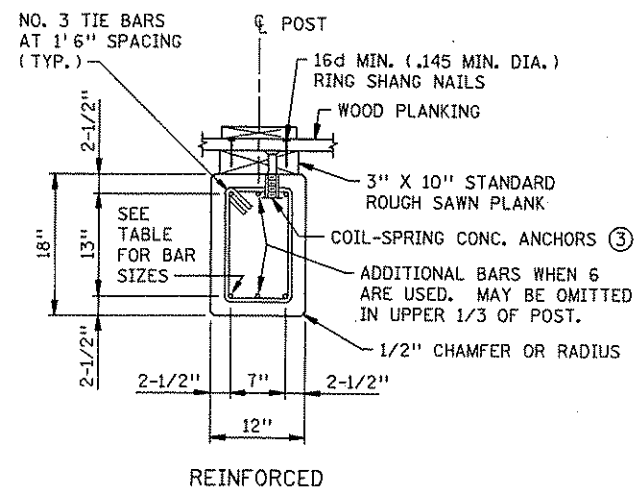
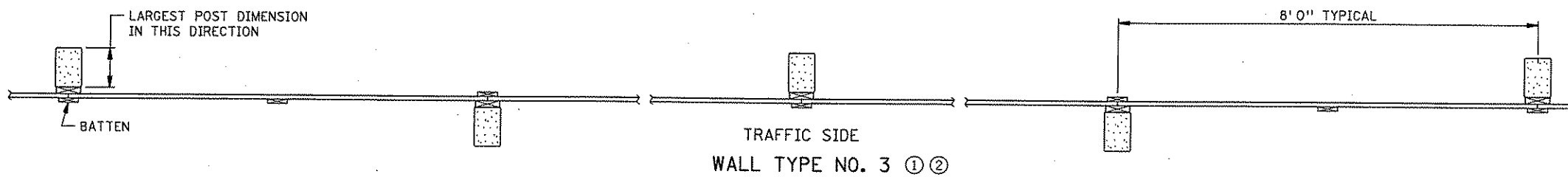
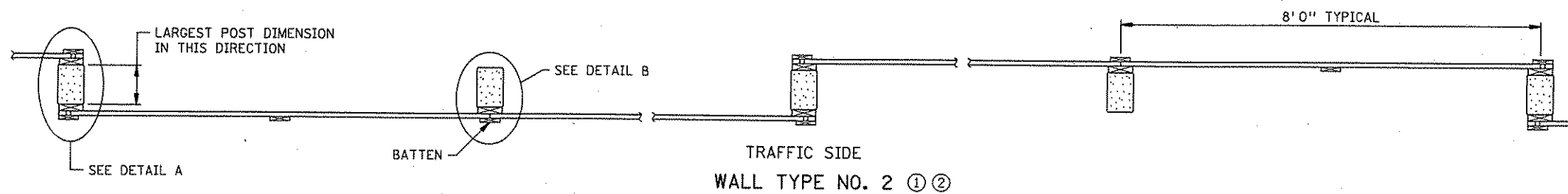
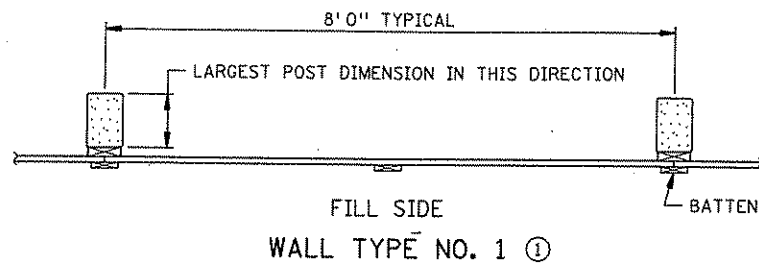


RAIL ELEMENT SPLICING AND POST MOUNTING DETAIL

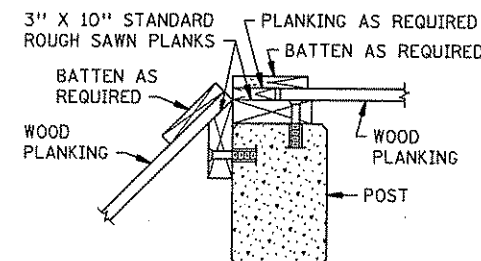
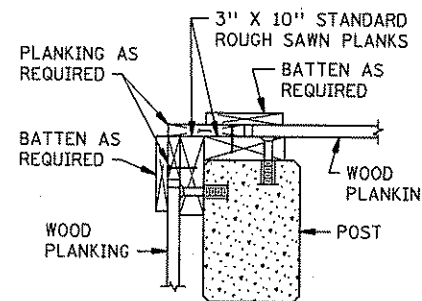
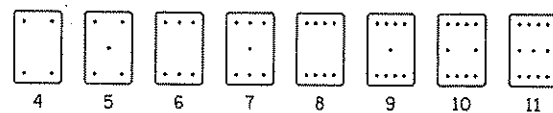
NOTES:

- NOT NCHRP-350 APPROVED.
- IN LOCATIONS WITH CURB THE FACE OF THE GUARDRAIL SHALL BE LOCATED AT THE FACE OF THE CURB. THE HEIGHT OF THE GUARDRAIL SHALL BE MEASURED FROM THE GUTTER TO THE TOP OF THE RAIL.
- BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
- SEE "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" FOR ADDITIONAL HARDWARE INFORMATION. THE MN/DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SHALL GOVERN.
- ① DIFFERENCE IN HEIGHT BETWEEN THE TRANSITION AND INPLACE OR STANDARD W-BEAM RAIL SHALL BE MADE UP IN THE FIRST FULL W-BEAM RAIL SECTION FOLLOWING THE TRANSITION.

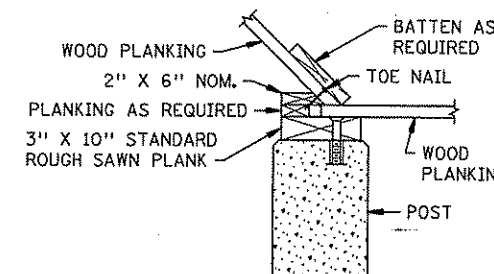
STANDARD SHEET NO. 5-297.614	TITLE: W-BEAM TO THRIE BEAM TRANSITION
STANDARD APPROVED: AUGUST 20, 2001	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 117 OF 872 SHEETS	



POST DETAILS



POST LOCATIONS FOR ANGLE TURNS



- NOTES:
- ① SEE SHEET 376 FOR WALL TYPE REQUIRED.
 - ② TYPE NO. 2 AND 3 SHALL BE USED IN NON-FILL CONDITIONS ONLY.
 - ③ SPACE AT 4' 0" ON ALTERNATE SIDES OF POST & ULTIMATE PULL-OUT 2.25K PER ANCHOR.

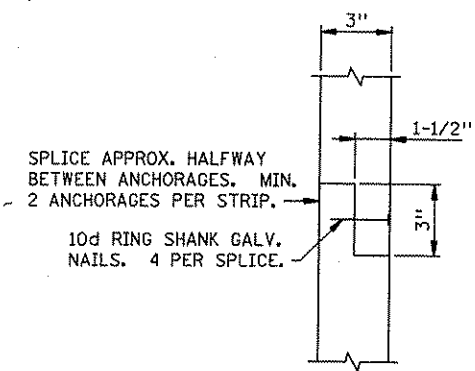
STANDARD SHEET NO. 5-297.661 (1 OF 2)	TITLE: WOOD PLANKING NOISE BARRIER WITH CONCRETE POSTS
STANDARD APPROVED: JANUARY 4, 1994	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 118 OF 872 SHEETS	

PLOTTED/REVISED: 31-JAN-2007 07:59

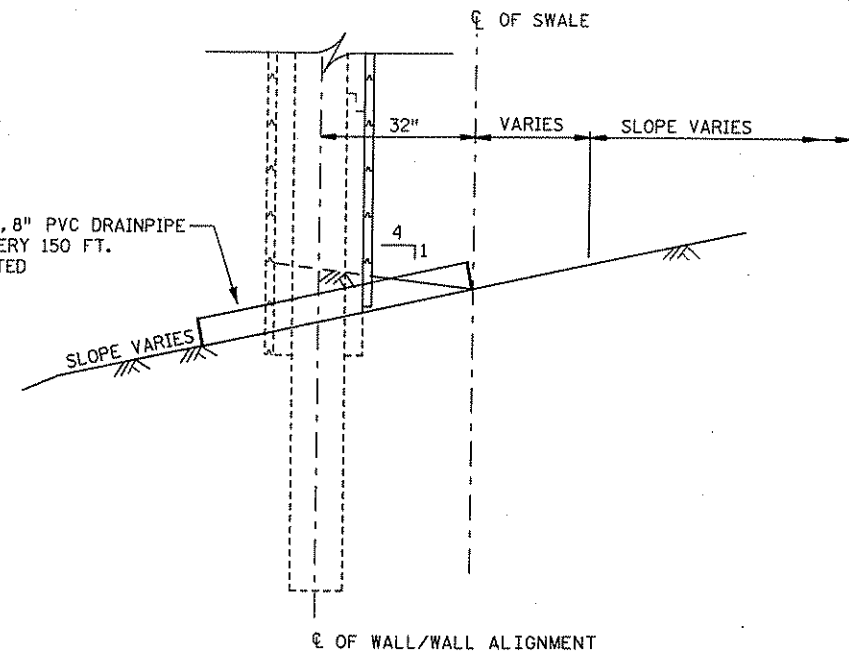
IPLLOT NAME: s6612094.spr MOD PATH & FILE NAME: I:\DESIGN\065\0208\123\F\inc\Standard Plans\s6612094.spr MOD.dgn FILE NAME: S6612A94.SPN

FILL HEIGHT W = 0' TO 1'

"H" WALL HEIGHT (FT.)	POST SPACING (FT.)	POST SIZE (IN.)	REINF. BARS	PRE-STRESSED STRANDS	POST EMBEDMENT			
					LEVEL GROUND	2:1 SLOPE	3:1 SLOPE	4:1 SLOPE
5	8	12 X 18	4 NO. 4	4	5'0"	8'0"	7'0"	6'0"
6	8	12 X 18	4 NO. 4	4	6'0"	9'0"	8'0"	7'0"
7	8	12 X 18	4 NO. 4	4	6'0"	9'0"	8'0"	8'0"
8	8	12 X 18	4 NO. 4	4	7'0"	10'0"	9'0"	8'0"
9	8	12 X 18	4 NO. 4	4	7'0"	11'0"	10'0"	9'0"
10	8	12 X 18	4 NO. 4	4	8'0"	11'0"	10'0"	9'0"
11	8	12 X 18	4 NO. 5	4	8'0"	12'0"	11'0"	10'0"
12	8	12 X 18	4 NO. 5	4	8'0"	12'0"	11'0"	10'0"
13	8	12 X 18	4 NO. 5	4	9'0"	13'0"	11'0"	10'0"
14	8	12 X 18	4 NO. 5	4	9'0"	13'0"	11'0"	10'0"
15	8	12 X 18	6 NO. 5	4	9'0"	13'0"	11'0"	11'0"
16	8	12 X 18	6 NO. 5	4	9'0"	14'0"	12'0"	11'0"
17	8	12 X 18	6 NO. 5	4	10'0"	14'0"	12'0"	11'0"
18	8	12 X 18	6 NO. 6	4	10'0"	15'0"	13'0"	12'0"
19	8	12 X 18	6 NO. 6	5	10'0"	15'0"	13'0"	12'0"
20	8	12 X 18	6 NO. 6	5	10'0"	15'0"	13'0"	12'0"
21	8	12 X 18	6 NO. 6	6	11'0"	16'0"	14'0"	13'0"
22	8	12 X 18	6 NO. 7	6	11'0"	16'0"	14'0"	13'0"
23	8	12 X 18	6 NO. 7	7	11'0"	17'0"	14'0"	13'0"
24	8	12 X 18	6 NO. 7	8	11'0"	17'0"	15'0"	14'0"
25	8	12 X 18	6 NO. 7	9	12'0"	17'0"	15'0"	14'0"



NAILER STRIP SPLICE DETAIL



WALL DRAINAGE STRUCTURE DETAIL

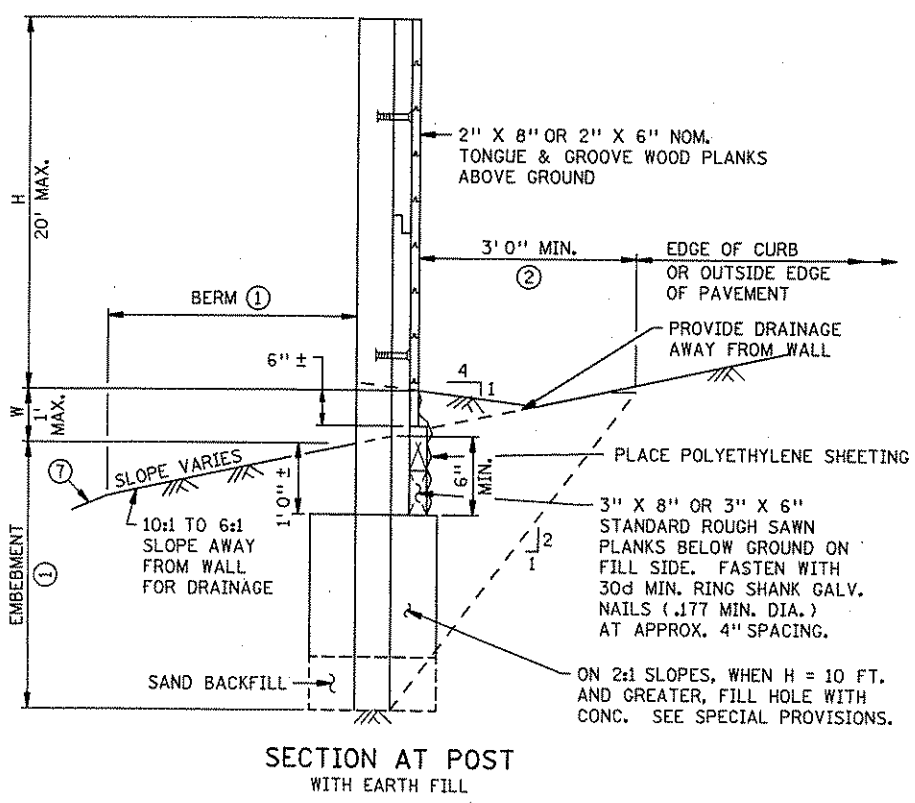
DESIGN CRITERIA:
 $\phi = 30^\circ$ (GRANULAR)
 WIND LOAD = 23 P.S.F.
 $F_b = 4000$ P.S.I. CONCRETE POSTS.
 $F_b = 1400$ P.S.I. WOOD PLANKING.
 $F_b = 1200$ P.S.I. ALL OTHER WOOD MEMBERS.
STRESS LEVEL SYMBOL
 PER AITC-117-(LATEST ADDITION):
 24F = 2400 PSI ALLOWABLE BENDING STRESS
 20F = 2000 PSI ALLOWABLE BENDING STRESS

POST DESIGN CRITERIA

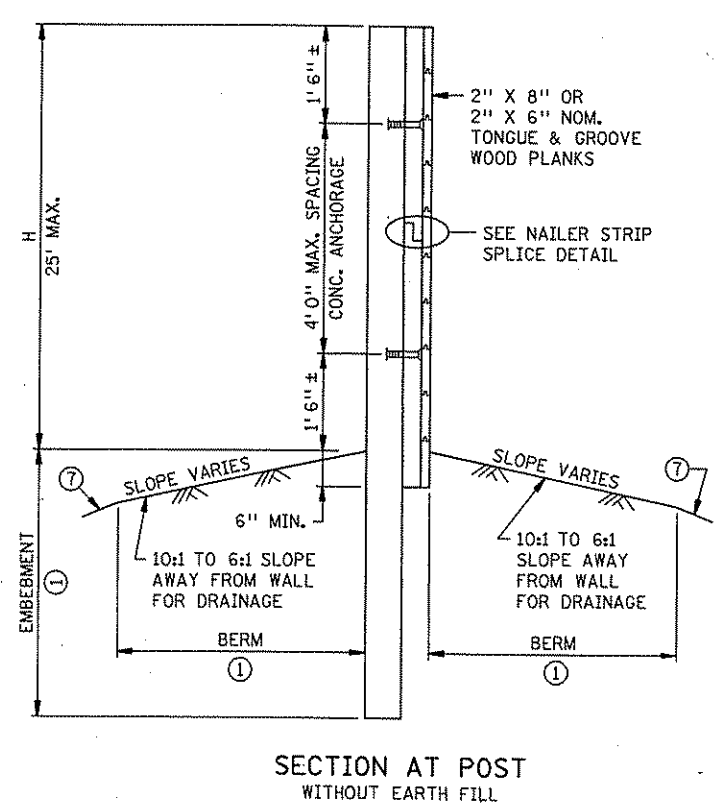
NO. OF STRANDS	f'cl (6)	f'c (5)
6 OR LESS	4000 PSI	5500 PSI
7 OR MORE	4000 PSI	6000 PSI

NOTES:
 EMBEDMENT LENGTH IS BASED ON THE WATER TABLE BEING BELOW THE EMBEDMENT DEPTH OTHER CONDITIONS REQUIRE A SPECIAL DESIGN.
 FOR SLOPES BETWEEN THOSE SHOWN, USE THE EMBEDMENTS FOR THE STEEPER SLOPE OR USE INTERPOLATION.
 FOR SLOPES 6:1 OR FLATTER, USE LEVEL GROUND EMBEDMENT.
 THE FINISHED WIDE FACE DIMENSION FOR THE ROUGH SAWN 3" PLANKS SHALL BE THE SAME AS THE FINISHED WIDE FACE DIMENSION FOR THE 2" PLANKS.
 GALVANIZE NAILS PER SPEC. 3392. NAILING REQUIREMENTS SHOWN ARE BASED ON FULL HEAD NAILS AND ENTIRE LENGTH OF SHANK BEING DEFORMED. SEE SPECIAL PROVISIONS FOR POWER NAILS ALTERNATE.
 SOIL TESTS AT 200 FT. INTERVALS SHALL BE REQUIRED AT EACH SITE LOCATION AND THE RESULTS REVIEWED BY THE SOILS ENGINEER FOR RECOMMENDATIONS.
 SOIL TREATMENT AND BACKFILL SHALL CONFORM TO SPEC. 2451.
 SEE SPEC. 2554 FOR ADDITIONAL CONST. INFORMATION, UNLESS OTHERWISE NOTED.
 CONCRETE POSTS WITH THE SAME TOTAL LENGTH SHALL USE THE LARGEST NUMBER OF PRESTRESSED STRANDS REQUIRED FOR THAT POST LENGTH.
 PRESTRESSED STEEL STRANDS ARE 1/2" DIA. (AREA = 0.153 SQ. IN.), MIN. OF 2 SPACES, 270 KIP ULTIMATE STRENGTH. INITIAL PRESTRESS EQUALS 28,900 LBS./STRAND.
 STEEL STRANDS PER SPEC. 3348 AND PAINT THE EXPOSED ENDS OF THE STRANDS WITH AN APPROVED GRAY EPOXY.
 ALL REINF. BARS SHALL BE EPOXY COATED GRADE 60 PER SPEC. 3301 AND HAVE A MIN. 2" CLEAR UNLESS OTHERWISE NOTED.

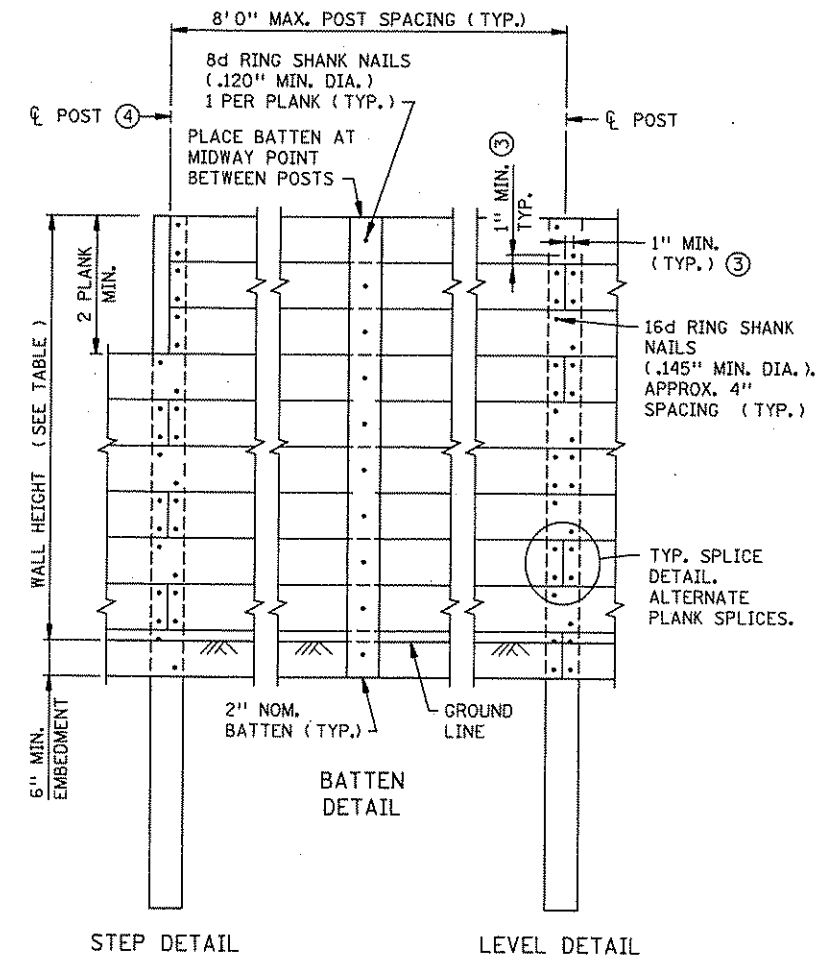
- ① EMBEDMENT DEPTHS IN THE TABLES ARE BASED ON A 3 FT. MIN. BERM IN FRONT OF THE WALL.
- ② WHEN THE CURB LINE IS CLOSER THAN 2:1 SLOPE, A SPECIAL DESIGN IS REQUIRED.
- ③ 1" MIN. DISTANCE FROM EDGE OR END OF PLANK.
- ④ USE THE POST SIZE AND EMBEDMENT FOR THE HIGHER WALL SECTION AT THE STEP.
- ⑤ MINIMUM CONCRETE STRENGTH AT THE TIME OF PRESTRESS TRANSFER.
- ⑥ MIN. CONCRETE STRENGTH THE POST CAN BE TRANSPORTED AND INSTALLED. THE CONCRETE SHALL BE PER SPEC. 2461.4A4b.
- ⑦ SEE POST EMBEDMENT TABLES.



SECTION AT POST WITH EARTH FILL



SECTION AT POST WITHOUT EARTH FILL



FRONT ELEVATION
 POST BATTENS NOT SHOWN
MODIFIED

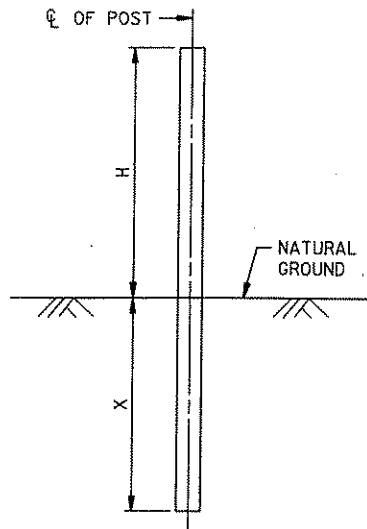
STANDARD SHEET NO. 5-297.661 (2 OF 2)
 REVISION DATE 4-1-99
 STANDARD APPROVED: JANUARY 4, 1994

WOOD PLANKING NOISE BARRIER
 WITH CONCRETE POSTS

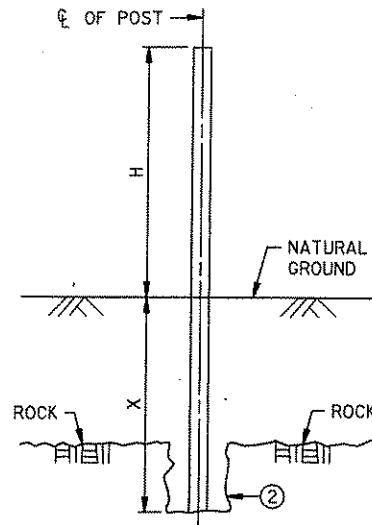
CERTIFIED BY *Josephine Lundquist*
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2-1-2007

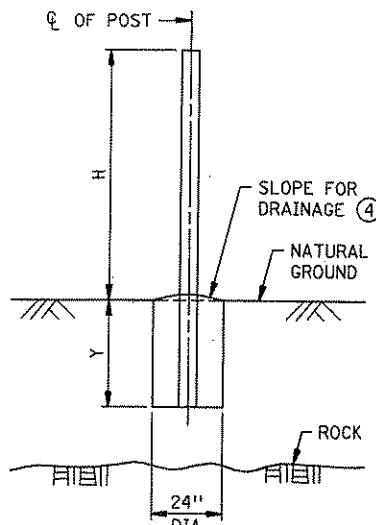
IPILOT NAME: s670f89.spn
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 PLOTTED/REVISED: 31-JAN-2007 07:59
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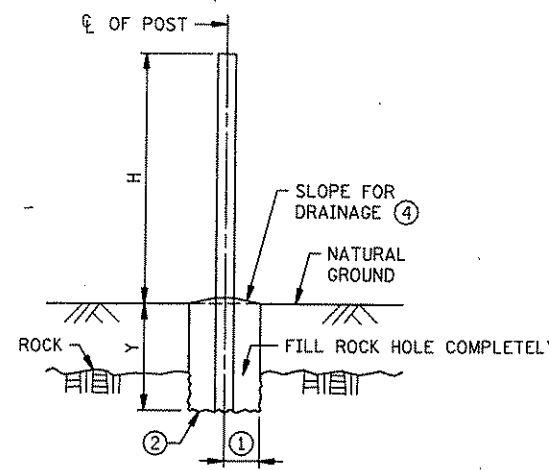
ALTERNATE 1
EARTH SET POST



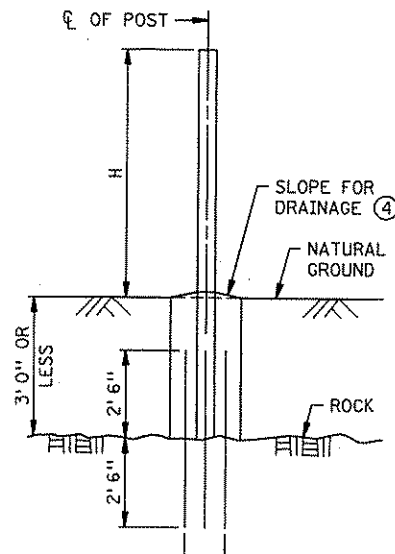
ALTERNATE 2
BACKFILL AND TAMP TO FULL EMBEDMENT
AS FOR EARTH SET POST



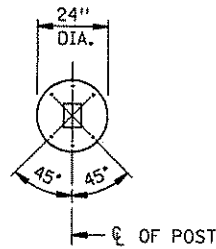
ALTERNATE 3
(OPTION TO ALTERNATE 2)
CONCRETE SET WHEN ROCK IS ENCOUNTERED
AT DEPTH GREATER THAN Y.



ALTERNATE 4
CONCRETE SET WHEN ROCK IS ENCOUNTERED
AT DEPTH LESS THAN Y.

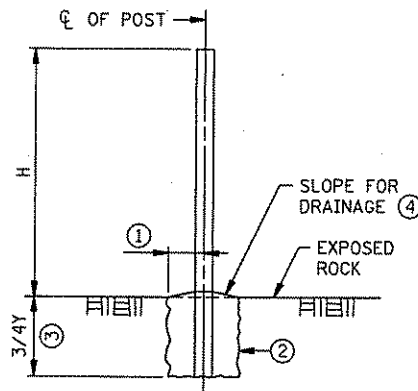


SIX NO. 19 BARS
5' 0" LONG IN A
20" DIA. CIRCLE

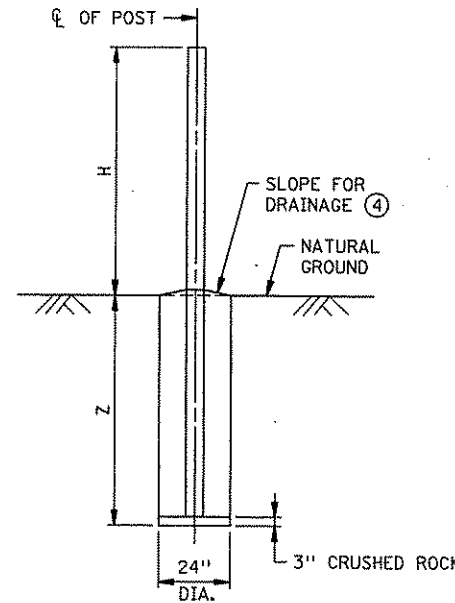


ALTERNATE 5
(OPTION TO ALTERNATE 4)

POST EMBEDDED IN CONCRETE WHEN ROCK IS
ENCOUNTERED AT DEPTH LESS THAN Y.
ANCHOR TO TOP FACE OF ROCK OR BOTTOM
OF HOLE IN ROCK WITH SIX NO. 19 BARS.
GROUT INTO ROCK WITH NON SHRINKING GROUT.



ALTERNATE 6
CONCRETE SET IN EXPOSED ROCK.



ALTERNATE 7
CONCRETE SET WHEN WATER IS
ENCOUNTERED IN EMBEDMENT DEPTH

DESIGN CRITERIA

DESIGN BASED WIND LOAD OF 16 P.S.F.
SOIL WEIGHT OF 120 P.S.F.
GRANULAR SOIL
ANGLE OF REPOSE OF $\phi = 30^\circ$

FENCE POST TABLE

POST HEIGHT "H" ⑤	SIZE	EMBEDMENT "X" (EARTH SET) ALTERNATES 1 & 2	EMBEDMENT "Y" (CONCRETE SET) ALTERNATE 3	EMBEDMENT "Z" (CONCRETE SET) ALTERNATE 7
7' 0"	6" x 6"	6' 0"	3' 0"	6' 6"
8' 0"	6" x 6"	6' 6"	3' 0"	6' 6"
9' 0"	6" x 6"	7' 0"	3' 0"	6' 6"
10' 0"	6" x 8"	7' 6"	3' 6"	6' 6"
11' 0"	6" x 8"	8' 0"	3' 6"	6' 6"
12' 0"	6" x 8"	8' 3"	3' 6"	7' 0"
13' 0"	8" x 8"	7' 9"	4' 0"	7' 3"
14' 0"	8" x 8"	8' 3"	4' 0"	7' 6"
15' 0"	8" x 10"	8' 6"	4' 0"	7' 9"
16' 0"	8" x 10"	8' 9"	4' 0"	8' 3"
17' 0"	8" x 10"	9' 3"	4' 6"	8' 6"
18' 0"	8" x 10"	9' 6"	5' 0"	8' 9"
19' 0"	10" x 10"	9' 0"	5' 0"	9' 0"
20' 0"	10" x 10"	9' 3"	5' 6"	9' 3"

NOTES:

ALL REBARS ARE IN METRIC DESIGNATIONS

SOILS TESTS WERE MADE AND DATA REVIEWED BY THE DISTRICT SOILS ENGINEER TO ESTABLISH THE FINAL FENCE DESIGN, LOCATION AND POST EMBEDMENTS.

THE DEPTH TO THE SEASONAL HIGH WATER TABLE SHOULD BE DETERMINED IF THE POST EMBEDMENT DEPTH EXTENDS BELOW THE DEPTH OF THE SEASONAL HIGHWATER TABLE THE DISTRICT SOILS ENGINEER SHOULD EVALUATE AND MODIFY THE POST EMBEDMENT ACCORDINGLY.

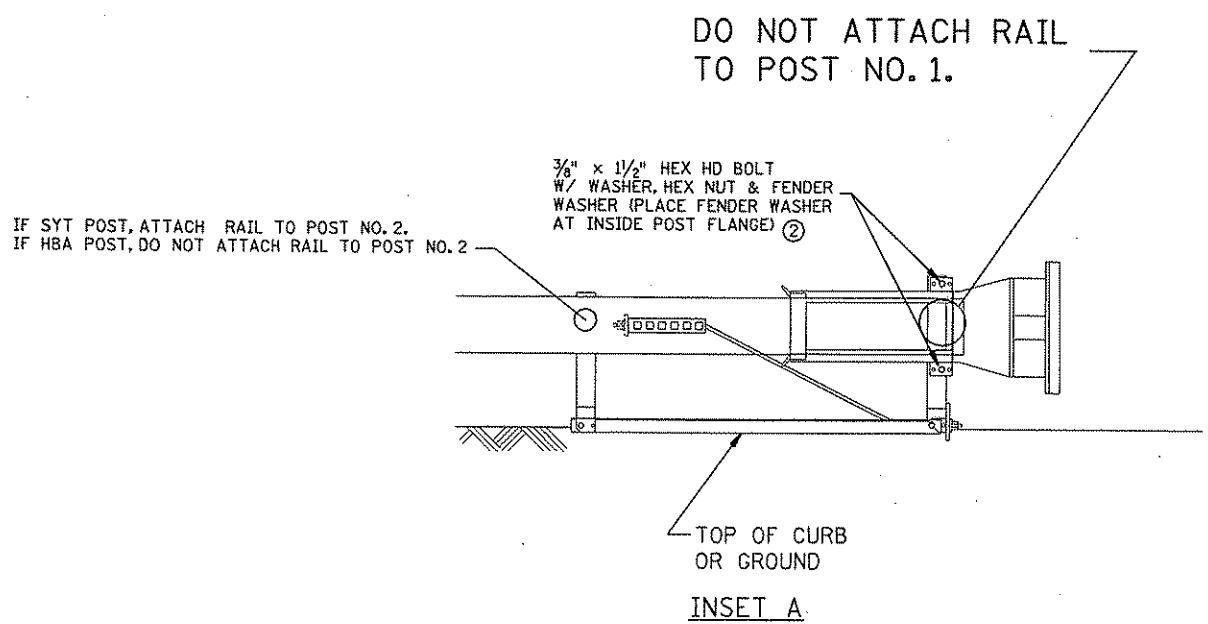
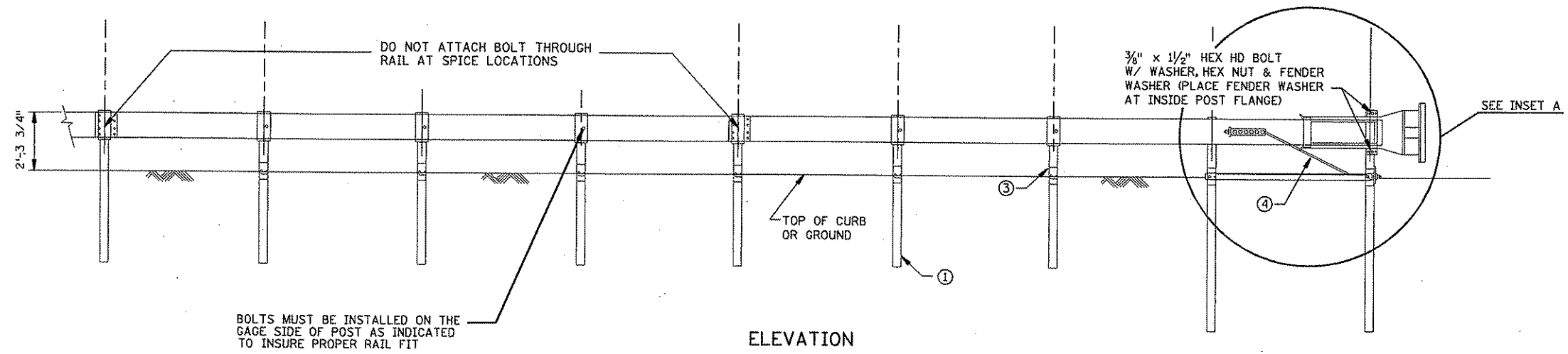
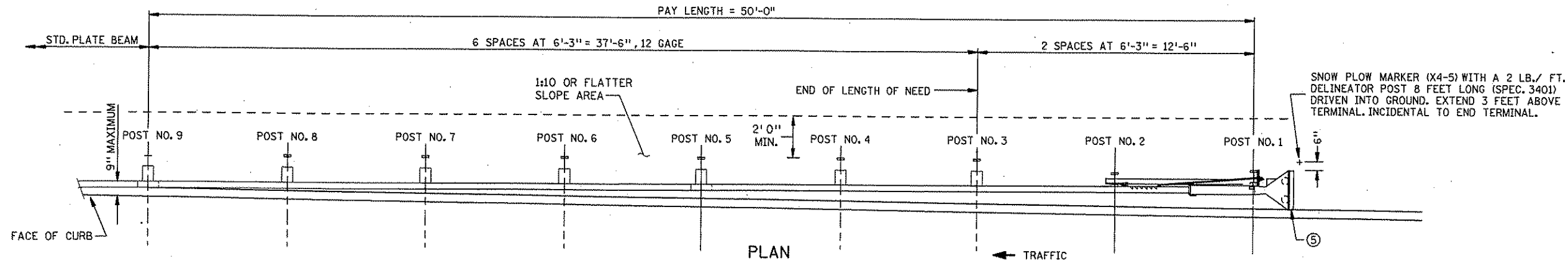
ALTERNATES 3, 4 & 5 ARE SUGGESTED USES IN ROCK WHEN FULL EMBEDMENT IS NOT OBTAINED. OBTAIN DISTRICT SOILS ENGINEER'S RECOMMENDATION BEFORE USING.

WHEN WATER IS ENCOUNTERED IN EMBEDMENT DEPTHS, USE 24" DIA. CONCRETE PER ALTERNATE 7 AND EMBEDMENT "Z".

- ① THE MINIMUM HOLE RADIUS IS EQUAL TO THE GREATEST DIMENSION OF THE POST, BUT NEED NOT EXCEED 12".
- ② ROCK BORED OR AS DIRECTED BY THE ENGINEER.
- ③ 3' 0" MIN. EMBEDMENT.
- ④ TOP OF ALL CONCRETE SHALL BE EXPOSED AS SHOWN.
- ⑤ CALCULATED FOR POST HEIGHT WITH NO POST PROJECTION ABOVE THE FENCE.

STANDARD SHEET NO. 5-297.670	TITLE: POST SIZES & EMBEDMENT FOR FENCE SCREEN
STANDARD APPROVED: JUNE 27, 1989	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 120 OF 872 SHEETS	

REVISION DATE
3-1-2000



NOTES:
THIS DRAWING IS FOR INFORMATION ONLY. CONTACT THE MANUFACTURER FOR INSTALLATION INSTRUCTIONS DURING THE CONSTRUCTION PHASE.

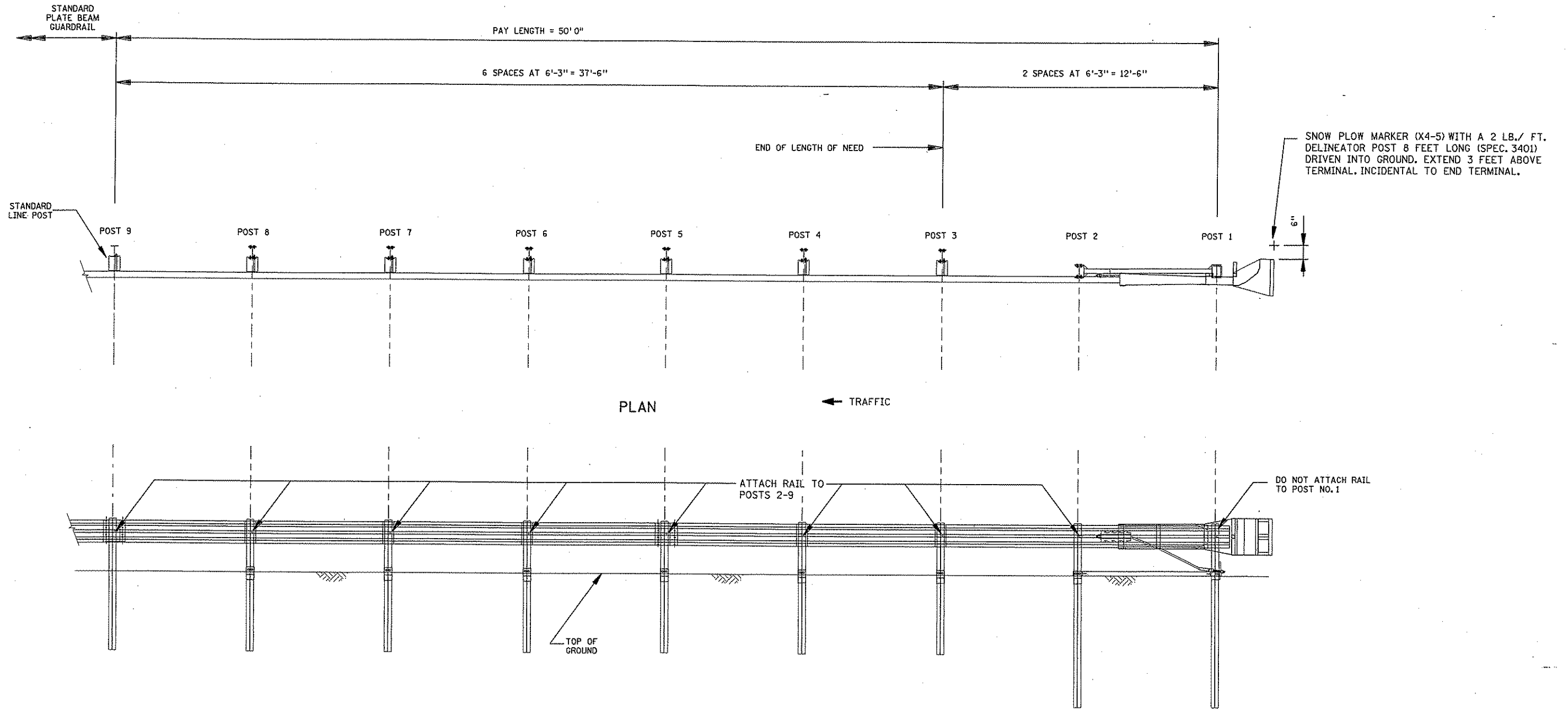
THIS IS A PROPRIETARY ITEM AS PER SPEC. 1703.

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- NOTES:**
- ① HINGED BREAKAWAY (HBA) POSTS OR STEEL YEILDING TERMINAL (SYT) POSTS ARE REQUIRED WITH THE ET-2000 AND ET-2000 PLUS.
 - ② ALL BOLTS, NUTS, CABLE ASSEMBLIES, CABLE ANCHORS AND BEARING PLATES SHALL BE GALVANIZED.
 - ③ THE NON-BREAKAWAY SECTION OF THE HBA OR SYT POSTS SHALL NOT EXTEND MORE THAN 4" ABOVE THE FINISHED GROUND LINE.
 - ④ THE BREAKAWAY CABLE ASSEMBLY MUST BE TAUT UPON COMPLETION OF INSTALLATION. PREVENT CABLE FROM TWISTING DURING INSTALLATION.
 - ⑤ EXTRUDER HEAD OFFSETS UP TO 2" MAX. ARE ALLOWABLE USING A STRAIGHT TAPER BETWEEN POSTS 1 AND 9. SET EXTRUDER HEAD A MAX. OF 9" BEHIND FACE OF CURB.

ET-2000 END TREATMENT (STEEL POSTS)
(ENGLISH)

REFERENCE DATE
6-28-04



NOTES:

A SPECIAL SITE EVALUATION SHOULD BE CONSIDERED PRIOR TO USING THE SKT WHERE THERE IS LESS THAN 25' BETWEEN THE OUTLET SIDE OF THE SKT AND ANY ADJACENT DRIVING LANE.

POSTS 2-9 HAVE RAIL ATTACHED WITH BOLT, WASHER, AND NUT.

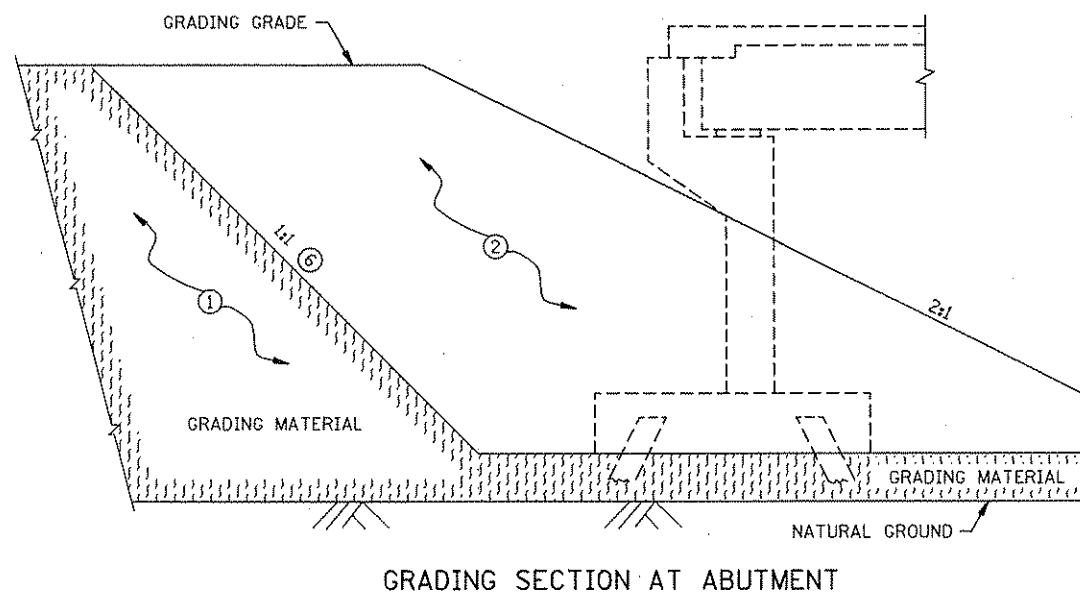
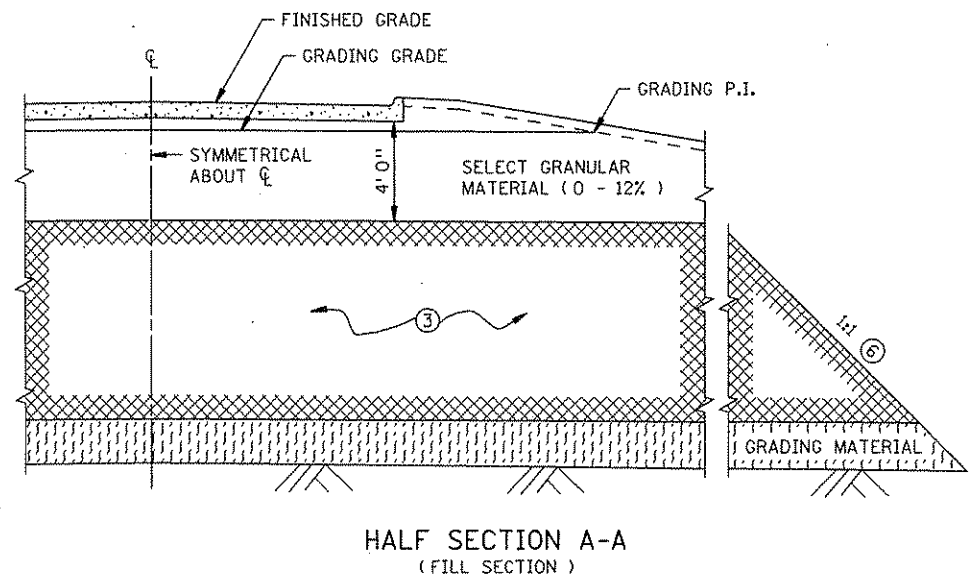
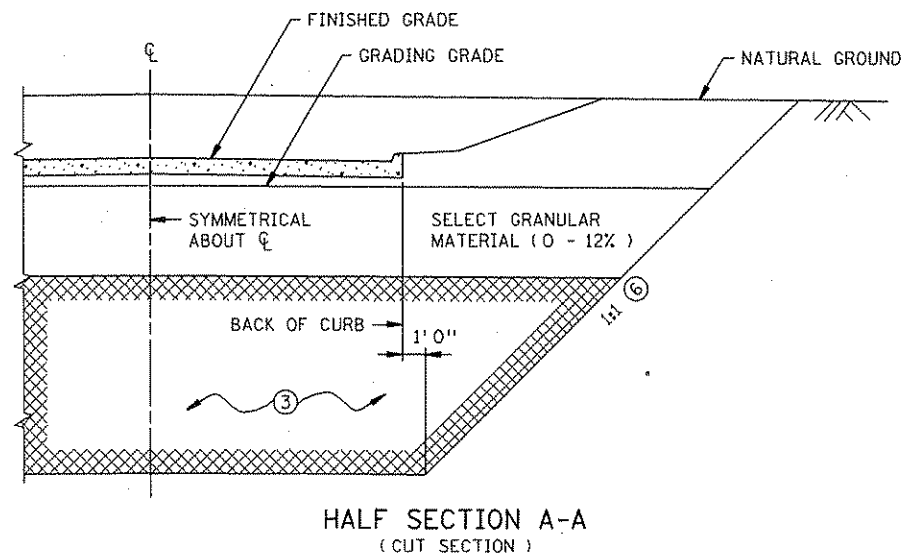
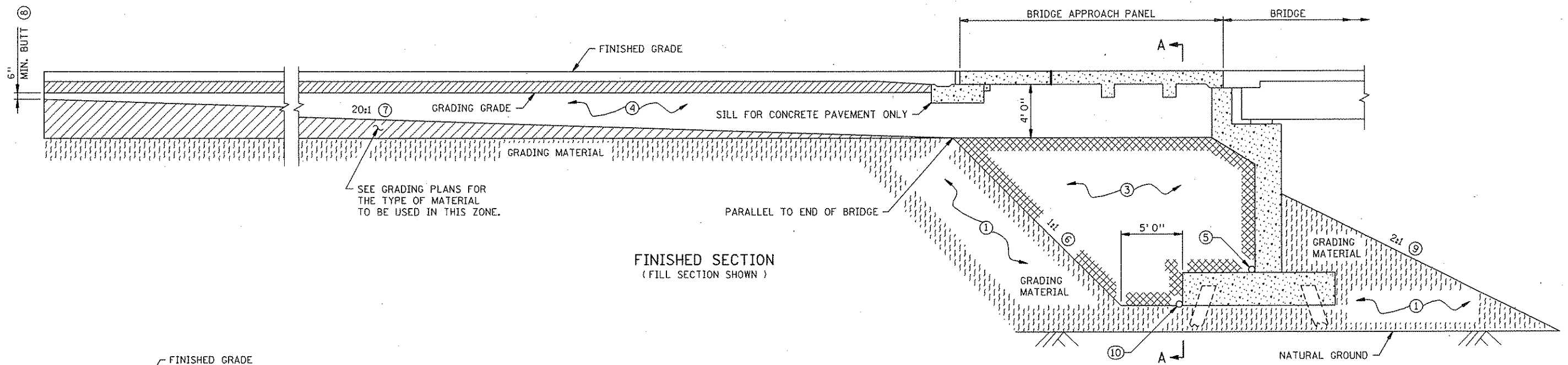
THIS DRAWING IS TO BE USED ONLY FOR PICTORIAL REPRESENTATION. DESIGN CHANGES ARE NOT ALWAYS SHOWN.

CONTACT MANUFACTURER FOR INSTALLATION INSTRUCTIONS.

THIS IS A PROPRIETARY ITEM AS PER SPEC. 1703.

**SKT-350 END TREATMENT (STEEL BOLTED HINGED POSTS)
(ENGLISH)**

REFERENCE DATE
8-1-03



- NOTES:
- ① GRADING MATERIAL PLACED BY THE CONTRACTOR.
 - ② GRADING MATERIAL CONSTRUCTED BY THE CONTRACTOR PRIOR TO THE BRIDGE CONSTRUCTION. TO BE REMOVED LATER BY THE CONTRACTOR.
 - ③ SELECT GRANULAR MATERIAL MODIFIED SHALL COMPLY WITH SPEC. 3149.2B, MODIFIED TO 10% OR LESS PASSING THE NUMBER 200 SIEVE. MATERIAL SHALL BE PLACED BY THE CONTRACTOR AFTER COMPLETION OF THE ABUTMENT.
 - ④ BACKFILL PLACED BY THE CONTRACTOR. MATERIAL SHALL COMPLY WITH SPEC. 3149.2B (SELECT GRANULAR BORROW).
 - ⑤ DRAIN IF REQUIRED. SEE BRIDGE STANDARD DETAIL B910.
 - ⑥ ACTUAL SLOPE TO BE DETERMINED DURING CONSTRUCTION BY THE CONTRACTOR, DEPENDING ON INSITU SOIL PROPERTIES AND/OR SAFETY FACTORS. (USE 1:1 FOR DESIGN)
 - ⑦ START 20:1 TAPER AT END OF APPROACH PANELS ON SKEWED BRIDGES.
 - ⑧ GRADING TO BE SQUARED OFF ON SKEWED APPROACHES.
 - ⑨ SEE BRIDGE PLANS FOR SLOPE PAVING.
 - ⑩ SUBSURFACE PIPE DRAIN WHEN REQUIRED AS DIRECTED BY THE DISTRICT SOILS ENGINEER. 4 INCH NOM. DIA. PLASTIC PIPE PER SPEC. 3245 PLACED BY THE CONTRACTOR. PERFORATED PIPE TO BE WRAPPED WITH GEOTEXTILE MEETING THE REQUIREMENTS OF SPEC. 3733 TYPE 1. FOUNDATION SHALL BE SHAPED TO FIT LOWER ONE THIRD CIRCUMFERENCE OF PIPE.

FILE NAME S233H92.SPN

STANDARD SHEET NO. 5-297.233	TITLE: BRIDGE APPROACH TREATMENT FOR BOTH HIGH AND LOW ABUTMENTS ON PILING
STANDARD APPROVED: AUGUST 4, 1992	
REVISION DATE 8-20-99	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 122A OF 872 SHEETS

PLOTTED/REVISED: 01-FEB-2007 15:24

STAGE 1A TRAFFIC

- KEEP TWO LANES OPEN ON T.H. 65 SB DURING CONSTRUCTION OF TEMPORARY WIDENING BETWEEN STA. 798+67 TO 837+51.
- CSAH 14 WILL REMAIN OPEN DURING CONSTRUCTION OF THE FRONTAGE ROAD INTERSECTIONS AT ULYSSES ST. (WEST FRONTAGE ROAD) AND ABERDEEN ST. (EAST FRONTAGE ROAD).
- KEEP 123RD AVENUE (RIGHT IN AND RIGHT OUT) OPEN BETWEEN T.H. 65 SB STA. 802+55 LEFT AND ULYSSES STREET.
- KEEP ACCESS OPEN AT 123RD AVENUE (RIGHT IN AND RIGHT OUT) T.H. 65 NB STA. 805+30 RIGHT.
- KEEP ACCESS OPEN AT CONNECTION (RIGHT IN AND RIGHT OUT) T.H. 65 NB STA. 813+15 RIGHT.
- KEEP ACCESS OPEN AT T.H. 65 NB STA. 829+75 DURING CONSTRUCTION OF THE FRONTAGE ROAD (ABERDEEN ST.).
- ALL OTHER ROADWAYS ARE TO REMAIN OPEN.

STAGE 1A CONSTRUCTION

- CONSTRUCT T.H. 65 MEDIAN CROSSOVER, T.H. 65 NB STA. 795+54 TO 802+83
- CONSTRUCT T.H. 65 MEDIAN CROSSOVER, T.H. 65 NB STA. 833+50 TO 837+51
- CONSTRUCT TEMPORARY WIDENING ON OUTER LANE OF T.H. 65 SB STA. 798+67 TO 837+51.
- CONSTRUCT TEMPORARY BYPASS TO CENTRAL AVE. (EAST FRONTAGE ROAD)
- CONSTRUCT ULYSSES ST. (WEST FRONTAGE RD.) AND WEST LEG (SOUTHERN HALF) OF CSAH 14 FROM STA. 217+12 TO STA. 231+00
- CONSTRUCT ABERDEEN ST. (EAST FRONTAGE RD. AND EAST LEG (SOUTHERN HALF) OF CSAH 14 FROM STA. 244+00 TO 255+40.
- RELOCATE COUNTY DITCH PIPE THROUGH ULYSSES ST.
- JACK PIPES UNDER T.H. 65. INSTALL PIPE UNDER CENTRAL AVE & ULYSSES ST. MAINTAINING ACCESS TO ALL BUSINESSES.
- BEGIN CONSTRUCTION OF RETAINING WALLS FOR TH 65/CSAH 14 INTERCHANGE THAT WOULD NOT INTERFERE WITH TRAFFIC FLOW.
- BEGIN CONSTRUCTION OF PONDS A, B, C AND D.
- LENGTHEN LEFT TURN LANES NORTH & SOUTH OF 129TH AVE. & 121ST AVE.
- CONSTRUCT ENTRANCE TO BLAINBROOKE BOWL OFF OF ULYSSES STREET.

CITY OF BLAINE






CITY OF BLAINE

CITY OF BLAINE

STAGE 1A

1 OF 6

LEGEND

-  PERMANENT CONSTRUCTION
-  TEMPORARY CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

STAGING PLAN

DRAWN BY: LM

CHECKED BY: DY

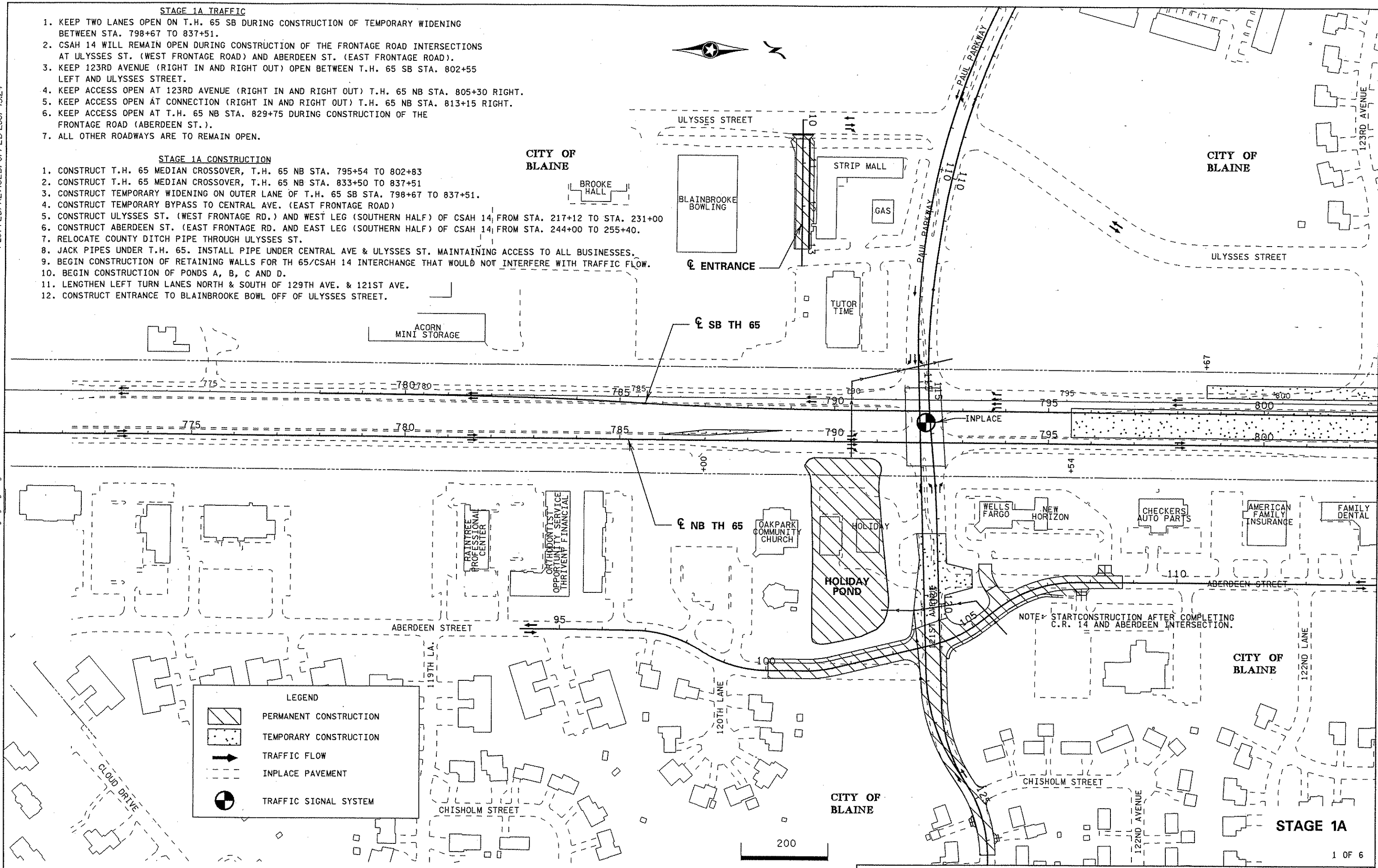
CERTIFIED BY

Josephine Sunquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/1/07

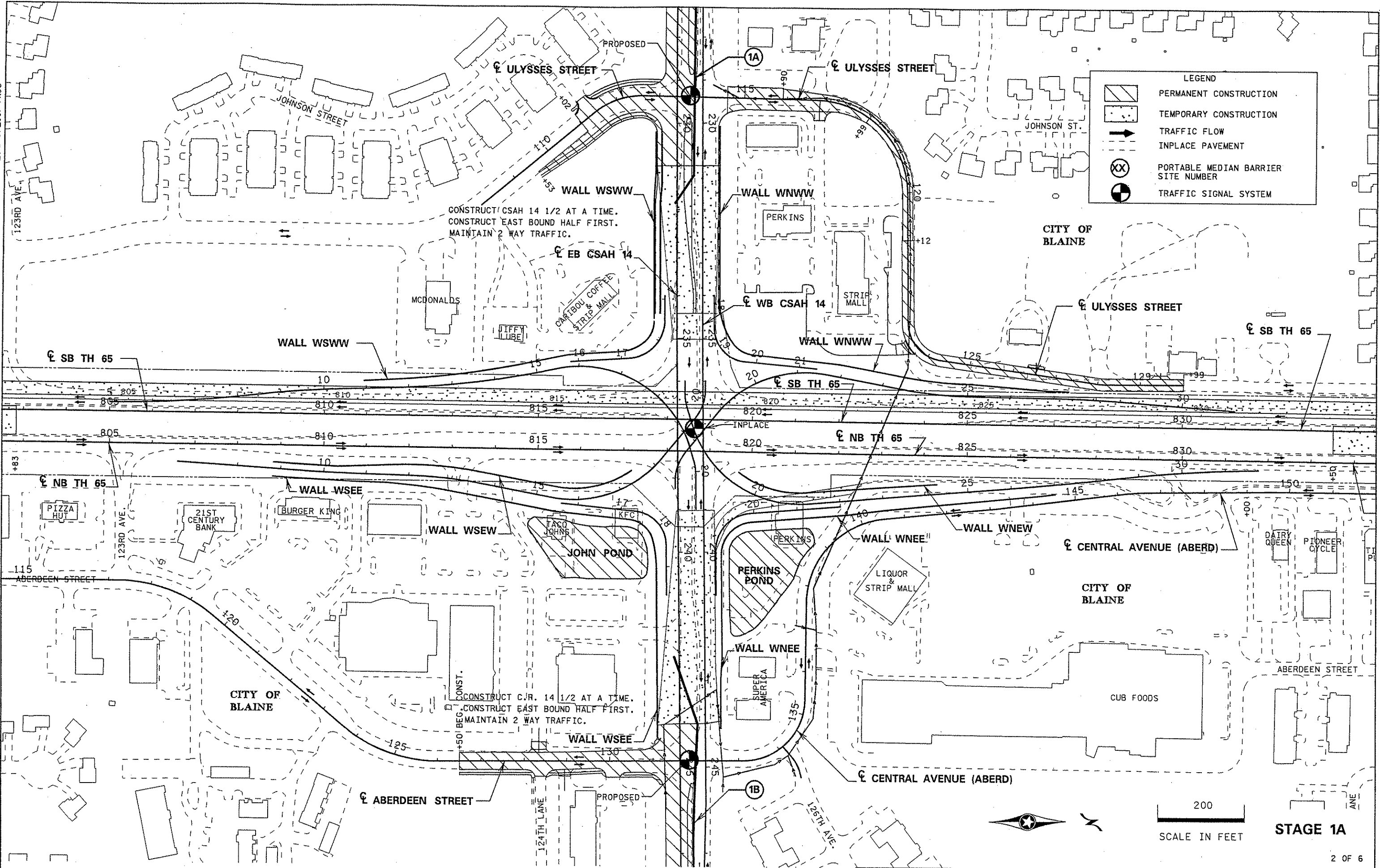
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 123 OF 872 SHEETS

DISTRICT #: METRO
IFLOT NAME: Im-123_stg1a.l
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PLOTTED/REVISED: 28-MAR-2007 14:35

DISTRICT #: METRO
PLOT NAME: Im-123_sj1a_2
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LEGEND

	PERMANENT CONSTRUCTION
	TEMPORARY CONSTRUCTION
	TRAFFIC FLOW
	INPLACE PAVEMENT
	PORTABLE MEDIAN BARRIER SITE NUMBER
	TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

STAGE 1A
2 OF 6

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

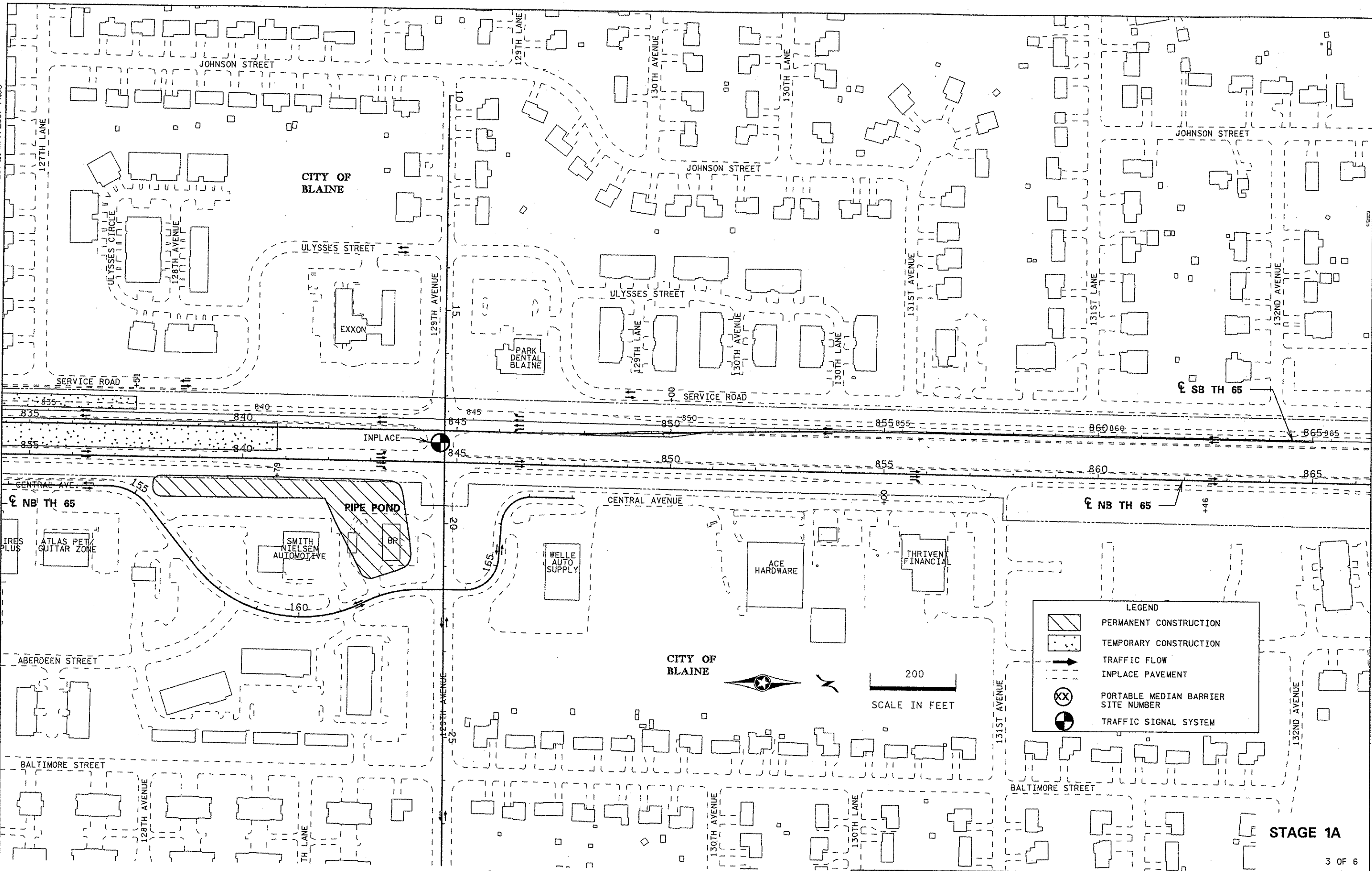
LIC. NO. 20534 DATE 4/4/07

STAGING PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 124 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 14:35

DISTRICT #: METRO
PLOT NAME: lm-123_stg1a_3
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LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE MEDIAN BARRIER SITE NUMBER
- TRAFFIC SIGNAL SYSTEM

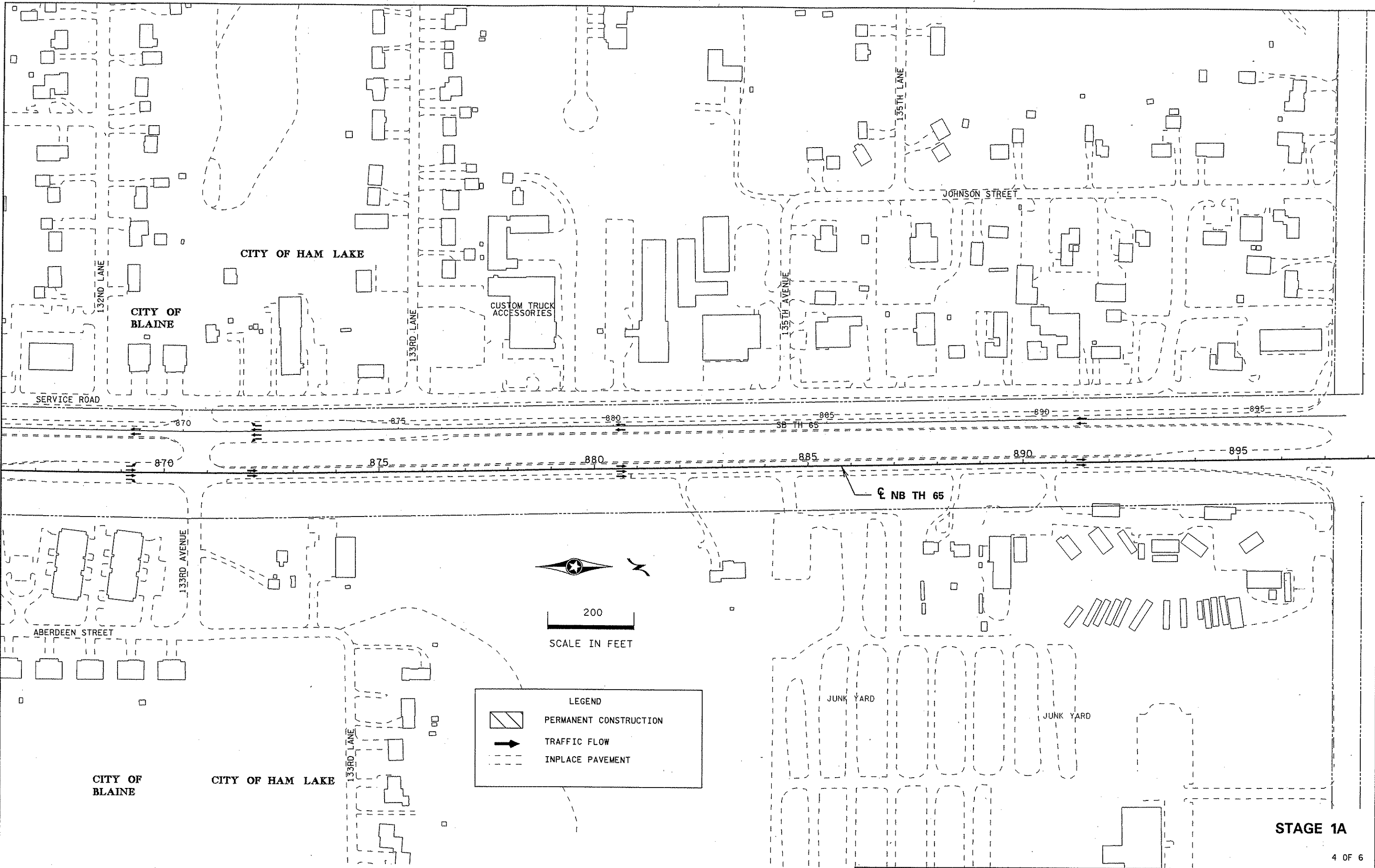
200
SCALE IN FEET

STAGE 1A




3 OF 6

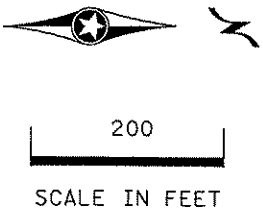
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LEGEND

-  PERMANENT CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT



STAGE 1A

4 OF 6

STAGING PLAN

DRAWN BY: LM

CHECKED BY: DY

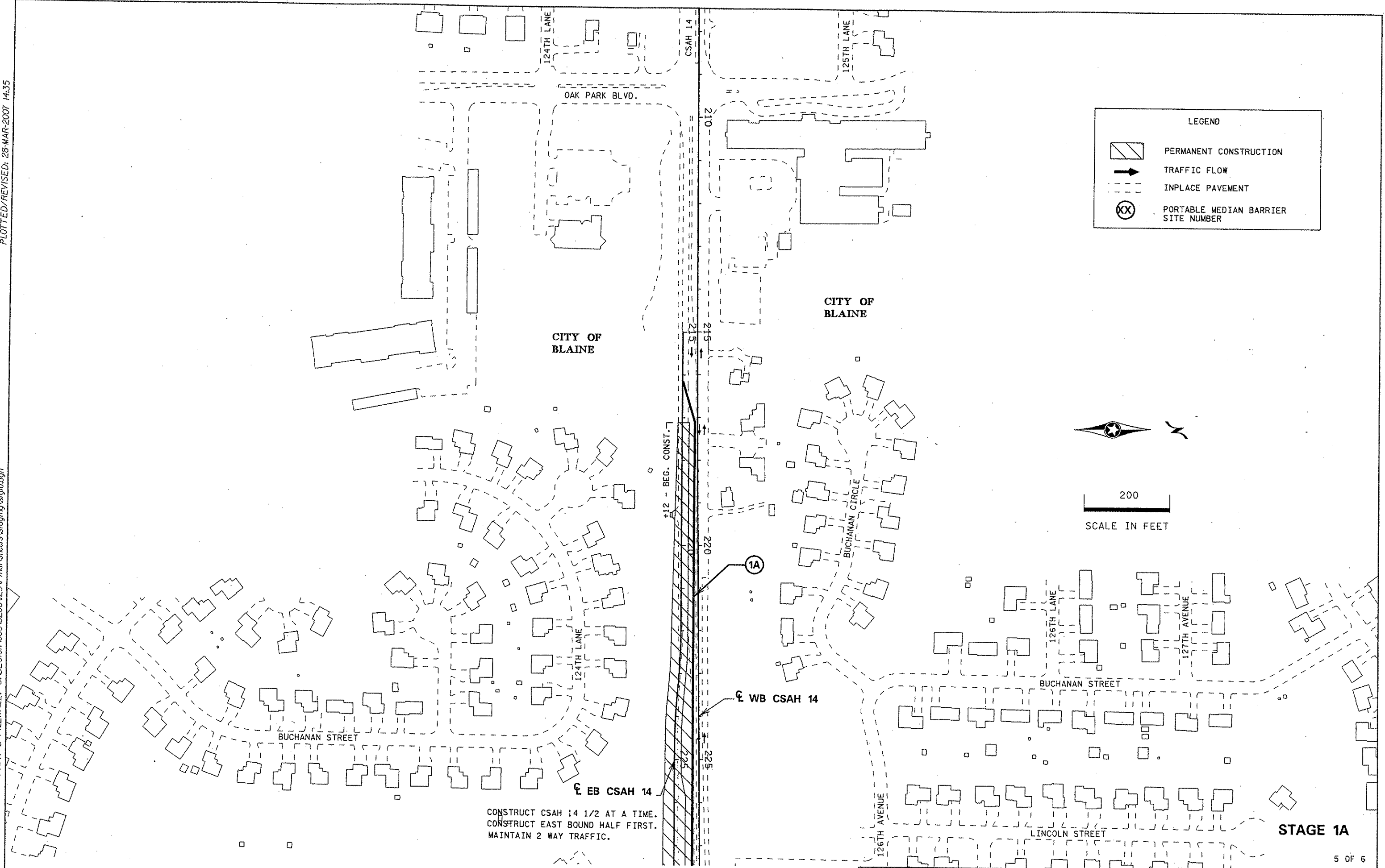
CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 2/1/07





STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 126 OF 872 SHEETS

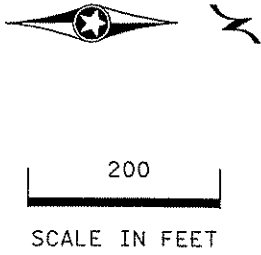
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DISTRICT #: METRO
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LEGEND

-  PERMANENT CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  PORTABLE MEDIAN BARRIER SITE NUMBER



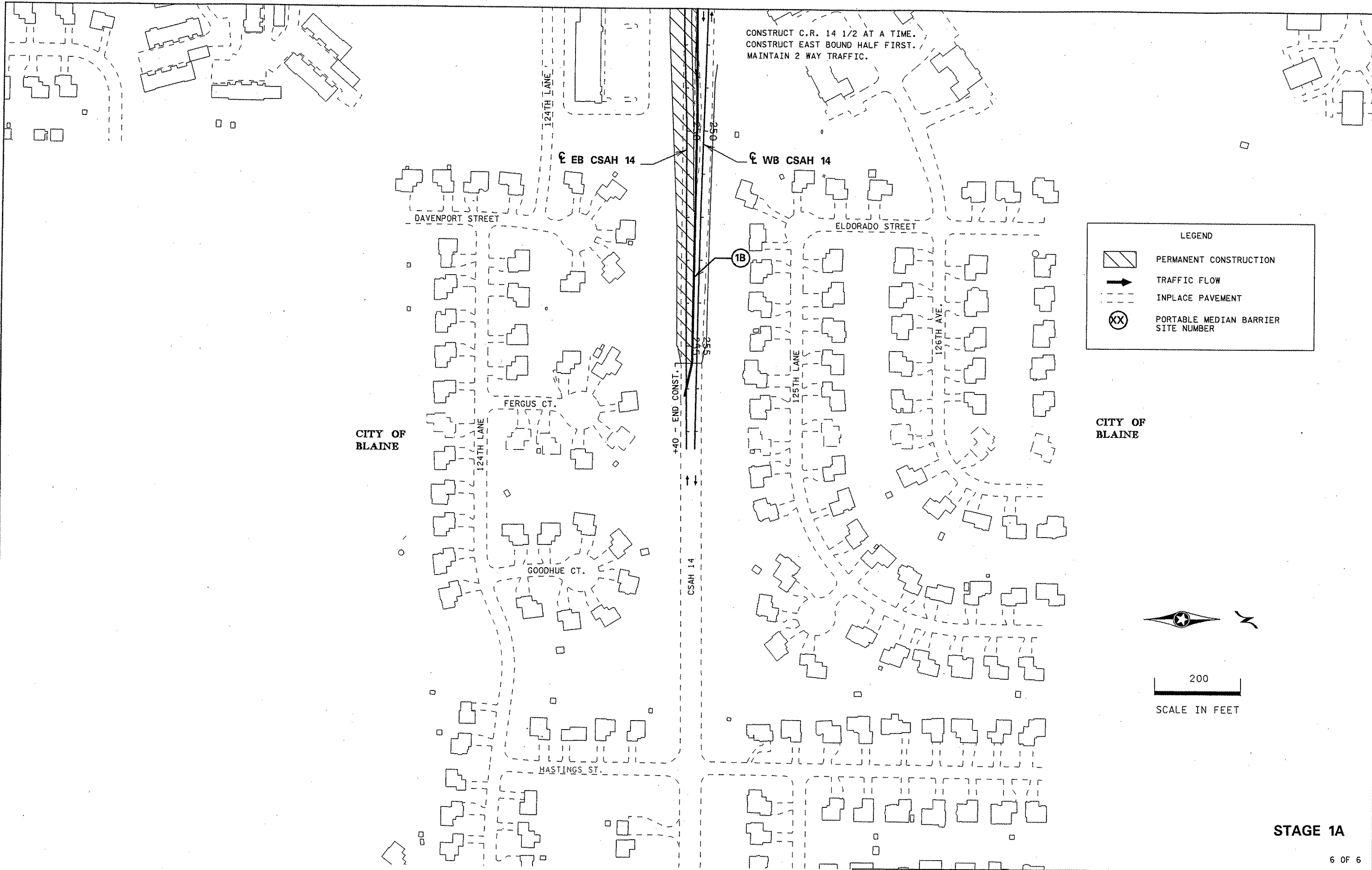
CONSTRUCT CSAH 14 1/2 AT A TIME.
CONSTRUCT EAST BOUND HALF FIRST.
MAINTAIN 2 WAY TRAFFIC.

STAGE 1A

5 OF 6





PLOTTED/REVISED: 28-MAR-2007 14:35

DISTRICT #: METRO
I/PLOT NAME: 1m-123-stg1a_6
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Sheets\stg1a\stg1a.dgn



CONSTRUCT C.R. 14 1/2 AT A TIME.
CONSTRUCT EAST BOUND HALF FIRST.
MAINTAIN 2 WAY TRAFFIC.

LEGEND

-  PERMANENT CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  PORTABLE MEDIAN BARRIER SITE NUMBER

CITY OF
BLAINE



200
SCALE IN FEET

STAGE 1A

6 OF 6

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
L.C. NO. 20534 DATE 4/9/07

STAGING PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 128 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 14:35

STAGE 1AA TRAFFIC

- KEEP TWO LANES OPEN ON T.H. 65 SB DURING CONSTRUCTION OF TEMPORARY WIDENING BETWEEN STA. 798+67 TO 837+51.
- CSAH 14 WILL REMAIN OPEN DURING CONSTRUCTION OF THE FRONTAGE ROAD INTERSECTIONS AT ULYSSES ST. (WEST FRONTAGE ROAD) AND ABERDEEN ST. (EAST FRONTAGE ROAD).
- CLOSE 123RD AVENUE (RIGHT IN AND RIGHT OUT), BETWEEN T.H. 65 SB STA. 802+55 LEFT AND ULYSSES STREET.
- KEEP ACCESS OPEN AT 123RD AVENUE (RIGHT IN AND RIGHT OUT) T.H. 65 NB STA. 805+30 RIGHT.
- KEEP ACCESS OPEN AT CONNECTION (RIGHT IN AND RIGHT OUT) T.H. 65 NB STA. 813+15 RIGHT.
- KEEP ACCESS OPEN AT T.H. 65 NB STA. 829+75 DURING CONSTRUCTION OF THE FRONTAGE ROAD (ABERDEEN ST.).
- ALL OTHER ROADWAYS ARE TO REMAIN OPEN.

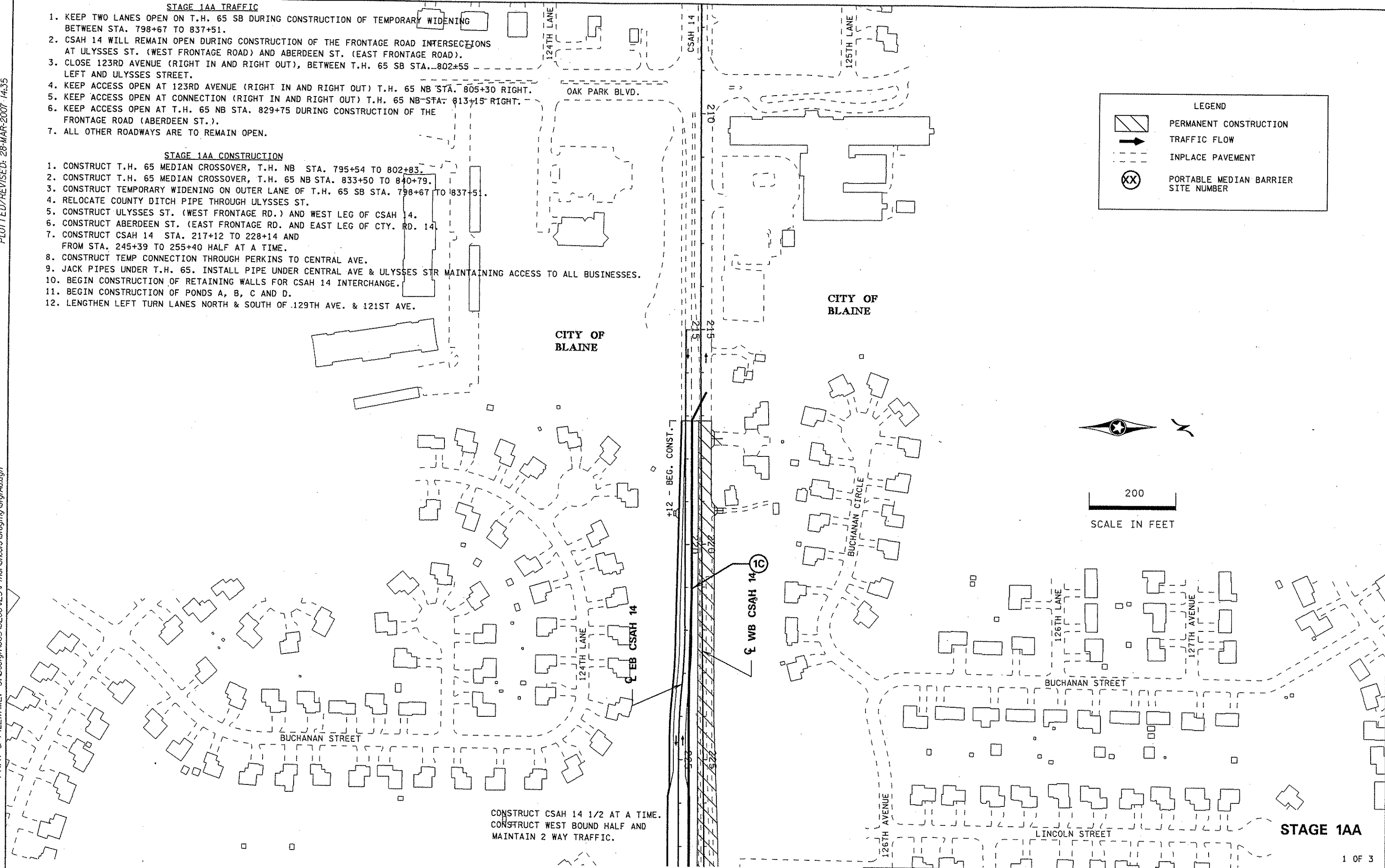
STAGE 1AA CONSTRUCTION

- CONSTRUCT T.H. 65 MEDIAN CROSSOVER, T.H. NB STA. 795+54 TO 802+83.
- CONSTRUCT T.H. 65 MEDIAN CROSSOVER, T.H. NB STA. 833+50 TO 840+79.
- CONSTRUCT TEMPORARY WIDENING ON OUTER LANE OF T.H. 65 SB STA. 798+67 TO 837+51.
- RELOCATE COUNTY DITCH PIPE THROUGH ULYSSES ST.
- CONSTRUCT ULYSSES ST. (WEST FRONTAGE RD.) AND WEST LEG OF CSAH 14.
- CONSTRUCT ABERDEEN ST. (EAST FRONTAGE RD. AND EAST LEG OF CTY. RD. 14).
- CONSTRUCT CSAH 14 STA. 217+12 TO 228+14 AND FROM STA. 245+39 TO 255+40 HALF AT A TIME.
- CONSTRUCT TEMP CONNECTION THROUGH PERKINS TO CENTRAL AVE.
- JACK PIPES UNDER T.H. 65. INSTALL PIPE UNDER CENTRAL AVE & ULYSSES STR MAINTAINING ACCESS TO ALL BUSINESSES.
- BEGIN CONSTRUCTION OF RETAINING WALLS FOR CSAH 14 INTERCHANGE.
- BEGIN CONSTRUCTION OF PONDS A, B, C AND D.
- LENGTHEN LEFT TURN LANES NORTH & SOUTH OF 129TH AVE. & 121ST AVE.

LEGEND

- PERMANENT CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE MEDIAN BARRIER SITE NUMBER

200
SCALE IN FEET



DISTRICT #: METRO
PLOT NAME: stg1aa.j
PATH & FILENAME: S:\Design\065\0208\23\Final\stg1aa.dgn

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 129 OF 872 SHEETS







STAGING PLAN

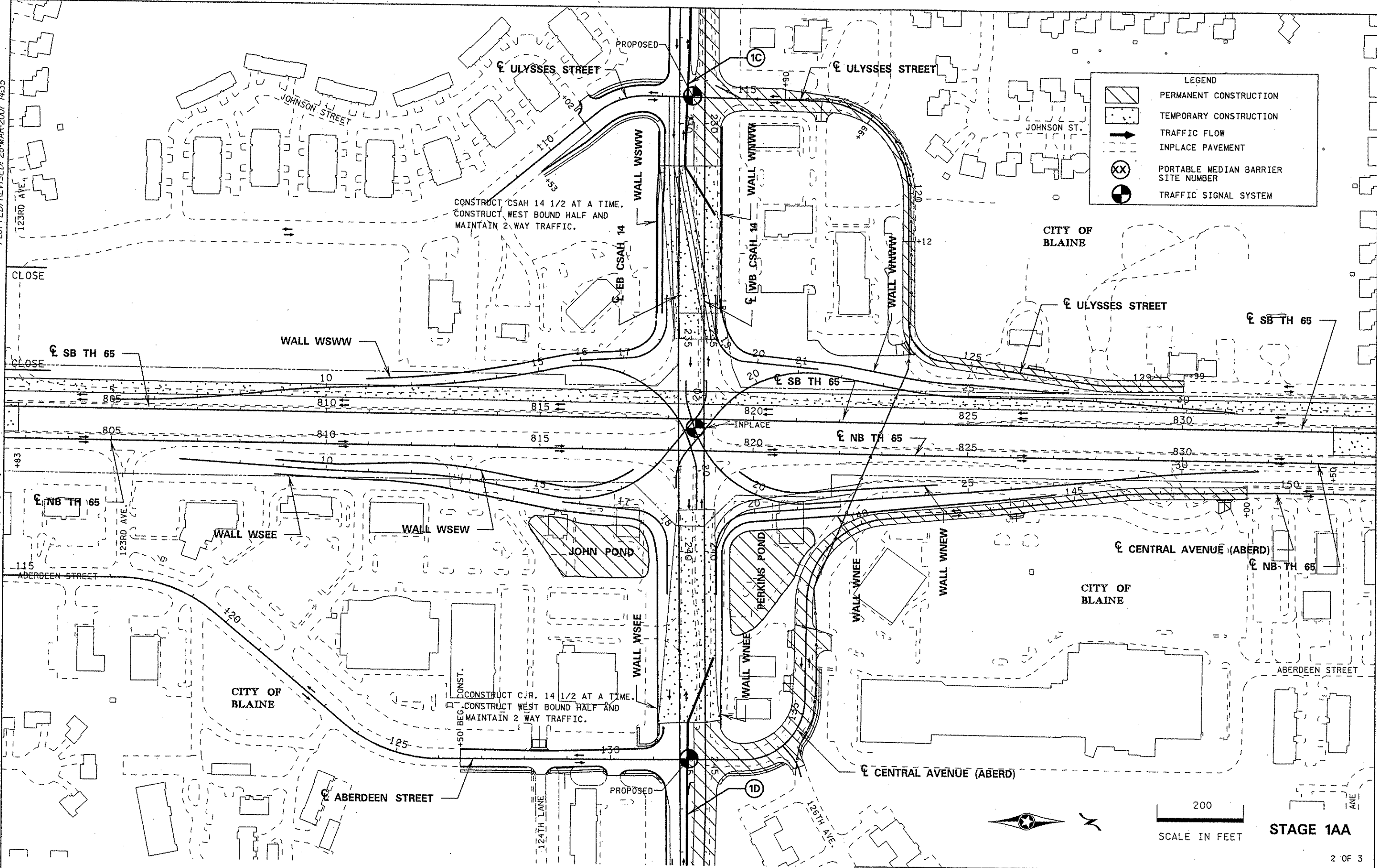
STAGE 1AA

PLOTTED/REVISED: 28-MAR-2007 14:35

DISTRICT #: METRO
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LEGEND

-  PERMANENT CONSTRUCTION
-  TEMPORARY CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  PORTABLE MEDIAN BARRIER SITE NUMBER
-  TRAFFIC SIGNAL SYSTEM



DISTRICT #: METRO

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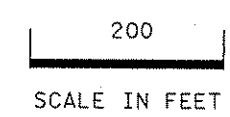
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LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 130 OF 872 SHEETS

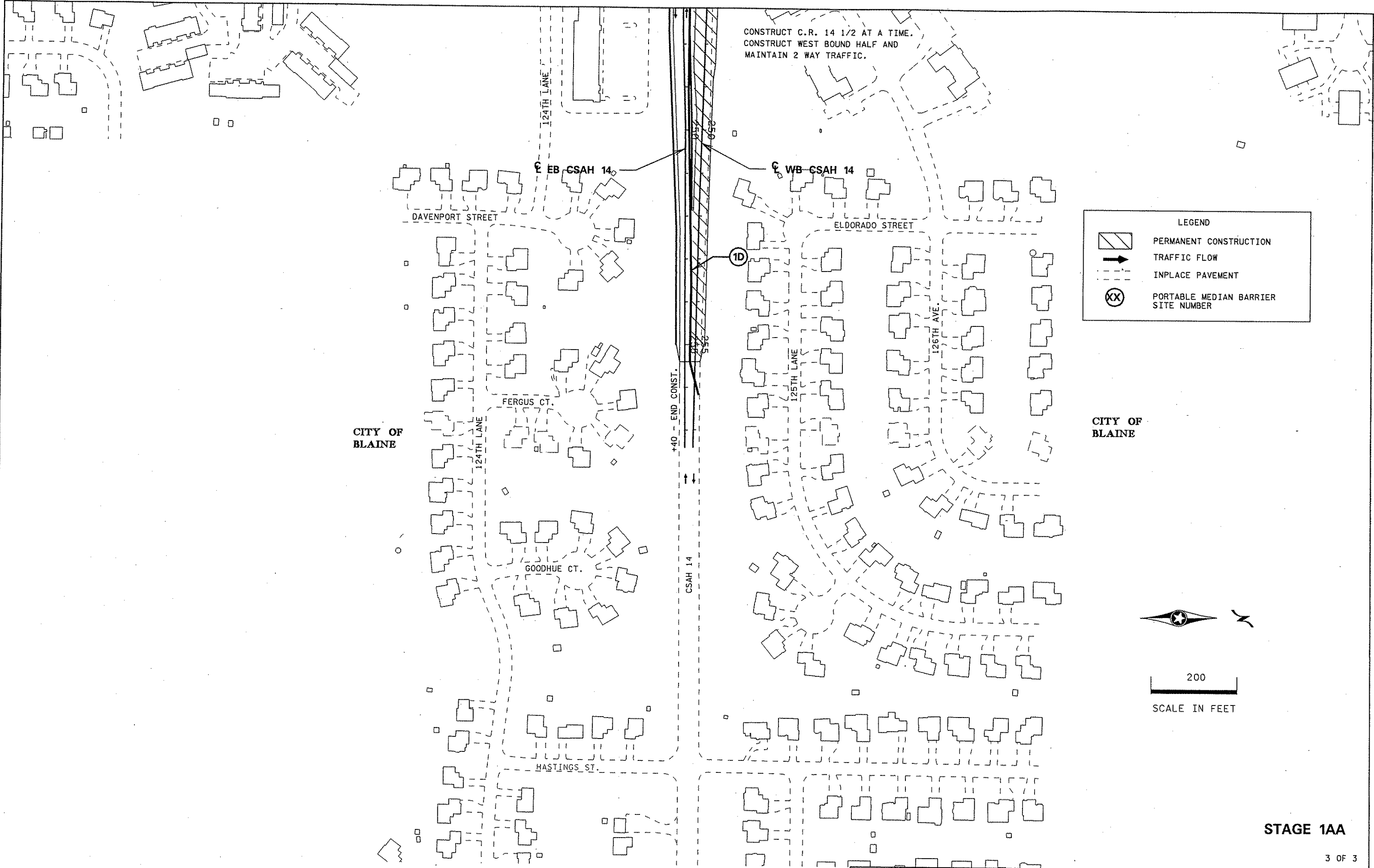
STAGING PLAN



STAGE 1AA

PLOTTED/REVISED: 28-MAR-2007 14:35

DISTRICT #: METRO
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PATH & FILENAME: S:\Design\065\0208\123\Final\stg1Aa.dgn



STAGE 1AA

3 OF 3

DRAWN BY: LM

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CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STAGING PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 131 OF 872 SHEETS

PLOTTED/REVISED: 04-APR-2007 15:29

STAGE 1B TRAFFIC

1. SWITCH T.H. 65 NB TRAFFIC TO THE WEST SIDE BETWEEN THE MEDIAN CROSSOVERS, STA. 795+54 TO 802+83 AND 833+50 TO 840+79.
2. CLOSE 123RD AVE. (RIGHT IN AND RIGHT OUT) T.H. 65 NB STA. 805+30 RIGHT.
3. CLOSE CSAH 14 BETWEEN ULYSSES ST. AND ABERDEEN ST.
4. CLOSE CONNECTION (RIGHT IN & RIGHT OUT) T.H. 65 NB STA. 813+15 RIGHT.
5. CLOSE CONNECTION (RIGHT IN) T.H. 65 NB STA. 829+75 RIGHT.
6. ALL OTHER ROADWAYS ARE TO REMAIN OPEN AS IN STAGE 1A.

STAGE 1B CONSTRUCTION

1. EXCAVATE T.H. 65 NB AT BRIDGE NO. 02051.
2. CONSTRUCT EAST ABUTMENTS AND CENTER PIERS OF BRIDGE 02051.
3. COMPLETE EAST HALF OF BRIDGE NO. 02051.
4. CONSTRUCT T.H. 65 NB STA. 799+00 TO 836+50.
5. BEGIN CONSTRUCTION OF SE RAMP.
6. BEGIN CONSTRUCTION OF NE RAMP.
7. COMPLETE DRAINAGE BACKBONE FOR PONDS B AND C.
8. BEGIN CONSTRUCTION OF CSAH 14 BETWEEN ULYSSES ST. AND ABERDEEN ST.
9. CONTINUE CONSTRUCTION OF RETAINING WALLS WSEE, WSEW, WNEE, WNEW, WSWW AND WNWW.
10. CONSTRUCT TEMPORARY WIDENING ON THE INSIDE SHOULDER OF T.H. 65 NB STA. 802+83 TO STA. 833+50.



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
- TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

STAGING PLAN

STAGE 1B

1 OF 6

DRAWN BY: LM

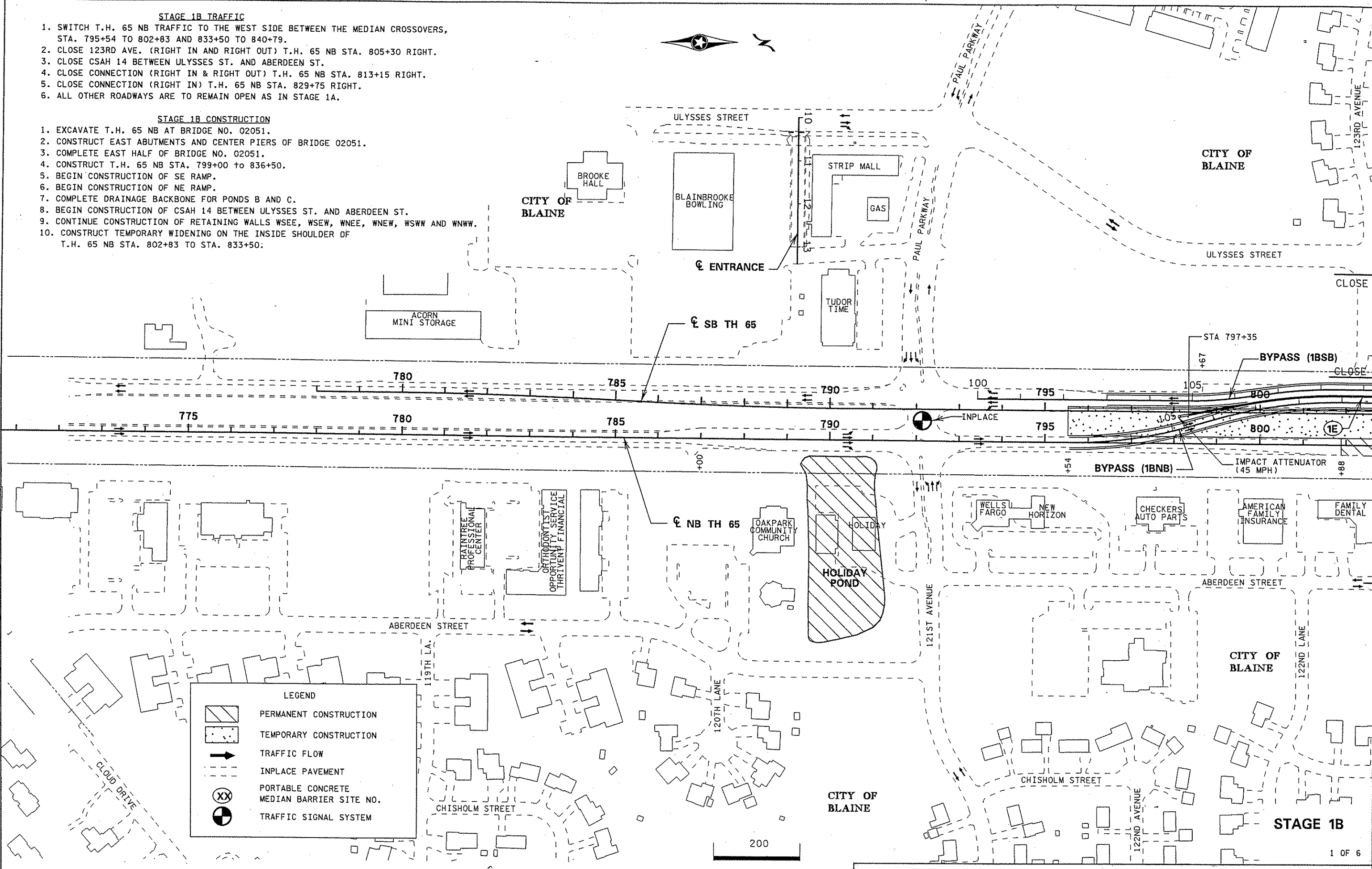
CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

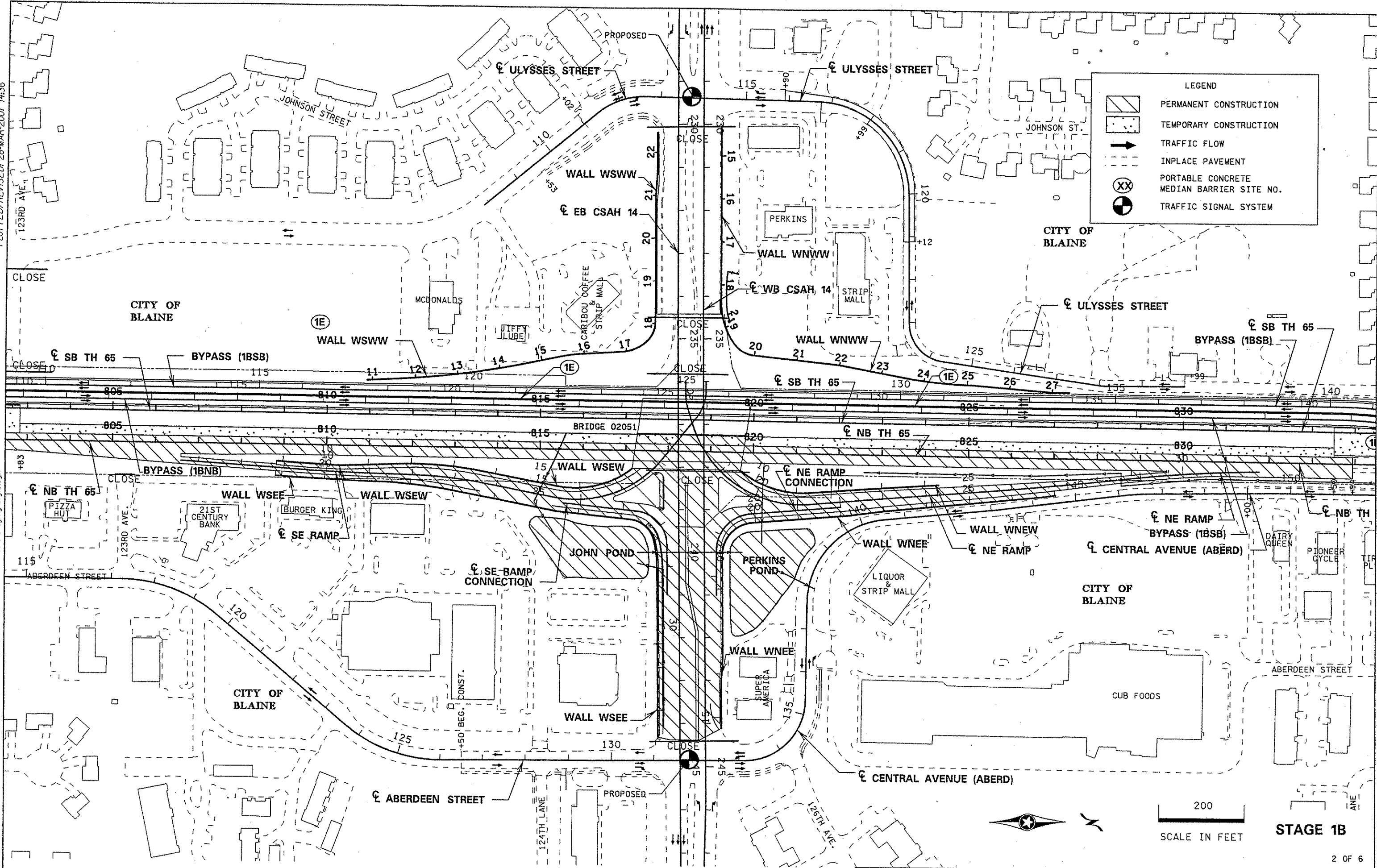
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 132 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 28-MAR-2007 14:36

DISTRICT #: METRO
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LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
- TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

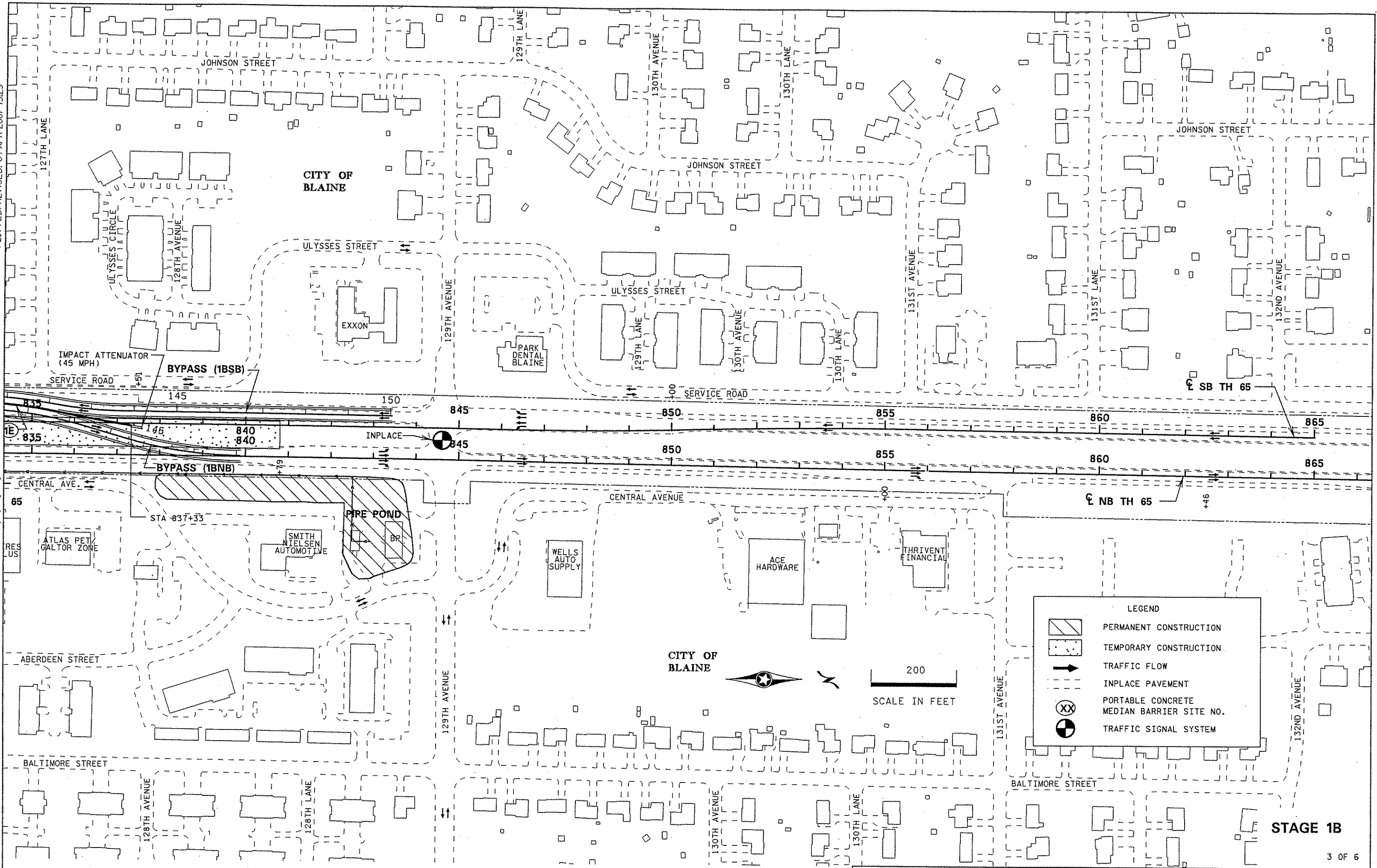
STAGE 1B

2 OF 6

STAGING PLAN

PLOTTED/REVISED: 04-APR-2007 15:29

DISTRICT #: METRO
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PATH & FILENAME: S:\DESIGN\050208\123\Final\stg1b\stg1b.dgn



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
- TRAFFIC SIGNAL SYSTEM

CITY OF BLAINE

STAGE 1B

3 OF 6

STAGING PLAN

DRAWN BY: LM

CHECKED BY: DY

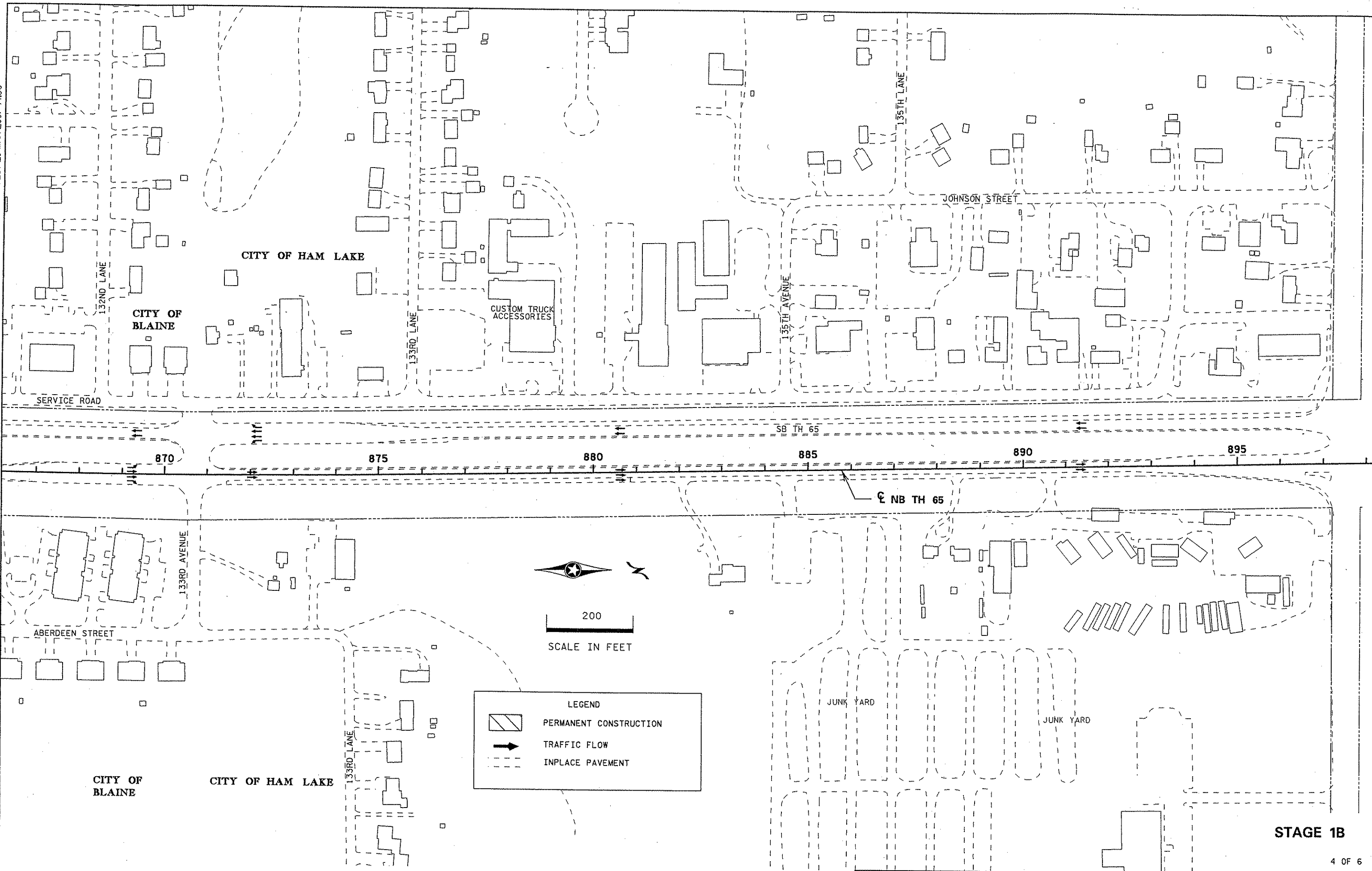
CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 134 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 14:36

DISTRICT #: METRO
PLOT NAME: Im-123_stg1b_4
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200
SCALE IN FEET

LEGEND	
	PERMANENT CONSTRUCTION
	TRAFFIC FLOW
	INPLACE PAVEMENT

STAGE 1B

4 OF 6

STAGING PLAN

DRAWN BY: LM

CHECKED BY: DY

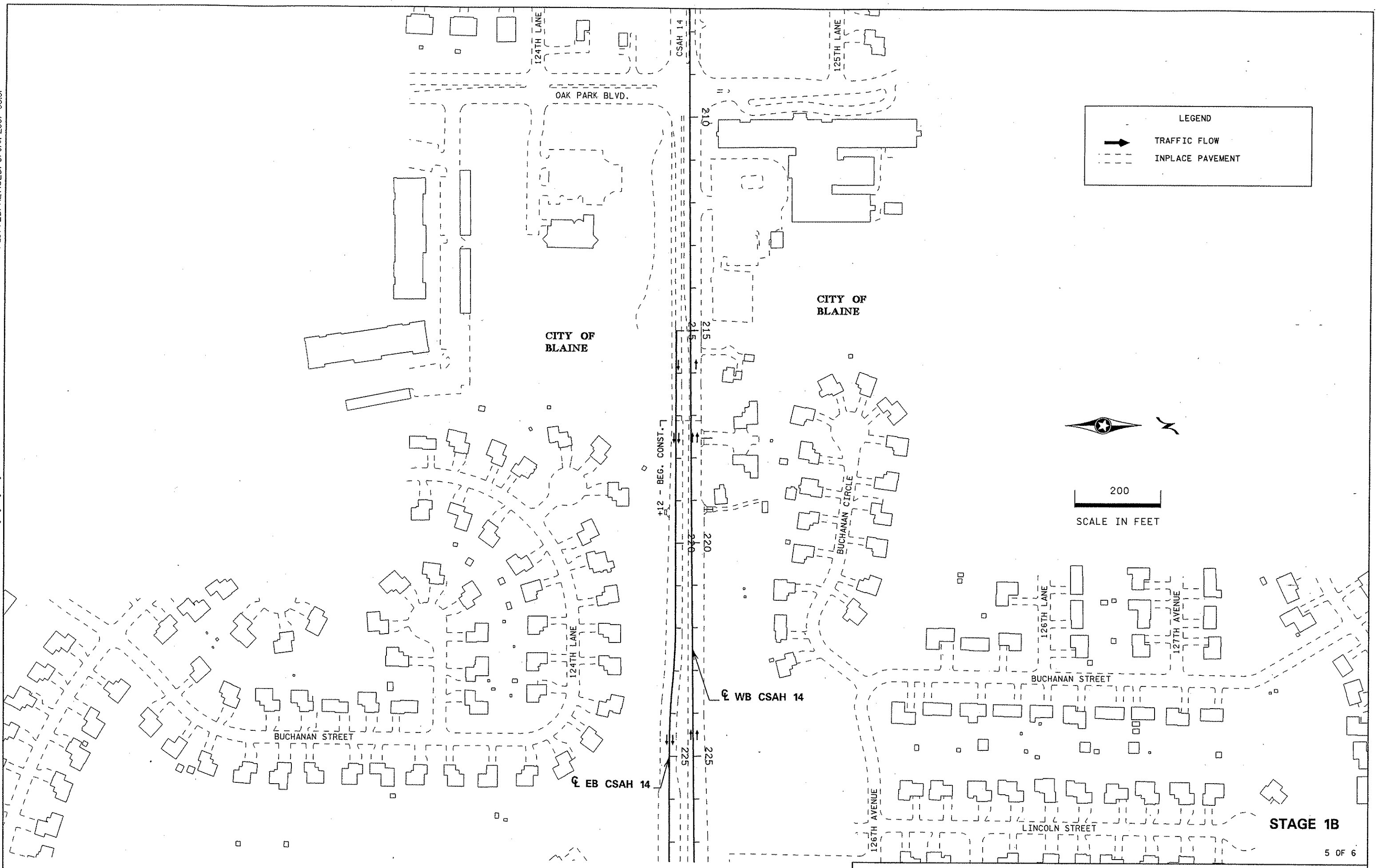
CERTIFIED BY *Josephine Lumbant*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 135 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:01

DISTRICT #: METRO
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DISTRICT #: METRO

PLOT NAME: lm-123_stg1b_5

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DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist* LIC. NO. 20534 DATE 2/2/07

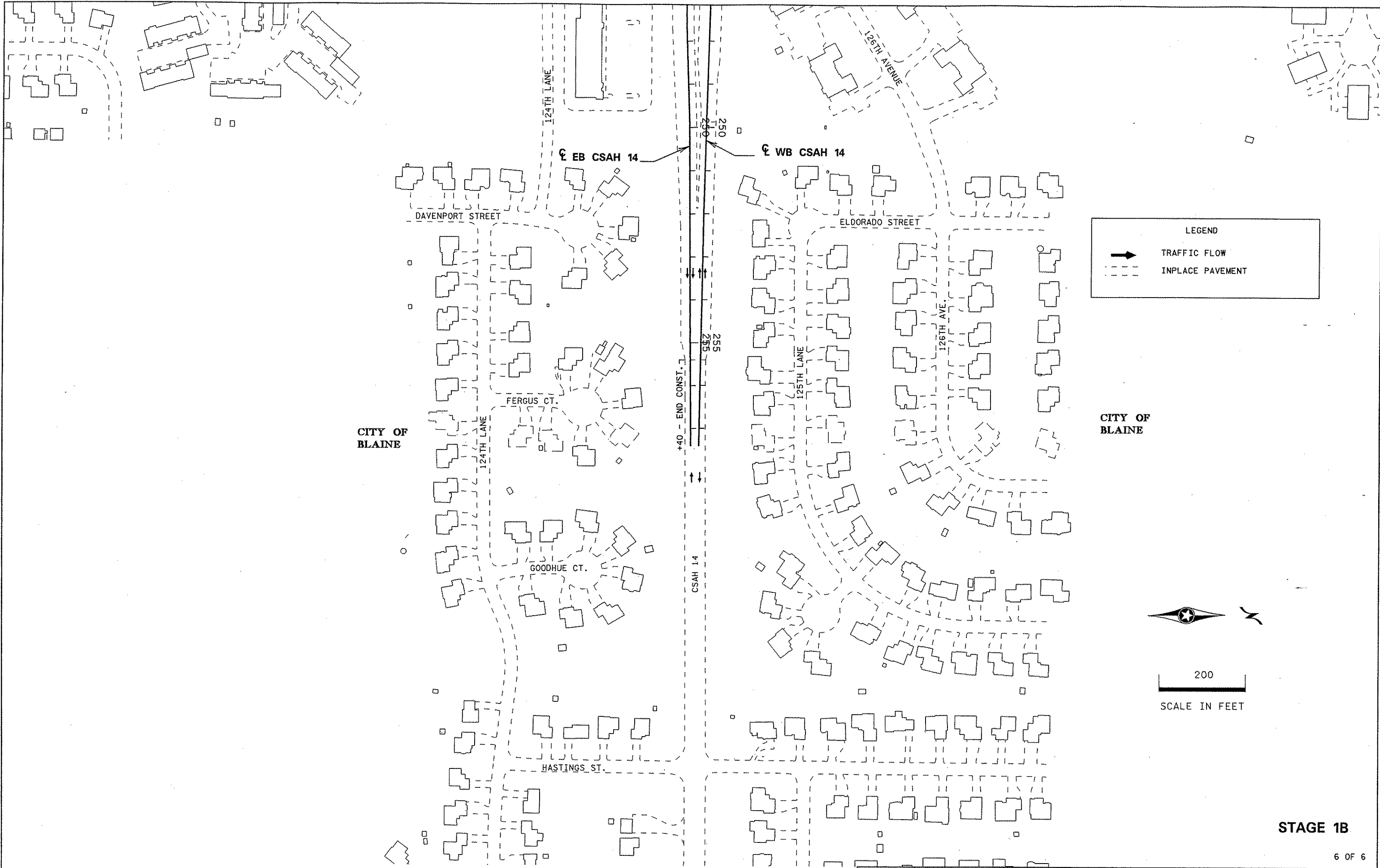
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STAGING PLAN

STAGE 1B

PLOTTED/REVISED: 31-JAN-2007 08:01

DISTRICT #: METRO
PLOT NAME: lm-123_stg1b_6
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\streets\staging\stg1b.dgn



LEGEND

→ TRAFFIC FLOW

- - - INPLACE PAVEMENT

CITY OF BLAINE



200
SCALE IN FEET

STAGE 1B

6 OF 6

STAGING PLAN

DRAWN BY: LM	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 20534	DATE 2/2/07	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 137 OF 872 SHEETS
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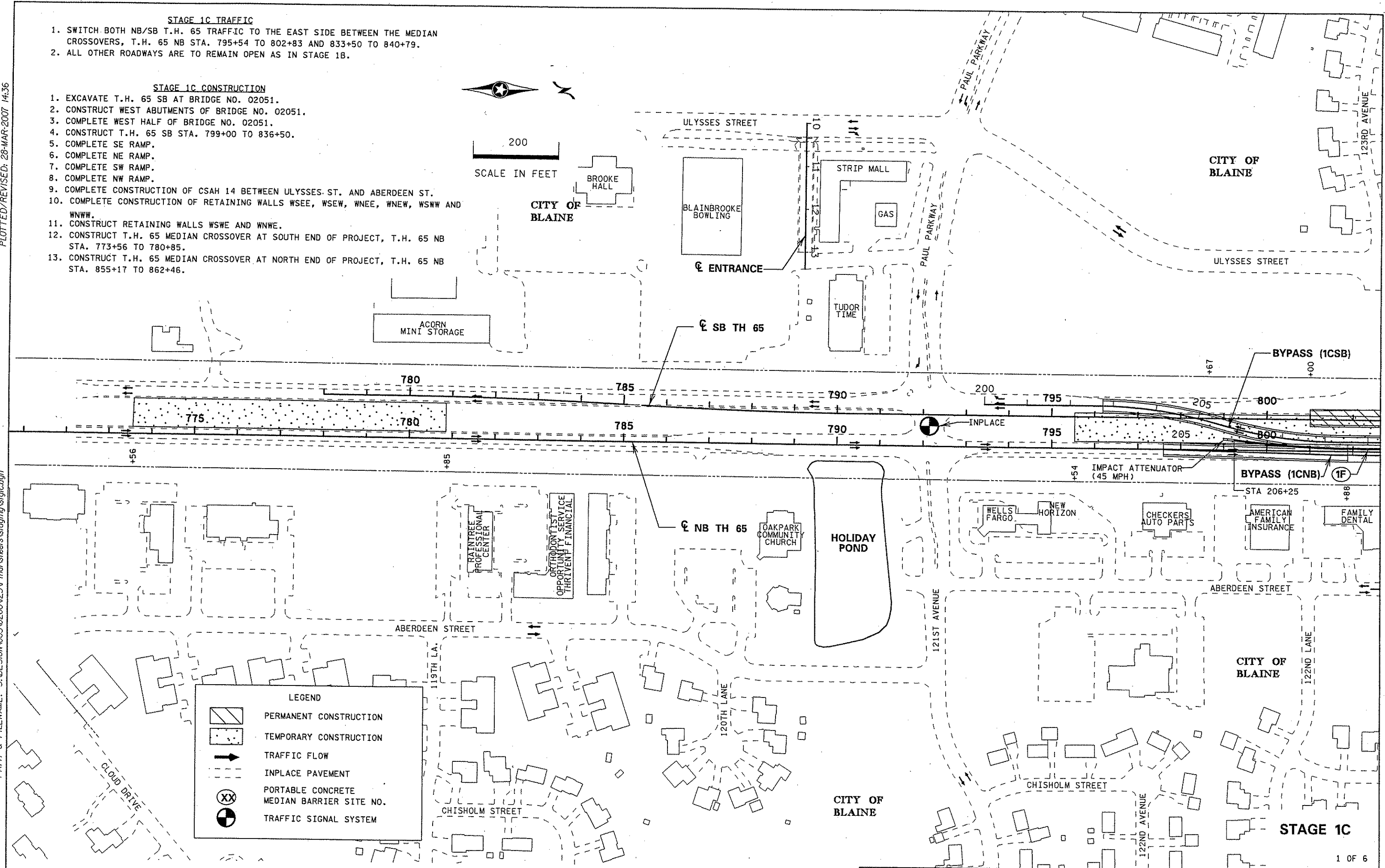
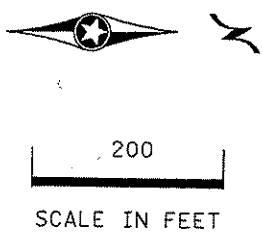
PLOTTED/REVISED: 28-MAR-2007 14:36

STAGE 1C TRAFFIC

1. SWITCH BOTH NB/SB T.H. 65 TRAFFIC TO THE EAST SIDE BETWEEN THE MEDIAN CROSSOVERS, T.H. 65 NB STA. 795+54 TO 802+83 AND 833+50 TO 840+79.
2. ALL OTHER ROADWAYS ARE TO REMAIN OPEN AS IN STAGE 1B.

STAGE 1C CONSTRUCTION

1. EXCAVATE T.H. 65 SB AT BRIDGE NO. 02051.
2. CONSTRUCT WEST ABUTMENTS OF BRIDGE NO. 02051.
3. COMPLETE WEST HALF OF BRIDGE NO. 02051.
4. CONSTRUCT T.H. 65 SB STA. 799+00 TO 836+50.
5. COMPLETE SE RAMP.
6. COMPLETE NE RAMP.
7. COMPLETE SW RAMP.
8. COMPLETE NW RAMP.
9. COMPLETE CONSTRUCTION OF CSAH 14 BETWEEN ULYSSES ST. AND ABERDEEN ST.
10. COMPLETE CONSTRUCTION OF RETAINING WALLS WSEE, WSEW, WNEE, WNEW, WSWW AND WNNW.
11. CONSTRUCT RETAINING WALLS WSWE AND WNWE.
12. CONSTRUCT T.H. 65 MEDIAN CROSSOVER AT SOUTH END OF PROJECT, T.H. 65 NB STA. 773+56 TO 780+85.
13. CONSTRUCT T.H. 65 MEDIAN CROSSOVER AT NORTH END OF PROJECT, T.H. 65 NB STA. 855+17 TO 862+46.



LEGEND

	PERMANENT CONSTRUCTION
	TEMPORARY CONSTRUCTION
	TRAFFIC FLOW
	INPLACE PAVEMENT
	PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
	TRAFFIC SIGNAL SYSTEM

DISTRICT #: METRO
PLOT NAME: Im123_stg1c-J
PATH & FILENAME: S:\DESIGN\0650208\123\Final\sheet\stg1c.dgn

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Luvainist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 138 OF 872 SHEETS







STAGING PLAN

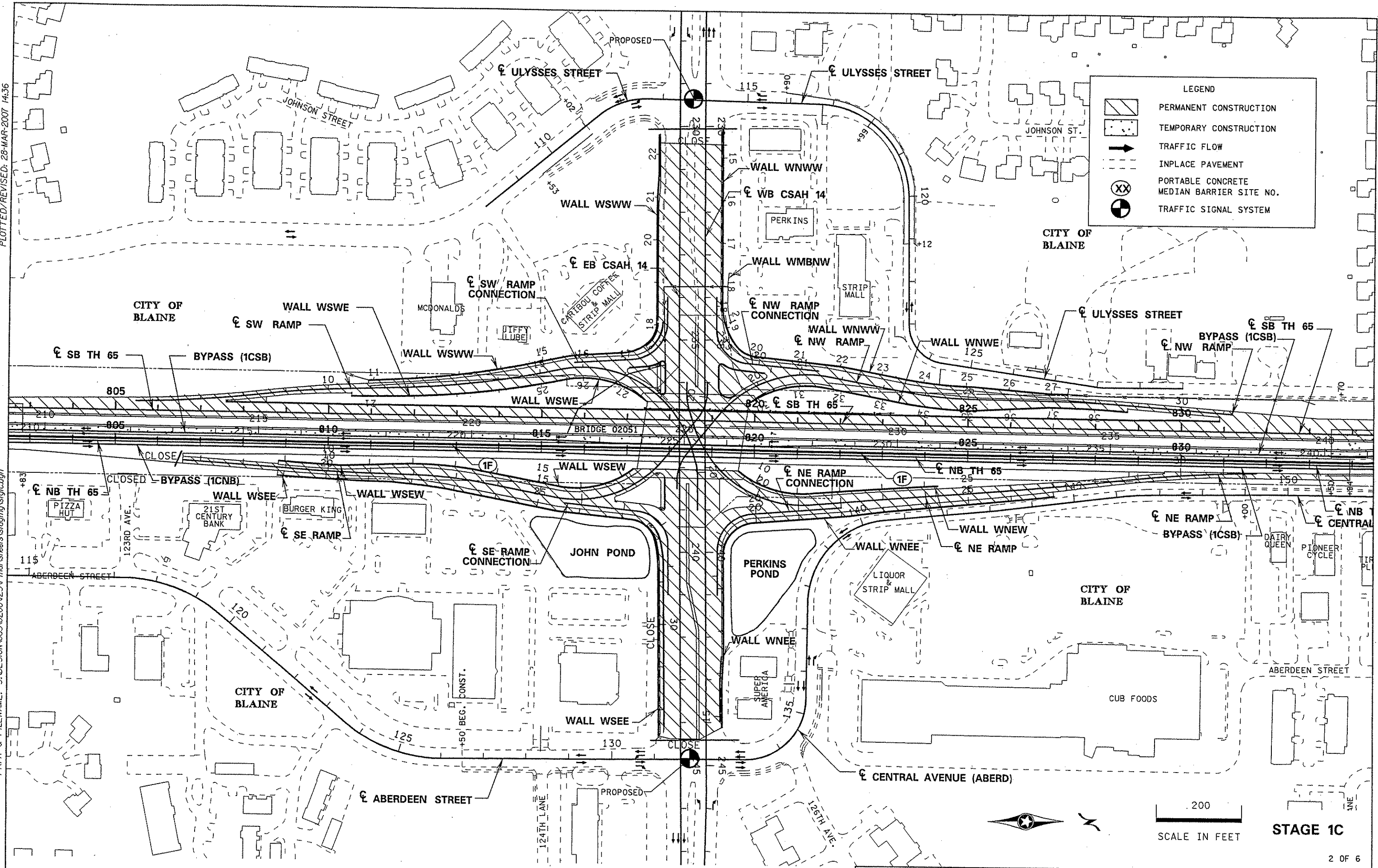
STAGE 1C
1 OF 6

PLOTTED/REVISED: 28-MAR-2007 14:36

DISTRICT #: METRO
PLOT NAME: Im-123_stg1c_2
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LEGEND

-  PERMANENT CONSTRUCTION
-  TEMPORARY CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
-  TRAFFIC SIGNAL SYSTEM

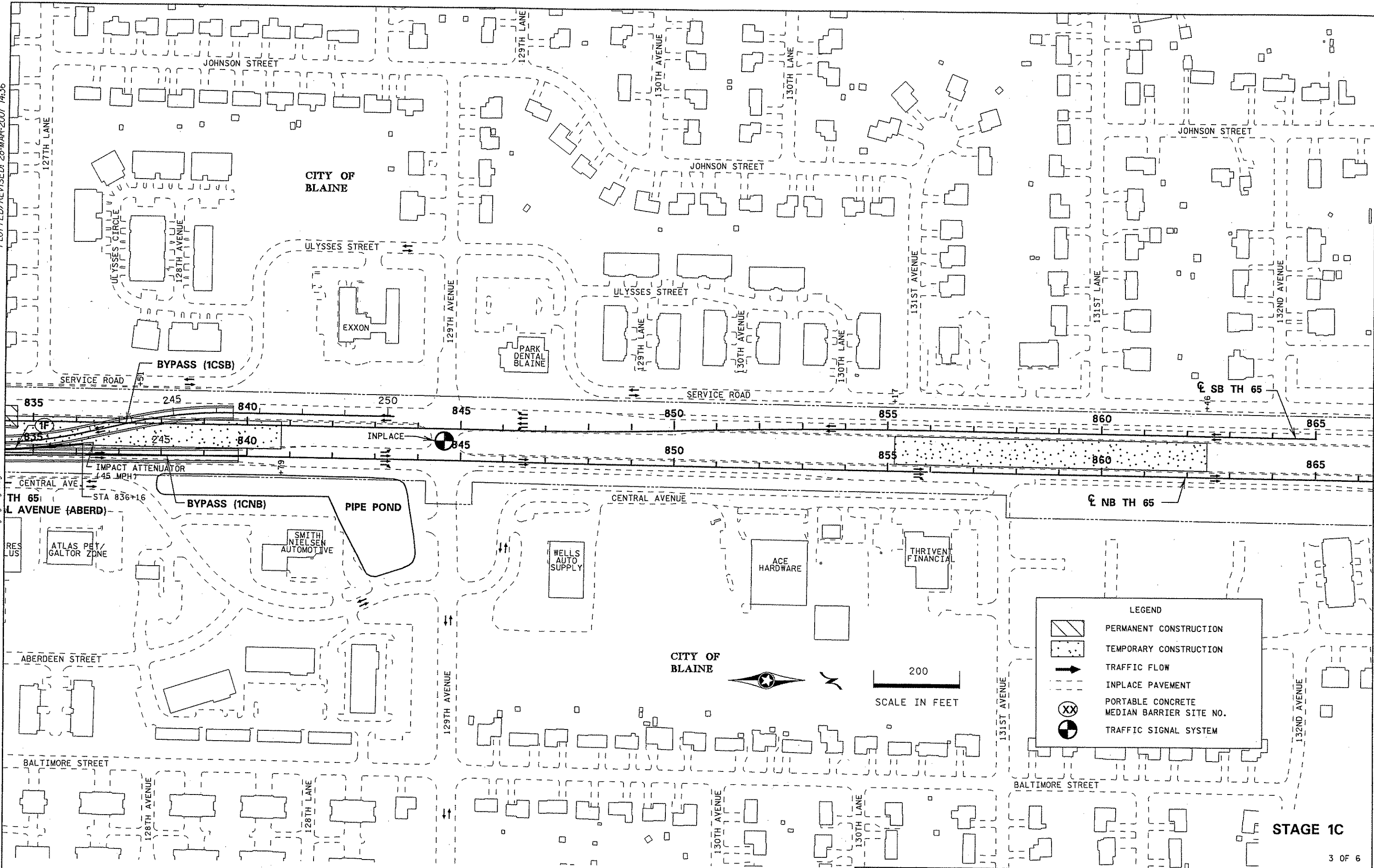


STAGE 1C

2 OF 6

PLOTTED/REVISED: 28-MAR-2007 14:36

DISTRICT #: METRO
PLOT NAME: Im-123.stgic_3
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\sheet\stgic_3.dgn



STAGE 1C

3 OF 6

STAGING PLAN

DRAWN BY: LM

CHECKED BY: DY

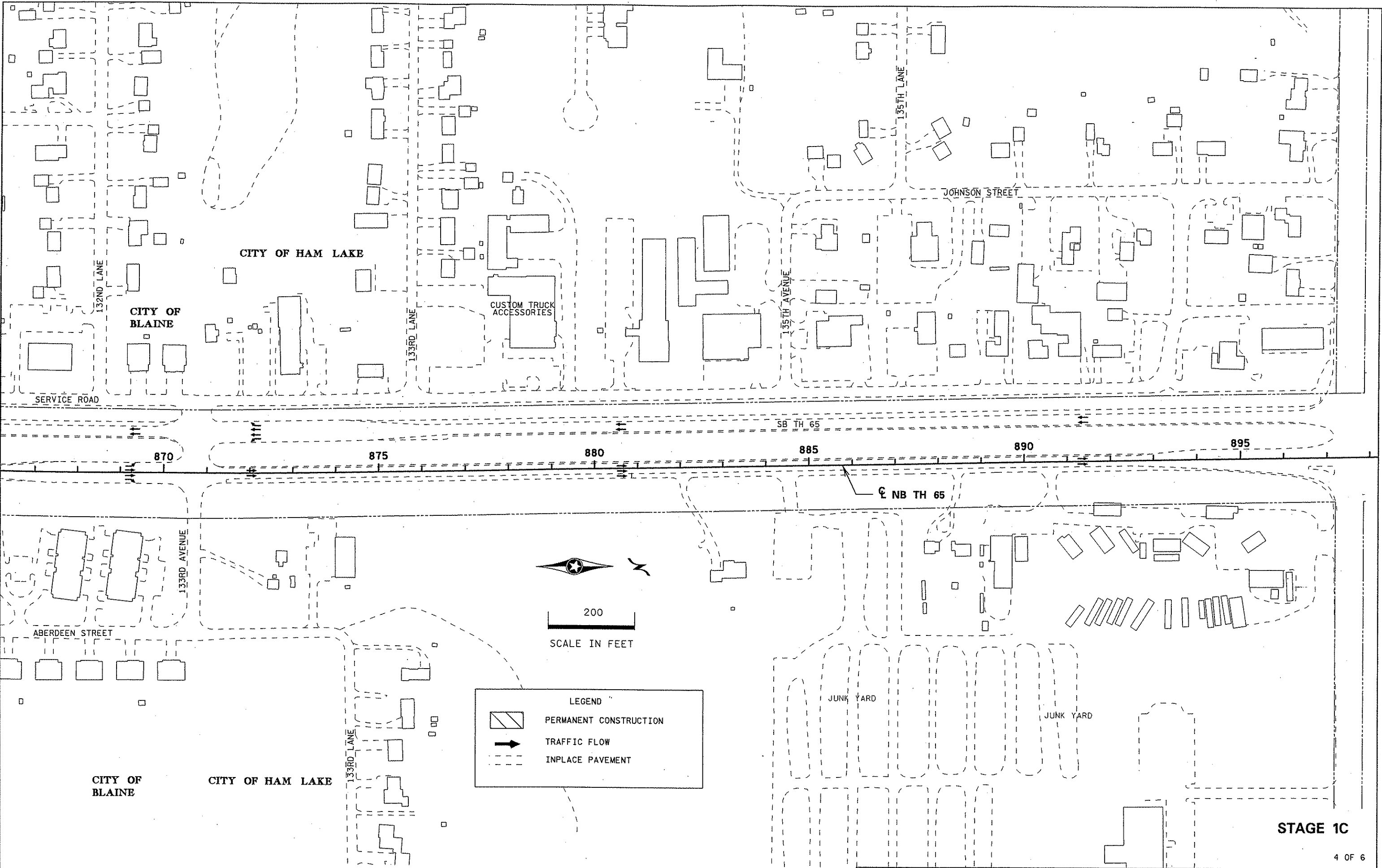
CERTIFIED BY *Josephine Lurkajust*

LIC. NO. 20534 DATE 4/4/07




STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 140 OF 872 SHEETS

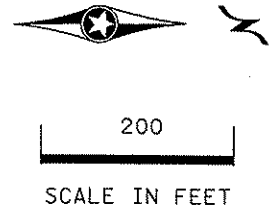
PLOTTED/REVISED: 31-JAN-2007 0802

DISTRICT #: METRO
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LEGEND

-  PERMANENT CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT



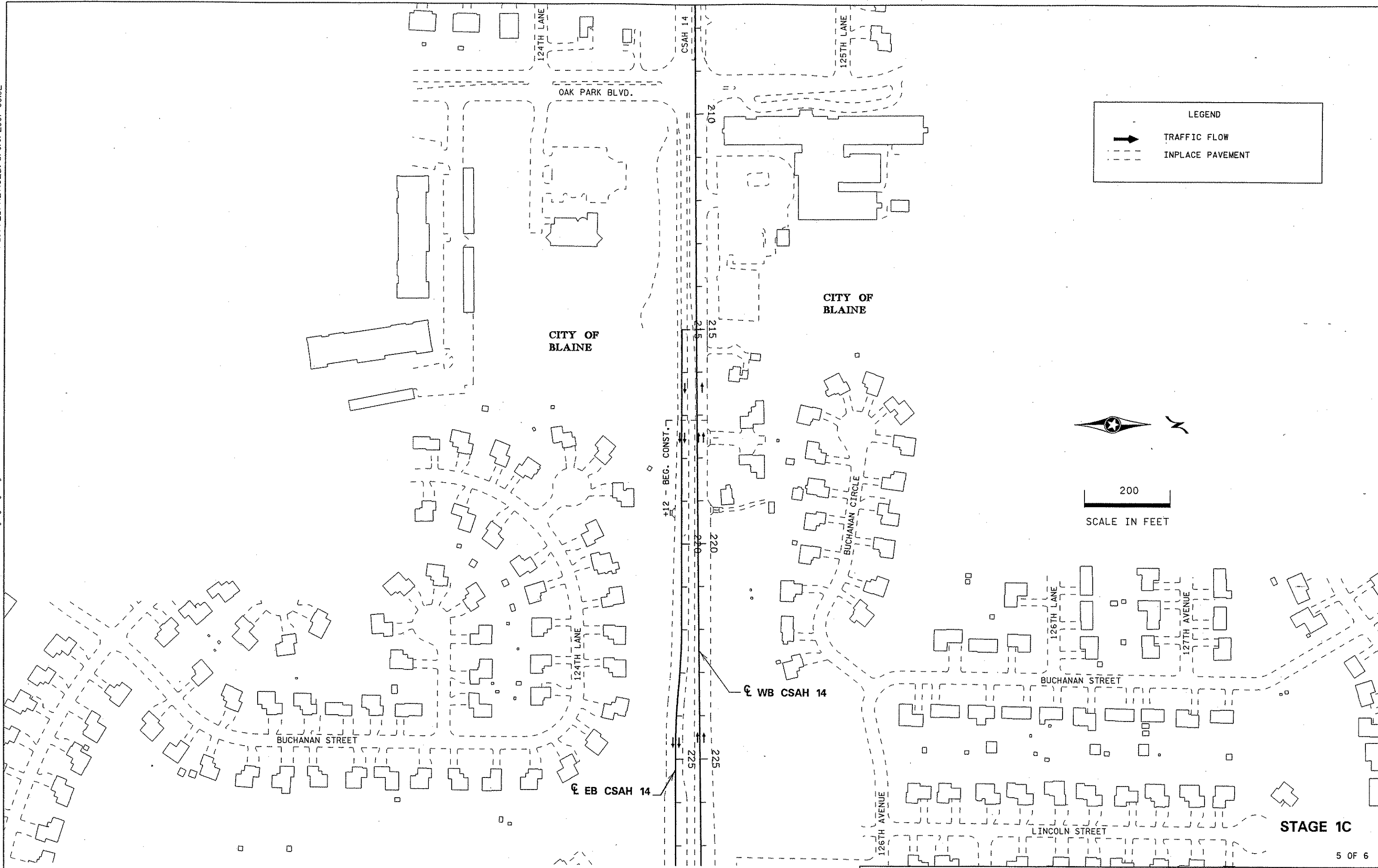
STAGE 1C

4 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:02

DISTRICT #: METRO
PLOT NAME: Im123_stg1c.5
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\steel\staging\stg1c.dgn



LEGEND

→ TRAFFIC FLOW

--- INPLACE PAVEMENT



200
SCALE IN FEET

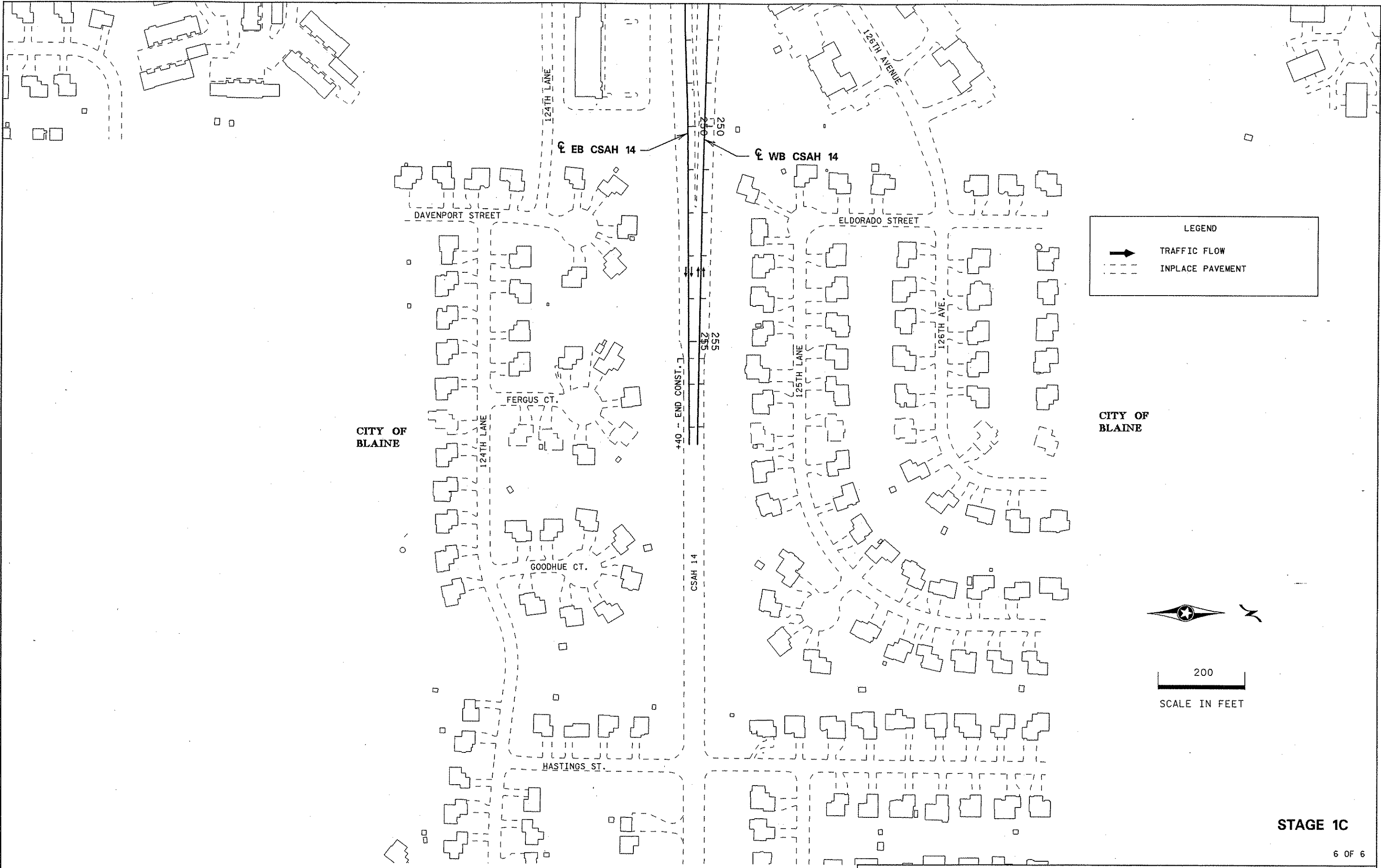
STAGE 1C

5 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:02

DISTRICT #: METRO
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LEGEND

→ TRAFFIC FLOW

- - - INPLACE PAVEMENT

200

SCALE IN FEET

STAGE 1C

6 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:02

STAGE 2A TRAFFIC

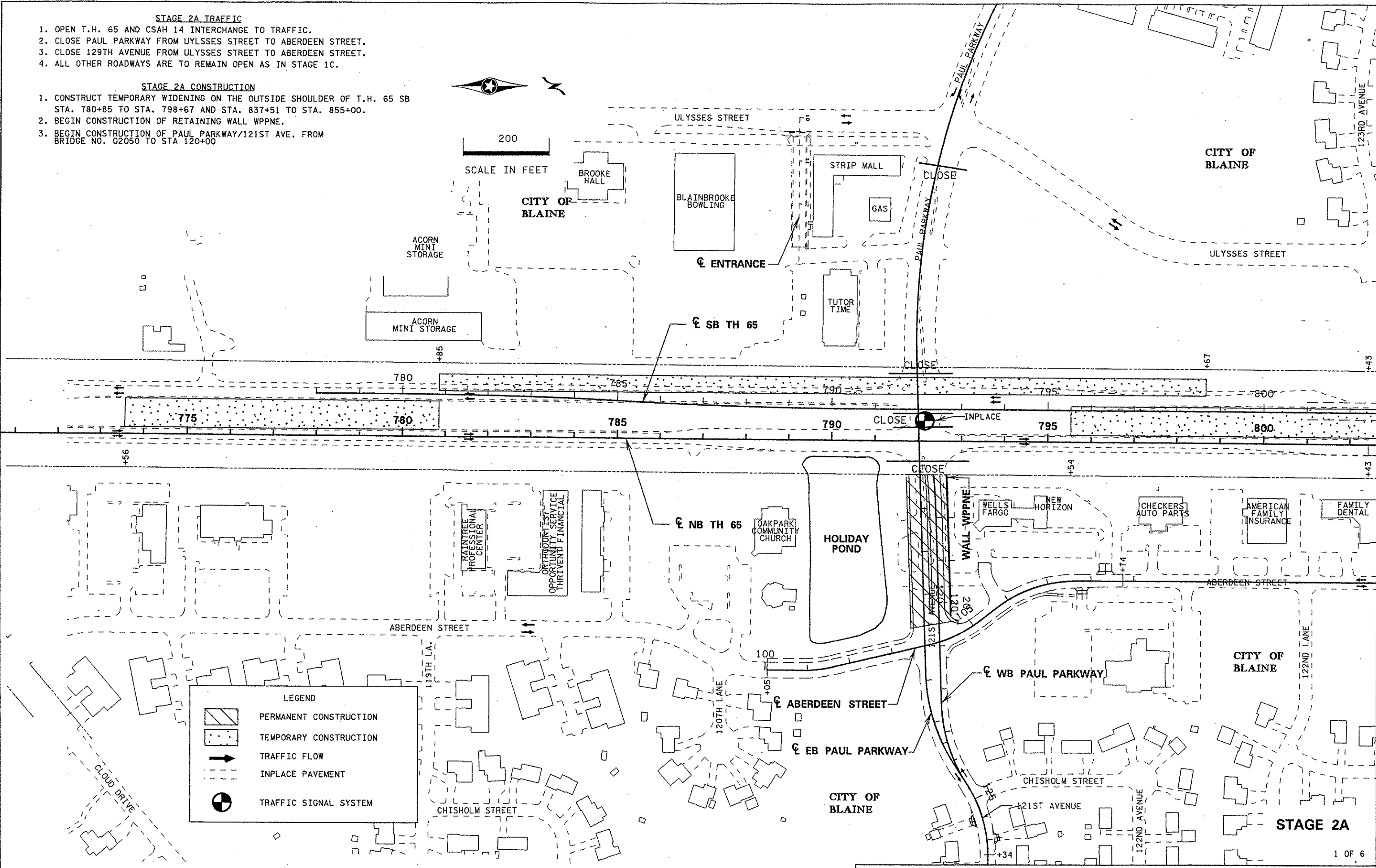
1. OPEN T.H. 65 AND CSAH 14 INTERCHANGE TO TRAFFIC.
2. CLOSE PAUL PARKWAY FROM ULYSSES STREET TO ABERDEEN STREET.
3. CLOSE 129TH AVENUE FROM ULYSSES STREET TO ABERDEEN STREET.
4. ALL OTHER ROADWAYS ARE TO REMAIN OPEN AS IN STAGE 1C.

STAGE 2A CONSTRUCTION

1. CONSTRUCT TEMPORARY WIDENING ON THE OUTSIDE SHOULDER OF T.H. 65 SB STA. 780+85 TO STA. 798+67 AND STA. 837+51 TO STA. 855+00.
2. BEGIN CONSTRUCTION OF RETAINING WALL WPPNE.
3. BEGIN CONSTRUCTION OF PAUL PARKWAY/121ST AVE. FROM BRIDGE NO. 02050 TO STA 120+00



200
SCALE IN FEET



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- TRAFFIC SIGNAL SYSTEM

DISTRICT #: METRO
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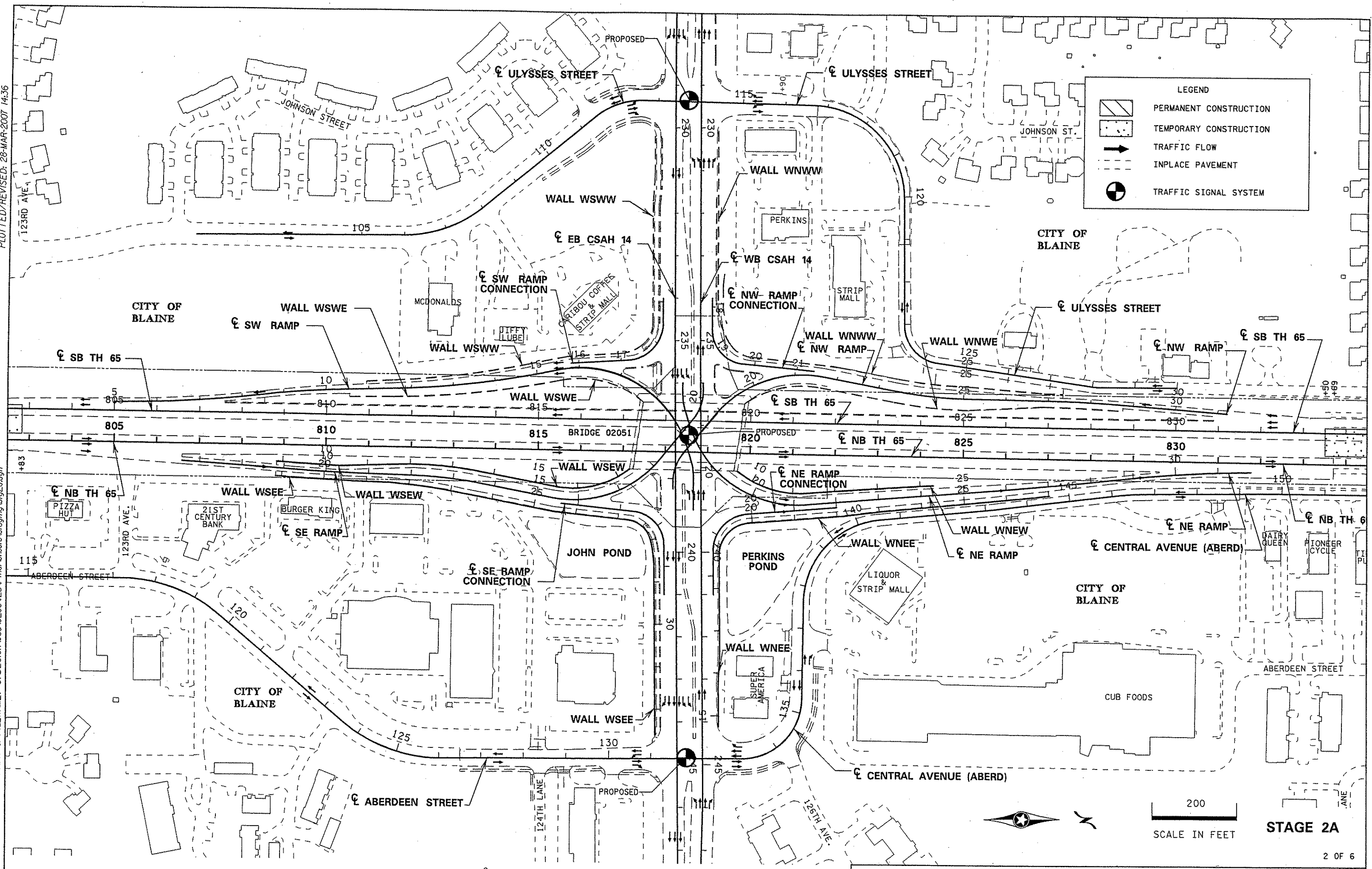
STAGING PLAN

PLOTTED/REVISED: 28-MAR-2007 14:36

DISTRICT #: METRO
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LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- TRAFFIC SIGNAL SYSTEM

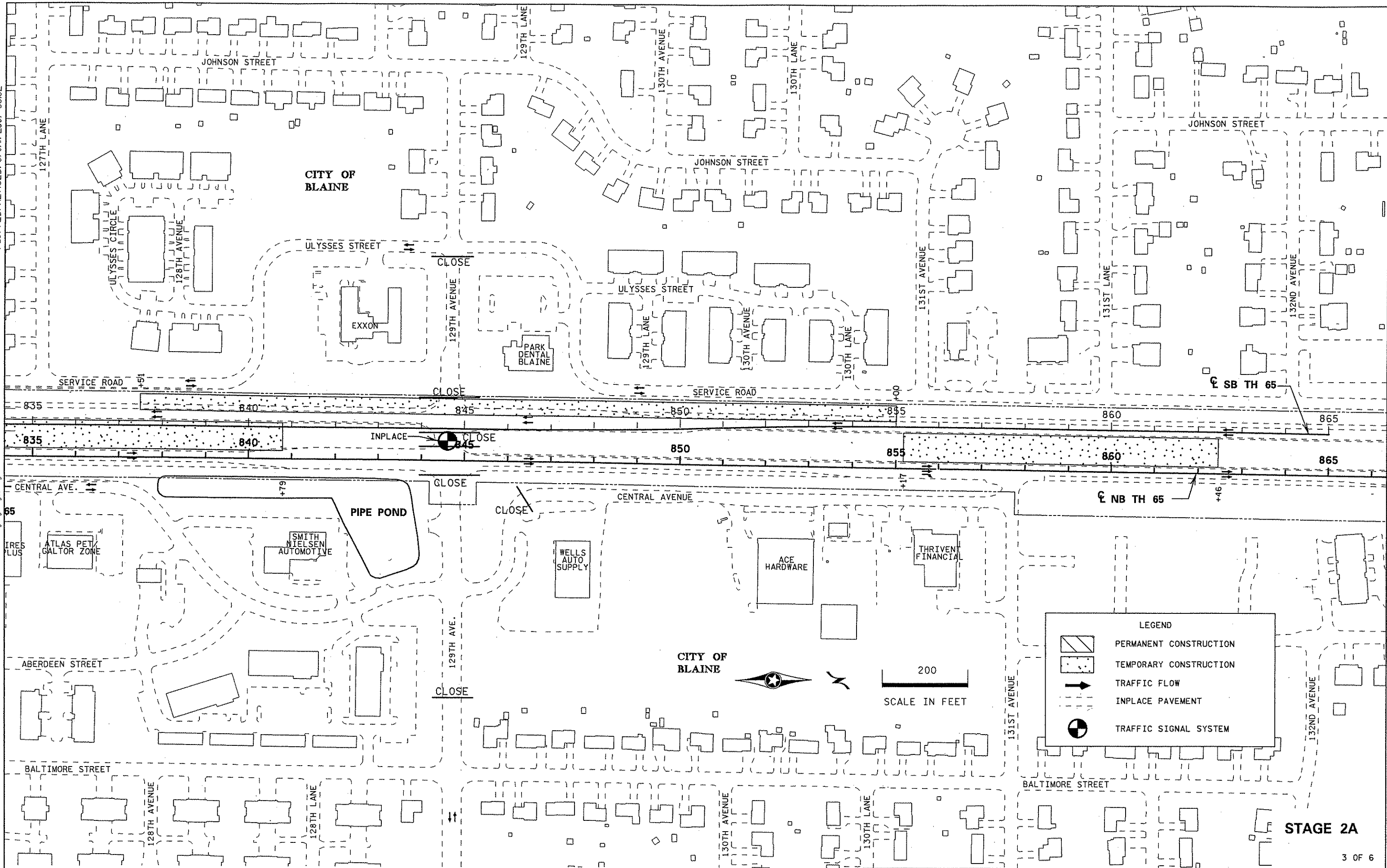


STAGE 2A






2 OF 6

PLOTTED/REVISED: 31-JAN-2007 06:02

DISTRICT #: METRO
IPLOT NAME: 1m-123_sfg2a_3
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\sheet\staging\stg2a.dgn



LEGEND

-  PERMANENT CONSTRUCTION
-  TEMPORARY CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

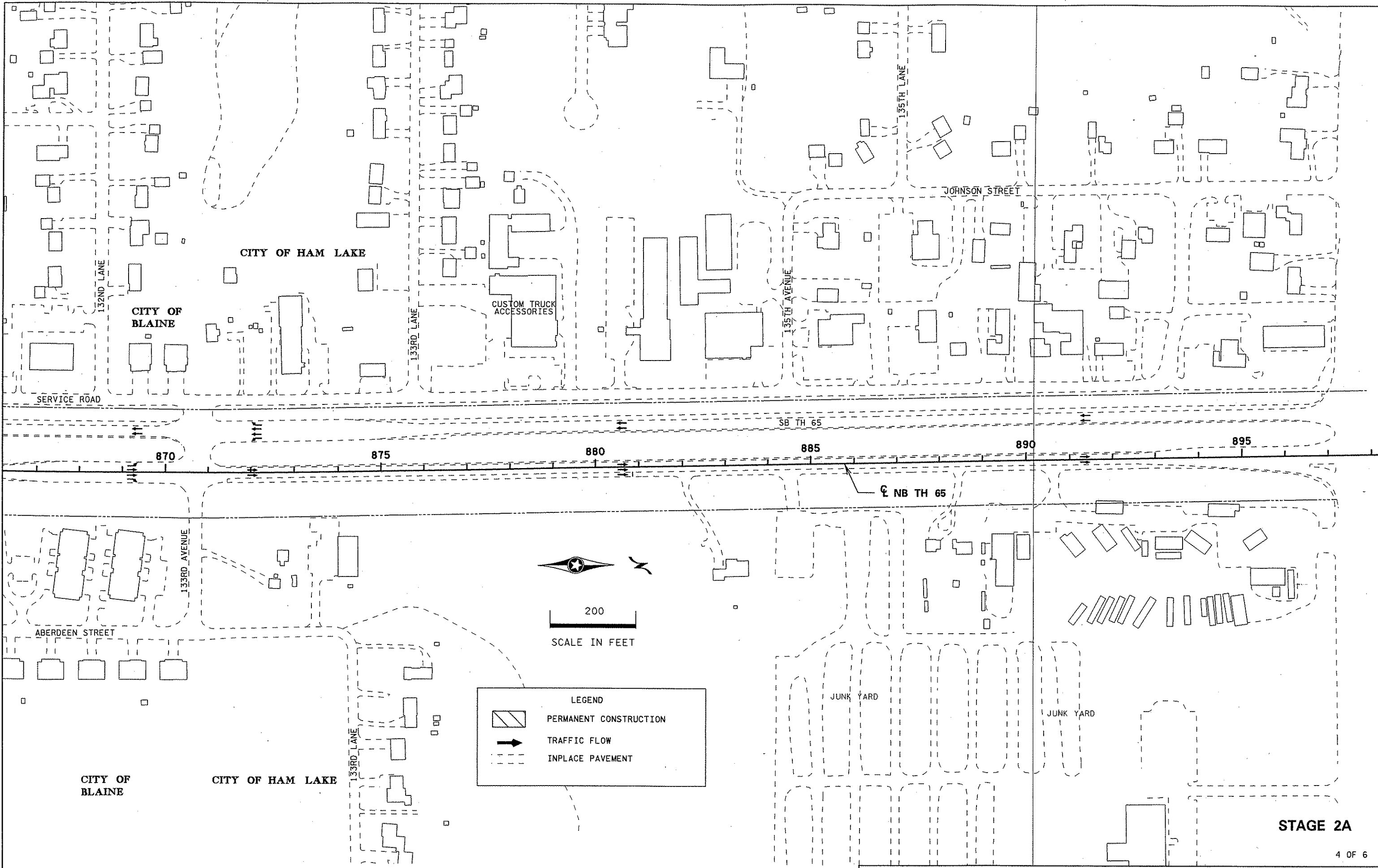
STAGE 2A

3 OF 6




STAGING PLAN

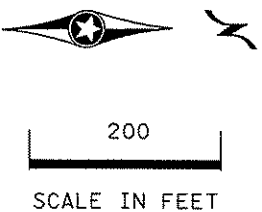
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LEGEND

-  PERMANENT CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT



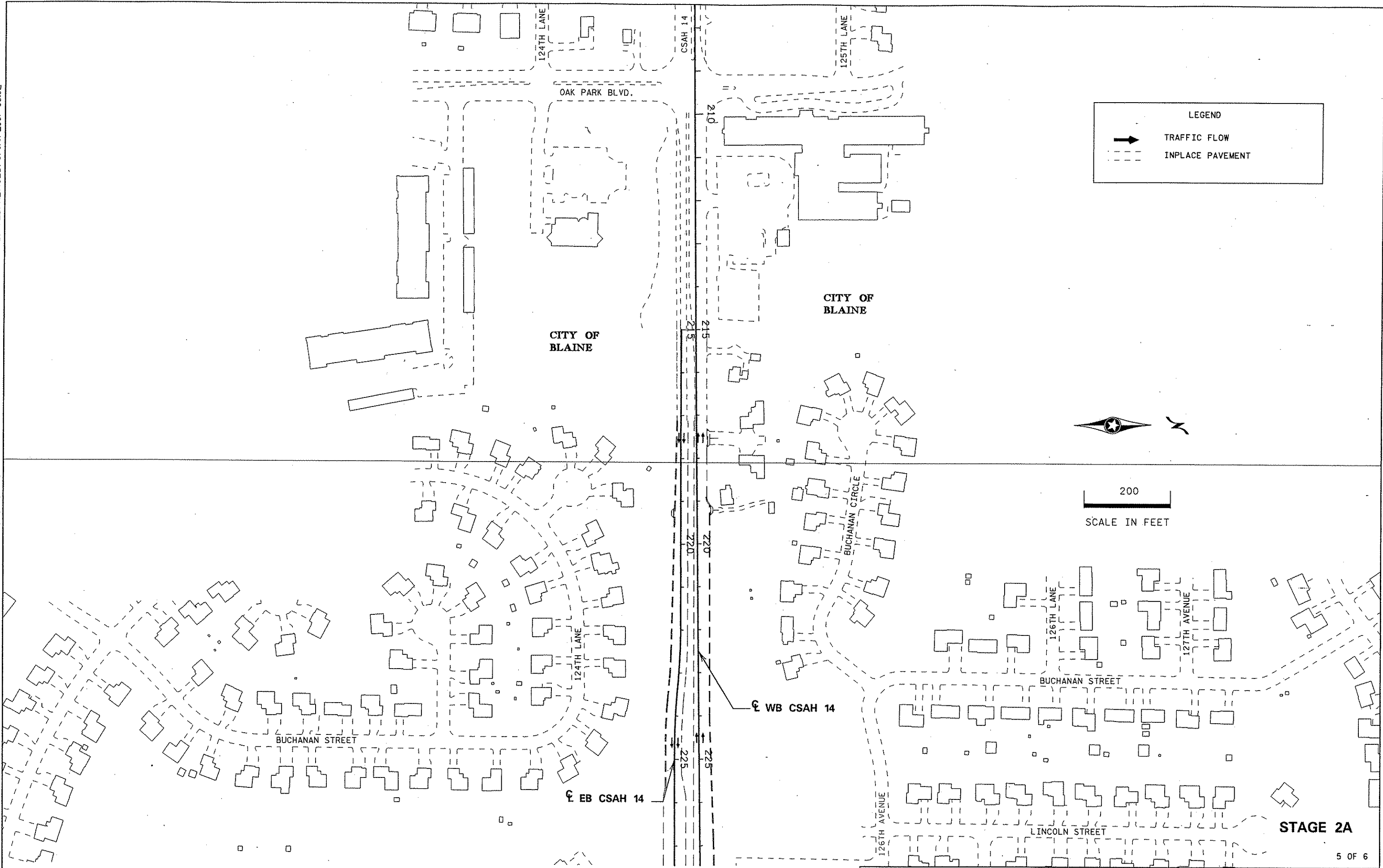
STAGE 2A

4 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:02

DISTRICT #: METRO
PLOT NAME: Im-123_sfg2a_5
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LEGEND

→ TRAFFIC FLOW

- - - INPLACE PAVEMENT



200
SCALE IN FEET

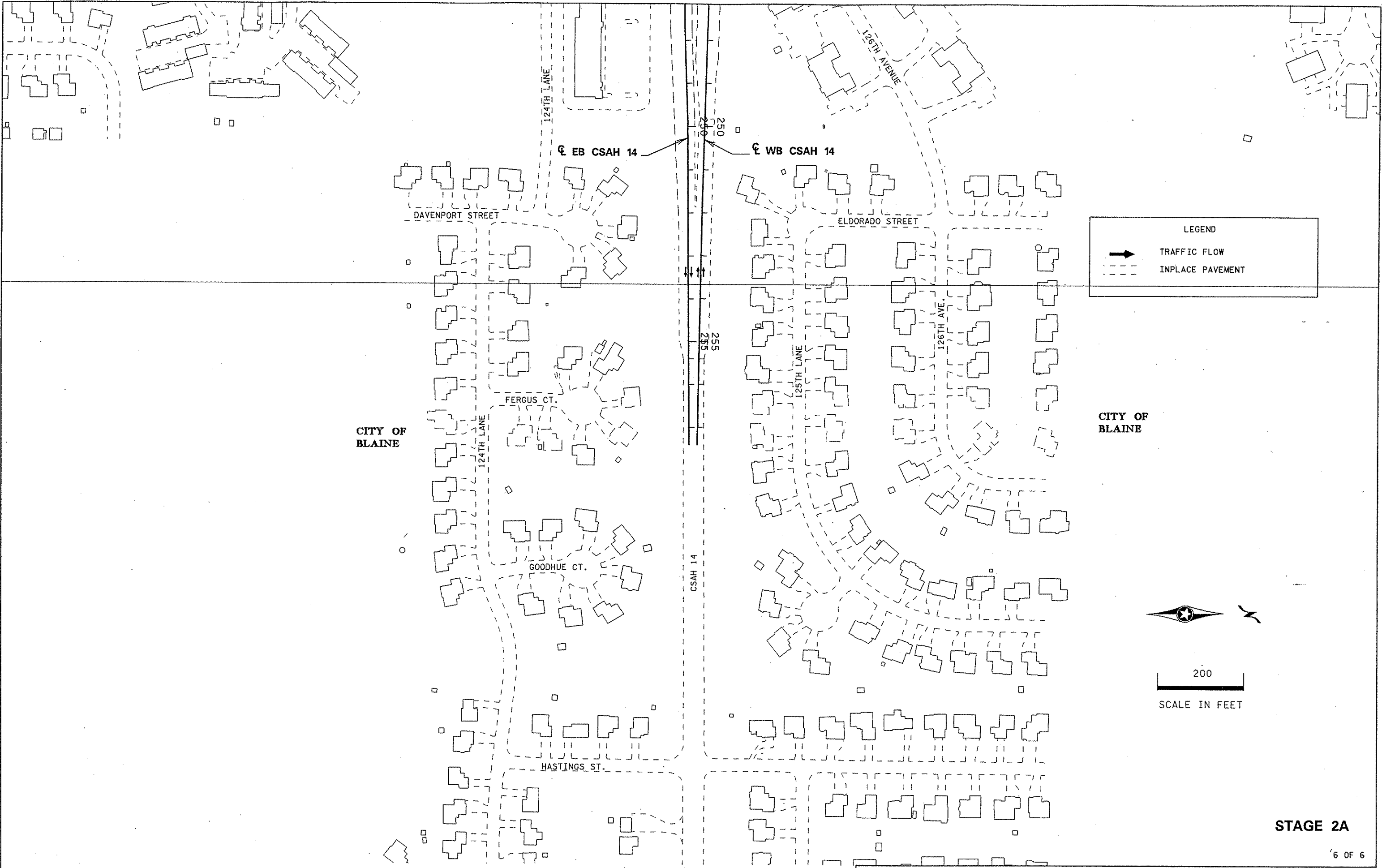
STAGE 2A

5 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:02

DISTRICT #: METRO
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PATH & FILENAME: S:\DESIGN\065\0208\123\Final\sheetis\staging_sfg2a.dgn



LEGEND

→ TRAFFIC FLOW

- - - INPLACE PAVEMENT

200

SCALE IN FEET

STAGE 2A

6 OF 6

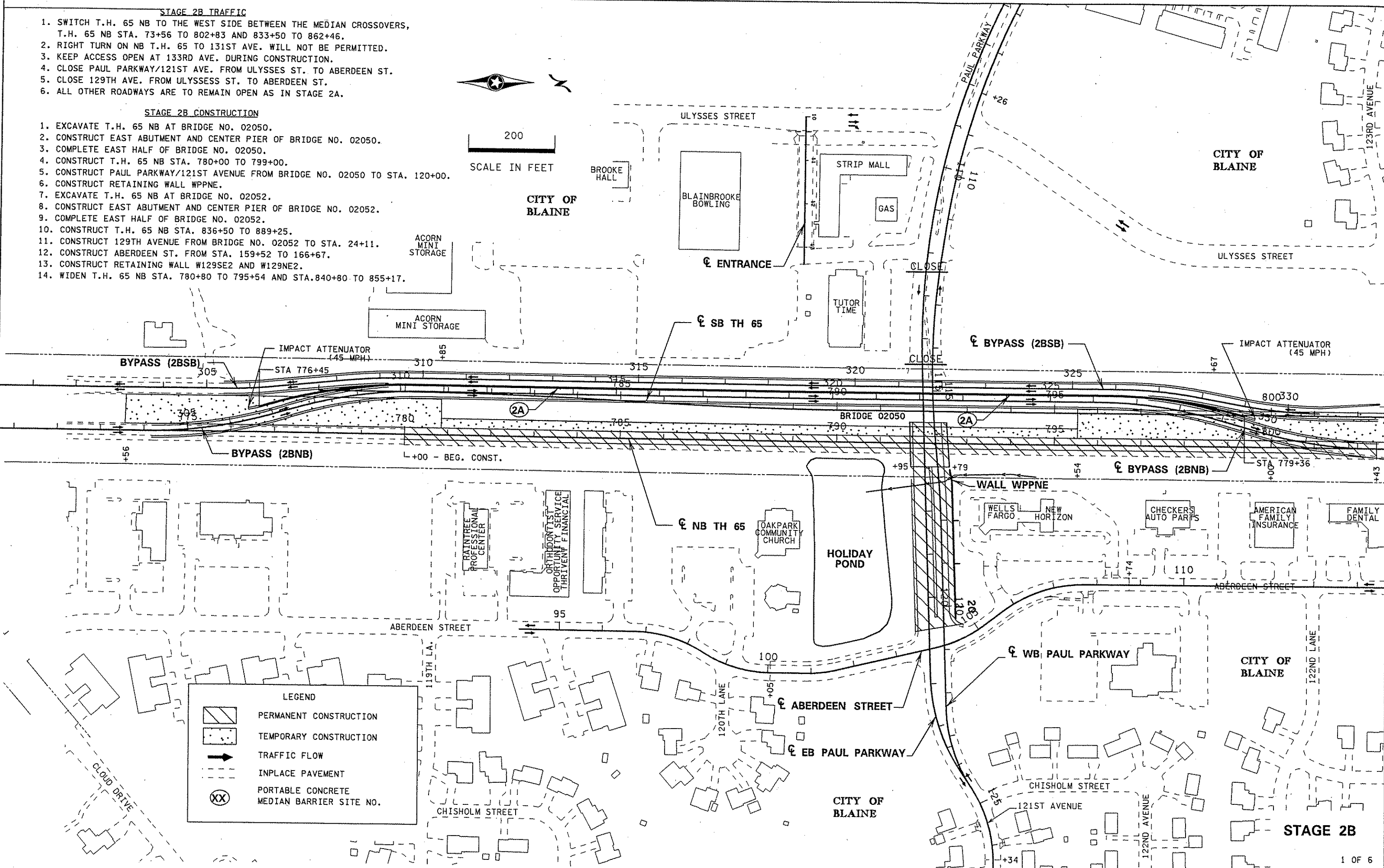
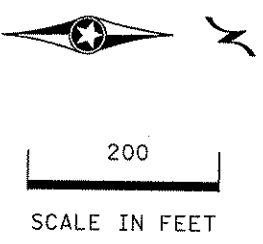
PLOTTED/REVISED: 28-MAR-2007 14:37

STAGE 2B TRAFFIC






1. SWITCH T.H. 65 NB TO THE WEST SIDE BETWEEN THE MEDIAN CROSSOVERS, T.H. 65 NB STA. 73+56 TO 802+83 AND 833+50 TO 862+46.
2. RIGHT TURN ON NB T.H. 65 TO 131ST AVE. WILL NOT BE PERMITTED.
3. KEEP ACCESS OPEN AT 133RD AVE. DURING CONSTRUCTION.
4. CLOSE PAUL PARKWAY/121ST AVE. FROM ULYSSES ST. TO ABERDEEN ST.
5. CLOSE 129TH AVE. FROM ULYSSES ST. TO ABERDEEN ST.
6. ALL OTHER ROADWAYS ARE TO REMAIN OPEN AS IN STAGE 2A.

STAGE 2B CONSTRUCTION

1. EXCAVATE T.H. 65 NB AT BRIDGE NO. 02050.
2. CONSTRUCT EAST ABUTMENT AND CENTER PIER OF BRIDGE NO. 02050.
3. COMPLETE EAST HALF OF BRIDGE NO. 02050.
4. CONSTRUCT T.H. 65 NB STA. 780+00 TO 799+00.
5. CONSTRUCT PAUL PARKWAY/121ST AVENUE FROM BRIDGE NO. 02050 TO STA. 120+00.
6. CONSTRUCT RETAINING WALL WPPNE.
7. EXCAVATE T.H. 65 NB AT BRIDGE NO. 02052.
8. CONSTRUCT EAST ABUTMENT AND CENTER PIER OF BRIDGE NO. 02052.
9. COMPLETE EAST HALF OF BRIDGE NO. 02052.
10. CONSTRUCT T.H. 65 NB STA. 836+50 TO 889+25.
11. CONSTRUCT 129TH AVENUE FROM BRIDGE NO. 02052 TO STA. 24+11.
12. CONSTRUCT ABERDEEN ST. FROM STA. 159+52 TO 166+67.
13. CONSTRUCT RETAINING WALL W129SE2 AND W129NE2.
14. WIDEN T.H. 65 NB STA. 780+80 TO 795+54 AND STA.840+80 TO 855+17.



LEGEND

-  PERMANENT CONSTRUCTION
-  TEMPORARY CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  PORTABLE CONCRETE MEDIAN BARRIER SITE NO.

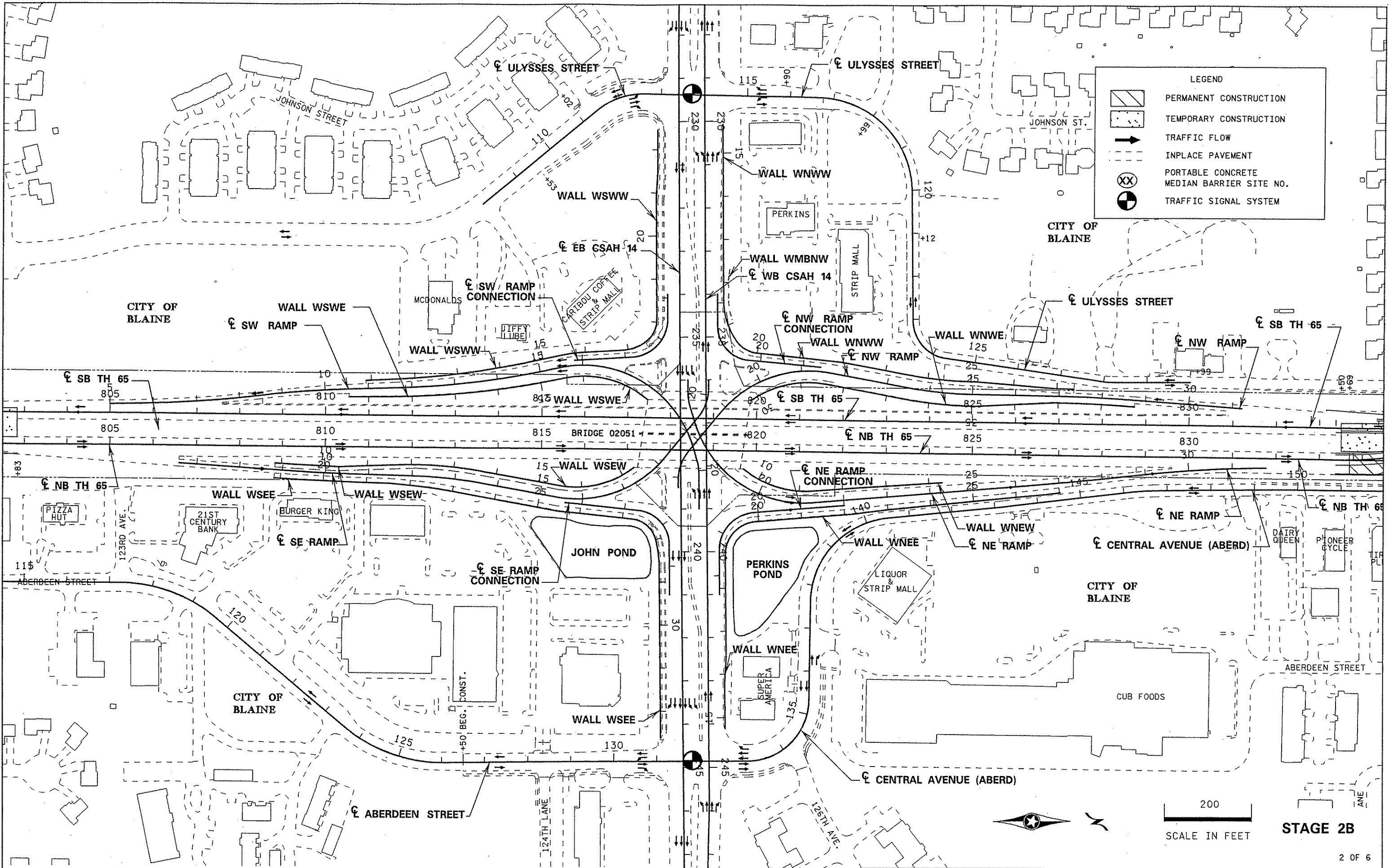
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STAGING PLAN

STAGE 2B

PLOTTED/REVISED: 02-FEB-2007 11:40

DISTRICT #: METRO
I/PLOT NAME: im-123_sfg2b_2
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\staging\stg2b.dgn



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
- TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

STAGE 2B

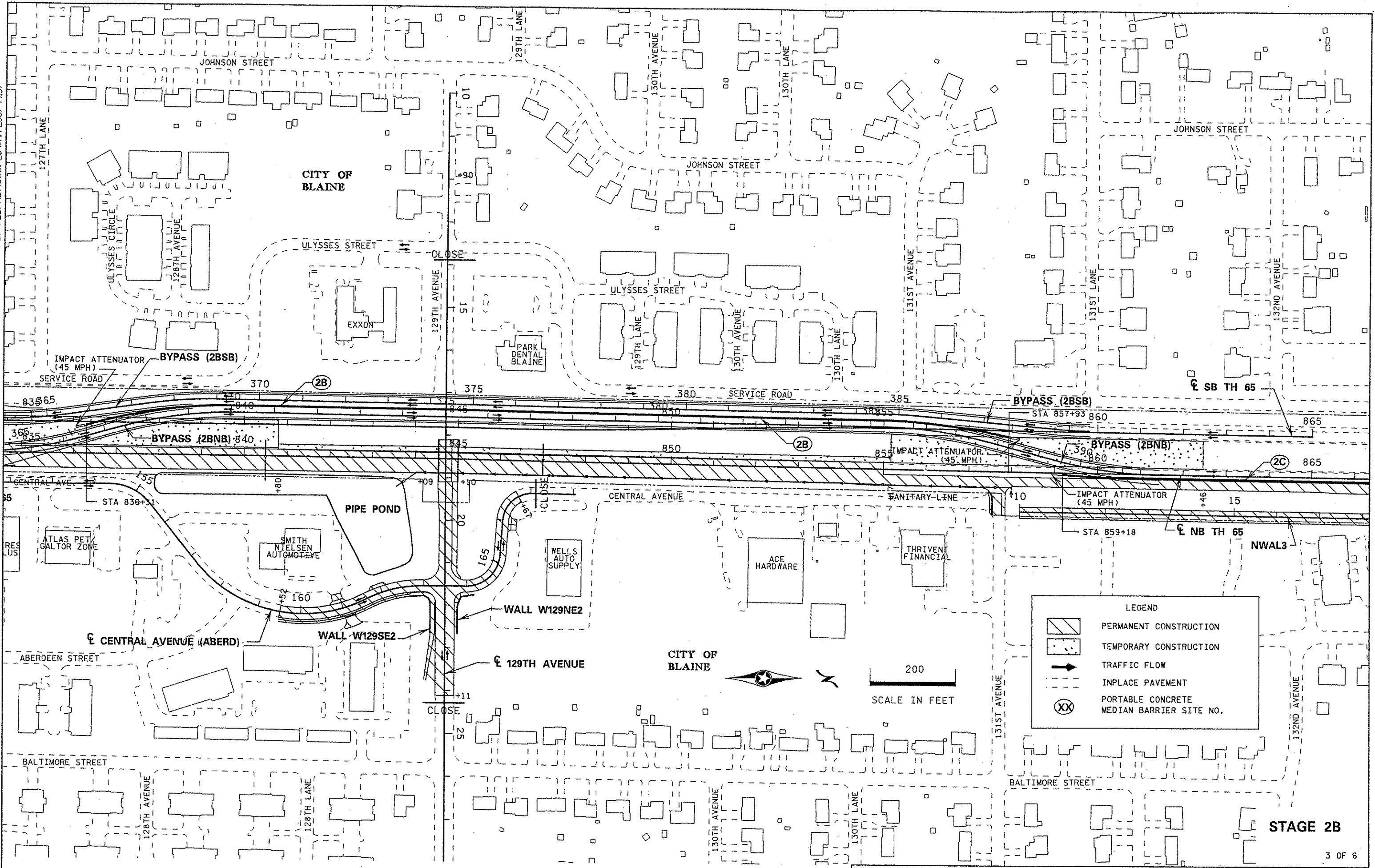
2 OF 6

STAGING PLAN






DRAWN BY: LM CHECKED BY: DY CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE 2/2/07 STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 151 OF 872 SHEETS

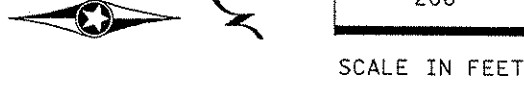
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DISTRICT: METRO
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LEGEND

-  PERMANENT CONSTRUCTION
-  TEMPORARY CONSTRUCTION
-  TRAFFIC FLOW
-  INPLACE PAVEMENT
-  PORTABLE CONCRETE MEDIAN BARRIER SITE NO.



STAGE 2B

3 OF 6

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

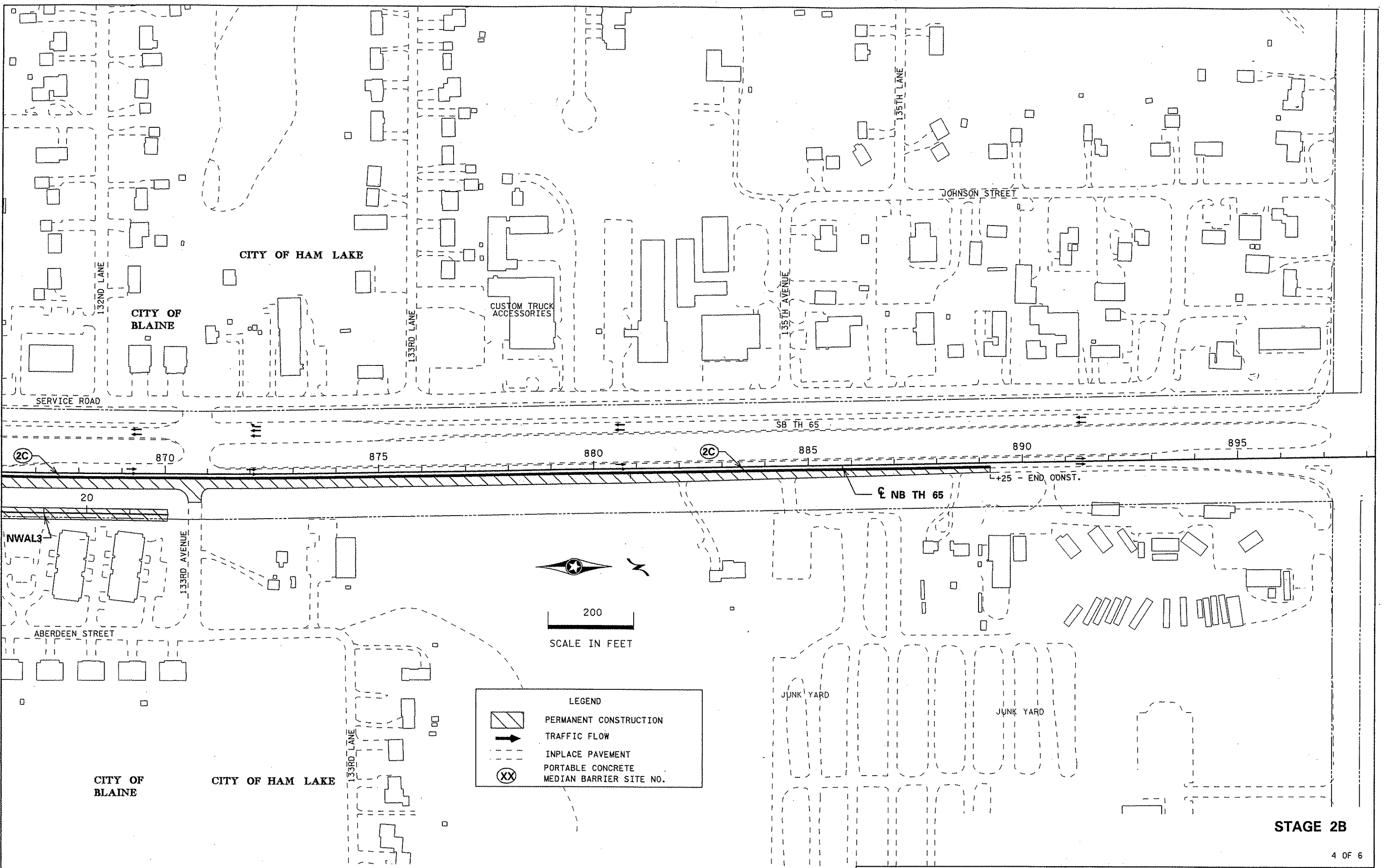
LIC. NO. 20534 DATE 4/4/07

STAGING PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 152 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:02

DISTRICT #: METRO
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STAGE 2B

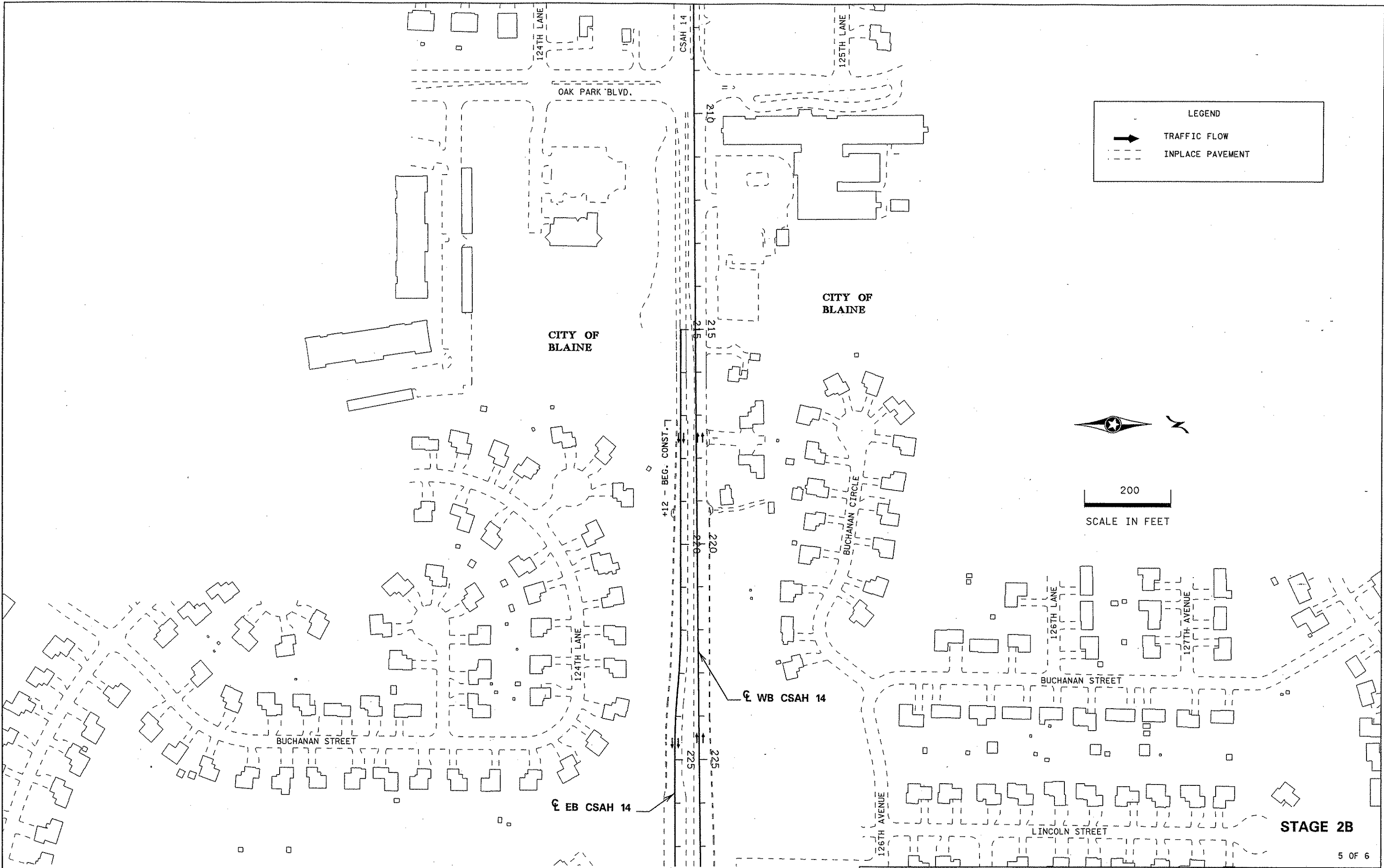
4 OF 6

STAGING PLAN

DRAWN BY: LM	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 20534	DATE 2/20/07	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 153 OF 872 SHEETS
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PLOTTED/REVISED: 31-JAN-2007 08:03

DISTRICT #: METRO
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LEGEND

→ TRAFFIC FLOW

- - - INPLACE PAVEMENT

200

SCALE IN FEET

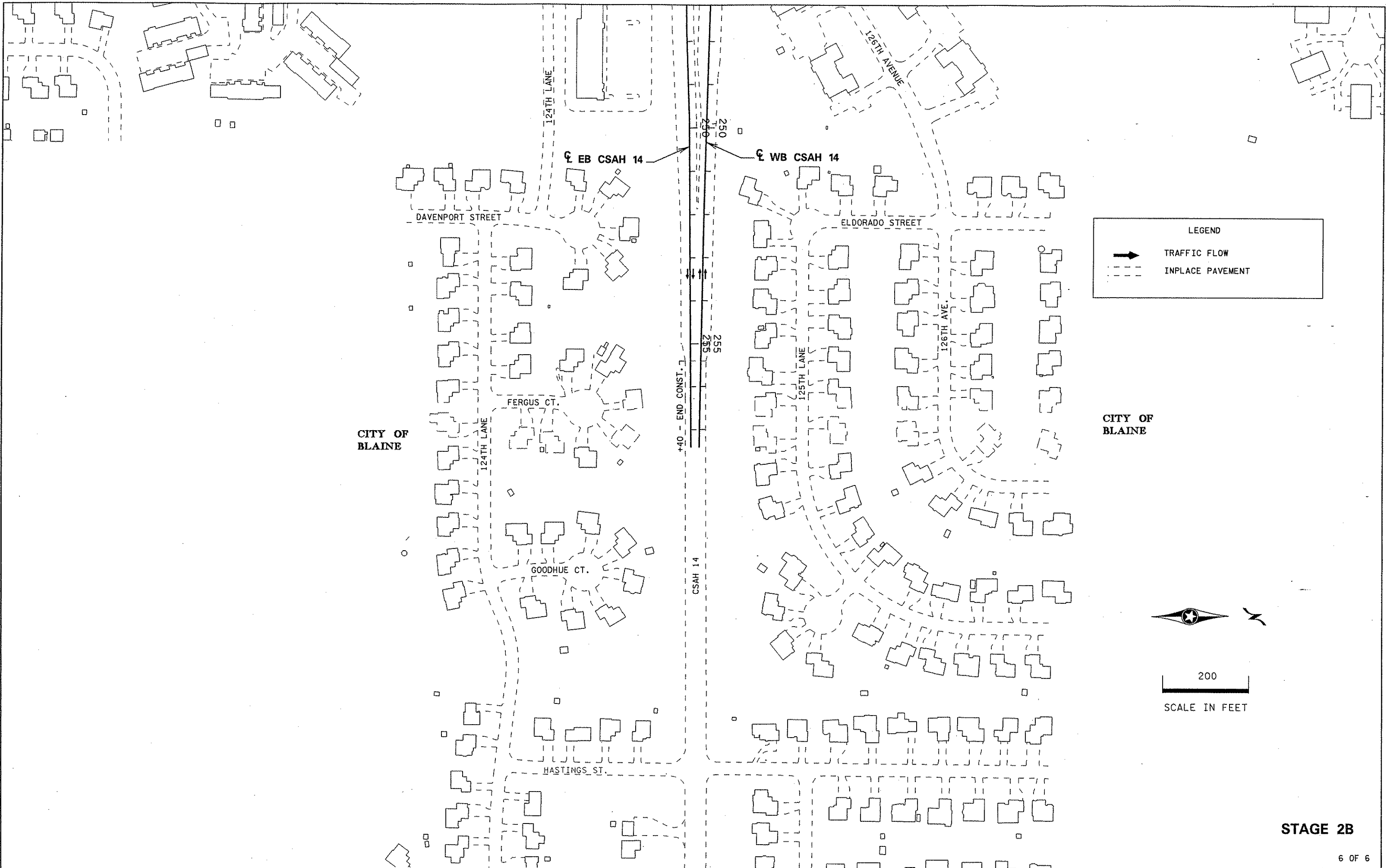
STAGE 2B

5 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:03

DISTRICT #: METRO
PLOT NAME: Im-123_stg2b.6
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STAGING PLAN

STAGE 2B

6 OF 6

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 155 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 14:37

STAGE 2C TRAFFIC

1. SWITCH T.H. 65 SB TO THE EAST SIDE BETWEEN THE MEDIAN CROSSOVERS, T.H. 65 NB STA. 773+56 TO 802+83 AND 833+50 TO 862+46.
2. OPEN ACCESS AT 131ST AVENUE.
3. ALL OTHER ROADWAYS ARE TO REMAIN OPEN AS IN STAGE 2B.

STAGE 2C CONSTRUCTION

1. EXCAVATE T.H. 65 SB AT BRIDGE NO. 02050.
2. CONSTRUCT WEST ABUMENT OF BRIDGE NO. 02050.
3. COMPLETE WEST HALF OF BRIDGE NO. 02050.
4. CONSTRUCT T.H. 65 SB STA. 780+00 TO 799+00.
5. CONSTRUCT PAUL PARKWAY FROM STA. 106+26 TO BRIDGE NO. 02050.
6. CONSTRUCT RETAINING WALLS WPPSW AND WPPNW.
7. EXCAVATE T.H. 65 SB AT BRIDGE NO. 02052.
8. CONSTRUCT WEST ABUTMENT OF BRIDGE NO. 02052.
9. COMPLETE WEST HALF OF BRIDGE NO. 02052.
10. CONSTRUCT T.H. 65 SB STA. 836+50 TO 855+00.
11. CONSTRUCT 129TH AVENUE STA. 11+90 TO BRIDGE NO. 02052.
12. CONSTRUCT RETAINING WALLS W129SW AND W129NW.
13. REMOVE BYPASSES AND WIDENING.



200
SCALE IN FEET

CITY OF
BLAINE

CITY OF
BLAINE

CITY OF
BLAINE

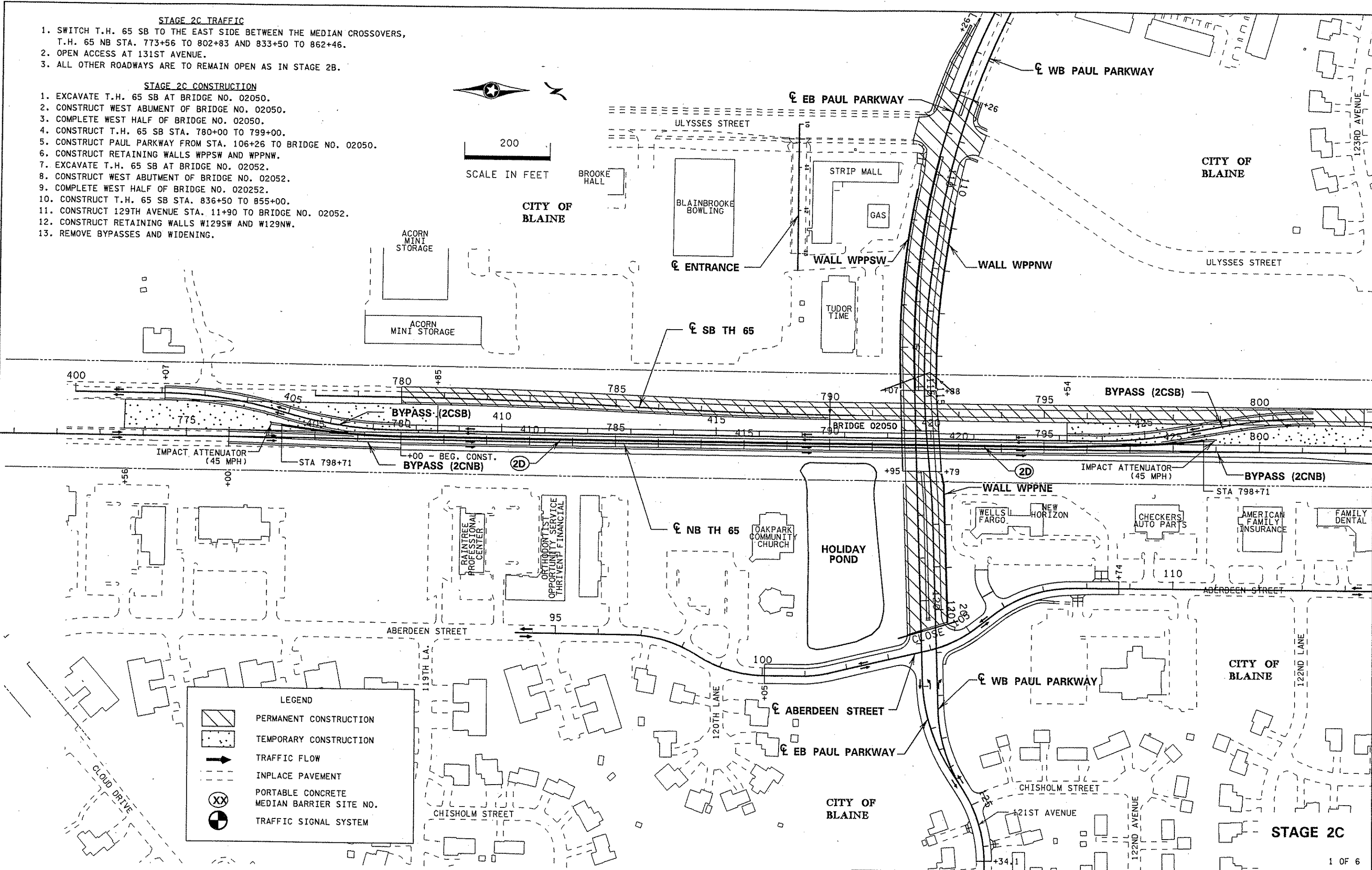
CITY OF
BLAINE

CITY OF
BLAINE

LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE CONCRETE
- MEDIAN BARRIER SITE NO.
- TRAFFIC SIGNAL SYSTEM

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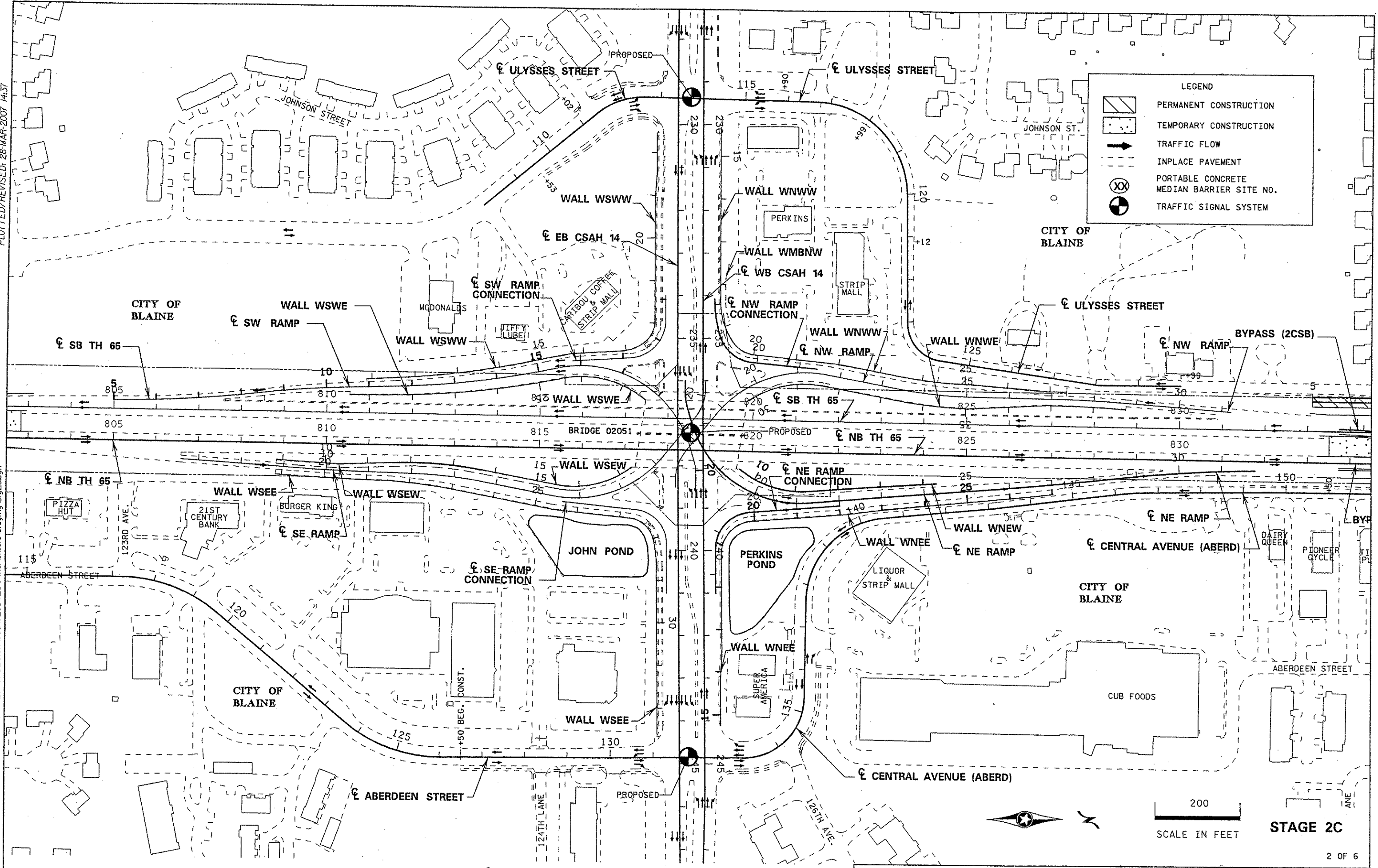
STAGE 2C

1 OF 6

STAGING PLAN

PLOTTED/REVISED: 28-MAR-2007 14:37

DISTRICT #: METRO
I/PLOT NAME: Im-123_s1g2c-2
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\sheet\staging\stg2c.dgn



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- TRAFFIC FLOW
- INPLACE PAVEMENT
- PORTABLE CONCRETE MEDIAN BARRIER SITE NO.
- TRAFFIC SIGNAL SYSTEM

200
SCALE IN FEET

STAGE 2C
2 OF 6

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Sanchez*
LICENSED PROFESSIONAL ENGINEER

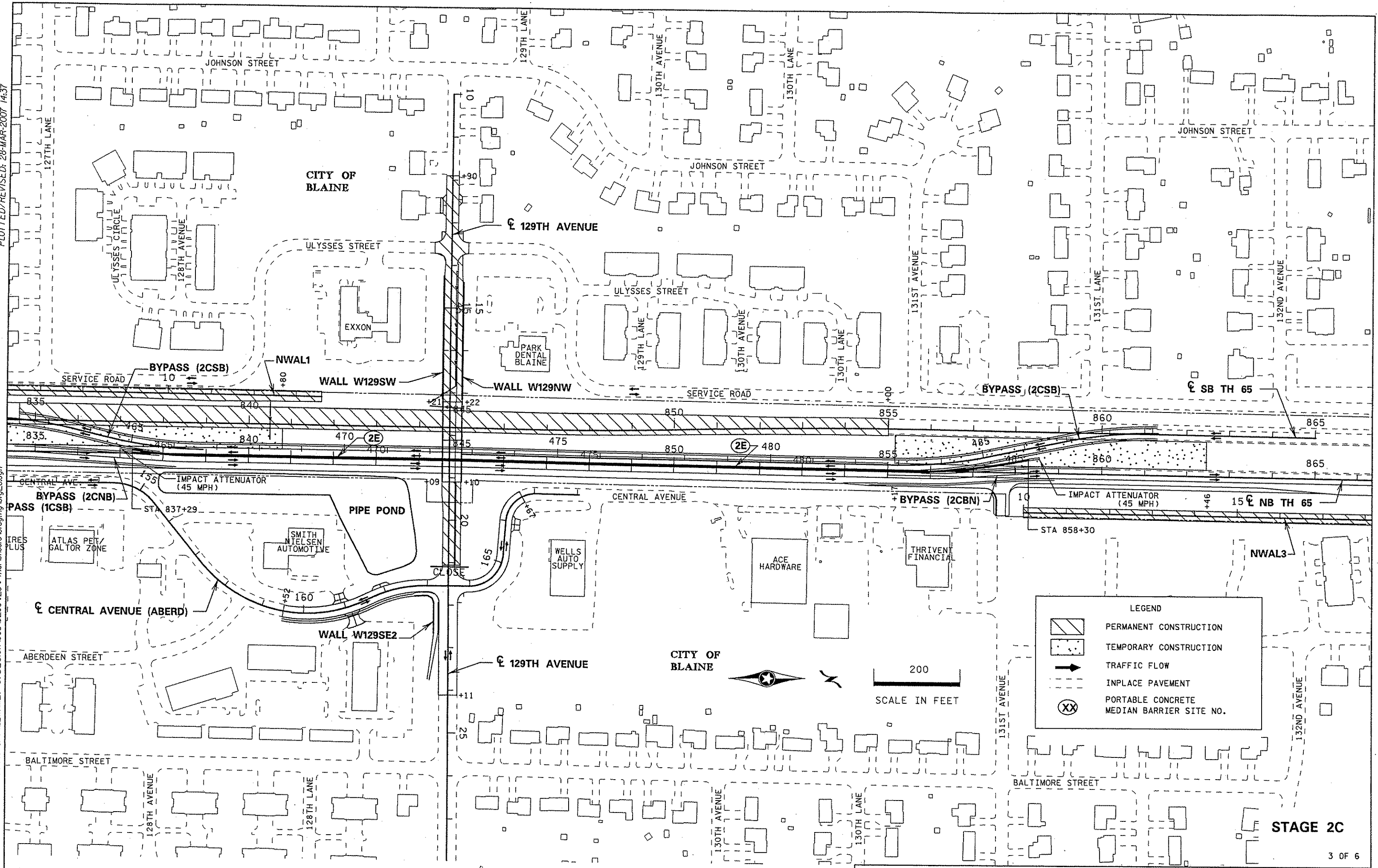
LIC. NO. 20534 DATE 4/4/07

STAGING PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 157 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 14:37

DISTRICT #: METRO
I/PLOT NAME: 1m-123_stg2c_3
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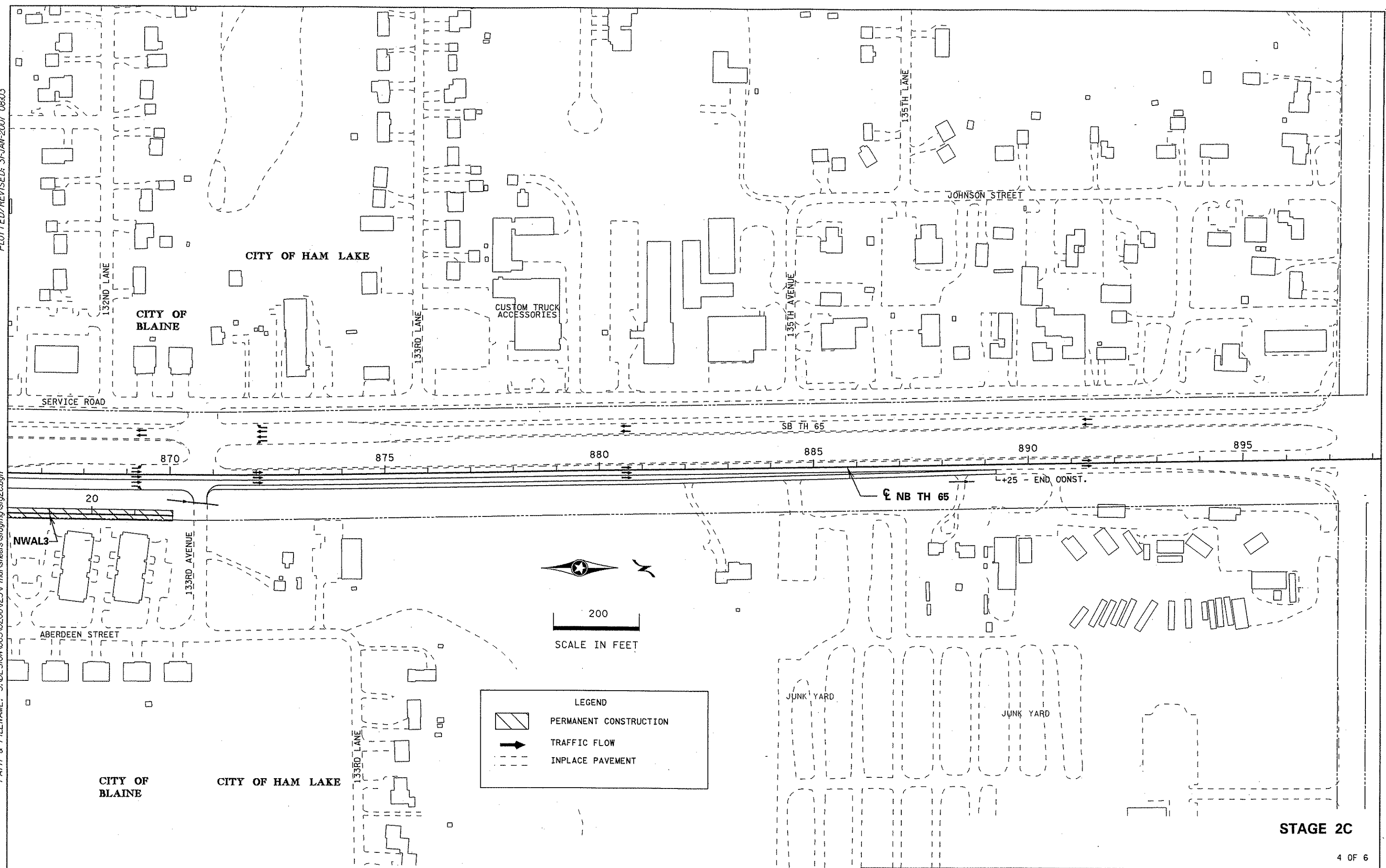
STAGE 2C

3 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:03

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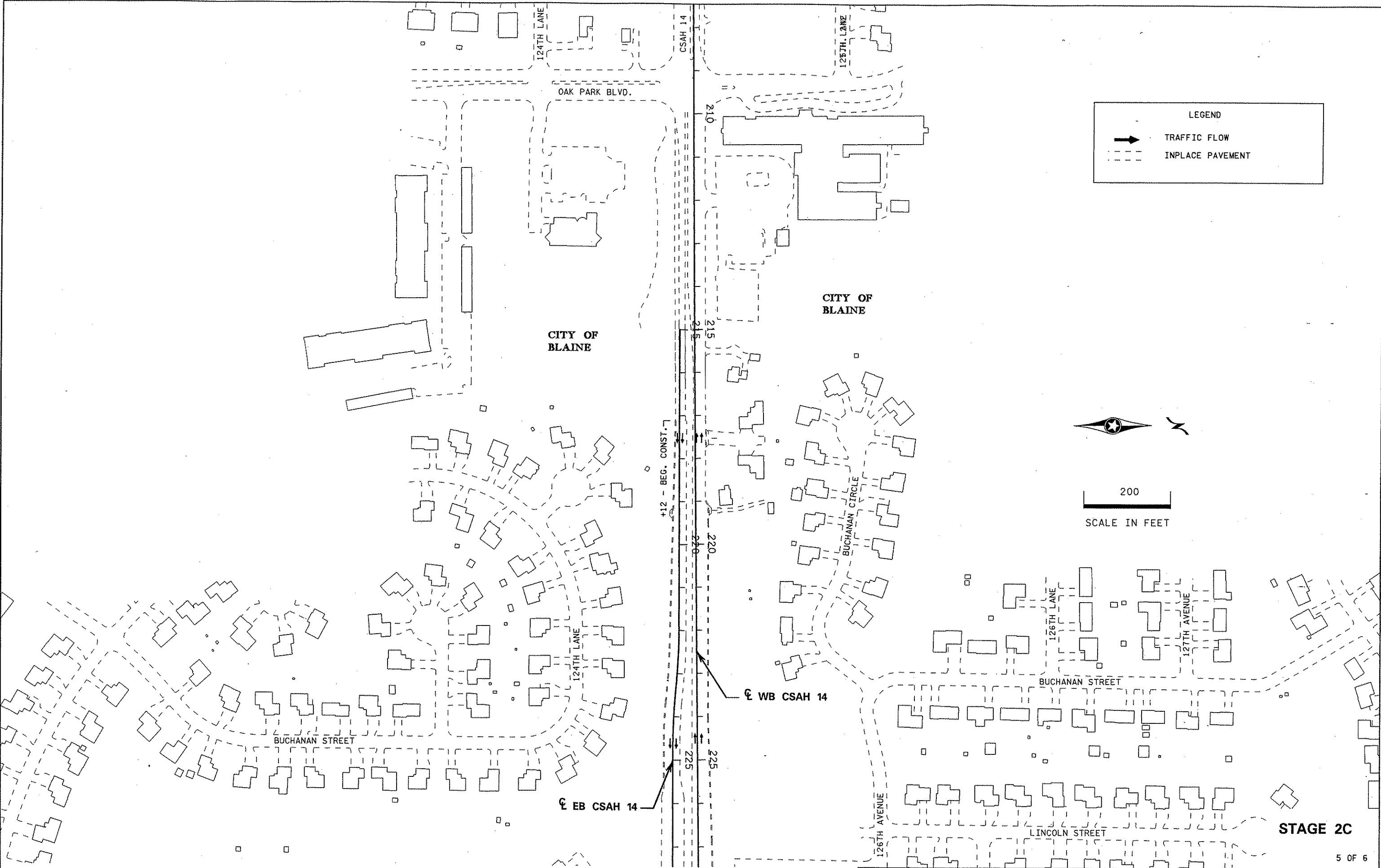
STAGE 2C

4 OF 6

STAGING PLAN

PLOTTED/REVISED: 31-JAN-2007 08:03

DISTRICT #: METRO
PLOT NAME: Im-i23_stg2c.5
PATH & FILENAME: S:\DE\SIGN\065\0208\123\Final\stheets\staging\stg2c.dgn



LEGEND

→ TRAFFIC FLOW

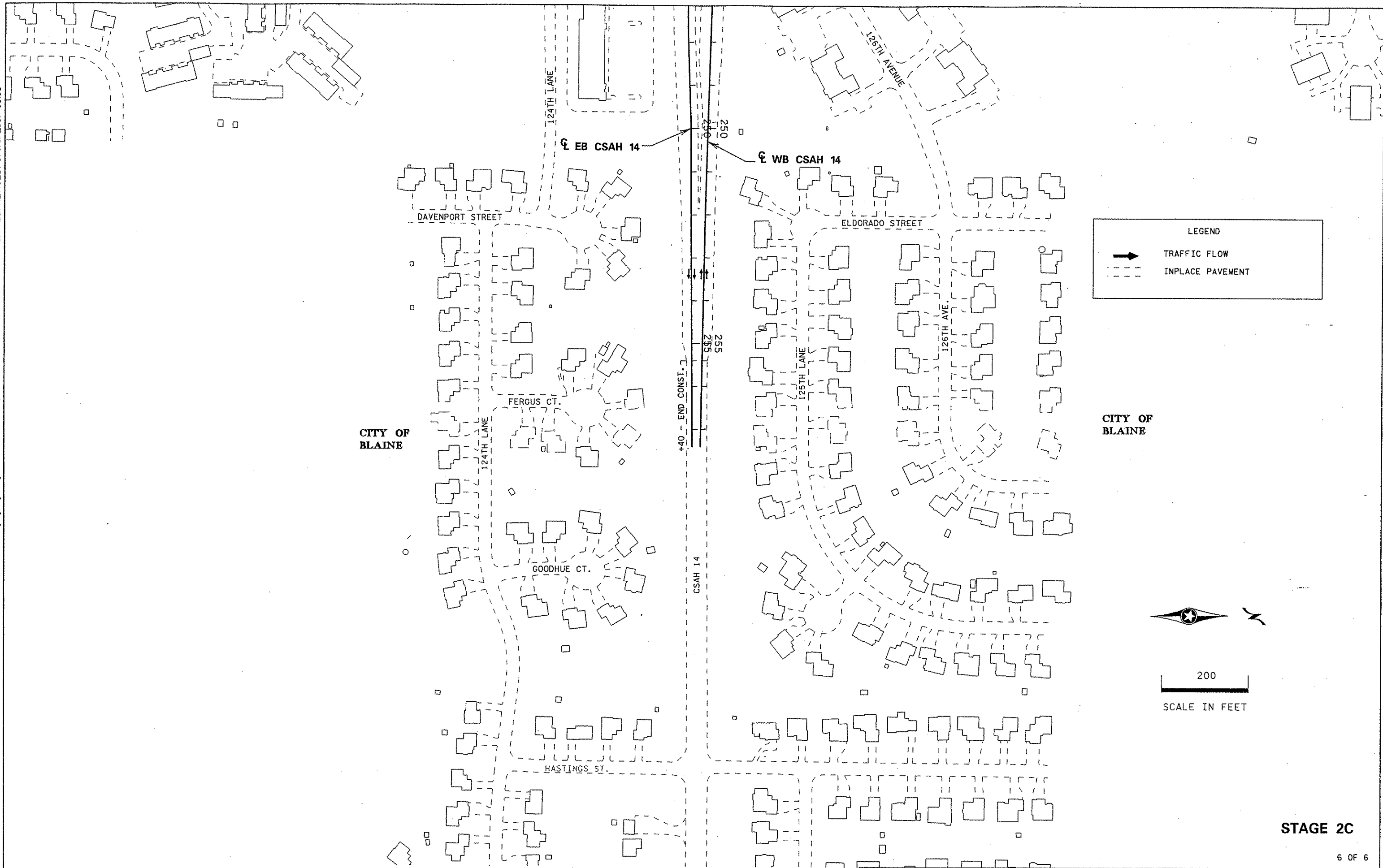
- - - INPLACE PAVEMENT

200

SCALE IN FEET

PLOTTED/REVISED: 31-JAN-2007 08:03

DISTRICT #: METRO
PLOT NAME: 1m-123_sfg2c-6
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\stheets\stg1\ng\stg2c.dgn



LEGEND

→ TRAFFIC FLOW

- - - INPLACE PAVEMENT

CITY OF BLAINE

CITY OF BLAINE



200
SCALE IN FEET

STAGE 2C

6 OF 6

DRAWN BY: LM	CHECKED BY: DY	CERTIFIED BY <i>Josephine Lundquist</i> <small>LICENSED PROFESSIONAL ENGINEER</small> LIC. NO. 20534 DATE 2/2/07	STAGING PLAN STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 161 OF 872 SHEETS
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ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, CIRCULAR CURVE DATA (DELTA, DEGREE, RADIUS, TANGENT, LENGTH), COORDINATES (X, Y), AZIMUTH. Includes data for STAGE 2C N.B. (2CNB) from M1400 to M1435.

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, CIRCULAR CURVE DATA (DELTA, DEGREE, RADIUS, TANGENT, LENGTH), COORDINATES (X, Y), AZIMUTH. Includes data for STAGE 2C S.B. (2CSB) from M1450 to M1498.

STAGE 2CNB
STAGE 2CSB

ALIGNMENT TABULATIONS (STAGING)

DRAWN BY: MW

CHECKED BY: DY

CERTIFIED BY: Josephine Lundquist

LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 164 OF 872 SHEETS

VERTICAL: METRO
PLOT NAME: STG_TAB_03
PATH & FILENAME: S:\Design\065\0208\23\Final\stg\ALGN\0208123_cil_TAB.dgn

LICENSED PROFESSIONAL ENGINEER

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, CIRCULAR CURVE DATA (DELTA, DEGREE, RADIUS, TANGENT, LENGTH), COORDINATES (X, Y), and AZIMUTH. Includes sections for T.H.65 N.B. (65NB), CSAH 14 E.B. (242E), and CSAH 14 W.B. (242W).

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, CIRCULAR CURVE DATA (DELTA, DEGREE, RADIUS, TANGENT, LENGTH), COORDINATES (X, Y), and AZIMUTH. Includes sections for T.H.65 S.B. (65SB) and 129th AVENUE (129).

- ① ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT SHOW ON ALIGNMENT PLAN VIEW.
② INP C.S.A.H. 14 ENDS AT APPROX STA 236+61.38

T.H.65 N.B. T.H.65 S.B.
CSAH 14 E.B. 129th AVENUE
CSAH 14 W.B.

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY Josephine Sunquist LIC. NO. 20534 DATE 2/2/07

ALIGNMENT TABULATIONS

PLOTTED/REVISED: 31-JAN-2007 08:12

DISTRICT #: METRO
IPLOT NAME: oif_TAB01
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Sheet\VALIGN\0208\123_oif_TAB.dgn

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, DELTA, DEGREE, RADIUS, TANGENT, LENGTH, COORDINATES (X, Y), AZIMUTH. Includes data for ABERDEEN STREET (ABERD) with various stationing and curve data.

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, DELTA, DEGREE, RADIUS, TANGENT, LENGTH, COORDINATES (X, Y), AZIMUTH. Includes data for EXISTING T.H. 65 NB (INP65NB) and EXISTING T.H. 65 SB (INP65SB).

① ALIGNMENT POINT IS BEYOND PROJECT LIMITS AND WILL NOT SHOW ON ALIGNMENT PLAN VIEW.

EXISTING T.H. 65 NB
EXISTING T.H. 65 SB
ABERDEEN STREET

ALIGNMENT TABULATIONS

PLOTTED/REVISED: 31-JAN-2007 08:42

DISTRICT #: METRO
PLOT NAME: 011-Jab02
PATH & FILENAME: S:\DESIGN\065\0208\23V\Final\Sheets\ALIGN\0208123_dtl_TAB.dgn

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, CIRCULAR CURVE DATA (DELTA, DEGREE, RADIUS, TANGENT, LENGTH), COORDINATES (X, Y), AZIMUTH. Includes sections for NOISE WALL 1, NOISE WALL 3, WALL 129 NORTH WEST, WALL 129 SOUTH EAST 2, WALL 129 SOUTH WEST, WALL NORTH EAST EAST, and WALL NORTH EAST WEST.

ALIGNMENT TABULATION

Table with columns: POINT NUMBER, POINT, STATION, CIRCULAR CURVE DATA (DELTA, DEGREE, RADIUS, TANGENT, LENGTH), COORDINATES (X, Y), AZIMUTH. Includes sections for WALL NORTH WEST EAST, WALL NORTH WEST WEST, WALL PAUL PARKWAY NORTH EAST, and WALL PAUL PARKWAY SOUTH WEST.

NOISE WALL 1

WALL 129 SOUTH EAST 2

WALL NORTH WEST EAST

NOISE WALL 3

WALL 129 SOUTH WEST

WALL NORTH WEST WEST

WALL 129 NORTH WEST

WALL NORTH EAST EAST

WALL PAUL PKWY NORTH EAST

WALL NORTH EAST WEST

WALL PAUL PKWY SOUTH WEST

ALIGNMENT TABULATIONS (WALLS)

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Handwritten signature of Josephine Lundquist

LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 169 OF 872 SHEETS

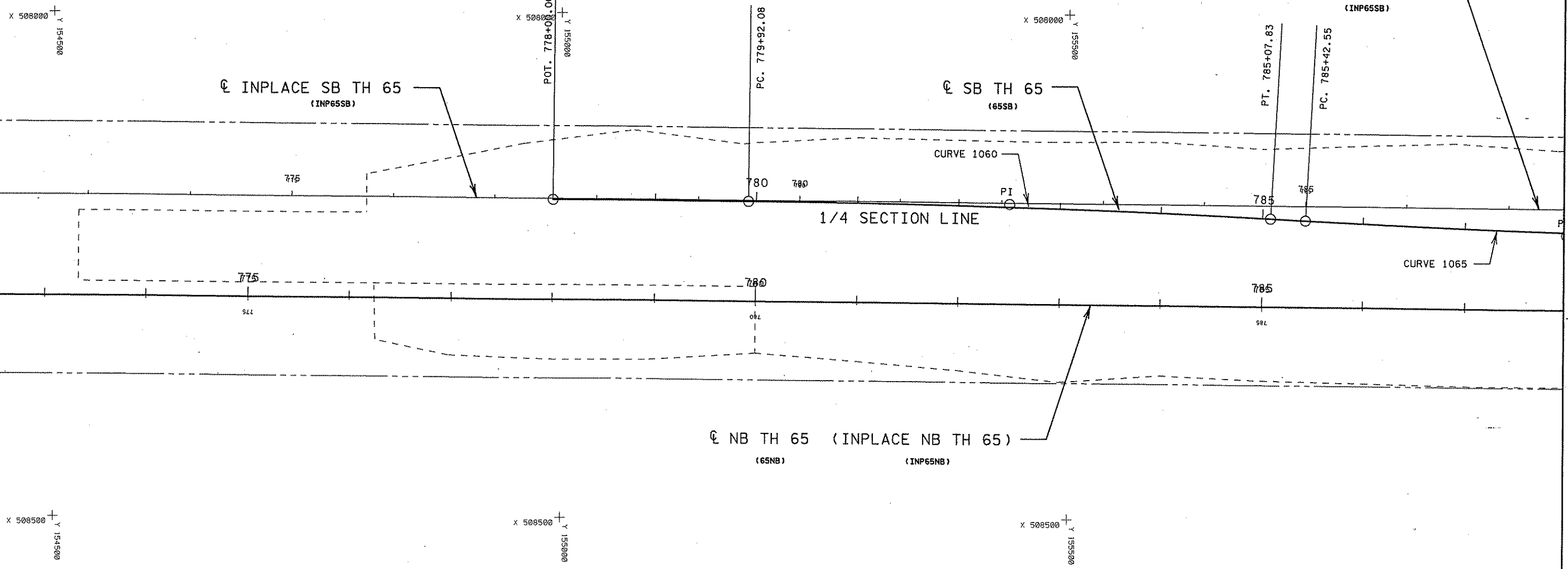
PLOTTED/REVISED: 02-FEB-2007 14:23

DISTRICT #: METRO
PLOT NAME: ail-Jab05
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PLOTTED/REVISED: 02-FEB-2007 14:23

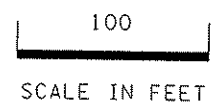
DISTRICT #: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Streets\ALIGN\0208123.dwg



MATCHLINE (SEE SHEET 3 OF 12)

HORIZONTAL CONTROL

THE HORIZONTAL DATUM OF THIS MAP IS BASED ON ANOKA COUNTY COORDINATE SYSTEM WHICH IS RELATED TO THE MINNESOTA STATE PLANE COORDINATE SYSTEM NAD 1983 (HARN 1996) ADJUSTMENT SOUTH ZONE.

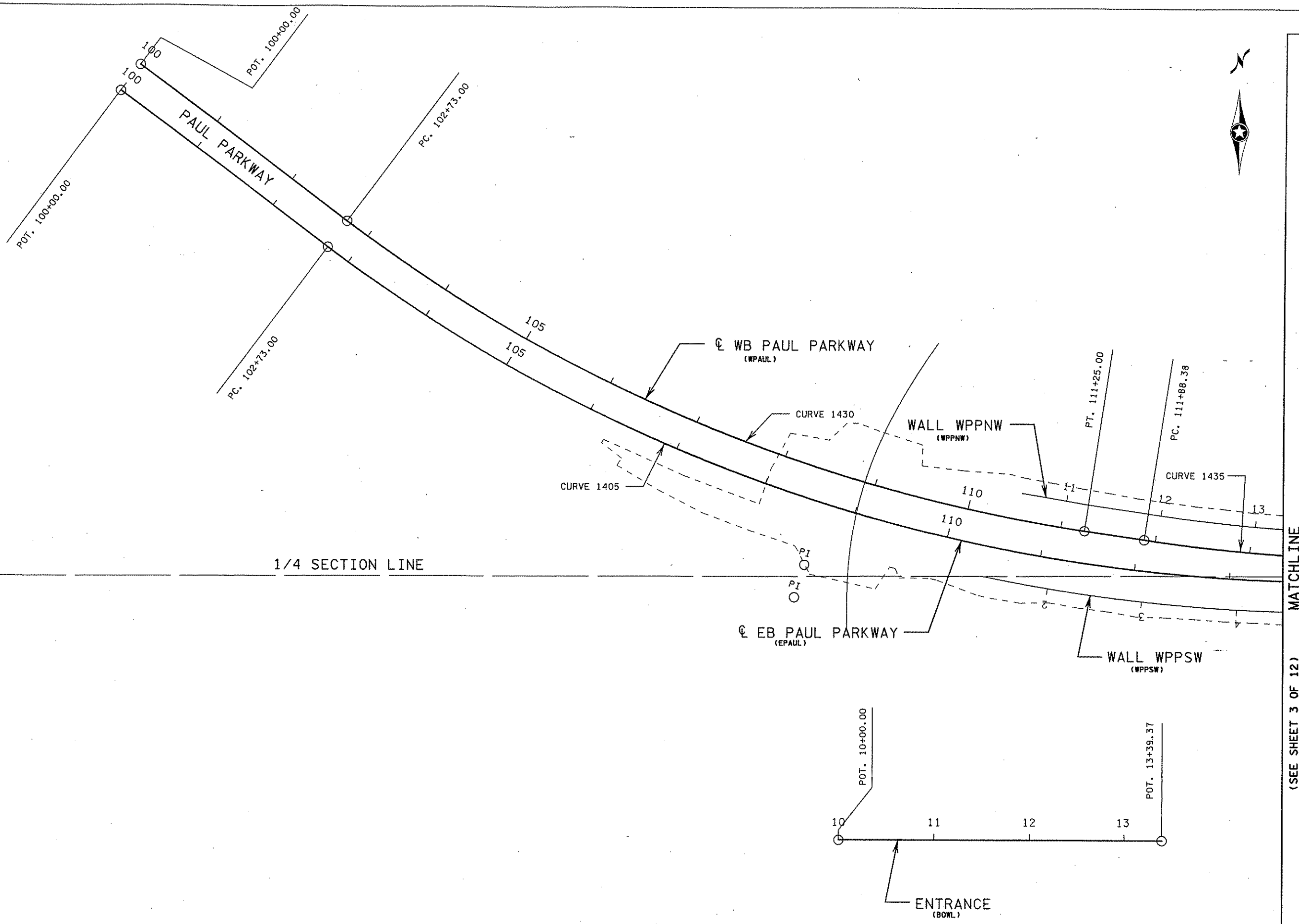


DRAWN BY: CJG	CHECKED BY: MW	CERTIFIED BY: <i>Josephine Lundquist</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 20534	DATE 2/2/07	STATE PROJ. NO. 0208-123 (T.H. 65)	SHEET NO. 171 OF 872 SHEETS
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ALIGNMENT PLAN

DISTRICT #: METRO
I/PLOT NAME: 0208123_aib
PATH & FILENAME: S:\Design\065\0208\23\Final\Sheets\ALIGN\0208123_aib.dgn

PLOTTED/REVISED: 02-FEB-2007 14:23



(SEE SHEET 3 OF 12) MATCHLINE

DRAWN BY: CJG

CHECKED BY: MW

CERTIFIED BY *Josephine Lumpkin*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/20/07

SCALE IN FEET

ALIGNMENT PLAN

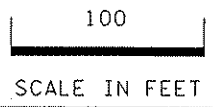
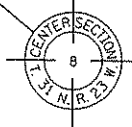
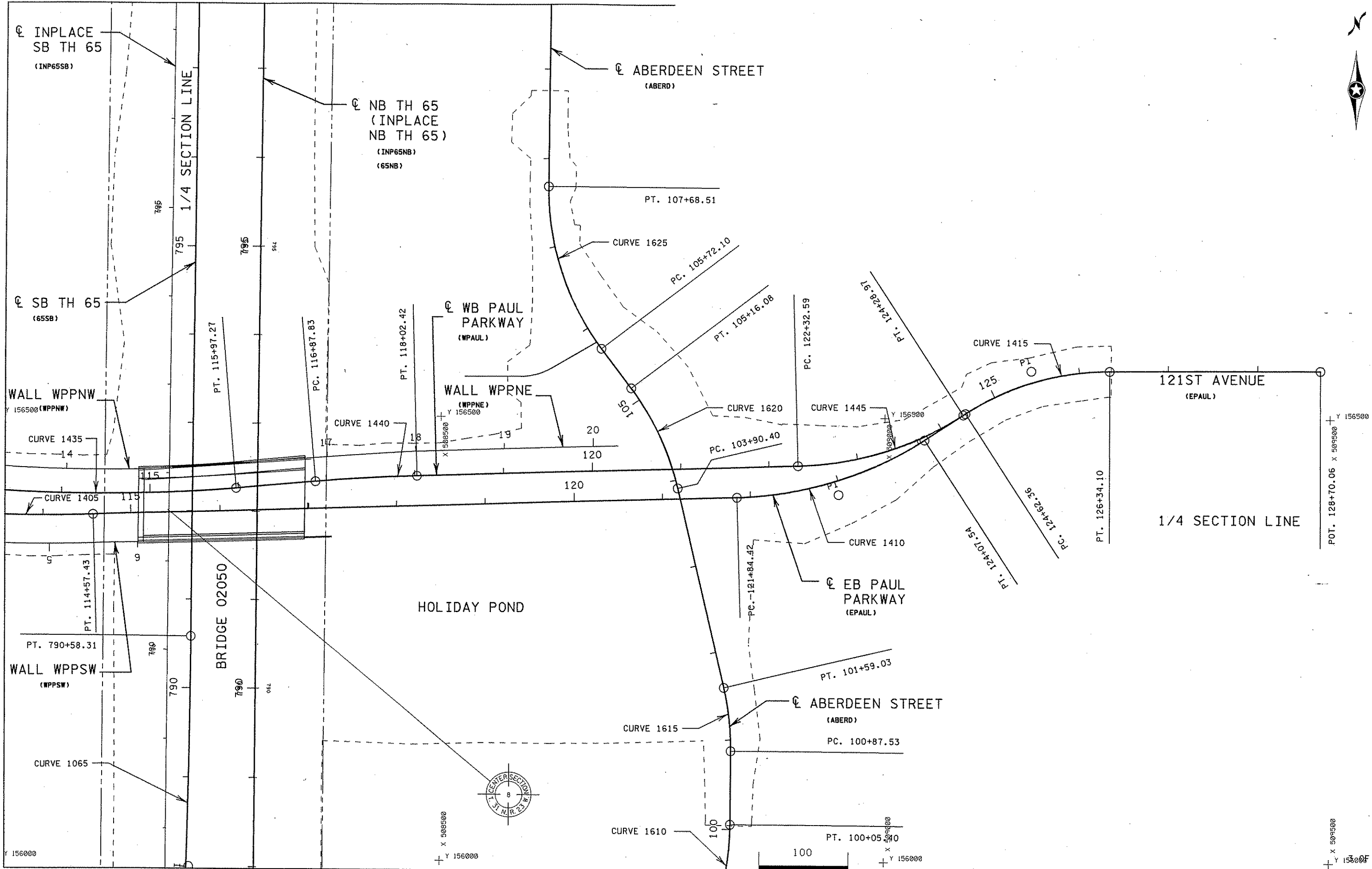
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 172 OF 872 SHEETS

PLOTTED/REVISED: 02-FEB-2007 14:24

MATCHLINE (SEE SHEET 2 OF 12)

DISTRICT #: METRO
IPLLOT NAME: d0208123_aic
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Sheet5\ALIGN\0208123_aic.dgn

MATCHLINE (SEE SHEET 4 OF 12)



ALIGNMENT PLAN

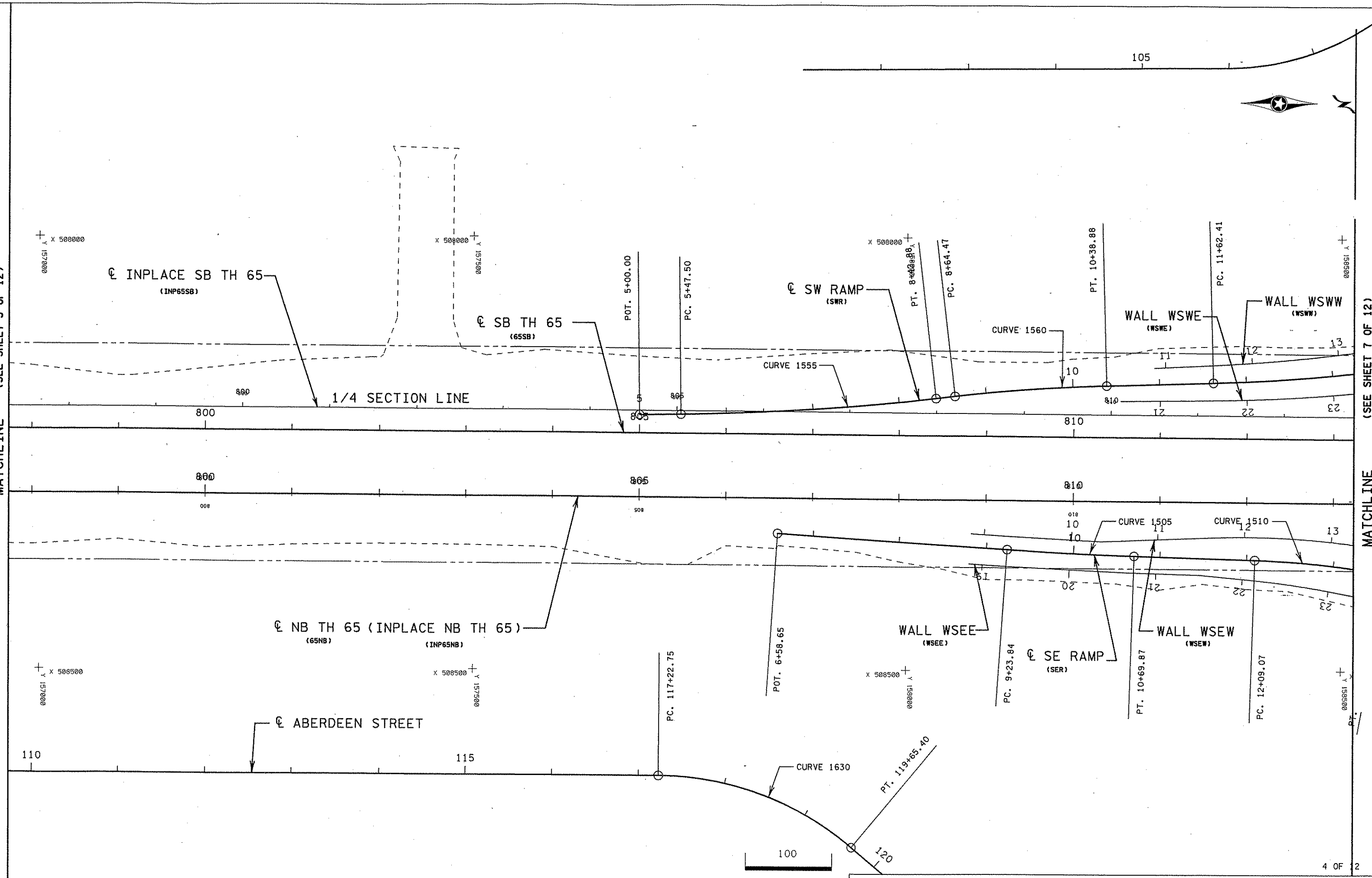
DRAWN BY: C/JG CHECKED BY: MW CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE 2/2/07 STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 173 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:12

DISTRICT #: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\DESIGN\0208\123\1\Inplace\ALIGN\0208123.dwg

MATCHLINE (SEE SHEET 3 OF 12)

MATCHLINE (SEE SHEET 7 OF 12)



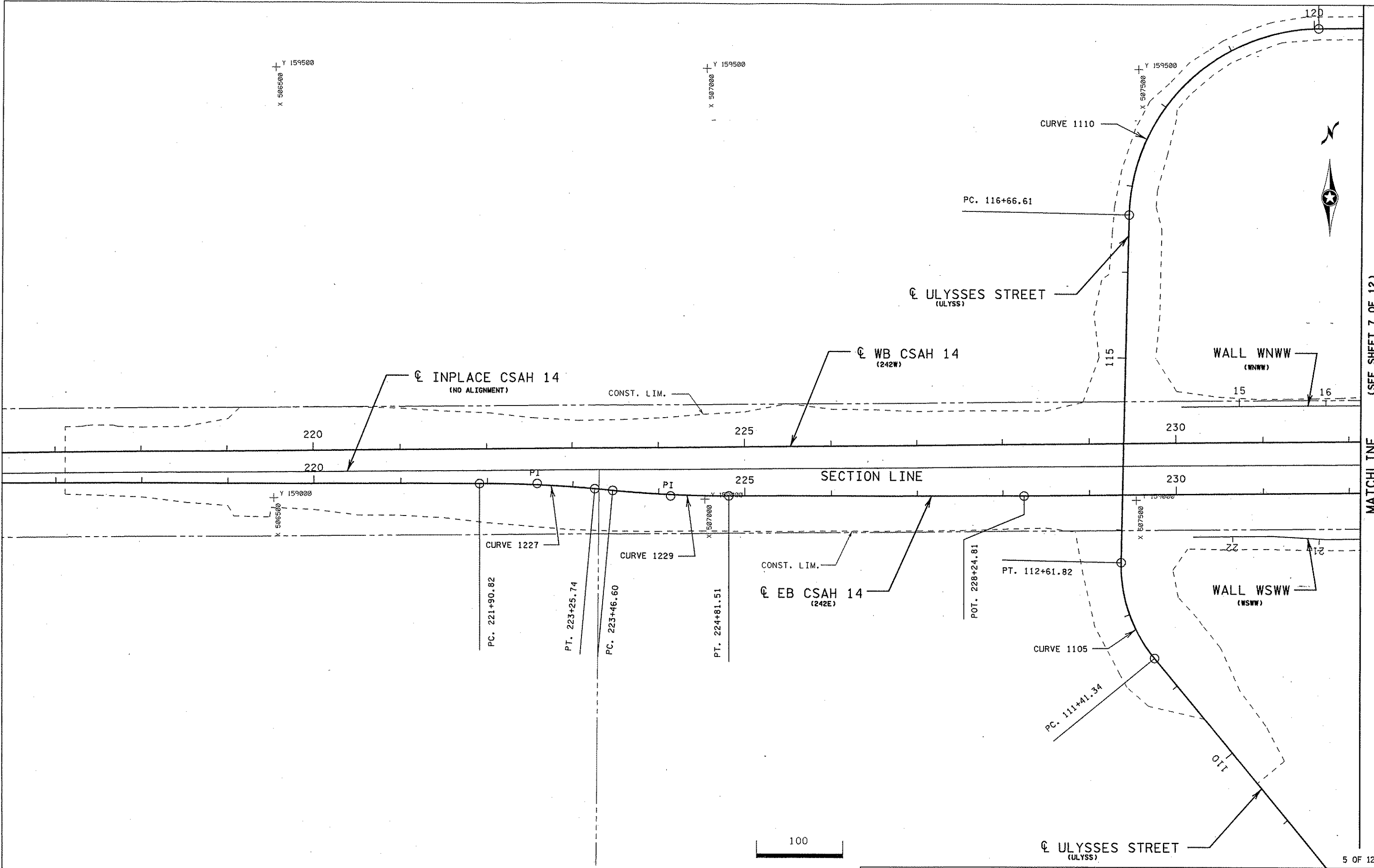
4 OF 2

SCALE IN FEET

ALIGNMENT PLAN

PLOTTED/REVISED: 31-JAN-2007 08:12

DISTRICT #: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\Design\065\0208123\Final\Sheet\ALIGN\0208123.dwg



MATCHLINE (SEE SHEET 7 OF 12)

5 OF 12

DRAWN BY: CJG

CHECKED BY: MW

CERTIFIED BY: *Josephine Lunkaist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/2/07

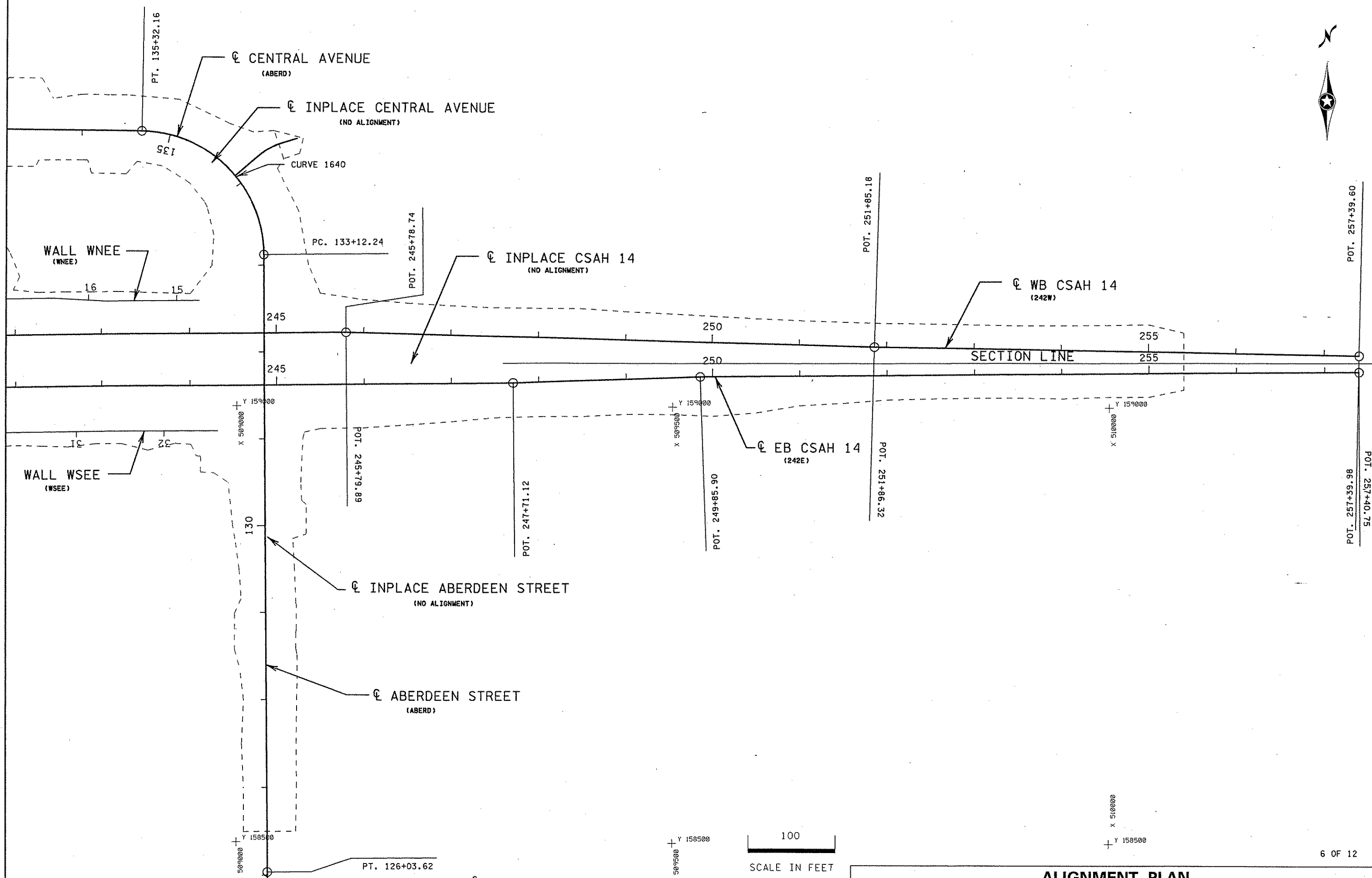
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 175 OF 872 SHEETS

ALIGNMENT PLAN

DISTRICT #: METRO
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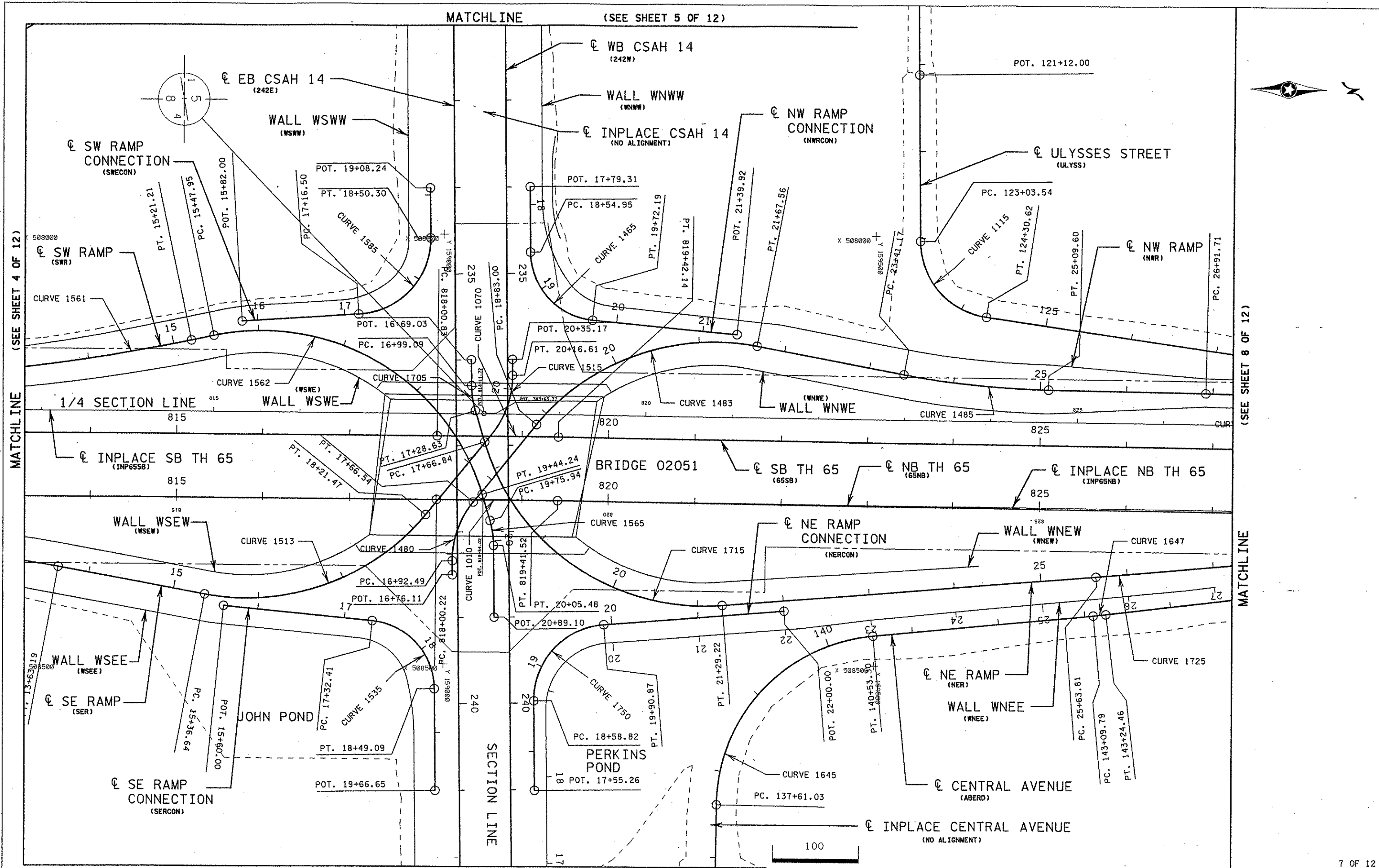
MATCHLINE (SEE SHEET 7 OF 12)



ALIGNMENT PLAN

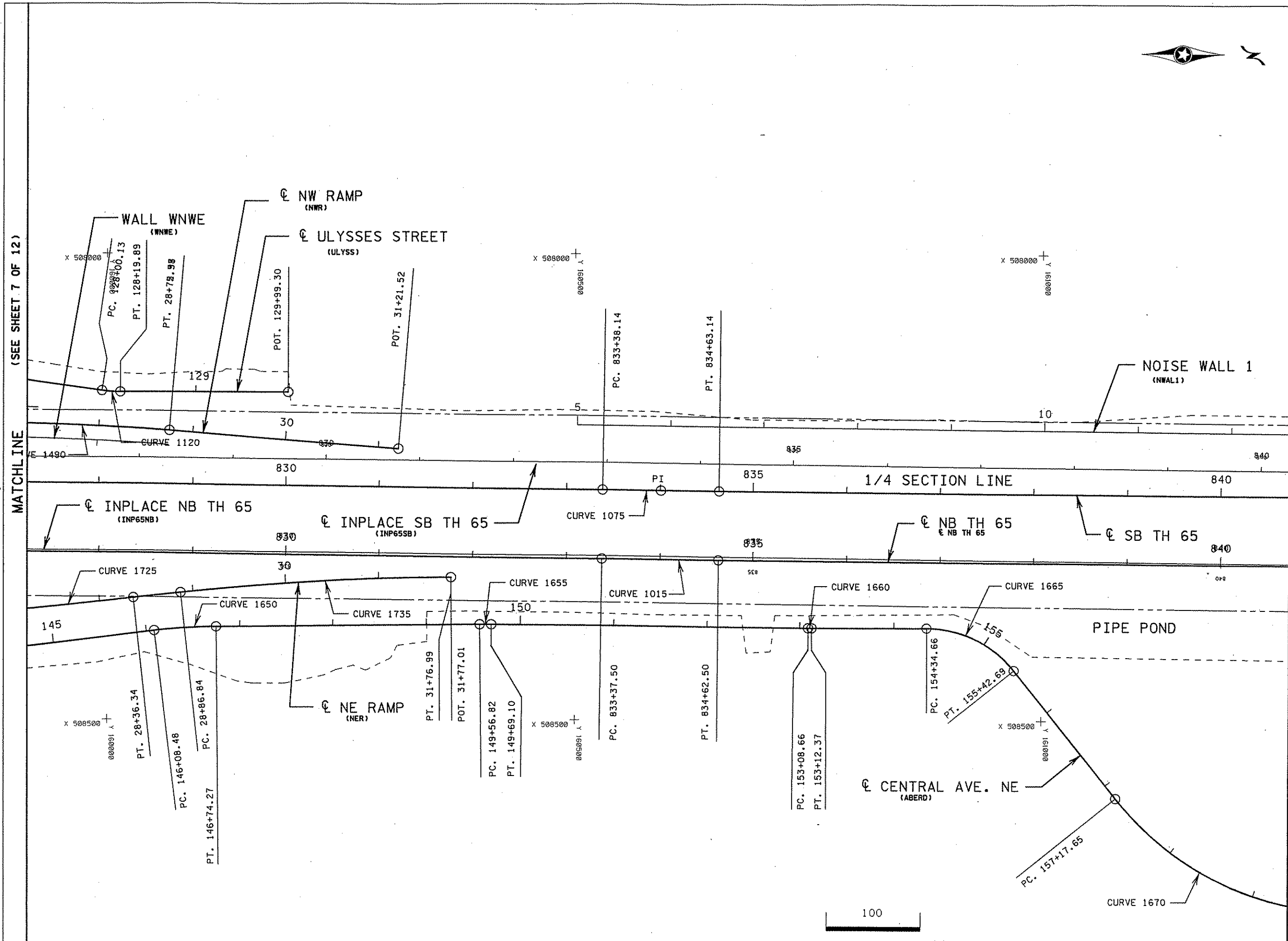
PLOTTED/REVISED: 31-JAN-2007 08:13

DISTRICT #: METRO
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PATH & FILENAME: S:\DESIGN\065\0208123\Final\sheet\ALIGN\0208123.dwg



PLOTTED/REVISED: 31-JAN-2007 08:13

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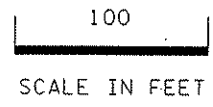


(SEE SHEET 7 OF 12)

MATCHLINE

(SEE SHEET 9 OF 12)

MATCHLINE



ALIGNMENT PLAN

DRAWN BY: CJG

CHECKED BY: MW

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

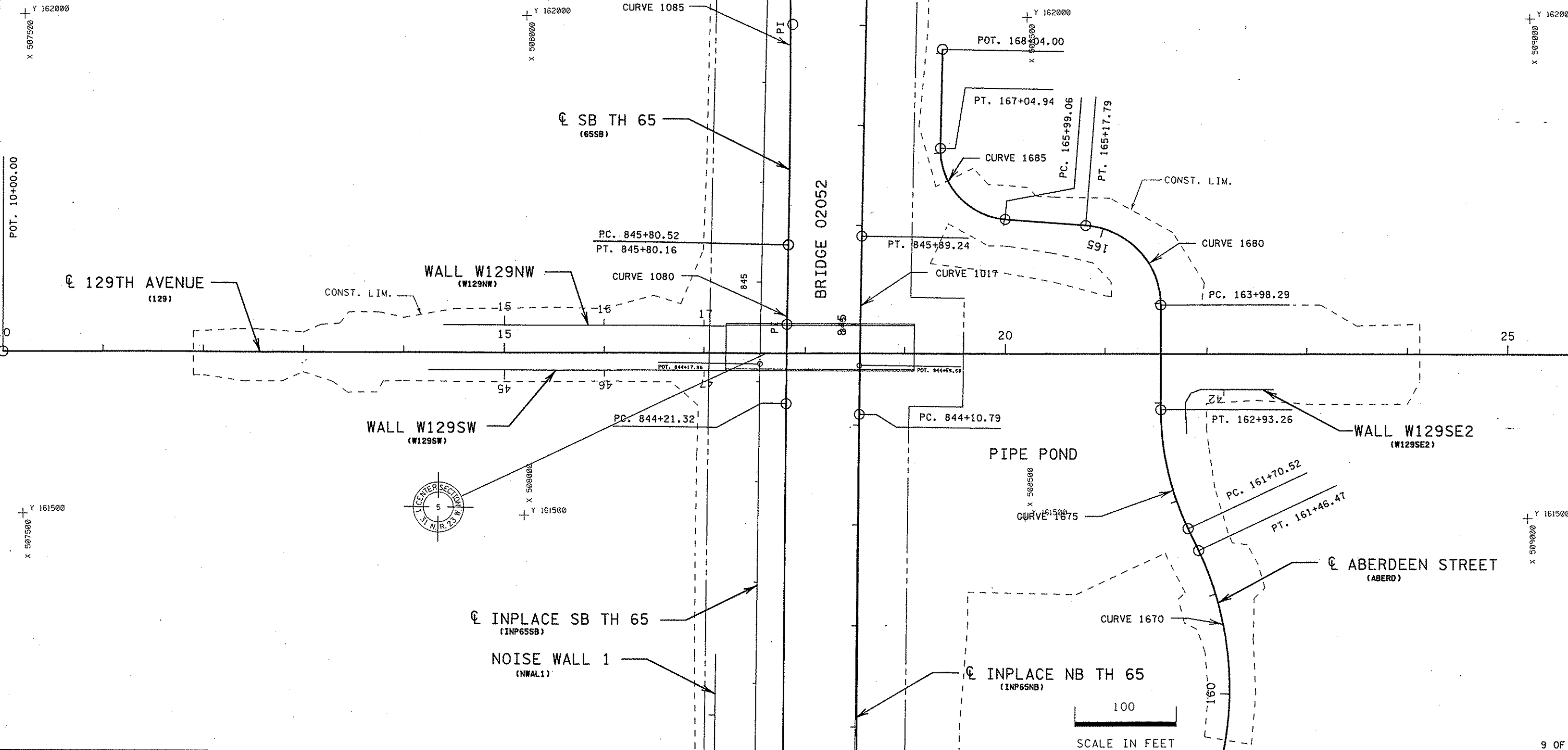
LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 178 OF 872 SHEETS



PLOTTED/REVISED: 31-JAN-2007 08:13

DISTRICT #: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\sheet\ALIGN\0208123.dwg



DRAWN BY: CJG

CHECKED BY: MW

CERTIFIED BY: *Josephine Lundquist*

LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 179 OF 872 SHEETS

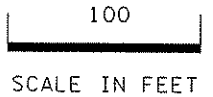
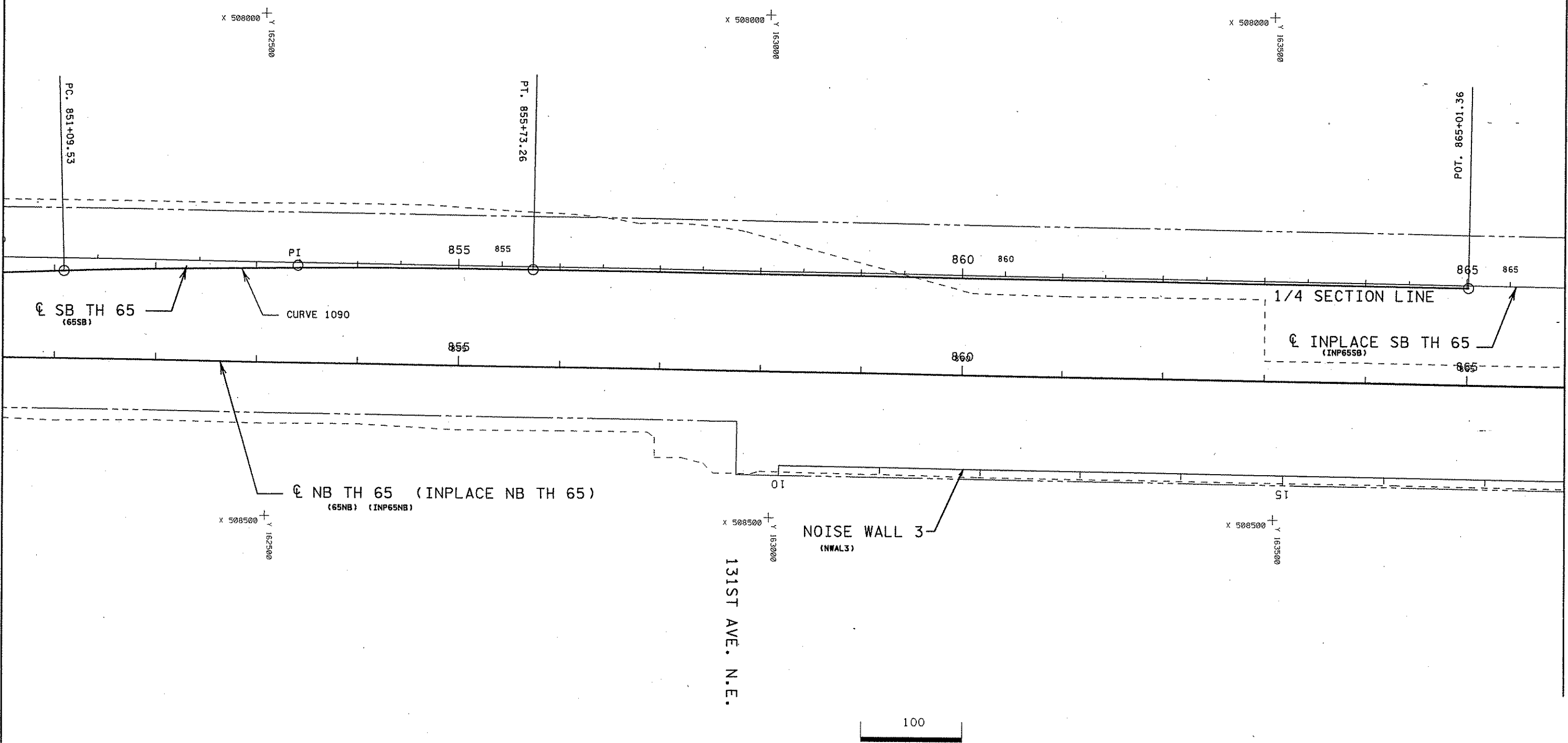
PLOTTED/REVISED: 31-JAN-2007 08:13

DISTRICT #: METRO
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MATCHLINE (SEE SHEET 9 OF 12)

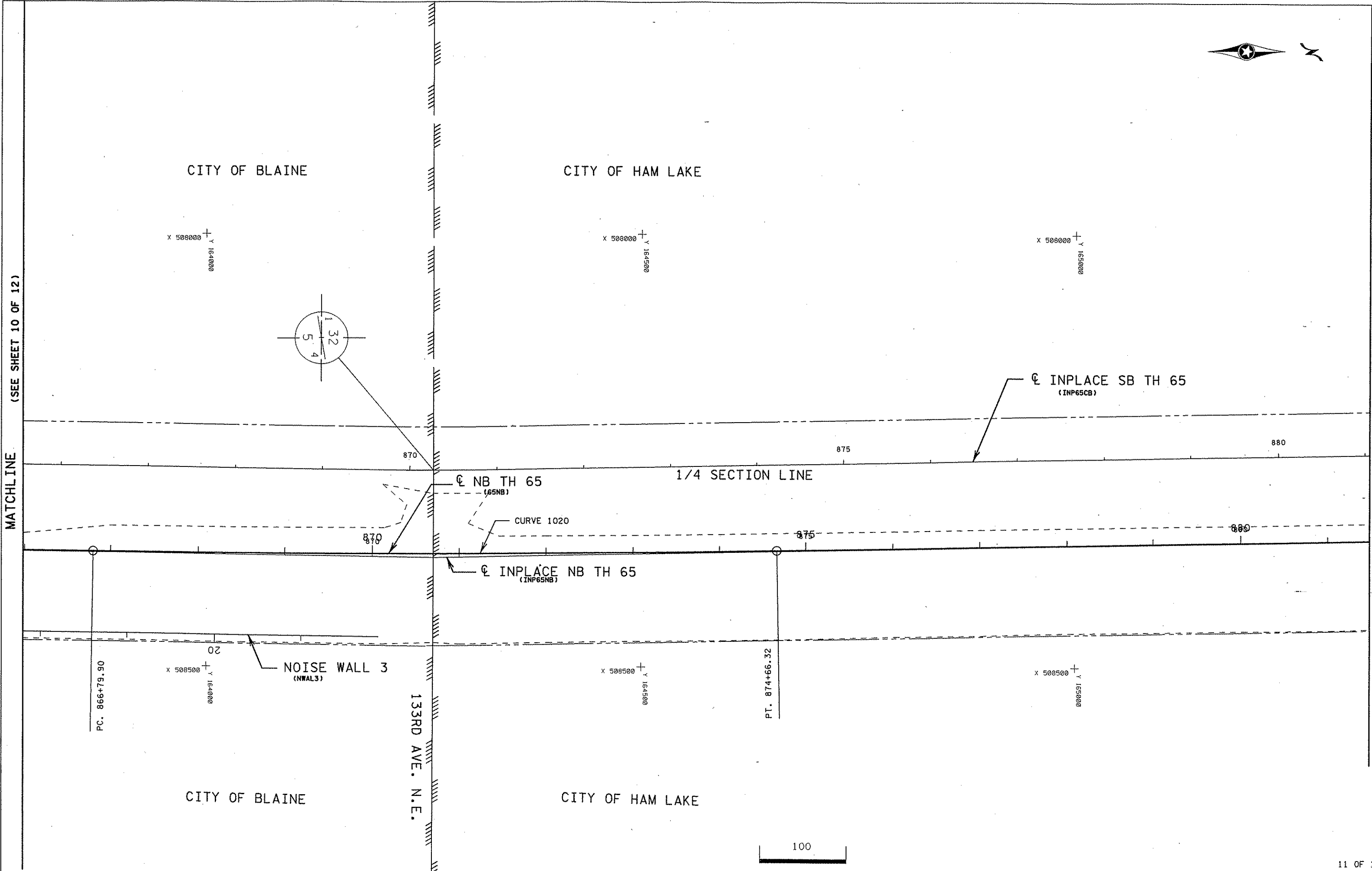
MATCHLINE (SEE SHEET 11 OF 12)



DRAWN BY: CJG	CHECKED BY: MW	CERTIFIED BY: <i>Josephine Lundquist</i> LIC. NO. 20534 DATE 2/2/07	ALIGNMENT PLAN	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 180 OF 872 SHEETS
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PLOTTED/REVISED: 31-JAN-2007 08:13

DISTRICT #: METRO
I/PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\sheet\1\GN\0208123.dwg



(SEE SHEET 10 OF 12) MATCHLINE

(SEE SHEET 12 OF 12) MATCHLINE

100
SCALE IN FEET

11 OF 12

DRAWN BY: CJG		CHECKED BY: MW		CERTIFIED BY: <i>Josephine Lundquist</i> LICENSED PROFESSIONAL ENGINEER		LIC. NO. 20534 DATE 2/2/07		ALIGNMENT PLAN	
				STATE PROJ. NO. 0208-123 (T.H. 65)		SHEET NO. 181 OF 872 SHEETS			

PLOTTED/REVISED: 31-JAN-2007 08:13

DISTRICT: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\streets\ALIGN\0208123.dwg

MATCHLINE (SEE SHEET 11 OF 12)



x 508000
+
005591 y 156500

x 508000
+
005591 y 156500

x 508000
+
005591 y 156500

x 508500
+
005591 y 156500

x 508500
+
005591 y 156500

x 508500
+
005591 y 156500

☺ INPLACE SB TH 65
(INP65SB)

☺ NB TH 65 (INPLACE NB TH 65)
(65NB) (INP65NB)

885

890

895

1/4 SECTION LINE

885

890

895

100

SCALE IN FEET

12 OF 12

ALIGNMENT PLAN

DRAWN BY: CJC

CHECKED BY: MW

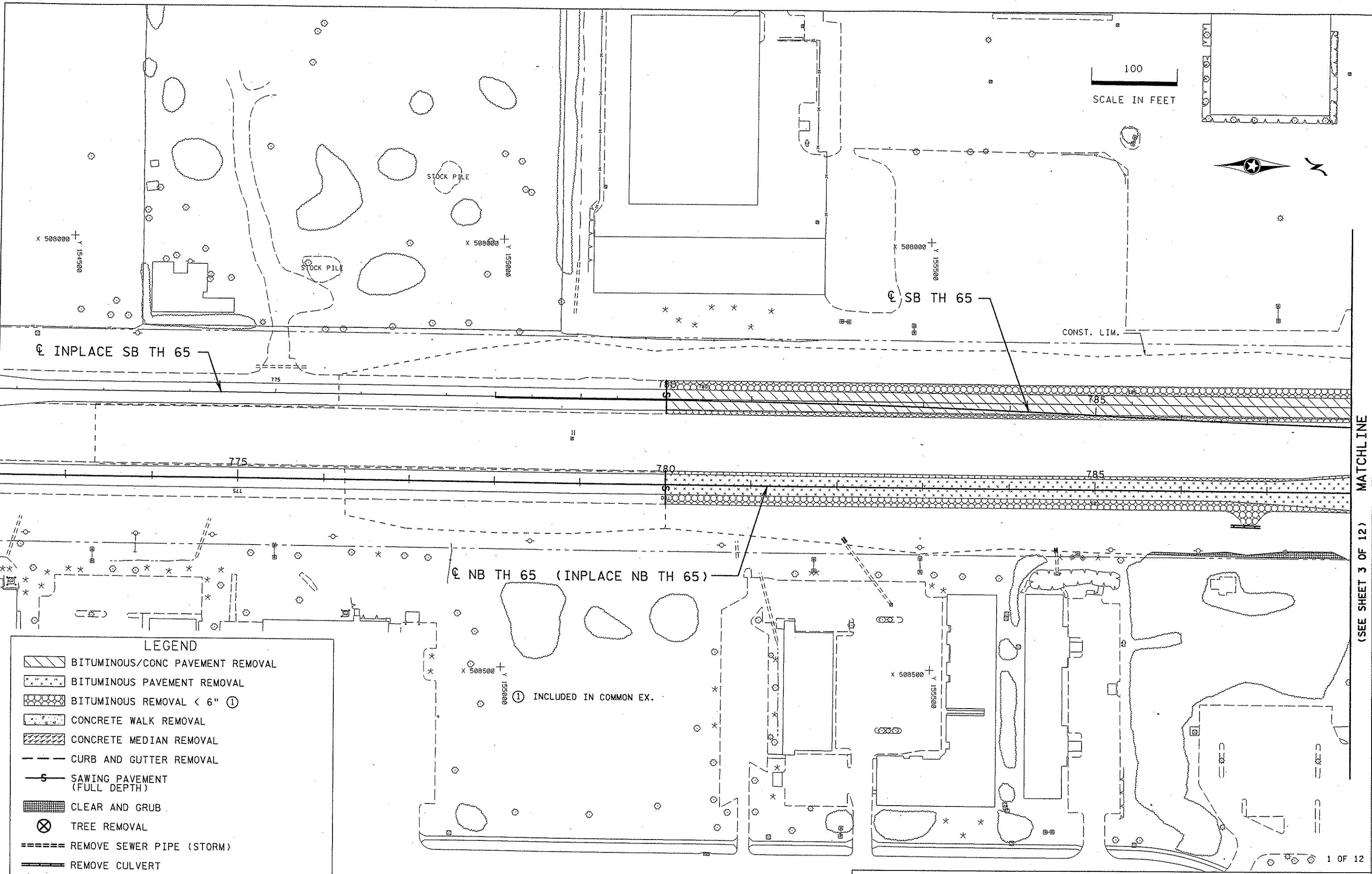
CERTIFIED BY: *Josephine Lundquist*
LICENSER PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 182 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 15:27

DISTRICT: METRO
PLOT NAME: 0208123_RemA
PATH & FILENAME: S:\Design\065\0208123\Final\Sheets\REMOVALS\0208123_RemA.dgn



LEGEND

	BITUMINOUS/CONC PAVEMENT REMOVAL
	BITUMINOUS PAVEMENT REMOVAL
	BITUMINOUS REMOVAL < 6" ①
	CONCRETE WALK REMOVAL
	CONCRETE MEDIAN REMOVAL
	CURB AND GUTTER REMOVAL
	SAWING PAVEMENT (FULL DEPTH)
	CLEAR AND GRUB
	TREE REMOVAL
	REMOVE SEWER PIPE (STORM)
	REMOVE CULVERT

① INCLUDED IN COMMON EX.

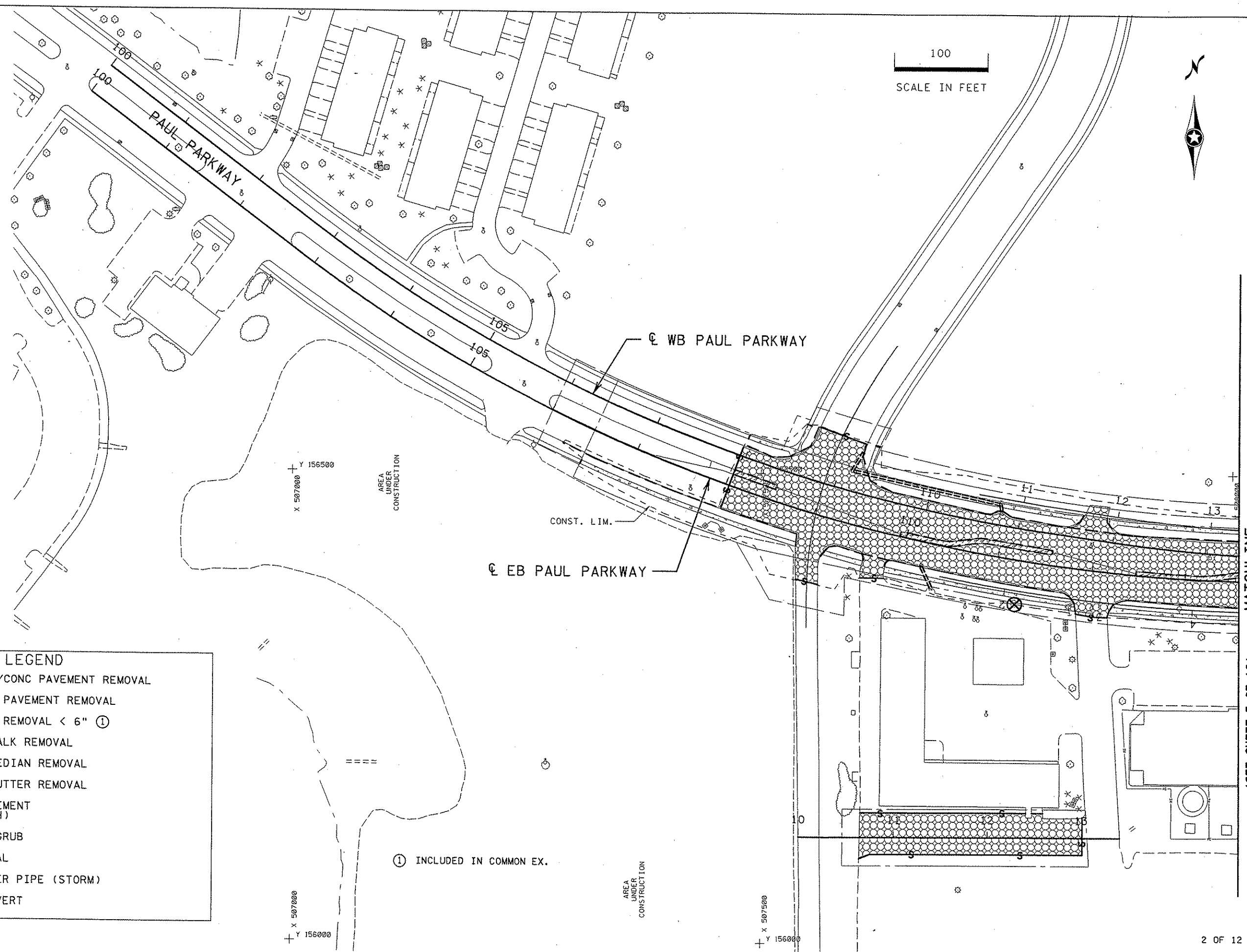
REMOVAL PLANS

(SEE SHEET 3 OF 12) MATCHLINE

DISTRICT #: METRO
PLOT NAME: 0208123_RemB
PATH & FILENAME: S:\Design\065\0208123V\Inal\streets\REMOVALS\0208123_RemB.dgn

PLOTTED/REVISED: 28-MAR-2007 15:27

100
SCALE IN FEET



LEGEND	
	BITUMINOUS/CONC PAVEMENT REMOVAL
	BITUMINOUS PAVEMENT REMOVAL
	BITUMINOUS REMOVAL < 6" ①
	CONCRETE WALK REMOVAL
	CONCRETE MEDIAN REMOVAL
	CURB AND GUTTER REMOVAL
	SAWING PAVEMENT (FULL DEPTH)
	CLEAR AND GRUB
	TREE REMOVAL
	REMOVE SEWER PIPE (STORM)
	REMOVE CULVERT

① INCLUDED IN COMMON EX.

X 506500
Y 156500

X 507000
Y 156500

X 506500
Y 156000

X 507000
Y 156000

X 507500
Y 156000

(SEE SHEET 3 OF 12) MATCHLINE

2 OF 12

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY *Josephine Lunquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

REMOVAL PLANS

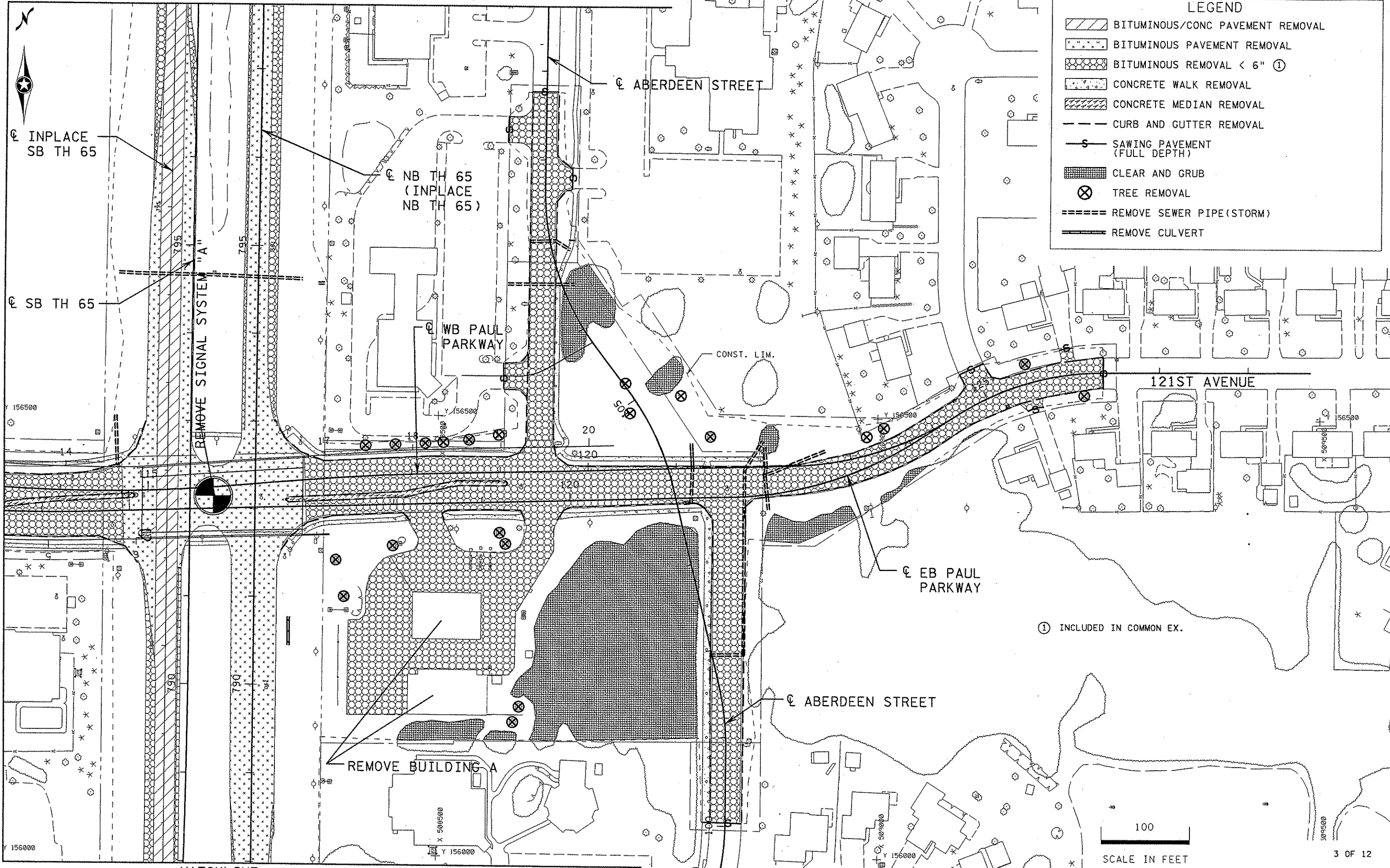
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 184 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 0208123_RemC
PATH & FILENAME: S:\Design\065\0208123\Final\Site\REMOVALS\0208123_RemC.dgn

PLOTTED/REVISED: 28-MAR-2007 15:27

MATCHLINE (SEE SHEET 2 OF 12)

MATCHLINE (SEE SHEET 4 OF 12)



LEGEND

- BITUMINOUS/CONC PAVEMENT REMOVAL
- BITUMINOUS PAVEMENT REMOVAL
- BITUMINOUS REMOVAL < 6" ①
- CONCRETE WALK REMOVAL
- CONCRETE MEDIAN REMOVAL
- CURB AND GUTTER REMOVAL
- SAWING PAVEMENT (FULL DEPTH)
- CLEAR AND GRUB
- TREE REMOVAL
- REMOVE SEWER PIPE (STORM)
- REMOVE CULVERT

① INCLUDED IN COMMON EX.

100

SCALE IN FEET

3 OF 12

MATCHLINE (SEE SHEET 1 OF 12)












REMOVAL PLANS

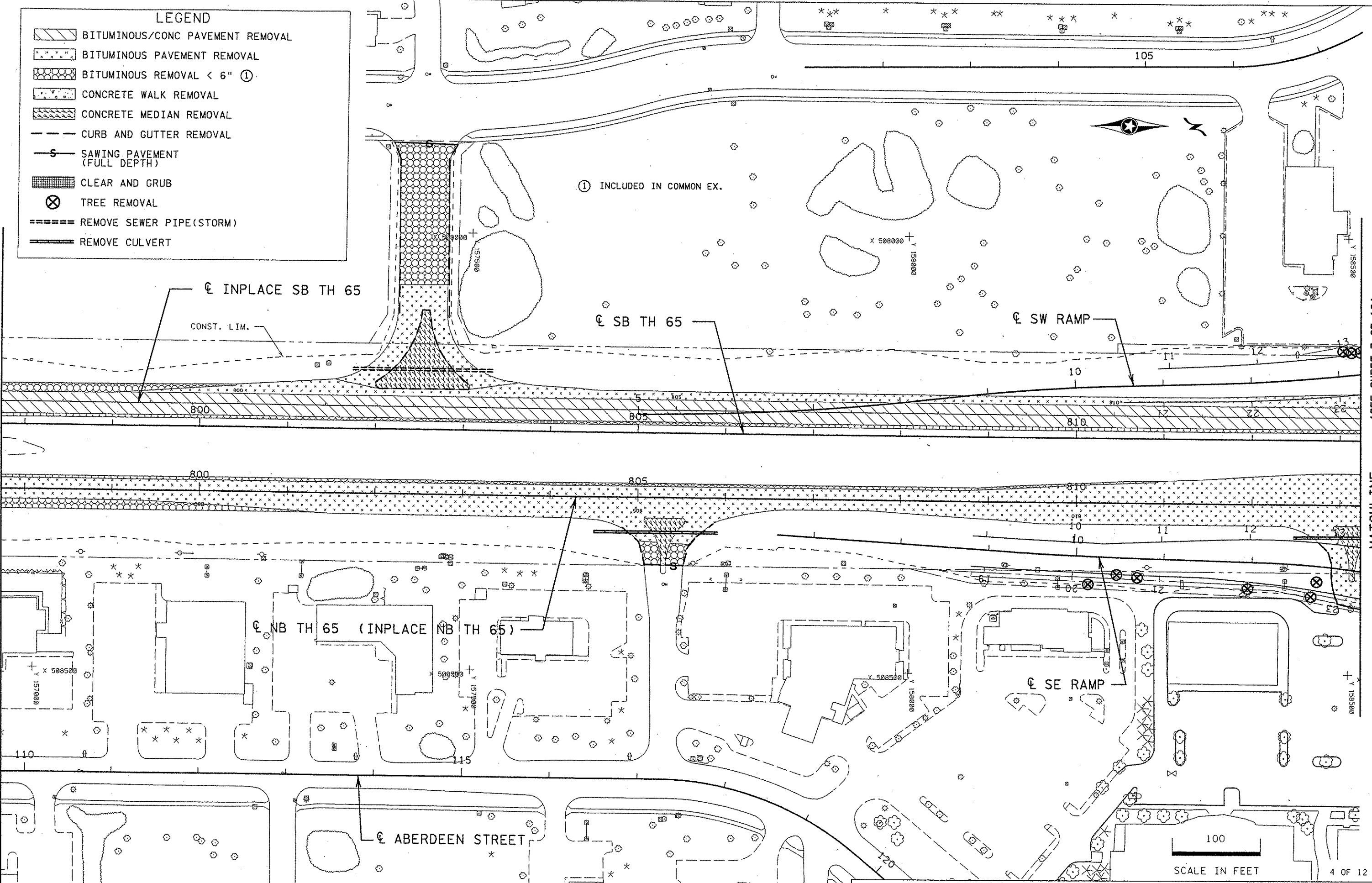
PLOTTED/REVISED: 28-MAR-2007 15:27

(SEE SHEET 3 OF 12)

DISTRICT #: METRO
PLOT NAME: 0208123_RemD
PATH & FILENAME: S:\Design\065\0208123\Final\Sheets\REMOVALS\0208123_RemD.dgn

LEGEND

-  BITUMINOUS/CONC PAVEMENT REMOVAL
-  BITUMINOUS PAVEMENT REMOVAL
-  BITUMINOUS REMOVAL < 6" ①
-  CONCRETE WALK REMOVAL
-  CONCRETE MEDIAN REMOVAL
-  CURB AND GUTTER REMOVAL
-  SAWING PAVEMENT (FULL DEPTH)
-  CLEAR AND GRUB
-  TREE REMOVAL
-  REMOVE SEWER PIPE (STORM)
-  REMOVE CULVERT



① INCLUDED IN COMMON EX.

⊕ INPLACE SB TH 65

⊕ SB TH 65

⊕ SW RAMP

⊕ NB TH 65 (INPLACE NB TH 65)

⊕ SE RAMP

⊕ ABERDEEN STREET

100
SCALE IN FEET

REMOVAL PLANS

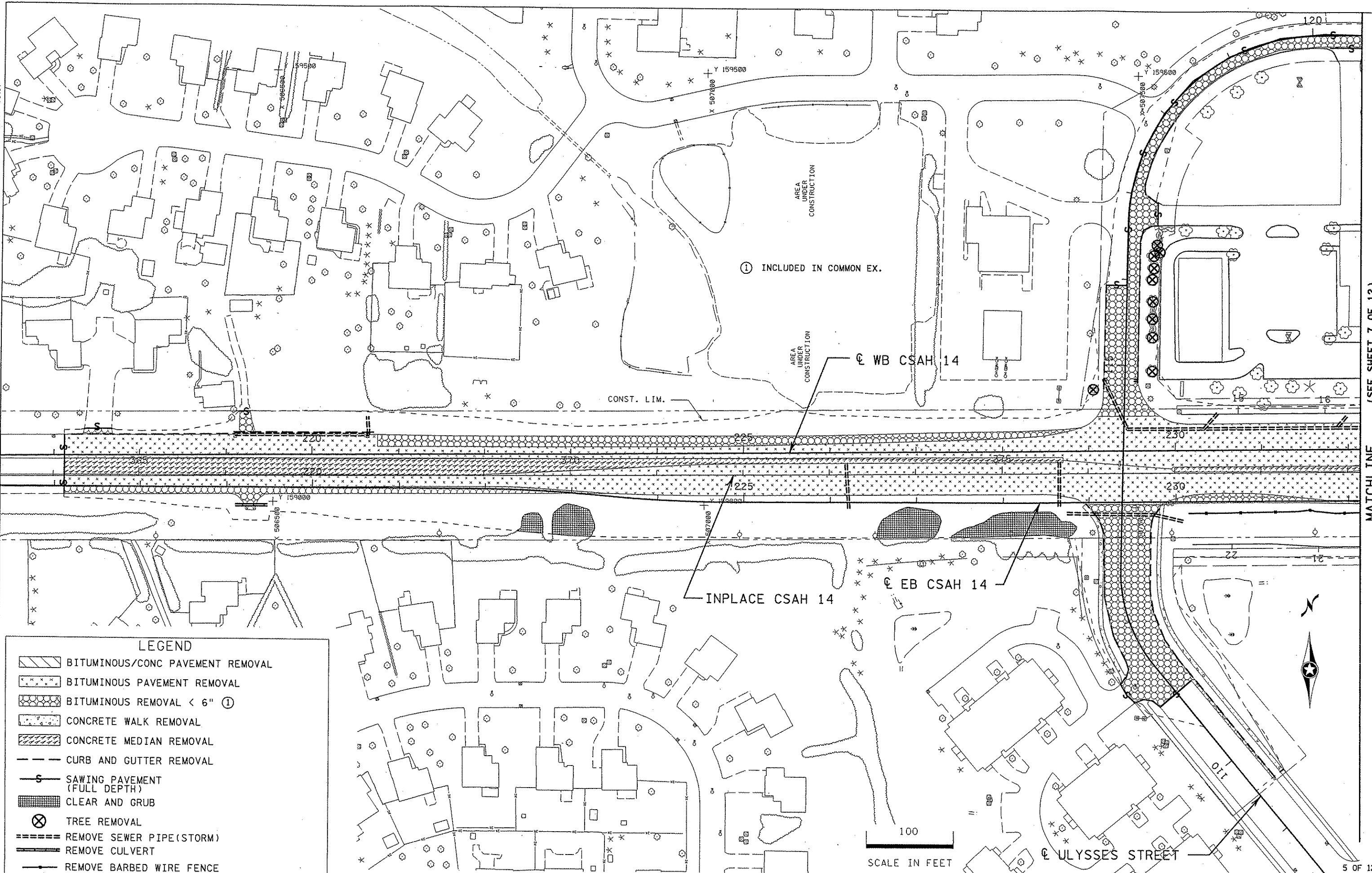
MATCHLINE

(SEE SHEET 7 OF 12)

MATCHLINE

PLOTTED/REVISED: 29-MAR-2007 09:31

DISTRICT: METRO
PLOT NAME: 0208123_RemE
PATH & FILENAME: S:\Design\0650208123\Inplace\Removals\0208123_RemE.dgn



LEGEND

- BITUMINOUS/CONC PAVEMENT REMOVAL
- BITUMINOUS PAVEMENT REMOVAL
- BITUMINOUS REMOVAL < 6" ①
- CONCRETE WALK REMOVAL
- CONCRETE MEDIAN REMOVAL
- CURB AND GUTTER REMOVAL
- SAWING PAVEMENT (FULL DEPTH)
- CLEAR AND GRUB
- TREE REMOVAL
- REMOVE SEWER PIPE (STORM)
- REMOVE CULVERT
- REMOVE BARBED WIRE FENCE

100
SCALE IN FEET



MATCHLINE (SEE SHEET 7 OF 12)

5 OF 12

REMOVAL PLANS

DRAWN BY: RLH

CHECKED BY: MW

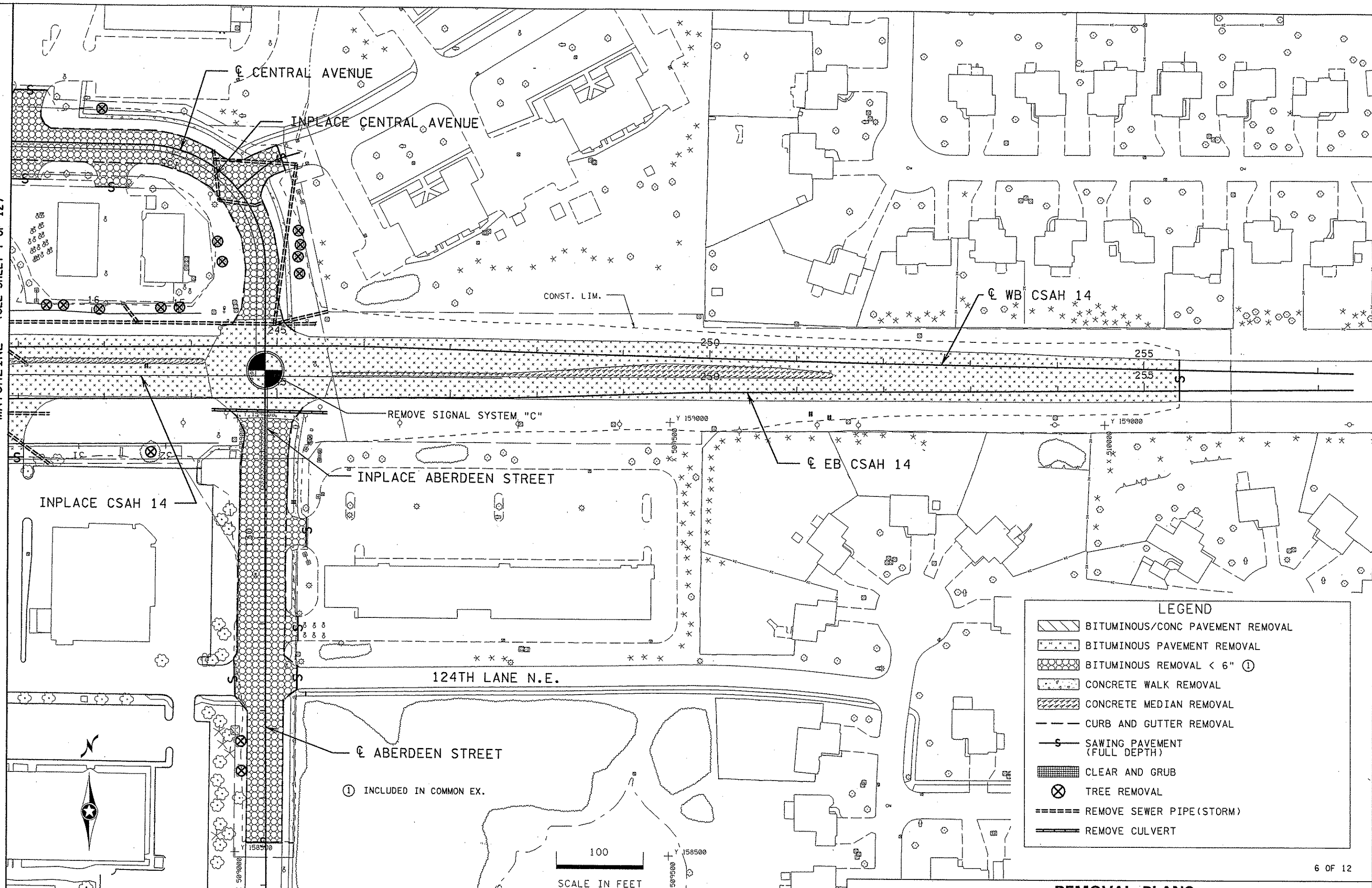
CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 187 OF 872 SHEETS

DISTRICT #: METRO
 I/PLOT NAME: 0208123_rmf
 PATH & FILENAME: S:\Design\065\0208123\Tnd\Streets\REMOVALS\0208123_rmf.dgn
 PLOTTED/REVISED: 28-MAR-2007 15:27

MATCHLINE (SEE SHEET 7 OF 12)



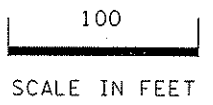
LEGEND	
	BITUMINOUS/CONC PAVEMENT REMOVAL
	BITUMINOUS PAVEMENT REMOVAL
	BITUMINOUS REMOVAL < 6" ①
	CONCRETE WALK REMOVAL
	CONCRETE MEDIAN REMOVAL
	CURB AND GUTTER REMOVAL
	SAWING PAVEMENT (FULL DEPTH)
	CLEAR AND GRUB
	TREE REMOVAL
	REMOVE SEWER PIPE (STORM)
	REMOVE CULVERT

① INCLUDED IN COMMON EX.



REMOVAL PLANS

MATCHLINE (SEE SHEET 5 OF 12)



PLOTTED/REVISED: 29-MAR-2007 09:31

(SEE SHEET 4 OF 12)

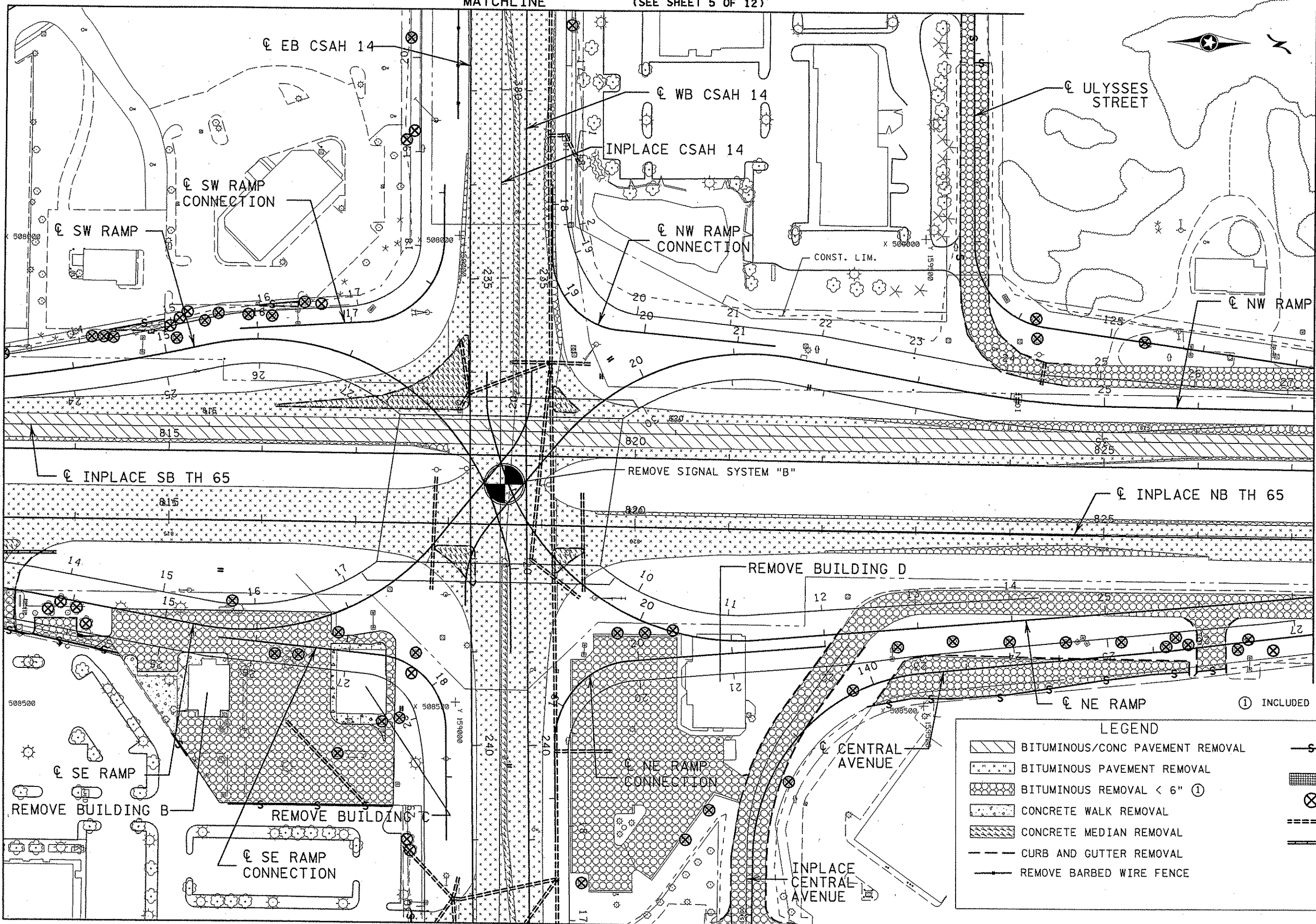
MATCHLINE

(SEE SHEET 8 OF 12)

MATCHLINE

MATCHLINE (SEE SHEET 6 OF 12)

DISTRICT #: METRO
PLOT NAME: 0208123_rmg
PATH & FILENAME: S:\Des\gm065\0208123\Final\Sheets\REMOVALS\0208123_rmg.dgn



LEGEND

	BITUMINOUS/CONC PAVEMENT REMOVAL		SAWING PAVEMENT (FULL DEPTH)
	BITUMINOUS PAVEMENT REMOVAL		CLEAR AND GRUB
	BITUMINOUS REMOVAL < 6" ①		TREE REMOVAL
	CONCRETE WALK REMOVAL		REMOVE SEWER PIPE (STORM)
	CONCRETE MEDIAN REMOVAL		REMOVE CULVERT
	CURB AND GUTTER REMOVAL		
	REMOVE BARBED WIRE FENCE		

① INCLUDED IN COMMON EX.

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY *Josephine Sunquist*

LIC. NO. 20534 DATE 4/4/07

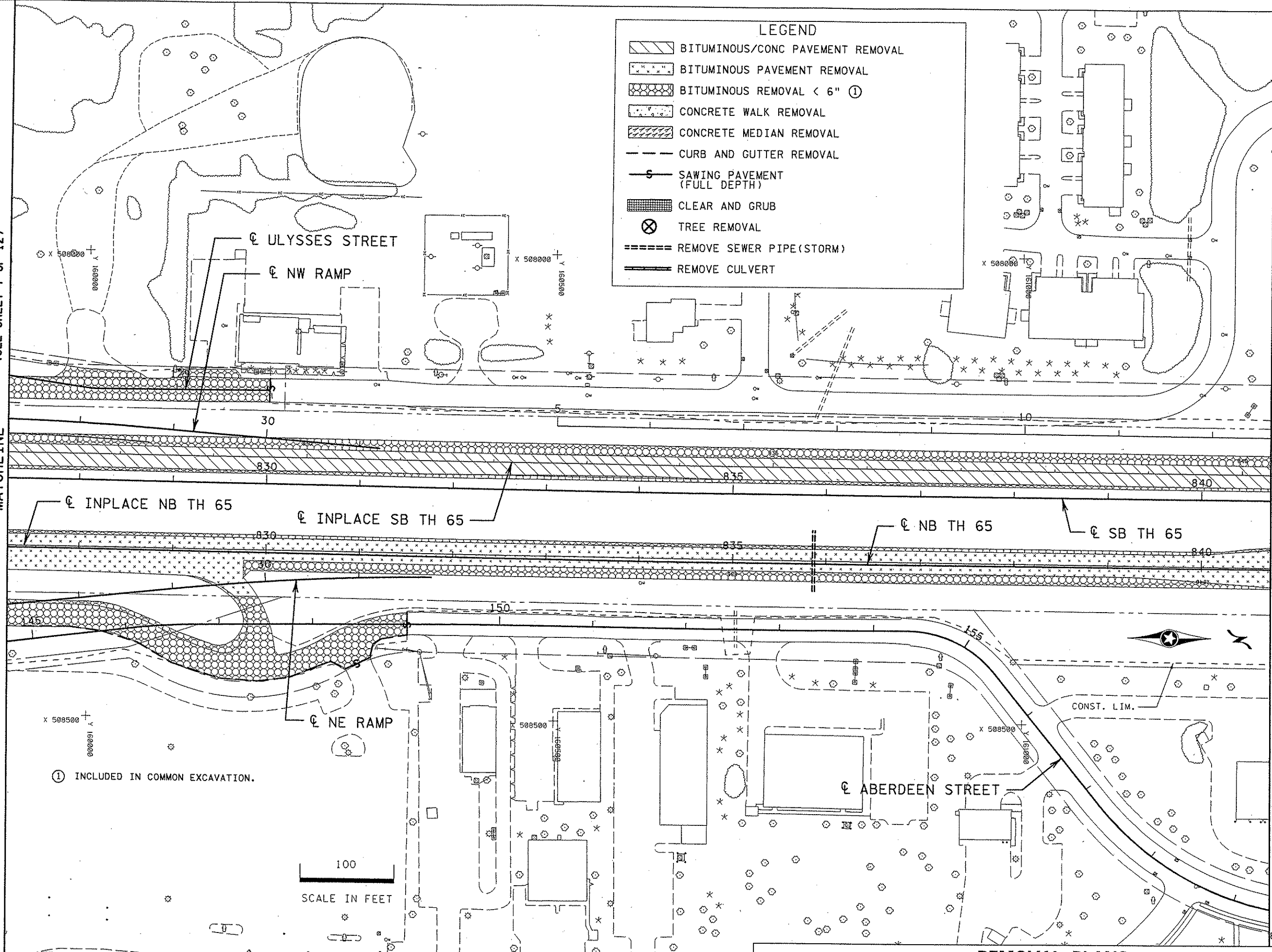
REMOVAL PLANS

DISTRICT #: METRO
PLOT NAME: 0208123_remh
PATH & FILENAME: S:\Design\065\0208123\Final\Notes\REMOVALS\0208123_remh.dgn

PLOTTED/REVISED: 28-MAR-2007 15:27

MATCHLINE (SEE SHEET 7 OF 12)

MATCHLINE (SEE SHEET 9 OF 12)



① INCLUDED IN COMMON EXCAVATION.

100
SCALE IN FEET

REMOVAL PLANS

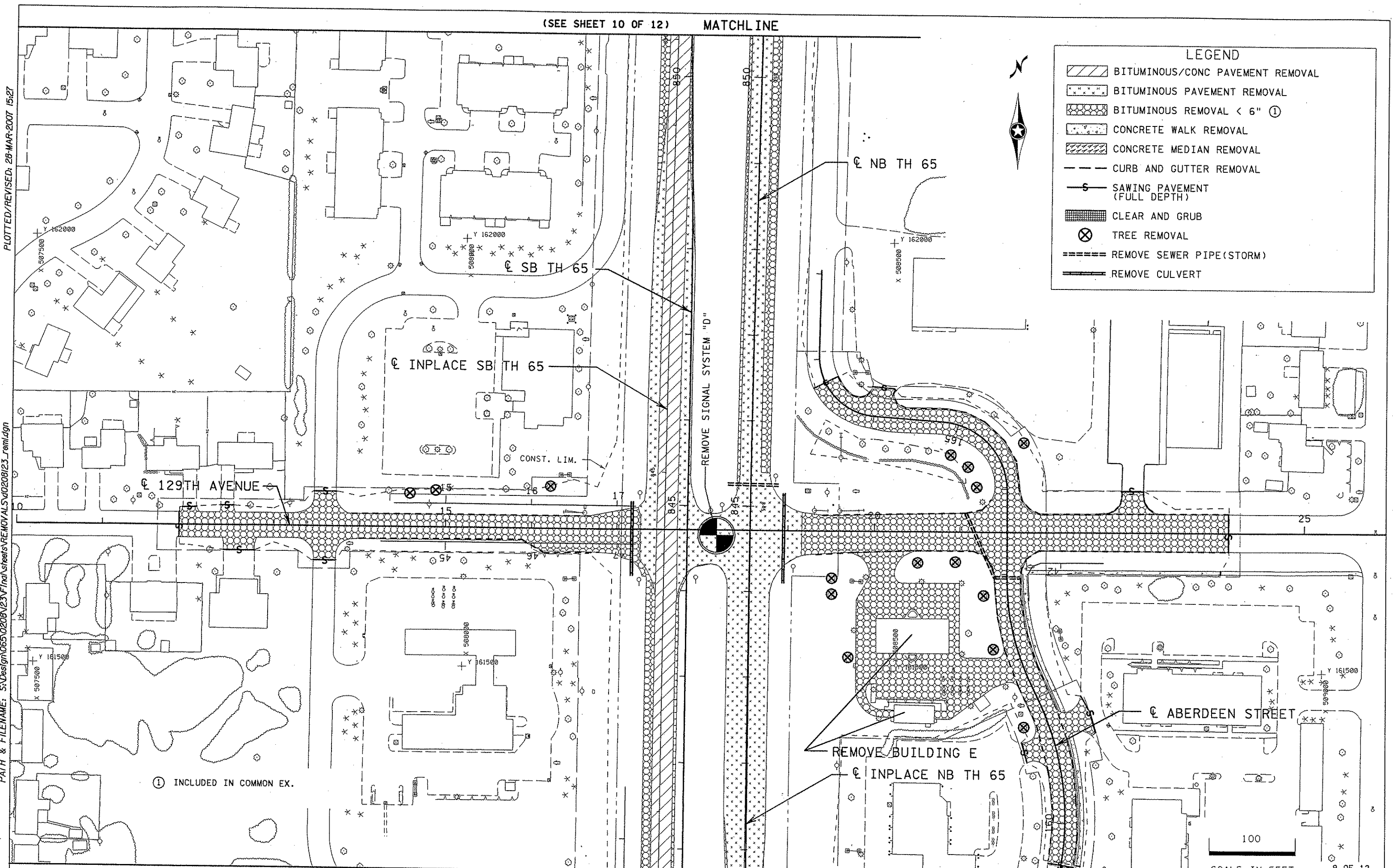
LEGEND

	BITUMINOUS/CONC PAVEMENT REMOVAL
	BITUMINOUS PAVEMENT REMOVAL
	BITUMINOUS REMOVAL < 6" ①
	CONCRETE WALK REMOVAL
	CONCRETE MEDIAN REMOVAL
	CURB AND GUTTER REMOVAL
	SAWING PAVEMENT (FULL DEPTH)
	CLEAR AND GRUB
	TREE REMOVAL
	REMOVE SEWER PIPE (STORM)
	REMOVE CULVERT



PLOTTED/REVISED: 28-MAR-2007 15:27

DISTRICT #: METRO
PLOT NAME: j0208123_rml
PATH & FILENAME: S:\Design\065\0208\23\Final\steel\REMOVALS\0208123_rml.dgn



① INCLUDED IN COMMON EX.

SCALE IN FEET
100
9 OF 12

REMOVAL PLANS

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO 0208-123 (T.H. 65) SHEET NO. 191 OF 872 SHEETS

DISTRICT: METRO
PLOT NAME: 0208123_rem
PATH & FILENAME: S:\Design\065\0208123\Final\Sheets\REMOVALS\0208123_rem.dgn
PLOTTED/REVISED: 28-MAR-2007 15:27

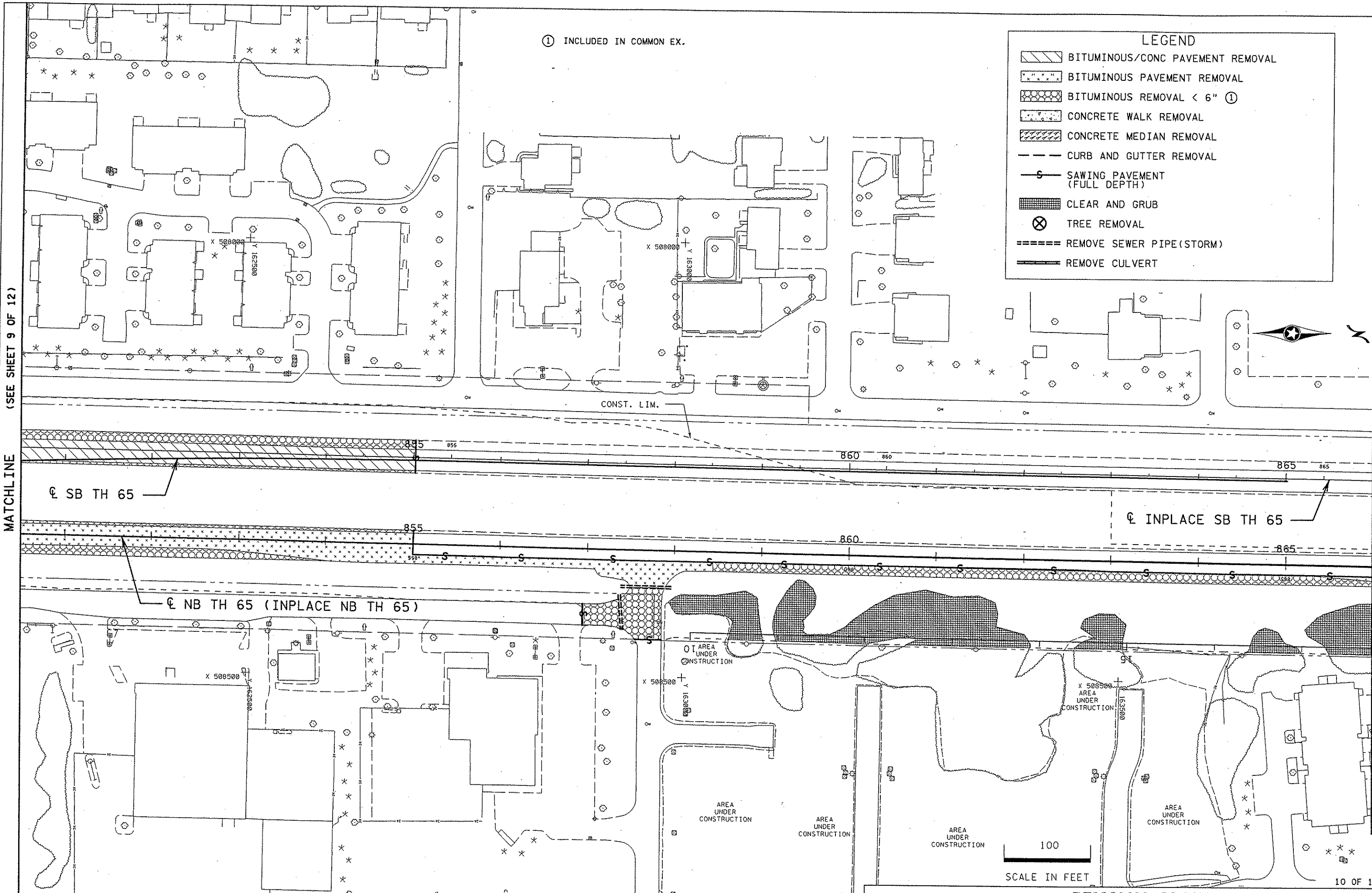
MATCHLINE (SEE SHEET 9 OF 12)

MATCHLINE (SEE SHEET 11 OF 12)

① INCLUDED IN COMMON EX.

LEGEND

- BITUMINOUS/CONC PAVEMENT REMOVAL
- BITUMINOUS PAVEMENT REMOVAL
- BITUMINOUS REMOVAL < 6" ①
- CONCRETE WALK REMOVAL
- CONCRETE MEDIAN REMOVAL
- CURB AND GUTTER REMOVAL
- SAWING PAVEMENT (FULL DEPTH)
- CLEAR AND GRUB
- TREE REMOVAL
- REMOVE SEWER PIPE (STORM)
- REMOVE CULVERT



100
SCALE IN FEET

10 OF 12

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

REMOVAL PLANS

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 192 OF 872 SHEETS

DISTRICT #: METRO
I/PLOT NAME: d0208123_rmk
PATH & FILENAME: S:\Design\0208\123\Final\Sheets\REMOVALS\d0208123_rmk.dgn

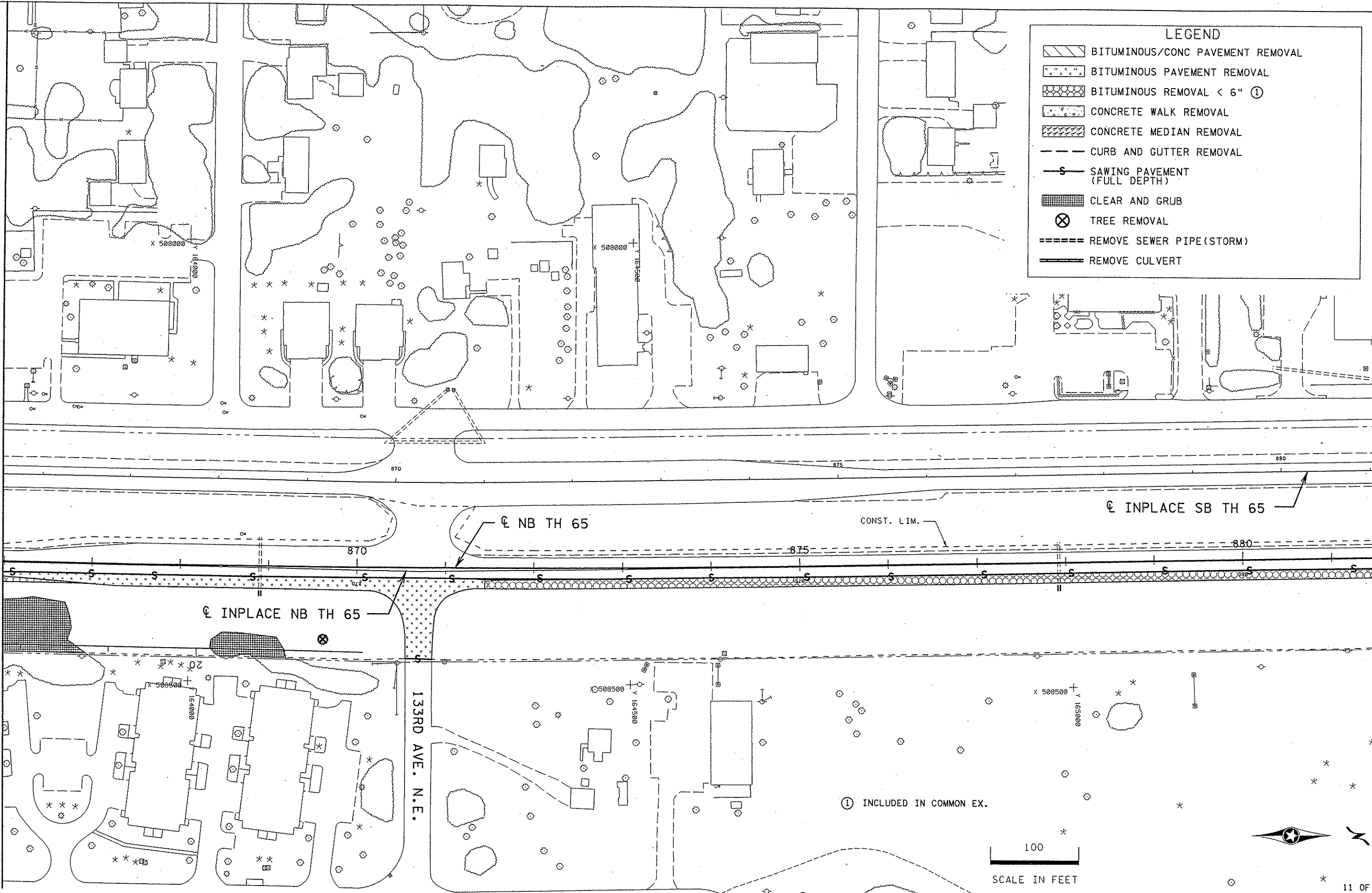
PLOTTED/REVISED: 28-MAR-2007 15:28

(SEE SHEET 10 OF 12)

MATCHLINE

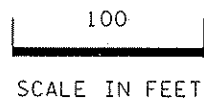
(SEE SHEET 12 OF 12)

MATCHLINE



LEGEND	
	BITUMINOUS/CONC PAVEMENT REMOVAL
	BITUMINOUS PAVEMENT REMOVAL
	BITUMINOUS REMOVAL < 6" ①
	CONCRETE WALK REMOVAL
	CONCRETE MEDIAN REMOVAL
	CURB AND GUTTER REMOVAL
	SAWING PAVEMENT (FULL DEPTH)
	CLEAR AND GRUB
	TREE REMOVAL
	REMOVE SEWER PIPE (STORM)
	REMOVE CULVERT

① INCLUDED IN COMMON EX.



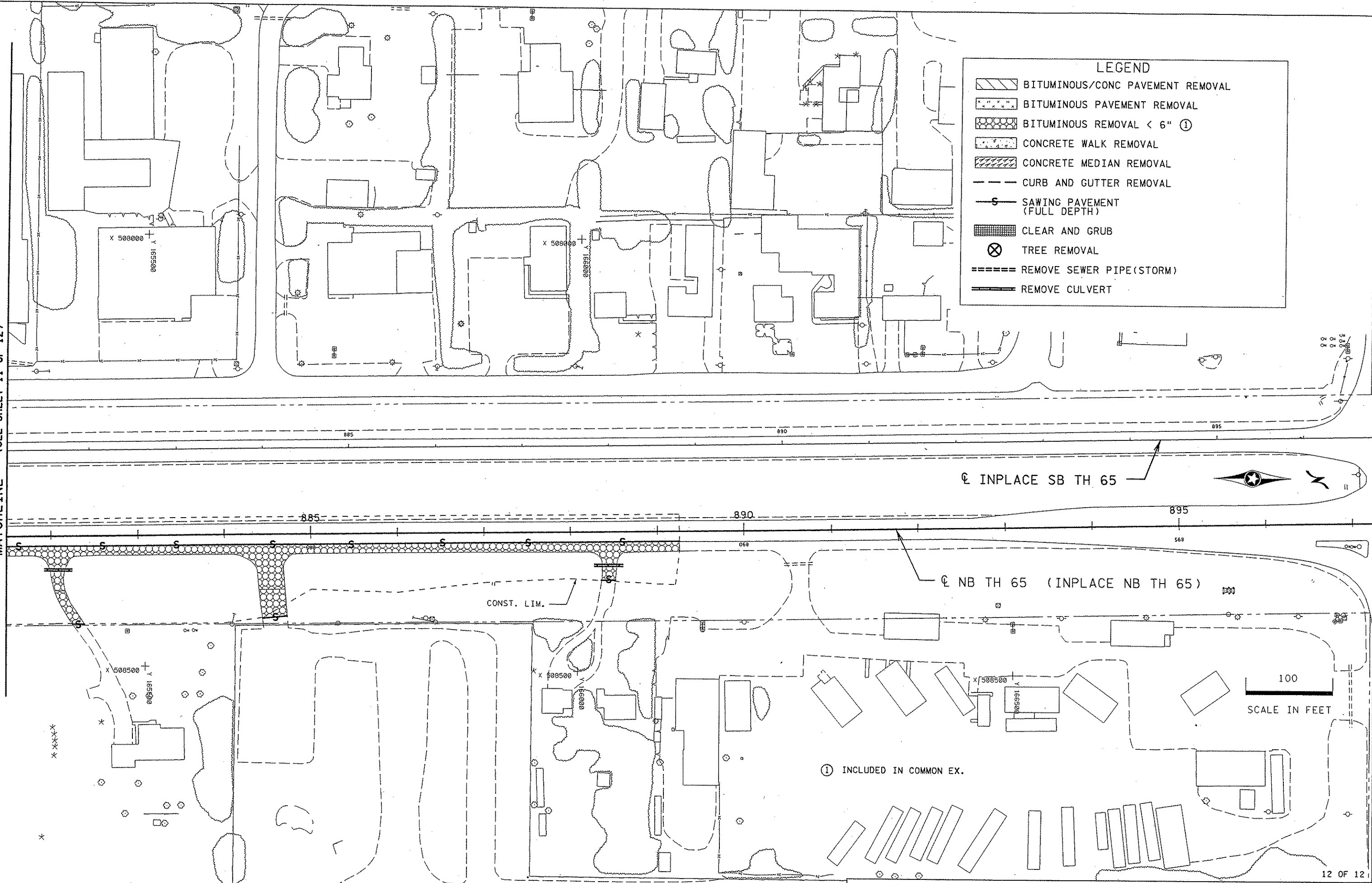
11 OF 12

REMOVAL PLANS

DISTRICT #: METRO
 IPLOT NAME: 0208123_rml
 PATH & FILENAME: S:\Design\065\0208123\Final\Removals\0208123_rml.dgn

PLOTTED/REVISED: 28-MAR-2007 15:28

MATCHLINE (SEE SHEET 11 OF 12)



LEGEND

	BITUMINOUS/CONC PAVEMENT REMOVAL
	BITUMINOUS PAVEMENT REMOVAL
	BITUMINOUS REMOVAL < 6" ①
	CONCRETE WALK REMOVAL
	CONCRETE MEDIAN REMOVAL
	CURB AND GUTTER REMOVAL
	SAWING PAVEMENT (FULL DEPTH)
	CLEAR AND GRUB
	TREE REMOVAL
	REMOVE SEWER PIPE (STORM)
	REMOVE CULVERT

☉ INPLACE SB TH 65

☉ NB TH 65 (INPLACE NB TH 65)

CONST. LIM.

① INCLUDED IN COMMON EX.

100
SCALE IN FEET

12 OF 12

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY *Josephine L...*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

REMOVAL PLANS

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 194 OF 872 SHEETS

PLOTTED/REVISED: 02-FEB-2007 14:05

DISTRICT #: METRO
I/PLOT NAME: c0208123_cpa
PATH & FILENAME: S:\Design\065\0208\23\Final\stheets\CONSTR\0208123_cpa.dgn

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL

NOTE:
THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.



x 508000
y 154500

x 508000
y 155000

x 508000
y 155500

BEGIN S.P. 0208-123
STA. 780+00

Q SB TH 65

CONST. LIM.

STA. 773+33 BEGIN CROSSOVER CONSTRUCTION

780 12' SHLD

785

12' SHLD

+00 - BEG. CONST. 4' SHLD

780 4' SHLD

785

4' SHLD

+00 - BEG. CONST.

Q NB TH 65

x 508500
y 154500

x 508500
y 155000

x 508500
y 155500

100

1 OF 12

MATCH LINE (SEE SHEET 3 OF 12)

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

SCALE IN FEET

LIC. NO. 20534 DATE 2/2/07

CONSTRUCTION PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 195 OF 872 SHEETS

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL



X 506500
Y 156500

X 507000
Y 156500

X 506500
Y 156000

X 507000
Y 156000

- NOTE:**
- ① CONSTRUCT APPROACH NOSE, DES. 7113
 - ② PEDESTRIAN CURB RAMP DES. 7036
 - ③ SEE SHEET 95 FOR DETAILS.

100
SCALE IN FEET

CONSTRUCTION PLAN

DRAWN BY: RLH

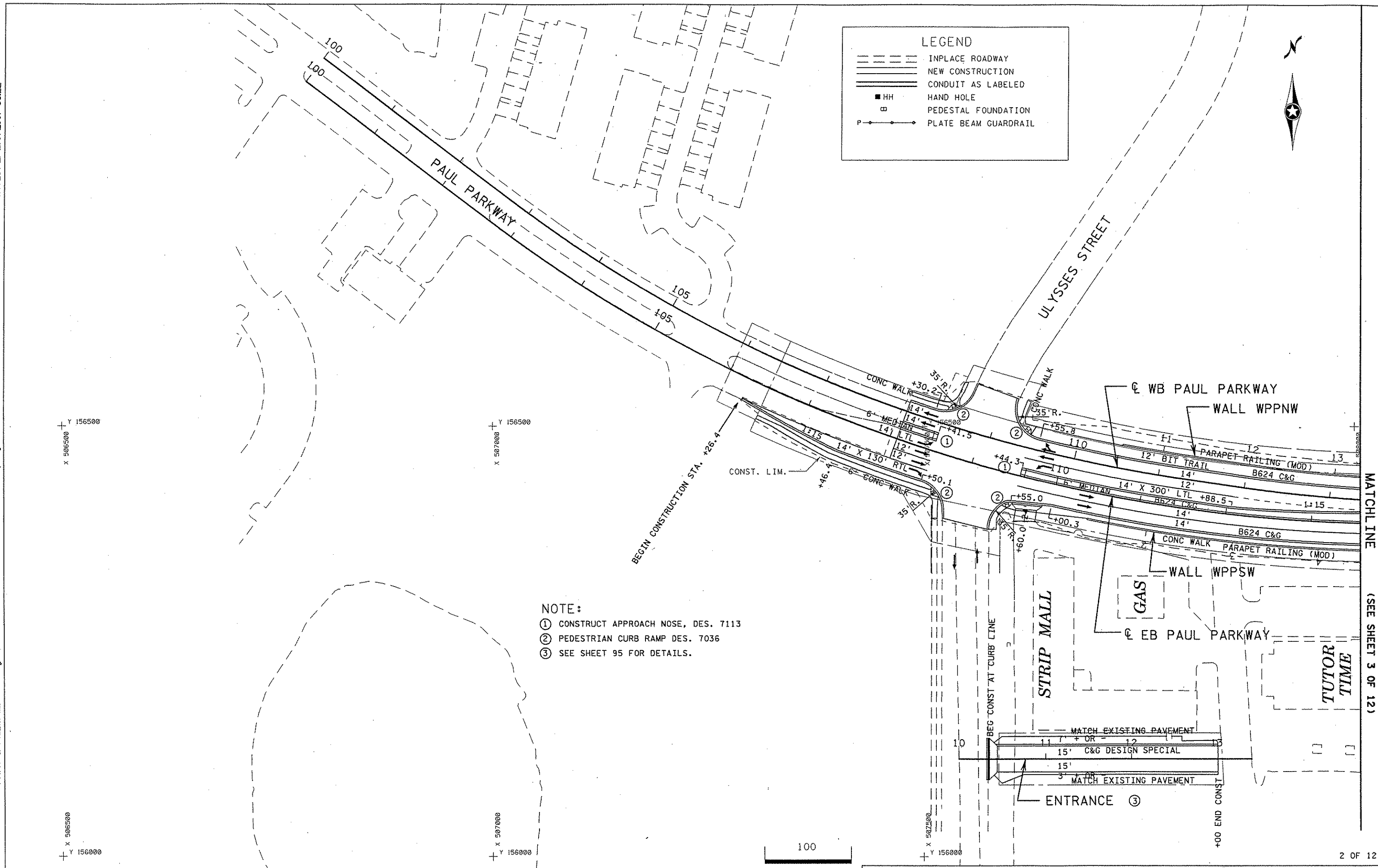
CHECKED BY: MW

CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 196 OF 872 SHEETS

MATCHLINE (SEE SHEET 3 OF 12)

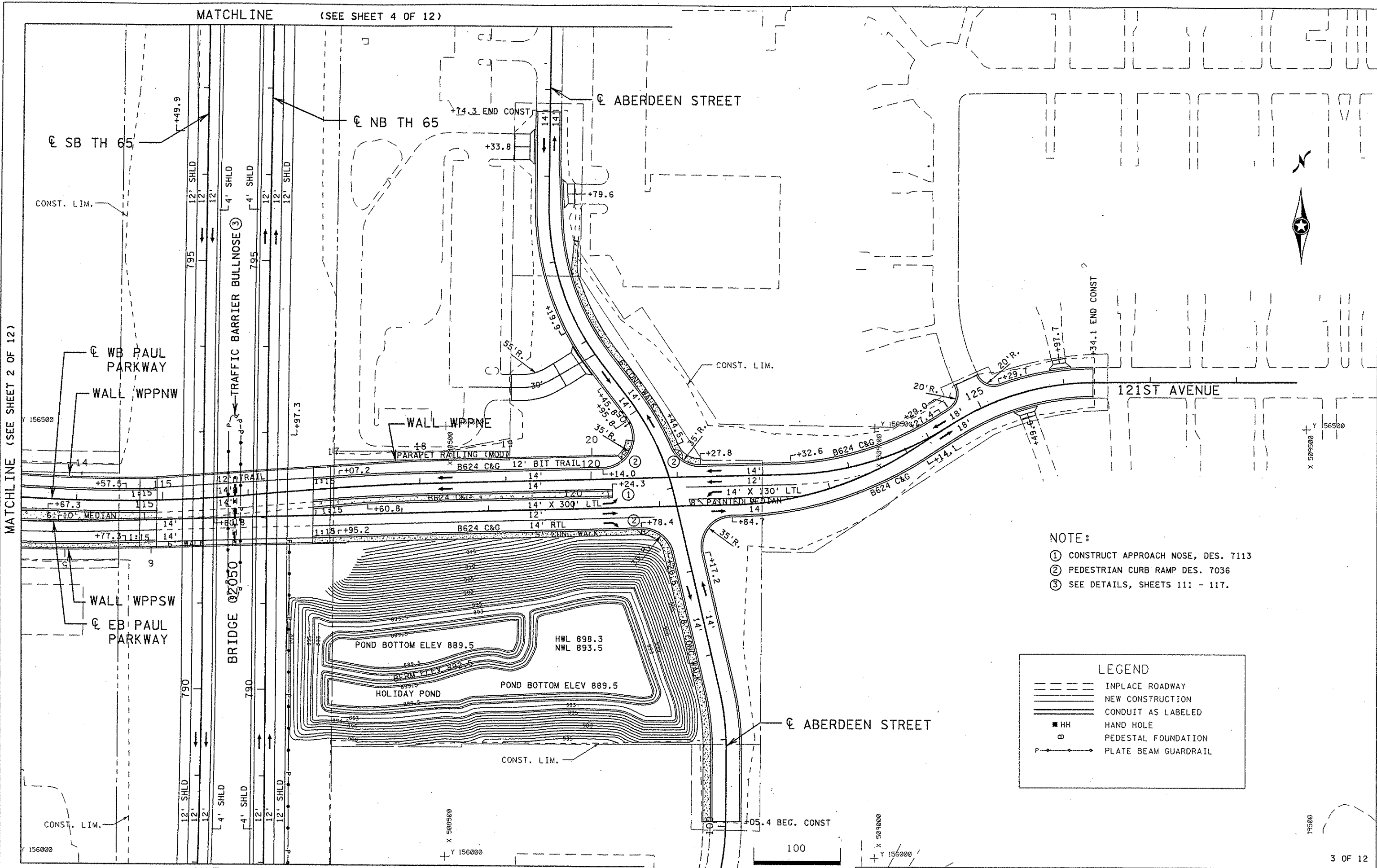


DISTRICT #: METRO
I/PLOT NAME: 0208123.cpc
PATH & FILENAME: S:\Design\065\0208123\In\Asst\Const\0208123.cpc.dgn

PLOTTED/REVISED: 26-MAR-2007 09:48

MATCHLINE (SEE SHEET 2 OF 12)

MATCHLINE (SEE SHEET 1 OF 12)



- NOTE:**
- ① CONSTRUCT APPROACH NOSE, DES. 7113
 - ② PEDESTRIAN CURB RAMP DES. 7036
 - ③ SEE DETAILS, SHEETS 111 - 117.

LEGEND

- INPLACE ROADWAY
- ==== NEW CONSTRUCTION
- ==== CONDUIT AS LABELED
- HH HAND HOLE
- PEDESTAL FOUNDATION
- P- - - PLATE BEAM GUARDRAIL

PLOTTED/REVISED: 28-MAR-2007 08:16

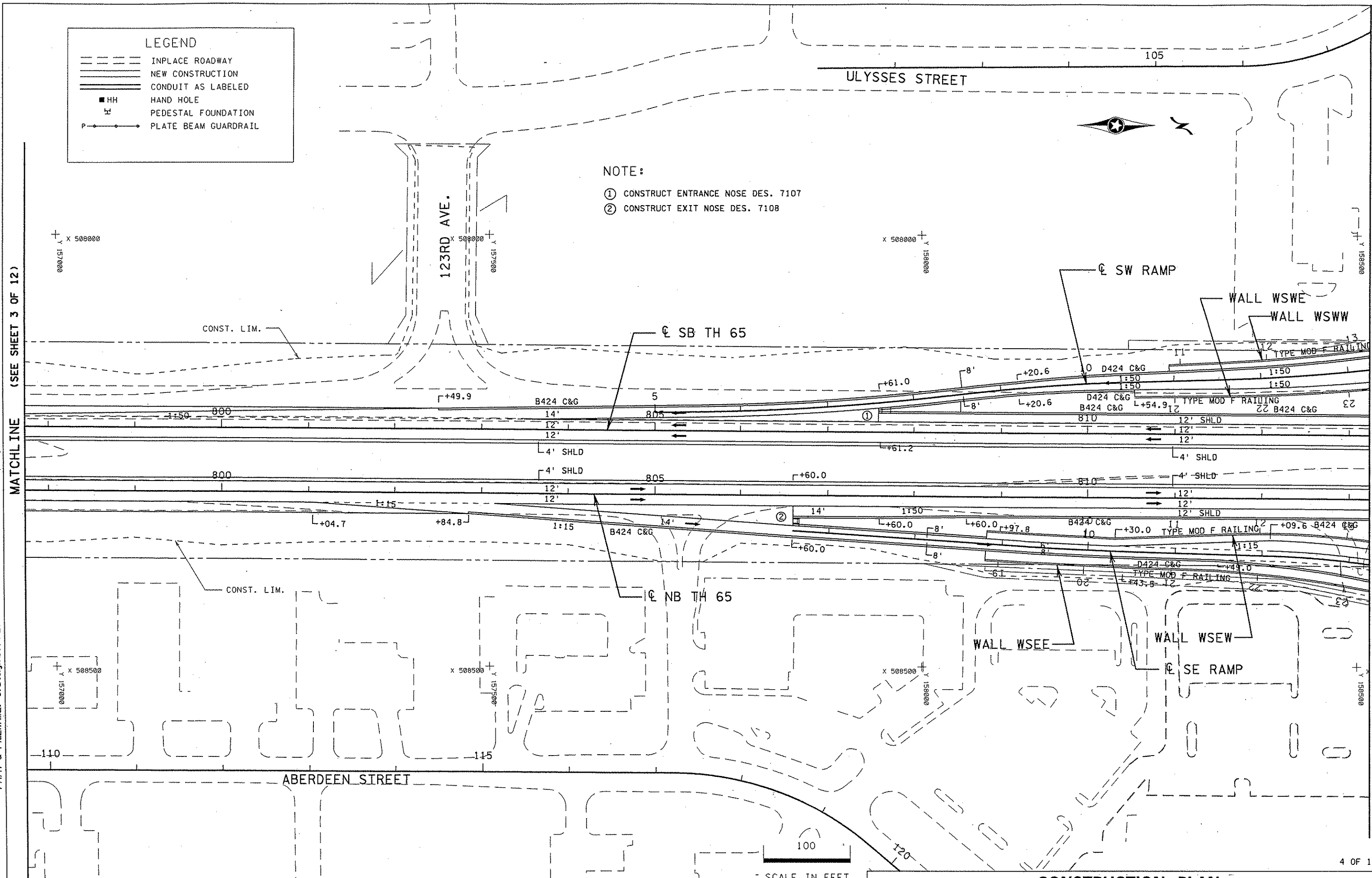
DISTRICT #: METRO
PLOT NAME: 0208123.cpd
PATH & FILENAME: S:\Design\065\0208123\Final\streets\CONST\0208123.cpd.dgn

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL

NOTE:

- ① CONSTRUCT ENTRANCE NOSE DES. 7107
- ② CONSTRUCT EXIT NOSE DES. 7108



100
SCALE IN FEET

CONSTRUCTION PLAN

PLOTTED/REVISED: 26-MAR-2007 09:48

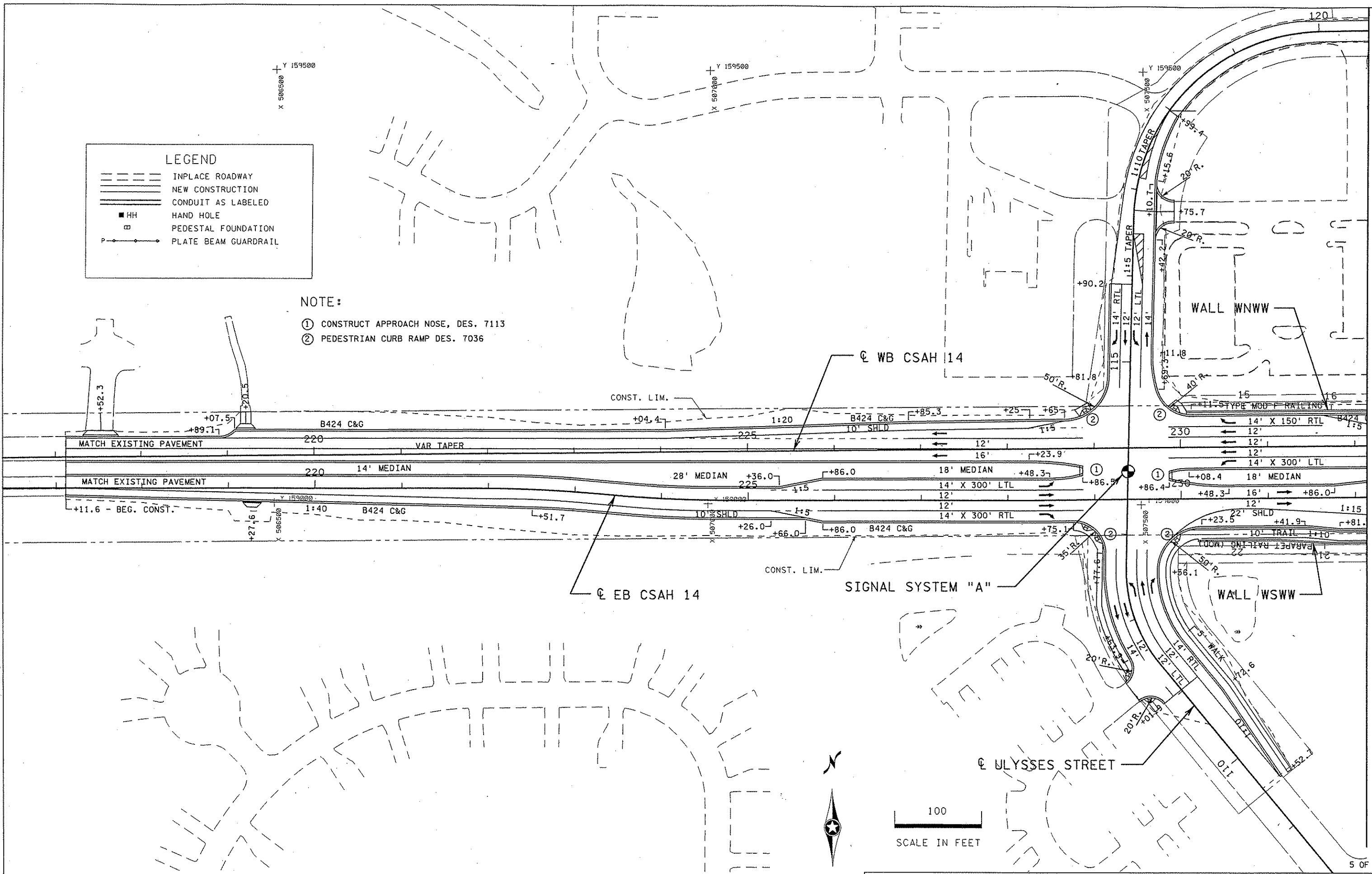
DISTRICT #: METRO
PLOT NAME: d0208123.cpl
PATH & FILENAME: S:\Design\065\0208\123\Final\streets\CONST\0208123.cpl.dgn

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- B PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL

NOTE:

- ① CONSTRUCT APPROACH NOSE, DES. 7113
- ② PEDESTRIAN CURB RAMP DES. 7036



100
SCALE IN FEET

MATCHLINE (SEE SHEET 7 OF 12)

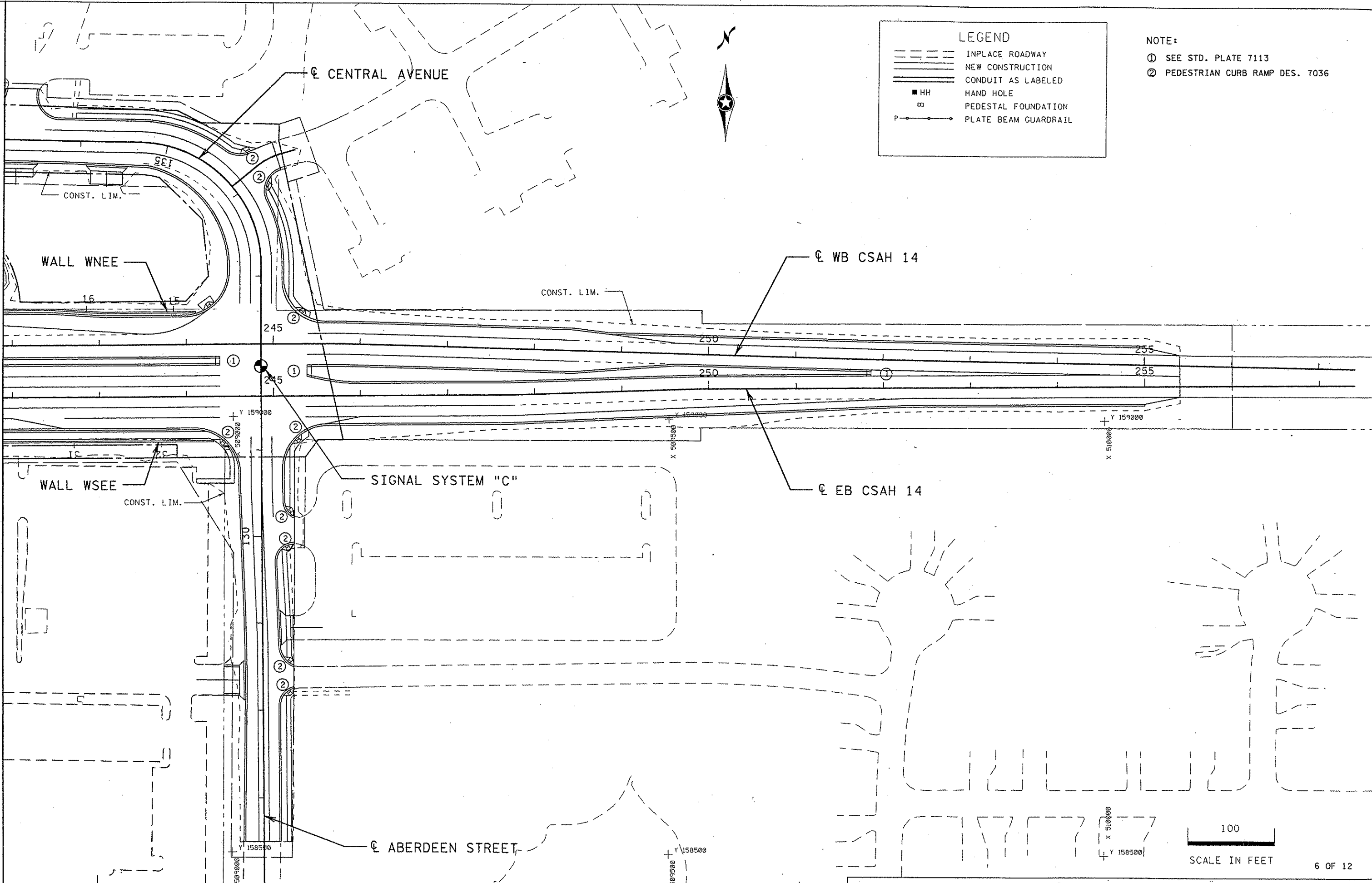
5 OF 12

CONSTRUCTION PLAN

PLOTTED/REVISED: 26-MAR-2007 11:22

MATCHLINE (SEE SHEET 7 OF 12)

DISTRICT *: METRO
PLOT NAME: 0208123_cpf
PATH & FILENAME: S:\Design\065\0208\123\1\Inrd\streets\CONST\0208123_cpf.dgn



NOTE:
 ① SEE STD. PLATE 7113
 ② PEDESTRIAN CURB RAMP DES. 7036

100
 SCALE IN FEET

6 OF 12

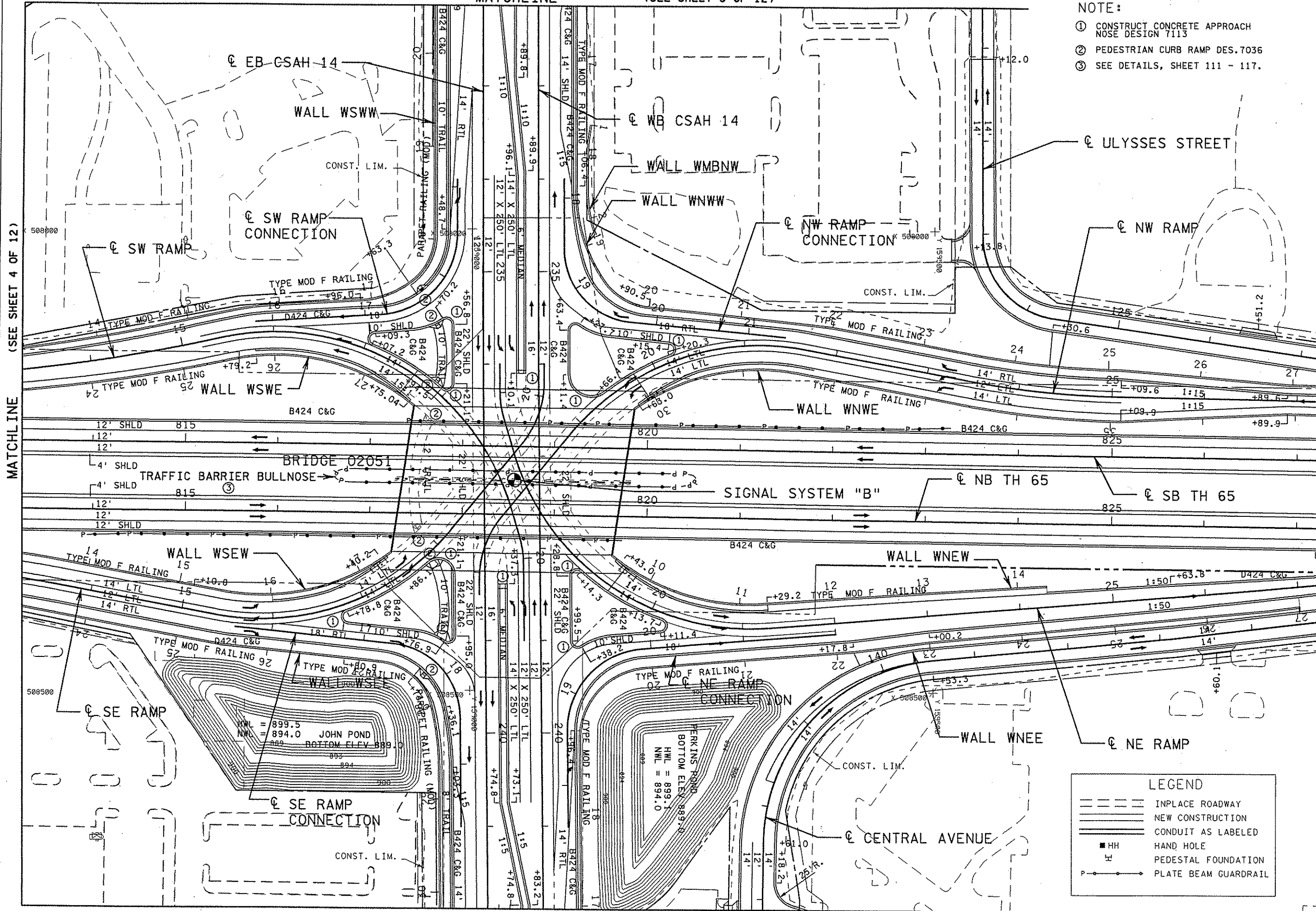
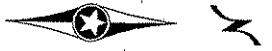
CONSTRUCTION PLAN

PLOTTED/REVISED: 26-MAR-2007 11:27

DISTRICT #: METRO
PLOT NAME: 0208123.cpg
PATH & FILENAME: S:\Design\065\0208123\Final\AsBuilt\CONST\0208123_cpg.dgn

MATCHLINE (SEE SHEET 5 OF 12)

- NOTE:
- ① CONSTRUCT CONCRETE APPROACH NOSE DESIGN 7113
 - ② PEDESTRIAN CURB RAMP DES.7036
 - ③ SEE DETAILS, SHEET 111 - 117.



(SEE SHEET 4 OF 12)

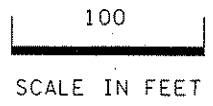
MATCHLINE

(SEE SHEET 8 OF 12)

MATCHLINE

LEGEND

	INPLACE ROADWAY
	NEW CONSTRUCTION
	CONDUIT AS LABELED
	HAND HOLE
	PEDESTAL FOUNDATION
	PLATE BEAM GUARDRAIL



MATCHLINE (SEE SHEET 6 OF 12)

CONSTRUCTION PLAN

DRAWN BY: RLH

CHECKED BY: MW

CERTIFIED BY *Gregory J. Kunkel*

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 201 OF 2

PLOTTED/REVISED: 26-MAR-2007 09:48

DISTRICT #: METRO
PLOT NAME: d0208123_cph
PATH & FILENAME: S:\Des\gn\065\0208\23\Final\streets\CONSTR\0208123_cph.dgn

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL

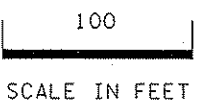
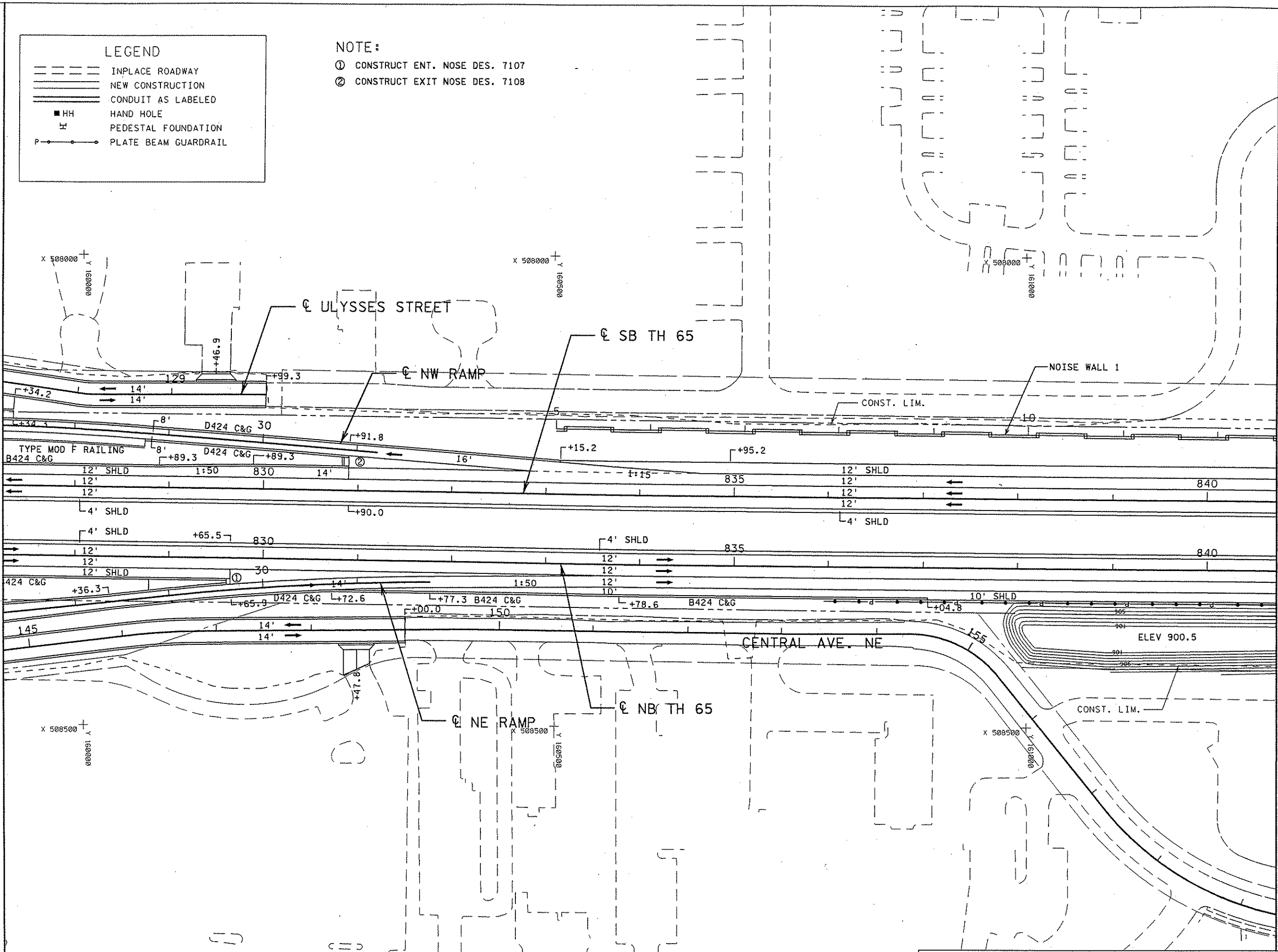
NOTE:

- ① CONSTRUCT ENT. NOSE DES. 7107
- ② CONSTRUCT EXIT NOSE DES. 7108



MATCHLINE (SEE SHEET 7 OF 12)

MATCHLINE (SEE SHEET 9 OF 12)



CONSTRUCTION PLAN

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- B PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL

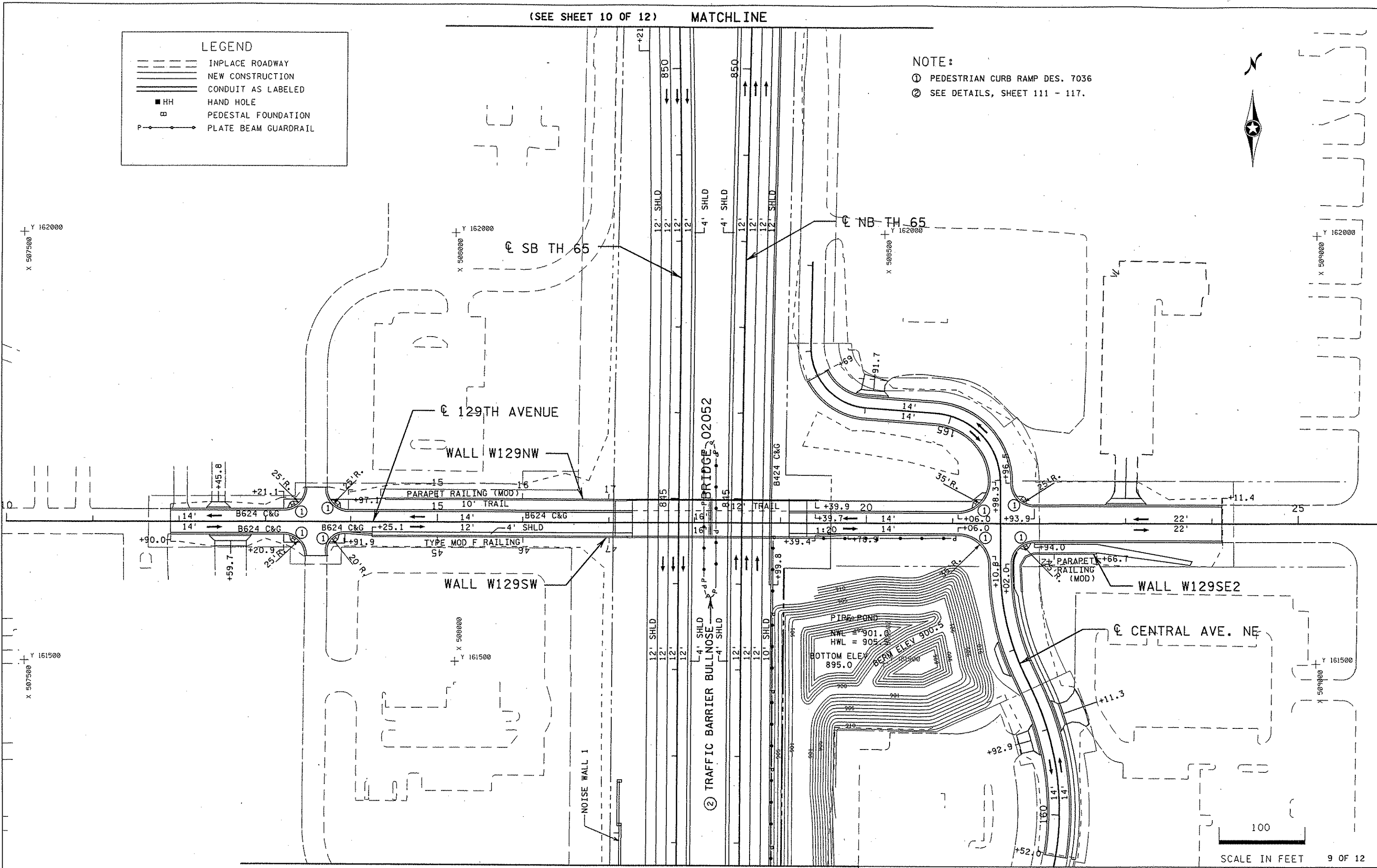
NOTE:

- ① PEDESTRIAN CURB RAMP DES. 7036
- ② SEE DETAILS, SHEET 111 - 117.



PLOTTED/REVISED: 26-MAR-2007 09:48

DISTRICT #: METRO
 IPLOT NAME: 0208123_cpl
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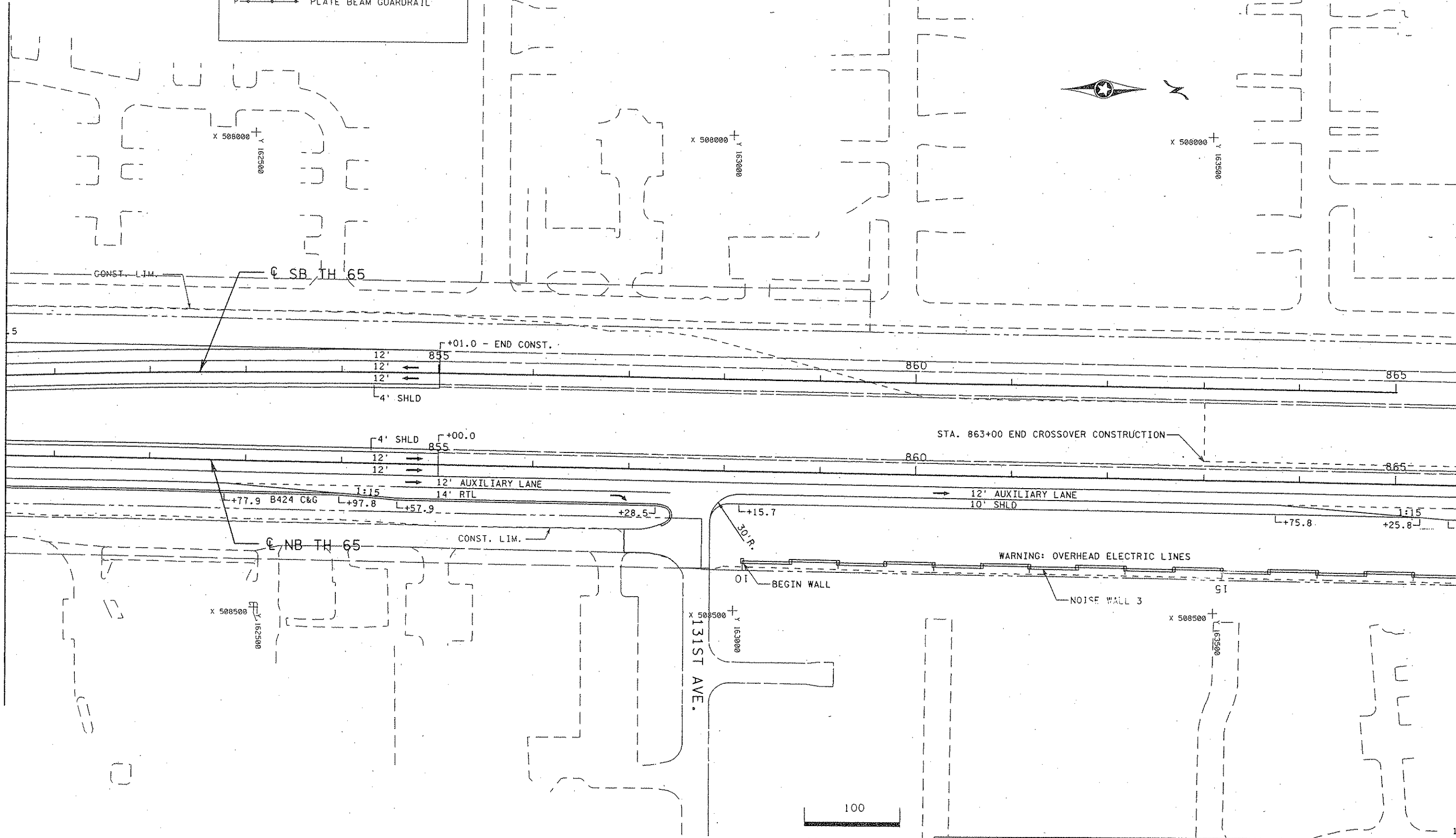
PLOTTED/REVISED: 02-FEB-2007 14:06

(SEE SHEET 9 OF 12)

DISTRICT #: METRO
PLOT NAME: d0208123_cpl
PATH & FILENAME: S:\Design\065\0208\23\Final\Sheet\CONSTR\d0208123_cpl.dgn

LEGEND

- INPLACE ROADWAY
- NEW CONSTRUCTION
- CONDUIT AS LABELED
- HH HAND HOLE
- PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL



100
SCALE IN FEET

10 OF 12

MATCHLINE (SEE SHEET 9 OF 12)

MATCHLINE (SEE SHEET 11 OF 12)

DISTRICT: METRO
PLOT NAME: 0208123_cpk
PATH & FILENAME: S:\Design\065\0208\2\3\Final\steele\CONST\0208123_cpk.dgn

PLOTTED/REVISED: 31-JAN-2007 08:19

LEGEND

- INPLACE ROADWAY
- ==== NEW CONSTRUCTION
- ==== CONDUIT AS LABELED
- HH HAND HOLE
- H PEDESTAL FOUNDATION
- PLATE BEAM GUARDRAIL

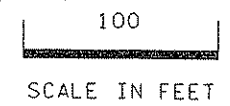
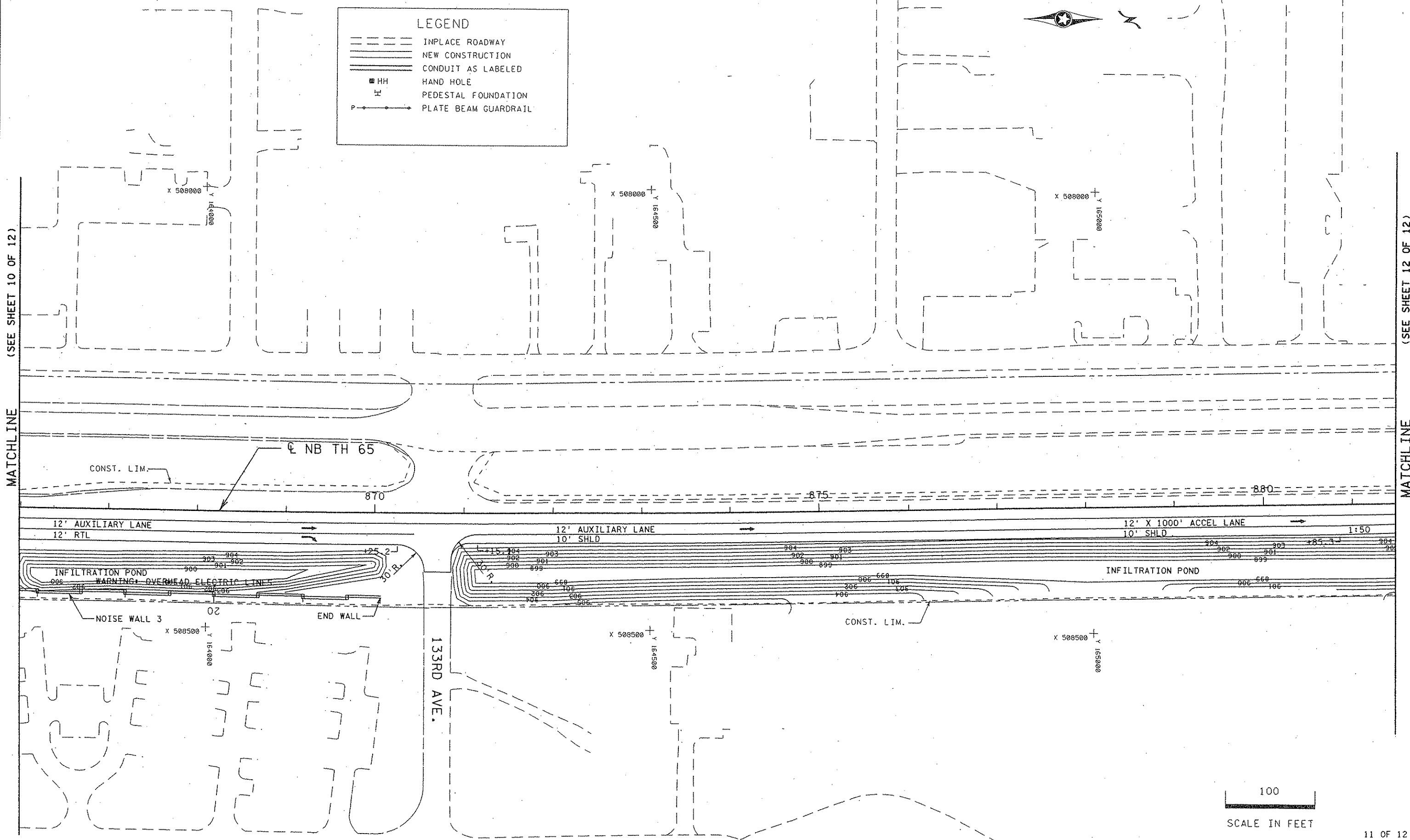


(SEE SHEET 10 OF 12)

MATCHLINE

(SEE SHEET 12 OF 12)

MATCHLINE

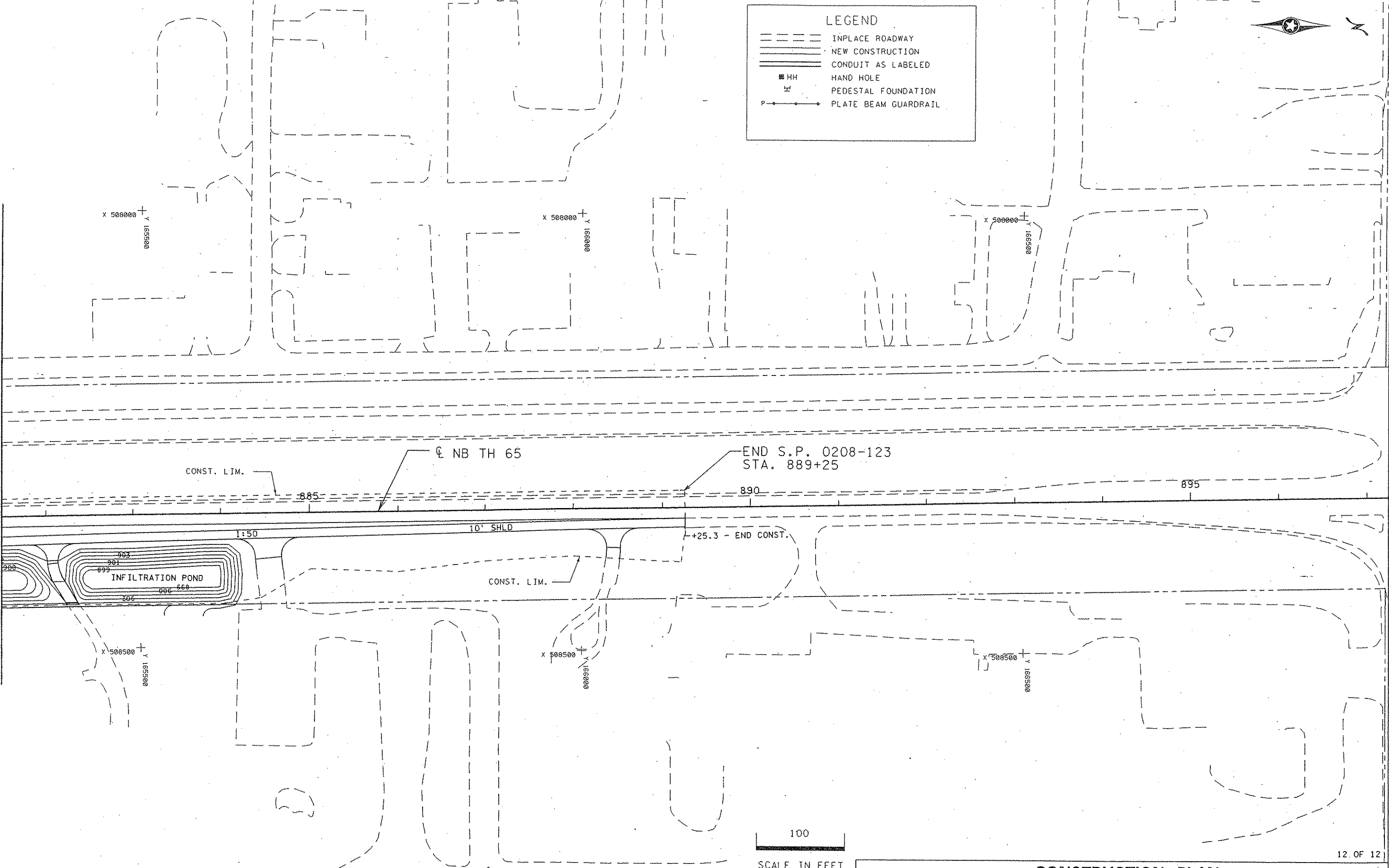


CONSTRUCTION PLAN

DISTRICT #: METRO
PLOT NAME: 0208123.cpl
PATH & FILENAME: S:\Des\gm\065\0208\23\Final\steele\CONST\0208123.cpl.dgn

PLOTTED/REVISED: 31-JAN-2007 08:19

MATCHLINE (SEE SHEET 11 OF 12)



LEGEND

- INPLACE ROADWAY
- ==== NEW CONSTRUCTION
- ==== CONDUIT AS LABELED
- HH HAND HOLE
- ⊕ PEDESTAL FOUNDATION
- P — PLATE BEAM GUARDRAIL

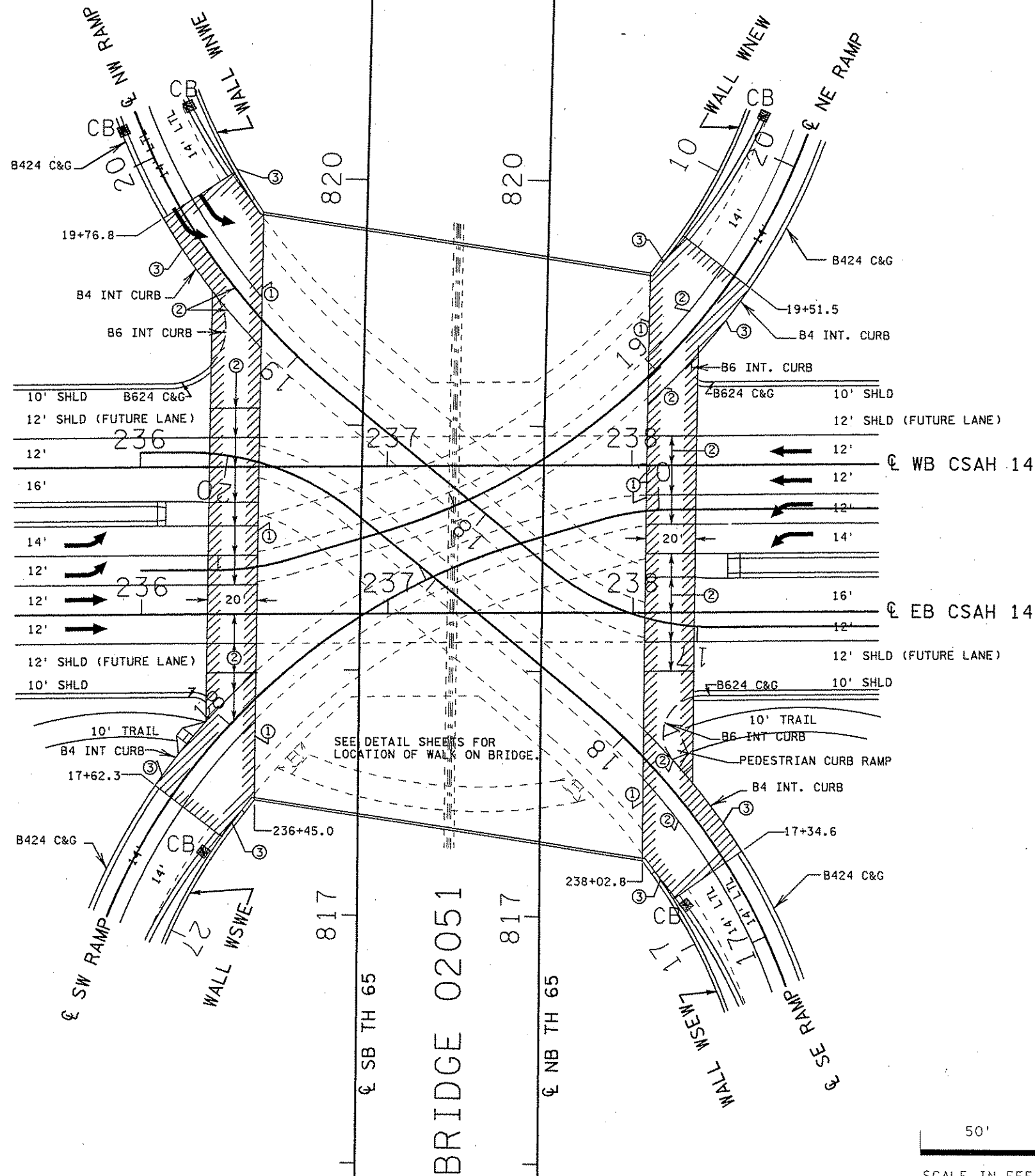
100
SCALE IN FEET

12 OF 12

CONSTRUCTION PLAN

PLOTTED/REVISED: 28-MAR-2007 08:32

DISTRICT #: METRO
 IPLOT NAME: BR_APP_02051
 PATH & FILENAME: S:\Design\065\0208\123\In\0208123_d44.dgn



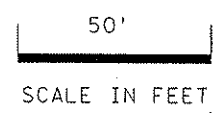
BRIDGE APPROACH PANELS			
PANEL	DESCRIPTION	PAVEMENT	NOTES
		SQ YD	
BRIDGE 02051	EAST	655	
	WEST	655	
	SUB TOTAL	1310	

REBAR REQUIREMENTS FOR BRIDGE APPROACH PANELS	
BRIDGE TO CONTRACTION JOINT	48.5 LB./SQ YD PLUS 3 EXTRA NO. 16 BARS FOR EXPANSION JOINT (IF NEEDED)
CONTRACTION JOINT TO END OF APPROACH PANEL	30.8 LB./SQ. YD.
7.0 FT. CURB TRANSITION SILL (IF REQUIRED)	20.1 LB EACH
	13.6 LB./ LINEAR FOOT

ANY DOWEL BARS REQUIRED ARE NOT INCLUDED IN THE ABOVE TABLE. QUANTITIES LISTED ABOVE ARE FOR INFORMATIONAL PURPOSES. ANY ADDITIONAL MINOR ITEMS AND SLIGHT CHANGES IN QUANTITIES REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION.

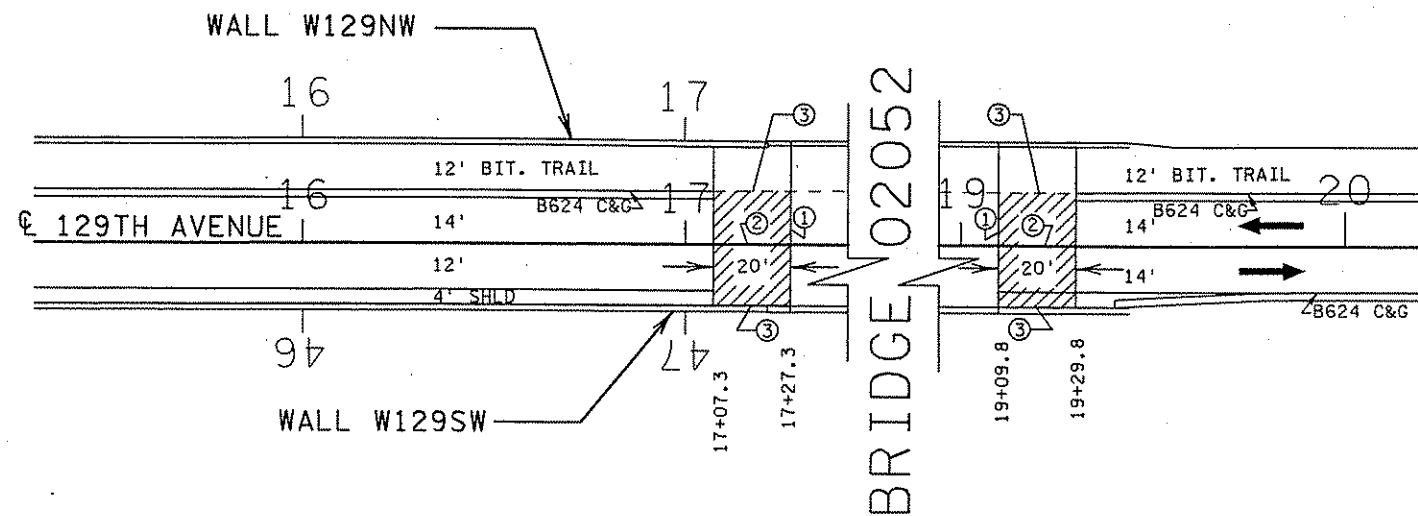
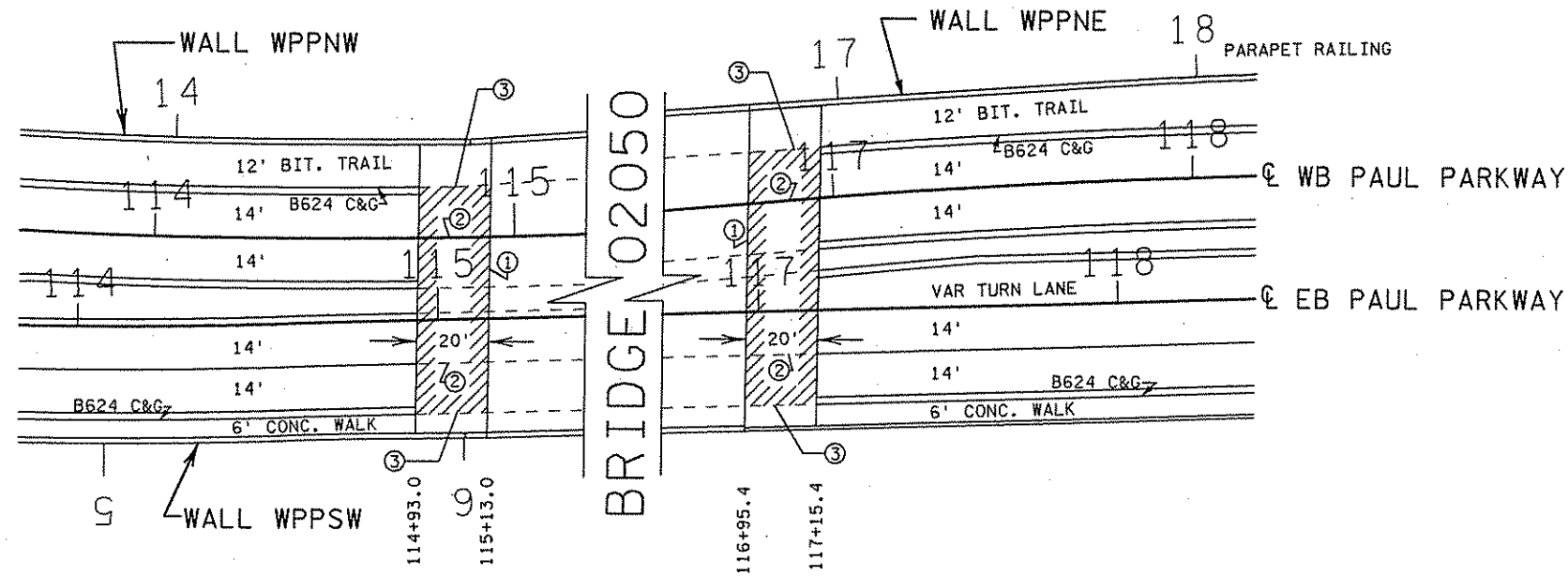
- ① CONSTRUCT C2B JOINT
- ② L2KT OR L1T JOINT
- ③ E2-1 JOINT
- ④ CONCRETE OVERLAY QUANTITIES ARE INCLUDED IN THE BRIDGE PLANS

DENOTES PAYMENT LIMITS OF BRIDGE APPROACH PANEL

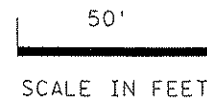


PLOTTED/REVISED: 04-APR-2007 09:19

DISTRICT #: METRO
 IPLOT NAME: br_ap_050_052
 PATH & FILENAME: S:\Dbs\gmg\065\0208\123\Final\0208123_dtd4.dgn



DENOTES PAYMENT LIMITS OF BRIDGE APPROACH PANEL



BRIDGE APPROACH PANELS			
PANEL	DESCRIPTION	PAVEMENT	NOTES
		SQ YD	
BRIDGE 02050	EAST	157	
	WEST	140	
	SUB TOTAL	297	
BRIDGE 02052	EAST	66	
	WEST	67	
	SUB TOTAL	133	

REBAR REQUIREMENTS FOR BRIDGE APPROACH PANELS	
BRIDGE TO CONTRACTION JOINT	48.5 LB./SQ YD PLUS 3 EXTRA NO. 16 BARS FOR EXPANSION JOINT (IF NEEDED)
CONTRACTION JOINT TO END OF APPROACH PANEL	30.8 LB./SQ. YD.
7.0 FT. CURB TRANSITION	20.1 LB EACH
SILL (IF REQUIRED)	13.6 LB./ LINEAR FOOT

ANY DOWEL BARS REQUIRED ARE NOT INCLUDED IN THE ABOVE TABLE. QUANTITIES LISTED ABOVE ARE FOR INFORMATIONAL PURPOSES. ANY ADDITIONAL MINOR ITEMS AND SLIGHT CHANGES IN QUANTITIES REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION.

- ① CONSTRUCT C2B JOINT
- ② L2KT OR L1T JOINT
- ③ E2-1 JOINT
- ④ CONCRETE OVERLAY QUANTITIES ARE INCLUDED IN THE BRIDGE PLANS
- ⑤ 100% HPP-UG FUNDING

BRIDGE APPROACH PANELS SUMMARY S		
BRIDGE	PAVEMENT	NOTES
	SQ YD	
BRIDGE 02050	297	⑤
BRIDGE 02051	1310	
BRIDGE 02052	133	⑤
TOTAL	1740	

DRAWN BY: MW

CHECKED BY: DY

CERTIFIED BY Josephine Lundquist LIC. NO. 20534 DATE 4/4/07

BRIDGE APPROACH PANEL DETAILS
 STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 208 OF 872 SHEETS

END BRIDGE

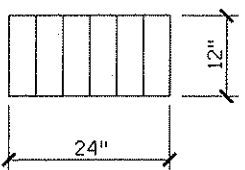
BRICK PATTERN (2) X

(3) X (4) X CONCRETE OVERLAY (TYP)

PEDESTRIAN CURB RAMP (TYP)
STANDARD PLATE NO. 7036
WITH RED COLORED DETECTABLE
WARNING FEATURE (TRUNCATED DOME)

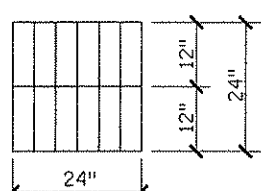
BRICK PATTERN (1) X

4" x 12" SOLDIER COURSE BRICK
SINGLE ROW

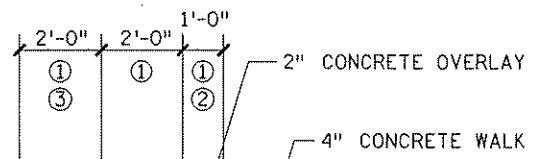


(1) BRICK PATTERN X

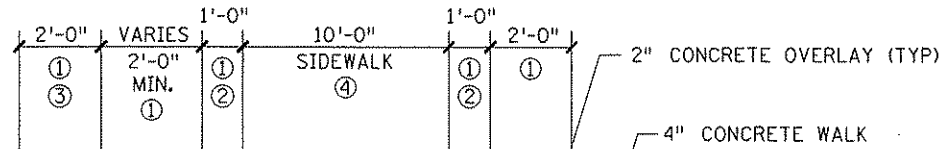
4" x 12" SOLDIER COURSE BRICK
DOUBLE ROW



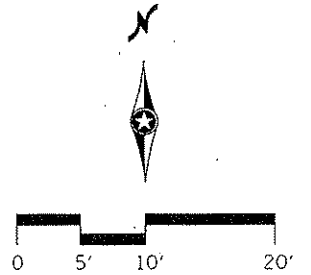
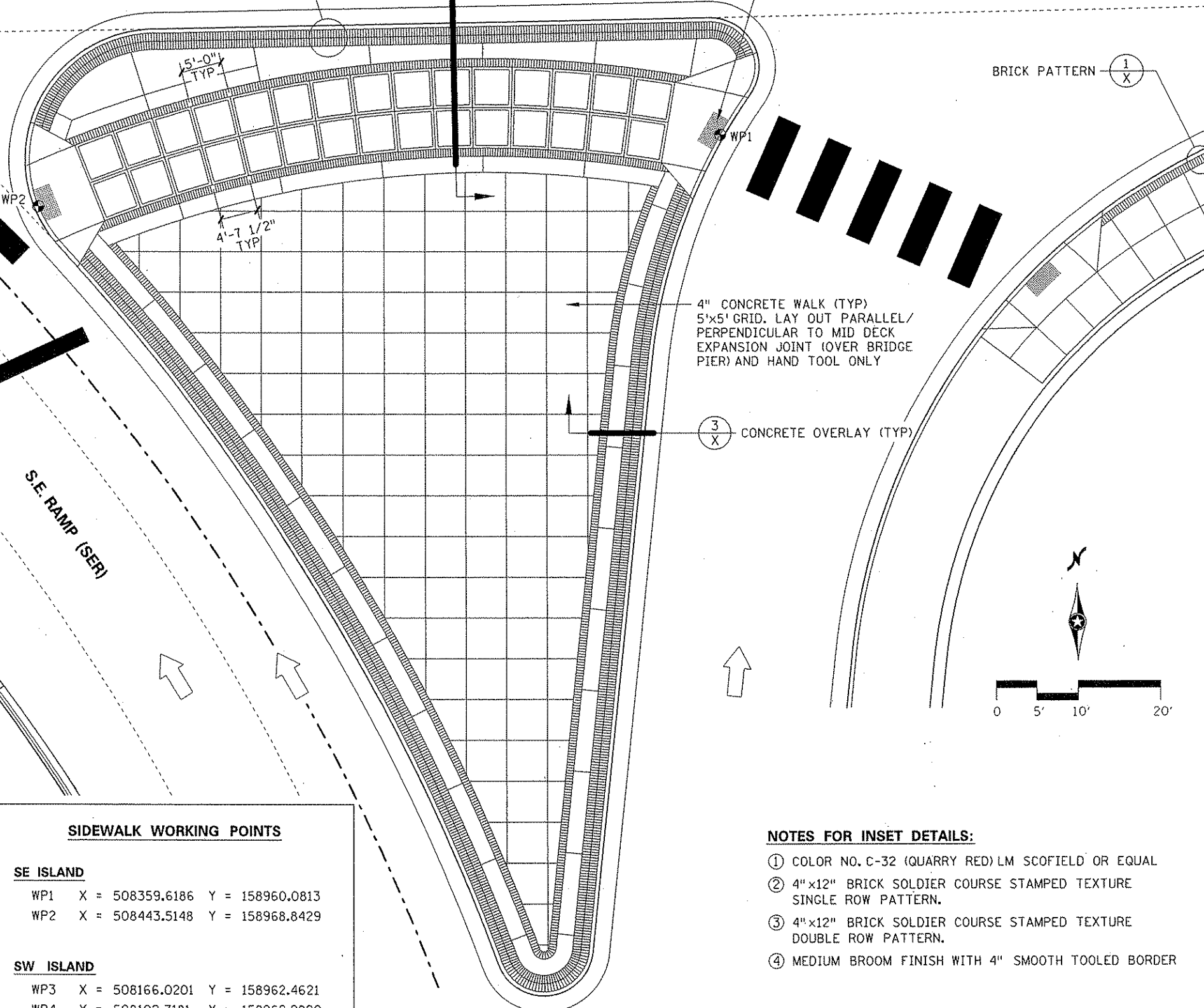
(2) BRICK PATTERN X



(3) CONCRETE OVERLAY DETAIL X



(4) CONCRETE OVERLAY DETAIL X



SIDEWALK WORKING POINTS

SE ISLAND	
WP1	X = 508359.6186 Y = 158960.0813
WP2	X = 508443.5148 Y = 158968.8429
SW ISLAND	
WP3	X = 508166.0201 Y = 158962.4621
WP4	X = 508102.7181 Y = 158962.2820

NOTES FOR INSET DETAILS:

- ① COLOR NO. C-32 (QUARRY RED) LM SCOFIELD OR EQUAL
- ② 4" x 12" BRICK SOLDIER COURSE STAMPED TEXTURE SINGLE ROW PATTERN.
- ③ 4" x 12" BRICK SOLDIER COURSE STAMPED TEXTURE DOUBLE ROW PATTERN.
- ④ MEDIUM BROOM FINISH WITH 4" SMOOTH TOOLED BORDER

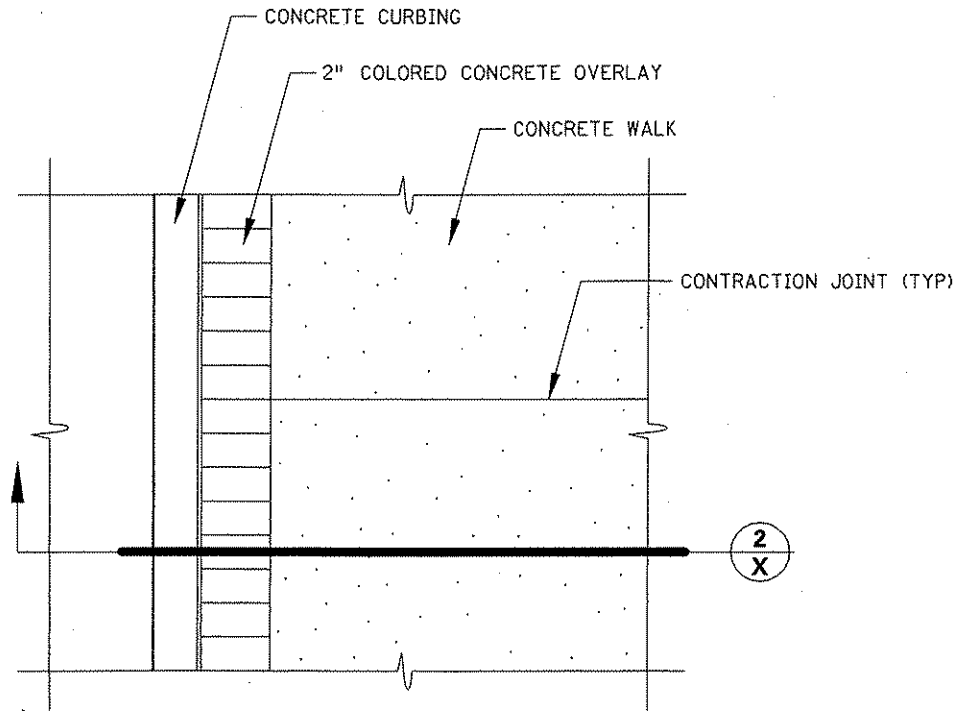
ARCHITECTURAL PAVEMENT

DISTRICT #: METRO
 PLOT NAME: ARCH_PVMT_J
 PATH & FILENAME: S:\Design\065\0208\23\Final\Gary\Muller\165-242\revisions.dgn
 PLOTTED/REVISED: 11-APR-2007 09:16

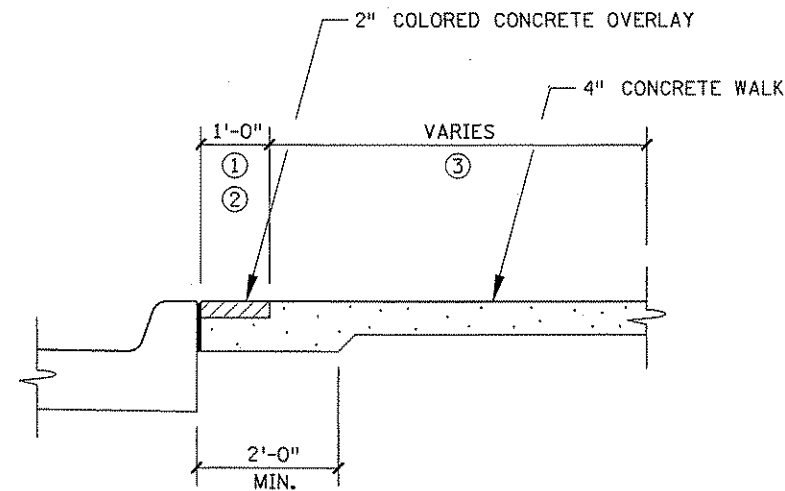
PLOTTED/REVISED: 02-FEB-2007 14:34

DISTRICT #: METRO
 IPLOT NAME: ARCH_PVMT_2
 PATH & FILENAME: S:\Design\065\0208\123\Final\GaryMuelier\165-242\revisions.dgn

APPLIES TO:
 EB CSAH 14 AND WB CSAH 14



1
X **CONCRETE WALK - PLAN**
 SIDEWALKS



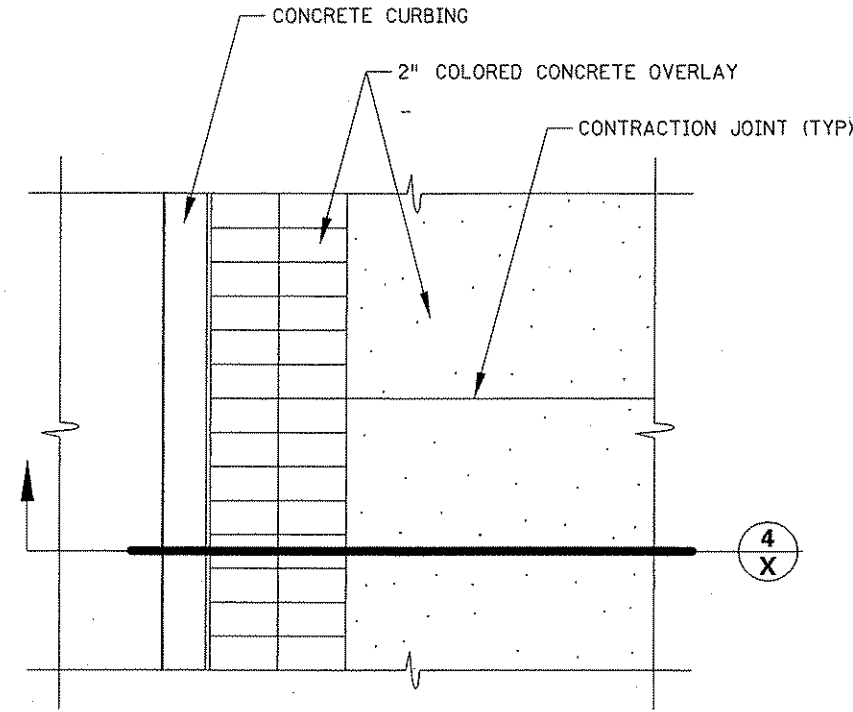
2
X **CONCRETE WALK - SECTION**
 SIDEWALKS

NOTES:

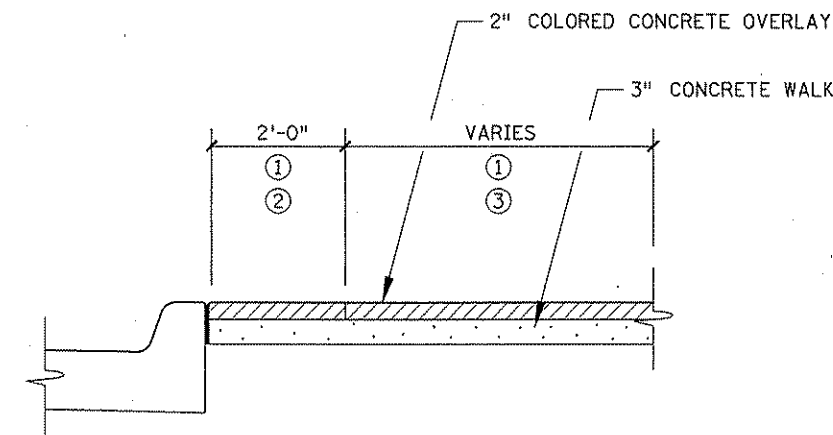
- ① COLOR NO. C-32 (QUARRY RED) LM SCOFIELD OR EQUAL
- ② 4"x12" BRICK SOLDIER COURSE STAMPED TEXTURE SINGLE ROW PATTERN. SEE DETAIL ON SHEET 209.
- ③ MEDIUM BROOM FINISH

APPLIES TO:
 EB CSAH 14 AND WB CSAH 14

APPLIES TO CSAH 14 EB STA 229+90 TO STA 244+40



3
X **CONCRETE WALK - PLAN**
 MEDIANS

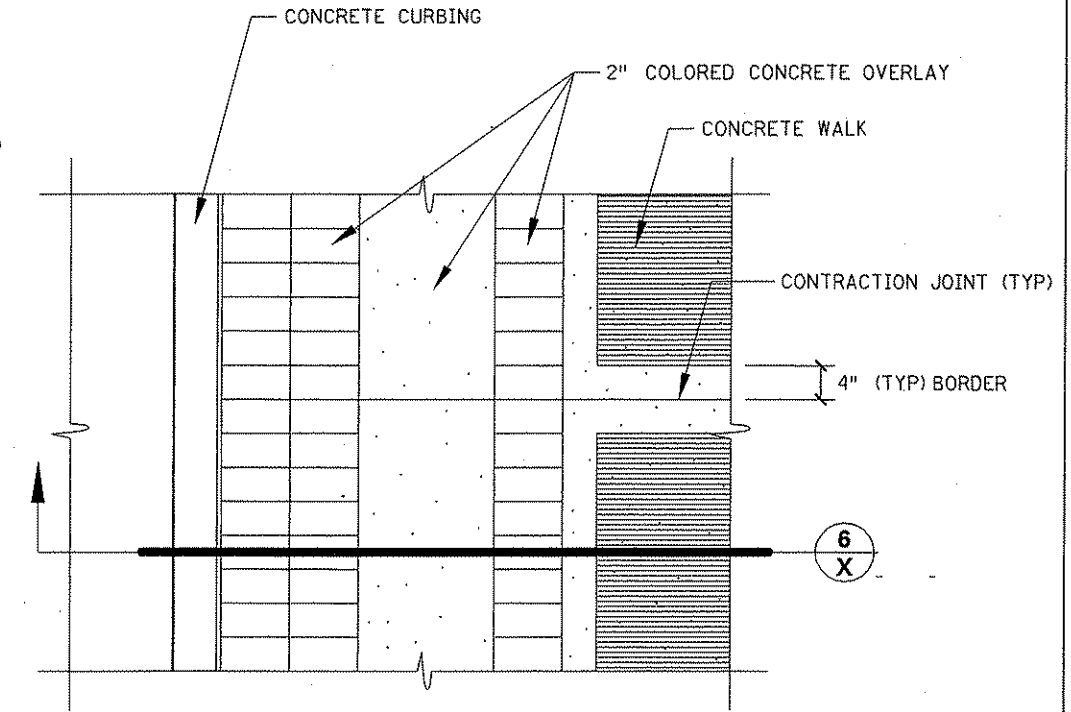


4
X **CONCRETE WALK - SECTION**
 MEDIANS

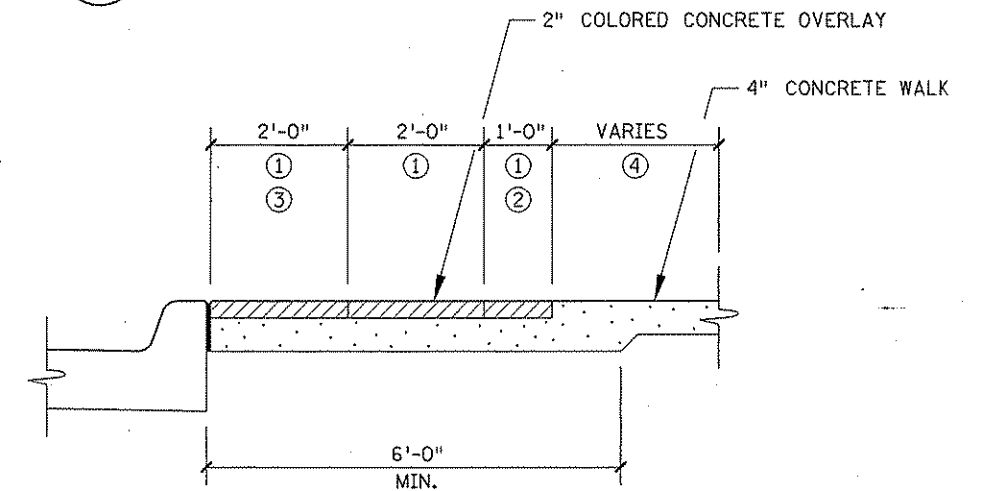
NOTES:

- ① COLOR NO. C-32 (QUARRY RED) LM SCOFIELD OR EQUAL
- ② 4"x12" BRICK SOLDIER COURSE STAMPED TEXTURE DOUBLE ROW PATTERN. SEE DETAIL ON SHEET 209.
- ③ MEDIUM BROOM FINISH

APPLIES TO:
 EB CSAH 14 AND WB CSAH 14



5
X **CONCRETE WALK - PLAN**
 PORK CHOP TRAFFIC ISLANDS



6
X **CONCRETE WALK - SECTION**
 PORK CHOP TRAFFIC ISLANDS

NOTES:

- ① COLOR NO. C-32 (QUARRY RED) LM SCOFIELD OR EQUAL
- ② 4"x12" BRICK SOLDIER COURSE STAMPED TEXTURE SINGLE ROW PATTERN. SEE DETAIL ON SHEET 209.
- ③ 4"x12" BRICK SOLDIER COURSE STAMPED TEXTURE DOUBLE ROW PATTERN. SEE DETAIL ON SHEET 209.
- ④ MEDIUM BROOM FINISH. PROVIDE 4" SMOOTH TOOLED BORDER IN SIDEWALK AREA ONLY.

ARCHITECTURAL PAVEMENT

DRAWN BY: TV

CHECKED BY: DY

CERTIFIED BY

Josephine Lunc
 LICENSED PROFESSIONAL ENGINEER

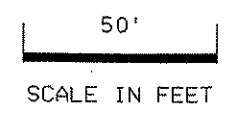
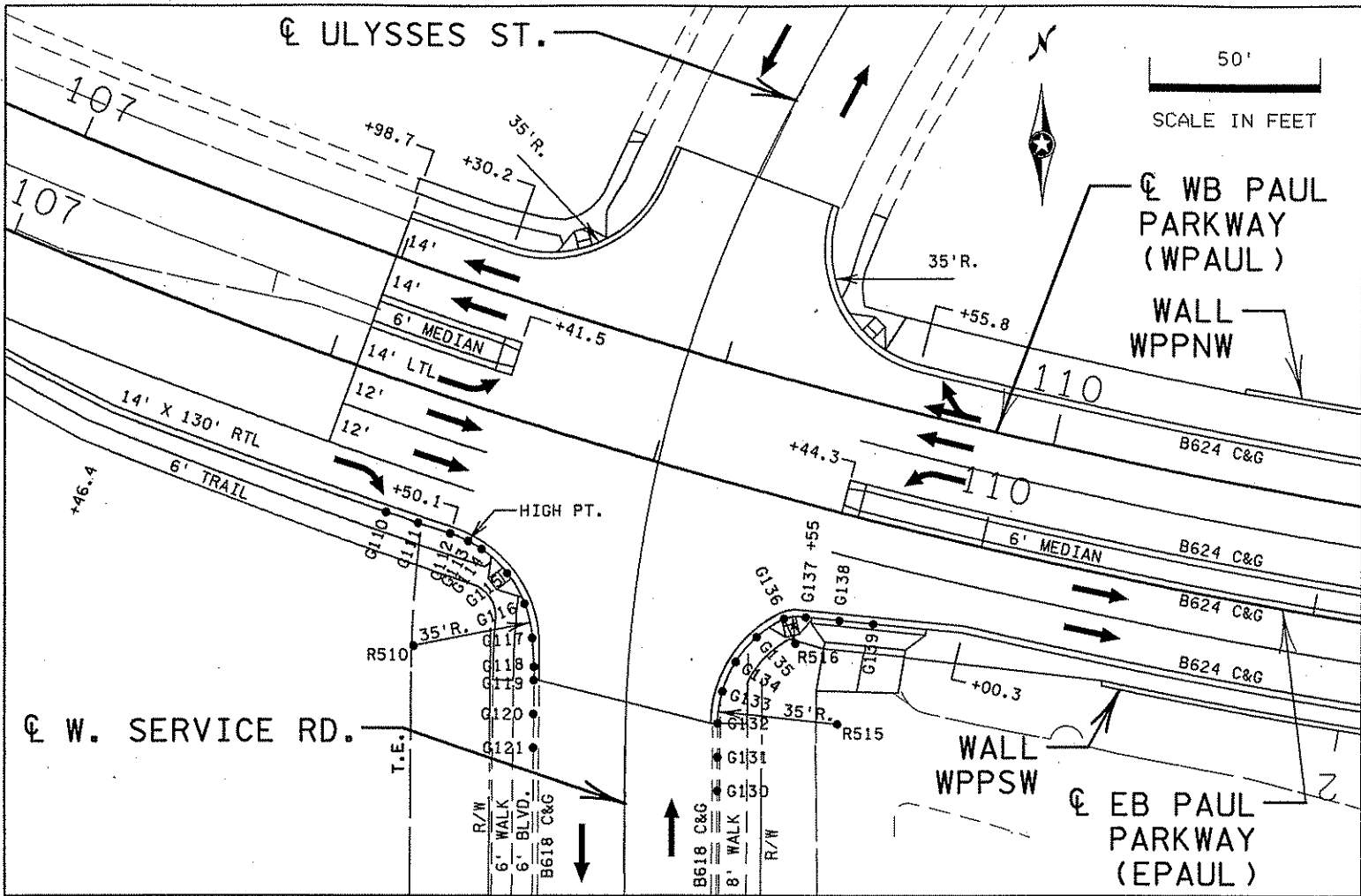
LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO: 0208-123 (T.H. 65)

SHEET NO. 210 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:25

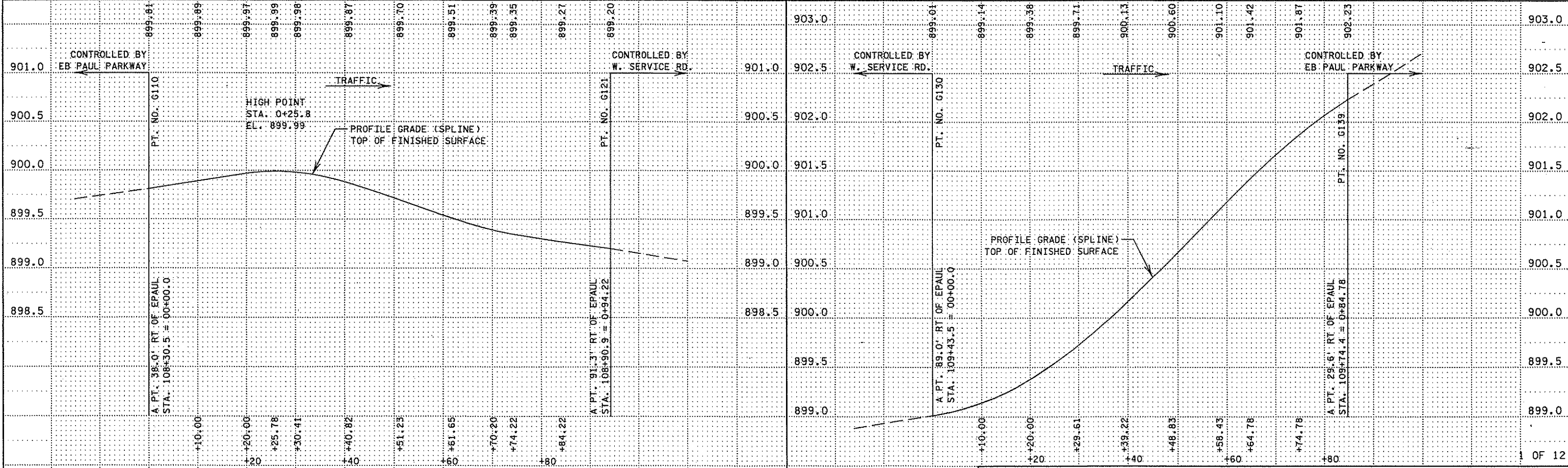
DISTRICT #: METRO
 IPLOT NAME: 00208123_1no
 PATH & FILENAME: S:\Design\065\0208123\Final\Streets\Details\Inter section\0208123_1no.dgn



GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G110	507478.5985	156442.5382	899.81
G111	507488.0848	156439.3743	889.89
G112	507497.5885	156436.2631	899.97
G113	507502.9205	156434.0320	899.99
G114	507506.8737	156431.6353	899.98
G115	507514.3945	156424.4891	899.87
G116	507519.4900	156415.4522	899.70
G117	507521.7127	156405.3186	899.51
G118	507522.2861	156396.7926	899.39
G119	507522.2280	156392.7700	899.35
G120	507522.1639	156382.7702	899.27
G121	507522.0997	156372.7704	899.20
G130	507576.0193	156359.9738	899.01
G131	507576.0834	156369.9736	899.14
G132	507576.1475	156379.9734	899.38
G133	507577.5188	156389.4524	899.71
G134	507581.4082	156398.2048	900.13
G135	507587.5246	156405.5752	900.60
G136	507595.4129	156411.0048	901.10
G137	507601.7835	156411.4662	901.42
G138	507611.7349	156410.4818	901.87
G139	507621.6863	156409.4974	902.23

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R510	507486.7915	156402.9700	35'
R515	507611.1468	156379.7490	35'
R516	507598.7278	156403.7285	8'

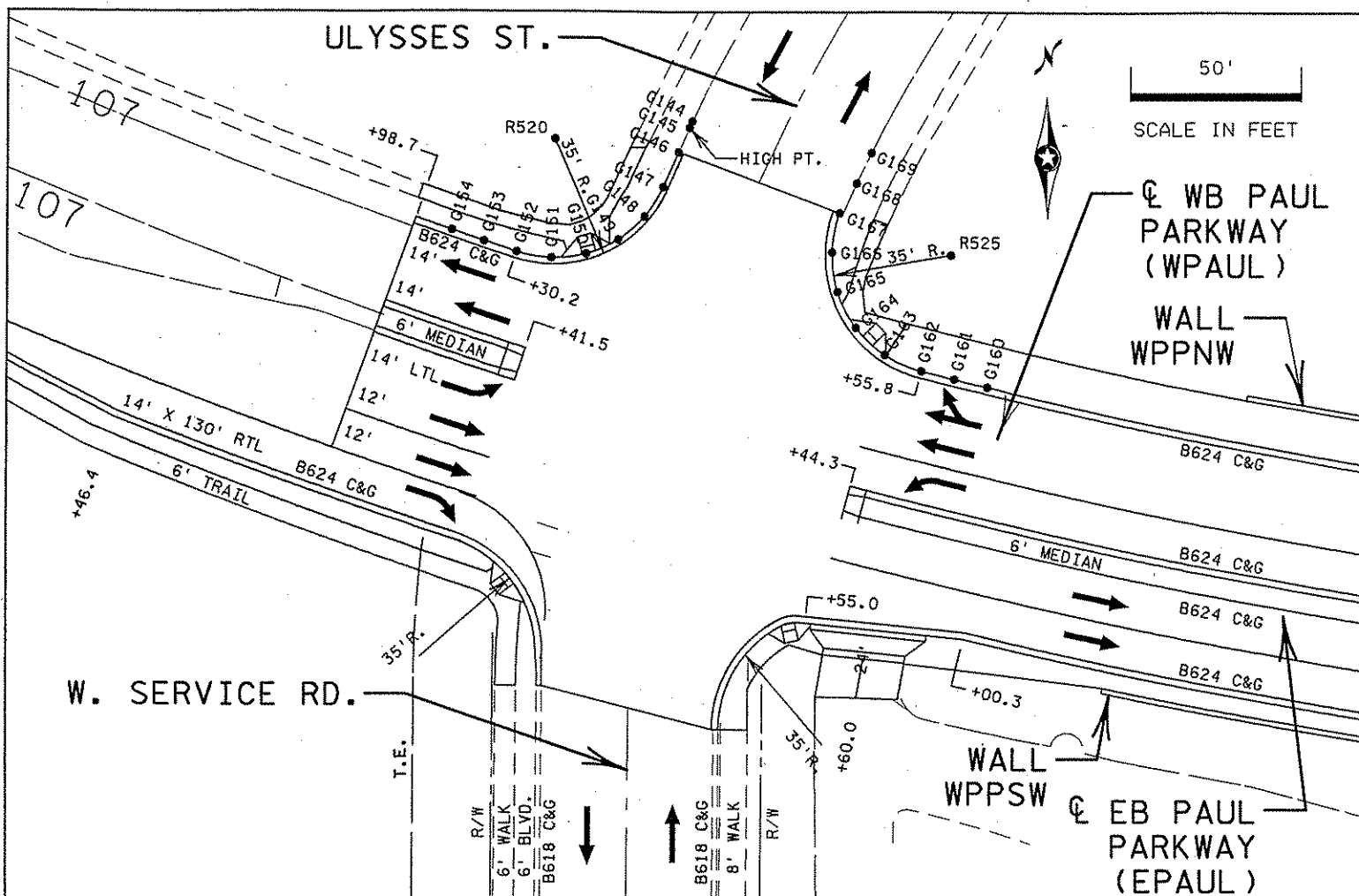
NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 02-APR-2007 12:23

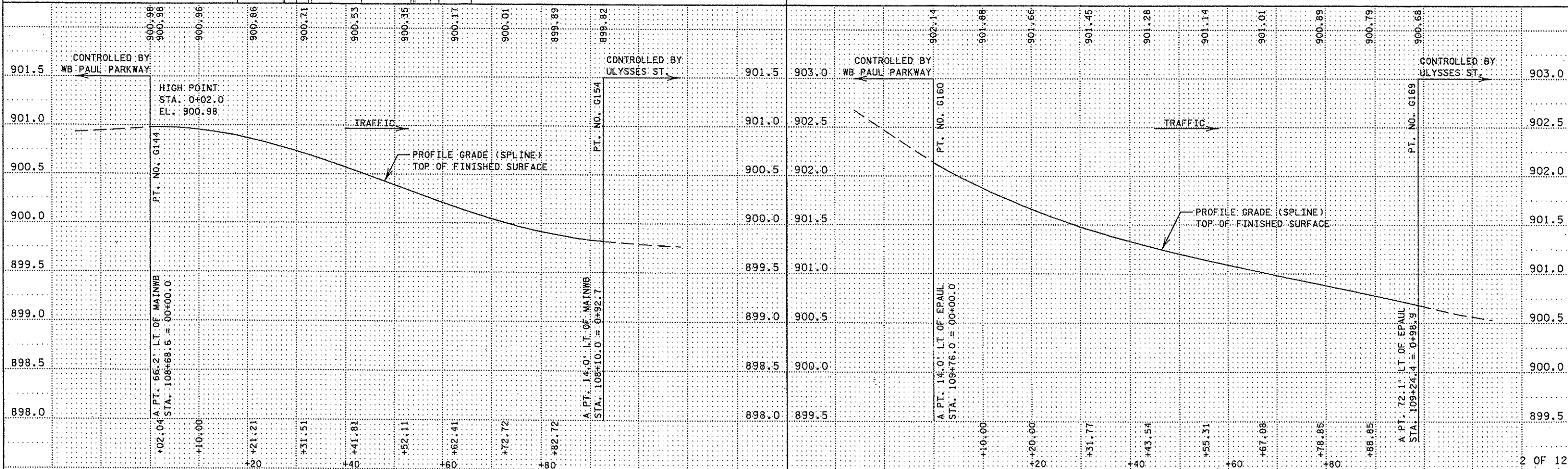
DISTRICT #: METRO
I/PLOT NAME: 0208123_inb
PATH & FILENAME: S:\Design\05\0208\23\Final\Sheet\Detail\Intersections\0208123_inb.dgn



GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G144	507567.3979	156559.2023	900.98
G145	507566.6222	156557.3146	900.98
G146	507563.3402	156550.0625	900.96
G147	507558.7899	156539.8136	900.86
G148	507553.2942	156531.1445	900.71
G149	507545.5200	156524.4424	900.53
G150	507536.1358	156520.2838	900.35
G151	507525.9488	156519.0264	900.17
G152	507515.8350	156520.7783	900.01
G153	507506.3476	156523.9391	899.89
G154	507496.8785	156527.1553	899.82
G160	507654.9561	156481.3593	902.14
G161	507645.2366	156483.7096	901.88
G162	507635.5167	156486.0599	901.66
G163	507624.7933	156490.7734	901.45
G164	507616.2254	156498.7614	901.28
G165	507610.7732	156509.1292	901.14
G166	507609.0473	156520.7153	901.01
G167	507611.2411	156532.2221	900.89
G168	507616.2274	156541.0067	900.79
G169	507620.5378	156550.0277	900.68

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R520	507526.8009	156554.0160	35'
R525	507644.0401	156520.0062	35'

NOTES:
GUTTERLINE PROFILE ELEVATIONS DO NOT REFLECT DRAINAGE STRUCTURE SUMP.



DISTRICT #: METRO

I/PLOT NAME: 0208123_inb

PATH & FILENAME: S:\Design\05\0208\23\Final\Sheet\Detail\Intersections\0208123_inb.dgn

DRAWN BY: LDM

CHECKED BY: MW

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/2007

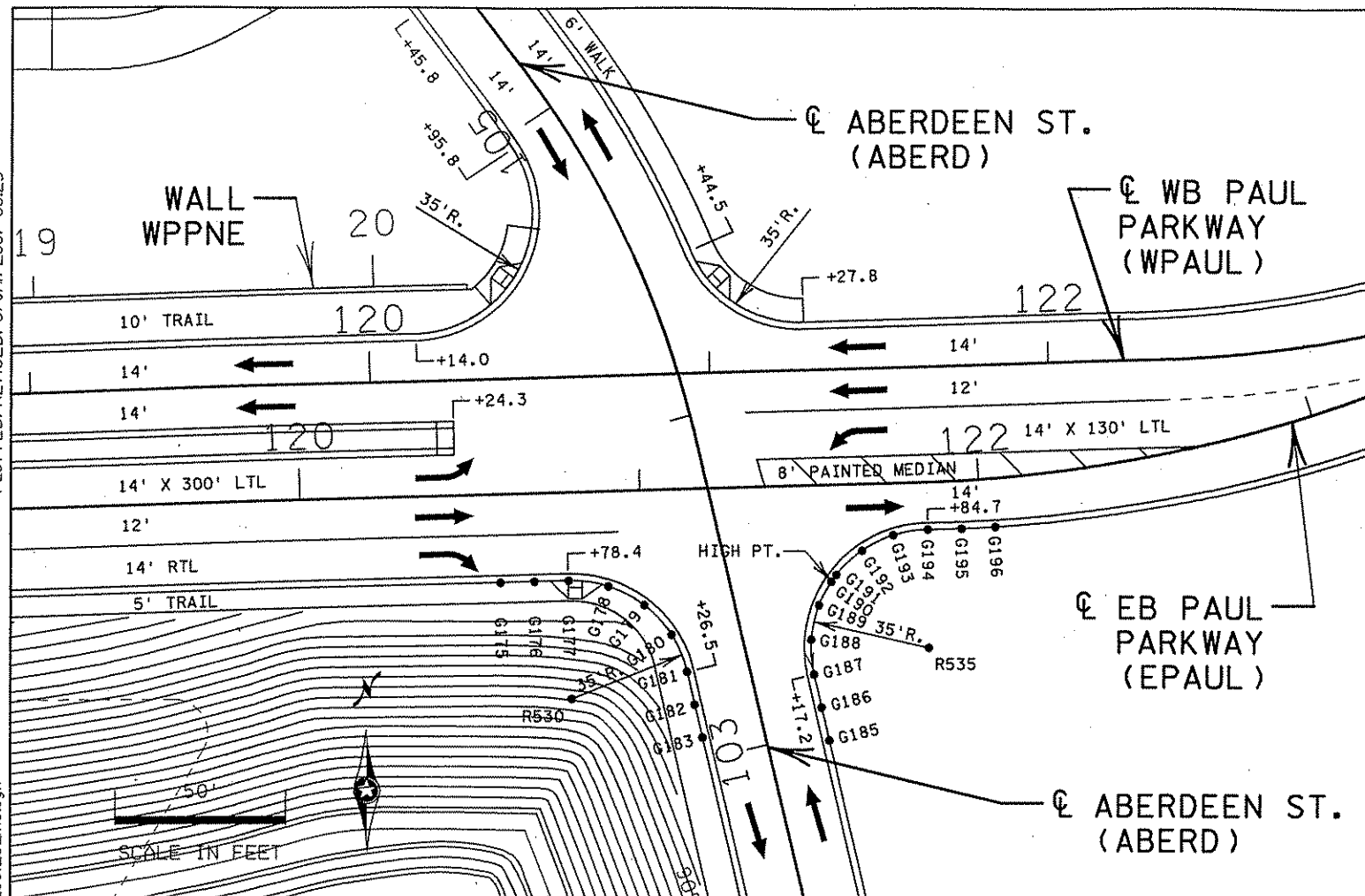
STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 212 OF 872 SHEETS

INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

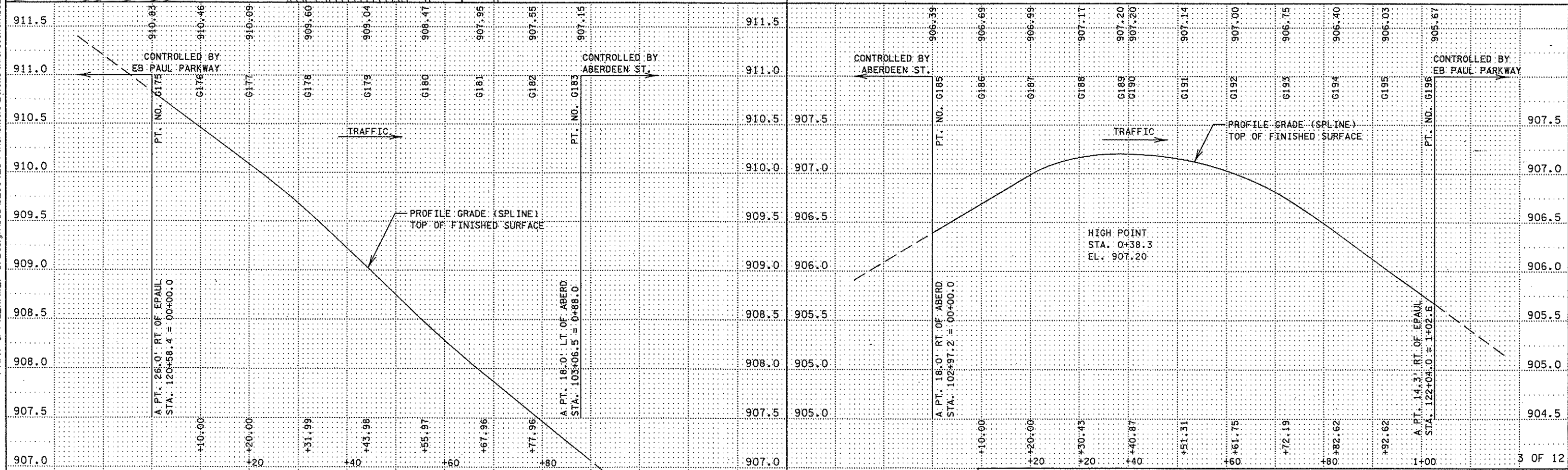
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GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G175	508719.1164	156380.1668	910.83
G176	508719.1164	156380.1668	910.46
G177	508729.1116	156380.4759	910.09
G178	508740.9222	156378.8077	909.60
G179	508751.4867	156373.2702	909.04
G180	508759.5782	156364.5067	908.47
G181	508764.2570	156353.5348	907.95
G182	508766.5547	156343.8024	907.55
G183	508768.8525	156334.0699	907.15
G185	508806.0198	156333.3179	906.39
G186	508803.7220	156343.0504	906.69
G187	508801.4242	156352.7828	906.99
G188	508800.5648	156363.1459	907.17
G189	508802.7881	156373.3042	907.20
G190	508806.3994	156380.2895	907.20
G191	508807.8979	156382.3610	907.14
G192	508815.4432	156389.5167	907.00
G193	508824.7578	156394.1397	906.75
G194	508835.0197	156395.8218	906.40
G195	508845.0165	156396.0738	906.03
G196	508855.0046	156396.5619	905.67

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R530	508730.1934	156345.4926	35'
R535	508835.4877	156360.8250	35'

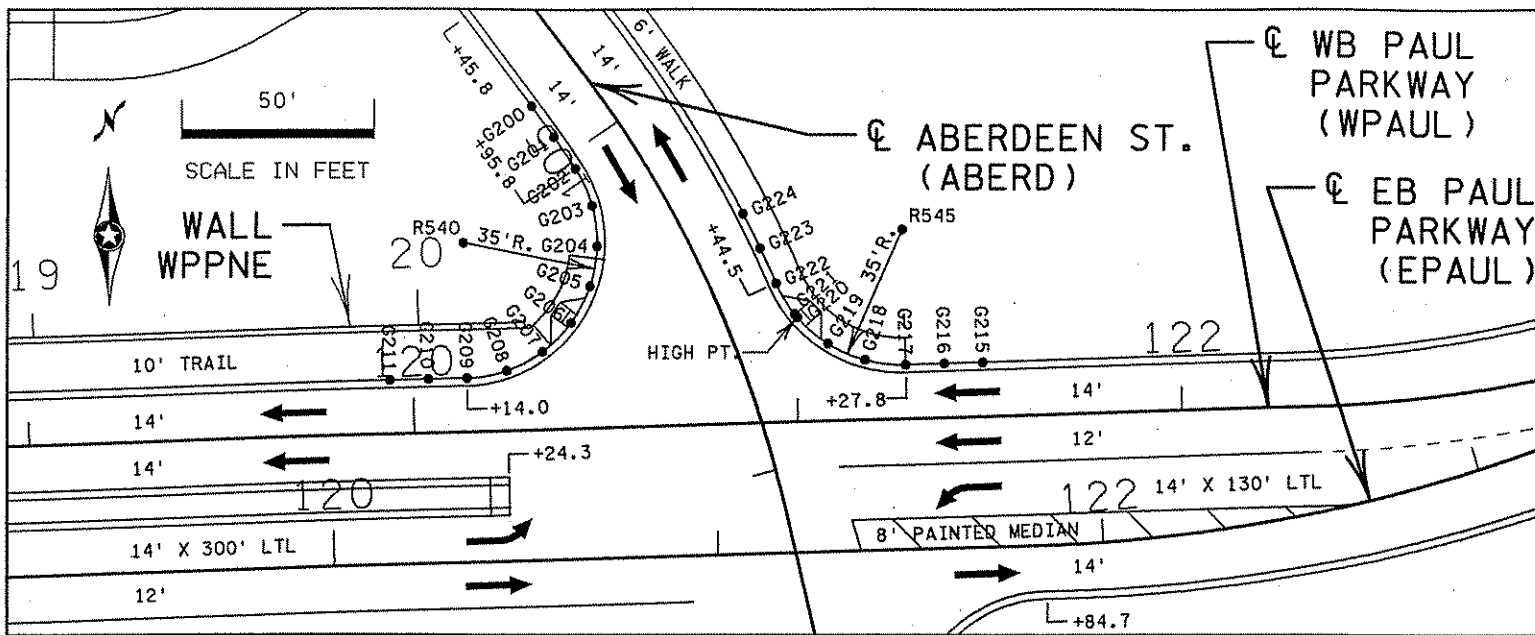
NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT REFLECT DRAINAGE STRUCTURE SLUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

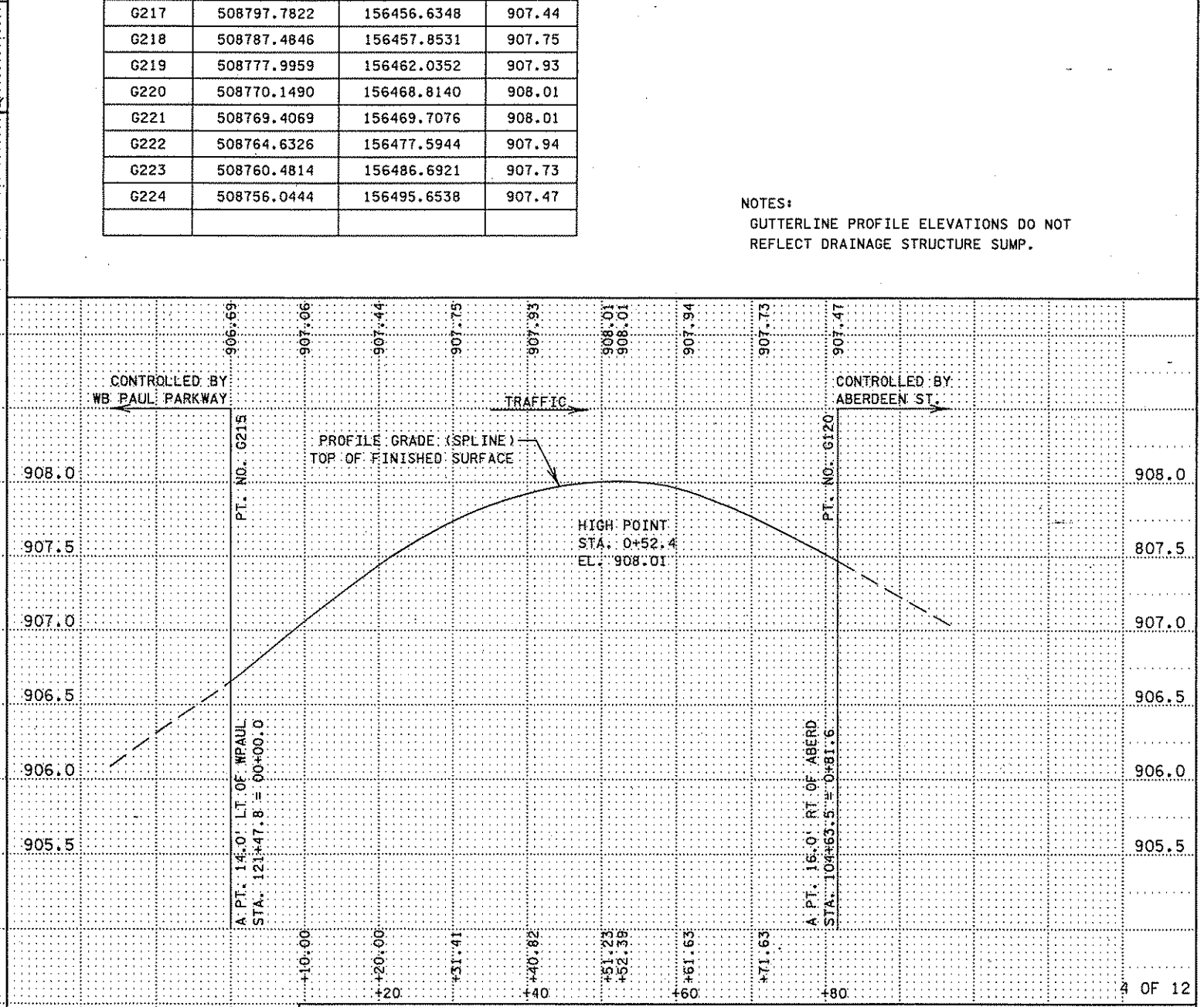
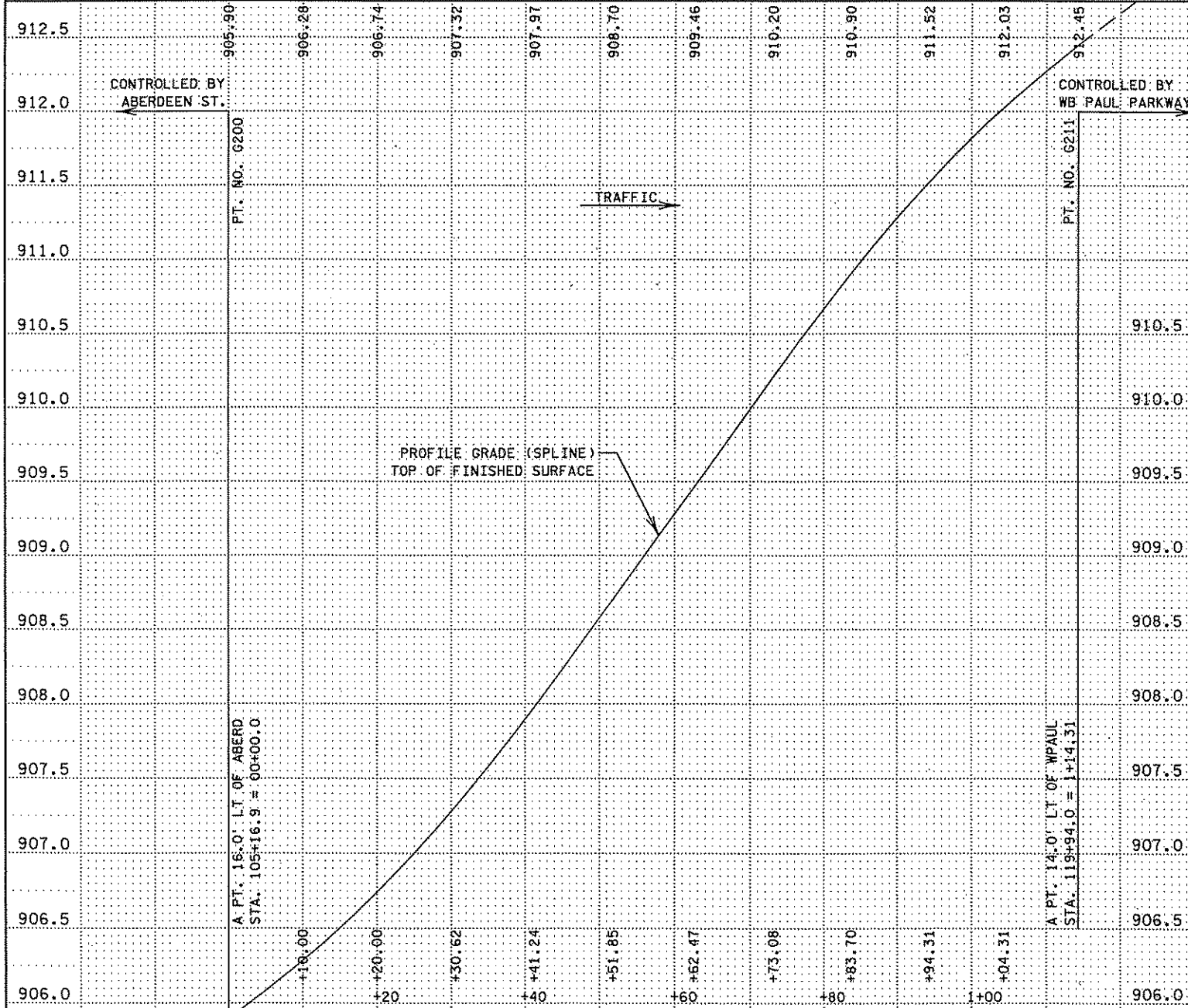
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 IPLOT NAME: 0208123_Ind
 PATH & FILENAME: S:\Design\065\0208123_VF\Ind\steels_Details\Intersections\0208123_Ind.dgn



GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G200	508700.5746	156523.6688	905.90
G201	508706.5135	156515.6233	906.28
G202	508712.1664	156507.3744	906.74
G203	508716.5894	156497.7690	907.32
G204	508717.9418	156487.2812	907.97
G205	508716.1000	156476.8682	908.70
G206	508711.2324	156467.4806	909.46
G207	508703.7831	156459.9752	910.20
G208	508694.4323	156455.0372	910.90
G209	508684.0334	156453.1173	911.52
G210	508674.0382	156452.8082	912.03
G211	508664.0430	156452.4991	912.45
G215	508817.7727	156457.2530	906.69
G216	508807.7775	156456.9439	907.06
G217	508797.7822	156456.6348	907.44
G218	508787.4846	156457.8531	907.75
G219	508777.9959	156462.0352	907.93
G220	508770.1490	156468.8140	908.01
G221	508769.4069	156469.7076	908.01
G222	508764.6326	156477.5944	907.94
G223	508760.4814	156486.6921	907.73
G224	508756.0444	156495.6538	907.47

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R540	508682.9514	156488.1006	35'
R545	508796.7004	156491.6181	35'

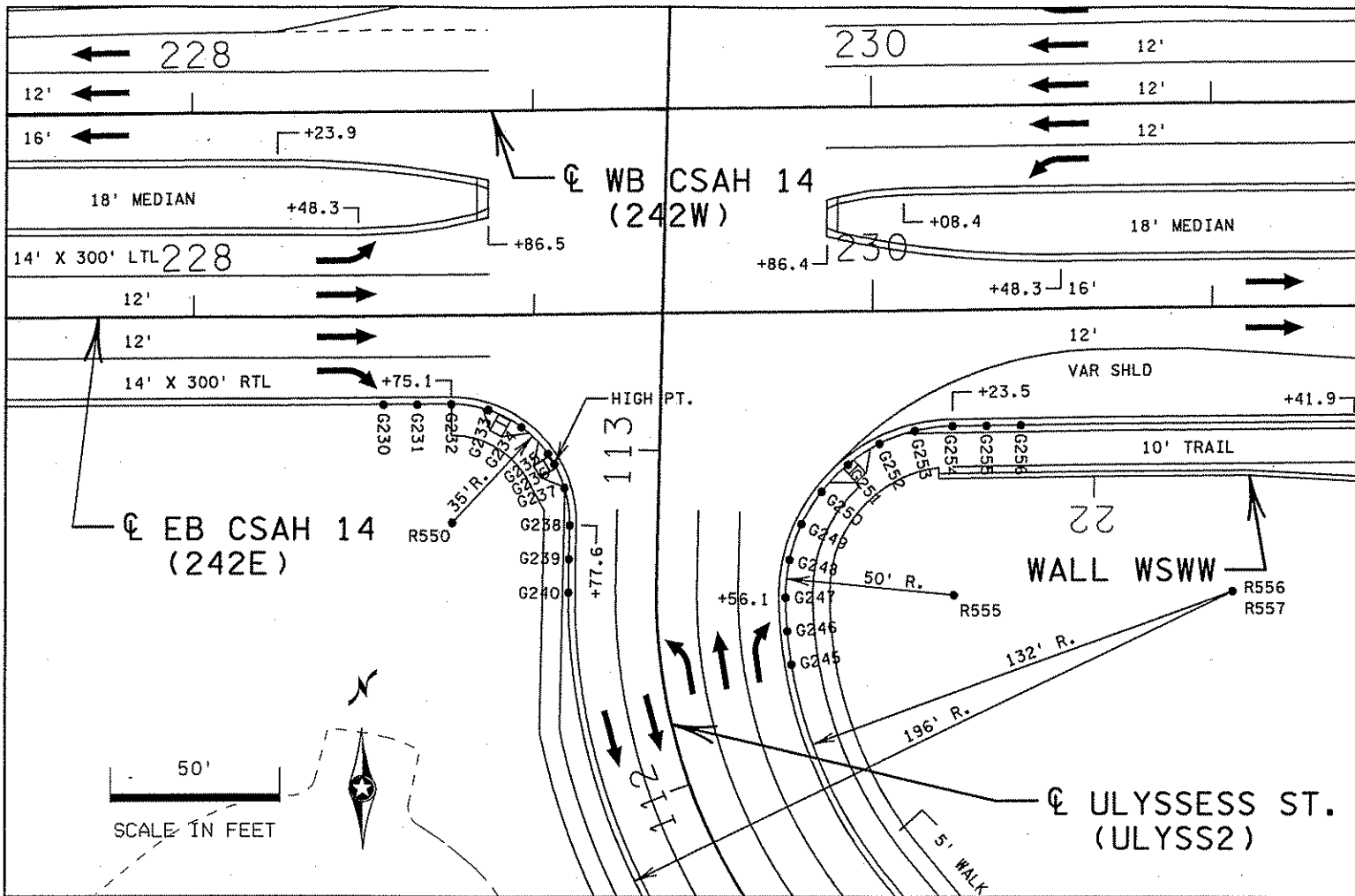
NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

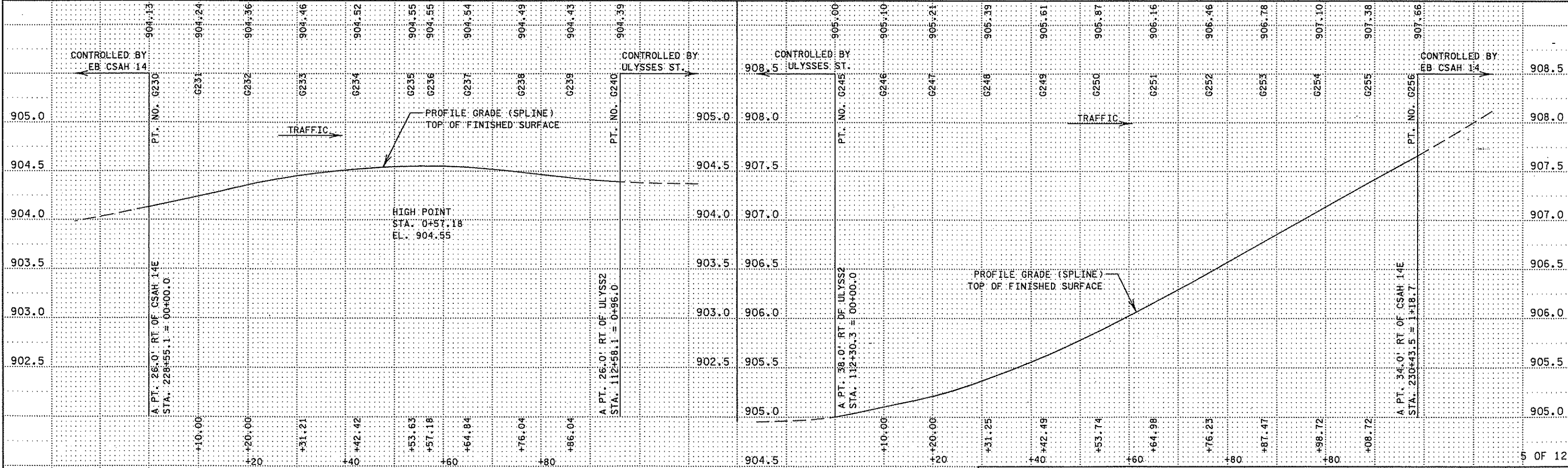
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 I/PLOT NAME: 0208123_1.m
 PATH & FILENAME: S:\Design\065\0208123\Final\Streets\Detail\Intersection\0208123_1.m.dgn



GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G230	507401.5505	158979.0111	904.13
G231	507411.5498	158979.1252	904.24
G232	507421.5492	158979.2394	904.36
G233	507432.5854	158977.5862	904.46
G234	507442.5402	158972.5434	904.52
G235	507450.4018	158964.6235	904.55
G236	507452.3215	158961.6339	904.55
G237	507455.3709	158954.6317	904.54
G238	507456.9425	158943.5837	904.49
G239	507456.7545	158933.5854	904.43
G240	507456.6130	158923.5864	904.39
G245	507522.4384	158902.2890	905.00
G246	507521.1557	158912.2036	905.10
G247	507520.6270	158922.1868	905.21
G248	507521.7187	158933.3558	905.39
G249	507525.2738	158943.9998	905.61
G250	507531.1132	158953.5830	905.87
G251	507538.9428	158961.6224	906.16
G252	507548.3682	158967.7131	906.46
G253	507558.9146	158971.5483	906.78
G254	507570.0507	158972.9349	907.10
G255	507580.0500	158973.0490	907.38
G256	507590.0494	158973.1632	907.66

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R550	507421.9487	158944.2416	35'
R555	507570.6214	158922.9381	50'
R556	507652.6121	158924.1704	132'
R557	507652.6121	158924.1704	196'

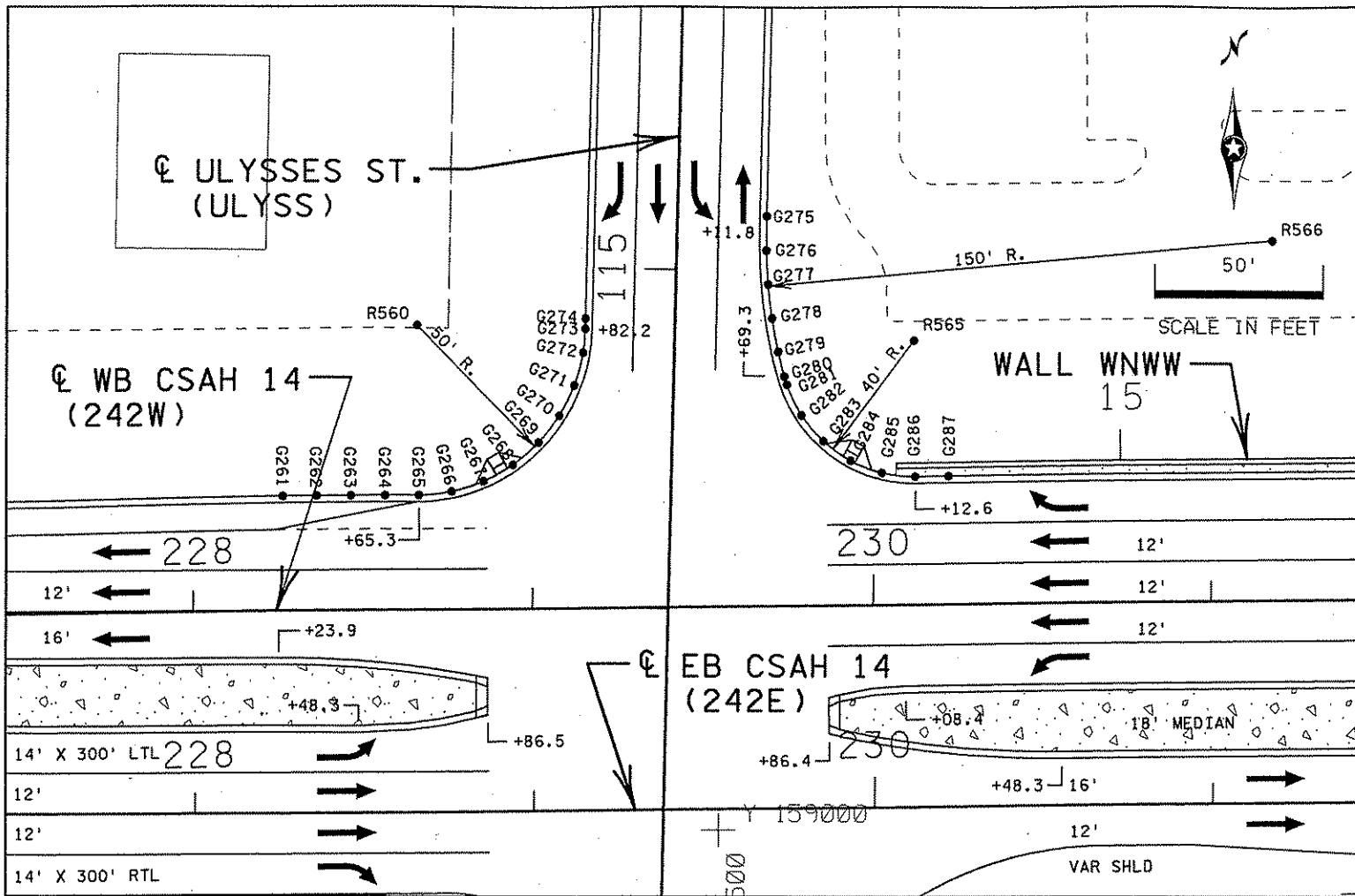
NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT
 REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

DISTRICT #: METRO
 IPLOT NAME: 0208123_Inf
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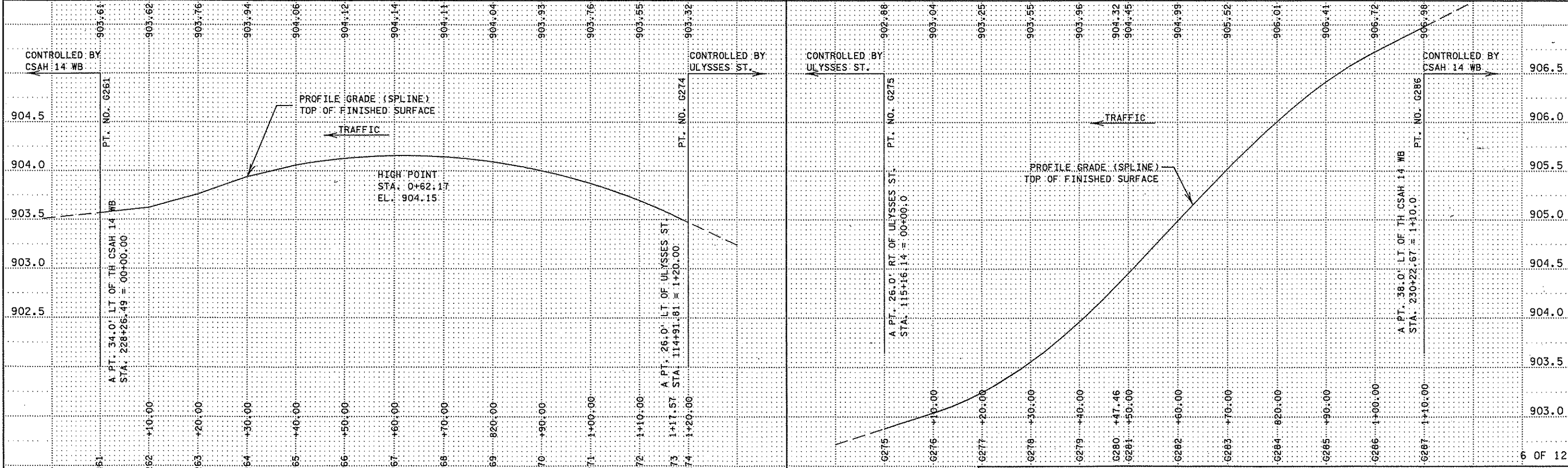


GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G261	507371.5931	159098.6478	903.61
G262	507381.5921	159098.7912	903.62
G263	507391.5915	159098.9053	903.76
G264	507401.5910	159099.0194	903.94
G265	507411.5904	159099.1341	904.06
G266	507421.2906	159100.2410	904.13
G267	507430.7989	159103.3020	904.15
G268	507439.5049	159108.1879	904.14
G269	507447.0615	159114.7041	904.09
G270	507453.1828	159122.5966	904.00
G271	507457.6042	159131.5430	903.87
G272	507460.1647	159141.1924	903.70
G273	507460.7823	159147.7966	903.54
G274	507460.8506	159151.1602	903.47

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R560	507410.7984	159149.1278	50'
R565	507557.2607	159144.7991	40'
R566	507663.3109	159174.0114	150'

GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G275	507513.4186	159181.1532	902.88
G276	507513.3380	159171.1564	903.04
G277	507513.8614	159161.1720	903.25
G278	507515.0487	159151.2446	903.55
G279	507516.8896	159141.4163	903.96
G280	507518.6970	159134.1765	904.32
G281	507519.4477	159131.7540	904.45
G282	507523.8454	159122.8025	904.99
G283	507530.3256	159115.2205	905.52
G284	507538.4802	159109.4774	906.01
G285	507547.8021	159105.9303	906.41
G286	507557.7170	159104.8018	906.72
G287	507567.7164	159104.9159	906.98

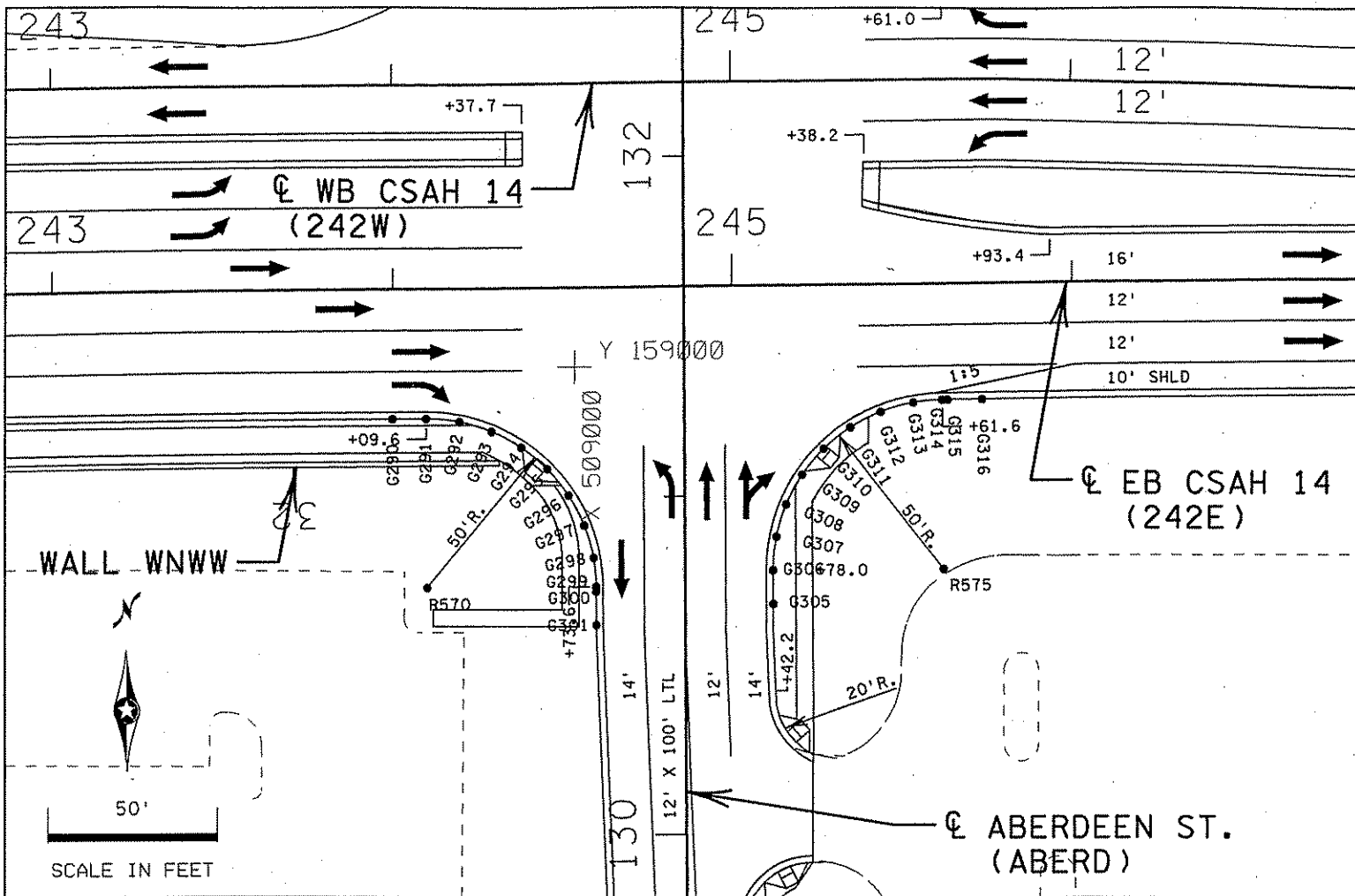
NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT
 REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

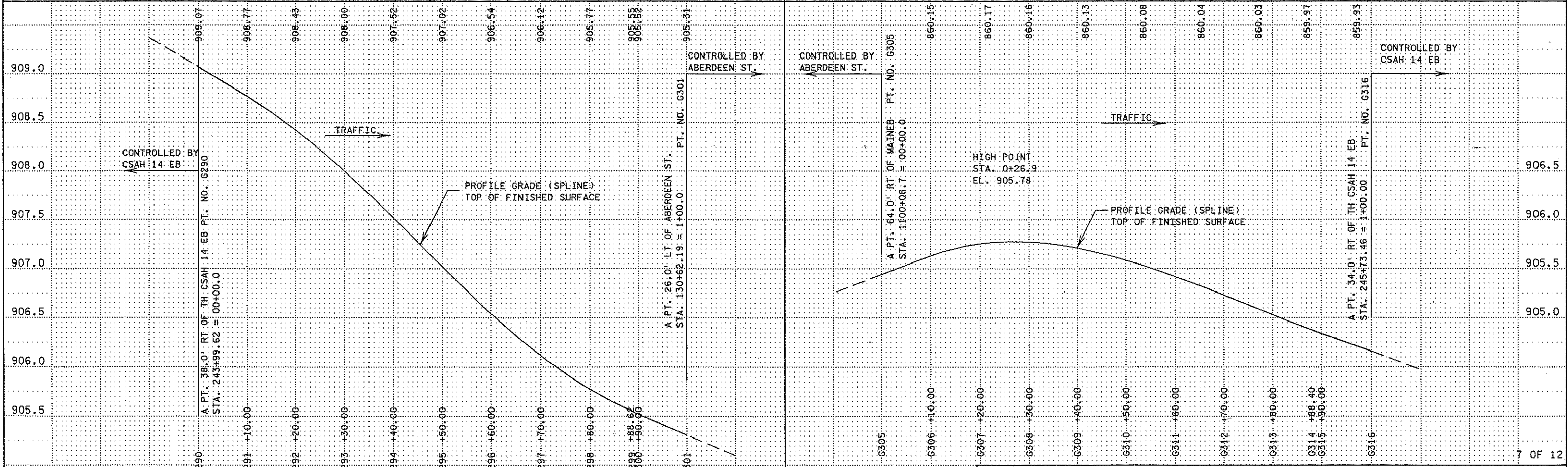
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GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G290	508946.1255	158984.6183	909.07
G291	508956.1250	158984.7208	908.77
G292	508966.0681	158983.8259	908.43
G293	508975.6353	158980.9735	908.00
G294	508984.4451	158976.2772	907.52
G295	508992.1462	158969.9244	907.02
G296	508998.4318	158962.1681	906.54
G297	809003.0511	158953.3178	906.12
G298	509005.8201	158943.7261	905.77
G299	509006.6353	158935.1594	905.55
G300	509066.6474	158933.7755	905.52
G301	509006.7346	158923.7759	905.31
G305	384775.8630	155330.8150	905.44
G306	384785.8514	155330.3327	905.63
G307	384795.8397	155329.8503	905.75
G308	384764.2857	155329.0878	905.77
G309	384775.8630	155330.8150	905.71
G310	384785.8514	155330.3327	905.59
G311	384795.8397	155329.8503	905.42
G312	384764.2857	155329.0878	905.323
G313	384775.8630	155330.8150	905.03
G314	384785.8514	155330.3327	904.87
G315	384795.8397	155329.8503	904.84
G316	384795.8397	155329.8503	904.66

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R570	384763.6657	155421.2220	50'
R575	384774.4160	155300.8499	50'

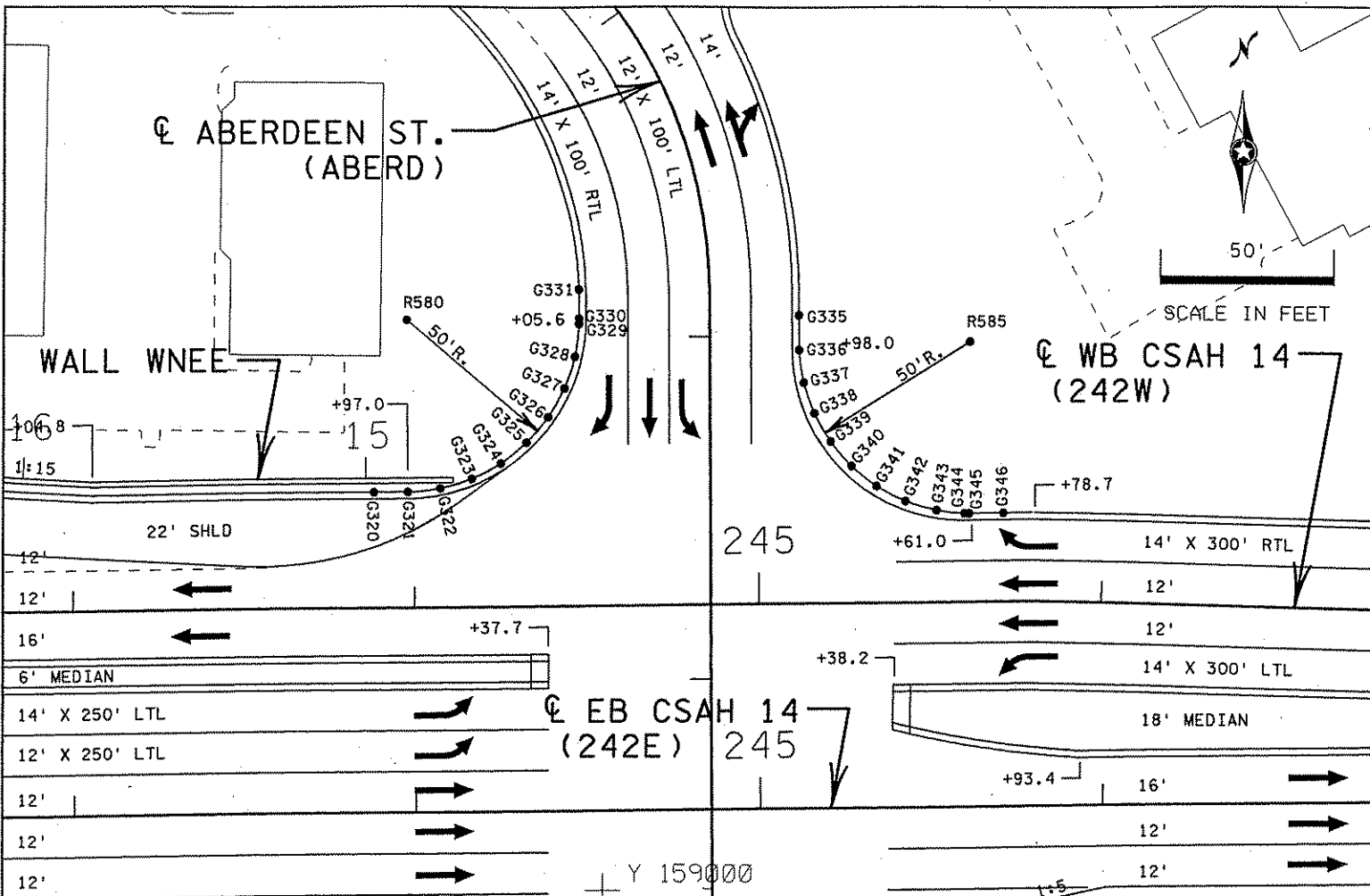
NOTES:
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INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

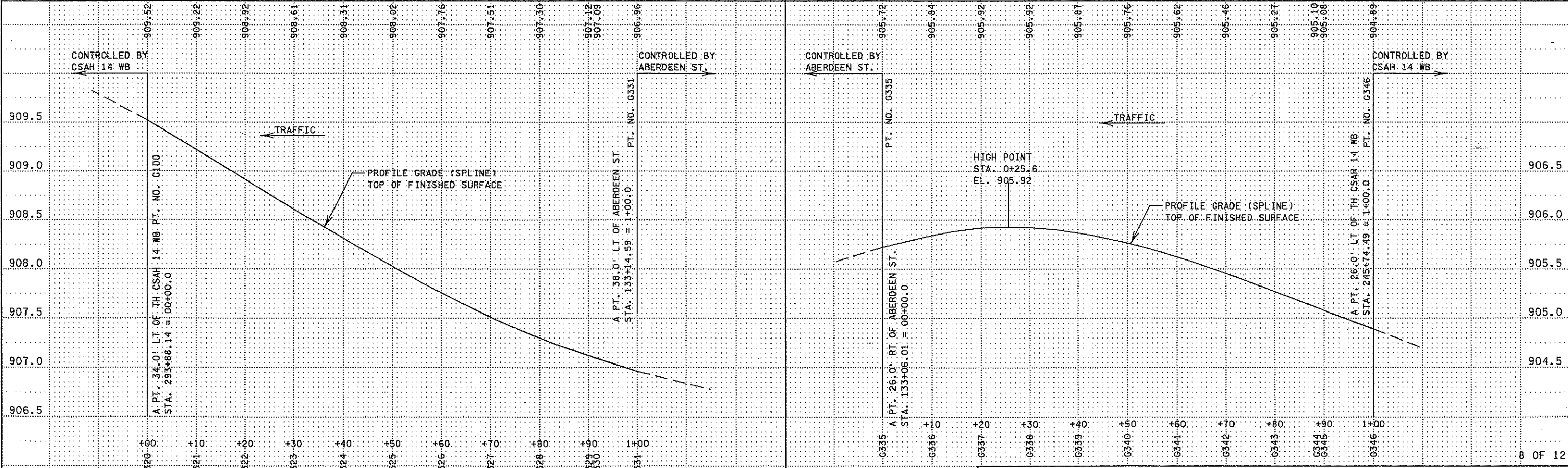
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GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G320	508933.1390	159116.4875	909.52
G321	508643.1385	159166.5933	909.22
G322	508952.6897	159117.6162	908.92
G323	508961.8642	159120.4446	908.61
G324	508970.3289	159124.9743	908.31
G325	508977.7717	159131.0381	908.02
G326	508983.9182	159138.4124	907.76
G327	508988.5421	159146.8254	907.51
G328	508991.4729	159155.9669	907.30
G329	508992.6026	159165.4978	907.12
G330	508992.6127	159167.0266	907.11
G331	508992.5252	159175.4362	906.96
G335	509056.6063	159168.0429	905.72
G336	509056.7337	159158.0436	905.84
G337	509058.1080	159148.5961	905.92
G338	509061.2277	159139.6369	905.92
G339	509065.9588	159131.4629	905.87
G340	509072.1273	159124.3388	905.76
G341	509079.5242	159118.4979	905.62
G342	509087.9078	159114.1400	905.46
G343	509097.0058	159111.4283	905.27
G344	509105.2390	159110.5053	905.10
G345	509106.5694	159110.4848	905.08
G346	509116.5688	159110.5943	904.89

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R500	384763.6657	155421.2220	30'
R501	384774.4160	155300.8499	30'

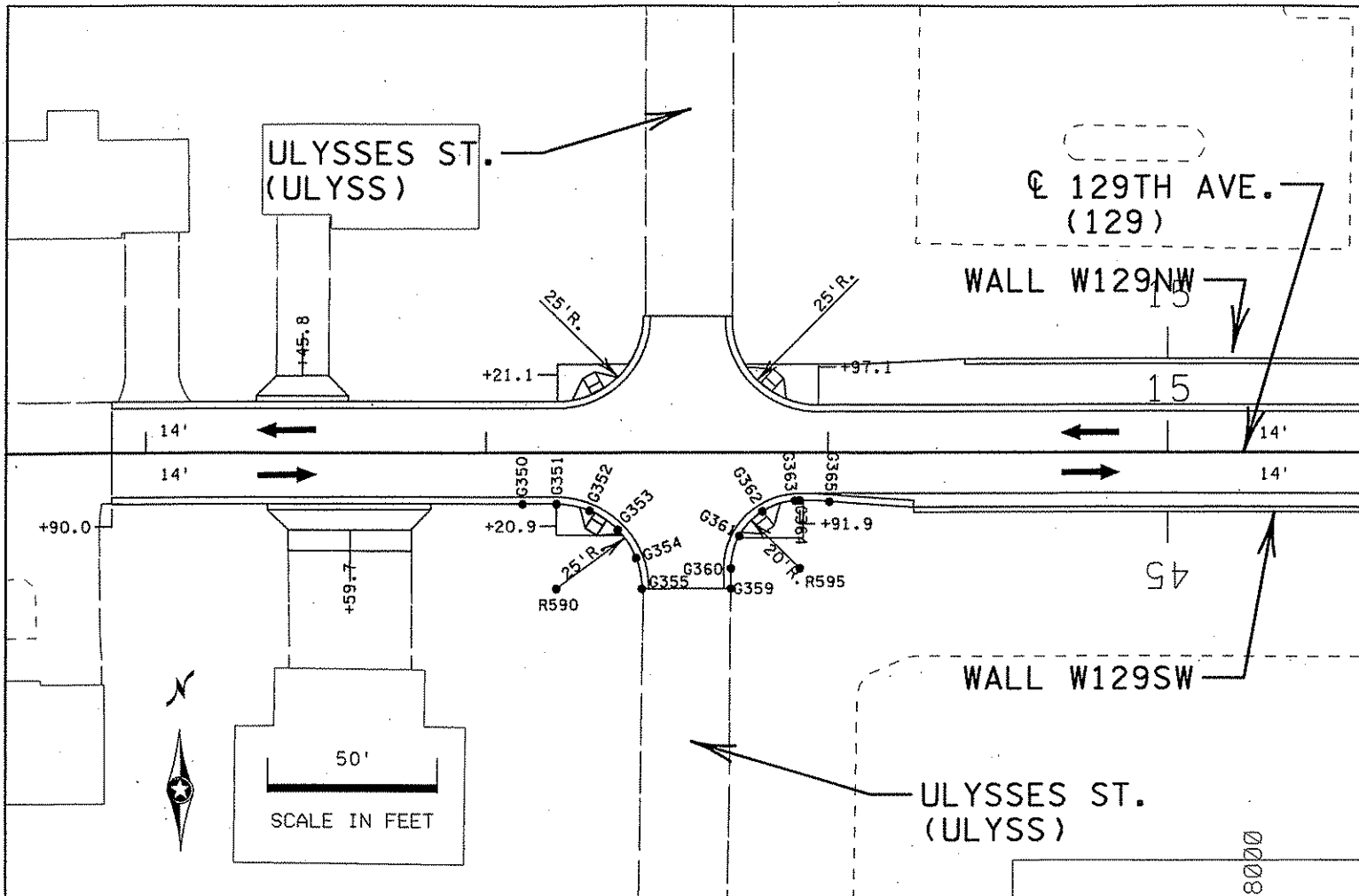
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 REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

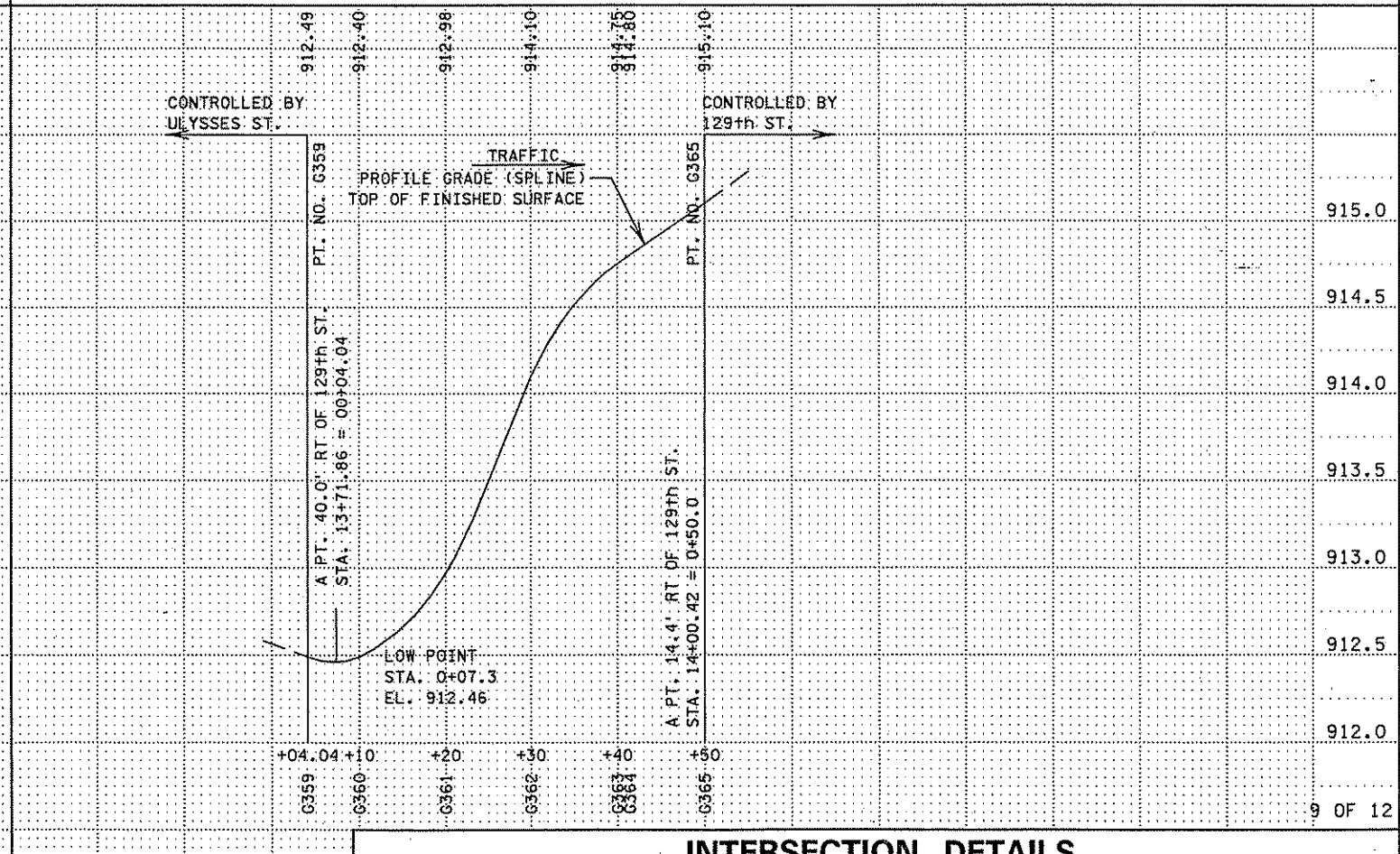
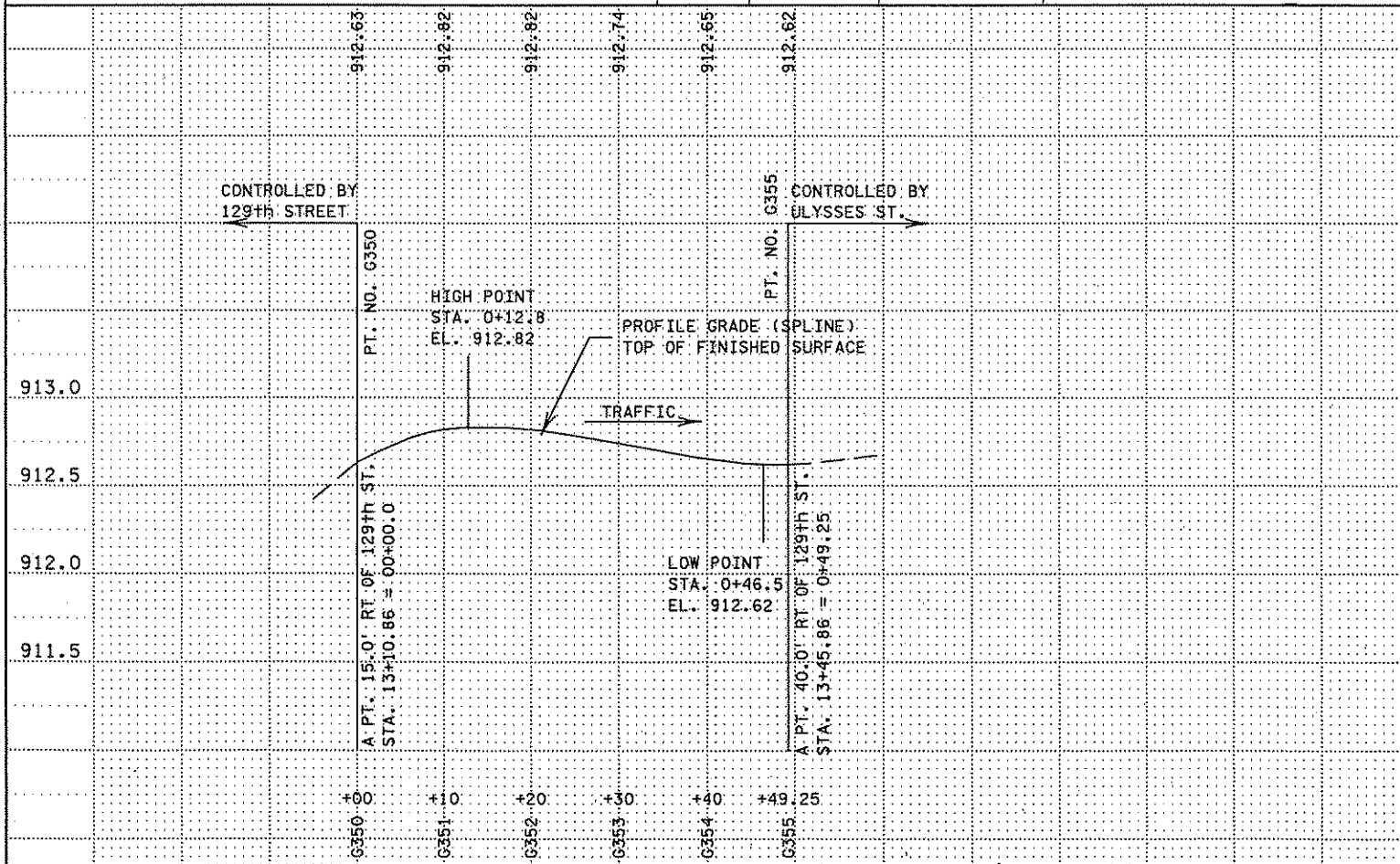
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GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G350	507790.5874	161647.2748	912.63
G351	507800.5874	161647.2867	912.82
G352	507810.3252	161645.3248	912.82
G353	507818.5303	161639.7257	912.74
G354	507823.9125	161631.3754	912.65
G355	507825.6171	161622.3300	912.62
G359	507851.6181	161622.3751	912.49
G360	507851.6078	161628.3365	912.4
G361	507854.0395	161637.9292	912.98
G362	507860.7726	161645.1818	914.10
G363	507870.1585	161648.3186	914.75
G364	507871.5840	161648.3712	914.80
G365	507880.1456	161648.0199	915.10

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R590	507800.6171	161622.2867	25'
R595	507871.6078	161628.3712	20'

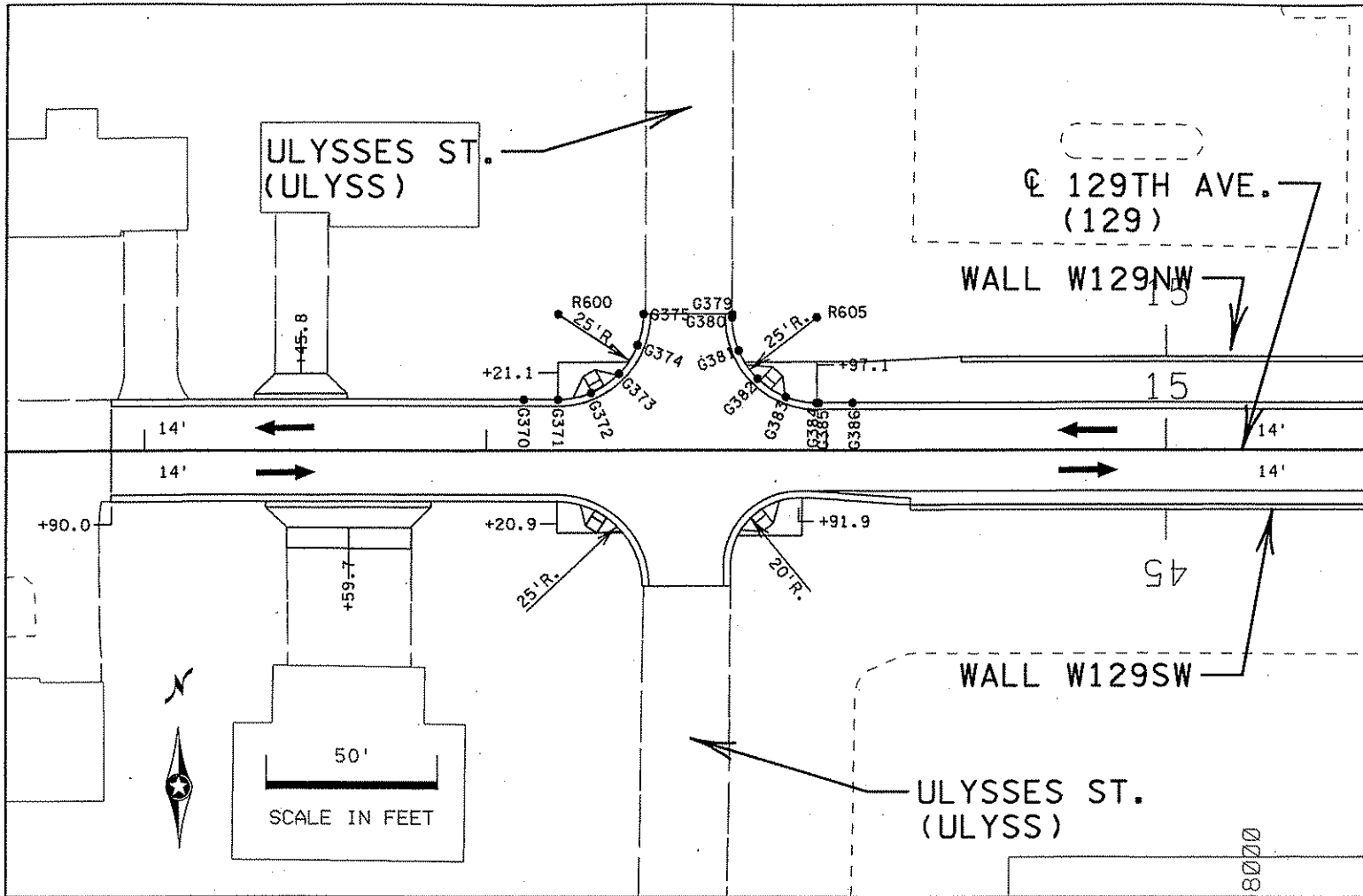
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 REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

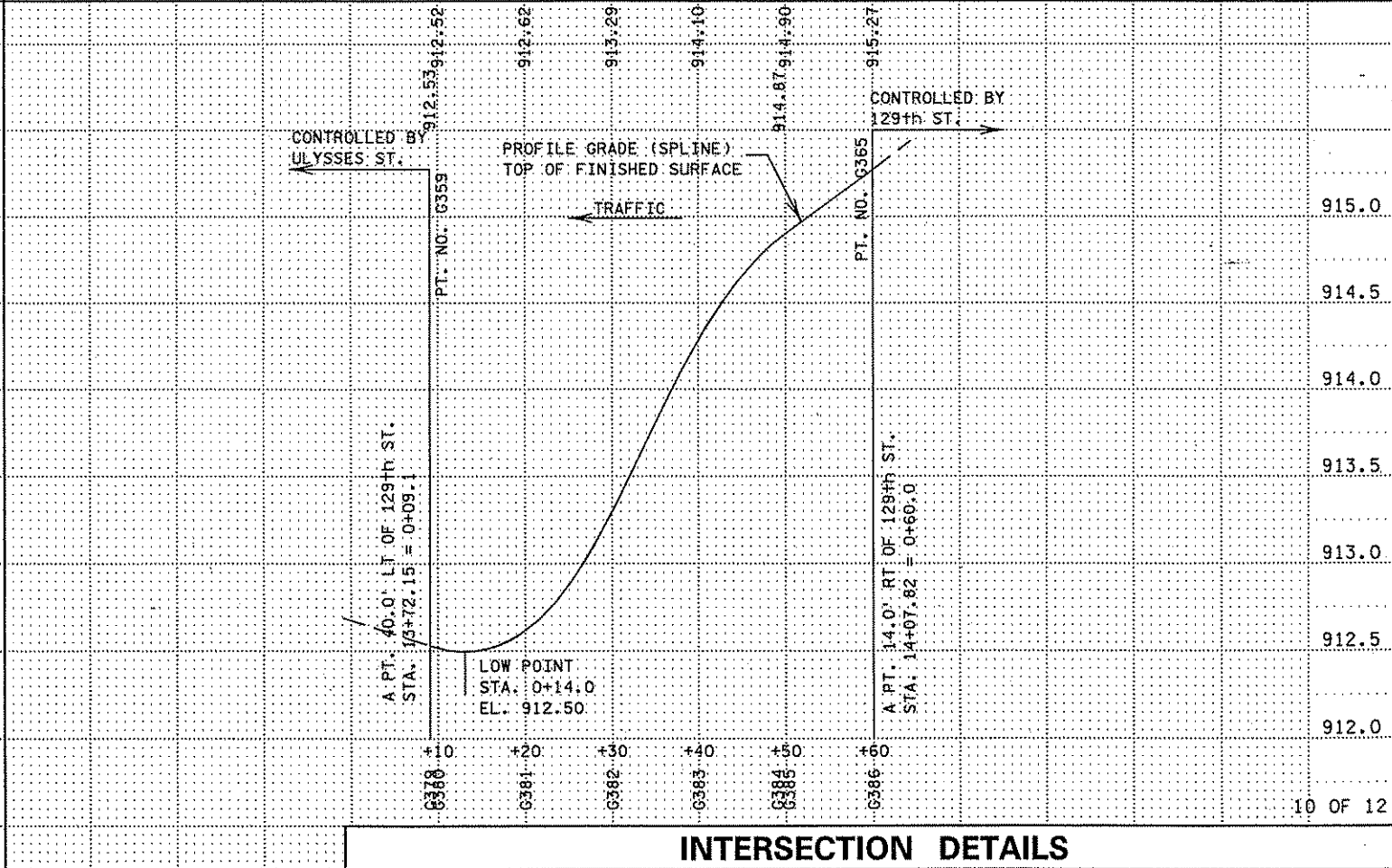
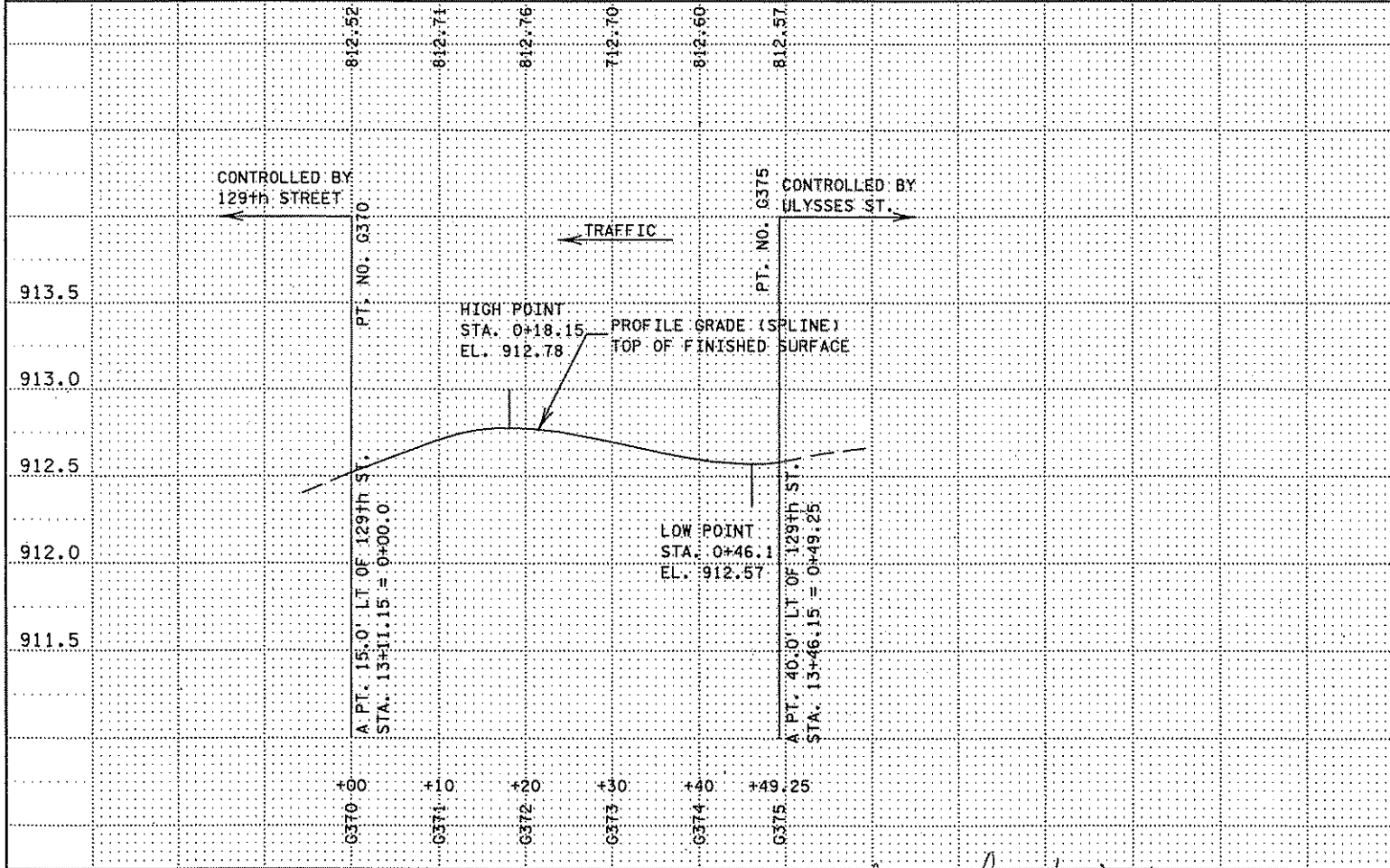
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GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G370	507790.8338	161677.2751	912.52
G371	507800.8338	161677.2870	912.71
G372	507810.5617	161679.2701	912.76
G373	507818.7535	161684.8887	912.70
G374	507824.1106	161693.2538	912.60
G375	507825.8040	161702.3946	912.58
G379	507851.8050	161702.3025	912.53
G380	507851.8043	161701.3950	912.52
G381	507853.7658	161691.6562	912.62
G382	507859.3688	161683.4538	913.29
G383	507867.7238	161678.0808	914.28
G384	507876.8340	161676.3774	914.87
G385	507877.5126	161676.3782	914.90
G386	507887.5126	161676.3901	915.27

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R600	507800.8040	161702.2870	25'
R605	507876.8043	161701.3774	25'

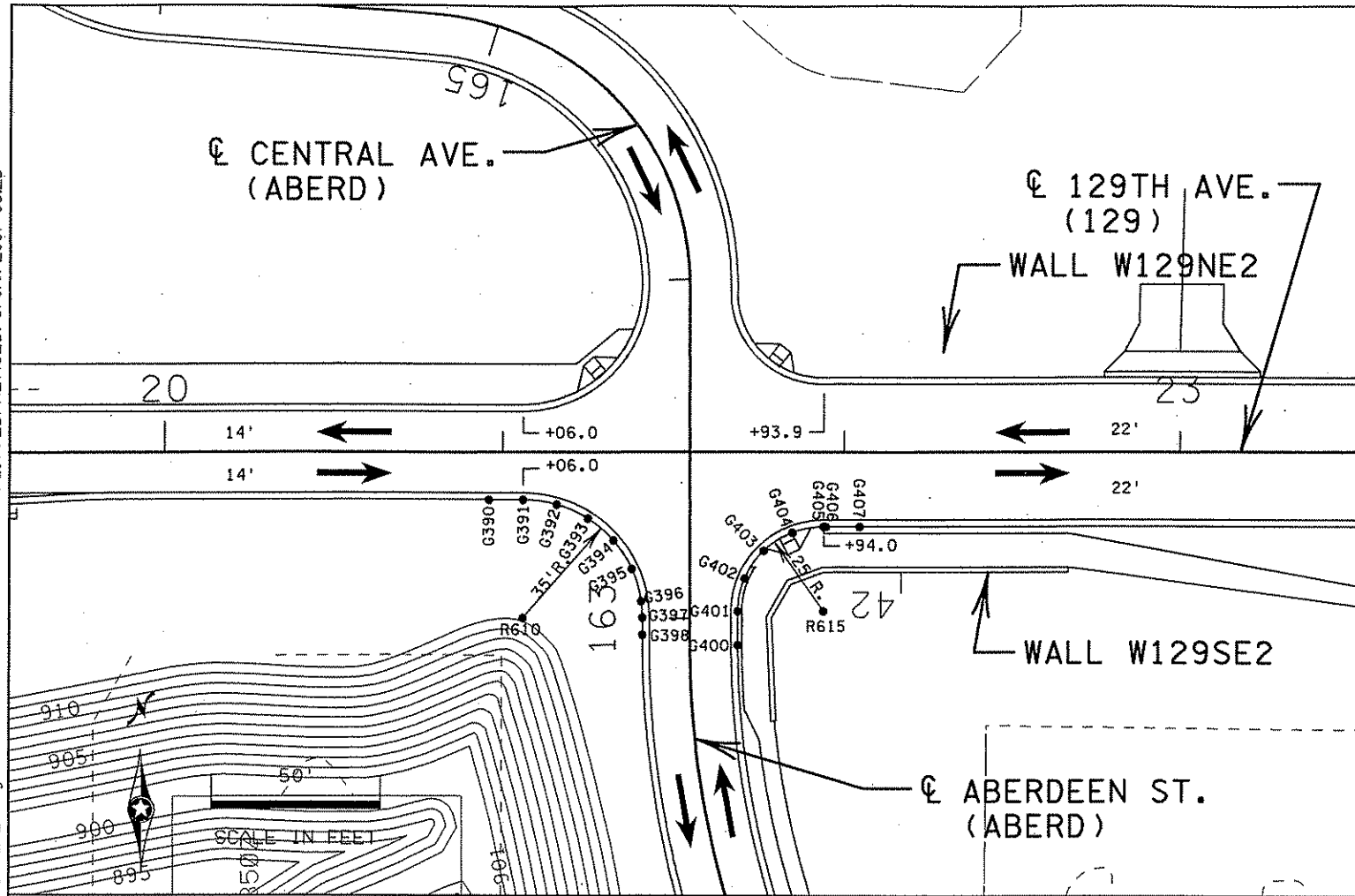
NOTES:
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INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:25

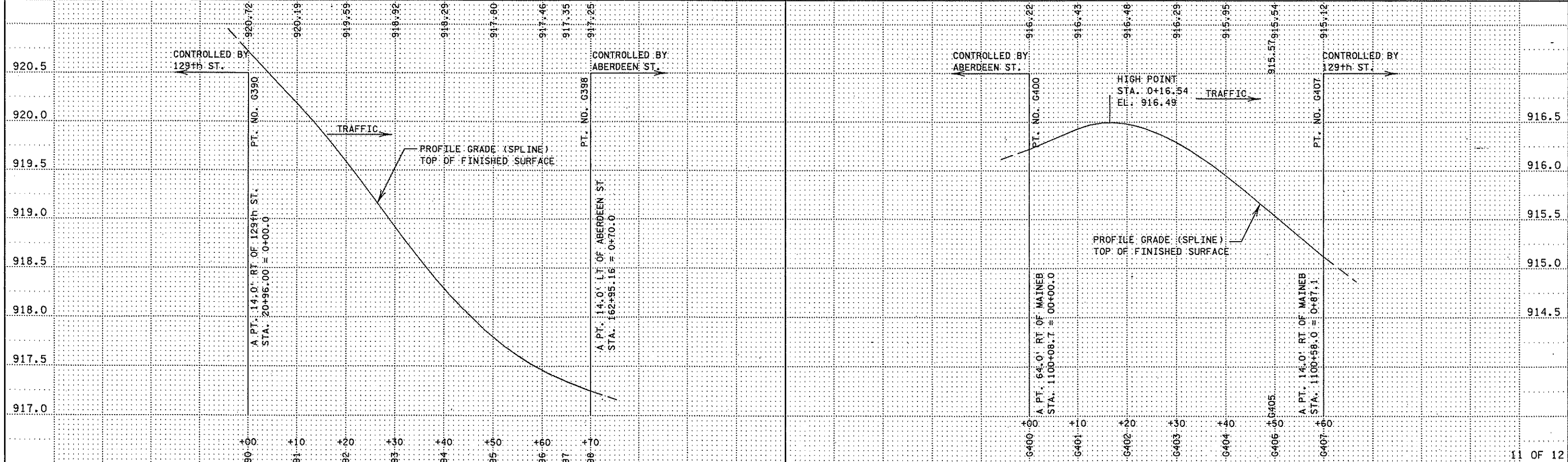
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GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G390	508575.7277	161649.2087	920.72
G391	508585.7277	161649.2206	920.19
G392	508595.5991	161647.8154	919.59
G393	508604.6687	161643.6846	918.82
G394	508612.2064	161637.1605	918.29
G395	508617.6010	161628.7853	917.80
G396	508620.4152	161619.2249	917.46
G397	508620.7691	161614.3660	917.35
G398	508620.7904	161609.2413	917.25
G400	508648.8031	161606.2215	916.22
G401	508648.7616	161616.2214	916.43
G402	508650.6998	161625.9670	916.48
G403	508656.2745	161634.1886	916.29
G404	508664.6057	161639.5884	915.95
G405	508673.7316	161641.3252	915.57
G406	508674.3876	161641.3260	915.54
G407	508684.3876	161641.3379	915.12

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R610	508585.7694	161614.2206	35'
R615	508673.7614	161616.3253	25'

NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT
 REFLECT DRAINAGE STRUCTURE SUMP.



INTERSECTION DETAILS

DRAWN BY: LDM

CHECKED BY: *DY*

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

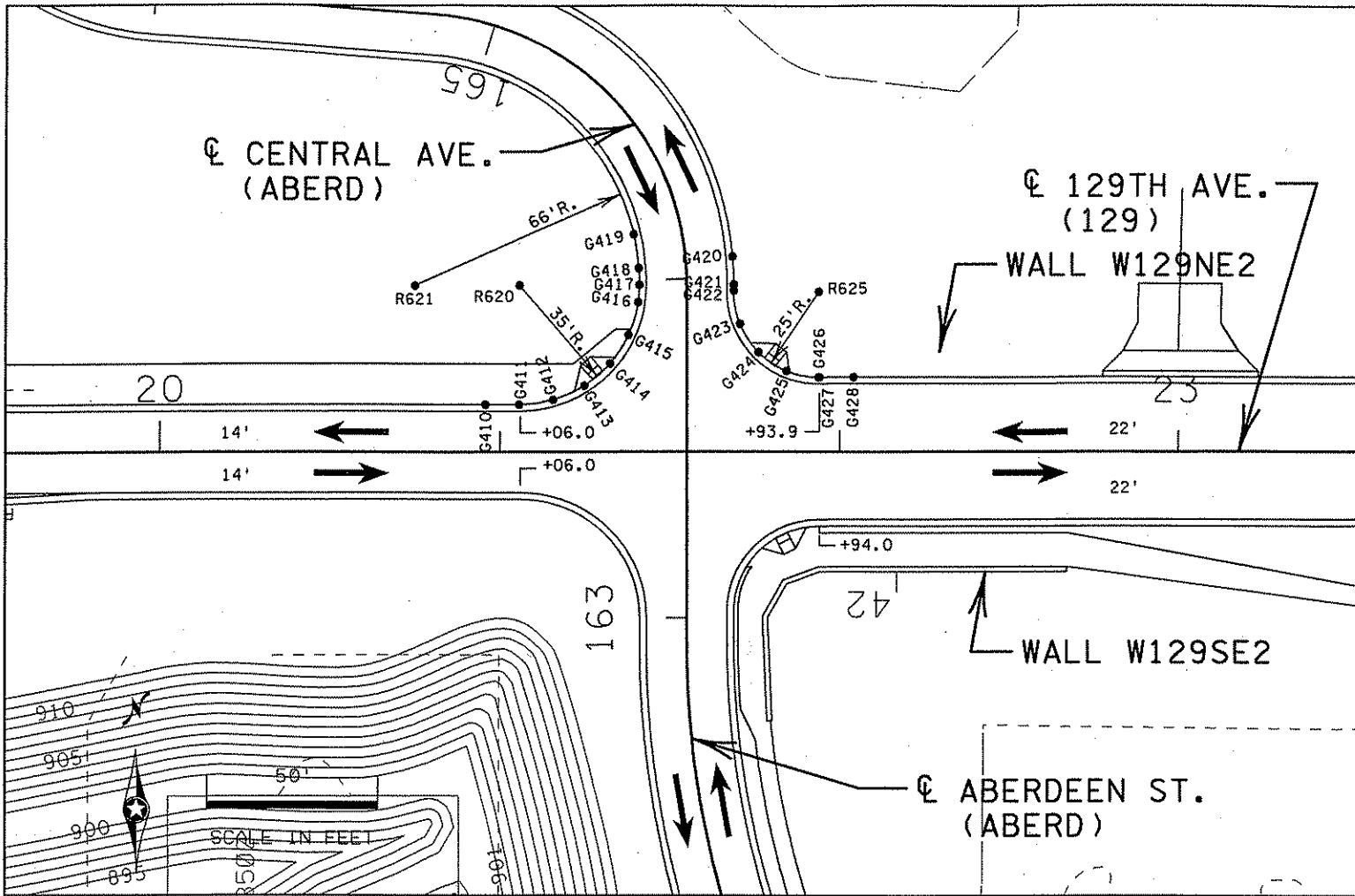
LIC. NO. 20534 DATE *2/2/2007*

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 221 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:25

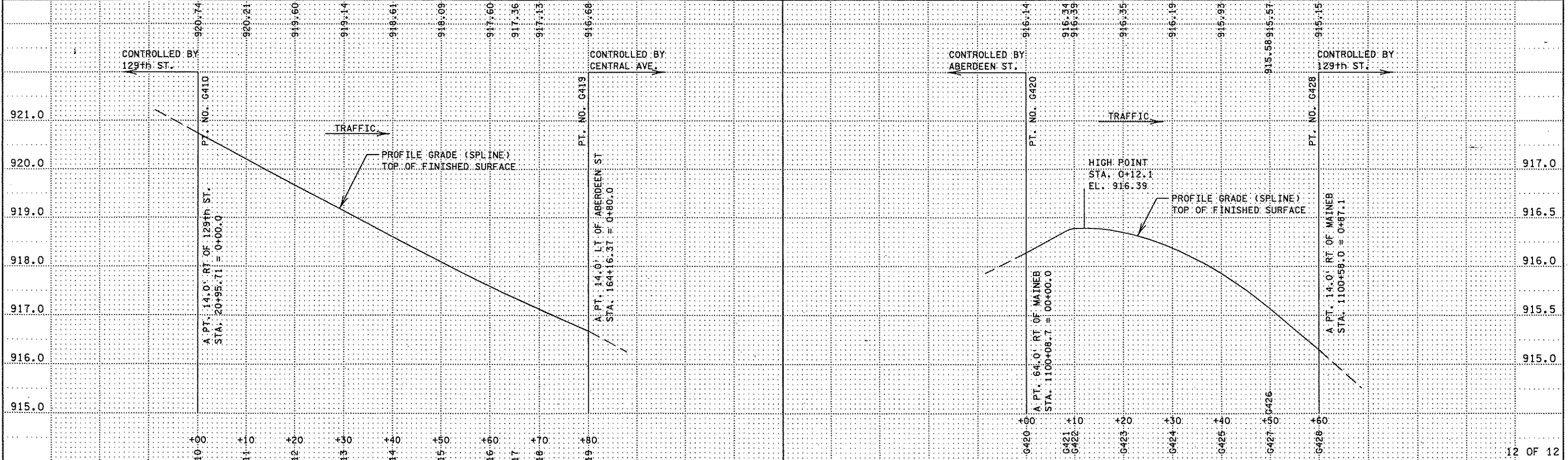
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 PATH & FILENAME: S:\DESIGN\065\0208123\1.dgn



GUTTER PROFILE POINTS			
POINT NO.	X	Y	ELEVATION
G410	508575.4039	161677.2083	920.74
G411	508585.4039	161677.2202	920.21
G412	508595.2667	161678.6508	919.60
G413	508604.3306	161682.8048	919.14
G414	508611.8527	161689.3423	918.61
G415	508617.2233	161698.7332	918.09
G416	508620.0789	161707.3019	917.60
G417	508620.3620	161712.3572	917.36
G418	508620.1625	161717.2835	917.16
G419	508618.6257	161727.1550	916.68
G420	508647.9692	161720.6842	916.14
G421	508648.3617	161712.4850	916.34
G422	508648.3512	161710.6966	916.39
G423	508650.1918	161700.9357	916.35
G424	508655.6813	161692.6567	916.19
G425	508663.9594	161687.1659	915.93
G426	508673.4243	161685.3249	915.58
G427	508673.7243	161685.3253	915.57
G428	508683.7243	161685.3371	915.15

RADIUS POINTS			
POINT NO.	X	Y	RADIUS
R620	508585.3622	161712.2202	35'
R621	508554.3625	161712.0945	66'
R625	508673.3946	161710.3468	25'

NOTES:
 GUTTERLINE PROFILE ELEVATIONS DO NOT
 REFLECT DRAINAGE STRUCTURE SUMP.

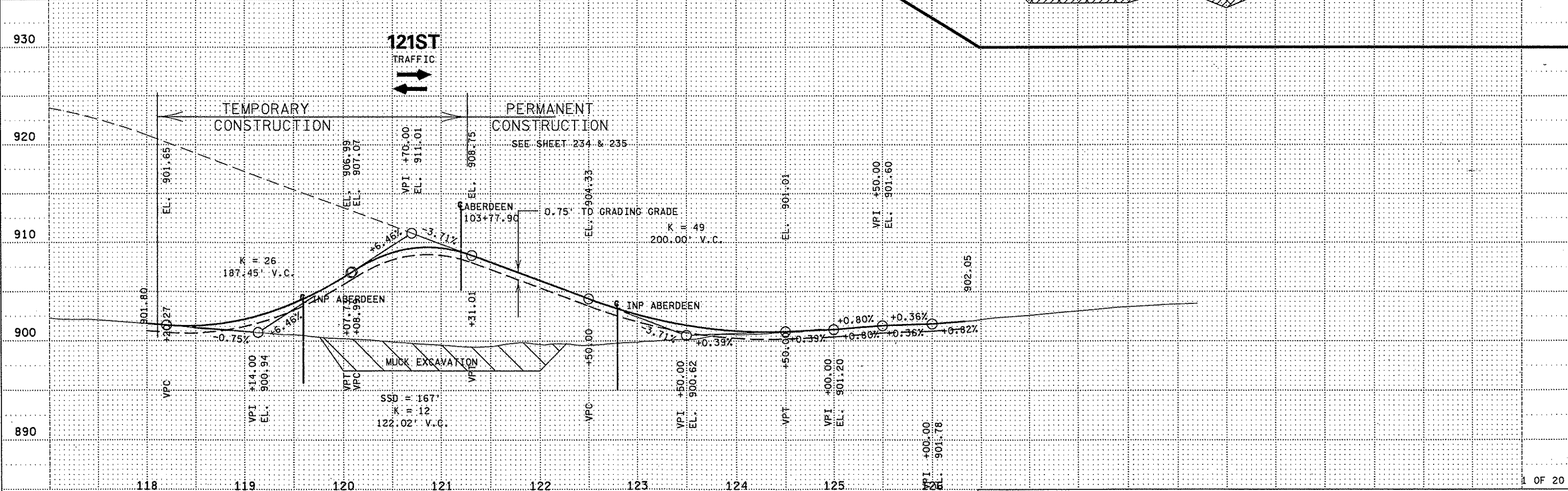
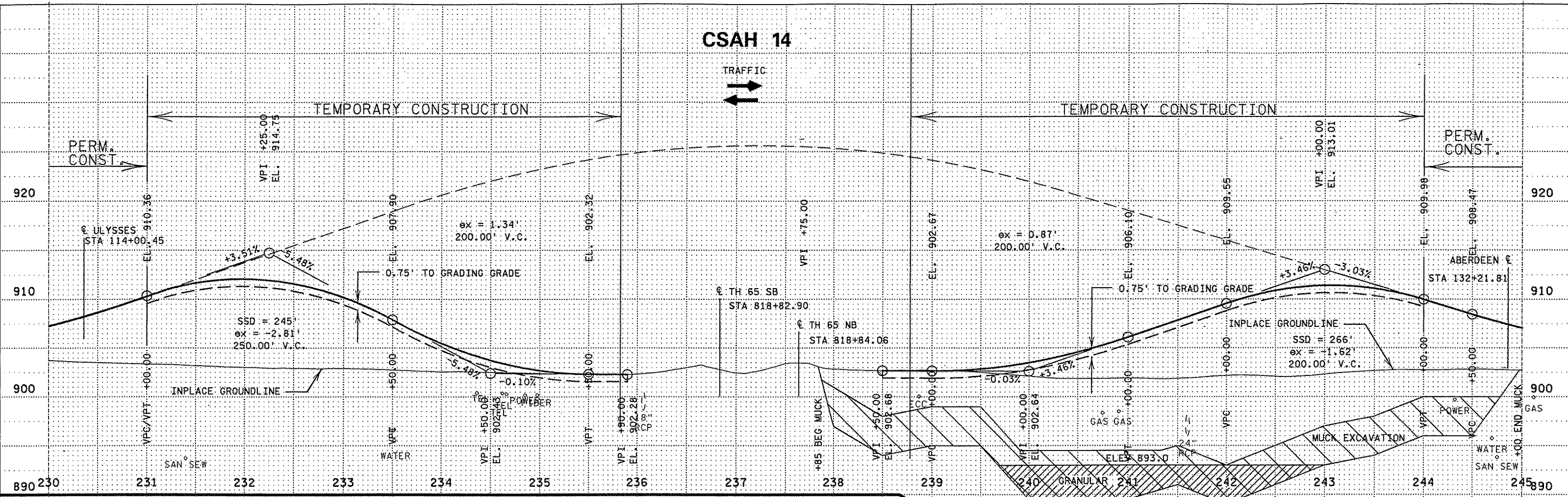


INTERSECTION DETAILS

PLOTTED/REVISED: 31-JAN-2007 08:28

DISTRICT: METRO
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PATH & FILENAME: S:\Design\065\0208\123\T.H.65\PROFILES\0208123_pr1.dgn

CSAH 14

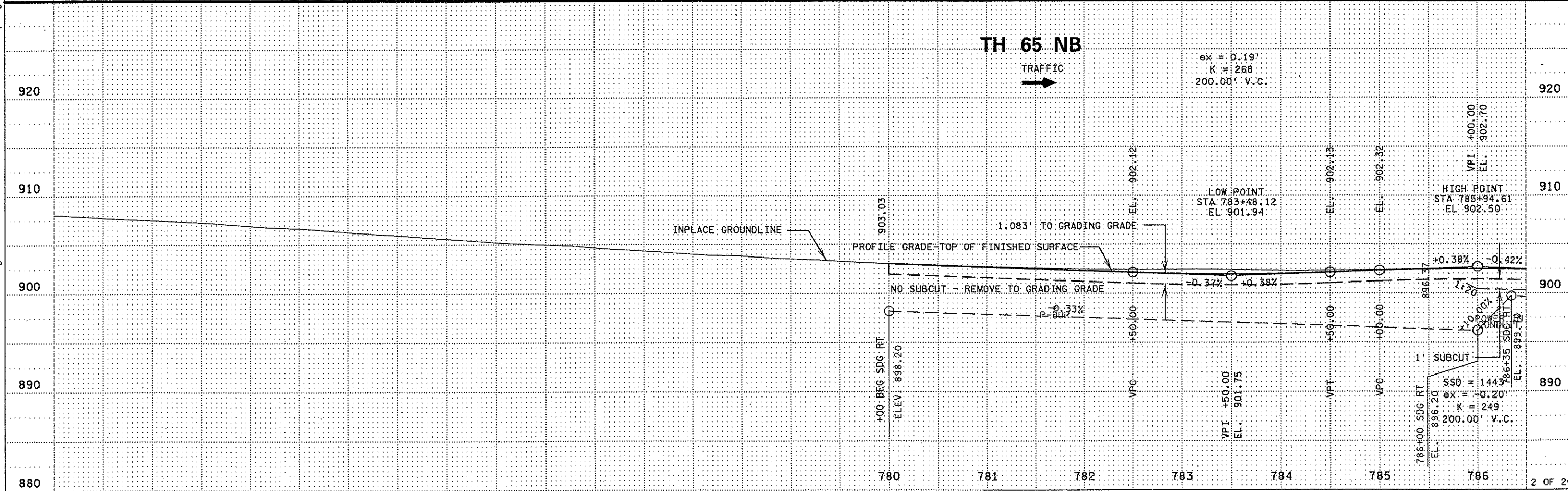
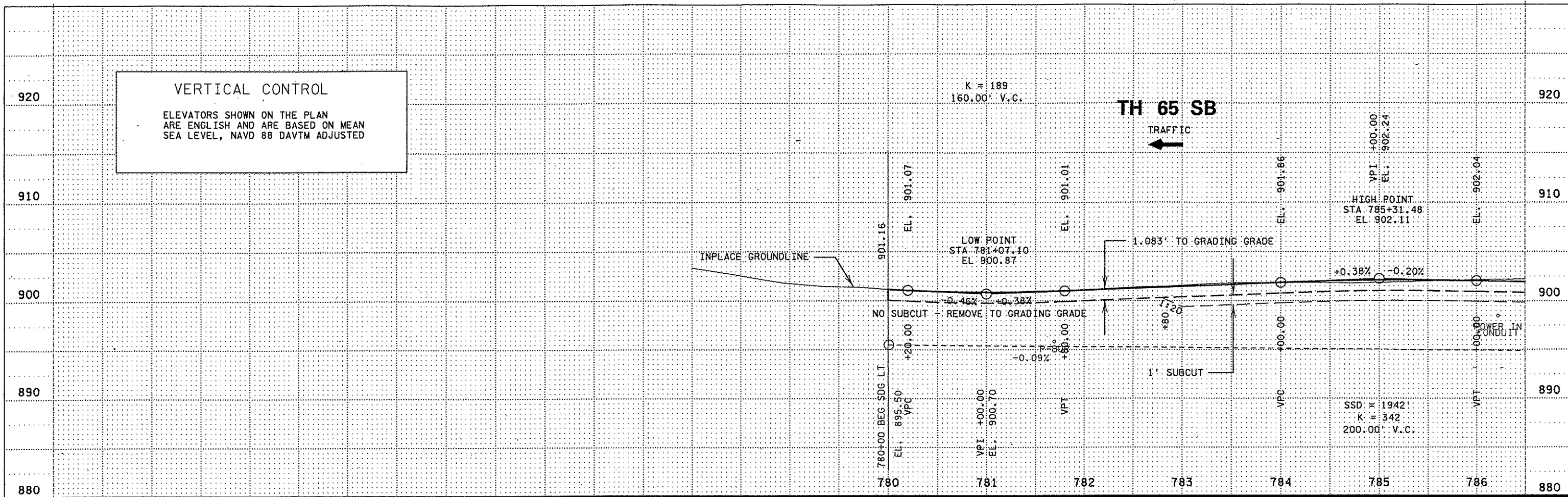


PROFILES TEMPORARY CONNECTIONS

PLOTTED/REVISED: 31-JAN-2007 08:28

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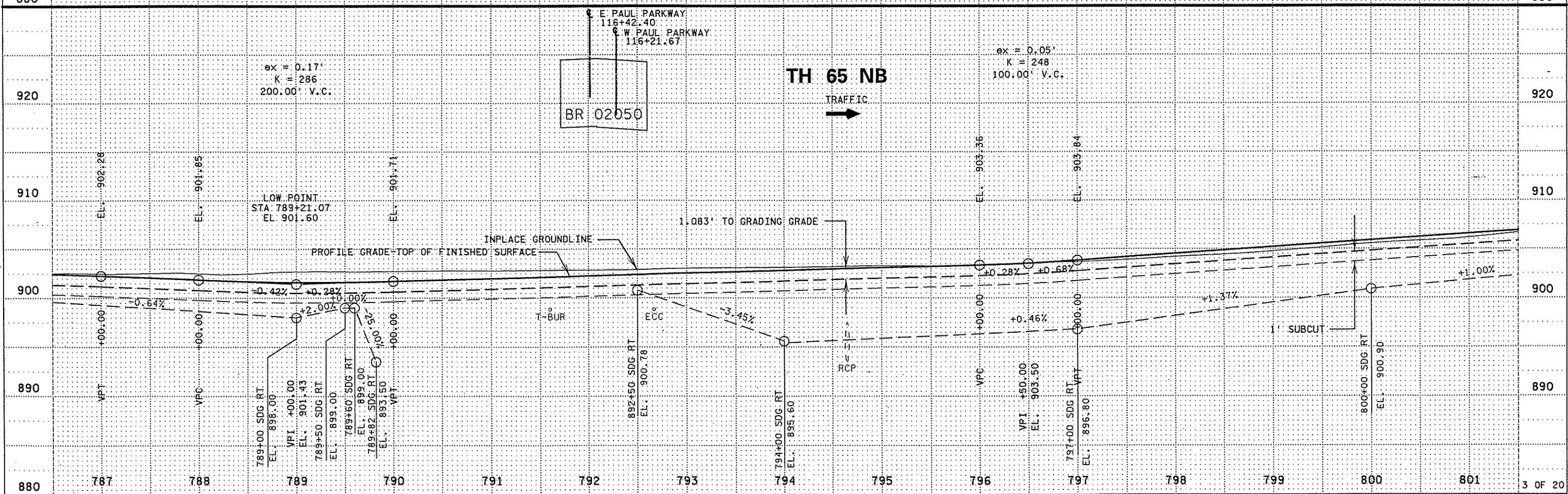
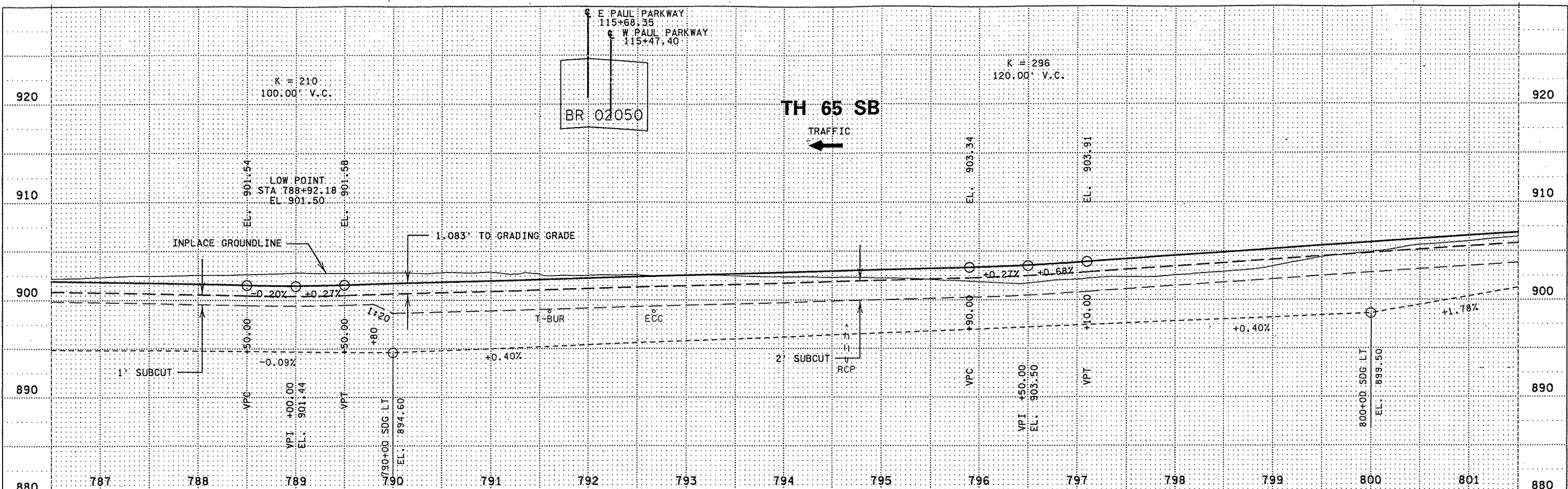
VERTICAL CONTROL
ELEVATORS SHOWN ON THE PLAN
ARE ENGLISH AND ARE BASED ON MEAN
SEA LEVEL, NAVD 88 DATM ADJUSTED



PROFILES (T.H. 65)

PLOTTED/REVISED: 31-JAN-2007 08:28

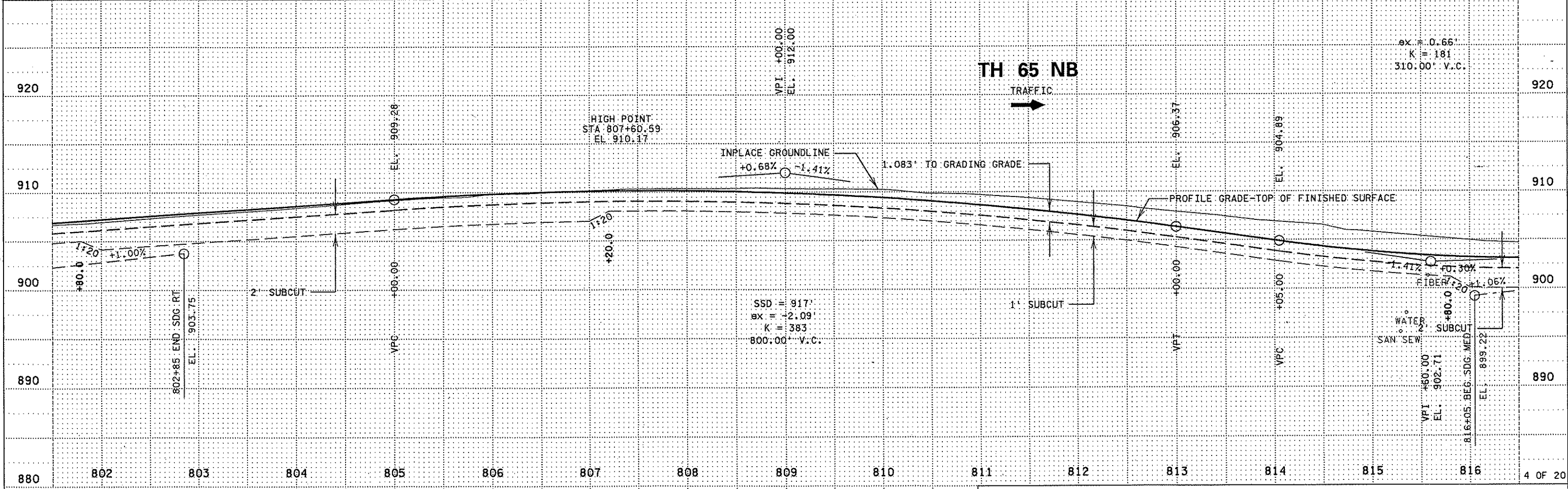
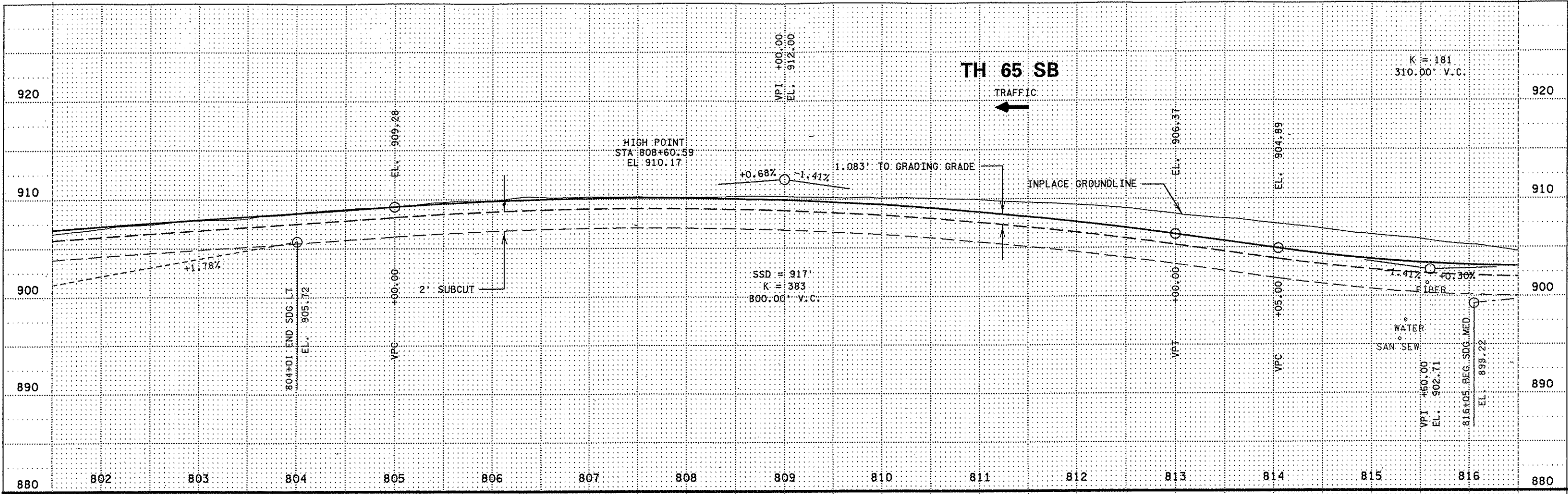
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PROFILES (T.H. 65)

PLOTTED/REVISED: 31-JAN-2007 08:28

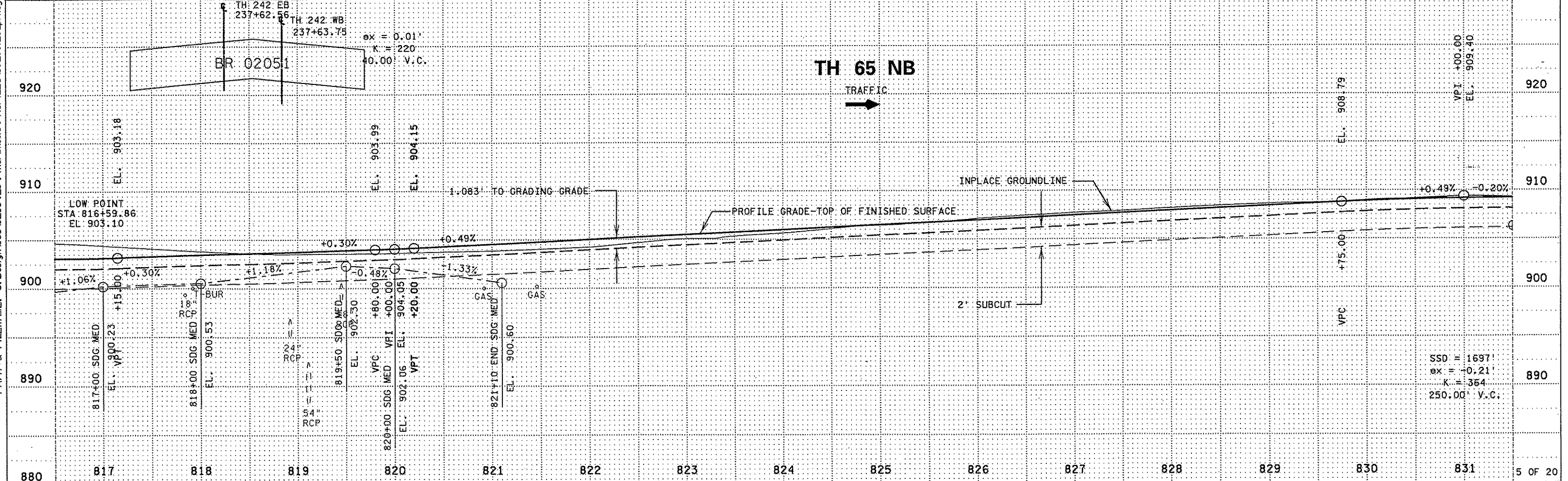
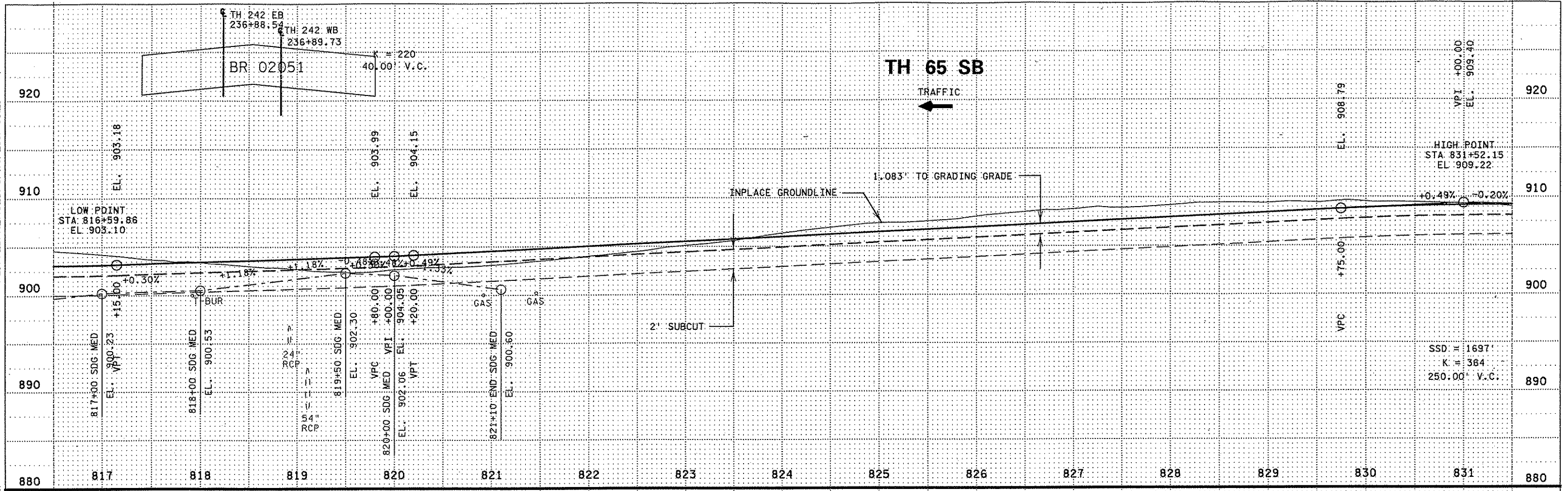
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PROFILES (T.H. 65)

PLOTTED/REVISED: 31-JAN-2007 08:28

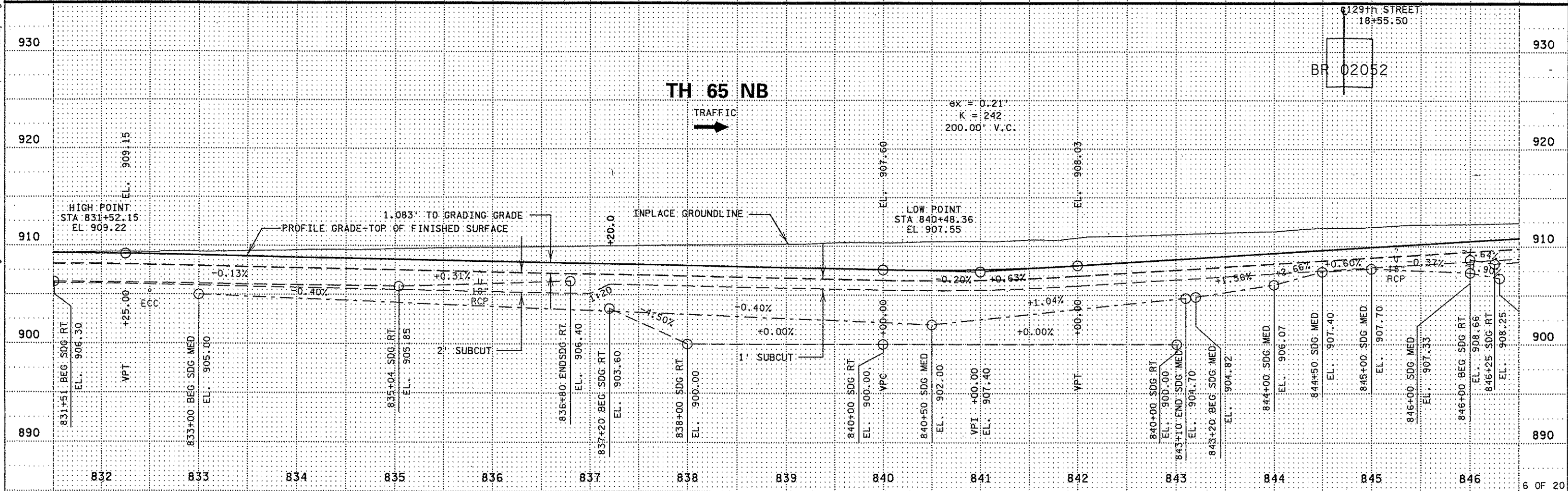
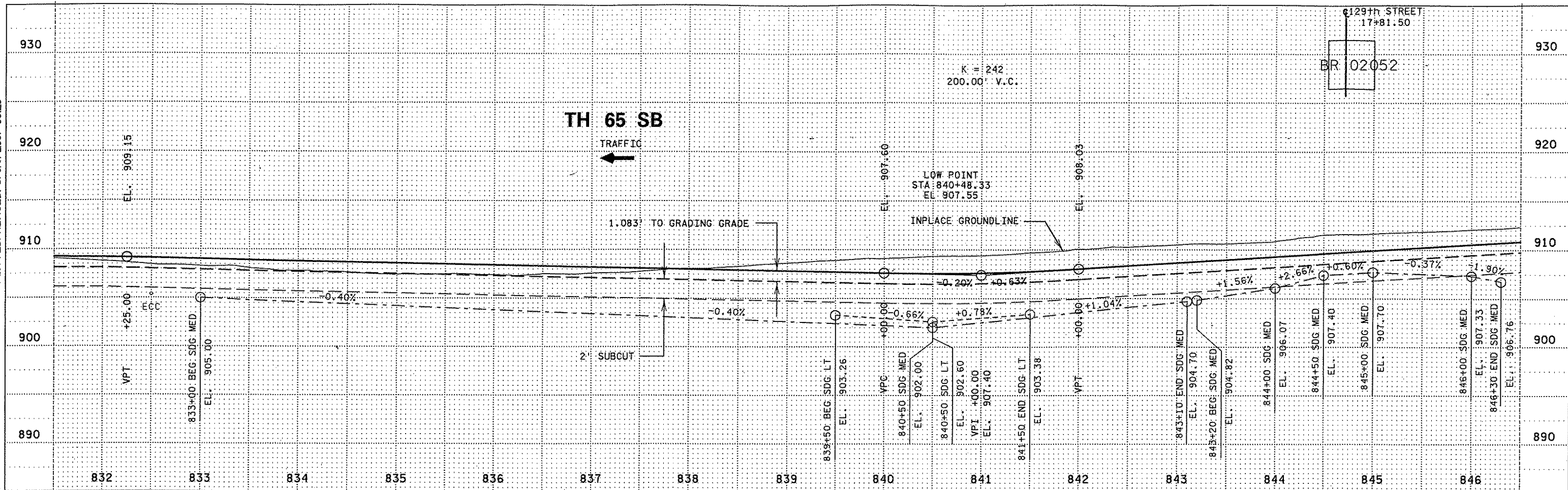
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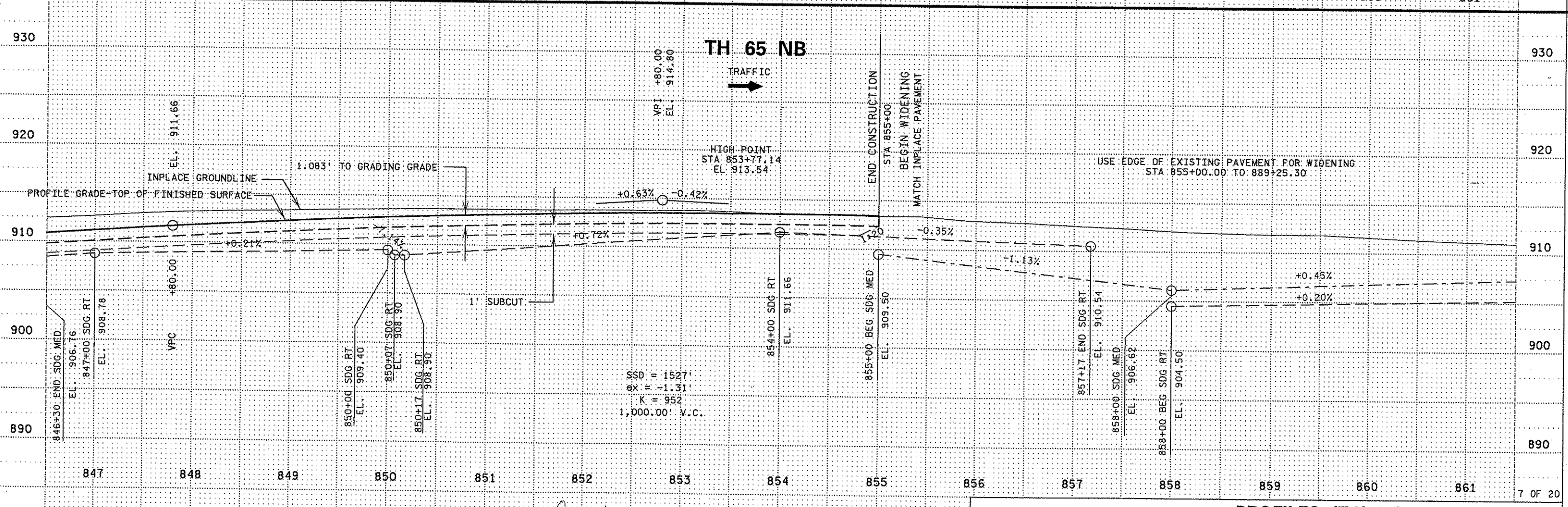
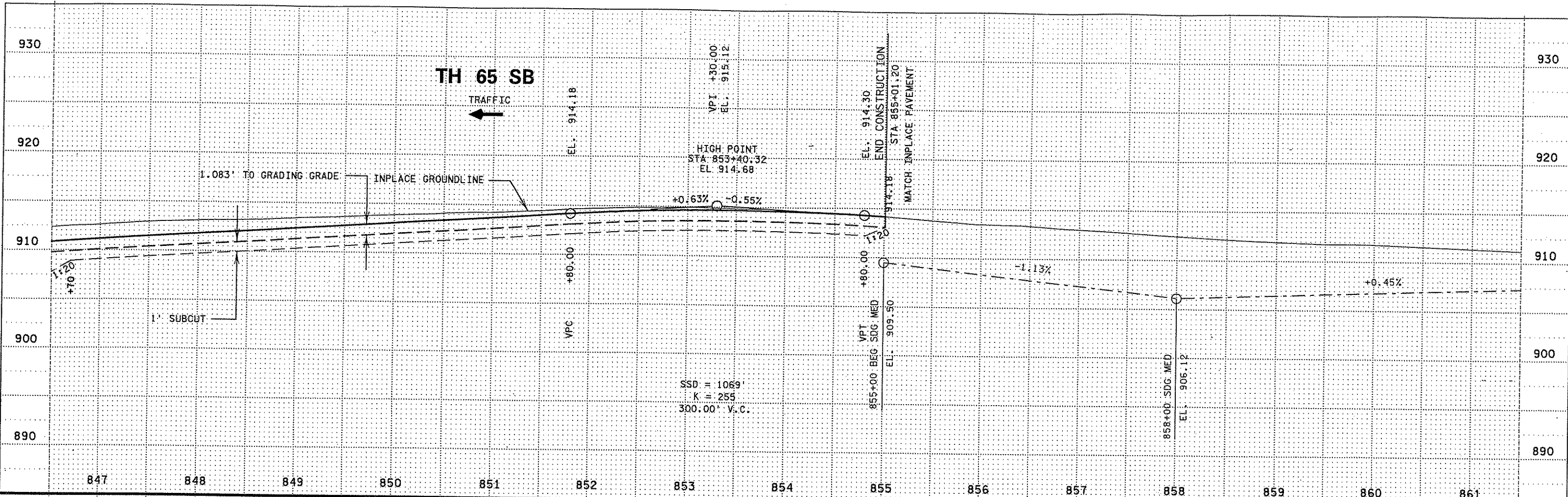
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PROFILES (T.H. 65)

PLOTTED/REVISED: 31-JAN-2007 08:28

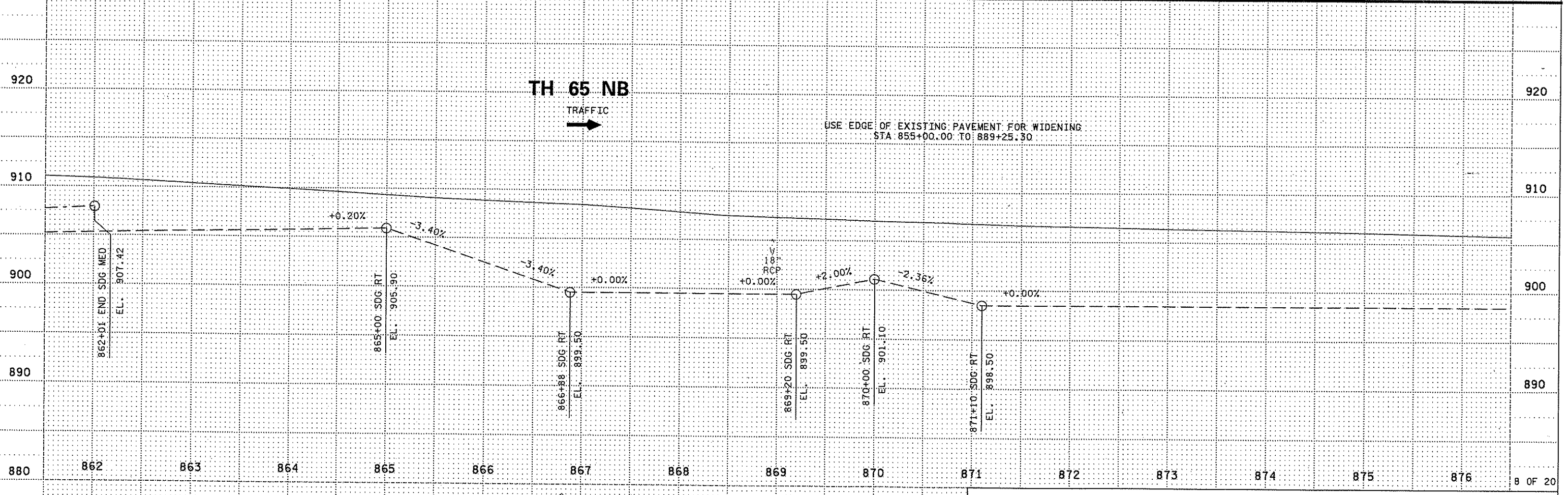
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PROFILES (T.H. 65)

PLOTTED/REVISED: 31-JAN-2007 08:28

DISTRICT #: METRO
PLOT NAME: pr_08
PATH & FILENAME: S:\Design\065\0208\23\Final\isheets\PROFILES\0208123_pr1.dgn



PROFILES (T.H. 65)

DRAWN BY: MW

CHECKED BY: DY

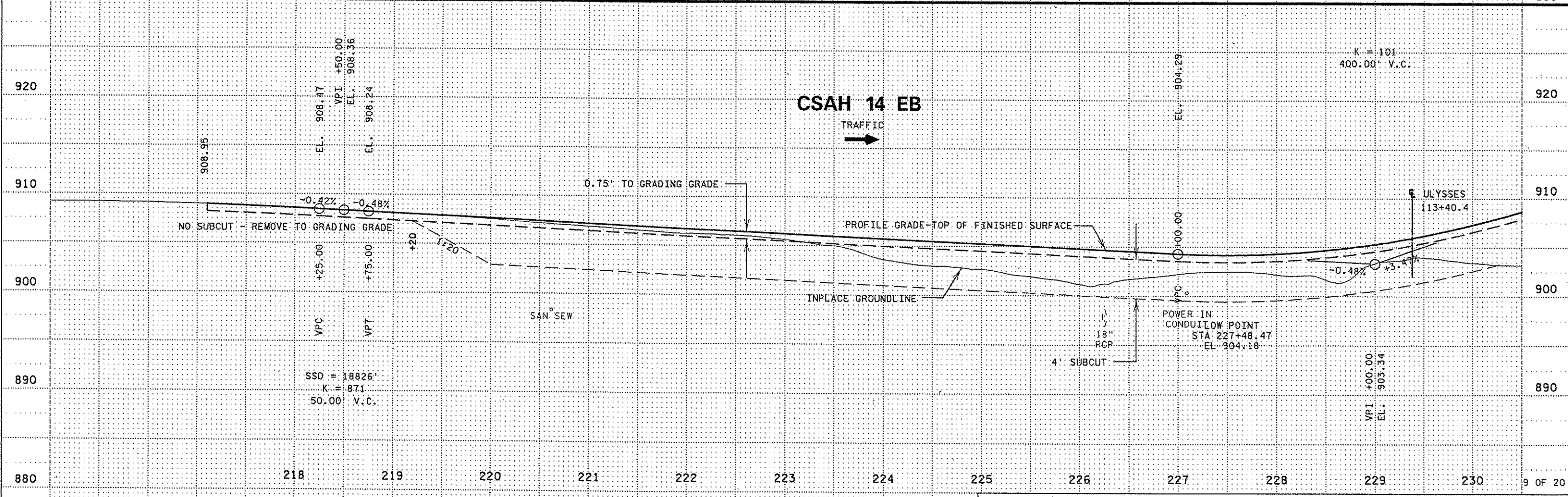
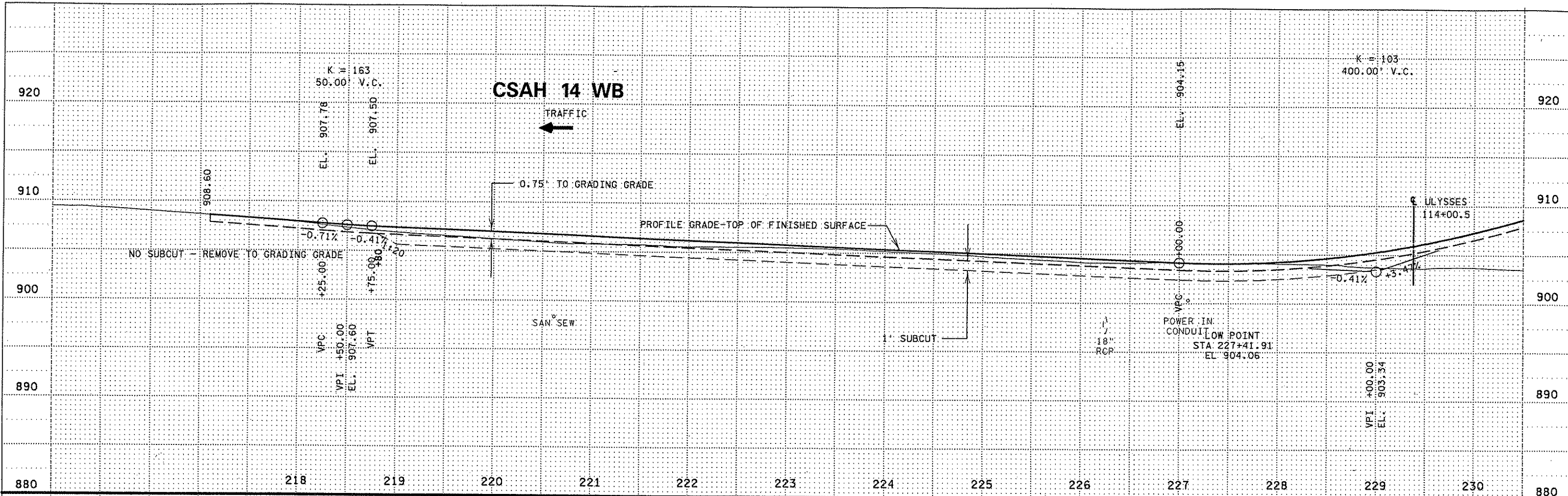
CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 230 OF 872 SHEETS

PLOTTED/REVISED: 02-APR-2007 09:48

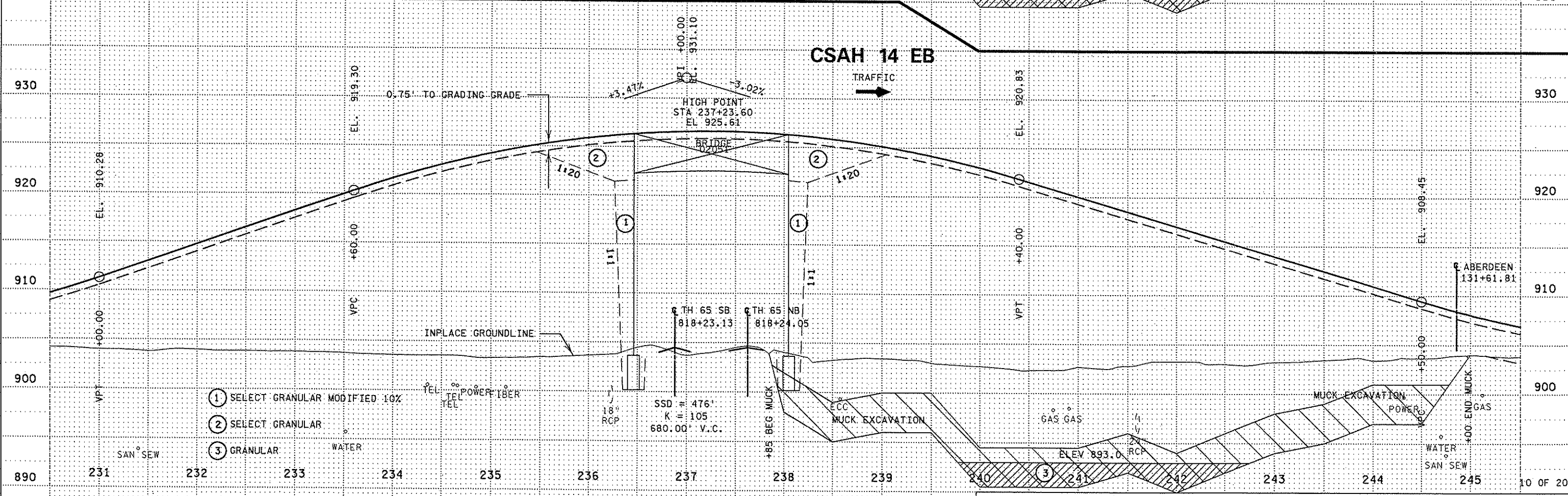
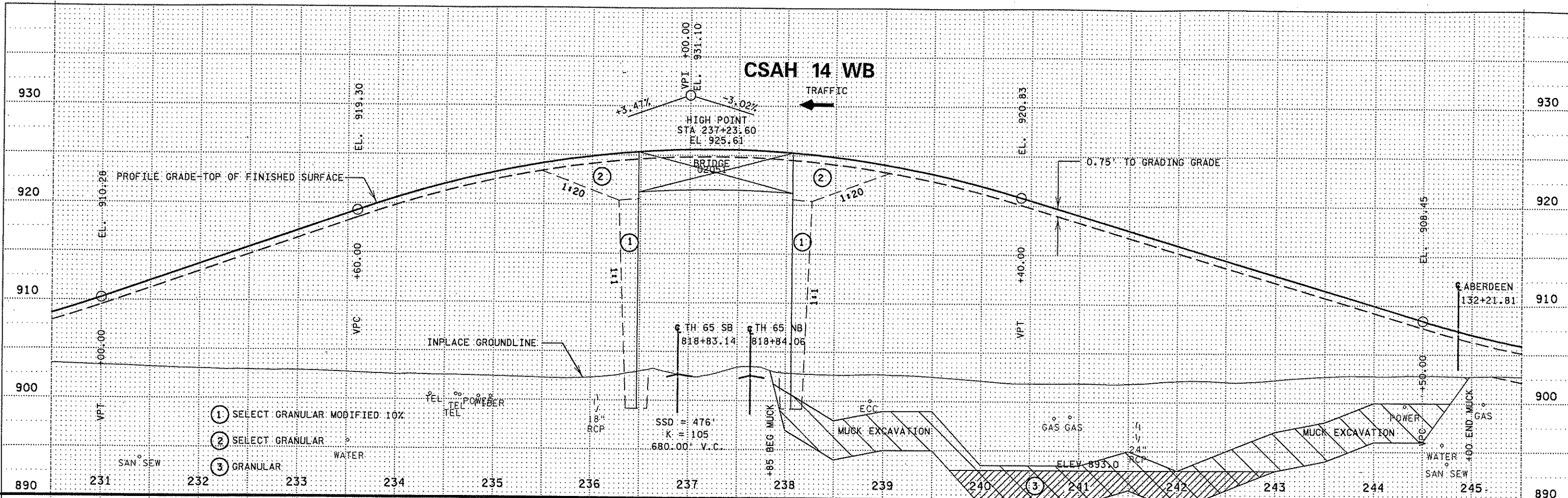
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PROFILES (CSAH 14)

PLOTTED/REVISED: 02-APR-2007 09:48

DISTRICT: METRO
PLOT NAME: pr_10
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PROFILES (CSAH 14)

DRAWN BY: MW

CHECKED BY: DY

CERTIFIED BY *Josephine Linnquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

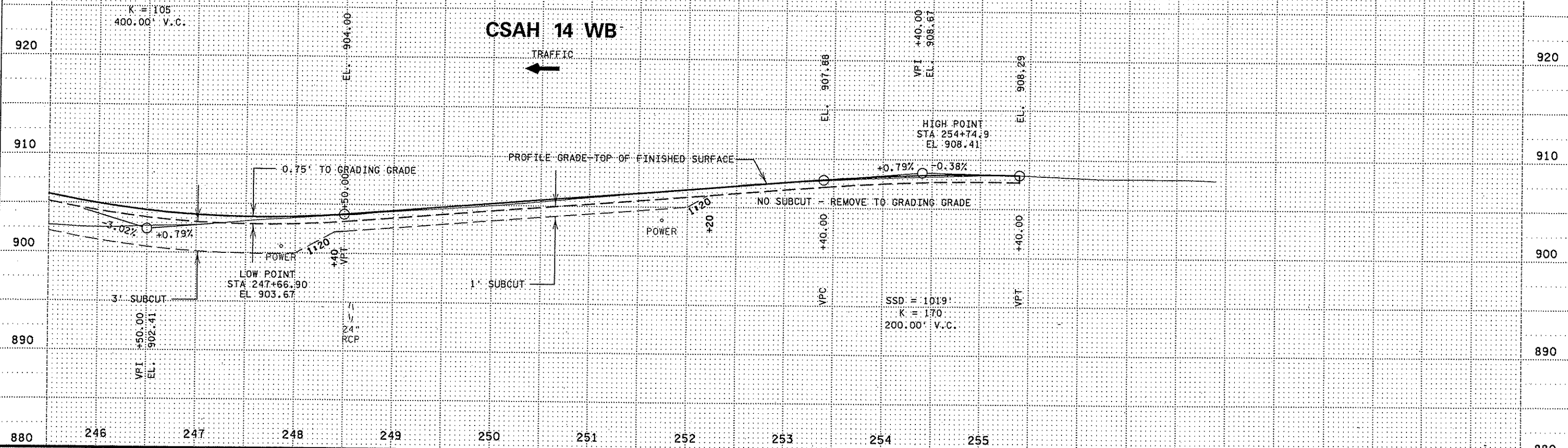
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 232 OF 872 SHEETS

PLOTTED/REVISED: 02-APR-2007 09:49

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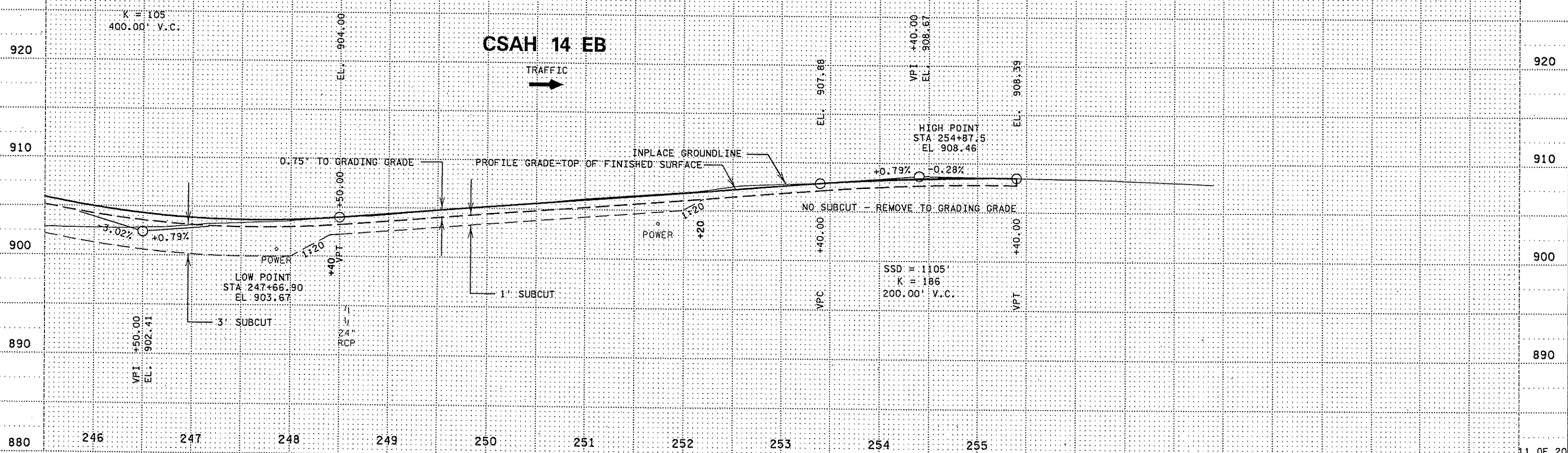
CSAH 14 WB

TRAFFIC ←



CSAH 14 EB

TRAFFIC →



PROFILES (CSAH 14)

DRAWN BY: MW CHECKED BY: DY CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE 4/4/07

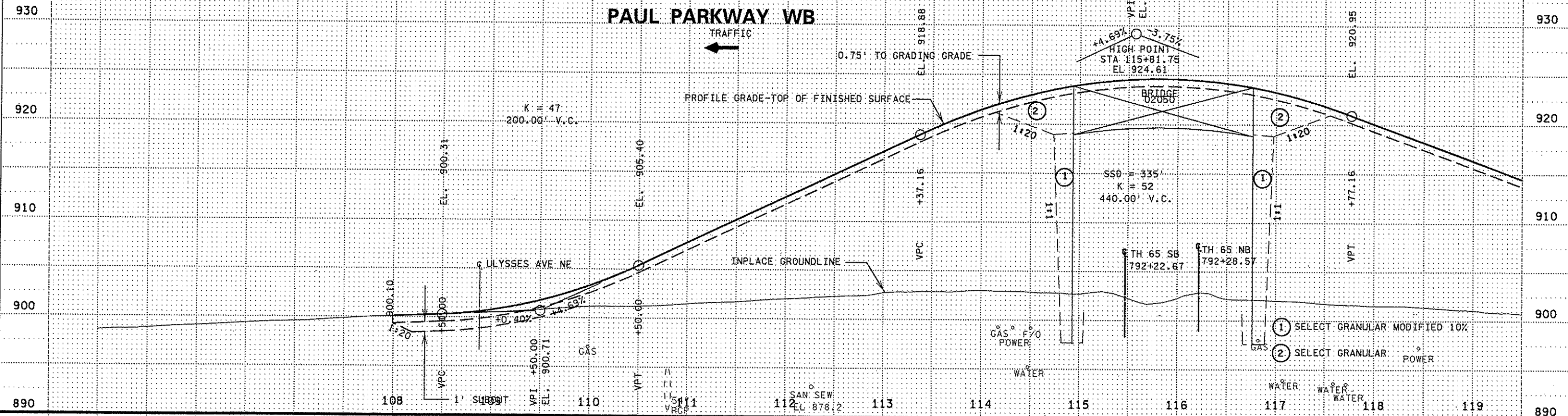
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 233 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 08:34

DISTRICT #: METRO
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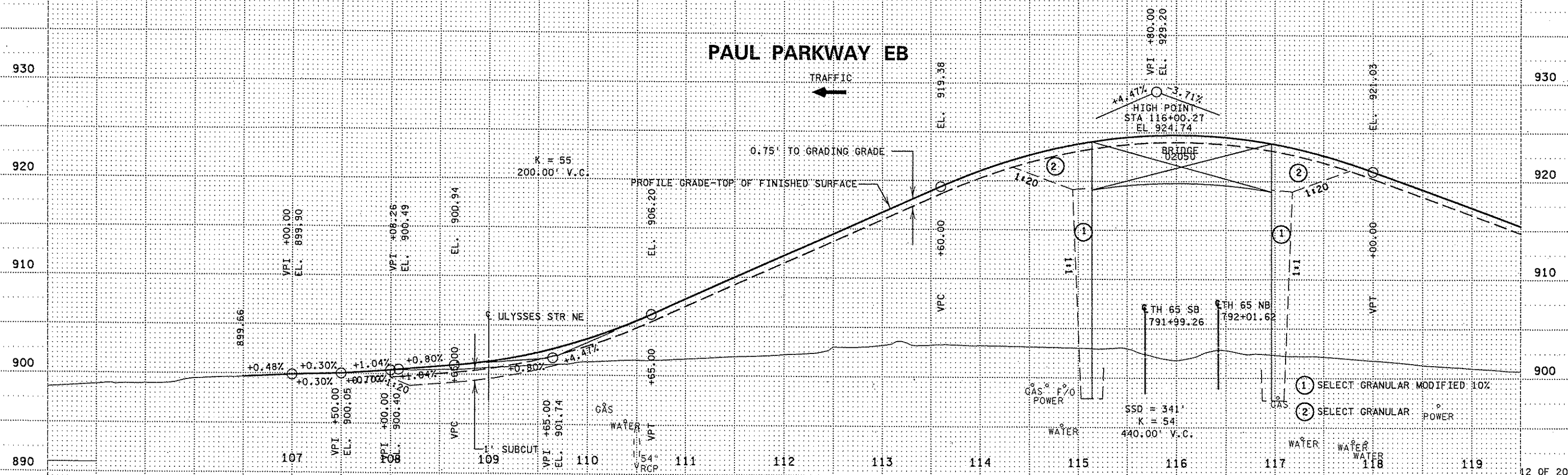
PAUL PARKWAY WB

TRAFFIC ←



PAUL PARKWAY EB

TRAFFIC ←



PROFILES (PAUL PARKWAY & 121ST STR)

DRAWN BY: MW

CHECKED BY: DY

CERTIFIED BY

Josephine Sunburst
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

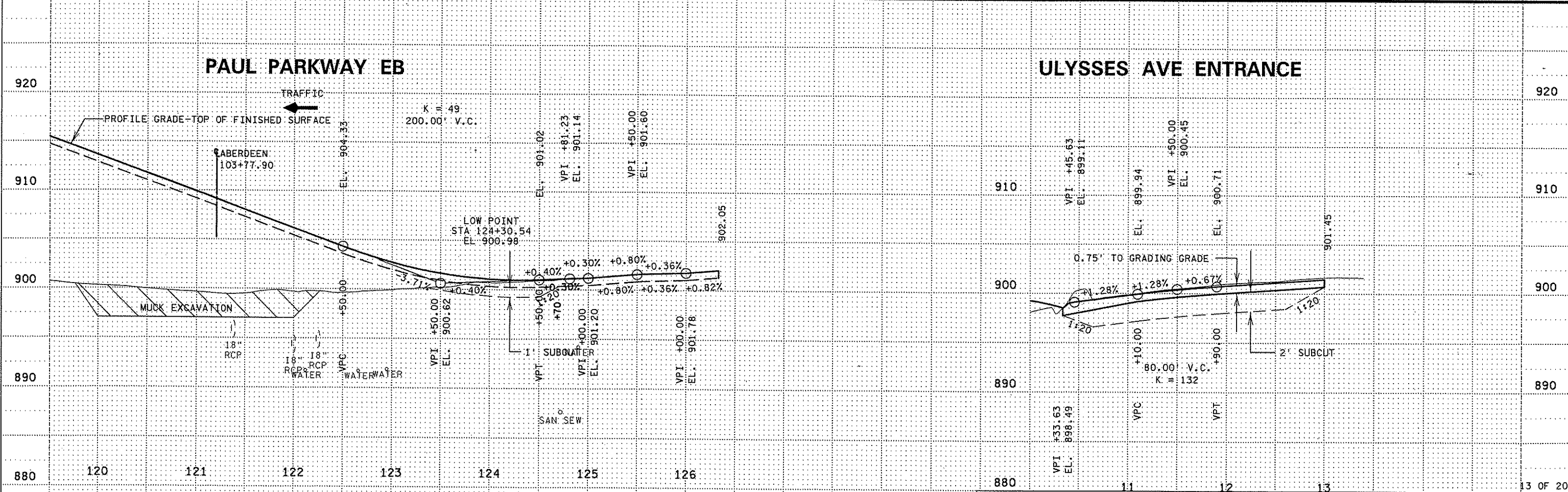
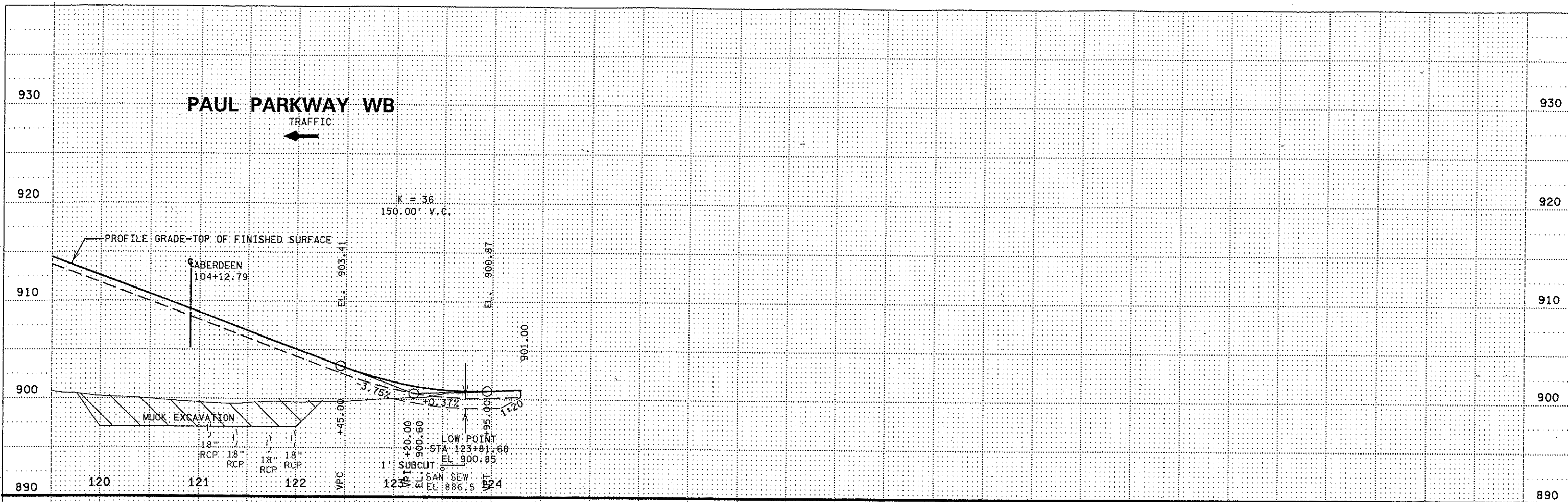
DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 234 OF 872 SHEETS

PLOTTED/REVISED: 02-FEB-2007 14:35

DISTRICT: METRO
PLOT NAME: pr_J3
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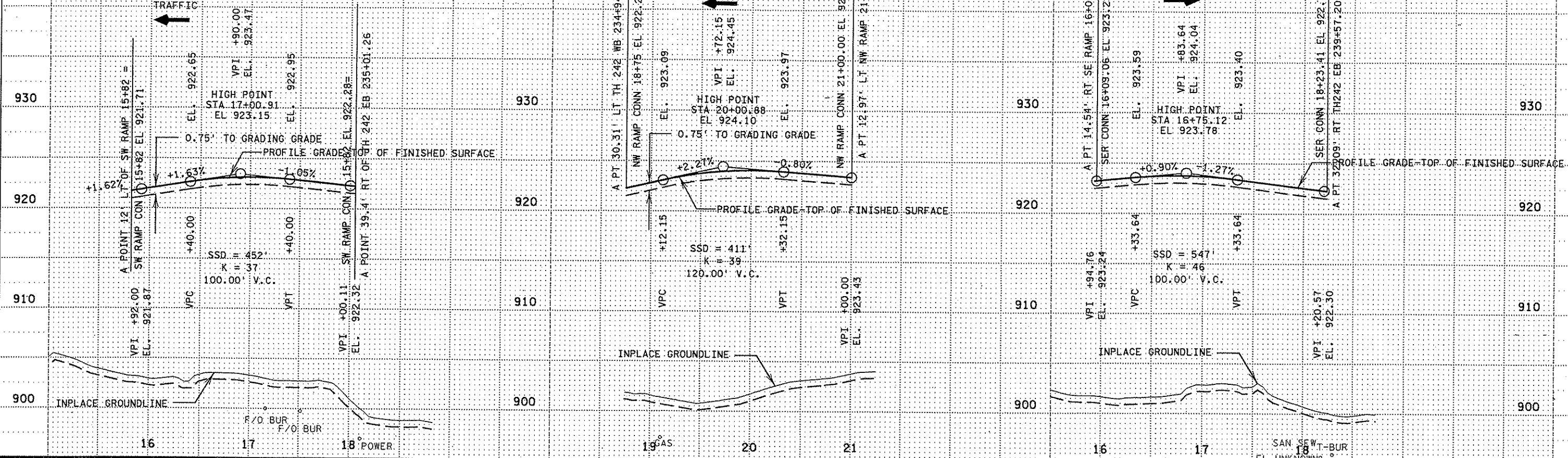
PLOTTED/REVISED: 31-JAN-2007 08:29

DISTRICT #: METRO
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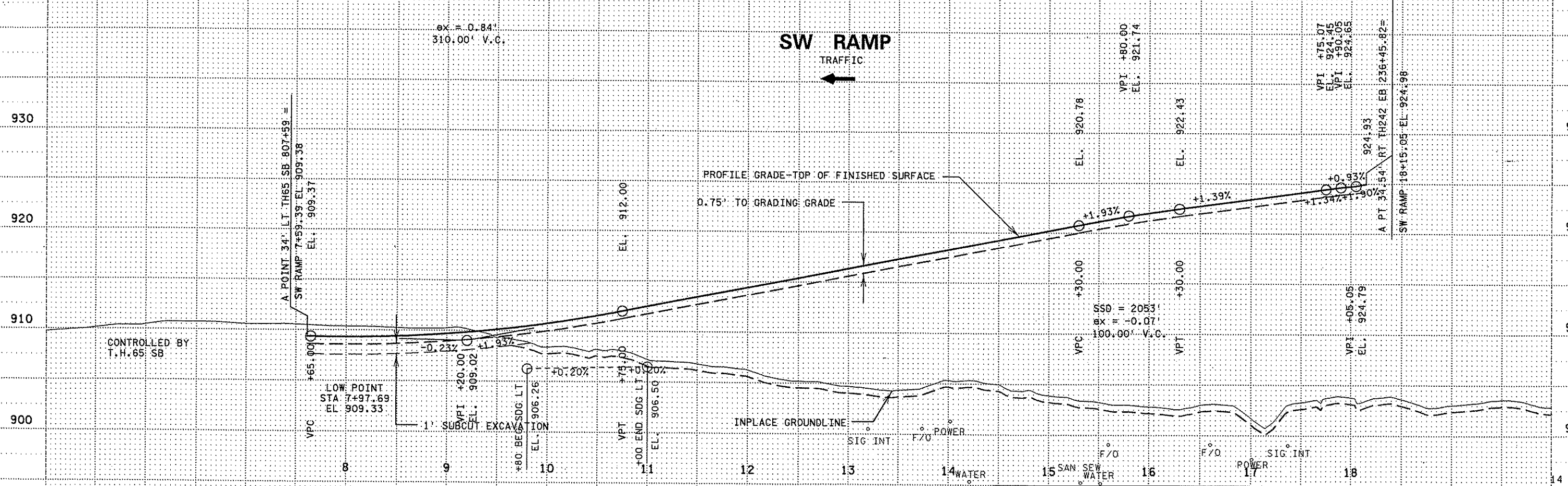
SW RAMP CONNECTION

NW RAMP CONNECTION

SE RAMP CONNECTION



SW RAMP



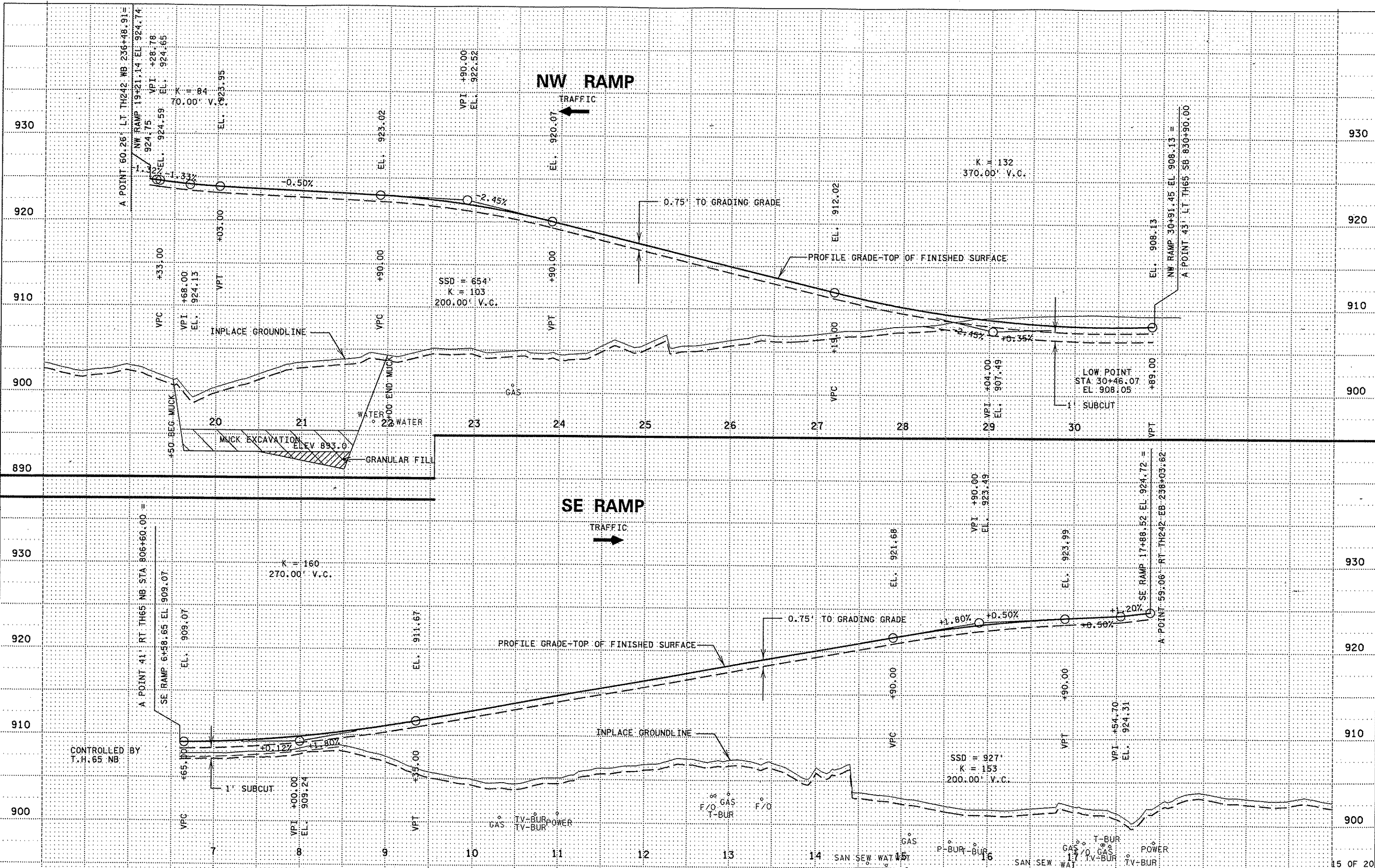
PROFILES (SW RAMP & SW, NW & SE CONNECTIONS)

DRAWN BY: MW
 CHECKED BY: DY
 CERTIFIED BY: *Josephine Lundquist*
 LIC. NO. 20534 DATE 2/2/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 236 OF 872 SHEETS

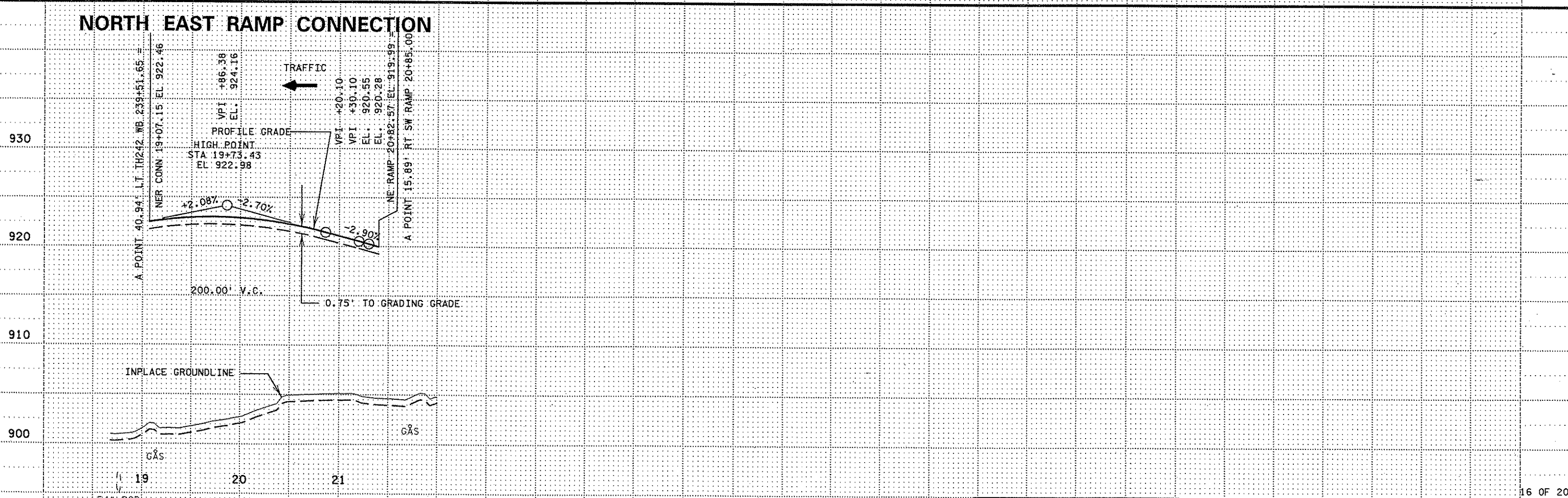
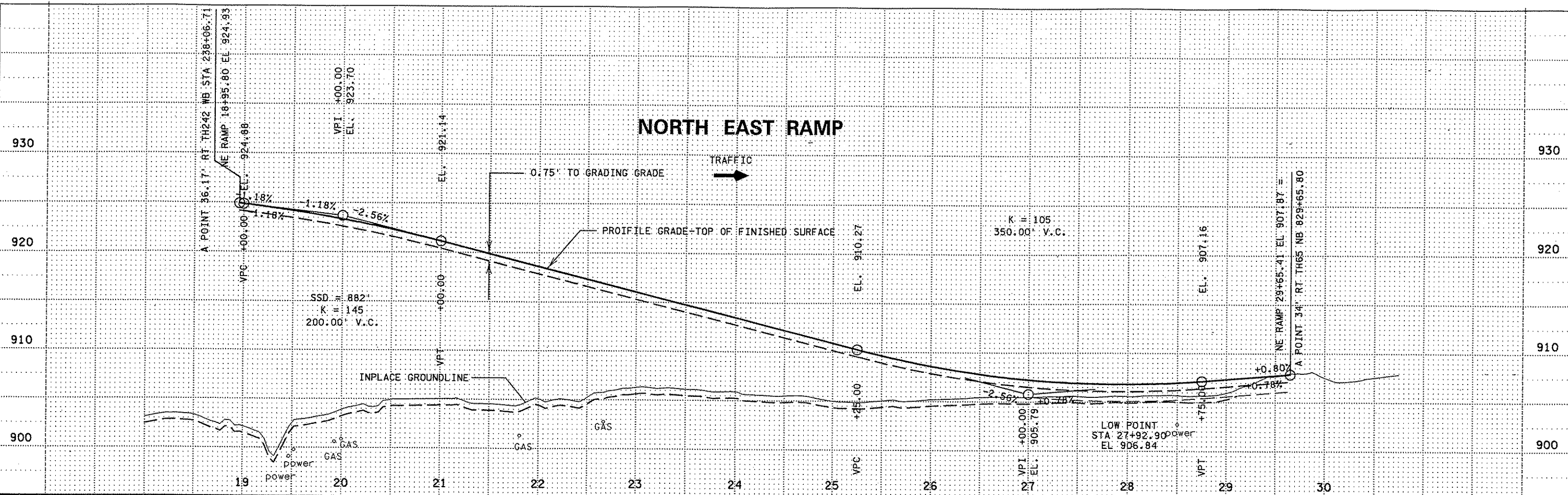
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PLOTTED/REVISED: 31-JAN-2007 08:29



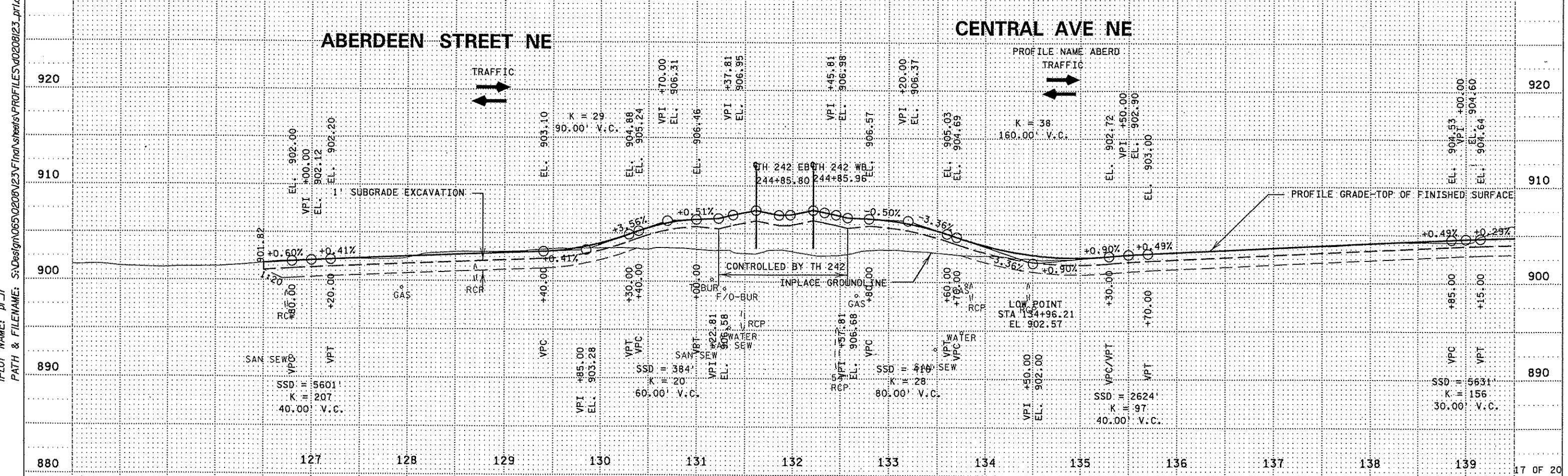
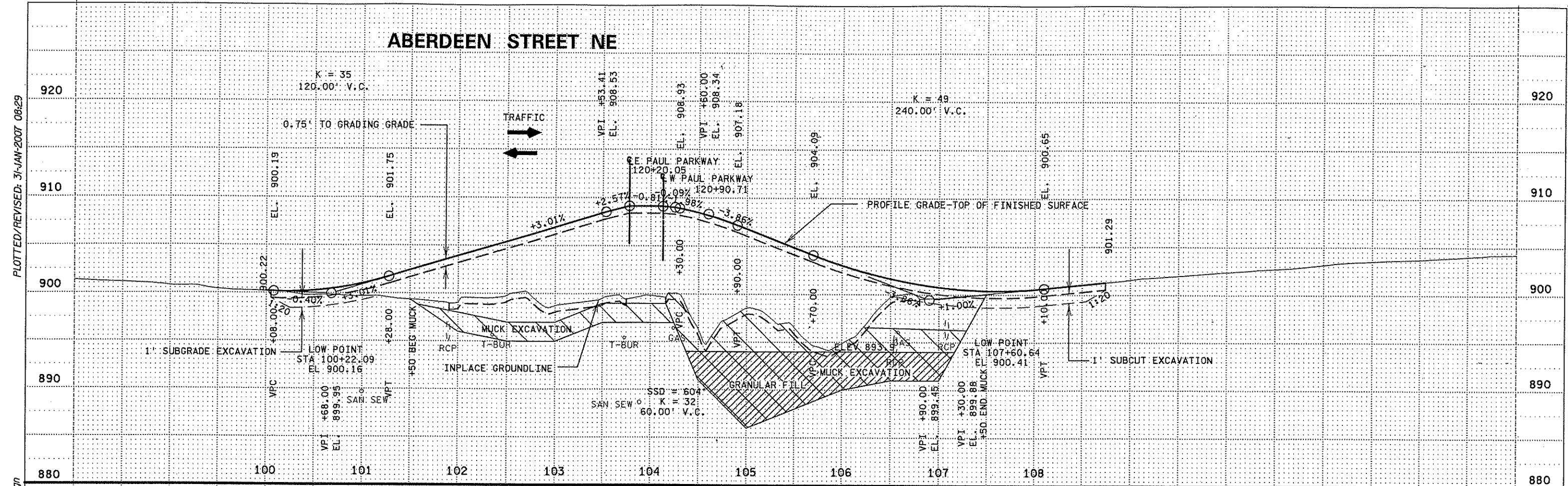
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PLOTTED/REVISED: 31-JAN-2007 08:29

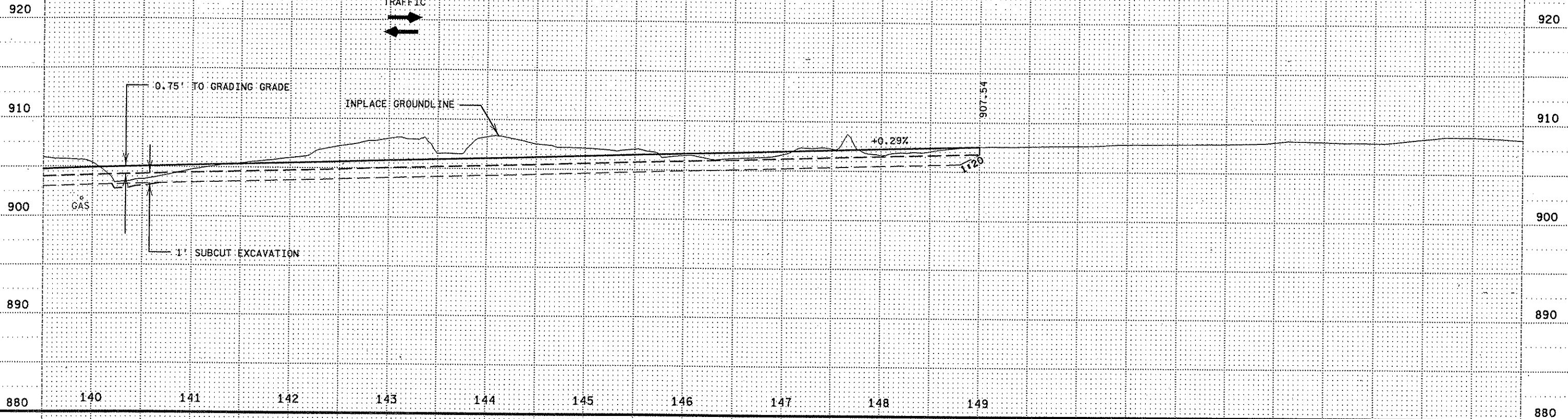
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PROFILE (ABERDEEN STREET & CENTRAL AVE)

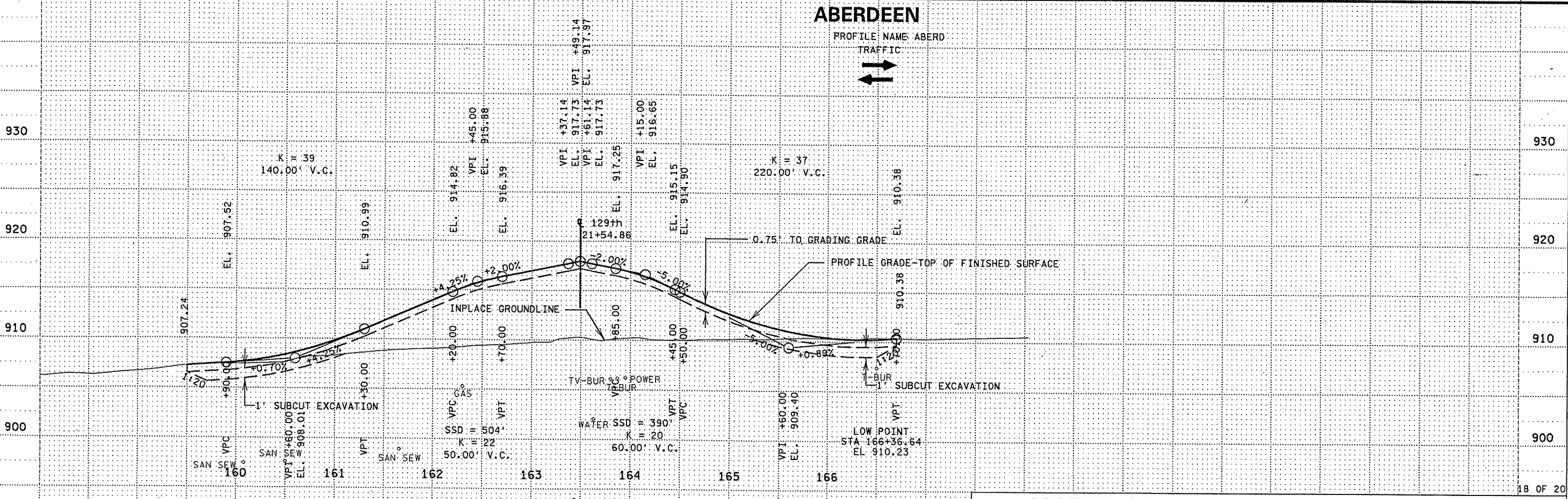
CENTRAL AVE. NE.

PROFILE NAME ABERD
TRAFFIC
← →



ABERDEEN

PROFILE NAME ABERD
TRAFFIC
← →



DISTRICT: METRO
PLOT NAME: pr_j8
PATH & FILENAME: S:\Design\065\0208\123\Final\Sheets\PROFILES\0208123_pr1.dgn

DRAWN BY: MW

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/2/07

PROFILES (ABERDEEN STREET & CENTRAL AVE NE)

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 240 OF 872 SHEETS

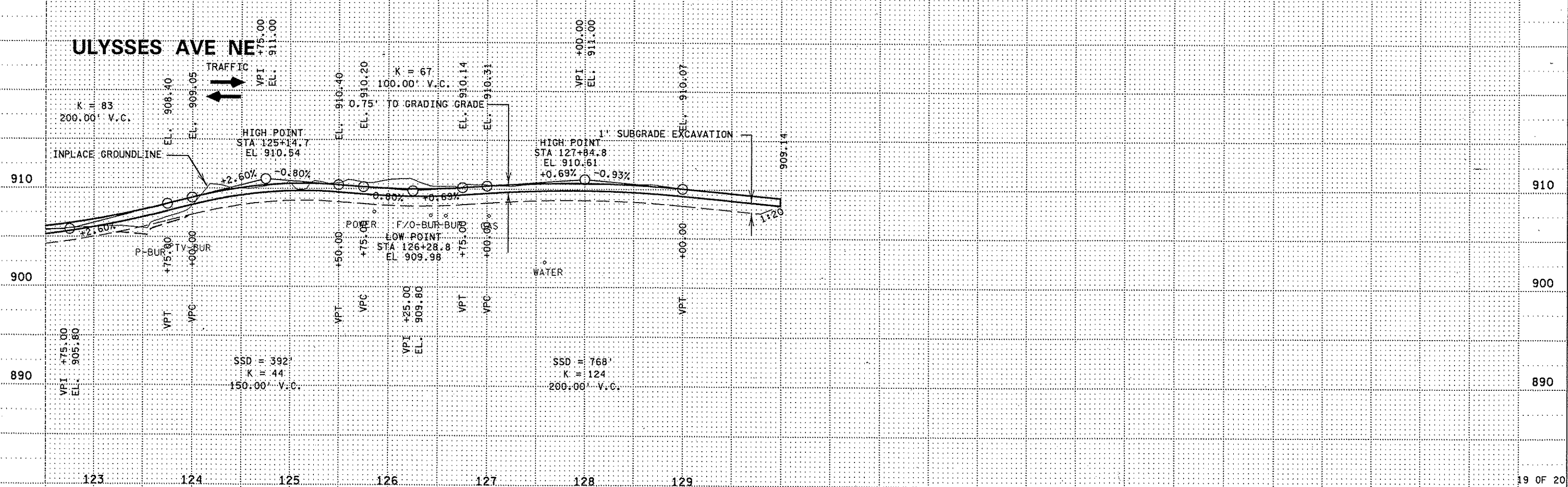
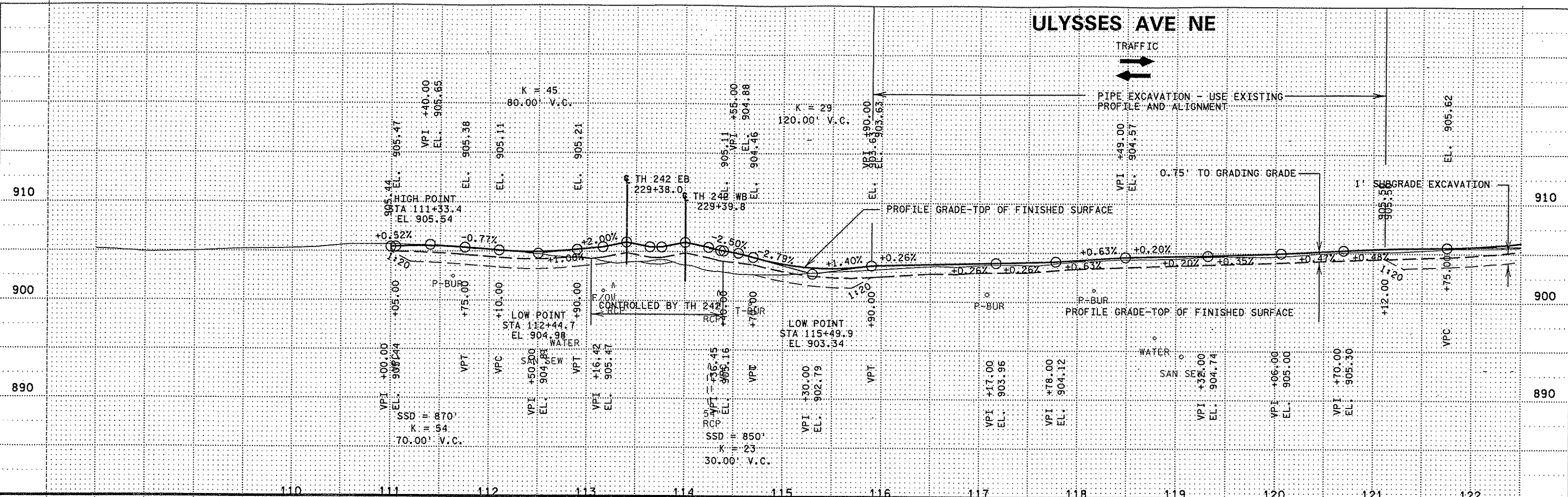
PLOTTED/REVISED: 31-JAN-2007 08:29

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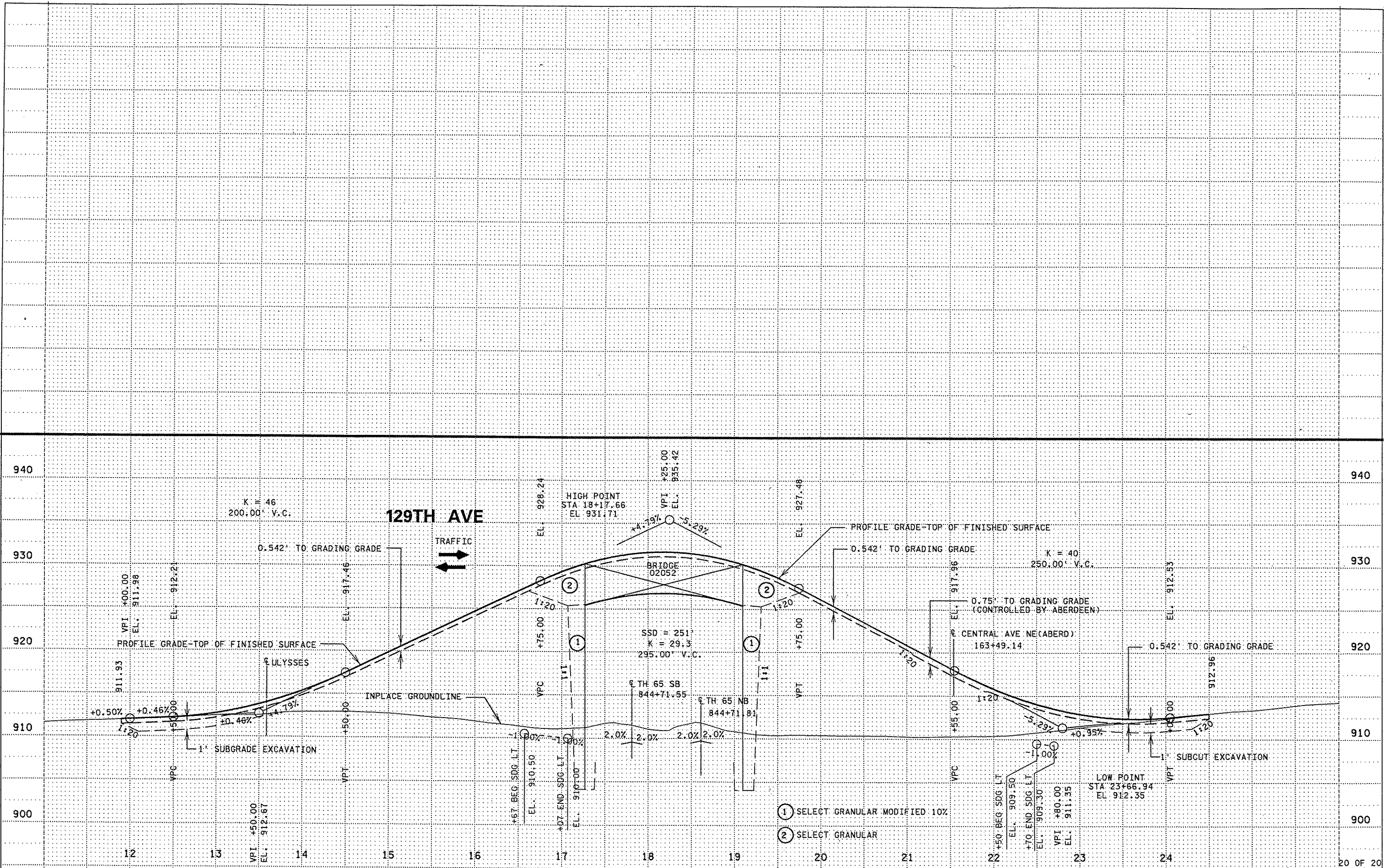
ULYSSES AVE NE

TRAFFIC

PIPE EXCAVATION - USE EXISTING PROFILE AND ALIGNMENT



PROFILE (ULYSSES STREET NE)



- ① SELECT GRANULAR MODIFIED 10%
- ② SELECT GRANULAR

PROFILE (129TH STREET NE) 20 OF 20

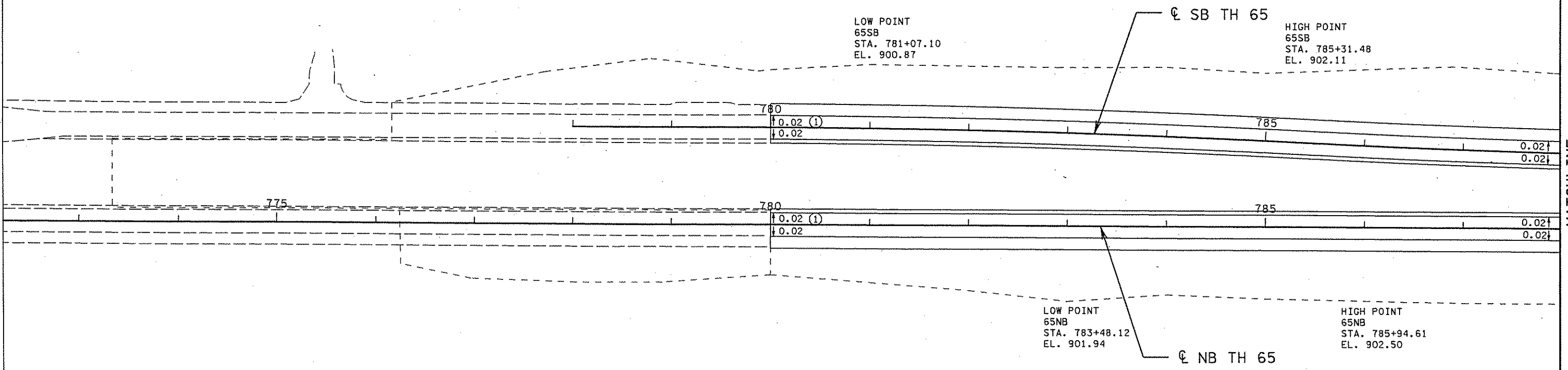
PLOTTED/REVISED: 28-MAR-2007 08:21

DISTRICT #: METRO
PLOT NAME: d0208123.ssa
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LEGEND

— CONSTRUCTION

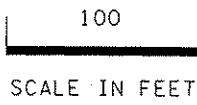
▨ SUPERELEVATION TRANSITION



NOTE: AT MANY LOCATIONS PROPOSED PAVEMENT CROSS SLOPES WILL NEED TO BE ADJUSTED IN THE FIELD TO MATCH EXISTING CROSS SLOPES.

FOR ALL MILL AND OVERLAY LOCATIONS, MATCH EXISTING CROSS SLOPE. SEE TYPICAL SECTIONS.

① MATCH ADJACENT PAVEMENT SLOPE.

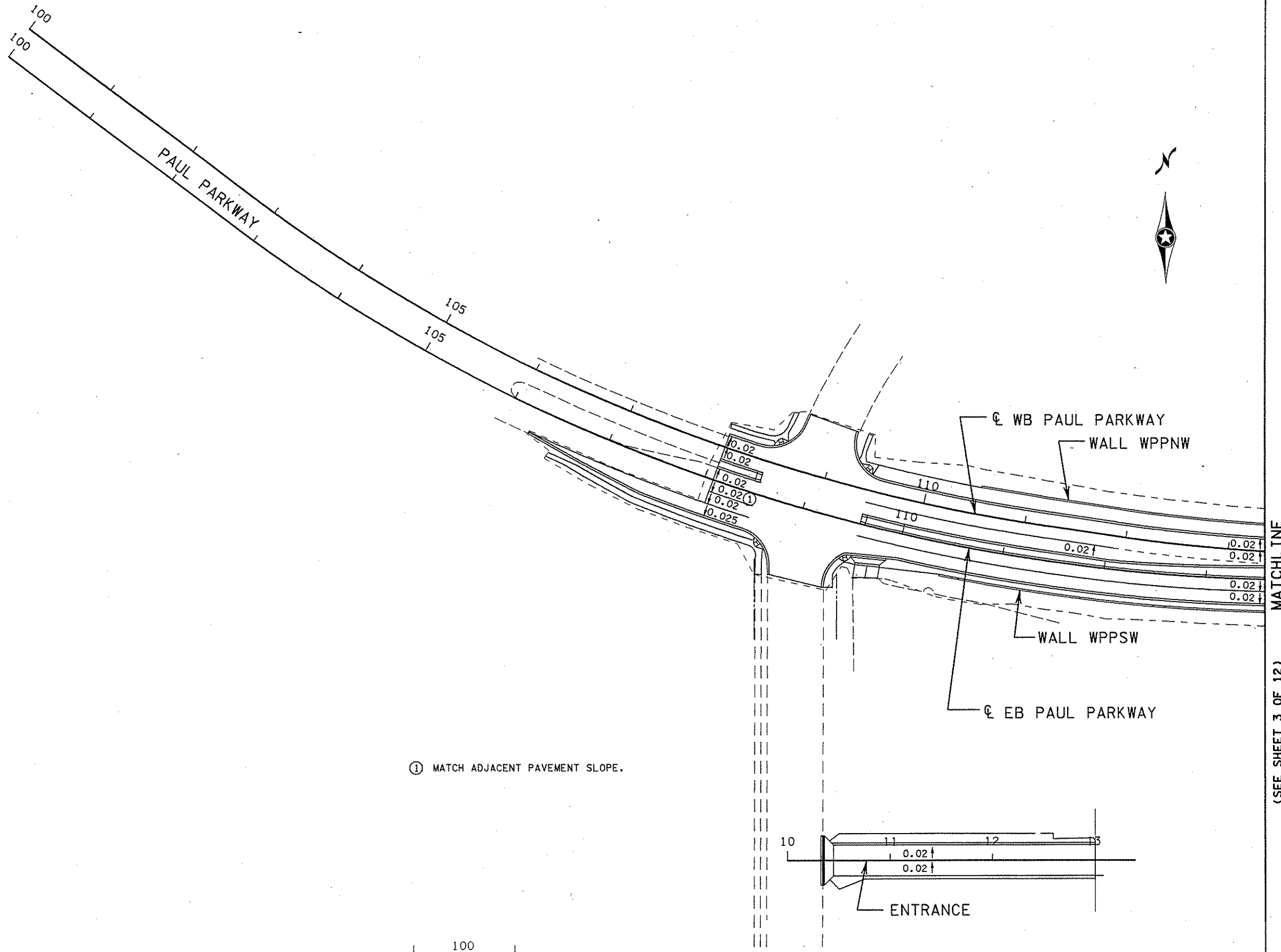


(SEE SHEET 3 OF 12)

SUPERELEVATION



PLOTTED/REVISED: 28-MAR-2007 08:21

DISTRICT #: METRO
I/PLOT NAME: d0208123_ssb
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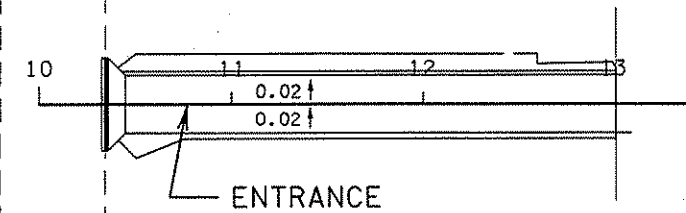


① MATCH ADJACENT PAVEMENT SLOPE.

LEGEND

-  CONSTRUCTION
-  SUPERELEVATION TRANSITION

100
SCALE IN FEET



MATCHLINE
(SEE SHEET 3 OF 12)

2 OF 12

SUPERELEVATION

DRAWN BY: CJG

CHECKED BY: MLW

CERTIFIED BY

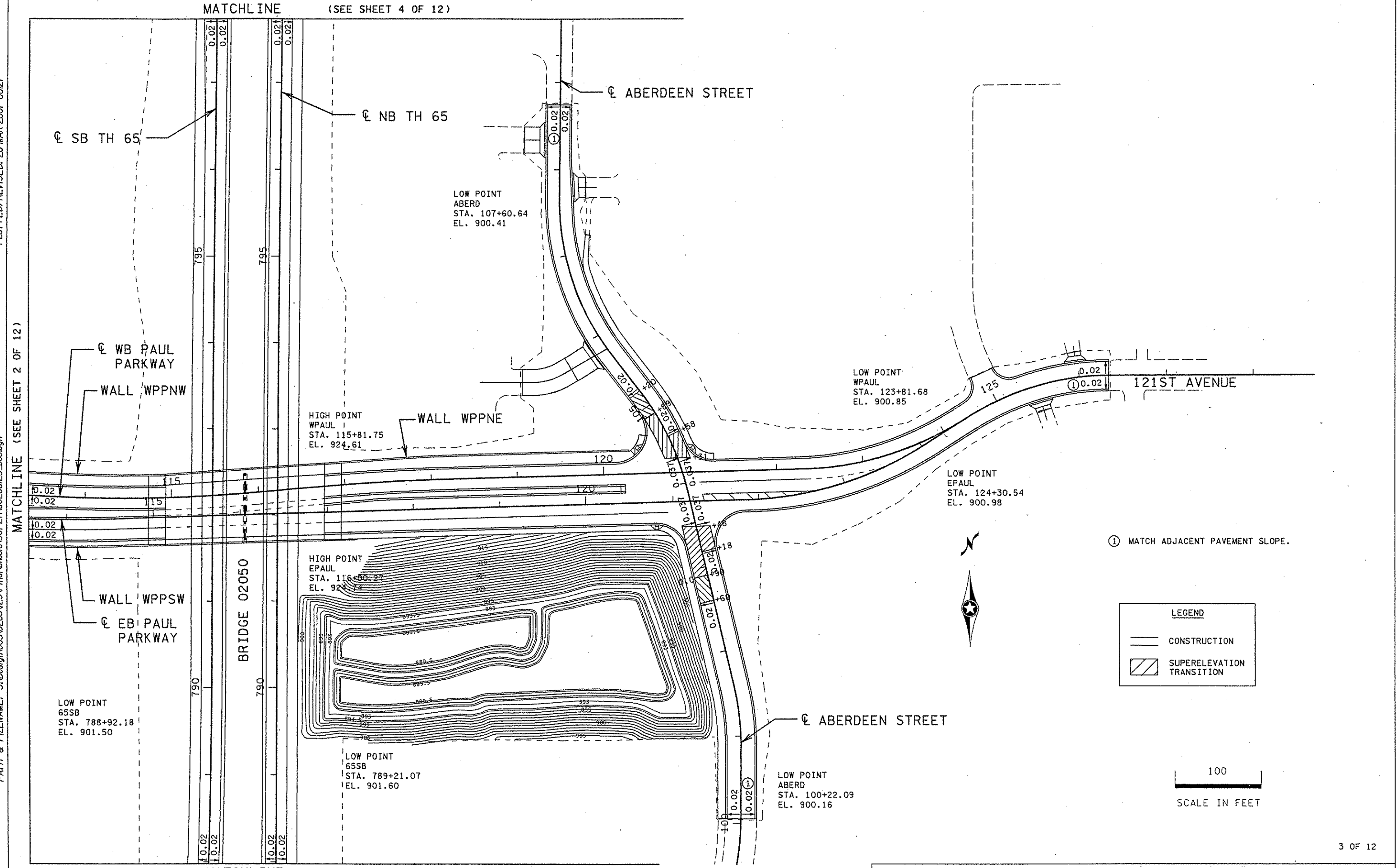
Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

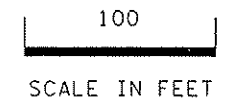
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 244 OF 872 SHEETS

DISTRICT #: METRO
 PLOT NAME: 0208123_sec
 PATH & FILENAME: S:\Design\0208123\Final\Sheets\SUPER\0208123_sec.dgn
 PLOTTED/REVISED: 28-MAR-2007 08:21



① MATCH ADJACENT PAVEMENT SLOPE.

LEGEND	
	CONSTRUCTION
	SUPERELEVATION TRANSITION





SUPERELEVATION

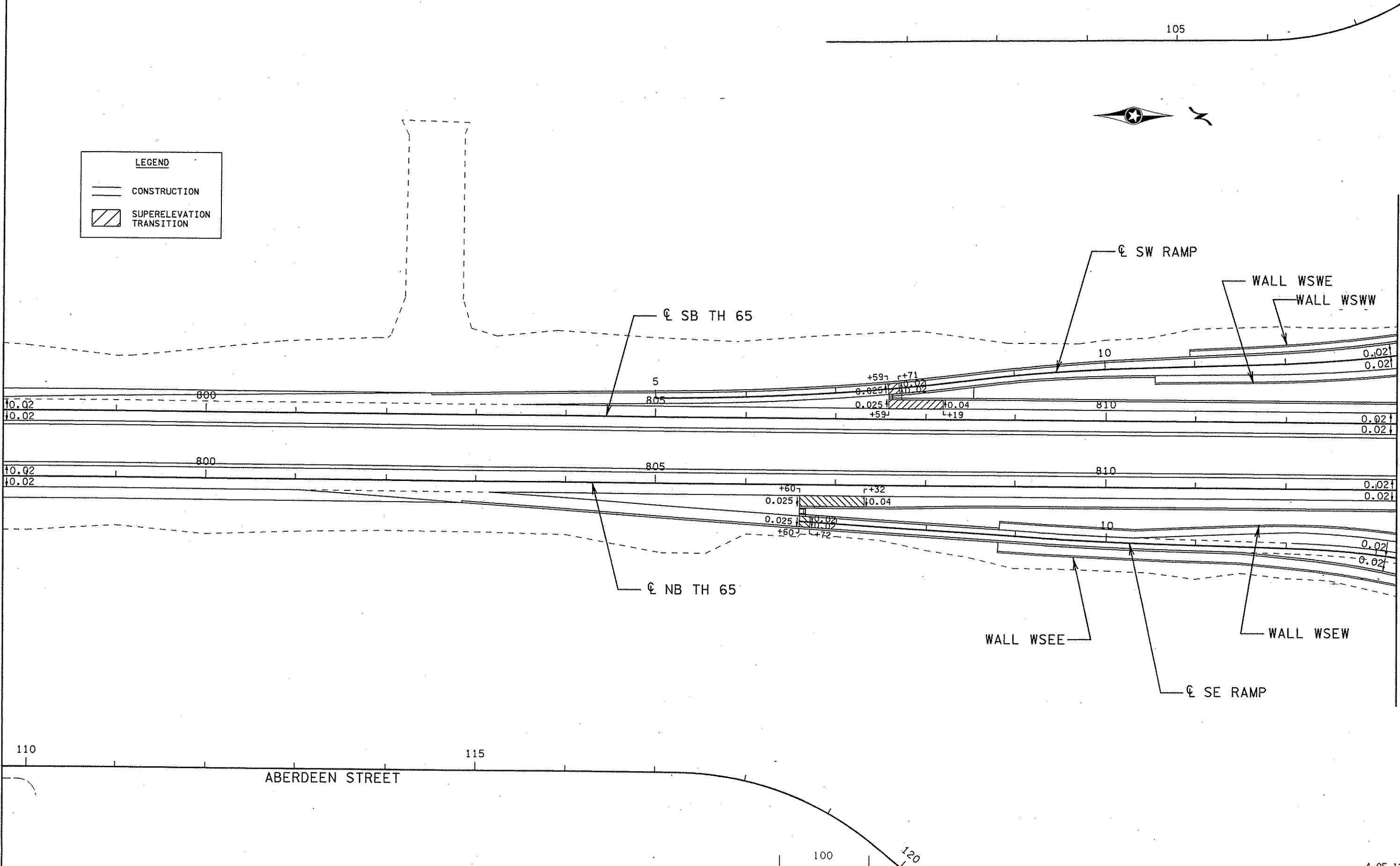
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DISTRICT #: METRO
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MATCHLINE (SEE SHEET 3 OF 12)

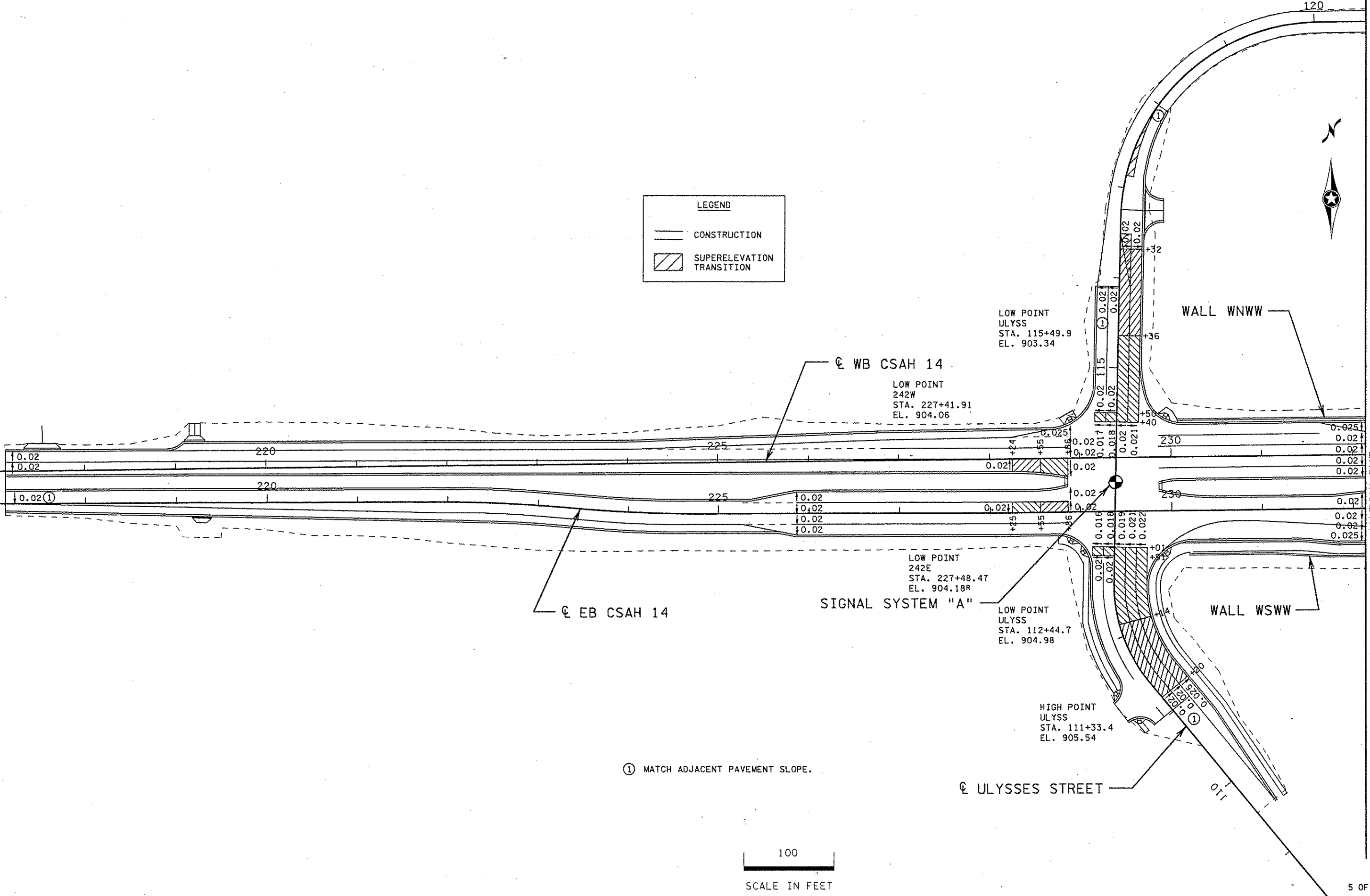
LEGEND

-  CONSTRUCTION
-  SUPERELEVATION TRANSITION



LEGEND

-  CONSTRUCTION
-  SUPERELEVATION TRANSITION



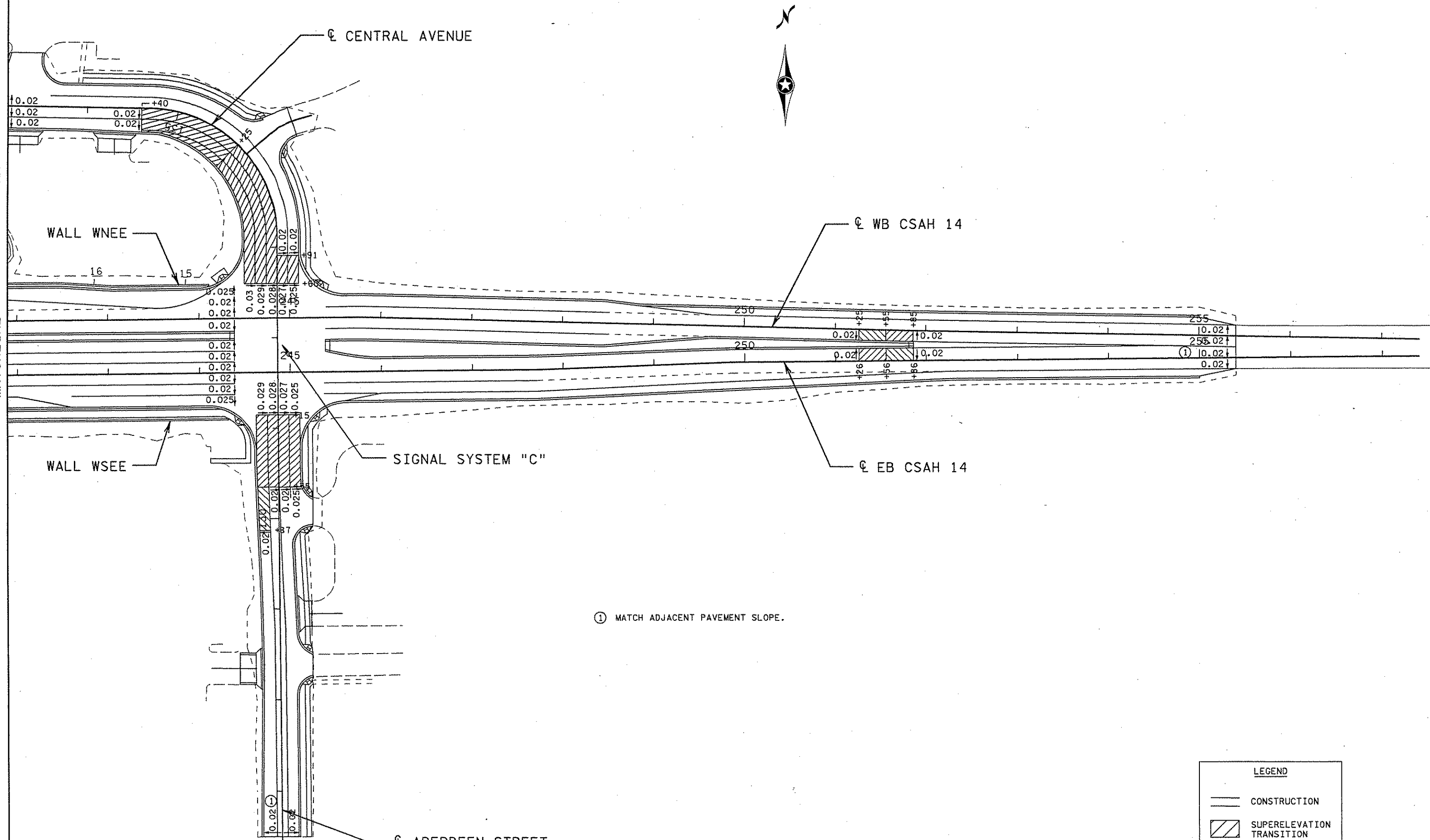
(SEE SHEET 7 OF 12)
MATCHLINE

SUPERELEVATION

PLOTTED/REVISED: 28-MAR-2007 08:22

MATCHLINE (SEE SHEET 7 OF 12)


DISTRICT #: METRO
PLOT NAME: 0208123.ssf
PATH & FILENAME: S:\Design\065\0208\123\Final\steels\SUPER\0208123.ssf.dgn



① MATCH ADJACENT PAVEMENT SLOPE.

LEGEND

— CONSTRUCTION

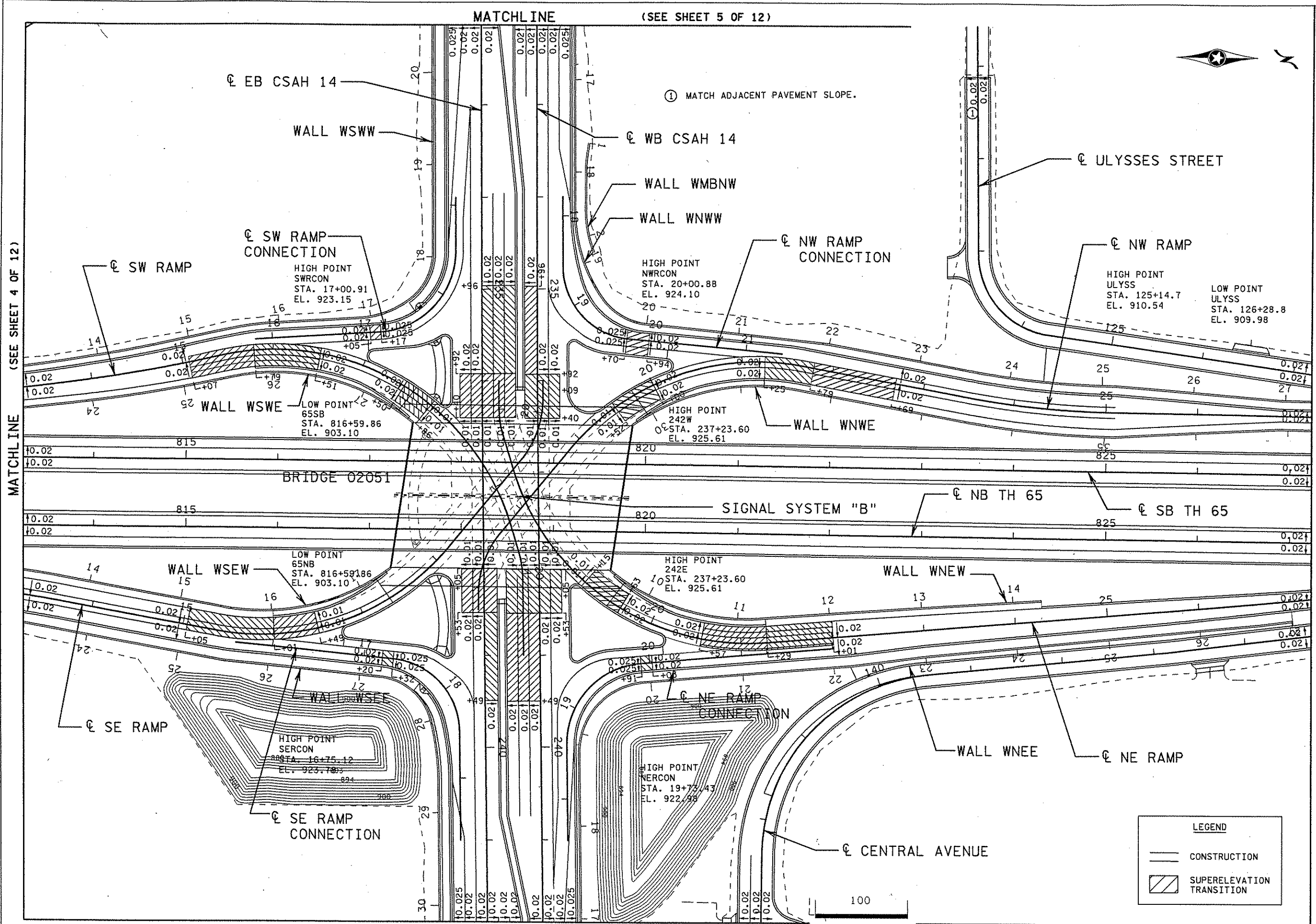
 SUPERELEVATION TRANSITION

100
SCALE IN FEET

SUPERELEVATION

PLOTTED/REVISED: 28-MAR-2007 08:23

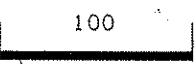
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① MATCH ADJACENT PAVEMENT SLOPE.

LEGEND

- CONSTRUCTION
- SUPERELEVATION TRANSITION



PLOTTED/REVISED: 28-MAR-2007 08:23

DISTRICT #: METRO
PLOT NAME: 0208123_srh
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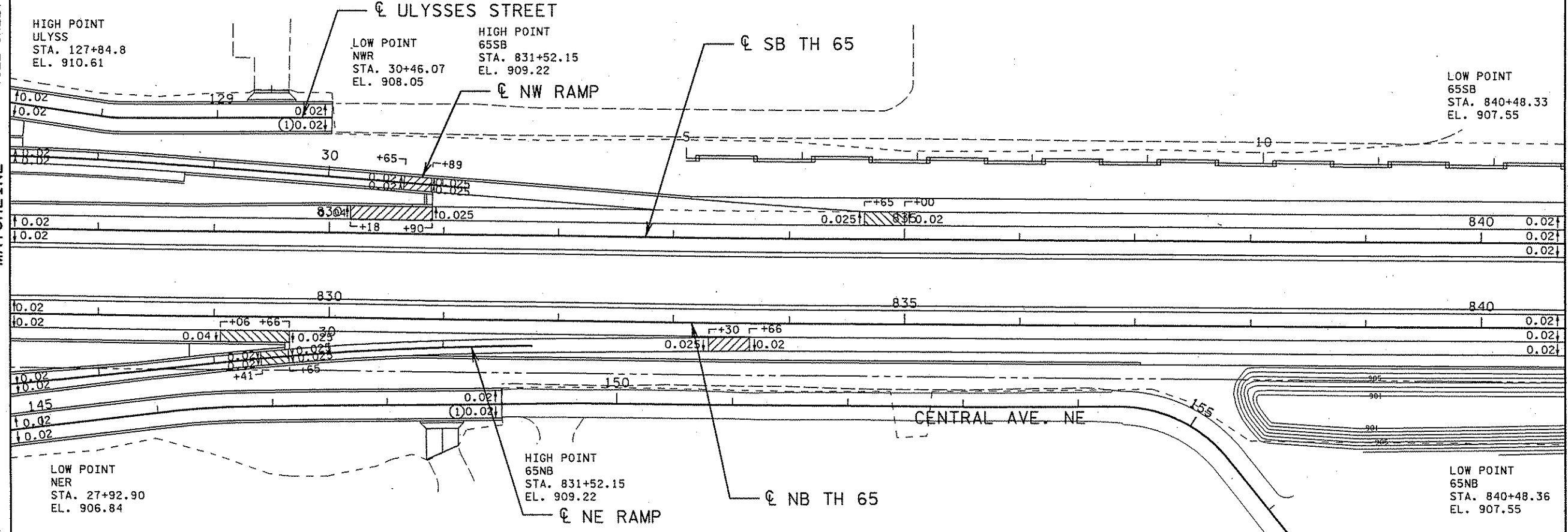


(SEE SHEET 7 OF 12)

MATCHLINE

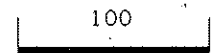
(SEE SHEET 9 OF 12)

MATCHLINE



LEGEND	
	CONSTRUCTION
	SUPERELEVATION TRANSITION

① MATCH ADJACENT PAVEMENT SLOPE.



SCALE IN FEET

SUPERELEVATION

LEGEND

- CONSTRUCTION
- SUPERELEVATION TRANSITION

☉ SB TH 65

☉ NB TH 65

☉ 129TH AVENUE

WALL W129NW

BRIDGE 02052

LOW POINT
ABERD
STA. 166+36.64
EL. 910.23

HIGH POINT
129
STA. 18+17.66
EL. 931.71



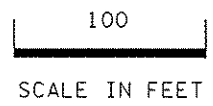
LOW POINT
129
STA. 23+66.94
EL. 912.35

WALL W129SW

WALL W129SE2

☉ CENTRAL AVE. NE

① MATCH ADJACENT PAVEMENT SLOPE.



PLOTTED/REVISED: 28-MAR-2007 08:23

DISTRICT #: METRO
PLOT NAME: d0208123_sel
PATH & FILENAME: S:\Design\065\0208123\Final\Sheets\SUPER\0208123_sel.dgn

DRAWN BY: CJG

CHECKED BY: MLW

CERTIFIED BY *Josephine Lincalini*

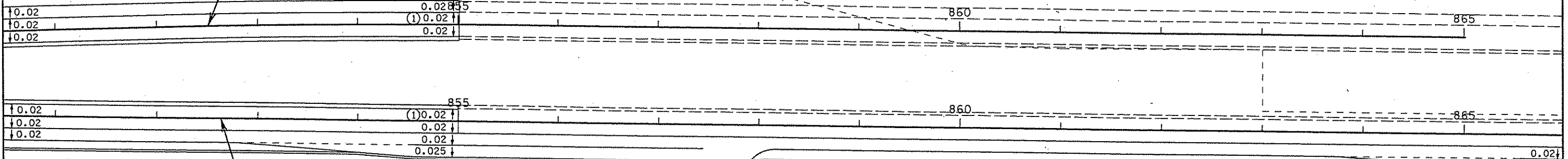
LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 251 OF 872 SHEETS

① MATCH ADJACENT PAVEMENT SLOPE.

HIGH POINT
65SB
STA. 853+40.32
EL. 914.68

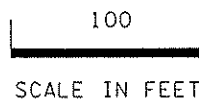
CL SB TH 65



CL NB TH 65

HIGH POINT
65NB
STA. 853+77.14
EL. 913.54

131ST AVE.



LEGEND	
	CONSTRUCTION
	SUPERELEVATION TRANSITION

SUPERELEVATION

DRAWN BY: CJG

CHECKED BY: MLW

CERTIFIED BY

Josephine Lunkvist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 252 OF 872 SHEETS

(SEE SHEET 10 OF 12)
MATCHLINE

(SEE SHEET 12 OF 12)
MATCHLINE

CITY OF BLAINE

CITY OF HAM LAKE

CITY OF BLAINE

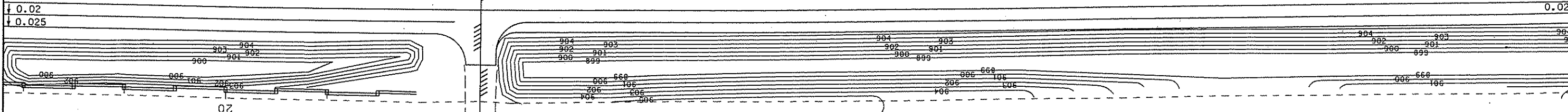
CITY OF HAM LAKE

☉ NB TH 65

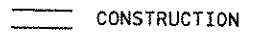

870

875

880



LEGEND

-  CONSTRUCTION
-  SUPERELEVATION TRANSITION

100
SCALE IN FEET

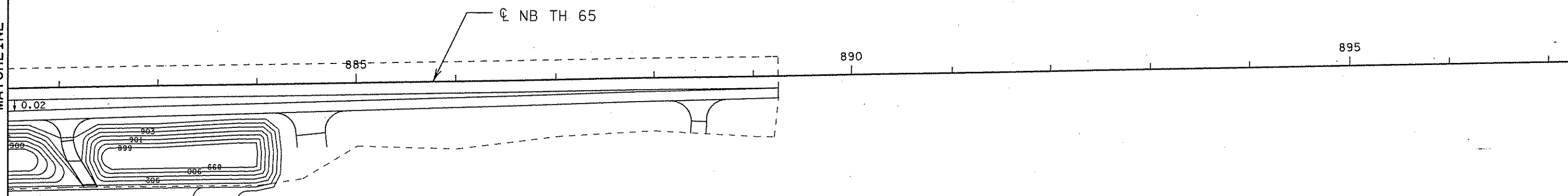
DRAWN BY: CJG CHECKED BY: MW CERTIFIED BY: *Josephine Sundquist* LIC. NO. 20534 DATE 2/7/07

SUPERELEVATION PLAN
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 253 OF 872 SHEETS

DISTRICT: METRO
PLOT NAME: 0208123.spl
PATH & FILENAME: S:\Design\065\0208123\Final\Sheet\SUPER\0208123.spl.dgn

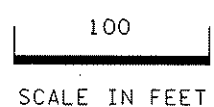
PLOTTED/REVISED: 31-JAN-2007 08:34

MATCHLINE (SEE SHEET 11 OF 12)



LEGEND

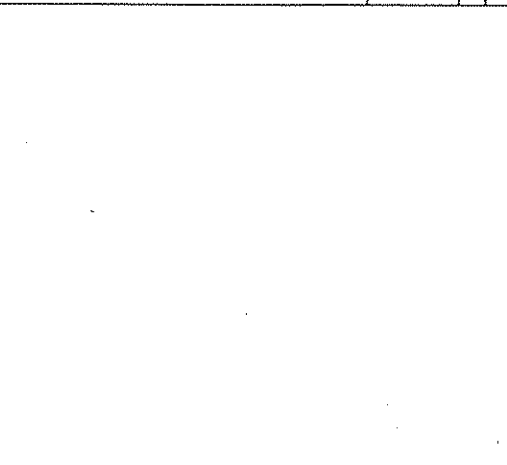
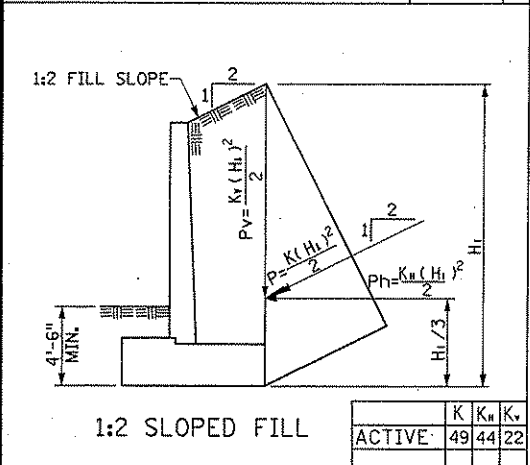
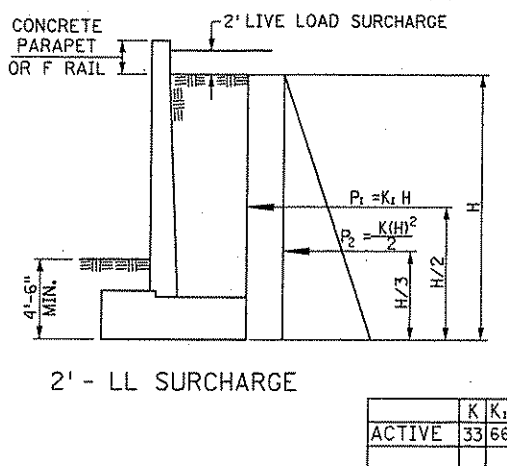
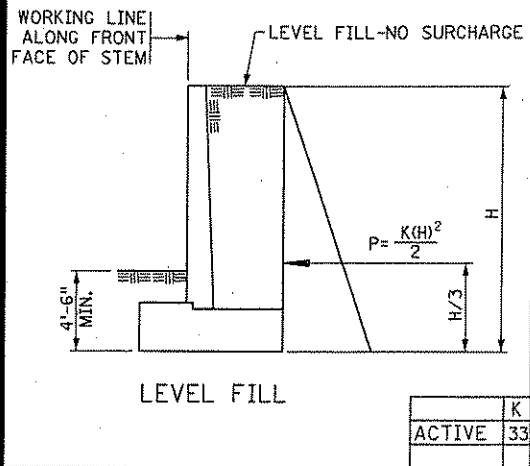
- CONSTRUCTION
- SUPERELEVATION TRANSITION



PLOTTED/REVISED:
29-MAR-2007 11:20

PATH & FILE NAME:
S:\Dess\an\065\0208\123\Final\walls\s620e06_spn.dgn

I PLOT NAME:
FILE NAME S620E06_SPN.DGN
S620E06_SPN



LOADING CASES

DESIGN CRITERIA

1992 AASHTO DESIGN SPECIFICATIONS
WORKING STRESS-STABILITY, FOUNDATIONS
LOAD FACTOR DESIGN-REINFORCED CONCRETE
F'c=4000 PSI n=8
fy =60000 PSI

SEE FOUNDATION REPORT FOR RECOMMENDED FOUNDATION TYPE.
ALLOWABLE BENDING (LATERAL LOAD) PER PILE:
60 TON CIP PILE: 13 KIPS
55 TON HP PILE: 12 KIPS
50 TON CIP PILE: 11 KIPS
30 TON TIMBER PILE: 7.5 KIPS

BACKFILL CHARACTERISTICS:
INTERNAL ANGLE OF FRICTION: 35°
EQUIVALENT FLUID PRESSURE (K), IN PCF, IS SHOWN IN LOADING CASE TABLES.
UNIT WEIGHT 125 PCF
COEFFICIENT OF FRICTION 0.55
βe = 1.0

BAR LAP (CLASS C)

BAR SIZE	PLAIN (4)	EPOXY (4)
16	2'-5"	2'-11"
19	2'-11"	3'-10"
22	3'-8"	4'-11"
25	4'-10"	6'-5"
29	6'-1"	8'-1"

BAR LAP (CLASS A)

BAR SIZE	EPOXY (4)
16	1'-11"
19	2'-3"
22	2'-11"
25	3'-9"
29	4'-9"

SUMMARY OF QUANTITIES FOR RETAINING WALLS

PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		STRUCTURE EXCAVATION		SELECT GRANULAR (MOD) (CV) (1)	AGGREGATE BACKFILL (CV) (2) (8)	ARCHITECTURAL CONCRETE TEXTURE											
	FOOTING	STEM	PLAIN	EPOXY (6) (7)	CLASS...	CLASS...														
	CU YD	CU YD	POUND	POUND	CU YD	CU YD														
	1A43	3Y43																		
	CU YD	CU YD	POUND	POUND	CU YD	CU YD	CU YD	CU YD	SQ FT											

- NOTES:**
- (1) MODIFIED TO LESS THAN 10% PASSING A NO. 200 SIEVE. SPEC. 3149.2B.
 - (2) COMPACT TO 100% DENSITY IN ACCORDANCE WITH SPEC. 2105.3F1 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.
 - (3) LIMITING CRITERIA.
 - (4) LAPS ARE GIVEN FOR THE TOP BAR CONDITION.
 - (5) CURVED FORMS MAY BE USED FOR ANY WALL WITH A RADIUS, BUT MUST BE USED ON WALLS WITH RADIUS LESS THAN 23 FEET.
 - (6) DOWELED JOINTS/CONSTRUCTION JOINTS ARE SHOWN ON STANDARD PLAN 5-297.624 (3 OF 3). THESE JOINTS ARE INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE.
 - (7) DOWELED JOINT/CONSTRUCTION JOINT QUANTITIES ARE NOT INCLUDED.
 - (8) QUANTITIES FOR THE FOUNDATION WITH AGGREGATE BACKFILL OPTION ONLY.

CURVED RETAINING WALLS ALLOWABLE CHORD LENGTH (5)

MAXIMUM DEGREE OF CURVE	RADIUS	ALLOWABLE CHORD LENGTH	DEVIATION FROM TRUE RADIUS	MAXIMUM DEFLECTION ANGLE Δ
4°-00'	1432'	30'-6"	± 1/2" (3)	1°-15'
8°-00'	716'	21'-10"	± 1/2" (3)	1°-45'
16°-30'	347'	15'-3"	± 1/2" (3)	2°-30'
23°-00'	249'	12'-11"	± 1/2" (3)	2°-57'
65°-30'	87'	7'-7 1/2"	± 1/2" (3)	5°-00' (3)
114°-30'	50'	4'-4 9/16"	± 1/4"	5°-00' (3)
250°-00'	23'	2'-0"	± 1/8"	5°-00' (3)

GENERAL NOTES:

UTILITIES:
EXISTING AND PROPOSED UTILITIES ARE SHOWN IN THE GRADING PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING FACILITIES AND SHALL EXERCISE CARE IN ADJACENT CONSTRUCTION.

EXCAVATION AND EARTHWORK:
ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO SPEC. 2451.

CONCRETE:
ALL CONCRETE SHALL CONFORM TO SPEC. 2461.

TRANSVERSE CONSTRUCTION JOINTS IN FOOTING ARE PERMISSIBLE. KEYWAYS AND CONTINUOUS REINFORCEMENT ARE REQUIRED THROUGH THESE JOINTS.

THE THICKNESS OF THE ARCHITECTURAL CONCRETE TEXTURE VARIES WITH THE TEXTURE RELIEF. THE STRUCTURAL CONCRETE 3Y43 QUANTITIES DO NOT INCLUDE THE MATERIAL WITHIN THE ARCHITECTURAL CONCRETE TEXTURE. CONCRETE NEEDED FOR THE TEXTURING IS INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE. SEE SPECIAL PROVISIONS 2411.

POURING SEQUENCE:
THE POURING SEQUENCE SHALL BE AT THE CONTRACTOR'S OPTION BUT MUST BE SUBMITTED (WITH ADEQUATE APPROVAL TIME) TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING THE FIRST POUR.

CONSTRUCTION:
CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPEC. 2411, EXCEPT AS NOTED.

REINFORCING STEEL:
REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS CONFORMING TO SPEC. 3301, GRADE 60 AND EPOXY COATED EXCEPT AS NOTED.

THE CLEAR DISTANCE BETWEEN REINFORCEMENT BARS AND FACE OF CONCRETE SHALL BE 3 INCHES IN FOOTINGS, 5 INCHES IN BOTTOM OF SPREAD FOOTINGS, 2 INCHES ON ARCHITECTURAL CONCRETE TEXTURE, AND 2 INCHES ELSEWHERE UNLESS OTHERWISE NOTED.

THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR NUMBER WHICH APPROXIMATES THE NOMINAL DIAMETER OF THE BAR IN MILLIMETERS (mm).

ALL BENT BAR DIMENSIONS ARE GIVEN OUT-TO-OUT.
BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED.
ALL BARS WHICH COME OUT OF THE FOOTING AND ALL BARS WHICH ARE ABOVE THE FOOTING SHALL BE EPOXY COATED.

THE CONTRACTOR HAS THE OPTION OF SUBSTITUTING 60'-0" LONG BARS FOR THE LONGITUDINAL FOOTING STEEL SHOWN. CHANGES IN THE BILL OF REINFORCEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PAYMENT WILL BE BASED ON QUANTITIES SHOWN.

THE CONSTRUCTION JOINT FOR CONCRETE RAIL MAY BE LOCATED AT TOP OR BOTTOM OF COPE, AT THE CONTRACTOR'S OPTION. PAYMENT WILL BE BASED ON QUANTITIES SHOWN, WHICH IS BASED ON CONSTRUCTION JOINT ABOVE COPE.

FOR VARIABLE STEM HEIGHTS, VARY THE LAP LENGTH OF THE VERTICAL REINFORCEMENT. MINIMUM LAP LENGTHS ARE GIVEN IN THE TABLE ON THIS SHEET. SMALLER BAR GOVERNS LAP LENGTH.

DOWEL BAR ASSEMBLIES:
DOWELED JOINTS/CONSTRUCTION JOINTS ARE SHOWN ON STANDARD PLAN 5-297.624 (3 OF 3). THESE JOINTS ARE INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR SOME OF THE CORK & DOWEL JOINTS AT THE CONTRACTOR'S OPTION. CORK & DOWEL JOINTS MUST BE SPACED AT 91'-6" MAXIMUM.

CORK & DOWEL JOINTS MUST BE USED IN VERTICAL JOINTS AT FOOTING STEP LOCATIONS.

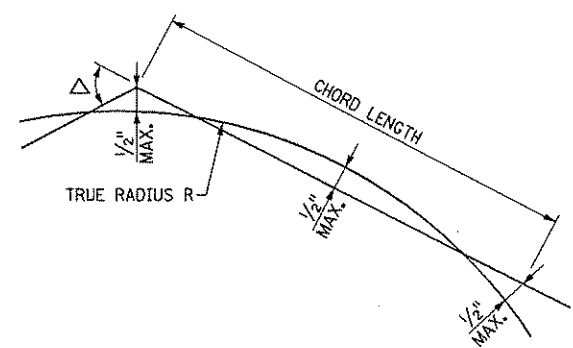
GEOMETRICS AND GRADES:
DATA FOR BASELINE GEOMETRY IS TABULATED FOR WALL ALIGNMENT, SEE LAYOUT SHEETS. WALL ALIGNMENT REFERENCE IS ALONG FRONT FACE OF WALL.

ON UP TO 10% SLOPES, THE CONTRACTOR HAS THE OPTION OF POURING FOOTINGS SLOPED OR STEPPED. ADDITIONAL CONCRETE VOLUMES AND CHANGES TO THE BILL OF REINFORCEMENT WHICH MAY RESULT FROM CONTRACTOR REQUESTED OPTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL PAYMENT WILL BE MADE.

QUANTITIES ARE BASED ON ASSUMED TOP OF ROCK ELEVATION. ACTUAL TOP OF ROCK TO BE DETERMINED BY ENGINEER.

SHEET INDEX

NO.	TITLE
	GENERAL NOTES & SUMMARY OF QUANTITIES
	GENERAL LAYOUT
	GENERAL PLAN & ELEVATION
	WALL REINFORCEMENT
	PANEL TABULATIONS
	MISCELLANEOUS DETAILS



REVISED:
APPROVED: MAY 31, 2006
David J. Anderson
STATE BRIDGE ENGINEER

CERTIFIED BY *Josephine Surcinist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

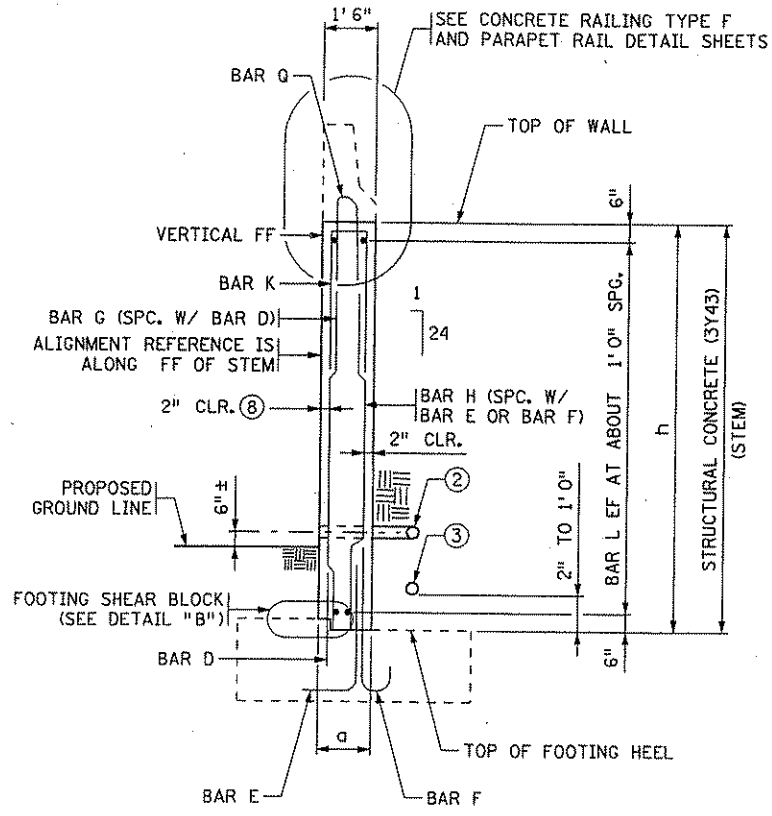
MODIFIED
STANDARD SHEET NO. 5-297.620
STANDARD APPROVED:
MAY 31, 2006

SEE SHEET 375 FOR TABULATIONS
RETAINING WALL GENERAL NOTES AND SUMMARY OF QUANTITIES

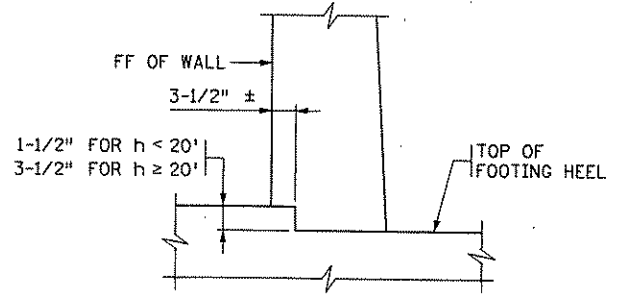
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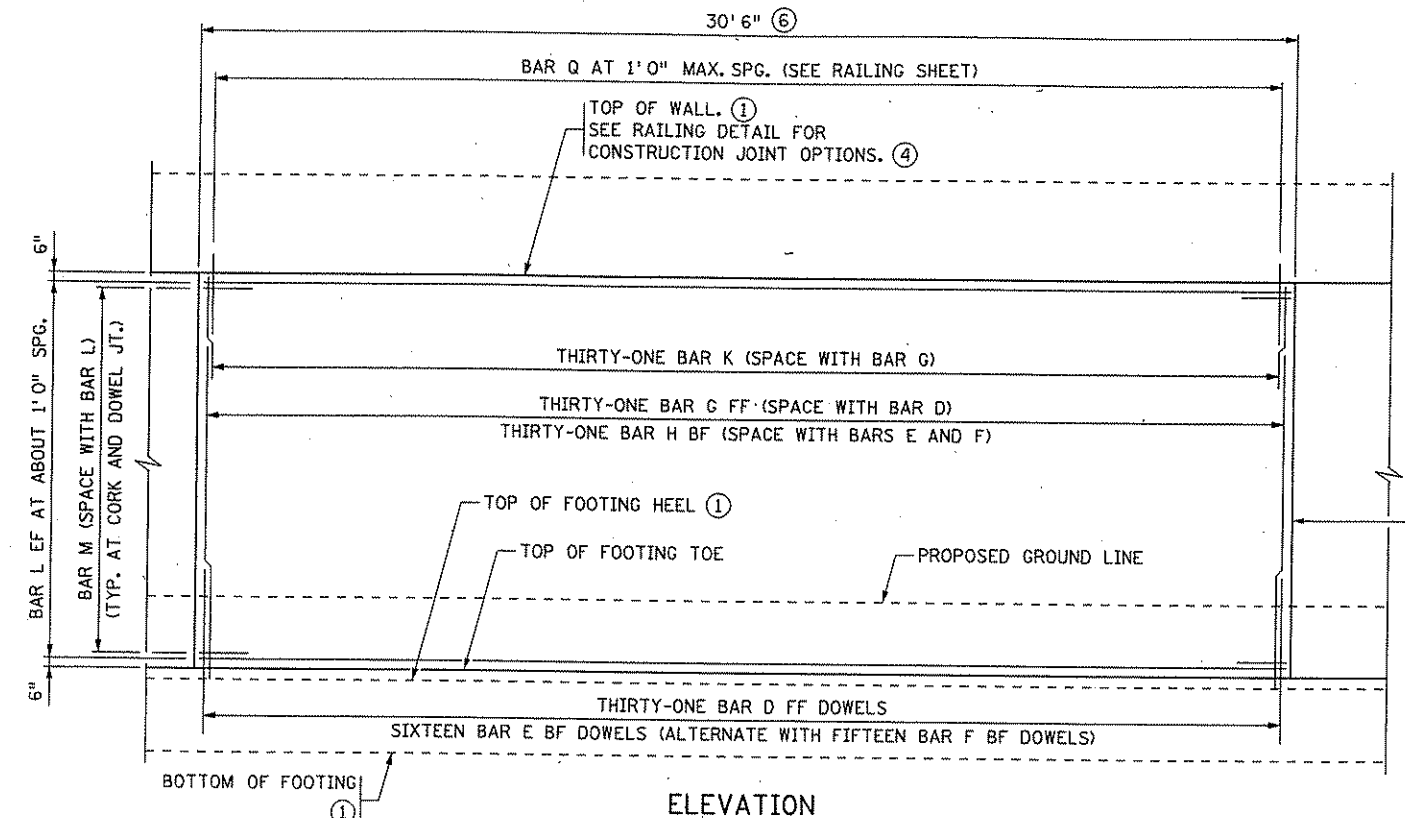
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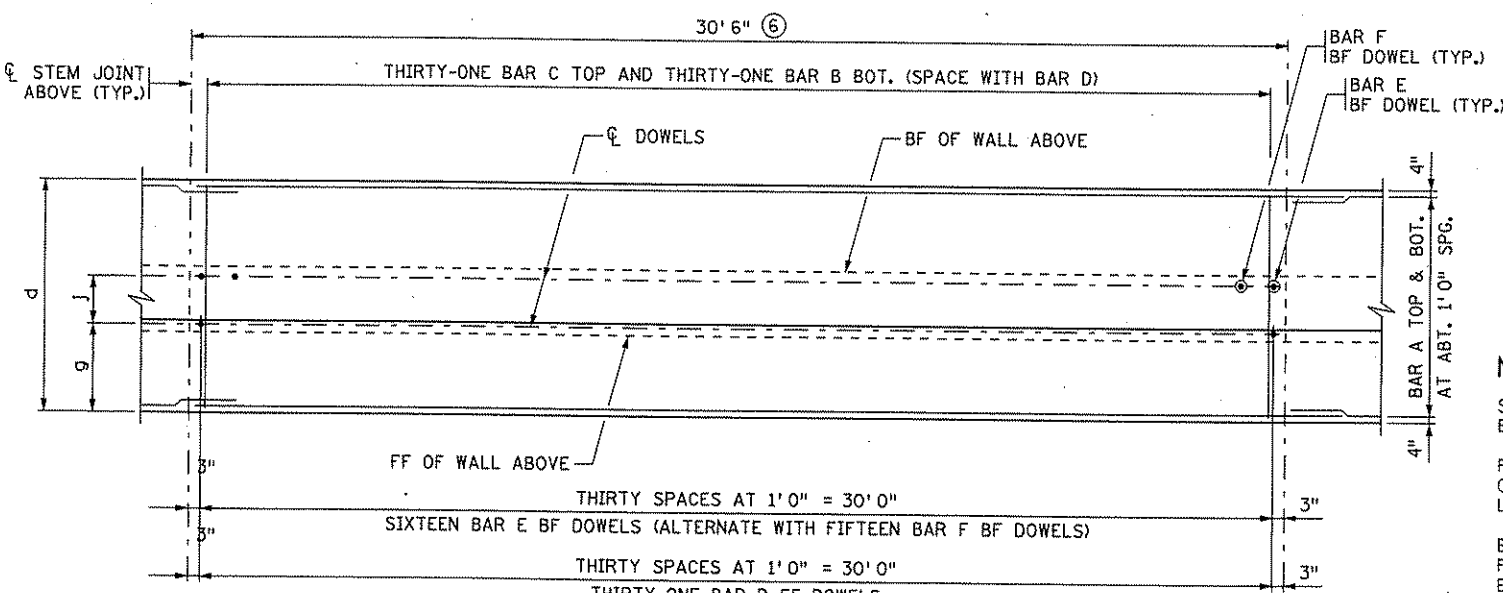
WALL SECTION
BARRIER OPTION SHOWN



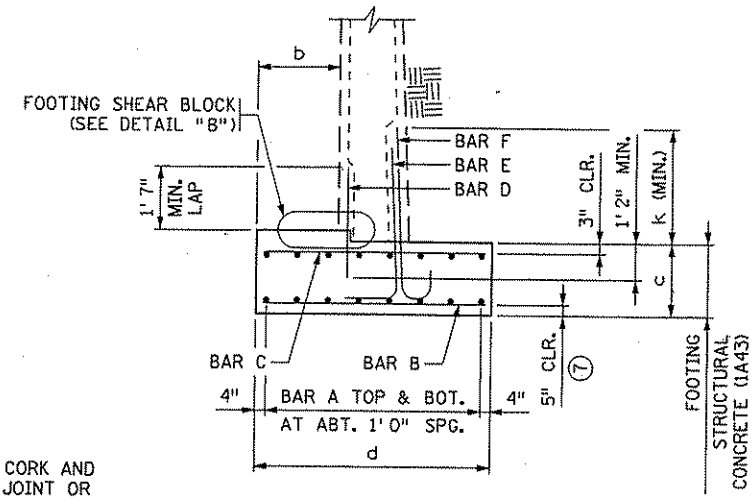
DETAIL "B"



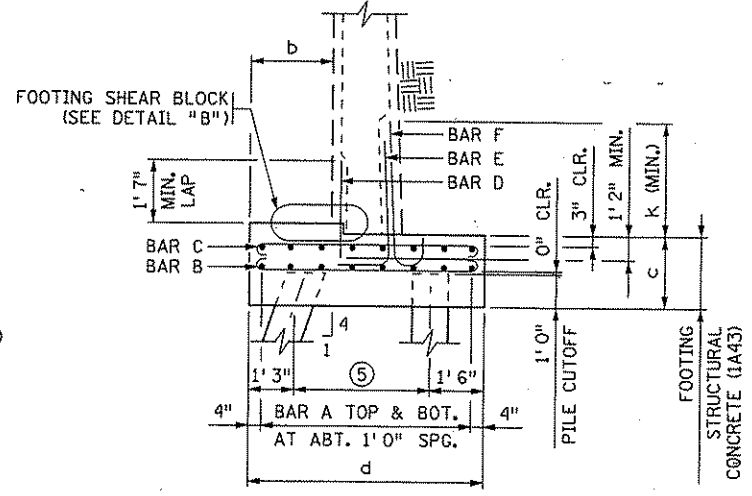
ELEVATION



FOOTING PLAN ~ REINFORCEMENT



TYPICAL SECTION THROUGH SPREAD FOOTING



TYPICAL SECTION THROUGH PILE FOOTING

NOTES:

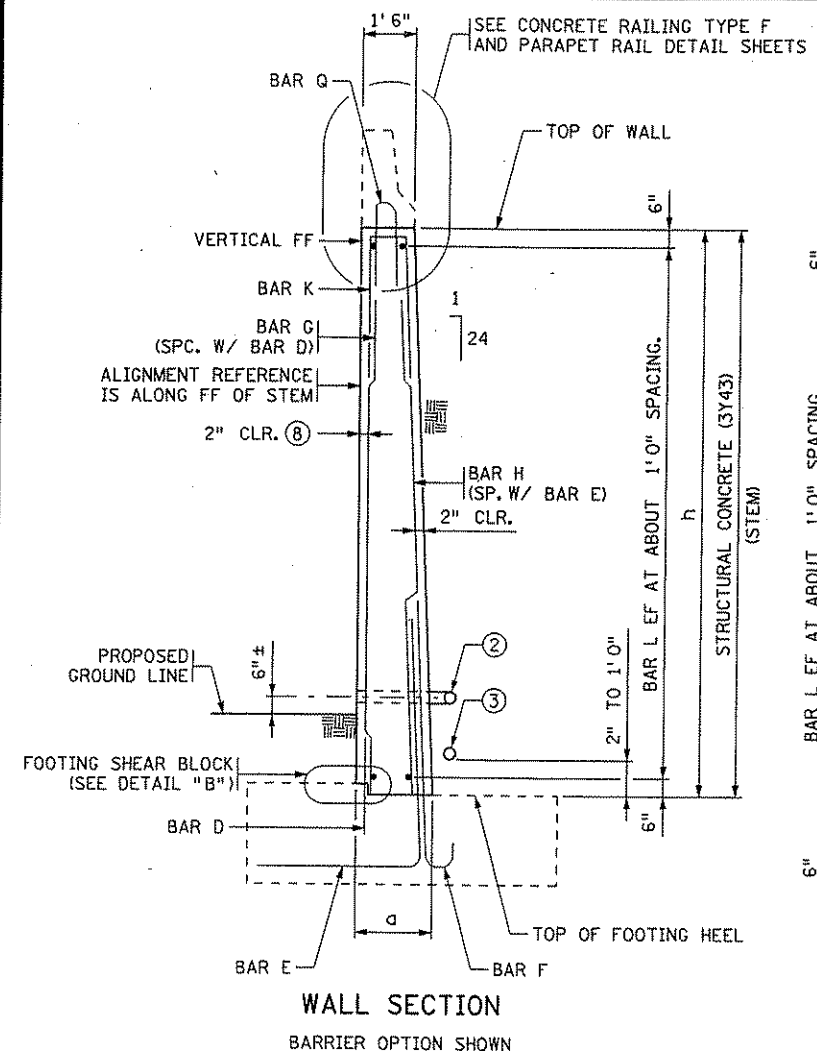
- STEM REINFORCEMENT IS TO BE SYMMETRICALLY/EQUALLY SPACED BETWEEN STEM JOINTS.
- FOOTING REINFORCEMENT SYMMETRICAL ABOUT STEM JOINT ABOVE UNLESS OTHERWISE NOTED. SEE RETAINING WALL TABLES FOR PILE SPACING AND LAYOUT.
- BF DENOTES BACK FACE. FF DENOTES FRONT FACE. EF DENOTES EACH FACE.
- ① STRAIGHT LINE BETWEEN ELEVATIONS SHOWN ON WALL ELEVATION (EXCEPT FOR STEPPED CONDITIONS). IF A BARRIER IS NOT USED, TOPS OF RETAINING WALL COULD BE USED.
- ② TYPE I DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1).
- ③ TYPE II DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1).
- ④ SEE STANDARD PLAN 5-297.624 (1).
- ⑤ SEE GENERAL PLAN FOR PILE SPACING.
- ⑥ AT THE CONTRACTOR'S OPTION, PANEL LENGTH MAY VARY UP TO ± 1' 0". BAR CUTTING LISTS SHALL BE REVISED ACCORDINGLY BY THE CONTRACTOR.
- ⑦ 5" CLR. FOR ALL BARS EXCEPT 2" CLR. MIN. FOR BAR D.
- ⑧ SEE DETAIL "C" ON STANDARD PLAN 5-297.624(1).

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APPROVED: MAY 31, 2006
David A. Anderson
STATE BRIDGE ENGINEER

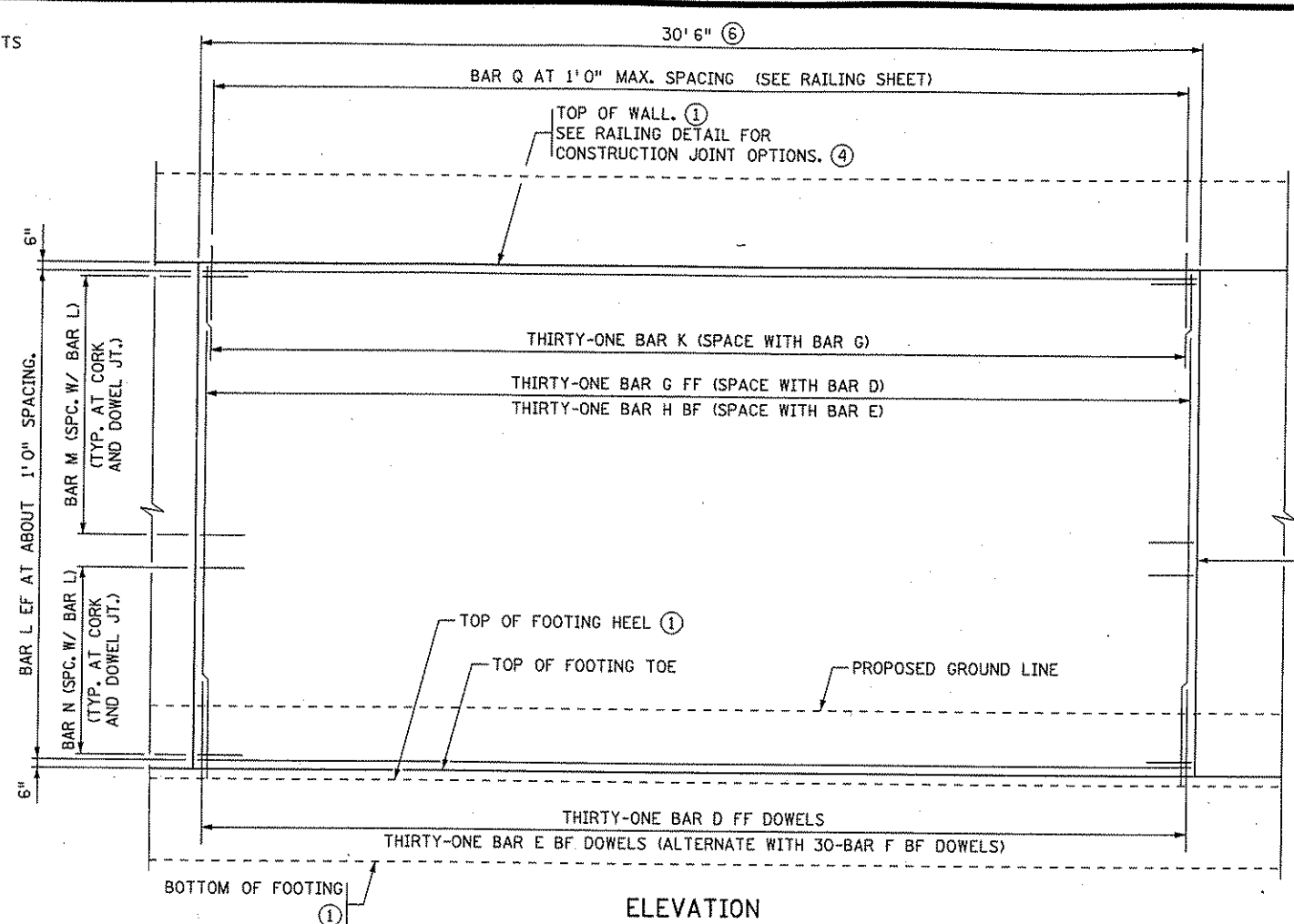
STANDARD SHEET NO. 5-297.621	TITLE: RETAINING WALL REINFORCEMENT DETAILS (SHORT WALLS) (PANELS -- --)
STANDARD APPROVED: MAY 31, 2006	

STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 256 OF 872 SHEETS

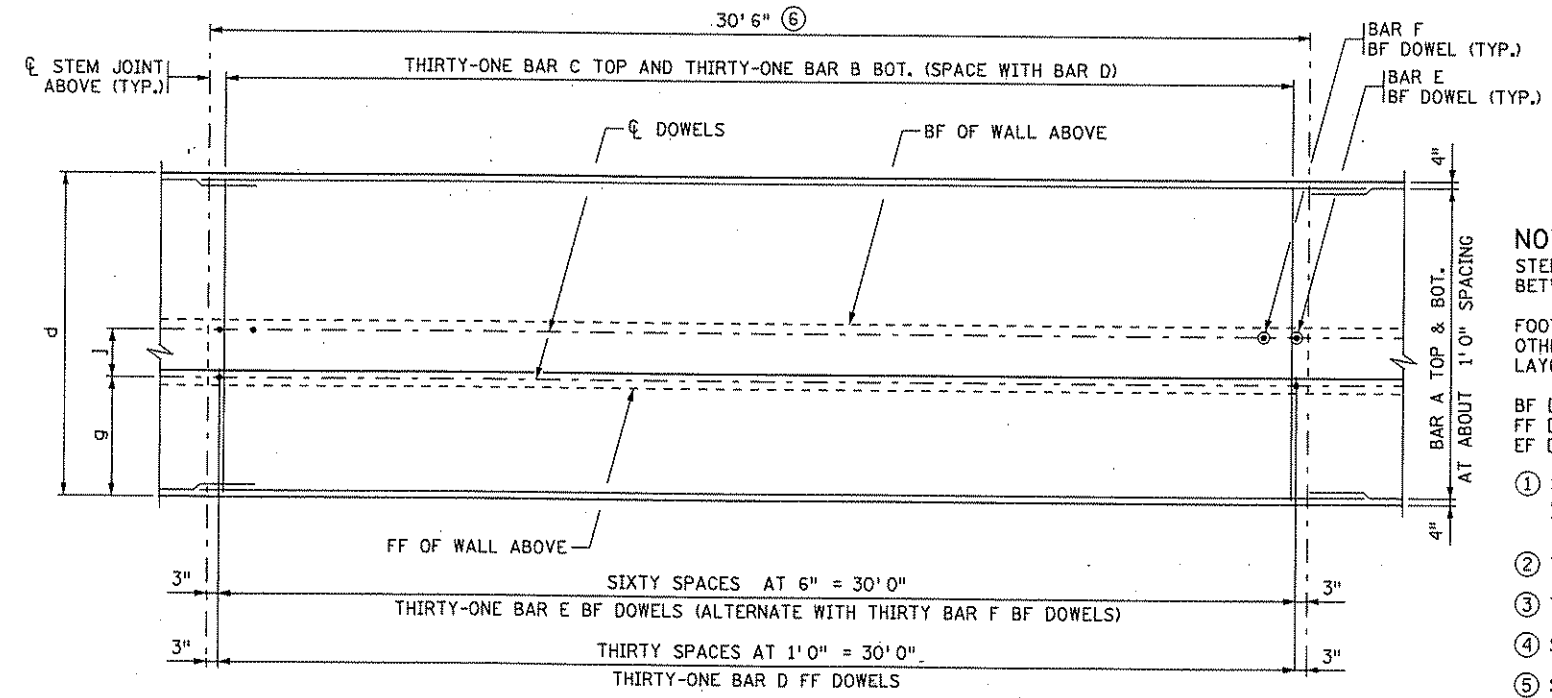
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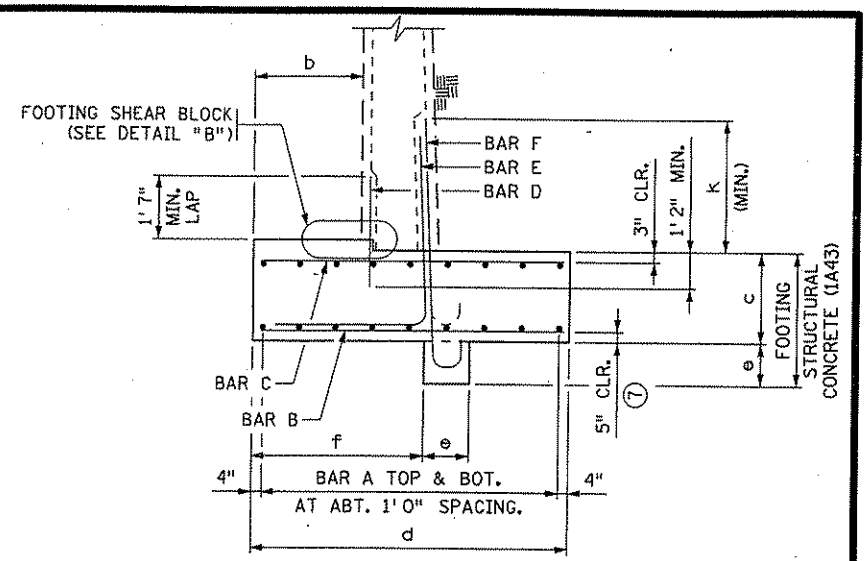
WALL SECTION
BARRIER OPTION SHOWN



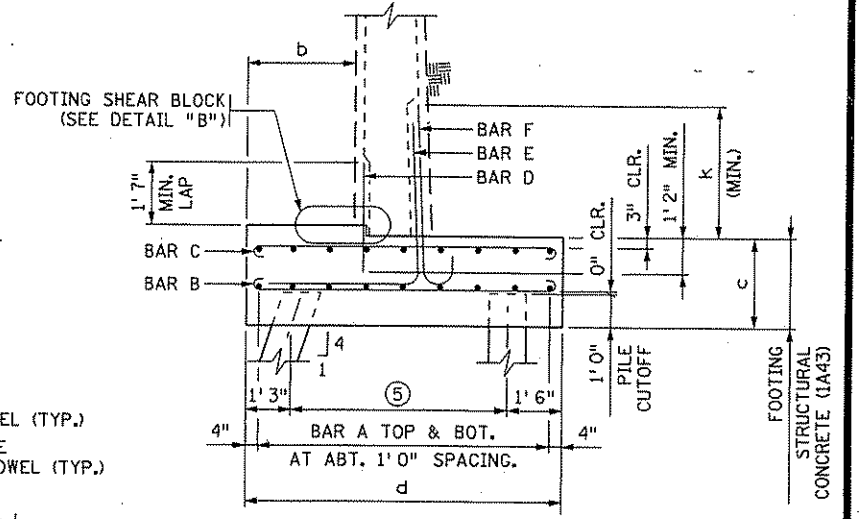
ELEVATION



FOOTING PLAN ~ REINFORCEMENT

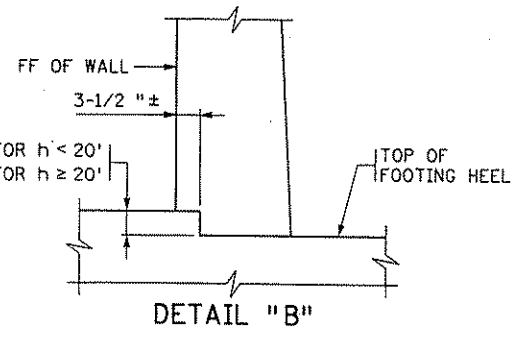


TYPICAL SECTION THROUGH SPREAD FOOTING



TYPICAL SECTION THROUGH PILE FOOTING

- NOTES:**
- STEM REINFORCEMENT IS TO BE SYMMETRICALLY/EQUALLY SPACED BETWEEN STEM JOINTS.
 - FOOTING REINFORCEMENT SYMMETRICAL ABOUT STEM JOINT ABOVE UNLESS OTHERWISE NOTED. SEE RETAINING WALL TABLES FOR PILE SPACING AND LAYOUT.
 - BF DENOTES BACK FACE.
FF DENOTES FRONT FACE.
EF DENOTES EACH FACE.
 - ① STRAIGHT LINE BETWEEN ELEVATIONS SHOWN ON WALL ELEVATION (EXCEPT FOR STEPPED CONDITIONS). IF A BARRIER IS NOT USED, TOPS OF RETAINING WALL COULD BE USED.
 - ② TYPE I DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1).
 - ③ TYPE II DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1).
 - ④ SEE STANDARD PLAN 5-297.624 (1).
 - ⑤ SEE GENERAL PLAN FOR PILE SPACING.
 - ⑥ AT THE CONTRACTOR'S OPTION, PANEL LENGTHS MAY VARY UP TO ± 1'0". BAR CUTTING LISTS SHALL BE REVISED ACCORDINGLY BY THE CONTRACTOR.
 - ⑦ 5" CLR. FOR ALL BARS EXCEPT 2" CLR. MIN. FOR BAR D.
 - ⑧ SEE DETAIL "C" ON STANDARD PLAN 5-297.624(1).



DETAIL "B"

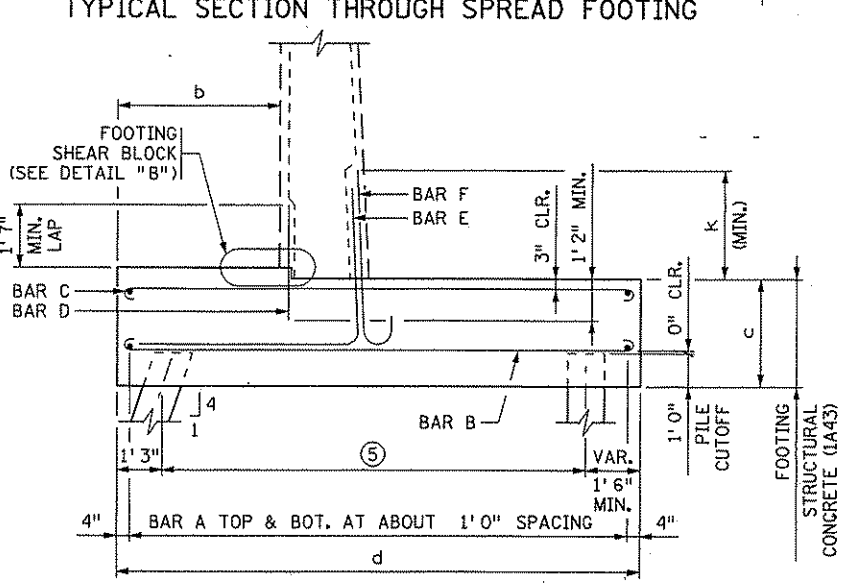
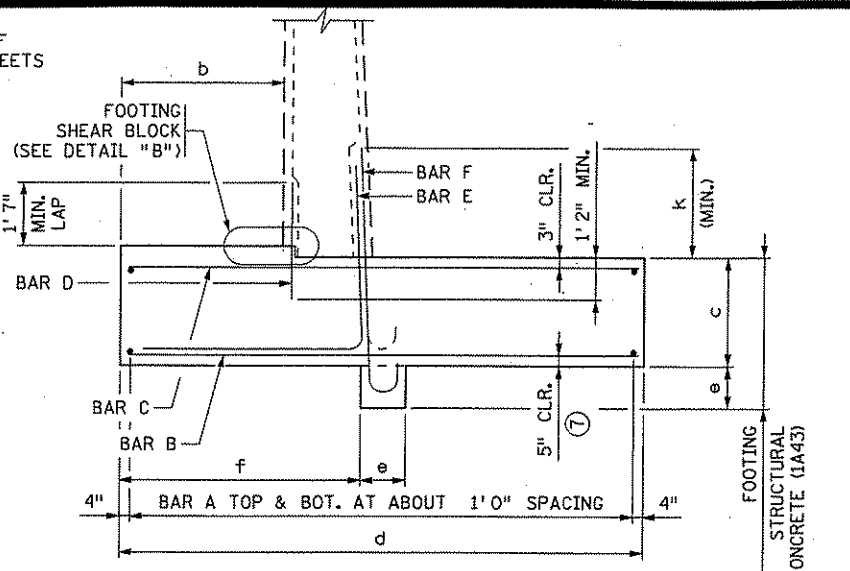
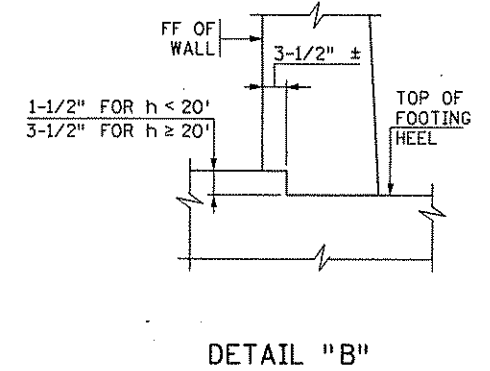
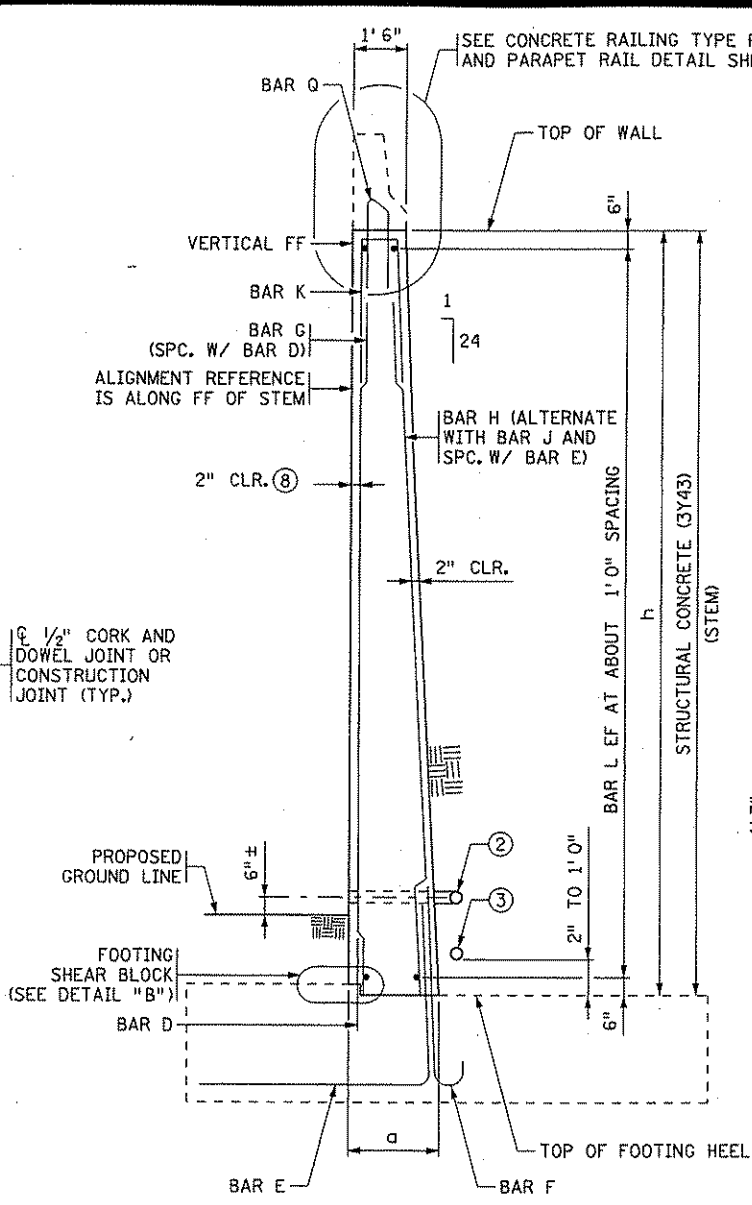
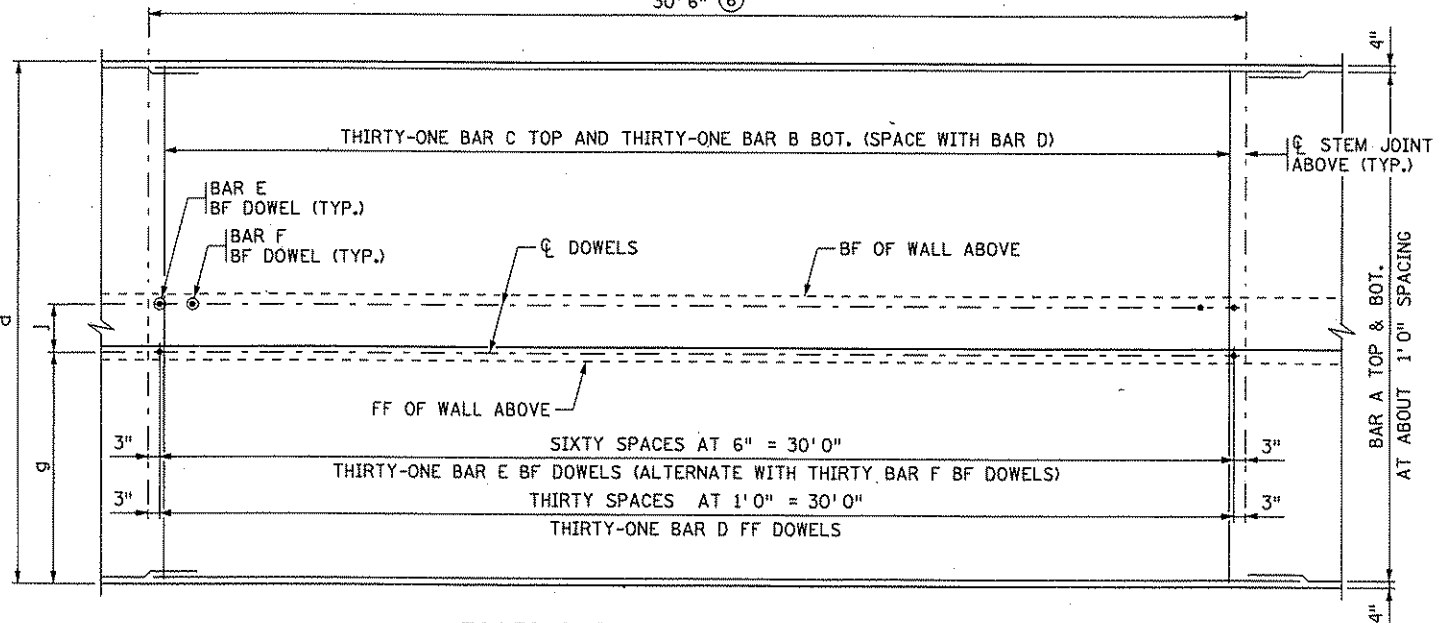
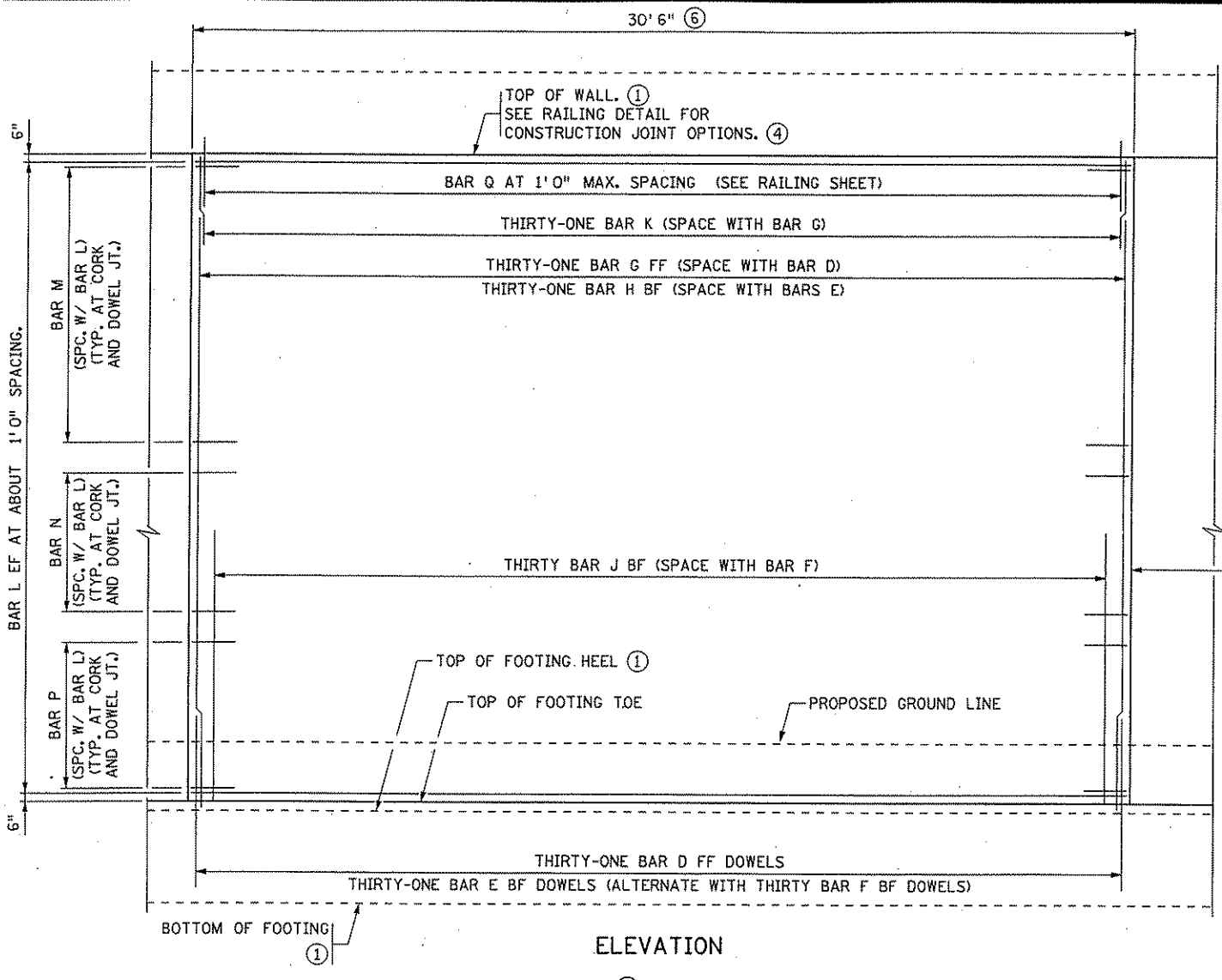
REVISED:
 APPROVED: MAY 31, 2006
David J. Anderson
 STATE BRIDGE ENGINEER

STANDARD SHEET NO. 5-297.622	TITLE: RETAINING WALL REINFORCEMENT DETAILS (MEDIUM WALLS) (PANELS -- --)
STANDARD APPROVED: MAY 31, 2006	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 257 OF 872 SHEETS	

PLOTTED/REVISED:
31-JAN-2007 08:37

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NOTES:

- STEM REINFORCEMENT IS TO BE SYMMETRICALLY/EQUALLY SPACED BETWEEN STEM JOINTS.
- FOOTING REINFORCEMENT SYMMETRICAL ABOUT STEM JOINT ABOVE UNLESS OTHERWISE NOTED. SEE RETAINING WALL TABLES FOR PILE SPACING AND LAYOUT.
- BF DENOTES BACK FACE.
FF DENOTES FRONT FACE.
EF DENOTES EACH FACE.
- (1) STRAIGHT LINE BETWEEN ELEVATIONS SHOWN ON WALL ELEVATION (EXCEPT FOR STEPPED CONDITIONS), IF A BARRIER IS NOT USED, TOPS OF RETAINING WALL COULD BE USED.
- (2) TYPE I DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1).
- (3) TYPE II DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1).
- (4) SEE STANDARD PLAN 5-297.624 (1).
- (5) SEE GENERAL PLAN FOR PILE SPACING.
- (6) AT THE CONTRACTOR'S OPTION, PANEL LENGTH MAY VARY UP TO ± 1' 0". BAR CUTTING LISTS SHALL BE REVISED ACCORDINGLY BY THE CONTRACTOR.
- (7) 5" CLR. FOR ALL BARS EXCEPT 2" CLR. FOR BAR D.
- (8) SEE DETAIL "C" ON STANDARD PLAN 5-297.624(1).

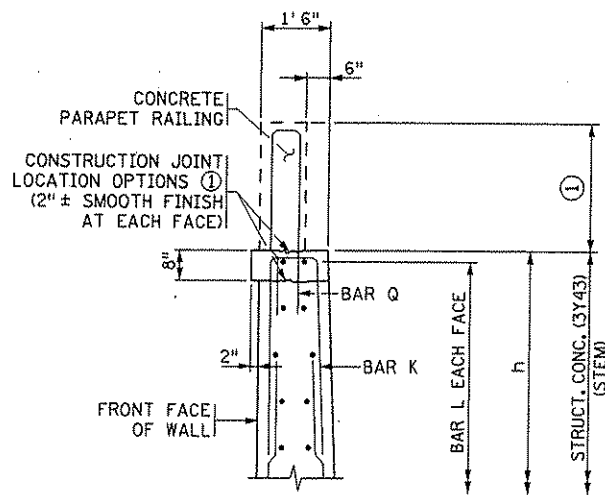
REVISED:
APPROVED: MAY 31, 2006 <i>Daniel O'Hara</i> STATE BRIDGE ENGINEER

STANDARD SHEET NO. 5-297.623	TITLE: RETAINING WALL REINFORCEMENT DETAILS (TALL WALLS) (PANELS -- - --)
STANDARD APPROVED: MAY 31, 2006	
STATE PROJ. NO. 0208-123 (T.H.65)	SHEET NO. 258 OF 872 SHEETS

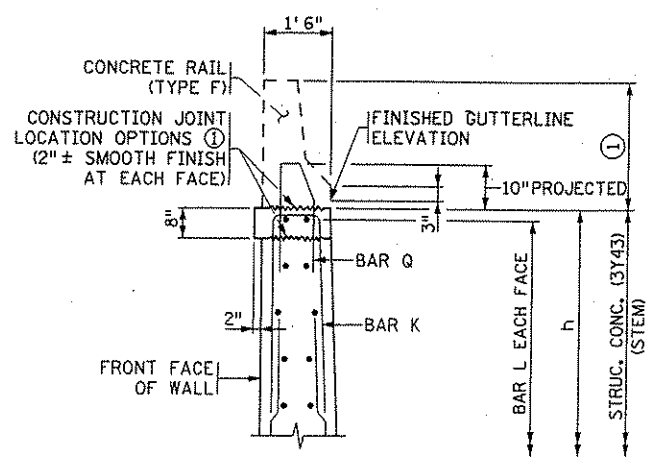
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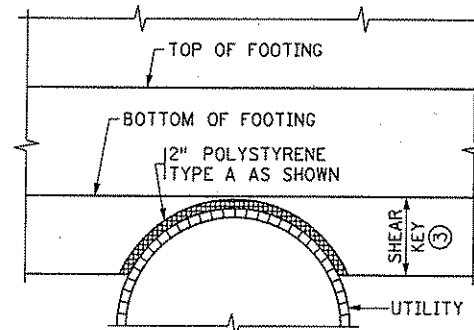
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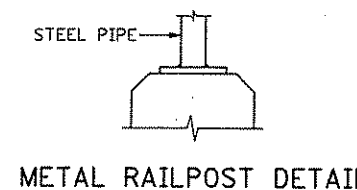
CONCRETE PARAPET RAILING DETAIL
2" COPING OPTION SHOWN



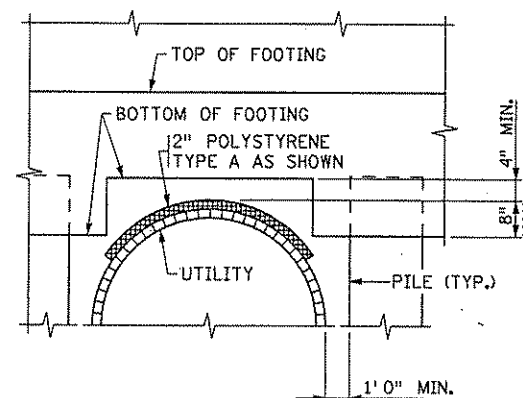
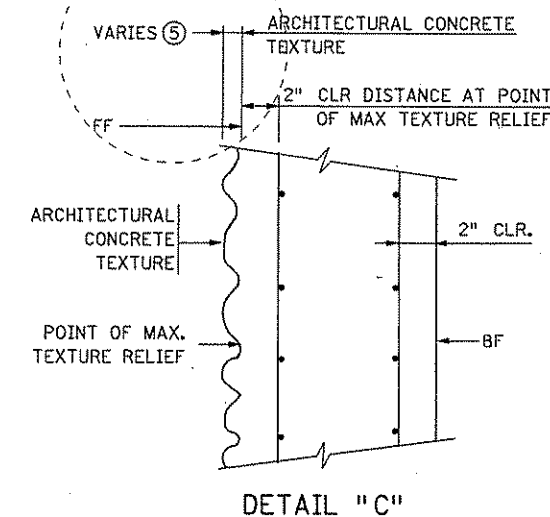
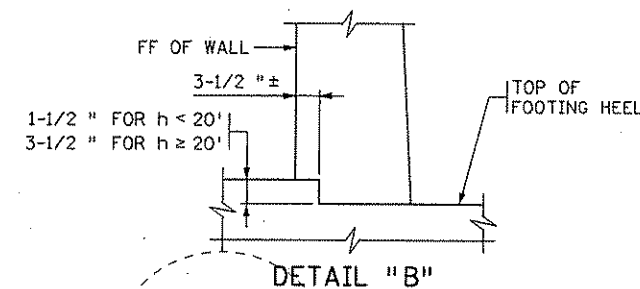
TYPE F RAILING DETAIL
2" COPING OPTION SHOWN



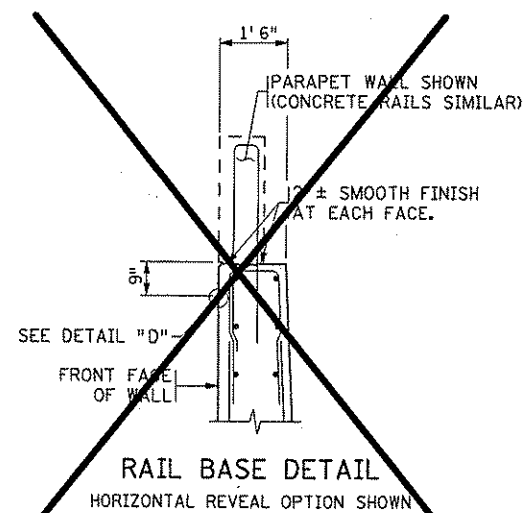
PIPE UNDER SPREAD FOOTING (THROUGH SHEAR KEY)
CHECK PIPE TO DETERMINE IF IT CAN TAKE THE LOAD



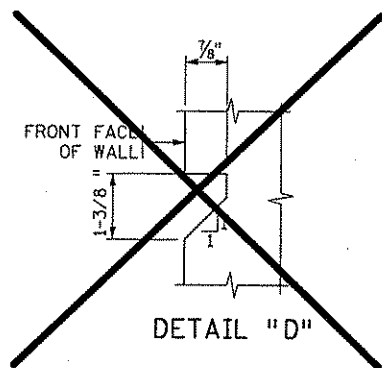
METAL RAILPOST DETAIL



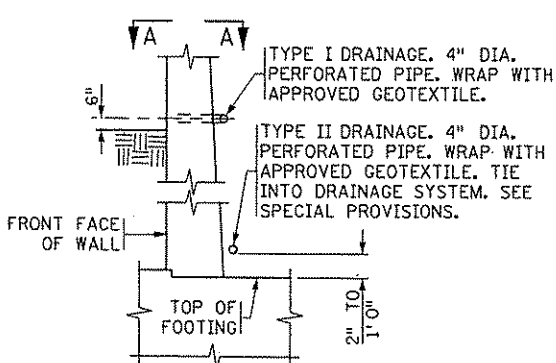
PIPE THROUGH PILE FOOTING



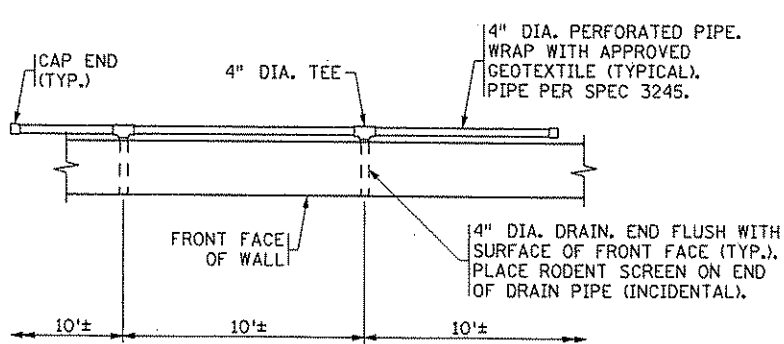
RAIL BASE DETAIL
HORIZONTAL REVEAL OPTION SHOWN



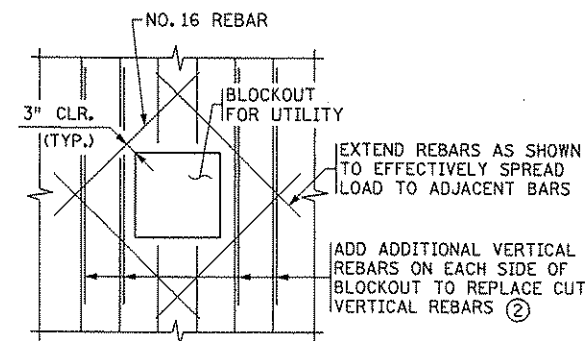
DETAIL "D"



DETAIL "A"



SECTION A-A
TYPE I DRAINAGE DETAIL



UTILITY BLOCKOUT DETAIL

NOTES:

- ARCHITECTURAL TREATMENT OPTION ON FRONT FACE OF RETAINING WALL TO BE DETERMINED BY Mn/DOT.
- ① ALL CONCRETE ABOVE JOINT LOCATION SHALL BE STRUCTURAL CONCRETE (3Y46).
- ② FIELD CUT/ADJUST VERTICAL AND HORIZONTAL REINFORCEMENT AS NECESSARY TO CLEAR BLOCKOUT. PLACE REINFORCEMENT AS SHOWN.
- ③ MODIFY FOR INTERRUPTION.
- ④ PAID FOR AS SPEC. 2502, DRAINAGE SYSTEM (LUMP SUM)
- ⑤ THE THICKNESS OF THE ARCHITECTURAL CONCRETE TEXTURE VARIES WITH THE TEXTURE RELIEF. THE STRUCTURAL CONCRETE 3Y43 QUANTITIES DO NOT INCLUDE THE MATERIAL WITHIN THE ARCHITECTURAL CONCRETE TEXTURE. MATERIAL NEEDED FOR THE TEXTURING SHALL BE INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE. SEE SPECIAL PROVISIONS 2411. TEXTURE RELIEF SHALL ADHERE TO FHWA CRASH BARRIER GUIDANCE WHENEVER THE WALL FACE IS INSIDE OR NEAR THE CLEAR ZONE.

SUMMARY OF DRAINAGE QUANTITIES ④								
ITEM	UNIT	WALL --	WALL --	WALL --	WALL --	WALL --	WALL --	TOTAL
4" DIA. PERFORATED PIPE	LIN. FT.							
4" DIA. DRAIN PIPE	LIN. FT.							
END CAP	EACH							
LONG RADIUS 90° ELBOW	EACH							

QUANTITIES ON SHEET 375

REVISED:
APPROVED: MAY 31, 2006
David C. Johnson
STATE BRIDGE ENGINEER

NO signature necessary

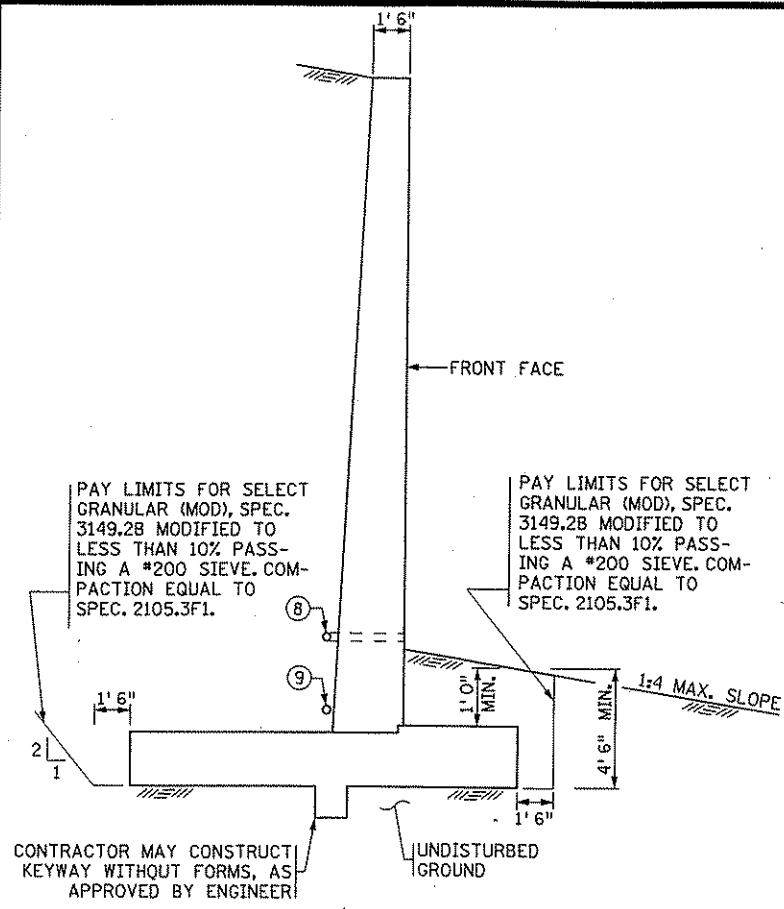
STANDARD SHEET NO.
5-297.624 (1 OF 3)
STANDARD APPROVED:
MAY 31, 2006

TITLE:
RETAINING WALL MISCELLANEOUS DETAILS

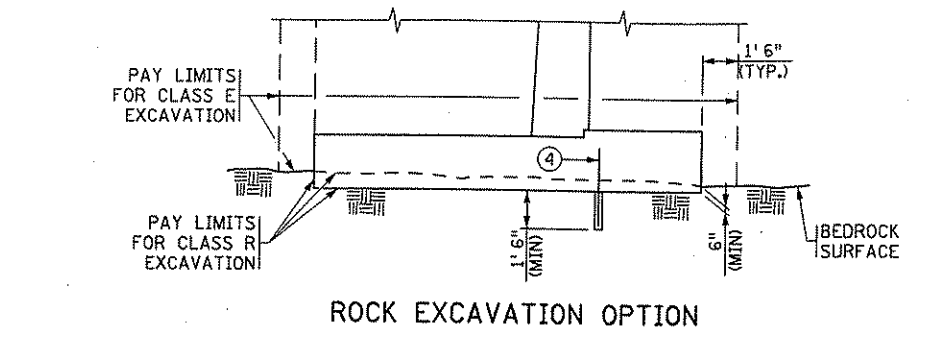
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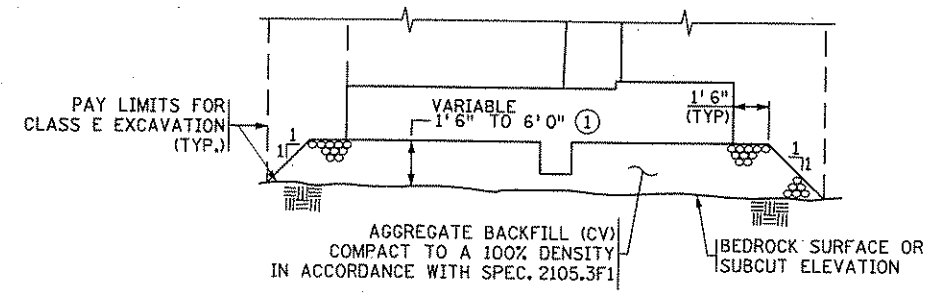
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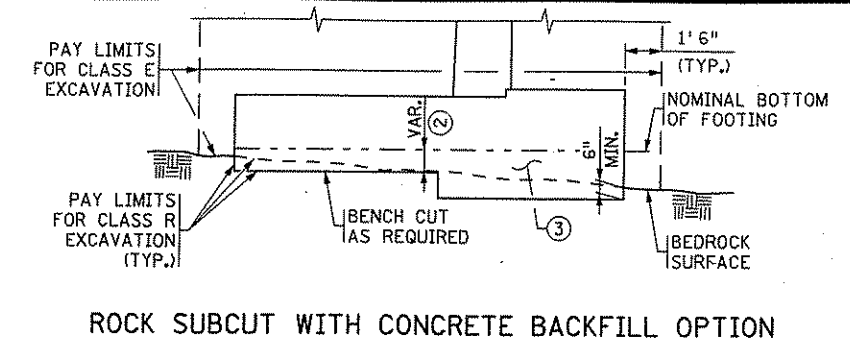
TYPICAL SECTION
INPLACE SOIL OPTION SHOWN



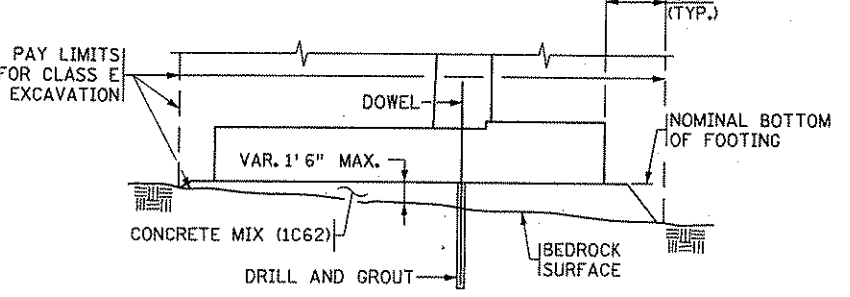
ROCK EXCAVATION OPTION



AGGREGATE BACKFILL OPTION

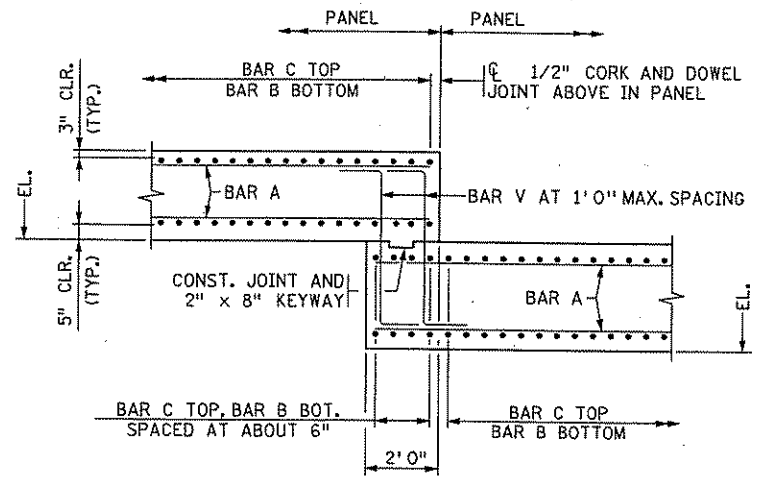


ROCK SUBCUT WITH CONCRETE BACKFILL OPTION

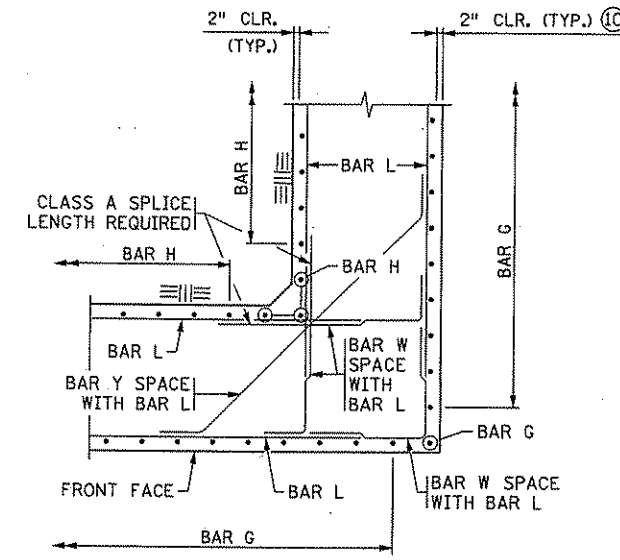


DOWEL AND LEAN CONCRETE BACKFILL OPTION

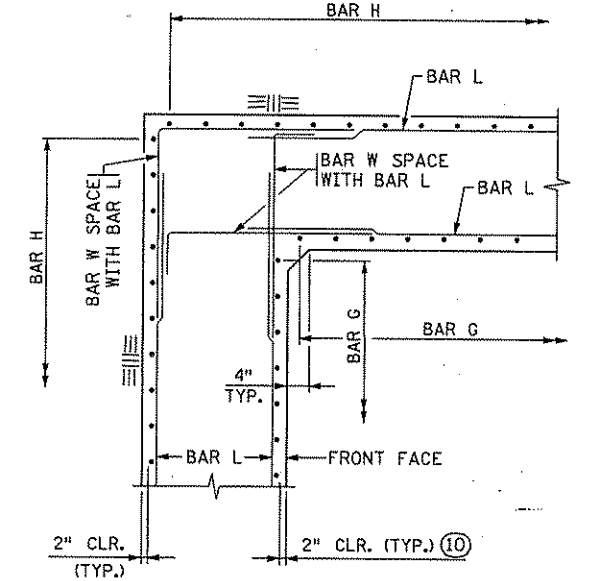
FOUNDATION OPTIONS



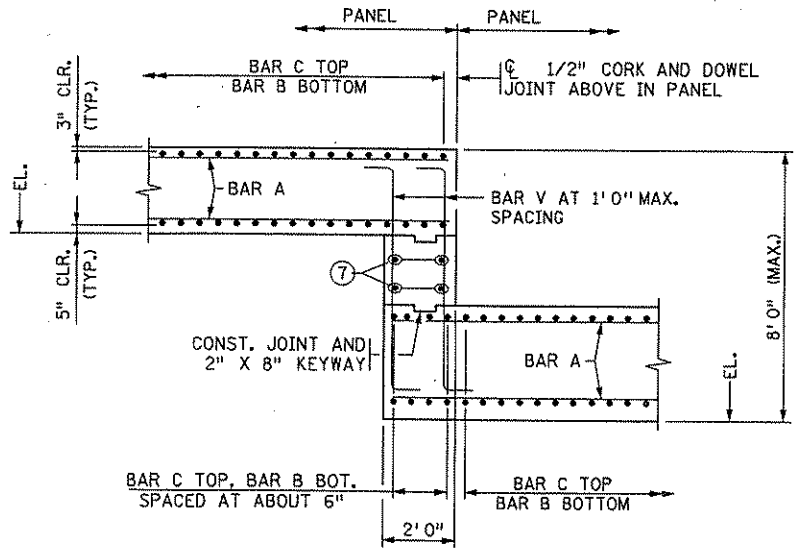
STEPPED FOOTING DETAIL - LONGIT. SECTION (5)(6)
TYPE 2 - MINIMUM STEP HEIGHT (SPREAD FOOTING SHOWN)



OUTSIDE CORNER DETAIL - PLAN VIEW (5)



INSIDE CORNER DETAIL - PLAN VIEW (5)



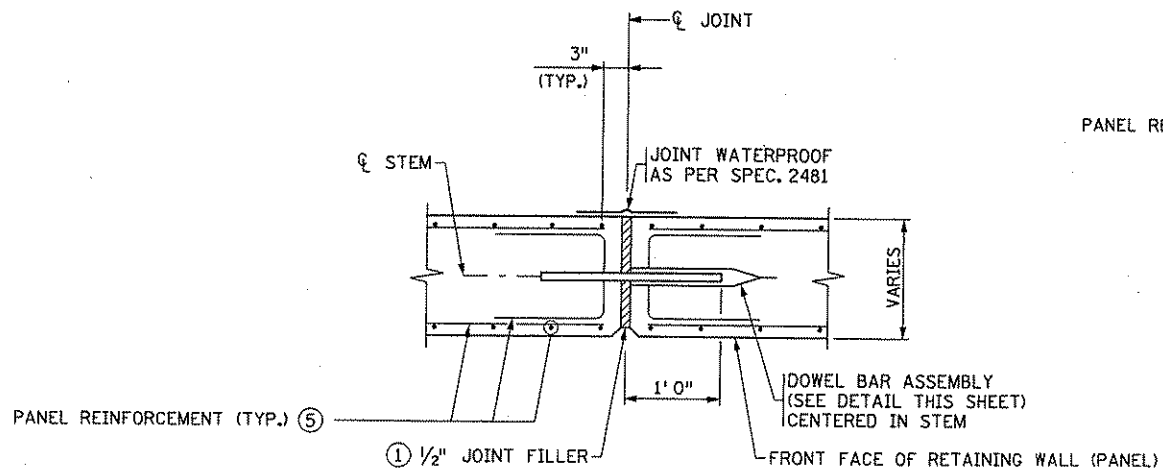
STEPPED FOOTING DETAIL - LONGIT. SECTION (5)(6)
TYPE 1 - VARIABLE STEP HEIGHT (SPREAD FOOTING SHOWN)

NOTES:

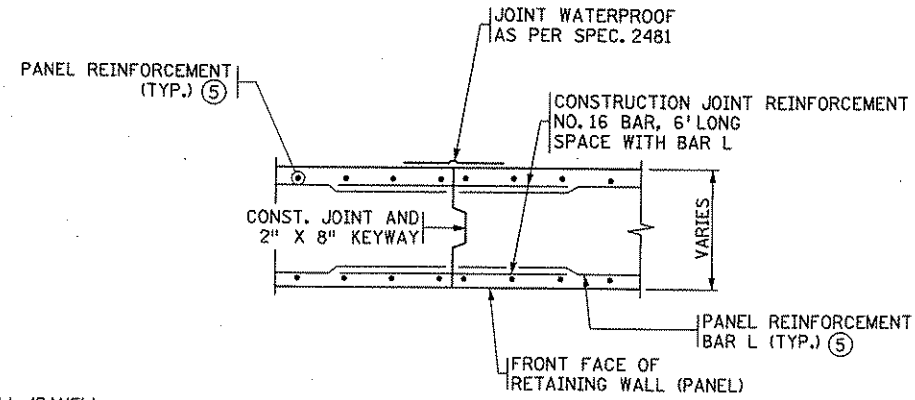
- (1) MINIMUM DEPTH 1 FT. 6 INCH OR SHEAR KEY DEPTH. DESIGNER TO DETERMINE MAXIMUM DEPTH.
- (2) SEE SPECIAL PROVISIONS FOR PAYMENT OF ADDITIONAL CONCRETE.
- (3) STRUCTURAL CONCRETE (1A43) OR LEAN CONCRETE BACKFILL (1C62), AS APPROVED BY ENGINEER.
- (4) CERTAIN ROCKS (SHALE, ETC.) BREAK OFF IN LAYERS. IN SUCH CASES, DRILL HOLES FOR ANCHORS TO KEY FOOTING TO ROCK.
- (5) ALL BARS RELATED TO STEPPED FOOTING AND CORNER CONSTRUCTION SHALL BE INCIDENTAL WITH NO DIRECT COMPENSATION.
- (6) ALL STRUCTURAL CONCRETE (1A43) RELATED TO THE STEPPED FOOTING SHALL BE INCIDENTAL WITH NO DIRECT COMPENSATION.
- (7) 6 INCH MAX. SPACING. BARS TO BE SAME TYPE AS BAR B OF THE LOWER FOOTING. NO BARS REQUIRED IF DISTANCE BETWEEN FOOTINGS IS LESS THAN 6 INCHES.
- (8) TYPE I DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1 OF 3).
- (9) TYPE II DRAIN. SEE DETAIL "A" ON STANDARD PLAN 5-297.624 (1 OF 3).
- (10) SEE DETAIL "C" ON STANDARD PLAN 5-297.624(1).

REVISED:
APPROVED: MAY 31, 2006
Daniel J. Morgan
STATE BRIDGE ENGINEER

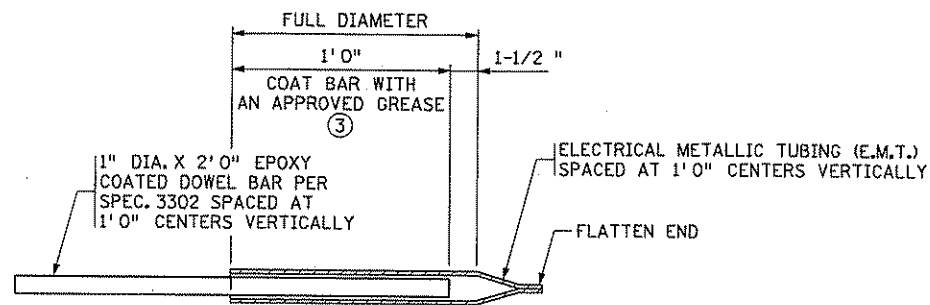
STANDARD SHEET NO. 5-297.624 (2 OF 3)	TITLE: RETAINING WALL MISCELLANEOUS DETAILS
STANDARD APPROVED: MAY 31, 2006	
STATE PROJ. NO. 0208-123 (T.H.65)	SHEET NO. 260 OF 872 SHEETS



CORK AND DOWELED JOINT DETAIL
(TYPICAL SECTION THROUGH JOINT)
② ④



CONSTRUCTION JOINT DETAIL
(TYPICAL SECTION THROUGH JOINT)
② ④



DOWEL BAR ASSEMBLY

NOTES:

THE MATERIALS AND PLACEMENT OF THE CORK AND DOWEL JOINT/ CONSTRUCTION JOINT (DOWEL BAR ASSEMBLIES, NO. 16 REINFORCING BARS, JOINT FILLER, AND JOINT WATERPROOFING) ARE INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

THE CONTRACTOR SHALL ASSIGN TO THE REINFORCING BAR SUPPLIER THE RESPONSIBILITY OF SUPPLYING THE NECESSARY MATERIALS ASSOCIATED WITH THE DETAILS SHOWN ON THIS SHEET.

- ① JOINT FILLER SHALL BE CORK (SPEC. 2401.3E3).
- ② CONSTRUCTION JOINT(S) MAY BE SUBSTITUTED FOR SOME OF THE CORK AND DOWEL JOINT(S) AT THE CONTRACTOR'S OPTION. CORK AND DOWEL JOINT(S) MUST BE SPACED AT 9'-6" MAXIMUM. CORK AND DOWEL JOINT(S) MUST BE USED IN VERTICAL JOINT(S) AT FOOTING STEP LOCATIONS.
- ③ GREASE SHALL BE AN APPROVED HIGH PRESSURE TYPE THAT IS EFFECTIVE OVER THE FULL RANGE OF EXPECTED TEMPERATURES AND RESISTANT TO CHEMICAL ACTION.
- ④ DOWEL BAR ASSEMBLY MUST BE INSTALLED PERPENDICULAR TO JOINT AND PARALLEL TO THE WALL FACE, AND TO EACH OTHER.
- ⑤ SEE PANEL SHEETS FOR REINFORCING DETAILS.

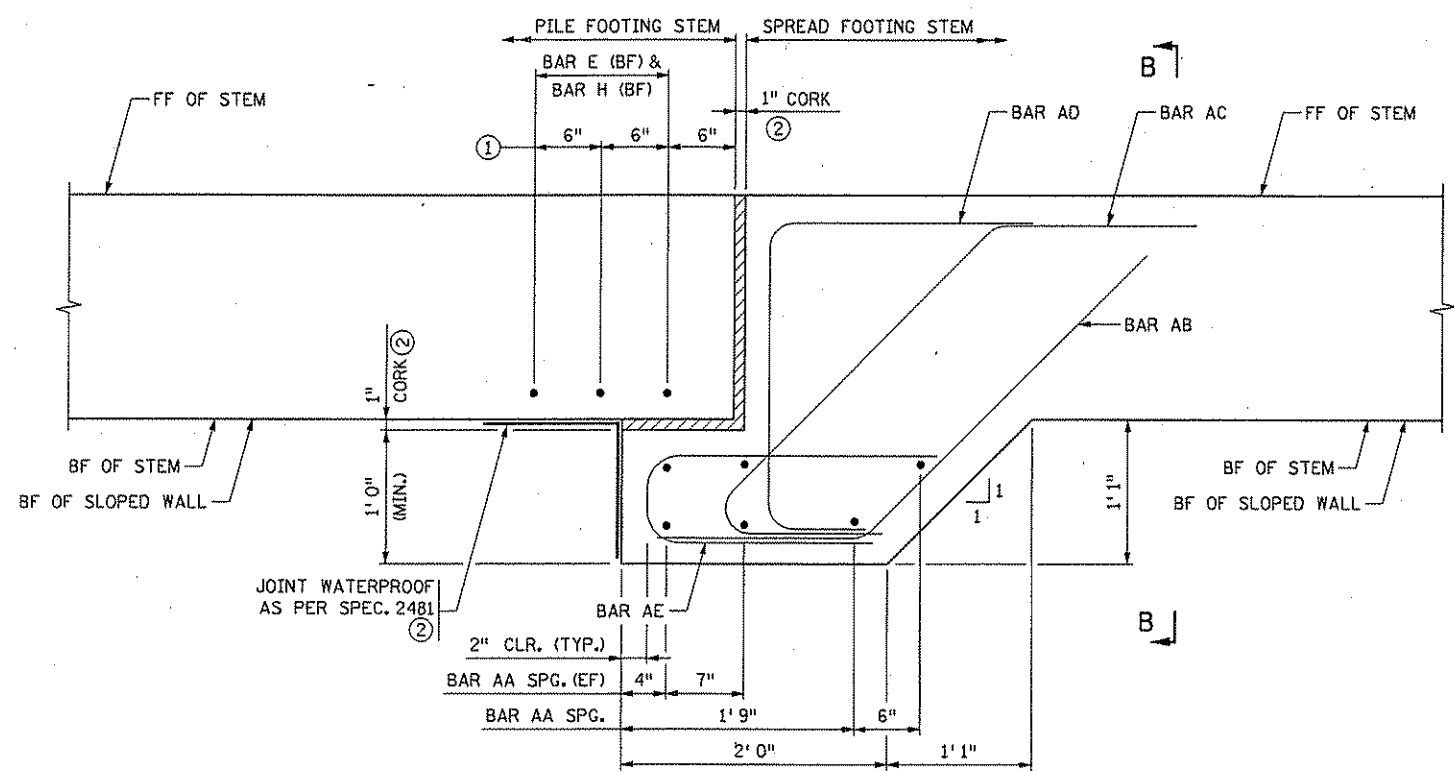
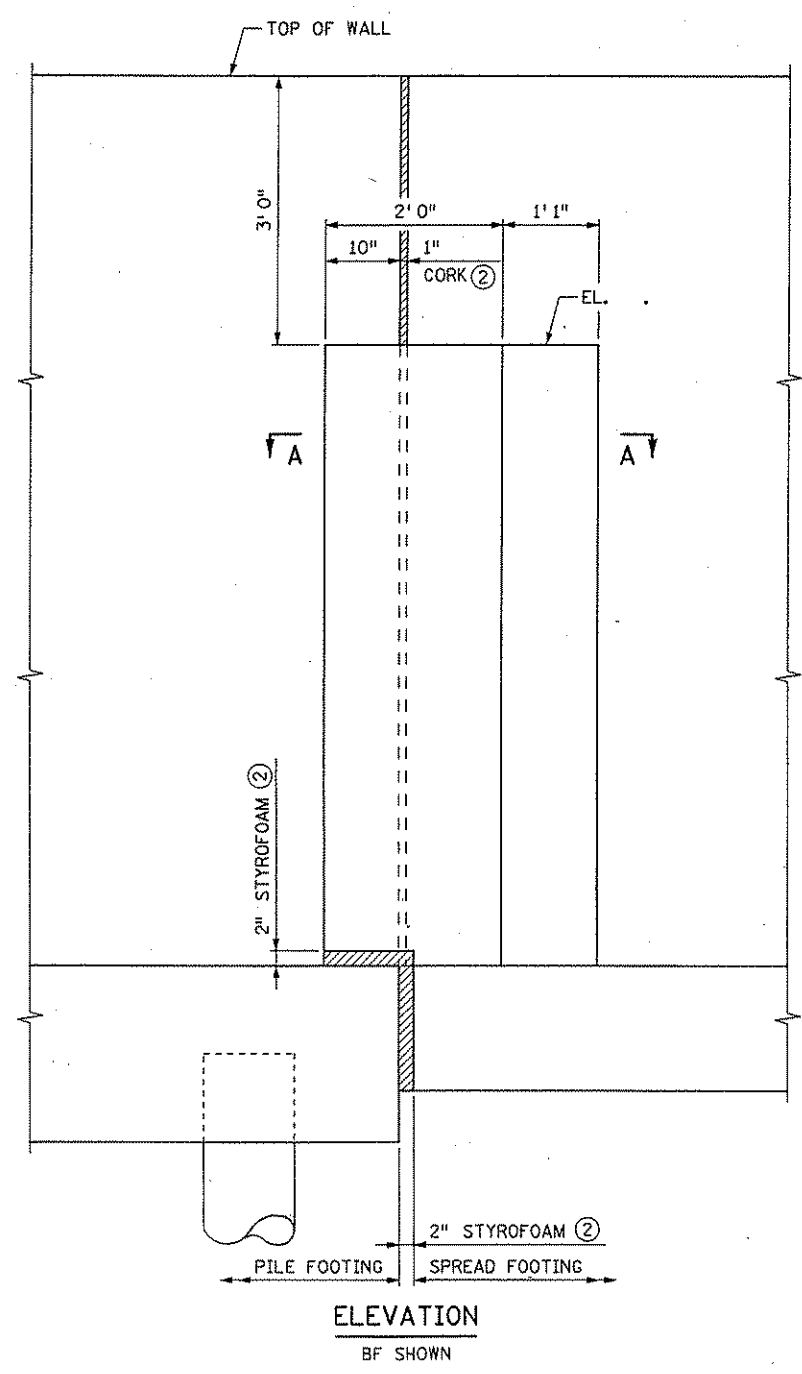
REVISED:
APPROVED: MAY 31, 2006 <i>David A. Anderson</i> STATE BRIDGE ENGINEER

STANDARD SHEET NO. 5-297.624 (3 OF 3)	TITLE: RETAINING WALL MISCELLANEOUS DETAILS
STANDARD APPROVED: MAY 31, 2006	
STATE PROJ. NO. 0208-123 (T.H.65)	SHEET NO. 261 OF 872 SHEETS

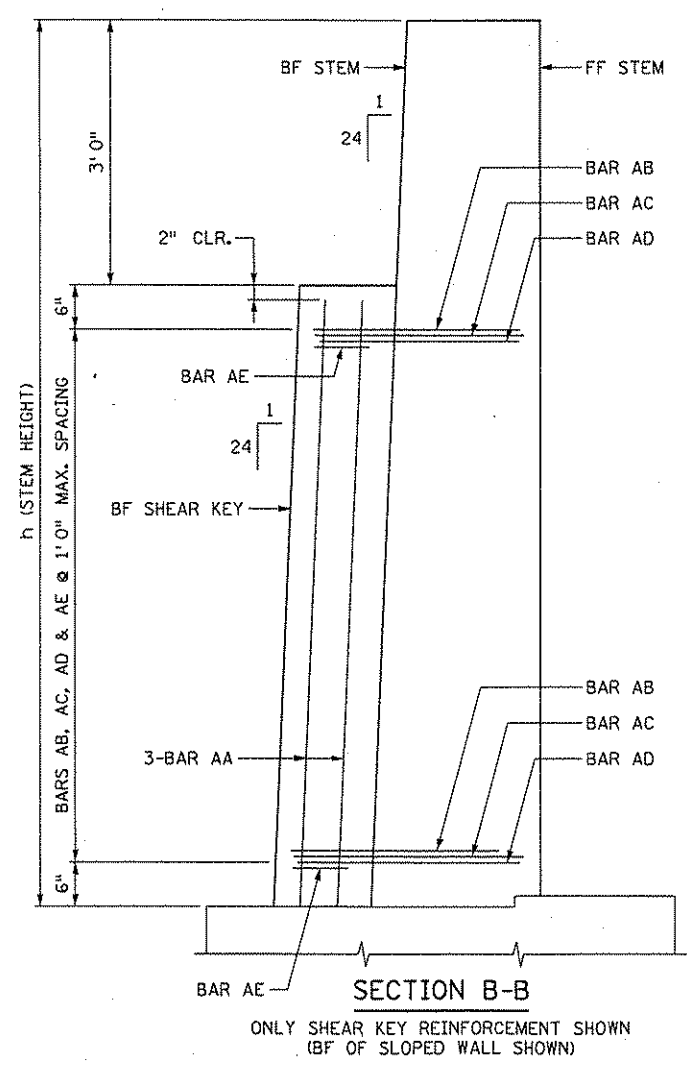
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28-MAR-2007 06:31

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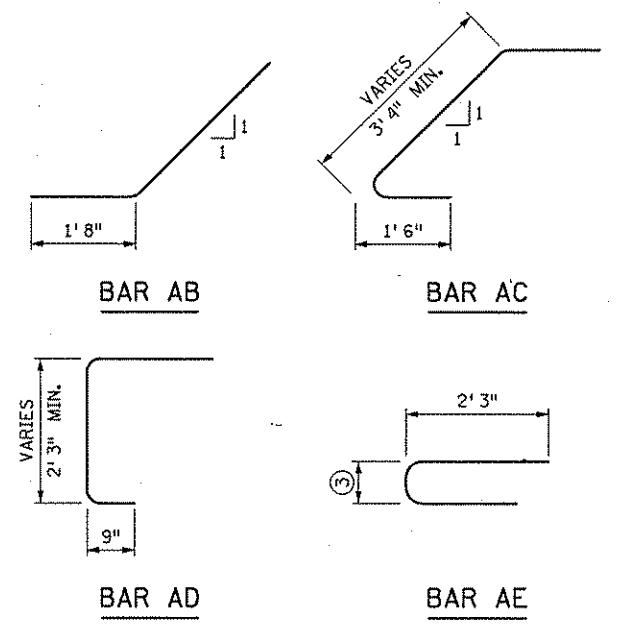
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FOOTINGS NOT SHOWN
(ONLY SHEAR KEY REINFORCEMENT SHOWN. SEE WALL REINFORCEMENT PANEL SHEETS FOR OTHER REINFORCEMENT.)



BILL OF REINFORCEMENT FOR SHEAR KEY						
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION	
E	F 05E	3	1'-"	(1)	FOOTING DOWEL BF	
H	S 02E	3	1'-"	(1)	STEM VERTICAL BF	
AA	S1603E	6	1'-"	(1)	SHEAR KEY VERTICAL	
AB	S1304E		4'-11"	(1)	SHEAR KEY TIE	
AC	S1305E		6'-4" TO X	(1)	SHEAR KEY TIE	
AD	S1606E		5'-0" TO X	(1)	SHEAR KEY TIE	
AE	S1307E		4'-8"	(1)	SHEAR KEY TIE	



NOTES:

- USE THIS DETAIL AT A RETAINING WALL JOINT WHEN THE WALL IS SUPPORTED ON PILE FOUNDATION ON ONE SIDE OF THE JOINT AND SPREAD FOOTING ON THE OTHER SIDE.
- THE SHEAR KEY SHALL BE PROVIDED ON THE SPREAD FOOTING WALL AS SHOWN.
- SHEAR KEY IS NOT REQUIRED IF:
WALL HEIGHT FROM TOP OF FOOTING TO TOP OF WALL IS LESS THAN 16 FEET WITHOUT A NOISE BARRIER.
THE COMBINED HEIGHT OF RETAINING WALL AND NOISE BARRIER IS LESS THAN 23 FEET AND WALL HEIGHT FROM TOP OF FOOTING TO GRADE IS LESS THAN 13 FEET.
- BF DENOTES BACK FACE.
FF DENOTES FRONT FACE.
EF DENOTES EACH FACE.
- ① SEE PANEL TABULATIONS FOR BAR SIZE AND LENGTH.
- ② JOINT WATERPROOF AS PER SPEC. 2481, 2 INCHES STYROFOAM AND 1 INCH CORK JOINT FILLER ARE INCIDENTAL.
- ③ 8 INCHES WHEN BACK FACE OF WALL ON PILE FOOTING AND SHEAR KEY HAVE UNIFORM SLOPE, VARIES (8 INCHES MINIMUM) WHEN BACK FACE OF WALL ON PILE FOOTING AND SHEAR KEY HAVE NON-UNIFORM SLOPE.

REVISED:
APPROVED: MAY 31, 2006
Samuel A. Johnson
STATE BRIDGE ENGINEER

STANDARD SHEET NO. 5-297.625
STANDARD APPROVED: MAY 31, 2006
TITLE: RETAINING WALL SHEAR KEY DETAILS
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 261A OF 872 SHEETS

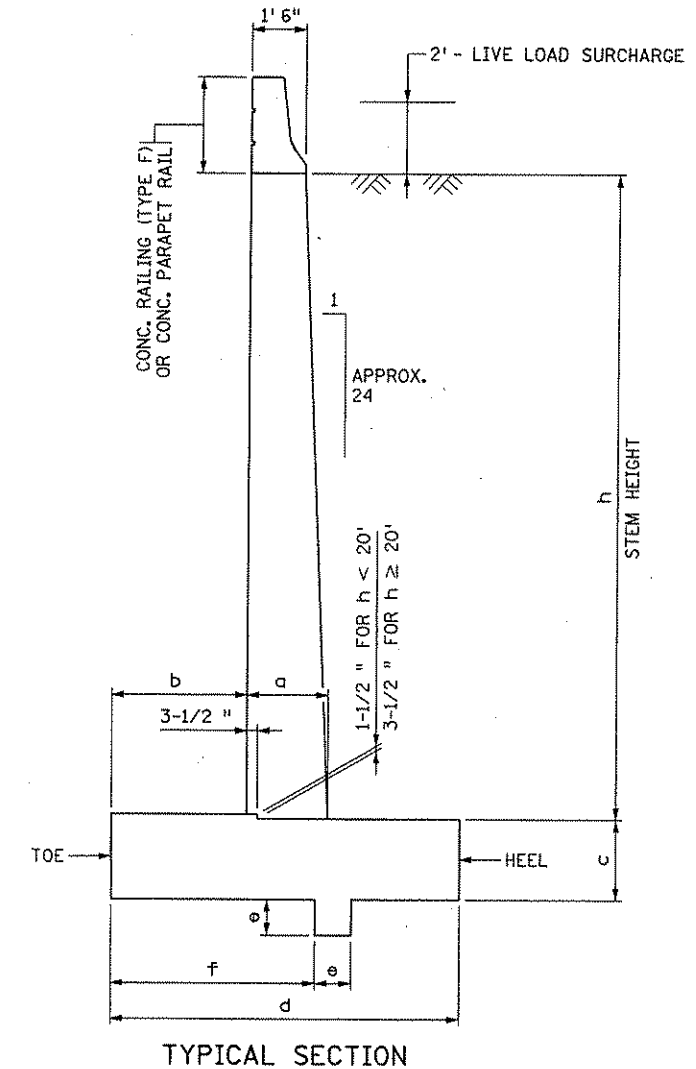
WALL LOADING CASE:
2' - LIVE LOAD SURCHARGE

WALL GEOMETRICS AND DATA - SPREAD FOOTING							QUANTITIES PER FOOT - SPREAD FOOTING				WALL DETAILING SCHEME ①	BASE PRESSURE KIPS/SQ. FT.	
STEM HEIGHT h	STEM WIDTH a	TOE WIDTH b	FOOTING THICKNESS c	FOOTING WIDTH d	SHEAR KEY SIZE e	SHEAR KEY LOCATION f	STRUCTURAL CONCRETE 1A43 (CU.YD.) FOOTING	REINFORCEMENT 3Y43 (CU.YD.) STEM	PLAIN (POUND)	EPOXY (POUND)		TOE	HEEL
5	1'-8 1/2"	1'-0"	1'-5"	3'-6"	N/A	N/A	0.187	0.296	15.38	38.16	SHORT	1.670	0.079
6	1'-9"	1'-2"	1'-5"	4'-0"	N/A	N/A	0.211	0.360	16.43	41.74	SHORT	1.820	0.090
7	1'-9 1/2"	1'-4"	1'-5"	4'-6"	N/A	N/A	0.235	0.425	19.70	45.34	SHORT	1.970	0.120
8	1'-10"	1'-6"	1'-5"	5'-0"	N/A	N/A	0.259	0.492	20.75	48.89	SHORT	2.110	0.150
9	1'-10 1/2"	1'-8"	1'-5"	5'-6"	N/A	N/A	0.283	0.561	24.13	52.69	SHORT	2.250	0.180
10	1'-11"	1'-9"	1'-5"	6'-0"	N/A	N/A	0.306	0.631	25.18	62.49	MEDIUM	2.446	0.199
11	1'-11 1/2"	2'-0"	1'-5"	6'-6"	N/A	N/A	0.331	0.703	31.28	66.85	MEDIUM	2.536	0.239
12	2'-0"	2'-3"	1'-5"	6'-9"	1'-0"	3'-10 5/8"	0.380	0.776	35.38	72.23	MEDIUM	2.758	0.156
13	2'-0 1/2"	2'-6"	1'-5"	7'-0"	1'-0"	4'-2 1/8"	0.393	0.851	40.30	76.82	MEDIUM	2.986	0.013
14	2'-1"	2'-9"	1'-6"	7'-8"	1'-0"	4'-5 3/4"	0.477	0.928	40.49	81.74	MEDIUM	3.147	0.078
15	2'-1 1/2"	3'-0"	1'-6"	8'-2"	1'-0"	4'-9 1/4"	0.506	1.006	40.10	99.57	TALL	3.239	0.111
16	2'-2"	3'-3"	1'-9"	8'-8"	1'-0"	5'-0 7/8"	0.615	1.085	41.38	105.97	TALL	3.494	0.056
17	2'-2 1/2"	3'-6"	1'-9"	9'-2"	1'-0"	5'-4 3/8"	0.649	1.166	49.02	111.90	TALL	3.586	0.089
18	2'-3"	3'-9"	1'-9"	9'-8"	1'-0"	5'-7 7/8"	0.682	1.249	50.52	129.74	TALL	3.679	0.121
19	2'-3 1/2"	4'-0"	2'-0"	10'-2"	1'-0"	5'-11 1/2"	0.810	1.333	54.26	137.41	TALL	3.935	0.066
20	2'-4"	4'-3"	2'-0"	10'-8"	1'-0"	6'-3"	0.875	1.417	61.38	165.51	TALL	4.056	0.090
21	2'-4 1/2"	4'-6"	2'-0"	11'-2"	1'-0"	6'-6 1/2"	0.916	1.504	71.34	174.30	TALL	4.151	0.122
22	2'-5"	4'-9"	2'-3"	11'-8"	1'-0"	6'-10 1/8"	1.064	1.593	85.93	183.51	TALL	4.407	0.067
23	2'-5 1/2"	5'-0"	2'-6"	12'-2"	1'-0"	7'-1 3/4"	1.221	1.683	84.82	224.49	TALL	4.663	0.012
24	2'-6"	5'-3"	2'-9"	12'-9"	1'-0"	7'-5 3/8"	1.396	1.775	94.03	234.03	TALL	4.872	0.020
25	2'-6 1/2"	5'-6"	2'-9"	13'-3"	1'-0"	7'-8 7/8"	1.449	1.868	100.13	288.16	TALL	4.967	0.052
26	2'-7"	5'-10"	3'-0"	13'-9"	1'-0"	8'-1 1/2"	1.631	1.963	102.26	299.67	TALL	5.189	0.000
27	2'-7 1/2"	6'-2"	3'-3"	14'-4"	1'-0"	8'-6 1/8"	1.832	2.059	127.34	315.84	TALL	5.364	0.000
28	2'-8"	6'-6"	3'-3"	15'-0"	1'-0"	8'-10 5/8"	1.916	2.157	140.92	394.98	TALL	5.334	0.140
29	2'-8 1/2"	6'-10"	3'-6"	15'-6"	1'-0"	9'-3 1/4"	2.123	2.257	148.00	407.90	TALL	5.558	0.077
30	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE:
EPOXY REINFORCEMENT QUANTITY ASSUMES AN EXPANSION JOINT IS USED ON BOTH PANEL ENDS. THE QUANTITY MUST BE ADJUSTED WHEN CONSTRUCTION JOINTS ARE USED. QUANTITIES ON THIS SHEET DO NOT INCLUDE RAILING. SEE RAILING SHEETS FOR RAIL REINFORCEMENT (EPOXY) AND RAIL CONCRETE (3Y46).

① SEE STANDARD PLANS 5-297.621 TO .623 FOR REINFORCING DETAILS.

DESIGN CRITERIA
1992 A.A.S.H.T.O. DESIGN SPECIFICATIONS
DESIGN METHOD: WORKING STRESS - STABILITY, FOUNDATIONS
LOAD FACTOR DESIGN - REINFORCED CONCRETE
$f'_c = 4,000$ PSI
$f_y = 60,000$ PSI
FACTOR OF SAFETY OVERTURNING: 2.0 MINIMUM
FACTOR OF SAFETY SLIDING: 1.5 MINIMUM
LOCATION OF RESULTANT: MIDDLE 1/3 OF FOOTING
NEGLECTING SOIL IN FRONT OF WALL.
SEE FOUNDATION REPORT FOR ALLOWABLE BEARING PRESSURE AND COEFFICIENT OF FRICTION.
BACKFILL CHARACTERISTICS:
INTERNAL ANGLE OF FRICTION: 35°
= 33 PCF EQUIVALENT FLUID PRESSURE ACTIVE STATE
= 53 PCF EQUIVALENT FLUID PRESSURE AT REST STATE
$B_e = 1.0$
COEFFICIENT OF FRICTION: 0.55
UNIT WEIGHT: 125 PCF

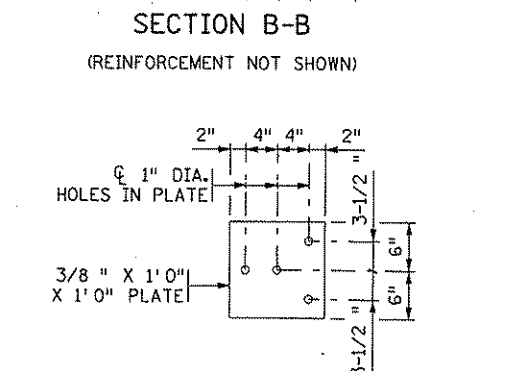
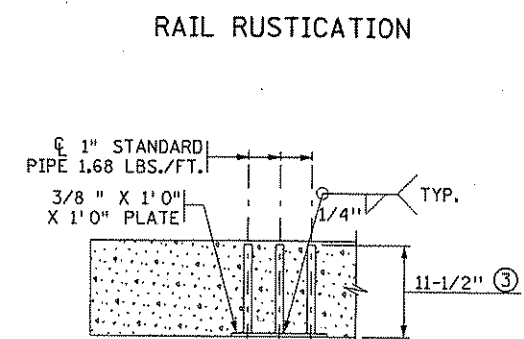
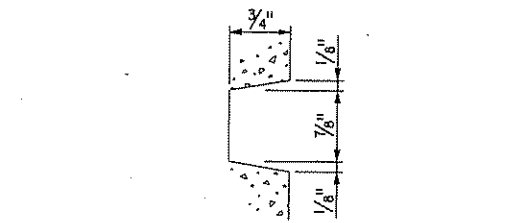
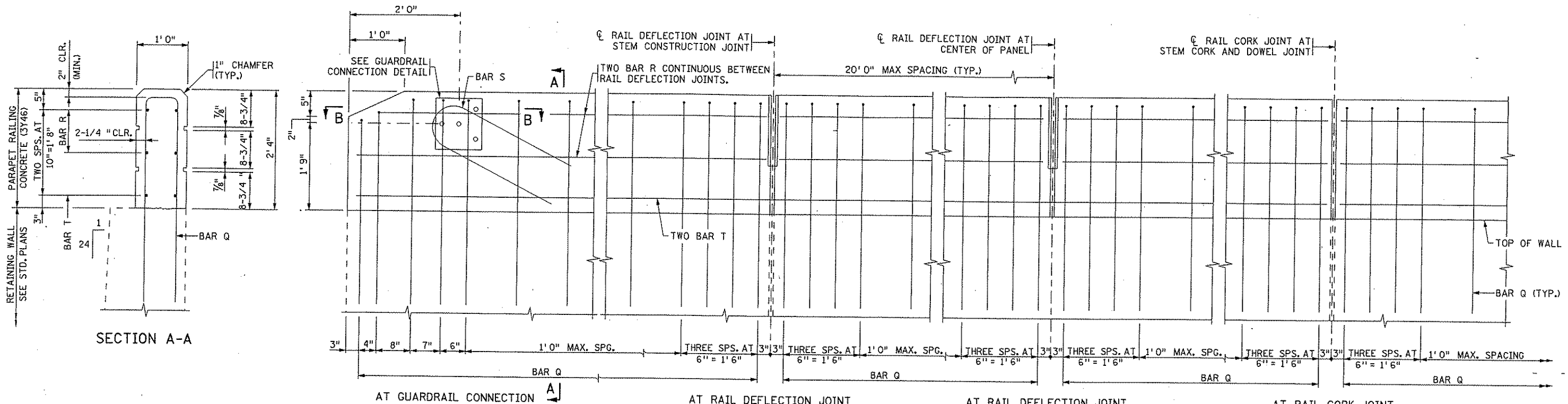


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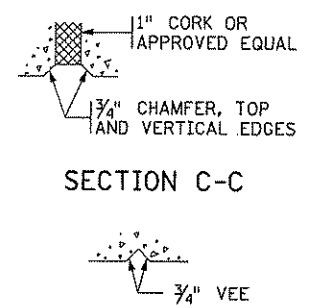
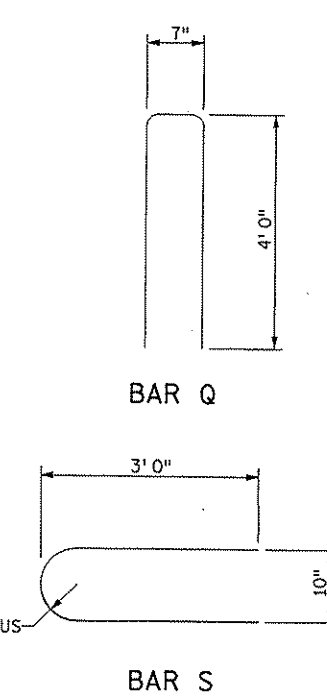
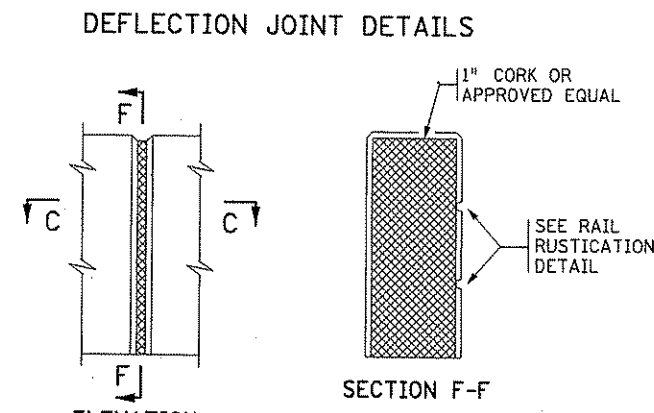
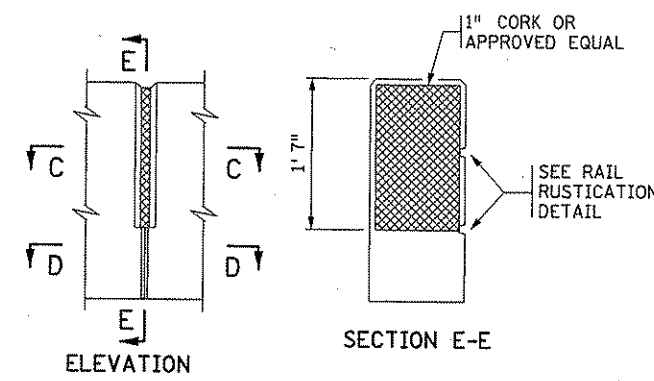
REVISED:
APPROVED: MAY 31, 2006
David J. Johnson
STATE BRIDGE ENGINEER

STANDARD SHEET NO. 5-297.632 (1 OF 4)	TITLE: RETAINING WALL (LIVE LOAD SURCHARGE) SPREAD FOOTING GEOMETRY AND DATA
STANDARD APPROVED: MAY 31, 2006	
STATE PROJ. NO. 0208-123 (T.H. 65)	SHEET NO. 262 OF 872 SHEETS

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INSIDE ELEVATION OF RAILING
RAIL MEETS TEST LEVEL 2
REQUIREMENTS OF NCHRP REPORT 350
 WHEN THE RAIL WILL BE USED NEXT TO A WALKWAY,
 A TEST LEVEL 4 BARRIER MUST BE USED TO SEPARATE TRAFFIC
 FROM THIS RAIL IN THE 45 MPH (OR OVER) SPEED ZONE.



NOTES:
 BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.
 THE GUARDRAIL CONNECTION IS INCLUDED IN THE PRICE BID FOR PARAPET RAIL CONCRETE (3Y46).
 MAXIMUM SPACING OF RAIL DEFLECTION JOINTS SHALL BE 20' 0".
 GUARDRAIL CONNECTION SHALL BE STRUCTURAL STEEL, SPEC. 3306 AND GALVANIZED AFTER FABRICATION PER SPEC. 3394.
 FOR TYPICAL RETAINING WALL REINFORCEMENT AND DETAILS, SEE STANDARD RETAINING WALL SHEETS.
 CONCRETE RAILING: 350 LBS/FT
 0.086 CU YD/FT
 CONCRETE PARAPET RAILING SHALL BE PAID FOR ON A LINEAL FOOT BASIS.
 ① FOR INFORMATIONAL PURPOSES ONLY.
 ② REINFORCEMENT SHOWN ASSUMES RAIL DEFLECTION JOINT LOCATED IN CENTER OF PANEL.
 ③ DIMENSION INCLUDES 3/8" PLATE.

BILL OF REINFORCEMENT					
TYPICAL RAILING ON RETAINING WALL ②					
30' 6" PANEL LENGTH, PANELS:-----					
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
R	R1601E	8	14' 11"	STR.	RAILING - HORIZONTAL
T	R1602E	2	30' 2"	STR.	RAILING - HORIZONTAL
Q	S1609E	32	8' 7"	BENT	RAILING - VERTICAL
PARAPET RAIL CONC. (3Y46)					REINFORCEMENT BARS (EPOXY)
2.6 CU YD ①					474 POUND
30' 6" PANEL LENGTH ②					
WITH GUARDRAIL CONNECTION					
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
Q	S1609E	33	8' 7"	BENT	RAILING - VERTICAL
R	R1601E	8	14' 11"	STR.	RAILING - HORIZONTAL
S	R2202E	1	6' 6"	BENT	RAILING - VERTICAL
T	R1603E	2	30' 2"	STR.	RAILING - HORIZONTAL
PARAPET RAIL CONC. (3Y46)					REINFORCEMENT BARS (EPOXY)
2.6 CU YD ①					496 POUND
TYPICAL RAILING ON RETAINING WALL					
----- PANEL LENGTH, PANEL:-----					
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
R	R1601E			STR.	RAILING - HORIZONTAL
T	R1602E			STR.	RAILING - HORIZONTAL
Q	S1609E		8' 7"	BENT	RAILING - VERTICAL
PARAPET RAIL CONC. (3Y46)					REINFORCEMENT BARS (EPOXY)
-- CU YD ①					-- POUND

RAIL CORK JOINT
 MATCH RAIL CORK JOINTS WITH RETAINING WALL STEM CORK AND DOWEL JOINTS. CORK AND DOWEL JOINTS ARE TO BE SPACED AT 9' 6" MAXIMUM.

REVISED: _____
 APPROVED: MAY 31, 2006
Josephine Lundquist
 CERTIFIED BY _____ LIC. NO. 20534 DATE 2/5/07

MODIFIED

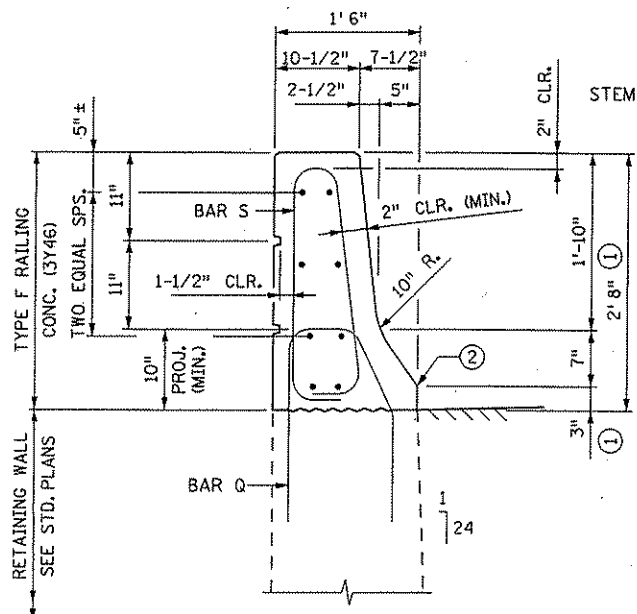
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STANDARD APPROVED: MAY 31, 2006	

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 263 OF 872 SHEETS

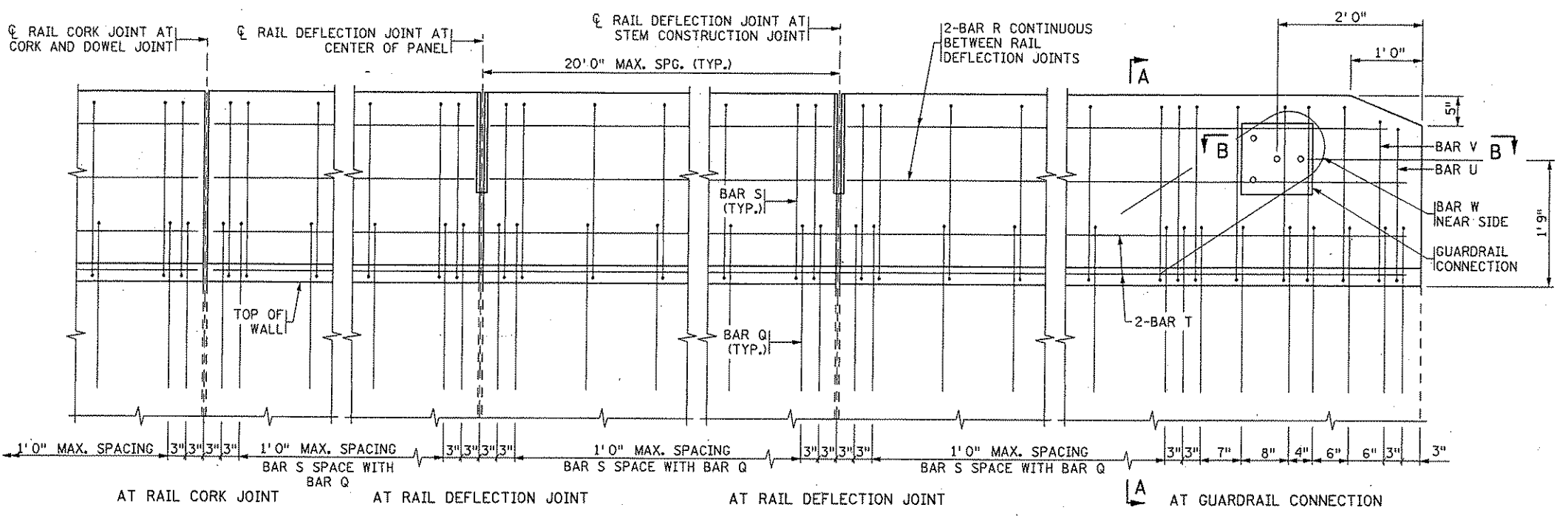
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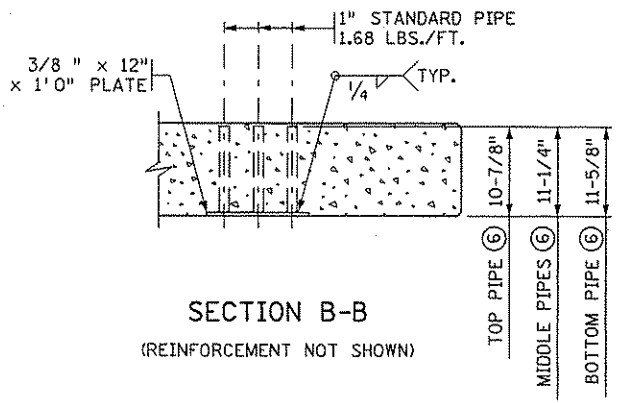
SECTION A-A
SEE SHEET 270



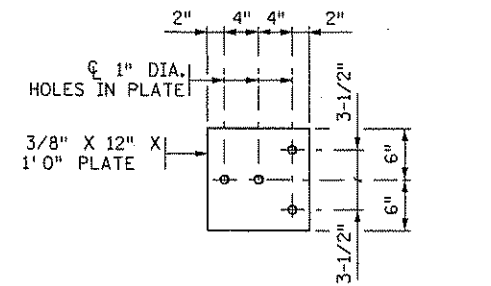
INSIDE ELEVATION OF RAILING

RAIL MEETS TEST LEVEL 4 REQUIREMENTS OF NCHRP REPORT 350

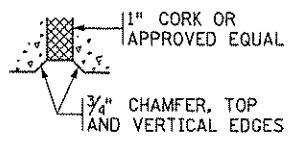
RAIL RUSTICATION



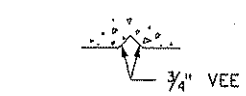
SECTION B-B
(REINFORCEMENT NOT SHOWN)



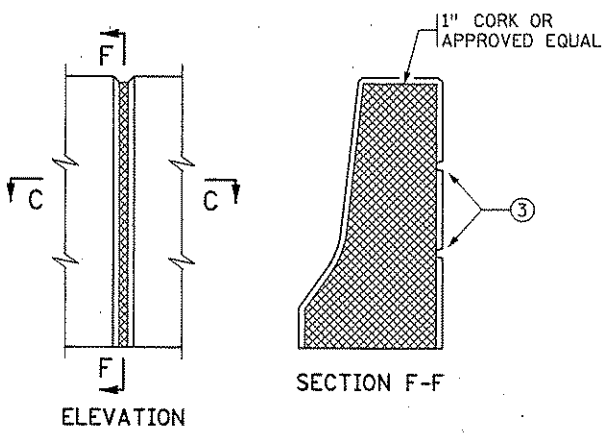
GUARDRAIL CONNECTION DETAIL
GALVANIZE AFTER FABRICATION PER SPEC. 3394. ESTIMATED WEIGHT = 22 LBS



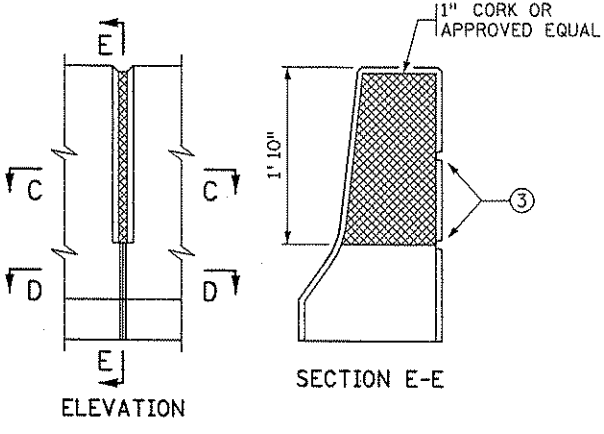
SECTION C-C



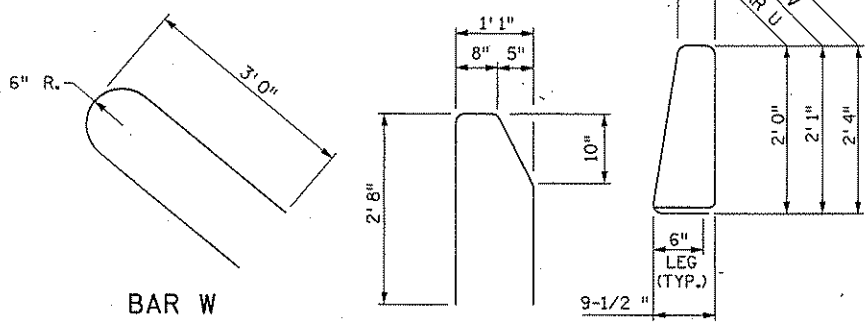
SECTION D-D



RAIL CORK JOINT
MATCH RAIL CORK JOINTS WITH RETAINING WALL STEM CORK AND DOWEL JOINTS. CORK AND DOWEL JOINTS ARE TO BE SPACED AT 91'6" MAXIMUM.



DEFLECTION JOINT DETAILS



NOTES:
CONCRETE RAILING: 439 LBS/FT (0.108 CU YD/FT) 2'8" HEIGHT
476 LBS/FT (0.117 CU YD/FT) 2'10" HEIGHT
MAXIMUM SPACING OF RAIL DEFLECTION JOINTS SHALL BE 20'0".
FOR TYPICAL RETAINING WALL REINFORCEMENT AND DETAILS, SEE STANDARD RETAINING WALL SHEETS.
THE GUARDRAIL CONNECTION IS INCLUDED IN THE PRICE BID FOR TYPE F RAIL CONCRETE (3Y46).
BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.
CONCRETE RAIL (TYPE F) SHALL BE PAID FOR ON A LINEAL FOOT BASIS.
GUARDRAIL CONNECTION SHALL BE STRUCTURAL STEEL, SPEC. 3306 AND GALVANIZED AFTER FABRICATION PER SPEC. 3394.

- ① USE 2'10" BARRIER HEIGHT WHEN RETAINING WALL IS ADJACENT TO A BRIDGE WITH OVERLAY. 3" DIMENSION BECOMES 5".
- ② NO CHAMFER.
- ③ SEE RAIL RUSTICATION DETAIL ON THIS SHEET.
- ④ QUANTITY GIVEN FOR 2'8" BARRIER HEIGHT. FOR INFORMATIONAL PURPOSES ONLY.
- ⑤ REINFORCEMENT SHOWN ASSUMES RAIL DEFLECTION JOINT LOCATED IN CENTER OF PANEL.
- ⑥ DIMENSIONS INCLUDE 3/8" PLATE.

BILL OF REINFORCEMENT

TYPICAL RAILING ON RETAINING WALL ⑤
30'6" PANEL LENGTH, PANELS:-----

BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
S	R1601E	36	6'-3"	BENT	RAILING - VERTICAL
R	R1304E	8	14'-11"	STR.	RAILING - HORIZONTAL
T	R1306E	4	30'-2"	STR.	RAILING - HORIZONTAL
Q	S1609E	32	6'-1"	BENT	RAILING - VERTICAL

TYPE F RAIL CONC. (3Y46) REINFORCEMENT BARS (EPOXY)
3.3 CU YD (4) 598 POUND

TYPICAL RAILING ON RETAINING WALL ⑤
-- PANEL LENGTH, PANELS:-----

BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
S	R1601E	36	6'-3"	BENT	RAILING - VERTICAL
R	R1304E	8	14'-11"	STR.	RAILING - HORIZONTAL
T	R1306E	4	30'-2"	STR.	RAILING - HORIZONTAL
Q	S1609E	32	6'-1"	BENT	RAILING - VERTICAL

TYPE F RAIL CONC. (3Y46) REINFORCEMENT BARS (EPOXY)
-- CU YD (4) -- POUND

30'6" PANEL LENGTH ⑤
WITH GUARDRAIL CONNECTION, PANELS:----

BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
Q	S1609E	36	6'-1"	BENT	RAILING DOWEL
S	R1601E	38	6'-3"	BENT	RAILING - VERTICAL
V	R1602E	1	5'-9"	BENT	RAILING - VERTICAL
U	R1603E	1	5'-7"	BENT	RAILING - VERTICAL
R	R1304E	8	14'-11"	STR.	RAILING - HORIZONTAL
W	R2205E	1	6'-7"	BENT	RAILING - VERTICAL
T	R1306E	4	30'-2"	BENT	RAILING - HORIZONTAL

TYPE F RAIL CONC. (3Y46) REINFORCEMENT BARS (EPOXY)
3.3 CU YD (4) 661 POUND

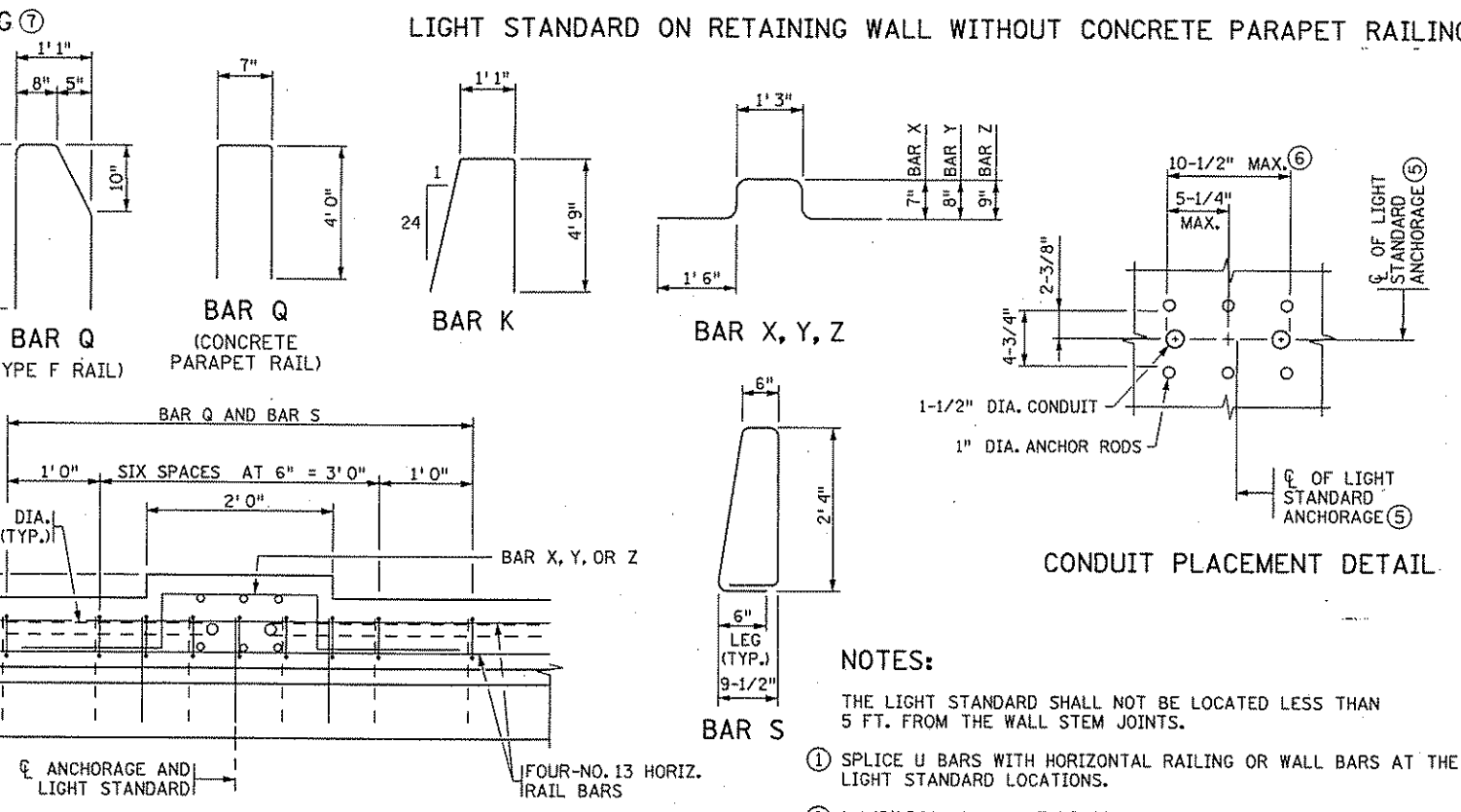
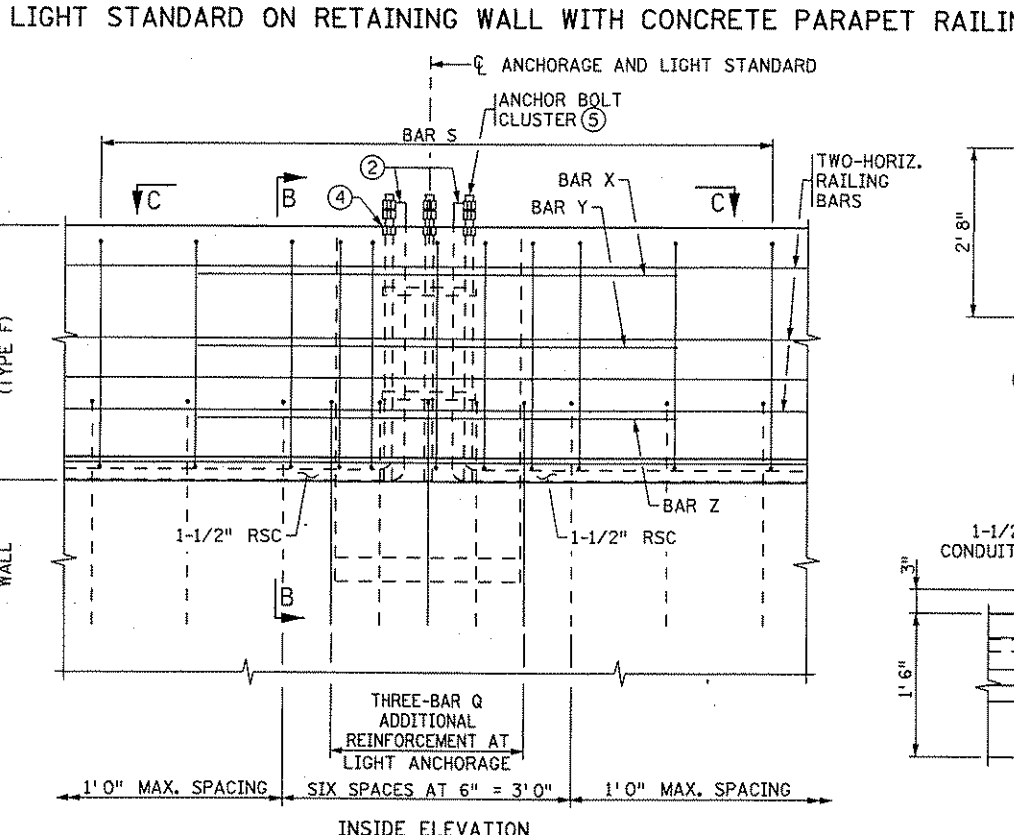
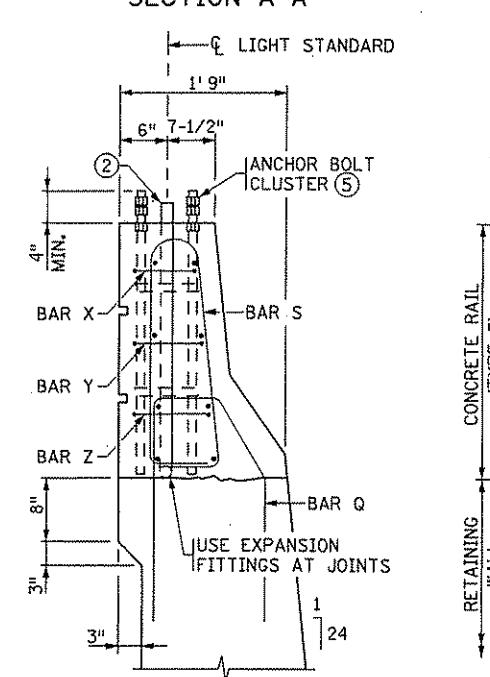
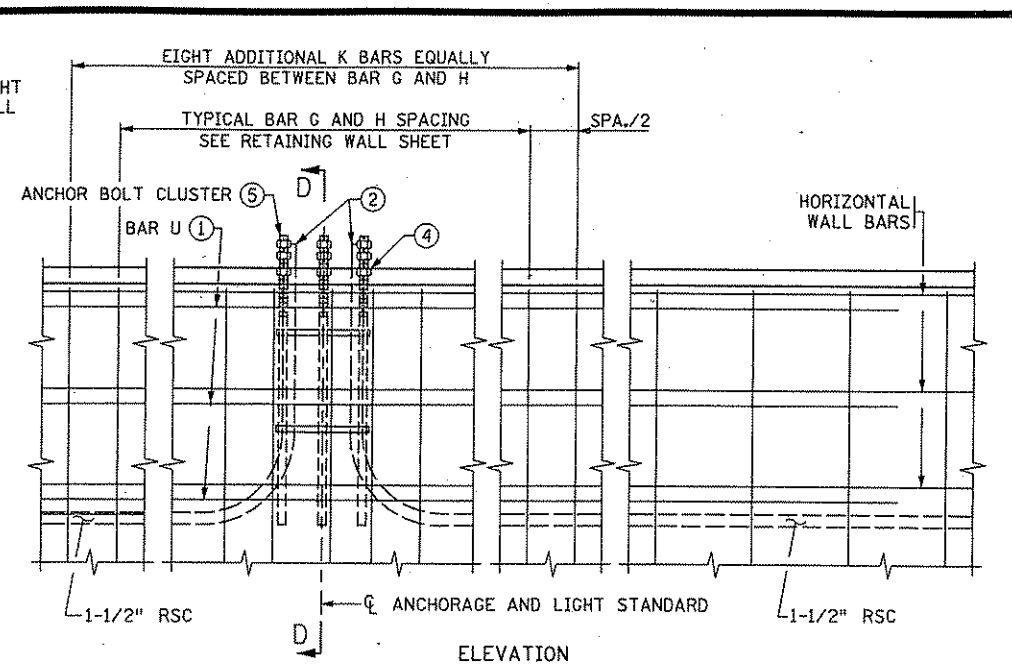
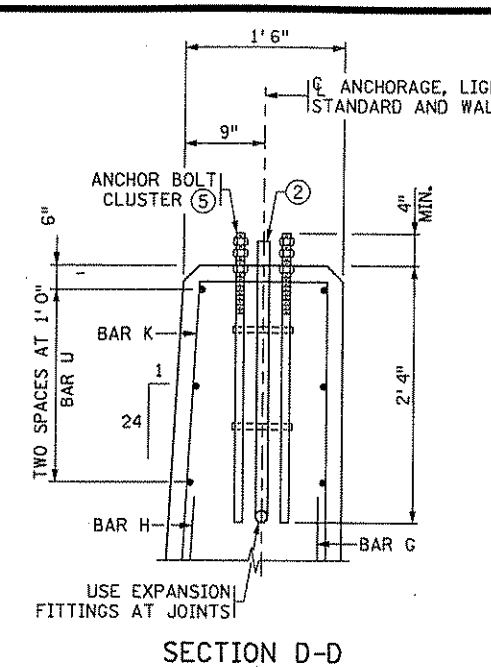
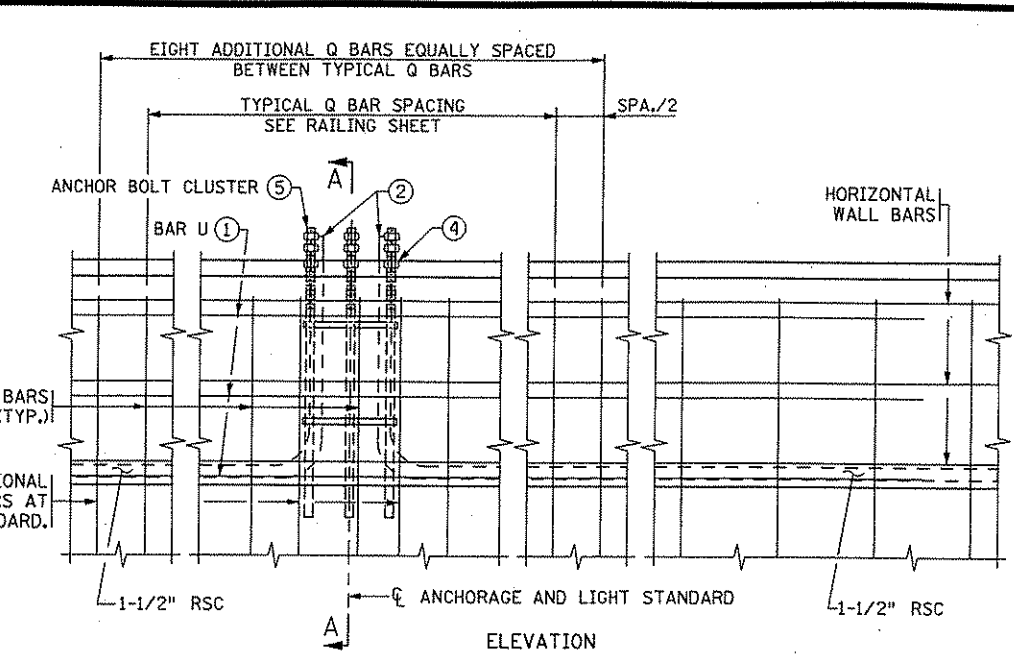
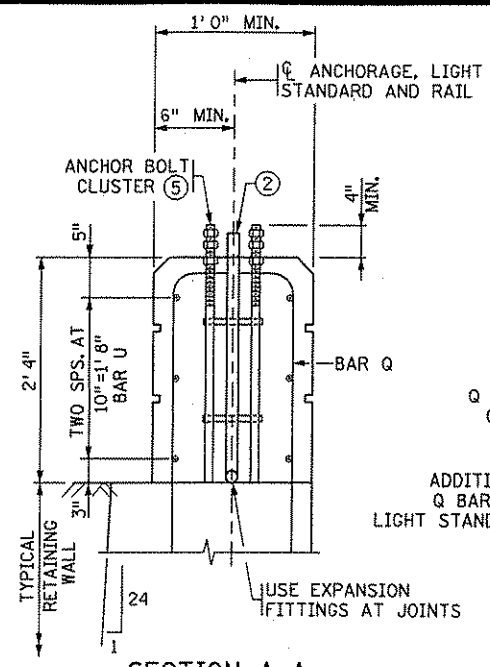
REVISED:
APPROVED: MAY 31, 2006
Samuel A. Johnson
STATE BRIDGE ENGINEER

CERTIFIED BY Josephine Lurkajst
LIC. NO. 20534 DATE 4/10/07

STANDARD SHEET NO. 5-297.634
STANDARD APPROVED: MAY 31, 2006

TITLE: **RETAINING WALL CONCRETE BARRIER (TYPE F, TL-4)**

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SECTION B-B
SEE SHEET 270

LIGHT STANDARD ON RETAINING WALL WITH CONCRETE RAILING (TYPE F) ⑧

LIGHT STANDARD ON RETAINING WALL WITHOUT CONCRETE PARAPET RAILING

BILL OF REINFORCEMENT PER LIGHT BASE					
RETAINING WALL WITH CONCRETE PARAPET RAIL					
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
Q	S1609E	8	8'-7"	BENT	RAILING - VERT. AT LIGHT
U	R1610E	6	10'-0"	STR.	RAILING - HORIZ. AT LIGHT
ADDITIONAL REINFORCEMENT BARS ③					134 POUNDS

BILL OF REINFORCEMENT PER LIGHT BASE					
RETAINING WALL WITHOUT CONCRETE PARAPET RAIL					
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
K	S1604E	8	10'-7"	BENT	WALL - VERT. AT LIGHT
U	S1610E	6	10'-0"	STR.	WALL - HORIZ. AT LIGHT
ADDITIONAL REINFORCEMENT BARS ③					151 POUNDS

BILL OF REINFORCEMENT PER LIGHT BASE					
RETAINING WALL WITH TYPE F RAIL					
BAR	MARK	NO.	LENGTH	SHAPE	LOCATION
Q	S1609E	3	6'-1"	BENT	RAILING DOWEL
S	S1601E	3	6'-3"	BENT	RAILING - VERTICAL
X	S1606E	1	5'-5"	BENT	RAILING - HORIZONTAL
Y	S1607E	1	5'-7"	BENT	RAILING - HORIZONTAL
Z	S1608E	1	5'-9"	BENT	RAILING - HORIZONTAL
ADDITIONAL REINFORCEMENT BARS ③					56 POUNDS

- NOTES:**
- THE LIGHT STANDARD SHALL NOT BE LOCATED LESS THAN 5 FT. FROM THE WALL STEM JOINTS.
 - SPLICE U BARS WITH HORIZONTAL RAILING OR WALL BARS AT THE LIGHT STANDARD LOCATIONS.
 - 1-1/2" RSC SHALL EXTEND 3" ABOVE RAILING AND BE CAPPED. 1-1/2" RSC IS PAID FOR SEPARATELY.
 - ALL REINFORCEMENT BARS SHALL HAVE 2" CLEAR, EXCEPT AS NOTED.
 - TOP OF LOWER NUTS SHALL BE FLUSH WITH TOP OF CONCRETE RAILING OR WALL. WRAP THREADS BELOW NUTS WITH 3 LAYERS OF PLASTIC ELECTRICAL TAPE.
 - FOR DETAILS OF ANCHOR BOLT CLUSTER, SEE STD. PLATE 8332 OR BRIDGE DETAIL 8950.
 - 1-1/2" DIA. RSC SHALL BE PLACED INSIDE THIS DIMENSION.
 - SEE STANDARD PLAN 5-297.633 FOR ADDITIONAL INFORMATION.
 - SEE STANDARD PLAN 5-297.634 FOR ADDITIONAL INFORMATION.

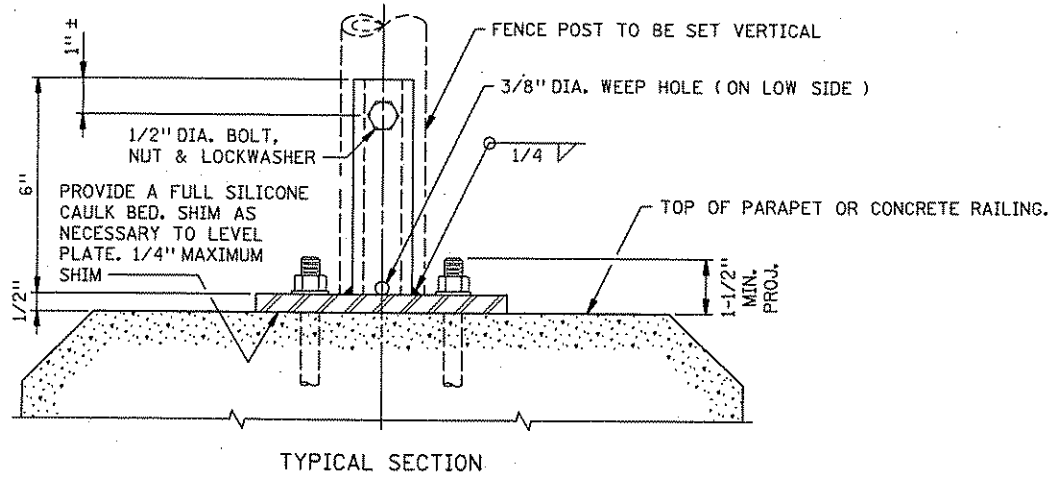
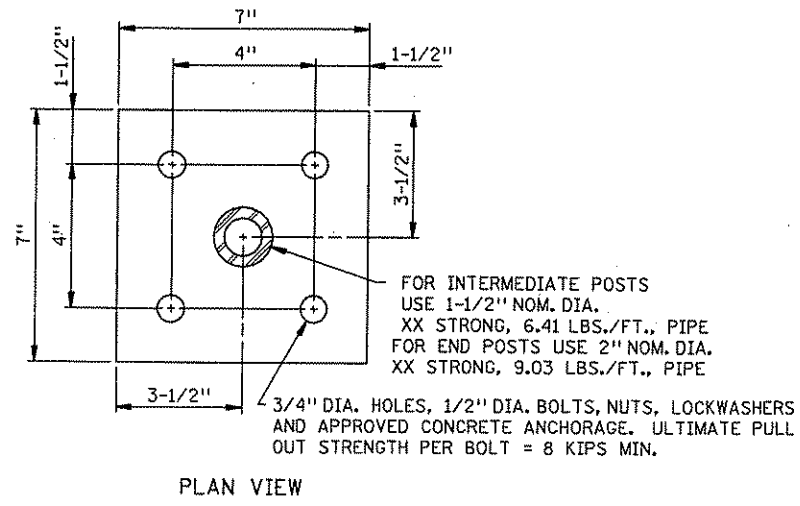
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 STATE BRIDGE ENGINEER

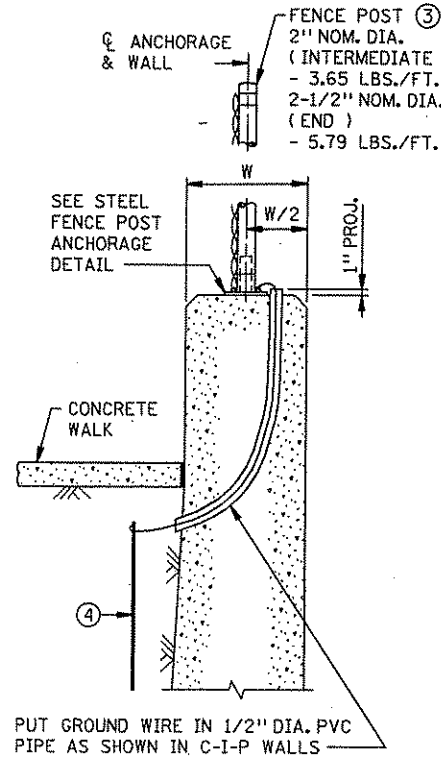
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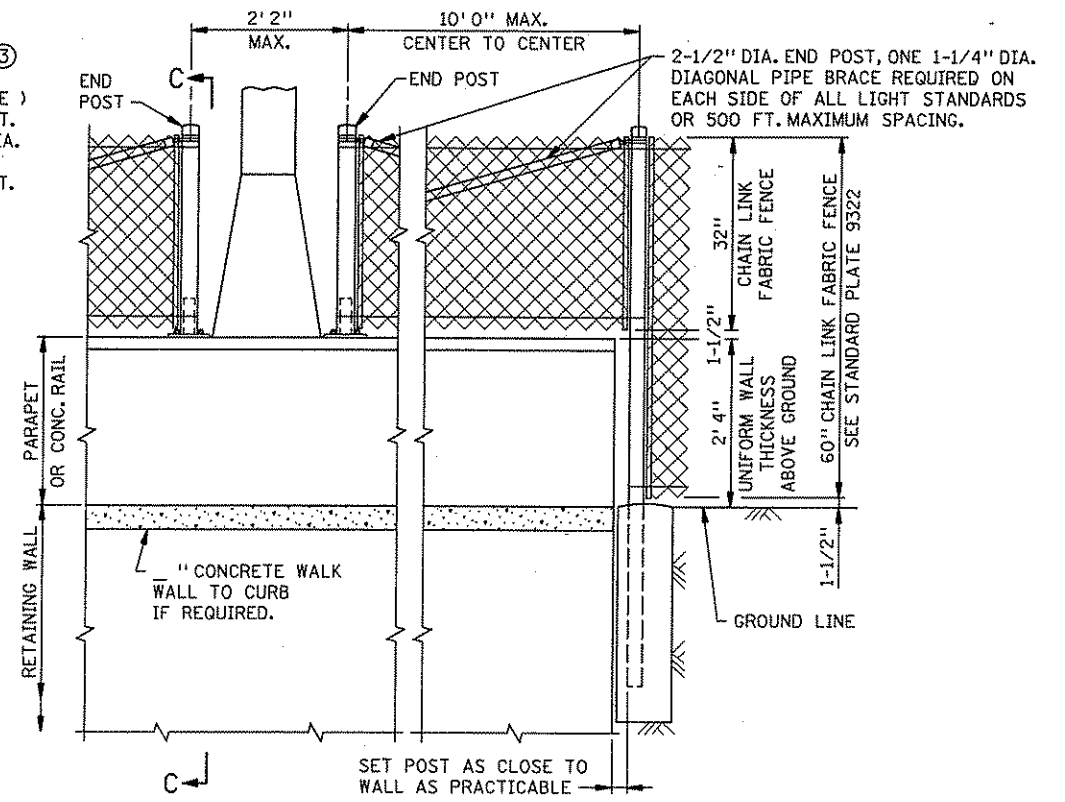
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STEEL FENCE POST ANCHORAGE DETAIL ① ②



CHAIN LINK FENCE ON RETAINING WALL WITH PARAPET



NOTES:

- ① \varnothing OF ANCHORAGE SHALL BE 6" MIN. FROM DEFLECTION JOINTS.
- ② ESTIMATED WEIGHT = 10 OR 12 LBS. STRUCT. STEEL PER SPEC. 3306 - STRUCT. PIPE PER SPEC. 3362. GALVANIZE THE FENCE POST ANCHORAGE AFTER FABRICATION PER SPEC. 3394. GALVANIZE THE FASTENERS PER SPEC. 3392.
- ③ INSTALL FENCE PER SPEC. 2557.
- ④ PROVIDE ELECTRICAL GROUNDS FOR FENCING PER SPEC. 2557 AND AS MODIFIED BELOW:
 - a. WALLS WITHOUT SIDEWALKS ADJACENT TO WALL; INSTALL PER SPEC. 2557.
 - b. WALLS WITH SIDEWALKS ADJACENT TO WALL; PLACE GROUNDING RODS BELOW SIDEWALK ELEVATION. LOCATE CONNECTING WIRE (FROM FENCE TO GROUND ROD) DOWN THRU WALL TO BELOW SIDEWALK ELEVATION AND THEN OUT TO ROD.
 - c. GROUNDING SHALL NOT BE CONNECTED TO THE LIGHTING SYSTEM WHEN LIGHTING IS REQUIRED ON THE WALL. USE EITHER "a" OR "b" ABOVE.

REVISION DATE
7-30-96

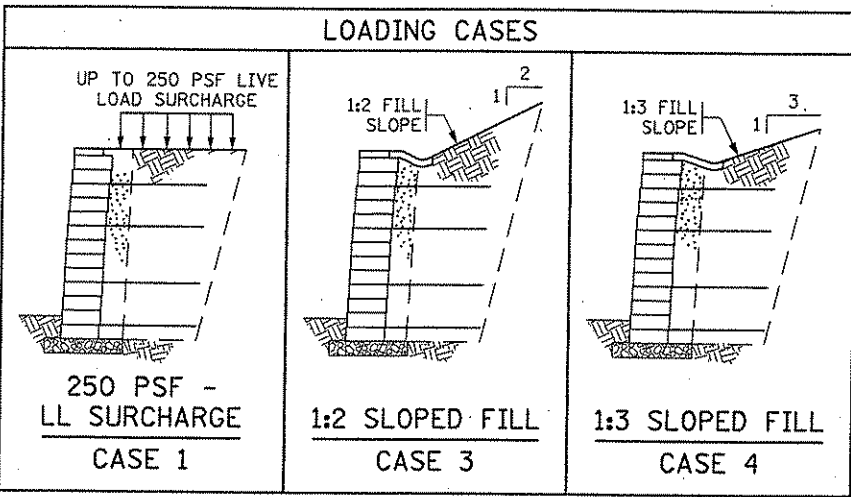
STANDARD SHEET NO. 5-297.636	TITLE: ANCHORAGE & CHAIN LINK FENCE FOR RETAINING WALLS
STANDARD APPROVED: SEPTEMBER 18, 1995	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 266 OF 872 SHEETS	

PLOTTED/REVISED: 29-MAR-2007 11:20

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CASE 2 IS OMITTED INTENTIONALLY FOR FUTURE RECONSIDERATION

DESIGN CRITERIA

DESIGN CRITERIA FOLLOWS THE AASHTO SPECIFICATION FOR HIGHWAY BRIDGES (16TH EDITION WITH 1998 INTERIMS) EXCEPT FOR THE DEVIATIONS NOTED BELOW. DESIGN CRITERIA ARE IN ACCORDANCE WITH Mn/DOT POLICY, AS RECORDED IN THE Mn/DOT ROAD DESIGN MANUAL.

- THE MINIMUM REINFORCEMENT LENGTH IS 4 FT. OR 0.7H, WHICHEVER IS GREATER.
- THE REINFORCEMENT FILL FRICTION ANGLE IS 35°.
- THE ALLOWABLE CONNECTION LOAD, AT A GIVEN NORMAL LOAD, IS COMPUTED AS THE ULTIMATE CONNECTION STRENGTH REDUCED BY A SAFETY FACTOR EQUAL TO 2.0.
- THE LATERAL EARTH PRESSURE COMPUTATION FOR EXTERNAL STABILITY CALCULATIONS USES AN INTERFACE ANGLE SET EQUAL TO THE RETAINED BACKFILL ANGLE.
- THE LATERAL EARTH PRESSURE COMPUTATION FOR INTERNAL STABILITY CALCULATIONS INCORPORATES THE EFFECTS OF WALL FACE BATTER.

MINIMUM FACTORS OF SAFETY:
 OVERTURNING: 2.0
 SLIDING: 1.5
 ECCENTRICITY: $a < L/6$
 BEARING CAPACITY: 2.5
 DEEP SEATED STABILITY: 1.3

BEARING:
 A. SEE FOUNDATION REPORT FOR ALLOWABLE SOIL BEARING PRESSURE.
 B. CASES 1 AND 4 - ALLOWABLE SOIL BEARING CAPACITY (ULTIMATE BEARING CAPACITY REDUCED BY A SAFETY FACTOR OF 2.5) OF 2000 PSF IS REQUIRED FOR WALLS UP TO 10 FT. IN HEIGHT. FOR WALLS GREATER THAN 10 FT. IN HEIGHT, THE REQUIRED ALLOWABLE BEARING CAPACITY IS EQUAL TO: $2000 \text{ PSF} + (H-10)(625 \text{ PSF})$ WITH H IN FEET.
 C. CASE 3 - ALLOWABLE SOIL BEARING CAPACITY (ULTIMATE BEARING CAPACITY REDUCED BY A SAFETY FACTOR OF 2.5) OF 2500 PSF IS REQUIRED FOR WALLS UP TO 10 FT. IN HEIGHT. FOR WALLS GREATER THAN 10 FT. IN HEIGHT, THE REQUIRED ALLOWABLE BEARING CAPACITY IS EQUAL TO: $2500 \text{ PSF} + (H-10)(850 \text{ PSF})$ WITH H IN FEET.

REINFORCED WALL FILL CHARACTERISTICS:
 A. SELECT GRANULAR BORROW MODIFIED FOLLOWING SPEC. 3149.2B2. MODIFICATION: SELECT GRANULAR BORROW MODIFIED, FOR SPECIAL USE IN EMBANKMENT OR BACKFILL CONSTRUCTION OR OTHER SPECIFIED PURPOSES, MAY BE ANY PIT-RUN OR CRUSHER-RUN MATERIAL THAT IS GRADED FROM COARSE TO FINE, SUCH THAT 100% OF THE MATERIAL MUST PASS THE 2" SIEVE, AND THAT THE RATIO OF THE PORTION PASSING THE #200 SIEVE DIVIDED BY THE PORTION PASSING THE 1" SIEVE MAY NOT EXCEED 10% BY MASS (THAT IS: #200/1" RATIO).
 B. INTERNAL ANGLE OF FRICTION (ϕ_p) = 35°
 C. COHESION (C) = 0
 D. MOIST UNIT WEIGHT (γ_p) = 125 PSF

COARSE FILTER AGGREGATE CHARACTERISTICS:
 A. COARSE FILTER AGGREGATE TO MEET SPEC. 3149.2H. INCIDENTAL, NO DIRECT PAYMENT WILL BE MADE.

RETAINED BACKFILL CHARACTERISTICS:
 A. INTERNAL ANGLE OF FRICTION (ϕ_b) = 30°
 B. COHESION (C) = 0
 C. MOIST UNIT WEIGHT (γ_b) = 120 PSF

FOUNDATION SOILS CHARACTERISTICS:
 A. INTERNAL ANGLE OF FRICTION (ϕ_f) = 30°
 B. COHESION (C) = 0
 C. UNIT WEIGHT (γ_f) = 120 PSF

SUMMARY OF ESTIMATED QUANTITIES FOR MBW WALLS		
	UNIT	QUANTITY
STRUCTURE EXCAVATION CLASS ---	CU. YD.	
STRUCTURE EXCAVATION CLASS ---	CU. YD.	
REINFORCED WALL FILL (CV)	CU. YD.	
STRUCTURAL CONCRETE (A43)	CU. YD.	
MBW WALL	SQ. FT.	
TYPE I GEOTEXTILE	SQ. YD.	

- VERTICAL FACE AREA OF MODULAR BLOCK AS MEASURED FROM PLAN TOP OF WALL TO 2 FT. BELOW FINISHED GRADE AT BOTTOM OF WALL.
- PAY ITEM FOR MBW WALLS SHALL BE 2411.

SEE SHEET 375 FOR TABULATIONS

NOTES TO DESIGNER:

HEIGHT AND LOCATION RESTRICTIONS FOR ISSUES SUCH AS FREEZE-THAW DURABILITY ARE GOVERNED BY APPROPRIATE TECHNICAL MEMORANDUMS. CURRENT GOVERNING TECH. MEMO. NO.: 01-05-MRR-01 MAY BE FOUND AT www.dot.state.mn.us/tecsup/tmemo/index.html.

IN ADDITION TO THE STANDARD SHEETS, PLAN AND FRONT ELEVATION VIEWS OF THE MODULAR BLOCK RETAINING WALLS SHALL BE INCLUDED IN THE PLANS. THE PLAN VIEW MUST SHOW ALIGNMENT BASELINE, LIMITS OF BOTTOM OF WALL ALIGNMENT, AND LIMITS OF TOP OF WALL ALIGNMENT AS ALIGNMENTS VARY WITH BATTER OF WALL SYSTEM ACTUALLY SUPPLIED. THE FRONT ELEVATION MUST IDENTIFY BOTTOM AND TOP OF WALL ELEVATIONS, EXISTING GRADES, AND FINISHED GRADES.

IF THE WALL IS CURVED, THE RADIUS AT THE BOTTOM AND THE TOP OF EACH WALL SEGMENT AND THE P.C. AND P.T. STATION POINTS OFF OF BASELINE AND LIMITS OF BOTTOM AND TOP OF WALL ALIGNMENT MUST BE SHOWN.

REFERENCE STANDARD PLATES AND PROVIDE DETAILS FOR TRAFFIC BARRIERS, CURB AND GUTTER, HANDRAILS AND FENCING AS REQUIRED BY PROJECT CONDITIONS. SEE AASHTO AND Mn/DOT DESIGN MANUALS, STANDARD PLATES AND DETAILS FOR REQUIREMENTS.

SURFACE DRAINAGE PATTERNS SHALL BE SHOWN IN THE PLAN VIEW. PROVIDE DIMENSIONS FOR WIDTH AND DEPTH OF THE DRAINAGE SWALE AS WELL AS THE TYPE OF IMPERVIOUS LINER MATERIAL. SURFACE WATER RUNOFF SHOULD BE COLLECTED ABOVE AND DIVERTED AROUND WALL FACE.

DETAIL LINES AND GRADES OF THE INTERNAL DRAINAGE COLLECTION PIPE. DETAIL OR NOTE THE DESTINATION OF INTERNAL WALL DRAINS AS WELL AS THE METHOD OF TERMINATION (DAYLIGHT END OF PIPE OR CONNECTION INTO HYDRAULIC STRUCTURE). THE SPACING FOR DRAIN PIPE OUTLET SHALL NOT BE MORE THAN 250 FT.

SOFT SOILS AND/OR HIGH WATER CONDITIONS (DEFINED AS GROUNDWATER WITHIN A DEPTH EQUAL TO THE WALL HEIGHT H) MAY NOT BE SUITABLE FOR APPLICATION OF STANDARD DESIGNS AND REQUIRE SPECIAL CONSIDERATION BY THE FOUNDATIONS UNIT.

- STANDARD DESIGN CHARTS ARE NOT APPLICABLE TO:
- PROJECT/SITES WHERE FOUNDATION SOILS SHEAR STRENGTH AND/OR BEARING CAPACITY DO NOT MEET OR EXCEED VALUES USED IN THE DEVELOPMENT OF STANDARD DESIGN CHARTS.
 - PROJECTS WITH A LARGE QUANTITY OF FACE AREA WHERE PROJECT SPECIFIC DESIGNS ARE RECOMMENDED, AS DEFINED IN Mn/DOT ROAD DESIGN MANUAL.
 - WHERE SLOPES IN FRONT OF WALL ARE STEEPER THAN 1:3.
 - WHERE MAXIMUM WALL HEIGHT EXCEEDS 12 FT.
 - WHERE WALLS ARE TIERED.
 - WALLS WITH NOISE WALLS.

IF USING CONCRETE RAILING, INCLUDE STANDARD BRIDGE DETAIL "CONCRETE RAILING (TYPE F)" IN PLAN SET.

PROVIDE PROJECT SPECIFIC AESTHETIC REQUIREMENTS INCLUDING COLOR AND FASCIA SURFACING IN THE SPECIAL PROVISIONS.

CHAPTER 9 OF THE Mn/DOT "ROAD DESIGN MANUAL" CONTAINS GUIDELINES, TRAFFIC SAFETY AND OTHER ASPECTS.

GENERAL NOTES:

UTILITIES:
 EXISTING AND PROPOSED UTILITIES ARE SHOWN IN THE GRADING PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING FACILITIES AND SHALL EXERCISE CARE IN ADJACENT CONSTRUCTION.

EXCAVATION AND EARTHWORK:
 ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO Mn/DOT 2451.

CAST-IN-PLACE CONCRETE:
 ALL CONCRETE SHALL CONFORM TO Mn/DOT 2461, EXCEPT AS NOTED.

CONSTRUCTION:
 CONSTRUCTION SHALL BE IN ACCORDANCE WITH Mn/DOT 2411, EXCEPT AS NOTED.

GEOMETRICS AND GRADES:
 DATA FOR BASELINE GEOMETRY IS TABULATED FOR WALL ALIGNMENT, SEE LAYOUT SHEETS. WALL ALIGNMENT REFERENCE IS ALONG FRONT FACE OF WALL.

THE FILL SLOPE CONVENTION OF 1 VERTICAL TO HORIZONTAL IS USED IN THIS PLAN.

COMPACTION REQUIREMENTS:
 COMPACT REINFORCED WALL FILL IN ACCORDANCE WITH Mn/DOT SPEC. 2105.3F1 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

COMPACT GRANULAR BEDDING IN ACCORDANCE WITH Mn/DOT SPEC. 2105.3F1 UNLESS RECOMMENDED OTHERWISE BY THE SOILS ENGINEER.

NOTES TO CONTRACTOR:

APPROVED COMBINATIONS OF MODULAR BLOCK UNIT AND SOIL REINFORCEMENT PRODUCTS LIST WITH MBW REINFORCEMENT CLASS NOTED ARE HELD AND MAINTAINED BY THE FOUNDATIONS UNIT, AND POSTED AT www.mrr.dot.state.mn.us/geotechnical/foundations/foundations.asp UNDER FOUNDATIONS UNIT. ONLY APPROVED PRODUCT COMBINATIONS, INCLUDING BLOCK PRODUCED FROM APPROVED SOURCES MEETING DURABILITY AND QUALITY CONTROL REQUIREMENTS, MAY BE USED IN STANDARD DESIGNS.

PROVIDE DETAILED DRAWINGS FOR CONSTRUCTION CONTAINING:

- SUBMIT, WITH THE DETAILED DRAWINGS, A COPY OF Mn/DOT STANDARD SHEETS FOR LOADING CASE(S) USED WITH OPTIONS USED MARKED IN THE TABLE.
- ELEVATION VIEW WITH REINFORCEMENT PLACEMENT REQUIREMENTS, WALL FACING LAYOUT, AND GEOMETRIC INFORMATION. TOP OF WALL MAY EXTEND UP TO 4" ABOVE PLAN TOP OF WALL ELEVATION.
- PLAN VIEW WITH BOTTOM AND TOP OF WALL ALIGNMENT, AND PLAN LIMITS OF WALL ALIGNMENT.
- CROSS SECTIONS DETAILING BATTER, REINFORCEMENT, VERTICAL SPACING, REINFORCEMENT LENGTHS, SUBSURFACE DRAINAGE, SURFACE DRAINAGE, AND WATER RUNOFF COLLECTION ABOVE WALL.
- REINFORCEMENT LAYOUT: REINFORCEMENT SHALL BE PLACED AT 100% COVERAGE RATIO. REINFORCEMENT ELEVATIONS SHALL BE CONSISTENT ACROSS LENGTH OF WALL STRUCTURE.
- NOTE BLOCK, REINFORCEMENT, AND FILL PLACEMENT METHODS AND REQUIREMENTS.
- DETAIL ALL WALL FILL PENETRATIONS AND WALL FACE PENETRATIONS. DETAIL REINFORCEMENT AND/OR WALL FACING UNIT PLACEMENT AROUND PENETRATIONS.
- DETAILS THAT ARE SPECIFIC TO VENDOR PRODUCTS AND THEIR INTERACTION WITH OTHER PROJECT COMPONENTS.
- LIST INFORMATION ON APPROVED COMBINATION OF MBW UNIT AND GEOSYNTHETIC REINFORCEMENT, INCLUDING Mn/DOT CLASSIFICATION CODE, NOMINAL BLOCK WIDTH, PROPERTIES FOR FIELD IDENTIFICATION, AND INSTALLATION INSTRUCTIONS.
- DETAILS OF CAP UNITS AND INSTALLATION/FASTENING INSTRUCTIONS FOR THE CAPS. CAP UNITS SHALL BE SET IN A BED OF ADHESIVE DESIGNED TO WITHSTAND MOISTURE AND TEMPERATURE EXTREMES, REMAIN FLEXIBLE, AND SHALL BE SPECIFICALLY FORMULATED FOR BONDING MASONRY TO MASONRY.
- CERTIFICATION BY PROFESSIONAL ENGINEER THAT THE CONSTRUCTION LAYOUT MEETS THE REQUIREMENTS OF PLANS AND Mn/DOT MSEW STANDARDS. DEVIATION FROM STANDARD DESIGN TABLES ARE PERMITTED BY VALUE ENGINEERING SUBMITTAL ONLY ON PROJECTS WITH OVER 5000 SQ. FT. OF WALL.

DEFINITION OF TERMS

MBW	= MODULAR BLOCK WALL
LL	= LIVE LOAD
C.I.P.	= CAST-IN-PLACE
H	= WALL HEIGHT
S	= VERTICAL REINFORCEMENT SPACING
REINFORCEMENT COVERAGE RATIO	= WIDTH OF SOIL REINFORCEMENTS TO HORIZONTAL SPACING (100% COVERAGE RATIO REQUIRED)

MODIFIED

STANDARD SHEET NO. 5-297.640	TITLE:
STANDARD APPROVED: JULY 12, 2002	MODULAR BLOCK RETAINING WALL GENERAL NOTES AND SUMMARY OF QUANTITIES

REVISED: 11-12-02
 APPROVED: JULY 12, 2002

 STATE BRIDGE ENGINEER

CERTIFIED BY
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 267 OF 872 SHEETS

MODULAR BLOCK WALL REINFORCEMENT LAYOUT

CASE 1 - LEVEL BACKFILL WITH 250 PSF SURCHARGE

MBW REINFORCEMENT CLASS	STRENGTH OF SOIL REINF. (PLF)		① MINIMUM REINFORCEMENT LENGTH, L (FT.)	MAXIMUM WALL HEIGHT (FT.)	② NOMINAL BLOCK WIDTH (IN.)	WALL BATTER RANGE (DEGREES)		③ MAXIMUM UNREINFORCED WALL HT, A (IN.)	ZONE 1		ZONE 2		ZONE 3	
	LG. TERM (T _d)	DESIGN (T _d)				<	H1 (FT.)		S1 _{MAX} (IN.)	H2 (FT.)	S2 _{MAX} (IN.)	H3 (FT.)	S3 _{MAX} (IN.)	
MBW-700	1050	700	0.7 H	12.0	12	0	3	15	7.9	24	4.1	16		
						3	7	16	9.8	24	2.2	16		
						7	10	18	11.5	24	0.5	16		
						10	15	18	12.0	24				
						0	3	32	4.9	32	3.0	24	4.1	16
						3	7	32	4.9	32	4.9	24	2.2	16
MBW-1050	1575	1050	0.7 H	12.0	12	0	3	15	12.0	24				
						3	7	16	12.0	24				
						7	10	18	12.0	24				
						10	15	18	12.0	24				
						0	3	36	5.9	42	4.9	32	1.2	24
						3	7	40	8.5	42	3.5	32		
MBW-1400	2100	1400	0.7 H	12.0	12	0	3	15	12.0	24				
						3	7	16	12.0	24				
						7	10	18	12.0	24				
						10	15	18	12.0	24				
						0	3	36	6.6	48	3.3	42	2.1	32
						3	7	40	8.2	48	3.8	42		

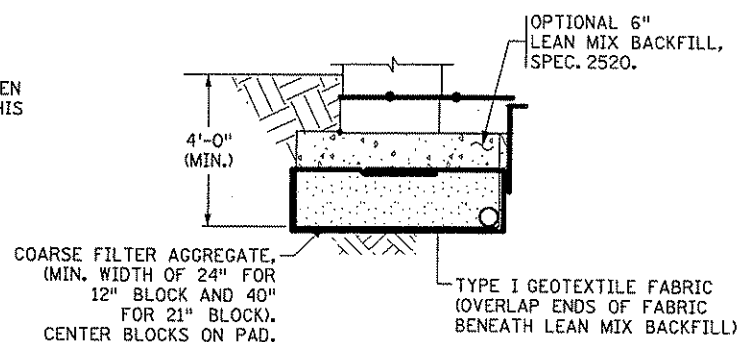
INSTRUCTIONS TO CONTRACTOR:

USE AS MANY ZONES AS WALL HEIGHT REQUIRES, STARTING WITH ZONE 1 AND ADDING ADDITIONAL ZONES TO THE BOTTOM OF THE WALL AS NEEDED TO MAKE UP THE TOTAL WALL HEIGHT (H) NEEDED.

REINFORCEMENT CLASS, NOMINAL BLOCK WIDTH AND WALL BATTER ARE GENERALLY THE CONTRACTOR'S OPTION TO SELECT FROM Mn/DOT APPROVED PRODUCTS LISTS LOCATED AT www.mrr.dot.state.mn.us/geotechnical/foundations/foundations.asp.

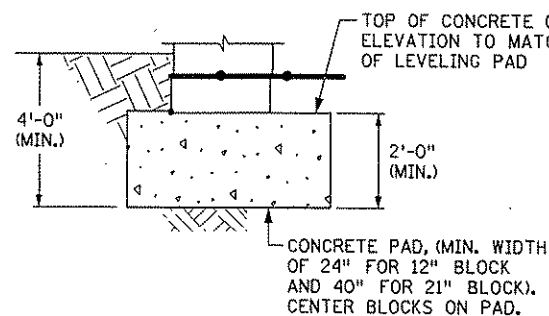
NOTES TO CONTRACTOR:

- OR 4 FT. MINIMUM, WHICHEVER IS GREATER.
- WIDTH - AS MEASURED FROM FRONT TO BACK FACE OF BLOCK UNIT.
- MAXIMUM DISTANCE FROM TOP OF WALL TO FIRST REINFORCEMENT LAYER. UNREINFORCED WALLS ARE NOT INCLUDED IN THIS STANDARD BUT MAY BE CONSTRUCTED UP TO AT LEAST THE HEIGHT GIVEN IN THE TABLE FOR A GIVEN NOMINAL BLOCK WIDTH AND THE SPECIFIED FILL MATERIALS CONTAINED IN THIS STANDARD.
- PAY LIMITS OF STRUCTURAL EXCAVATION. ACTUAL EXCAVATION SLOPE IS DETERMINED BY OSHA REGULATIONS AND IN-SITU SOILS; EXCAVATION BEYOND "LIMITS OF STRUCTURAL EXCAVATION" AT CONTRACTOR'S EXPENSE.
- THE WRAP LENGTH FOR GEOTEXTILE FABRIC SHALL NOT BE MORE THAN 6'.
- INSPECT EXCAVATION SLOPES FOR ACTIVE SEEPAGE AND PLACE ADDITIONAL DRAINS WHERE SEEPAGE OCCURS AS DIRECTED BY THE ENGINEER.
- PLACE DRAIN AT BOTTOM OF REINFORCED SOIL IF PIPE CAN BE SLOPED TO OUTLET. DO NOT OUTLET ONTO A SIDEWALK.
- IF PIPE AT THIS ELEVATION CANNOT BE SLOPED TO DRAIN, OMIT DRAIN AND USE "CONCRETE PAD WITHOUT DRAIN" DETAIL.
- 4" THERMOPLASTIC PERFORATED PIPE, SPEC. 3245, WRAP WITH TYPE I GEOTEXTILE, SPEC. 3733 (TYP.) INSTALLATION AS PER SPEC. 2502, WITH PRECAST CONCRETE HEAD WALL AT OUTLET.
- S_{MAX} = 0.5 S1_{MAX} IF THE WALL HEIGHT IS WITHIN ZONE 1.
S_{MAX} = 0.5 S2_{MAX} IF THE WALL HEIGHT IS WITHIN ZONE 2.
S_{MAX} = 0.5 S3_{MAX} IF THE WALL HEIGHT IS WITHIN ZONE 3.
- THE REINFORCED WALL FILL DRAIN MAY BE CONNECTED INTO FOOTING DRAIN, INSTEAD OF OUT LETTING THROUGH THE WALL, IF CAPACITY IS ADEQUATE TO TRANSMIT THE FLOW.



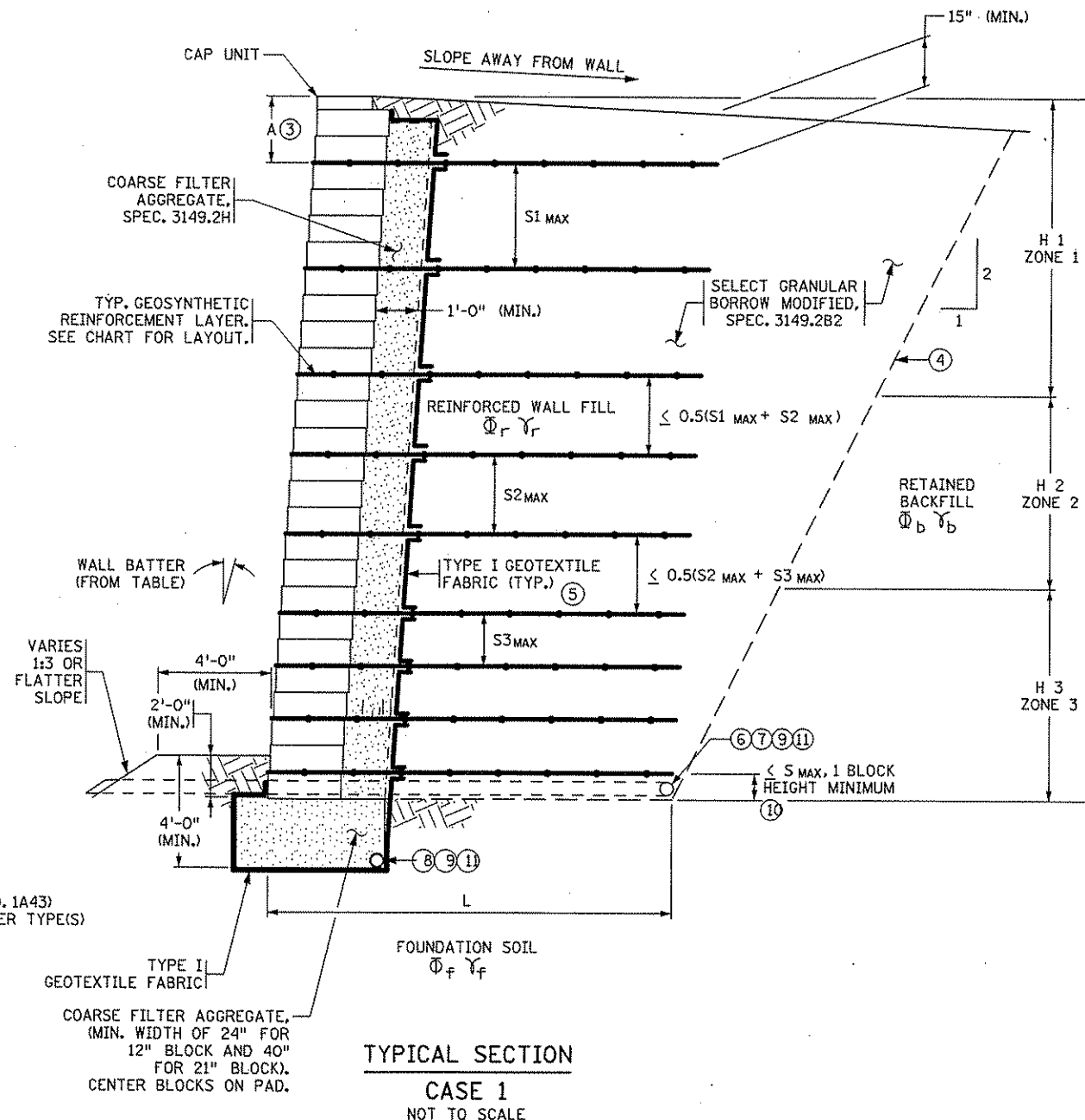
OPTIONAL CONCRETE LEVELING PAD

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CONCRETE PAD WITHOUT DRAIN

NOT TO SCALE



TYPICAL SECTION

CASE 1

NOT TO SCALE

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REVISED: 11-12-02
APPROVED: JULY 12, 2002
David C. Johnson
STATE BRIDGE ENGINEER

REVISION DATE 11-12-02

STANDARD SHEET NO. 5-297.641	TITLE: MODULAR BLOCK RETAINING WALL SOIL REINFORCEMENT FOR LEVEL FILL, CASE 1
STANDARD APPROVED: JULY 12, 2002	
STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 268 OF 872 SHEETS	

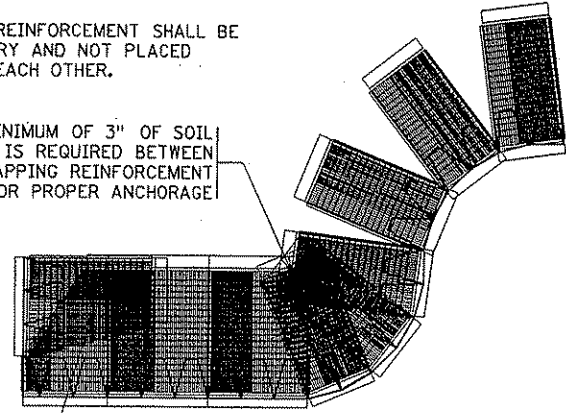
NOTES:

CORRECT ORIENTATION OF GEOSYNTHETIC TO OBTAIN PROPER STRENGTH SHALL BE DETAILED ON CONTRACTOR DRAWINGS.

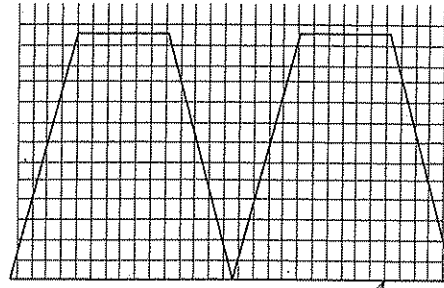
ADJACENT WIDTHS OF REINFORCEMENT SHALL BE EXTENDED AS NECESSARY AND NOT PLACED DIRECTLY ON TOP OF EACH OTHER.

MINIMUM OF 3" OF SOIL FILL IS REQUIRED BETWEEN OVERLAPPING REINFORCEMENT FOR PROPER ANCHORAGE

STAGGER REINFORCEMENT BY ONE BLOCK HEIGHT. REINFORCEMENTS SHALL NOT BE PLACED DIRECTLY ON TOP OF EACH OTHER.

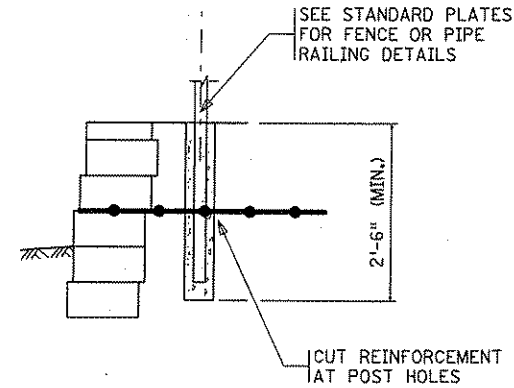


REINFORCEMENT PLACEMENT AROUND CURVES AND CORNERS

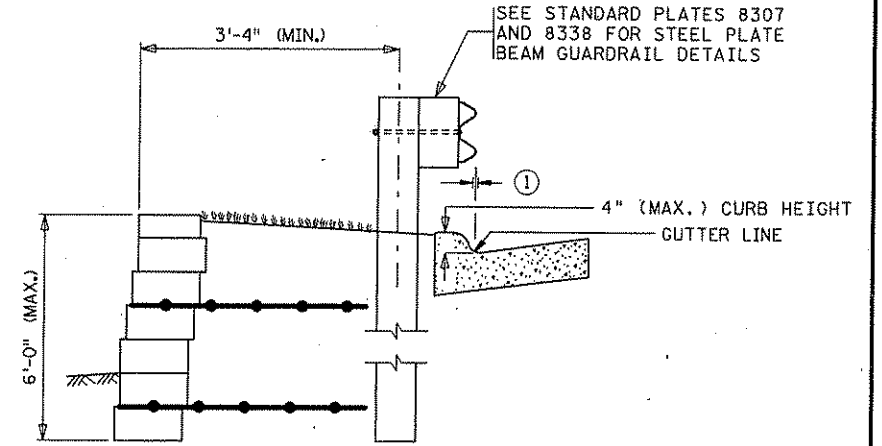


REINFORCEMENT IS TO BE PLACED ON LEVEL BACKFILL AND EXTENDED TO FRONT FACE OF OVERLYING BLOCKS. PLACE NEXT UNIT. PULL REINFORCEMENT TAUT AND BACKFILL AS REQUIRED.

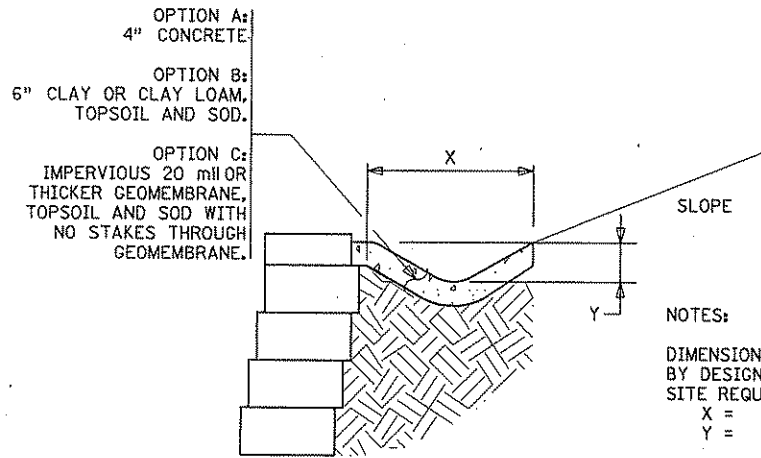
REINFORCEMENT PLACEMENT BETWEEN BLOCK UNITS



POST DETAIL TYPICAL HANDRAIL AND/OR FENCE POST



STEEL PLATE BEAM GUARDRAIL DETAIL 1



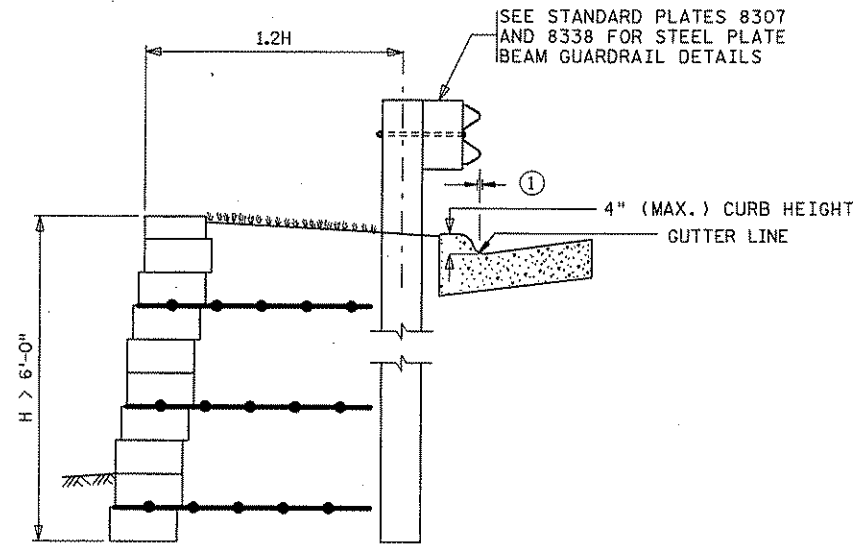
TYPICAL DRAIN SWALE DETAIL

NOTES:

DIMENSIONS TO BE DETERMINED BY DESIGN ENGINEER BASED ON SITE REQUIREMENTS.

X =
Y =

SEE PLAN VIEW FOR SURFACE DRAINAGE PATTERNS.

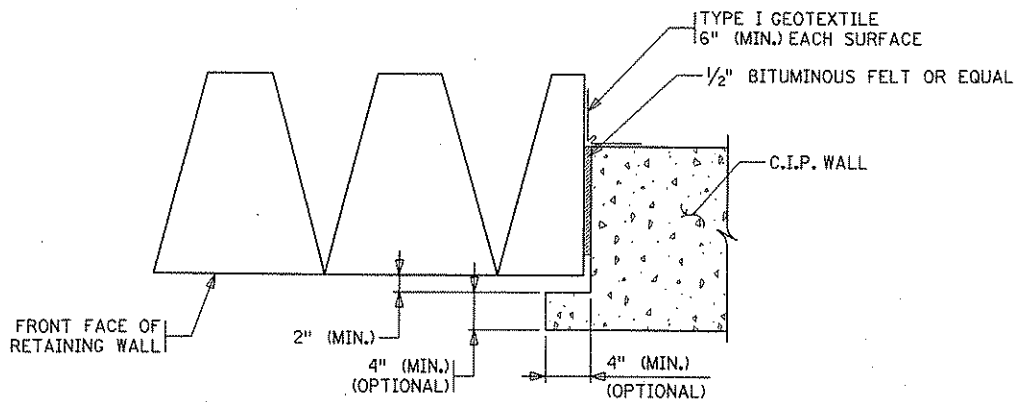


STEEL PLATE BEAM GUARDRAIL DETAIL 2

(AADT SHALL BE LESS THAN 5000) STEEL PLATE BEAM GUARDRAIL SHOWN.

NOTES:

① USE CAUTION WHEN PLACING CURB WITH GUARDRAIL. CURBS ADVERSELY AFFECT THE PERFORMANCE OF THE GUARDRAIL. GENERALLY PLACE CURB DIRECTLY BELOW GUARDRAIL. SEE PLANS OR REFER TO STANDARD PLAN 5-297.601 (2). FOR CURB LOCATIONS ON NCHRP REPORT NO. 350 APPROVED BRIDGE TRANSITIONS, SEE STANDARD PLANS 5-297.603, .605, .606 ETC..



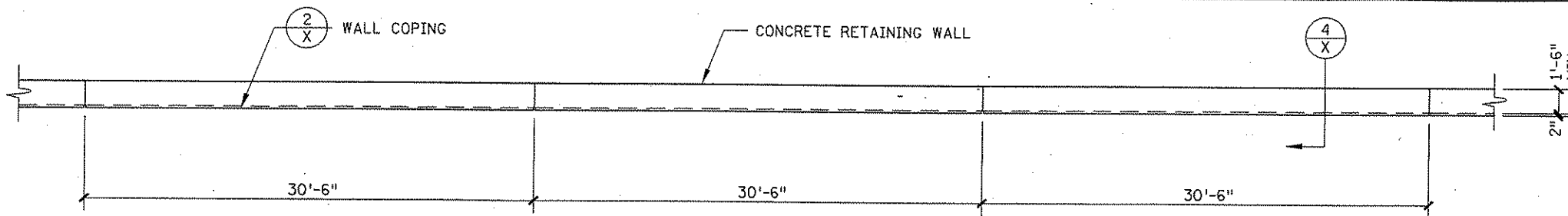
CONNECTION DETAIL AT JUNCTURE OF MSEW AND C.I.P. STRUCTURE

REVISED:
APPROVED:
<i>David J. Johnson</i> STATE BRIDGE ENGINEER

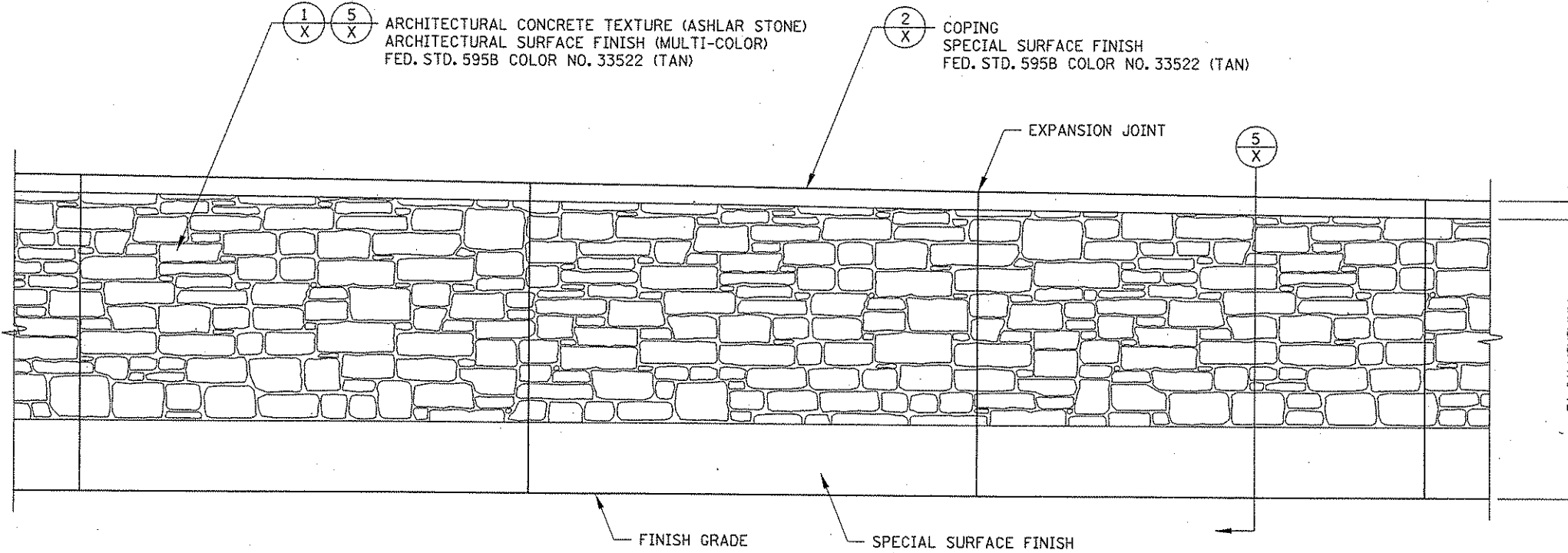
STANDARD SHEET NO. 5-297.645	TITLE: MODULAR BLOCK RETAINING WALL DETAILS
STANDARD APPROVED: MARCH 19, 2003	
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 269 OF 872 SHEETS	

PLOTTED/REVISED: 29-MAR-2007 11:21

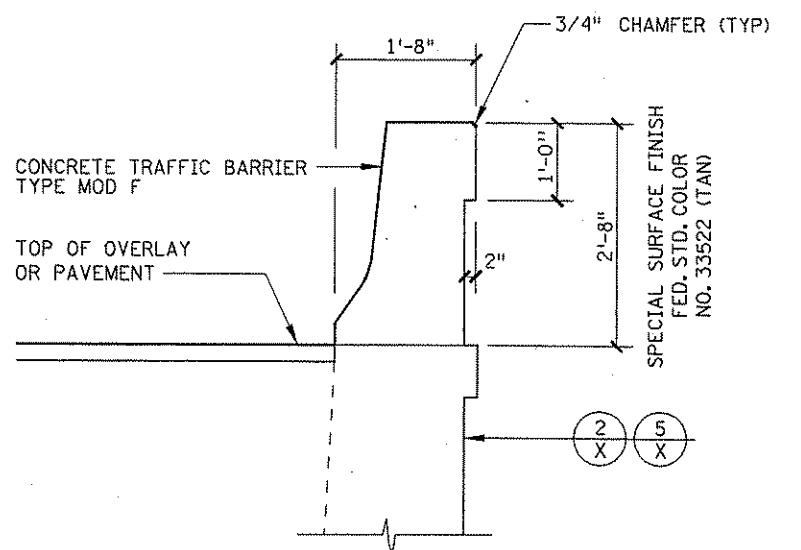
DISTRICT #: METRO
PLOT NAME: f165-242revisions_wall
PATH & FILENAME: S:\Des\gr\065\0208\123\Final\Gary\Mueller\F165-242revisions.dgn



1
X CONCRETE WALL - PLAN



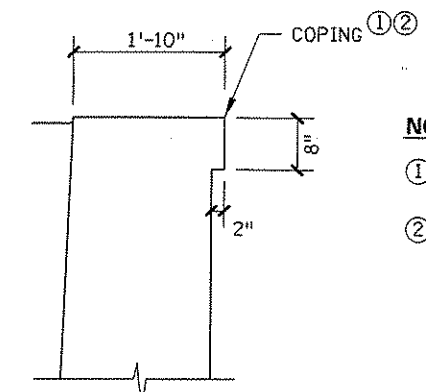
3
X CONCRETE WALL - ELEVATION



4
X CONCRETE WALL WITH TRAFFIC BARRIER - SECTION

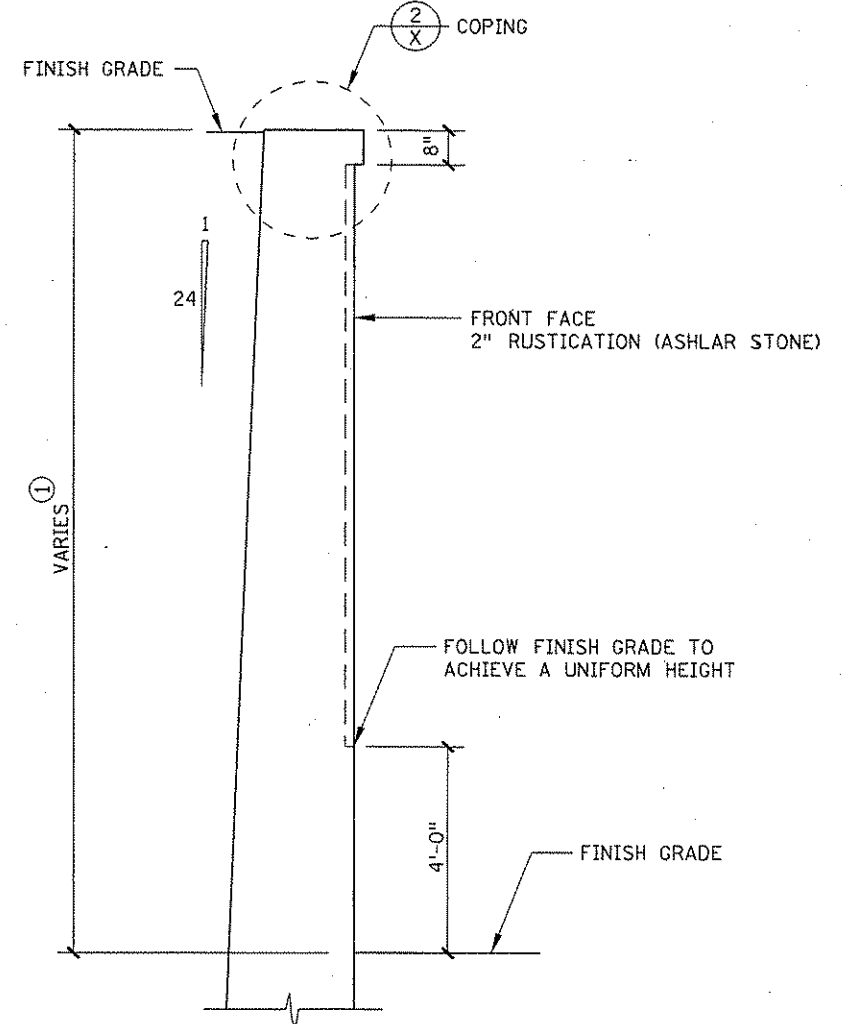
GENERAL NOTES:

1. THESE DETAILS ARE FOR STANDARD CAST-IN-PLACE WALL CONSTRUCTION.
2. ACHIEVE ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE) USING FORMLINERS FOR CONCRETE CONSTRUCTION. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.
3. ARRANGE INDIVIDUAL FORMLINERS TO AVOID OBVIOUS PATTERN REPEATS. SUBMIT PROPOSED LAYOUTS FOR REVIEW/APPROVAL IN ACCORDANCE WITH REQUIREMENTS.
4. EXTEND TEXTURE AND/OR COLOR FINISHING TREATMENT ACROSS JOINTS AND A BELOW FINISH GRADE A MINIMUM OF 2'-0".
5. MATCH COLOR SPECIFIED TO FEDERAL STANDARD 595B COLOR MATCHING SYSTEM. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.



2
X COPING - SECTION

- NOTES:**
- 1 COPING PROJECTS FROM FRONT FACE OF WALL STEM
 - 2 WHEN WALLS CONNECT TO BRIDGES AND BRIDGE DECK EXCEEDS 8" IN HEIGHT, CONSTRUCT TRANSITION OVER ONE PANEL LENGTH (30'-6")



NOTE:

- 1 VARIES ACCORDING TO ROADWAY REQUIREMENTS

5
X CONCRETE WALL - SECTION

RETAINING WALLS

DRAWN BY: TV

CHECKED BY: DY

CERTIFIED BY *Josephine Sunquist* LIC. NO. 20534

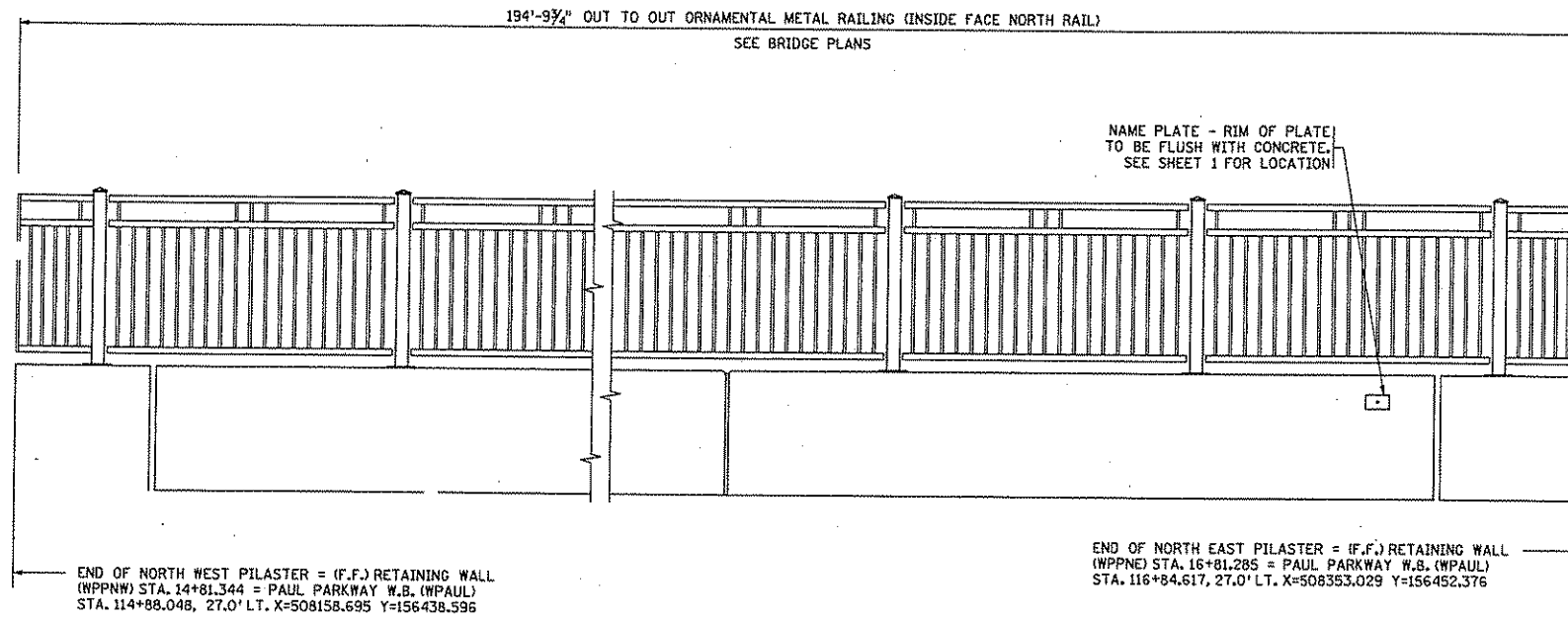
DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65)

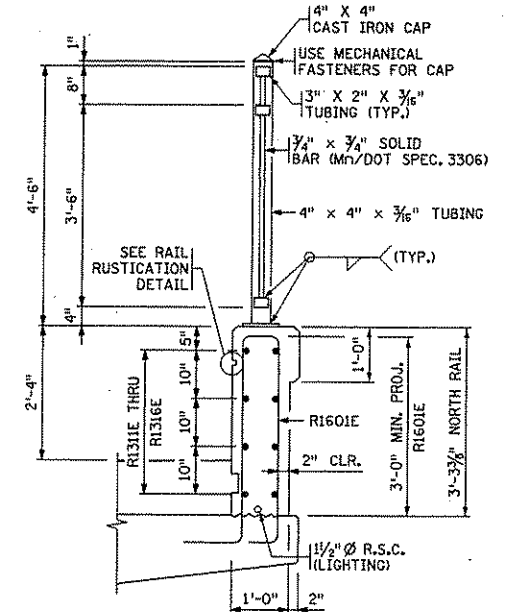
SHEET NO. 270 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 11:21

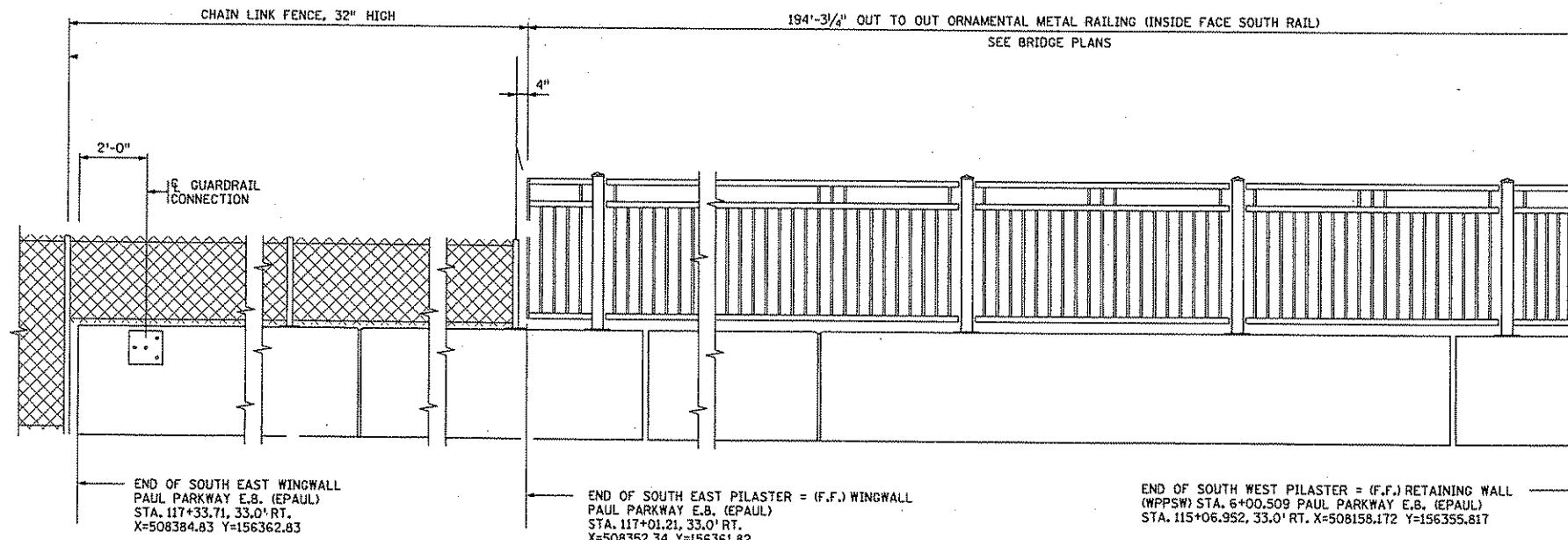
DISTRICT #: METRO
PLOT NAME: RAILING_02050
PATH & FILENAME: S:\Design\065\0208\123\Final\steels\Detail\0208-123_BR_50_52_DDI.dgn



INSIDE ELEVATION OF NORTH RAILING



SECTION THROUGH RAILING



INSIDE ELEVATION OF SOUTH RAILING

BRIDGE NO.
02050

DRAWN BY: MW

CHECKED BY: DY

CERTIFIED BY *Josephine Lunkwitz*

LIC. NO. 20534 DATE 4/4/07

RETAINING WALL DETAILS - ORNAMENTAL RAILING

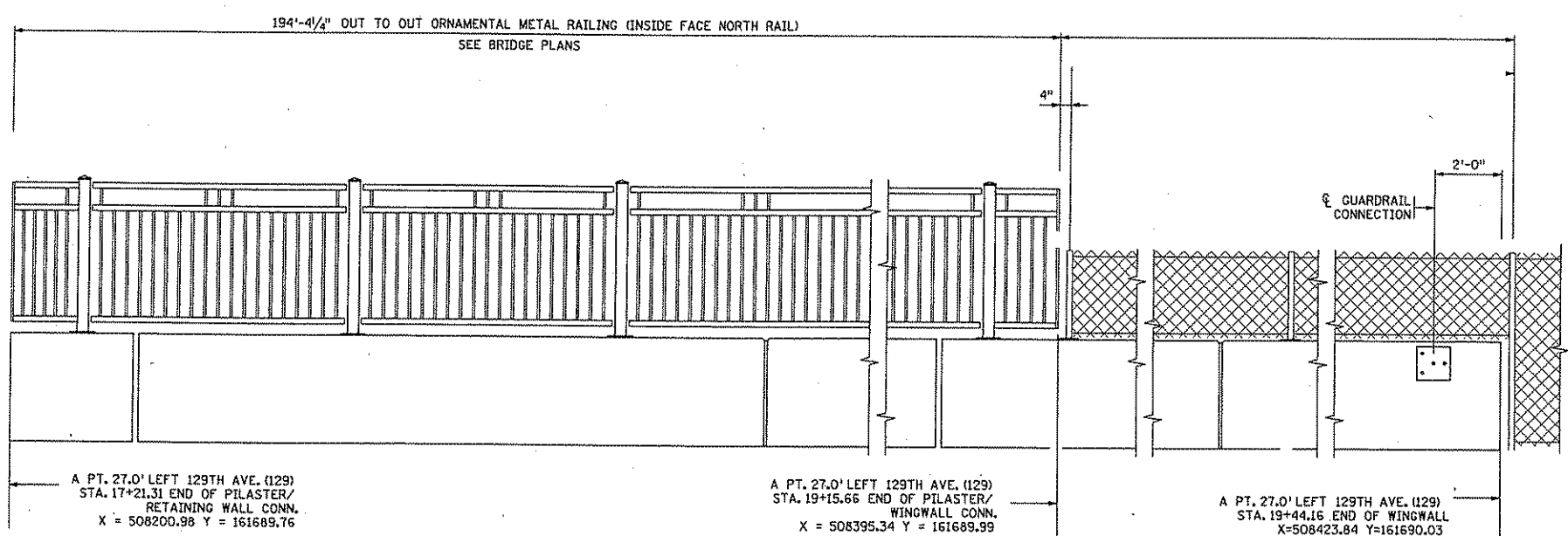
STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 271 OF 834 SHEETS

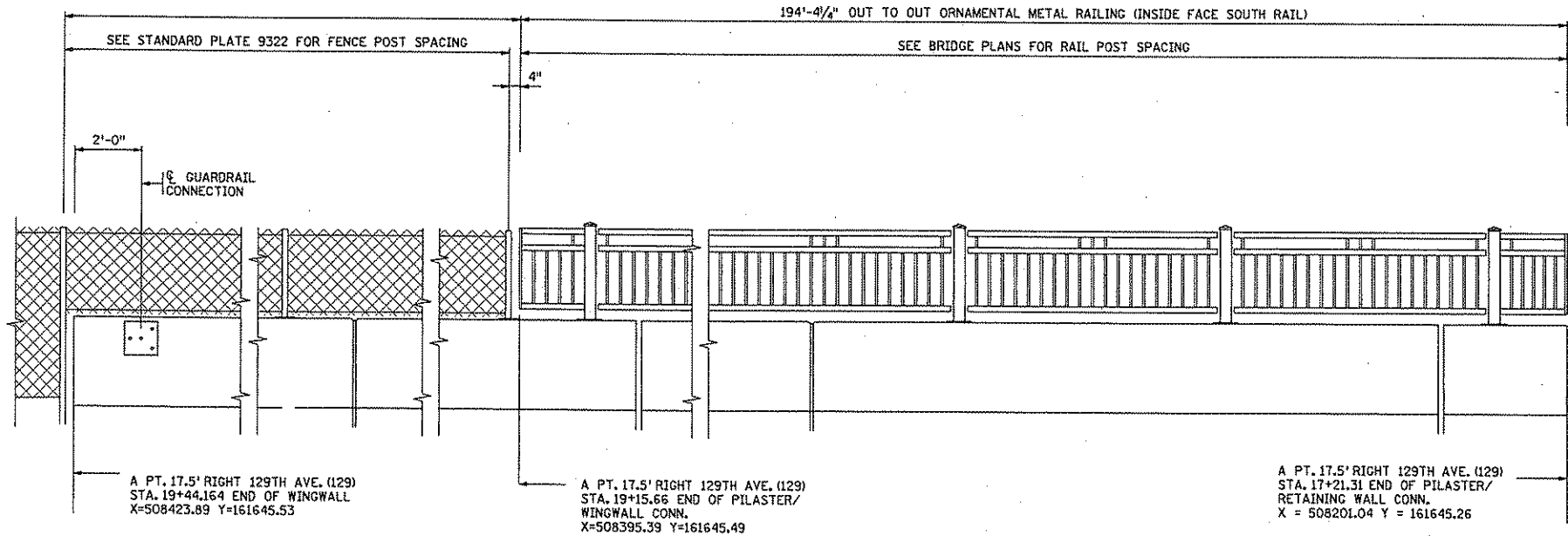
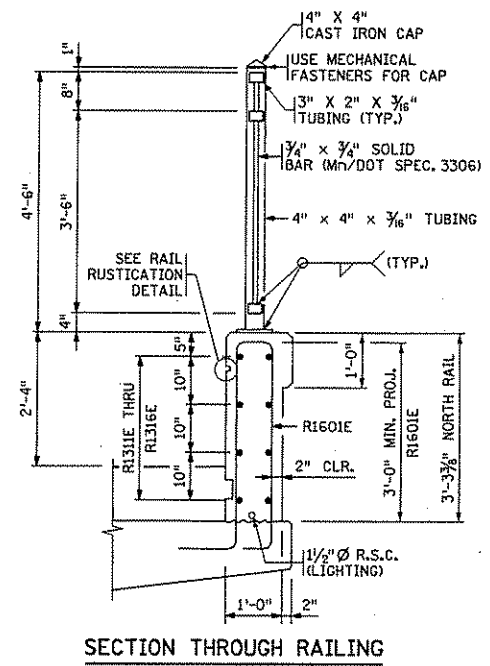
PLOTTED/REVISED: 29-MAR-2007 11:21

PATH & FILENAME: S:\Design\065\0208\123\Final\Sheets\Details\0208-123_BR_50_52_DDI.dgn

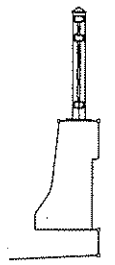
DISTRICT: METRO
PLOT NAME: RAILING_02052
PATH & FILENAME: S:\Design\065\0208\123\Final\Sheets\Details\0208-123_BR_50_52_DDI.dgn



INSIDE ELEVATION OF NORTH RAILING



INSIDE ELEVATION OF SOUTH RAILING



BRIDGE NO.
02052

RETAINING WALL DETAILS - ORNAMENTAL RAILING

DRAWN BY: MW

CHECKED BY: DY

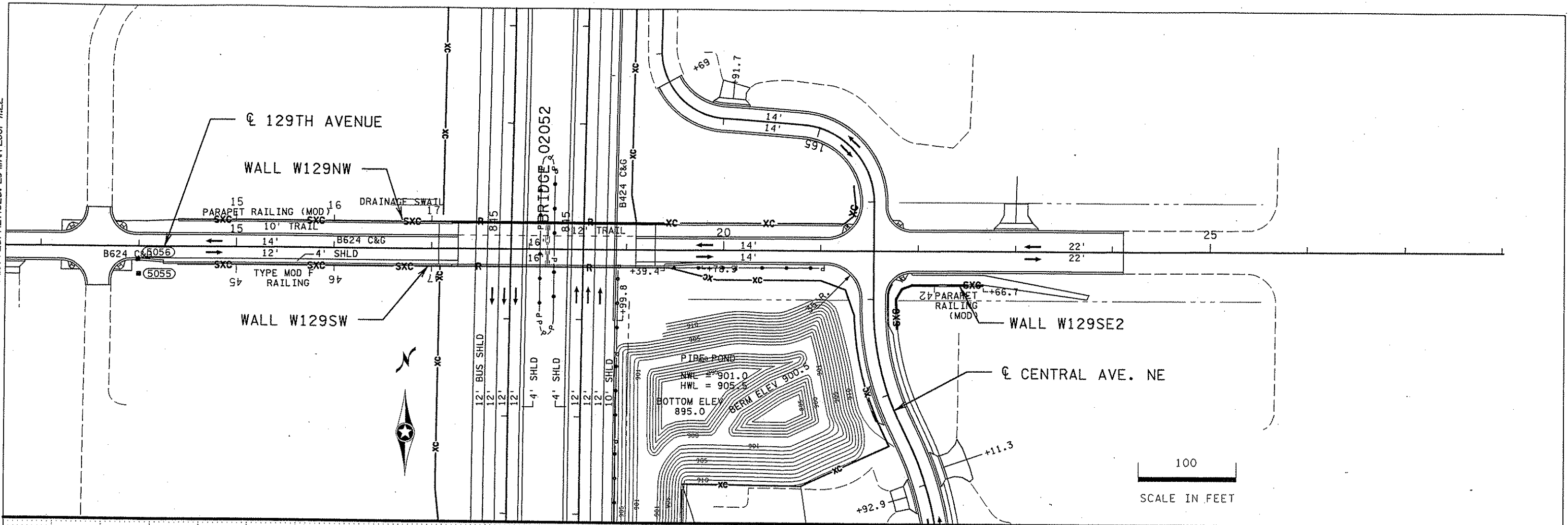
CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 4/4/07

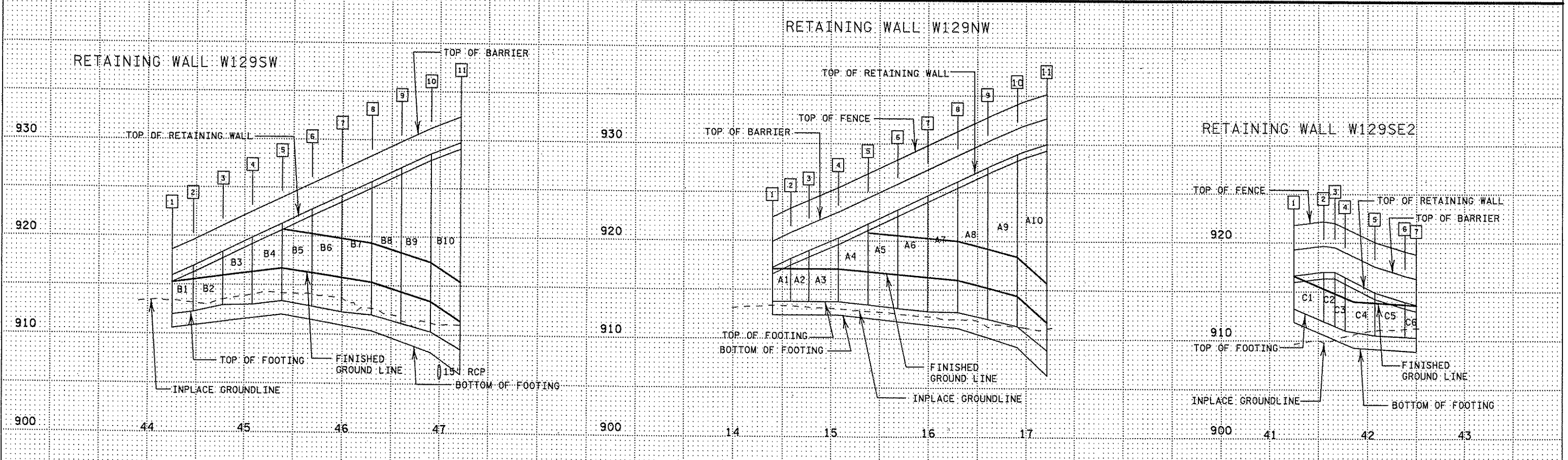
STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 272 OF 834 SHEETS

PLOTTED/REVISED: 29-MAR-2007 11:22



DISTRICT: METRO
PLOT NAME: 129walls
PATH & FILENAME: S:\Design\065\0208\123\Final\walls\0208123_wrl.dgn



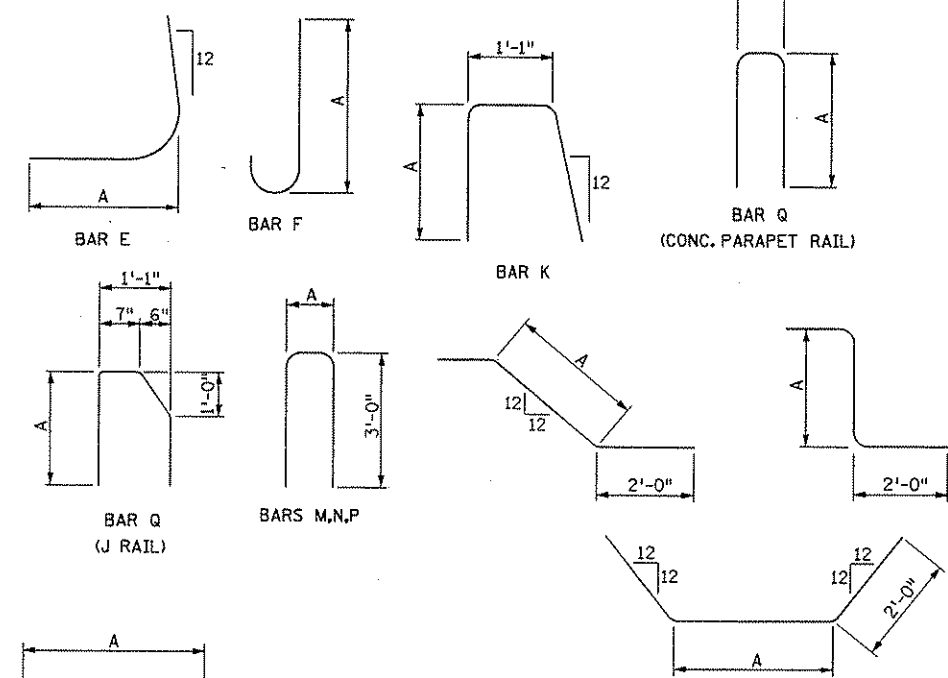
PLOTTED/REVISED: 29-MAR-2007 11:18

STEM HEIGHT : AT HIGH END =13' 4-11/16" AT LOW END =11' 10- 5/16"										
LEVEL FILL Panel: A7			PANEL LENGTH = 30'-6"							
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	16	32'-11"	STR.	LONG T & B	549	SPREAD FOOTING			
B	F1902	31	6'-9"	STR.	TRANS BOT	314	b	2'-2"	e	-----
C	F1603	31	6'-9"	STR.	TRANS TOP	218	c	1'-3"	f	-----
							d	7'-3"	g	2' 4- 5/16"
STEM										
							a	2'-1"		
							J	1' 8-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	31	5'-10"	0'-10"	DOWEL BF	189	(FOOTING)			
F	F1606E	30	6'-0"	5'-0"	DOWEL BF	188	SPREAD 10.5 cu.yd.			
G	S1301E	31	11'-1"	STR.	VERT FF	230	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	11'-1"	STR.	VERT BF	358	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	9'-4"	4'-2"	TIE	303	25.6 cu.yd.			
L	S1305E	26	30'-0"	STR.	HORIZ EF	521	REINFORCEMENT (PLAIN)			
M High End	S1606E	13	7'-9"	Vary: 1'-2" to 1'-9"	EXP JT TIE	105	SPREAD 1081 lb			
M Low End	S1607E	11	7'-9"	Vary: 1'-2" to 1'-9"	EXP JT TIE	89	REINFORCEMENT (EPOXY)			
							2080 lb			

STEM HEIGHT : AT HIGH END =15' 6-3/4" AT LOW END =13' 4-11/16"										
LEVEL FILL Panel: A8			PANEL LENGTH = 30'-6"							
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	18	32'-11"	STR.	LONG T & B	618	SPREAD FOOTING			
B	F2202	31	7'-9"	STR.	TRANS BOT	491	b	2'-6"	e	-----
C	F1903	31	7'-9"	STR.	TRANS TOP	361	c	1'-3"	f	-----
							d	8'-3"	g	2' 8- 5/16"
STEM										
							a	2'-2"		
							J	1' 9-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	31	7'-10"	0'-10"	DOWEL BF	253	(FOOTING)			
F	F1606E	30	8'-0"	7'-0"	DOWEL BF	250	SPREAD 12.0 cu.yd.			
G	S1301E	31	12'-11"	STR.	VERT FF	267	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	12'-11"	STR.	VERT BF	417	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	10'-1"	4'-6"	TIE	326	30.0 cu.yd.			
L	S1305E	32	30'-0"	STR.	HORIZ EF	641	REINFORCEMENT (PLAIN)			
M High End	S1606E	15	7'-10"	Vary: 1'-2" to 1'-10"	EXP JT TIE	123	SPREAD 1470 lb			
M Low End	S1607E	13	7'-10"	Vary: 1'-2" to 1'-10"	EXP JT TIE	106	REINFORCEMENT (EPOXY)			
							2480 lb			

STEM HEIGHT : AT HIGH END =17' 7- 7/16" AT LOW END =15' 6-3/4"										
LEVEL FILL Panel: A9			PANEL LENGTH = 30'-6"							
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	20	32'-11"	STR.	LONG T & B	687	SPREAD FOOTING			
B	F1902	31	8'-9"	STR.	TRANS BOT	407	b	2'-10"	e	-----
C	F2203	31	8'-9"	STR.	TRANS TOP	554	c	1'-3"	f	-----
							d	9'-3"	g	3' 0- 5/16"
STEM										
							a	2'-3"		
							J	1' 10- 5/16"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	9'-7"	4'-7"	DOWEL BF	446	(FOOTING)			
F	F1906E	30	6'-0"	5'-0"	DOWEL BF	270	SPREAD 13.5 cu.yd.			
G	S1301E	31	15'-1"	STR.	VERT FF	312	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	15'-1"	STR.	VERT BF	487	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)			
K	S1604E	31	9'-10"	4'-5"	TIE	319	35.1 cu.yd.			
L	S1305E	36	30'-0"	STR.	HORIZ EF	721	REINFORCEMENT (PLAIN)			
M High End	S1606E	17	7'-11"	Vary: 1'-2" to 1'-11"	EXP JT TIE	140	SPREAD 1648 lb			
M Low End	S1607E	15	7'-11"	Vary: 1'-2" to 1'-11"	EXP JT TIE	124	REINFORCEMENT (EPOXY)			
							3119 lb			

STEM HEIGHT : AT HIGH END: 21' 1-15/16" AT LOW END =17' 7- 7/16"										
LEVEL FILL Panel: A10			PANEL LENGTH = 30'-6"							
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"
							d	10'-10"	g	4' 2- 5/16"
STEM										
							a	2'-5"		
							J	2' 0-1/4"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)			
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD 20.8 cu.yd.			
G	S1301E	31	17'-1"	STR.	VERT FF	355	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	17'-1"	STR.	VERT BF	554	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)			
K	S1604E	31	2'-10"	5'-10"	TIE	415	42.9 cu.yd.			
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)			
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD 2065 lb			
M Low End	S1607E	17	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	143	REINFORCEMENT (EPOXY)			
							4406 lb			



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DISTRICT #: METRO
 PLOT NAME: TABS_W129NW 2
 PATH & FILENAME: S:\Design\0650208V2\3\Final\wall\TABS_W129NW.DGN

DRAWN BY: MLW CHECKED BY: DY CERTIFIED BY: Josephine Lunkwitz LIC. NO. 20534 DATE 4/4/07

PLOTTED/REVISED: 31-JAN-2007 08:55

RETAINING WALL W129NW													
ALIGNMENT				PROFILES						DIMENSIONS			
JOINT NUMBER	STATION	X	Y	INPLACE	PROPOSED	TOP OF WALL	TOP OF BARRIER	TOP OF FOOTING	BOTTOM OF FOOTING	WALL HEIGHT	FOOTING THICKNESS	PANEL LENGTH	PANEL NAME
				GROUND ELEV	FACE OF WALL ELEV								
1	14+40.10	507919.774	161689.929	913.88	917.10	917.25	919.91	913.78	912.40	3.48	1.38		
2	14+58.70	507938.374	161689.951	913.83	917.10	918.16	920.83	913.78	912.40	4.38	1.38	18.6	A1
3	14+77.30	507956.974	161689.973	913.72	917.10	918.97	921.63	913.78	912.40	5.19	1.38	18.6	A2
4	15+07.80	507987.474	161690.009	913.71	917.10	920.28	922.94	913.78	912.40	6.50	1.38	30.5	A3
5	15+38.30	508017.974	161690.045	913.46	916.83	921.74	924.40	913.45	912.08	8.29	1.37	30.5	A4
6	15+68.80	508048.474	161690.082	913.00	916.55	923.20	925.86	913.13	911.75	10.07	1.38	30.5	A5
7	15+99.30	508078.974	161690.118	912.49	916.28	924.66	927.33	912.80	911.43	11.86	1.38	30.5	A6
8	16+29.80	508109.474	161690.154	912.11	916.00	926.12	928.79	912.73	911.11	13.39	1.62	30.5	A7
9	16+60.30	508139.974	161690.190	911.19	915.20	927.58	930.25	912.03	910.15	15.56	1.88	30.5	A8
10	16+90.80	508170.473	161689.982	911.47	914.40	928.95	931.61	911.33	909.20	17.62	2.13	30.5	A9
11	17+21.30	508200.972	161689.763	910.47	911.70	930.01	932.67	908.85	906.30	21.16	2.55	30.5	A10

RETAINING WALL W129NW QUANTITIES									
PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		PARAPET RAILING CONCRETE	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	ANTI GRAFFITTI COATING	NOTES
	1A43 (FOOTING)	3Y43 (STEM)	PLAIN	EPOXY	CONCRETE	SQ FT	SQ FT	SQ FT	
	CU YD	CU YD	POUND	POUND	LIN FT				
A1	2.6	4.3	275	525	18.6				(1)
A2	3.1	5.3	293	596	18.6				(1)
A3	5.4	10.8	485	1111	30.5				(1)
A4	6.9	14.1	617	1275	30.5				(1)
A5	8.4	17.9	752	1490	30.5	34	34	34	
A6	9.1	21.7	853	1695	30.5	87	87	87	
A7	10.5	25.6	1081	2080	30.5	140	140	140	
A8	12.0	30.0	1470	2480	30.5	201	201	201	
A9	13.5	35.1	1648	3119	30.5	269	269	269	
A10	20.8	42.9	2065	4406	30.5	360	360	360	
TOTALS	92.3	207.7	9539	18777	281.2	1091	1091	1091	

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

DISTRICT #: METRO
 PLOT NAME: TABS_W129NW_3
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\walls\tabs_w129nw.dgn

DRAWN BY: MLW	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> <small>LICENSED PROFESSIONAL ENGINEER</small>	LIC. NO. 20534	DATE 2/5/07	WALL TABULATIONS - WALL W129NW	STATE PROJ. NO. 0208-123 (T.H. 65)	SHEET NO. 276 OF 872 SHEETS
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PLOTTED/REVISED: 05-FEB-2007 14:20

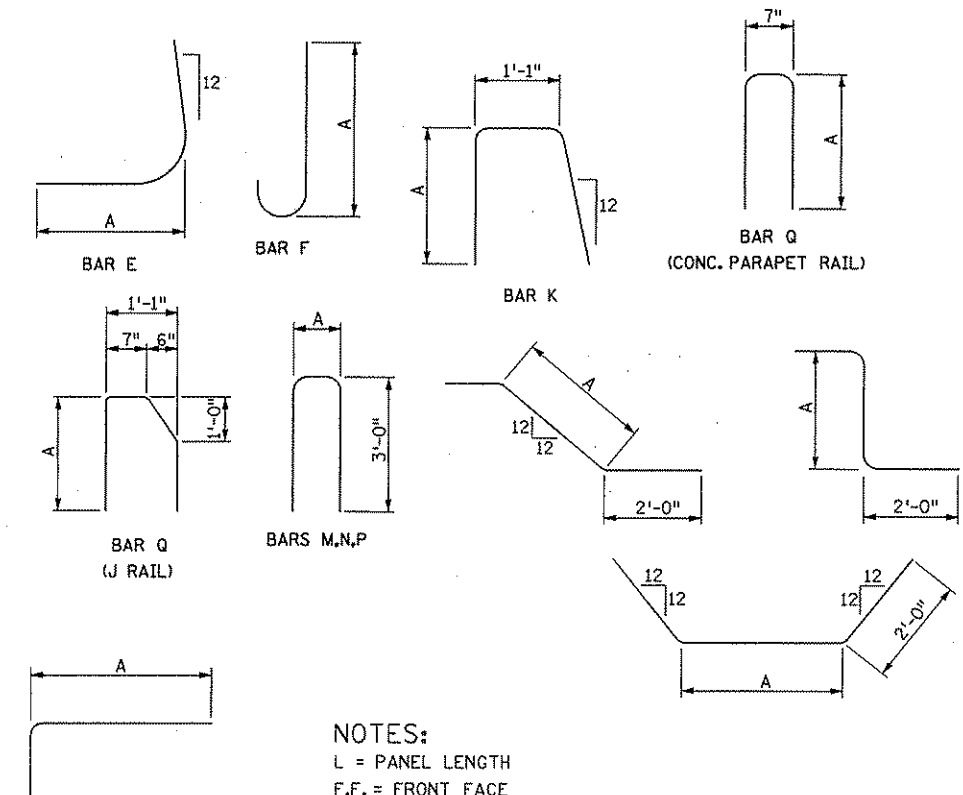
RETAINING WALL W129SE2

JOINT NUMBER	ALIGNMENT			PROFILES						DIMENSIONS				PANEL NAME
	STATION	X	Y	INPLACE GROUND ELEV	PROPOSED FACE OF WALL ELEV	TOP OF WALL ELEV	TOP OF BARRIER ELEV	TOP OF FOOTING ELEV	BOTTOM OF FOOTING ELEV	WALL HEIGHT FT	FOOTING THICKNESS FT	PANEL LENGTH FT		
1	41+25.00	508660.046	161583.738	909.67	916.60	916.63	919.30	913.28	911.90	3.36	1.38			
2	41+55.50	508658.681	161614.208	909.84	915.30	917.02	919.69	911.98	910.30	5.04	1.68	30.5	C1	
3	41+66.91	508664.195	161624.202	910.32	914.97	917.11	919.78	911.65	910.27	5.47	1.38	11.41	C2	
4	41+77.11	508673.730	161627.825	910.59	914.38	916.49	919.04	911.05	909.68	5.44	1.38	10.2	C3	
5	42+07.61	508704.230	161627.862	911.20	913.88	914.93	917.60	910.55	909.18	4.38	1.38	30.5	C4	
6	42+38.11	508734.730	161627.898	911.40	916.71	913.96	916.63	910.38	909.01	3.58	1.38	30.5	C5	
7	42+49.78	508746.396	161627.912	911.43	913.65	913.67	916.34	910.32	908.95	3.35	1.38	11.67	C6	

RETAINING WALL W129SE2 QUANTITIES

PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		PARAPET RAILING CONCRETE LIN FT	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE) SQ FT	ARCHITECTURAL SURFACE FINISH (MULTI COLOR) SQ FT	ANTI GRAFFITTI COATING SQ FT	NOTES
	1A43 (FOOTING) CU YD	3Y43 (STEM) CU YD	PLAIN POUND	EPOXY POUND					
C1	5.1	7.7	469	857	30.5				(1)
C2	1.9	3.6	183	391	11.4				(1)
C3	1.7	3.3	167	370	10.2				(1)
C4	5.1	8.7	469	933	30.5				(1)
C5	4.3	7.2	437	840	30.5				(1)
C6	1.7	2.4	180	337	11.7				(1)
TOTALS	19.8	32.9	1905	3728	124.8				

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DISTRICT *: METRO
 IPLOT NAME: TABS_W129SE2 2
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wallisTABS_W129SE2.dgn

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/6/07

WALL TABULATIONS - WALL W129SE2

STATE PROJ. NO. 0208-123 (T.H. 65), SHEET NO. 278 OF 872 SHEETS

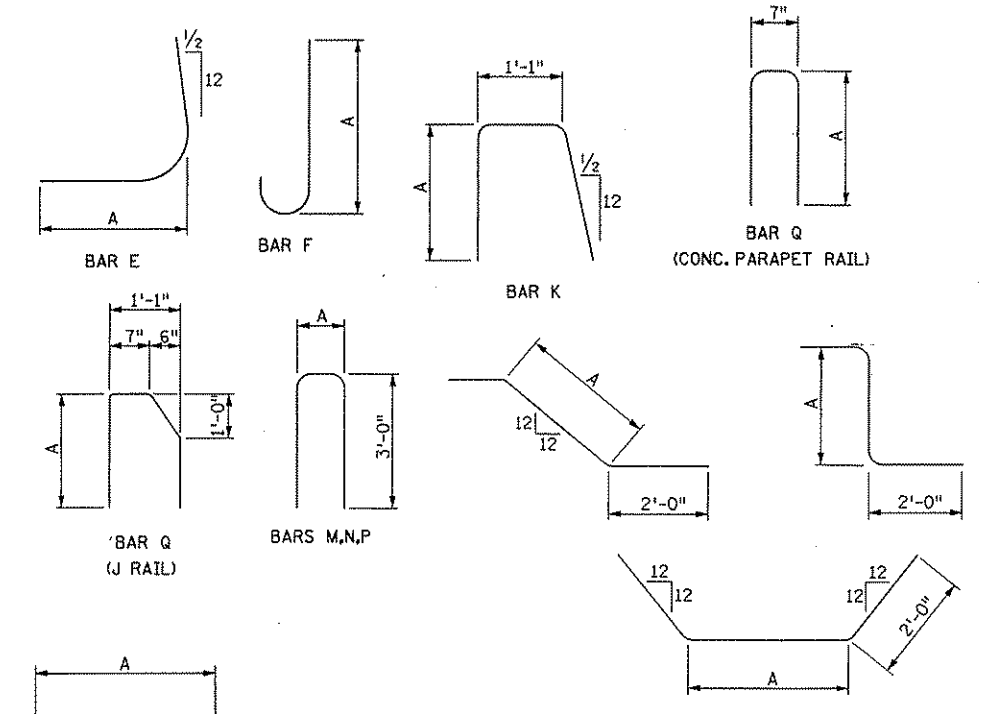
PLOTTED/REVISED: 05-FEB-2007 14:20

STEM HEIGHT : AT HIGH END =13' 7-13/16" AT LOW END =11' 10-15/16"												
LEVEL			FILL Panel: B7			PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities					
SPREAD FOOTING REINFORCEMENT												
DIMENSIONS												
A	F1601	16	32'-11"	STR.	LONG T & B	549	SPREAD FOOTING					
B	F1902	31	6'-9"	STR.	TRANS BOT	314	b	2'-2"	e	-----		
C	F1603	31	6'-9"	STR.	TRANS TOP	218	c	1'-3"	f	-----		
							d	7'-3"	g	2' 4-5/16"		
STEM												
							a	2'-1"				
							J	1' 8-3/8"				
FOOTING DOWELS & STEM REINFORCEMENT												
QUANTITIES												
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)					
E	F1605E	31	5'-10"	0'-10"	DOWEL BF	189	(FOOTING)					
F	F1606E	30	6'-0"	5'-0"	DOWEL BF	188	SPREAD 10.5 cu.yd.					
G	S1301E	31	11'-1"	STR.	VERT FF	230	STRUCTURAL CONCRETE (3Y43)					
H	S1602E	31	11'-1"	STR.	VERT BF	358	STRUCTURAL CONCRETE (3Y43)					
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)					
K	S1604E	31	9'-11"	4'-5"	TIE	320	25.9 cu.yd.					
L	S1305E	28	30'-0"	STR.	HORIZ EF	561	REINFORCEMENT (PLAIN)					
M High End	S1606E	13	7'-9"	Vary: 1'-2" to 1'-9"	EXP JT TIE	105	SPREAD 1081 lb					
M Low End	S1607E	11	7'-9"	Vary: 1'-2" to 1'-9"	EXP JT TIE	89						
REINFORCEMENT (EPOXY)												
2137 lb												

STEM HEIGHT : AT HIGH END =15' 11-5/8" AT LOW END =13' 7-13/16"												
LEVEL			FILL Panel: B8			PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities					
SPREAD FOOTING REINFORCEMENT												
DIMENSIONS												
A	F1601	18	32'-11"	STR.	LONG T & B	618	SPREAD FOOTING					
B	F2202	31	7'-9"	STR.	TRANS BOT	491	b	2'-6"	e	-----		
C	F1903	31	7'-9"	STR.	TRANS TOP	361	c	1'-3"	f	-----		
							d	8'-3"	g	2' 8-5/16"		
STEM												
							a	2'-2"				
							J	1' 9-3/8"				
FOOTING DOWELS & STEM REINFORCEMENT												
QUANTITIES												
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)					
E	F1605E	31	7'-10"	0'-10"	DOWEL BF	253	(FOOTING)					
F	F1606E	30	8'-0"	7'-0"	DOWEL BF	250	SPREAD 12.0 cu.yd.					
G	S1301E	31	13'-1"	STR.	VERT FF	271	STRUCTURAL CONCRETE (3Y43)					
H	S1602E	31	13'-1"	STR.	VERT BF	423	STRUCTURAL CONCRETE (3Y43)					
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)					
K	S1604E	31	10'-6"	4'-9"	TIE	340	30.7 cu.yd.					
L	S1305E	32	30'-0"	STR.	HORIZ EF	641	REINFORCEMENT (PLAIN)					
M High End	S1606E	15	7'-10"	Vary: 1'-2" to 1'-10"	EXP JT TIE	123	SPREAD 1470 lb					
M Low End	S1607E	13	7'-10"	Vary: 1'-2" to 1'-10"	EXP JT TIE	106						
REINFORCEMENT (EPOXY)												
2504 lb												

STEM HEIGHT : AT HIGH END =18' 2-7/8" AT LOW END =15' 11-5/8"												
LEVEL			FILL Panel: B9			PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities					
SPREAD FOOTING REINFORCEMENT												
DIMENSIONS												
A	F1601	20	32'-11"	STR.	LONG T & B	687	SPREAD FOOTING					
B	F1902	31	9'-4"	STR.	TRANS BOT	435	b	3'-0"	e	-----		
C	F2203	31	9'-4"	STR.	TRANS TOP	591	c	1'-6"	f	-----		
							d	9'-10"	g	3' 2-5/16"		
STEM												
							a	2' 3-1/2"				
							J	1' 10-13/16"				
FOOTING DOWELS & STEM REINFORCEMENT												
QUANTITIES												
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)					
E	F1905E	31	11'-0"	4'-9"	DOWEL BF	512	(FOOTING)					
F	F1906E	30	7'-3"	6'-3"	DOWEL BF	327	SPREAD 17.1 cu.yd.					
G	S1301E	31	15'-6"	STR.	VERT FF	320	STRUCTURAL CONCRETE (3Y43)					
H	S1602E	31	15'-6"	STR.	VERT BF	500	STRUCTURAL CONCRETE (3Y43)					
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)					
K	S1604E	31	10'-3"	4'-7"	TIE	333	36.6 cu.yd.					
L	S1305E	36	30'-0"	STR.	HORIZ EF	721	REINFORCEMENT (PLAIN)					
M High End	S1606E	18	11'-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	149	SPREAD 1713 lb					
M Low End	S1607E	15	11'-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	125						
REINFORCEMENT (EPOXY)												
3287 lb												

STEM HEIGHT : AT HIGH END =21' 2-5/8" AT LOW END =18' 2-7/8"												
LEVEL			FILL Panel: B10			PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities					
SPREAD FOOTING REINFORCEMENT												
DIMENSIONS												
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING					
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"		
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"		
							d	10'-10"	g	4' 2-5/16"		
STEM												
							a	2'-5"				
							J	2' 0-1/4"				
FOOTING DOWELS & STEM REINFORCEMENT												
QUANTITIES												
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)					
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)					
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD 20.8 cu.yd.					
G	S1301E	31	17'-9"	STR.	VERT FF	367	STRUCTURAL CONCRETE (3Y43)					
H	S1602E	31	17'-9"	STR.	VERT BF	574	STRUCTURAL CONCRETE (3Y43)					
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)					
K	S1604E	31	11'-9"	5'-4"	TIE	379	43.6 cu.yd.					
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)					
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD 2065 lb					
M Low End	S1607E	18	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	152						
REINFORCEMENT (EPOXY)												
4411 lb												



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DISTRICT #: METRO
 PLOT NAME: TABS.W129SW 2
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Walls\TABS.W129SW.DGN

PLOTTED/REVISED: 31-JAN-2007 08:55

RETAINING WALL W129SW													
ALIGNMENT				PROFILES						DIMENSIONS			
JOINT NUMBER	STATION	X	Y	INPLACE GROUND ELEV	PROPOSED FACE OF WALL ELEV	TOP OF WALL ELEV	TOP OF BARRIER ELEV	TOP OF FOOTING ELEV	BOTTOM OF FOOTING ELEV	WALL HEIGHT FT	FOOTING THICKNESS FT	PANEL LENGTH FT	PANEL NAME
1	44+25.00	507904.728	161644.911	912.98	915.25	915.94	918.60	911.98	910.60	3.96	1.38		
2	44+46.80	507926.528	161644.937	912.64	915.53	916.91	919.58	912.24	910.87	4.67	1.37	21.8	B1
3	44+77.30	507957.028	161644.973	912.48	915.92	918.37	921.04	912.92	911.25	5.45	1.67	30.5	B2
4	45+07.80	507987.528	161645.009	912.81	916.31	919.83	922.50	913.00	911.62	6.83	1.38	30.5	B3
5	45+38.30	508018.028	161645.045	912.68	916.70	921.29	923.96	913.38	912.00	7.91	1.38	30.5	B4
6	45+68.80	508048.528	161645.082	912.46	916.25	922.77	925.42	912.84	911.47	9.93	1.37	30.5	B5
7	45+99.30	508079.028	161645.118	911.73	915.80	924.22	926.88	912.31	910.93	11.91	1.38	30.5	B6
8	46+29.80	508109.528	161645.154	911.59	915.35	925.67	928.34	912.02	910.40	13.65	1.62	30.5	B7
9	46+60.30	508140.028	161645.190	911.25	914.38	927.14	929.80	911.17	909.30	15.97	1.87	30.5	B8
10	46+90.80	508170.528	161645.227	911.15	913.40	928.57	931.57	910.33	908.20	18.24	2.13	30.5	B9
11	47+21.30	508201.028	161645.263	911.27	911.40	929.76	932.43	908.54	906.00	21.22	2.54	30.5	B10

RETAINING WALL W129SW QUANTITIES									
PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		TYPE F MODIFIED RAILING	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	ANTI GRAFFITTI COATING	NOTES
	1A43 (FOOTING)	3Y43 (STEM)	PLAIN	EPOXY					
	CU YD	CU YD	POUND	POUND	LIN FT	SQ FT	SQ FT	SQ FT	
B1	3.1	5.6	316	658	21.8				(1)
B2	5.1	9.3	469	951	30.5				(1)
B3	5.4	11.4	485	1129	30.5				(1)
B4	6.2	13.9	585	1239	30.5				(1)
B5	7.6	17.2	720	1465	30.5	27	27	27	
B6	9.1	21.6	853	1690	30.5	85	85	85	
B7	10.5	25.9	1081	2137	30.5	143	143	143	
B8	12.0	30.7	1470	2504	30.5	210	210	210	
B9	17.1	36.6	1713	3287	30.5	284	284	284	
B10	20.8	43.6	2065	4411	30.5	369	369	369	
TOTALS	96.9	215.8	9757	19471	296.3	1118	1118	1118	

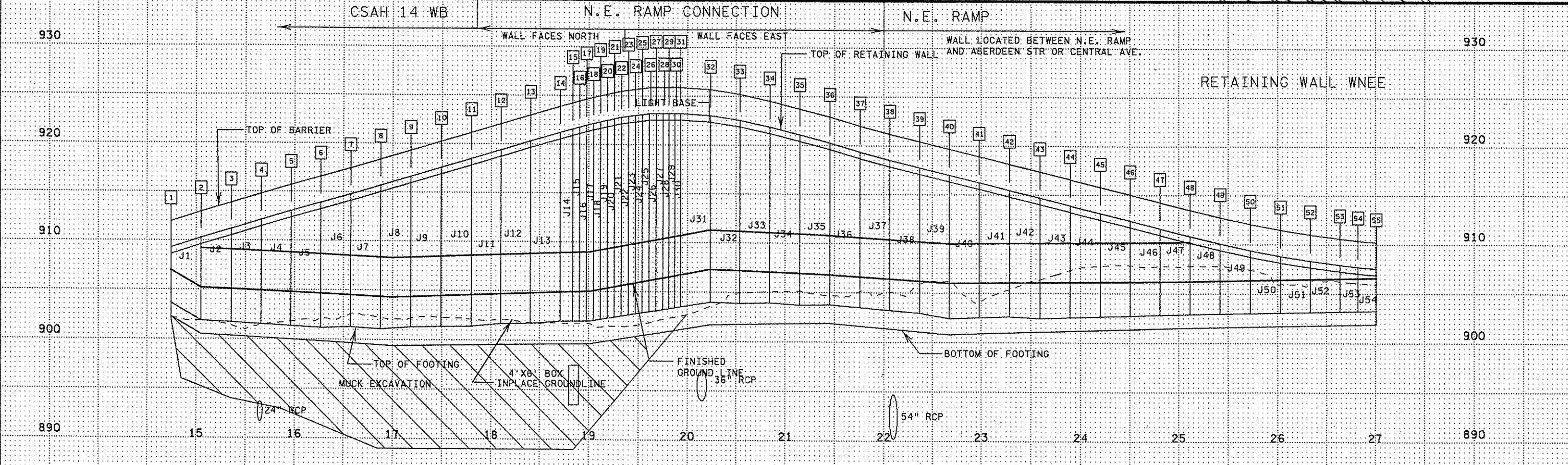
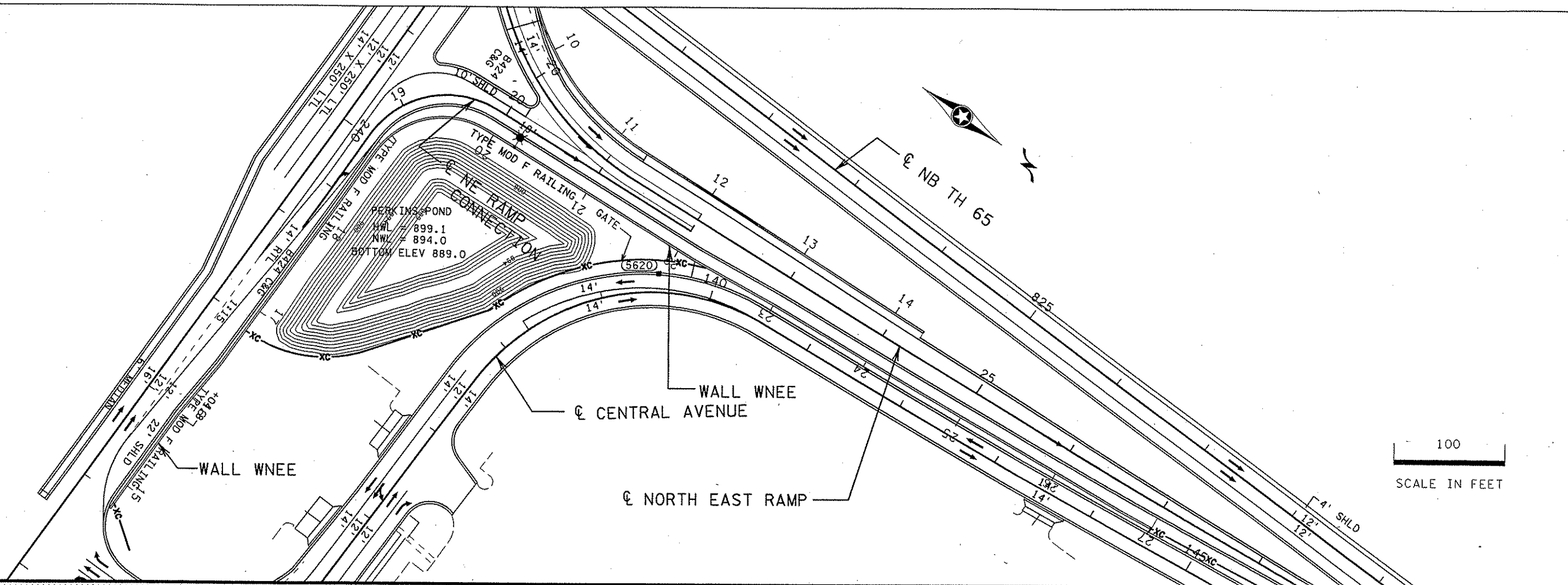
(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

DISTRICT *: METRO
 IPLOT NAME: TABS_W129SW_3
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wall\1\TABS_W129SW.DGN

DRAWN BY: MLW	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> <small>LICENSED PROFESSIONAL ENGINEER</small>	LIC. NO. 20534 DATE 2/5/07	WALL TABULATIONS - WALL W129SW
				STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 281 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 11:22

DISTRICT: METRO
PLOT NAME: wne8
PATH & FILENAME: S:\Design\0650208\123\Final\walls\DO208123_wrl.dgn



WALL PLAN / PROFILE - WALL WNEE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 282 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

STEM HEIGHT : AT HIGH END =14' 7- 5/16" AT LOW END =13' 6-1/4"	
LEVEL	FILL Panel: J7 PANEL LENGTH = 30'-6"
Bar	Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT	
DIMENSIONS	
A	F1601 16 32'-11" STR. LONG T & B 549 SPREAD FOOTING
B	F1902 31 7'-3" STR. TRANS BOT 338 b 2'-4" e -----
C	F1903 31 7'-3" STR. TRANS TOP 338 c 1'-3" f -----
d 7'-9" g 2' 6- 5/16"	
STEM	
a	2' 1-1/2"
J	1' 8-7/8"
FOOTING DOWELS & STEM REINFORCEMENT	
QUANTITIES	
D	F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E	F1605E 31 6'-10" 0'-10" DOWEL BF 221 (FOOTING)
F	F1606E 30 7'-0" 6'-0" DOWEL BF 219 SPREAD 11.3 cu.yd.
G	S1301E 31 12'-1" STR. VERT FF 250
H	S1602E 31 12'-1" STR. VERT BF 391 STRUCTURAL CONCRETE (3Y43)
J	S 03E ----- STR. VERT BF ----- (STEM)
K	S1604E 31 9'-10" 4'-4" TIE 317 28.8 cu.yd.
L	S1305E 30 30'-0" STR. HORIZ EF 601 REINFORCEMENT (PLAIN)
M High End	S1606E 14 7' 9-1/2" Vary: 1'-2" to 1' EXP JT TIE 114 SPREAD 1225 lb
M Low End	S1607E 13 7' 9-1/2" Vary: 1'-2" to 1' EXP JT TIE 106
REINFORCEMENT (EPOXY)	
2316 lb	

STEM HEIGHT : AT HIGH END =15' 3-13/16" AT LOW END =14' 7- 5/16"	
LEVEL	FILL Panel: J8 PANEL LENGTH = 30'-6"
Bar	Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT	
DIMENSIONS	
A	F1601 18 32'-11" STR. LONG T & B 618 SPREAD FOOTING
B	F2202 31 7'-9" STR. TRANS BOT 491 b 2'-6" e -----
C	F1903 31 7'-9" STR. TRANS TOP 361 c 1'-3" f -----
d 8'-3" g 2' 8- 5/16"	
STEM	
a	2'-2"
J	1' 9-3/8"
FOOTING DOWELS & STEM REINFORCEMENT	
QUANTITIES	
D	F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E	F1605E 31 7'-10" 0'-10" DOWEL BF 253 (FOOTING)
F	F1606E 30 8'-0" 7'-0" DOWEL BF 250 SPREAD 12.0 cu.yd.
G	S1301E 31 13'-1" STR. VERT FF 271
H	S1602E 31 13'-1" STR. VERT BF 423 STRUCTURAL CONCRETE (3Y43)
J	S 03E ----- STR. VERT BF ----- (STEM)
K	S1604E 31 9'-3" 4'-1" TIE 298 31.0 cu.yd.
L	S1305E 30 30'-0" STR. HORIZ EF 601 REINFORCEMENT (PLAIN)
M High End	S1606E 15 7'-10" Vary: 1'-2" to 1'-10" EXP JT TIE 123 SPREAD 1470 lb
M Low End	S1607E 14 7'-10" Vary: 1'-2" to 1'-10" EXP JT TIE 114
REINFORCEMENT (EPOXY)	
2430 lb	

STEM HEIGHT : AT HIGH END =16' 2-1/4" AT LOW END =15' 3-13/16"	
LEVEL	FILL Panel: J9 PANEL LENGTH = 30'-6"
Bar	Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT	
DIMENSIONS	
A	F1601 18 32'-11" STR. LONG T & B 618 SPREAD FOOTING
B	F1902 31 8'-3" STR. TRANS BOT 384 b 2'-8" e -----
C	F1903 31 8'-3" STR. TRANS TOP 384 c 1'-3" f -----
d 8'-9" g 2' 10- 5/16"	
STEM	
a	2' 2-1/2"
J	1' 9-13/16"
FOOTING DOWELS & STEM REINFORCEMENT	
QUANTITIES	
D	F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E	F1905E 31 8'-11" 4'-5" DOWEL BF 415 (FOOTING)
F	F1906E 30 5'-6" 4'-6" DOWEL BF 248 SPREAD 12.7 cu.yd.
G	S1301E 31 14'-1" STR. VERT FF 292
H	S1602E 31 14'-1" STR. VERT BF 455 STRUCTURAL CONCRETE (3Y43)
J	S1603E 30 6'-6" STR. VERT BF 203 (STEM)
K	S1604E 31 8'-12" 3'-11" TIE 290 33.0 cu.yd.
L	S1305E 32 30'-0" STR. HORIZ EF 641 REINFORCEMENT (PLAIN)
M High End	S1606E 16 7' 10-1/2" Vary: 1'-2" to 1' EXP JT TIE 131 SPREAD 1386 lb
M Low End	S1607E 15 7' 10-1/2" Vary: 1'-2" to 1' EXP JT TIE 123
REINFORCEMENT (EPOXY)	
2895 lb	

STEM HEIGHT : AT HIGH END =17' 0-13/16" AT LOW END =16' 2-1/4"	
LEVEL	FILL Panel: J10 PANEL LENGTH = 30'-6"
Bar	Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT	
DIMENSIONS	
A	F1601 20 32'-11" STR. LONG T & B 687 SPREAD FOOTING
B	F1902 31 8'-9" STR. TRANS BOT 407 b 2'-10" e -----
C	F2203 31 8'-9" STR. TRANS TOP 554 c 1'-3" f -----
d 9'-3" g 3' 0- 5/16"	
STEM	
a	2'-3"
J	1' 10- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT	
QUANTITIES	
D	F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E	F1905E 31 9'-7" 4'-7" DOWEL BF 446 (FOOTING)
F	F1906E 30 6'-0" 5'-0" DOWEL BF 270 SPREAD 13.5 cu.yd.
G	S1301E 31 15'-1" STR. VERT FF 312
H	S1602E 31 15'-1" STR. VERT BF 488 STRUCTURAL CONCRETE (3Y43)
J	S1603E 30 6'-6" STR. VERT BF 203 (STEM)
K	S1604E 31 8'-9" 3'-10" TIE 282 35.2 cu.yd.
L	S1305E 34 30'-0" STR. HORIZ EF 681 REINFORCEMENT (PLAIN)
M High End	S1606E 17 7'-11" Vary: 1'-2" to 1'-11" EXP JT TIE 140 SPREAD 1648 lb
M Low End	S1607E 16 7'-11" Vary: 1'-2" to 1'-11" EXP JT TIE 132
REINFORCEMENT (EPOXY)	
3051 lb	

STEM HEIGHT : AT HIGH END =17' 8-3/8" AT LOW END =17' 0-13/16"	
LEVEL	FILL Panel: J11 PANEL LENGTH = 30'-6"
Bar	Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT	
DIMENSIONS	
A	F1601 20 32'-11" STR. LONG T & B 687 SPREAD FOOTING
B	F1902 31 8'-9" STR. TRANS BOT 407 b 2'-10" e -----
C	F2203 31 8'-9" STR. TRANS TOP 554 c 1'-3" f -----
d 9'-3" g 3' 0- 5/16"	
STEM	
a	2'-3"
J	1' 10- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT	
QUANTITIES	
D	F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E	F1905E 31 9'-7" 4'-7" DOWEL BF 446 (FOOTING)
F	F1906E 30 6'-0" 5'-0" DOWEL BF 270 SPREAD 13.5 cu.yd.
G	S1301E 31 15'-1" STR. VERT FF 312
H	S1602E 31 15'-1" STR. VERT BF 488 STRUCTURAL CONCRETE (3Y43)
J	S1603E 30 6'-6" STR. VERT BF 203 (STEM)
K	S1604E 31 9'-12" 4'-5" TIE 323 36.8 cu.yd.
L	S1305E 36 30'-0" STR. HORIZ EF 721 REINFORCEMENT (PLAIN)
M High End	S1606E 17 7'-11" Vary: 1'-2" to 1'-11" EXP JT TIE 140 SPREAD 1648 lb
M Low End	S1607E 17 7'-11" Vary: 1'-2" to 1'-11" EXP JT TIE 140
REINFORCEMENT (EPOXY)	
3140 lb	

STEM HEIGHT : AT HIGH END =18' 6-3/4" AT LOW END =17' 8-3/8"	
LEVEL	FILL Panel: J12 PANEL LENGTH = 30'-6"
Bar	Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT	
DIMENSIONS	
A	F1601 20 32'-11" STR. LONG T & B 687 SPREAD FOOTING
B	F1902 31 9'-4" STR. TRANS BOT 435 b 3'-0" e -----
C	F2203 31 9'-4" STR. TRANS TOP 591 c 1'-6" f -----
d 9'-10" g 3' 2- 5/16"	
STEM	
a	2' 3-1/2"
J	1' 10-13/16"
FOOTING DOWELS & STEM REINFORCEMENT	
QUANTITIES	
D	F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E	F1905E 31 11'-0" 4'-9" DOWEL BF 512 (FOOTING)
F	F1906E 30 7'-3" 6'-3" DOWEL BF 327 SPREAD 17.1 cu.yd.
G	S1301E 31 16'-1" STR. VERT FF 333
H	S1602E 31 16'-1" STR. VERT BF 520 STRUCTURAL CONCRETE (3Y43)
J	S1603E 30 6'-6" STR. VERT BF 203 (STEM)
K	S1604E 31 9'-8" 4'-4" TIE 314 38.8 cu.yd.
L	S1305E 38 30'-0" STR. HORIZ EF 762 REINFORCEMENT (PLAIN)
M High End	S1606E 18 7' 11-1/2" Vary: 1'-2" to 1' EXP JT TIE 149 SPREAD 1713 lb
M Low End	S1607E 17 7' 11-1/2" Vary: 1'-2" to 1' EXP JT TIE 141
REINFORCEMENT (EPOXY)	
3358 lb	

DISTRICT *: METRO
PLOT NAME: TABS.WNEE 2
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wallis\tabs.WNEE.dgn

WALL TABULATIONS - WALL WNEE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY: *Josephus Lunkvist* LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 284 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

DISTRICT: METRO
PLOT NAME: TABS.WNEE.3
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wall\TAB_WNEE.dgn

STEM HEIGHT : AT HIGH END = 19' 2-7/8" AT LOW END = 18' 6-3/4"
LEVEL FILL Panel: J13 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 32'-11" STR. LONG T & B 755 SPREAD FOOTING
B F1902 31 10'-0" STR. TRANS BOT 466 b 3'-3" e
C F2503 31 10'-0" STR. TRANS TOP 828 c 1'-6" f
d 10'-6" g 3' 5- 5/16"
STEM
a 2'-4"
J 1' 11- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 31 3'-0" STR. DOWEL FF 97 STRUCTURAL CONCRETE (1A43)
E F1905E 31 12'-4" 5'-1" DOWEL BF 574 (FOOTING)
F F1906E 30 8'-3" 7'-3" DOWEL BF 372 SPREAD 18.9 cu. yd.
G S1301E 31 17'-1" STR. VERT FF 354
H S1602E 31 17'-1" STR. VERT BF 552 STRUCTURAL CONCRETE (3Y43)
J S1603E 30 6'-6" STR. VERT BF 203 (STEM)
K S1604E 31 9'-1" 3'-12" TIE 293 40.9 cu. yd.
L S1305E 38 30'-0" STR. HORIZ EF 762 REINFORCEMENT (PLAIN)
M High End S1606E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159 SPREAD 2049 lb
M Low End S1607E 18 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 150
REINFORCEMENT (EPOXY)
3516 lb

STEM HEIGHT : AT HIGH END 19' 7- 1/16" AT LOW END = 19' 2-7/8"
LEVEL FILL Panel: J14 PANEL LENGTH = 12' 10- 9/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 15'-4" STR. LONG T & B 351 SPREAD FOOTING
B F1902 13 10'-0" STR. TRANS BOT 195 b 3'-3" e
C F2503 13 10'-0" STR. TRANS TOP 347 c 1'-6" f
d 10'-6" g 3' 5- 5/16"
STEM
a 2'-4"
J 1' 11- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 13 3'-0" STR. DOWEL FF 41 STRUCTURAL CONCRETE (1A43)
E F1905E 13 12'-4" 5'-1" DOWEL BF 241 (FOOTING)
F F1906E 12 8'-3" 7'-3" DOWEL BF 149 SPREAD 8.0 cu. yd.
G S1301E 13 17'-1" STR. VERT FF 148
H S1602E 13 17'-1" STR. VERT BF 232 STRUCTURAL CONCRETE (3Y43)
J S1603E 12 6'-6" STR. VERT BF 81 (STEM)
K S1604E 13 9'-9" 4'-4" TIE 132 17.8 cu. yd.
L S1305E 40 12'-5" STR. HORIZ EF 331 REINFORCEMENT (PLAIN)
M High End S1606E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159 SPREAD 893 lb
M Low End S1607E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159
REINFORCEMENT (EPOXY)
1673 lb

STEM HEIGHT : AT HIGH END = 19' 9-3/8" AT LOW END = 19' 7- 1/16"
LEVEL FILL Panel: J15 PANEL LENGTH = 7'-0"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 9'-5" STR. LONG T & B 216 SPREAD FOOTING
B F1902 7 10'-0" STR. TRANS BOT 185 b 3'-3" e
C F2503 7 10'-0" STR. TRANS TOP 187 c 1'-6" f
d 10'-6" g 3' 5- 5/16"
STEM
a 2'-4"
J 1' 11- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 7 3'-0" STR. DOWEL FF 22 STRUCTURAL CONCRETE (1A43)
E F1905E 7 12'-4" 5'-1" DOWEL BF 130 (FOOTING)
F F1906E 6 8'-3" 7'-3" DOWEL BF 74 SPREAD 4.3 cu. yd.
G S1301E 7 17'-1" STR. VERT FF 88
H S1602E 7 17'-1" STR. VERT BF 125 STRUCTURAL CONCRETE (3Y43)
J S1603E 6 6'-6" STR. VERT BF 41 (STEM)
K S1604E 7 10'-2" 4'-6" TIE 74 9.8 cu. yd.
L S1305E 48 6'-6" STR. HORIZ EF 174 REINFORCEMENT (PLAIN)
M High End S1606E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159 SPREAD 508 lb
M Low End S1607E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159
REINFORCEMENT (EPOXY)
1038 lb

STEM HEIGHT : AT HIGH END = 19' 11-5/8" AT LOW END = 19' 9-3/8"
LEVEL FILL Panel: J16 PANEL LENGTH = 7'-0"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 9'-5" STR. LONG T & B 216 SPREAD FOOTING
B F1902 7 10'-0" STR. TRANS BOT 105 b 3'-3" e
C F2503 7 10'-0" STR. TRANS TOP 187 c 1'-6" f
d 10'-6" g 3' 5- 5/16"
STEM
a 2'-4"
J 1' 11- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 7 3'-0" STR. DOWEL FF 22 STRUCTURAL CONCRETE (1A43)
E F1905E 7 12'-4" 5'-1" DOWEL BF 130 (FOOTING)
F F1906E 6 8'-3" 7'-3" DOWEL BF 74 SPREAD 4.3 cu. yd.
G S1301E 7 17'-1" STR. VERT FF 80
H S1602E 7 17'-1" STR. VERT BF 125 STRUCTURAL CONCRETE (3Y43)
J S1603E 6 6'-6" STR. VERT BF 41 (STEM)
K S1604E 7 10'-6" 4'-9" TIE 77 9.9 cu. yd.
L S1305E 48 6'-6" STR. HORIZ EF 174 REINFORCEMENT (PLAIN)
M High End S1606E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159 SPREAD 508 lb
M Low End S1607E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159
REINFORCEMENT (EPOXY)
1041 lb

STEM HEIGHT : AT HIGH END 19' 11-7/8" AT LOW END = 19' 11-5/8"
LEVEL FILL Panel: J17 PANEL LENGTH = 7'-0"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 9'-5" STR. LONG T & B 216 SPREAD FOOTING
B F1902 7 10'-0" STR. TRANS BOT 105 b 3'-3" e
C F2503 7 10'-0" STR. TRANS TOP 187 c 1'-6" f
d 10'-6" g 3' 5- 5/16"
STEM
a 2'-4"
J 1' 11- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 7 3'-0" STR. DOWEL FF 22 STRUCTURAL CONCRETE (1A43)
E F1905E 7 12'-4" 5'-1" DOWEL BF 130 (FOOTING)
F F1906E 6 8'-3" 7'-3" DOWEL BF 74 SPREAD 4.3 cu. yd.
G S1301E 7 17'-1" STR. VERT FF 88
H S1602E 7 17'-1" STR. VERT BF 125 STRUCTURAL CONCRETE (3Y43)
J S1603E 6 6'-6" STR. VERT BF 41 (STEM)
K S1604E 7 10'-7" 4'-9" TIE 77 9.9 cu. yd.
L S1305E 48 6'-6" STR. HORIZ EF 174 REINFORCEMENT (PLAIN)
M High End S1606E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159 SPREAD 508 lb
M Low End S1607E 19 8'-0" Vary: 1'-2" to 2'-0" EXP JT TIE 159
REINFORCEMENT (EPOXY)
1041 lb

STEM HEIGHT : AT HIGH END 20' 1- 9/16" AT LOW END = 19' 11-7/8"
LEVEL FILL Panel: J18 PANEL LENGTH = 7'-0"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 9'-5" STR. LONG T & B 216 SPREAD FOOTING
B F1902 7 10'-2" STR. TRANS BOT 107 b 3'-8" e 1'-0"
C F2503 7 10'-2" STR. TRANS TOP 190 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10- 5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 7 3'-0" STR. DOWEL FF 22 STRUCTURAL CONCRETE (1A43)
E F2205E 7 13'-9" 5'-6" DOWEL BF 197 (FOOTING)
F F2206E 6 9'-9" 8'-9" DOWEL BF 120 SPREAD 4.7 cu. yd.
G S1301E 7 18'-1" STR. VERT FF 85
H S1602E 7 18'-1" STR. VERT BF 132 STRUCTURAL CONCRETE (3Y43)
J S1603E 6 6'-6" STR. VERT BF 41 (STEM)
K S1604E 7 8'-10" 3'-11" TIE 65 10.1 cu. yd.
L S1305E 48 6'-6" STR. HORIZ EF 174 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2'-0" EXP JT TIE 168 SPREAD 513 lb
M Low End S1607E 19 8' 0-1/2" Vary: 1'-2" to 2'-0" EXP JT TIE 159
REINFORCEMENT (EPOXY)
1163 lb

WALL TABULATIONS - WALL WNEE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist

LIC. NO. 20534

DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 285 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

STEM HEIGHT : AT HIGH END = 19' 8-1/2" AT LOW END = 19' 0-1/4"
LEVEL FILL Panel: J31 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 32'-11" STR. LONG T & B 755 SPREAD FOOTING
B F1902 31 10'-0" STR. TRANS BOT 466 b 3'-3" e -----
C F2503 31 10'-0" STR. TRANS TOP 828 c 1'-6" f -----
d 10'-6" g 3' 5- 5/16"

STEM HEIGHT : AT HIGH END = 19' 0-1/4" AT LOW END = 18' 7-13/16"
LEVEL FILL Panel: J32 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 32'-11" STR. LONG T & B 755 SPREAD FOOTING
B F1902 31 10'-0" STR. TRANS BOT 466 b 3'-3" e -----
C F2503 31 10'-0" STR. TRANS TOP 828 c 1'-6" f -----
d 10'-6" g 3' 5- 5/16"

STEM HEIGHT : AT HIGH END = 18' 7-13/16" AT LOW END = 17' 10-15/16"
LEVEL FILL Panel: J33 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 20 32'-11" STR. LONG T & B 687 SPREAD FOOTING
B F1902 31 9'-4" STR. TRANS BOT 435 b 3'-0" e -----
C F2203 31 9'-4" STR. TRANS TOP 591 c 1'-6" f -----
d 9'-10" g 3' 2- 5/16"

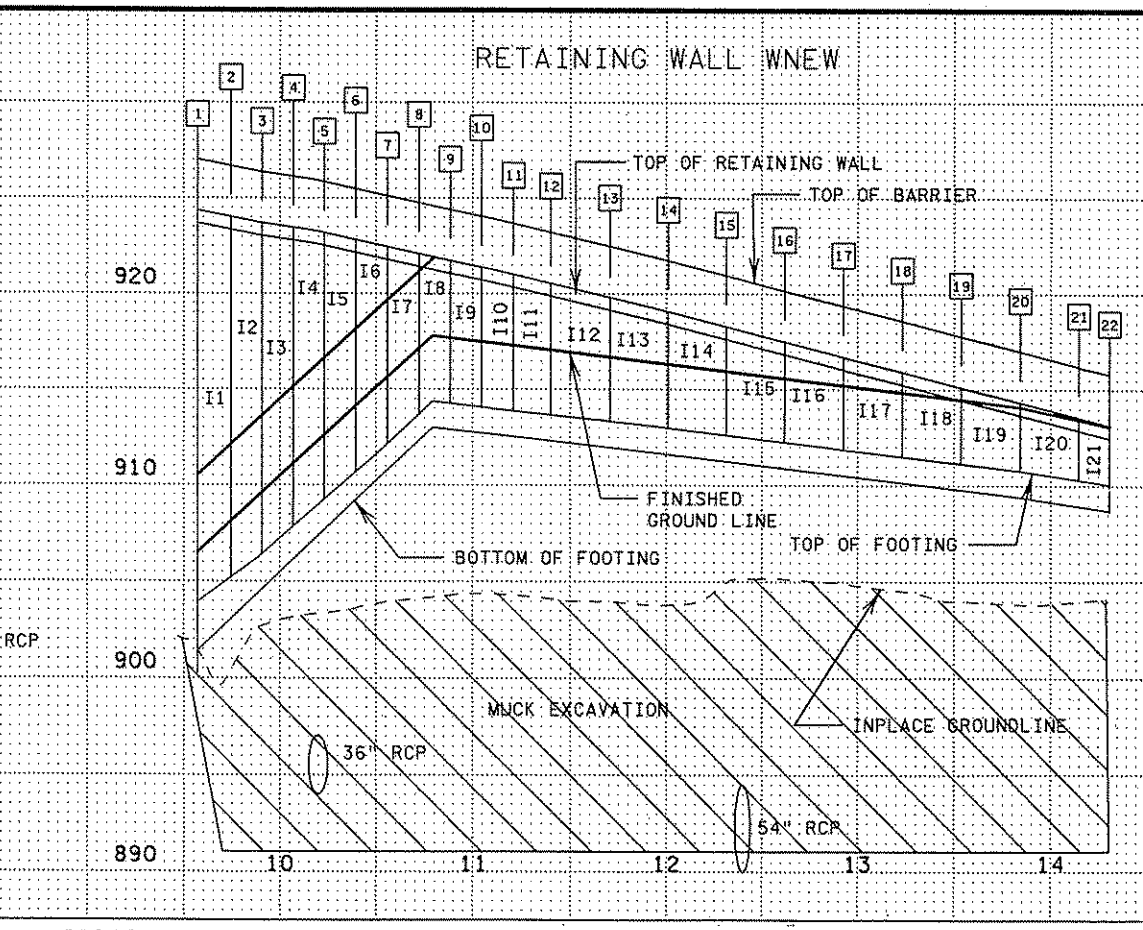
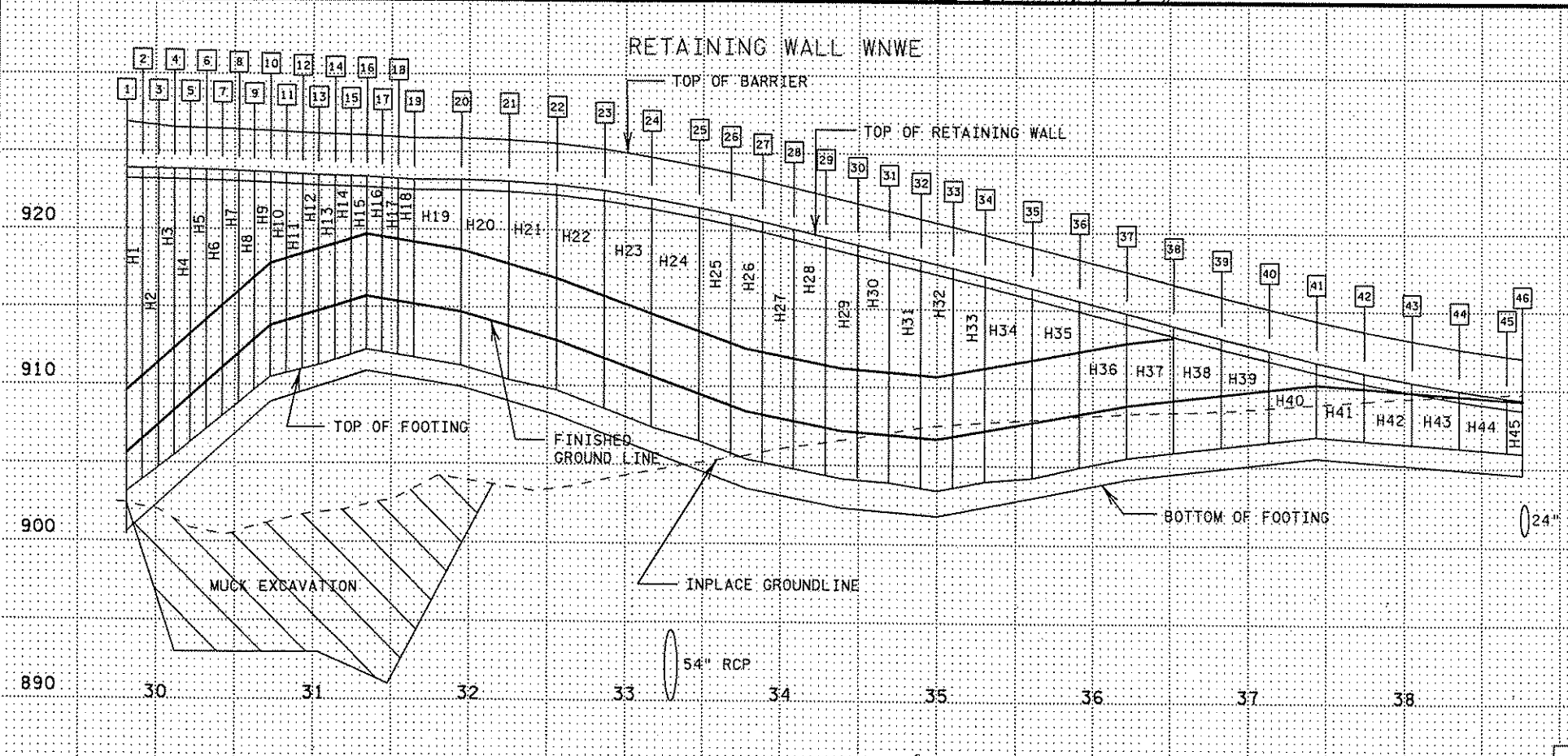
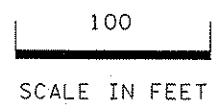
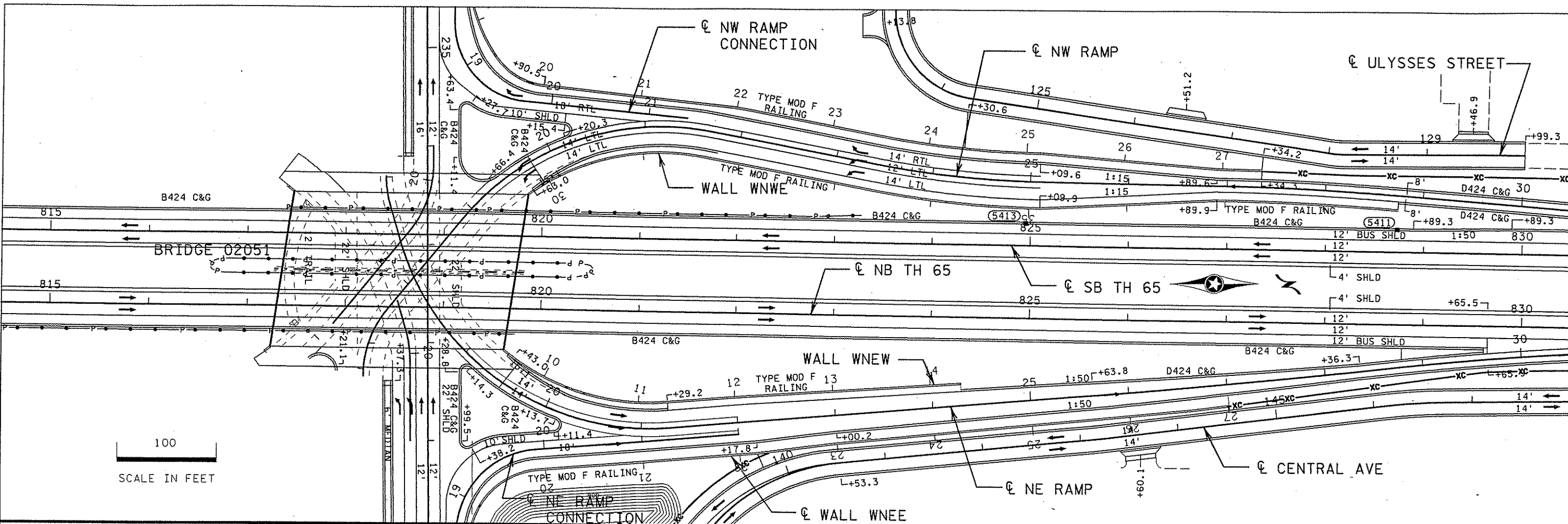
STEM HEIGHT : AT HIGH END = 17' 10-15/16" AT LOW END = 17' 5-3/8"
LEVEL FILL Panel: J34 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 20 32'-11" STR. LONG T & B 687 SPREAD FOOTING
B F1902 31 8'-9" STR. TRANS BOT 407 b 2'-10" e -----
C F2203 31 8'-9" STR. TRANS TOP 554 c 1'-3" f -----
d 9'-3" g 3' 0- 5/16"

STEM HEIGHT : AT HIGH END : 17' 5-3/8" AT LOW END = 16' 5- 1/16"
LEVEL FILL Panel: J35 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 20 32'-11" STR. LONG T & B 687 SPREAD FOOTING
B F1902 31 8'-9" STR. TRANS BOT 407 b 2'-10" e -----
C F2203 31 8'-9" STR. TRANS TOP 554 c 1'-3" f -----
d 9'-3" g 3' 0- 5/16"

STEM HEIGHT : AT HIGH END = 16' 5- 1/16" AT LOW END = 15' 10- 1/16"
LEVEL FILL Panel: J36 PANEL LENGTH = 30'-6"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 18 32'-11" STR. LONG T & B 618 SPREAD FOOTING
B F1902 31 8'-3" STR. TRANS BOT 384 b 2'-8" e -----
C F1903 31 8'-3" STR. TRANS TOP 384 c 1'-3" f -----
d 8'-9" g 2' 10- 5/16"

DISTRICT *: METRO
PLOT NAME: TABS.WNEE 6
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wall\TABS.WNEE.dgn

PLOTTED/REVISED: 04-APR-2007 13:51



DISTRICT #: METRO
PLOT NAME: WNWE_WNEW
PATH & FILENAME: S:\Design\065\0208\23\Final\walls\0208123_wrl.dgn

DRAWN BY: MLW CHECKED BY: DY CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE: 4/4/07

WALL PLAN / PROFILE - WALLS WNWE & WNEW
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 293 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

DISTRICT #: METRO
PLOT NAME: TABS.WNEW 2
PATH & FILENAME: S:\DESIGN\065\0208\25\Final\wallis\TABS.WNEW.dgn

STEM HEIGHT : AT HIGH END = 10' 3-5/8"		AT LOW END = 8' 4-11/16"						
LEVEL	FILL Panel:	I7	PANEL LENGTH = 16' 3-1/4"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities	
SPREAD FOOTING REINFORCEMENT							DIMENSIONS	
A	F1601	12	18'-8"	STR.	LONG T & B	234	SPREAD FOOTING	
B	F1602	16	5'-3"	STR.	TRANS BOT	88	b	1'-8" e -----
C	F1603	16	5'-3"	STR.	TRANS TOP	88	c	1'-3" f -----
							d	5'-9" g 1' 10-5/16"
							STEM	
							a	1' 11-1/2"
							J	1' 6-7/8"
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES	
D	F1604E	16	3'-0"	STR.	DOWEL FF	50	STRUCTURAL CONCRETE (1A43)	
E	F1605E	9	4'-1"	0'-10"	DOWEL BF	38	(FOOTING)	
F	F1606E	8	4'-3"	3'-3"	DOWEL BF	35	SPREAD	4.5 cu. yd.
G	S1301E	16	7'-11"	STR.	VERT FF	84		
H	S1602E	17	7'-11"	STR.	VERT BF	140	STRUCTURAL CONCRETE (3Y43)	
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)	
K	S1604E	16	9'-7"	4'-3"	TIE	160	9.7 cu. yd.	
L	S1305E	20	15'-9"	STR.	HORIZ EF	211	REINFORCEMENT (PLAIN)	
M High End	S1606E	10	7'-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	80	SPREAD	410 lb
M Low End	S1607E	8	7'-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	64		
							REINFORCEMENT (EPOXY)	
							862 lb	

STEM HEIGHT : AT HIGH END = 8' 4-11/16"		AT LOW END = 7' 5-5/8"						
LEVEL	FILL Panel:	I8	PANEL LENGTH = 16' 3-3/8"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities	
SPREAD FOOTING REINFORCEMENT							DIMENSIONS	
A	F1601	10	18'-8"	STR.	LONG T & B	195	SPREAD FOOTING	
B	F1602	16	4'-3"	STR.	TRANS BOT	71	b	1'-4" e -----
C	F1603	16	4'-3"	STR.	TRANS TOP	71	c	1'-3" f -----
							d	4'-9" g 1' 6-5/16"
							STEM	
							a	1' 10-1/2"
							J	1' 5-7/8"
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES	
D	F1604E	16	3'-0"	STR.	DOWEL FF	50	STRUCTURAL CONCRETE (1A43)	
E	F1605E	9	3'-10"	0'-10"	DOWEL BF	36	(FOOTING)	
F	F1606E	8	4'-0"	3'-0"	DOWEL BF	33	SPREAD	3.7 cu. yd.
G	S1301E	16	6'-12"	STR.	VERT FF	74		
H	S1602E	17	6'-12"	STR.	VERT BF	124	STRUCTURAL CONCRETE (3Y43)	
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)	
K	S1604E	16	7'-7"	3'-3"	TIE	127	8.1 cu. yd.	
L	S1305E	16	15'-9"	STR.	HORIZ EF	169	REINFORCEMENT (PLAIN)	
M High End	S1606E	8	7'-6-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	63	SPREAD	337 lb
M Low End	S1607E	7	7'-6-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	55		
							REINFORCEMENT (EPOXY)	
							731 lb	

STEM HEIGHT : AT HIGH END = 7' 5-5/8"		AT LOW END = 7' 3-13/16"						
LEVEL	FILL Panel:	I9	PANEL LENGTH = 16' 3-1/8"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities	
SPREAD FOOTING REINFORCEMENT							DIMENSIONS	
A	F1601	10	18'-8"	STR.	LONG T & B	195	SPREAD FOOTING	
B	F1602	16	3'-9"	STR.	TRANS BOT	63	b	1'-2" e -----
C	F1603	16	3'-9"	STR.	TRANS TOP	63	c	1'-3" f -----
							d	4'-3" g 1' 4-5/16"
							STEM	
							a	1'-10"
							J	1' 5-3/8"
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES	
D	F1604E	16	3'-0"	STR.	DOWEL FF	50	STRUCTURAL CONCRETE (1A43)	
E	F1605E	9	3'-10"	0'-10"	DOWEL BF	36	(FOOTING)	
F	F1606E	8	4'-0"	3'-0"	DOWEL BF	33	SPREAD	3.3 cu. yd.
G	S1301E	16	6'-10"	STR.	VERT FF	73		
H	S1602E	17	6'-10"	STR.	VERT BF	121	STRUCTURAL CONCRETE (3Y43)	
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)	
K	S1604E	16	6'-1"	2'-6"	TIE	101	7.4 cu. yd.	
L	S1305E	14	15'-9"	STR.	HORIZ EF	147	REINFORCEMENT (PLAIN)	
M High End	S1606E	7	7'-6"	Varys: 1'-2" to 1'-6"	EXP JT TIE	55	SPREAD	321 lb
M Low End	S1607E	7	7'-6"	Varys: 1'-2" to 1'-6"	EXP JT TIE	55		
							REINFORCEMENT (EPOXY)	
							671 lb	

STEM HEIGHT : AT HIGH = 7' 3-13/16"		AT LOW END = 7'-0"						
LEVEL	FILL Panel:	I10	PANEL LENGTH = 16' 3-1/8"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities	
SPREAD FOOTING REINFORCEMENT							DIMENSIONS	
A	F1601	10	18'-8"	STR.	LONG T & B	195	SPREAD FOOTING	
B	F1602	16	3'-9"	STR.	TRANS BOT	63	b	1'-2" e -----
C	F1603	16	3'-9"	STR.	TRANS TOP	63	c	1'-3" f -----
							d	4'-3" g 1' 4-5/16"
							STEM	
							a	1'-10"
							J	1' 5-3/8"
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES	
D	F1604E	16	3'-0"	STR.	DOWEL FF	50	STRUCTURAL CONCRETE (1A43)	
E	F1605E	9	3'-10"	0'-10"	DOWEL BF	36	(FOOTING)	
F	F1606E	8	4'-0"	3'-0"	DOWEL BF	33	SPREAD	3.3 cu. yd.
G	S1301E	16	6'-6"	STR.	VERT FF	69		
H	S1602E	17	6'-6"	STR.	VERT BF	115	STRUCTURAL CONCRETE (3Y43)	
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)	
K	S1604E	16	6'-5"	2'-8"	TIE	107	7.2 cu. yd.	
L	S1305E	14	15'-9"	STR.	HORIZ EF	147	REINFORCEMENT (PLAIN)	
M High End	S1606E	7	7'-6"	Varys: 1'-2" to 1'-6"	EXP JT TIE	55	SPREAD	321 lb
M Low End	S1607E	7	7'-6"	Varys: 1'-2" to 1'-6"	EXP JT TIE	55		
							REINFORCEMENT (EPOXY)	
							667 lb	

STEM HEIGHT : AT HIGH END = 7'-0"		AT LOW END = 6' 6-3/8"						
LEVEL	FILL Panel:	I11	PANEL LENGTH = 19' 3-5/8"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities	
SPREAD FOOTING REINFORCEMENT							DIMENSIONS	
A	F1601	8	21'-9"	STR.	LONG T & B	181	SPREAD FOOTING	
B	F1602	19	3'-3"	STR.	TRANS BOT	64	b	1'-0" e -----
C	F1603	19	3'-3"	STR.	TRANS TOP	64	c	1'-3" f -----
							d	3'-9" g 1' 2-5/16"
							STEM	
							a	1' 9-1/2"
							J	1' 4-7/8"
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES	
D	F1604E	19	3'-0"	STR.	DOWEL FF	59	STRUCTURAL CONCRETE (1A43)	
E	F1605E	10	3'-10"	0'-10"	DOWEL BF	40	(FOOTING)	
F	F1606E	9	4'-0"	3'-0"	DOWEL BF	38	SPREAD	3.4 cu. yd.
G	S1301E	19	5'-10"	STR.	VERT FF	74		
H	S1602E	19	5'-10"	STR.	VERT BF	116	STRUCTURAL CONCRETE (3Y43)	
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)	
K	S1604E	19	7'-1"	3'-0"	TIE	140	8.0 cu. yd.	
L	S1305E	14	18'-10"	STR.	HORIZ EF	176	REINFORCEMENT (PLAIN)	
M High End	S1606E	7	7'-5-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	54	SPREAD	309 lb
M Low End	S1607E	6	7'-5-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	47		
							REINFORCEMENT (EPOXY)	
							744 lb	

WALL TABULATIONS - WALL WNEW

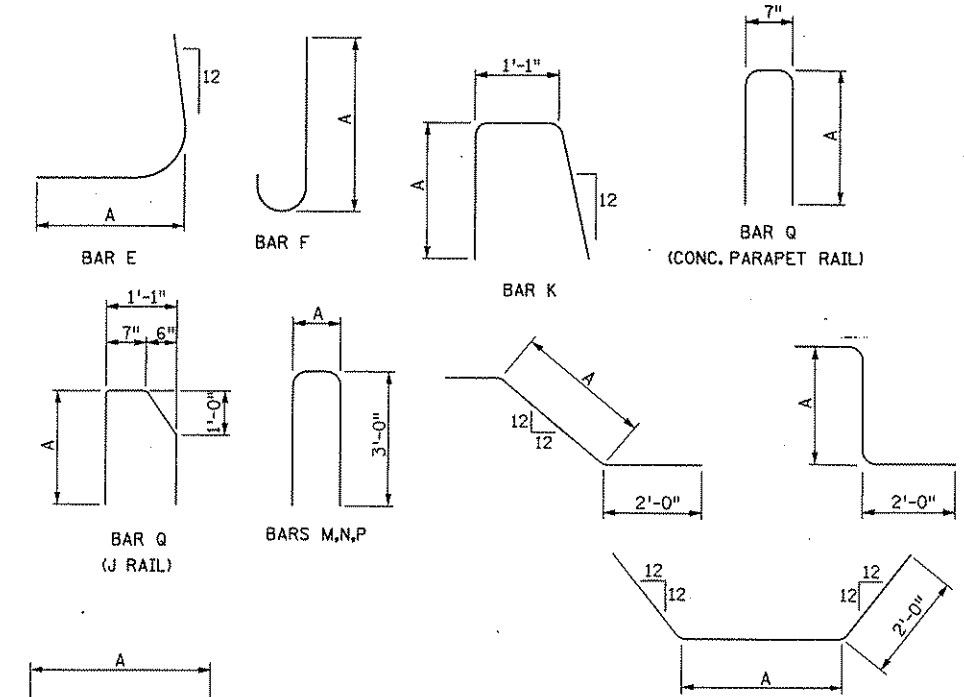
PLOTTED/REVISED: 05-FEB-2007 14:20

STEM HEIGHT : AT HIGH END = 4' 4-15/16" AT LOW END = 3' 11-7/8"										
LEVEL		FILL		Panel: I18		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	2'-6"	STR.	TRANS BOT	81	b	0'-9"	e	-----
C	F1603	31	2'-6"	STR.	TRANS TOP	81	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
							a	1' 8-1/2"		
							J	1' 3-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	4.3 cu. yd.		
G	S1301E	31	3'-6"	STR.	VERT FF	72				
H	S1602E	31	3'-6"	STR.	VERT BF	113	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	6'-7"	2'-9"	TIE	213	7.6 cu. yd.			
L	S1305E	8	30'-0"	STR.	HORIZ EF	160	REINFORCEMENT (PLAIN)			
M High End	S1606E	4	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	31	SPREAD	437 lb		
M Low End	S1607E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23				
REINFORCEMENT (EPOXY)										
836 lb										

STEM HEIGHT : AT HIGH END : 3' 11-7/8" AT LOW END = 3' 6-13/16"										
LEVEL		FILL		Panel: I19		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	2'-6"	STR.	TRANS BOT	81	b	0'-9"	e	-----
C	F1603	31	2'-6"	STR.	TRANS TOP	81	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
							a	1' 8-1/2"		
							J	1' 3-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	4.3 cu. yd.		
G	S1301E	31	3'-1"	STR.	VERT FF	64				
H	S1602E	31	3'-1"	STR.	VERT BF	99	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	6'-7"	2'-9"	TIE	213	6.8 cu. yd.			
L	S1305E	8	30'-0"	STR.	HORIZ EF	160	REINFORCEMENT (PLAIN)			
M High End	S1606E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23	SPREAD	437 lb		
M Low End	S1607E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23				
REINFORCEMENT (EPOXY)										
806 lb										

STEM HEIGHT : AT HIGH END = 3' 6-13/16" AT LOW END = 3' 2-3/4"										
LEVEL		FILL		Panel: I20		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	2'-6"	STR.	TRANS BOT	81	b	0'-9"	e	-----
C	F1603	31	2'-6"	STR.	TRANS TOP	81	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
							a	1' 8-1/2"		
							J	1' 3-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	4.3 cu. yd.		
G	S1301E	31	2'-9"	STR.	VERT FF	57				
H	S1602E	31	2'-9"	STR.	VERT BF	88	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	6'-5"	2'-8"	TIE	208	6.2 cu. yd.			
L	S1305E	8	30'-0"	STR.	HORIZ EF	160	REINFORCEMENT (PLAIN)			
M High End	S1606E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23	SPREAD	437 lb		
M Low End	S1607E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23				
REINFORCEMENT (EPOXY)										
783 lb										

STEM HEIGHT : AT HIGH END = 3' 2-3/4" AT LOW END = 3' 0-3/4"										
LEVEL		FILL		Panel: I21		PANEL LENGTH = 16'-0"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	18'-5"	STR.	LONG T & B	154	SPREAD FOOTING			
B	F1602	16	2'-6"	STR.	TRANS BOT	42	b	0'-9"	e	-----
C	F1603	16	2'-6"	STR.	TRANS TOP	42	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
							a	1' 8-1/2"		
							J	1' 3-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	16	3'-0"	STR.	DOWEL FF	50	STRUCTURAL CONCRETE (1A43)			
E	F1605E	9	3'-10"	0'-10"	DOWEL BF	36	(FOOTING)			
F	F1606E	8	4'-0"	3'-0"	DOWEL BF	33	SPREAD	2.3 cu. yd.		
G	S1301E	16	2'-7"	STR.	VERT FF	27				
H	S1602E	17	2'-7"	STR.	VERT BF	45	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	16	6'-1"	2'-6"	TIE	102	3.0 cu. yd.			
L	S1305E	6	15'-6"	STR.	HORIZ EF	62	REINFORCEMENT (PLAIN)			
M High End	S1606E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23	SPREAD	238 lb		
M Low End	S1607E	3	7' 4-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	23				
REINFORCEMENT (EPOXY)										
401 lb										



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DISTRICT: METRO
 PLOT NAME: TABS_WNEW 4
 PATH & FILENAME: S:\DESIGN\0650208123\In\Wall\TABS_WNEW.dgn

WALL TABULATIONS - WALL WNEW

PLOTTED/REVISED: 04-APR-2007 13:52

DISTRICT #: METRO
 IPLOT NAME: TABS_WNEW_SUM
 PATH & FILENAME: S:\Design\065\0208\23\Final\wallis\TABS_WNEW.dgn

RETAINING WALL WNEW													
ALIGNMENT				PROFILES						DIMENSIONS			
JOINT NUMBER	STATION	X	Y	INPLACE GROUND ELEV	PROPOSED FACE OF WALL ELEV	TOP OF WALL ELEV	TOP OF BARRIER ELEV	TOP OF FOOTING ELEV	BOTTOM OF FOOTING ELEV	WALL HEIGHT FT	FOOTING THICKNESS FT	PANEL LENGTH FT	PANEL NAME
				ELEV	ELEV	ELEV	ELEV	ELEV	ELEV	FT	FT	FT	
1	9+57.10	508356.083	159159.468	901.88	906.50	924.37	927.03	903.94	901.40	20.43	2.54		
2	9+74.34	508366.138	159173.462	901.51	908.10	924.02	926.69	905.20	903.04	18.82	2.16	17.24	I1
3	9+90.61	508374.647	159187.332	900.41	909.60	923.71	926.38	906.44	904.59	17.27	1.85	16.27	I2
4	10+06.89	508382.154	159201.768	902.71	911.11	923.47	926.13	907.85	906.13	15.62	1.72	16.27	I3
5	10+23.16	508388.622	159216.699	903.15	912.62	923.18	925.85	909.27	907.68	13.92	1.58	16.27	I4
6	10+39.44	508394.018	159232.050	903.36	914.13	922.82	925.48	910.68	909.23	12.14	1.45	16.27	I5
7	10+55.71	508398.315	159247.744	903.62	915.63	922.45	925.12	912.15	910.78	10.30	1.38	16.27	I6
8	10+71.99	508401.492	159263.702	903.94	917.14	922.09	924.75	913.70	912.32	8.39	1.38	16.27	I7
9	10+88.26	508403.532	159279.532	904.11	917.69	921.73	924.40	914.26	912.90	7.47	1.37	16.28	I8
10	11+04.54	508404.427	159296.092	904.30	917.49	921.39	924.05	914.06	912.71	7.32	1.35	16.26	I9
11	11+20.80	508404.170	159312.352	904.38	917.29	921.01	923.67	913.88	912.53	7.00	1.36	16.26	I10
12	11+40.10	508402.820	159331.603	904.07	917.06	920.54	923.21	913.68	912.31	6.53	1.37	19.3	I11
13	11+70.60	508400.599	159362.023	903.95	916.69	919.81	922.47	913.33	911.96	6.31	1.38	30.5	I12
14	12+01.10	508398.379	159392.442	903.79	916.32	919.07	921.74	912.99	911.61	6.09	1.37	30.5	I13
15	12+31.60	508396.258	159422.868	904.96	915.95	918.29	920.96	912.62	911.24	5.67	1.37	30.5	I14
16	12+62.10	508394.270	159453.303	905.15	915.58	917.50	920.17	912.25	910.87	5.25	1.38	30.5	I15
17	12+92.60	508392.283	159483.738	904.93	915.21	916.71	919.38	911.88	910.51	4.83	1.37	30.5	I16
18	13+23.10	508390.295	159514.173	904.51	914.84	915.92	918.59	911.51	910.14	4.41	1.38	30.5	I17
19	13+53.60	508388.308	159544.608	903.99	914.47	915.13	917.80	911.14	909.77	3.99	1.37	30.5	I18
20	13+84.10	508386.320	159575.043	903.84	914.10	914.34	917.01	910.78	909.40	3.57	1.38	30.5	I19
21	14+14.60	508384.333	159605.479	903.99	913.45	913.55	916.22	910.32	908.94	3.23	1.37	30.5	I20
22	14+30.60	508383.290	159621.445	904.13	913.10	913.14	915.81	910.08	908.70	3.06	1.38	16	I21

RETAINING WALL WNEW QUANTITIES									
PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		TYPE MOD F RAILING	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	ANTI GRAFFITI COATING	NOTES
	1A43 (FOOTING)	3Y43 (STEM)	PLAIN	EPOXY					
	CU YD	CU YD	POUND	POUND	LIN FT	SQ FT	SQ FT	SQ FT	
I1	11.5	24.3	1172	2417	17.24	212	212	212	
I2	9.1	20.6	919	1880	16.27	168	168	168	
I3	7.2	18.6	886	1704	16.27	139	139	139	
I4	6.4	16.3	790	1394	16.27	111	111	111	
I5	5.6	14.1	587	1215	16.27	81	81	81	
I6	5.2	12.0	481	1064	16.27	50	50	50	
I7	4.5	9.7	410	862	16.27	20	20	20	
I8	3.7	8.1	337	731	16.28				(1)
I9	3.3	7.4	321	671	16.26				(1)
I10	3.3	7.2	321	667	16.26				(1)
I11	3.4	8.0	309	744	19.3				(1)
I12	5.4	11.9	485	1107	30.5				(1)
I13	5.4	11.5	485	1055	30.5				(1)
I14	5.4	10.9	485	1037	30.5				(1)
I15	5.1	10.0	469	1007	30.5				(1)
I16	5.1	9.3	469	937	30.5				(1)
I17	4.3	8.4	437	909	30.5				(1)
I18	4.3	7.6	437	836	30.5				(1)
I19	4.3	6.8	437	806	30.5				(1)
I20	4.3	6.2	437	783	30.5				(1)
I21	2.3	3.0	238	401	16.0				(1)
TOTALS	109.1	231.9	10912	22227	473.5	781	781	781	

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

WALL TABULATIONS - WALL WNEW

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 298 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

DISTRICT #: METRO
I-PLOT NAME: TABS.WNWE 3
PATH & FILENAME: S:\DESIGN\065\0208\23\FINAL\WALLS\TABS.WNWE.dgn

STEM HEIGHT: AT HIGH END = 12' 2-5/8" AT LOW END = 11' 10-3/16"
LEVEL FILL Panel: H13 PANEL LENGTH = 10' 1-15/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 14 12'-7" STR. LONG T & B 184 SPREAD FOOTING
B F1602 10 6'-3" STR. TRANS BOT 65 b 2'-0" e -----
C F1603 10 6'-3" STR. TRANS TOP 65 c 1'-3" f -----
d 6'-9" g 2' 2-5/16"
STEM
a 2' 0-1/2" j 1' 7-7/8"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 10 3'-0" STR. DOWEL FF 31 STRUCTURAL CONCRETE (1A43)
E F1605E 10 4'-10" 0'-10" DOWEL BF 50 (FOOTING)
F F1606E 9 5'-0" 4'-0" DOWEL BF 47 SPREAD 3.3 cu.yd.
G S1301E 10 10'-1" STR. VERT FF 67
H S1602E 10 10'-1" STR. VERT BF 105 STRUCTURAL CONCRETE (3Y43)
J S 03E STR. VERT BF (STEM)
K S1604E 10 9'-0" 3'-12" TIE 94 8.0 cu.yd.
L S1305E 24 9'-8" STR. HORIZ EF 155 REINFORCEMENT (PLAN)
M High End S1606E 12 7'-1" Vary: 1'-2" to 1'-1" EXP JT TIE 96 SPREAD 314 lb
M Low End S1607E 11 7'-1" Vary: 1'-2" to 1'-1" EXP JT TIE 88
REINFORCEMENT (EPOXY) 733 lb

STEM HEIGHT: AT HIGH 11' 10-3/16" AT LOW END = 11' 5-3/4"
LEVEL FILL Panel: H14 PANEL LENGTH = 10' 2-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 14 12'-7" STR. LONG T & B 184 SPREAD FOOTING
B F1602 10 5'-9" STR. TRANS BOT 60 b 1'-10" e -----
C F1603 10 5'-9" STR. TRANS TOP 60 c 1'-3" f -----
d 6'-3" g 2' 0-5/16"
STEM
a 2'-0" j 1' 7-3/8"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 10 3'-0" STR. DOWEL FF 31 STRUCTURAL CONCRETE (1A43)
E F1605E 6 4'-1" 0'-10" DOWEL BF 26 (FOOTING)
F F1606E 5 4'-3" 3'-3" DOWEL BF 22 SPREAD 3.0 cu.yd.
G S1301E 10 9'-1" STR. VERT FF 61
H S1602E 11 9'-1" STR. VERT BF 104 STRUCTURAL CONCRETE (3Y43)
J S 03E STR. VERT BF (STEM)
K S1604E 10 10'-3" 4'-7" TIE 107 7.7 cu.yd.
L S1305E 24 9'-8" STR. HORIZ EF 155 REINFORCEMENT (PLAN)
M High End S1606E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88 SPREAD 304 lb
M Low End S1607E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88
REINFORCEMENT (EPOXY) 682 lb

STEM HEIGHT: AT HIGH END = 11' 5-3/4" AT LOW END = 11' 1-7/16"
LEVEL FILL Panel: H15 PANEL LENGTH = 10' 1-15/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 14 12'-7" STR. LONG T & B 184 SPREAD FOOTING
B F1602 10 5'-9" STR. TRANS BOT 60 b 1'-10" e -----
C F1603 10 5'-9" STR. TRANS TOP 60 c 1'-3" f -----
d 6'-3" g 2' 0-5/16"
STEM
a 2'-0" j 1' 7-3/8"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 10 3'-0" STR. DOWEL FF 31 STRUCTURAL CONCRETE (1A43)
E F1605E 6 4'-1" 0'-10" DOWEL BF 26 (FOOTING)
F F1606E 5 4'-3" 3'-3" DOWEL BF 22 SPREAD 3.0 cu.yd.
G S1301E 10 9'-1" STR. VERT FF 61
H S1602E 11 9'-1" STR. VERT BF 104 STRUCTURAL CONCRETE (3Y43)
J S 03E STR. VERT BF (STEM)
K S1604E 10 9'-7" 4'-3" TIE 100 7.4 cu.yd.
L S1305E 22 9'-8" STR. HORIZ EF 142 REINFORCEMENT (PLAN)
M High End S1606E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88 SPREAD 304 lb
M Low End S1607E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88
REINFORCEMENT (EPOXY) 662 lb

STEM HEIGHT: AT HIGH END = 11' 2-5/8" AT LOW END = 11' 1-7/16"
LEVEL FILL Panel: H16 PANEL LENGTH = 10' 1-15/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 14 12'-7" STR. LONG T & B 184 SPREAD FOOTING
B F1602 10 5'-9" STR. TRANS BOT 60 b 1'-10" e -----
C F1603 10 5'-9" STR. TRANS TOP 60 c 1'-3" f -----
d 6'-3" g 2' 0-5/16"
STEM
a 2'-0" j 1' 7-3/8"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 10 3'-0" STR. DOWEL FF 31 STRUCTURAL CONCRETE (1A43)
E F1605E 6 4'-1" 0'-10" DOWEL BF 26 (FOOTING)
F F1606E 5 4'-3" 3'-3" DOWEL BF 22 SPREAD 3.0 cu.yd.
G S1301E 10 9'-1" STR. VERT FF 61
H S1602E 11 9'-1" STR. VERT BF 104 STRUCTURAL CONCRETE (3Y43)
J S 03E STR. VERT BF (STEM)
K S1604E 10 9'-0" 3'-12" TIE 94 7.4 cu.yd.
L S1305E 22 9'-8" STR. HORIZ EF 142 REINFORCEMENT (PLAN)
M High End S1606E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88 SPREAD 304 lb
M Low End S1607E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88
REINFORCEMENT (EPOXY) 656 lb

STEM HEIGHT: AT HIGH END = 11' 3-15/16" AT LOW END = 11' 2-5/8"
LEVEL FILL Panel: H17 PANEL LENGTH = 10' 1-15/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 14 12'-7" STR. LONG T & B 184 SPREAD FOOTING
B F1602 10 5'-9" STR. TRANS BOT 60 b 1'-10" e -----
C F1603 10 5'-9" STR. TRANS TOP 60 c 1'-3" f -----
d 6'-3" g 2' 0-5/16"
STEM
a 2'-0" j 1' 7-3/8"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 10 3'-0" STR. DOWEL FF 31 STRUCTURAL CONCRETE (1A43)
E F1605E 6 4'-1" 0'-10" DOWEL BF 26 (FOOTING)
F F1606E 5 4'-3" 3'-3" DOWEL BF 22 SPREAD 3.0 cu.yd.
G S1301E 10 9'-1" STR. VERT FF 61
H S1602E 11 9'-1" STR. VERT BF 104 STRUCTURAL CONCRETE (3Y43)
J S 03E STR. VERT BF (STEM)
K S1604E 10 9'-3" 4'-1" TIE 96 7.4 cu.yd.
L S1305E 22 9'-8" STR. HORIZ EF 142 REINFORCEMENT (PLAN)
M High End S1606E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88 SPREAD 304 lb
M Low End S1607E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88
REINFORCEMENT (EPOXY) 658 lb

STEM HEIGHT: AT HIGH 11' 5-1/4" AT LOW END = 11' 3-15/16"
LEVEL FILL Panel: H18 PANEL LENGTH = 10' 1-15/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 14 12'-7" STR. LONG T & B 184 SPREAD FOOTING
B F1602 10 5'-9" STR. TRANS BOT 60 b 1'-10" e -----
C F1603 10 5'-9" STR. TRANS TOP 60 c 1'-3" f -----
d 6'-3" g 2' 0-5/16"
STEM
a 2'-0" j 1' 7-3/8"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 10 3'-0" STR. DOWEL FF 31 STRUCTURAL CONCRETE (1A43)
E F1605E 6 4'-1" 0'-10" DOWEL BF 26 (FOOTING)
F F1606E 5 4'-3" 3'-3" DOWEL BF 22 SPREAD 3.0 cu.yd.
G S1301E 10 9'-1" STR. VERT FF 61
H S1602E 11 9'-1" STR. VERT BF 104 STRUCTURAL CONCRETE (3Y43)
J S 03E STR. VERT BF (STEM)
K S1604E 10 9'-6" 4'-2" TIE 99 7.5 cu.yd.
L S1305E 22 9'-8" STR. HORIZ EF 142 REINFORCEMENT (PLAN)
M High End S1606E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88 SPREAD 304 lb
M Low End S1607E 11 7'-8" Vary: 1'-2" to 1'-8" EXP JT TIE 88
REINFORCEMENT (EPOXY) 661 lb

WALL TABULATIONS - WALL WNWE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSING PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 301 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

Table for Wall Tabulation H31. Includes columns for Level, Fill, Panel, and Dimensions. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT.

Table for Wall Tabulation H32. Includes columns for Level, Fill, Panel, and Dimensions. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT.

Table for Wall Tabulation H33. Includes columns for Level, Fill, Panel, and Dimensions. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT.

Table for Wall Tabulation H34. Includes columns for Level, Fill, Panel, and Dimensions. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT.

Table for Wall Tabulation H35. Includes columns for Level, Fill, Panel, and Dimensions. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT.

Table for Wall Tabulation H36. Includes columns for Level, Fill, Panel, and Dimensions. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT.

DISTRICT #: METRO
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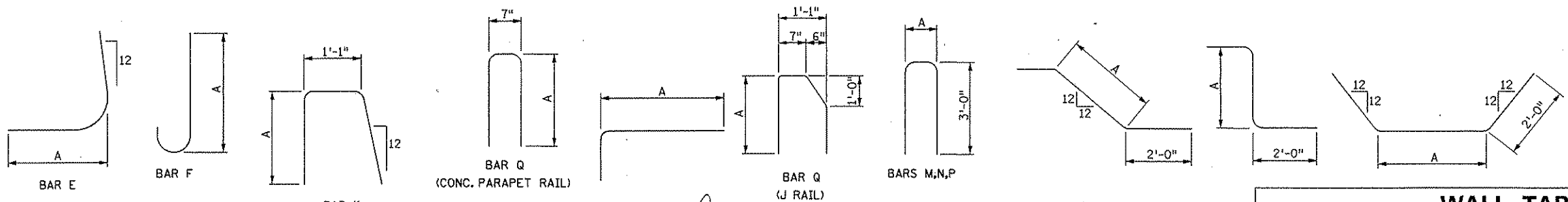
PLOTTED/REVISED: 05-FEB-2007 14:20

DISTRICT #: METRO
 IPLOT NAME: tabs_wnwe 8
 PATH & FILENAME: S:\Design\065\0208\23\Final\wallisTABS_WNWE.dgn

STEM HEIGHT : AT HIGH END = 3' 11-3/4" AT LOW END = 3' 8-1/4"										
LEVEL		FILL Panel:		H43		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	2'-6"	STR.	TRANS BOT	81	b	0'-9"	e	-----
C	F1603	31	2'-6"	STR.	TRANS TOP	81	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
a	1' 8-1/2"									
J	1' 3-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD 4.3 cu.yd.			
G	S1301E	31	3'-2"	STR.	VERT FF	66	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	3'-2"	STR.	VERT BF	103	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	6'-4"	2'-7"	TIE	205	6.9 cu.yd.			
L	S1305E	8	30'-0"	STR.	HORIZ EF	160	REINFORCEMENT (PLAIN)			
M High End	S1606E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	SPREAD 437 lb			
M Low End	S1607E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	REINFORCEMENT (EPOXY)			
							804 lb			

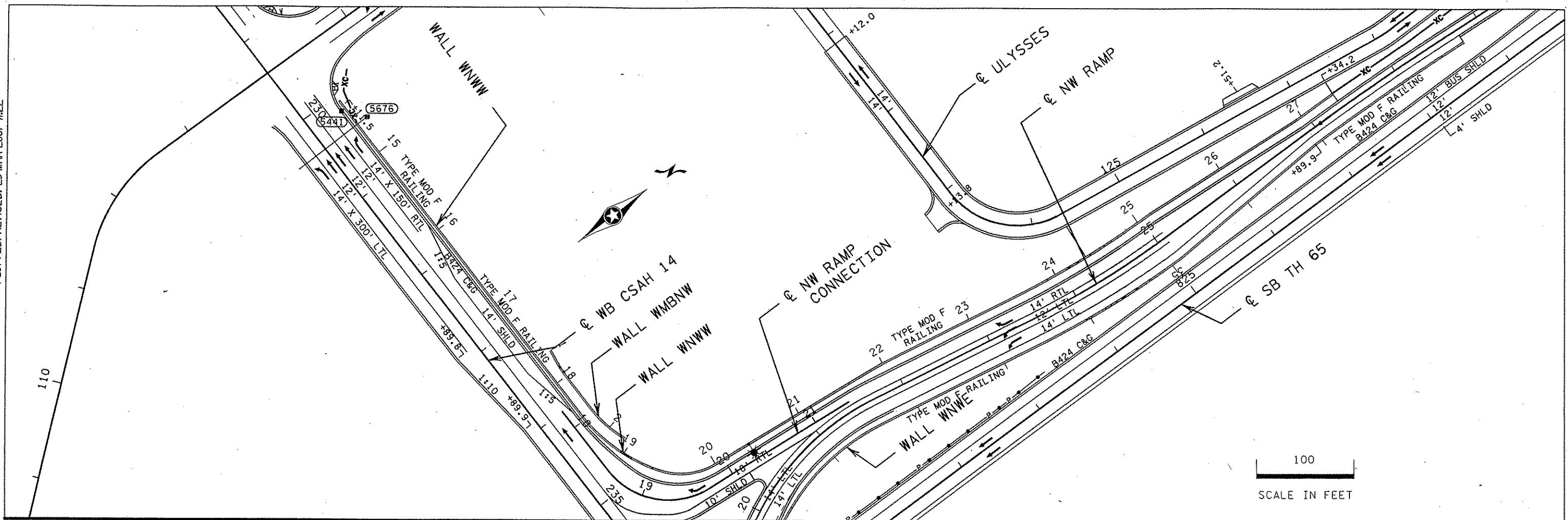
STEM HEIGHT : AT HIGH END = 3' 8-1/4" AT LOW END = 3' 5-5/8"										
LEVEL		FILL Panel:		H44		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	2'-6"	STR.	TRANS BOT	81	b	0'-9"	e	-----
C	F1603	31	2'-6"	STR.	TRANS TOP	81	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
a	1' 8-1/2"									
J	1' 3-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD 4.3 cu.yd.			
G	S1301E	31	2'-12"	STR.	VERT FF	62	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	2'-12"	STR.	VERT BF	96	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	6'-2"	2'-7"	TIE	200	6.5 cu.yd.			
L	S1305E	8	30'-0"	STR.	HORIZ EF	160	REINFORCEMENT (PLAIN)			
M High End	S1606E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	SPREAD 437 lb			
M Low End	S1607E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	REINFORCEMENT (EPOXY)			
							788 lb			

STEM HEIGHT : AT HIGH END : 3' 5-5/8" AT LOW END = 3' 5- 1/16"										
LEVEL		FILL Panel:		H45		PANEL LENGTH = 10'-0"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	8	12'-5"	STR.	LONG T & B	104	SPREAD FOOTING			
B	F1602	10	2'-6"	STR.	TRANS BOT	26	b	0'-9"	e	-----
C	F1603	10	2'-6"	STR.	TRANS TOP	26	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
a	1' 8-1/2"									
J	1' 3-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F1605E	6	3'-10"	0'-10"	DOWEL BF	24	(FOOTING)			
F	F1606E	5	4'-0"	3'-0"	DOWEL BF	21	SPREAD 1.4 cu.yd.			
G	S1301E	10	2'-11"	STR.	VERT FF	20	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	11	2'-11"	STR.	VERT BF	34	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	10	5'-10"	2'-5"	TIE	61	2.0 cu.yd.			
L	S1305E	6	9'-6"	STR.	HORIZ EF	38	REINFORCEMENT (PLAIN)			
M High End	S1606E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	SPREAD 156 lb			
M Low End	S1607E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	REINFORCEMENT (EPOXY)			
							275 lb			

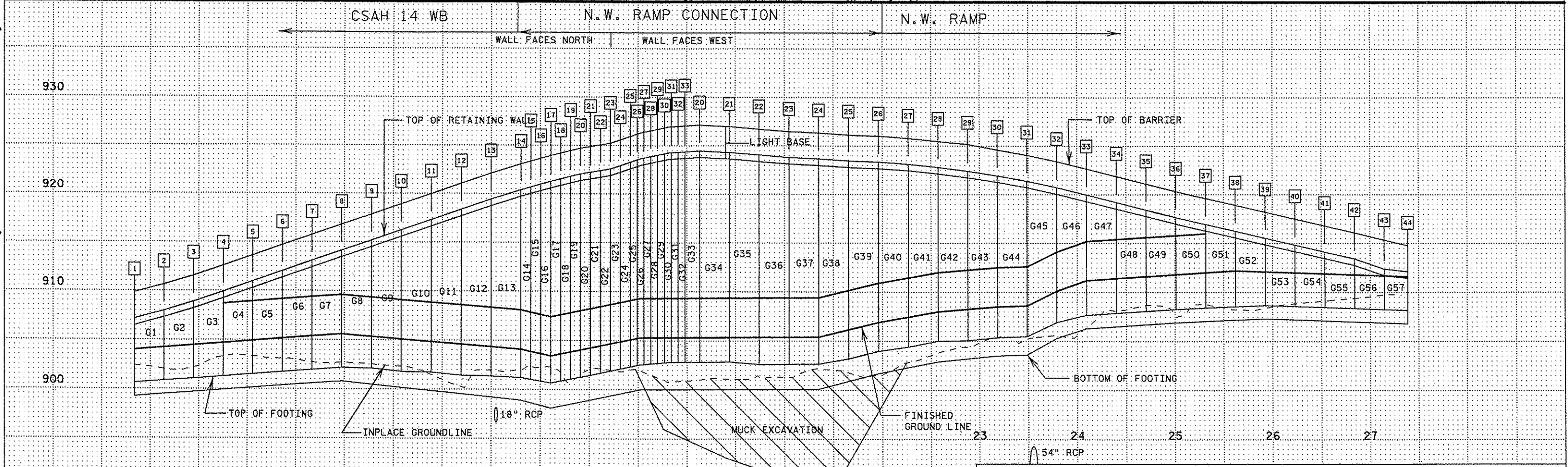


NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

PLOTTED/REVISED: 29-MAR-2007 11:22



DISTRICT #: METRO
I/PLOT NAME: WNW
PATH & FILENAME: S:\Design\065\0208\123\1\In\Walls\0208123_Wrl.dgn



WALL PLAN / PROFILE - WALL WNWW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 308 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:56

Table for Panel G1: STEM HEIGHT: AT HIGH END = 7' 1-9/16" AT LOW END = 6' 6-1/4". Includes reinforcement details for bars A-C, footing dowels D-L, and stem reinforcement M-N.

Table for Panel G2: STEM HEIGHT: AT HIGH END = 7' 9-15/16" AT LOW END = 7' 1-9/16". Includes reinforcement details for bars A-C, footing dowels D-L, and stem reinforcement M-N.

Table for Panel G3: STEM HEIGHT: AT HIGH END = 8' 7-7/16" AT LOW END = 7' 9-15/16". Includes reinforcement details for bars A-C, footing dowels D-L, and stem reinforcement M-N.

Table for Panel G4: STEM HEIGHT: AT HIGH END = 9' 5-3/8" AT LOW END = 8' 7-7/16". Includes reinforcement details for bars A-C, footing dowels D-L, and stem reinforcement M-N.

Table for Panel G5: STEM HEIGHT: AT HIGH END = 10' 3-1/2" AT LOW END = 9' 5-3/8". Includes reinforcement details for bars A-C, footing dowels D-L, and stem reinforcement M-N.

Table for Panel G6: STEM HEIGHT: AT HIGH END = 11' 1-9/16" AT LOW END = 10' 3-1/2". Includes reinforcement details for bars A-C, footing dowels D-L, and stem reinforcement M-N.

DISTRICT #: METRO
PLOT NAME: tabs-wnww01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wall\TABS-WNWW.dgn

WALL TABULATIONS - WALL WNWW

PLOTTED/REVISED: 31-JAN-2007 08:56

DISTRICT: METRO
IPLLOT NAME: tabs_wnww03
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wallis TABS_WNWW.dgn

AT HIGH END = 19' 2-1/2"										AT LOW END = 18' 0-15/16"											
LEVEL FILL Panel: G13					PANEL LENGTH = 30'-6"					LEVEL FILL Panel: G13					PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										DIMENSIONS											
A	F1601	22	12'-7"	STR.	LONG T & B	755	SPREAD FOOTING				A	F1601	22	12'-7"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F1902	31	10'-0"	STR.	TRANS BOT	466	b	3'-3"	e	-----	B	F1902	31	10'-0"	STR.	TRANS BOT	466	b	3'-3"	e	-----
C	F2503	31	10'-0"	STR.	TRANS TOP	828	c	1'-6"	f	-----	C	F2503	31	10'-0"	STR.	TRANS TOP	828	c	1'-6"	f	-----
										STEM											
										a 2'-4"											
										J 1'-11-5/16"											
FOOTING DOWELS & STEM REINFORCEMENT										QUANTITIES											
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	12'-4"	5'-1"	DOWEL BF	574	(FOOTING)				E	F1905E	31	12'-4"	5'-1"	DOWEL BF	574	(FOOTING)			
F	F1906E	30	8'-3"	7'-3"	DOWEL BF	372	SPREAD 18.9cu.yd.				F	F1906E	30	8'-3"	7'-3"	DOWEL BF	372	SPREAD 18.9cu.yd.			
G	S1301E	31	17'-1"	STR.	VERT FF	354	STRUCTURAL CONCRETE (3Y43)				G	S1301E	31	17'-1"	STR.	VERT FF	354	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	17'-1"	STR.	VERT BF	552	STRUCTURAL CONCRETE (3Y43)				H	S1602E	31	17'-1"	STR.	VERT BF	552	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)				J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)			
K	S1604E	31	9'-0"	3'-12"	TIE	291	40.4cu.yd.				K	S1604E	31	9'-0"	3'-12"	TIE	291	40.4cu.yd.			
L	S1305E	38	30'-0"	STR.	HORIZ EF	762	REINFORCEMENT (PLAN)				L	S1305E	38	30'-0"	STR.	HORIZ EF	762	REINFORCEMENT (PLAN)			
M High End	S1606E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD 2049 lb				M High End	S1606E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD 2049 lb			
M Low End	S1607E	18	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	150					M Low End	S1607E	18	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	150				
										REINFORCEMENT (EPOXY)											
										3514 lb											

STEM HEIGHT: AT HIGH 19' 8-3/16"										AT LOW END = 19' 2-1/2"											
LEVEL FILL Panel: G14					PANEL LENGTH = 10' 1-13/16"					LEVEL FILL Panel: G14					PANEL LENGTH = 10' 1-13/16"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										DIMENSIONS											
A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING				A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING			
B	F1902	10	10'-0"	STR.	TRANS BOT	150	b	3'-3"	e	-----	B	F1902	10	10'-0"	STR.	TRANS BOT	150	b	3'-3"	e	-----
C	F2503	10	10'-0"	STR.	TRANS TOP	267	c	1'-6"	f	-----	C	F2503	10	10'-0"	STR.	TRANS TOP	267	c	1'-6"	f	-----
										STEM											
										a 2'-4"											
										J 1'-11-5/16"											
FOOTING DOWELS & STEM REINFORCEMENT										QUANTITIES											
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)				D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F1905E	10	12'-4"	5'-1"	DOWEL BF	185	(FOOTING)				E	F1905E	10	12'-4"	5'-1"	DOWEL BF	185	(FOOTING)			
F	F1906E	9	8'-3"	7'-3"	DOWEL BF	112	SPREAD 6.3cu.yd.				F	F1906E	9	8'-3"	7'-3"	DOWEL BF	112	SPREAD 6.3cu.yd.			
G	S1301E	10	17'-1"	STR.	VERT FF	114	STRUCTURAL CONCRETE (3Y43)				G	S1301E	10	17'-1"	STR.	VERT FF	114	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	10	17'-1"	STR.	VERT BF	178	STRUCTURAL CONCRETE (3Y43)				H	S1602E	10	17'-1"	STR.	VERT BF	178	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)				J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	9'-11"	4'-5"	TIE	104	14.0cu.yd.				K	S1604E	10	9'-11"	4'-5"	TIE	104	14.0cu.yd.			
L	S1305E	40	9'-8"	STR.	HORIZ EF	250	REINFORCEMENT (PLAN)				L	S1305E	40	9'-8"	STR.	HORIZ EF	250	REINFORCEMENT (PLAN)			
M High End	S1606E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD 705 lb				M High End	S1606E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD 705 lb			
M Low End	S1607E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159					M Low End	S1607E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159				
										REINFORCEMENT (EPOXY)											
										1361 lb											

STEM HEIGHT: AT HIGH END = 20' 1-13/16"										AT LOW END = 19' 8-3/16"											
LEVEL FILL Panel: G15					PANEL LENGTH = 10' 2-1/4"					LEVEL FILL Panel: G15					PANEL LENGTH = 10' 2-1/4"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										DIMENSIONS											
A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING				A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"	B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"	C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
										STEM											
										a 2' 4-1/2"											
										J 1'-11-3/4"											
FOOTING DOWELS & STEM REINFORCEMENT										QUANTITIES											
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)				D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)				E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD 6.8cu.yd.				F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD 6.8cu.yd.			
G	S1301E	10	18'-1"	STR.	VERT FF	121	STRUCTURAL CONCRETE (3Y43)				G	S1301E	10	18'-1"	STR.	VERT FF	121	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)				H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)				J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	8'-11"	3'-11"	TIE	93	14.6cu.yd.				K	S1604E	10	8'-11"	3'-11"	TIE	93	14.6cu.yd.			
L	S1305E	40	9'-8"	STR.	HORIZ EF	259	REINFORCEMENT (PLAN)				L	S1305E	40	9'-8"	STR.	HORIZ EF	259	REINFORCEMENT (PLAN)			
M High End	S1606E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168	SPREAD 713 lb				M High End	S1606E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168	SPREAD 713 lb			
M Low End	S1607E	19	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	159					M Low End	S1607E	19	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	159				
										REINFORCEMENT (EPOXY)											
										1541 lb											

STEM HEIGHT: AT HIGH END = 20' 7-9/16"										AT LOW END = 20' 1-13/16"											
LEVEL FILL Panel: G16					PANEL LENGTH = 10' 1-15/16"					LEVEL FILL Panel: G16					PANEL LENGTH = 10' 1-15/16"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										DIMENSIONS											
A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING				A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"	B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"	C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
										STEM											
										a 2' 4-1/2"											
										J 1'-11-3/4"											
FOOTING DOWELS & STEM REINFORCEMENT										QUANTITIES											
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)				D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)				E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD 6.8cu.yd.				F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD 6.8cu.yd.			
G	S1301E	10	18'-1"	STR.	VERT FF	121	STRUCTURAL CONCRETE (3Y43)				G	S1301E	10	18'-1"	STR.	VERT FF	121	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)				H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)				J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	9'-10"	4'-5"	TIE	103	14.9cu.yd.				K	S1604E	10	9'-10"	4'-5"	TIE	103	14.9cu.yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAN)				L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAN)			
M High End	S1606E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168	SPREAD 713 lb				M High End	S1606E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168	SPREAD 713 lb			
M Low End	S1607E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168					M Low End	S1607E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168				
										REINFORCEMENT (EPOXY)											
										1572 lb											

STEM HEIGHT: AT HIGH END = 20' 8-3/16"										AT LOW END = 20' 7-9/16"											
LEVEL FILL Panel: G17					PANEL LENGTH = 10' 1-13/16"					LEVEL FILL Panel: G17					PANEL LENGTH = 10' 1-13/16"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										DIMENSIONS											
A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING				A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"	B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"	C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
										STEM											
										a 2' 4-1/2"											
										J 1'-11-3/4"											
FOOTING DOWELS & STEM REINFORCEMENT										QUANTITIES											
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)				D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)				E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD 6.8cu.yd.				F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD 6.8cu.yd.			
G	S1301E	10	18'-1"	STR.	VERT FF	121	STRUCTURAL CONCRETE (3Y43)				G	S1301E	10	18'-1"	STR.	VERT FF	121	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)				H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)				J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	9'-11"	4'-5"	TIE	104	15.0cu.yd.				K	S1604E	10	9'-11"	4'-5"	TIE	104	15.0cu.yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAN)				L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAN)			
M High End	S1606E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168															

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STEM HEIGHT : AT HIGH END = 20' 9-3/8" AT LOW END = 20' 8-3/4"										
LEVEL FILL Panel: G19						PANEL LENGTH = 10' 1-13/16"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
	a	2' 4-1/2"								
	J	1' 11-3/4"								
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD	6.8 cu. yd.		
G	S1301E	10	18'-1"	STR.	VERT FF	121				
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	10'-2"	4'-6"	TIE	106	15.1cu. yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	712 lb		
M Low End	S1607E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168				
REINFORCEMENT (EPOXY)							1575 lb			

STEM HEIGHT : AT HIGH END = 20' 9-3/8" AT LOW END = 20' 8-3/4"										
LEVEL FILL Panel: G20						PANEL LENGTH = 10' 1-13/16"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
	a	2' 4-1/2"								
	J	1' 11-3/4"								
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD	6.8 cu. yd.		
G	S1301E	10	18'-1"	STR.	VERT FF	121				
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	10'-2"	4'-6"	TIE	106	15.1cu. yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	712 lb		
M Low End	S1607E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168				
REINFORCEMENT (EPOXY)							1575 lb			

STEM HEIGHT : AT HIGH END = 20' 8-7/8" AT LOW END = 20' 8-1/2"										
LEVEL FILL Panel: G21						PANEL LENGTH = 10' 2-3/8"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	290	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
	a	2' 4-1/2"								
	J	1' 11-3/4"								
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD	6.8 cu. yd.		
G	S1301E	10	18'-1"	STR.	VERT FF	121				
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	10'-1"	4'-6"	TIE	105	15.2cu. yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	272	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	714 lb		
M Low End	S1607E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168				
REINFORCEMENT (EPOXY)							1575 lb			

STEM HEIGHT : AT HIGH END = 20' 8-1/2" AT LOW END = 20' 8-3/16"										
LEVEL FILL Panel: G22						PANEL LENGTH = 10' 1-13/16"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
	a	2' 4-1/2"								
	J	1' 11-3/4"								
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD	6.8 cu. yd.		
G	S1301E	10	18'-1"	STR.	VERT FF	121				
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	10'-0"	4'-6"	TIE	104	15.1cu. yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	271	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	712 lb		
M Low End	S1607E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168				
REINFORCEMENT (EPOXY)							1573 lb			

STEM HEIGHT : AT HIGH END = 20' 9-3/4" AT LOW END = 20' 8-3/16"										
LEVEL FILL Panel: G23						PANEL LENGTH = 10' 1-9/16"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	288	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
	a	2' 4-1/2"								
	J	1' 11-3/4"								
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD	6.8 cu. yd.		
G	S1301E	10	18'-1"	STR.	VERT FF	121				
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	10'-2"	4'-7"	TIE	106	15.1cu. yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	270	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	712 lb		
M Low End	S1607E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168				
REINFORCEMENT (EPOXY)							1574 lb			

STEM HEIGHT : AT HIGH END = 20' 11-3/8" AT LOW END = 20' 9-3/4"										
LEVEL FILL Panel: G24						PANEL LENGTH = 10' 2-1/4"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING			
B	F1902	10	10'-2"	STR.	TRANS BOT	153	b	3'-8"	e	1'-0"
C	F2503	10	10'-2"	STR.	TRANS TOP	271	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
	a	2' 4-1/2"								
	J	1' 11-3/4"								
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	13'-9"	5'-6"	DOWEL BF	281	(FOOTING)			
F	F2206E	9	9'-9"	8'-9"	DOWEL BF	179	SPREAD	6.8 cu. yd.		
G	S1301E	10	18'-1"	STR.	VERT FF	121				
H	S1602E	10	18'-1"	STR.	VERT BF	189	STRUCTURAL CONCRETE (3Y43)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	(STEM)			
K	S1604E	10	10'-6"	4'-8"	TIE	109	15.3cu. yd.			
L	S1305E	42	9'-8"	STR.	HORIZ EF	272	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	713 lb		
M Low End	S1607E	20	8' 0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168				
REINFORCEMENT (EPOXY)							1579 lb			

DISTRICT : METRO
PLOT NAME: tabs_wnww04
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wallist_ABS_WNWW.dgn

WALL TABULATIONS - WALL WNWW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 312 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT *: METRO
PLOT NAME: 10bs_wnww05
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wall\TAB_WALL.WNWW.dgn

STEM HEIGHT : AT HIGH END = 21' 0-1/2" AT LOW END = 20' 11-3/8"											
LEVEL		FILL Panel:		G25		PANEL LENGTH =		7'-0"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
	a	2'-5"									
	J	2' 0-1/4"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	(STEM)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	10.8cu. yd.				
K	S1604E	7	8'-8"	3'-9"	TIE	63	REINFORCEMENT (PLAN)				
L	S1305E	42	6'-6"	STR.	HORIZ EF	182	REINFORCEMENT (PLAN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	20	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	169	REINFORCEMENT (EPOXY)				
						1231 lb					

STEM HEIGHT : AT HIGH END = 21' 1-7/16" AT LOW END = 21' 0-1/2"											
LEVEL		FILL Panel:		G26		PANEL LENGTH =		7'-0"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
	a	2'-5"									
	J	2' 0-1/4"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	(STEM)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	10.7cu. yd.				
K	S1604E	7	8'-10"	3'-10"	TIE	64	REINFORCEMENT (PLAN)				
L	S1305E	42	6'-6"	STR.	HORIZ EF	182	REINFORCEMENT (PLAN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
						1240 lb					

STEM HEIGHT : AT HIGH END = 21' 2-5/8" AT LOW END = 21' 1-9/16"											
LEVEL		FILL Panel:		G27		PANEL LENGTH =		7'-0"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
	a	2'-5"									
	J	2' 0-1/4"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	(STEM)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	10.8cu. yd.				
K	S1604E	7	9'-0"	3'-12"	TIE	66	REINFORCEMENT (PLAN)				
L	S1305E	42	6'-6"	STR.	HORIZ EF	182	REINFORCEMENT (PLAN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
						1242 lb					

STEM HEIGHT : AT HIGH END = 21' 3-3/4" AT LOW END = 21' 2-5/8"											
LEVEL		FILL Panel:		G28		PANEL LENGTH =		7'-0"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
	a	2'-5"									
	J	2' 0-1/4"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	(STEM)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	10.8cu. yd.				
K	S1604E	7	9'-2"	4'-1"	TIE	67	REINFORCEMENT (PLAN)				
L	S1305E	42	6'-6"	STR.	HORIZ EF	182	REINFORCEMENT (PLAN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
						1243 lb					

STEM HEIGHT : AT HIGH END = 21' 4-13/16" AT LOW END = 21' 3-3/4"											
LEVEL		FILL Panel:		G29		PANEL LENGTH =		7'-0"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
	a	2'-5"									
	J	2' 0-1/4"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	(STEM)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	10.8cu. yd.				
K	S1604E	7	9'-5"	4'-2"	TIE	69	REINFORCEMENT (PLAN)				
L	S1305E	42	6'-6"	STR.	HORIZ EF	182	REINFORCEMENT (PLAN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
						1245 lb					

STEM HEIGHT : AT HIGH END = 21' 5-3/4" AT LOW END = 21' 4-13/16"											
LEVEL		FILL Panel:		G30		PANEL LENGTH =		7'-0"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
	a	2'-5"									
	J	2' 0-1/4"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	(STEM)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	10.9cu. yd.				
K	S1604E	7	9'-7"	4'-3"	TIE	70	REINFORCEMENT (PLAN)				
L	S1305E	42	6'-6"	STR.	HORIZ EF	182	REINFORCEMENT (PLAN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
						1246 lb					

WALL TABULATIONS - WALL WNWW

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT #: METRO
PROJECT NAME: Tabs-WNWW06
PATH & FILENAME: S:\DESIGN\05\0208\23\Final\wall\TABS-WNWW.dgn

STEM HEIGHT : AT HIGH END =21' 6-1/8" AT LOW END =21' 5-3/4"											
LEVEL		FILL		Panel: G31		PANEL LENGTH = 7'-0"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT											
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
			a	2'-5"							
			J	2' 0-1/4"							
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	STRUCTURAL CONCRETE (3Y43)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	(STEM)				
K	S1604E	7	9'-7"	4'-3"	TIE	70	10.9cu. yd.				
L	S1305E	44	6'-6"	STR.	HORIZ EF	191	REINFORCEMENT (PLAIN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
							1255 lb				

STEM HEIGHT : AT HIGH END =21' 6-5/8" AT LOW END =21' 6-1/8"											
LEVEL		FILL		Panel: G32		PANEL LENGTH = 7'-0"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT											
A	F1601	22	9'-5"	STR.	LONG T & B	216	SPREAD FOOTING				
B	F2202	7	10'-4"	STR.	TRANS BOT	148	b	4'-0"	e	1'-0"	
C	F2203	7	10'-4"	STR.	TRANS TOP	148	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
			a	2'-5"							
			J	2' 0-1/4"							
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	7	3'-0"	STR.	DOWEL FF	22	STRUCTURAL CONCRETE (1A43)				
E	F2205E	7	15'-2"	5'-11"	DOWEL BF	217	(FOOTING)				
F	F2206E	6	10'-9"	9'-9"	DOWEL BF	132	SPREAD	4.8 cu. yd.			
G	S1301E	7	19'-1"	STR.	VERT FF	89	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	7	19'-1"	STR.	VERT BF	139	STRUCTURAL CONCRETE (3Y43)				
J	S1603E	6	6'-6"	STR.	VERT BF	41	(STEM)				
K	S1604E	7	9'-8"	4'-4"	TIE	71	10.9cu. yd.				
L	S1305E	44	6'-6"	STR.	HORIZ EF	191	REINFORCEMENT (PLAIN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	512 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
							1256 lb				

STEM HEIGHT : AT HIGH END =21' 7-11/16" AT LOW END =21' 6-5/8"											
LEVEL		FILL		Panel: G33		PANEL LENGTH = 15' 2-3/16"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT											
A	F1601	22	17'-7"	STR.	LONG T & B	404	SPREAD FOOTING				
B	F2202	15	10'-4"	STR.	TRANS BOT	317	b	4'-0"	e	1'-0"	
C	F2203	15	10'-4"	STR.	TRANS TOP	317	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
			a	2'-5"							
			J	2' 0-1/4"							
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	15	3'-0"	STR.	DOWEL FF	47	STRUCTURAL CONCRETE (1A43)				
E	F2205E	15	15'-2"	5'-11"	DOWEL BF	465	(FOOTING)				
F	F2206E	14	10'-9"	9'-9"	DOWEL BF	308	SPREAD	10.4cu. yd.			
G	S1301E	15	19'-1"	STR.	VERT FF	191	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	15	19'-1"	STR.	VERT BF	299	STRUCTURAL CONCRETE (3Y43)				
J	S1603E	14	6'-6"	STR.	VERT BF	95	(STEM)				
K	S1604E	15	9'-10"	4'-5"	TIE	154	23.8cu. yd.				
L	S1305E	44	14'-8"	STR.	HORIZ EF	431	REINFORCEMENT (PLAIN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	1038 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
							2344 lb				

STEM HEIGHT : AT HIGH END =21' 7-11/16" AT LOW END =21' 5-5/8"											
LEVEL		FILL		Panel: G34		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT											
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING				
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"	
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
			a	2'-5"							
			J	2' 0-1/4"							
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)				
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD	20.8 cu. yd.			
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	31	19'-1"	STR.	VERT BF	617	STRUCTURAL CONCRETE (3Y43)				
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)				
K	S1604E	31	9'-10"	4'-5"	TIE	319	47.7 cu. yd.				
L	S1305E	44	30'-0"	STR.	HORIZ EF	882	REINFORCEMENT (PLAIN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	2065 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
							4487 lb				

STEM HEIGHT : AT HIGH END =21' 5-5/8" AT LOW END =21' 5-3/8"											
LEVEL		FILL		Panel: G35		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT											
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING				
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"	
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
			a	2'-5"							
			J	2' 0-1/4"							
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)				
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD	20.8 cu. yd.			
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	31	19'-1"	STR.	VERT BF	617	STRUCTURAL CONCRETE (3Y43)				
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)				
K	S1604E	31	9'-6"	4'-3"	TIE	308	47.5 cu. yd.				
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	2065 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
							4436 lb				

STEM HEIGHT : AT HIGH END : 21' 5-3/8" AT LOW END =21' 2-1/16"											
LEVEL		FILL		Panel: G36		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT											
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING				
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"	
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
STEM											
			a	2'-5"							
			J	2' 0-1/4"							
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)				
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD	20.8 cu. yd.			
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	31	19'-1"	STR.	VERT BF	617	STRUCTURAL CONCRETE (3Y43)				
J	S1603E	30	6'-6"	STR.	VERT BF	203	(STEM)				
K	S1604E	31	9'-6"	4'-2"	TIE	307	47.1 cu. yd.				
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	2065 lb			
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)				
							4435 lb				

WALL TABULATIONS - WALL WNWW

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT: METRO
IPLOT NAME: tabs_wnww07
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wallis\TABS_WNWW.dgn

STEM HEIGHT : AT HIGH END =21' 2- 1/16" AT LOW END =21' 0-1/8"										
LEVEL		FILL Panel: G37		PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"
							d	10'-10"	g	4' 2-5/16"
STEM										
							a	2'-5"		
							J	2' 0-1/4"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)			
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD	20.8 cu. yd.		
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	19'-1"	STR.	VERT BF	617	(STEM)			
K	S1604E	31	8'-1"	3'-11"	TIE	289	46.7 cu. yd.			
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)			
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	2065 lb		
M Low End	S1607E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)			
							4417 lb			

STEM HEIGHT : AT HIGH END =21' 0-1/8" AT LOW END =20' 3-1/4"										
LEVEL		FILL Panel: G38		PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"
							d	10'-10"	g	4' 2-5/16"
STEM										
							a	2'-5"		
							J	2' 0-1/4"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)			
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD	20.8 cu. yd.		
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	19'-1"	STR.	VERT BF	617	(STEM)			
K	S1604E	31	8'-7"	3'-9"	TIE	278	45.7 cu. yd.			
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)			
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD	2065 lb		
M Low End	S1607E	20	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	169	REINFORCEMENT (EPOXY)			
							4398 lb			

STEM HEIGHT : AT HIGH END =20' 3-1/4" AT LOW END =19' 4- 3/16"										
LEVEL		FILL Panel: G39		PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F1902	31	10'-2"	STR.	TRANS BOT	473	b	3'-8"	e	1'-0"
C	F2503	31	10'-2"	STR.	TRANS TOP	841	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10-5/16"
STEM										
							a	2' 4-1/2"		
							J	1' 11-3/4"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F2205E	31	13'-9"	5'-6"	DOWEL BF	871	(FOOTING)			
F	F2206E	30	9'-9"	8'-9"	DOWEL BF	598	SPREAD	20.4 cu. yd.		
G	S1301E	31	18'-1"	STR.	VERT FF	374	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	18'-1"	STR.	VERT BF	585	(STEM)			
K	S1604E	31	9'-1"	4'-0"	TIE	295	43.4 cu. yd.			
L	S1305E	40	30'-0"	STR.	HORIZ EF	802	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8'-0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	168	SPREAD	2069 lb		
M Low End	S1607E	19	8'-0-1/2"	Vary: 1'-2" to 2'	EXP JT TIE	159	REINFORCEMENT (EPOXY)			
							4152 lb			

STEM HEIGHT : AT HIGH END =19' 4- 3/16" AT LOW END =18' 8-3/8"										
LEVEL		FILL Panel: G40		PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F1902	31	10'-0"	STR.	TRANS BOT	466	b	3'-3"	e	-----
C	F2503	31	10'-0"	STR.	TRANS TOP	828	c	1'-6"	f	-----
							d	10'-6"	g	3' 5-5/16"
STEM										
							a	2'-4"		
							J	1' 11-5/16"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	12'-4"	5'-1"	DOWEL BF	574	(FOOTING)			
F	F1906E	30	8'-3"	7'-3"	DOWEL BF	372	SPREAD	18.9 cu. yd.		
G	S1301E	31	17'-1"	STR.	VERT FF	354	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	17'-1"	STR.	VERT BF	552	(STEM)			
K	S1604E	31	9'-3"	4'-1"	TIE	300	41.2 cu. yd.			
L	S1305E	38	30'-0"	STR.	HORIZ EF	762	REINFORCEMENT (PLAIN)			
M High End	S1606E	19	8'-0"	Vary: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD	2049 lb		
M Low End	S1607E	18	8'-0"	Vary: 1'-2" to 2'-0"	EXP JT TIE	150	REINFORCEMENT (EPOXY)			
							3523 lb			

STEM HEIGHT : AT HIGH END =18' 8-3/8" AT LOW END =17' 9-3/8"										
LEVEL		FILL Panel: G41		PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	20	32'-11"	STR.	LONG T & B	687	SPREAD FOOTING			
B	F1902	31	9'-4"	STR.	TRANS BOT	435	b	3'-0"	e	-----
C	F2203	31	9'-4"	STR.	TRANS TOP	591	c	1'-6"	f	-----
							d	9'-10"	g	3' 2-5/16"
STEM										
							a	2' 3-1/2"		
							J	1' 10-13/16"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	11'-0"	4'-9"	DOWEL BF	512	(FOOTING)			
F	F1906E	30	7'-3"	6'-3"	DOWEL BF	327	SPREAD	17.1 cu. yd.		
G	S1301E	31	16'-1"	STR.	VERT FF	333	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	16'-1"	STR.	VERT BF	520	(STEM)			
K	S1604E	31	9'-12"	4'-5"	TIE	323	39.1 cu. yd.			
L	S1305E	38	30'-0"	STR.	HORIZ EF	762	REINFORCEMENT (PLAIN)			
M High End	S1606E	18	7'-11-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	149	SPREAD	1713 lb		
M Low End	S1607E	17	7'-11-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	141	REINFORCEMENT (EPOXY)			
							3367 lb			

STEM HEIGHT : AT HIGH END =17' 9-3/8" AT LOW END =17' 3-15/16"										
LEVEL		FILL Panel: G42		PANEL LENGTH = 30'-6"						
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	20	32'-11"	STR.	LONG T & B	687	SPREAD FOOTING			
B	F1902	31	8'-9"	STR.	TRANS BOT	407	b	2'-10"	e	-----
C	F2203	31	8'-9"	STR.	TRANS TOP	554	c	1'-3"	f	-----
							d	9'-3"	g	3' 0-5/16"
STEM										
							a	2'-3"		
							J	1' 10-5/16"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	9'-7"	4'-7"	DOWEL BF	446	(FOOTING)			
F	F1906E	30	6'-0"	5'-0"	DOWEL BF	270	SPREAD	13.5 cu. yd.		
G	S1301E	31	15'-1"	STR.	VERT FF	312	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	15'-1"	STR.	VERT BF	488	(STEM)			
K	S1604E	31	10'-2"	4'-6"	TIE	328	37.2 cu. yd.			
L	S1305E	36	30'-0"	STR.	HORIZ EF	721	REINFORCEMENT (PLAIN)			
M High End	S1606E	17	7'-11"	Vary: 1'-2" to 1'-11"	EXP JT TIE	140	SPREAD	1648 lb		
M Low End	S1607E	17	7'-11"	Vary: 1'-2" to 1'-11"	EXP JT TIE	140	REINFORCEMENT (EPOXY)			
							3145 lb			

WALL TABULATIONS - WALL WNWW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 315 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT #: METRO
PLOT NAME: tabs_wnww08
PATH & FILENAME: SADESIGN0650208\23\Final\wall\TABS_WNWW.dgn

STEM HEIGHT : AT HIGH END =17' 3-15/16" AT LOW END =16' 6-15/16"										
LEVEL		FILL		Panel: G43		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	20	32'-11"	STR.	LONG T & B	687	SPREAD FOOTING			
B	F1902	31	8'-9"	STR.	TRANS BOT	407	b	2'-10"	e	-----
C	F2203	31	8'-9"	STR.	TRANS TOP	554	c	1'-3"	f	-----
							d	9'-3"	g	5' 0- 5/16"
							STEM			
							a	2'-3"		
							J	1' 10- 5/16"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	9'-7"	4'-7"	DOWEL BF	446	(FOOTING)			
F	F1906E	30	6'-0"	5'-0"	DOWEL BF	270	SPREAD	13.5 cu. yd.		
G	S1301E	31	15'-1"	STR.	VERT FF	312	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	15'-1"	STR.	VERT BF	488	(STEM)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	35.9 cu. yd.			
K	S1604E	31	9'-3"	4'-1"	TIE	299	REINFORCEMENT (PLAIN)			
L	S1305E	34	30'-0"	STR.	HORIZ EF	681	REINFORCEMENT (PLAIN)			
M High End	S1606E	17	7'-11"	Vary: 1'-2" to 1'-11"	EXP JT TIE	140	SPREAD	1648 lb		
M Low End	S1607E	16	7'-11"	Vary: 1'-2" to 1'-11"	EXP JT TIE	132	REINFORCEMENT (EPOXY)			
							3068 lb			

STEM HEIGHT : AT HIGH END : 16' 6-15/16" AT LOW END =15' 11- 1/16"										
LEVEL		FILL		Panel: G44		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	18	32'-11"	STR.	LONG T & B	618	SPREAD FOOTING			
B	F1902	31	8'-3"	STR.	TRANS BOT	384	b	2'-8"	e	-----
C	F1903	31	8'-3"	STR.	TRANS TOP	384	c	1'-3"	f	-----
							d	8'-9"	g	2' 10- 5/16"
							STEM			
							a	2' 2-1/2"		
							J	1' 9-13/16"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	8'-11"	4'-5"	DOWEL BF	415	(FOOTING)			
F	F1906E	30	5'-6"	4'-6"	DOWEL BF	248	SPREAD	12.7 cu. yd.		
G	S1301E	31	14'-1"	STR.	VERT FF	292	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	14'-1"	STR.	VERT BF	455	(STEM)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	34.0 cu. yd.			
K	S1604E	31	9'-9"	4'-4"	TIE	315	REINFORCEMENT (PLAIN)			
L	S1305E	34	30'-0"	STR.	HORIZ EF	681	REINFORCEMENT (PLAIN)			
M High End	S1606E	16	7'-10-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	131	SPREAD	1386 lb		
M Low End	S1607E	15	7'-10-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	123	REINFORCEMENT (EPOXY)			
							2960 lb			

STEM HEIGHT : AT HIGH END =15' 11- 1/16" AT LOW END =13' 9-13/16"										
LEVEL		FILL		Panel: G45		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	18	32'-11"	STR.	LONG T & B	618	SPREAD FOOTING			
B	F2202	31	7'-9"	STR.	TRANS BOT	491	b	2'-6"	e	-----
C	F1903	31	7'-9"	STR.	TRANS TOP	361	c	1'-3"	f	-----
							d	8'-3"	g	2' 8- 5/16"
							STEM			
							a	2'-2"		
							J	1' 9-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	31	7'-10"	0'-10"	DOWEL BF	253	(FOOTING)			
F	F1606E	30	8'-0"	7'-0"	DOWEL BF	250	SPREAD	12.0 cu. yd.		
G	S1301E	31	13'-1"	STR.	VERT FF	271	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	13'-1"	STR.	VERT BF	423	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	30.8 cu. yd.			
K	S1604E	31	10'-5"	4'-8"	TIE	337	REINFORCEMENT (PLAIN)			
L	S1305E	32	30'-0"	STR.	HORIZ EF	641	REINFORCEMENT (PLAIN)			
M High End	S1606E	15	7'-10"	Vary: 1'-2" to 1'-10"	EXP JT TIE	123	SPREAD	1470 lb		
M Low End	S1607E	13	7'-10"	Vary: 1'-2" to 1'-10"	EXP JT TIE	106	REINFORCEMENT (EPOXY)			
							2501 lb			

STEM HEIGHT : AT HIGH END =13' 9-13/16" AT LOW END =12' 3-3/4"										
LEVEL		FILL		Panel: G46		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	16	32'-11"	STR.	LONG T & B	549	SPREAD FOOTING			
B	F1902	31	6'-9"	STR.	TRANS BOT	314	b	2'-2"	e	-----
C	F1603	31	6'-9"	STR.	TRANS TOP	218	c	1'-3"	f	-----
							d	7'-3"	g	2' 4- 5/16"
							STEM			
							a	2'-1"		
							J	1' 8-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	31	5'-10"	0'-10"	DOWEL BF	189	(FOOTING)			
F	F1606E	30	6'-0"	5'-0"	DOWEL BF	188	SPREAD	10.5 cu. yd.		
G	S1301E	31	11'-1"	STR.	VERT FF	230	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	11'-1"	STR.	VERT BF	358	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	26.4 cu. yd.			
K	S1604E	31	10'-3"	4'-7"	TIE	331	REINFORCEMENT (PLAIN)			
L	S1305E	28	30'-0"	STR.	HORIZ EF	561	REINFORCEMENT (PLAIN)			
M High End	S1606E	13	7'-9"	Vary: 1'-2" to 1'-9"	EXP JT TIE	105	SPREAD	1081 lb		
M Low End	S1607E	12	7'-9"	Vary: 1'-2" to 1'-9"	EXP JT TIE	97	REINFORCEMENT (EPOXY)			
							2156 lb			

STEM HEIGHT : AT HIGH END =12' 3-3/4" AT LOW END =11' 4- 1/16"										
LEVEL		FILL		Panel: G47		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	14	32'-11"	STR.	LONG T & B	481	SPREAD FOOTING			
B	F1602	31	6'-3"	STR.	TRANS BOT	202	b	2'-0"	e	-----
C	F1603	31	6'-3"	STR.	TRANS TOP	202	c	1'-3"	f	-----
							d	6'-9"	g	2' 2- 5/16"
							STEM			
							a	2' 0-1/2"		
							J	1' 7-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	31	4'-10"	0'-10"	DOWEL BF	156	(FOOTING)			
F	F1606E	30	5'-0"	4'-0"	DOWEL BF	156	SPREAD	9.8 cu. yd.		
G	S1301E	31	10'-1"	STR.	VERT FF	209	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	10'-1"	STR.	VERT BF	326	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	23.7 cu. yd.			
K	S1604E	31	9'-2"	4'-1"	TIE	298	REINFORCEMENT (PLAIN)			
L	S1305E	24	30'-0"	STR.	HORIZ EF	481	REINFORCEMENT (PLAIN)			
M High End	S1606E	12	7'-8-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	96	SPREAD	885 lb		
M Low End	S1607E	11	7'-8-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	88	REINFORCEMENT (EPOXY)			
							1907 lb			

STEM HEIGHT : AT HIGH END : 11' 4- 1/16" AT LOW END =10' 4- 7/16"										
LEVEL		FILL		Panel: G48		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	14	32'-11"	STR.	LONG T & B	481	SPREAD FOOTING			
B	F1602	31	5'-9"	STR.	TRANS BOT	186	b	1'-10"	e	-----
C	F1603	31	5'-9"	STR.	TRANS TOP	186	c	1'-3"	f	-----
							d	6'-3"	g	2' 0- 5/16"
							STEM			
							a	2'-0"		
							J	1' 7-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	4'-1"	0'-10"	DOWEL BF	68	(FOOTING)			
F	F1606E	15	4'-3"	3'-3"	DOWEL BF	66	SPREAD	9.1 cu. yd.		
G	S1301E	31	9'-1"	STR.	VERT FF	188	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	9'-1"	STR.	VERT BF	294	(STEM)			
J	S 03E	-----	-----	STR.	VERT BF	-----	21.5 cu. yd.			
K	S1604E	31	9'-3"	4'-1"	TIE	300	REINFORCEMENT (PLAIN)			
L	S1305E	22	30'-0"	STR.	HORIZ EF	441	REINFORCEMENT (PLAIN)			
M High End	S1606E	11	7'-8"	Vary: 1'-2" to 1'-8"	EXP JT TIE	88	SPREAD	853 lb		
M Low End	S1607E	10	7'-8"	Vary: 1'-2" to 1'-8"	EXP JT TIE	80	REINFORCEMENT (EPOXY)			
							1622 lb			

WALL TABULATIONS - WALL WNWW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY Josephine Lundquist LIC. NO. 20534 DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 316 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT #: METRO
PLOT NAME: tabs_wnww09
PATH & FILENAME: S:\DESIGN\050208\23\Final\walltab.WNWW.dgn

STEM HEIGHT : AT HIGH END =10' 4-7/16" AT LOW END =9' 4-13/16"											
LEVEL		FILL		Panel: G49		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	12	32'-11"	STR.	LONG T & B	412	SPREAD FOOTING				
B	F1602	31	5'-3"	STR.	TRANS BOT	170	b	1'-8"	e	-----	
C	F1603	31	5'-3"	STR.	TRANS TOP	170	c	1'-3"	f	-----	
							d	5'-9"	g	1' 10-5/16"	
STEM											
	a	1' 11-1/2"									
	J	1' 6-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1605E	16	4'-1"	0'-10"	DOWEL BF	68	(FOOTING)				
F	F1606E	15	4'-3"	3'-3"	DOWEL BF	66	SPREAD	8.4 cu.yd.			
G	S1301E	31	8'-1"	STR.	VERT FF	167					
H	S1602E	31	8'-1"	STR.	VERT BF	261	STRUCTURAL CONCRETE (3Y43)				
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)				
K	S1604E	31	9'-4"	4'-1"	TIE	301	19.3 cu.yd.				
L	S1305E	20	30'-0"	STR.	HORIZ EF	401	REINFORCEMENT (PLAIN)				
M High End	S1606E	10	7'-7-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	80	SPREAD	752 lb			
M Low End	S1607E	9	7'-7-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	72					
						REINFORCEMENT (EPOXY)					
						1513 lb					

STEM HEIGHT : AT HIGH END =9' 4-13/16" AT LOW END =8' 6-5/8"											
LEVEL		FILL		Panel: G50		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	12	32'-11"	STR.	LONG T & B	412	SPREAD FOOTING				
B	F1602	31	4'-9"	STR.	TRANS BOT	154	b	1'-6"	e	-----	
C	F1603	31	4'-9"	STR.	TRANS TOP	154	c	1'-3"	f	-----	
							d	5'-3"	g	1' 8-5/16"	
STEM											
	a	1'-11"									
	J	1' 6-3/8"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)				
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	7.6 cu.yd.			
G	S1301E	31	7'-1"	STR.	VERT FF	147					
H	S1602E	31	7'-1"	STR.	VERT BF	229	STRUCTURAL CONCRETE (3Y43)				
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)				
K	S1604E	31	9'-5"	4'-2"	TIE	303	17.3 cu.yd.				
L	S1305E	18	30'-0"	STR.	HORIZ EF	361	REINFORCEMENT (PLAIN)				
M High End	S1606E	9	7'-7"	Vary: 1'-2" to 1'-7"	EXP JT TIE	71	SPREAD	720 lb			
M Low End	S1607E	8	7'-7"	Vary: 1'-2" to 1'-7"	EXP JT TIE	63					
						REINFORCEMENT (EPOXY)					
						1398 lb					

STEM HEIGHT : AT HIGH END =8' 6-5/8" AT LOW END =7' 8-1/2"											
LEVEL		FILL		Panel: G51		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	10	32'-11"	STR.	LONG T & B	343	SPREAD FOOTING				
B	F1602	31	4'-3"	STR.	TRANS BOT	137	b	1'-4"	e	-----	
C	F1603	31	4'-3"	STR.	TRANS TOP	137	c	1'-3"	f	-----	
							d	4'-9"	g	1' 6-5/16"	
STEM											
	a	1' 10-1/2"									
	J	1' 5-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)				
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	6.9 cu.yd.			
G	S1301E	31	7'-3"	STR.	VERT FF	149					
H	S1602E	31	7'-3"	STR.	VERT BF	233	STRUCTURAL CONCRETE (3Y43)				
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)				
K	S1604E	31	7'-5"	3'-2"	TIE	240	15.5 cu.yd.				
L	S1305E	18	30'-0"	STR.	HORIZ EF	361	REINFORCEMENT (PLAIN)				
M High End	S1606E	8	7'-6-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	63	SPREAD	617 lb			
M Low End	S1607E	7	7'-6-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	55					
						REINFORCEMENT (EPOXY)					
						1325 lb					

STEM HEIGHT : AT HIGH END : 7' 8-1/2" AT LOW END =6' 10-9/16"											
LEVEL		FILL		Panel: G52		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	10	32'-11"	STR.	LONG T & B	343	SPREAD FOOTING				
B	F1602	31	3'-9"	STR.	TRANS BOT	121	b	1'-2"	e	-----	
C	F1603	31	3'-9"	STR.	TRANS TOP	121	c	1'-3"	f	-----	
							d	4'-3"	g	1' 4-5/16"	
STEM											
	a	1'-10"									
	J	1' 5-3/8"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)				
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	6.2 cu.yd.			
G	S1301E	31	6'-5"	STR.	VERT FF	132					
H	S1602E	31	6'-5"	STR.	VERT BF	206	STRUCTURAL CONCRETE (3Y43)				
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)				
K	S1604E	31	7'-5"	3'-2"	TIE	240	13.7 cu.yd.				
L	S1305E	16	30'-0"	STR.	HORIZ EF	321	REINFORCEMENT (PLAIN)				
M High End	S1606E	7	7'-6"	Vary: 1'-2" to 1'-6"	EXP JT TIE	55	SPREAD	585 lb			
M Low End	S1607E	6	7'-6"	Vary: 1'-2" to 1'-6"	EXP JT TIE	47					
						REINFORCEMENT (EPOXY)					
						1225 lb					

STEM HEIGHT : AT HIGH END =6' 10-9/16" AT LOW END =6' 3-1/4"											
LEVEL		FILL		Panel: G53		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING				
B	F1602	31	3'-3"	STR.	TRANS BOT	105	b	1'-0"	e	-----	
C	F1603	31	3'-3"	STR.	TRANS TOP	105	c	1'-3"	f	-----	
							d	3'-9"	g	1' 2-5/16"	
STEM											
	a	1' 9-1/2"									
	J	1' 4-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)				
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	5.4 cu.yd.			
G	S1301E	31	5'-9"	STR.	VERT FF	119					
H	S1602E	31	5'-9"	STR.	VERT BF	187	STRUCTURAL CONCRETE (3Y43)				
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)				
K	S1604E	31	6'-12"	2'-11"	TIE	225	12.2 cu.yd.				
L	S1305E	14	30'-0"	STR.	HORIZ EF	281	REINFORCEMENT (PLAIN)				
M High End	S1606E	6	7'-5-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	47	SPREAD	485 lb			
M Low End	S1607E	6	7'-5-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	47					
						REINFORCEMENT (EPOXY)					
						1130 lb					

STEM HEIGHT : AT HIGH END =6' 3-1/4" AT LOW END =5' 8-1/16"											
LEVEL		FILL		Panel: G54		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT						DIMENSIONS					
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING				
B	F1602	31	3'-3"	STR.	TRANS BOT	105	b	1'-0"	e	-----	
C	F1603	31	3'-3"	STR.	TRANS TOP	105	c	1'-3"	f	-----	
							d	3'-9"	g	1' 2-5/16"	
STEM											
	a	1' 9-1/2"									
	J	1' 4-7/8"									
FOOTING DOWELS & STEM REINFORCEMENT						QUANTITIES					
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)				
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	5.4 cu.yd.			
G	S1301E	31	5'-2"	STR.	VERT FF	107					
H	S1602E	31	5'-2"	STR.	VERT BF	167	STRUCTURAL CONCRETE (3Y43)				
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)				
K	S1604E	31	6'-11"	2'-11"	TIE	225	11.1 cu.yd.				
L	S1305E	12	30'-0"	STR.	HORIZ EF	240	REINFORCEMENT (PLAIN)				
M High End	S1606E	6	7'-5-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	47	SPREAD	485 lb			
M Low End	S1607E	5	7'-5-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	39					
						REINFORCEMENT (EPOXY)					
						1049 lb					

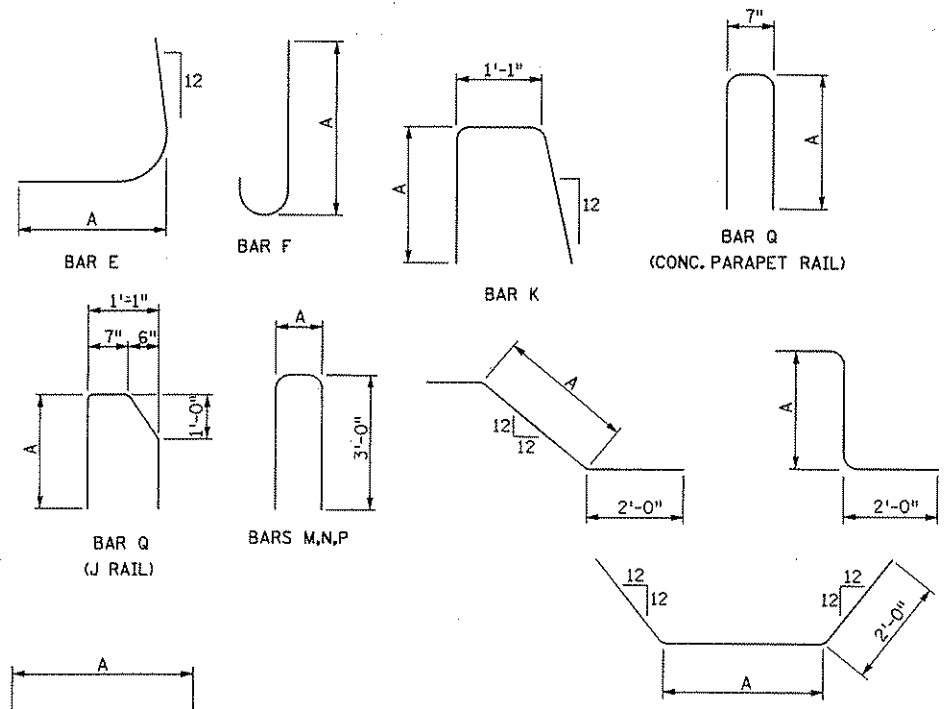
WALL TABULATIONS - WALL WNWW

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STEM HEIGHT : AT HIGH END = 5' 8- 1/16" AT LOW END = 5' 0-13/16"										
LEVEL		FILL Panel:		G55		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	3'-0"	STR.	TRANS BOT	97	b	0'-10"	e	-----
C	F1603	31	3'-0"	STR.	TRANS TOP	97	c	1'-3"	f	-----
							d	3'-6"	g	1' 0- 5/16"
STEM										
							a	1'-9"		
							J	1' 4-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	5.1 cu. yd.		
G	S1301E	31	4'-7"	STR.	VERT FF	95	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	4'-7"	STR.	VERT BF	148	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	6'-11"	2'-11"	TIE	225	9.9 cu. yd.			
L	S1305E	12	30'-0"	STR.	HORIZ EF	240	REINFORCEMENT (PLAIN)			
M High End	S1606E	5	7'-5"	Vary: 1'-2" to 1'-5"	EXP JT TIE	39	SPREAD	469 lb		
M Low End	S1607E	5	7'-5"	Vary: 1'-2" to 1'-5"	EXP JT TIE	39	REINFORCEMENT (EPOXY)			
							1010 lb			

STEM HEIGHT : AT HIGH END : 5' 0-13/16" AT LOW END = 4' 1- 9/16"										
LEVEL		FILL Panel:		G56		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	3'-0"	STR.	TRANS BOT	97	b	0'-10"	e	-----
C	F1603	31	3'-0"	STR.	TRANS TOP	97	c	1'-3"	f	-----
							d	3'-6"	g	1' 0- 5/16"
STEM										
							a	1'-9"		
							J	1' 4-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	5.1 cu. yd.		
G	S1301E	31	3'-8"	STR.	VERT FF	75	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	3'-8"	STR.	VERT BF	117	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	7'-8"	3'-3"	TIE	247	8.4 cu. yd.			
L	S1305E	10	30'-0"	STR.	HORIZ EF	200	REINFORCEMENT (PLAIN)			
M High End	S1606E	5	7'-5"	Vary: 1'-2" to 1'-5"	EXP JT TIE	39	SPREAD	469 lb		
M Low End	S1607E	4	7'-5"	Vary: 1'-2" to 1'-5"	EXP JT TIE	31	REINFORCEMENT (EPOXY)			
							933 lb			

STEM HEIGHT : AT HIGH END = 4' 1- 9/16" AT LOW END = 3' 11-1/4"										
LEVEL		FILL Panel:		G57		PANEL LENGTH = 24'-0"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
A	F1601	8	26'-5"	STR.	LONG T & B	220	SPREAD FOOTING			
B	F1602	24	2'-6"	STR.	TRANS BOT	63	b	0'-9"	e	-----
C	F1603	24	2'-6"	STR.	TRANS TOP	63	c	1'-3"	f	-----
							d	3'-0"	g	0' 11- 5/16"
STEM										
							a	1' 8-1/2"		
							J	1' 3-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT										
D	F1604E	24	3'-0"	STR.	DOWEL FF	75	STRUCTURAL CONCRETE (1A43)			
E	F1605E	13	3'-10"	0'-10"	DOWEL BF	52	(FOOTING)			
F	F1606E	12	4'-0"	3'-0"	DOWEL BF	50	SPREAD	3.4 cu. yd.		
G	S1301E	24	3'-5"	STR.	VERT FF	55	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	25	3'-5"	STR.	VERT BF	90	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	24	6'-2"	2'-6"	TIE	153	5.8 cu. yd.			
L	S1305E	8	23'-6"	STR.	HORIZ EF	126	REINFORCEMENT (PLAIN)			
M High End	S1606E	4	7'-4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	31	SPREAD	346 lb		
M Low End	S1607E	3	7'-4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23	REINFORCEMENT (EPOXY)			
							655 lb			

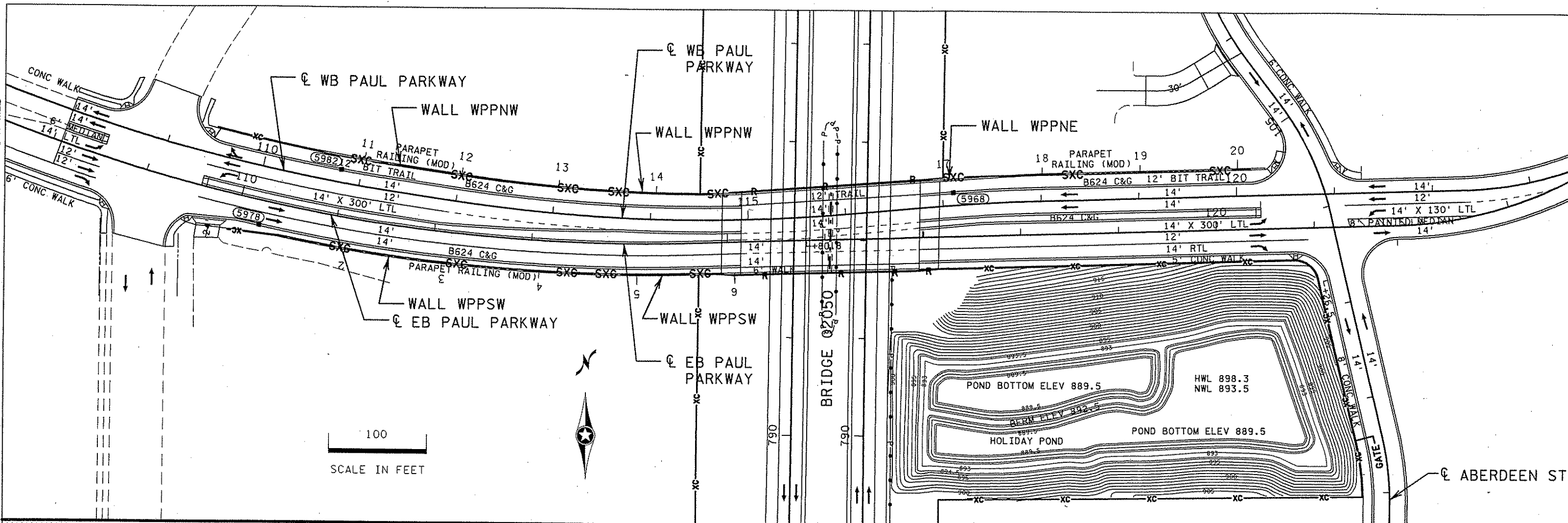


NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

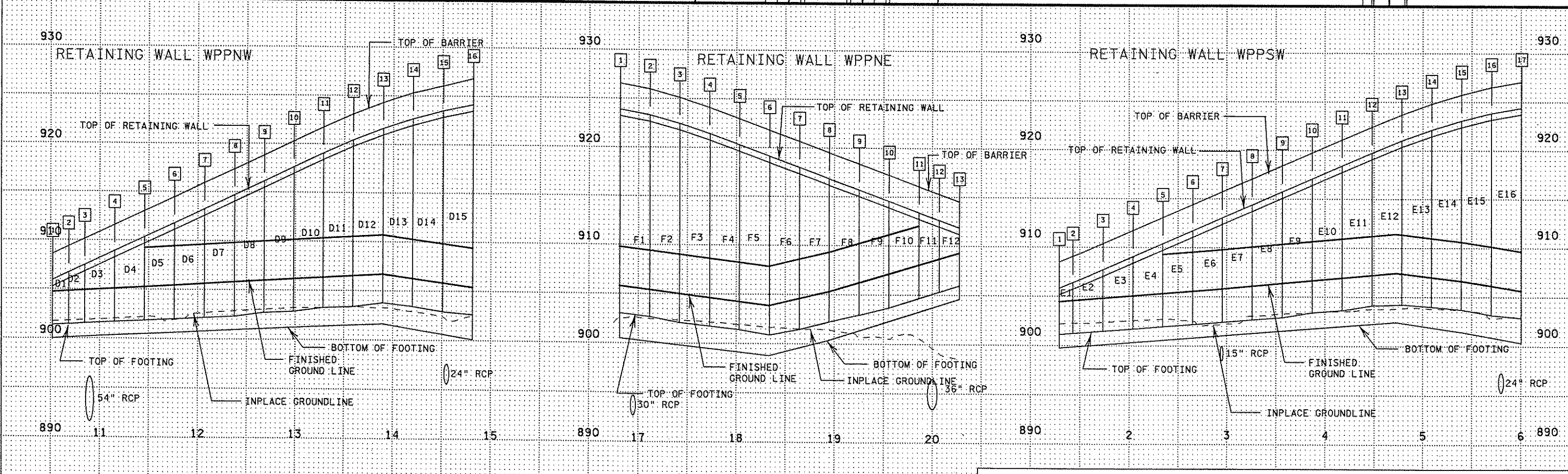
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WALL TABULATIONS - WALL WNWW

PLOTTED/REVISED: 29-MAR-2007 11:22



DISTRICT: METRO
PLOT NAME: wpp_all
PATH & FILENAME: S:\Design\0650208\123\Tratwalls\00208123_wrl.dgn



WALL PLAN / PROFILE - WALLS AT PAUL PARKWAY

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 320 OF 872 SHEETS

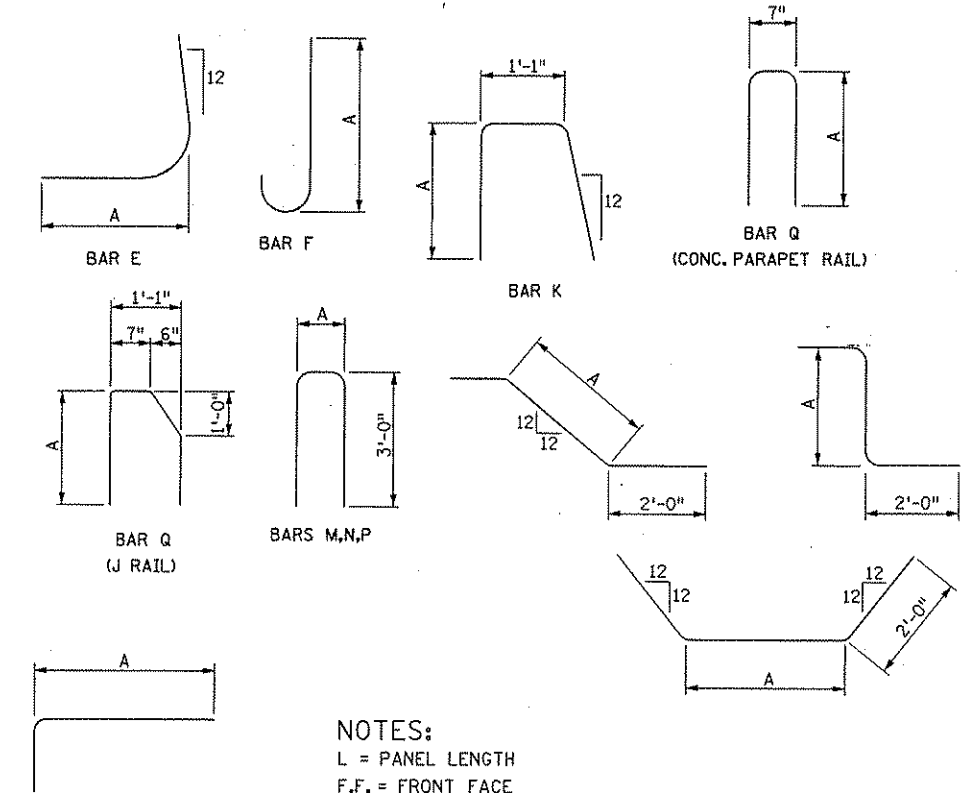
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DISTRICT *: METRO
 IPLOT NAME: TABS_WPPNE3
 PATH & FILENAME: S:\DESIGN\065\0208\23\Final\walltab_ABS_WPPNE.dgn

RETAINING WALL WPPNE														
JOINT NUMBER	ALIGNMENT			PROFILES						DIMENSIONS				PANEL NAME
	STATION	X	Y	INPLACE GROUND ELEV	PROPOSED FACE OF WALL ELEV	TOP OF WALL ELEV	TOP OF BARRIER ELEV	TOP OF FOOTING ELEV	BOTTOM OF FOOTING ELEV	WALL HEIGHT FT	FOOTING THICKNESS FT	PANEL LENGTH FT		
1	16+81.30	508353.044	156452.377	901.93	905.80	923.88	926.54	903.04	900.50	20.84	2.54			
2	17+11.80	508383.468	156454.534	902.39	905.41	923.31	925.98	902.69	900.15	20.62	2.54	30.5	F1	
3	17+42.30	508413.891	156456.692	902.26	905.02	922.45	925.12	902.09	899.80	20.36	2.29	30.5	F2	
4	17+72.80	508444.317	156458.826	902.10	904.64	921.44	924.11	901.75	899.46	19.69	2.29	30.5	F3	
5	18+03.30	508474.770	156460.506	901.87	904.24	920.28	922.95	901.39	899.11	18.89	2.28	30.5	F4	
6	18+33.80	508505.250	156461.595	901.65	903.87	919.14	921.81	900.89	898.77	18.25	2.12	30.5	F5	
7	18+64.30	508535.735	156462.538	901.49	904.59	917.99	920.66	901.44	899.57	16.55	1.87	30.5	F6	
8	18+94.80	508566.221	156463.481	901.38	905.31	916.85	919.52	902.24	900.37	14.61	1.87	30.5	F7	
9	19+25.30	508596.706	156464.424	900.63	906.23	915.71	918.37	902.96	901.34	12.75	1.62	30.5	F8	
10	19+55.80	508627.192	156465.366	900.54	907.14	914.56	917.23	903.69	902.31	10.87	1.38	30.5	F9	
11	19+86.30	508657.677	156466.309	900.56	908.06	913.42	916.09	904.66	903.28	8.76	1.38	30.5	F10	
12	20+07.00	508678.367	156466.949	899.07	908.68	912.65	915.31	905.32	903.94	7.33	1.38	20.7	F11	
13	20+27.65	508699.007	156467.587	898.49	909.30	911.87	914.54	905.98	904.60	5.89	1.38	20.65	F12	

RETAINING WALL WPPNE QUANTITIES									
PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		PARAPET RAILING CONCRETE	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	ANTI GRAFFITTI COATING	NOTES
	1A43 (FOOTING)	3Y43 (STEM)	PLAIN	EPOXY	CONCRETE	TEXTURE	FINISH	COATING	
	CU YD	CU YD	POUND	POUND	LIN FT	SQ FT	SQ FT	SQ FT	
F1	20.4	45.4	2069	4238	30.5	407	407	407	
F2	20.4	44.8	2069	4224	30.5	397	397	397	
F3	20.4	43.8	2069	4158	30.5	380	380	380	
F4	18.9	41.8	2049	3585	30.5	358	358	358	
F5	17.1	39.8	1713	3387	30.5	335	335	335	
F6	17.1	37.3	1713	3289	30.5	295	295	295	
F7	12.7	32.6	1386	2950	30.5	238	238	238	
F8	11.3	28.0	1225	2308	30.5	178	178	178	
F9	9.8	23.6	885	1967	30.5	115	115	115	
F10	8.4	19.2	752	1578	30.5	53	53	53	
F11	4.7	10.4	427	948	20.7				(1)
F12	4.2	8.4	405	817	20.65				(1)
TOTALS	165.4	375.1	16762	33449	346.4	2756	2756	2756	

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DRAWN BY: MLW	CHECKED BY: DY	CERTIFIED BY <i>Josephine Lundquist</i> <small>LICENSED PROFESSIONAL ENGINEER</small>	LIC. NO. 20534 DATE 2/6/07	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 323 OF 872 SHEETS
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WALL TABULATIONS - WALL WPPNE

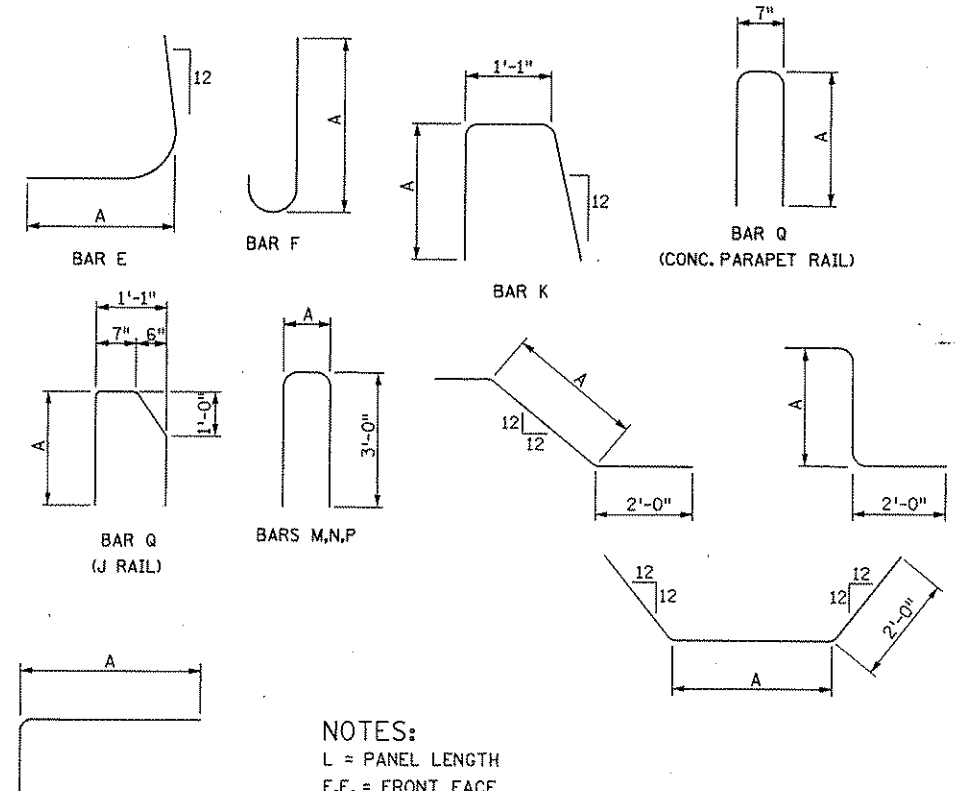
PLOTTED/REVISED: 05-FEB-2007 14:20

DISTRICT #: METRO
PLOT NAME: TABS_WPPNW3
PATH & FILENAME: S:\DESIGN\0650208\23\Final\wall\TAB_WPPNW.dgn

LEVEL		FILL	Panel:	D13		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT							DIMENSIONS				
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING				
B	F1902	31	10'-0"	STR.	TRANS BOT	466	b	3'-3"	e	-----	
C	F2503	31	10'-0"	STR.	TRANS TOP	828	c	1'-6"	f	-----	
							d	10'-6"	g	3' 5-5/16"	
							STEM				
							a	2'-4"			
							J	1' 11-5/16"			
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES				
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F1905E	31	12'-4"	5'-1"	DOWEL BF	574	(FOOTING)				
F	F1906E	30	8'-3"	7'-3"	DOWEL BF	372	SPREAD 18.9 cu.yd.				
G	S1301E	31	17'-1"	STR.	VERT FF	354	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	31	17'-1"	STR.	VERT BF	552	(STEM)				
J	S1603E	30	6'-6"	STR.	VERT BF	203	40.1 cu.yd.				
K	S1604E	31	9'-0"	3'-12"	TIE	292	REINFORCEMENT (PLAIN)				
L	S1305E	38	30'-0"	STR.	HORIZ EF	762					
M High End	S1606E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD 2049 lb				
M Low End	S1607E	17	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	142					
							REINFORCEMENT (EPOXY)				
							3507 lb				

LEVEL		FILL	Panel:	D14		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT							DIMENSIONS				
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING				
B	F1902	31	10'-2"	STR.	TRANS BOT	473	b	3'-8"	e	1'-0"	
C	F2503	31	10'-2"	STR.	TRANS TOP	841	c	1'-6"	f	5' 8-1/4"	
							d	10'-8"	g	3' 10-5/16"	
							STEM				
							a	2' 4-1/2"			
							J	1' 11-3/4"			
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES				
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F2205E	31	13'-9"	5'-6"	DOWEL BF	871	(FOOTING)				
F	F2206E	30	9'-9"	8'-9"	DOWEL BF	598	SPREAD 20.4 cu.yd.				
G	S1301E	31	18'-1"	STR.	VERT FF	374	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	31	18'-1"	STR.	VERT BF	585	(STEM)				
J	S1603E	30	6'-6"	STR.	VERT BF	203	43.5 cu.yd.				
K	S1604E	31	9'-9"	4'-4"	TIE	314	REINFORCEMENT (PLAIN)				
L	S1305E	42	30'-0"	STR.	HORIZ EF	842					
M High End	S1606E	20	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168	SPREAD 2069 lb				
M Low End	S1607E	19	8'-0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	159					
							REINFORCEMENT (EPOXY)				
							4211 lb				

LEVEL		FILL	Panel:	D15		PANEL LENGTH = 30'-6"					
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities				
SPREAD FOOTING REINFORCEMENT							DIMENSIONS				
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING				
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"	
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"	
							d	10'-10"	g	4' 2-5/16"	
							STEM				
							a	2'-5"			
							J	2' 0-1/4"			
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES				
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)				
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)				
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD 20.8 cu.yd.				
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)				
H	S1602E	31	19'-1"	STR.	VERT BF	617	(STEM)				
J	S1603E	30	6'-6"	STR.	VERT BF	203	46.5 cu.yd.				
K	S1604E	31	9'-7"	4'-3"	TIE	309	REINFORCEMENT (PLAIN)				
L	S1305E	42	30'-0"	STR.	HORIZ EF	842					
M High End	S1606E	21	8'-1"	Varys: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD 2065 lb				
M Low End	S1607E	20	8'-1"	Varys: 1'-2" to 2'-1"	EXP JT TIE	169					
							REINFORCEMENT (EPOXY)				
							4429 lb				



NOTES:
L = PANEL LENGTH
F.F. = FRONT FACE
B.F. = BACK FACE
E.F. = EACH FACE
BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

WALL TABULATIONS - WALL WPPNW

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 326 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT *: METRO
 IPLOT NAME: TABS_WPPNW4
 PATH & FILENAME: S:\DESIGN\0650208\123\Final\wallis\tabs_wppnw.dgn

RETAINING WALL WPPNW														
JOINT NUMBER	ALIGNMENT			PROFILES						DIMENSIONS				PANEL NAME
	STATION	X	Y	INPLACE GROUND ELEV	PROPOSED FACE OF WALL ELEV	TOP OF WALL ELEV	TOP OF BARRIER ELEV	TOP OF FOOTING ELEV	BOTTOM OF FOOTING ELEV	WALL HEIGHT FT	FOOTING THICKNESS FT	PANEL LENGTH FT		
1	10+52.00	507732.034	156479.017	901.71	904.70	905.93	908.59	901.38	900.00	4.55	1.38			
2	10+68.45	507748.246	156476.231	901.79	904.80	906.70	909.37	901.46	900.08	5.24	1.38	16.45	D1	
3	10+84.80	507764.360	156473.463	901.87	904.89	907.48	910.14	901.54	900.17	5.94	1.37	16.35	D2	
4	11+15.30	507794.420	156468.299	902.04	905.07	908.91	911.58	901.70	900.33	7.21	1.37	30.5	D3	
5	11+45.80	507824.571	156463.705	902.22	905.25	910.36	913.03	901.86	900.48	8.50	1.38	30.5	D4	
6	11+76.30	507854.737	156459.203	901.94	905.44	911.79	914.46	902.02	900.64	9.77	1.38	30.5	D5	
7	12+06.80	507884.913	156454.771	902.63	905.62	913.24	915.94	902.18	900.80	11.06	1.38	30.5	D6	
8	12+37.30	507915.155	156450.814	902.86	905.80	914.69	917.36	902.32	900.94	12.37	1.38	30.5	D7	
9	12+67.80	507945.463	156447.401	903.03	905.98	916.14	918.81	902.71	901.09	13.43	1.62	30.5	D8	
10	12+98.30	507975.827	156444.532	903.21	906.16	917.60	920.26	902.86	901.23	14.74	1.63	30.5	D9	
11	13+28.80	508006.238	156442.208	903.24	906.34	919.05	921.72	903.25	901.37	15.80	1.88	30.5	D10	
12	13+59.30	508036.686	156440.430	903.34	906.52	920.43	923.10	903.39	901.52	17.04	1.87	30.5	D11	
13	13+89.80	508067.161	156439.199	903.30	906.70	921.63	924.30	903.79	901.66	17.84	2.13	30.5	D12	
14	14+20.30	508097.653	156438.514	902.89	906.27	922.65	925.32	903.43	901.14	19.22	2.29	30.5	D13	
15	14+50.80	508128.152	156438.377	902.35	905.83	923.48	926.05	902.91	900.62	20.57	2.29	30.5	D14	
16	14+81.30	508158.651	156438.596	902.51	905.40	924.12	926.79	902.64	900.10	21.48	2.54	30.5	D15	

RETAINING WALL WPPNW QUANTITIES									
PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		PARAPET CONCRETE RAILING	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	ANTI GRAFFITTI COATING	NOTES
	1A43 (FOOTING)	3Y43 (STEM)	PLAIN	EPOXY					
	CU YD	CU YD	POUND	POUND					
D1	2.7	4.8	257	530	16.45				(1)
D2	2.7	5.5	257	578	16.35				(1)
D3	6.2	12.4	585	1156	30.5				(1)
D4	6.9	15.0	617	1328	30.5				(1)
D5	7.6	17.6	720	1462	30.5	33	33	33	
D6	9.1	20.6	853	1595	30.5	71	71	71	
D7	9.8	23.4	885	1910	30.5	110	110	110	
D8	10.5	26.1	1081	2090	30.5	148	148	148	
D9	11.3	28.8	1225	2324	30.5	187	187	187	
D10	12.0	31.6	1470	2501	30.5	226	226	226	
D11	13.5	34.8	1648	3041	30.5	264	264	264	
D12	13.5	36.9	1648	3149	30.5	298	298	298	
D13	18.9	40.1	2049	3507	30.5	335	335	335	
D14	20.4	43.5	2069	4211	30.5	377	377	377	
D15	20.8	46.5	2065	4429	30.5	413	413	413	
TOTALS	165.9	387.6	17429	33811	429	2462	2462	2462	

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

DRAWN BY: MLW	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> <small>LICENSED PROFESSIONAL ENGINEER</small>	LIC. NO. 20534	DATE: 2/5/07	STATE PROJ. NO. 0208-123 (T.H. 65)	SHEET NO. 327 OF 872 SHEETS
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WALL TABULATIONS - WALL WPPNW

3/1-JAN-2007 08:57

METRO WPPSW2
I/PLOT NAME: TABS_WPPSW2
PATH & FILENAME: S:\DESIGN\0650208\123\Final\wall\TABS_WPPSW.dgn

STEM HEIGHT :AT HIGH END=11' 8-3/4" AT LOW END =10' 7-9/16" LEVEL FILL Panel: E7 PANEL LENGTH = 30'-6" Bar Mark No. Length A Location Weight Dimensions and quantities SPREAD FOOTING REINFORCEMENT DIMENSIONS SPREAD FOOTING REINFORCEMENT DIMENSIONS STEM QUANTITIES

STEM HEIGHT :AT HIGH END=12' 9-15/16" AT LOW END =11' 8-3/4" LEVEL FILL Panel: E8 PANEL LENGTH = 30'-6" Bar Mark No. Length A Location Weight Dimensions and quantities SPREAD FOOTING REINFORCEMENT DIMENSIONS SPREAD FOOTING REINFORCEMENT DIMENSIONS STEM QUANTITIES

STEM HEIGHT :AT HIGH END=13' 8-3/16" AT LOW END =12' 9-15/16" LEVEL FILL Panel: E9 PANEL LENGTH = 30'-6" Bar Mark No. Length A Location Weight Dimensions and quantities SPREAD FOOTING REINFORCEMENT DIMENSIONS SPREAD FOOTING REINFORCEMENT DIMENSIONS STEM QUANTITIES

STEM HEIGHT :AT HIGH END=14' 9-1/4" AT LOW END =13' 8-3/16" LEVEL FILL Panel: E10 PANEL LENGTH = 30'-6" Bar Mark No. Length A Location Weight Dimensions and quantities SPREAD FOOTING REINFORCEMENT DIMENSIONS SPREAD FOOTING REINFORCEMENT DIMENSIONS STEM QUANTITIES

STEM HEIGHT :AT HIGH END=15' 7-7/16" AT LOW END =14' 9-1/4" LEVEL FILL Panel: E11 PANEL LENGTH = 30'-6" Bar Mark No. Length A Location Weight Dimensions and quantities SPREAD FOOTING REINFORCEMENT DIMENSIONS SPREAD FOOTING REINFORCEMENT DIMENSIONS STEM QUANTITIES

STEM HEIGHT :AT HIGH END=16' 9-3/8" AT LOW END =15' 7-7/16" LEVEL FILL Panel: E12 PANEL LENGTH = 30'-6" Bar Mark No. Length A Location Weight Dimensions and quantities SPREAD FOOTING REINFORCEMENT DIMENSIONS SPREAD FOOTING REINFORCEMENT DIMENSIONS STEM QUANTITIES

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/5/07

WALL TABULATIONS - WALL WPPSW

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 329 OF 872 SHEETS

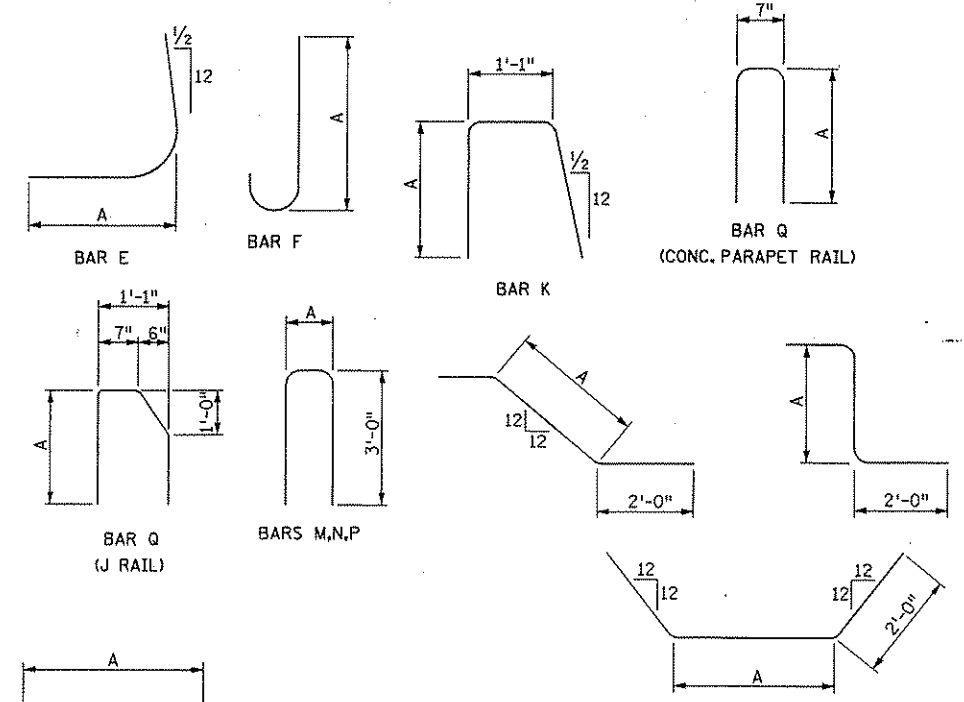
PLOTTED/REVISED: 05-FEB-2007 14:20

STEM HEIGHT :AT HIGH END= 18' 1- 3/16" AT LOW END =16' 9-3/8"										
LEVEL		FILL Panel:		E13		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	20	32'-11"	STR.	LONG T & B	687	SPREAD FOOTING			
B	F1902	31	9'-4"	STR.	TRANS BOT	435	b	3'-0"	e	-----
C	F2203	31	9'-4"	STR.	TRANS TOP	591	c	1'-6"	f	-----
							d	9'-10"	g	3' 2- 5/16"
STEM										
							a	2' 3-1/2"		
							j	1' 10-13/16"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	11'-0"	4'-9"	DOWEL BF	512	(FOOTING)			
F	F1906E	30	7'-3"	6'-3"	DOWEL BF	327	SPREAD 17.1 cu.yd.			
G	S1301E	31	16'-1"	STR.	VERT FF	333	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	16'-1"	STR.	VERT BF	520	(STEM)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	37.3 cu.yd.			
K	S1604E	31	8'-9"	3'-10"	TIE	284	REINFORCEMENT (PLAIN)			
L	S1305E	36	30'-0"	STR.	HORIZ EF	721	REINFORCEMENT (PLAIN)			
M High End	S1606E	18	7' 1-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	149	SPREAD 1713 lb			
M Low End	S1607E	16	7' 1-1/2"	Varys: 1'-2" to 1'	EXP JT TIE	133	REINFORCEMENT (EPOXY)			
							3279 lb			

STEM HEIGHT :AT HIGH END=19' 3-15/16" AT LOW END =18' 1- 3/16"										
LEVEL		FILL Panel:		E14		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F1902	31	10'-0"	STR.	TRANS BOT	466	b	3'-3"	e	-----
C	F2503	31	10'-0"	STR.	TRANS TOP	828	c	1'-6"	f	-----
							d	10'-6"	g	3' 5- 5/16"
STEM										
							a	2'-4"		
							j	1' 11- 5/16"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1905E	31	12'-4"	5'-1"	DOWEL BF	574	(FOOTING)			
F	F1906E	30	8'-3"	7'-3"	DOWEL BF	372	SPREAD 18.9 cu.yd.			
G	S1301E	31	17'-1"	STR.	VERT FF	354	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	17'-1"	STR.	VERT BF	552	(STEM)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	40.5 cu.yd.			
K	S1604E	31	9'-3"	4'-1"	TIE	299	REINFORCEMENT (PLAIN)			
L	S1305E	38	30'-0"	STR.	HORIZ EF	762	REINFORCEMENT (PLAIN)			
M High End	S1606E	19	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	159	SPREAD 2049 lb			
M Low End	S1607E	18	8'-0"	Varys: 1'-2" to 2'-0"	EXP JT TIE	150	REINFORCEMENT (EPOXY)			
							3522 lb			

STEM HEIGHT :AT HIGH END=20' 7-15/16" AT LOW END =19' 3-15/16"										
LEVEL		FILL Panel:		E15		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F1902	31	10'-2"	STR.	TRANS BOT	473	b	3'-8"	e	1'-0"
C	F2503	31	10'-2"	STR.	TRANS TOP	841	c	1'-6"	f	5' 8-1/4"
							d	10'-8"	g	3' 10- 5/16"
STEM										
							a	2' 4-1/2"		
							j	1' 11-3/4"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F2205E	31	13'-9"	5'-6"	DOWEL BF	871	(FOOTING)			
F	F2206E	30	9'-9"	8'-9"	DOWEL BF	598	SPREAD 20.4 cu.yd.			
G	S1301E	31	18'-1"	STR.	VERT FF	374	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	18'-1"	STR.	VERT BF	585	(STEM)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	43.8 cu.yd.			
K	S1604E	31	9'-11"	4'-5"	TIE	320	REINFORCEMENT (PLAIN)			
L	S1305E	42	30'-0"	STR.	HORIZ EF	842	REINFORCEMENT (PLAIN)			
M High End	S1606E	20	8' 0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	168	SPREAD 2069 lb			
M Low End	S1607E	19	8' 0-1/2"	Varys: 1'-2" to 2'	EXP JT TIE	159	REINFORCEMENT (EPOXY)			
							4217 lb			

STEM HEIGHT :AT HIGH END=21' 6-1/8" AT LOW END =20' 7-15/16"										
LEVEL		FILL Panel:		E16		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT										
DIMENSIONS										
A	F1601	22	32'-11"	STR.	LONG T & B	755	SPREAD FOOTING			
B	F2202	31	10'-4"	STR.	TRANS BOT	655	b	4'-0"	e	1'-0"
C	F2203	31	10'-4"	STR.	TRANS TOP	655	c	1'-6"	f	6' 0-3/4"
							d	10'-10"	g	4' 2- 5/16"
STEM										
							a	2'-5"		
							j	2' 0-1/4"		
FOOTING DOWELS & STEM REINFORCEMENT										
QUANTITIES										
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F2205E	31	15'-2"	5'-11"	DOWEL BF	961	(FOOTING)			
F	F2206E	30	10'-9"	9'-9"	DOWEL BF	659	SPREAD 20.8 cu.yd.			
G	S1301E	31	19'-1"	STR.	VERT FF	395	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	31	19'-1"	STR.	VERT BF	617	(STEM)			
J	S1603E	30	6'-6"	STR.	VERT BF	203	46.6 cu.yd.			
K	S1604E	31	9'-7"	4'-3"	TIE	311	REINFORCEMENT (PLAIN)			
L	S1305E	44	30'-0"	STR.	HORIZ EF	882	REINFORCEMENT (PLAIN)			
M High End	S1606E	21	8'-1"	Varys: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD 2065 lb			
M Low End	S1607E	20	8'-1"	Varys: 1'-2" to 2'-1"	EXP JT TIE	169	REINFORCEMENT (EPOXY)			
							4471 lb			



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

DISTRICT #: METRO
 IPLOT NAME: TABS_WPPSW3
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wallisTABSWPPSW.dgn

WALL TABULATIONS - WALL WPPSW

PLOTTED/REVISED: 15-FEB-2007 07:12

DISTRICT #: METRO
 IPLOT NAME: TABS_WPPSW4
 PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wall\TAB_WPPSW.dgn

RETAINING WALL WPPSW													
JOINT NUMBER	ALIGNMENT			PROFILES						DIMENSIONS			
	STATION	X	Y	INPLACE GROUND ELEV	PROPOSED	TOP OF WALL	TOP OF BARRIER	TOP OF FOOTING	BOTTOM OF FOOTING	WALL HEIGHT	FOOTING THICKNESS	PANEL LENGTH	PANEL NAME
					FACE OF WALL ELEV								
1	1+29.30	507689.518	156391.139	901.64	903.90	905.27	907.94	900.58	899.20	4.69	1.38		
2	1+51.40	507711.190	156386.788	901.71	904.08	906.20	908.86	900.75	899.37	5.45	1.38	22.14	E1
3	1+73.50	507732.910	156382.706	901.80	904.26	907.16	909.83	900.92	899.55	6.24	1.37	22.1	E2
4	2+04.00	507762.964	156377.513	902.01	904.51	908.50	911.17	901.16	899.78	7.34	1.38	30.5	E3
5	2+34.50	507793.103	156372.833	902.15	904.76	909.84	912.51	901.40	900.02	8.44	1.38	30.5	E4
6	2+65.00	507823.316	156368.668	901.99	905.01	911.18	913.84	901.64	900.26	9.54	1.38	30.5	E5
7	2+95.50	507853.597	156365.017	901.68	905.26	912.51	915.18	901.88	900.50	10.63	1.38	30.5	E6
8	3+26.00	507883.935	156361.883	902.52	905.54	913.85	916.52	902.12	900.74	11.73	1.38	30.5	E7
9	3+56.50	507914.322	156359.267	902.74	905.83	915.19	917.86	902.36	900.98	12.83	1.38	30.5	E8
10	3+87.00	507944.749	156357.168	902.82	906.11	916.53	919.19	902.85	901.22	13.68	1.63	30.5	E9
11	4+17.50	507975.208	156355.589	902.98	906.39	917.86	920.53	903.09	901.47	14.77	1.62	30.5	E10
12	4+48.00	508005.689	156354.528	903.22	906.67	919.20	921.87	903.58	901.71	15.62	1.87	30.5	E11
13	4+78.50	508036.184	156353.987	903.31	906.83	920.47	923.14	903.69	901.81	16.78	1.88	30.5	E12
14	5+09.00	508066.684	156353.966	903.27	906.46	921.58	924.25	903.48	901.36	18.10	2.12	30.5	E13
15	5+39.50	508097.179	156354.464	903.15	906.10	922.52	925.19	903.19	900.90	19.33	2.29	30.5	E14
16	5+70.00	508127.666	156355.374	902.33	905.60	923.30	925.97	902.64	900.35	20.66	2.29	30.5	E15
17	6+00.50	508158.162	156355.817	902.58	905.10	923.85	926.52	902.34	899.80	21.51	2.54	30.5	E16

RETAINING WALL WPPSW QUANTITIES									
PANEL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		PARAPET CONCRETE RAILING	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE)	ARCHITECTURAL SURFACE FINISH (MULTI COLOR)	ANTI GRAFFITTI COATING	NOTES
	1A43 (FOOTING)	3Y43 (STEM)	PLAIN	EPOXY					
	CU YD	CU YD	POUND	POUND	LIN FT	SQ FT	SQ FT	SQ FT	
E1	3.7	6.8	343	708	22.14				(1)
E2	3.9	7.9	355	782	22.1				(1)
E3	6.2	12.8	585	1169	30.5				(1)
E4	6.9	15.0	617	1283	30.5				(1)
E5	7.6	17.3	720	1447	30.5	29	29	29	
E6	8.4	19.7	752	1570	30.5	62	62	62	
E7	9.1	22.1	853	1687	30.5	95	95	95	
E8	9.8	24.6	885	1980	30.5	127	127	127	
E9	10.5	26.8	1081	2147	30.5	159	159	159	
E10	11.3	29.1	1225	2326	30.5	191	191	191	
E11	12.0	31.5	1470	2490	30.5	224	224	224	
E12	12.7	33.9	1386	2973	30.5	255	255	255	
E13	17.1	37.3	1713	3279	30.5	296	296	296	
E14	18.9	40.5	2049	3522	30.5	339	339	339	
E15	20.4	43.8	2069	4217	30.5	378	378	378	
E16	20.8	46.6	2065	4471	30.5	414	414	414	
TOTALS	179.3	415.7	18168	36051	471.2	2569	2569	2569	

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

WALL TABULATIONS - WALL WPPSW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

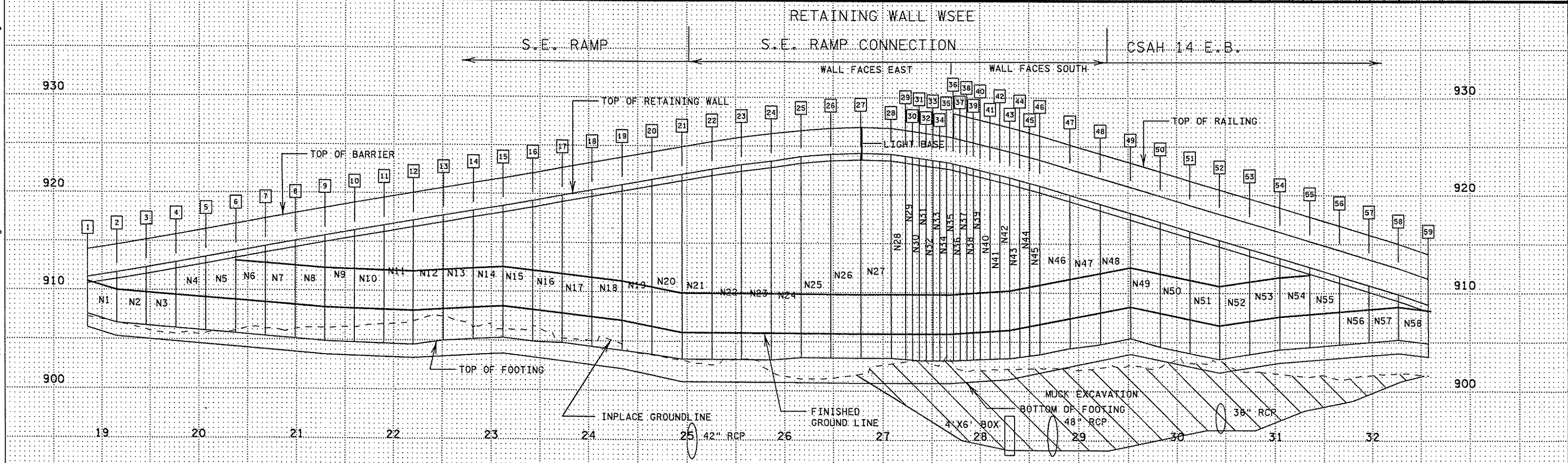
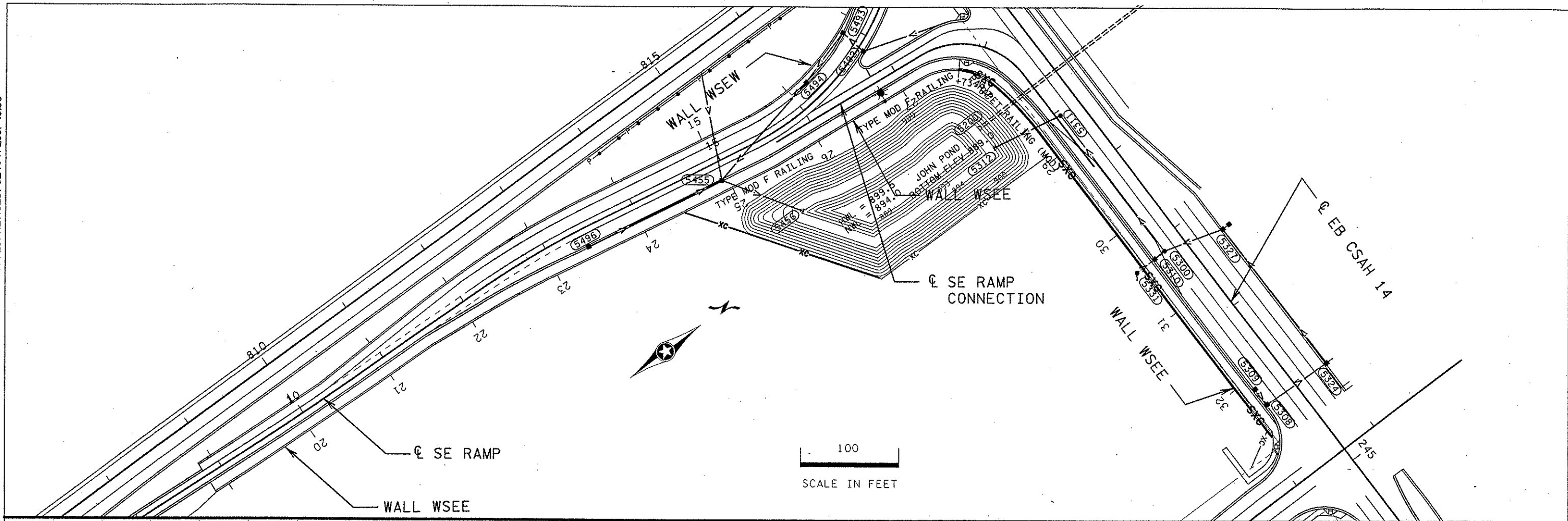
Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/15/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 331 OF 872 SHEETS

PLOTTED/REVISED: 02-APR-2007 10:53



WALL PLAN / PROFILE - WALL WSEE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 332 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: W999
PATH & FILENAME: S:\Design\065\0208\123\Final\walls\0208123_wrl.dgn

PLOTTED/REVISED: 31-JAN-2007 08:57

DISTRICT #: METRO
PLOT NAME: tabs_wsee06
PATH & FILENAME: S:\DESIGN\0650208\23\Final\wall\TAB_WALL_WSEE.dgn

Table for Panel N31: STEM HEIGHT AT HIGH END = 20' 7-11/16" AT LOW END = 20' 6-5/8". Includes spread footing reinforcement and footing dowels & stem reinforcement details.

Table for Panel N32: STEM HEIGHT AT HIGH END = 20' 6-5/8" AT LOW END = 20' 5-3/8". Includes spread footing reinforcement and footing dowels & stem reinforcement details.

Table for Panel N33: STEM HEIGHT AT HIGH END = 20' 5-3/8" AT LOW END = 20' 4-3/16". Includes spread footing reinforcement and footing dowels & stem reinforcement details.

Table for Panel N34: STEM HEIGHT AT HIGH END = 20' 4-3/16" AT LOW END = 20' -3". Includes spread footing reinforcement and footing dowels & stem reinforcement details.

Table for Panel N35: STEM HEIGHT AT HIGH END = 20' -3" AT LOW END = 20' 1-5/16". Includes spread footing reinforcement and footing dowels & stem reinforcement details.

Table for Panel N36: STEM HEIGHT AT HIGH END = 20' 1-5/16" AT LOW END = 19' 10-15/16". Includes spread footing reinforcement and footing dowels & stem reinforcement details.

WALL TABULATIONS - WALL WSEE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY: Josephine Lundquist

LIC. NO. 20534 DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 338 OF 872 SHEETS

PLOTTED/REVISED: 05-FEB-2007 14:20

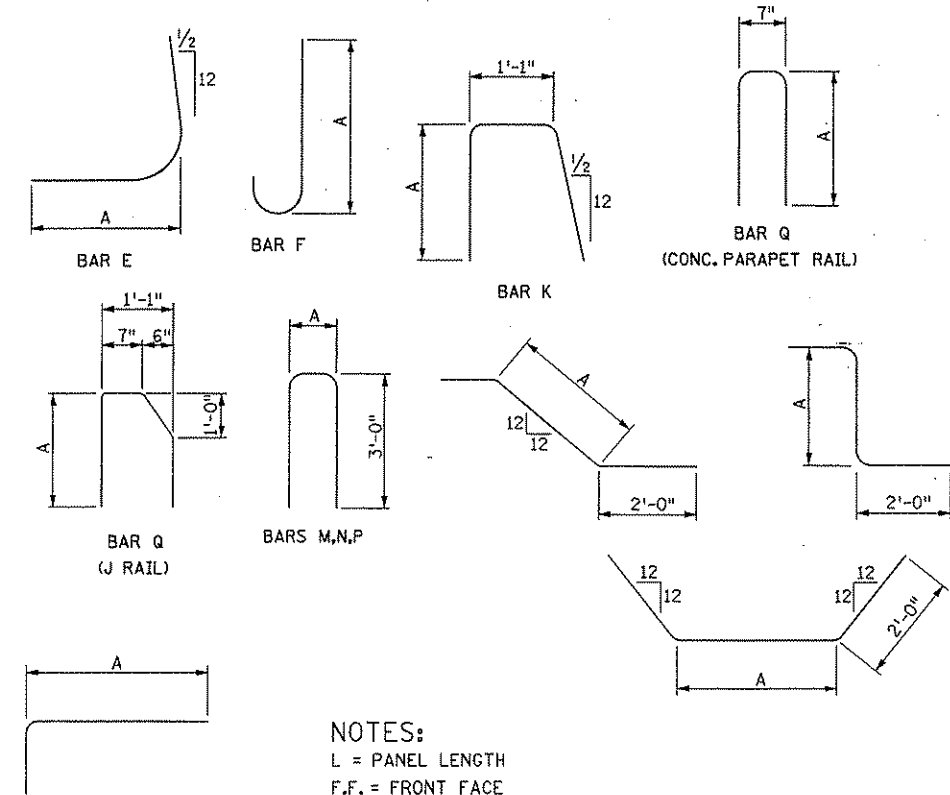
DISTRICT *: METRO
 IPLOT NAME: TABS.WSEEIO
 PATH & FILENAME: S:\Design\0650208\23\Final\wallis\TABS.WSEE.dgn

STEM HEIGHT : AT HIGH END = 8' 1-7/16" AT LOW END = 6' 11-3/8"										
LEVEL		FILL Panel:		N55		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	10	32'-11"	STR.	LONG T & B	343	SPREAD FOOTING			
B	F1602	31	4'-3"	STR.	TRANS BOT.	137	b	1'-4"	e	-----
C	F1603	31	4'-3"	STR.	TRANS TOP	137	c	1'-3"	f	-----
							d	4'-9"	g	1' 6-5/16"
							STEM			
							a	1' 10-1/2"		
							J	1' 5-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	6.9 cu.yd.		
G	S1301E	31	6'-5"	STR.	VERT FF	134				
H	S1602E	31	6'-5"	STR.	VERT BF	209	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	8'-1"	3'-6"	TIE	262	14.4 cu.yd.			
L	S1305E	16	30'-0"	STR.	HORIZ EF	321	REINFORCEMENT (PLAIN)			
M High End	S1606E	8	7' 6-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	63	SPREAD	617 lb		
M Low End	S1607E	6	7' 6-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	47				
							REINFORCEMENT (EPOXY)			
							1260 lb			

STEM HEIGHT : AT HIGH END = 6' 11-3/8" AT LOW END = 5' 9-3/8"										
LEVEL		FILL Panel:		N56		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	3'-3"	STR.	TRANS BOT	105	b	1'-0"	e	-----
C	F1603	31	3'-3"	STR.	TRANS TOP	105	c	1'-3"	f	-----
							d	3'-9"	g	1' 2-5/16"
							STEM			
							a	1' 9-1/2"		
							J	1' 4-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	5.4 cu.yd.		
G	S1301E	31	5'-3"	STR.	VERT FF	109				
H	S1602E	31	5'-3"	STR.	VERT BF	171	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	8'-1"	3'-6"	TIE	262	11.8 cu.yd.			
L	S1305E	14	30'-0"	STR.	HORIZ EF	281	REINFORCEMENT (PLAIN)			
M High End	S1606E	6	7' 5-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	47	SPREAD	485 lb		
M Low End	S1607E	5	7' 5-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	39				
							REINFORCEMENT (EPOXY)			
							1133 lb			

STEM HEIGHT : AT HIGH END = 5' 9-3/8" AT LOW END = 4' 7-5/16"										
LEVEL		FILL Panel:		N57		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	3'-0"	STR.	TRANS BOT	97	b	0'-10"	e	-----
C	F1603	31	3'-0"	STR.	TRANS TOP	97	c	1'-3"	f	-----
							d	3'-6"	g	1' 0-5/16"
							STEM			
							a	1'-9"		
							J	1' 4-3/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	5.1 cu.yd.		
G	S1301E	31	4'-1"	STR.	VERT FF	85				
H	S1602E	31	4'-1"	STR.	VERT BF	133	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	8'-1"	3'-6"	TIE	262	9.5 cu.yd.			
L	S1305E	12	30'-0"	STR.	HORIZ EF	240	REINFORCEMENT (PLAIN)			
M High End	S1606E	5	7'-5"	Vary: 1'-2" to 1'-5"	EXP JT TIE	39	SPREAD	469 lb		
M Low End	S1607E	4	7'-5"	Vary: 1'-2" to 1'-5"	EXP JT TIE	31				
							REINFORCEMENT (EPOXY)			
							1014 lb			

STEM HEIGHT : AT HIGH END = 4' 7-5/16" AT LOW END = 3' 11-1/16"										
LEVEL		FILL Panel:		N58		PANEL LENGTH = 30'-6"				
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	8	32'-11"	STR.	LONG T & B	275	SPREAD FOOTING			
B	F1602	31	2'-6"	STR.	TRANS BOT	81	b	0'-9"	e	-----
C	F1603	31	2'-6"	STR.	TRANS TOP	81	c	1'-3"	f	-----
							d	3'-0"	g	0' 11-5/16"
							STEM			
							a	1' 8-1/2"		
							J	1' 3-7/8"		
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	31	3'-0"	STR.	DOWEL FF	97	STRUCTURAL CONCRETE (1A43)			
E	F1605E	16	3'-10"	0'-10"	DOWEL BF	64	(FOOTING)			
F	F1606E	15	4'-0"	3'-0"	DOWEL BF	63	SPREAD	4.3 cu.yd.		
G	S1301E	31	3'-5"	STR.	VERT FF	71				
H	S1602E	31	3'-5"	STR.	VERT BF	111	STRUCTURAL CONCRETE (3Y43)			
J	S 03E	-----	-----	STR.	VERT BF	-----	(STEM)			
K	S1604E	31	7'-2"	3'-0"	TIE	231	7.7 cu.yd.			
L	S1305E	10	30'-0"	STR.	HORIZ EF	200	REINFORCEMENT (PLAIN)			
M High End	S1606E	4	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	31	SPREAD	437 lb		
M Low End	S1607E	3	7' 4-1/2"	Vary: 1'-2" to 1'	EXP JT TIE	23				
							REINFORCEMENT (EPOXY)			
							891 lb			



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

WALL TABULATIONS - WALL WSEE

PLOTTED/REVISED: 31-JAN-2007 08:58

DISTRICT: METRO
PLOT NAME: TABS_WSEESUM
PATH & FILENAME: S:\Design\065\0208\23\Final\wallist_ABS_WSEE.dgn

RETAINING WALL WSEE

Table with columns: JOINT NUMBER, ALIGNMENT (STATION, X, Y), PROFILES (INPLACE GROUND ELEV, FACE OF WALL ELEV, TOP OF WALL ELEV, TOP OF BARRIER ELEV, TOP OF FOOTING ELEV, BOTTOM OF FOOTING ELEV), DIMENSIONS (WALL HEIGHT FT, FOOTING THICKNESS FT, PANEL LENGTH FT), PANEL NAME. Rows 1-59.

RETAINING WALL WSEE QUANTITIES

Table with columns: PANEL, STRUCTURAL CONCRETE (1A43, 3Y43), REINFORCEMENT BARS (PLAIN, EPOXY), TYPE F MODIFIED RAILING, PARAPET CONCRETE RAILING, ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE), ARCHITECTURAL SURFACE FINISH (MULTI COLOR), ANTI GRAFFITTI COATING, NOTES. Rows N1-N58 and TOTALS.

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

WALL TABULATIONS - WALL WSEE

DRAWN BY: MLW

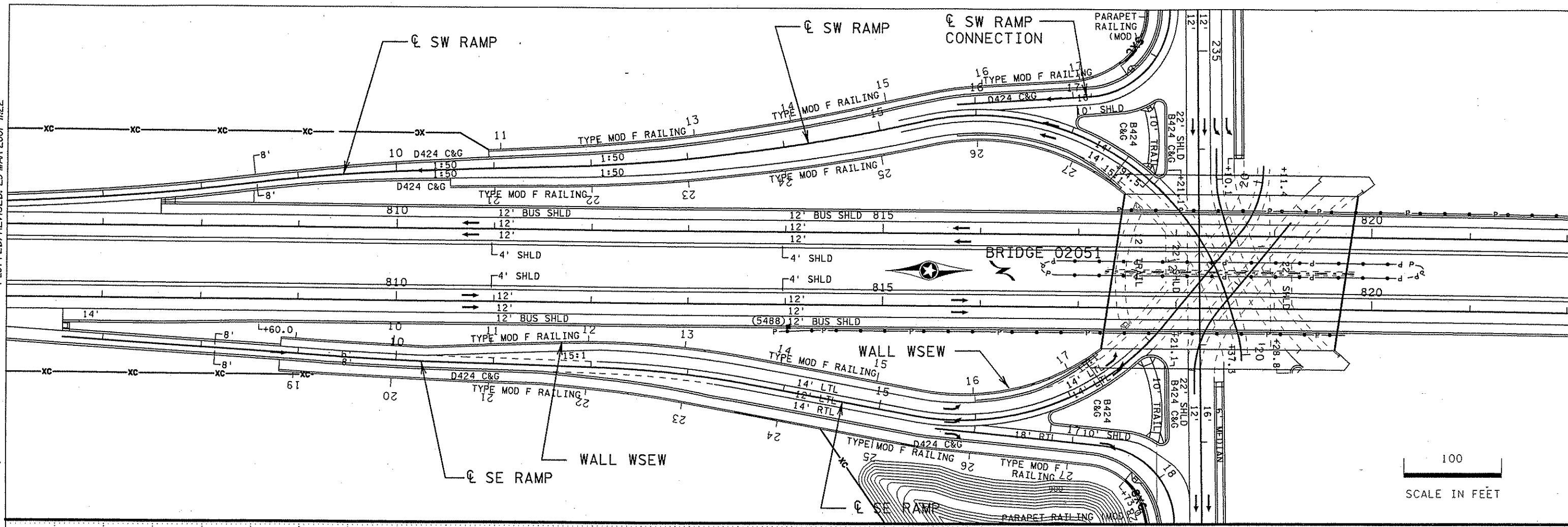
CHECKED BY: DY

CERTIFIED BY Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

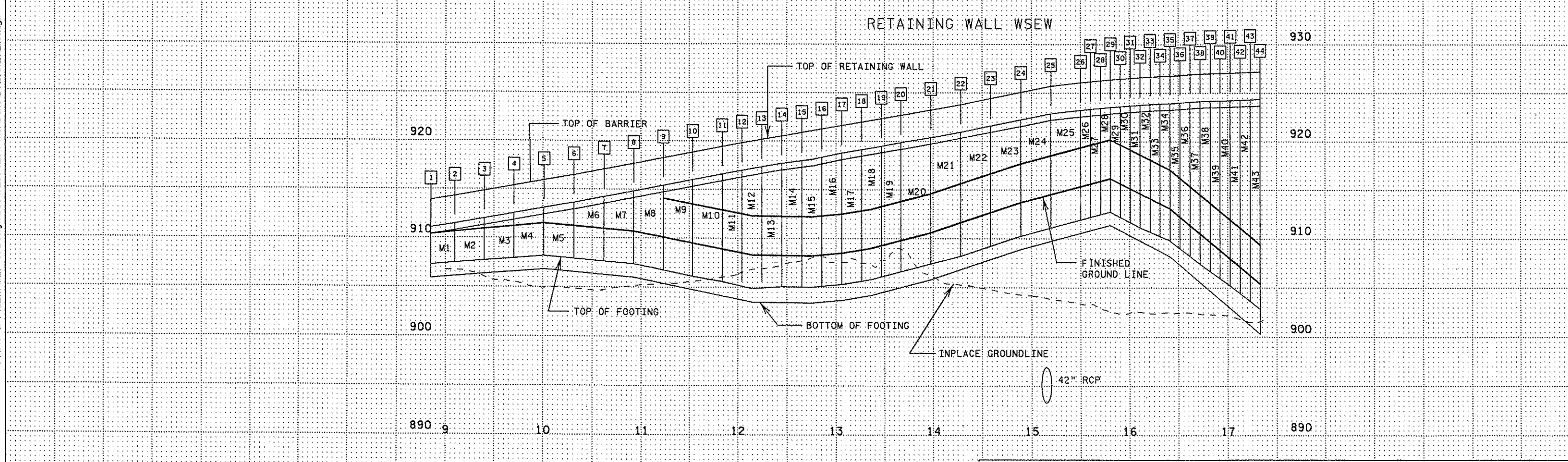
LIC. NO. 20534 DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 343 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 11:22



DISTRICT: METRO
PLOT NAME: WSEW
PATH & FILENAME: S:\Design\065\0208\23\Final\Walls\0208123_wrl.dgn



WALL PLAN / PROFILE - WALL WSEW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 344 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:58

Table M19: STEM HEIGHT: AT HIGH END = 13' 4-13/16" AT LOW END = 13' 2-3/4". Includes columns for Level, Fill, Panel, Bar, Mark, No., Length, A, Location, Weight, Dimensions and quantities. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT with QUANTITIES.

Table M20: STEM HEIGHT: AT HIGH 13' 2-3/4" AT LOW END = 12' 11-3/4". Includes columns for Level, Fill, Panel, Bar, Mark, No., Length, A, Location, Weight, Dimensions and quantities. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT with QUANTITIES.

Table M21: STEM HEIGHT: AT HIGH END = 12' 11-3/4" AT LOW END = 12' 8-7/8". Includes columns for Level, Fill, Panel, Bar, Mark, No., Length, A, Location, Weight, Dimensions and quantities. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT with QUANTITIES.

Table M22: STEM HEIGHT: AT HIGH END = 12' 8-7/8" AT LOW END = 12' 3-1/8". Includes columns for Level, Fill, Panel, Bar, Mark, No., Length, A, Location, Weight, Dimensions and quantities. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT with QUANTITIES.

Table M23: STEM HEIGHT: AT HIGH END = 12' 3-1/8" AT LOW END = 11' 9-3/8". Includes columns for Level, Fill, Panel, Bar, Mark, No., Length, A, Location, Weight, Dimensions and quantities. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT with QUANTITIES.

Table M24: STEM HEIGHT: AT HIGH END = 11' 9-3/8" AT LOW END = 11' 9-1/8". Includes columns for Level, Fill, Panel, Bar, Mark, No., Length, A, Location, Weight, Dimensions and quantities. Sub-tables for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, and FOOTING DOWELS & STEM REINFORCEMENT with QUANTITIES.

DISTRICT #: METRO
PLOT NAME: TABS_WSEW 4
PATH & FILENAME: SADESIGN0650208123\Final\TABS_WSEW.dgn

WALL TABULATIONS - WALL WSEW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSURE PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/5/07

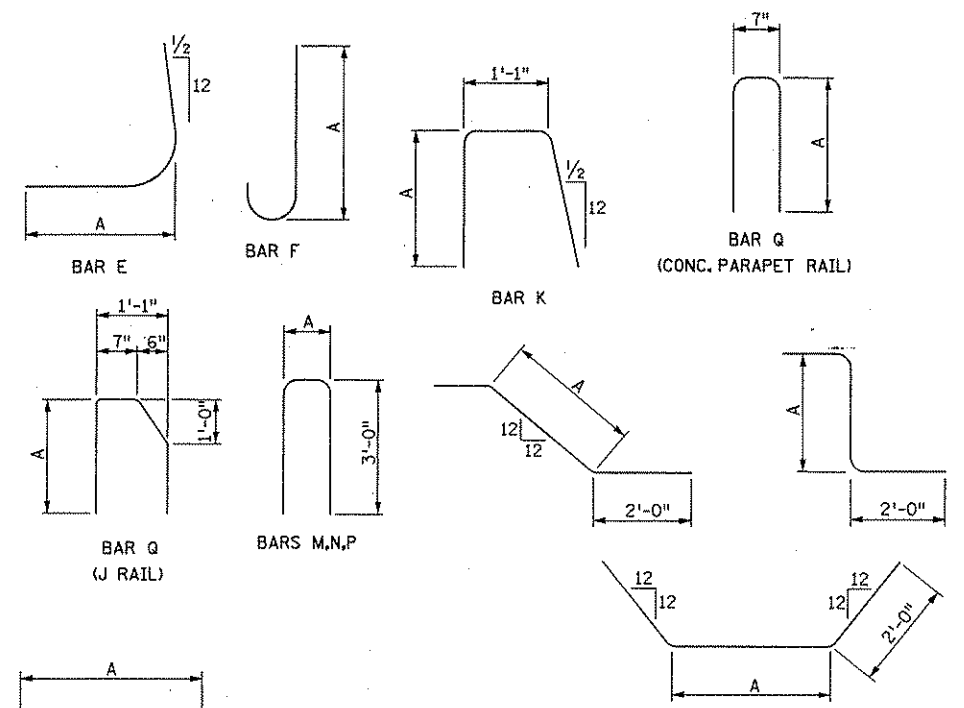
STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 348 OF 872 SHEETS

PLOTTED/REVISED: 05-FEB-2007 14:20

DISTRICT *: METRO
 IPLOT NAME: fobs_wsew 8
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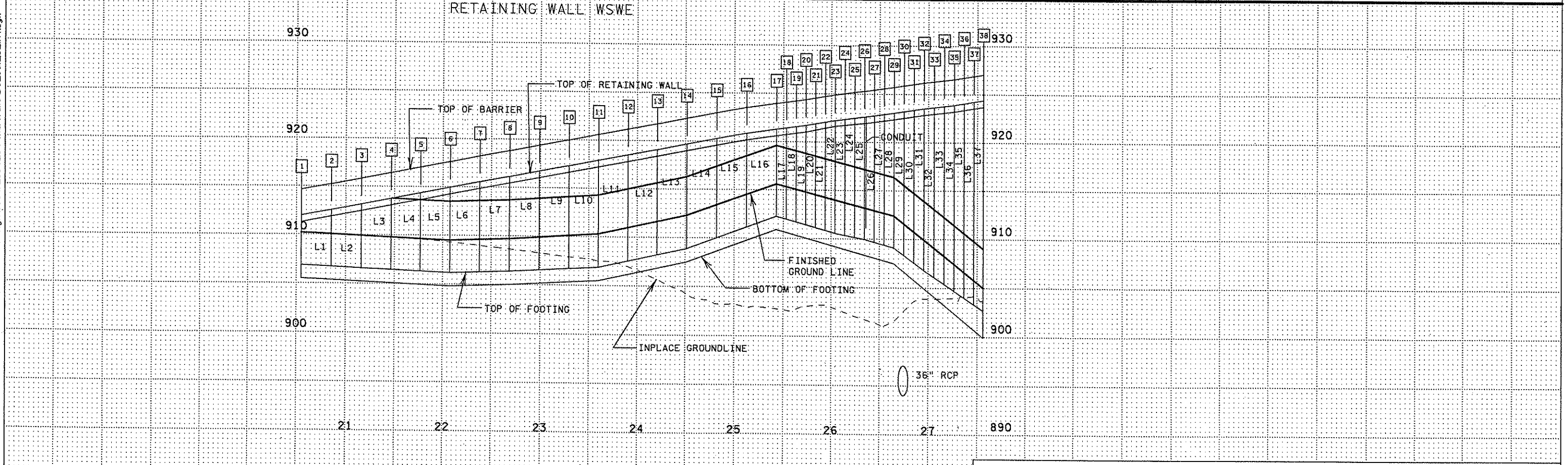
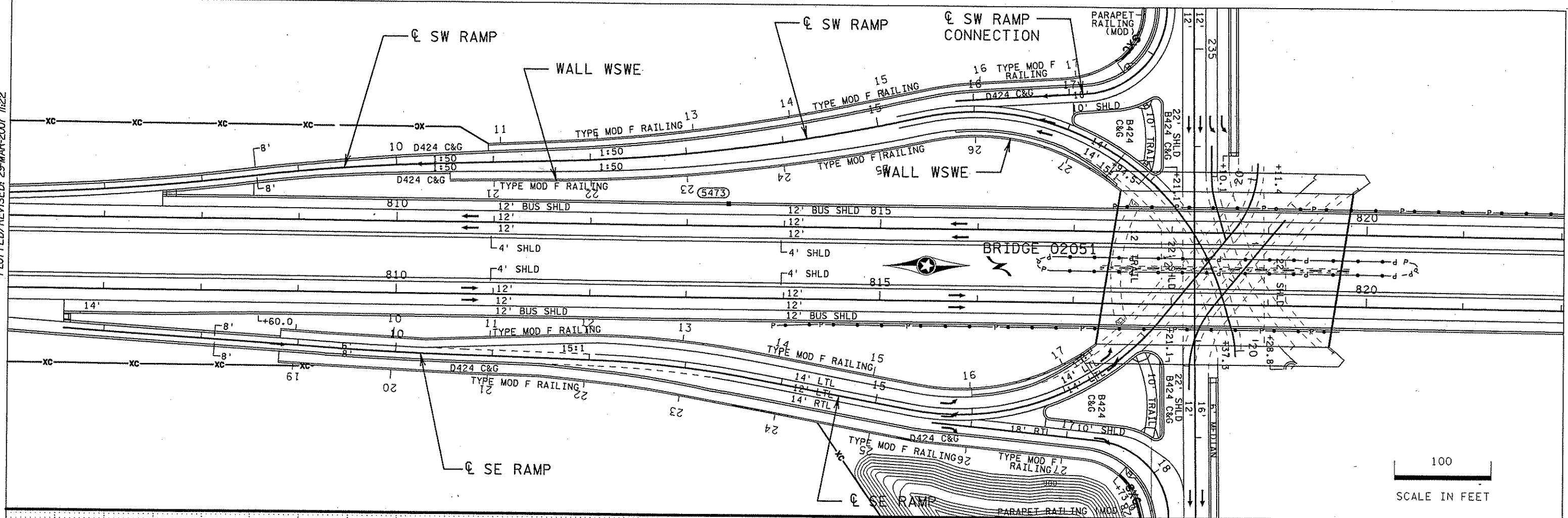
STEM HEIGHT : AT HIGH END = 21' 6-1/4"		AT LOW END = 20' 8- 3/16"								
LEVEL	FILL Panel:	M43	PANEL LENGTH = 10' 1-15/16"							
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING			
B	F2202	10	10'-4"	STR.	TRANS BOT	211	b	4'-0"	e	1'-0"
C	F2203	10	10'-4"	STR.	TRANS TOP	211	c	1'-6"	f	6' 0-3/4"
							d	10'-10"	g	4' 2- 5/16"
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	15'-2"	5'-11"	DOWEL BF	310	(FOOTING)			
F	F2206E	9	10'-9"	9'-9"	DOWEL BF	198	SPREAD 6.9 cu. yd.			
G	S1301E	10	19'-1"	STR.	VERT FF	127	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	10	19'-1"	STR.	VERT BF	199	(STEM)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	15.5 cu. yd.			
K	S1604E	10	9'-7"	4'-3"	TIE	100	REINFORCEMENT (PLAIN)			
L	S1305E	44	9'-8"	STR.	HORIZ EF	284	711 lb			
M High End	S1606E	21	8'-1"	Varys: 1'-2" to 2'-1"	EXP JT TIE	177	REINFORCEMENT (EPOXY)			
M Low End	S1607E	20	8'-1"	Varys: 1'-2" to 2'-1"	EXP JT TIE	169	1656 lb			



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

WALL TABULATIONS - WALL WSEW

PLOTTED/REVISED: 29-MAR-2007 11:22



DISTRICT: METRO
PLOT NAME: wswe
PATH & FILENAME: S:\Design\065\0208\123\Final\walls\0208123_wrl.dgn

Table with 8 columns: LEVEL, FILL Panel, No., Length, A, Location, Weight, Dimensions and quantities. Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table with 8 columns: LEVEL, FILL Panel, No., Length, A, Location, Weight, Dimensions and quantities. Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table with 8 columns: LEVEL, FILL Panel, No., Length, A, Location, Weight, Dimensions and quantities. Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table with 8 columns: LEVEL, FILL Panel, No., Length, A, Location, Weight, Dimensions and quantities. Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table with 8 columns: LEVEL, FILL Panel, No., Length, A, Location, Weight, Dimensions and quantities. Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

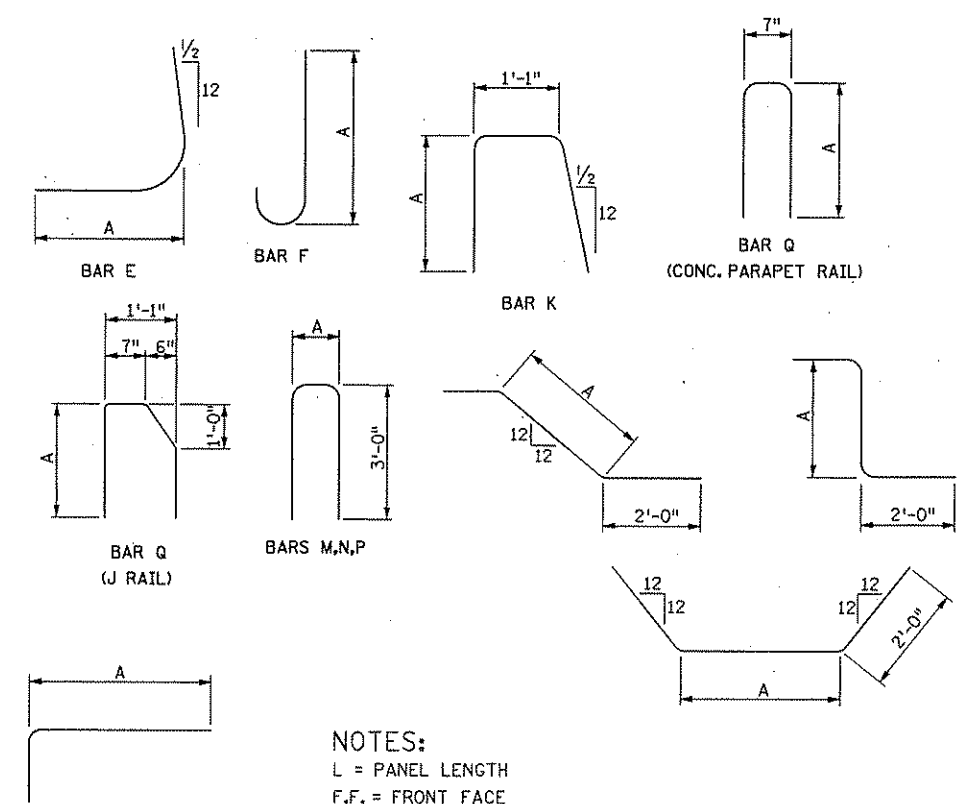
Table with 8 columns: LEVEL, FILL Panel, No., Length, A, Location, Weight, Dimensions and quantities. Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

WALL TABULATIONS - WALL WSWE

PLOTTED/REVISED: 05-FEB-2007 14:20

DISTRICT #: METRO
 IPLOT NAME: TABS.WSWE 7
 PATH & FILENAME: S:\Design\065\0208\23\Final\wall\TABS.WSWE.dgn

STEM HEIGHT AT HIGH END = 21' 8-1/16" AT LOW END = 20' 10-5/16"							LEVEL FILL Panel: L37 PANEL LENGTH = 10' 2-1/16"			
Bar	Mark	No.	Length	A	Location	Weight	Dimensions and quantities			
SPREAD FOOTING REINFORCEMENT							DIMENSIONS			
A	F1601	22	12'-7"	STR.	LONG T & B	289	SPREAD FOOTING			
B	F2202	10	10'-4"	STR.	TRANS BOT	211	b	4'-0"	e	1'-0"
C	F2203	10	10'-4"	STR.	TRANS TOP	211	c	1'-6"	f	6' 0-3/4"
							d	10'-10"	g	4' 2-5/16"
STEM										
			a	2'-5"						
			J	2' 0-1/4"						
FOOTING DOWELS & STEM REINFORCEMENT							QUANTITIES			
D	F1604E	10	3'-0"	STR.	DOWEL FF	31	STRUCTURAL CONCRETE (1A43)			
E	F2205E	10	15'-2"	5'-11"	DOWEL BF	310	(FOOTING)			
F	F2206E	9	10'-9"	9'-9"	DOWEL BF	198	SPREAD 6.9 cu. yd.			
G	S1301E	10	19'-1"	STR.	VERT FF	127	STRUCTURAL CONCRETE (3Y43)			
H	S1602E	10	19'-1"	STR.	VERT BF	199	(STEM)			
J	S1603E	9	6'-6"	STR.	VERT BF	61	15.7 cu. yd.			
K	S1604E	10	9'-1"	4'-5"	TIE	104	REINFORCEMENT (PLAN)			
L	S1305E	44	9'-8"	STR.	HORIZ EF	284				
M High End	S1606E	21	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	177	SPREAD 711 lb			
M Low End	S1607E	20	8'-1"	Vary: 1'-2" to 2'-1"	EXP JT TIE	169				
REINFORCEMENT (EPOXY)							1660 lb			



NOTES:
 L = PANEL LENGTH
 F.F. = FRONT FACE
 B.F. = BACK FACE
 E.F. = EACH FACE
 BARS MARKED WITH THE SUFFIX "E" ARE EPOXY COATED.

PLOTTED/REVISED: 31-JAN-2007 06:58

RETAINING WALL WSWE

Table with columns: JOINT NUMBER, STATION, X, Y, INPLACE GROUND ELEV, FACE OF WALL ELEV, TOP OF WALL, TOP OF BARRIER, TOP OF FOOTING, BOTTOM OF FOOTING, WALL HEIGHT FT, FOOTING THICKNESS FT, PANEL LENGTH FT, PANEL NAME. Rows 1-38.

RETAINING WALL WSWE QUANTITIES

Table with columns: PANEL, STRUCTURAL CONCRETE (1A43, 3Y43), REINFORCEMENT BARS (PLAIN, EPOXY), TYPE F MODIFIED RAILING, ARCHITECTURAL CONCRETE TEXTURE, ARCHITECTURAL SURFACE FINISH, ANTI GRAFFITTI COATING, NOTES. Rows L1-L37 and TOTALS.

(1) PANEL HAS NO ARCHITECTURAL CONCRETE TEXTURE

DISTRICT: METRO

IPLOT NAME: TABS.WSWE.sum

PATH & FILENAME: S:\Design\0650208\23\Final\walltab.WSWE.dgn

WALL TABULATIONS - WALL WSWE

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Signature of Josephine Lundquist, LICENSED PROFESSIONAL ENGINEER

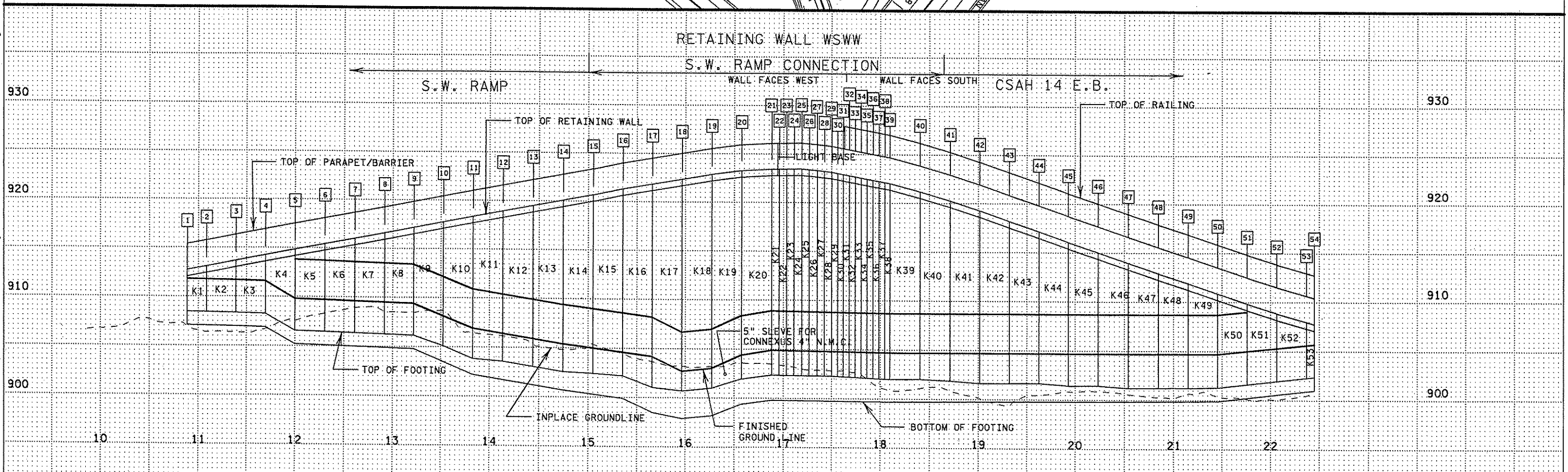
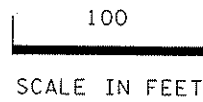
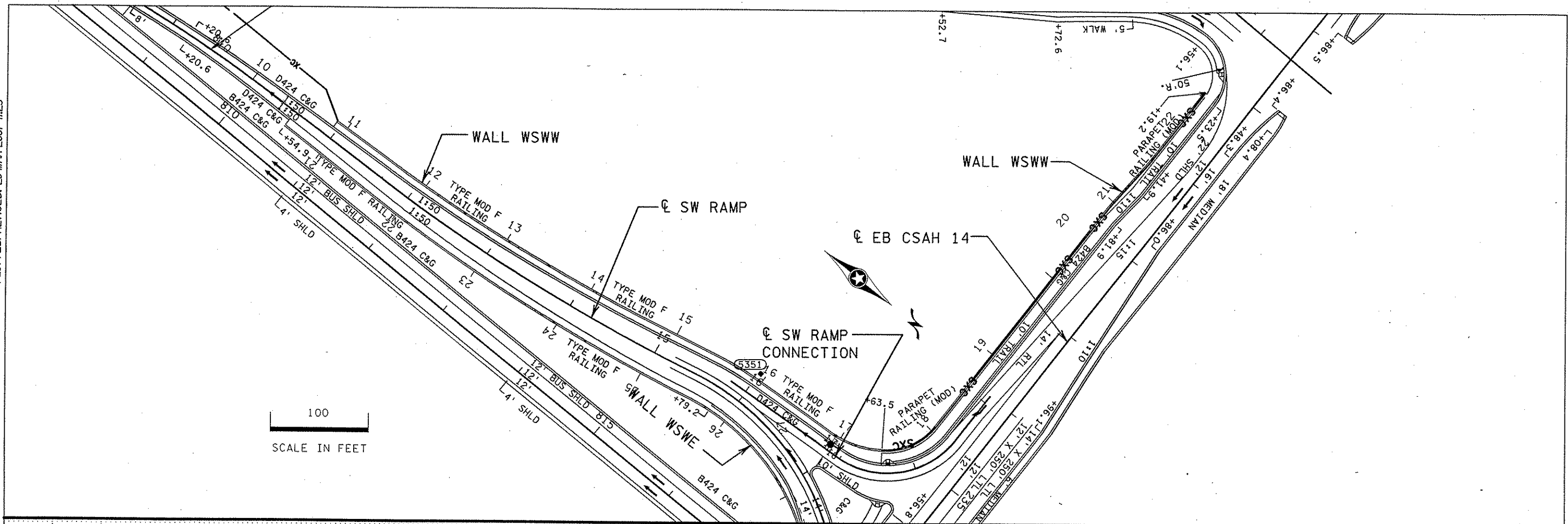
LIC. NO. 20534

DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65)

SHEET NO. 362 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 11:23



DISTRICT: METRO
PLOT NAME: WSWW
PATH & FILENAME: S:\Design\065\0208\23\Final\walls\0208123_wrl.dgn

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

WALL PLAN / PROFILE - WALL WSWW

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 363 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:58

DISTRICT: METRO
PLOT NAME: TABS.WSWW_3
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wallis\TABS.WSWW.dgn

Table for Panel K13: STEM HEIGHT: AT HIGH END = 17' 6-1/4" AT LOW END = 16' 5-3/16". Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table for Panel K14: STEM HEIGHT: AT HIGH END = 18'-3" AT LOW END = 17' 6-1/4". Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table for Panel K15: STEM HEIGHT: AT HIGH END = 19' 1-5/16" AT LOW END = 18'-3". Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table for Panel K16: STEM HEIGHT: AT HIGH END = 20' 9-3/8" AT LOW END = 19' 1-5/16". Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table for Panel K17: STEM HEIGHT: AT HIGH END = 21' 6-5/8" AT LOW END = 20' 9-3/8". Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

Table for Panel K18: STEM HEIGHT: AT HIGH END = 21' 10-5/16" AT LOW END = 21' 6-5/8". Includes sections for SPREAD FOOTING REINFORCEMENT, DIMENSIONS, STEM, FOOTING DOWELS & STEM REINFORCEMENT, and QUANTITIES.

WALL TABULATIONS - WALL WSWW

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY: *Josephine Lumpkin* LIC. NO. 20534 DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 366 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 08:58

Table for Panel K19: STEM HEIGHT AT HIGH END = 21' 10- 5/16" AT LOW END = 21' 3-13/16". Includes reinforcement details and quantities.

Table for Panel K20: STEM HEIGHT AT HIGH END = 21' 3-13/16" AT LOW END = 21' 1- 1/16". Includes reinforcement details and quantities.

Table for Panel K21: STEM HEIGHT AT HIGH END = 21' 1- 5/16" AT LOW END = 21' 1- 1/16". Includes reinforcement details and quantities.

Table for Panel K22: STEM HEIGHT AT HIGH END = 21' 1- 7/16" AT LOW END = 21' 1- 5/16". Includes reinforcement details and quantities.

Table for Panel K23: STEM HEIGHT AT HIGH END = 21' 1-11/16" AT LOW END = 21' 1- 7/16". Includes reinforcement details and quantities.

Table for Panel K24: STEM HEIGHT AT HIGH END = 21' 1-15/16" AT LOW END = 21' 1-11/16". Includes reinforcement details and quantities.

DISTRICT: METRO
I/PLOT NAME: TABS.WSWW 4
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\wall\TABS.WSWW.dgn

WALL TABULATIONS - WALL WSWW

PLOTTED/REVISED: 31-JAN-2007 09:58

DISTRICT #: METRO
IFLOT NAME: TABS.WSWW 6
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wall6.TABS.WSWW.dgn

STEM HEIGHT: AT HIGH END = 20' 8-3/8" AT LOW END = 20' 7-5/16"
LEVEL FILL Panel: K31 PANEL LENGTH = 6' 1-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 8'-6" STR. LONG T & B 195 SPREAD FOOTING
B F1902 6 10'-2" STR. TRANS BOT 92 b 3'-8" e 1'-0"
C F2503 6 10'-2" STR. TRANS TOP 163 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10-5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 6 3'-0" STR. DOWEL FF 19 STRUCTURAL CONCRETE (1A43)
E F2205E 6 13'-9" 5'-6" DOWEL BF 169 (FOOTING)
F F2206E 5 9'-9" 8'-9" DOWEL BF 100 SPREAD 4.1 cu.yd.
G S1301E 6 18'-1" STR. VERT FF 72
H S1602E 6 18'-1" STR. VERT BF 113 STRUCTURAL CONCRETE (3Y43)
J S1603E 5 6'-6" STR. VERT BF 34 (STEM)
K S1604E 6 9'-12" 4'-5" TIE 62 9.0 cu.yd.
L S1305E 42 5'-7" STR. HORIZ EF 157 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168 SPREAD 450 lb
M Low End S1607E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168
REINFORCEMENT (EPOXY)
1062 lb

STEM HEIGHT: AT HIGH END = 20' 7-5/16" AT LOW END = 20' 6-3/8"
LEVEL FILL Panel: K32 PANEL LENGTH = 6' 1-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 8'-6" STR. LONG T & B 195 SPREAD FOOTING
B F1902 6 10'-2" STR. TRANS BOT 92 b 3'-8" e 1'-0"
C F2503 6 10'-2" STR. TRANS TOP 163 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10-5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 6 3'-0" STR. DOWEL FF 19 STRUCTURAL CONCRETE (1A43)
E F2205E 6 13'-9" 5'-6" DOWEL BF 169 (FOOTING)
F F2206E 5 9'-9" 8'-9" DOWEL BF 100 SPREAD 4.1 cu.yd.
G S1301E 6 18'-1" STR. VERT FF 72
H S1602E 6 18'-1" STR. VERT BF 113 STRUCTURAL CONCRETE (3Y43)
J S1603E 5 6'-6" STR. VERT BF 34 (STEM)
K S1604E 6 9'-10" 4'-4" TIE 61 9.0 cu.yd.
L S1305E 42 5'-7" STR. HORIZ EF 157 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168 SPREAD 450 lb
M Low End S1607E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168
REINFORCEMENT (EPOXY)
1061 lb

STEM HEIGHT: AT HIGH END = 20' 6-3/8" AT LOW END = 20' 5-1/4"
LEVEL FILL Panel: K33 PANEL LENGTH = 6' 1-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 8'-6" STR. LONG T & B 195 SPREAD FOOTING
B F1902 6 10'-2" STR. TRANS BOT 92 b 3'-8" e 1'-0"
C F2503 6 10'-2" STR. TRANS TOP 163 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10-5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 6 3'-0" STR. DOWEL FF 19 STRUCTURAL CONCRETE (1A43)
E F2205E 6 13'-9" 5'-6" DOWEL BF 169 (FOOTING)
F F2206E 5 9'-9" 8'-9" DOWEL BF 100 SPREAD 4.1 cu.yd.
G S1301E 6 18'-1" STR. VERT FF 72
H S1602E 6 18'-1" STR. VERT BF 113 STRUCTURAL CONCRETE (3Y43)
J S1603E 5 6'-6" STR. VERT BF 34 (STEM)
K S1604E 6 9'-8" 4'-3" TIE 60 9.0 cu.yd.
L S1305E 42 5'-7" STR. HORIZ EF 157 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168 SPREAD 450 lb
M Low End S1607E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168
REINFORCEMENT (EPOXY)
1060 lb

STEM HEIGHT: AT HIGH END = 20' 5-1/4" AT LOW END = 20' 4-5/16"
LEVEL FILL Panel: K34 PANEL LENGTH = 6' 1-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 8'-6" STR. LONG T & B 195 SPREAD FOOTING
B F1902 6 10'-2" STR. TRANS BOT 92 b 3'-8" e 1'-0"
C F2503 6 10'-2" STR. TRANS TOP 163 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10-5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 6 3'-0" STR. DOWEL FF 19 STRUCTURAL CONCRETE (1A43)
E F2205E 6 13'-9" 5'-6" DOWEL BF 169 (FOOTING)
F F2206E 5 9'-9" 8'-9" DOWEL BF 100 SPREAD 4.1 cu.yd.
G S1301E 6 18'-1" STR. VERT FF 72
H S1602E 6 18'-1" STR. VERT BF 113 STRUCTURAL CONCRETE (3Y43)
J S1603E 5 6'-6" STR. VERT BF 34 (STEM)
K S1604E 6 9'-6" 4'-2" TIE 59 8.9 cu.yd.
L S1305E 40 5'-7" STR. HORIZ EF 150 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168 SPREAD 450 lb
M Low End S1607E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168
REINFORCEMENT (EPOXY)
1052 lb

STEM HEIGHT: AT HIGH END = 20' 4-5/16" AT LOW END = 20' 3-1/4"
LEVEL FILL Panel: K35 PANEL LENGTH = 6' 1-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 8'-6" STR. LONG T & B 195 SPREAD FOOTING
B F1902 6 10'-2" STR. TRANS BOT 92 b 3'-8" e 1'-0"
C F2503 6 10'-2" STR. TRANS TOP 163 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10-5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 6 3'-0" STR. DOWEL FF 19 STRUCTURAL CONCRETE (1A43)
E F2205E 6 13'-9" 5'-6" DOWEL BF 169 (FOOTING)
F F2206E 5 9'-9" 8'-9" DOWEL BF 100 SPREAD 4.1 cu.yd.
G S1301E 6 18'-1" STR. VERT FF 72
H S1602E 6 18'-1" STR. VERT BF 113 STRUCTURAL CONCRETE (3Y43)
J S1603E 5 6'-6" STR. VERT BF 34 (STEM)
K S1604E 6 9'-4" 4'-1" TIE 58 8.9 cu.yd.
L S1305E 40 5'-7" STR. HORIZ EF 150 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168 SPREAD 450 lb
M Low End S1607E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168
REINFORCEMENT (EPOXY)
1051 lb

STEM HEIGHT: AT HIGH END = 20' 3-1/4" AT LOW END = 20' 2-1/4"
LEVEL FILL Panel: K36 PANEL LENGTH = 6' 1-3/16"
Bar Mark No. Length A Location Weight Dimensions and quantities
SPREAD FOOTING REINFORCEMENT DIMENSIONS
A F1601 22 8'-6" STR. LONG T & B 195 SPREAD FOOTING
B F1902 6 10'-2" STR. TRANS BOT 92 b 3'-8" e 1'-0"
C F2503 6 10'-2" STR. TRANS TOP 163 c 1'-6" f 5' 8-1/4"
d 10'-8" g 3' 10-5/16"
STEM
a 2' 4-1/2"
J 1' 11-3/4"
FOOTING DOWELS & STEM REINFORCEMENT QUANTITIES
D F1604E 6 3'-0" STR. DOWEL FF 19 STRUCTURAL CONCRETE (1A43)
E F2205E 6 13'-9" 5'-6" DOWEL BF 169 (FOOTING)
F F2206E 5 9'-9" 8'-9" DOWEL BF 100 SPREAD 4.1 cu.yd.
G S1301E 6 18'-1" STR. VERT FF 72
H S1602E 6 18'-1" STR. VERT BF 113 STRUCTURAL CONCRETE (3Y43)
J S1603E 5 6'-6" STR. VERT BF 34 (STEM)
K S1604E 6 9'-1" 4'-0" TIE 57 8.9 cu.yd.
L S1305E 40 5'-7" STR. HORIZ EF 150 REINFORCEMENT (PLAIN)
M High End S1606E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168 SPREAD 450 lb
M Low End S1607E 20 8' 0-1/2" Vary: 1'-2" to 2" EXP JT TIE 168
REINFORCEMENT (EPOXY)
1050 lb

WALL TABULATIONS - WALL WSWW

DRAWN BY: MLW

CHECKED BY: DY

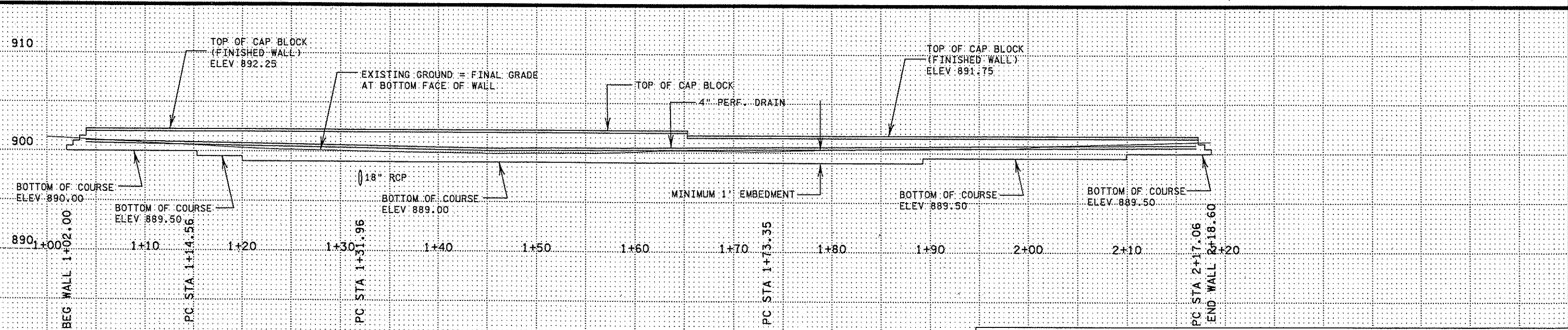
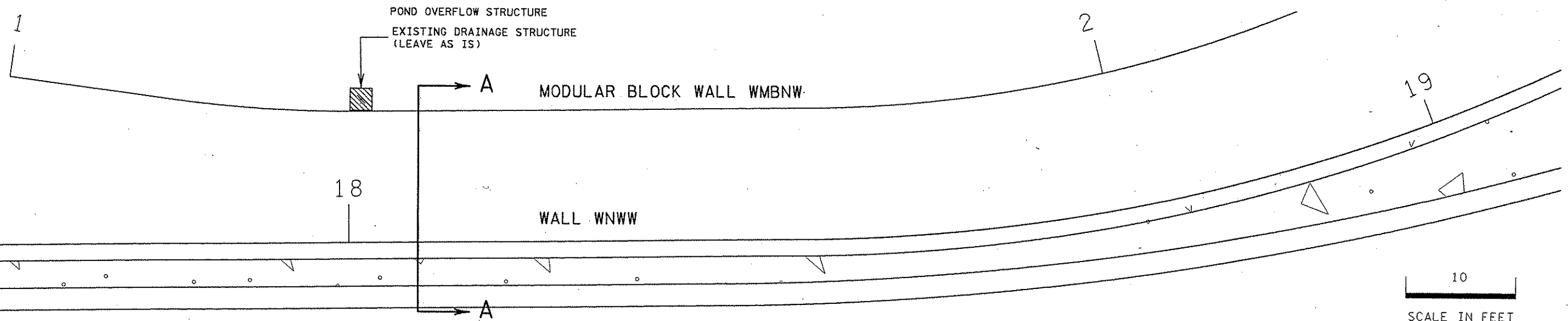
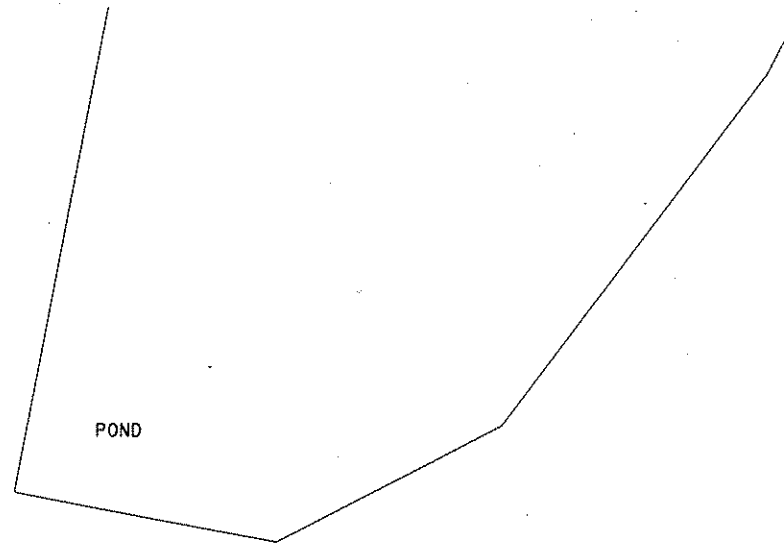
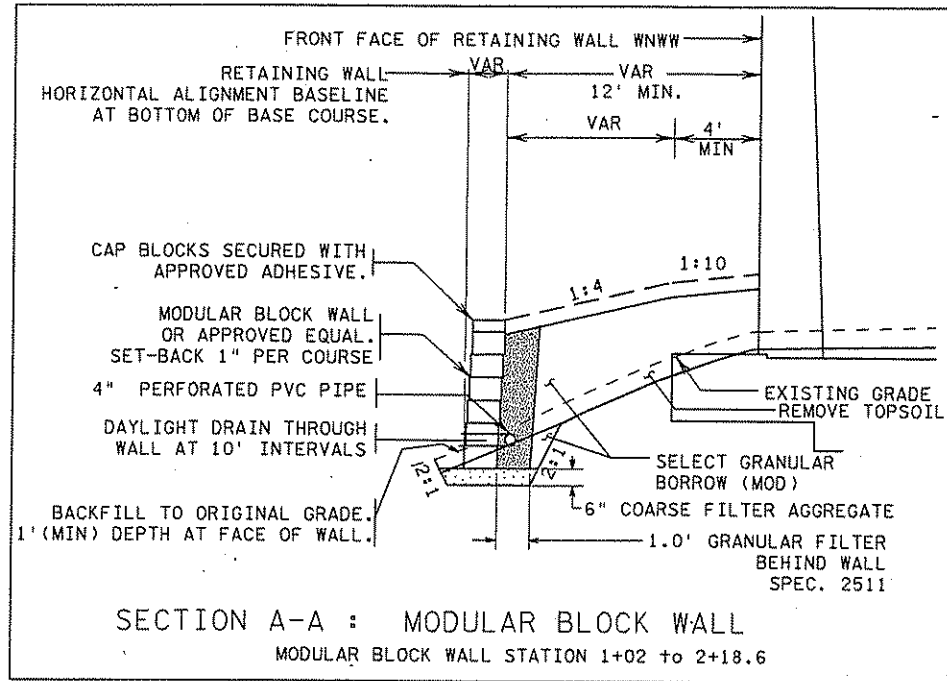
CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 369 OF 872 SHEETS

PLOTTED/REVISED: 29-MAR-2007 11:23



DISTRICT #: METRO
PLOT NAME: mod_blk_wal
PATH & FILENAME: S:\Design\065\0208\23\Final\walls\0208123_wal.dgn

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY: *Joseph Lunkvist*

LIC. NO. 20534 DATE 4/4/07

MODULAR BLOCK RETAINING WALL WMBNW

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 374 OF 872 SHEETS

PLOTTED/REVISED: 10-APR-2007 15:24

DISTRICT #: METRO
 IPLOT NAME: TABS_RET_WALL_SUM
 PATH & FILENAME: S:\DESIGN\0650208\123\Final\wallstABS_RET_WALL_SUM.dgn

RETAINING WALL DRAINAGE SUMMARY ⑧⑩									
WALL	DRAIN TYPE ⑥	PANELS	4" PERF TP PIPE	4" TP DRAIN PIPE	4" T- CONNECTION	4" TP LONG RADIUS	END CAP	DRAINS TO STRUCTURE	NOTES
			LN FT	LN FT	EACH	EACH	SQ FT		
W129NW	TYPE I	A1 - A10	281	81	27		2		
W129SE2	TYPE I	C1 - C6	125	33	11		2		
W129SW	TYPE II	B1 - B10	296	45	2	2	0	5056	①
WNEE	TYPE I	J1 - J18	550	162	54		2		
	TYPE II	J19 - J41	678	90	1	2	2	5620	
WNEW	TYPE I	I1 - I16	475	138	46		2		
	TYPE II	H1 - H13	397	117	39		2		
WNWE	TYPE I	H14 - H30	498	50	1	4	3	5413 & 5411	②
	TYPE II	G1 - G7	214	40		4	1	5441 OR 5676	③
WNWW	TYPE II	G8 - G17	305	20	1	2	2	WMBNW TP DRAIN	④
	TYPE I	G18 - G43	787	231	77		2		
WPPNE	TYPE II	F1 - F6	183	120	1	2	1	5968	
	TYPE I	F7 - F12	163	45	15		2		
WPPNW	TYPE II	D1 - D12	338	25	1	2	2	5982	
	TYPE I	D13 - D15	92	24	8		2		
WPPSW	TYPE II	E1 - E12	350	30		2	1	5978	
	TYPE I	E13 - E16	122	33	11		2		
WSEE	TYPE I	N1 - N5	153	42	14		2		
	TYPE II	N6 - N20	458	20		2	1	5455	
	TYPE I	N21 - N45	763	225	75		2		
WSEW	TYPE I	M1 - M10	300	87	29		2		
	TYPE II	M11 - M17	215	170	1	2	2	5488	
	TYPE I	M17 - M28	335	96	32		2		
WSWE	TYPE II	L1 - L11	330	120	1	2	2	5473	
	TYPE I	L12 - L23	366	105	35		2		
WSWW	TYPE I	K1 - K4	112	30	10		2		
	TYPE II	K4 - K23	610	20	1	2	2	5351	
	TYPE I	K24 - K38	466	135	45		2		
WMBNW			120	33	12		2		⑤
TOTALS			10082 ⑩	2367	550	28	53		

- ① TIES INTO BRIDGE TP DRAIN
- ② CONNECT TO BOTH STRUCTURES
- ③ CONNECT TO EITHER STRUCTURE
- ④ CONNECTS TO TP DRAIN BEHIND MODULAR BLOCK WALL
- ⑤ CONNECTION FROM WALL WNWW
- ⑥ SEE SHEET NO. 259 FOR DRAIN PIPE PLACEMENT
- ⑧ FOR INFORMATION PURPOSES ONLY. PAID FOR AS 2502 DRAINAGE SYSTEM LUMP SUM.
- ⑩ 4" PERF TP PIPE SHALL BE WRAPPED. SEE SHEET NO. 259

RETAINING WALL SUMMARY ⑩										
WALL	STRUCTURAL CONCRETE		REINFORCEMENT BARS		TYPE MOD F RAILING	PARAPET RAILING (MOD) LN FT	ARCHITECTURAL CONCRETE TEXTURE (ASHLAR STONE) SQ FT	ARCHITECTURAL SURFACE FINISH (MULTI COLOR) SQ FT	ANTI GRAFFITI COATING SQ FT	NOTES
	1A43 (FOOTING) CU YD	3Y43 (STEM) CU YD	PLAIN POUND	EPOXY POUND						
W129NW	92.3	207.7	9539	18777		281.2	1091	1091	1091	⑨
W129SE2	19.8	32.9	1905	3728		124.8				⑨
W129SW	96.9	215.8	9757	19471	296.3		1118	1118	1118	⑨
WNEE	467.0	1111.6	49728	97487	1226.8		7092	7092	7092	
WNEW	109.1	231.9	10912	22227	473.5		781	781	781	
WNWE	279.1	675.8	29555	57227	894.0		3812	3812	3812	
WNWW	554.1	1275.9	56910	116724	1305.0		8779	8779	8779	
WPPNE	165.4	375.1	16762	33449		346.4	2756	2756	2756	⑨
WPPNW	165.9	387.6	17429	33811		429.0	2462	2462	2462	⑨
WPPSW	179.3	415.7	18168	36051		471.2	2569	2569	2569	⑨
WSEE	541.1	1256.5	55174	108787	870	503.0	8321	8321	8321	
WSEW	252.3	608.1	25084	52658	848		3087	3087	3087	
WSWE	212.1	492.2	20222	41055	702		2098	2098	2098	
WSWW	497.4	1151	50750	102037	645.5	511.0	8198	8198	8198	
TOTALS	3631.8	8437.8	371895	743489	7261	2666.6	52164	52164	52164	

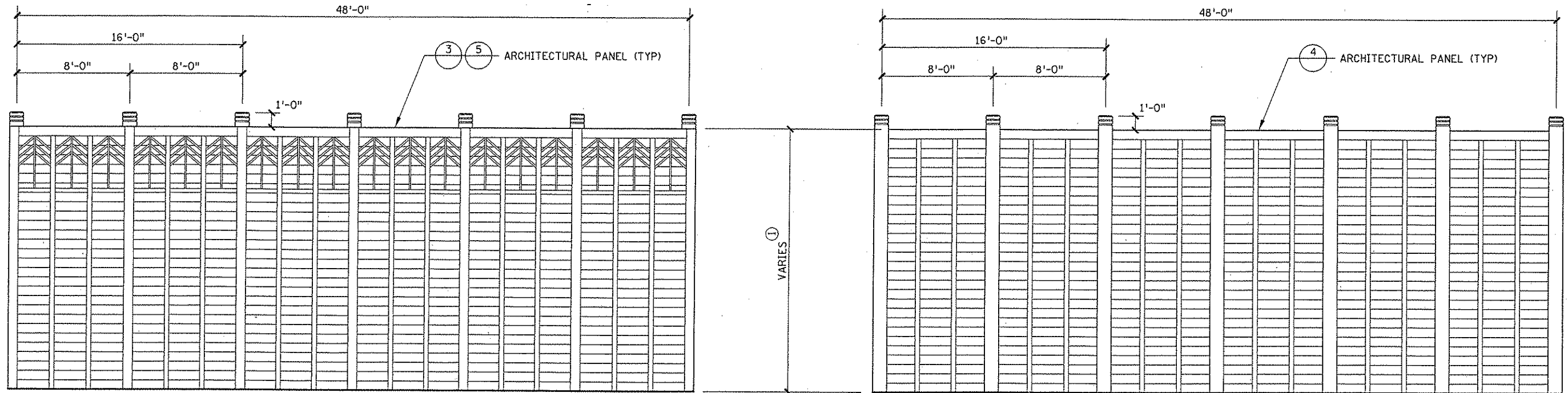
- ⑨ 60% OF THE QUANTITY ASSIGNED TO HPP-UG
- ⑩ QUANTITY ASSIGNED TO HPP/STP UNLESS OTHERWISE NOTED.

MODULAR BLOCK WALL SUMMARY ⑩U			
WALL WMBNW	MODULAR BLOCK WALL	COARSE FILTER AGGREGATE	REMARKS
	SQ YD	CU YD	
⑦			
1+02 TO 2+19	48	20	
TOTAL	48	20	

⑦ DRAIN TILE QUANTITIES ARE INCLUDED IN THE RETAINING WALL DRAINAGE SUMMARY

PLOTTED/REVISED: 04-APR-2007 14:02

DISTRICT #: METRO
PLOT NAME: noise_barrier_detail
PATH & FILENAME: S:\Design\065\0208\123\Final\GaryMueller\NoiseBarrier.dgn



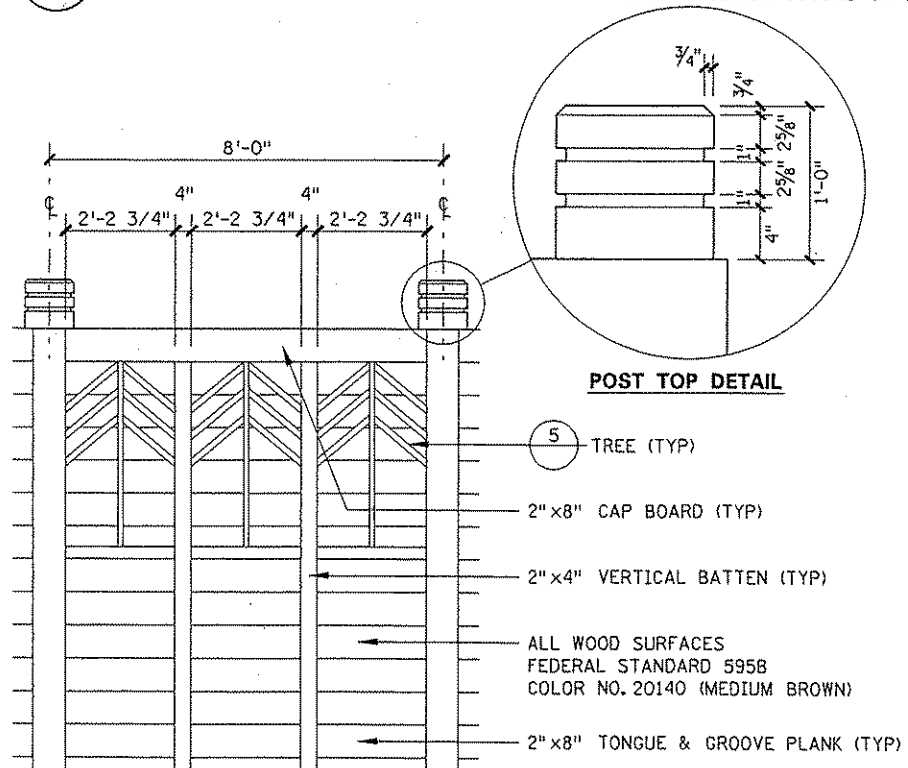
NOTE: ① VARIES 8' TO 20' MAX ACCORDING TO NOISE MITIGATION REQUIREMENTS.

① ARCHITECTURAL PANEL - ELEVATION (COMMUNITY AND/OR HIGHWAY SIDE)

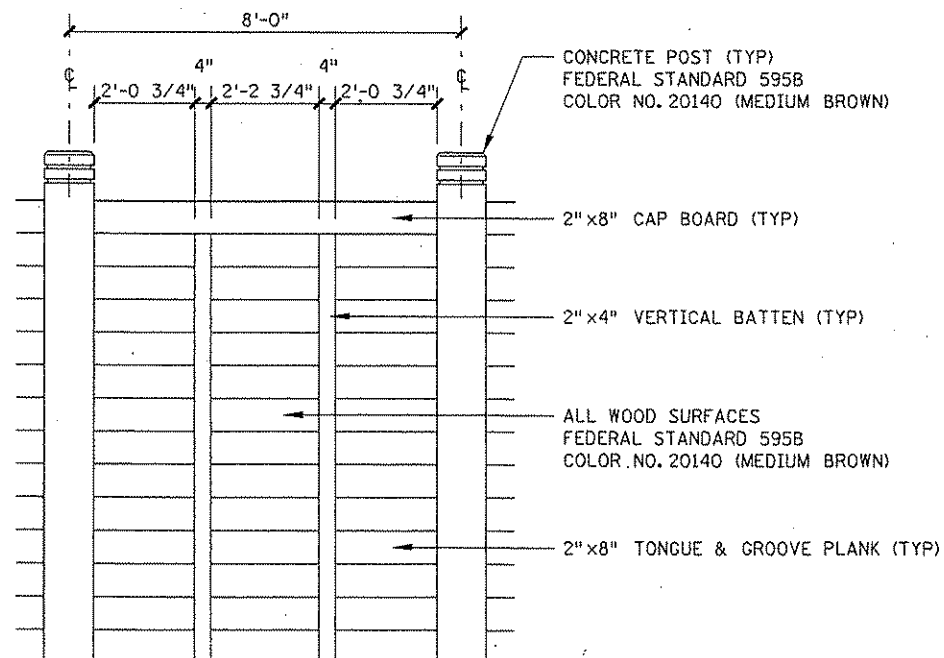
ALSO APPLIES TO COMMUNITY SIDE WHEN PLANK POSITION OCCURS ON HIGHWAY SIDE OF POSTS.

② ARCHITECTURAL PANEL - ELEVATION (COMMUNITY AND/OR HIGHWAY SIDE)

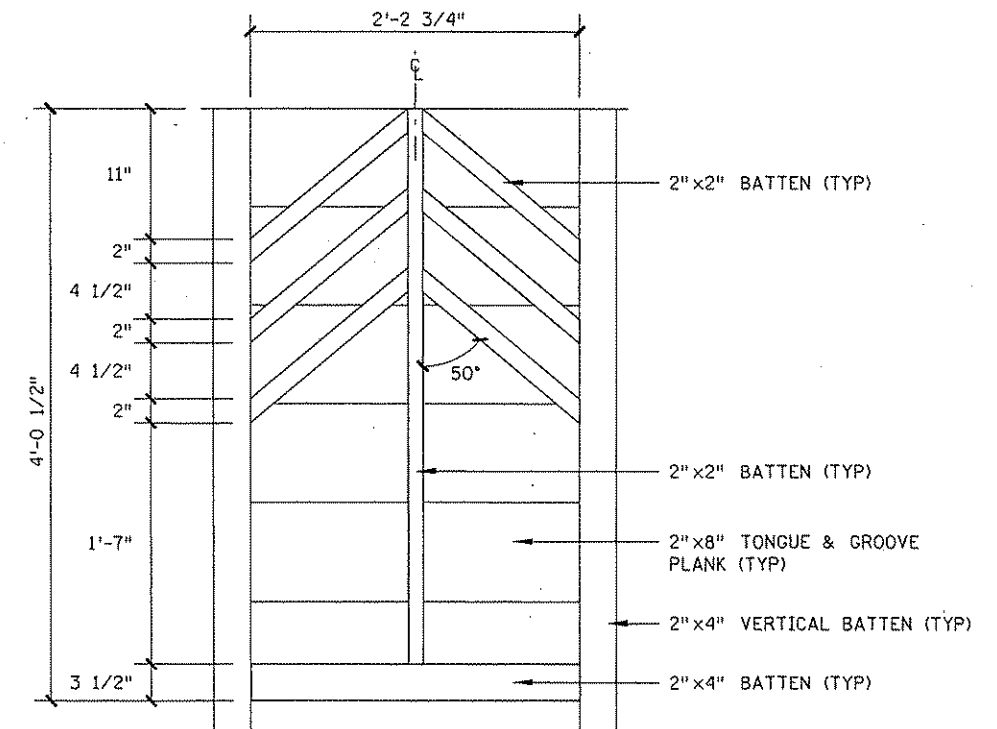
ALSO APPLIES TO HIGHWAY SIDE WHEN PLANK POSITION OCCURS ON COMMUNITY SIDE OF POSTS.



③ DETAIL



④ DETAIL



⑤ TREE - DETAIL

CONSTRUCT WALL TYPE 2 WITH 48' BETWEEN REVERSALS. SEE DETAILS ON SHEET NOS. 118-120

NOISE BARRIER

ARCHITECTURAL PANEL DESIGN DETAILS

DRAWN BY: TV

CHECKED BY: DY

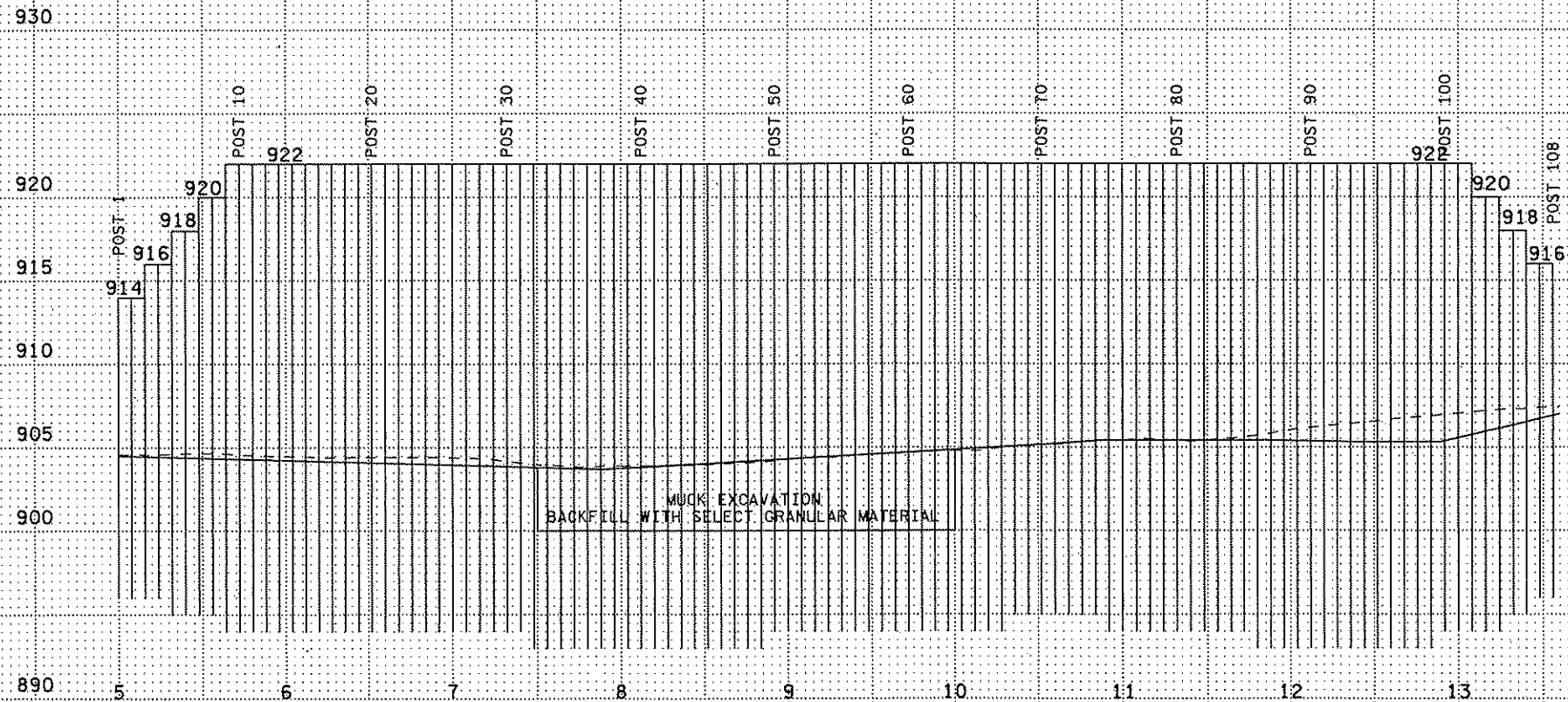
CERTIFIED BY

Josephine Sun-Krist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 376 OF 834 SHEETS



NOISE WALL - NWAL1

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lurkinist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 377 OF 872 SHEETS



NOISE WALL - NWAL3

PLOTTED/REVISED: 31-JAN-2007 09:01

DISTRICT #: METRO
 I/PLOT NAME: TABS_NOISEWALL 1 2
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\wall16\NOISE_wall16_ABS_NOISEWALL 1.dgn

NOISEWALL 1

POST NO.	WALL STATION (FT.)	GROUND ELEV.		SLOPE (V:H)	TOP OF WALL ELEV.	2" PLANKING (SQ.FT.)	POST LENGTH (FT.)	POST EMBED-MENT (FT.)	BOTTOM OF POST ELEV.	POST NO.
		LEFT	RIGHT							
91	12+20	906.19	905.52	1:3			29	12.52	893	91
					922	130.48				
92	12+28	905.97	905.30	1:3			29	12.3	893	92
					922	132.24				
93	12+36	905.94	905.27	1:3			29	12.27	893	93
					922	132.24				
94	12+44	905.97	905.30	1:3			29	12.3	893	94
					922	131.20				
95	12+52	906.10	905.43	1:3			29	12.43	893	95
					922	130.24				
96	12+60	906.22	905.55	1:3			29	12.55	893	96
					922	129.28				
97	12+68	906.34	905.67	1:3			29	12.67	893	97
					922	128.24				
98	12+76	906.47	905.80	1:3			29	12.8	893	98
					922	127.36				
99	12+84	906.58	905.91	1:3			29	12.91	893	99
					922	126.40				
100	12+92	906.70	906.03	1:3			28	12.03	894	100
					922	125.92				
101	13+00	906.76	906.09	1:3			28	12.09	894	101
					922	125.36				
102	13+08	906.83	906.16	1:3			28	12.16	894	102
					920	108.80				
103	13+16	906.90	906.23	1:3			25	11.23	895	103
					920	108.32				
104	13+24	906.96	906.29	1:3			25	11.29	895	104
					918	91.84				
105	13+32	907.02	906.35	1:3			23	11.35	895	105
					918	91.36				
106	13+40	907.08	906.41	1:3			23	11.41	895	106
					916	74.88				
107	13+48	907.14	906.47	1:3			20	10.47	896	107
					916	74.40				
108	13+56	907.20	906.53	1:3			20	10.53	896	108
SUB TOTAL						1968.56	481			
GRAND TOTAL						14409.84	2965			

NOTE: NOISE WALL 2 HAS BEEN ELIMINATED

NOISE WALL 1 TABULATIONS

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 380 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 09:01

DISTRICT #: METRO
 IPLOT NAME: TABS_NOISEWALL 3 3
 PATH & FILENAME: S:\DESIGN\0650208\23\Final\wallisnoise_walnt ABS_NOISEWALL 3.dgn

NOISEWALL 3

POST NO.	WALL STATION (FT.)	GROUND ELEV.		SLOPE (V:H)	TOP OF WALL ELEV.	2" PLANKING (SQ.FT.)	POST LENGTH (FT.)	POST EMBED-MENT (FT.)	BOTTOM OF POST ELEV.	CONCRETE BACKFILL REQUIRED	POST NO.	
		LEFT	RIGHT									
121	19+60	903.75	904.23	1:10	924	162.16	29	8.75	895	YES	121	
122	19+68	903.51	904.23	1:10	924	162.16	29	8.51	895	YES	122	
123	19+76	903.55	904.15	1:10	924	162.80	29	8.55	895	YES	123	
124	19+84	903.52	904.00	1:10	924	164.00	29	8.52	895	YES	124	
125	19+92	903.36	903.84	1:10	924	165.28	29	8.36	895	YES	125	
126	20+00	903.30	903.73	1:10	924	166.16	29	8.3	895	YES	126	
127	20+08	903.23	903.63	1:10	924	166.48	29	8.23	895	YES	127	
128	20+16	903.30	903.69	1:10	924	165.52	29	8.3	895	YES	128	
129	20+24	903.42	903.81	1:10	924	165.52	29	8.42	895	YES	129	
130	20+32	903.63	903.69	1:10	924	164.64	29	8.63	895	YES	130	
131	20+40	903.84	903.92	1:10	924	162.16	29	8.84	895	YES	131	
132	20+48	904.12	904.23	1:10	924	159.92	28	8.12	896	YES	132	
133	20+56	904.41	904.51	1:10	924	157.20	28	8.41	896	YES	133	
134	20+64	904.75	904.85	1:10	924	154.32	28	8.75	896	YES	134	
135	20+72	905.12	905.21	1:10	924	151.28	27	8.12	897	YES	135	
136	20+80	905.50	905.59	1:10	924	148.32	27	8.5	897	YES	136	
137	20+88	905.87	905.96	1:10	924	145.36	27	8.87	897	YES	137	
138	20+96	906.25	906.33	1:10	924	142.96	26	8.25	898	YES	138	
139	21+04	906.56	906.63	1:10	924	140.88	26	8.56	898	YES	139	
140	21+12	906.81	906.89	1:10	924	138.88	26	8.81	898	YES	140	
141	21+20	907.06	907.14	1:10	924	137.04	25	8.06	899	YES	141	
142	21+28	907.29	907.37	1:10	924	135.04	25	8.29	899	YES	142	
143	21+36	907.62	907.61	1:10	924	130.88	25	8.61	899	YES	143	
144	21+44	908.14	908.13	1:10	924	128.08	24	8.13	900	YES	144	
145	21+52	908.49	908.49	1:10	924	125.36	24	8.49	900	YES	145	
146	21+60	908.82	908.83	1:10	924	122.64	24	8.82	900	YES	146	
147	21+68	909.17	908.19	1:10	922	103.04	24	8.19	900	YES	147	
148	21+76	909.55	909.62	1:10	922	101.92	21	8.55	901	YES	148	
149	21+84	909.68	909.76	1:10	920	85.20	21	8.68	901	YES	149	
150	21+92	909.85	909.85	1:10			19	8.85	901		150	
SUB TOTAL						4215.20	794					
GRAND TOTAL						18152.56	3574					

NOISE WALL SUMMARY		
	2" PLANKING SQ FT	POST LENGTH LIN FT
NOISE WALL 1	14,410	2,965
NOISE WALL 3	18,153	3,574
TOTAL	32,563	6,539

NOTE: FROM STA. 18+00 TO 21+95 USE A POST EMBEDMENT DEPTH OF 8' WITH A 36" DIAMETER CONCRETE MIX DESIGN IC62 SURROUND WITH SPEC. NO. 3303 STEEL FABRIC REINFORCEMENT.

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

NOISE WALL 3 TABULATIONS AND SUMMARY

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 383 OF 872 SHEETS

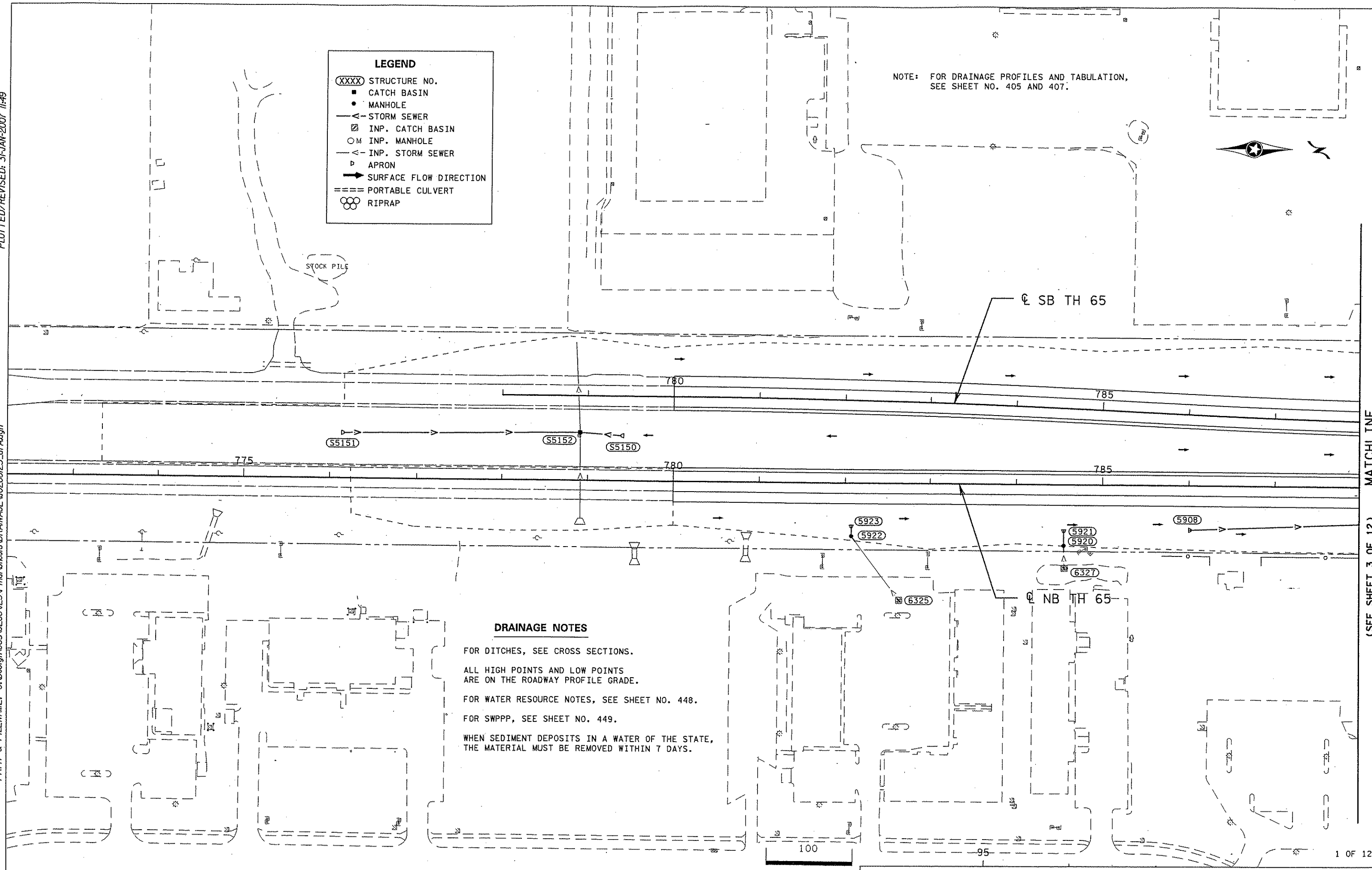
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DISTRICT: METRO
I/PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\Design\065\0208123\Final\Sheet\DRAINAGE\0208123.dwg

LEGEND

- (XXXX) STRUCTURE NO.
- CATCH BASIN
- MANHOLE
- ▲— STORM SEWER
- ▣ INP. CATCH BASIN
- M INP. MANHOLE
- ▲— INP. STORM SEWER
- ▽ APRON
- SURFACE FLOW DIRECTION
- == PORTABLE CULVERT
- RIPRAP

NOTE: FOR DRAINAGE PROFILES AND TABULATION, SEE SHEET NO. 405 AND 407.



DRAINAGE NOTES

FOR DITCHES, SEE CROSS SECTIONS.

ALL HIGH POINTS AND LOW POINTS ARE ON THE ROADWAY PROFILE GRADE.

FOR WATER RESOURCE NOTES, SEE SHEET NO. 448.

FOR SWPPP, SEE SHEET NO. 449.

WHEN SEDIMENT DEPOSITS IN A WATER OF THE STATE, THE MATERIAL MUST BE REMOVED WITHIN 7 DAYS.

SCALE IN FEET

DRAINAGE PLAN

DRAWN BY: LM

CHECKED BY: DY

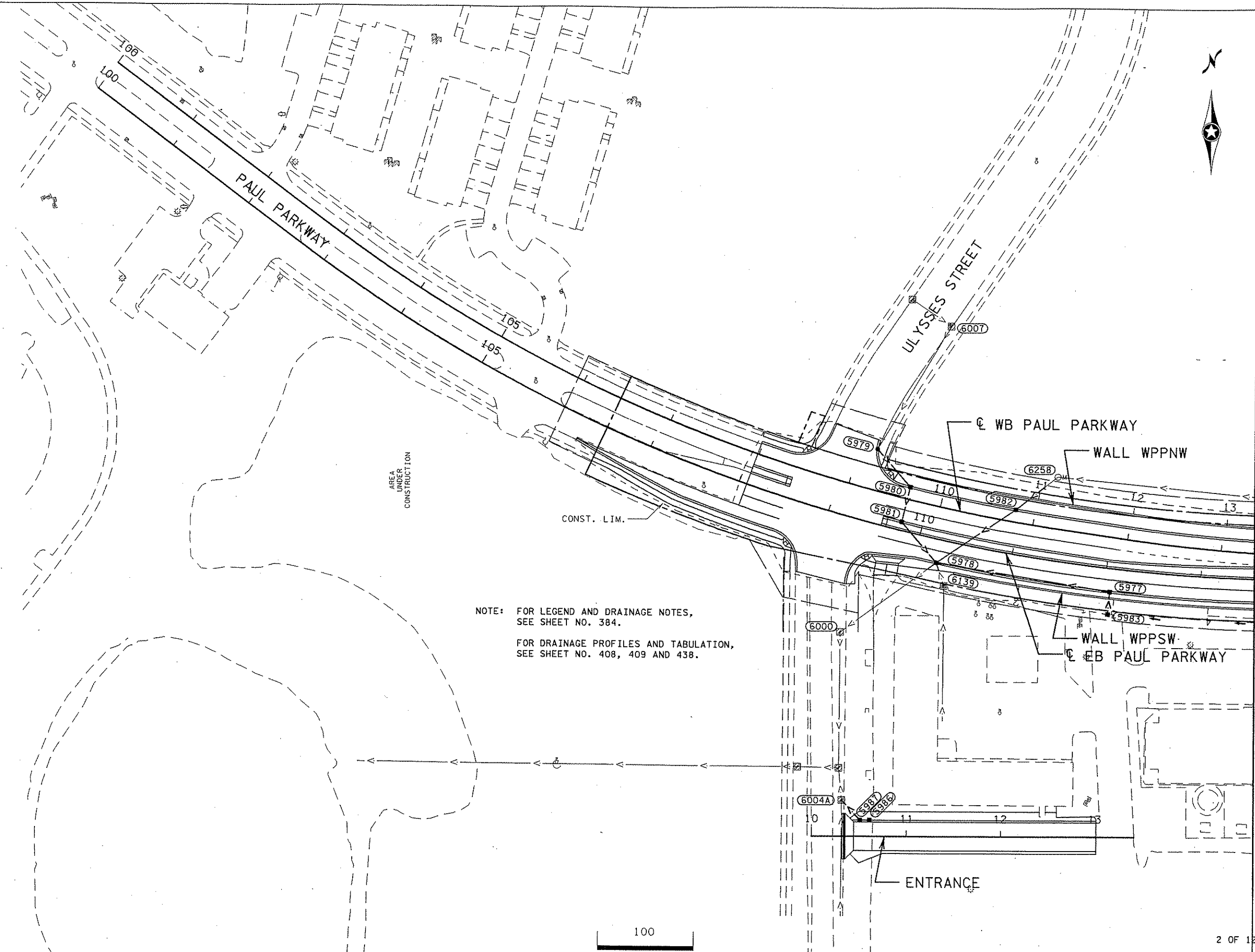
CERTIFIED BY *Josephine Lunkins*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 384 OF 872 SHEETS

MATCHLINE (SEE SHEET 3 OF 12)

DISTRICT #: METRO
I/PLOT NAME: 0208123_drB
PATH & FILENAME: S:\Design\065\0208123\VF\Incl\sheet\DRAINAGE\0208123_drB.dgn
PLOTTED/REVISED: 31-JAN-2007 11:49



NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.
FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 408, 409 AND 438.

100
SCALE IN FEET

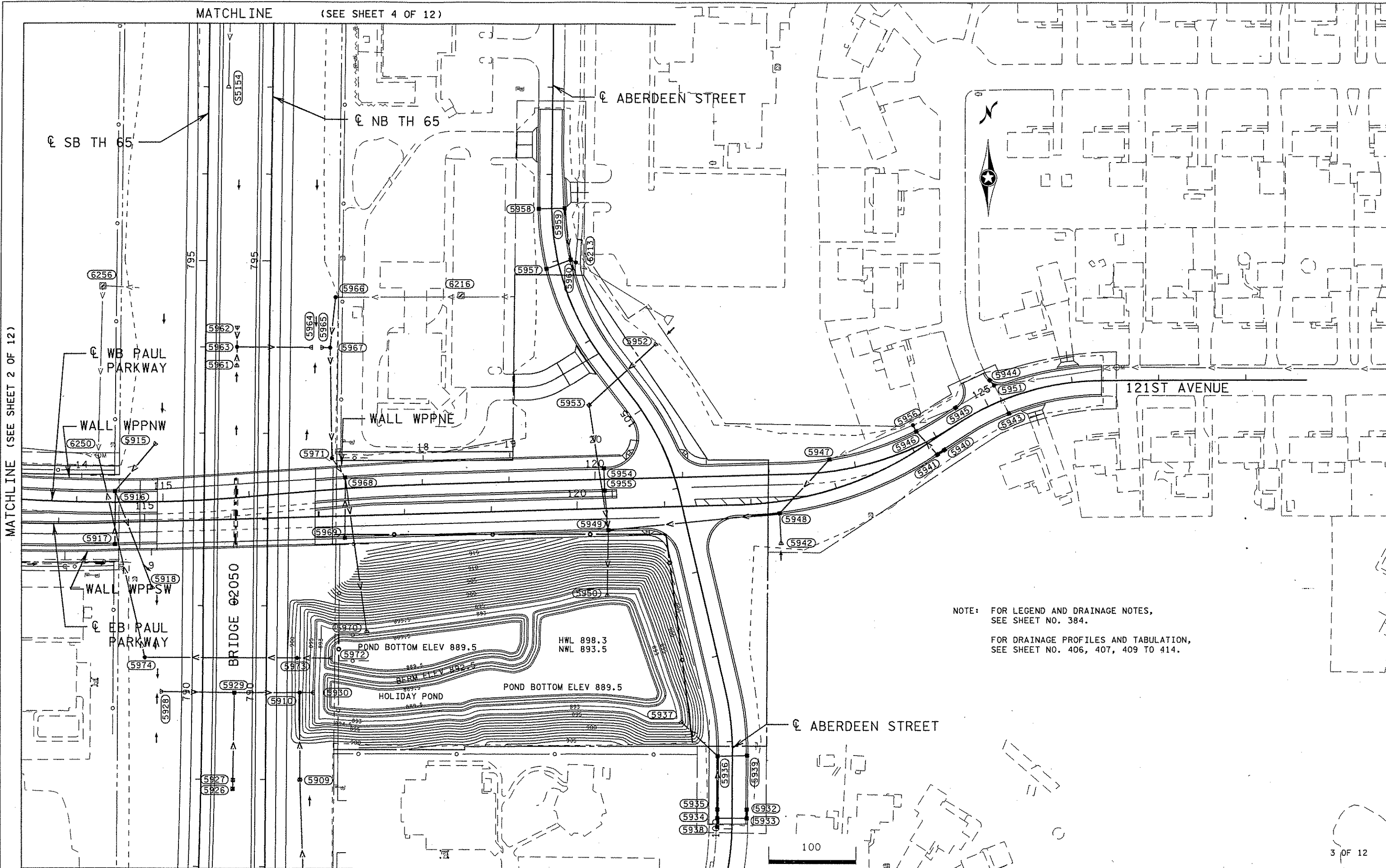
2 OF 12

DRAWN BY: LM	CHECKED BY: DY	CERTIFIED BY: <i>Josephine Lundquist</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 20534	DATE: 2/6/07	STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 385 OF 872 SHEETS
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DRAINAGE PLAN

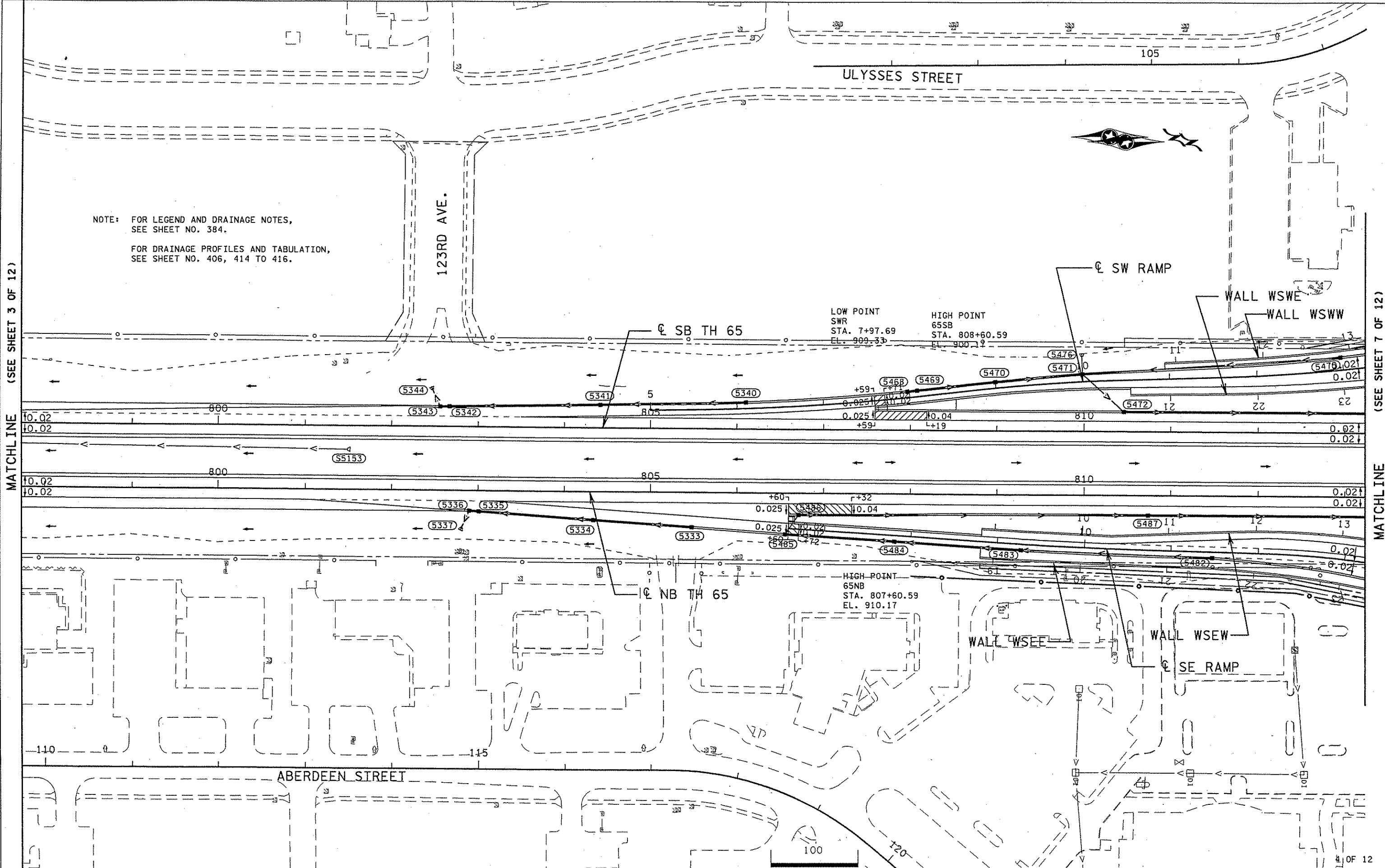
MATCHLINE
(SEE SHEET 3 OF 12)

DISTRICT #: METRO
PLOT NAME: 0208123.dwg
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PLOTTED/REVISED: 31-JAN-2007 14:49



PLOTTED/REVISED: 28-MAR-2007 08:30

DISTRICT #: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\Design\065\0208123\Final\Sheet\DRAINAGE\0208123_dr.dwg



NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.

FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 406, 414 TO 416.

MATCHLINE (SEE SHEET 3 OF 12)

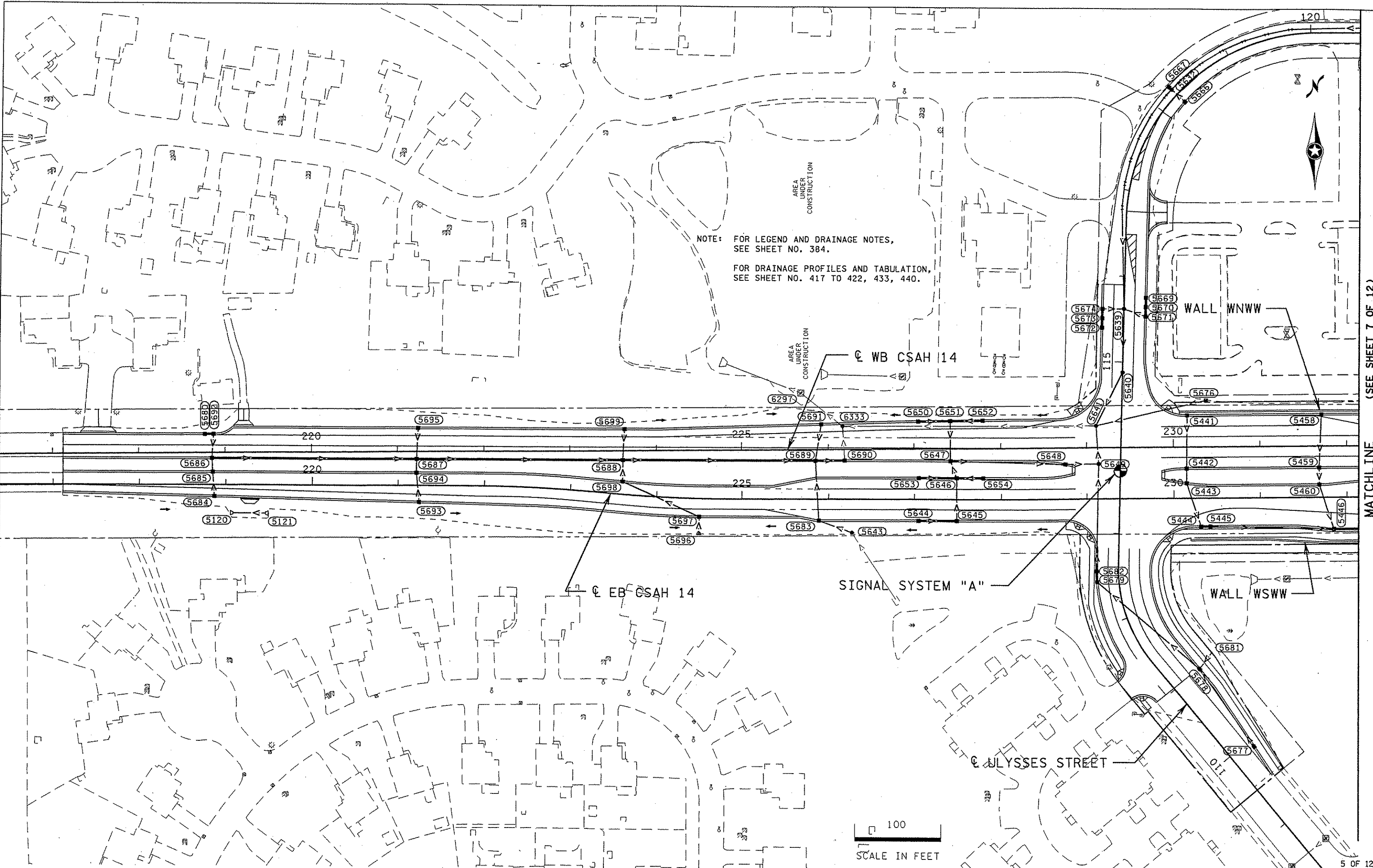
MATCHLINE (SEE SHEET 7 OF 12)

SCALE IN FEET

DRAINAGE PLAN

PLOTTED/REVISED: 28-MAR-2007 12:05

DISTRICT: METRO
PLOT NAME: d0208123.drf
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MATCHLINE (SEE SHEET 7 OF 12)

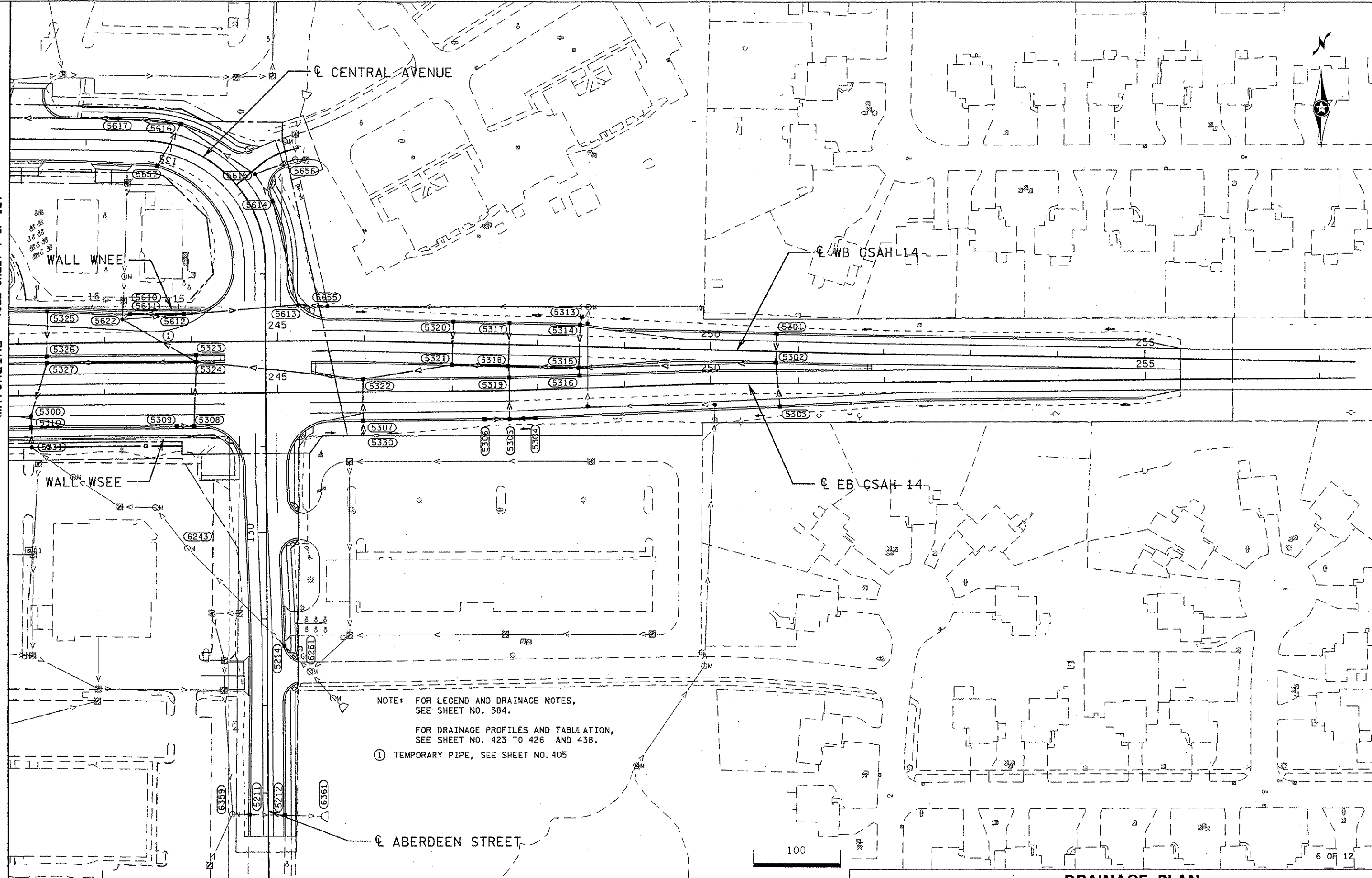
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DRAINAGE PLAN

PLOTTED/REVISED: 06-FEB-2007 14:05

DISTRICT #: METRO
PLOT NAME: 0208123.drf
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MATCHLINE (SEE SHEET 7 OF 12)



6 OF 12

SCALE IN FEET

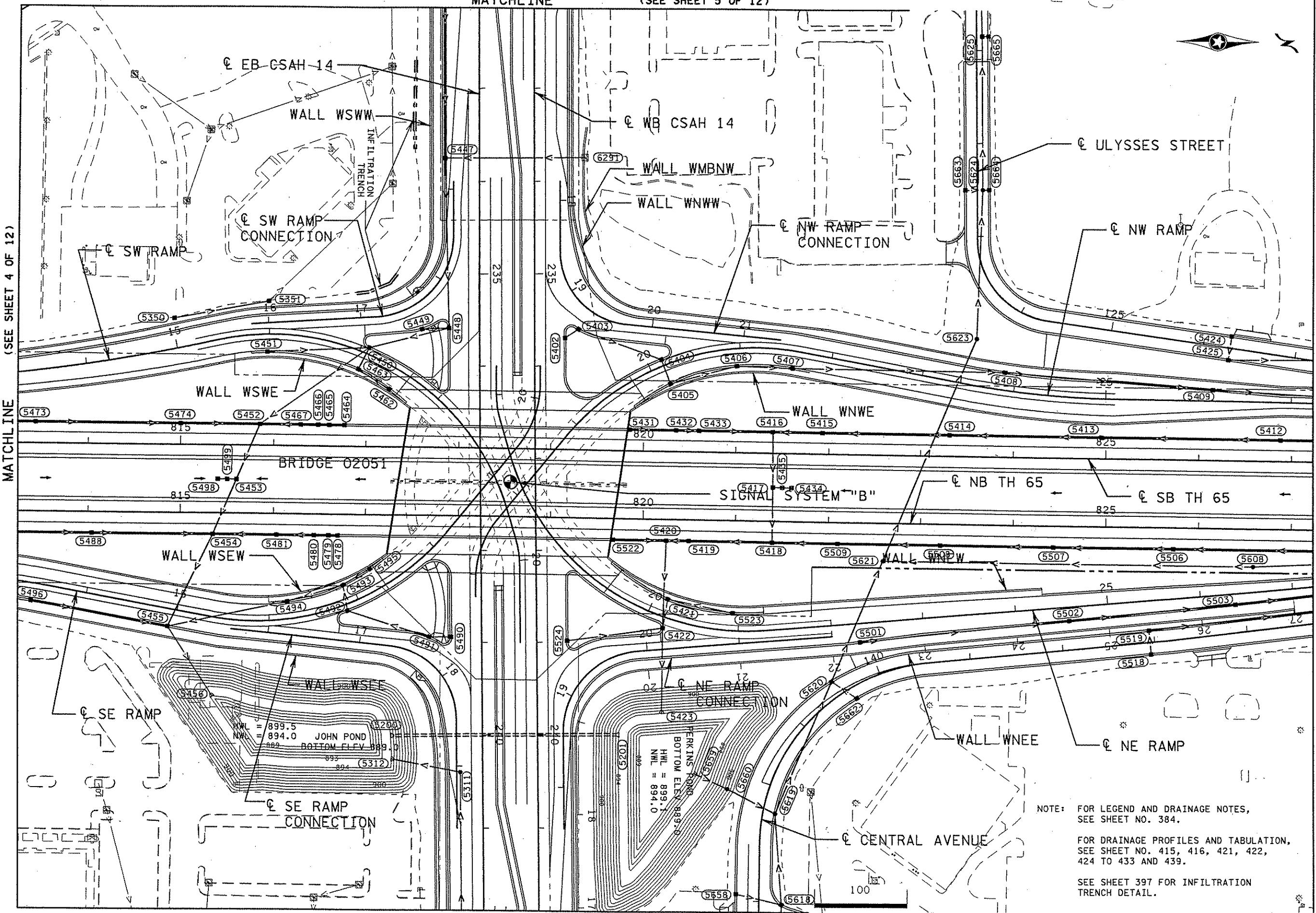
DRAINAGE PLAN

PLOTTED/REVISED: 28-MAR-2007 12:05

DISTRICT #: METRO
PLOT NAME: 0208123.dwg
PATH & FILENAME: S:\Des\gn\05\0208\123\Final\Sheet\DRainage\0208123.dwg

MATCHLINE (SEE SHEET 5 OF 12)

STOCK PILE STOCK PILE



(SEE SHEET 4 OF 12)

(SEE SHEET 6 OF 12)

NOTE: FOR LEGEND AND DRAINAGE NOTES, SEE SHEET NO. 384.

FOR DRAINAGE PROFILES AND TABULATION, SEE SHEET NO. 415, 416, 421, 422, 424 TO 433 AND 439.

SEE SHEET 397 FOR INFILTRATION TRENCH DETAIL.

MATCHLINE (SEE SHEET 6 OF 12)

SCALE IN FEET

DRAINAGE PLAN

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 9/4/07

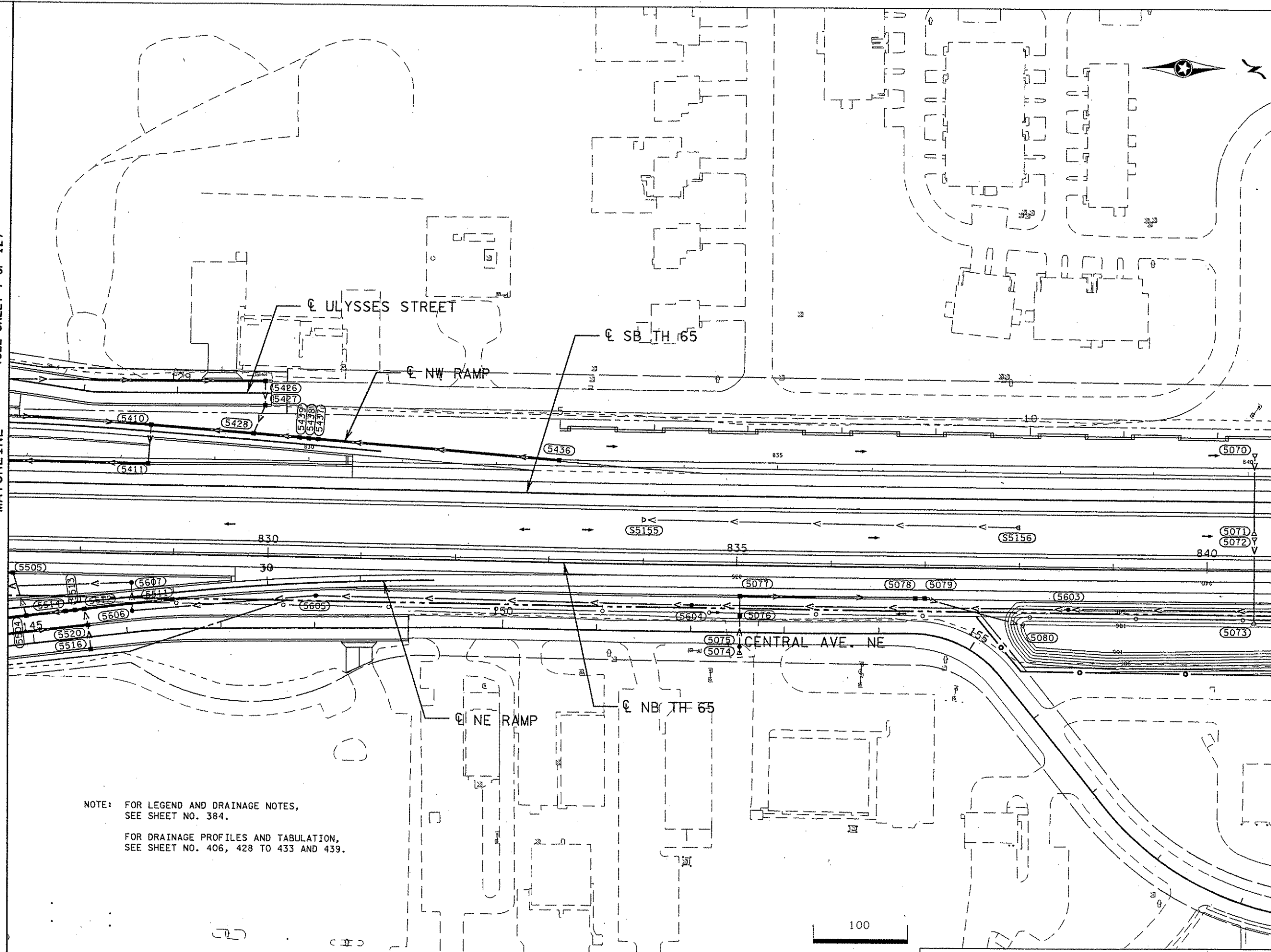
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 390 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 0208123.drh
PATH & FILENAME: S:\Design\065\0208123\Final\Sheet's\DRAINAGE\0208123_drh.dgn

PLOTTED/REVISED: 28-MAR-2007 12:05

MATCHLINE (SEE SHEET 7 OF 12)

MATCHLINE (SEE SHEET 9 OF 12)



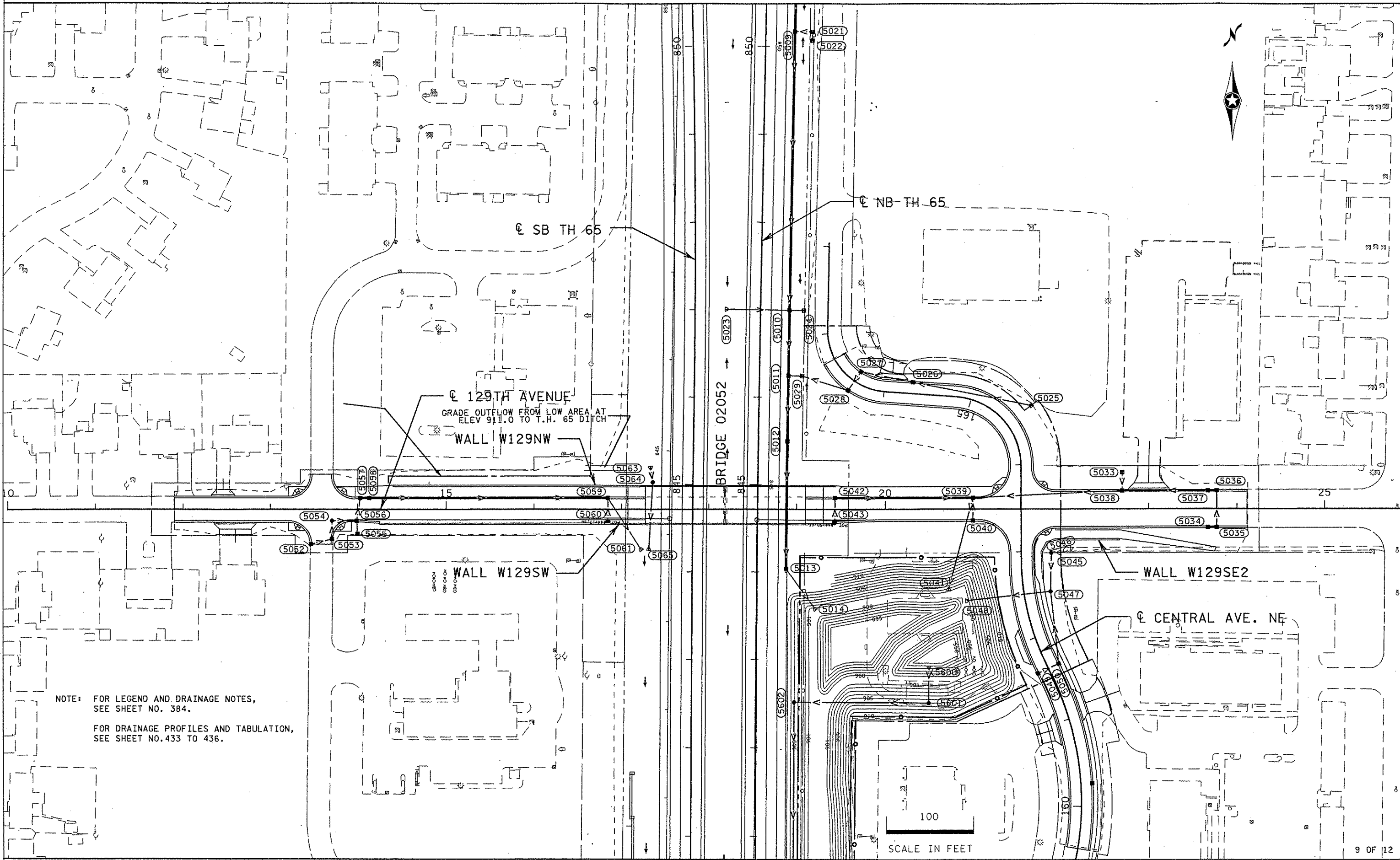
NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.
FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 406, 428 TO 433 AND 439.

100
SCALE IN FEET

DRAINAGE PLAN

PLOTTED/REVISED: 31-JAN-2007 11:50

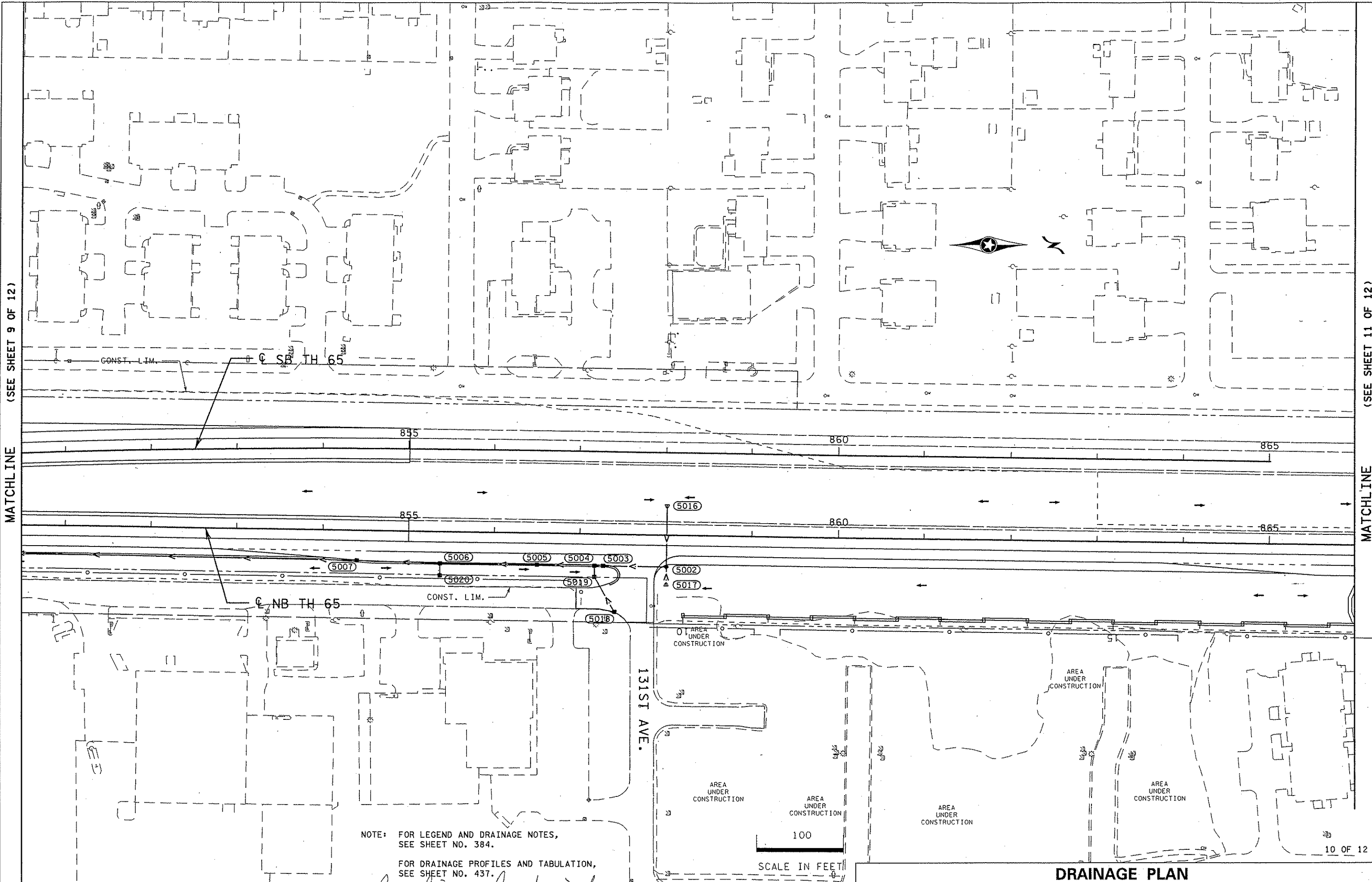
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NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.
FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 433 TO 436.

100
SCALE IN FEET

DRAINAGE PLAN



NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.

FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 437.

SCALE IN FEET

DRAINAGE PLAN

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 393 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 0208123.drk
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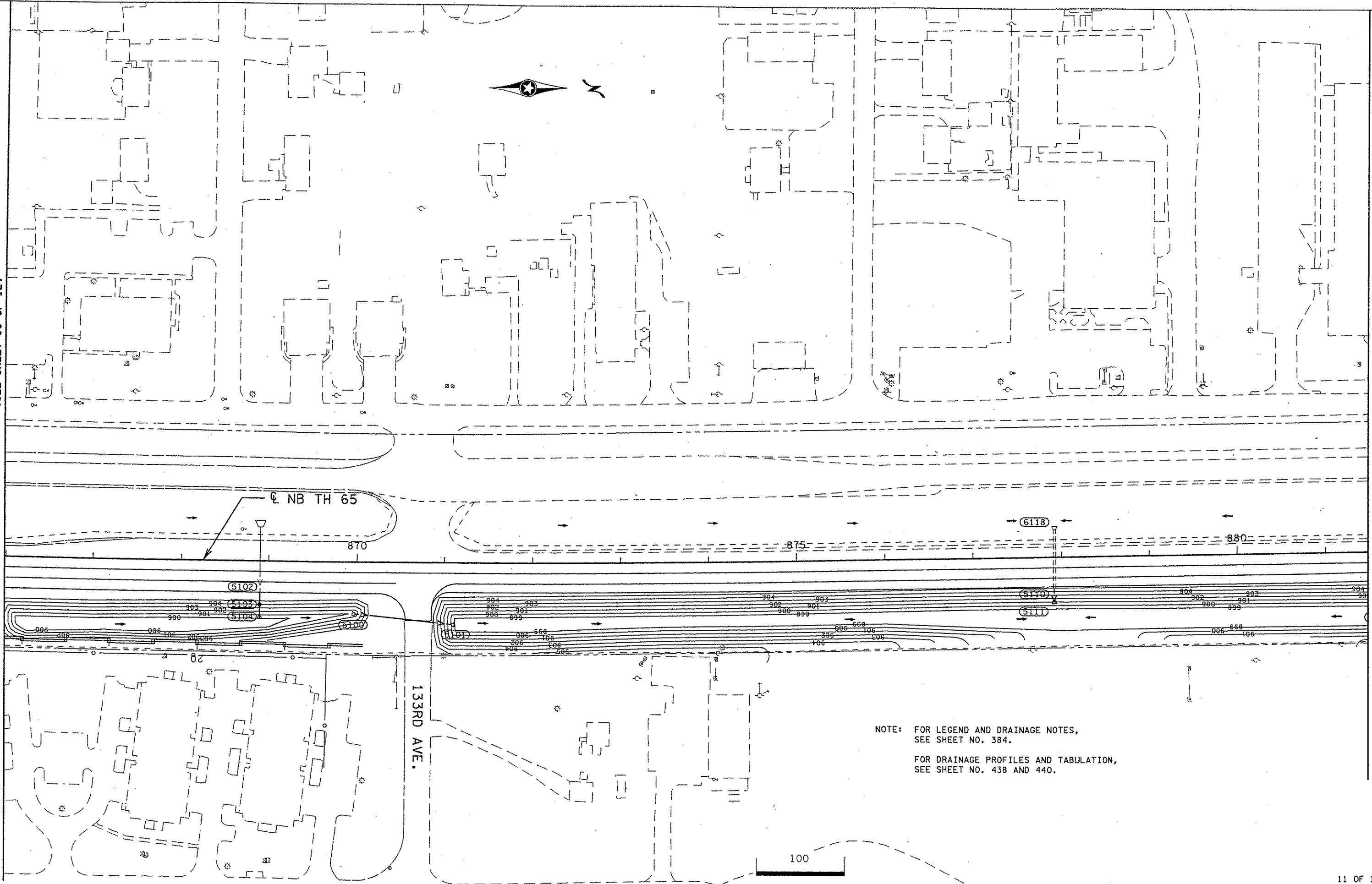
PLOTTED/REVISED: 28-MAR-2007 12:06

(SEE SHEET 10 OF 12)

MATCHLINE

(SEE SHEET 12 OF 12)

MATCHLINE



NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.
FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 438 AND 440.

100
SCALE IN FEET

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY

Josephine Sunquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/4/07

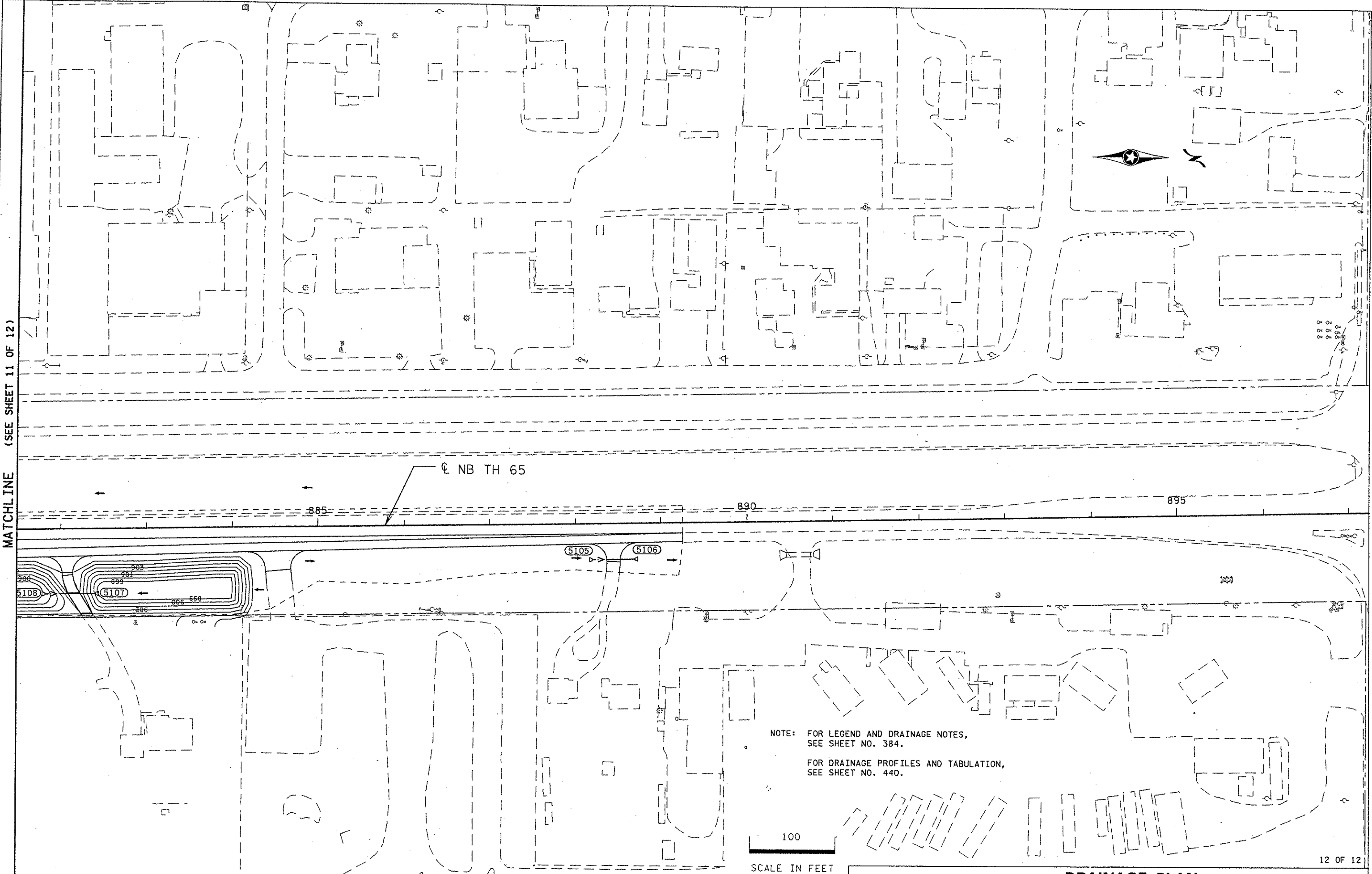
DRAINAGE PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 394 OF 872 SHEETS

PLOTTED/REVISED: 28-MAR-2007 12:06

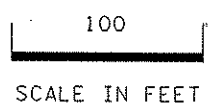
MATCHLINE (SEE SHEET 11 OF 12)

DISTRICT #: METRO
PLOT NAME: 0208123.drl
PATH & FILENAME: S:\Design\065\0208123\F\Incl\Sheets\DRAINAGE\0208123_drl.dgn



NOTE: FOR LEGEND AND DRAINAGE NOTES,
SEE SHEET NO. 384.

FOR DRAINAGE PROFILES AND TABULATION,
SEE SHEET NO. 440.



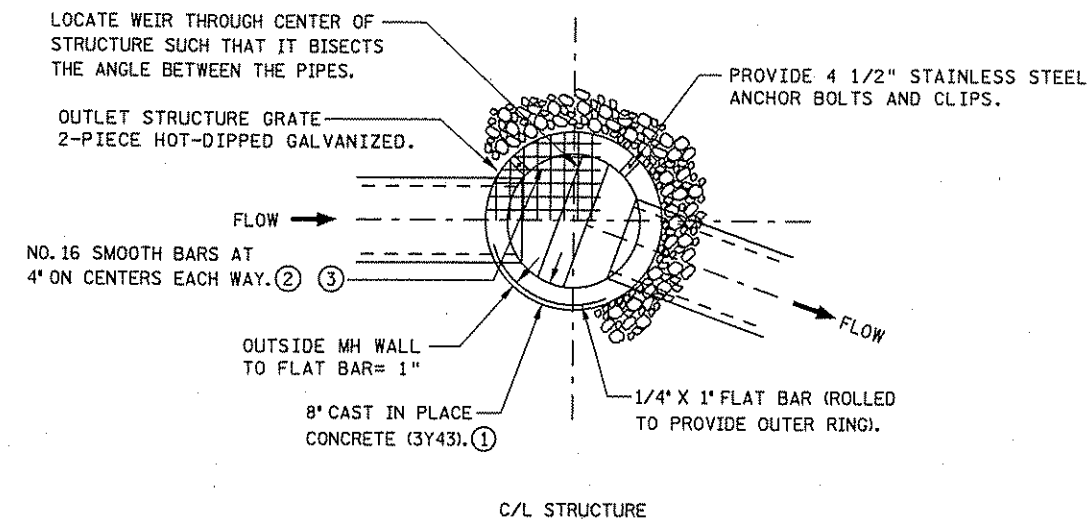
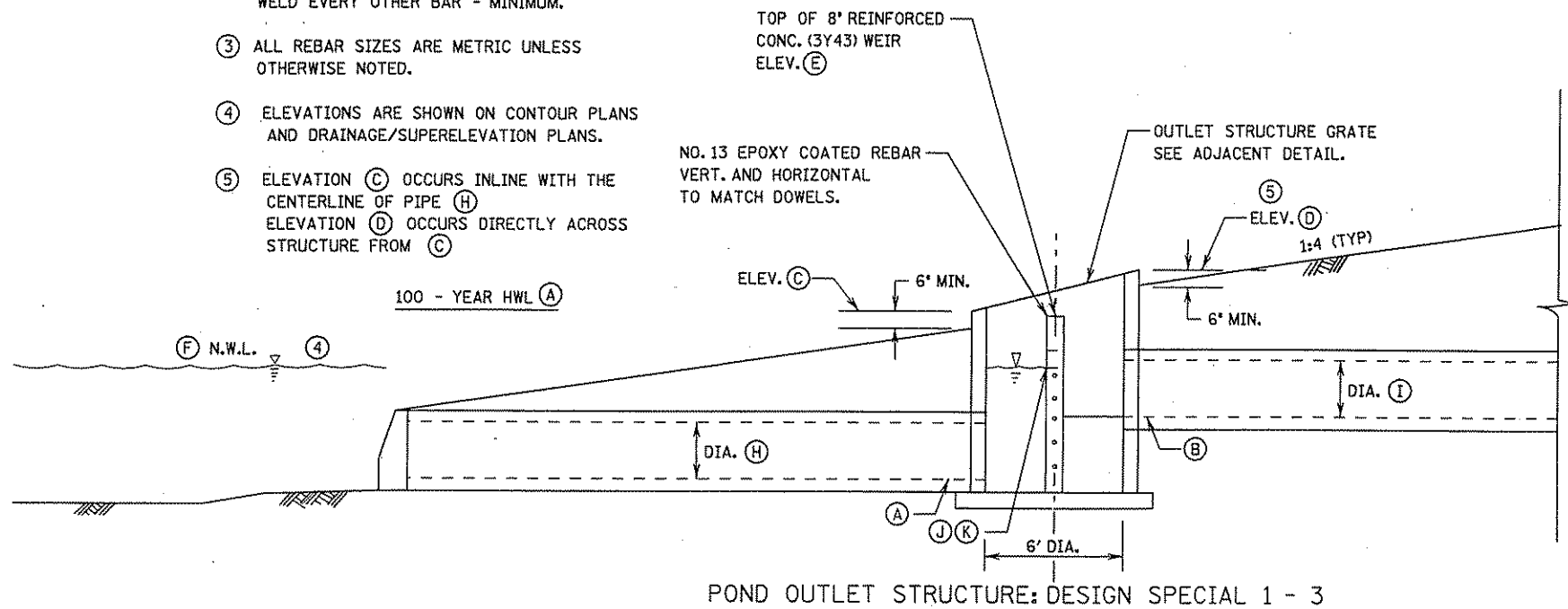
12 OF 12

PLOTTED/REVISED: 05-APR-2007 05:33

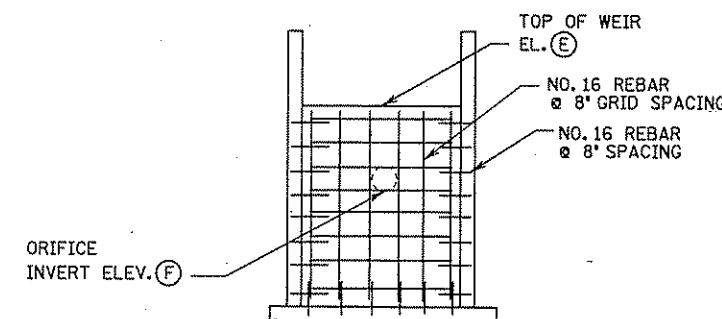
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 IPLOT NAME: im-123_dbs-spec
 PATH & FILENAME: S:\Design\065\0208\123\1\m\0208123_dd3.dgn

NOTES:

- ① WALL CONSTRUCTION MAY BE CLASS II PRECAST RC PIPE, SEE STANDARD PLATE 3000.
- ② PROVIDE FULL PENETRATION TACK WELD EVERY OTHER BAR - MINIMUM.
- ③ ALL REBAR SIZES ARE METRIC UNLESS OTHERWISE NOTED.
- ④ ELEVATIONS ARE SHOWN ON CONTOUR PLANS AND DRAINAGE/SUPERELEVATION PLANS.
- ⑤ ELEVATION (C) OCCURS INLINE WITH THE CENTERLINE OF PIPE (H)
 ELEVATION (D) OCCURS DIRECTLY ACROSS STRUCTURE FROM (C)

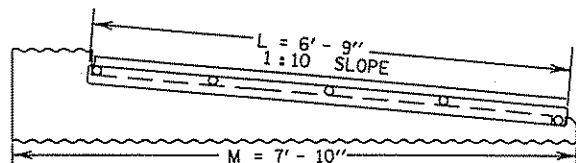


OUTLET STRUCTURE GRATE AND RIPRAP DETAIL



STRUCTURE NO.	DESIGN	POND	STRUCTURE INLET ELEV (A)	STRUCTURE OUTLET ELEV (B)	STRUCTURE OVERFLOW ELEV (C)	TOP OF STRUCTURE (D)	WEIR CREST (E)	ORIFICE INVERT/ NWL (F)	100-YEAR HWL (G)	INLET PIPE DIAMETER (H)	OUTLET PIPE DIAMETER (I)	ORIFICE DIAMETER (J)	NUMBER OF ORIFICE (K)
5973	DES SPEC 1	HOLIDAY	889.5	893.5	897.5	899.5	894.8	893.5	898.3	42"	42"	12"	2
5200		JOHNS						894.0	899.5				
5660	DES SPEC 2	PERKINS	889.3	893.5	899.0	901.0	897.0	894.0	899.1	36"	36"	12"	1
5601	DES SPEC 3	PIPE	896.3	897.3	905.0	907.0	902.5	901.0	905.5	30"	30"	10"	1

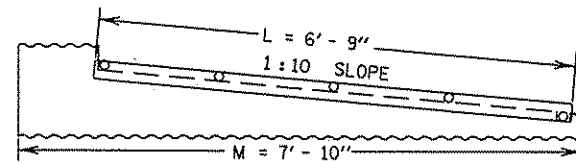
2" CS SAFETY APRON & GRATE DES. 3128
 (MODIFIED TO 1:10 SLOPE)



NUMBER OF BARS = 5 DIA OF BARS = 1-1/2"
 NUMBER OF GRATE SECTIONS = 2
 SEE STANDARD PLATE 3128 FOR OTHER DETAILS

REVISED JAN. 11, 2000

15" CS SAFETY APRON & GRATE DES. 3128
 (MODIFIED TO 1:10 SLOPE)



NUMBER OF BARS = 5 DIA OF BARS = 1-1/2"
 NUMBER OF GRATE SECTIONS = 2
 SEE STANDARD PLATE 3128 FOR OTHER DETAILS

REVISED JAN. 11, 2000

POND OUTLET STRUCTURES
 DESIGN SPECIAL 1
 DESIGN SPECIAL 2
 DESIGN SPECIAL 3

CS SAFETY APRON AND GRATE DES. 3128

DRAINAGE DETAILS

DRAWN BY: LDM

CHECKED BY: DY

CERTIFIED BY

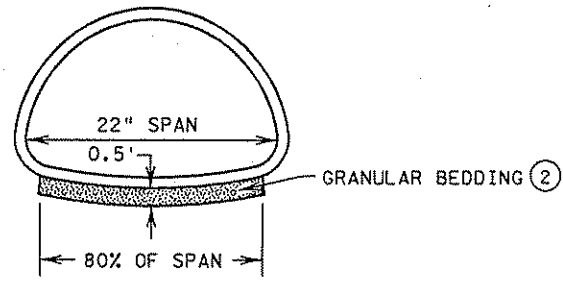
Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 396 OF 872 SHEETS

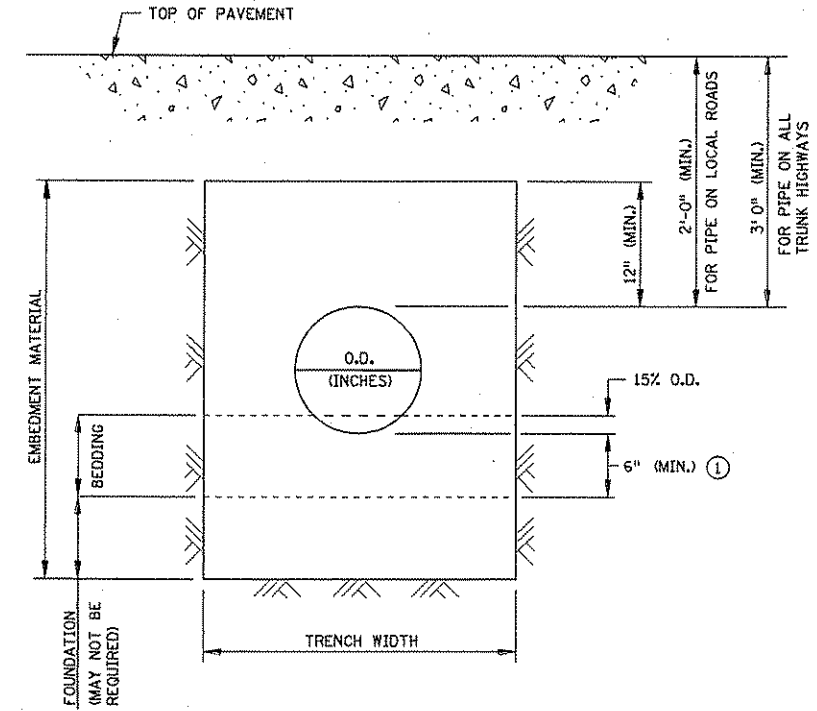
GRANULAR BEDDING FOR ARCH PIPE ③



NOTES:

- ② PAID FOR UNDER ITEM NO. 2451 GRANULAR BEDDING. ALL EXCAVATION IS INCIDENTAL.
- ③ FOR LOCATION, SEE SHEET NO. 395 AND 440.

2 CU YD GRANULAR BEDDING (CV) REQUIRED



CORRUGATED POLYETHYLENE PIPE (AASHTO M294)

NOMINAL PIPE DIAMETER	MAX. COVER (FT.)	TRENCH WIDTH (COVER < 10 FT.)	TRENCH WIDTH (COVER > 10 FT.)
12"	20	50"	50"
15"	20	54"	54"
18"	15	58"	64"
24"	15	64"	86"
30"	15	72"	110"
36"	15	78"	128"

PVC PIPE (ASTM F794)

NOMINAL PIPE DIAMETER	MAX COVER (FT.)	TRENCH WIDTH (ALL COVERS)
12"	40	38"
15"	40	40"
18"	40	44"
21"	40	48"
24"	20	52"
30"	20	62"
36"	20	72"

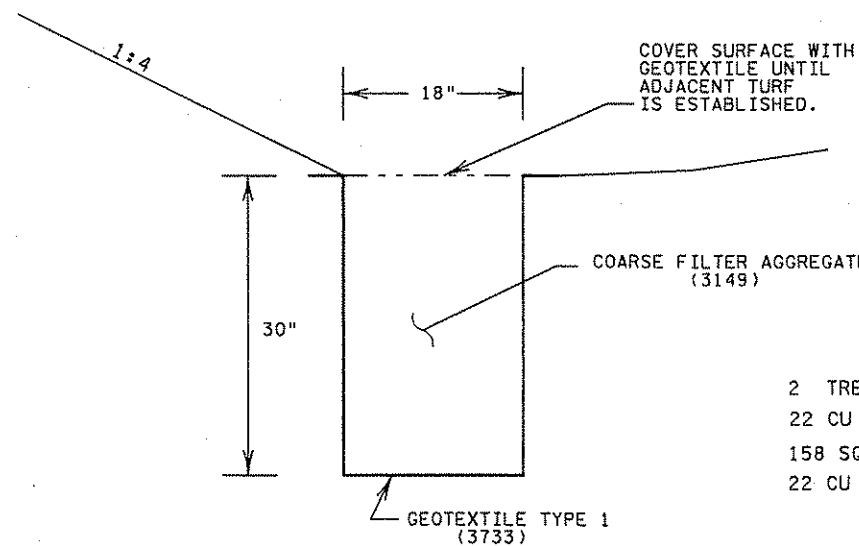
NOTES:

- MAXIMUM NOMINAL PIPE DIAMETER IS 36".
- EMBEDMENT MATERIAL PER SPEC. 3149.2D MODIFIED TO 100% PASSING THE 1" SIEVE.
- CONSTRUCTION REQUIREMENTS PER SPEC. 2451 MODIFIED SO THAT EMBEDMENT MATERIAL IS COMPACTED IN UNIFORM LAYERS 8" OR LESS IN THICKNESS, LOOSE MEASUREMENT TO 95% STANDARD PROCTOR DENSITY.
- BEDDING SHALL BE CLASS B PER SPEC. 2451.3.
- DURING CONSTRUCTION PIPE UNDER SHALLOW COVER SHALL BE PROTECTED FROM POSSIBLE DAMAGE DUE TO LOADING FROM HEAVY EQUIPMENT.
- ① THE ZONE IMMEDIATELY BENEATH THE PIPE WHICH SHALL ONLY BE COMPACTED SUFFICIENTLY TO PROVIDE UNIFORM SUPPORT.

SEE T.M. 03-04-B-02 (DATED 4-14-03)
USE OF PLASTIC PIPE FOR STORM SEWER ON TRUNK HIGHWAYS

GRANULAR BEDDING FOR ARCH PIPE
PLASTIC PIPE INSTALLATION REQUIREMENTS FOR STORM SEWER ONLY
INFILTRATION TRENCH

DRAINAGE DETAILS



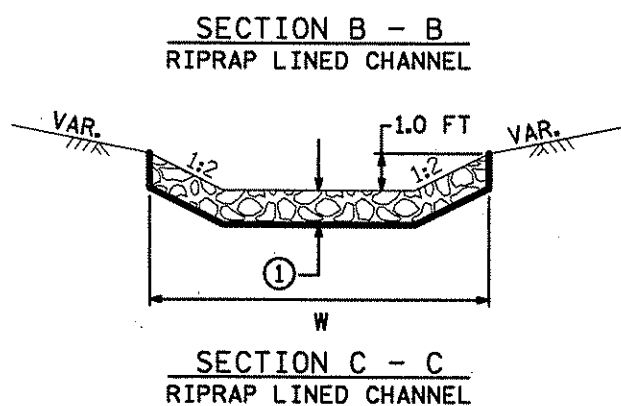
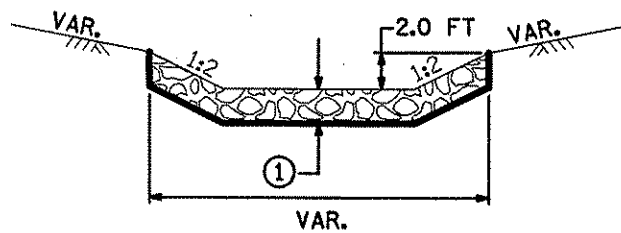
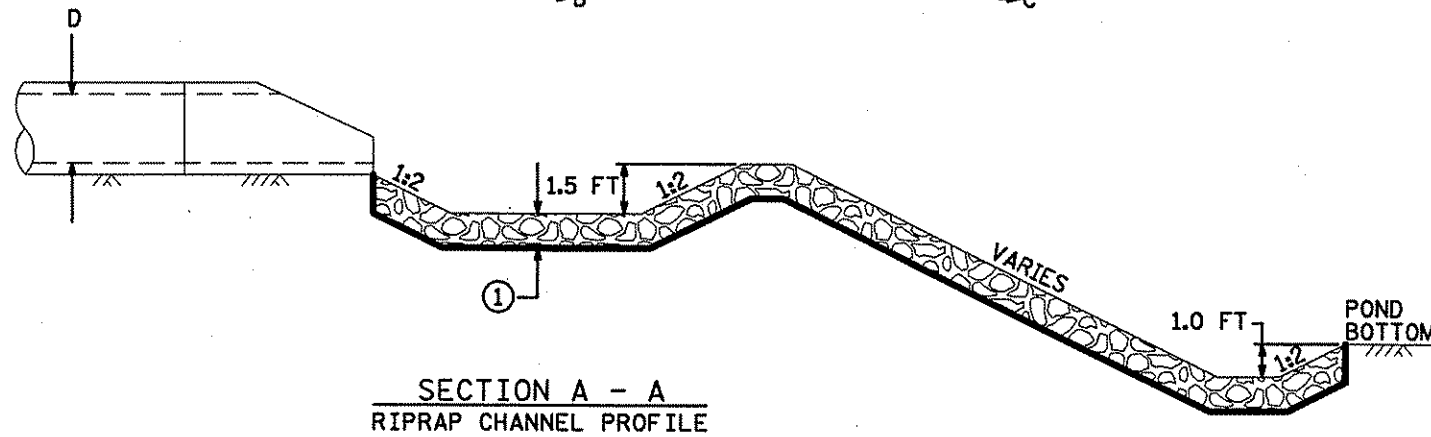
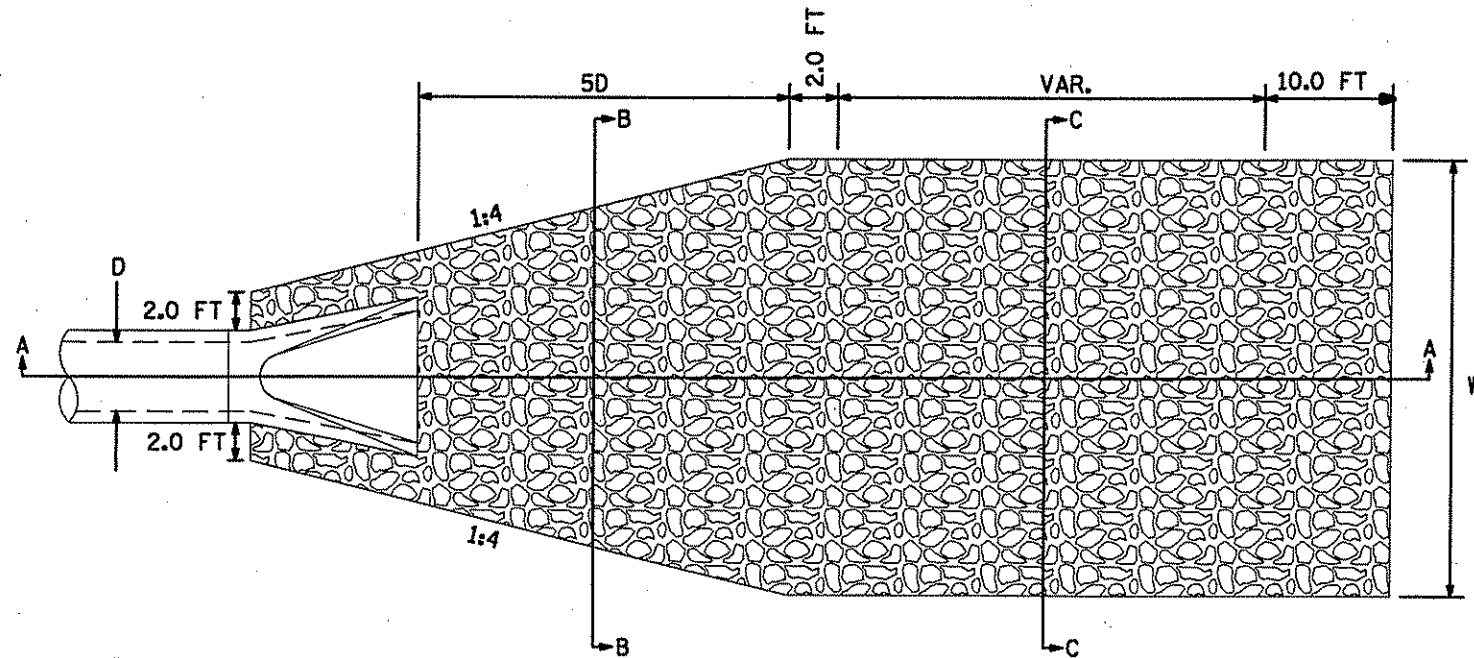
DETAIL - INFILTRATION TRENCH

SEE SHEET NO. 390 FOR LOCATION. TO BE PAID FOR AS SPECIAL EXCAVATION PER CUBIC YARD.

- 2 TRENCHES - TOTAL LENGTH 150'
- 22 CU YD EXCAVATION SPECIAL
- 158 SQ YD GEOTEXTILE TYPE 1
- 22 CU YD COARSE FILTER AGGREGATE

DISTRICT #: METRO
 PLOT NAME: im-123-dd6-2
 PATH & FILENAME: S:\Design\065\0208\123\Final\0208123-dd6.dgn
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RIPRAP AT APRON OUTLET TO PIPE POND



RIPRAP AT APRON OUTLET			
APRON NO. OR STRUCTURE	INLET OR OUTLET	APRON SIZE = D	
		RC INCHES	W INCHES
5014	OUTLET	36	262
5041	OUTLET	18	134
5048	OUTLET	18	134

GENERAL NOTES:

① SEE RIPRAP TABULATION ON SHEET NO. 32 AND STANDARD PLATE 3133 FOR RIPRAP DIMENSIONS.

- ALL GRADING REQUIRED FOR INSTALLATION OF RIPRAP CHANNEL SHALL BE CONSIDERED INCIDENTAL.

RIPRAP AT APRON OUTLET TO PIPE POND

DRAINAGE DETAILS

NOT TO SCALE

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/3/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 398 OF 872 SHEETS

PLOTTED/REVISED: 05-APR-2007 05:33

DISTRICT #: METRO
I-PLOT NAME: Im-123_riprap
PATH & FILENAME: S:\Design\065\0208\123\Final\0208123_drf.dwg

PLOTTED/REVISED: 05-APR-2007 05:33

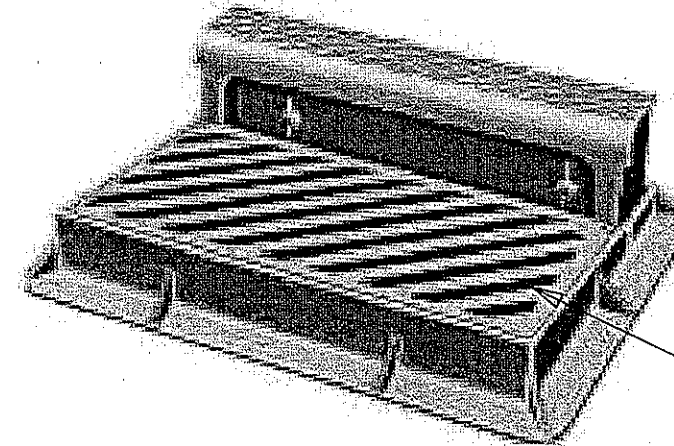
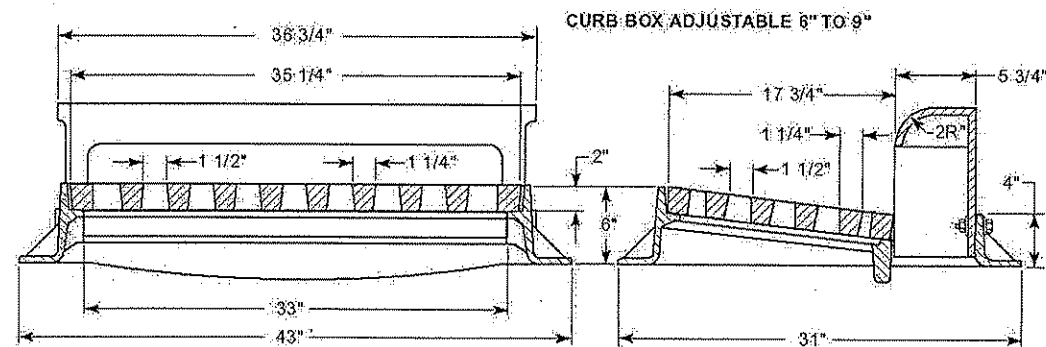
R-3067V Curb Inlet Frame, Grate, Curb Box OR EQUIVALENT

Heavy Duty

Type R-Diagonal grate shown. Also available with flat mountable curb plate, grated or solid, as shown on R-3246-1, in place of curb box.

Neither type R-Diagonal nor type V grates recommended for bicycle traffic when used with curbplate.

CASTING REQUIRED BY THE CITY OF BLAINE.



WHERE R-3067V INLET IS SHOWN FOR USE ON 4020 STRUCTURE, USE COVER SLAB WITH 24" X 36" OPENING IN CENTER OF SLAB (REFER TO STD. PLATE 4022).

USE TYPE V VANE GRATE INSTEAD OF DIAGONAL GRATE SHOWN.

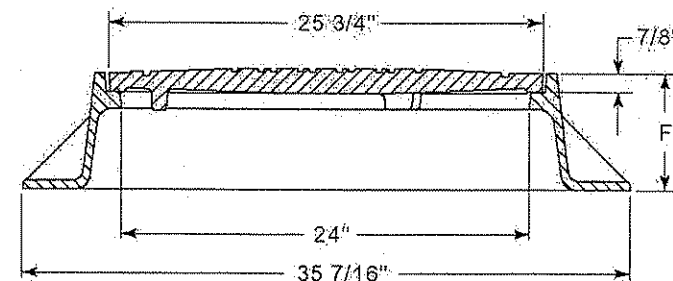
R-1733 Series Manhole Frames, Vented Lids OR EQUIVALENT

Heavy Duty

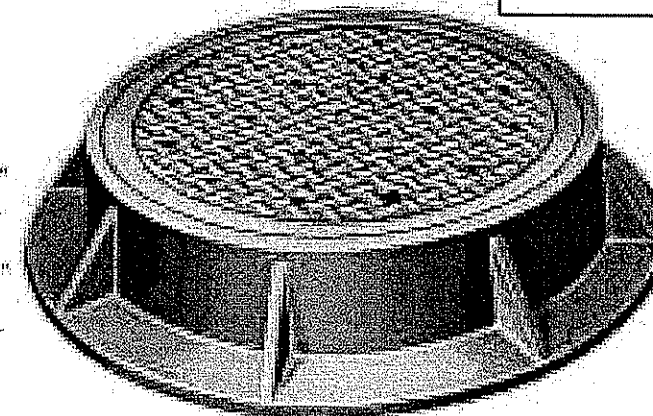
Specify:

- Catalog number.
- Solid lid with two lift holes if required.

Catalog No.	Height F
R-1733-1	4"
R-1733	7"
R-1733-A	8"
R-1733-B	9"
R-1733-C	10"



CASTING REQUIRED BY THE CITY OF BLAINE.



USE 7" HEIGHT FRAME. LID TO BE STAMPED STORM SEWER.

CASTING ASSEMBLY DETAILS

1 OF 2

DISTRICT #: METRO
PLOT NAME: LM-123_dgrate.l
PATH & FILENAME: S:\Design\065\0208V2\3\Final\0208123_dgrate.dgn

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

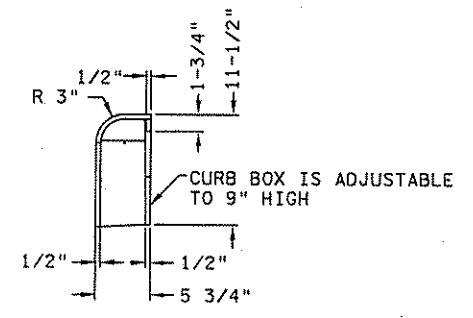
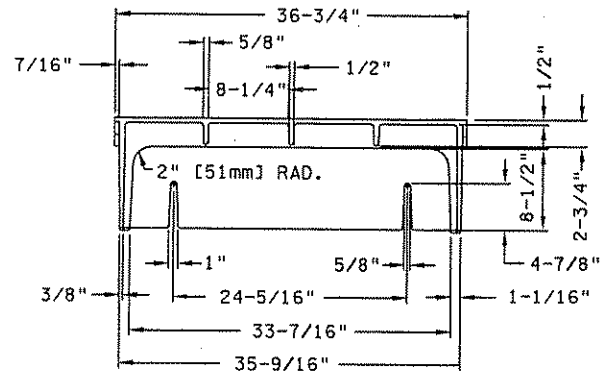
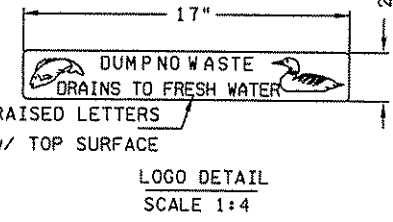
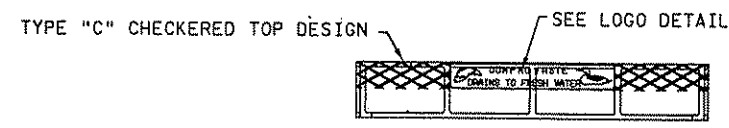
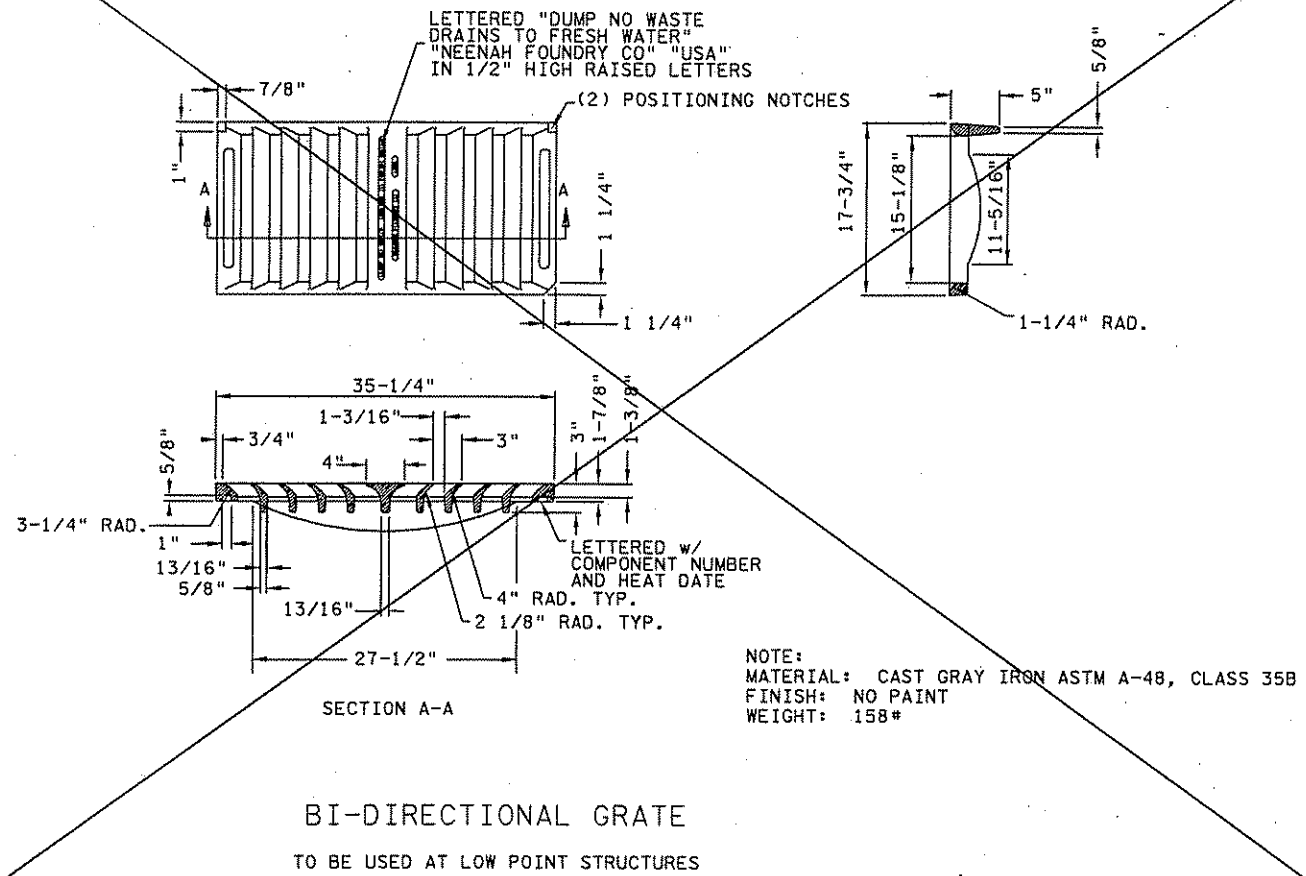
LIC. NO. 20534 DATE 4/5/07

DRAINAGE DETAILS

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 399 OF 872 SHEETS

PLOTTED/REVISED: 05-APR-2007 05:33

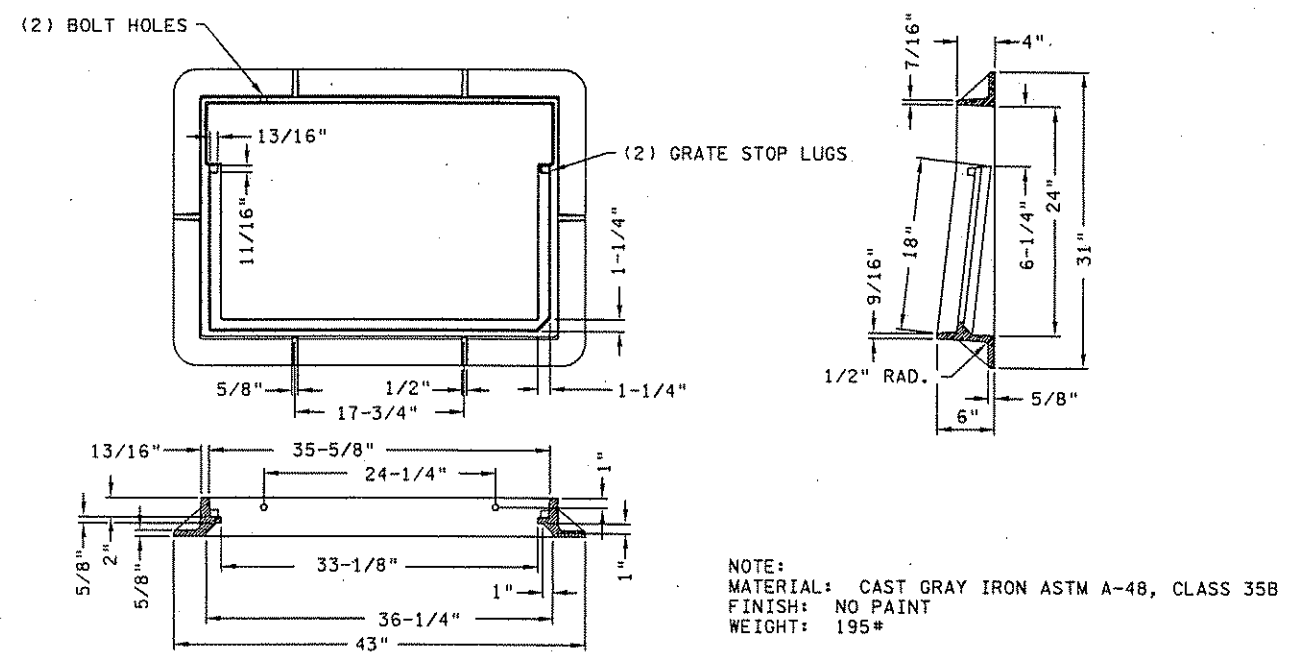
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PLOT NAME: LM-123_dgrate_2
PATH & FILENAME: S:\Design\065\0208\123\Final\0208123_dgrate.dgn



CURB BOX

NOTE:
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 108#

CASTING REQUIRED BY THE CITY OF BLAINE.



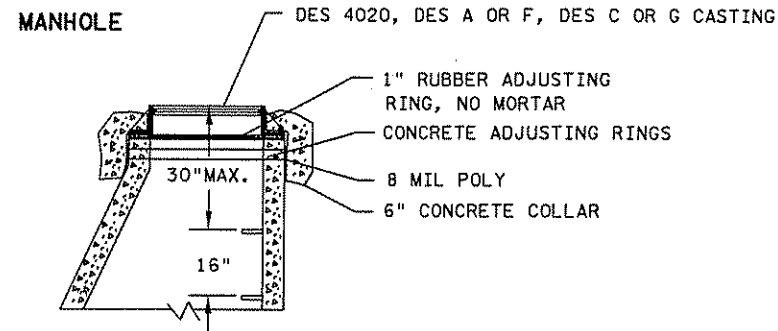
FRAME

CASTING ASSEMBLY DETAILS
FOR STRUCTURE DESIGN SPECIAL

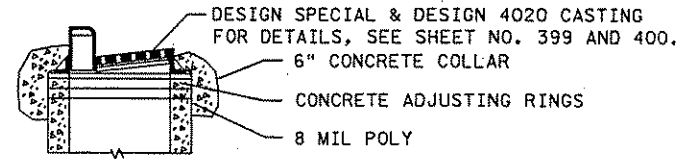
DRAINAGE DETAILS

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ADJUSTING RINGS & STEPS



CATCH BASIN

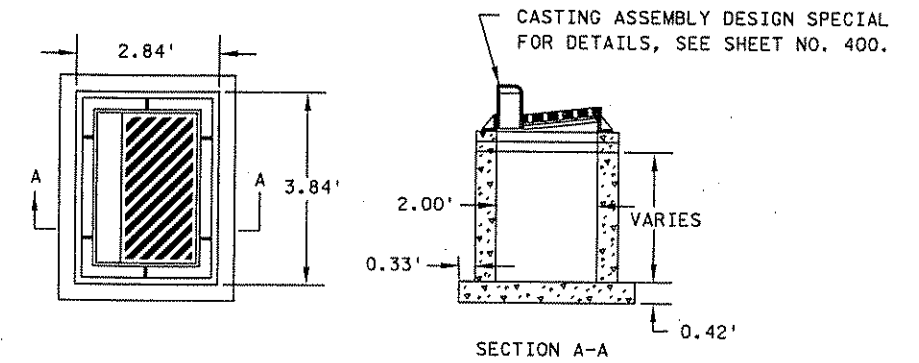


NOTES:

1. USE MINIMUM OF 2-0.2' ADJUSTING RINGS, MAXIMUM OF 5-0.2' ADJUSTING RINGS, ALL SET IN MORTAR.
2. MANHOLE STEPS SHALL BE PER MNDOT PLATE 4180, TYPE W. STEPS SHALL BE LOCATED ON UPSTREAM WALL FOR PIPE SIZES UP TO AND INCLUDING 15" AND ON SIDE WALL FOR GREATER THAN 15".
3. NO WOOD SHIMS WILL BE ALLOWED.

DETAIL REQUIRED BY THE CITY OF BLAINE.

DRAINAGE STRUCTURE DESIGN SPECIAL



NOTES:

- 1) INSIDE DIMENSIONS 2.00' X 3.00'
- 2) BASE TO BE GROUTED TO FORM A SMOOTH INVERT TO OUTLET.
- 3) PIPE CUT OUTS TO BE LOCATED WHERE REQUIRED.
- 4) STRENGTH DESIGN OF BASE SLAB AND STRUCTURE PER MANUFACTURER.

DETAIL REQUIRED BY THE CITY OF BLAINE.

DRAINAGE STRUCTURE DESIGN SPECIAL
ADJUSTING RINGS AND STEPS

DETAILS

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CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/15/07

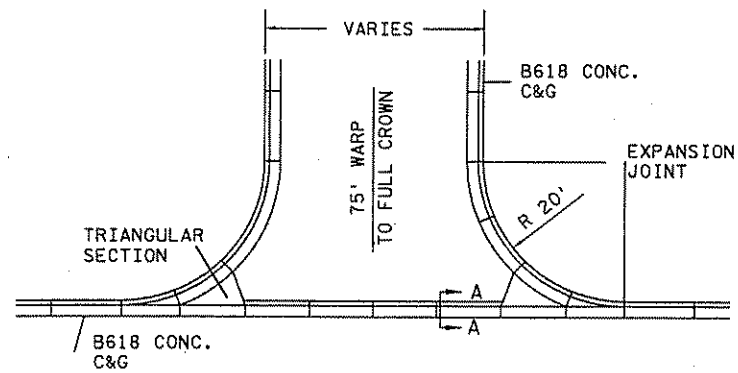
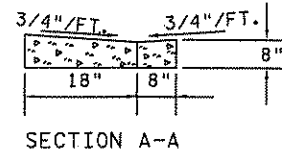
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 401 OF 872 SHEETS

DISTRICT #: METRO

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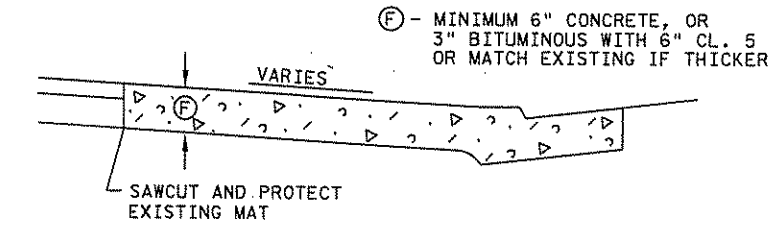
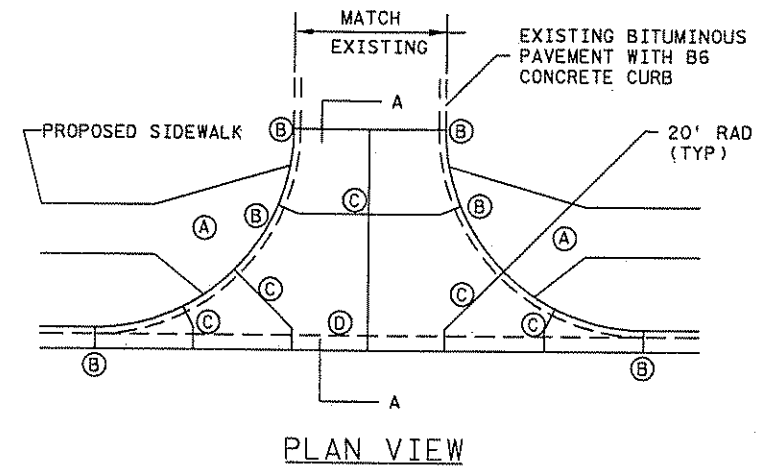


NOTE: PAYMENT FOR CONC. VALLEY GUTTER SHALL BE PER L.F. OF B618 CONC. C&G
 TRIANGULAR SECTION SHALL BE INCIDENTAL.

CONCRETE VALLEY GUTTER
 DESIGN WITH B618 CURB

DETAIL REQUIRED BY THE CITY OF BLAINE.

- NOTES:
- (A) - PEDESTRIAN CURB RAMP (FULL WIDTH OF SIDE WALK)
 - (B) - EXPANSION JOINT
 - (C) - FORMED CONTRACTION JOINT
 - (D) - MAINTAIN GUTTER FLOW LINE
 - (E) - DRIVEWAY MUST BE PLACED 1/2 AT A TIME TO ALLOW ACCESS TO SITE



DETAIL REQUIRED BY THE CITY OF BLAINE.

DRIVEWAY DETAILS

DETAILS

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 402 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 31-JAN-2007 10:01

DISTRICT #: METRO
 PLOT NAME: lm-123_box_culvert.l
 PATH & FILENAME: S:\Design\065\0208\23\Final\0208123_ddbboxculvert.dgn

CONSTRUCTION NOTES

CULVERTS TO BE CONSTRUCTED AS PER Mn/DOT SPEC. 2412 EXCEPT AS NOTED.

FILL HEIGHTS OF LESS THAN 2'-0" REQUIRE A DISTRIBUTION SLAB. SEE FIG. 5-395.100(A) AND FIG. 5-395.100(B) FOR ADDITIONAL INFORMATION.

IF THE DISTANCE BETWEEN DOUBLE BARRELS IS LESS THAN 2'-0" USE EITHER PEA ROCK OR LEAN MIX BACKFILL (Mn/DOT SPEC. 2520) BETWEEN THE CULVERTS AS APPROVED BY THE ENGINEER. (ALSO, PROVIDE APPROVED GROUT SEEPAGE CORE, MINIMUM 12" THICK, BETWEEN THE CULVERT'S TWO ENDS.) MINIMUM DISTANCE REQUIRED IS 6".

THE STEEL FABRIC, SHEAR REINFORCEMENT AND REINFORCEMENT BARS SHALL CONFORM TO APPLICABLE REQUIREMENTS OF AASHTO M259.

1/2" MIN. AND 2" MAX. CONCRETE COVER ON ALL REINFORCEMENT, INCLUDING SHEAR REINFORCEMENT, EXCEPT FOR TONGUE AND GROOVE DETAIL.

ANY OF THE FOLLOWING COMBINATIONS OF STEEL REINFORCEMENT MAY BE USED:
 (a) 1 OR 2 LAYERS OF MESH OR
 (b) 1 LAYER OF MESH AND 1 LAYER OF REINFORCEMENT BARS OR
 (c) 1 LAYER OF REINFORCEMENT BARS.

THE REINFORCEMENT SHALL BE DEVELOPED IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES". IF BAR REINFORCEMENT IS SUBSTITUTED FOR WIRE MESH, THE AREAS OF REINFORCEMENT SHALL BE INCREASED BY 8%.

THE MAXIMUM SIZE OF REINFORCEMENT BARS SHALL BE NO. 19. THE MAXIMUM MESH SIZE SHALL BE 1/2" DIA. PER LAYER (MAXIMUM OF 2 LAYERS).

THE SPACING CENTER TO CENTER OF THE TRANSVERSE WIRES SHALL NOT BE LESS THAN 2" NOR MORE THAN 4". THE SPACING CENTER TO CENTER OF THE LONGITUDINAL WIRES SHALL NOT BE MORE THAN 8".

WELDING WILL NOT BE ALLOWED ON REINFORCEMENT BARS OR STEEL FABRIC, EXCEPT THAT THE ORIGINAL WELDING REQUIRED TO MANUFACTURE WIRE FABRIC IS ACCEPTABLE.

WHEN REINFORCEMENT IS CUT, ADDITIONAL REINFORCEMENT SHALL BE ADDED ON BOTH SIDES OF THE CUT MEMBER TO REPLACE OR EXCEED THE CUT STEEL.

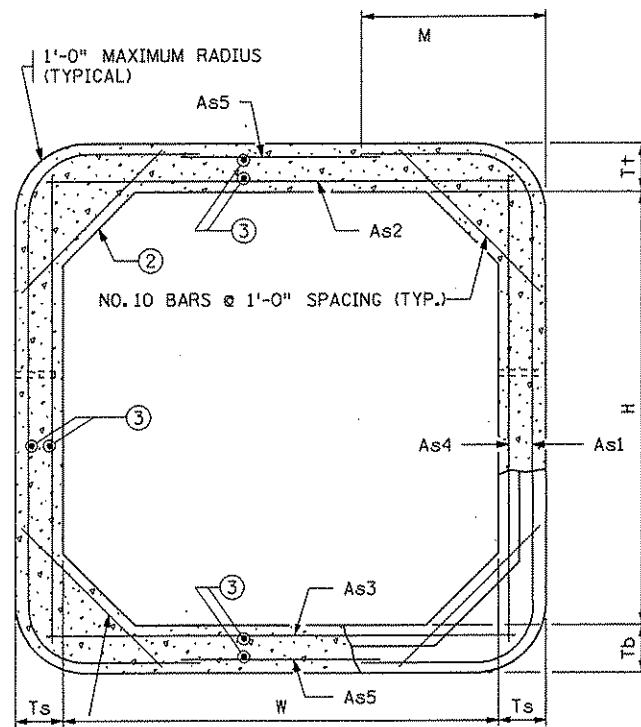
CONCRETE SHALL BE MIX NO. 3W36 WITH NO CALCIUM CHLORIDE ALLOWED.

SHOP DRAWING APPROVAL PER Mn/DOT SPEC. 3238.2A IS NOT REQUIRED UNLESS OPENINGS OR ATTACHMENTS ARE PLACED ON A BARREL SEGMENT.

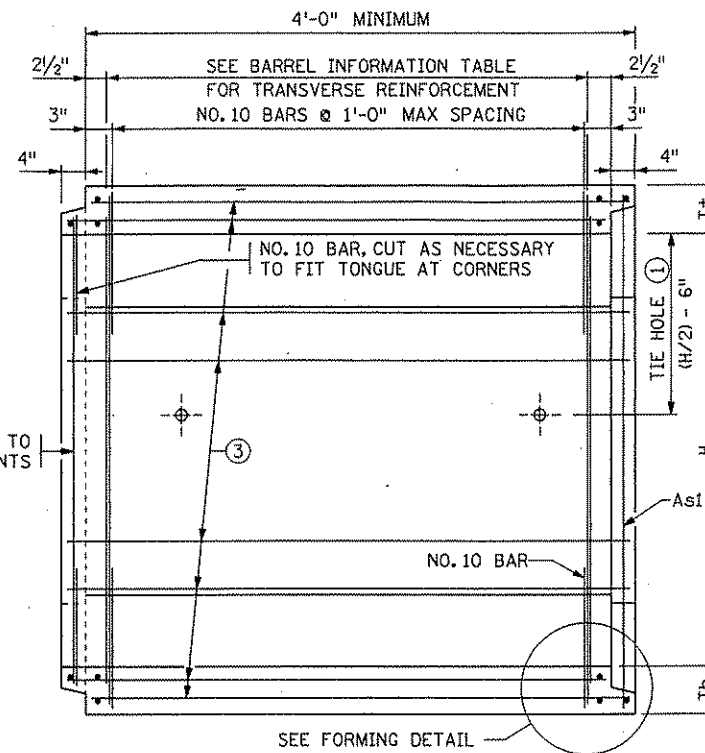
① CULVERT TIES ARE TO BE 1" DIAMETER RODS. SEE STANDARD PLATE NO. 3145 FOR CONNECTION DETAILS.

② HAUNCH SIZE AS FOLLOWS:
 6'-0" AND 8'-0" WIDTHS - 6" TO 12"
 10'-0" WIDTH - 10" TO 12"
 12'-0" AND 14'-0" WIDTHS - 12"

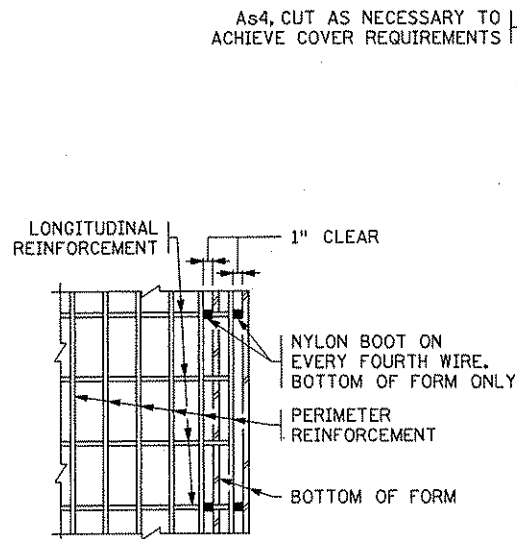
③ MINIMUM LONGITUDINAL STEEL SHALL BE 0.06 SQ. IN. / FT.



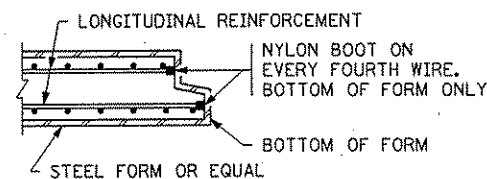
TRANSVERSE BARREL SECTION
 BAR REINFORCEMENT OPTION SHOWN



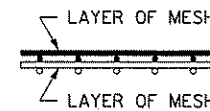
LONGITUDINAL BARREL SECTION
 BAR REINFORCEMENT OPTION SHOWN



PLAN

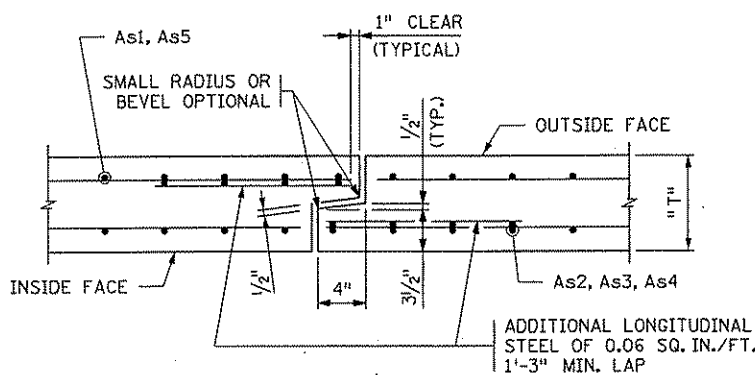


SECTION FORMING DETAIL



FABRIC LAYER DETAIL

WHEN MORE THAN ONE LAYER OF STEEL FABRIC IS USED TO OBTAIN THE REQUIRED REINFORCEMENT AREAS, THE WIRES OF THE STEEL FABRIC SHALL BE PLACED AS SHOWN



TONGUE AND GROOVE JOINT DETAIL

BARREL INFORMATION

LOCATION	SIZE	CLASS	f'c (P.S.I.)	FILL HEIGHT RANGE (FT.)	DIMENSIONS					WEIGHT (LBS./FT.)	STEEL FABRIC REINFORCEMENT										
					W (FT.)	H (FT.)	Tt (IN.)	Tb (IN.)	Ts (IN.)		As1		As2		As3		As4		As5		
											AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	AREA (IN. ² /FT.)	LENGTH (FT.)	
CSAH14 STA. 240+00 98' RT TO 88' LT	6 X 4	3	5500	24	6	4	7	8	7	2295	0.60	8'-9"	2'-6"	0.83	6'-6"	0.83	6'-6"	0.20	4'-6"	0.06	4'-3"

BARREL DETAILS

NOT TO SCALE

FIG. 5-395.101(A)

BOX CULVERT DETAILS

DRAWN BY: LM

CHECKED BY: DY

CERTIFIED BY

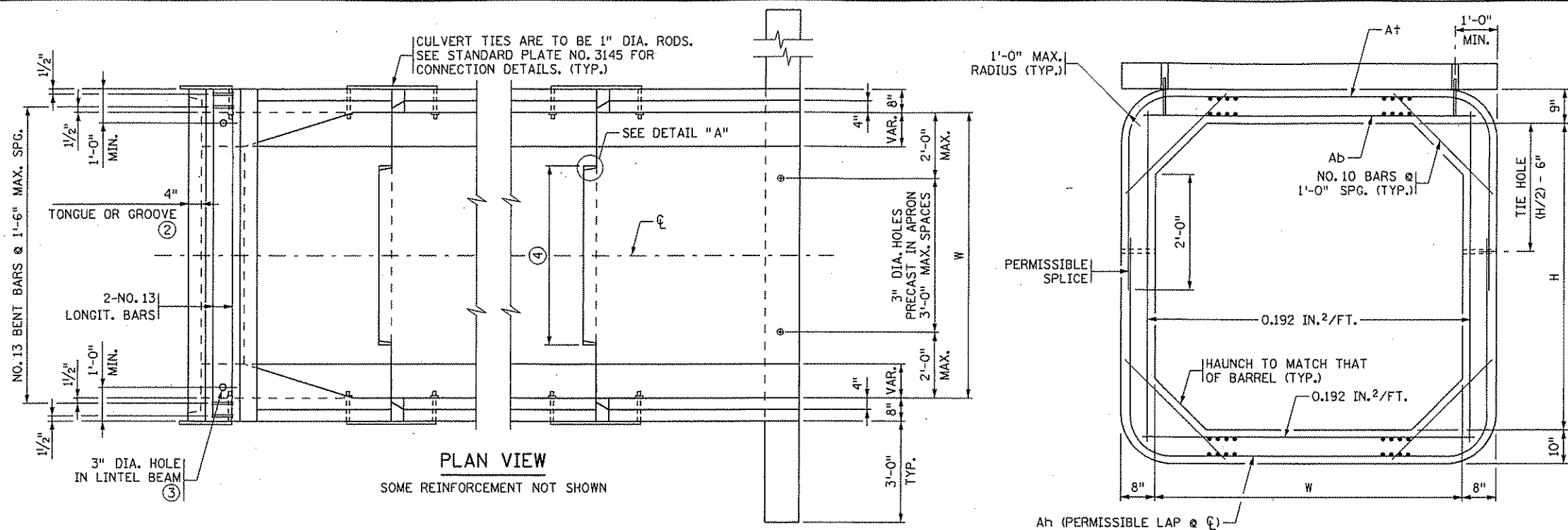
Josephine Lundquist
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 02/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 403 OF 872 SHEETS

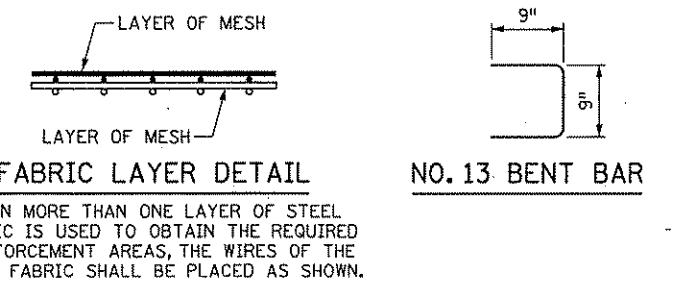
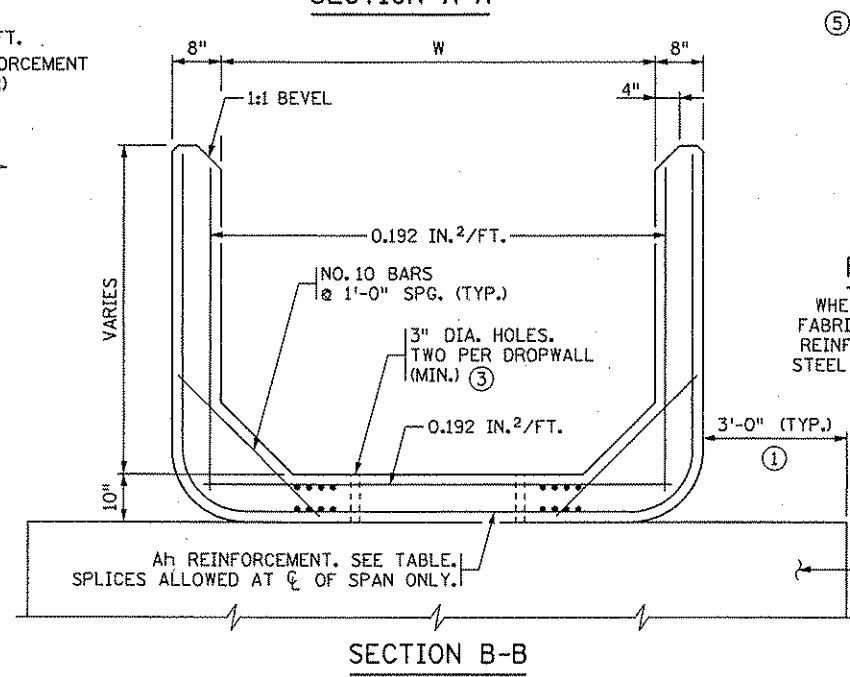
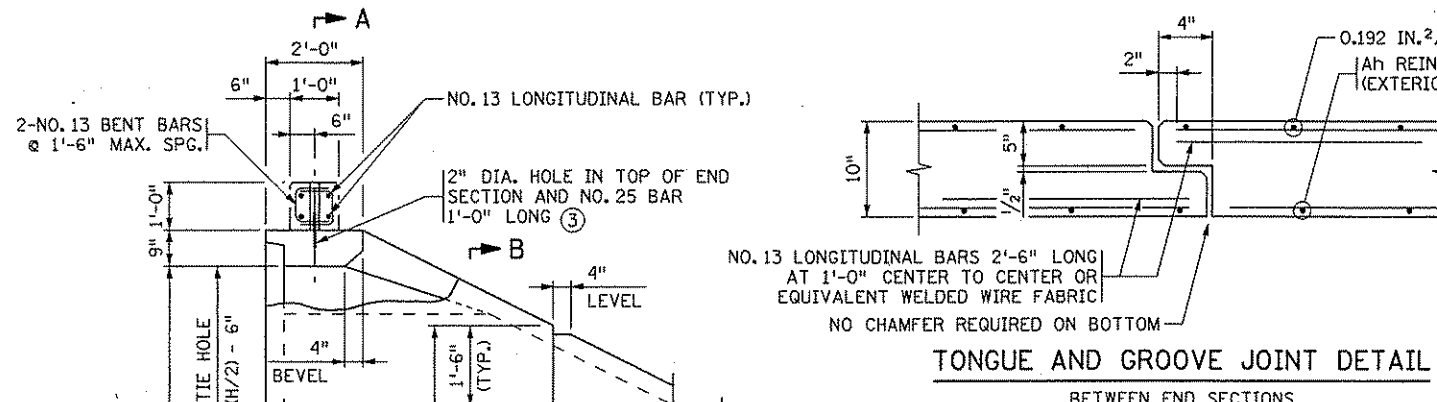
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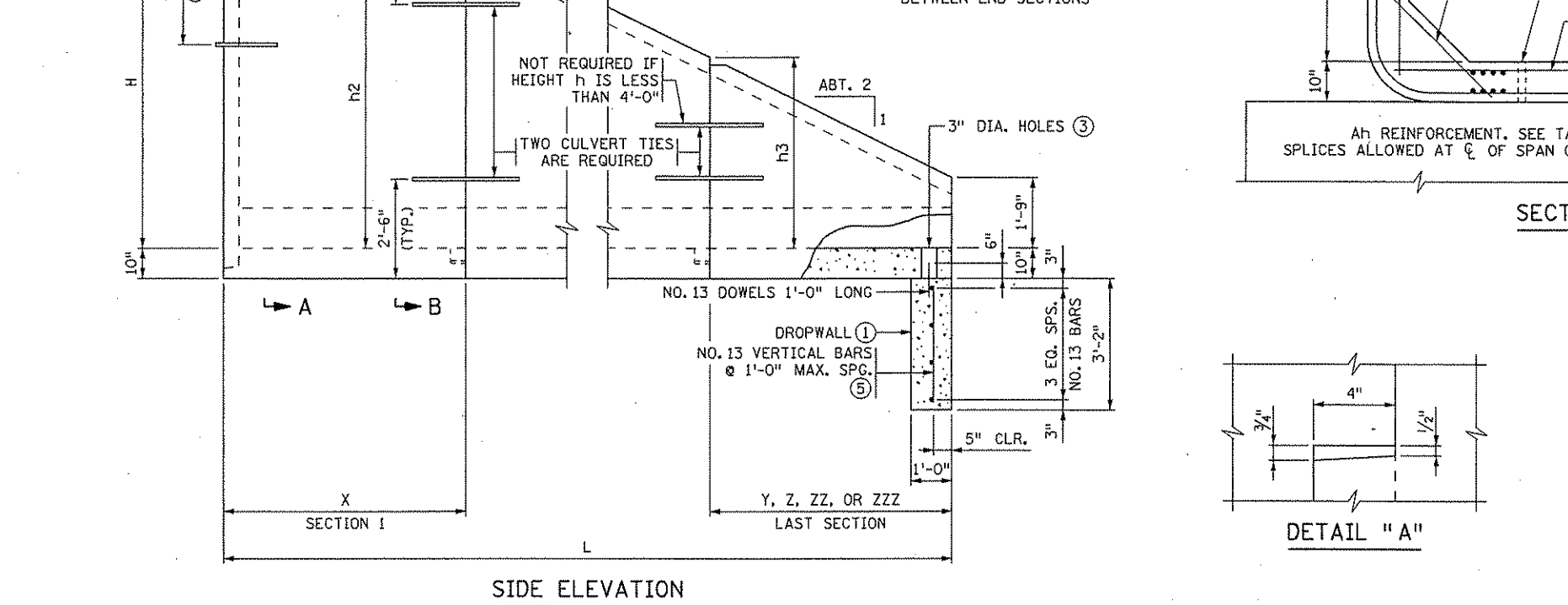


CONSTRUCTION NOTES
 SEE FIG. 5-395.101(A) AND FIG. 5-395.101(B) FOR ADDITIONAL DIMENSIONS AND CONSTRUCTION NOTES.
 ALL END SECTIONS REQUIRE CURB ON LINTEL BEAM.
 ON ALL END SECTIONS FOR WATERWAYS, USE DROPWALLS ON INLET AND OUTLET ENDS.
 LONGITUDINAL REINFORCEMENT PARALLEL TO THE AXIS OF THE CULVERT SHALL HAVE A MINIMUM OF 0.06 SQUARE INCHES PER PERIPHERAL FOOT ON ALL FACES OF THE BARREL, EXCEPT IN THE TONGUE AND GROOVE AREA.
 SEE FIG. 5-395.115 FOR EMBANKMENT PROTECTION.
 FINISH ALL EXPOSED EDGES OF CONCRETE WITH 1/2" OR 3/4" CHAMFER OR RADIUS UNLESS OTHERWISE NOTED.

- WITH DOUBLE BOXES LOCATE DROPWALL JOINTS BETWEEN END SECTIONS. SEE FIG. 5-395.111 FOR ALTERNATE DROPWALLS. LIMITS OF EXCAVATION FOR DROPWALL TO BE APPROXIMATELY THE SAME AS DROPWALL DIMENSIONS. DROPWALL TO BE CONCRETE MIX NO. 1A43 OR MIX NO. 3Y43. FURNISHING AND INSTALLATION OF DROPWALL TO BE INCLUDED IN PRICE BID FOR END SECTIONS. DROPWALL NOT REQUIRED FOR NON-WATERWAY USE.
- CHECK LOCATION TO DETERMINE WHETHER A TONGUE OR A GROOVE IS USED.
- FILL HOLE WITH GROUT. GROUT SHALL CONSIST OF 1 PART CEMENT AND 2 PARTS SAND. USE TYPE 1A AIR ENTRAINED PORTLAND CEMENT. GROUT MIX SHALL HAVE A MAXIMUM SLUMP OF 4".
- 3'-6" TONGUE AND 3'-7" GROOVE FOR 6'-0" WIDE CULVERTS. 5'-0" TONGUE AND 5'-1" GROOVE FOR CULVERTS OVER 6'-0" WIDE. CENTER TONGUE AND GROOVE ON ϕ OF EACH APRON JOINT.
- AS AN ALTERNATE TO THE ONE LAYER MESH, PROVIDE TWO LAYERS OF REBAR OR WIRE MESH WITH THE STEEL AREA EQUAL TO HALF OF THE TEMPERATURE STEEL PER CODE REQUIREMENTS IN EACH FACE OF THE DROPWALL.



A+, Ab REINFORCEMENT		
WIDTH (FT.)	A+ (IN ² /FT.)	Ab (IN ² /FT.)
6	.27	.44
8	.47	.60
10	.62	.74
12	.88	1.06
14	1.20	1.58



APRON DIMENSIONS & Ah REINFORCEMENT																
H FT.	L FT.	SECTION 1		SECTION 2		SECTION 3		SECTION 4		SECTION 5		h6				
		X	Ah	h2	Y	Ah	h3	Z	Ah	h4	ZZ		Ah			
4	8	8'	0.192	1'-9"												
5	10	6'	0.192	3'-9"	4'	0.192	1'-9"									
6	12	6'	0.192	4'-9"	6'	0.192	1'-9"									
7	14	6'	0.192	5'-9"	8'	0.192	1'-9"									
8	16	6'	0.20	6'-9"	6'	0.192	3'-9"	4'	0.192	1'-9"						
9	18	6'	0.29	7'-9"	6'	0.20	4'-9"	6'	0.192	1'-9"						
10	20	6'	0.42	8'-9"	6'	0.29	5'-9"	8'	0.192	1'-9"						
11	22	6'	0.60	9'-9"	6'	0.42	6'-9"	6'	0.192	3'-9"	4'	0.192	1'-9"			
12	24	6'	0.78	10'-9"	6'	0.60	7'-9"	6'	0.20	4'-9"	6'	0.192	1'-9"			
13	26	6'	1.03	11'-9"	6'	0.78	8'-9"	6'	0.28	5'-9"	8'	0.192	1'-9"			
14	28	6'	1.38	12'-9"	6'	1.03	9'-9"	6'	0.40	6'-9"	6'	0.192	3'-9"	4'	0.192	1'-9"

NOTE: Ah IS AREA OF REINFORCEMENT PER FOOT OF LENGTH (IN²/FT.)
 PRECAST CONCRETE END SECTION
 TYPE I - SINGLE OR DOUBLE BARREL
 FOR SKEWS UP TO 7 1/2 °

NOT TO SCALE

FIG. 5-395.102

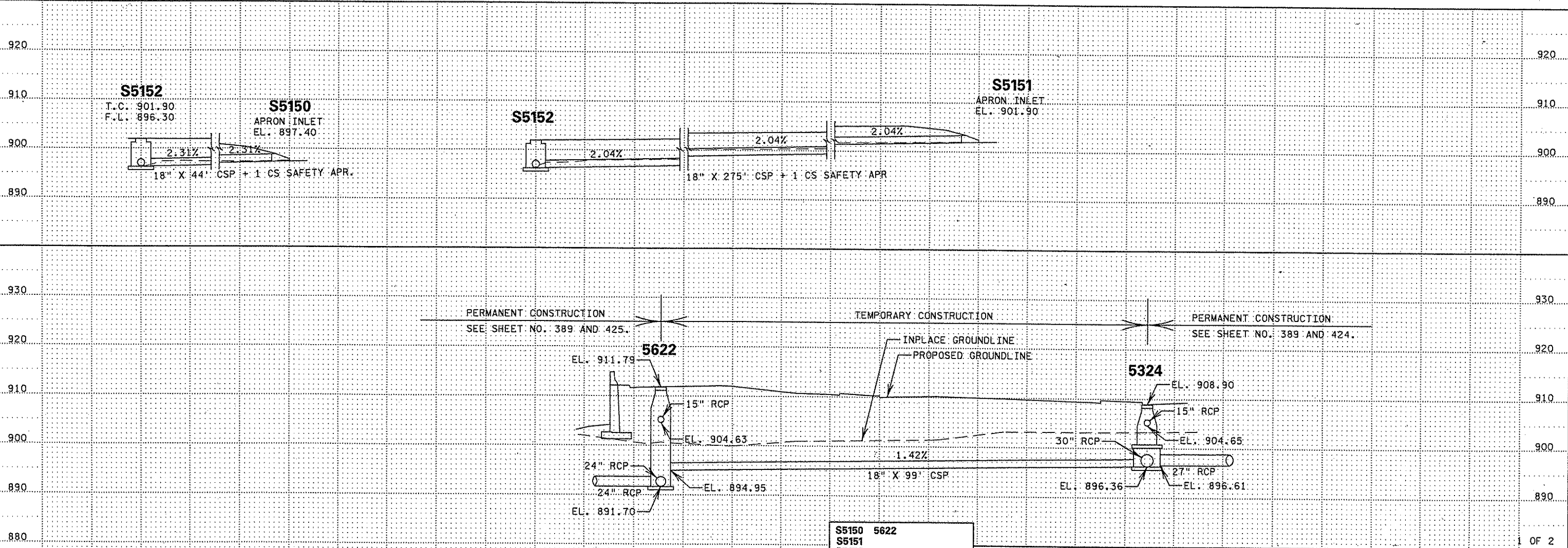
BOX CULVERT DETAILS

TEMPORARY DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES					18" CSP	18" CS SAFETY APRON	APRON TYPE	GUIDE POSTS TYPE B	REMOVALS			SALVAGE CSTG. ASSY. EACH	REMARKS		
					DESIGN/PAY HIEGHT 48-4020 LIN FT	CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV	OUTLET ELEV.					INLET ELEV. ②	MH OR CB	PIPE SEWER LIN FT			GS APRON EACH	
S5150	S5152	65NB	779+38.50	52.8' LT	APR					897.40	896.30	44	1	CS APRON	1		44	1		⑤ ⑧
S5151	S5152	65NB	776+16.50	53.0' LT	APR					901.90	896.30	275	1	CS APRON	1		275	1		⑤ ⑧
S5152		65NB	778+91.00	56.0' LT			A-7D		901.90											③
1S5152		65NB	778+91.00	55.2' LT	MH	5.6		YES		896.30								1		④
5324	5322	CSAH14E	244+06.00	37.0' LT	CB					896.36	894.95	99					99			⑥ ⑦
5622		CSAH14W	243+21.00	27.0' LT	MH					891.70										⑥ ⑦
TOTALS						5.6						418	2		2	1	418	2	1	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.
- ⑤ SAFETY APRON.
- ⑥ CONNECT TO EXISTING DRAINAGE STRUCTURE.
- ⑦ CONSTRUCT BULKHEAD.
- ⑧ TIE LAST 3 JOINTS AT APRON END.



S5150 5622
 S5151
 S5152
 5309

TEMPORARY DRAINAGE TABULATIONS AND PROFILES

DISTRICT #: METRO
 PLOT NAME: 0208123_dt3_temp2
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123_dt3.dgn
 PLOTTED/REVISED: 28-MAR-2007 12:18

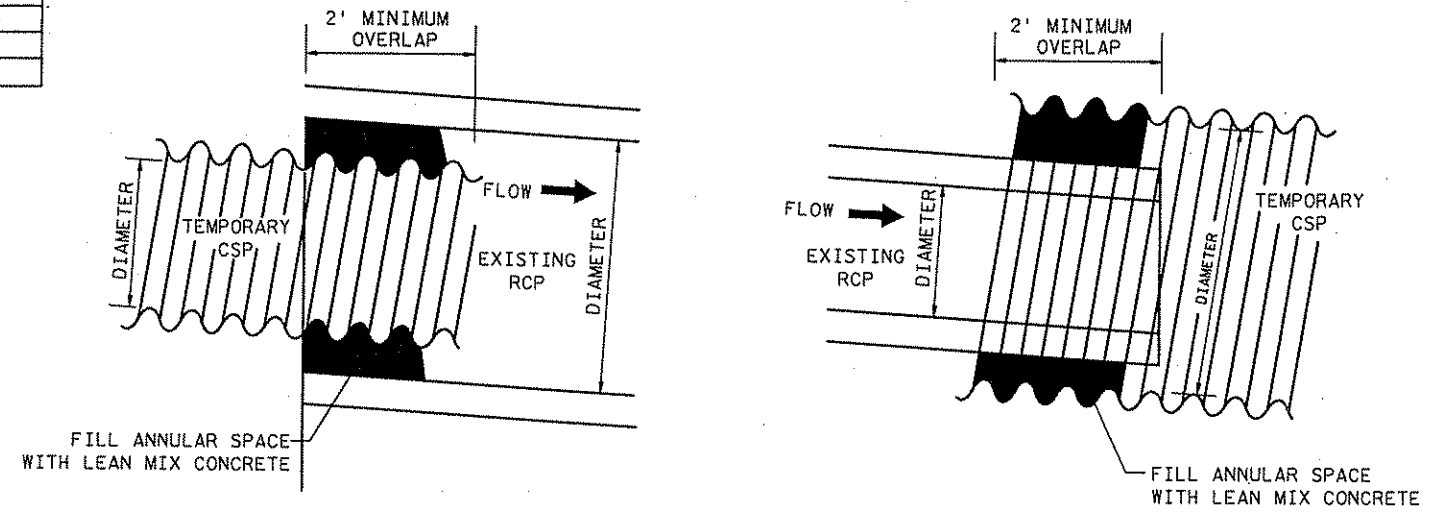
TEMPORARY PIPE CULVERT TABULATION (THIS SHEET ONLY)

APRON NO.		STRUCTURE LOCATION			INLET ELEV.	OUTLET ELEV.	18" CSP	18" CS SAFETY APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMOVALS		REMARKS
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET							PIPE CULVERT LIN FT	GS APRON EACH	
S5153	S5154	65NB	801+48.50	46.5' LT	898.50		440	1	CS APRON	1	440	1	(1)
S5154		65NB	797+01.50	51.0' LT		903.40		1	CS APRON	1		1	(1)
S5156	S5155	65NB	838+00.00	44.0' LT	906.80		386	1	CS APRON	1	386	1	(1)
S5155		65NB	834+01.50	47.7' LT		906.40		1	CS APRON	1		1	(1)
TOTALS							826	4		4	826	4	

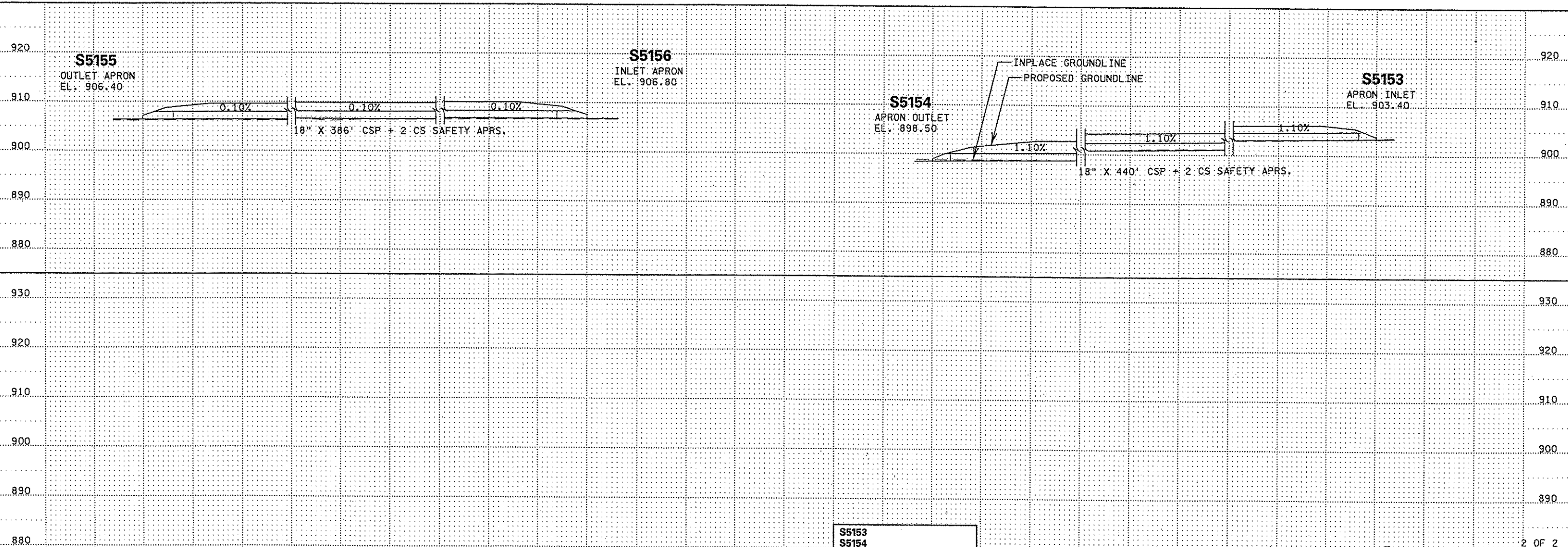
NOTE: STA. AND OFFSET IS AT
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE

ALL CONCRETE PIPE CULVERT IS DESIGN 3006 GASKET JOINT PIPE.
 TIE ALL JOINTS. (INCIDENTAL).

(1) SAFETY APRON.



CSP/RSP CONNECTION DETAILS



S5153
 S5154
 S5155
 S5156

TEMPORARY PIPE CULVERTS TABULATIONS AND PROFILES

DRAWN BY: LDM CHECKED BY: CT CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE 4/15/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 406 OF 872 SHEETS

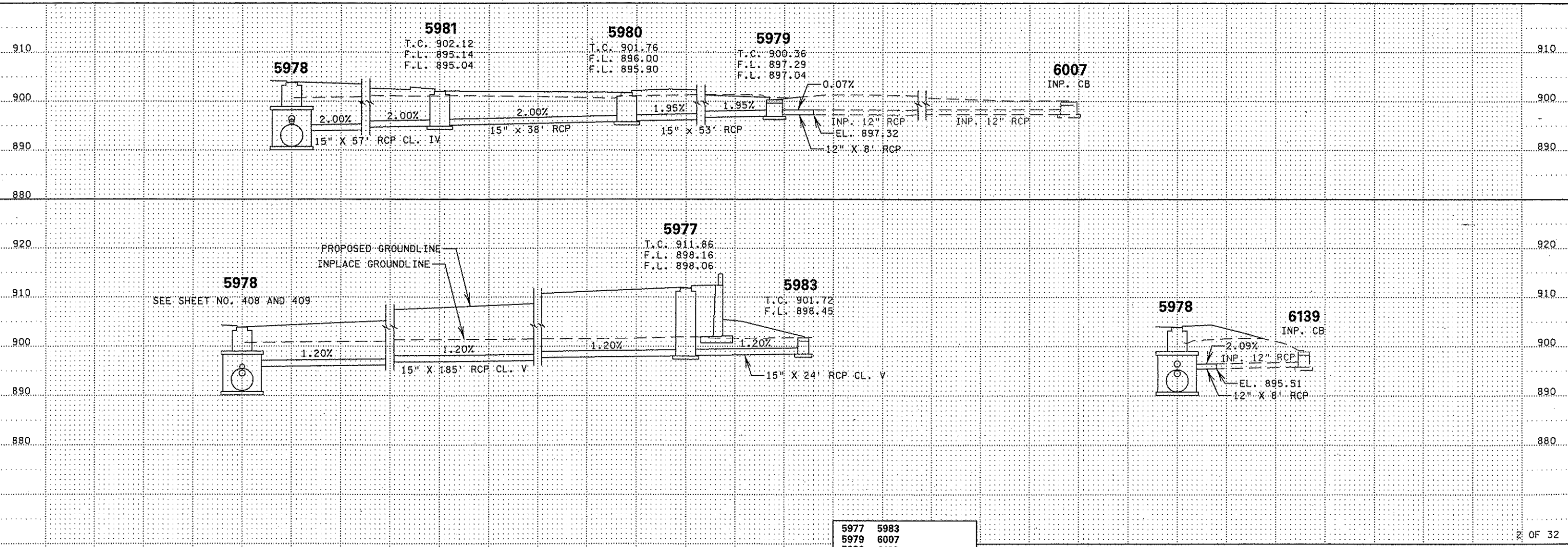
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 PATH & FILENAME: S:\Design\065\0208123\Final\0208123_d13.dgn
 PLOTTED/REVISED: 28-MAR-2007 12:18

DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										REMARKS						
					ALIGN.	STATION	OFFSET	TYPE	DESIGN/PAY HEIGHT			CASTING ^① ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.		OUTLET ELEV.	INLET ELEV. ②	12"	15"	15"	15"
									C G OR H LIN FT	48-4020 LIN FT	DES SPEC LIN FT							CL II LIN FT	CL II LIN FT	CL IV LIN FT	CL V LIN FT
5977	5978	EPAUL	112+06.00	25.0'	RT	CB		14.1			R - 3067V	YES	911.86	898.04	895.89				185		
5979	5980	WPAUL	109+19.30	43.0'	LT	MH			3.5		R - 3067V		900.36	897.00	896.04		53				
5980	5981	WPAUL	109+64.00	13.0'	LT	CB		6.2			R - 3067V	YES	901.76	895.86	895.18		38				
5981	5978	WPAUL	109+64.00	25.0'	RT	CB		7.4			R - 3067V	YES	902.12	895.00	893.98			57			
5983	5977	EPAUL	112+06.58	48.9'	RT	CB	3.4				M - 7		901.72	898.43	898.19				24		
6007	5979	WPAUL	109+64.20	189.0'	LT	CB								897.32	897.29	8				③ ④	
6139	5978	EPAUL	110+36.00	47.2'	RT	CB								895.51	895.43	8				③ ④	
TOTALS							3.4	27.7	3.5								16	91	57	209	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CONNECT TO EXISTING STORM SEWER.
- ④ FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.



5977	5983
5979	6007
5980	6139
5981	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 10:00

DISTRICT: METRO
 PLOT NAME: Im-123.dwg
 PATH & FILENAME: S:\Design\06\0208\23\Final\0208123.dwg

DRAINAGE TABULATION (THIS SHEET ONLY)

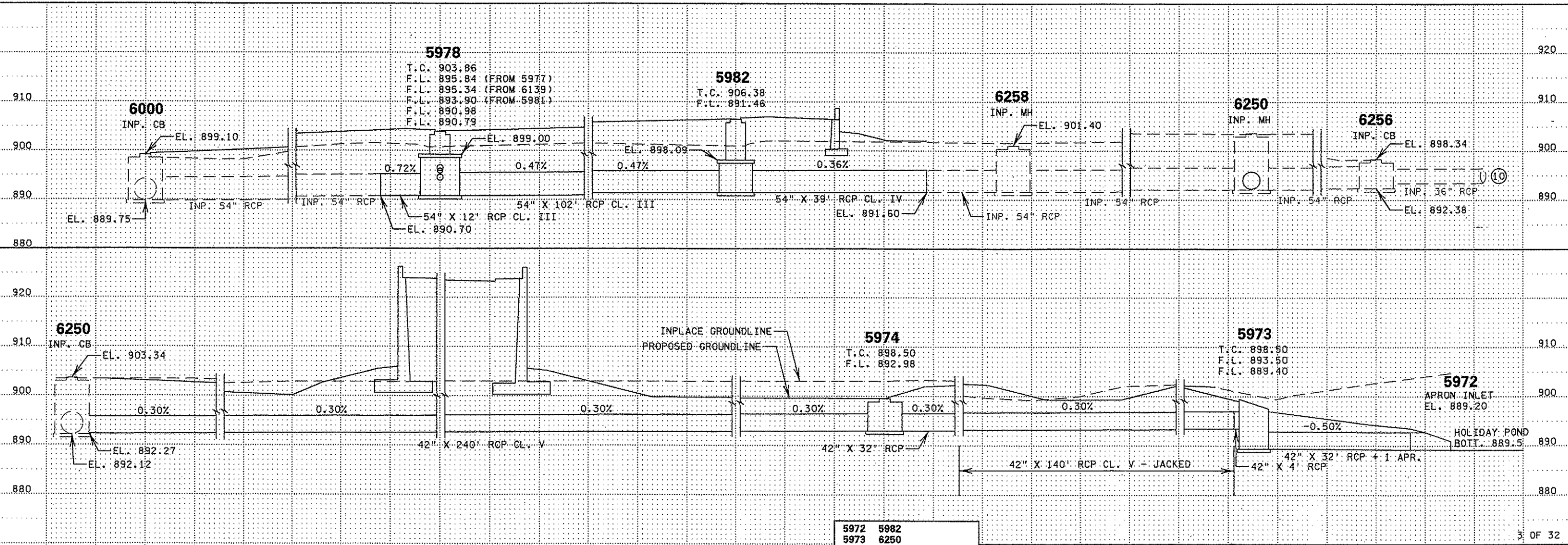
STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										APRON TYPE	REMARKS						
					TYPE	DESIGN/PAY HEIGHT				CASTING ^① ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ^②			42" RCP	42" RCP	42" RCP	54" RCP	54" RCP	APRON EACH
						48-4020	84-4020	96-4020	DES SPEC 1								CL II	CL V	CL V JACKED	CL III	CL IV	
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	LIN FT	LIN FT	LIN FT	EACH				LIN FT	LIN FT	LIN FT	LIN FT	LIN FT						
5972	5973	65NB	790+40.00	75.0' RT	APR											1	RC APRON	⑤				
5973	5974	65NB	790+40.00	35.0' RT	CB				1									⑨				
5974		65SB	790+39.45	67.0' LT						A-7D								③				
15974	6250	65SB	790+39.45	64.7' LT	MH		6.6				YES		240					④				
5978		EPAUL	110+23.15	25.0' RT	CB	4.3				R-3067V	YES	903.86						③				
15978	6000	EPAUL	110+23.15	22.1' RT	CB			9.1			YES				12			④ ⑥ ⑧				
5982		WPAUL	110+79.50	13.0' LT	CB	7.9				R-3067V	YES	906.38						③				
15982	5978	WPAUL	110+79.50	10.7' LT	CB		7.3				YES			102				④				
6250	6258	EPAUL	114+48.06	78.6' LT	MH													⑦				
6256	6250	65SB	794+69.90	119.6' LT	CB													⑩				
6258	5982	EPAUL	111+34.75	88.6' LT	MH										39			⑥ ⑧				
TOTALS						12.2	13.9	9.1	1					68	240	140	114	39	1			

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.

- ⑤ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- ⑥ CONNECT TO EXISTING STORM SEWER.
- ⑦ CONNECT TO EXISTING DRAINAGE STRUCTURE.
- ⑧ FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.

- ⑨ FOR DETAILS, SEE SHEET NO. 396.
- ⑩ CONSTRUCT BULKHEAD AT THE WEST R/W LINE OF TH 65.



5972	5982
5973	6250
5974	6256
5978	6258

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 12:44

DISTRICT: METRO
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DRAINAGE TABULATION (THIS SHEET ONLY)

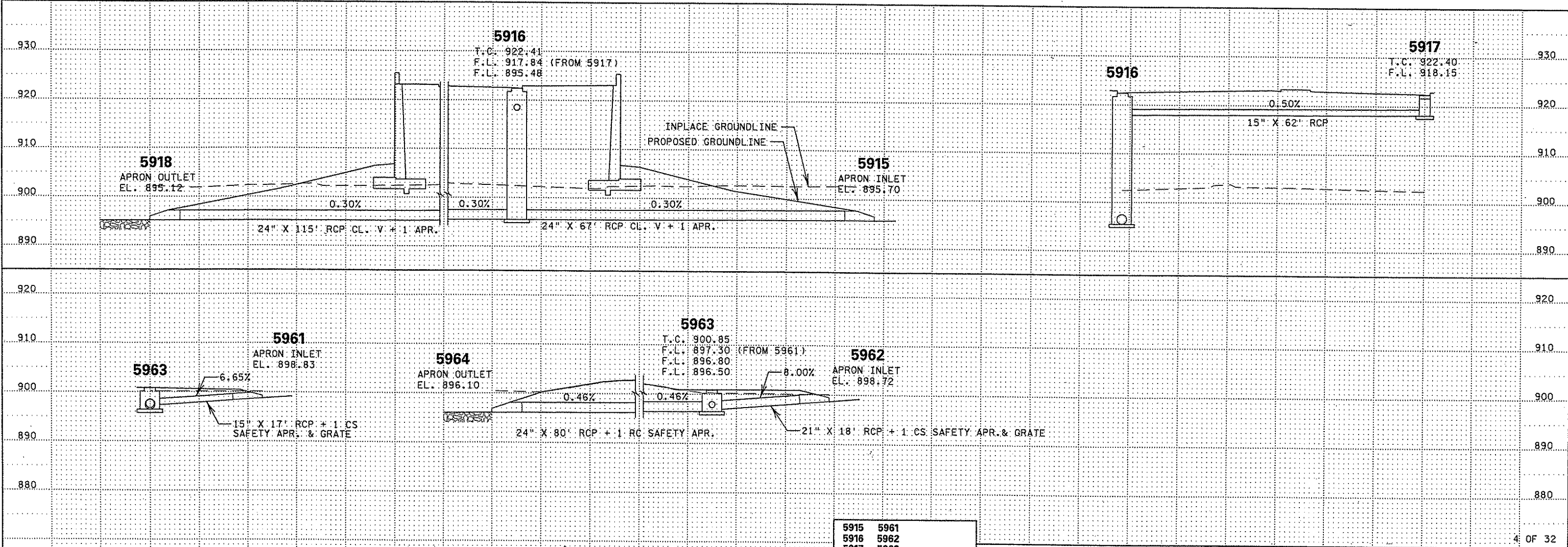
STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										GUIDE POSTS TYPE B EACH	REMARKS					
					TYPE	DESIGN/PAY HEIGHT		CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ②	15"	21"			24"	24"	APRON EACH	APRON TYPE	
						48-4020	DES SPEC						CL II	CL II			CL II	CL V			
FROM	TO	ALIGN.	STATION	OFFSET	LIN FT	LIN FT			LIN FT	LIN FT	LIN FT	LIN FT									
5915	5916	65SB	792+88.29	56.3' LT	APR								67	1	RC APRON	1	⑥				
5916	5918	WPAUL	114+44.50	13.0' LT	CB	27.2		R - 3067V	YES	922.41	895.48	895.12					⑥				
5917	5916	EPAUL	114+64.80	25.0' RT	CB		4.6	R - 3067V	YES	922.40	918.14	917.85	62				⑥				
5918		65SB	791+18.84	58.7' LT	APR									1	RC APRON	1	⑤				
5961	5963	65NB	793+77.00	37.5' LT	APR						898.83	897.43	17	1	CS APRON	1	⑥ ⑧				
5962	5963	65NB	794+24.00	37.5' LT	APR						898.72	896.96		1	CS APRON	1	⑥ ⑧				
5963		65NB	794+00.00	37.5' LT				A - 7D		900.85							③				
15963	5964	65NB	794+00.00	36.7' LT	MH	4.5			YES		896.49	896.10					④ ⑥				
5964		65NB	794+00.00	49.0' RT	APR						896.10			1	RC APRON	1	⑤ ⑦				
TOTALS							31.7	4.6						79	18	80	182	5		5	

PLOTTED/REVISED: 28-MAR-2007 12:18

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.

- ⑤ FOR RIP RAP TABULATION, SEE SHEET NO. 32.
- ⑥ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- ⑦ SAFETY APRON.
- ⑧ SAFETY APRON AND GRATE DESIGN 3128.



DISTRICT #: METRO
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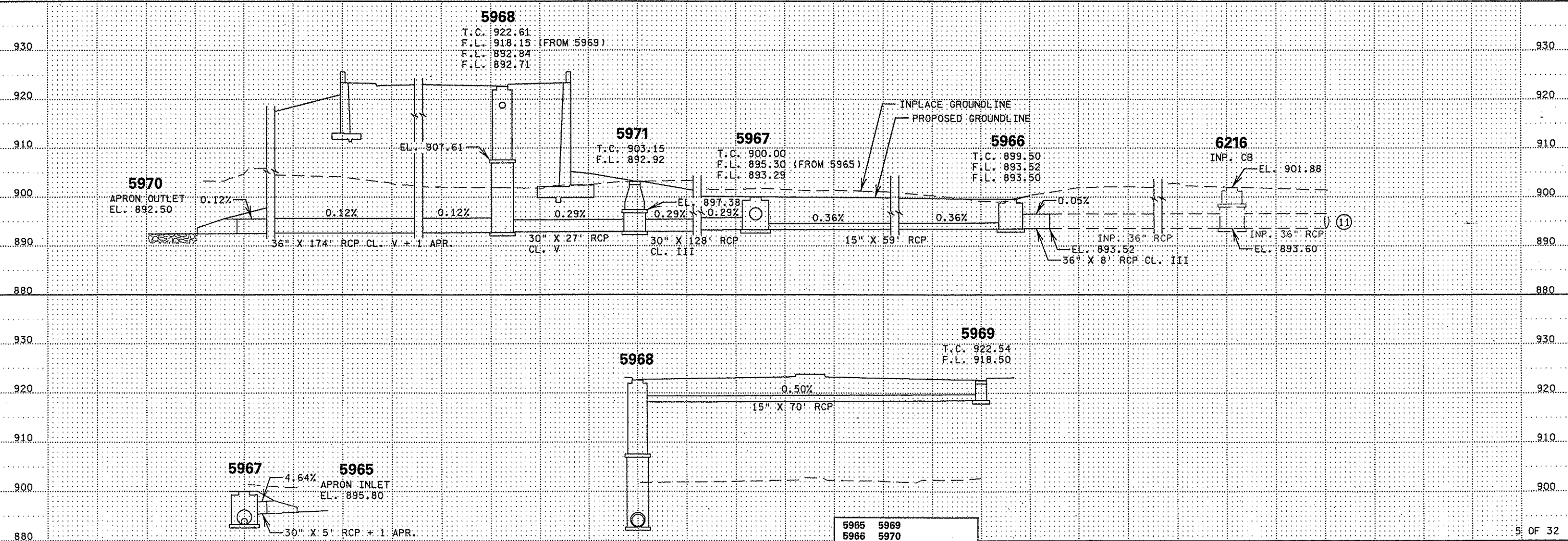
5915	5961
5916	5962
5917	5963
5918	5964

DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											15" RCP CL II LIN FT	30" RCP CL II LIN FT	30" RCP CL III LIN FT	30" RCP CL V LIN FT	36" RCP CL III LIN FT	36" RCP CL V LIN FT	PLASTIC OPTION (3)	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS	
					DESIGN/PAY HEIGHT						CASTING (1) ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)												
					TYPE	A OR F LIN FT	48-4020 LIN FT	54-4020 LIN FT	60-4020 LIN FT	66-4020 LIN FT																	DES SPEC LIN FT
5965	5967	65NB	794+00.00	58.2' RT	APR								A-7D		899.50	895.80	895.40		5			1	RC APRON	1	(7) (10)		
5966		65NB	794+58.49	74.6' RT																						(4)	
15966	5967	65NB	794+58.49	73.3' RT	MH				6.1					YES		893.49	893.30	59								(5)	
5967		65NB	794+00.00	69.0' RT									A-7D		900.00											(4)	
15967	5968	65NB	794+00.00	67.4' RT	MH					6.8				YES		893.28	892.85			128						(5)	
5968		WPAUL	117+11.25	13.0' LT	CB		14.6						R-3067V	YES	922.61											(4)	
15968	5970	WPAUL	117+11.25	11.9' LT	CB			15.6						YES		892.71	892.50					174				(5) (7)	
5969	5968	EPAUL	117+30.00	25.0' RT	CB						4.3		R-3067V		922.54	918.49	918.16	70									
5970		65NB	790+69.92	115.0' RT	APR											892.50						1	RC APRON	1	(6)		
5971		65NB	792+72.00	72.5' RT	MH	5.3							A-7D	YES	903.15											(4)	
15971	5968	65NB	792+72.00	71.4' RT	MH			5.1						YES		892.91	892.85			27						(5)	
6216	5966	65NB	794+62.00	219.7' RT	CB											893.52	893.52							8		(8) (9) (11)	
TOTALS						5.3	14.6	20.7	6.1	6.8	4.3							129	5	27	128	8	174	2		2	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- (4) CENTER OF CASTING.
- (5) CENTER OF STRUCTURE.
- (6) FOR RIP RAP TABULATION, SEE SHEET NO. 32.
- (7) TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- (8) FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.
- (9) CONNECT TO EXISTING STORM SEWER.
- (10) SAFETY APRON.
- (11) CONSTRUCT BULKHEAD AT WEST R/W LINE OF ABERDEEN ST.



5965	5969
5966	5970
5967	5971
5968	6216

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 12:44

DISTRICT #: METRO
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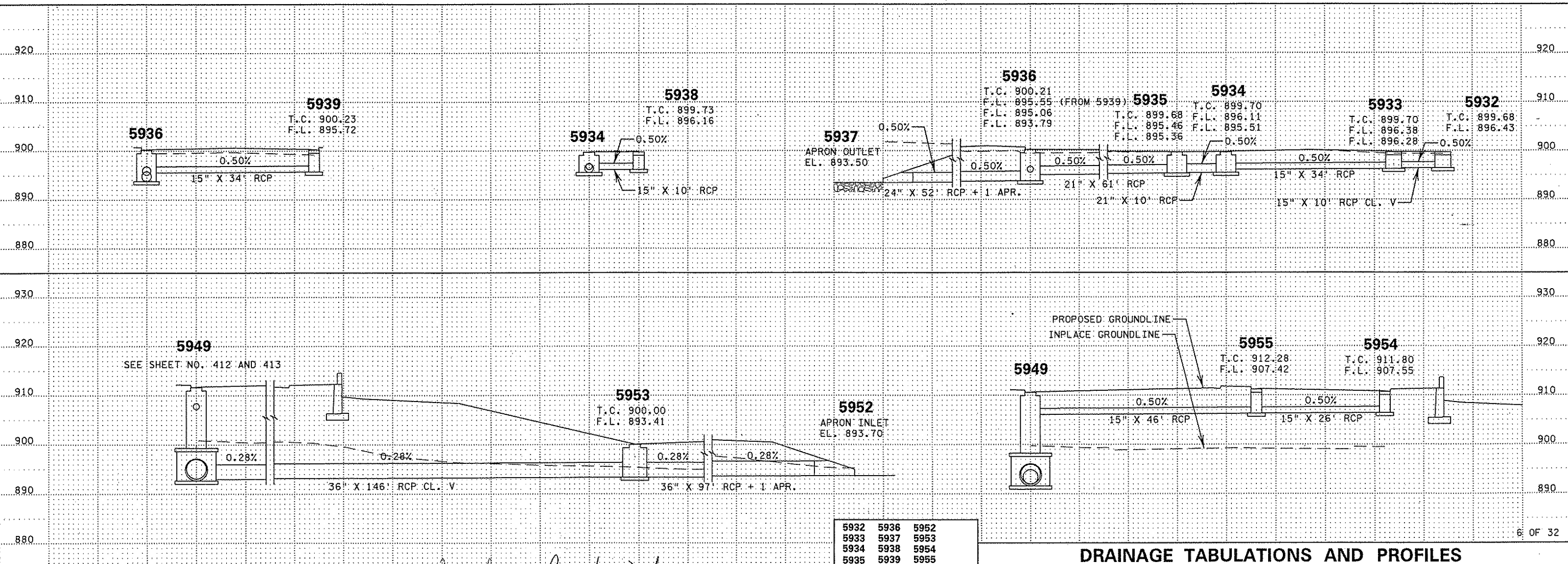
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES							TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ②	15" RCP CL II LIN FT	15" RCP CL V LIN FT	21" RCP CL II LIN FT	24" RCP CL II LIN FT	36" RCP CL II LIN FT	36" RCP CL V LIN FT	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS		
					DESIGN/PAY HEIGHT			CASTING ① ASSEMBLY TYPE	STEPS REQ'D	TYPE	48-4020 LIN FT														60-4020 LIN FT	DES SPEC LIN FT
					FLWS FROM	FLWS TO	ALIGN.																			
5932	5933	ABERD	100+22.09	17.0' RT	CB			3.6	R-3067V			899.68	896.41	896.40												
5933	5934	ABERD	100+12.09	17.0' RT	CB			3.7	R-3067V			899.70	896.26	896.13	34											
5934	5935	ABERD	100+12.09	17.0' LT	CB	4.5			R-3067V	YES		899.70	895.49	895.48			10									
5935	5936	ABERD	100+22.09	17.0' LT	CB	4.6			R-3067V	YES		899.68	895.34	895.07			61									
5936		ABERD	100+83.00	17.0' LT					R-3067V			900.21											③			
15936	5937	ABERD	100+83.00	16.2' LT	CB	6.7				YES			893.78	893.50										④ ⑤ ⑥		
5937		ABERD	101+31.00	57.6' LT	APR								893.50							1	RC APRON	1				
5938	5934	ABERD	100+01.90	17.0' LT	CB			3.9	R-3067V			899.73	896.14	896.13	10											
5939	5936	ABERD	100+84.00	17.0' RT	CB			4.8	R-3067V	YES		900.23	895.70	895.56	34											
5952	5953	ABERD	105+51.00	60.0' RT	APR								893.70	893.41			97		1	RC APRON	1		⑥			
5953		ABERD	105+40.50	45.0' LT					M-11			900.00												③		
15953	5949	ABERD	105+40.50	43.7' LT	CB		6.6			YES			893.40	893.00				146						④		
5954	5955	WPAUL	120+10.50	13.0' LT	CB			4.6	R-3067V	YES		911.80	907.53	907.45	26											
5955	5949	WPAUL	120+10.50	13.0' RT	CB			5.2	R-3067V	YES		912.28	907.40	907.19	46											
TOTALS							15.8	6.6	25.8						150	10	71	52	97	146	2		2			

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.

- ⑤ FOR RIP RAP TABULATION, SEE SHEET NO. 32.
- ⑥ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).



DRAINAGE TABULATIONS AND PROFILES

DRAWN BY: NJ

CHECKED BY: EK

CERTIFIED BY *Josephine Lundquist*

LIC. NO. 20534 DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 412 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 10:00

DISTRICT #: METRO
 PLOT NAME: Im-123_d12_6
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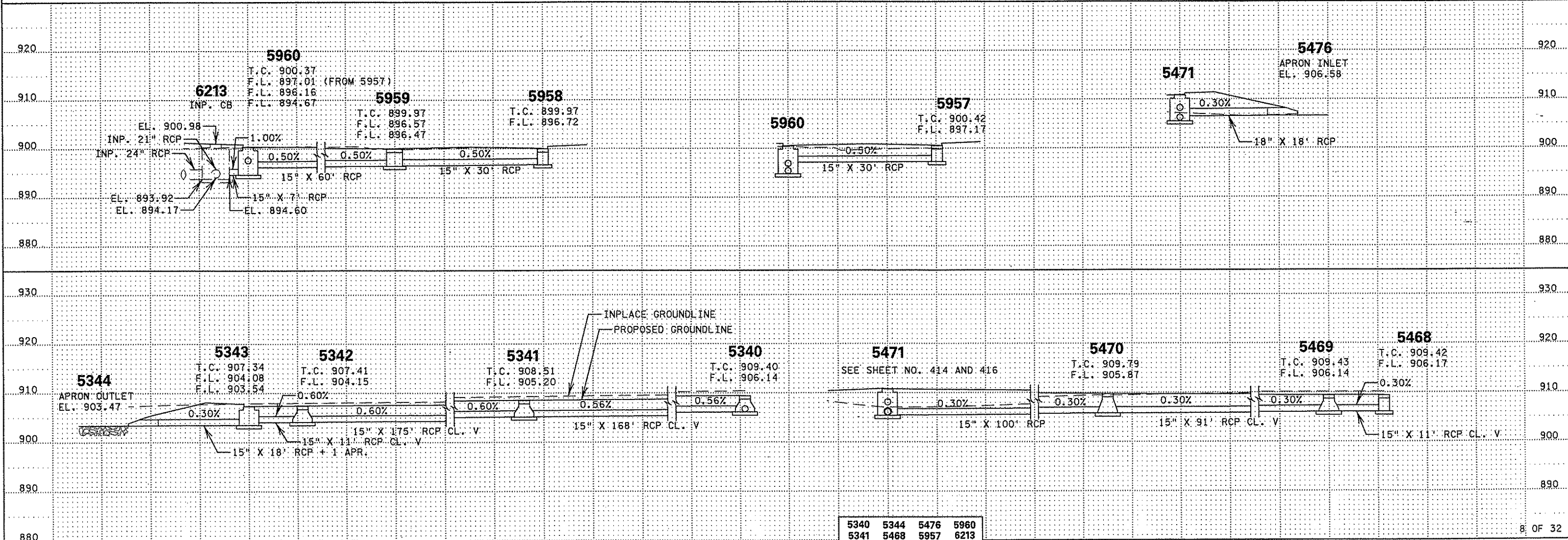
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES								TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ②	15" RCP CL II LIN FT	15" RCP CL V LIN FT	18" RCP CL II LIN FT	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS
					DESIGN/PAY HEIGHT				CASTING ASSEMBLY TYPE ①	STEPS REQ'D	C OR H LIN FT	C OR G LIN FT										
FROM	TO	ALIGN.	STATION	OFFSET	TYPE																	
5340	5341	65SB	806+10.25	30.9' LT	CB		3.2				D-4	909.40	906.13	905.21		168						
5341	5342	65SB	804+42.00	26.9' LT	CB		3.2				D-4	908.51	905.19	904.16		175						
5342	5343	65SB	802+67.00	23.4' LT	CB		3.2				D-4	907.41	904.14	904.10		11						
5343		65SB	802+56.00	23.1' LT							D-4	907.34									③	
15343	5344	65SB	802+56.00	22.3' LT	CB			3.7				903.54	903.47	18							④ ⑥	
5344		65SB	802+46.00	45.5' LT	APR							903.47					1	RC APRON	1		⑤	
5468	5469	SWR	7+97.69	7.0' LT	CB	3.2					D-1	909.42	906.17	906.15		11						
5469	5470	SWR	8+09.00	7.0' LT	CB		3.2				D-4	909.43	906.13	905.87		91						
5470	5471	SWR	9+00.00	7.0' LT	CB		3.9				D-4	909.79	905.86	905.57	100							
5476	5471	SWR	10+00.00	32.5' LT	APR							906.58	906.51			18	1	RC APRON	1		⑥	
5957	5960	ABERD	106+94.00	15.0' LT	CB				3.6	R-3067V	900.42	897.14	897.04	30								
5958	5959	ABERD	107+60.64	15.0' LT	CB				3.6	R-3067V	899.97	896.69	896.59	30								
5959	5960	ABERD	107+60.64	15.0' RT	CB				3.8	R-3067V	899.97	896.44	896.19	60								
5960	6213	ABERD	106+97.50	15.0' RT	CB			6.0		R-3067V	900.37	894.62	894.60	7							⑦	
6213		ABERD	106+92.96	20.0' RT	MH							893.92									⑧	
TOTALS						3.2	16.7	9.7	11.0						245	456	18	2		2		

PLOTTED/REVISED: 31-JAN-2007 12:44

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
 ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 ③ CENTER OF CASTING.
 ④ CENTER OF STRUCTURE.
 ⑤ FOR RIP RAP TABULATION, SEE SHEET NO. 32.
 ⑥ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
 ⑦ CONNECT TO EXISTING DRAINAGE STRUCTURE.
 ⑧ FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.


 DISTRICT #: METRO
 PLOT NAME: Im123_d12.8
 PATH & FILENAME: S:\Design\065\0208\123\Final\0208123_d12.dgn

5340	5344	5476	5960
5341	5468	5957	6213
5342	5469	5958	
5343	5470	5959	

DRAINAGE TABULATIONS AND PROFILES

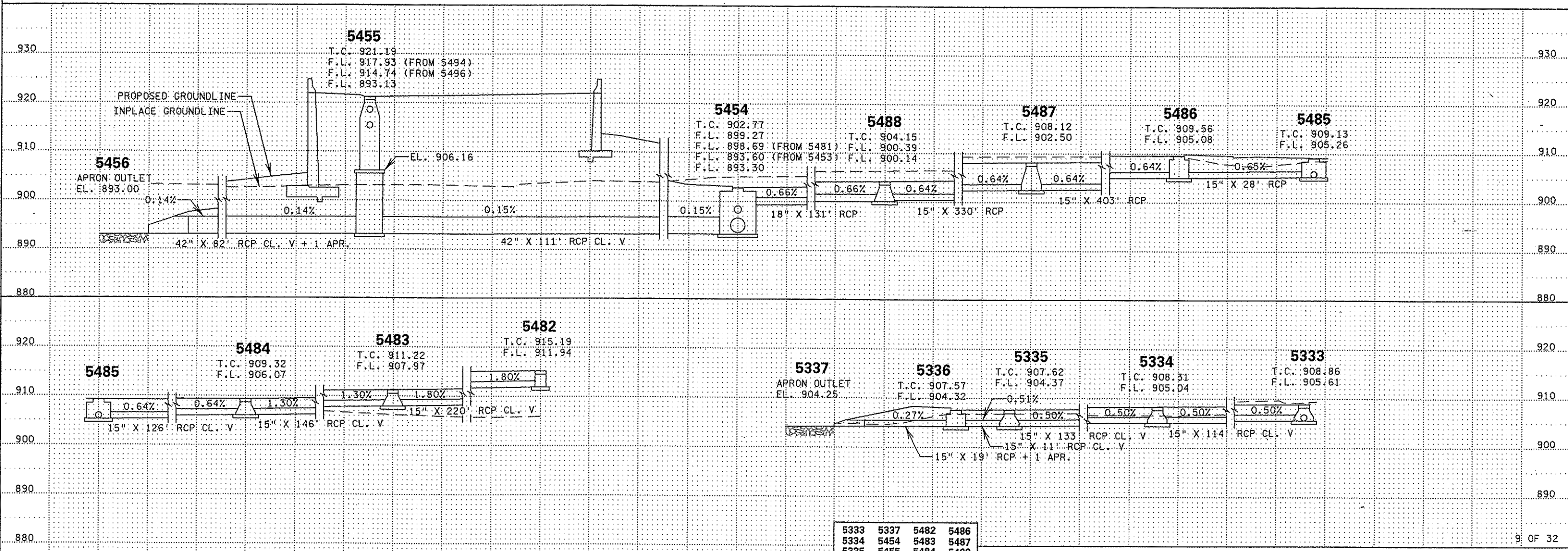
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.	STRUCTURE LOCATION			DRAINAGE STRUCTURES								CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)	15" RCP CL II LIN FT	15" RCP CL V LIN FT	18" RCP CL II LIN FT	42" RCP CL V LIN FT	PLASTIC OPTION (3)	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS
	FLOW FROM	FLOW TO	ALIGN.	STATION	OFFSET	TYPE	C OR H LIN FT	C OR G LIN FT	A OR F LIN FT	48-4020 LIN FT	60-4020 LIN FT														
5333	5334	65NB	805+47.50	40.5' RT	CB		3.2					D-4	908.86	905.60	905.05		114								
5334	5335	65NB	804+34.00	32.9' RT	CB		3.2					D-4	908.31	905.03	904.38		133								
5335	5336	65NB	803+01.00	24.1' RT	CB		3.2					D-4	907.62	904.36	904.33		11								
5336		65NB	802+90.00	23.4' RT								D-4	907.57										(4)		
15336	5337	65NB	802+90.00	22.6' RT	CB				3.2					904.31	904.25		19						(5)(7)		
5337		65NB	802+80.00	46.0' RT	APR									904.25						1	RC APRON	1	(6)		
5454		65NB	815+35.00	23.0' RT								B-9	902.77										(4)		
15454	5455	65NB	815+35.00	21.4' RT	CB					9.4		YES		893.30	893.13			111					(5)		
5455		SER	14+93.00	19.0' RT	CB			14.3				D-4	YES	921.19									(4)		
15455	5456	SER	14+93.00	17.4' RT	CB					13.7		YES		893.13	893.00			82					(5)(7)		
5456		SER	15+50.00	85.1' RT	APR									893.00						1	RC APRON	1	(6)		
5482	5483	SER	11+47.00	7.0' RT	CB	3.2						D-4	915.19	911.90	908.00		220								
5483	5484	SER	9+27.00	7.0' RT	CB			3.2				D-4	911.22	907.94	906.10		146								
5484	5485	SER	7+81.00	7.0' RT	CB			3.2				D-4	909.32	906.06	905.27		126								
5485		65NB	806+56.00	47.8' RT								D-4	909.13										(4)		
15485	5486	65NB	806+56.00	46.5' RT	CB					3.8				905.25	905.09	28							(5)		
5486		65NB	806+71.50	25.0' RT								B-9	909.56										(4)		
15486	5487	65NB	806+71.50	24.2' RT	CB				4.4					905.07	902.51	403			CP/PVC				(5)		
5487	5488	65NB	810+74.00	23.0' RT	CB			5.6				B-9	YES	908.12	902.49	900.40	330								
5488	5454	65NB	814+04.00	23.0' RT	CB			3.9				B-9		904.15	900.13	899.29									
TOTALS							3.2	25.5	14.3	7.6	3.8	23.1						780	750	131	193		2		2

PLOTTED/REVISED: 31-JAN-2007 10:01

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
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 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

(1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
 (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
 (4) CENTER OF CASTING.
 (5) CENTER OF STRUCTURE.
 (6) FOR RIP RAP TABULATION, SEE SHEET NO. 32.
 (7) TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).



DISTRICT #: METRO
 PLOT NAME: Imr123.dwg
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5334	5454	5483	5487
5335	5455	5484	5488
5336	5456	5485	

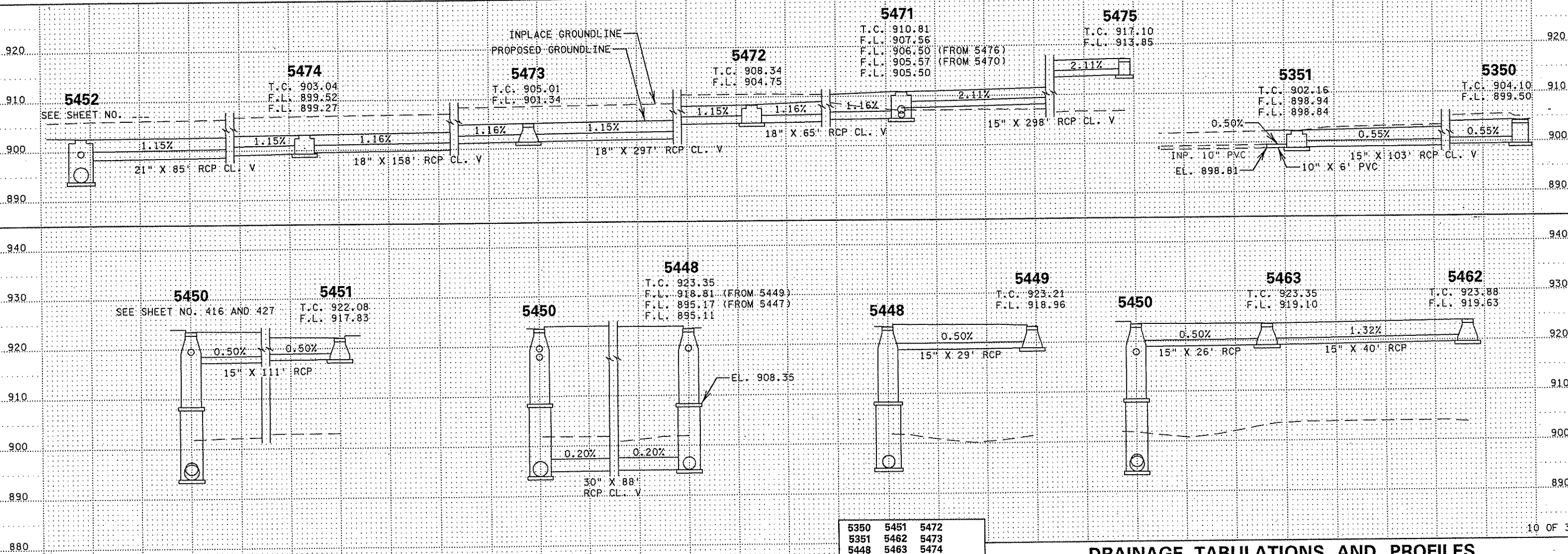
DRAINAGE TABULATIONS AND PROFILES

DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										REMARKS								
					TYPE	DESIGN/PAY HEIGHT					CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV	OUTLET ELEV.		INLET ELEV. (2)	15" RCP	15" RCP	18" RCP	21" RCP	30" RCP	10" PVC	
						C OR H	C OR G	48-4020	60-4020	DES SPEC							CL II	CL V	CL V	CL V	CL V	CL V	CL V
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT			LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT						
5350	5351	SWR	15+03.15	32.7' LT	CB					4.9	R-3067V	YES	904.10	899.48	898.94							6	(5)
5351		SWR	15+99.81	35.9' LT	CB			3.3			R-3067V		902.16	898.84	898.81								(3)
5448		CSAH14E	235+58.50	33.0' RT	CB			14.3			B-14	YES	923.35										(4)
15448	5450	CSAH14E	235+58.50	31.7' RT	CB				13.9			YES		895.11	894.93							88	
5449	5448	SWRCON	17+55.00	26.9' RT	CB			4.2			B-14		923.21	918.95	918.82	29							
5451	5450	SWR	15+97.50	19.0' RT	CB			4.2			D-4		922.08	917.82	917.27	111							
5462	5463	SWR	17+50.00	22.9' RT	CB			4.2			D-4		923.88	919.60	919.12	40							
5463	5450	SWR	17+06.40	19.2' RT	CB			4.2			D-4		923.35	919.09	918.96	26							
5471	5472	SWR	9+99.75	8.6' LT	CB				5.3		D-4	YES	910.81	905.48	904.77								
5472	5473	65SB	810+46.00	23.0' LT	CB			3.5			B-9		908.34	904.73	901.36								
5473	5474	65SB	813+42.50	23.0' LT	CB			3.6			B-9		905.01	901.32	899.54								
5474	5452	65SB	815+00.00	23.0' LT	CB				3.7		B-9		903.04	899.25	898.29								
5475	5471	SWR	12+98.00	14.5' LT	CB			3.2			D-4		917.10	913.80	907.60								
TOTALS								3.2	20.4	30.1	13.9	4.9					206	401	520	85	88	6	

NOTE: STA. AND OFFSET IS AT
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 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.
- ⑤ CONNECT TO EXISTING STORM SEWER.



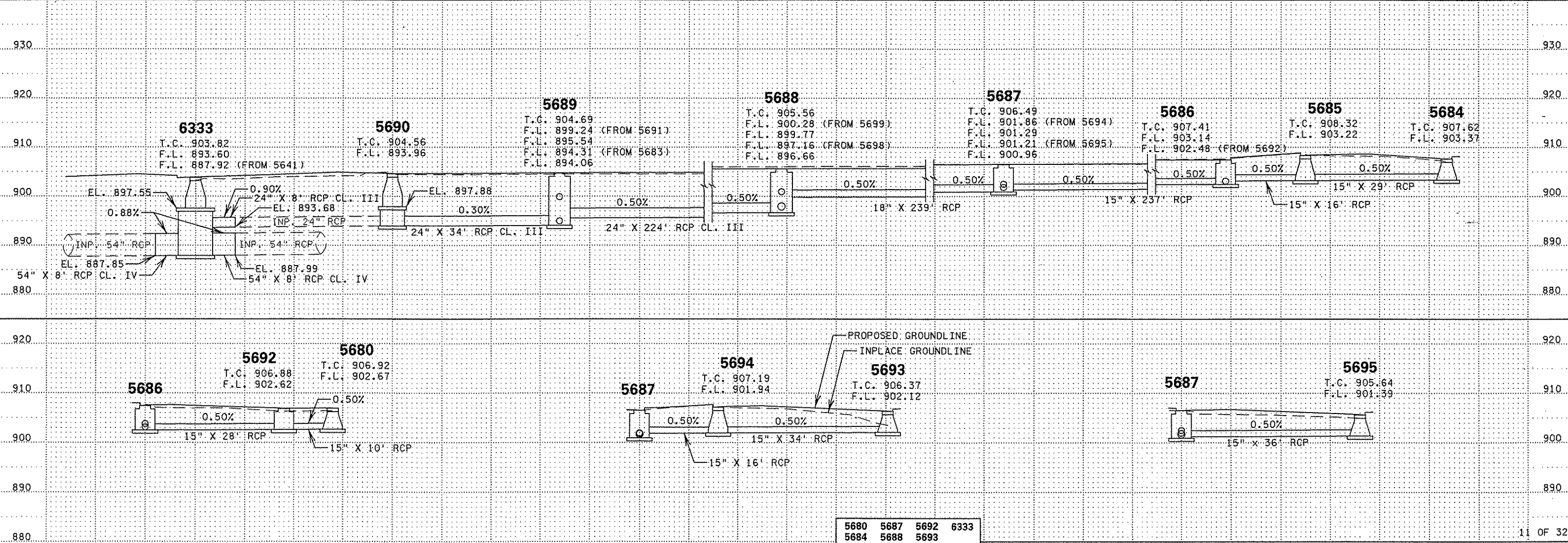
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											PLASTIC OPTION	REMARKS				
					DESIGN/PAY HEIGHT						CASTING ASSEMBLY	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.			15" RCP	18" RCP	24" RCP	54" RCP
					CL II	CL II	CL III	CL IV	CL II	CL II								CL III	CL IV		
FROM	TO	ALIGN.	STATION	OFFSET	TYPE	C OR G	A OR F	48-4020	54-4020	60-4020	84-4020	TYPE	②	LIN FT	LIN FT	LIN FT	LIN FT	③			
5680	5692	CSAH14W	218+77.00	21.5' LT	CB	4.2						B-5		906.92	902.66	902.63	10				
5684	5685	CSAH14E	218+87.00	13.5' RT	CB	4.2						B-5		907.62	903.36	903.24	29				
5685	5686	CSAH14E	218+85.00	15.0' LT	CB	5.0						B-5	YES	908.32	903.22	903.15	16		PVC		
5686		CSAH14W	218+85.00	6.4' RT								B-5		907.41					④		
15686	5687	CSAH14W	218+85.00	5.6' RT	CB			4.9					YES		902.47	901.31	237		CP/PVC		
5687		CSAH14W	221+22.00	8.6' RT								B-5		906.49					④		
15687	5688	CSAH14W	221+22.00	7.8' RT	CB			5.5					YES		900.95	899.78		239	CP/PVC		
5688		CSAH14W	223+61.00	10.8' RT								B-5		905.56					④		
15688	5689	CSAH14W	223+61.00	9.7' RT	CB				8.8				YES		896.65	895.55		224	CP/PVC		
5689		CSAH14W	225+85.00	12.8' RT								B-5		904.69					④		
15689	5690	CSAH14W	225+85.00	11.7' RT	CB				10.6				YES		894.06	893.97		34	CP/PVC		
5690		CSAH14W	226+18.90	12.8' RT	CB		5.9					B-5	YES	904.56					④		
15690	6333	CSAH14W	226+18.90	11.5' RT	CB					4.6			YES		893.68	893.60		8	⑤ ⑥ ⑦		
5692		CSAH14W	218+87.00	21.5' LT								B-5		906.88					④		
15692	5686	CSAH14W	218+87.00	20.7' LT	CB			4.2							902.61	902.49	28		PVC		
5693	5694	CSAH14E	221+24.00	19.3' RT	CB	4.2						B-5		906.37	902.11	901.95	34				
5694	5687	CSAH14E	221+21.00	15.0' LT	CB	5.2						B-5	YES	907.19	901.93	901.87	16		CP/PVC		
5695	5687	CSAH14W	221+24.00	27.4' LT	CB	4.2						B-5		905.64	901.38	901.22	36				
6333		CSAH14E	226+16.00	85.3' LT	MH		5.7					A-7D	YES	903.82					④		
16333	6297	CSAH14E	226+16.00	83.0' LT	MH						10.3		YES		887.99	887.85			⑤ ⑥ ⑦		
TOTALS						27.0	11.6	14.6	19.4	4.6	10.3						406	239	266	16	

NOTE: STA. AND OFFSET IS AT
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 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
 ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
 ④ CENTER OF CASTING.
 ⑤ CENTER OF STRUCTURE.
 ⑥ CONNECT TO EXISTING STORM SEWER.
 ⑦ FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.



5680	5687	5692	6333
5684	5688	5693	
5685	5689	5694	
5686	5690	5695	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 10:01

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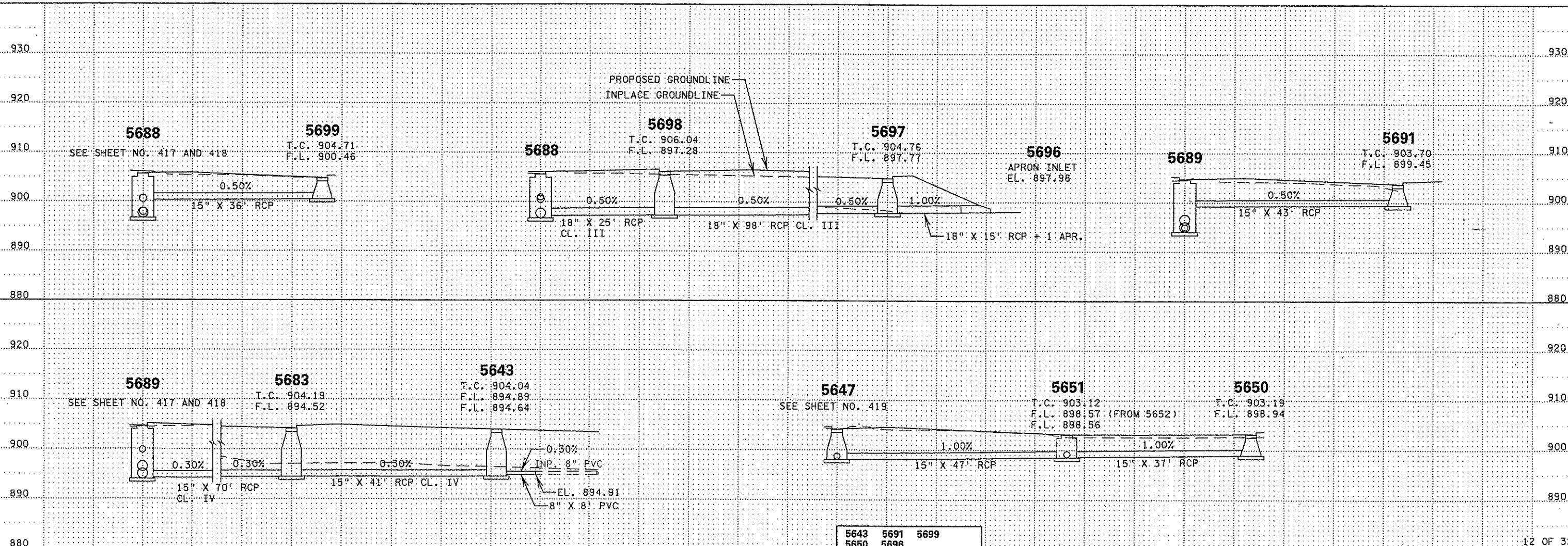
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											GUIDE POSTS TYPE B EACH	REMARKS												
					TYPE	DESIGN/PAY HEIGHT			CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ②	15" RCP	15" RCP			18" RCP	18" RCP	8" PVC	PLASTIC OPTION ③	APRON EACH	APRON TYPE						
						C OR G LIN FT	A OR F LIN FT	48-4020 LIN FT						CL II LIN FT	CL IV LIN FT			CL II LIN FT	CL III LIN FT	LIN FT									
5643	5683	CSAH14E	226+27.00	39.0' RT	MH				A-7D	YES	904.04	894.63	894.52												(7) (8)				
5650	5651	CSAH14W	227+05.00	31.9' LT	CB	4.2	9.5		B-5		903.19	898.92	898.59	37	41														
5651		CSAH14W	227+41.91	32.3' LT	CB				B-5		903.12															(4)			
15651	5647	CSAH14W	227+41.91	31.5' LT	CB			4.5		YES		898.54	898.09	47						CP/PVC						(5)			
5683	5689	CSAH14E	225+88.31	25.0' RT	CB		9.6		B-5	YES	904.19	894.51	894.31		70					CP/PVC									
5691	5689	CSAH14W	225+92.00	29.5' LT	CB	4.2			B-5		903.70	899.44	899.24	43															
5696	5697	CSAH14E	224+50.00	42.2' RT	APR						897.98	897.98	897.80					15			1	RC APRON	1		(6)				
5697	5698	CSAH14E	224+50.00	21.3' RT	CB		6.9		B-5	YES	904.77	897.77	897.29							98									
5698	5688	CSAH14E	223+59.00	15.0' LT	CB		8.7		B-5	YES	906.05	897.27	897.16							25									
5699	5688	CSAH14W	223+63.00	25.2' LT	CB	4.2			B-5		904.71	900.45	900.28	36															
TOTALS																					163	111	15	123	8		1		1

NOTE: STA. AND OFFSET IS AT
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 - END OF RC APRON, CS SAFETY APRON
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- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- ④ CENTER OF CASTING.

- ⑤ CENTER OF STRUCTURE.
- ⑥ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- ⑦ CONNECT TO EXISTING STORM SEWER.
- ⑧ FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.



5643	5691	5699
5650	5696	
5651	5697	
5683	5698	

DRAINAGE TABULATIONS AND PROFILES

DISTRICT #: METRO
 PLOT NAME: Im-23_dtl_12
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PLOTTED/REVISED: 31-JAN-2007 10:01

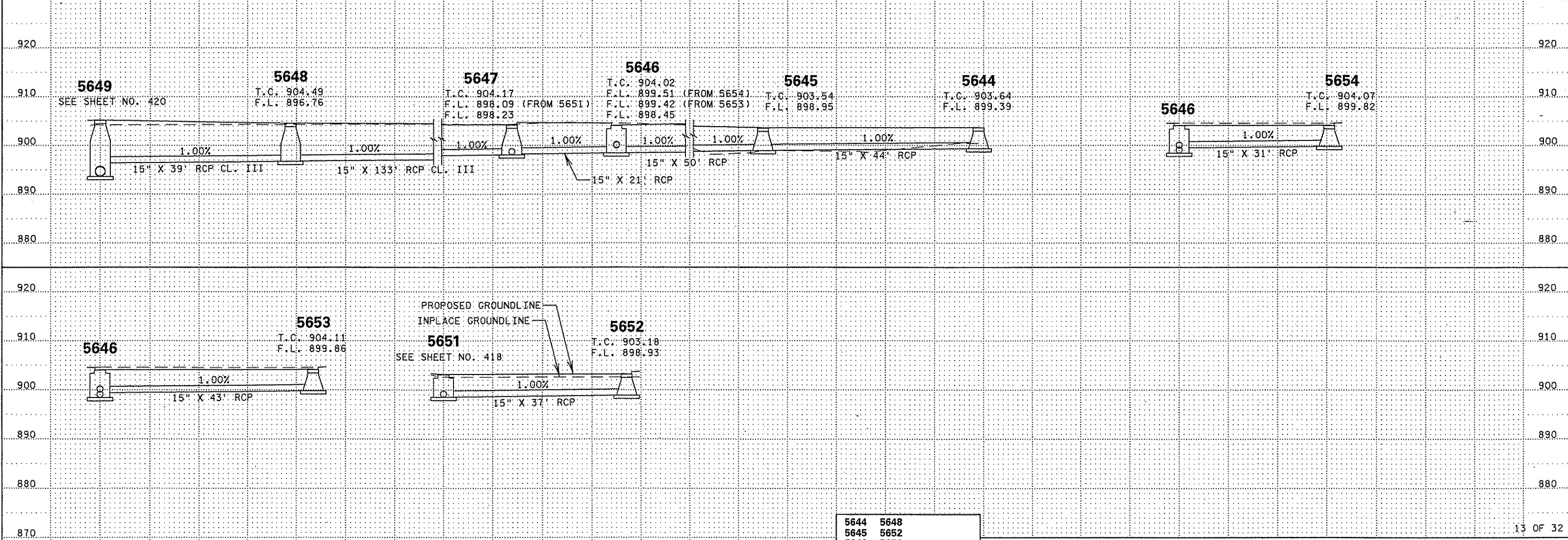
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES							TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)	15" RCP CL II LIN FT	15" RCP CL III LIN FT	PLASTIC OPTION (3)	REMARKS	
					DESIGN/PAY HEIGHT			CASTING (1) ASSEMBLY TYPE	STEPS REQ'D	C OR G LIN FT	A OR F LIN FT								48-4020 LIN FT
					TYPE	C OR G LIN FT	A OR F LIN FT												
5644	5645	CSAH14E	227+04.50	25.0' RT	CB	4.2			B-5		903.64	899.37	898.97	44					
5645	5646	CSAH14E	227+48.47	25.0' RT	CB	4.5			B-5		903.54	898.93	898.47	50		CP/PVC			
5646		CSAH14E	227+48.47	25.0' LT					B-5		904.02						(3)		
15646	5647	CSAH14E	227+48.47	24.2' LT	CB			5.5				898.43	898.25	21		CP/PVC	(4)		
5647	5648	CSAH14W	227+41.91	14.3' RT	CB	4.2	6.0		B-5		904.17	898.07	896.78	133		CP/PVC			
5648	5649	CSAH14W	228+75.20	19.3' RT	CB		7.7		B-5		904.49	896.74	896.37	39		CP/PVC			
5652	5651	CSAH14W	227+79.00	32.6' LT	CB	4.2			B-5		903.18	898.91	898.56	37					
5653	5646	CSAH14E	227+05.00	25.0' LT	CB	4.2			B-5		904.11	899.84	899.45	43					
5654	5646	CSAH14E	227+79.00	25.0' LT	CB	4.2			B-5		904.07	899.80	899.53	31					
TOTALS						21.3	13.7	5.5						226	172				

PLOTTED/REVISED: 31-JAN-2007 10:01

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- (4) CENTER OF CASTING.
- (5) CENTER OF STRUCTURE.



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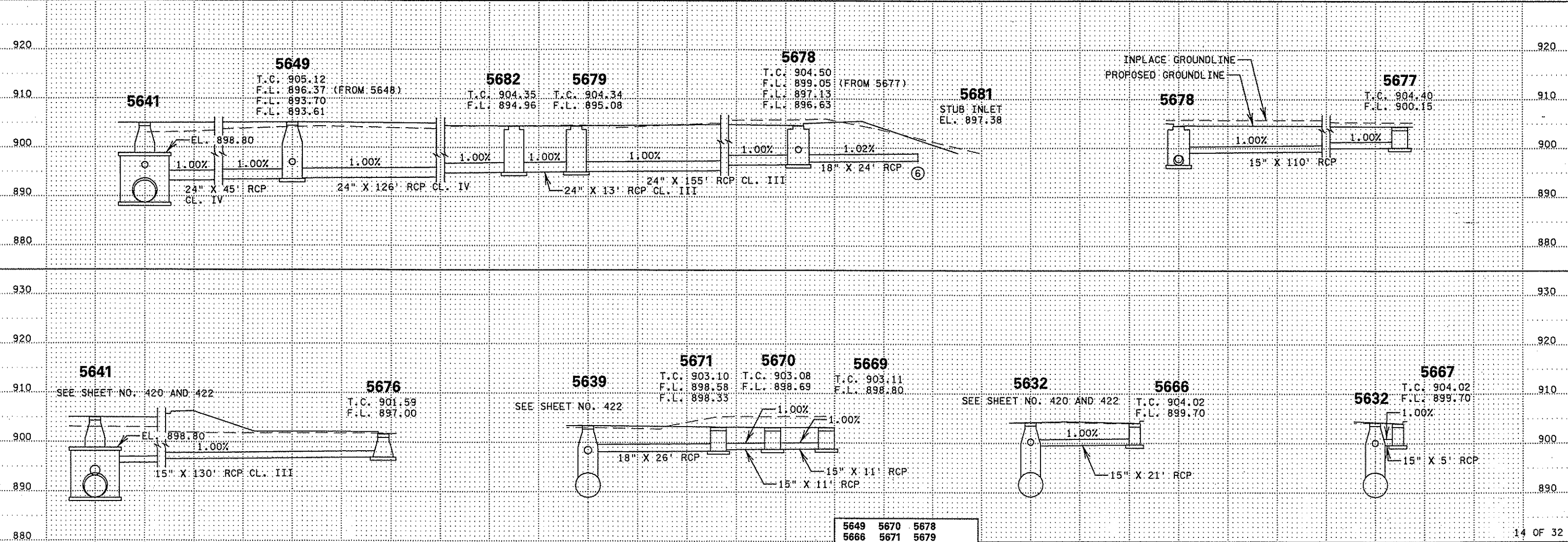
DRAINAGE TABULATIONS AND PROFILES

DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										15" RCP CL II	15" RCP CL III	18" RCP CL II	24" RCP CL III	24" RCP CL IV	PLASTIC OPTION (3)	REMARKS			
					TYPE	DESIGN/PAY HEIGHT					CASTING (1) ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.								INLET ELEV. (2)		
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET		C OR G	A OR F	48-4020	54-4020	DES SPEC					LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT		LIN FT	
5649	5641	CSAH14W	229+14.00	19.0' RT	MH							A-7D	YES	905.12	893.61	893.17								
5666	5632	ULYSS	118+25.00	12.7' RT	CB					4.6		R-3067V	YES	904.02	899.70	899.49	21							
5667	5632	ULYSS	118+25.00	13.0' LT	CB					4.6		R-3067V	YES	904.02	899.70	899.65	5							
5669	5670	ULYSS	115+75.60	25.0' RT	CB					4.6		R-3067V	YES	903.11	898.76	898.69	11							
5670	5671	ULYSS	115+64.60	25.0' RT	CB					4.7		R-3067V	YES	903.08	898.69	898.58	11							
5671	5639	ULYSS	115+53.60	25.0' RT	CB					5.1		R-3067V	YES	903.10	898.33	898.07			26					
5676	5641	CSAH14W	230+37.89	54.1' LT	CB	4.6						M-11	YES	901.59	897.00	895.70		130						
5677	5678	ULYSS	109+90.93	28.8' RT	CB					4.6		R-3067V	YES	904.40	900.15	899.05	110							
5678		ULYSS	111+00.50	37.0' RT	CB							R-3067V		904.50										(3)
15678	5679	ULYSS	111+00.50	35.9' RT	CB				8.2				YES		896.63	895.08			155					(4)
5679		ULYSS	112+45.00	25.0' LT								R-3067V		904.34										(3)
15679	5682	ULYSS	112+45.00	24.2' LT	CB			9.6					YES		895.08	894.96				13				(4)
5681	5678	ULYSS	111+06.46	60.7' RT	STUB										897.38	897.13			24					(5)(6)
5682		ULYSS	112+56.00	25.0' LT								R-3067V		904.35										(3)
15682	5649	ULYSS	112+56.00	24.2' LT	CB			9.7					YES		894.96	893.70				126				(4)
TOTALS						4.6	11.6	19.3	8.2	28.2								158	130	50	168	171		

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- (4) CENTER OF CASTING.
- (5) CENTER OF STRUCTURE.
- (6) CONSTRUCT BULKHEAD.



5649	5670	5678
5666	5671	5679
5667	5676	5681
5669	5677	5682

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 12:44

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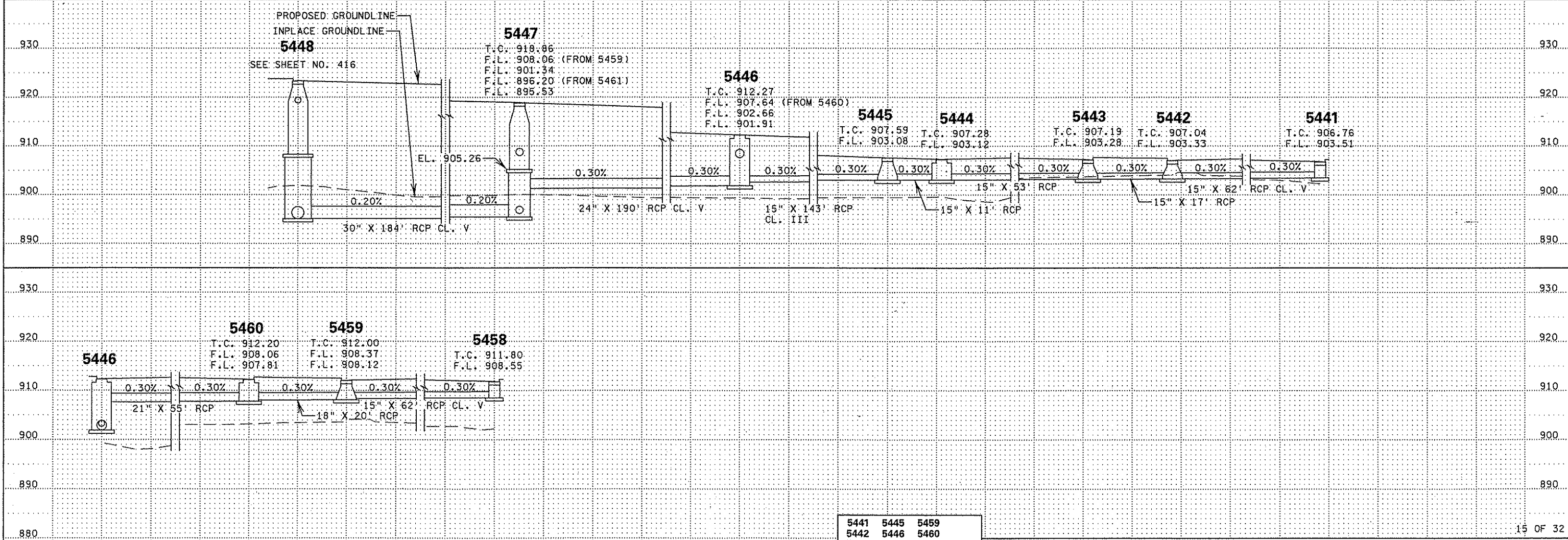
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										15" RCP CL II	15" RCP CL III	15" RCP CL V	18" RCP CL II	21" RCP CL II	24" RCP CL V	30" RCP CL V	PLASTIC OPTION ③	REMARKS	
FLOWS FROM	FLOWS TO	ALIGN.	STATION	OFFSET	TYPE	DESIGN/PAY HEIGHT					CASTING ① ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.										INLET ELEV. ②
						C OR H LIN FT	C OR G LIN FT	A OR F LIN FT	48-4020 LIN FT	60-4020 LIN FT														
5441	5442	CSAH14W	230+16.00	37.0' LT	CB	3.2						B-5		906.77	903.51	903.34								
5442	5443	CSAH14W	230+15.00	25.0' RT	CB		3.6					B-5		907.04	903.32	903.28	17							
5443	5444	CSAH14E	230+15.00	17.8' LT	CB		3.8					B-5		907.19	903.27	903.12	53							
5444		CSAH14E	230+31.00	33.0' RT								B-5		907.28									④	
15444	5445	CSAH14E	230+31.00	32.2' RT	CB				4.1						903.11	903.09	11						⑤	
5445	5446	CSAH14E	230+42.00	33.0' RT	CB		4.4					B-5		907.59	903.08	902.66		143					CP/PVC	
5446		CSAH14E	231+84.50	37.0' RT								B-5		912.27									④	
15446	5447	CSAH14E	231+84.50	36.2' RT	CB				10.3			YES		901.90	901.34						190		PVC	
5447		CSAH14E	233+74.70	37.0' RT	CB			13.6				B-5	YES	918.86									④	
15447	5448	CSAH14E	233+74.70	35.7' RT	CB					10.4		YES		895.53	895.17						184		⑤	
5458	5459	CSAH14W	231+71.00	37.0' LT	CB	3.2						B-5		911.80	908.55	908.37			62					
5459	5460	CSAH14W	231+68.00	25.0' RT	CB		3.8					B-5		912.00	908.11	908.06				20				
5460		CSAH14E	231+68.00	15.0' LT								B-5		912.20									④	
15460	5446	CSAH14E	231+68.00	14.2' LT	CB				4.3					907.80	907.65					55			⑤	
TOTALS						6.4	15.6	13.6	18.7	10.4								81	143	124	20	55	190	184

PLOTTED/REVISED: 31-JAN-2007 10:01

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441. ⑤ CENTER OF STRUCTURE.
 ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
 ④ CENTER OF CASTING.



DISTRICT #: METRO
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5444	5458	

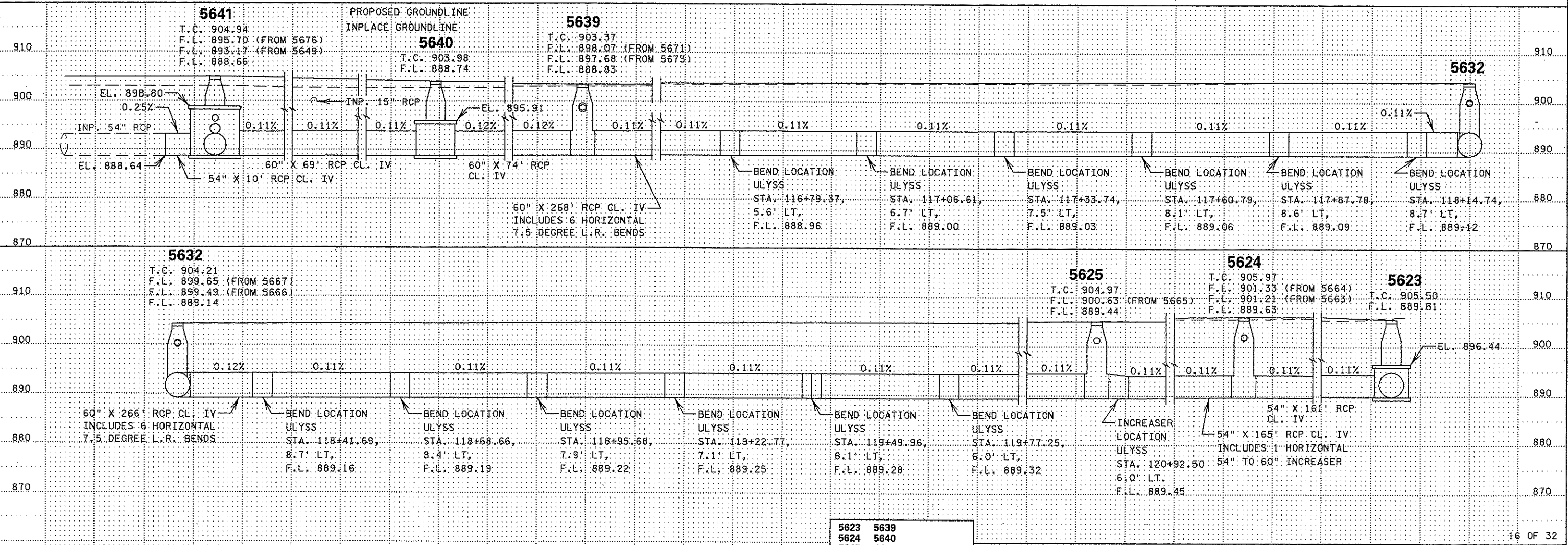
DRAINAGE TABULATIONS AND PROFILES

DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											REMARKS			
					DESIGN/PAY HEIGHT					CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ②	54" RCP CL IV LIN FT		60" RCP CL IV LIN FT		
					TYPE	A OR F LIN FT	J LIN FT	84-4020 LIN FT	96-4020 LIN FT									120-4020 LIN FT	
5623		NWR	23+51.00	50.0' LT	MH	8.5						A-7D	YES	905.50					③
15623	5624	NWR	23+51.00	46.3' LT	MH			7.3					YES		889.81	889.63	161		④
5624	5625	ULYSS	122+50.00	6.0' LT	MH		15.8					A-7D	YES	905.97	889.62	889.44	165		
5625	5632	ULYSS	120+85.00	6.0' LT	MH		14.9					A-7D	YES	904.97	889.44	889.14		266	⑤
5632	5639	ULYSS	118+25.00	8.4' LT	MH		15.7					A-7D	YES	904.21	889.13	888.83		268	⑥
5639	5640	ULYSS	115+62.02	0.0' LT	MH		12.7					A-7D	YES	903.37	888.82	888.75		74	
5640		ULYSS	114+88.00	0.0' LT	MH	7.6						A-7D	YES	903.98					③
15640	5641	ULYSS	114+88.00	2.9' RT	MH				7.8				YES		888.74	888.67		69	④
5641		CSAH14W	229+11.34	25.5' LT	MH	5.6						A-7D	YES	904.94					③
15641	6333	CSAH14W	229+11.34	21.8' LT	MH			10.8		10.8			YES		888.65	888.64	10		④ ⑦
TOTALS						21.7	59.1	18.1	7.8	10.8							336	677	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
 ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 ③ CENTER OF CASTING.
 ④ CENTER OF STRUCTURE.
 ⑤ 60" X 268' RCP CL. IV, INCLUDES 6 HORIZONTAL 7.5 DEGREE L.R. BENDS.
 ⑥ 60" X 266' RCP CL. IV, INCLUDES 6 HORIZONTAL 7.5 DEGREE L.R. BENDS.
 ⑦ CONNECT TO EXISTING STORM SEWER.



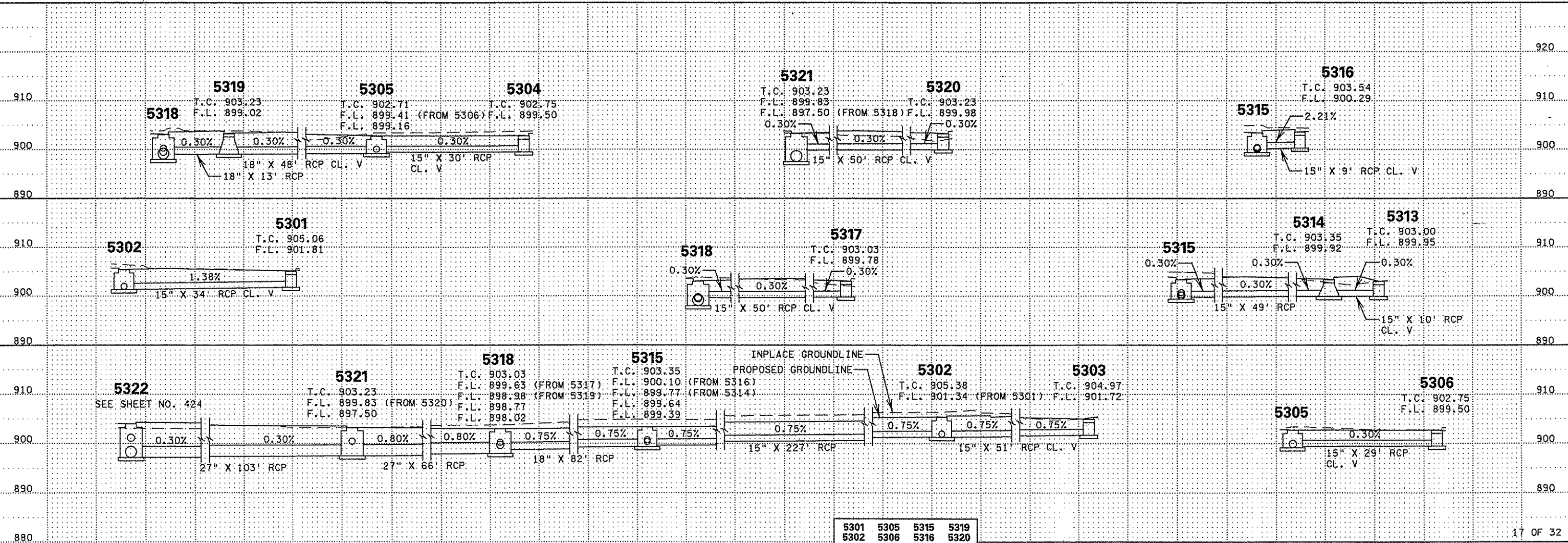
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										REMARKS					
					DESIGN/PAY HEIGHT				CASTING ASSEMBLY	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.	15" RCP		15" RCP	18" RCP	18" RCP	27" RCP	
					TYPE	C OR H	C OR G	48-4020						54-4020		CL II	CL V	CL II	CL V	CL II
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	LIN FT	LIN FT	LIN FT	LIN FT	TYPE	REQ'D	ELEV.	ELEV.	ELEV.	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT		
5301	5302	CSAH14W	250+75.00	21.0' LT	CB	3.2				B-5		905.06	901.78	901.37						
5302		CSAH14W	250+75.05	13.0' RT						B-5		905.38				34				(3)
15302	5315	CSAH14E	250+75.05	12.2' RT	CB			4.0					901.32	899.65	227					(4)
5303	5302	CSAH14E	250+78.50	26.8' RT	CB	3.2				B-5		904.97	901.70	901.35		51				
5304	5305	CSAH14E	247+96.00	32.6' RT	CB	3.2				B-5		902.75	899.50	899.42		30				
5305		CSAH14E	247+66.90	33.0' RT						B-5		902.71								(3)
15305	5319	CSAH14E	247+66.90	32.2' RT	CB			3.5					899.15	899.02			48			(4)
5306	5305	CSAH14E	247+37.63	33.0' RT	CB	3.2				B-5		902.75	899.49	899.42		29				
5313	5314	CSAH14W	248+50.00	34.6' LT	CB	3.1				M-11		903.00	899.95	899.93		10				
5314	5315	CSAH14W	248+48.50	24.7' LT	CB		3.4			B-5		903.35	899.92	899.78	49					
5315		CSAH14W	248+48.50	24.7' RT						B-5		903.35								(3)
15315	5318	CSAH14W	248+48.50	23.9' RT	CB			3.9					899.37	898.79			82			(4)
5316	5315	CSAH14E	248+48.50	15.0' LT	CB	3.2				B-5		903.54	900.25	900.15		9				
5317	5318	CSAH14W	247+66.90	25.0' LT	CB	3.2				B-5		903.03	899.77	899.63		50				
5318		CSAH14W	247+66.90	25.0' RT						B-5		903.03								(3)
15318	5321	CSAH14W	247+66.90	23.9' RT	CB			4.9		YES			898.01	897.50				66		(4)
5319	5318	CSAH14E	247+66.90	15.0' LT	CB		4.1			B-5		903.23	899.01	898.98		13				
5320	5321	CSAH14W	247+01.00	25.0' LT	CB	3.2				B-5		903.23	899.98	899.83		50				(3)
5321		CSAH14W	247+01.00	25.0' RT						B-5		903.23								(3)
15321	5322	CSAH14W	247+01.00	23.9' RT	CB			5.7		YES			897.49	897.19					103	(4)
TOTALS						25.5	7.5	11.4	10.6						276	263	95	48	169	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

(1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
 (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 (3) CENTER OF CASTING.
 (4) CENTER OF STRUCTURE.



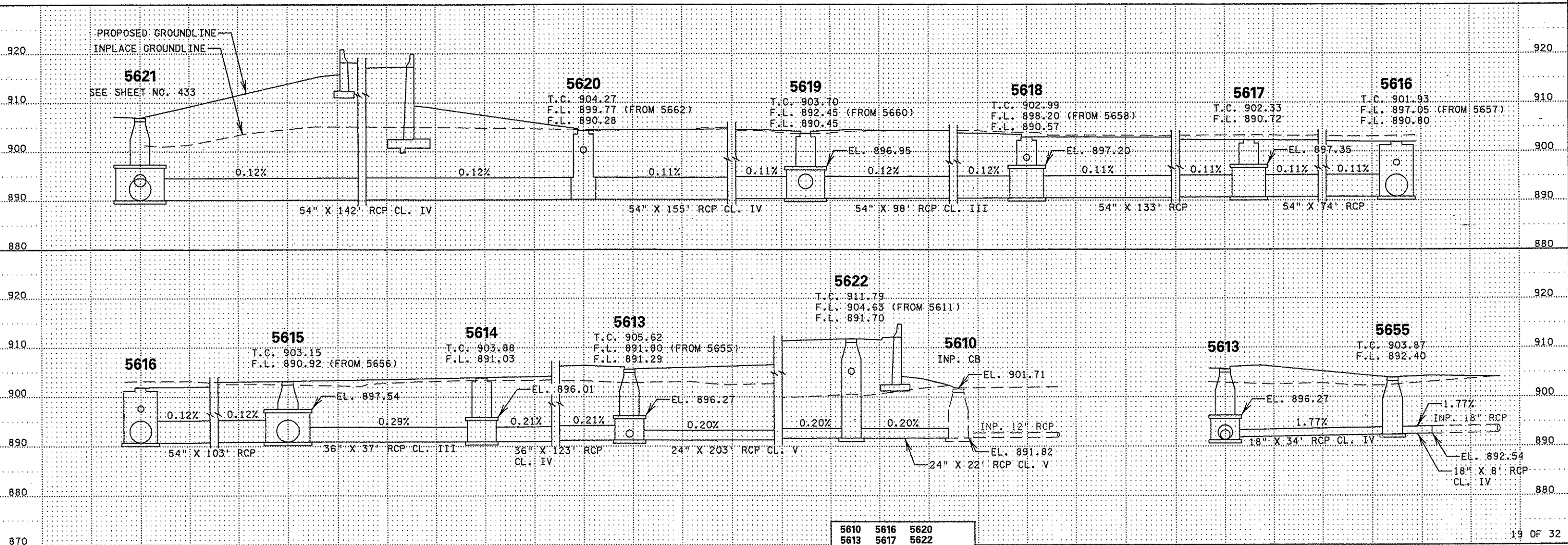
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											REMARKS										
					TYPE	DESIGN/PAY HEIGHT					CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)		18"	24"	36"	36"	54"	54"	54"			
						C OR G LIN FT	A OR F LIN FT	J LIN FT	48-4020 LIN FT	72-4020 LIN FT							84-4020 LIN FT	96-4020 LIN FT	108-4020 LIN FT	RCP CL IV LIN FT	RCP CL V LIN FT	RCP CL III LIN FT	RCP CL IV LIN FT	RCP CL II LIN FT	RCP CL III LIN FT	RCP CL IV LIN FT
5610	5622	CSAH14W	243+22.77	48.6' LT	CB																		(5) (7)			
5613		ABERD	132+63.63	37.7' RT	MH		8.8							A-7D	YES	905.62	891.74	891.70		22					(3)	
15613	5614	ABERD	132+63.63	35.9' RT	MH					5.7					YES		891.28	891.04				123		(4)		
5614		ABERD	133+75.00	25.0' RT	CB				7.4					R-3067V	YES	903.88								(3)		
15614	5615	ABERD	133+75.00	23.2' RT	CB					5.7					YES		891.02	890.93			37			(4)		
5615		ABERD	134+07.00	24.0' RT	MH	5.0								A-7D	YES	903.15								(3)		
15615	5616	ABERD	134+07.00	20.9' RT	MH								7.3		YES		890.91	890.81				103		(4)		
5616		ABERD	134+96.21	25.0' RT	CB									R-3067V	YES	901.93								(3)		
15616	5617	ABERD	134+96.21	22.7' RT	CB						11.4				YES		890.80	890.72					74	(4)		
5617		ABERD	135+64.00	25.0' RT	CB			4.6						R-3067V	YES	902.33									(3)	
15617	5618	ABERD	135+64.00	22.7' RT	CB						7.3				YES		890.71	890.57					133	(4)		
5618		ABERD	136+97.00	24.0' RT	CB			5.4						R-3067V	YES	902.99									(3)	
15618	5619	ABERD	136+97.00	21.7' RT	CB						7.3				YES		890.56	890.46						98	(4)	
5619		ABERD	137+97.00	13.0' RT	CB			6.3						R-3067V	YES	903.70									(3)	
15619	5620	ABERD	137+97.00	10.1' RT	CB						7.2				YES		890.45	890.28						155	(4)	
5620	5621	ABERD	139+51.70	16.9' LT	CB			13.6						R-3067V	YES	904.27	890.28	890.11						142		
5622	5613	CSAH14W	243+21.00	27.0' LT	MH		20.2							A-7D	YES	911.79	891.69	891.30		203						
5655	5613	CSAH14W	245+57.85	40.0' LT	MH		11.6							A-7D	YES	903.87	892.54	891.85	42							(6)
TOTALS							5.0	40.6	13.6	23.7	11.4	26.0	7.2	7.3						42	225	37	123	310	98	297

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CENTER OF CASTING.
- (4) CENTER OF STRUCTURE.
- (5) FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.
- (6) CONNECT TO EXISTING STORM SEWER.
- (7) CONNECT TO EXISTING DRAINAGE STRUCTURE.



5610	5616	5620
5613	5617	5622
5614	5618	5655
5615	5619	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 12:45

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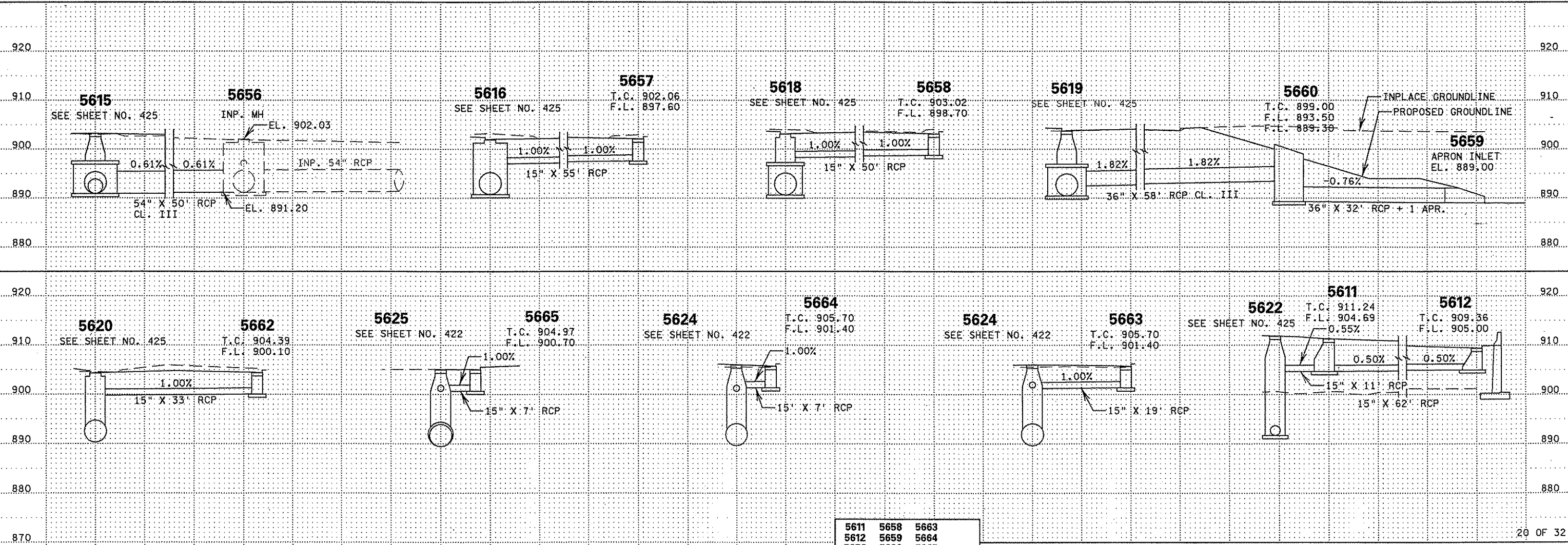
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											APRON TYPE	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS										
					DESIGN/PAY HEIGHT				CASTING (1) ASSEMBLY TYPE	CONE TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)	15" RCP					36" RCP	36" RCP	54" RCP							
					C OR G LIN FT	A OR F LIN FT	DES SPEC LIN FT	DES SPEC 2 EACH							CL II LIN FT					CL II LIN FT	CL III LIN FT	CL III LIN FT	EACH						
5611		CSAH14W	243+30.00	33.0' LT						B-5	B	YES	911.24	904.68	904.63	11													(3)
15611	5622	CSAH14W	243+30.00	32.2' LT	CB			6.5																					(4)
5612		CSAH14W	243+92.00	33.0' LT						B-5			909.36																(3)
15612	5611	CSAH14W	243+92.00	32.2' LT	CB			4.3			B			904.99	904.70	904.70	62											(4)	
5656	5615	ABERD	133+96.43	71.6' RT	MH									891.20	890.92	890.92			50									(6)	
5657	5616	ABERD	135+13.00	27.7' RT	CB			4.8		R-3067V		YES	902.06	897.56	897.05	55													
5658	5618	ABERD	137+07.28	25.0' LT	CB			4.6		R-3067V		YES	903.02	898.66	898.20	50													
5659	5660	ABERD	138+14.85	82.2' LT	APR									889.00	889.28	889.28		32		1	RC APRON							(5)	
5660	5619	ABERD	138+10.00	43.0' LT	CB				1				899.00	893.45	892.45			58										(7)	
5662	5620	ABERD	139+65.00	13.0' RT	CB			4.6		R-3067V		YES	904.39	900.06	899.77	33													
5663	5624	ULYSS	122+50.12	13.0' RT	CB			4.6		R-3067V		YES	905.70	901.36	901.21	19													
5664	5624	ULYSS	122+50.12	13.0' LT	CB			4.6		R-3067V		YES	905.70	901.36	901.33	7													
5665	5625	ULYSS	120+85.00	13.0' LT	CB			4.6		R-3067V		YES	904.97	900.66	900.63	7													
TOTALS								4.3	6.5	27.8	1						244	32	58	50	1						1		

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CENTER OF CASTING.
- (4) CENTER OF STRUCTURE.

- (5) TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- (6) FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.
- (7) SEE DETAILS ON SHEET NO. 396.



5611	5658	5663
5612	5659	5664
5656	5660	5665
5657	5662	

DRAINAGE TABULATIONS AND PROFILES

DISTRICT #: METRO
 PLOT NAME: Im-23.dtl-20
 PATH & FILENAME: S:\Design\065\0208\23\Final\0208123.dtl.dgn
 PLOTTED/REVISED: 31-JAN-2007 12:53

DRAINAGE TABULATION (THIS SHEET ONLY)

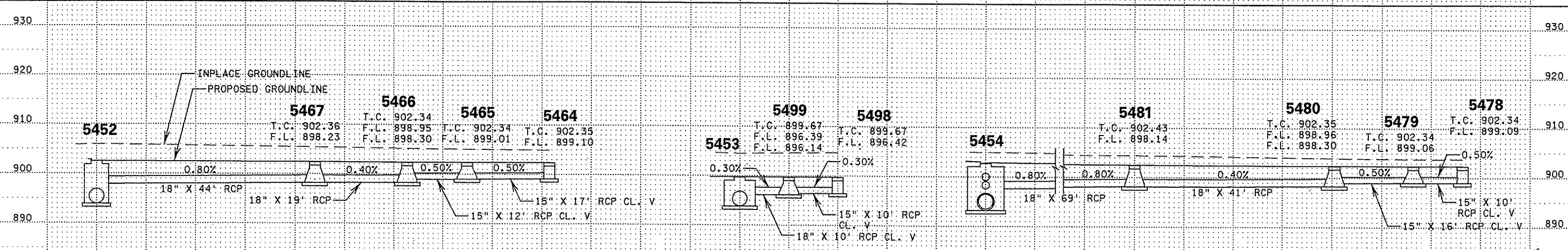
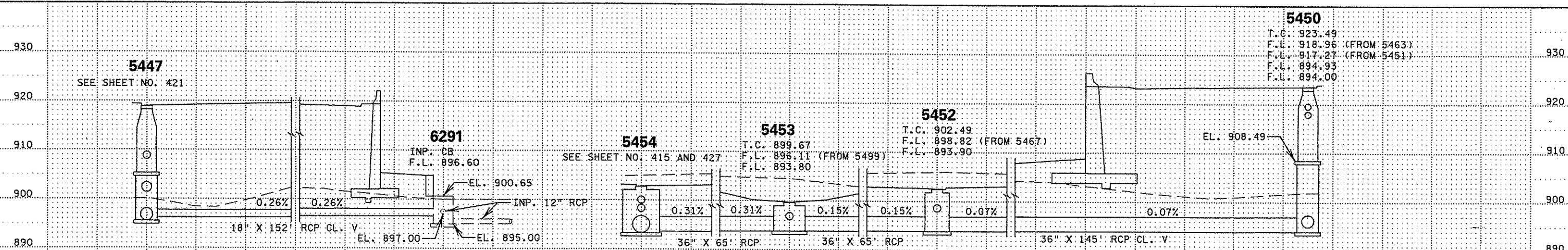
STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES													REMARKS				
					TYPE	DESIGN/PAY HEIGHT						CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. ②	15"		18"	18"	36"	36"
						C OR H	C OR G	A OR F	54-4020	60-4020	78-4020						RCP CL V		RCP CL II	RCP CL V	RCP CL II	RCP CL V
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT	ASSEMBLY TYPE	REQ'D	ELEV.	ELEV.	ELEV.	LIN FT	LIN FT	LIN FT	LIN FT	LIN FT		
5450		SWR	17+08.50	7.0' LT	CB			14.3			B-14	YES	923.49								③	
15450	5452	SWR	17+08.50	5.9' LT	CB				15.1				YES		894.00	893.90					145	④
5452		65SB	815+85.00	23.0' LT	CB						B-9		902.49									③
15452	5453	65SB	815+85.00	21.7' LT	CB					8.5		YES		893.90	893.81					65		④
5453		65NB	815+60.00	37.0' LT	CB						B-9		899.67									③
15453	5454	65NB	815+60.00	34.9' LT	CB					5.8		YES		893.79	893.61					65		④
5464	5465	65SB	816+76.50	23.0' LT	CB	3.2					B-9		902.35	899.09	899.02	17						
5465	5466	65SB	816+59.86	23.0' LT	CB		3.3				B-9		902.34	899.00	898.96	12						
5466	5467	65SB	816+47.80	23.0' LT	CB		4.0				B-9		902.34	898.29	898.23		19					
5467	5452	65SB	816+29.00	23.0' LT	CB		4.1				B-9		902.36	898.21	897.89		44					
5478	5479	65NB	816+69.86	23.0' RT	CB	3.2					B-9		902.34	899.08	899.05	10						
5479	5480	65NB	816+59.86	23.0' RT	CB		3.2				B-9		902.34	899.03	898.97	16						
5480	5481	65NB	816+44.00	23.0' RT	CB		4.0				B-9		902.35	898.29	898.15		41					
5481	5454	65NB	816+03.50	23.0' RT	CB		4.2				B-9		902.43	898.12	897.59		69					
5498	5499	65NB	815+40.00	37.0' LT	CB	3.2					B-9		899.67	896.41	896.40	10						
5499	5453	65NB	815+50.00	37.0' LT	CB		3.5				B-9		899.67	896.13	896.12			10				
6291	5447	CSAH14W	233+74.70	54.8' LT	CB									896.59	896.20				152		⑤ ⑥	
TOTALS						9.6	26.3	14.3	15.1	8.5	5.8						65	173	162	130	145	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE

FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.

- ⑤ CONNECT TO EXISTING DRAINAGE STRUCTURE.
- ⑥ FOR REMOVALS, SEE TABULATION ON SHEET NO. 49.



5450	5465	5479	5499
5452	5466	5480	6291
5453	5467	5481	
5464	5478	5498	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 12:45

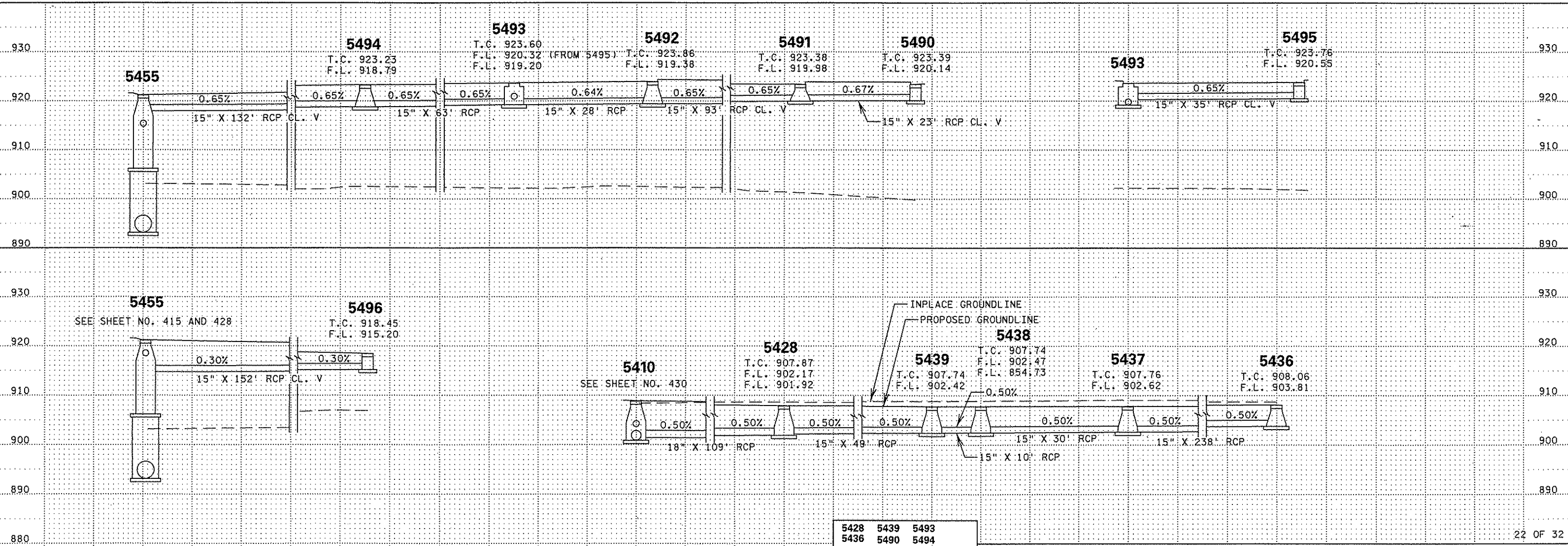
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										PLASTIC OPTION	REMARKS		
					DESIGN/PAY HEIGHT				CASTING ASSEMBLY	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.	15" RCP			15" RCP	18" RCP
					C OR H	C OR G	A OR F	48-4020						CL II			CL V	CL II
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	TYPE	LIN FT	LIN FT	LIN FT	LIN FT	TYPE	REQ'D	ELEV	ELEV.	ELEV.	LIN FT	LIN FT	LIN FT	OPTION
5428	5410	NWR	29+84.00	7.0' LT	CB			5.9		D-4	YES	907.87	901.91	901.37				
5436	5437	6SSB	833+10.00	35.4' LT	CB		4.2			D-4		908.06	903.80	902.63	238			
5437	5438	NWR	30+73.00	7.0' LT	CB		5.1			D-4	YES	907.76	902.60	902.48	30			CP/PVC
5438	5439	NWR	30+43.07	7.0' LT	CB		5.2			D-1	YES	907.74	902.46	902.43	10			CP/PVC
5439	5428	NWR	30+33.07	7.0' LT	CB		5.3			D-4	YES	907.74	902.40	902.18	49			CP/PVC
5490	5491	CSAH14E	238+93.86	33.0' RT	CB	3.2				B-14		923.39	920.12	919.99		23		
5491	5492	SERCON	17+65.59	22.6' LT	CB		3.3			B-14		923.38	919.97	919.39		93		
5492	5493	SER	16+84.70	7.0' RT	CB		4.4			B-14		923.86	919.37	919.21	28			CP/PVC
5493		SER	16+90.40	20.7' LT						D-4		923.60						(4)
15493	5494	SER	16+90.40	19.9' LT	CB				4.3				919.19	918.80	63			CP/PVC (5)
5494	5455	SER	16+22.00	19.0' LT	CB		4.4			D-4		923.23	918.78	917.93		132		
5495	5493	SER	17+28.00	23.6' LT	CB	3.2				D-4		923.76	920.53	920.33		35		
5496	5455	SER	13+41.00	19.0' RT	CB	3.2				D-4		918.45	915.19	914.74		152		
TOTALS						9.6	31.9	5.9	4.3						418	435	109	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- ④ CENTER OF CASTING.
- ⑤ CENTER OF STRUCTURE.



5428	5439	5493
5436	5490	5494
5437	5491	5495
5438	5492	5496

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 10:02

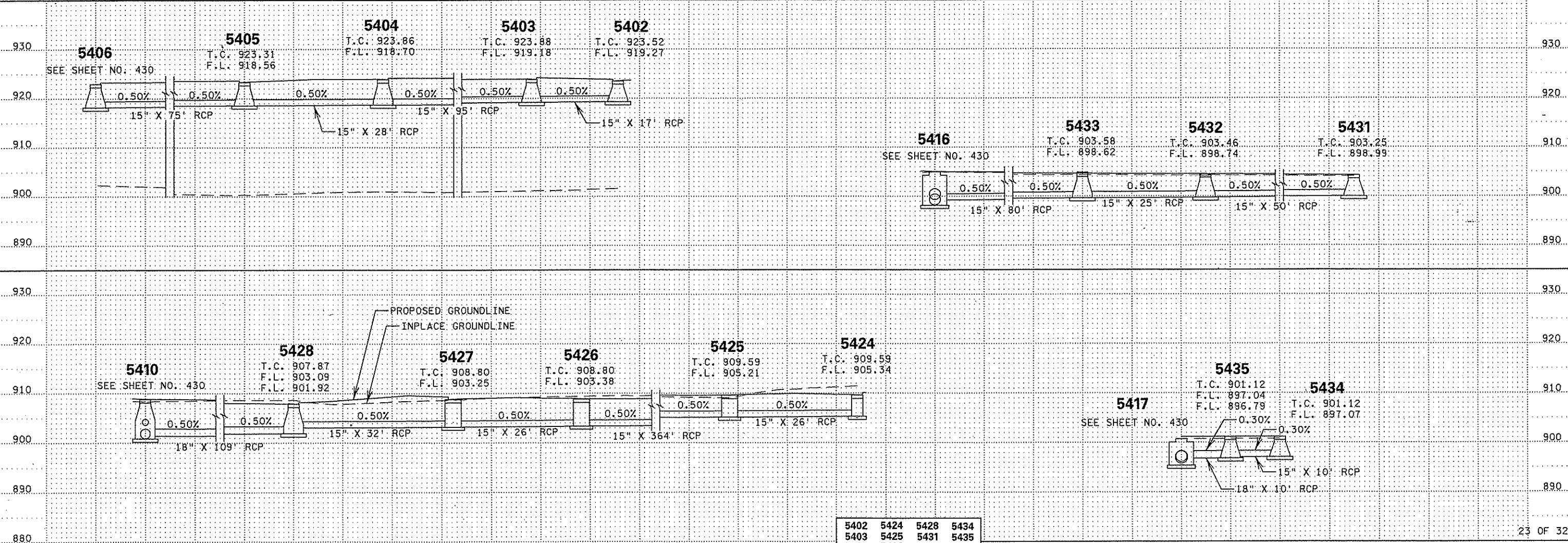
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES							15" RCP CL II LIN FT	18" RCP CL II LIN FT	PLASTIC OPTION ③	REMARKS		
					DESIGN/PAY HEIGHT			CASTING ① ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.					INLET ELEV. ②	
					TYPE	C OR G LIN FT	A OR F LIN FT										DES SPEC LIN FT
5402	5403	CSAH14W	235+69.50	33.0' LT	CB	4.2			B - 14			923.52	919.26	919.19	17		
5403	5404	NWRCON	19+31.05	23.8' RT	CB	4.7			B - 14	YES		923.88	919.17	918.71	95		
5404	5405	NWR	20+14.66	7.0' LT	CB	5.1			B - 14	YES		923.86	918.69	918.57	28		
5405	5406	NWR	20+14.00	21.2' RT	CB	4.7			D - 4	YES		923.31	918.55	918.19	75		
5424	5425	ULYSS	126+28.85	13.0' LT	CB			4.6	R - 3067V	YES		909.59	905.31	905.23	26		
5425	5426	ULYSS	126+28.85	13.0' RT	CB			4.7	R - 3067V	YES		909.59	905.18	903.41	364		
5426	5427	ULYSS	129+93.00	13.0' LT	CB			5.7	R - 3067V	YES		908.80	903.36	903.28	26		
5427	5428	ULYSS	129+93.00	13.0' RT	CB			5.9	R - 3067V	YES		908.80	903.23	903.10	32		
5428	5410	NWR	29+84.00	7.0' LT	CB			5.9	D - 4	YES		907.87	901.91	901.37		109	CP/PVC
5431	5432	65SB	819+85.00	23.0' LT	CB	4.2			B - 9			903.25	898.99	898.76	50		
5432	5433	65SB	820+35.00	23.0' LT	CB	4.6			B - 9	YES		903.46	898.74	898.63	25		CP/PVC
5433	5416	65SB	820+60.00	23.0' LT	CB	4.9			B - 9	YES		903.58	898.61	898.22	80		CP/PVC
5434	5435	65NB	821+60.00	37.0' LT	CB	4.1			M - 11			901.12	897.06	897.05	10		
5435	5417	65NB	821+50.00	37.0' LT	CB	4.4			M - 11			901.12	896.78	896.76		10	
TOTALS						40.9	5.9	20.9							828	119	

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.



5402	5424	5428	5434
5403	5425	5431	5435
5404	5426	5432	
5405	5427	5433	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 10:02

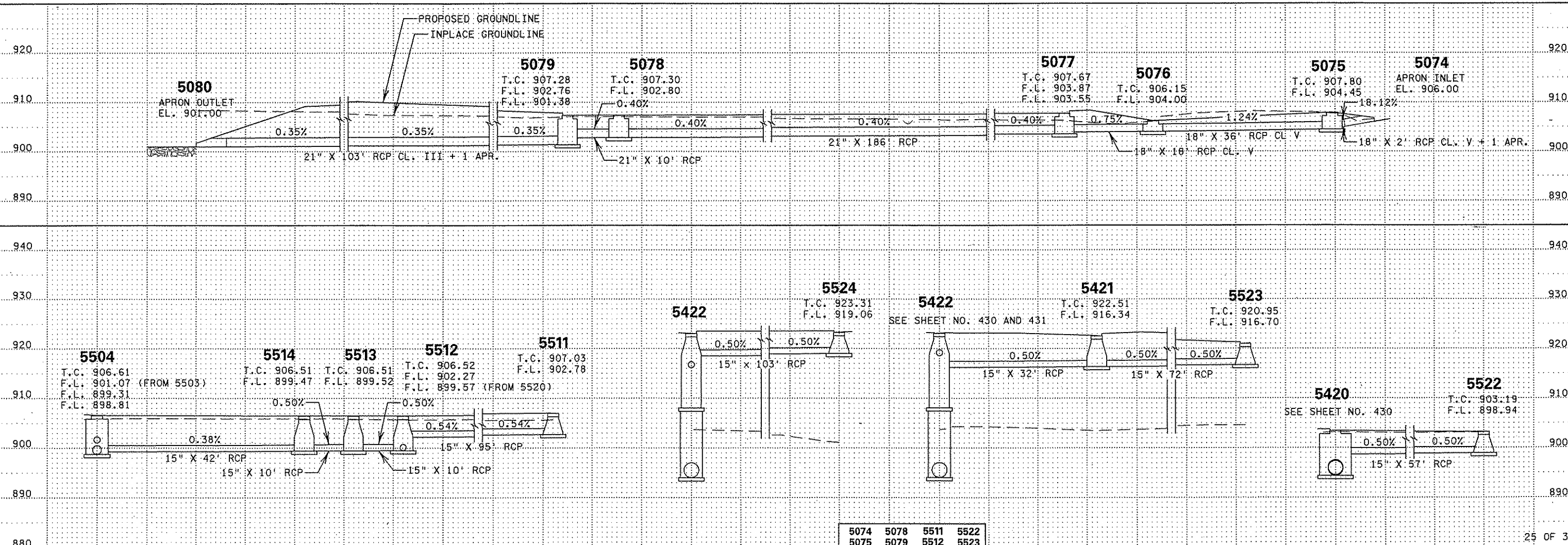
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											GUIDE POSTS TYPE B EACH	REMARKS				
					DESIGN/PAY HEIGHT				CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.	15" RCP	18" RCP			21" RCP	21" RCP	APRON EACH	APRON TYPE
					C OR G LIN FT	A OR F LIN FT	48-4020 LIN FT	CL II LIN FT						CL V LIN FT	CL II LIN FT			CL III LIN FT			
FROM	TO	ALIGN.	STATION	OFFSET	TYPE																
5074	5075	65NB	835+03.70	95.6' RT	APR																
5075		65NB	835+03.60	87.0' RT					A-7D					2	1	RC APRON	1				
15075	5076	65NB	835+03.60	86.2' RT	MH			3.5					36								
5076		65NB	835+03.60	50.9' RT					M-11												
15076	5077	65NB	835+03.60	50.1' RT	CB			2.2					18								
5077		65NB	835+03.60	33.0' RT					B-9												
15077	5078	65NB	835+03.60	32.2' RT	CB			4.1					186								
5078		65NB	836+89.80	33.0' RT					B-9												
15078	5079	65NB	836+89.80	32.2' RT	CB			4.4					10								
5079		65NB	836+99.80	33.0' RT					B-9												
15079	5080	65NB	836+99.80	32.2' RT	CB			5.8		YES											
5080		65NB	838+05.50	61.1' RT	APR									1	RC APRON	1					
5421	5422	NER	20+15.00	19.5' LT	CB		6.1		D-4	YES	922.51	916.33	916.18	32							
5511	5512	NER	28+98.00	7.0' RT	CB	4.2			D-4		907.03	902.77	902.28	95							
5512	5513	NER	28+03.00	7.8' RT	CB		6.9		D-4	YES	906.52	899.56	899.53	10							
5513	5514	NER	27+92.90	8.0' RT	CB		6.9		D-1	YES	906.51	899.51	899.48	10							
5514	5504	NER	27+82.90	8.2' RT	CB		7.0		D-4	YES	906.51	899.46	899.31	42							
5522	5420	65NB	819+68.00	23.0' RT	CB	4.2			B-9		903.19	898.93	898.66	57							
5523	5421	NER	20+93.00	19.0' LT	CB	4.2			D-4		920.95	916.69	916.35	72							
5524	5422	CSAH14W	238+98.30	33.0' LT	CB	4.2			B-14		923.31	919.05	918.55	103							
TOTALS						16.8	26.9	20.0						421	56	196	103	2	2		

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
 ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
 ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
 ④ CENTER OF CASTING,
 ⑤ CENTER OF STRUCTURE.
 ⑥ FOR RIP RAP TABULATION, SEE SHEET NO. 32.
 ⑦ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).



5074	5078	5511	5522
5075	5079	5512	5523
5076	5080	5513	5524
5077	5421	5514	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 31-JAN-2007 10:02

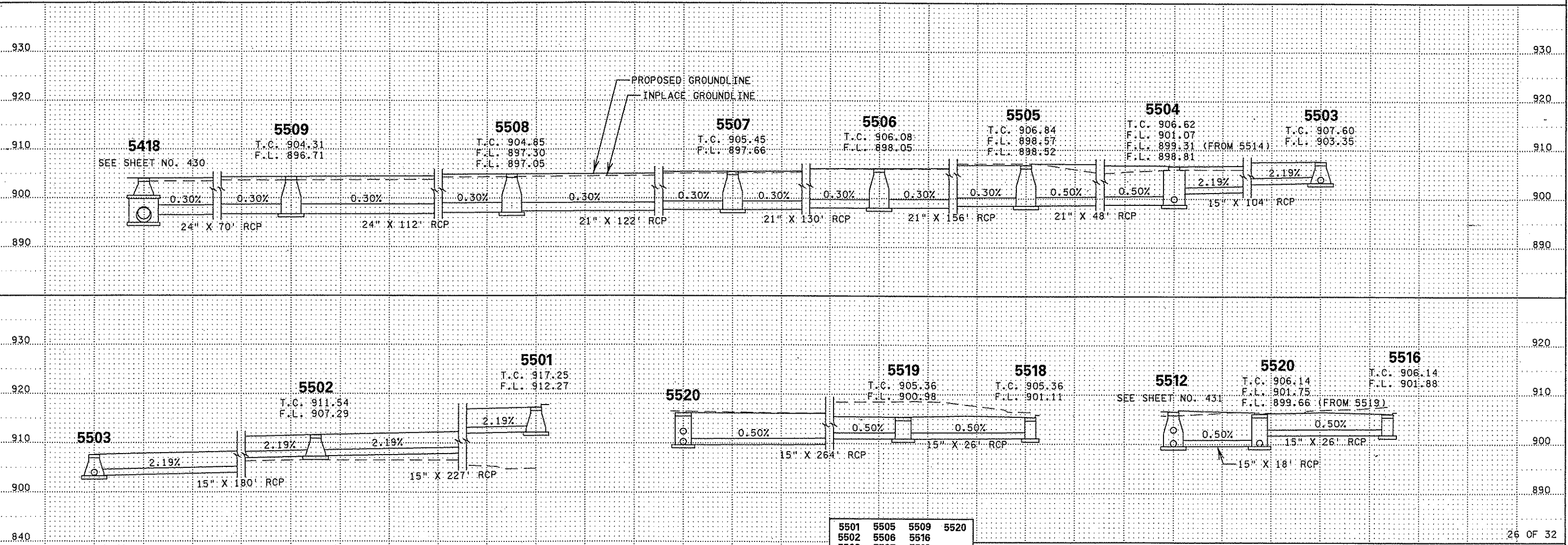
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES								TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.	15" RCP CL II LIN FT	21" RCP CL II LIN FT	24" RCP CL II LIN FT	PLASTIC OPTION (3)	REMARKS
					DESIGN/PAY HEIGHT				CASTING (1) ASSEMBLY TYPE	STEPS REQ'D										
					C OR G LIN FT	A OR F LIN FT	54-4020 LIN FT	DES SPEC LIN FT												
5501	5502	NER	22+29.59	20.5' RT	CB	4.9				D-4	YES	917.25	912.22	907.33	227					
5502	5503	NER	24+57.00	14.8' RT	CB	4.2				D-4		911.54	907.25	903.39	180					
5503	5504	NER	26+37.00	11.6' RT	CB	4.2				D-4		907.60	903.31	901.12	104					
5504		NER	27+41.00	9.2' RT						D-4		906.62							(4)	
15504	5505	NER	27+41.00	8.1' RT	CB			7.7			YES		898.80	898.58		48			(5)	
5505	5506	65NB	827+29.00	23.0' RT	CB		8.2			B-9	YES	906.84	898.52	898.06		156		PVC		
5506	5507	65NB	825+73.00	23.0' RT	CB		8.0			B-9	YES	906.08	898.05	897.67		130		PVC		
5507	5508	65NB	824+43.00	23.0' RT	CB		7.7			B-9	YES	905.45	897.66	897.31		122		PVC		
5508	5509	65NB	823+21.50	23.0' RT	CB		7.7			B-9	YES	904.85	897.04	896.72			112	CP/PVC		
5509	5418	65NB	822+10.00	23.0' RT	CB		7.5			B-9	YES	904.31	896.71	896.51			70	CP/PVC		
5516	5520	ABERD	145+59.00	13.0' RT	CB				4.6	R-3067V	YES	906.14	901.86	901.78	26					
5518	5519	ABERD	142+95.00	13.0' RT	CB				4.6	R-3067V	YES	905.36	901.09	901.00	26					
5519	5520	ABERD	142+95.00	13.0' LT	CB				4.7	R-3067V	YES	905.36	900.96	899.68	264					
5520	5512	ABERD	145+59.00	13.0' LT	CB				6.8	R-3067V	YES	906.14	899.64	899.57	18					
TOTALS						13.3	39.1	7.7	20.7						845	456	182			

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- (4) CENTER OF CASTING.
- (5) CENTER OF STRUCTURE.



PLOTTED/REVISED: 31-JAN-2007 10:48

DISTRICT #: METRO
 IPLOT NAME: 1m-123_dtl_26
 PATH & FILENAME: S:\Design\065\0208\123\1m-123_dtl_26.dgn

DRAWN BY: LM

CHECKED BY: EK

CERTIFIED BY *Josephine Lumpkin*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 432 OF 872 SHEETS

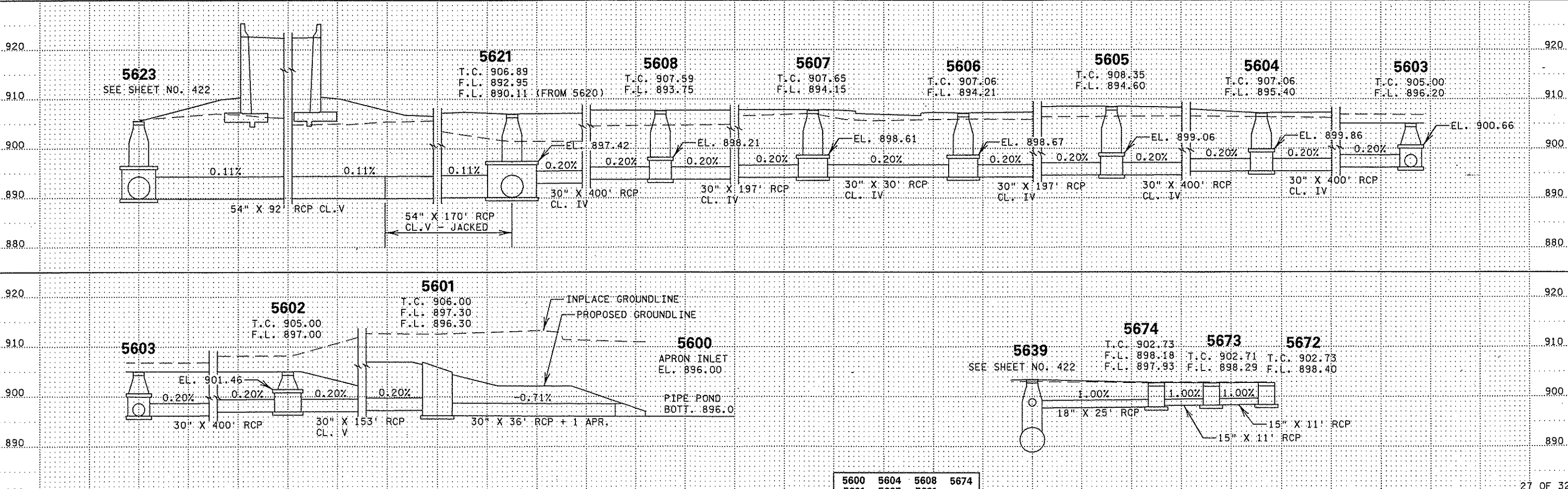
DRAINAGE TABULATIONS AND PROFILES

DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											15" RCP CL II	18" RCP CL II	30" RCP CL II	30" RCP CL IV	30" RCP CL V	54" RCP CL V	54" RCP CL V JACKED	PLASTIC OPTION (3)	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS		
		FLOW FROM	FLOW TO	ALIGN.	STATION	OFFSET	TYPE	DESIGN/PAY HEIGHT					CASTING(1) ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.													OUTLET ELEV.	INLET ELEV. (2)
								A OR F LIN FT	54-4020 LIN FT	66-4020 LIN FT	72-4020 LIN FT	120-4020 LIN FT																	
5600	5601	65NB	842+94.00	195.5' RT	APR										906.00	896.00	896.28				1	RC APRON	1	(6)					
5601	5602	65NB	842+52.00	195.5' RT	CB									905.00	896.28	897.01				36					(4)				
5602		65NB	842+52.00	43.0' RT	MH	3.0								905.00	896.99	896.20				400					(4)				
15602	5603	65NB	842+52.00	41.4' RT	MH			5.1						905.00	896.20	896.20							CP/PVC		(4)				
5603		65NB	838+52.00	43.0' RT	MH	3.8								905.00	896.20	895.40				400			CP/PVC		(4)				
15603	5604	65NB	838+52.00	41.9' RT	MH		5.1							907.06	895.40	894.60							CP/PVC		(4)				
5604		65NB	834+52.00	43.0' RT	MH	6.7								908.35	895.40	894.60				400			CP/PVC		(4)				
15604	5605	65NB	834+52.00	41.9' RT	MH		5.1							907.06	894.60	894.21							CP/PVC		(4)				
5605		65NB	830+52.00	41.0' RT	MH	8.8								907.06	894.60	894.21				197					(4)				
15605	5606	65NB	830+52.00	39.9' RT	MH		5.1							907.06	894.20	894.15									(4)				
5606		65NB	828+56.50	61.0' RT	MH	7.9								907.65	894.20	894.15				30					(4)				
15606	5607	65NB	828+56.50	59.2' RT	MH			5.1						907.65	894.20	894.15									(4)				
5607		65NB	828+55.50	30.8' RT	MH	8.5								907.59	894.14	893.76							CP/PVC		(4)				
15607	5608	65NB	828+55.50	29.0' RT	MH			5.1						906.89	893.75	892.96				400			CP/PVC		(4)				
5608		65NB	826+59.20	41.0' RT	MH	8.9								906.89	893.75	892.96							CP/PVC		(4)				
15608	5621	65NB	826+59.20	39.9' RT	MH		5.1							907.65	893.75	892.96				400			CP/PVC		(4)				
5621		65NB	822+59.20	41.0' RT	MH	8.9								890.11	889.81							92	170		(4)				
15621	5623	65NB	822+59.20	37.3' RT	MH				8.0					902.73	898.36	898.33	11								(5)				
5672	5673	ULYSS	115+39.50	25.0' LT	CB						4.7		R - 3067V	YES	902.73	898.36	898.33	11											
5673	5674	ULYSS	115+50.50	25.0' LT	CB						4.7		R - 3067V	YES	902.71	898.25	898.22	11											
5674	5639	ULYSS	115+61.50	25.0' LT	CB						5.1		R - 3067V	YES	902.73	897.89	897.68		25										
TOTALS							56.5	20.4	5.1	10.2	8.0	14.5	1					22	25	436	1624	153	92	170	1	1			

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- (4) CENTER OF CASTING.
- (5) CENTER OF STRUCTURE.
- (6) TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).



5600	5604	5608	5674
5601	5605	5621	
5602	5606	5672	
5603	5607	5673	

DRAINAGE TABULATIONS AND PROFILES

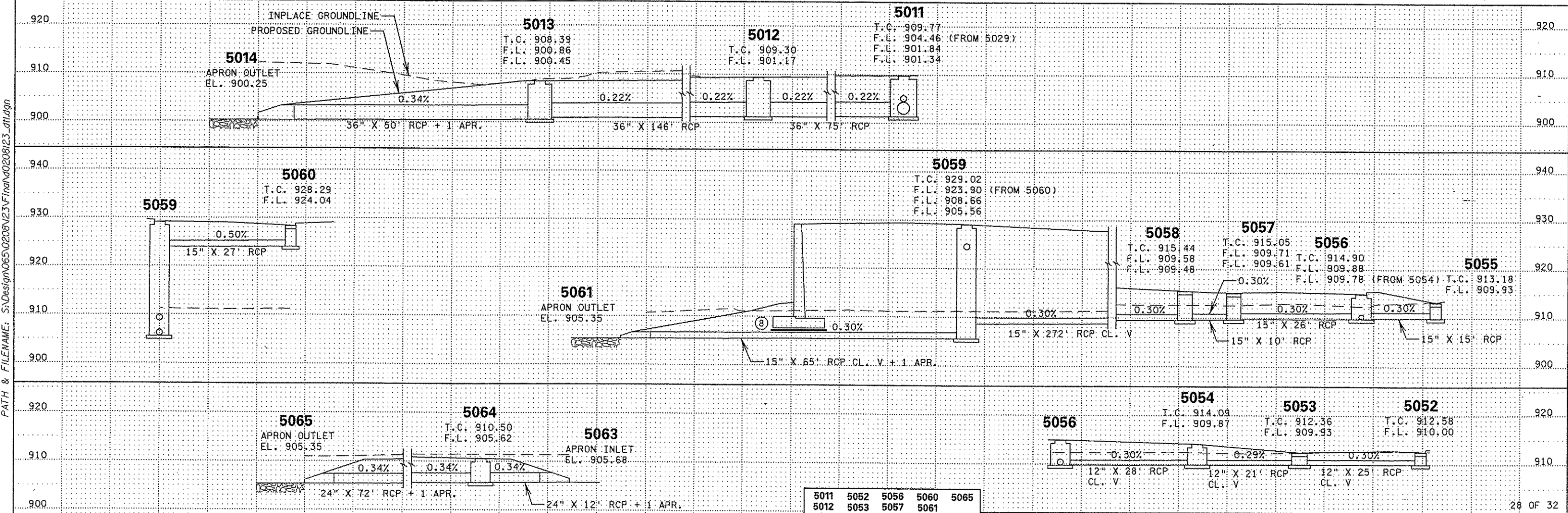
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											GUIDE POSTS TYPE B EACH	REMARKS										
FLOWS FROM	FLOWS TO	ALIGN.	STATION	OFFSET	DESIGN/PAY HEIGHT					CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV.	12" RCP CL II			12" RCP CL V	15" RCP CL II	15" RCP CL V	24" RCP CL II	36" RCP CL II	2" POLYSTYRENE INSULATION SQ YD	PLASTIC OPTION	APRON EACH	APRON TYPE	TYPE
					TYPE	C	G	OR	H						48-4020			60-4020	66-4020	DES SPEC	LIN FT	LIN FT	LIN FT	LIN FT			
5011		65NB	846+25.00	33.0' RT									B-9	909.77												④	
15011	5012	65NB	846+25.00	31.4' RT	CB															75		CP/PVC				⑤	
5012		65NB	845+50.00	33.0' RT									B-9	909.30												④	
15012	5013	65NB	845+50.00	31.7' RT	CB															146		CP/PVC				⑤	
5013		65NB	844+04.00	33.0' RT									B-9	908.39												④	
15013	5014	65NB	844+04.00	31.7' RT	CB															50						⑤ ⑦	
5014		65NB	843+57.00	67.0' RT	APR																					⑥	
5055	5056	129	14+00.00	28.0' RT	CB					3.3			M-11	913.18	909.92	909.90			15								
5052	5053	129	13+46.85	40.0' RT	CB								R-3067V	912.58	909.99	909.94		25									
5053	5054	129	13+70.80	34.0' RT	CB								R-3067V	912.36	909.92	909.88		21									
5054	5056	129	13+70.83	13.0' RT	MH					4.3			A-7D	914.09	909.86	909.79		28									
5056	5057	129	13+99.00	13.0' RT	CB					5.4			R-3067V	914.90	909.78	909.71			26								
5057	5058	129	14+03.00	13.0' LT	CB								R-3067V	915.05	909.59	909.59			10								
5058	5059	129	14+13.00	13.0' LT	CB								R-3067V	915.44	909.46	908.67											
5059	5061	129	16+84.50	13.0' LT	CB					23.0			R-3067V	928.28	905.56	905.35			65		4					⑦ ⑧	
5060	5059	129	16+84.50	13.9' RT	CB								R-3067V	928.28	924.01	923.91			27								
5061		65SB	844+24.00	58.0' LT	APR																					⑥	
5063	5064	65SB	845+20.10	49.0' LT	APR																					⑦	
5064		65SB	845+02.00	46.0' LT									A-7D	910.50					12							④	
15064	5065	65SB	845+02.00	45.2' LT	MH					5.0																⑤ ⑦	
5065		65SB	844+24.00	50.0' LT	APR																					⑥	
TOTALS						3.3	37.7	16.0	8.4	22.2								28	46	78	337	84	271	4		4	

NOTE: STA. AND OFFSET IS AT
- CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
- END OF RC APRON, CS SAFETY APRON
- END OF BARREL, CS PIPE
FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- ④ CENTER OF CASTING.
- ⑤ CENTER OF STRUCTURE.
- ⑥ FOR RIP RAP TABULATION, SEE SHEET NO. 32
- ⑦ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- ⑧ FOR DETAILS, SEE SHEET NO. 259.



5011	5052	5056	5060	5065
5012	5053	5057	5061	
5013	5054	5058	5063	
5014	5055	5059	5064	

DRAINAGE TABULATIONS AND PROFILES

PLOTTED/REVISED: 3-JAN-2007 10:03

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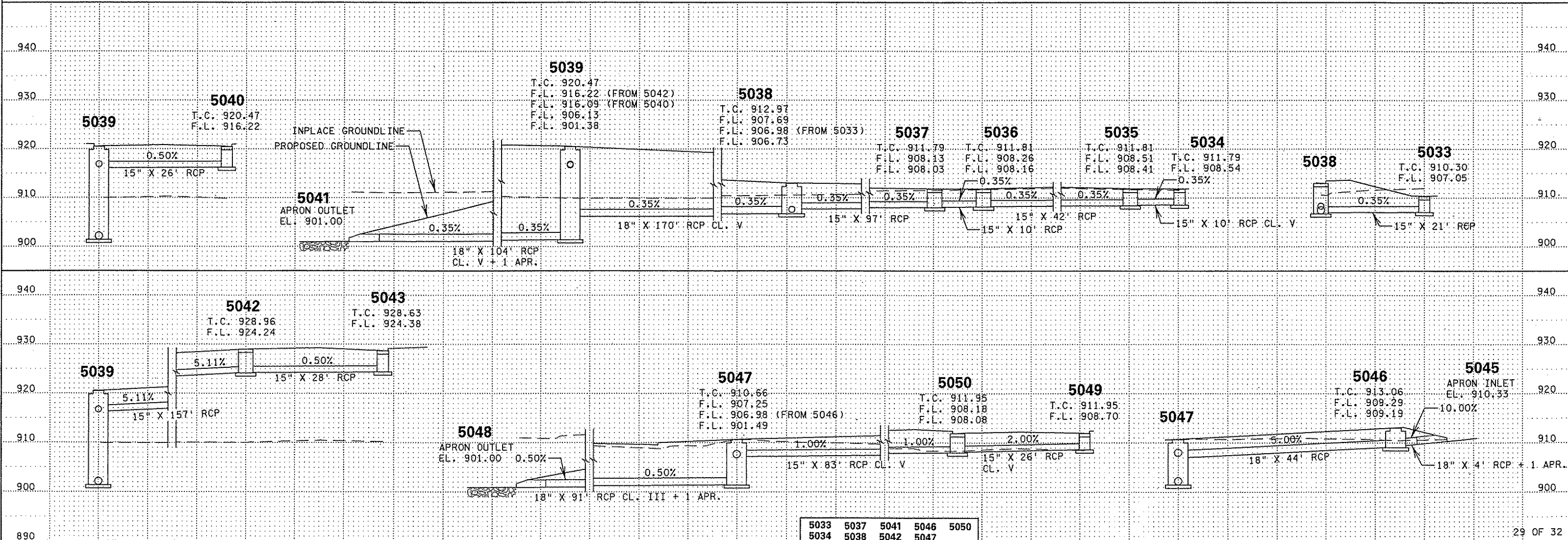
DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											GUIDE POSTS TYPE B EACH	REMARKS					
					TYPE	DESIGN/PAY HEIGHT			CASTING ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)	15" RCP	15" RCP			18" RCP	18" RCP	18" RCP	APRON EACH	APRON TYPE
						C G OR H	48-4020	DES SPEC						CL II	CL V			CL II	CL III	CL V		
FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	LIN FT	LIN FT	LIN FT				LIN FT	LIN FT	LIN FT	LIN FT	LIN FT							
5033	5038	129	22+70.00	42.0' LT	CB	3.3			M-11			910.30	907.04	906.98	21							
5034	5035	129	23+66.94	21.0' RT	CB			3.5	R-3067V			911.79	908.53	908.52	10							
5035	5036	129	23+76.94	21.0' RT	CB			3.7	R-3067V			911.81	908.39	908.28	42							
5036	5037	129	23+76.94	21.0' LT	CB			3.9	R-3067V			911.81	908.15	908.14	10							
5037	5038	129	23+66.94	21.0' RT	CB			4.1	R-3067V			911.79	908.01	907.70	97							
5038	5039	129	22+70.00	21.0' LT	CB			6.5	R-3067V	YES		912.97	906.72	906.14		170						
5039	5041	129	21+00.00	13.0' LT	CB			19.4	R-3067V	YES		920.47	901.38	901.00		104						
5040	5039	129	21+00.00	13.0' RT	CB			4.6	R-3067V	YES		920.47	916.20	916.10	26							
5041		129	20+72.00	93.0' RT	APR							901.00			1	RC APRON	1					
5042	5039	129	19+43.00	13.0' LT	CB			5.2	R-3067V	YES		928.96	924.02	916.32	157							
5043	5042	129	19+43.00	14.9' RT	CB			4.6	R-3067V	YES		928.63	924.36	924.26	28							
5045	5046	ABERD	162+99.00	44.4' RT	APR							910.33	909.49		1	RC APRON	1					
5046		ABERD	162+99.00	34.0' RT					A-7D			913.06										
15046	5047	ABERD	162+99.00	33.2' RT	MH			4.1					909.09	907.08								
5047		ABERD	162+50.00	30.0' RT					A-7D			910.66										
15047	5048	ABERD	162+50.00	29.2' RT	MH			9.3		YES		901.48	901.00									
5048		ABERD	162+53.65	67.0' LT	APR							901.00			1	RC APRON	1					
5049	5050	ABERD	161+62.00	13.0' LT	CB			3.6	R-3067V			911.95	908.62	908.27	26							
5050	5047	ABERD	161+62.00	13.0' RT	CB			4.2	R-3067V			911.95	908.04	907.27	83							
TOTALS							3.3	39.3	37.4						381	119	48	91	274	3		3

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE

FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441. ⑤ FOR RIP RAP TABULATION, SEE SHEET NO. 32.
 ② INLET ELEVATION AT DOWN-STREAM STRUCTURE. ⑥ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
 ③ CENTER OF CASTING.
 ④ CENTER OF STRUCTURE.



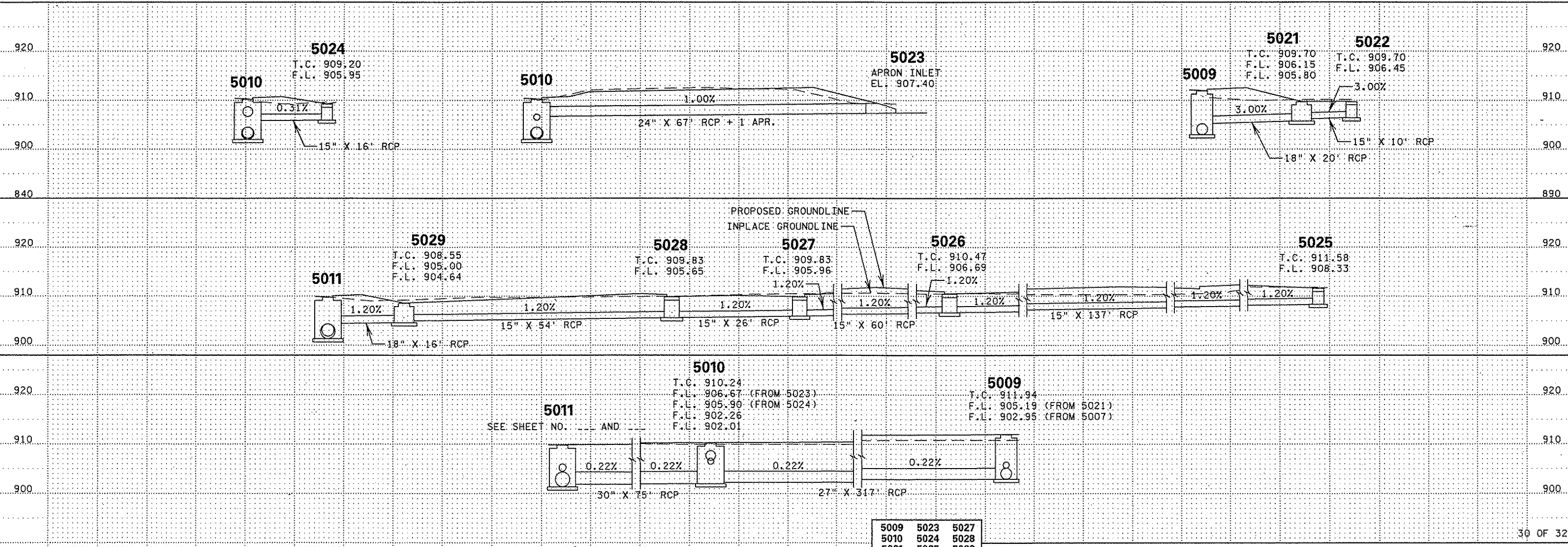
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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES											15" RCP CL II LIN FT	18" RCP CL II LIN FT	24" RCP CL II LIN FT	27" RCP CL II LIN FT	30" RCP CL II LIN FT	PLASTIC OPTION (3)	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS
					DESIGN/PAY HEIGHT					CASTING (1) ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.	INLET ELEV. (2)											
					C G OR H LIN FT	48-4020 LIN FT	54-4020 LIN FT	66-4020 LIN FT	DES SPEC LIN FT																
5009		65NB	850+17.00	33.0' RT	CB						B-9		911.94									(4)			
15009	5010	65NB	850+17.00	31.9' RT				8.9				YES		902.95	902.26				317			(5)			
5010		65NB	847+00.00	33.0' RT							B-9		910.24									(4)			
15010	5011	65NB	847+00.00	31.4' RT	CB				8.2			YES		902.00	901.85				75	CP/PVC		(5)			
5021		65NB	850+17.00	52.4' RT							M-11		909.70									(4)			
15021	5009	65NB	850+17.00	52.4' RT	CB		4.0							905.74	905.26		20					(5)			
5022	5021	65NB	850+07.00	53.2' RT	CB	3.3					M-11		909.70	906.39	906.21	10									
5023	5010	65NB	847+00.00	40.0' LT	APR									907.40	906.70					1	RC APRON	1 (6) (7)			
5024	5010	65NB	847+00.00	49.1' RT	CB	3.3					M-11		909.20	905.94	905.91	16									
5025	5026	ABERD	164+50.00	35.0' RT	CB	3.3					M-11		911.58	908.31	906.68	137									
5026	5027	ABERD	165+68.00	13.0' RT	CB					4.1	R-3067V		910.47	906.68	905.96	60									
5027	5028	ABERD	166+36.04	13.0' RT	CB					4.2	R-3067V		909.83	905.96	905.65	26									
5028	5029	ABERD	166+36.04	13.0' LT	CB					4.5	R-3067V	YES	909.83	905.65	905.02	54									
5029		65NB	846+25.00	48.5' RT							M-11		908.55									(4)			
15029	5011	65NB	846+25.00	47.7' RT	CB		4.0							904.62	904.49		16					(5)			
TOTALS						9.9	8.0	8.9	8.2	12.8						303	36	67	317	75	1	1			

NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE
 FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- (1) FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- (2) INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- (3) CP/PVC DENOTES CORRUGATED PLASTIC OR POLY VINYL CHLORIDE.
- (4) CENTER OF CASTING.
- (5) CENTER OF STRUCTURE.
- (6) TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).
- (7) SAFETY APRON.



5009	5023	5027
5010	5024	5028
5021	5025	5029
5022	5026	

DRAINAGE TABULATIONS AND PROFILES

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DRAINAGE TABULATION (THIS SHEET ONLY)

STRUCTURE NO.		STRUCTURE LOCATION			DRAINAGE STRUCTURES										15" RCP CL V	18" RCP CL II	24" RCP CL II	27" RCP CL II	PLASTIC OPTION ③	APRON EACH	APRON TYPE	GUIDE POSTS TYPE B EACH	REMARKS		
					DESIGN/PAY HEIGHT						CASTING ① ASSEMBLY TYPE	STEPS REQ'D	TOP OF CASTING ELEV.	OUTLET ELEV.										INLET ELEV. ②	
		FLWS FROM	FLWS TO	ALIGN.	STATION	OFFSET	TYPE	C OR H LIN FT	A OR F LIN FT	48-4020 LIN FT															54-4020 LIN FT
5002		65NB	858+00.00	37.0' RT								A-7D		911.07										④	
15002	5003	65NB	858+00.00	35.7' RT	MH					6.3			YES		904.93	904.78								⑤	
5003	5004	65NB	857+27.00	37.0' RT	CB		7.2					B-9	YES	911.99	904.77	904.75								④	
5004		65NB	857+17.00	37.0' RT								B-9		912.03										④	
15004	5005	65NB	857+17.00	35.9' RT	CB				7.2				YES		904.74	904.60								⑤	
5005	5006	65NB	856+50.00	37.0' RT	CB		7.6					B-9	YES	912.25	904.59	904.35								④	
5006		65NB	855+37.00	37.0' RT								B-9		912.50										④	
15006	5007	65NB	855+37.00	36.2' RT	CB			8.3					YES		904.09	903.89								⑤	
5007	5009	65NB	854+40.00	36.0' RT	CB		8.7					B-9	YES	912.65	903.88	902.96								⑤	
5016	5002	65NB	858+00.00	35.6' LT	APR										906.32	906.01					1	RC APRON	1	⑥	
5017	5002	65NB	858+00.00	59.3' RT	APR										905.00	904.94					1	RC APRON	1	⑥	
5018	5019	65NB	857+40.50	90.5' RT	CB						3.6	R-3067V		910.36	907.11	906.66								④	
5019		65NB	857+17.00	50.0' RT								M-11		910.83										④	
15019	5004	65NB	857+17.00	49.2' RT	CB			4.6					YES		906.27	906.18								⑤	
5020	5006	65NB	855+37.00	51.0' RT	CB	3.3						M-11		911.30	908.04	908.01								⑤	
TOTALS						3.3	23.5	12.9	7.2	6.3	3.6											2		2	

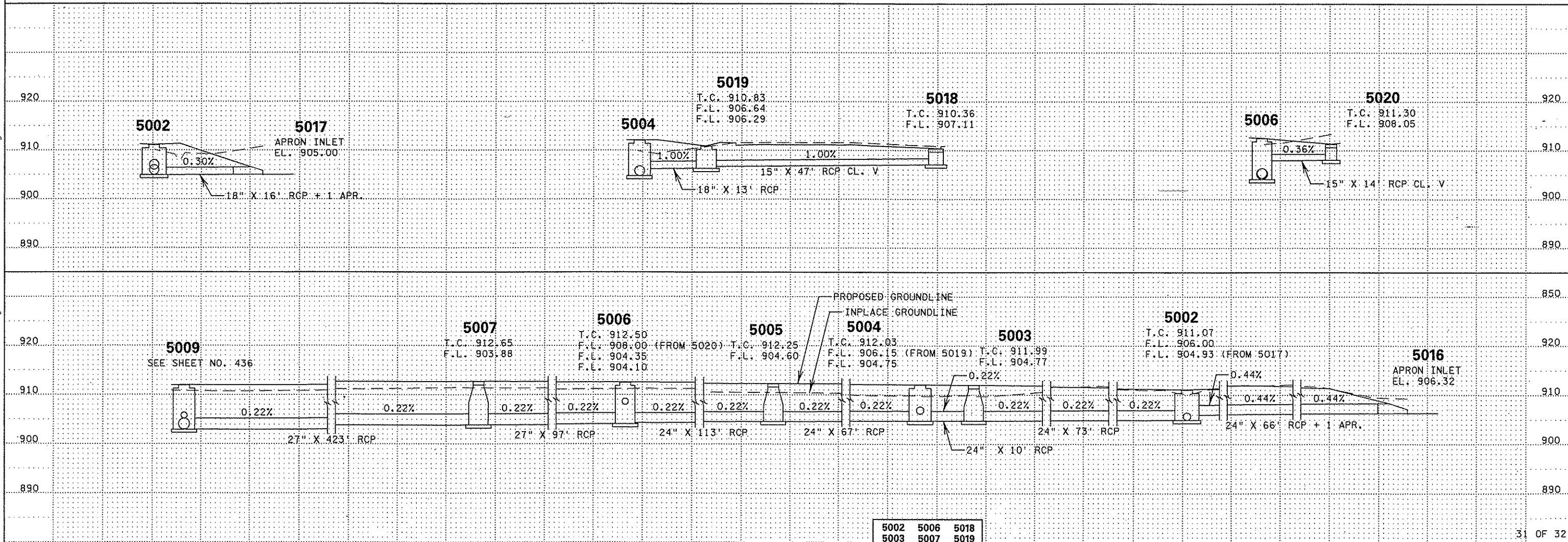
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NOTE: STA. AND OFFSET IS AT
 - CENTER OF STRUCTURE UNLESS NOTED OTHERWISE.
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE

FLOWLINE (F.L.) ELEVATIONS ARE AT CENTER OF STRUCTURE.
 ALL CONCRETE PIPE SEWER IS DESIGN 3006 GASKET JOINT PIPE.

- ① FOR CASTING ASSEMBLY KEY & SUMMARY, SEE SHEET NO. 441.
- ② INLET ELEVATION AT DOWN-STREAM STRUCTURE.
- ③ CENTER OF CASTING.
- ④ CENTER OF STRUCTURE.

⑤ TIE LAST 3 JOINTS AT APRON END (INCIDENTAL).



5002	5006	5018
5003	5007	5019
5004	5016	5020
5005	5017	

31 OF 32

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PIPE CULVERTS TABULATION (THIS SHEET ONLY)

APRON NO.		STRUCTURE LOCATION			INLET ELEV.	OUTLET ELEV.	24"	30"	6' W X 4' H	24"	30"	6' W X 4' H	GUIDE POSTS TYPE B	REMARKS
		ALIGN.	STATION	OFFSET			RCP CL II	RCP CL II	CONC BOX	RC APRON	RC APRON	CONC BOX		
FROM	TO						LIN FT	LIN FT	LIN FT	EACH	EACH	EACH	EACH	
5070	5071	65SB	840+50.14	51.5' LT	902.50		71			1			1	①
5071		65SB	840+50.00	35.8' RT		902.75				1			1	①
5072	5073	65NB	840+50.00	35.9' LT	901.00			79			1		1	①
5073		65NB	840+50.00	57.5' RT		902.20					1		1	①
5200	5201	CSAH14E	240+00.00	98.0' RT	893.50				230			1	1	
5201		CSAH14W	240+00.00	88.0' LT		893.50						1	1	
TOTALS							71	79	230	2	2	2	6	

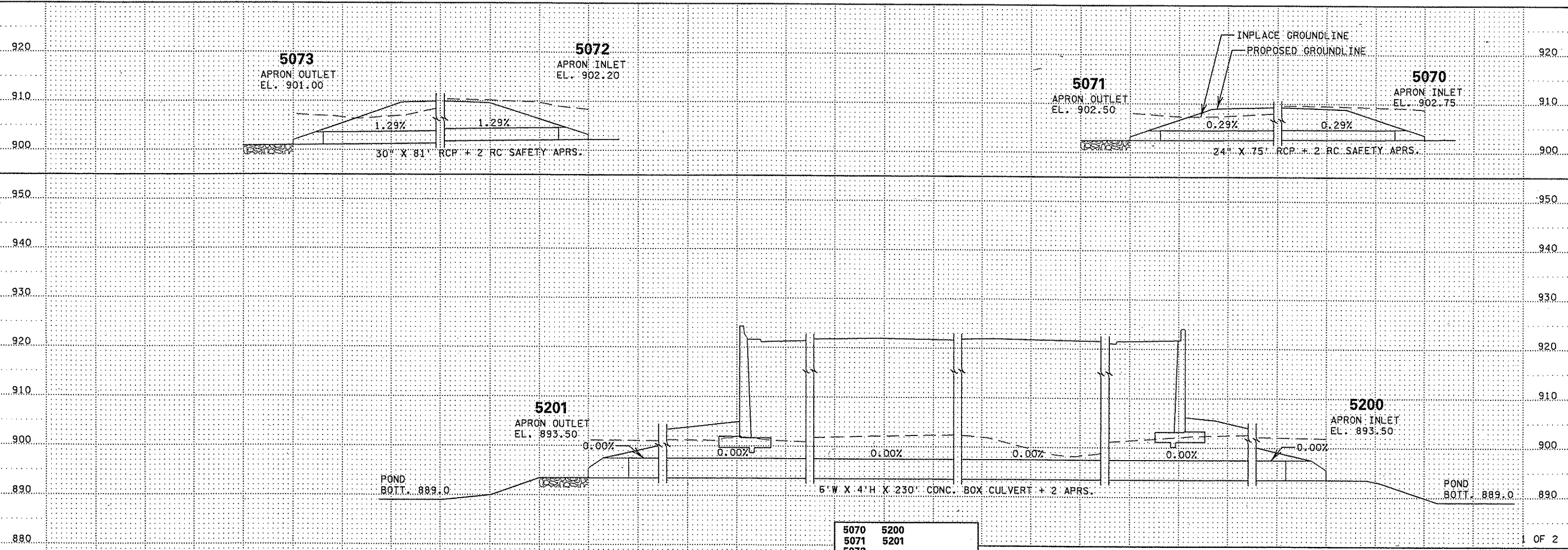
NOTE: STA. AND OFFSET IS AT
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE

ALL CONCRETE PIPE CULVERT IS DESIGN 3006 GASKET JOINT PIPE.

TIE ALL JOINTS. (INCIDENTAL)

FOR RIPRAP AND SOD QUANTITIES AT APRON ENDS, SEE TABULATION ON SHEET NO. 32.

- ① SAFETY APRON.
- ② FOR DETAILS, SEE SHEET NO. 403 TO 404.



5070	5200
5071	5201
5072	
5073	

PIPE CULVERTS TABULATIONS AND PROFILES

DISTRICT #: METRO
 IPLOT NAME: nj-h23_d13_j
 PATH & FILENAME: S:\Design\065\0208\123\Final\0208123_d13.dgn
 PLOTTED/REVISED: 05-APR-2007 14:41

PIPE CULVERTS TABULATION (THIS SHEET ONLY)

APRON NO.		STRUCTURE LOCATION			INLET ELEV.	OUTLET ELEV.	15"	24"	22" SPAN	15"	24"	21" SPAN	GUIDE POSTS TYPE B EACH	REMARKS
		ALIGN.	STATION	OFFSET			RCP CL V LIN FT	RCP CL II LIN FT	RCP-A CL IIA LIN FT	RC APRON EACH	RC APRON EACH	CS-A APRON EACH		
5100	5101	65NB	869+95.00	59.0' RT	901.50		105					1	①	
5101		65NB	871+11.00	71.0' RT	899.00							1	①	
5105	5106	65NB	888+16.00	42.0' RT	902.66			45				1		
5106		65NB	888+73.00	42.0' RT	902.57							1		
5107	5108	65NB	882+42.78	76.0' RT								1	①	
5108		65NB	881+77.00	76.0' RT								1	①	
5110	5111	65NB	877+91.00	37.0' RT	900.82		10							
5111		65NB	877+91.00	52.9' RT	900.61							1	①	
5120	5121	CSAH14E	219+05.30	32.8' RT	904.96				1			1		
5121		CSAH14E	219+48.60	33.1' RT	904.64				1			1		
TOTALS							31	169	45	2	5	2	9	

NOTE: STA. AND OFFSET IS AT
 - END OF RC APRON, CS SAFETY APRON
 - END OF BARREL, CS PIPE

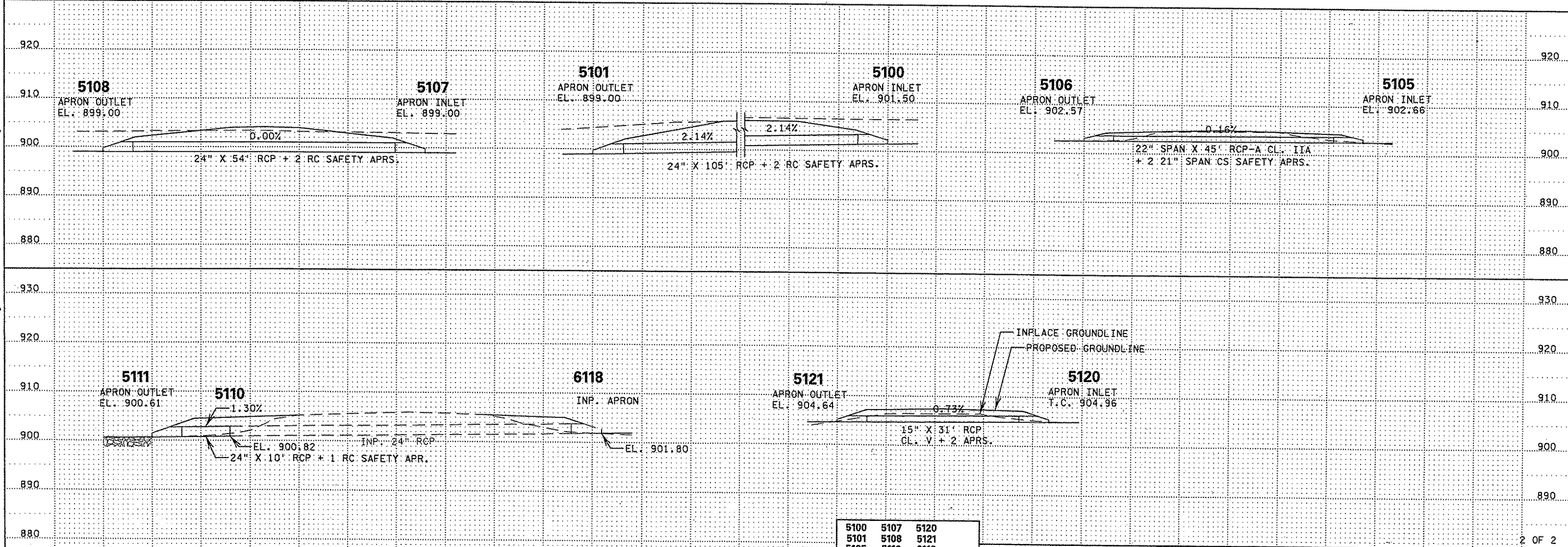
ALL CONCRETE PIPE CULVERT IS DESIGN 3006 GASKET JOINT PIPE.

TIE ALL JOINTS. (INCIDENTAL)

FOR RIPRAP AND SOD QUANTITIES AT APRON ENDS, SEE TABULATION ON SHEET NO. 32.

① SAFETY APRON.

PLOTTED/REVISED: 28-MAR-2007 12:19



DISTRICT #: METRO
 PLOT NAME: nj-123.d13-2
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5100	5107	5120
5101	5108	5121
5105	5110	6118
5106	5111	

PIPE CULVERTS TABULATIONS AND PROFILES

PLOTTED/REVISED: 28-MAR-2007 12:19

STORM SEWER SUMMARY-PIPE SEWER

HPP/STP FUNDING Z

ITEM	UNIT	SHEET NO.																																	PROJECT TOTALS				
		407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438						
15" RC PIPE APRON	EACH									1	1																											3	
18" RC PIPE APRON	EACH									1												1																6	
21" RC PIPE APRON	EACH																									1												6	
24" RC PIPE APRON	EACH					2			1																	1												6	
30" RC PIPE APRON	EACH																											2							1			6	
36" RC PIPE APRON	EACH	1						1	1																			1										6	
42" RC PIPE APRON	EACH			1								1										1				1												6	
48" RC PIPE APRON	EACH										1																											2	
54" RC PIPE APRON	EACH										1																											2	
																																						1	
15" CS SAFETY APRON & GRATE 3128	① EACH						1																															1	
21" CS SAFETY APRON & GRATE 3128	① EACH						1																															1	
																																						1	
18" RC SAFETY APRON	EACH	2																																				3	
21" RC SAFETY APRON	EACH	1																																		1		3	
24" RC SAFETY APRON	EACH	1					1																															1	
30" RC SAFETY APRON	EACH							1																													1	4	
																																						1	
CONSTRUCT BULKHEAD	EACH				1		1									1																						3	
CONNECT TO EXISTING STORM SEWER	EACH	2	2	2			1			4				1	3	1																					7	26	
GUIDE POST TYPE B	EACH	5			5	2	2	2	2	2	2																											26	
4" POLYSTYRENE INSULATION	SQ YD																																						38
																																							4

① MODIFIED TO A 1:10 SLOPE

PIPE CULVERTS SUMMARY HPP/STP FUNDING AA

ITEM	UNIT	SHEET NO.		PROJECT TOTALS
		439	440	
15" RC PIPE SEWER DESIGN 3006 CL V	LIN FT		31	31
24" RC PIPE SEWER DESIGN 3006 CL II	LIN FT	71	169	240
30" RC PIPE SEWER DESIGN 3006 CL II	LIN FT	79		79
22" SPAN RC PIPE ARCH SEWER CL. IIA	LIN FT		45	45
6 X 4 CONCRETE BOX CULVERT	LIN FT	230		230
15" RC PIPE APRON	EACH		2	2
21" SPAN CS SAFETY APRON	EACH		2	2
24" RC SAFETY APRON	EACH	2	5	7
30" RC SAFETY APRON	EACH	2		2
6 X 4 CONCRETE BOX CULV END SECT	EACH	2		2
GUIDE POST TYPE B	EACH	6	9	15

DISTRICT #: METRO
 PLOT NAME: Im-123-JbSS-3
 PATH & FILENAME: S:\Design\065\0208123\Final\0208123.tblSS.dgn

PIPE SEWER SUMMARY
 PIPE CULVERT SUMMARY

DRAWN BY: LM	CHECKED BY: EK	CERTIFIED BY: <u>Josephine Lundquist</u> <small>LICENSED PROFESSIONAL ENGINEER</small>	LIC. NO. 20534 DATE <u>4/5/2007</u>	STORM SEWER SUMMARY
				STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 443 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 10:04

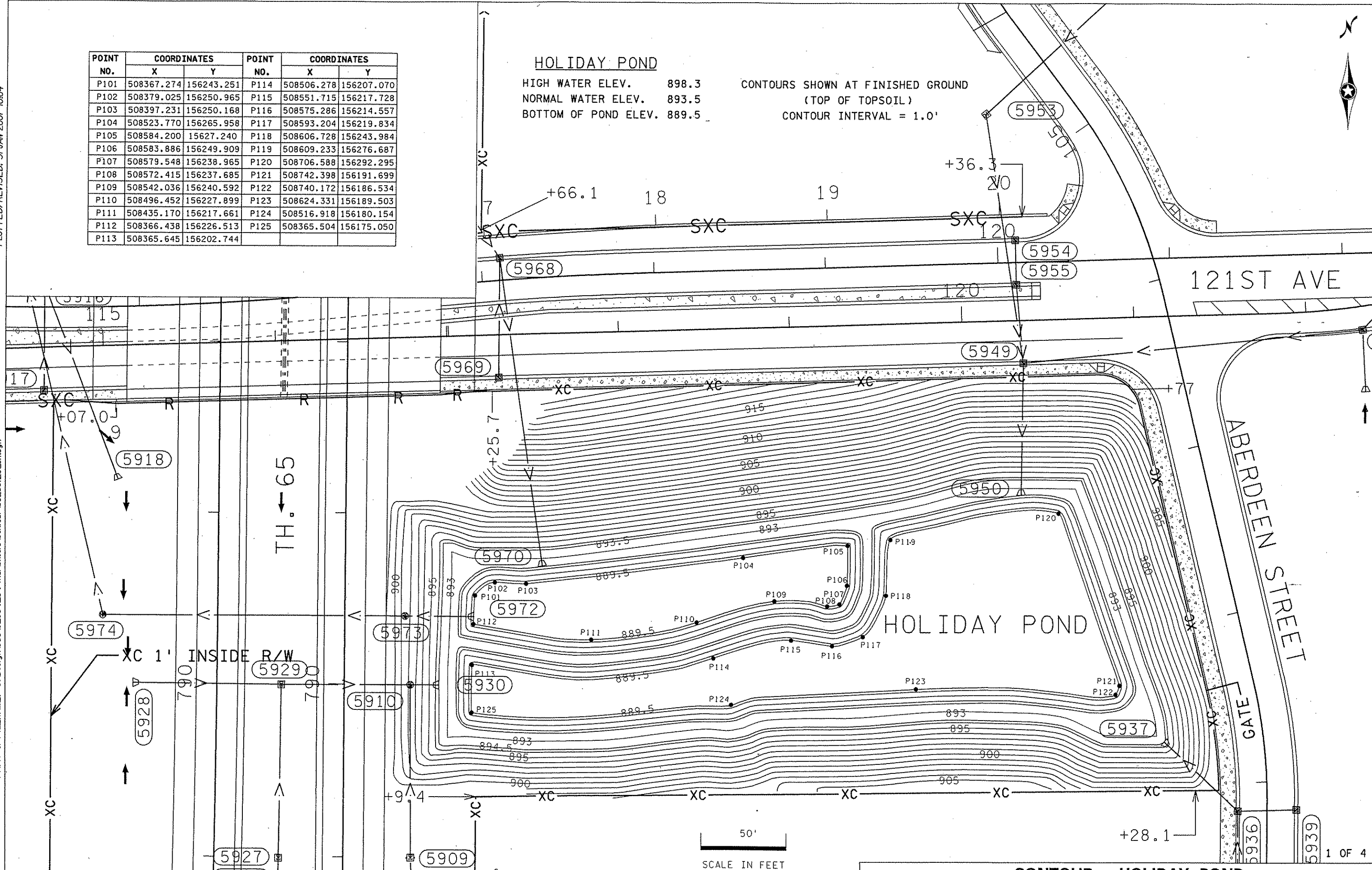
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PLOT NAME: d0208123.ctb
PATH & FILENAME: S:\Design\065\0208\23\Final\sheet\Contour\0208123.ctb.dgn

POINT NO.	COORDINATES		POINT NO.	COORDINATES	
	X	Y		X	Y
P101	508367.274	156243.251	P114	508506.278	156207.070
P102	508379.025	156250.965	P115	508551.715	156217.728
P103	508397.231	156250.168	P116	508575.286	156214.557
P104	508523.770	156265.958	P117	508593.204	156219.834
P105	508584.200	15627.240	P118	508606.728	156243.984
P106	508583.886	156249.909	P119	508609.233	156276.687
P107	508579.548	156238.965	P120	508706.588	156292.295
P108	508572.415	156237.685	P121	508742.398	156191.699
P109	508542.036	156240.592	P122	508740.172	156186.534
P110	508496.452	156227.899	P123	508624.331	156189.503
P111	508435.170	156217.661	P124	508516.918	156180.154
P112	508366.438	156226.513	P125	508365.504	156175.050
P113	508365.645	156202.744			

HOLIDAY POND

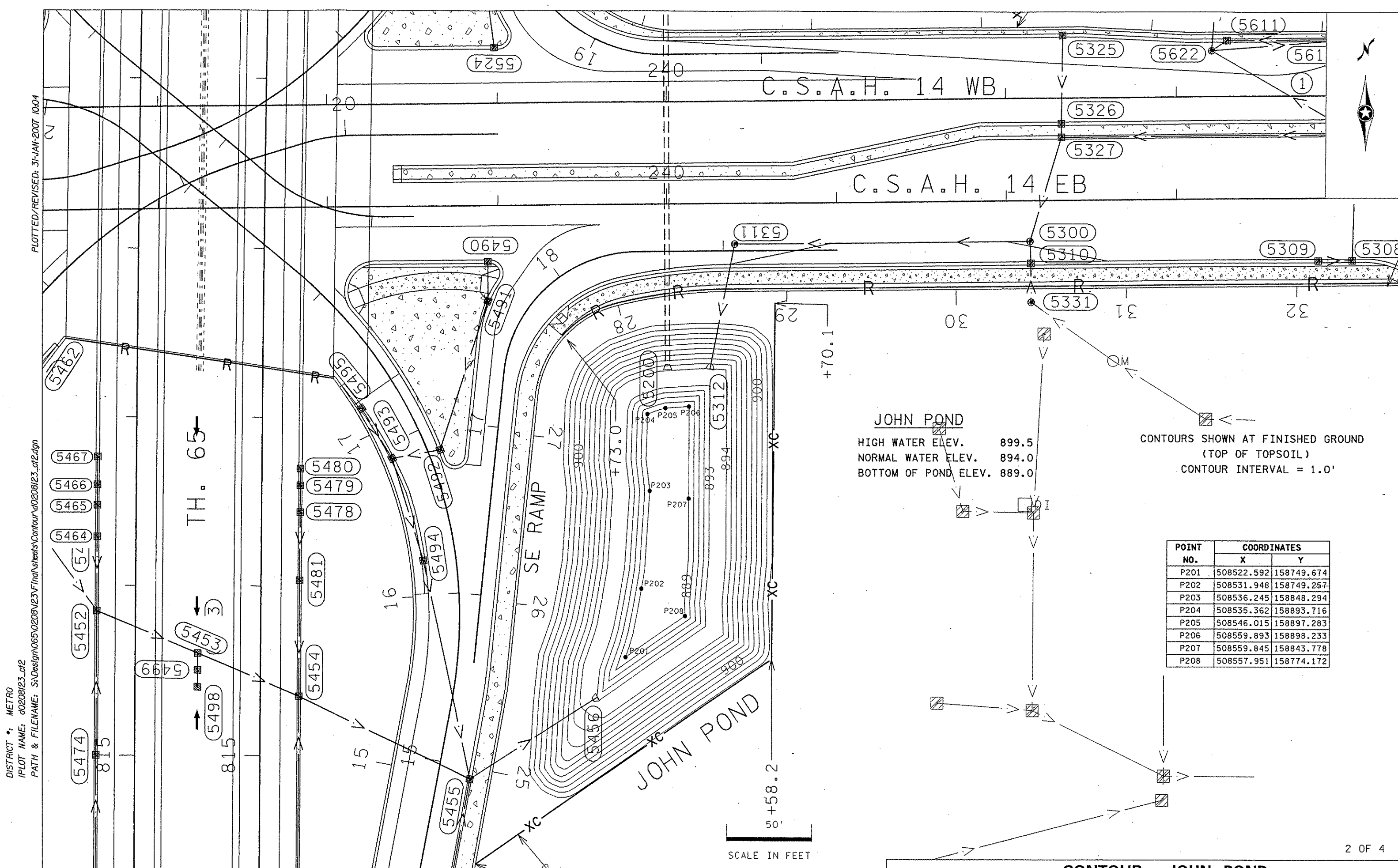
HIGH WATER ELEV. 898.3
 NORMAL WATER ELEV. 893.5
 BOTTOM OF POND ELEV. 889.5

CONTOURS SHOWN AT FINISHED GROUND
 (TOP OF TOPSOIL)
 CONTOUR INTERVAL = 1.0'



50'
SCALE IN FEET

CONTOUR - HOLIDAY POND



JOHN POND
 HIGH WATER ELEV. 899.5
 NORMAL WATER ELEV. 894.0
 BOTTOM OF POND ELEV. 889.0

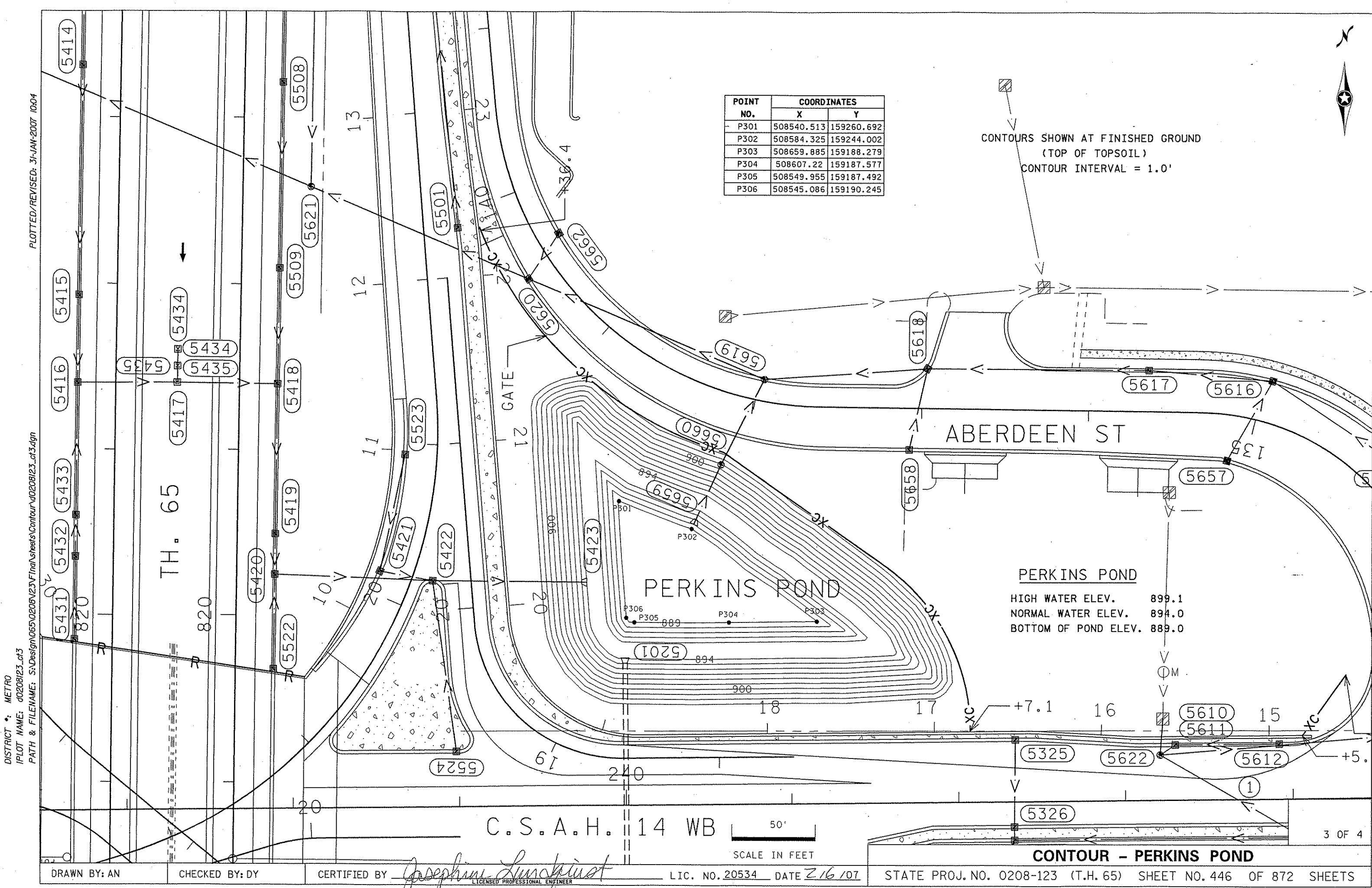
CONTOURS SHOWN AT FINISHED GROUND
 (TOP OF TOPSOIL)
 CONTOUR INTERVAL = 1.0'

POINT NO.	COORDINATES	
	X	Y
P201	508522.592	158749.674
P202	508531.948	158749.257
P203	508536.245	158848.294
P204	508535.362	158893.716
P205	508546.015	158897.283
P206	508559.893	158898.233
P207	508559.845	158843.778
P208	508557.951	158774.172

50'
 SCALE IN FEET

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DISTRICT #: METRO
 PLOT NAME: 0208123.ctb
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POINT NO.	COORDINATES	
	X	Y
P301	508540.513	159260.692
P302	508584.325	159244.002
P303	508659.885	159188.279
P304	508607.22	159187.577
P305	508549.955	159187.492
P306	508545.086	159190.245

CONTOURS SHOWN AT FINISHED GROUND
(TOP OF TOPSOIL)
CONTOUR INTERVAL = 1.0'

PERKINS POND
 HIGH WATER ELEV. 899.1
 NORMAL WATER ELEV. 894.0
 BOTTOM OF POND ELEV. 889.0

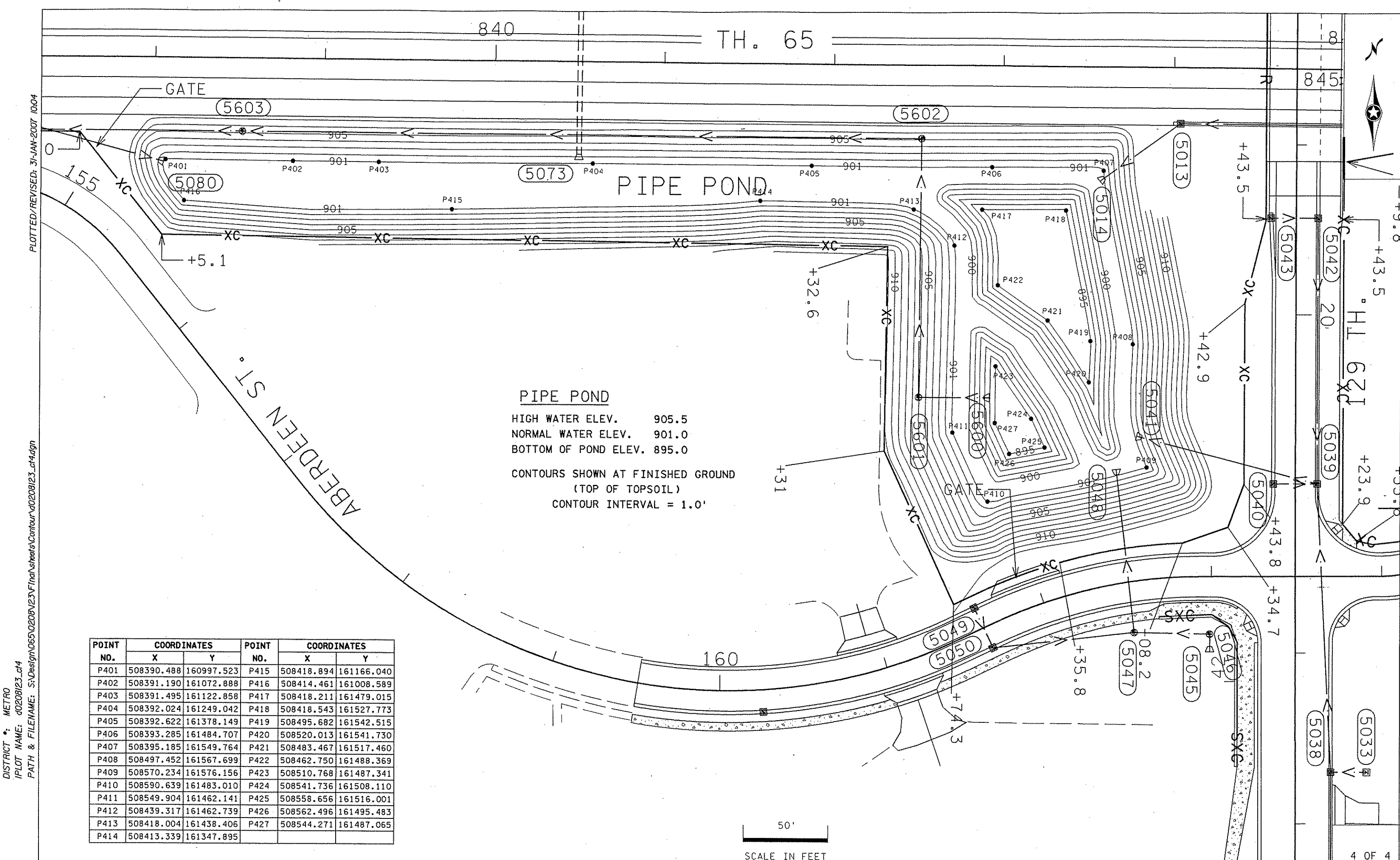
C.S.A.H. 14 WB

50'
SCALE IN FEET

CONTOUR - PERKINS POND

PLOTTED/REVISED: 31-JAN-2007 10:04

DISTRICT: METRO
 PLOT NAME: 0208123.ctb
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PIPE POND
 HIGH WATER ELEV. 905.5
 NORMAL WATER ELEV. 901.0
 BOTTOM OF POND ELEV. 895.0
 CONTOURS SHOWN AT FINISHED GROUND
 (TOP OF TOPSOIL)
 CONTOUR INTERVAL = 1.0'

POINT NO.	COORDINATES		POINT NO.	COORDINATES	
	X	Y		X	Y
P401	508390.488	160997.523	P415	508418.894	161166.040
P402	508391.190	161072.888	P416	508414.461	161008.589
P403	508391.495	161122.858	P417	508418.211	161479.015
P404	508392.024	161249.042	P418	508418.543	161527.773
P405	508392.622	161378.149	P419	508495.682	161542.515
P406	508393.285	161484.707	P420	508520.013	161541.730
P407	508395.185	161549.764	P421	508483.467	161517.460
P408	508497.452	161567.699	P422	508462.750	161488.369
P409	508570.234	161576.156	P423	508510.768	161487.341
P410	508590.639	161483.010	P424	508541.736	161508.110
P411	508549.904	161462.141	P425	508558.656	161516.001
P412	508439.317	161462.739	P426	508562.496	161495.483
P413	508418.004	161438.406	P427	508544.271	161487.065
P414	508413.339	161347.895			

50'
 SCALE IN FEET

CONTOUR - PIPE POND

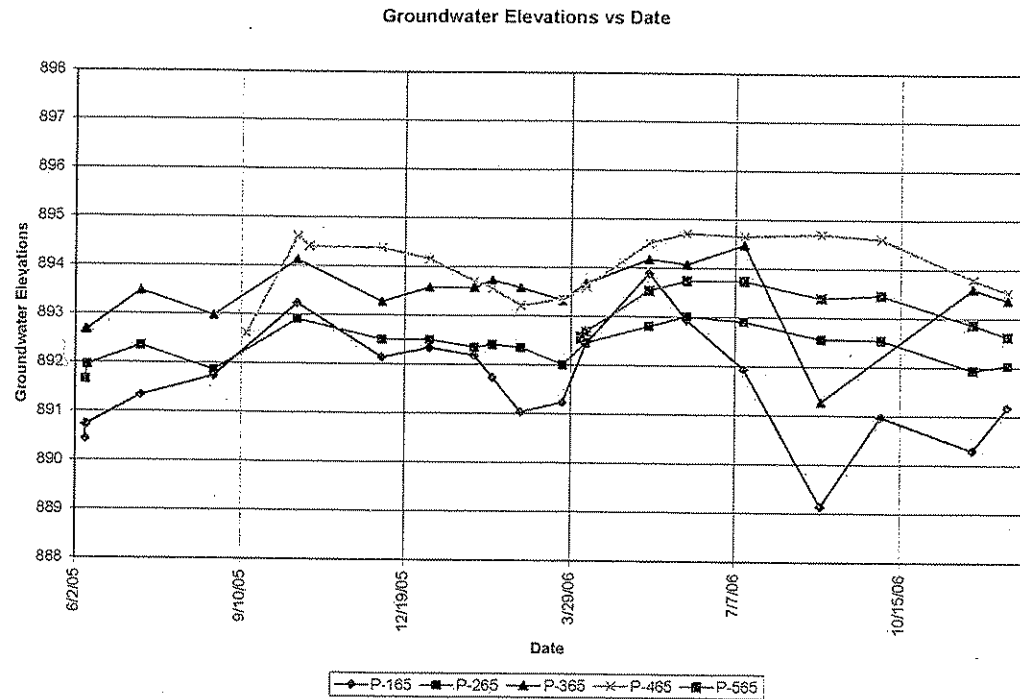
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WATER RESOURCES NOTES

1. FIVE PIEZOMETERS WERE INSTALLED AT THE FOLLOWING LOCATIONS:

PIEZOMETER NO.	ALIGNMENT	STATION	OFFSET	X	Y
P-165	65	793+50	100ft left	508,107.70	156,542.72
P-265	65	817+10	100ft left	508,111.81	158,901.88
P-365	65	843+75	60ft right	508,398.34	161,565.31
P-465	65	878+50	50ft right	508,442.69	165,042.91
P-565	65	868+43.6	85.6ft right	508,454.62	165,033.89

GROUNDWATER ELEVATION READINGS FROM THE PIEZOMETERS ARE DISPLAYED IN THE FOLLOWING GRAPH



FOR COMPARISON, NWL OF PROPOSED HOLIDAY, JOHN, AND PERKINS STORMWATER PONDS ARE 893.5, 894.0, 894.0, RESPECTIVELY, THEREFORE GROUNDWATER IS LIKELY TO IMPACT GRADING OF PORTIONS OF STORMWATER PONDS AND STORM SEWER. THE CONTRACTOR SHALL PREPARE THEIR BID ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE BMP(S) TO REMOVE VISIBLE TURBIDITY FROM DEWATERING SYSTEM DISCHARGES

2. TAILWATER WITHIN THE POND THAT THE EXISTING 54" RCP COUNTY DITCH DISCHARGES TO ON THE NORTH SIDE OF THE TH 242 AND WEST OF ULYSSES (STRUCTURE 63350) WILL COMPLICATE CONSTRUCTION OF RELOCATED COUNTY DITCH AND OTHER DEEPER STORMSEWER. THE CONTRACTOR SHALL PROVIDE TEMPORARY BULKHEADS AS REQUIRED.

3. CONTRACTOR SHALL PROVIDE TEMPORARY CONNECTIONS AND SCHEDULE WORK SO THAT EXISTING COUNTY DITCH STORMSEWERS ON CSAH 14 / TH 242 AND PAUL PARKWAY REMAIN FUNCTIONAL AS THEY ARE RELOCATED.

4. DESIGN OF THE SYSTEM IS BASED UPON PROVIDING STAGE VS. SURFACE AREA FOR EACH OF THE FOUR STORMWATER PONDS AS SHOWN IN THE FOLLOWING TABLES. AN OPEN SURFACE AREA EQUAL TO OR GREATER THAN THAT SHOWN SHALL BE PROVIDED AT EACH ELEVATION TABULATED.

PIPE POND

ELEVATION (FT)	AREA 1 (FT ²)	AREA 2 (FT ²)	TOTAL AREA (FT ²)	AREA (AC)	STORAGE (AC-FT)	CUMULATIVE STORAGE (AC-FT)
906	57397		57397	1.32	1.25	6.43
905	51853		51853	1.19	1.13	5.18
904	46396		46396	1.07	1.00	4.05
903	41015		41015	0.94	0.88	3.05
902	35691		35691	0.82	0.76	2.17
NWL 901	30513		30513	0.70	0.50	1.41
900	8982	3669	12651	0.29	0.27	0.91
899	7645	2944	10589	0.24	0.22	0.64
898	6366	2281	8647	0.20	0.18	0.42
897	5158	1689	6847	0.16	0.14	0.25
896	4110	1176	5286	0.12	0.11	
895	3209	742	3951	0.09		

PERKINS POND

ELEVATION (FT)	AREA 1 (FT ²)	AREA 2 (FT ²)	TOTAL AREA (FT ²)	AREA (AC)	STORAGE (AC-FT)	CUMULATIVE STORAGE (AC-FT)
900	26062		26062	0.60	0.57	3.72
899	24022		24022	0.55	0.53	3.14
898	22029		22029	0.51	0.48	2.62
897	20108		20108	0.46	0.44	2.13
896	18263		18263	0.42	0.40	1.69
895	16471		16471	0.38	0.36	1.29
NWL 894	14754		14754	0.34	0.28	0.93
893	9639		9639	0.22	0.21	0.65
892	8302		8302	0.19	0.18	0.45
891	7058		7058	0.16	0.15	0.27
890	5911		5911	0.14	0.12	
889	4870		4870	0.11		

JOHN POND

ELEVATION (FT)	AREA 1 (FT ²)	AREA 2 (FT ²)	TOTAL AREA (FT ²)	AREA (AC)	STORAGE (AC-FT)	CUMULATIVE STORAGE (AC-FT)
900	24082		24082	0.55	0.53	3.30
899	22094		22094	0.51	0.49	2.77
898	20164		20164	0.46	0.44	2.28
897	18296		18296	0.42	0.40	1.84
896	16474		16474	0.38	0.36	1.44
895	14688		14688	0.34	0.32	1.08
NWL 894	13004		13004	0.30	0.24	0.77
893	8178		8178	0.19	0.17	0.52
892	6867		6867	0.16	0.14	0.35
891	5633		5633	0.13	0.12	0.21
890	4480		4480	0.10	0.09	
889	3418		3418	0.08		

HOLIDAY POND

ELEVATION (FT)	AREA 1 (FT ²)	AREA 2 (FT ²)	TOTAL AREA (FT ²)	AREA (AC)	STORAGE (AC-FT)	CUMULATIVE STORAGE (AC-FT)
899	70986		70986	1.63	1.59	12.22
898	67105		67105	1.54	1.50	10.63
897	63302		63302	1.45	1.41	9.13
896	59709		59709	1.37	1.33	7.72
895	56131		56131	1.29	1.25	6.39
894	52710		52710	1.21	1.19	5.14
NWL 893.5	50988		50988	1.17	1.03	3.95
892.5	26843	11706	38549	0.88	0.86	2.93
892	25382	10887	36269	0.83	0.78	2.07
891	22506	9289	31795	0.73	0.68	1.29
890	19687	7758	27445	0.63	0.61	
889.5	18314	7014	25328	0.58		

5. WITHIN THE PROPOSED INFILTRATION BASIN ON THE EAST SIDE OF TH 65, THE CONTRACTOR SHALL NOT MINE EXISTING GRANULAR SOILS. COMPACTION OF THE AREA SHALL BE AVOIDED PARTICULARLY AFTER SUB SOILING. CARE SHALL BE TAKEN TO AVOID DEPOSITION OF IMPERMEABLE SOILS IN THIS AREA. AFTER PLACEMENT OF TOPSOIL BORROW SPECIAL (SEE SPECIAL PROVISIONS)

6. THE FOLLOWING PERMITS APPLY (PLEASE READ THE PERMITS FOR ANY SPECIAL CONDITIONS)
 MPCA - NPDES PERMIT
 COON CREEK WATERSHED

WATER RESOURCES NOTES

REVISION DATE 06/02/03

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STORM WATER POLLUTION PREVENTION PLAN NARRATIVE

PROJECT DESCRIPTION / LOCATION

SP 0208-123 IS LOCATED ON T.H. 65, WITHIN THE CITY OF BLAINE AND ANOKA COUNTY. THE PROJECT IS LOCATED WITHIN THE COON CREEK WATERSHED DISTRICT.

THE PROJECT INCLUDES:

- * CONSTRUCTING OF NEW CROSSINGS AT PAUL PARKWAY AND 129TH STREET, A NEW SINGLE-POINT INTERCHANGE AT CSAH 14, AND ASSOCIATED ROAD WORK.
- * RELOCATION OF EXISTING PIPED COUNTY DITCH ON CSAH 14.
- * RELOCATION OF EXISTING PIPED / OPEN COUNTY DITCH ON PAUL PARKWAY
- * STORM SEWER AND CULVERT WORK
- * CREATING FOUR NEW STORMWATER PONDING AREAS TO TREAT THE RUNOFF FROM NEW AND EXISTING IMPERVIOUS SURFACES
- * CREATING A NEW INFILTRATION BASIN
- * CONSTRUCTION OF TWO INFILTRATION TRENCHES

SITE MAPS

IN ADDITION TO WHAT IS LOCATED WITHIN THIS PLAN, EXISTING AND PROPOSED SITE MAPS HAVE BEEN CREATED AND ARE KEPT ON FILE WITH MN/DOT WATER RESOURCES ENGINEERING. THE SITE MAPS ARE ROLL MAPS THAT SHOW EXISTING AND PROPOSED CONTOURS, STORM SEWER LOCATIONS, FLOW APRONS, AND IMPERVIOUS SURFACE. TURF ESTABLISHMENT AND EROSION CONTROL ITEMS ARE NOT PLOTTED ON THE ROLL MAPS, BUT CAN BE FOUND WITHIN THIS PLAN.

PLEASE CONTACT BRUCE IRISH, MN/DOT WATER RESOURCES ENGINEERING (651)-634-2156, FOR ANY QUESTIONS REGARDING THE SITE MAPS

ENVIRONMENTALLY SENSITIVE AREAS

THERE ARE NO WETLANDS WITHIN THE PROJECT LIMITS.

OUTSTANDING RESOURCE VALUE WATERS (ORVWS)

THERE ARE NO OUTSTANDING RESOURCE VALUE WATERS WITHIN THE PROJECT LIMITS.

TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS

THERE ARE NO SPECIAL OR IMPAIRED WATERS WITHIN THE PROJECT BOUNDARIES. THERE ARE NO SPECIAL WATERS WITHIN 2,000 FEET OF THE PROJECT BOUNDARIES OR STORMWATER DISCHARGES.

LAND FEATURE CHANGES AREA (ACRES)

TOTAL PROJECT AREA DISTURBED:	87
TOTAL EXISTING IMPERVIOUS SURFACE AREA:	39.8
TOTAL EXISTING PERVIOUS SURFACE AREA:	47.2
TOTAL PROPOSED IMPERVIOUS SURFACE AREA:	45.8
TOTAL PROPOSED PERVIOUS SURFACE AREA:	41.2

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	TITLE	LOCATION
TEMPORARY EROSION CONTROL MEASURES	EROSION CONTROL	SHEET NO. 450-461
PERMANENT EROSION CONTROL MEASURES	TURF ESTABLISHMENT	SHEET NO. 462-473
DIRECTION OF FLOW	DRAINAGE PLAN	SHEET NO. 384-404
FINAL STABILIZATION	TURF ESTABLISHMENT	SHEET NO. 462-473
POND LOCATIONS	CONSTRUCTION PLAN	SHEET NO. 195-206
POND CONTOURS	CONTOUR PLAN SHEETS	SHEET NO. 444-447
DRAINAGE STRUCTURES	DRAINAGE PLAN	SHEET NO. 384-404
DRAINAGE TABULATION	DRAINAGE TABULATIONS & PROFILES	SHEET NO. 405-443
STORM SEWER PROFILE SHEETS	DRAINAGE TABULATIONS & PROFILES	SHEET NO. 405-443
STORM SEWER TABULATION	DRAINAGE TABULATIONS & PROFILES	SHEET NO. 405-443
EROSION CONTROL TABULATION	EROSION CONTROL	SHEET NO. 450-461
TURF ESTABLISHMENT TABULATION	TURF ESTABLISHMENT	SHEET NO. 462-473

CONTACTS

THE RESPONSIBLE PARTIES FOR IMPLEMENTATION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) ARE INCLUDED IN THE TABLE BELOW.

AGENCY	PHONE NUMBER
MN/DOT CONSTRUCTION - GOLDEN VALLEY CONTRACTOR	763-797-3072

OTHER CONTACTS / RESOURCES

AGENCY	PHONE NUMBER
MPCA 24 HOUR EMERGENCY NOTIFICATION	651-649-5451 OR 800-422-0798
ANOKA CONSERVATION DISTRICT	763-434-2030
DNR AREA HYDROLOGIST	651-772-7910
MN/DOT ENVIRONMENTAL SERVICES	651-284-3787
MN/DOT DESIGN PROJECT MANAGER	651-582-1019
MN/DOT WATER RESOURCES	651-634-2156
CITY OF BLAINE ENGINEERING	651-785-6158
CITY OF BLAINE PUBLIC WORKS	763-785-6165 (BUSINESS HOURS)
	763-427-1212 (AFTER HOURS)
COON CREEK WATERSHED DISTRICT	763-755-0975
ANOKA COUNTY HIGHWAY DEPARTMENT	763-862-4200
MN/DOT MAINTENANCE ANOKA TRUCK STATION	763-576-5798

TIMING OF EROSION CONTROL

GENERAL EROSION CONTROL IMPLEMENTATION:
SILT FENCE (MACHINE SLICED OR HEAVY DUTY) WILL BE INSTALLED PRIOR TO CONSTRUCTION. BIOROLLS WILL BE PLACED ACCORDING TO THE "DRAINAGE, AND EROSION CONTROL PLAN" RIPRAP AND FILTER BLANKET WILL BE PLACED AT INDICATED OUTLETS WITHIN 24 HOURS OF THE OUTLET PLACEMENT. INLET PROTECTION WILL CHANGE DEPENDING ON WHEN THE STRUCTURE IS INSTALLED, RISER RINGS PLACED, CURB INSTALLED, ETC. STREET SWEEPING WILL BE DONE AS NEEDED THROUGHOUT THE JOB. THE DISTURBED SOILS WILL BE SEEDED/BLANKETED, WITHIN A MAXIMUM OF 14 CALENDAR DAYS OR AS OTHERWISE REQUIRED IN THE TIME ALLOTMENT GIVEN BY THE NPDES PERMIT OR ACCORDING TO THE "TURF ESTABLISHMENT PLAN". THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE DISTURBED AREA UNTIL VEGETATION IS ESTABLISHED. ONCE VEGETATION IS ESTABLISHED AND CONSTRUCTION IS FINISHED IN THE AREA, THE SILT FENCE AND ANY OTHER TEMPORARY EROSION CONTROL THAT WILL NOT BIODEGRADE WILL BE REMOVED, AND ANY ADDITIONAL PERMANENT EROSION CONTROL WILL BE PLACED. STORMWATER PONDS WILL BE CREATED EARLY IN THE PROJECT AS SHOWN IN THE STAGING PLAN TO SERVE AS CONSTRUCTION SEDIMENT BASINS. PONDS SHALL BE CLEANED TO PLAN POND CONTOURS AT THE END OF THE PROJECT.

DEWATERING / BASIN DRAINING

SOIL BORINGS / PIEZOMETERS INDICATE THAT SOME CONSTRUCTION WILL BE IN THE GROUNDWATER TABLE. SEE WRE NOTES

POLLUTION PREVENTION MANAGEMENT MEASURES

POLLUTION PREVENTION MANAGEMENT MEASURES ARE INCLUDED IN THE SPECIAL PROVISIONS OF THE PROJECT

INSPECTORS LOG / MAINTENANCE

THE INSPECTORS LOG AND MAINTENANCE NEEDED WILL BE COMPLETED ACCORDING TO THE NPDES II RULES. METRO WATER RESOURCES ENGINEERING SHOULD RECEIVE A COPY OF THE INSPECTORS LOG AND ANY FIELD CHANGES.

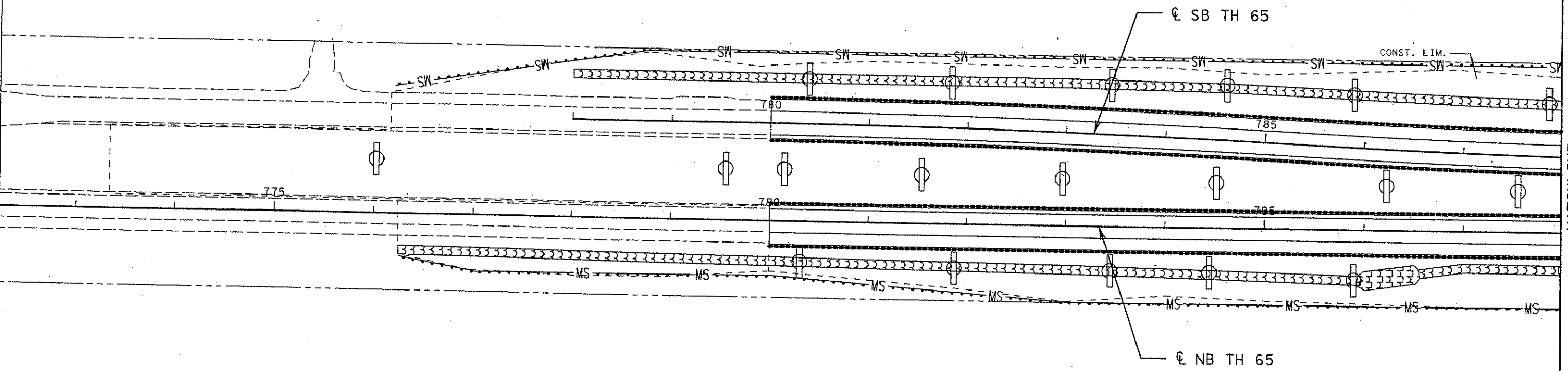
NOTICE OF TERMINATION

MN/DOT CONSTRUCTION WILL FILE THE FORM, PER REGULATIONS LISTED

DISTRICT #: METRO
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 PATH & FILENAME: S:\Design\065\0208123\Final\sheet\WRE_SWPP\0208123_SWPP.dgn
 PLOTTED/REVISED: 31-JAN-2007 10:04

PLOTTED/REVISED: 28-MAR-2007 09:00

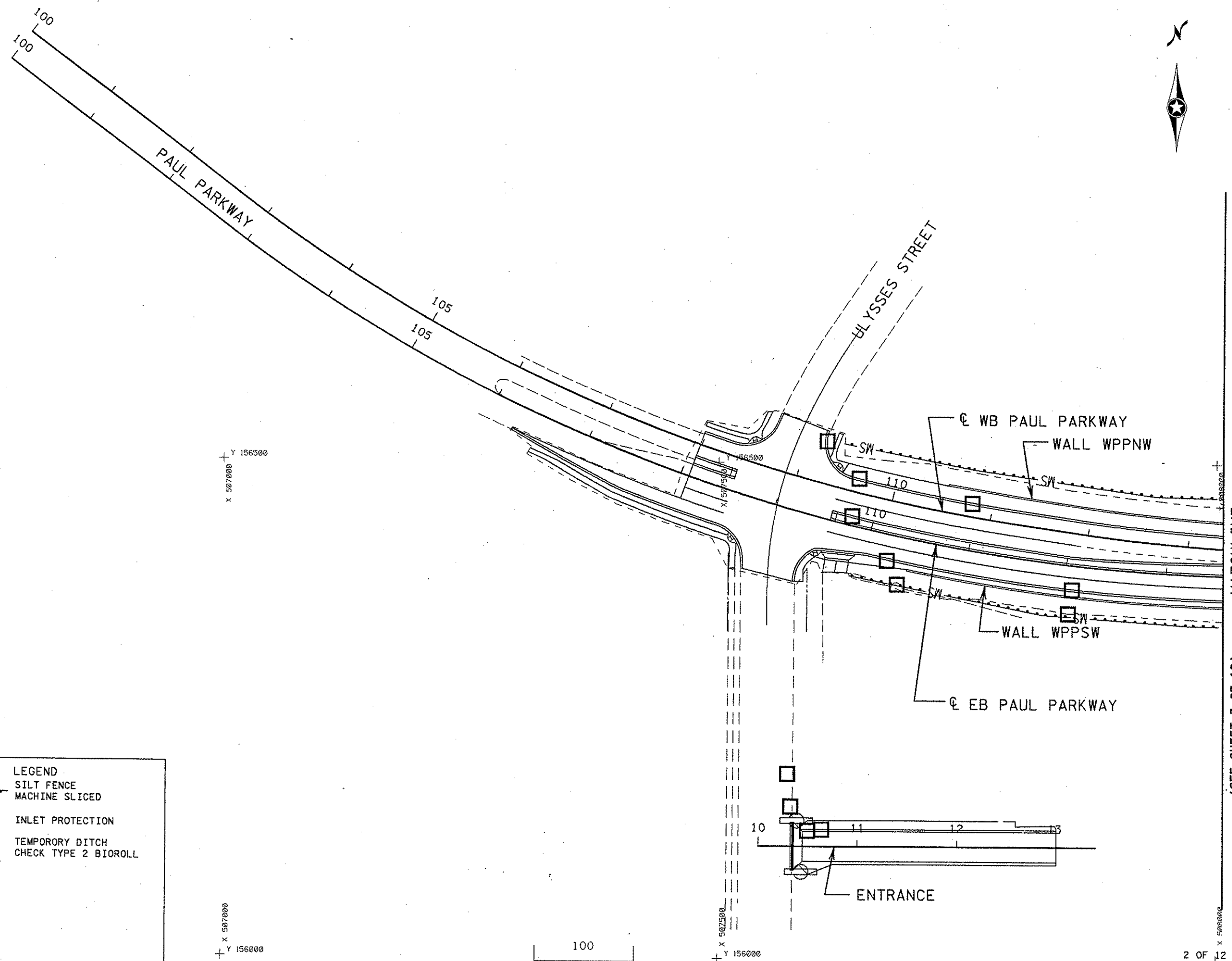
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MATCHLINE
(SEE SHEET 3 OF 12)

LEGEND	
---MS---	SILT FENCE MACHINE SLICED
[]	EROSION CONTROL BLANKET CAT 3
[]	EROSION CONTROL BLANKET CAT 5
[□]	INLET PROTECTION
[⊕]	TEMPORARY DITCH CHECK TYPE 2 BIOROLL
-----	SHOULDER TACK

100
SCALE IN FEET



X 506500
Y 156500

X 507000
Y 156500

X 506500
Y 156000

X 507000
Y 156000

X 502500
Y 156000

X 508000
Y 156000

LEGEND

- MS SILT FENCE MACHINE SLICED
- INLET PROTECTION
- TEMPORARY DITCH CHECK TYPE 2 BIOROLL

100
SCALE IN FEET

MATCHLINE
(SEE SHEET 3 OF 12)

2 OF 12

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

EROSION CONTROL

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 451 OF 872 SHEETS

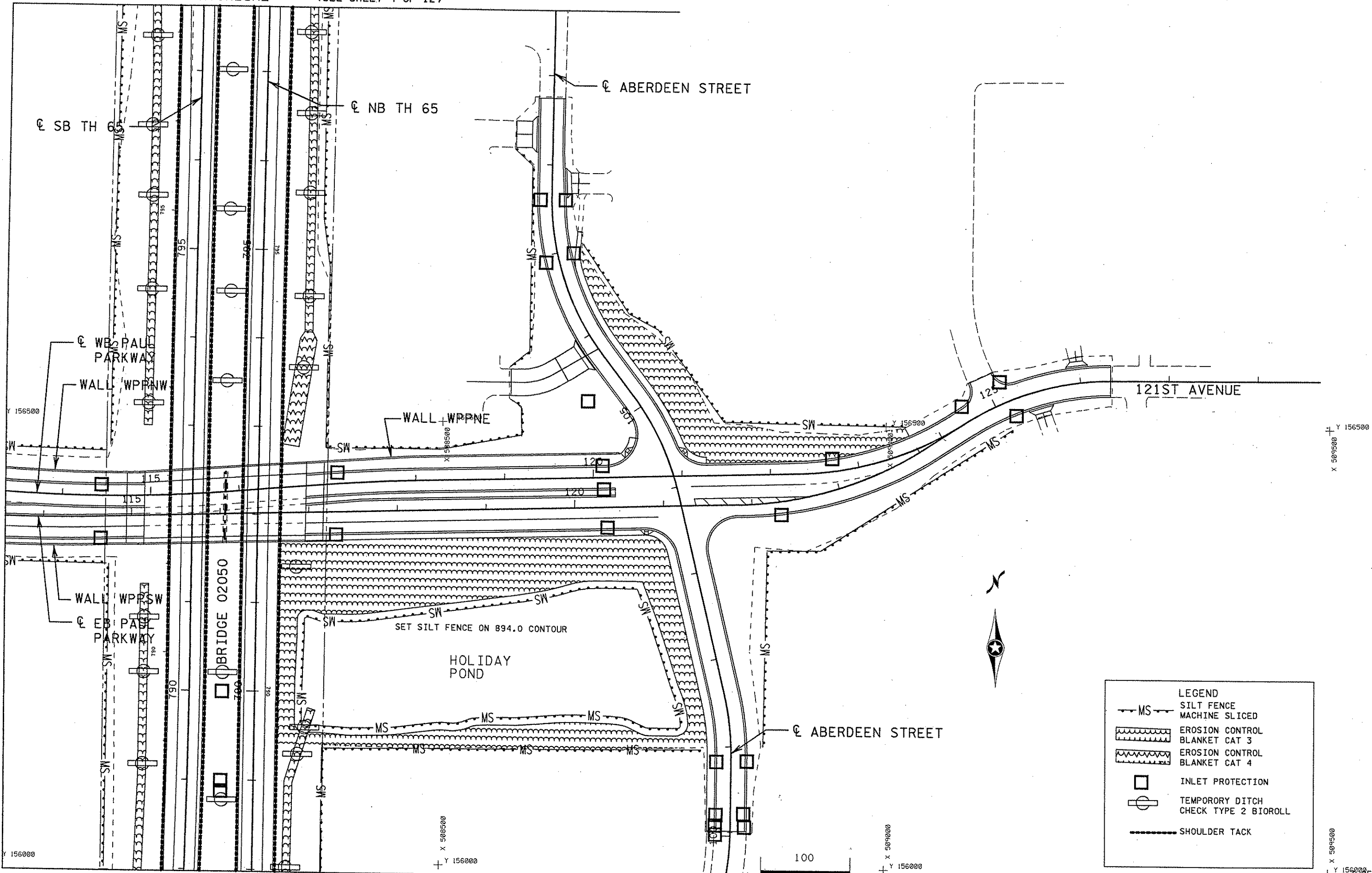
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PLOTTED/REVISED: 28-MAR-2007 09:01

MATCHLINE (SEE SHEET 2 OF 12)

MATCHLINE (SEE SHEET 4 OF 12)

MATCHLINE (SEE SHEET 1 OF 12)



LEGEND	
	SILT FENCE MACHINE SLICED
	EROSION CONTROL BLANKET CAT 3
	EROSION CONTROL BLANKET CAT 4
	INLET PROTECTION
	TEMPORARY DITCH CHECK TYPE 2 BIOROLL
	SHOULDER TACK

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY: *Josephine Lumpkin*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

SCALE IN FEET

EROSION CONTROL

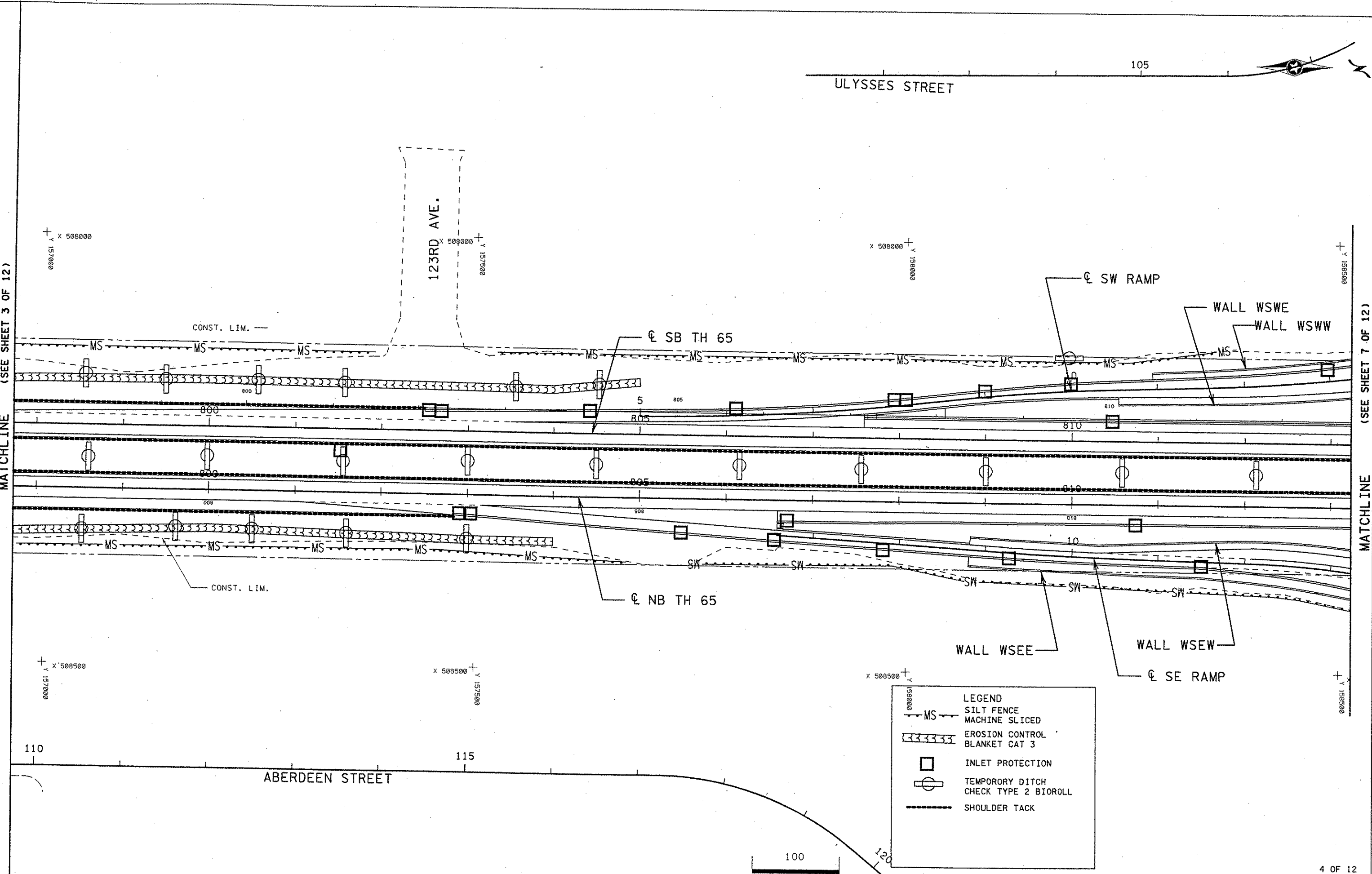
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 452 OF 872 SHEETS

X 509500
Y 156500

X 509500
Y 156000

3 OF 12

DISTRICT #: METRO
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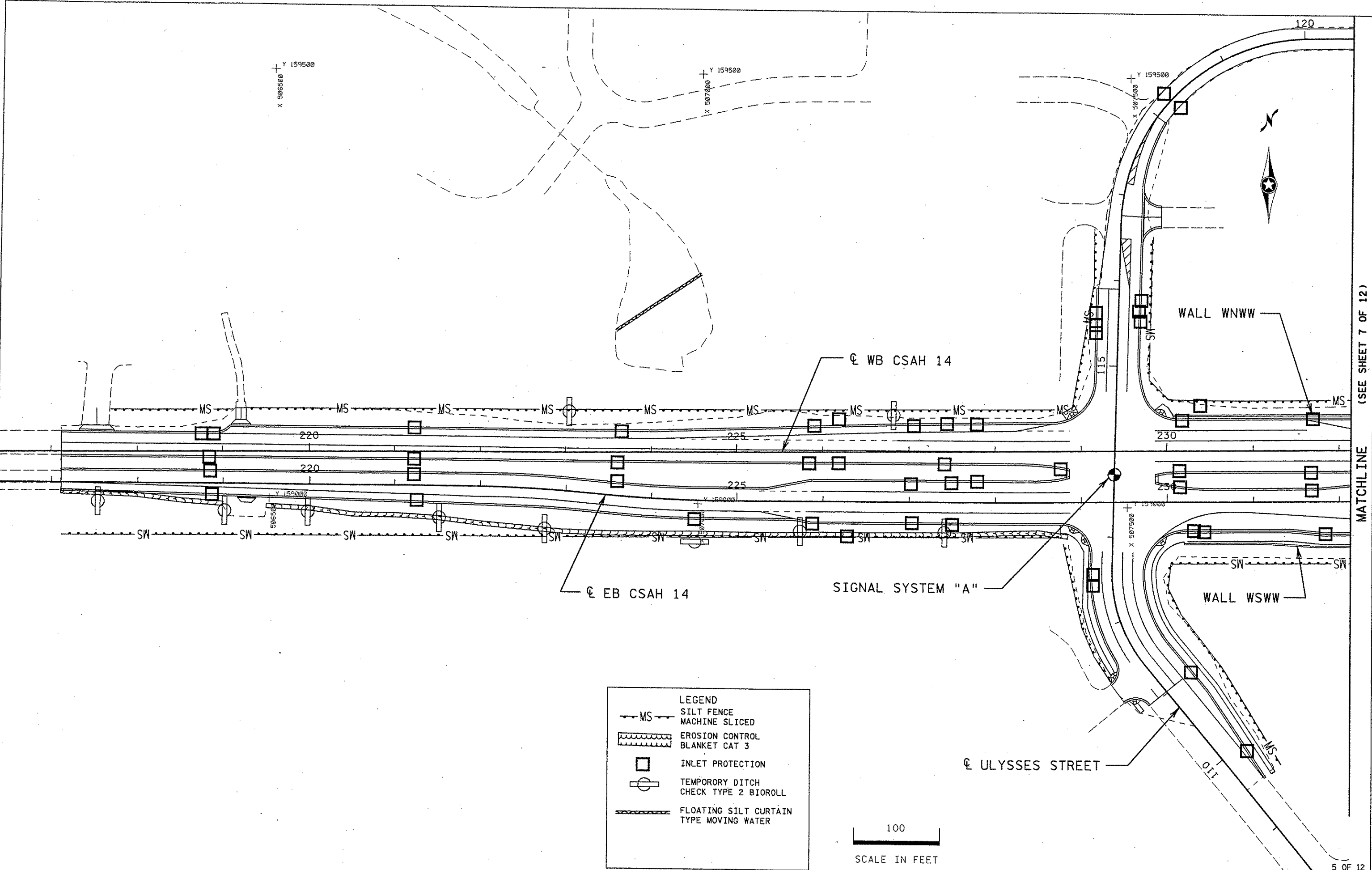
LEGEND

- MS SILT FENCE MACHINE SLICED
- EROSION CONTROL BLANKET CAT 3
- INLET PROTECTION
- TEMPORARY DITCH CHECK TYPE 2 BIOROLL
- SHOULDER TACK

DRAWN BY: MLW
 CHECKED BY: DY
 CERTIFIED BY: *Josephine Lundquist* LIC. NO. 20534 DATE / / 07

SCALE IN FEET
EROSION CONTROL
 STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 453 OF 872 SHEETS

DISTRICT #: METRO
 PLOT NAME: 0208123.ecE
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 PLOTTED/REVISED: 28-MAR-2007 09:01



LEGEND

- MS SILT FENCE MACHINE SLICED
- EROSION CONTROL BLANKET CAT 3
- INLET PROTECTION
- TEMPORARY DITCH CHECK TYPE 2 BIOROLL
- FLOATING SILT CURTAIN TYPE MOVING WATER

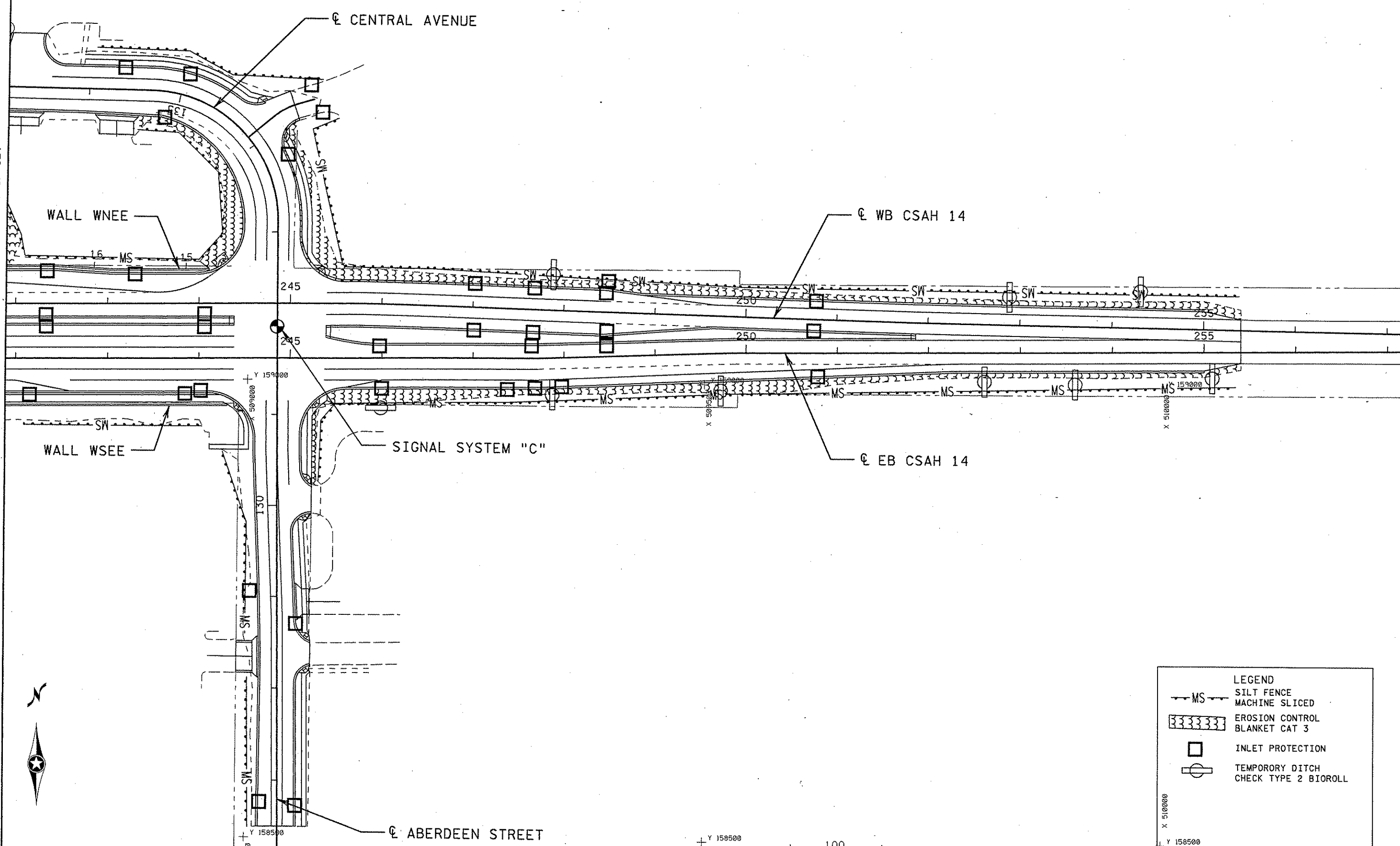
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SCALE IN FEET

MATCHLINE (SEE SHEET 7 OF 12)

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PLOTTED/REVISED: 28-MAR-2007 09:01

MATCHLINE (SEE SHEET 7 OF 12)



LEGEND	
	SILT FENCE MACHINE SLICED
	EROSION CONTROL BLANKET CAT 3
	INLET PROTECTION
	TEMPORARY DITCH CHECK TYPE 2 BIOROLL

SCALE IN FEET
 100

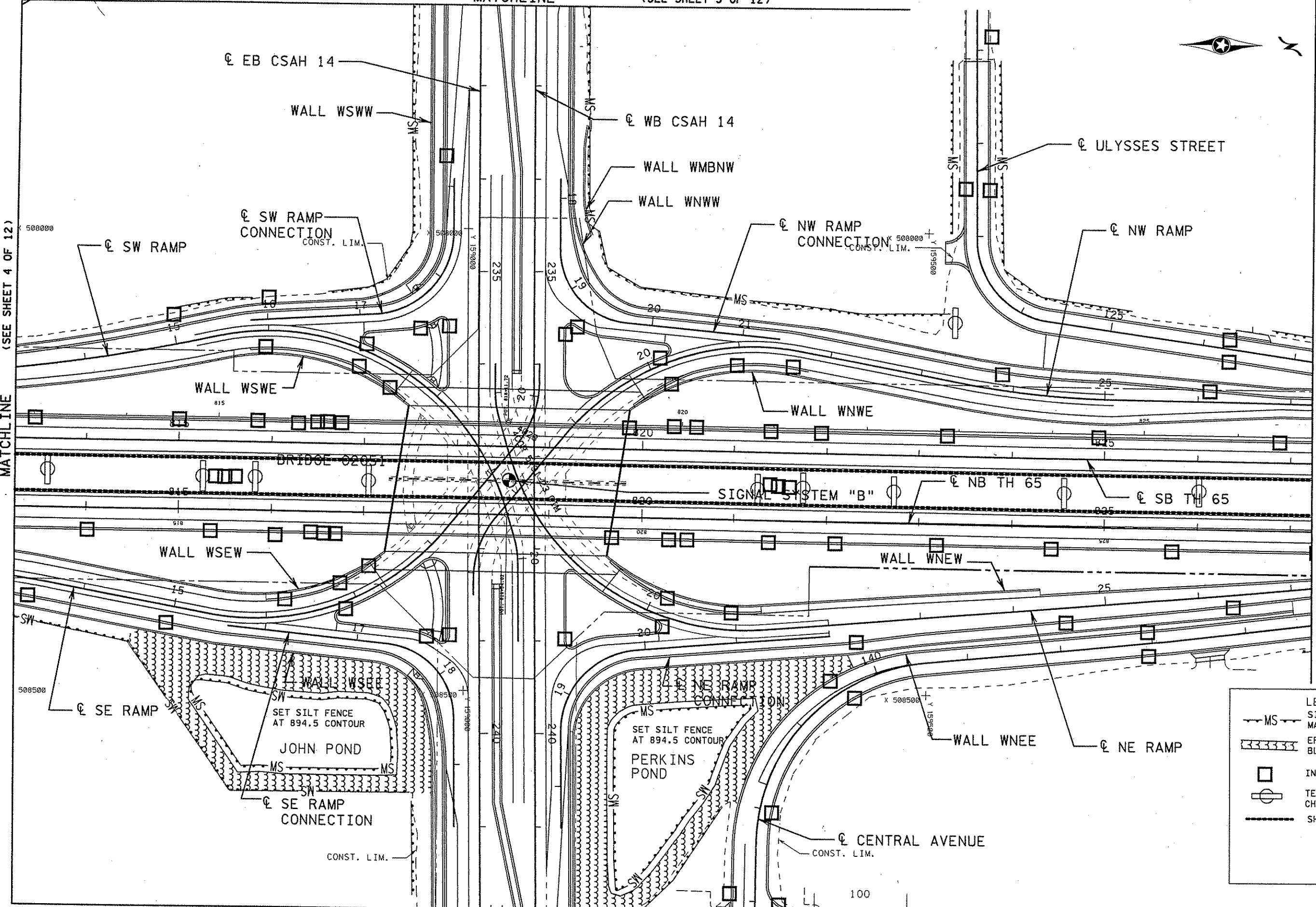
MATCHLINE (SEE SHEET 5 OF 12)



PLOTTED/REVISED: 28-MAR-2007 09:01

MATCHLINE (SEE SHEET 4 OF 12)

DISTRICT: METRO
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MATCHLINE (SEE SHEET 8 OF 12)

MATCHLINE

LEGEND

- MS SILT FENCE MACHINE SLICED
- EROSION CONTROL BLANKET CAT 3
- INLET PROTECTION
- TEMPORARY DITCH CHECK TYPE 2 BIOROLL
- SHOULDER TACK

100

MATCHLINE (SEE SHEET 6 OF 12)

SCALE IN FEET

EROSION CONTROL

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lindquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/5/07

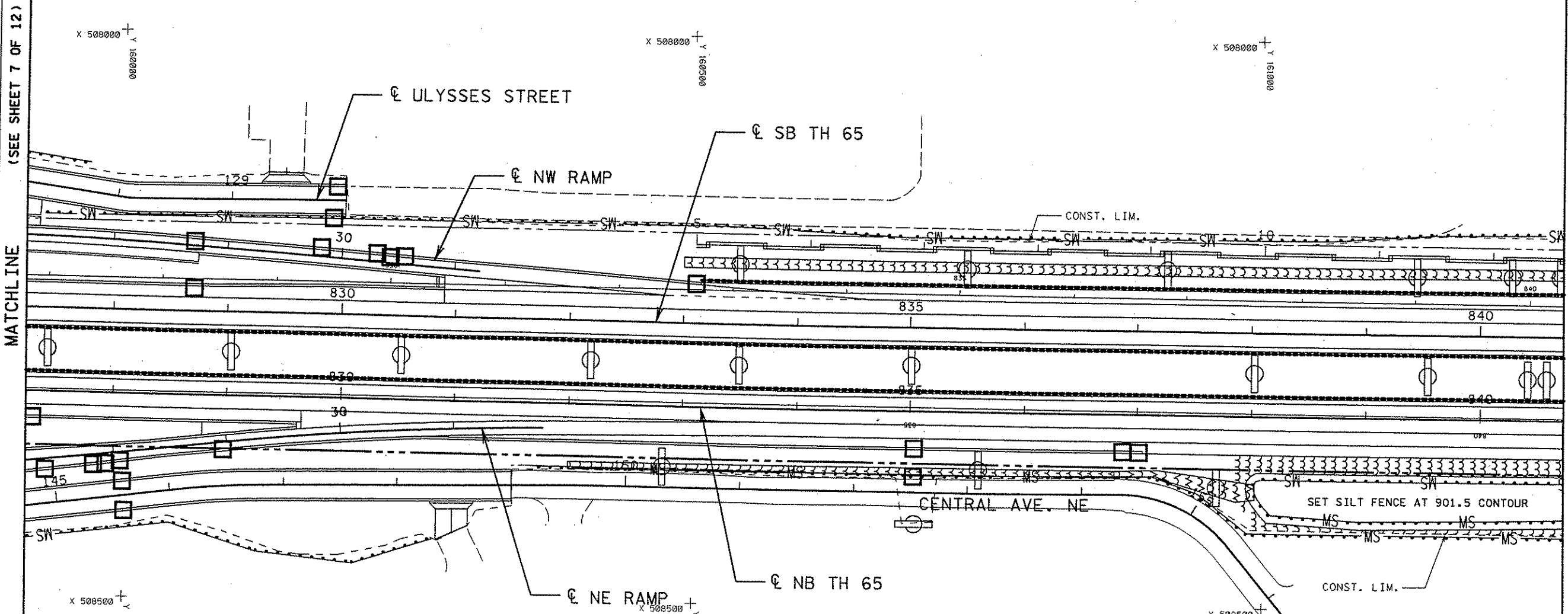
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PLOTTED/REVISED: 28-MAR-2007 09:01

(SEE SHEET 7 OF 12)

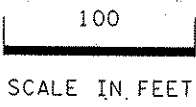
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(SEE SHEET 9 OF 12)

MATCHLINE

LEGEND	
	SILT FENCE MACHINE SLICED
	EROSION CONTROL BLANKET CAT 3
	EROSION CONTROL BLANKET CAT 4
	INLET PROTECTION
	TEMPORARY DITCH CHECK TYPE 2 BIOROLL
	SHOULDER TACK



SCALE IN FEET

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

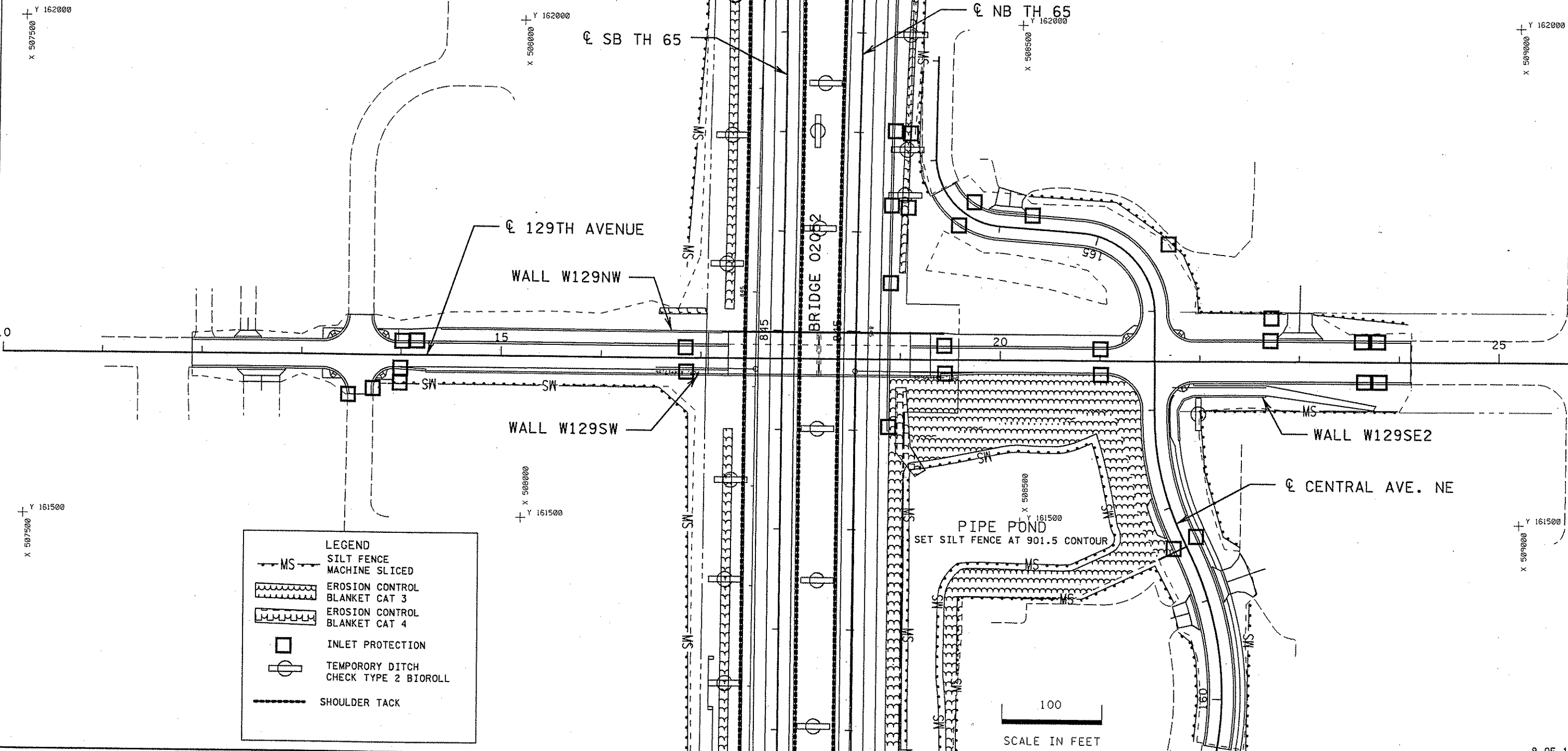
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STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 457 OF 872 SHEETS.



PLOTTED/REVISED: 28-MAR-2007 09:01

DISTRICT #: METRO
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LEGEND

- SILT FENCE MACHINE SLICED
- EROSION CONTROL BLANKET CAT 3
- EROSION CONTROL BLANKET CAT 4
- INLET PROTECTION
- TEMPORARY DITCH CHECK TYPE 2 BIOROLL
- SHOULDER TACK

100
SCALE IN FEET

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

EROSION CONTROL

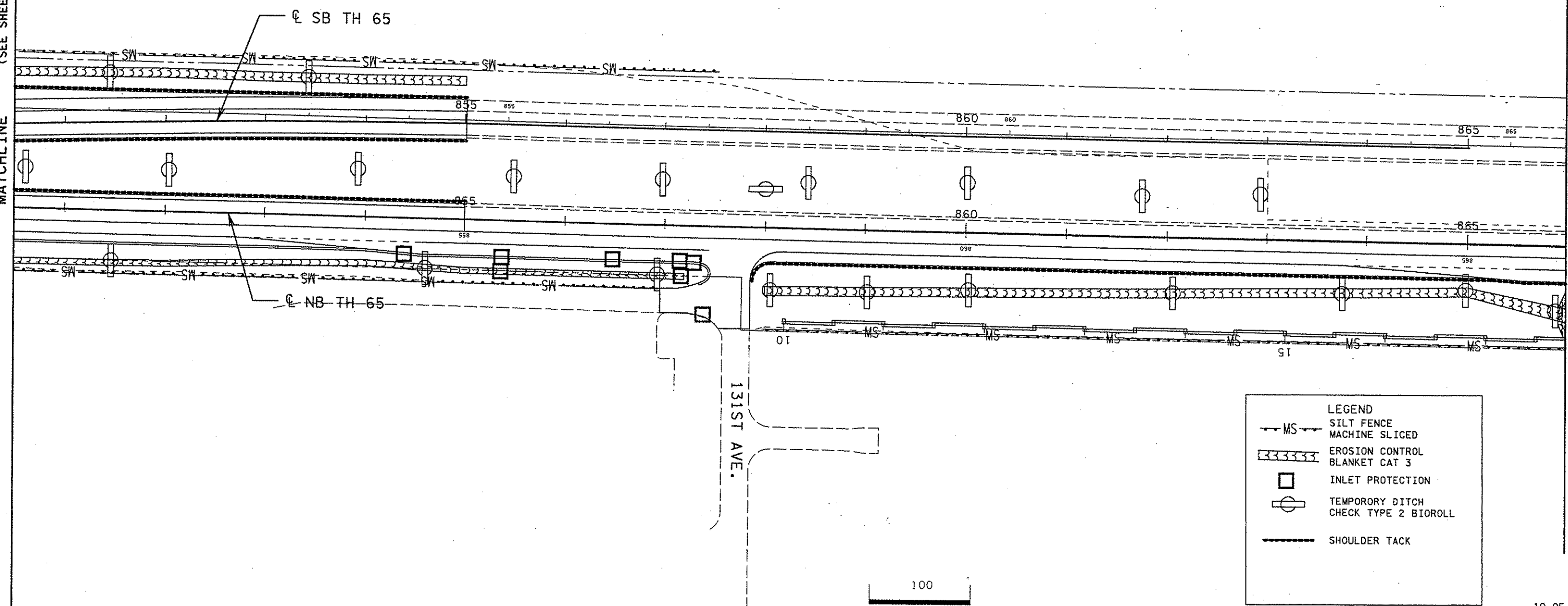
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PLOTTED/REVISED: 28-MAR-2007 09:01

MATCHLINE (SEE SHEET 9 OF 12)

MATCHLINE (SEE SHEET 11 OF 12)



LEGEND	
	SILT FENCE MACHINE SLICED
	EROSION CONTROL BLANKET CAT 3
	INLET PROTECTION
	TEMPORARY DITCH CHECK TYPE 2 BIOROLL
	SHOULDER TACK

10 OF 12

EROSION CONTROL



PLOTTED/REVISED: 28-MAR-2007 09:01

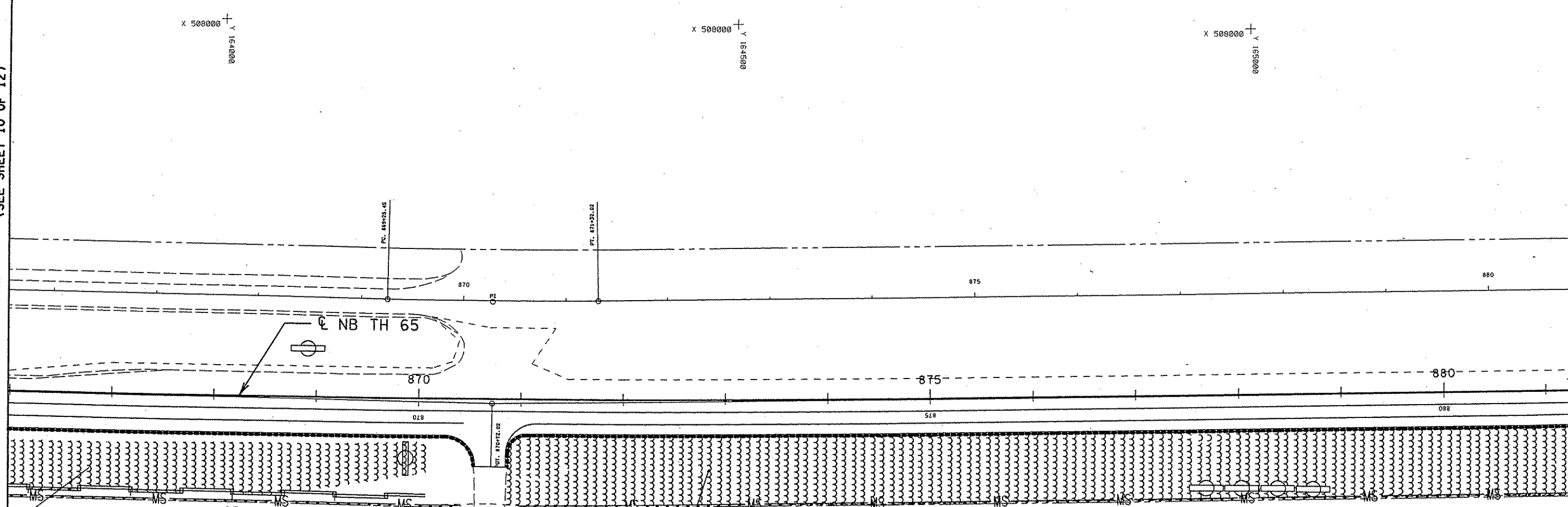
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(SEE SHEET 12 OF 12)

MATCHLINE

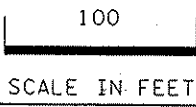
MATCHLINE



AVOID COMPACTION OF SOILS IN THE INFILTRATION BASIN AREA.
 TRACKED VEHICLES ONLY (WHEELED VEHICLES PROHIBITED).
 SEE SPECIAL PROVISIONS FOR SUBSOILING AND SPECIAL
 TOPSOIL REQUIREMENTS.

AVOID COMPACTION OF SOILS IN THE INFILTRATION BASIN AREA.
 TRACKED VEHICLES ONLY (WHEELED VEHICLES PROHIBITED).
 SEE SPECIAL PROVISIONS FOR SUBSOILING AND SPECIAL
 TOPSOIL REQUIREMENTS.

LEGEND	
	SILT FENCE MACHINE SLICED
	EROSION CONTROL BLANKET CAT 3
	INLET PROTECTION
	TEMPORARY DITCH CHECK TYPE 2 BIOROLL
	SHOULDER TACK



DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

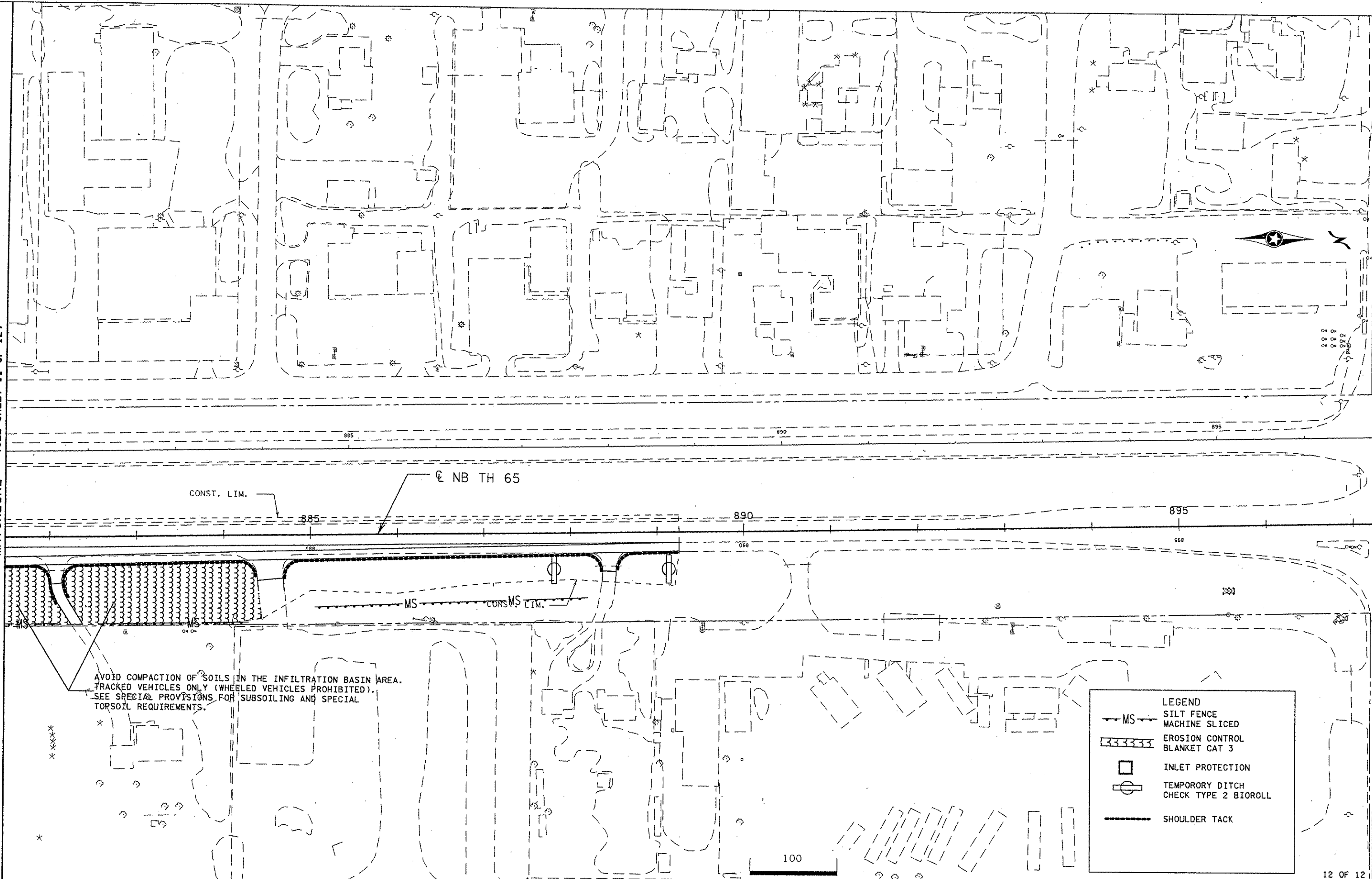
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EROSION CONTROL

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 460 OF 872 SHEETS

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 PLOTTED/REVISED: 28-MAR-2007 09:01

MATCHLINE (SEE SHEET 11 OF 12)



AVOID COMPACTION OF SOILS IN THE INFILTRATION BASIN AREA.
 TRACKED VEHICLES ONLY (WHEELED VEHICLES PROHIBITED).
 SEE SPECIAL PROVISIONS FOR SUBSOILING AND SPECIAL
 TOPSOIL REQUIREMENTS.

LEGEND	
	SILT FENCE
	MACHINE SLICED EROSION CONTROL BLANKET CAT 3
	INLET PROTECTION
	TEMPORARY DITCH CHECK TYPE 2 BIOROLL
	SHOULDER TACK

100
 SCALE IN FEET

12 OF 12

DRAWN BY: MLW

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

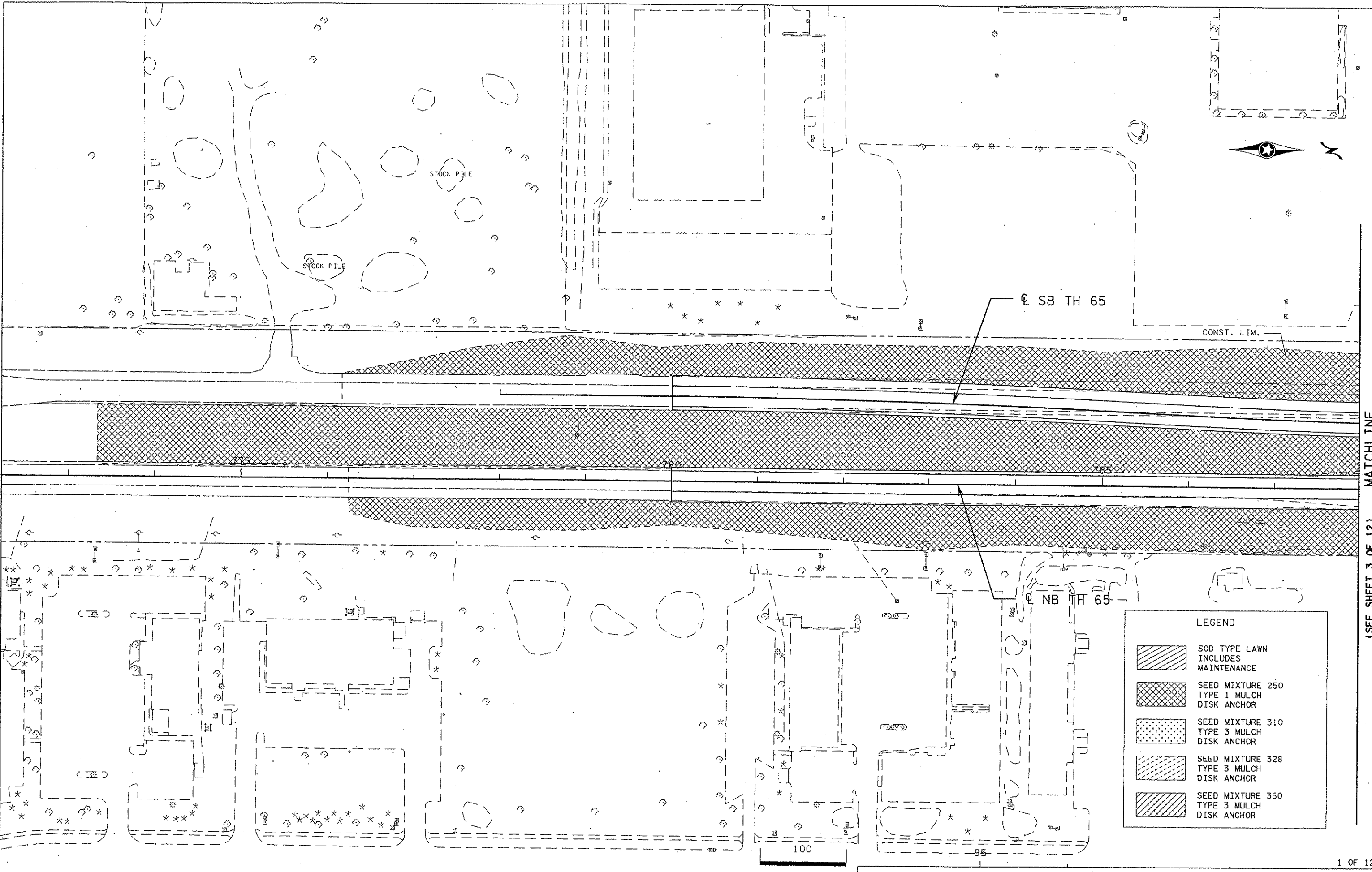
LIC. NO. 20534 DATE 4/5/07

EROSION CONTROL

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 461 OF 872 SHEETS

PLOTTED/REVISED: 31-JAN-2007 10:05

DISTRICT #: METRO
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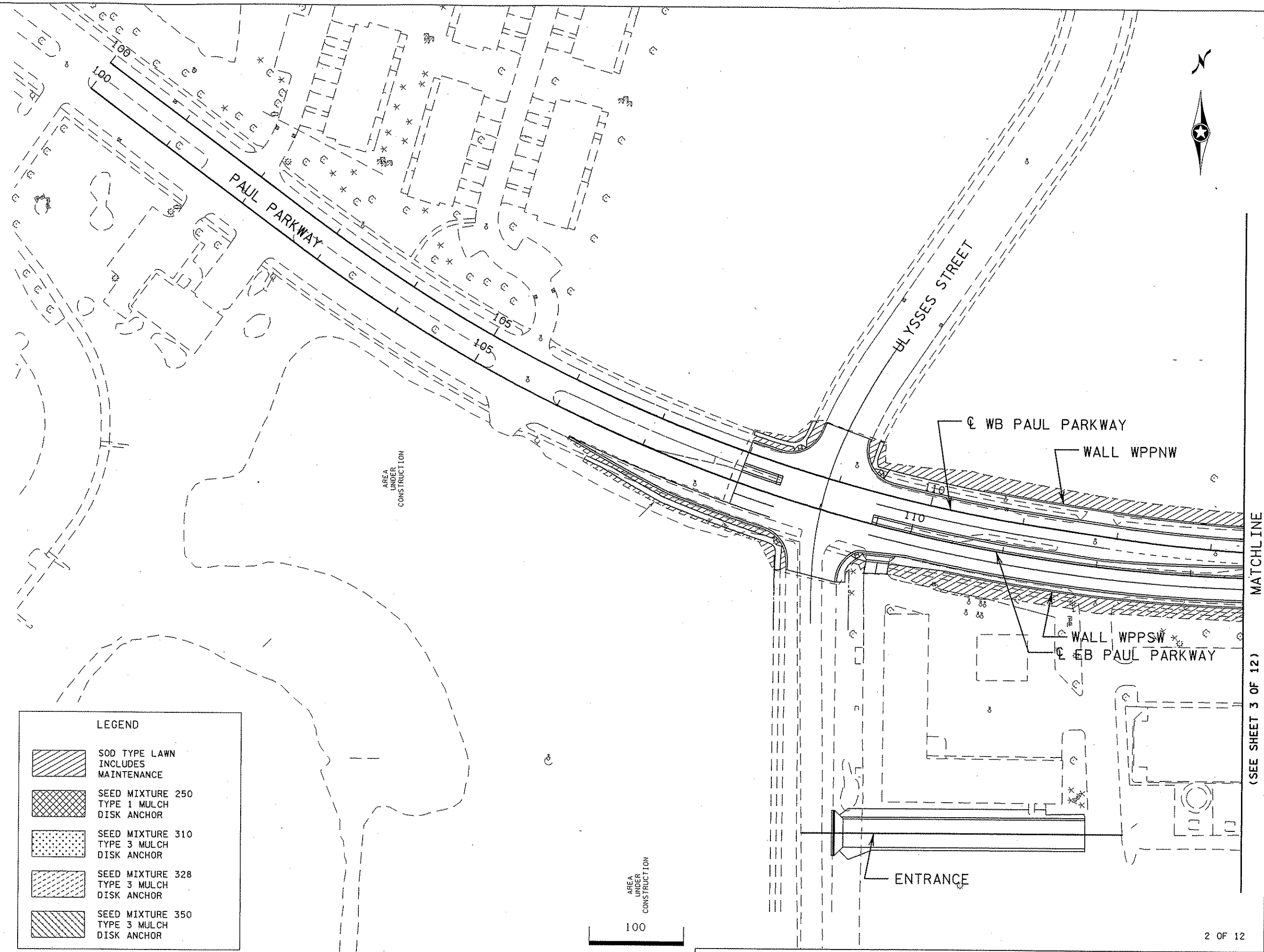


LEGEND	
	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

(SEE SHEET 3 OF 12) MATCHLINE

DISTRICT: METRO
 IPLOT NAME: d0208123_TeB
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PLOTTED/REVISED: 31-JAN-2007 10:05



LEGEND	
	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR



MATCHLINE
 (SEE SHEET 3 OF 12)

2 OF 12

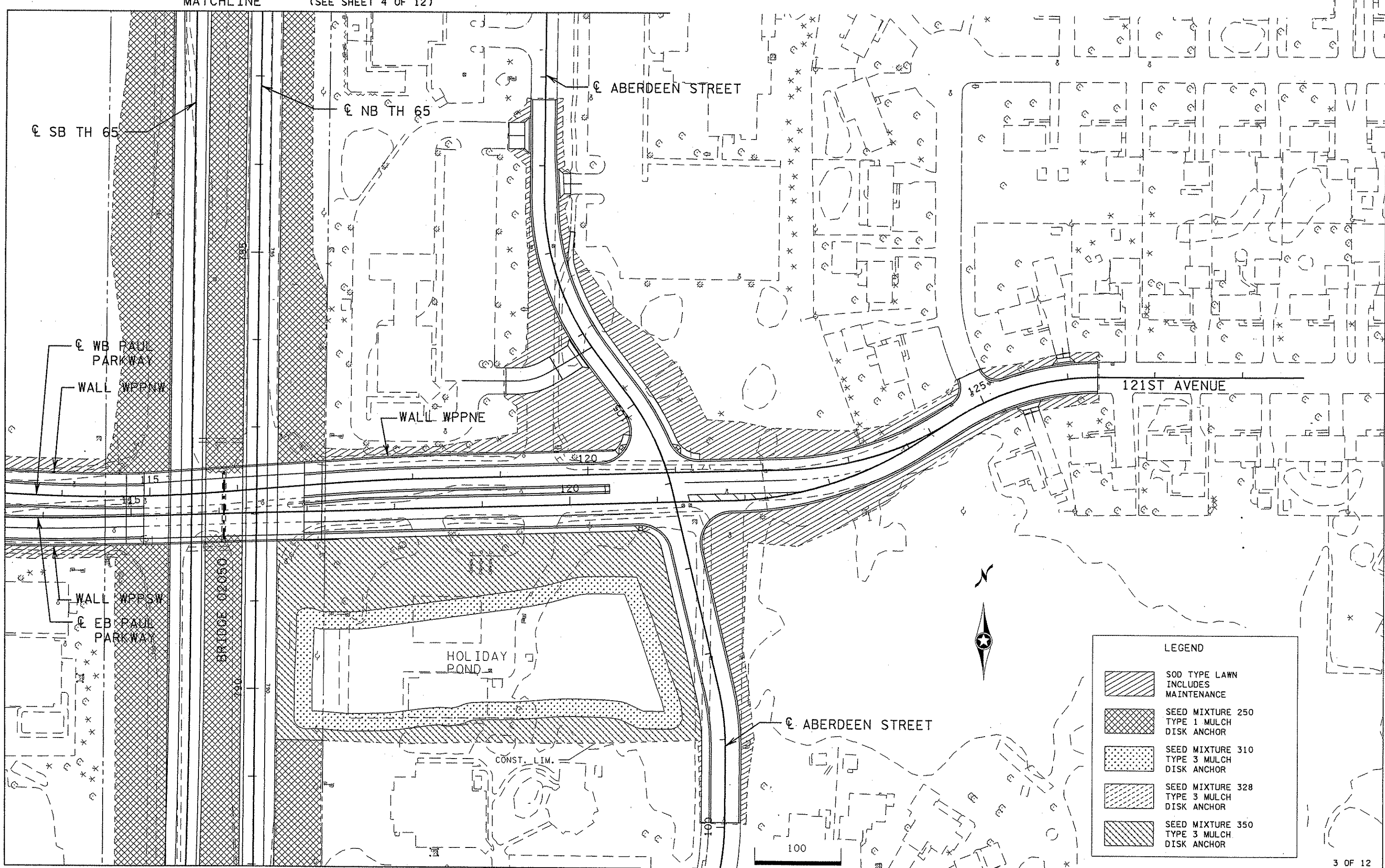
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MATCHLINE (SEE SHEET 4 OF 12)

MATCHLINE (SEE SHEET 2 OF 12)

MATCHLINE (SEE SHEET 1 OF 12)



LEGEND

	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

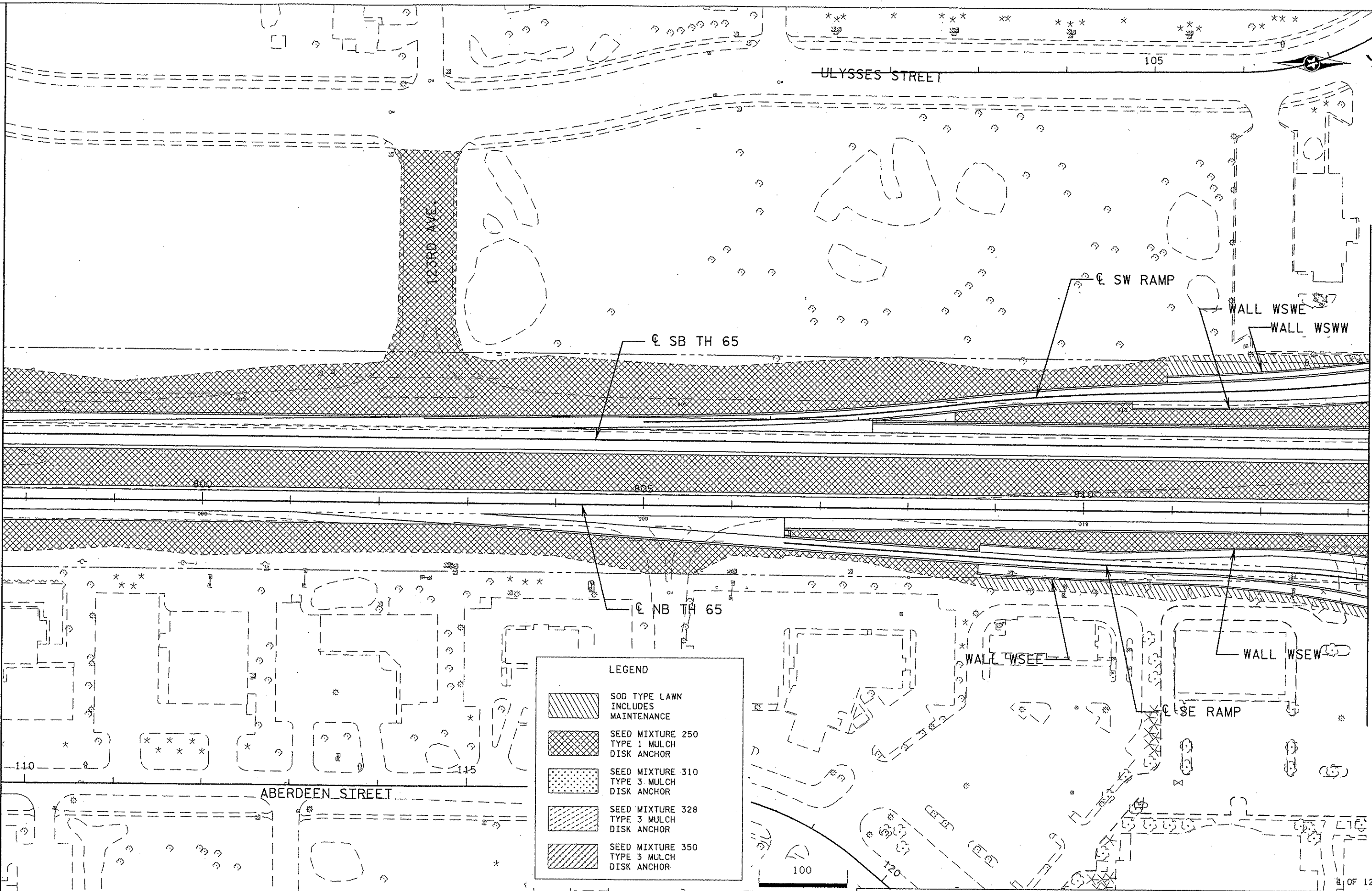
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 464 OF 872 SHEETS

TURF ESTABLISHMENT

SCALE IN FEET

MATCHLINE (SEE SHEET 3 OF 12)

MATCHLINE (SEE SHEET 7 OF 12)



LEGEND

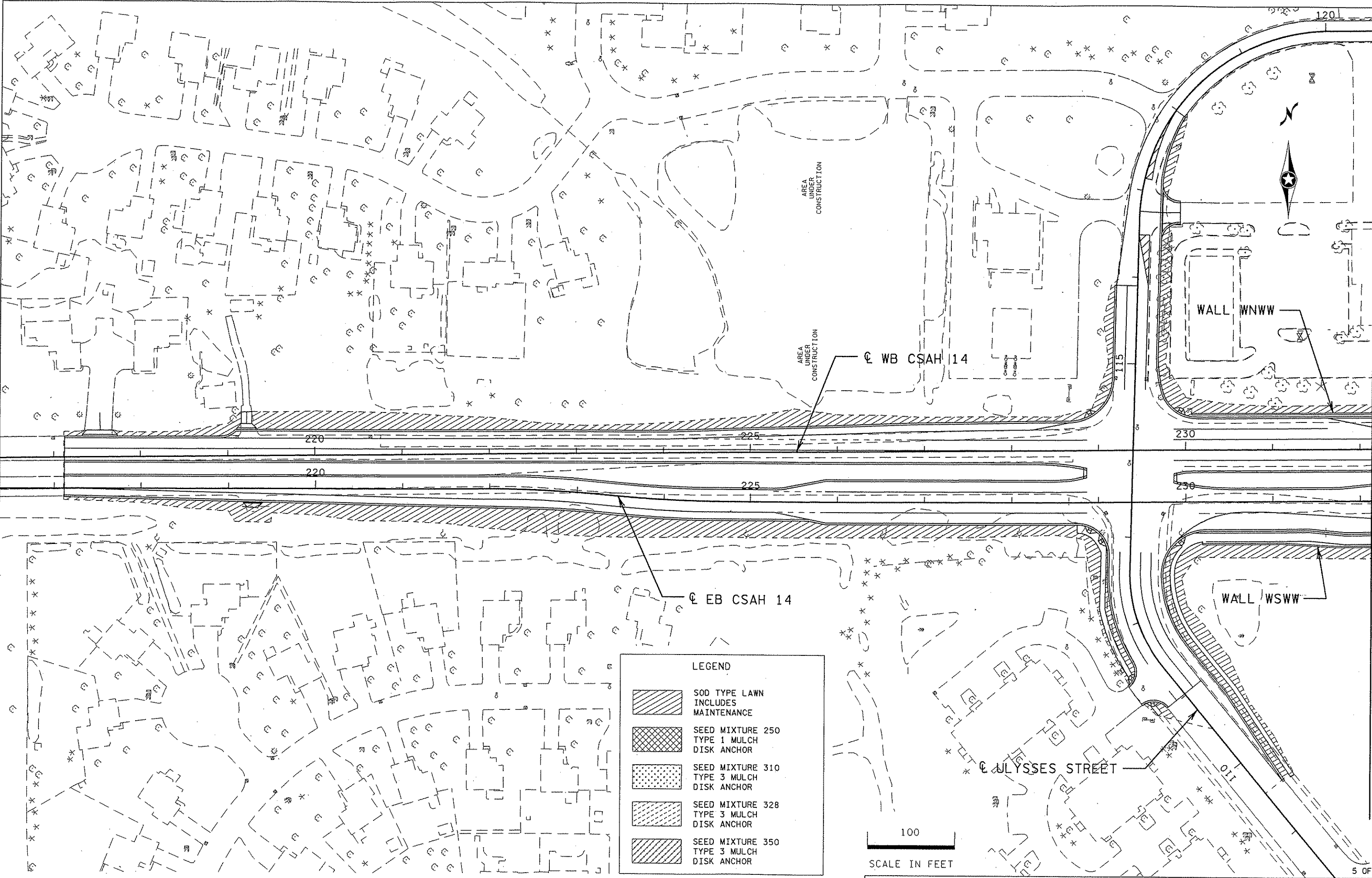
	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

SCALE IN FEET

TURF ESTABLISHMENT

PLOTTED/REVISED: 31-JAN-2007 10:06

DISTRICT #: METRO
PLOT NAME: 0208123_T&E
PATH & FILENAME: SADESIGN065\0208\23\Final\streets\URF\0208123_T&E.dgn



LEGEND

	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

100
SCALE IN FEET

MATCHLINE (SEE SHEET 7 OF 12)

5 OF 12

TURF ESTABLISHMENT

PLOTTED/REVISED: 31-JAN-2007 10:06

(SEE SHEET 7 OF 12)

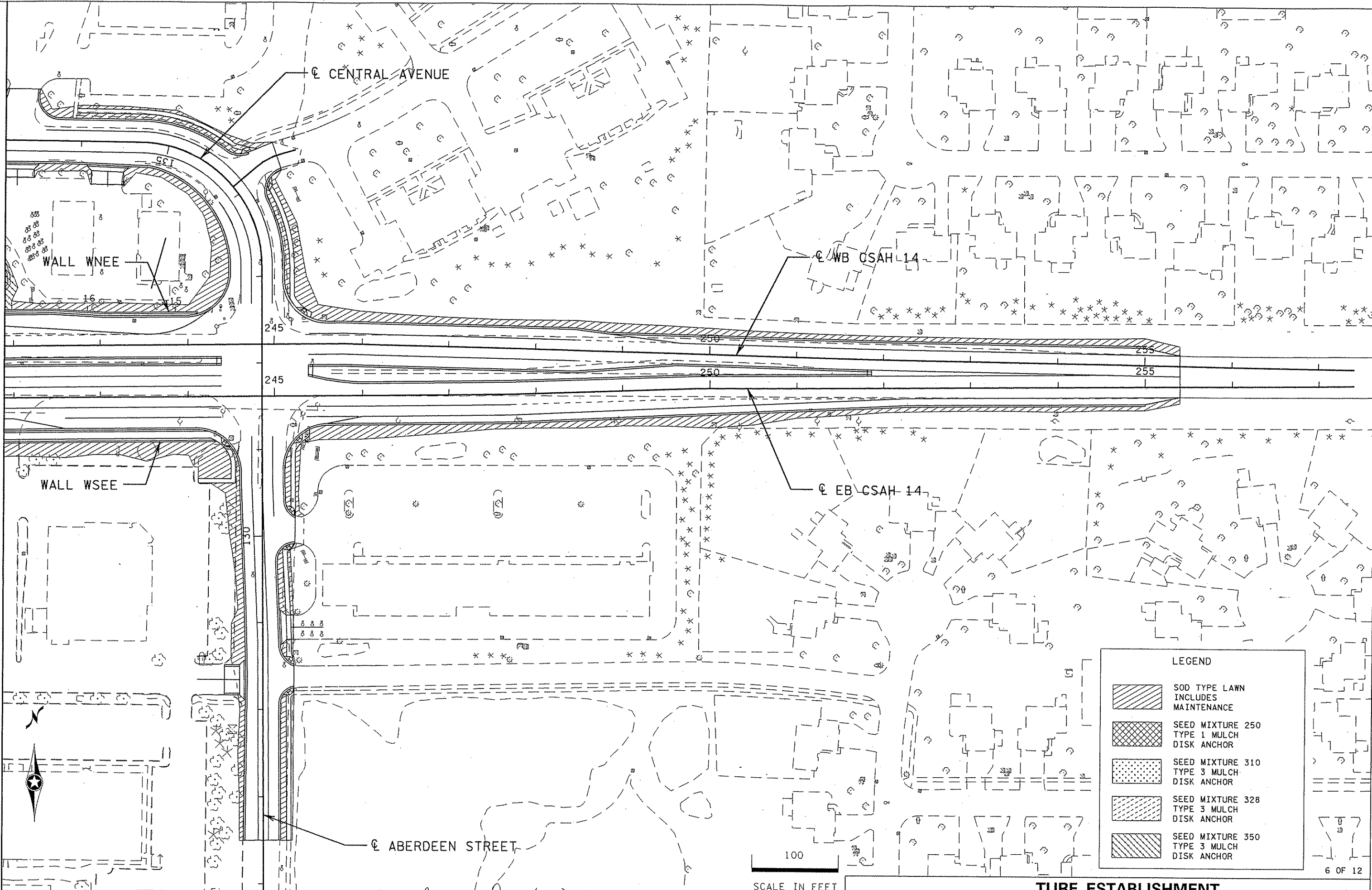
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DISTRICT #: METRO

PLOT NAME: 0208123.Tef

PATH & FILENAME: S:\DESIGN\065\0208123\Final\Sheet\TURF\0208123.Tef.dgn



LEGEND	
	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

6 OF 12

SCALE IN FEET

TURF ESTABLISHMENT

DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 467 OF 872 SHEETS

PLOTTED/REVISED: 04-APR-2007 1434

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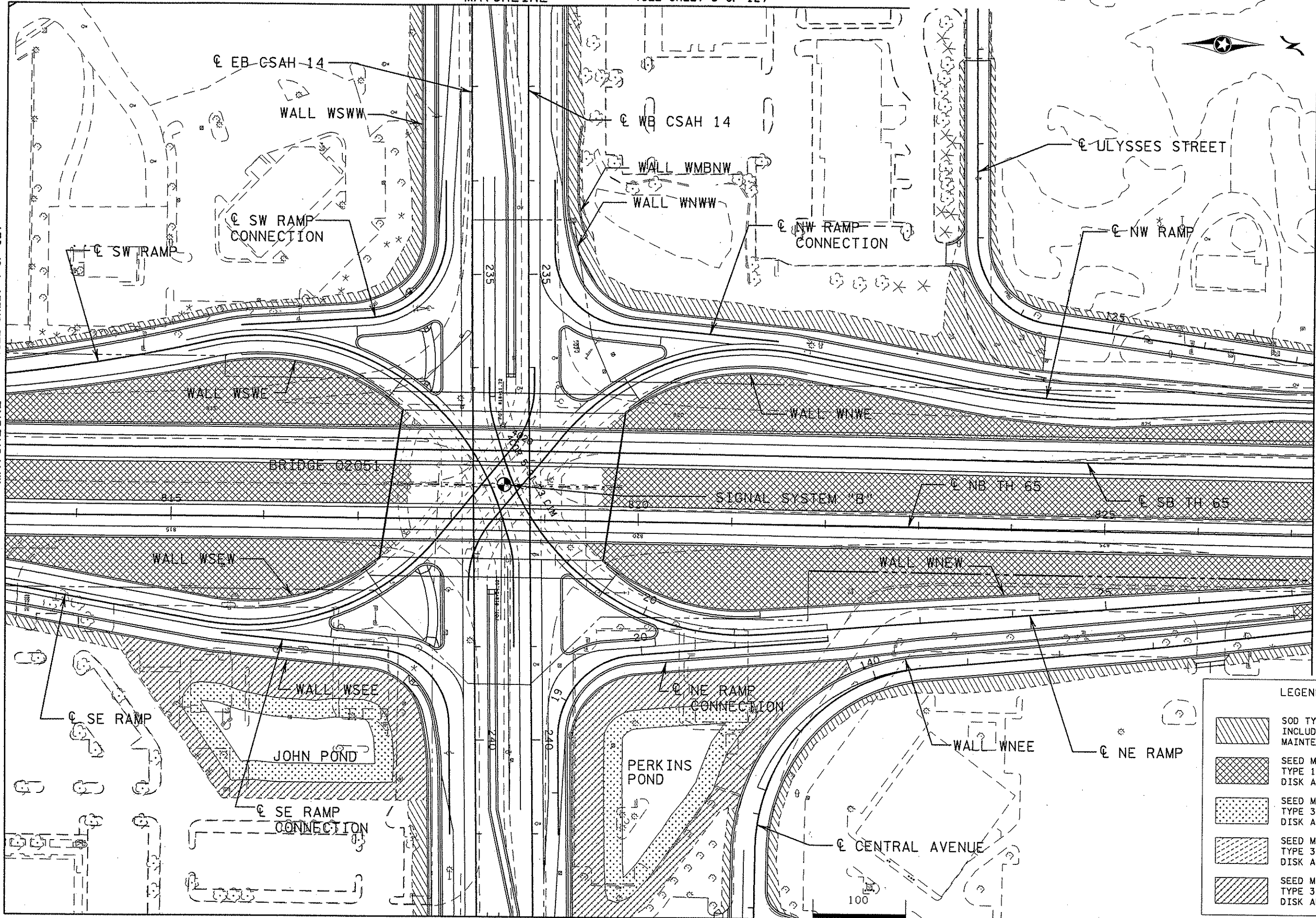
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MATCHLINE (SEE SHEET 5 OF 12)

MATCHLINE (SEE SHEET 4 OF 12)

MATCHLINE (SEE SHEET 8 OF 12)

MATCHLINE



LEGEND

	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

7 OF 12

MATCHLINE (SEE SHEET 6 OF 12)

SCALE IN FEET

TURF ESTABLISHMENT

DRAWN BY: RLH

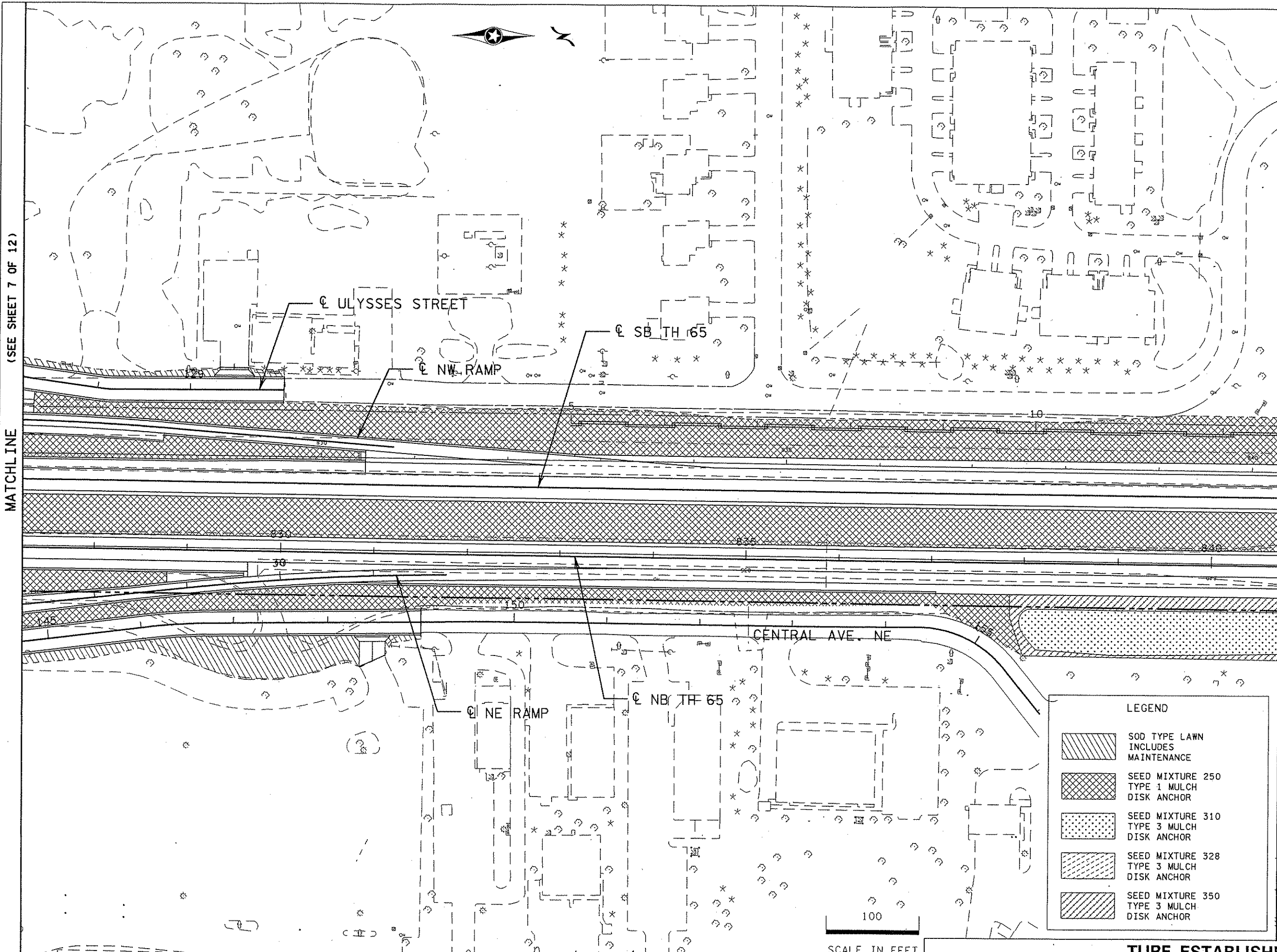
CHECKED BY: DY

CERTIFIED BY: *Josephine Sunquist*

LIC. NO. 20534 DATE 4/15/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 468 OF 872 SHEETS

DISTRICT: METRO
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MATCHLINE (SEE SHEET 7 OF 12)

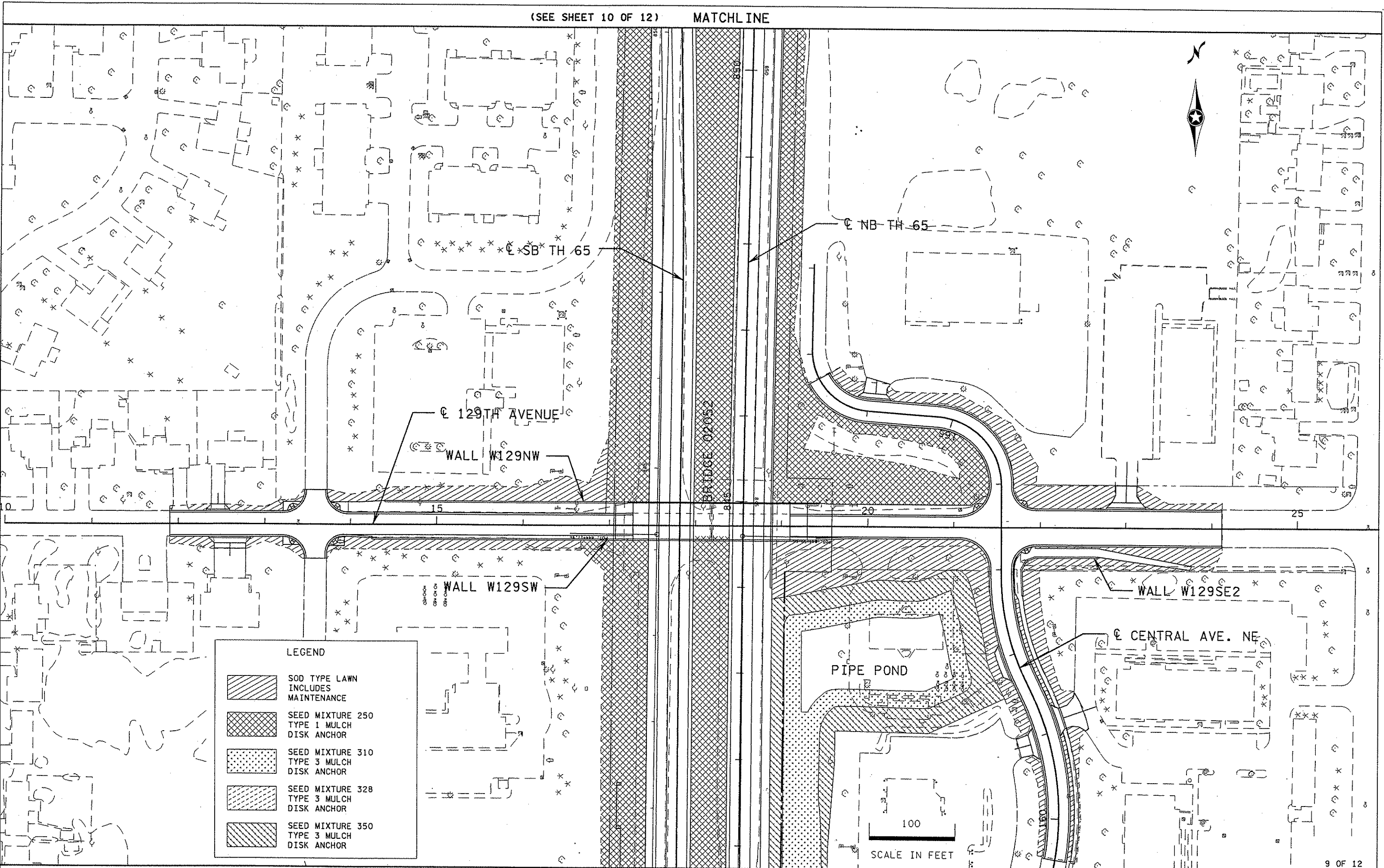
MATCHLINE (SEE SHEET 9 OF 12)

SCALE IN FEET

TURF ESTABLISHMENT

PLOTTED/REVISED: 04-APR-2007 14:34

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DISTRICT #: METRO
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PLOTTED/REVISED: 31-JAN-2007 10:06

(SEE SHEET 9 OF 12)

MATCHLINE

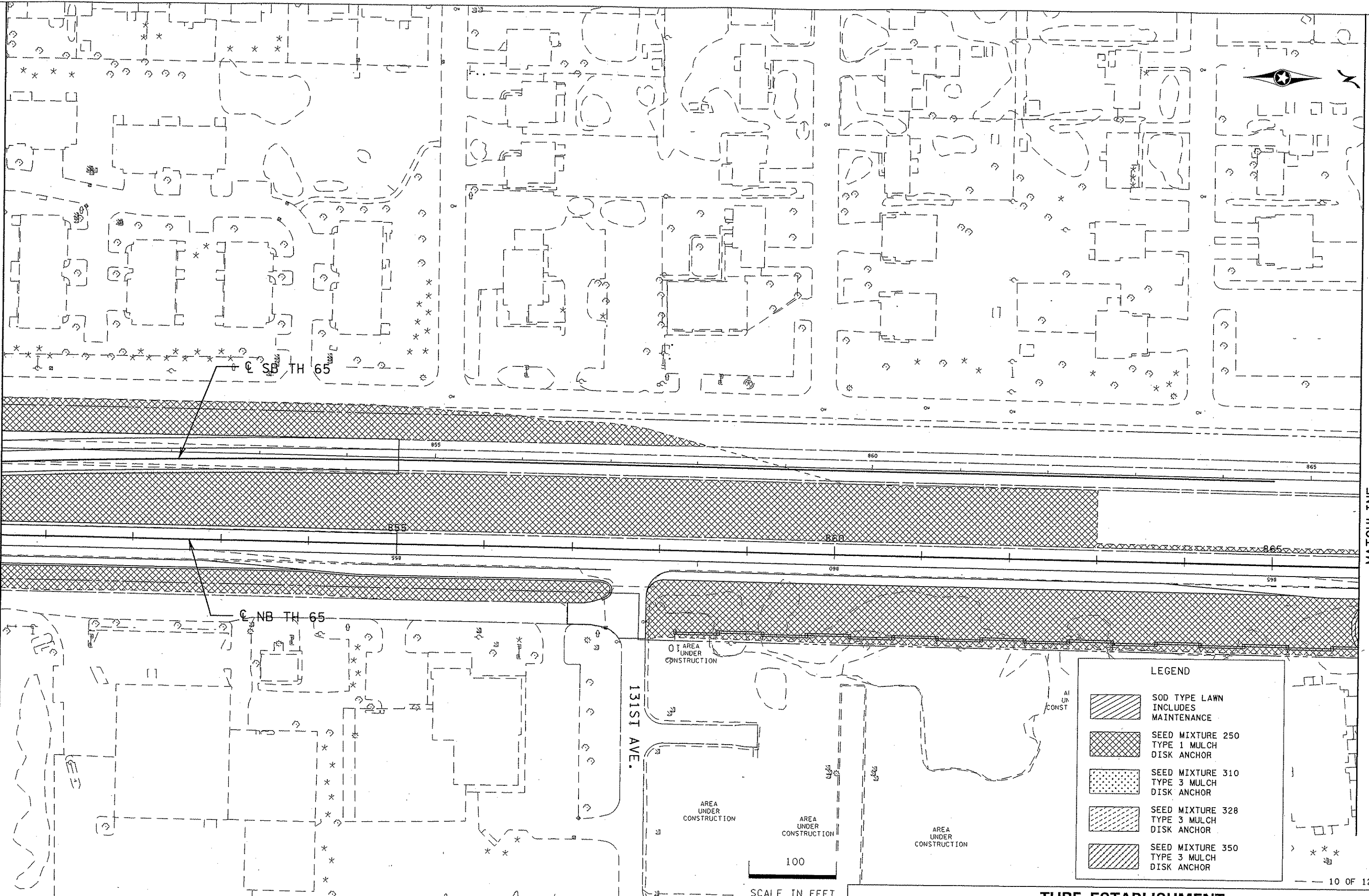
DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY *Josephine Lunquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/6/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 471 OF 872 SHEETS



LEGEND	
	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 328 TYPE 3 MULCH DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

100

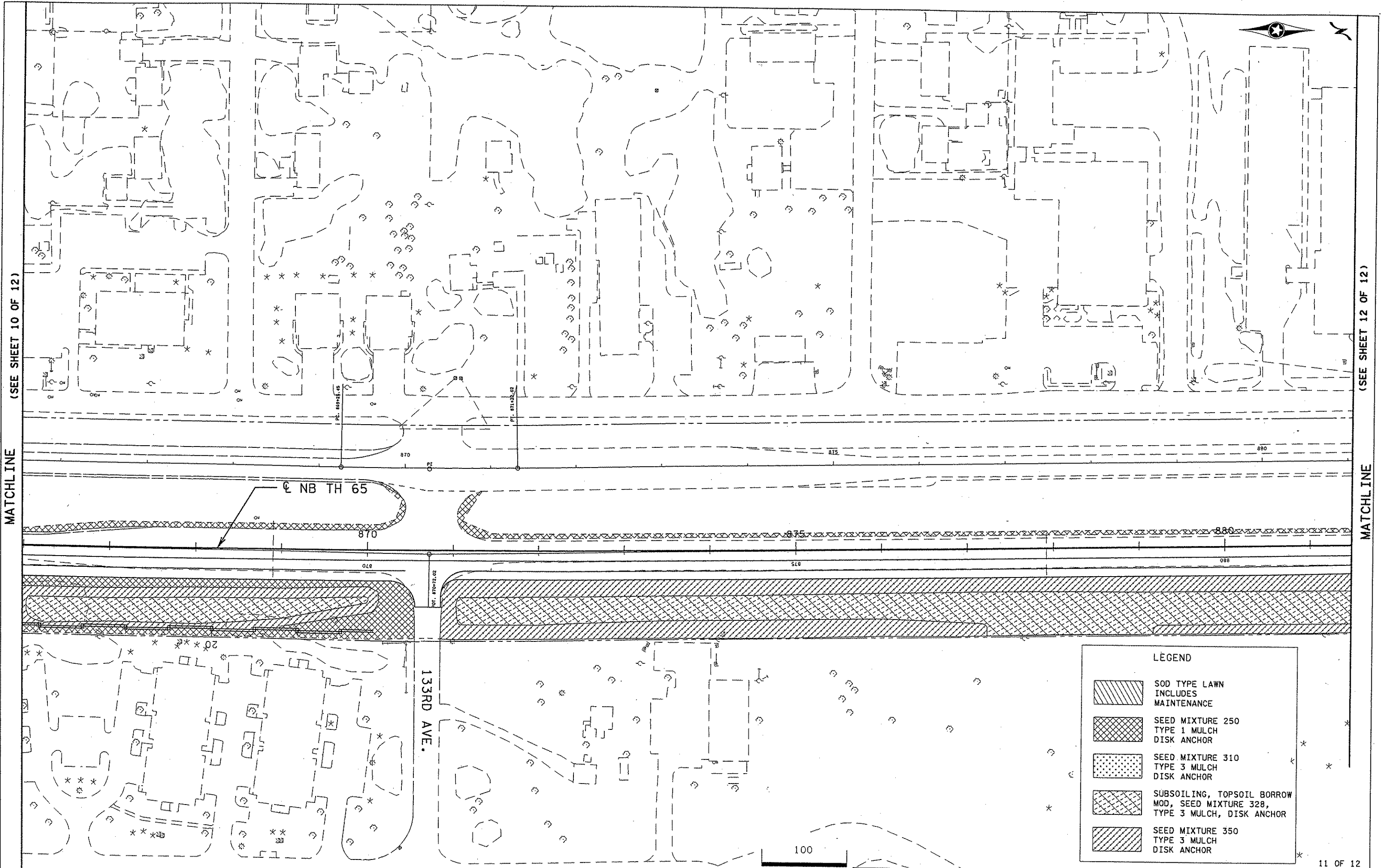
SCALE IN FEET

10 OF 12

TURF ESTABLISHMENT

(SEE SHEET 11 OF 12)

MATCHLINE



(SEE SHEET 10 OF 12)

MATCHLINE

(SEE SHEET 12 OF 12)

MATCHLINE

LEGEND

- SOD TYPE LAWN
INCLUDES
MAINTENANCE
- SEED MIXTURE 250
TYPE 1 MULCH
DISK ANCHOR
- SEED MIXTURE 310
TYPE 3 MULCH
DISK ANCHOR
- SUBSOILING, TOPSOIL BORROW
MOD, SEED MIXTURE 328,
TYPE 3 MULCH, DISK ANCHOR
- SEED MIXTURE 350
TYPE 3 MULCH
DISK ANCHOR

100
SCALE IN FEET

DRAWN BY: RLH

CHECKED BY: *DY*

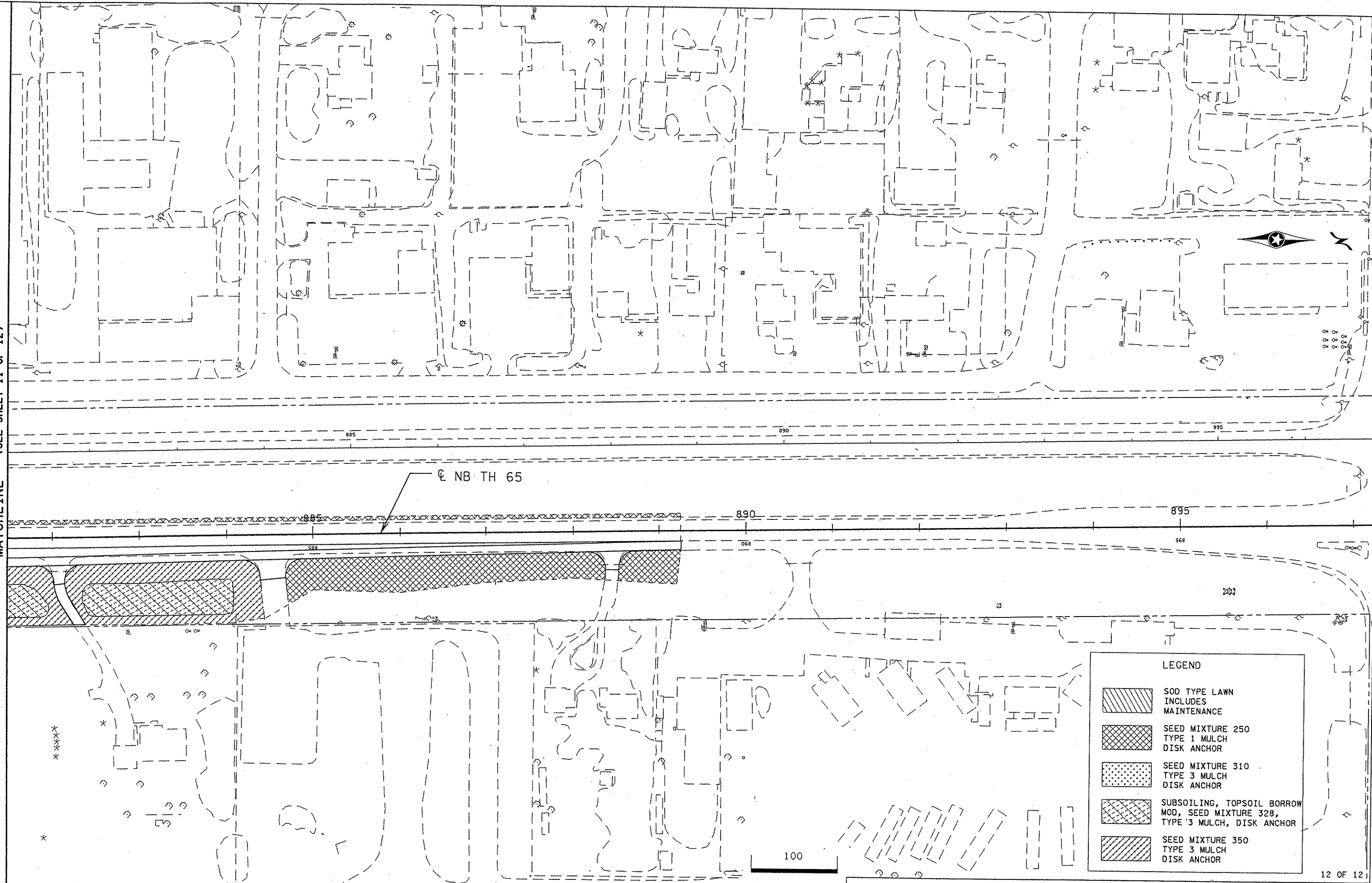
CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 4/5/07

TURF ESTABLISHMENT
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 472 OF 872 SHEETS

DISTRICT #: METRO
 PLOT NAME: 0208123.Tel
 PATH & FILENAME: S:\DESIGN\065\0208123\Turf\Asst\Turf\0208123_Tel.dgn
 PLOTTED/REVISED: 28-MAR-2007 09:00

MATCHLINE (SEE SHEET 11 OF 12)



LEGEND	
	SOD TYPE LAWN INCLUDES MAINTENANCE
	SEED MIXTURE 250 TYPE 1 MULCH DISK ANCHOR
	SEED MIXTURE 310 TYPE 3 MULCH DISK ANCHOR
	SUBSOILING, TOPSOIL BORROW MOD, SEED MIXTURE 328, TYPE 3 MULCH, DISK ANCHOR
	SEED MIXTURE 350 TYPE 3 MULCH DISK ANCHOR

100
SCALE IN FEET

12 OF 12

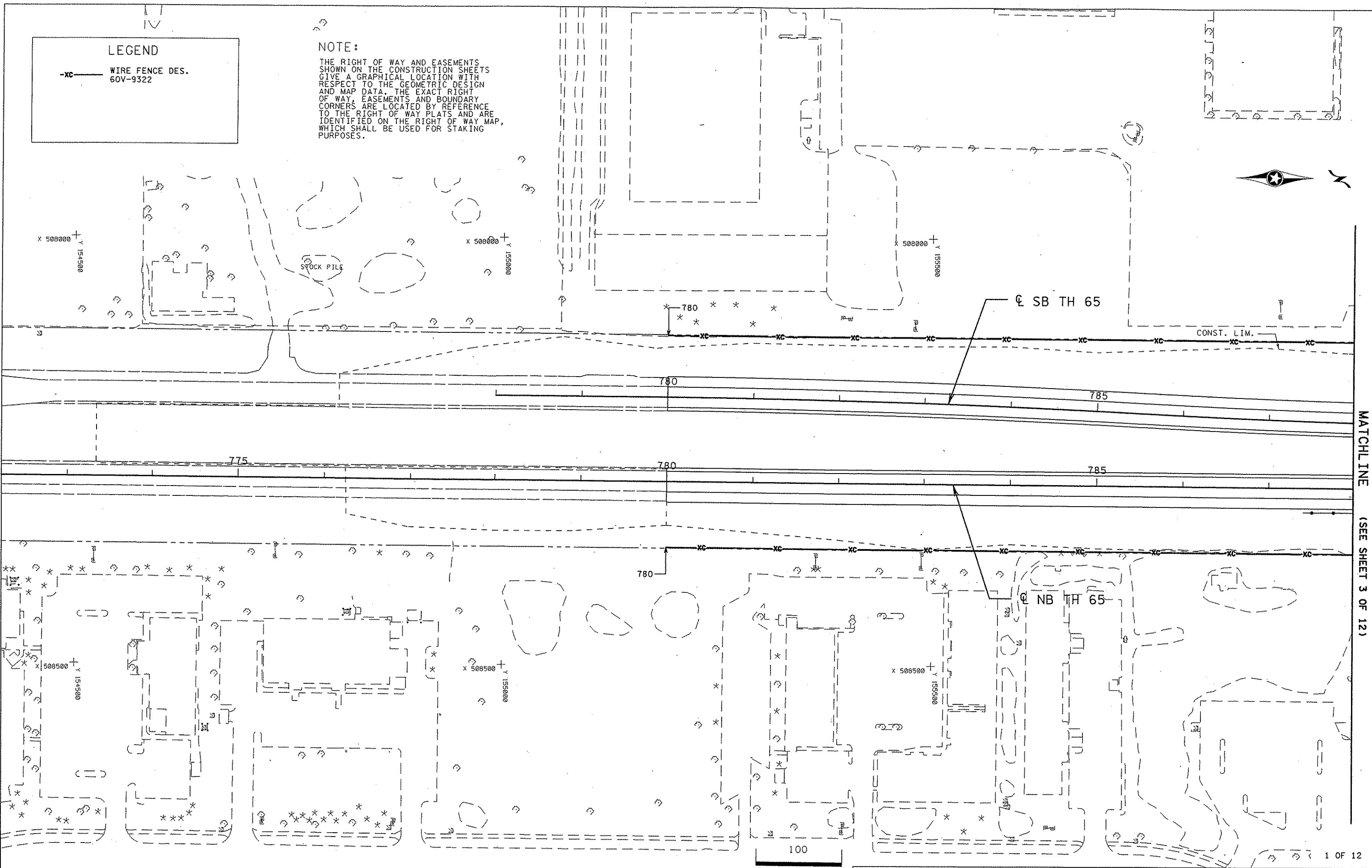
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DISTRICT #: METRO
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LEGEND

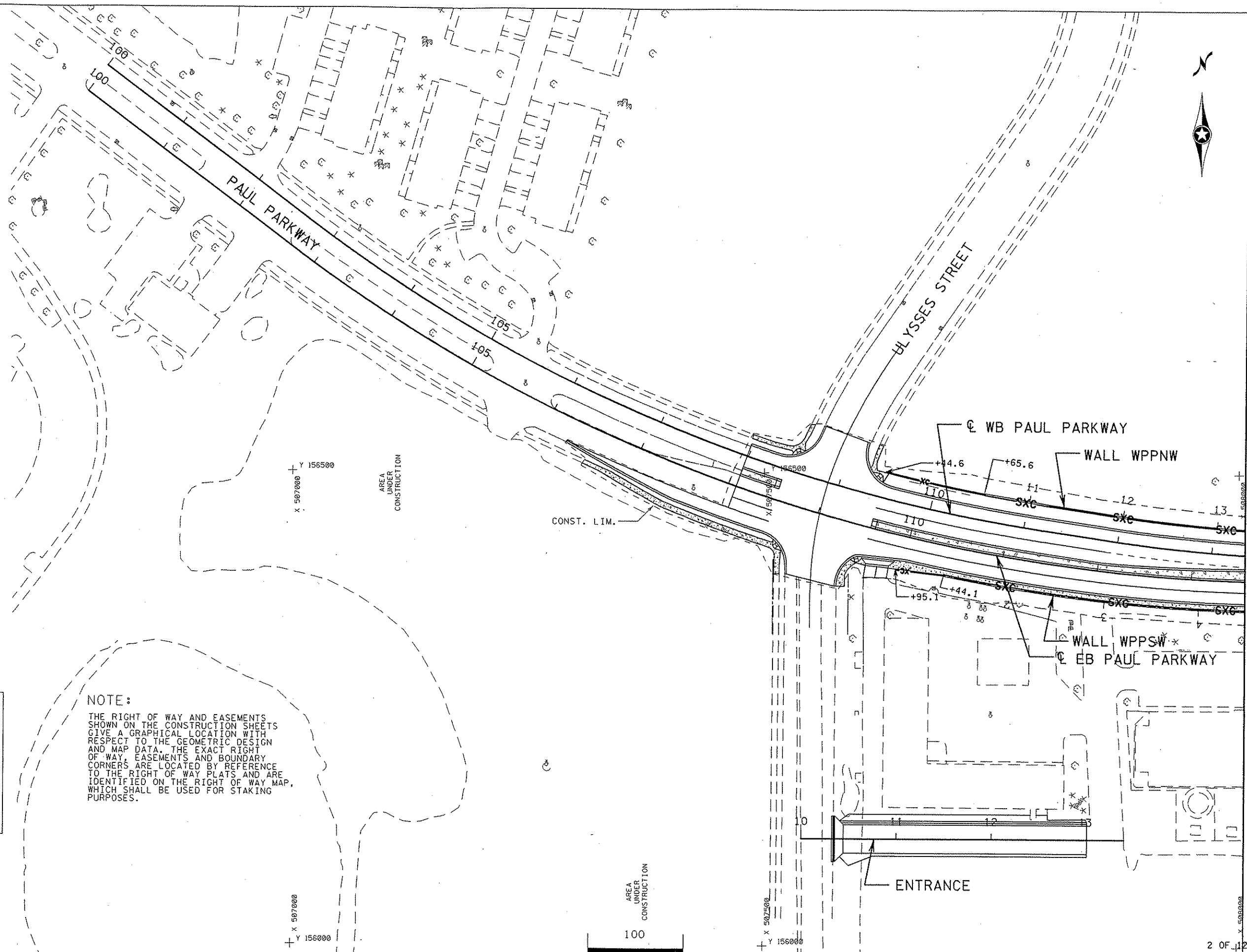
-xc- WIRE FENCE DES.
60V-9322

NOTE:
THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.



MATCHLINE (SEE SHEET 3 OF 12)

1 OF 12



X 5065000
Y 1565000

X 5070000
Y 1565000

X 5075000
Y 1560000

X 5065000
Y 1560000

AREA UNDER CONSTRUCTION

AREA UNDER CONSTRUCTION

CONST. LIM.

ENTRANCE

WALL WPPNW

WALL WPPSW

PAUL PARKWAY

HYLSES STREET

WB PAUL PARKWAY

EB PAUL PARKWAY

MATCHLINE

(SEE SHEET 3 OF 12)

2 OF 12 1560

LEGEND

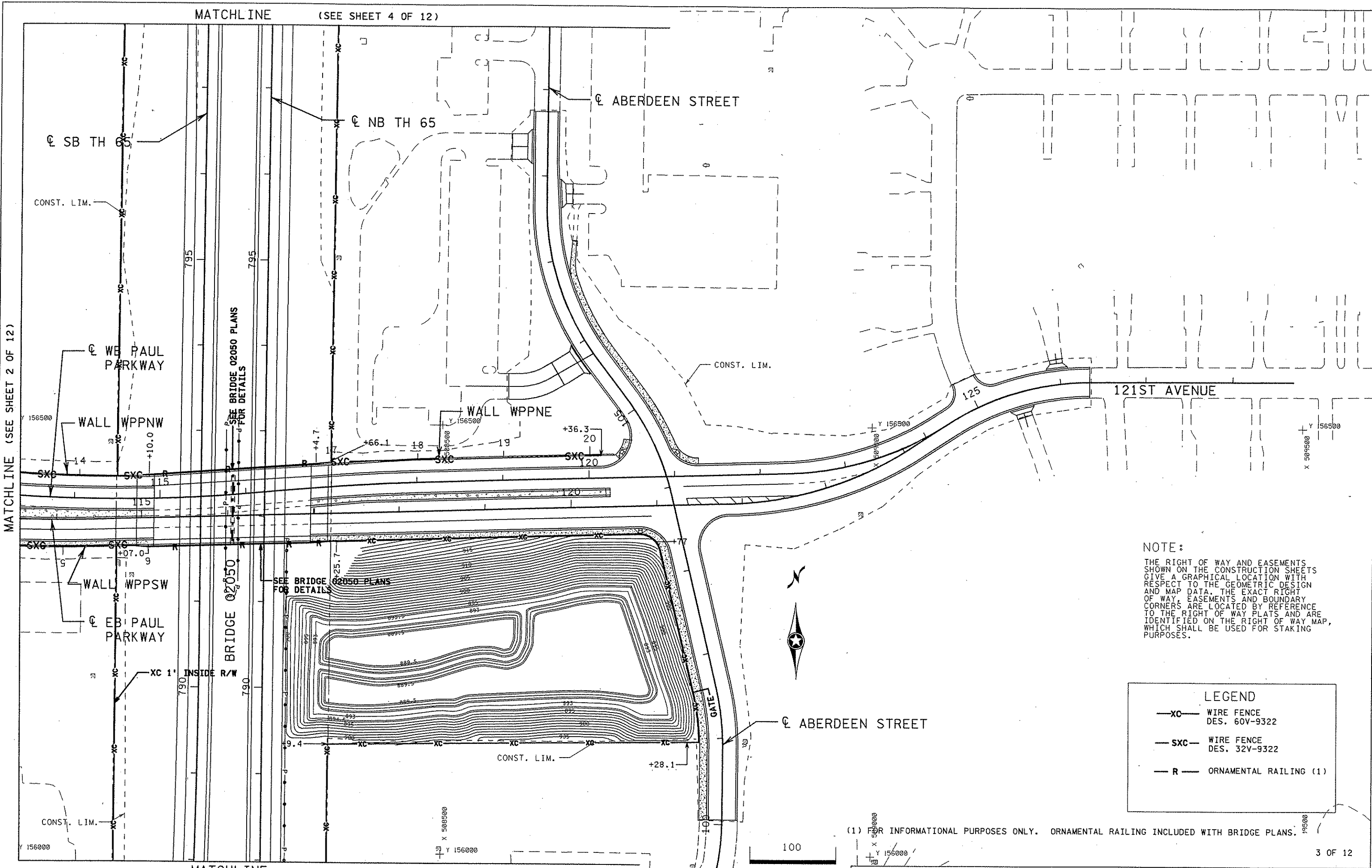
- XC- WIRE FENCE DESIGN 60V-9322
- SXC- WIRE FENCE DES. 32V-9322

NOTE:
 THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.

100
 SCALE IN FEET

DISTRICT #: METRO
 I/PLOT NAME: 0208123.fbc
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PLOTTED/REVISED: 07-FEB-2007 10:56



NOTE:
 THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.

LEGEND	
—XC—	WIRE FENCE DES. 60V-9322
—SXC—	WIRE FENCE DES. 32V-9322
—R—	ORNAMENTAL RAILING (1)

(1) FOR INFORMATIONAL PURPOSES ONLY. ORNAMENTAL RAILING INCLUDED WITH BRIDGE PLANS.

SCALE IN FEET
 100

PLOTTED/REVISED: 02-APR-2007 14:26

DISTRICT #: METRO
I/PLOT NAME: 0208123_FoD
PATH & FILENAME: S:\DESIGN\065\0208123\Final\Sheet\Fencing\0208123_FoD.dgn

LEGEND

-XC- WIRE FENCE DES. 60V-9322

NOTE:

THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.

ULYSSES STREET

105

123RD AVE.



000751 X 508000
157000

508000
000751 X

x 508000
158000

000751 X
158000

CONST. LIM.

SB TH 65

SW RAMP

WALL WSWE

WALL WSWW

800

5

805

1018

21

22

23

800

805

810

10

11

12

13

CONST. LIM.

NB TH 65

WALL WSEE

WALL WSEW

SE RAMP

110

115

ABERDEEN STREET

100

SCALE IN FEET

4 OF 12

DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY

Josephine Lundquist
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534

DATE 4/5/07

FENCING PLAN

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 477 OF 872 SHEETS

PLOTTED/REVISED: 07-FEB-2007 10:56

DISTRICT #: METRO
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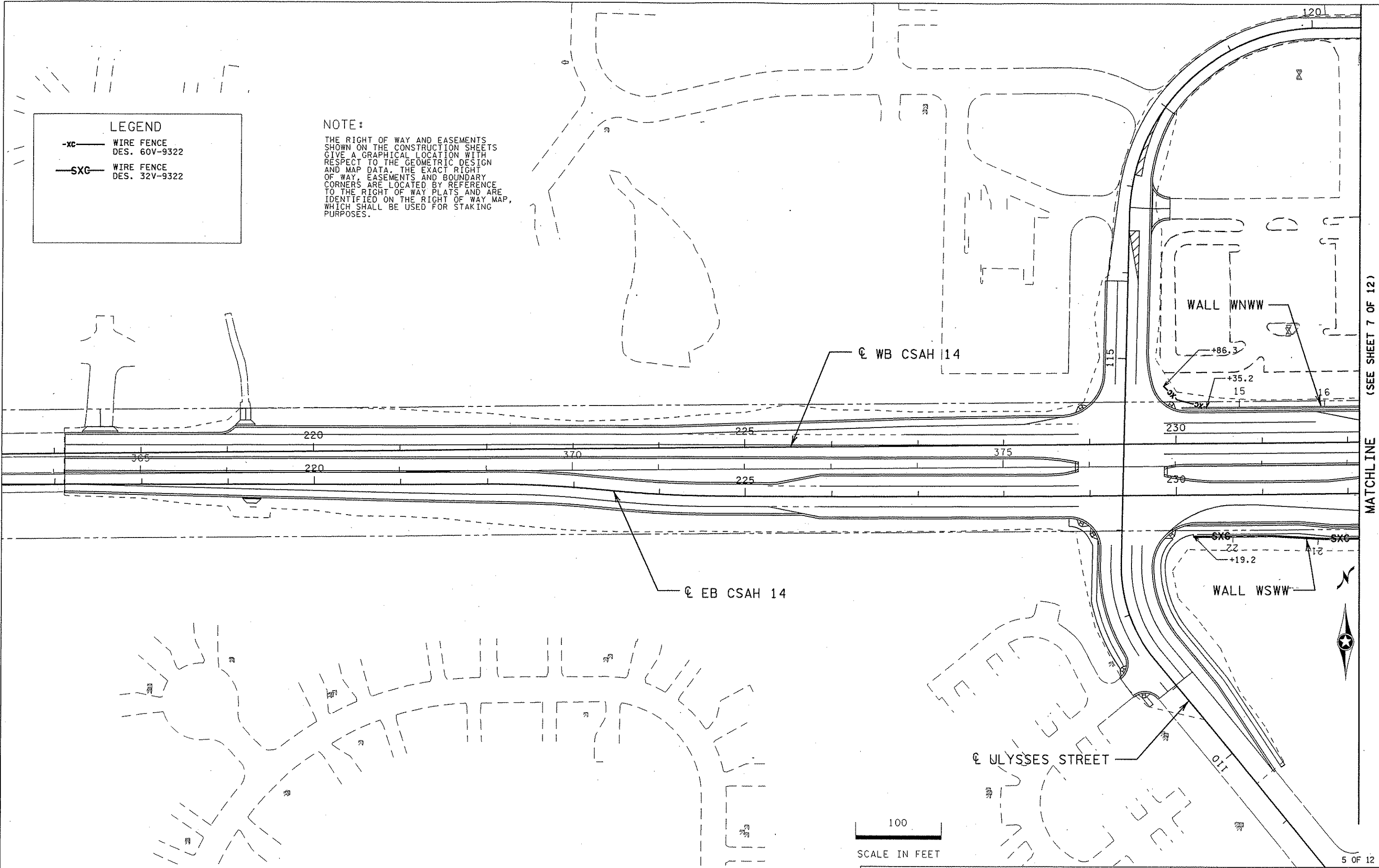
LEGEND

-XC- WIRE FENCE
DES. 60V-9322

-SXC- WIRE FENCE
DES. 32V-9322

NOTE:

THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.



MATCHLINE (SEE SHEET 7 OF 12)

100
SCALE IN FEET

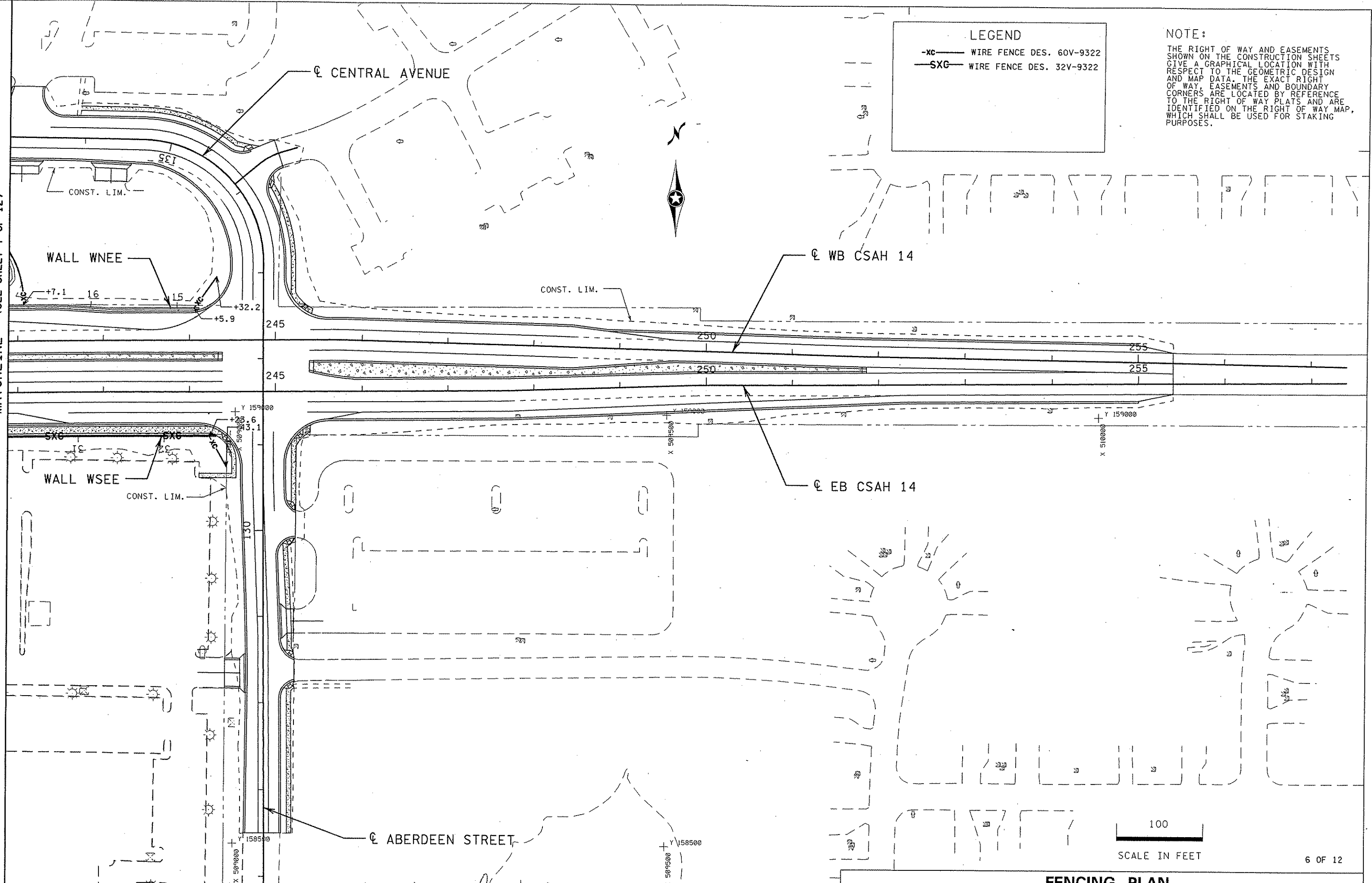
5 OF 12

FENCING PLAN

DISTRICT #: METRO
PLOT NAME: 0208123_FeF
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PLOTTED/REVISED: 07-FEB-2007 10:56

MATCHLINE (SEE SHEET 7 OF 12)



LEGEND

- XC- WIRE FENCE DES. 60V-9322
- SXC- WIRE FENCE DES. 32V-9322

NOTE:
THE RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE A GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.

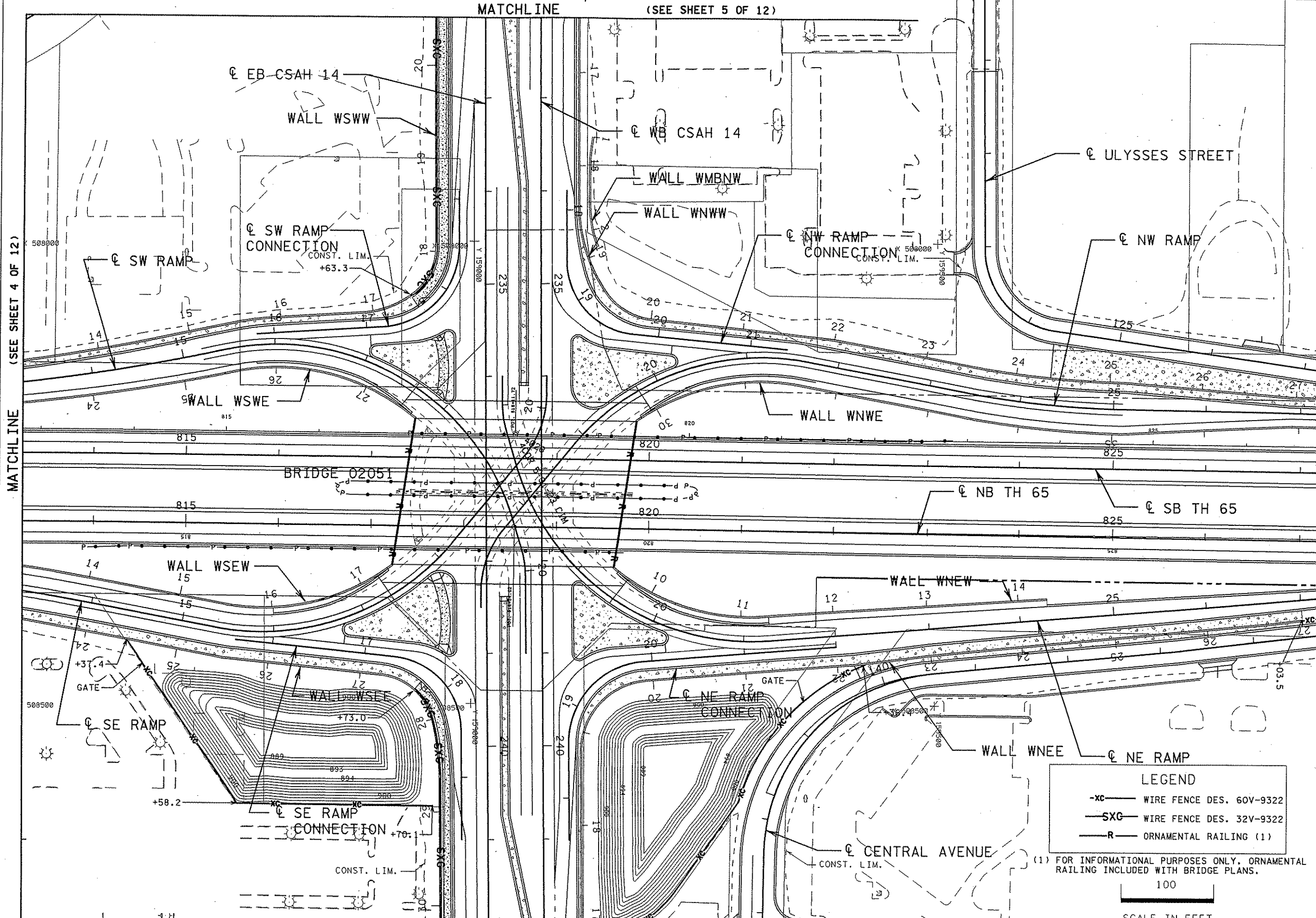
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SCALE IN FEET

MATCHLINE (SEE SHEET 5 OF 12)



PLOTTED/REVISED: 07-FEB-2007 10:56

DISTRICT #: METRO
PLOT NAME: 0208123.f6g
PATH & FILENAME: S:\DESIGN\065\0208123\Final\Sheets\Fencing\0208123_f6g.dgn



(SEE SHEET 4 OF 12)

(SEE SHEET 8 OF 12)

LEGEND

-XC-	WIRE FENCE DES. 60V-9322
-SXG-	WIRE FENCE DES. 32V-9322
-R-	ORNAMENTAL RAILING (1)

(1) FOR INFORMATIONAL PURPOSES ONLY. ORNAMENTAL RAILING INCLUDED WITH BRIDGE PLANS.

SCALE IN FEET
100

MATCHLINE (SEE SHEET 6 OF 12)

7 OF 12

FENCING PLAN

DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY: *Josephine Lundquist*

LIC. NO. 20534 DATE 2/7/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 480 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 0208123_feh
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PLOTTED/REVISED: 05-FEB-2007 14:38

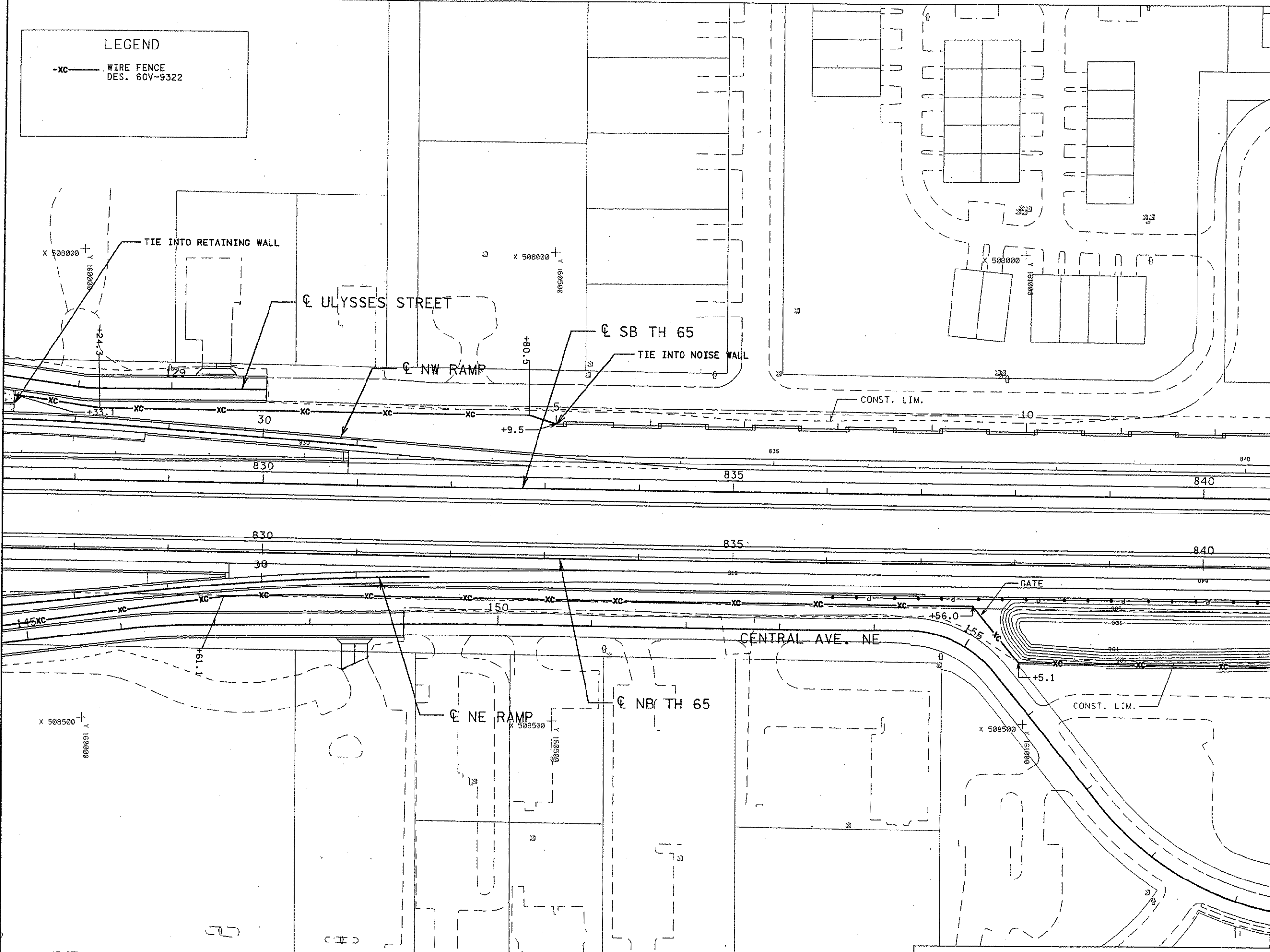
(SEE SHEET 7 OF 12)

MATCHLINE

(SEE SHEET 9 OF 12)

MATCHLINE

LEGEND
-xc- WIRE FENCE
DES. 60V-9322



100
SCALE IN FEET

8 OF 12

FENCING PLAN

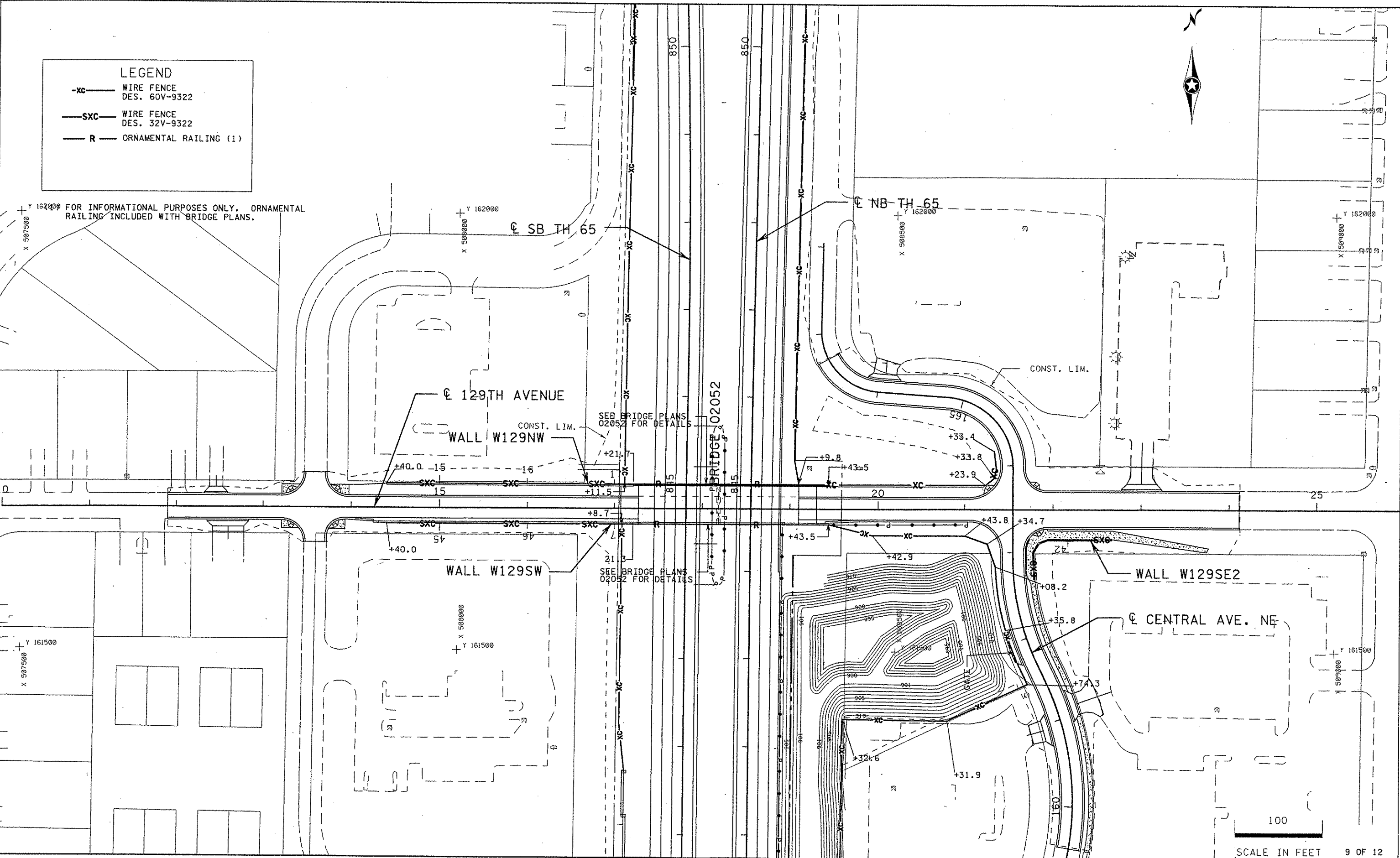


LEGEND

- XC- WIRE FENCE
DES. 60V-9322
- SXC- WIRE FENCE
DES. 32V-9322
- R- ORNAMENTAL RAILING (1)

PLOTTED/REVISED: 07-FEB-2007 10:56

DISTRICT #: METRO
IPLOT NAME: 0208123_fel
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FOR INFORMATIONAL PURPOSES ONLY. ORNAMENTAL RAILING INCLUDED WITH BRIDGE PLANS.

SEE BRIDGE PLANS 02052 FOR DETAILS

SEE BRIDGE PLANS 02052 FOR DETAILS

SCALE IN FEET 100 9 OF 12

FENCING PLAN

DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/7/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 482 OF 872 SHEETS

DISTRICT #: METRO
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(SEE SHEET 9 OF 12)

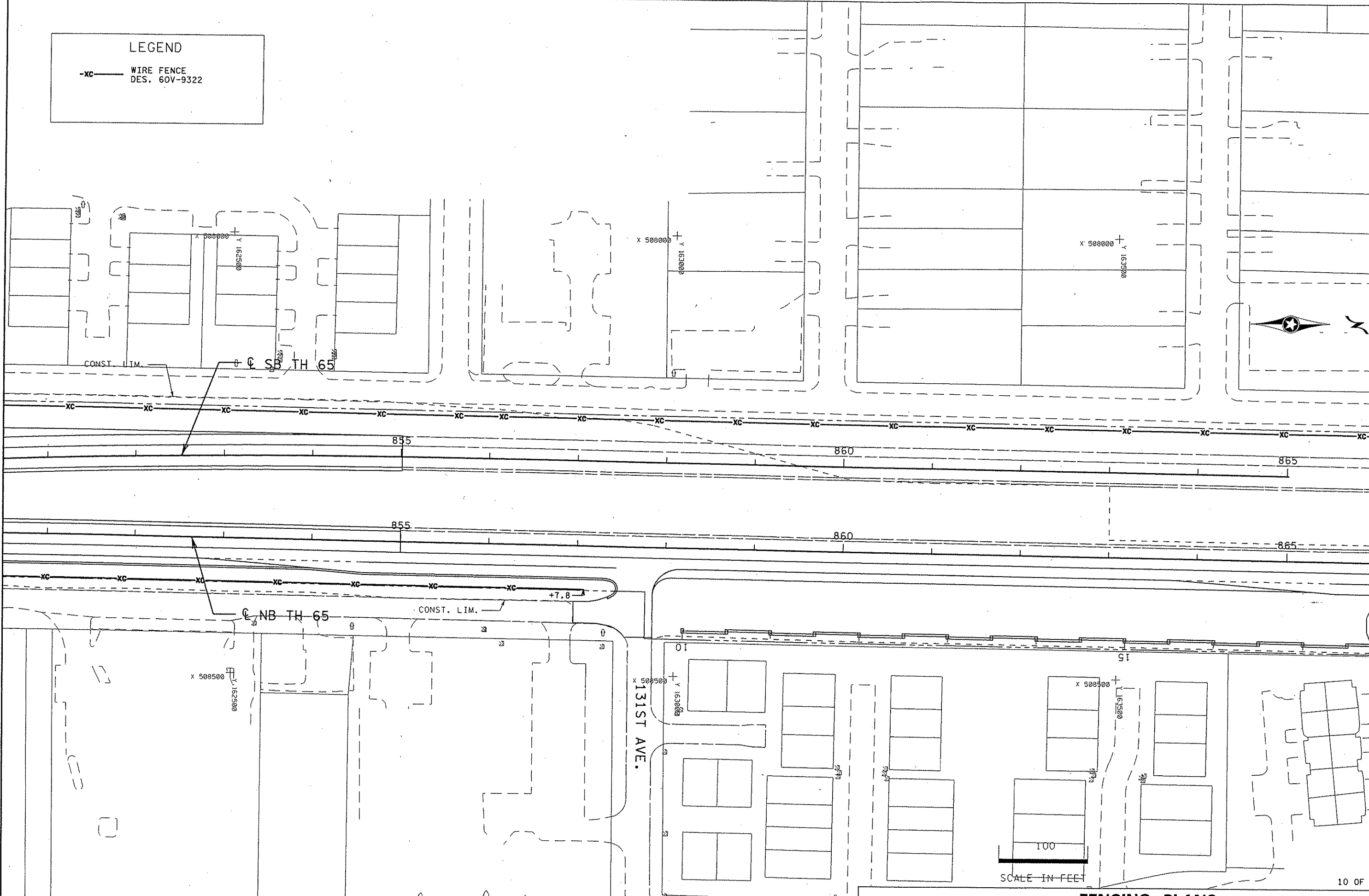
MATCHLINE

(SEE SHEET 11 OF 12)

MATCHLINE

LEGEND

-XC- WIRE FENCE
DES. 60V-9322



DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 20534 DATE 2/16/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 483 OF 872 SHEETS

FENCING PLANS

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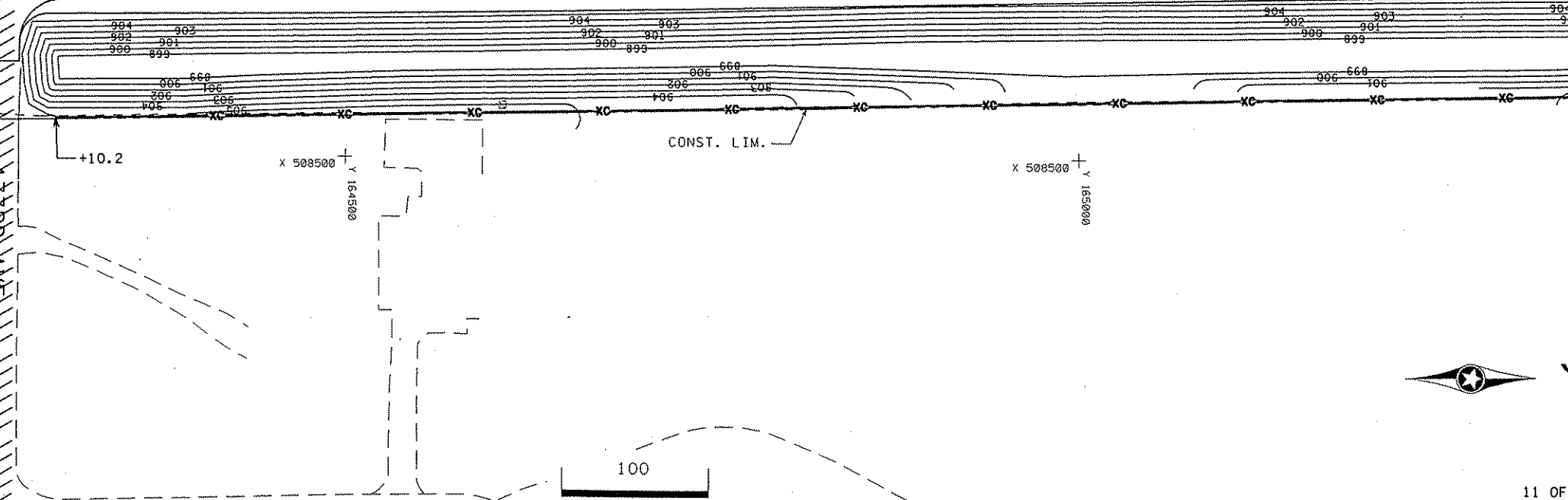
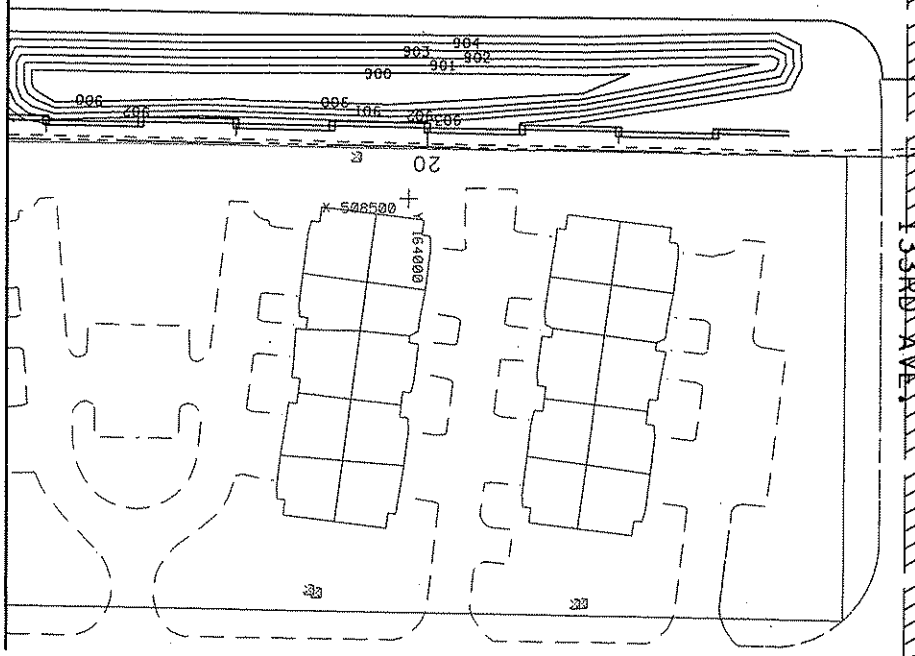
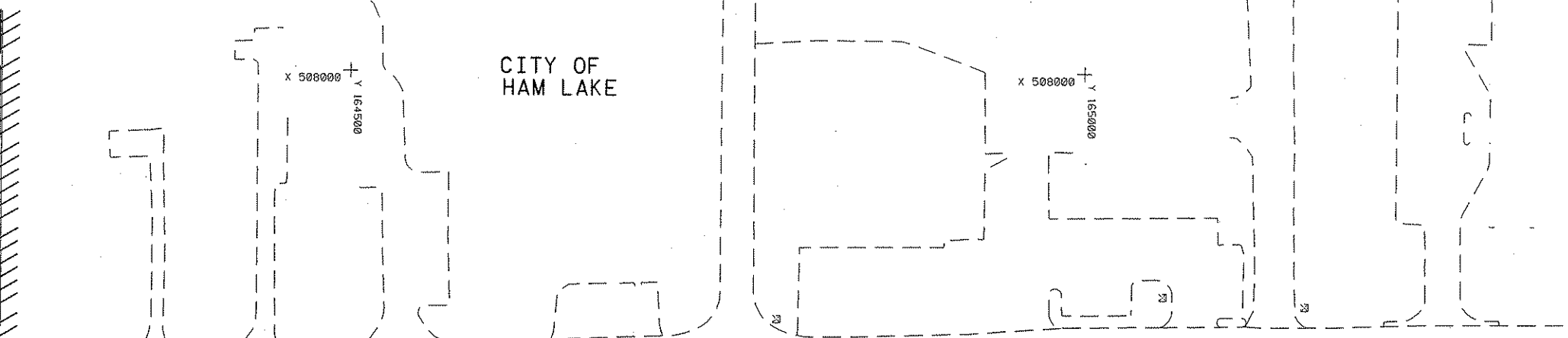
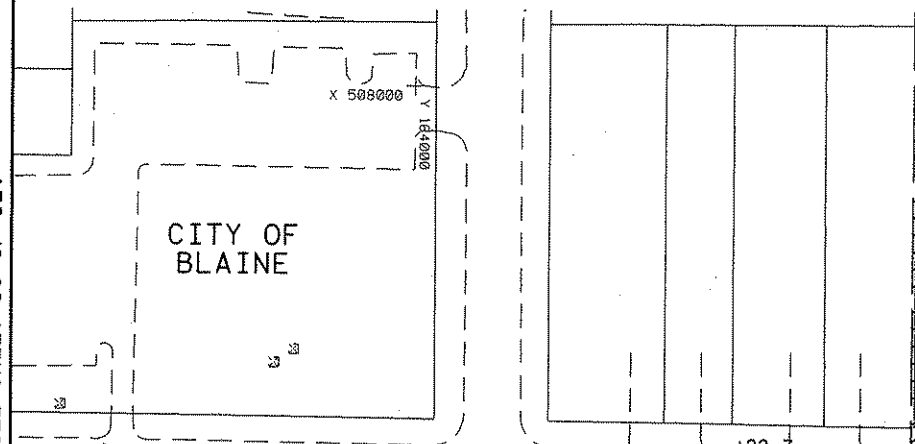
PLOTTED/REVISED: 05-FEB-2007 14:38

(SEE SHEET 10 OF 12)

MATCHLINE

LEGEND

-XC- WIRE FENCE
DES. 60V-9322



(SEE SHEET 12 OF 12)

MATCHLINE



100
SCALE IN FEET

11 OF 12

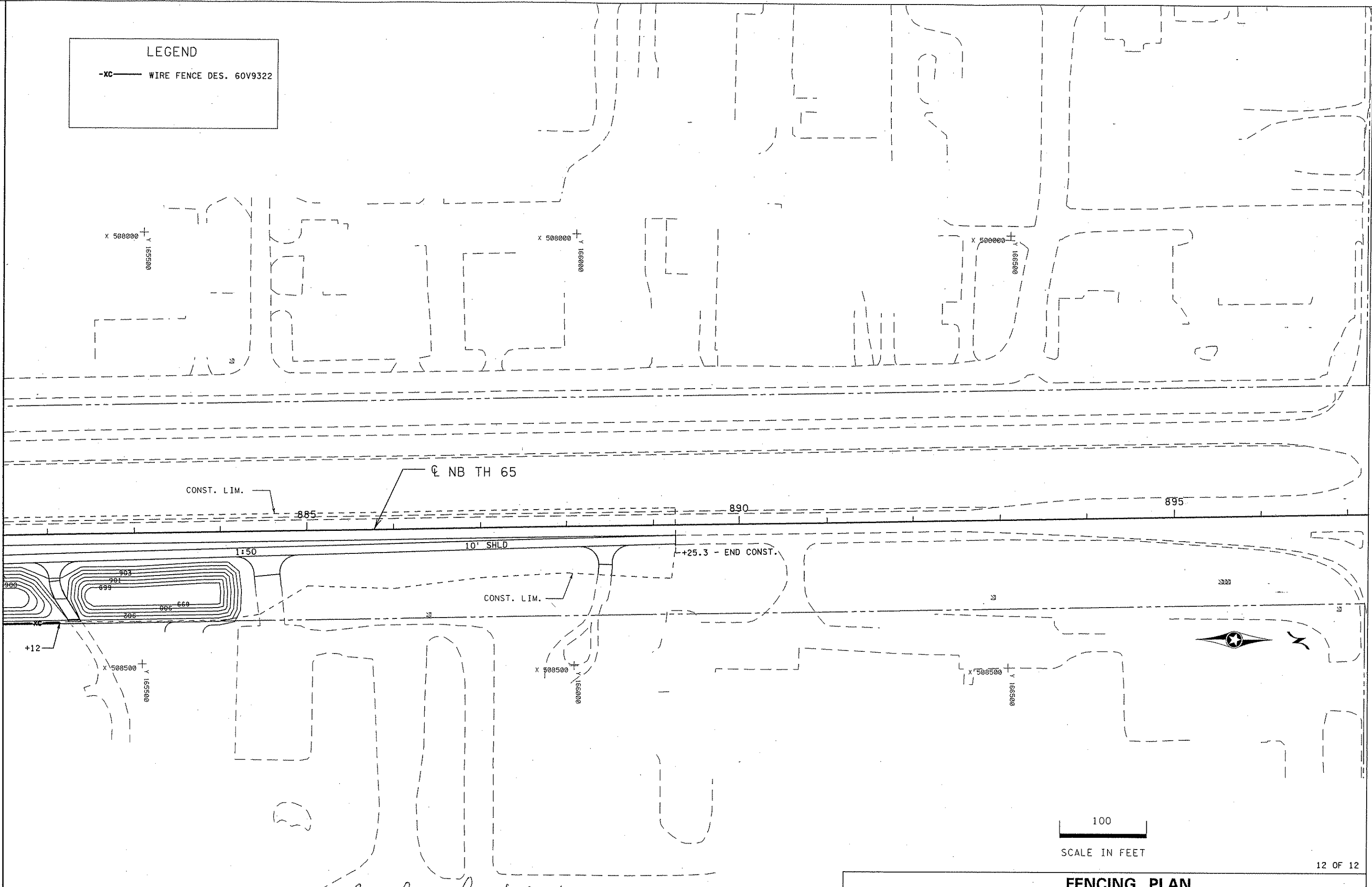
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MATCHLINE (SEE SHEET 11 OF 12)

LEGEND

-XC- WIRE FENCE DES. 60V9322



100
SCALE IN FEET

12 OF 12

FENCING PLAN

DRAWN BY: RLH

CHECKED BY: DY

CERTIFIED BY *Josephine Lundquist* LIC. NO. 20534 DATE 2/7/07

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 485 OF 872 SHEETS

NOTES & GUIDELINES

GENERAL INFORMATION:

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE DEVICES IN THIS TRAFFIC CONTROL PLAN UNLESS OTHERWISE NOTED.
2. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
3. ALL DISTANCES ARE APPROXIMATE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH THE MNMUTCD.
5. AN ANNUAL FALL REVIEW OF ALL TRAFFIC CONTROLS WILL BE MADE TO PREPARE FOR WINTER MAINTENANCE OF THE PROJECT. THIS MAY INCLUDE ADJUSTMENTS OR EXCHANGE OF ONE TRAFFIC CONTROL DEVICE FOR ANOTHER. READJUSTMENTS MAY AGAIN BE REQUIRED IN THE SPRING.
6. IF THE CONTRACTOR DECIDES TO PERFORM THE CONSTRUCTION WORK IN A SEQUENCE OTHER THAN SHOWN IN THIS TRAFFIC CONTROL PLAN THE CONTRACTOR SHALL PROVIDE COMPLETE REVISED TRAFFIC CONTROL PLANS TO BE APPROVED BY THE ENGINEER.

SIGNING:

1. ALL TRAFFIC CONTROL DEVICES, INCLUDING OVERHEAD SIGNS ON ROADS OPEN TO TRAFFIC THAT ARE NOT CONSISTANT WITH TRAFFIC OPERATION SHALL BE COVERED, REMOVED OR REVISED AS DIRECTED BY THE ENGINEER.
2. WHEN SIGNS ARE INSTALLED, THEY SHALL BE MOUNTED ON POSTS DRIVEN INTO THE GROUND AT THE PROPER HEIGHT AND LATERAL OFFSET AS DETAILED IN THE MNMUTCD. IF THIS IS NOT POSSIBLE THEY WILL BE MOUNTED ON PORTABLE SUPPORTS AS APPROVED BY THE ENGINEER. WHEN THE SIGNS ARE REMOVED THE SIGN POSTS SHALL ALSO BE REMOVED AS SOON AS POSSIBLE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXTRA SIGNING NEEDED TO FACILITATE TRAFFIC SWITCHES OR FOR TRANSITIONING TRAFFIC FROM ONE STAGE TO ANOTHER.
4. ALL ORANGE SIGNS SHALL BE MADE OF "HIGH PERFORMANCE FLUORESCENT SIGN SHEETING" OR AN APPROVED SUBSTITUTE.
5. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" FIELD MANUAL UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
6. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE INSTALLED AS NEEDED, OR PROVIDE TEMPORARY SIGNING AT THEIR EXPENSE UNTIL THE FINAL SIGNING IS INSTALLED.

PAVEMENT MARKING:

1. OBLITERATE ANY CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
2. PAINT, POLYMER LANE TAPE AND/OR TRPM'S ARE ACCEPTABLE TEMPORARY STRIPING ALTERNATIVES ACCORDING TO ACTUAL CONDITIONS ENCOUNTERED AS DIRECTED BY THE ENGINEER. GENERALLY, ONLY PAINT WILL BE USED BEFORE MAY 1ST OR WHEN THE OTHER MANUFACTURERS' SPECIFICATIONS CAN NOT BE MET.
3. TRPM'S (TEMPORARY RAISED PAVEMENT MARKERS) SHOULD BE USED TO SUPPLEMENT THE LONG TERM (MORE THAN 3 DAYS) EDGELINES ON ALL TRANSITION AREAS WHEN THE CONDITIONS ARE WITHIN THE MANUFACTURERS' SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND INSTALLATION OF TEMPORARY AND FINAL STRIPING. MN/DOT TRAFFIC PERSONNEL WILL ASSIST IN THE SPOTTING OF TRANSITION AREAS, GORES AND TAPERS.

BARRIER & DELINEATION:













1. TOP MOUNTED BARRIER DELINEATORS WILL HAVE A MINIMUM OF 24 SQ. IN. OF REFLECTIVE SURFACE AREA AND BE PLACED AT 30' SPACES ON TOP OF THE BARRIER WHEN THE BARRIER IS WITHIN 10' OF TRAFFIC UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER. IF THE TRAFFIC ENGINEER REQUIRES SIDE MOUNTED BARRIER DELINEATORS, THEY WILL HAVE A MINIMUM OF 12 SQ. IN. OF REFLECTIVE SURFACE AREA AND BE PLACED AT 30' SPACES. IF A SMALLER APPROVED BARRIER DELINEATOR IS USED IT SHALL BE AT ONE HALF THE SPACING AND ONE HALF THE BID PRICE.

CONSTRUCTION INFORMATION SIGNING:





1. THE CONTRACTOR SHALL USE CONSTRUCTION INFORMATION SIGNING AS SHOWN IN THE PLAN AND WHICH ARE TO BE USED AS FOLLOWS:
 G20-X1 CLOSURE NOTICE SIGNS PAIRED WITH G20-X3 WORK ENDS SIGNS TO DISPLAY THE CORRECT START DATE AND AN ESTIMATED FINISH DATE AS APPROVED BY THE PROJECT ENGINEER.
 G20-X2 WORK ZONE ADVANCE NOTICE SIGNS WITH THE CORRECT STARTING DATE DISPLAYED BEFORE WORK BEGINS. ONCE WORK BEGINS, THE START DATE LEGEND SHALL BE COVERED BY THE SUGGESTED PLAQUE CONTAINED IN THIS PLAN. IF NO ALTERNATE MESSAGE IS SUGGESTED OR IF DIRECTED BY THE PROJECT ENGINEER, THE CORRECT ESTIMATED FINISH DATE, MONTH, OR SEASON SHALL BE DISPLAYED.
 CONSTRUCTION INFORMATION SIGNING NOT VISIBLE TO THE MOTORING PUBLIC ONCE WORK BEGINS WILL BE MOVED BY THE CONTRACTOR TO A SITE IN ADVANCE OF THE WORK ZONE OR CLOSURE AS DIRECTED BY THE PLAN OR PROJECT ENGINEER.

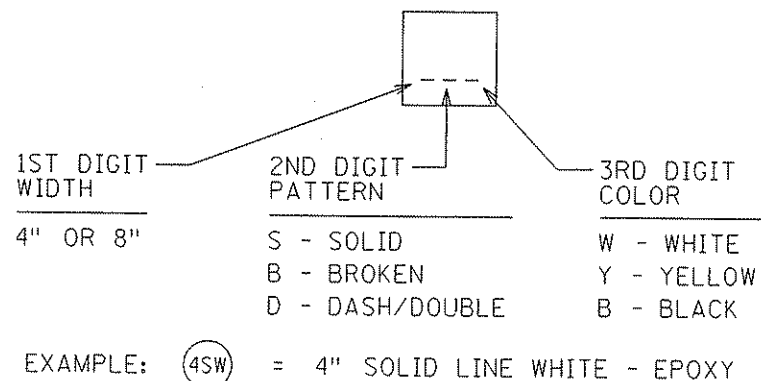
TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL DESCRIPTION

-  AREA CLOSED TO TRAFFIC / WORK AREA
-  TRAFFIC CONTROL SIGN
-  TYPE III BARRICADE = 
-  DRUM-LIKE CHANNELIZER = 
-  CENTER LINE DELINEATOR TUBE = 
-  TYPE A FLASHING WARNING LIGHT
-  FLASHING ARROW BOARD TYPE C = 
(4' X 8' UNLESS OTHERWISE NOTED).
- SOLID LINE PAVEMENT MARKING WITH TEMPORARY RAISED PAVEMENT MARKERS AT 10' SPACES
-  PAVEMENT MESSAGE (LEFT ARROW) EPOXY

STRIPING KEY

-  CIRCLE - EPOXY
-  SQUARE - POLY PREFORM
-  TRIANGLE - PAINT
-  PENTAGON - REMOVEABLE PREFORMED PLASTIC MARKING



INDEX

TRAFFIC CONTROL SHEET NO. DESCRIPTIONS

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487	PAY ITEM TABULATION SHEET
488	TRAFFIC CONTROL TABULATION SHEET
489	ADVANCED SIGNING
490	STAGE 1A/1AA DETOURS
491	STAGE 1B ADVANCED SIGNING
492	STAGE 1B DETOURS
493-507	STAGE 1A DETAILS
508-511	STAGE 1AA DETAILS
512-525	STAGE 1B DETAILS
526-540	STAGE 1C DETAILS
541-551	STAGE 2A DETAILS
552-562	STAGE 2B DETAILS
563-573	STAGE 2C DETAILS
574-576	SPECIAL SIGNS
577	TYPICALS

I HEREBY CERTIFY THAT SHEETS 486 THROUGH 577 OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

Cassandra Isackson
 CASSANDRA ISACKSON
 DATE 1/31/07 LIC. NO. 26429
 DESIGNER KEVIN FARRAHER

TITLE: TRAFFIC CONTROL TITLE SHEET

STATE PROJ NO 0208-123 (TH 65) SHEET NO 486 OF 872 SHEETS

DISTRICT #: METRO
 PLOT NAME: 10208-123_Typicals.tc.tsh
 PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\123\Typicals.tc.tshdgn
 PLOTTED/REVISED: 1/31/2007

PLOTTED/REVISED: 4/11/2007





DISTRICT #: METRO
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

PAY ITEM TABULATION -HPP/STP								AB
ITEM	UNIT	STAGE 1A/1AA	STAGE 1B	STAGE 1C	STAGE 2A	STAGE 2B	STAGE 2C	TOTAL
PAVEMENT MARKING REMOVAL	SQ FT	144	828		384	336	96	816
PAVEMENT MARKING REMOVAL	LIN FT	457	9973	1447	6677	5076	6125	29755
TRAFFIC CONTROL	LUMP SUM	0.2	0.2	0.1	0.2	0.2	0.1	1
1) RAISED PAVEMENT MARKER TEMP.	EACH	405						405
2) REMOVABLE PREFORMED PLASTIC MARKING	LIN FT	1800						1800
REMOVABLE PREFORMED PLASTIC MASK (BLACK)	LIN FT	720						720
PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	3				2		5
PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	3						3
PAVEMENT MESSAGE (LEFT ARROW) EPOXY	EACH		6	2				8
PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH		4				2	6
4" SOLID LINE WHITE-PAINT	LIN FT	9476	8315		3651	14096		35538
24" SOLID LINE WHITE-PAINT	LIN FT	56						56
4" BROKEN LINE WHITE-PAINT	LIN FT		1273		587	1836		3696
8" BROKEN LINE WHITE-PAINT	LIN FT		380			960		1340
4" SOLID LINE YELLOW-PAINT	LIN FT	2193	8372		5029	13829		29423
4" DOUBLE SOLID LINE YELLOW-PAINT	LIN FT	4190						4190
4" SOLID LINE WHITE-EPOXY	LIN FT		765	6396			7351	14512
8" SOLID LINE WHITE-EPOXY	LIN FT			2323			4134	6457
4" BROKEN LINE WHITE-EPOXY	LIN FT			1280			1300	2580
8" BROKEN LINE WHITE-EPOXY	LIN FT			490			870	1360
8" DOTTED LINE WHITE-EPOXY	LIN FT			93				93
4" SOLID LINE YELLOW-EPOXY	LIN FT		569	6396			6537	13501
8" SOLID LINE YELLOW-EPOXY	LIN FT			2409			4306	6714












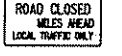

- 1) 230 YELLOW, 175 WHITE
- 2) 1200' YELLOW, 600' WHITE



NOTE: THE PROVISIONS OF Mn/DOT 1903 ARE MODIFIED SUCH THAT NO PRICE ADJUSTMENT WILL BE MADE IN THE EVENT OF INCREASED OR DECREASED QUANTITIES OF SEPARATE TRAFFIC CONTROL DEVICES

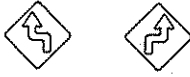

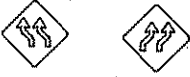













TRAFFIC CONTROL TABULATION SHEET













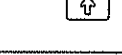

DEVICES			
ITEM	SIGN NO.	COLOR	SIZE
	TYPE I		
	DLC		
	TYPE III		
ARROW BOARD	TYPE C		4' X 8'
	CLCT		

"G" SERIES			
SIGN	SIGN NO.	COLOR	SIZE
	G20-2A	BLACK ON ORANGE	48" X 24"
	G20-X1	BLACK ON ORANGE	72" X 60"

"R" SERIES				
SIGN	SIGN NO.	COLOR	SIZE	
	R1-1	WHITE ON RED	36" X 36"	
	R1-2	RED ON WHITE	36" X 36" X 36"	
	R1-4	WHITE ON RED	18" X 6"	
	R3-1	BLACK AND RED ON WHITE	24" X 24"	
	R3-2	BLACK AND RED ON WHITE	24" X 24"	
	R3-7	BLACK ON WHITE	30" X 30"	
	R3-30AD	BLACK ON WHITE	36" X 30"	
	R4-7	BLACK ON WHITE	24" X 30"	
	R5-1	WHITE ON RED	30" X 30"	
	R6-1	BLACK ON WHITE	36" X 12"	
	R11-2	BLACK ON WHITE	48" X 30"	
	R11-3a	BLACK ON WHITE	60" X 30"	
	R11-4	BLACK ON WHITE	60" X 30"	

"G" SERIES			
SIGN	SIGN NO.	COLOR	SIZE
	G20-2A	BLACK ON ORANGE	48" X 24"
	G20-X1	BLACK ON ORANGE	72" X 60"

"W" SERIES				
SIGN	SIGN NO.	COLOR	SIZE	
	W1-1	BLACK ON ORANGE	48" X 48"	
	W1-4	BLACK ON ORANGE	48" X 48"	
	W1-4b	BLACK ON ORANGE	48" X 48"	
	W1-6	BLACK ON ORANGE	48" X 24"	
	W3-1	BLACK ON ORANGE	48" X 48"	
	W3-2	BLACK ON ORANGE	48" X 48"	
	W4-1	BLACK ON ORANGE	48" X 24"	
	W4-2	BLACK ON ORANGE	48" X 24"	
	W6-1	BLACK ON ORANGE	48" X 24"	
	W6-2	BLACK ON ORANGE	48" X 24"	
	W6-3	BLACK ON ORANGE	48" X 24"	
	W20-1	BLACK ON ORANGE	48" X 24"	
	W20-3	BLACK ON ORANGE	48" X 24"	
	W20-X3	BLACK ON ORANGE	48" X 24"	
	W21-X1	BLACK ON ORANGE	48" X 24"	
	W21-X5	BLACK ON ORANGE	48" X 24"	

"M" SERIES			
SIGN	SIGN NO.	COLOR	SIZE
	M1-6a	WHITE AND YELLOW ON BLUE	24" X 24" 36" X 36"
	M3-2	BLACK ON ORANGE	24" X 12"
	M3-4	BLACK ON ORANGE	24" X 12"
	M4-5	BLACK ON ORANGE	24" X 12"
	M4-8a	BLACK ON ORANGE	24" X 18"
	M4-9R	BLACK ON ORANGE	30" X 24"
	M4-9T	BLACK ON ORANGE	30" X 24"
	M4-9ATR	BLACK ON ORANGE	30" X 24"
	M5-1	BLACK ON ORANGE	21" X 15" 30" X 24"
	M5-2	BLACK ON ORANGE	21" X 15" 30" X 24"
	M6-1	BLACK ON ORANGE	21" X 15" 30" X 24"
	M6-2	BLACK ON ORANGE	21" X 15" 30" X 24"
	M6-3	BLACK ON ORANGE	21" X 15" 30" X 24"
	M6-4	BLACK ON ORANGE	21" X 15"

TRAFFIC CONTROL TABULATION CHART

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Brook
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

DATE 1/31/2007

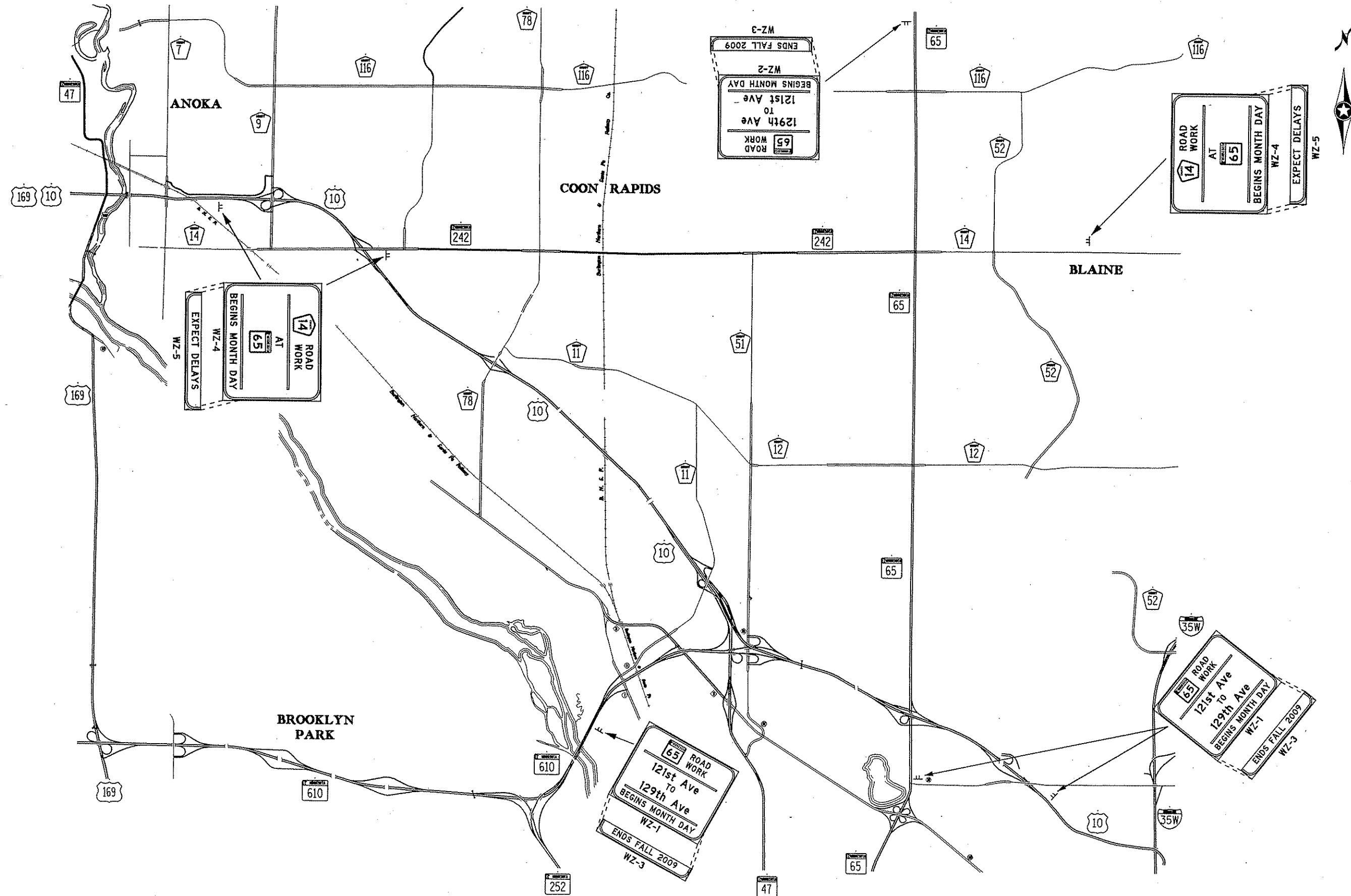
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 488 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208-123-typlcais_fc.tsh3
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123-typlcais_fc.tshdgn

DISTRICT #: METRO
 IPLOT NAME: 10208-123_adv_fc.tsh17
 PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\TC\0208-123_typicals_fc_tshudgn

PLOTTED/REVISED: 1/31/2007

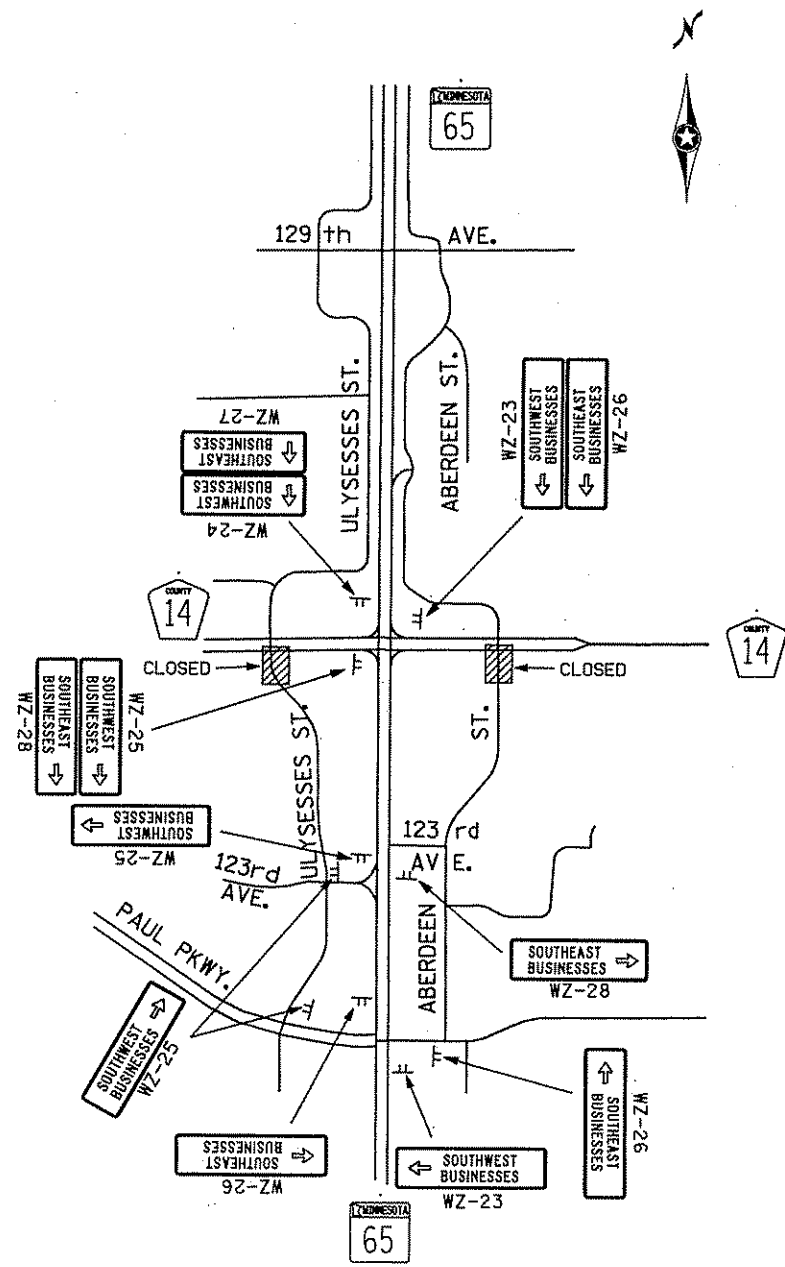


NOTES: 1) INSTALL SIGNS 7 DAYS IN ADVANCE OF START OF PROJECT
 2) MOUNT WZ-3 & WZ-5 PANELS UPON START OF PROJECT

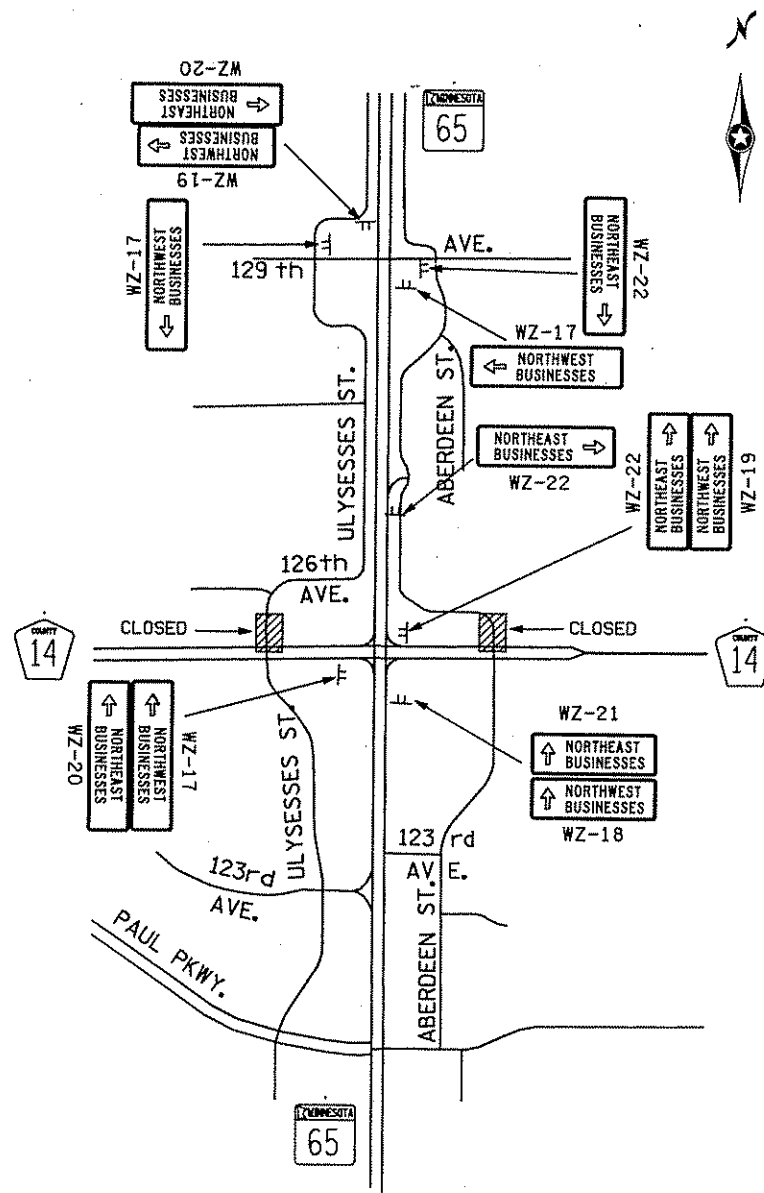
ADVANCED SIGNING

PLOTTED/REVISED: 1/31/2007

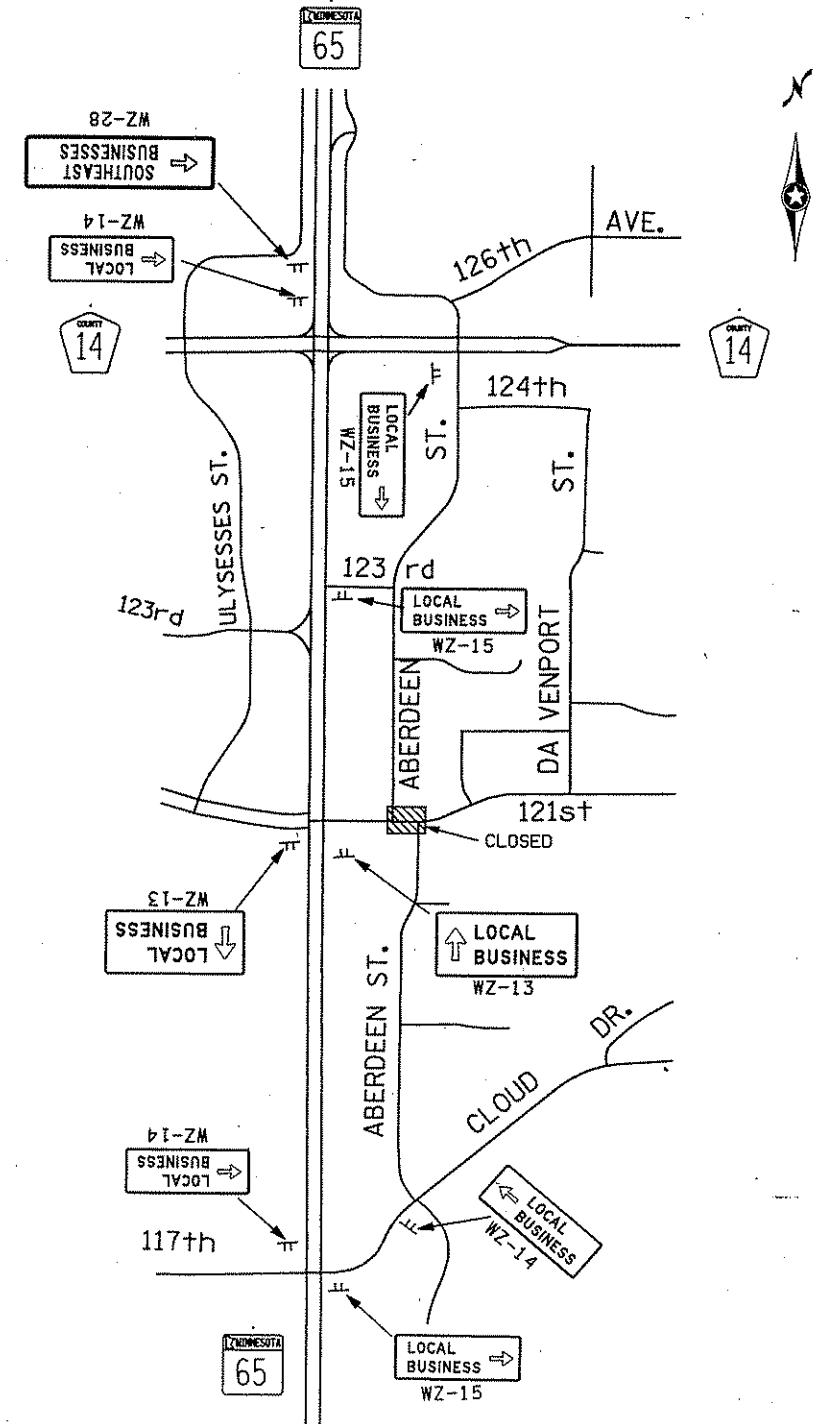
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I/PLOT NAME: 10208-123_hyp_stg1a_det_fc.tsh
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\typicals_fc_tsh.dgn



STAGE 1A



STAGE 1AA



STAGE 1AA

NOTE: INSTALL G20-X1 SIGNS 7 DAYS
IN ADVANCE OF CLOSURE

STAGE 1A/1AA DETOURS

REVISED: 02-JAN-2004

CERTIFIED BY

Cassandra Bab
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

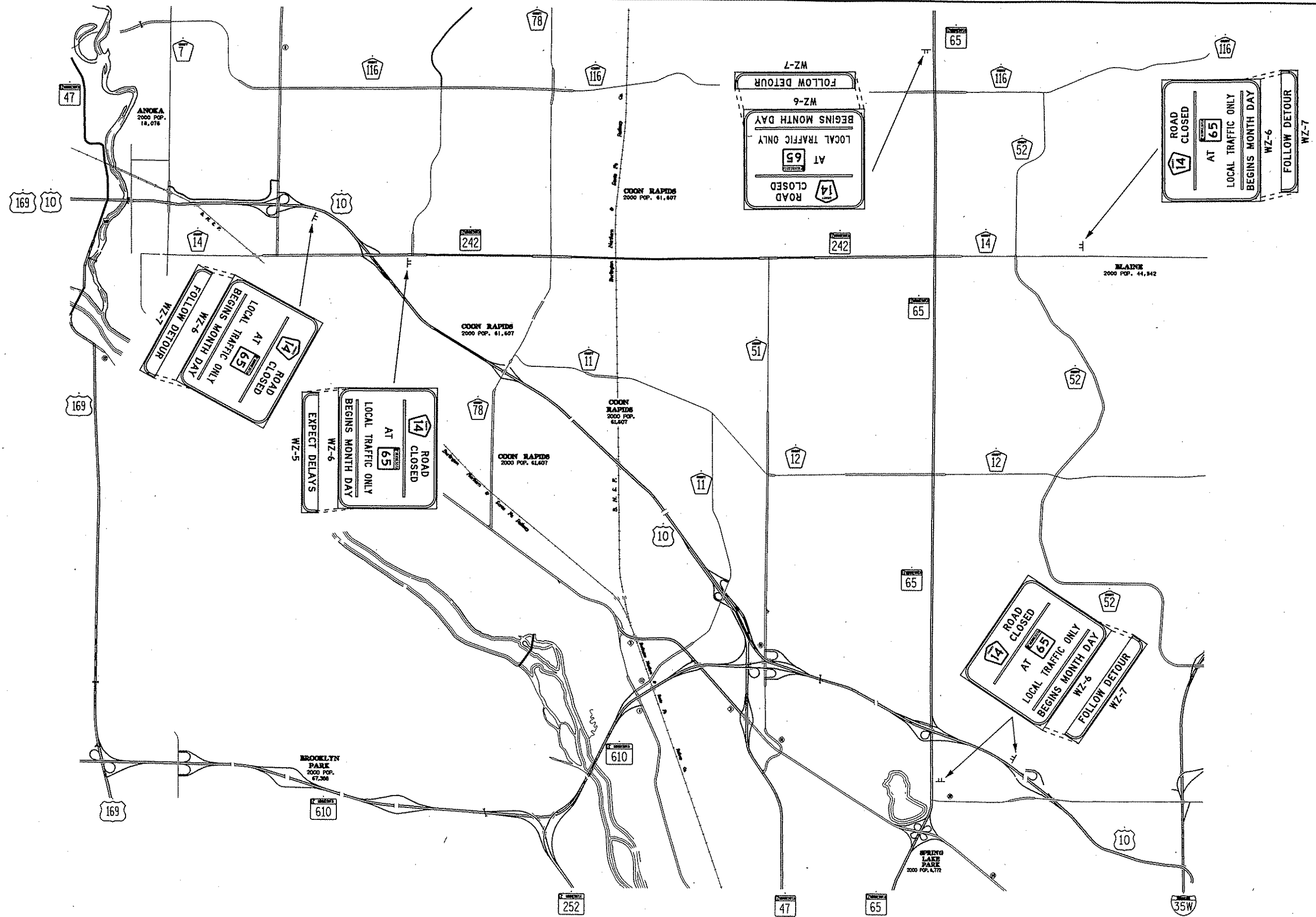
DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65)

SHEET NO. 490 OF 872 SHEETS

DISTRICT #: METRO
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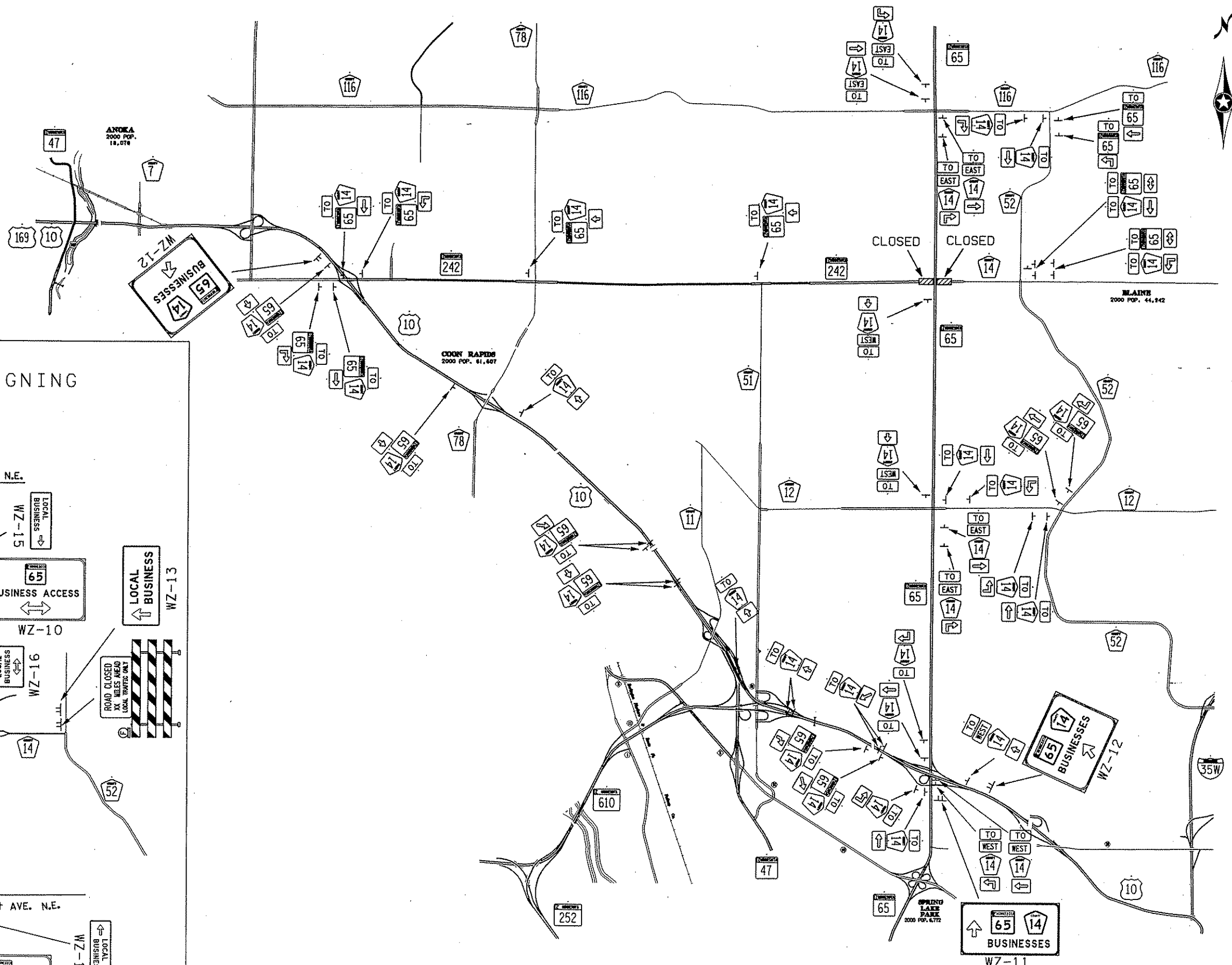
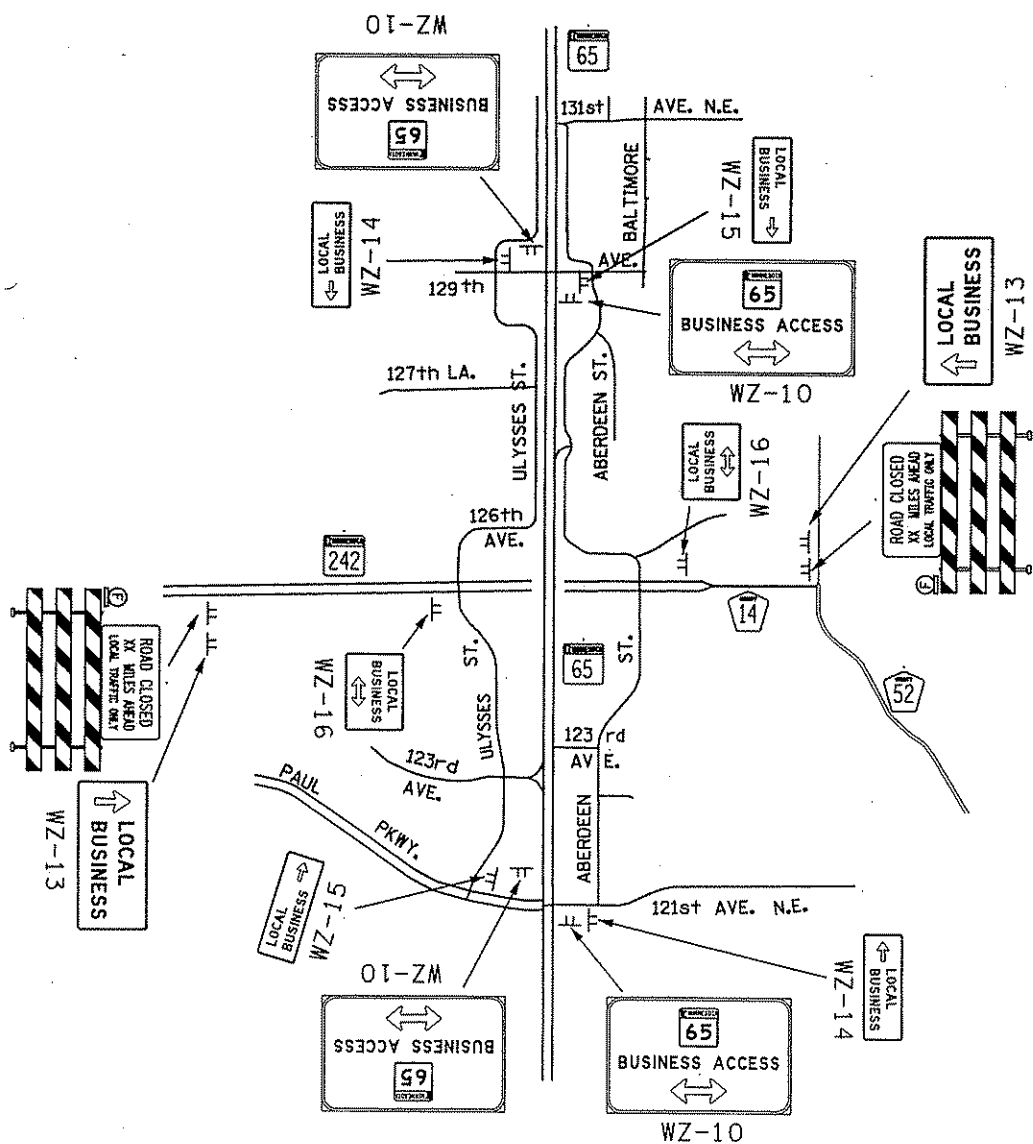
PLOTTED/REVISED: 1/31/2007



- NOTES: 1) INSTALL SIGNS 7 DAYS IN ADVANCE OF START OF PROJECT
 2) MOUNT WZ-5 & WZ-7 PANELS UPON START OF PROJECT
 3) INSTALL G20-X1 SIGNS 7 DAYS IN ADVANCE OF CLOSURES

STAGE 1B ADVANCED SIGNING

LOCAL BUSINESS SIGNING



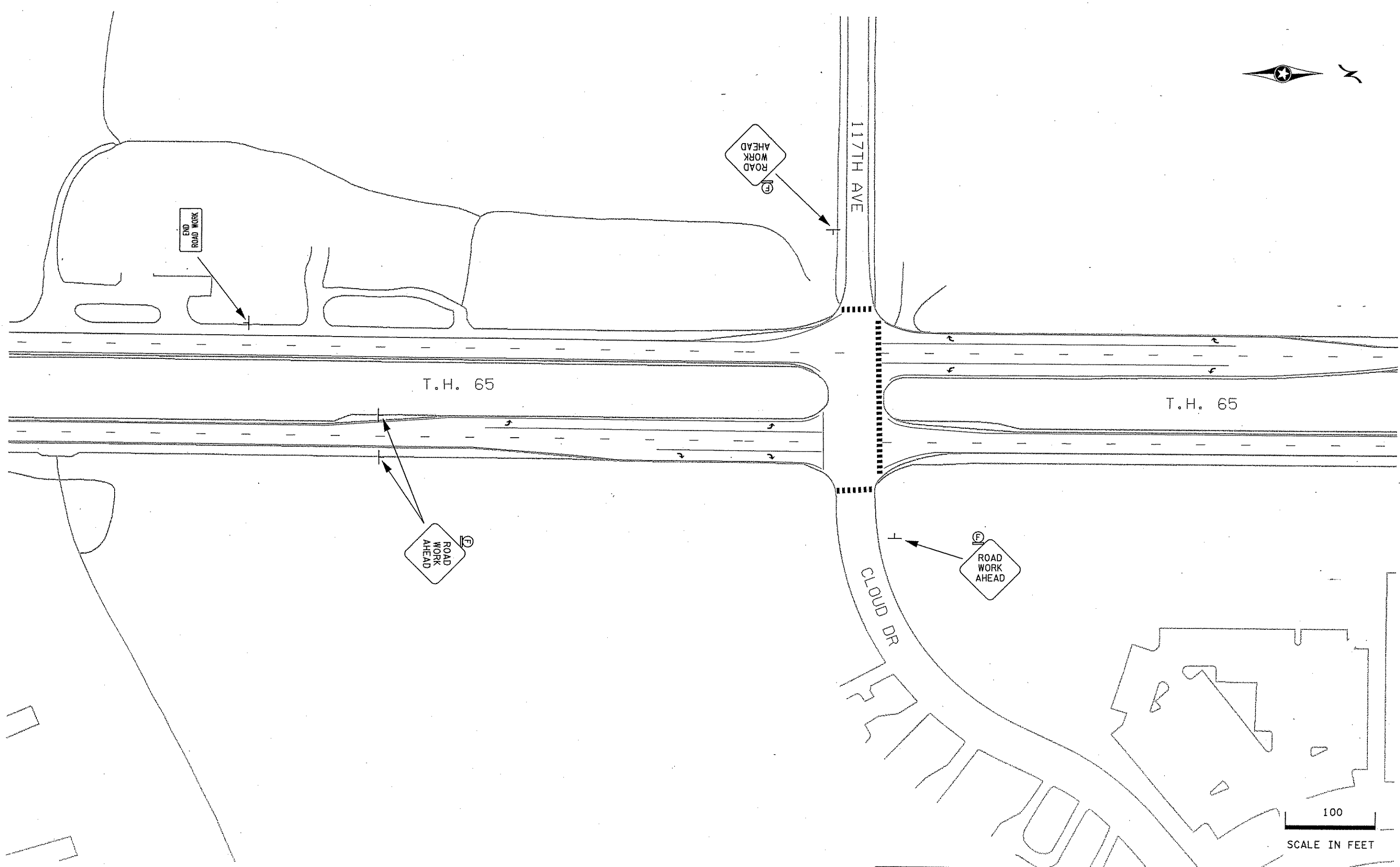
NOTE: USE OVERSIZED SIGNS ON TH 10 & 65

STAGE 1B DETOURS

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DISTRICT #: METRO
PLOT NAME: 10208123_jcsf1abdr1
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Probst
LICENSED PROFESSIONAL ENGINEER

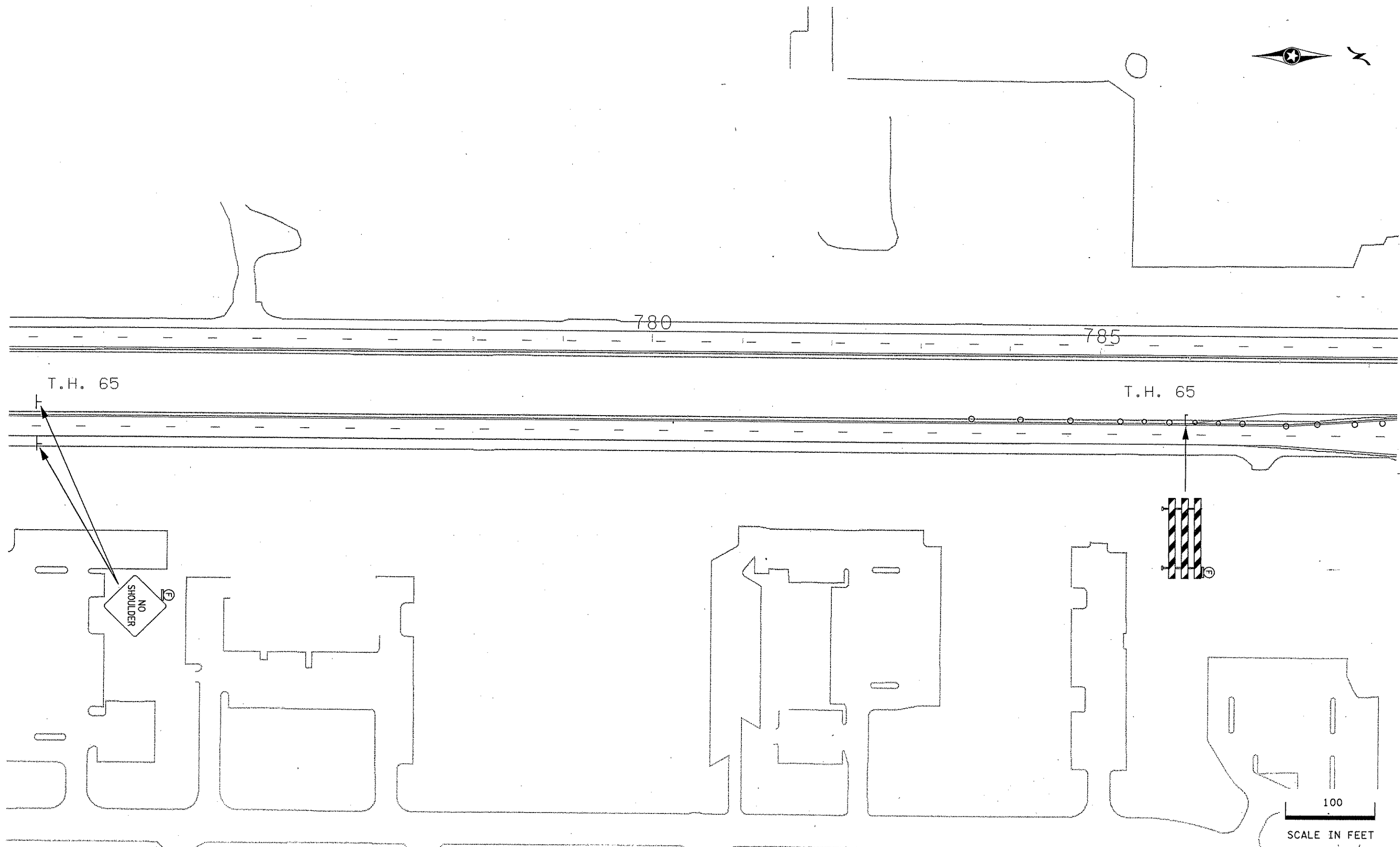
LIC. NO. 26429

DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 493 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Erub
LICENSED PROFESSIONAL ENGINEER

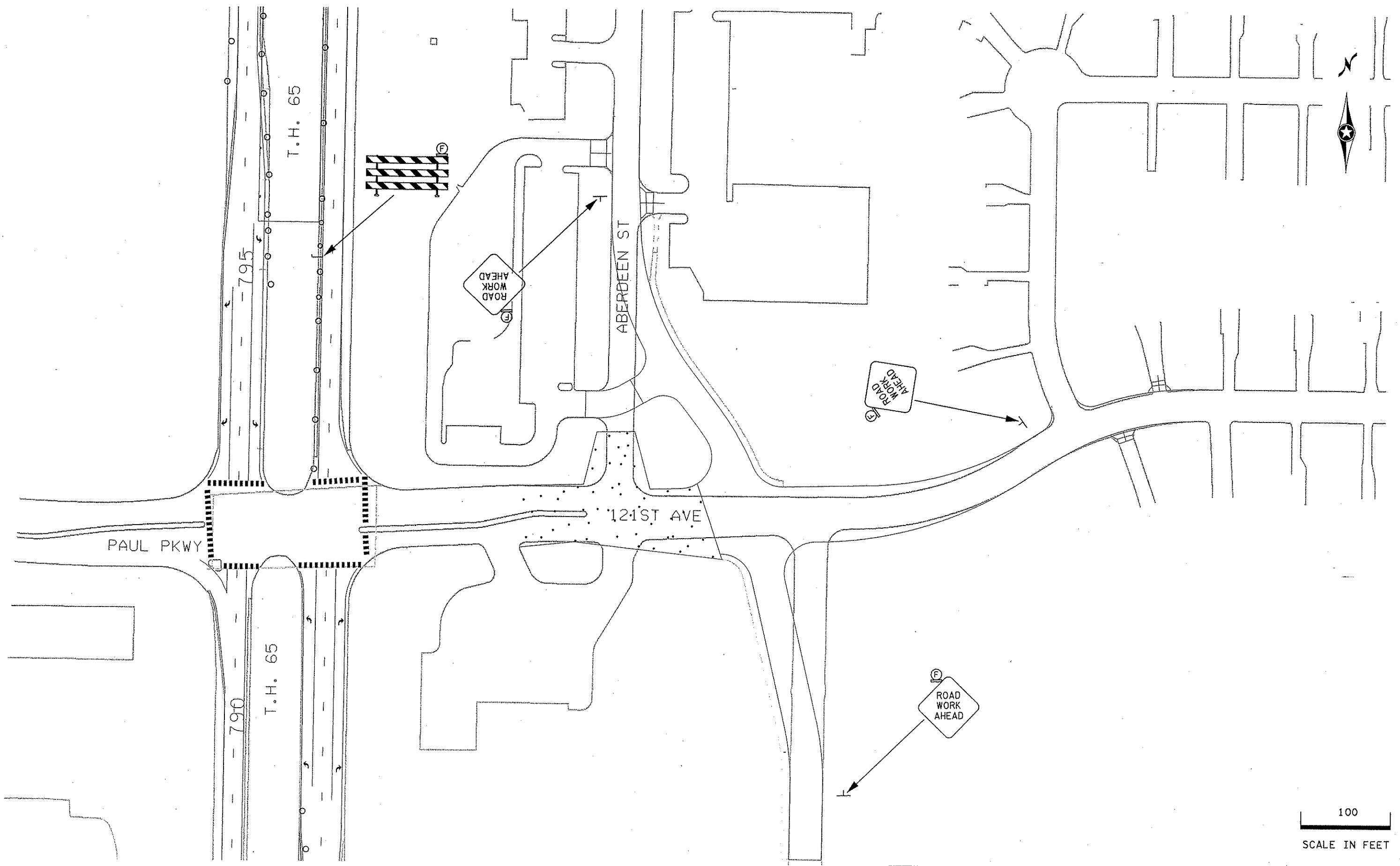
LIC. NO. 26429

DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 494 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



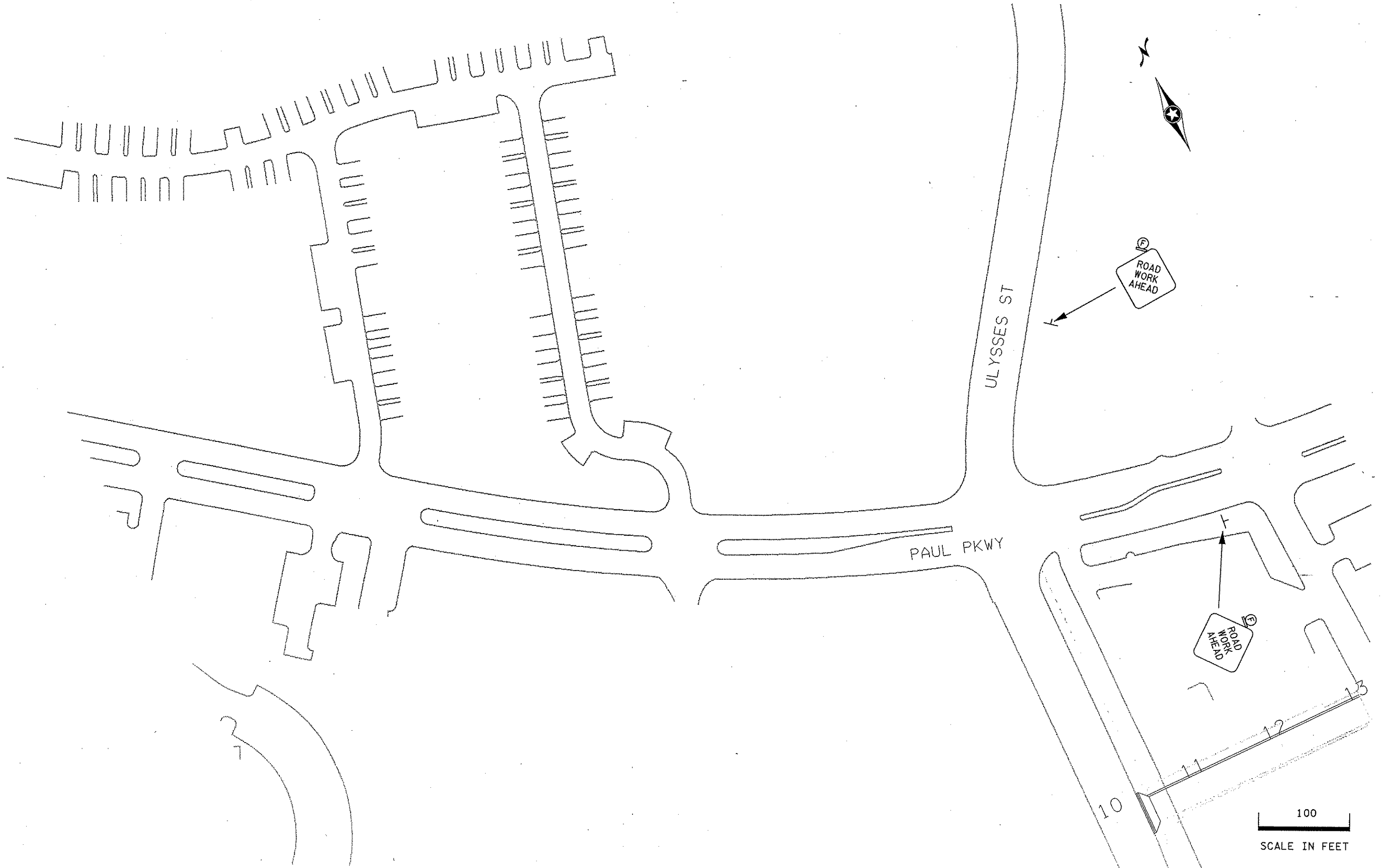
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Erub* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 495 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123-Jcs10bdr13
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

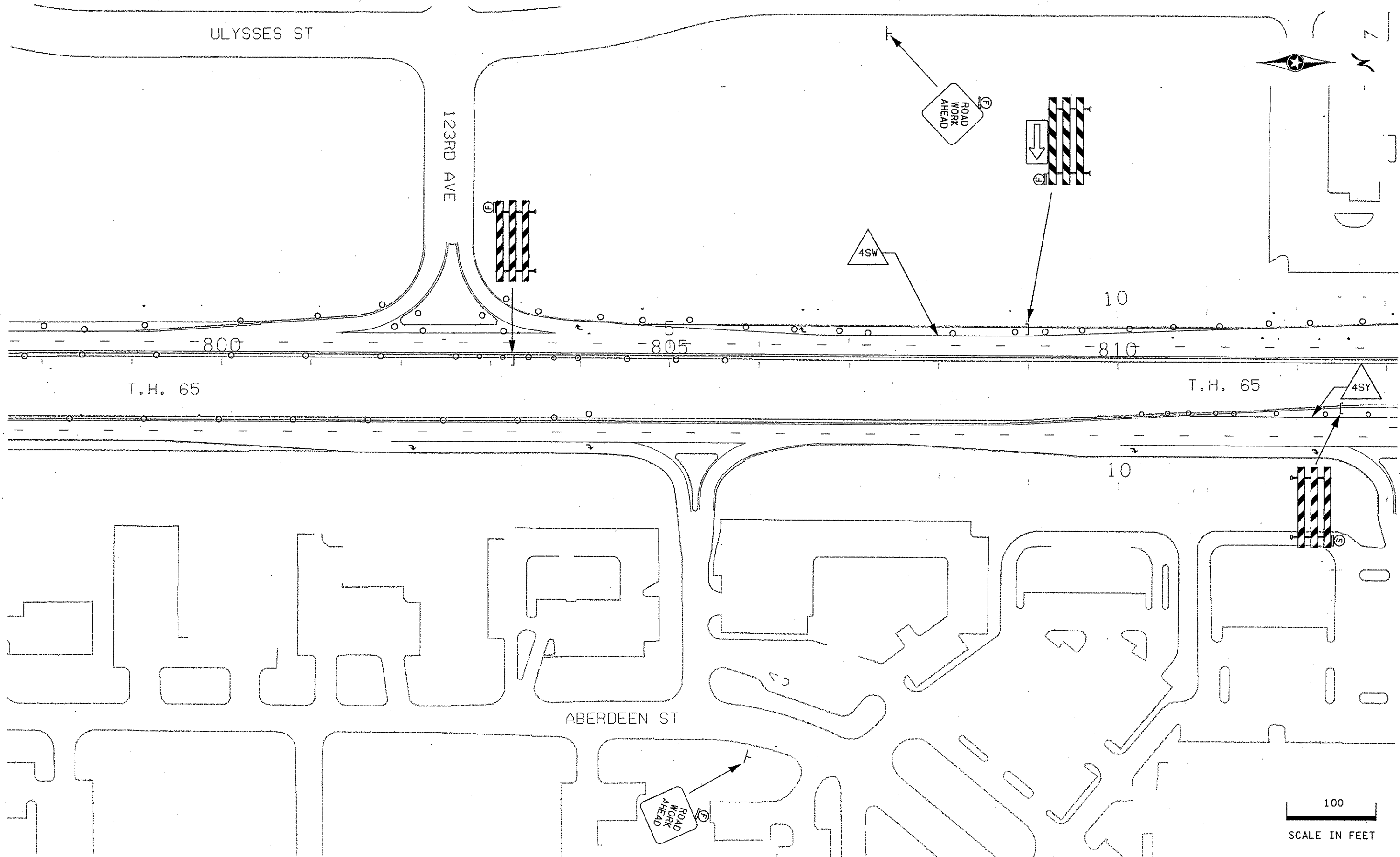
CHECKED BY: MJR

CERTIFIED BY *Cassandra Borok* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 496 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 1A

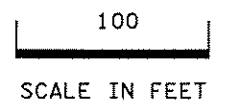
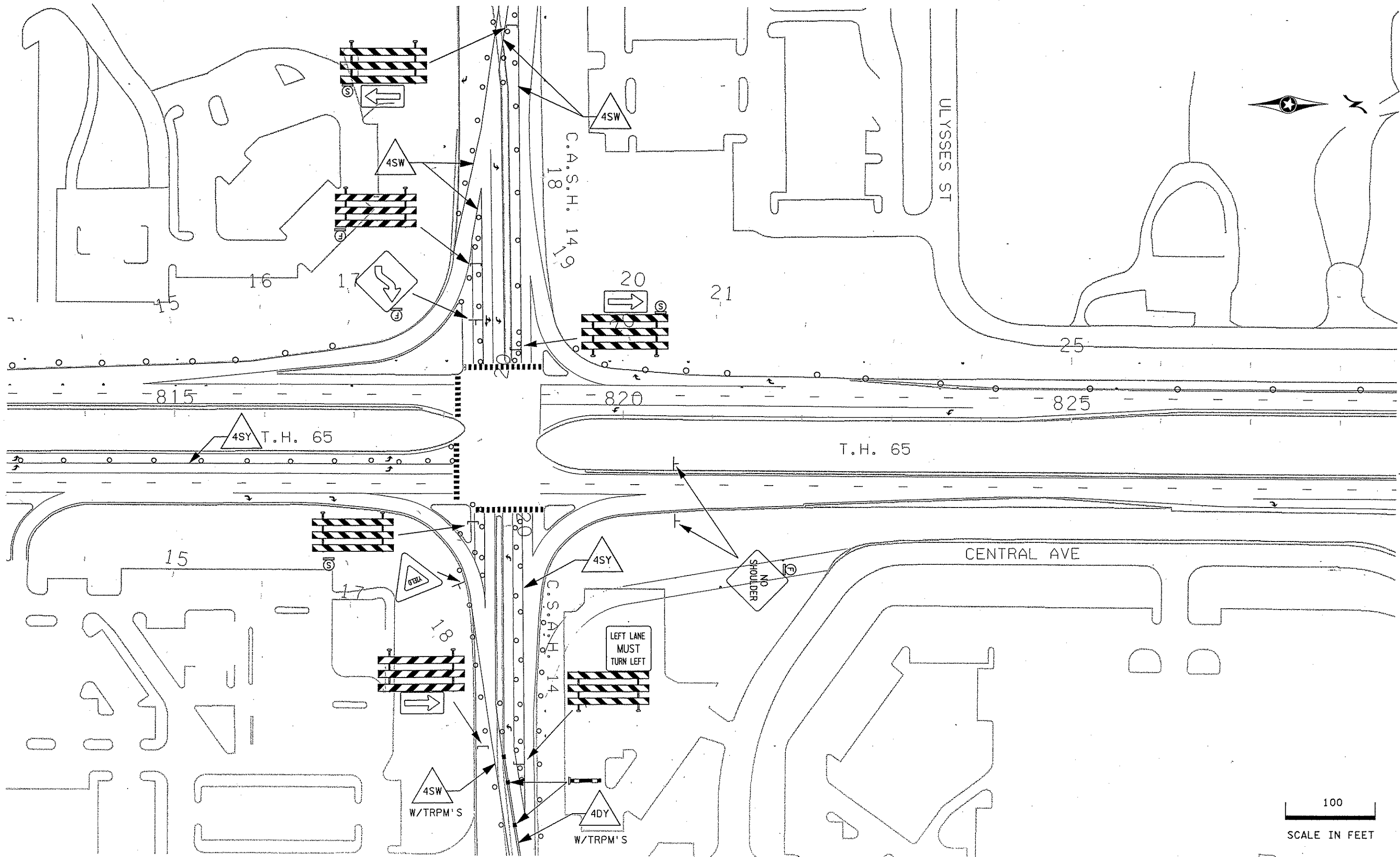
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra P. [Signature]* LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 497 OF 872 SHEETS

DISTRICT #: METRO
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 PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 1A

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Barb
 LICENSED PROFESSIONAL ENGINEER

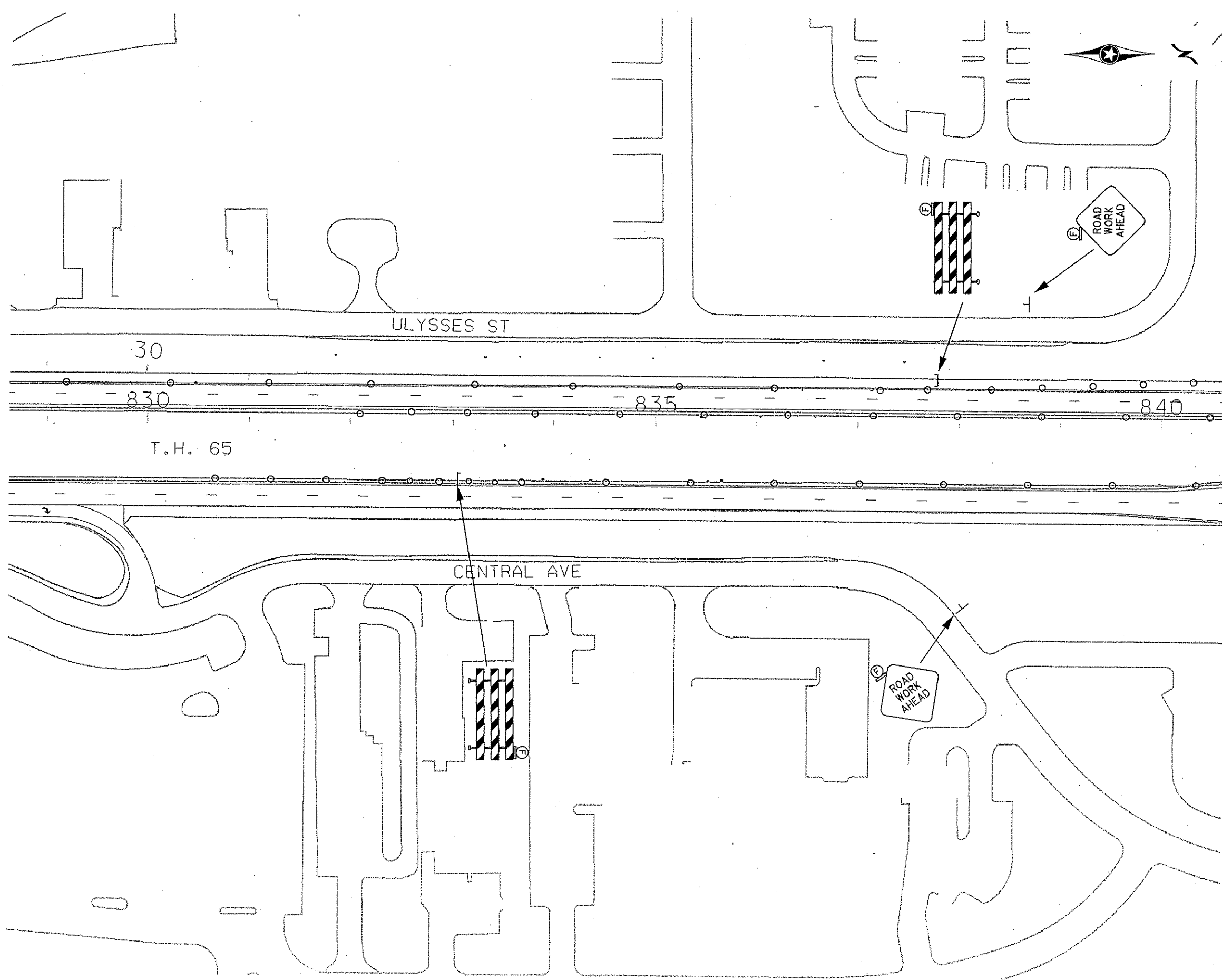
LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 498 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

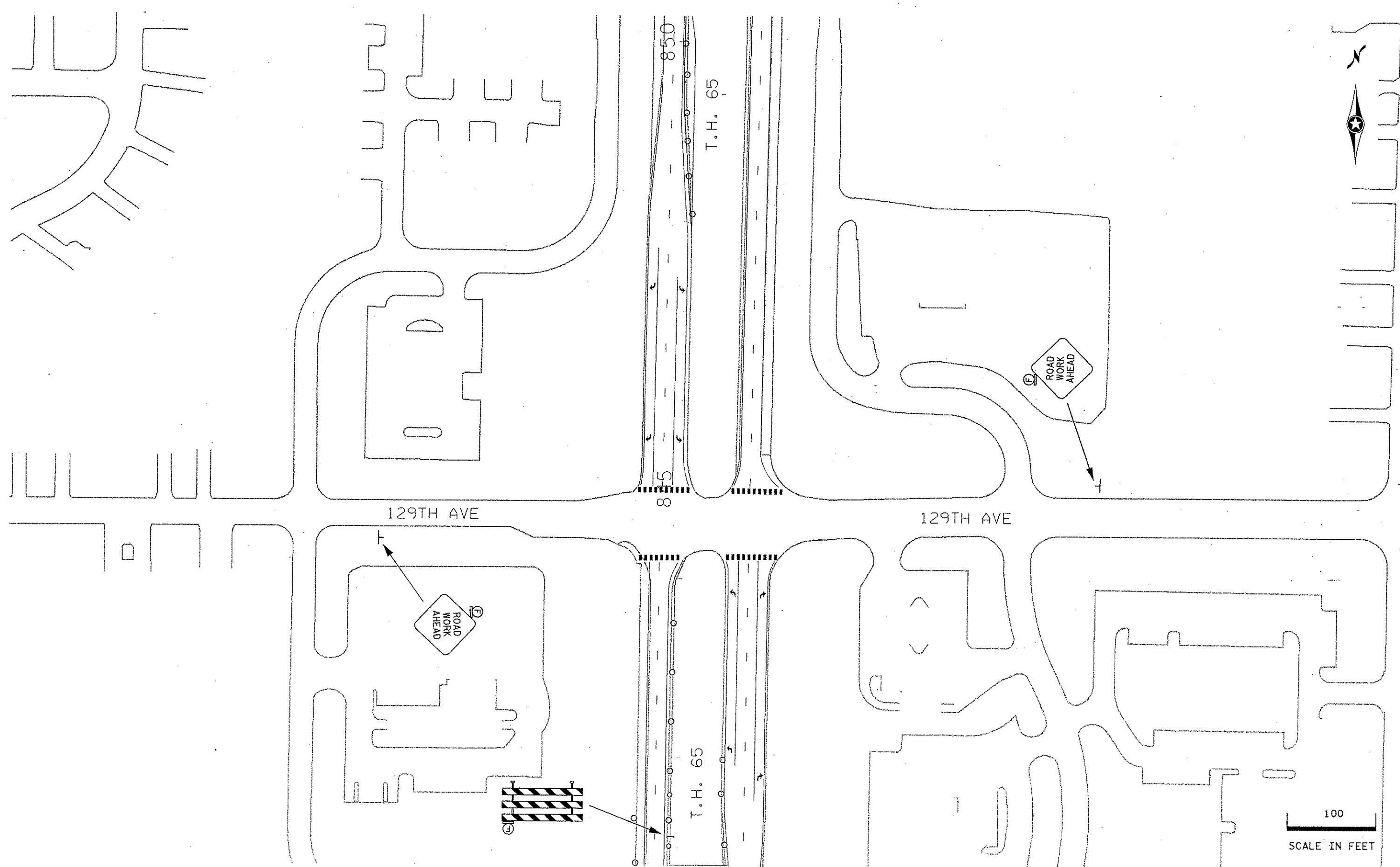
CHECKED BY: MJR

CERTIFIED BY *Cassandra Brob* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 499 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

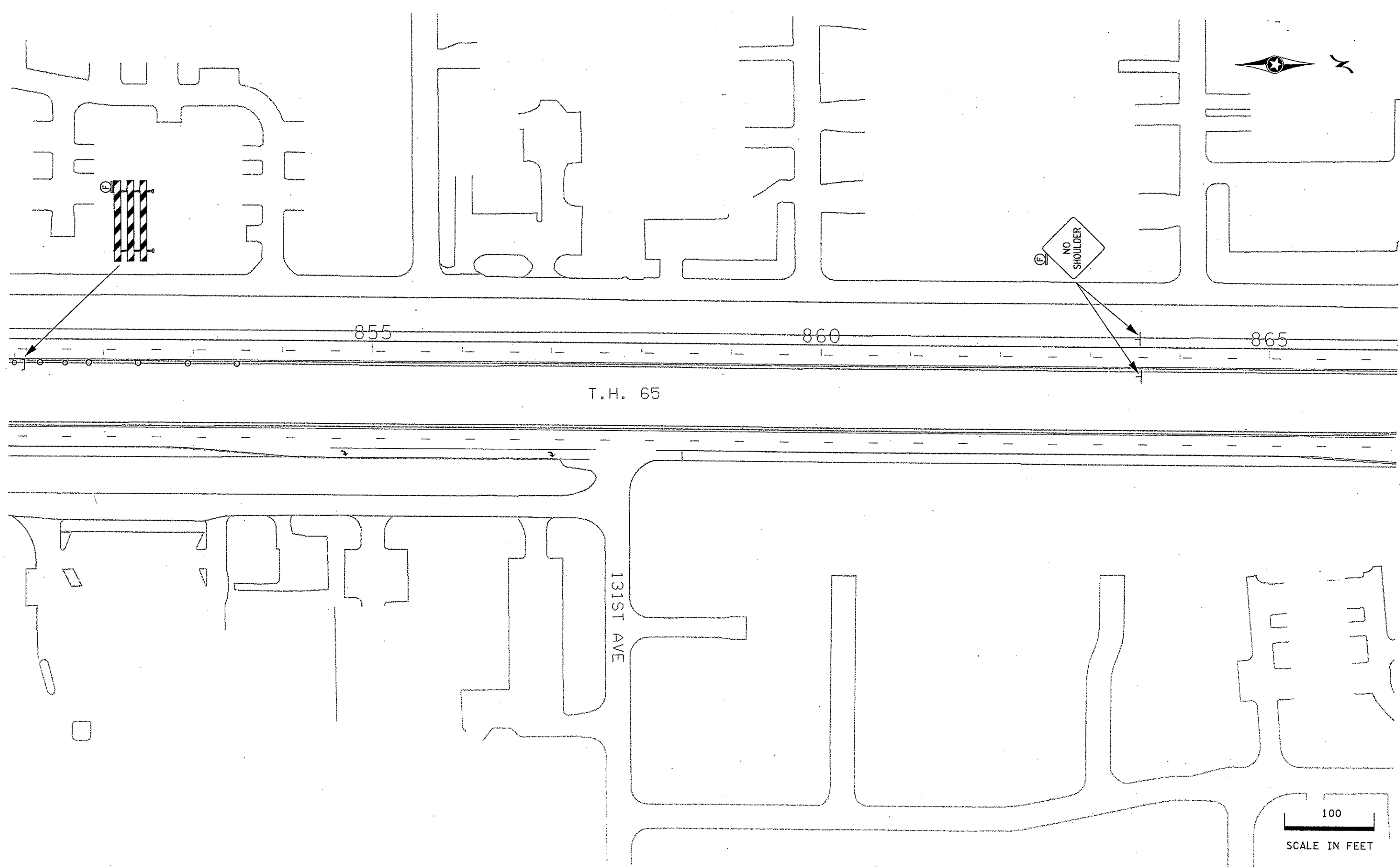
CHECKED BY: MJR

CERTIFIED BY *Cassandra Bobb* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 500 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

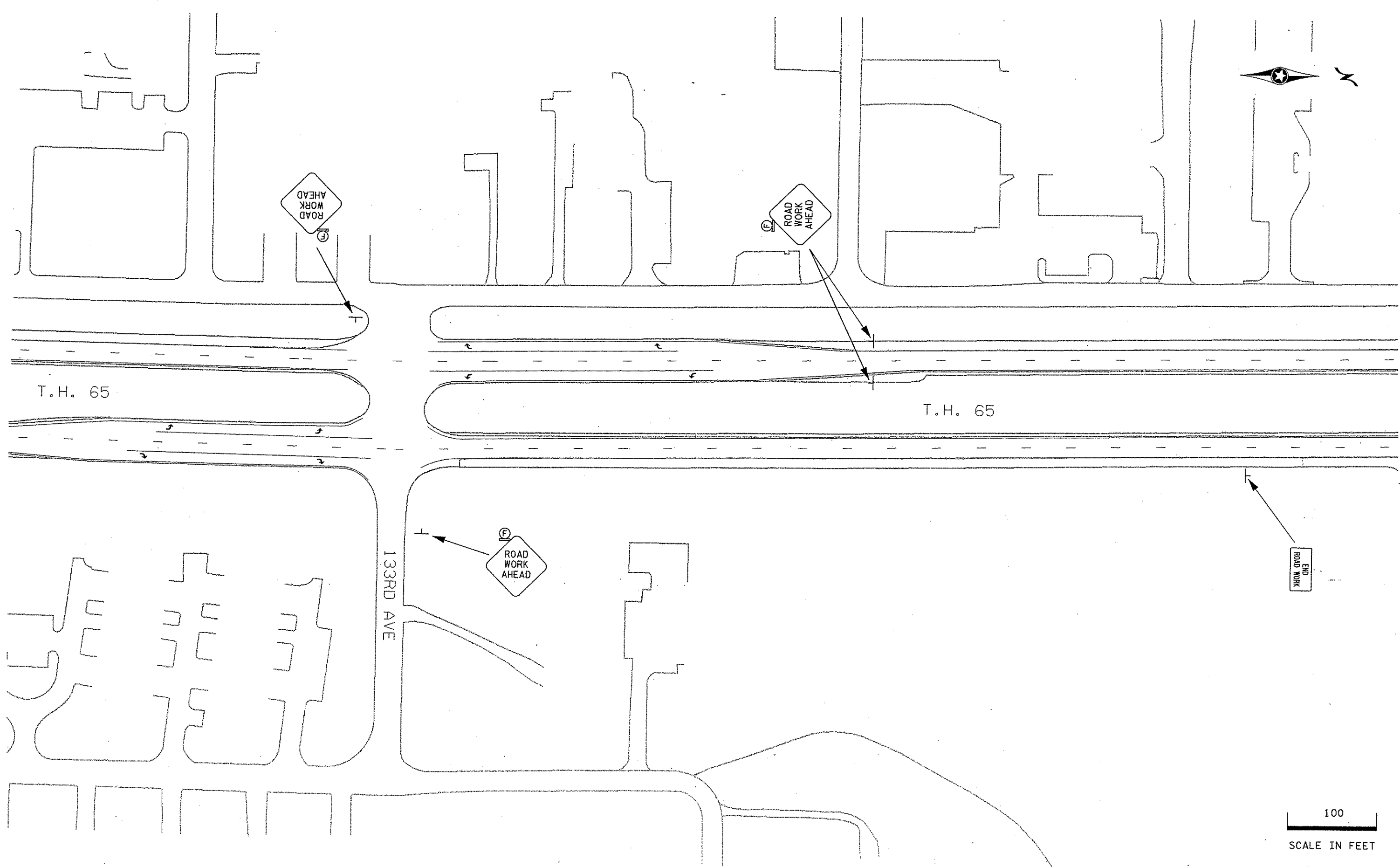
CERTIFIED BY *Cassandra Erub*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 501 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_jestlabdr19
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra E. Probst
LICENSED PROFESSIONAL ENGINEER

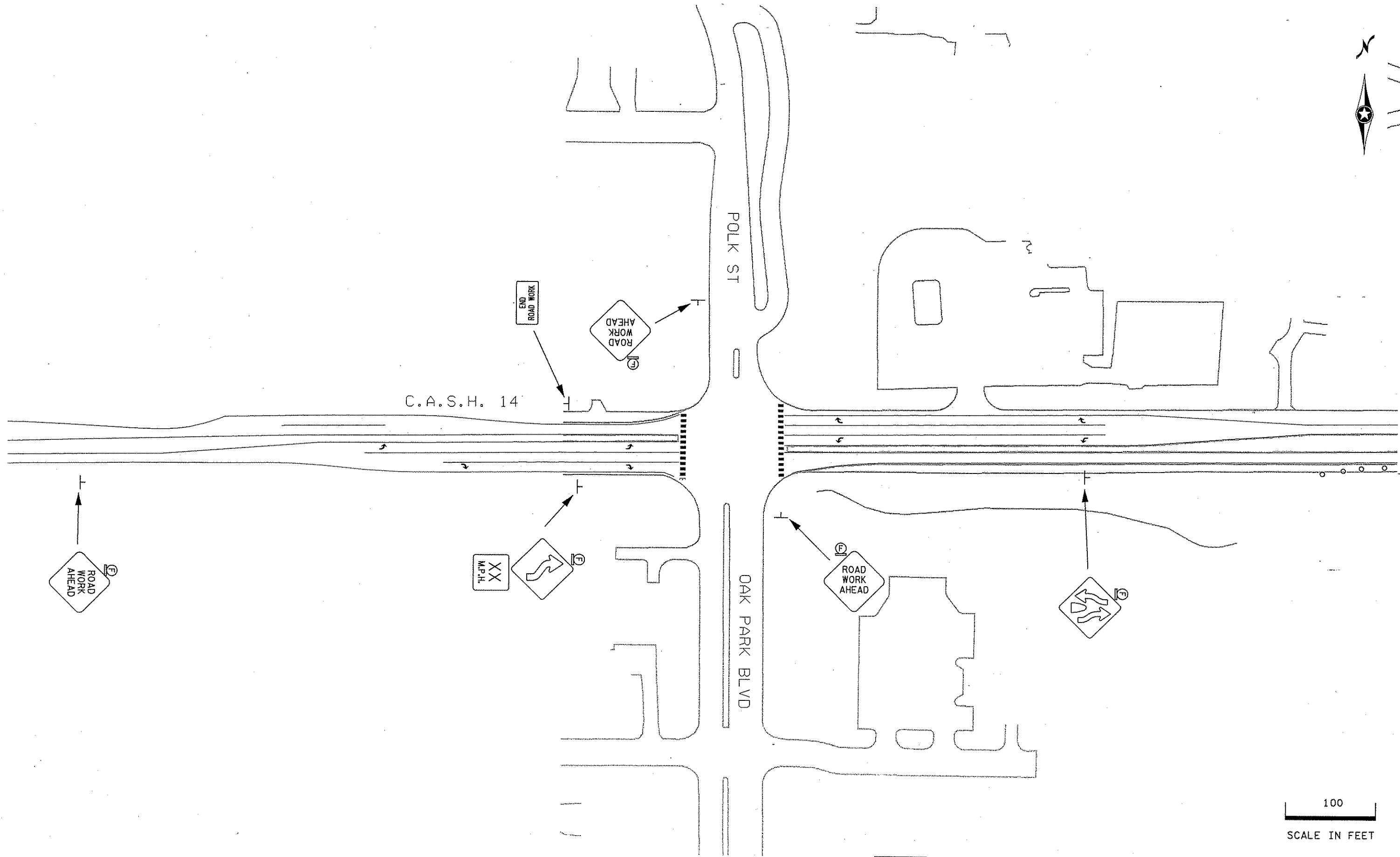
LIC. NO. 26429

DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 502 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Cook
LICENSED PROFESSIONAL ENGINEER

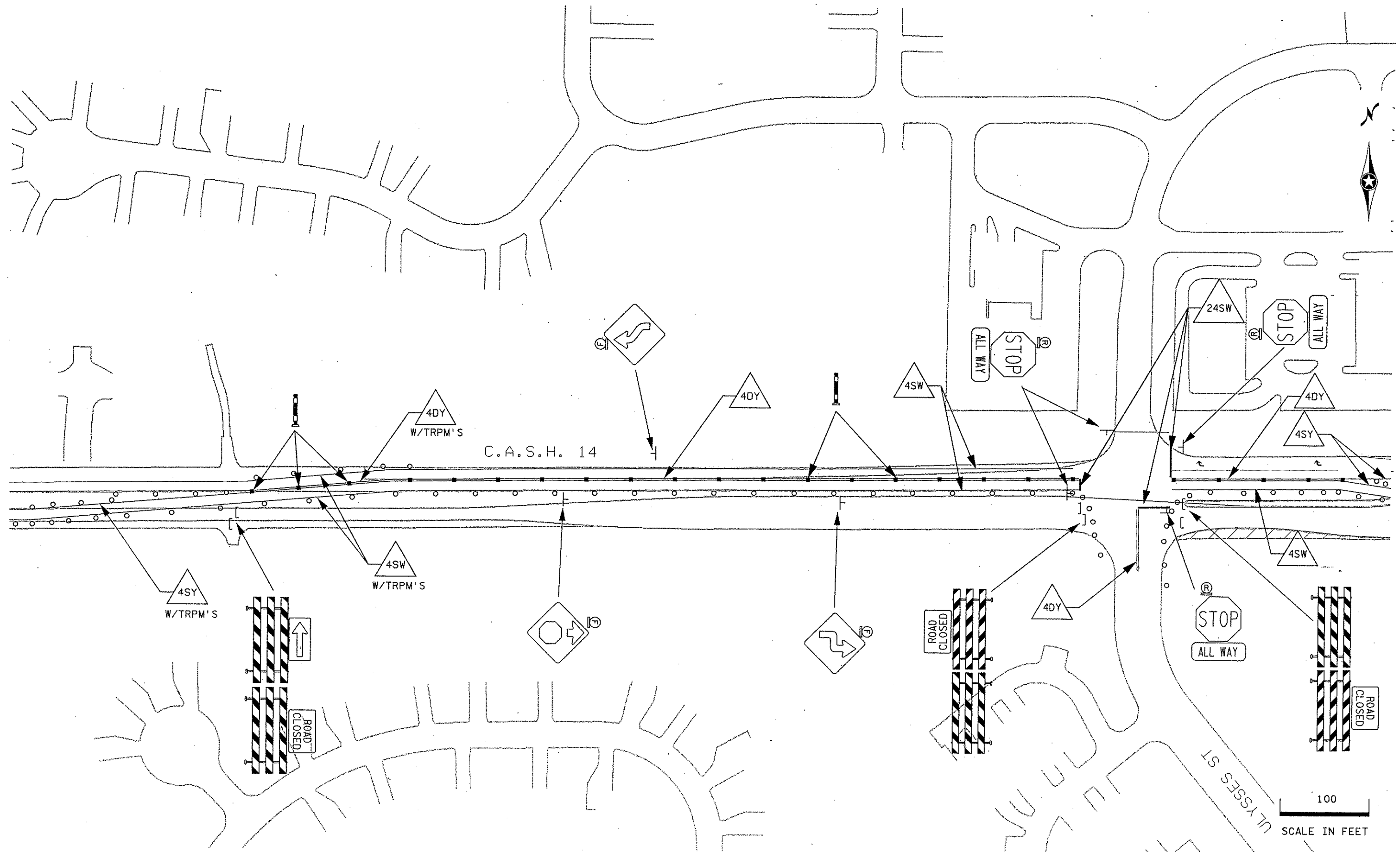
LIC. NO. 26429

DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 503 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



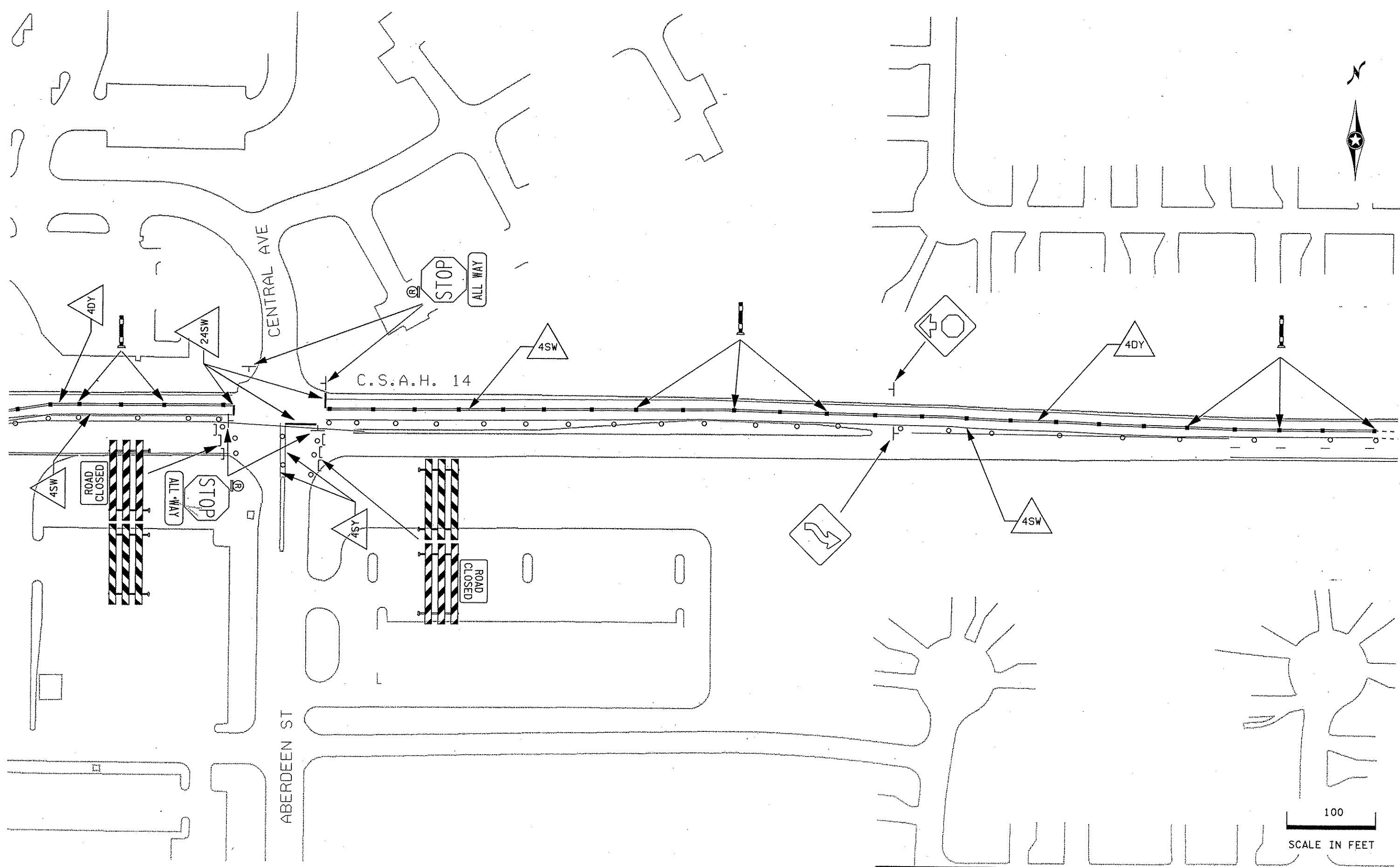
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Froh* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 504 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

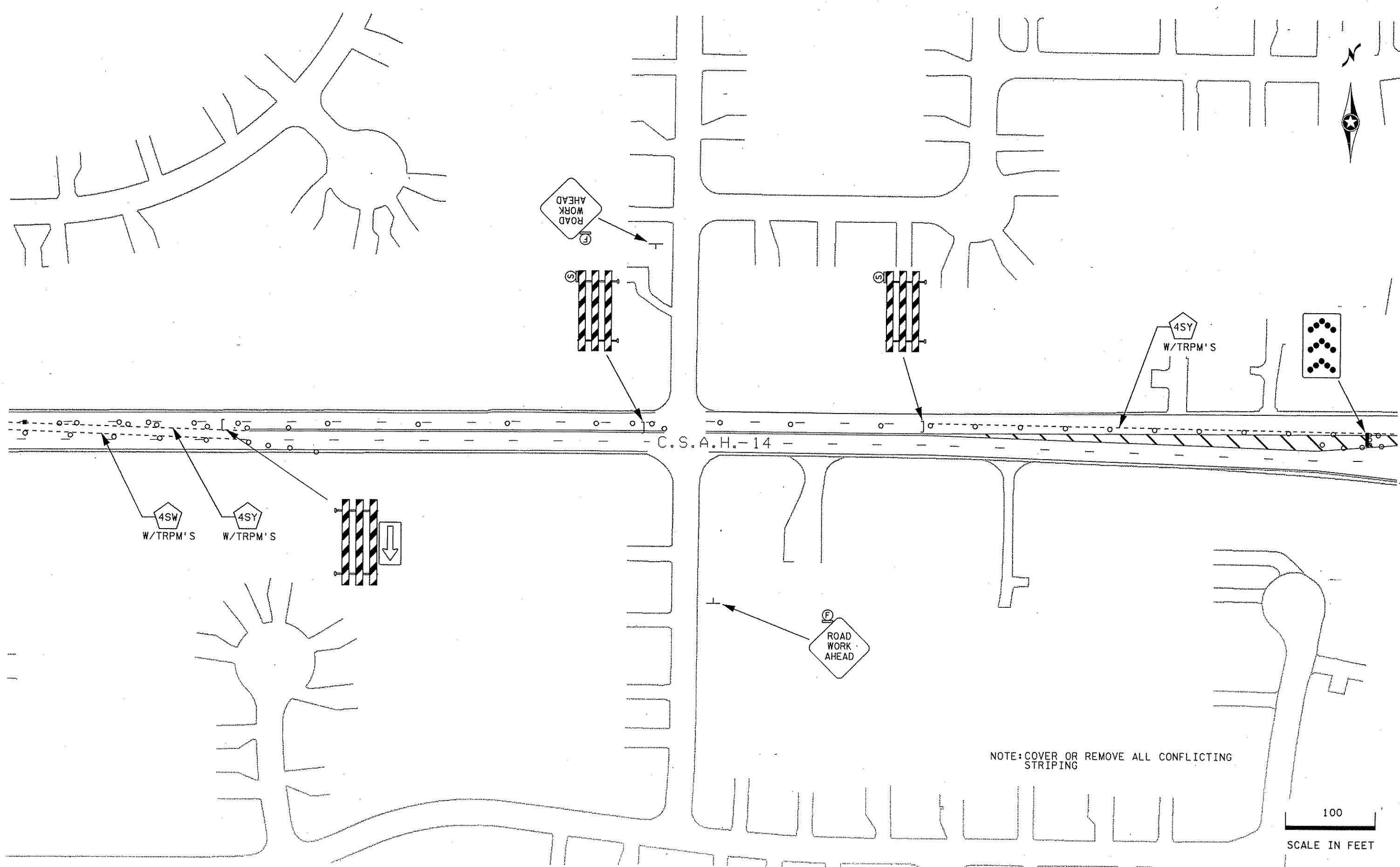
CHECKED BY: MJR

CERTIFIED BY *Cassandra Bobb* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 505 OF 872 SHEETS

DISTRICT #: METRO
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PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208123\TC_Sheets\0208123_rcsftrdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

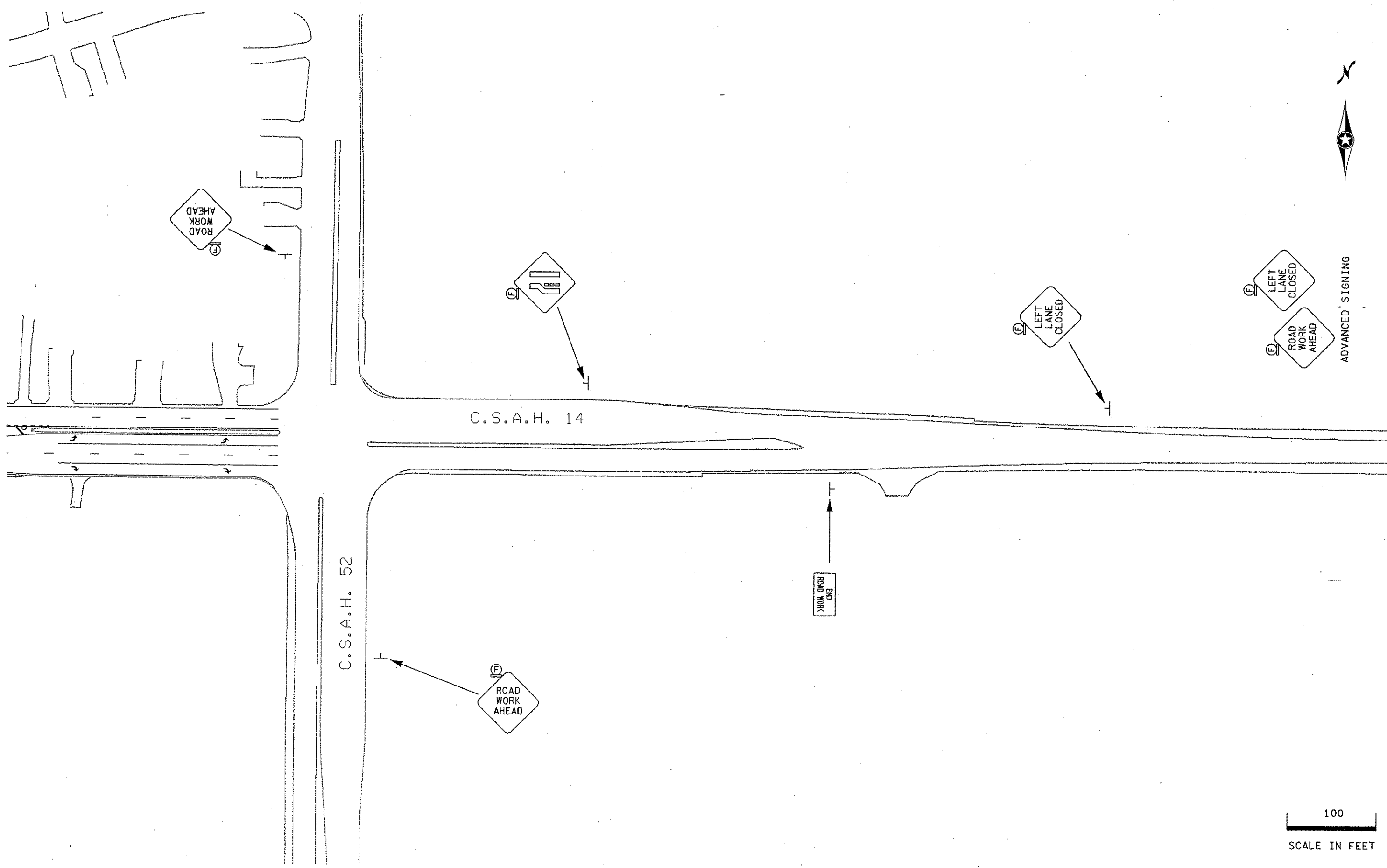
CHECKED BY: MJR

CERTIFIED BY *Cassandra Barb* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 506 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_rcs1tabdr114
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\123\TC sheets\10208123_rcs1tabdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Broth
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

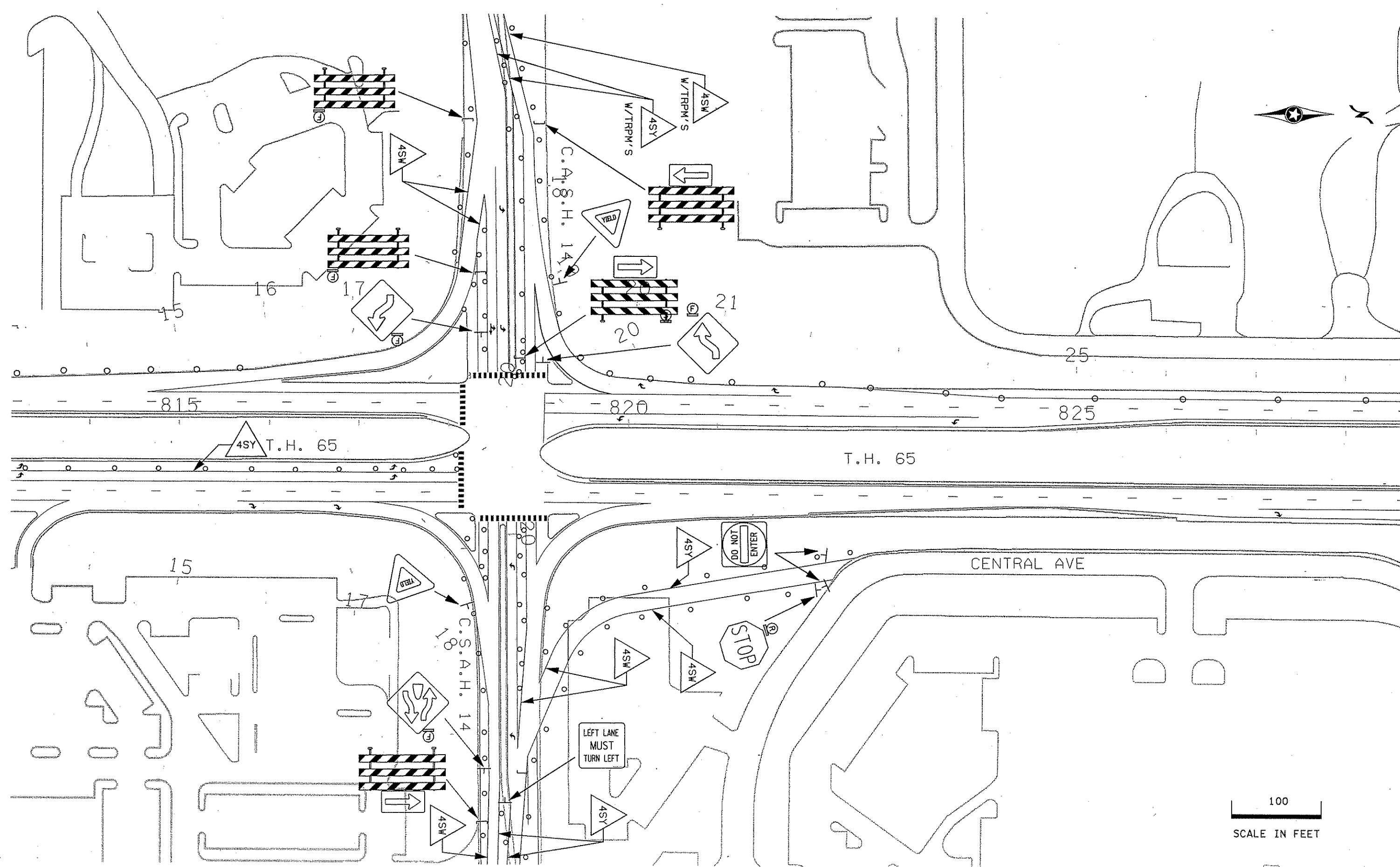
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1A

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 507 OF 872 SHEETS

DISTRICT: METRO
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PLOTTED/REVISED: 1/31/2007



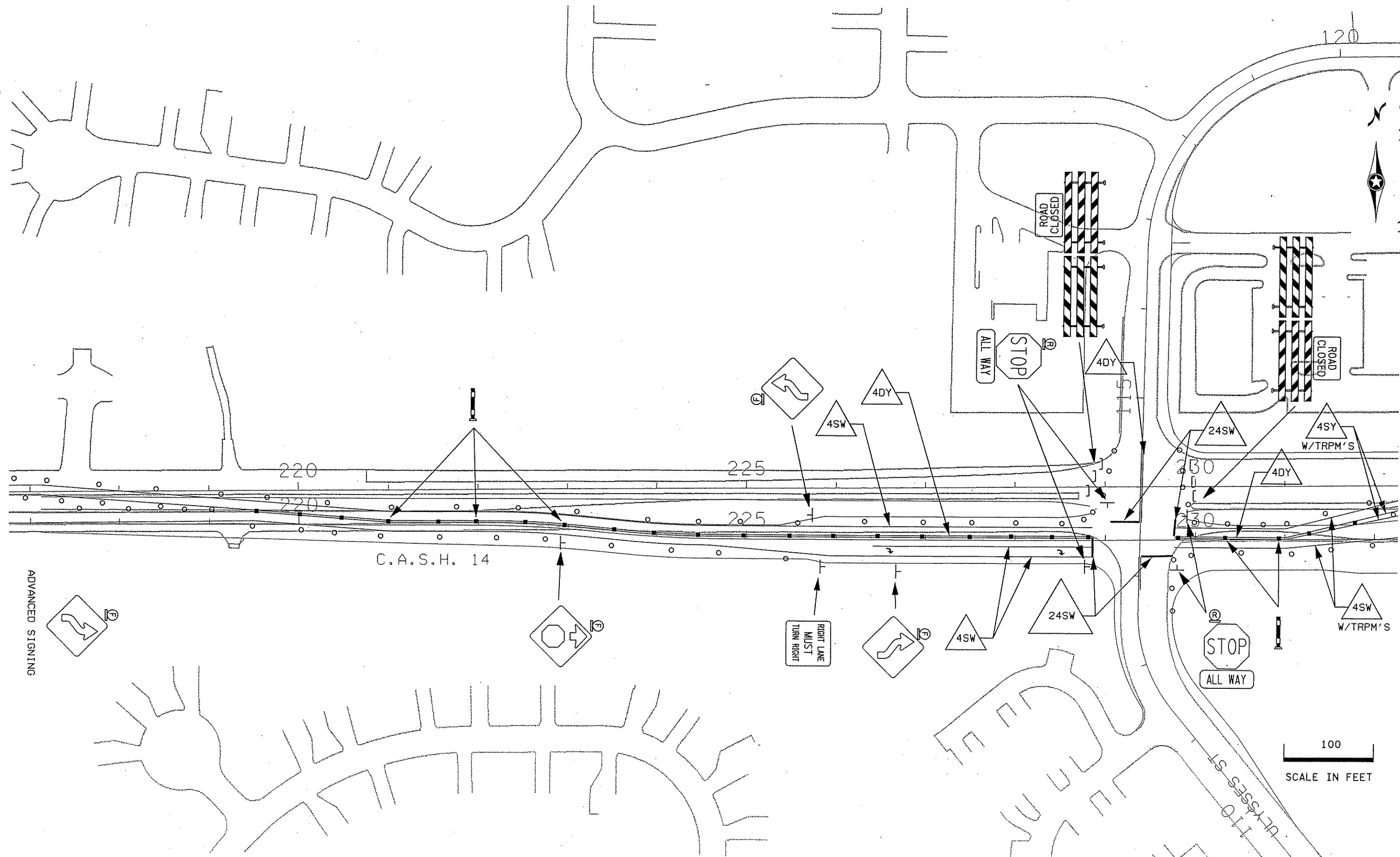
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Barb* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1AA
 STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 508 OF 872 SHEETS

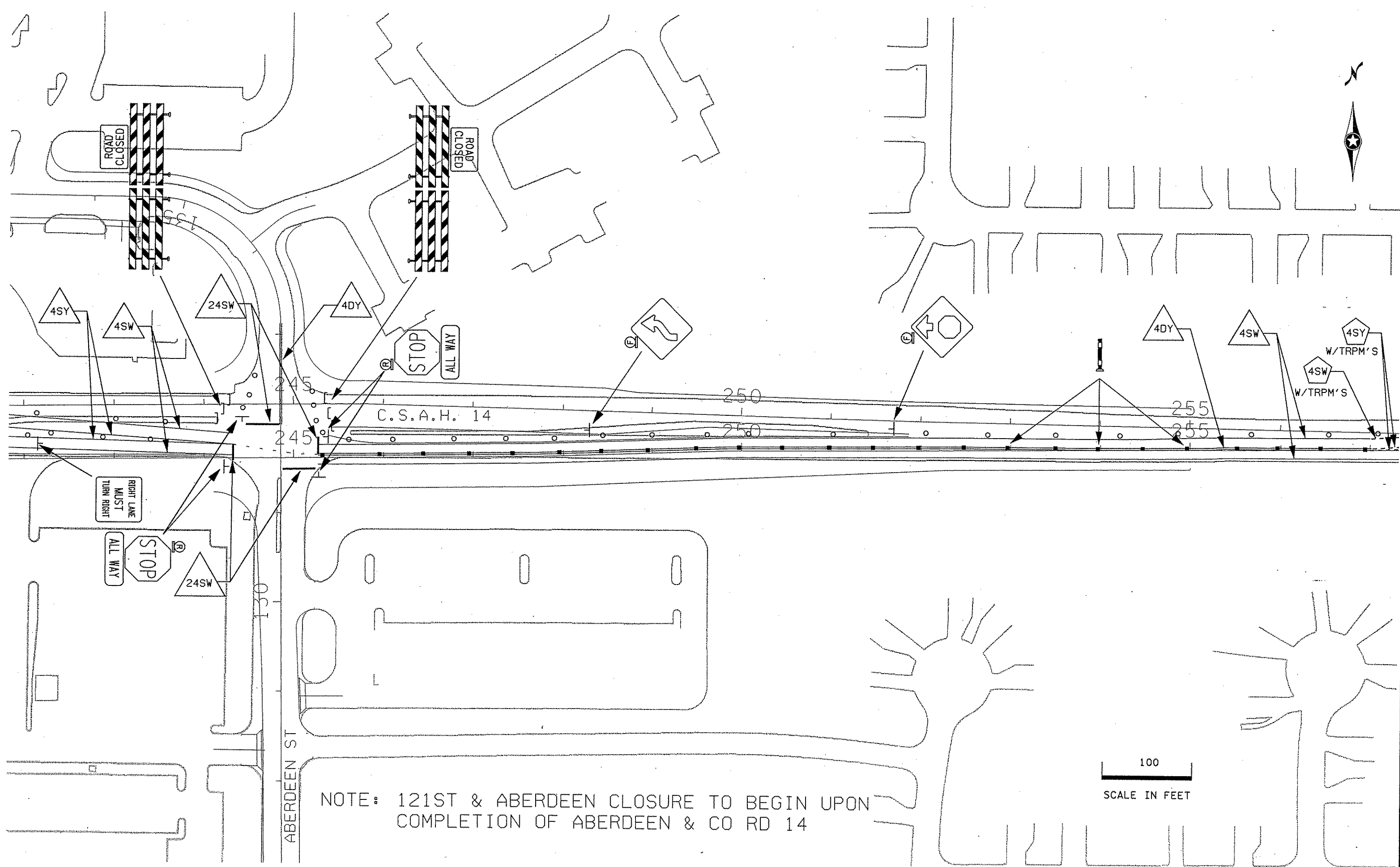
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 PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 1AA

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 0208123_Tolal_bdr142
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC sheets\0208123_Tolal_bdr14.dgn



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Barb
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

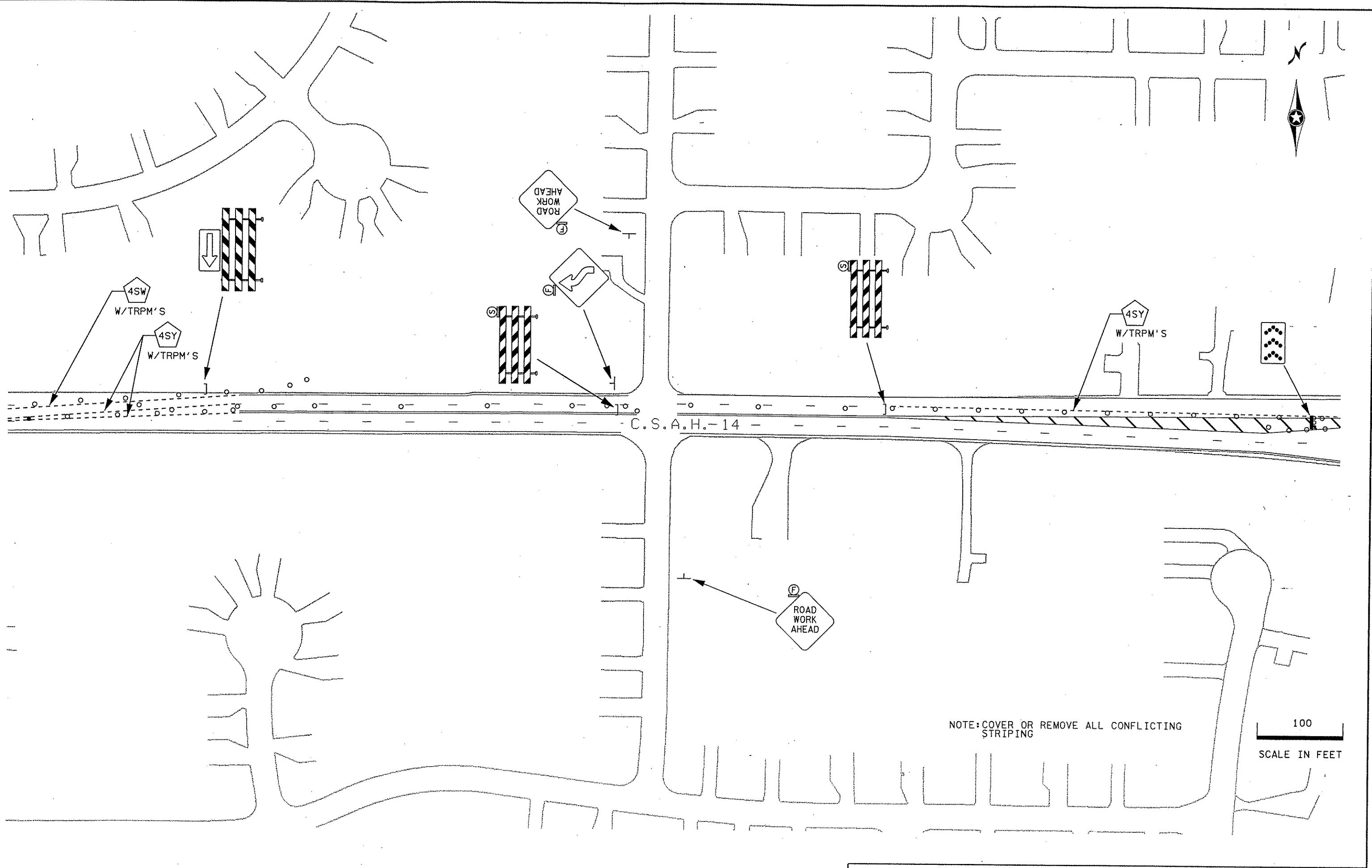
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1AA

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 510 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



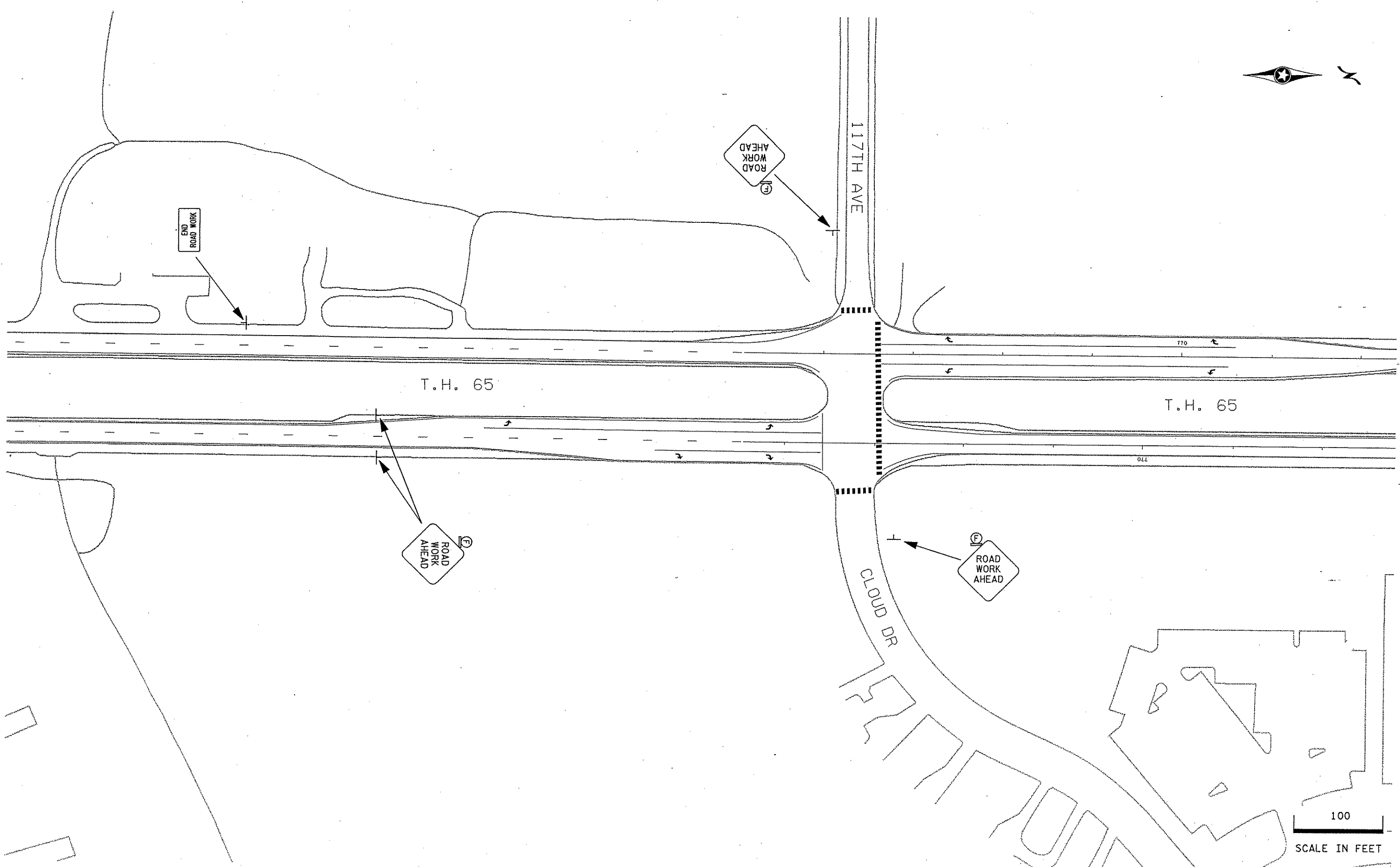
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra E. Eason* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1AA
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 511 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_tcs1bbdr1
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\123\TC sheets\0208123_tcs1bbdr1.dgn
PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

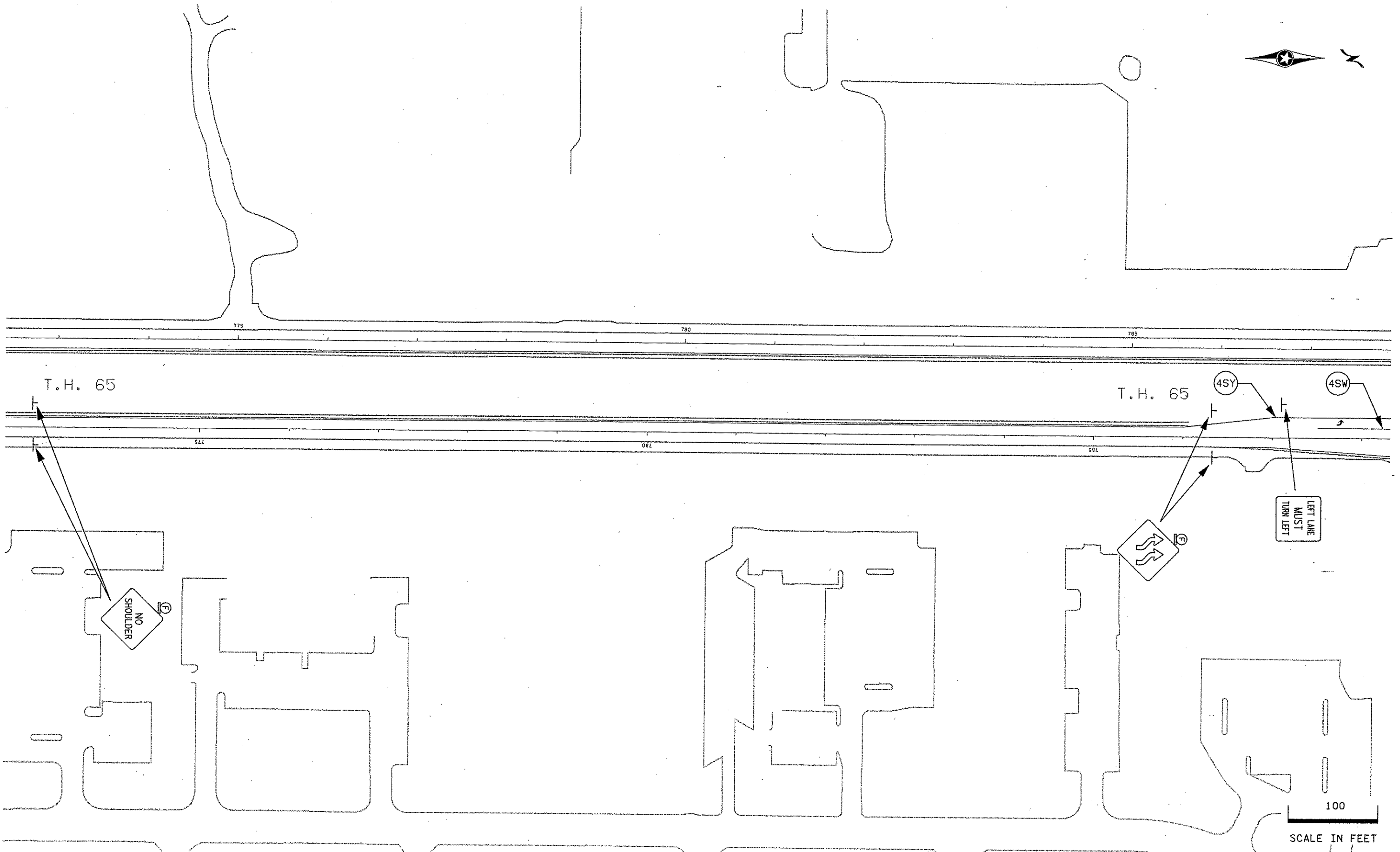
CHECKED BY: MJR

CERTIFIED BY Cassandra Brob LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 512 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
I/PLOT NAME: 10208123_tcsfbbdr11
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208123\TC_Sheets\10208123_tcsfbbdr1.dgn



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Erub
LICENSED PROFESSIONAL ENGINEER

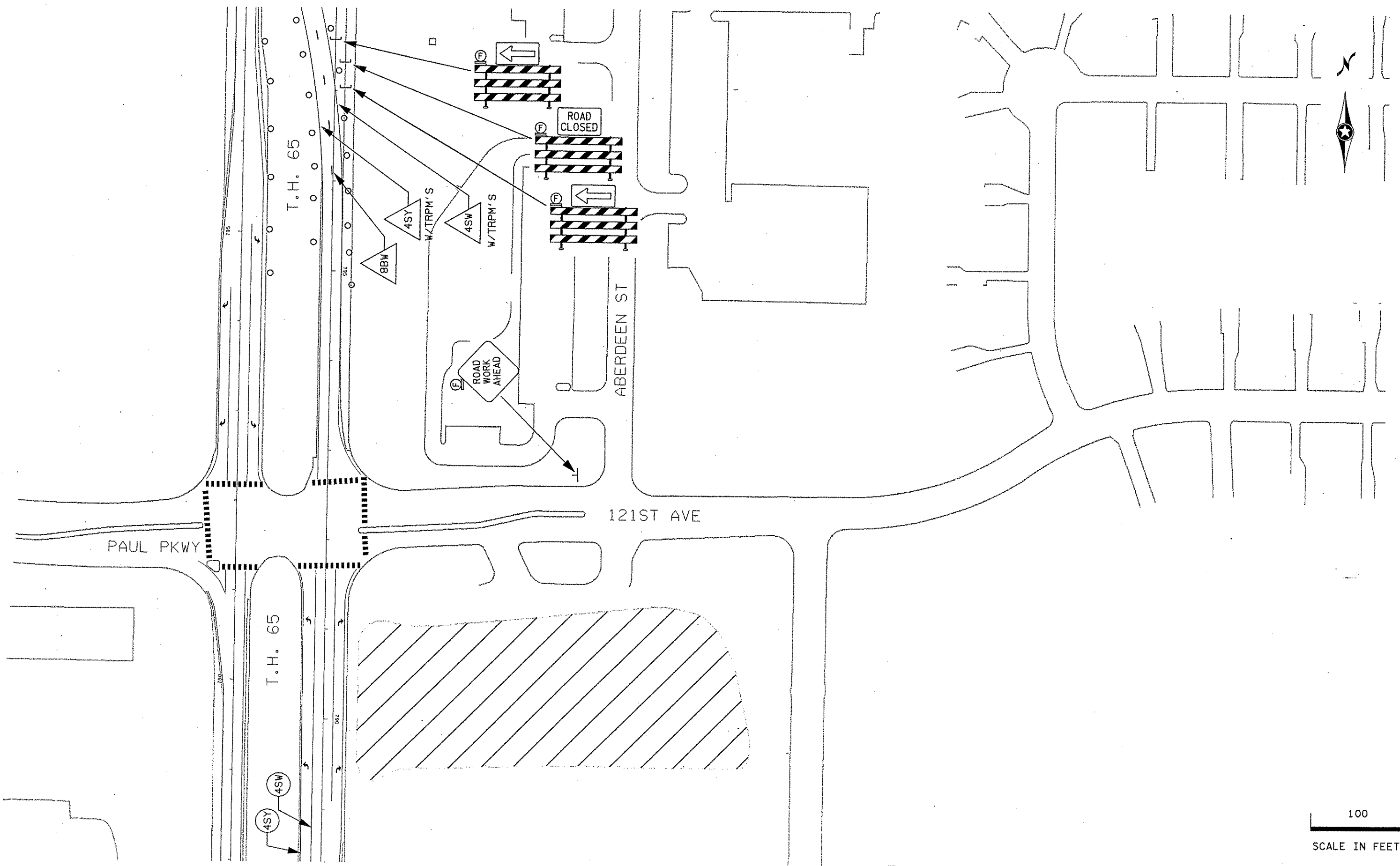
LIC. NO. 26429

DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 513 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



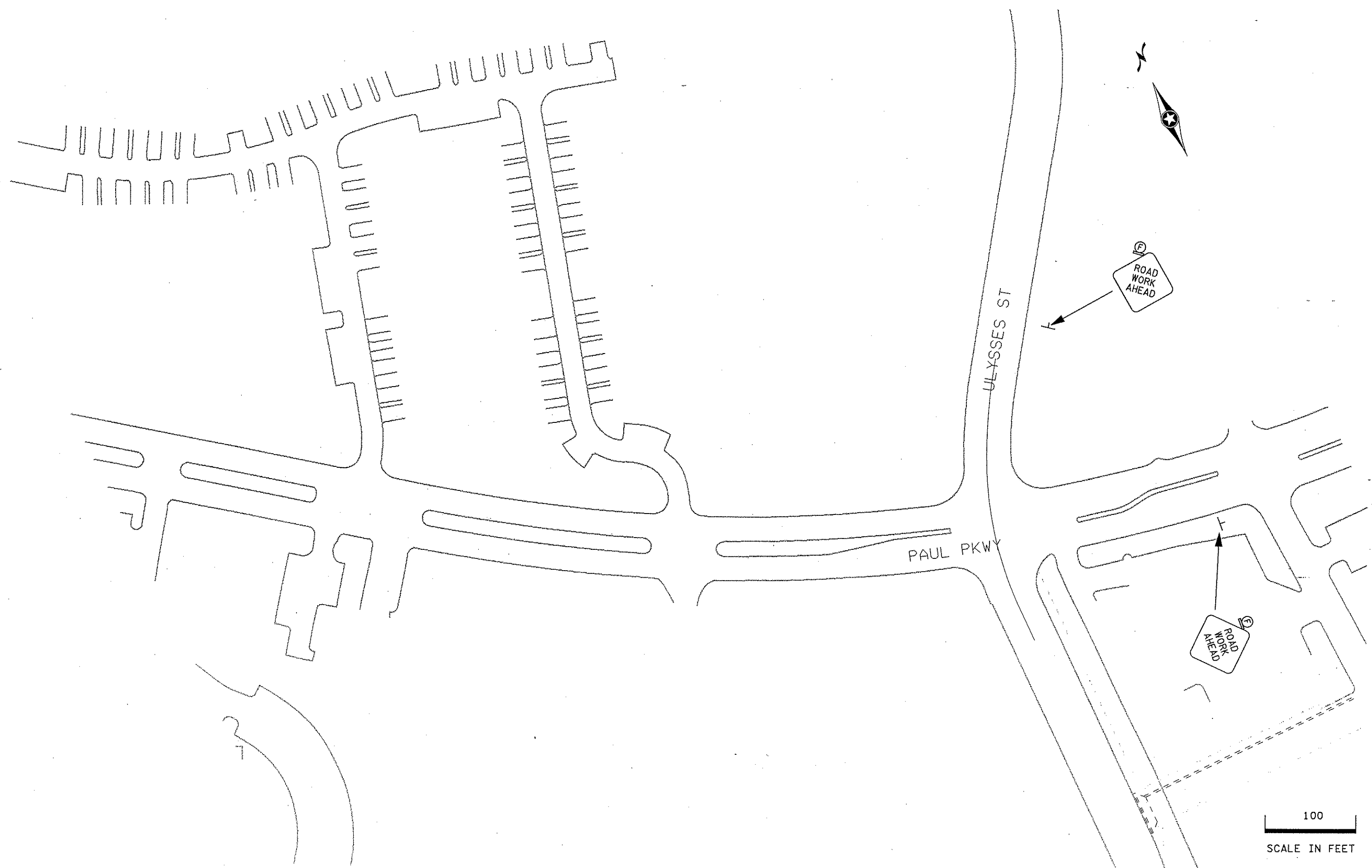
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Erub* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 514 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brob* LIC. NO. 26429 DATE 1/31/2007

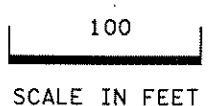
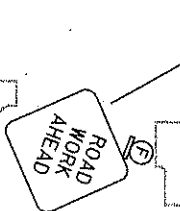
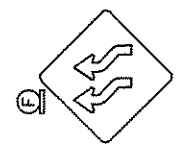
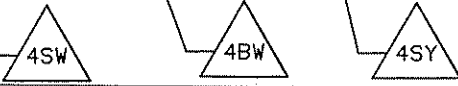
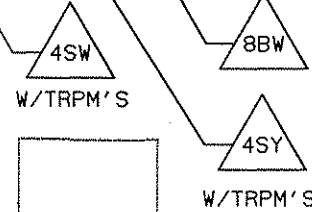
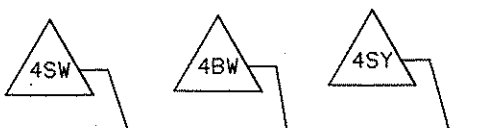
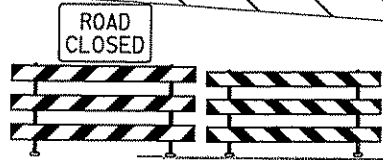
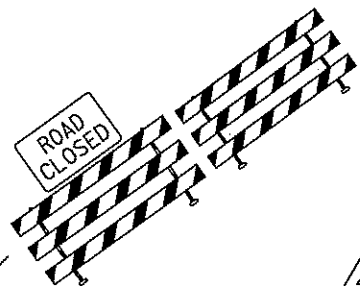
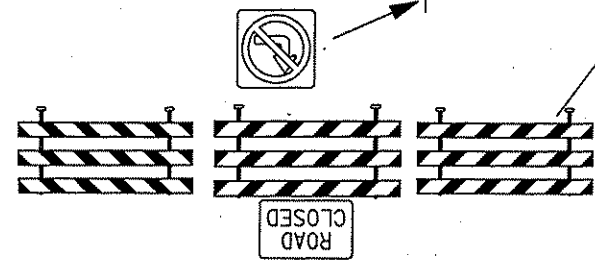
TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 515 OF 872 SHEETS

ULYSSES ST

123RD AVE

T.H. 65

ABERDEEN ST



PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_tsc1bbr14
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\TC_sheets\10208123_tsc1bbr14.dgn

DRAWN BY: KMF

CHECKED BY: MJR

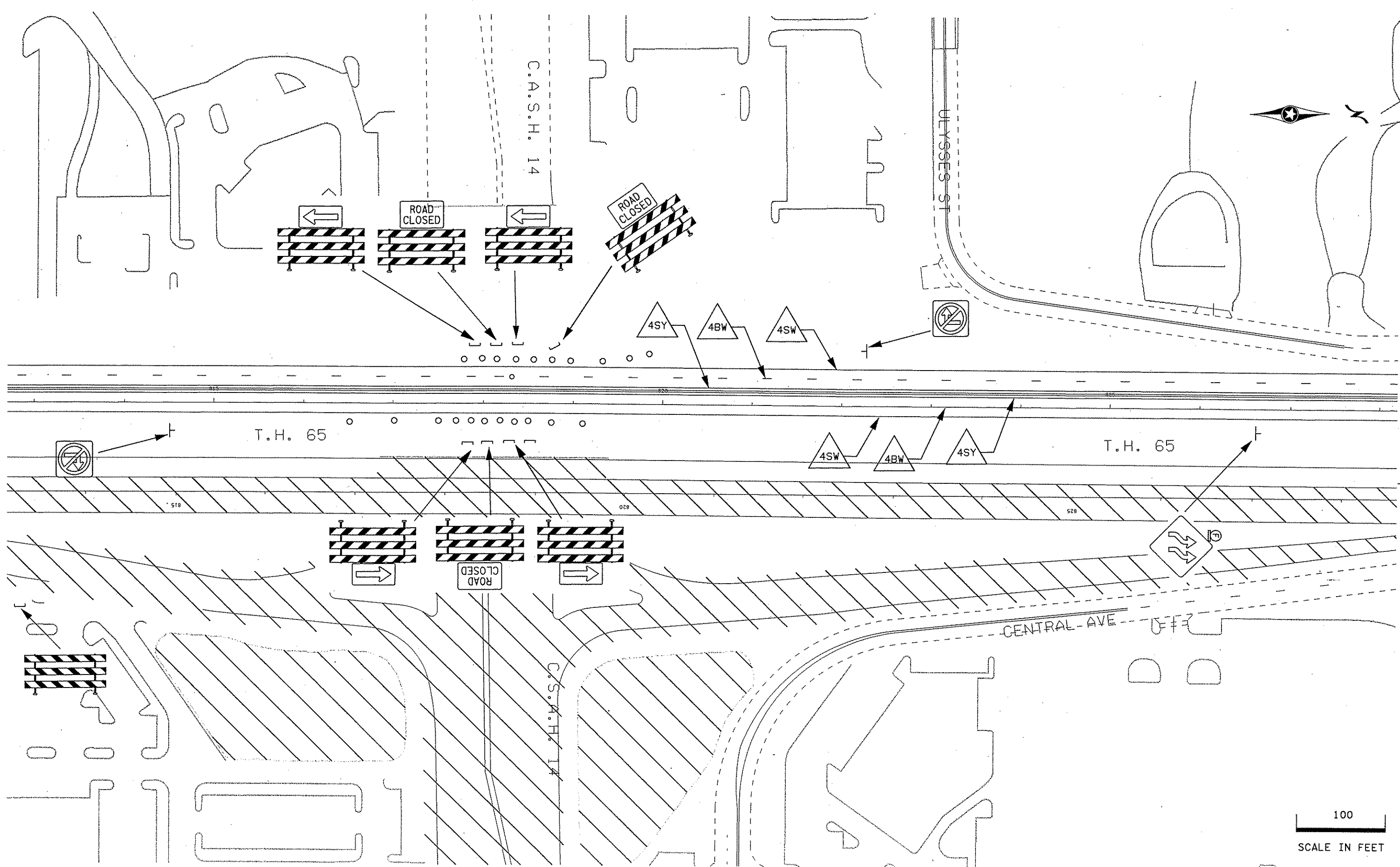
CERTIFIED BY *Cassandra Bab*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 516 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_JcsHbdr15
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\23\TC_Sheets\0208123_JcsHbdr1.dgn
PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

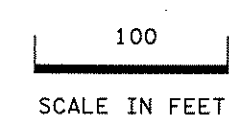
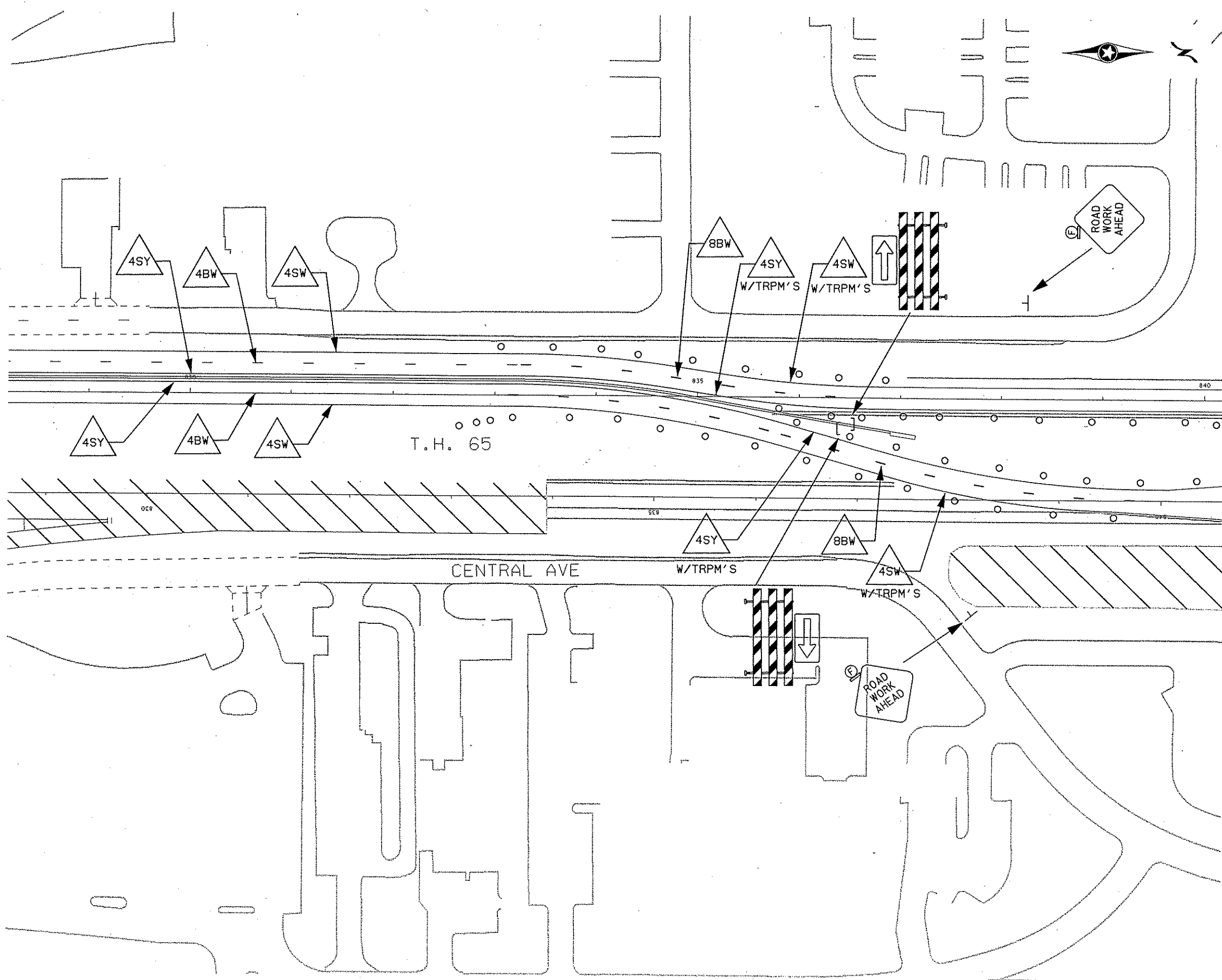
CERTIFIED BY: *Cassandra Bob*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 517 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_rcsfbbdr16
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\rcsfbbdr16.dgn

PLOTTED/REVISED: 1/31/2007



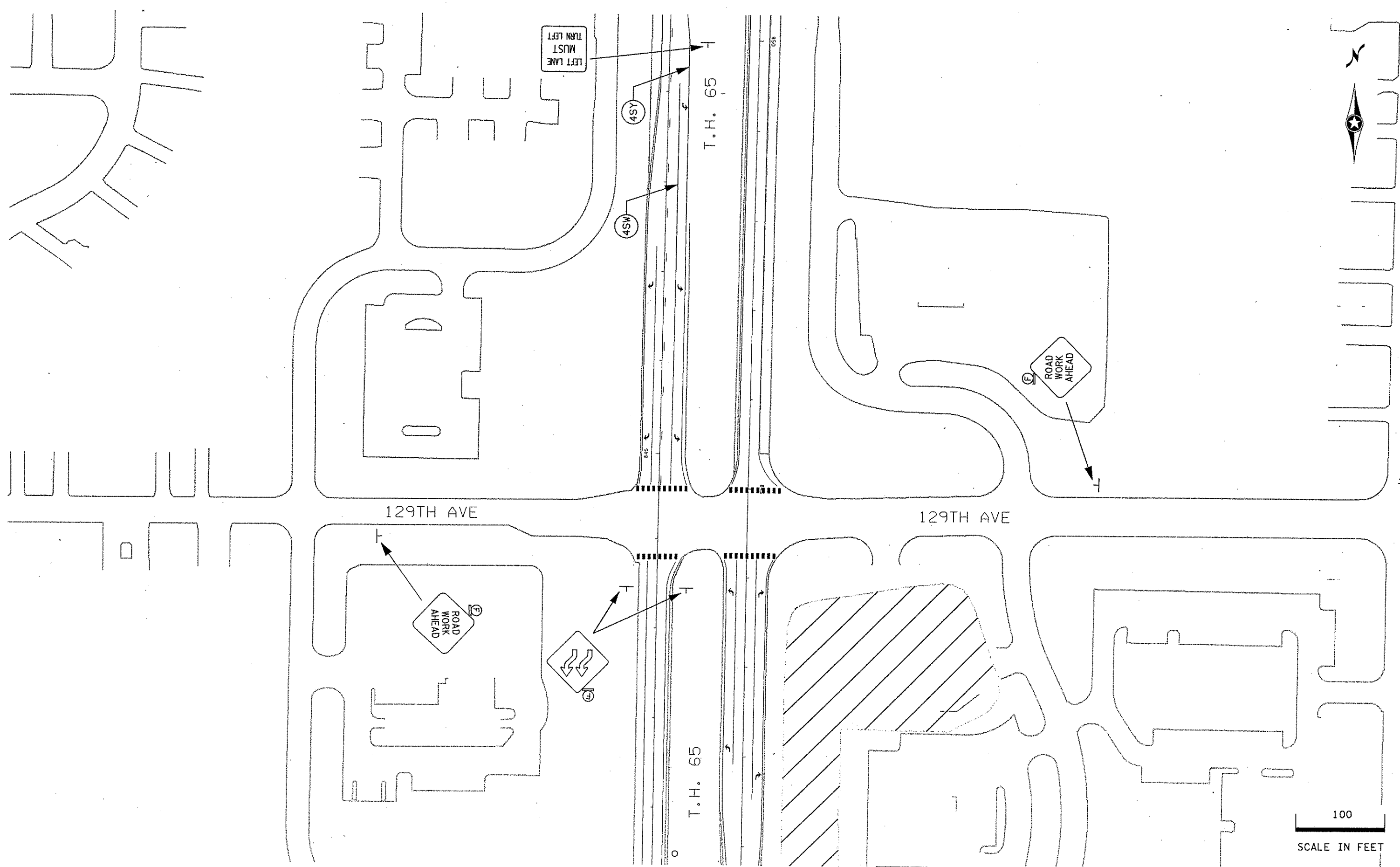
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brook* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 518 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_1cstfbbdr17
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

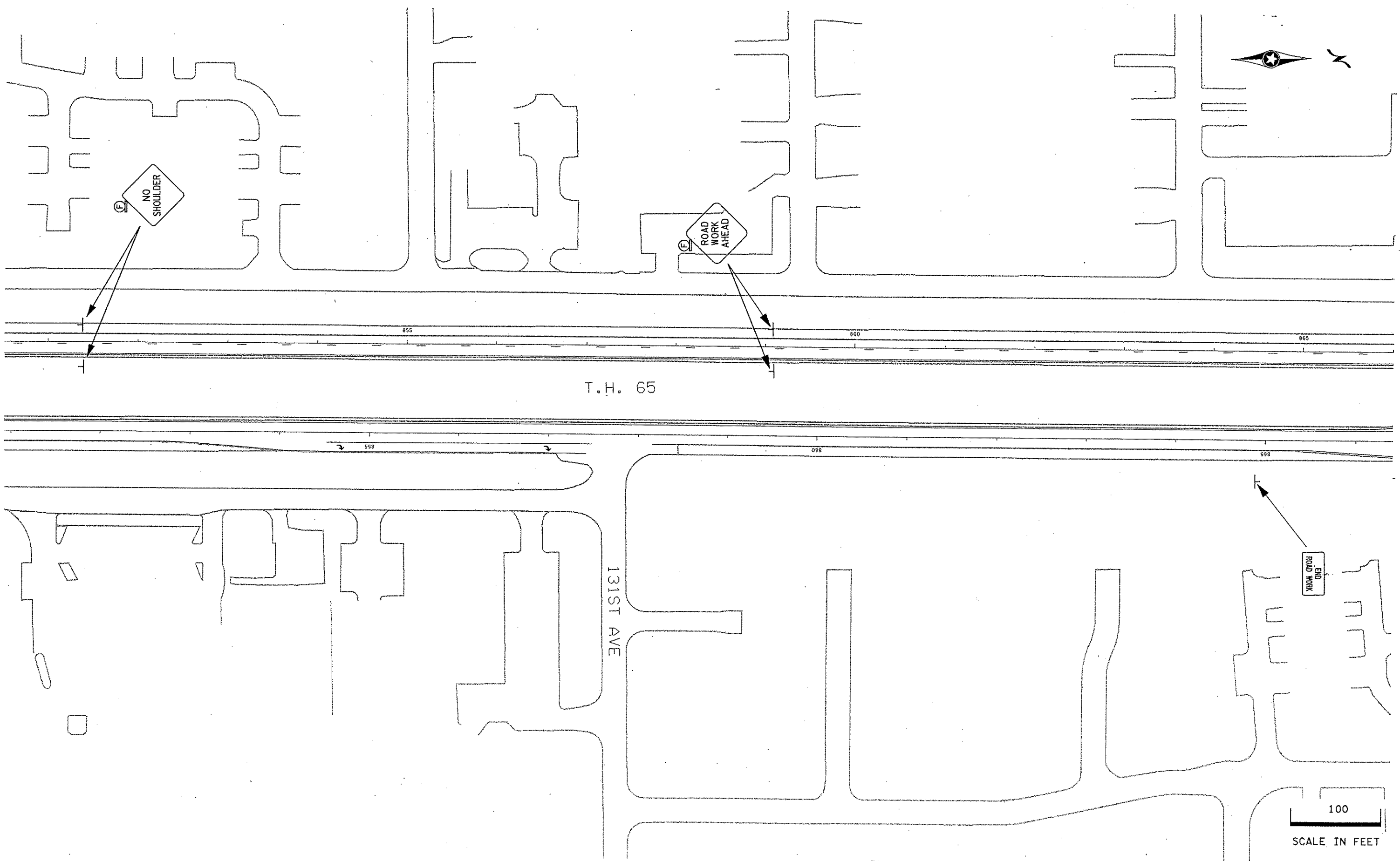
CERTIFIED BY *Cassandra Bobb*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 519 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_tcsfbbdr18
PATH & FILENAME: S:\TRAFFIC\TC_Signing\055\0208123\TC_sheets\0208123_tcsfbbdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Finch
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

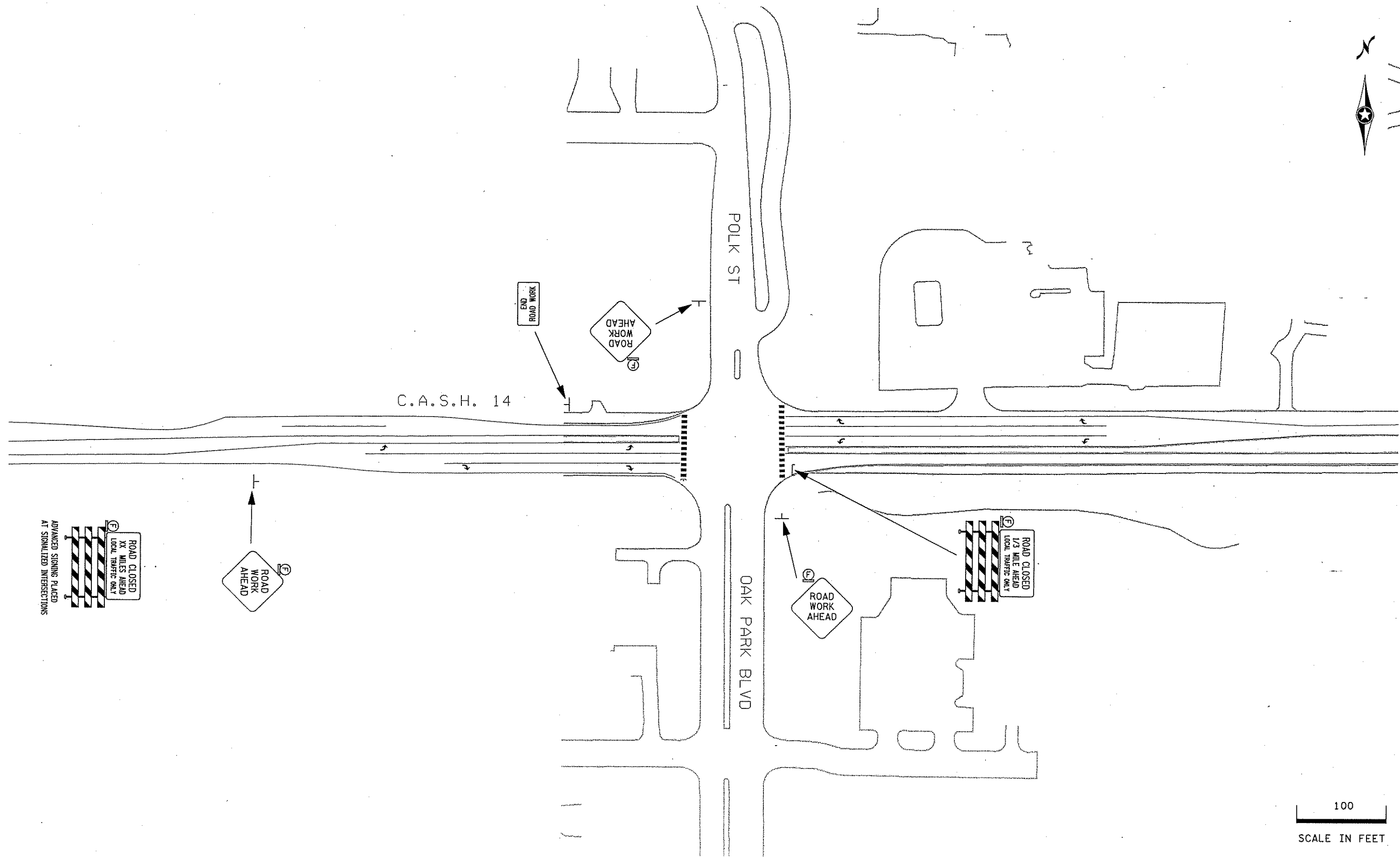
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 520 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



ADVANCED SIGNING PLACED
AT SIGNALIZED INTERSECTIONS

ROAD WORK AHEAD

END ROAD WORK

ROAD WORK AHEAD

ROAD WORK AHEAD

ROAD CLOSED
1/3 MILE AHEAD
LOCAL TRAFFIC ONLY

100
SCALE IN FEET

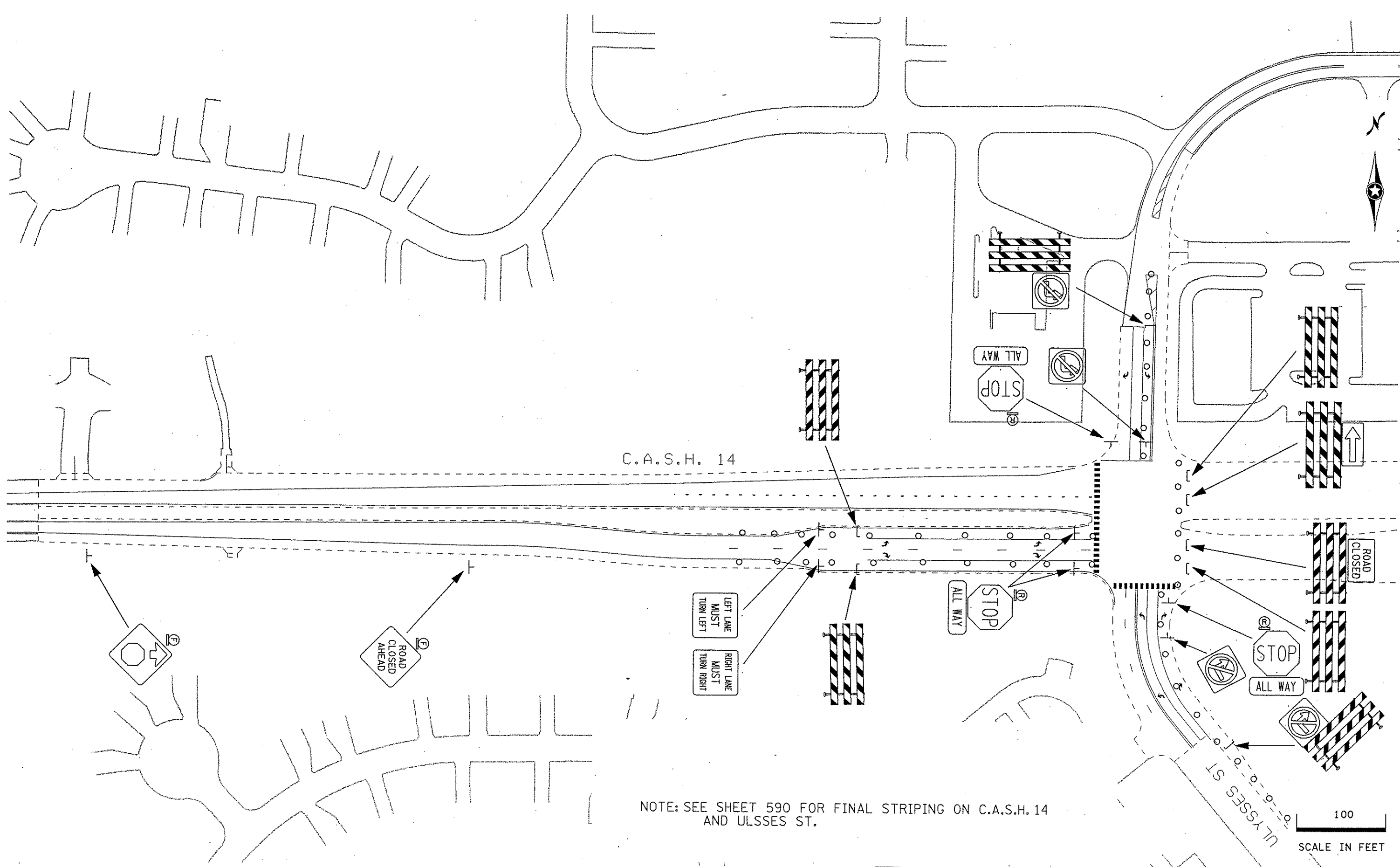
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Barob* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 521 OF 872 SHEETS

DISTRICT #: METRO
 PLOT NAME: 10208123_rcs11bdr110
 PATH & FILENAME: S:\TRAFFIC\Signing\065\0208123\T.C.sheets\0208123_rcs11bdr1.dgn
 PLOTTED/REVISED: 1/31/2007



NOTE: SEE SHEET 590 FOR FINAL STRIPING ON C.A.S.H. 14 AND ULSSES ST.

TRAFFIC CONTROL - STAGE 1B

DRAWN BY: KMF

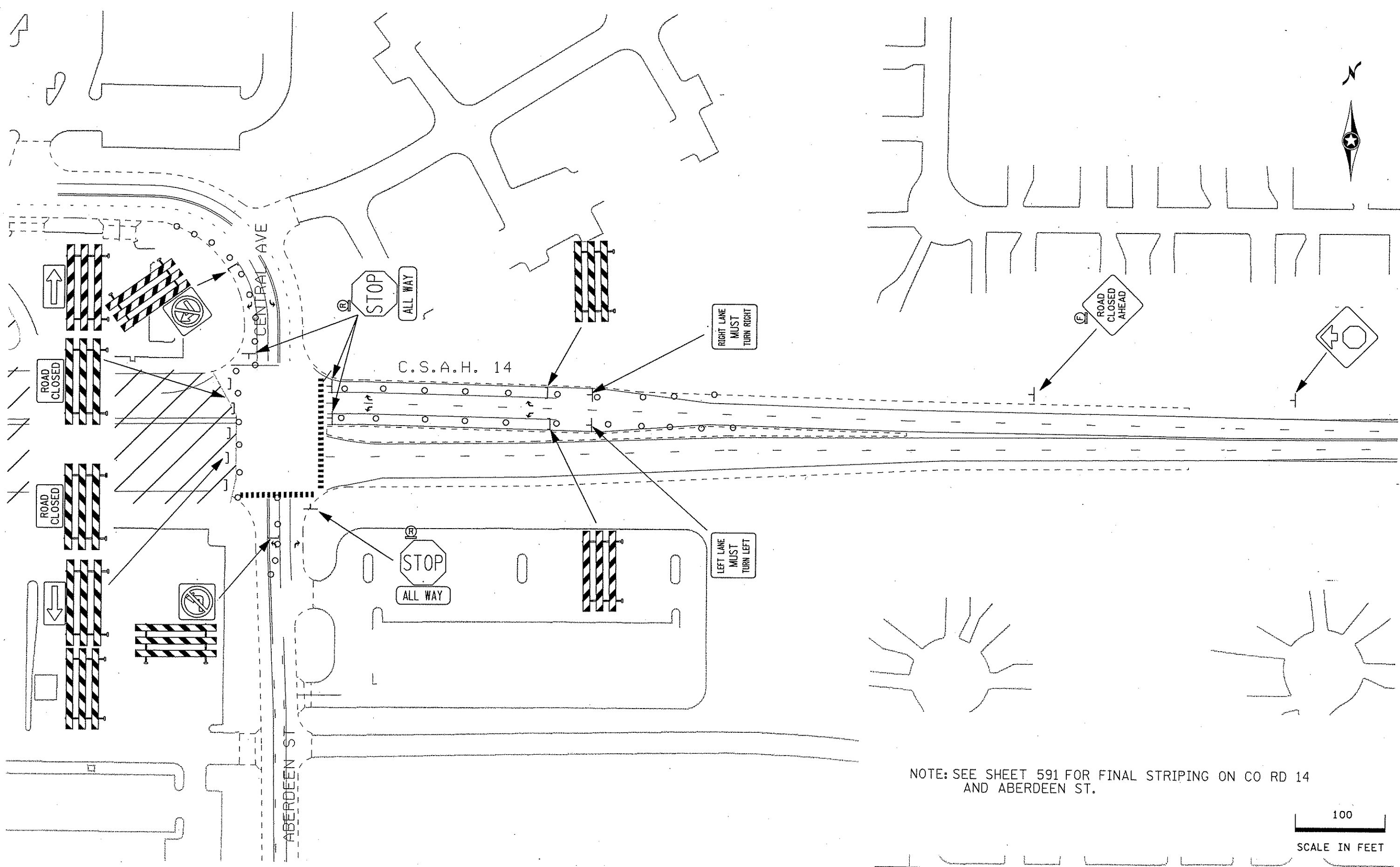
CHECKED BY: MJR

CERTIFIED BY *Cassandra Prob*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 522 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_jcsfbbdr111
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\Streets\0208123_jcsfbbdr1.dgn
PLOTTED/REVISED: 1/31/2007



NOTE: SEE SHEET 591 FOR FINAL STRIPING ON CO RD 14 AND ABERDEEN ST.

100
SCALE IN FEET

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Brock
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

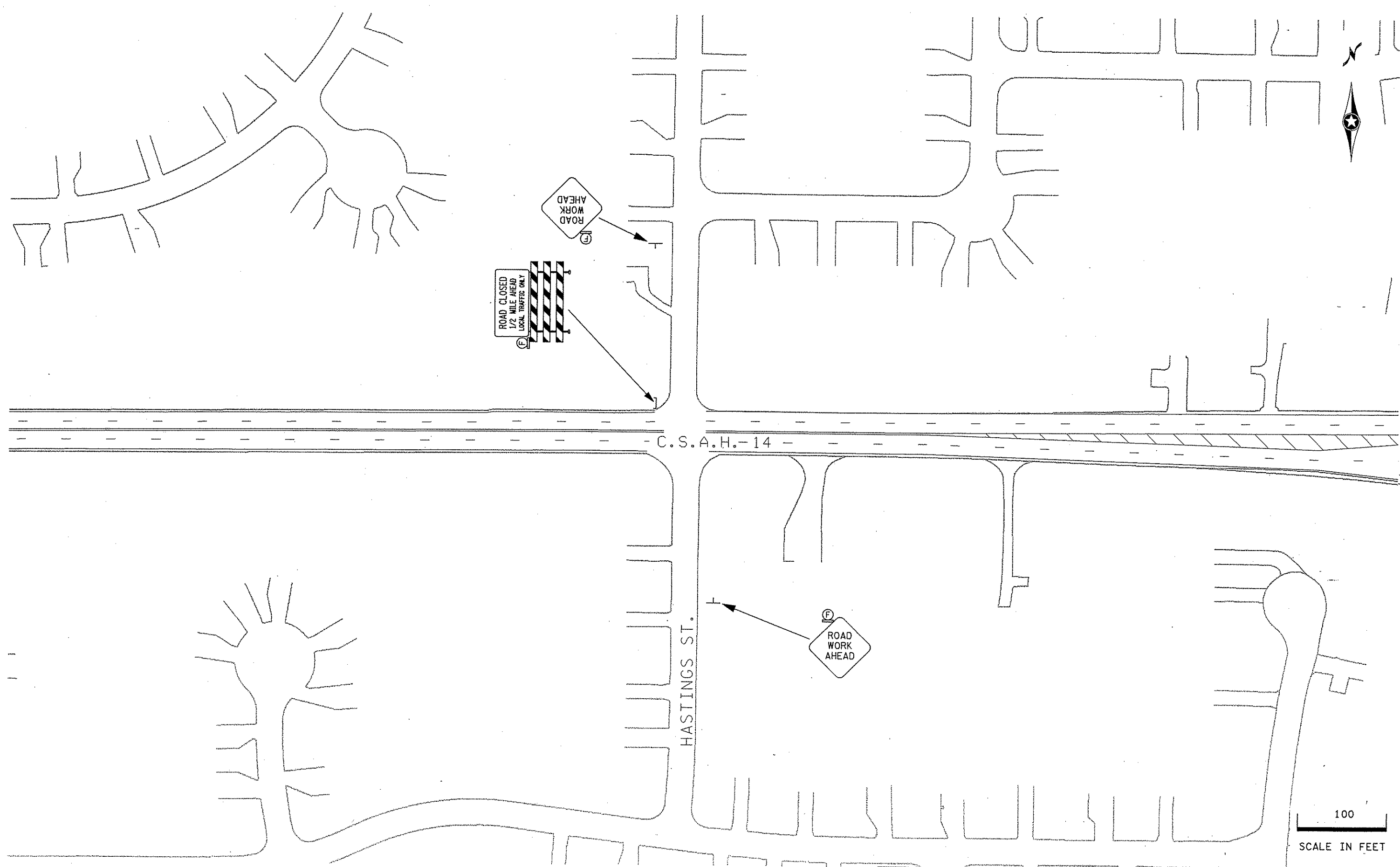
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 523 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

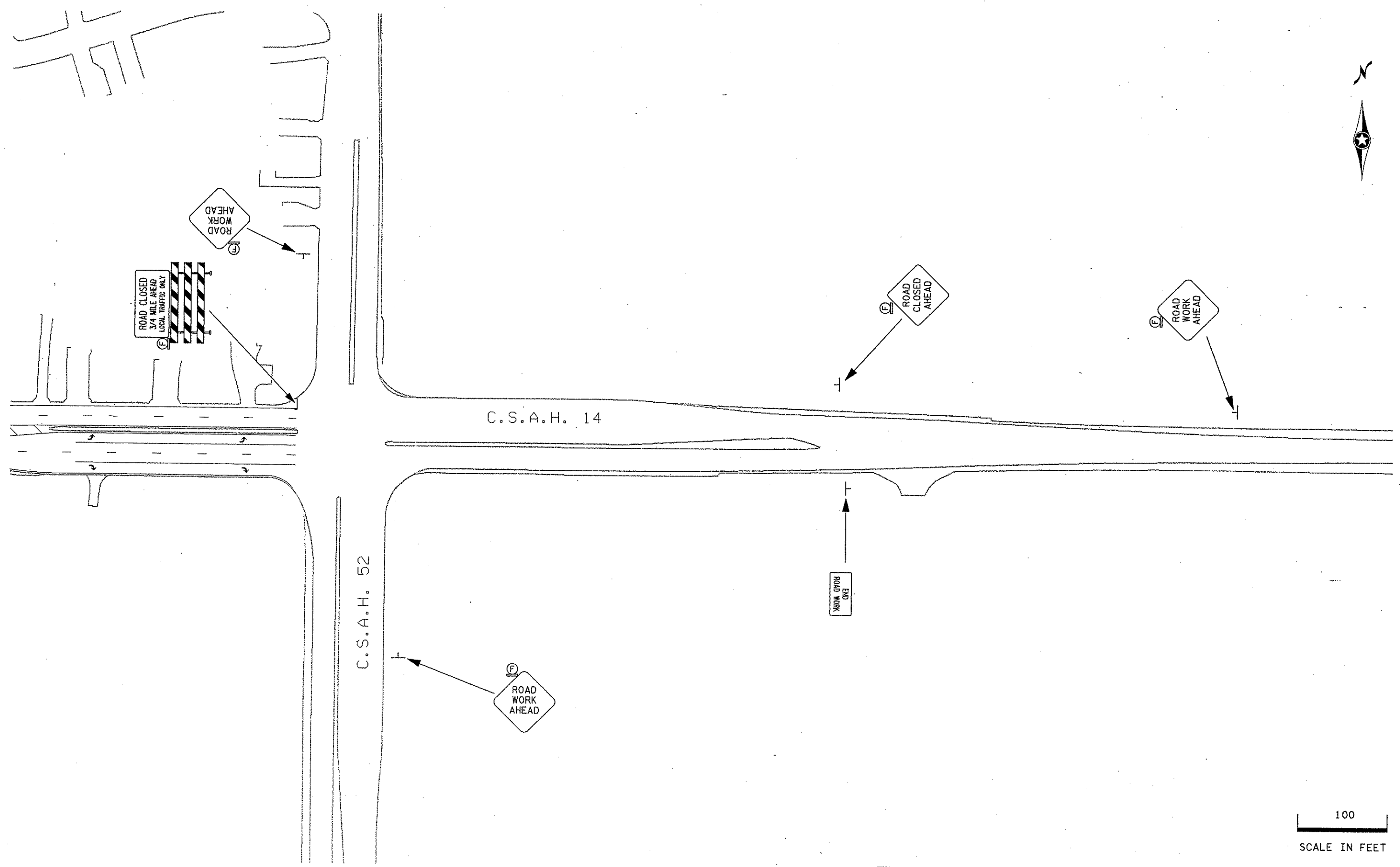
CERTIFIED BY *Cassandra Froh*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 524 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



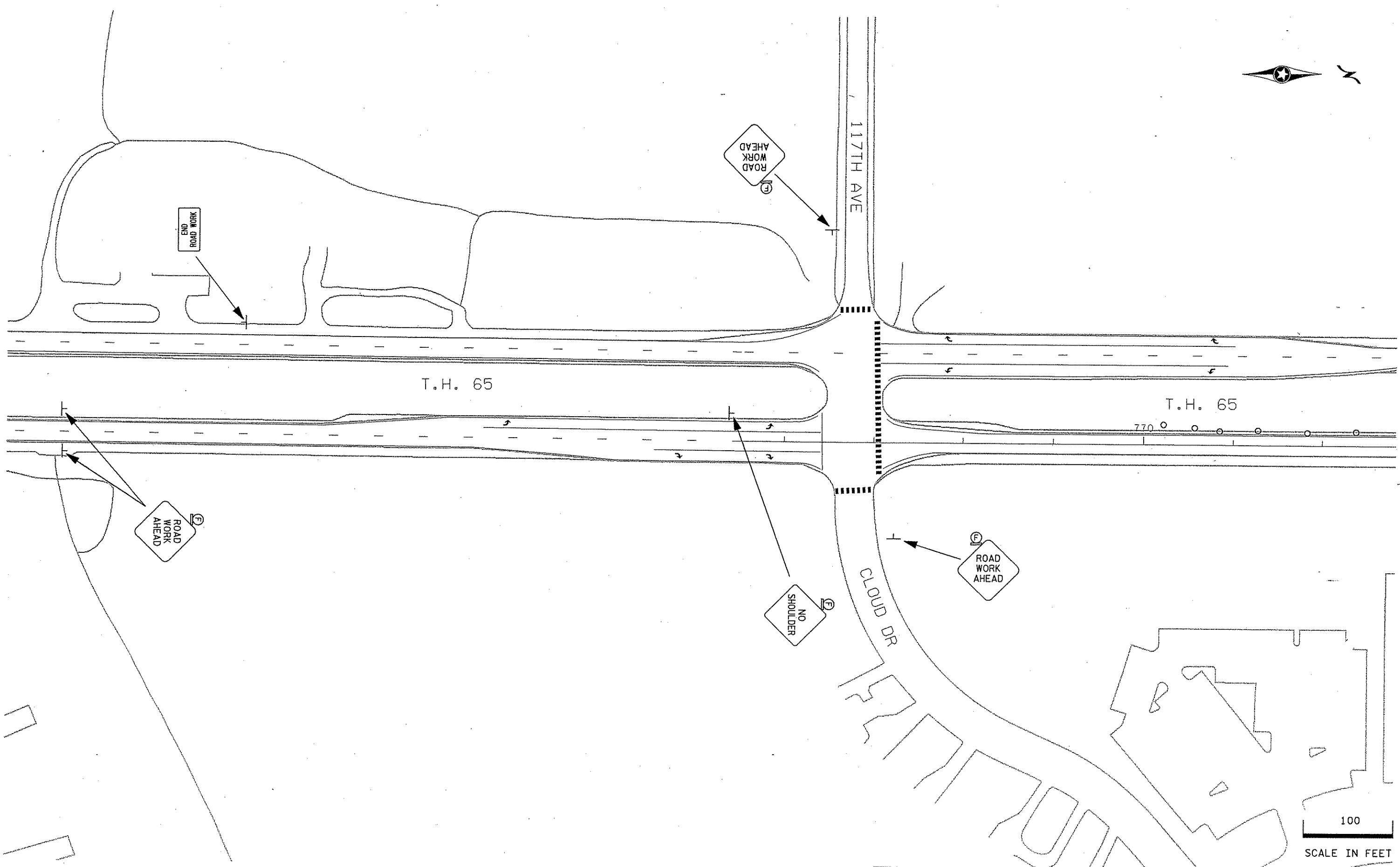
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brook* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 525 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



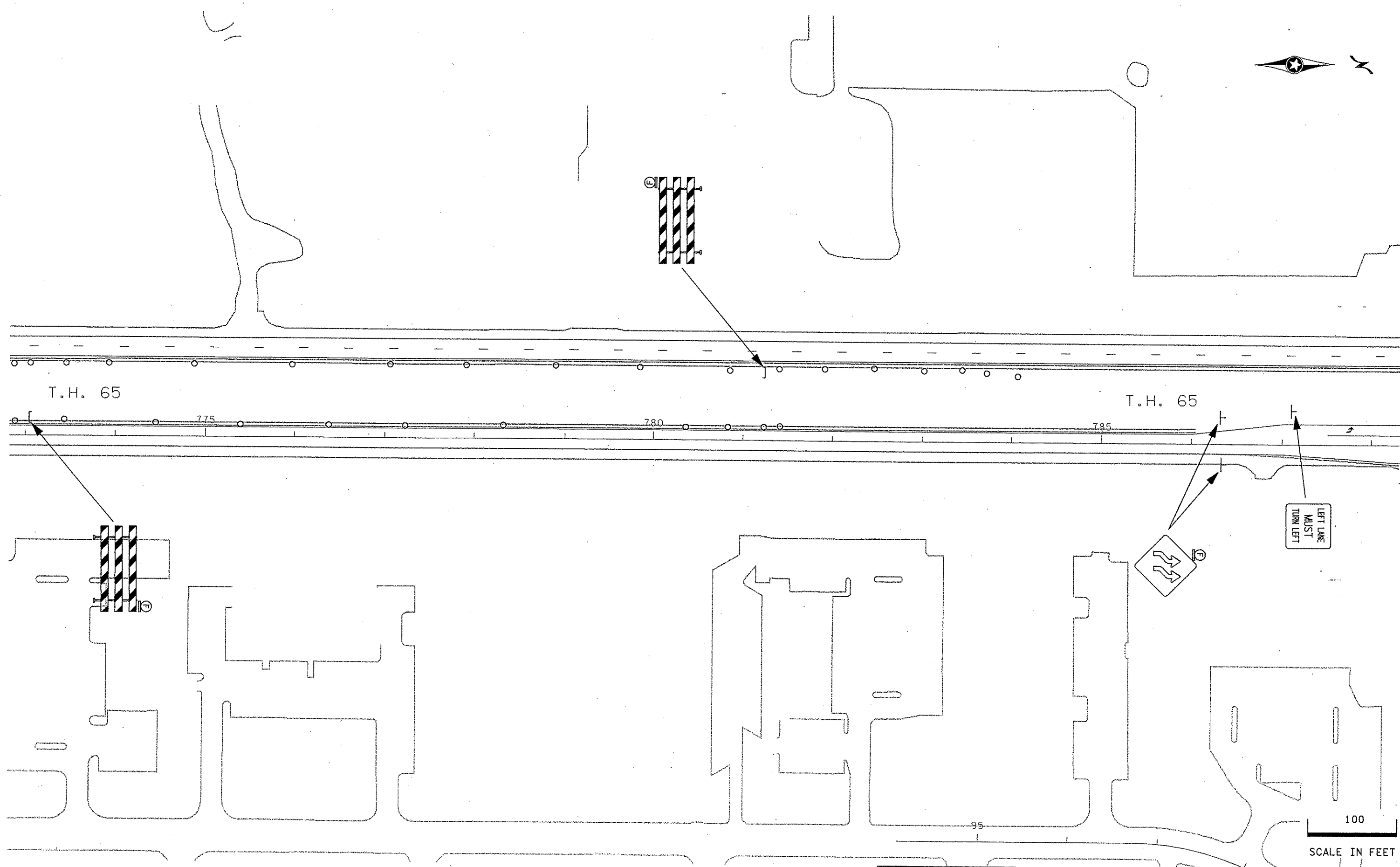
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brook* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 526 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_1cstfcbdr11
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208123\TC\streets\0208123_1cstfcbdr1.dgn
PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Pook
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

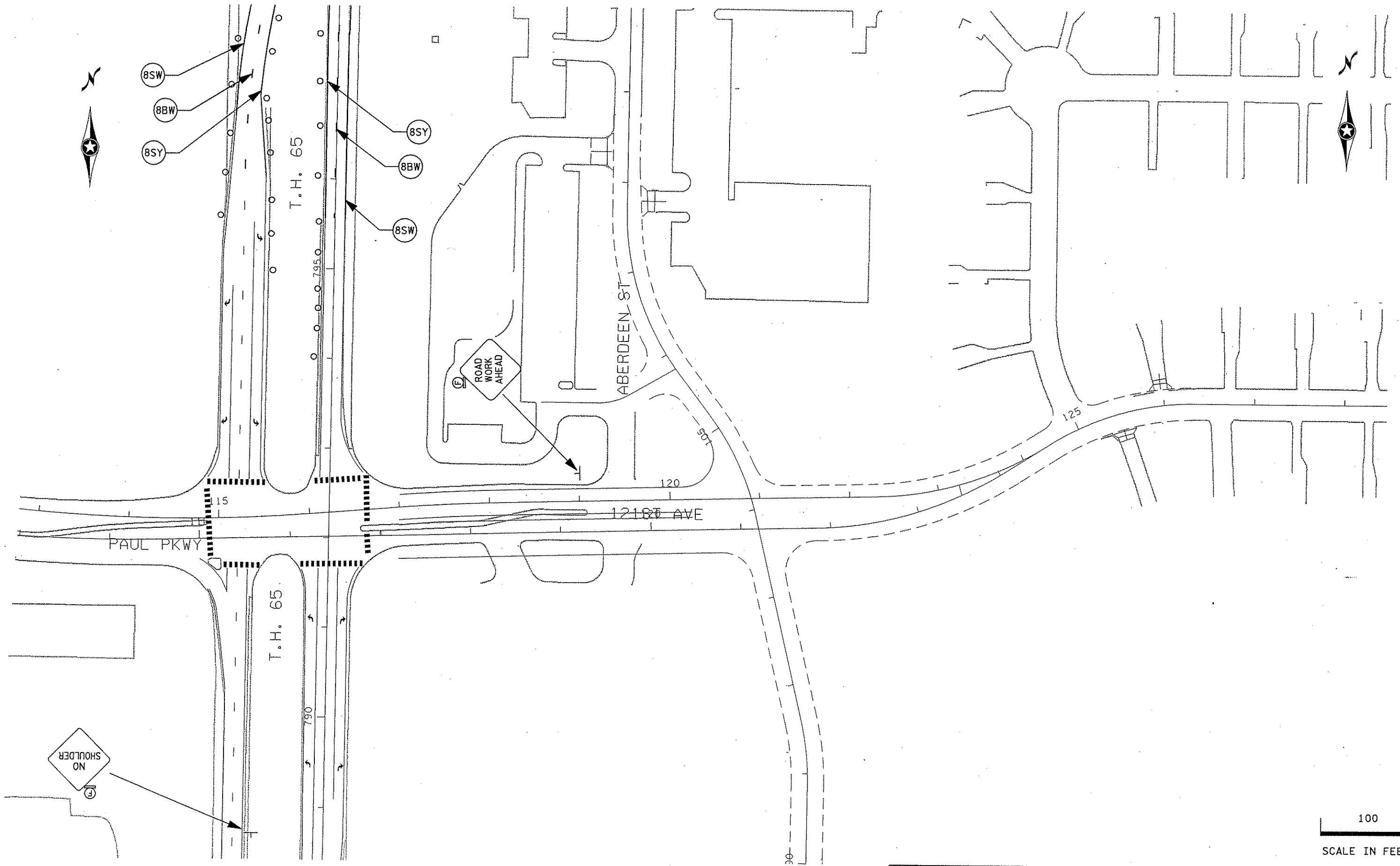
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 527 OF 872 SHEETS

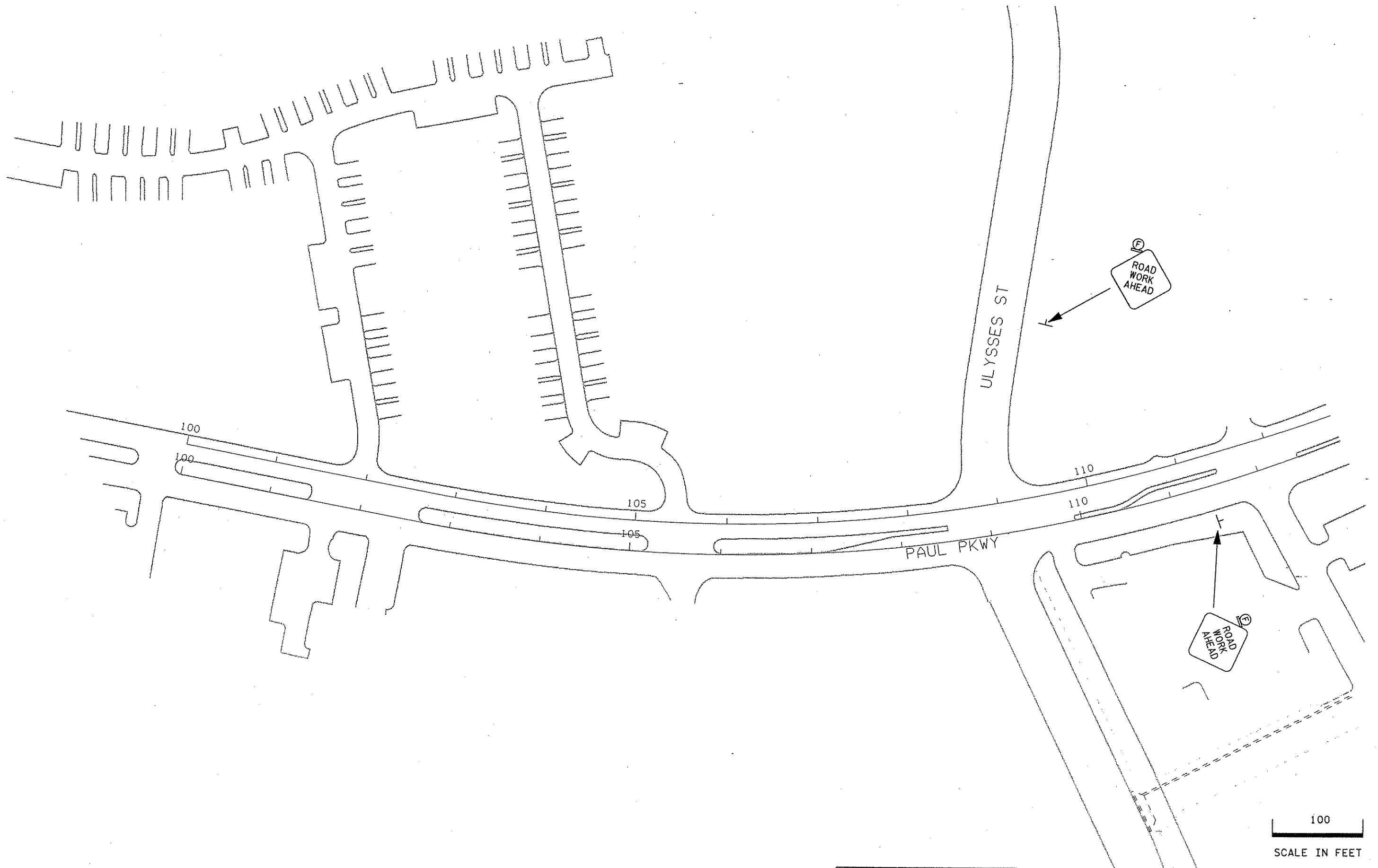
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PLOTTED/REVISED: 2/1/2007



DRAWN BY: KMF	CHECKED BY: MJR	CERTIFIED BY: <i>Cassandra Probst</i> LICENSED PROFESSIONAL ENGINEER	LIC. NO. 26429	DATE 2/1/2007	TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 528 OF 872 SHEETS					

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

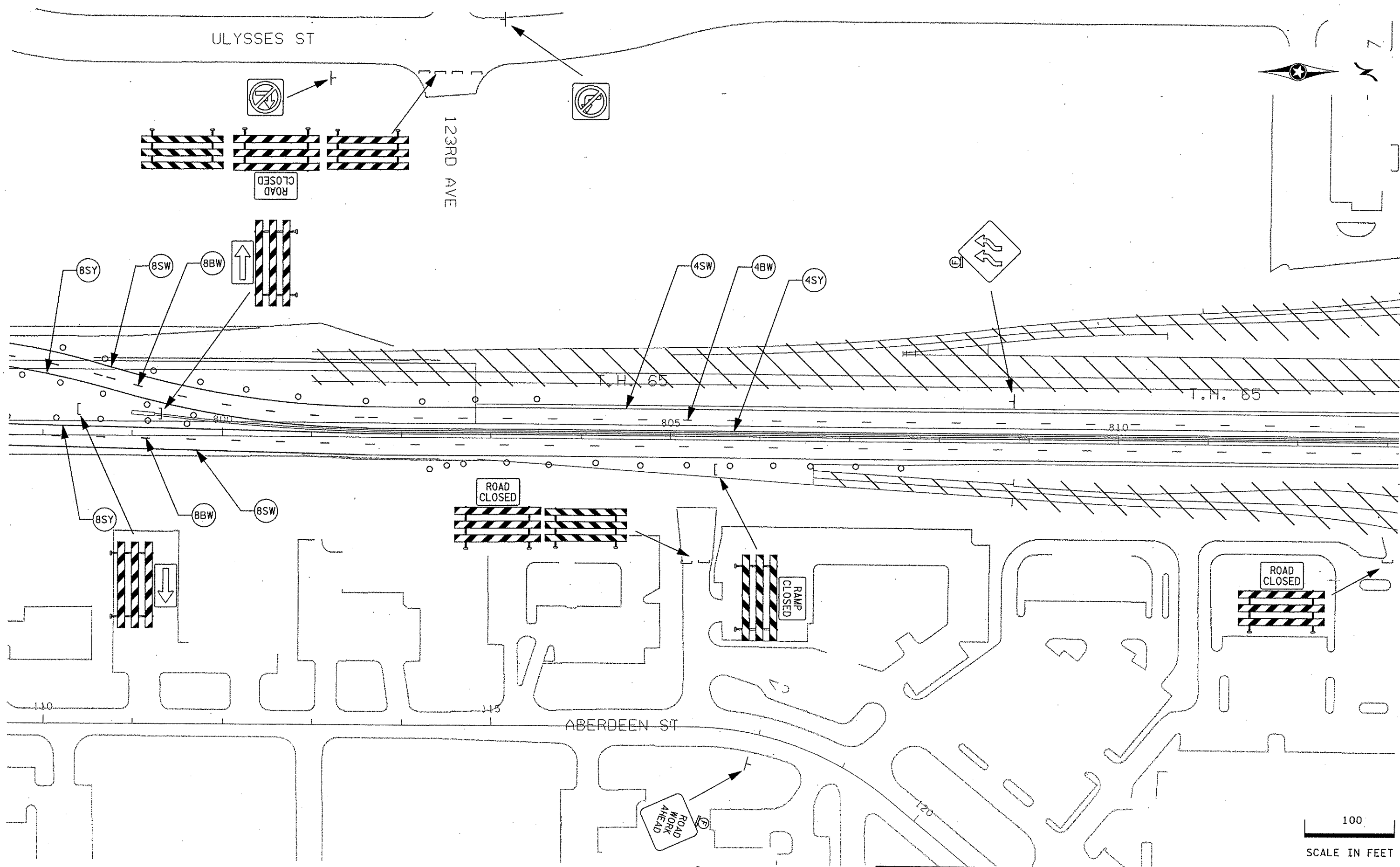
Cassandra Pech
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 529 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 1C

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_jcsfcbdr15
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\streets\0208123_jcsfcbdr1.dgn

SEE SHEET NO.

C.A.S.H. 14

ULYSSES ST

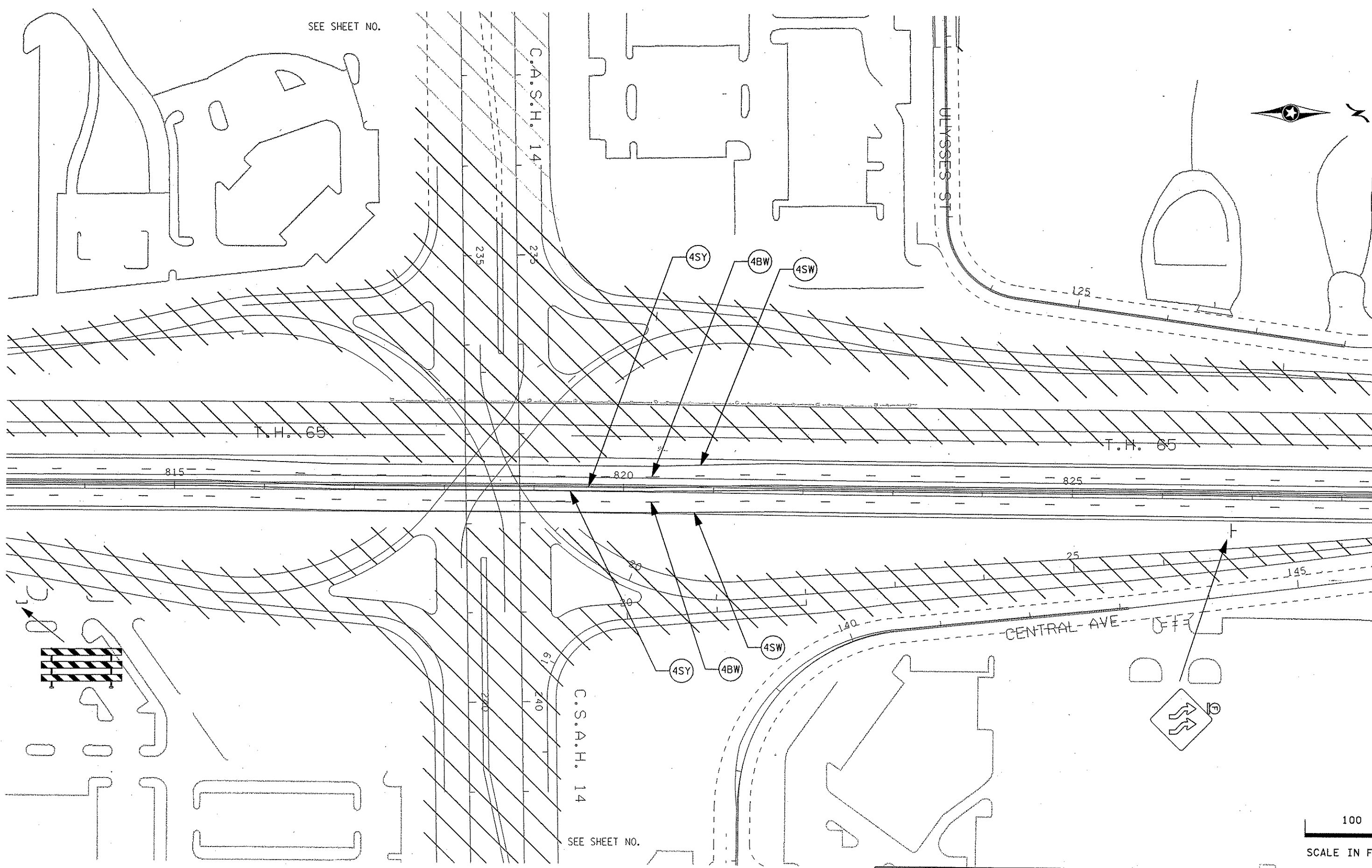
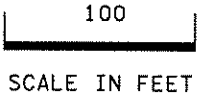
T.H. 65

T.H. 65

C.S.A.H. 14

CENTRAL AVE OFF

SEE SHEET NO.



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brook*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

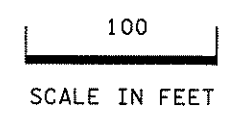
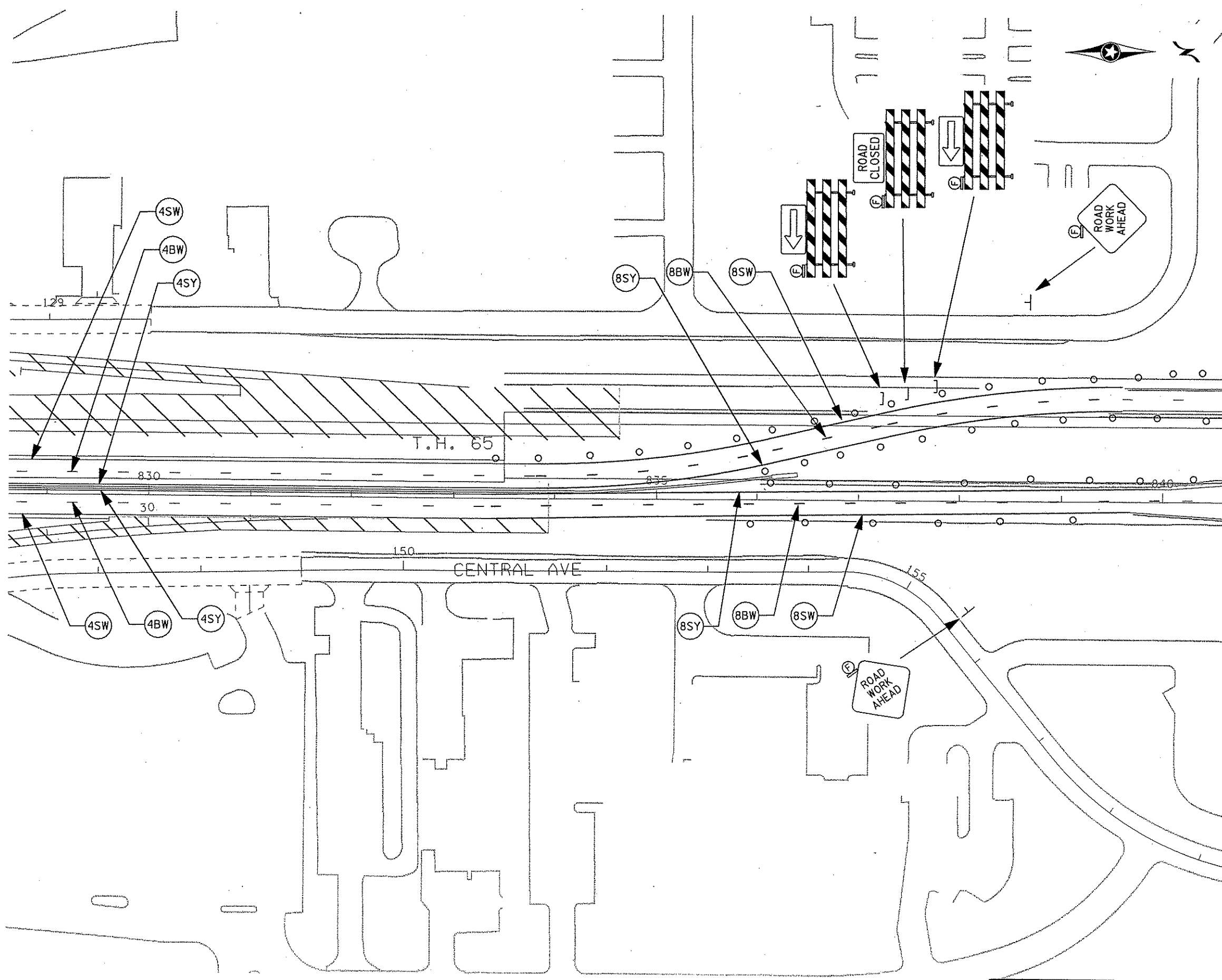
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 531 OF 872 SHEETS

DISTRICT #: METRO
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PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\1cscfcbdr16.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bob
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

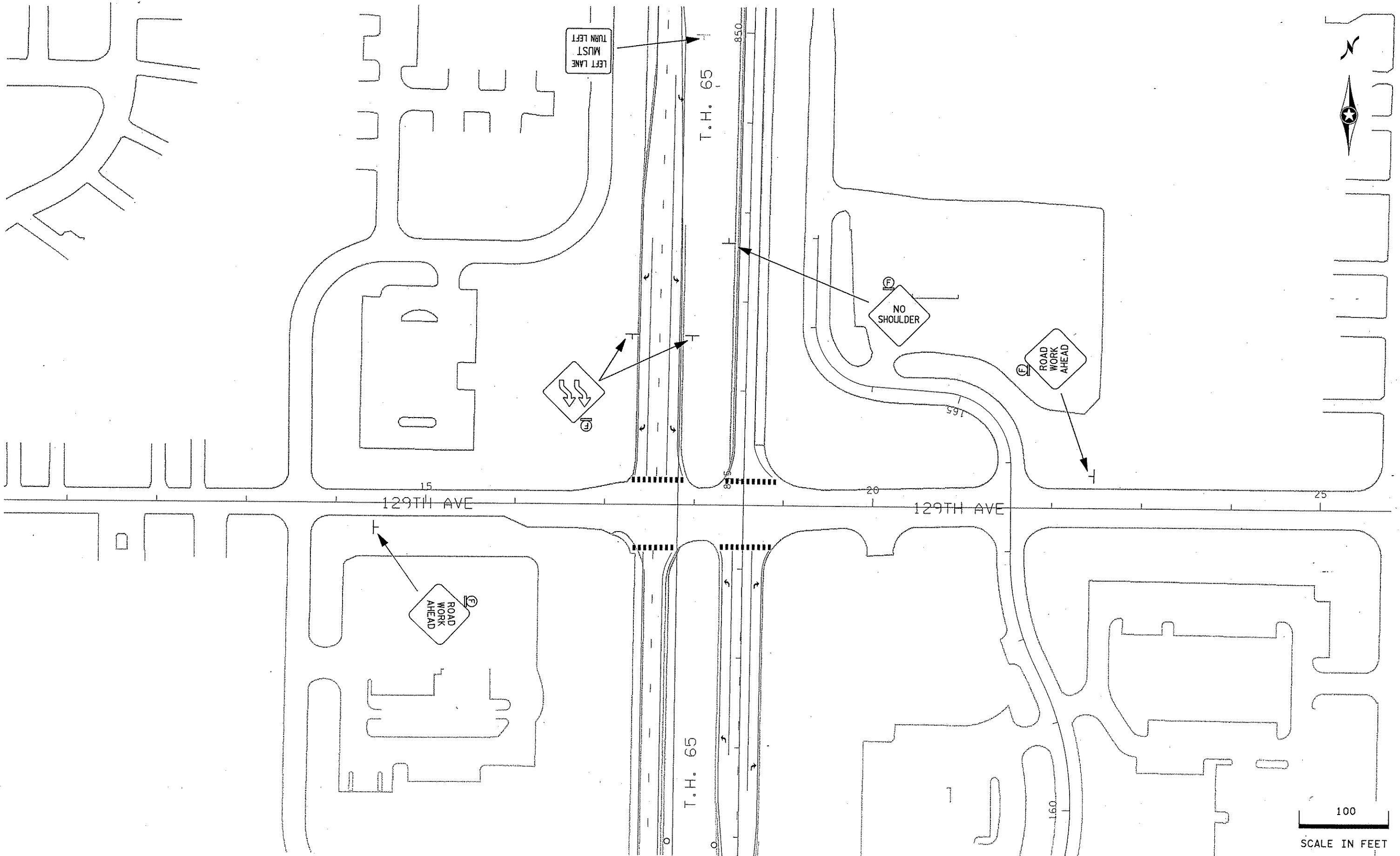
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 532 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

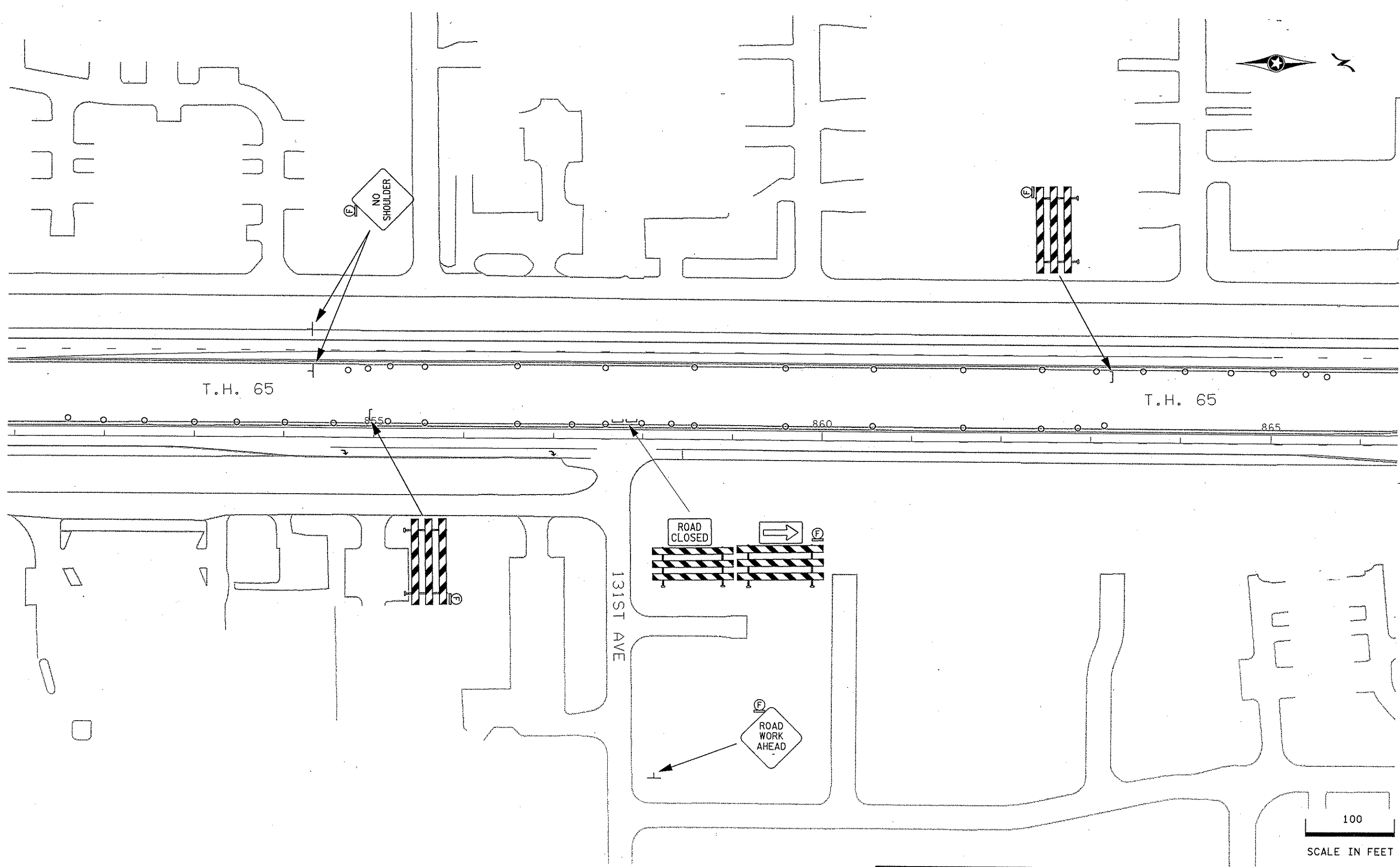
CHECKED BY: MJR

CERTIFIED BY Cassandra Probst LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 533 OF 872 SHEETS

DISTRICT #: METRO
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PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC Streets\0208123_tcsfcbdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Cook
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

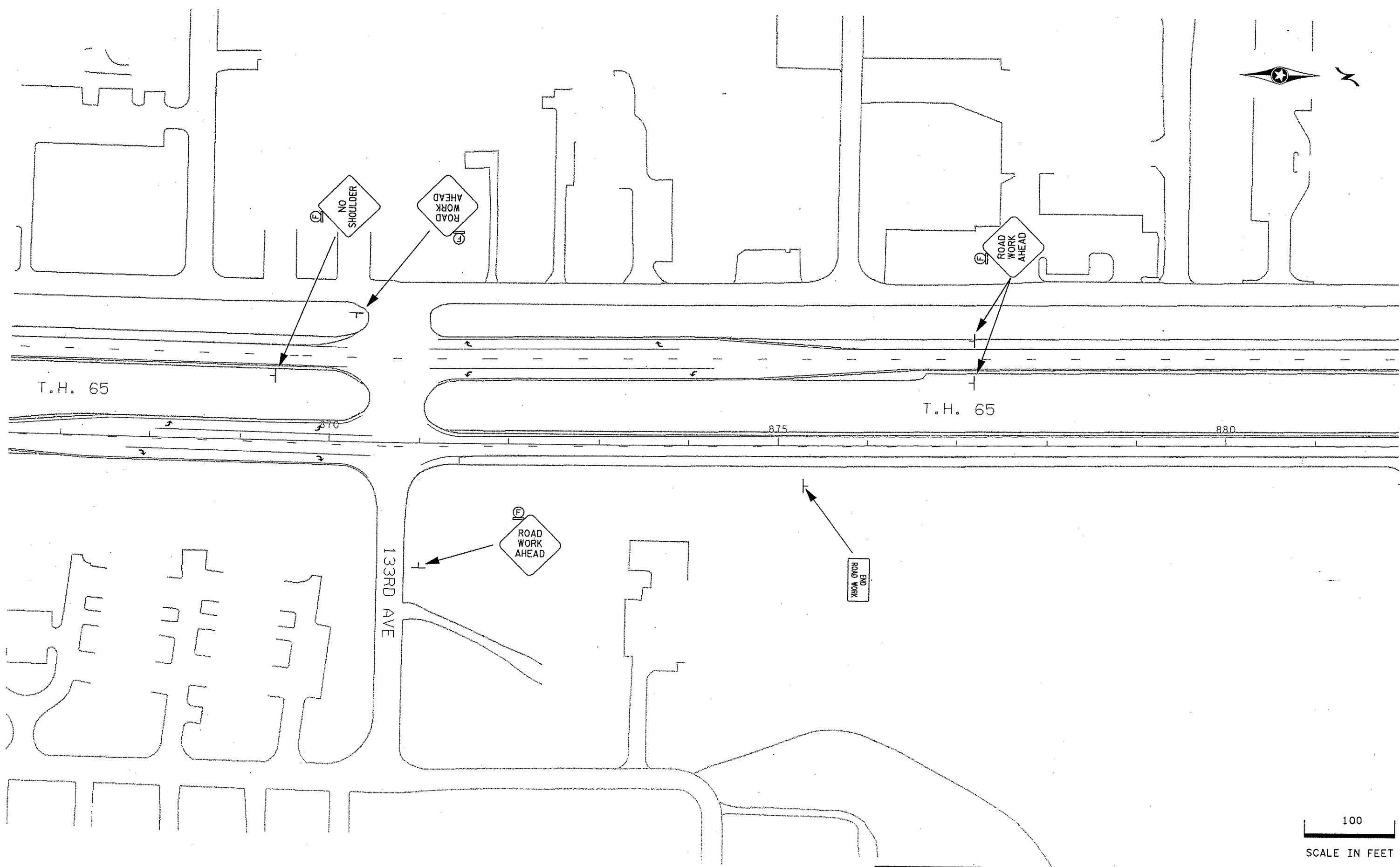
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 534 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_1csf1cbr19
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

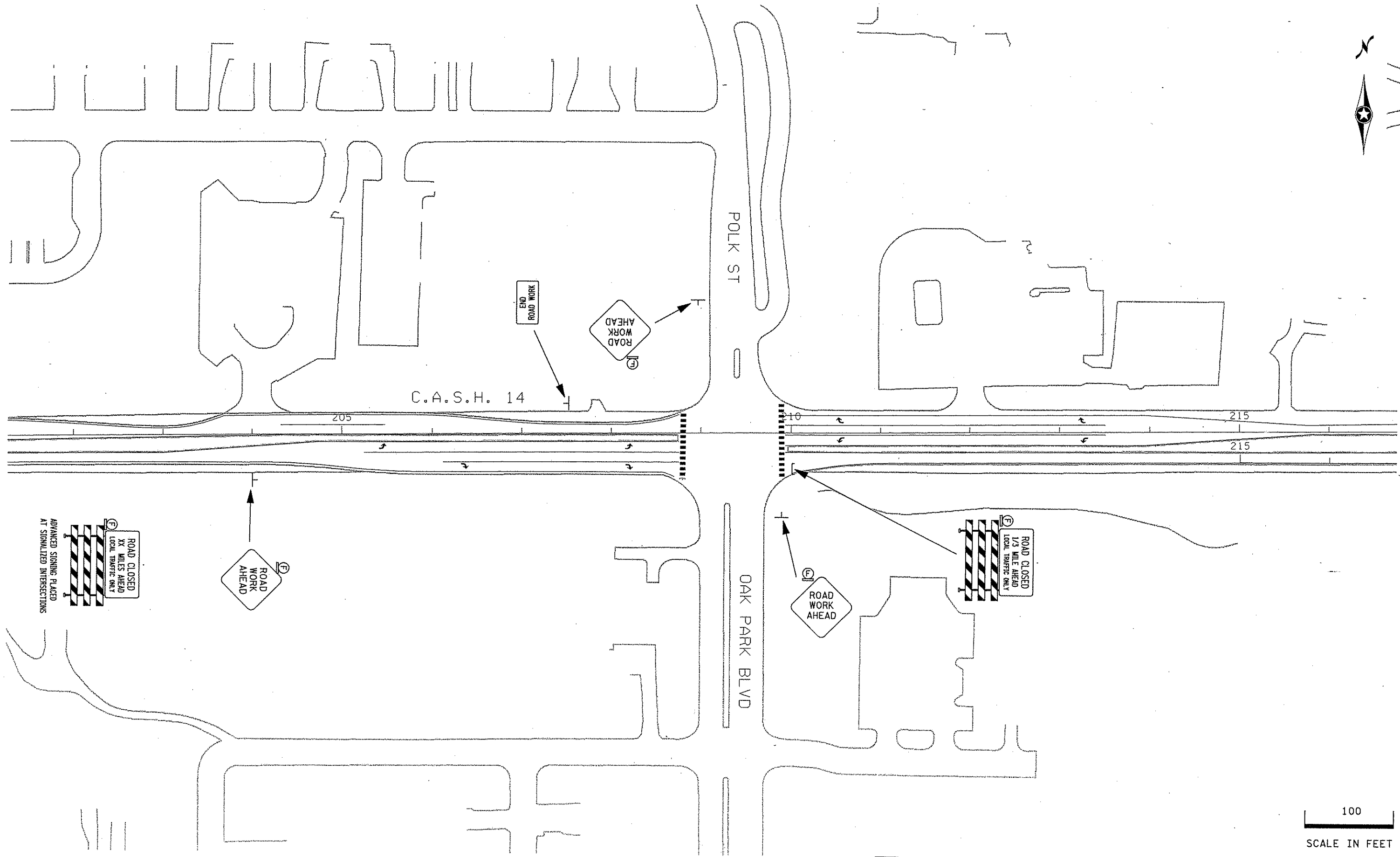
CHECKED BY: MJR

CERTIFIED BY *Cassandra Cook*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 535 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_1cstfcbdr/110
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

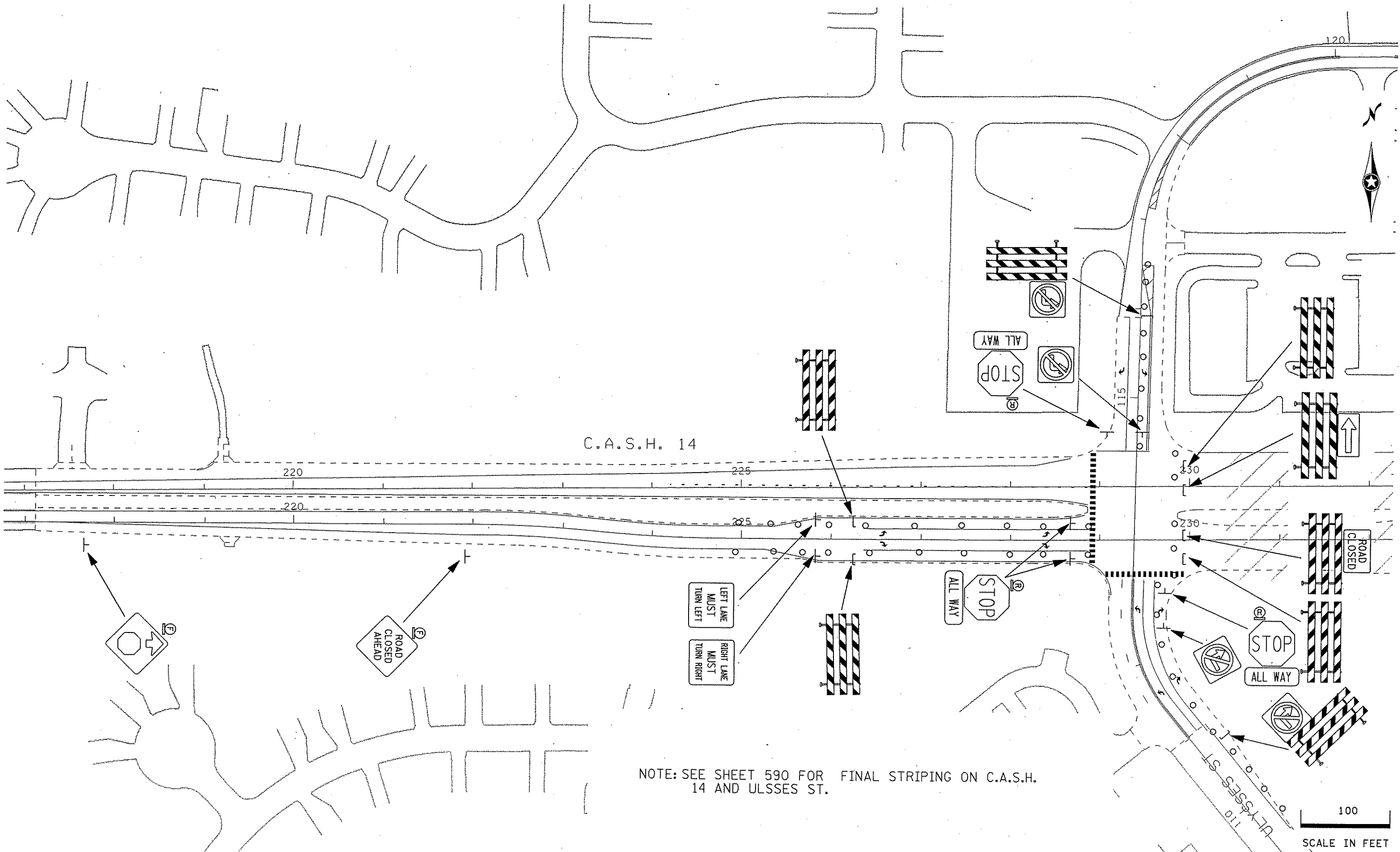
CHECKED BY: MJR

CERTIFIED BY *Cassandra Trob* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 536 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
I/PLOT NAME: 10208123_tcfstbdr/11
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\123\TC\sheet\0208123_tcfstbdr/1.dgn



NOTE: SEE SHEET 590 FOR FINAL STRIPING ON C.A.S.H. 14 AND ULSSES ST.

TRAFFIC CONTROL - STAGE 1C

DRAWN BY: KMF

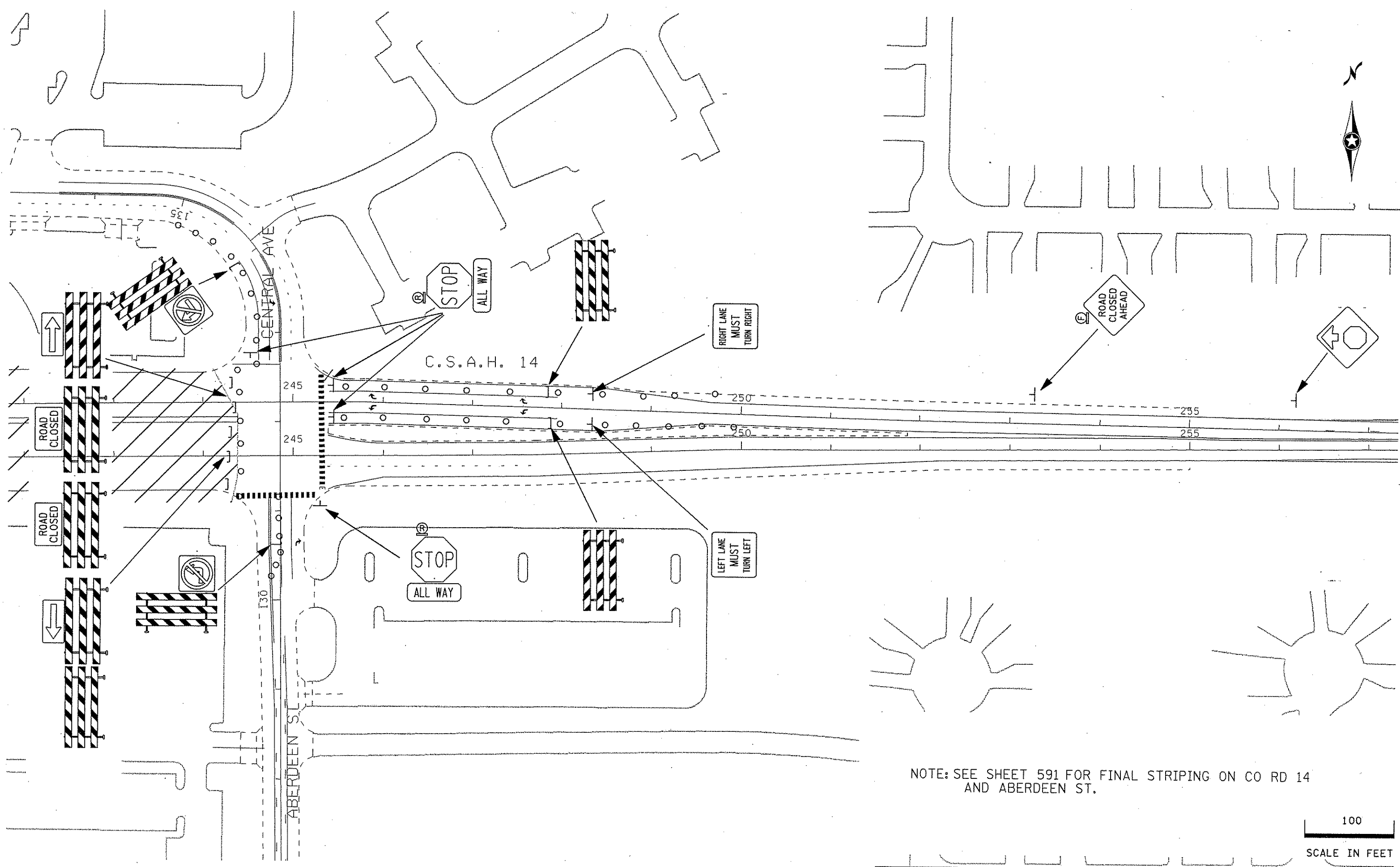
CHECKED BY: MJR

CERTIFIED BY *Cassandra Pugh*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 537 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_tcsfcbdr112
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PLOTTED/REVISED: 1/31/2007

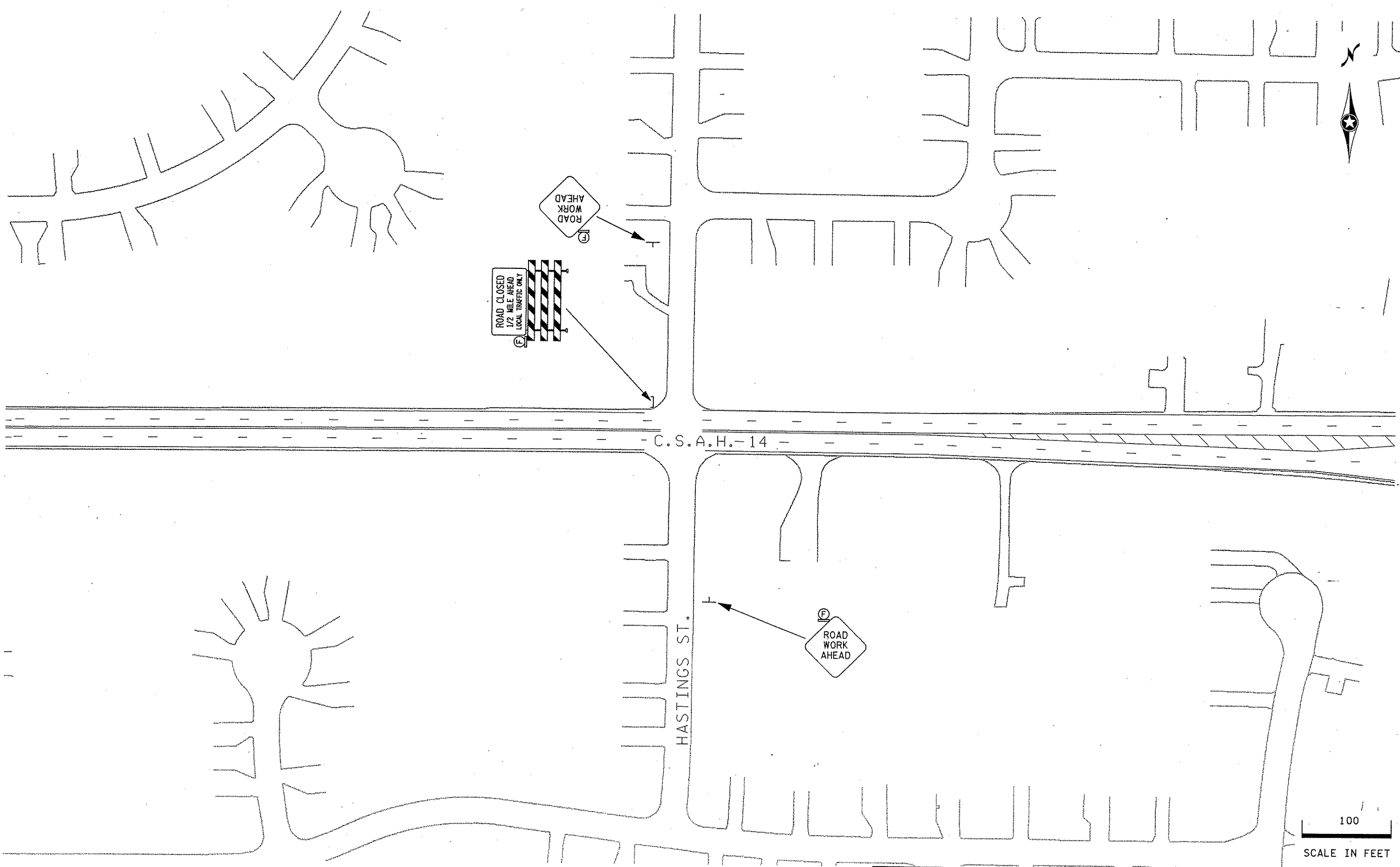


NOTE: SEE SHEET 591 FOR FINAL STRIPING ON CO RD 14 AND ABERDEEN ST.

100
SCALE IN FEET

DISTRICT #: METRO
PLOT NAME: #0208123_jcsfcbdr113
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC sheets\0208123_jcsfcbdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

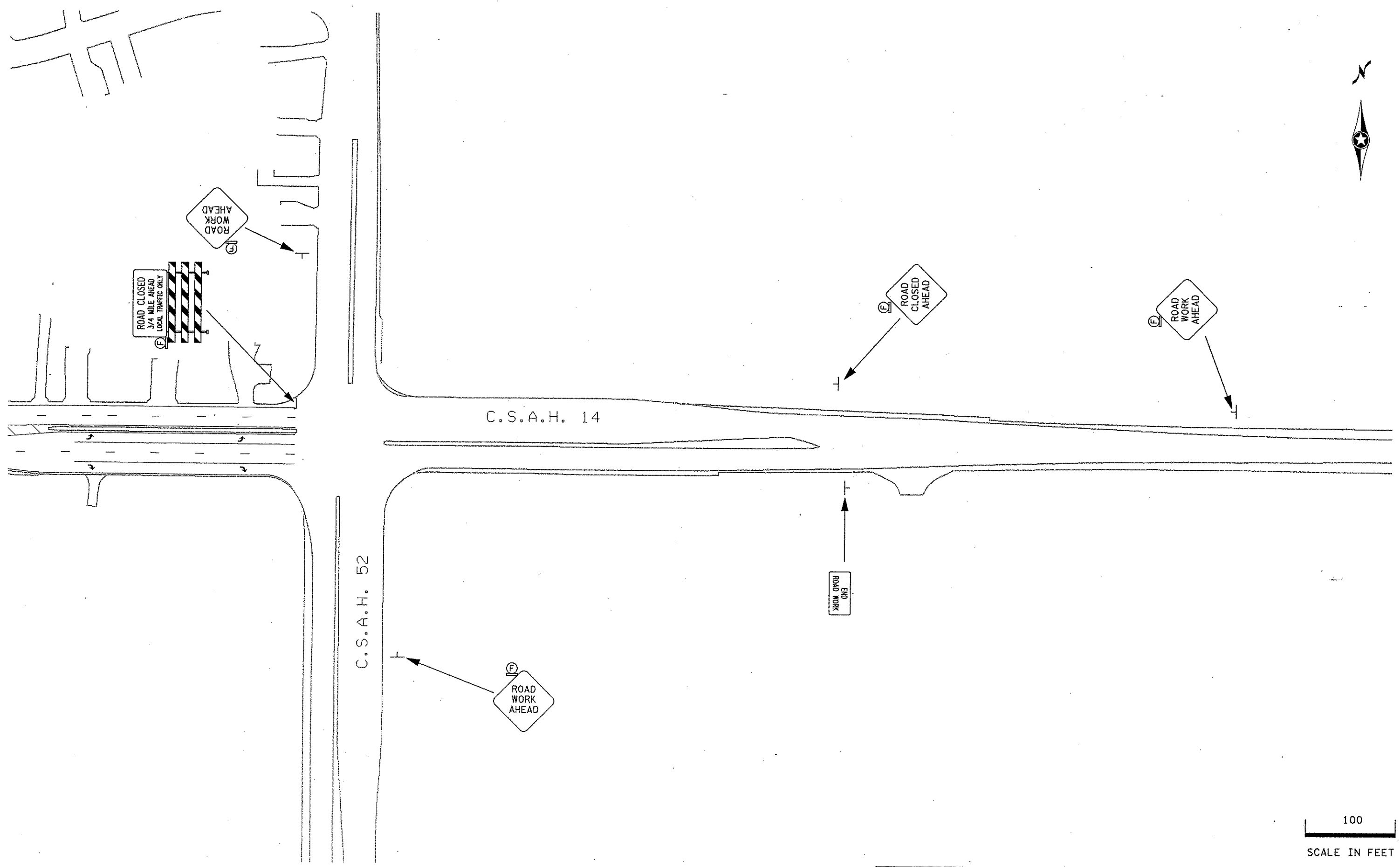
CERTIFIED BY Cassandra Brob
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 539 OF 872 SHEETS

DISTRICT #: METRO
I/PLOT NAME: 10208123_jcs1c1cbr114
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\TC_Sheets\10208123_jcs1c1cbr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

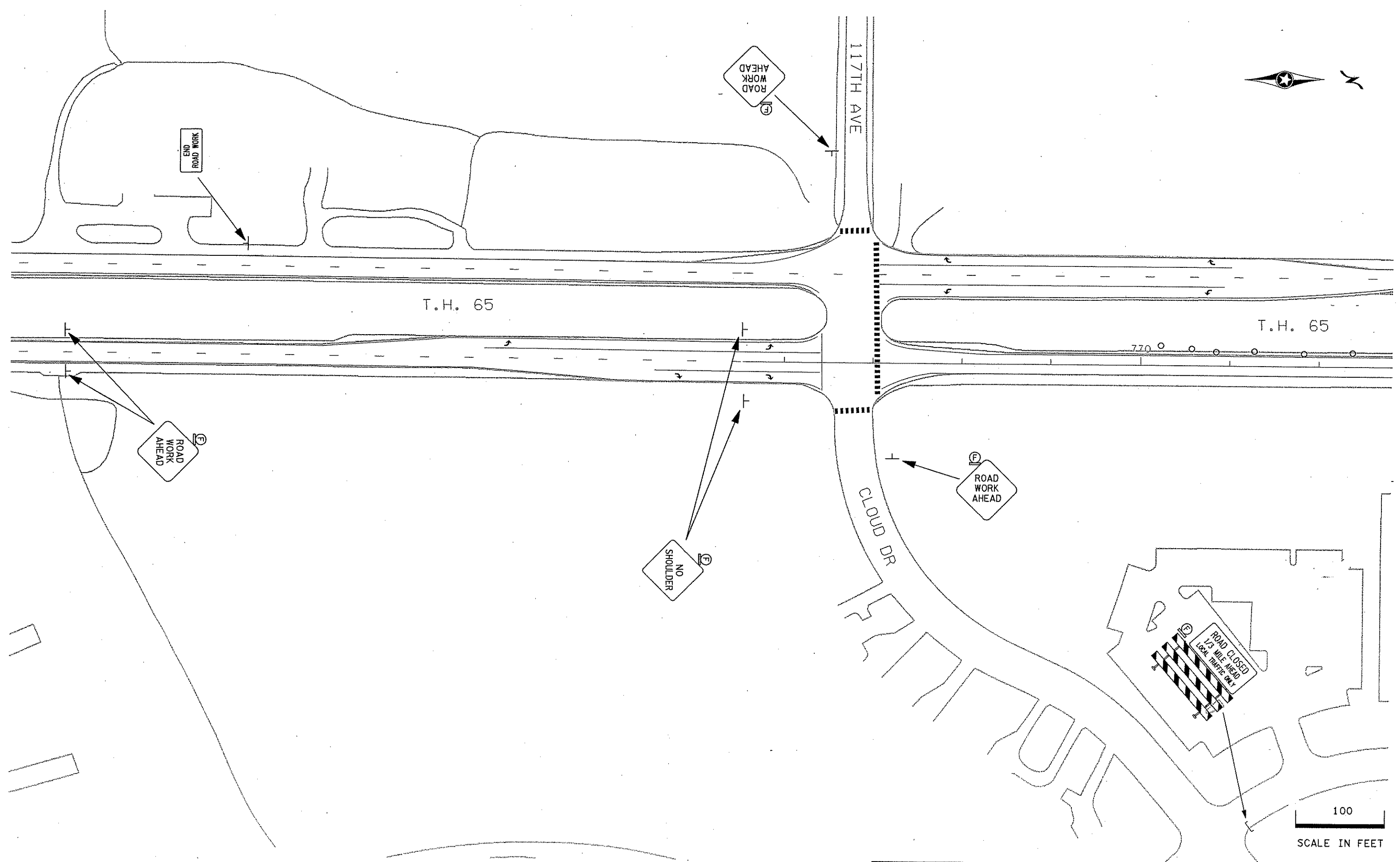
CHECKED BY: MJR

CERTIFIED BY *Cassandra Erub* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 1C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 540 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_tcf2abdr1
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC sheets\0208123_tcf2abdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bobb
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

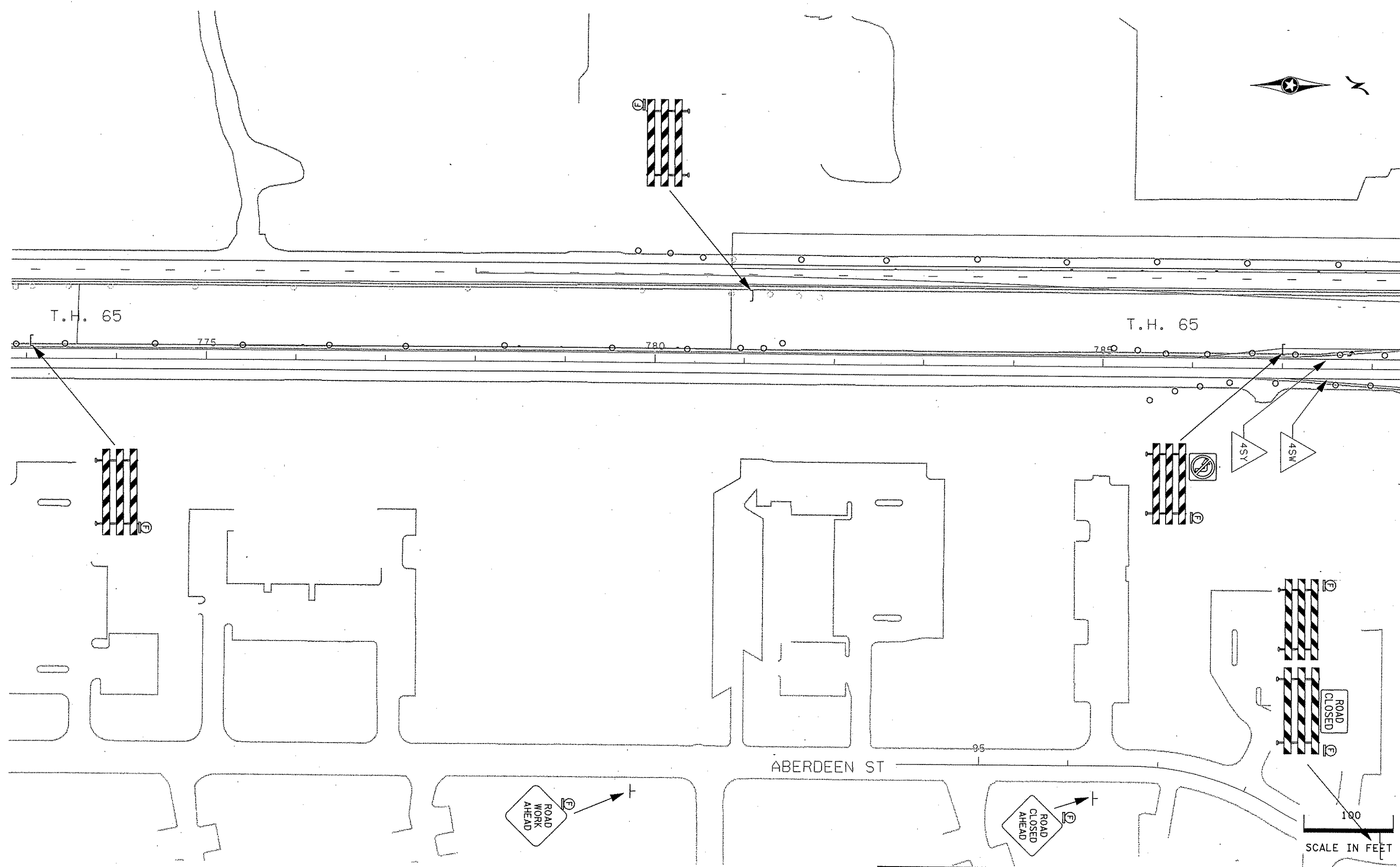
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2A

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 541 OF 872 SHEETS

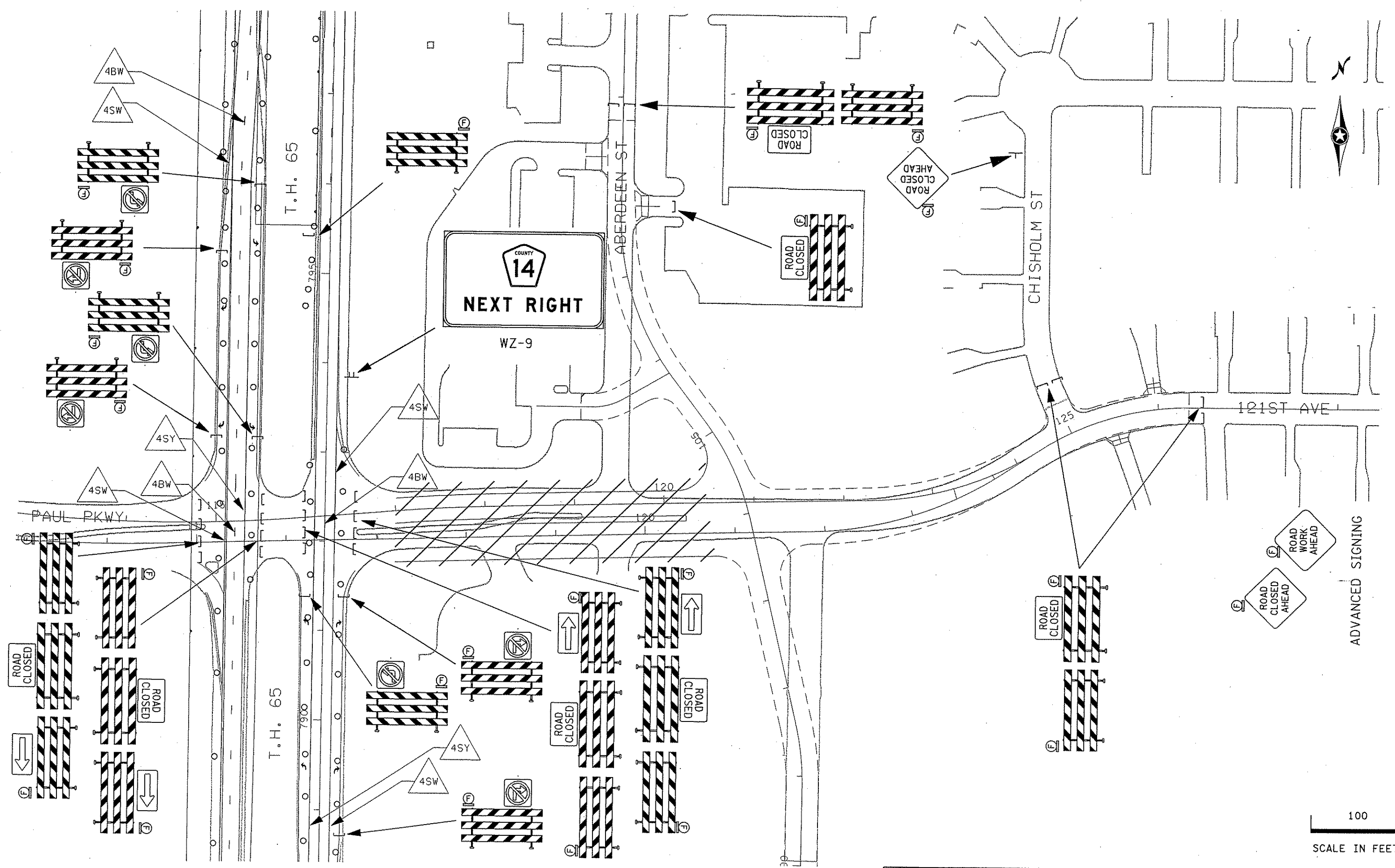
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PLOT NAME: 10208123_tcsf2abdr11
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PLOTTED/REVISED: 1/31/2007

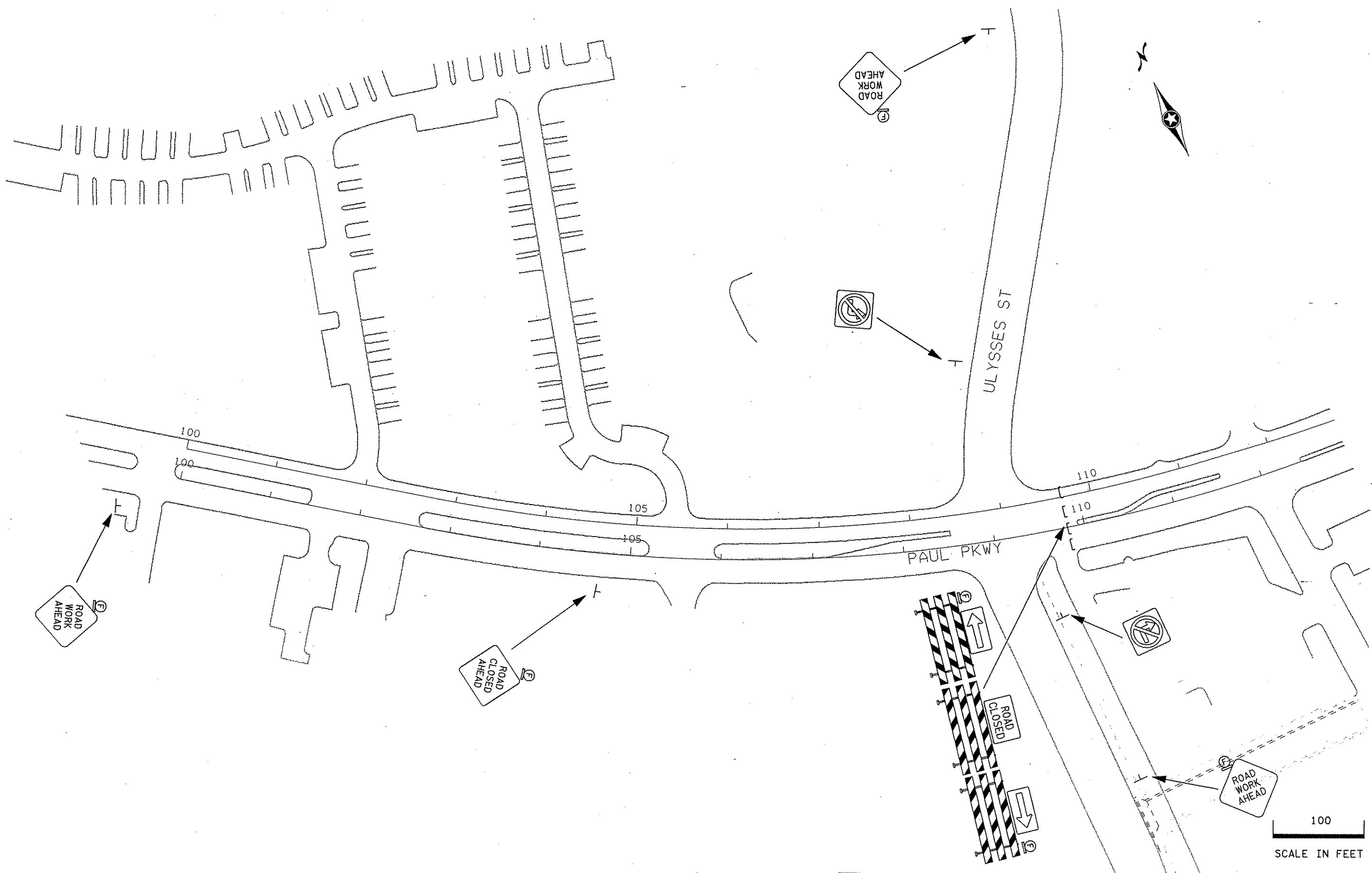


TRAFFIC CONTROL - STAGE 2A

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DISTRICT #: METRO
PLOT NAME: 10208123_1csf2abdr13
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PLOTTED/REVISED: 1/31/2007



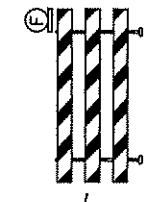
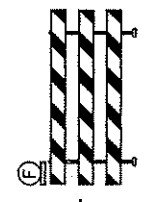
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Froh* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 544 OF 872 SHEETS

ULYSSES ST



4SY

4BW

4SW

T.H. 65

T.H. 65

800

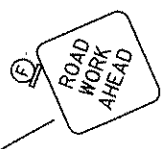
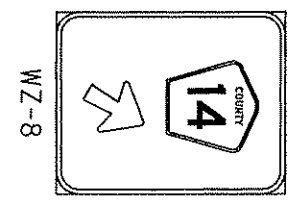
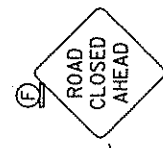
805

810

4SW

4SY

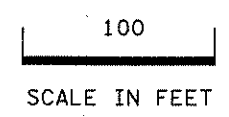
4BW



8-ZM

ABERDEEN ST

120



DISTRICT #: METRO
PLOT NAME: 10208123_fcs12abdr14
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208123\TC_sheets\0208123_fcs12abdr1.dgn
PLOTTED/REVISED: 1/31/2007

DRAWN BY: KMF

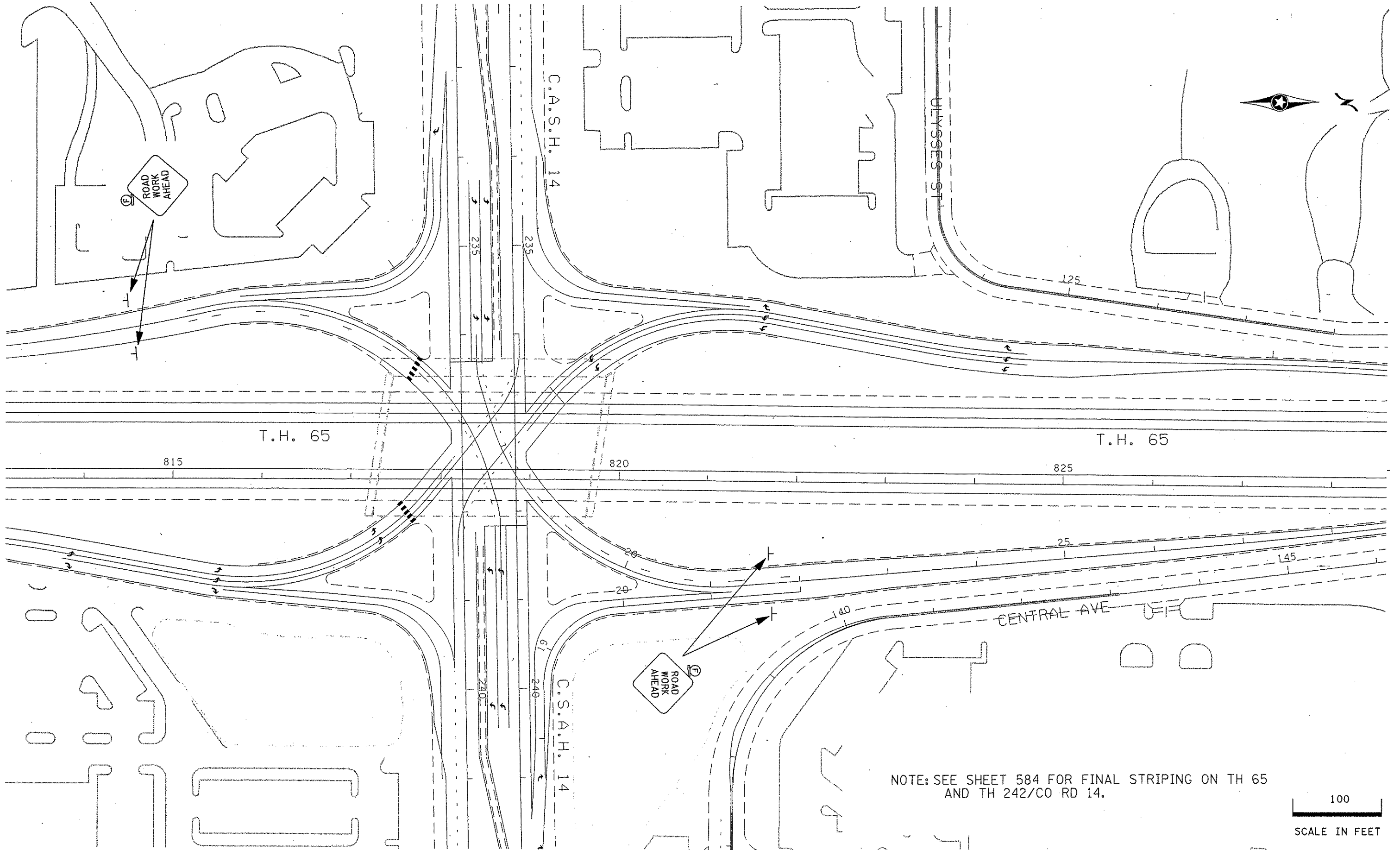
CHECKED BY: MJR

CERTIFIED BY *Cassandra Bosh* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 545 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_tcsf2abdrf15
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC sheets\0208123_tcsf2abdrf1.dgn

PLOTTED/REVISED: 1/31/2007



NOTE: SEE SHEET 584 FOR FINAL STRIPING ON TH 65 AND TH 242/CO RD 14.

100
SCALE IN FEET

TRAFFIC CONTROL - STAGE 2A

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Borob
LICENSED PROFESSIONAL ENGINEER

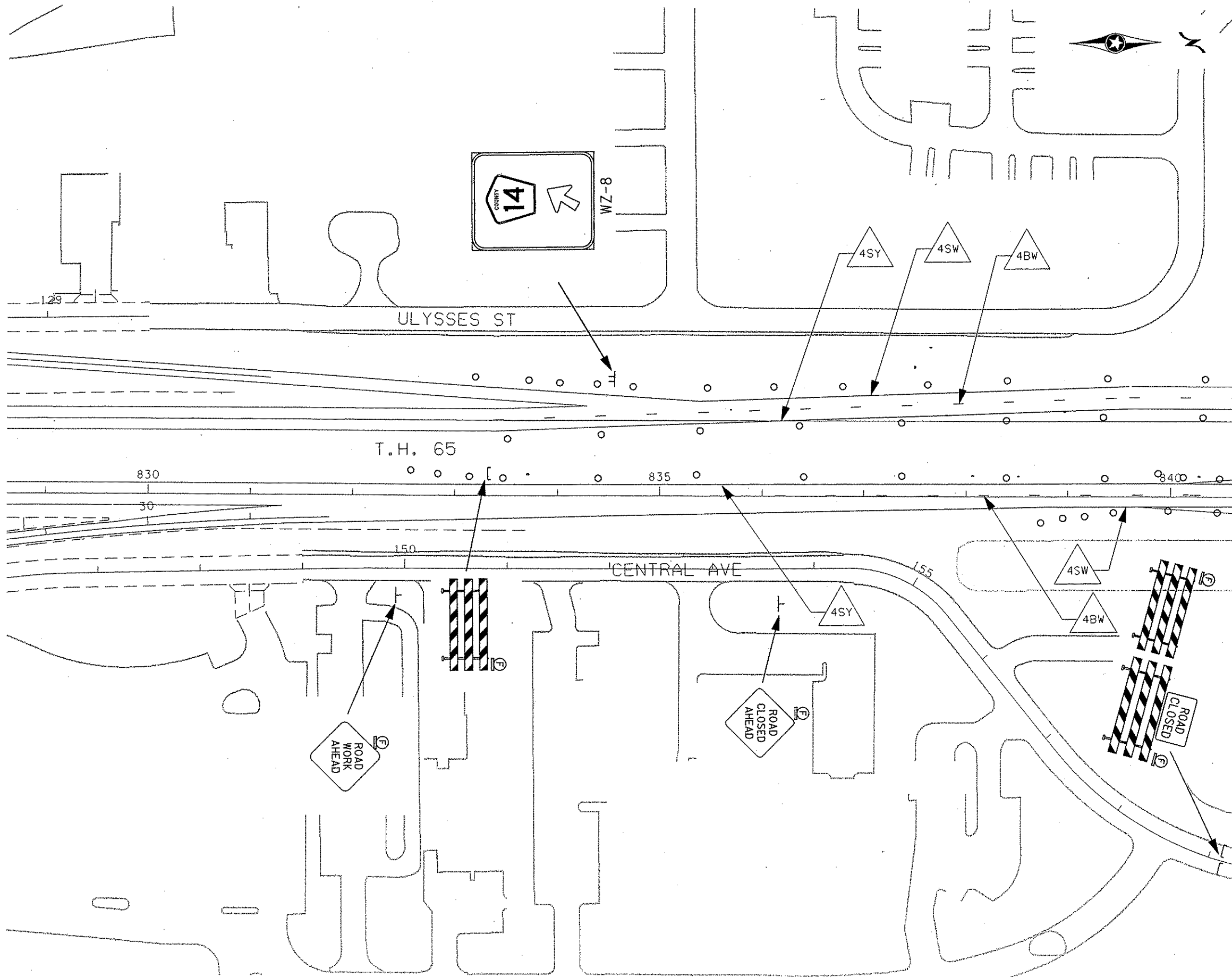
LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 546 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_tcsf2abdr16
PATH & FILENAME: S:\TRAFFIC\TC Signling\065\0208123\TC\stps\0208123_tcsf2abdr1.dgn



100
SCALE IN FEET

TRAFFIC CONTROL - STAGE 2A

DRAWN BY: KMF

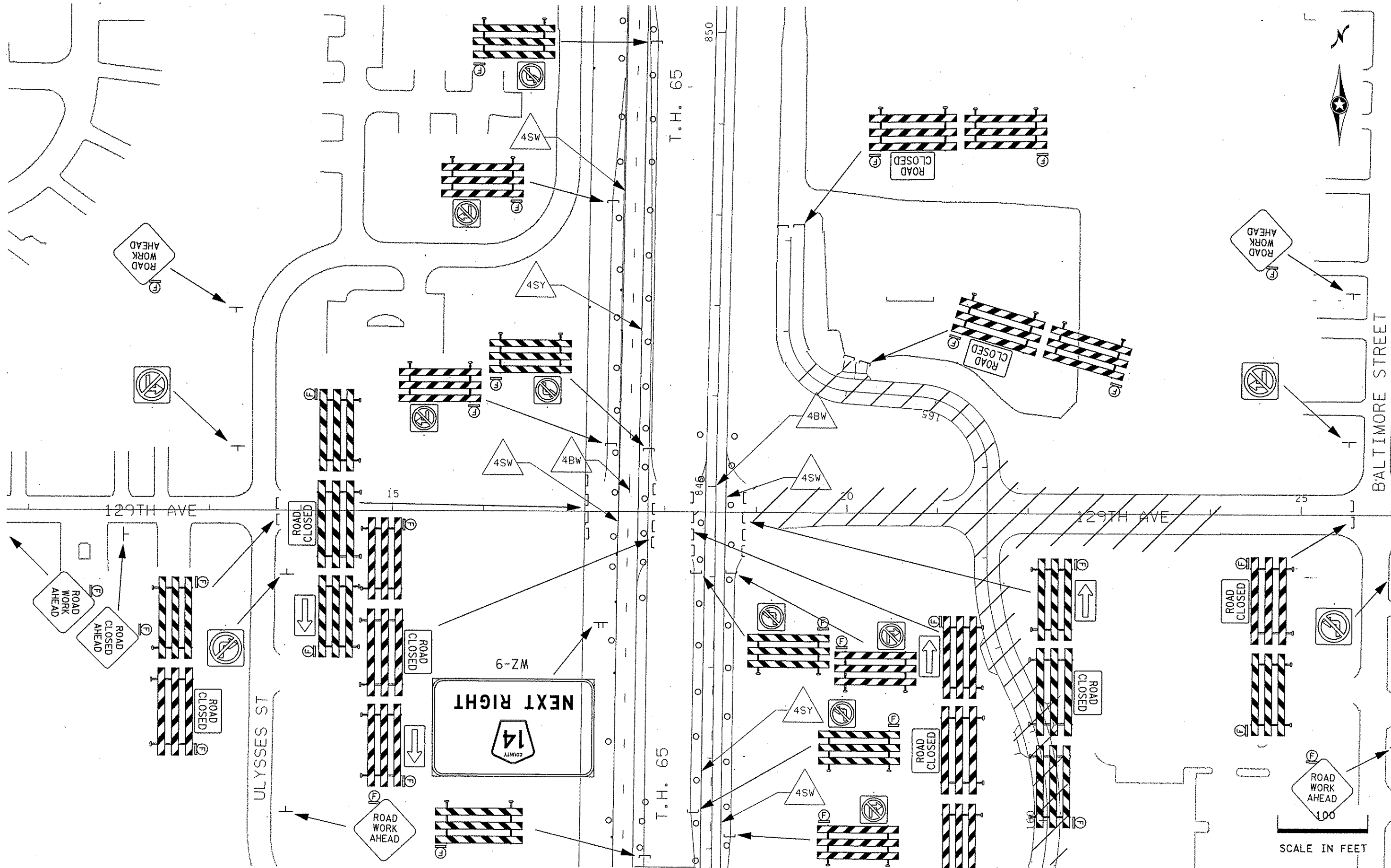
CHECKED BY: MJR

CERTIFIED BY *Cassandra Frob* LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 547 OF 872 SHEETS

DISTRICT #: METRO
 I/PLOT NAME: 10208123_tcsf2abdr17
 PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC sheets\0208123_tcsf2abdr1.dgn

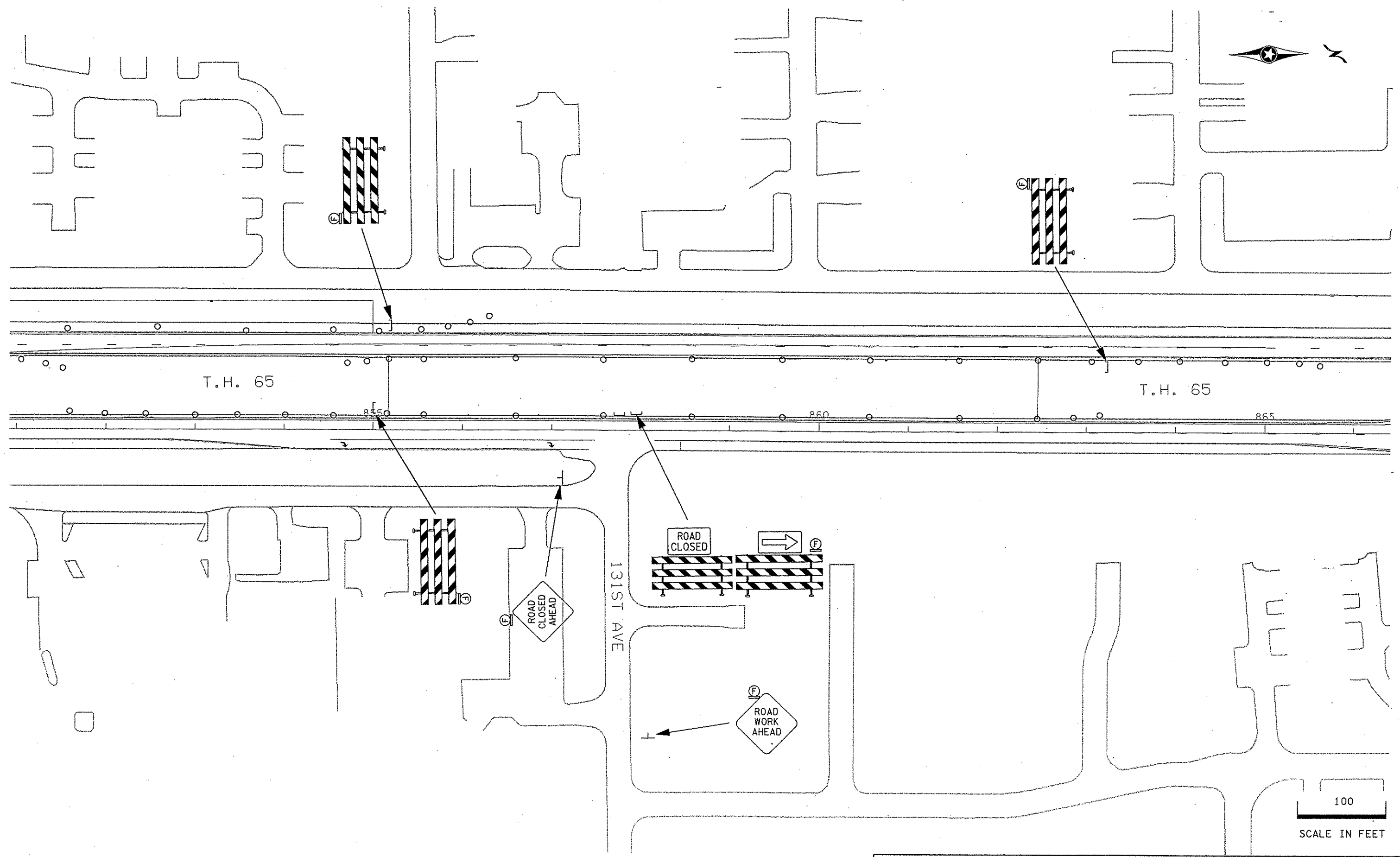
PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 2A

DISTRICT #: METRO
PLOT NAME: 10208123_tcsf2abbr18
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\123\TC\sheet\10208123_tcsf2abbr1.dgn

PLOTTED/REVISED: 2/1/2007



DRAWN BY: KMF

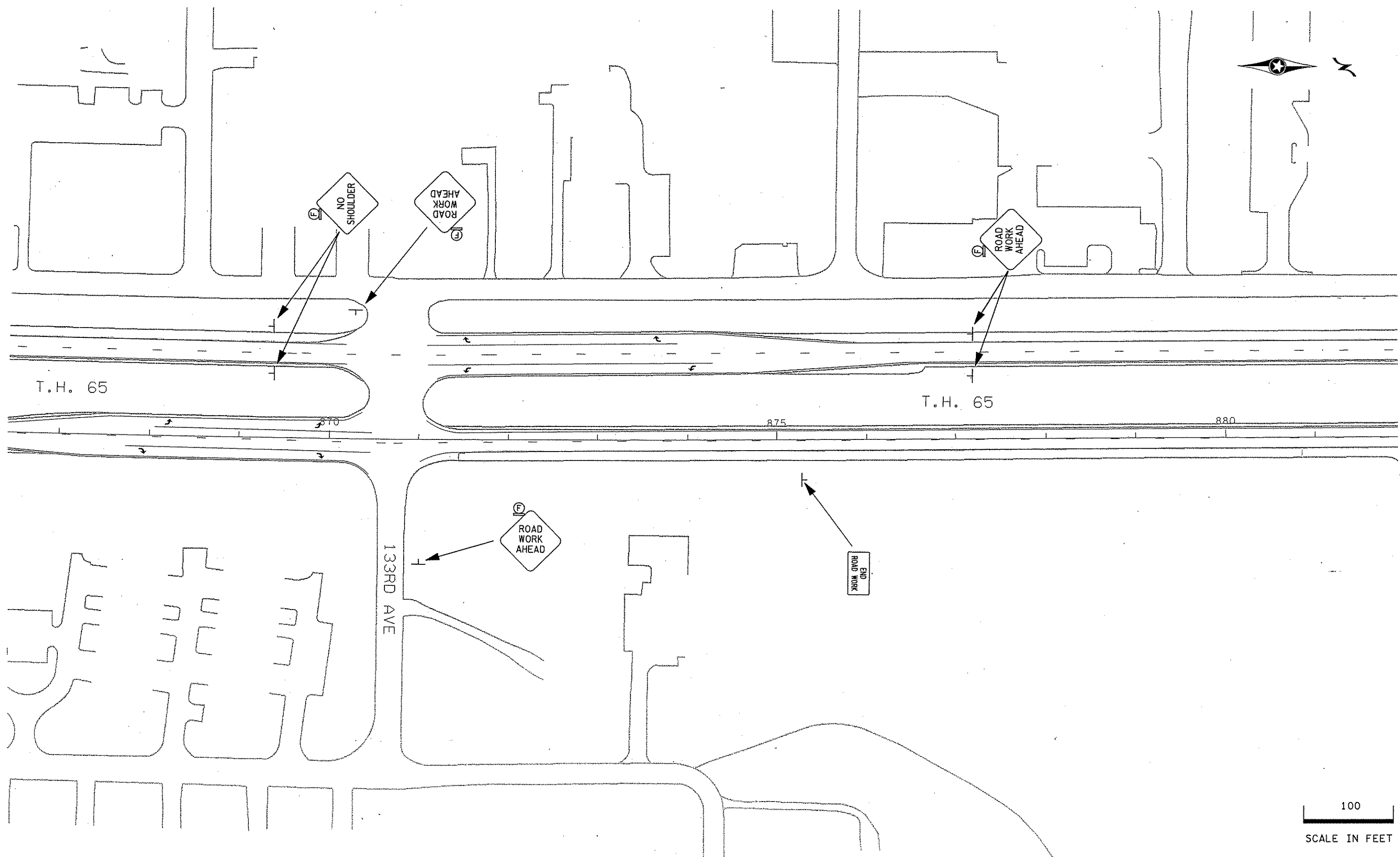
CHECKED BY: MJR

CERTIFIED BY *Cassandra Bosh* LIC. NO. 26429 DATE 2/1/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 2A
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 549 OF 872 SHEETS

DISTRICT #: METRO
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PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\23\TC\streets\10208123_1cst2abdr1.dgn

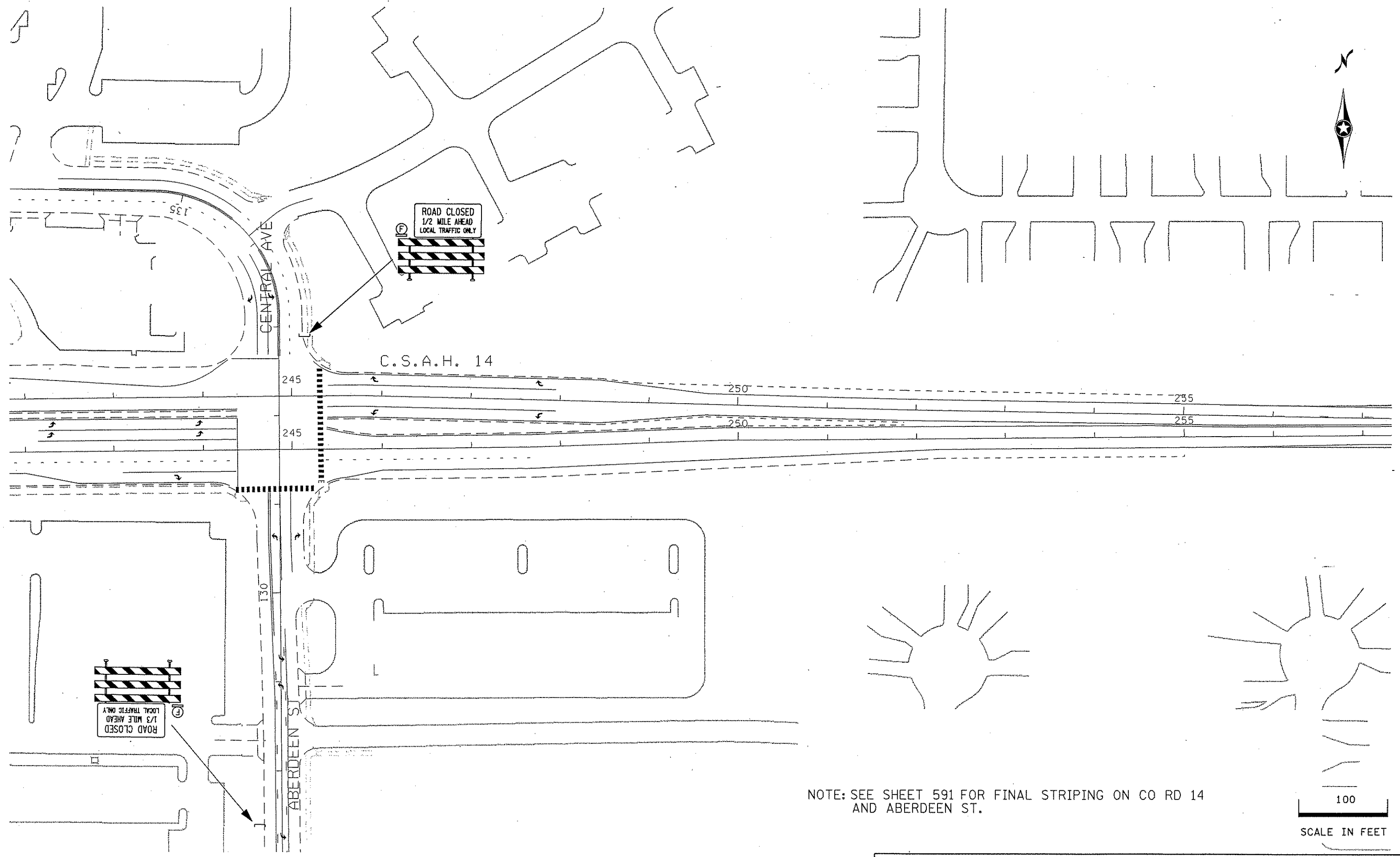
PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 2A

DISTRICT #: METRO
PLOT NAME: 10208123_jcst2abdr110
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PLOTTED/REVISED: 1/31/2007



NOTE: SEE SHEET 591 FOR FINAL STRIPING ON CO RD 14 AND ABERDEEN ST.

100
SCALE IN FEET

TRAFFIC CONTROL - STAGE 2A

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Borob
LICENSED PROFESSIONAL ENGINEER

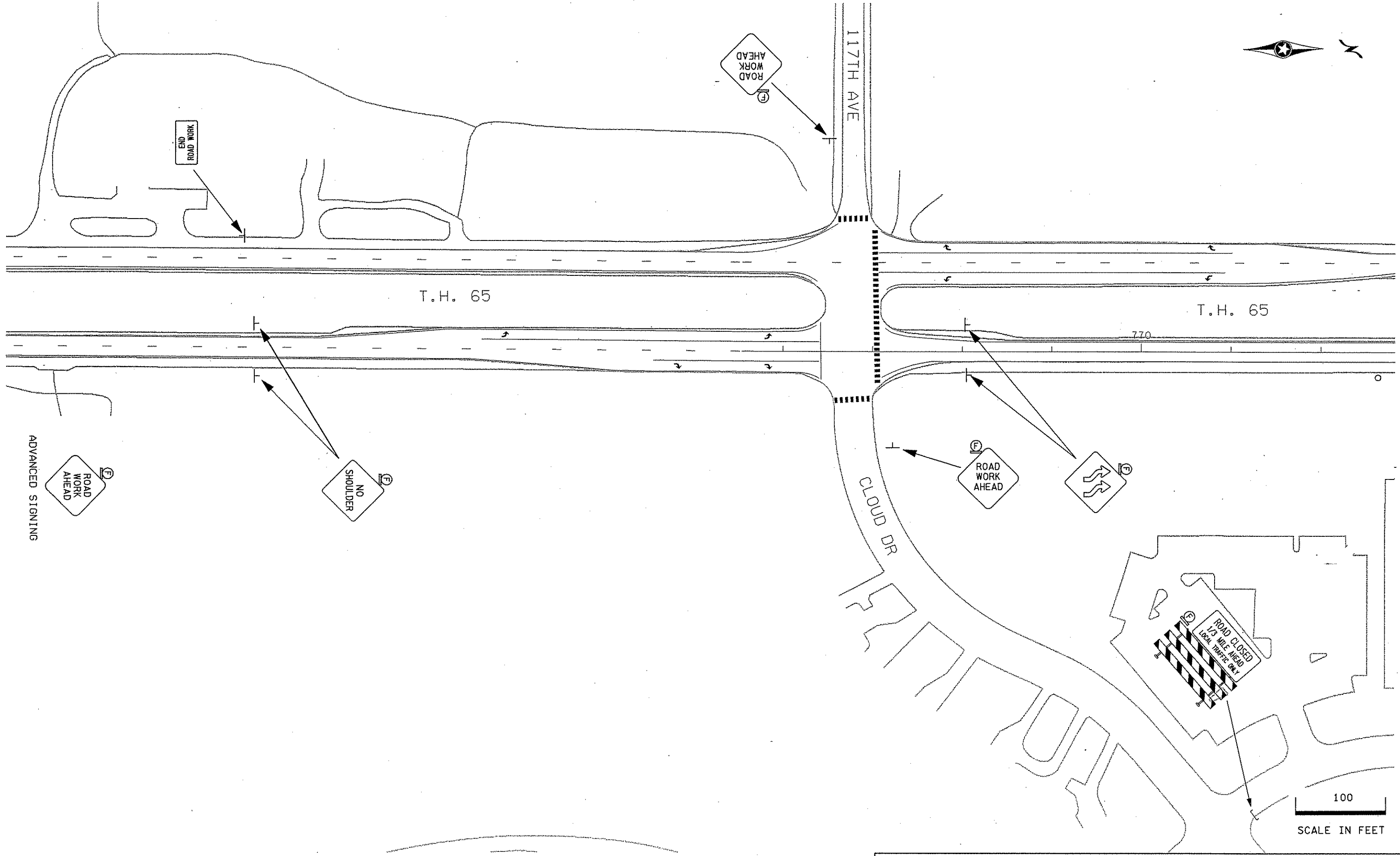
LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 551 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_jcst2bdr1
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\0208123_jcst2bdr1.dgn

PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 2B

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bob
LICENSED PROFESSIONAL ENGINEER

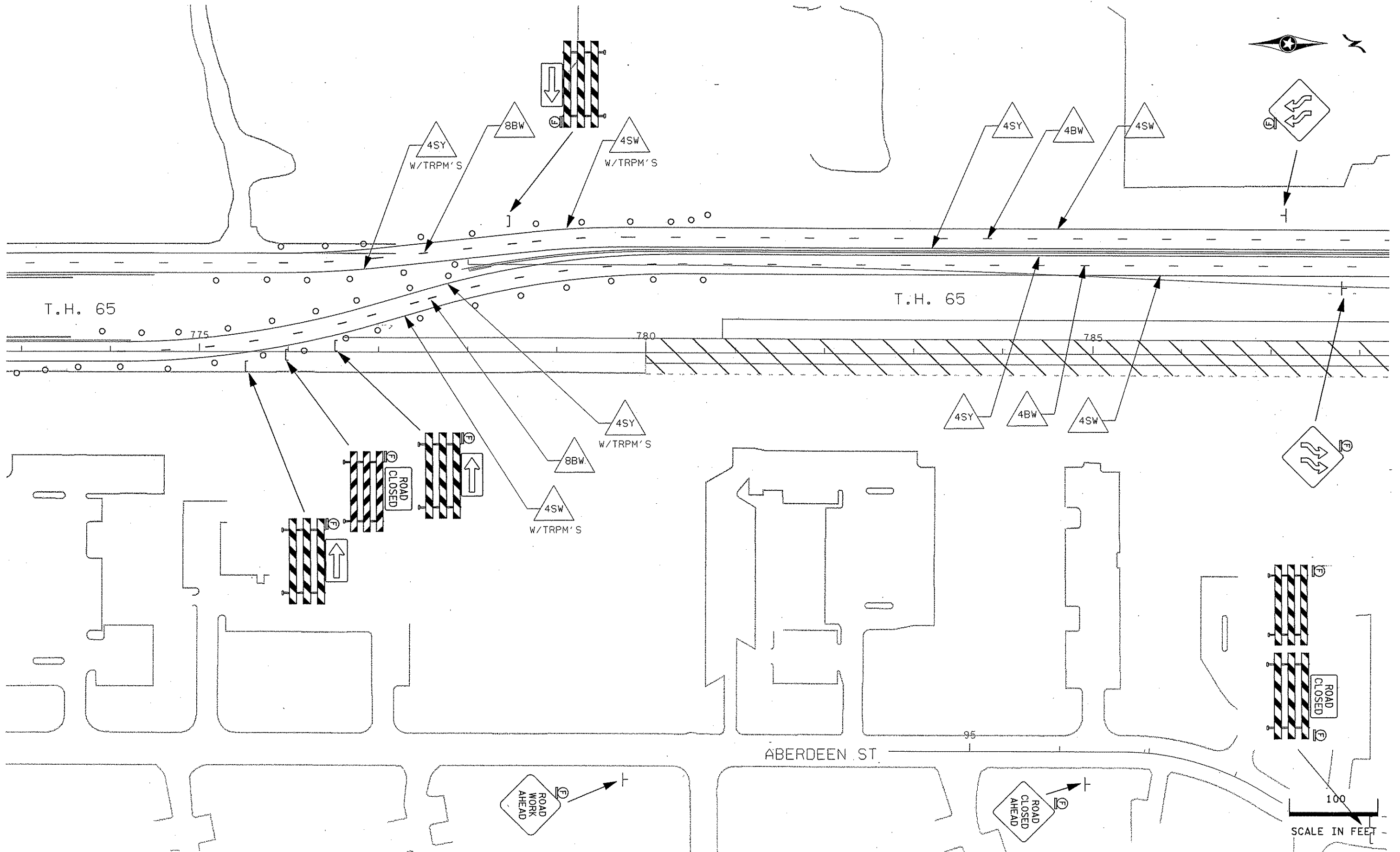
LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 552 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_jcst2bbdrll
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\123\TC\st2bbdrll.dgn



TRAFFIC CONTROL - STAGE 2B

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bob
LICENSED PROFESSIONAL ENGINEER

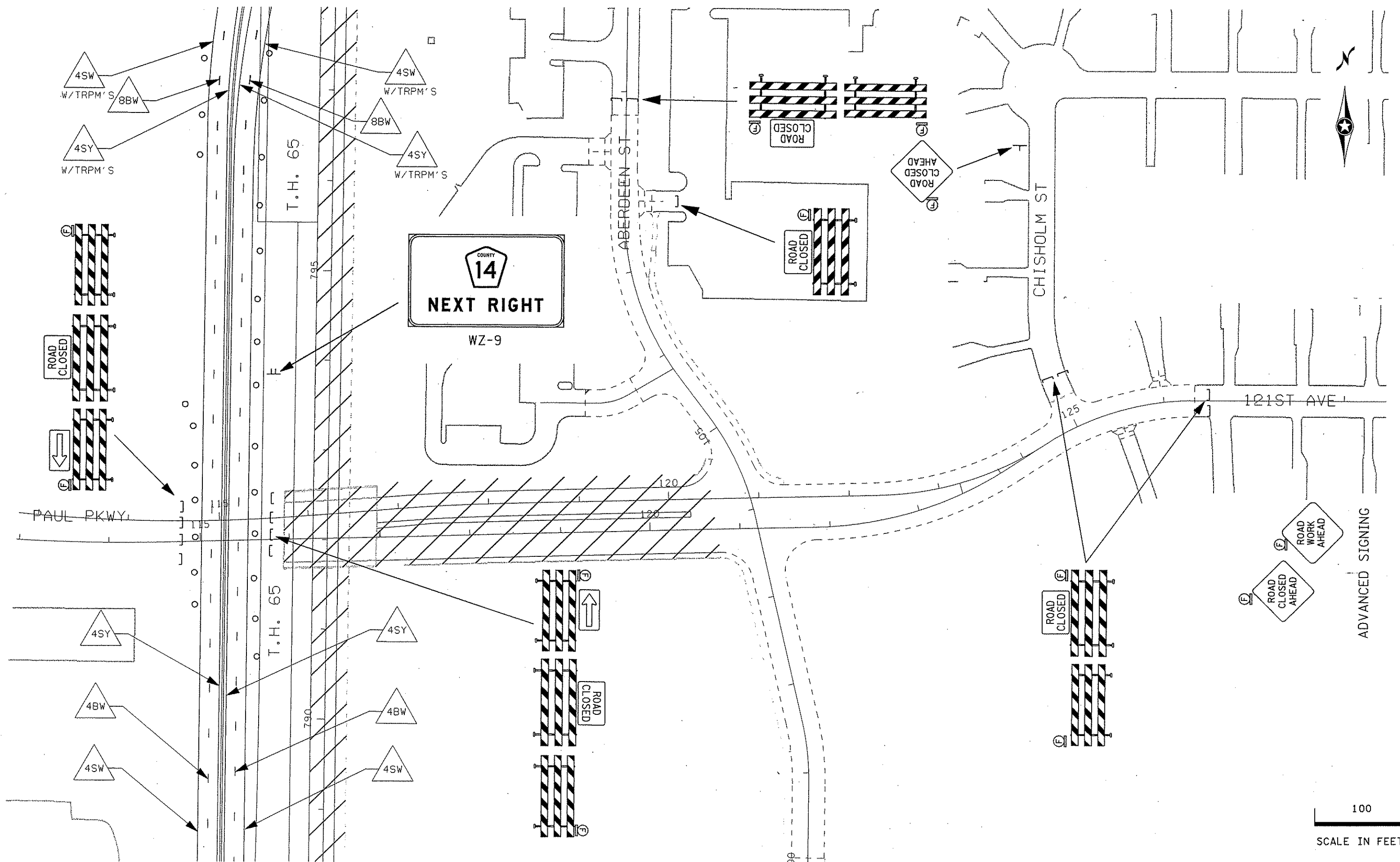
LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 553 OF 872 SHEETS

DISTRICT #: METRO
I/PLOT NAME: 10208123_tst2bdr12
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PLOTTED/REVISED: 1/31/2007



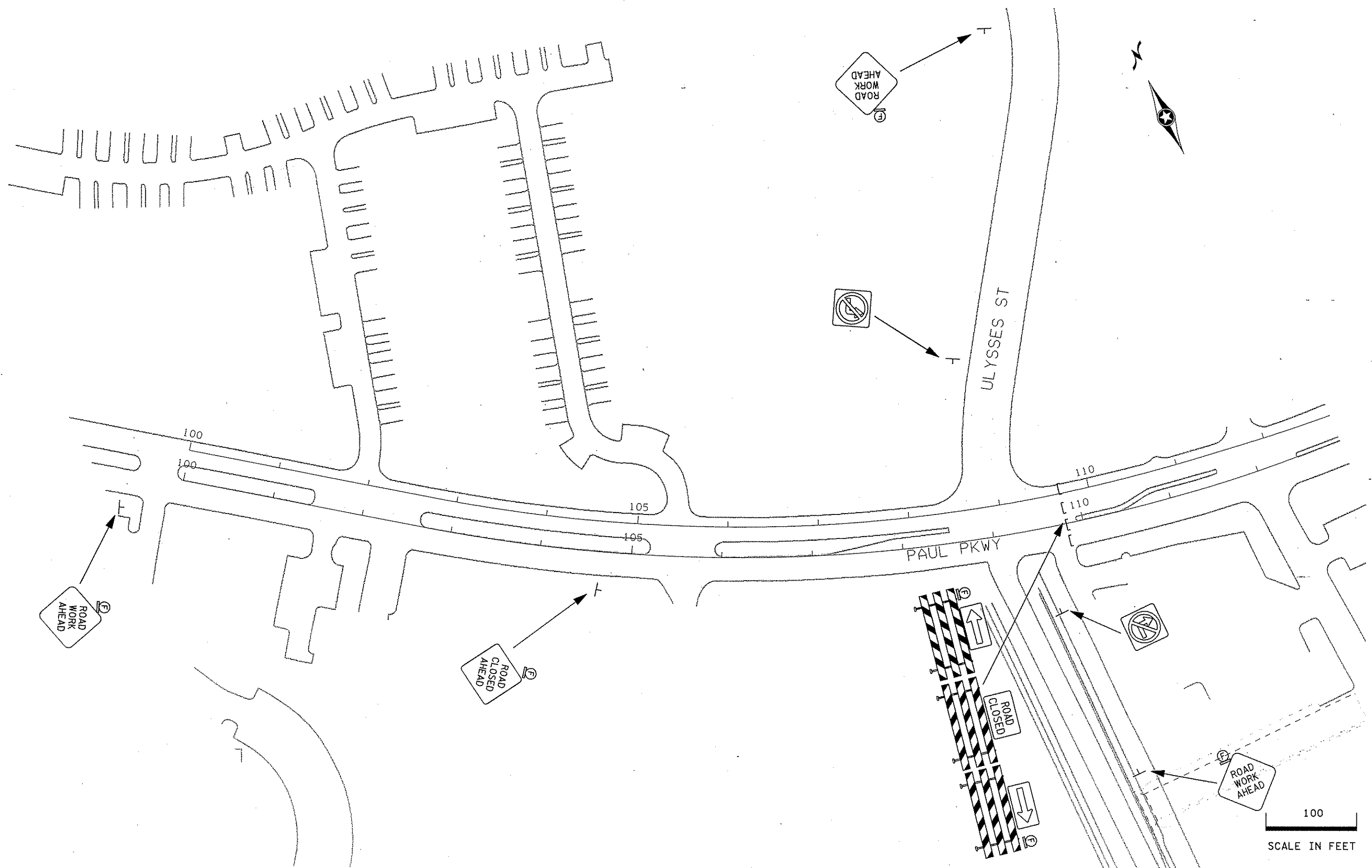
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Barb* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 554 OF 872 SHEETS

DISTRICT #: METRO
IFLOT NAME: I0208123_tcst2bldr13
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\steets\0208123_tcst2bldr1.dgn
PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 2B

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

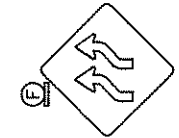
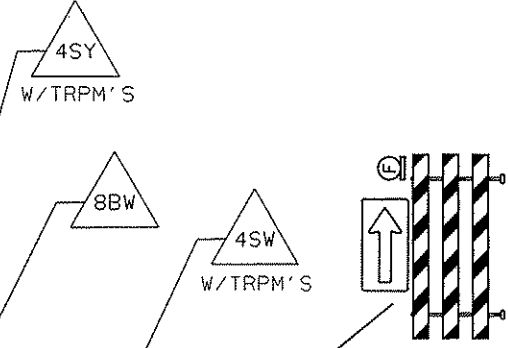
Cassandra Bob
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 555 OF 872 SHEETS

ULYSSES ST

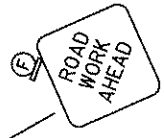
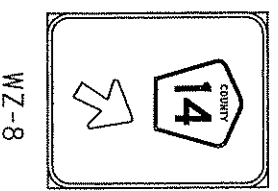
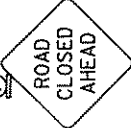


T.H. 65

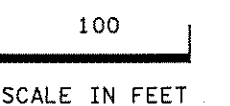
T.H. 65

805

810



ABERDEEN ST



TRAFFIC CONTROL - STAGE 2B

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bobb
LICENSED PROFESSIONAL ENGINEER

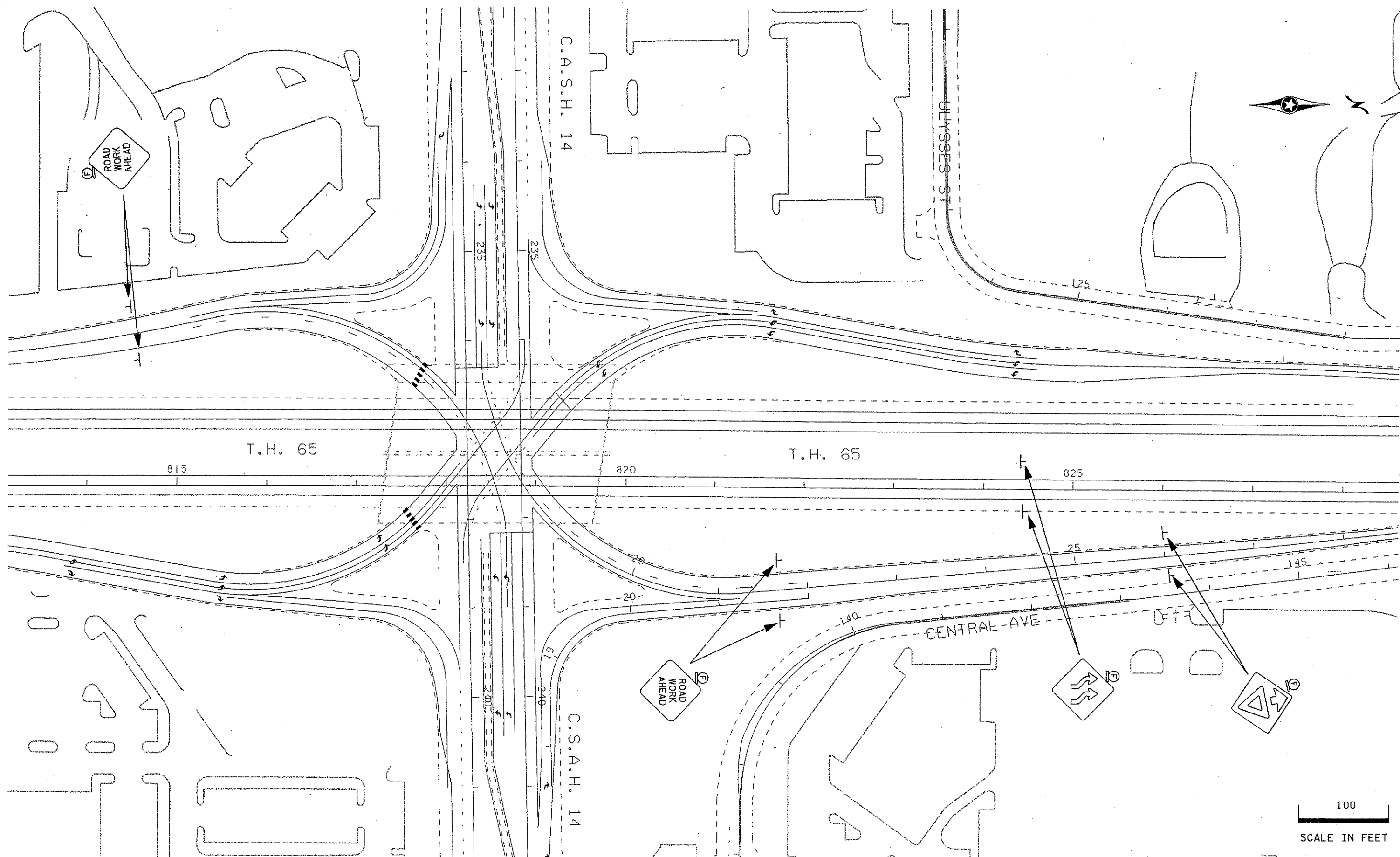
LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 556 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

DRAWN BY: KMF

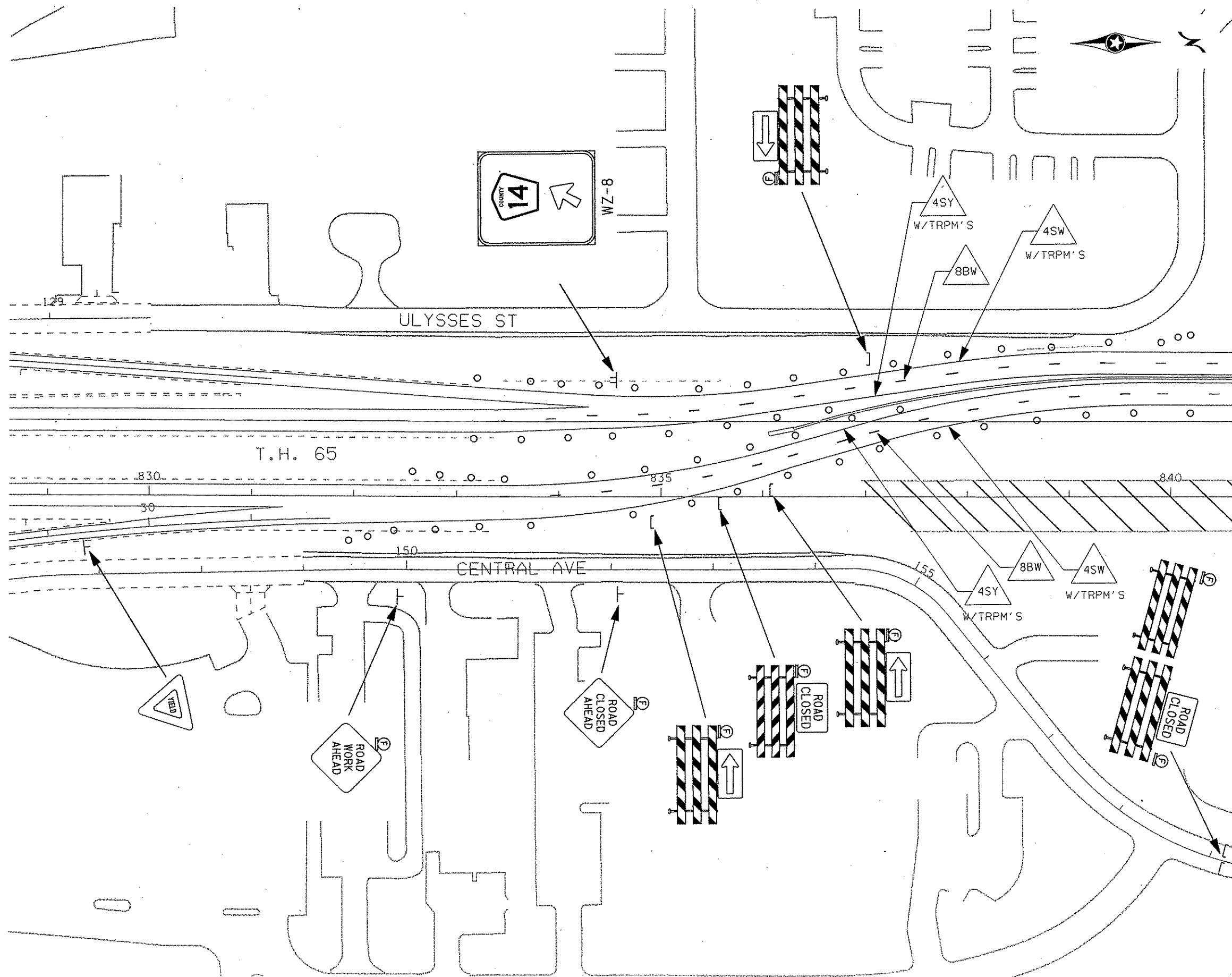
CHECKED BY: MJR

CERTIFIED BY *Cassandra Bob* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 557 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

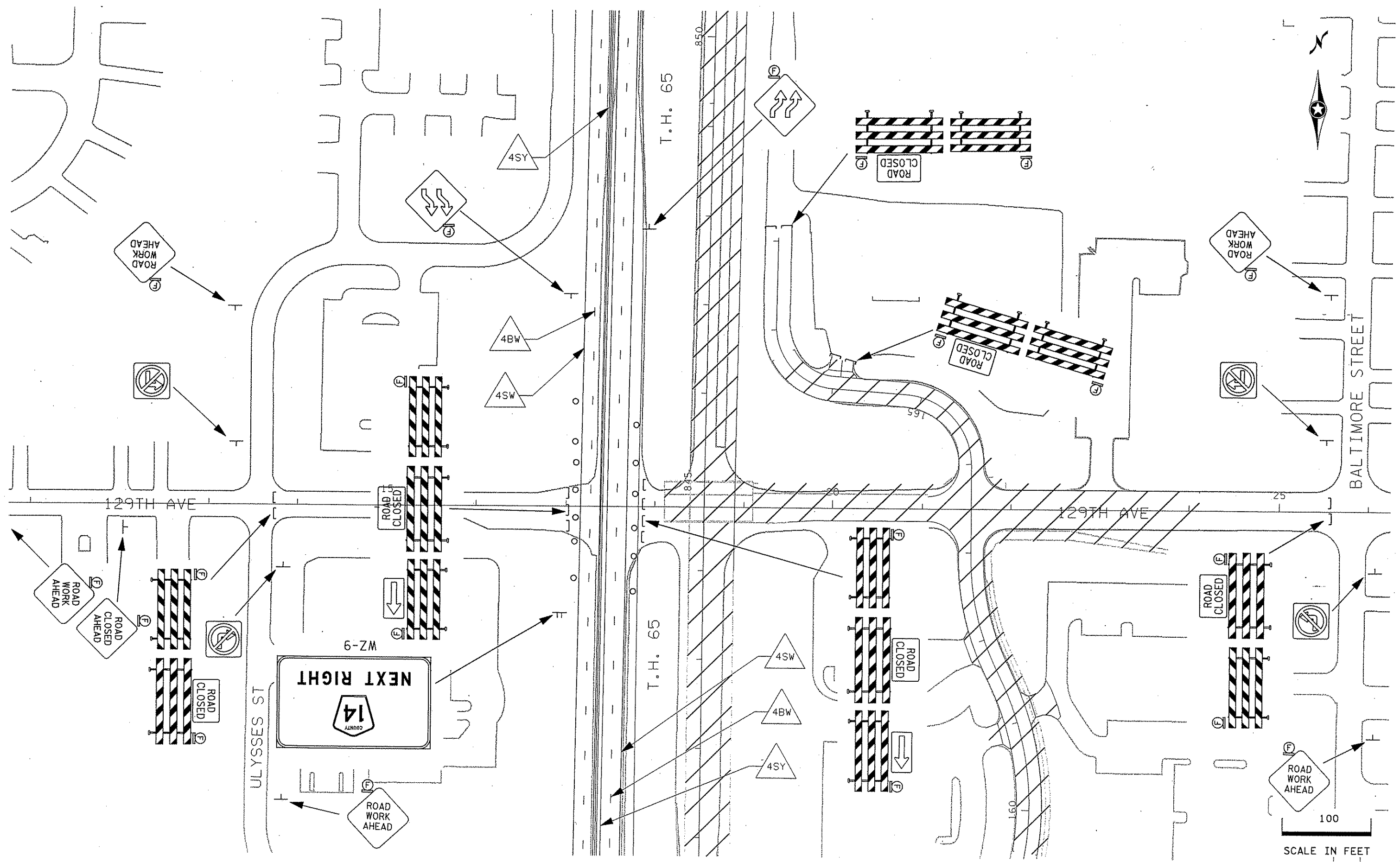
DISTRICT #: METRO
I/PLOT NAME: 10208123_tcsf2bdr16
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100
SCALE IN FEET

TRAFFIC CONTROL - STAGE 2B

DISTRICT #: METRO
 PLOT NAME: 10208123_jcsf2bdr17
 PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\sheet\0208123_jcsf2bdr1.dgn
 PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

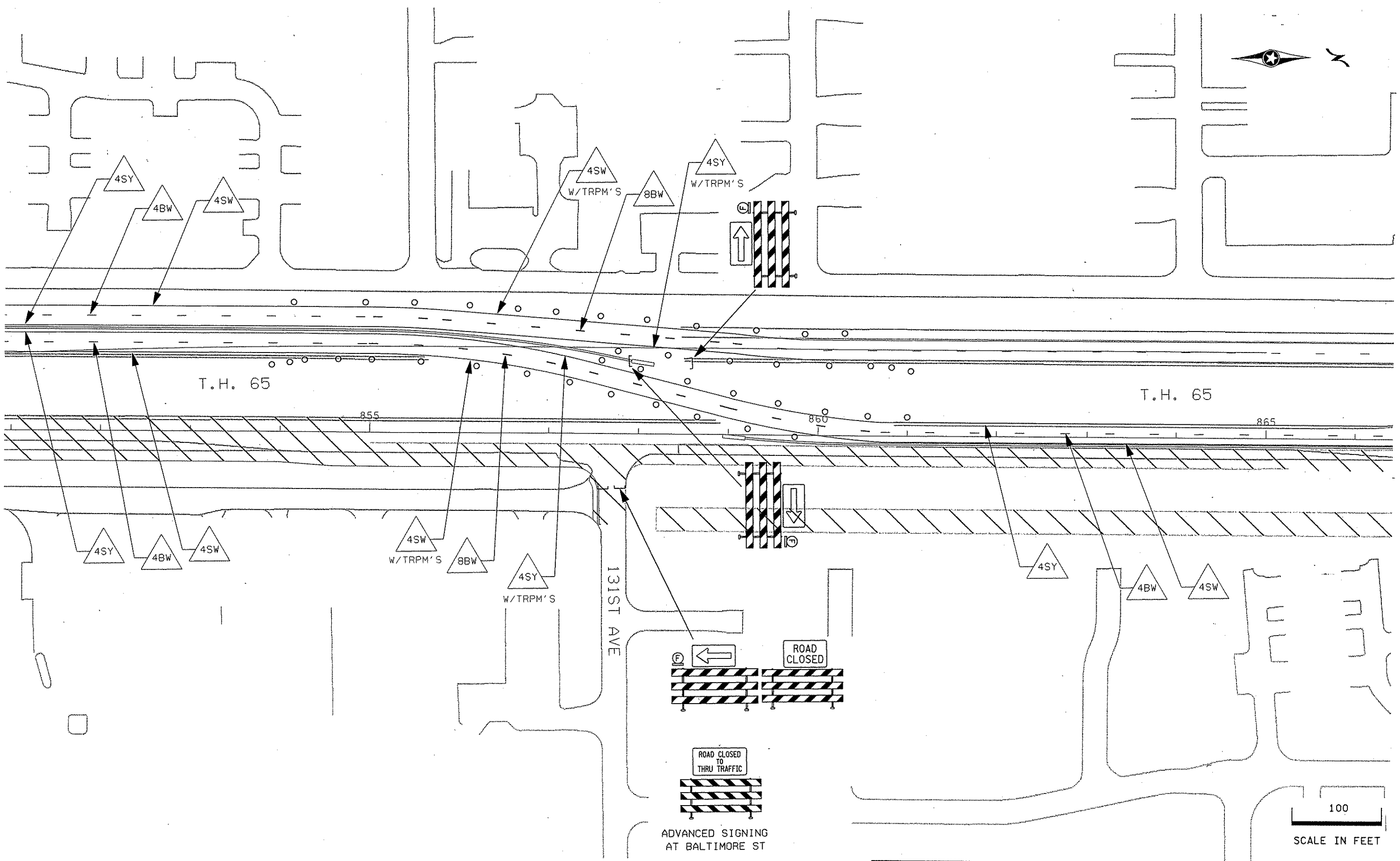
CHECKED BY: MJR

CERTIFIED BY Cassandra Cook LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 2B
 STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 559 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_jcs12bdr18
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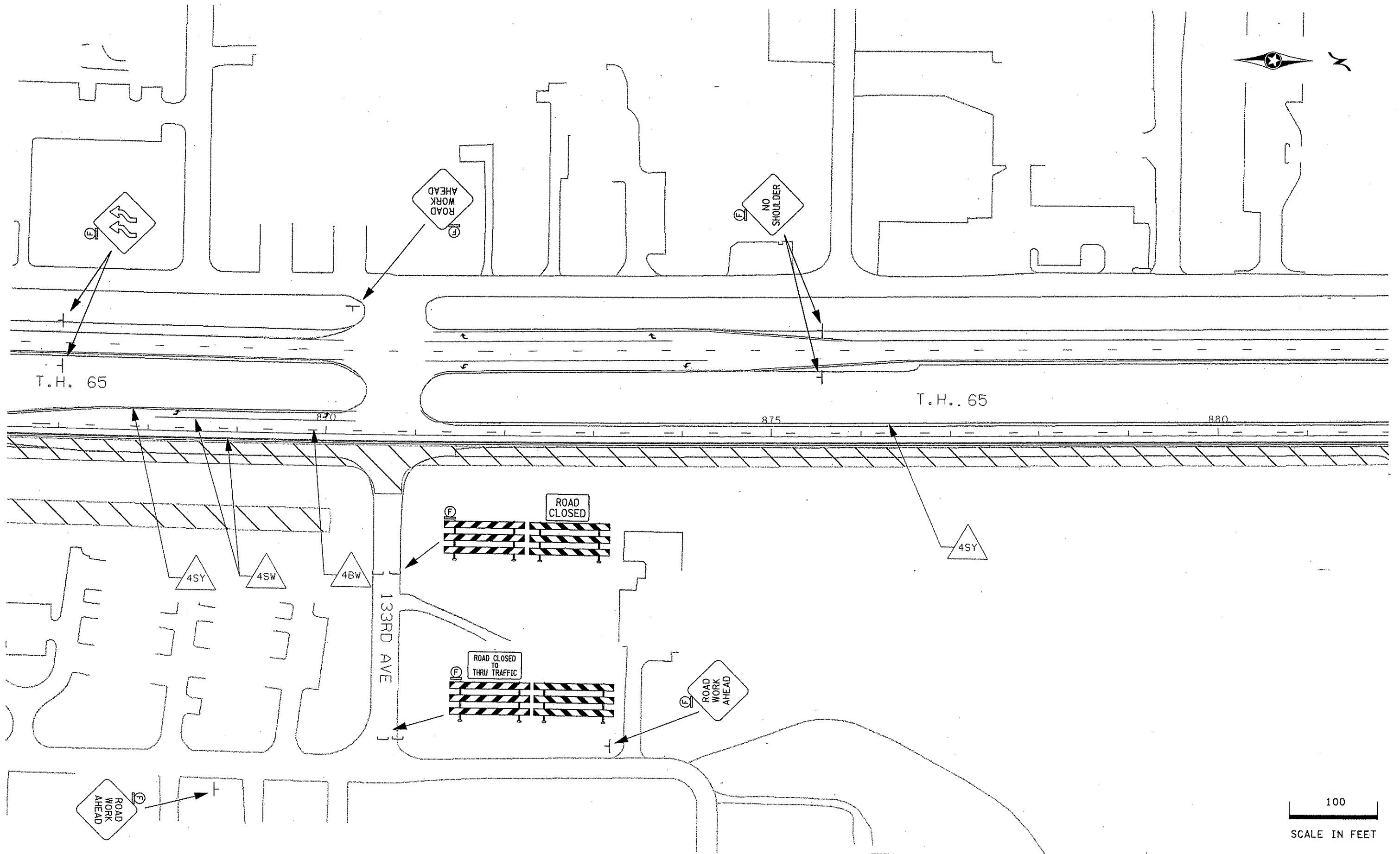
PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 2B

DISTRICT #: METRO
PLOT NAME: 10208123_Jcst2bldr19
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Brock
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

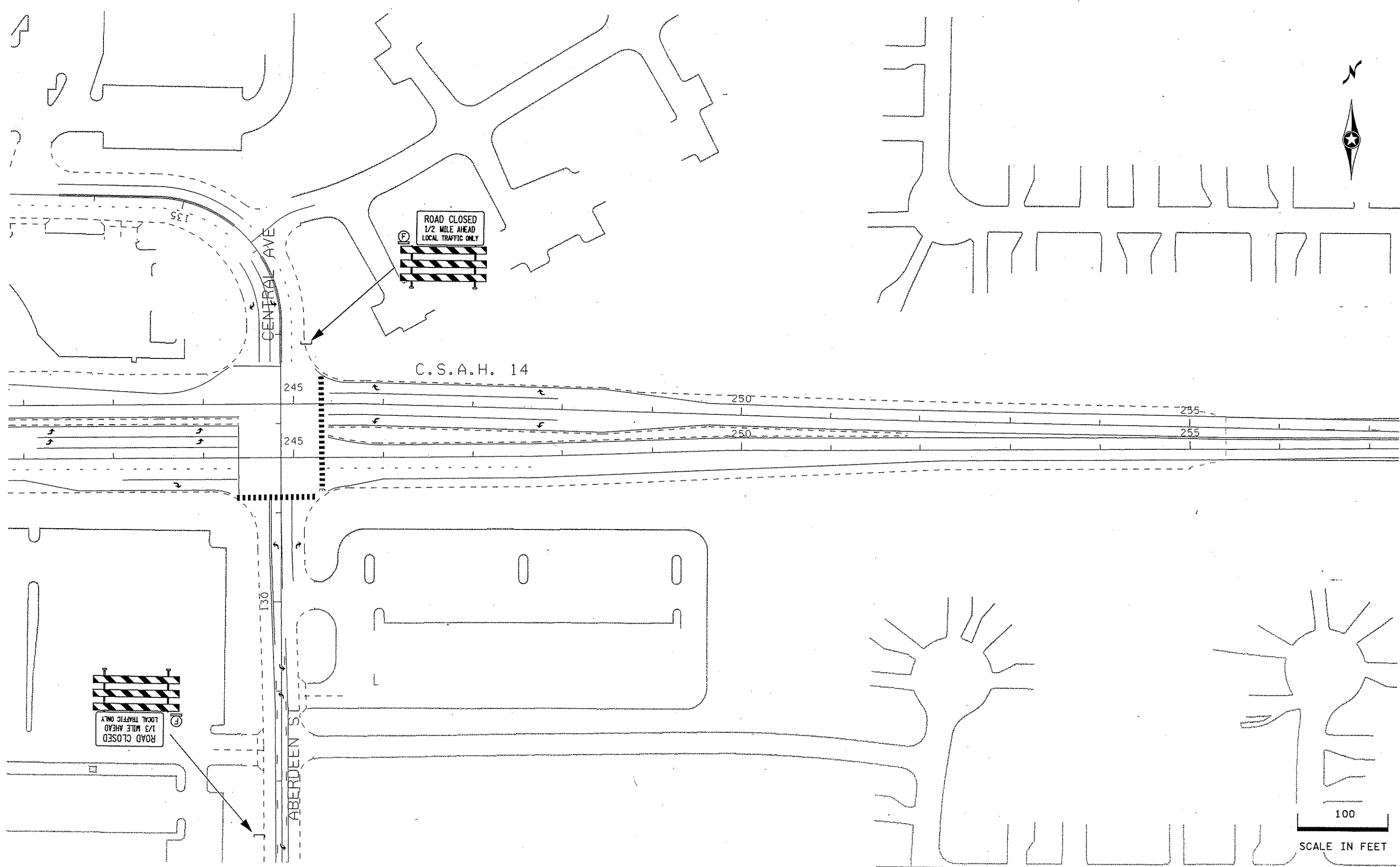
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2B

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 561 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_Jcs12bdr110
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\TC_Sheets\10208123_Jcs12bdr1.dgn

PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

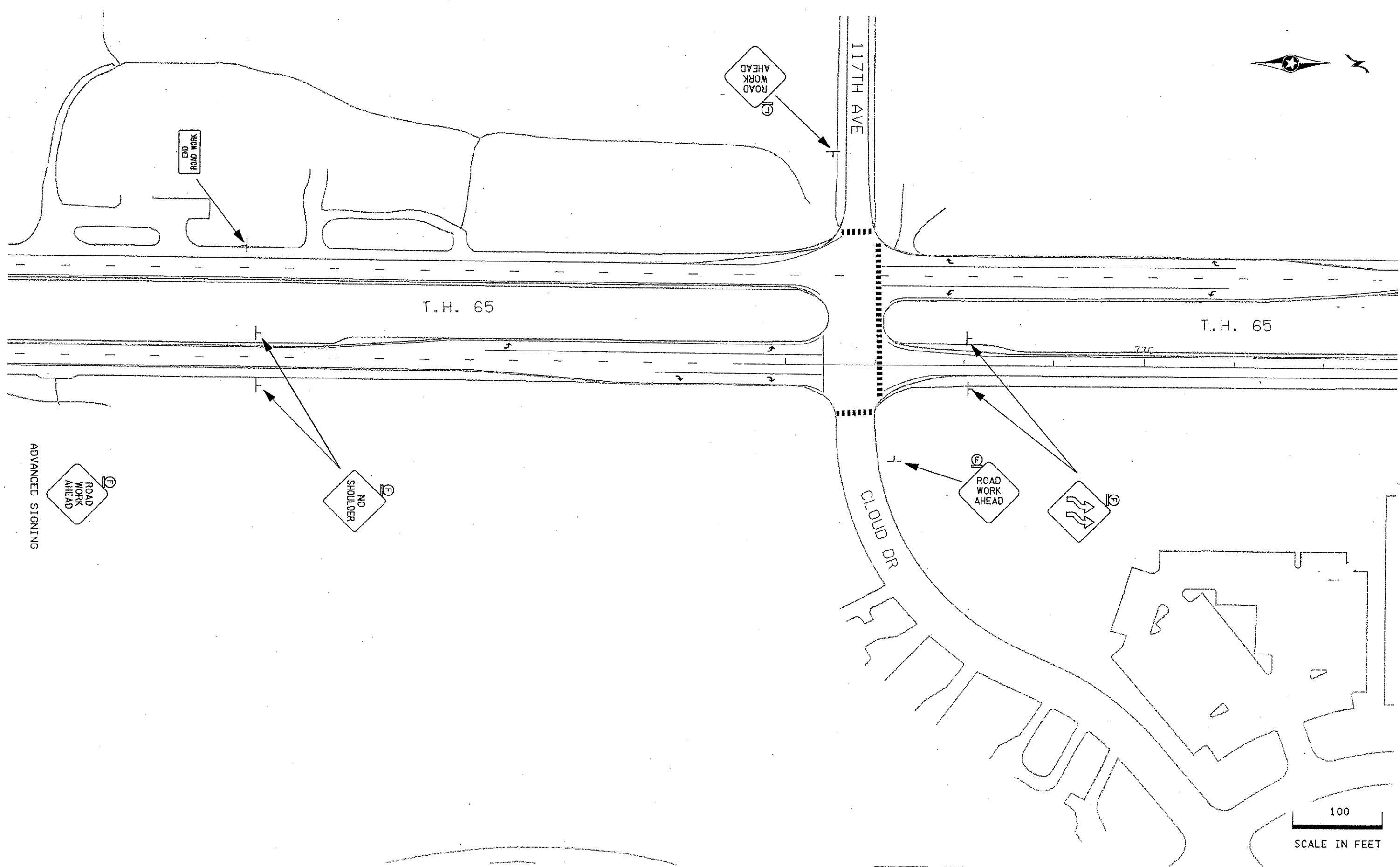
CHECKED BY: MJR

CERTIFIED BY *Cassandra Brob* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 2B
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 562 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_jcst2cbdr1
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\sheet\0208123_jcst2cbdr1.dgn

PLOTTED/REVISED: 1/31/2007



DISTRICT #: METRO
PLOT NAME: 10208123_jcst2cbdr1
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\sheet\0208123_jcst2cbdr1.dgn

ADVANCED SIGNING

TRAFFIC CONTROL - STAGE 2C

DRAWN BY: KMF

CHECKED BY: MJR

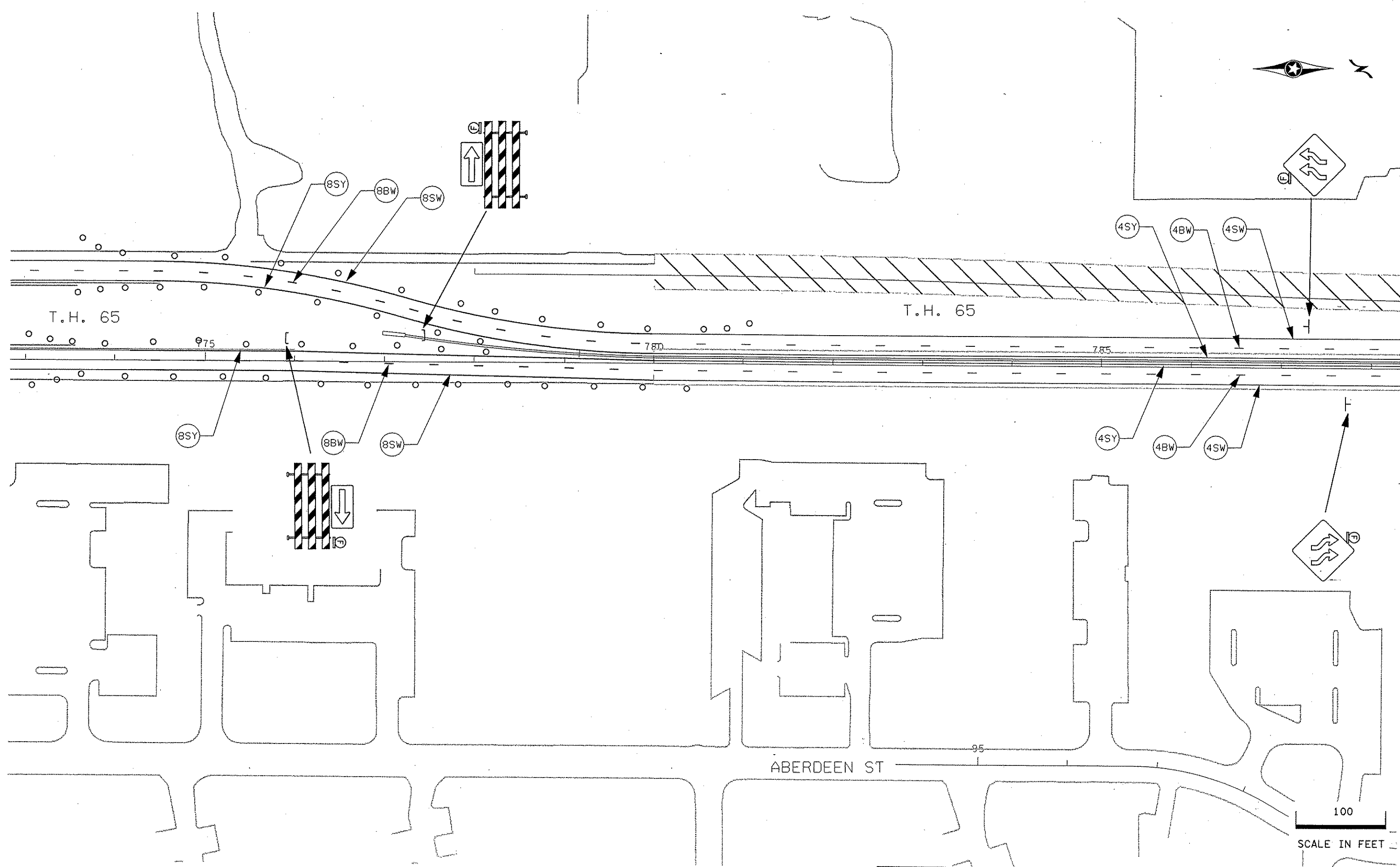
CERTIFIED BY *Cassandra Brock*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 563 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_1cs12cbr11
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PLOTTED/REVISED: 1/31/2007



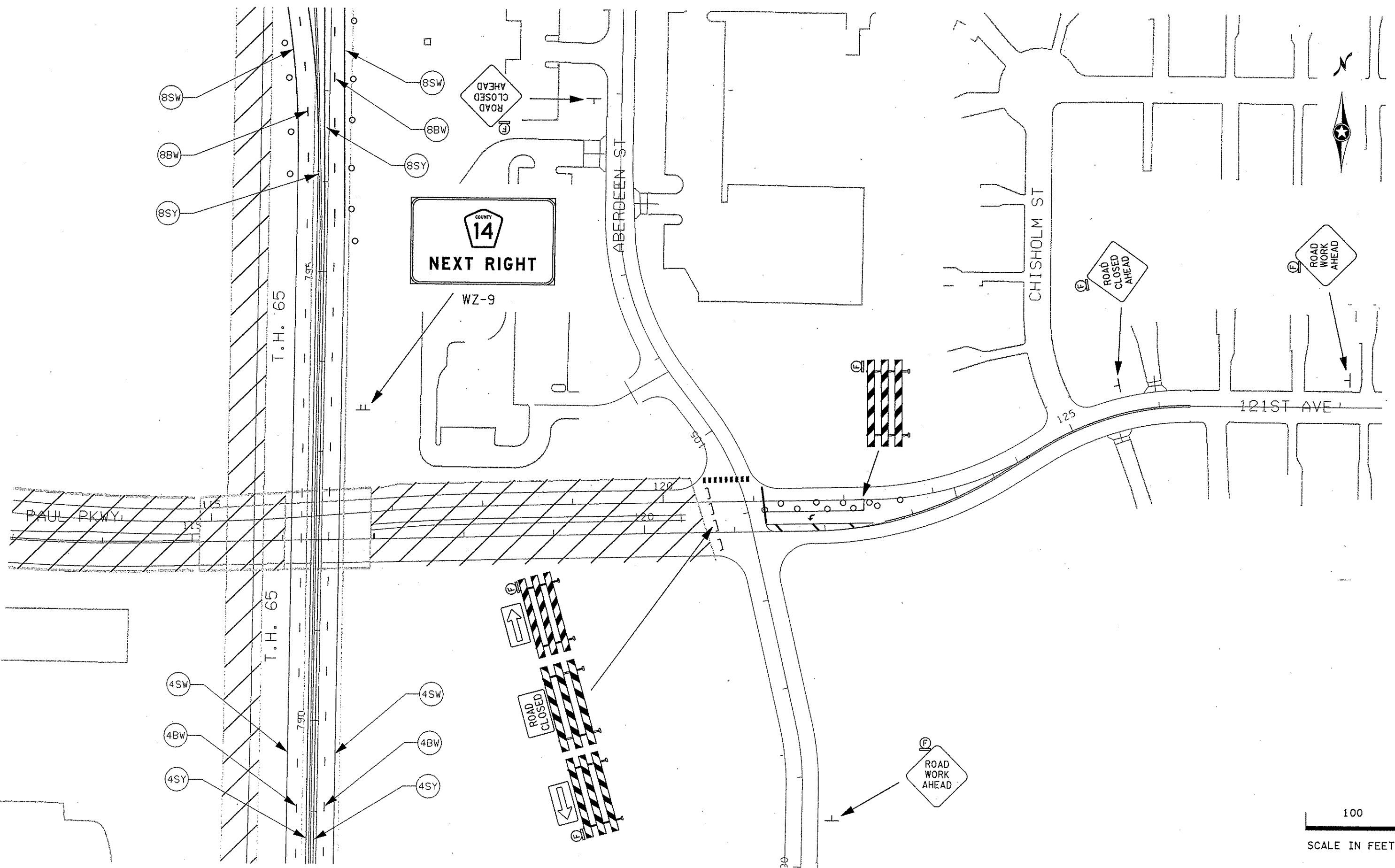
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Probst* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 564 OF 872 SHEETS

DISTRICT #: METRO
I/PLOT NAME: 10208123_tst2cbr12
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PLOTTED/REVISED: 1/31/2007



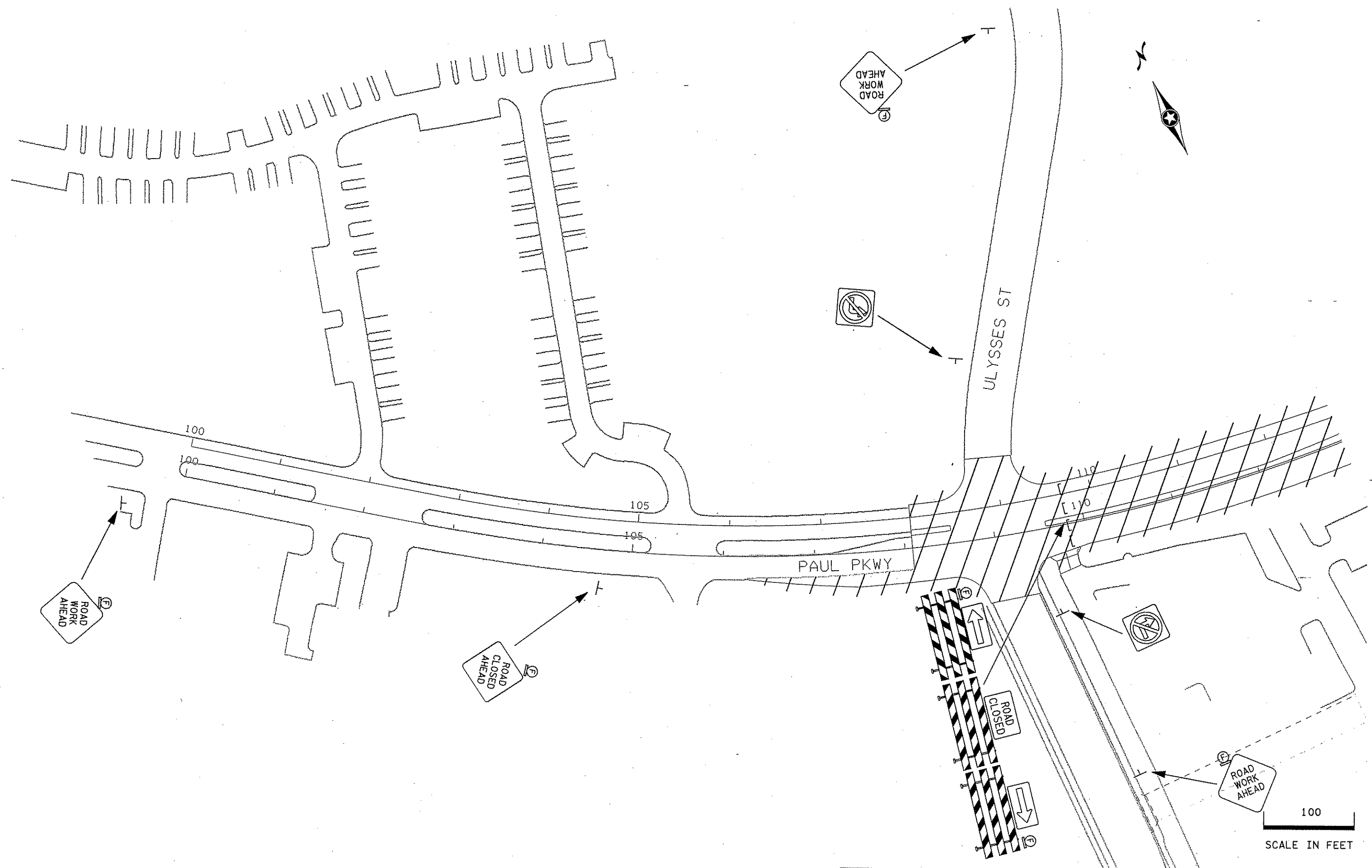
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brub* LIC. NO. 26429 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

TRAFFIC CONTROL - STAGE 2C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 565 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 10208123_1cst2cbr13
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208123\TC\Sheets\0208123_1cst2cbr1.dgn
PLOTTED/REVISED: 1/31/2007



TRAFFIC CONTROL - STAGE 2C

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brob*
LICENSED PROFESSIONAL ENGINEER

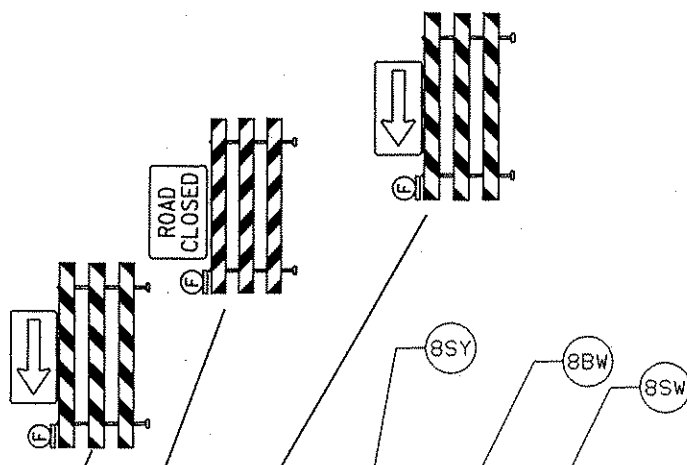
LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 566 OF 872 SHEETS

ULYSSES ST



ROAD CLOSED



8SY

8BW

8SW

T.H. 65

T.H. 65

800

805

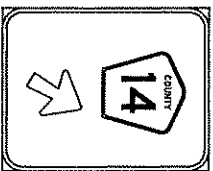
810

8SY

8BW

8SW

8-ZM



ABERDEEN ST

100

SCALE IN FEET

TRAFFIC CONTROL - STAGE 2C

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Brook
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

DATE 1/31/2007

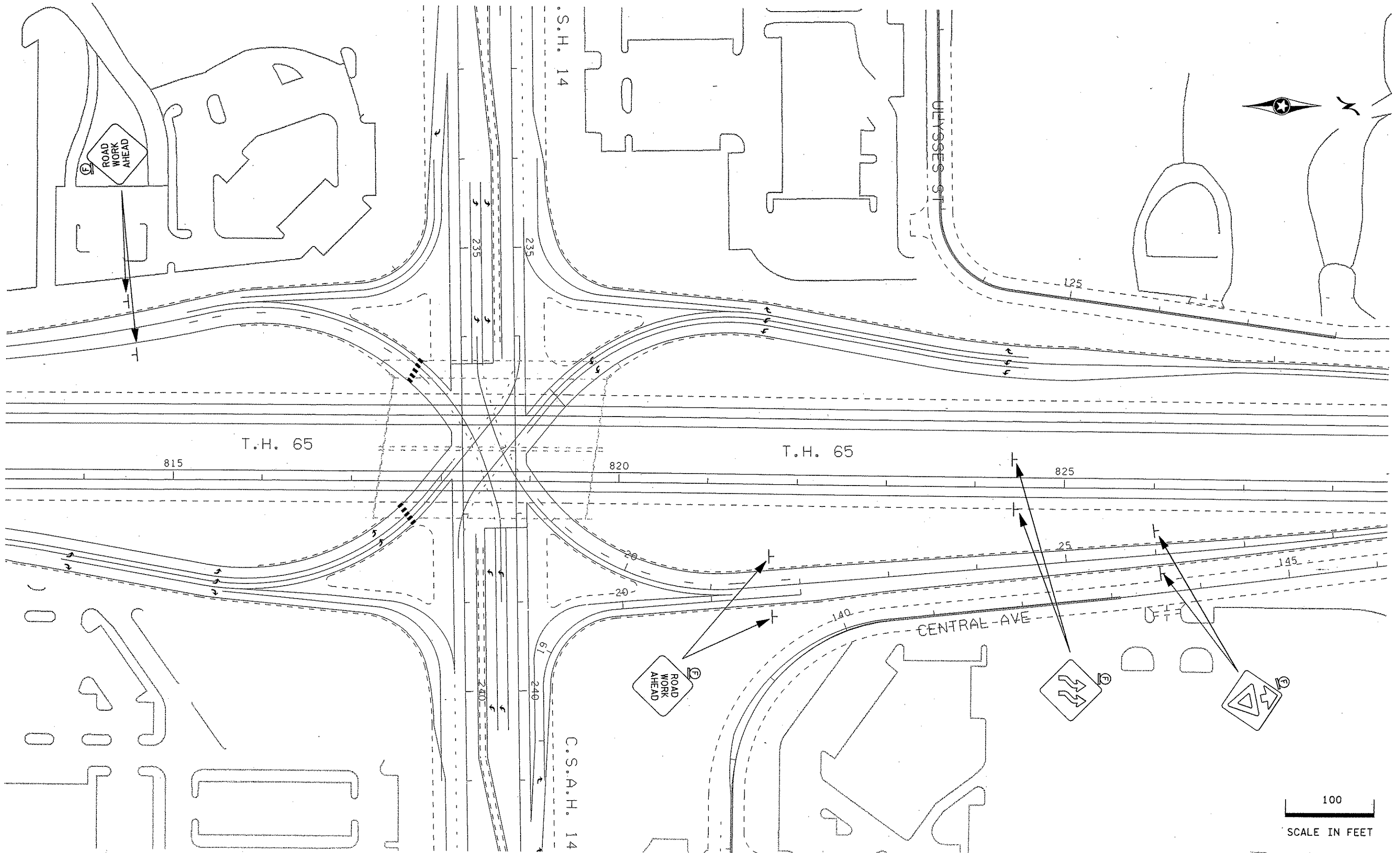
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 567 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_TrafficControl14
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PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
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DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bach
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

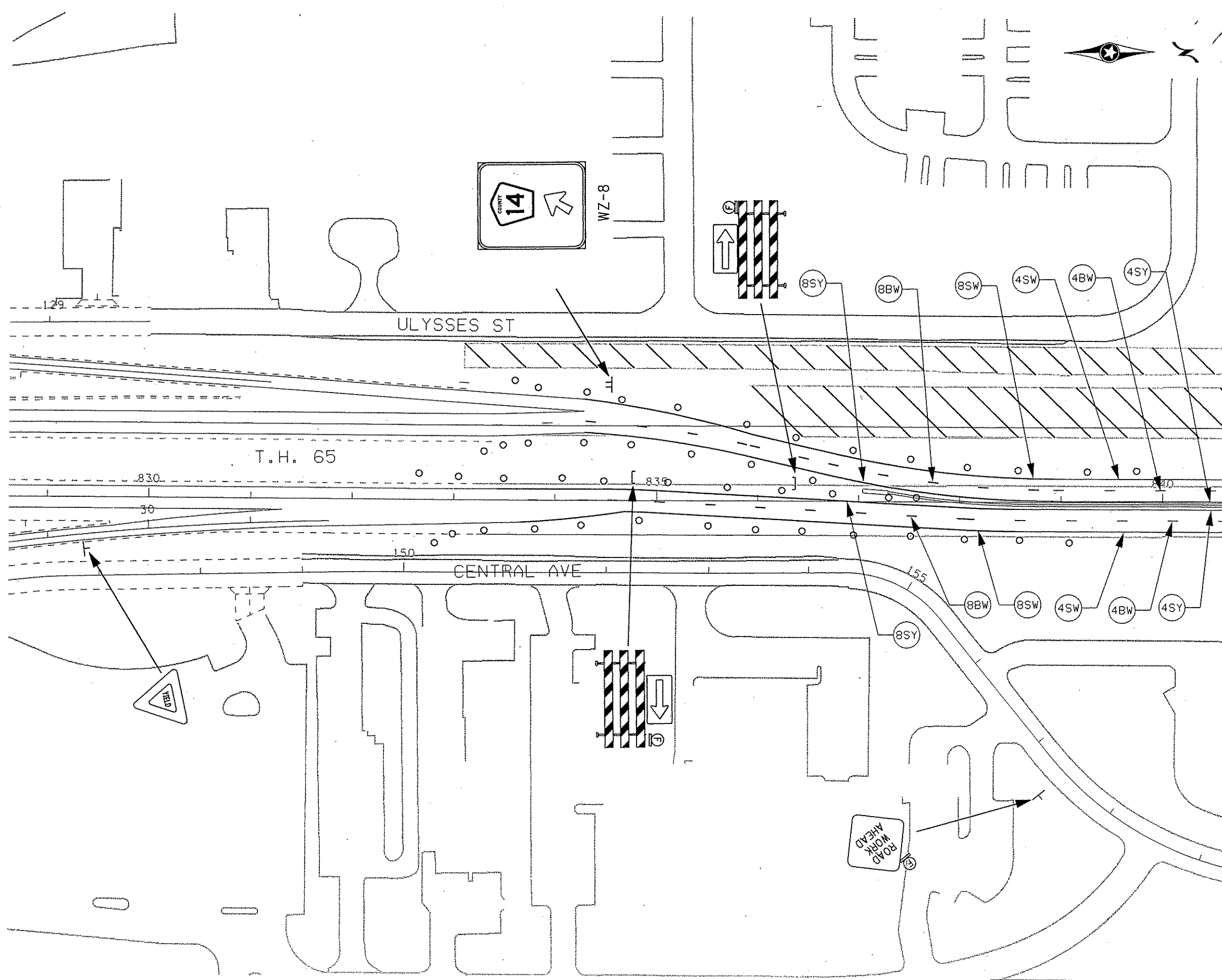
DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2C

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 568 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100
SCALE IN FEET

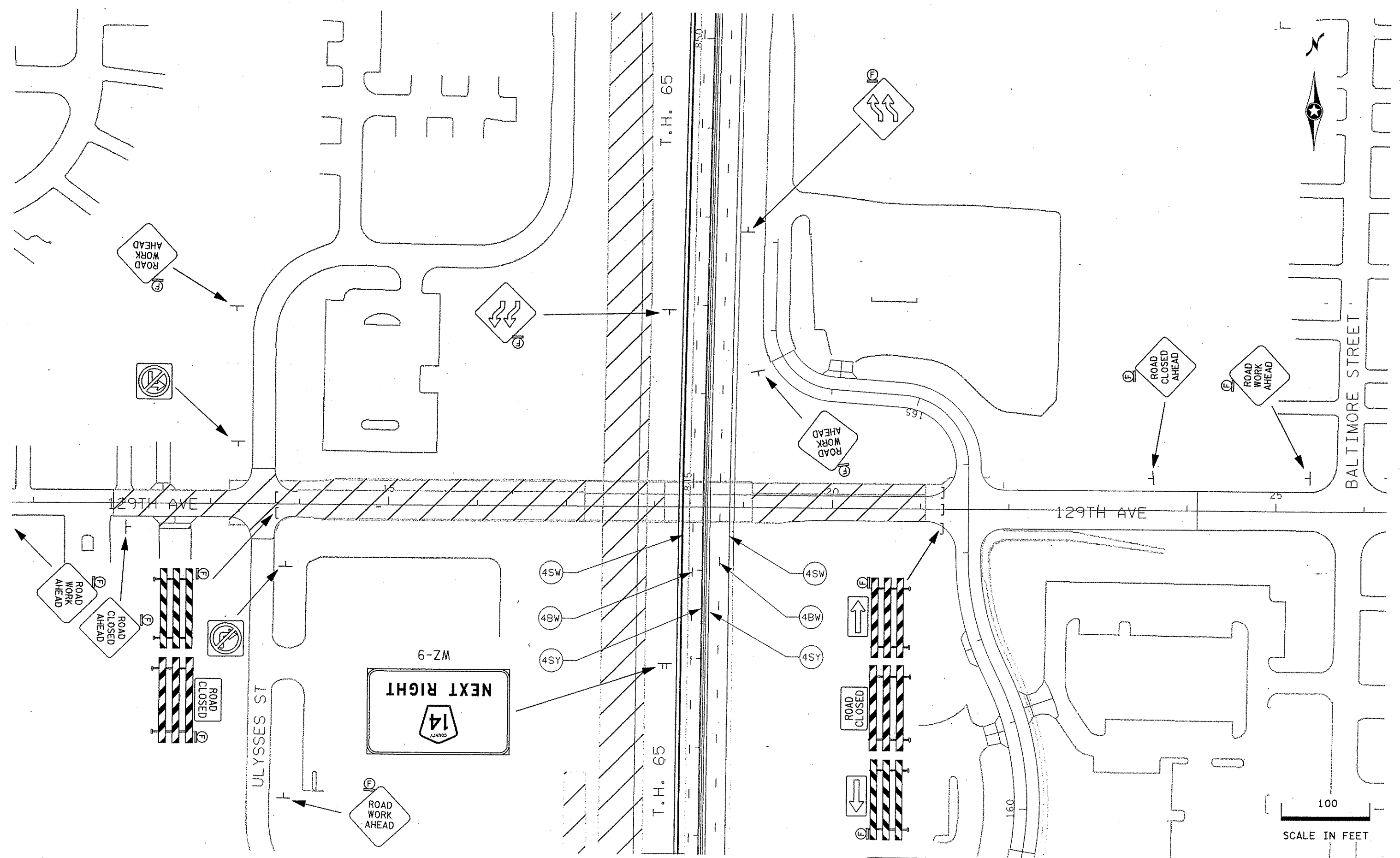
DRAWN BY: KMF

CHECKED BY: MJR

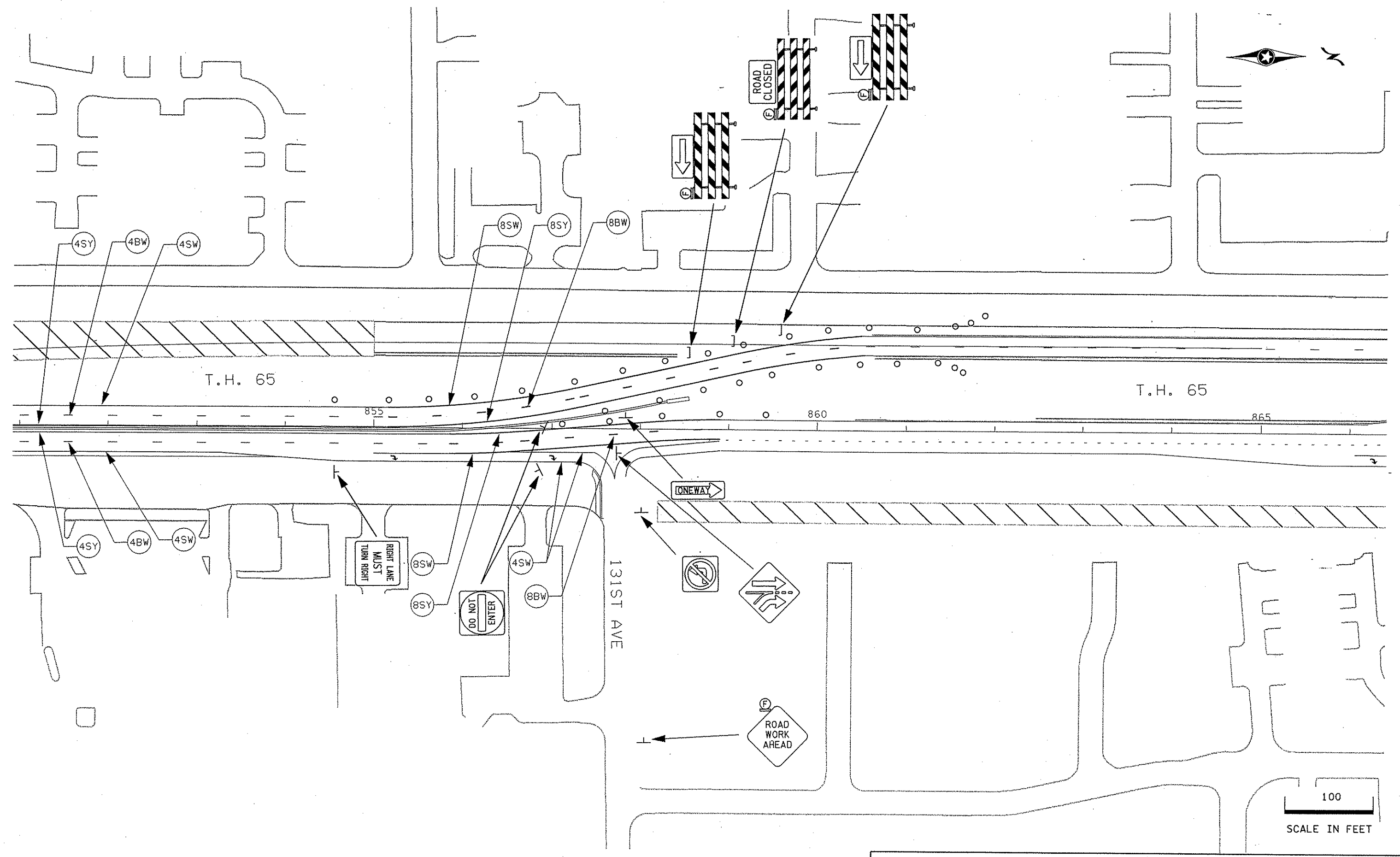
CERTIFIED BY *Cassandra Brob* LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 569 OF 872 SHEETS

DISTRICT #: METRO
 IPLOT NAME: 10208123_fcs12obdr17
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 PLOTTED/REVISED: 1/31/2007



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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

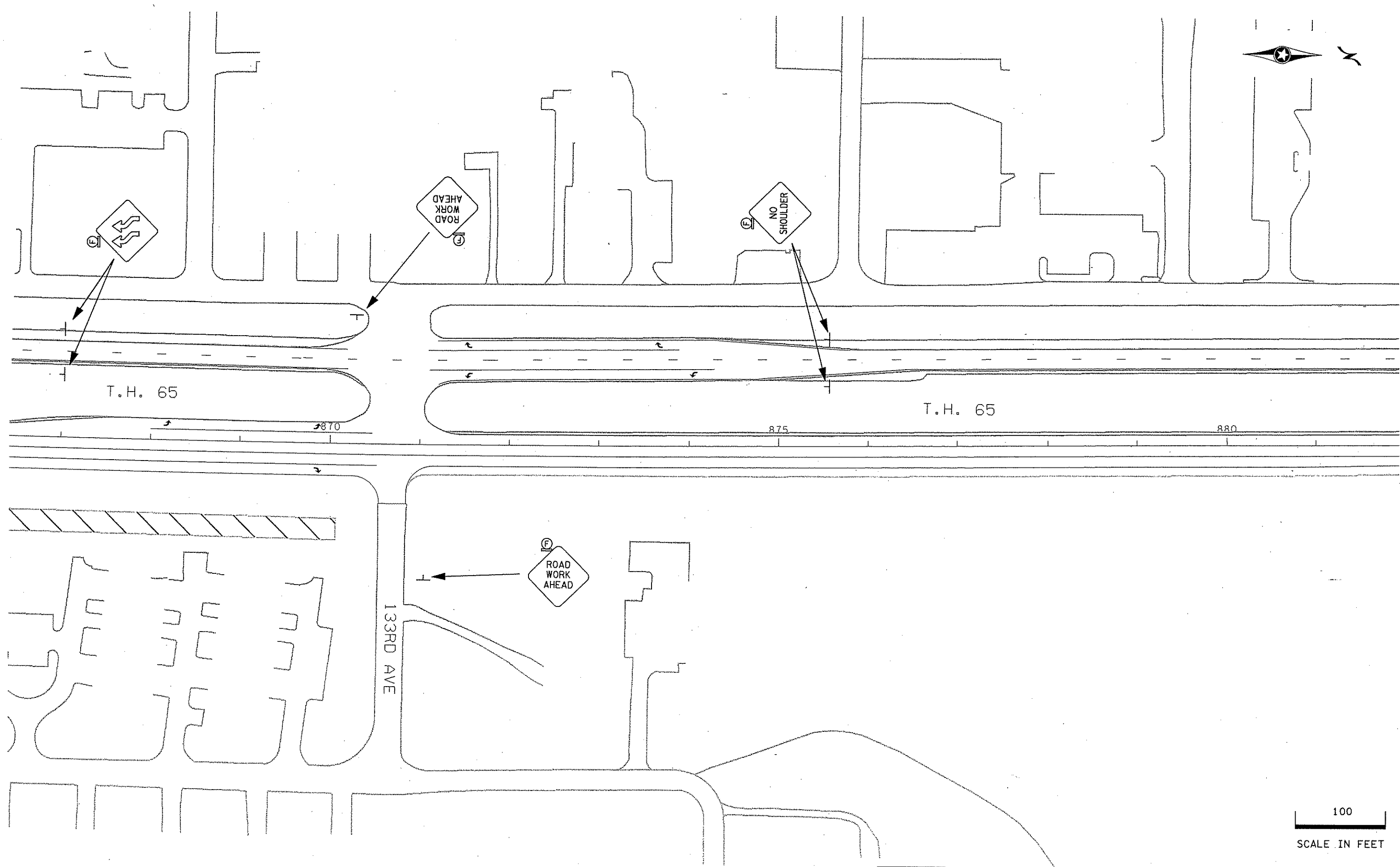
CERTIFIED BY *Cassandra Froh*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

TRAFFIC CONTROL - STAGE 2C
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 571 OF 872 SHEETS

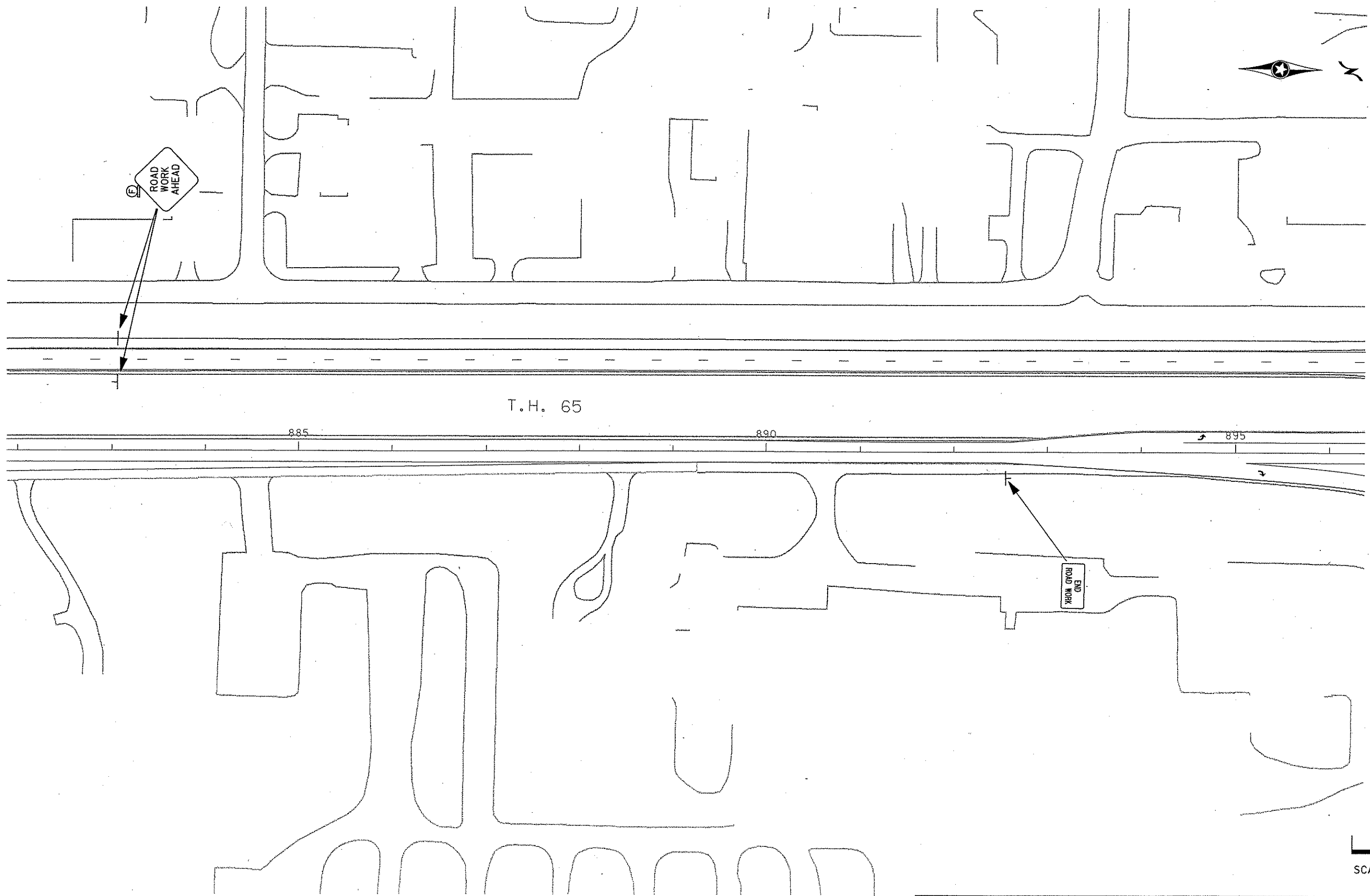
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PLOTTED/REVISED: 1/31/2007



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PLOTTED/REVISED: 1/31/2007



T.H. 65

885

890

895

END
ROAD
WORK

100
SCALE IN FEET

TRAFFIC CONTROL - STAGE 2C

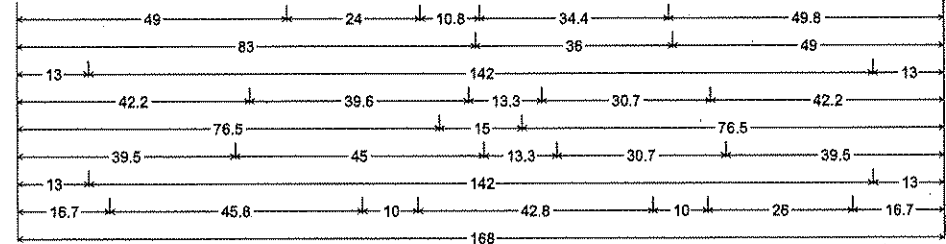
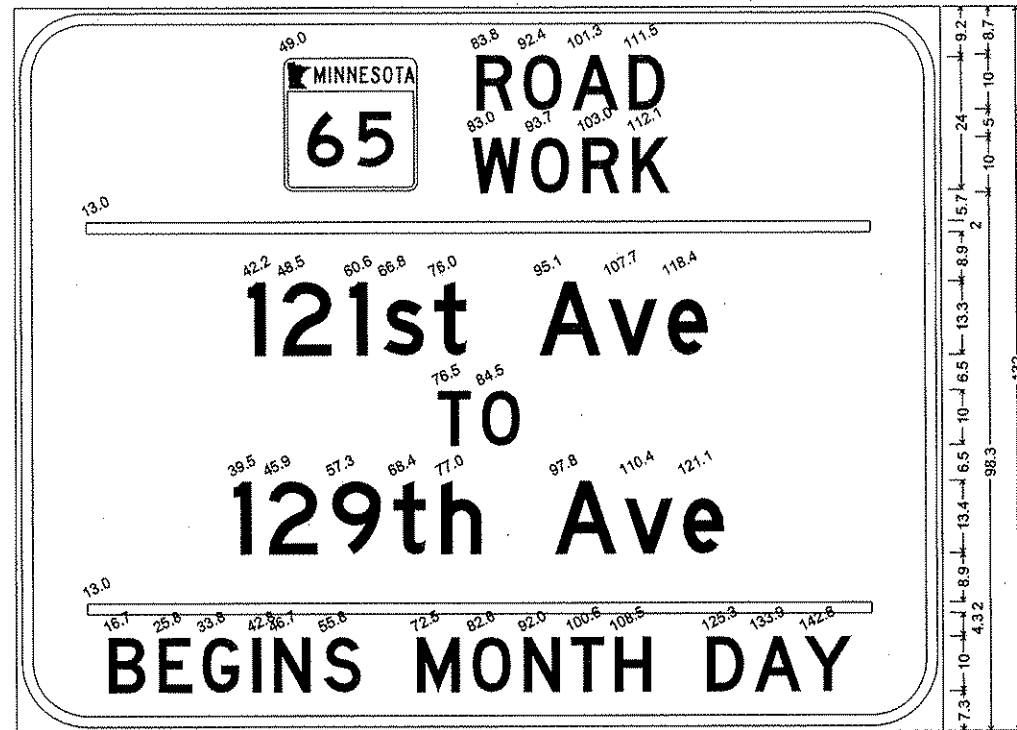
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Barb* LIC. NO. 26429 DATE 1/31/2007

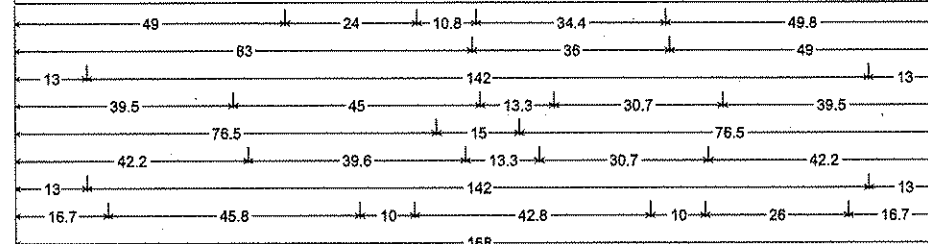
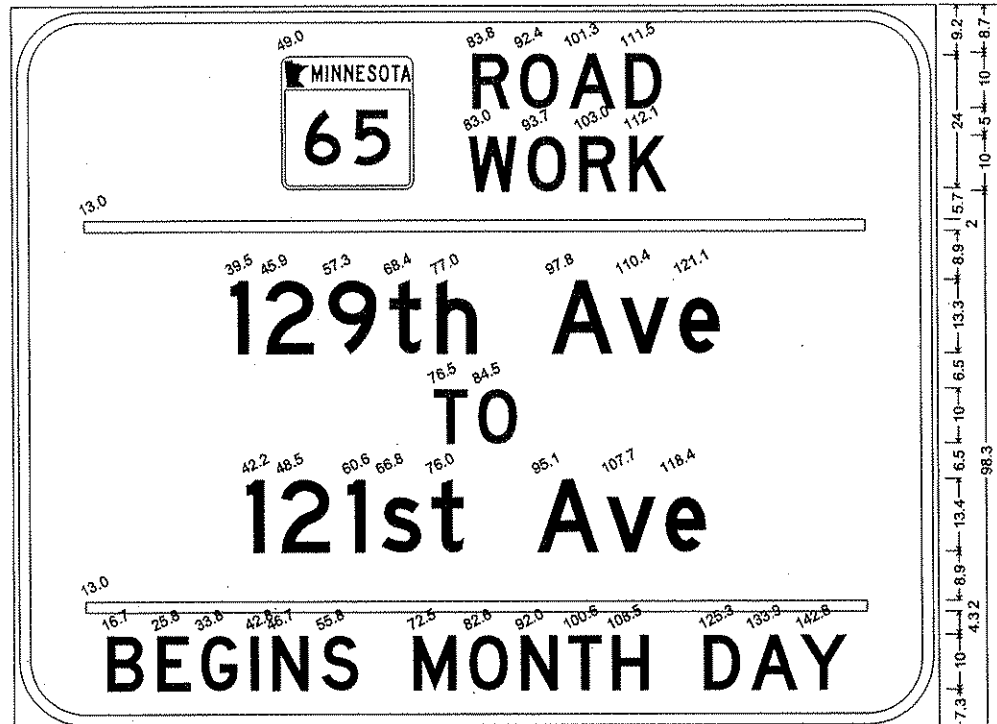
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 573 OF 872 SHEETS

SPECIAL SIGN DETAILS



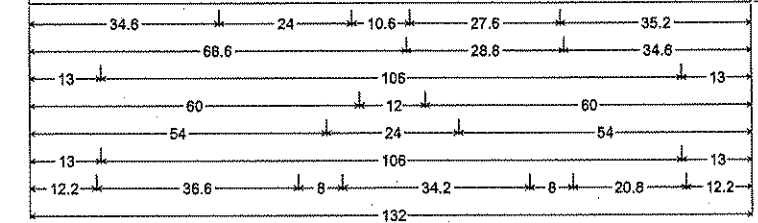
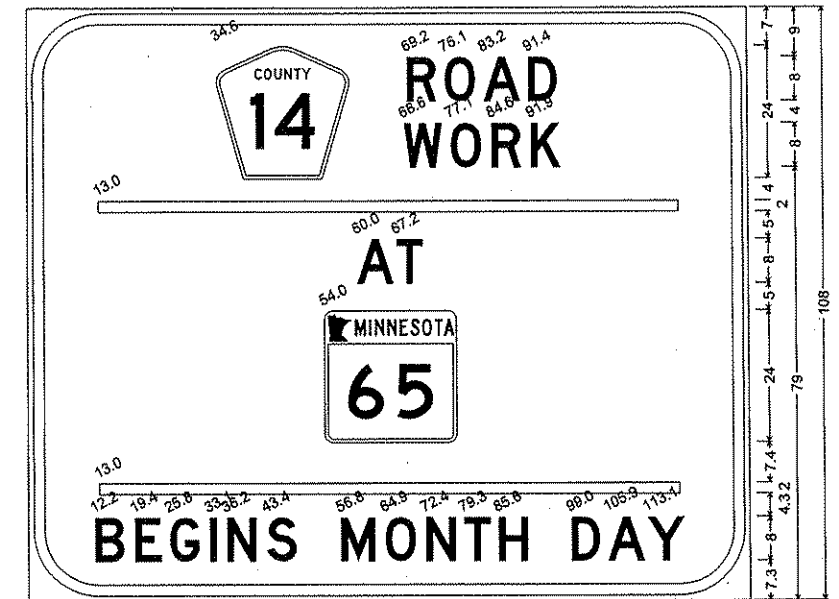
WZ-1; 13.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;
[ROAD] D; [WORK] D; [121st Ave] D; [TO] D; [129th Ave] D; [BEGINS MONTH DAY] D;

MAKE 3



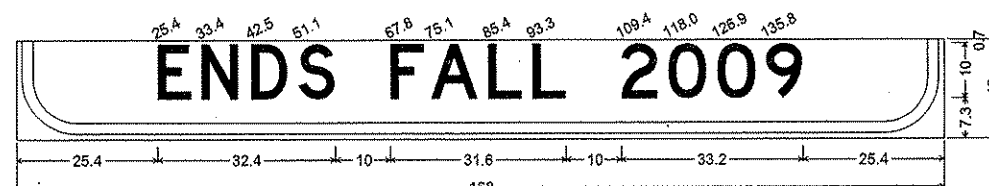
WZ-2; 13.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;
[ROAD] D; [WORK] D; [129th Ave] D; [TO] D; [121st Ave] D; [BEGINS MONTH DAY] D;

MAKE 1



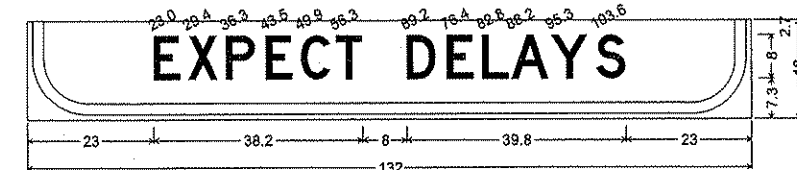
WZ-4; 13.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;
[ROAD] D; [WORK] D; [AT] D; [BEGINS MONTH DAY] D;

MAKE 3



WZ-3; 11.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;
[ENDS FALL 2009] D;

MAKE 4



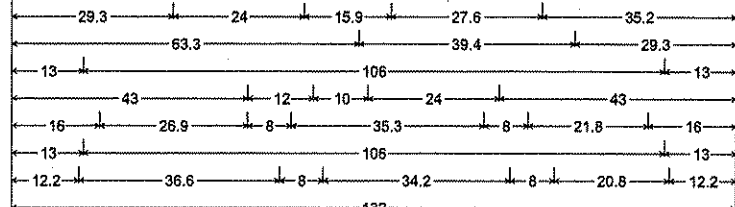
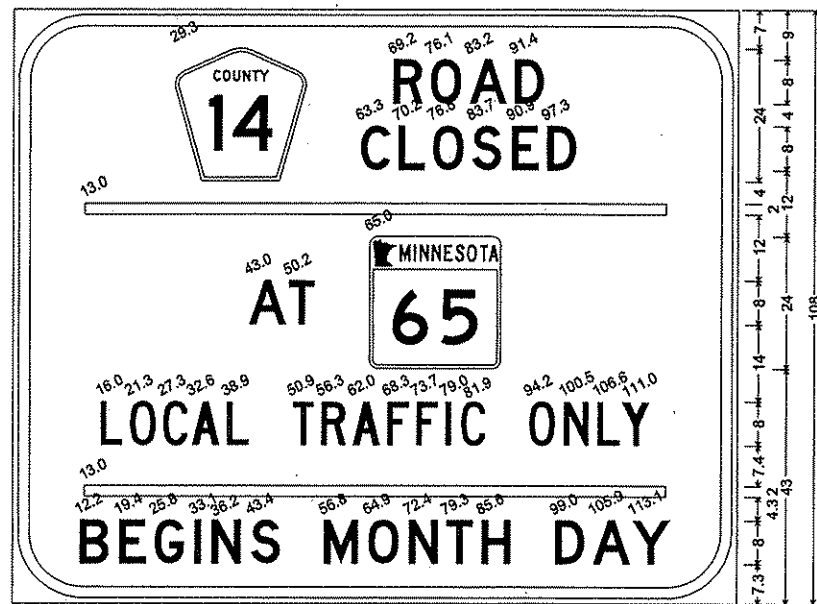
WZ-5; 11.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange;
[EXPECT DELAYS] D;

MAKE 4

PLOTTED/REVISED: 4/11/2007

DISTRICT #: METRO
IPLOT NAME: 10208-123_specs\signs_fc.tshl2
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123_typicals_fc.tshl2

SPECIAL SIGN DETAILS



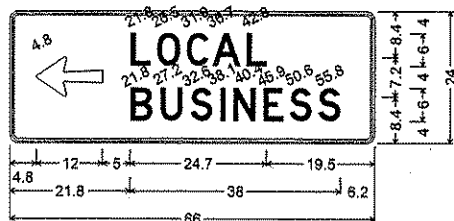
WZ-6; 13.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange; [ROAD] D; [CLOSED] D; [AT] D; [LOCAL TRAFFIC ONLY] C; [BEGINS MONTH DAY] D;

MAKE 6



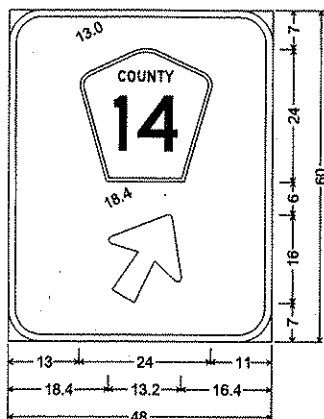
WZ-7; 11.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange; [FOLLOW DETOUR] D;

MAKE 5



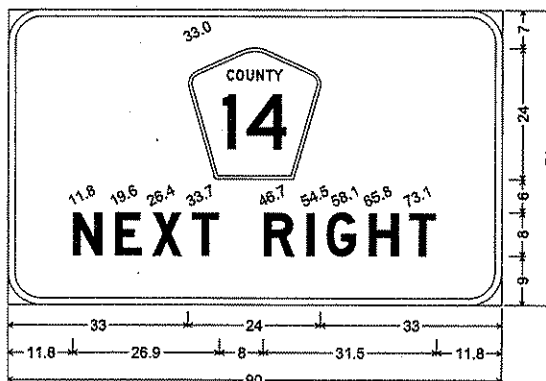
WZ-14; 1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange; Arrow 12 - 12.0° 180°; [LOCAL] D; [BUSINESS] D;

MAKE 2



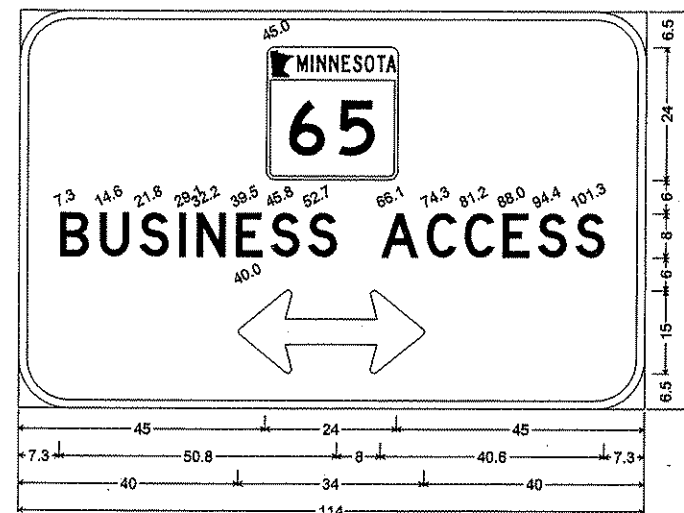
WZ-8; 6.0" Radius, 1.3" Border, Black on Orange; Arrow 6 - 17.0° 60°;

MAKE 2



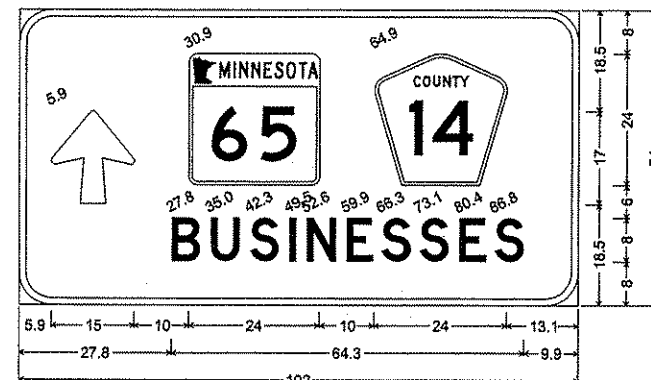
WZ-9; 6.0" Radius, 1.3" Border, Black on Orange; [NEXT RIGHT] D Mod;

MAKE 2



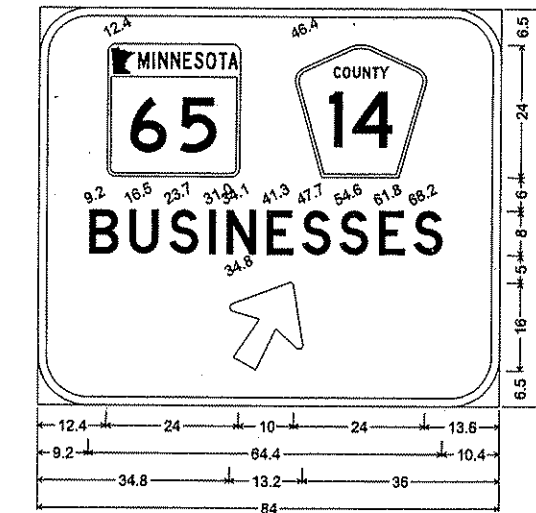
WZ-10; 9.0" Radius, 1.5" Border, Black on Orange; [BUSINESS ACCESS] D; Double Headed Arrow 6 - 34.0° 0°;

MAKE 4



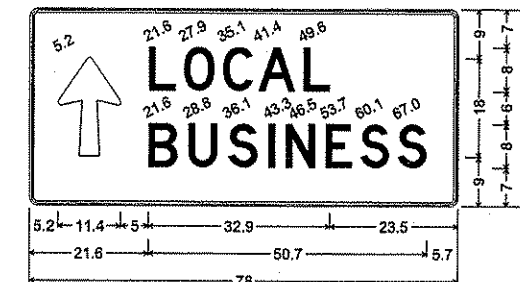
WZ-11; 6.0" Radius, 1.3" Border, Black on Orange; Arrow 6 - 17.0° 90°; [BUSINESSES] D;

MAKE 1



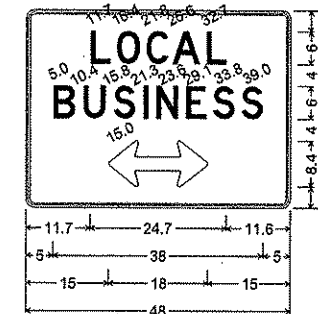
WZ-12; 9.0" Radius, 1.5" Border, Black on Orange; [BUSINESSES] D; Arrow 6 - 17.0° 60°;

MAKE 2



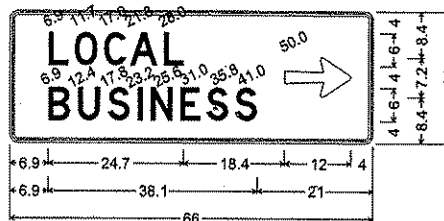
WZ-13; 1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange; Arrow 14 - 18.0° 90°; [LOCAL] D; [BUSINESS] D;

MAKE 2



WZ-16; 1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange; [LOCAL] D; [BUSINESS] D; Double Headed Arrow 3 - 18.0° 0°;

MAKE 2



WZ-15; 1.5" Radius, 0.4" Border, 0.4" Indent, Black on Orange; [LOCAL] D; [BUSINESS] D; Arrow 12 - 12.0° 0°;

MAKE 2

SPECIAL SIGN DETAILS

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Bob
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

DATE 1/31/2007

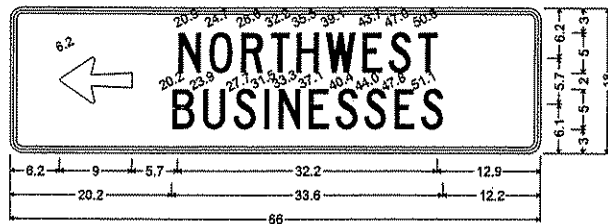
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 575 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

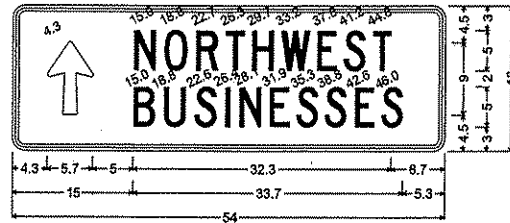
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SPECIAL SIGN DETAILS

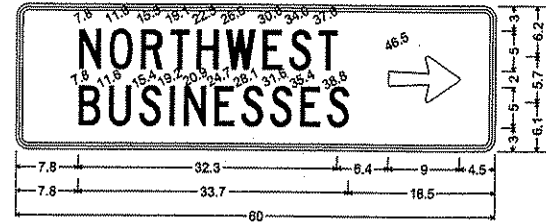
PLOTTED/REVISED: 3/6/2007



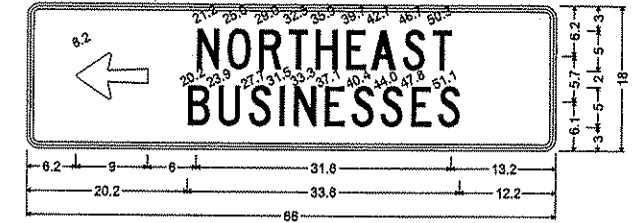
MAKE 3



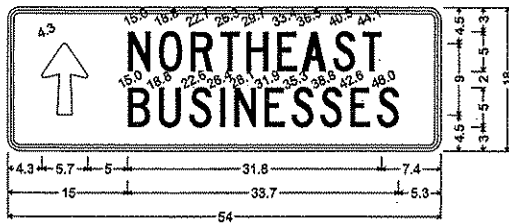
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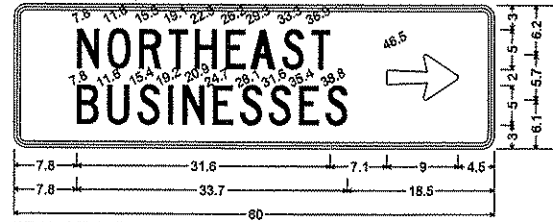
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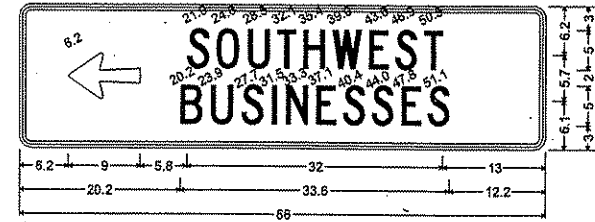
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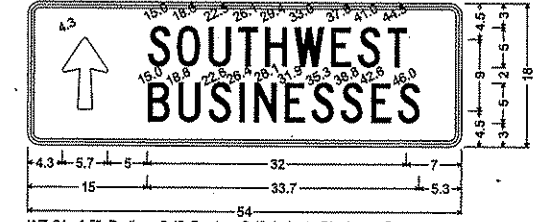
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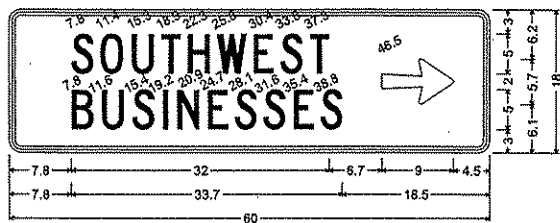
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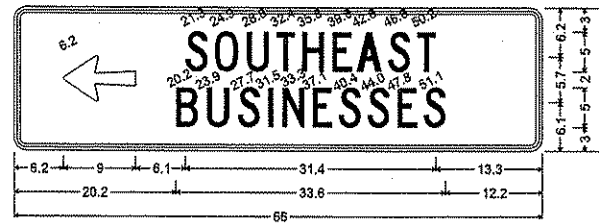
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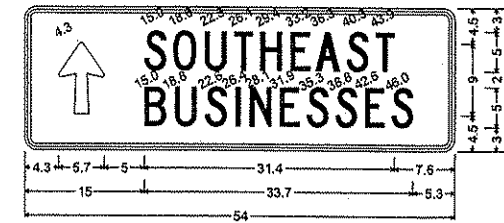
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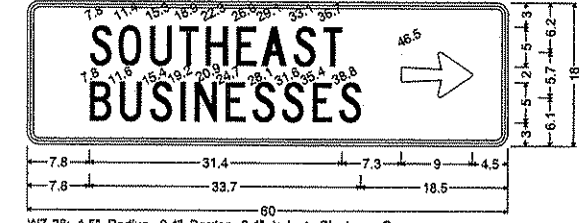
MAKE 4



MAKE 3



MAKE 1



MAKE 2

DISTRICT #: METRO
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PATH & FILENAME: S:\TRAFFIC\Signing\065\0208\123\TVC\0208-123_typicals_fc_tsh.dgn

SPECIAL SIGN DETAILS

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Cook
LICENSED PROFESSIONAL ENGINEER

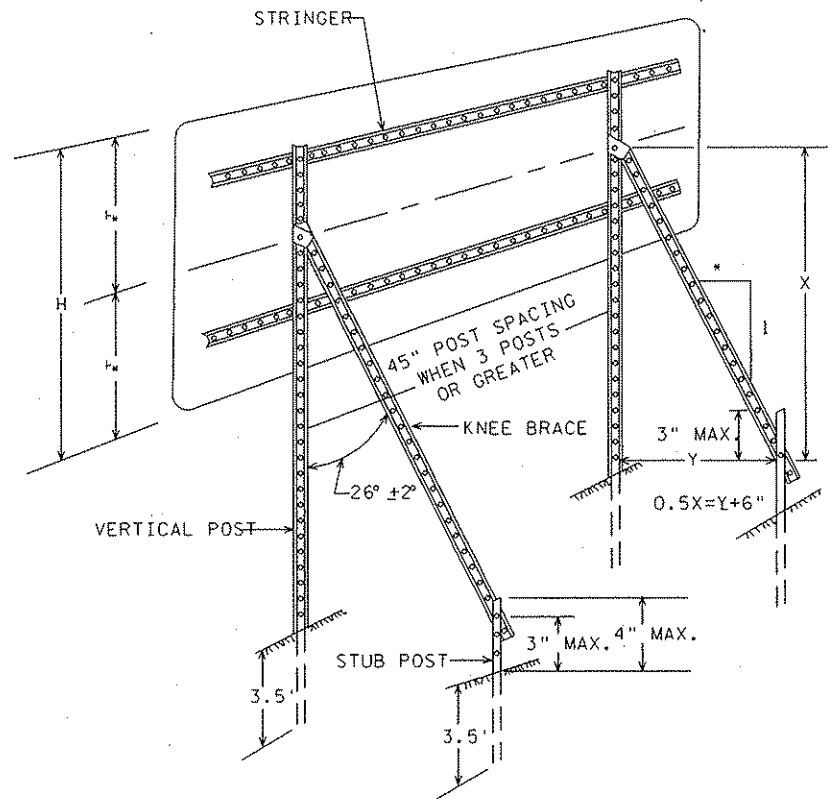
LIC. NO. 26429

DATE 3/6/2007

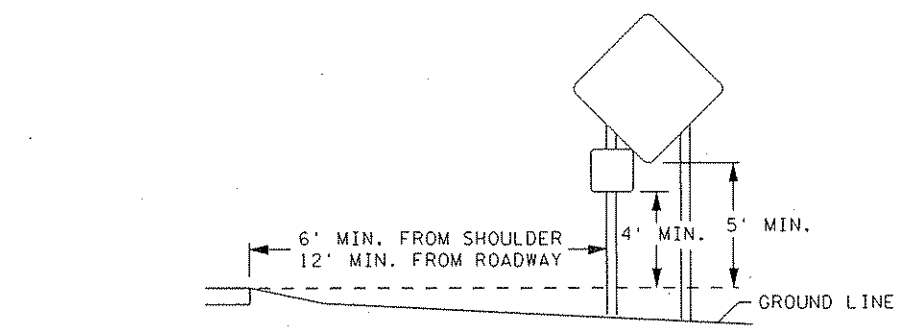
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 576 OF 872 SHEETS

PLOTTED/REVISED: 4/11/2007

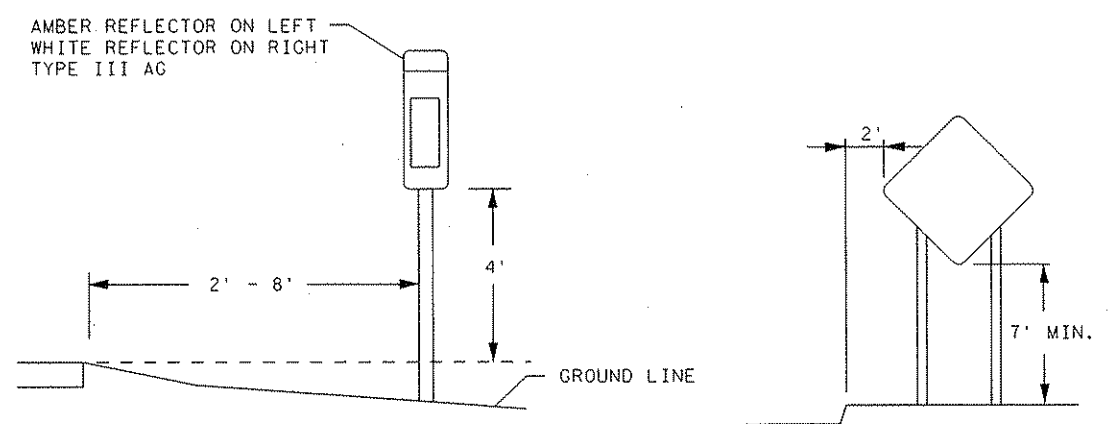
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TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS



TYPICAL RURAL DESIGN



DELINEATION MOUNTING

TYPICAL URBAN DESIGN

SIGN DATA

SIGNS TO BE INSTALLED ON DRIVEN U-POSTS SHALL BE INSTALLED IN ACCORDANCE WITH TABLE 1 OR TABEL 2 BELOW. SIGN PANELS SHALL BE INSTALLED ON SIGN STRUCTURES TO MEET THE MINIMUM 5 FEET DEPICTED ON THE TYPICAL RURAL DESIGN DETAIL, THE 7 FEET DEPICTED ON THE TYPICAL URBAN DESIGN DETAIL, OR MINIMUM 7 AND 9 FEET DEPICTED ON THE TYPICAL MOUNTING DETAIL ON THIS SHEET.

TABLE 1

STANDARD CONSTRUCTION SIGNS IN MN/DOT STANDARD SIGNS MANUAL

PANEL SIZE (IN.)	POSTS			
	NO. & TYPE	SPACING (IN.)	KNEE BRACES QUANT.	LENGTH (FT.)
24 x 24	2-U	18	0	13
30 x 24	2-U	18	0	13
36 x 30	2-U	24	0	13
36 x 36	2-U	18	0	14
42 x 36	2-U	30	0	14
48 x 48	2-U	30	0	15
60 x 60	2-U	42	1	16
72 x 72	2-U	42	2	17
96 x 54	2-U	54	2	16
168 x 132	4-U	48	4	20

GENERAL NOTES:
 1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
 2. SEE STANDARD SIGNS MANUAL FOR PUNCHING HOLES.

TABLE 2

SPECIAL DESIGN CONSTRUCTION SIGNS

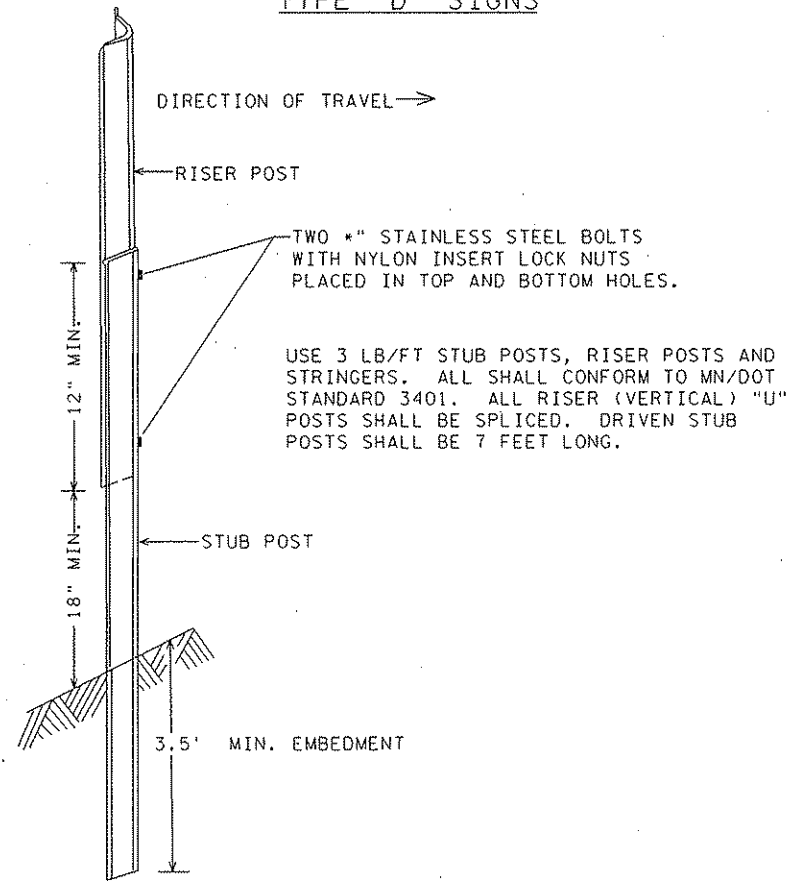
LENGTH (IN.)	HEIGHT (IN.)	POSTS			
		NO. & TYPE	SPACING (IN.)	KNEE BRACES QUANT.	LENGTH (FT.)
54 - 96	78	2-U	42	2	20
102 - 138	78	3-U	45	3	20
144 - 180	78	4-U	45	4	20

DESIGNER NOTE:
 INCLUDE SPECIAL SIGN DETAILS IN THE TRAFFIC CONTROL PLAN IN TABLE TWO.

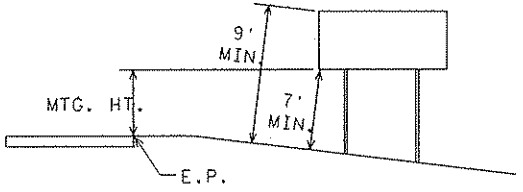
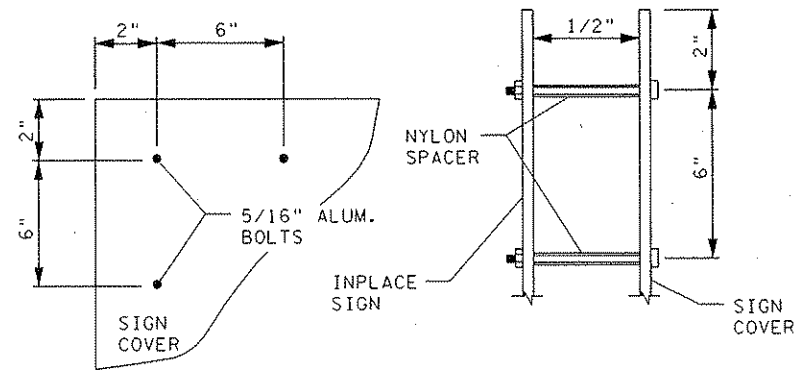
NOTES:
 FOR TEMPORARY CONSTRUCTION SIGN FRAMING, THE CONTRACTOR MAY USE GRADE 5 ZINC PLATED BOLTS FOR ALL BOLTED CONNECTIONS, EXCEPT FOR THE KNEE BRACE CONNECTION TO THE REAR STUB POST, WHICH SHALL UTILIZE A 5/16 INCH STAINLESS STEEL BOLT AND NYLON INSERT LOCK NUT. ADDITIONAL SIGN FRAMING DETAILS CAN BE FOUND IN THE TRAFFIC ENGINEERING MANUAL PART 6.

IF THE CONTRACTOR ELECTS TO USE SOME OTHER TYPE OF SIGN SUPPORT (OTHER THAN U-CHANNEL SIGN POSTS) FOR MOUNTING CONSTRUCTION SIGNS, DETAILS OF THE PROPOSED SIGN STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE SIGN STRUCTURE COMPONENTS. ANY SIGN STRUCTURE TO BE SUBMITTED TO THE ENGINEER SHALL BE AN FHWA ACCEPTED BREAKAWAY SIGN SUPPORT. SIGN STRUCTURE SHALL ALSO BE APPROVED FOR 90 MPH WIND LOAD.

SIGNS SHOWN TO BE COVERED SHALL BE COVERED WITH THE SAME COLOR AS THE SIGN BACKGROUND. THE CONTRACTOR SHALL INSTALL COVERS OR ADDITIONAL SIGNS USING A MINIMUM 1/2" NYLON SPACER BETWEEN THE INPLACE SIGN AND THE COVERING MATERIAL. HOLES WILL BE DRILLED IN THE COVER AND THE INPLACE SIGN AND SHALL BE INSTALLED IN ACCORDANCE TO THE SIGN PANEL DETAIL. SPACERS ARE REQUIRED. MID-PANEL SPACING SHALL BE NO GREATER THAN 24".



"U" POST SPLICE



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY RELATIVE TO VERTICAL POST.

2/23/06 LAYOUT 20.DGN

TYPICAL TEMPORARY SIGN FRAMING AND INSTALLATION DETAILS

TRAFFIC CONTROL

PERMANENT PAVEMENT MARKING PLAN

NOTES & GUIDELINES

GENERAL INFORMATION:

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. THE CONTRACTOR WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS. LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.

EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.

A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-HALF FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS. ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.

EPOXY:

THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENTS AND/OR LAITANCE. ON LOW SPEED (SPEED LIMIT 35 OR LESS) URBAN PORTLAND CEMENT CONCRETE ROADWAYS, SANDBLAST CLEANING SHALL BE USED FOR ALL EPOXY PAVEMENT MARKINGS.

THE EPOXY MARKING APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING. GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE EPOXY RESIN LINE TO PROVIDE AN IMMEDIATE NO-TRACK SYSTEM.

AN EPOXY RESIN LINE 4" WIDE AND 15 MILL THICKNESS (WET), REQUIRES AN APPLICATION RATE OF ONE (1) GALLON OF COMPONENTS FOR 320 FEET OF LINE. GLASS BEADS SHALL BE APPLIED AT A POUND PER GALLON RATE SUFFICIENT TO ACHIEVE AN ACCEPTABLE NO-TRACK SYSTEM.

OPERATIONS SHALL BE CONDUCTED ONLY WHEN THE ROAD PAVEMENT SURFACE TEMPERATURES ARE 50 DEGREES °F OR GREATER.

PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.

POLY PREFORM INLAY APPLICATION:

MAT TEMPERATURE SHALL BE CHECKED USING A THERMOMETER TO MAKE SURE THE INLAY IS BEING DONE IN THE PROPER TEMPERATURE RANGE. THE TEMPERATURE SHOULD MEASURE BETWEEN 150° F (ASPHALT FIRM ENOUGH TO WALK ON) AND 120° F. APPLICATION BELOW 120° F MAY NOT GET A PROPER INLAY. INLAYS ARE NOT RECOMMENDED AFTER SEPTEMBER 15th AS THE ASPHALT COOLS TOO FAST AT THIS TIME OF THE YEAR.

NO PRIMERS ARE USED FOR INLAY APPLICATION. DO NOT INSTALL LANE LINES ON AN ASPHALT SEAM. ROLLING OF ALL THE MARKINGS SHOULD BE LENGTHWISE IN THE DIRECTION THEY WERE LAID. FOR CROSSWALKS AND STOP BARS, INITIAL TAMPING WITH THE TAMPING CART IS RECOMMENDED USING ONLY 100 LBS. OF WEIGHT.

USE COMPACTION ROLLER TO EMBED (INLAY) MARKINGS INTO PAVEMENT SURFACE. USE MINIMUM SPEED AND WATER ON ROLLER. DO NOT USE VIBRATOR. IF MARKING BUCKLES OR DISTORTS SEVERELY IN FRONT OF ROLLER, MAT TEMPERATURE OR ROLLER SPEED MAY BE TOO HIGH.



POLY PREFORM GROOVED APPLICATION:

CONCRETE PAVEMENT SURFACES AND BITUMINOUS PAVEMENT SURFACES WHERE PAVEMENT MARKINGS CANNOT BE INLAID IN THE HOT MAT, SHALL BE GROOVED FOR THE INSTALLATION OF DURABLE REFLECTORIZED PAVEMENT MARKINGS. SEE SPECIAL PROVISIONS.

PERMANENT PAVEMENT MARKING PLAN INDEX

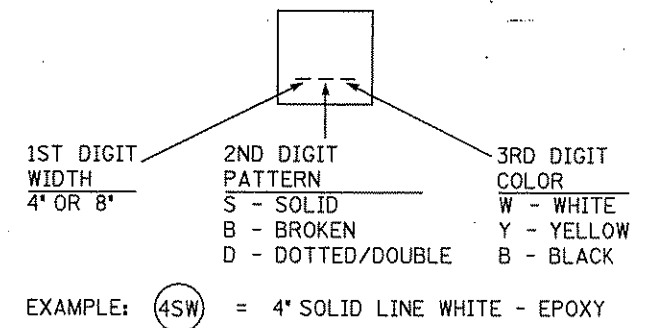
- 578 PERMANENT PAVEMENT MARKING TITLE
- 579 PERMANENT PAVEMENT MARKING TABULATION
- 580-591 DETAILS
- 592-597 TYPICALS

SYMBOLS & MATERIALS LEGEND

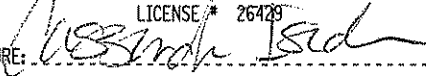
-  CROSSWALK BLOCK WHITE-POLY PREFORM
-  PAVEMENT MESSAGE (LEFT ARROW) POLY PREFORM

STRIPING KEY

-  CIRCLE - EPOXY
-  SQUARE - POLY PREFORM



I HEREBY CERTIFY THAT SHEETS 578 THROUGH 597 OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: CASSANDRA ISACKSON LICENSE # 26428
 DATE: 1/31/07 SIGNATURE: 
 DESIGNER: KEVIN FARRAHER

TITLE: PERMANENT PAVEMENT MARKING TITLE SHEET

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 PLOT NAME: 10208123_typicals_pm_tsh
 PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\23\10208123_typicals_pm_tsh.dgn

PLOTTED/REVISED: 4/11/2007

DISTRICT: METRO
 PLOT NAME: 10208123_typicals_pm.tbl
 PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\23\PM\10208123_typicals_pm.tbl.dgn

PERMANENT PAVEMENT MARKING TABULATION -HPP/STP		AC
ITEM	UNIT	TOTAL
CROSSWALK MARKING-POLY PREFORM	SQ FT	180
CROSSWALK MARKING-EPOXY	SQ FT	2898
PAVEMENT MESSAGE (LT ARROW) POLY PREFORM	EACH	14
PAVEMENT MESSAGE (RT ARROW) POLY PREFORM	EACH	9
PAVEMENT MESSAGE (LEFT ARROW) EPOXY	EACH	33
PAVEMENT MESSAGE (RIGHT ARROW) EPOXY	EACH	18
4" SOLID LINE WHITE-POLY PREFORM	LIN FT	2793
8" SOLID LINE WHITE-POLY PREFORM	LIN FT	3982
24" SOLID LINE WHITE-POLY PREFORM	LIN FT	26
4" BROKEN LINE WHITE-POLY PREFORM	LIN FT	4660
8" DOTTED LINE WHITE-POLY PREFORM	LIN FT	513
4" DOTTED LINE WHITE-POLY PREFORM GRND IN	LIN FT	116
4" SOLID LINE WHITE-EPOXY	LIN FT	35884
8" SOLID LINE WHITE-EPOXY	LIN FT	573
24" SOLID LINE WHITE-EPOXY	LIN FT	592
4" BROKEN LINE WHITE-EPOXY	LIN FT	1420
8" DOTTED LINE WHITE-EPOXY	LIN FT	492
4" SOLID LINE YELLOW-EPOXY	LIN FT	31950
24" SOLID LINE YELLOW-EPOXY	LIN FT	103
4" BROKEN LINE YELLOW-EPOXY	LIN FT	805
4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT	2532

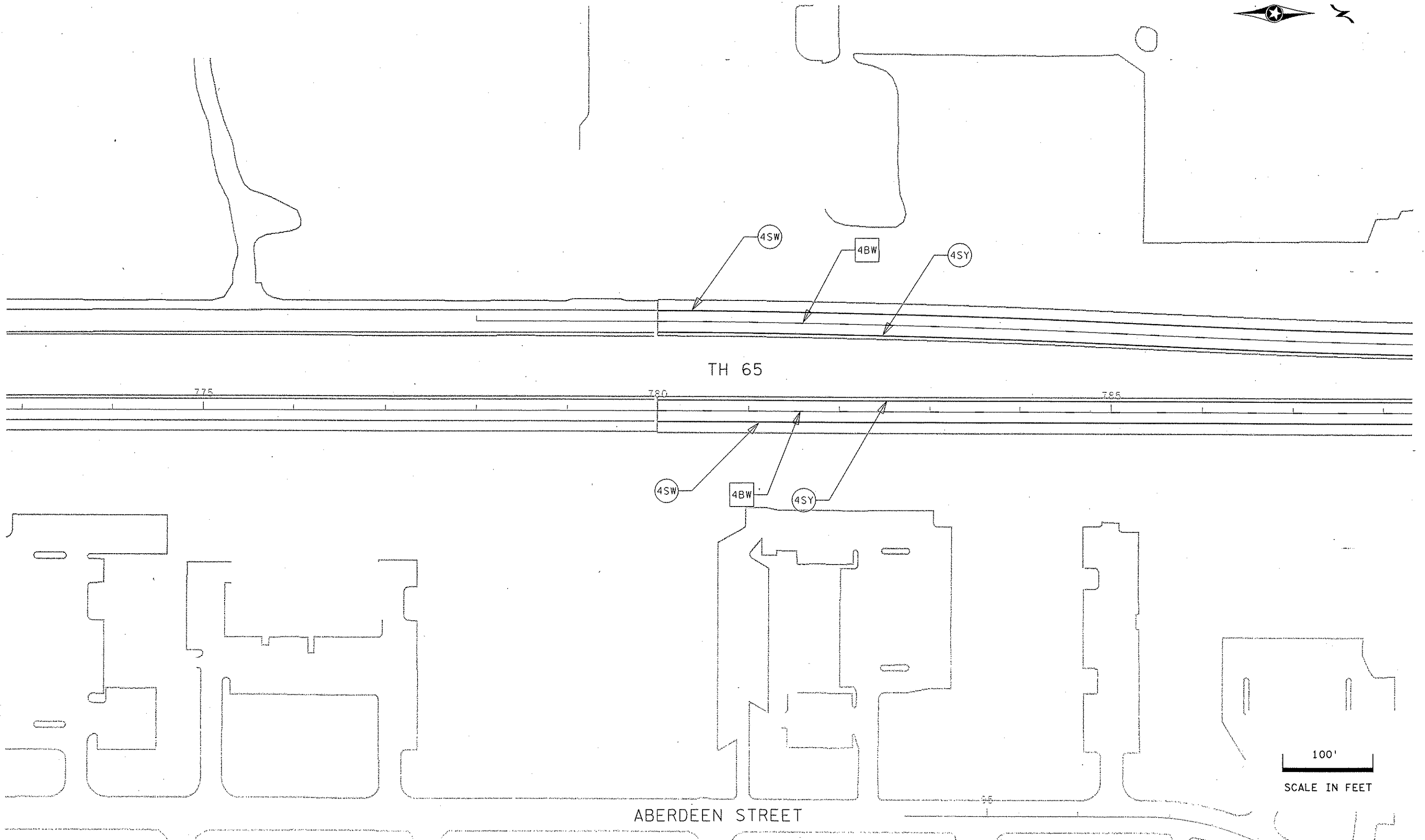
PERMANENT PAVEMENT MARKING TABULATIONS

CERTIFIED BY Cassandra Fisher LIC. NO. 26429 DATE 4/11/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 579 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Beck
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

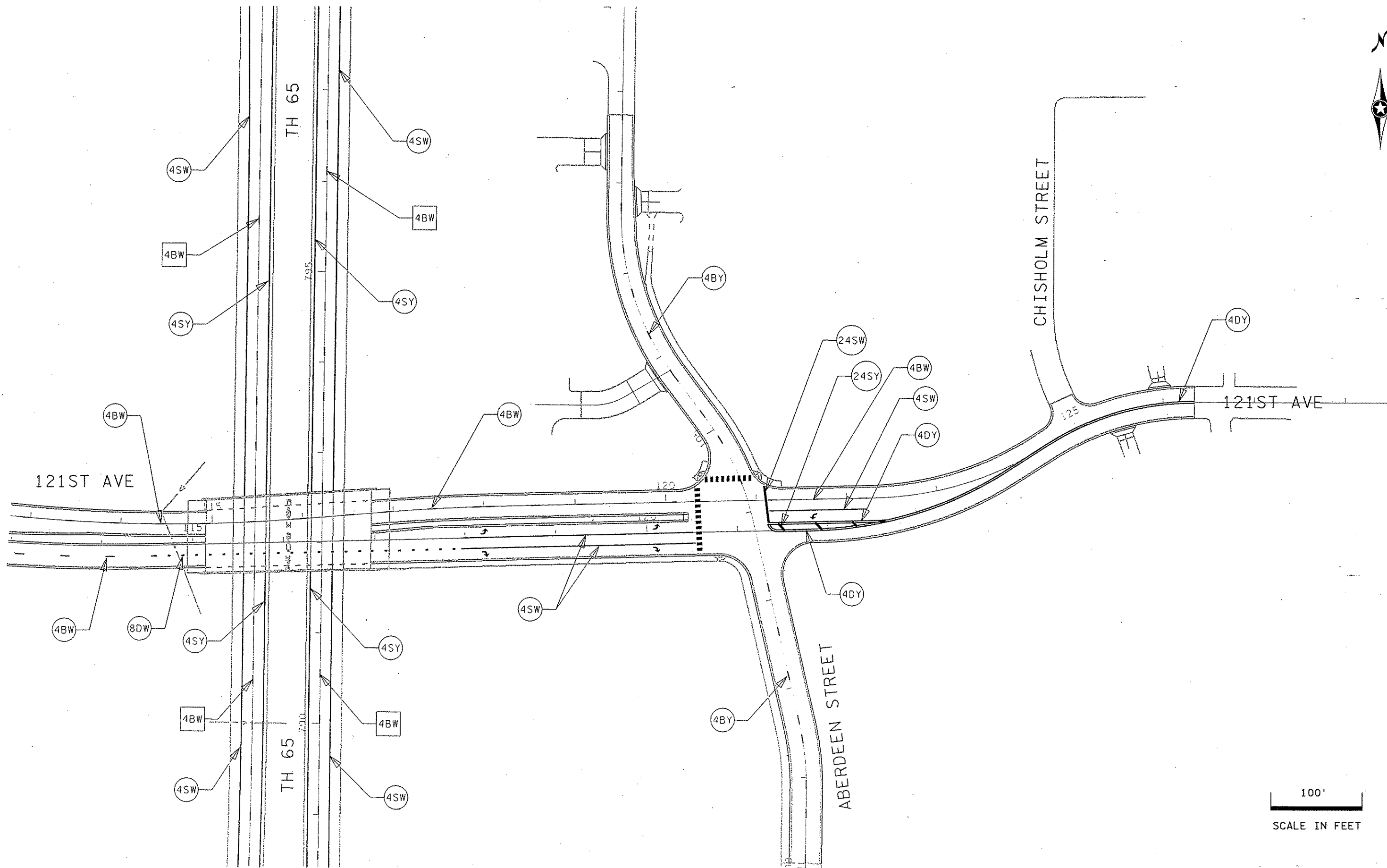
DATE 1/31/2007

PERMANENT PAVEMENT MARKING

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 580 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100'
SCALE IN FEET

PERMANENT PAVEMENT MARKING

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Park
LICENSED PROFESSIONAL ENGINEER

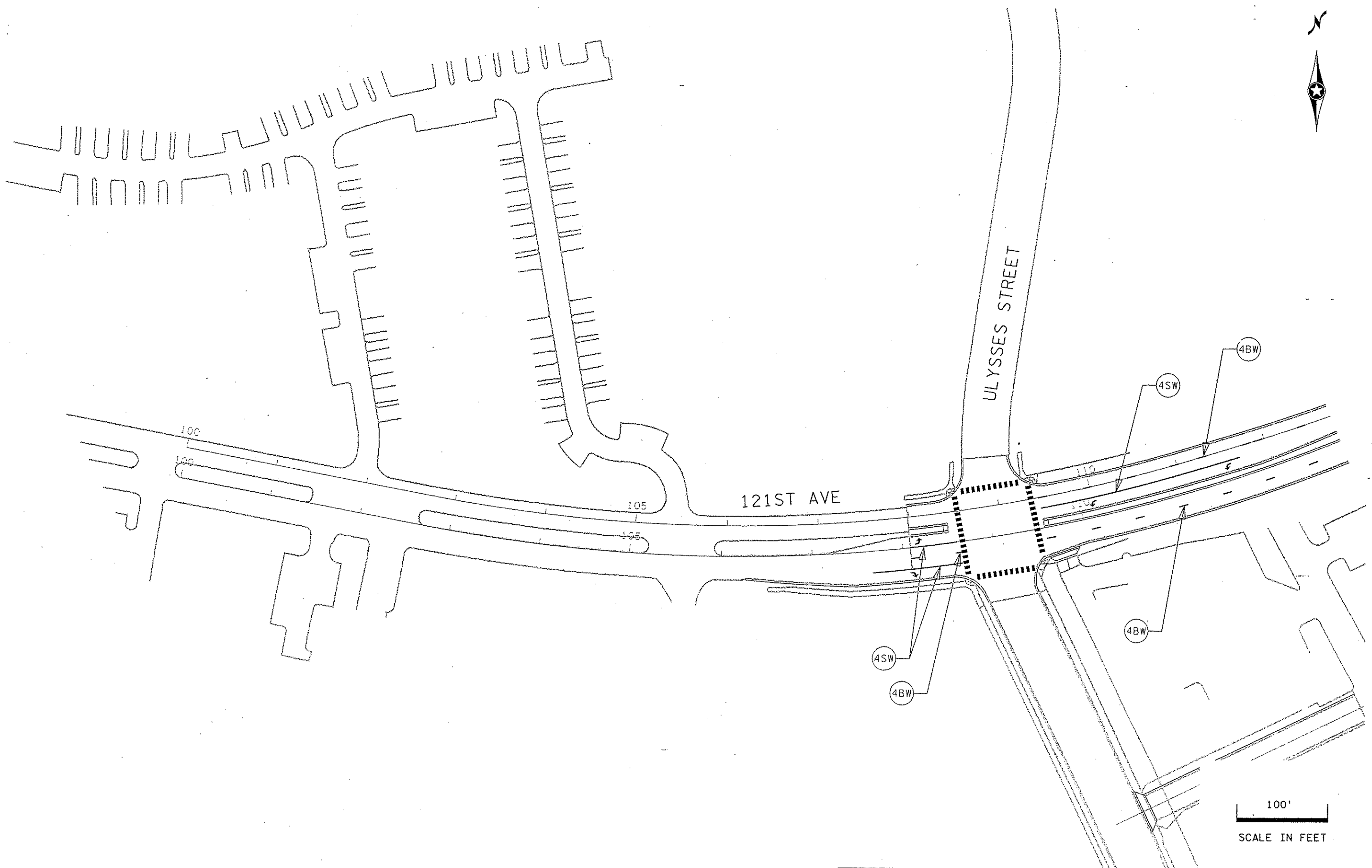
LIC. NO. 26429

DATE 1/31/2007

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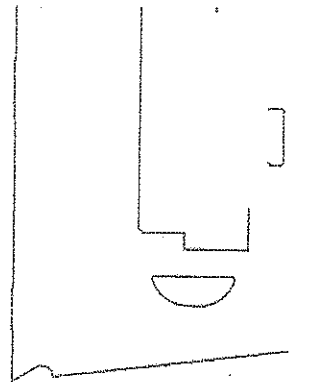
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PLOTTED/REVISED: 1/31/2007



PERMANENT PAVEMENT MARKING

ULYSSES STREET



4SY 4BW 4SW

4BW

8SW 4SW 4SY 4SW

TH 65

800

805

TH 65

810

4SY

4BW

4SW

8SW

4SW

4SY

4SW

ABERDEEN STREET

100'

SCALE IN FEET

DISTRICT #: METRO
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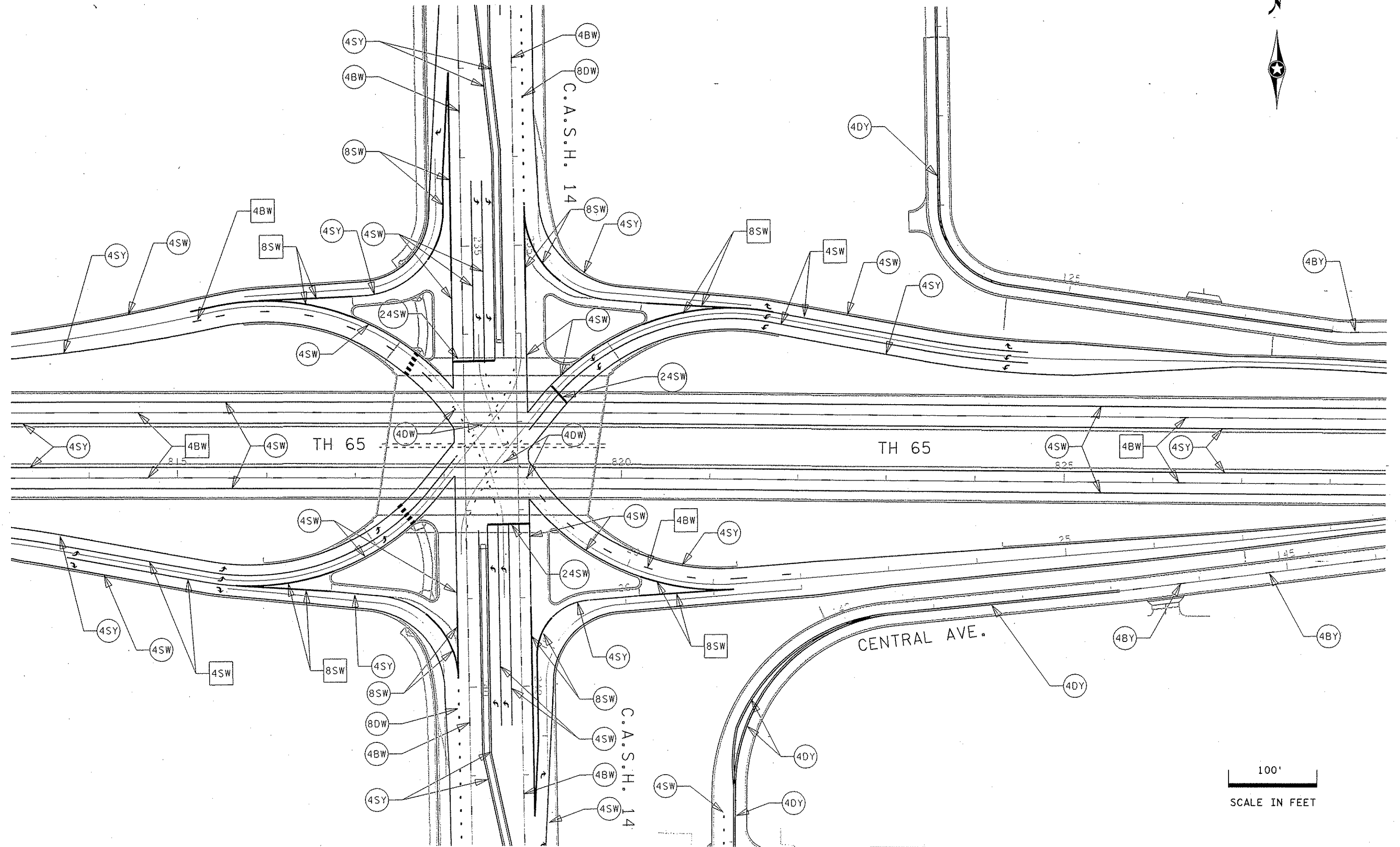
CHECKED BY: MJR

CERTIFIED BY *Cassandra Book*
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429 DATE 1/31/2007

PERMANENT PAVEMENT MARKING
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 583 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007



DISTRICT #: METRO
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DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Assanda Bobb
LICENSED PROFESSIONAL ENGINEER

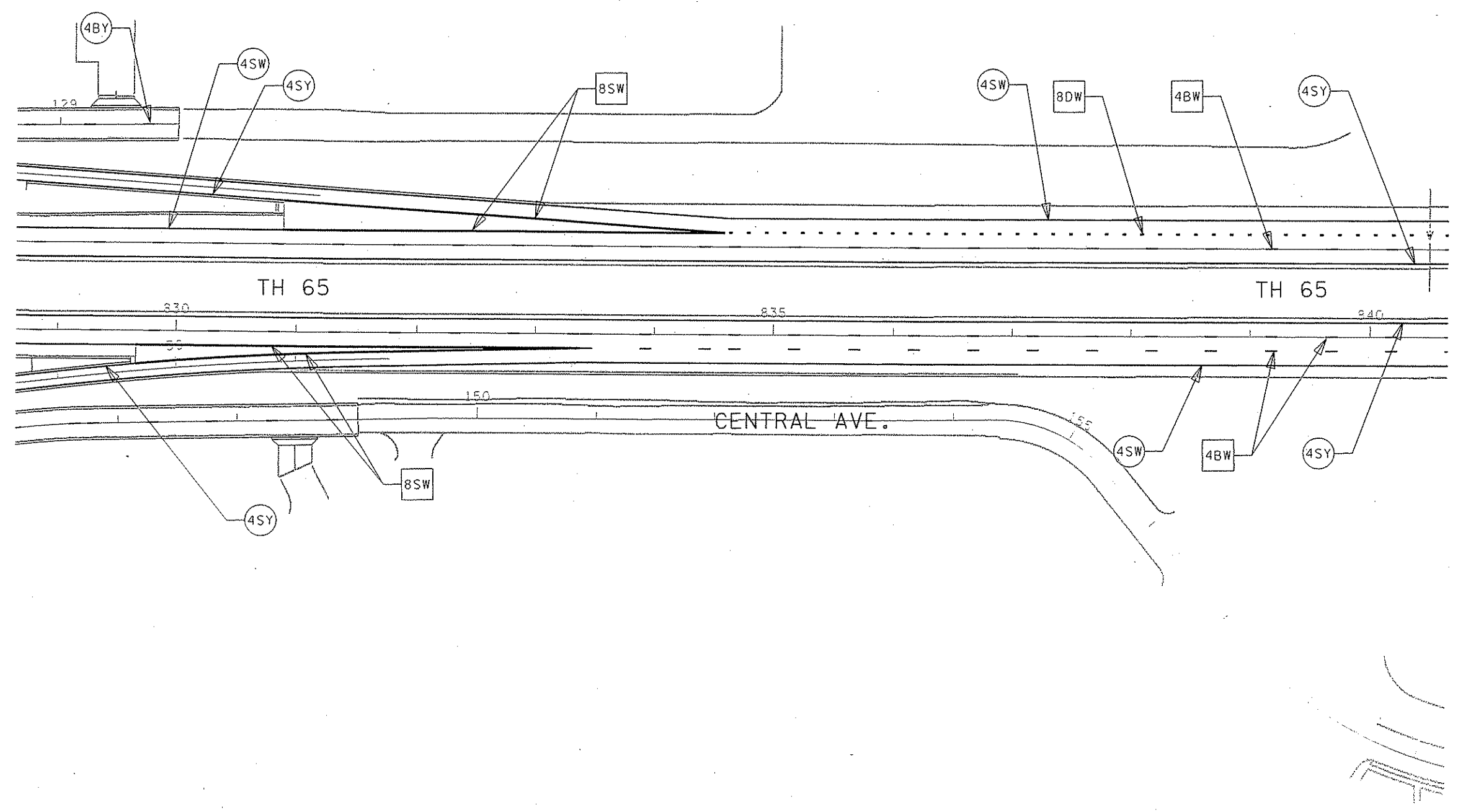
LIC. NO. 26429

DATE 1/31/2007

PERMANENT PAVEMENT MARKING

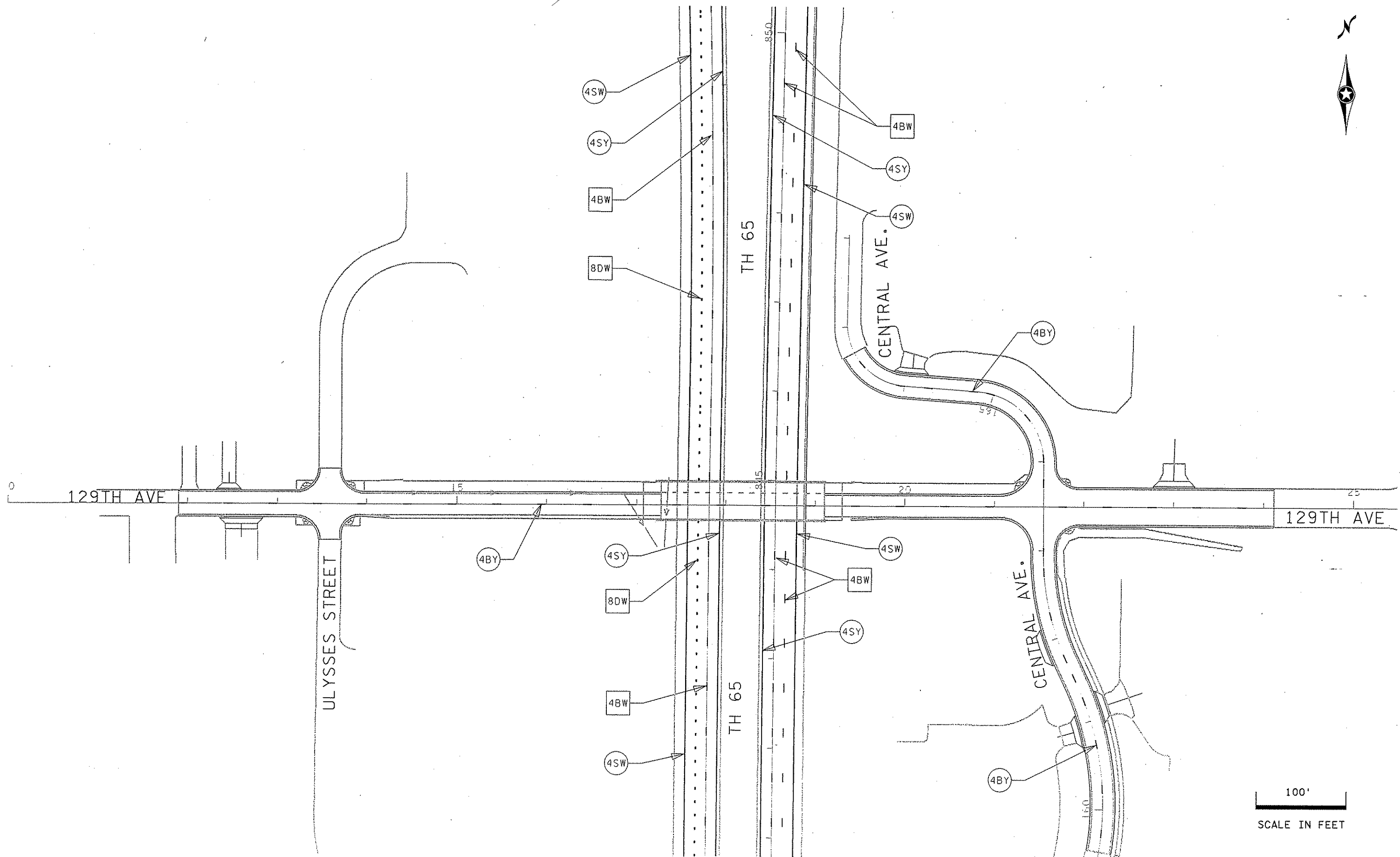
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 584 OF 872 SHEETS

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PLOTTED/REVISED: 1/31/2007



100'
SCALE IN FEET

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



100'
SCALE IN FEET

PERMANENT PAVEMENT MARKING

DRAWN BY: KMF

CHECKED BY: MJR

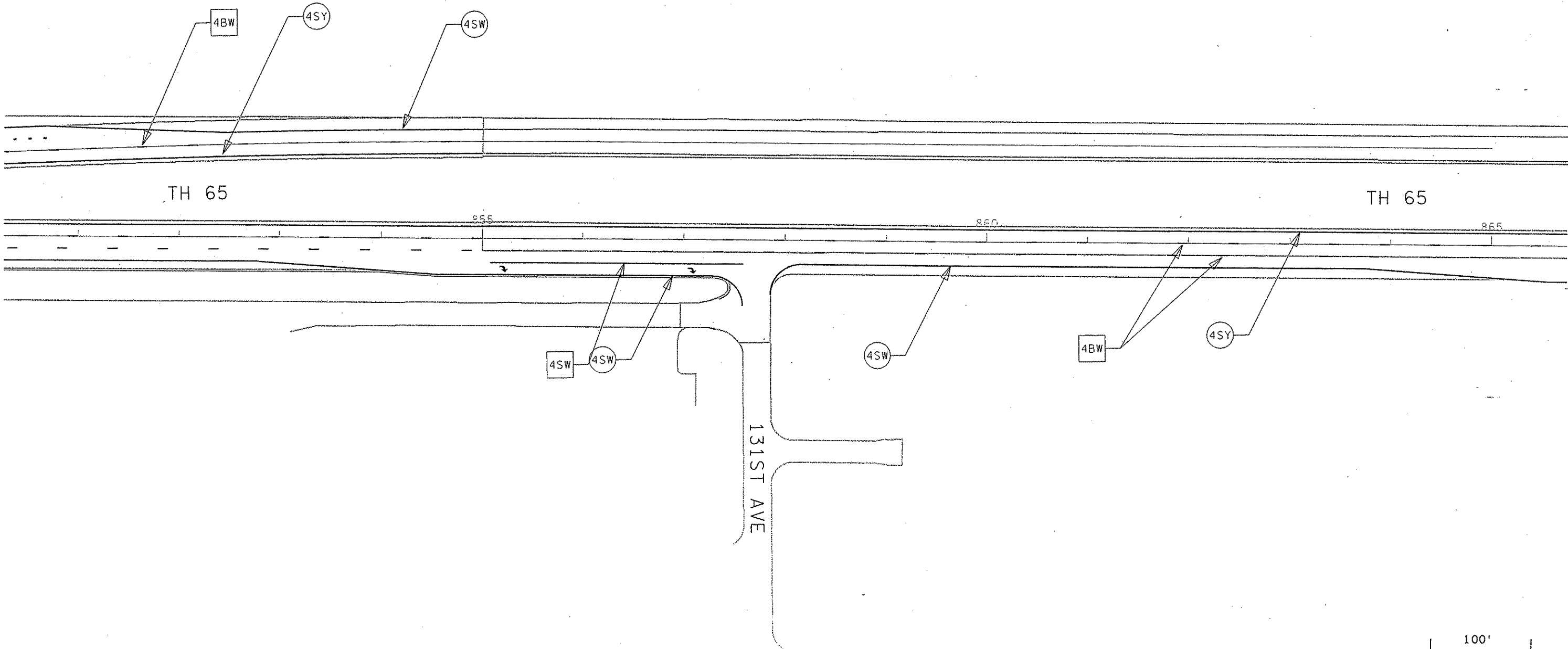
CERTIFIED BY

Cassandra Pook
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 586 OF 872 SHEETS



DISTRICT #: METRO
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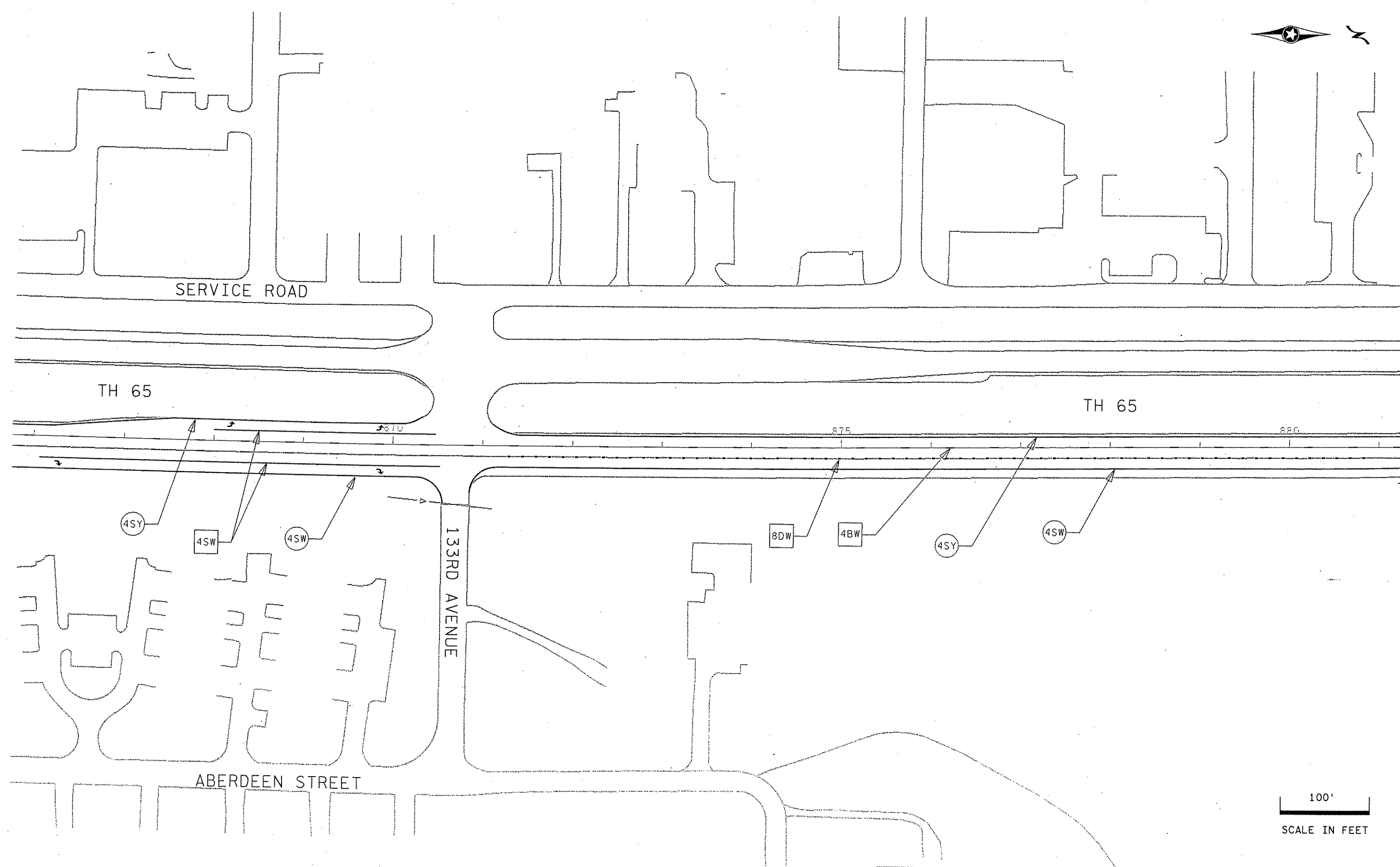
131ST AVE

100'
SCALE IN FEET

DRAWN BY: KMF	CHECKED BY: MJR	CERTIFIED BY <i>Cassandra Barb</i> <small>LICENSED PROFESSIONAL ENGINEER</small>	LIC. NO. 26429	DATE 1/31/2007	PERMANENT PAVEMENT MARKING STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 587 OF 872 SHEETS
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PLOTTED/REVISED: 1/31/2007



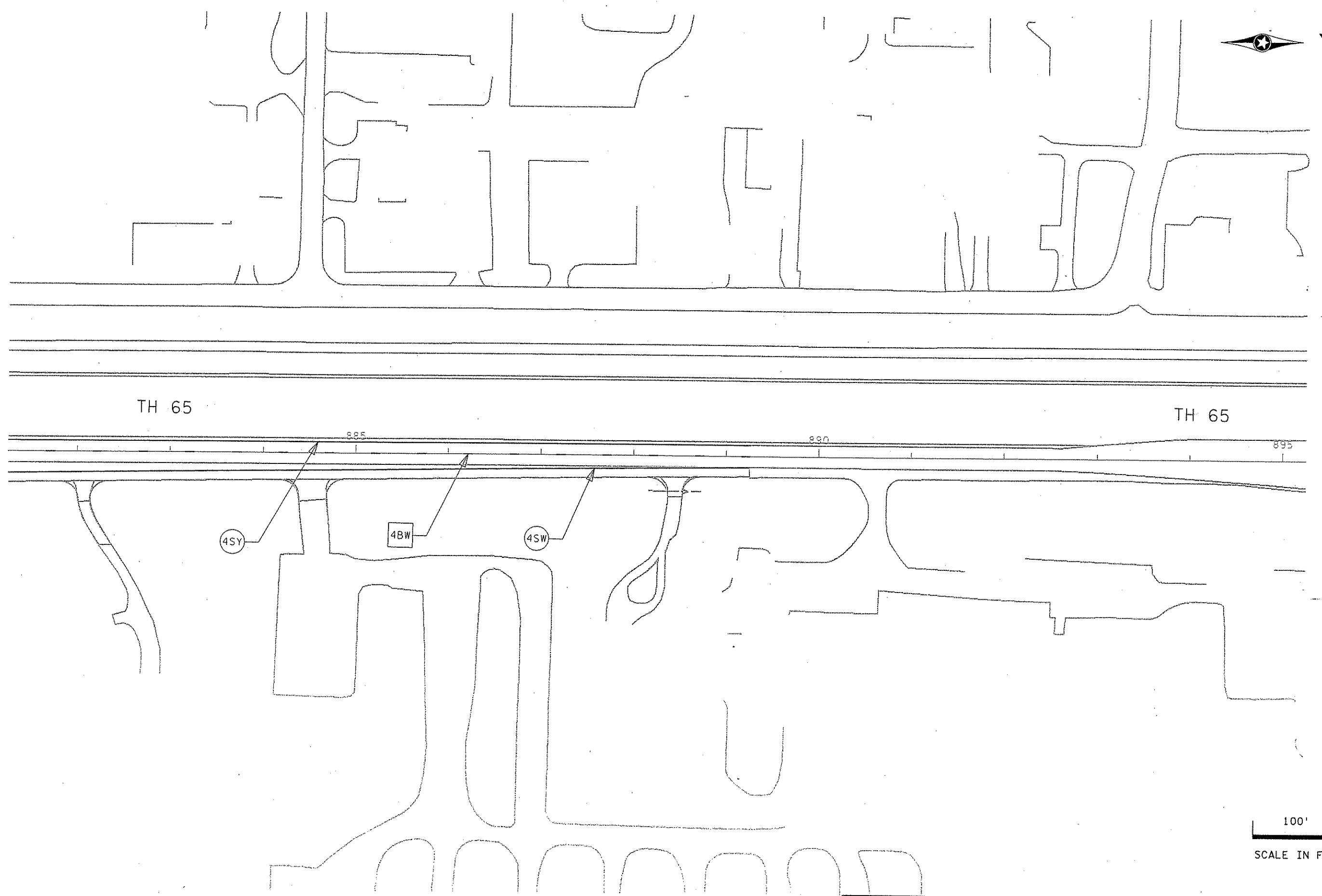
DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY *Cassandra Brob* LIC. NO. 26429 DATE 1/31/2007

PERMANENT PAVEMENT MARKING
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 588 OF 872 SHEETS

DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007



TH 65

TH 65

885

890

895

4SY

4BW

4SW

100'

SCALE IN FEET

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra P. Pugh
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 26429

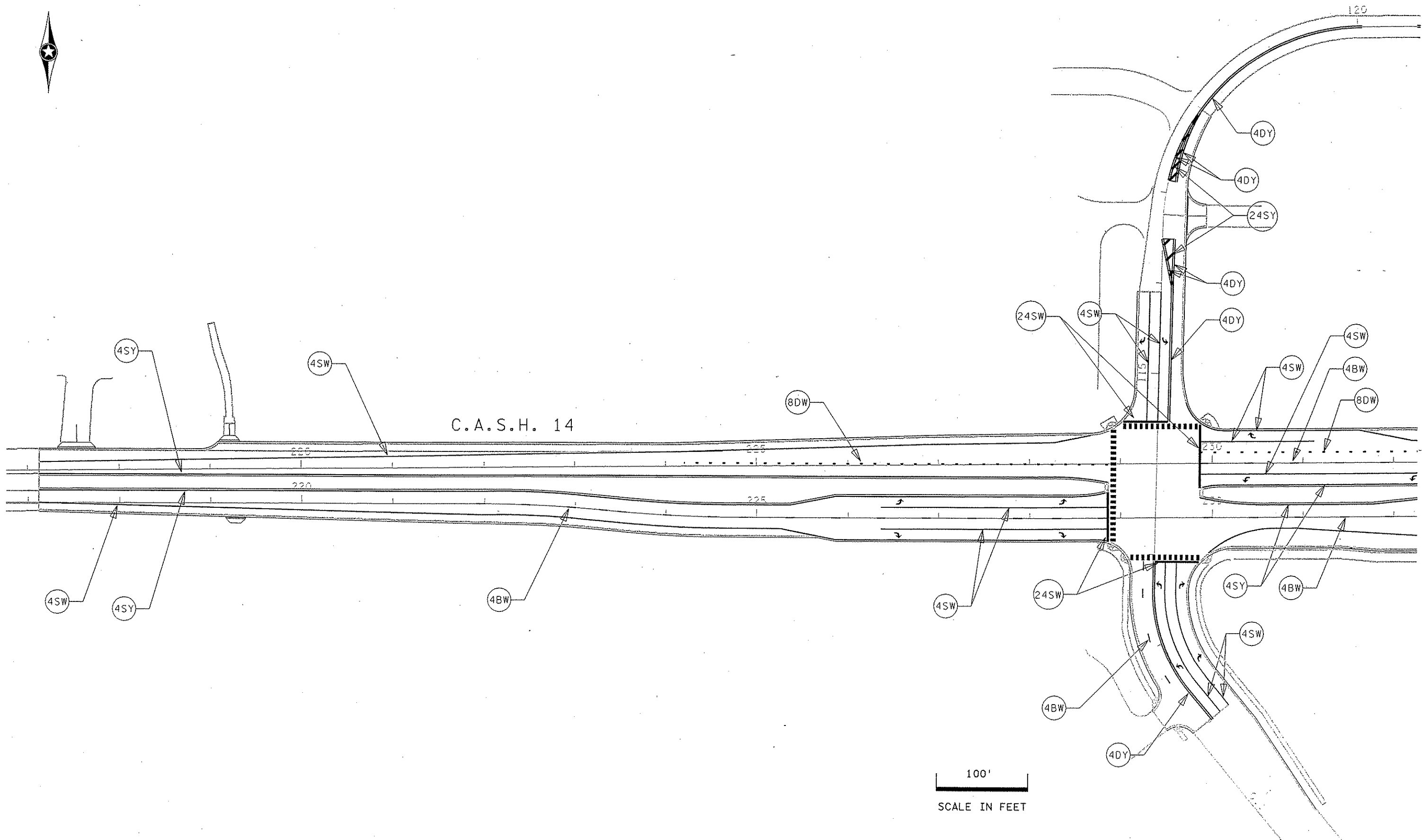
DATE 1/31/2007

PERMANENT PAVEMENT MARKING

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 589 OF 872 SHEETS

PLOTTED/REVISED: 2/22/2007

DISTRICT #: METRO
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100'
SCALE IN FEET

PERMANENT PAVEMENT MARKING

DRAWN BY: KMF

CHECKED BY: MJR

CERTIFIED BY

Cassandra Jacob
LICENSED PROFESSIONAL ENGINEER

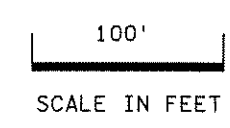
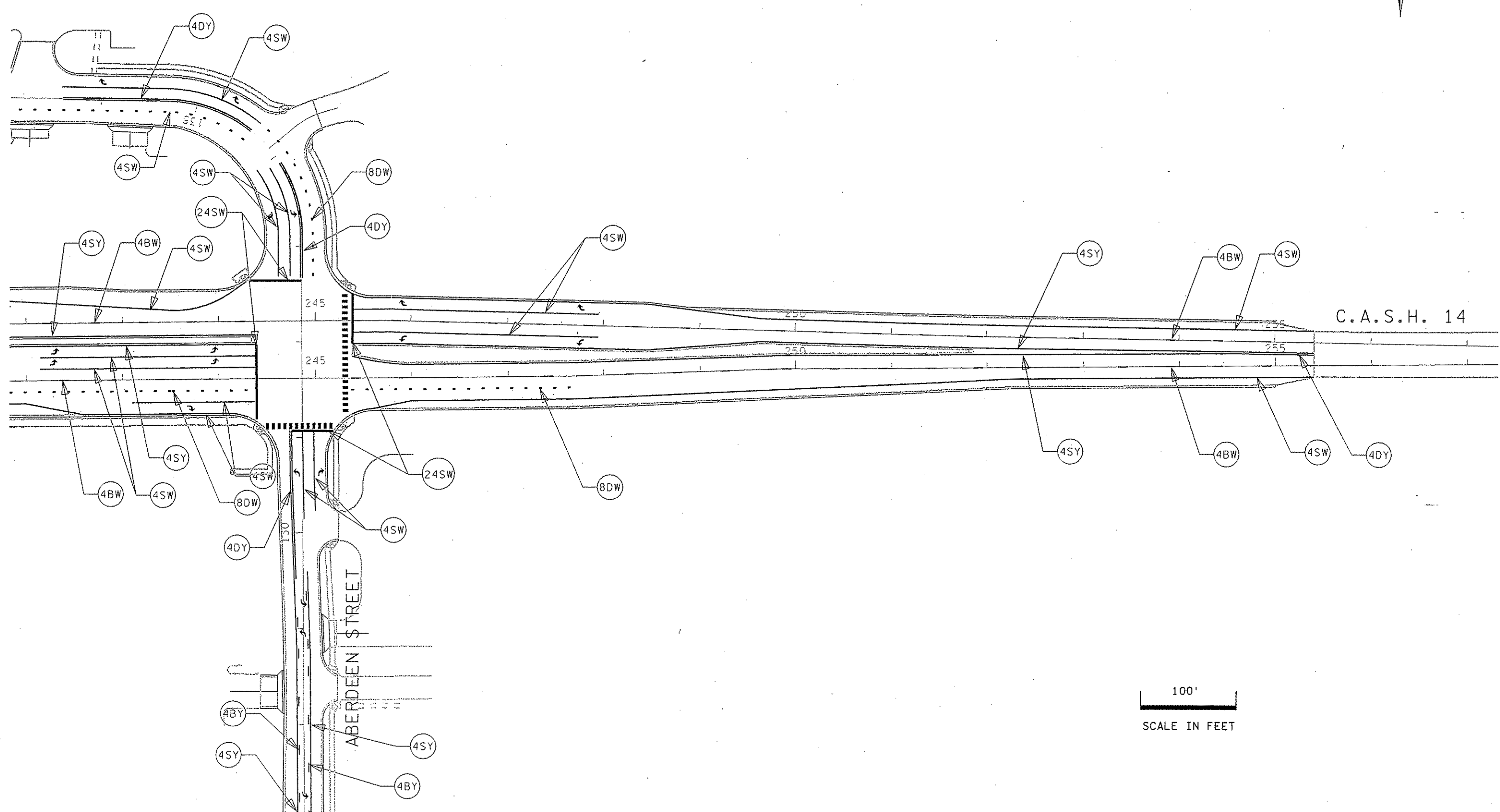
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DATE 2/22/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 590 OF 872 SHEETS

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PLOTTED/REVISED: 2/22/2007



PERMANENT PAVEMENT MARKING

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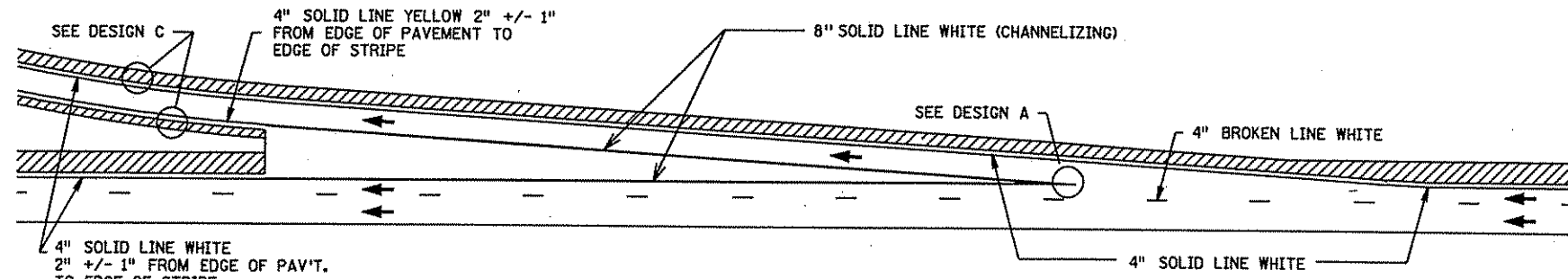
CHECKED BY: MJR

CERTIFIED BY *Cassandra B. ...* LIC. NO. 26429 DATE 2/22/2007
LICENSED PROFESSIONAL ENGINEER

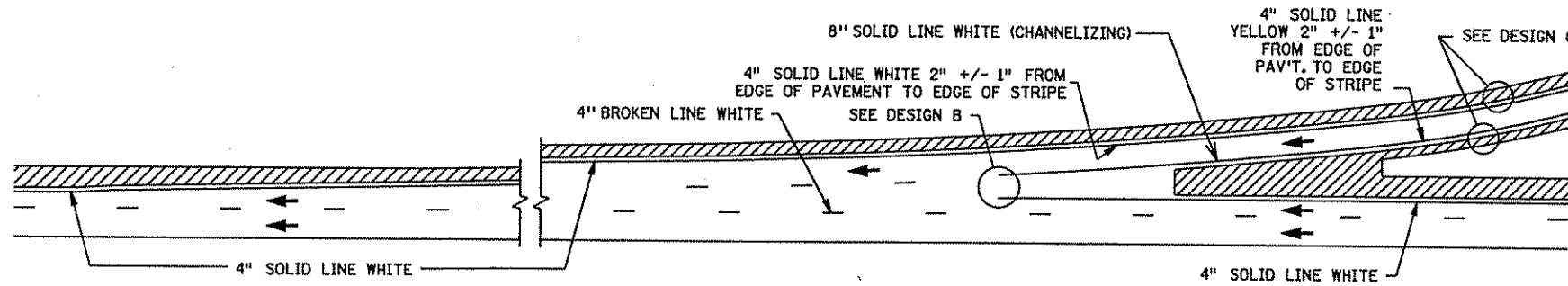
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 591 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

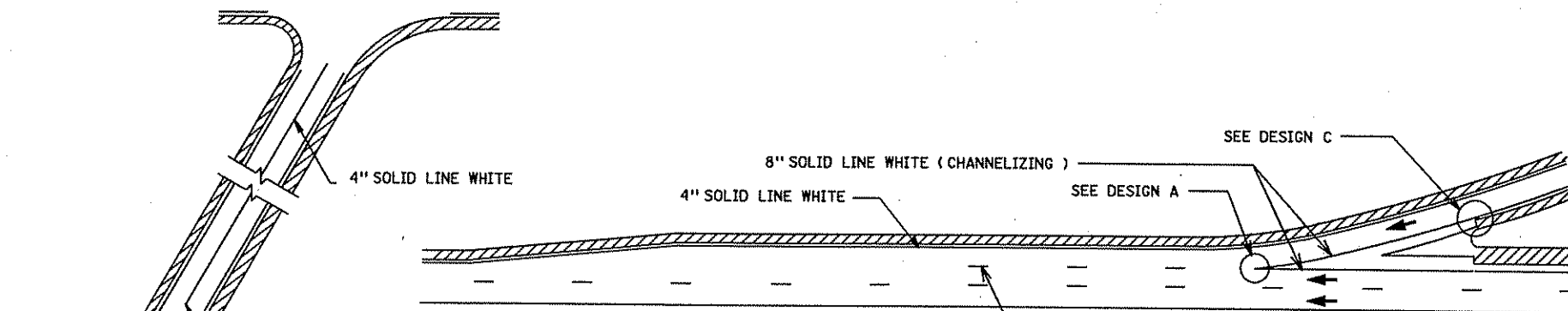
DISTRICT #: METRO
PLOT NAME: 10208123_typicals_pm_jsh2
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\10208123_typicals_pm_jsh.dgn



EXIT RAMP MARKINGS

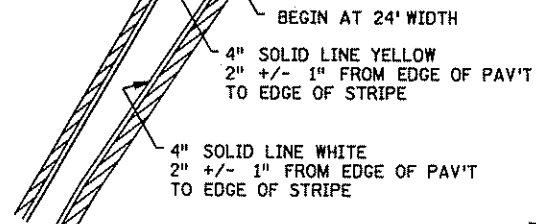


TAPERED ACCELERATION LANE

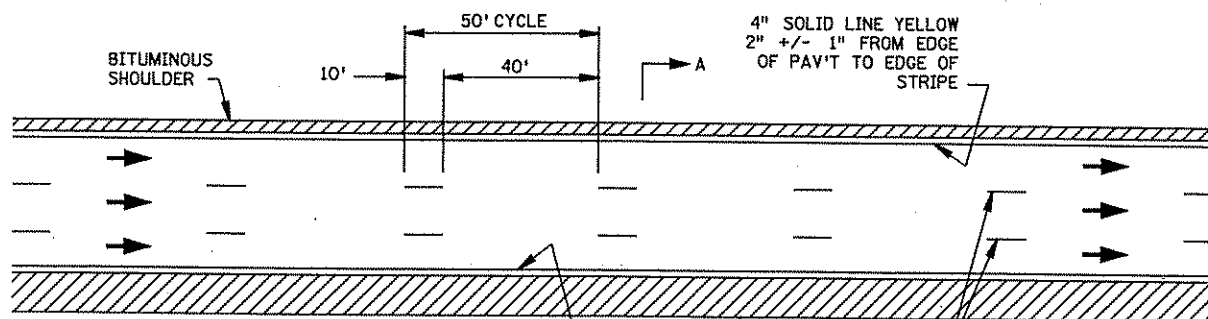
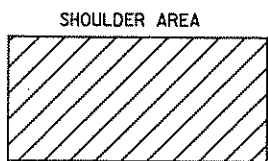


PARALLEL ACCELERATION LANE

4" BROKEN LINE WHITE FOR ONE-HALF THE LENGTH OF FULL WIDTH ACCELERATION LANE.

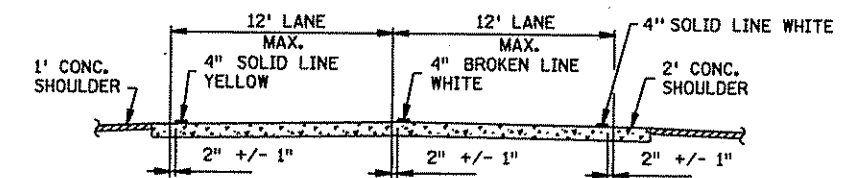
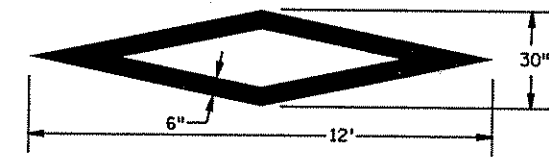


RAMP MARKINGS

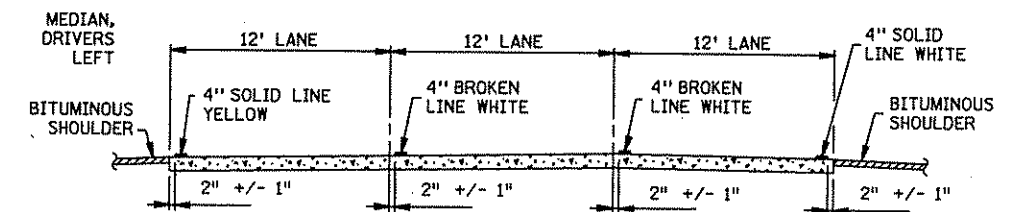
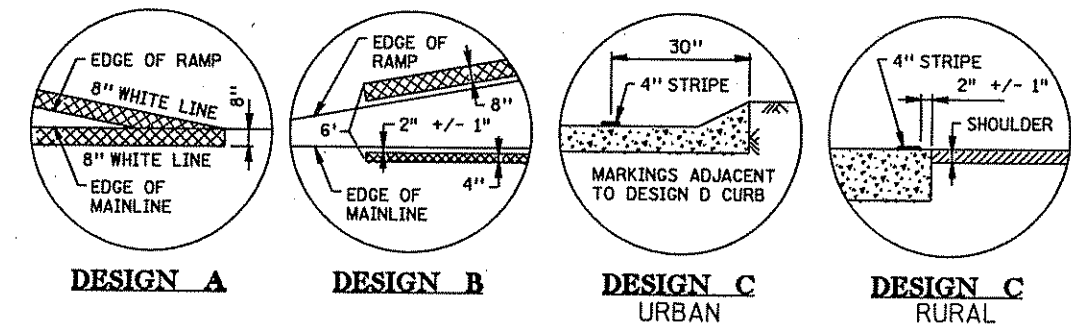


THROUGH LANE MARKINGS

WHITE HOV PAVEMENT MARKER



SECTION A-A (TWO LANES)



SECTION A-A (THREE LANES)

PAVEMENT MARKING TYPICALS

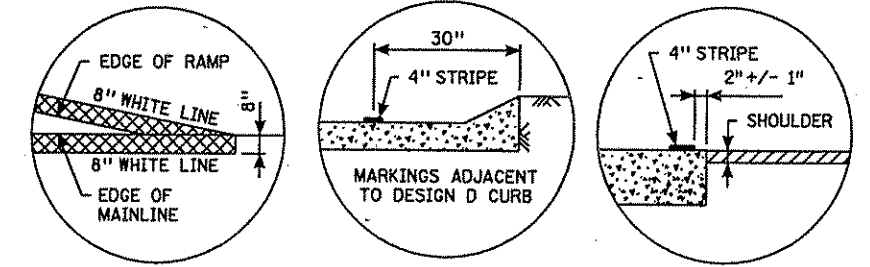
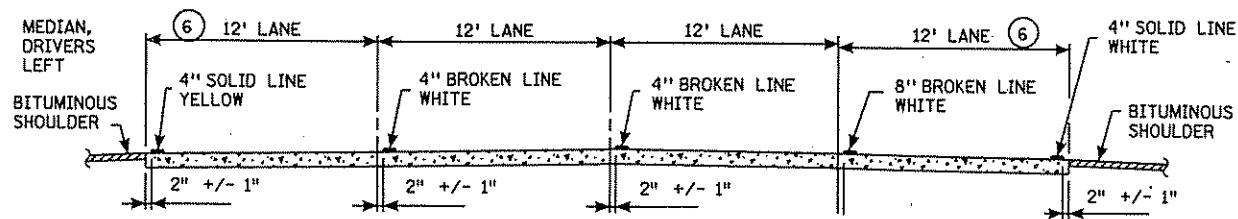
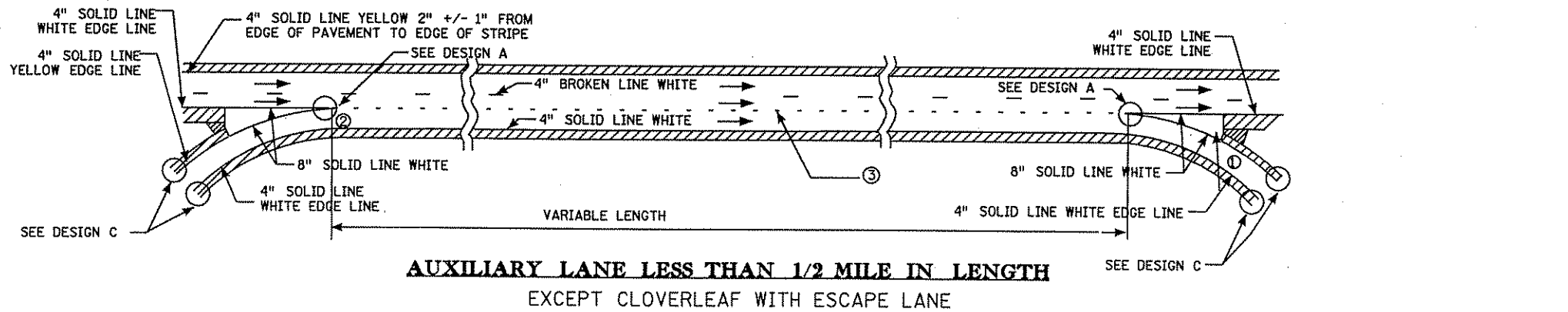
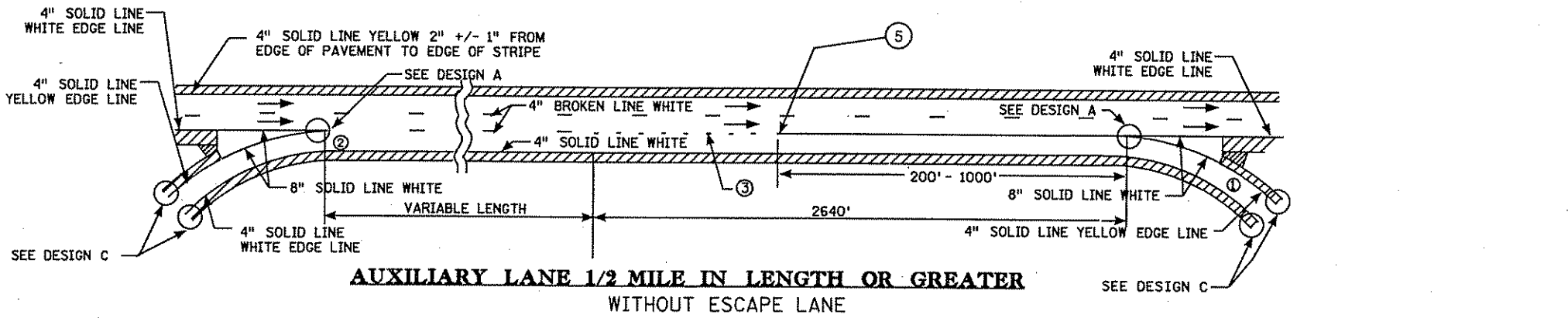
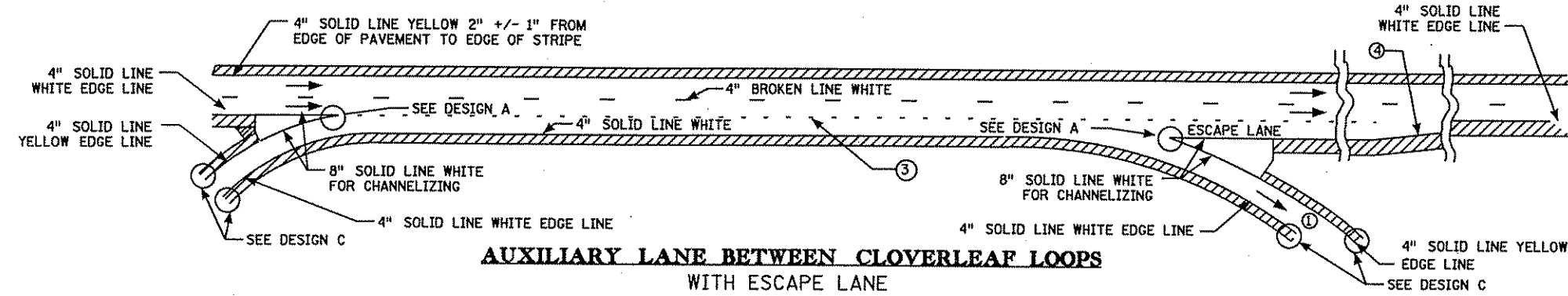
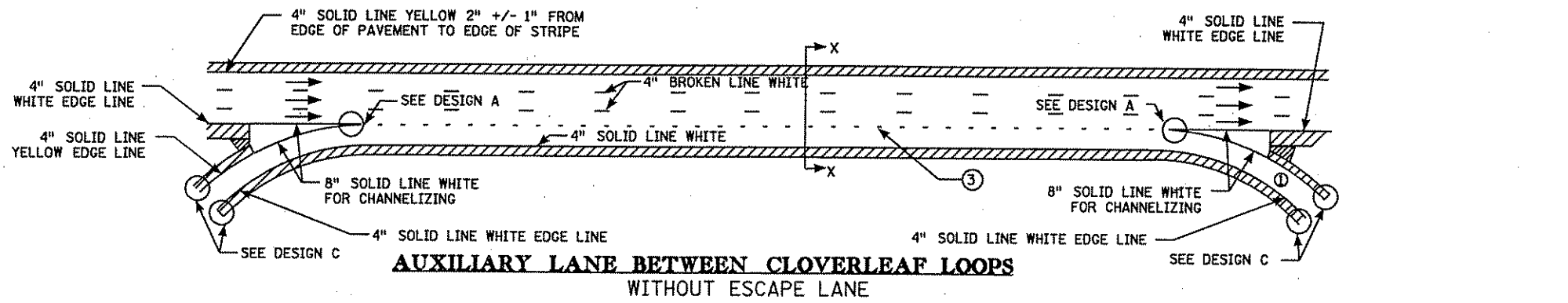
REVISED: 02-JAN-2004

CERTIFIED BY *Cassandra Jacob* LIC. NO. 26429 DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 592 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_typicals_pm_tsh3
PATH & FILENAME: S:\TRAFFIC\CTC Stgimg\065\0208123\typicals_pm_tsh.dgn



DESIGN A

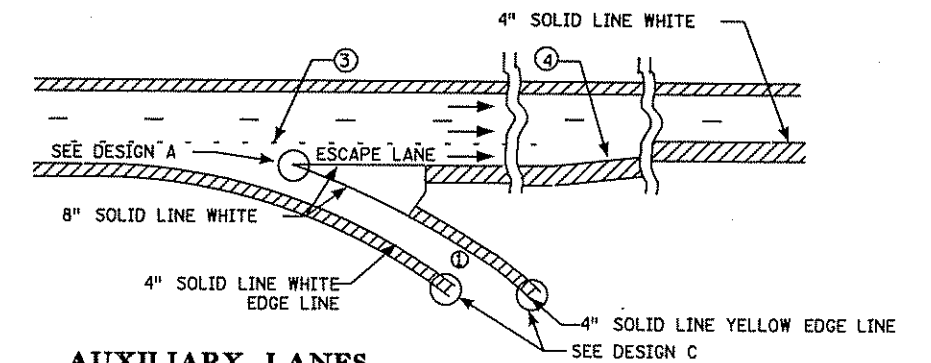
**DESIGN C
URBAN**

**DESIGN C
RURAL**

NOTES:

- ① EXTEND 8" SOLID LINE WHITE 50' MIN. BEYOND GORE AREA TO COMPENSATE FOR SHARP CURVATURE.
- ② EXTEND 8" SOLID LINE WHITE FOR 200' TO 300' AT DISCRETION OF DISTRICT TRAFFIC ENGINEER, ON CURVATURE OR FOR OTHER SITUATIONS WHERE NEEDED FOR BETTER DELINEATION.
- ③ 8" DOTTED LINE WHITE 3' LONG WITH 12' GAPS AS DETAILED IN FIGURE 3-11a OF THE MMUTCD.
- ④ EXTEND 8" SOLID LINE WHITE ENTIRE LENGTH OF THE ESCAPE LANE AND TO THE END OF THE TAPER. PICK UP THE NORMAL 4 IN. SOLID LINE WHITE BEYOND TAPER. TAPER MUST BE AT LEAST 50:1
- ⑤ EXTEND 8" SOLID LINE WHITE 200' TO 1000' FROM INTERSECTION OF GORE STRIPES, DEPENDING ON LENGTH OF LANE BEING DROPPED, AS DETERMINED BY DISTRICT TRAFFIC ENGINEER.
- ⑥ ON PAVEMENTS OVER 24' WIDE (I.E. 27') EDGE LINES WILL BE PLACED SO LANES ARE A MAXIMUM OF 12' WIDE.

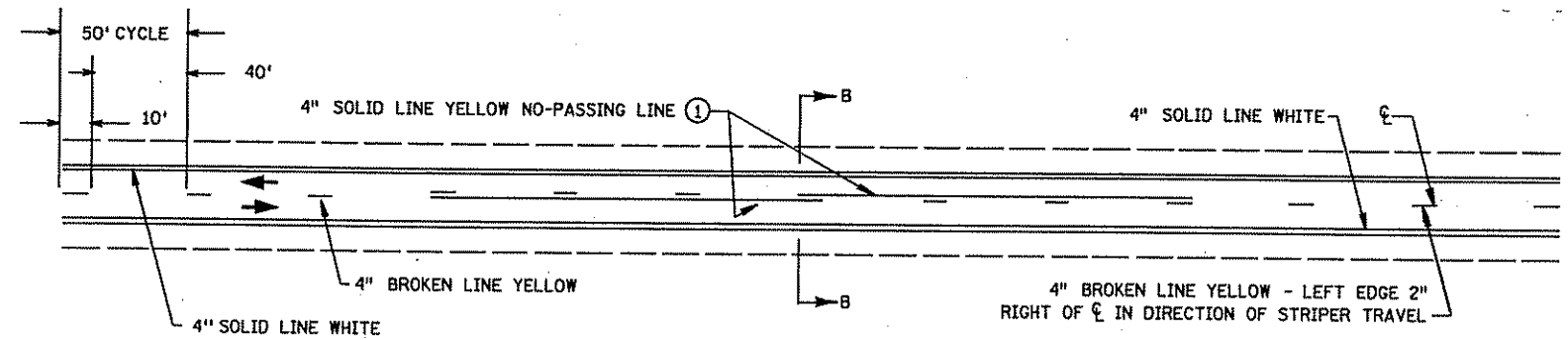
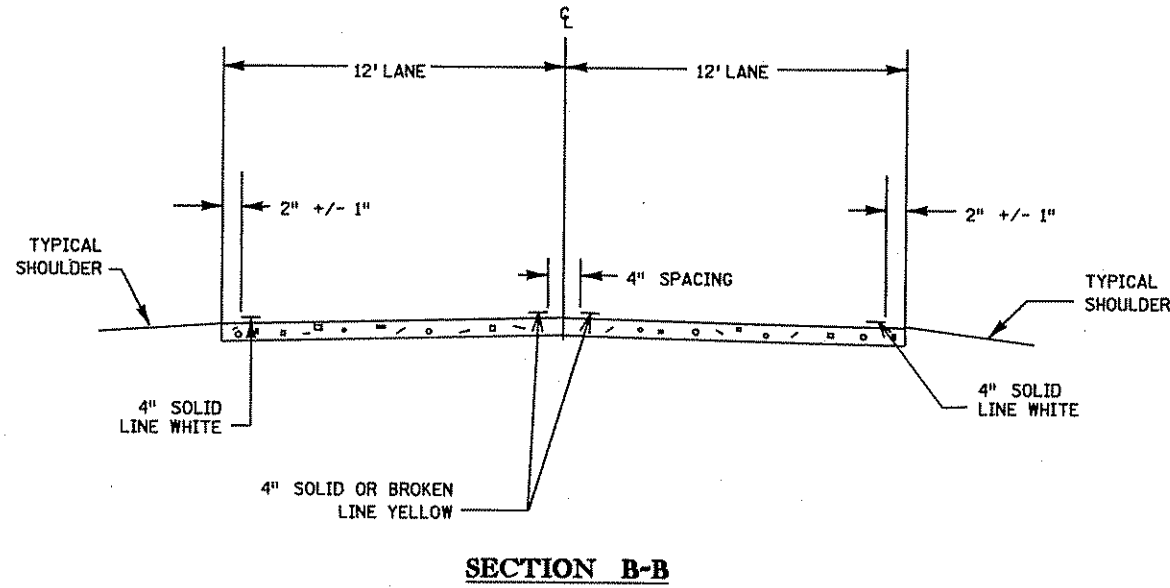
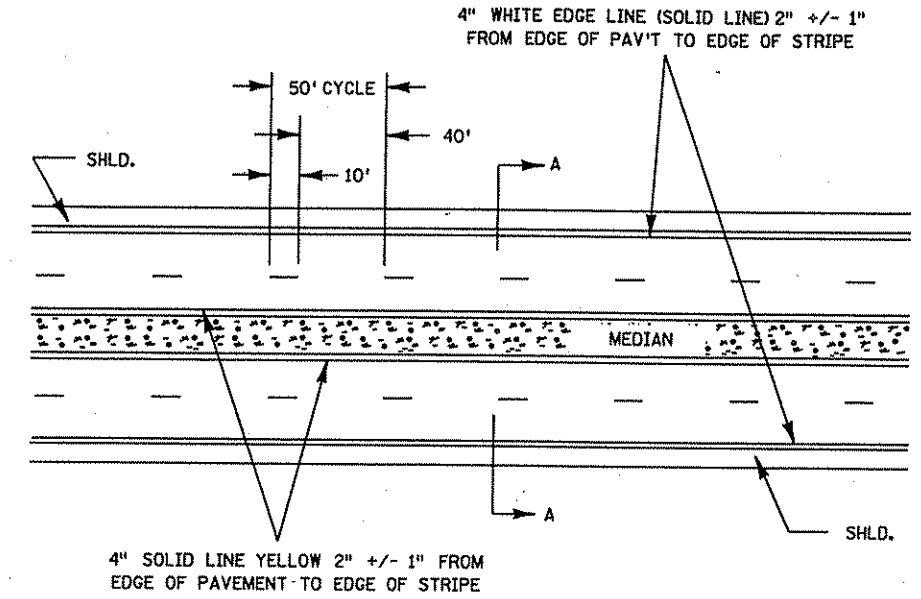
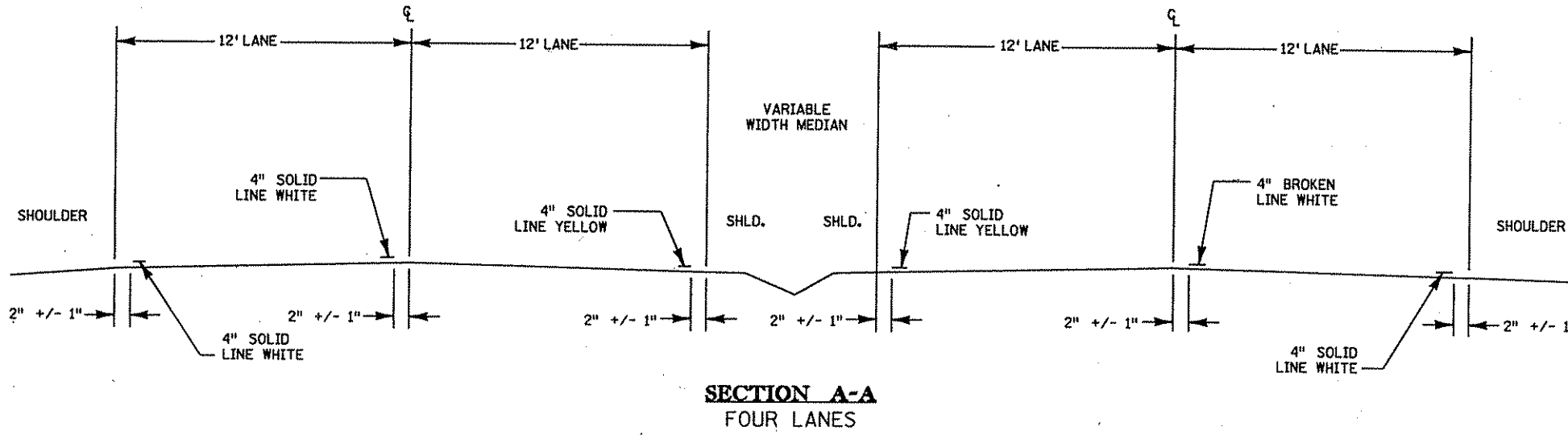
DENOTES SHOULDER AREA



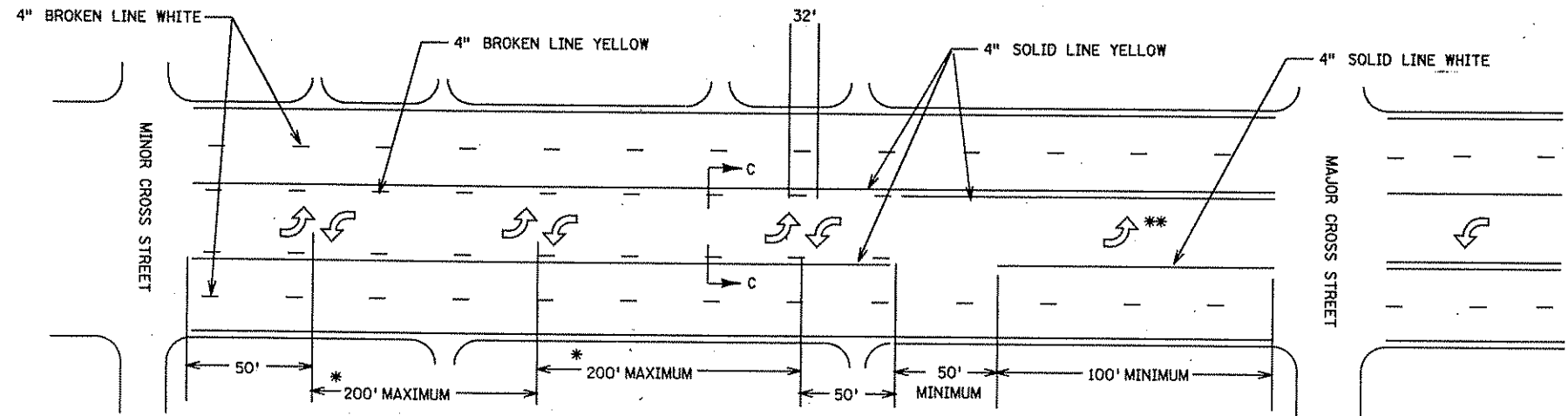
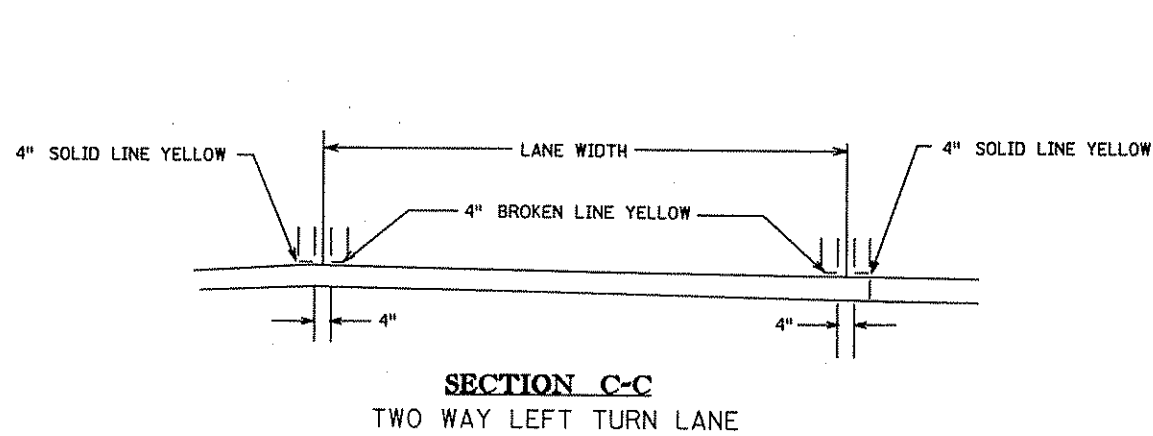
PAVEMENT MARKING TYPICALS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
I/PLOT NAME: 10208123_typicals_pm_tsm4
PATH & FILENAME: S:\TRAFFIC\Signing\065\0208123\10208123_typicals_pm_tshdgn



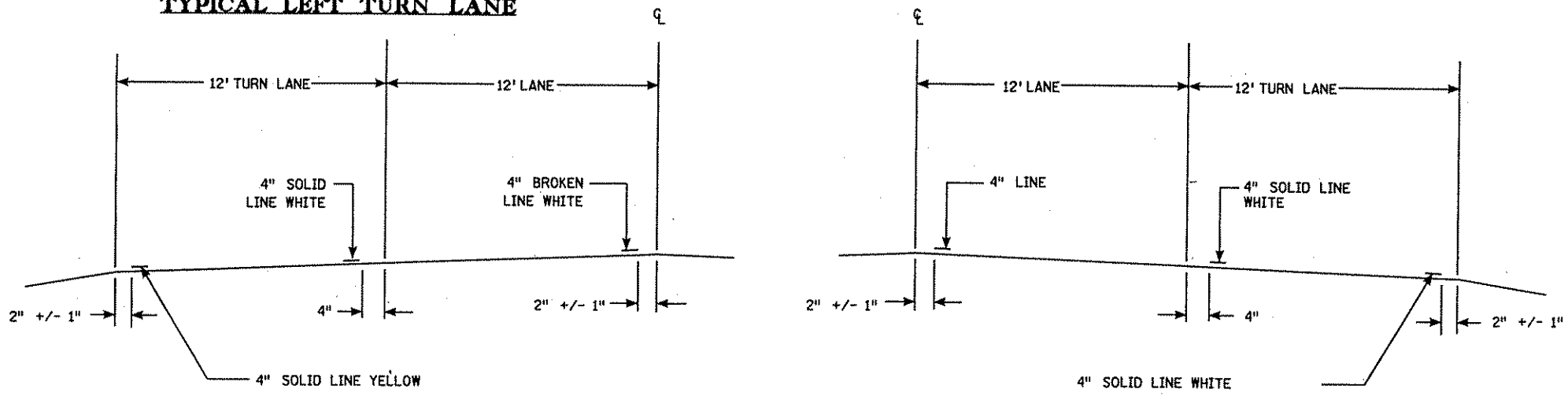
① CONTACT TRAFFIC ENGINEER FOR NO PASSING ZONE SURVEY.



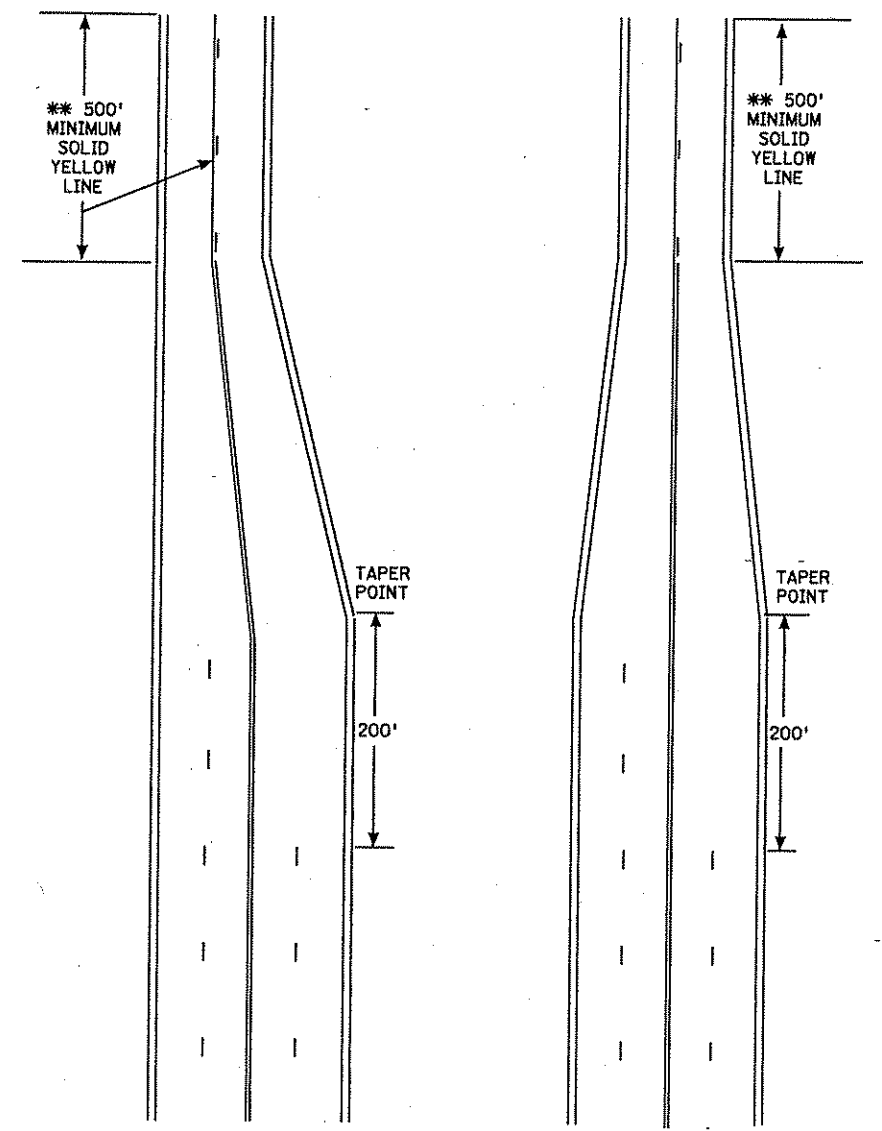
* THESE DISTANCES SHOULD BE EQUAL. THE ARROWS ARE PLACED TO SHOW THE OPERATION AND DO NOT HAVE TO LINE UP WITH ANY OF THE DRIVEWAYS.

** SEE "TYPICAL MESSAGE PLACEMENT FOR TURN LANES" FOR NUMBER AND PLACEMENT OF ARROWS.

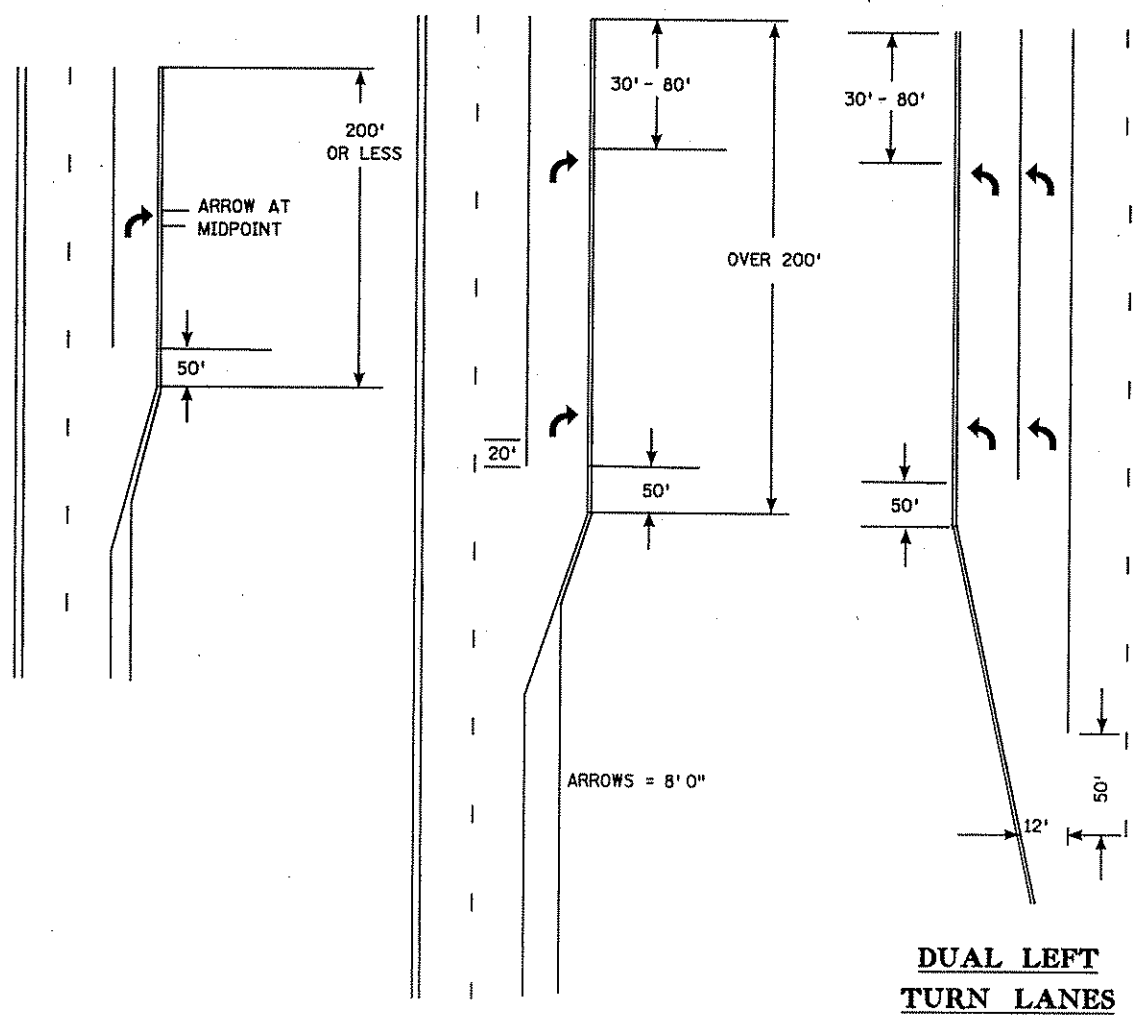
TYPICAL LEFT TURN LANE



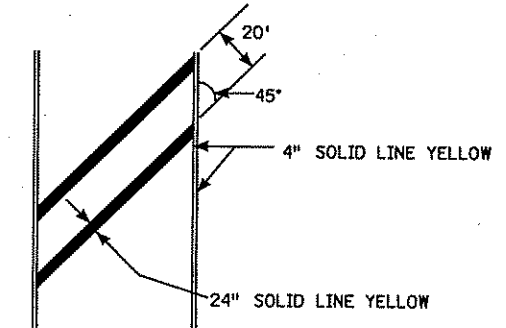
TYPICAL LANE REDUCTION TRANSITION



TYPICAL MESSAGE PLACEMENT FOR TURN LANES



TYPICAL MARKINGS FOR LEFT TURN ISLANDS

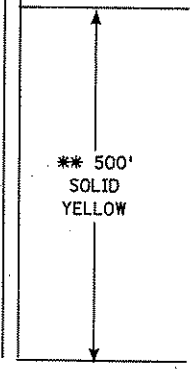


AT SPEEDS LESS THAN 40 MPH THE WIDTH OF THE CROSSHATCH LINE MAY BE REDUCED TO 12\".

AT SPEEDS 40 MPH AND OVER THE SPACING MAY BE INCREASED TO 30' BETWEEN CROSSHATCH LINES.

- * SEE "TYPICAL MESSAGE PLACEMENT FOR TURN LANES" FOR NUMBER OF ARROWS.
 - ** IF THE DISTANCE BETWEEN THE BEGINNING OF THE SOLID LINE YELLOW IS LESS THAN THE DISTANCES IN THE CHART BELOW FROM THE END OF A PRECEDING SOLID LINE YELLOW IN THE SAME LANE, THE SOLID LINE SHALL BE EXTENDED BETWEEN THEM.
- | | |
|---------------------------------|------|
| 35 MPH SPEED LIMIT OR LESS..... | 500' |
| 40-50 MPH SPEED LIMIT..... | 650' |
| 55 MPH SPEED LIMIT..... | 800' |

DUAL LEFT TURN LANES



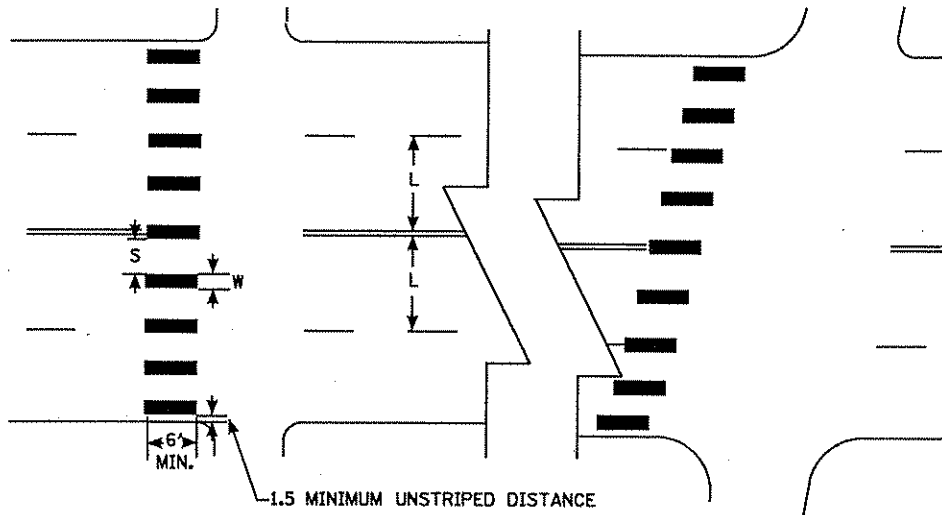
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 PLOTTED/REVISED: 1/31/2007

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: 10208123_ttypicals_pm_1st6
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MARKINGS FOR PEDESTRIAN CROSSWALKS

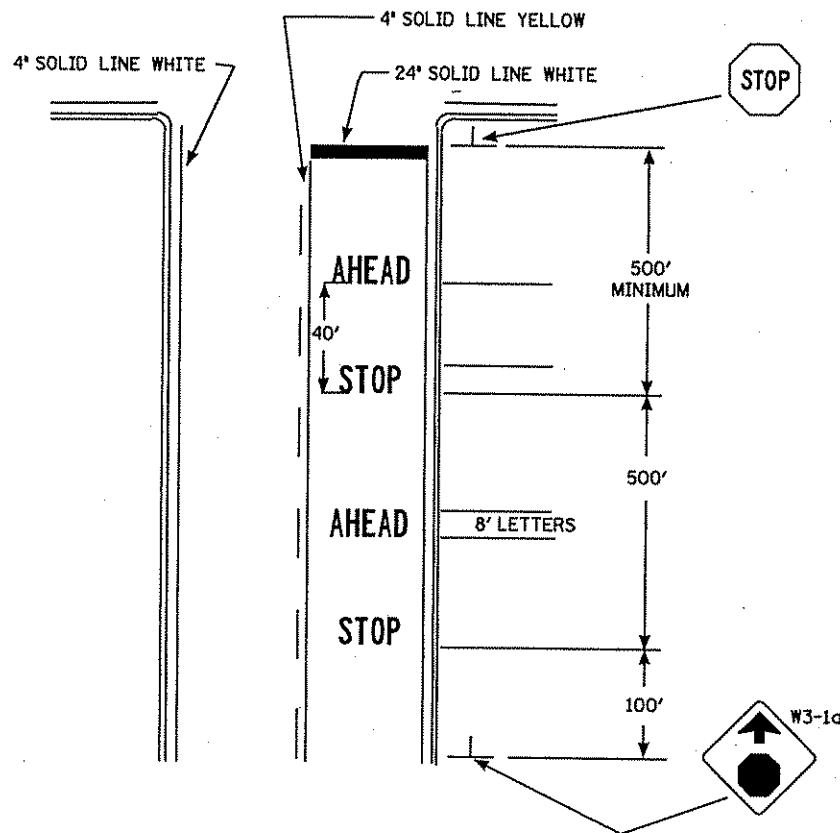
(L) WIDTH OF INSIDE LANE	(W) WIDTH OF PAINTED AREA	(S) WIDTH OF SPACE
9'	2.0'	2.5'
10'	2.5'	2.5'
11'	2.5'	3.0'
12'	3.0'	3.0'
13'	3.0'	3.5'



NOTES:

1. PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
2. A MINIMUM OF 1.5 FT. CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE CURB. IF LAST PAINTED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
3. ON TWO LANE TWO WAY STREETS, USE SPACING SHOWN FOR AN 11 FT. INSIDE LANE.
4. FOR DIVIDED ROADWAYS, ADJUSTMENTS IN SPACING OF THE BLOCKS SHOULD BE MADE IN THE MEDIAN SO THAT THE BLOCKS ARE MAINTAINED IN THEIR PROPER LOCATION ACROSS THE TRAVELED PORTION OF THE ROADWAY.
5. AT SKEWED CROSSWALKS, THE BLOCKS ARE TO REMAIN PARALLEL TO THE LANE LINES AS SHOWN.

PLACEMENT FOR "STOP AHEAD" MARKINGS AND STOP LINES



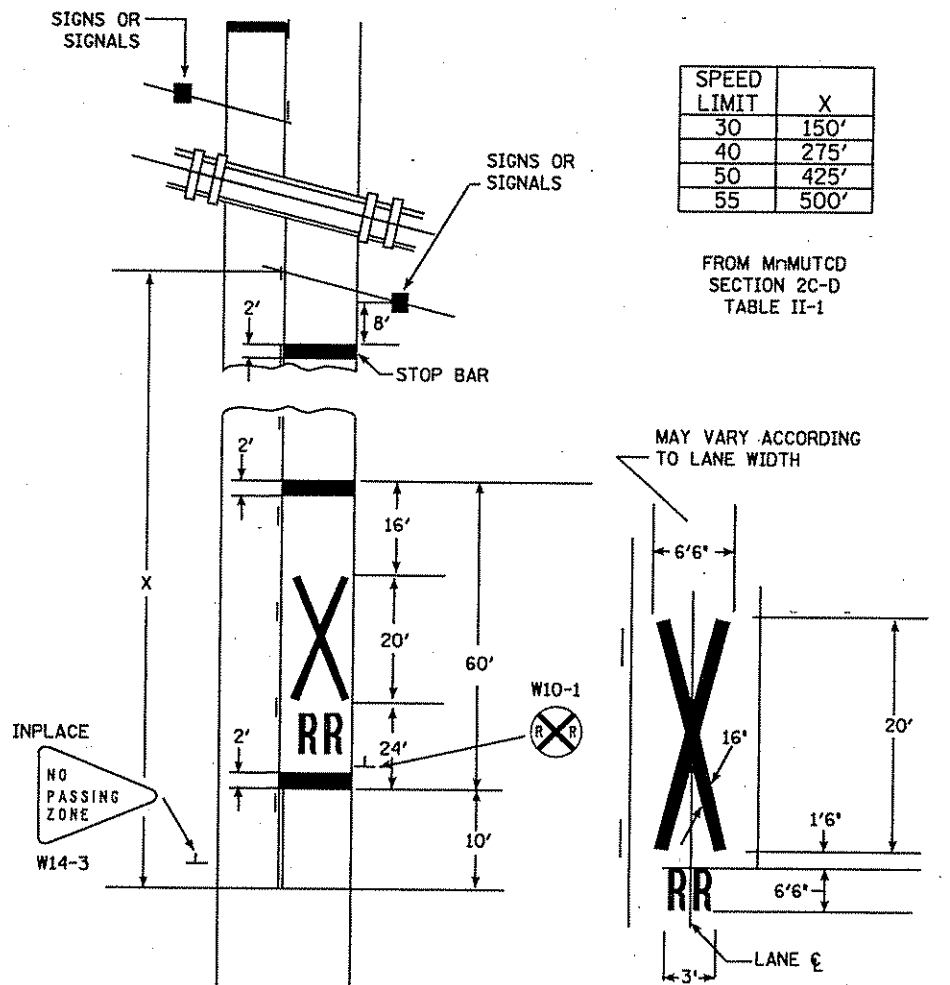
NOTES:

1. DOUBLE MESSAGE AS SHOWN SHOULD BE PLACED WHEREVER APPROACH SPEEDS ARE OVER 40 MPH.
2. IF THE DISTANCE BETWEEN THE BEGINNING OF THE SOLID LINE YELLOW IS LESS THAN THE DISTANCES IN THE CHART BELOW FROM THE END OF A PRECEDING SOLID LINE YELLOW IN THE SAME LANE, THE SOLID LINE SHALL BE EXTENDED BETWEEN THEM.

35 MPH SPEED LIMIT OR LESS 500'
40-50 MPH SPEED LIMIT 650'
55 MPH SPEED LIMIT 800'
3. STOP LINES SHOULD ORDINARILY BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE. IN THE ABSENCE OF A MARKED CROSSWALK, THE STOP LINE SHOULD BE PLACED AT THE DESIRED STOPPING POINT, AND IN NO CASE NO MORE THAN 30 FEET OR NO LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING CURB LINE OR NEAR EDGE OR SHOULDER.

IF A STOP LINE IS USED IN CONJUNCTION WITH A STOP SIGN, IT SHOULD ORDINARILY BE PLACED IN LINE WITH THE STOP SIGN. HOWEVER, IF THE SIGN CANNOT BE LOCATED EXACTLY WHERE VEHICLES ARE EXPECTED TO STOP, THE STOP LINE SHOULD BE PLACED AT THE STOPPING POINT.

MARKINGS FOR RAILROAD CROSSINGS

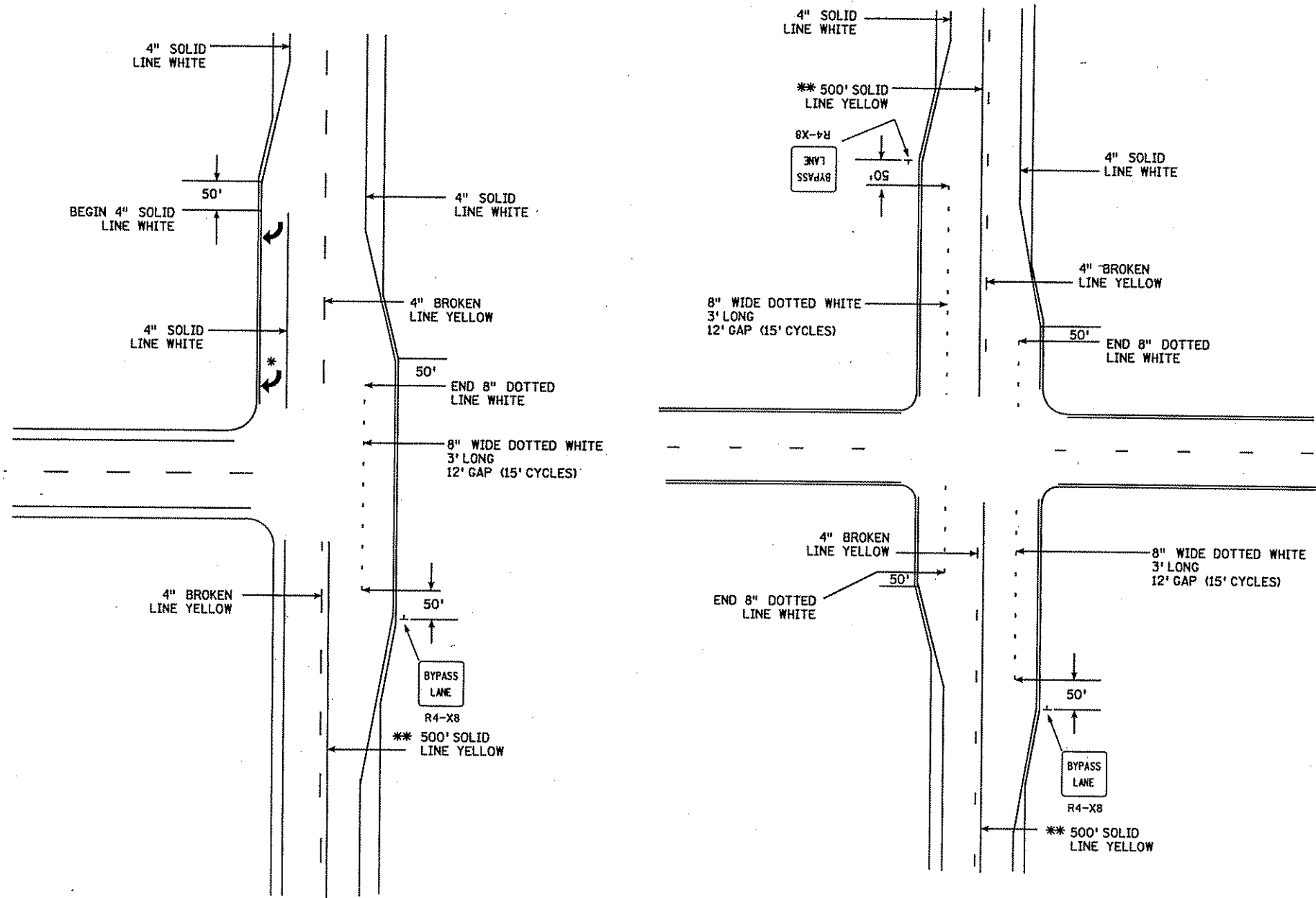


NOTES:

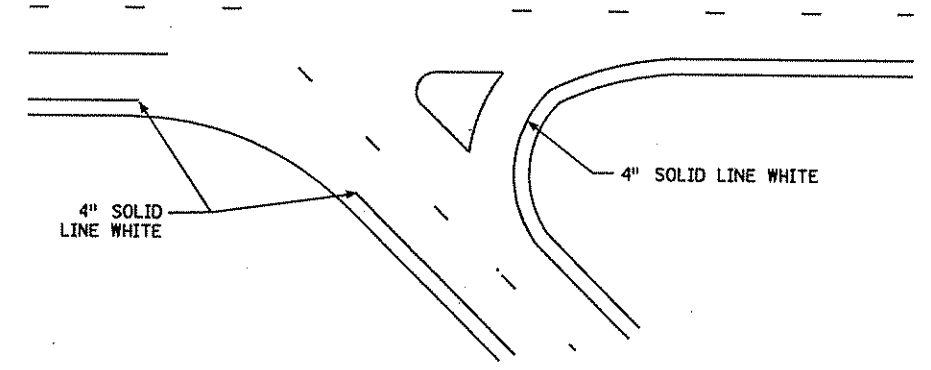
1. THE DISTANCE FROM THE RAILROAD CROSSING MARKING TO THE NEAREST TRACK WILL VARY ACCORDING TO THE APPROACH SPEED AND SIGHT DISTANCE OF THE VEHICULAR TRAFFIC APPROACHING, BUT SHOULD NOT BE LESS THAN 50 FEET.
2. ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
3. THE STOP LINE MAY BE PARALLEL TO AND 15 FEET FROM THE TRACKS WHERE THERE ARE RAILROAD CROSSBUCK SIGNS.

PAVEMENT MARKING TYPICALS

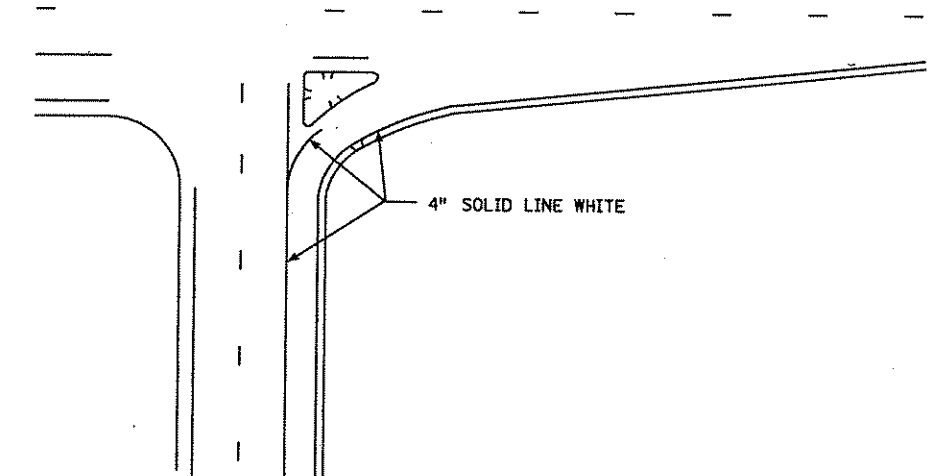
MARKINGS FOR BYPASS LANES



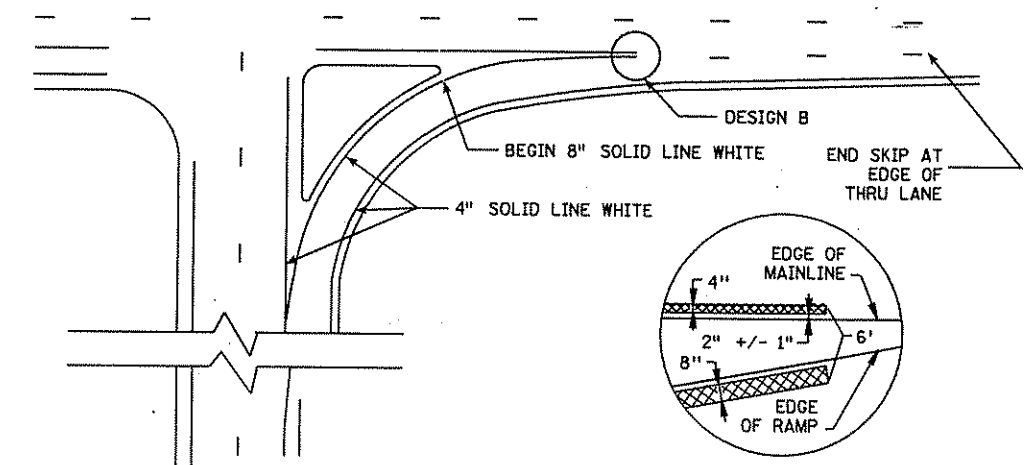
FREE RIGHT STOP CONDITION



FREE RIGHT YIELD CONDITION



FREE RIGHT MERGE CONDITION



* SEE "TYPICAL MESSAGE PLACEMENT FOR TURN LANES" FOR NUMBER OF ARROWS.

** IF THE DISTANCE BETWEEN THE BEGINNING OF THE SOLID LINE YELLOW IS LESS THAN THE DISTANCES IN THE CHART BELOW FROM THE END OF A PRECEDING SOLID LINE YELLOW IN THE SAME LANE, THE SOLID LINE SHALL BE EXTENDED BETWEEN THEM.

35 MPH SPEED LIMIT OR LESS.....	500'
40-50 MPH SPEED LIMIT.....	650'
55 MPH SPEED LIMIT.....	800'

PLOTTED/REVISED: 1/31/2007


DISTRICT #: METRO
 PLOT NAME: 10208123_typicals_pm_tst17
 PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\PLAN\10208123_typicals_pm_tst17.dgn

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPT. OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

STANDARD PLATES	
PLATE NO.	DESCRIPTION
8114A	P.V.C. HANDHOLE/PULLBOX
8127B	LIGHT BASE DESIGN E
8140B	ROADWAY LIGHTING SERVICE CABINET

TAB AD	TABULATION OF LIGHTING QUANTITIES - HPP/STP	
ITEM	UNIT	S.P. 0208-123 ESTIMATED QUANTITIES
REMOVE OVERHEAD CABLE	LIN. FT.	8225
REMOVE WOOD POLE	EACH	4
SALVAGE LIGHTING UNIT	EACH	24
SALVAGE SERVICE CABINET	EACH	4
SALVAGE STEEL LIGHT BASE	EACH	24
HAUL SALVAGED MATERIAL	LUMP SUM	1
LIGHTING UNIT TYPE VM-45	EACH	24
LIGHTING UNIT TYPE 9-40	EACH	14
LIGHTING UNIT TYPE SPECIAL	EACH	24
LIGHT BASE DESIGN STEEL H	EACH	24
LIGHT BASE DESIGN E	EACH	14
2" NON-METALLIC CONDUIT	LIN. FT.	1240
3" NON-METALLIC CONDUIT	LIN. FT.	385
3" NON-METALLIC CONDUIT (DIRECTIONAL BORE)	LIN. FT.	255
UNDERGROUND WIRE 1 CONDUCTOR NO. 2	LIN. FT.	1075
UNDERGROUND WIRE 1 CONDUCTOR NO. 6	LIN. FT.	7295
ARMORED CABLE 4 CONDUCTOR NO. 4	LIN. FT.	5295
OVERHEAD LIGHT CABLE 4 CONDUCTOR NO. 4	LIN. FT.	8225
SERVICE CABINET SECONDARY TYPE L1	EACH	1
SERVICE CABINET SECONDARY TYPE B	EACH	4
SERVICE CABINET SECONDARY TYPE B MODIFIED	EACH	3
EQUIPMENT PAD B	EACH	1
EQUIPMENT PAD B MODIFIED	EACH	3
HANDHOLE	EACH	8
30' WOOD POLE	EACH	4
ELECTRICAL SERVICE	EACH	8

I HEREBY CERTIFY THAT SHEETS 598 TO 608 HAVE BEEN PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.


MICHAEL GERBENSKY
DATE 4-10-07 LIC. NO 19863

LIGHTING QUANTITIES

DRAWN BY: NS

CHECKED BY: GB

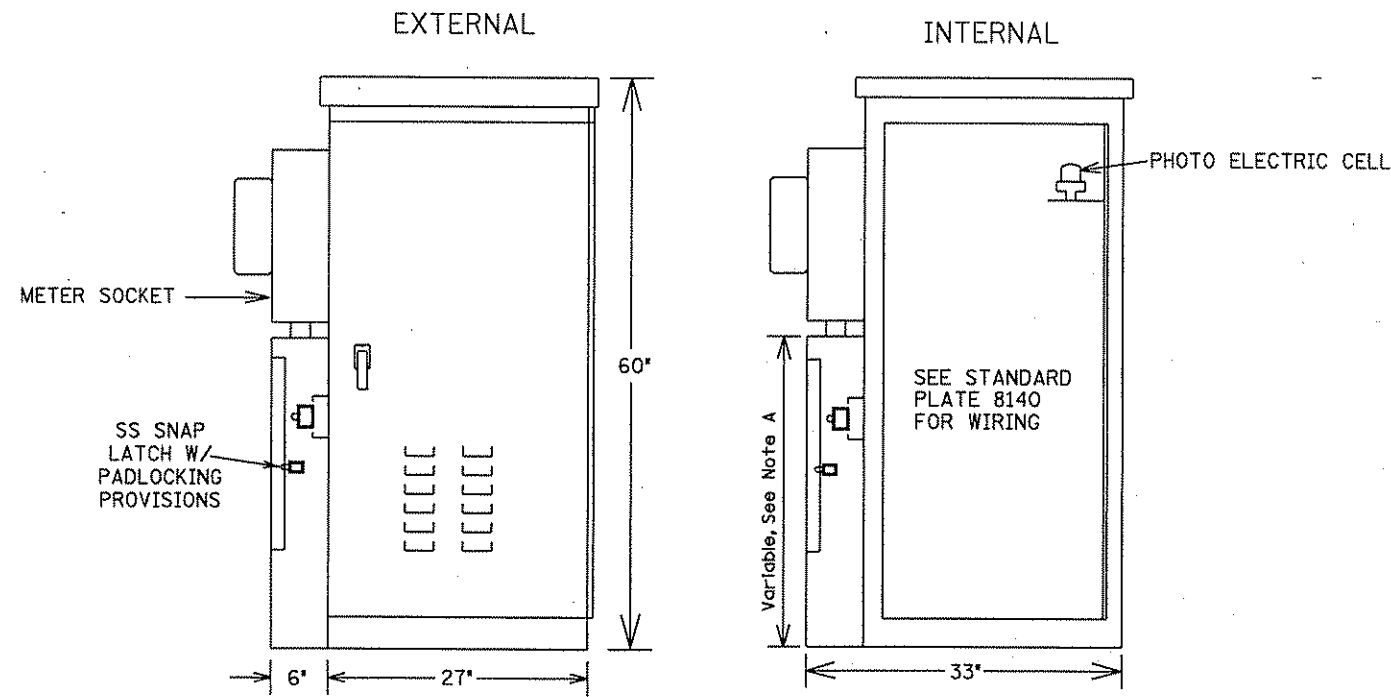
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 598 OF 872 SHEETS

PLOTTED/REVISED: 4/10/2007

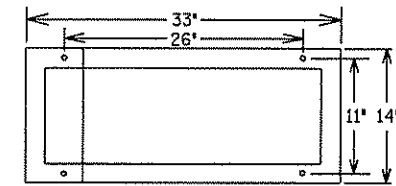
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PLOTTED/REVISED: 1/31/2007

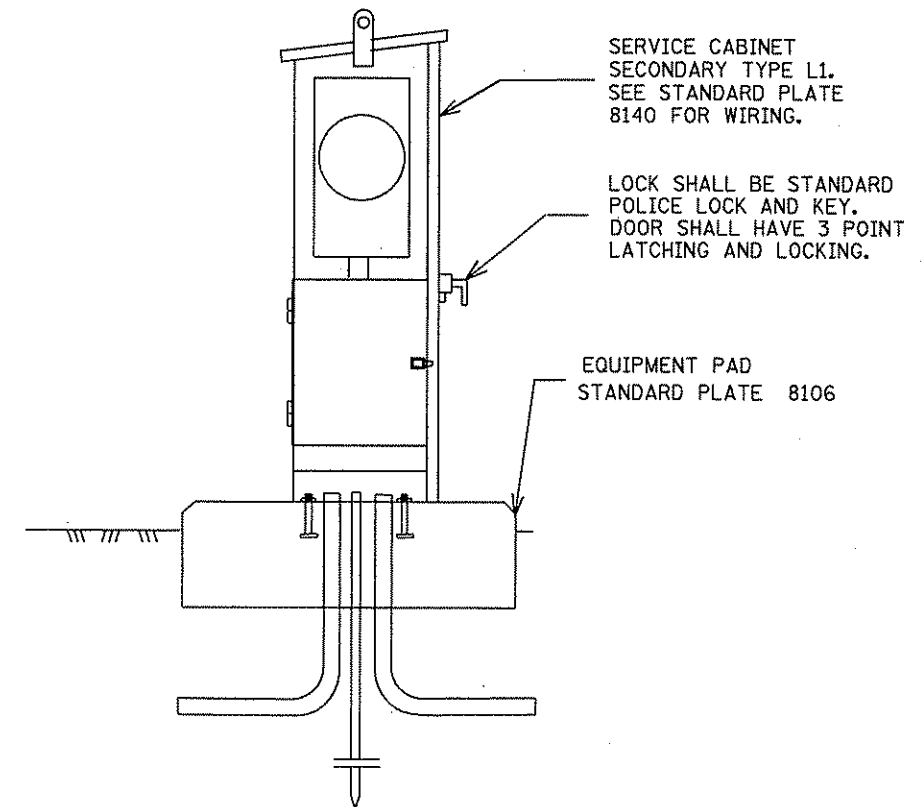
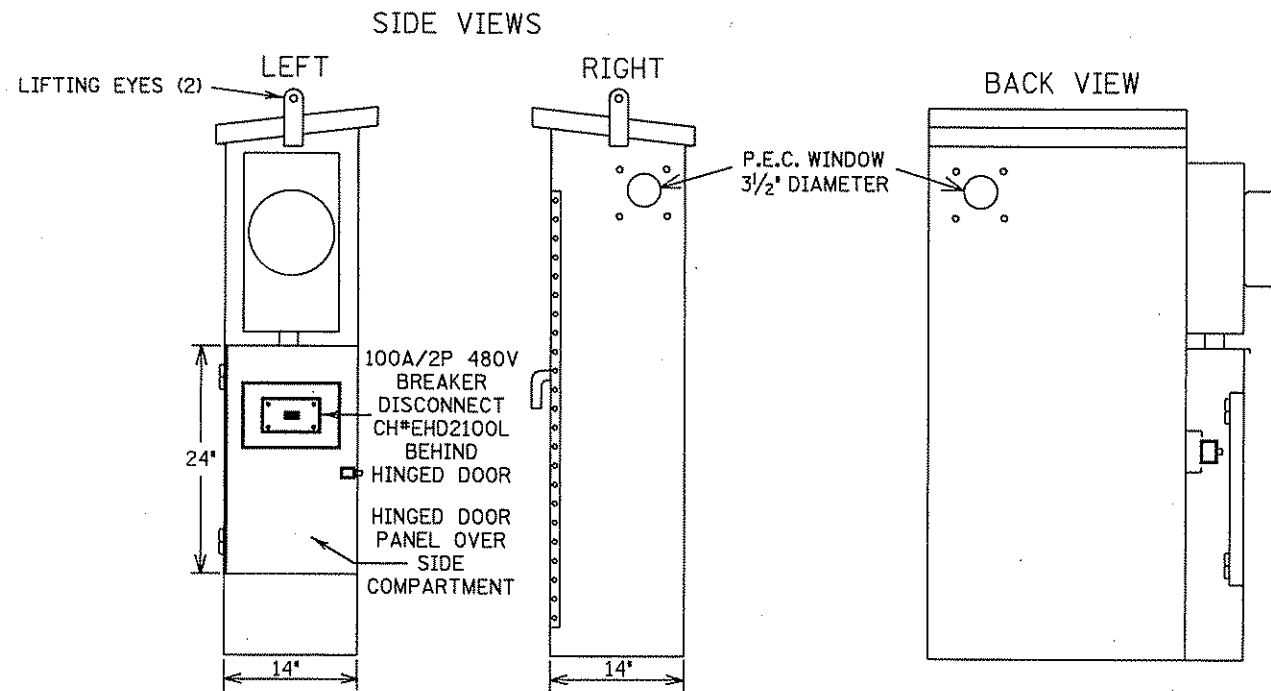
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PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp0208-123\0208-123.lo.dgn



PAD MOUNTING PATTERN



Note A: Height of compartment is approximately 33".
May vary depending upon size of meter socket.



LIGHTING SERVICE CABINET
SERVICE CABINET SECONDARY TYPE L1

LIGHTING DETAILS

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Subinaky
LICENSED PROFESSIONAL ENGINEER

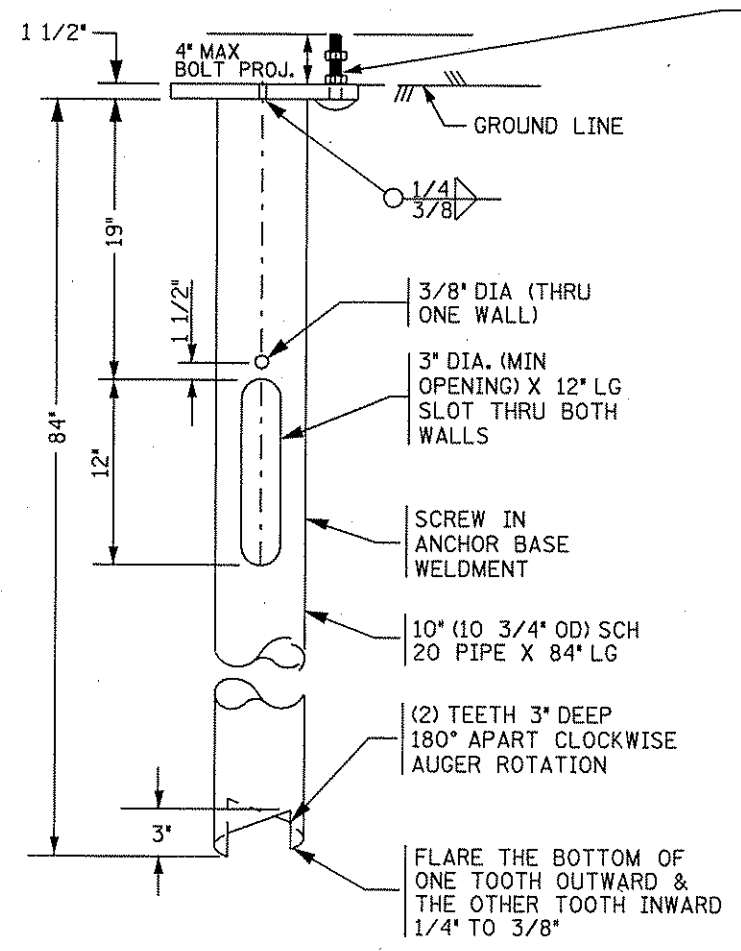
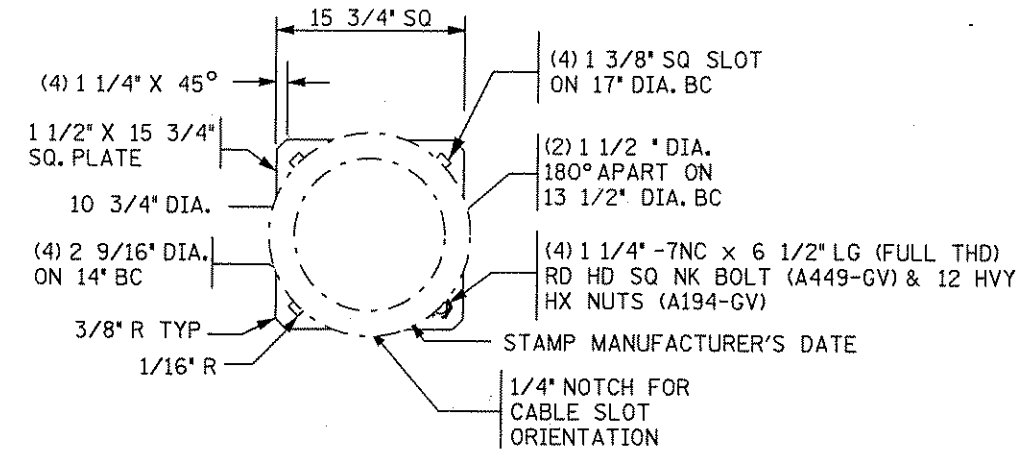
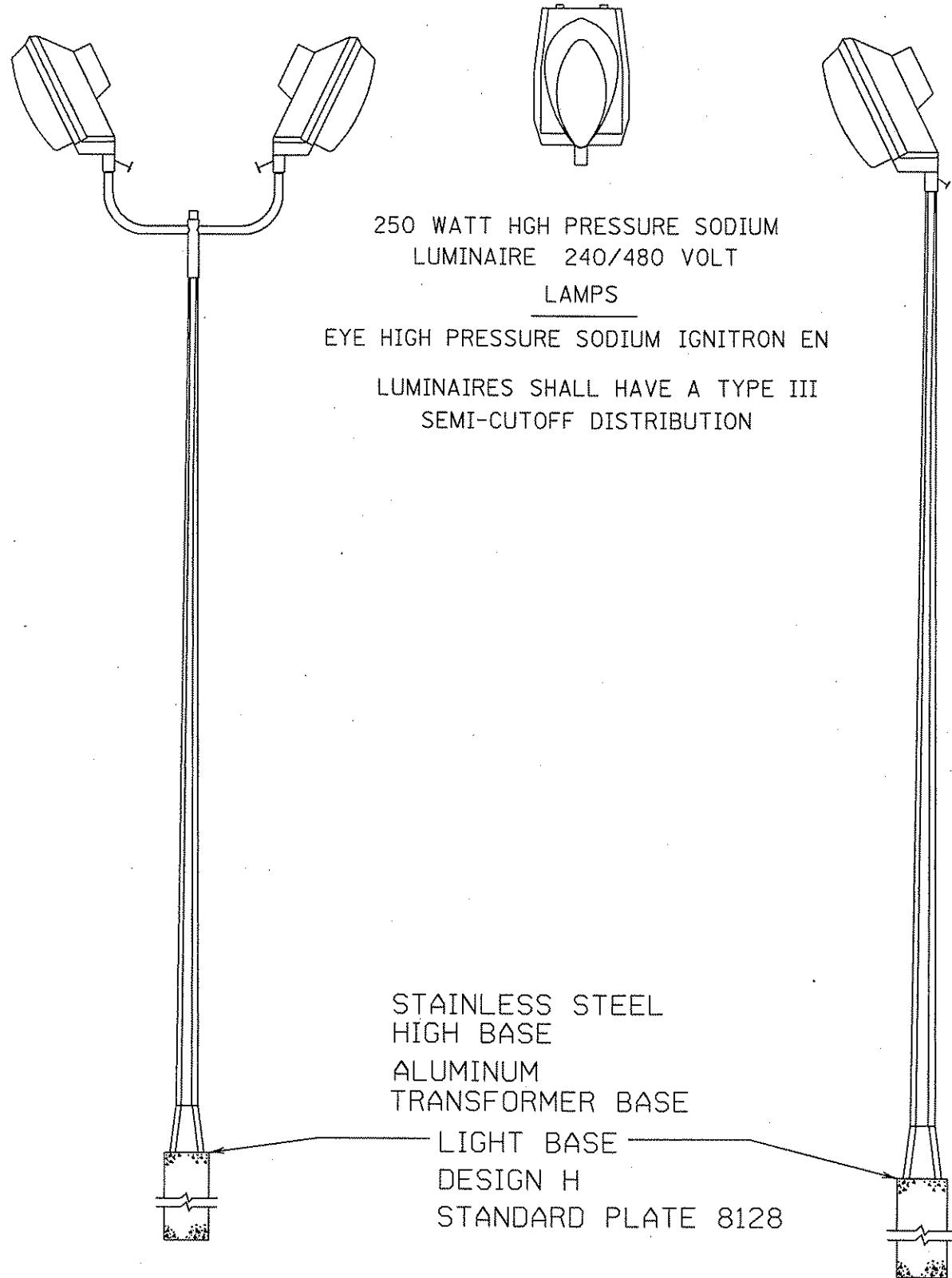
LIC. NO. 19863

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 599 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 0208-123_luminaire
PATH & FILENAME: S:\TRAF\LIGHTING\Plans\065\sp0208-123\0208-123.lodgn



IF NEEDED, INSTALL GALVANIZED STEEL SHIM (14g AND/OR 18g THICKNESS) FOR LEVELING. NO MORE THAN 2 SHIMS SHALL BE INSTALLED ON EACH BOLT. FOR LARGER ADJUSTMENTS INSTALL NO MORE THAN ONE FLAT WASHER 1/8" x 1-3/16" x 2".

- NOTES:
1. PLATE MATERIAL- LOW CARBON STEEL 36,000 PSI MIN YIELD PER ASTM A36
 2. PIPE MATERIAL- 10" SCH 20 PIPE 35,000 PSI MIN. YIELD PER ASTM 53 GRB
 3. ANCHOR BASE IS DESIGNED TO WITHSTAND 15,000 FT LBS OF INSTALLATION TORQUE
 4. ANCHOR BASE SHOULD BE SHIPPED WITH HARDWARE BAGGED AND SECURED TO PIPE SHAFT
 5. ANCHOR BASE TO BE HOT DIP GALVANIZED PER ASTM A123
 6. HEAVY HEX NUTS PER ASTM A194 GR 2H (.03 OVER SIZED FOR GALVANIZED STUD) GALVANIZED NUTS PER ASTM A153
 7. SEE SPECIAL PROVISIONS FOR APPROVED MANUFACTURERS.

LIGHTING UNIT TYPE VMD-45
(BREAKAWAY)

LIGHTING UNIT TYPE VM-45
(BREAKAWAY)

LIGHT BASE DESIGN STEEL H
(TO BE USED FOR TEMPORARY LIGHTING ONLY)

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Lubinsky
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 19863

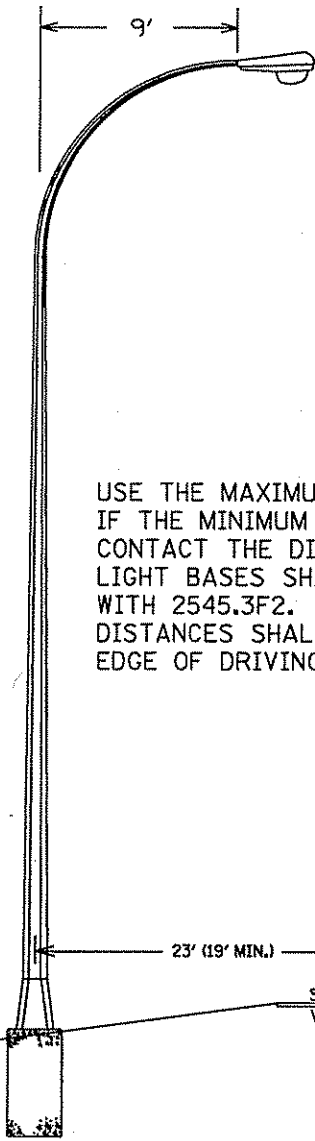
DATE 1/31/2007

LIGHTING DETAILS

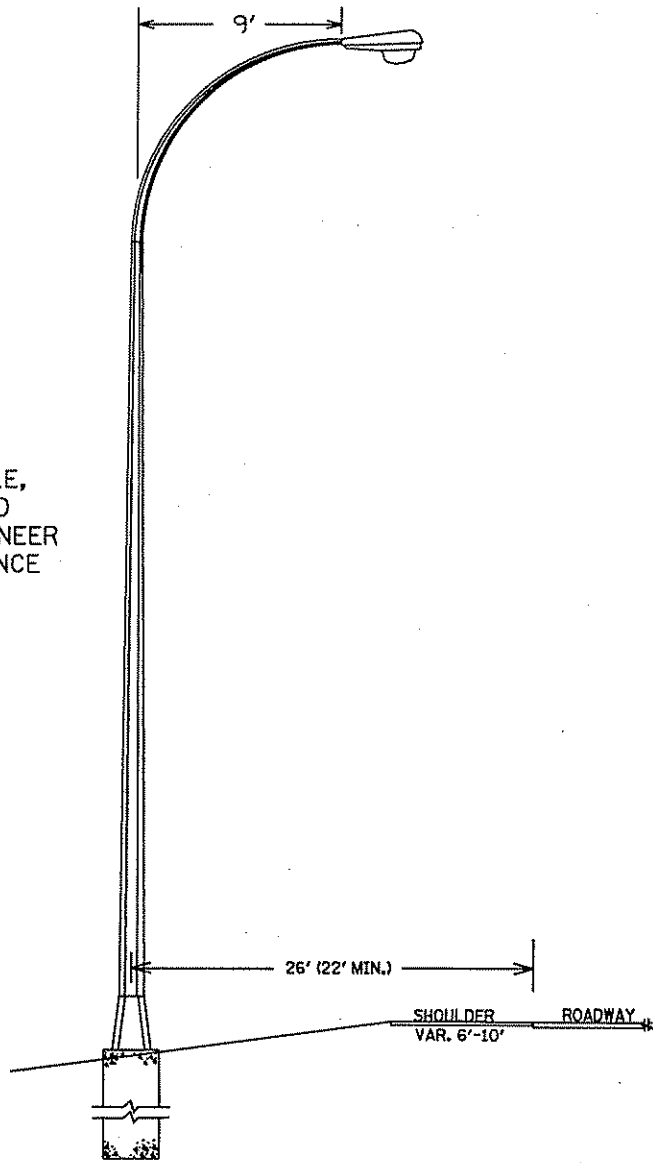
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 600 OF 872 SHEETS

PLOTTED/REVISED: 2/20/2007

DISTRICT: METRO
PLOT NAME: 0208-123
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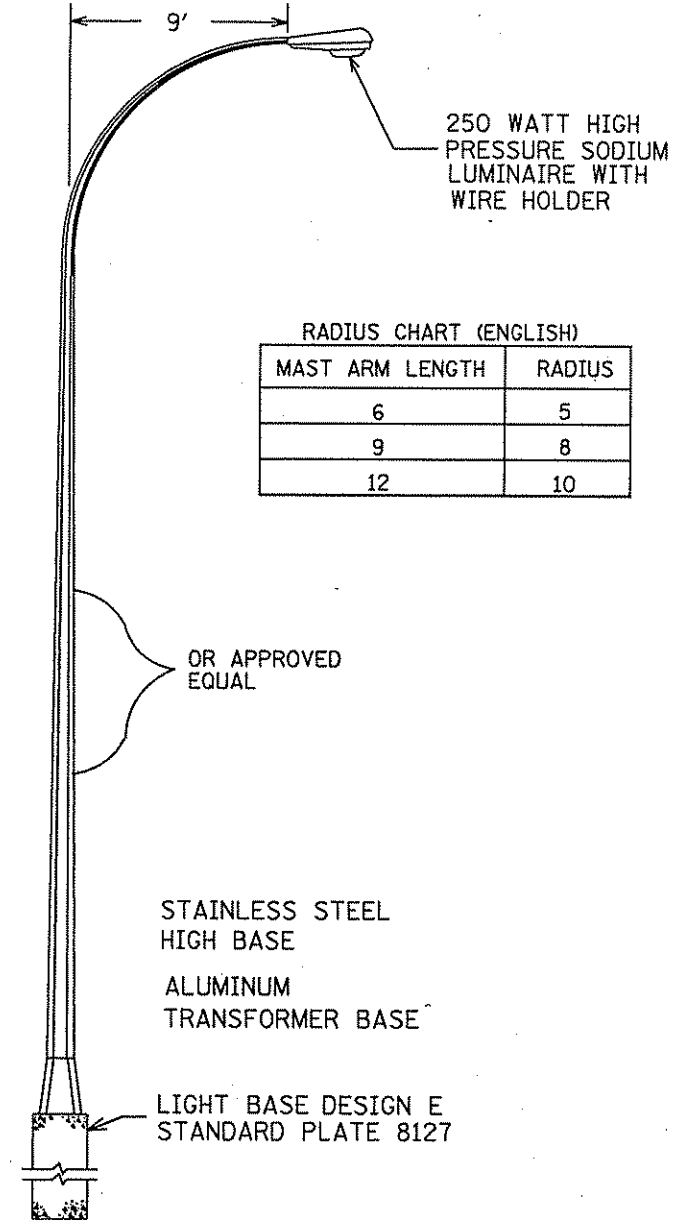
LIGHTING UNIT TYPE 9-40



LIGHTING UNIT TYPE 12-49

USE THE MAXIMUM DISTANCE WHENEVER POSSIBLE,
IF THE MINIMUM DISTANCE CANNOT BE OBTAINED
CONTACT THE DISTRICT/DIVISION TRAFFIC ENGINEER
LIGHT BASES SHALL BE INSTALLED IN ACCORDANCE
WITH 2545.3F2.
DISTANCES SHALL BE MEASURED FROM THE
EDGE OF DRIVING LANE OR TURN LANE.

PLACEMENT OF LIGHTING UNITS TYPE 9-40, 12-40 & 12-49



LIGHTING UNIT TYPE 9-40
(BREAKAWAY)

RADIUS CHART (ENGLISH)

MAST ARM LENGTH	RADIUS
6	5
9	8
12	10

OR APPROVED
EQUAL

STAINLESS STEEL
HIGH BASE
ALUMINUM
TRANSFORMER BASE

LIGHT BASE DESIGN E
STANDARD PLATE 8127

LUMINAIRES

LUMINAIRES SHALL HAVE A TYPE II MEDIUM SEMI-CUTOFF
DISTRIBUTION PER 1983 ANSI/IES STANDARDS WITH SHALLOW
GLASS REFRACTOR-NO PHOTO CELL RECEPTICAL -240/480 V

LAMPS

EYE HIGH PRESSURE SODIUM IGNITRON EN

DETAIL AND PLACEMENT OF LIGHTING UNIT TYPE 9-40

LIGHTING DETAILS

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

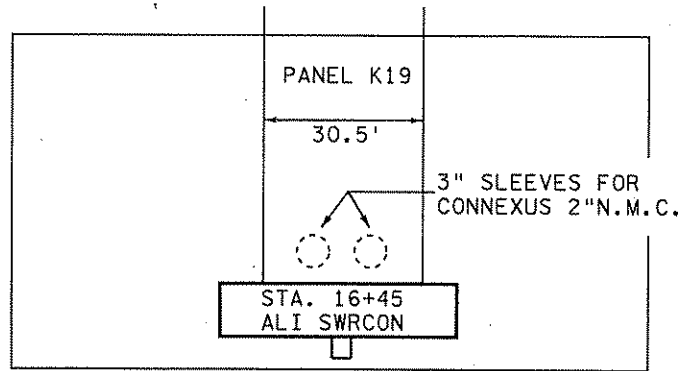
Michael P. Gubinsky
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 19863

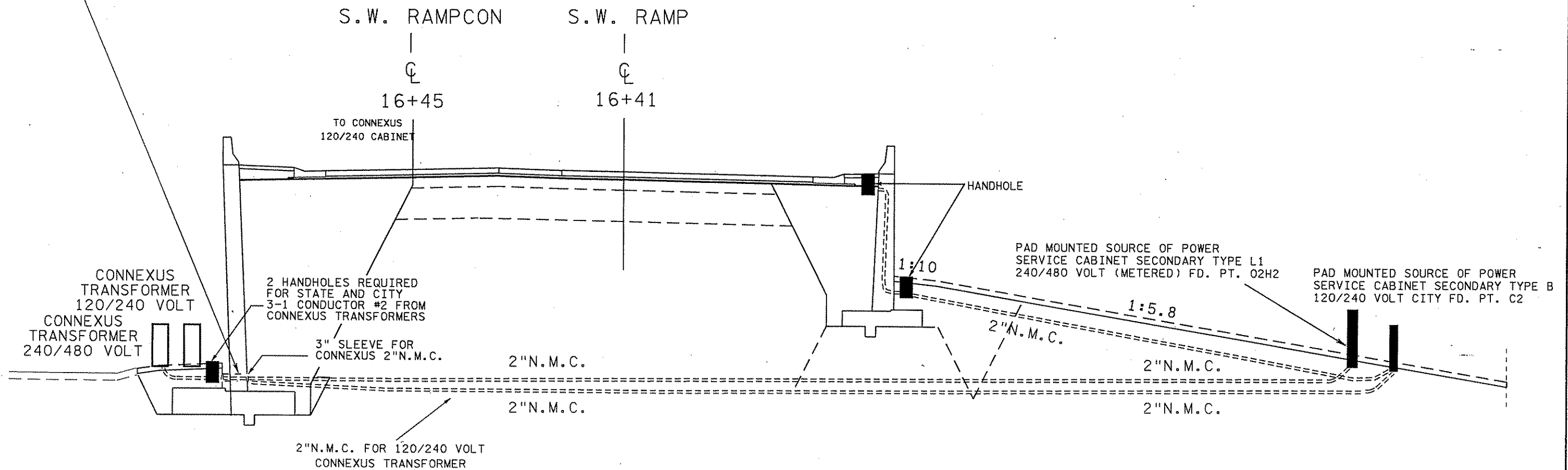
DATE 2/20/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 601 OF 872 SHEETS

DETAIL OF WALL SLEEVES



3" SLEEVES THRU PANEL FOR CONNEXUS CONNECTION TO CITY AND STATE SERVICE CABINETS



LOCATION FOR SLEEVES IN RETAINING WALL PANEL FOR ROUTING CONDUIT FROM CONNEXUS TRANSFORMERS TO SERVICE CABINETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: 0208-123_wall sleeve
 PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp0208-123\0208-123.lodgn

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Sebrasty
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 19863

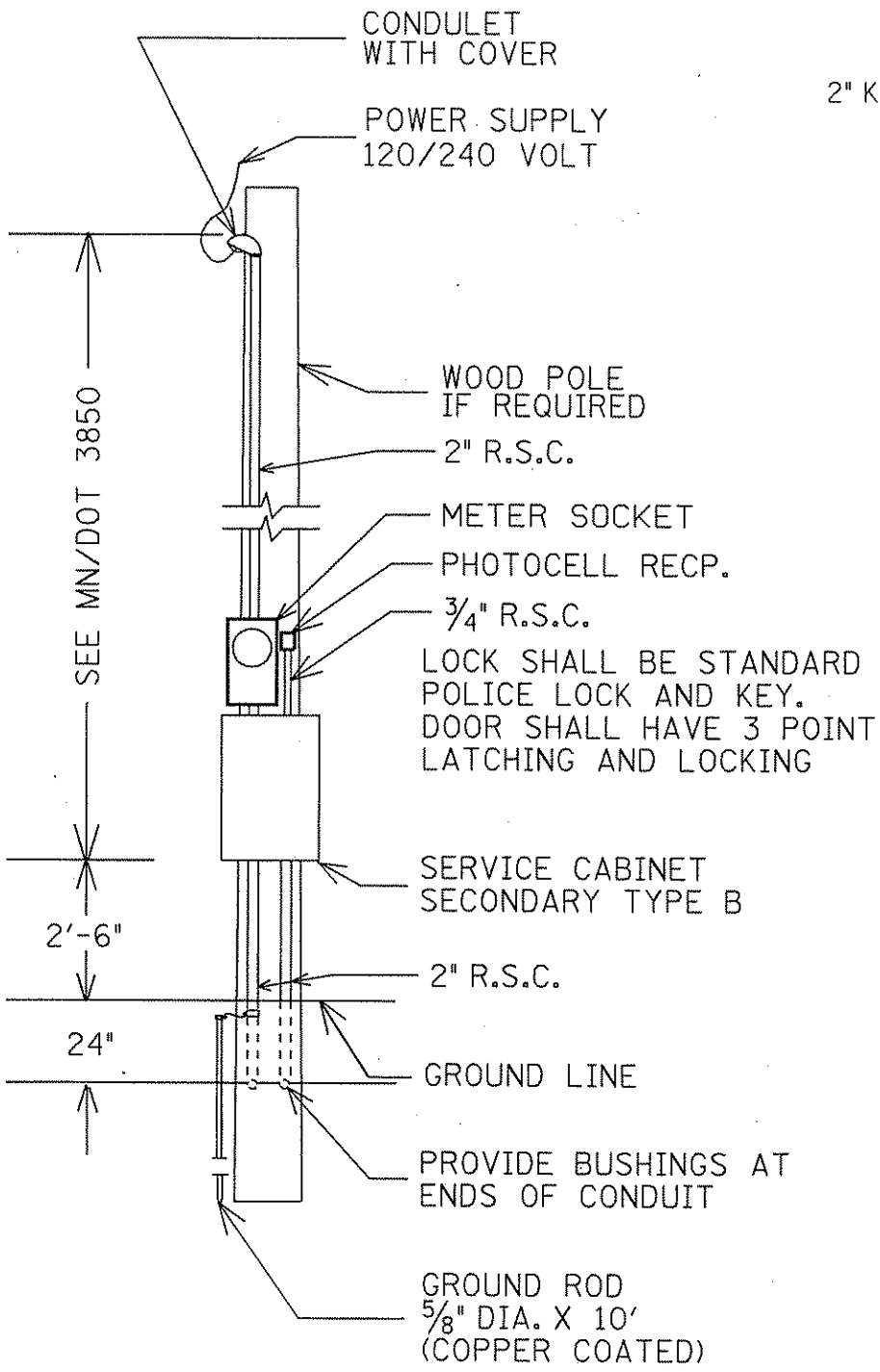
DATE 1/31/2007

LIGHTING DETAILS

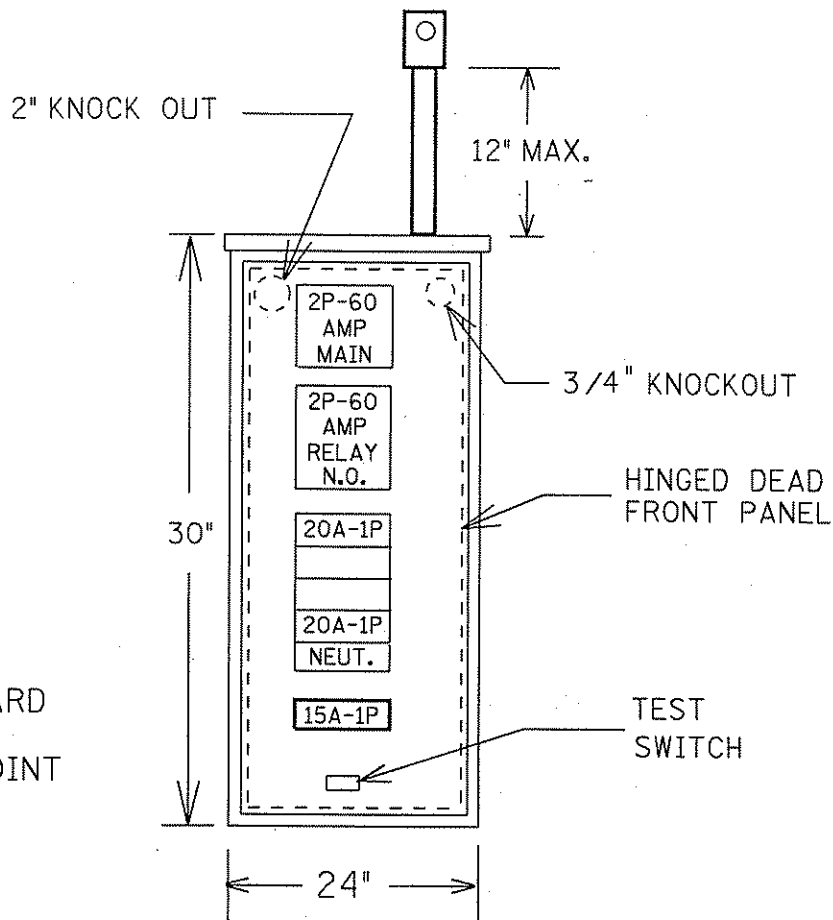
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PLOTTED/REVISED: 1/31/2007

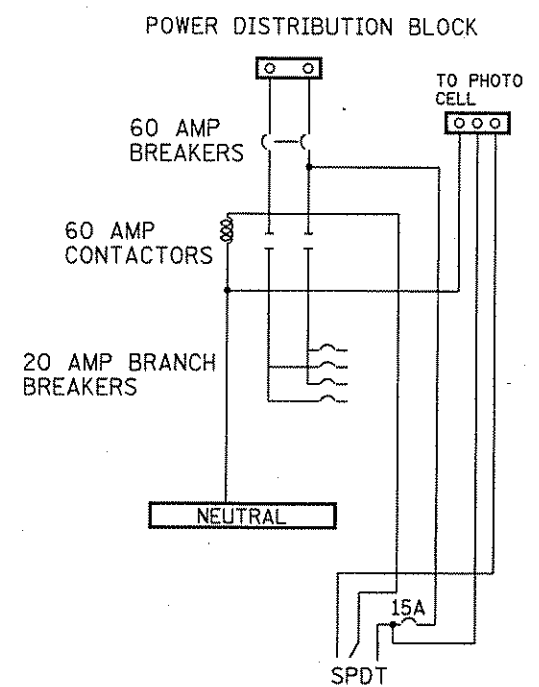
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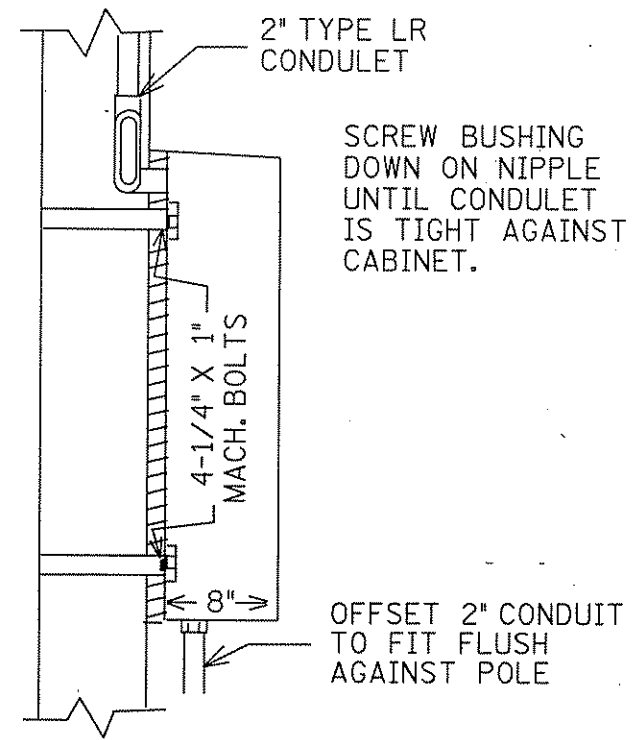
CABINET INSTALLATION



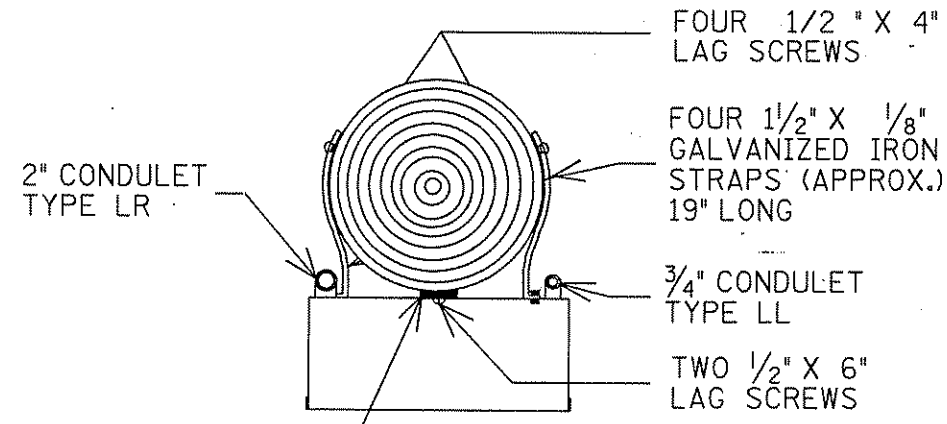
CABINET AND COVER-12 GAUGE STEEL
PAINTED IN ACCORDANCE WITH 2545.3M



CABINET WIRING



SIDE VIEW



WOOD BLOCK 30" LONG MAY BE OMITTED WHEN POLE DIAMETER IS SMALL ENOUGH TO PROVIDE CLEARANCE FOR CONDULET ON BACK OF CABINET. IF WOOD BLOCK IS OMITTED USE 4" LAG SCREWS FOR MOUNTING

SERVICE CABINET SECONDARY TYPE B

TEMPORARY LIGHTING PLAN

DRAWN BY: NS CHECKED BY: GB CERTIFIED BY: *Michael P. Selinsky* LIC. NO. 19863 DATE 1/31/2007




STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 603 OF 872 SHEETS

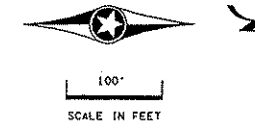
PLOTTED/REVISED: 1/31/2007

TEMPORARY FD. PT. 1

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	775+00			T.H. 65 N.B.	VM-45	250
2	777+50			T.H. 65 N.B.	VM-45	250
3	780+00			T.H. 65 N.B.	VM-45	250
4	780+00			T.H. 65 S.B.	VM-45	250
5	777+10			INP. 65 S.B.	VM-45	250
6	774+60			INP. 65 S.B.	VM-45	250

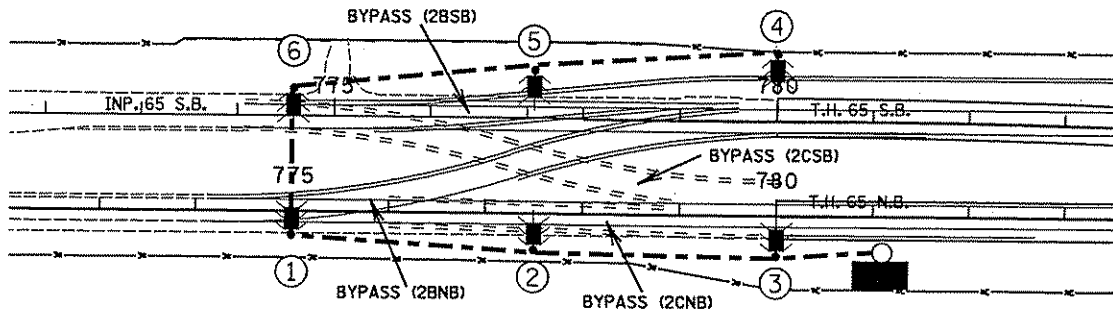
LEGEND

-  VM-45 LIGHTING UNIT (250 WHPS) AND LIGHT BASE DESIGN STEEL H
-  SERVICE CABINET SECONDARY TYPE B AND 30' WOOD POLE
-  4/C # 4 OVERHEAD CABLE

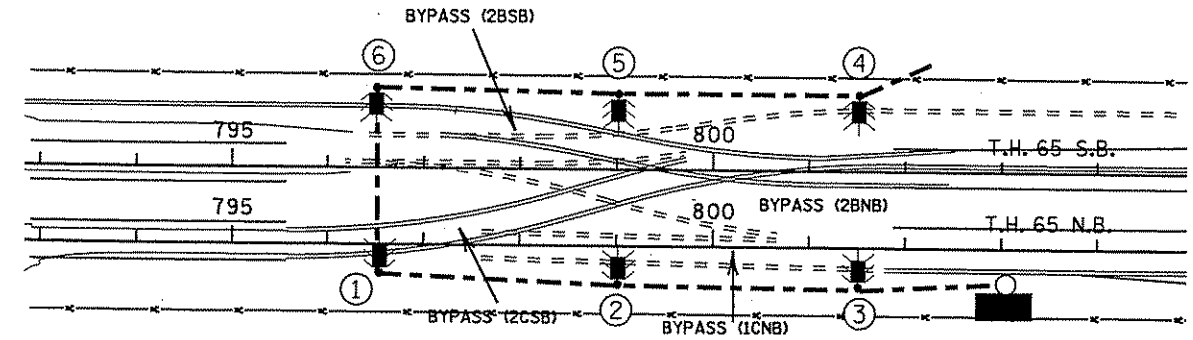


TEMPORARY FD. PT. 2

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	796+50			T.H. 65 N.B.	VM-45	250
2	799+00			T.H. 65 N.B.	VM-45	250
3	801+50			T.H. 65 N.B.	VM-45	250
4	801+50			T.H. 65 S.B.	VM-45	250
5	799+00			T.H. 65 S.B.	VM-45	250
6	796+50			T.H. 65 S.B.	VM-45	250



POLE MOUNTED SOURCE OF POWER
 SERVICE CABINET SECONDARY TYPE B
 120/240 VOLT (METERED) FD. PT. 1
 2" R.S.C., 3-1/C #2 AND WEATHERHEAD
 FROM SERVICE CABINET TO TOP OF POLE.
 30' WOOD POLE REQUIRED

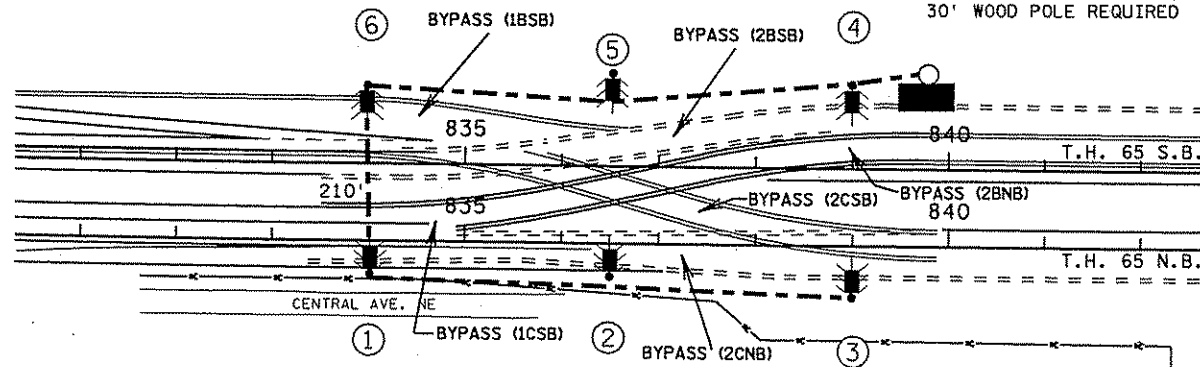


POLE MOUNTED SOURCE OF POWER
 SERVICE CABINET SECONDARY TYPE B
 120/240 VOLT (METERED) FD. PT. 1
 2" R.S.C., 3-1/C #2 AND WEATHERHEAD
 FROM SERVICE CABINET TO TOP OF POLE.
 30' WOOD POLE REQUIRED

TEMPORARY FD. PT. 3

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	834+00			T.H. 65 N.B.	VM-45	250
2	836+50			T.H. 65 N.B.	VM-45	250
3	839+00			T.H. 65 N.B.	VM-45	250
4	839+00			T.H. 65 S.B.	VM-45	250
5	836+50			T.H. 65 S.B.	VM-45	250
6	834+00			T.H. 65 S.B.	VM-45	250

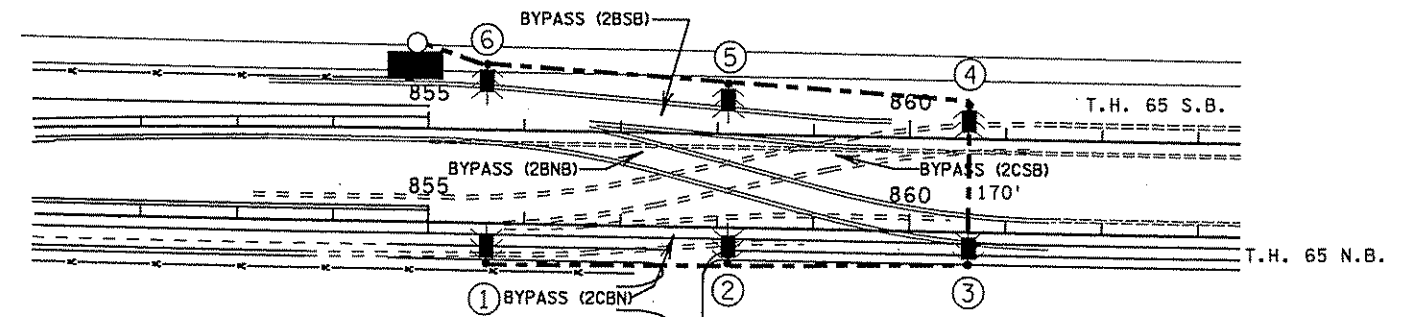
POLE MOUNTED SOURCE OF POWER
 SERVICE CABINET SECONDARY TYPE B
 120/240 VOLT (METERED) FD. PT. 1
 2" R.S.C., 3-1/C #2 AND WEATHERHEAD
 FROM SERVICE CABINET TO TOP OF POLE.
 30' WOOD POLE REQUIRED



TEMPORARY FD. PT. 4

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	855+60			T.H. 65 N.B.	VM-45	250
2	858+10			T.H. 65 N.B.	VM-45	250
3	860+60			T.H. 65 N.B.	VM-45	250
4	860+60			T.H. 65 S.B.	VM-45	250
5	858+10			T.H. 65 S.B.	VM-45	250
6	855+60			T.H. 65 S.B.	VM-45	250

POLE MOUNTED SOURCE OF POWER
 SERVICE CABINET SECONDARY TYPE B
 120/240 VOLT (METERED) FD. PT. 1
 2" R.S.C., 3-1/C #2 AND WEATHERHEAD
 FROM SERVICE CABINET TO TOP OF POLE.
 30' WOOD POLE REQUIRED



TEMPORARY LIGHTING PLAN

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Sulway
 LICENSED PROFESSIONAL ENGINEER







LIC. NO. 19863

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 604 OF 872 SHEETS

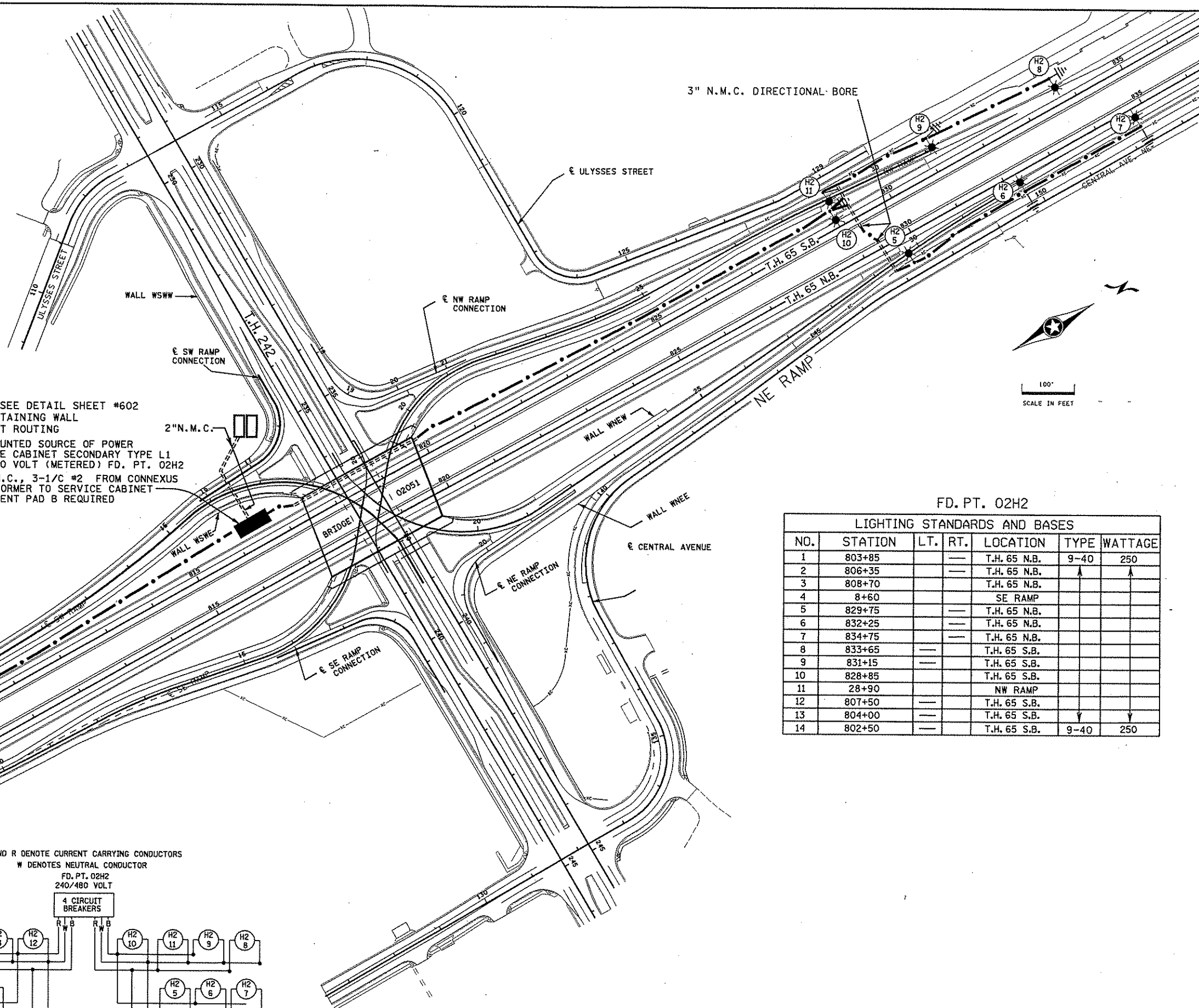
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 PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp0208-123\0208-123.lodgn

LEGEND

-  9-40 LIGHTING UNIT (250 WATT HIGH PRESSURE SODIUM)
-  PAD MOUNTED SOURCE OF POWER (240/480) VOLT
-  CONNEXUS TRANSFORMER
-  ARMORED CABLE 4 CONDUCTOR NO. 4
-  3" NON-METALLIC CONDUIT UNLESS OTHERWISE NOTED
-  PERMANENT GROUND ROD (25 OHMS OR LESS)

PLOTTED/REVISED: 2/20/2007

DISTRICT #: METRO
 IPLOT NAME: 0208-123_10
 \$PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp0208-123\0208-123_10.dgn



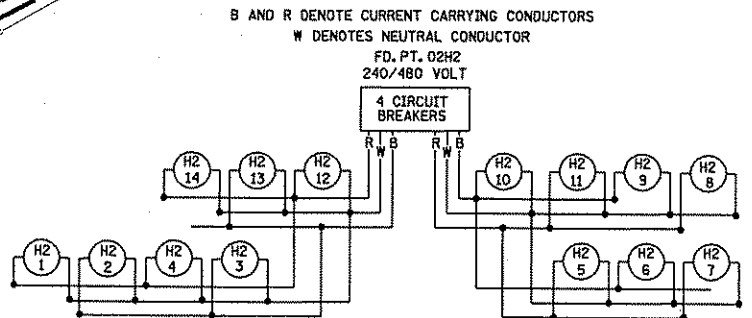
NOTE: SEE DETAIL SHEET #602 FOR RETAINING WALL CONDUIT ROUTING

PAD MOUNTED SOURCE OF POWER SERVICE CABINET SECONDARY TYPE L1 240/480 VOLT (METERED) FD. PT. 02H2

2" N.M.C., 3-1/C #2 FROM CONNEXUS TRANSFORMER TO SERVICE CABINET EQUIPMENT PAD B REQUIRED

FD. PT. 02H2

LIGHTING STANDARDS AND BASES					
NO.	STATION	LT.	RT.	LOCATION	WATTAGE
1	803+85			T.H. 65 N.B.	250
2	806+35			T.H. 65 N.B.	
3	808+70			T.H. 65 N.B.	
4	8+60			SE RAMP	
5	829+75			T.H. 65 N.B.	
6	832+25			T.H. 65 N.B.	
7	834+75			T.H. 65 N.B.	
8	833+65			T.H. 65 S.B.	
9	831+15			T.H. 65 S.B.	
10	828+85			T.H. 65 S.B.	
11	28+90			NW RAMP	
12	807+50			T.H. 65 S.B.	
13	804+00			T.H. 65 S.B.	
14	802+50			T.H. 65 S.B.	250



T.H. 65 AT T.H. 242
 FEEDPOINT 02H2

LIGHTING PLAN

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Schramm
 LICENSED PROFESSIONAL ENGINEER

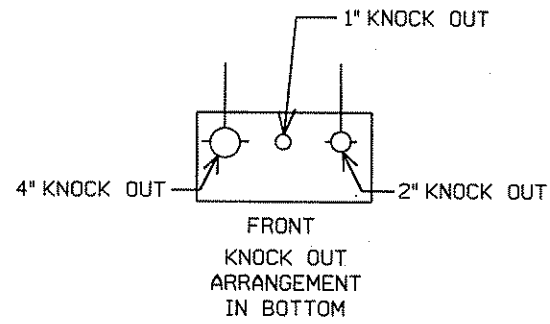
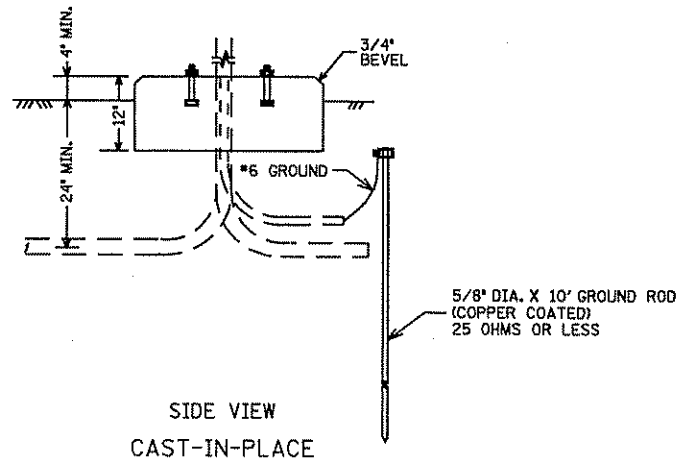
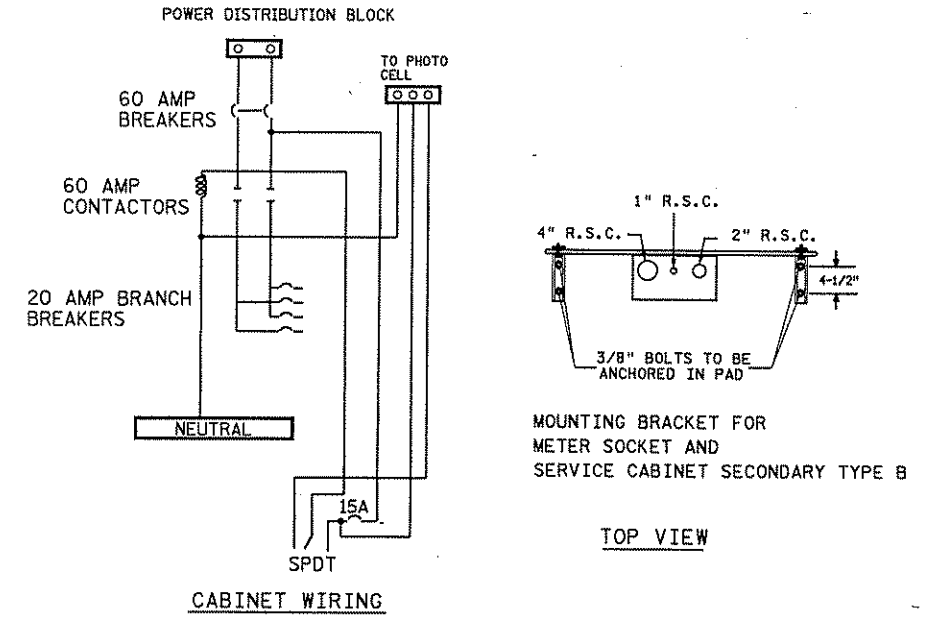
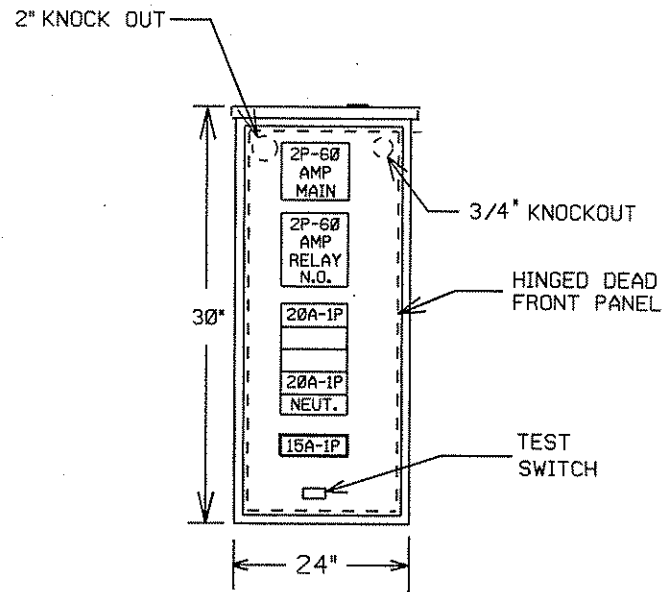
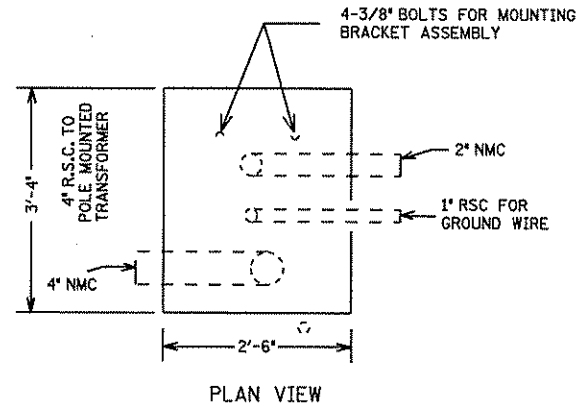
LIC. NO. 19863

DATE 2/20/2007

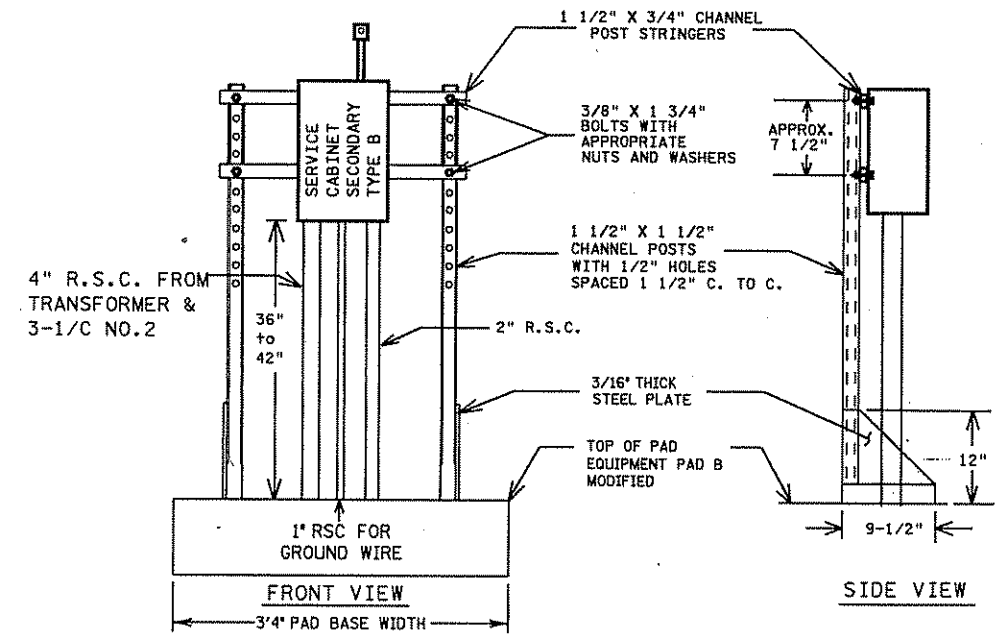
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 605 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 0208-123_citycabinet
PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp0208-123\0208-123.lodgn



CABINET AND COVER-12 GAUGE STEEL
PAINTED IN ACCORDANCE WITH 2545.3M
SERVICE CABINET SECONDARY TYPE B MODIFIED
120/240 VOLT



MOUNTING BRACKET FOR METER SOCKET AND SERVICE CABINET SECONDARY TYPE B MOUNTED ON EQUIPMENT PAD B MODIFIED
CIRCUITS TO BE ENERGIZED AT ALL TIMES

EQUIPMENT PAD B MODIFIED
SERVICE CABINET SECONDARY TYPE B MODIFIED

NOTES:

- CONCRETE SHALL BE MIX 3A32
- TOP OF PAD SHALL HAVE A WOOD FLOAT FINISH.
- H.S. BOLTS, NUTS AND WASHERS PER SPEC. 3391 AND GALV. HARDWARE PER SPEC. 3392.
- INSTALL RSC ELBOWS AS SHOWN IN DETAIL.
- H.S. BOLTS CAN BE CAST-IN-PLACE WITH A 4-1/2 IN. MIN. EMBEDMENT OR PLACED AFTER PAD IS CAST, IN A MANNER ACCEPTABLE TO THE ENGINEER.
- A 5/8 IN. DIA. X 10 FT. GROUND ROD SHALL BE INSTALLED AS SHOWN ON DETAIL

CITY LIGHTING PLAN

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Labovitz
LICENSED PROFESSIONAL ENGINEER

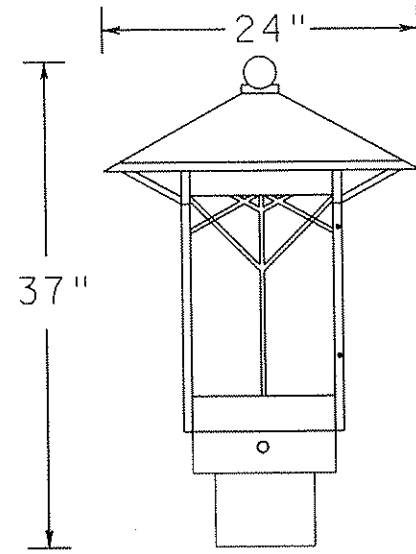
LIC. NO. 19863

DATE 1/31/2007

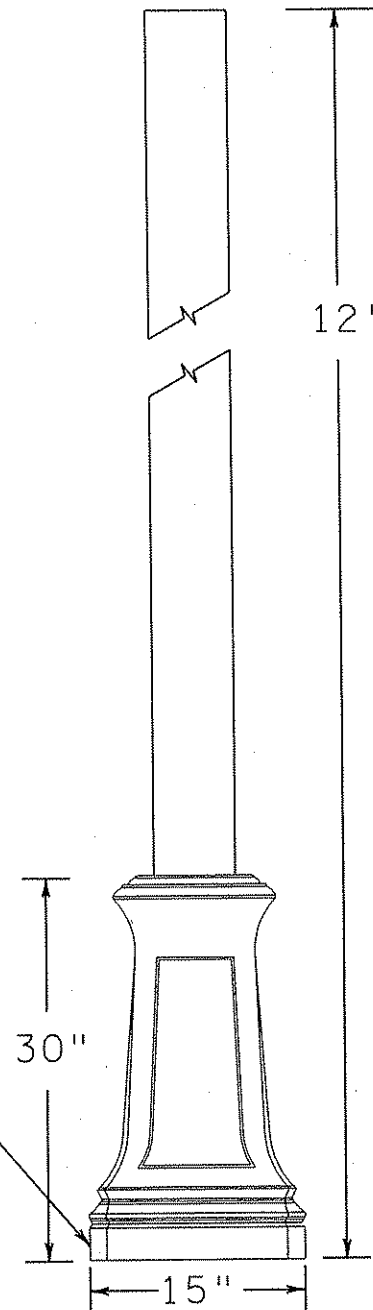
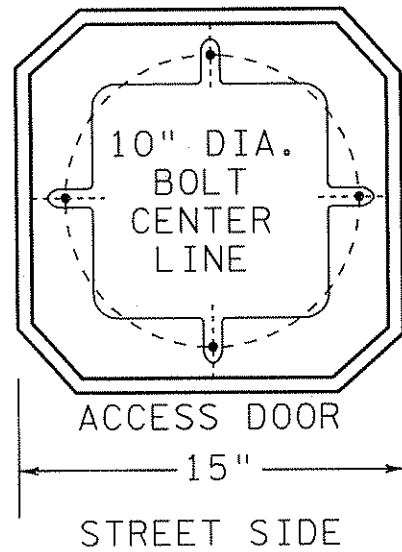
STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 606 OF 872 SHEETS

PLOTTED/REVISED: 4/11/2007

DISTRICT #: METRO
PLOT NAME: 0208-123
PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp0208-123\0208-123.dwg



LUMINAIRE- STERNBURG LIGHTING
 FIXTURE- PRAIRIE (1230)
 FITTER- S5
 LIGHT SOURCE BALLAST- 100 WATT,
 HPS, 120 VOLT
 OPTICS- CA, CLEAR ACRULIC
 FINISH- PG, PARK GREEN



POLE- STERNBERG LIGHTING
 POLE- 84 MONROVIA SERIES, MODEL 84
 HEIGHT- 12 FEET (ABOVE TOP OF PARAPET)
 SHAFT- SQ5, 5" SQUARE
 FINISH- PG, PARK GREEN
 OPTIONS- DBA, DOUBLE BANNER ARMS MOUNT
 ON SAME SIDE OF POLE

15" SQUARE BASE WITH
 4 WIDE CHAMFERED EDGES
 AND 4 RECESSED SIDE PANELS

LIGHT UNIT TYPE SPECIAL
 BRIDGE POLE AND LUMINAIRE DETAILS

CITY LIGHTING PLAN

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Delaney
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 19863

DATE 4/11/2007

STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO.607 OF 872 SHEETS

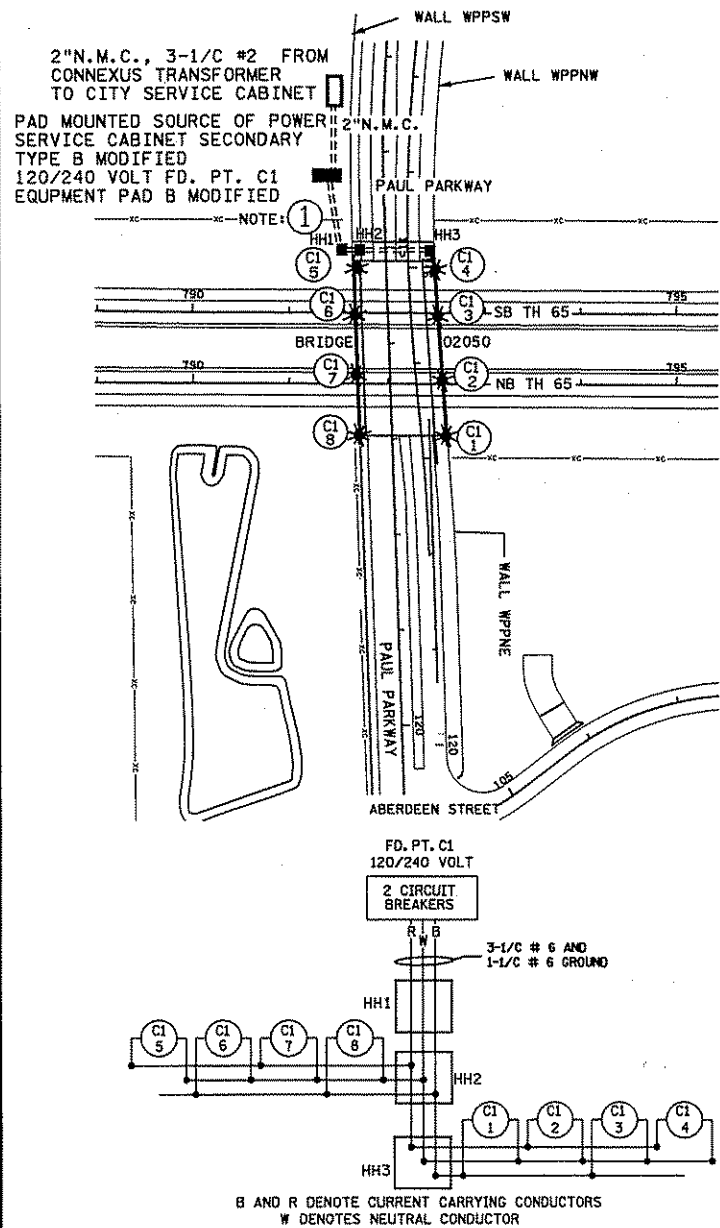
LEGEND

- * 100 WATT HIGH PRESSURE SODIUM LIGHTING UNIT
- CONNEXUS TRANSFORMER
- PAD MOUNTED SOURCE OF POWER (120/240 VOLT)
- HANDHOLE
- ===== 2" NON-METALLIC CONDUIT

CITY LIGHTING FD. PT. 1

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	117+00			EPAUL	SPECIAL	100
2	116+40					
3	115+75					
4	115+10					
5	115+10					
6	115+70					
7	116+30					
8	116+95			EPAUL	SPECIAL	100

BRIDGE POLE ANCHORAGE BY OTHERS



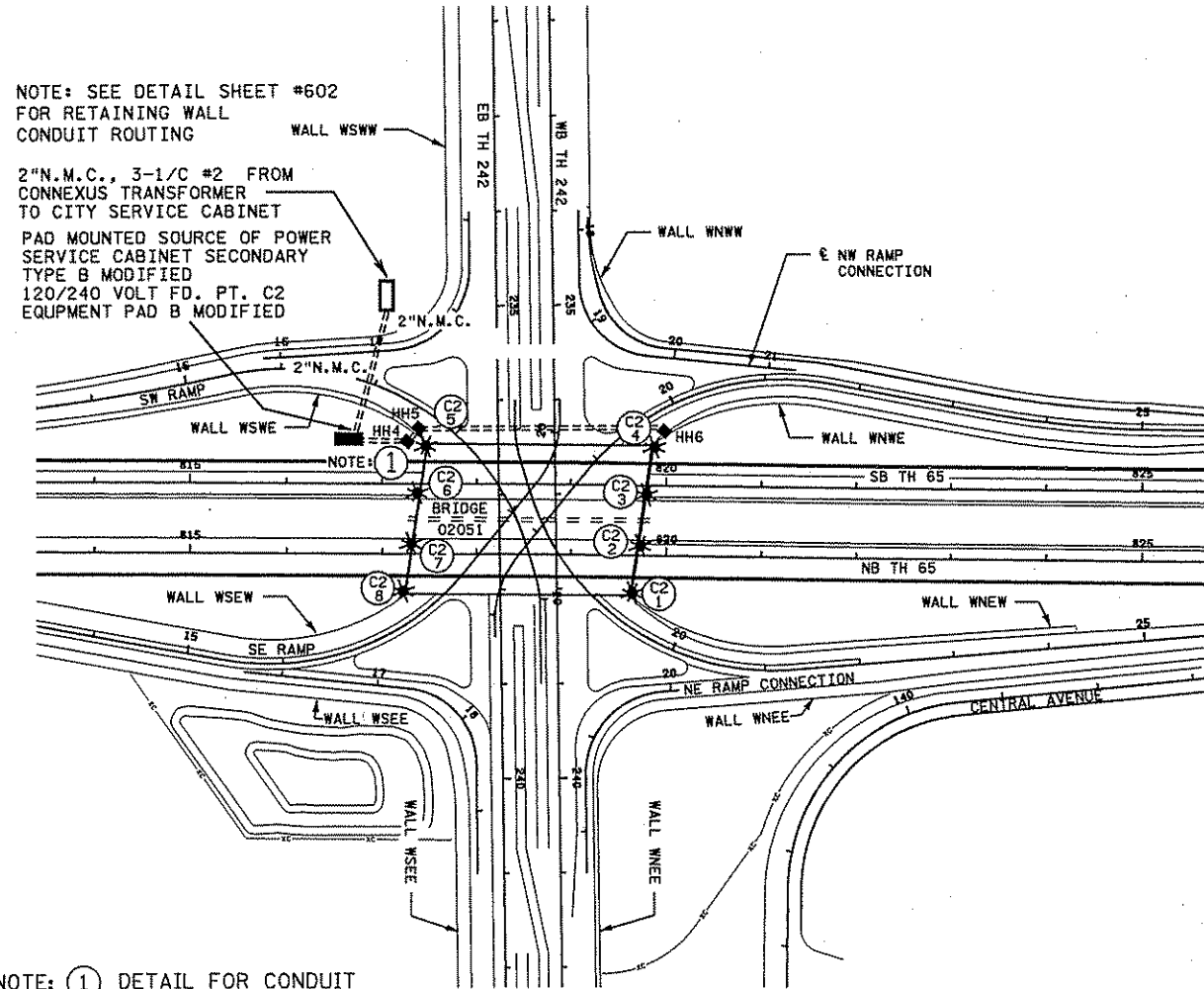
CITY LIGHTING FD. PT. 2

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	236+50			TH242WB	SPECIAL	100
2	237+00					
3	237+55					
4	238+10			TH242WB		
5	236+45			TH242EB		
6	236+95					
7	237+50					
8	237+00			TH242EB	SPECIAL	100

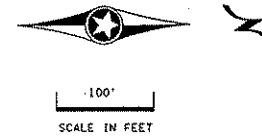
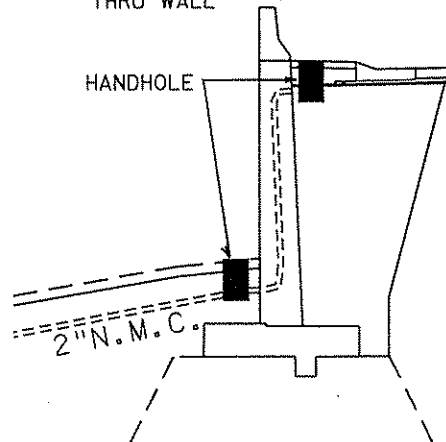
BRIDGE POLE ANCHORAGE BY OTHERS

NOTE: SEE DETAIL SHEET #602 FOR RETAINING WALL CONDUIT ROUTING

2"N.M.C., 3-1/C #2 FROM CONNEXUS TRANSFORMER TO CITY SERVICE CABINET
 PAD MOUNTED SOURCE OF POWER SERVICE CABINET SECONDARY TYPE B MODIFIED
 120/240 VOLT FD. PT. C2
 EQUIPMENT PAD B MODIFIED



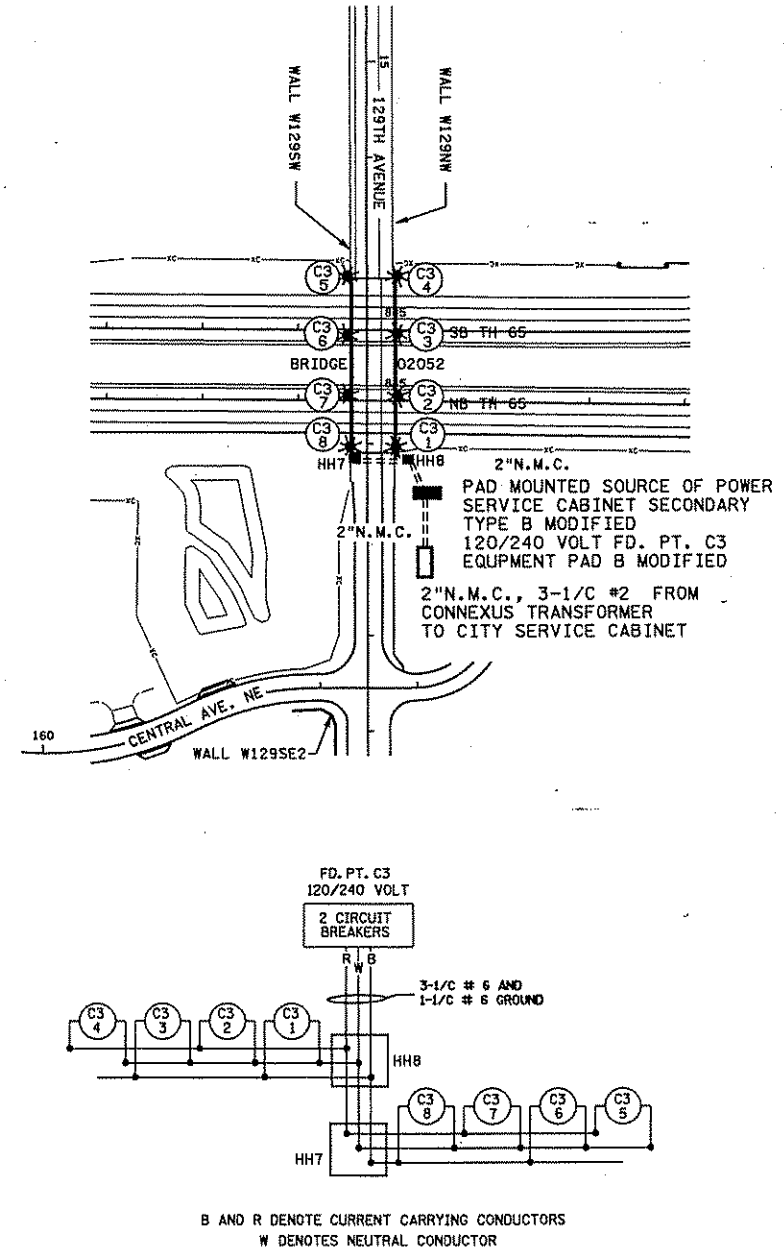
NOTE: ① DETAIL FOR CONDUIT THRU WALL



CITY LIGHTING FD. PT. 3

LIGHTING STANDARDS AND BASES						
NO.	STATION	LT.	RT.	LOCATION	TYPE	WATTAGE
1	19+13			129th AVENUE	SPECIAL	100
2	18+50					
3	17+85					
4	17+24					
5	17+24					
6	17+85					
7	18+50					
8	19+13			129th AVENUE	SPECIAL	100

BRIDGE POLE ANCHORAGE BY OTHERS



PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 I/PLOT NAME: 0208-123_citylo
 PATH & FILENAME: S:\TRAFFIC\LIGHTING\Plans\065\sp\0208-123\0208-123.dwg

DRAWN BY: NS

CHECKED BY: GB

CERTIFIED BY

Michael P. Gibensky
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 19863

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 608 OF 872 SHEETS

CITY LIGHTING PLAN

PLOTTED/REVISED: 4/10/2007

DISTRICT #: METRO
 IPLOT NAME: 65f-jtypicals_ps_jsh
 PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\PS\65f_jtypicals_ps_jsh.dgn

INDEX

SHEET NO.	DESCRIPTION
609	SIGN QUANTITIES
610-614	TABULATIONS
615-628	SIGNING PLAN
629-632	SIGN PANEL LAYOUTS
633-644	DETAILS
645-647	X-SECTIONS

AE TABULATION OF SIGNING QUANTITIES - HPP/STP				
TAB	SHEET NO.	ITEM	UNIT	TOTAL SIGNING QUANTITIES
TD	1	REMOVE SIGN TYPE D	EACH	2
TB	2	SALVAGE SIGN TYPE C	EACH	6
TE	3	SALVAGE SIGN TYPE D	EACH	6
TA	4	STRUCTURAL STEEL-POSTS FOR OH SIGNS (DESIGN A)	POUND	3990
TA	5	SIGN PANELS TYPE A	SQ FT	390
TC	6	SIGN PANELS TYPE C	SQ FT	1071
TF	7	SIGN PANELS TYPE D	SQ FT	410
TH	8	SIGN PANELS TYPE OVERLAY	SQ FT	52
TB	9	INSTALL SIGN TYPE C	EACH	6
TE	A	INSTALL SIGN TYPE D	EACH	6
TG	B	DELINEATOR TYPE X4-6	EACH	36
TI	C	REFERENCE POST MARKER	EACH	4
TG	D	HAZARD MARKER X4-2	EACH	18

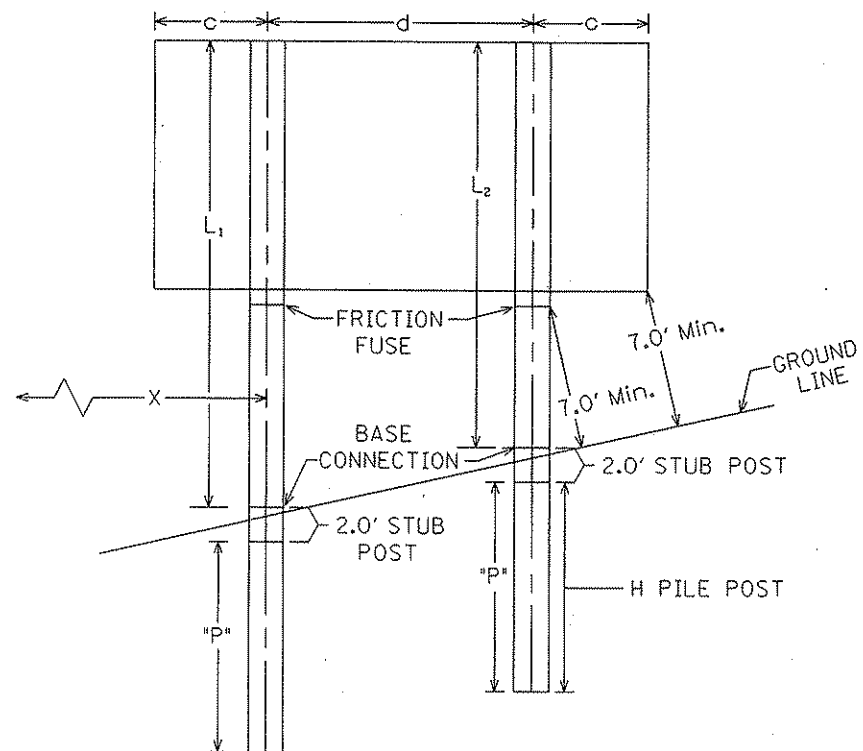
I HEREBY CERTIFY THAT SHEETS 609-647 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: HEATHER LYNN LOTT LICENSE # 43466
 DATE: 4/10/2007 SIGNATURE: *Heather Lynn Lott*
 DESIGN SQUAD LONNY CARPENTER

SIGN QUANTITIES

PLOTTED/REVISED: 1/31/2007

TA		SIGN TYPE A (H PILE FOOTINGS)															
SIGN NO.	LOCATION	PANEL		POST								PILE		TOTAL WEIGHT STRUCTURAL STEEL (LBS.)	"X" (FT.)	"H" (FT.)	
		SIZE (IN.)	AREA (SQ. FT.)	SIZE	QUANT.	L1 (FT.)	L2 (FT.)	ADDITIONAL STEEL PER POST (LBS.)	WEIGHT (LBS.)	c (IN.)	d (IN.)	"P" (FT.)	WEIGHT (LBS.)				
A-1	780+00 NB	156 x 108	117.00	W 5 X 16	2	18.0	18.0	67	710.00	32	92	12	384.00	1094.00	30	7	
A-2	800+00 NB	156 x 126	136.50	W 5 X 16	2	19.5	19.5	67	758.00	32	92	12	384.00	1142.00	30	7	
A-3	835+50 SB	156 x 126	136.50	W 5 X 16	2	19.0	18.0	67	726.00	32	92	12	384.00	1110.00	30	7	
TOTAL		390.00												3346.00			



BREAKAWAY POSTS-H-PILE FOOTING
(L₁ IS POST NEAREST ROADWAY)

TYPE A SIGNS

POST QUANTITIES			
POST SIZE	QUANTITY (1)	POST SIZE	QUANTITY (1)
W4X13	59+13 LBS/FT	W8X28	143+28 LBS/FT
W5X16	67+16 LBS/FT	W8X31	173+31 LBS/FT
W6X20	104+20 LBS/FT	W10X39	195+39 LBS/FT
W8X24	118+24 LBS/FT		

SPECIFIC NOTE:

(1) CONSTANT INCLUDES STUB POST WEIGHT.

GENERAL NOTES:

- PILE SHALL BE THE SAME SIZE AS THE SIGN POST AND IS TO BE DRIVE TO A 12 TO 14 TON BEARING CAPACITY.
- SEE SHEETS 635-636 FOR STRUCTURAL DETAILS, TYPE SIGNS (BREAKAWAY).
- POST LENGTHS ARE APPROXIMATE.
- X IS THE DISTANCE FROM THE EDGE OF THE THRU LANE TO THE FIRST POST.
- H IS THE HEIGHT ABOVE THE PAVEMENT EDGE TO THE BOTTOM EDGE OF THE PANEL.
- P IS THE LENGTH OF H PILE POST.
- SEE SHEET 629 FOR PANEL DETAILS.
- SEE SHEETS 645-647 FOR CROSS SECTIONS.

**A SIGN TABULATION
SIGNING PLAN**

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Lott
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 610 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: asightab
PATH & FILENAME: S:\TRAFFIC\TC Signing\065\0208\23\PS\651-typlcals-ps-Adgn

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 PLOT NAME: CSIGNTAB
 PATH & FILENAME: SATRAFFICTC_Signing\065\0208\23\PS\65f_hypocals_ps_CD.dgn

TB SALVAGE & INSTALL SIGN TYPE C								
SIGN NO	QTY	POSTS			MTG HT (1)	PANEL		PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	LEN FEET		SIZE INCH		
C-201	2	2-U	1	15	7	36 x 48	60 MPH	
C-202	1	2-U		13	7	30 x 30	RT LANE MUST TURN RT	
C-203	1	2-U	1	15	7	48 x 18	ONE WAY RIGHT	
						36 x 36	STOP	
C-204	1	2-U	1	18	7	48 x 18	ONE WAY LEFT	
						48 x 18	ONE WAY RIGHT	
						36 x 36	STOP	
C-205	1	2-U		12	7	48 x 18	ONE WAY LEFT	
TOTAL	6							

- NOTES:
- (1) MOUNTING HEIGHT MINIMUM. SEE SHEET NO. 634 FOR TYPICAL MOUNTING.
 - (2) FOR PUNCHING AND MOUNTING DETAILS SEE SHEET NO. 639.
 - (3) MOUNT BACK TO BACK.
 - (4) MOUNT IN CONCRETE. SEE SHEET NO. 641.
 - (5) MOUNT IN CONCRETE ON BRIDGE. SEE SHEET NO. 642.
 - (6) MOUNT ON WALL. SEE SHEET NO. 640.

- GENERAL NOTES:
1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
 2. SEE SHEETS 637 TO 639 FOR STRUCTURAL DETAILS.
 3. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE C SIGN PANELS.


SIGN NO	QTY	POSTS			MTG HT (1)	PANEL			CODE NO	PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	LEN FEET		SIZE INCHES	AREA SQ FT	TOTAL AREA SQ FT		
						24 x 24	4.00	8.00	M1-5a	HIGHWAY 65
C-2	2	2-U	1	15	7	36 x 48	12.00	24.00	R2-1	60 MPH
C-3	32	2-U		13	7	30 x 30	6.25	200.00	R1-1	STOP
C-4	3	2-U	1	14	7	36 x 36	9.00	27.00	W3-1	STOP AHEAD
(4) C-5	9				7	30 x 30	6.25	56.25	R5-1	DO NOT ENTER
(4) C-6	2				7	36 x 36	9.00	18.00	R5-1	DO NOT ENTER
(5) C-7	2				7	24 x 36	6.00	12.00	R10-6R	STOP HERE ON RED
						36 x 36	9.00	18.00	R5-1	DO NOT ENTER
(4) C-8	2				7	24 x 36	6.00	12.00	R10-6R	STOP HERE ON RED
(6) C-9	2				7	42 x 30	8.75	17.50	R5-1a	WRONG WAY
(4) C-10	6				7	30 x 30	6.25	37.50	R3-7L	LT LANE MUST TURN LEFT
(4) C-11	3				7	30 x 30	6.25	18.75	R3-7R	RT LANE MUST TURN RIGHT
(4) C-12	10				7	24 x 30	5.00	50.00	R4-7	KEEP RIGHT
C-13	1	2-U		14	7	24 x 12	2.00	2.00	M3-3ma	SOUTH
						24 x 24	4.00	4.00	M1-5a	HIGHWAY 65
C-14	8	2-U	1	14	7	36 x 36	9.00	72.00	W3-3	SIGNAL AHEAD
C-15	2	2-U		13	7	30 x 30	6.25	12.50	W6-3	TWO WAY TRAFFIC
C-16	2	2-U	1	14	7	36 x 36	9.00	18.00	W6-2	DIVIDED HIGHWAY ENDS
C-17	2	2-U	1	14	7	36 x 36	9.00	18.00	W6-1	DIVIDED HIGHWAY
C-18	1	2-U	1	15	7	48 x 48	16.00	16.00	W4-1R	MERGE
C-19	1	2-U	1	13	7	48 x 30	10.00	10.00	R3-30ACD	LANE DESIGNATION
(4) C-20	2				7	54 x 30	11.25	22.50	R3-30ABLA	LANE DESIGNATION
(4) C-21	3				7	36 x 30	7.50	22.50	R3-30AB	LANE DESIGNATION
C-22	4	2-U		13	7	54 x 30	11.25	45.00	R3-30ACA	LANE DESIGNATION
(4) C-23	2				7	48 x 48	6.93	13.86	R2-1	YIELD
(4) C-24	2				7	48 x 48	16.00	32.00	W9-2R	LANE ENDS MERGE RIGHT
C-25	3	2-U		14	7	36 x 36	9.00	27.00	W9-2L	LANE ENDS MERGE LEFT
						30 x 30	6.25	12.50	W1-3R	REVERSE TURN
C-26	2	2-U		14	7	18 x 18	2.25	4.50	W13-1	ADV SPEED PLAQUE 15 MPH
						30 x 30	6.25	25.00	W1-3L	REVERSE TURN
C-27	4	2-U		14	7	18 x 18	2.25	9.00	W13-1	ADV SPEED PLAQUE 15 MPH
						24 x 12	2.00	2.00	M3-4ma	WEST
C-28	1	2-U		14	7	24 x 24	4.00	4.00	M1-6	ANOKA CR 14
						24 x 12	2.00	2.00	M3-2ma	EAST
C-29	1	2-U		14	7	24 x 24	4.00	4.00	M1-6	ANOKA CR 14
C-30	2	2-U		13	7	24 x 30	5.00	10.00	R2-1	50 MPH
C-31	2	2-U		13	7	24 x 30	5.00	10.00	R2-1	30 MPH
C-32	1	2-U		12	7	24 x 12	2.00	2.00	M2-X1	BEGIN
						30 x 24	5.00	5.00	R3-9b	CENTER LANE ONLY
C-33	2	2-U		13	7	36 x 30	7.50	15.00	R3-30AB	LANE DESIGNATION
(6) C-34	5				7	30 x 30	6.25	31.25	R3-7R	RT LANE MUST TURN RIGHT
C-35	5	2-U		13	7	30 x 30	6.25	31.25	R3-7R	RT LANE MUST TURN RIGHT
C-36	1	2-U		14	7	36 x 36	9.00	9.00	W9-1R	RIGHT LANE ENDS
C-37	3	2-U	1	15	7	48 x 48	16.00	48.00	W4-3R	ADDED LANE
TOTAL								1043.00		







C SIGN TABUATION

SIGNING PLAN

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: DTABSHT1
 PATH & FILENAME: S:\TRAFFIC SIGNS\065\0208\123\PS\65\typicals_ps_CD.dgn

TD REMOVE SIGN TYPE D					
SIGN NO	QTY	POSTS		PANEL	PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	SIZE INCH	
D-101	2	2-U	2	78 x 60	
TOTAL		2			

TE SALVAGE & INSTALL SIGN TYPE D								
SIGN NO	QTY	POSTS				MTG HT (1)	PANEL	PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	LEN FEET	SPACING INCH		SIZE INCH	
D-201	1	2-U	2	15	54	7	96 x 48	
D-202	1	2-U	2	15	60	7	102 x 48	
D-203	1	2-U	2	14	60	7	102 x 36	
D-204	1	2-U	2	16	42	7	66 x 60	
D-205	1	2-U	2	12	42	7	72 x 18	
D-206	1	4-U	4	17	48	7	168 x 78	
TOTAL		6						

SPECIFIC NOTES:

- (1) MOUNTING HEIGHT MINIMUM. SEE SHEET NO. 638 FOR TYPICAL MOUNTING.
- (2) FOR PUNCHING AND MOUNTING DETAILS SEE SHEET NO. 639.

GENERAL NOTES:

- 1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
- 2. SEE SHEETS 637 TO 639 FOR STRUCTURAL DETAILS.
- 3. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE D SIGN PANELS.

D SIGN TABULATION

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather J. Smith
 LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 612 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: DTABSHT2
 PATH & FILENAME: SATRAFFICTC Signing\0650208\123\PS\65f-jtypicals-ps_CD.dgn

TF		SIGN PANELS TYPE D									
SIGN NO	QTY	POSTS				MTG HT (1) (FT)	PANEL			PANEL - LEGEND	
		NO & TYPE	KNEE BRACES QTY	LEN FEET	SPACING INCH		SIZE INCH	AREA SQ FT	TOTAL AREA SQ FT		
D-1	1	2-U	2	13	90	7	156 x 24	26.00	26.00	Paul Pkwy - 121st Ave	
D-2	1	2-U	2	13	90	7	156 x 24	26.00	26.00	121st Ave - Paul Pkwy	
D-3	2	2-U	2	19	42	7	66 x 54	24.75	49.50		
(3) D-4	1				54	7	78 x 78	42.25	42.25		
(3) D-5	1				54	7	78 x 78	42.25	42.25		
D-6	1	2-U	2	14	66	7	114 x 36	28.50	28.50	← Central Ave Aberdeen St →	
D-7	1	2-U	2	14	54	7	84 x 36	21.00	21.00	Ulysses St 	
D-8	2	2-U	2	13	54	7	84 x 24	14.00	28.00	129th Ave	
(4) D-9	2	2-U	2	16	42	7	72 x 60	30.00	60.00	EXIT 	
D-10	1	4-U	4	18	45	7	144 x 90	90.00	90.00		
TOTAL									412.00		

SPECIFIC NOTES:
 (1) MOUNTING HEIGHT MINIMUM. SEE SHEET NO. 638 FOR TYPICAL MOUNTING.
 (2) FOR PUNCHING AND MOUNTING DETAILS SEE SHEET NO. 639.
 (3) MOUNT ON WALL. SEE SHEET NO. 644.
 (4) SEE STANDARD SIGNS MANUAL (E5-1).

GENERAL NOTES:
 1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
 2. SEE SHEETS 637 TO 639 FOR STRUCTURAL DETAILS.
 3. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE D SIGN PANELS.
 4. SEE SHEETS 630-632 FOR PANELS DETAILS.

D SIGN TABULATION

SIGNING PLAN

PLOTTED/REVISED: 1/31/2007

TG DELINEATORS & MARKERS (1)		
CODE NO	QTY	LOCATION
WHITE X4-6	16	EXIT NOSE
YELLOW X4-6	20	EXIT NOSE
(2) (3) X4-2	2	EXIT NOSE
(2) (3) X4-2	6	ISLAND
(2) (4) X4-2	10	ISLAND
TOTAL	54	

TH SIGN PANELS TYPE OVERLAY					
CODE NO.	QUANTITY	SIZE	AREA	TOTAL	LEGEND
		INCHES	SQ FT	SQ FT	
M1-5B	4	24 X 24	4	16	MINNESOTA 65
M1-6a	4	36 X 36	9	36	CSAH 14
TOTAL				52	

TI REFERENCE POST MARKER				
CODE NO	QTY	SIZE		LEGEND
		INCH		
(3) D10-2	2	12	x 36	15
(3) D10-2	2	12	x 36	16
TOTAL	4			

SPECIFIC NOTES:

- (1) SEE STANDARD SIGNS MANUAL FOR DELINEATOR AND MARKER DETAILS.
- (2) BLACK BACKGROUND.
- (3) INSTALL ON 3 LB/FT POST (MN/DOT 3401).
- (4) MOUNT BELOW C-12.

GENERAL NOTES:

- 1. SEE ROADWAY LAYOUTS FOR DELINEATOR AND MARKER LOCATIONS.
- 2. FOR DELINEATOR AND MARKER PLACEMENT DETAIL, SEE SHEET 634.

DELINEATOR, MARKER AND OVERLAY TABULATION

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Jeff
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

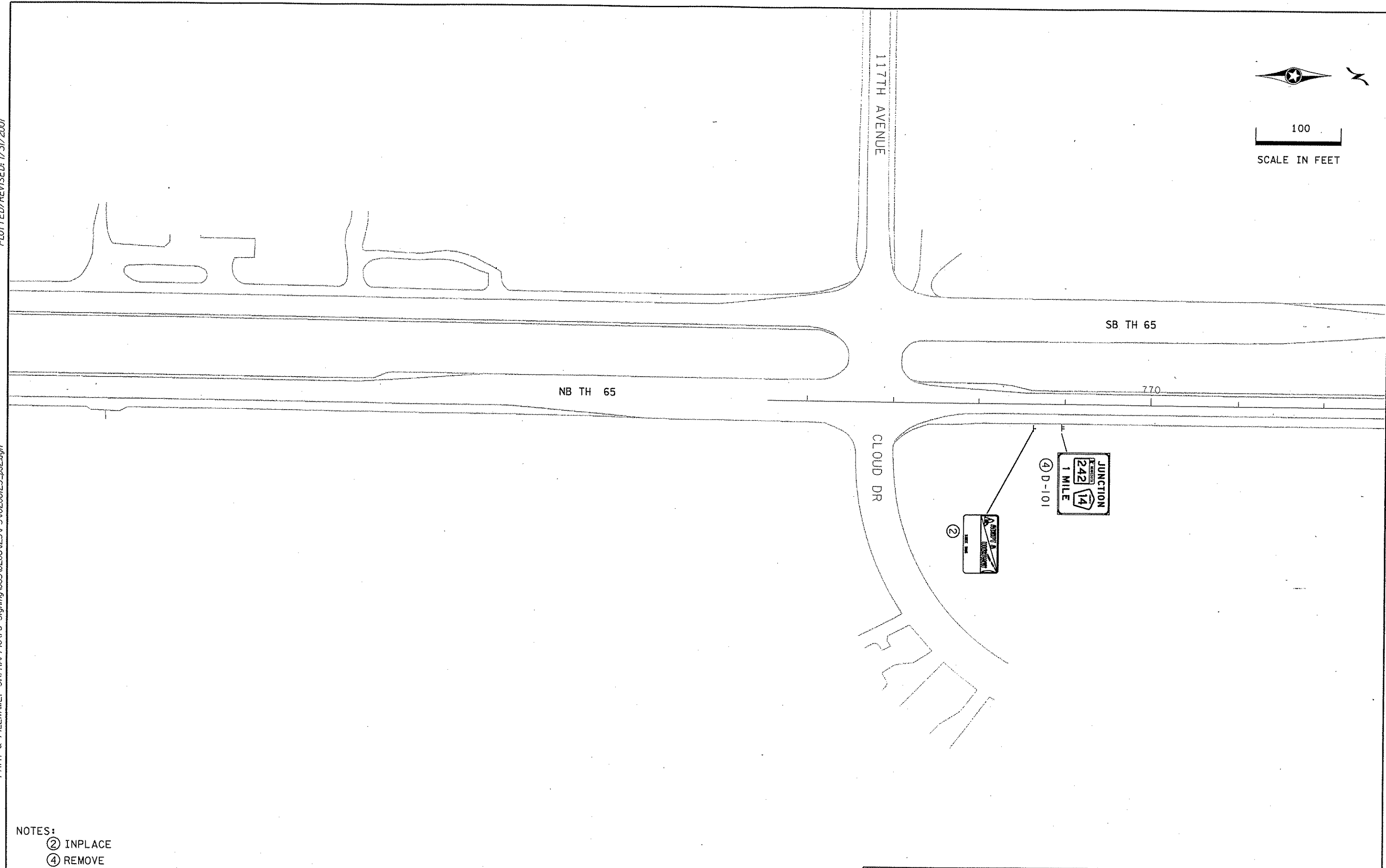
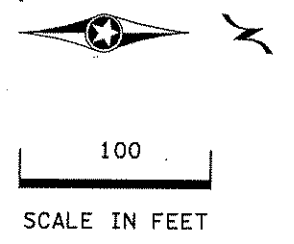
DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 614 OF 872 SHEETS

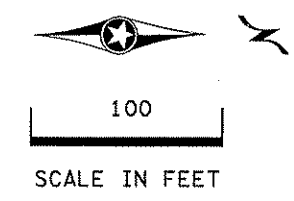
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DISTRICT #: METRO
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PLOTTED/REVISED: 1/31/2007

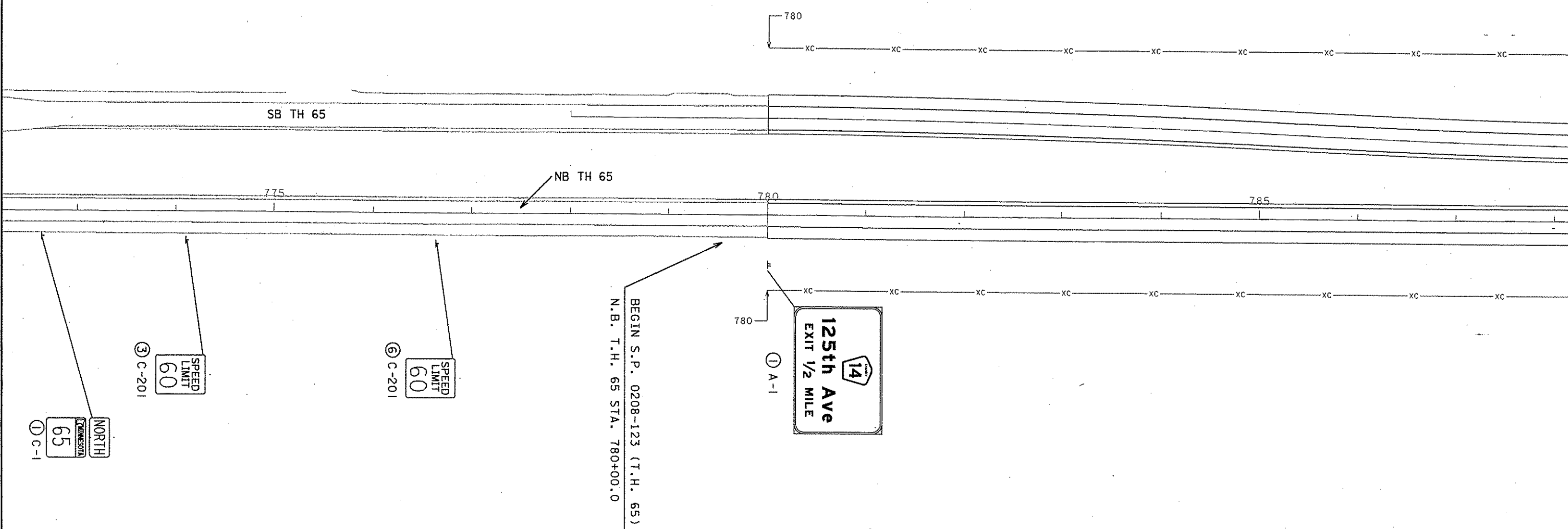


NOTES:
② INPLACE
④ REMOVE



PLOTTED/REVISED: 1/31/2007

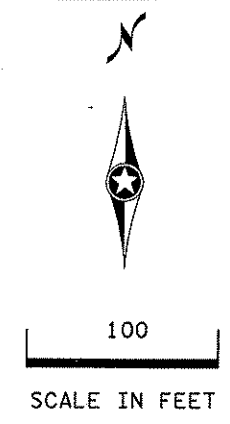
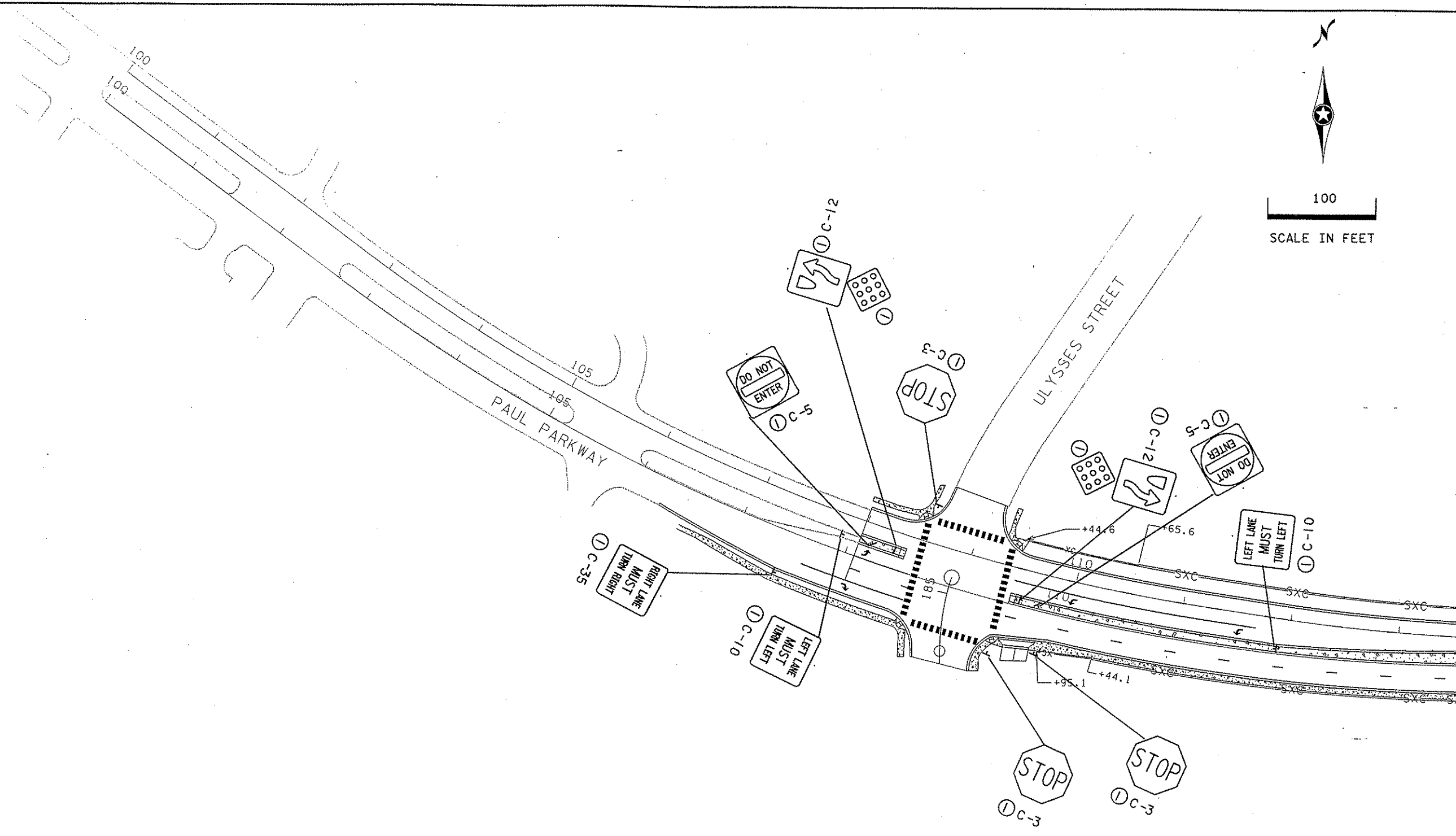
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 IPLOT NAME: 10208123_ps2SHT2
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- NOTES:
- ① F & I
 - ③ SALVAGE
 - ⑥ INSTALL

DISTRICT #: METRO
PLOT NAME: 10208123_ps2sm3
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208123\PSV\0208123_ps2.dgn

PLOTTED/REVISED: 1/31/2007

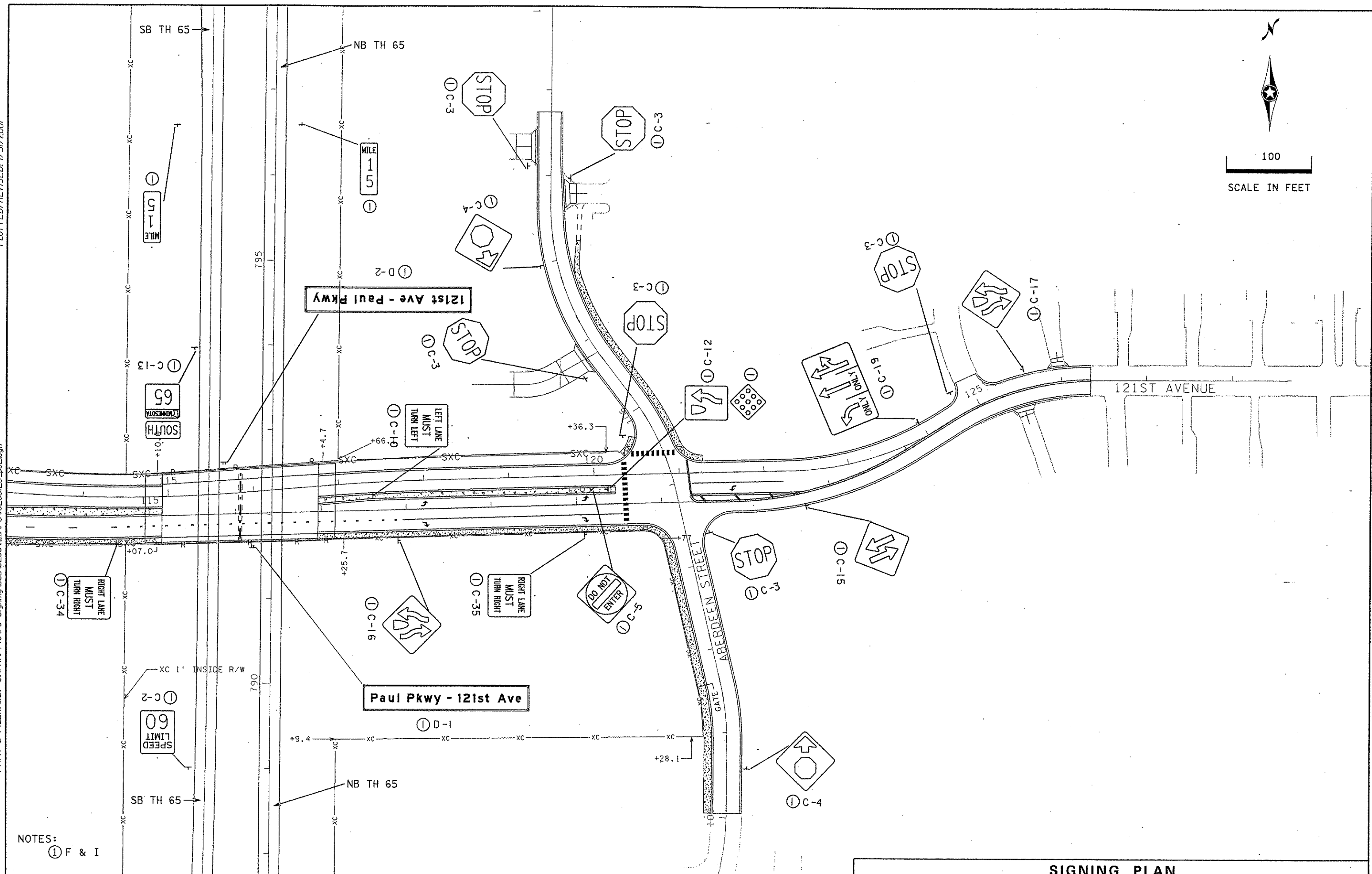
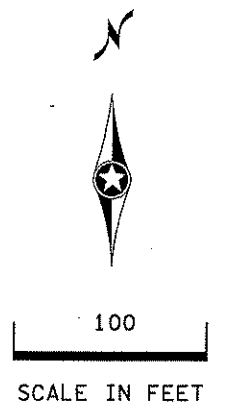


NOTES:
① F & I

SIGNING PLAN

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
I PLOT NAME: 10208123_ps2SHT4
PATH & FILENAME: S:\TRAFFIC\VC Signing\065\0208123\PS\10208123_ps2.dgn



NOTES:
① F & I

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Goff
LICENSED PROFESSIONAL ENGINEER

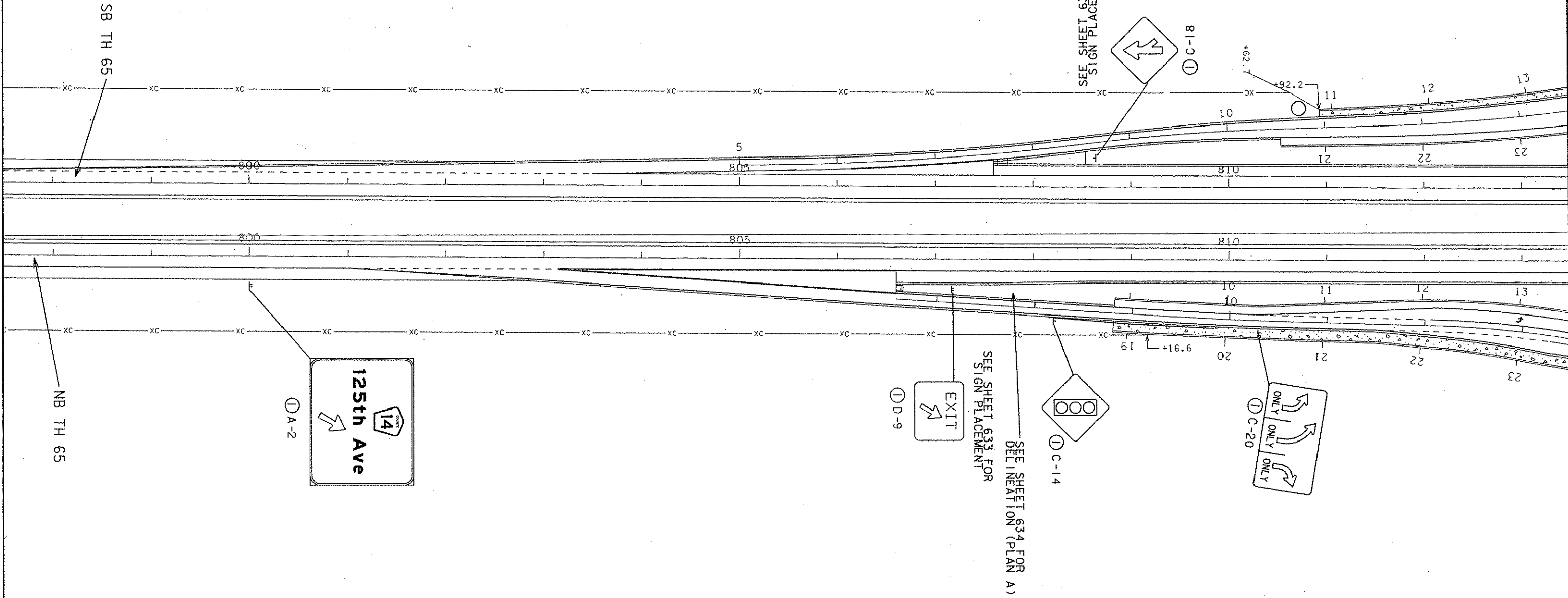
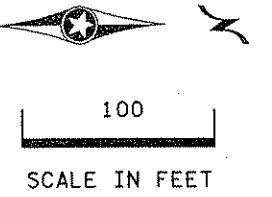
LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 618 OF 872 SHEETS

PLOTTED/REVISED: 4/10/2007

DISTRICT #: METRO
I/PLOT NAME: 10208123_ps2SHT5
PATH & FILENAME: S:\TRAFFIC\Signing\065\0208123\PSV\0208123_ps2.dgn



NOTES:
① F & I

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Lott
LICENSED PROFESSIONAL ENGINEER

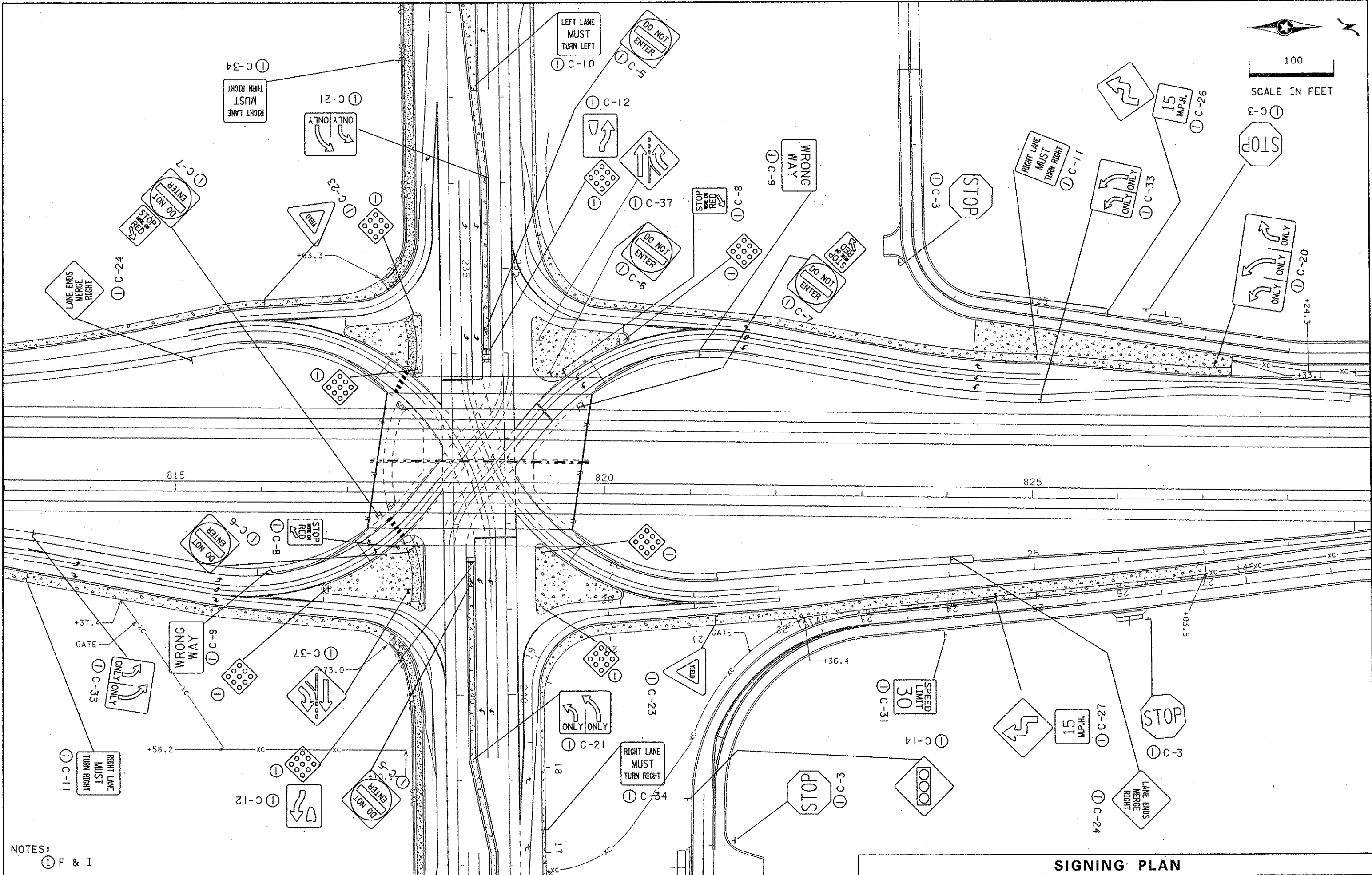
LIC. NO. 43466

DATE 4/10/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 619 OF 872 SHEETS

PLOTTED/REVISED: 4/10/2007

DISTRICT #: METRO
I/PLOT NAME: 10208123_ps2SHT6
PATH & FILENAME: S:\TRAFFIC\Signing\065\0208123\PS\10208123_ps2.dgn



NOTES:
① F & I

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Harther Lynn Hoff
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 4/10/2007

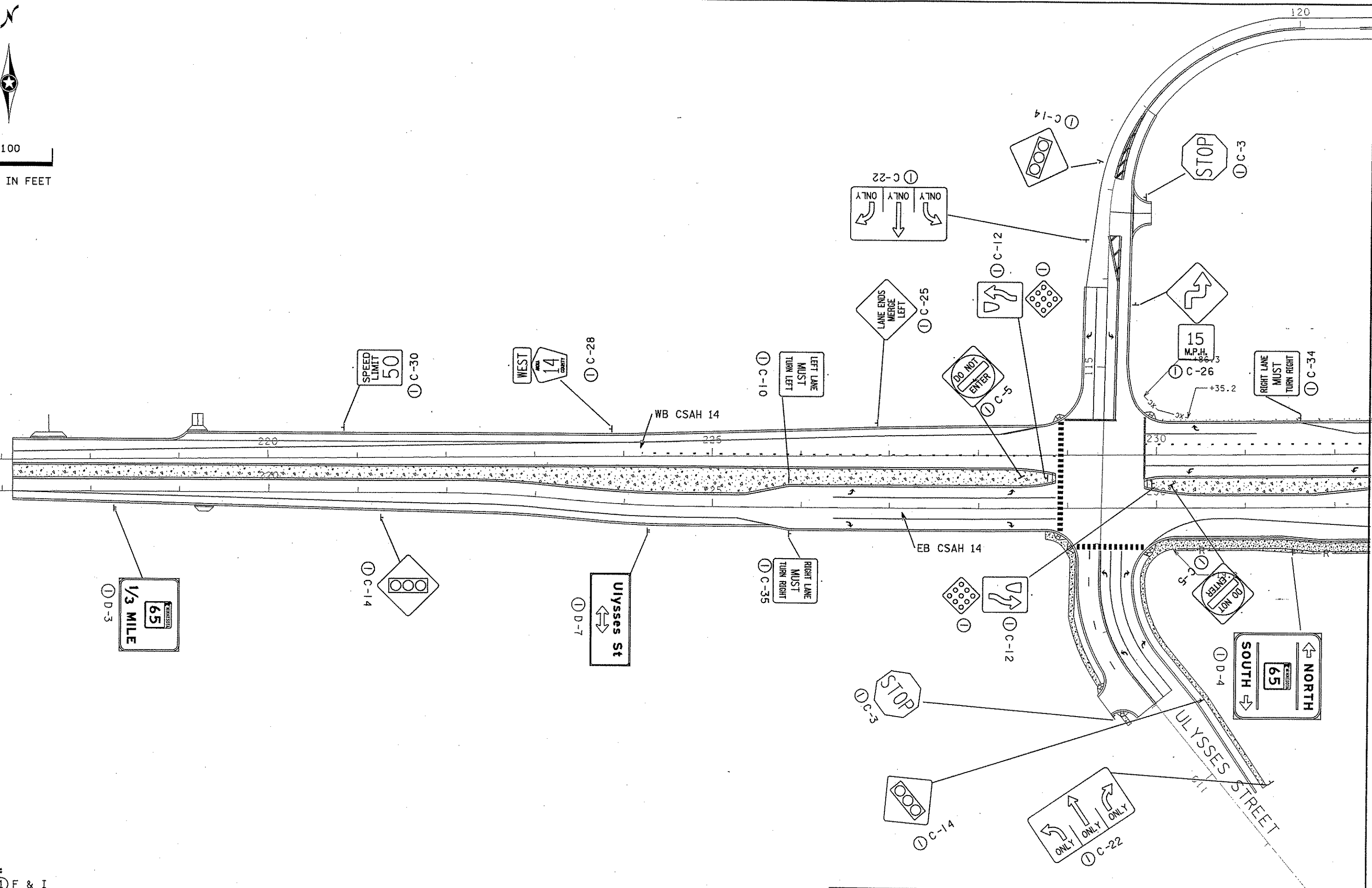
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PLOT NAME: 10208123_ps2SHT7
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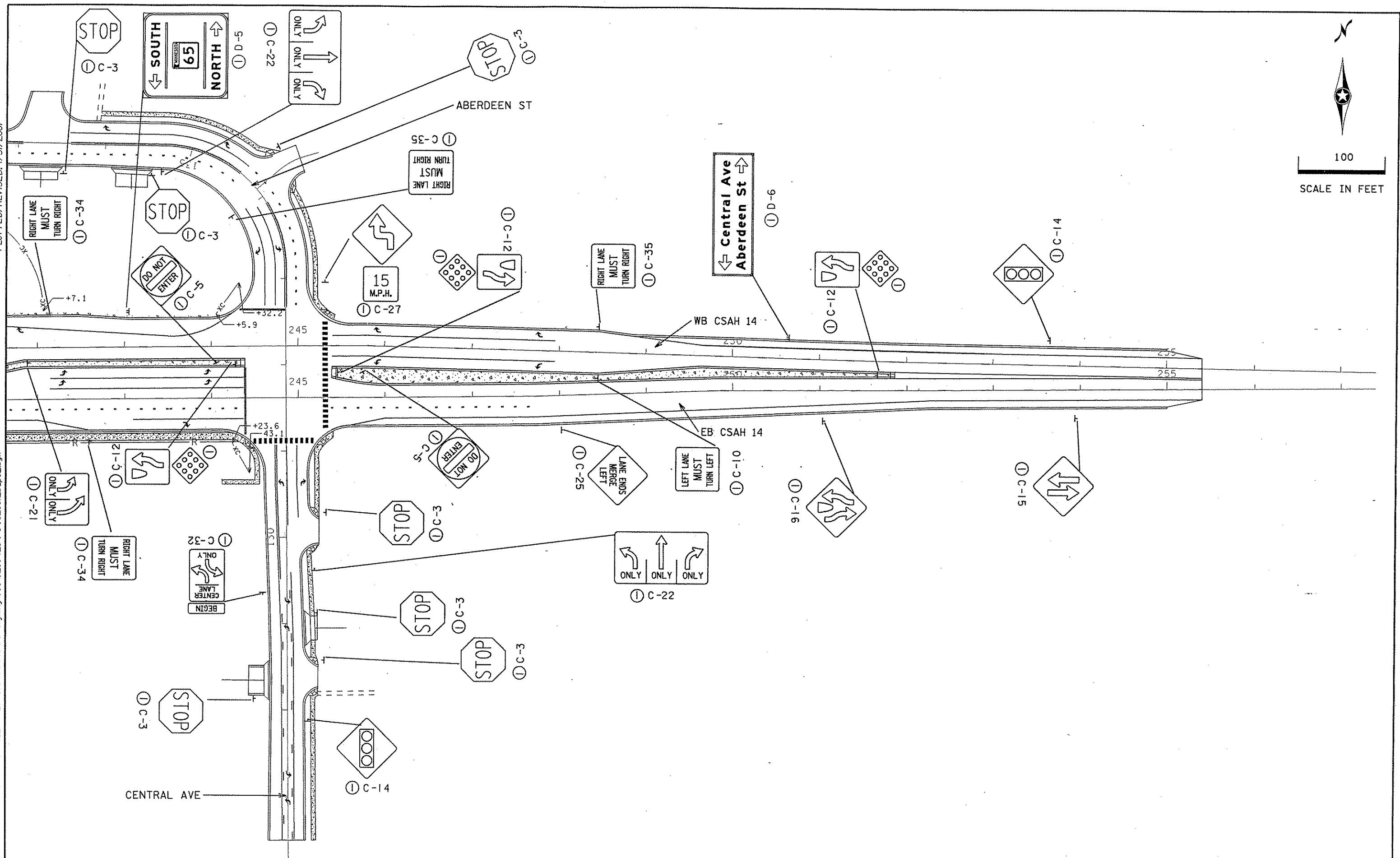
100
SCALE IN FEET



NOTES:
① F & I

DISTRICT #: METRO
 IPLOT NAME: 10208123_ps2SHT8
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PLOTTED/REVISED: 1/31/2007



NOTES:
 ① F & I

DRAWN BY: LPC CHECKED BY: CERTIFIED BY: *Heather Gunnell* LIC. NO. 43466 DATE 1/31/2007

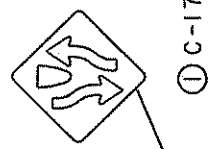
SIGNING PLAN

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 622 OF 872 SHEETS



100
SCALE IN FEET

MINNESOTA
65
1/3 MILE
① D-3



CSAH 14

① C-29
14
EAST
COUNTY

① C-30
SPEED
LIMIT
50

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 10208123_ps2SHT9
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\123\PS\0208123_ps2.dgn

NOTES:
① F & I

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY *Heather Lynn Jeff* LIC. NO. 43466 DATE 1/31/2007
LICENSED PROFESSIONAL ENGINEER

SIGNING PLAN

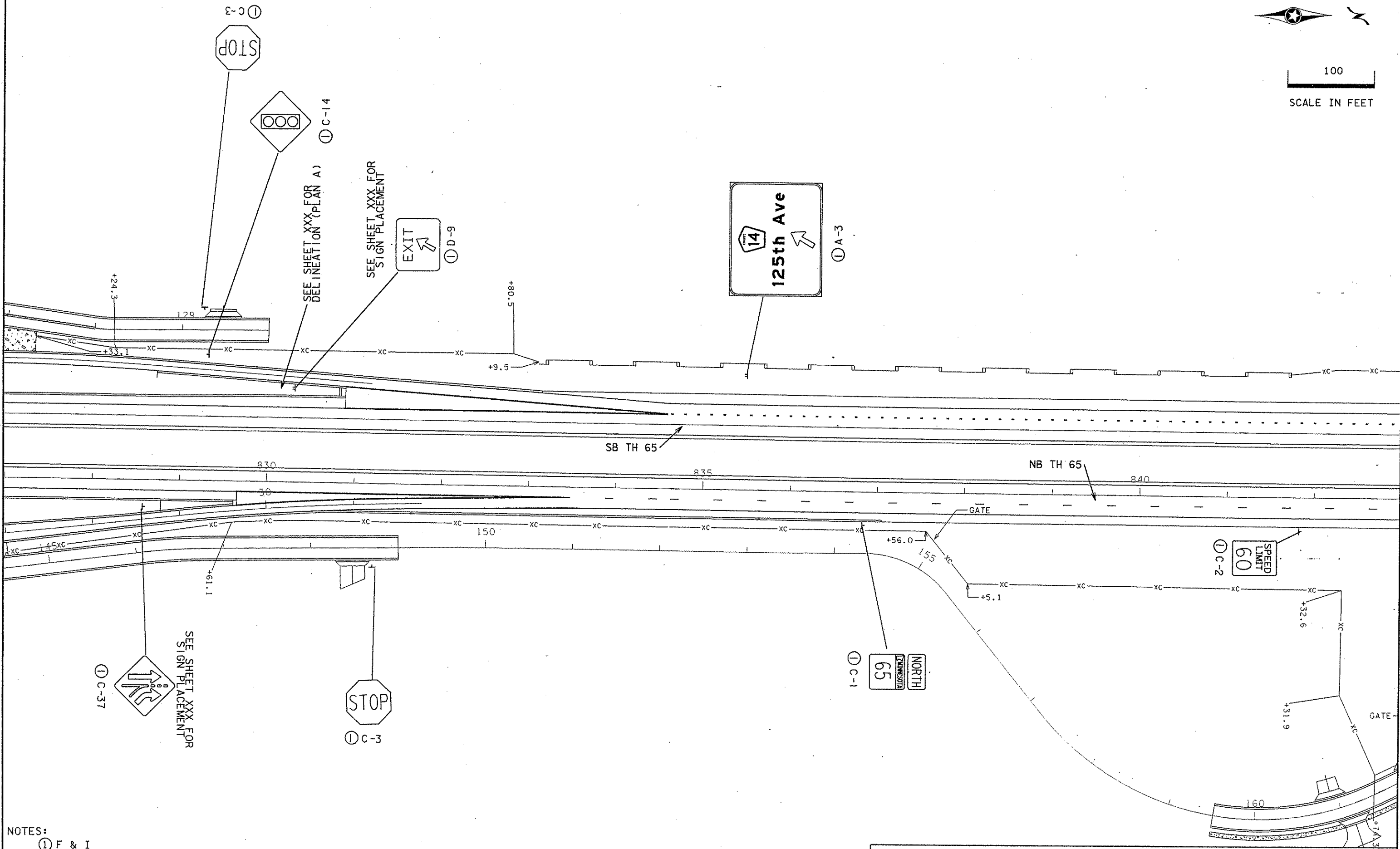
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 623 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
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100
SCALE IN FEET

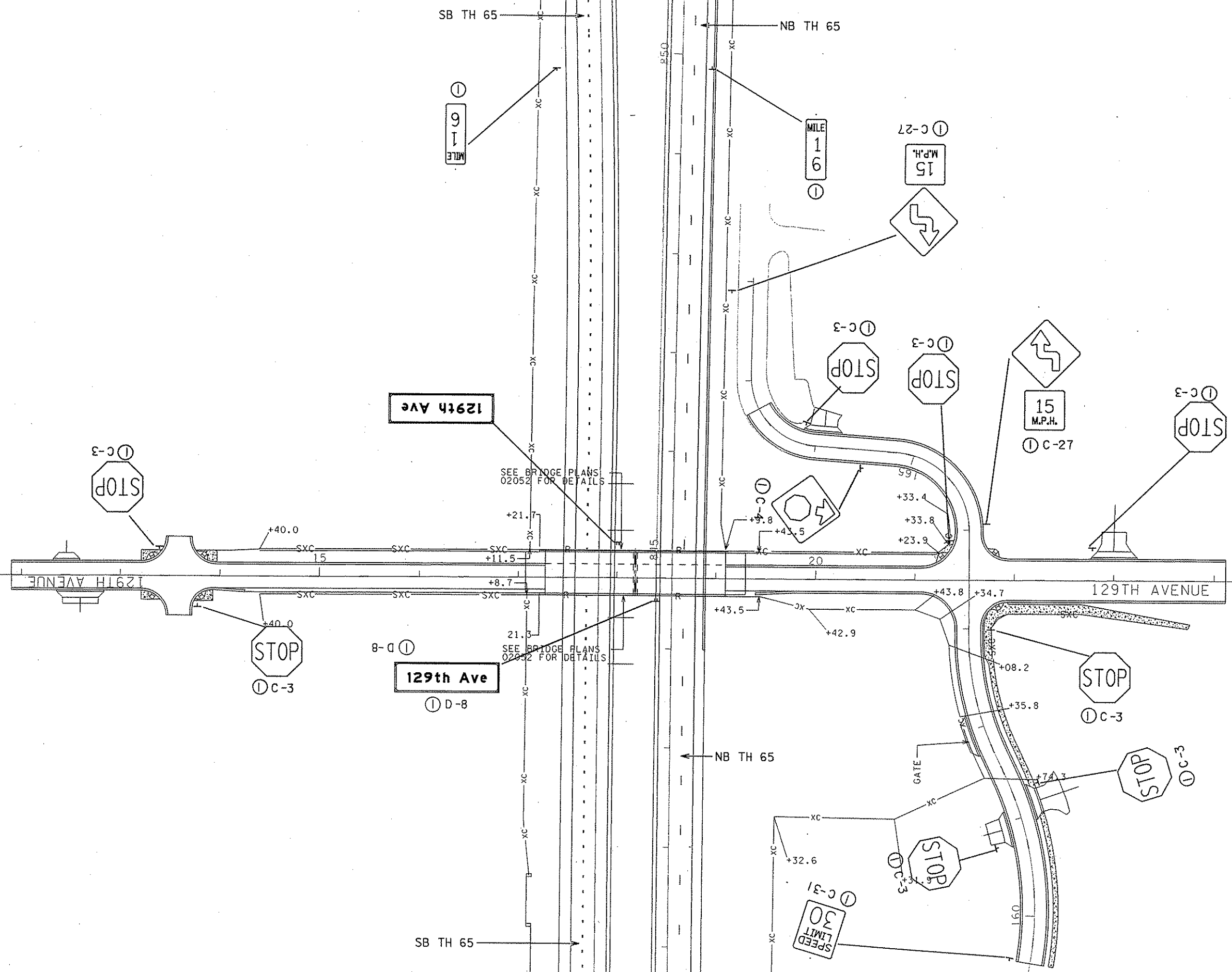
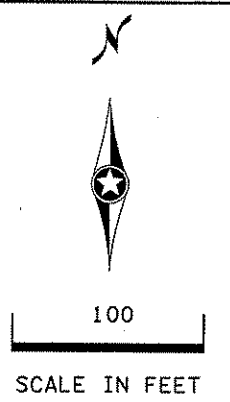


NOTES:
① F & I

DRAWN BY: LPC	CHECKED BY:	CERTIFIED BY: <i>Heather J. Smith</i> LIC. NO. 43466 DATE 1/31/2007	STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 624 OF 872 SHEETS
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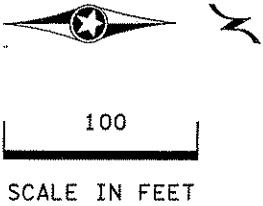
SIGNING PLAN

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 PLOTTED/REVISED: 1/31/2007



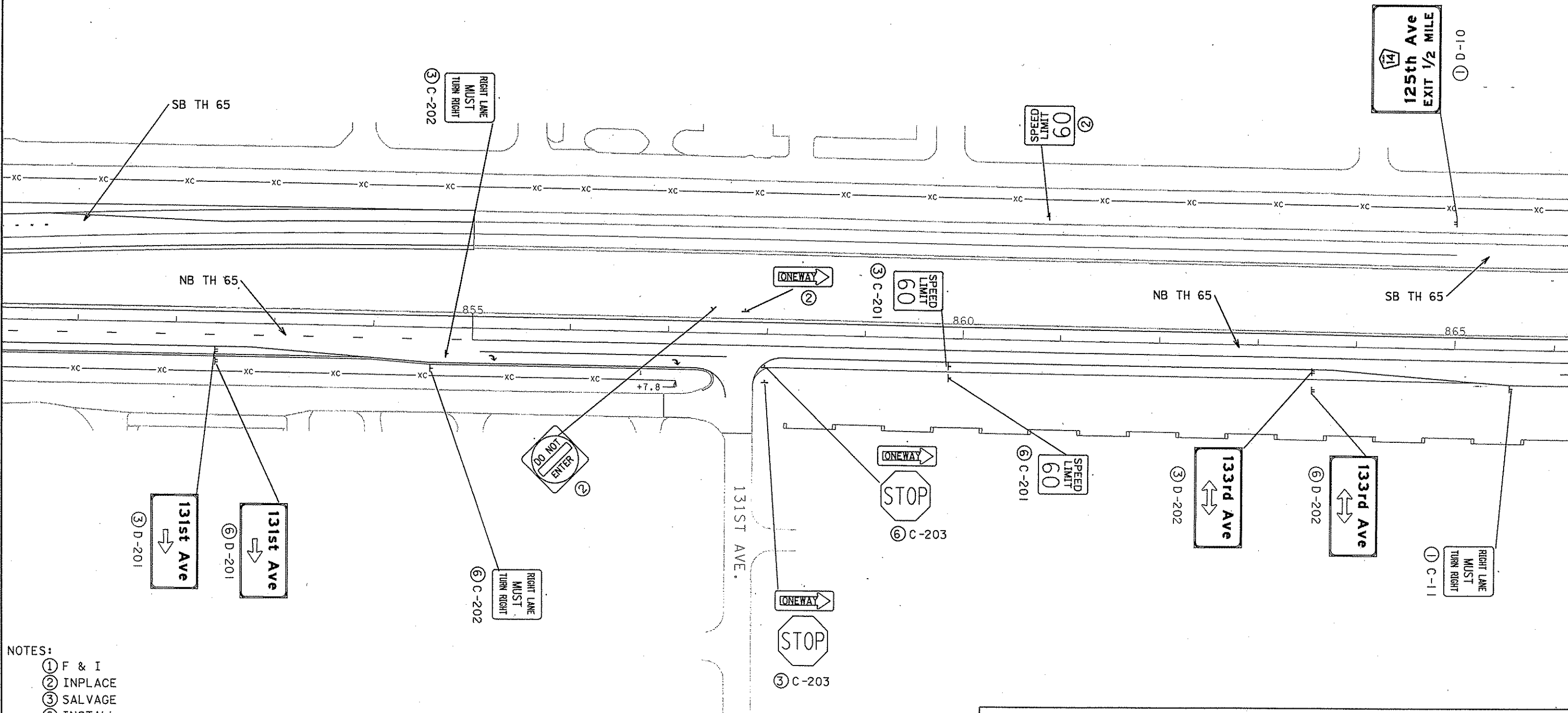
NOTES:
 ① F & I

SIGNING PLAN



PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
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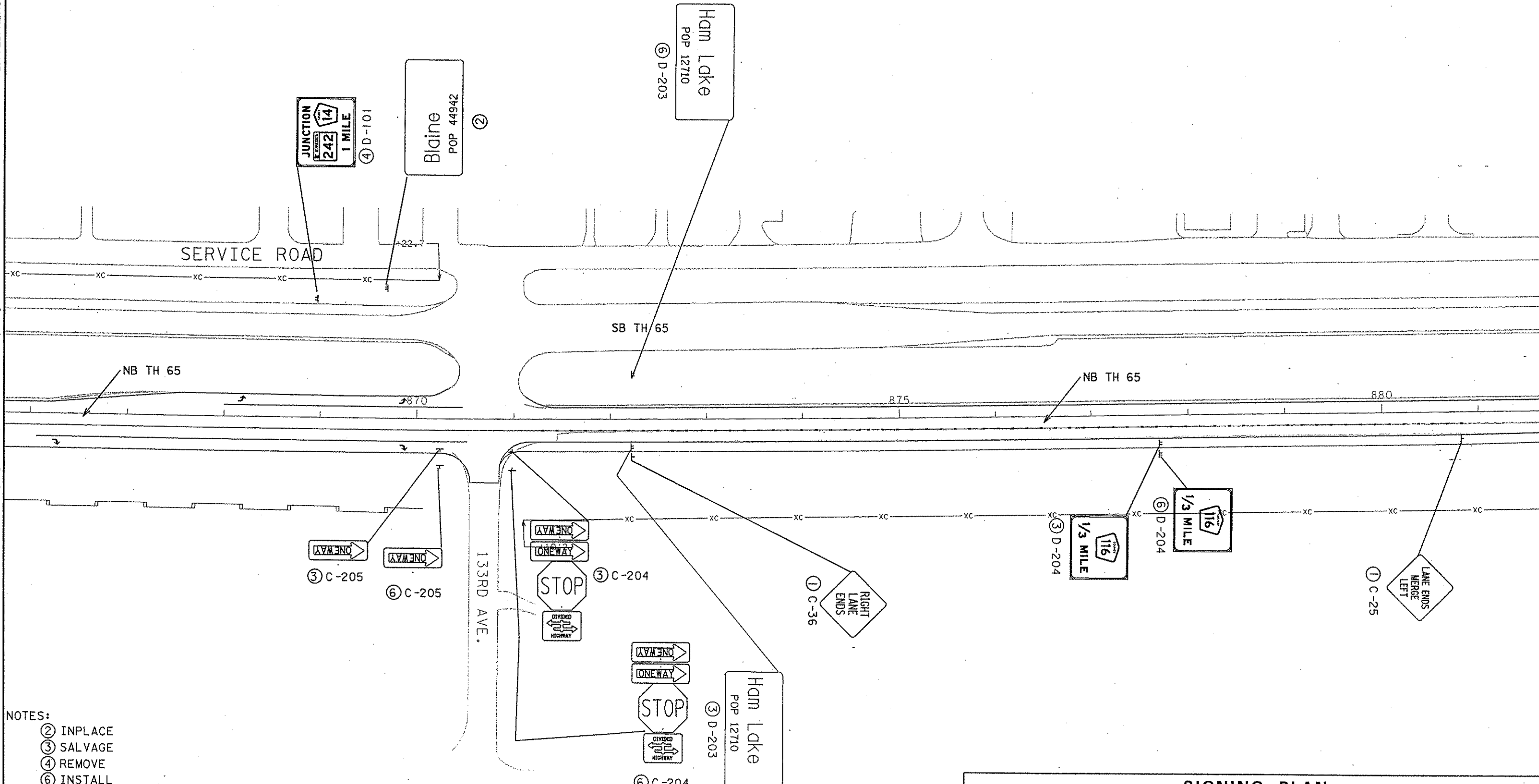
- NOTES:
- ① F & I
 - ② INPLACE
 - ③ SALVAGE
 - ⑥ INSTALL



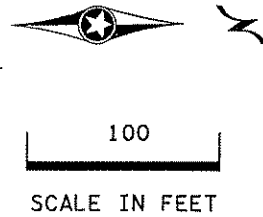
100
SCALE IN FEET

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
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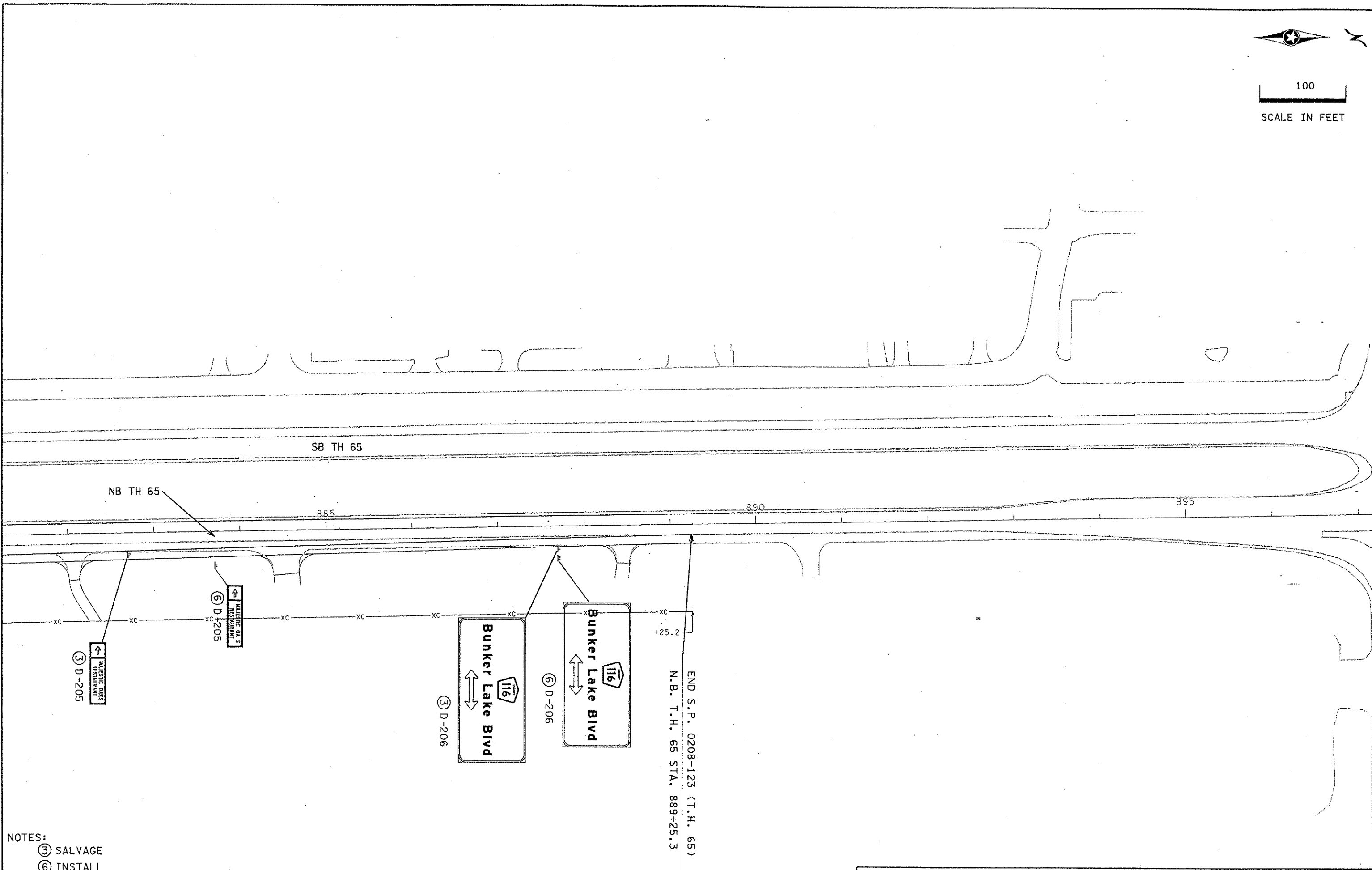


- NOTES:
- ② INPLACE
 - ③ SALVAGE
 - ④ REMOVE
 - ⑥ INSTALL



PLOTTED/REVISED: 1/31/2007

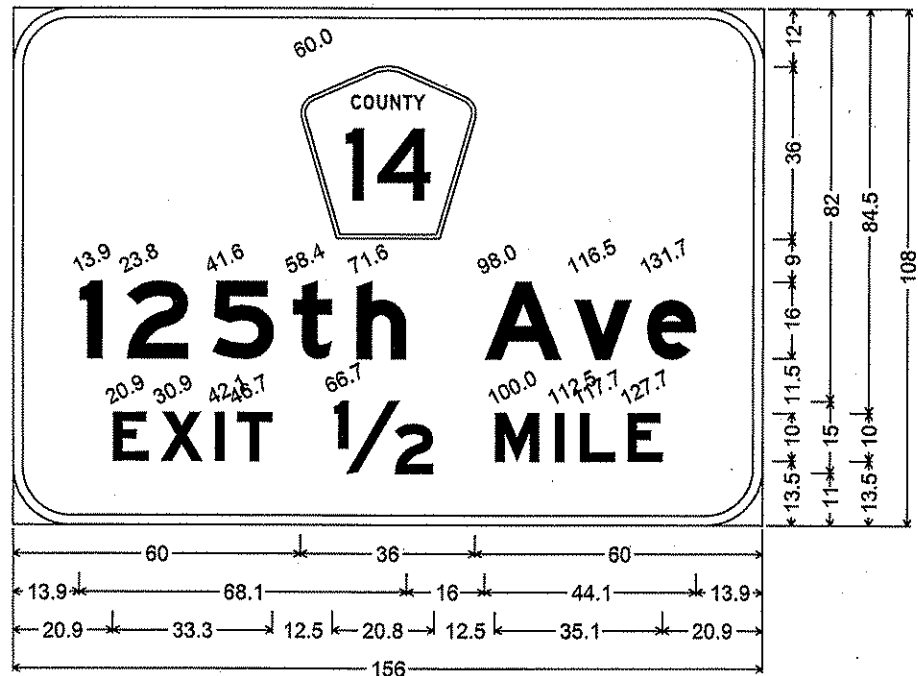
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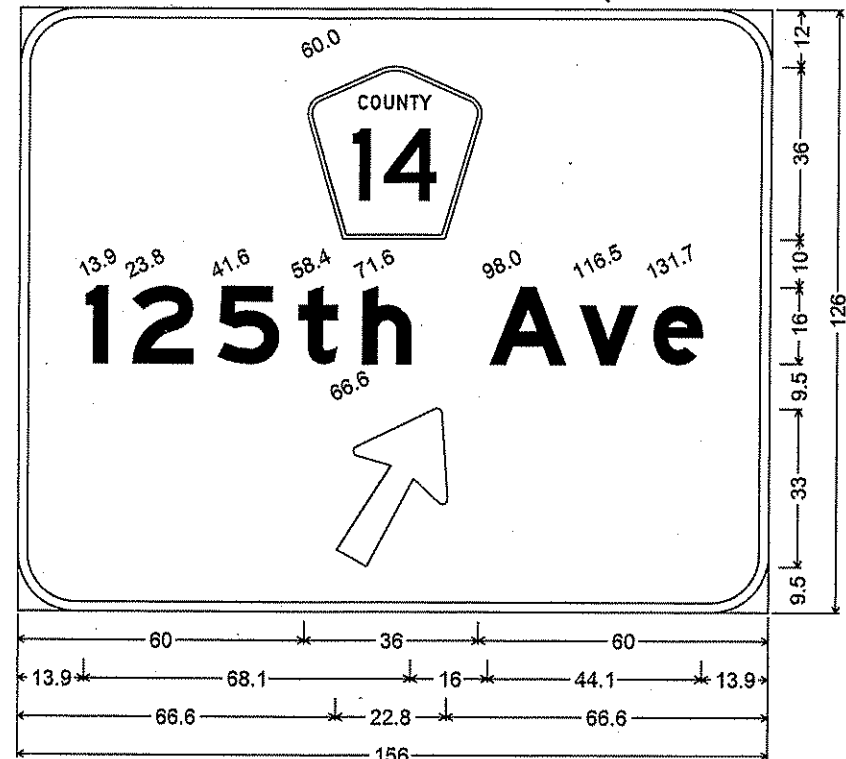
NOTES:
 ③ SALVAGE
 ⑥ INSTALL

END S.P. 0208-123 (T.H. 65)
 N.B. T.H. 65 STA. 889+25.3

SIGNING PLAN



A-1; 12.0" Radius, 2.0" Border, White on Green;
 [125th Ave] E Mod; [EXIT 1/2 MILE] E Mod;



A-2, A-3; 12.0" Radius, 2.0" Border, White on Green;
 [125th Ave] E Mod; Arrow 17 - 36.0" 60°;

NOTES:

1. CORNERS OF THE SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
2. SEE STANDARD SIGN MANUAL FOR ARROW DETAILS

TYPE A SIGN PANELS
 SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Lott
 LICENSED PROFESSIONAL ENGINEER

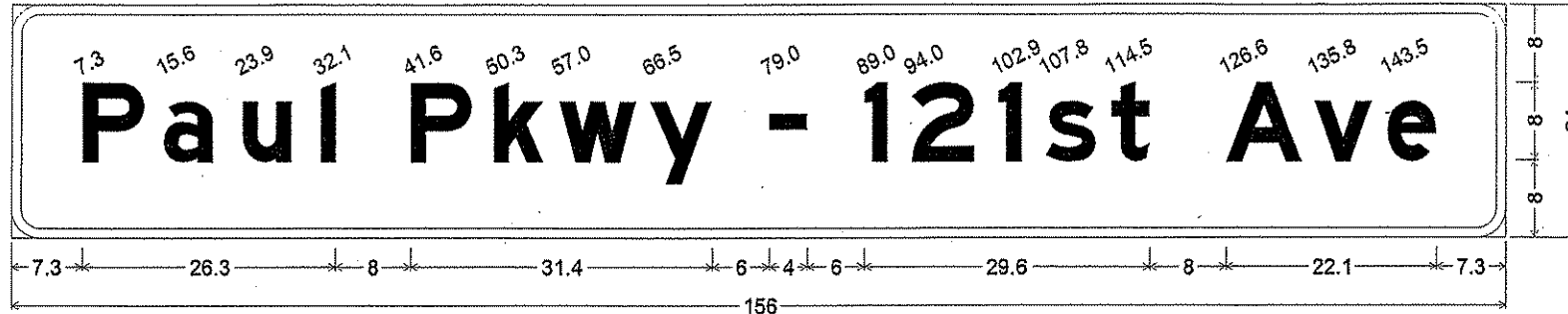
LIC. NO. 43466

DATE 1/31/2007

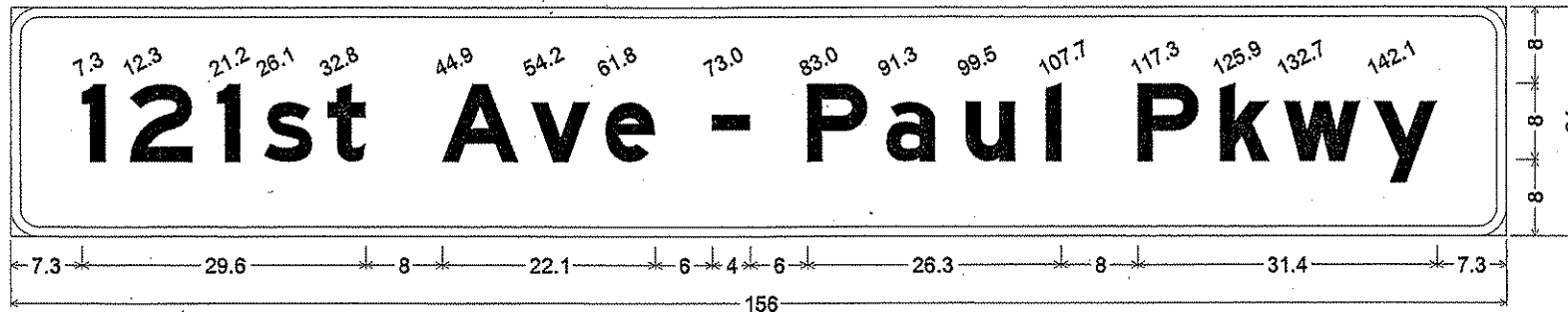
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 629 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

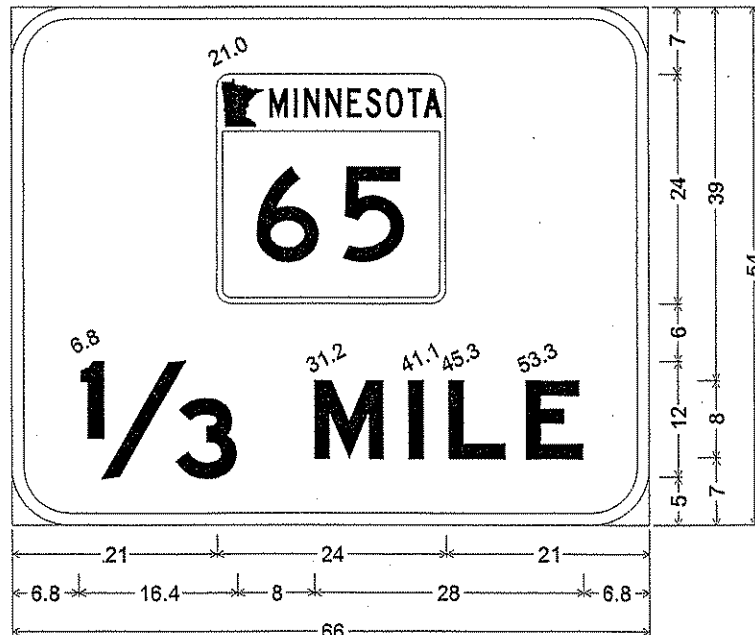
DISTRICT #: METRO
I/PLOT NAME: dparaisstf1
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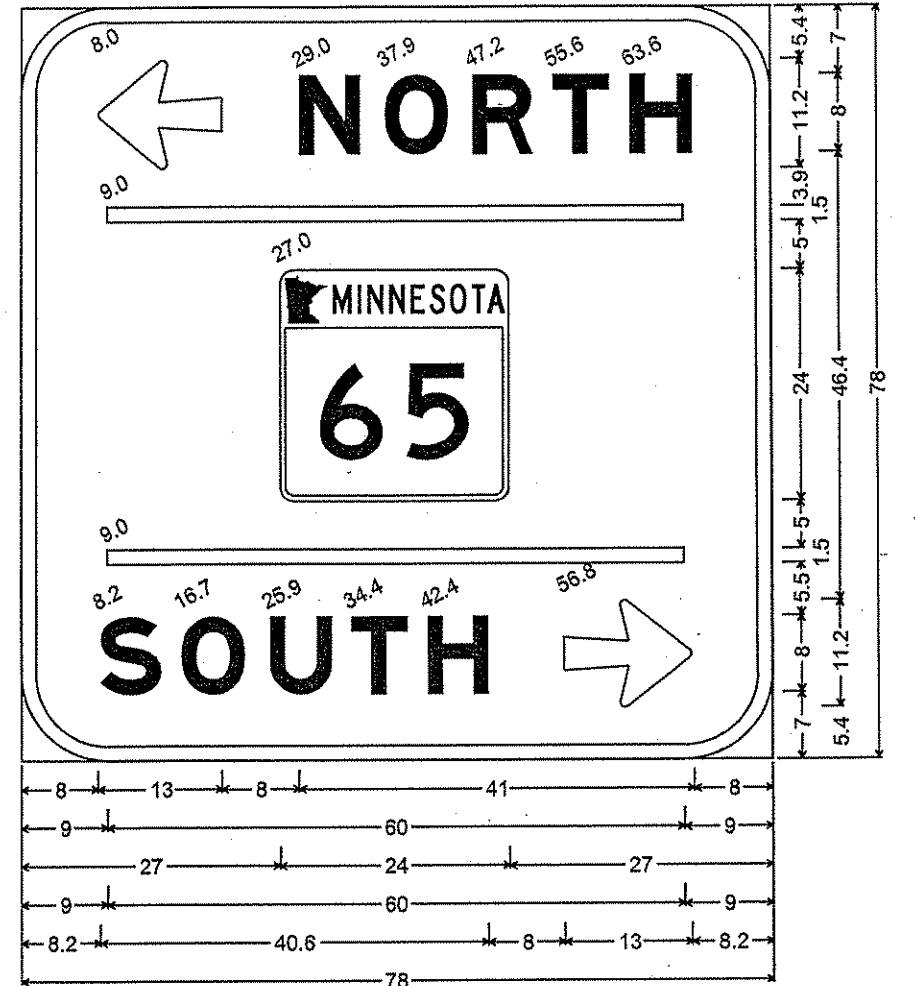
D-1; 3.0" Radius, 1.0" Border, White on Green;
[Paul Pkwy - 121st Ave] E Mod;



D-2; 3.0" Radius, 1.0" Border, White on Green;
[121st Ave - Paul Pkwy] E Mod;



D-3; 6.0" Radius, 1.3" Border, White on Green;
[1/3] E Mod; [MILE] E Mod;



D-4; 9.0" Radius, 1.5" Border, White on Green;
Arrow 5 - 13.0" 180°; [NORTH] E Mod; [SOUTH] E Mod;
Arrow 5 - 13.0" 0°;

NOTES:

1. CORNERS OF THE SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
2. SEE STANDARD SIGN MANUAL FOR ARROW DETAILS

TYPE D SIGN PANELS

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynne
LICENSED PROFESSIONAL ENGINEER

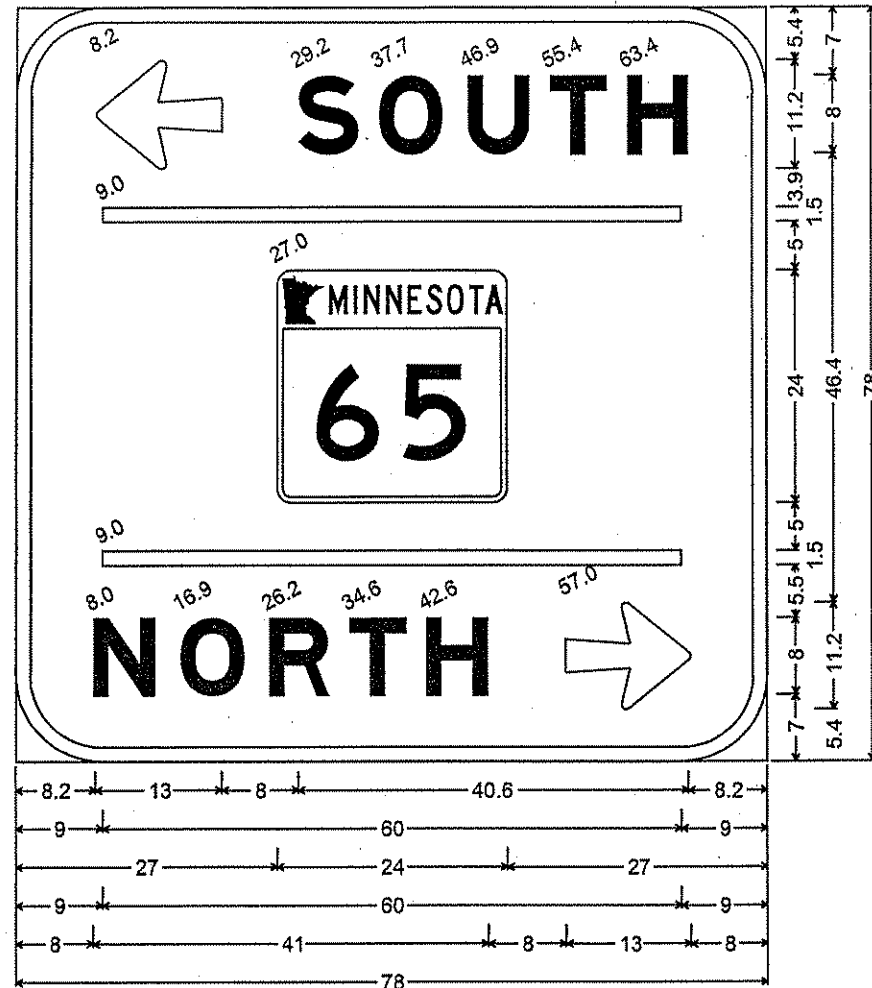
LIC. NO. 43466

DATE 1/31/2007

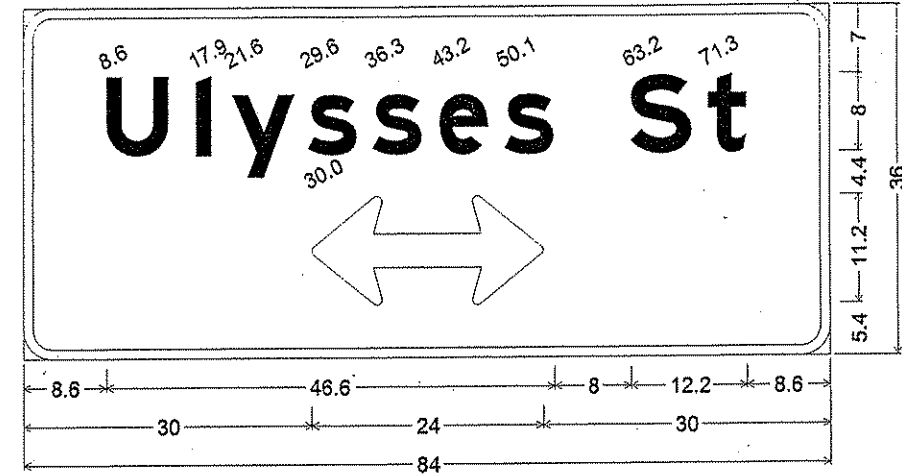
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 630 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

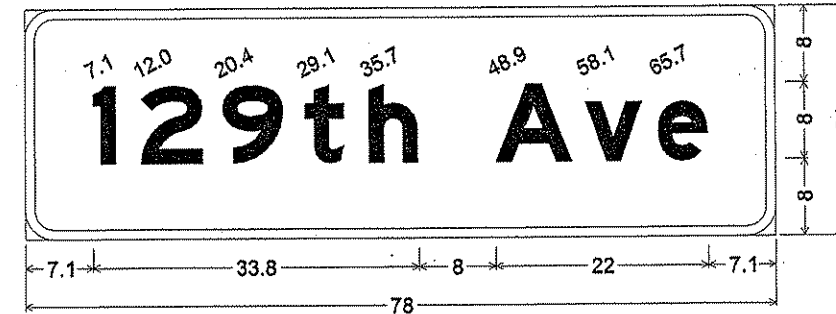
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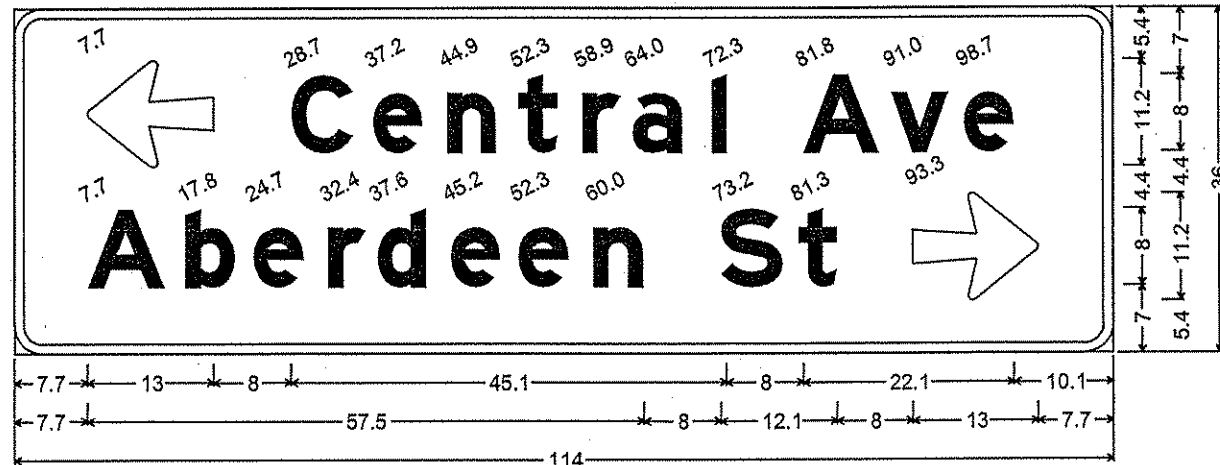
D-5; 9.0" Radius, 1.5" Border, White on Green;
Arrow 5 - 13.0" 180°; [SOUTH] E Mod; [NORTH] E Mod;
Arrow 5 - 13.0" 0°;



D-7; 3.0" Radius, 1.0" Border, White on Green;
[Ulysses St] E Mod; Double Headed Arrow 5 - 24.0" 0°;



D-8; 3.0" Radius, 1.0" Border, White on Green;
[129th Ave] E Mod;



D-6; 3.0" Radius, 1.0" Border, White on Green;
Arrow 5 - 13.0" 180°; [Central Ave] E Mod; [Aberdeen St] E Mod; Arrow 5 - 13.0" 0°;

NOTES:

- CORNERS OF THE SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- SEE STANDARD SIGN MANUAL FOR ARROW DETAILS

TYPE D SIGN PANELS

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

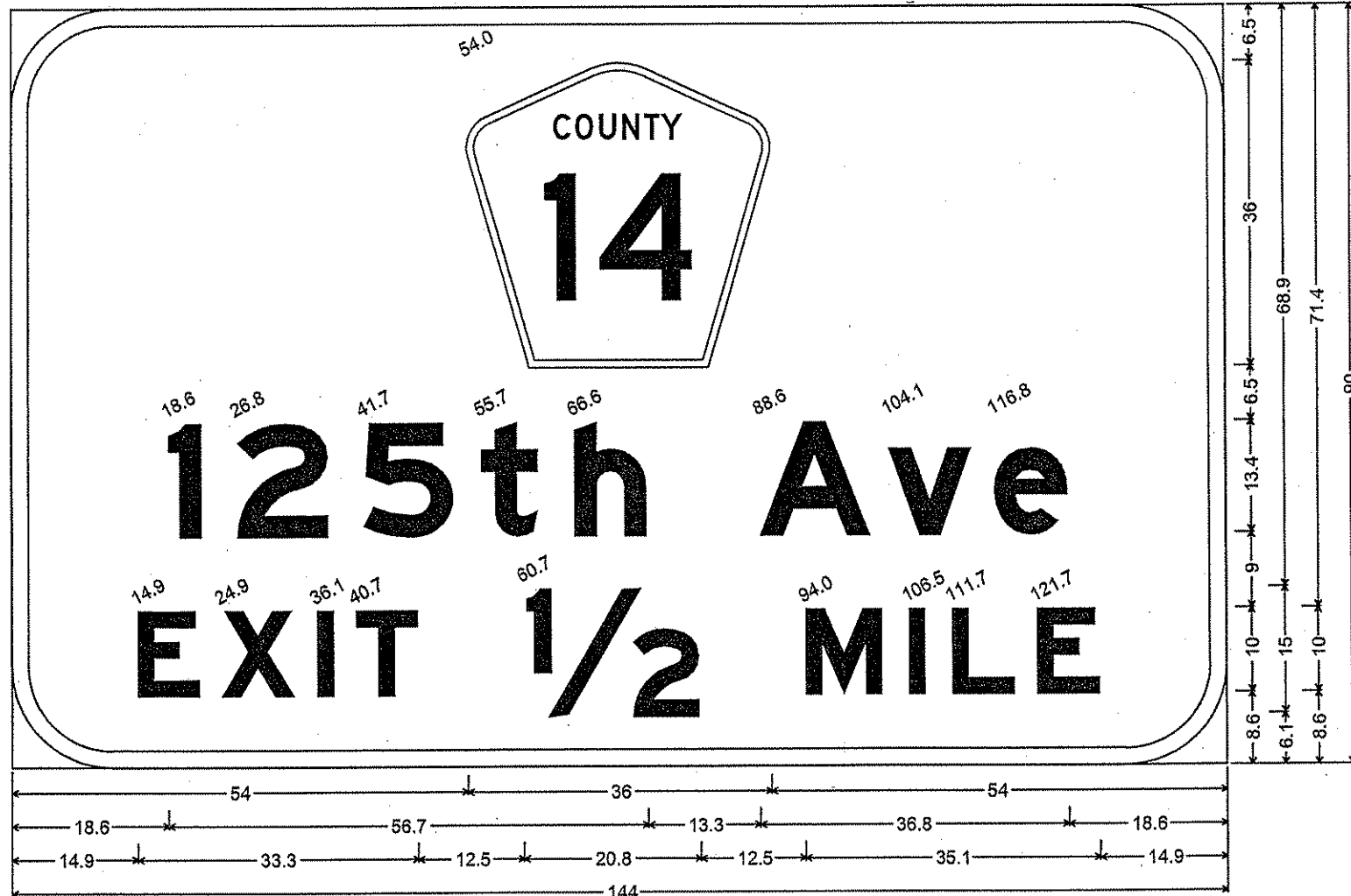
CERTIFIED BY

Heather Jannett
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 631 OF 872 SHEETS



D-10; 12.0" Radius, 2.0" Border, White on Green;
 [125th Ave] E Mod; [EXIT 1/2 MILE] E Mod;

NOTES:

1. CORNERS OF THE SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
2. SEE STANDARD SIGN MANUAL FOR ARROW DETAILS

TYPE D SIGN PANELS

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Hester Lynn Goff
 LICENSED PROFESSIONAL ENGINEER

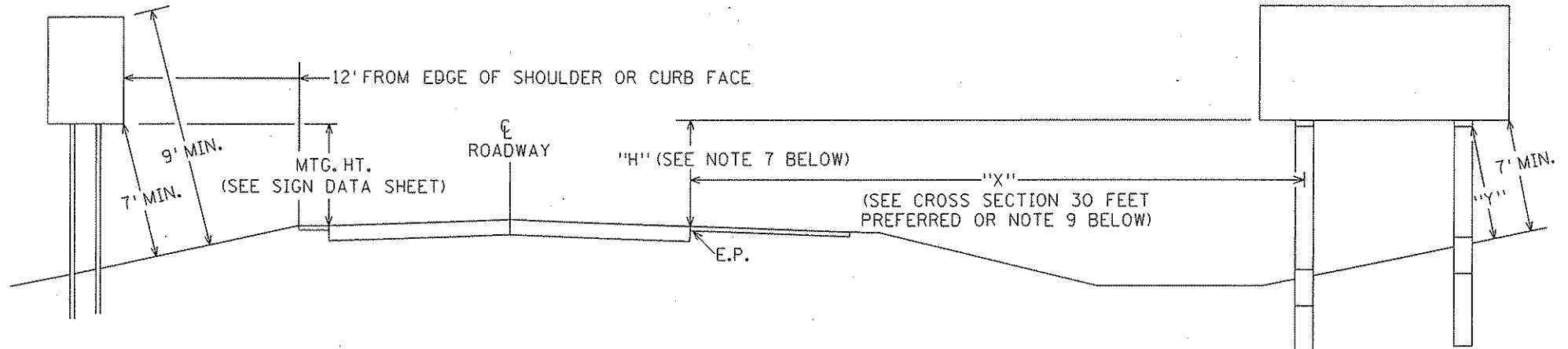
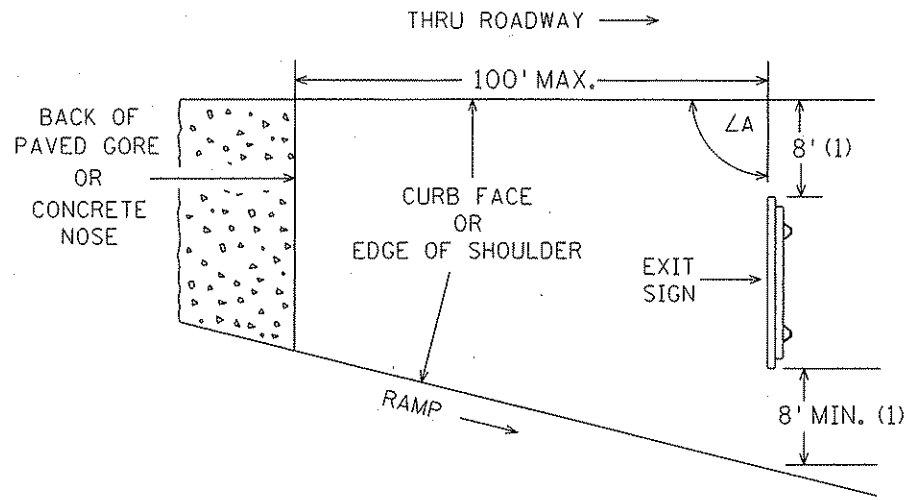
LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 632 OF 872 SHEETS

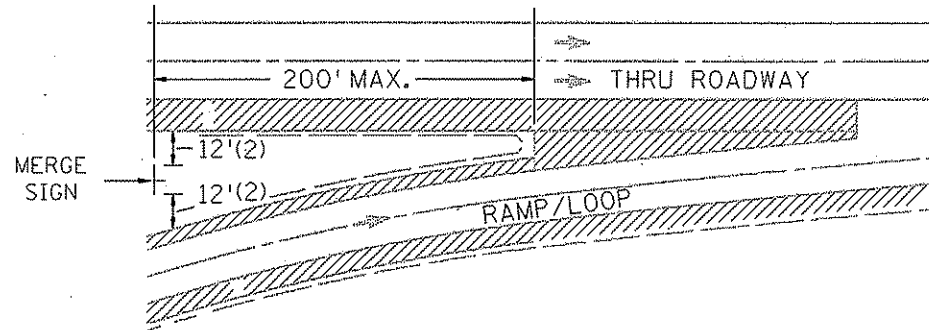
GORE PLACEMENT

ROADSIDE PLACEMENT



ROUTE MARKER, REGULATORY & WARNING SIGNS - TYPE C
MINOR GUIDE SIGNS - TYPE D

MAJOR GUIDE SIGN - TYPE A



SPECIFIC NOTES:

(1) EXIT SIGNS

IF THESE OFFSETS CANNOT BE ATTAINED WITHIN 100 FEET OF THE PAVED GORE, A 4 FOOT OFFSET IS ACCEPTABLE. IF THE 4 FOOT OFFSETS CANNOT BE ATTAINED WITHIN 100 FEET OF THE PAVED GORE, CONTACT THE OTSO SIGNING UNIT.

(2) MERGE SIGNS

IF THESE OFFSETS CANNOT BE ATTAINED WITHIN 200 FEET OF THE PAVED GORE, A 4 FOOT OFFSET IS ACCEPTABLE. IF THE 4 FOOT OFFSETS CANNOT BE ATTAINED WITHIN 200 FEET OF THE PAVED GORE, CONTACT THE OTSO SIGNING UNIT.

NOTES:

1. IF A SECONDARY SIGN IS MOUNTED BELOW A MAJOR SIGN, THE MAJOR SIGN SHALL BE AT LEAST 8' ABOVE THE PAVEMENT EDGE AND THE SECONDARY SIGN AT LEAST 5'.
2. ALL ROUTE MARKERS, WARNING AND REGULATORY SIGNS SHALL BE AT LEAST 7' ABOVE PAVEMENT EDGE.
3. SIGN FACES SHALL BE VERTICAL.
4. OVERHEAD SIGNS SHALL BE POSITIONED AT RIGHT ANGLES TO THE THRU ROADWAY UNLESS OTHERWISE NOTED.
5. TO AVOID SPECULAR GLARE, ΔA SHALL BE APPROXIMATELY 93° FOR SIGNS LOCATED LESS THAN 30' FROM THE EDGE OF PAVEMENT AND APPROXIMATELY 92° FOR SIGNS LOCATED 30' OR MORE FROM EDGE OF PAVEMENT. THIS APPLIES TO SIGNS TYPE A, C, & D AND INCLUDES SIGNS IN THE GORE.
6. "Y" IS THE PERPENDICULAR DISTANCE FROM THE GROUND LINE TO THE FRICTION FUSE ON THE POST. THIS DISTANCE SHALL BE AT LEAST 7'.
7. WHERE "X" IS LESS THAN 30', "H" SHALL BE $7' \pm 6"$. WHERE "X" IS 30' OR GREATER, MINIMUM AND PREFERRED "H" IS 5'.
8. LATERAL CLEARANCES GIVEN APPLY TO RIGHT AND OR LEFT SIDE INSTALLATION.
9. WHEN A TYPE A SIGN IS INSTALLED DIRECTLY BEHIND TRAFFIC BARRIER, THE LEFT EDGE OF THE SIGN PANEL SHALL BE LOCATED A MINIMUM OF 4 FEET BEHIND THE FACE OF THE TRAFFIC BARRIER.

SIGN PLACEMENT

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Gott
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

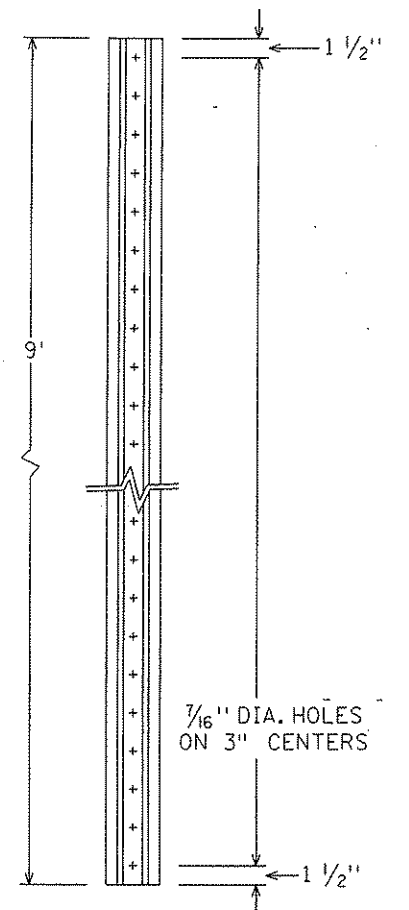
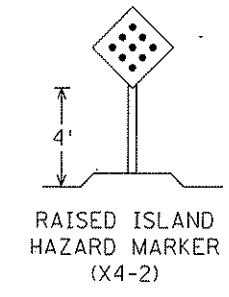
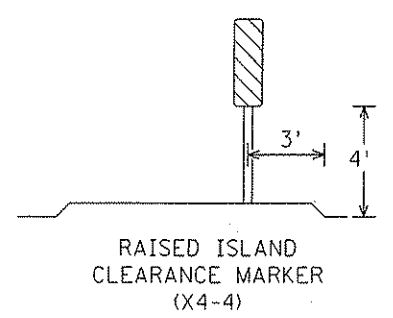
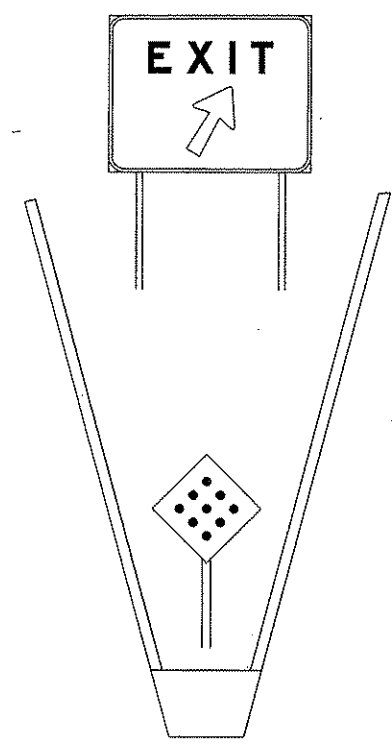
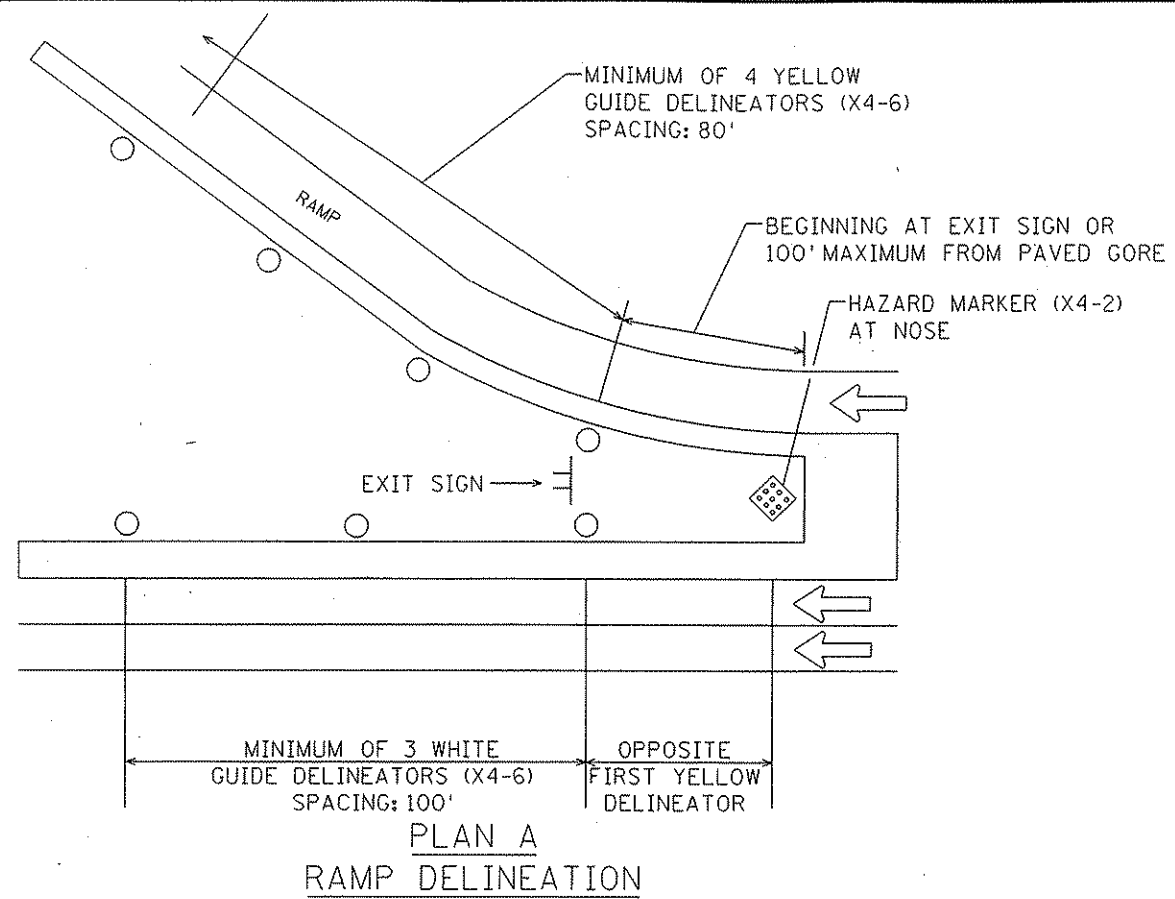
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 633 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
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PATH & FILENAME: S:\TRAFFIC\TC_Signing\06510208123\PS\651-jypcds-ps_CD.dgn

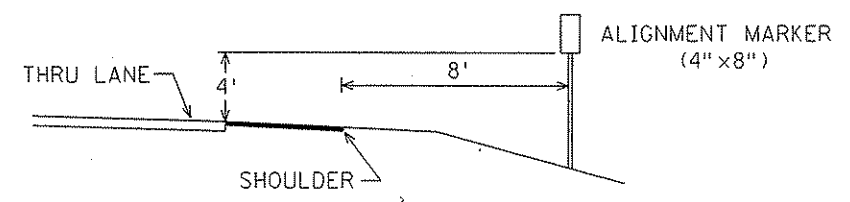
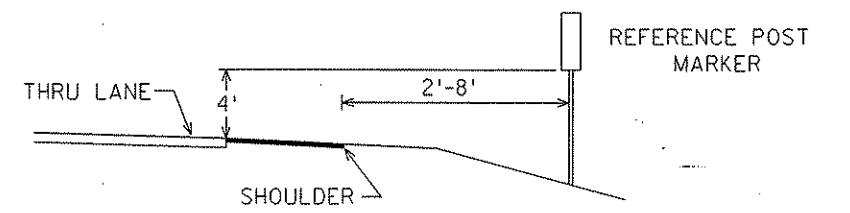
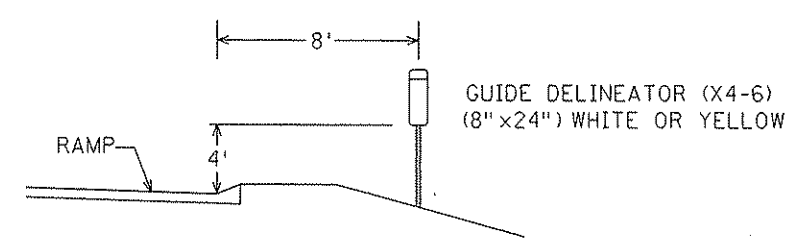
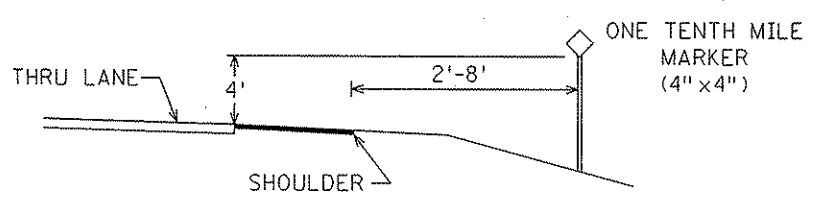
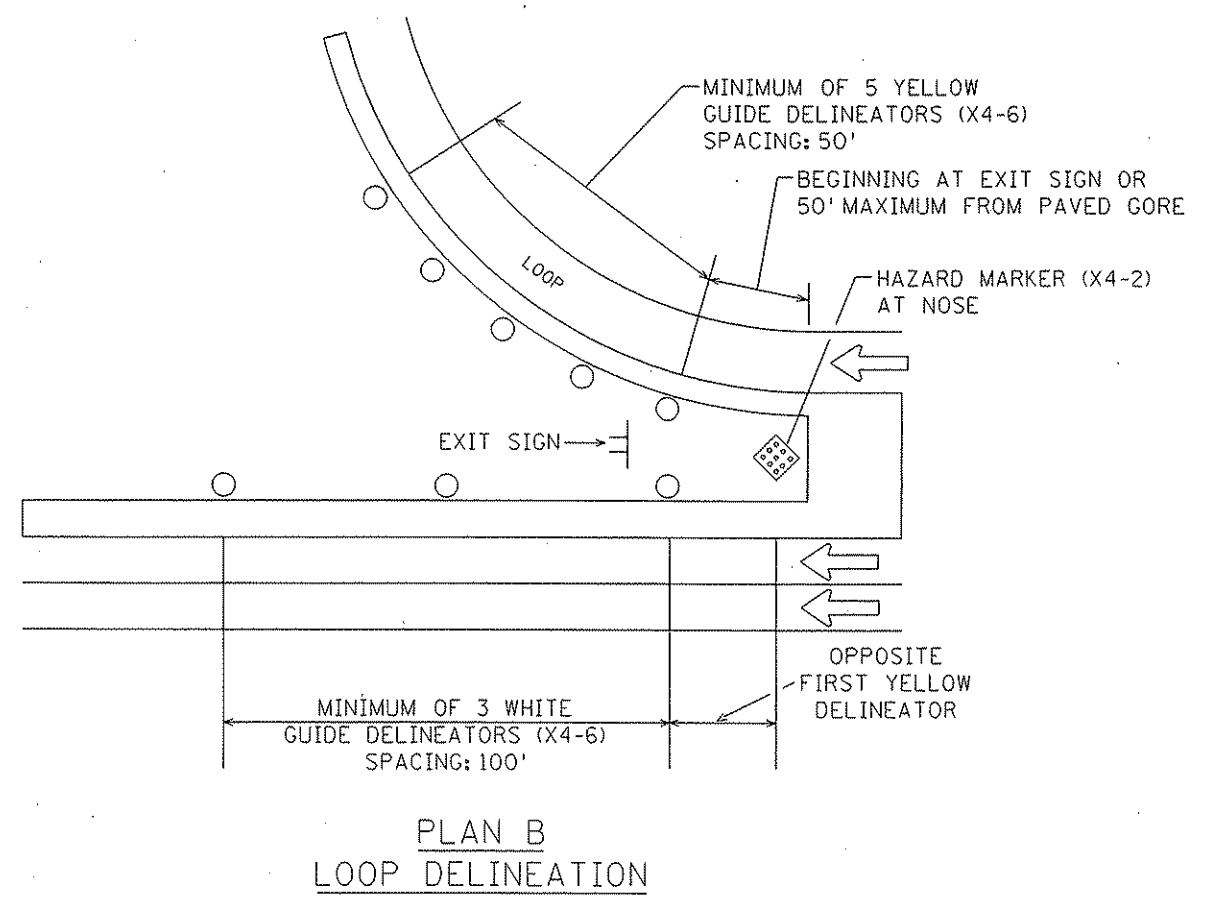
PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 65t_typical_ps_CDII
PATH & FILENAME: S:\TRAFFIC\TC_Signing\065\0208\23\PS\65t_typical_ps_CD.dgn



MN/DOT 3401
NORMAL WEIGHT= 2 LB./FT.

DELINEATOR POST



TYPICAL PLACEMENT

DELINEATORS AND MARKERS

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather J. Smith
LICENSED PROFESSIONAL ENGINEER

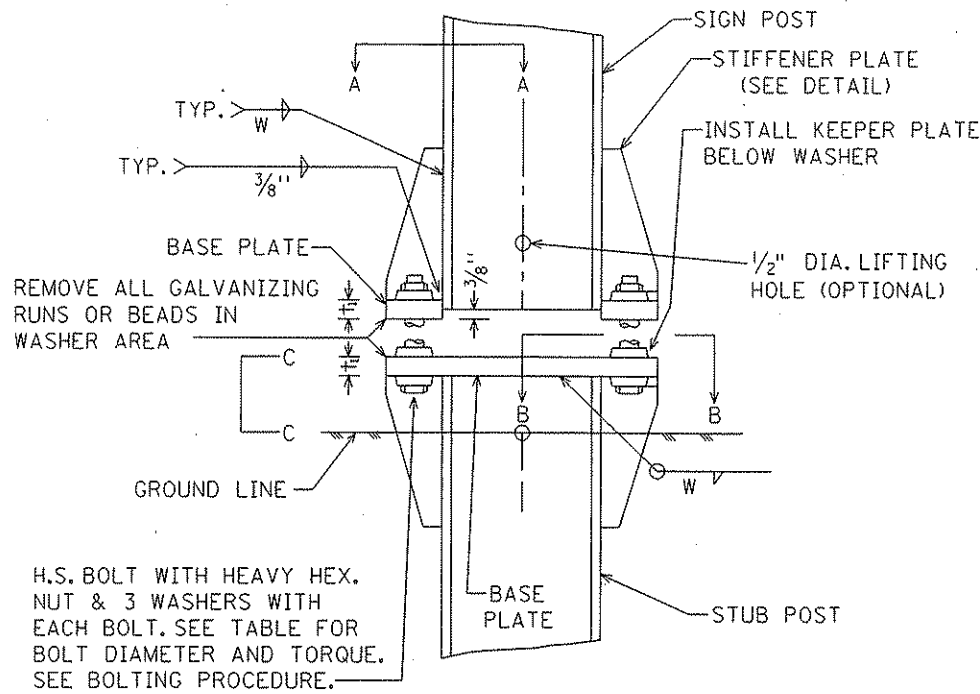
LIC. NO. 43466

DATE 1/31/2007

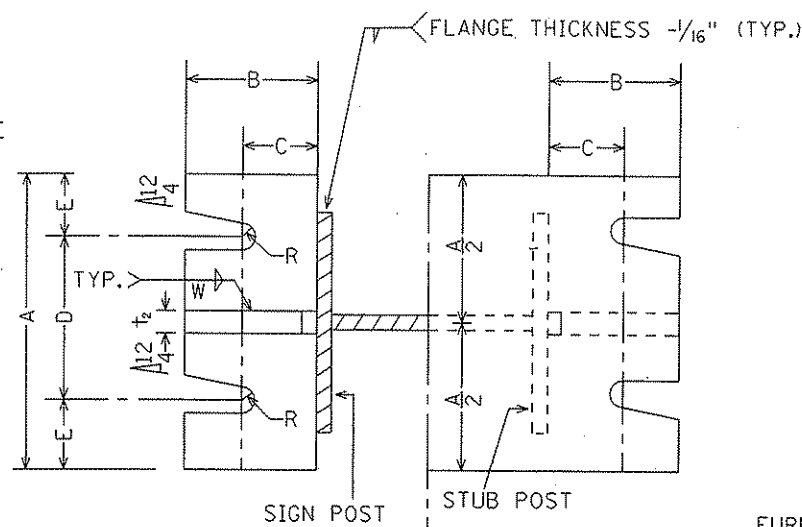
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 634 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: osignstructshh
 PATH & FILENAME: S:\TRAFFIC\CTC Signing\065\0208\123\PS\651_ttypicals_ps_A.dgn

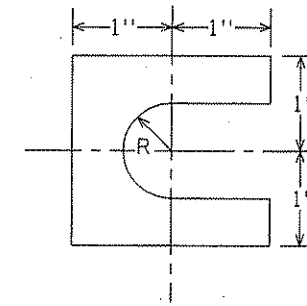


SIGN POST AND STUB POST ELEVATION



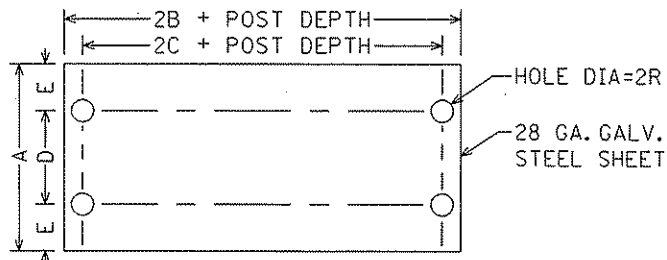
SECTION A-A SECTION B-B
(SEE TABLE FOR DIMENSIONS)

SECTIONS SHOWN ARE FOR INSTALLATIONS ON RIGHT SHOULDER AND IN GORE. PLATE SLOT BEVELS ARE OPPOSITE HAND FROM THAT SHOWN FOR INSTALLATIONS ON LEFT SHOULDER.

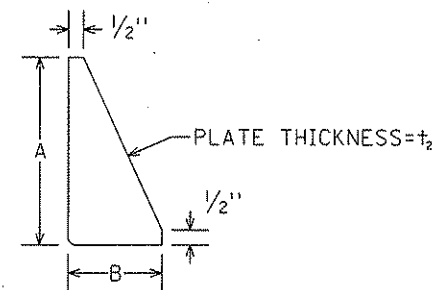


FURNISH TWO-.012"± THICK AND TWO-.032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M. B36.

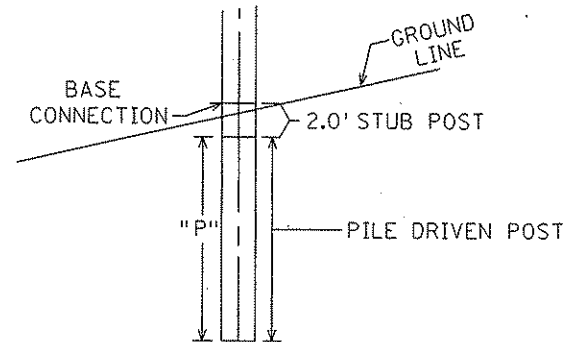
SHIM DETAIL



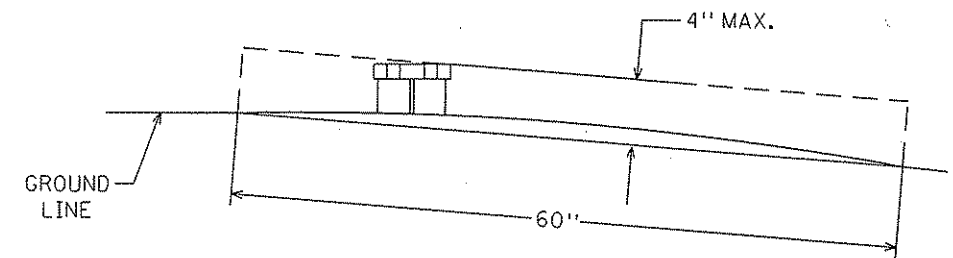
KEEPER PLATE



STIFFENER PLATE DETAIL
(SEE TABLE FOR DIMENSIONS)



H-PILE FOOTING



VIEW C-C

MAXIMUM PROJECTION OF STUB POST SHALL NOT EXTEND BEYOND A LINE, ABOVE AND 4" PARALLEL TO ANY CHORD, WHICH IS PERPENDICULAR TO (OR ALIGNED RADIALLY TO) THE CENTERLINE OF THE HIGHWAY AND HAS ITS (THE CHORD'S) END POINTS ON THE GROUND SURFACE ON OPPOSITE SIDES OF THE STUB POST.

SPECIFIC NOTES:

- ① MEASURED FROM TOP OF BASE PLATE
- ② OLD BEAM DEPTH = 10". NEW REVISED BEAM DEPTH = 9-7/8". KEEPER PLATES MUST BE FABRICATED ACCORDINGLY

**TYPE A SIGN STRUCTURAL PLAN
 H-PILE FOOTING
 SHEET 1 OF 2**

SIGNING PLAN

DIMENSION POST SIZE	BASE CONNECTION DATA BOLT SIZE AND TORQUE	BASE CONNECTION DATA										FUSE AND HINGE PLATE DATA										FOOTING DATA		
		A	B	C	D	E	t ₁	t ₂	W	R	G	H	J	K	L	M	d ₁	d ₂	t ₃	BOLT DIA.	STUB POST LENGTH ①	H PILE POST "P" (MIN. LENGTH)		
W4X13	3/4" DIA. x 3-1/2"	6"	2 1/2"	1 1/2"	3 1/2"	1 1/4"	1"	1/2"	1/4"	13/32"	2"	1 1/4"	4"	2 1/4"	7/8"	1"	1 1/16"	3/4"	3/8"	5/8"	2'	2'	12'	
W5X16	TORQUE=600" #	6"	2 1/2"	1 1/2"	3 1/2"	1 1/4"	1"	1/2"	1/4"	13/32"	2 1/2"	1 1/4"	5"	2 3/4"	1 1/8"	1 1/8"	1 3/16"	7/8"	3/8"	3/4"	2'	2'	12'	
W6X20	7/8" DIA. x 4-1/4"	8"	3"	1 3/4"	4"	2"	1 1/4"	1/2"	1/4"	15/32"	2 1/2"	1 1/4"	6"	3 1/2"	1 1/4"	1 3/8"	1 3/16"	1 1/8"	3/8"	3/4"	2'	2'	12'	
W8X24	TORQUE=800" #	8"	3"	1 3/4"	4"	2"	1 1/4"	1/2"	1/4"	15/32"	2 1/2"	1 1/2"	6 1/2"	3 1/2"	1 1/2"	1 1/2"	1 5/16"	1 1/4"	1/2"	7/8"	2'	2'	12'	
W8X28	1" DIA. x 5"	8"	3"	2"	4"	2"	1 1/2"	3/4"	5/16"	17/32"	2 1/2"	1 1/2"	6 1/2"	3 1/2"	1 1/2"	1 5/8"	1 1/16"	1 1/8"	1/2"	1"	2'	2'	12'	
W8X31	1-1/8" DIA. x 5"	9"	3 1/2"	2"	5"	2"	1 1/2"	3/4"	5/16"	19/32"	3"	1 3/4"	8"	5 1/2"	1 1/4"	2"	1 1/16"	1 1/2"	1/2"	1"	2'	2'	12'	
② W10X39	TORQUE=1200" #	9"	3 1/2"	2"	5"	2"	1 1/2"	3/4"	5/16"	19/32"	3"	1 3/4"	8"	5 1/2"	1 1/4"	1 1/8"	1 3/16"	1 3/8"	1/2"	1 1/8"	2'	2'	12'	

REVISED: 9-10-01

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Todd
 LICENSED PROFESSIONAL ENGINEER

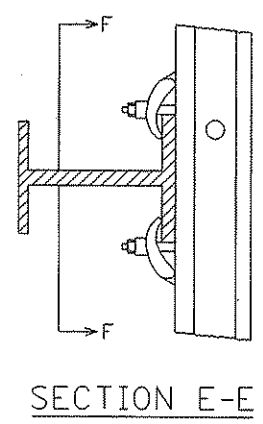
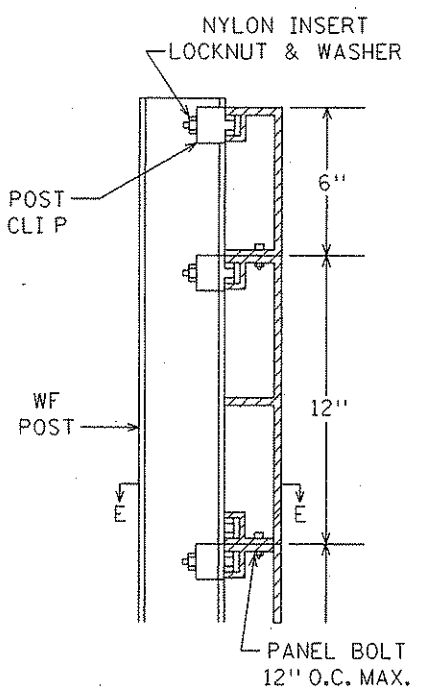
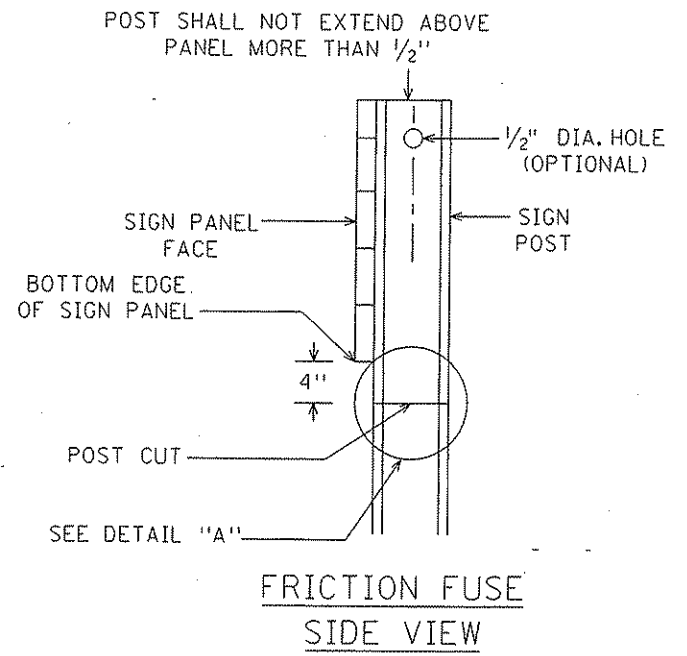
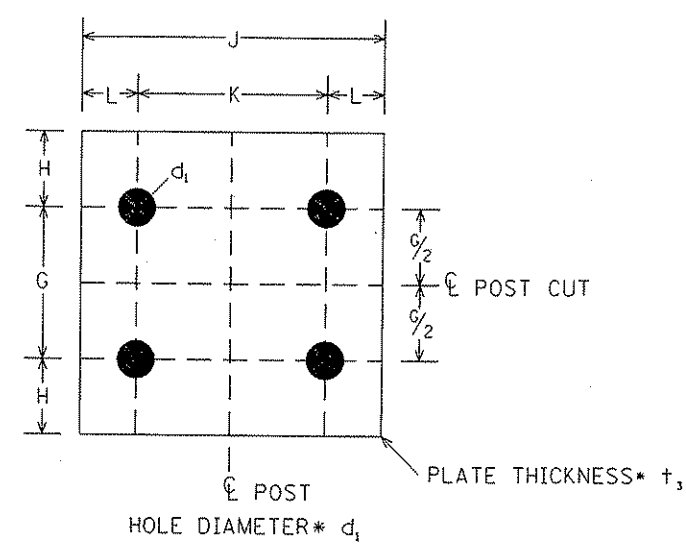
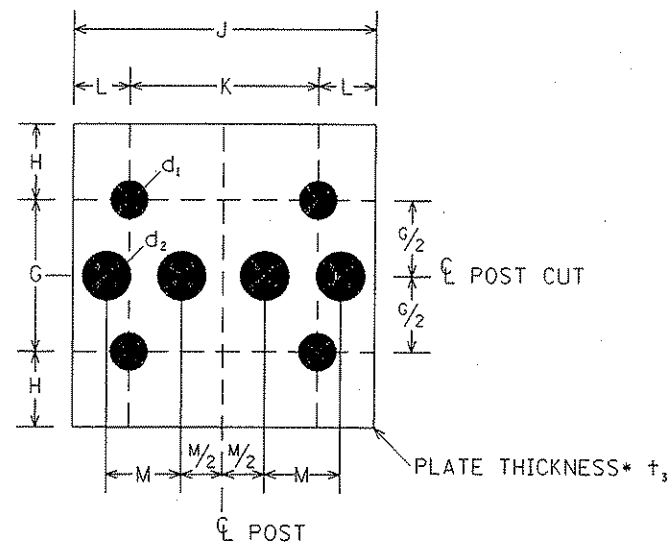
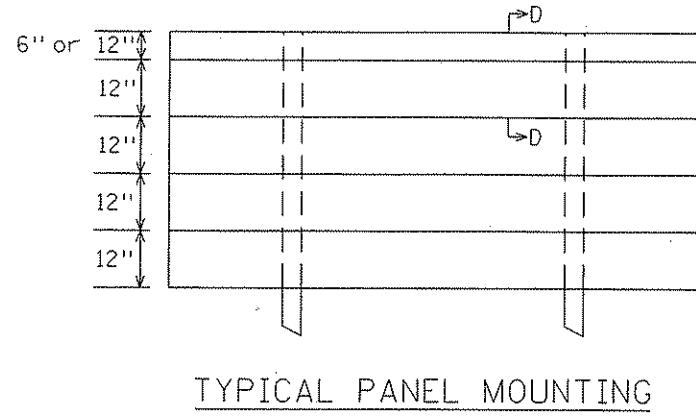
LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 635 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: osignstructsh2
 PATH & FILENAME: S:\TRAFFIC\TC-Signing\065\0208\123\PS\651-typical-ps_A.dgn



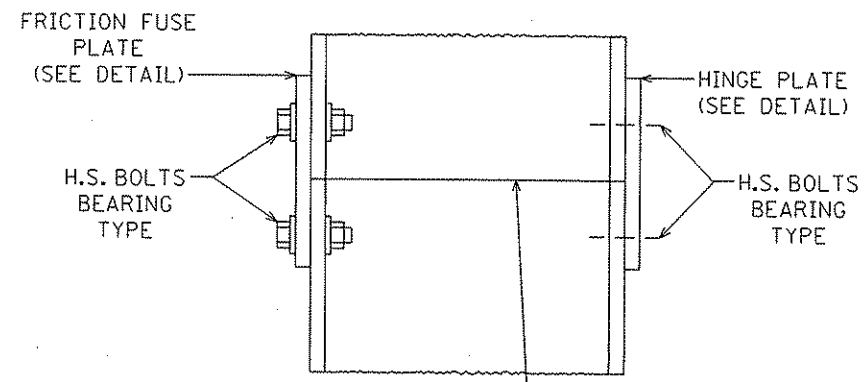
FRICTION FUSE PLATE DETAIL
 (SEE TABLE ON SHEET 1 OF 2 FOR DIMENSIONS)

HINGE PLATE DETAIL
 (SEE TABLE ON SHEET 1 OF 2 FOR DIMENSIONS)

FRICTION FUSE
 SIDE VIEW

SECTION D-D

SECTION E-E



POST SHALL BE SAW CUT BEFORE GALVANIZING.
 USE H.S. BOLTS WITH HEX. HD., HEX. NUT,
 AND TWO FLAT WASHERS.

DETAIL "A" FRICTION FUSE

GENERAL NOTES:

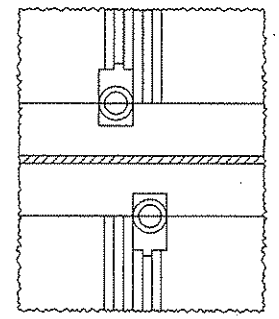
1. STRUCTURAL STEEL SHALL CONFORM TO MN/DOT 3308. REINFORCING BARS SHALL CONFORM TO MN/DOT 3301. SPIRALS SHALL CONFORM TO MN/DOT 3305-NO SPLICES. HIGH STRENGTH BOLTS SHALL CONFORM TO A.S.T.M.-A325.
2. FORMS WILL BE REQUIRED FOR THE EXPOSED VERTICAL SURFACES OF THE FOOTINGS.
3. REFER TO "SIGN DATA" SHEET FOR SPECIFIC DATA ON EACH INDIVIDUAL SIGN INSTALLATION.
4. FRICTION FUSE PLATE SHALL BE INSTALLED ON SIDE OF POST FACING TRAFFIC.
5. ALL POST CUTS SHALL BE SAW CUTS. PLATES MAY BE SHEARED OR FLAME CUT USING A MECHANICALLY GUIDED CUTTING TORCH. EDGE PREPARATION SHALL BE IN ACCORDANCE WITH MN/DOT 2471.3C4 AND MN/DOT 2471.3d4.

CONTRACTOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TORQUE WRENCH TIGHTENED IN THE FIELD IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE. NUTS SHALL HAVE BEEN RETAPPED AND BOLT THREADS SHALL HAVE BEEN CLEANED WITH A 1/64" OVERSIZED RETHREADING DIE AFTER GALVANIZING. BEFORE TIGHTENING MAY BEGIN, THE TORQUE WRENCH SHALL BE CALIBRATED WITH A BOLT-TENSION-CALIBRATOR USING TYPICAL BOLT-NUT-WASHER ASSEMBLIES OF EACH SIZE AND LOT TO BE USED SO AS TO SHOW THE TORQUE NECESSARY TO OBTAIN THE FOLLOWING MINIMUM RESIDUAL TENSION IN EACH BOLT.

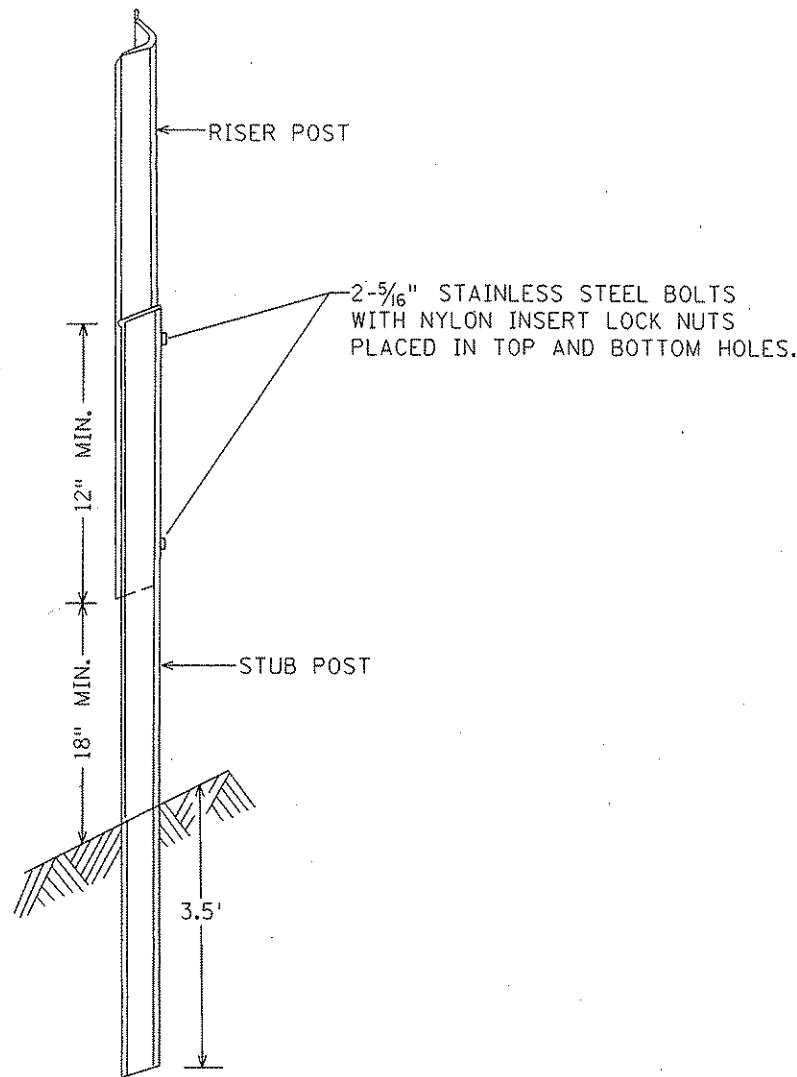
BOLT SIZE	MIN. RESIDUAL BOLT TENSION
1/2" DIA.	12,050*
3/8" DIA.	19,200*
3/4" DIA.	28,400*
7/8" DIA.	39,250*
1" DIA.	51,500*
1-1/8" DIA.	56,450*

NOTE: POST CLIPS SHALL BE INSTALLED ON BOTH SIDES OF EACH POST AT EACH PANEL JOINT AS INDICATED.

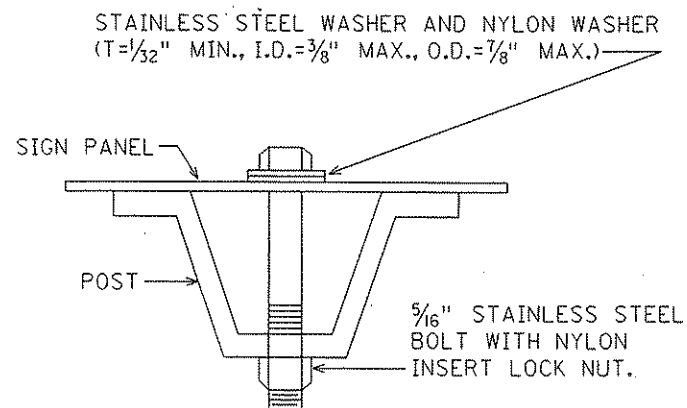
SECTION F-F



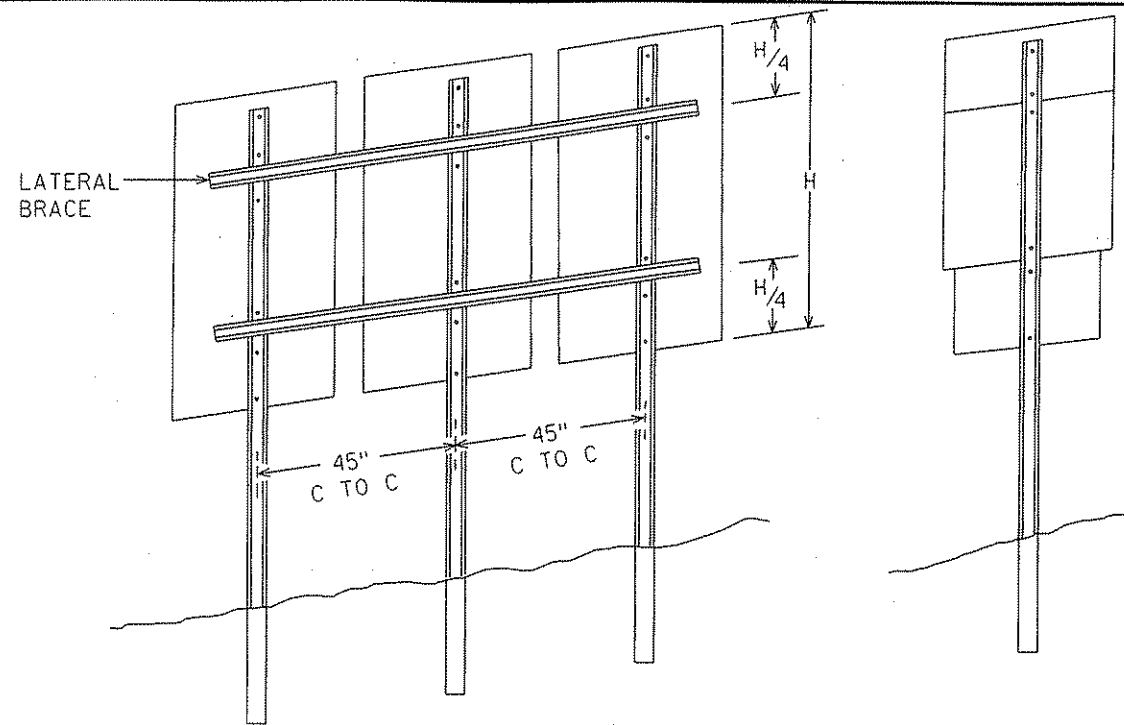
TYPE "C" & "D" POST



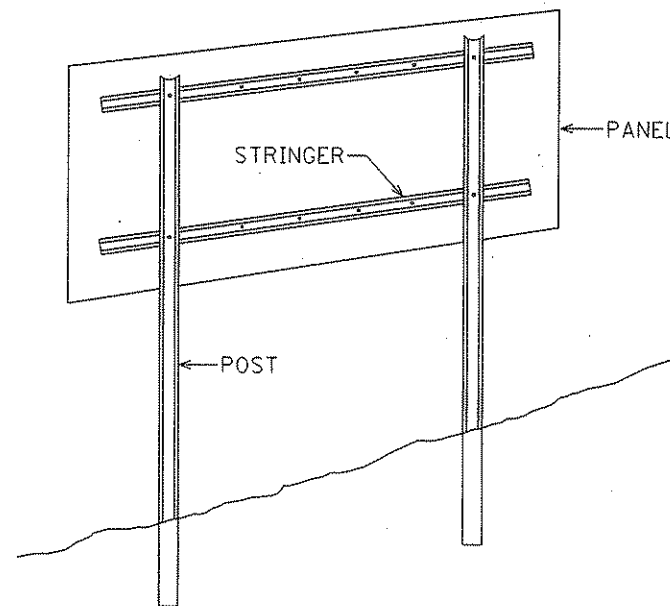
"U POST" SPLICE



"U POST" MOUNTING
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



TYPICAL TYPE "D" INSTALLATION

NOTES:

1. USE 3# STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
2. FOR TYPE "D" SIGN POSTS LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
3. TYPE "D" SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24" MAXIMUM INTERVALS IN ACCORDANCE WITH TYPE "D" STRINGER AND PANEL-JOINT DETAIL (SEE STANDARD SIGNS MANUAL).
4. MOUNTING (PUNCHING CODE) FOR TYPE "C" SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
5. ALL RISER (VERTICAL) "U POSTS" SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
6. USE STAINLESS STEEL 5/16" BOLTS, WASHERS, AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
7. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
8. BRACING STUBS SHALL BE NO MORE THAN 4" ABOVE GROUND AND EMBEDDED AT LEAST 3 1/2'.
9. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394.
10. COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A5.
11. 2 AND 3 POST TYPE "C" SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
12. WHERE 2 OR MORE SINGLE POST SIGNS (TYPE "C") ARE MOUNTED SIDE BY SIDE, THEY SHALL BE REINFORCED Laterally BY AT LEAST 2 POST SECTIONS, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN SKETCH.

TYPE C & D SIGN
STRUCTURAL PLAN
SHEET 1 OF 3

SIGNING PLAN

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
I/PLOT NAME: 651_ttypicals.ps_CD
PATH & FILENAME: S:\TRAFFIC\Signing\065\0208\123\PS\651_ttypicals.ps_CD.dgn

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Holt
LICENSED PROFESSIONAL ENGINEER

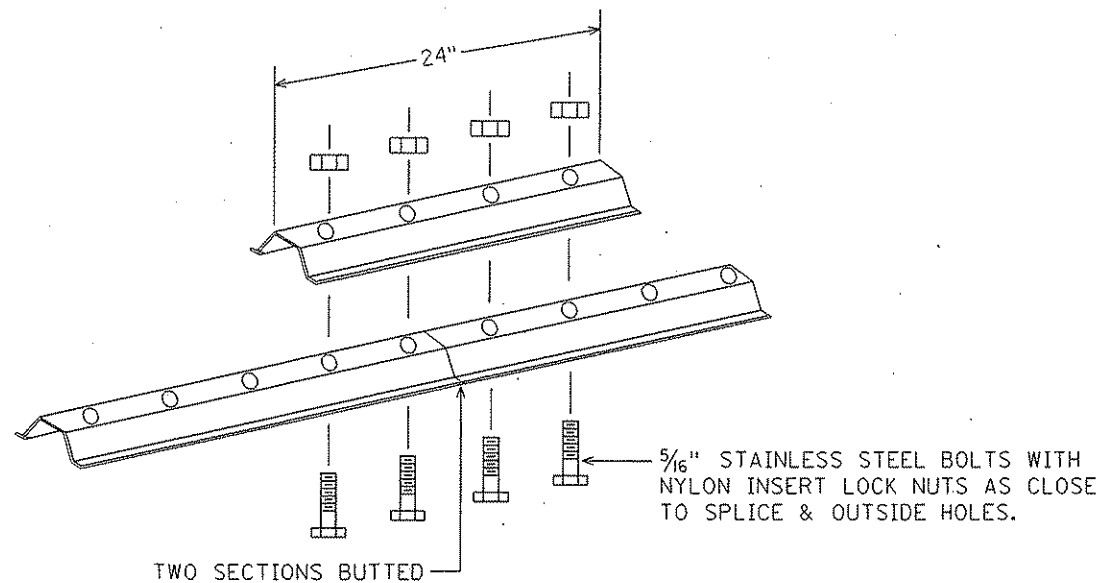
LIC. NO. 43466

DATE 1/31/2007

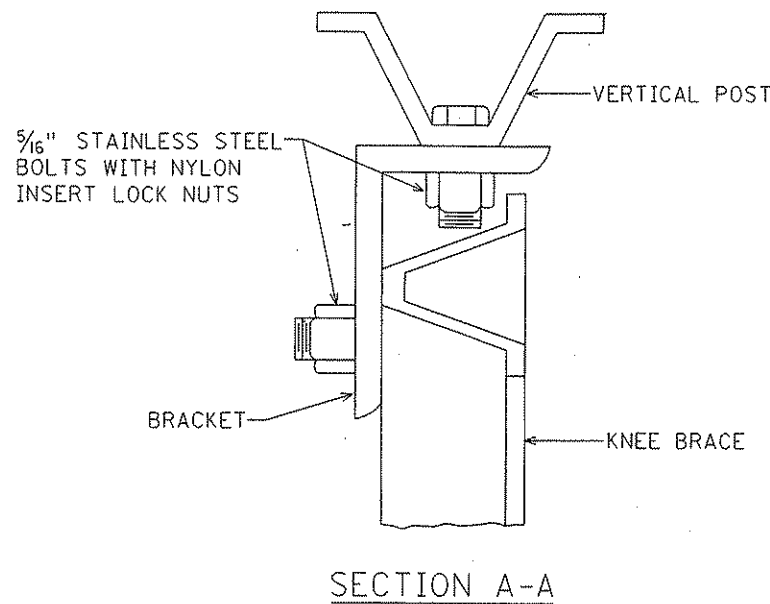
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 637 OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

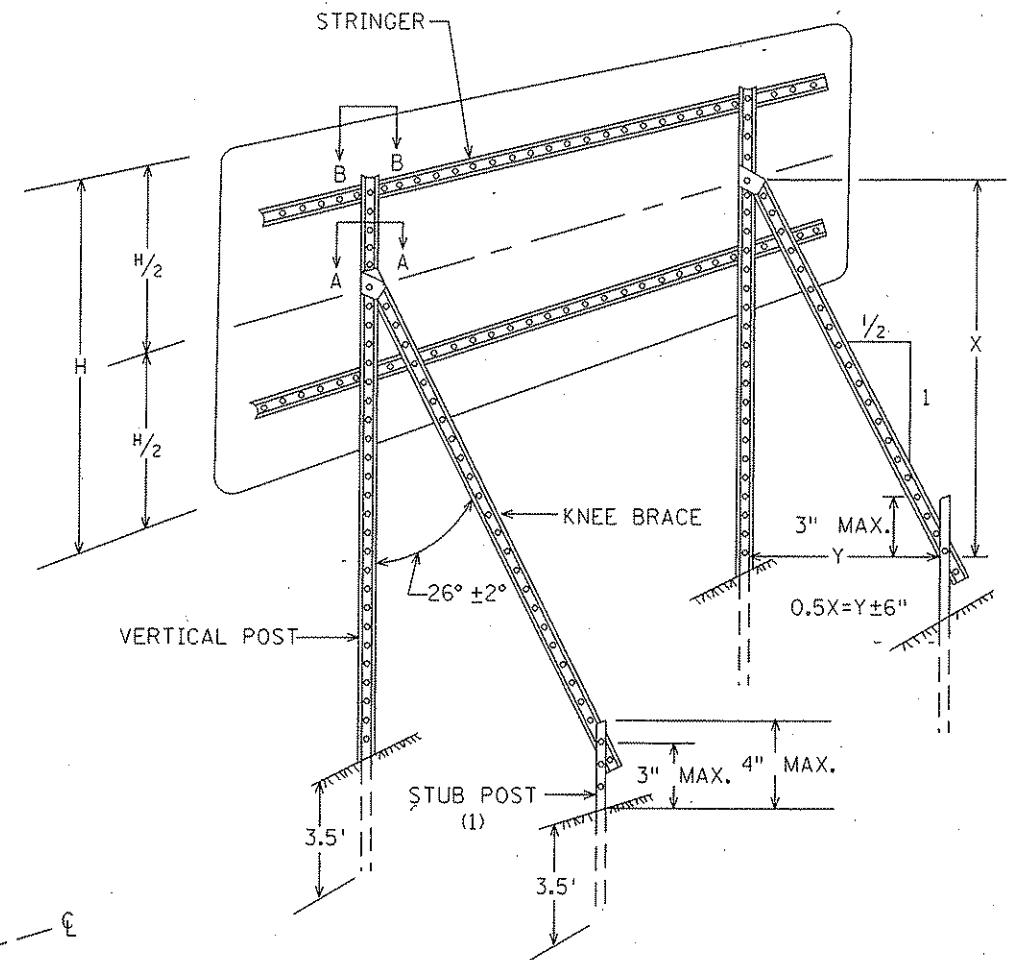
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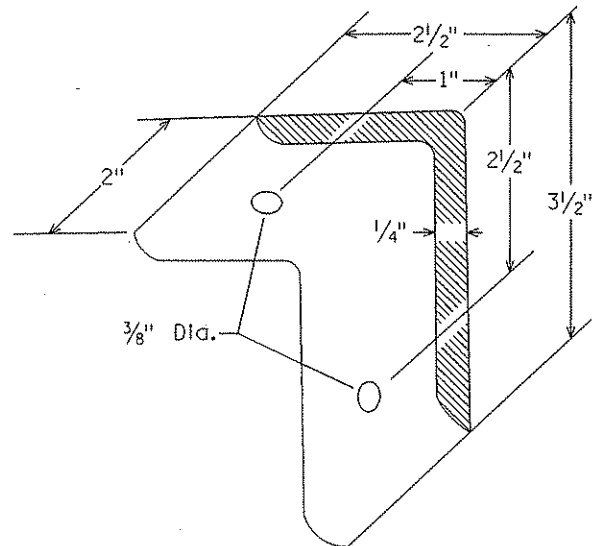
LATERAL BRACE OR STRINGER
SPlice DETAIL (EXPLODED VIEW)



SECTION A-A

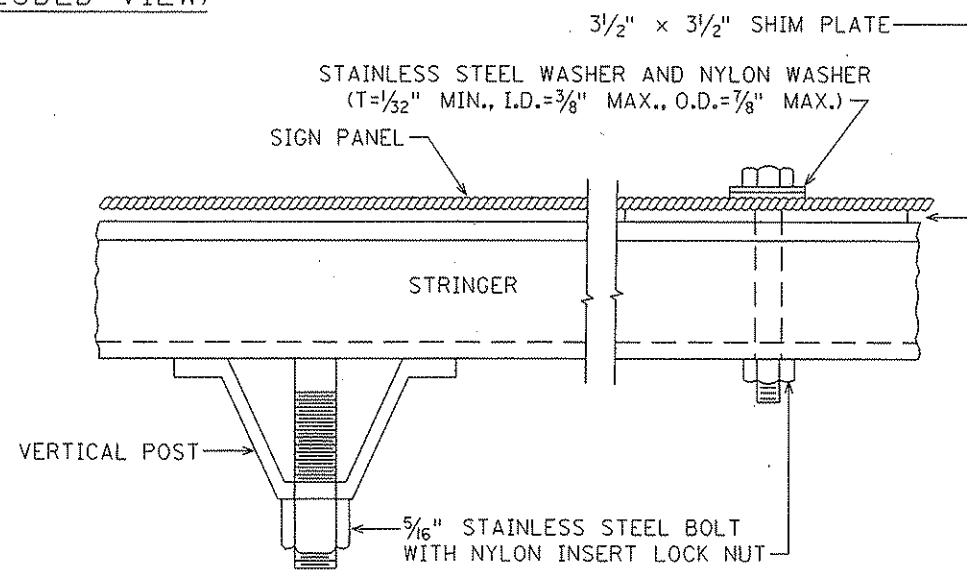


TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS

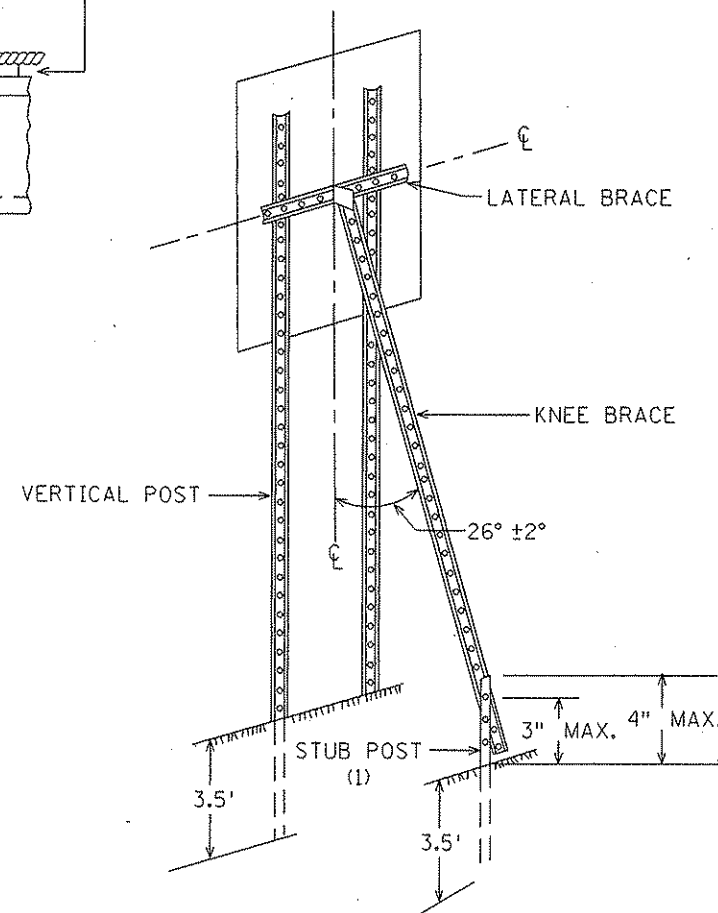


A-FRAME BRACKET

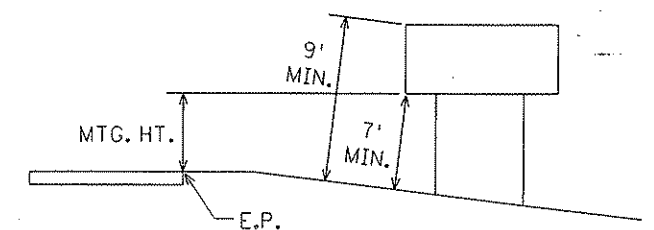
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



SECTION B-B

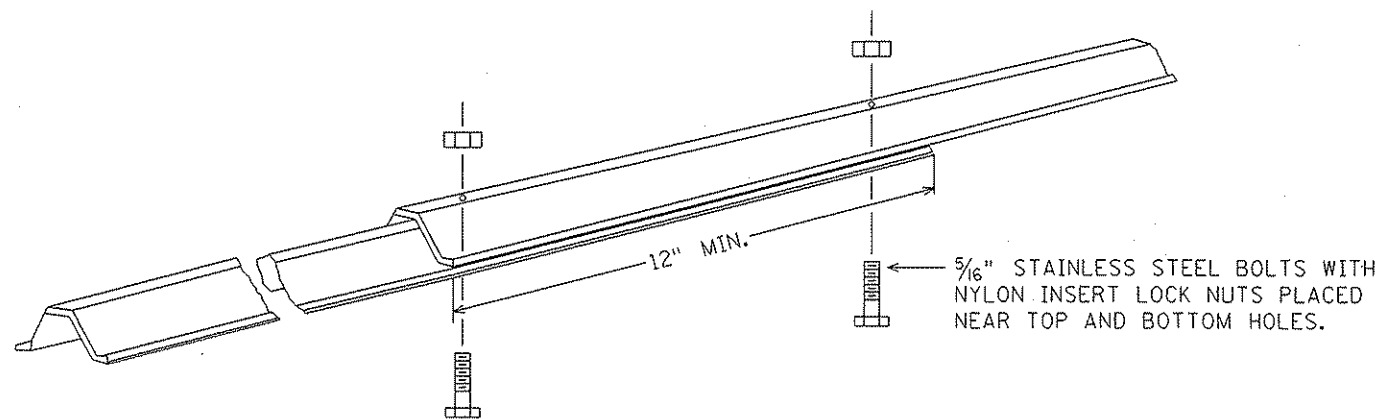


TYPICAL "A-FRAME" INSTALLATION
TYPE "C" SIGNS



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY
RELATIVE TO VERTICAL POST.



KNEE BRACE SPLICE

TYPE C & D SIGN
STRUCTURAL PLAN
SHEET 2 OF 3

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

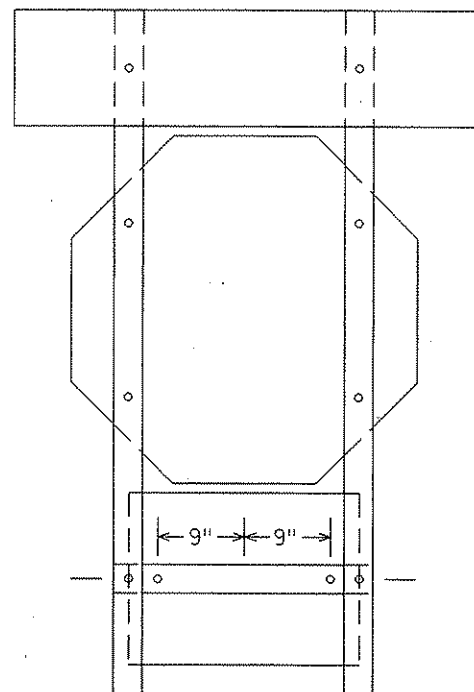
CERTIFIED BY

Heather Lynn Hoff
LICENSED PROFESSIONAL ENGINEER

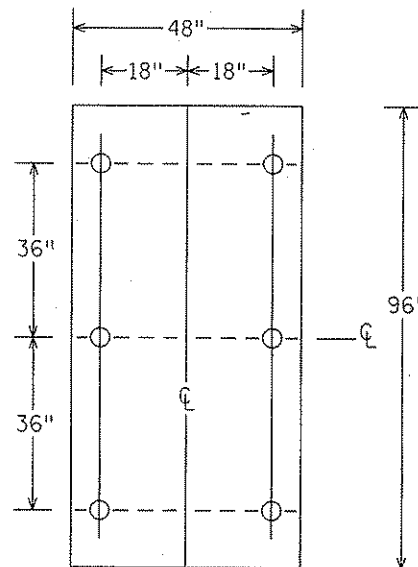
LIC. NO. 43466

DATE 1/31/2007

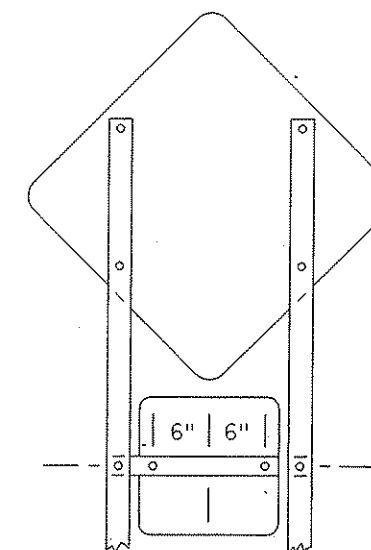
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 638 OF 872 SHEETS



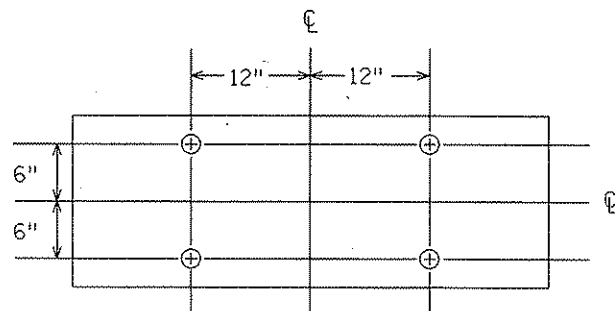
R6-1, R1-1 & (R6-3 OR R6-3a)
MOUNTING



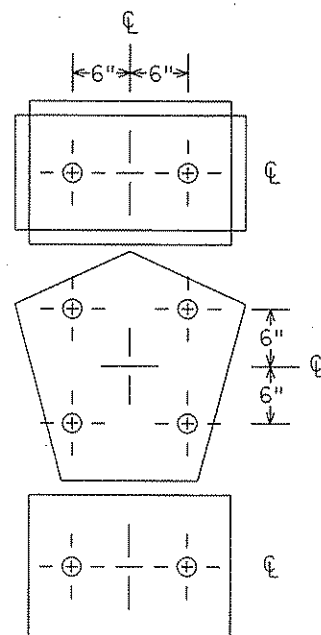
PUNCHING FOR R2-4b
SPEED LIMIT



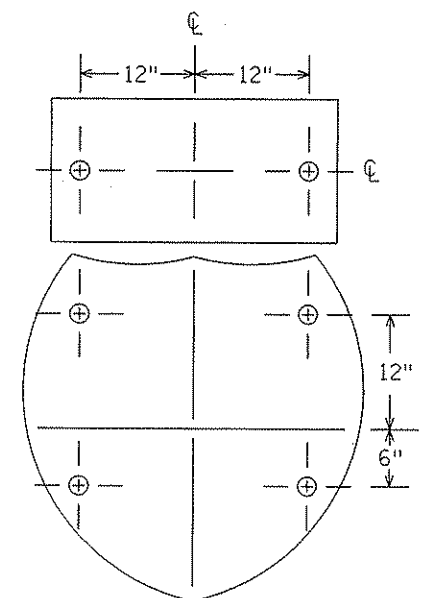
(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1
MOUNTING



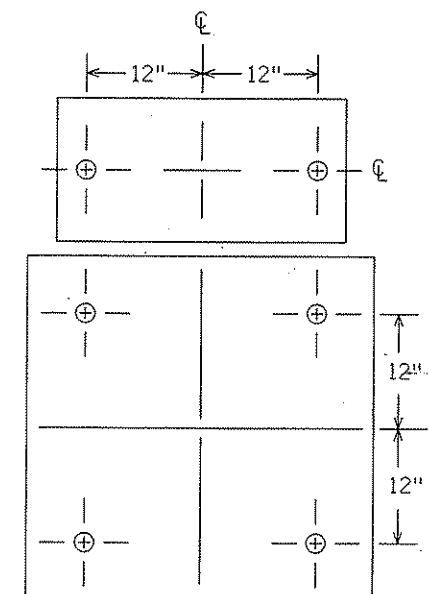
PUNCHING FOR R6-1(48" x 18")



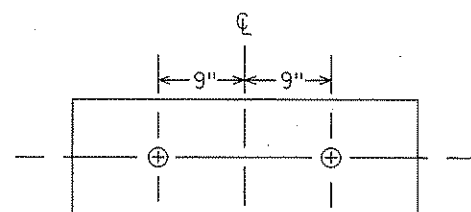
M2-1A [21" x 15"] OR
(M3-1A, M3-2A, M3-3A OR M3-4A) [24" x 12"] AND
M1-6 [24" x 24"] AND
(M5-1A, M5-2A, M6-1A, M6-2A, M6-3A M6-4A, M6-5A OR M6-6A) [21" x 15"]
PUNCHING



(M3-1A, M3-2A, M3-3A OR M3-4A) [30" x 15"] AND
M1-1 [45" x 36" OR 36" x 36"]
PUNCHING



(M3-1, M3-1A, M3-2, M3-2A, M3-3, M3-3A M3-4 OR
M3-4A) [30" x 15"] AND (M1-4 OR M1-5A) [36" x 36"]
PUNCHING



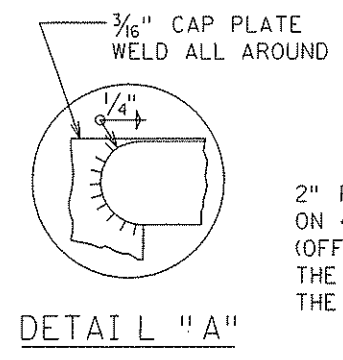
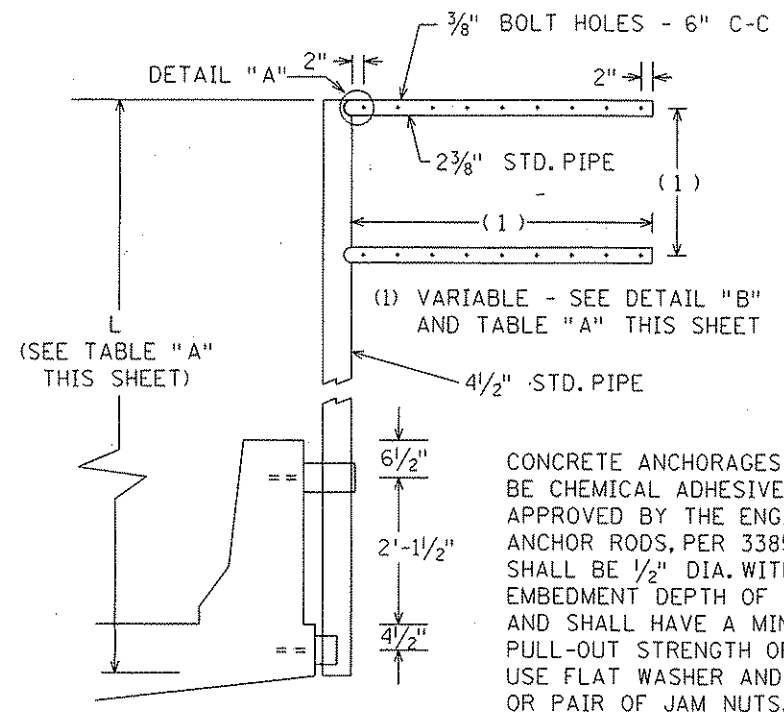
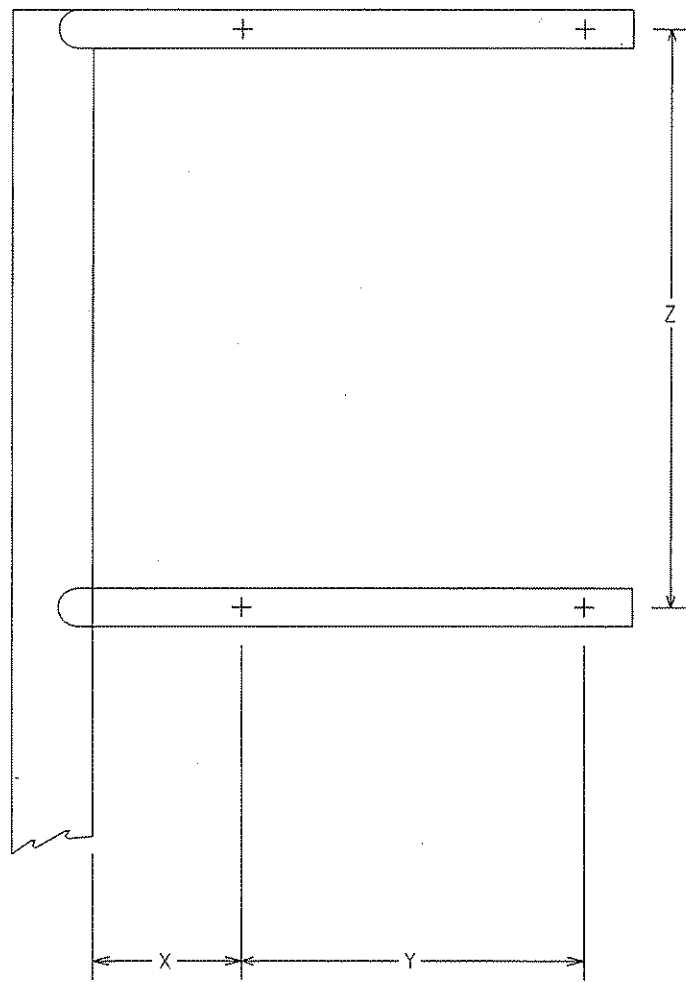
PUNCHING FOR R6-1(36" x 12")

TYPE C & D SIGN
STRUCTURAL PLAN
SHEET 3 OF 3

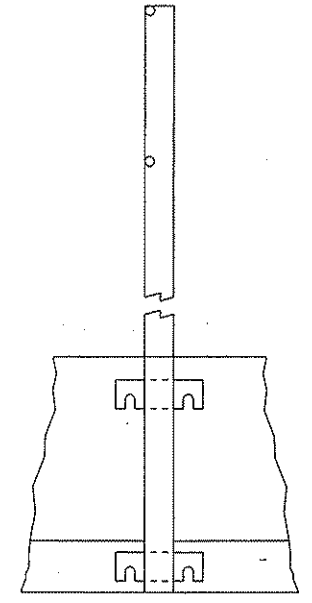
SIGNING PLAN

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
 IPLOT NAME: DETAILWALLSHT1
 PATH & FILENAME: S:\RAFFIC\TC_Signing\065\0208\23\PS\651_hpicad1.ps_CD.dgn



2" PIPE OFFSET ON 4" PIPE
 (OFFSET SHALL BE IN THE SAME DIRECTION AS THE SIGN IS FACING)



ELEVATION

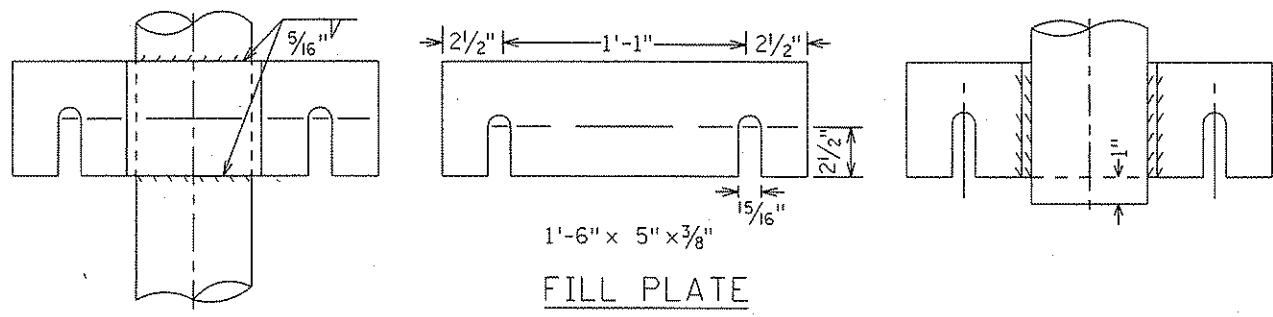
END VIEW

CONCRETE ANCHORAGES SHALL BE CHEMICAL ADHESIVE TYPE AS APPROVED BY THE ENGINEER. ANCHOR RODS, PER 3385 TYPE A, SHALL BE 1/2" DIA. WITH A MIN. EMBEDMENT DEPTH OF 4 1/2", AND SHALL HAVE A MIN. ULTIMATE PULL-OUT STRENGTH OF 8000#. USE FLAT WASHER AND LOCK NUT OR PAIR OF JAM NUTS.

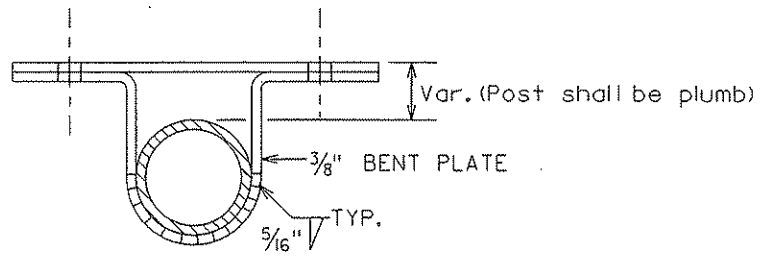
DETAIL "B"

SIGN NO.	X (IN.)	Y (IN.)	Z (IN.)	L (FT.)
C-9	8	30	24	10
C-34	8	24	24	10

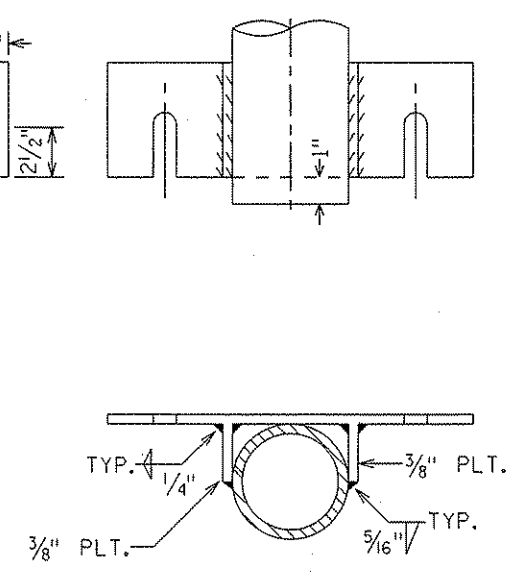
TABLE "A"



FILL PLATE



UPPER CONNECTION



LOWER CONNECTION

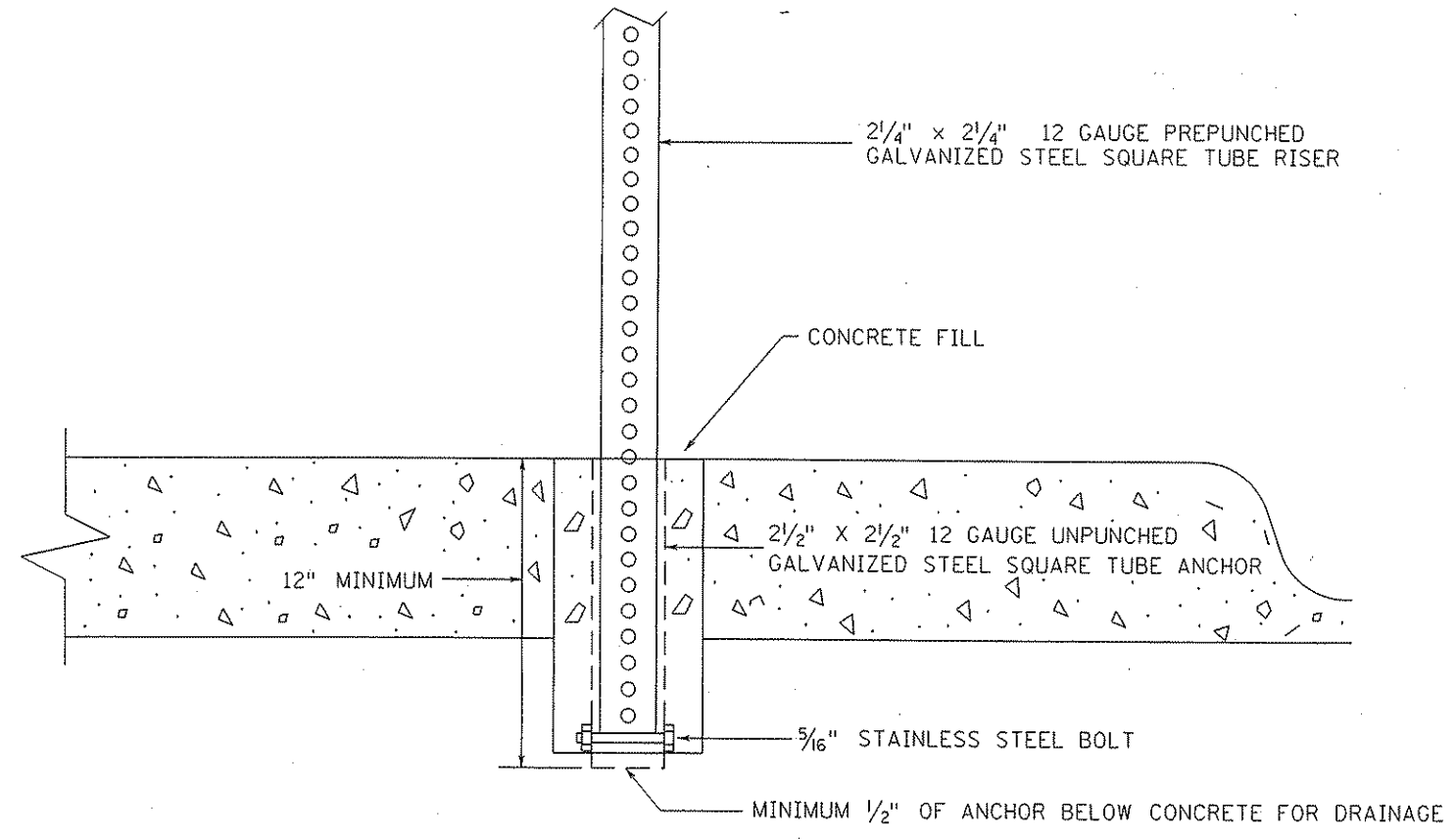
- NOTES:
1. ALL PIPE MATERIAL SHALL CONFORM TO ASTM DESIGNATION A53, GRADE B, SCHEDULE 40.
 2. ALL STEEL FOR STRUCTURAL ITEMS SHALL CONFORM TO MN/DOT 3306 (STRUCTURAL STEEL) UNLESS OTHERWISE NOTED.
 3. FOR NOTES AND DETAILS NOT SHOWN, SEE TYPE C AND D SIGN DETAILS.

TYPE C & D SIGNS MOUNTED ON WALL
 4-1/2" O-PIPE (A)

SIGNING PLAN

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
PLOT NAME: 65t_jypcds-ps_CD2
PATH & FILENAME: S:\TRAFFIC\Signing\065\0208\23\PS\65t_jypcds-ps_CD.dgn



NOTES:

1. DRILL A 8" DIAMETER HOLE THE FULL DEPTH OF THE ANCHOR.
2. DRILL 3/8" HOLES ON OPPOSITE SIDES OF THE UNPUNCHED GALVANIZED STEEL SQUARE TUBE ANCHOR APPROX. 1" FROM THE BOTTOM OF THE ANCHOR. INSERT A 5/16" STAINLESS STEEL BOLT THROUGH THE HOLES AND SECURE WITH A STAINLESS STEEL LOCK NUT WITH NYLON INSERT. THE PREPUNCHED GALVANIZED STEEL SQUARE TUBE RISER (TO BE INSERTED INSIDE THE UNPUNCHED GALVANIZED SQUARE TUBE ANCHOR) WILL REST ON BOLT.
3. INSERT THE ANCHOR IN THE HOLE.
4. AFTER INSTALLATION OF THE UNPUNCHED GALVANIZED STEEL SQUARE TUBE ANCHOR, FILL THE HOLE WITH A CONCRETE MIX APPROVED BY THE ENGINEER AND LEVEL OFF THE TOP OF CONCRETE.

TYPE C SIGNS, DELINEATORS & MARKERS IN CONCRETE

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Hatler Lynn Lott
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

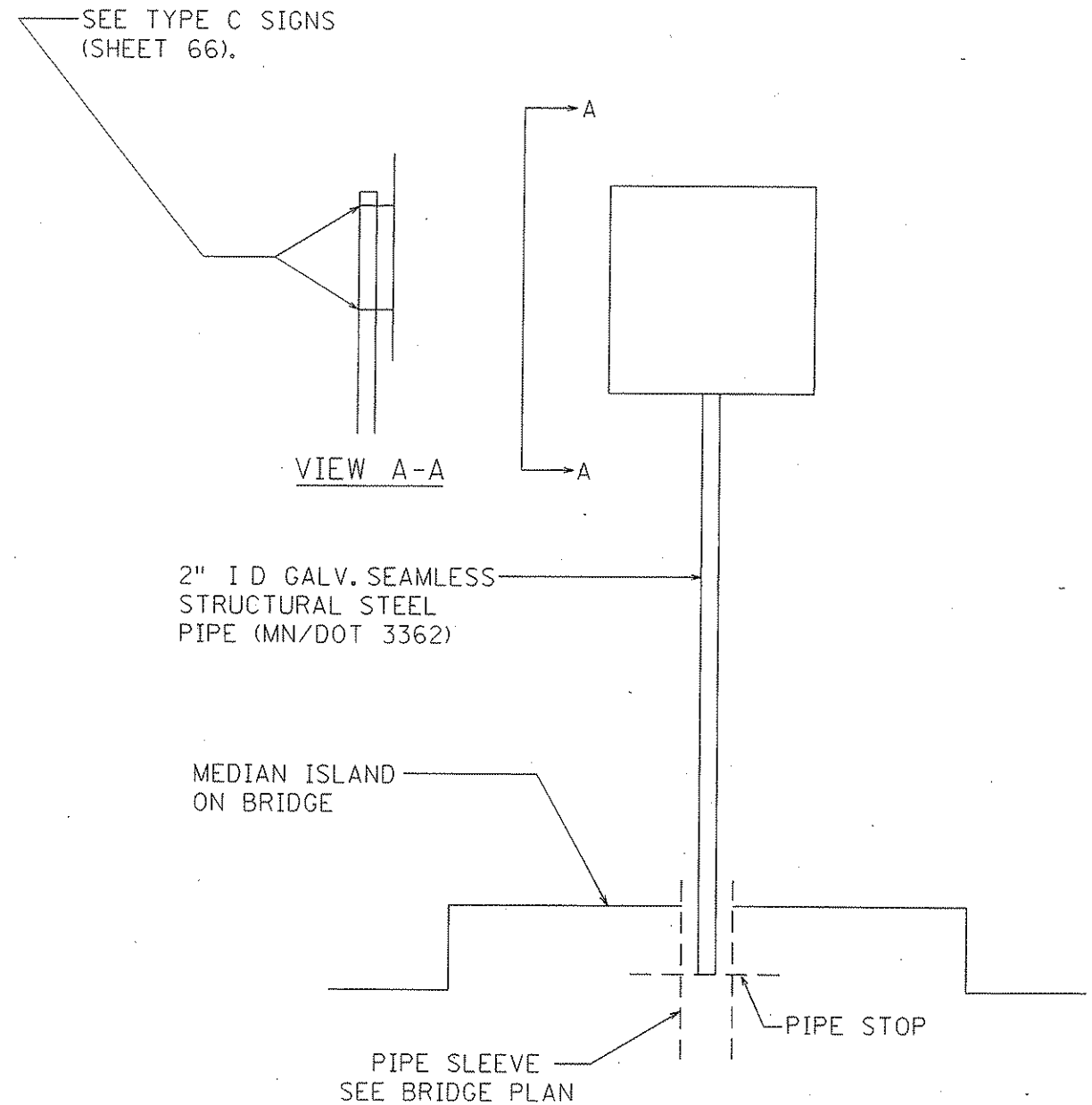
STATE PROJ. NO. 0208-123 (TH 65)

SHEET NO. 641

OF 872 SHEETS

PLOTTED/REVISED: 1/31/2007

DISTRICT #: METRO
I/PLOT NAME: 65t_hypcds-ps_CD4
PATH & FILENAME: S:\TRAFFIC\Signing\065\0208\123\PS\65t_hypcds-ps_CD.dgn



ELEVATION

NOTES:
FOR NOTES AND DETAILS NOT SHOWN, SEE
TYPE C & D SIGN DETAILS - SHEETS 53-55

TYPE C SIGNS MOUNTED ON
BRIDGE MEDIAN ISLAND

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

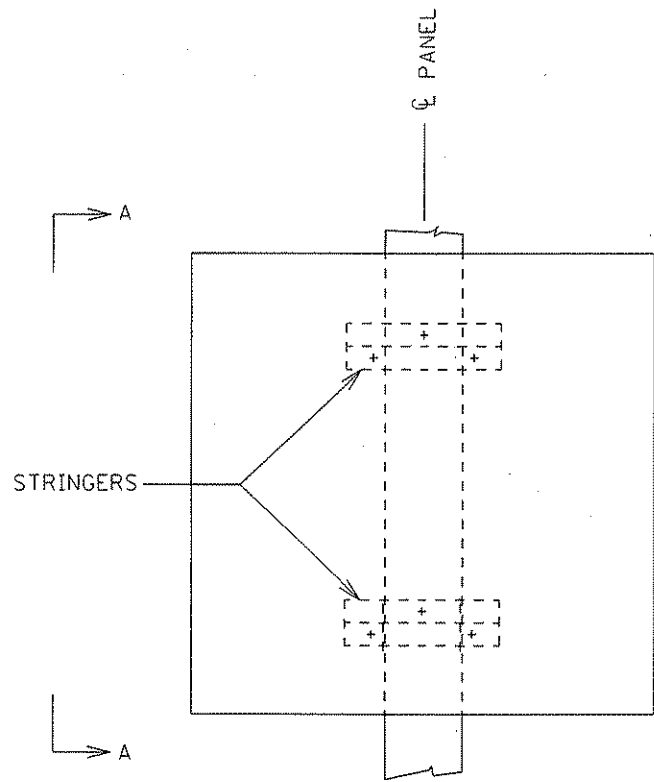
CERTIFIED BY

Heather Lynn Lott
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

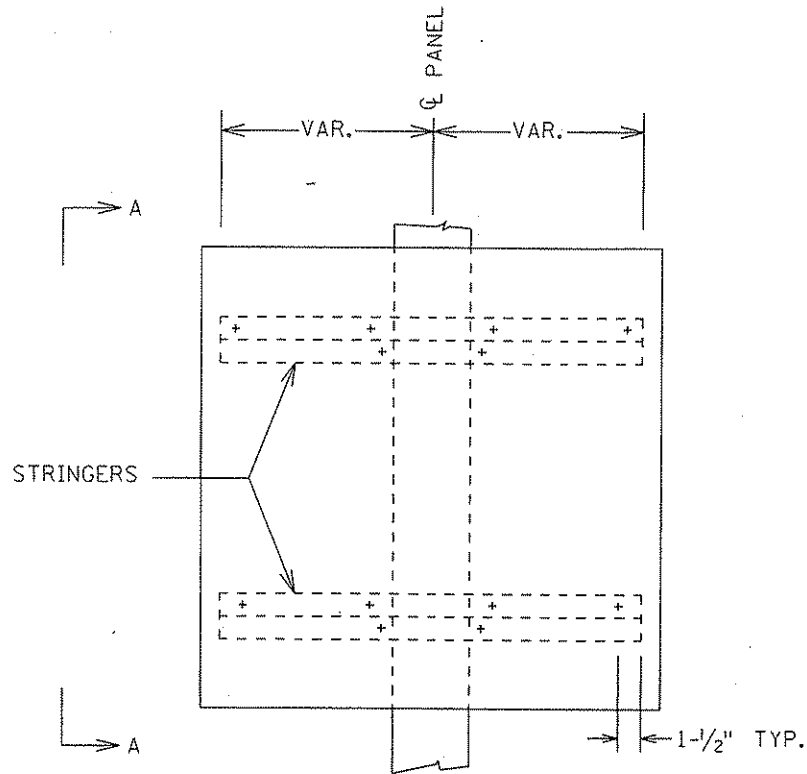
DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 642 OF 872 SHEETS



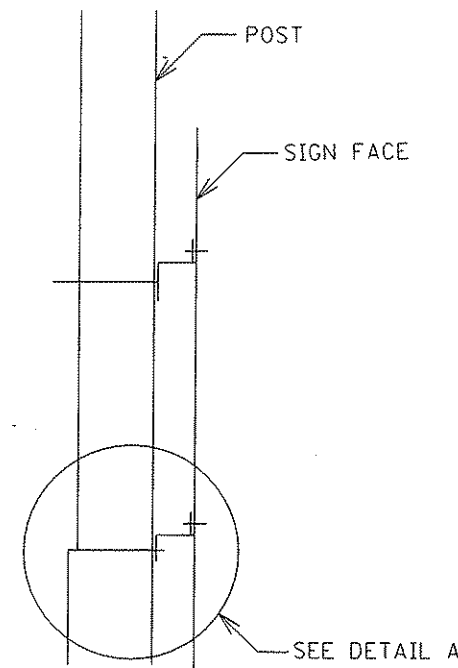
TYPE "C" SIGNS WITH SINGLE POST PUNCHING

ELEVATION

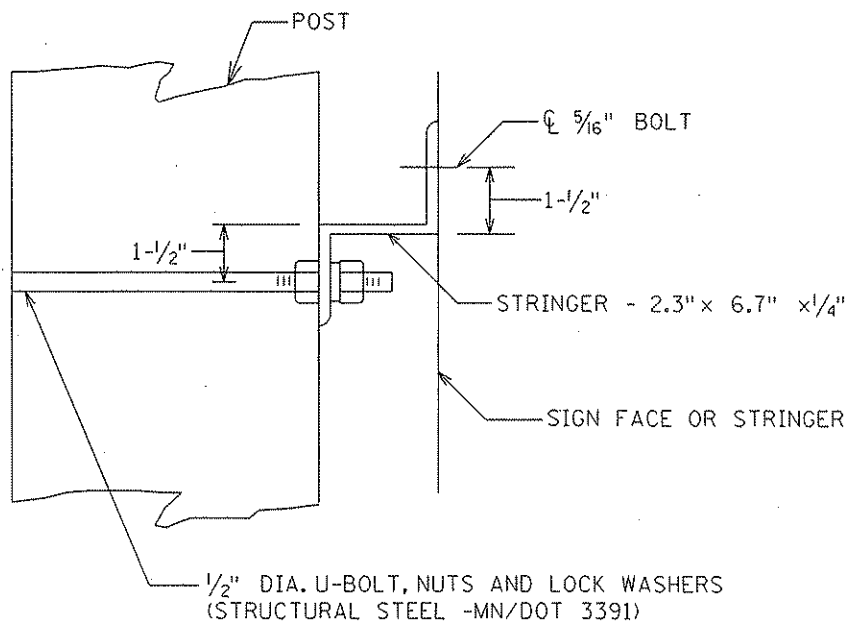


TYPE "C" SIGNS WITH 2-POST PUNCHING

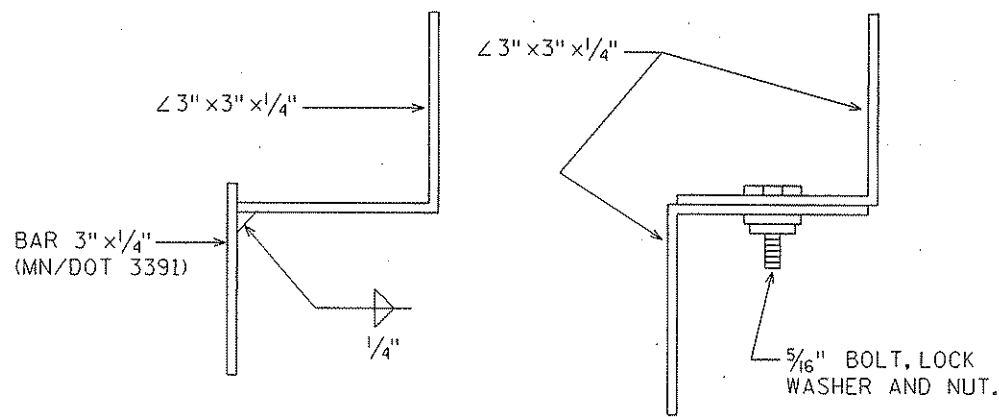
ELEVATION



VIEW A-A



DETAIL A



DETAIL A STRINGER ALTERNATES

- NOTES:
1. FOR DETAILS AND NOTES NOT SHOWN SEE "C" & "D" SIGN DETAILS.
 2. FOR BACK TO BACK MOUNTINGS, ROTATE STRINGERS FOR ONE PANEL 180° FROM WHAT IS SHOWN SUCH THAT PANELS CAN BE MOUNTED AT SAME ELEVATION.
 3. DETAIL A STRINGER MAY BE ONE OF THE THREE DESIGNS DETAILED OR AN APPROVED EQUAL. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394. FASTENERS SHALL BE IN ACCORDANCE WITH MN/DOT 3391.2B AND SHALL BE GALVANIZED EITHER BY THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, OR BY THE MECHANICAL PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50 OR GREATER.

TYPE C SIGNS MOUNTED ON O-POSTS
OH SIGN POSTS OR SIGNAL STANDARDS

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

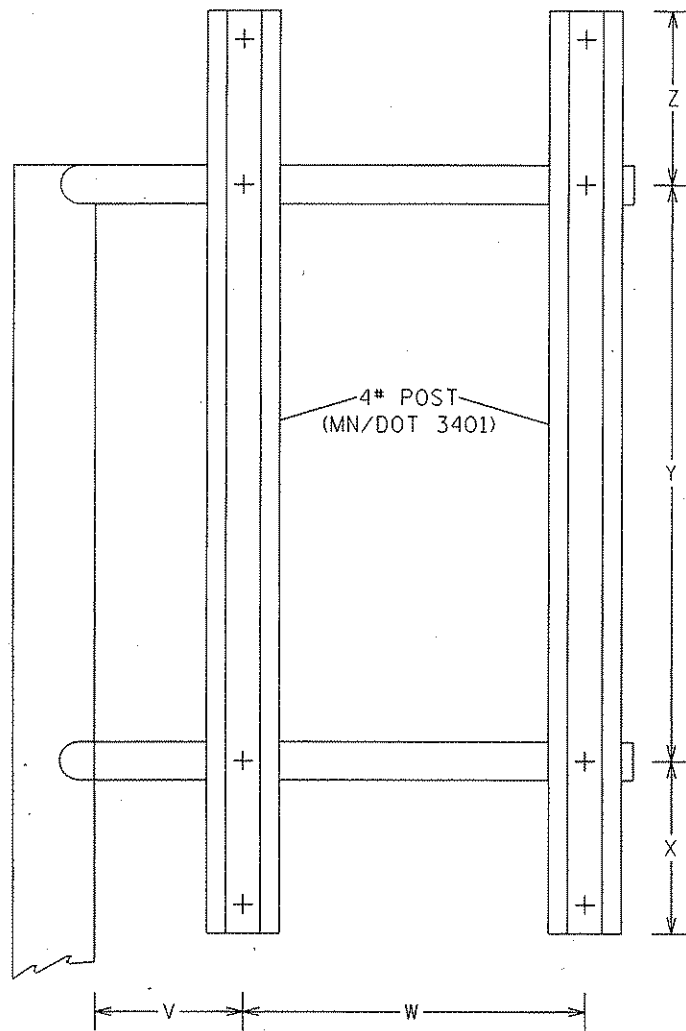
Heather Lynn Lott
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 643 OF 872 SHEETS

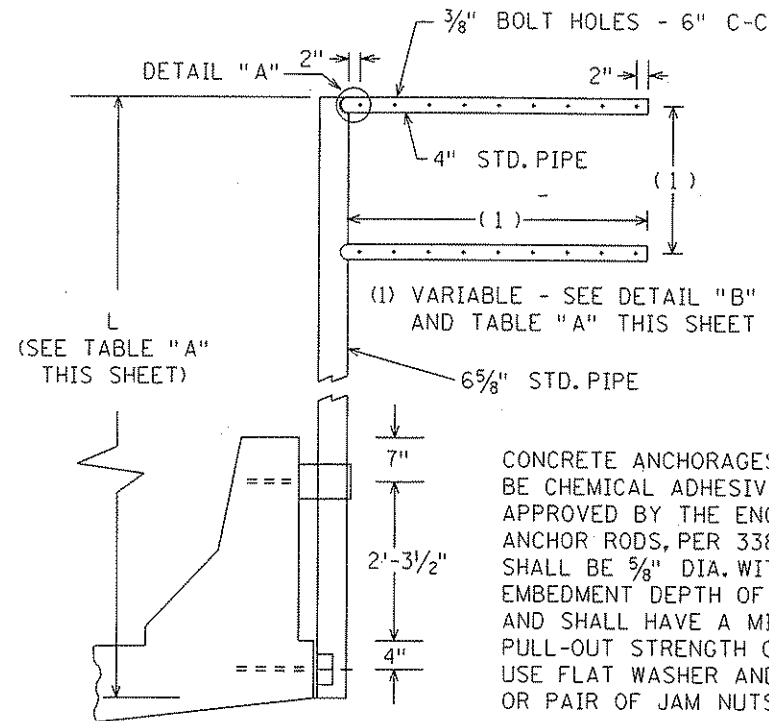
PLOTTED/REVISED: 1/31/2007



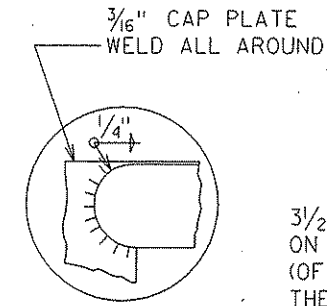
DETAIL "B"

SIGN NO.	V (IN.)	W (IN.)	X (IN.)	Y (IN.)	Z (IN.)	L (FT.)
D-4	14	54	12	48	12	13
D-5	14	54	12	48	12	13

TABLE "A"

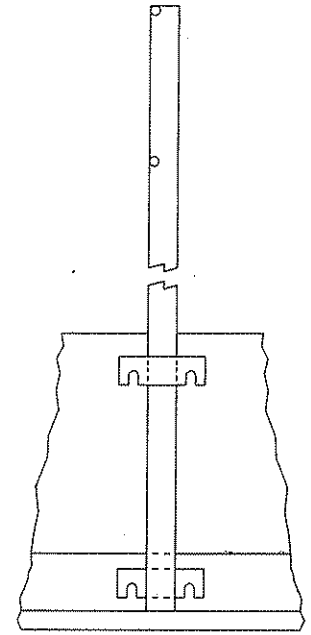


ELEVATION



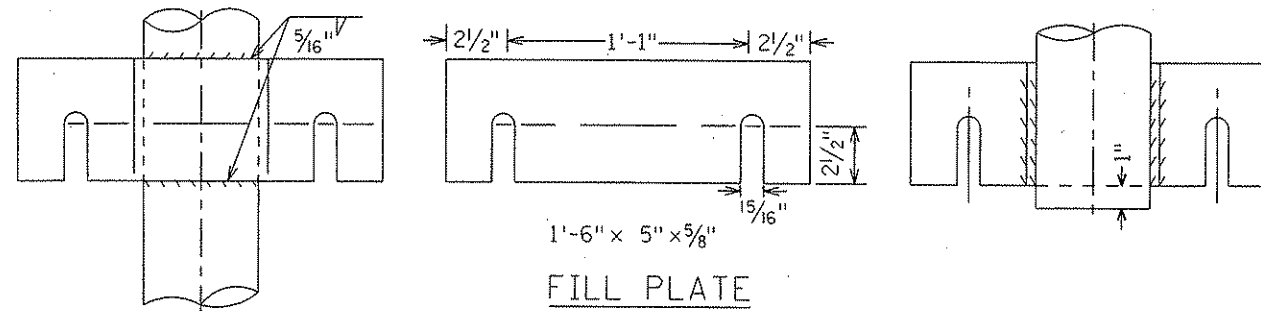
DETAIL "A"

3/2" PIPE OFFSET - ON 6" PIPE (OFFSET SHALL BE IN THE SAME DIRECTION AS THE SIGN IS FACING)

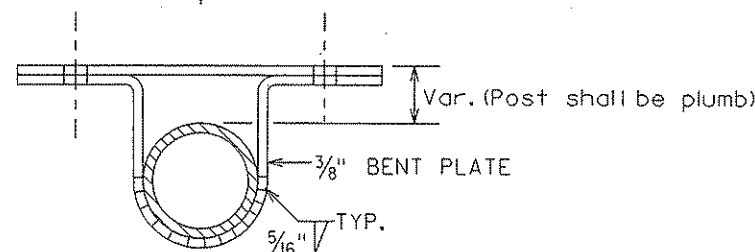


END VIEW

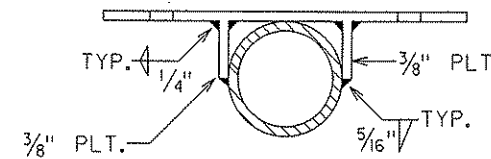
CONCRETE ANCHORAGES SHALL BE CHEMICAL ADHESIVE TYPE AS APPROVED BY THE ENGINEER. ANCHOR RODS, PER 3385 TYPE A, SHALL BE 5/8" DIA. WITH A MIN. EMBEDMENT DEPTH OF 5 5/8", AND SHALL HAVE A MIN. ULTIMATE PULL-OUT STRENGTH OF 10000#. USE FLAT WASHER AND LOCK NUT OR PAIR OF JAM NUTS.



FILL PLATE



UPPER CONNECTION



LOWER CONNECTION

NOTES:

1. ALL PIPE MATERIAL SHALL CONFORM TO ASTM DESIGNATION A53, GRADE B, SCHEDULE 40.
2. ALL STEEL FOR STRUCTURAL ITEMS SHALL CONFORM TO MN/DOT 3306 (STRUCTURAL STEEL) UNLESS OTHERWISE NOTED.
3. FOR NOTES AND DETAILS NOT SHOWN, SEE TYPE C AND D SIGN DETAILS.

TYPE C & D SIGNS MOUNTED ON BRIDGE RAIL 6-5/8" O-PIPE

SIGNING PLAN

DRAWN BY: LPC

CHECKED BY:

CERTIFIED BY

Heather Lynn Lott
LICENSED PROFESSIONAL ENGINEER

LIC. NO. 43466

DATE 1/31/2007

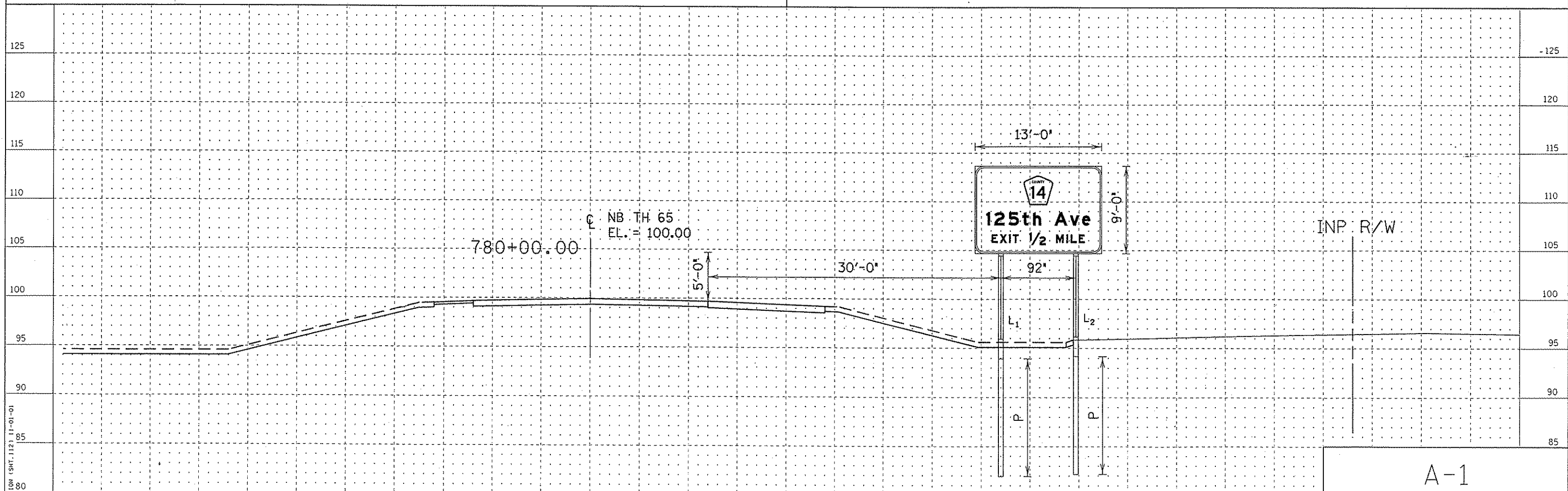
STATE PROJ. NO. 0208-123 (TH 65) SHEET NO. 644 OF 872 SHEETS

DISTRICT #: METRO
PLOT NAME: 651_tpcals-ps_CD14
PATH & FILENAME:

SIGN A-1

NB T.H. 65
STA. 780+00

POST TYPE		W5X16
POST LENGTH L ₁	18.0 FT.	
POST LENGTH L ₂	18.0 FT.	
PILE FOOTING P	12.0 FT.	



X-SECTION (SHT. 112) 11-01-01

CERTIFIED BY *Walter Lynn Holt* REG. NO. 43466

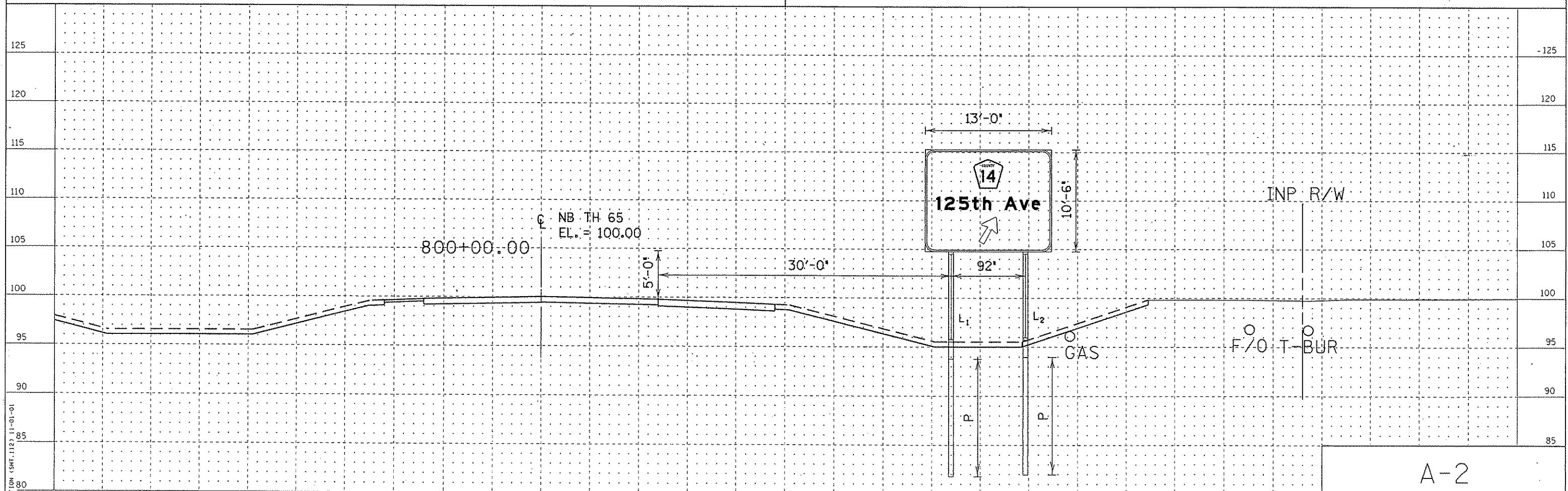
State Proj. No. 0208-123 (TH 65)

Sheet No. 645 of 872 Sheets

SIGN A-2

NB T.H. 65
STA. 800+00

POST TYPE		W5X16
POST LENGTH L ₁		19.5 FT.
POST LENGTH L ₂		19.5 FT.
PILE FOOTING P		12.0 FT.



X-SECTION (SHT. 112) 11-01-01

A-2

CERTIFIED BY Heather Lynn Lott REG. NO. 43466
PROFESSIONAL ENGINEER

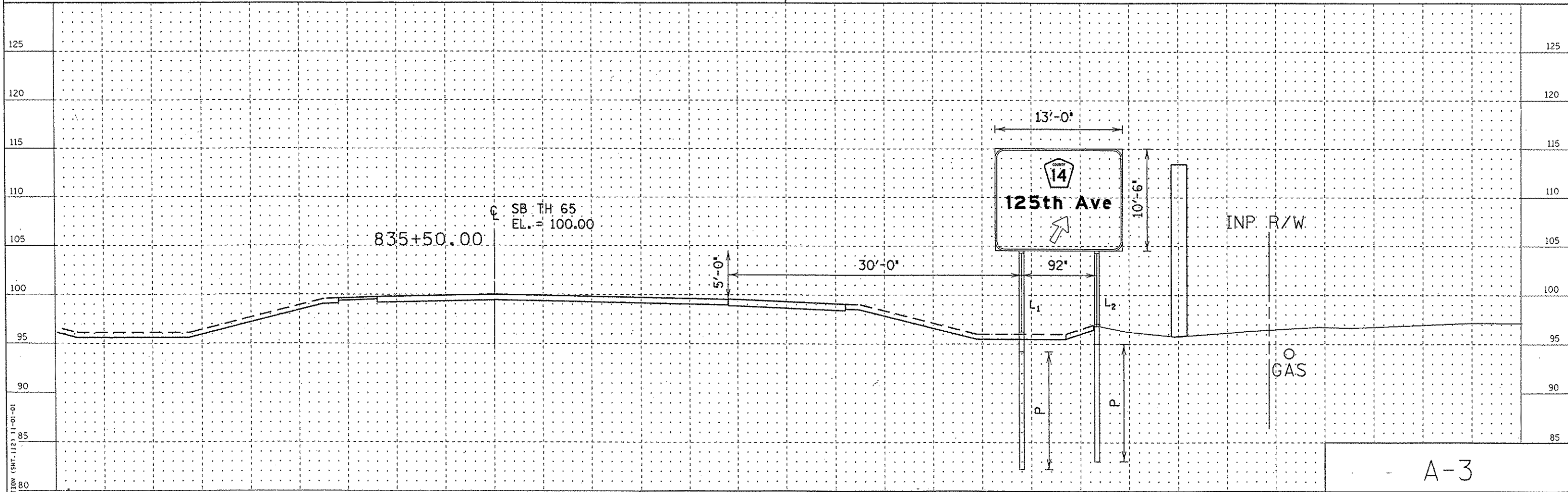
State Proj. No. 0208-123 (TH 65)

Sheet No. 646 of 872 Sheets

SIGN A-3

SB T.H. 65
STA. 835+50

POST TYPE		W6X20
POST LENGTH L ₁		19.0 FT.
POST LENGTH L ₂		18.0 FT.
PILE FOOTING P		12.0 FT.



X-SECTION (SHT. 112) 11-01-01

A-3

CERTIFIED BY *Hester J. Smith* REG. NO. 43466
PROFESSIONAL ENGINEER

State Proj. No. 0208-123 (TH 65)

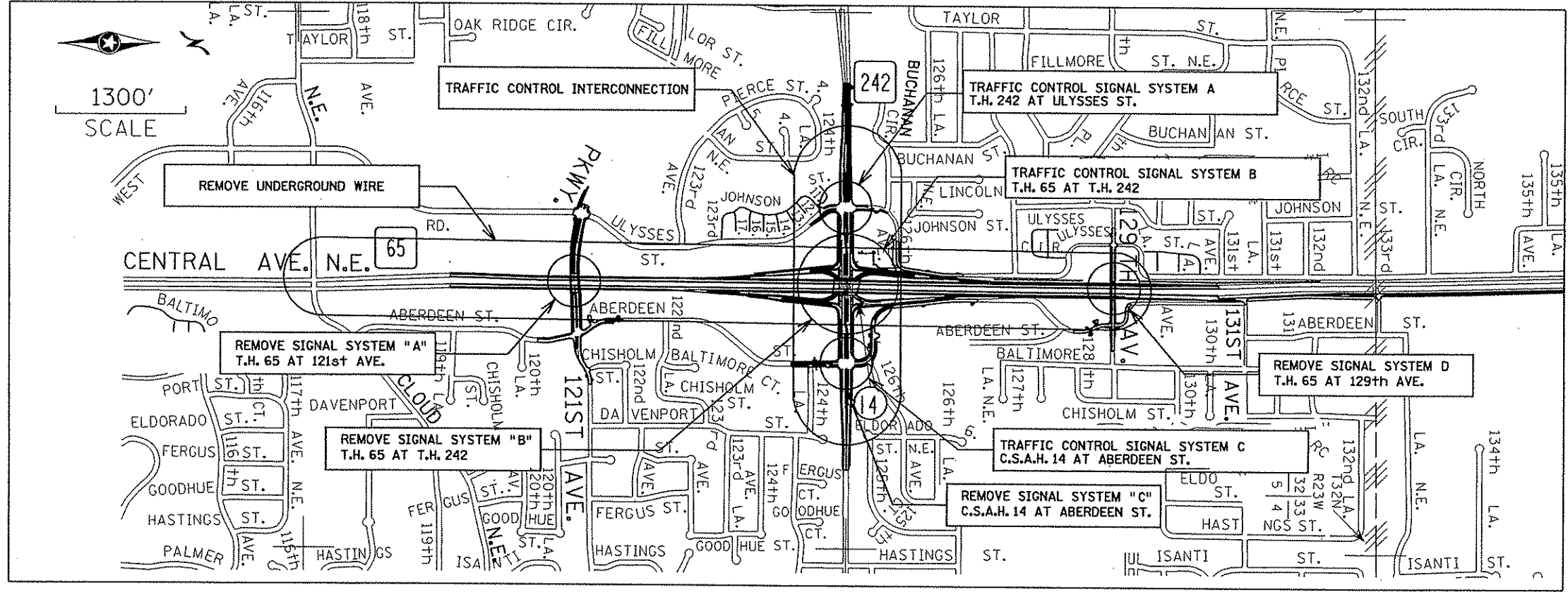
Sheet No. 647 of 872 Sheets

TRAFFIC CONTROL SIGNAL SYSTEMS AND INTERCONNECT

AT THE INTERSECTIONS OF: T.H. 242 AT ULYSSES ST.
T.H. 65 AT T.H. 242
C.S.A.H. 14 AT ABERDEEN ST./CENTRAL AVE.
IN THE CITY OF BLAINE, ANOKA COUNTY

Mn/DOT ABBREVIATIONS

BL	BLUE
BL/BLK	BLUE WITH BLACK TRACER
BLK	BLACK
BLK/WH	BLACK WITH WHITE TRACER
CH. SW.	CHECK SWITCH
CLR	CLEAR
D2-1 (e.g.)	DETECTOR (PHASE 2, NO. 1)
DWK	DON'T WALK
EQ.G	EQUIPMENT GROUND
EVP	EMERGENCY VEHICLE PRE-EMPTION
F&I	FURNISH AND INSTALL
FL	FLASH/FLASHING
G	GREEN
G/BLK	GREEN WITH BLACK TRACER
GLTA	GREEN LEFT TURN ARROW
GRN	GREEN
GR. RD.	GROUND ROD
GRTA	GREEN RIGHT TURN ARROW
GTHA	GREEN THRU ARROW
HH	HANDHOLE
HPS	HIGH PRESSURE SODIUM
IMC	INTERMEDIATE METAL CONDUIT
INP	INPLACE
INS. GR.	INSULATED GROUND
JB	JUNCTION BOX
LED	LIGHT EMITTING DIODE
LHT	LIGHT
LUM	LUMINAIRE
NEU	NEUTRAL
NMC	NONMETALLIC CONDUIT
O	ORANGE
O/BLK	ORANGE WITH BLACK TRACER
PI-1 (e.g.)	PEDESTRIAN INDICATION (PHASE 1, NO. 1)
PB	PUSH BUTTON
PB2-1 (e.g.)	PUSH BUTTON (PHASE 2, NO. 1)
PEC	PHOTOELECTRIC CELL
PED	PEDESTRIAN
R	RED
R&S	REMOVE AND SALVAGE
R/BLK	RED WITH BLACK TRACER
RLTA	RED LEFT TURN ARROW
RSC	RIGID STEEL CONDUIT
SOP	SOURCE OF POWER
SPR	SPARE
ST LHT	STREET LIGHT
STA	STATION
SW	SWITCH
SWD	SWITCHED
TDW	TELEPHONE DROP WIRE
WH	WHITE
WH/BLK	WHITE WITH BLACK TRACER
WLK	WALK
YEL	YELLOW
YLTA	YELLOW LEFT TURN ARROW
YRTA	YELLOW RIGHT TURN ARROW



Mn/DOT SYMBOLS

	EQ.G CONNECTION
	EVP DETECTOR W/LIGHT
	LUMINAIRE NO.
	SIGNAL BASE NO.
	SIGNAL FACE NO./FLASHER FACE NO.
	SPLICE
	SIGNAL CABINET WITH PAD
	SERVICE CABINET WITH PAD
	SOURCE OF POWER

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

AF TABULATED SIGNAL QUANTITIES CHART - HPP/STP

ITEM	LOCATION	UNIT	ESTIMATED QUANTITIES
REMOVE UNDERGROUND WIRE	ON T.H. 65 BETWEEN 121st TO 129th AVE.	LIN FT.	8500
REMOVE SIGNAL SYSTEM A	T.H. 65 AT 121st AVE.	EACH	1
REMOVE SIGNAL SYSTEM B	T.H. 65 AT T.H. 242	EACH	1
REMOVE SIGNAL SYSTEM C	C.S.A.H. 14 AT ABERDEEN ST.	EACH	1
REMOVE SIGNAL SYSTEM D	T.H. 65 AT 129th AVE.	EACH	1
TRAFFIC CONTROL SIGNAL SYSTEM A	T.H. 242 AT ULYSSES ST.	SIG SYS	1
TRAFFIC CONTROL SIGNAL SYSTEM B	T.H. 65 AT T.H. 242	SIG SYS	1
TRAFFIC CONTROL SIGNAL SYSTEM C	C.S.A.H. 14 AT ABERDEEN ST.	SIG SYS	1
TRAFFIC CONTROL INTERCONNECTION	ON T.H. 242/CSAH 14 BETWEEN ULYSSES ST. AND ABERDEEN ST.	LUMP SUM	1

I HEREBY CERTIFY THAT SHEETS 648 THROUGH 681, 681A AND 681B OF THIS PLAN WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Michael P. Gerbensky LIC. NO. 19863 DATE 3/11/2007

DESIGN SQUAD M. GERBENSKY, S. KURALLE, B. McNAMARA

STANDARD PLATES - SIGNAL SYSTEMS

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION	PLATE NO.	DESCRIPTION
7036 F	PEDESTRIAN CURB RAMP	8122 D	PEDESTAL AND PEDESTAL BASE
8110 D	TRAFFIC SIGNAL BRACKETING	8123 E	POLE AND MAST ARM
8111 D	TRAFFIC SIGNAL BRACKETING	8124 E	MAST ARM SIGNAL HEAD MOUNTS
8112 D	PEDESTAL FOUNDATION	8126 G	POLE FOUNDATION (PA90 AND PA100)
8114 A	PVC HANDHOLE/PULLBOX	8130 D	SAW CUT LOOP DETECTORS
8115 D	PEDESTRIAN PUSH BUTTON INSTALLATION	8140 B	ROADWAY LIGHTING SERVICE CABINET (PAD MOUNTED)
8118 C	SERVICE EQUIPMENT AND POLE		
8119 C	GROUND MOUNTED CABINET FOUNDATION		
8120 L	POLE FOUNDATION (PA-85)		
8121 E	TRANSFORMER BASE AND POLE BASE PLATE		

STANDARD PLATES APPLICABLE TO THIS PROJECT

① INDICATED ON THE PLAN SHEETS FOR SIGNAL SYSTEMS A, B AND C.

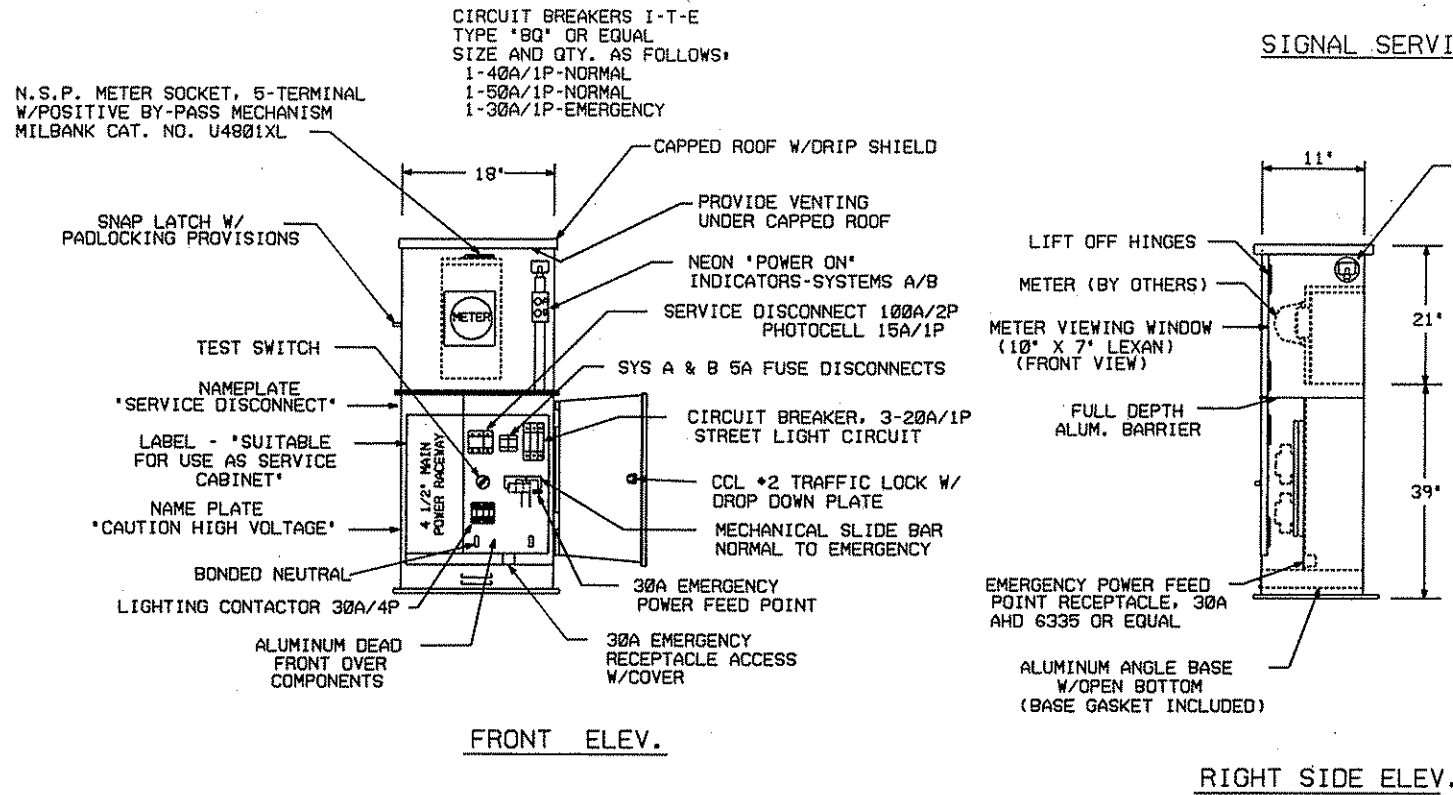
DRAWN BY: BCM	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:

SIGNATURE, TABULATED QUANTITIES, ABBREVIATIONS AND STANDARD PLATES

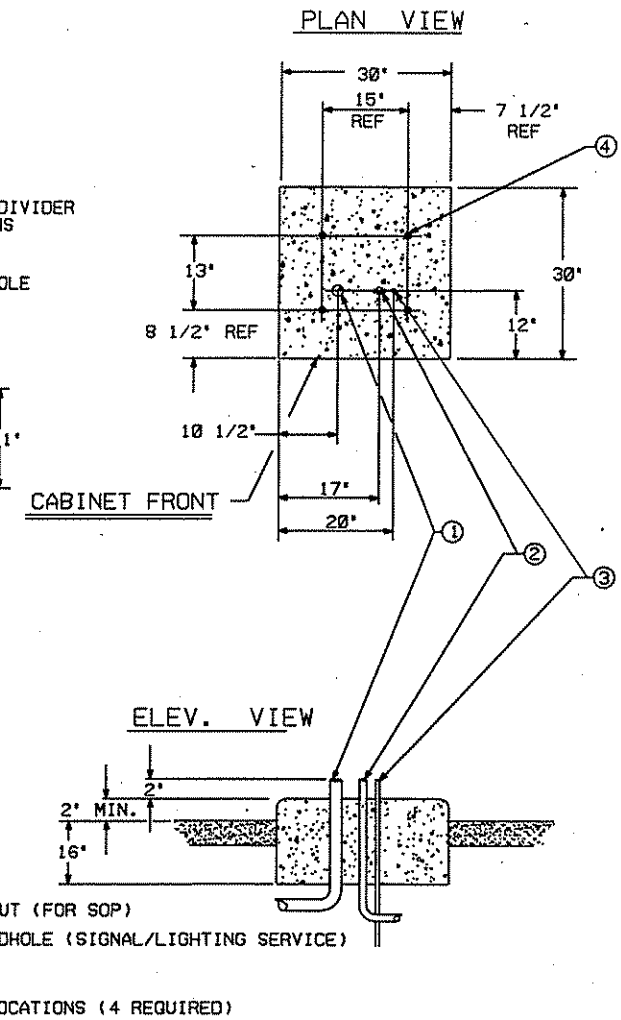
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FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21174\SP 0208-123\System A\SYS A_sgl.dgn service cabinet evp detail
 PLOTTED: 02-FEB-2007 12:02

SIGNAL SERVICE CABINET



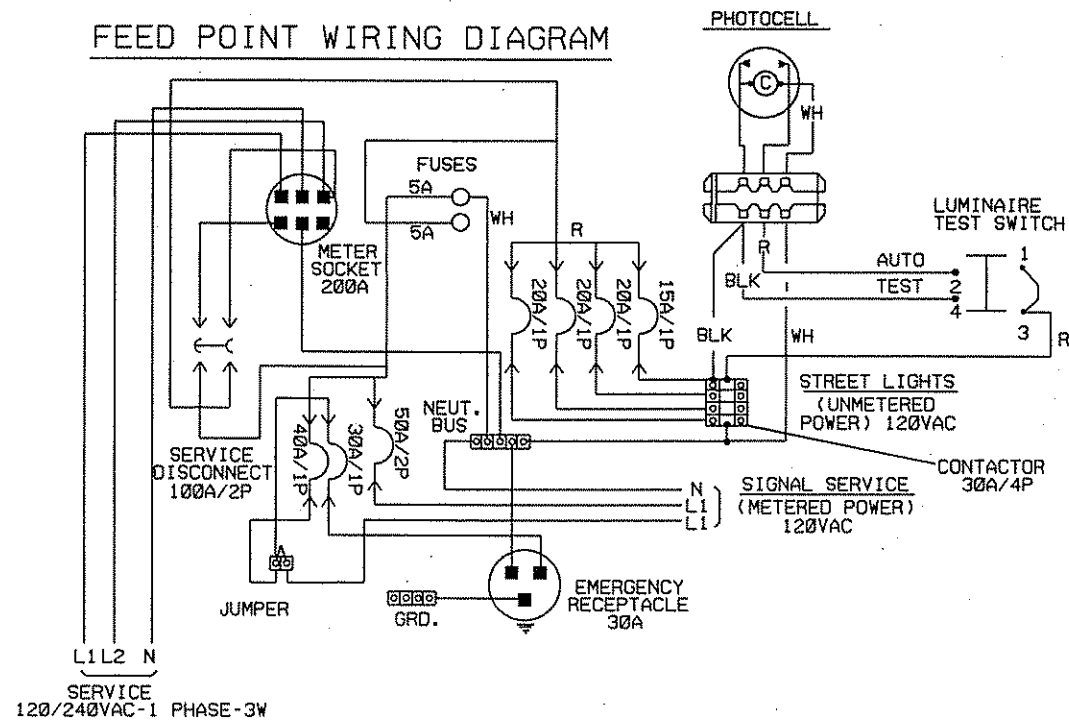
SERVICE CABINET FOUNDATION



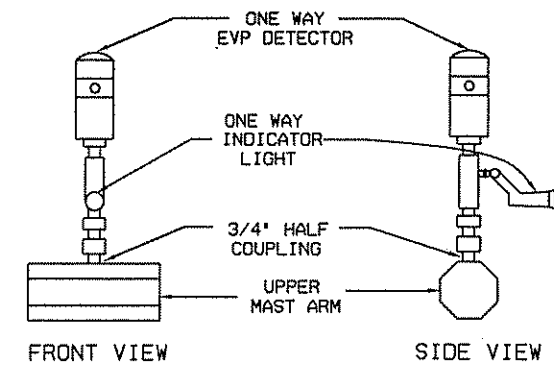
CONSTRUCTION NOTES

ENCLOSURE SHALL BE FABRICATED FROM 1/8" ALUMINUM FOR OUTDOOR WEATHERPROOF SERVICE.
 DOORS TO BE NEOPRENE GASKETED. ALL HINGES, PINS AND LOCKS TO BE OF NON-CORRODING CONSTRUCTION.
 CABINET SHALL HAVE ANODIC COATING FOR ALL ALUMINUM SURFACES. SEE SPECIAL PROVISIONS.
 NEMA 3R ENCLOSURE SHALL BE 'UL' APPROVED.
 CABINET SHALL HAVE BASE GASKET INCLUDED.

FEED POINT WIRING DIAGRAM



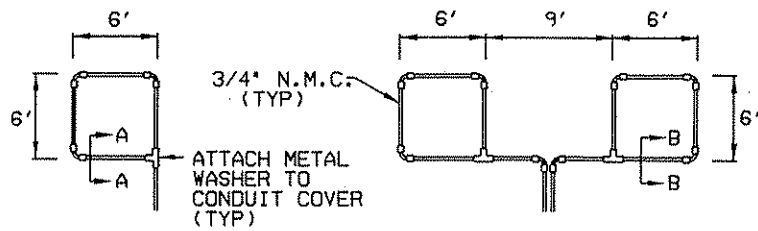
EVP DETECTOR AND LIGHT MOUNTING DETAIL ON MAST ARM



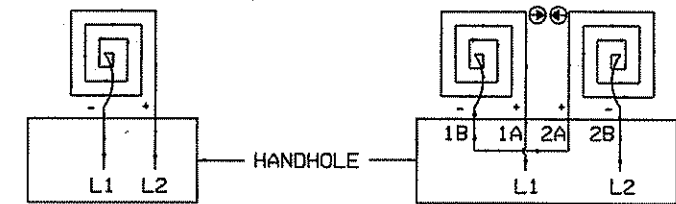
DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:

ANOKA COUNTY STANDARD SERVICE CABINET AND EVP MOUNTING DETAILS

S.A.P. NO. _____
 CERTIFIED BY *Michael P. Libinsky* LIC. NO. 19863 DATE: 2/2/2007
LICENSED PROFESSIONAL ENGINEER



3/4" N.M.C. (TYP)
ATTACH METAL WASHER TO CONDUIT COVER (TYP)

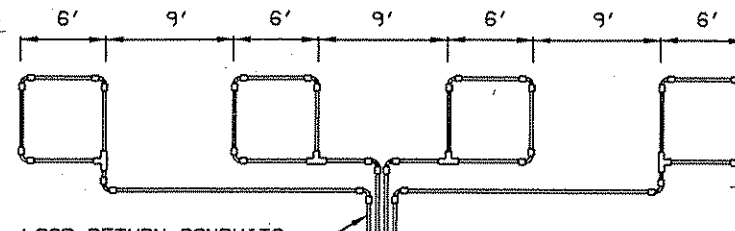


LOOP DETECTOR
DETAIL 'A'
(LOOP PHASING FOR
SINGLE CONNECTION)

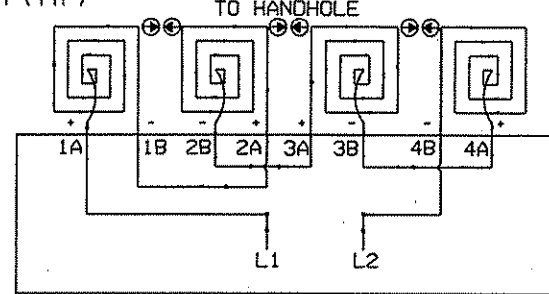
LOOP CONNECTIONS SHALL BE
LABELED AND SPLICED IN THE
HANDHOLE AS FOLLOWS:

L1 TO 1A
1B TO 2A
2B TO L2

LOOP DETECTOR
DETAIL 'B'
(LOOP PHASING FOR
SERIES CONNECTION)



LOOP RETURN CONDUITS
MAY BE PLACED IN COMMON
TRENCH (TYP)

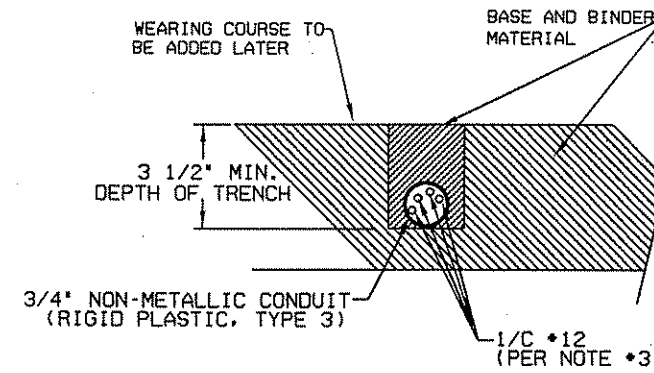


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED
IN THE HANDHOLE AS FOLLOWS:

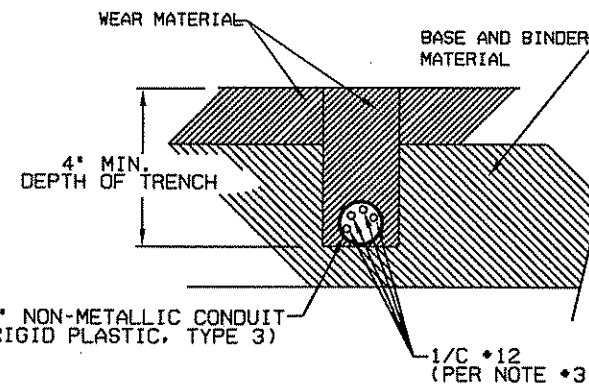
L1 TO 1A 3B TO 4A
1B TO 2A 4B TO L2
2B TO 3A

SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE.
ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE
(1A, 1B, ECT)

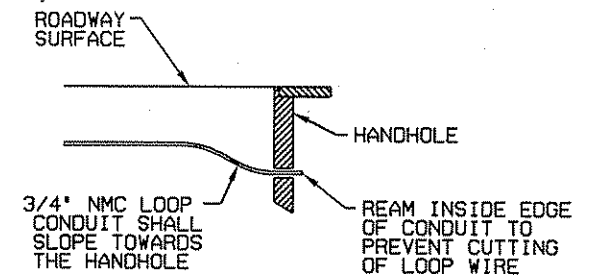
LOOP DETECTOR
DETAIL 'C'
(LOOP PHASING FOR
SERIES CONNECTION)



SECTION A-A
DETAIL FOR LOOP INSTALLATION
IN NEW ROADWAY



SECTION B-B
DETAIL FOR LOOP INSTALLATION



DRAINAGE DETAIL

LOOP DETECTOR WIRING

- 1) ALL CORNERS SHALL BE 90° CONDUIT BENDS.
- 2) CONNECT WIRES IN HANDHOLES USING SPLICE KIT METHOD DESCRIBED IN THE SPECIAL PROVISIONS.
- 3) LOOP DETECTOR WIRES SHALL BE #12 AWG CROSSED LINKED POLYETHYLENE (XLP). SEE SPECIAL PROVISIONS.
- 4) LOOP LEAD IN WIRES SHALL BE TWISTED A MIN. OF (5) TURNS PER FOOT THROUGH THE CONDUIT TO THE HANDHOLE.
- 5) NMC DESIGNATES NON-METALLIC CONDUIT (SPEC. 3803)
- 6) LOOPS 6' X 6' THRU 6' X 14' SHALL HAVE (4) TURNS.
- 7) LOOPS 6' X 15' AND LARGER SHALL HAVE (2) TURNS.

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO'S	Ⓐ
SERVICE CABINET NO'S	Ⓑ
SOURCE OF POWER NO'S (SOP)	Ⓒ
SIGNAL BASE NO.	Ⓓ
SIGNAL FACE NO.	Ⓔ
LUMINAIRE NO.	Ⓕ
CONTROLLER AND CABINET	Ⓖ
CONTROLLER AND CABINET - IN PLACE	Ⓗ
HANDHOLE	Ⓘ
HANDHOLE - IN PLACE	Ⓚ
RIGID STEEL CONDUIT (RSC)	Ⓛ
RIGID STEEL CONDUIT (RSC) - IN PLACE	Ⓜ
SIGNAL FACE WITH BACKGROUND SHIELD	Ⓝ
SIGNAL FACE W/O BACKGROUND SHIELD	Ⓟ
SIGNAL FACE - IN PLACE	Ⓠ
PEDESTRIAN INDICATORS	Ⓡ
PEDESTRIAN INDICATORS - IN PLACE	Ⓢ
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	Ⓣ
PEDESTRIAN PUSH BUTTON STATION	Ⓤ
TRAFFIC SIGNAL PEDESTAL	Ⓡ
TRAFFIC SIGNAL PEDESTAL - INPLACE	Ⓢ
TRAFFIC SIGNAL POLE AND MAST ARM	Ⓣ
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	Ⓤ
STREET LIGHT POLE AND LUMINAIRE	Ⓡ
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	Ⓢ
MAST ARM AND LUMINAIRE	Ⓣ
MAST ARM AND LUMINAIRE - INPLACE	Ⓤ
WOOD POLE	Ⓡ
WOOD POLE - IN PLACE	Ⓢ
SOURCE OF POWER	Ⓣ
RAILROAD SIGNAL - IN PLACE	Ⓤ
RIGHT OF WAY LINE	Ⓡ
CENTERLINE	Ⓢ
EDGE OF ROADWAY	Ⓣ
SHOULDERLINE	Ⓤ
CURB LINE	Ⓡ
STOP BAR	Ⓢ
EMERGENCY VEHICLE PREEMPTION DETECTOR	Ⓣ

ABBREVIATIONS

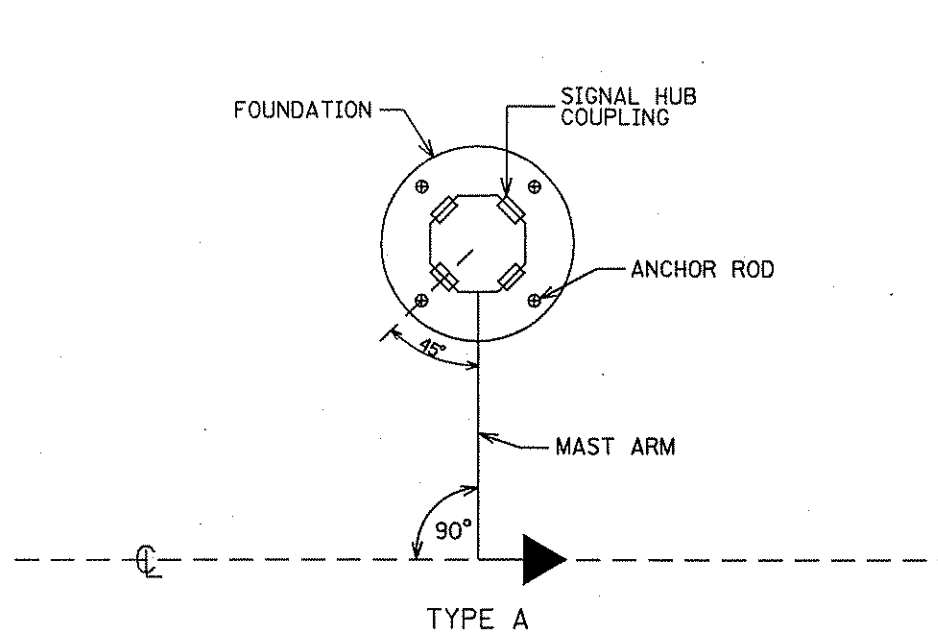
3-1(EG) SIGNAL HEAD PHASE '3' - NO. '1'	P2-1(EG) PED INDICATION PHASE '2' - NO. '1'
BR. GR. BARE GROUND	PB PUSH BUTTON
CH. SW. CHECK SWITCH	PB2-1(EG) PUSH BUTTON PHASE '2' - NO. '1'
CLR CLEAR	PEC PHOTOELECTRIC CELL
D2-1(EG) DETECTOR PHASE '2' - NO. '1'	PED PEDESTRIAN
DWK DON'T WALK	R RED
EGG EQUIPMENT GROUND	R&S REMOVE AND SALVAGE
EVP EMERGENCY VEHICLE PRE-EMPTION	RLTA RED LEFT TURN ARROW
F&I FURNISH AND INSTALL	RRTA RED RIGHT TURN ARROW
FL FLASH/FLASHING	RSC RIGID STEEL CONDUIT
G GREEN	SOP SOURCE OF POWER
GLTA GREEN LEFT TURN ARROW	SPR SPARE
GRN GREEN	ST. LHT STREET, LIGHT
GR. R GROUND ROD	STA STATION
GRTA GREEN RIGHT TURN ARROW	SW SWITCH
GTHA GREEN THRU ARROW	SWD SWITCHED
HH HANDHOLE	S&R SALVAGE AND REINSTALL
HPS HIGH PRESSURE SODIUM	TDW TELEPHONE DROP WIRE
JB JUNCTION BOX	WLK WALK
LUM LUMINAIRE	YEL YELLOW
NEU NEUTRAL	YLTA YELLOW LEFT TURN ARROW
NMC NONMETALLIC CONDUIT	YRTA YELLOW RIGHT TURN ARROW
	YTHA YELLOW THRU ARROW

CONDUCTOR COLOR CODE

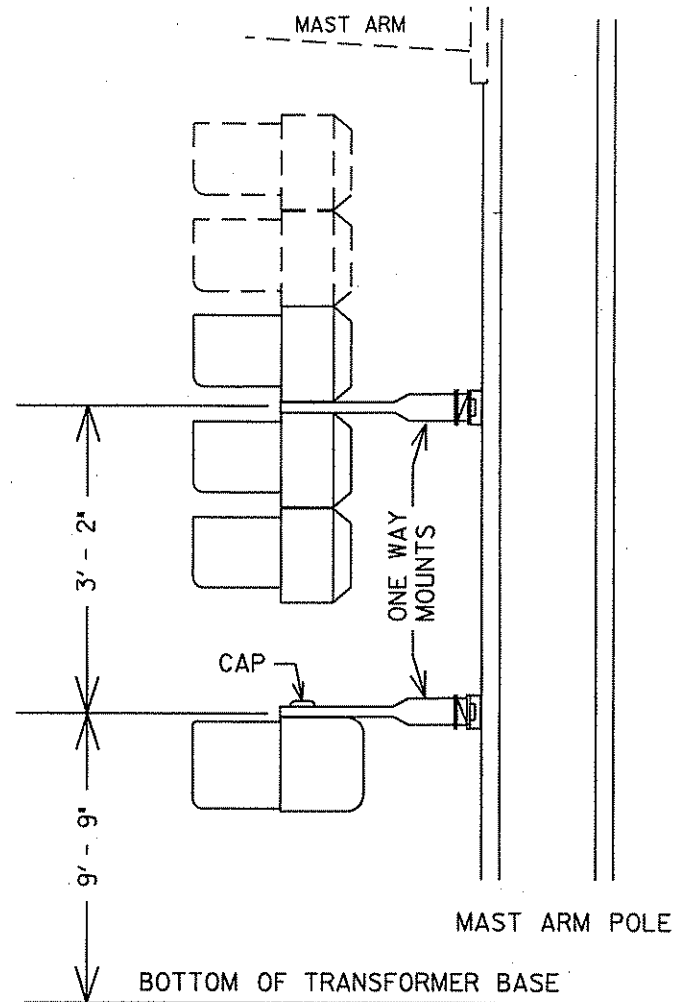
R	RED
O	ORANGE
BL	BLUE
WH	WHITE
R/BLK	RED WITH BLACK TRACER
O/BLK	ORANGE WITH BLACK TRACER
BL/BLK	BLUE WITH BLACK TRACER
WH/BLK	WHITE WITH BLACK TRACER
BLK	BLACK
BLK/WH	BLACK WITH WHITE TRACER
G/BLK	GREEN WITH BLACK TRACER
G	GREEN

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	ANOKA COUNTY STANDARD LOOP DETAILS, SYMBOLS, ABBREVIATIONS, CONDUCTOR COLOR CODE AND STANDARD PLATES
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Salway</i> LICENSED PROFESSIONAL ENGINEER		LIC. NO. 19863	DATE: 2/2/2007	
STATE PROJ. NO. 0208-123 (T.H. 65)			SHEET NO. 650 OF 872 SHEETS	

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21174\SP 0208-123\System A\SYS A_sgl.dgn ONE WAY POLE MOUNTED
 PLOTTED: 02-FEB-2007 12:02

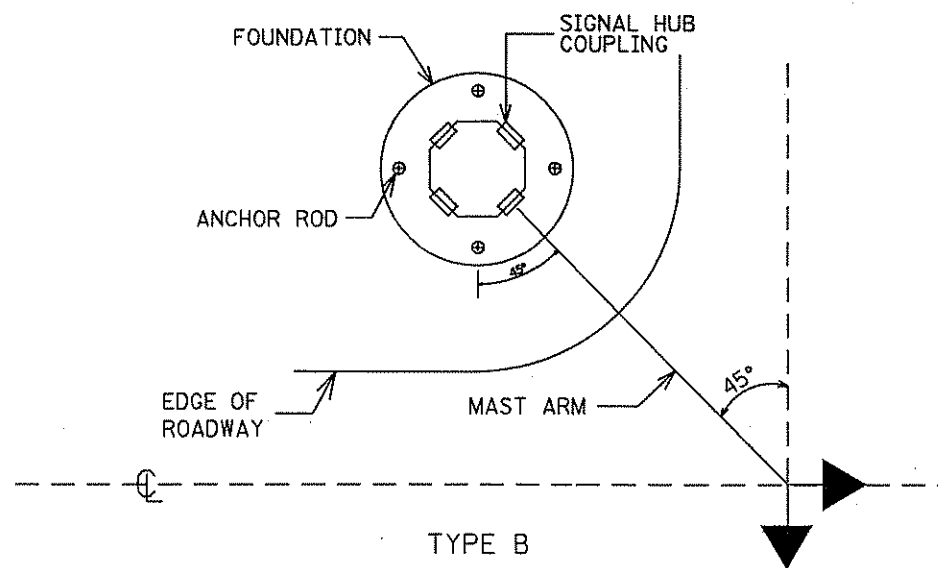


TYPE A
 ANCHOR ROD PLACEMENT,
 MAST ARM ORIENTATION
 AND SIGNAL HUB LOCATIONS

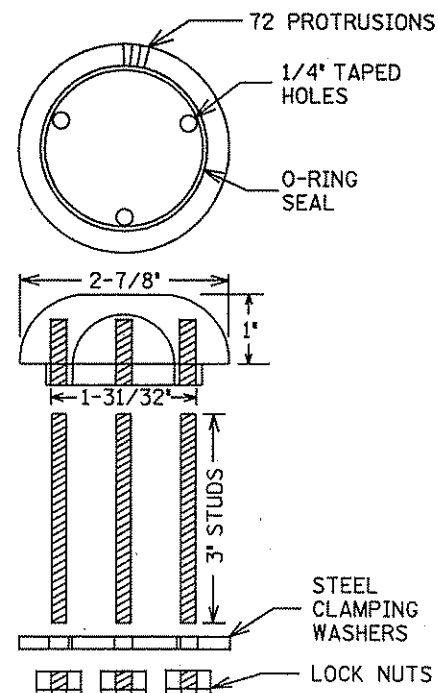


MAST ARM POLE

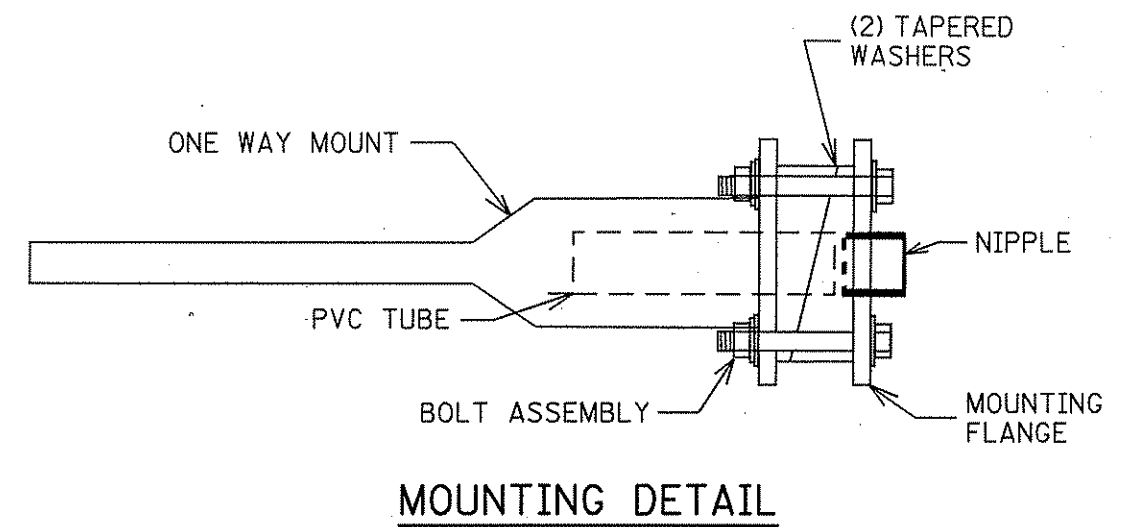
BOTTOM OF TRANSFORMER BASE



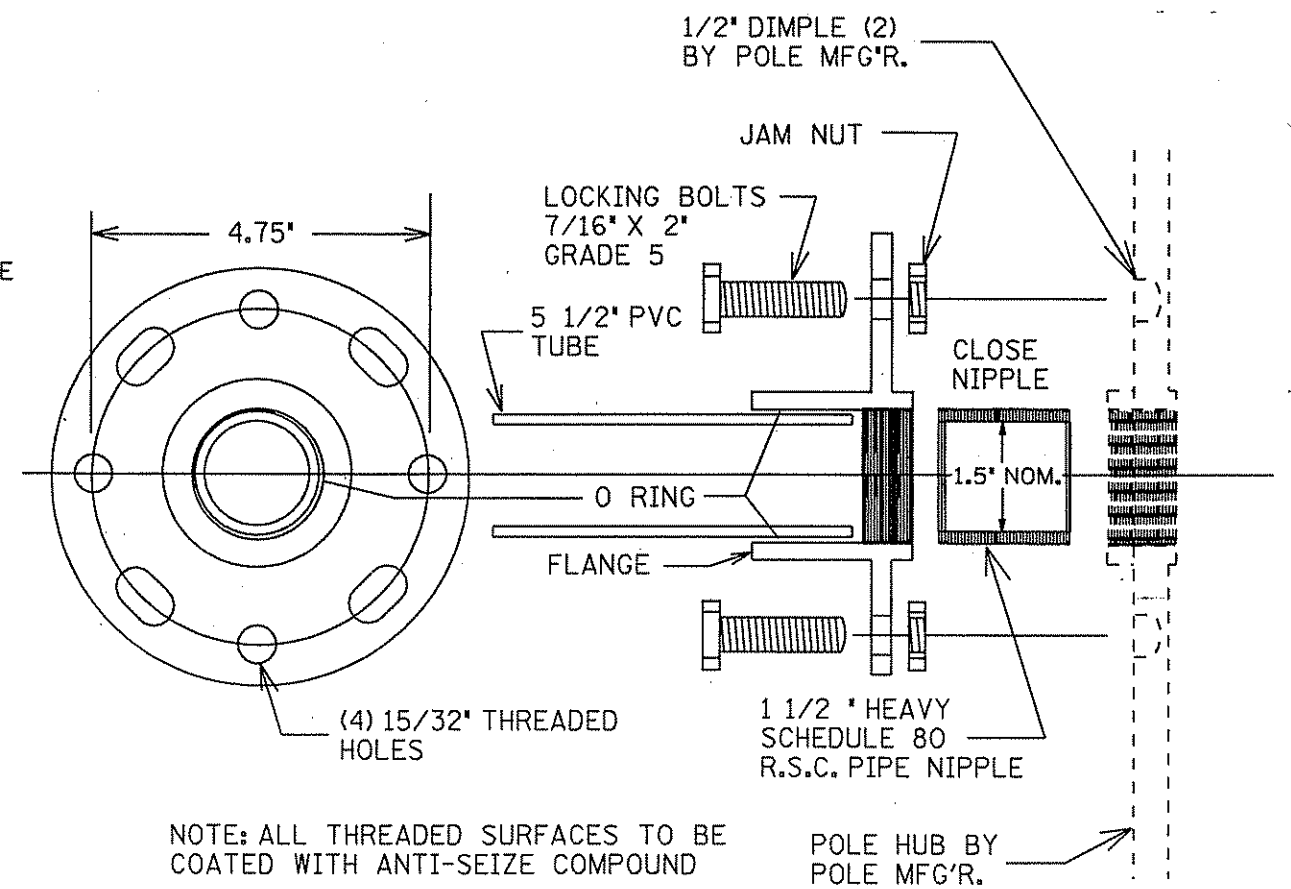
TYPE B
 ANCHOR ROD PLACEMENT,
 MAST ARM ORIENTATION
 AND SIGNAL HUB LOCATIONS



SEALED CAP



MOUNTING DETAIL

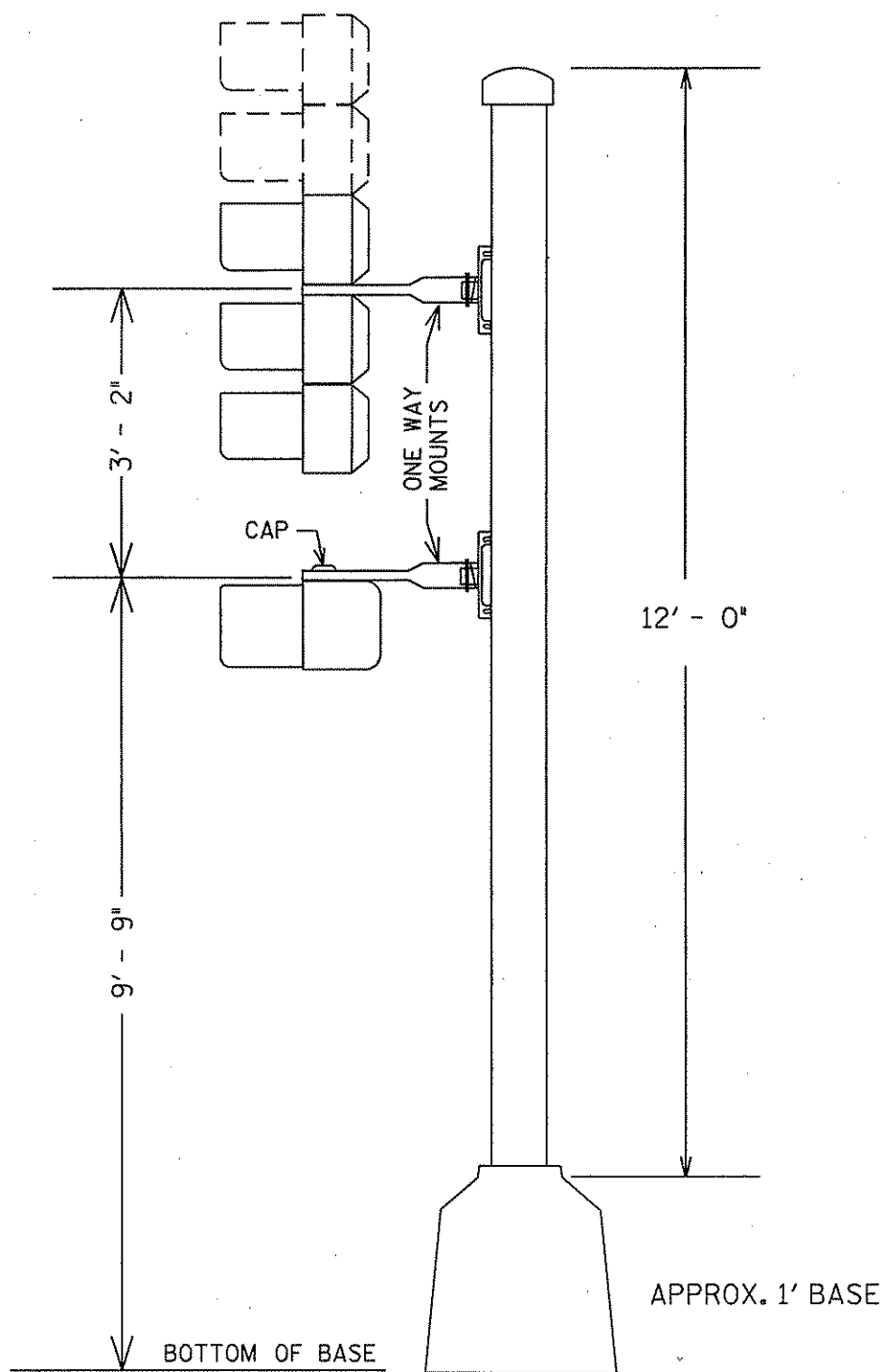


NOTE: ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND

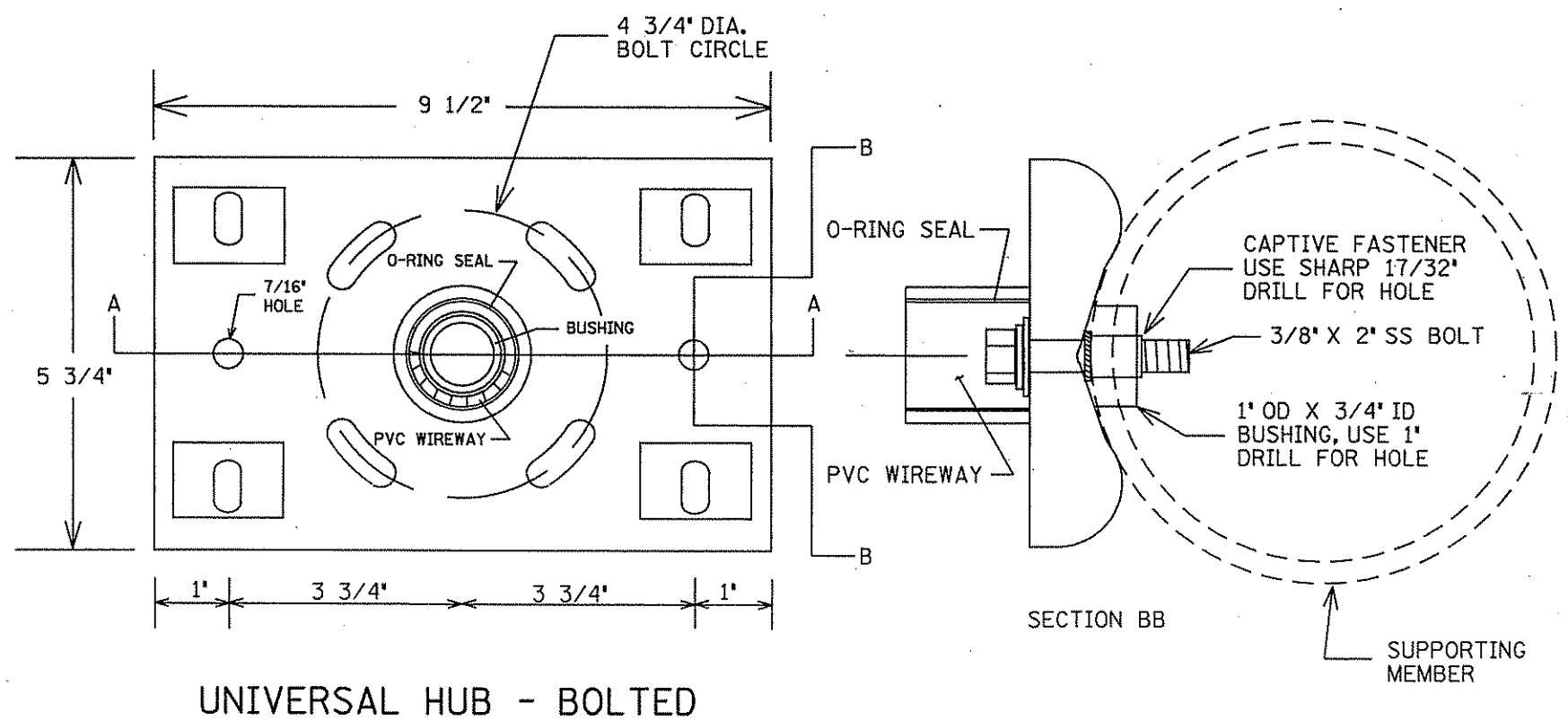
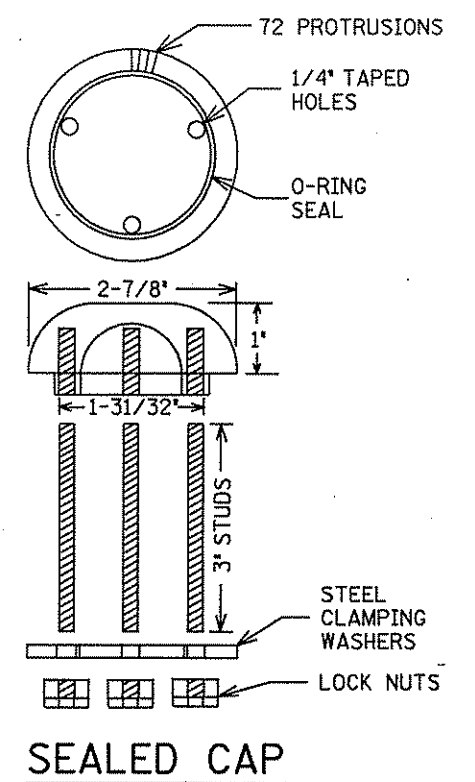
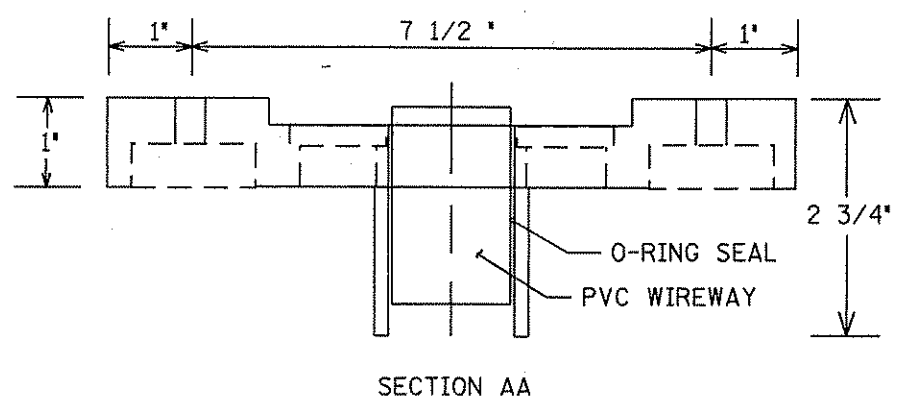
POLE HUB BY POLE MFG'R.

MACHINE HUB & NIPPLE

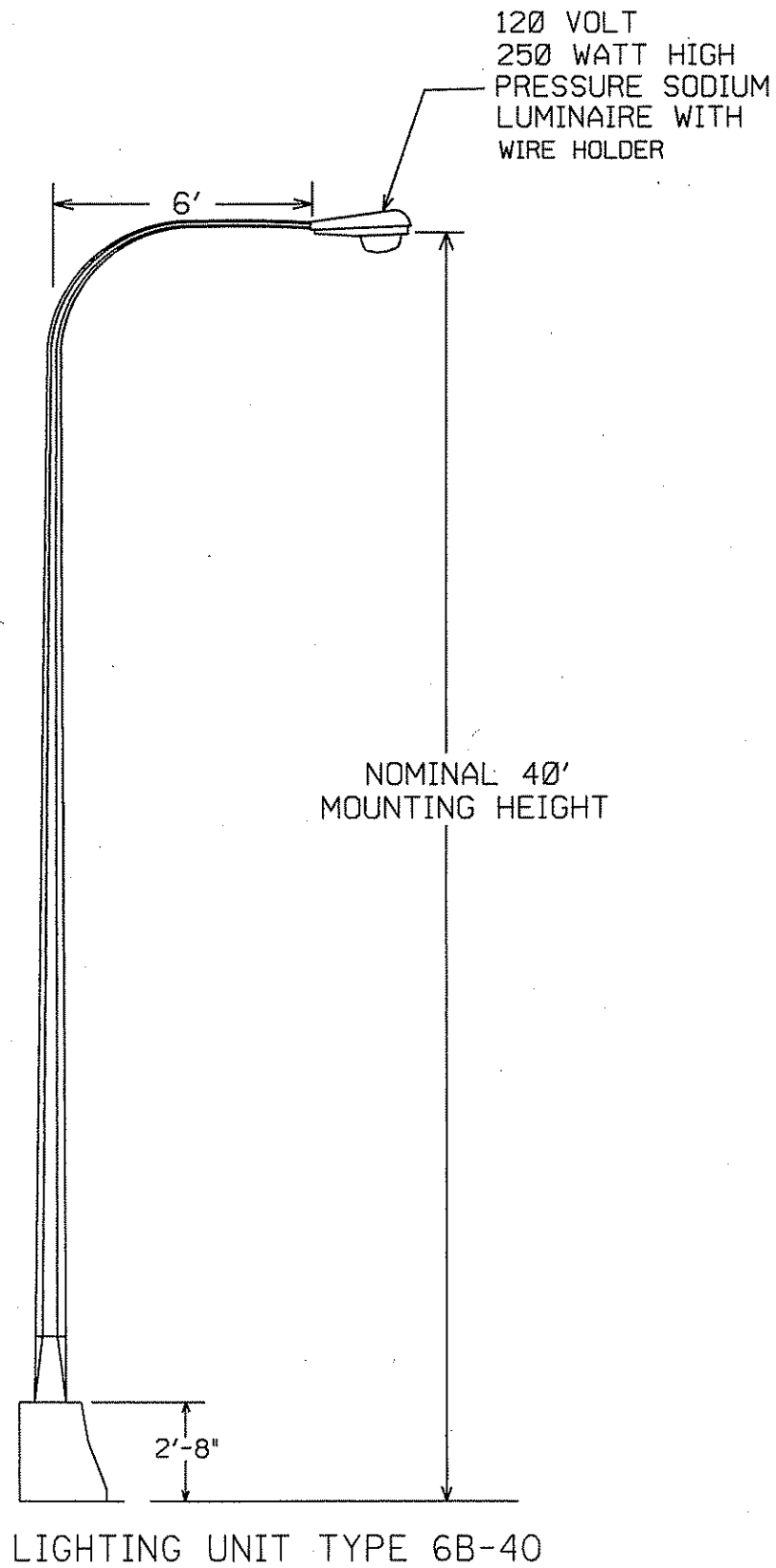
DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	POLE MOUNTED ONE-WAY SIGNAL AND PEDESTRIAN INDICATION DETAILS
CKD BY:MPG DATE:12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Subratty</i> LICENSED PROFESSIONAL ENGINEER				LIC. NO. 19863 DATE: 2/2/2007
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 651 OF 872 SHEETS



TYPICAL MOUNTING ELEVATION



DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	PEDESTAL MOUNTED ONE-WAY SIGNAL AND PEDESTRIAN INDICATION DETAILS
CKD BY:MPG DATE:12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY <i>Michael P. Selinsky</i> LIC. NO. 19863 DATE: 2/2/2007				
STATE PROJ. NO. 0208-123 (T.H.65)				SHEET NO. 652 OF 872 SHEETS



RADIUS CHART (ENGLISH)

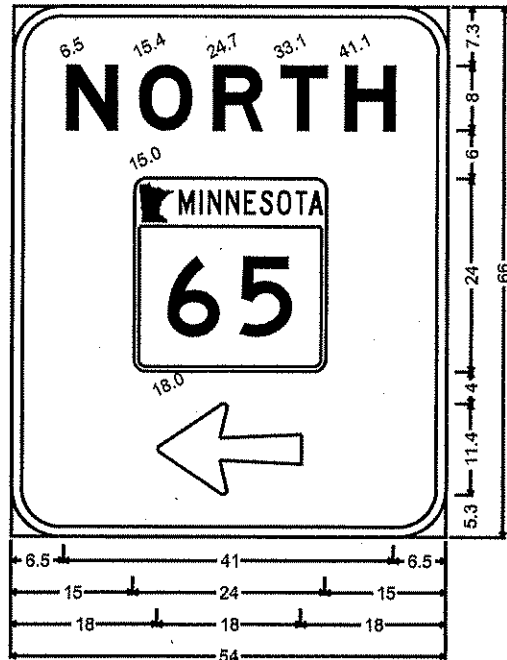
MAST ARM LENGTH	RADIUS
6	5
9	8
12	10

LUMINAIRES

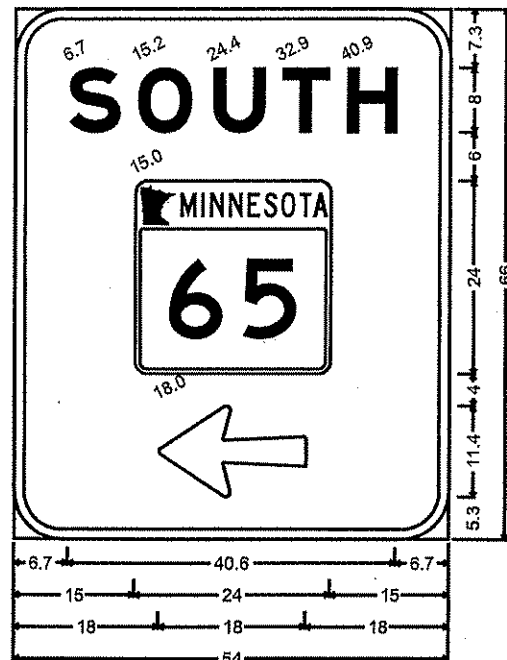
LUMINAIRES SHALL HAVE A TYPE II MEDIUM SEMI-CUTOFF DISTRIBUTION PER 1983 ANSI/IES STANDARDS WITH SHALLOW GLASS REFRACTOR

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	LIGHTING UNIT DETAIL
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Selinsky</i> <small>LICENSED PROFESSIONAL ENGINEER</small>			LIC. NO. 19863	DATE: 2/22/2007
STATE PROJ. NO. 0208-123 (T.H. 65)			SHEET NO. 653 OF 872 SHEETS	

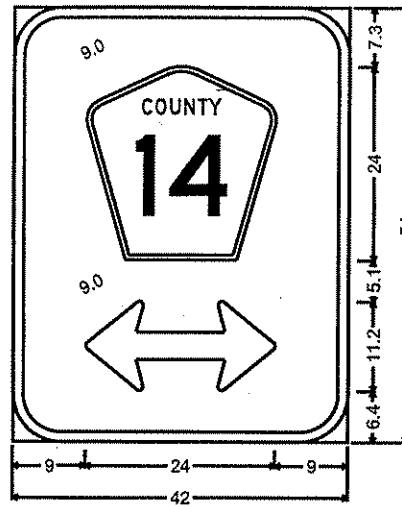
MAST ARM SIGN DETAILS



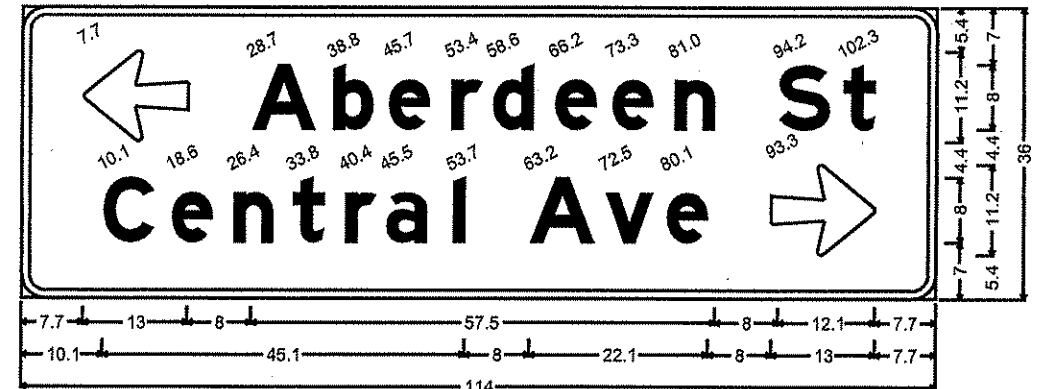
SYS "B", D-1;
6.0" Radius, 1.3" Border, White on Green;
[NORTH] E Mod; Arrow 14 - 18.0" 180°;



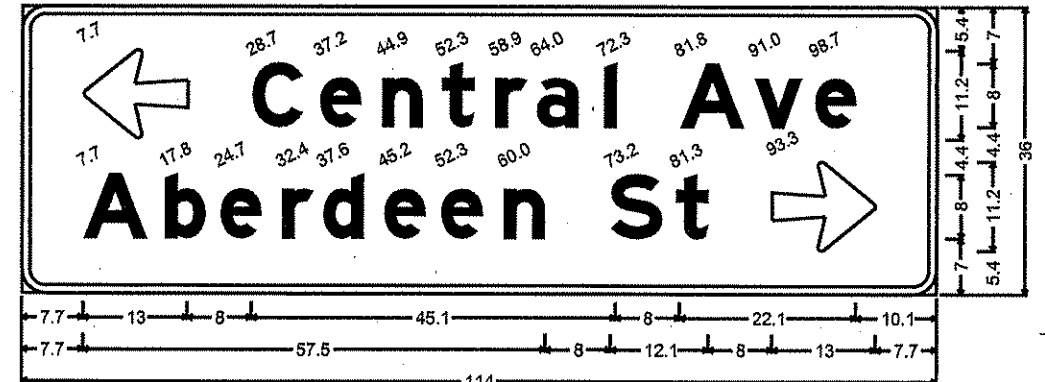
SYS "B", D-2;
6.0" Radius, 1.3" Border, White on Green;
[SOUTH] E Mod; Arrow 14 - 18.0" 180°;



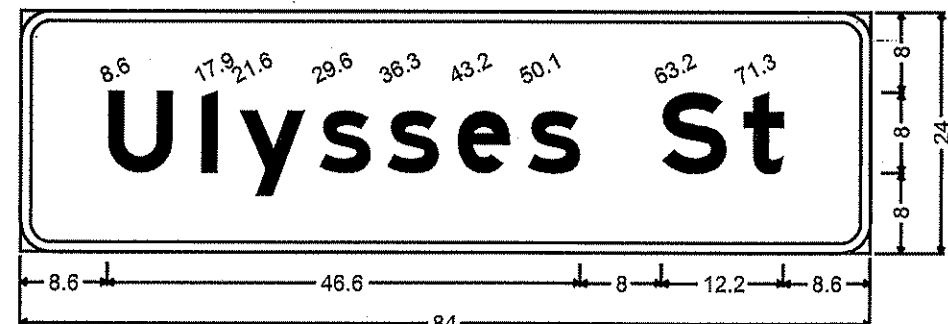
SYS "A" POLE 2, D-1, SYS "A" POLE 5, D-2, SYS "C" POLE 1, D-1, SYS "C" POLE 4 ;
6.0" Radius, 1.3" Border, White on Green;
Double Headed Arrow 5 - 24.0" 0°;



SYS "C" POLE 3, D-2; 3.0" Radius, 1.0" Border, White on Green;
Arrow 5 - 13.0" 180°; [Aberdeen St] E Mod; [Central Ave] E Mod; Arrow 5 - 13.0" 0°;



SYS "C" POLE 6, D-4; 3.0" Radius, 1.0" Border, White on Green;
Arrow 5 - 13.0" 180°; [Central Ave] E Mod; [Aberdeen St] E Mod; Arrow 5 - 13.0" 0°;



SYS "A" POLE 3 & POLE 6; 3.0" Radius, 1.0" Border, White on Green;
[Ulysses St] E Mod;

OVERLAYS				
CODE NO.	QUANTITY	SIZE INCHES	LEGEND	SQ. FT. PER OVERLAY
M1-5b	2	24 x 24	65	4
M6-1a	4	24 x 24	14	4

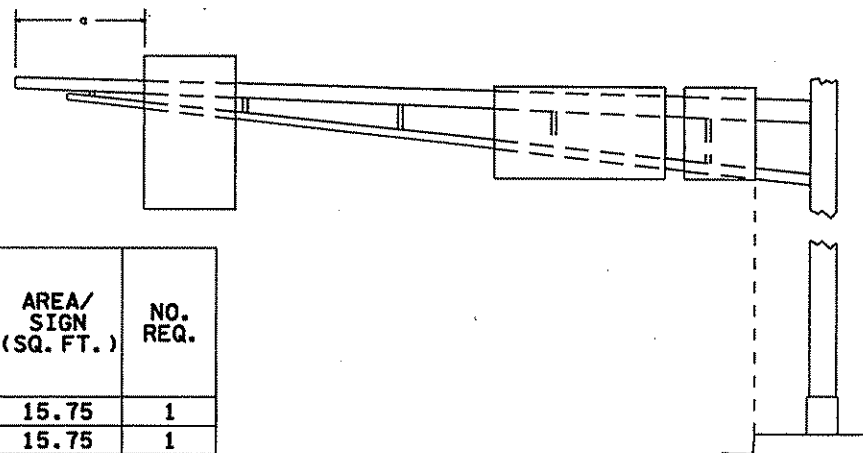
SIGN PANEL OR SIGN NO. (I.E. R10-12)	SIGNAL SYSTEM	POLE NO.	d FEET	SIZE (INCHES)	MOUNTING BRACKET		AREA/SIGN (SQ. FT.)	NO. REQ.
					NUMBER	SPACING (1)		
D-1	SYS A	2	7	42 X 54	2		15.75	1
D-2	SYS A	5	7	42 X 54	2		15.75	1
D-5	SYS A	3	23	84 X 24	3		14	1
D-5	SYS A	6	13	84 X 24	3		14	1
D-1	SYS B		(2)	54 X 66	3		24.75	1
D-2	SYS B		(3)	54 X 66	3		24.75	1
D-1	SYS C	1	7	42 X 54	2		15.75	1
D-2	SYS C	3	7	114 X 36	5		28.5	1
D-3	SYS C	4	7	42 X 54	2		15.75	1
D-4	SYS C	6	13	114 X 36	5		28.5	1

SPECIFIC NOTE:
(1) SPACING BETWEEN STIFFENERS SHALL NOT EXCEED 36 INCHES AND SHALL BE UNIFORMLY SPACED. SEE STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE 1/1/03) FOR BRACKET SPACING REQUIREMENTS.

- (2) INSTALL SIGN D-1, CENTERED BETWEEN HEADS 5-1, 5-2.
- (3) INSTALL SIGN D-2, CENTERED BETWEEN HEADS 1-1, 1-2.

GENERAL NOTES:

1. CORNERS OF STANDARD SIGN PANELS WITH MARGINS SHALL BE TRIMMED.
2. TYPE D SIGN PANELS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
3. FOR STRUCTURAL DETAILS OF MAST ARM MOUNTED SIGNS SEE STANDARD SIGNS MANUAL, PAGE 105A.
4. FOR TYPE "D" STRINGER AND PANEL JOINT DETAILS SEE STANDARD SIGNS MANUAL, PAGE 105.
5. THE MAST ARM MOUNTED SIGNS ARE INCIDENTAL.

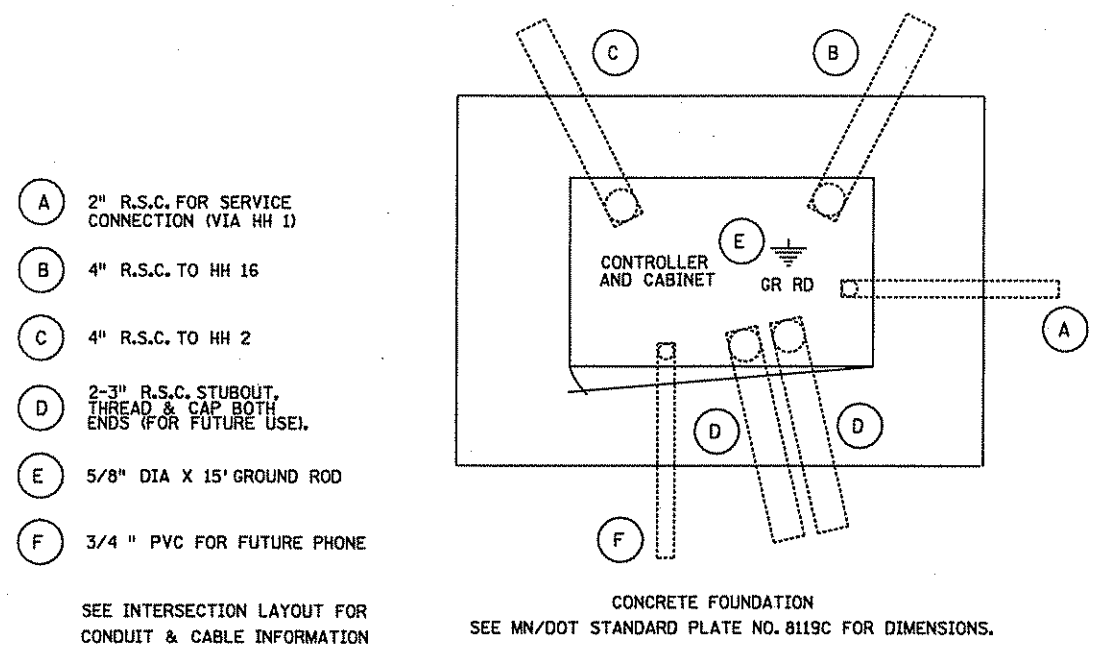


DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
TYPE "D" SIGNS DETAIL			
S.A.P. NO.			
CERTIFIED BY: <i>Michael P. Gelinsky</i>		LIC. NO. 19863	DATE: 2/2/2007
STATE PROJ. NO. 0208-123 (T.H. 65)		SHEET NO. 654 OF 872 SHEETS	

FILENAME: S:\TRAFFIC\Signa\ Des\gn\plans\TH 65\21174\SP 0208-123\System A\SYS A_sgl.dgn mastarm signing
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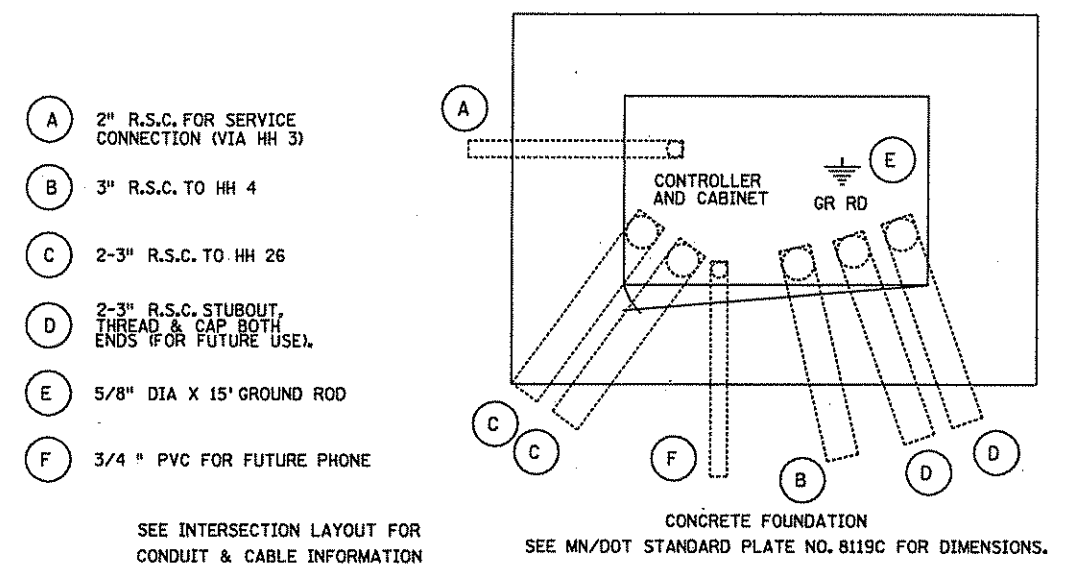
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 PLOTTED: 02-FEB-2007 12:02

SIGNAL SYSTEM "A"



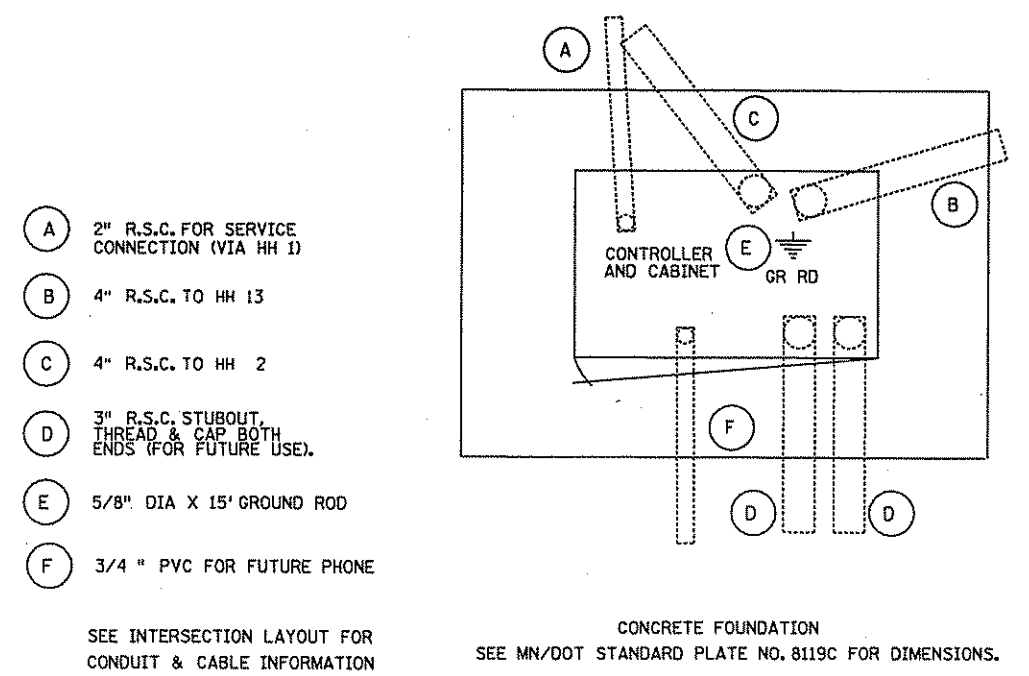
TYPICAL CONTROLLER CABINET PAD LAYOUT
NO SCALE

SIGNAL SYSTEM "B"



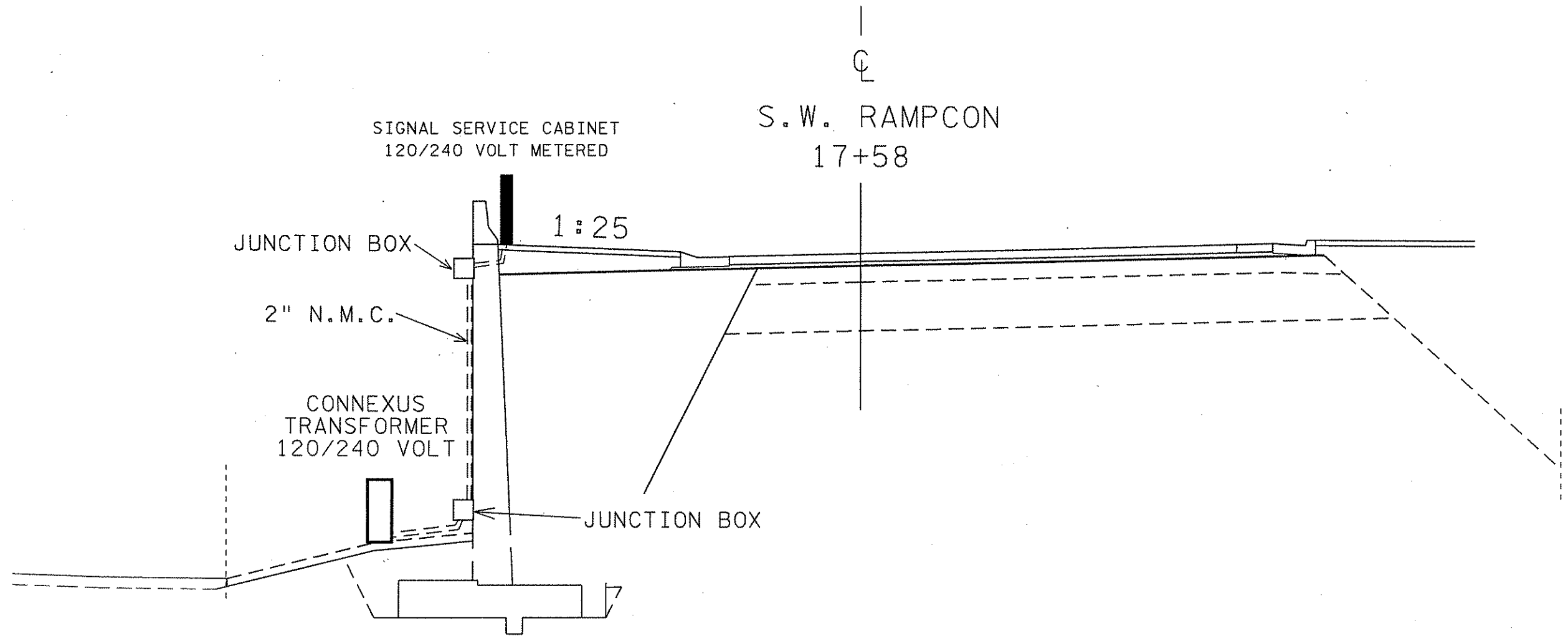
TYPICAL CONTROLLER CABINET PAD LAYOUT
NO SCALE

SIGNAL SYSTEM "C"



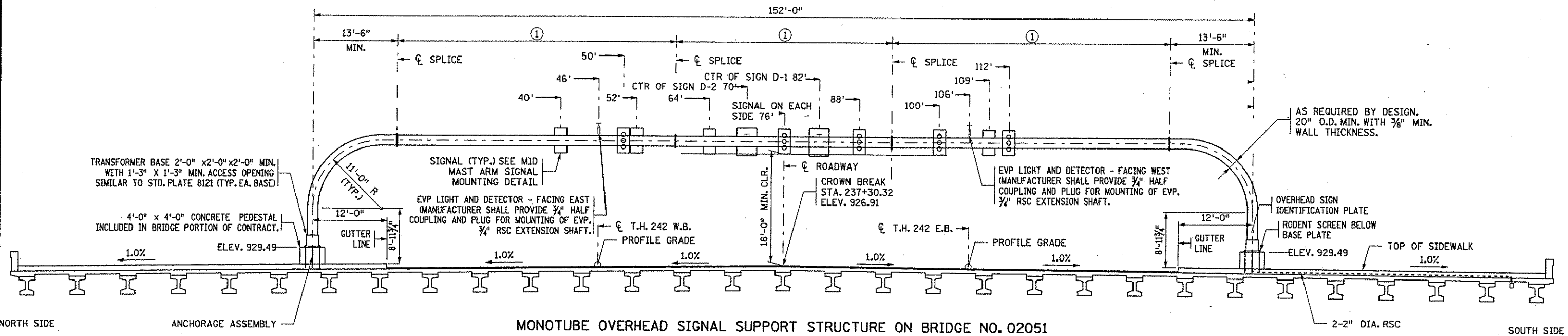
TYPICAL CONTROLLER CABINET PAD LAYOUT
NO SCALE

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	CONTROLLER CABINET DETAILS
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY <i>Michael P. Selinsky</i> <small>LICENSED PROFESSIONAL ENGINEER</small>			LIC. NO. 19863	DATE: 2/2/2007
STATE PROJ. NO. 0208-123 (T.H. 65)			SHEET NO. 655 OF 872 SHEETS	



DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:	SOURCE OF POWER DETAILS TRAFFIC CONTROL SIGNAL SYSTEM "B" TH 65 AT TH 242 IN CITY OF BLAINE, ANOKA COUNTY
CKD BY: MPG DATE: 2/1/07	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Labrady</i> <small>LICENSED PROFESSIONAL ENGINEER</small>			LIC. NO. 19863	DATE: 2/2/2007
STATE PROJ. NO. 0208-123 (T.H. 65)			SHEET NO. 656 OF 872 SHEETS	

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21174\SP 0208-123\System B\System B.dgn Sys B -
 PLOTTED: 06-FEB-2007 10:04



MONOTUBE OVERHEAD SIGNAL SUPPORT STRUCTURE ON BRIDGE NO. 02051

GENERAL NOTES

THE CONTRACTOR SHALL DESIGN THE MONOTUBE SIGNAL SUPPORT STRUCTURE IN ACCORDANCE WITH THE GIVEN DESIGN DATA AND SPECIFICATIONS.

THE 2005 EDITION OF THE "MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

MINIMUM VERTICAL CLEARANCE OF 18'-0" SHALL BE MEASURED FROM THE HIGHEST ELEVATION BETWEEN THE GUTTER LINES.

- ① SPLICE LOCATIONS TO BE DETERMINED BY DESIGNER WITH 1'-6" MIN. CLEARANCE TO SIGNAL HEADS.

DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.

INSTALLATION OF ANCHORAGE ASSEMBLIES AND CONDUITS IS INCLUDED WITH THE BRIDGE PORTION OF THE CONTRACT.

SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

ELEVATIONS/DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION.

DIMENSIONS SHOWN FOR SIGNS ARE SHOWN TO CENTER OF PANEL.

SEE TYPE "D" SIGN DETAIL SHEET FOR SIGN INFORMATION.

SEE STANDARD OVERHEAD SIGN SUPPORT DETAILS FOR SIGN MOUNTING INFORMATION (FOR MONOTUBE FABRICATION).

MATERIALS

ALL MAST ARM MATERIAL SHALL BE WELDED OR SEAMLESS STEEL PIPE AND SHALL CONFORM TO ASTM A252, GRADE 3, OR API 5LX, GRADE 42X, TYPE E OR S. GALVANIZE PER MN/DOT 3394.

SECONDARY MEMBERS AND BASEPLATES SHALL CONFORM TO MN/DOT 3309

ALL 7/8" DIAMETER H.S. BOLTS SHALL COMPLY WITH MN/DOT 3391.2B, HIGH STRENGTH STRUCTURAL STEEL BOLTS, TYPE 1. GALVANIZE PER THE SPECIAL PROVISIONS.

ANCHOR RODS SHALL CONFORM TO MN/DOT 3385, TYPE A.

FULL SHOP ASSEMBLY WILL BE REQUIRED PER MN/DOT 2471.3H1B AND 2471.3J2.

DESIGN DATA:

AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION".

AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 2001, 4TH EDITION.

LOADING:
 WIND LOAD = 90 M.P.H. WITH 1.07 GUST FACTOR
 ICE LOAD = 3 POUNDS PER SQ. FOOT

MAXIMUM ALLOWABLE DESIGN STRESSES:

MAST AND MAST ARM STEEL: Fy = 42,000 PSI.

SPLICE PLATES: Fy = 50,000 PSI

SECONDARY MEMBERS/BASEPLATES: Fy = 36,000 PSI

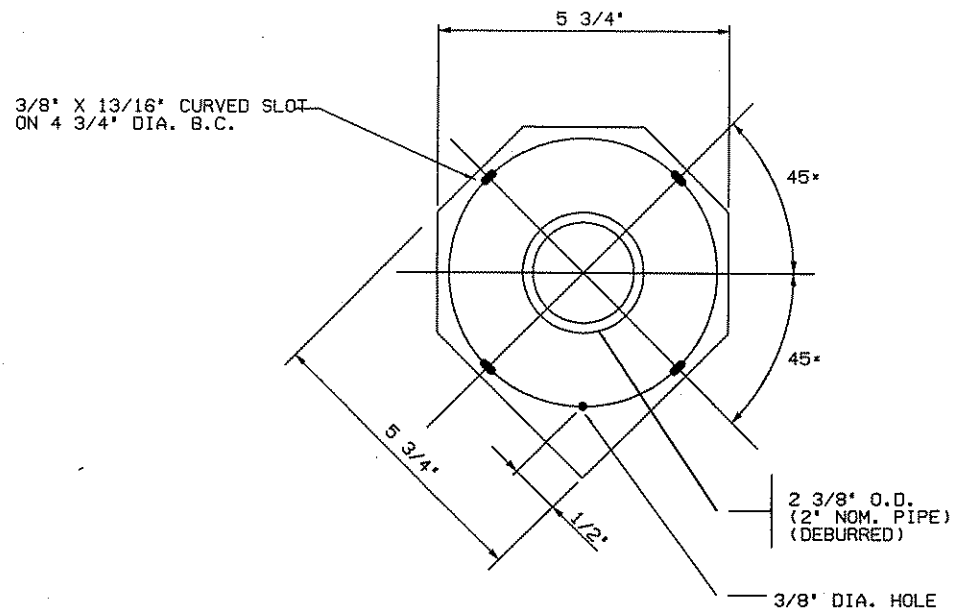
DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:	SIGNAL BRIDGE DETAILS TRAFFIC CONTROL SIGNAL SYSTEM "B" TH 65 AT TH 242 IN CITY OF BLAINE, ANOKA COUNTY
CKD BY: MPG DATE: 2/1/07	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Gubinsky</i> LIC. NO. 19863 DATE: 2/2/2007				
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 657 OF 872 SHEETS

MONOTUBE OVERHEAD SIGNAL SUPPORT BRIDGE ON TH 65 AT TH 242/C.S.A.H.14

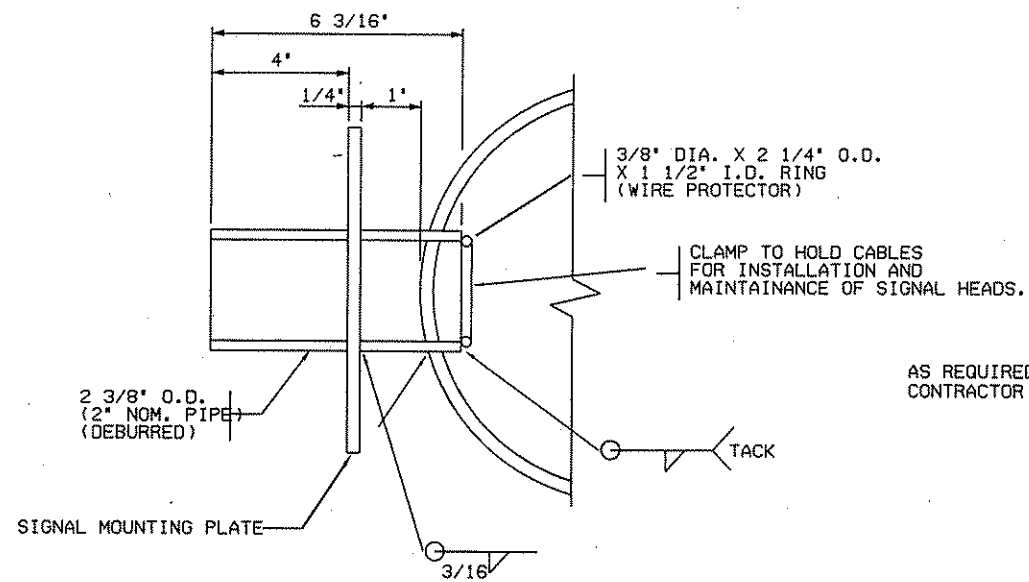
14BRIDGEDETAILS

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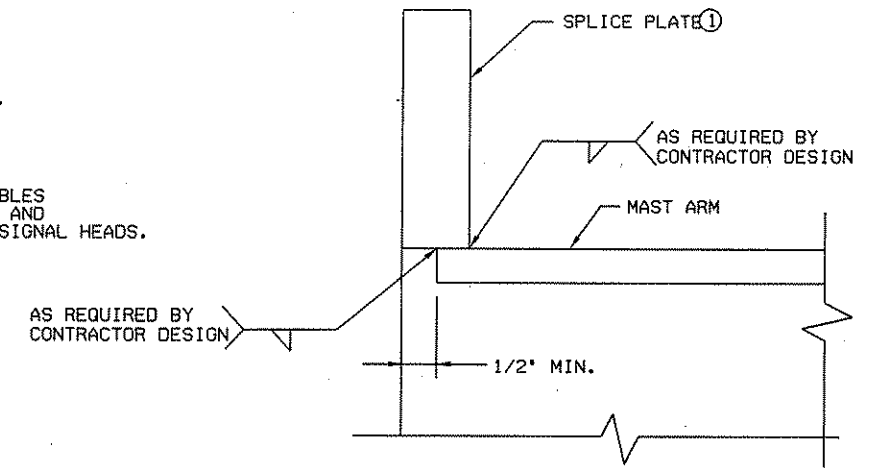
PLOTTED: 02-FEB-2007 12:01



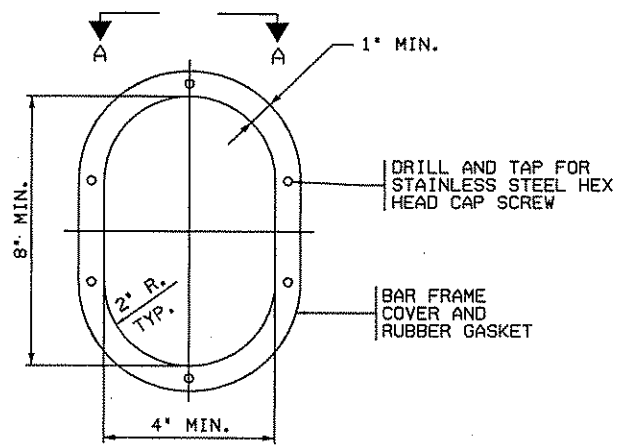
SIGNAL MOUNTING PLATE



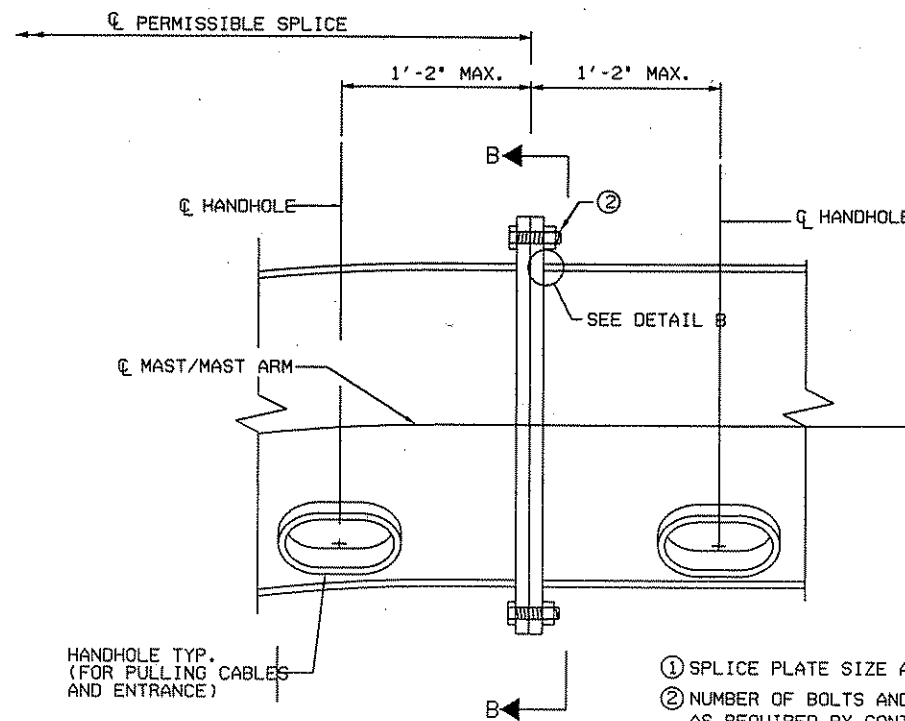
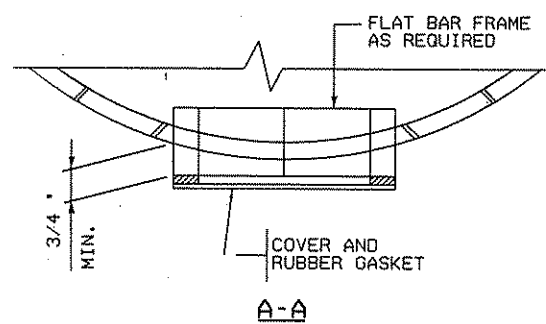
MID MAST ARM SIGNAL MOUNTING



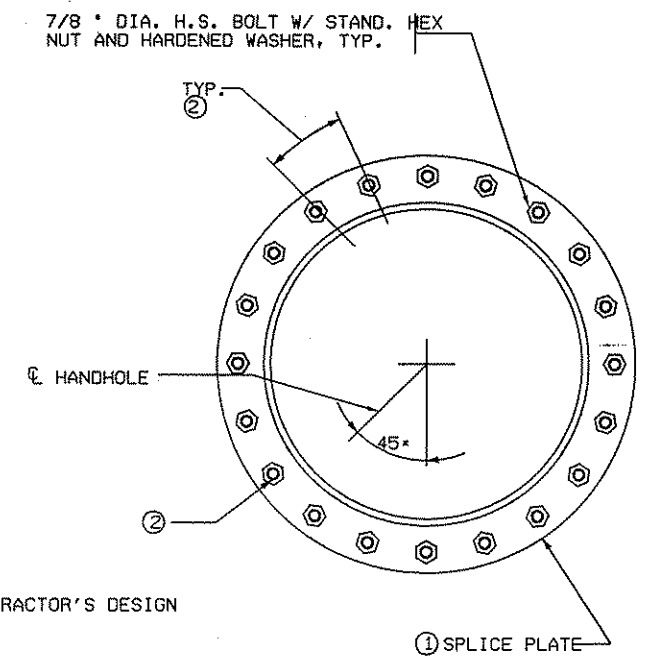
DETAIL B



HANDHOLE AND COVER DETAIL



SPLICE ELEVATION



SECTION B-B

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 2/1/07	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:

S.A.P. NO.

CERTIFIED BY *Michael P. Subrsky* LIC. NO. 19863 DATE: 2/2/2007

STATE PROJ. NO. 0208-123 (T.H. 65)

SIGNAL BRIDGE DETAILS
TRAFFIC CONTROL SIGNAL SYSTEM "B"
TH 65 AT TH 242
IN CITY OF BLAINE, ANOKA COUNTY

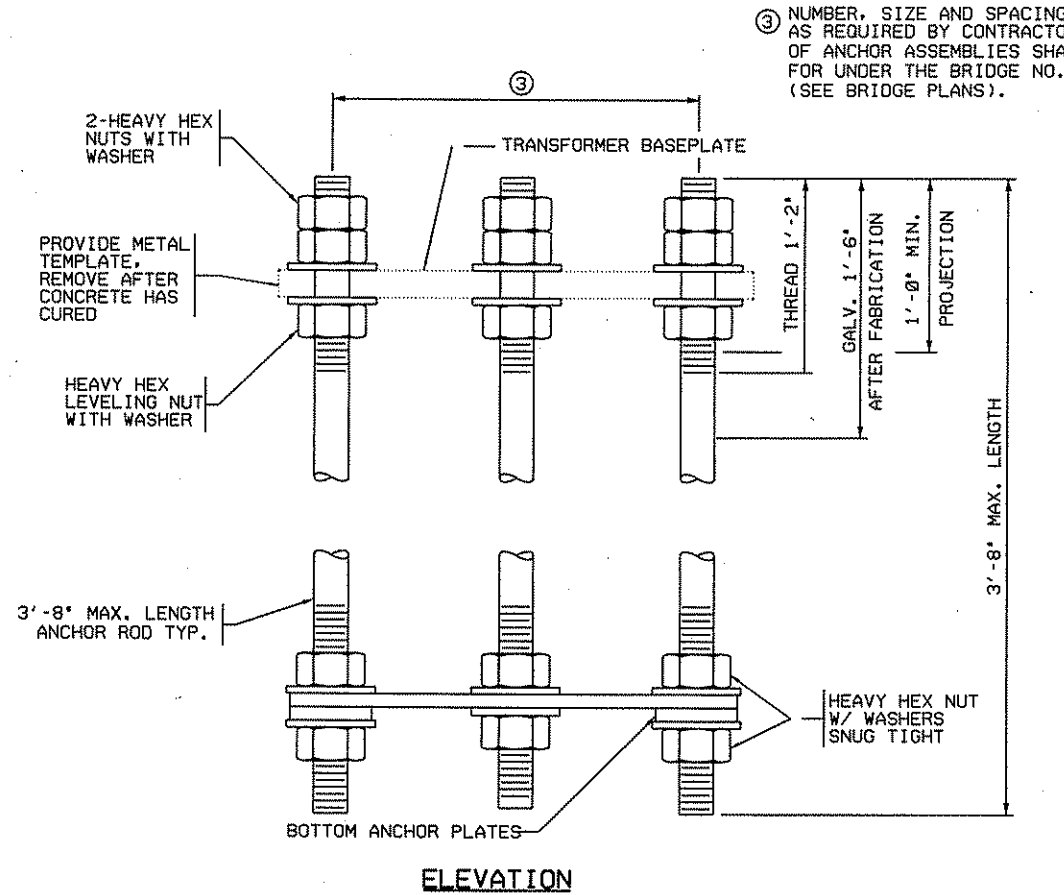
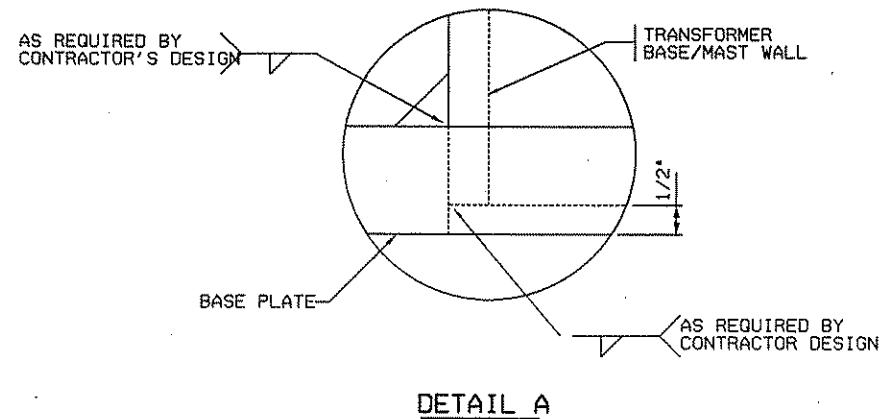
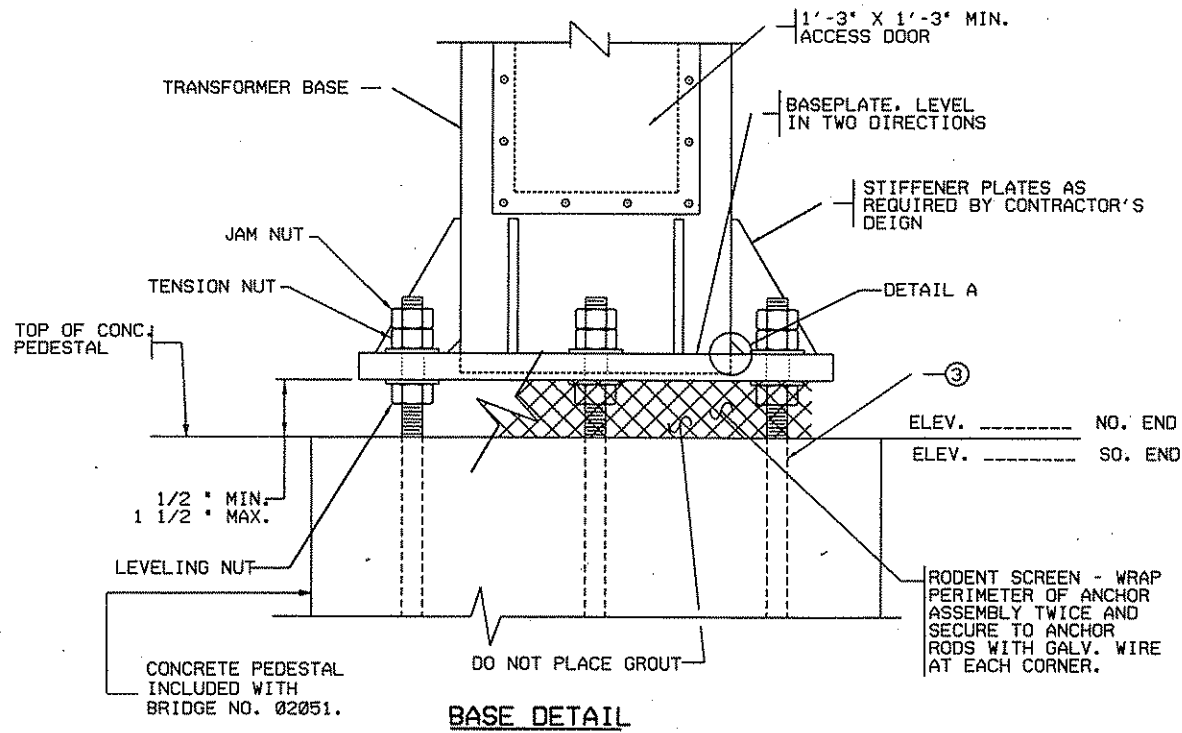
SHEET NO. 658 OF 872 SHEETS

MONOTUBE OVERHEAD SIGNAL SUPPORT BRIDGE ON TH 65 AT TH 242/C.S.A.H.14

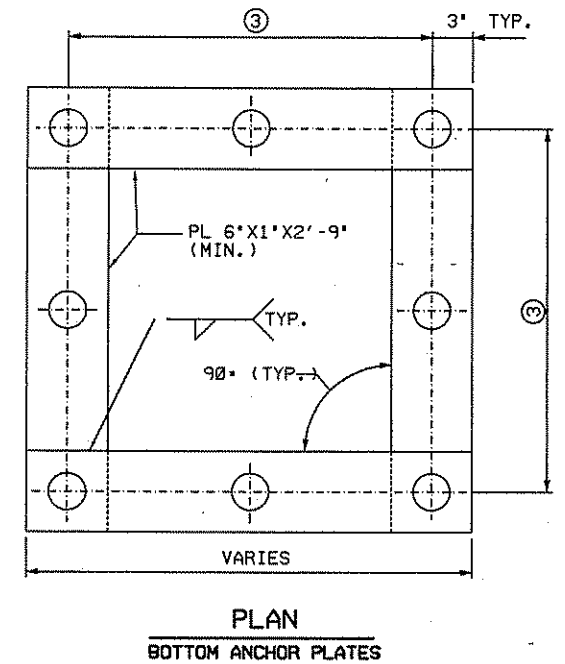
18ANCHORDETAIL

FILENAME: S:\TRAFFIC\Signal Design\Plans\TH 65\21174\SP 0208-123\System B\Sys B...dgn

PLOTTED: 02-FEB-2007 12:01



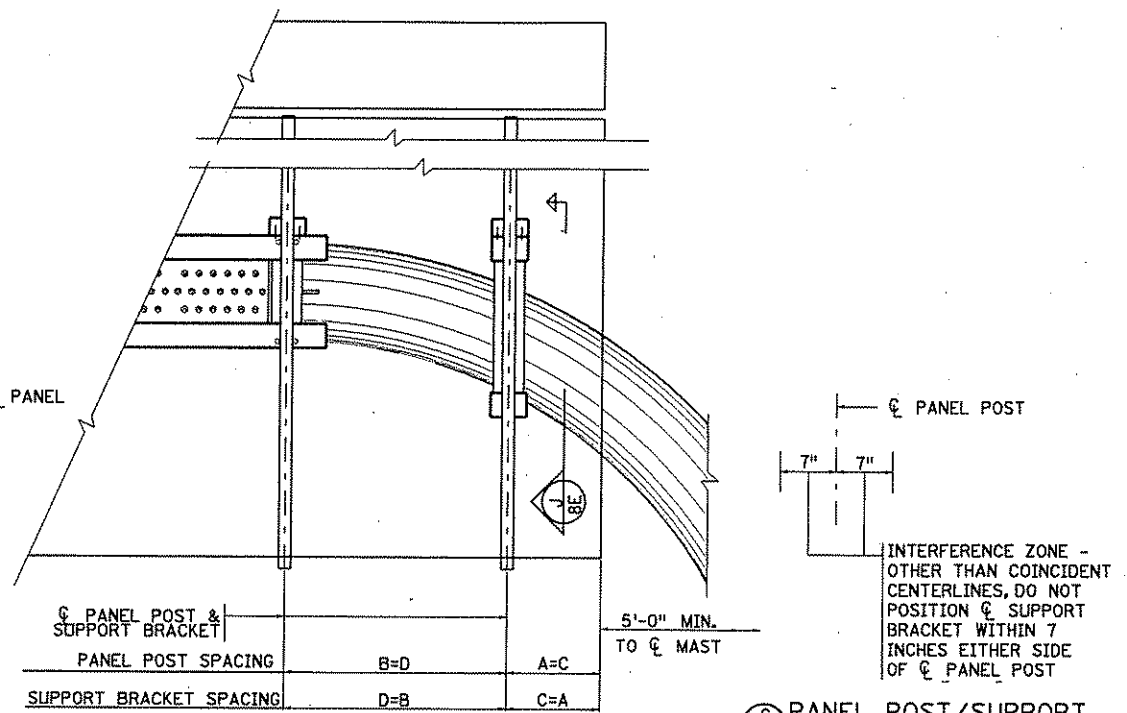
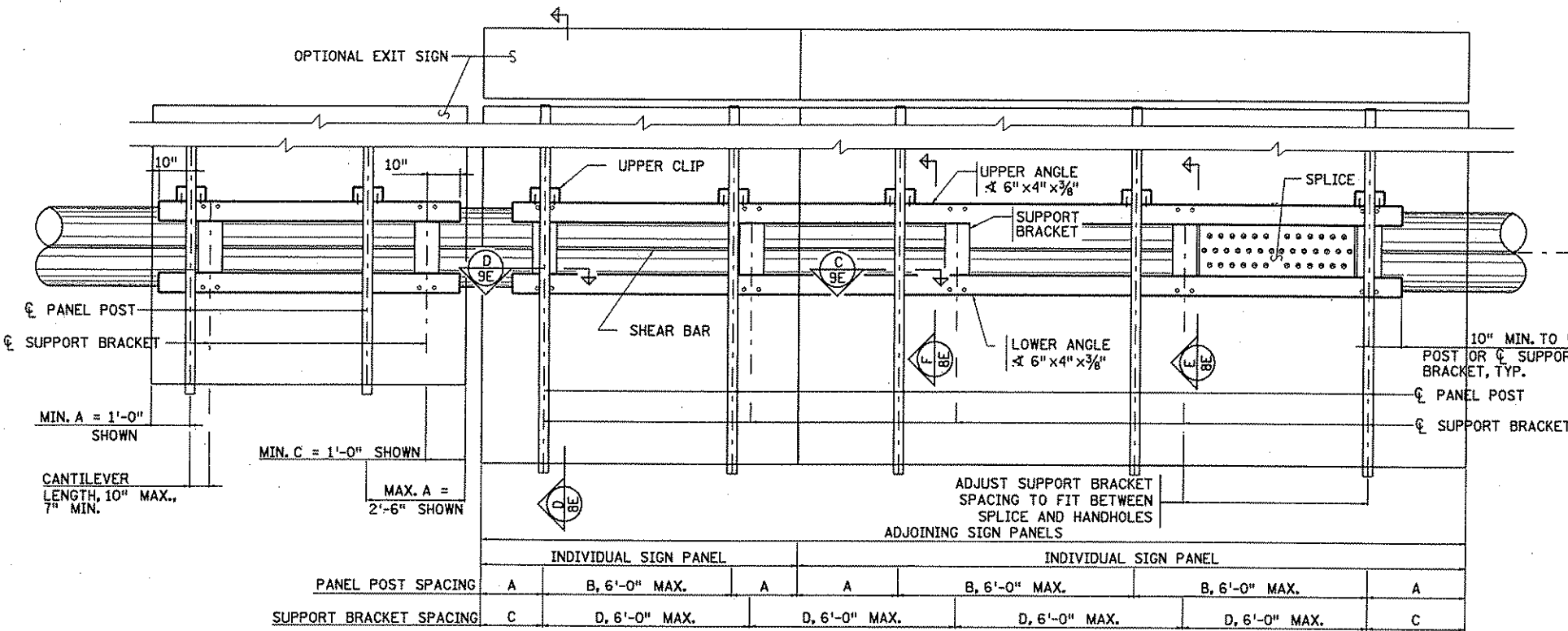
③ NUMBER, SIZE AND SPACING OF ANCHOR BOLTS AS REQUIRED BY CONTRACTOR'S DESIGN. INSTALLATION OF ANCHOR ASSEMBLIES SHALL BE INCIDENTAL TO AND BE PAID FOR UNDER THE BRIDGE NO. 02051 PORTION OF THE CONTRACT. (SEE BRIDGE PLANS).



DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
S.A.P. NO.			
CERTIFIED BY: <i>Michael P. Salinsky</i> LICENSED PROFESSIONAL ENGINEER			LIC. NO. 19863
STATE PROJ. NO. 0208-123 (T.H. 65)			DATE: 2/2/2007

SIGNAL BRIDGE DETAILS
TRAFFIC CONTROL SIGNAL SYSTEM "B"
TH 65 AT TH 242
IN CITY OF BLAINE, ANOKA COUNTY

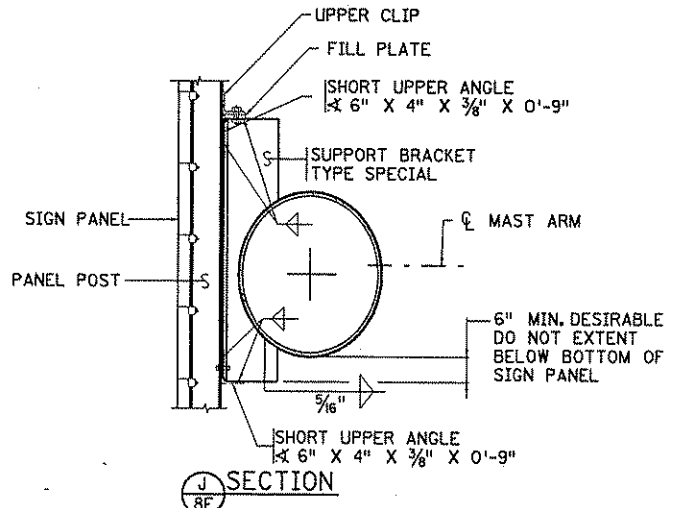
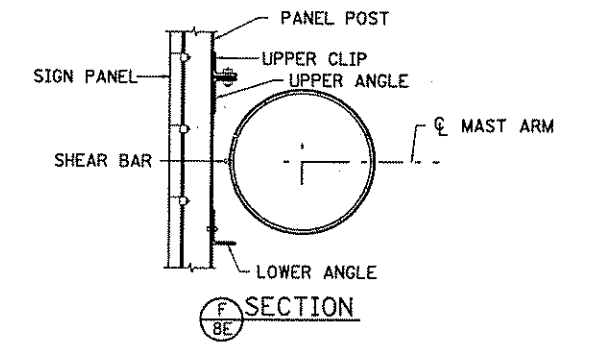
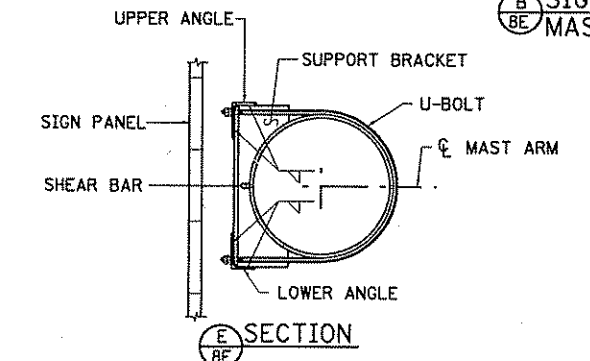
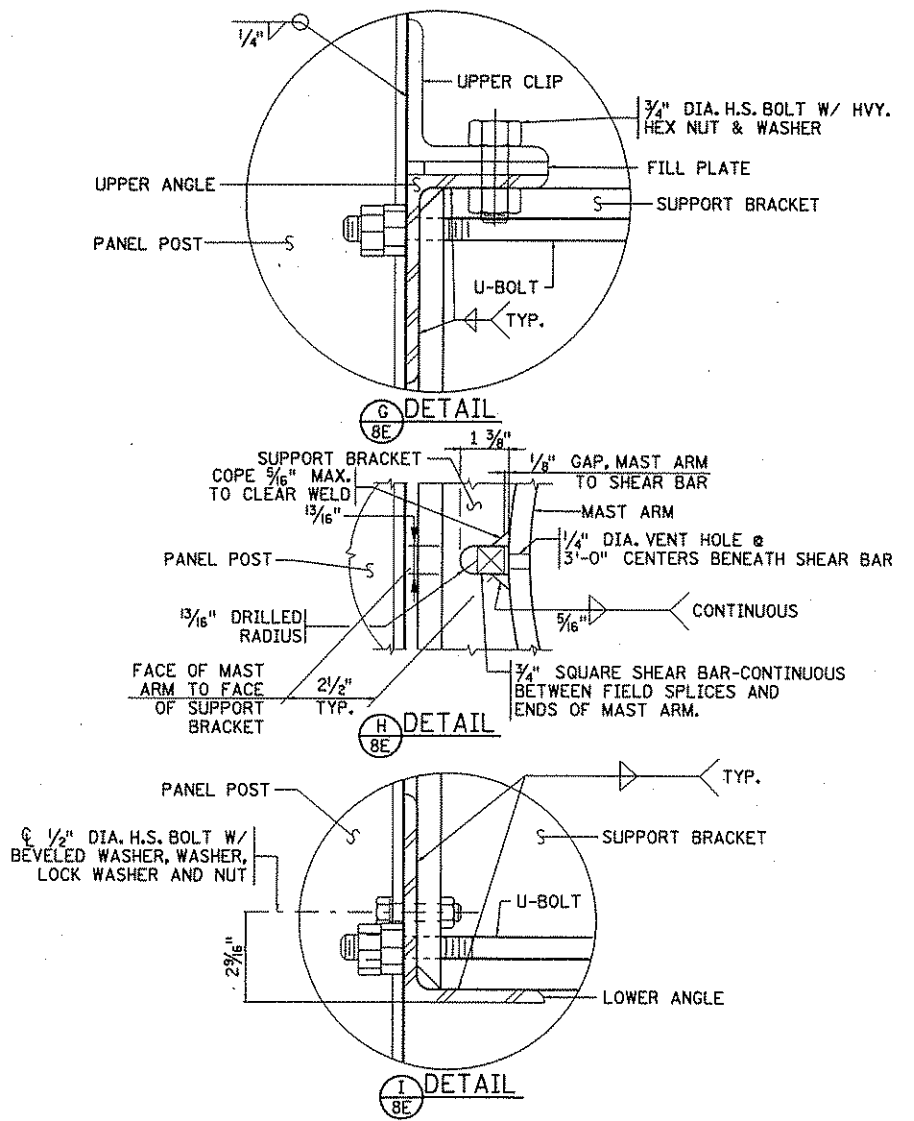
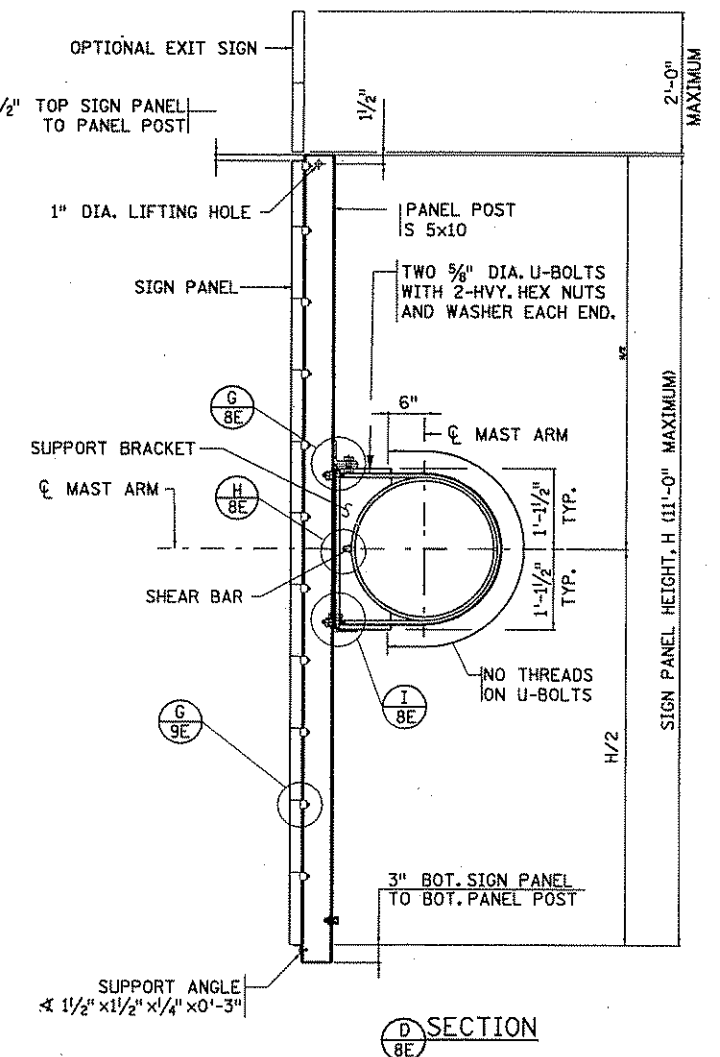
FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21174\SP 0208-123\System B\Sys B.dgn
 PLOTTED: 06-FEB-2007 11:44
 Sys B -



(A) PANEL POST & SUPPORT BRACKET LAYOUT- ELEVATION

(B) SIGN PANEL OVER MAST RADIUS- ELEVATION

(C) PANEL POST/SUPPORT BRACKET INTERFERENCE DETAIL



A = PANEL POST EDGE SPAN; EDGE OF SIGN PANEL TO FIRST PANEL POST. PANEL POST EDGE SPAN SHALL NOT EXCEED 2'-6", AND SHALL BE GREATER THAN OR EQUAL TO 1'-0". SEE CONTRACT DRAWINGS FOR SPECIFIC VALUES.

B = PANEL POST INTERIOR SPAN; DESIGNER MAY ADJUST PANEL POST INTERIOR SPANS SUCH THAT THEY ARE EQUAL, OR COMPARABLE IN LENGTH. PANEL POST INTERIOR SPANS SHALL NOT EXCEED 6'-0". SEE CONTRACT DRAWINGS FOR SPECIFIC VALUES.

C = SUPPORT BRACKET END SPAN; EDGE OF SIGN PANEL TO FIRST SUPPORT BRACKET. SUPPORT BRACKET END SPAN SHALL NOT EXCEED COINCIDENT VALUE OF "A" BY MORE THAN 10" AND SHALL BE GREATER THAN OR EQUAL TO 1'-0". SEE CONTRACT DRAWINGS FOR SPECIFIC VALUES.

D = SUPPORT BRACKET INTERIOR SPAN; DESIGNER MAY ADJUST SUPPORT BRACKET INTERIOR SPANS SUCH THAT THEY ARE EQUAL, OR COMPARABLE IN LENGTH. SUPPORT BRACKET INTERIOR SPANS SHALL NOT EXCEED 6'-0". SEE CONTRACT DRAWINGS FOR SPECIFIC VALUES.

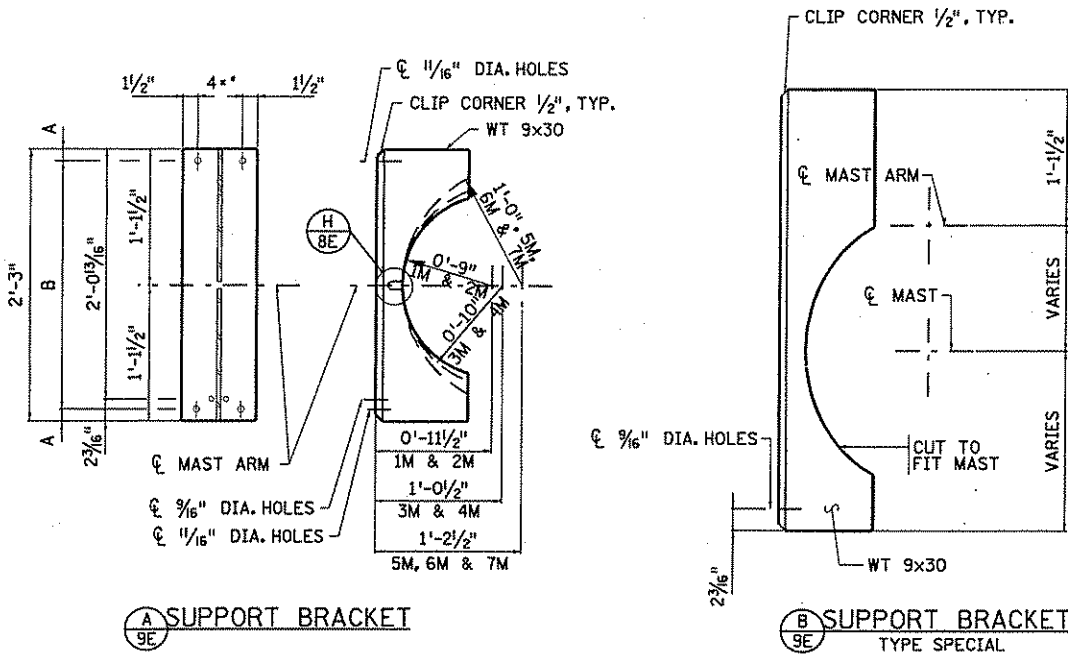
ALL MATERIAL AND LABOR FOR SIGN PANEL CONNECTION SHALL BE MEASURED AND PAID FOR BY UNIT WEIGHT AS "STRUCT. STEEL - MT PANEL CONNECTION". SEE MONOTUBE DRAWING 2E FOR QUANTITY INFORMATION.

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY:	CKD BY:	CKD BY:
DATE: 2/1/07	DATE:	DATE:	DATE:
S.A.P. NO.			
CERTIFIED BY: <i>Michael P. Galinsky</i>			LIC. NO. 19863
			DATE: 2/2/2007
STATE PROJ. NO. 0208-123 (T.H. 65)			

STANDARD OVERHEAD SIGN SUPPORTS
 MONOTUBE DESIGN
 SIGN PANEL CONNECTION
 TRAFFIC CONTROL SIGNAL SYSTEM "B"
 TH 65 AT TH 242
 IN CITY OF BLAINE, ANOKA COUNTY

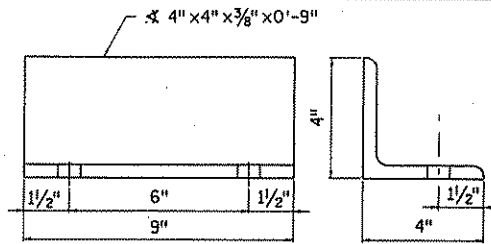
SHEET NO. 660 OF 872 SHEETS

FILENAME: S:\TRAFFIC\Signal Design\Plans\TH 65\21174\SP 0208-123\System B\Sys B...dgn Sys B - PLOTTED: 06-FEB-2007 11:48

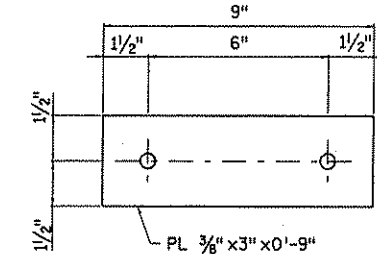


SUPPORT BRACKET VARIABLES

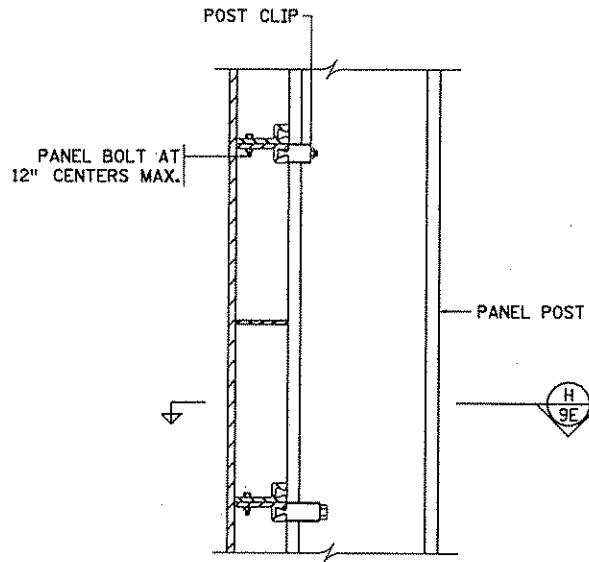
MAST TYPE	A	B
M1	4 3/16"	1'-6 5/8"
M2	4 3/16"	1'-6 5/8"
M3	3 3/16"	1'-8 5/8"
M4	3 3/16"	1'-8 5/8"
M5	1 3/16"	2'-0 5/8"
M6	1 3/16"	2'-0 5/8"
M7	1 3/16"	2'-0 5/8"



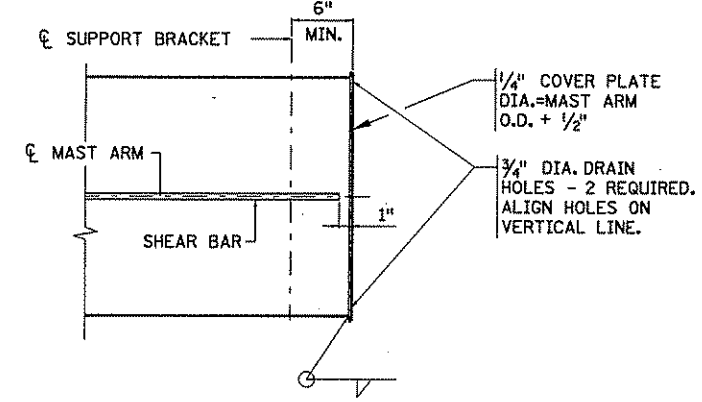
E UPPER CLIP
 ONE REQUIRED FOR EACH PANEL POST



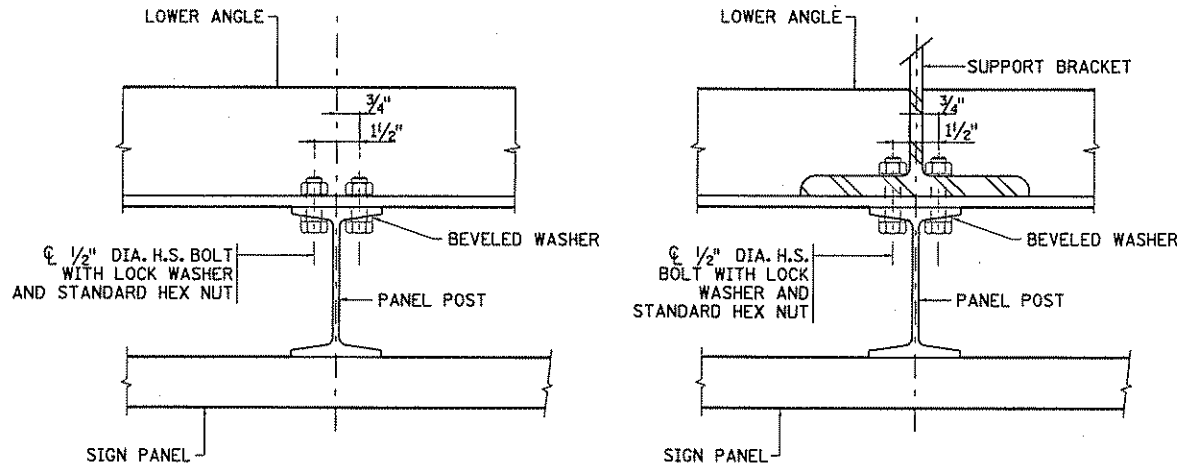
F FILL PLATE
 ONE REQUIRED FOR EACH UPPER CLIP ANGLE



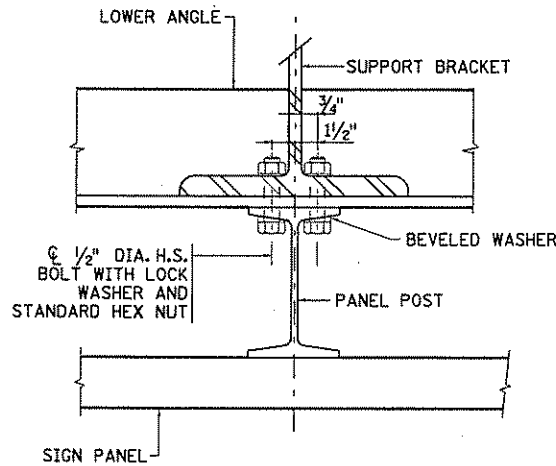
G DETAIL



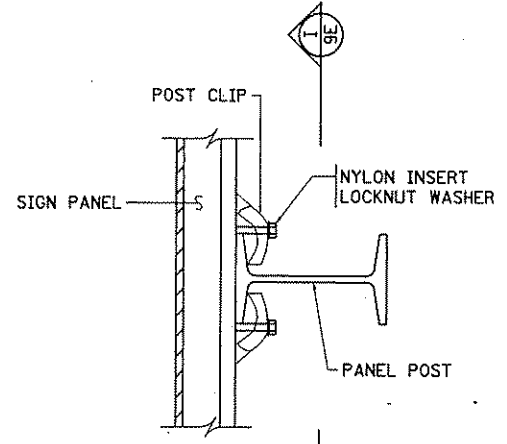
J CANTILEVER MAST ARM CAP



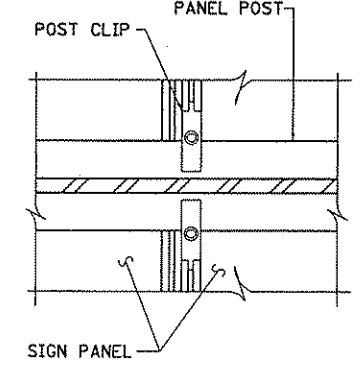
C SECTION



D SECTION



H SECTION



I SECTION

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:	STANDARD OVERHEAD SIGN SUPPORTS MONOTUBE DESIGN SIGN PANEL CONNECTION DETAILS TRAFFIC CONTROL SIGNAL SYSTEM "B" TH 65 AT TH 242 IN CITY OF BLAINE, ANOKA COUNTY
CKD BY: MPG DATE: 2/1/07	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY <i>Michael P. Lubusky</i> LIC. NO. 19863 DATE: 2/2/2007				
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 661 OF 872 SHEETS

SYSTEMA

FILENAME: S:\TRAFFIC\Signal Design\Staff\Sand1Mar\mm\65at242\SYSTEMA.DGN

PLOTTED: 22-FEB-2007 13:10

LOOP DETECTOR CHART			
NUMBER	SIZE (FT)	LOCATION	FUNCTION
D1-1,D1-2	6X6	10'x40'	1
D2-1,D2-2	6X6	250'	1
D4-1,D4-2	6X6	120'	3&8
D4-3	2-6X6	5'x20'	7
D4-4,D4-5	2-6X6	5'x20'	1
D5-1,D5-2	6X6	10'x40'	1
D6-1,D6-2,D6-3	6X6	250'	1
D8-1, D8-2	6X6	120'	3&8
D8-3	2-6X6	5'x20'	7
D8-4, D8-5	2-6X6	5'x20'	1

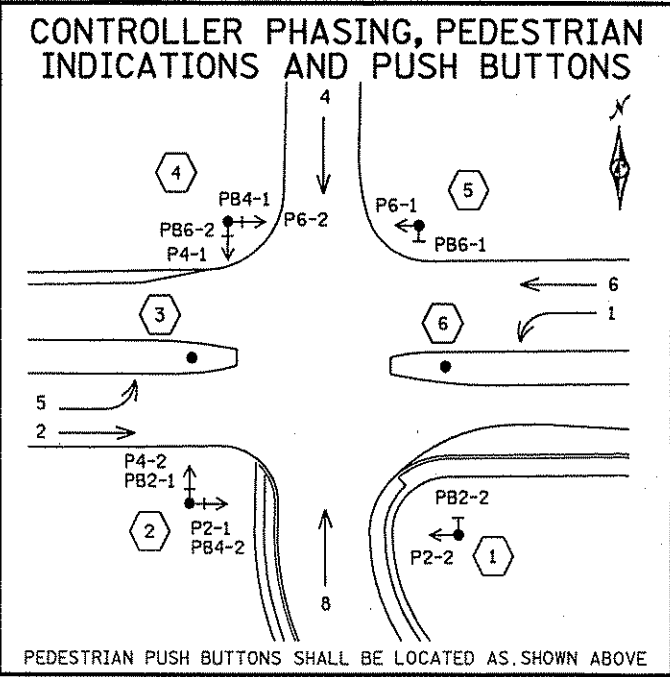
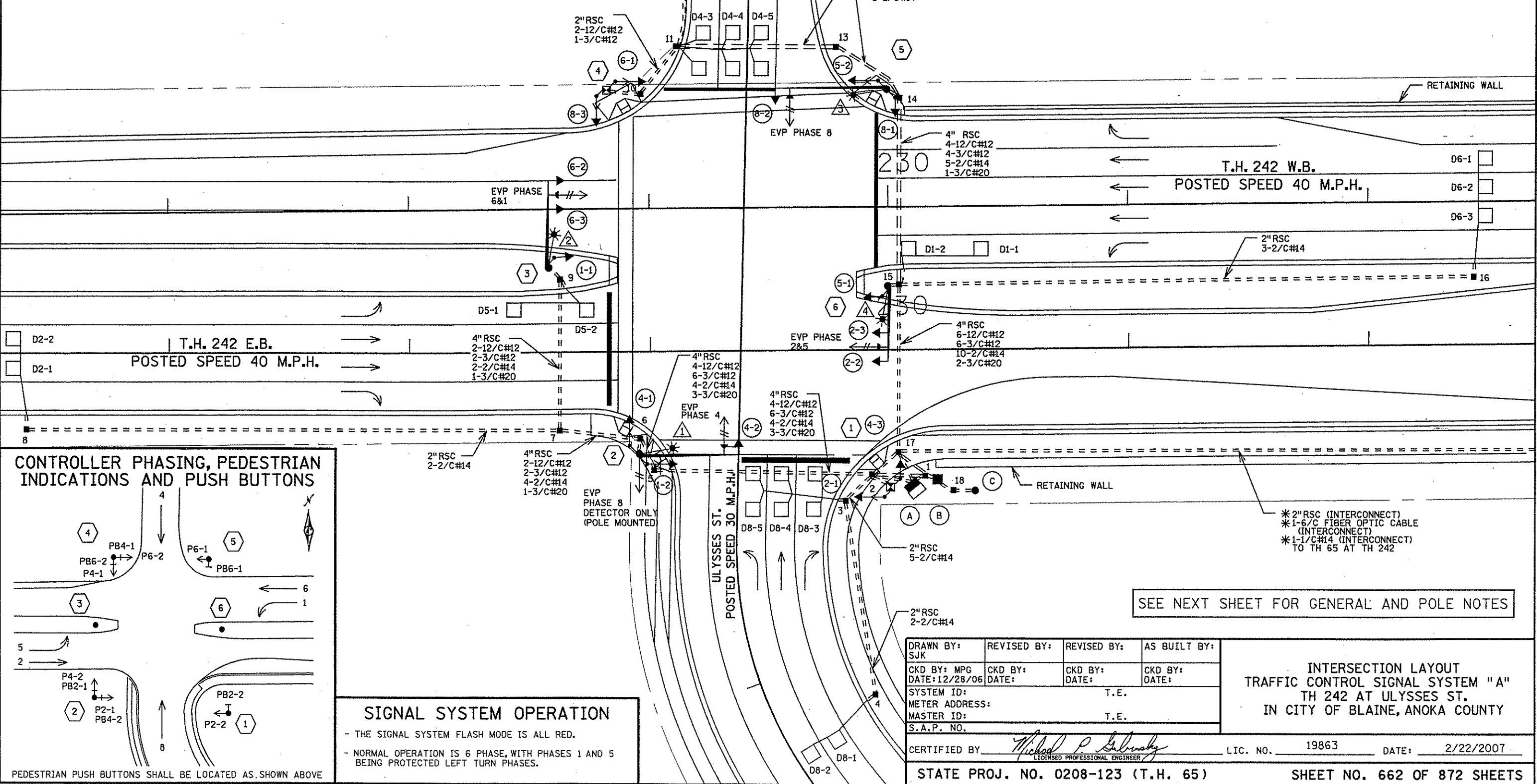
- LOOP DETECTORS FUNCTIONS:
- 1) CALL AND EXTEND
 - 2) CALL ONLY
 - 3) EXTEND ONLY
 - 4) CALL ONLY DENSITY
 - 5) DELAYED CALL ONLY
 - 6) DELAYED CALL ONLY DENSITY
 - 7) DELAYED CALL- IMMEDIATE EXTEND
 - 8) CARRY OVER (STRETCH)
 - 9) ADVISORY DETECTOR
 - 10) SAMPLING DETECTOR
 - 11) SPECIAL DETECTOR

-LOCATION IS DISTANCE FROM STOP LINE TO FRONT OF LOOP DETECTOR IN FEET.
 -ALL LOOP DETECTORS SHALL BE N.M.C.



SIGNAL FACES			
FACE	R	Y	G
1-1,1-2	←	←	←
2-1,2-2,2-3	●	●	●
4-1,4-2,4-3	●	●	●
5-1,5-2	←	←	←
6-1,6-2,6-3	●	●	●
8-1,8-2,8-3	●	●	●

-ALL SIGNAL INDICATIONS SHALL BE 12"
 -ALL SIGNAL INDICATIONS SHALL BE LED
 -ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 6 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES.

SEE NEXT SHEET FOR GENERAL AND POLE NOTES

- *2" RSC (INTERCONNECT)
- *1-6/C FIBER OPTIC CABLE (INTERCONNECT)
- *1-1/C#14 (INTERCONNECT) TO TH 65 AT TH 242

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY:	CKD BY:	CKD BY:
DATE: 12/28/06	DATE:	DATE:	DATE:
SYSTEM ID:	T.E.		
METER ADDRESS:	T.E.		
MASTER ID:	T.E.		
S.A.P. NO.	T.E.		
CERTIFIED BY:	<i>Michael P. Schenck</i>		LIC. NO. 19863
	LICENSED PROFESSIONAL ENGINEER		DATE: 2/22/2007

INTERSECTION LAYOUT
 TRAFFIC CONTROL SIGNAL SYSTEM "A"
 TH 242 AT ULYSSES ST.
 IN CITY OF BLAINE, ANOKA COUNTY

A E.B. STA. 230+10, 58' RT.
 INSTALL CONTROLLER CABINET (FURNISHED BY ANOKA COUNTY)
 CABINET FOUNDATION
 3/4" PVC CONDUIT STUBBED OUT (CAPPED AT BOTH ENDS FOR FUTURE TELEPHONE LINE)
 2-3" RSC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)
 EXTEND INTO HH 1:
 METERED SIGNAL SERVICE
 2" RSC
 3-1/C#6
 EXTEND INTO HH 2:
 4" RSC
 5-12/C#12
 1-5/C#12
 5-3/C#12
 9-2/C#14
 3-3/C#20

 EXTEND INTO HH 17:
 4" RSC
 6-12/C#12
 4-3/C#12
 10-2/C#14
 2-3/C#20
 * 1-6/C FIBER OPTIC CABLE (INTERCONNECT)
 * 1-1/C#14 (INTERCONNECT)

B E.B. STA. 230+21, 54' RT.
 SERVICE CABINET
 CABINET FOUNDATION
 EXTEND INTO HH 18:
 2" RSC
 3-1/C#2
 EXTEND INTO HH 1:
 2" RSC
 METERED SIGNAL SERVICE
 3-1/C#6
 METERED LUMINAIRE SERVICE
 4-3/C#12
 BETWEEN HH 1 AND HH 2:
 2" RSC
 2-3/C#12
 BETWEEN HH 1 AND HH 17:
 2" RSC
 2-3/C#12

1 E.B. STA. 230+01, 58' RT.
 13' PEDESTAL AND BASE
 PEDESTAL FOUNDATION
 2-ONE WAY SIGNALS POLE MOUNTED
 AT 45° AND 225° (SEE DETAIL)
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 225° (SEE DETAIL)
 1-PEDESTRIAN PUSHBUTTON AND SIGN
 (R10-4b) (1EA. RIGHT)
 1-(R9-3a) SIGN FACING POLE #6
 EXTEND INTO HH 2:
 3" RSC
 1-12/C#12
 1-5/C#12
 1-3/C#12

2 E.B. STA. 228+96, 43' RT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-40-D40-9 (DAVIT AT 350")
 1-ONE WAY SIGNAL OVERHEAD
 (0' FROM THE END OF MASTARM)
 2-ONE WAY SIGNALS POLE MOUNTED AT 45° AND 225°
 2-PEDESTRIAN INDICATIONS POLE MOUNTED AT 45° AND 225°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASE 4
 ONE WAY EVP DETECTOR ONLY PHASE 8 (POLE MOUNTED 17' HIGH AT 90°)
 LUMINAIRE 250W HPS
 TYPE D SIGN
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS
 (R10-4b) (1EA. LEFT AND RIGHT)
 EXTEND INTO HH 6:
 3" RSC
 2-12/C#12
 4-3/C#12
 2-3/C#20

3 E.B. STA. 228+58, 36' LT
 PA90 POLE FOUNDATION
 TYPE PA90-A-35-D40-9 (DAVIT AT 10")
 2-ONE WAY SIGNALS OVERHEAD
 (0' AND 11' FROM THE END OF MASTARM)
 1-ONE WAY SIGNAL POLE MOUNTED AT 45°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 TYPE D SIGN
 EXTEND INTO HH 9:
 3" RSC
 2-12/C#12
 2-3/C#12
 1-3/C#20

C S.O.P. GROUND MOUNTED TRANSFORMER TO BE
 FURNISHED AND INSTALLED BY CONNEXUS ENERGY
 (LOCATION SHOWN IS APPROXIMATE)
 EXTEND INTO HH 17:
 2" RSC
 3-1/C#2

4 W.B. STA. 228+83, 50' LT.
 13' PEDESTAL AND BASE
 PEDESTAL FOUNDATION
 2-ONE WAY SIGNALS POLE MOUNTED
 AT 45° AND 225° (SEE DETAIL)
 2-PEDESTRIAN INDICATIONS POLE MOUNTED
 AT 45° AND 225° (SEE DETAIL)
 2-PEDESTRIAN PUSHBUTTONS AND SIGNS
 (R10-4b) (1 EA. LEFT AND RIGHT)
 EXTEND INTO HH 10:
 3" RSC
 2-12/C#12
 1-3/C#12

5 W.B. STA. 230+00, 49' LT
 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9 (DAVIT AT 350")
 1-ONE WAY SIGNAL OVERHEAD
 (0' FROM THE END OF MASTARM)
 2-ONE WAY SIGNALS POLE MOUNTED AT 45° AND 225°
 1-PEDESTRIAN INDICATION POLE MOUNTED
 AT 45° (SEE DETAIL)
 1-PEDESTRIAN PUSHBUTTON AND SIGN
 (R10-4b) (1 EA. RIGHT)
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 TYPE D SIGN
 1-(R9-3a) SIGN FACING POLE #6
 EXTEND INTO HH 14:
 3" RSC
 2-12/C#12
 3-3/C#12
 1-3/C#20

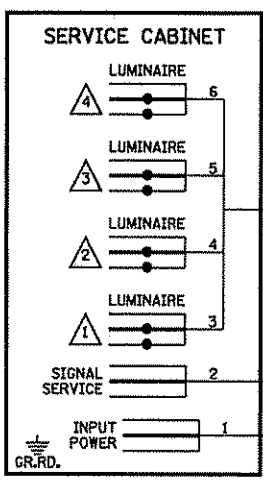
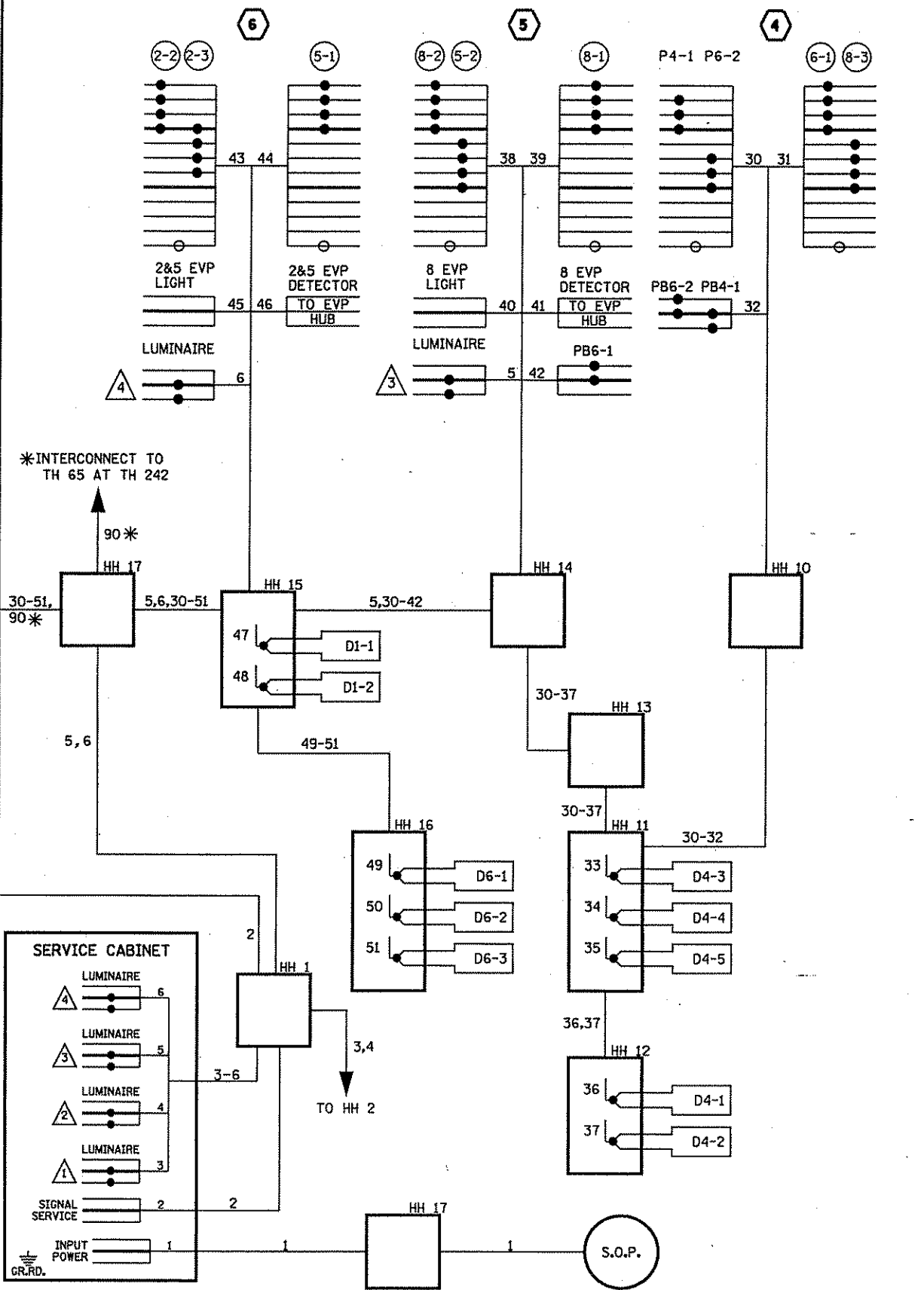
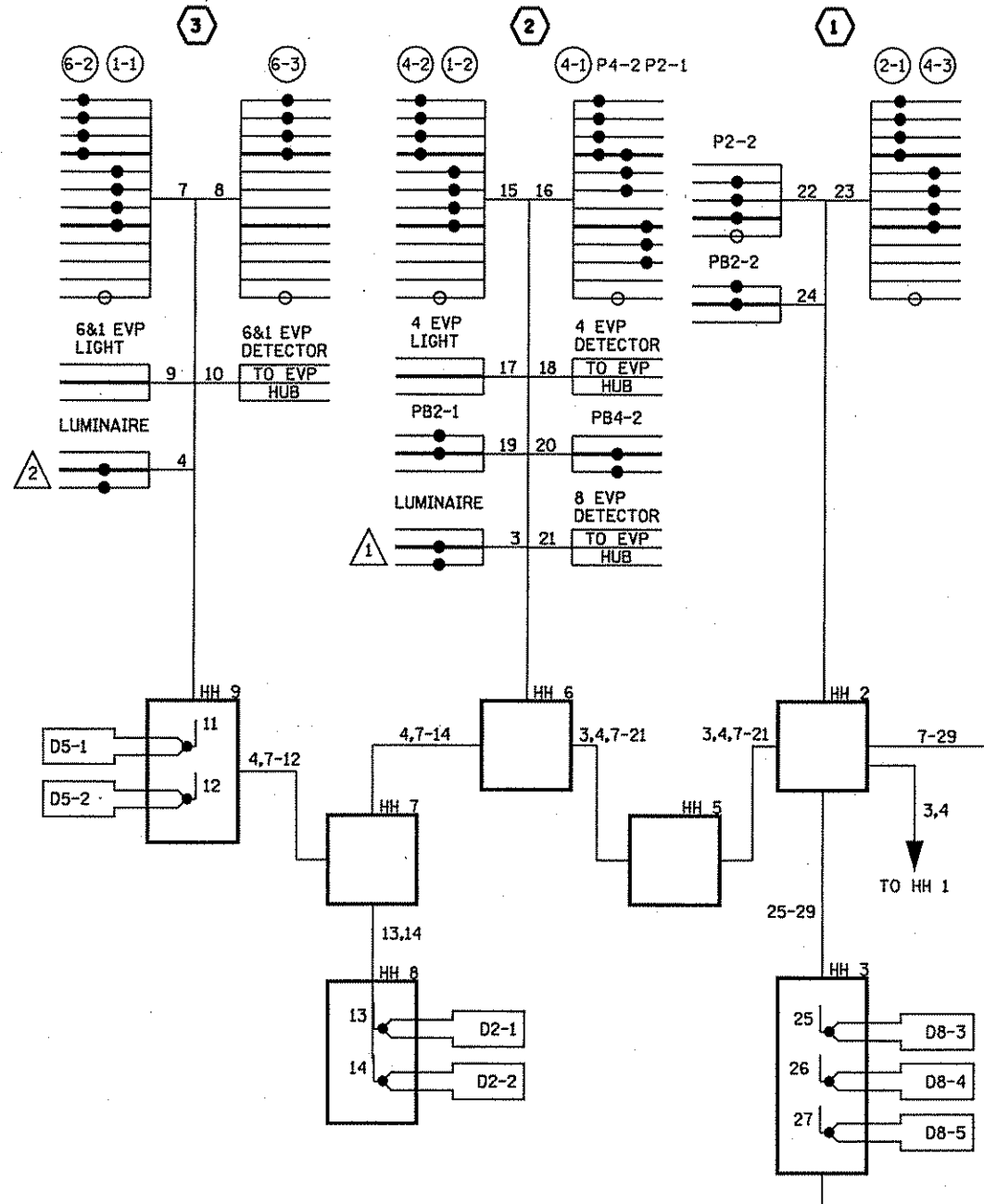
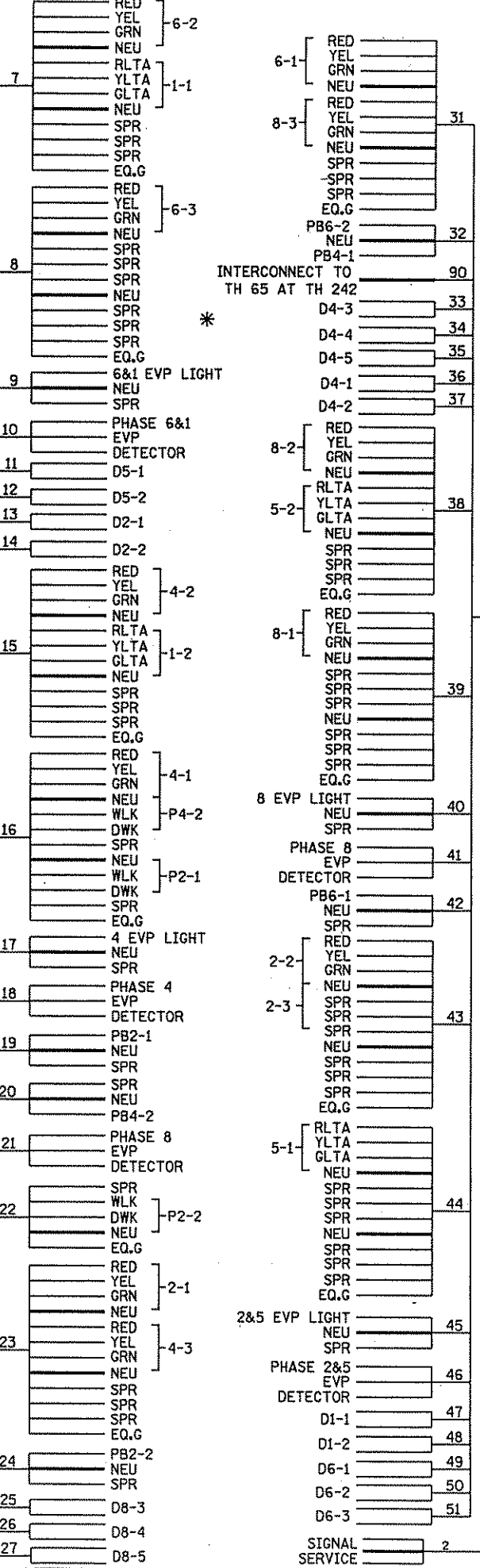
6 E.B. STA. 230+00, 27' LT
 PA85 POLE FOUNDATION
 TYPE PA85-A-30-D40-9 (DAVIT AT 10")
 2-ONE WAY SIGNALS OVERHEAD
 (0' AND 11' FROM THE END OF MASTARM)
 1-ONE WAY SIGNAL POLE MOUNTED AT 45°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 TYPE D SIGN
 2-(R9-3a) SIGNS FACING POLE #1 AND POLE #5
 EXTEND INTO HH 15:
 3" RSC
 2-12/C#12
 2-3/C#12
 1-3/C#20

GENERAL NOTES:

- 1) LOCATION OF POLES, CONTROLLER CABINET, SERVICE CABINET, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY ANOKA COUNTY TRAFFIC PERSONNEL.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION 'FILLED' HAND/WALKING PERSON INDICATIONS.
- 7) ALL VEHICLE SIGNAL INDICATIONS, AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
- 8) SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED & INSTALLED BY CONTRACTOR (INCIDENTAL).
- 9) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM THE END OF EACH MAST ARM AND HUB AT 17 FEET HIGH (AT 90°) ON POLE SHAFT NUMBER 2 (FOR EVP).
- 10) CONTRACTOR SHALL COORDINATE ALL TRAFFIC SIGNAL INSTALLATION WORK WITH ROAD CONSTRUCTION TO BE COMPLETED BY OTHERS AS PART OF ENTIRE PROJECT.
- 11) ALL MAST ARM POLE AND PEDESTAL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE MOUNTED USING ONE-WAY SIGNAL HEAD MOUNTS. SEE SPECIAL PROVISIONS.
- 12) STRIPING IS TO BE COMPLETE BY OTHERS AND PAID FOR SEPARATELY. SEE STRIPING PLAN FOR REFERENCE.
- 13) INTERCONNECT ITEMS ARE DESIGNATED BY * AND ARE PART OF THE INTERCONNECT PAY ITEM.
- 14) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION.

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	GENERAL AND POLE NOTES TRAFFIC CONTROL SIGNAL SYSTEM "A" TH 242 AT ULYSSES ST. IN CITY OF BLAINE, ANOKA COUNTY
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
SYSTEM ID:	T.E.			
METER ADDRESS: MASTER ID:	T.E.			
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Subusky</i>			LIC. NO. 19863	DATE: 3/11/2007
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 663 OF 872 SHEETS

CONTROLLER CABINET



NOTE:
1. THE INTERCONNECT CABLE NUMBER CONSISTS OF 1-FIBER OPTIC CABLE WITH 1-1/C#14 TRACER WIRE (FOR UTILITY LOCATING)

CONDUCTOR COLOR CODE

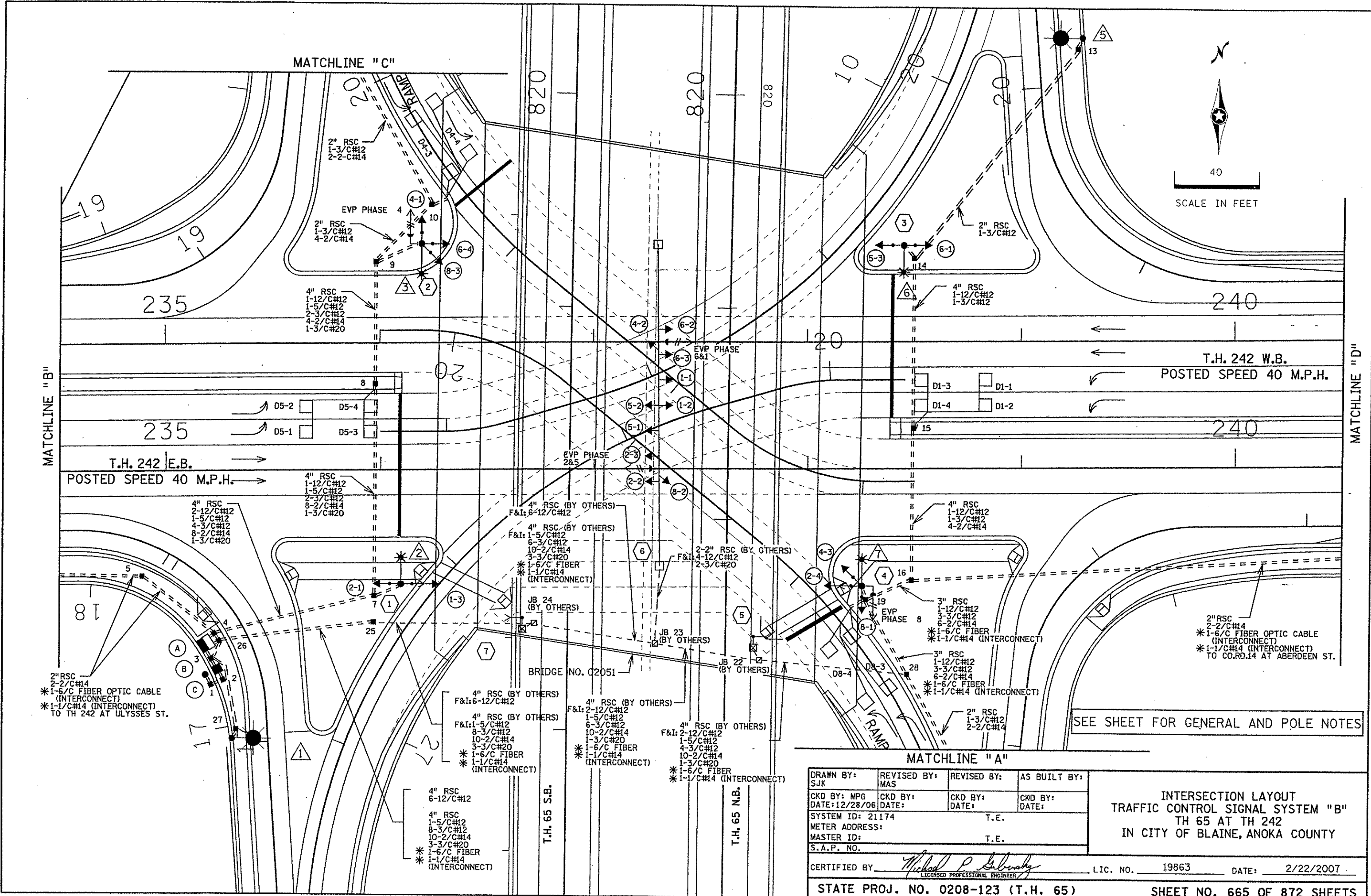
TO SIGNAL CABINET	TO DEVICE
R OR O	R RED
WH OR YEL	O YEL
BLK OR BL	BL BLK
	WH WH
	R/BLK R/BLK
	O/BLK O/BLK
	BL/BLK BL/BLK
	WH/BLK WH/BLK
	BLK/WH BLK/WH
	G/BLK G/BLK
	G G
	R RED
	O YEL
	BL BLK
	WH WH
	DWK DWK
	WLK WLK
	WH WH
	BLK BLK
	SPR SPR
	R RED
	O YEL
	BL BLK
	WH WH
	BLK BLK
	WH WH
	NEU NEU

NOTE:
ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY:	CKD BY:	CKD BY:
DATE: 12/28/06	DATE:	DATE:	DATE:
SYSTEM ID:	T.E.		
METER ADDRESS:	T.E.		
MASTER ID:	T.E.		
S.A.P. NO.	T.E.		
CERTIFIED BY: <i>Michael P. Labinsky</i>	LIC. NO. 19863	DATE: 2/22/2007	

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 664 OF 872 SHEETS

WIRING DIAGRAM
TRAFFIC CONTROL SIGNAL SYSTEM "A"
TH 242 AT ULYSSES ST.
IN CITY OF BLAINE, ANOKA COUNTY



FILENAME: S:\TRAFFIC\SIGNAL\Des\gn\p\lms\TH 65\21174\SP 0208-123\System B\System B...dgn
 PLOTTED: 11-APR-2007 08:40
 sys b POLE NOTES

A E.B. STA. 235+17, 83' RT.
 INSTALL CONTROLLER CABINET (FURNISHED BY ANOKA COUNTY)
 CABINET FOUNDATION
 3/4" PVC CONDUIT STUBBED OUT
 (CAPPED AT BOTH ENDS FOR FUTURE TELEPHONE LINE)
 F&I: 2-3" RSC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)
 EXTEND INTO HH 3:
 METERED SIGNAL SERVICE
 2" RSC
 3-1/C#6
 EXTEND INTO HH 4:
 3" RSC
 2-12/C#12
 1-5/C#12
 2-3/C#12
 10-2/C#14
 1-3/C#20
 * 1-6/C FIBER OPTIC CABLE (INTERCONNECT)
 * 1-1/C#14 (INTERCONNECT)
 EXTEND INTO HH 26: EXTEND INTO HH 26:
 3" RSC 3" RSC
 1-5/C#12 6-12/C#12
 6-3/C#12
 10-2/C#14
 3-3/C#20
 * 1-6/C FIBER OPTIC CABLE (INTERCONNECT)
 * 1-1/C#14 (INTERCONNECT)

B F&I: E.B. STA. 235+22, 94' RT.
 F&I: SERVICE CABINET
 CABINET FOUNDATION
 EXTEND INTO HH 1 VIA HH 2:
 2" RSC
 3-1/C#2
 EXTEND INTO HH 3:
 2" RSC
 METERED SIGNAL SERVICE
 3-1/C#6
 METERED LUMINAIRE SERVICE
 4-3/C#12
 BETWEEN HH 26 AND HH 4:
 2" RSC
 2-3/C#12
 BETWEEN HH 3 AND HH 27:
 2" RSC
 2-3/C#12
 BETWEEN HH 3 AND HH 26:
 2" RSC
 4-3/C#12

1 E.B. STA. 236+09, 54' RT.
 PA85 POLE FOUNDATION
 TYPE PA85-D40-9 (DAVIT AT 0°)
 2-ONE WAY SIGNALS POLE MOUNTED
 AT 90° AND 270° (SEE DETAIL)
 LUMINAIRE 250W HPS
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 90° (SEE DETAIL)
 1-PEDESTRIAN PUSHBUTTON AND SIGN
 (R10-4b)(IEA, LEFT)
 1-(R9-3a) SIGN FACING POLE #2
 EXTEND INTO HH 7:
 3" RSC
 1-12/C#12
 2-3/C#12

2 W.B. STA. 236+20, 47' LT.
 PA85 POLE FOUNDATION
 TYPE PA85-D40-9 (DAVIT AT 0°)
 3-ONE WAY SIGNALS POLE MOUNTED
 AT 180°, 270° AND 315° (SEE DETAIL)
 LUMINAIRE 250W HPS
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (POLE MOUNTED)
 2-(R9-3a) SIGNS FACING POLES #1 AND #3
 EXTEND INTO HH 9:
 3" RSC
 1-12/C#12
 1-5/C#12
 3-3/C#12
 1-3/C#20

3 W.B. STA. 238+45, 46' LT.
 PA85 POLE FOUNDATION
 TYPE PA85-D40-9 (DAVIT AT 0°)
 2-ONE WAY SIGNALS POLE MOUNTED
 AT 90° AND 270° (SEE DETAIL)
 LUMINAIRE 250W HPS
 2-(R9-3a) SIGNS FACING POLE #2 AND #4
 EXTEND INTO HH 14:
 3" RSC
 1-12/C#12
 2-3/C#12

4 E.B. STA. 238+25, 56' RT.
 PA85 POLE FOUNDATION
 TYPE PA85-D40-9 (DAVIT AT 0°)
 3-ONE WAY SIGNALS POLE MOUNTED
 AT 180°, 270° AND 315° (SEE DETAIL)
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (POLE MOUNTED)
 LUMINAIRE 250W HPS
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 270° (SEE DETAIL)
 1-PEDESTRIAN PUSHBUTTON AND SIGN
 (R10-4b)(IEA, RIGHT)
 1-(R9-3a) SIGN FACING POLE #3
 EXTEND INTO HH 19:
 3" RSC
 1-12/C#12
 1-5/C#12
 4-3/C#12
 1-3/C#20

C S.O.P. GROUND MOUNTED TRANSFORMER TO BE
 FURNISHED AND INSTALLED BY CONNEXUS ENERGY
 (LOCATION SHOWN IS APPROXIMATE)
 EXTEND INTO HH 1:
 2" RSC
 3-1/C#2

5 E.B. STA. 237+75, 85' RT.
 13' PEDESTAL AND BASE (SEE SPECIAL PROVISIONS FOR
 PEDESTAL SUPPORT, ANCHORS AND BOLTS)
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 90°
 1-PEDESTRIAN PUSH BUTTON AND SIGN
 (R10-4b)(IEA, LEFT)
 EXTEND INTO JUNCTION BOX 22 (BY OTHERS):
 1 1/2" RSC (BY OTHERS)
 F&I: 2-3/C#12

6 E.B. STA. 237+27, 54' RT.
 OVERHEAD TRAFFIC SIGNAL SUPPORT AND BASE (SEE DETAIL SHEETS)
 10-ONE WAY SIGNALS OVERHEAD
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASES 2&5
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT PHASES 6&1
 2- TYPE D SIGNS
 EXTEND INTO JUNCTION BOX 23 (BY OTHERS):
 2-2" RSC (BY OTHERS)
 F&I: 4-12/C#12
 2-3/C#20

7 E.B. STA. 236+66, 76' RT.
 13' PEDESTAL AND BASE (SEE SPECIAL PROVISIONS FOR
 PEDESTAL SUPPORT, ANCHORS AND BOLTS)
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 270°
 1-PEDESTRIAN PUSH BUTTON AND SIGN
 (R10-4b)(IEA, RIGHT)
 EXTEND INTO JUNCTION BOX 24 (BY OTHERS):
 1 1/2" RSC (BY OTHERS)
 F&I: 2-3/C#12

1 E.B. STA. 235+31, 127' RT.
 1-LIGHTING UNIT TYPE 6B-40
 EXTEND INTO HH 27:
 2" RSC
 2-3/C#12

5 W.B. STA. 239+26, 143' LT.
 1-LIGHTING UNIT TYPE 6B-40
 EXTEND INTO HH 13:
 2" RSC
 1-3/C#12

4 W.B. STA. 235+46, 158' LT.
 1-LIGHTING UNIT TYPE 6B-40
 EXTEND INTO HH 12:
 2" RSC
 1-3/C#12

8 E.B. STA. 254+00, 158' RT.
 1-LIGHTING UNIT TYPE 6B-40
 EXTEND INTO HH 21:
 2" RSC
 1-3/C#12

GENERAL NOTES:

- 1) LOCATION OF POLES, CONTROLLER CABINET, SERVICE CABINET, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY ANOKA COUNTY TRAFFIC PERSONNEL.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION "FILLED" HAND/WALKING PERSON INDICATIONS.
- 7) ALL VEHICLE SIGNAL INDICATIONS, AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
- 8) SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED & INSTALLED BY CONTRACTOR (INCIDENTAL).
- 9) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED AS INDICATED.
- 10) CONTRACTOR SHALL COORDINATE ALL TRAFFIC SIGNAL INSTALLATION WORK WITH ROAD CONSTRUCTION TO BE COMPLETED BY OTHERS AS PART OF ENTIRE PROJECT.
- 11) ALL MAST ARM POLE AND PEDESTAL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE MOUNTED USING ONE-WAY SIGNAL HEAD MOUNTS. SEE SPECIAL PROVISIONS.
- 12) ITEMS DENOTED BY (INTERCONNECT) SHALL BE PAID FOR AS PART OF THE INTERCONNECT SYSTEM PAY ITEM.
- 13) STRIPING IS TO BE COMPLETE BY OTHERS AND PAID FOR SEPARATELY. SEE STRIPING PLAN FOR REFERENCE.
- 14) INTERCONNECT ITEMS ARE DESIGNATED BY * AND ARE PART OF THE INTERCONNECT PAY ITEM.
- 15) BRIDGE MOUNTED SIGNAL ITEMS ARE LABELED "BY OTHERS", AND ARE PAID FOR SEPARATELY. SEE BRIDGE PLAN FOR REFERENCE.
- 16) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION.

DRAWN BY: MAS/SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	GENERAL AND POLE NOTES TRAFFIC CONTROL SIGNAL SYSTEM "B" TH 65 AT TH 242 IN CITY OF BLAINE, ANOKA COUNTY
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
SYSTEM ID: 21174		T.E.		
METER ADDRESS:		T.E.		
MASTER ID:				
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Selinsky</i>		LIC. NO. 19863		DATE: 3/11/2007
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 666 OF 872 SHEETS

SYSTEMB

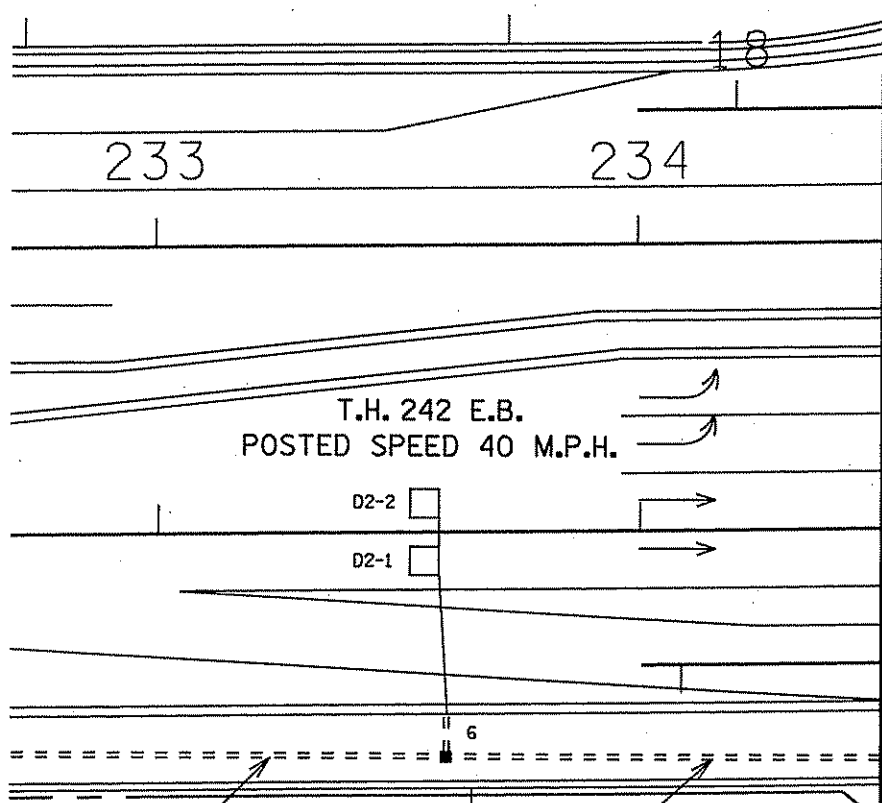
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PLOTTED: 22-FEB-2007 12:04

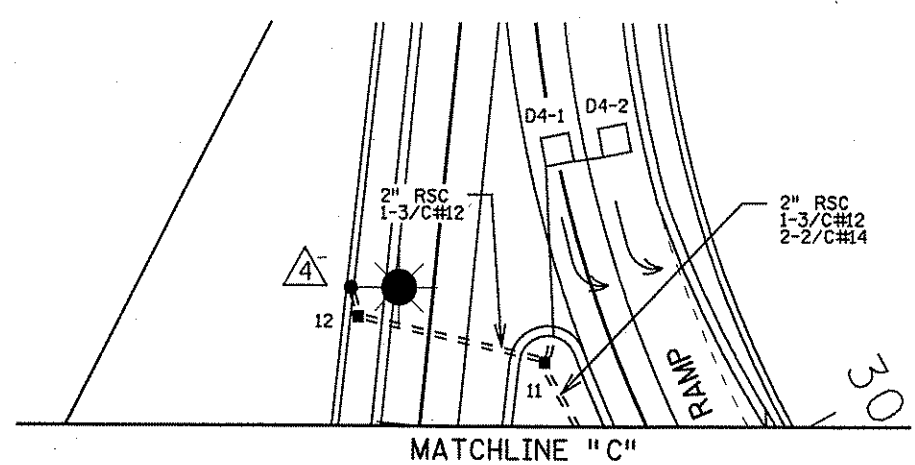
LOOP DETECTOR CHART			
NUMBER	SIZE (FT)	LOCATION	FUNCTION
D1-1,D1-2	6X6	40'	1
D1-3,D1-4	6X6	10'	1
D2-1,D2-2	6X6	250'	1
D4-1,D4-2	6X6	120'	3 & 8
D4-3,D4-4	2-6X6	10'&40'	1
D5-1,D5-2	6X6	40'	1
D5-3,D5-4	6X6	10'	1
D6-1,D6-2	6X6	250'	1
D8-1,D8-2	6X6	120'	3 & 8
D8-3,D8-4	2-6X6	10'&40'	1

- LOOP DETECTORS FUNCTIONS:
- 1) CALL AND EXTEND
 - 2) CALL ONLY
 - 3) EXTEND ONLY
 - 4) CALL ONLY DENSITY
 - 5) DELAYED CALL ONLY
 - 6) DELAYED CALL ONLY DENSITY
 - 7) DELAYED CALL- IMMEDIATE EXTEND
 - 8) CARRY OVER (STRETCH)
 - 9) ADVISORY DETECTOR
 - 10) SAMPLING DETECTOR
 - 11) SPECIAL DETECTOR

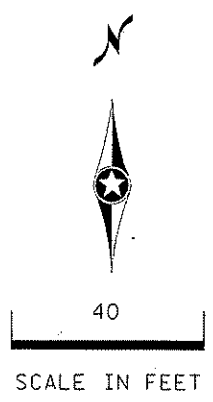
-LOCATION IS DISTANCE FROM STOP LINE TO FRONT OF LOOP DETECTOR IN FEET.
 -ALL LOOP DETECTORS SHALL BE N.M.C., #12 AWG



MATCHLINE "B"



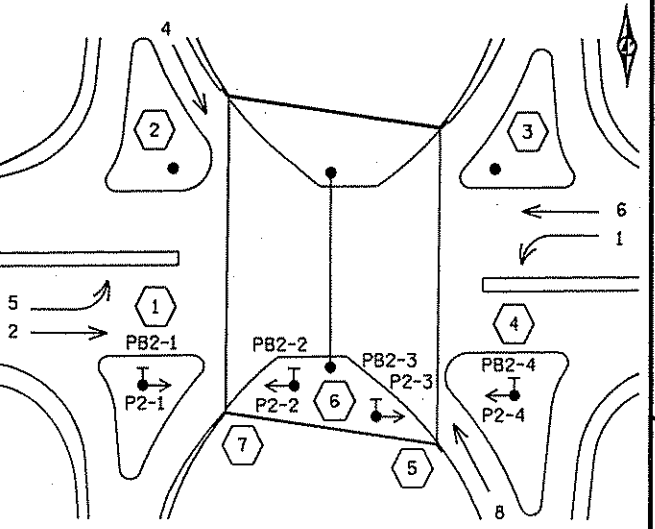
MATCHLINE "C"



SIGNAL FACES				
FACE	R	Y	G	
1-1,1-2,1-3	←	←	←	
2-1,2-2,2-3,2-4	●	●	●	
4-1,4-2,4-3	←	←	←	
5-1,5-2,5-3	←	←	←	
6-1,6-2,6-3,6-4	●	●	●	
8-1,8-2,8-3	←	←	←	

-ALL SIGNAL INDICATIONS SHALL BE 12"
 -ALL SIGNAL INDICATIONS SHALL BE LED
 -ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD

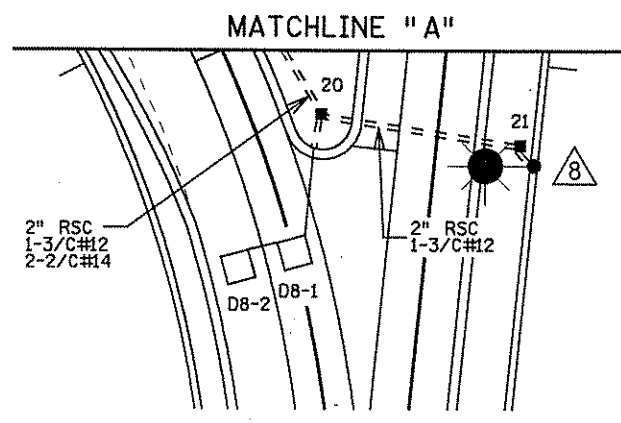
CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS



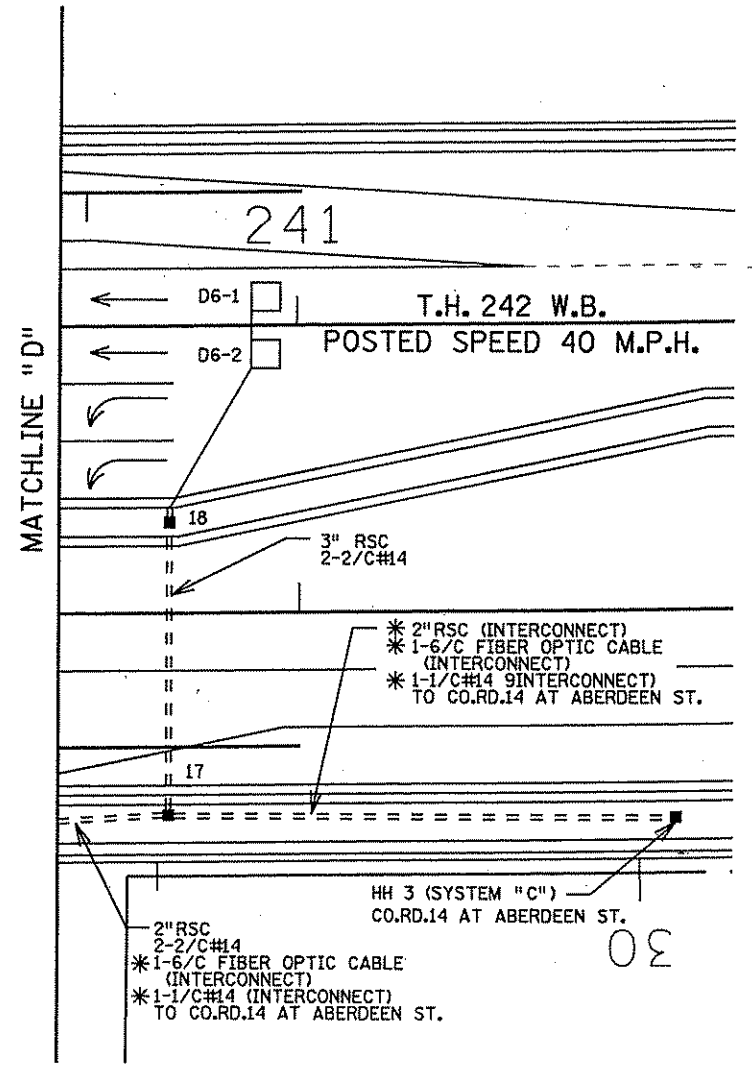
PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 6 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES.



MATCHLINE "A"



MATCHLINE "D"

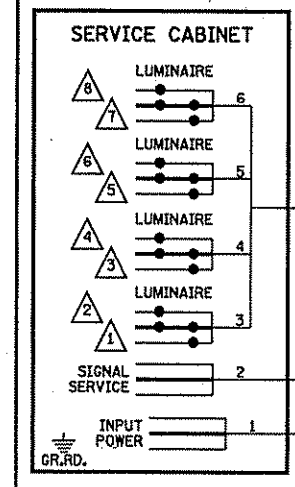
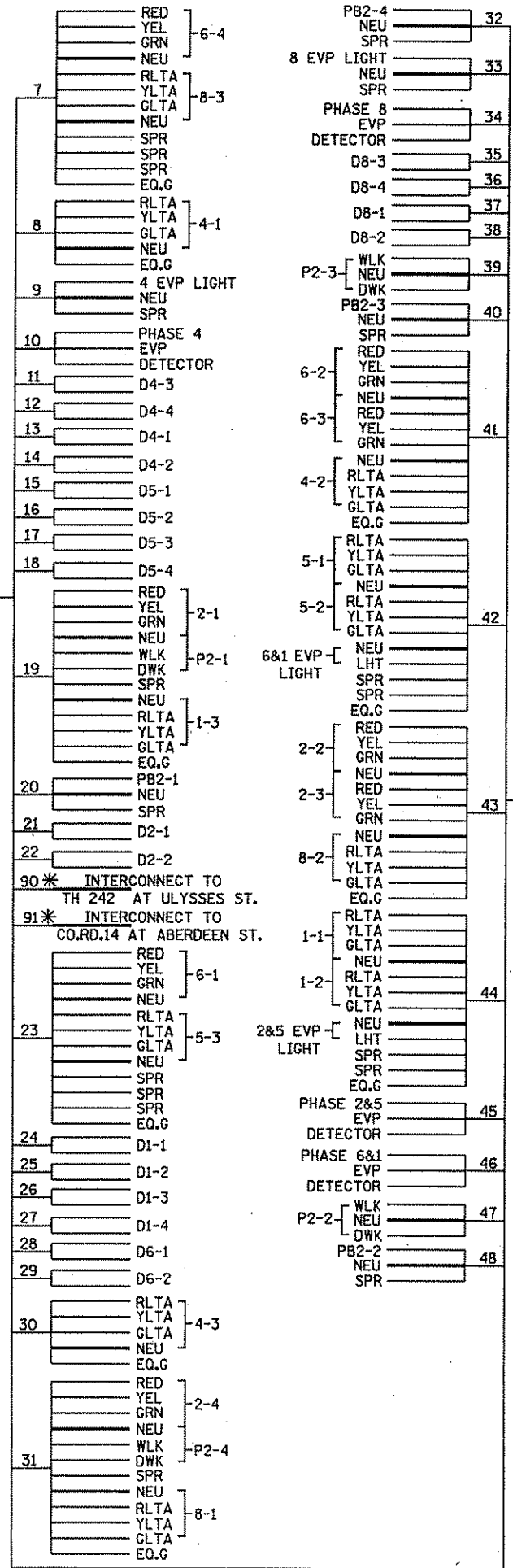
SEE NEXT SHEET FOR GENERAL AND POLE NOTES

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY:MPG DATE:12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 21174		T.E.	
METER ADDRESS:		T.E.	
MASTER ID:			
S.A.P. NO.			

MATCHLINES AND CHARTS
 TRAFFIC CONTROL SIGNAL SYSTEM "B"
 TH 65 AT TH 242
 IN CITY OF BLAINE, ANOKA COUNTY

CERTIFIED BY *Michael P. Selinsky* LIC. NO. 19863 DATE: 2/22/2007
 LICENSED PROFESSIONAL ENGINEER

CONTROLLER CABINET



DRAWN BY: SJK	REVISED BY: MAS	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY:	CKD BY:	CKD BY:
DATE: 12/28/06	DATE:	DATE:	DATE:
SYSTEM ID: 21174		T.E.	
METER ADDRESS:		T.E.	
MASTER ID:		T.E.	
S.A.P. NO.			

CERTIFIED BY: *Michael P. Subraby* LIC. NO. 19863 DATE: 2/22/2007

STATE PROJ. NO. 0208-123 (T.H. 65) SHEET NO. 668 OF 872 SHEETS

CONDUCTOR COLOR CODE

TO SIGNAL CABINET	TO DEVICE
3/C#20 R OR O WH OR YEL BLK OR BL	7/C#14 CABLE R RED O YEL BL GRN WH NEU Y YLTA BLK GLTA BRN SPR
2/C#14 BLK CLR	5/C#14 CABLE R RED BL YEL WH GRN BLK NEU G GLTA
2-1/C BLK WH	4/C#14 CABLE R DWK BL WLK WH NEU G SPR
6PR#19	2/C#14 CABLE R WH BLK EVF/PB/FLASHER BLK NEU

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

WIRING DIAGRAM
TRAFFIC CONTROL SIGNAL SYSTEM "B"
TH 65 AT TH 242.
IN CITY OF BLAINE, ANOKA COUNTY

SYSTEMC

FILENAME: S:\TRAFFIC\Signal Des\gn\Staff\Sand1\Mar\mm\65at242\SYSTEMC.DGN

PLOTTED: 22-FEB-2007 12:52

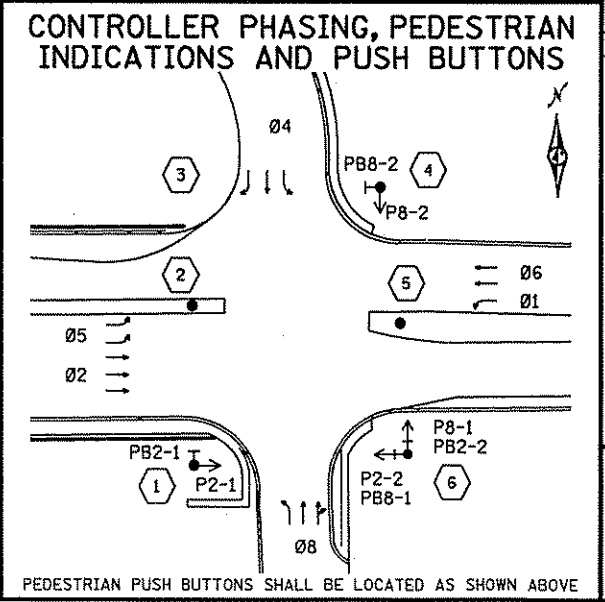
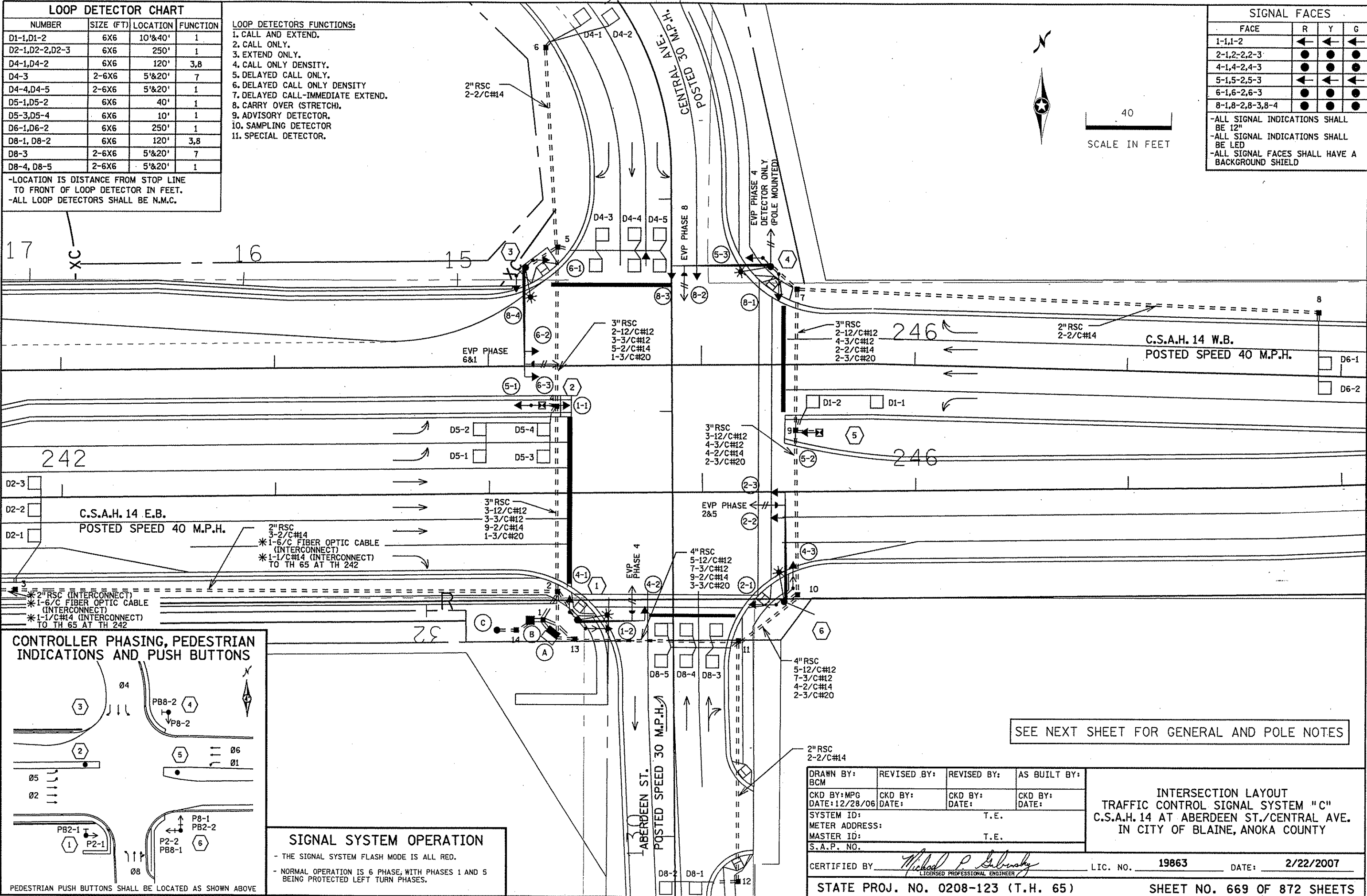
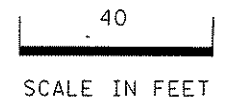
LOOP DETECTOR CHART			
NUMBER	SIZE (FT)	LOCATION	FUNCTION
D1-1,D1-2	6X6	10'&40'	1
D2-1,D2-2,D2-3	6X6	250'	1
D4-1,D4-2	6X6	120'	3,8
D4-3	2-6X6	5'&20'	7
D4-4,D4-5	2-6X6	5'&20'	1
D5-1,D5-2	6X6	40'	1
D5-3,D5-4	6X6	10'	1
D6-1,D6-2	6X6	250'	1
D8-1,D8-2	6X6	120'	3,8
D8-3	2-6X6	5'&20'	7
D8-4,D8-5	2-6X6	5'&20'	1

-LOCATION IS DISTANCE FROM STOP LINE TO FRONT OF LOOP DETECTOR IN FEET.
 -ALL LOOP DETECTORS SHALL BE N.M.C.

- LOOP DETECTORS FUNCTIONS:
1. CALL AND EXTEND.
 2. CALL ONLY.
 3. EXTEND ONLY.
 4. CALL ONLY DENSITY.
 5. DELAYED CALL ONLY.
 6. DELAYED CALL ONLY DENSITY
 7. DELAYED CALL-IMMEDIATE EXTEND.
 8. CARRY OVER (STRETCH).
 9. ADVISORY DETECTOR.
 10. SAMPLING DETECTOR
 11. SPECIAL DETECTOR.

SIGNAL FACES			
FACE	R	Y	G
1-1,1-2	←	←	←
2-1,2-2,2-3	●	●	●
4-1,4-2,4-3	●	●	●
5-1,5-2,5-3	←	←	←
6-1,6-2,6-3	●	●	●
8-1,8-2,8-3,8-4	●	●	●

-ALL SIGNAL INDICATIONS SHALL BE 12"
 -ALL SIGNAL INDICATIONS SHALL BE LED
 -ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD



SIGNAL SYSTEM OPERATION

- THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
- NORMAL OPERATION IS 6 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES.

SEE NEXT SHEET FOR GENERAL AND POLE NOTES

DRAWN BY: BCM	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY:MPG DATE:12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID:		T.E.	
METER ADDRESS:		T.E.	
MASTER ID:		T.E.	
S.A.P. NO.			
CERTIFIED BY: <i>Michael P. Selinsky</i>		LIC. NO. 19863	DATE: 2/22/2007
STATE PROJ. NO. 0208-123 (T.H. 65)			SHEET NO. 669 OF 872 SHEETS

INTERSECTION LAYOUT
TRAFFIC CONTROL SIGNAL SYSTEM "C"
C.S.A.H. 14 AT ABERDEEN ST./CENTRAL AVE.
IN CITY OF BLAINE, ANOKA COUNTY

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21174\SP 0208-123\System C\SYS C_sg\c pole notes
 PLOTTED: 11-APR-2007 08:42

A E.B. STA. 244+29, 67RT.
 INSTALL CONTROLLER CABINET, CONTROLLER AND MASTER CONTROLLER
 (FURNISHED BY ANOKA COUNTY)
 CABINET FOUNDATION
 3/4" PVC CONDUIT STUBBED OUT (CAPPED AT BOTH ENDS FOR FUTURE TELEPHONE LINE)
 2-3" RSC STUBBED OUT (THREADED AND CAPPED BOTH ENDS)
 EXTEND INTO HH 1:
 METERED SIGNAL SERVICE
 2" RSC
 3-1/C#6
 EXTEND INTO HH 2:
 4" RSC
 5-12/C#12
 3-3/C#12
 12-2/C#14
 2-3/C#20
 * 1-6/C FIBER OPTIC CABLE (INTERCONNECT)
 * 1-1/C#14 (INTERCONNECT)
 EXTEND INTO HH 13:
 4" RSC
 5-12/C#12
 5-3/C#12
 9-2/C#14
 3-3/C#20

B E.B. STA. 244+19, 60' RT.
 SERVICE CABINET
 CABINET FOUNDATION
 EXTEND INTO HH 14:
 2" RSC
 3-1/C#2
 EXTEND INTO HH 1:
 2" RSC
 METERED SIGNAL SERVICE
 3-1/C#6
 METERED LUMINAIRE SERVICE
 4-3/C#12
 BETWEEN HH 1 AND HH 2:
 2" RSC
 2-3/C#12
 BETWEEN HH 1 AND HH 13:
 2" RSC
 2-3/C#12

C S.O.P. GROUND MOUNTED TRANSFORMER TO BE
 FURNISHED AND INSTALLED BY CONNEXUS ENERGY
 (LOCATION SHOWN IS APPROXIMATE)
 EXTEND INTO HH 14:
 2" RSC
 3-1/C#2

1 E.B. STA. 244+41, 59' RT.
 PA90 POLE FOUNDATION
 TYPE PA90-A-30-D40-9 (DAVIT AT 350")
 1-ONE WAY SIGNAL OVERHEAD
 (0' FROM THE END OF MASTARM)
 2-ONE WAY SIGNALS POLE MOUNTED AT 45° AND 225° (RC DESIGN)
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 45°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 TYPE D SIGN
 1-PEDESTRIAN PUSH BUTTON AND SIGN
 (R10-4b) (1EA. LEFT)
 1-(R9-3a) SIGN FACING POLE 2
 EXTEND INTO HH 2:
 3" RSC
 2-12/C#12
 3-3/C#12
 1-3/C#20

2 E.B. STA. 244+41, 42' LT.
 13' PEDESTAL AND BASE
 PEDESTAL FOUNDATION
 2-ONE WAY SIGNALS POLE MOUNTED
 AT 0° AND 180°
 2-(R9-3a) SIGNS FACING POLES 1&3
 EXTEND INTO HH 4:
 3" RSC
 1-12/C#12

3 W.B. STA. 244+17, 47' LT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9 (DAVIT AT 350")
 1-ONE WAY SIGNALS OVERHEAD
 (0' FROM THE END OF MASTARM)
 2-ONE WAY SIGNALS POLE MOUNTED AT 45° AND 225° (RC DESIGN)
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 TYPE D SIGN
 2-(R9-3a) SIGNS FACING POLES 2&4
 EXTEND INTO HH 5:
 3" RSC
 3-12/C#12
 2-3/C#12
 1-3/C#20

4 W.B. STA. 245+32, 46' LT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-45-D40-9 (DAVIT AT 350")
 2-ONE WAY SIGNALS OVERHEAD
 (0' & 11' FROM THE END OF MASTARM)
 2-ONE WAY SIGNALS POLE MOUNTED AT 45° AND 225° (RC DESIGN)
 1-PEDESTRIAN INDICATION POLE MOUNTED AT 225°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 ONE WAY EVP DETECTOR ONLY PHASE 4 (POLE MOUNTED 17' HIGH AT 90°)
 LUMINAIRE 250W HPS
 TYPE D SIGN
 1-PEDESTRIAN PUSH BUTTONS AND SIGNS
 (R10-4b) (1EA. RIGHT)
 1-(R9-3a) SIGN FACING POLE 3
 EXTEND INTO HH 7:
 3" RSC
 2-12/C#12
 3-3/C#12
 2-3/C#20

5 E.B. STA. 245+54, 28' LT.
 13' PEDESTAL AND BASE
 PEDESTAL FOUNDATION
 1-ONE WAY SIGNAL POLE MOUNTED AT 0°
 2- PEDESTRIAN INDICATIONS MOUNTED AT 90° AND 270°
 1-PEDESTRIAN PUSH BUTTON AND SIGN
 (R10-4b, 1EA. DH)
 EXTEND INTO HH 9:
 3" RSC
 1-12/C#12
 1-3/C#12

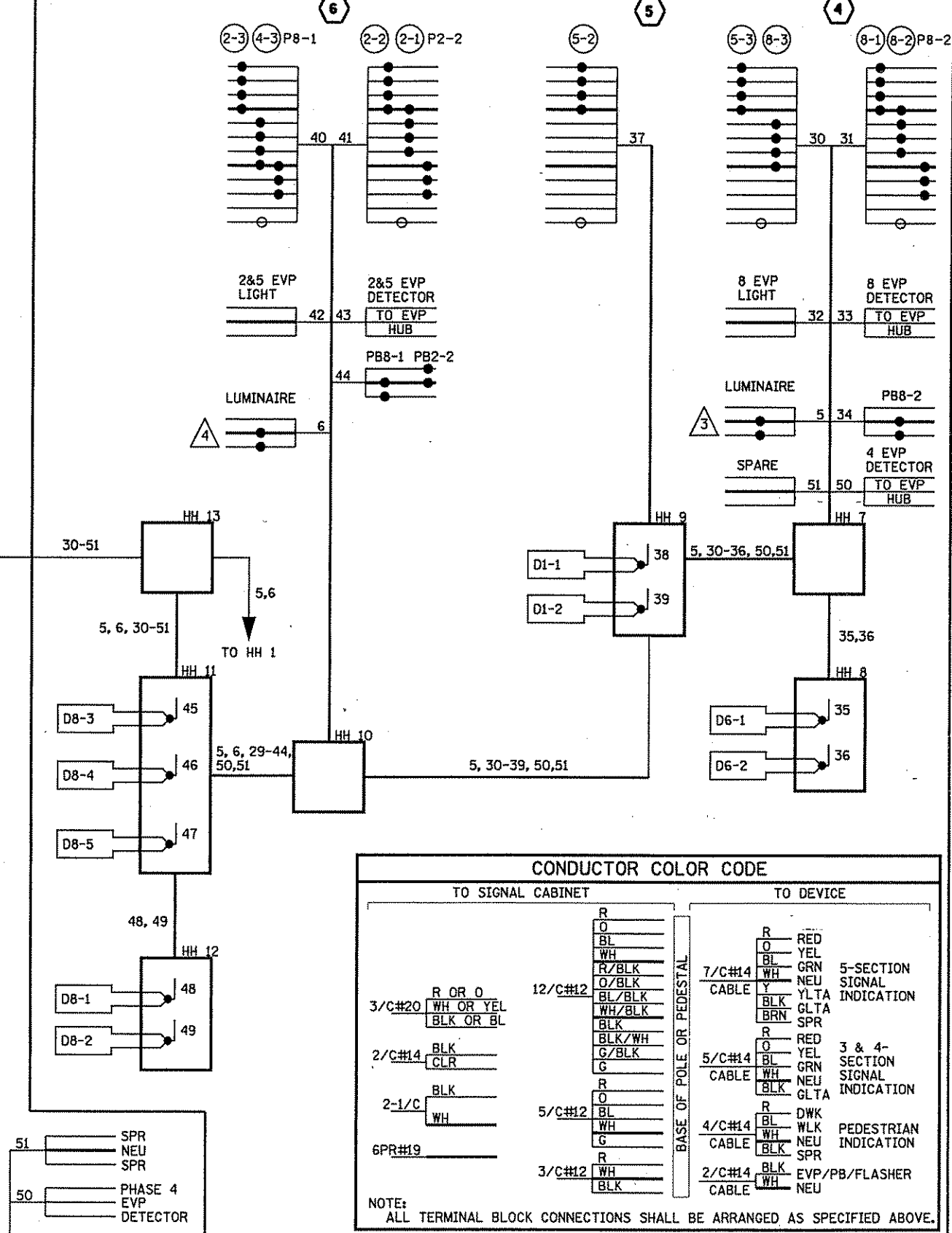
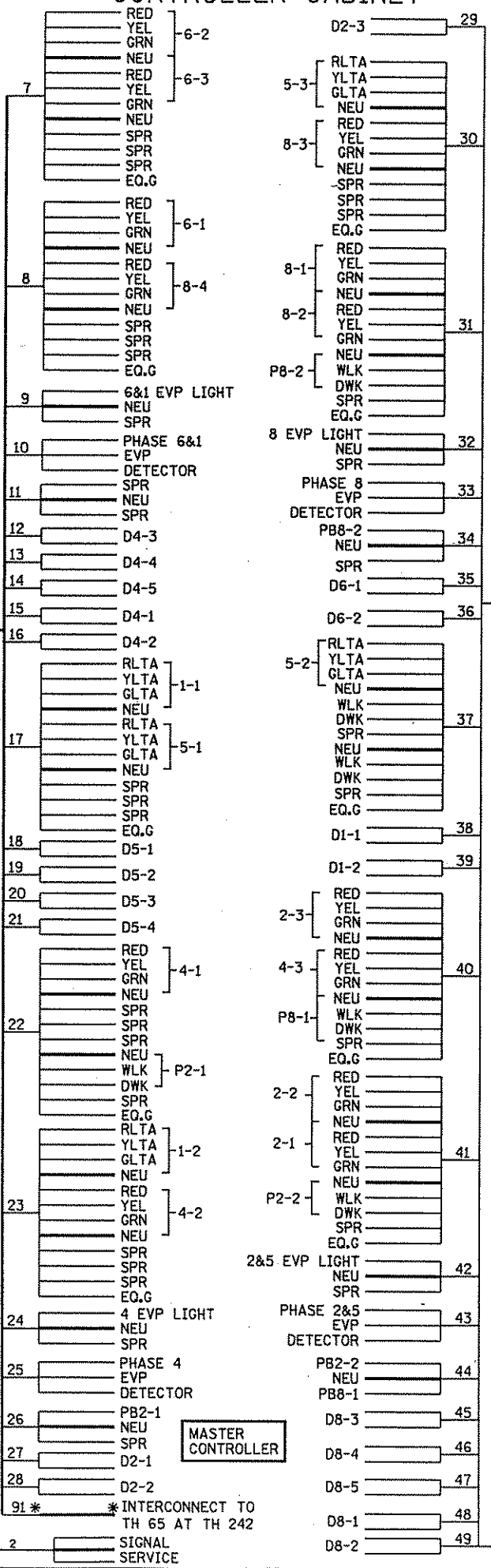
6 E.B. STA. 245+38, 50' RT.
 PA100 POLE FOUNDATION
 TYPE PA100-A-50-D40-9 (DAVIT AT 350")
 2-ONE WAY SIGNALS OVERHEAD
 (0' AND 11' FROM THE END OF MASTARM)
 2-ONE WAY SIGNALS POLE MOUNTED AT 45° AND 225°
 2-PEDESTRIAN INDICATIONS POLE MOUNTED AT 45° AND 225°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE 250W HPS
 TYPE D SIGN
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS
 2 (R10-4b) (1 EA. LEFT AND RIGHT)
 EXTEND INTO HH 10:
 3" RSC
 2-12/C#12
 3-3/C#12
 1-3/C#20

GENERAL NOTES:

- 1) LOCATION OF POLES, CONTROLLER CABINET, SERVICE CABINET, LOOP DETECTORS AND HANDHOLES SHALL BE DETERMINED IN THE FIELD BY ANOKA COUNTY TRAFFIC PERSONNEL.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE ONE SECTION "FILLED" HAND/WALKING PERSON INDICATIONS.
- 7) ALL VEHICLE SIGNAL INDICATIONS, AND ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
- 8) SEE SPECIAL PROVISIONS AND DETAILS REGARDING SIGNS TO BE FURNISHED & INSTALLED BY CONTRACTOR (INCIDENTAL).
- 9) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6 FEET FROM THE END OF EACH MAST ARM AND HUB AT 17 FEET HIGH (AT 90°) ON POLE SHAFT NUMBER 2 (FOR EVP).
- 10) CONTRACTOR SHALL COORDINATE ALL TRAFFIC SIGNAL INSTALLATION WORK WITH ROAD CONSTRUCTION TO BE COMPLETED BY OTHERS AS PART OF ENTIRE PROJECT.
- 11) ALL MAST ARM POLE AND PEDESTAL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE MOUNTED USING ONE-WAY SIGNAL HEAD MOUNTS. SEE SPECIAL PROVISIONS.
- 12) STRIPING IS TO BE COMPLETE BY OTHERS AND PAID FOR SEPARATELY. SEE STRIPING PLAN FOR REFERENCE.
- 13) INTERCONNECT ITEMS ARE DESIGNATED BY * AND ARE PART OF THE INTERCONNECT PAY ITEM.
- 14) THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE POWER COMPANY TO ARRANGE FOR THE POWER CONNECTION.

DRAWN BY: BCM	REVISED BY:	REVISED BY:	AS BUILT BY:	POLE NOTES TRAFFIC CONTROL SIGNAL SYSTEM "C" C.S.A.H. 14 AT ABERDEEN ST./CENTRAL AVE. IN CITY OF BLAINE, ANOKA COUNTY
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
SYSTEM ID:	T.E.			
METER ADDRESS: MASTER ID: S.A.P. NO.	T.E.			
CERTIFIED BY: <i>Michael P. Selinsky</i> <small>LICENSED PROFESSIONAL ENGINEER</small>				LIC. NO. 19863 DATE: 3/11/2007
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 670 OF 872 SHEETS

CONTROLLER CABINET

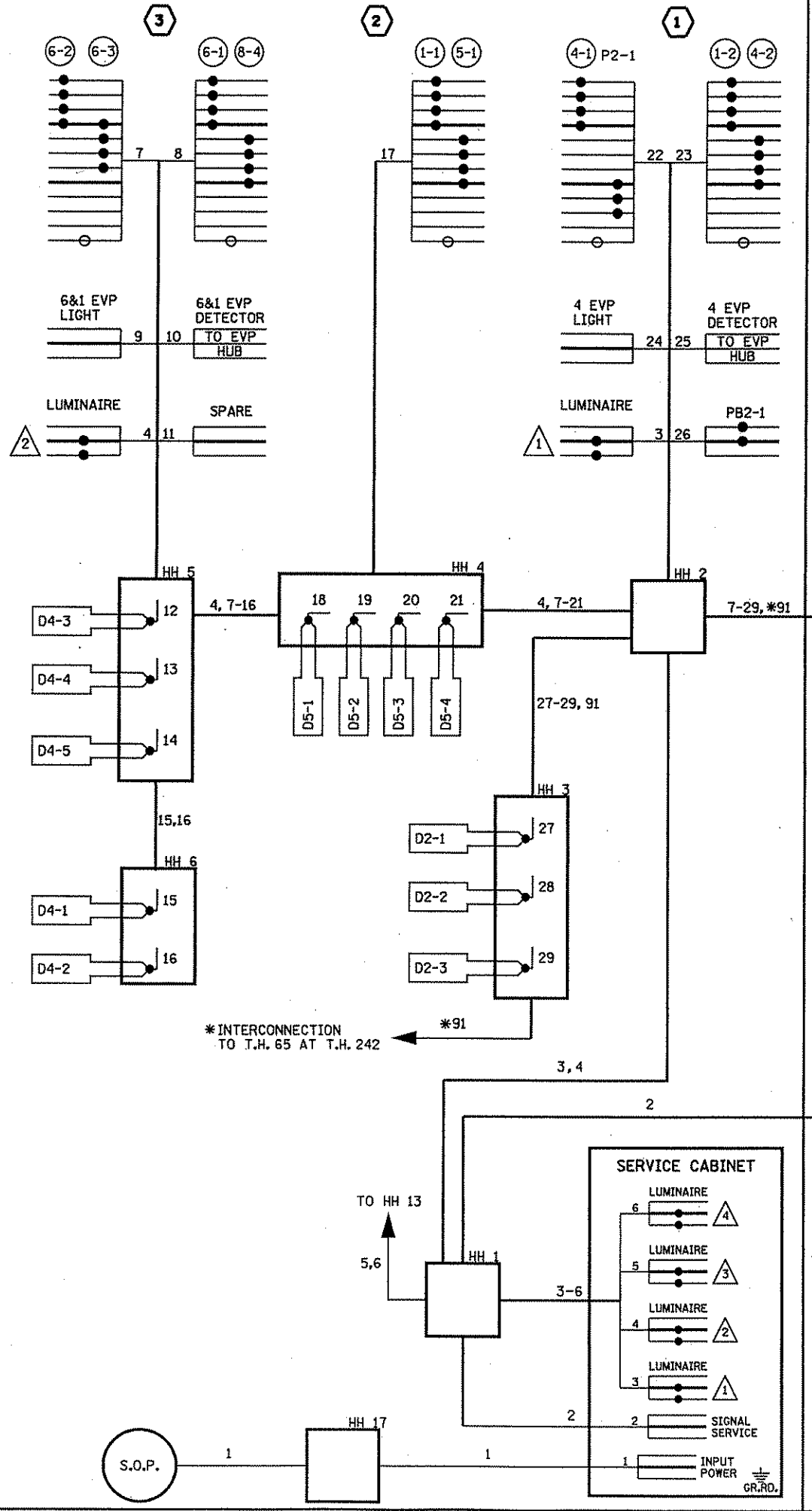


CONDUCTOR COLOR CODE	
TO SIGNAL CABINET	TO DEVICE
3/C#20 R OR O	12/C#12 R
WH OR YEL	O
BLK OR BL	BL
	WH
	R/BLK
	O/BLK
	BL/BLK
	WH/BLK
	BLK
	BLK/WH
	G/BLK
	G
	R
	O
	BL
	WH
	G
	R
	BLK
	WH
	BLK

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE.

DRAWN BY: BCM	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY:	CKD BY:	CKD BY:
DATE: 12/28/06	DATE:	DATE:	DATE:
SYSTEM ID:	T.E.		
METER ADDRESS:	T.E.		
MASTER ID:	T.E.		
S.A.P. NO.			
CERTIFIED BY: <i>Michael P. Subarsky</i>	LIC. NO. 19863	DATE: 2/22/2007	

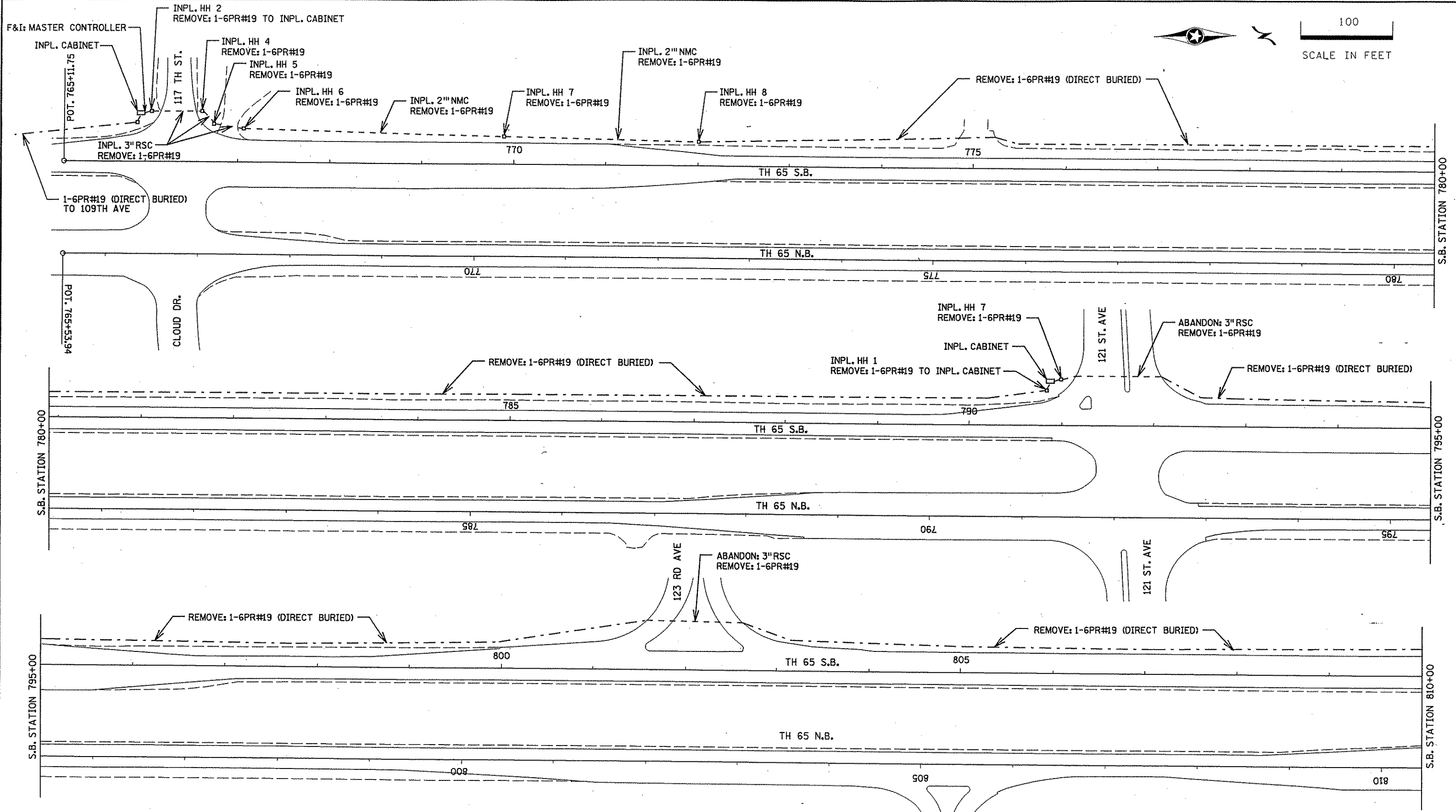
STATE PROJ. NO. 0208-123(T.H.65) SHEET NO. 671 OF 872 SHEETS



cables removals 766+00

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21175\SP 0208-123\T21175\sgl.dgn

PLOTTED: 02-FEB-2007 12:03



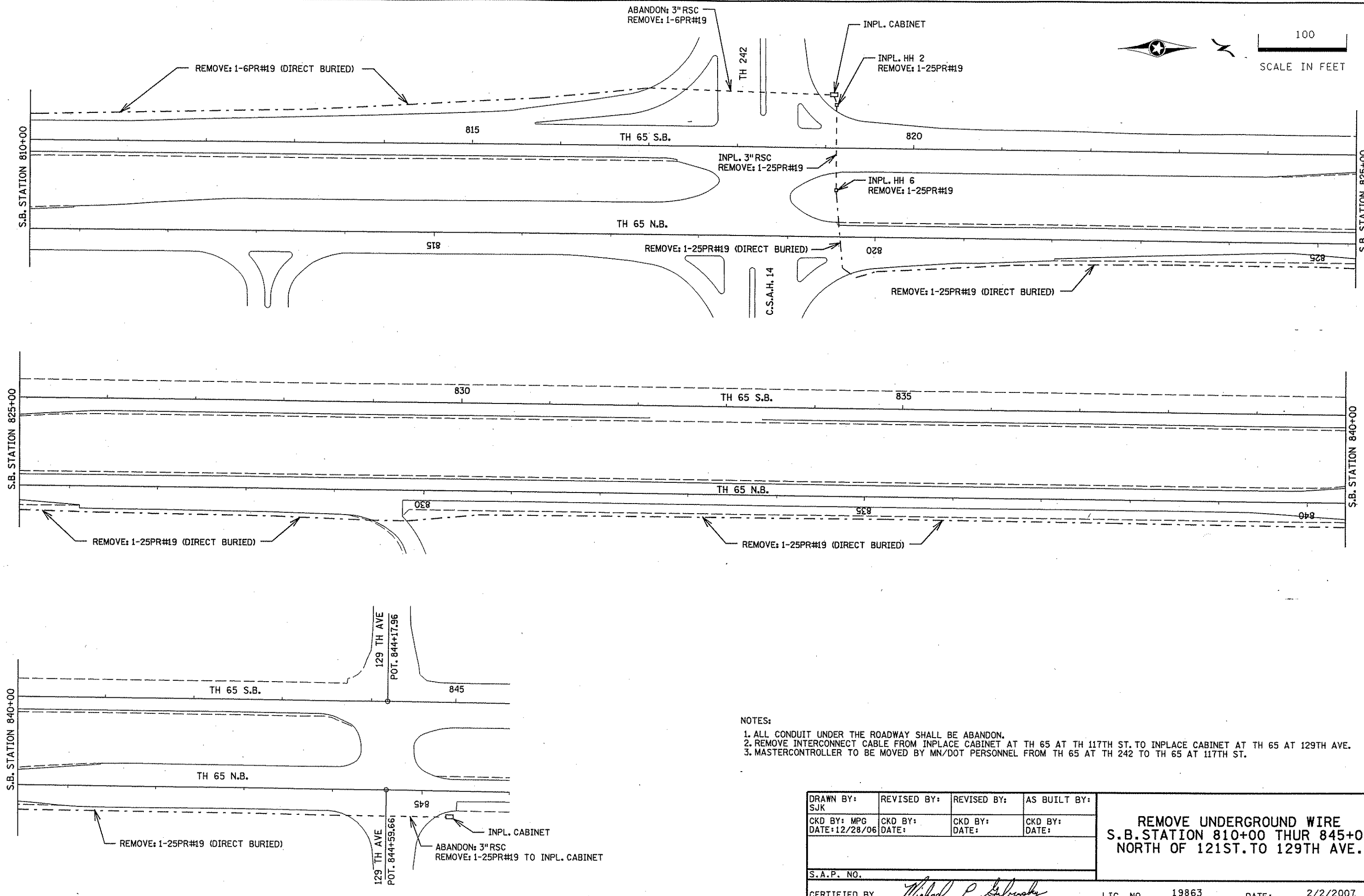
NOTES:

1. ALL CONDUIT UNDER THE ROADWAY SHALL BE ABANDON.
2. REMOVE INTERCONNECT CABLE FROM INPLACE CABINET AT TH 65 AT TH 117TH ST. TO INPLACE CABINET AT TH 65 AT 129TH AVE.
3. MASTERCONTROLLER TO BE MOVED BY MN/DOT PERSONNEL FROM TH 65 AT TH 242 TO TH 65 AT 117TH ST.

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:

**REMOVE UNDERGROUND WIRE
S.B. STATION 766+00 THUR 810+00
117TH ST. TO NORTH OF 121ST. AVE.**

S.A.P. NO. _____
 CERTIFIED BY *Michael P. Salinsky* LIC. NO. 19863 DATE: 2/2/2007
LICENSED PROFESSIONAL ENGINEER



- NOTES:
1. ALL CONDUIT UNDER THE ROADWAY SHALL BE ABANDON.
 2. REMOVE INTERCONNECT CABLE FROM INPLACE CABINET AT TH 65 AT TH 117TH ST. TO INPLACE CABINET AT TH 65 AT 129TH AVE.
 3. MASTERCONTROLLER TO BE MOVED BY MN/DOT PERSONNEL FROM TH 65 AT TH 242 TO TH 65 AT 117TH ST.

DRAWN BY: SJK	REVISED BY:	REVISED BY:	AS BUILT BY:	REMOVE UNDERGROUND WIRE S.B. STATION 810+00 THUR 845+00 NORTH OF 121ST. TO 129TH AVE.
CKD BY: MPG DATE: 12/28/06	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:	
S.A.P. NO.				
CERTIFIED BY: <i>Michael P. Labinsky</i> LICENSED PROFESSIONAL ENGINEER			LIC. NO. 19863	DATE: 2/2/2007
STATE PROJ. NO. 0208-123 (T.H. 65)				SHEET NO. 673 OF 872 SHEETS

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21173\SP 0208-123\T21173\MWR\INFO.sgl.dgn 121st Info layout
 PLOTTED: 02-FEB-2007 12:03

LOOP DETECTORS

NUMBER	SIZE (FEET)	LOCATION
D1-1	2-6X6	5'x35'
D2-1	6X6	475'
D2-2	6X6	475'
*D4-1	6X6	120'
*D4-2	6X6	120'
D7-1	2-6X6	5'x35'
D4-4	6X6	5'
D4-5	6X6	5'
D4-6	3-6X6	3'x15'x30'
D5-1	2-6X6	5'x20'
D6-1	6X6	475'
D6-2	6X6	475'
*D8-1	6X6	120'
D8-3	6X6	5'
*D3-1	2-6X6	5'x20'

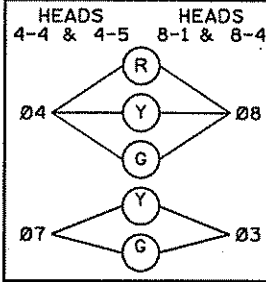
* INDICATES NMC LOOP DETECTORS

SIGNAL FACES

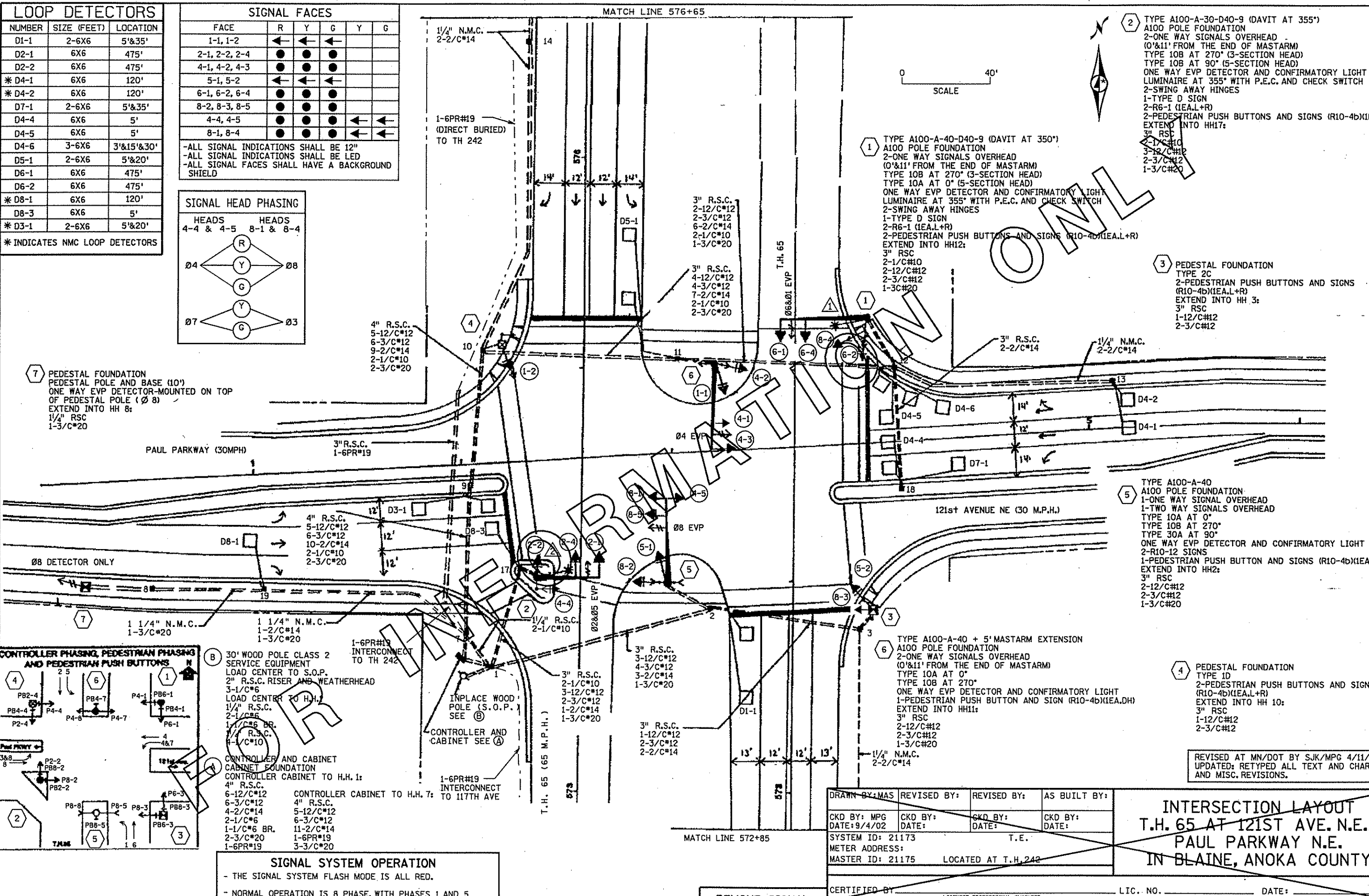
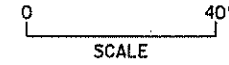
FACE	R	Y	G	Y	G
1-1, 1-2	←	←	←		
2-1, 2-2, 2-4	●	●	●		
4-1, 4-2, 4-3	●	●	●		
5-1, 5-2	←	←	←		
6-1, 6-2, 6-4	●	●	●		
8-2, 8-3, 8-5	●	●	●		
4-4, 4-5	●	●	●	←	←
8-1, 8-4	●	●	●	←	←

-ALL SIGNAL INDICATIONS SHALL BE 12"
 -ALL SIGNAL INDICATIONS SHALL BE LED
 -ALL SIGNAL FACES SHALL HAVE A BACKGROUND SHIELD

SIGNAL HEAD PHASING



MATCH LINE 576+65



2 TYPE A100-A-30-D40-9 (DAVIT AT 355')
 A100 POLE FOUNDATION
 2-ONE WAY SIGNALS OVERHEAD
 (0'x11' FROM THE END OF MASTARM)
 TYPE 10B AT 270° (3-SECTION HEAD)
 TYPE 10B AT 90° (5-SECTION HEAD)
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE AT 355' WITH P.E.C. AND CHECK SWITCH
 2-SWING AWAY HINGES
 1-TYPE D SIGN
 2-R6-1 (IEA.L+R)
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)(IEA.L+R)
 EXTEND INTO HH17:
 3" RSC
 1-12/C#12
 2-3/C#12
 1-3/C#20

1 TYPE A100-A-40-D40-9 (DAVIT AT 350')
 A100 POLE FOUNDATION
 2-ONE WAY SIGNALS OVERHEAD
 (0'x11' FROM THE END OF MASTARM)
 TYPE 10B AT 270° (3-SECTION HEAD)
 TYPE 10A AT 0° (5-SECTION HEAD)
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 LUMINAIRE AT 355' WITH P.E.C. AND CHECK SWITCH
 2-SWING AWAY HINGES
 1-TYPE D SIGN
 2-R6-1 (IEA.L+R)
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS (R10-4b)(IEA.L+R)
 EXTEND INTO HH12:
 3" RSC
 2-1/C#10
 2-12/C#12
 2-3/C#12
 1-3C#20

3 PEDESTAL FOUNDATION
 TYPE 2C
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS
 (R10-4b)(IEA.L+R)
 EXTEND INTO HH 3:
 3" RSC
 1-12/C#12
 2-3/C#12

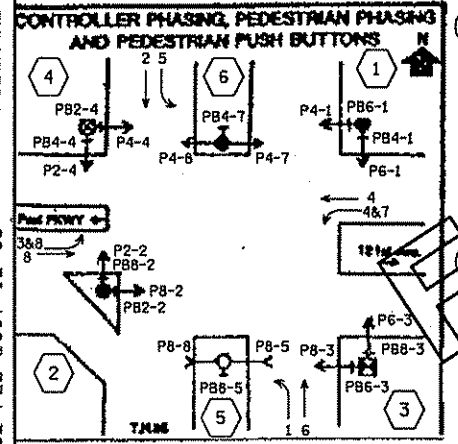
7 PEDESTAL FOUNDATION
 PEDESTAL POLE AND BASE (10')
 ONE WAY EVP DETECTOR MOUNTED ON TOP
 OF PEDESTAL POLE (Ø 8)
 EXTEND INTO HH 8:
 1 1/2" RSC
 1-3/C#20

5 TYPE A100-A-40
 A100 POLE FOUNDATION
 1-ONE WAY SIGNAL OVERHEAD
 1-TWO WAY SIGNALS OVERHEAD
 TYPE 10A AT 0°
 TYPE 10B AT 270°
 TYPE 30A AT 90°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 2-R10-12 SIGNS
 1-PEDESTRIAN PUSH BUTTON AND SIGNS (R10-4b)(IEA.DH)
 EXTEND INTO HH2:
 3" RSC
 2-12/C#12
 2-3/C#12
 1-3/C#20

6 TYPE A100-A-40 + 5' MASTARM EXTENSION
 A100 POLE FOUNDATION
 2-ONE WAY SIGNALS OVERHEAD
 (0'x11' FROM THE END OF MASTARM)
 TYPE 10A AT 0°
 TYPE 10B AT 270°
 ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 1-PEDESTRIAN PUSH BUTTON AND SIGN (R10-4b)(IEA.DH)
 EXTEND INTO HH11:
 3" RSC
 2-12/C#12
 2-3/C#12
 1-3/C#20
 1 1/4" N.M.C.
 2-2/C#14

4 PEDESTAL FOUNDATION
 TYPE 1D
 2-PEDESTRIAN PUSH BUTTONS AND SIGNS
 (R10-4b)(IEA.L+R)
 EXTEND INTO HH 10:
 3" RSC
 1-12/C#12
 2-3/C#12

REVISED AT MN/DOT BY SJK/MPG 4/11/06
 UPDATED: RETYPED ALL TEXT AND CHARTS
 AND MISC. REVISIONS.



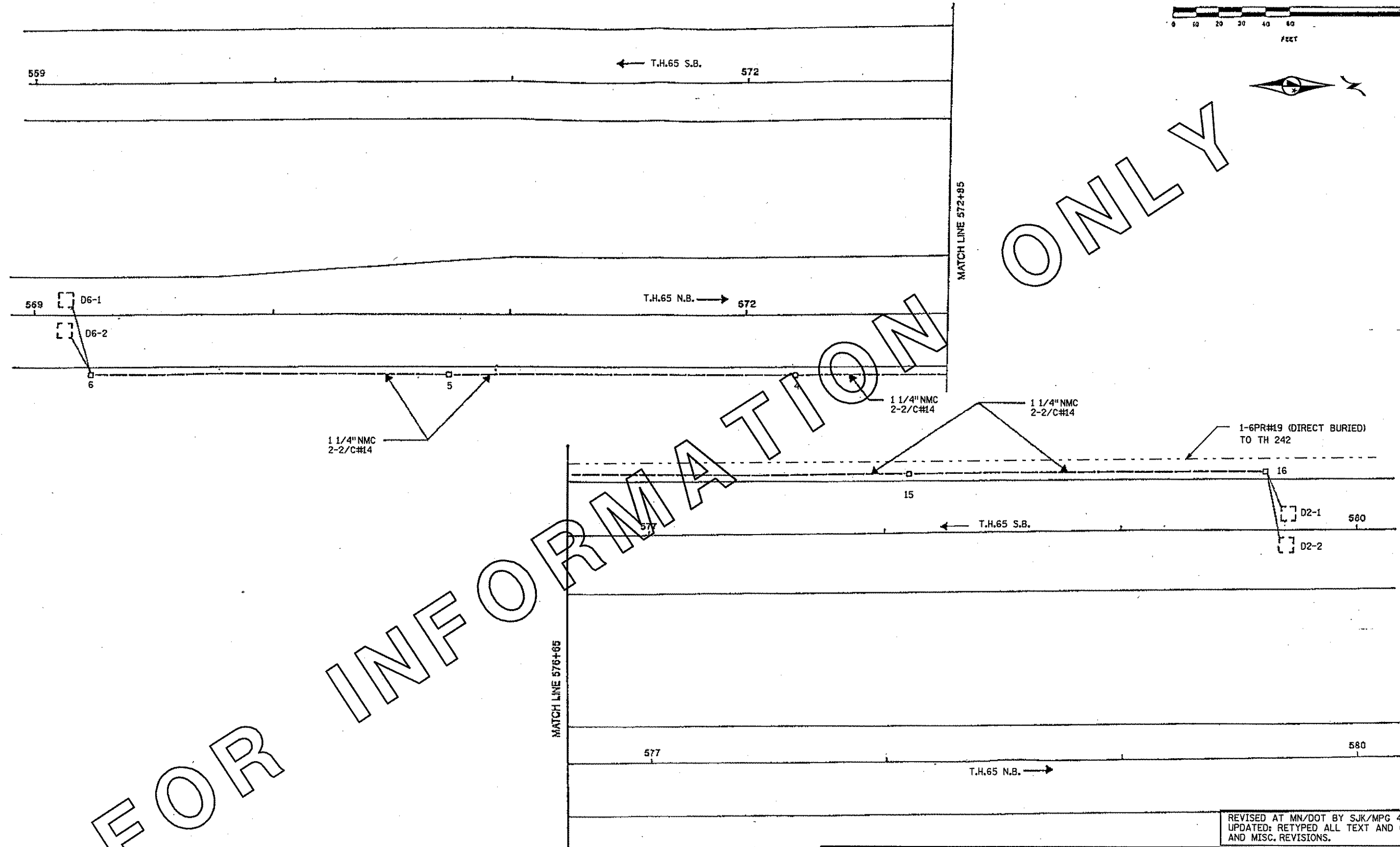
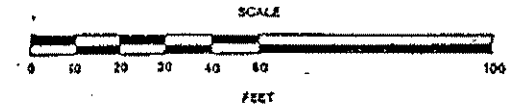
(B) 30' WOOD POLE CLASS 2
 SERVICE EQUIPMENT
 LOAD CENTER TO S.O.P.
 2" R.S.C. RISER AND WEATHERHEAD
 3-1/C#6
 LOAD CENTER TO H.H.1:
 1 1/4" R.S.C.
 2-1/C#6
 1-1/C#6 BR.
 1 1/4" R.S.C.
 1-1/C#10
 CONTROLLER AND CABINET
 CABINET FOUNDATION
 CONTROLLER CABINET TO H.H. 1:
 4" R.S.C.
 6-12/C#12
 6-3/C#12
 4-2/C#14
 2-1/C#6
 1-1/C#6 BR.
 2-3/C#20
 1-6PR#19
 CONTROLLER CABINET TO H.H. 7:
 4" R.S.C.
 5-12/C#12
 6-3/C#12
 11-2/C#14
 1-6PR#19
 3-3/C#20
 1-6PR#19
 INTERCONNECT
 TO TH 242
 INPLACE WOOD
 POLE (S.O.P.)
 SEE (B)
 CONTROLLER AND
 CABINET SEE (A)
 1-6PR#19
 INTERCONNECT
 TO 117TH AVE

SIGNAL SYSTEM OPERATION
 - THE SIGNAL SYSTEM FLASH MODE IS ALL RED.
 - NORMAL OPERATION IS 8 PHASE, WITH PHASES 1 AND 5
 BEING PROTECTED LEFT TURN PHASES AND PHASES 3 AND 7
 BEING PROTECTED/PERMISSIVE LEFT TURN PHASES.

REMOVE SIGNAL
 SYSTEM "A"

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG	CKD BY:	CKD BY:	CKD BY:
DATE: 9/4/02	DATE:	DATE:	DATE:
SYSTEM ID: 21173	T.E.		
METER ADDRESS:			
MASTER ID: 21175	LOCATED AT T.H. 242		
CERTIFIED BY:	LIC. NO. _____ DATE: _____		
STATE PROJ. NO. 0208-123 (T.H. 65)			

INTERSECTION LAYOUT
 T.H. 65 AT 121ST AVE. N.E./
 PAUL PARKWAY N.E.
 IN BLAINE, ANOKA COUNTY
 SHEET NO. 674 OF 872 SHEETS



FOR INFORMATION ONLY

REVISED AT MN/DOT BY SJK/MPG 4/11/06
 UPDATED: RETYPED ALL TEXT AND CHARTS
 AND MISC. REVISIONS.

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY:	CKD BY:	CKD BY:	CKD BY:
DATE:	DATE:	DATE:	DATE:
SYSTEM ID: 21173		T.E.	
METER ADDRESS:			
MASTER ID: 21175			

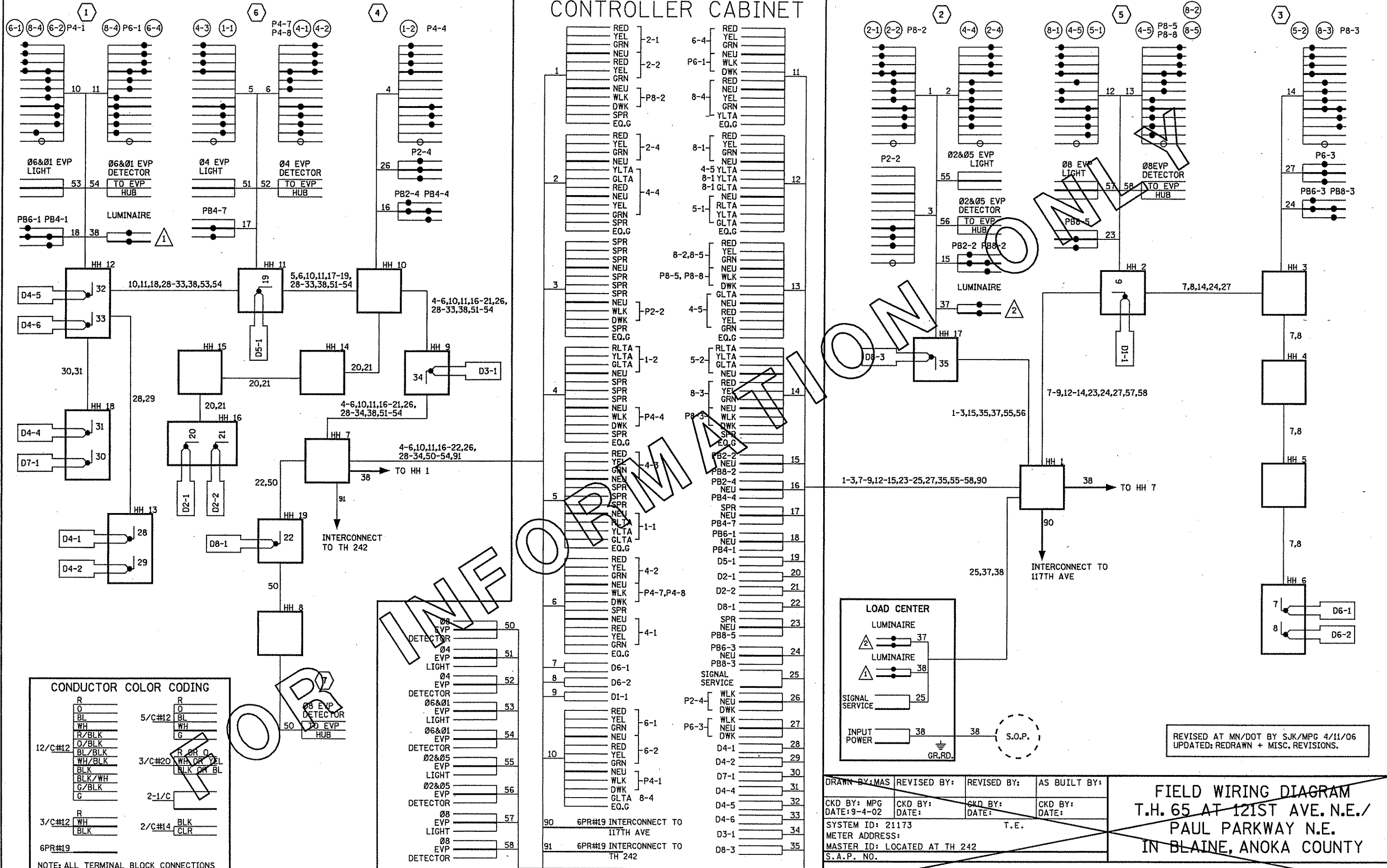
MATCHLINES
 T.H. 65 AT 121ST AVE. N.E./
 PAUL PARKWAY N.E.
 IN BLAINE, ANOKA COUNTY

CERTIFIED BY: _____ LIC. NO. _____ DATE: _____
LICENSED PROFESSIONAL ENGINEER

REMOVE SIGNAL SYSTEM "A" STATE PROJ. NO. 0208-123 (T.H.65) SHEET NO. 675 OF 872 SHEETS

FILENAME: S:\TRAFFIC\Signal Design\p\lms\TH 65\21173\SP 0208-123\T21173\MWRINFO.sgl.dgn 121st Info wiring
PLOTTED: 02-FEB-2007 12:03

CONTROLLER CABINET

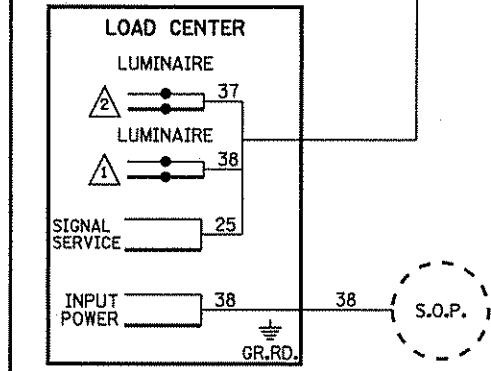


R	R
O	O
BL	BL
WH	WH
R/BLK	R OR O
O/BLK	WH OR YEL
WH/BLK	BLK OR BL
BLK/WH	
G/BLK	
G	
5/C#12	
3/C#20	
2-1/C	
3/C#12	
2/C#14	
6PR#19	

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

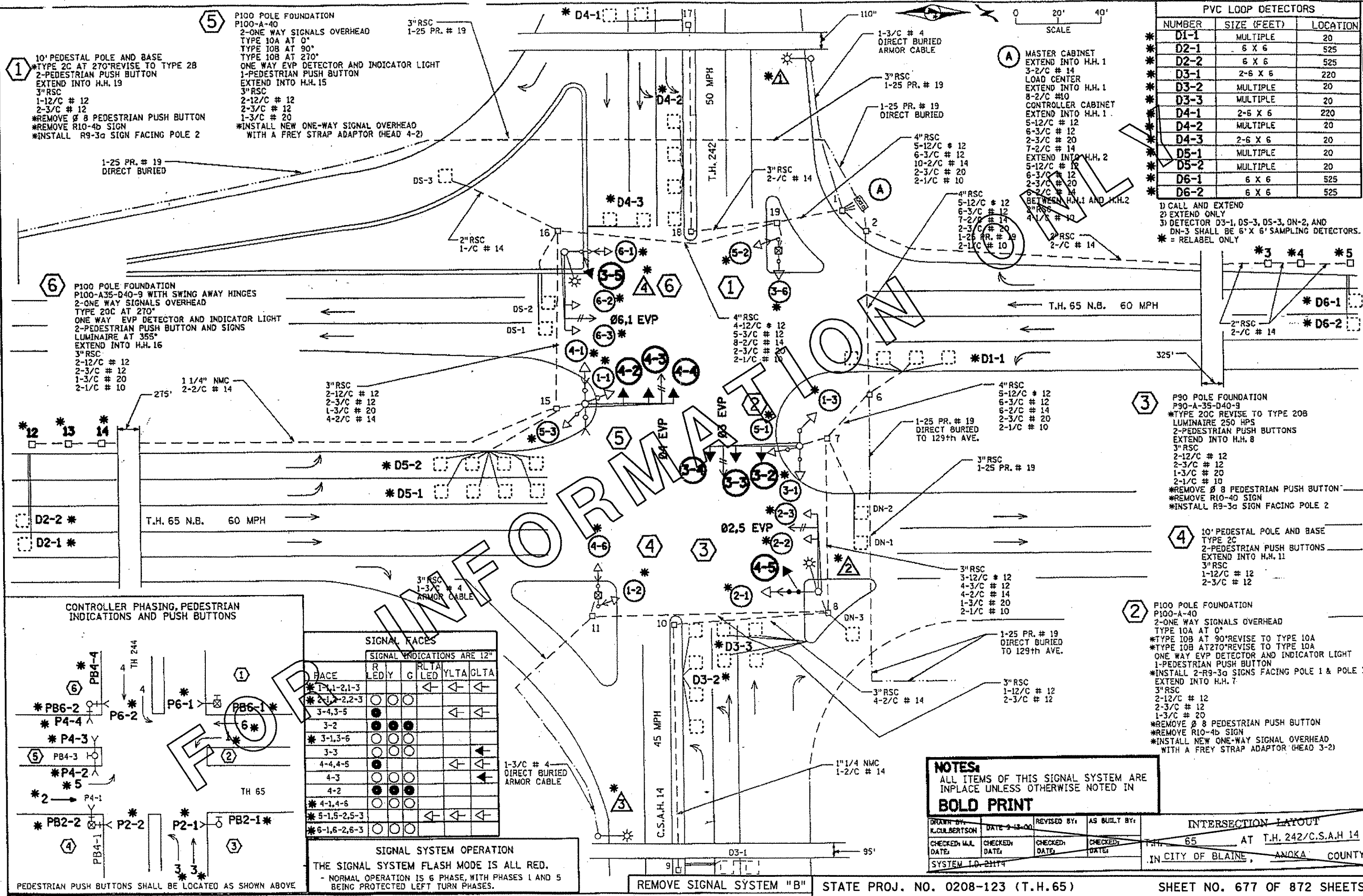
- 08 EVP DETECTOR 50
- 04 EVP DETECTOR 51
- 04 EVP LIGHT 52
- 06&01 EVP DETECTOR 53
- 06&01 EVP LIGHT 54
- 02&05 EVP DETECTOR 55
- 02&05 EVP LIGHT 56
- 08 EVP DETECTOR 57
- 08 EVP LIGHT 58

REMOVE SIGNAL SYSTEM "A"



REVISED AT MN/DOT BY SJK/MPG 4/11/06
UPDATED: REDRAWN + MISC. REVISIONS.

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: MPG DATE: 9-4-02	CKD BY: DATE:	CKD BY: DATE:	CKD BY: DATE:
SYSTEM ID: 21173		T.E.	
METER ADDRESS:			
MASTER ID: LOCATED AT TH 242			
S.A.P. NO.			



PVC LOOP DETECTORS

NUMBER	SIZE (FEET)	LOCATION
D1-1	MULTIPLE	20
D2-1	6 X 6	525
D2-2	6 X 6	525
D3-1	2-6 X 6	220
D3-2	MULTIPLE	20
D3-3	MULTIPLE	20
D4-1	2-6 X 6	220
D4-2	MULTIPLE	20
D4-3	2-6 X 6	20
D5-1	MULTIPLE	20
D5-2	MULTIPLE	20
D6-1	6 X 6	525
D6-2	6 X 6	525

1) CALL AND EXTEND
 2) EXTEND ONLY
 3) DETECTOR D3-1, DS-3, DS-5, DN-2, AND DN-3 SHALL BE 6' X 6' SAMPLING DETECTORS.
 * = RELABEL ONLY

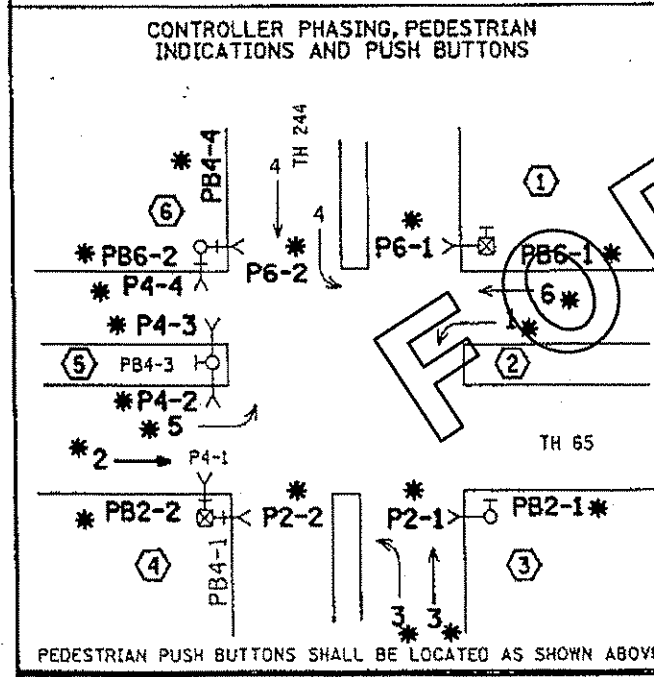
5 P100 POLE FOUNDATION
 P100-A-40
 2-ONE WAY SIGNALS OVERHEAD
 TYPE 10A AT 0°
 TYPE 10B AT 90°
 TYPE 10B AT 270°
 ONE WAY EVP DETECTOR AND INDICATOR LIGHT
 1-PEDESTRIAN PUSH BUTTON
 EXTEND INTO H.H. 15
 3" RSC
 2-12/C # 12
 2-3/C # 12
 1-3/C # 20
 1-12/C # 12
 2-3/C # 12
 *REMOVE Ø 8 PEDESTRIAN PUSH BUTTON
 *REMOVE R10-4b SIGN
 *INSTALL R9-3a SIGN FACING POLE 2

6 P100 POLE FOUNDATION
 P100-A35-D40-9 WITH SWING AWAY HINGES
 2-ONE WAY SIGNALS OVERHEAD
 TYPE 20C AT 270°
 ONE WAY EVP DETECTOR AND INDICATOR LIGHT
 2-PEDESTRIAN PUSH BUTTON AND SIGNS
 LUMINAIRE AT 355°
 EXTEND INTO H.H. 16
 3" RSC
 2-12/C # 12
 2-3/C # 12
 1-3/C # 20
 2-1/C # 10

3 P90 POLE FOUNDATION
 P90-A-35-D40-9
 *TYPE 20C REVISE TO TYPE 20B
 LUMINAIRE 250 HPS
 2-PEDESTRIAN PUSH BUTTONS
 EXTEND INTO H.H. 8
 3" RSC
 2-12/C # 12
 2-3/C # 12
 1-3/C # 20
 2-1/C # 10
 *REMOVE Ø 8 PEDESTRIAN PUSH BUTTON
 *REMOVE R10-4b SIGN
 *INSTALL R9-3a SIGN FACING POLE 2

4 10' PEDESTAL POLE AND BASE
 TYPE 2C
 2-PEDESTRIAN PUSH BUTTONS
 EXTEND INTO H.H. 11
 3" RSC
 1-12/C # 12
 2-3/C # 12

2 P100 POLE FOUNDATION
 P100-A-40
 2-ONE WAY SIGNALS OVERHEAD
 TYPE 10A AT 0°
 *TYPE 10B AT 90° REVISE TO TYPE 10A
 *TYPE 10B AT 270° REVISE TO TYPE 10A
 ONE WAY EVP DETECTOR AND INDICATOR LIGHT
 1-PEDESTRIAN PUSH BUTTON
 *INSTALL 2-R9-3a SIGNS FACING POLE 1 & POLE 3
 EXTEND INTO H.H. 7
 3" RSC
 2-12/C # 12
 2-3/C # 12
 1-3/C # 20
 *REMOVE Ø 8 PEDESTRIAN PUSH BUTTON
 *REMOVE R10-4b SIGN
 *INSTALL NEW ONE-WAY SIGNAL OVERHEAD
 WITH A FREY STRAP ADAPTOR (HEAD 3-2)



SIGNAL FACES

SIGNAL INDICATIONS ARE 12"

FACE	R	LED	Y	G	RLTA	YLTA	GLTA
*1-1, 2, 1-3					←	←	←
*2-1, 2, 2-3	●	●	●				
3-4, 3-5	●	●	●		←	←	
3-2	●	●	●				
*3-1, 3-6	○	○	○				
3-3	○	○	○		←	←	
4-4, 4-5	●	●	●		←	←	
4-3	○	○	○		←	←	
4-2	●	●	●				
*4-1, 4-6	○	○	○				
*5-1, 5-2, 5-3	○	○	○		←	←	
*6-1, 6-2, 6-3	○	○	○		←	←	

SIGNAL SYSTEM OPERATION

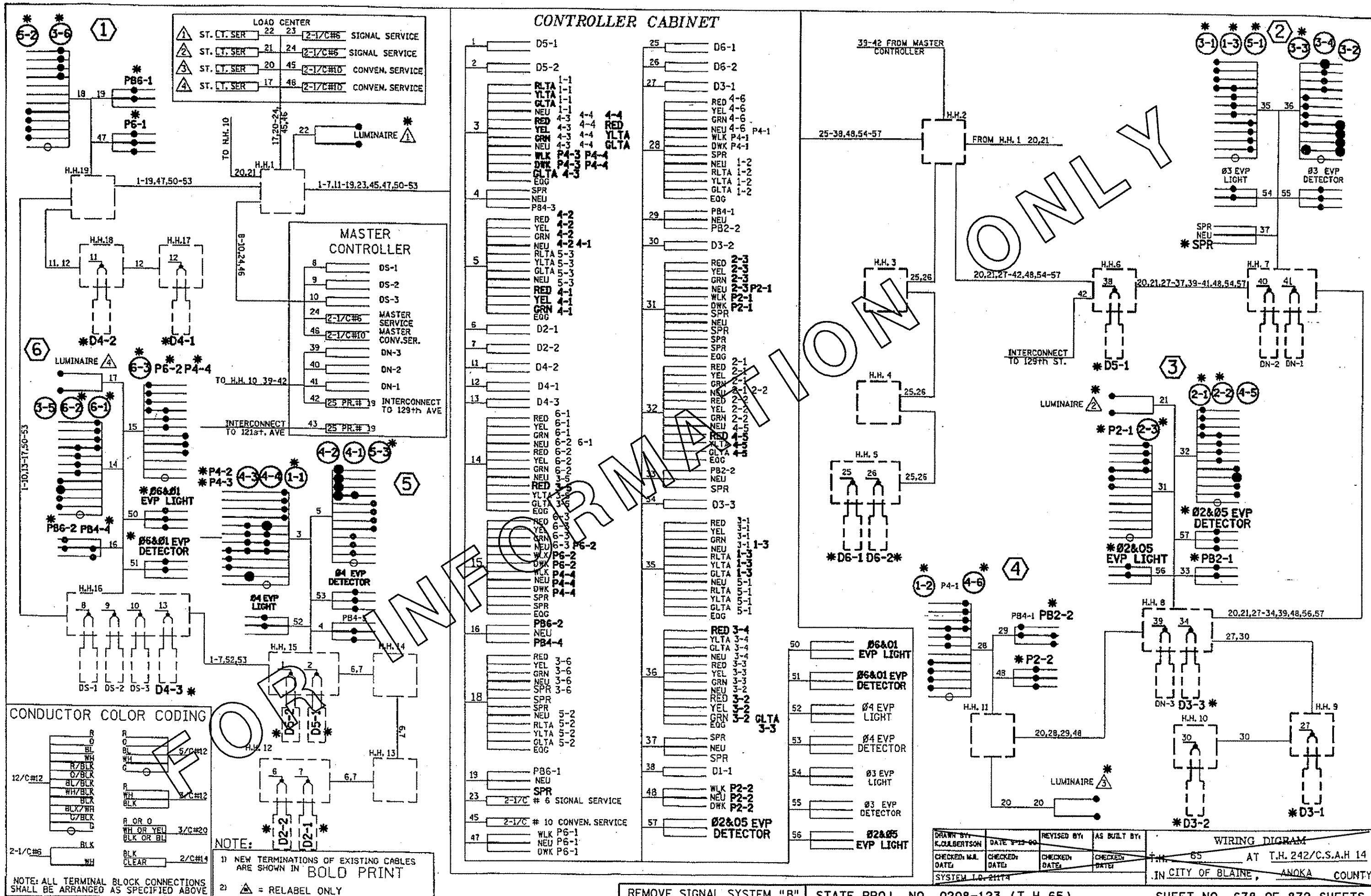
THE SIGNAL SYSTEM FLASH MODE IS ALL RED.

- NORMAL OPERATION IS 6 PHASE, WITH PHASES 1 AND 5 BEING PROTECTED LEFT TURN PHASES.

NOTES:
 ALL ITEMS OF THIS SIGNAL SYSTEM ARE IN PLACE UNLESS OTHERWISE NOTED IN BOLD PRINT

DRAWN BY: K. COLEBERTSON	DATE: 3-13-00	REVISED BY:	AS BUILT BY:
CHECKED W/L DATE:	CHECKED DATE:	CHECKED DATE:	CHECKED DATE:

INTERSECTION LAYOUT
 T.H. 65 AT T.H. 242/C.S.A.H 14
 IN CITY OF BLAINE, ANOKA COUNTY



LOAD CENTER

1	ST. LT. SER	22	23	2-1/C#6	SIGNAL SERVICE
2	ST. LT. SER	21	24	2-1/C#6	SIGNAL SERVICE
3	ST. LT. SER	20	45	2-1/C#10	CONVEN. SERVICE
4	ST. LT. SER	17	46	2-1/C#10	CONVEN. SERVICE

CONTROLLER CABINET

1	D5-1	25	D6-1
2	D5-2	26	D6-2
3	RLTA 1-1	27	D3-1
	YLTA 1-1		RED 4-6
	GLTA 1-1		YEL 4-6
	NEU 4-3		GRN 4-6
	RED 4-3		NEU 4-6
	YEL 4-3		WLK P4-1
	GRN 4-3		DWK P4-1
	WLK P4-3		SPR 1-2
	DWK P4-3		RLTA 1-2
	GLTA 4-3		YLTA 1-2
	EGG		GLTA 1-2
4	SPR	28	EGG
	NEU P84-3	29	PB4-1
	RED 4-2		NEU PB2-2
	YEL 4-2	30	D3-2
	GRN 4-2		RED 2-1
	NEU 4-2		YEL 2-1
	RLTA 4-2		GRN 2-1
	YLTA 5-3		NEU 2-1
	GLTA 5-3		RED 2-2
	NEU 5-3		YEL 2-2
	RED 4-1		GRN 2-2
	YEL 4-1		NEU 2-2
	GRN 4-1		RED 2-3
	EGG		YEL 2-3
5	D2-1		GRN 2-3
	D2-2		NEU 2-3
	D4-2		RED 2-4
	D4-1		YEL 2-4
	D4-3		GRN 2-4
	RED 6-1		NEU 2-4
	YEL 6-1		RED 2-5
	GRN 6-1		YEL 2-5
	NEU 6-2		GRN 2-5
	RED 6-2		NEU 2-5
	YEL 6-2		RED 2-6
	GRN 6-2		YEL 2-6
	NEU 6-3		GRN 2-6
	RED 6-3		NEU 2-6
	YEL 6-3		RED 2-7
	GRN 6-3		YEL 2-7
	NEU 6-4		GRN 2-7
	DWK P6-2		NEU 2-7
	WLK P6-2		RED 2-8
	NEU P4-4		YEL 2-8
	DWK P4-4		GRN 2-8
	SPR P4-4		NEU 2-8
	EGG		RED 3-1
	PB6-2		YEL 3-1
	PB4-4		GRN 3-1
	RED 3-6		NEU 3-1
	YEL 3-6		RLTA 1-3
	GRN 3-6		YLTA 1-3
	NEU 3-6		GLTA 1-3
	SPR 3-6		NEU 5-1
	SPR 5-2		RLTA 5-1
	NEU 5-2		YLTA 5-1
	RLTA 5-2		GLTA 5-1
	YLTA 5-2		EGG 5-1
	GLTA 5-2		RED 3-4
	EGG 5-2		YLTA 3-4
	PB6-1		GLTA 3-4
	NEU		NEU 3-4
	SPR		RED 3-3
	# 6 SIGNAL SERVICE		YEL 3-3
	2-1/C		GRN 3-3
	# 10 CONVEN. SERVICE		NEU 3-2
	2-1/C		RED 3-2
	WLK P6-1		YEL 3-2
	NEU P6-1		GRN 3-2
	DWK P6-1		NEU 3-2
			GLTA 3-3
			SPR
			NEU
			SPR
			SPR
			WLK P2-2
			NEU P2-2
			DWK P2-2
			#2&05 EVP DETECTOR
			EGG
			RED 3-1
			YEL 3-1
			GRN 3-1
			NEU 3-1
			RLTA 1-3
			YLTA 1-3
			GLTA 1-3
			NEU 5-1
			RLTA 5-1
			YLTA 5-1
			GLTA 5-1
			EGG 5-1
			RED 3-4
			YLTA 3-4
			GLTA 3-4
			NEU 3-4
			RED 3-3
			YEL 3-3
			GRN 3-3
			NEU 3-3
			RED 3-2
			YEL 3-2
			GRN 3-2
			NEU 3-2
			GLTA 3-3
			SPR
			NEU
			SPR
			WLK P2-2
			NEU P2-2
			DWK P2-2
			#2&05 EVP DETECTOR
			EGG

CONDUCTOR COLOR CODING

R	OR	5/C#12
BL	WH	
WH	BLK	
R/BLK	WH/BLK	
O/BLK	BL/BLK	
BL/BLK	WH/BLK	
BLK	BLK	
BLK/WH	C/BLK	
2-1/C#6	WH	

NOTE:

- 1) NEW TERMINATIONS OF EXISTING CABLES ARE SHOWN IN BOLD PRINT
- 2) ⚠ = RELABEL ONLY

DRAWN BY: K. J. LEBERTSON	DATE: 3-13-60	REVISED BY:	AS BUILT BY:
CHECKED M.A. DATE:	CHECKED DATE:	CHECKED DATE:	CHECKED DATE:
SYSTEM I.O. 21174			

WIRING DIAGRAM
T.H. 65 AT T.H. 242/C.S.A.H 14
IN CITY OF BLAINE, ANOKA COUNTY

FILENAME: S:\TRAFFIC\Signal Design\p 65\21174\SP 0208-123\System C\SYS C-sgl.dgn sys c
 PLOTTED: 02-FEB-2007 12:03

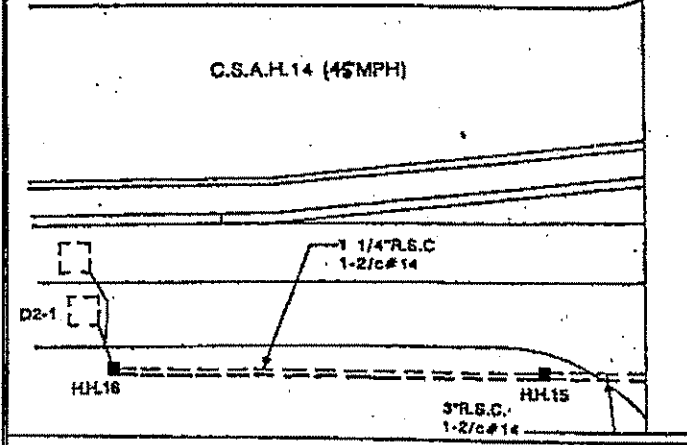
ALL SIGNAL FACES HAVE BACKGROUND SHIELDS,
 ALL PEDESTRIAN INDICATIONS ARE 12"x12"
 NEW TYPE "LD" COVERS SHALL BE FURNISHED AND INSTALLED FOR
 INPLACE CONCRETE HANDHOLES 10 AND 11.
 ALL OTHER HANDHOLES ARE CONCRETE HANDHOLES WITH TYPE "C"
 COVERS, ARE INPLACE AND SHALL BE REUSED INPLACE.
 NEW LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE
 (KLP) IN "N.M.C." SEE SPECIAL PROVISIONS AND DETAILS.
 2/c#14 SHIELDED CABLE IS COILED AND STORED INPLACE (FOR FUTURE
 USE) AS FOLLOWS: 50' IN H.H.13 AND 80' IN H.H.5.
 ANTICIPATED COUNTY WORK AT SYSTEM (AT NO COST
 TO THE CONTRACTOR), TO ACCOMMODATE EVP:
 REPLACEMENT OF CONTROLLER UNIT, AND
 HARNESS INSTALLATION.

EMERGENCY VEHICLE PRE-EMPTION SYSTEM "G"

NOTE:
 ALL COMPONENTS OF SIGNAL SYSTEM, EXCEPT EVP EQUIPMENT
 TO BE FURNISHED AND INSTALLED AS INDICATED IN THE PLANS.
 ARE INPLACE AND SHALL REMAIN INPLACE AS PART OF THE REVISED
 SIGNAL SYSTEM. SEE SPECIAL PROVISIONS FOR REQUIRED EVP
 EQUIPMENT IN CONTROLLER CABINET AND ADDITIONAL INFORMATION.

LEGEND:
 ▲ NEW CABLES TO BE F & I AS PART OF EVP SYSTEM
 → EVP DETECTOR UNIT (ONE WAY)
 ← EVP DETECTOR UNIT (TWO WAY)
 ⊕ SIGNAL PHASE

ALL MATERIALS TO BE F & I AS PART OF EVP SYSTEM ARE
 EITHER LABELED F & I AND BOXED IN, OR BOXED IN AND
 DENOTED BY →

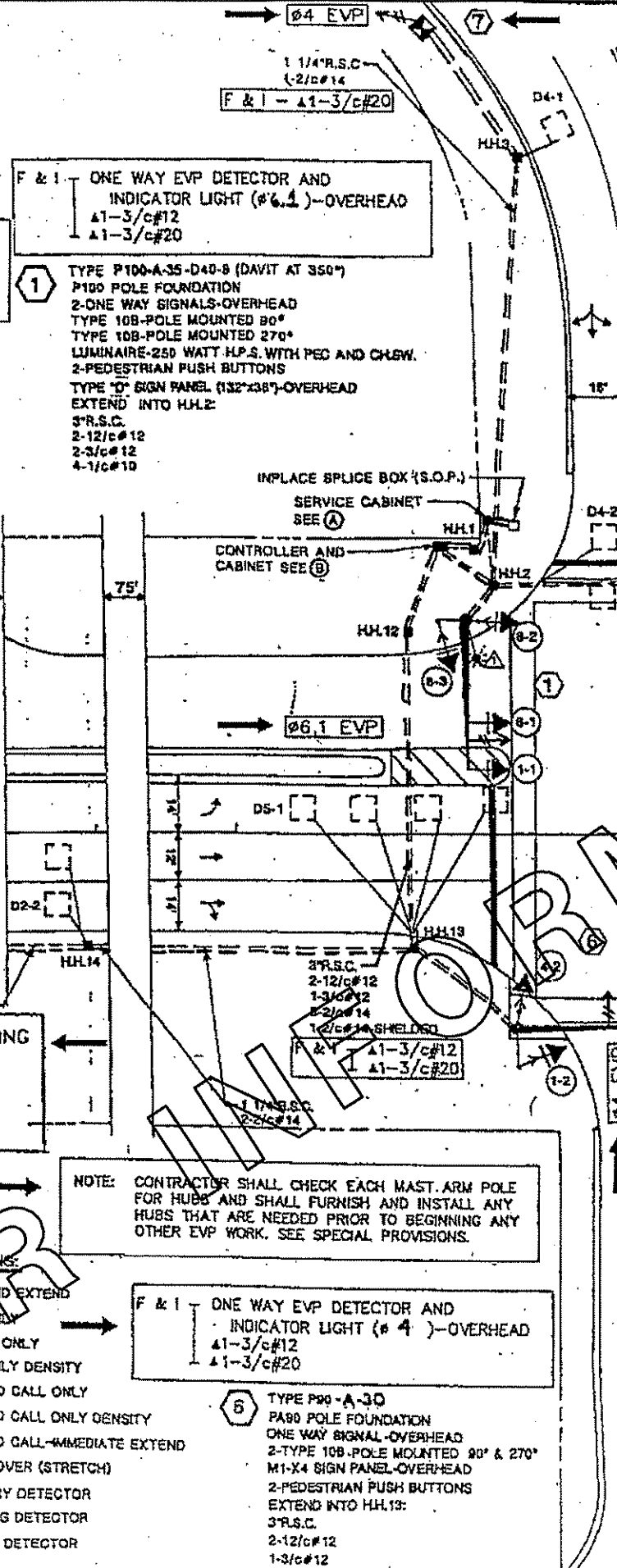


CONTRACTOR SHALL FURNISH & INSTALL THE FOLLOWING
 MATERIALS ON MAST ARMS 1, 2, 4 AND 6:

ONE WAY EVP DETECTOR AND INDICATOR LIGHT
 AT APPROX. 4 FEET FROM THE LEFT END OF
 THE MAST ARM.

LOOP DETECTORS			
NUMBER	SIZE	LOCATION	FUNCTION
D1-1	4'-6"x6'	—	1
D2-1	2'-6"x6'	400'	1
D2-2	2'-6"x6'	180'	2
D4-1	8'x6'	100'	3,8
D4-2	2'-6"x6'	—	7
D5-1	4'-6"x6'	—	1
D6-1	2'-6"x6'	400'	1
D6-2	2'-6"x6'	100'	3,8
D8-1	2'-6"x6'	—	7
D8-2	2'-6"x6'	—	7
D8-3	2'-6"x6'	—	7

NOTE: LOCATION=DISTANCE FROM STOP BAR
 TO LOOP DETECTOR.



NOTE: CONTRACTOR SHALL CHECK EACH MAST ARM POLE
 FOR HUBS AND SHALL FURNISH AND INSTALL ANY
 HUBS THAT ARE NEEDED PRIOR TO BEGINNING ANY
 OTHER EVP WORK. SEE SPECIAL PROVISIONS.

FUNCTIONS:
 1) CALL AND EXTEND
 2) CALL ONLY
 3) EXTEND ONLY
 4) CALL ONLY DENSITY
 5) DELAYED CALL ONLY
 6) DELAYED CALL ONLY DENSITY
 7) DELAYED CALL-IMMEDIATE EXTEND
 8) CARRY OVER (STRETCH)
 9) ADVISORY DETECTOR
 10) SAMPLING DETECTOR
 11) SPECIAL DETECTOR

SIGNAL FACES

SIGNAL INDICATIONS ARE 12"

SIGNAL FACE	LED R	Y	G	LED R	Y	G
1-1, 1-2				←	←	←
2-1, 2-2	•	•	•			
4-1, 4-2, 4-3	•	•	•			
5-1, 5-2				←	←	←
6-1, 6-2	•	•	•			
8-1, 8-2, 8-3	•	•	•			

CONTRACTOR SHALL FURNISH AND INSTALL NEW LED RED SIGNAL
 INDICATIONS IN EACH INPLACE SIGNAL FACE WITH EVP SYSTEM
 INSTALLATION. SEE SPECIAL PROVISIONS.
 CONTRACTOR SHALL SALVAGE ALL INPLACE PEDESTRIAN SIGNAL
 INDICATIONS (WITH ATTACHED POLE MOUNTED BRACKETING) AND
 INPLACE PED INSTRUCTION SIGNS, AND SHALL FURNISH AND
 INSTALL NEW ONE SECTION HAND/WALKING PERSON INDICATIONS,
 R10-46 PED INSTRUCTION SIGNS, AND POLE MOUNTED BRACKETING
 AT EACH LOCATION. HAND INDICATIONS SHALL BE LED. SEE SPECIAL
 PROVISIONS AND DETAILS.

(B) CONTROLLER AND CABINET
 CABINET FOUNDATION
 EXTEND INTO H.H.1:
 METERED SIGNAL SERVICE
 1 1/4" R.S.C.
 3-1/c#6
 EXTEND INTO H.H.2:
 4" R.S.C.
 7-12/c#12
 4-3/c#12
 7-2/c#14
 1-2/c#14-SHIELDED
 F & I Δ1-3/c#12
 Δ4-3/c#20

(A) SERVICE CABINET
 CABINET FOUNDATION
 STUB OUT 2" R.S.C.
 (For Service By AEC)
 EXTEND INTO H.H.1:
 METERED SIGNAL SERVICE
 1 1/4" R.S.C.
 3-1/c#6
 EXTEND INTO H.H.2:
 UNMETERED STREET LIGHT SERVICE
 1 1/4" R.S.C.
 2-1/c#10

(7) F & I
 PEDESTAL FOUNDATION,
 PEDESTAL POLE AND BASE
 ONE WAY EVP DETECTOR—MOUNT ON TOP
 OF PEDESTAL POLE (#4)—SEE DETAILS
 EXTEND INTO H.H.3:
 1 1/4" R.S.C.
 Δ1-3/c#20

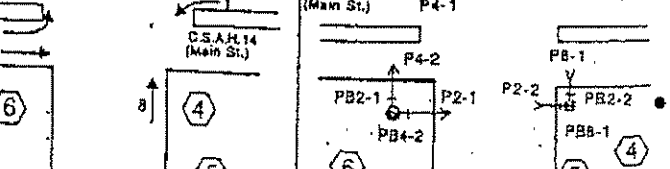
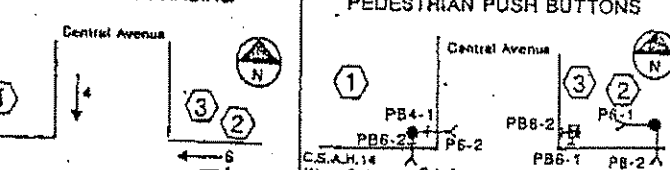
(3) PEDESTAL FOUNDATION
 5" PEDESTAL POLE AND BASE
 2" PEDESTRIAN PUSH BUTTONS
 EXTEND INTO H.H.4:
 2" R.S.C.
 1-3/c#12

(2) TYPE P80-A-20
 P80 POLE FOUNDATION
 ONE WAY SIGNAL-OVERHEAD
 TYPE 10B-POLE MOUNTED 90"
 TYPE 10B-POLE MOUNTED 270"
 M1-X4 SIGN PANEL-OVERHEAD
 EXTEND INTO H.H.4:
 3" R.S.C.
 2-12/c#12

(6) TYPE P90-A-30
 P90 POLE FOUNDATION
 ONE WAY SIGNAL-OVERHEAD
 2-TYPE 10B-POLE MOUNTED 90" & 270"
 M1-X4 SIGN PANEL-OVERHEAD
 2-PEDESTRIAN PUSH BUTTONS
 EXTEND INTO H.H.13:
 3" R.S.C.
 2-12/c#12
 1-3/c#12

(4) TYPE P100-A-35-D40-8 (DAVIT AT 350')
 P100 POLE FOUNDATION
 2-ONE WAY SIGNALS-OVERHEAD
 TYPE 10A-POLE MOUNTED 90"
 TYPE 10A-POLE MOUNTED 270"
 LUMINAIRE-250 WATT H.P.S.
 TYPE "D" SIGN PANEL (132"x36")-OVERHEAD
 EXTEND INTO H.H.8:
 3" R.S.C.
 2-12/c#12
 2-1/c#10

(5) TYPE 48
 PEDESTAL POLE AND BASE
 PEDESTAL FOUNDATION
 2-PEDESTRIAN PUSH BUTTONS
 EXTEND INTO H.H.10:
 2" R.S.C.
 1-12/c#12
 1-3/c#12



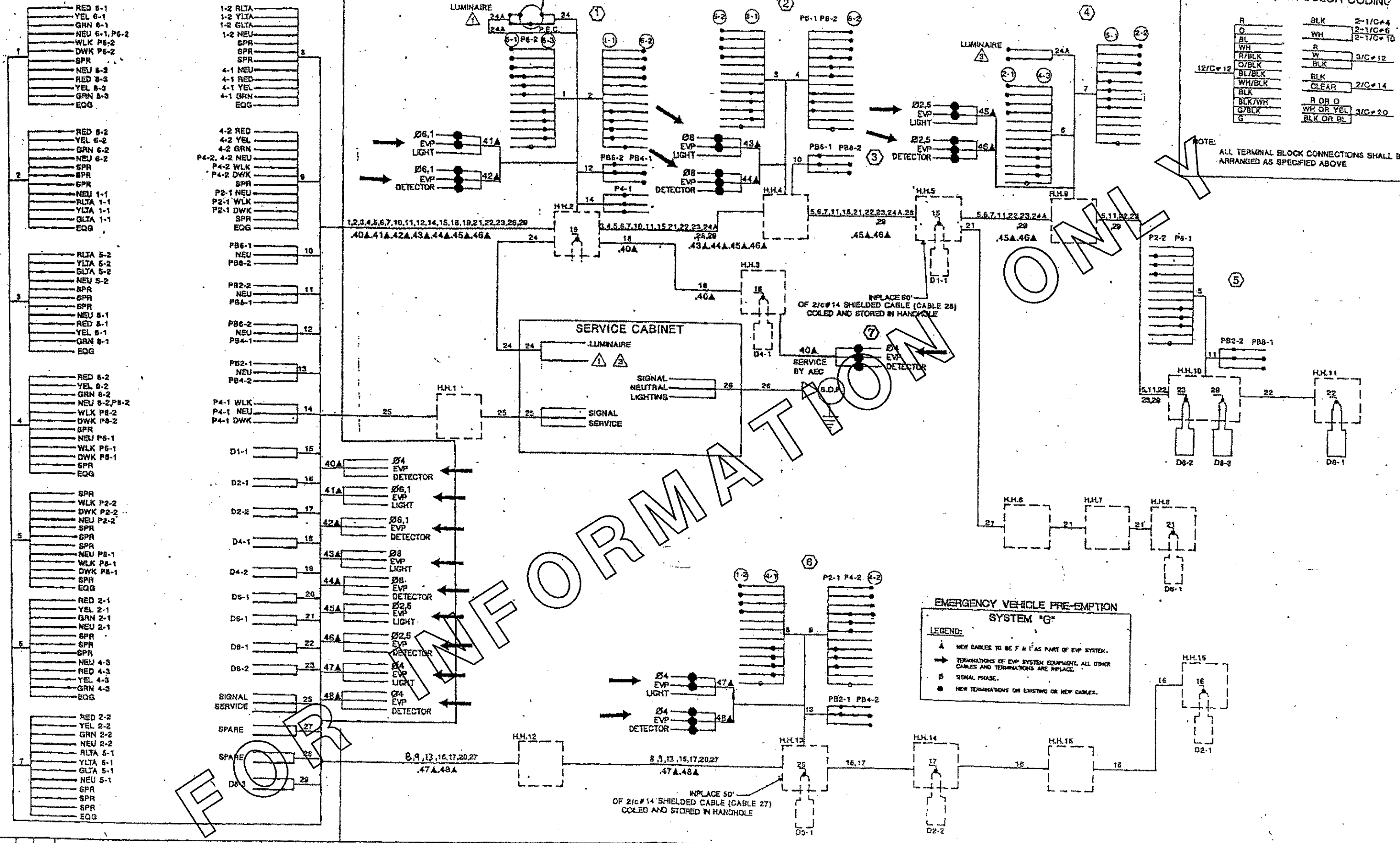
CONTROLLER CABINET

CONDUCTOR COLOR CODING

R	BLK	2-1/C#4
O	WH	2-1/C#6
BL	W	2-1/C#10
WH	R	
R/BLK	W	3/C#12
O/BLK	BLK	
BL/BLK	BLK	
WH/BLK	CLEAR	2/C#14
BLK	R OR O	
BLK/WH	WH OR YEL	3/C#20
G/BLK	BLK OR BL	
G		

NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21174\SP 0208-123\System C\SYS C_Sgl.dgn sys c info info
 PLOTTED: 02-FEB-2007 12:03



EMERGENCY VEHICLE PRE-EMPTION SYSTEM "G"

LEGEND:

- A NEW CABLES TO BE F & T AS PART OF EVP SYSTEM.
- TERMINATIONS OF EVP SYSTEM EQUIPMENT, ALL OTHER CABLES AND TERMINATIONS ARE REPLACE.
- SIGNAL PHASE.
- NEW TERMINATIONS ON EXISTING OR NEW CABLES.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

FILENAME: S:\TRAFFIC\Signal Design\plans\TH 65\21177\SP 0208-123\T21177LMRINFO_sgl.dgn 129th Info layout
 PLOTTED: 02-FEB-2007 12:03

SIGNAL FACE CHART

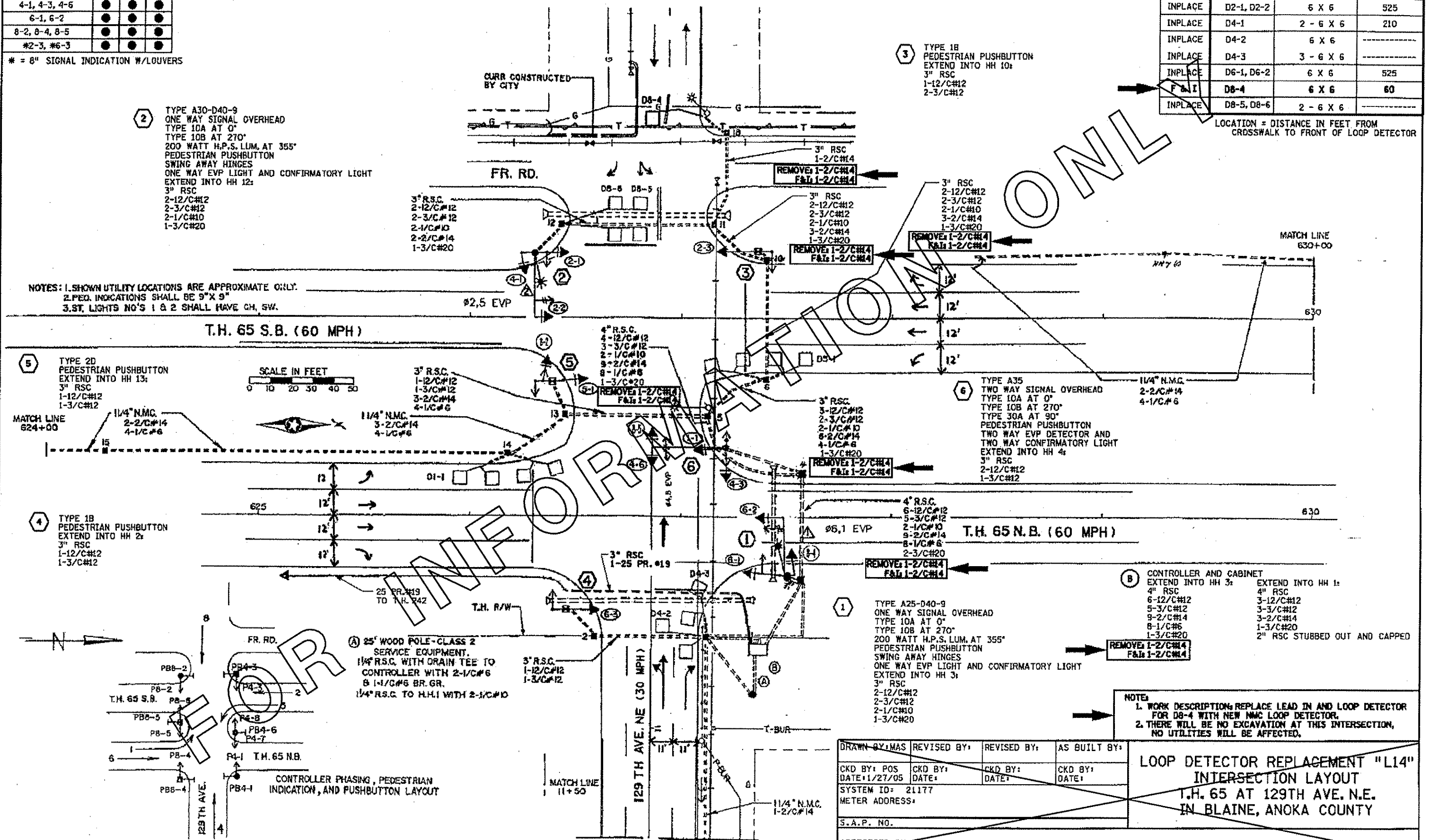
FACE	R	Y	G
1-1, 5-1	←	←	←
2-1, 2-2	●	●	●
4-1, 4-3, 4-6	●	●	●
6-1, 6-2	●	●	●
8-2, 8-4, 8-5	●	●	●
*2-3, *6-3	●	●	●

* = 8" SIGNAL INDICATION W/LOUVERS

LOOP DETECTORS

STATUS	NUMBER	SIZE IN FEET	LOCATION
INPLACE	D1-1, D5-1	4 - 6 X 6	5,20,35&50
INPLACE	D2-1, D2-2	6 X 6	525
INPLACE	D4-1	2 - 6 X 6	210
INPLACE	D4-2	6 X 6	-----
INPLACE	D4-3	3 - 6 X 6	-----
INPLACE	D6-1, D6-2	6 X 6	525
INPLACE	D8-4	6 X 6	60
INPLACE	D8-5, D8-6	2 - 6 X 6	-----

LOCATION = DISTANCE IN FEET FROM CROSSWALK TO FRONT OF LOOP DETECTOR



2 TYPE A30-D40-9 ONE WAY SIGNAL OVERHEAD
 TYPE 10A AT 0°
 TYPE 10B AT 270°
 200 WATT H.P.S. LUM. AT 355°
 PEDESTRIAN PUSHBUTTON
 SWING AWAY HINGES
 ONE WAY EVP LIGHT AND CONFIRMATORY LIGHT
 EXTEND INTO HH 12:
 3" RSC
 2-12/C#12
 2-3/C#12
 2-1/C#10
 2-2/C#14
 1-3/C#20

NOTES: 1. SHOWN UTILITY LOCATIONS ARE APPROXIMATE ONLY.
 2. PED. INDICATIONS SHALL BE 9" X 9"
 3. ST. LIGHTS NO'S 1 & 2 SHALL HAVE CH. SW.



5 TYPE 2D PEDESTRIAN PUSHBUTTON
 EXTEND INTO HH 13:
 3" RSC
 1-12/C#12
 1-3/C#12

4 TYPE 1B PEDESTRIAN PUSHBUTTON
 EXTEND INTO HH 2:
 3" RSC
 1-12/C#12
 1-3/C#12

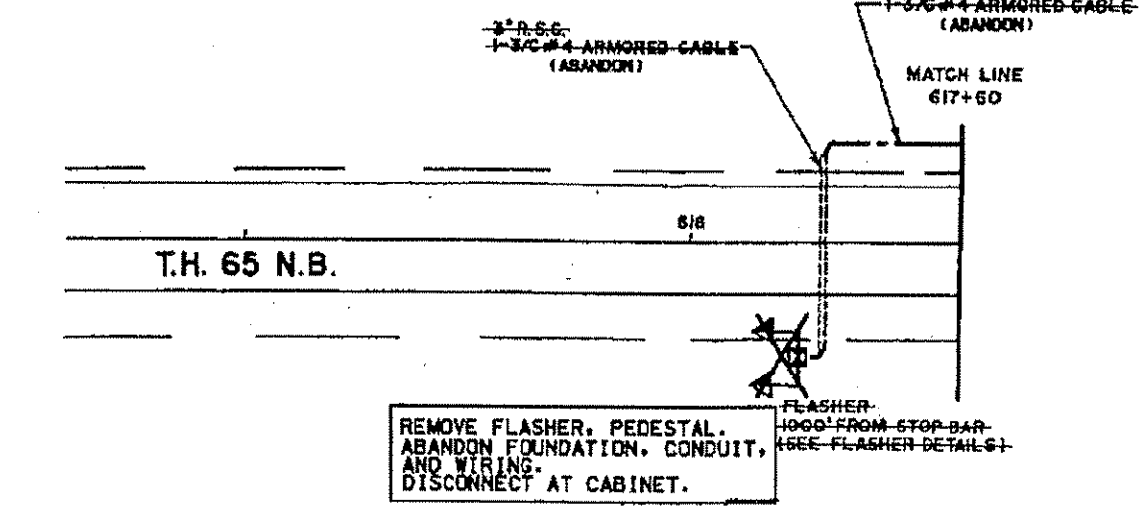
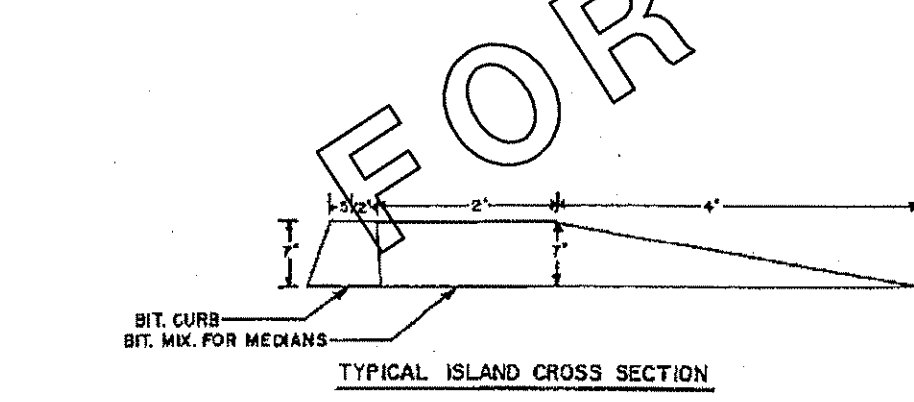
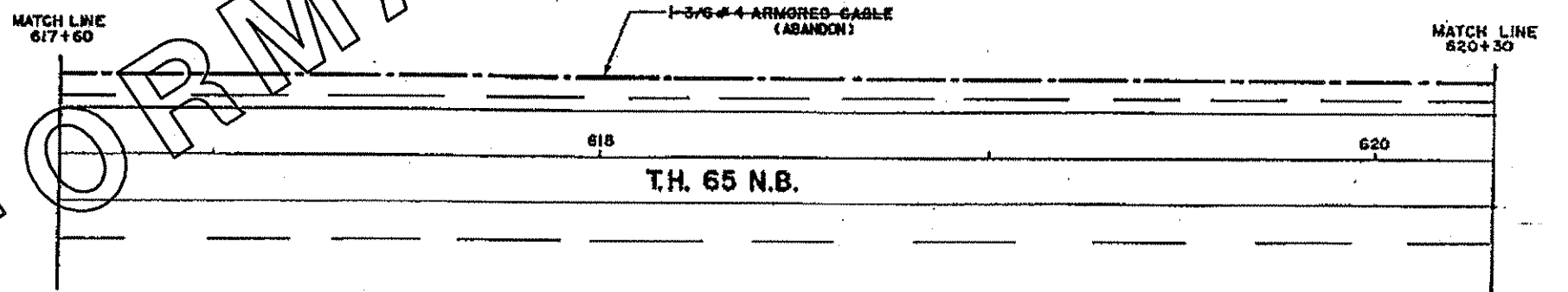
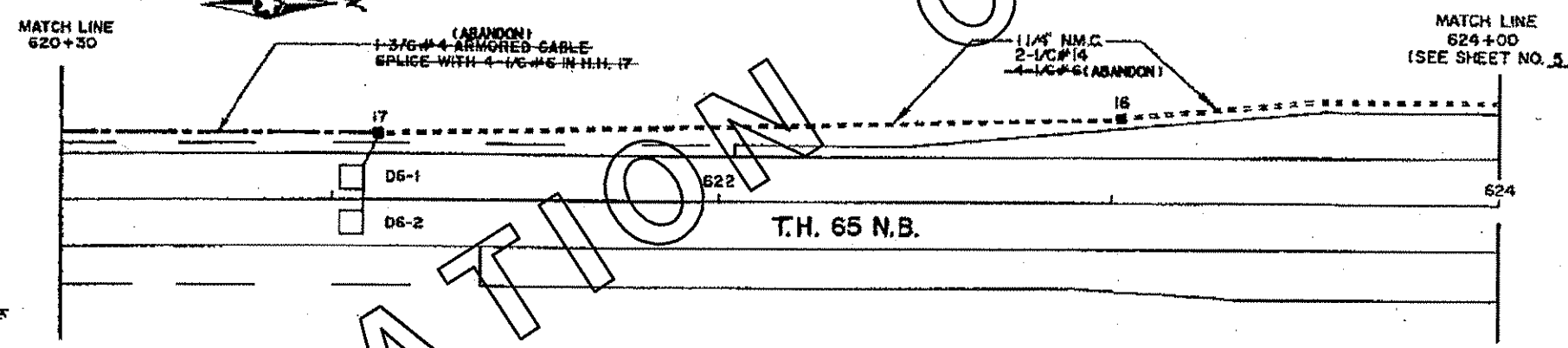
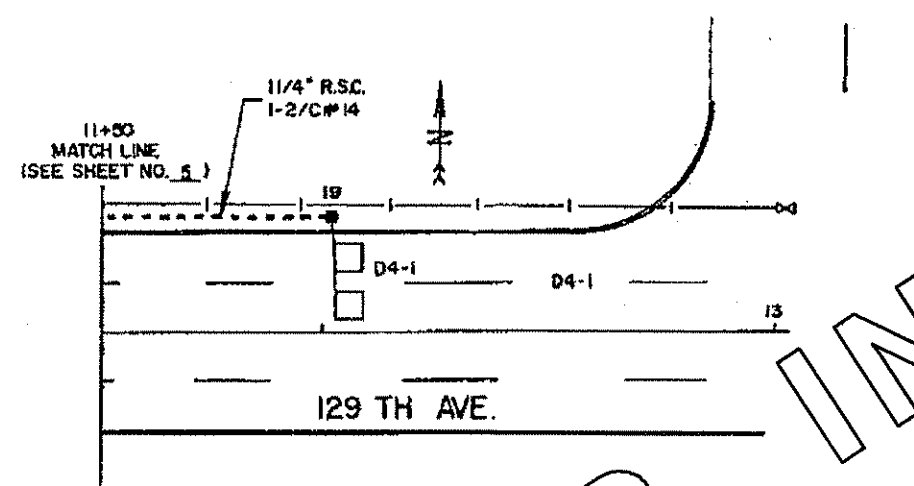
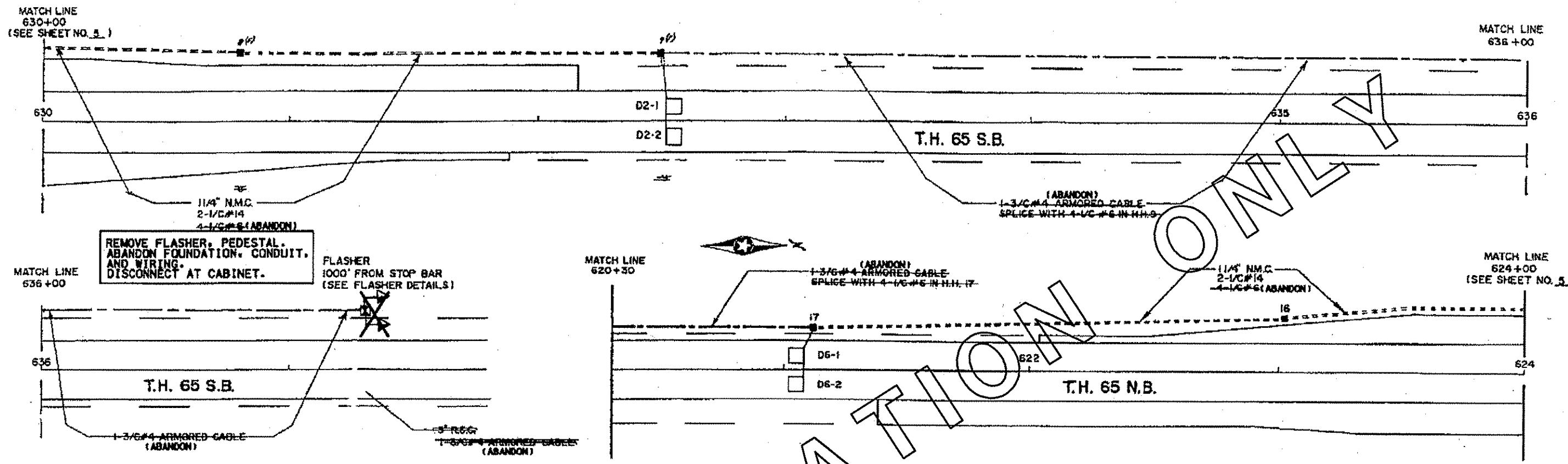
6 TYPE A35 TWO WAY SIGNAL OVERHEAD
 TYPE 10A AT 0°
 TYPE 10B AT 270°
 TYPE 30A AT 90°
 PEDESTRIAN PUSHBUTTON
 TWO WAY EVP DETECTOR AND
 TWO WAY CONFIRMATORY LIGHT
 EXTEND INTO HH 4:
 3" RSC
 2-12/C#12
 1-3/C#12

B CONTROLLER AND CABINET
 EXTEND INTO HH 3:
 4" RSC
 6-12/C#12
 5-3/C#12
 3-3/C#12
 9-2/C#14
 8-1/C#6
 1-3/C#20
 2" RSC STUBBED OUT AND CAPPED

NOTE:
 1. WORK DESCRIPTION: REPLACE LEAD IN AND LOOP DETECTOR FOR D8-4 WITH NEW NMC LOOP DETECTOR.
 2. THERE WILL BE NO EXCAVATION AT THIS INTERSECTION, NO UTILITIES WILL BE AFFECTED.

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY: POS	CKD BY:	CKD BY:	CKD BY:
DATE: 1/27/05	DATE:	DATE:	DATE:
SYSTEM ID: 21177			
METER ADDRESS:			
S.A.P. NO.			
CERTIFIED BY: _____ LIC. NO. _____ DATE: _____			

LOOP DETECTOR REPLACEMENT "L14" INTERSECTION LAYOUT
 T.H. 65 AT 129TH AVE. N.E.
 IN BLAINE, ANOKA COUNTY

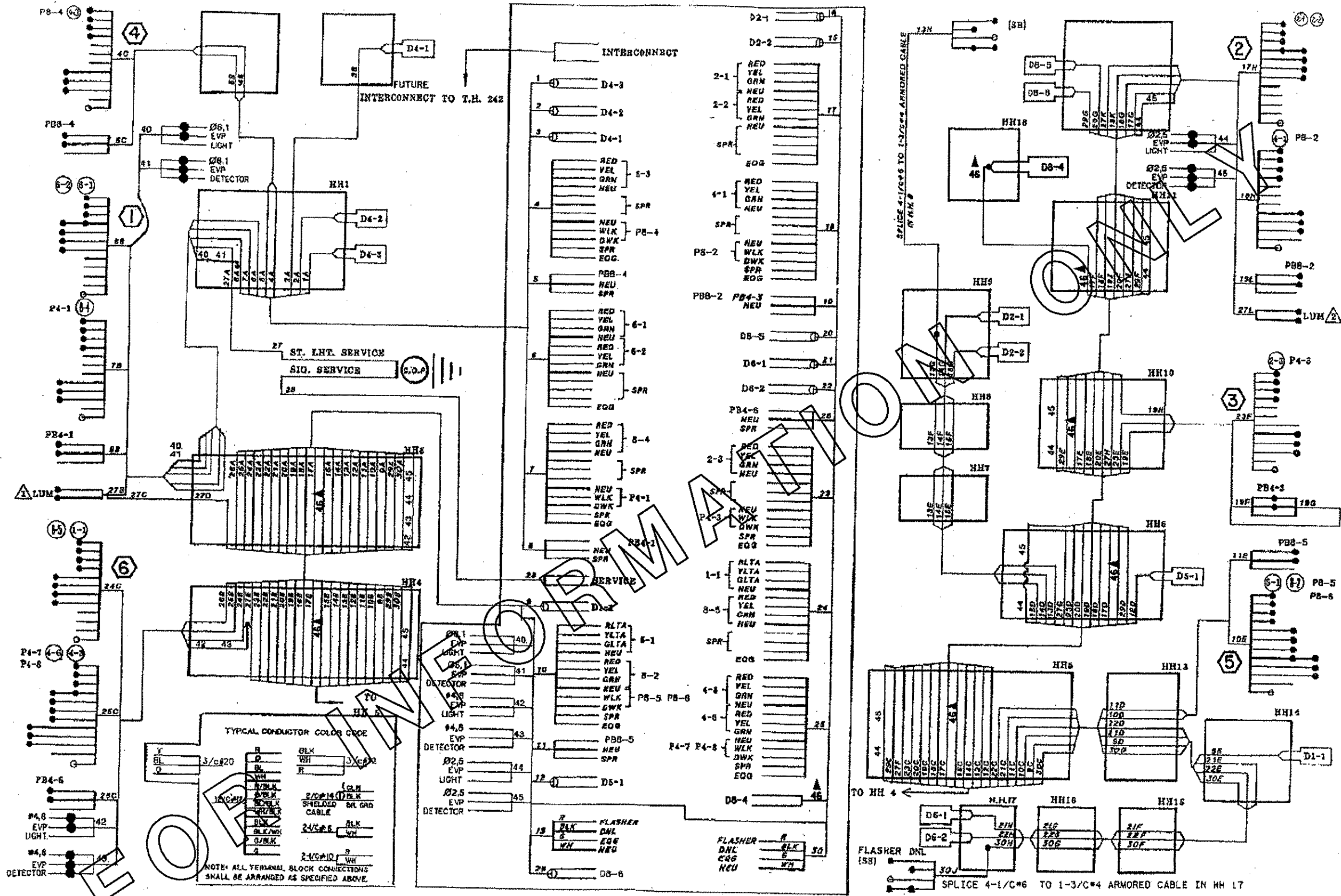


PLAN CHANGES BY MN/DOT
 PER T.E. #2438 S. FLASHER
 PER T.E. #2437 N. FLASHER
 JAN. 4TH 2001 J.D.P.

~~N. FLASHER(AWF) ID#21178~~
~~S. FLASHER(AWF) ID#21176~~

~~DETAILS
 T.H. 65 AT 129 TH AVE.
 SYSTEM ID#21177~~

REMOVE SIGNAL SYSTEM "D"



▲ DENOTES REVISE SIGNAL SYSTEM PAY ITEM WORK. ALL OTHER ITEMS SHOWN ARE INPLACE.

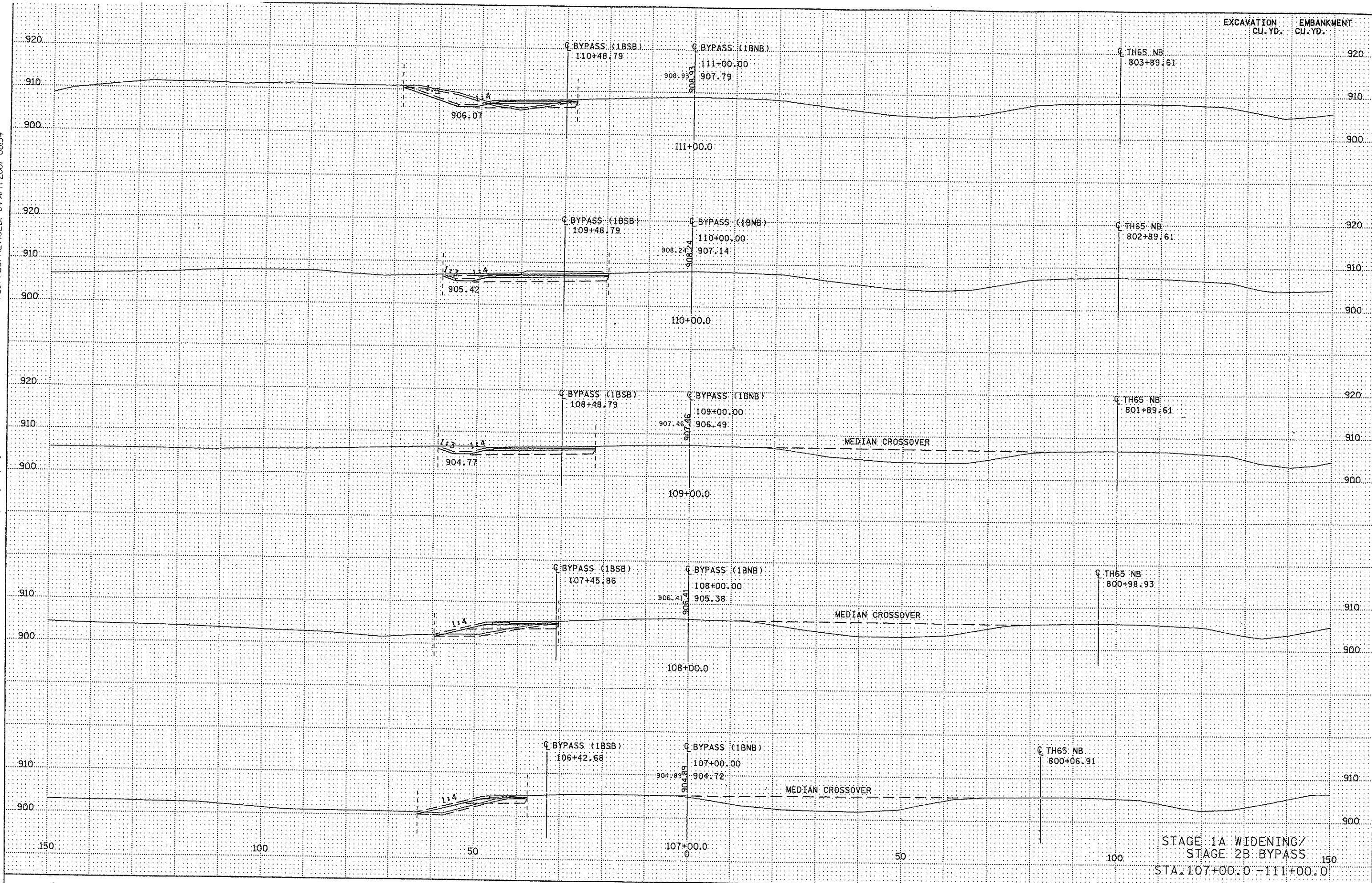
REMOVE SIGNAL SYSTEM "D"

DRAWN BY: MAS	REVISED BY:	REVISED BY:	AS BUILT BY:
CKD BY:	CKD BY:	CKD BY:	CKD BY:
DATE:	DATE:	DATE:	DATE:
SYSTEM ID: 21177		T.E.	
METER ADDRESS:			
MASTER ID:			
CERTIFIED BY:		LIC. NO.:	DATE:
STATE PROJ. NO. 0208-123 (T.H.65)		SHEET NO. 681B OF 872 SHEETS	

LOOP DETECTOR REPLACEMENT "L14"
 WIRING DIAGRAM
 T.H. 65 AT 129TH AVE. N.E.
 IN BLAINE, ANOKA COUNTY

PLOTTED/REVISED: 04-APR-2007 06:34

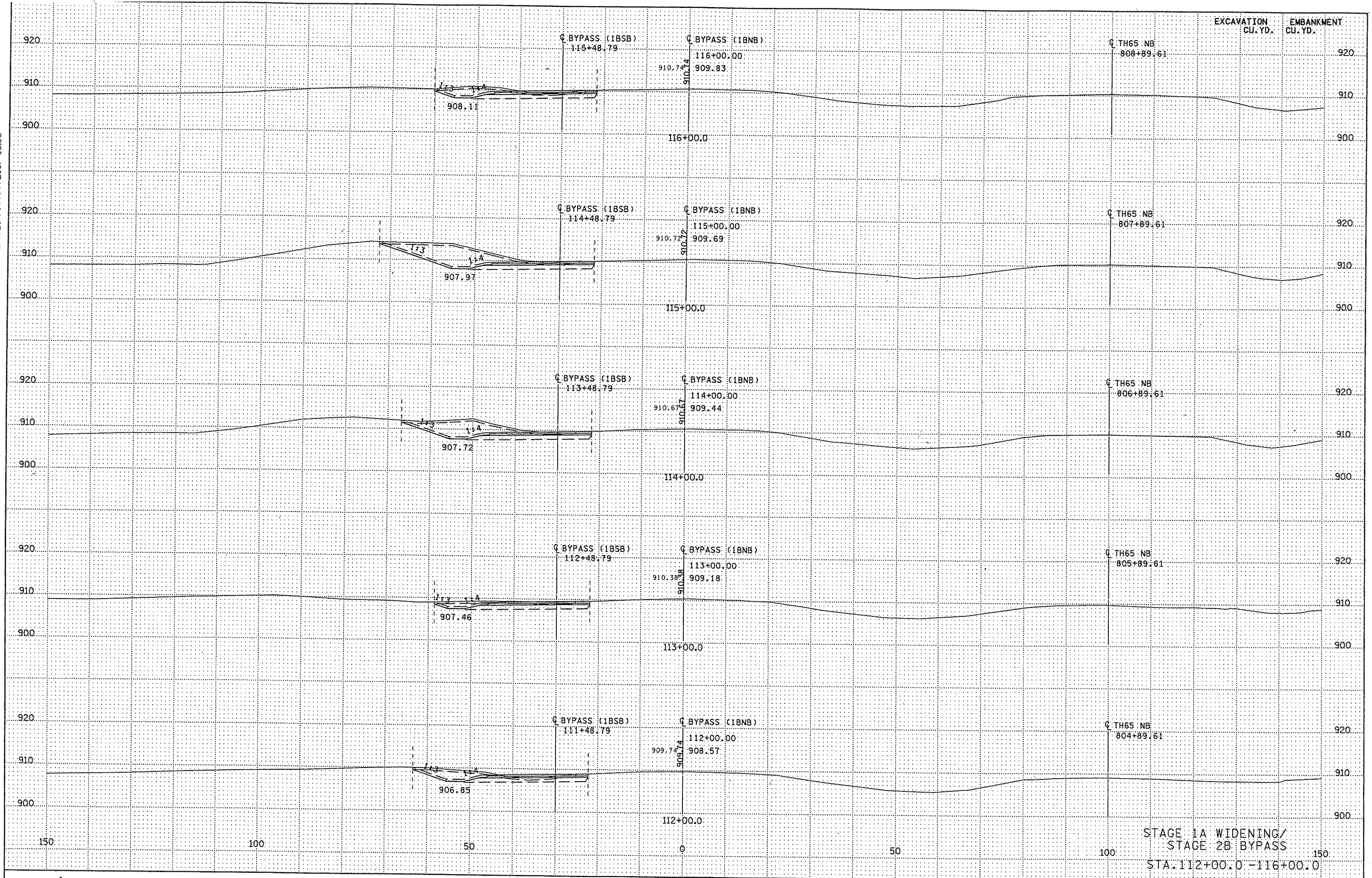
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STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 107+00.0 - 111+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

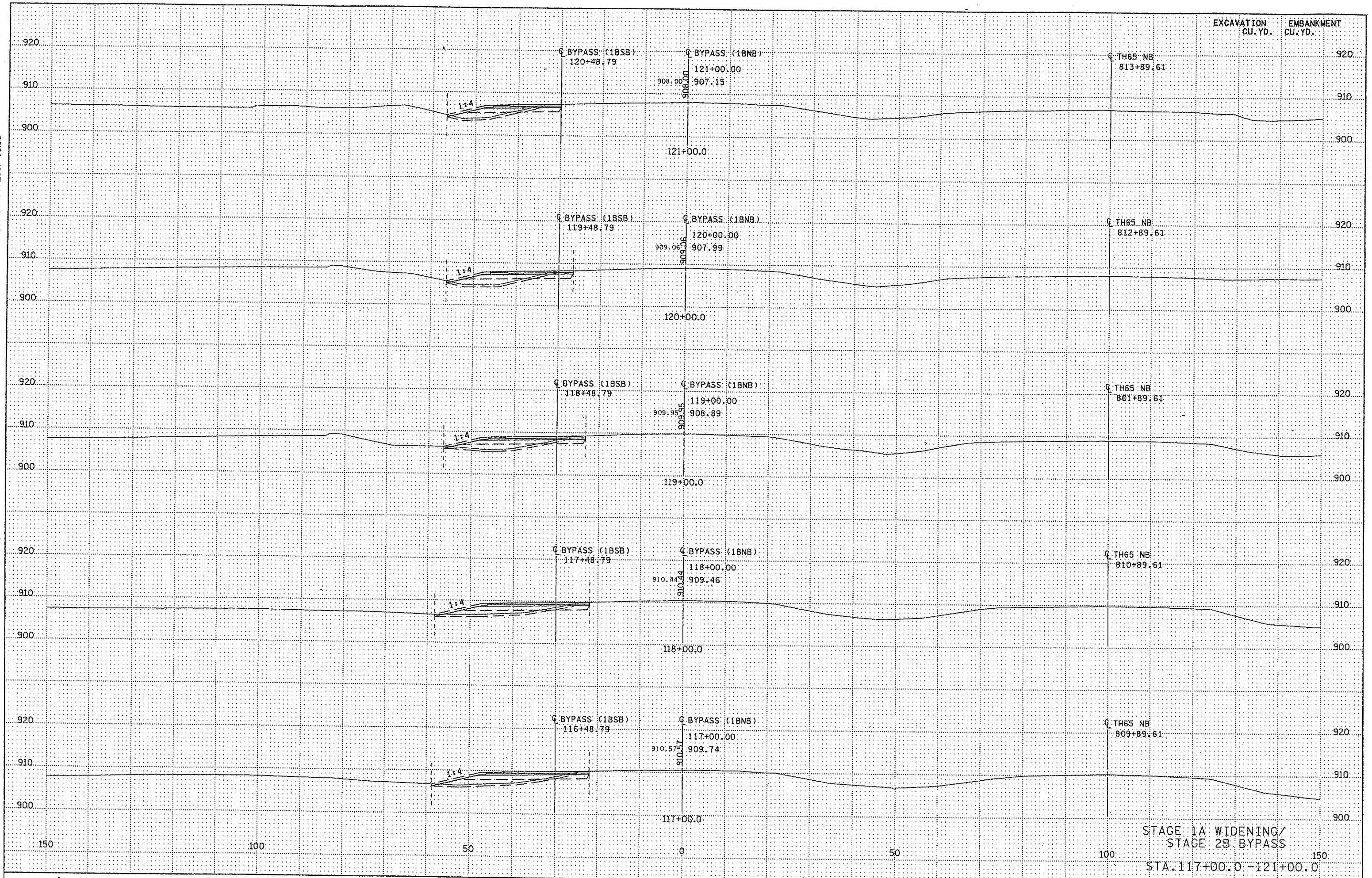
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STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 112+00.0 - 116+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

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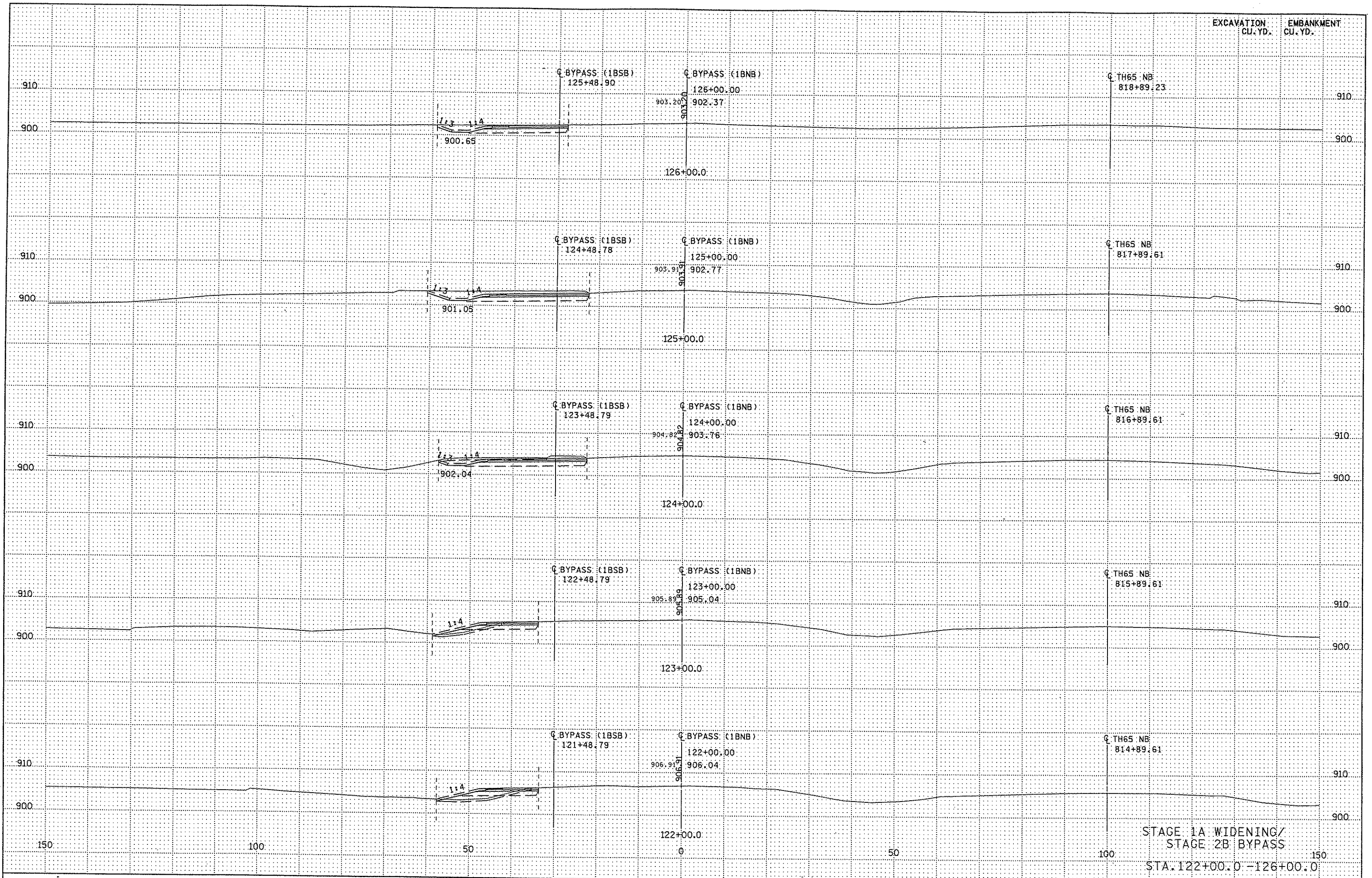
STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 117+00.0 - 121+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:35

DISTRICT # : METRO
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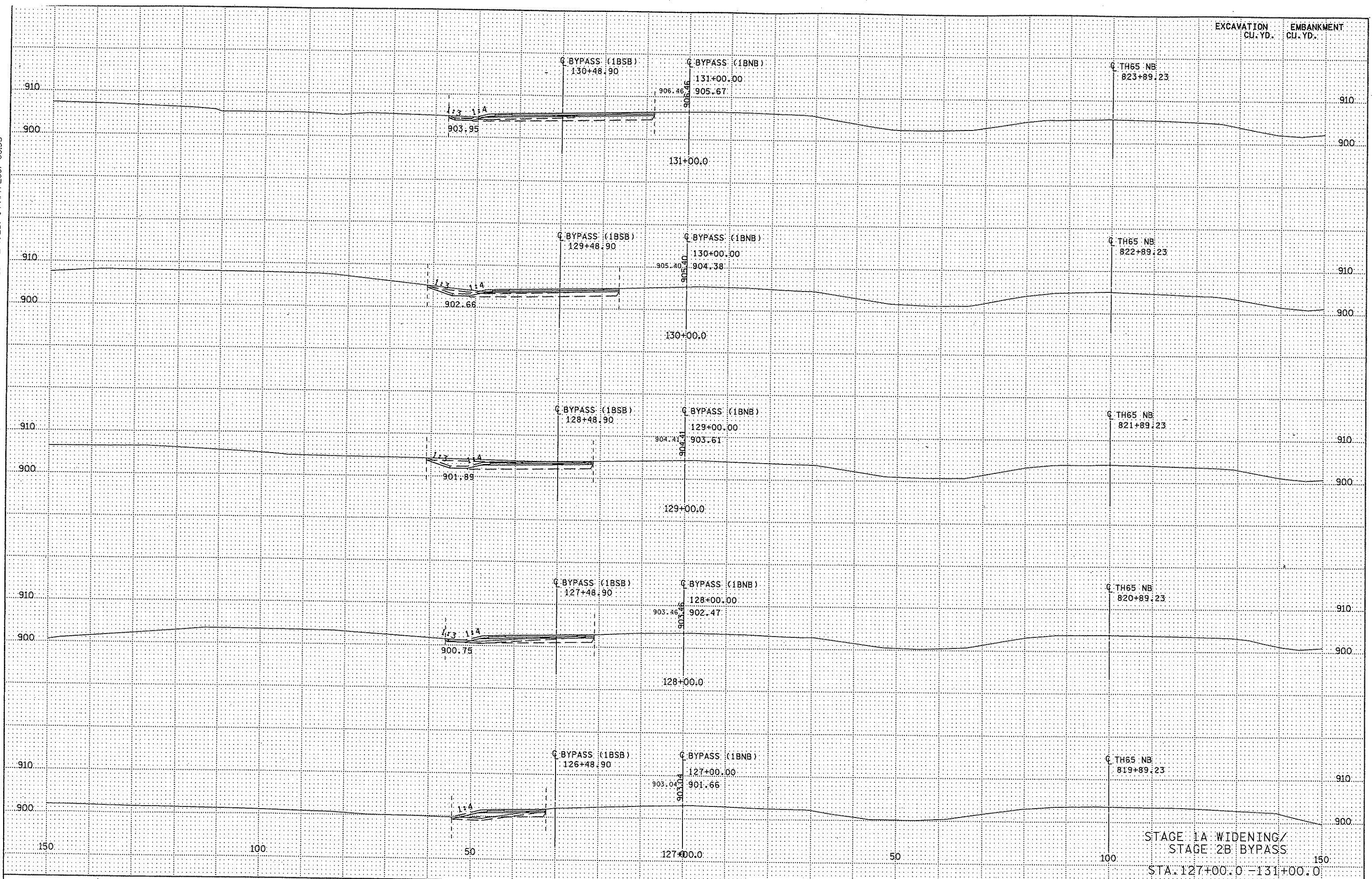


STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 122+00.0 - 126+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:35

DISTRICT # : METRO
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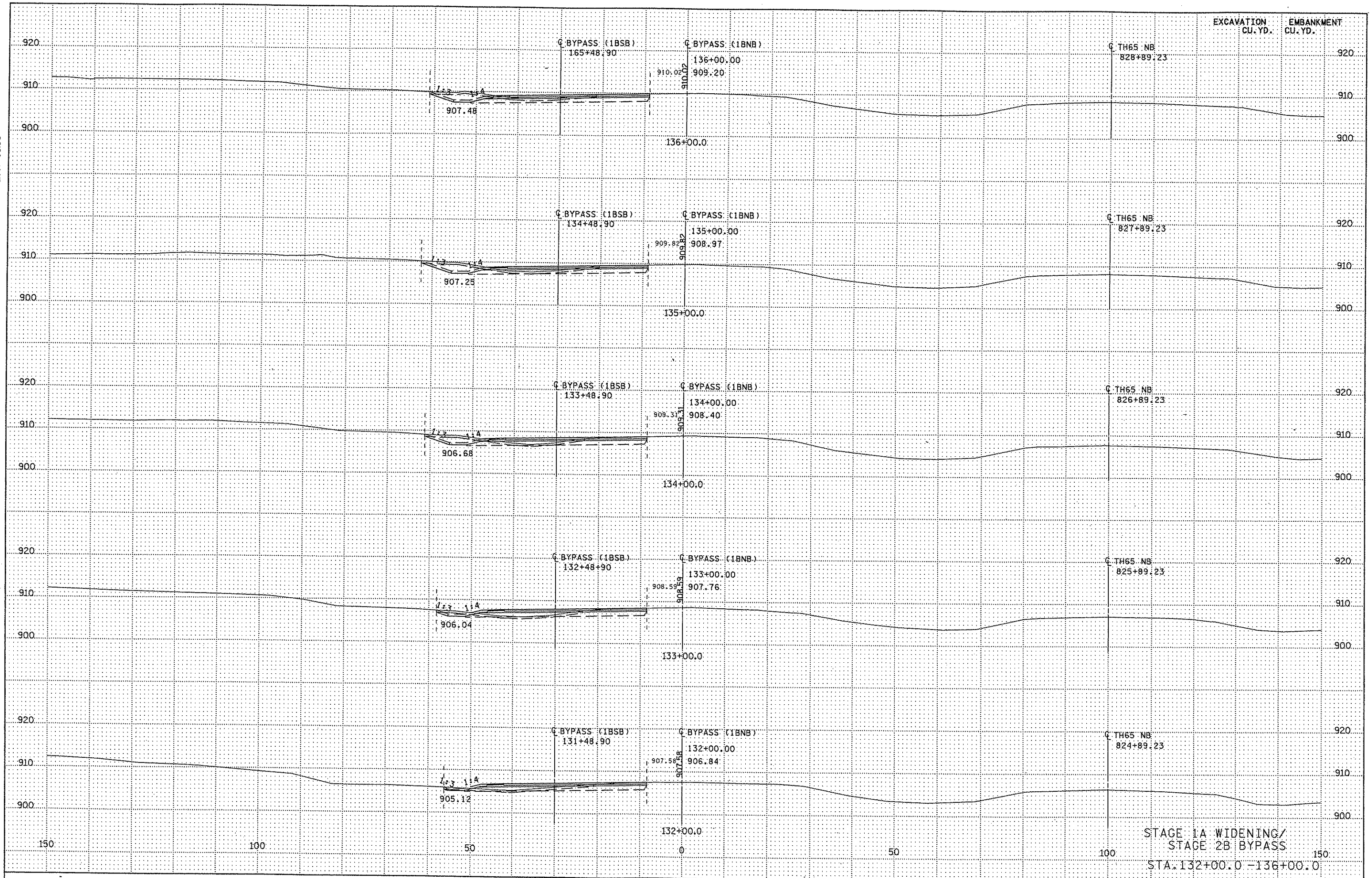


STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 127+00.0 - 131+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

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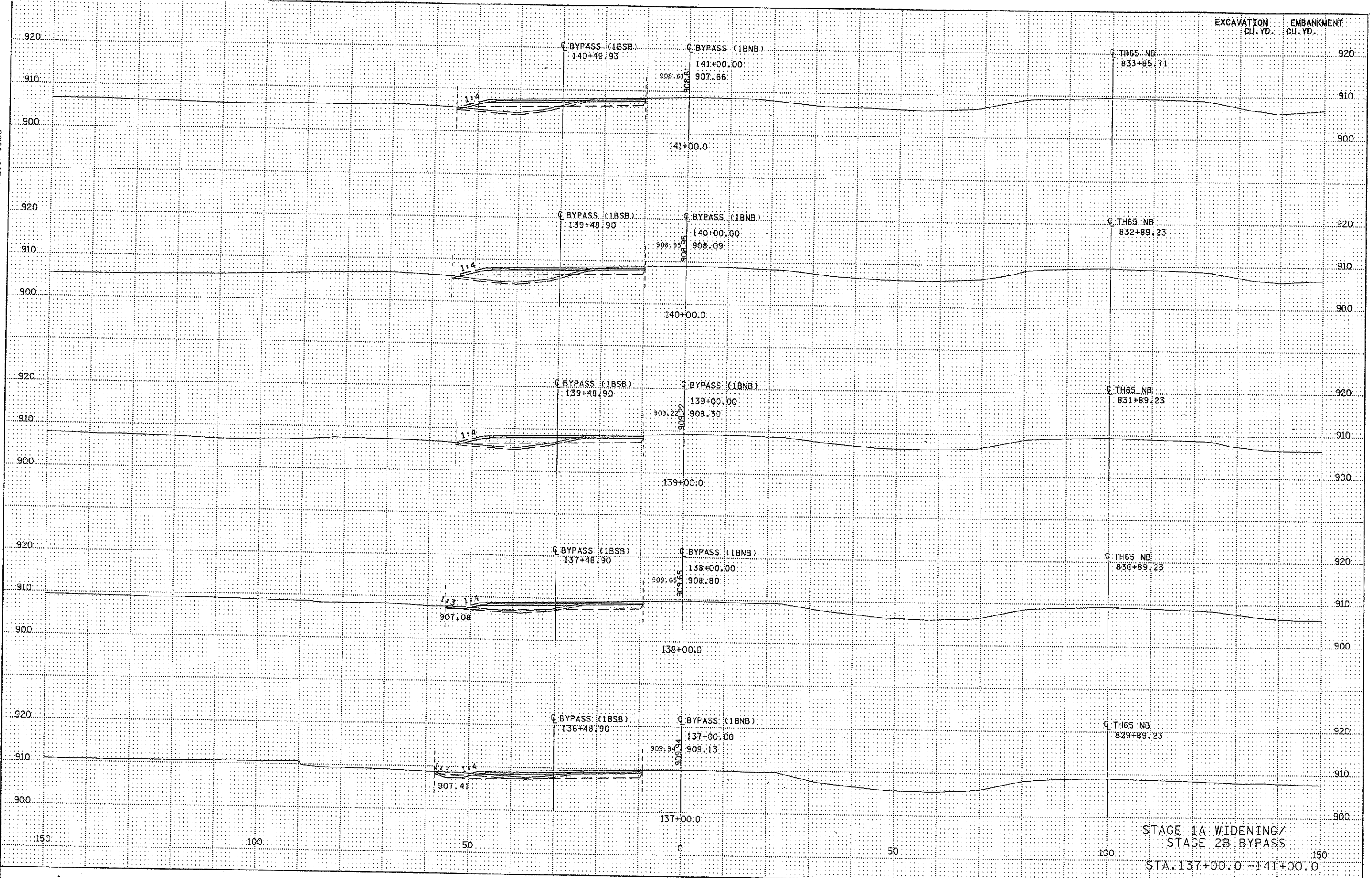


STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 132+00.0 - 136+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

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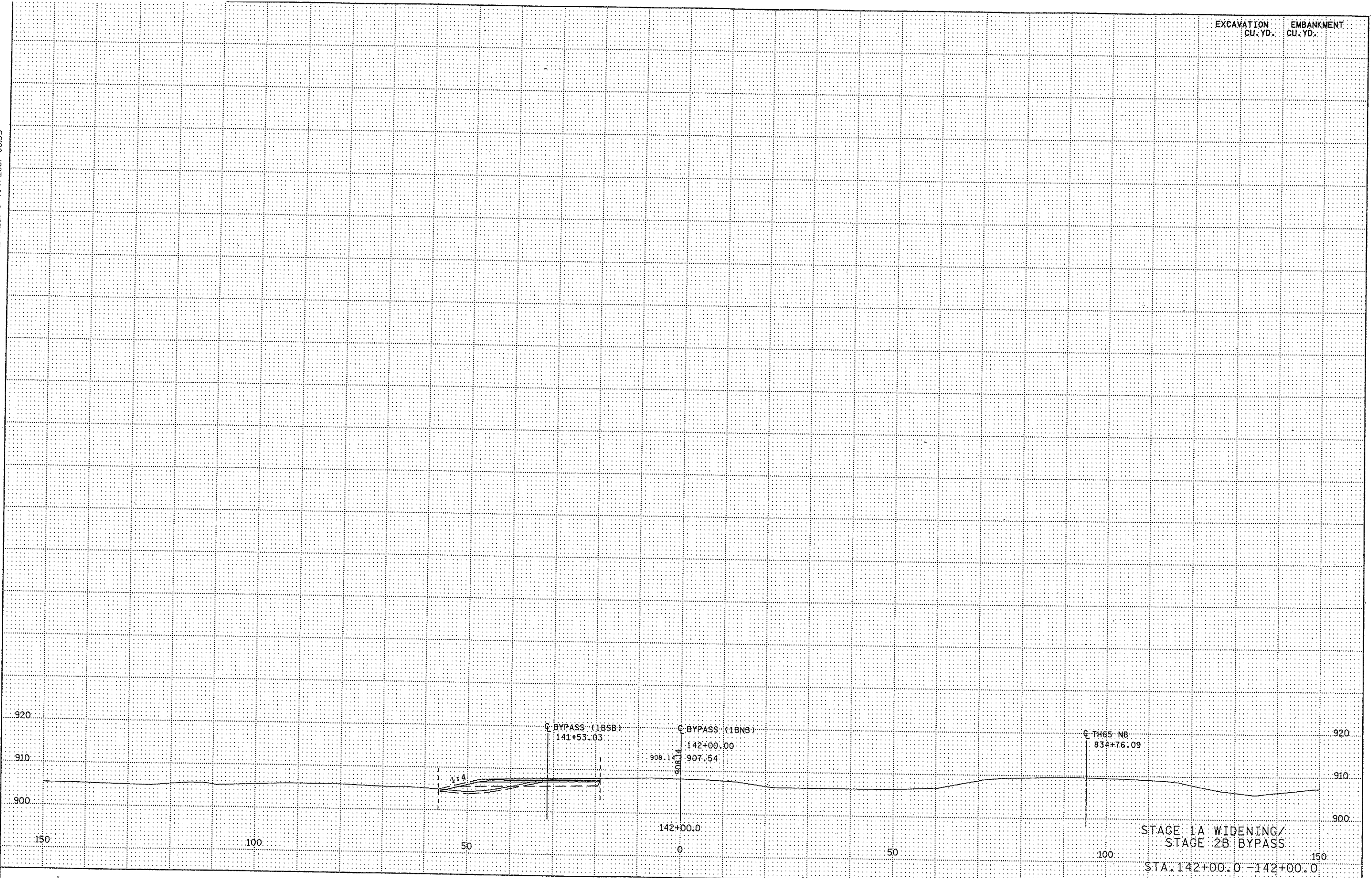


STAGE 1A WIDENING/
STAGE 2B BYPASS
STA. 137+00.0 - 141+00.0

EXCAVATION
CU. YD. EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:35

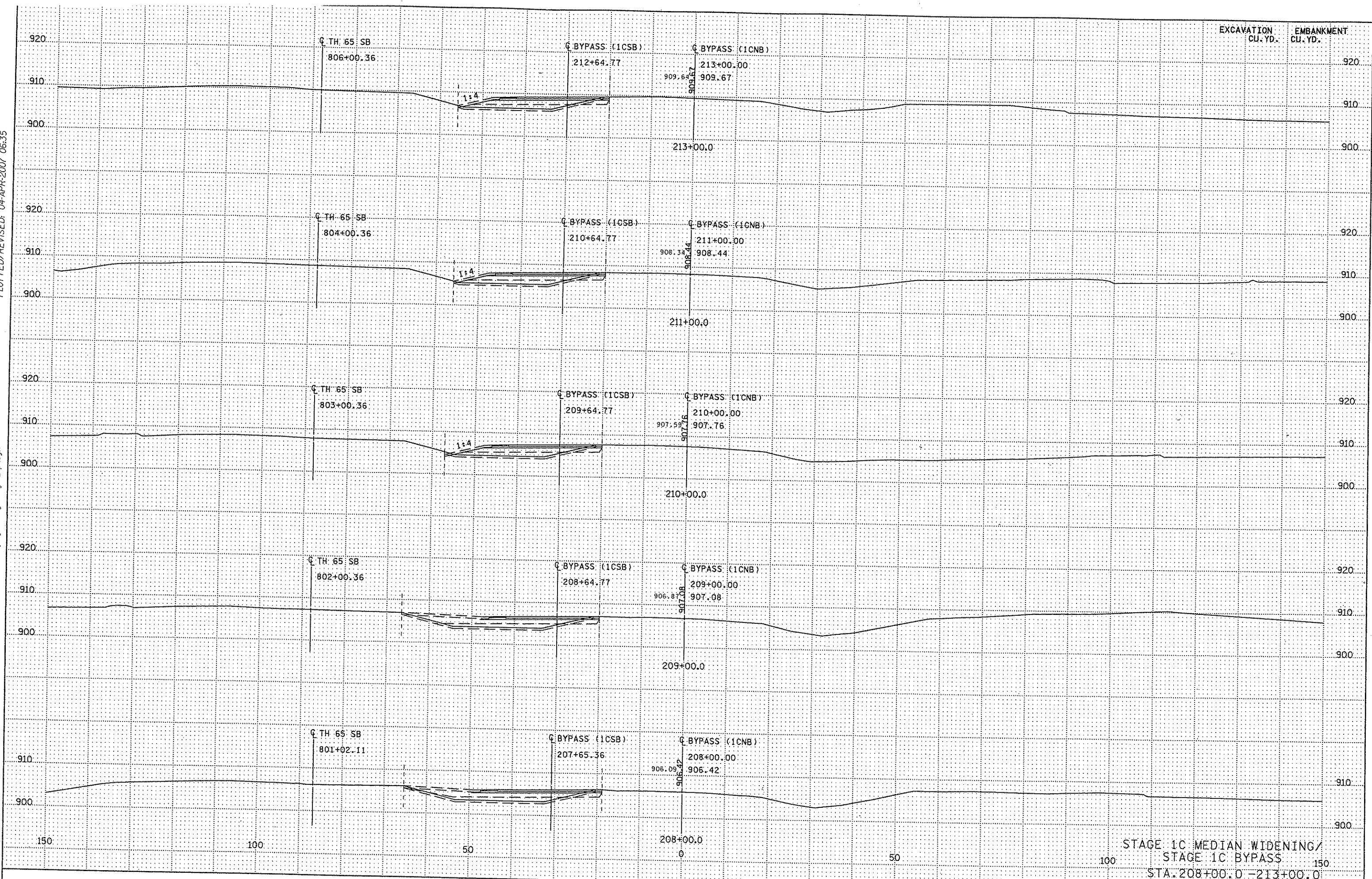
DISTRICT * : METRO
PLOT NAME: stg1b08
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\stg1b\stg1b_xpl.dgn



PLOTTED/REVISED: 04-APR-2007 06:35

PATH & FILENAME: S:\Design\065\0208\23\Final\Stage\hg\vs\stgic\stgic_xpl.dgn

DISTRICT #: METRO
PLOT NAME: stgic01



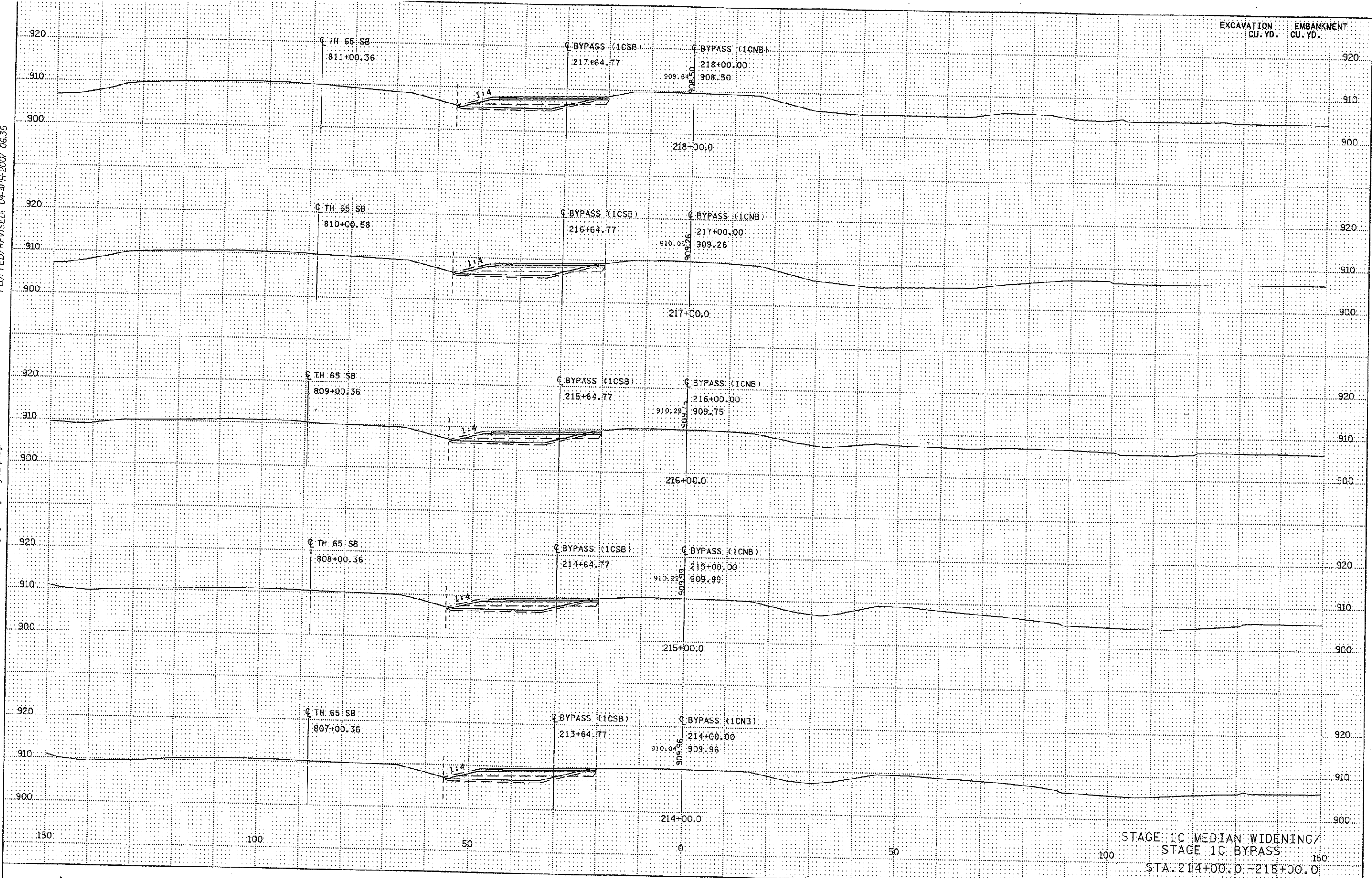
EXCAVATION CU. YD. EMBANKMENT CU. YD.

STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS
STA. 208+00.0 - 213+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\stgic\stgic_xpl.dgn

EXCAVATION CU. YD. EMBANKMENT CU. YD.



STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS
STA. 214+00.0 - 218+00.0

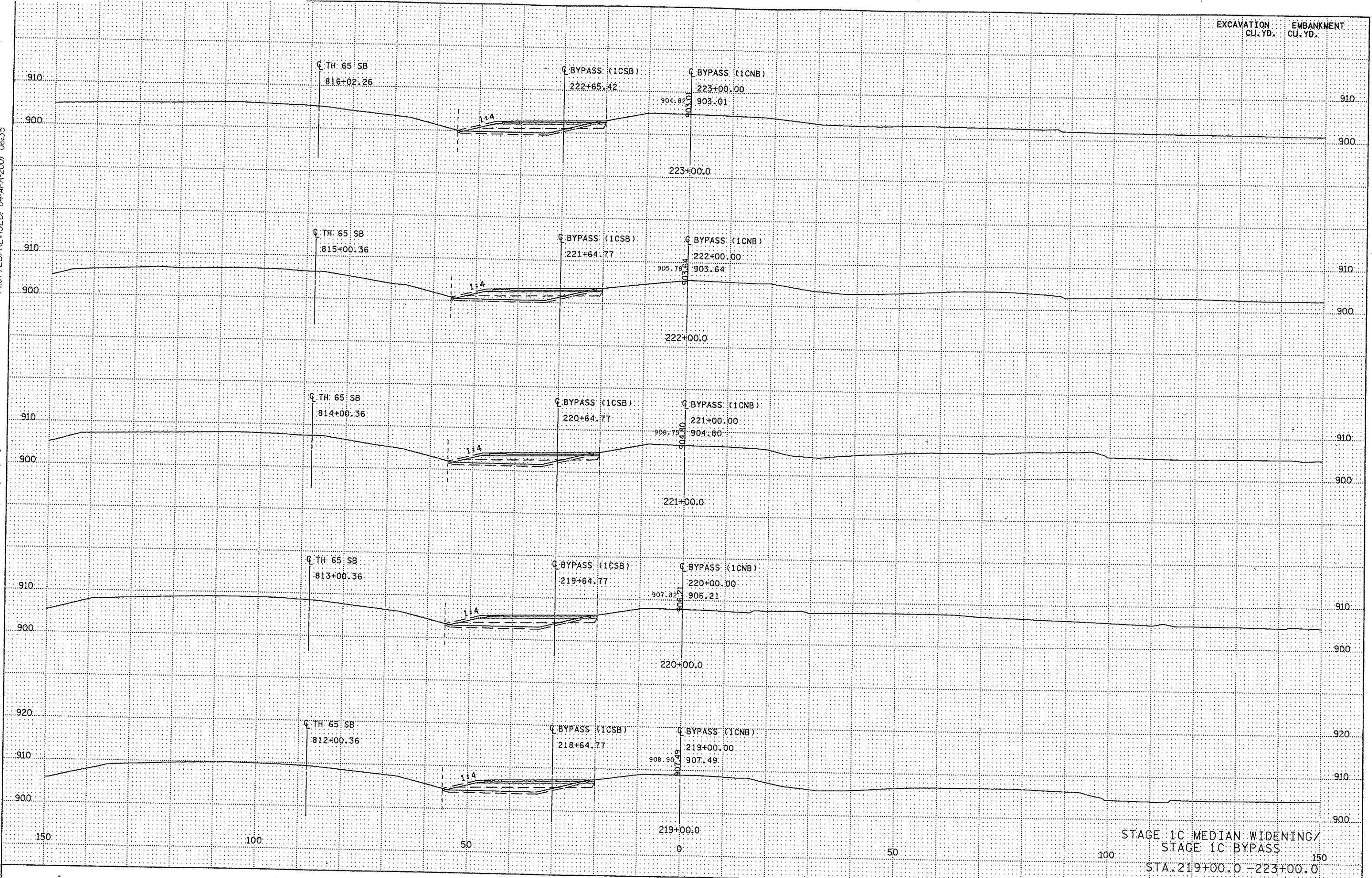
DISTRICT * : METRO
PLOT NAME: stgic02

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:35

DISTRICT * : METRO
PLOT NAME: stg1c03
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg1c\stg1c_xpl.dgn



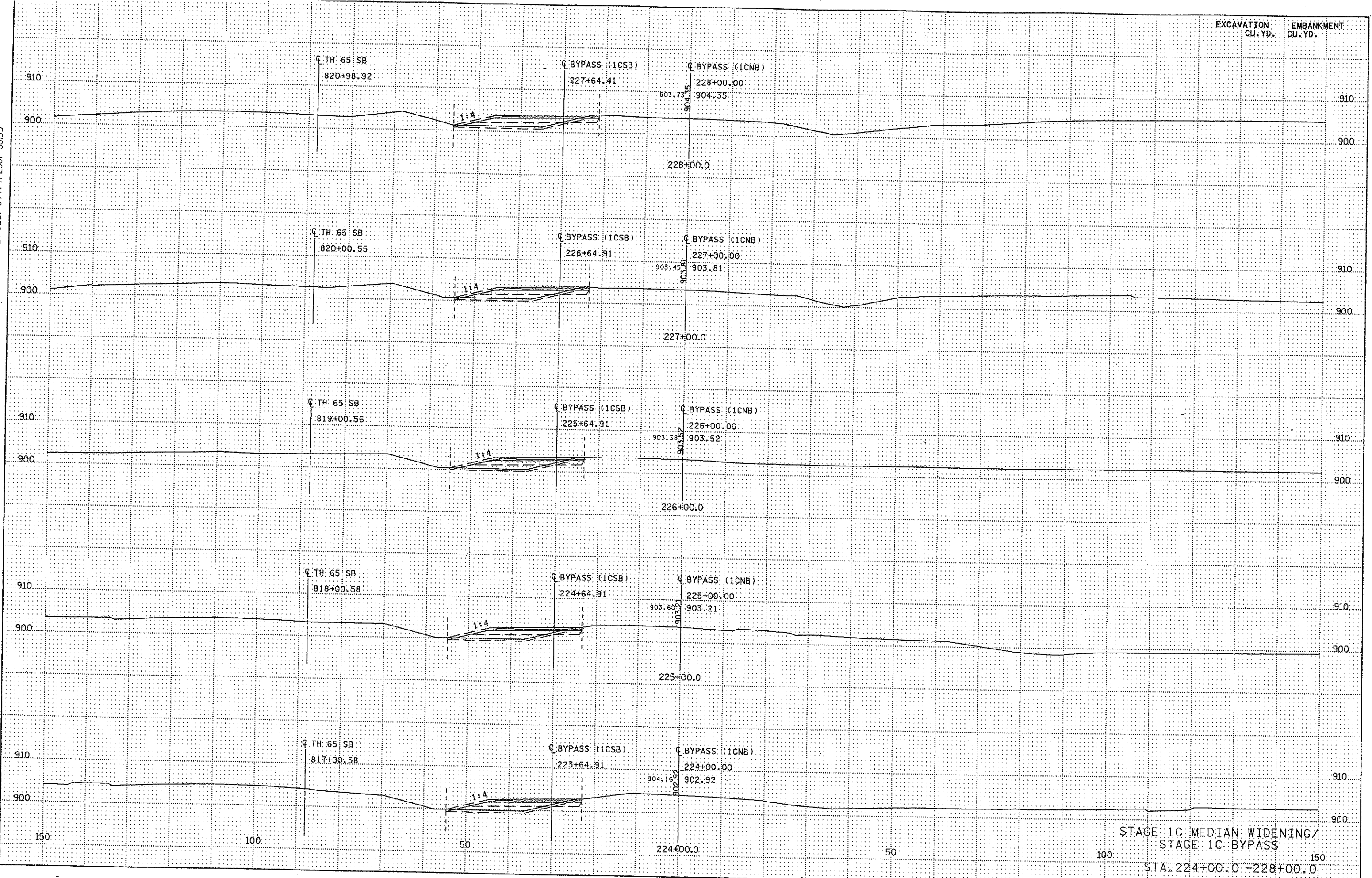
STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS
STA. 219+00.0 - 223+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:35

DISTRICT * : METRO
IPLOT NAME: stg604
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\stg604\stg604.dgn



STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS
STA. 224+00.0 - 228+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

Q TH 65 SB
826+00.82

Q BYPASS (1CSB)
232+65.06

Q BYPASS (1CNB)
233+00.00

907.02

906.81

233+00.0

Q TH 65 SB
825+00.82

Q BYPASS (1CSB)
231+65.06

Q BYPASS (1CNB)
232+00.00

906.21

906.32

232+00.0

Q TH 65 SB
824+00.82

Q BYPASS (1CSB)
230+65.06

Q BYPASS (1CNB)
231+00.00

905.50

905.84

231+00.0

Q TH 65 SB
823+00.82

Q BYPASS (1CSB)
229+65.06

Q BYPASS (1CNB)
230+00.00

904.83

905.35

230+00.0

Q TH 65 SB
822+00.82

Q BYPASS (1CSB)
228+64.41

Q BYPASS (1CNB)
229+00.00

904.09

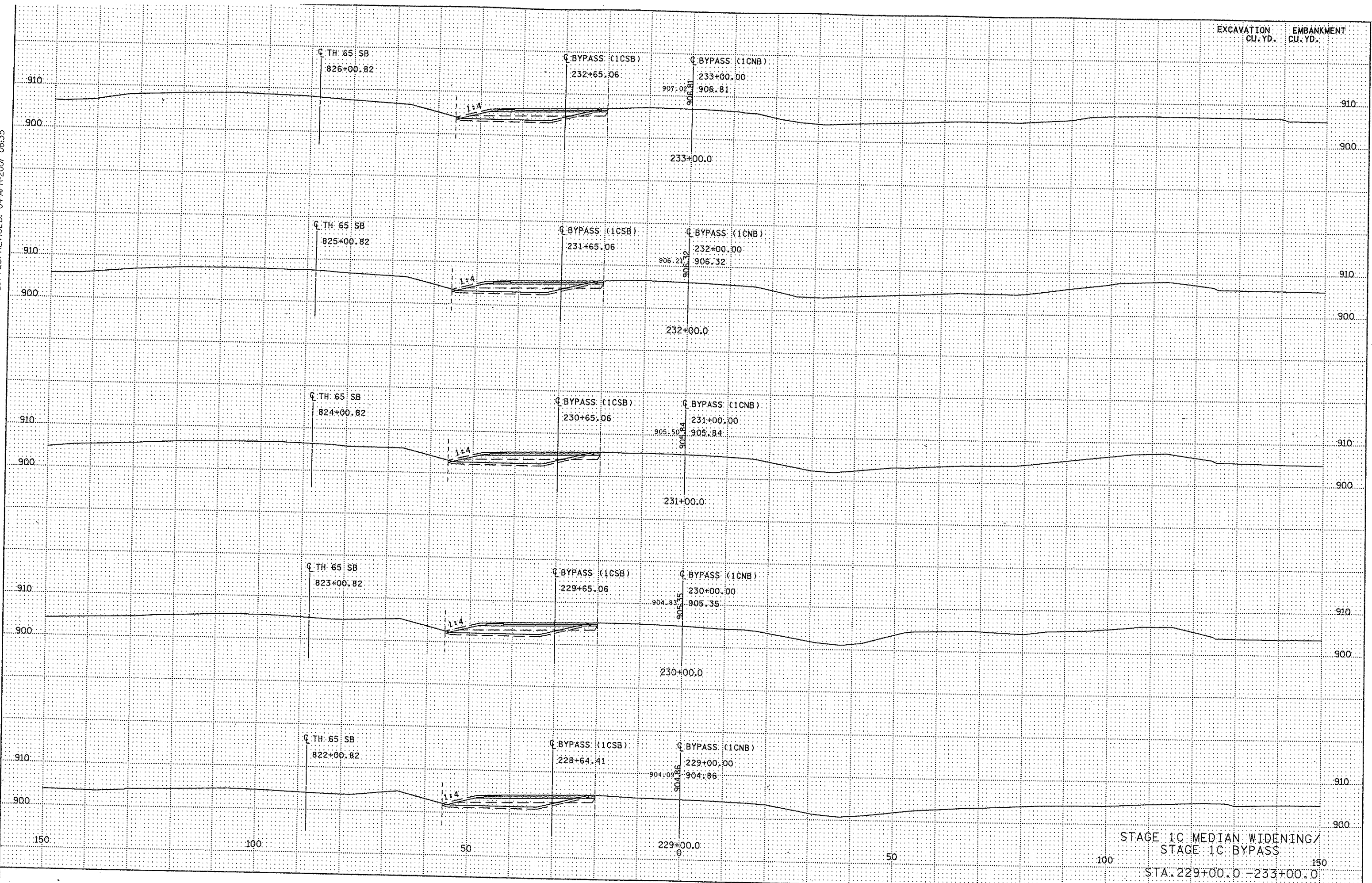
904.86

229+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\Vis\stgic\stgic_xpl.dgn

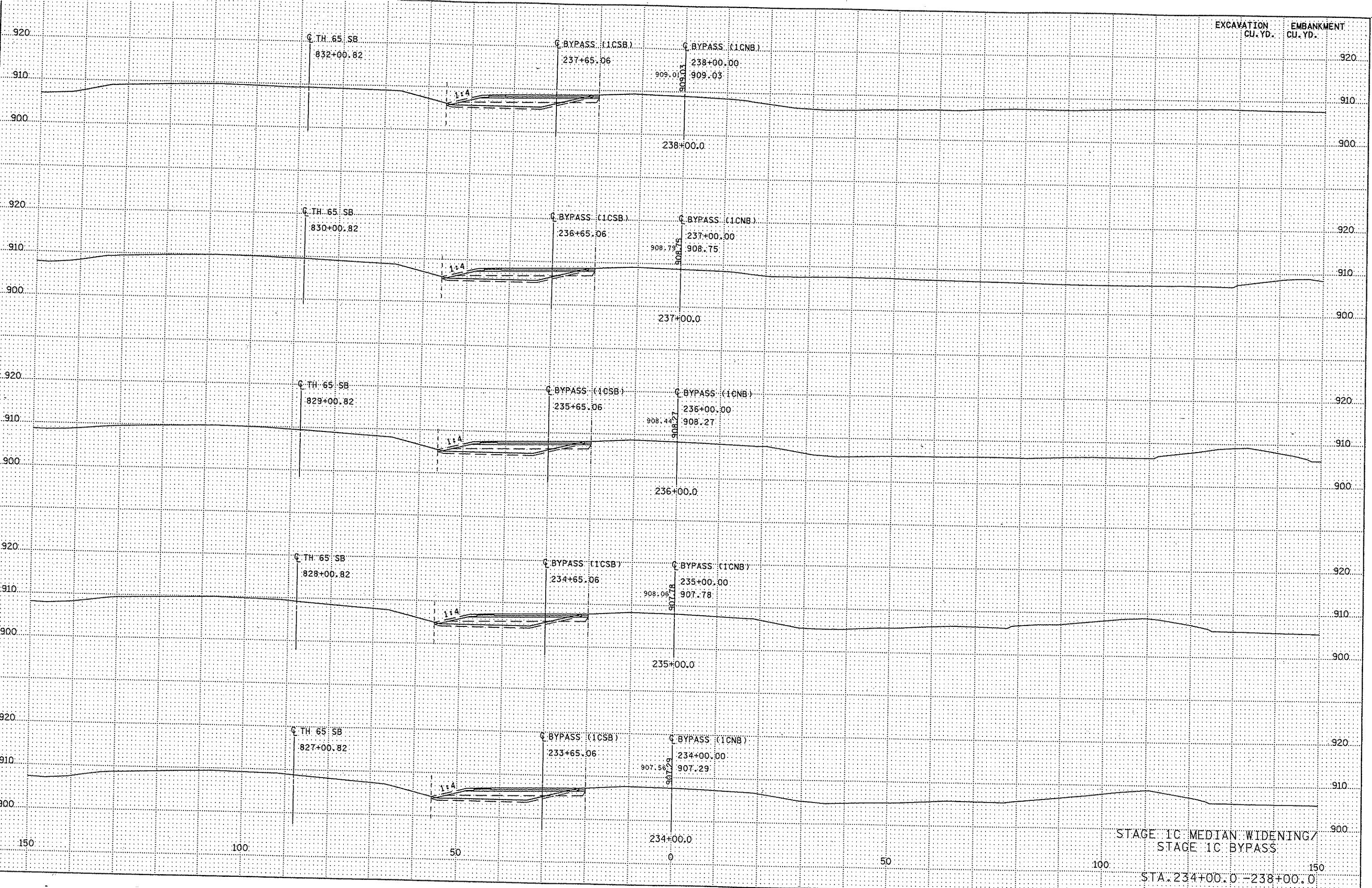
USER: METRO
PLOT NAME: stgic05



STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS
STA. 229+00.0 - 233+00.0

PLOTTED/REVISED: 04-APR-2007 06:35

PATH & FILENAME: S:\Design\065\0208\123\Final\Stage\ng\vs\stgic\stgic_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS

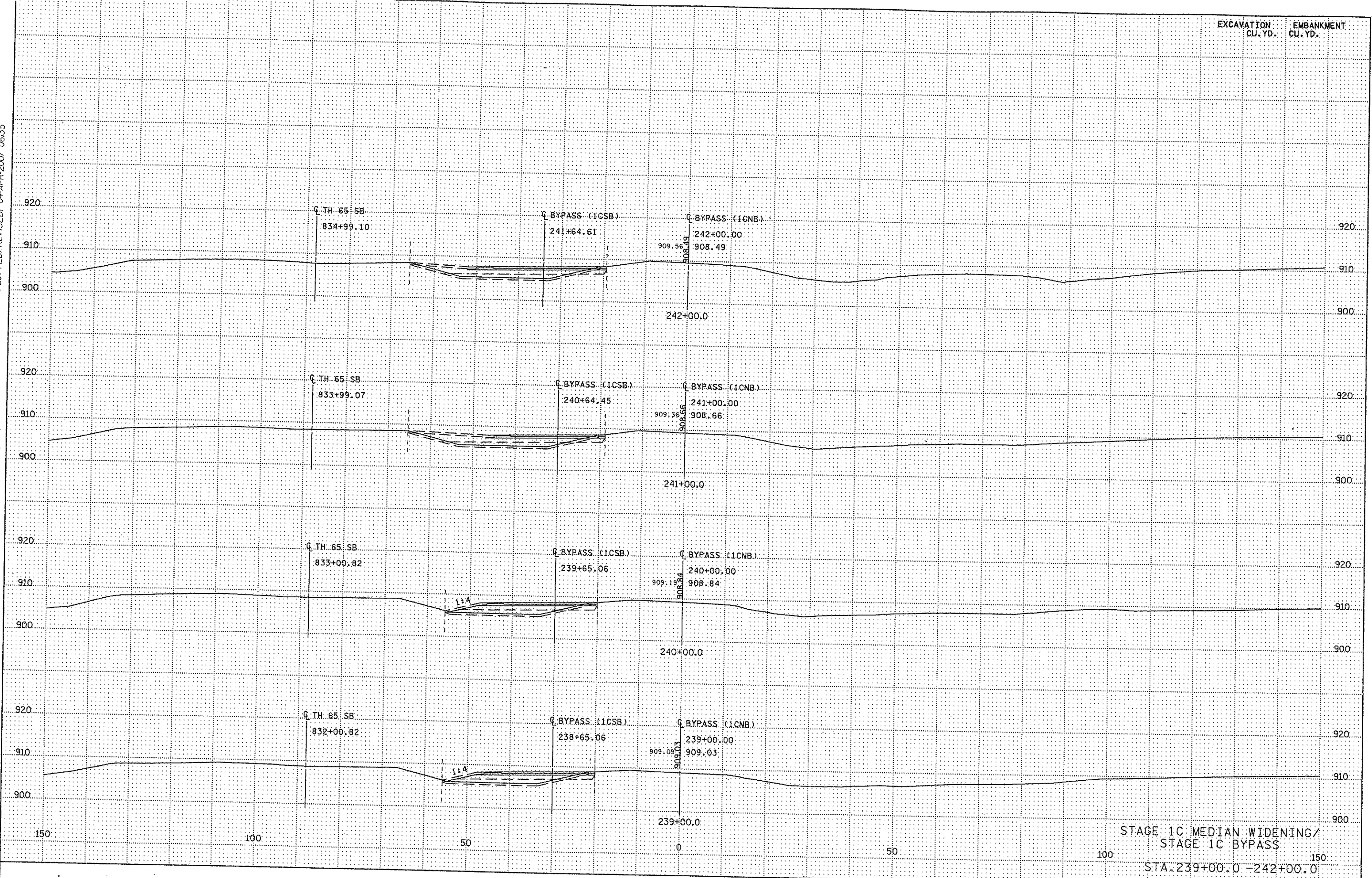
STA. 234+00.0 - 238+00.0

EXCAVATION
CU. YD.

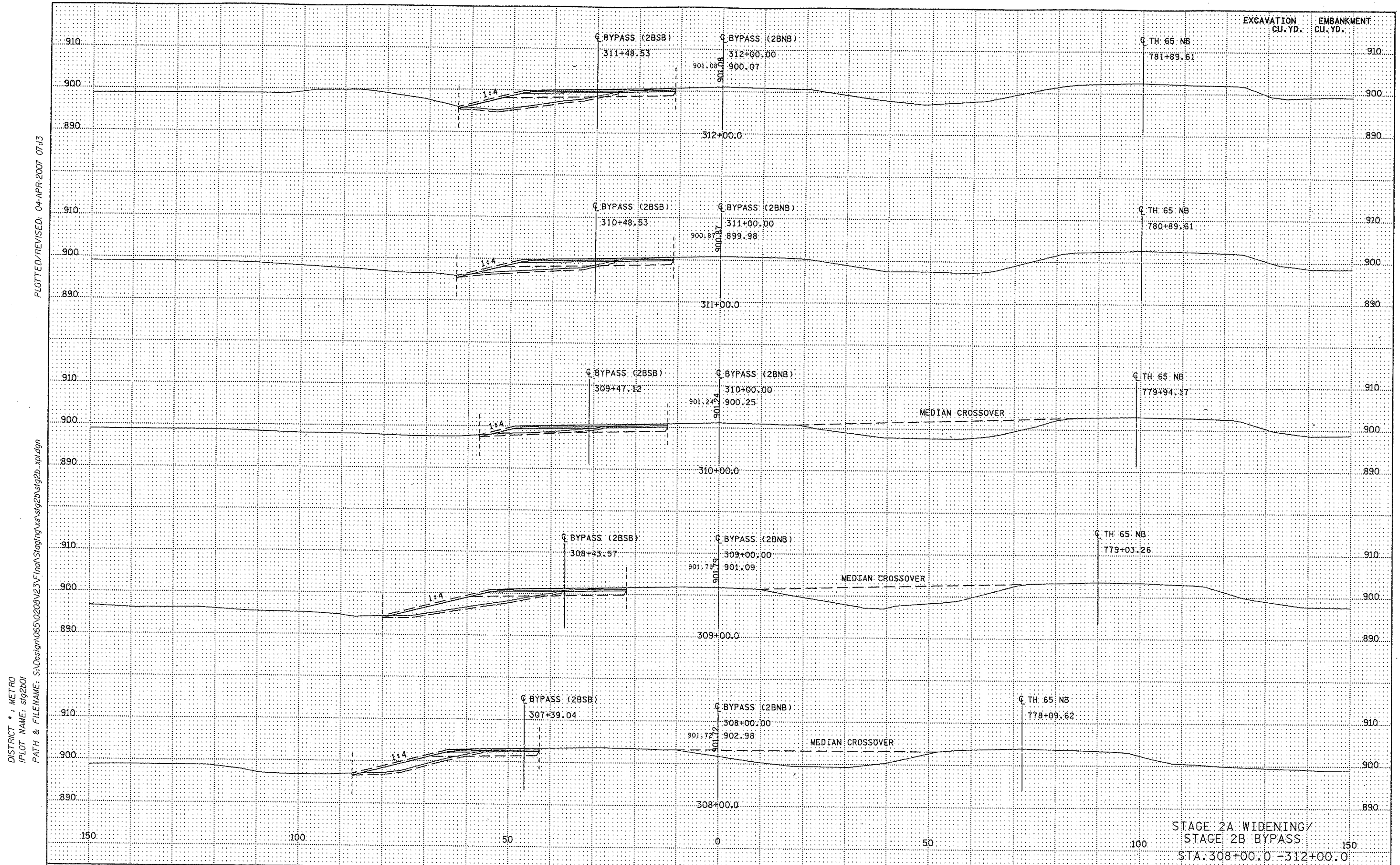
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:35

DISTRICT # : METRO
IPLLOT NAME: stg1c07
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg1c\stg1c_xpl.dgn



STAGE 1C MEDIAN WIDENING/
STAGE 1C BYPASS
STA. 239+00.0 - 242+00.0



PLOTTED/REVISED: 04-APR-2007 07:13

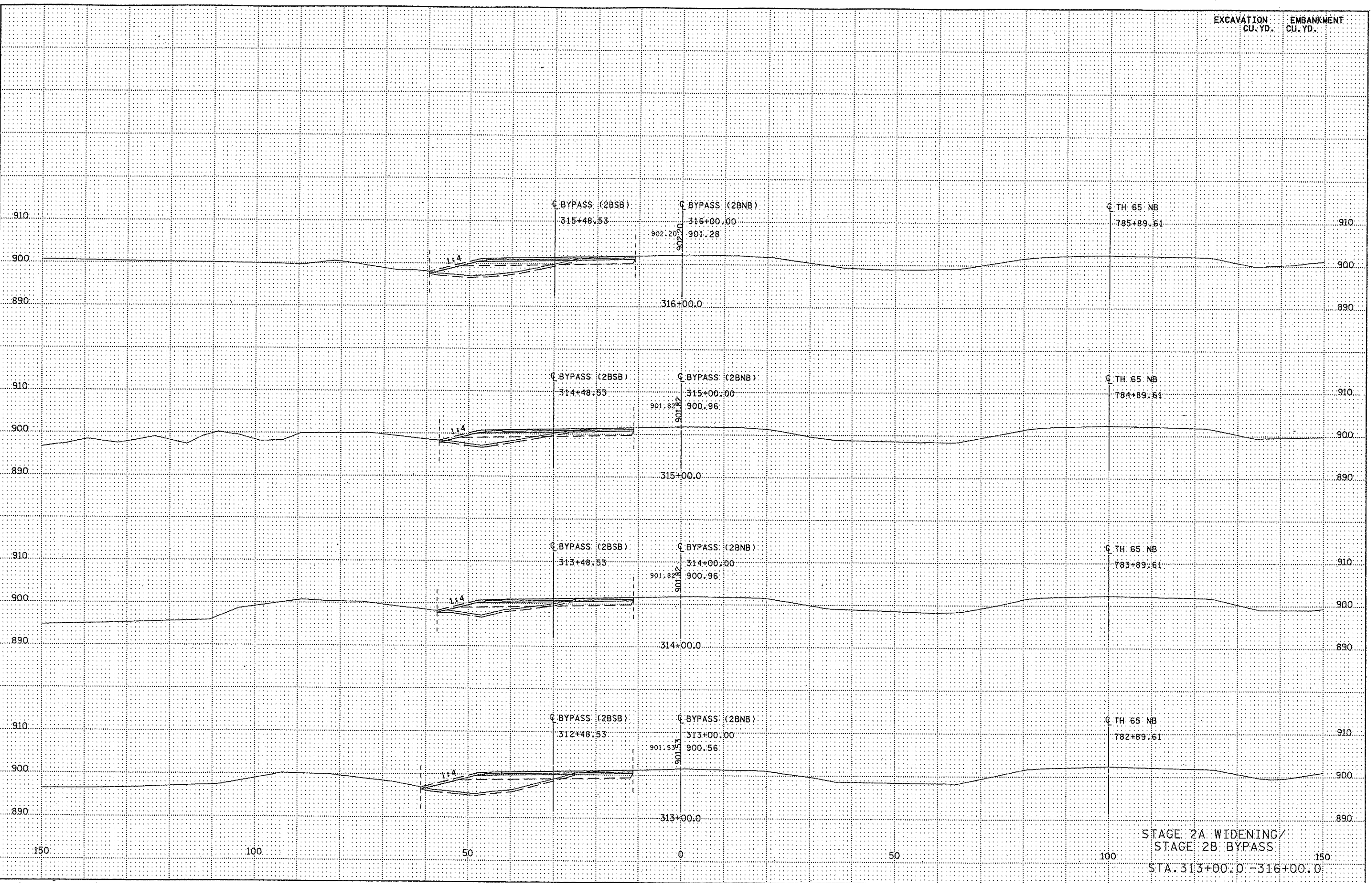
DISTRICT : METRO
 I/PLOT NAME: stg2b01
 PATH & FILENAME: S:\Design\065\0208\23\Final\Stage\ng\stg2b\stg2b_xpl.dgn

STAGE 2A WIDENING/
 STAGE 2B BYPASS
 STA. 308+00.0 - 312+00.0

EXCAVATION
CU. YD. EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:13

DISTRICT # : METRO
PLOT NAME: sf92b02
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\sf92b\sf92b_xpl.dgn



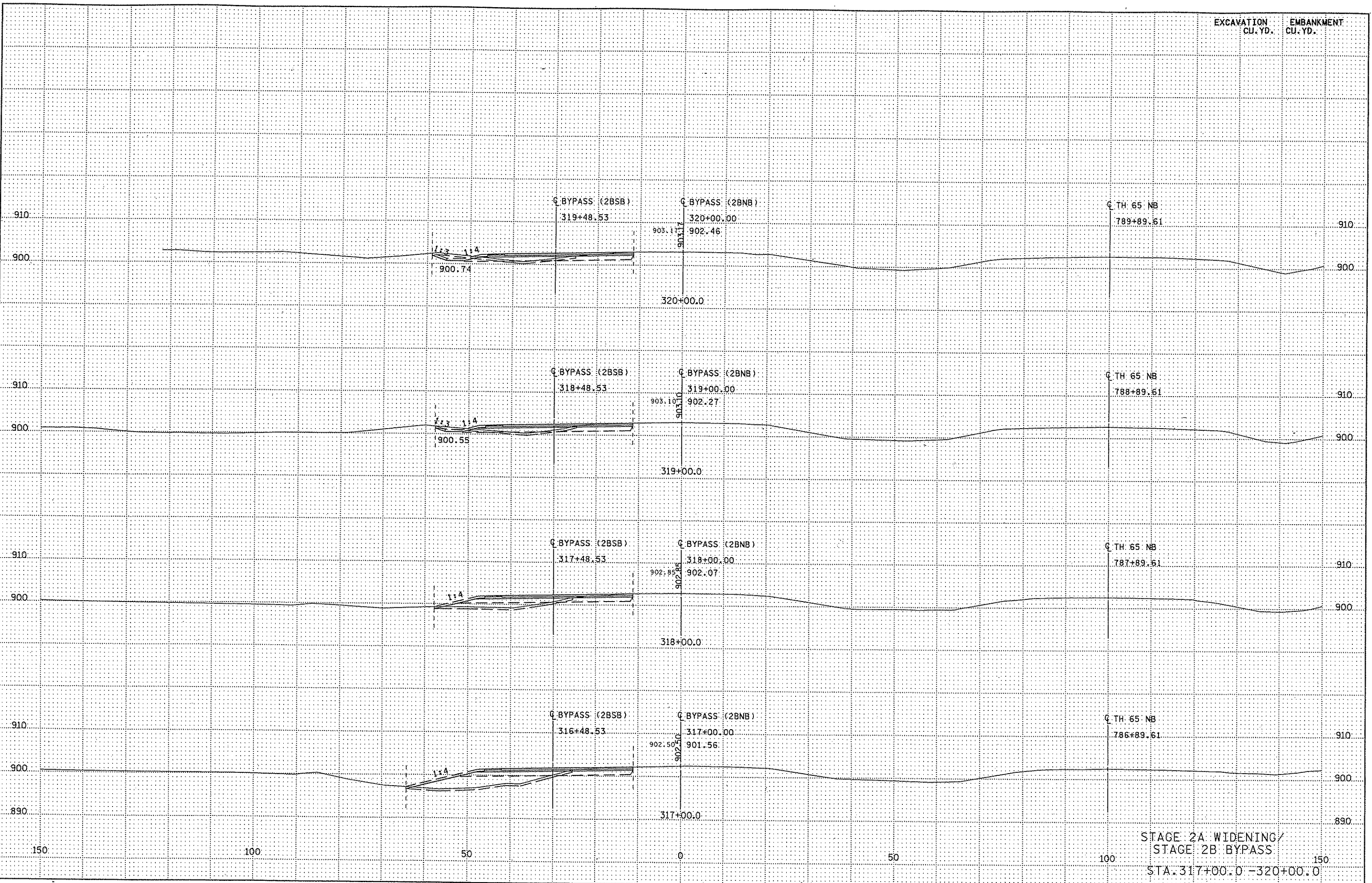
STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 313+00.0 - 316+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:13

DISTRICT : METRO
PLOT NAME: stg2b03
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\stg2b\stg2b_xpl.dgn

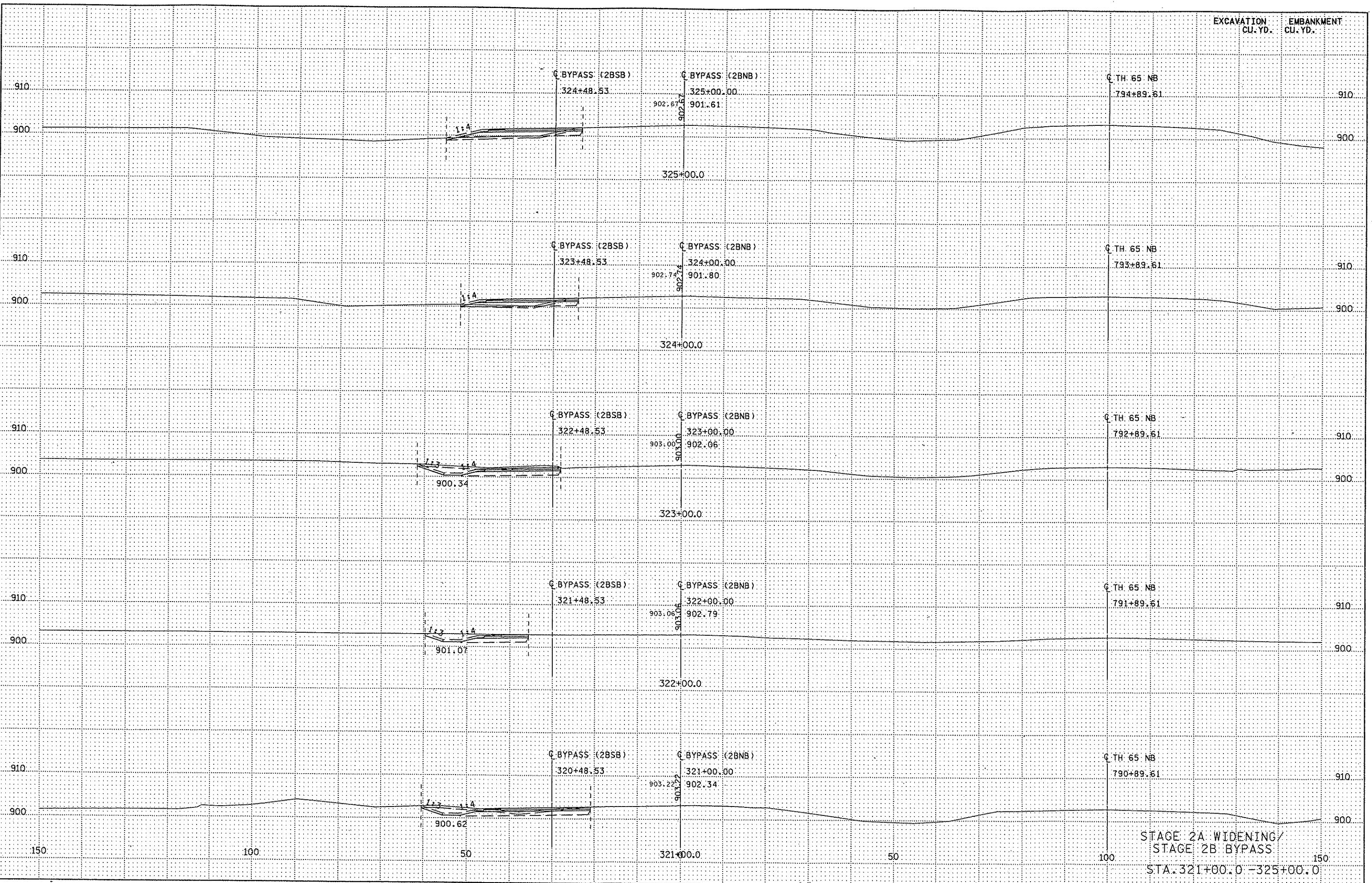


STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 317+00.0 - 320+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:13

DISTRICT * : METRO
PLOT NAME: stg2b04
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\stg2b\stg2b_xpl.dgn



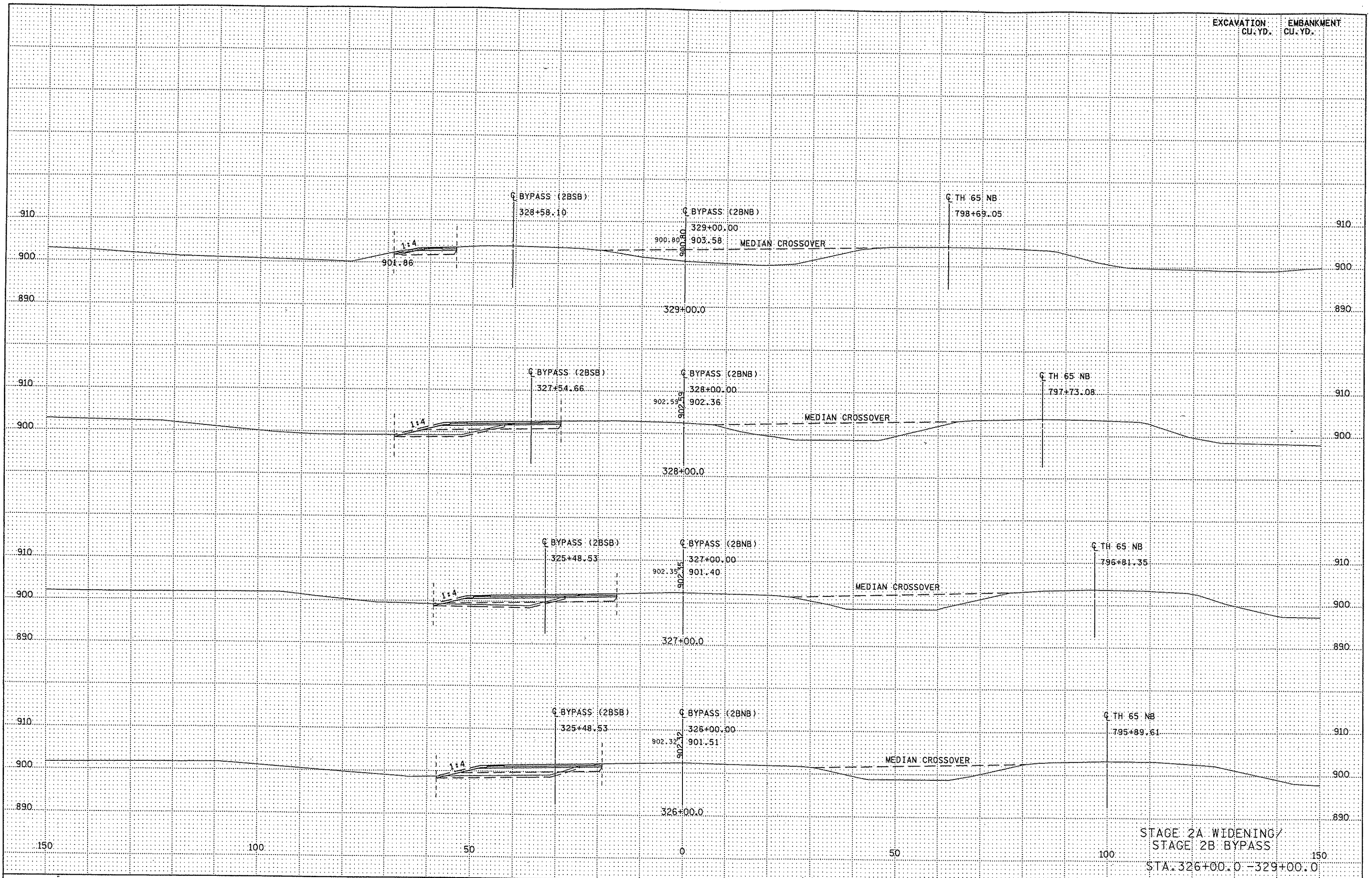
STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 321+00.0 - 325+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

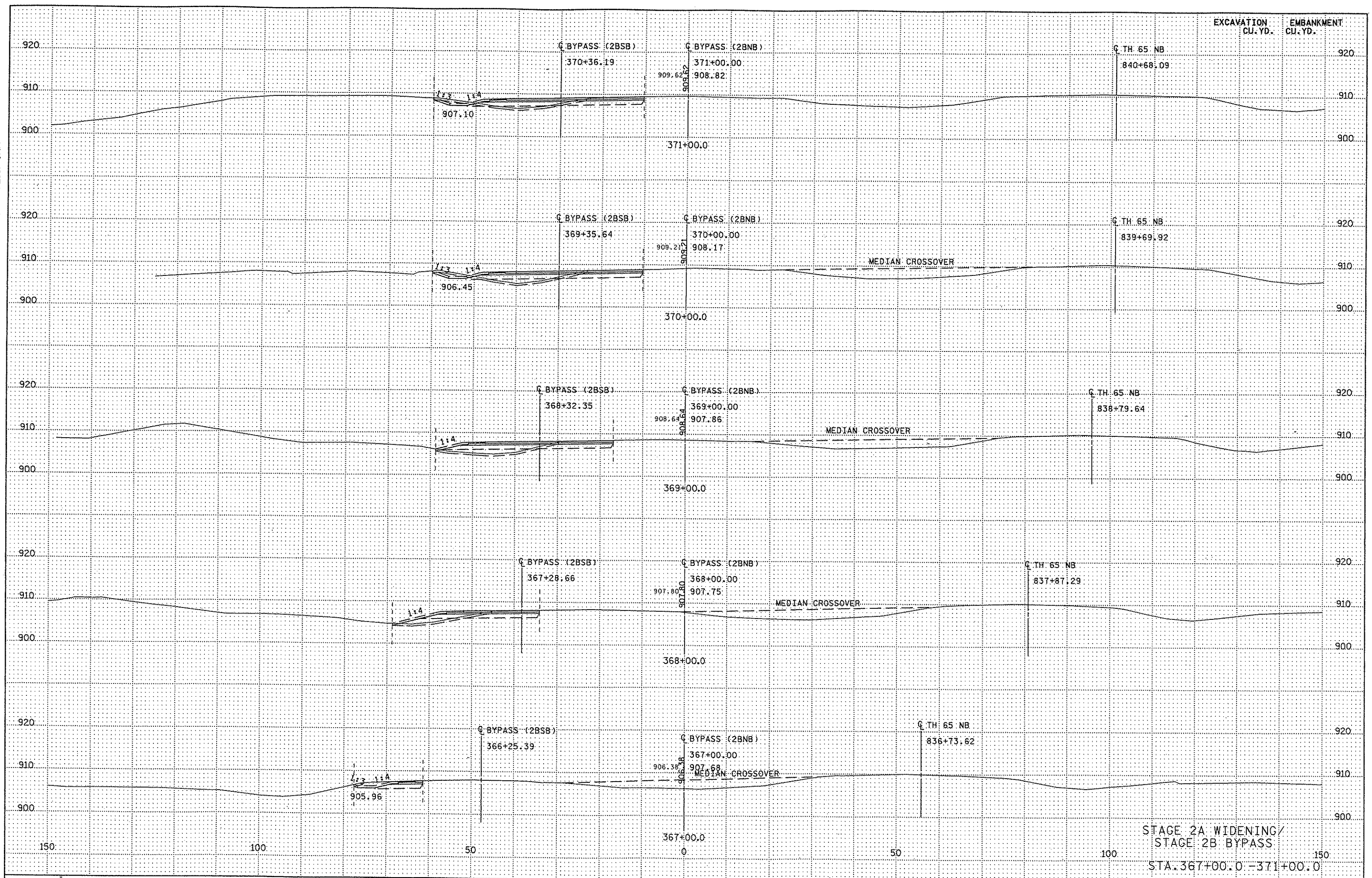
PLOTTED/REVISED: 04-APR-2007 07:14

DISTRICT * : METRO
PLOT NAME: stg2b05
PATH & FILENAME: S:\Design\065\0208\123\Final\Stage\mg\va\stg2b\stg2b_xpl.dgn



PLOTTED/REVISED: 04-APR-2007 07:14

DISTRICT # : METRO
I/PLOT NAME: sfq2b06
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\sfq2b\sfq2b_rpl.dgn



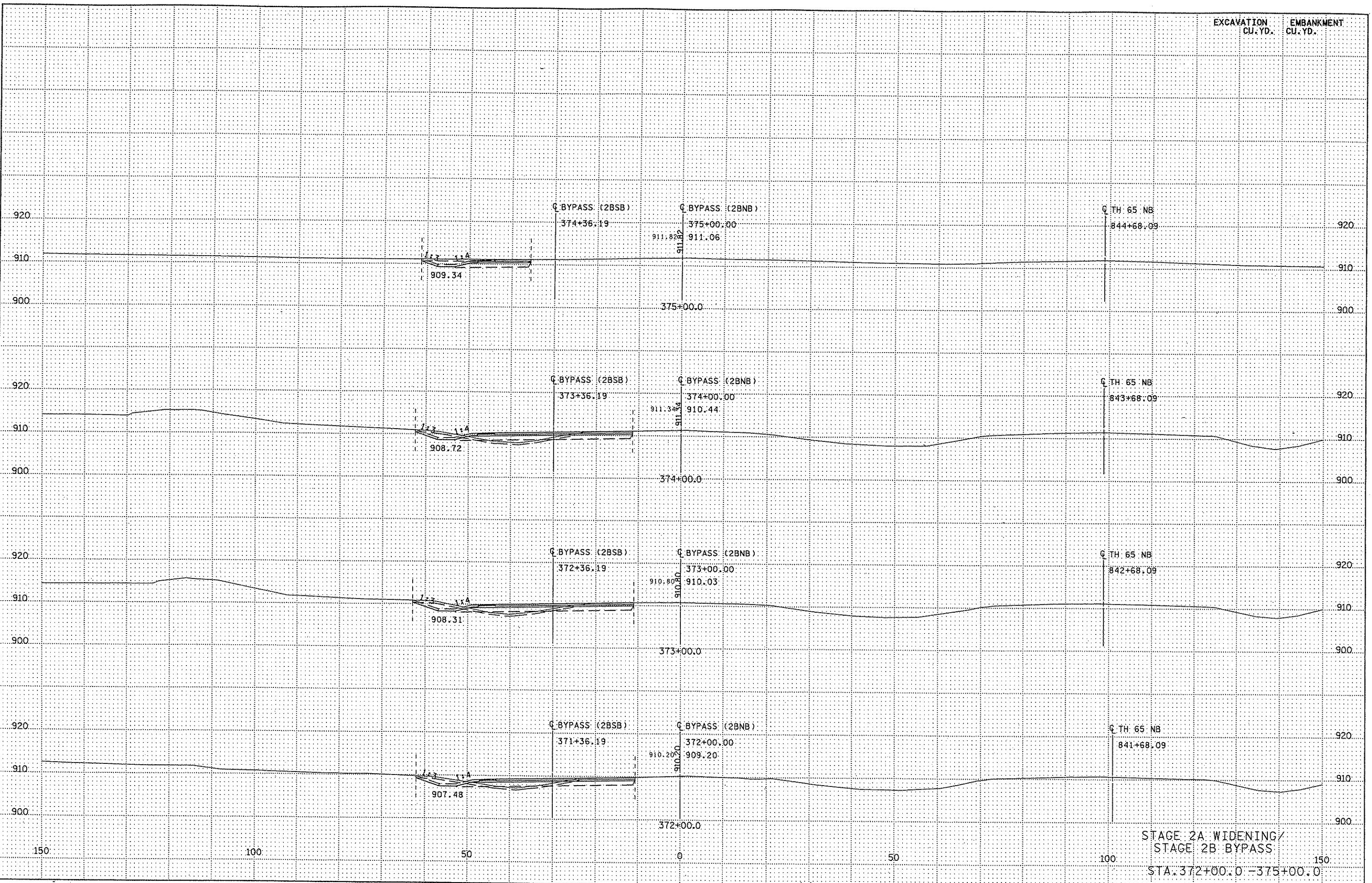
STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 367+00.0 - 371+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:14

DISTRICT #: METRO
PLOT NAME: stg2b07
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\stg2b\stg2b_xpl.dgn

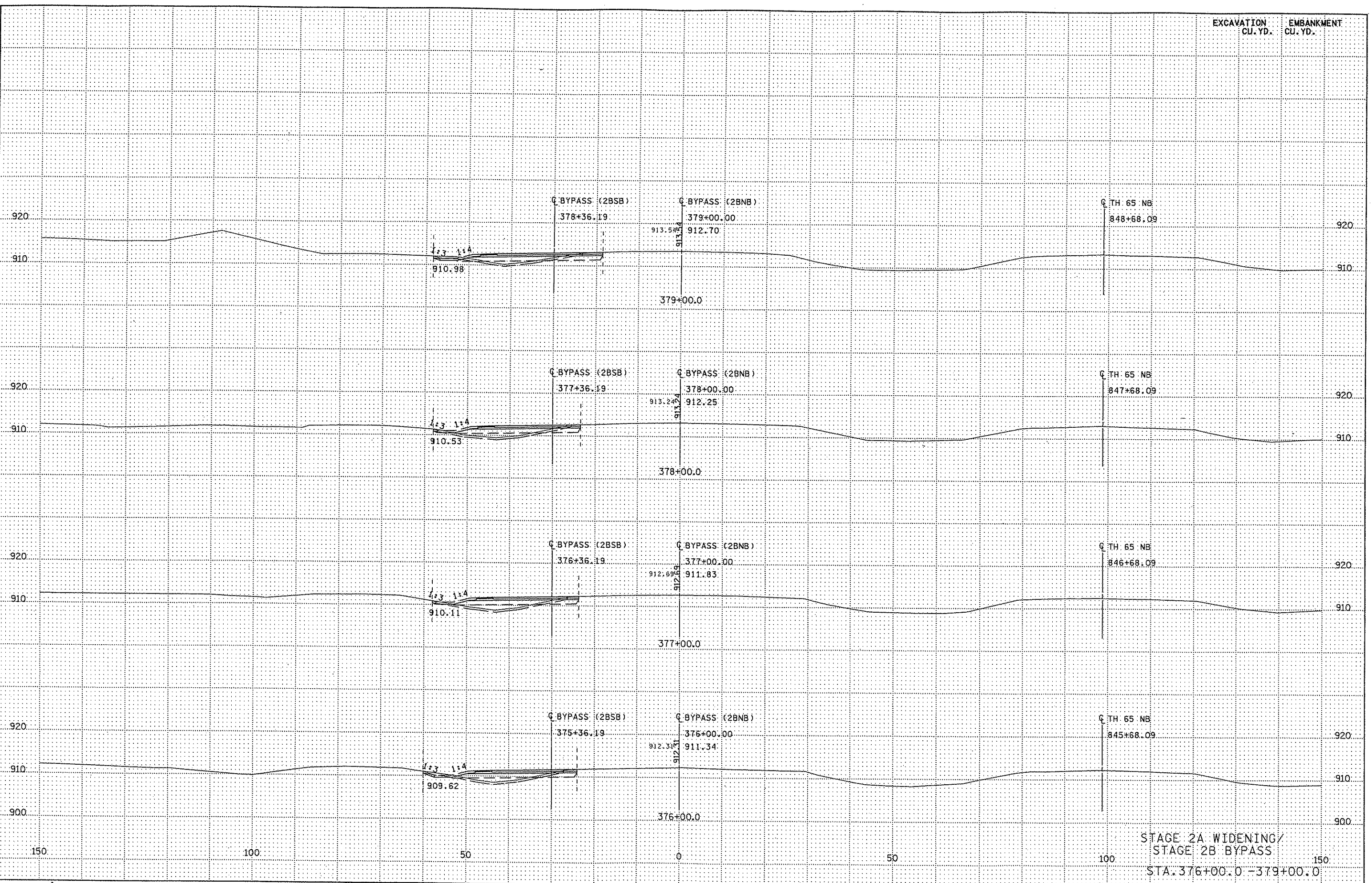


STAGE 2A: WIDENING/
STAGE 2B: BYPASS
STA. 372+00.0 - 375+00.0

PLOTTED/REVISED: 04-APR-2007 07:44

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

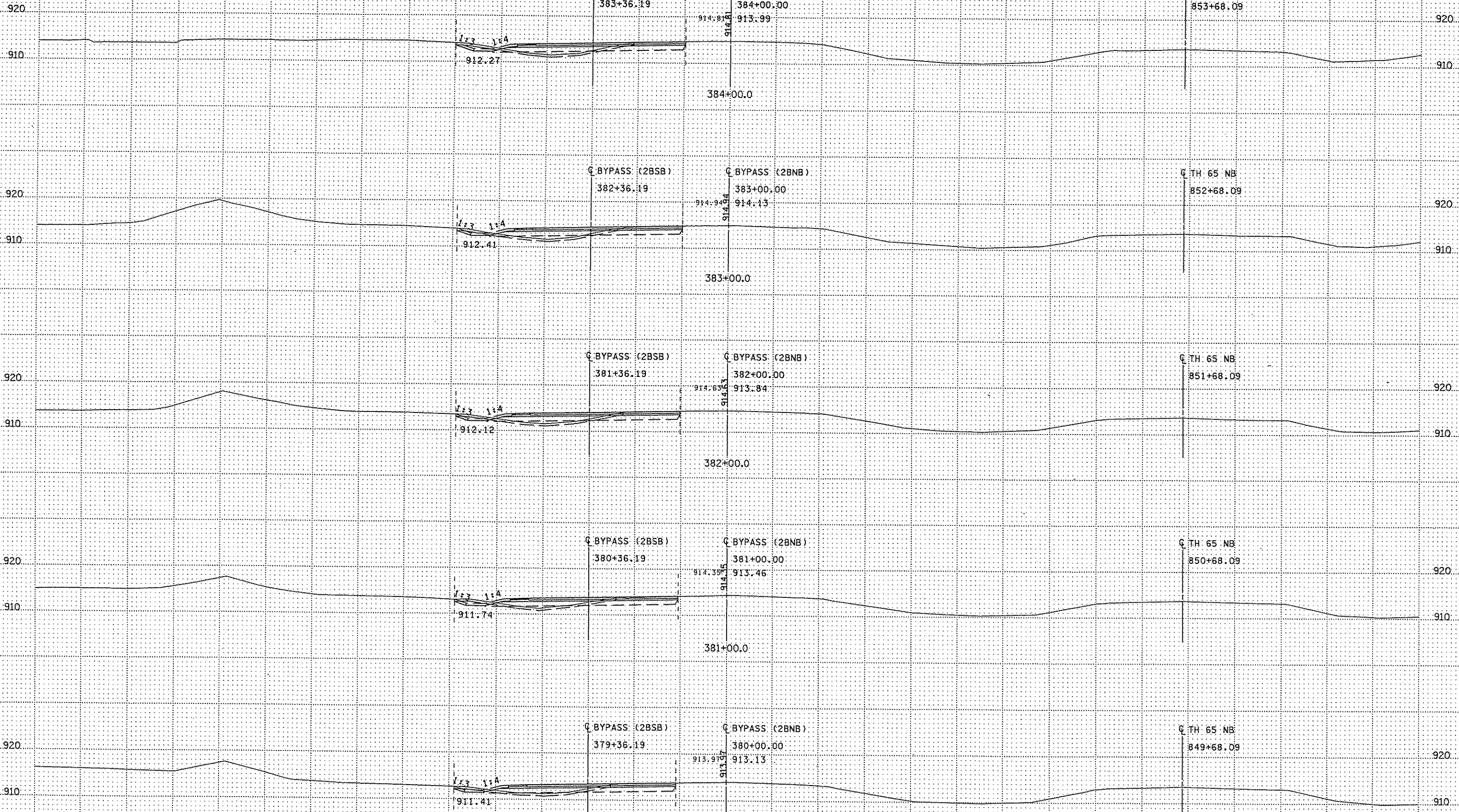


DISTRICT : METRO
PLOT NAME: stg2b08
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\stg2b\stg2b_xpl.dgn

STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 376+00.0 - 379+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.



PLOTTED/REVISED: 04-APR-2007 07:44

DISTRICT #: METRO
PLOT NAME: sfg2d09
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\ks\sf2d\sf2b_xpl.dgn

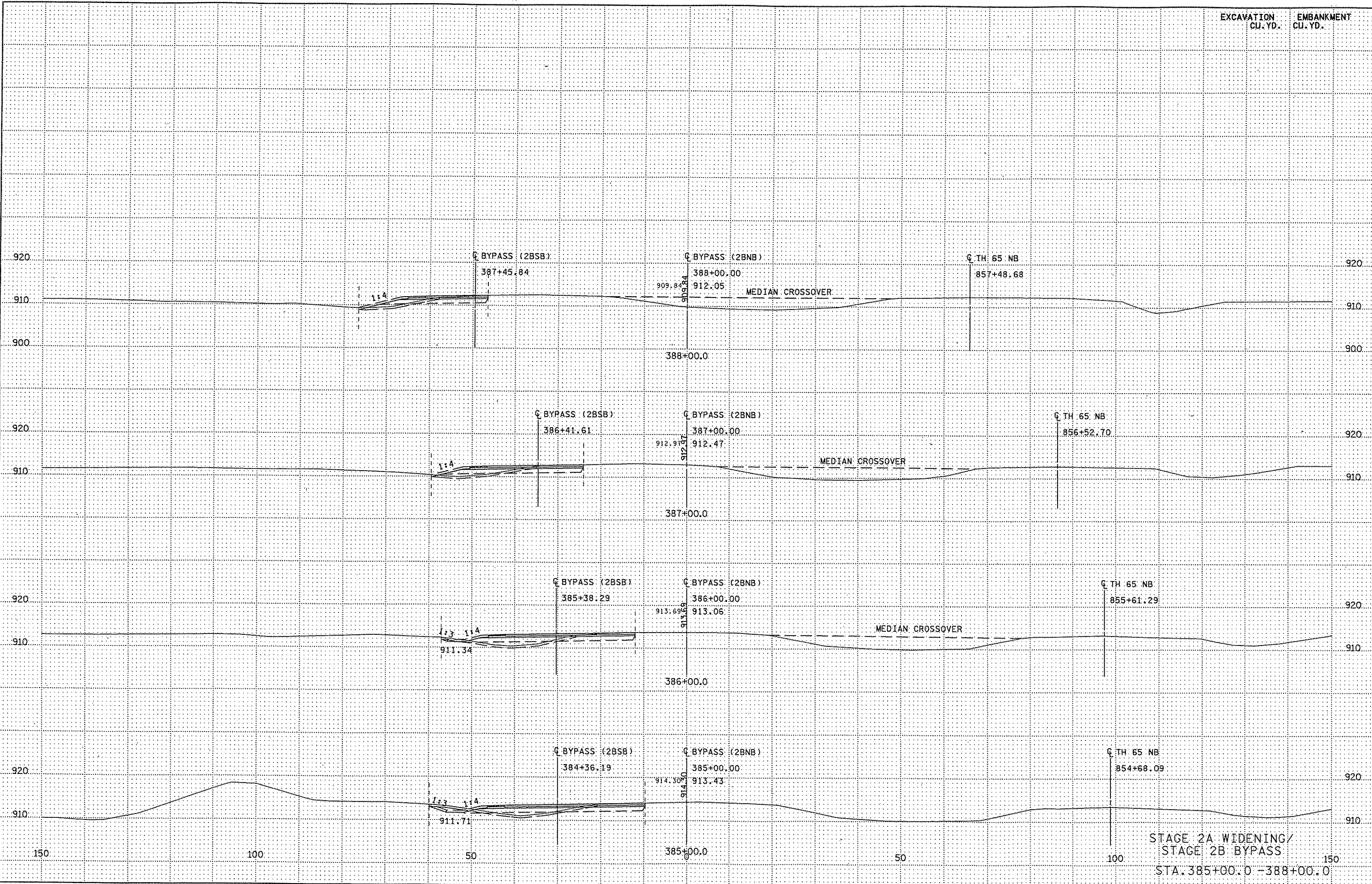
STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 380+00.0 - 384+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:14

DISTRICT : METRO
PLOT NAME: stg2b10
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg2b\stg2b_xpl.dgn



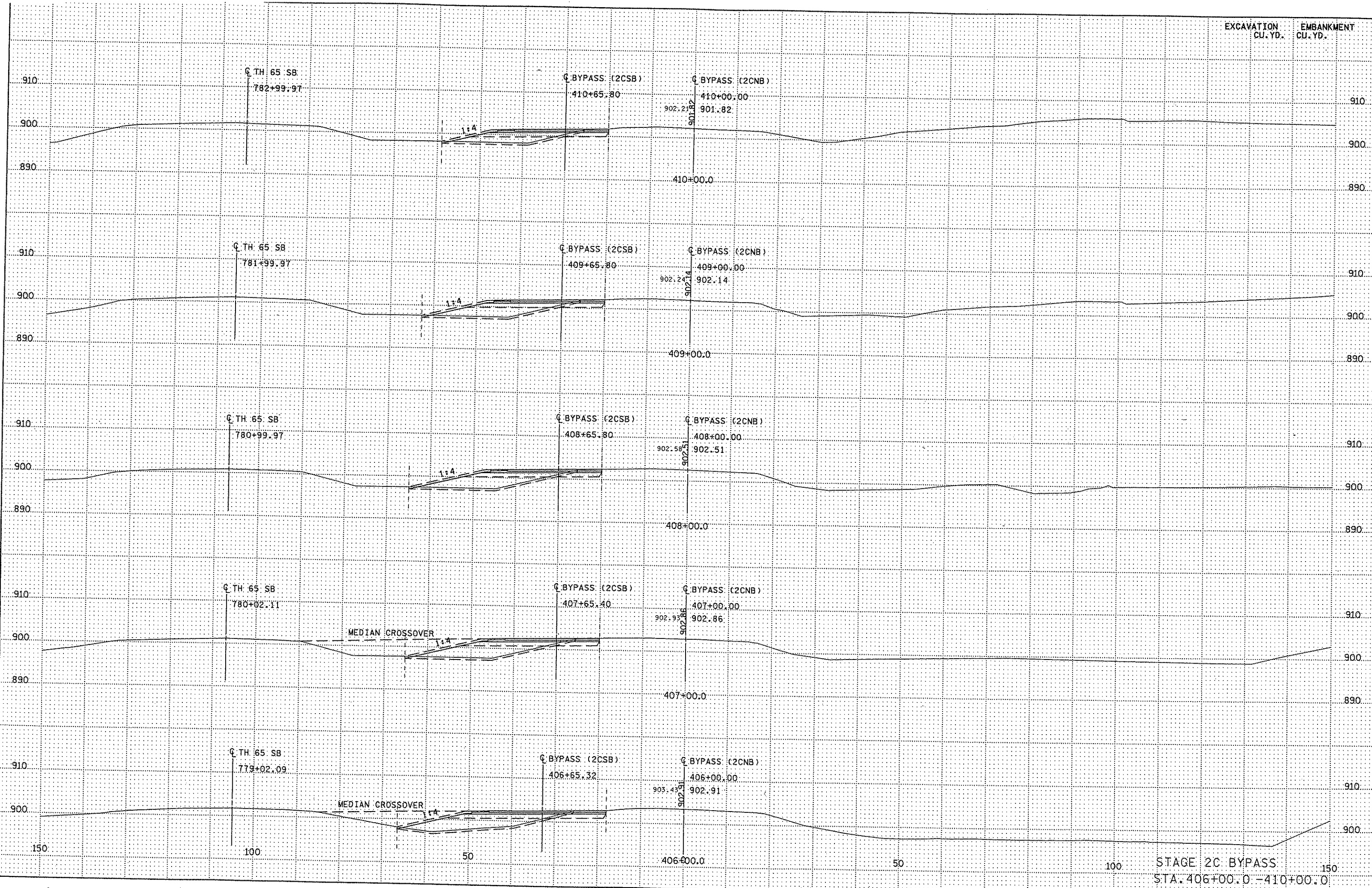
STAGE 2A WIDENING/
STAGE 2B BYPASS
STA. 385+00.0 - 388+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:36

DISTRICT : METRO
 IPLOT NAME: stg2c01
 PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg2c\stg2c_xpl.dgn

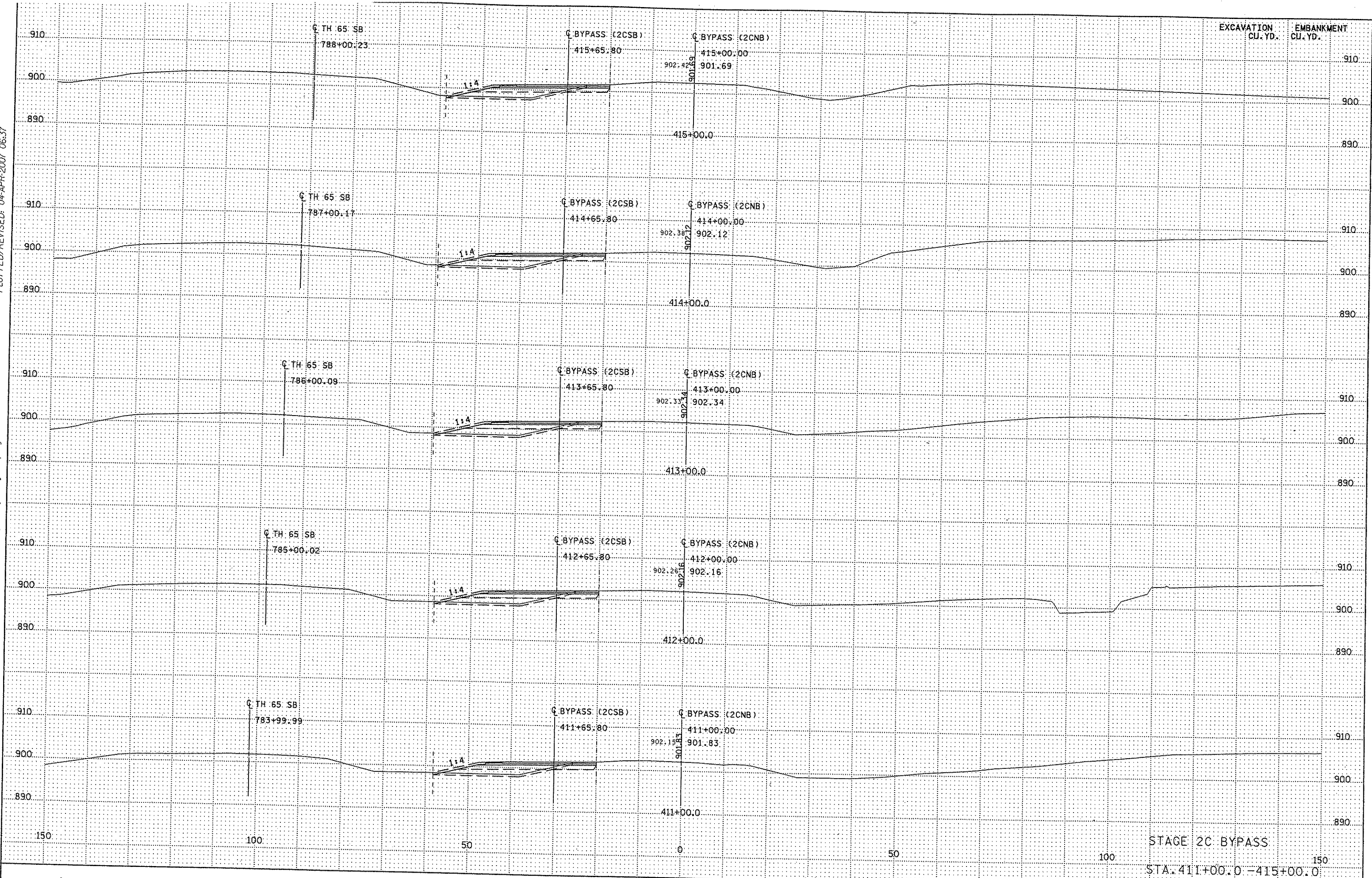


STAGE 2C BYPASS
 STA. 406+00.0 - 410+00.0

PLOTTED/REVISED: 04-APR-2007 06:37

PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\stg2c\stg2c_xpl.dgn

EXCAVATION CU.YD. EMBANKMENT CU.YD.



STAGE 2C BYPASS
STA. 411+00.0 - 415+00.0

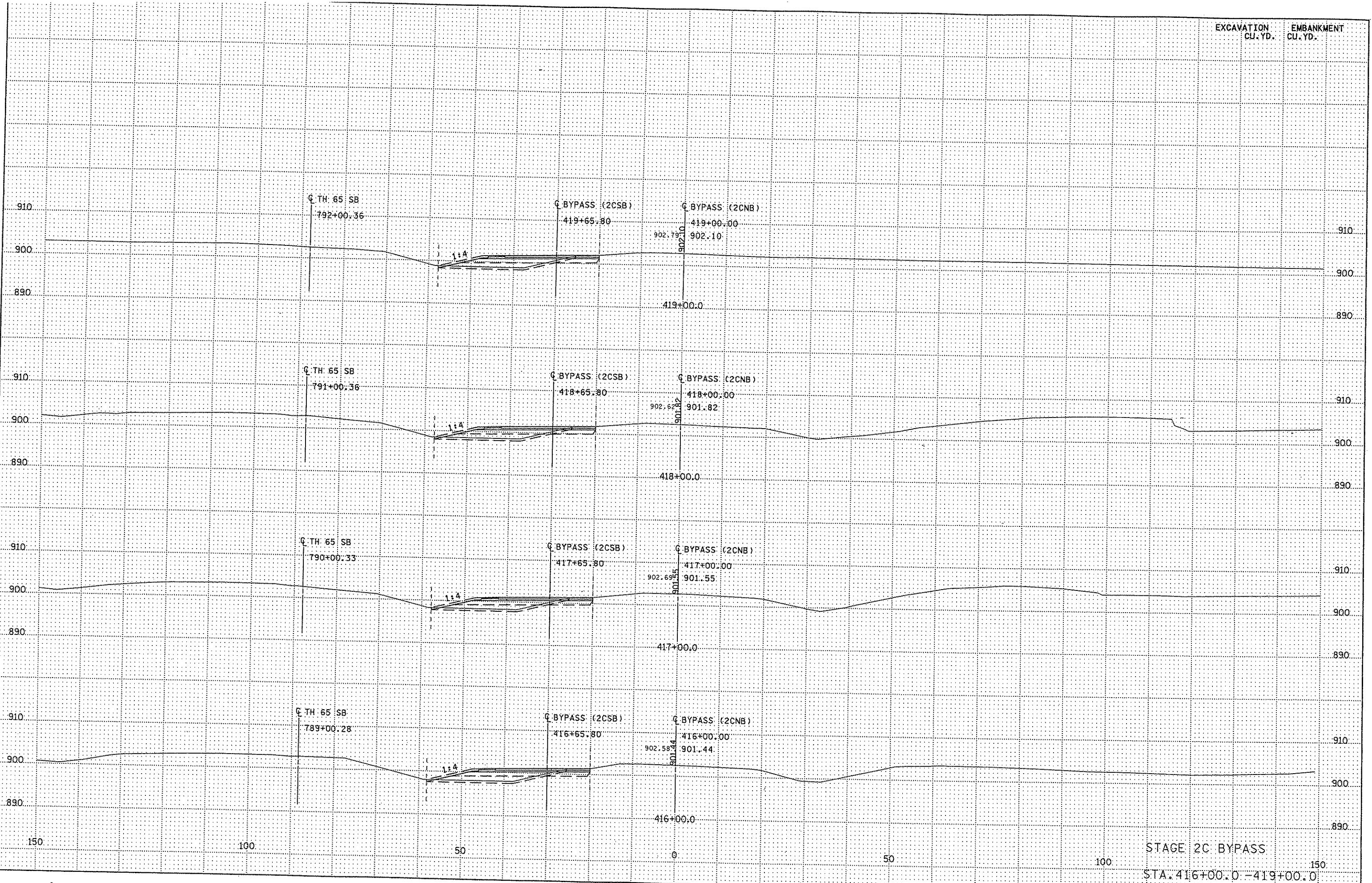
USER: METRO
IPLT NAME: stg2c02

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:37

DISTRICT #: METRO
PLOT NAME: stg2c03
PATH & FILENAME: S:\Design\065\0208\123\Final\Stage\stg2c\stg2c_xpl.dgn



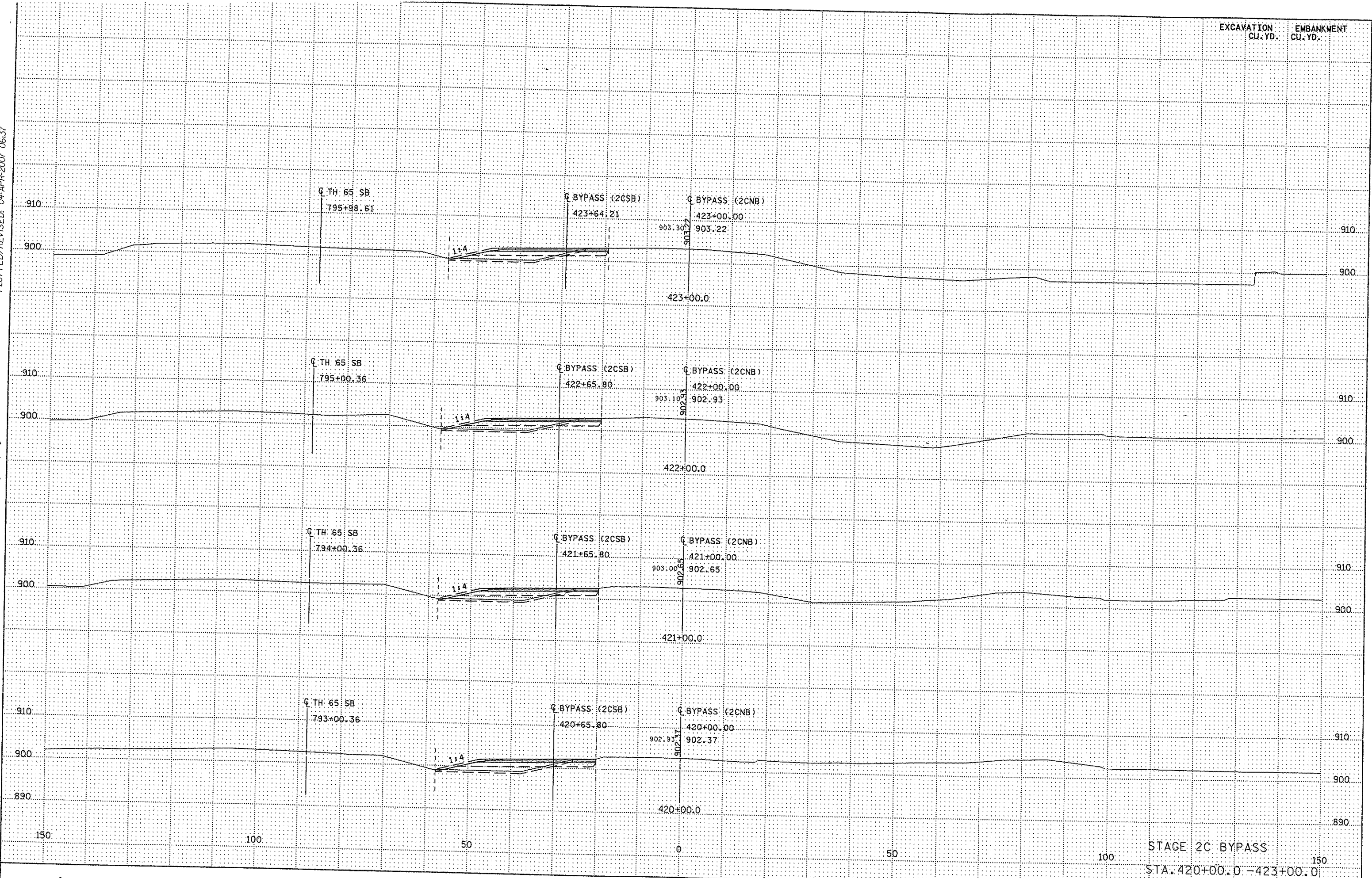
STAGE 2C BYPASS
STA. 416+00.0 - 419+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:37

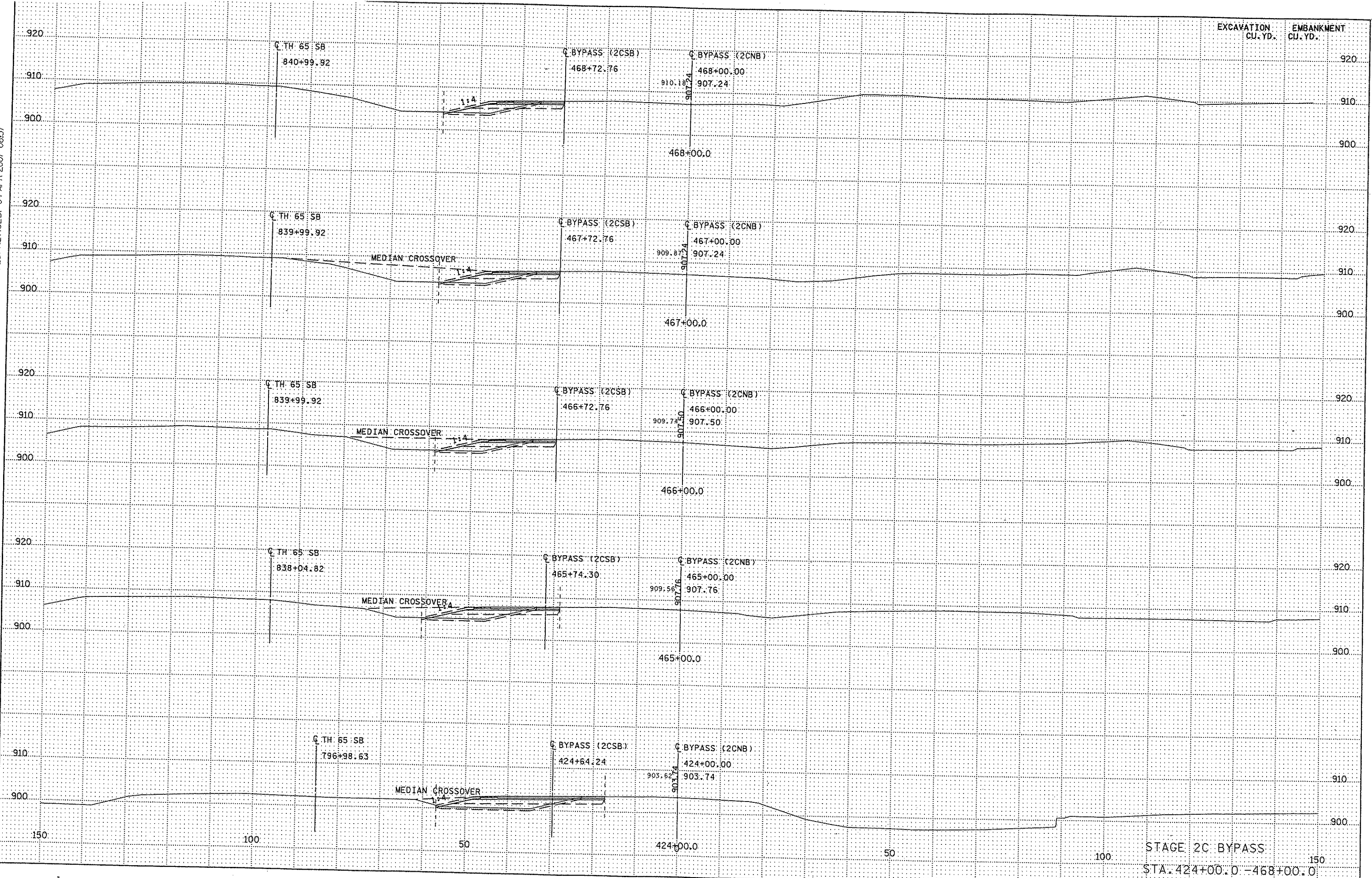
U:\M1\1\METRO
I\PROJECT\2004
PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg2c\stg2c_xpl.dgn



STAGE 2C BYPASS
STA. 420+00.0 - 423+00.0

PLOTTED/REVISED: 04-APR-2007 06:37

PLT & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg2c\stg2c_xpl.dgn



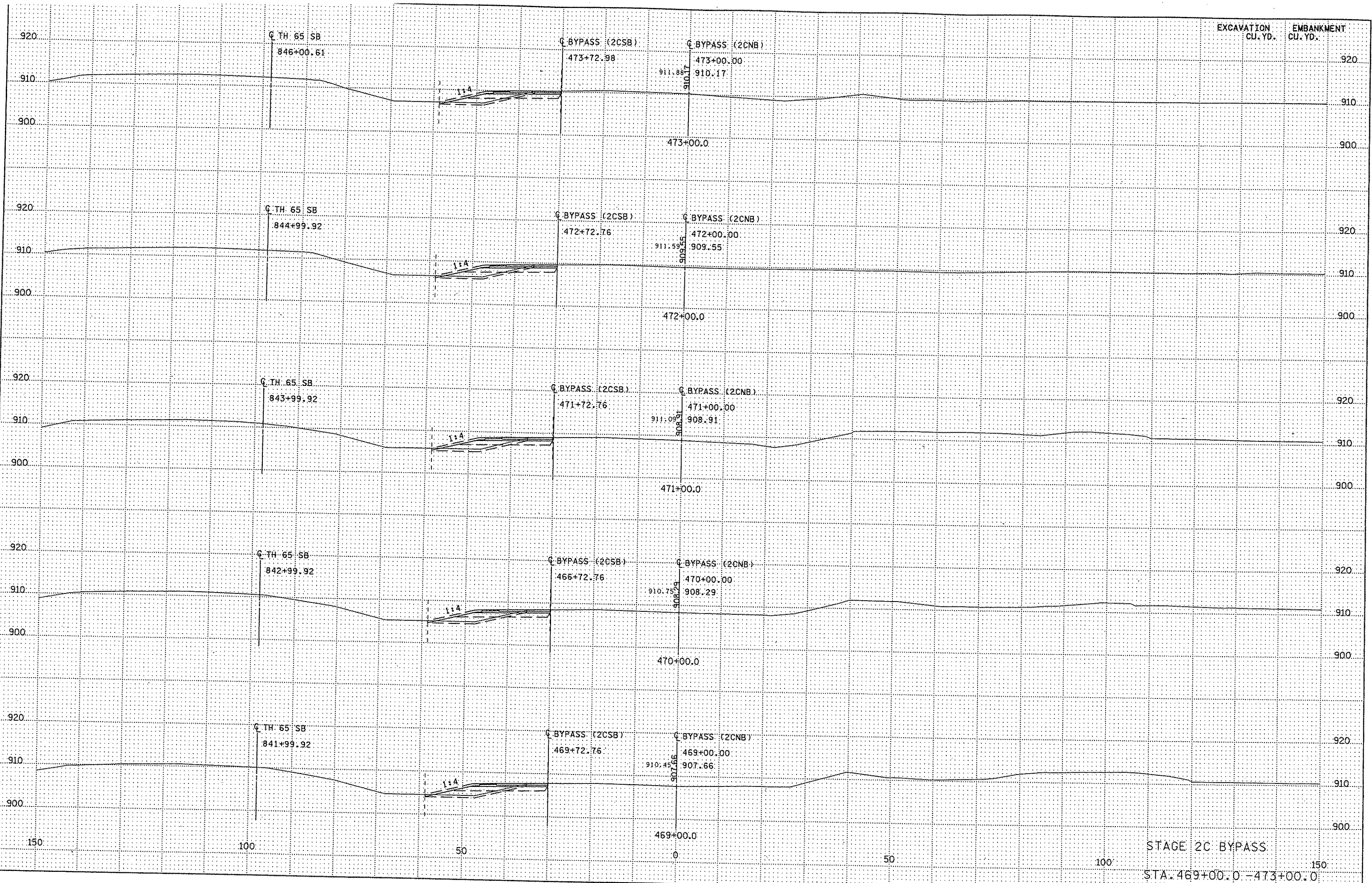
STAGE 2C BYPASS
STA. 424+00.0 - 468+00.0

USER: ME1110
PLOT NAME: stg2c05

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:37

DIS/HCI/ * : METRO
 IPLOT NAME: sig2c06
 PATH & FILENAME: S:\Design\065\0208\23\Final\Stage\sig2c\sig2c_vstg2c_vstg2c_xpl.dgn

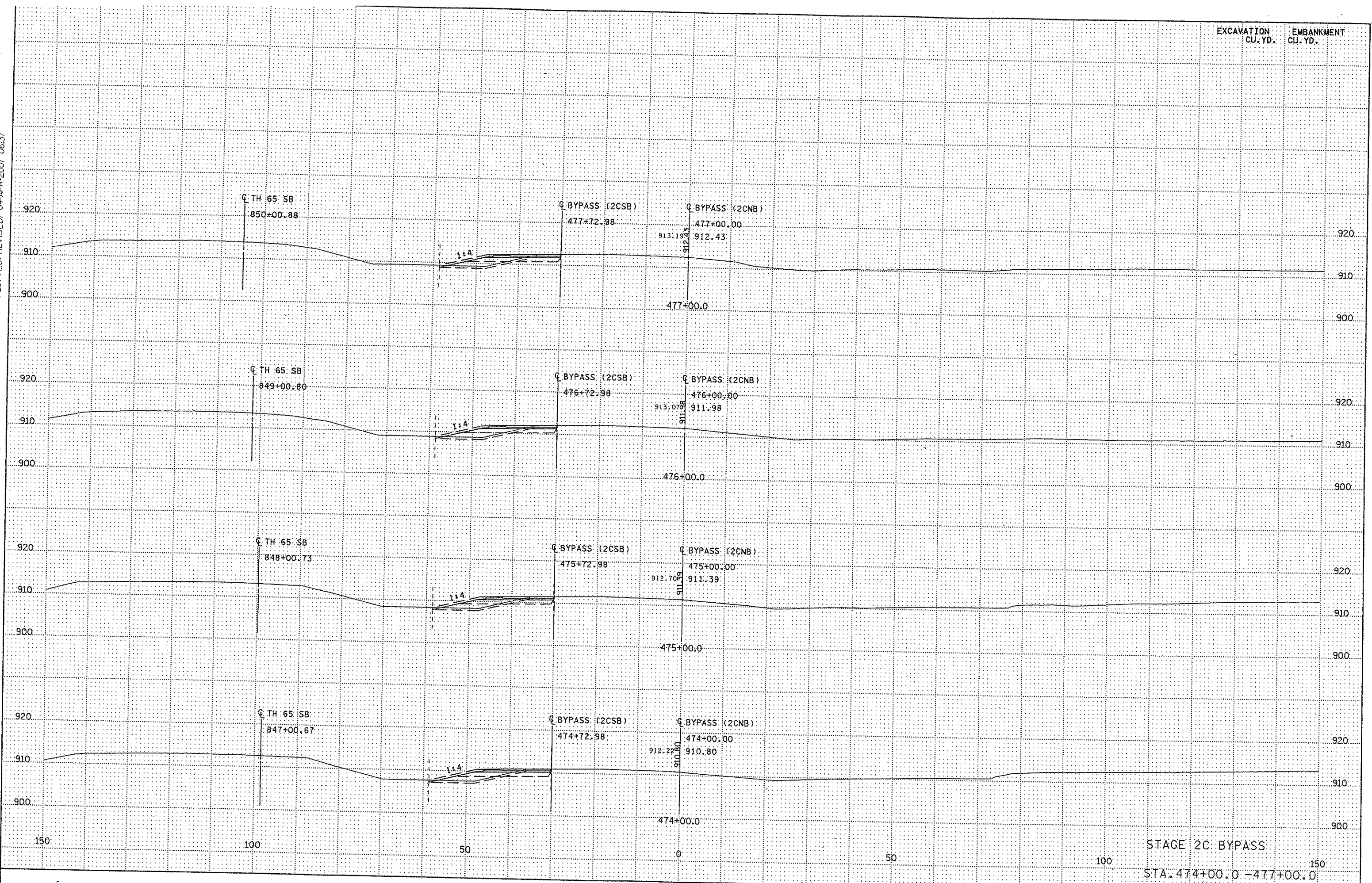


STAGE 2C BYPASS
 STA. 469+00.0 - 473+00.0

EXCAVATION CU.-YD. EMBANKMENT CU.-YD.

PLOTTED/REVISED: 04-APR-2007 06:37

DISTRICT * : METRO
 IPLOT NAME: stg2c07
 PATH & FILENAME: S:\Design\065\0208\123\Final\Staging\vs\stg2c\stg2c_vpl.dgn

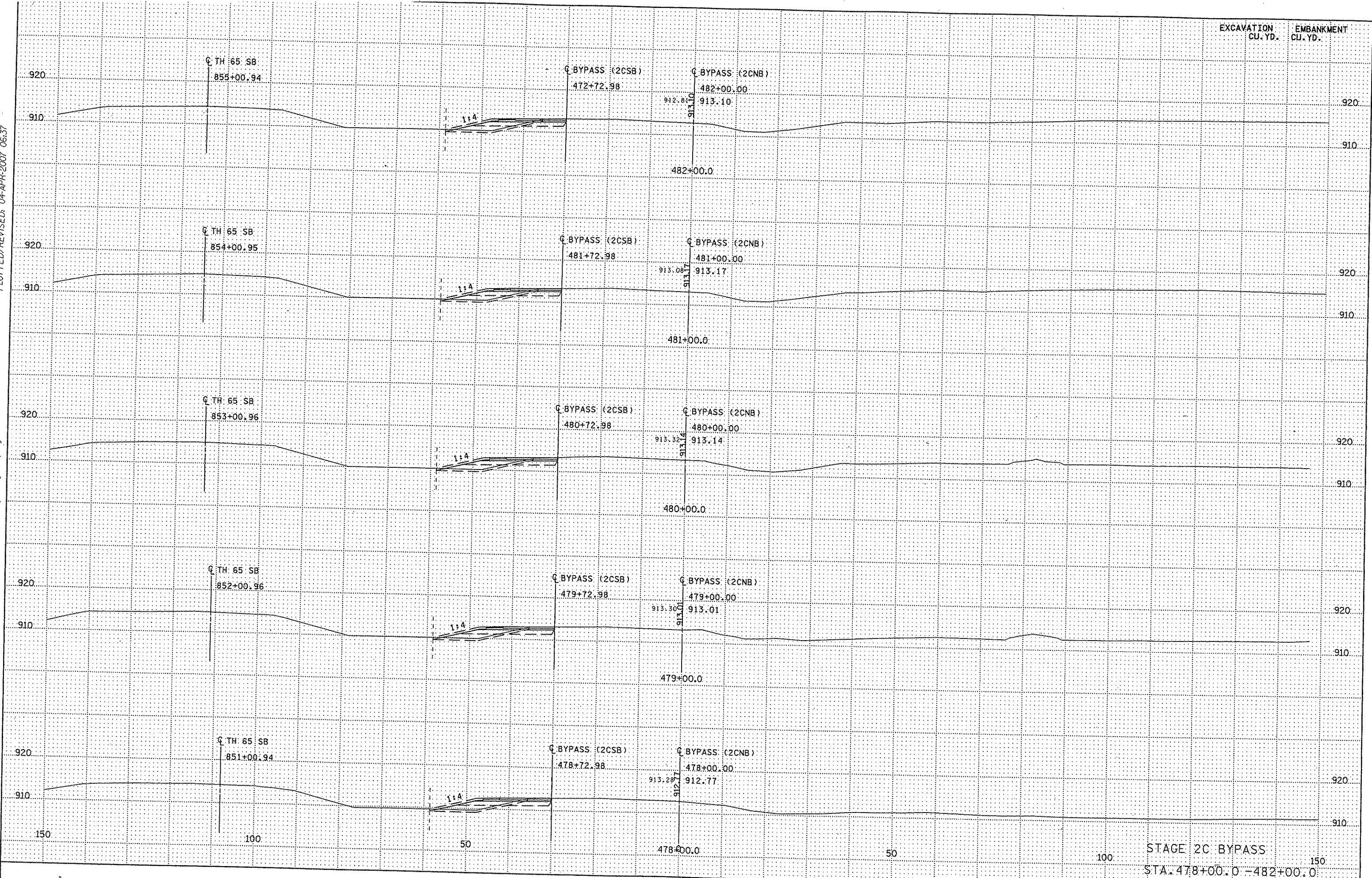


STAGE 2C BYPASS
 STA. 474+00.0 - 477+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:37

DIS/MCI * : METRO
I/PLOT NAME: stg2c08
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\stg2c\stg2c_xpl.dgn

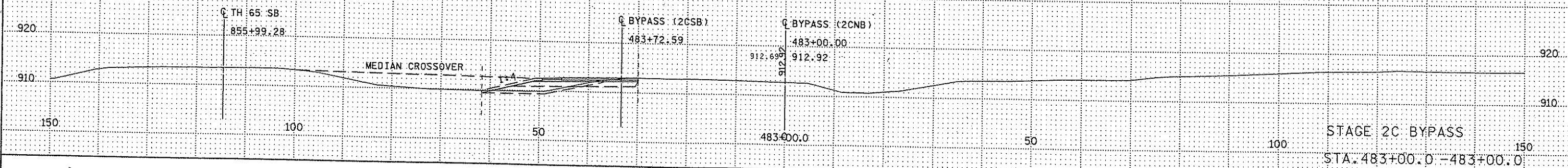


STAGE 2C BYPASS
STA. 478+00.0 - 482+00.0

EXCAVATION
CU. YD. EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:37

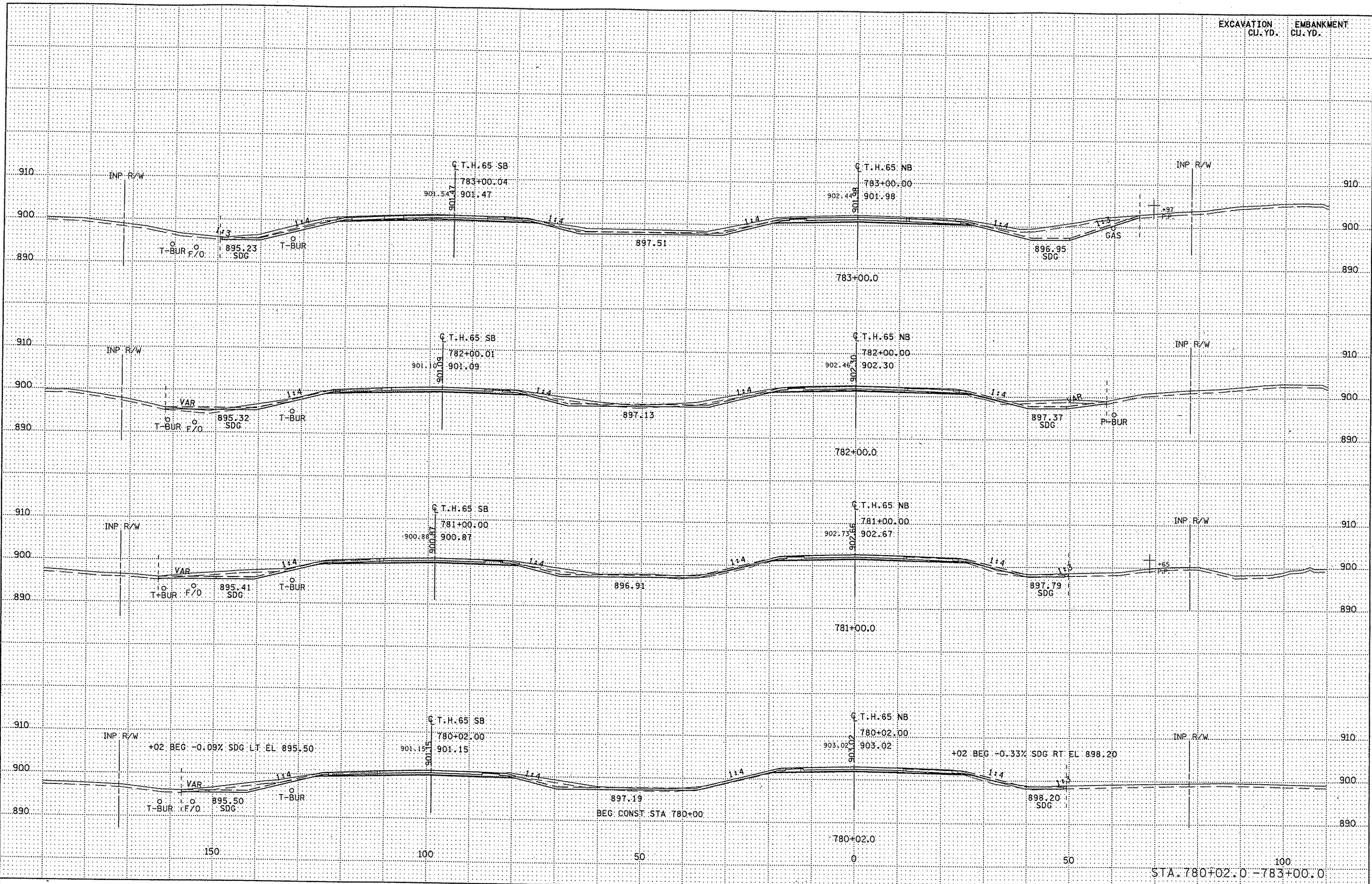
DISTRICT # : METRO
PLOT NAME: stg2c09
PATH & FILENAME: S:\Design\065\0208\23\Final\Staging\vs\stg2c\stg2c_rpl.dgn



STAGE 2C BYPASS
STA. 483+00.0 - 483+00.0

PLOTTED/REVISED: 04-APR-2007 06:37

DISTRICT : METRO
PLOT NAME: 65nb_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn

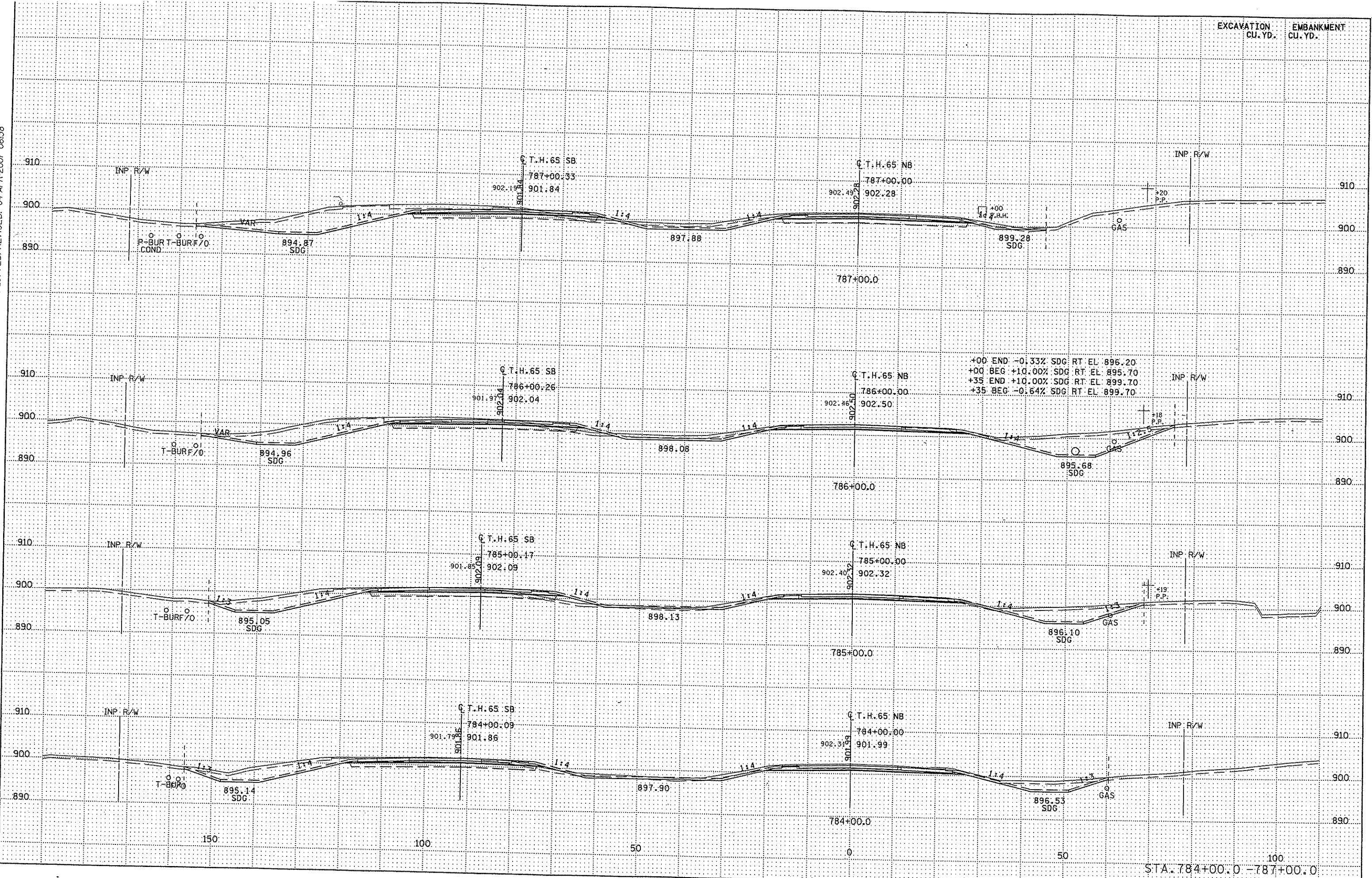


STA. 780+02.0 - 783+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

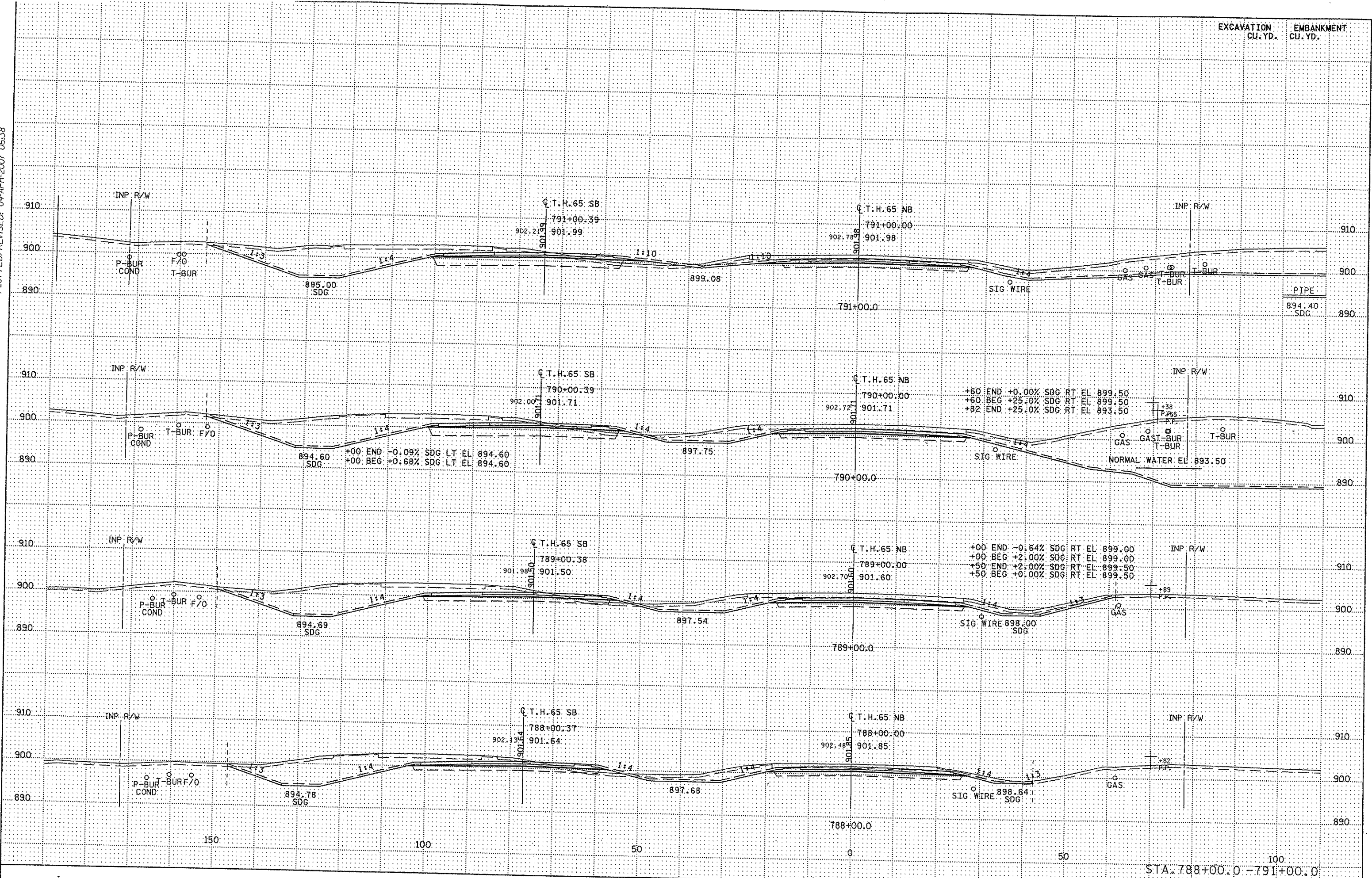
DISTRICT: METRO
 IPLOT NAME: 65nb_xpl02
 PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

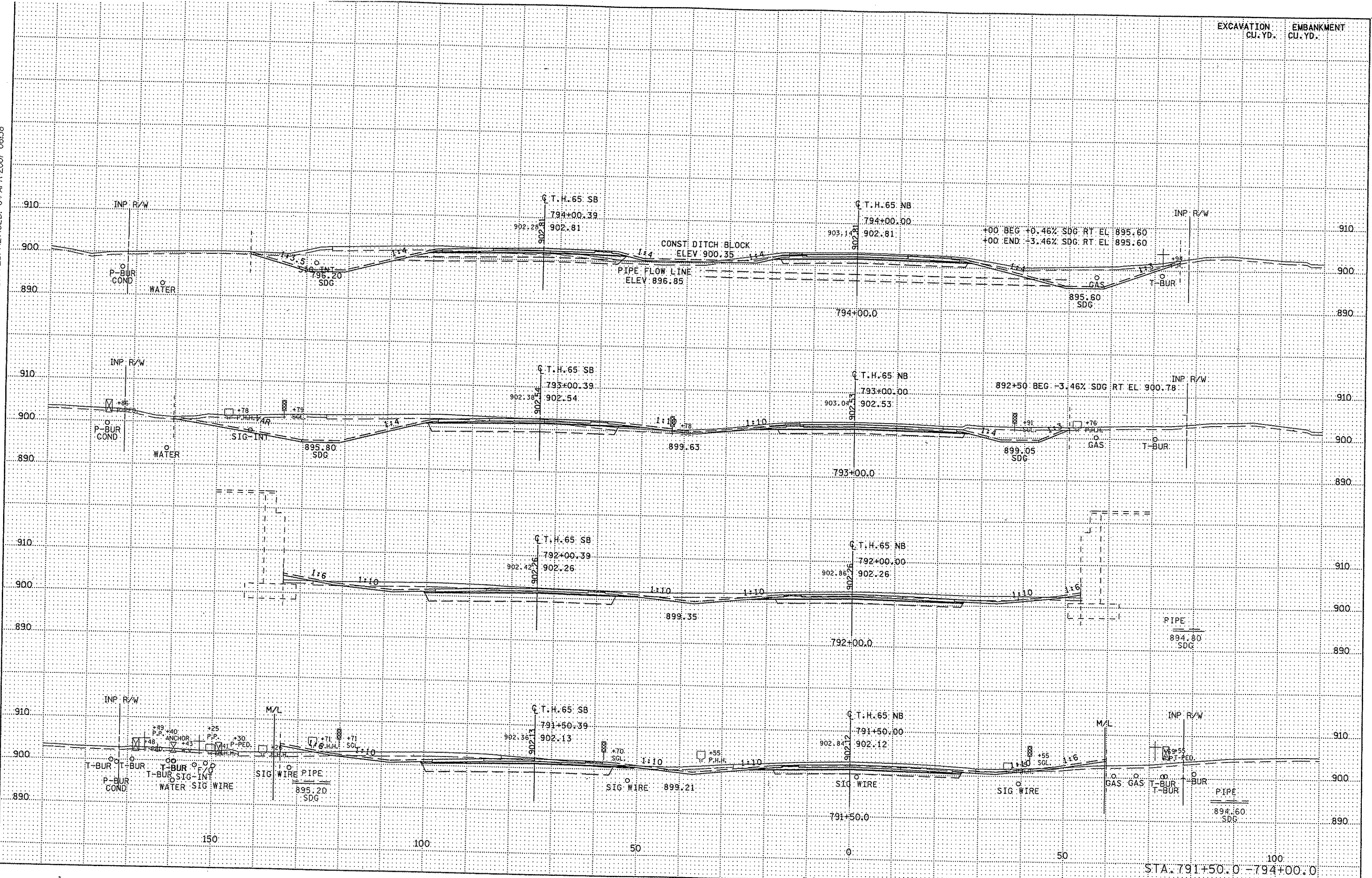
DISTRICT #: METRO
 I/PLOT NAME: 65nb_xp03
 PATH & FILENAME: S:\DESIGN\065\0208\123\Final\65nb\65nb_xpl.dgn



EXCAVATION CU.YD. EMBANKMENT CU.YD.

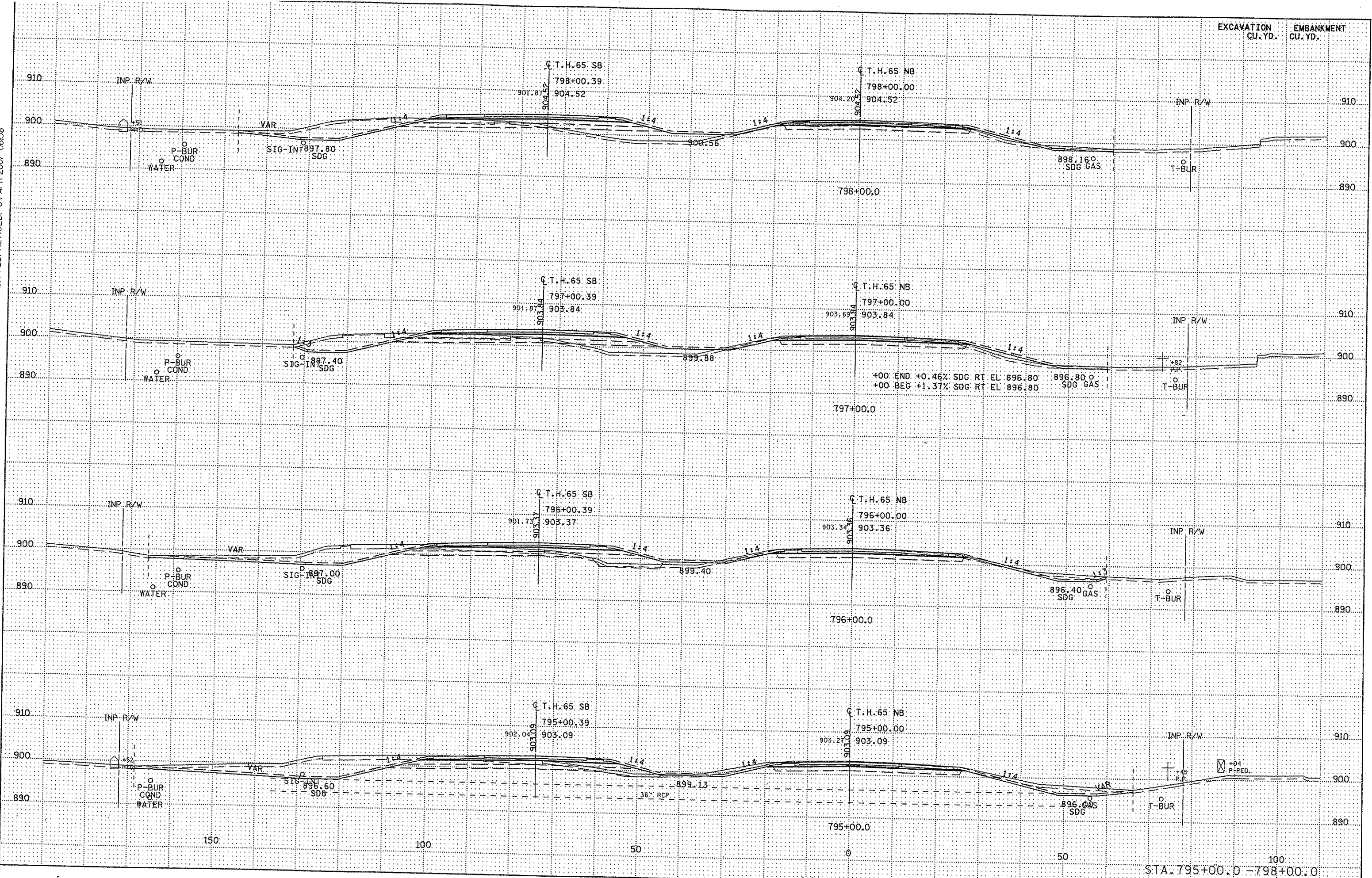
PLOTTED/REVISED: 04-APR-2007 06:38

W:\METRO\1 - METRO\1PLOT NAME: 65nb_xpl04\PATH & FILENAME: S:\DESIGN\065\0208\123\Final\65nb\65nb_xpl.dgn



PLOTTED/REVISED: 04-APR-2007 06:38

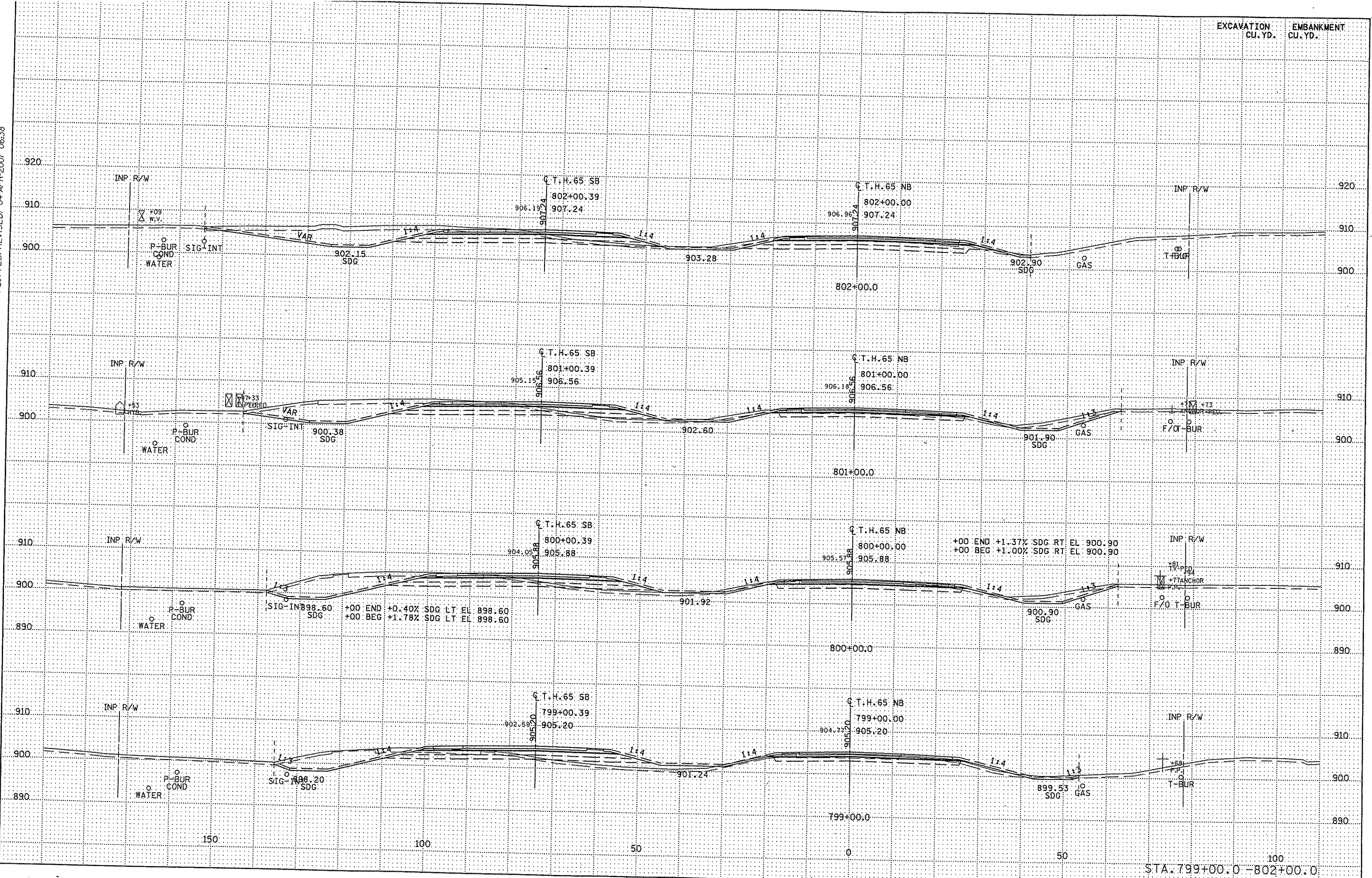
IPLOT NAME: 65nb_xpl05
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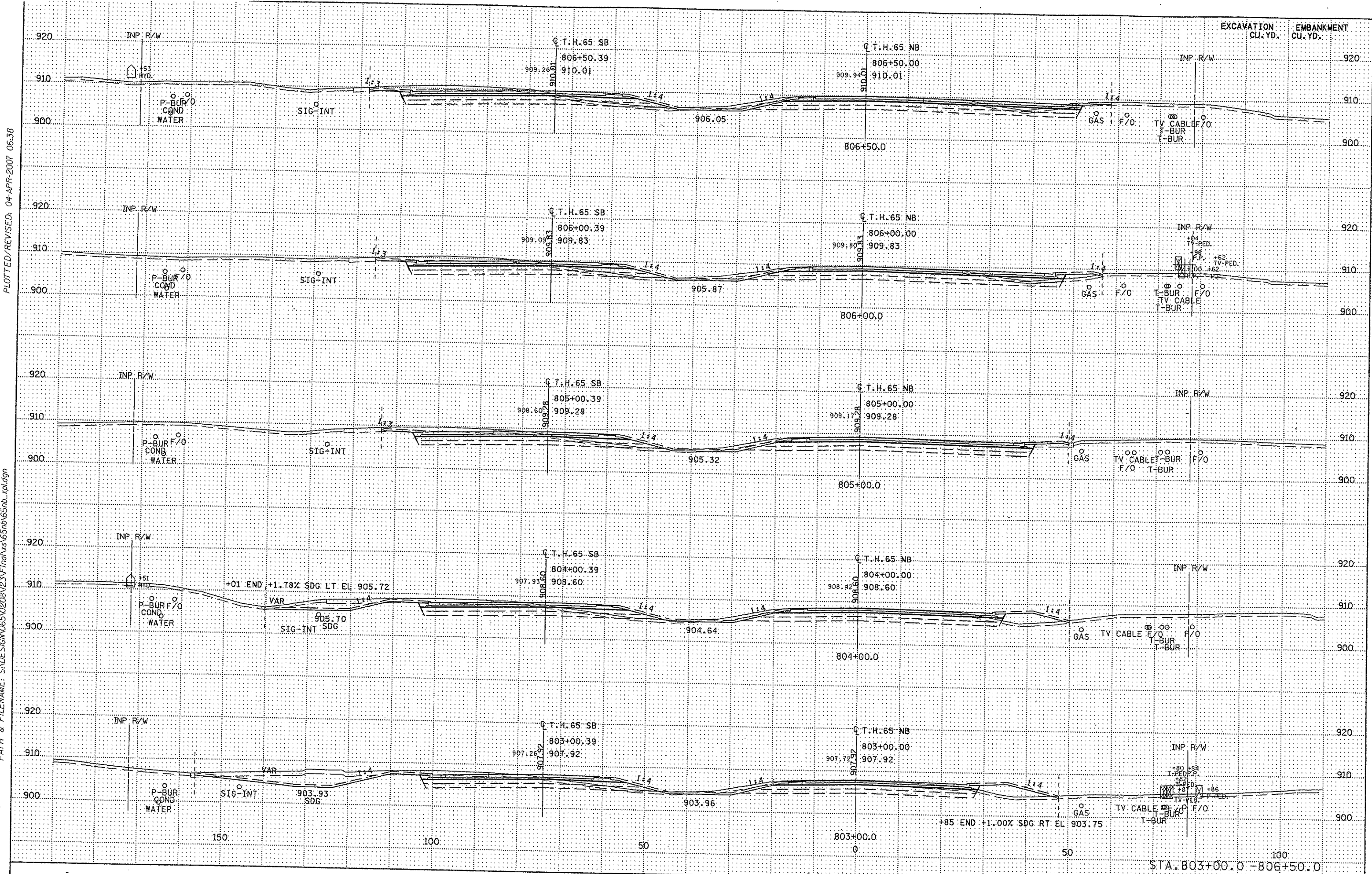
EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

DISTRICT * : METRO
IFLOT NAME: 65nb_xpl06
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn



DISTRICT #: METRO
PLOT NAME: 65nb_xp107
PATH & FILENAME: S:\DESIGN\065\0208\123\Tnd\vs\65nb\65nb_xp1.dgn

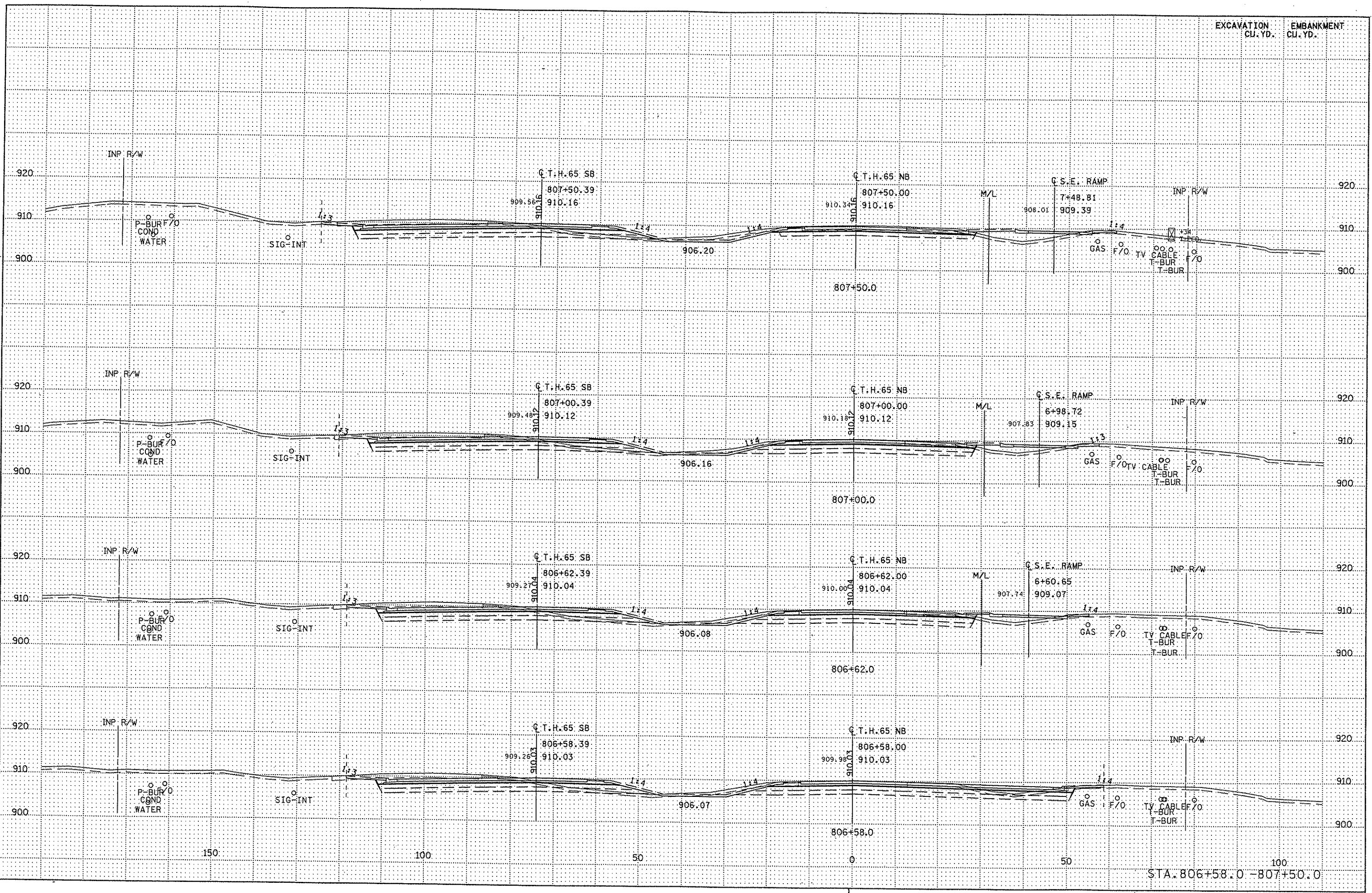


EXCAVATION CU. YD. EMBANKMENT CU. YD.

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

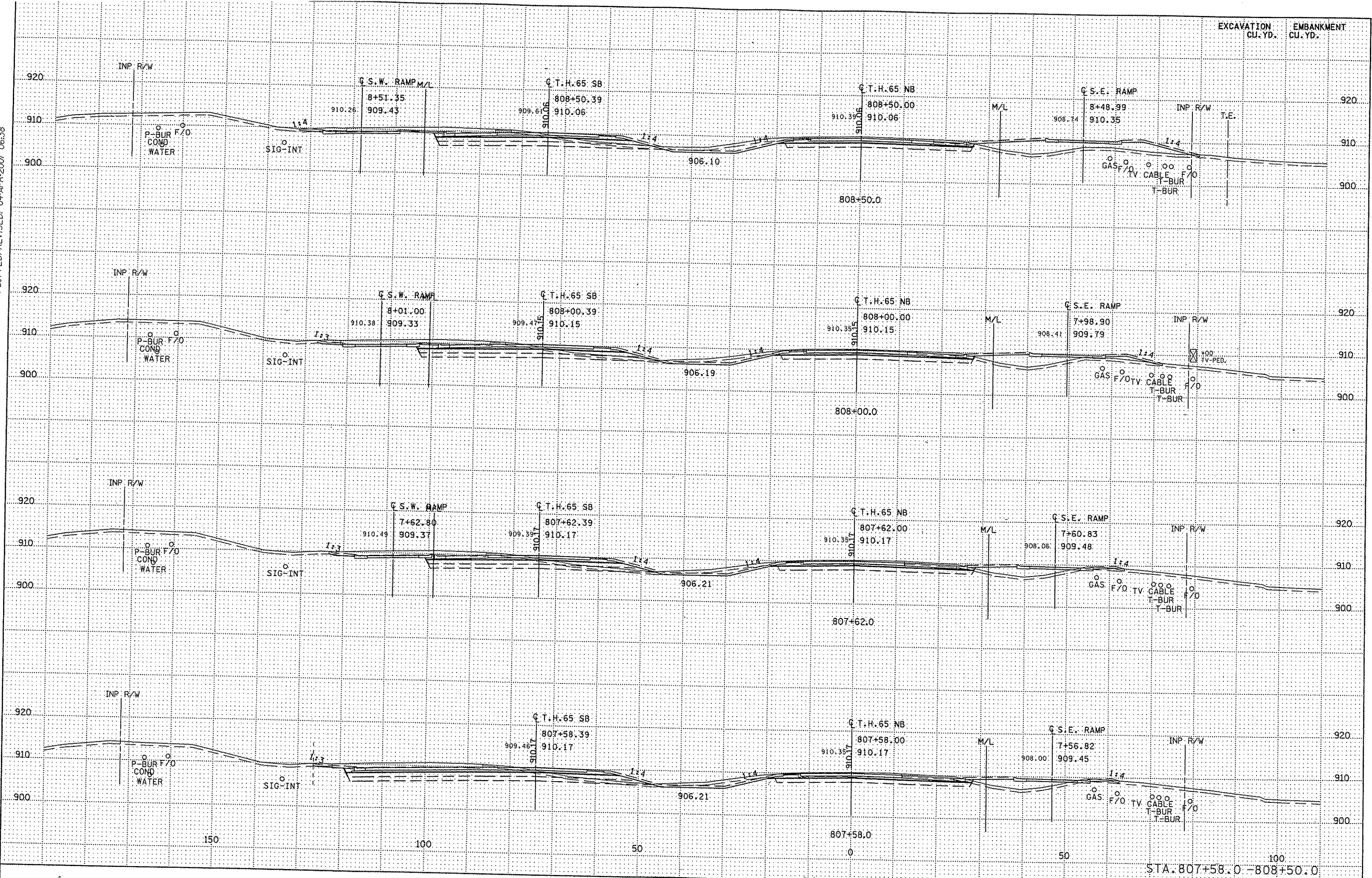
DISTRICT #: METRO
PLOT NAME: 65nb_xp108
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xp1.dgn



STA. 806+58.0 - 807+50.0

PLOTTED/REVISED: 04-APR-2007 06:38

U:\S\M\1 * : METRO
I\LOT NAME: 65nb_xr09
PATH & FILENAME: S:\DESIGN\065\0208\123\TH\65\65nb\65nb_xpl.dgn



EXCAVATION	EMBANKMENT
CU. YD.	CU. YD.

150

100

50

807+58.0

0

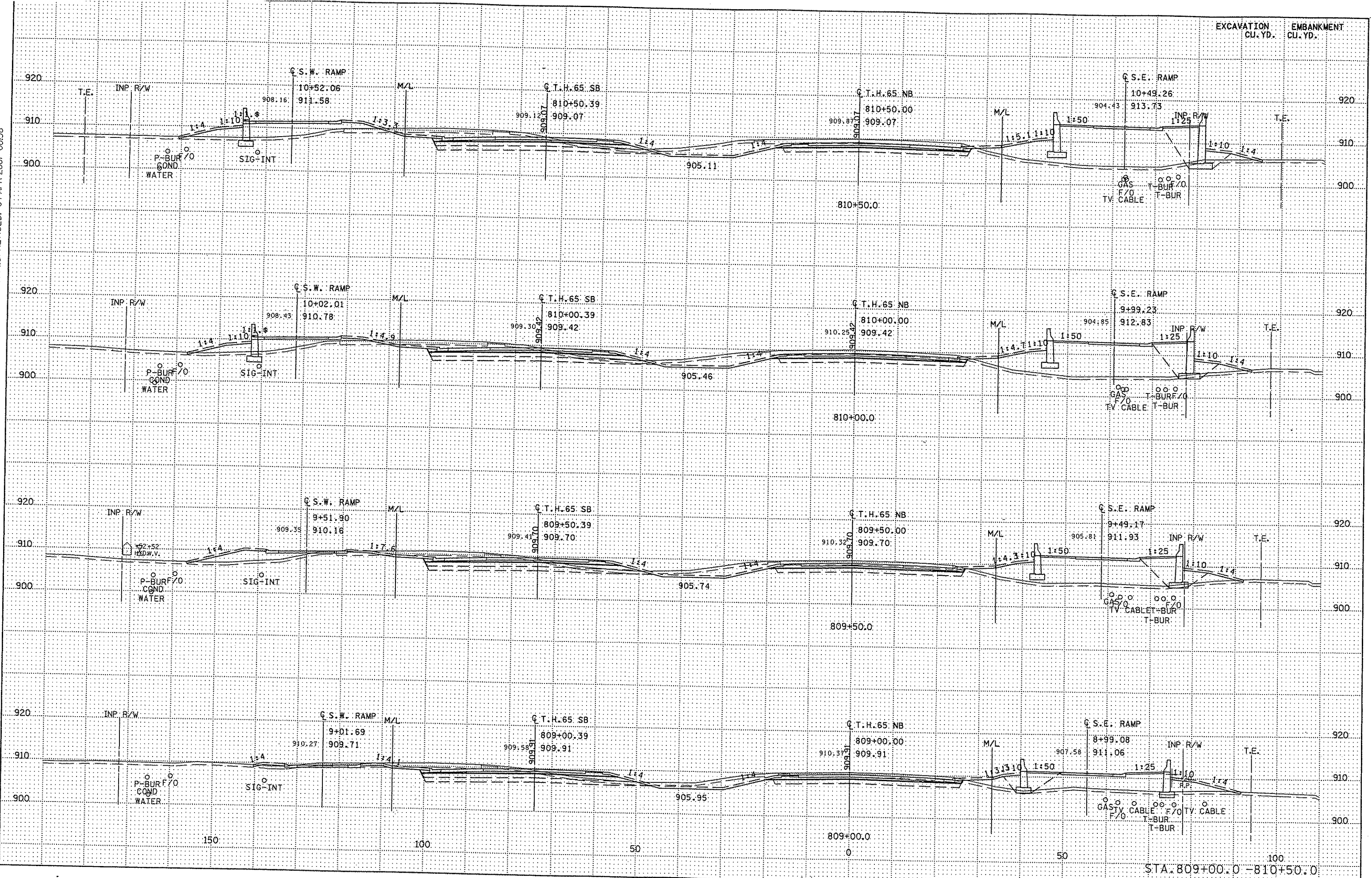
50

100

STA. 807+58.0 - 808+50.0

PLOTTED/REVISED: 04-APR-2007 06:38

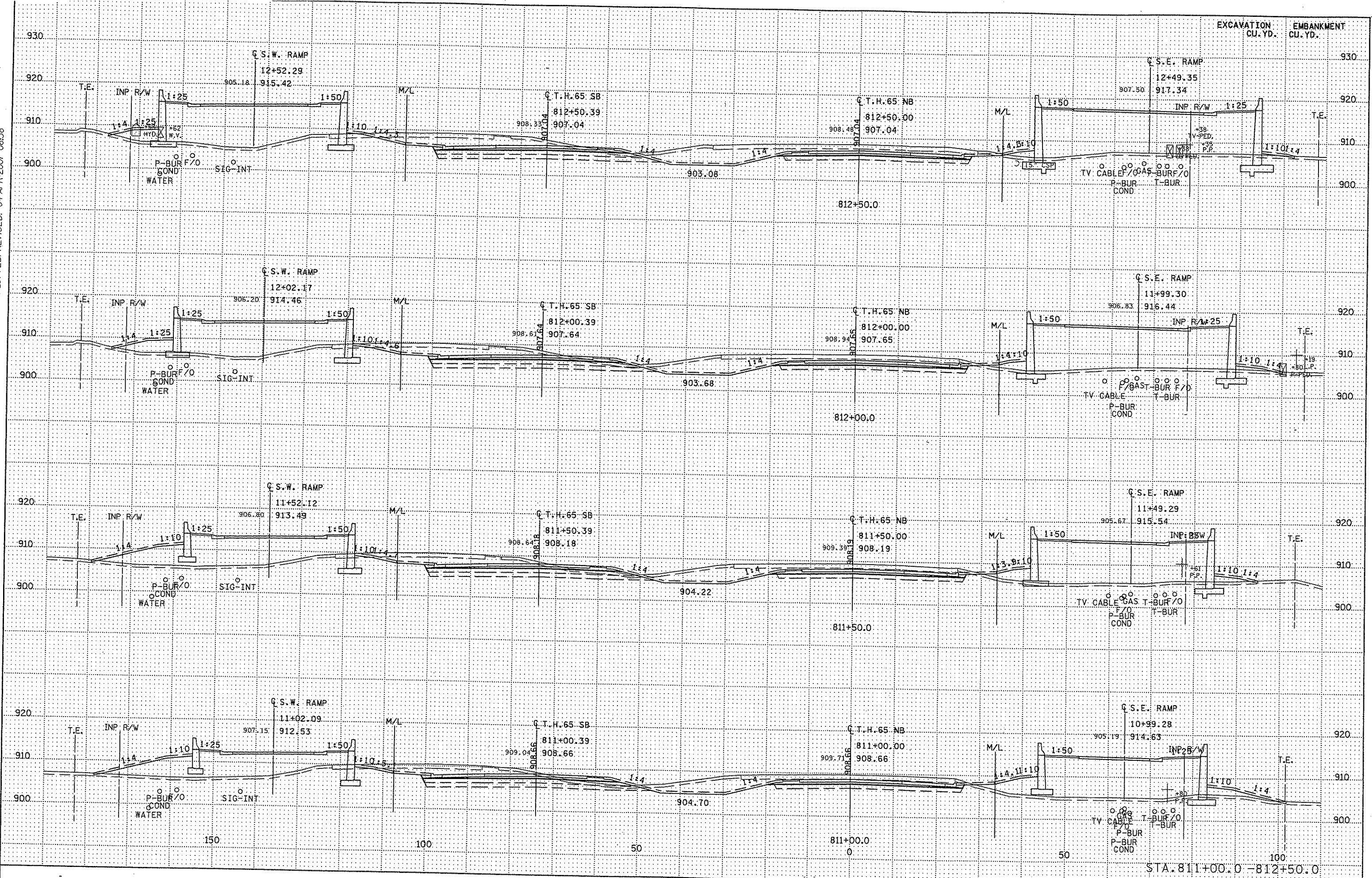
DISTRICT : METRO
PLOT NAME: 65nb_xpl10
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PLOTTED/REVISED: 04-APR-2007 06:38

PATH & FILENAME: S:\DESIGN\06510208\123\T\td\vs65nd\65nd_xpl.dgn

USER: METRO
PLOT NAME: 65nd_xpl
PATH & FILENAME: S:\DESIGN\06510208\123\T\td\vs65nd\65nd_xpl.dgn

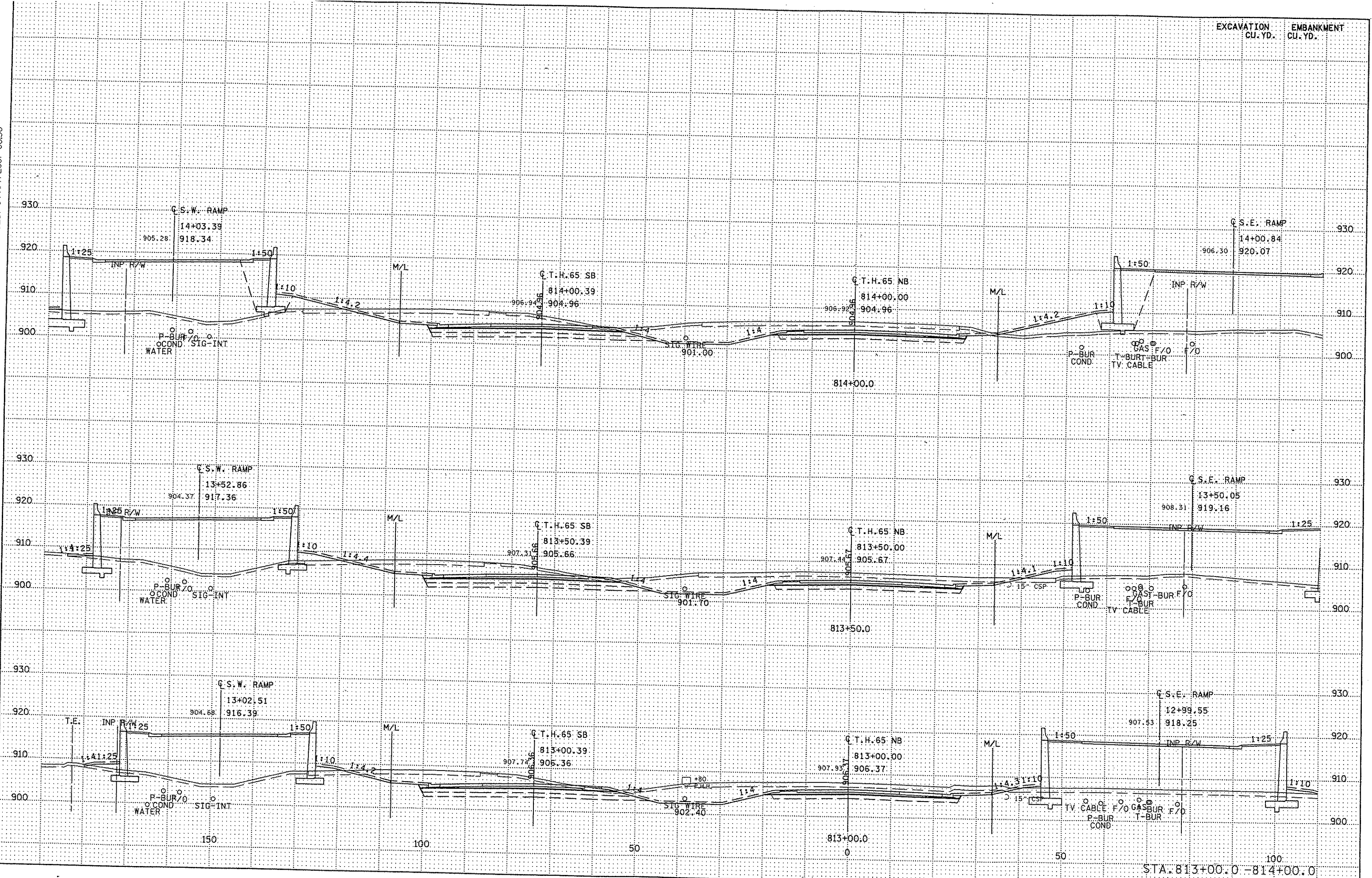


EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

PATH & FILENAME: S:\DESIGN\065\0208\123\Final\65nb\65nb_xpl.dgn

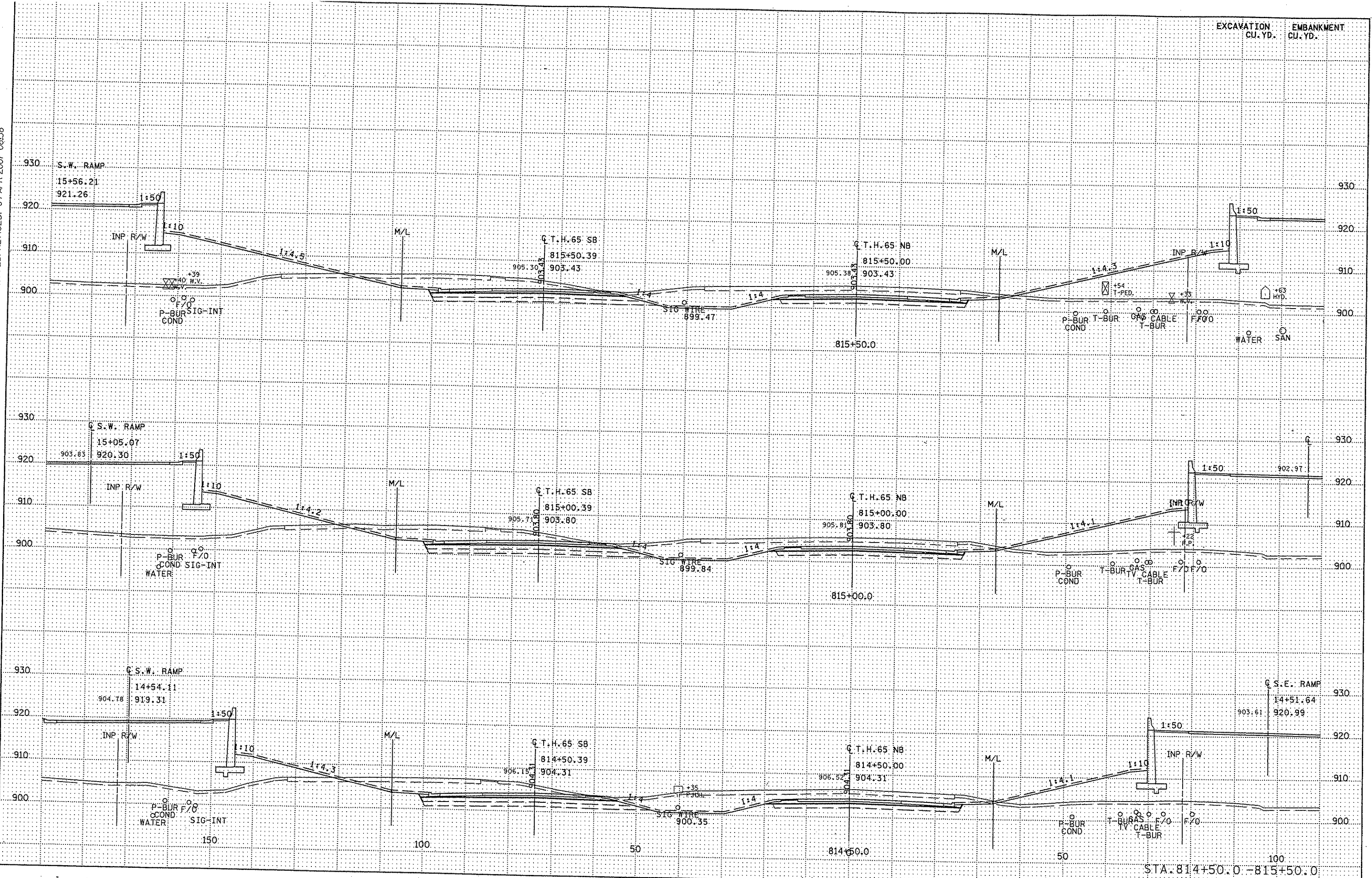
USJ:FRJ : ME:HO
PLOT NAME: 65nb_xpl12



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

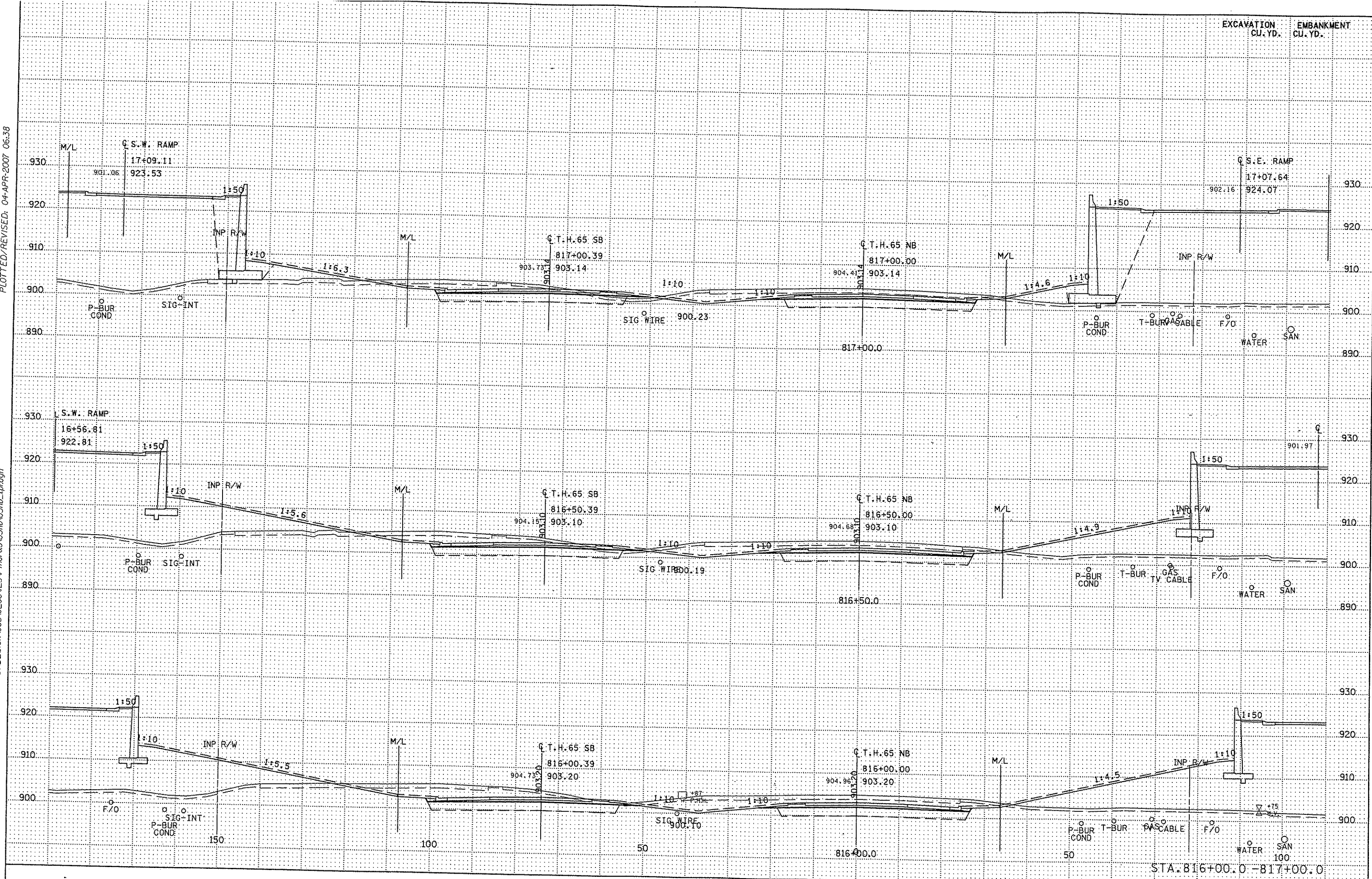
U:\M1\1 : METRO
I\PROJECT NAME: 655nb_xpl13
PATH & FILENAME: S:\DESIGN\065\0208\123\Tm\655nb\655nb_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

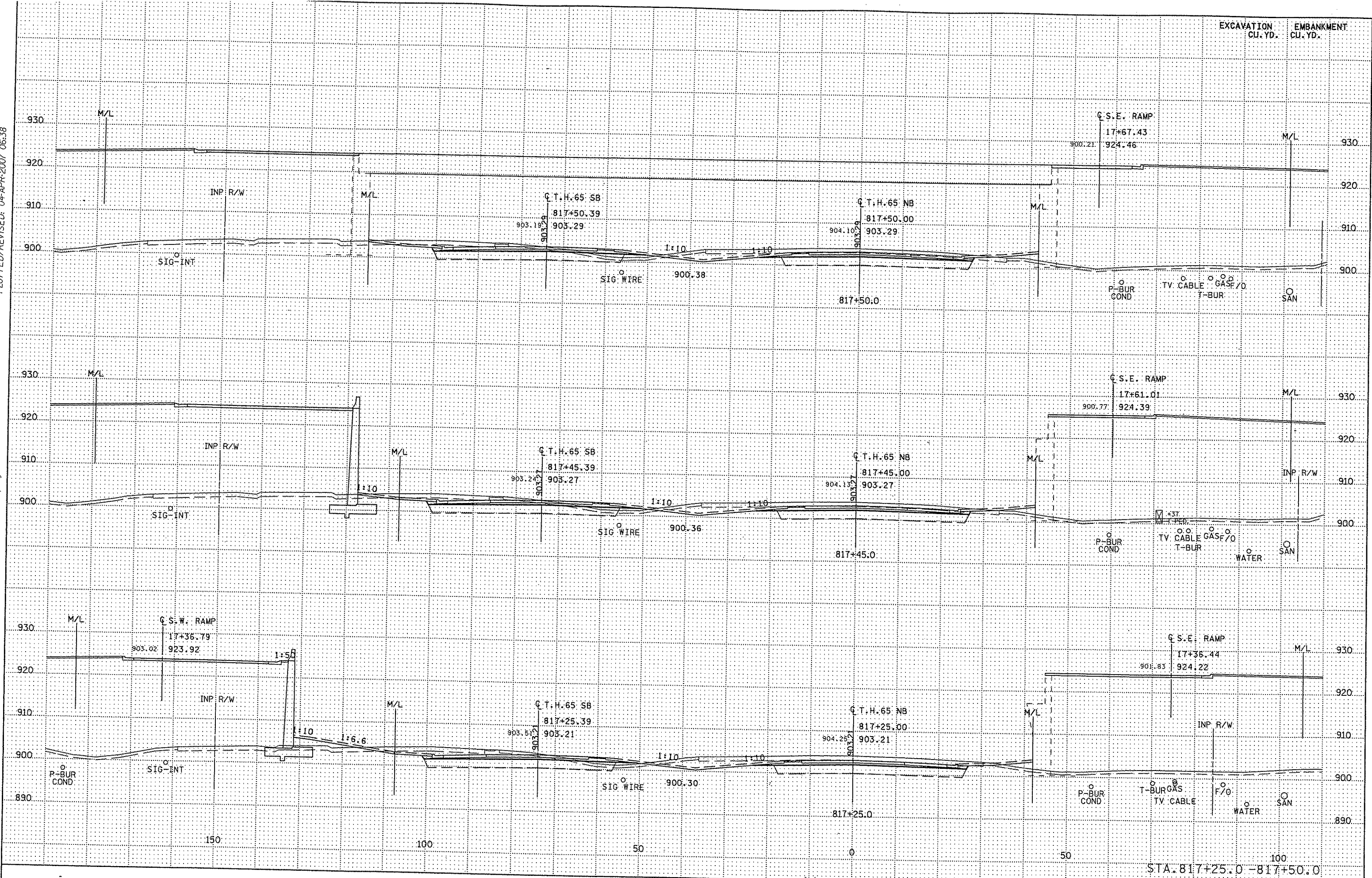
USJ/MC1 : METRO
I/PLOT NAME: 65nb_xpl4
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\65nb\65nb_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

UPSI/RICI : METRO
I/PLOT NAME: 65nb_xpl15
PATH & FILENAME: SADES\IGN\065\0208\23\Final\65nb\65nb_xpl.dgn



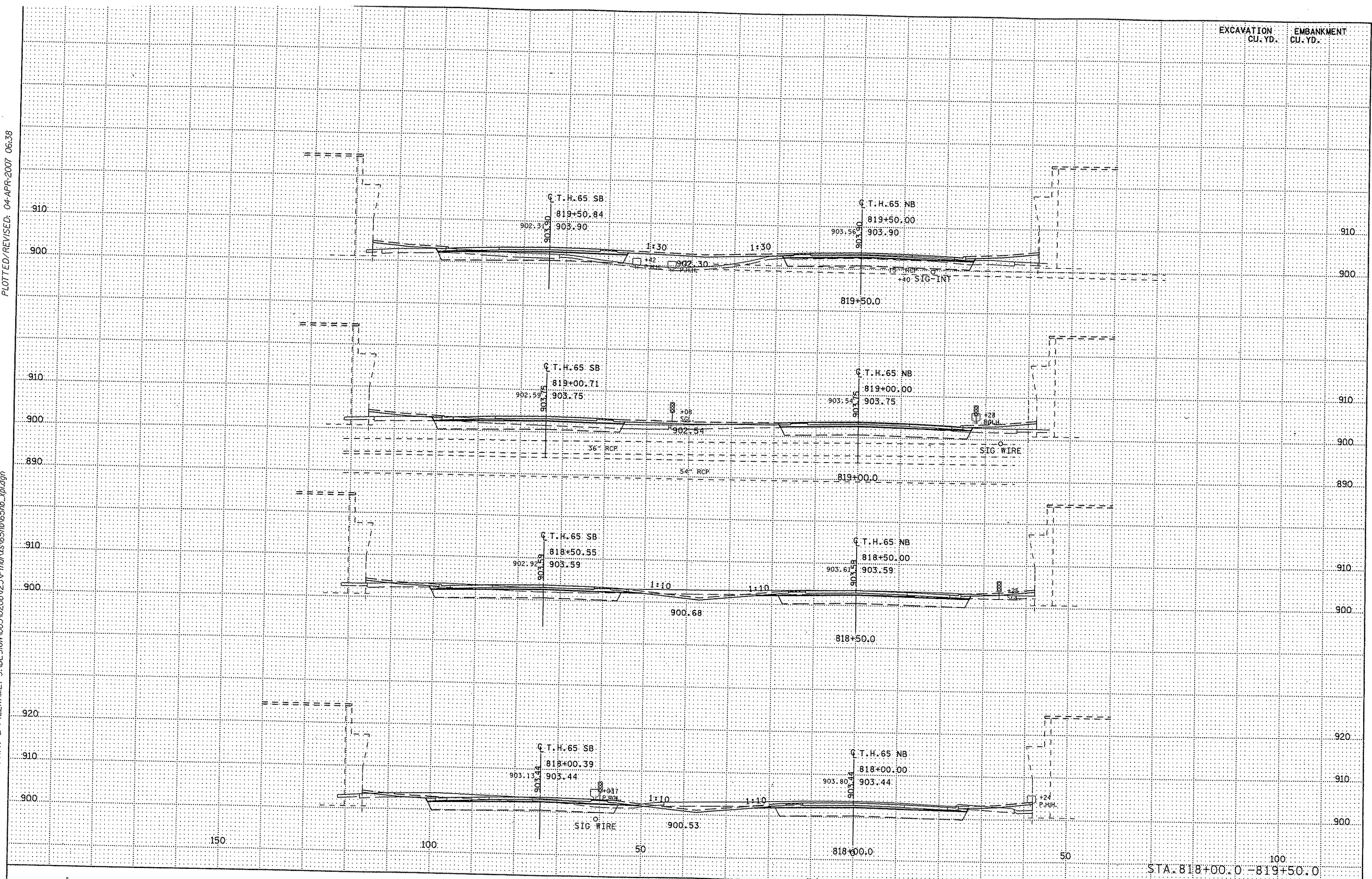
STA. 817+25.0 - 817+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

USER: METRO
 IPLOT NAME: 65nb_xpl16
 PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn

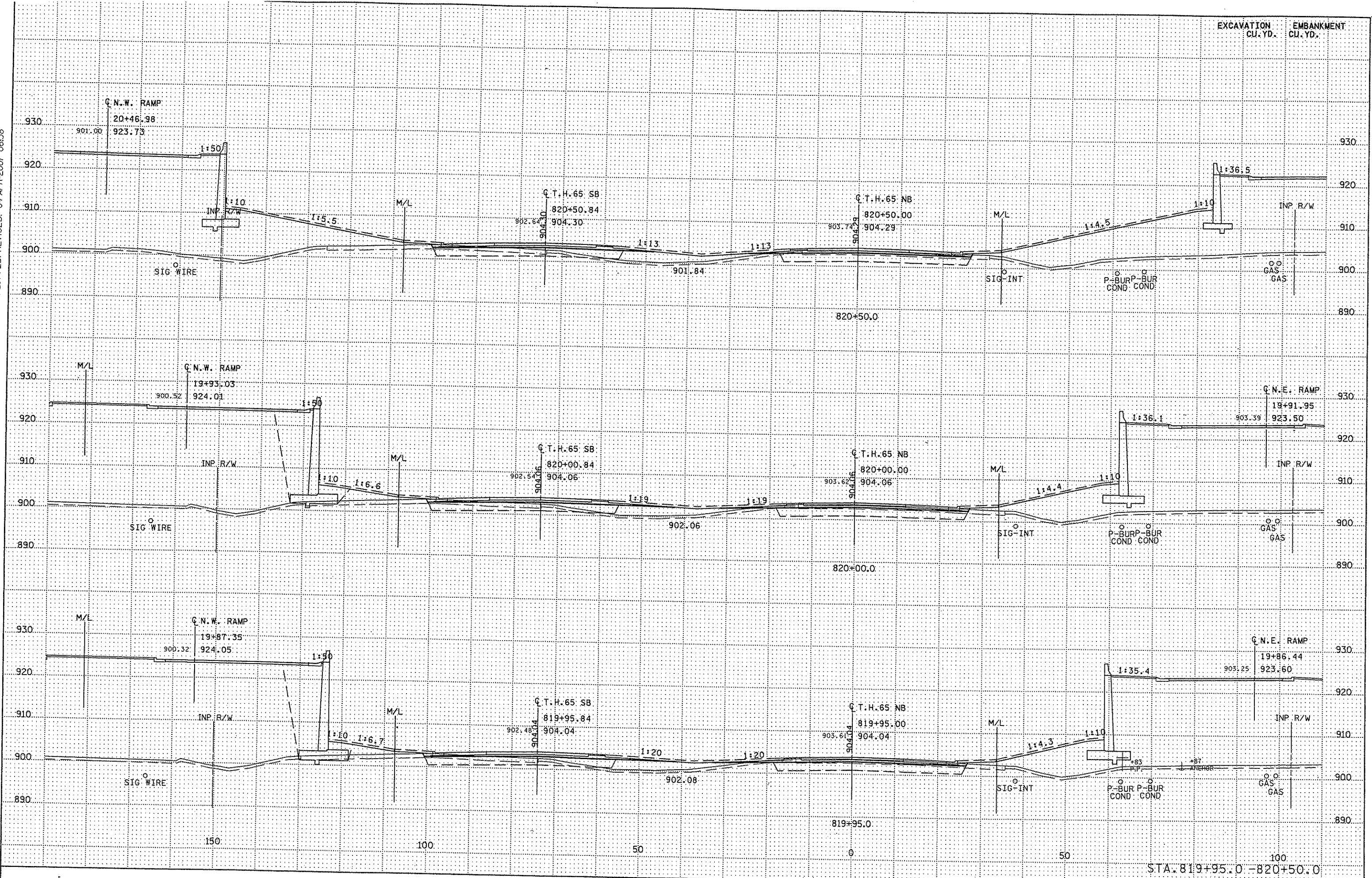


STA. 818+00.0 - 819+50.0

EXCAVATION CU.YD. EMBANKMENT CU.YD.

PLOTTED/REVISED: 04-APR-2007 06:38

DISTRICT #: METRO
I/PLOT NAME: 65nb_xp17
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_rpl.dgn

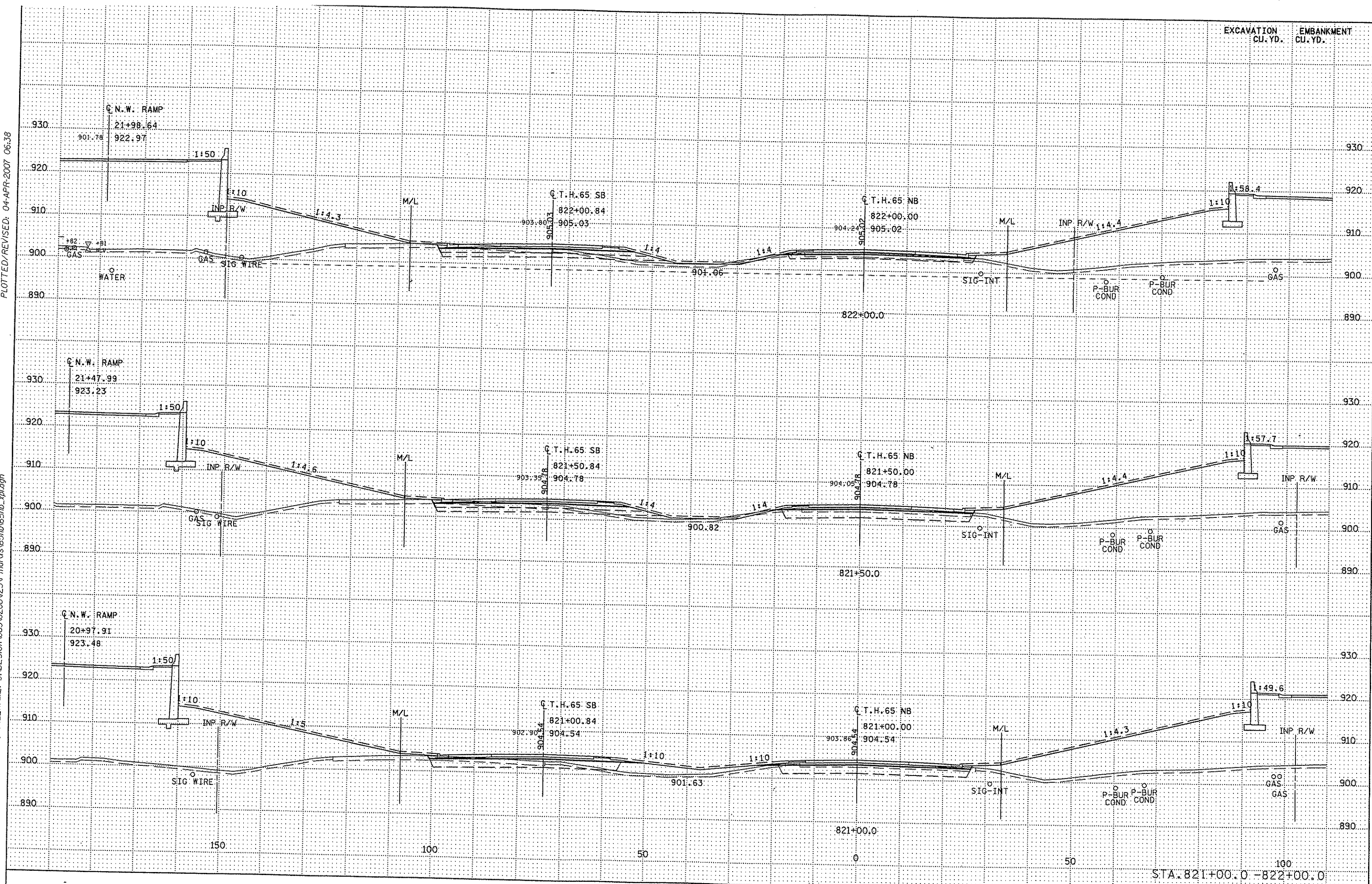


STA. 819+95.0 - 820+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:38

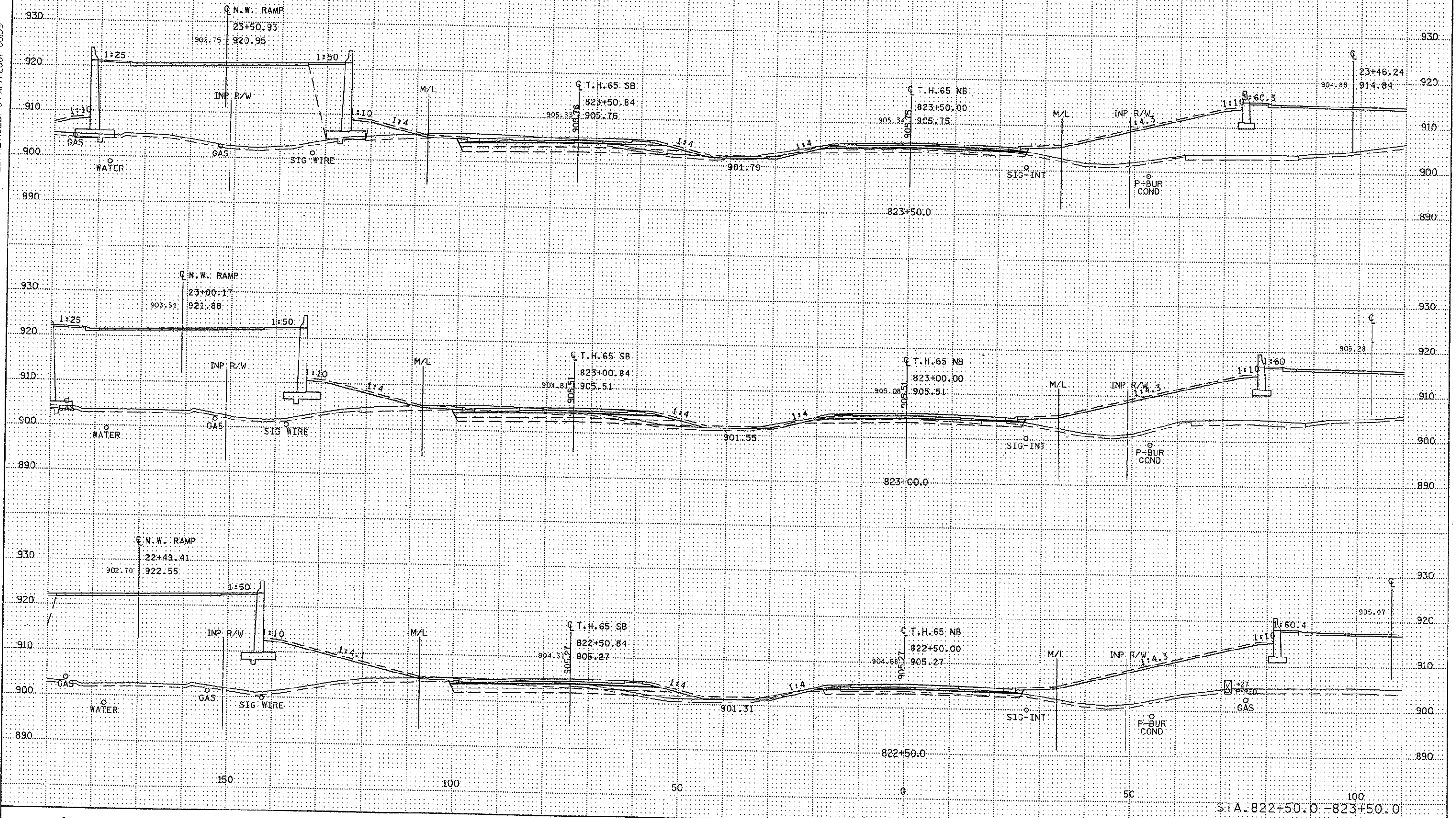
PROJECT #: METRO
PLOT NAME: 65nb_xpl18
PATH & FILENAME: S:\DESIGN\065\0208\123\TH\65\65nb_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:39

DISTRICT: METRO
PLOT NAME: 65nb_rpl19
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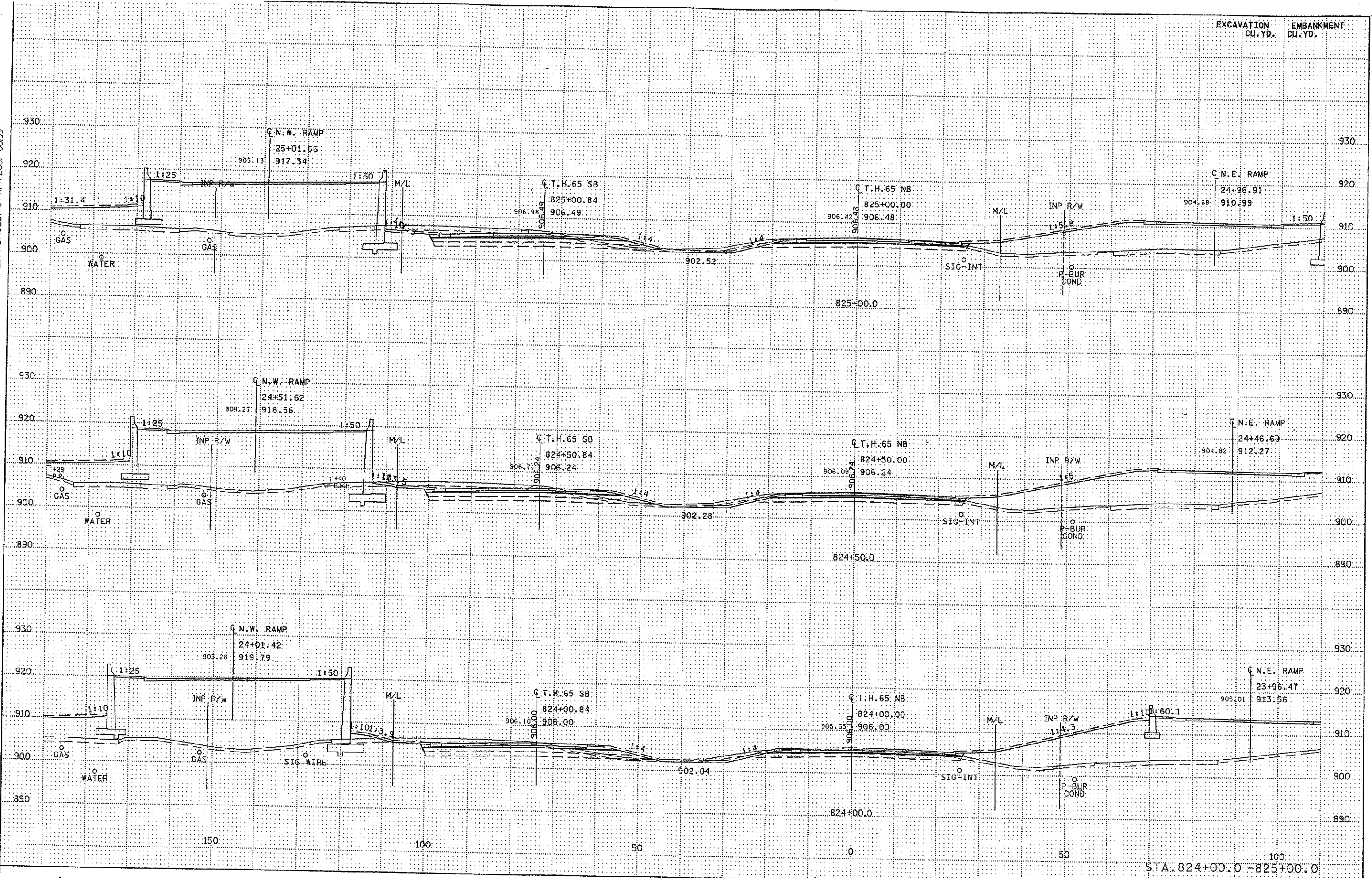


STA. 822+50.0 - 823+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:39

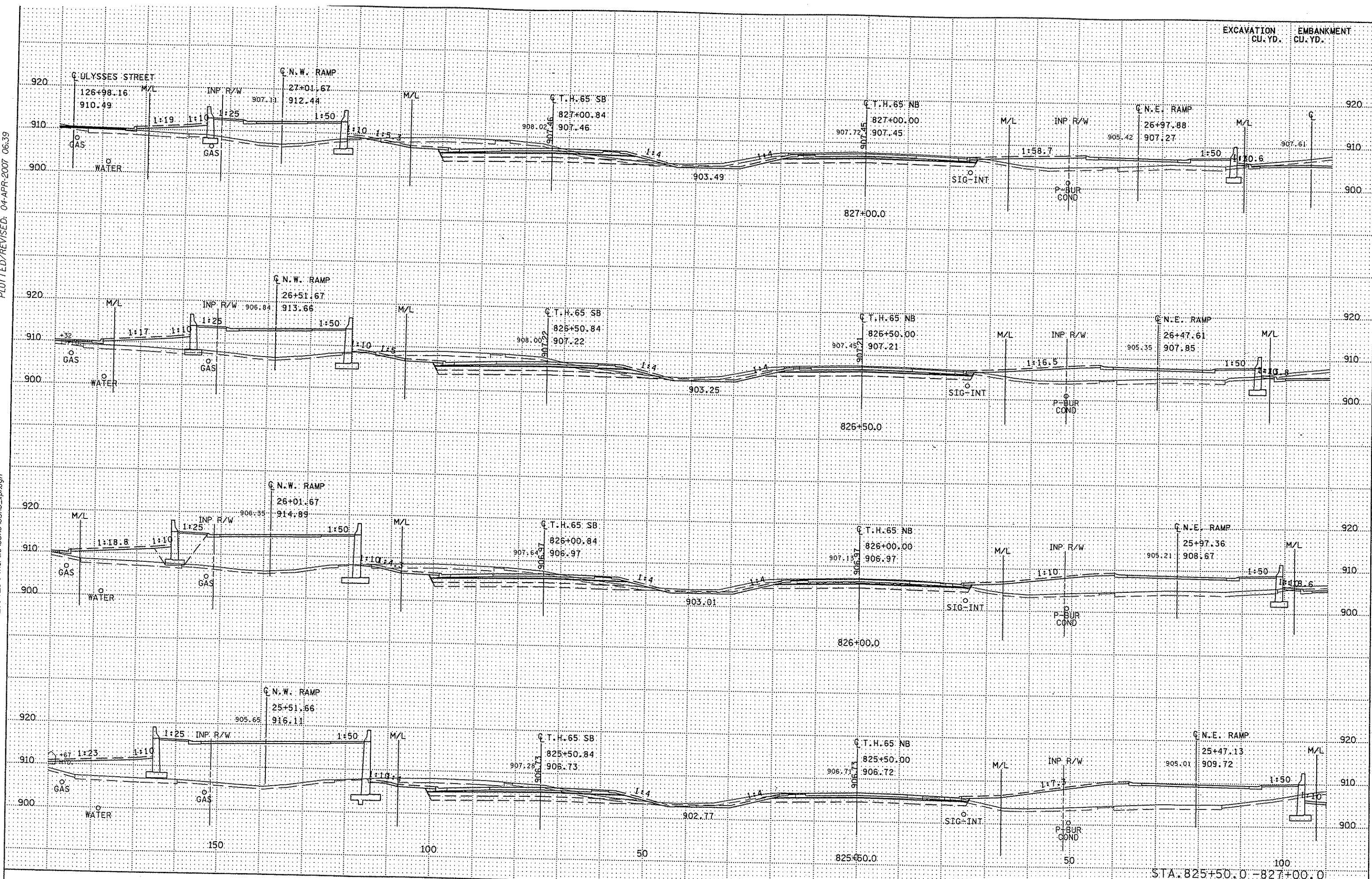
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USER: ME/RU
PLOT NAME: 65nb_xp120

PLOTTED/REVISED: 04-APR-2007 06:39

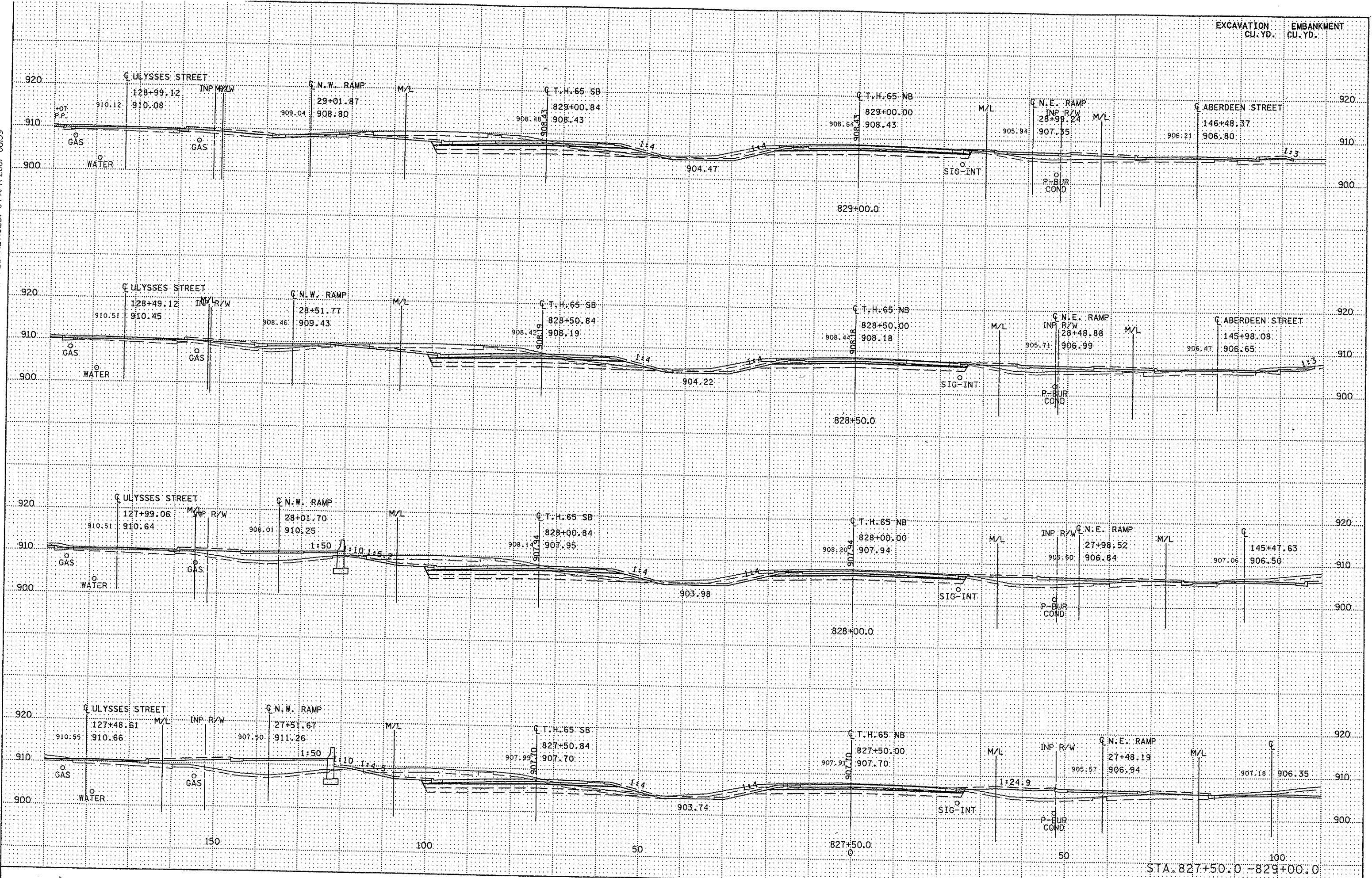
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EXCAVATION CU. YD. EMBANKMENT CU. YD.

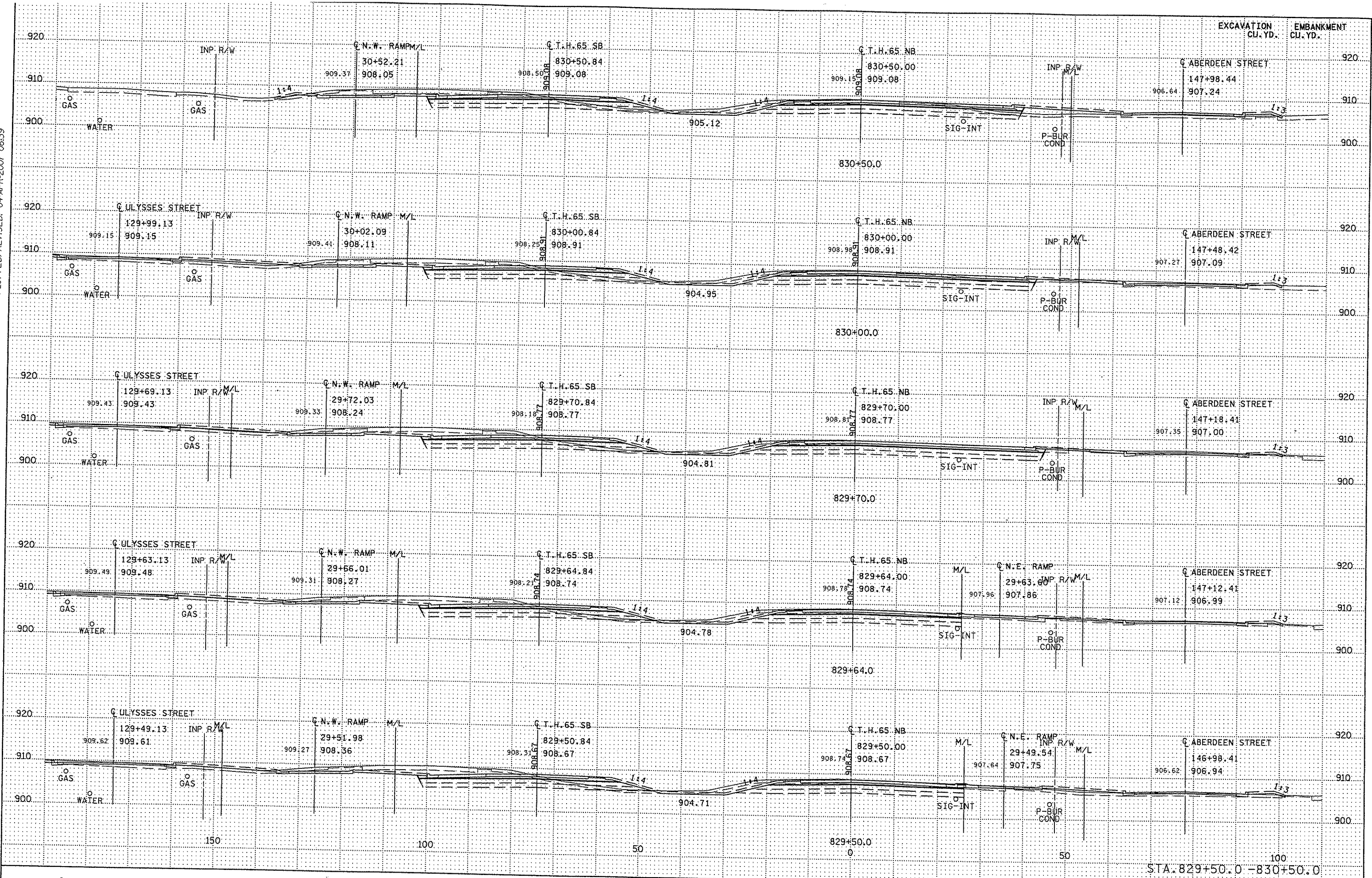
PLOTTED/REVISED: 04-APR-2007 06:39

LIST FILE: METRO
IFLOT NAME: 65nb_rpl22
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PLOTTED/REVISED: 04-APR-2007 06:39

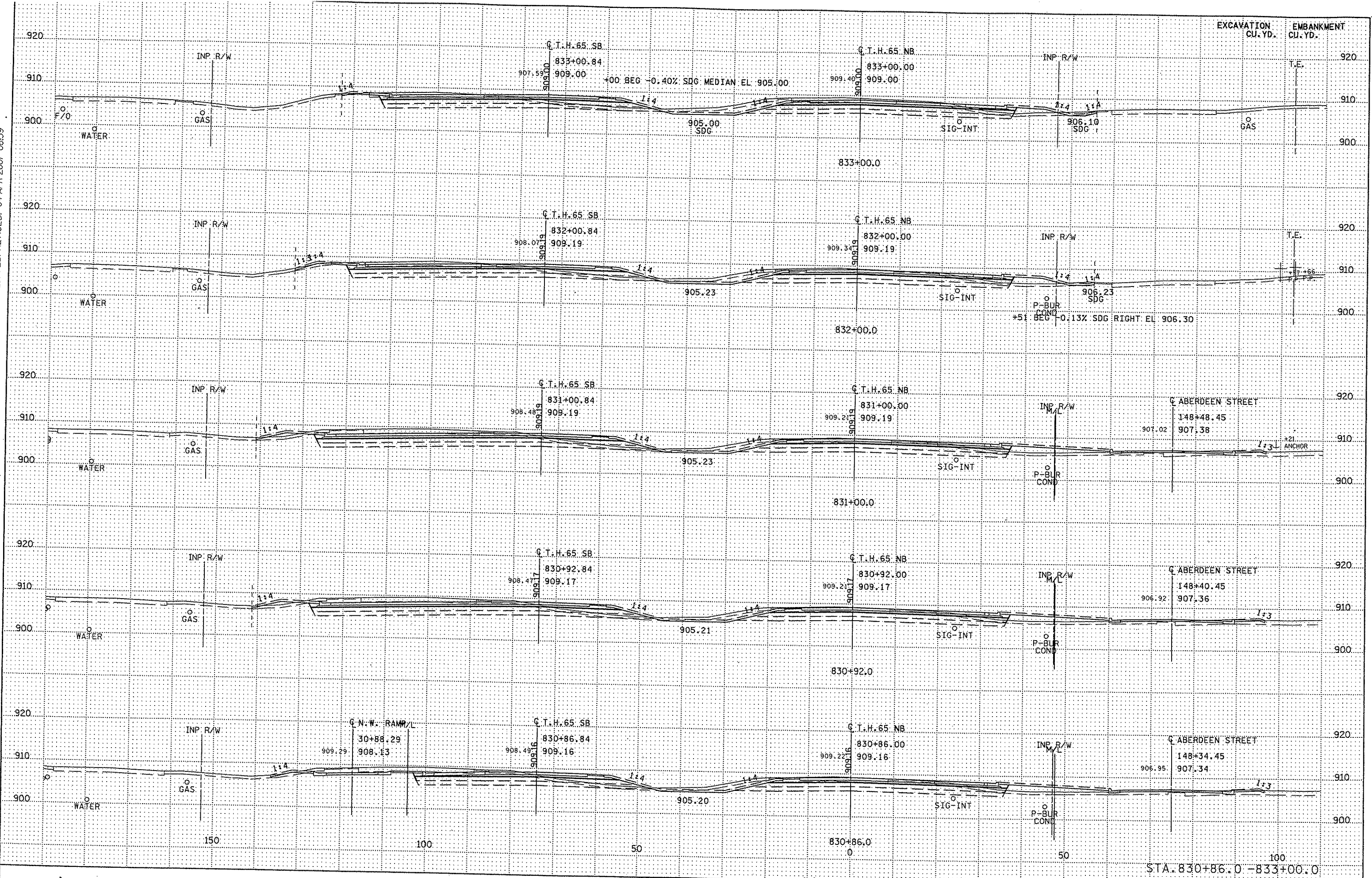
DISINCL1 : METRO
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PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn



PLOTTED/REVISED: 04-APR-2007 06:39

PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\65nb\65nb_xpl.dgn

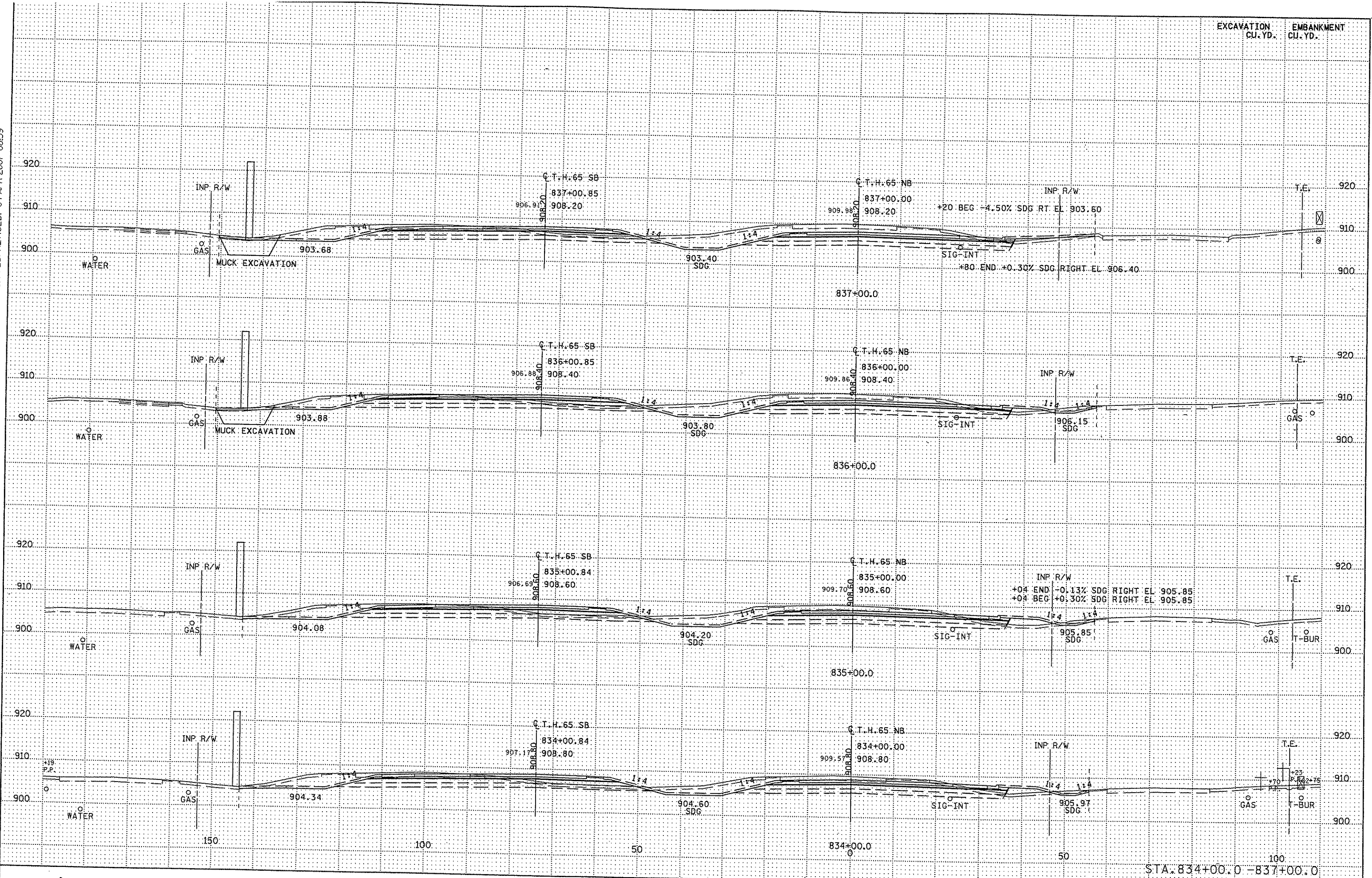
ME: JHU
PLOT NAME: 65nb_xpl24



EXCAVATION CU. YD. EMBANKMENT CU. YD.

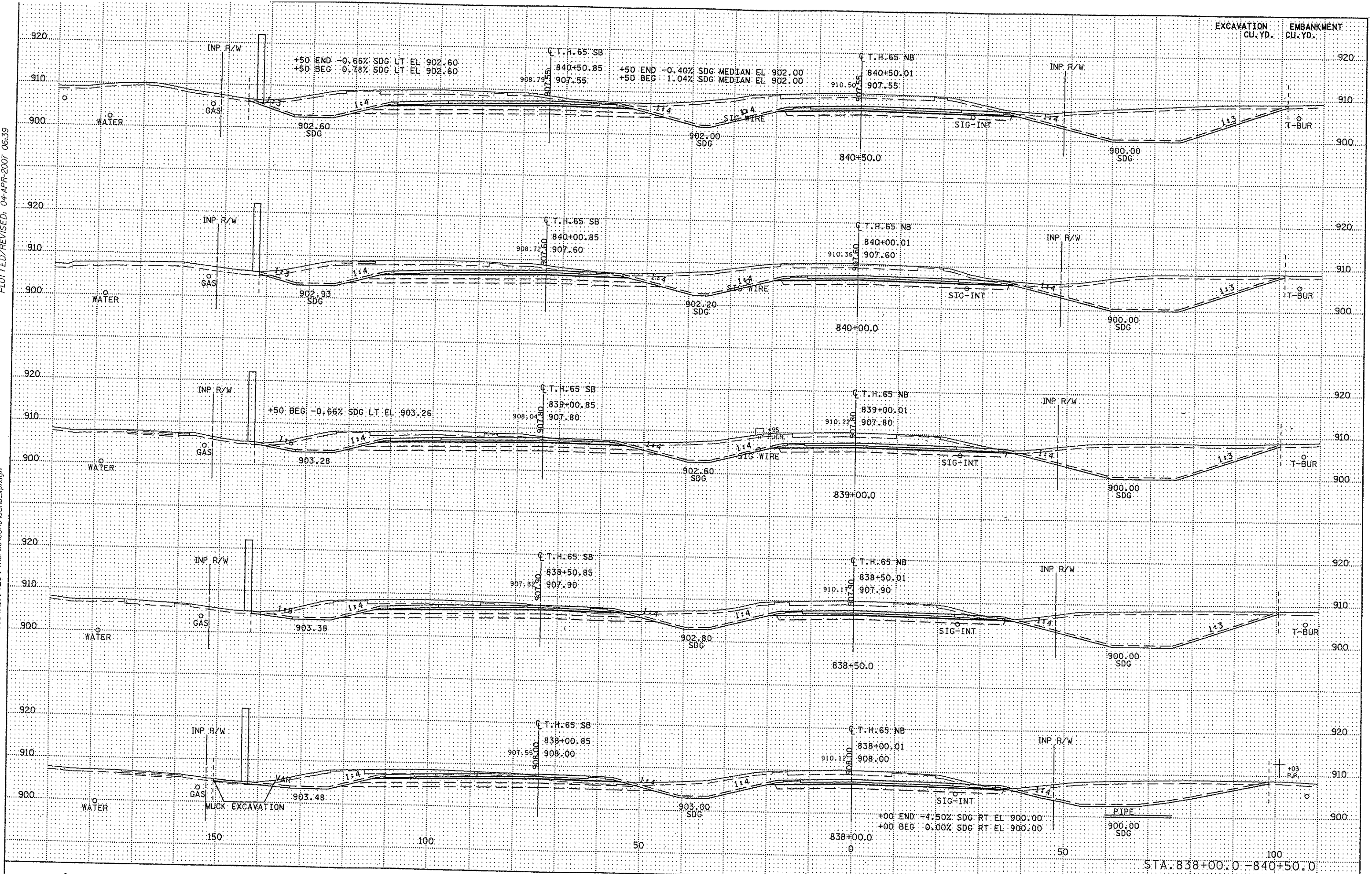
PLOTTED/REVISED: 04-APR-2007 06:39

W:\PROJECTS\ME\TRU
PLOT NAME: 65nb_xpl25
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn



PLOTTED/REVISED: 04-APR-2007 06:39

IPLOT NAME: 65nb_xpl26
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\65nb\65nb_xpl.dgn

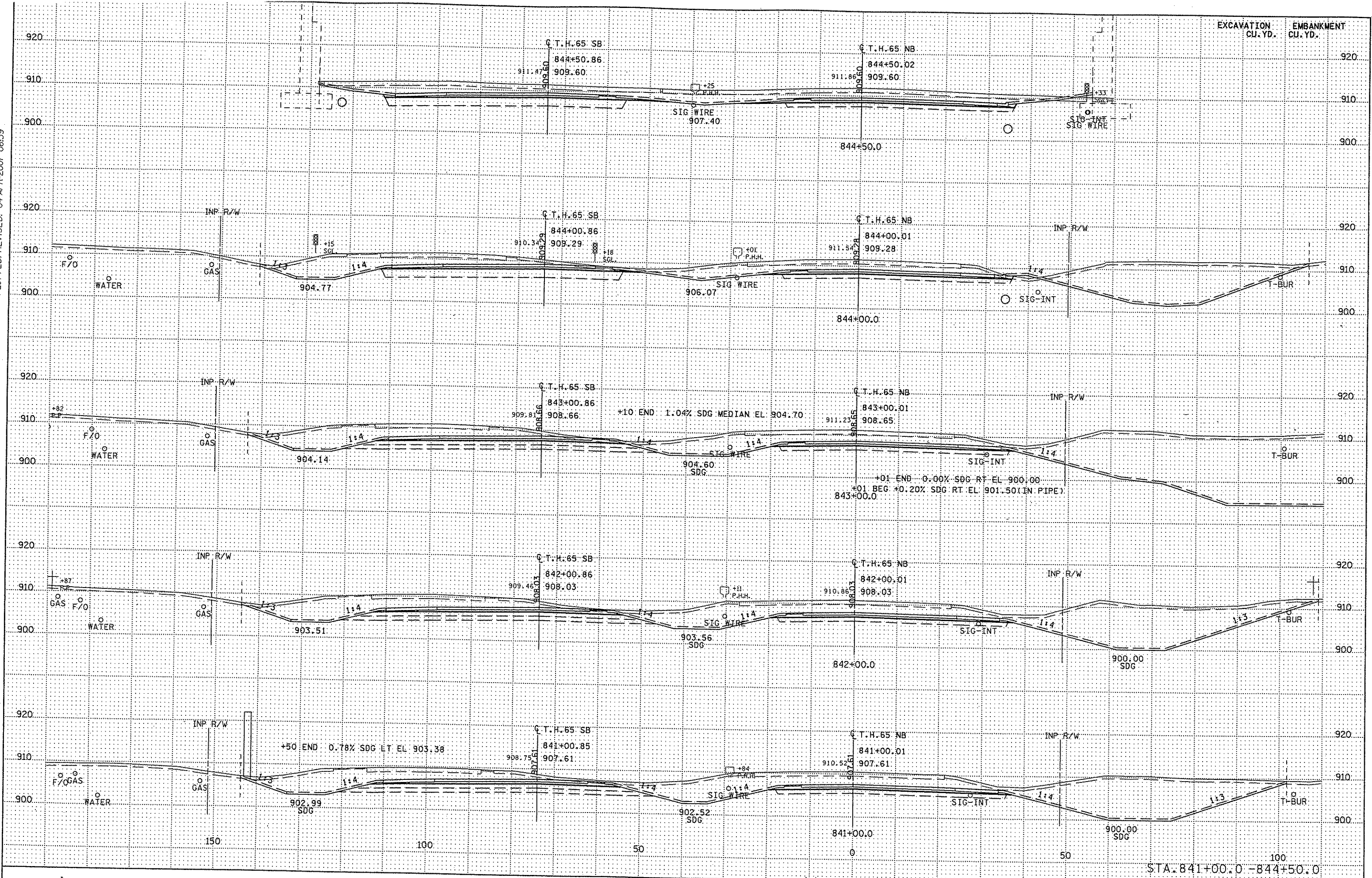


EXCAVATION CU.YD. EMBANKMENT CU.YD.

PLOTTED/REVISED: 04-APR-2007 06:39

PATH & FILENAME: S:\NOESIGN\065\0208\123\Final\65nb\65nb_xpl.dgn

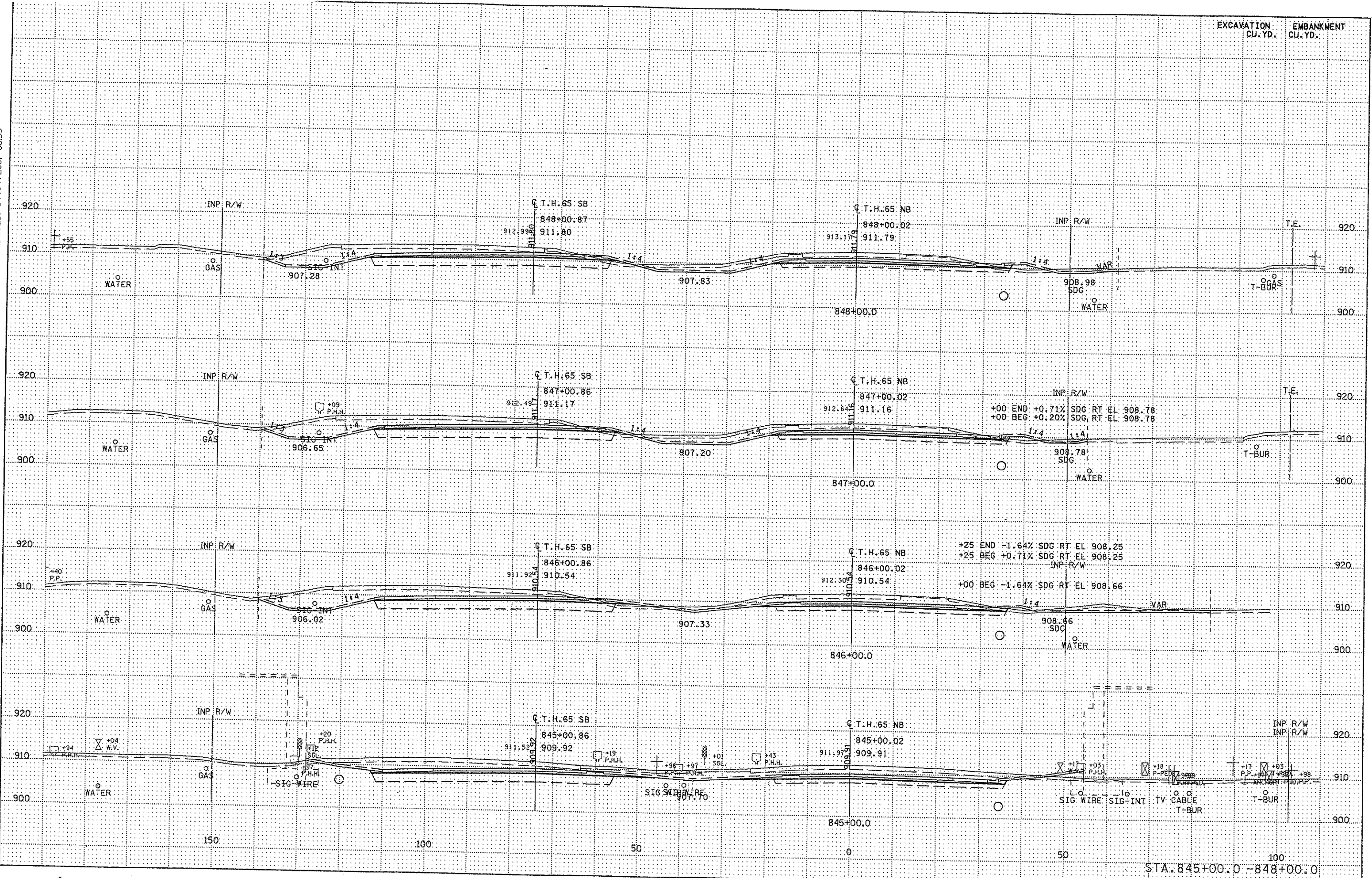
DISTRICT: METRO
PLOT NAME: 65nb_xpl27



EXCAVATION CU. YD. EMBANKMENT CU. YD.

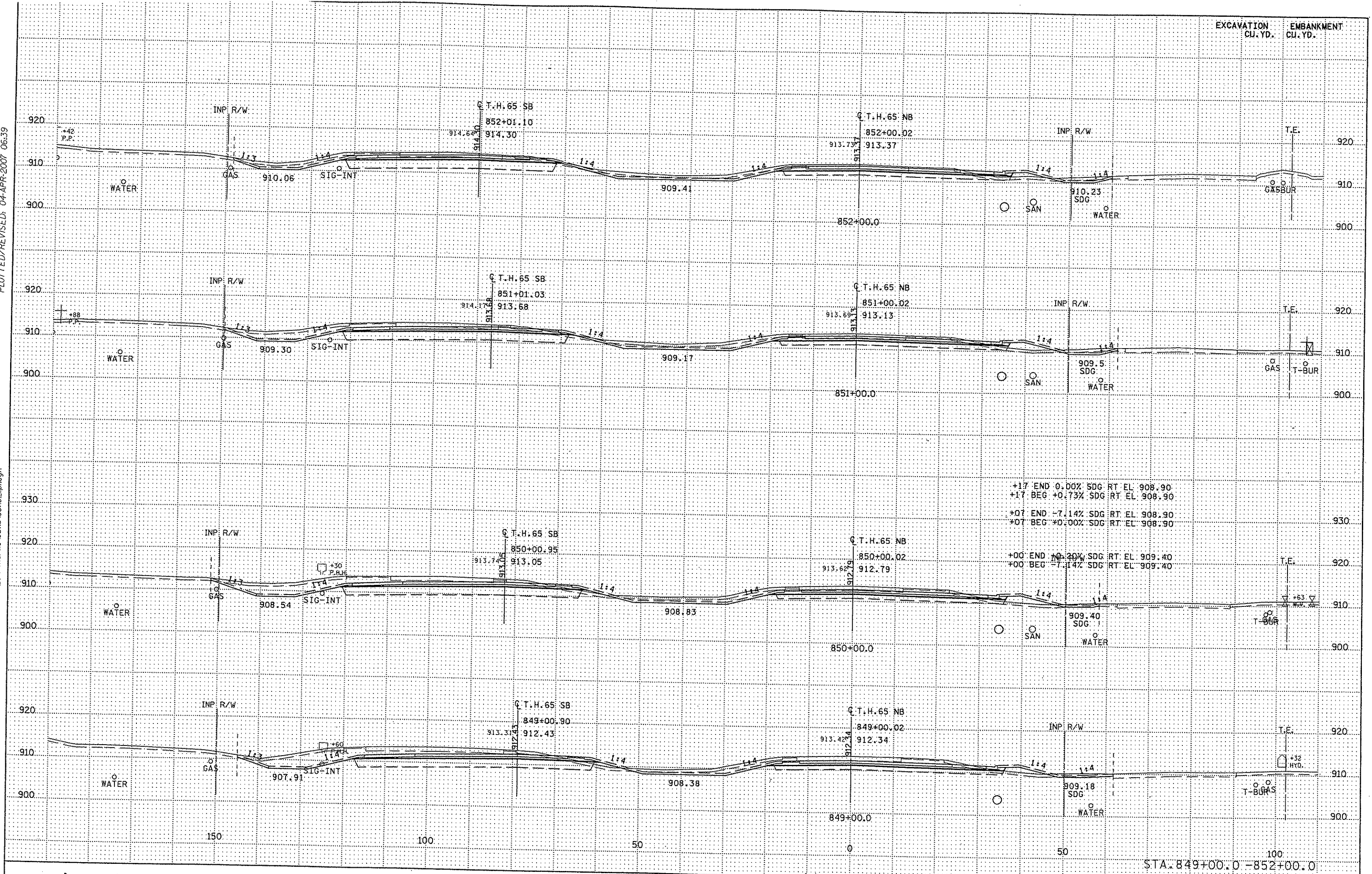
PLOTTED/REVISED: 04-APR-2007 06:39

LAST MODIFIED: MEI.HU
PLOT NAME: 65nb_xpl28
PATH & FILENAME: S:\DESIGN\0208\123\TH 65\65nb_xpl.dgn



PLOTTED/REVISED: 04-APR-2007 06:39

IPLOT NAME: 65nb_xpl29
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xpl.dgn

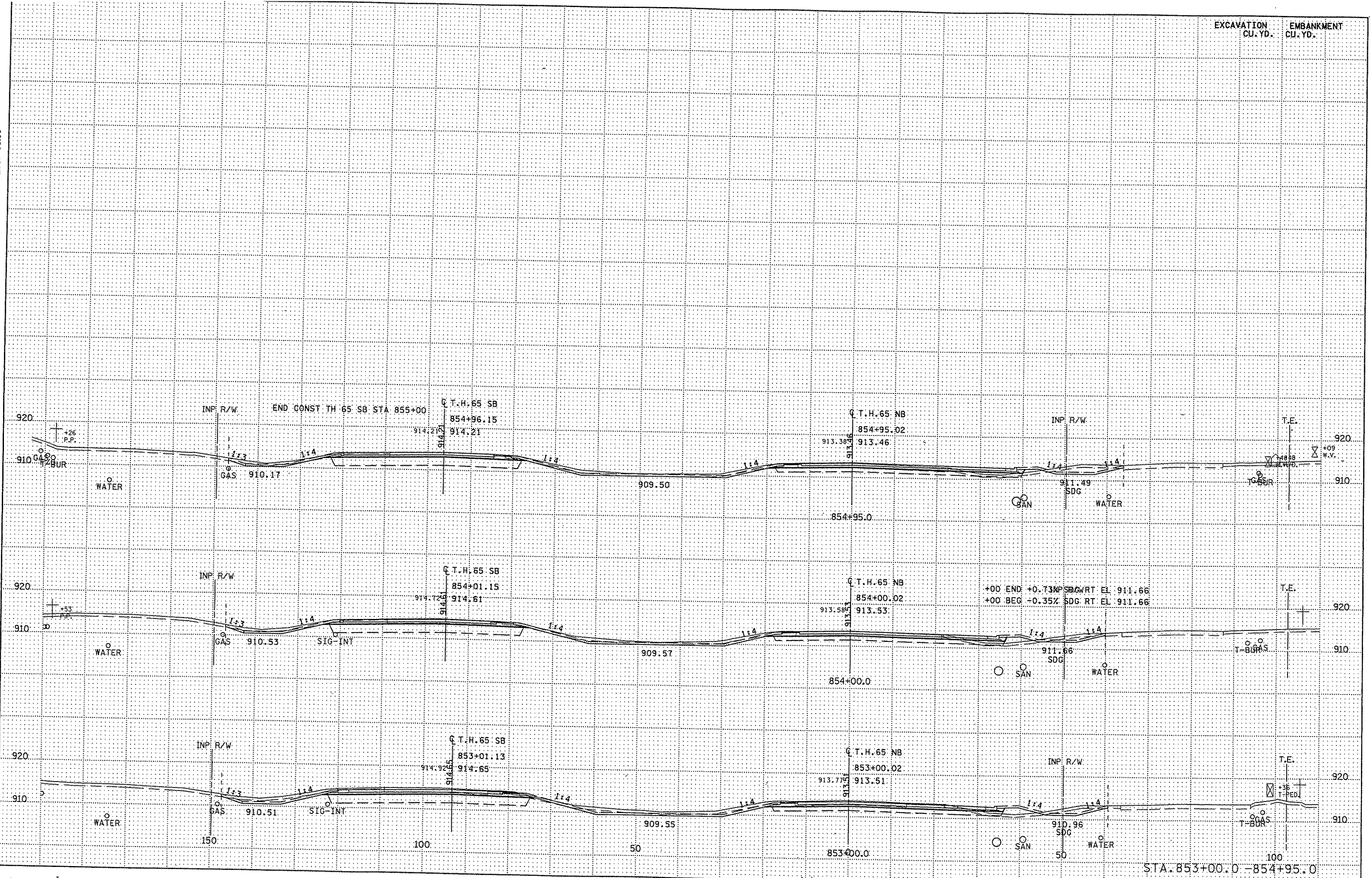


STA. 849+00.0 - 852+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:39

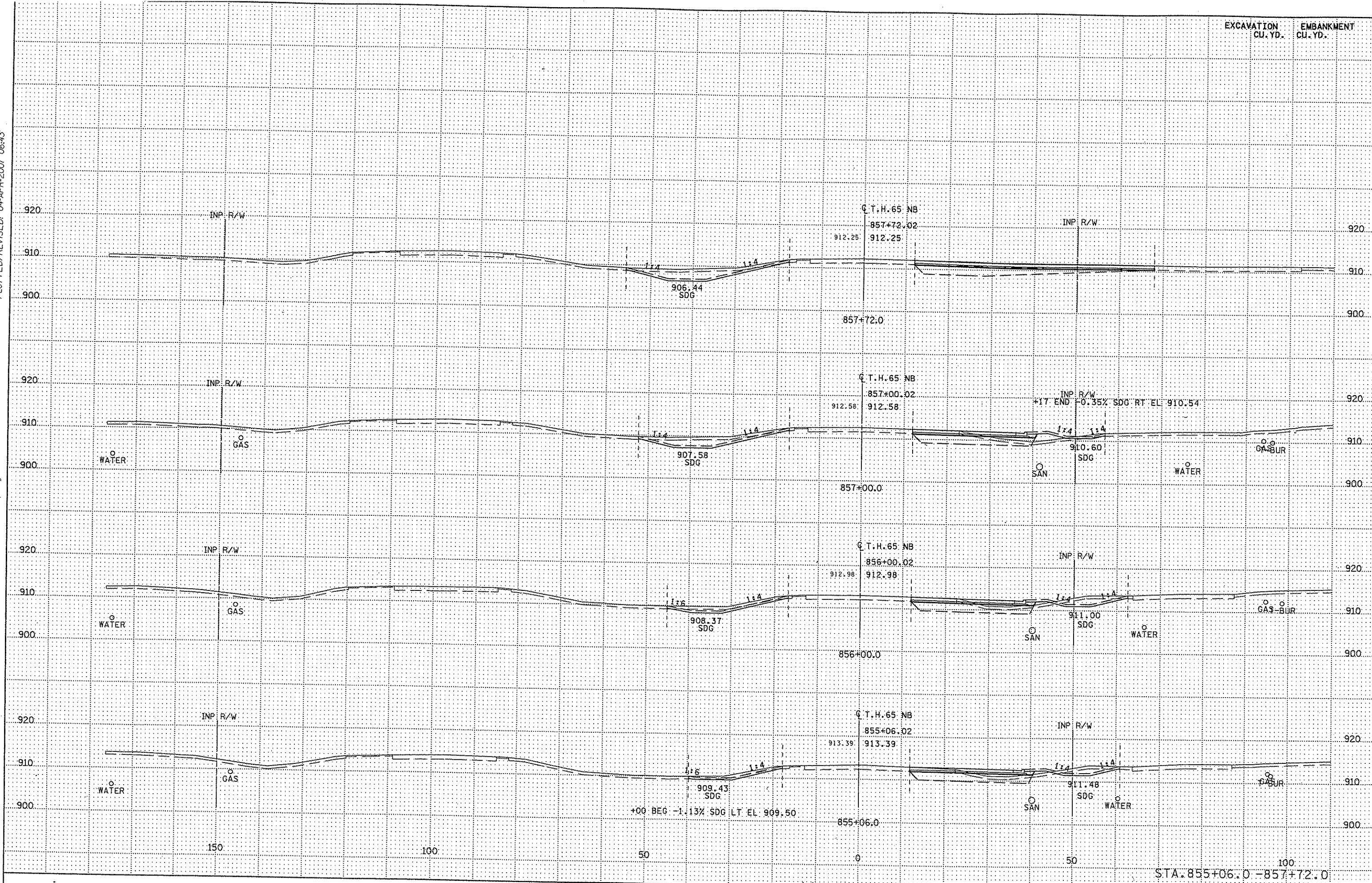
USER: MEI/RO
PLOT NAME: 65nb_xpl30
PATH & FILENAME: S:\DESIGN\0650208\23\Final\vs65nb\65nb_xpl.dgn



STA. 853+00.0 - 854+95.0

PLOTTED/REVISED: 04-APR-2007 06:43

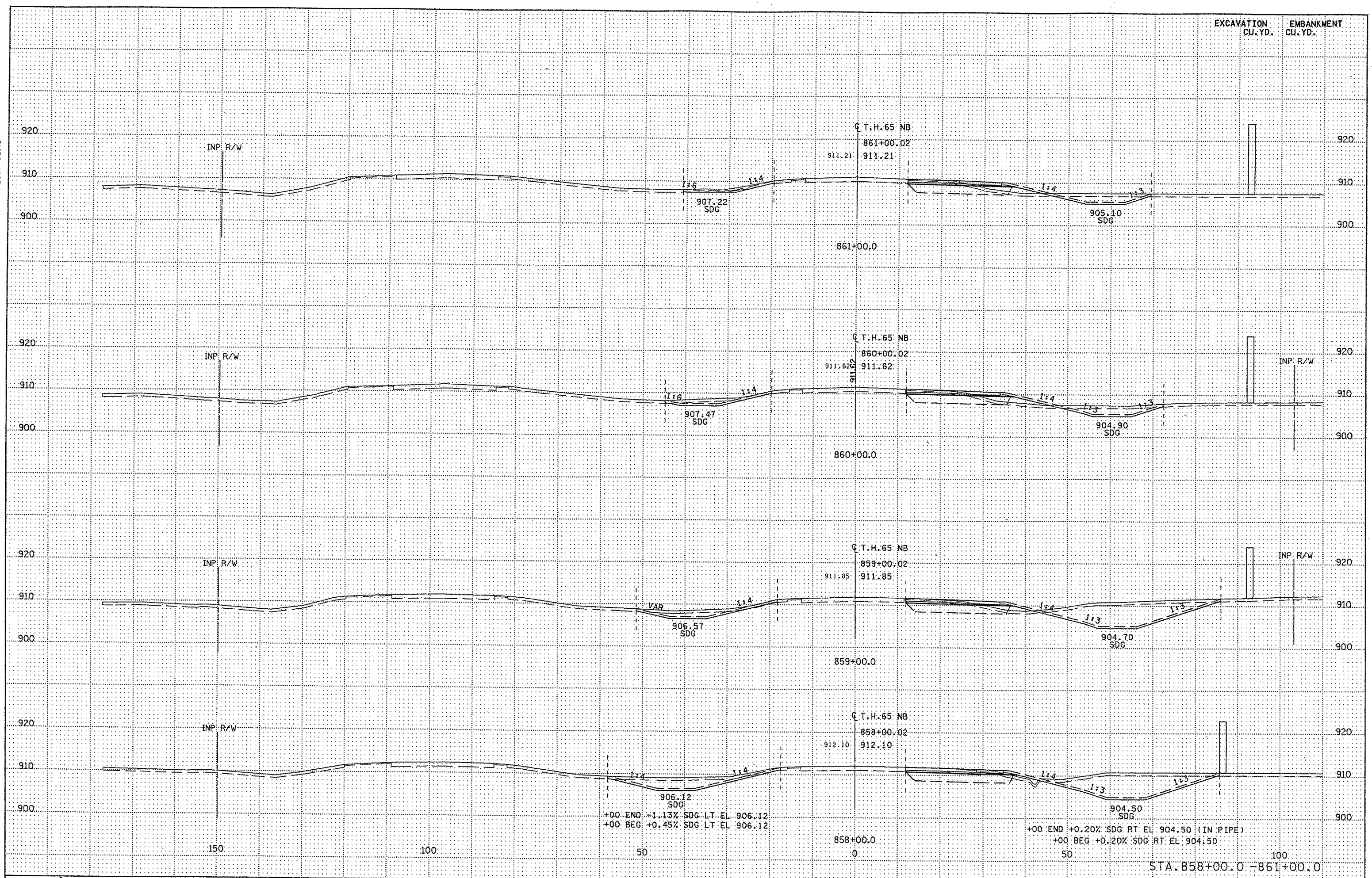
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STA. 855+06.0 - 857+72.0

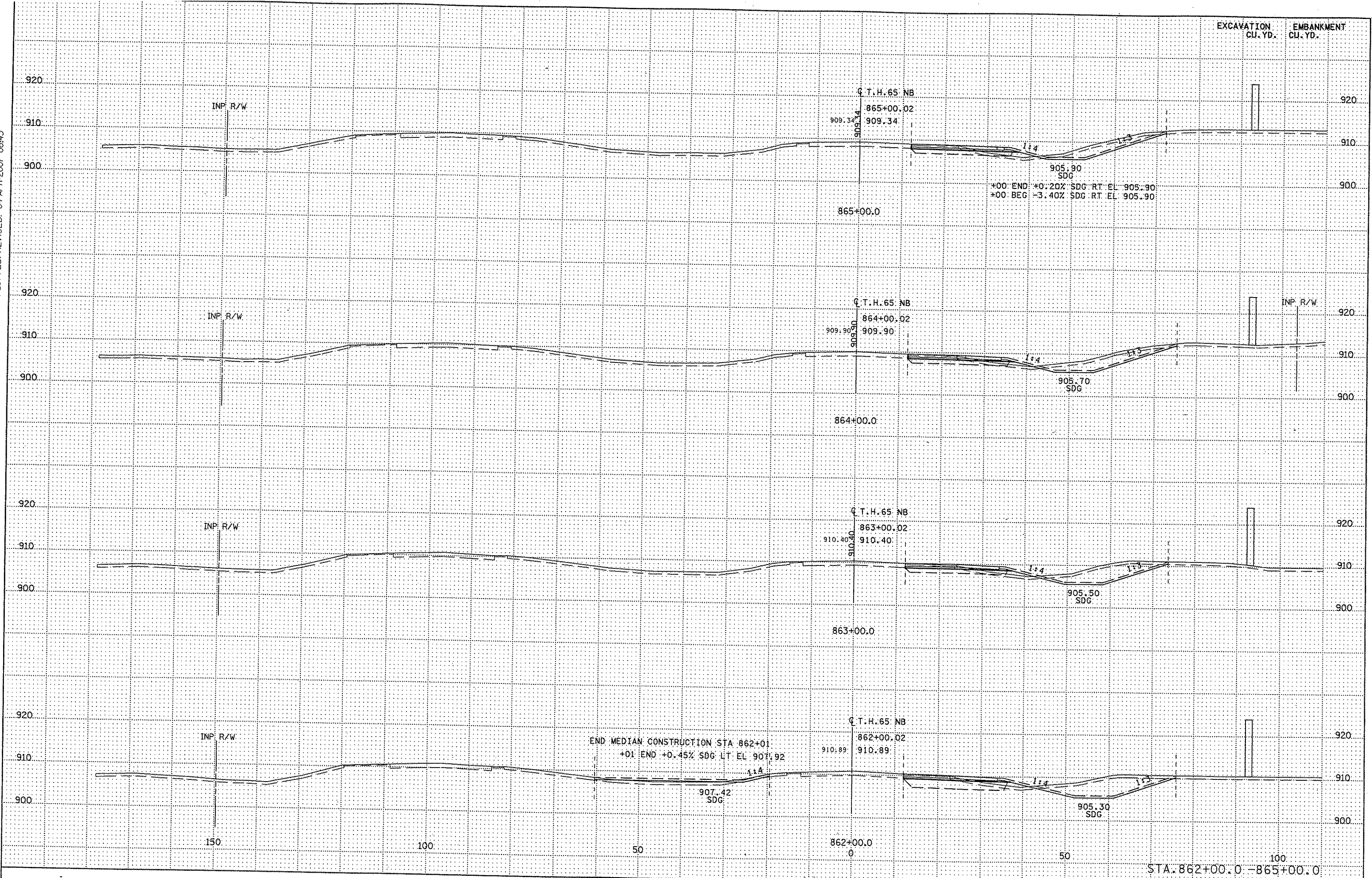
PLOTTED/REVISED: 04-APR-2007 06:43

DISTRICT : METRO
PLOT NAME: 65nb_ap202
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_ap2.dgn



PLOTTED/REVISED: 04-APR-2007 06:43

DISTRICT: METRO
PLOT NAME: 65nb_xp203
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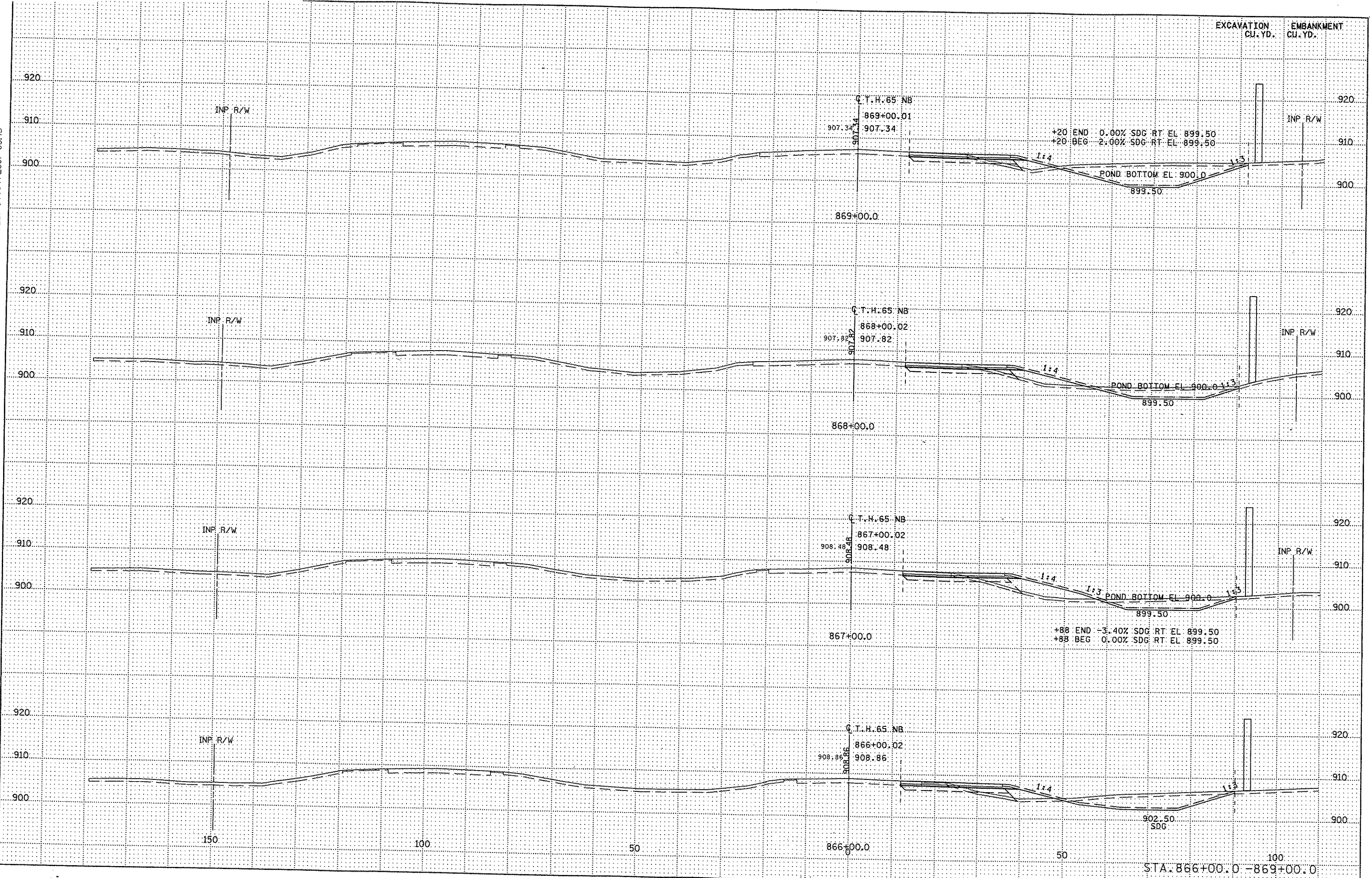


STA. 862+00.0 - 865+00.0

PLOTTED/REVISED: 04-APR-2007 06:43

PATH & FILENAME: S:\DESIGN\065\0208\123\Final\65\65nb\65nb_xp2.dgn

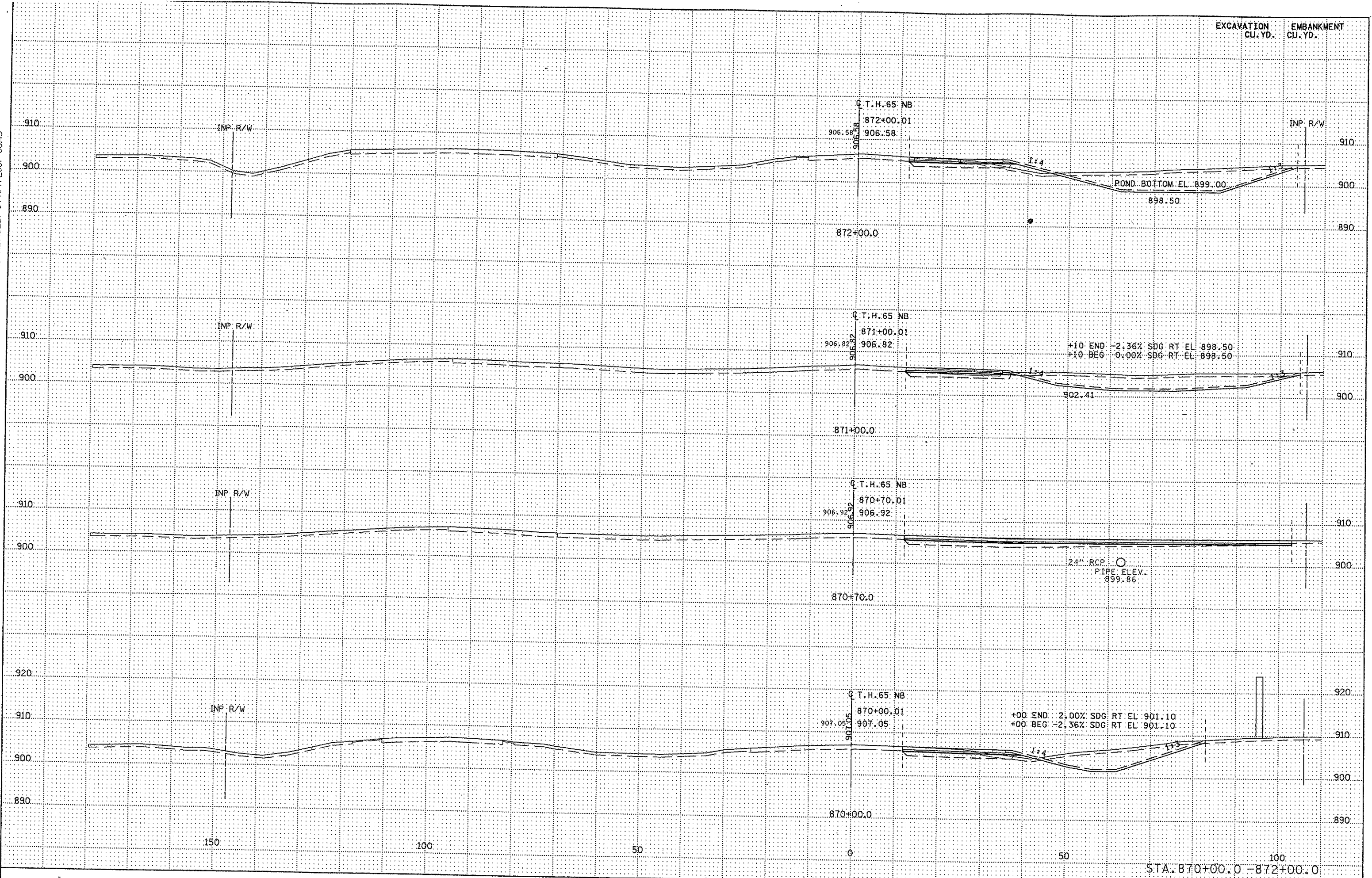
PROJECT : METRO
PLOT NAME: 65nb_xp204



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:43

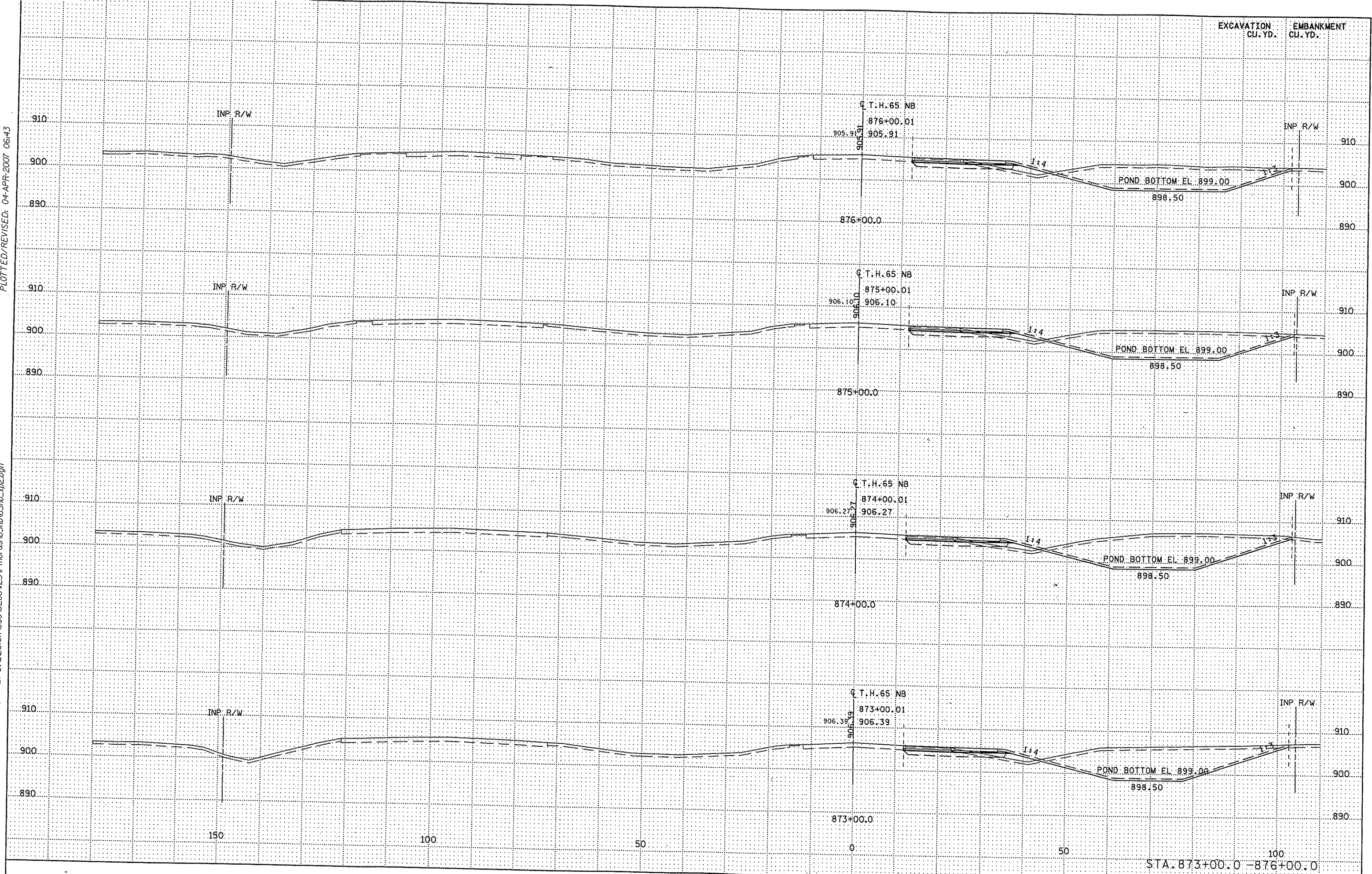
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 PLOT NAME: 65nb_4p205
 PATH & FILENAME: S:\DESIGN\065\0208\123\1\65nb\65nb_4p2.dgn



PLOTTED/REVISED: 04-APR-2007 06:43

PATH & FILENAME: S:\DESIGN\065\0208\123\TH\65\65nb\65nb_xp2.dgn

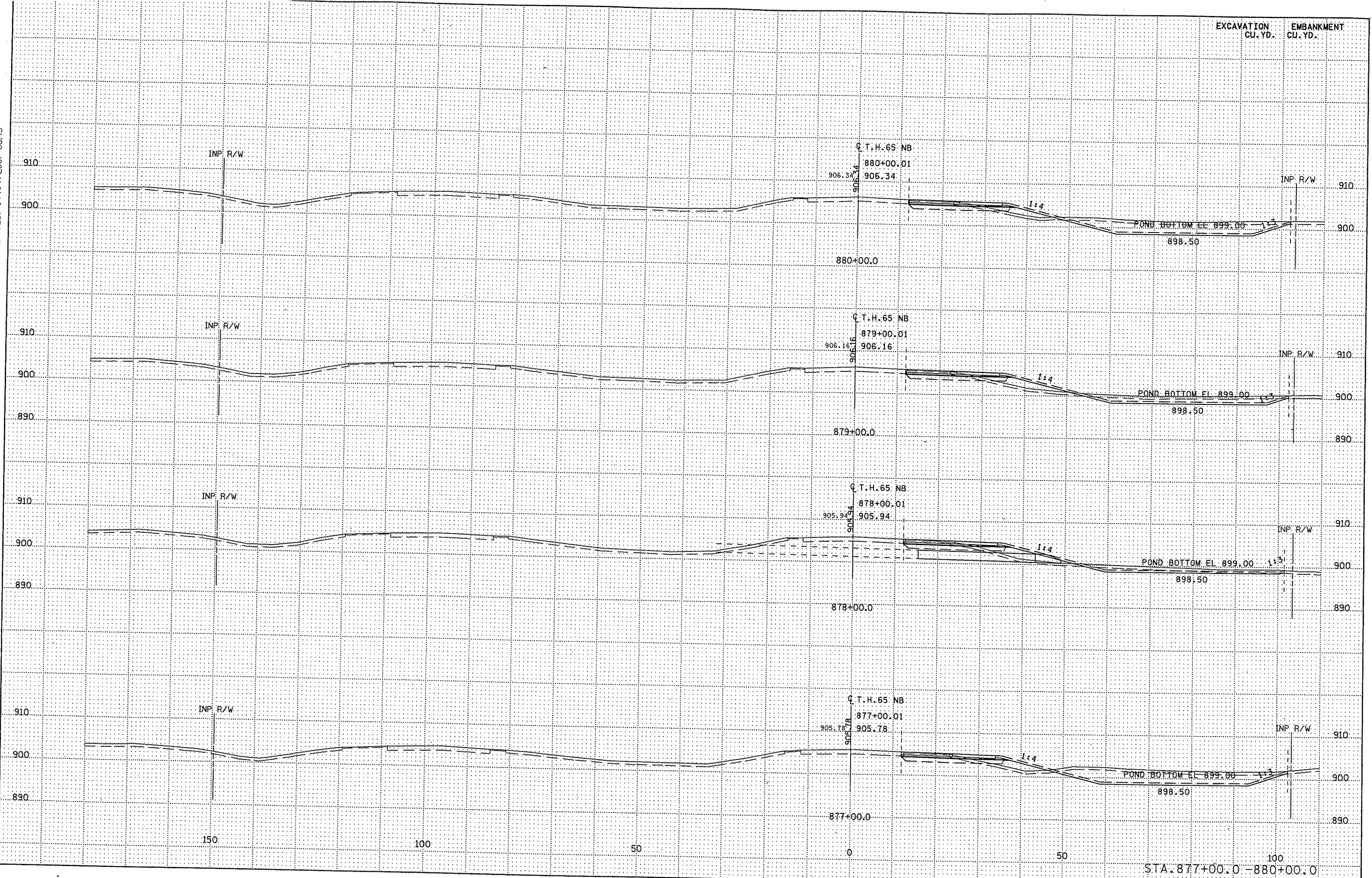
USER: MEI HU
PLOT NAME: 65nb_xp206



PLOTTED/REVISED: 04-APR-2007 06:43

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.



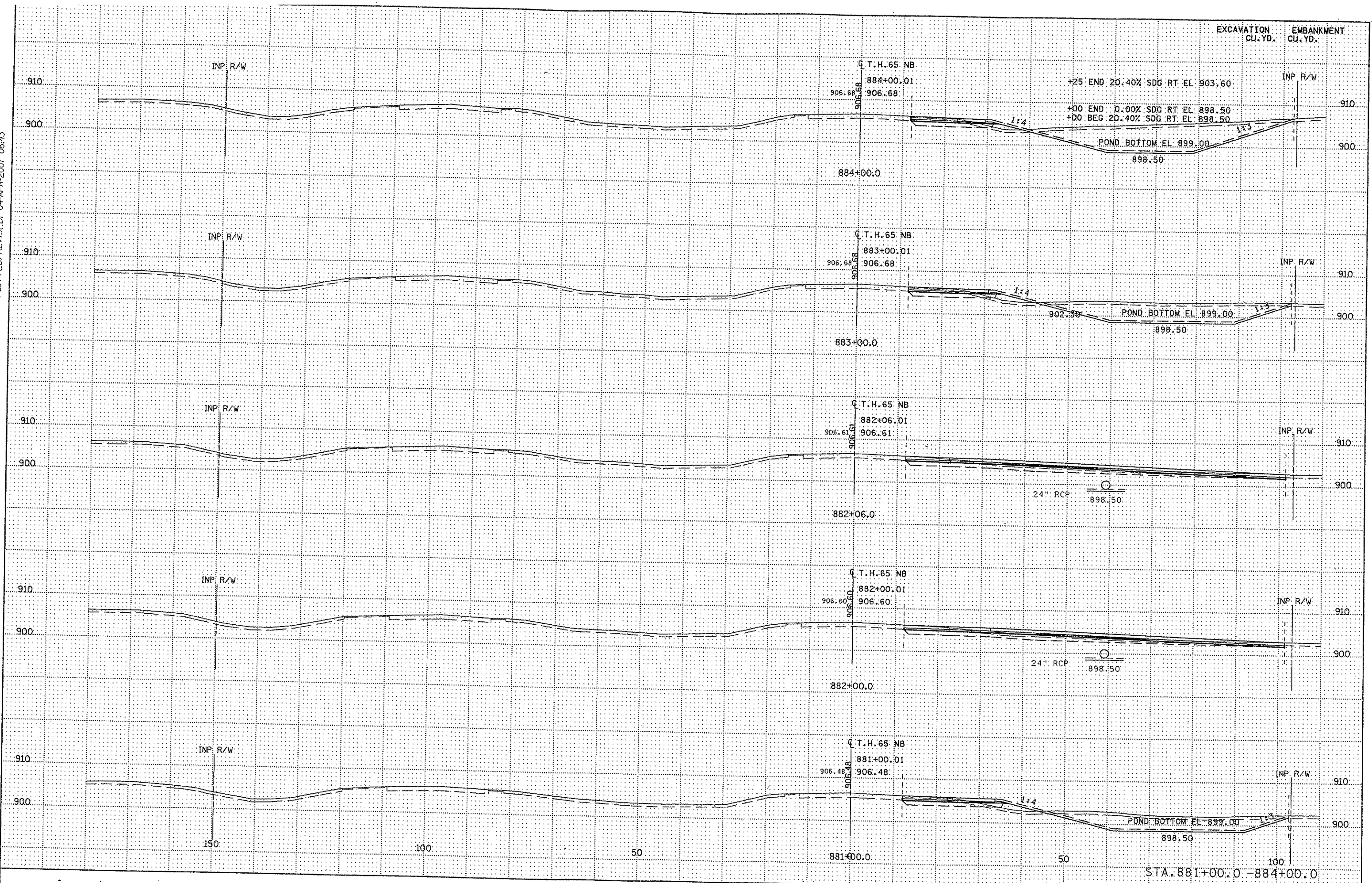
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PLOT NAME: 65nb_xp207
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EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:43

U:\S\H\1 * : METRO
I\PLOT NAME: 65nb_xp208
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\65nb\65nb_xp2.dgn

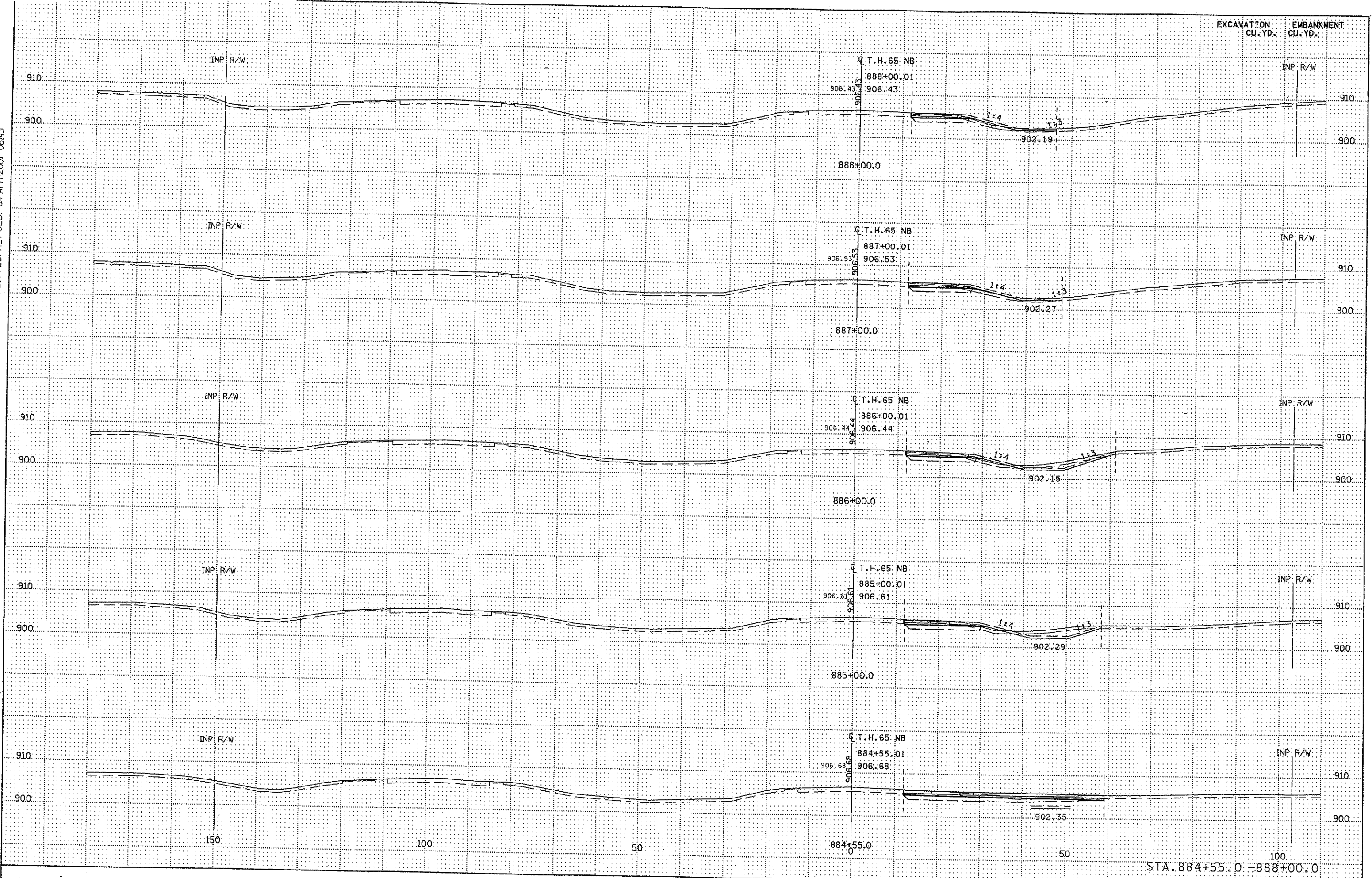


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:43

DISTRICT: METRO
PLOT NAME: 65nb_xp209
PATH & FILENAME: S:\DESIGN\0208\123\T\IND\VS\65nb\65nb_xp2.dgn



INP R/W

C.T.H. 65 NB
888+00.01
906.43

906.43

888+00.0

1:4

1:3

902.19

INP R/W

C.T.H. 65 NB
887+00.01
906.53

906.53

887+00.0

1:4

1:3

902.27

INP R/W

C.T.H. 65 NB
886+00.01
906.44

906.44

886+00.0

1:4

1:3

902.15

INP R/W

C.T.H. 65 NB
885+00.01
906.61

906.61

885+00.0

1:4

1:3

902.29

INP R/W

C.T.H. 65 NB
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906.68

906.68

884+55.0

902.35

150

100

50

50

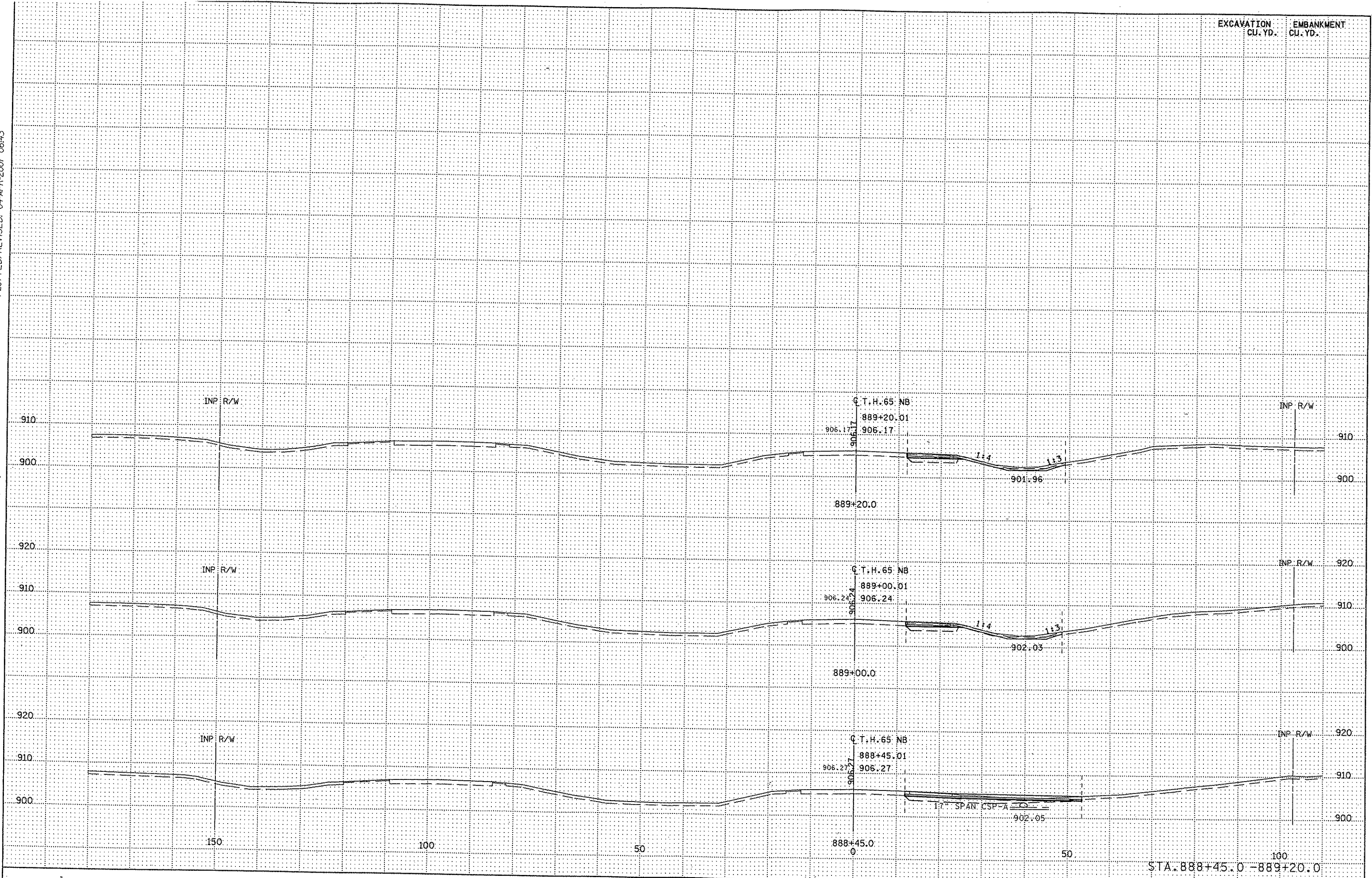
100

STA. 884+55.0 - 888+00.0

EXCAVATION
CU. YD. EMBANKMENT
CU. YD.

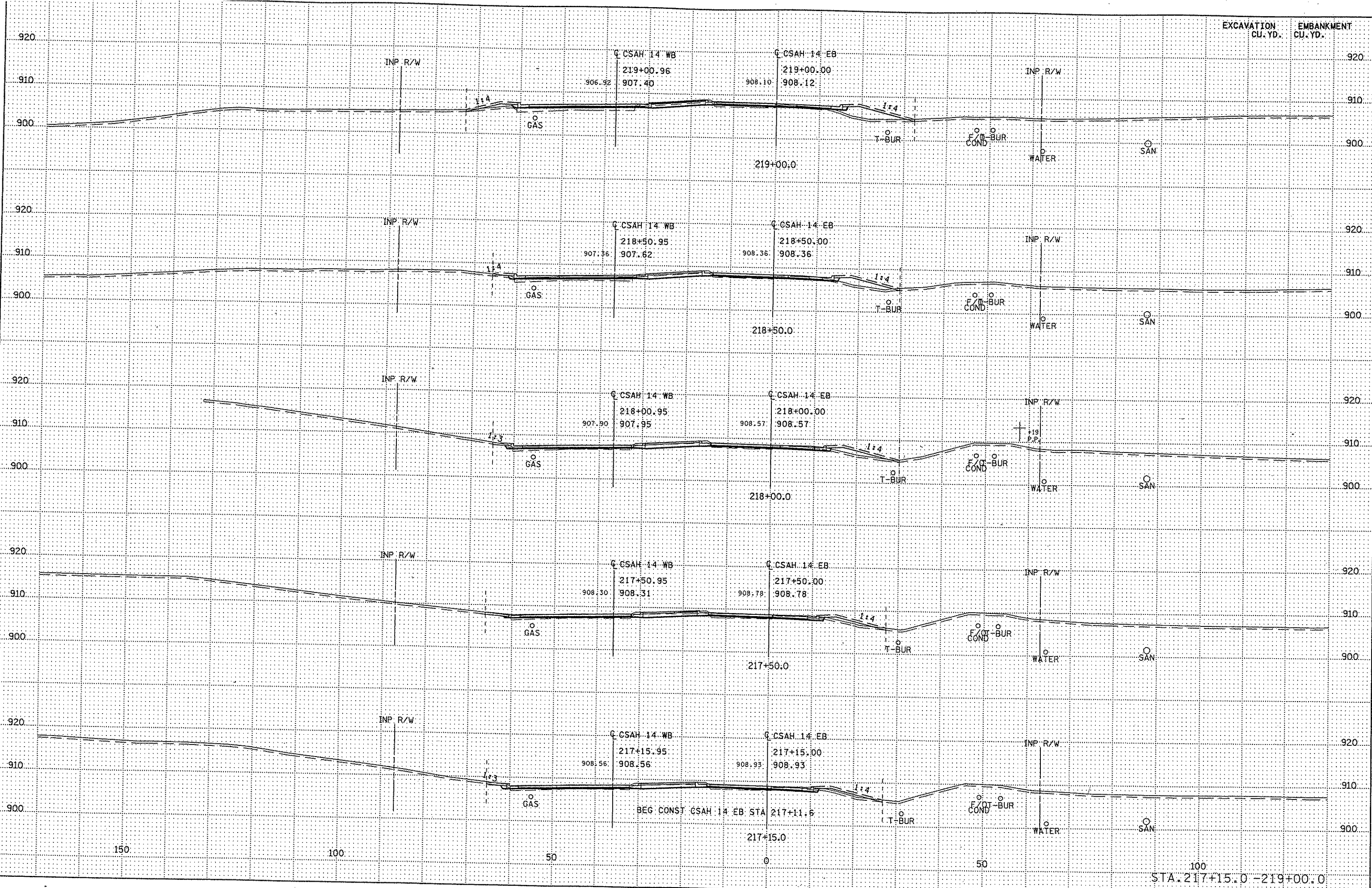
PLOTTED/REVISED: 04-APR-2007 06:43

DISTRICT # : METRO
PLOT NAME: 65nb_xp210
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PLOTTED/REVISED: 04-APR-2007 06:45

DISTRICT : METRO
PLOT NAME: 242_xp01
PATH & FILENAME: S:\DESIGN\0650208\23\Final\vs\242\242_XP1.dgn



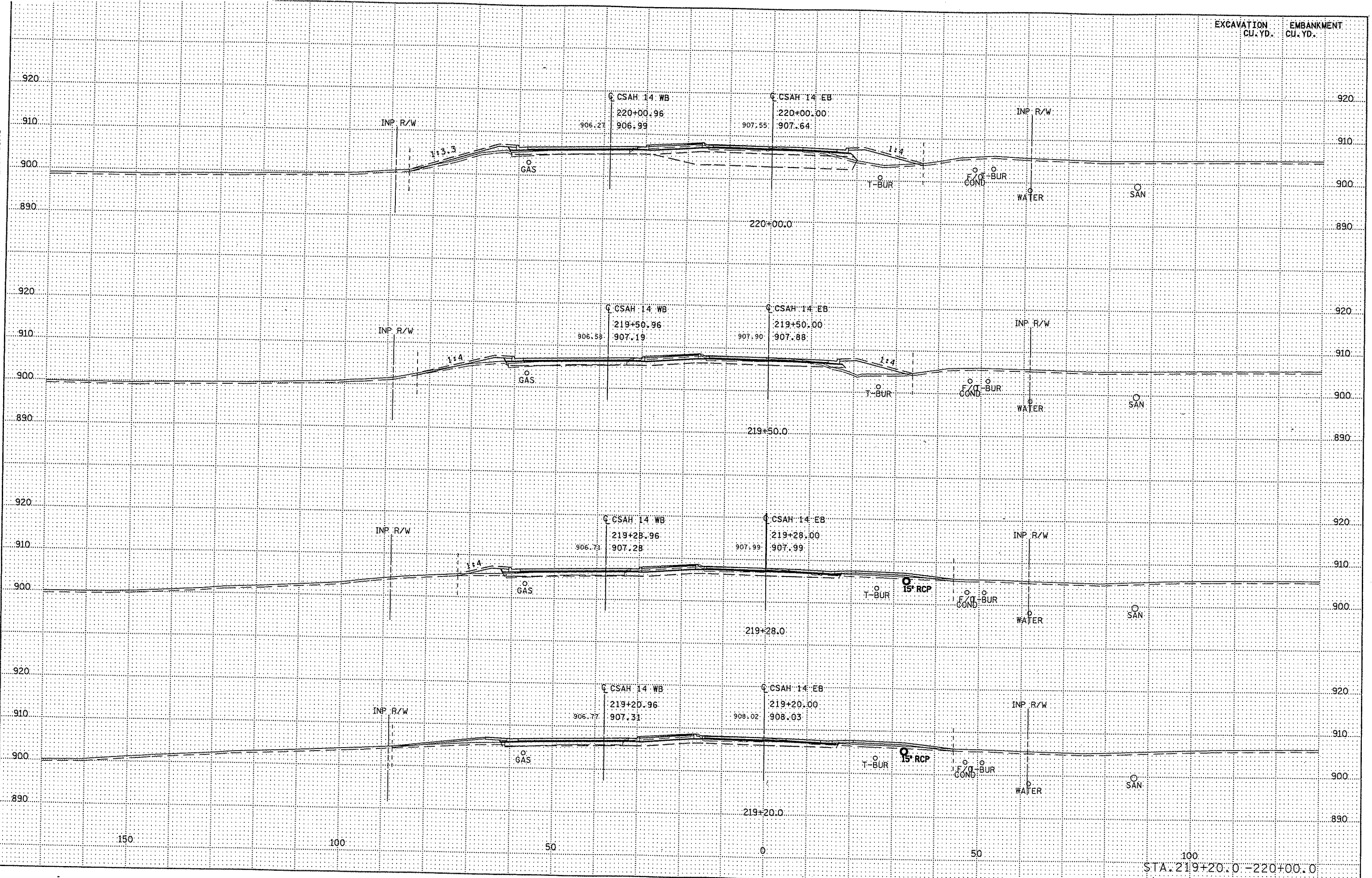
EXCAVATION CU. YD. EMBANKMENT CU. YD.

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

USER: MEI.HU
IPLOT NAME: 242_xp102
PATH & FILENAME: S:\DESIGN\0650208\23\Final\vs\242\242_XP1.dgn

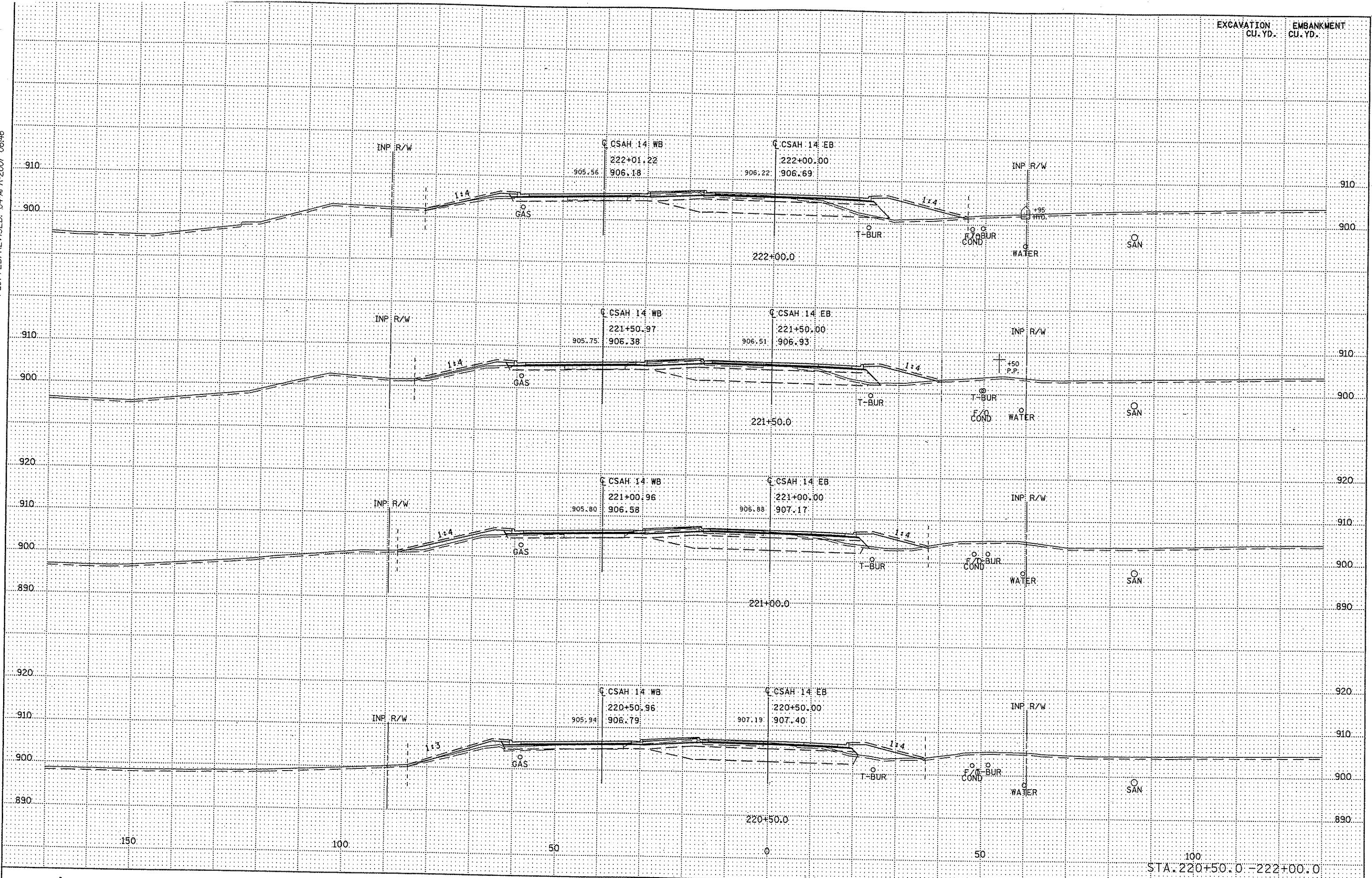


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

DISTRICT #: METRO
PLOT NAME: 242_xp03
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\242\242_XP1.dgn

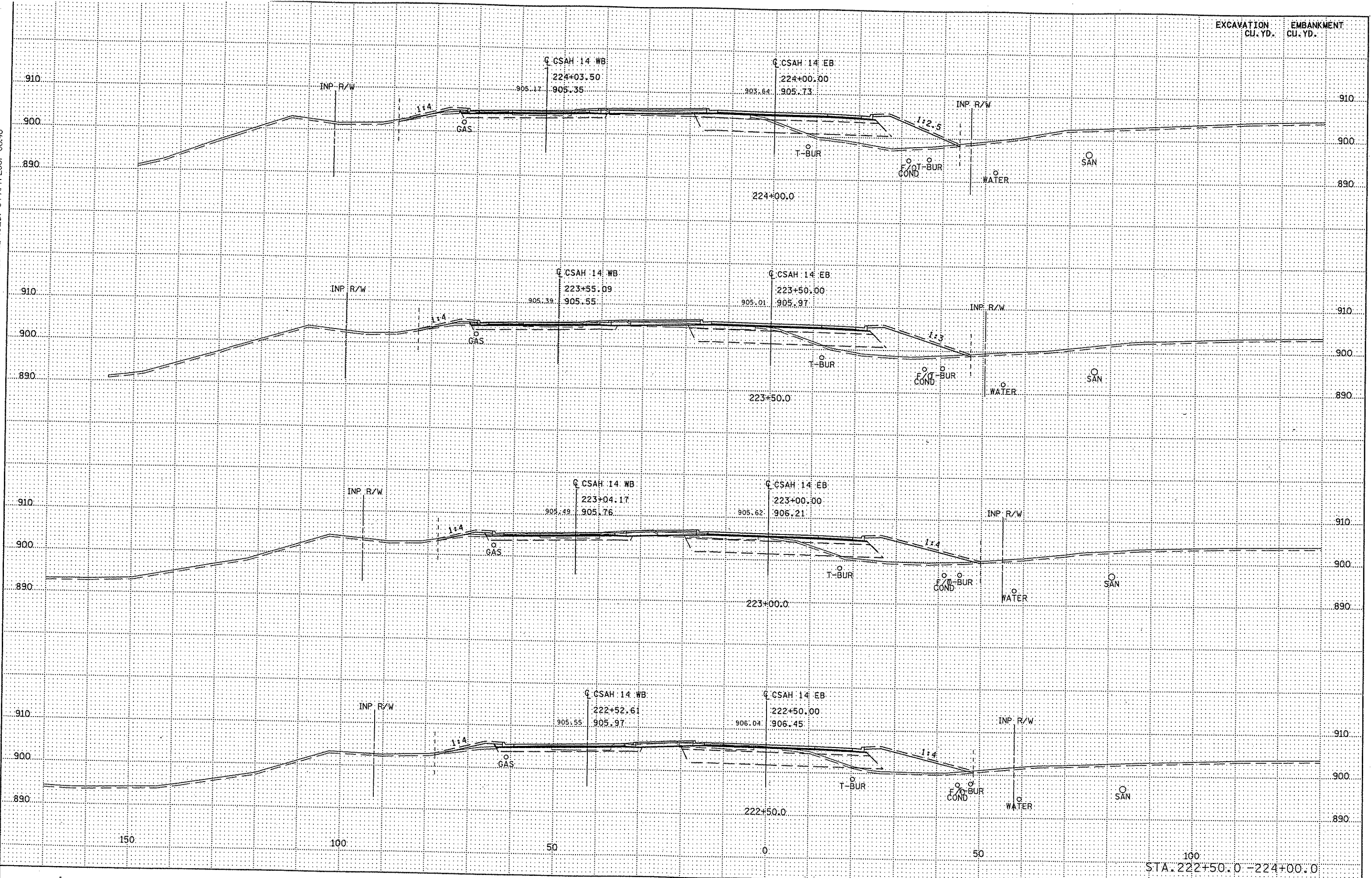


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

SYSTEM: MEIHO
PLOT NAME: 242_xp04
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\242\242_XP1.dgn



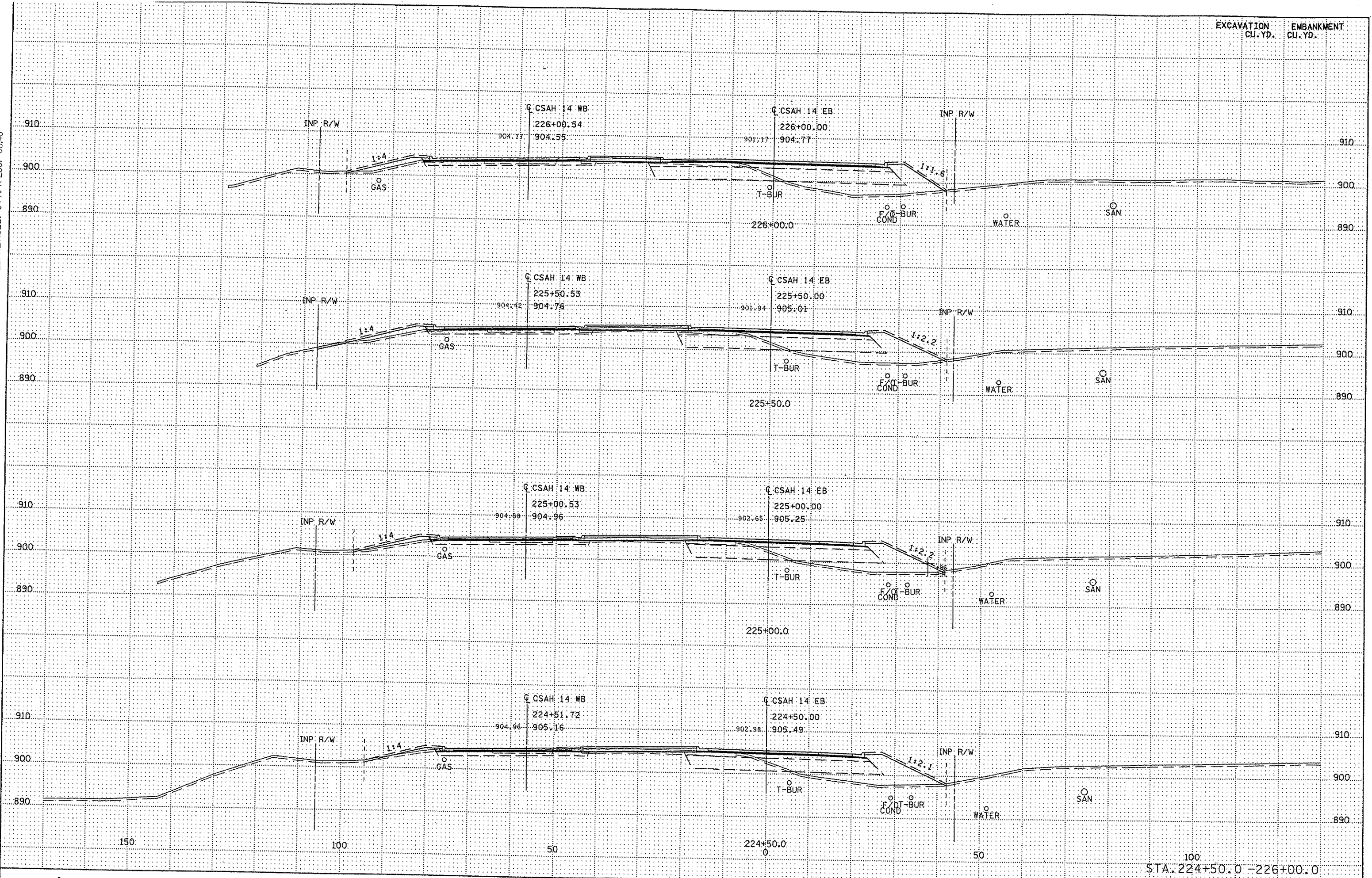
STA. 222+50.0 - 224+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

U:\S1\H11 * : METRO
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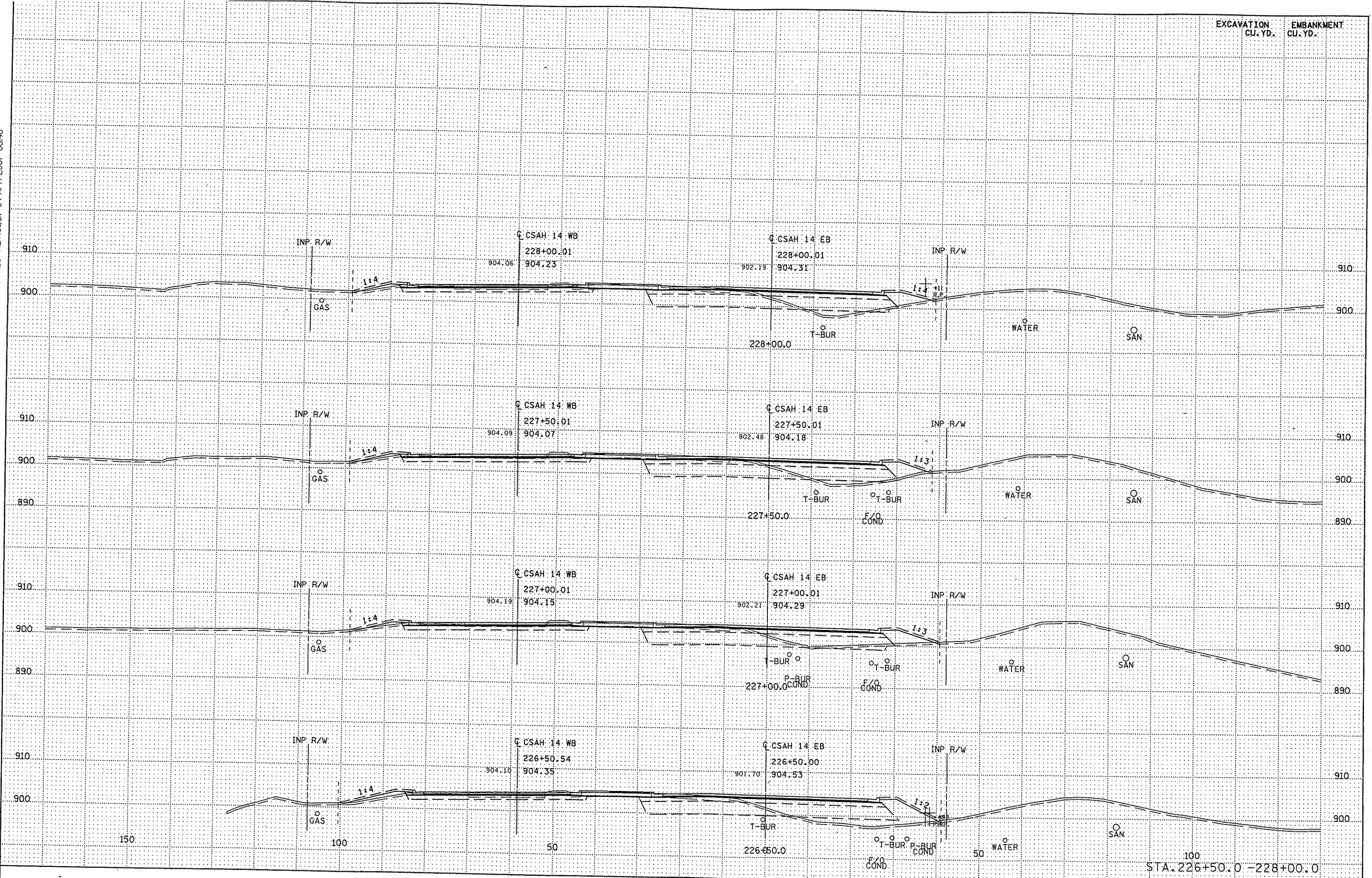


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

\\S:\MCI * : METRO
I\PROJECTS\242_xp06
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\242\242_XP1.dgn

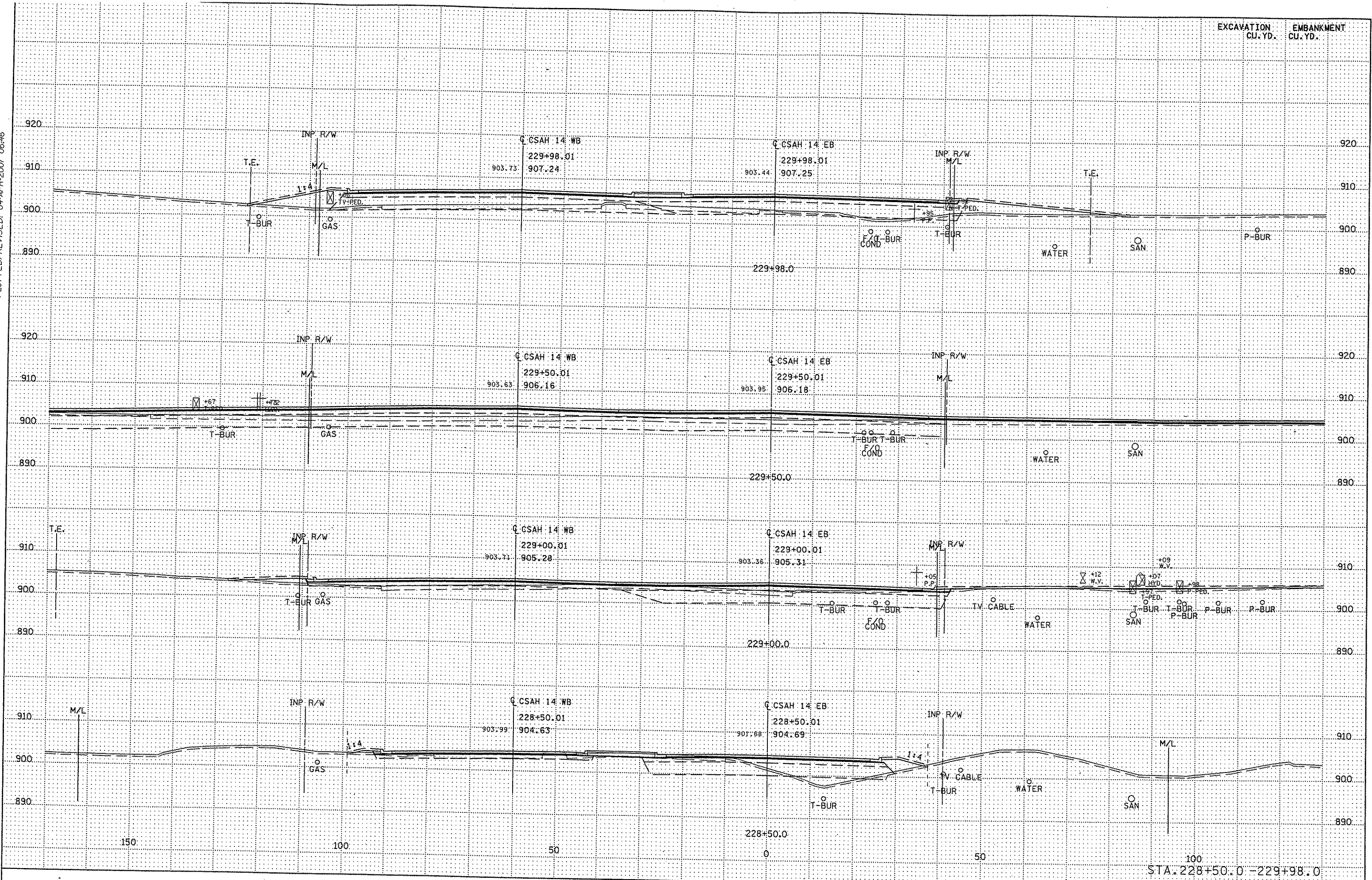


STA. 226+50.0 - 228+00.0

EXCAVATION CU.YD. EMBANKMENT CU.YD.

PLOTTED/REVISED: 04-APR-2007 06:46

DISTRICT : METRO
PLOT NAME: 242_xpl07
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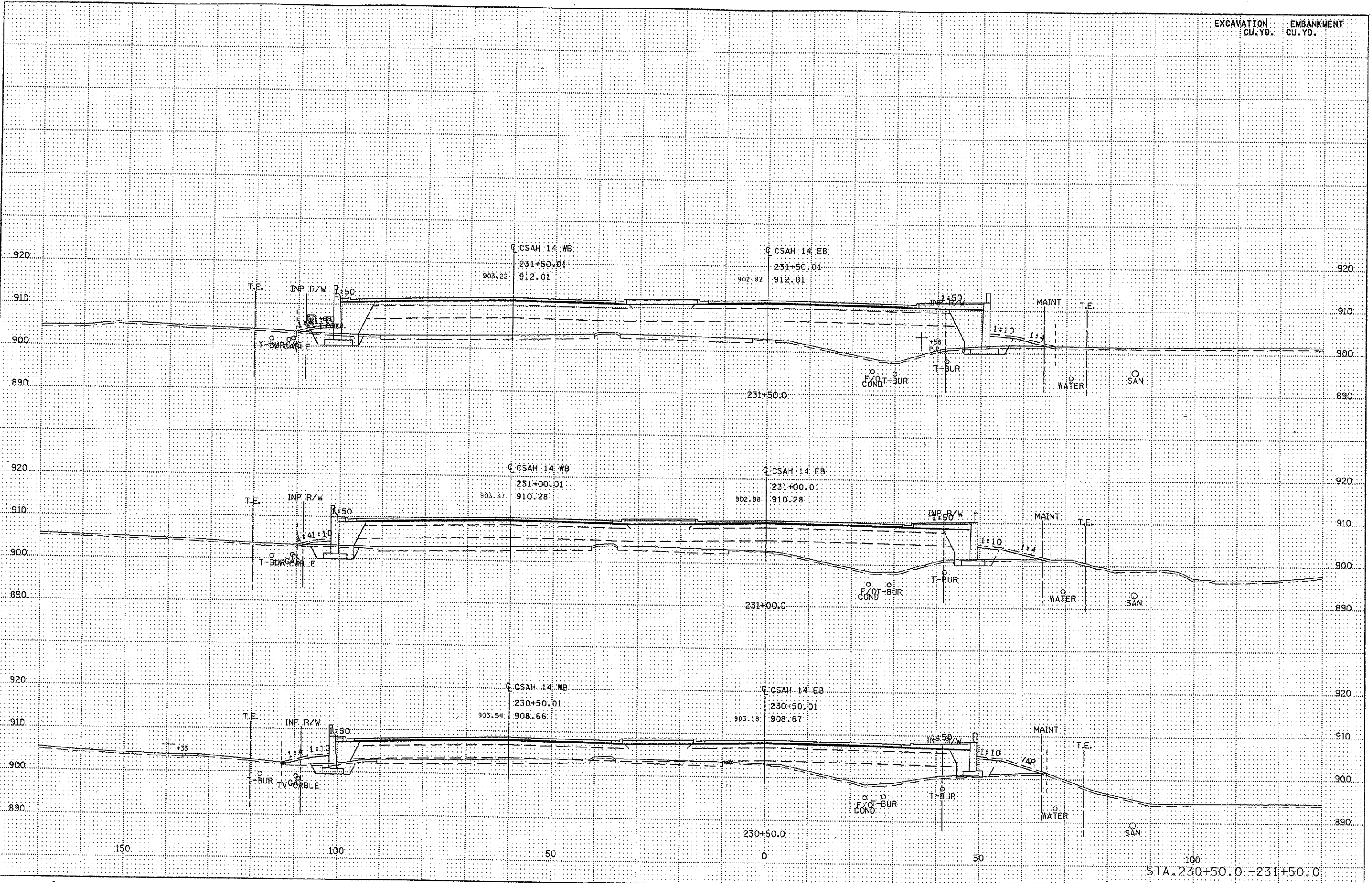


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

USER: METRO
PLOT NAME: 242_xp108
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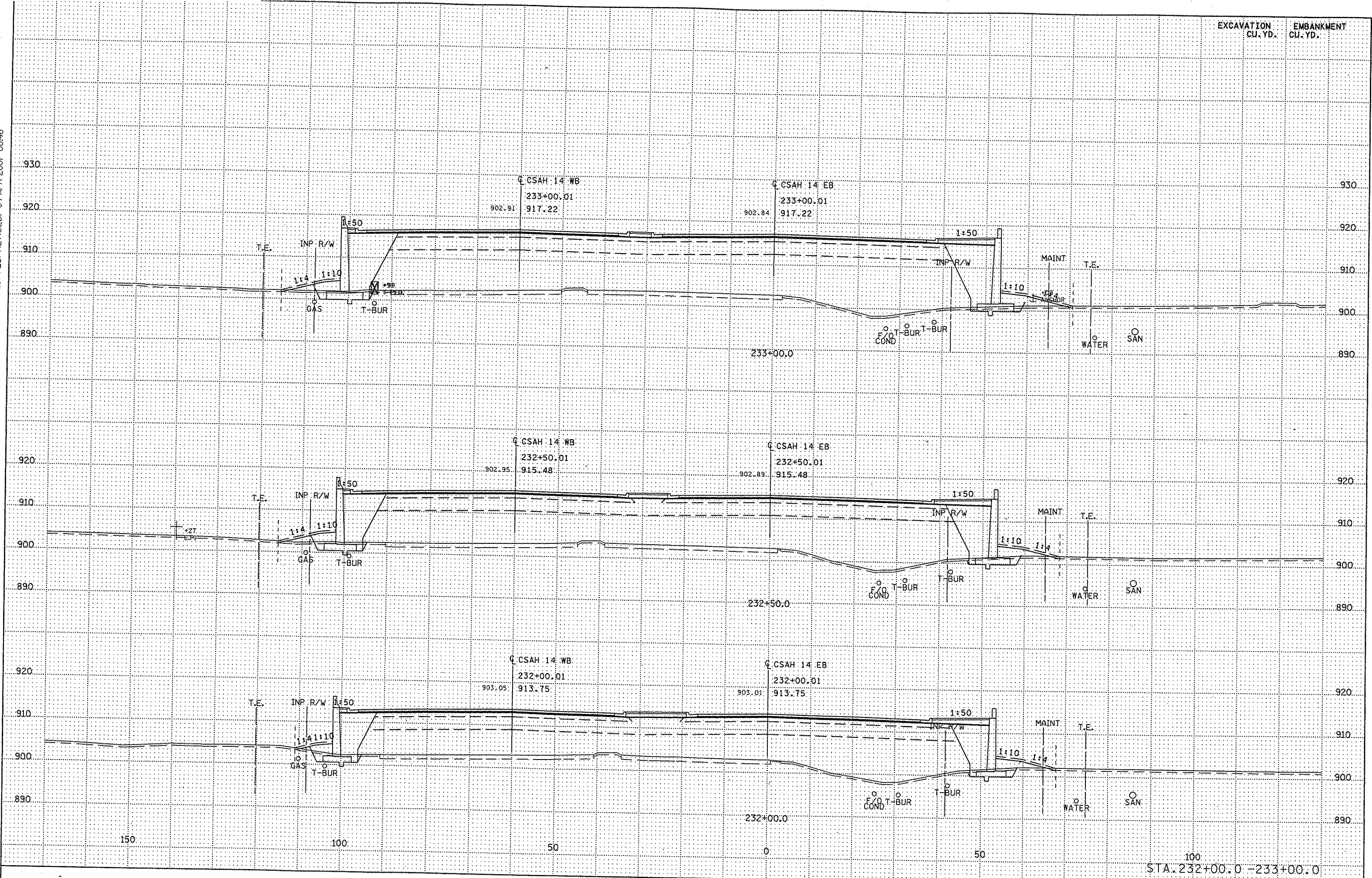


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

DISTRICT : METRO
PLOT NAME: 242_xp09
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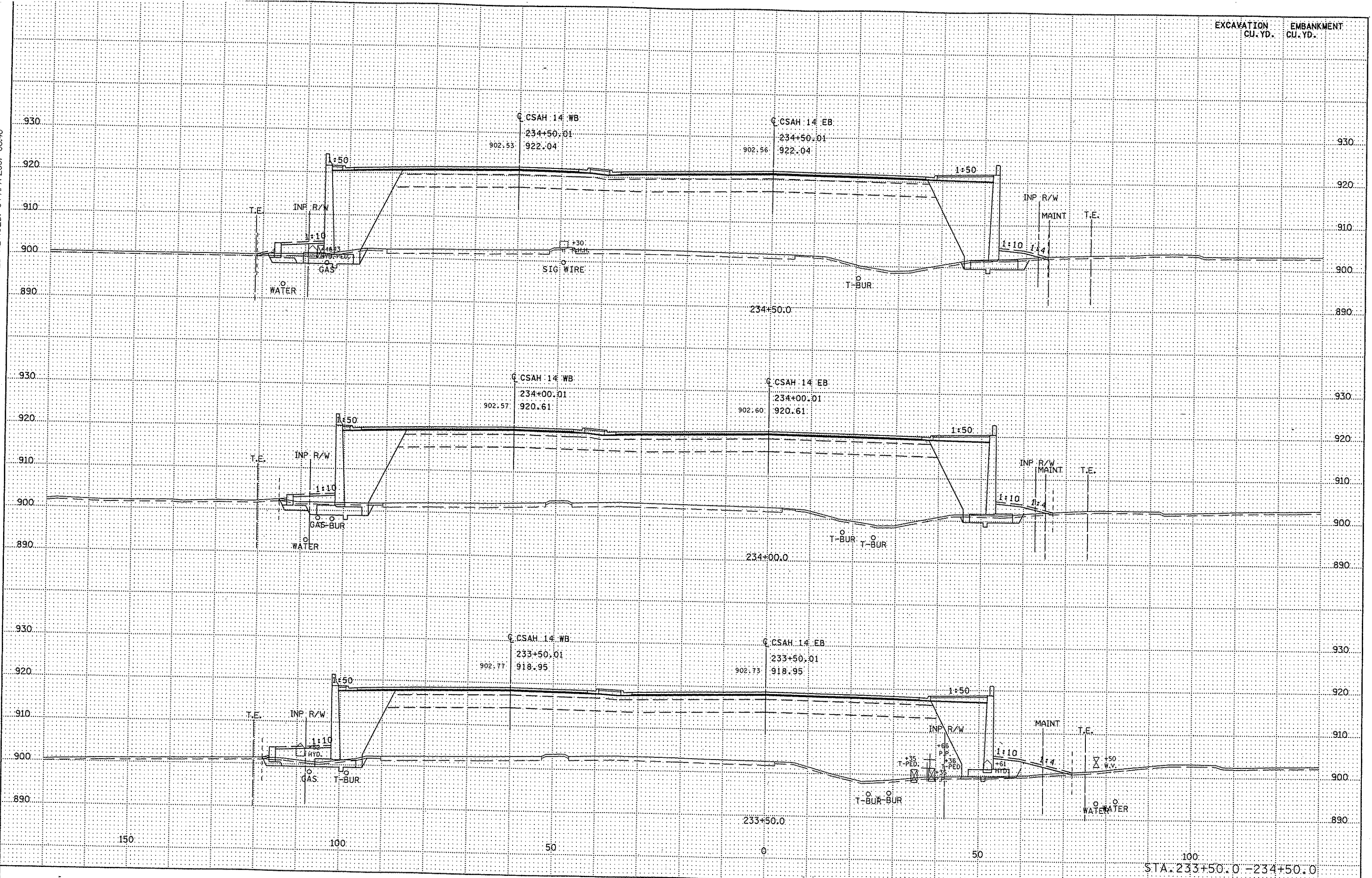


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

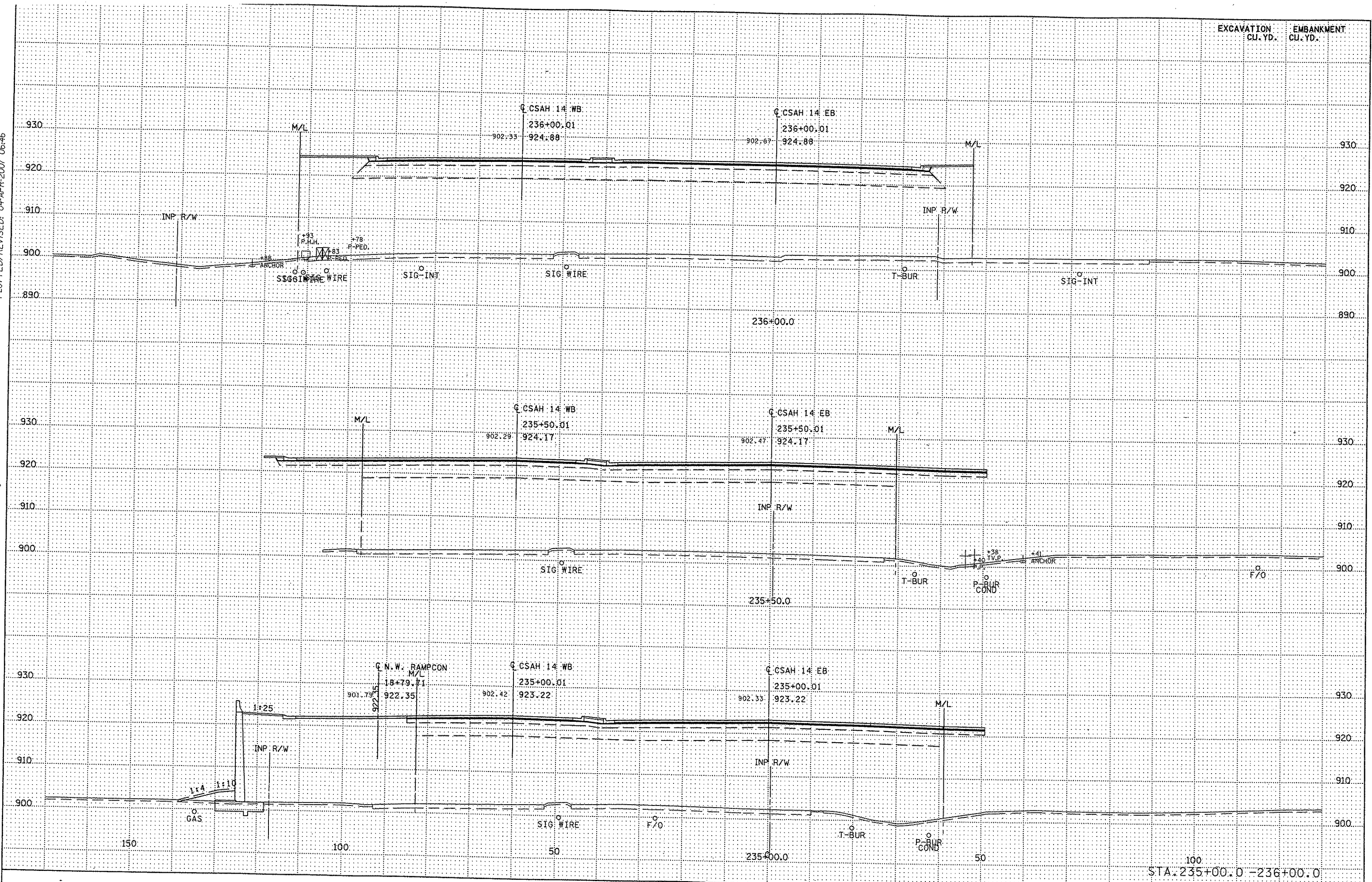
USER: METRO
PLOT NAME: 242_xpl0
PATH & FILENAME: S:\DESIGN\0650208\23\Final\242\242_XPL.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

DISPATCH: METRO
PLOT NAME: 242_xp11
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\242\242_XP1.dgn



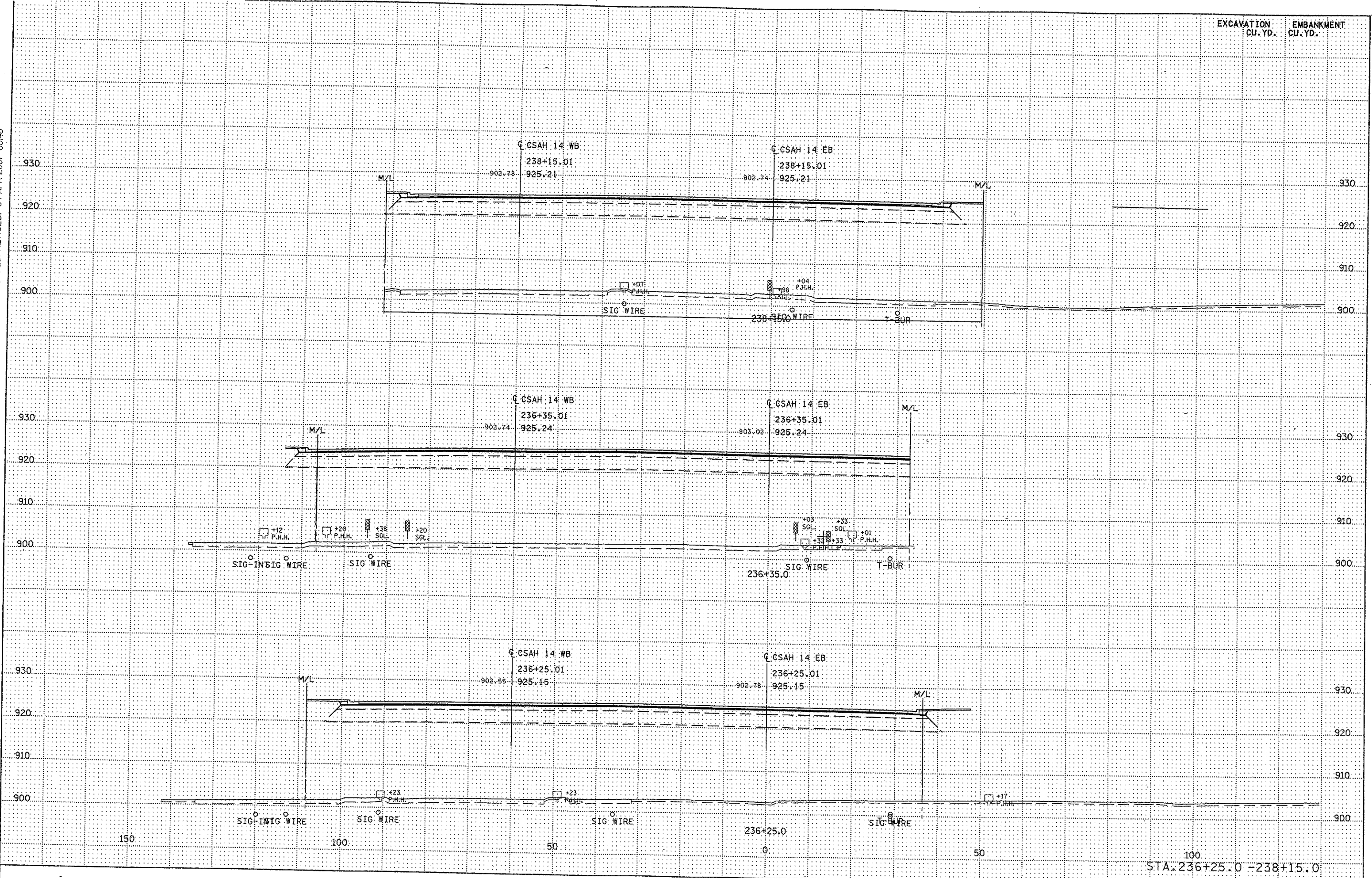
STA. 235+00.0 - 236+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

IPLOT NAME: 242_xpl2
PATH & FILENAME: S:\DESIGN\065\0208\23\Tmpl\vs\242\242_xpl.dgn



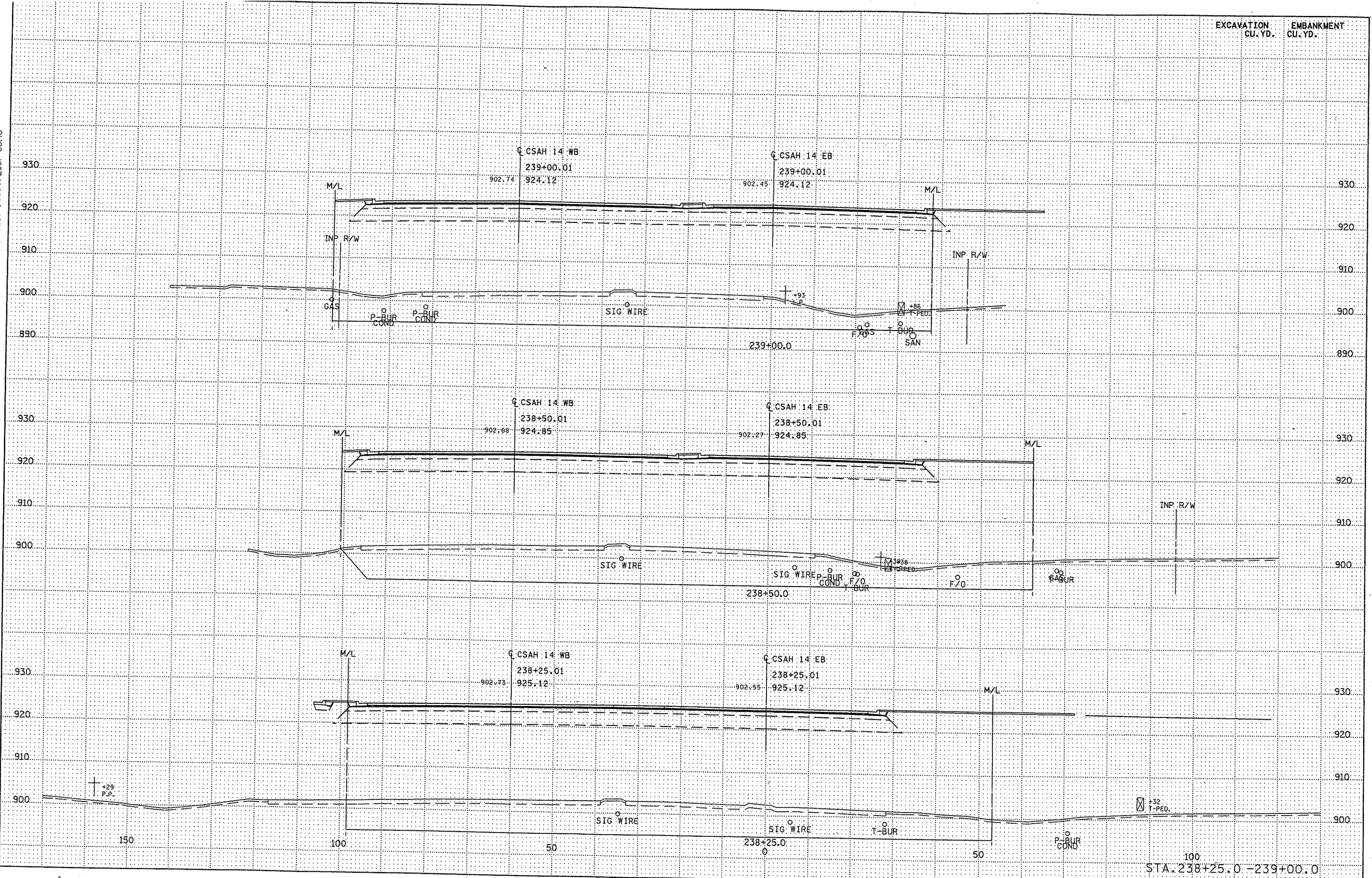
STA. 236+25.0 - 238+15.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

LIST FILE: METRO
IPLOT NAME: 242_xpl03
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\242\242_XP1.dgn

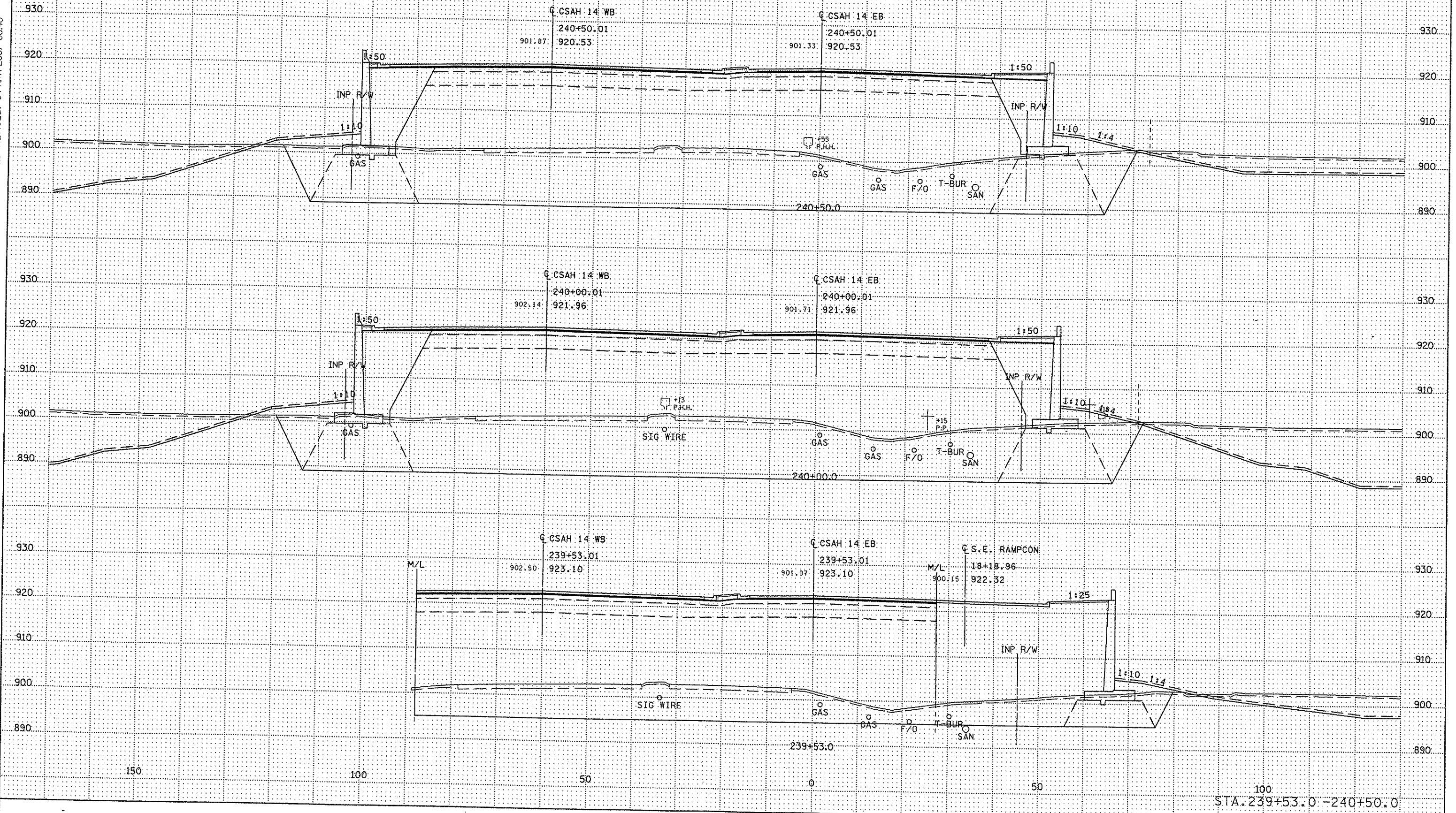


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

USER: MEIHO
PLOT NAME: 242_xpl14
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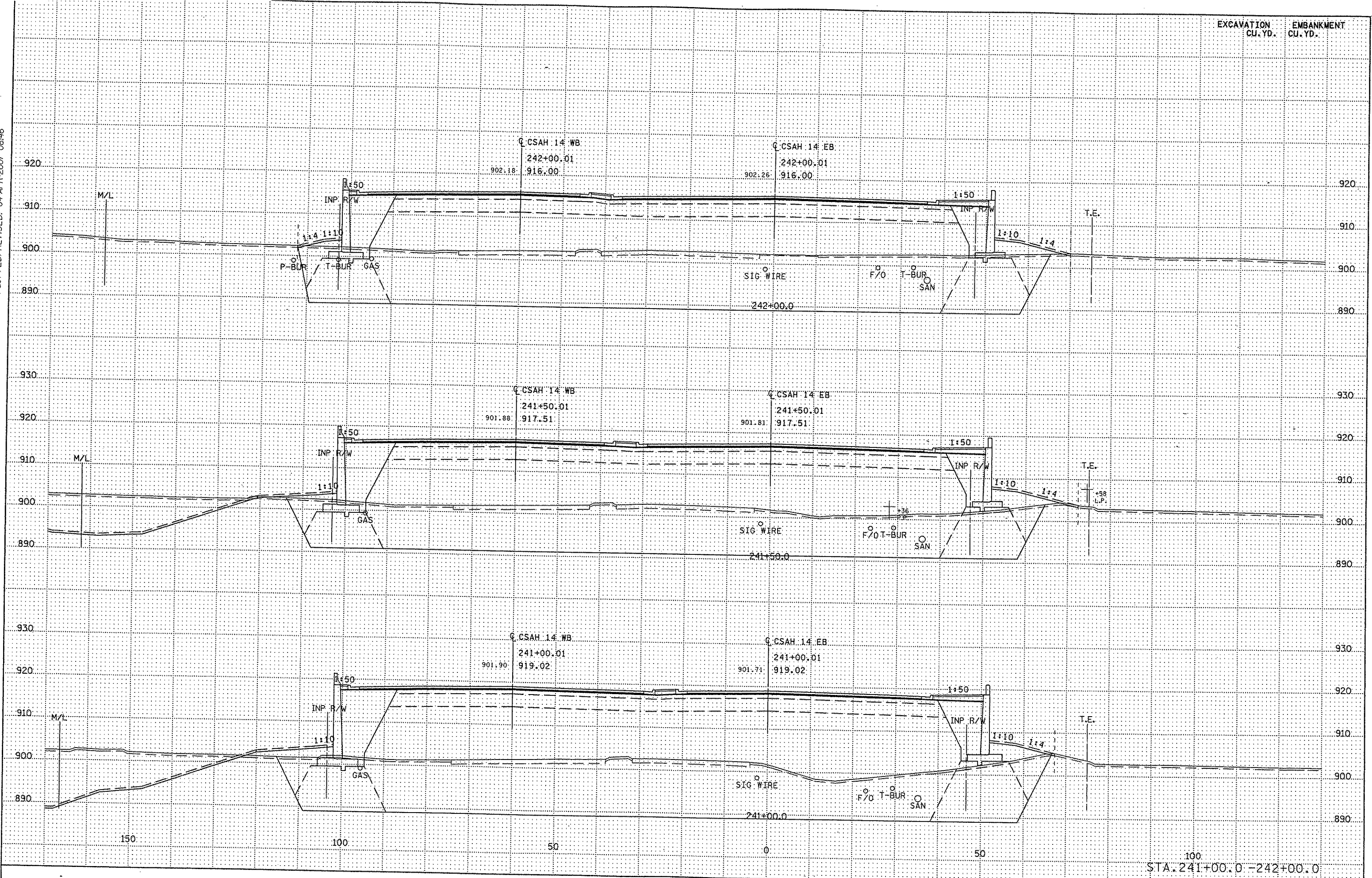


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

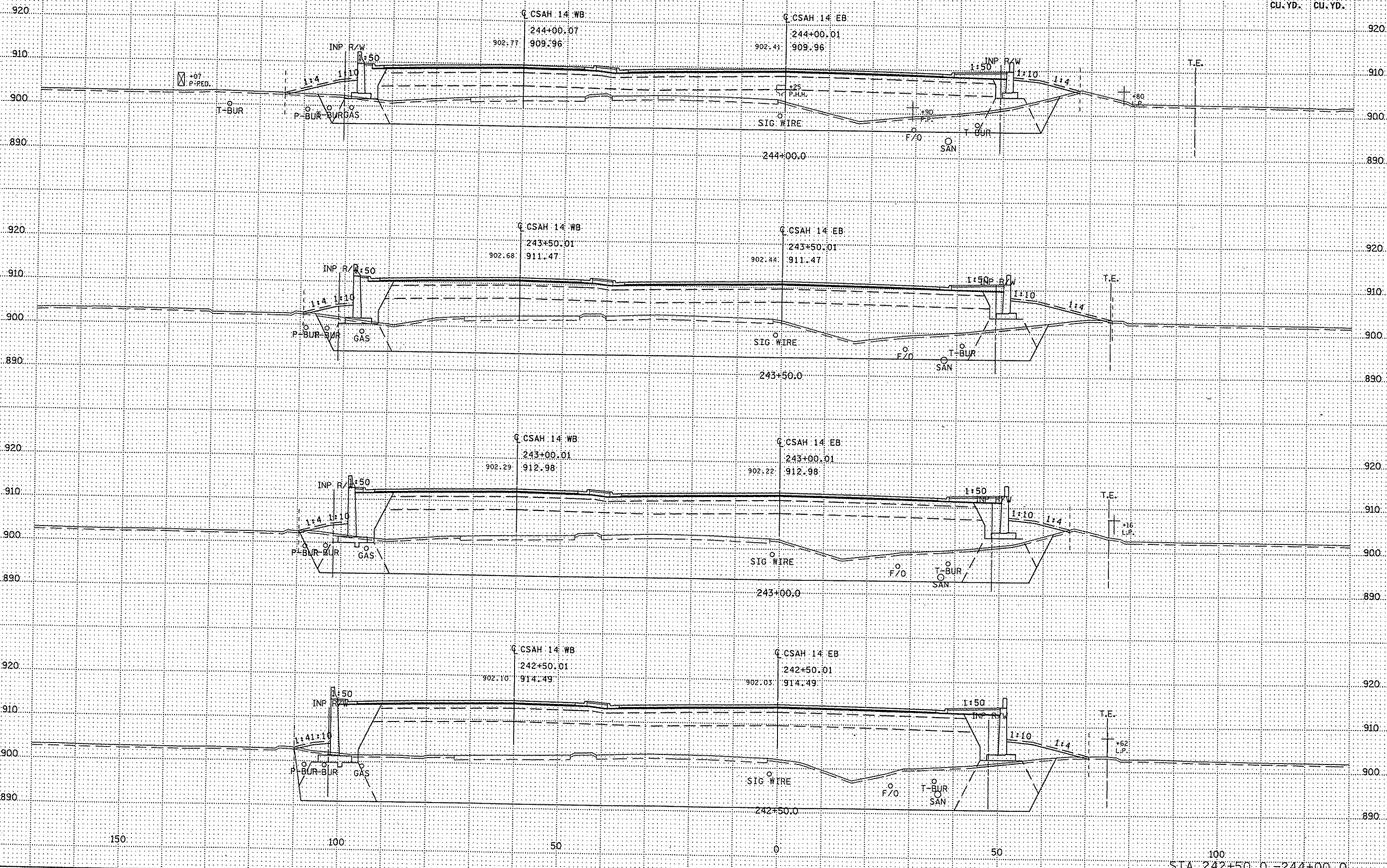
PLOTTED, REVISED: 04-APR-2007 06:46

DISTRICT : METRO
PLOT NAME: 242_xpl15
PATH & FILENAME: S:\DESIGN\065\0208\123\Tnd\vs\242\242_xpl1.dgn



EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.



PLOTTED/REVISED: 04-APR-2007 06:46

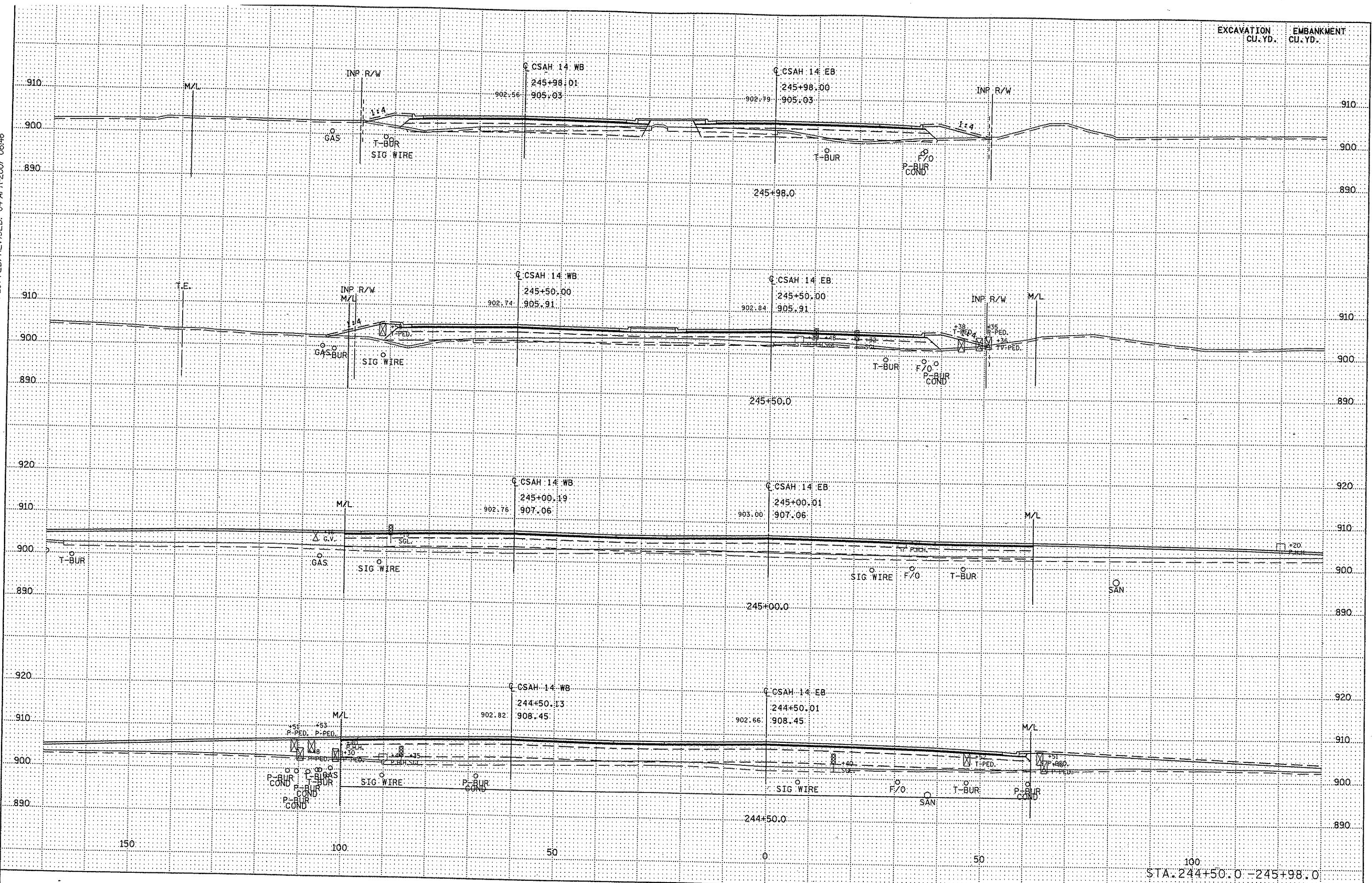
DISTRICT: METRO
PLOT NAME: 242_xpl06
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\242_242_XPL.dgn

STA. 242+50.0 - 244+00.0

EXCAVATION CU.YD. EMBANKMENT CU.YD.

PLOTTED/REVISED: 04-APR-2007 06:46

USER: MCI * : METRO
PLOT NAME: 242_xphit
PATH & FILENAME: S:\DESIGN\065\0208\123\T\m\vs\242\242_xp1.dgn



150

100

50

0

50

100

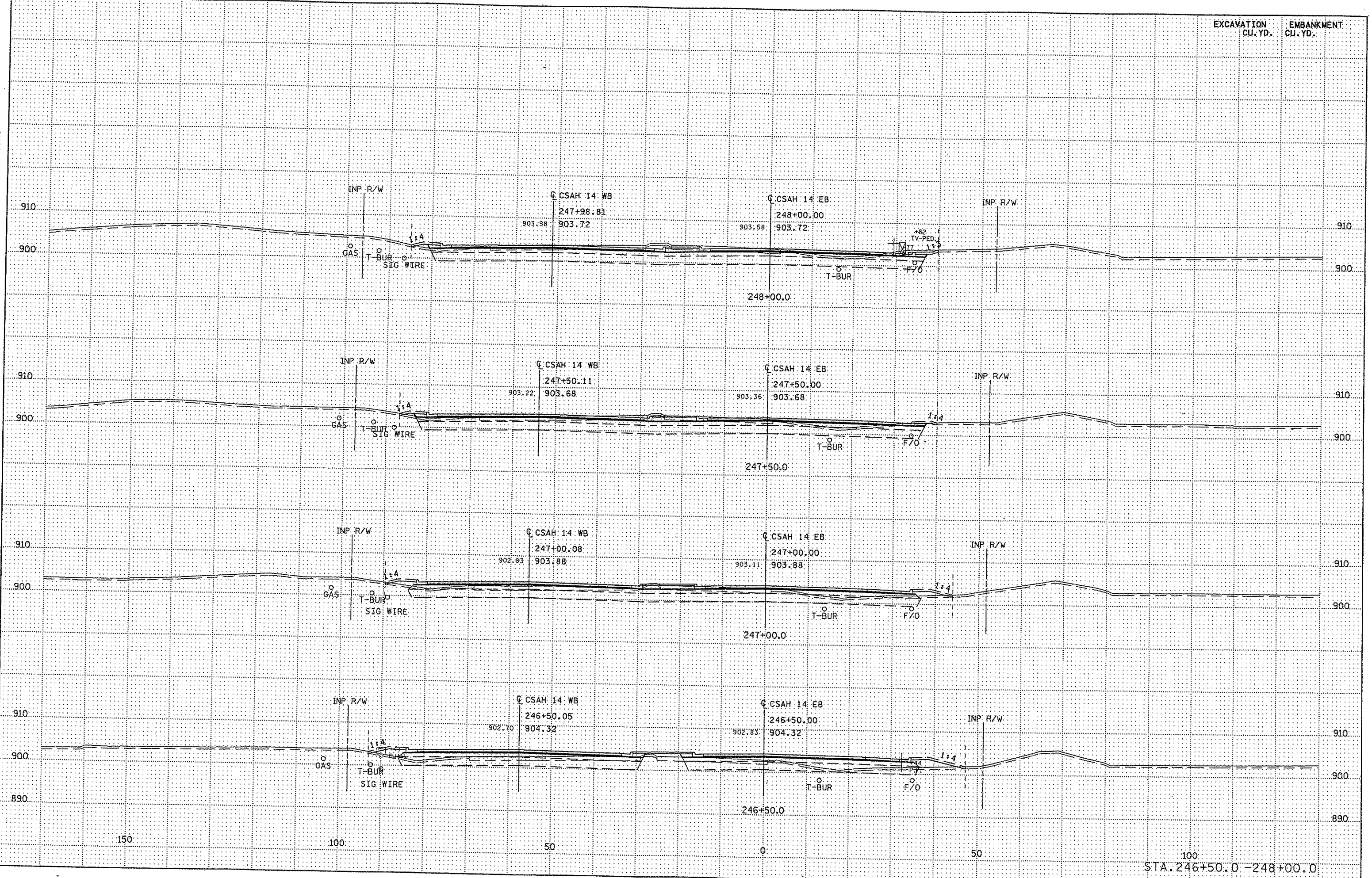
STA. 244+50.0 - 245+98.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

IPLOT NAME: 242_xpl18
PATH & FILENAME: S:\DESIGN\0650208\23\Final\vs\242\242_XP1.dgn



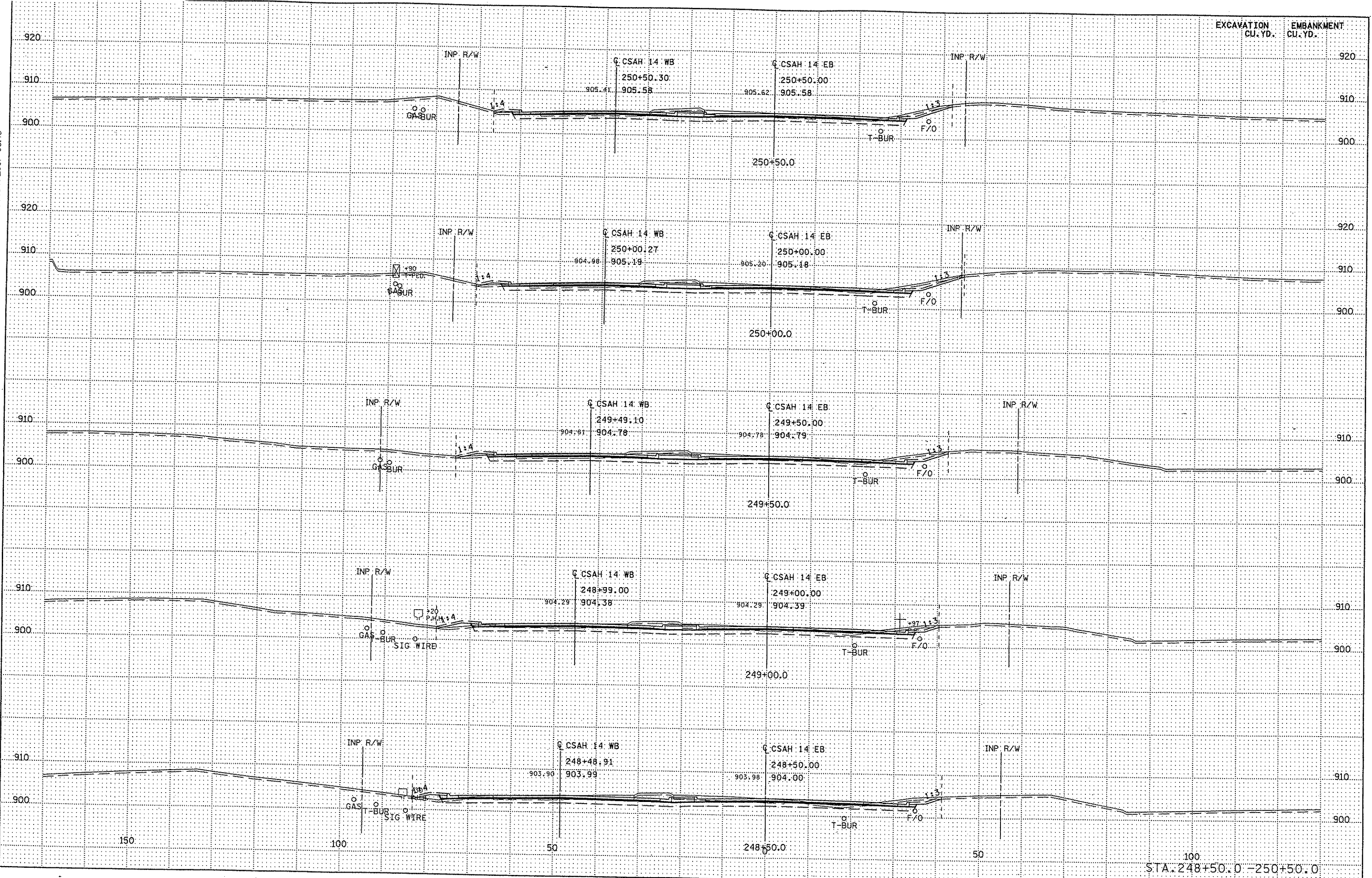
EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:46

PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\242\242_XP1.dgn

USER: MEI HQ
PLOT NAME: 242_xp19



150

100

50

248+50.0

50

100

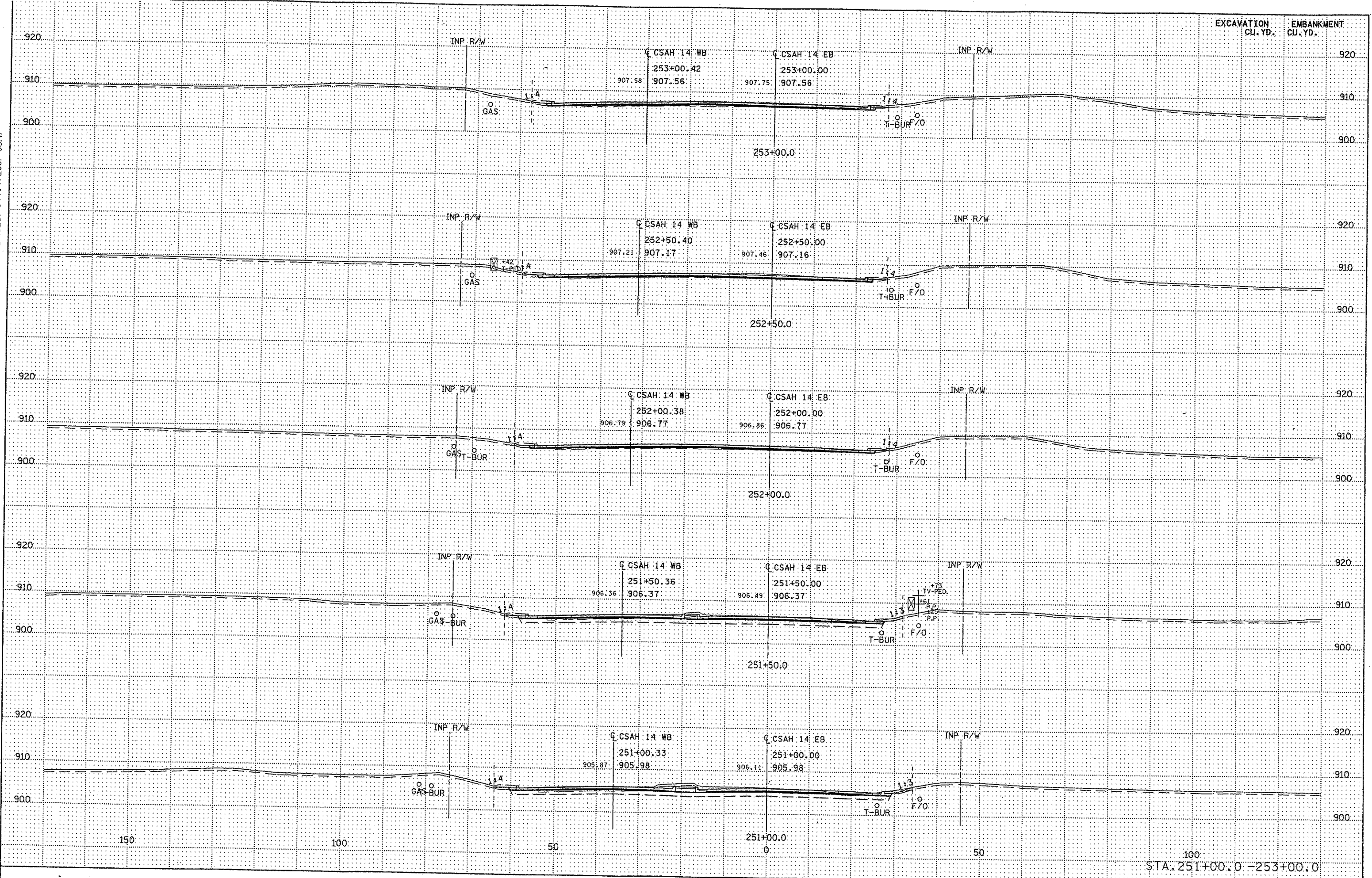
STA. 248+50.0 - 250+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

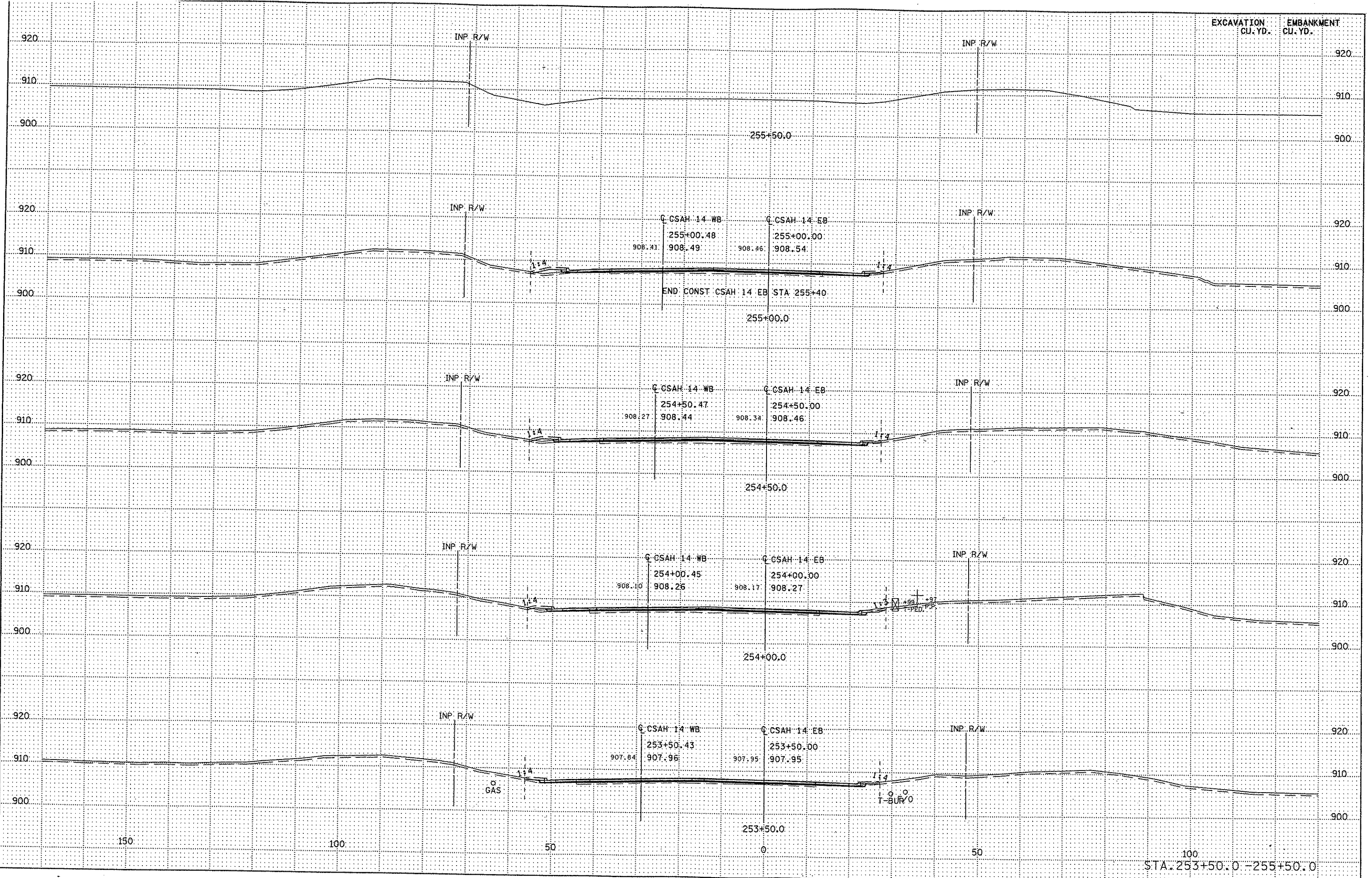
PLOTTED/REVISED: 04-APR-2007 06:47

LIST FILE: *.METRO
PLOT NAME: 242_xpl20
PATH & FILENAME: S:\DESIGN\0650208\23\Final\1s\242\242_XPL.dgn



PLOTTED/REVISED: 04-APR-2007 06:47

U:\S1\PL1 * : ME1\RO
I\LOT NAME: 242_xpl21
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\242_242_XPL.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

150

100

50

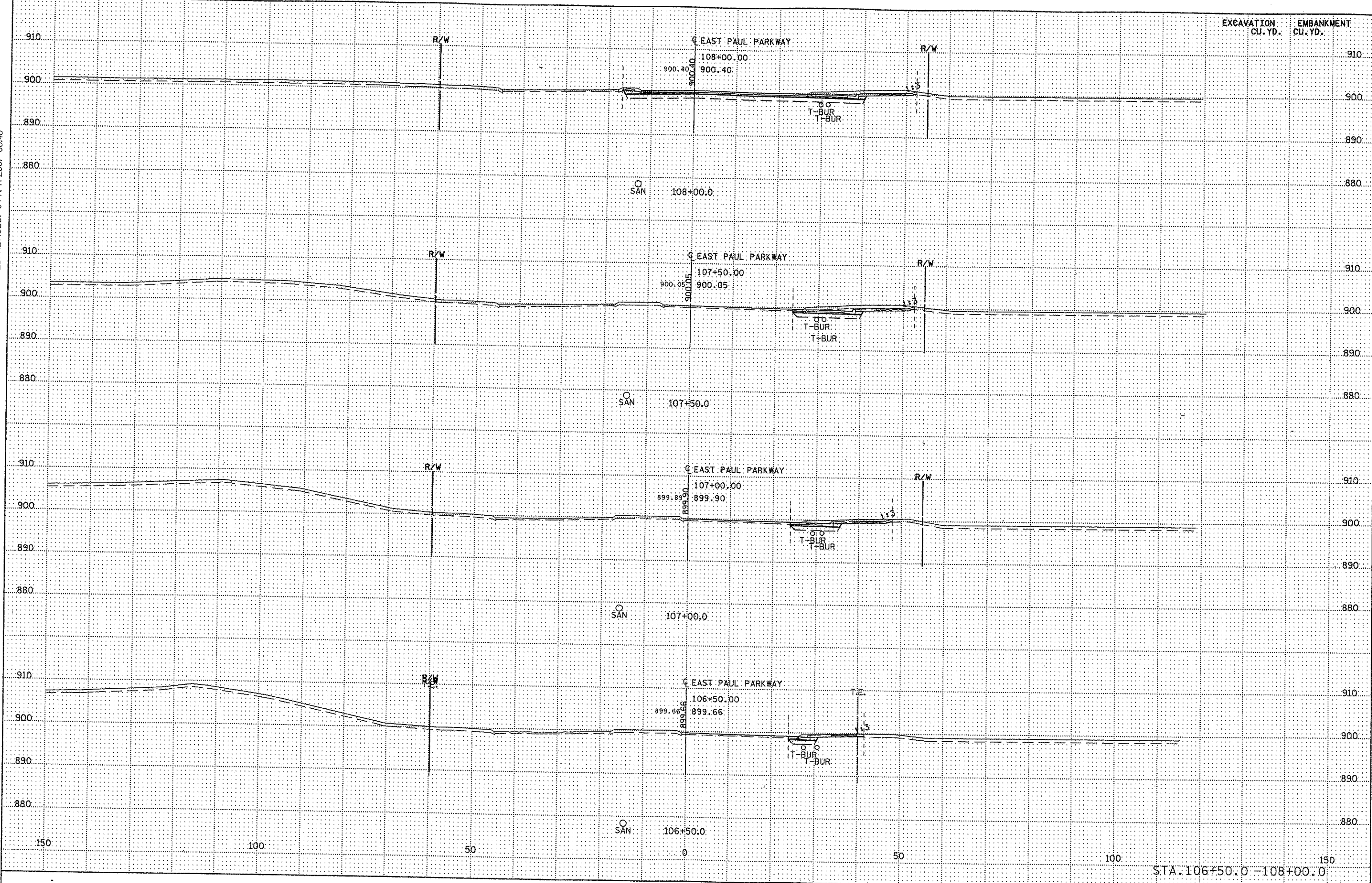
253+50.0

50

100

STA. 253+50.0 - 255+50.0

DISTRICT * : METRO
PLOT NAME: epaul_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\Paul\kwy\EPAUL_XPL.DGN
PLOTTED/REVISED: 04-APR-2007 06:48



EXCAVATION
CU. YD.

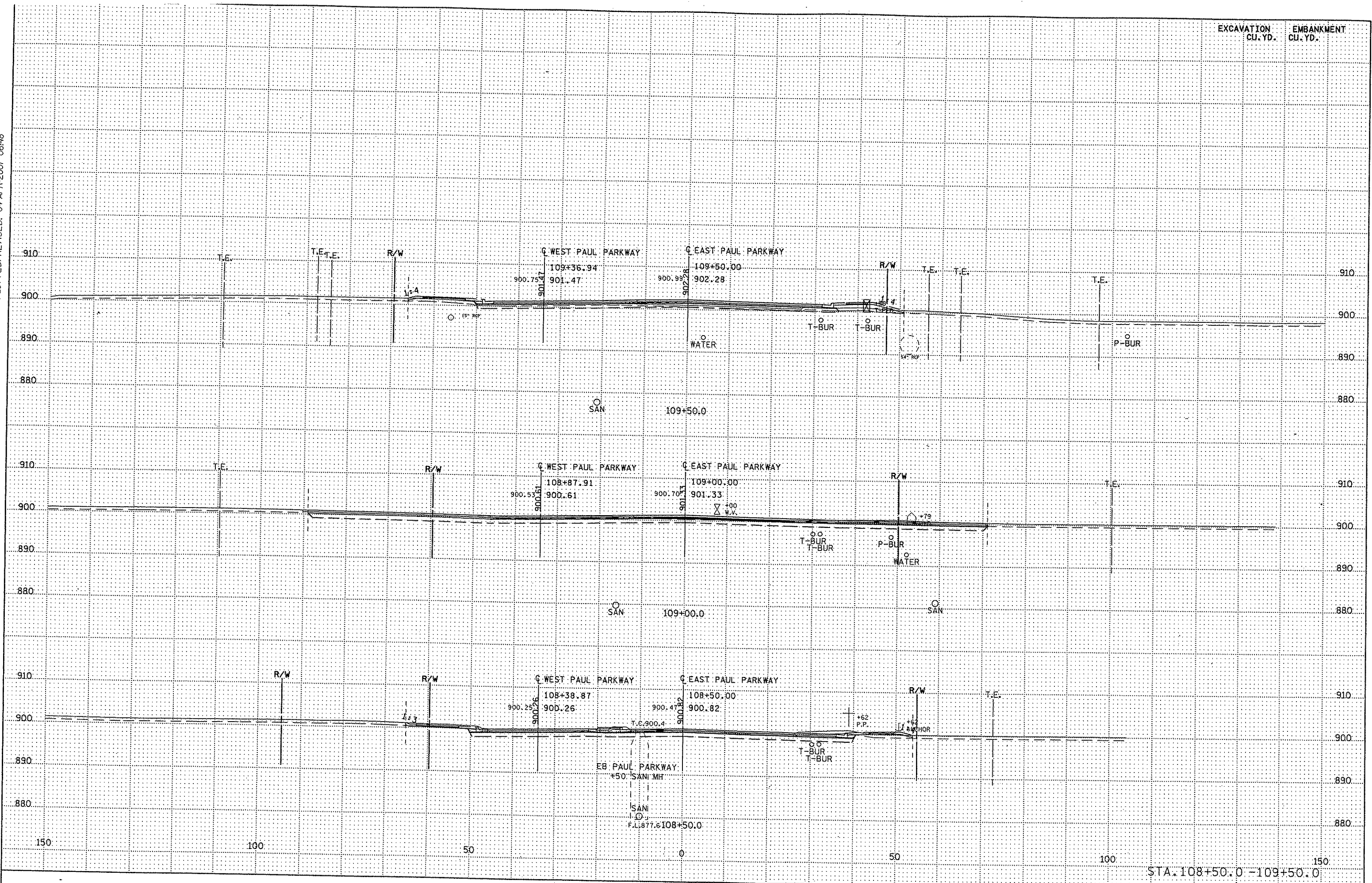
EMBANKMENT
CU. YD.

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT: METRO
PLOT NAME: epaul_xp102
PATH & FILENAME: S:\DESIGN\0208\23\Tnd\vs\Paul\kwy\EPaul_XP1.DGN



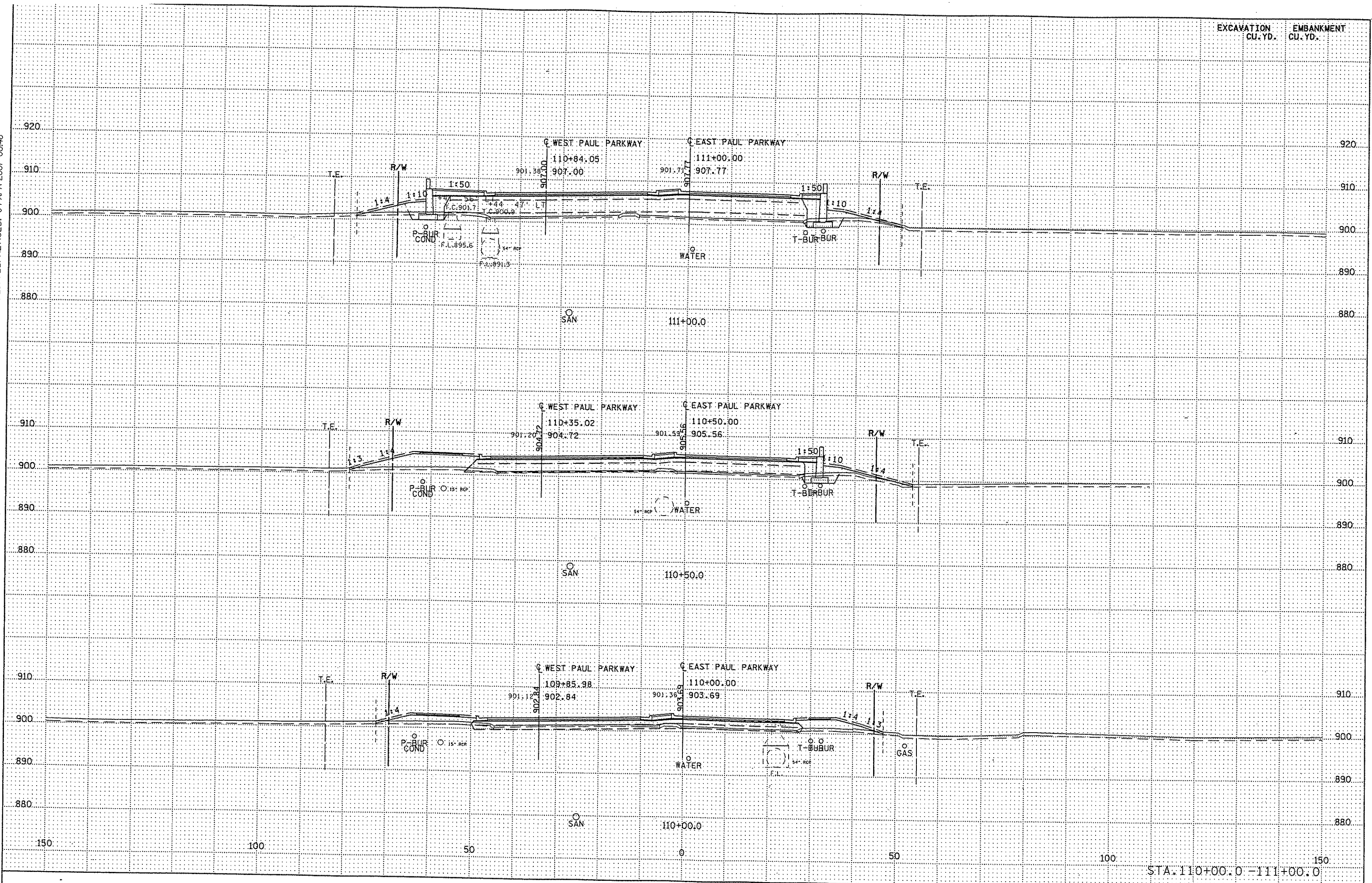
STA. 108+50.0 - 109+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISPATCH: METRO
PLOT NAME: epaul_xp03
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Xp\PaulPkwy\EPaul_XP.DGN



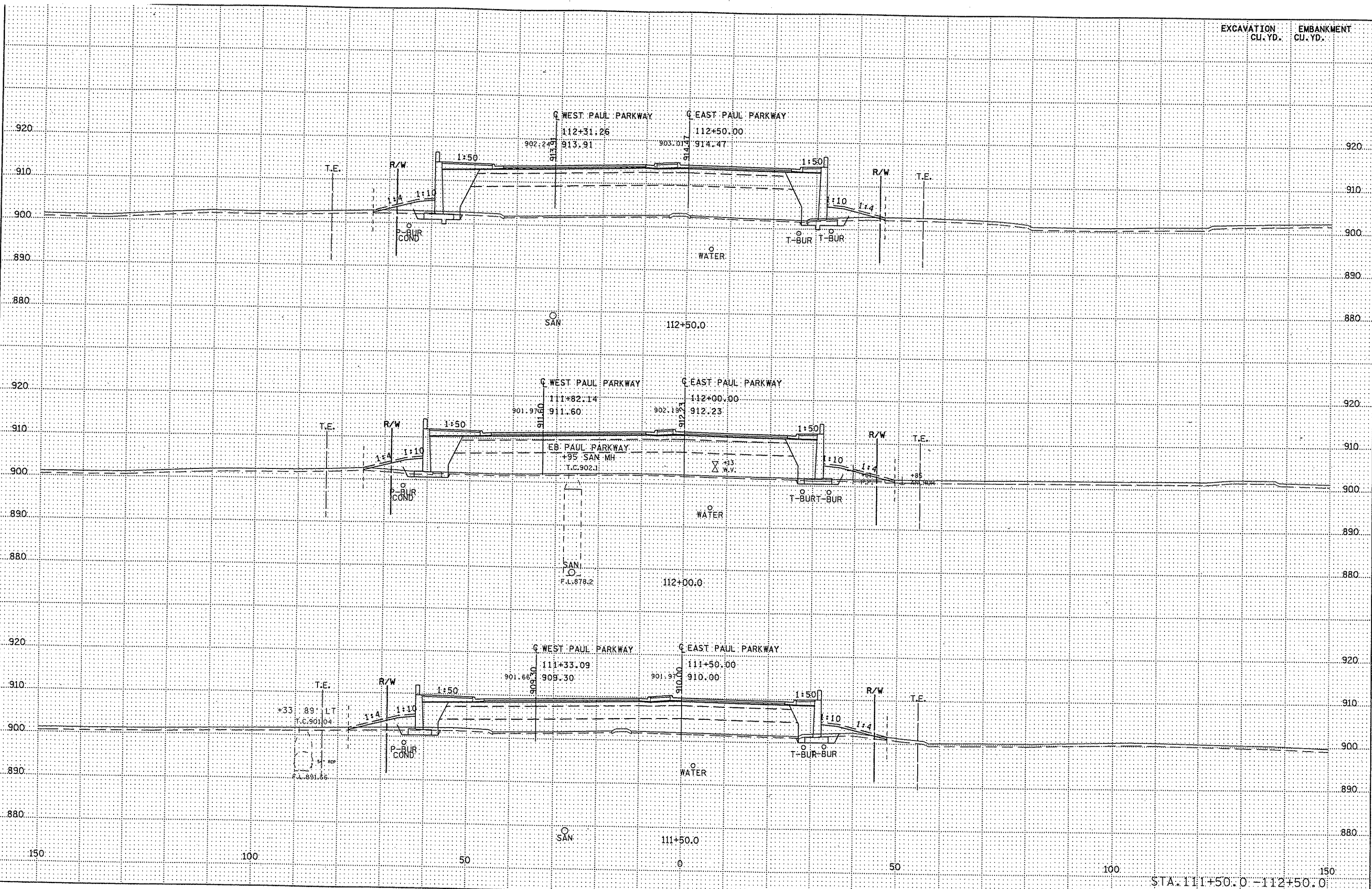
STA. 110+00.0 - 111+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

LIST FILE: METRO
IFLOT NAME: epaul_xp104
PATH & FILENAME: S:\DESIGN\0650208\23\Final\paul\paul\paul_xp104.dgn



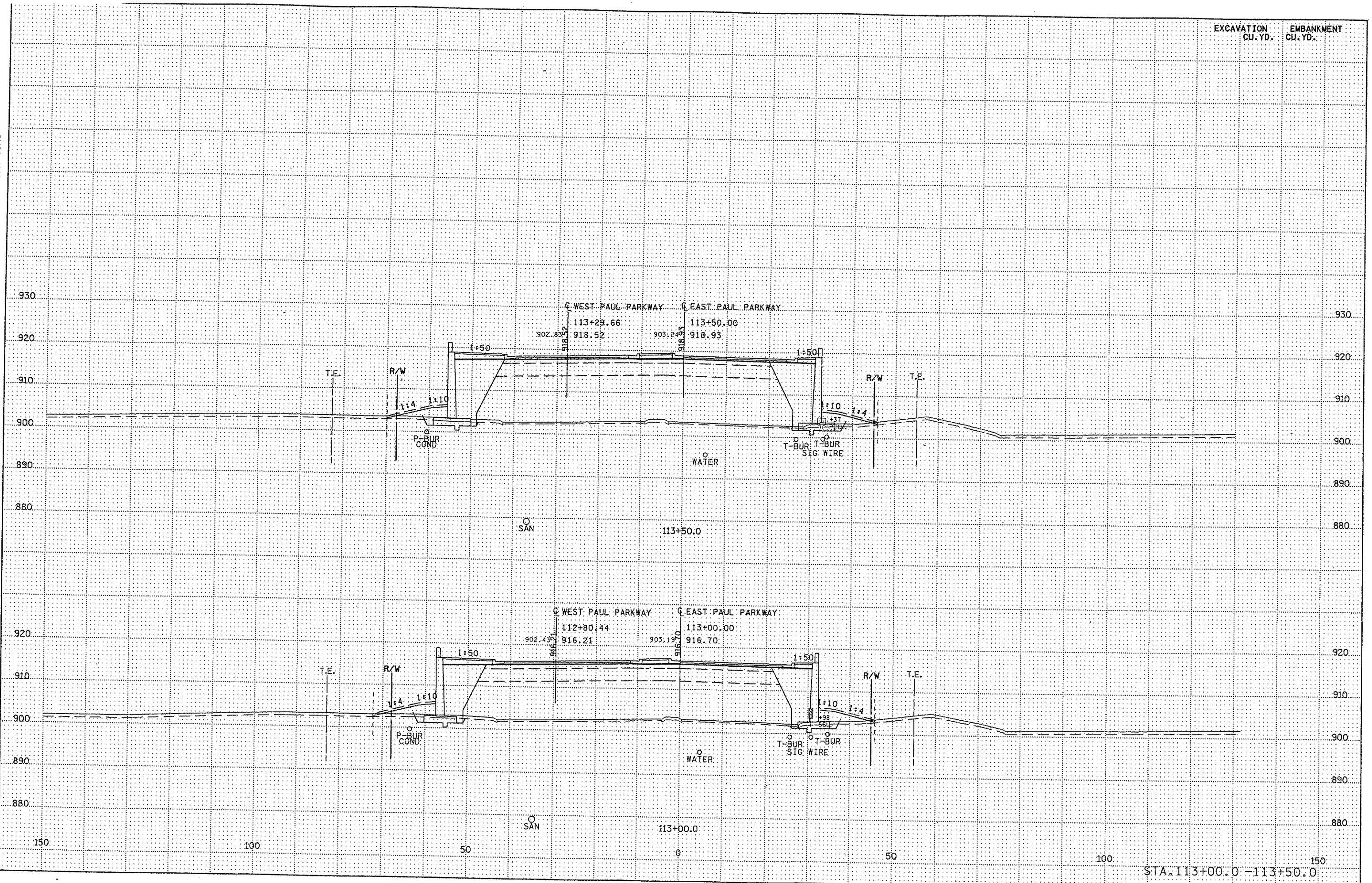
STA. 111+50.0 - 112+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

USER: HCU : METRO
PLOT NAME: epaul_xpl05
PATH & FILENAME: S:\DESIGN\0650208\23\Final\vs\PaulParkway\PAUL_XPLDGN



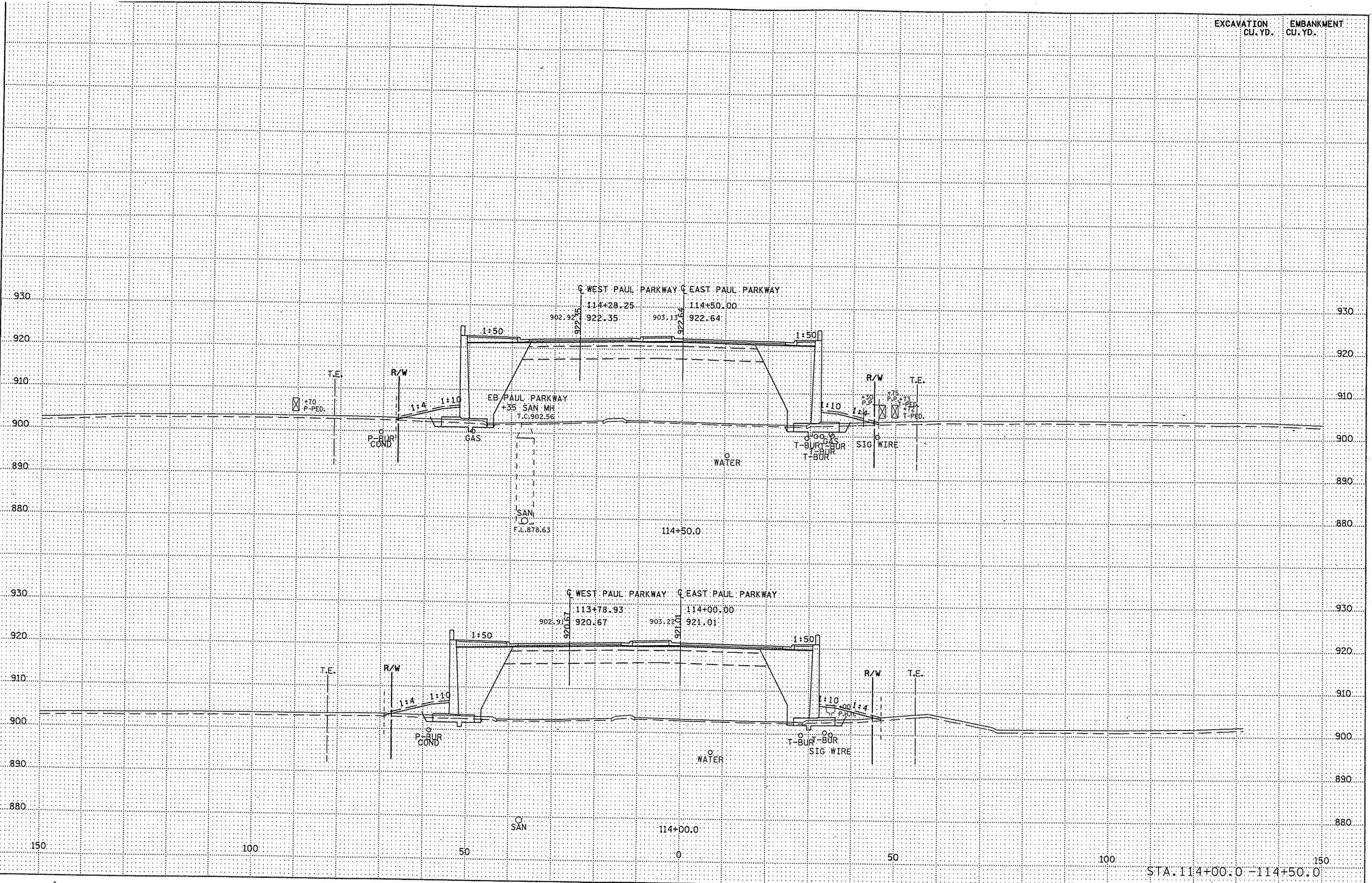
STA. 113+00.0 - 113+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

U:\S\H\1 : METRO
I\LOT NAME: epaul_xp106
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\paul\PaulParkway\EPaul_XP1.DGN

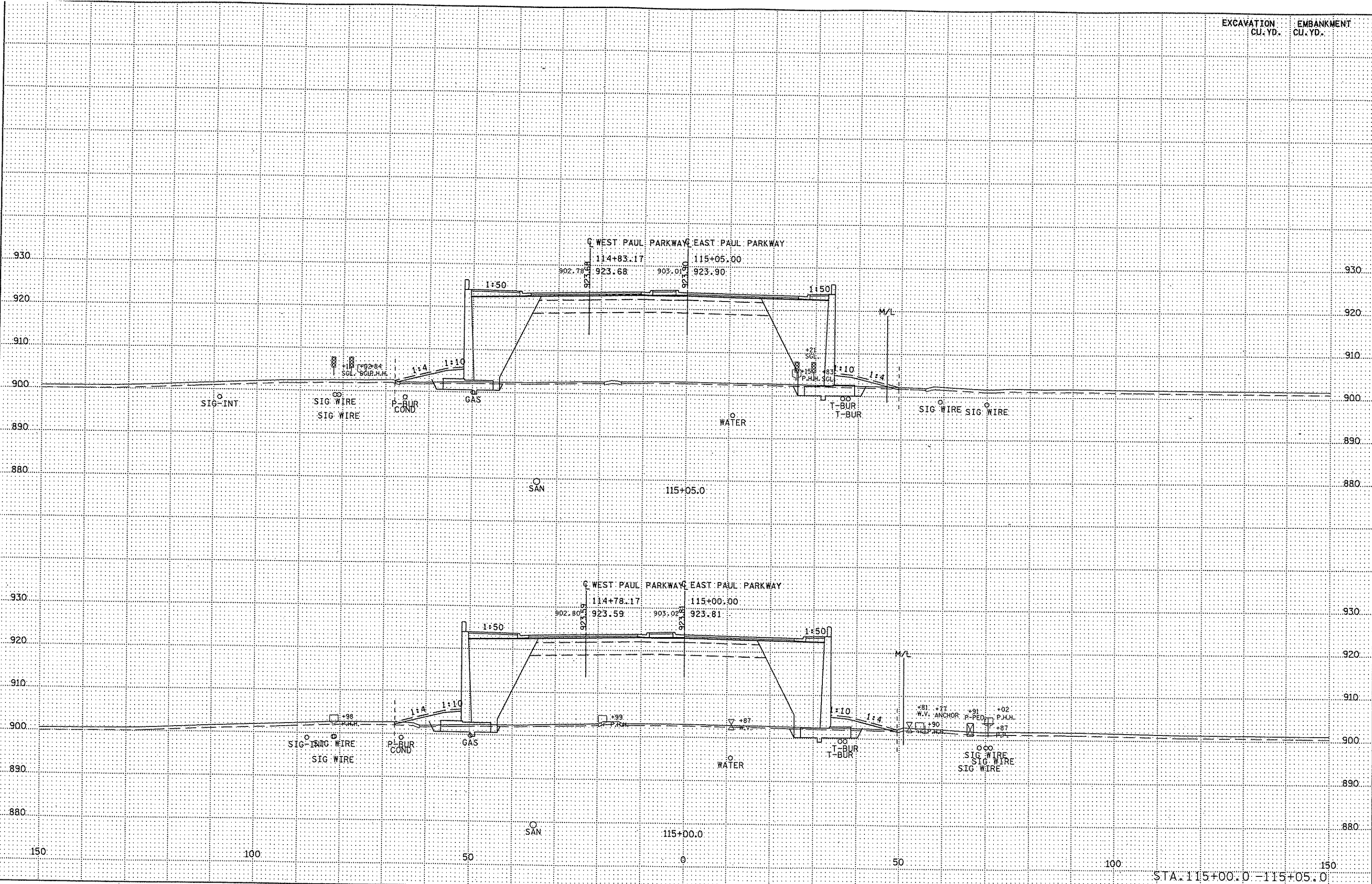


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT * : METRO
PLOT NAME: epaul_xp107
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\epaul\paul\paul\paul\paul_xp1.dgn



WEST PAUL PARKWAY EAST PAUL PARKWAY

114+83.17 115+05.00
902.75 923.68 903.00 923.90

WEST PAUL PARKWAY EAST PAUL PARKWAY

114+78.17 115+00.00
902.80 923.59 903.02 923.81

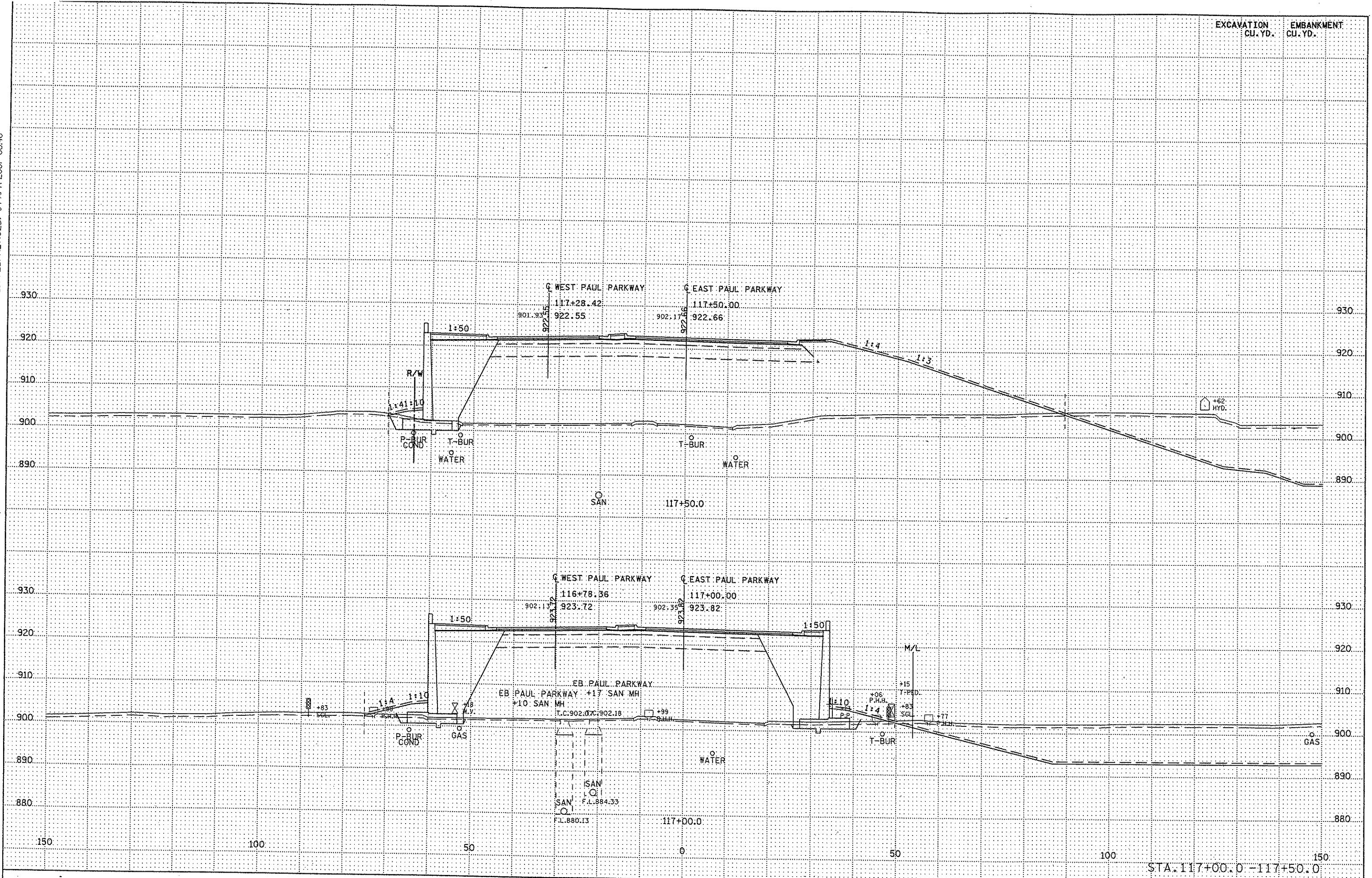
STA. 115+00.0 - 115+05.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT #: METRO
I/PLOT NAME: epaul_xp08
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\Paul\Paul\PAW\EPaul_XP.DGN



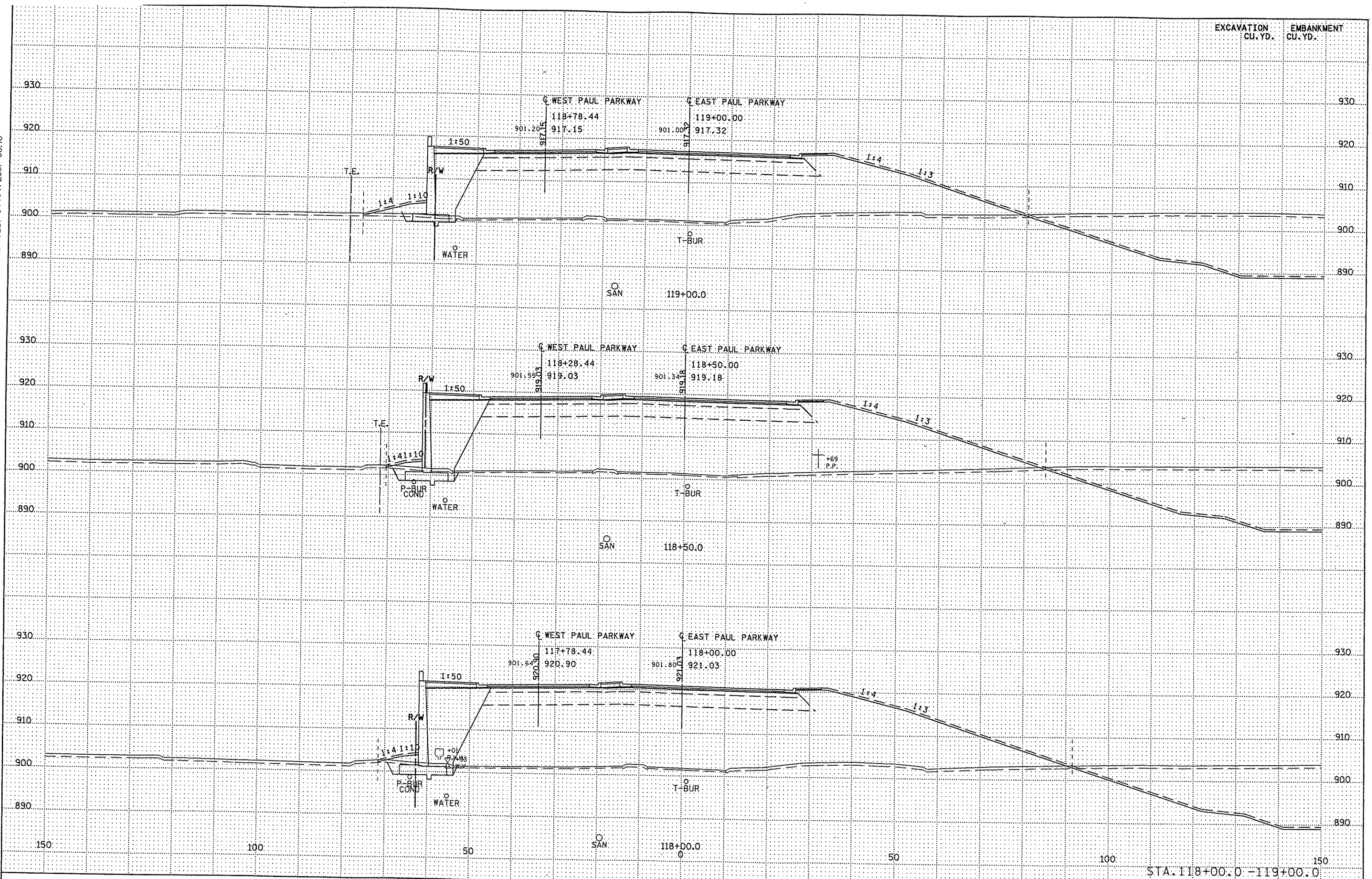
STA. 117+00.0 - 117+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT #: METRO
PLOT NAME: eppaul_xp009
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Xs\PaulParkwy\EPAUL_XP1.DGN



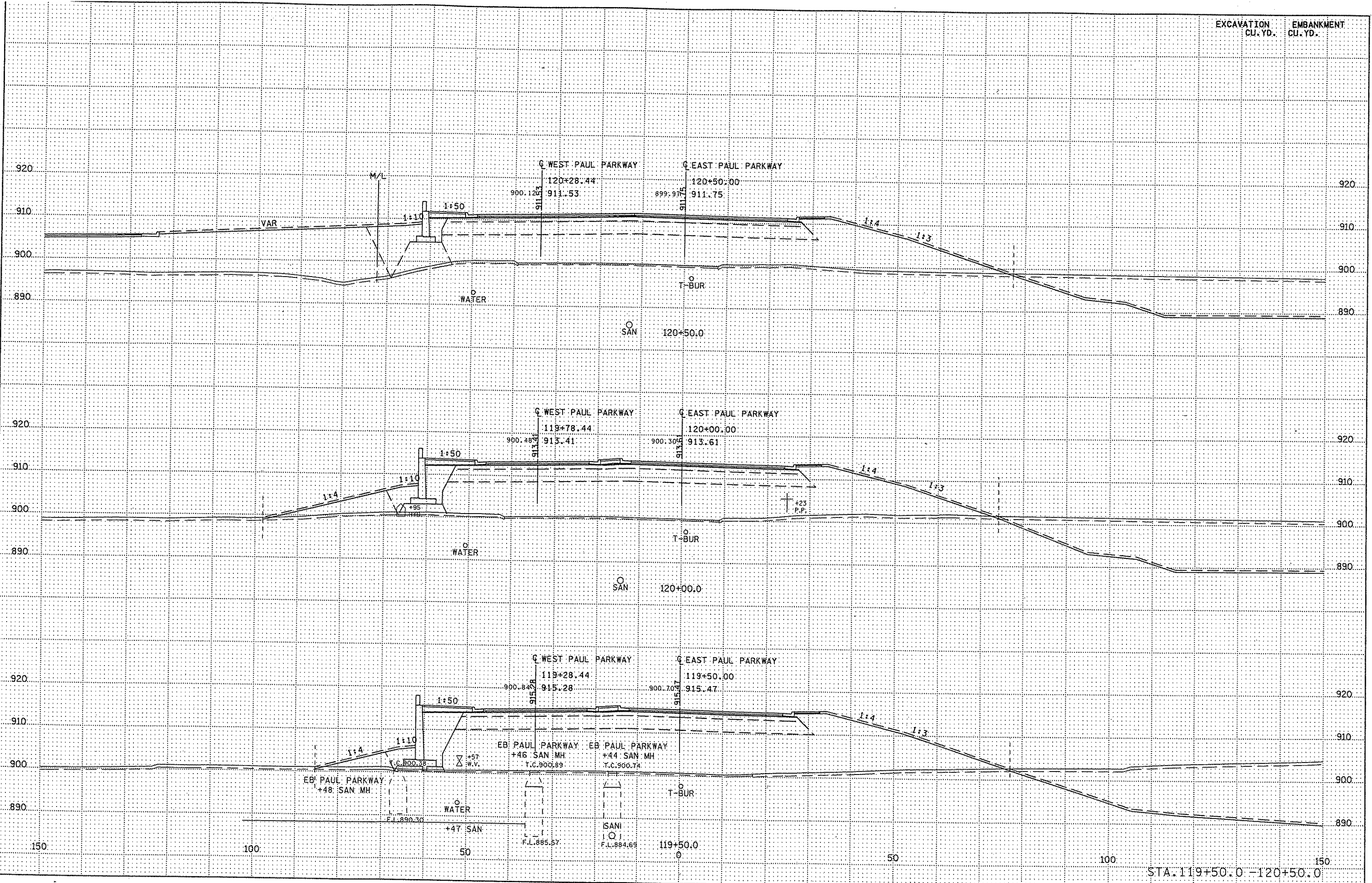
STA. 118+00.0 - 119+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

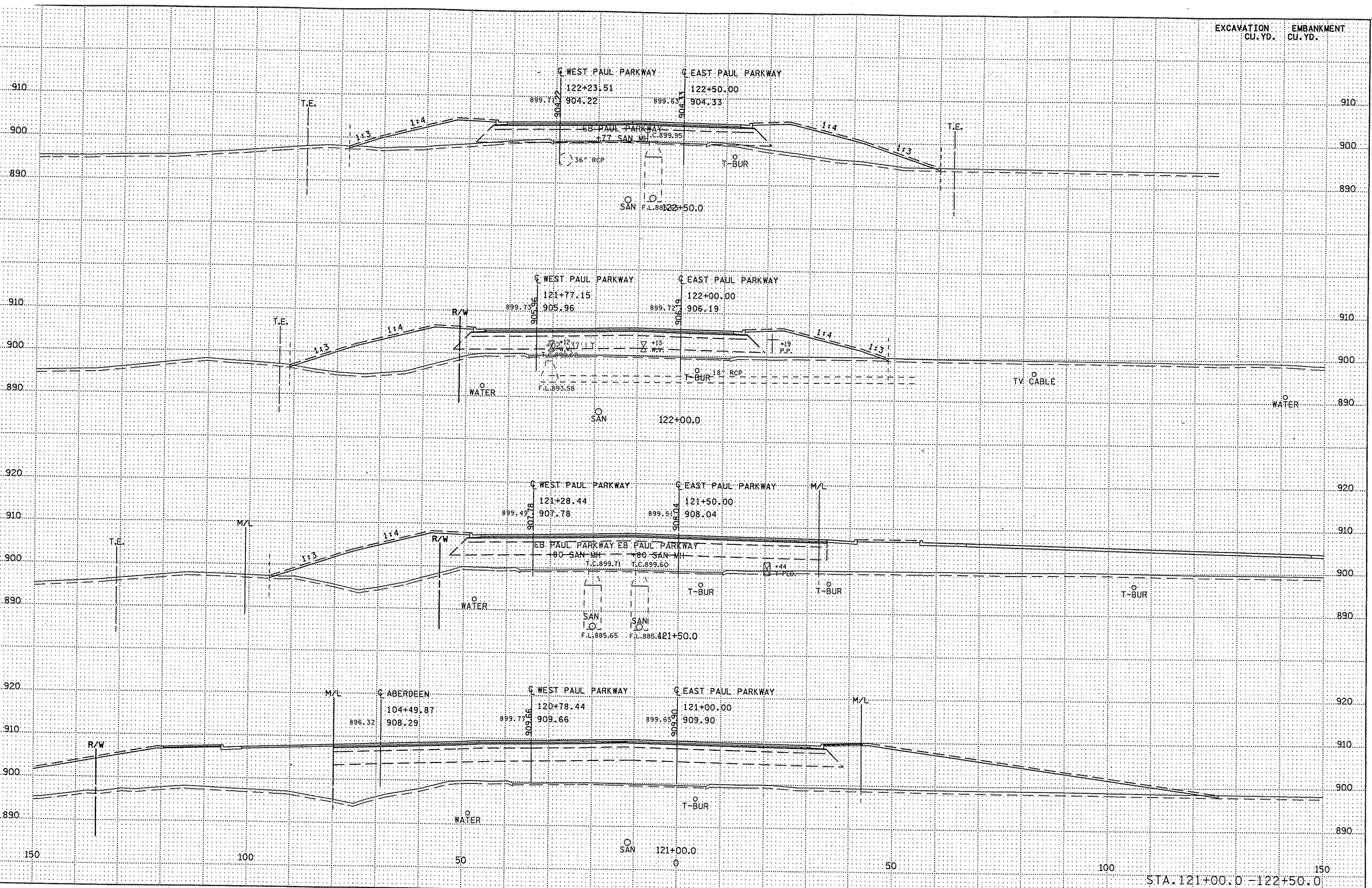
DISPATCH: METRO
PLOT NAME: epcul_xp10
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\PaulParkway\EPaulXP10.DGN



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT : METRO
PLOT NAME: epaul_xp111
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\PaulParkway\EPaul_XP1.DGN



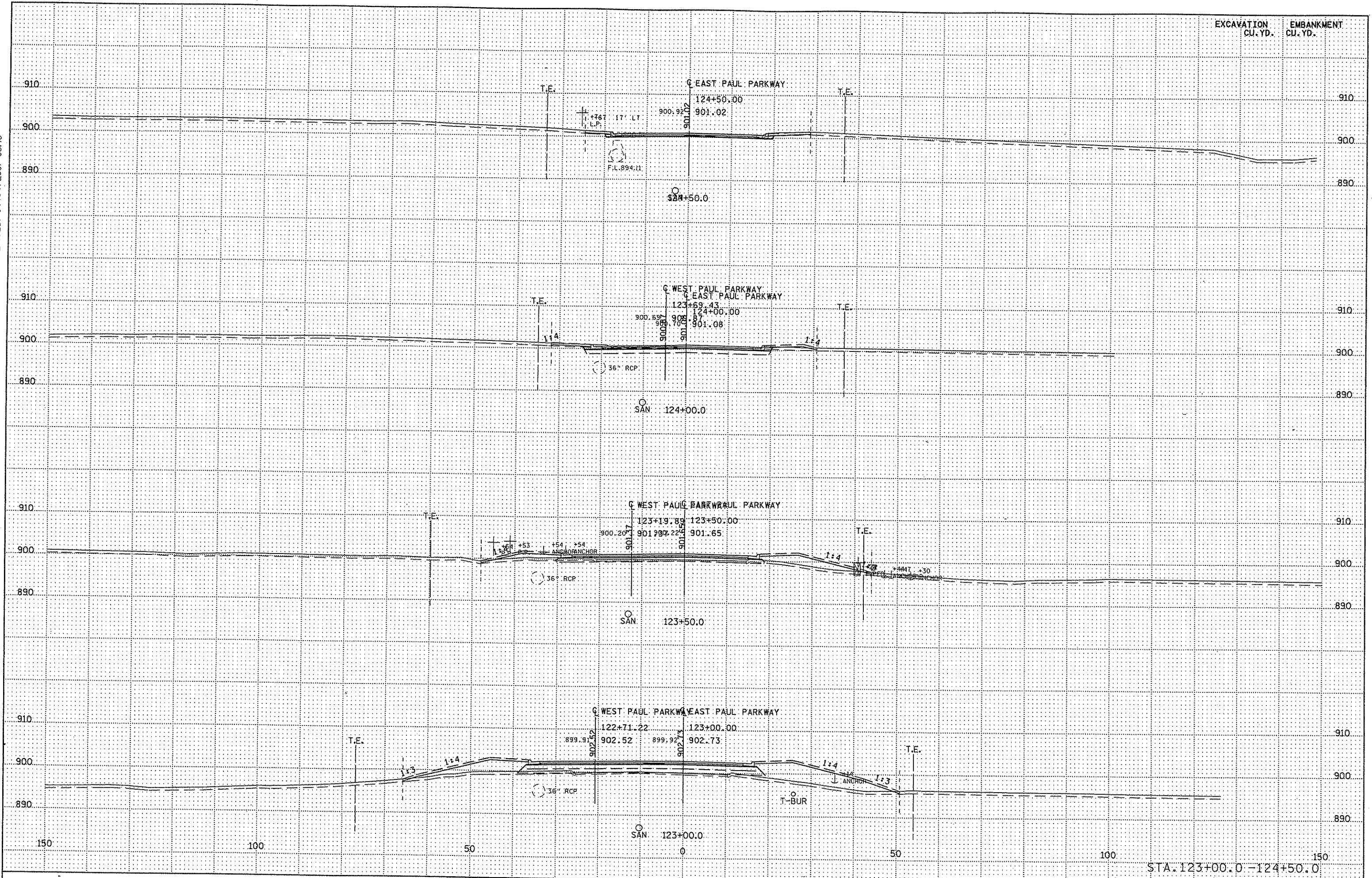
STA. 121+00.0 - 122+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT * : METRO
PLOT NAME: epaul_xpl12
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\Paul\Kwy\PAUL_XPL12.DGN

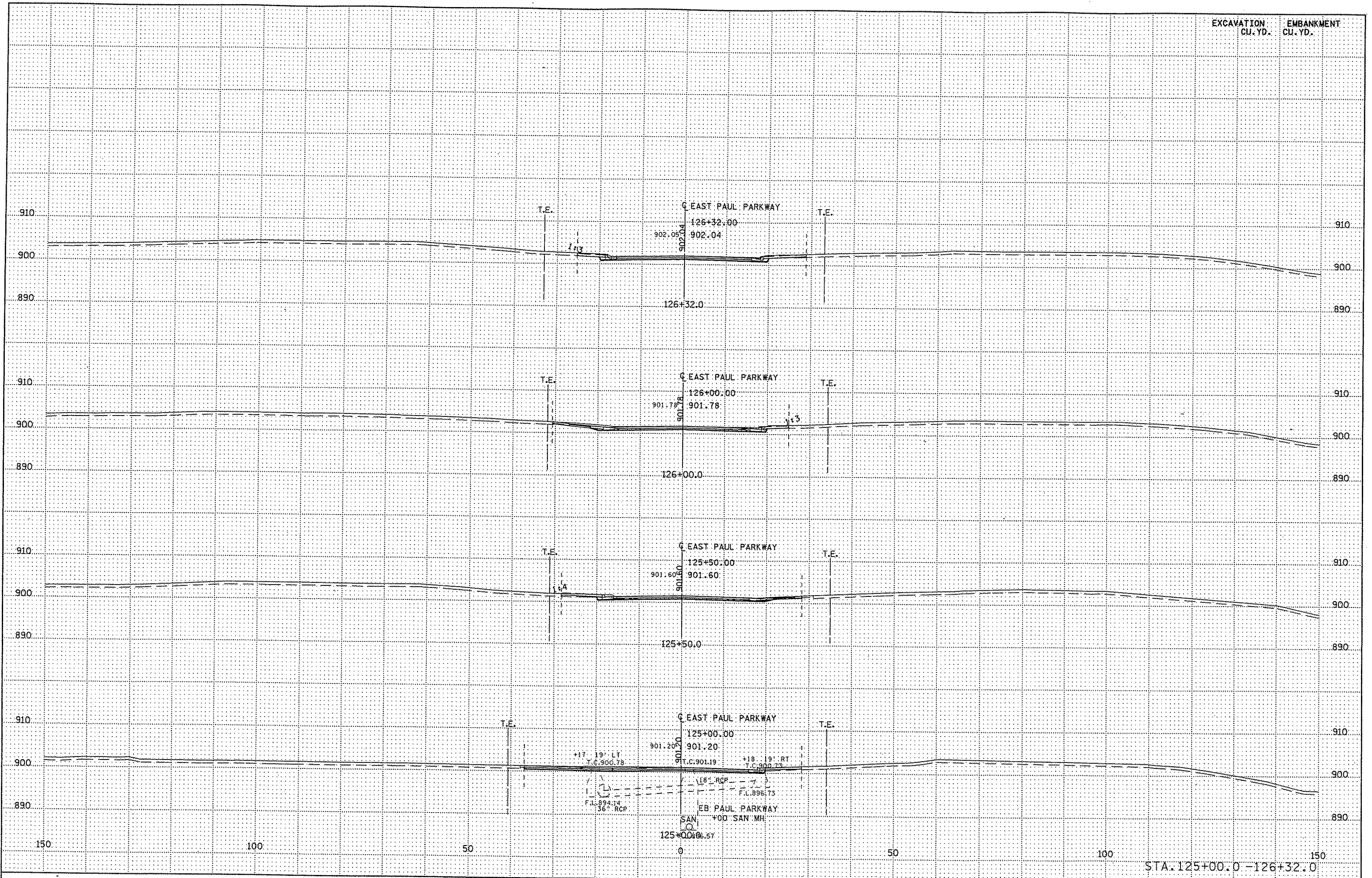


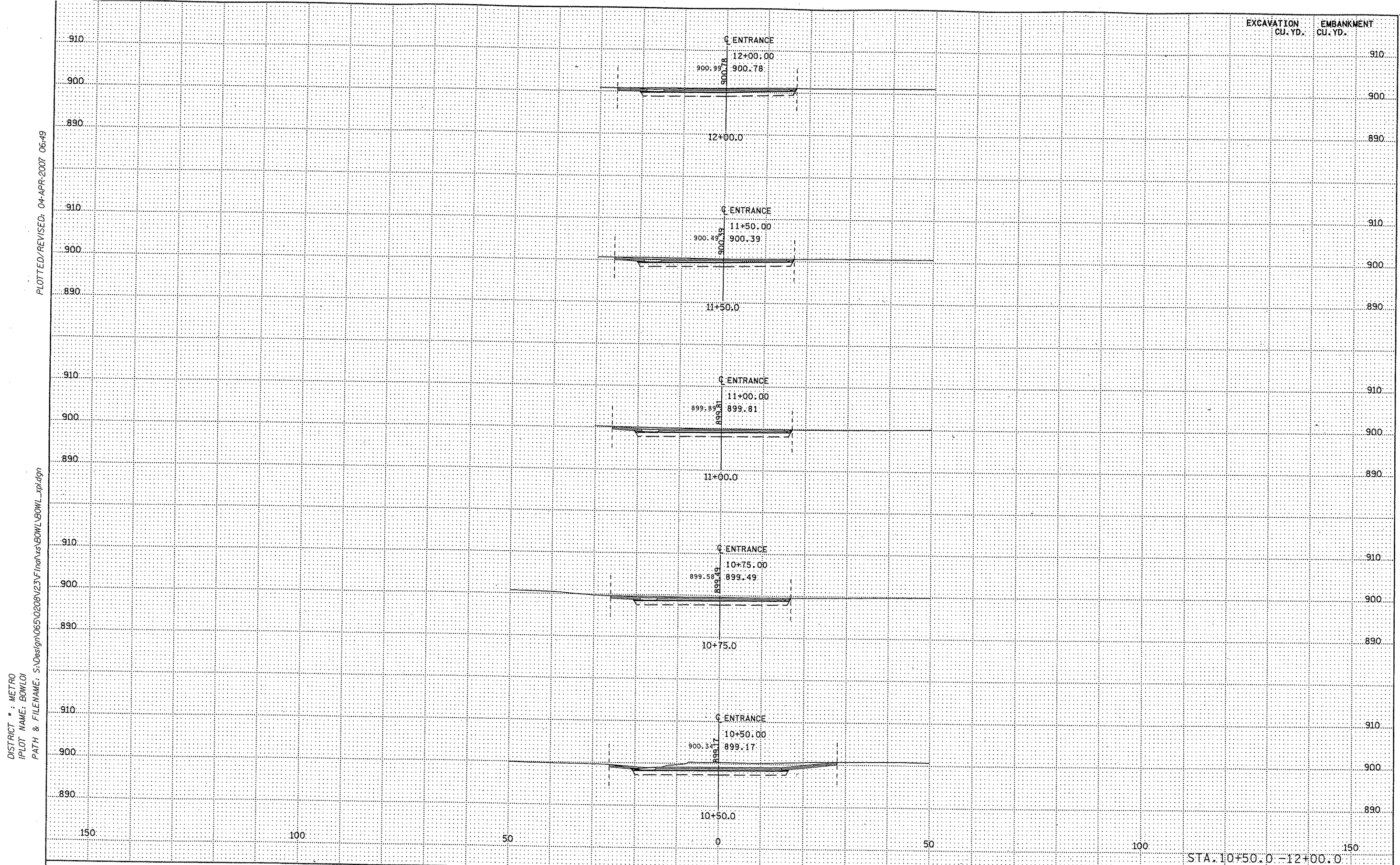
STA. 123+00.0 - 124+50.0

EXCAVATION
CU. YD.
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:48

DISTRICT * : METRO
PLOT NAME: epaul_xpl13
PATH & FILENAME: S:\DESIGN\0208\123\Final\vs\Paul\kwy\PAUL_XPL.DGN





EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:49

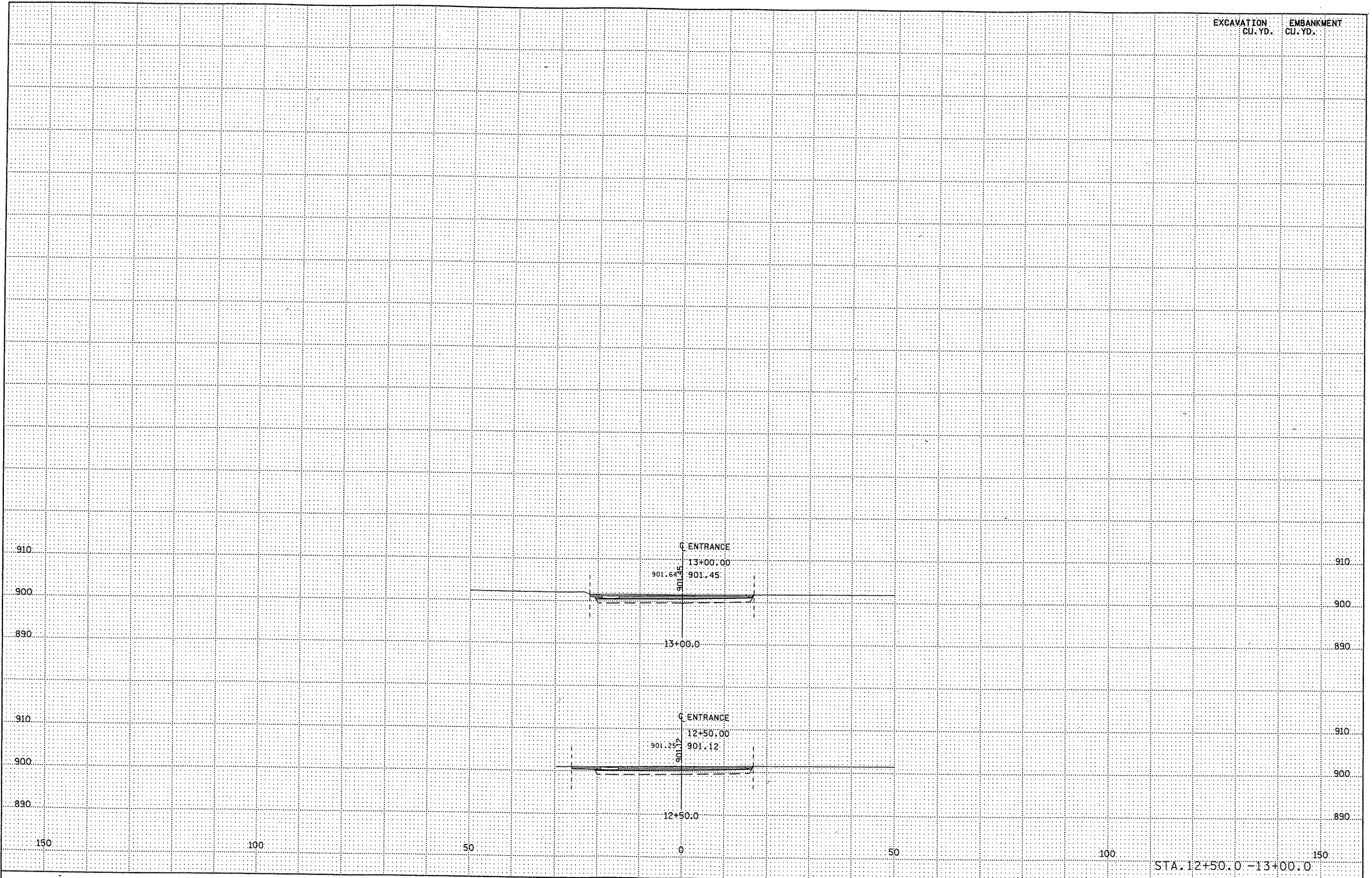
DISTRICT #: METRO
 IPLOT NAME: BOWLOI
 PATH & FILENAME: S:\Design\065\0208\23\Final\vs\BOWL\BOWL_xpl.dgn

STA. 10+50.0 - 12+00.0

EXCAVATION
CU. YD. EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:49

DISK1\MCI * : METRO
IFLOT NAME: BOWL02
PATH & FILENAME: S:\Design\065\0208\123\Final\As\BOWL\BOWL_xpl.dgn



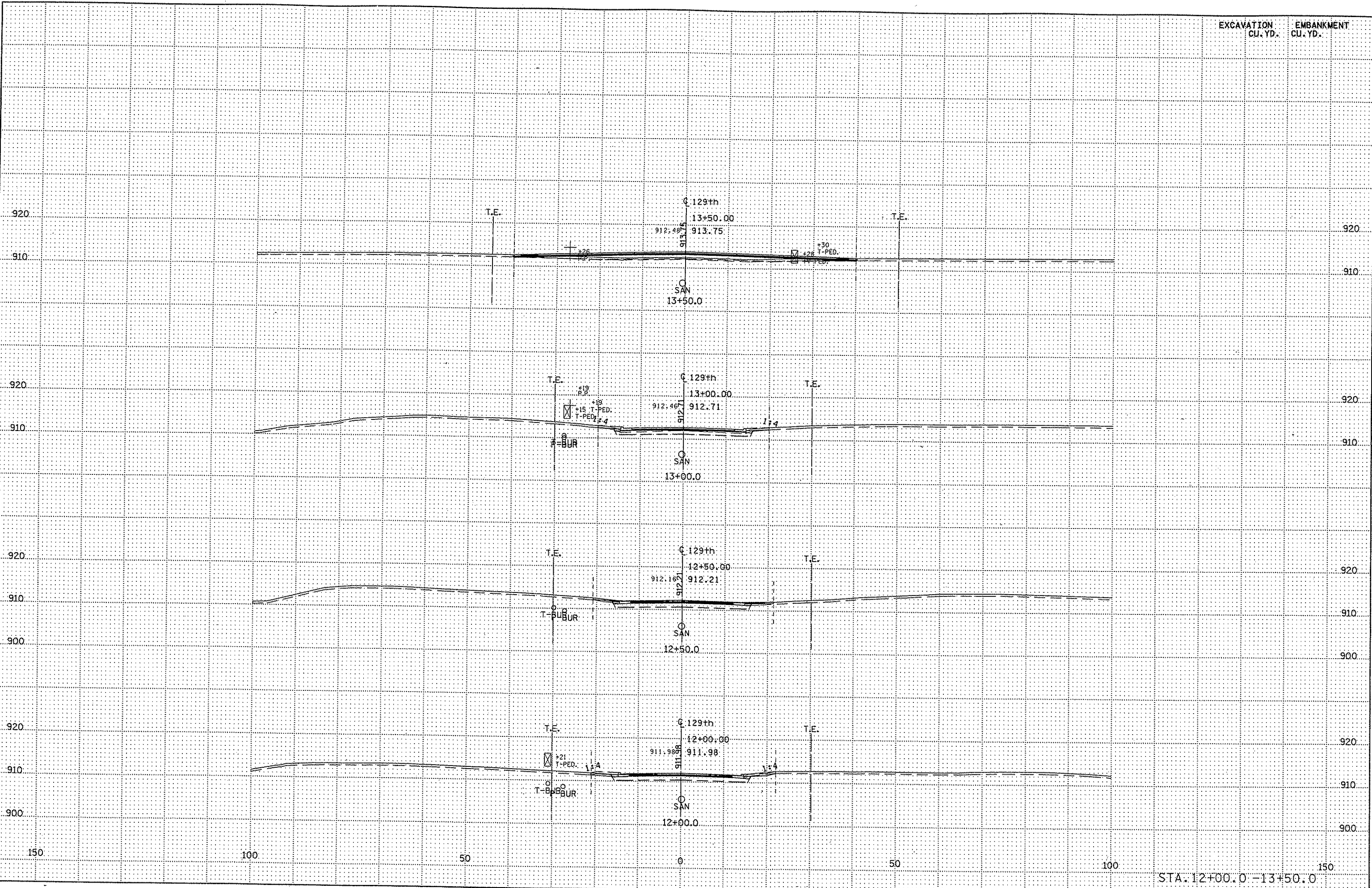
STA. 12+50.0 - 13+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:49

DISTRICT #: METRO
PLOT NAME: 129_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\129\129T\129T_H\129_XP1.dgn

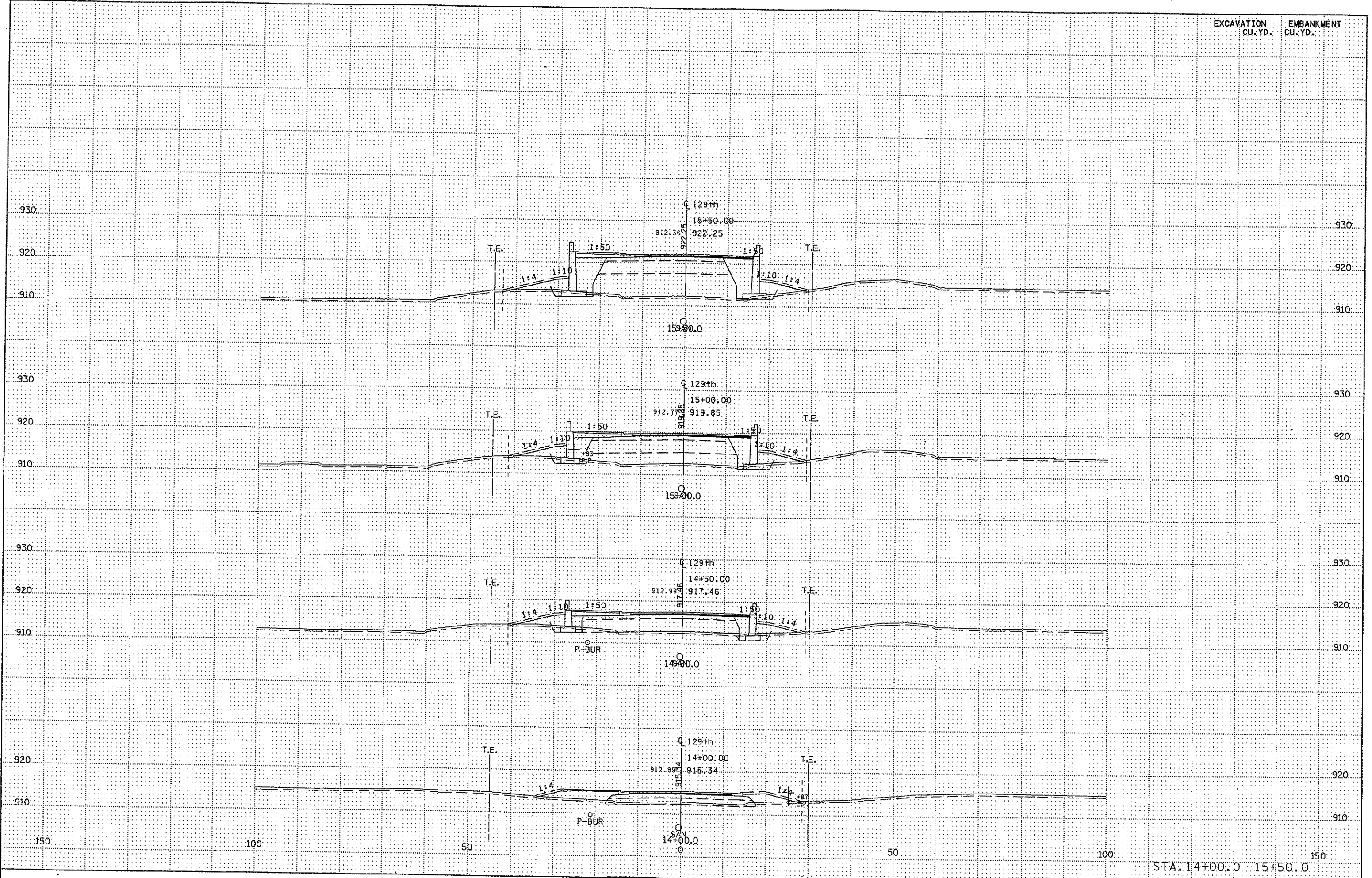


STA. 12+00.0 - 13+50.0

EXCAVATION
CU. YD.
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:49

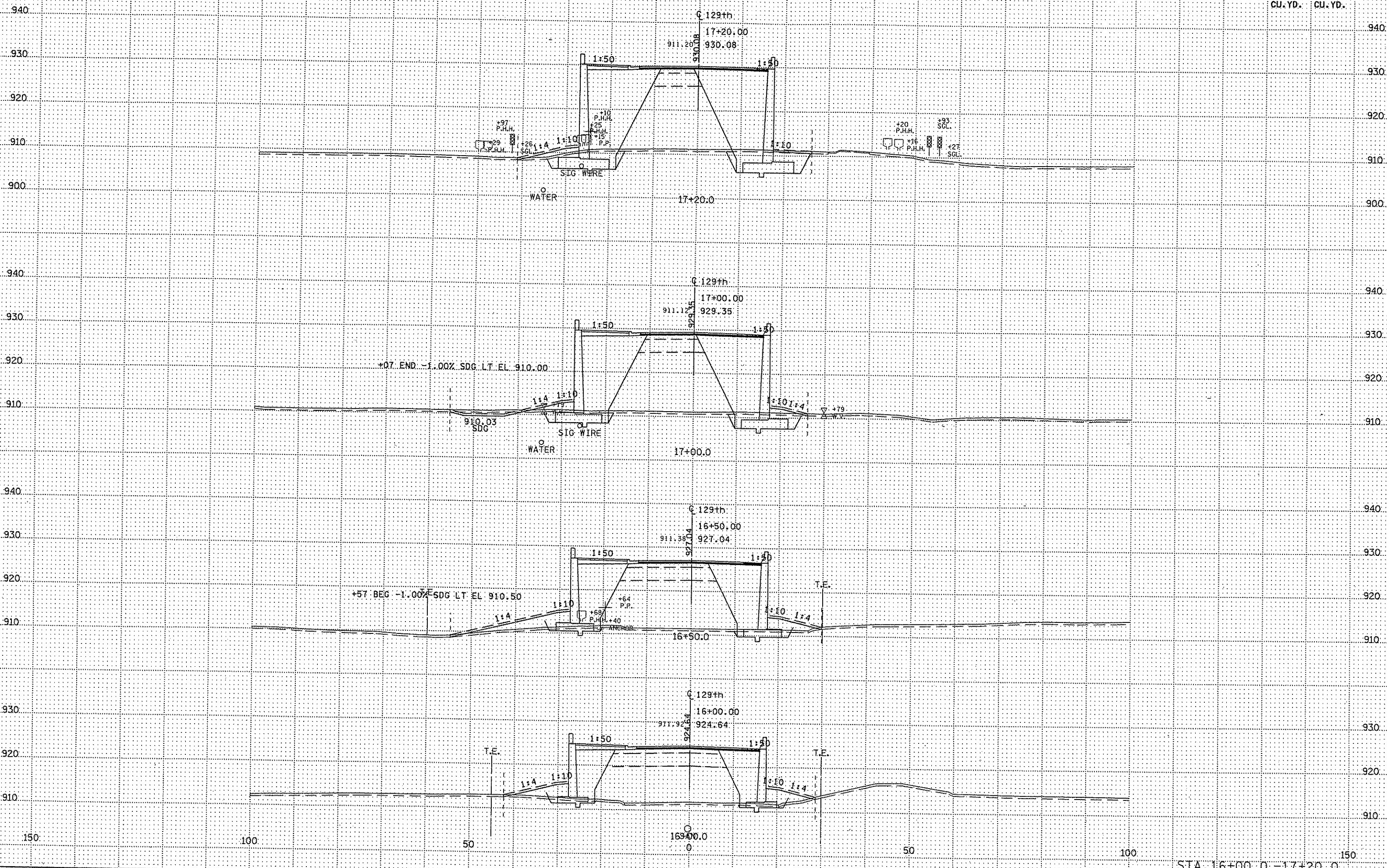
DISTRICT * : METRO
I/PLOT NAME: I29_xp102
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\I29TH\I29_XP1.dgn



STA. 14+00.0 - 15+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.



PLOTTED/REVISED: 04-APR-2007 06:50

DISTRICT: METRO
PLOT NAME: I29-1003
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Xs\I29TH\I29_XP1.dgn

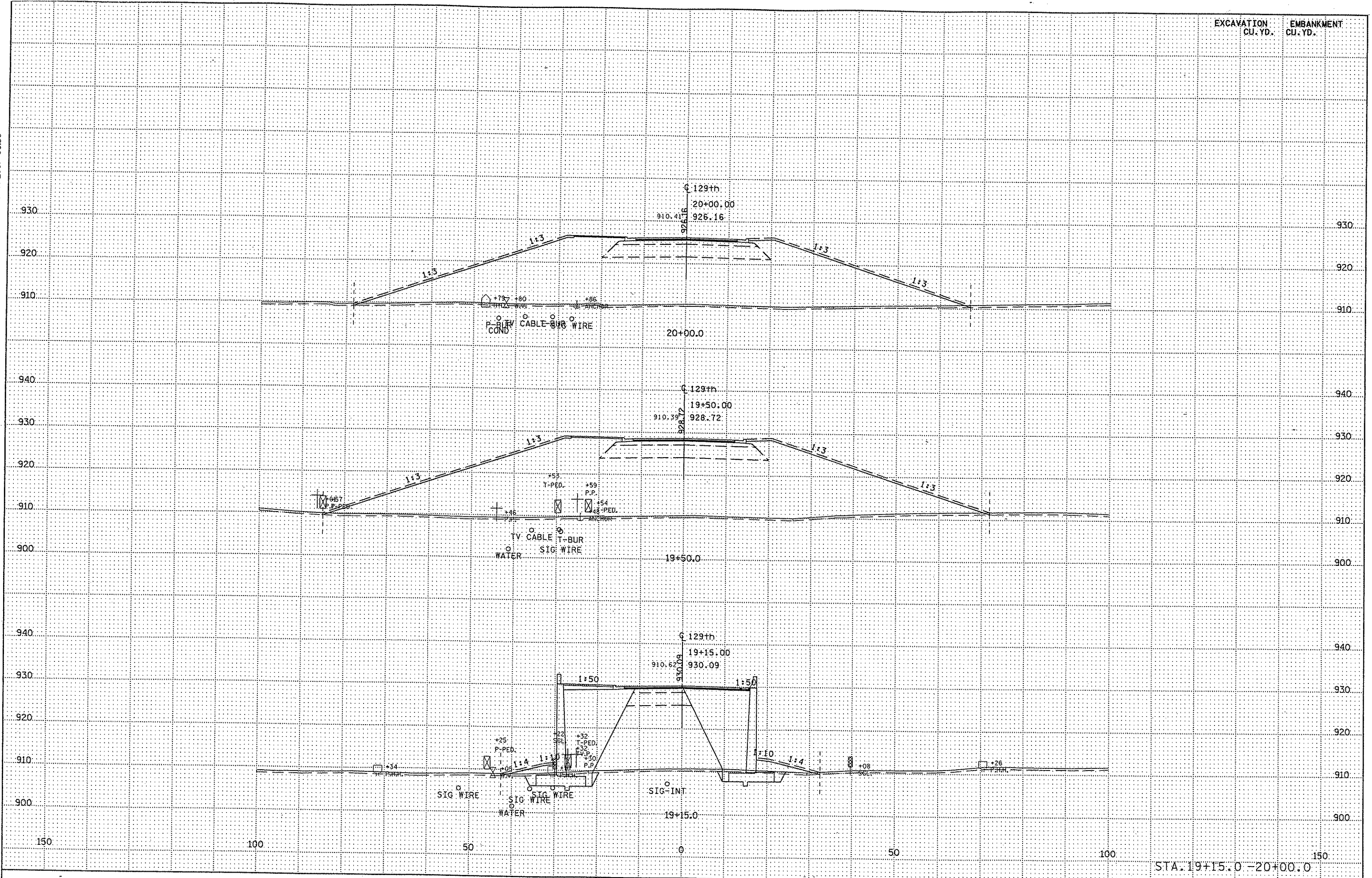
STA. 16+00.0 - 17+20.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

USER: MCTRO
PLOT NAME: 129_xpl04
PATH & FILENAME: S:\DESIGN\0650208\123\Final\129TH\129_XPL.dgn

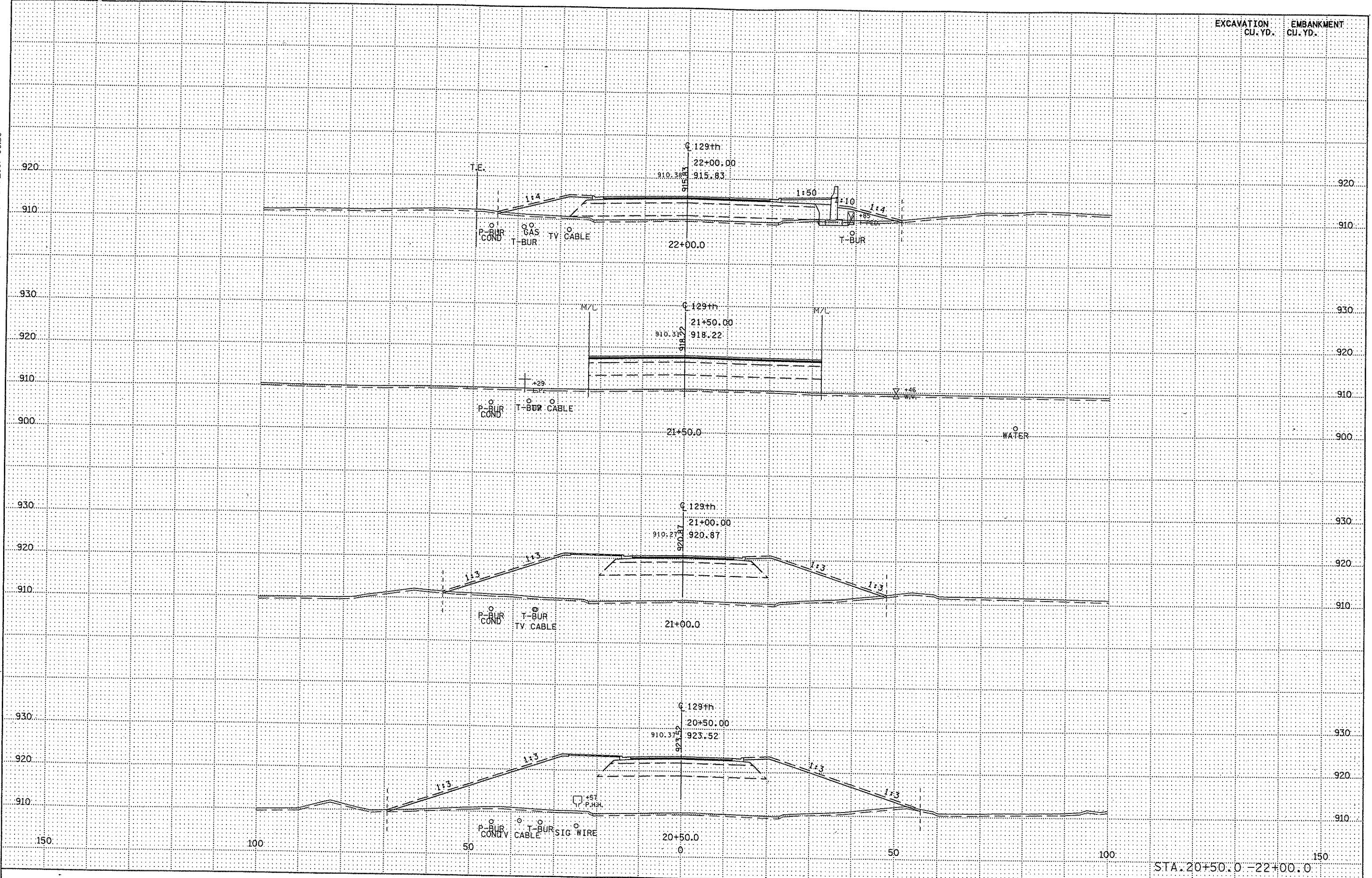


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

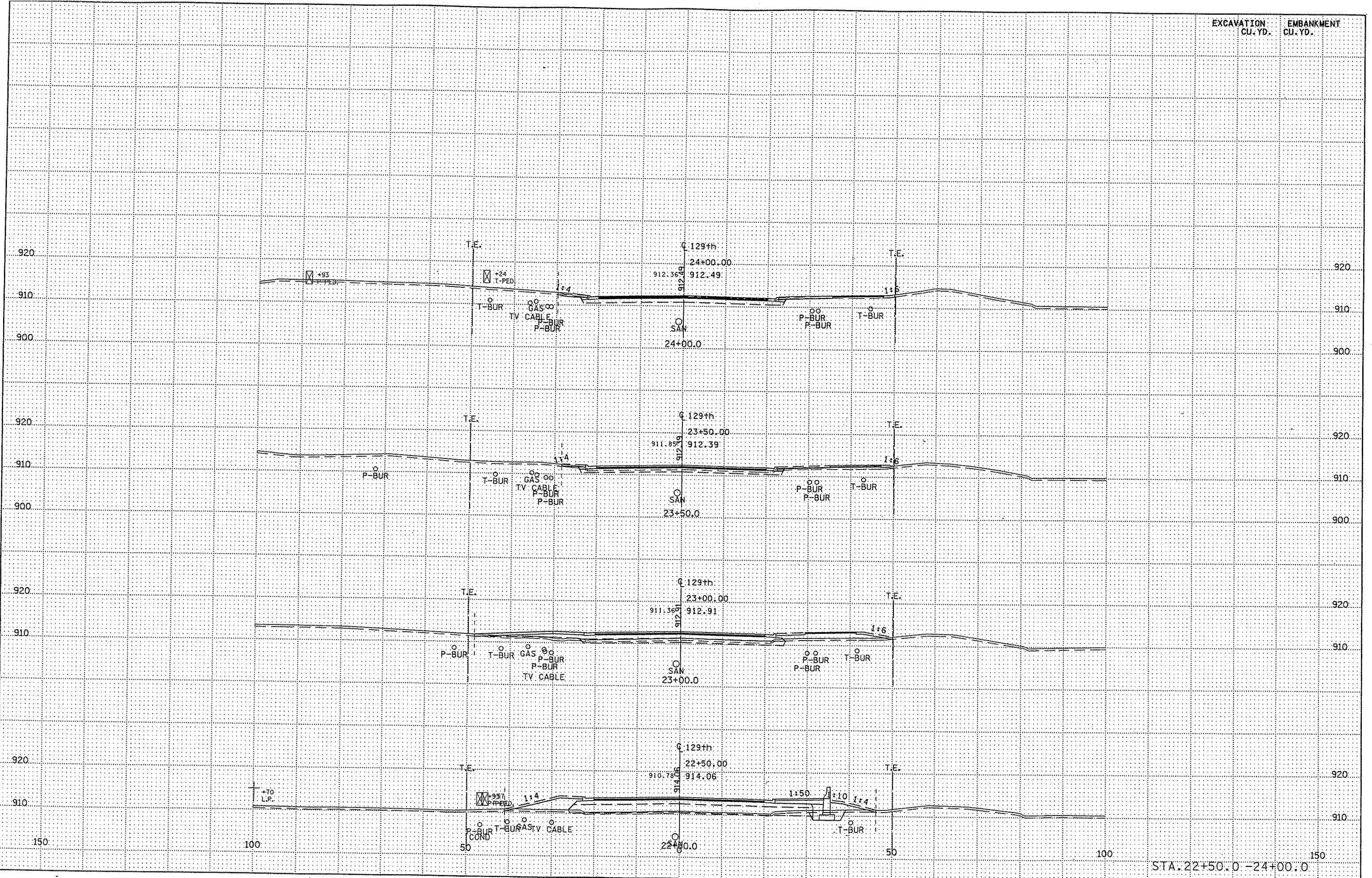
U:\S\H\1 \ : METRO
I\PLOT NAME: I29_4p05
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\X\29\HV29_XP1.dgn



EXCAVATION
CU. YD.
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

U:\S\MIC1 * : METRO
I\PROJECT NAME: 129_xp106
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\129\FIN29_xp1.dgn



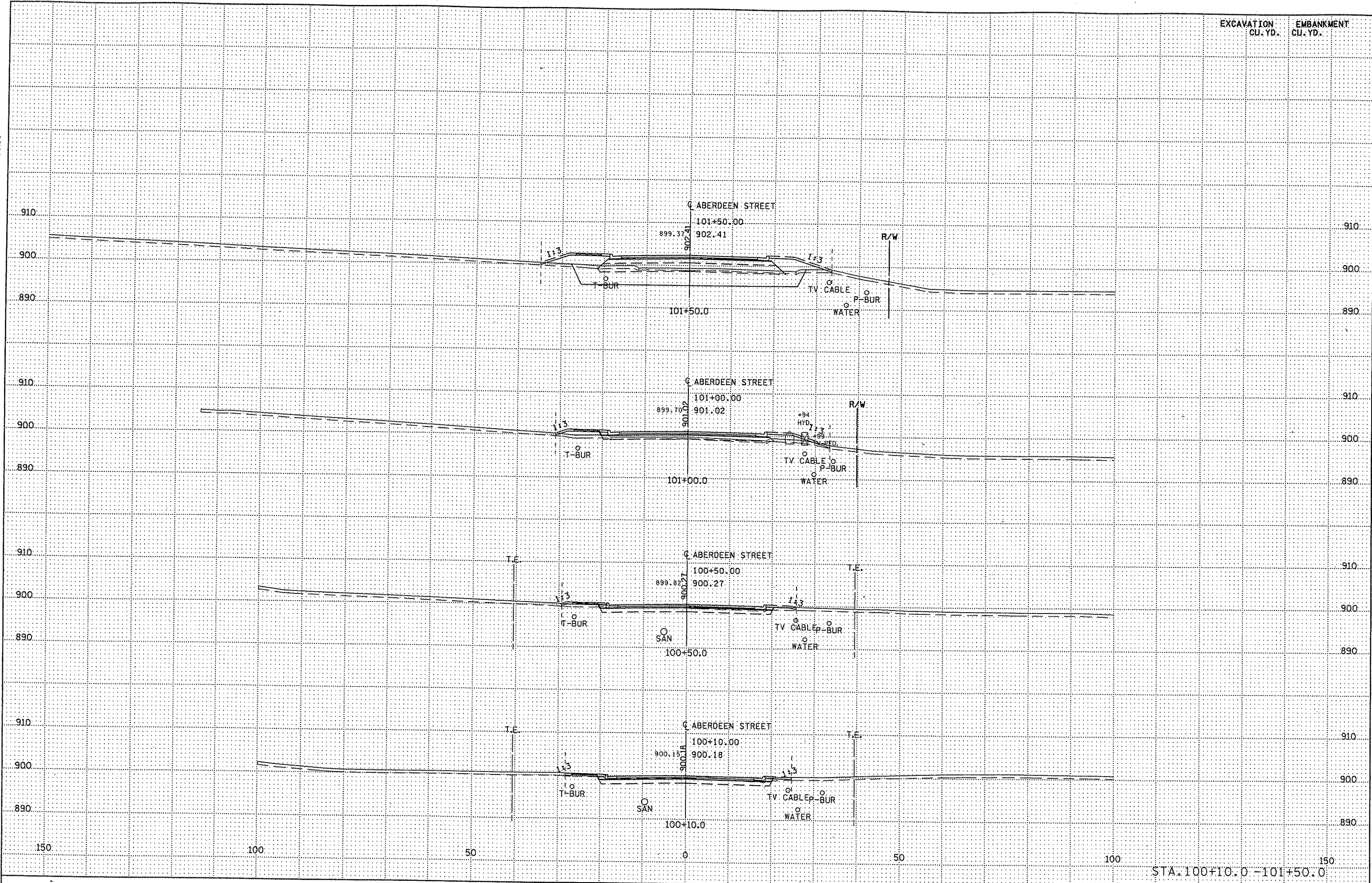
STA. 22+50.0 - 24+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

DISTRICT * : METRO
I/PLOT NAME: sberd_xps01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\SABERD_XPS.dgn

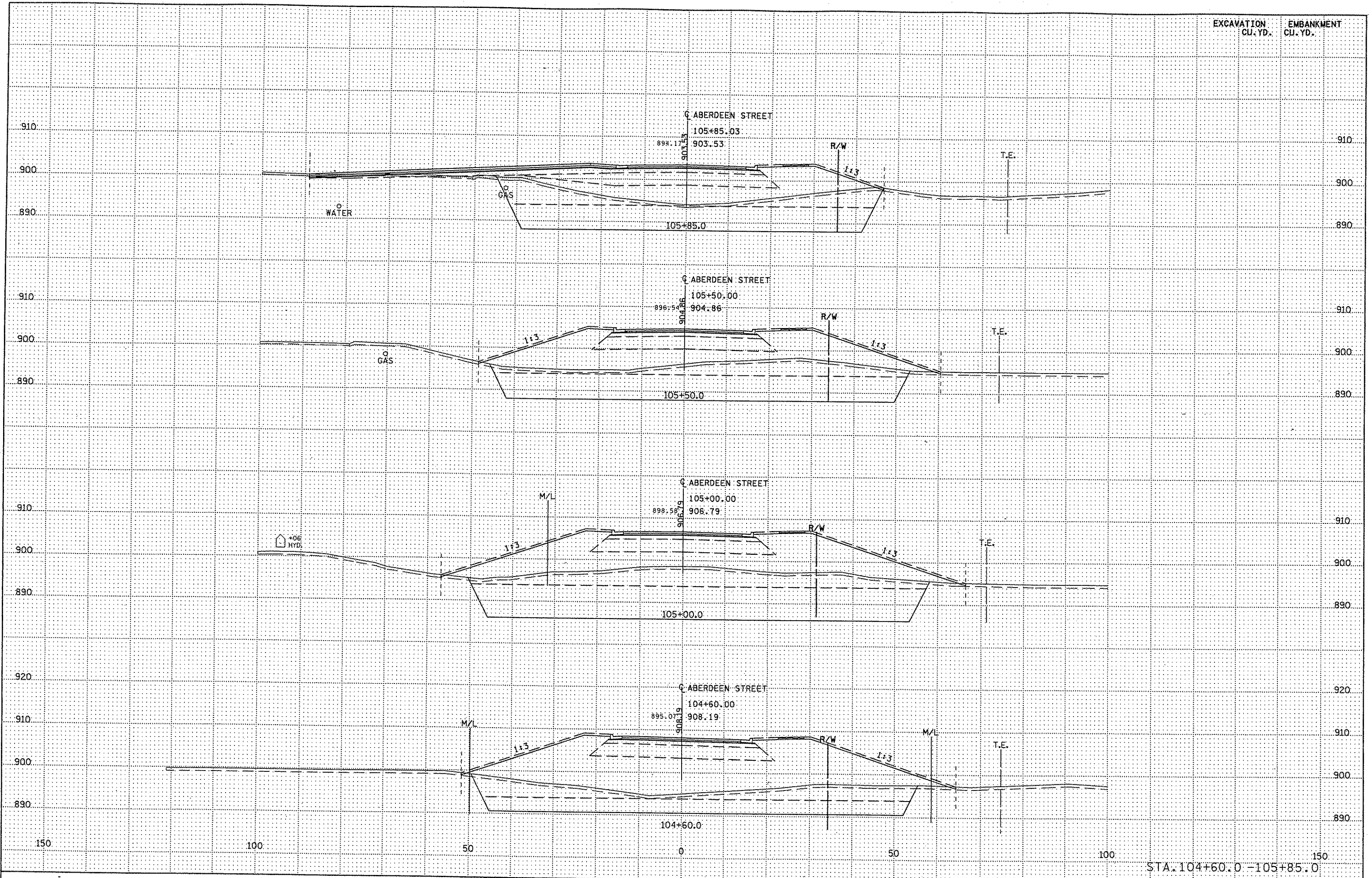


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

U:\S1\HC1 * : METRO
IFLOT NAME: sberd_xps03
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Aberdeen\SABERD_XPS.dgn

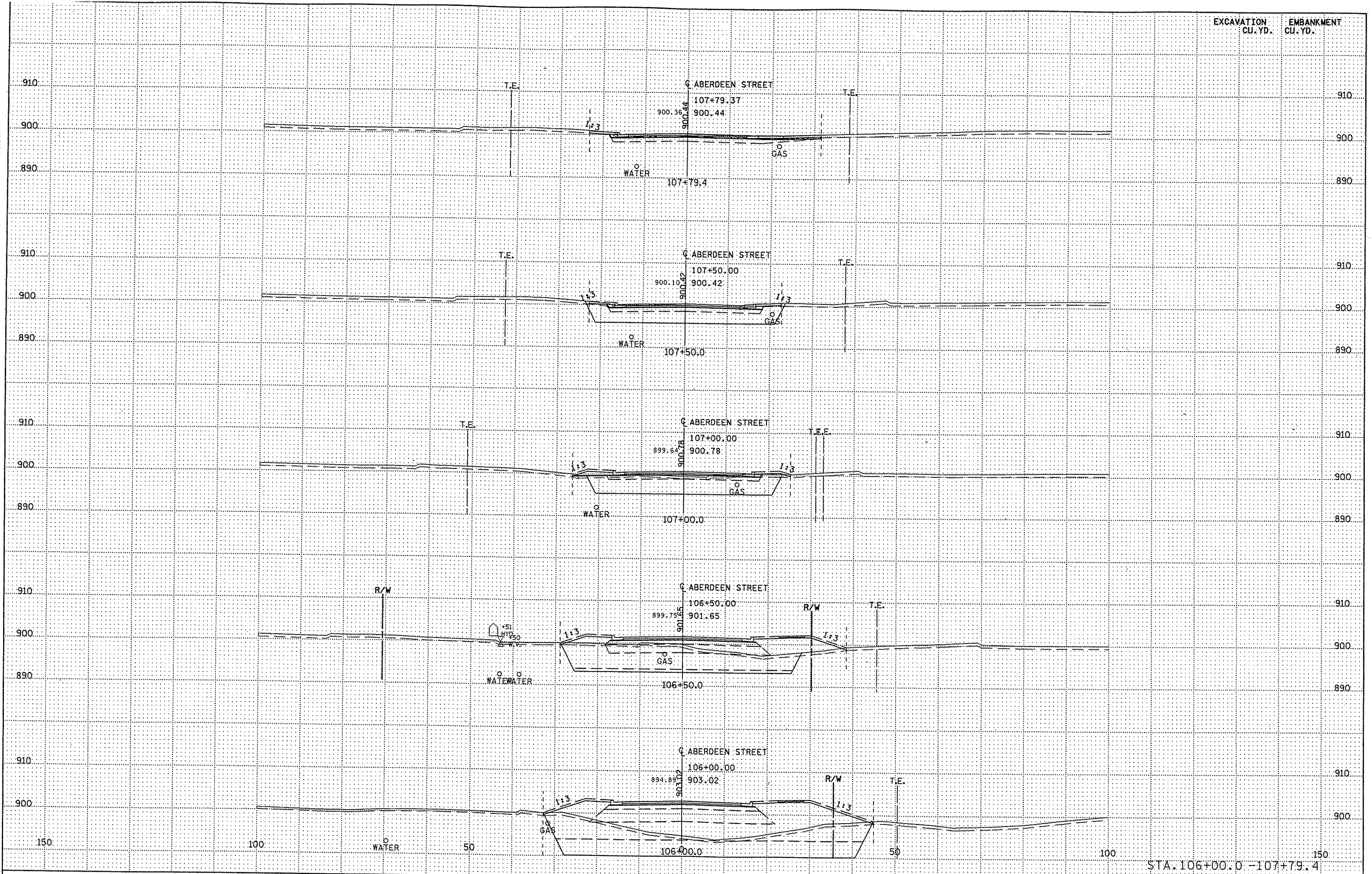


STA. 104+60.0 - 105+85.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

DIS/RICT * : METRO
I/PLT NAME: sberd_xps04
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Aberdeen\SABERD_XPS.dgn



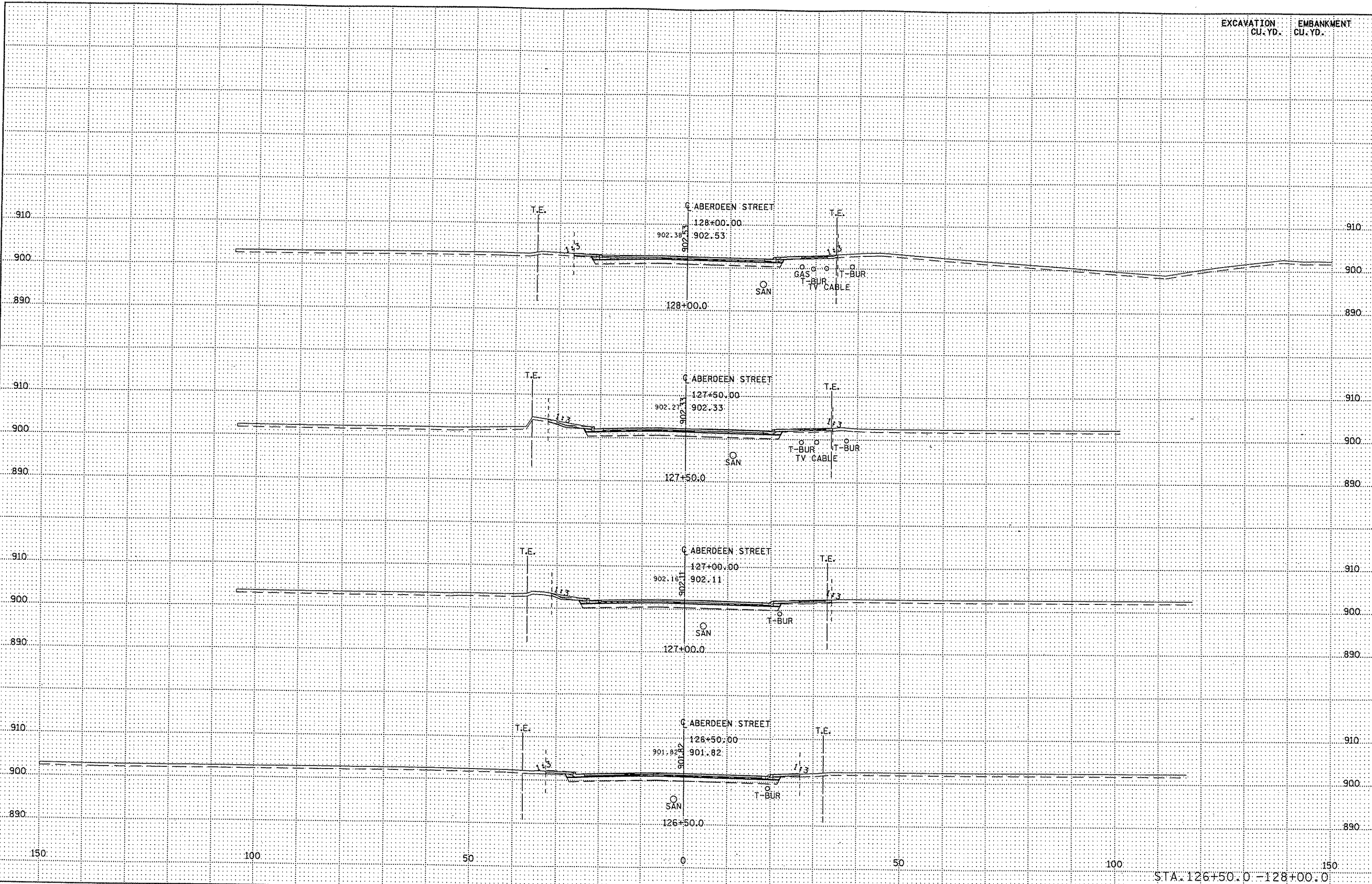
STA. 106+00.0 - 107+79.4

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

DIS/INI * : METRO
I/PLOT NAME: 2aberdr_xp201
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\Aberdeen\2ABERDR_XP2.dgn

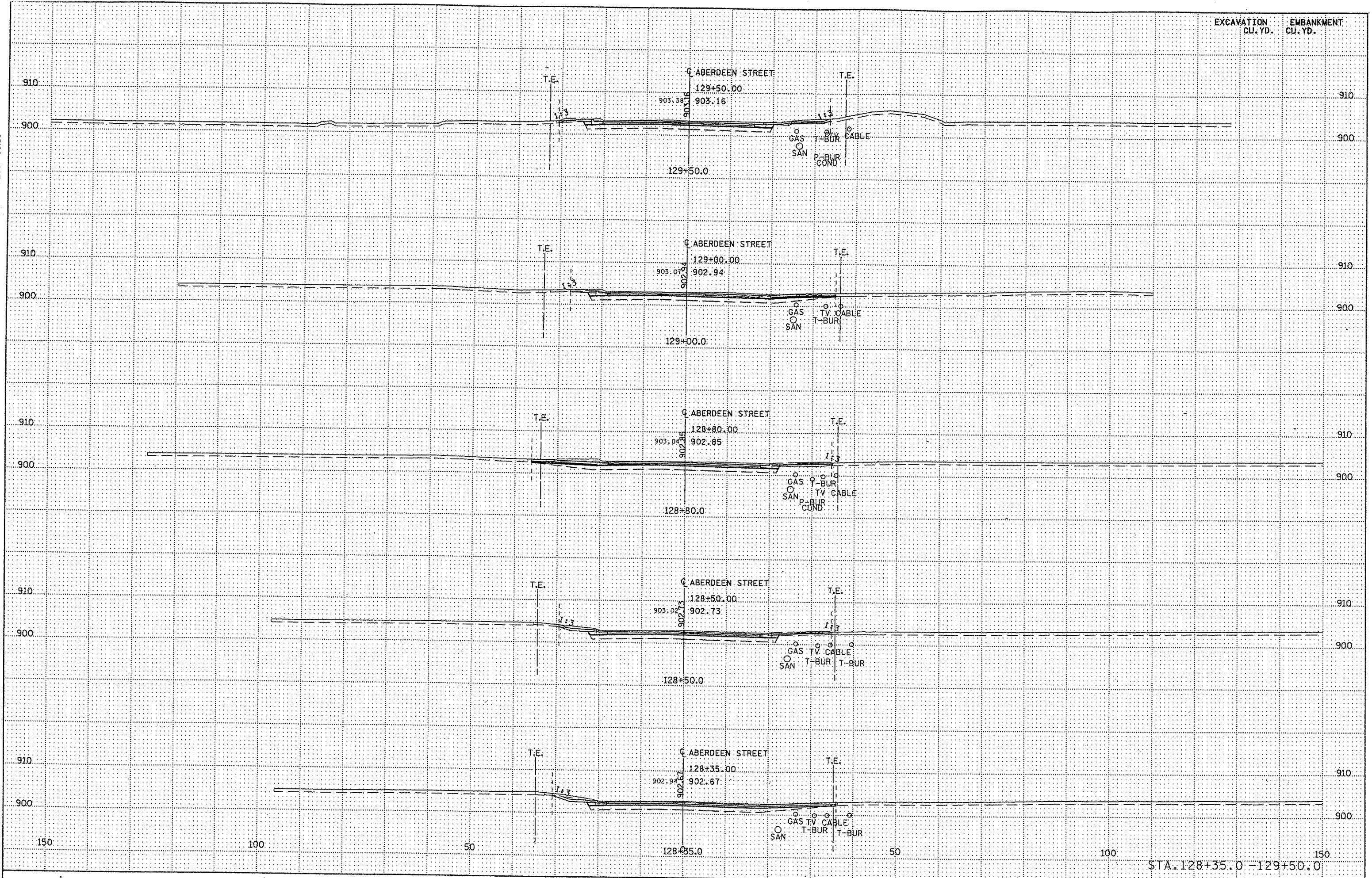


STA. 126+50.0 - 128+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

USER: METRO
IPLOT NAME: 20berd_xp202
PATH & FILENAME: S:\DESIGN\065\0208V23\Final\Aberdeen\2ABERD_XP2.dgn



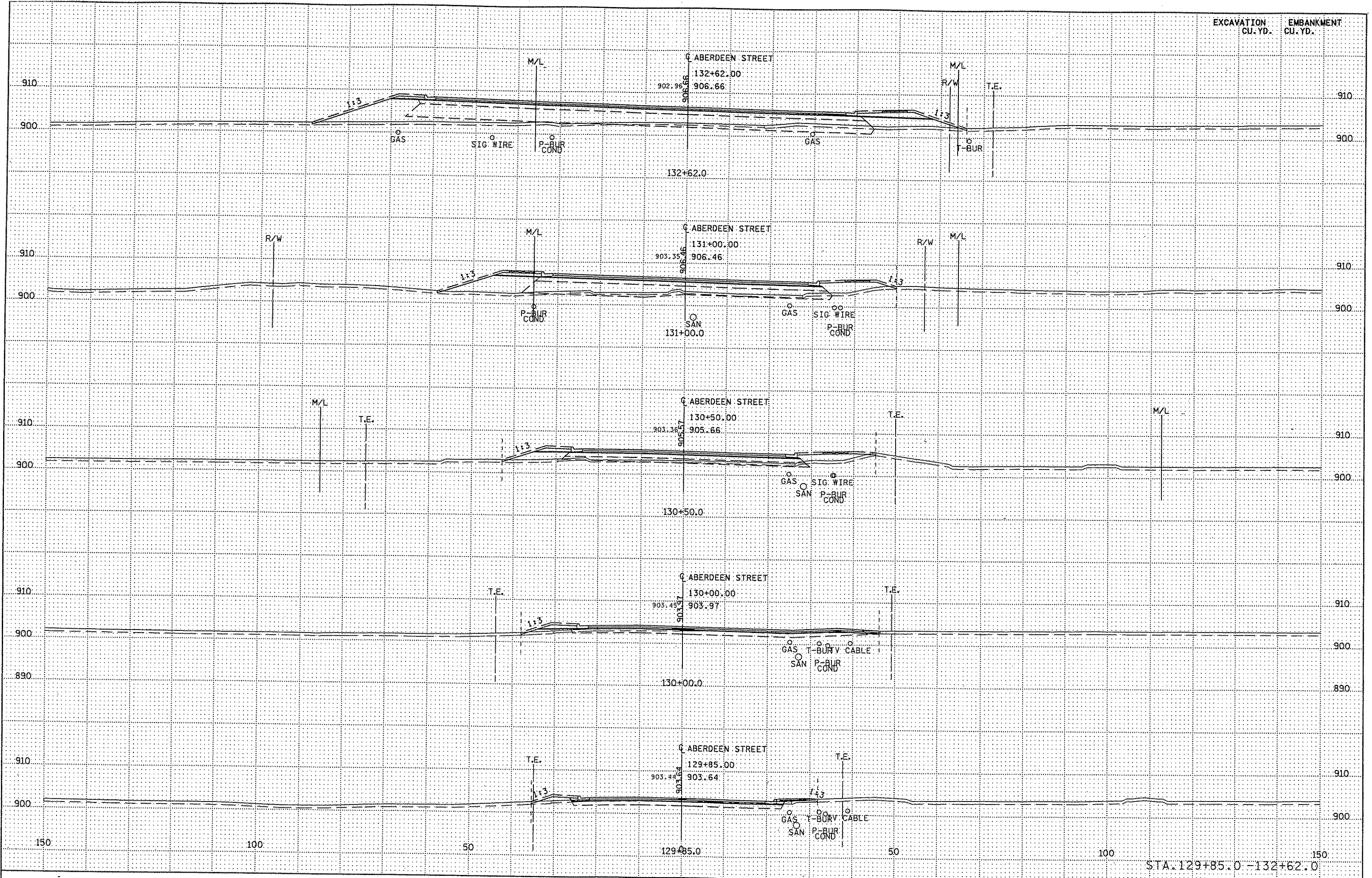
STA. 128+35.0 - 129+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

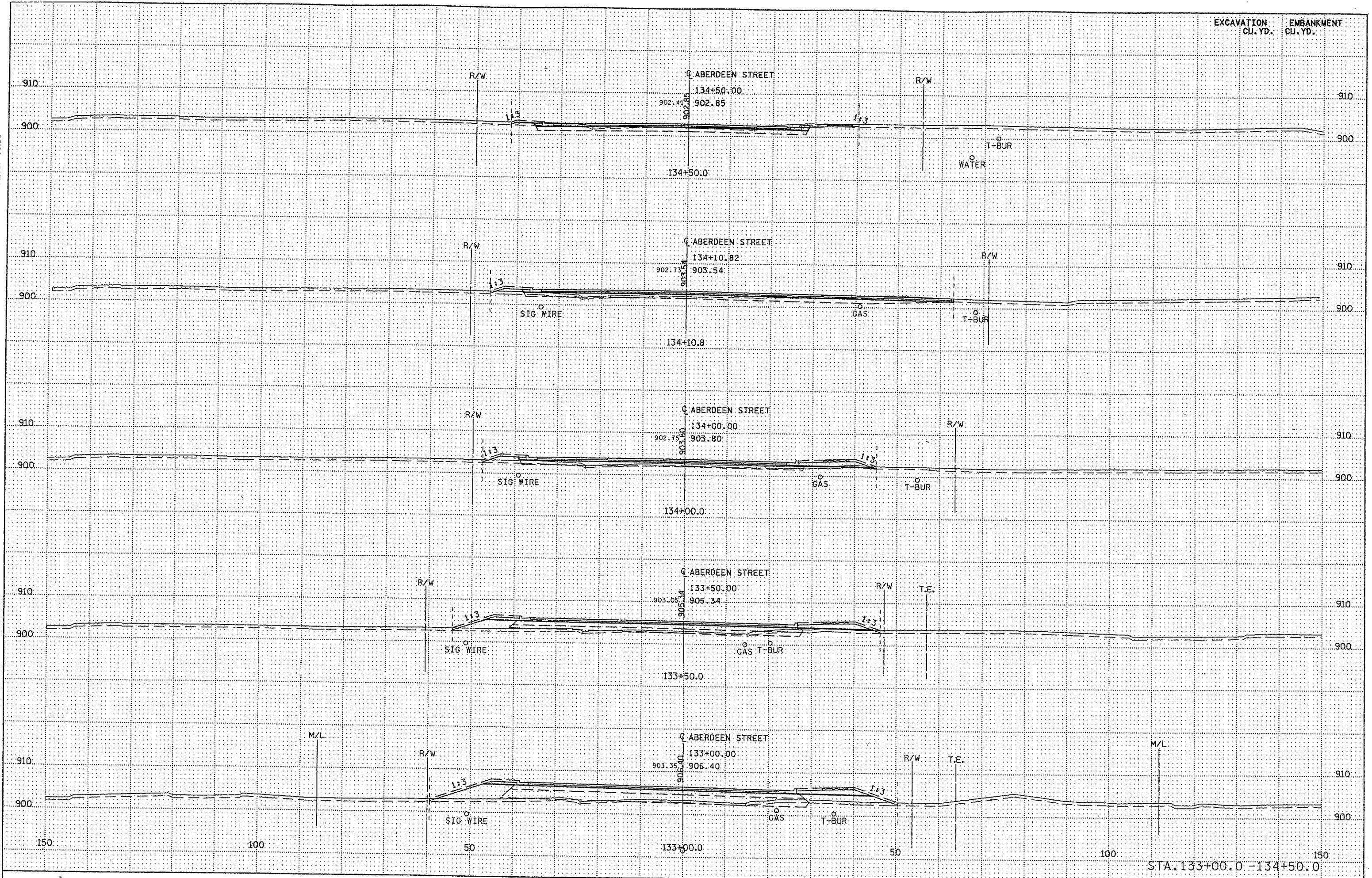
PROJECT # : METRO
PLOT NAME: 2aberdr_xp203
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\2ABERDR_XP2.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

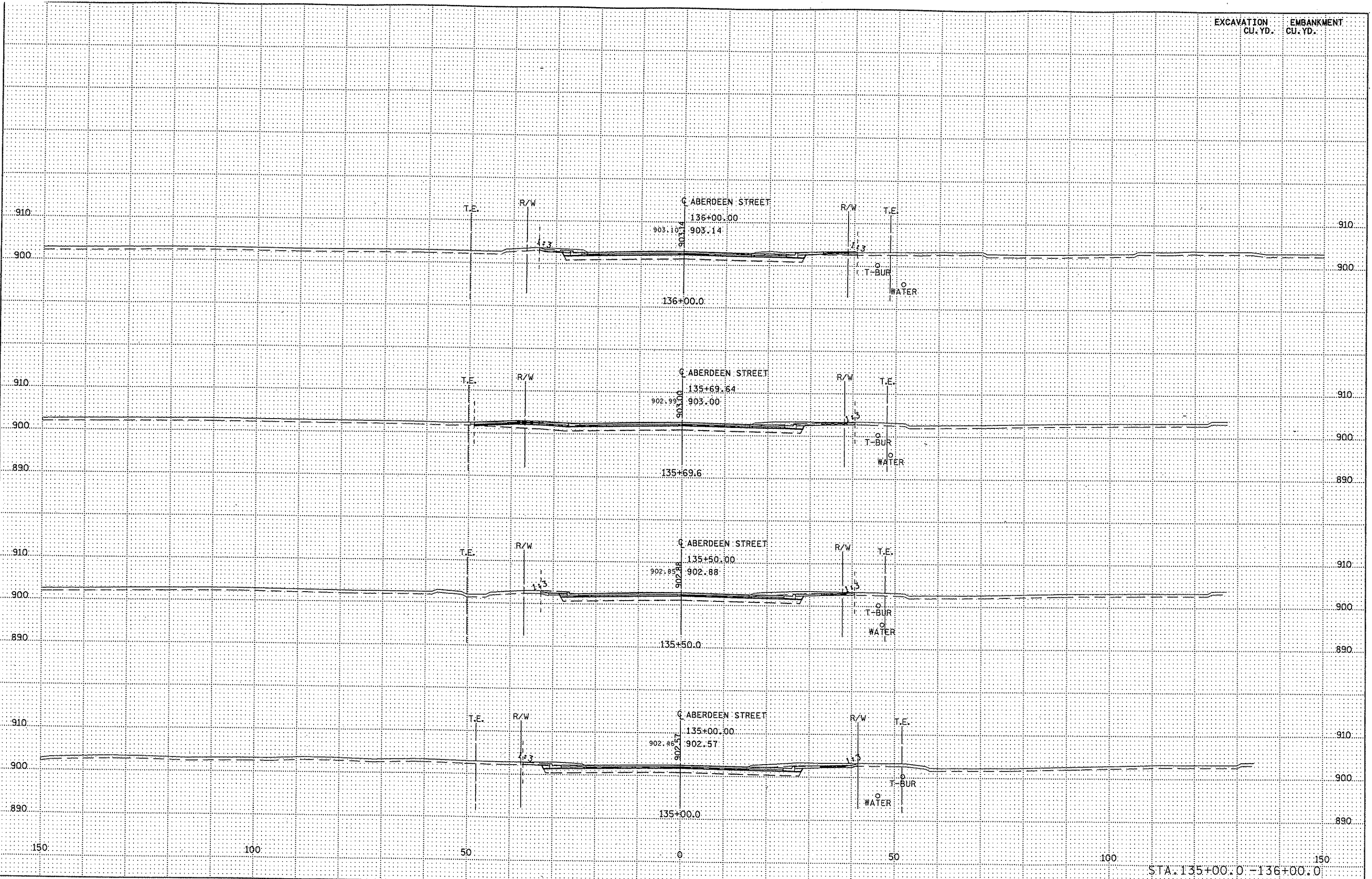
DISTRICT #: METRO
PROJECT NAME: 2aberd_xp204
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\2ABERD_XP2.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:50

DISTRICT : METRO
I/PLOT NAME: 2aberdr_xp205
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\Aberdeen\2ABERDR_XP2.dgn



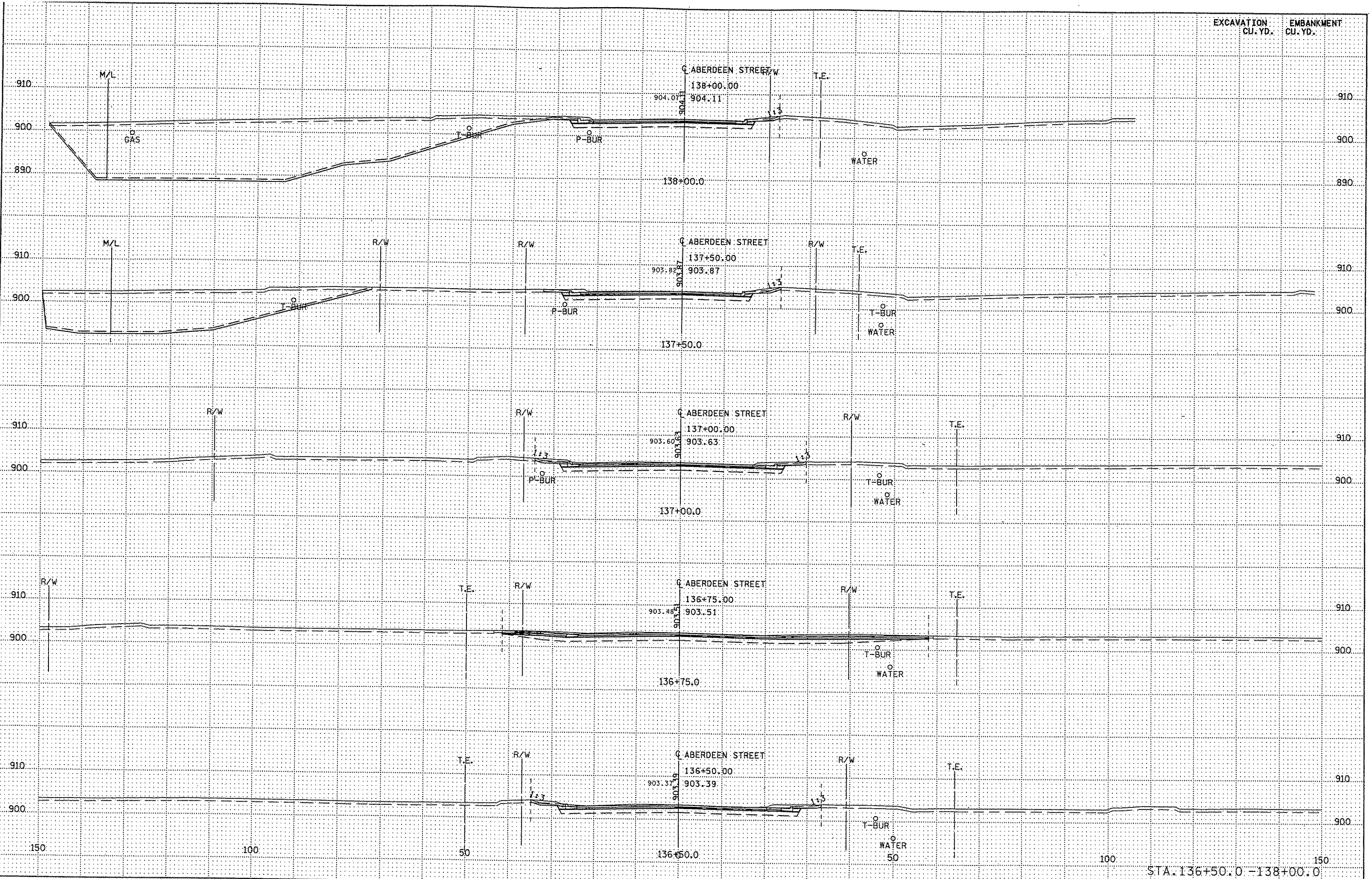
STA. 135+00.0 - 136+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT * : METRO
I/PLOT NAME: 2aberdr_xp206
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Aberdeen\2ABERD_XP2.dgn

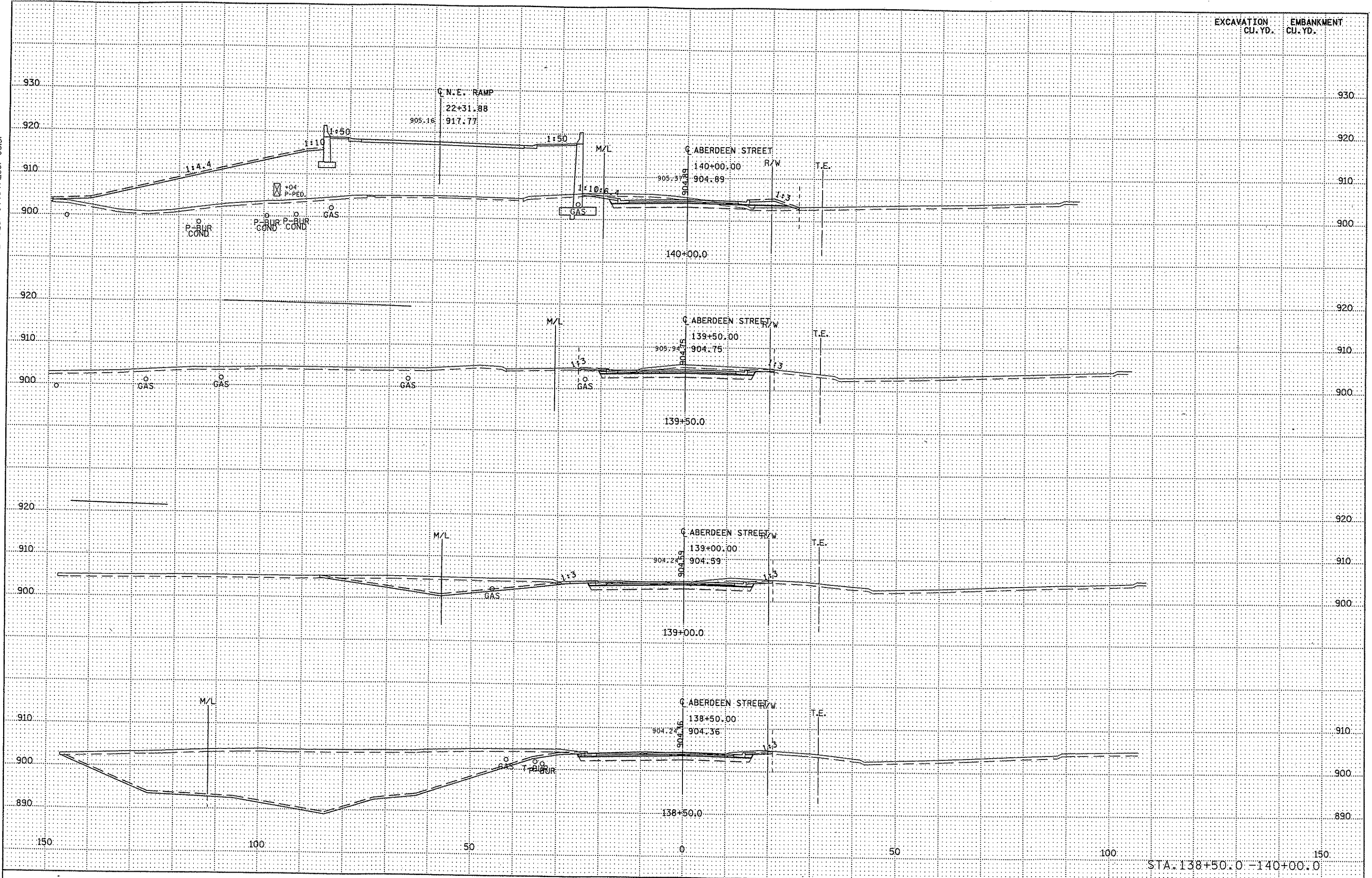


STA. 136+50.0 - 138+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT * : METRO
I/PLOT NAME: 20berd_xp207
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\2ABERD_XP2.dgn

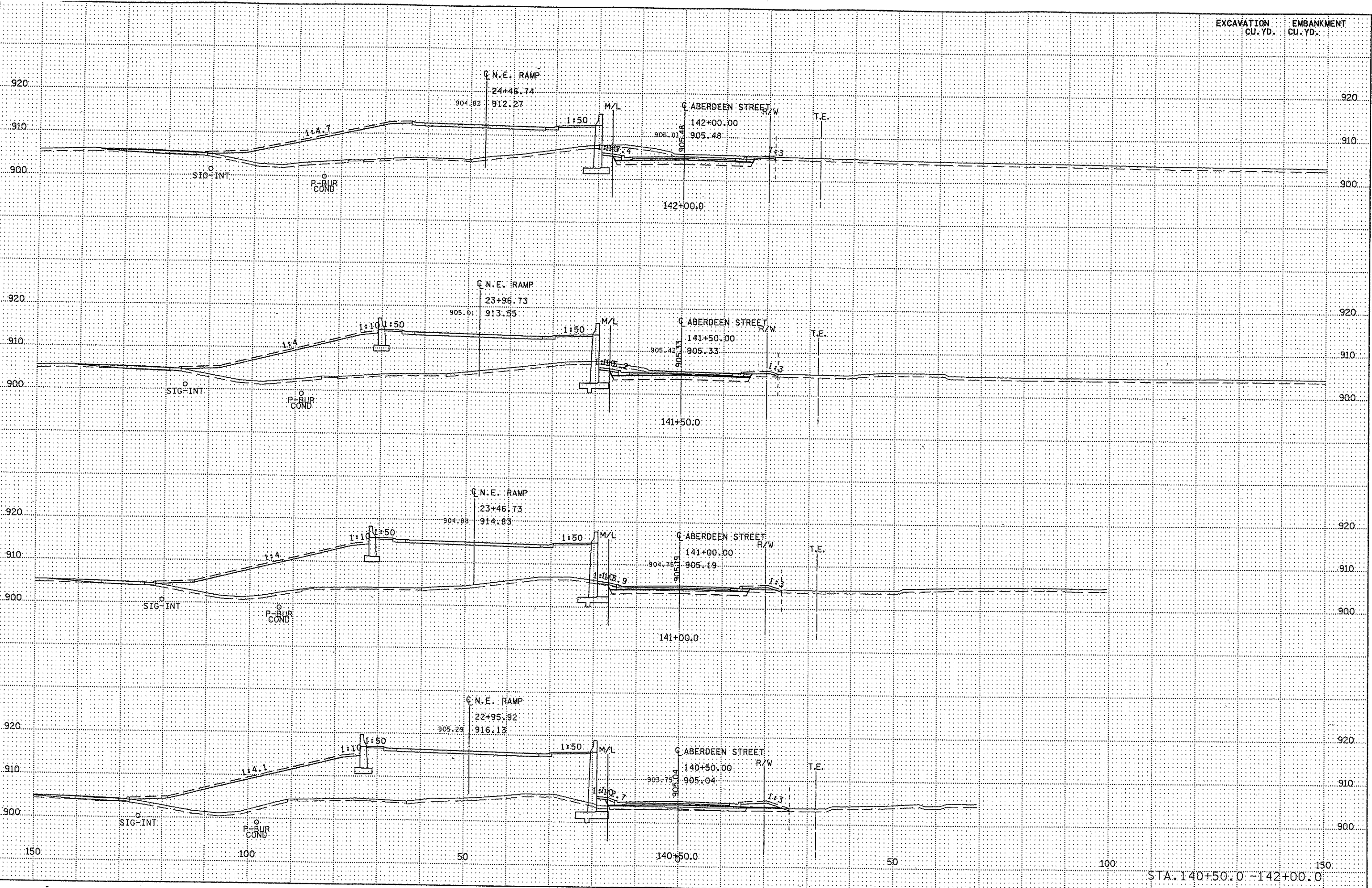


STA. 138+50.0 - 140+00.0

EXCAVATION
CU. YD.
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT #: METRO
IPLOT NAME: 2aberdeen_ap208
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\2ABERD_AP2.dgn



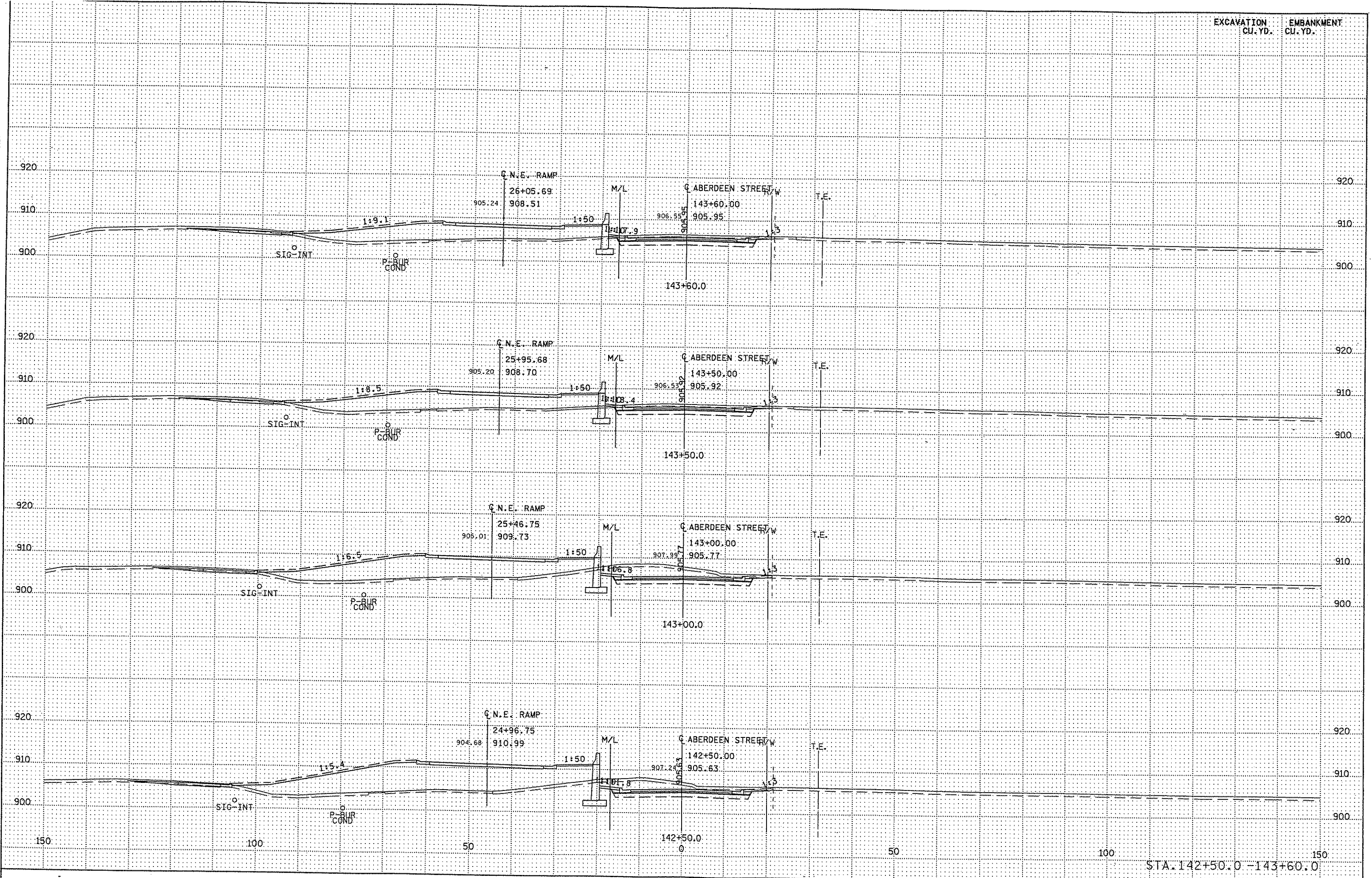
STA. 140+50.0 - 142+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

U:\S\MIC1 * : METRO
I\PROJECT NAME: 2aberdr_4p209
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Aberdeen\2ABERDR_XP2.dgn

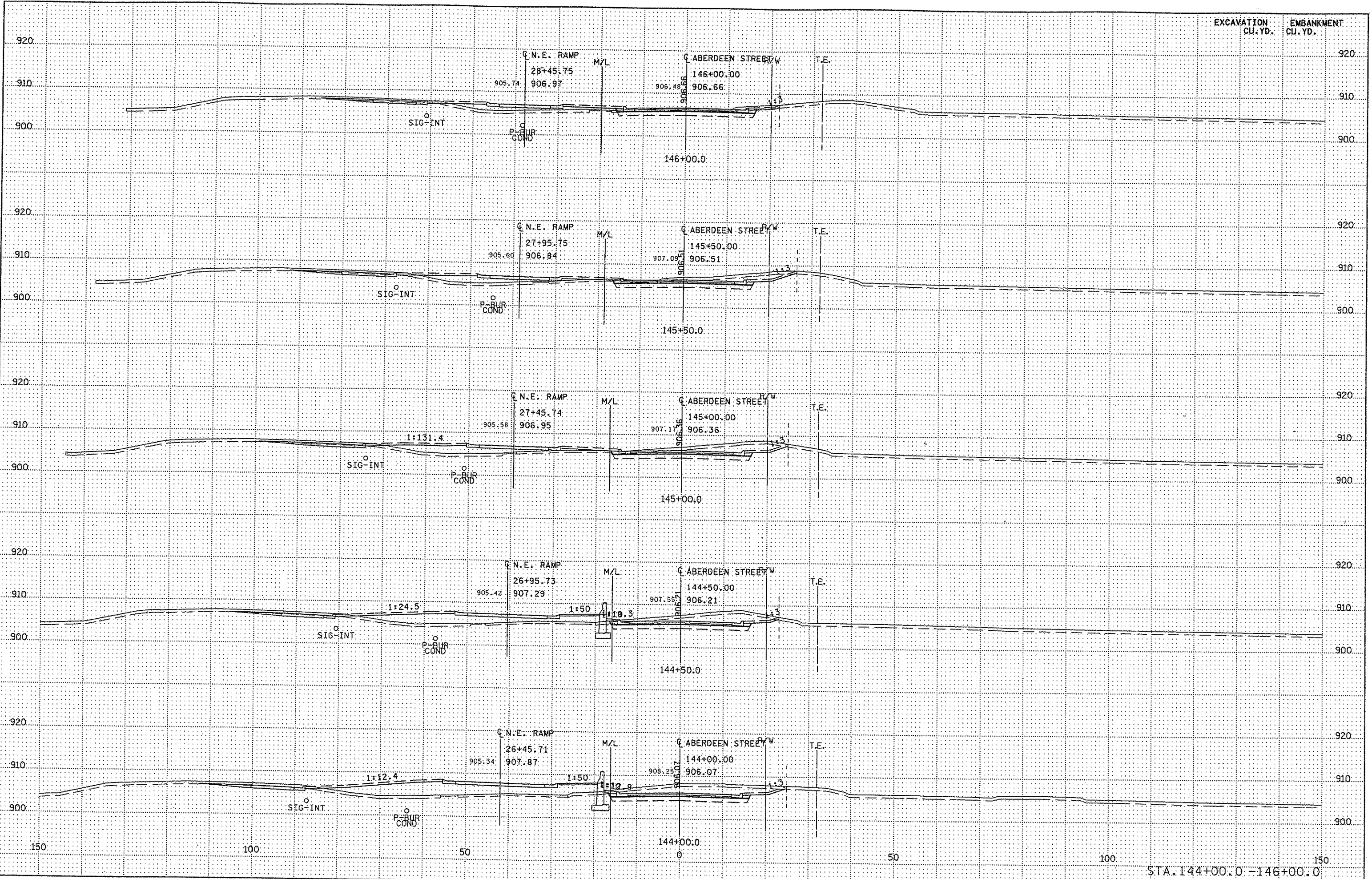


STA. 142+50.0 - 143+60.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT : METRO
I/PLOT NAME: 2aberdr_xp210
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\2ABERDR_XP2.dgn

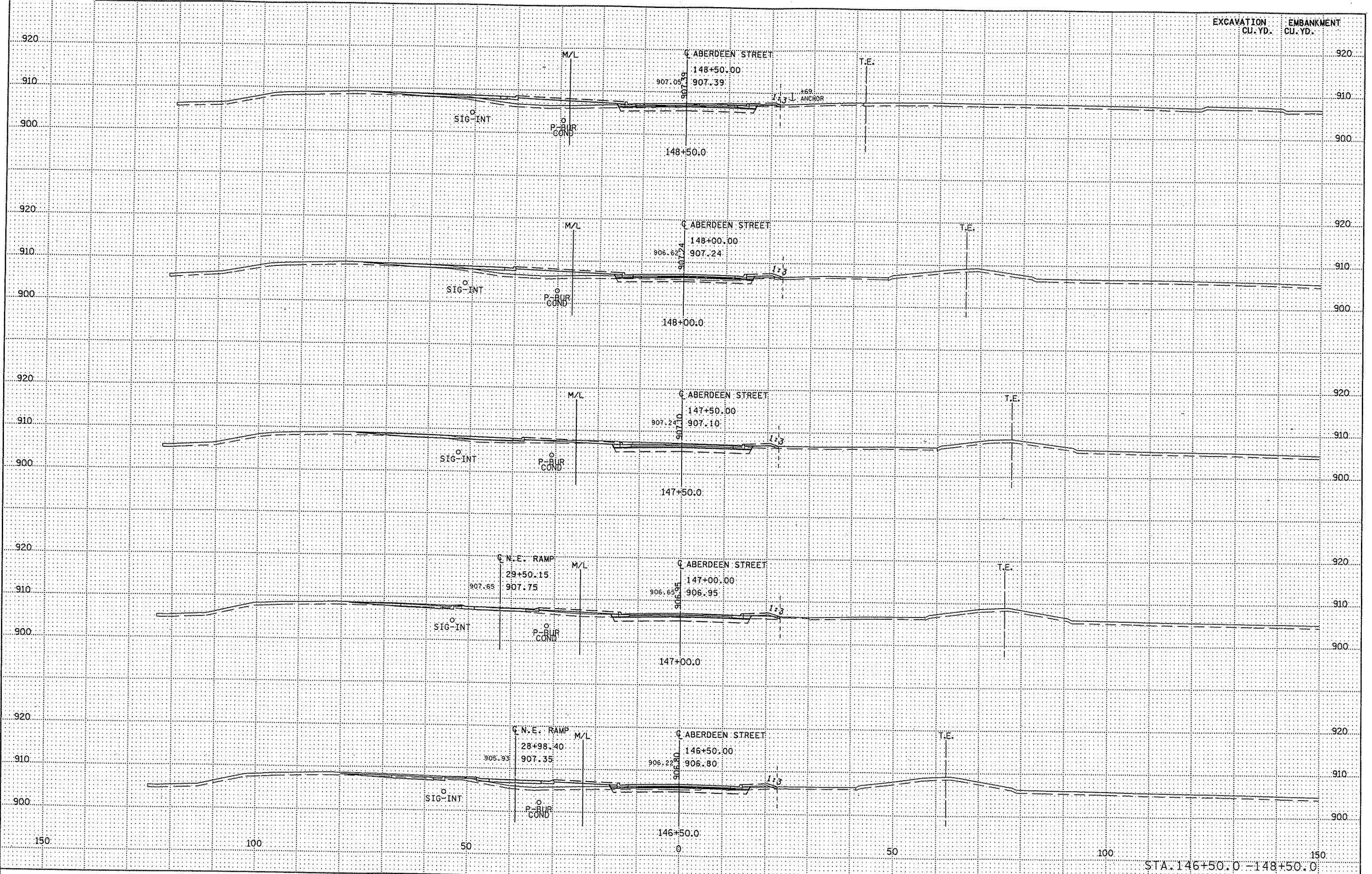


STA. 144+00.0 - 146+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

U:\S\H\1 \ : METRO
I\PLOT NAME: 2aberd_ap211
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\As\Aberdeen\2ABERD_XP2.dgn



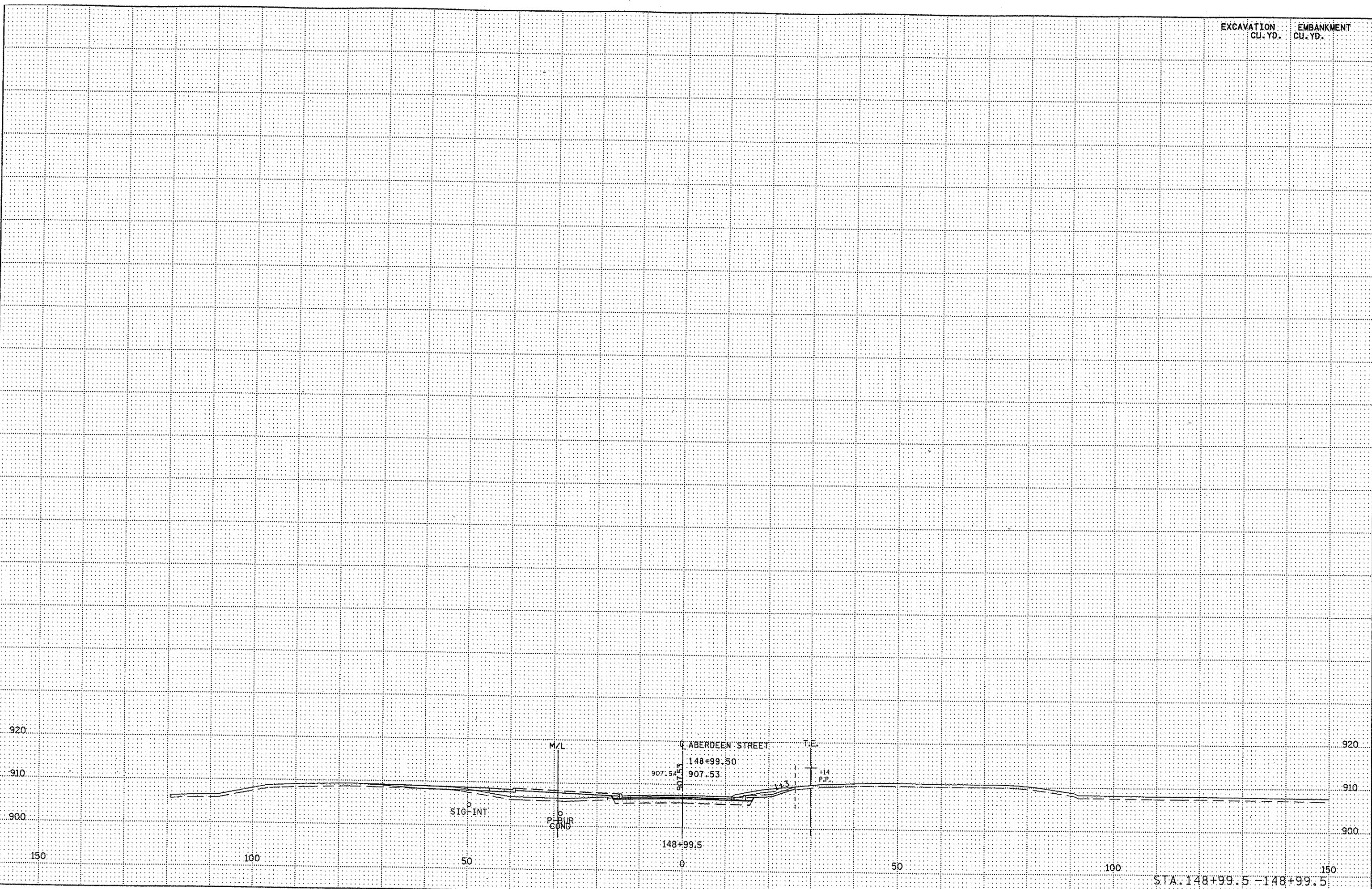
STA. 146+50.0 - 148+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT #: METRO
I/PLOT NAME: 2aberdr_xp212
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\2ABERD_XP2.dgn

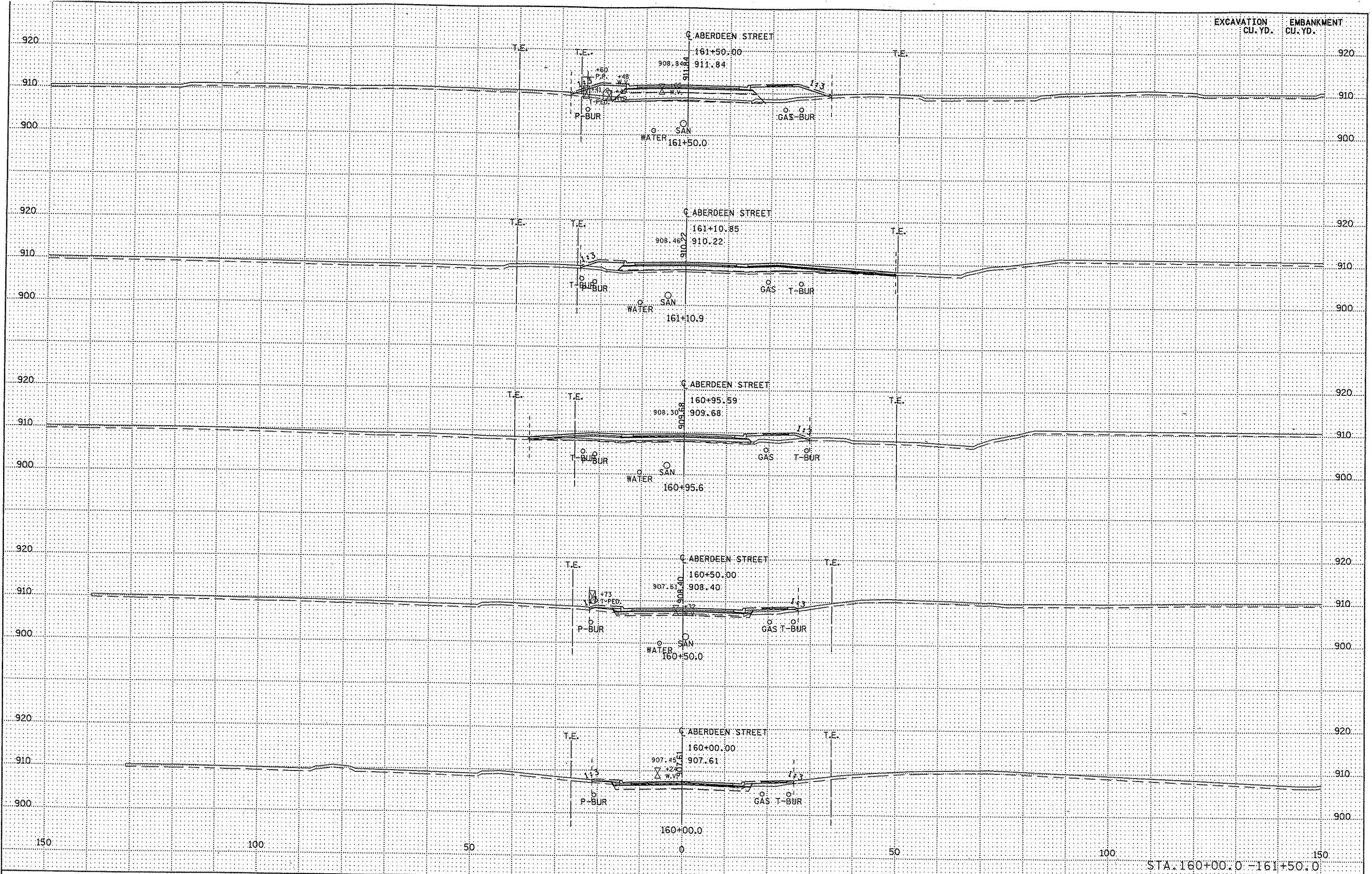


STA. 148+99.5 - 148+99.5

EXCAVATION CU. YD. EMBANKMENT CU. YD.

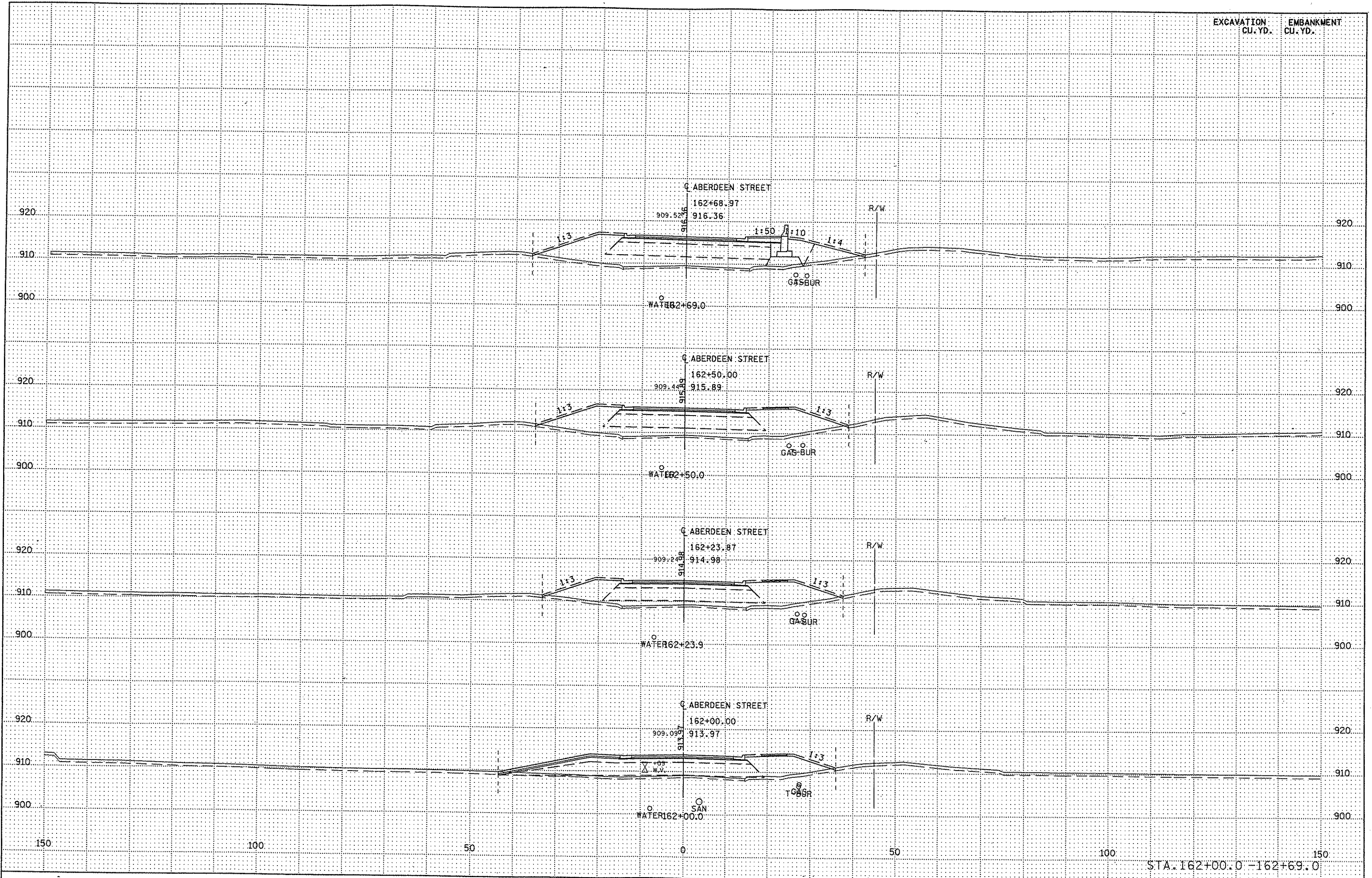
PLOTTED/REVISED: 04-APR-2007 06:51

IPLOT NAME: naber.d_xpr01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\Aberdeen\WABERD_XPN.dgn



PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT * : METRO
 I/PLOT NAME: naber.d_xm02
 PATH & FILENAME: SADESIGN\065\0208\123\Final\As\Aberdeen\ABERD_XPM.dgn

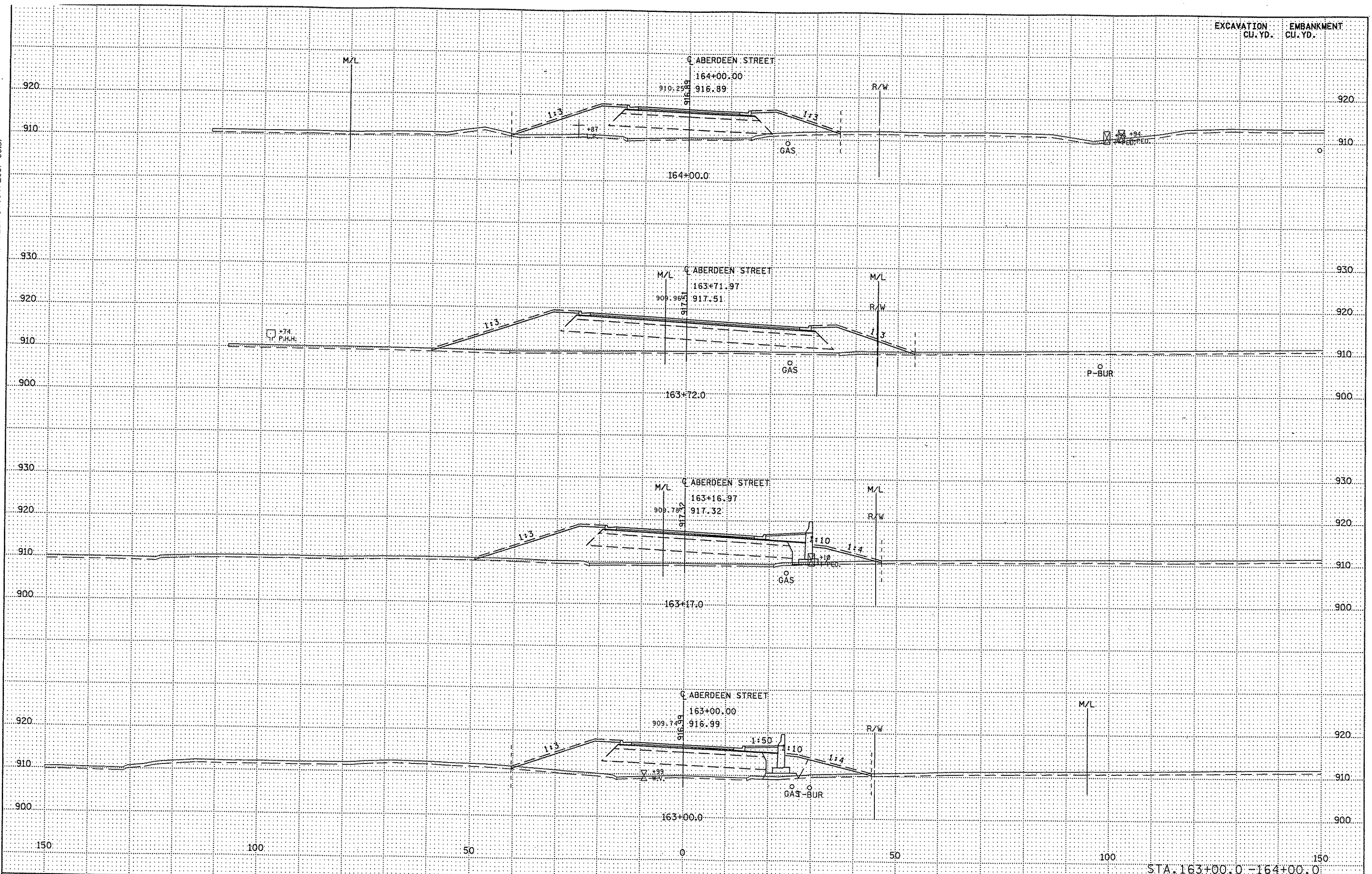


STA. 162+00.0 - 162+69.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISTRICT : METRO
I/PLOT NAME: rdberd_xpr03
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Aberdeen\WABERD_XPM.dgn

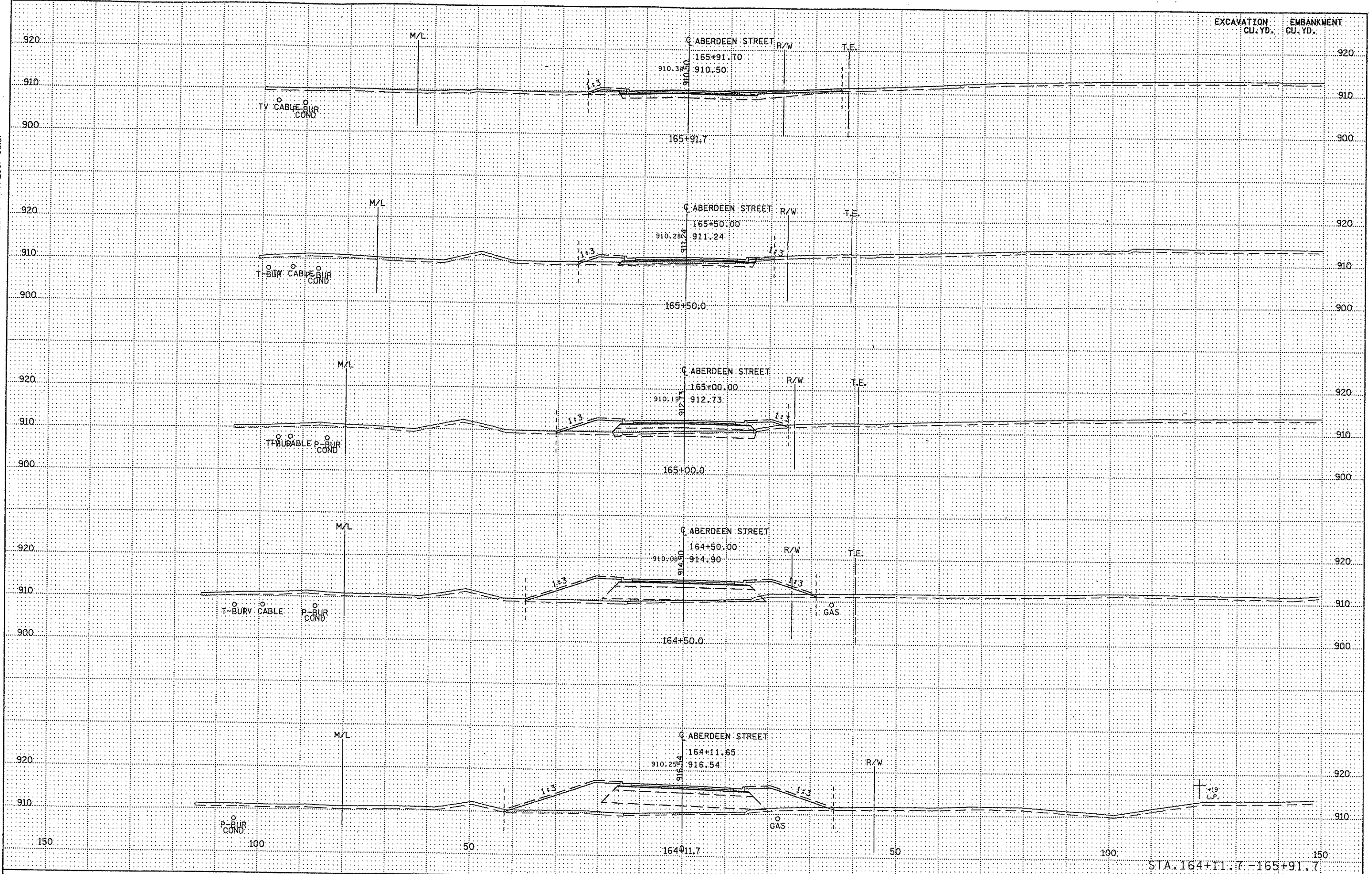


STA. 163+00.0 - 164+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DI: DISTRICT # : METRO
I: PLOT NAME: naber.d_xpr04
P: PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Aberdeen\Aberdeen_XPR.dgn

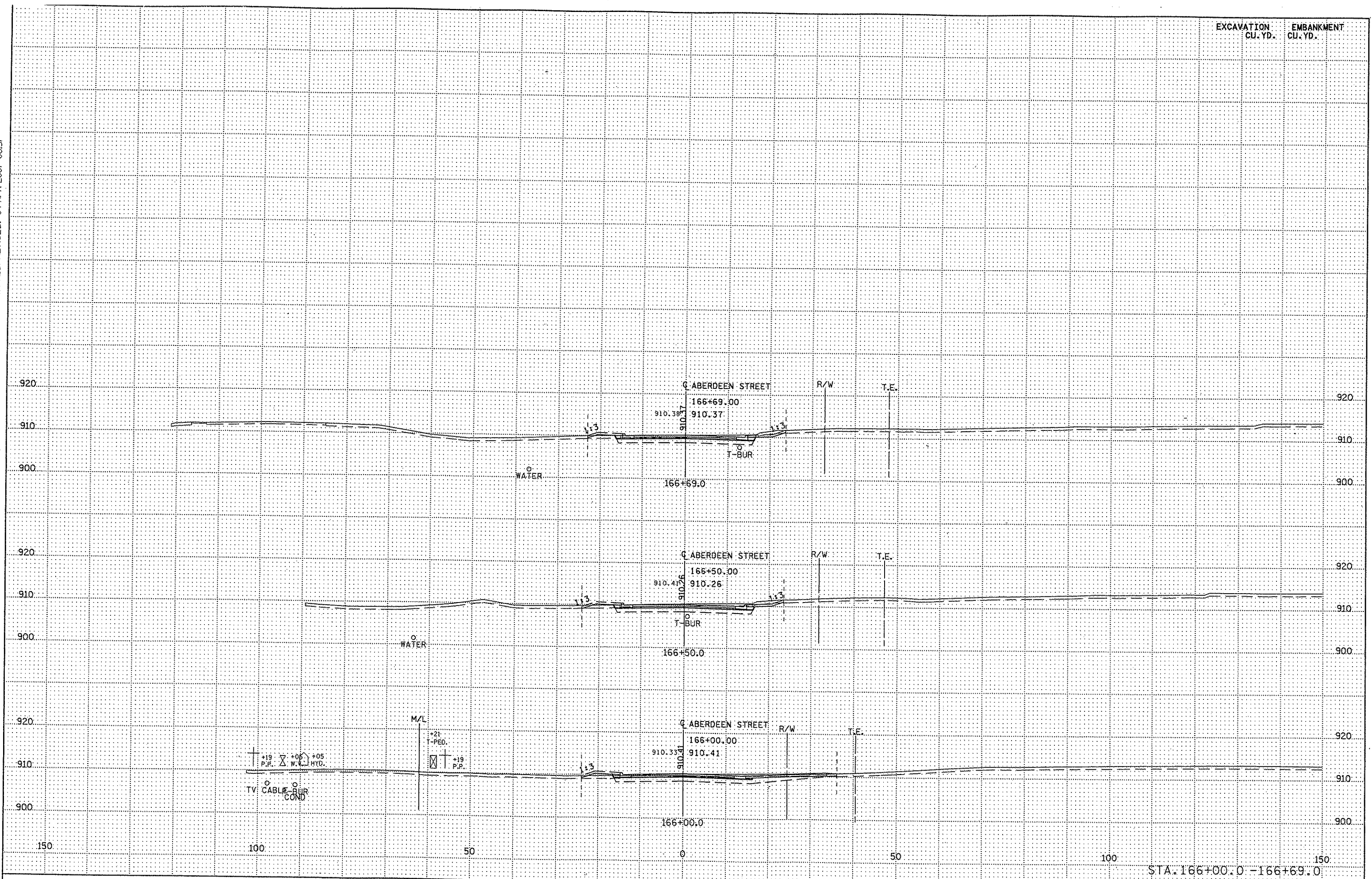


STA. 164+11.7 - 165+91.7

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:51

DISPATCH # : METRO
PLOT NAME: naber_d_xpr05
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\As\Aberdeen\WABERD_XPR.dgn

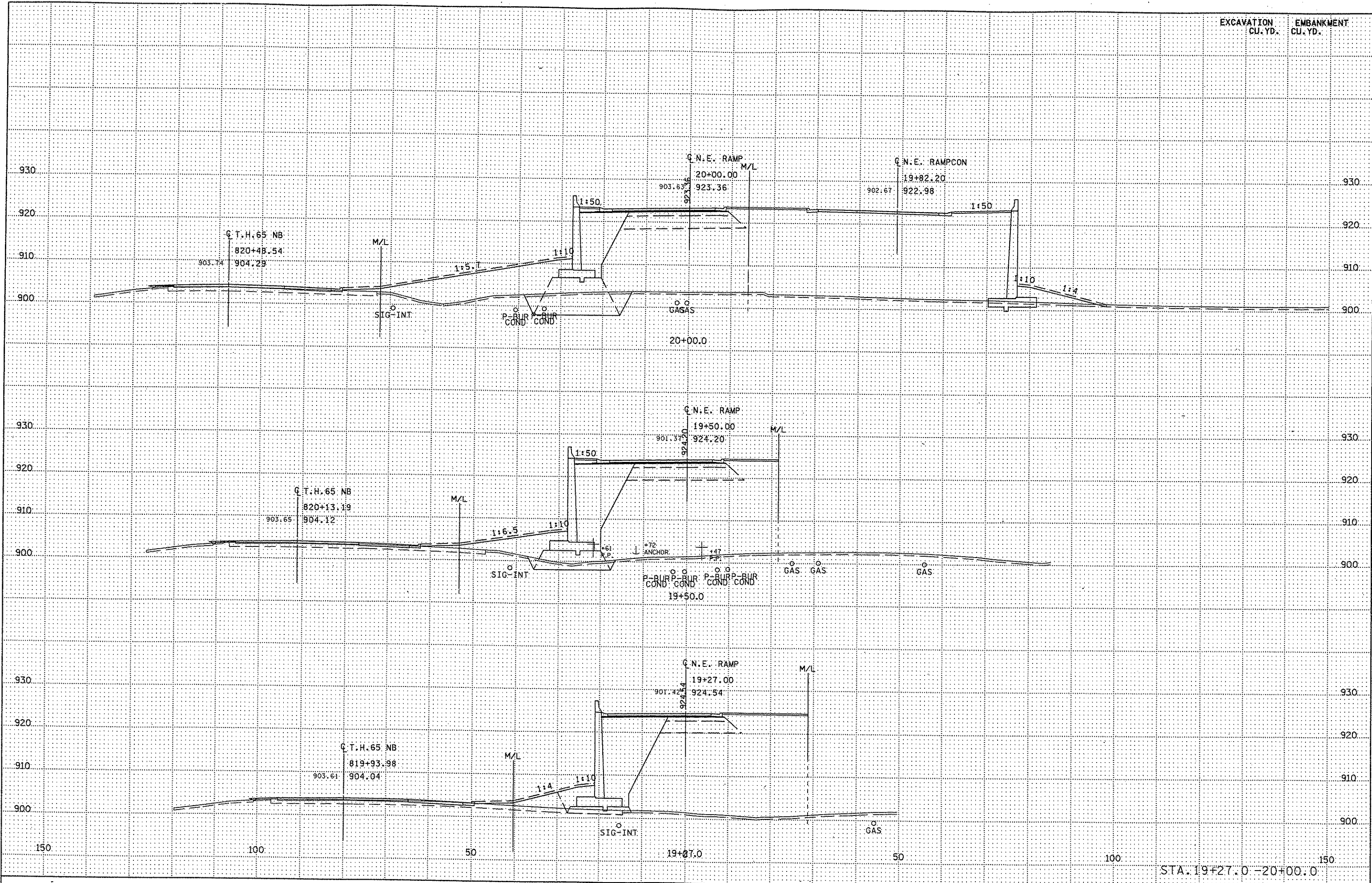


STA. 166+00.0 - 166+69.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

DISTRICT * : METRO
PLOT NAME: nr_xp101
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\Nrs\WFR\er_xp1.dgn

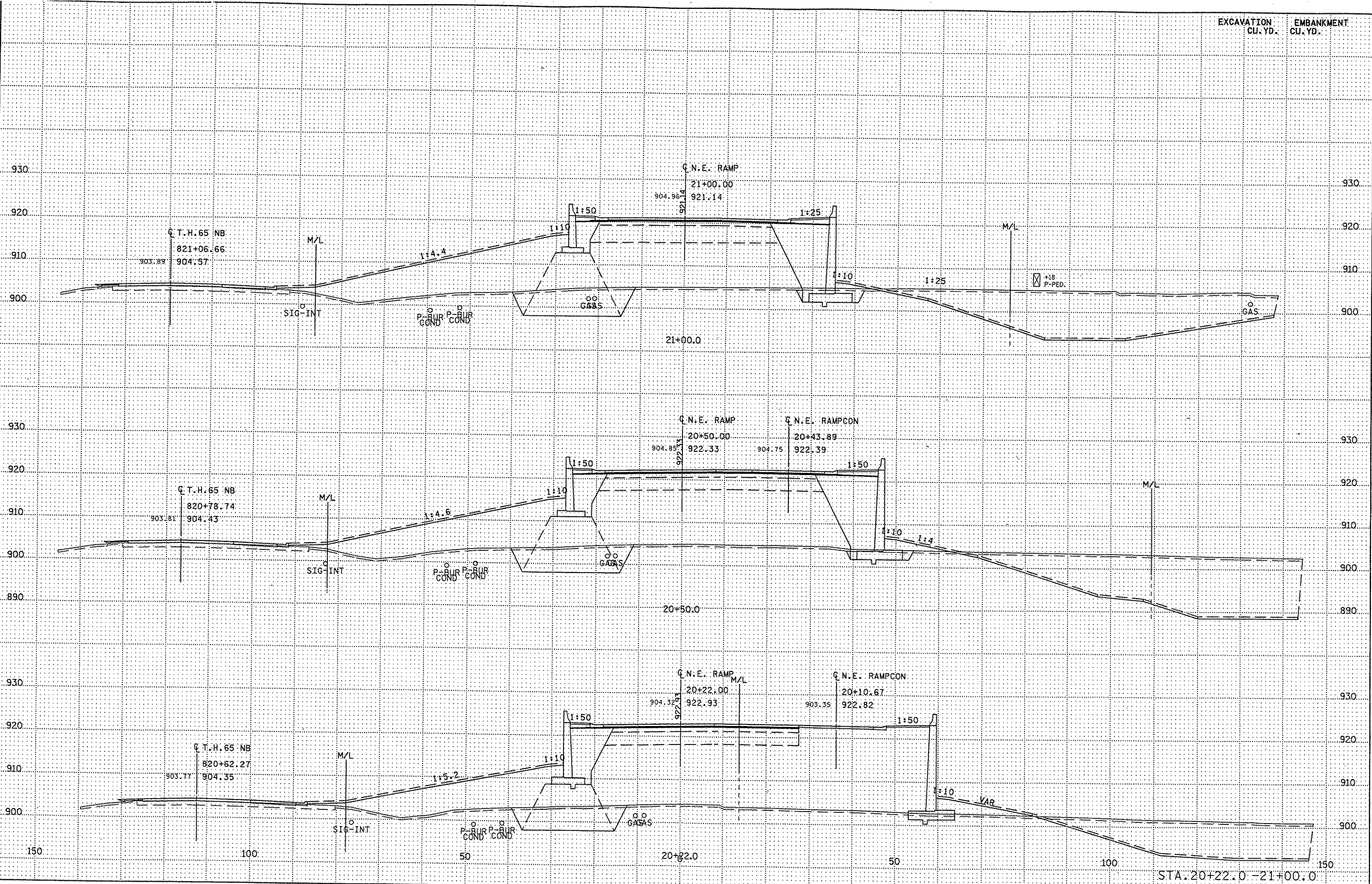


STA. 19+27.0 - 20+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

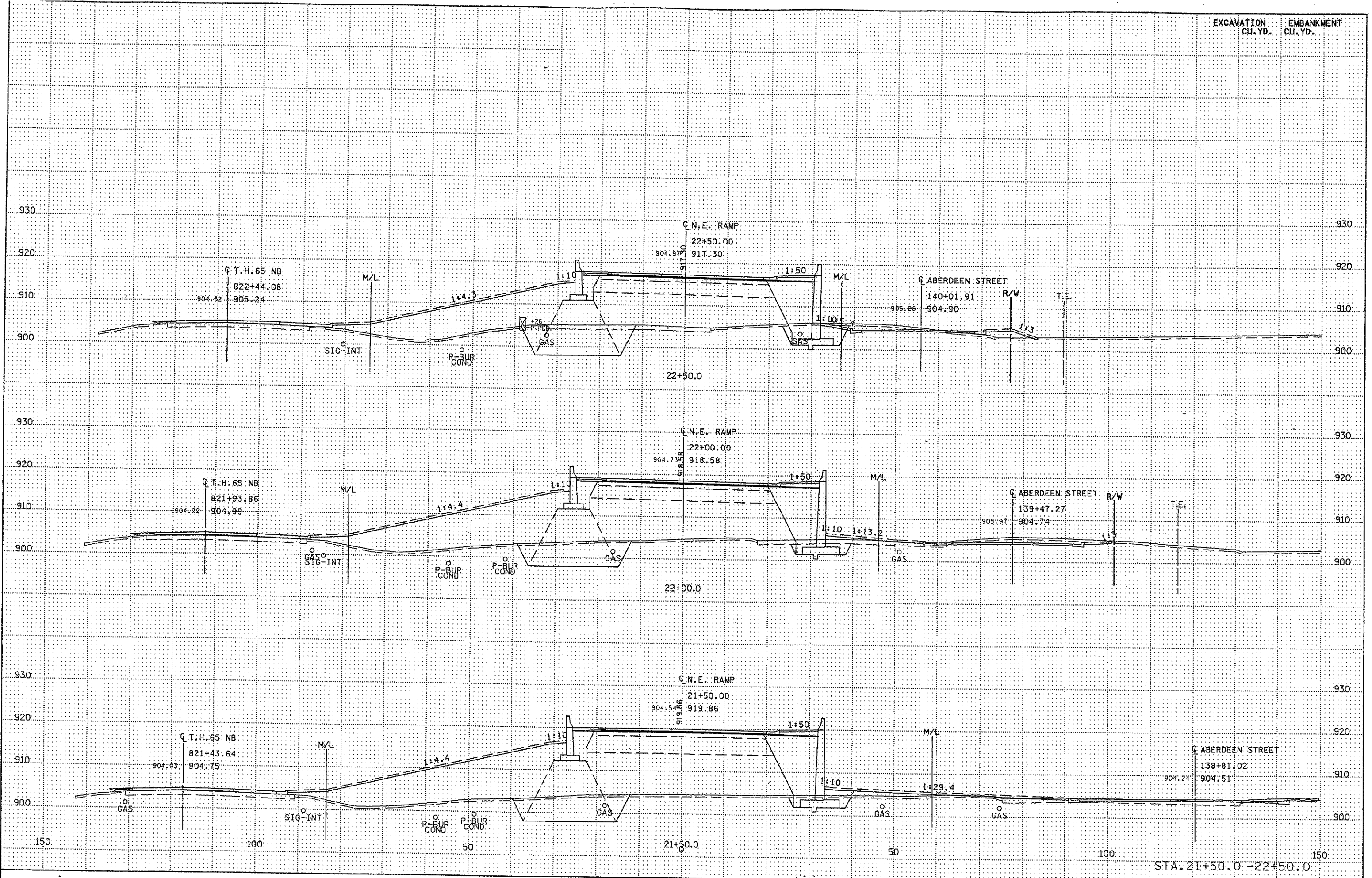
U:\S\MCI * : METRO
I:\PLOT NAME: net_xp102
PATH & FILENAME: S:\DESIGN\065\0208\123\1\Ina\vs\MER\ner_xp1.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

DISTRICT: METRO
PLOT NAME: nr_xp103
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\MS\MER\vr_xp1.dgn



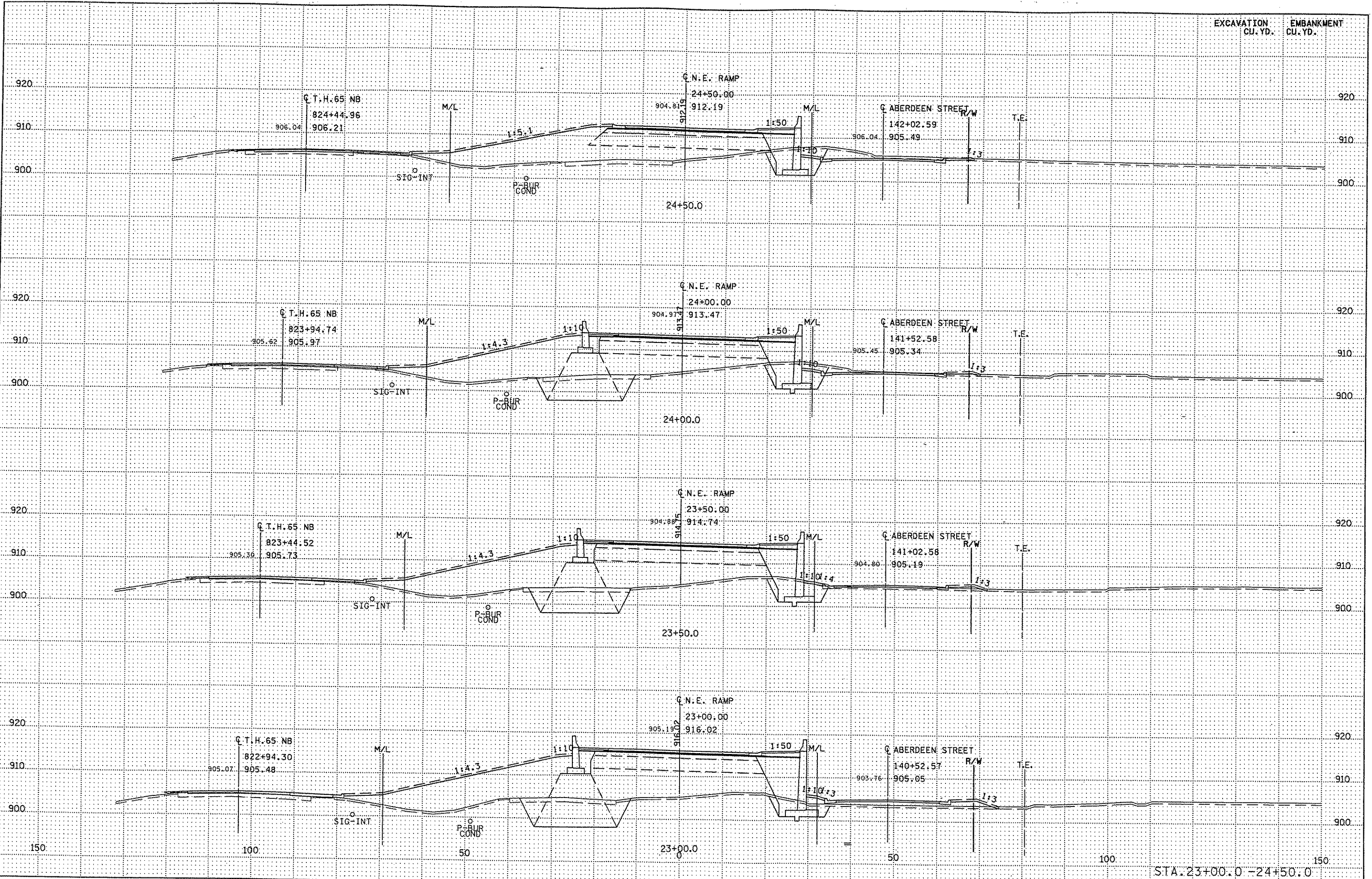
EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

PLT & FILENAME: S:\DESIGN\065\0208\23\Final\SWER\ref_xpl.dgn

PROJECT #: METRO
PLOT NAME: ref_xpl04



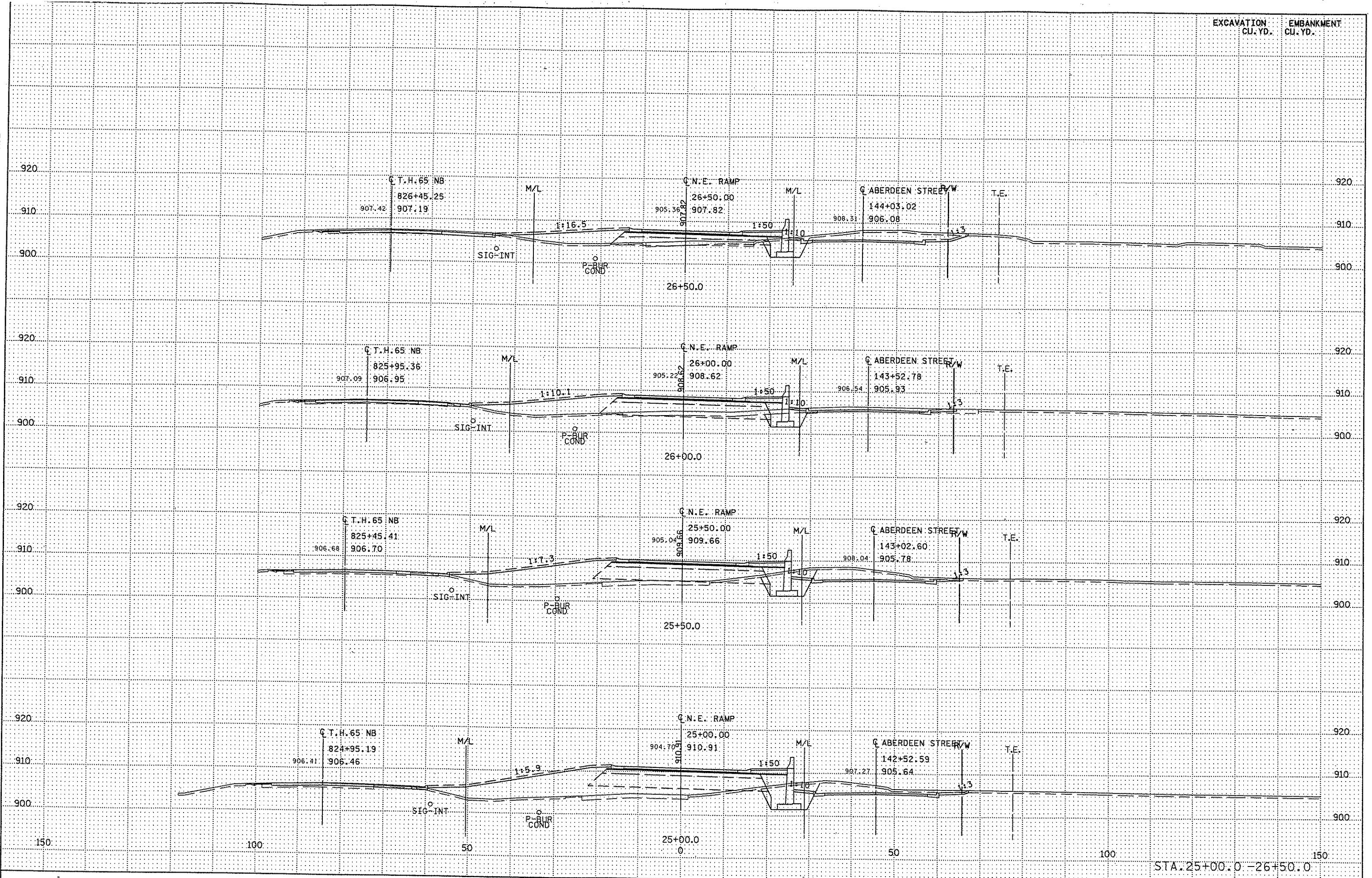
STA. 23+00.0 - 24+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\WE\Frer_XPl.dgn

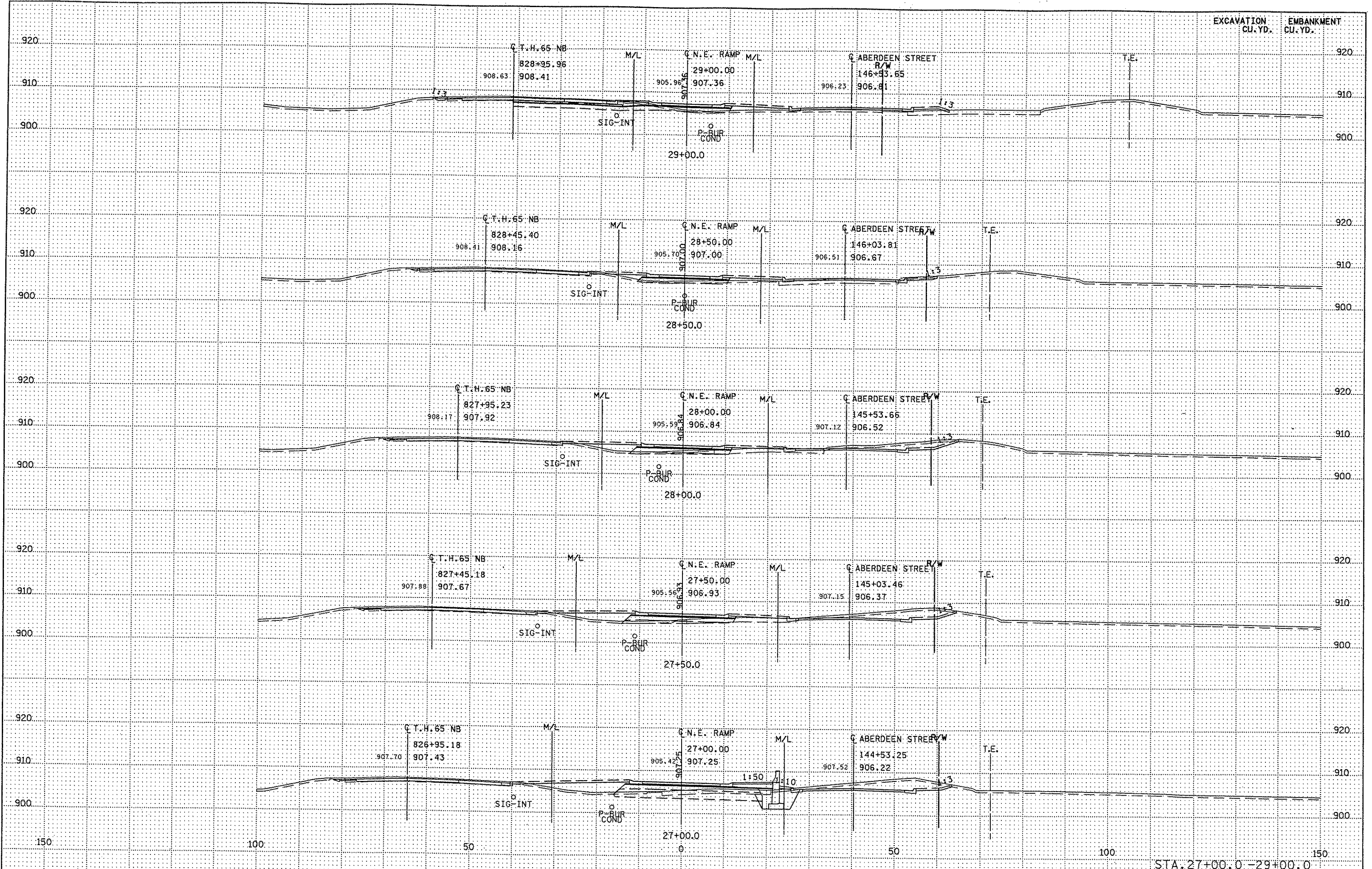
U:\S\HC1 * : METRO
I\PLOT NAME: fr_xpl05



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

DIS/RICT * : METRO
I/PLT NAME: nr_xpl06
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\WER\nr_xpl.dgn



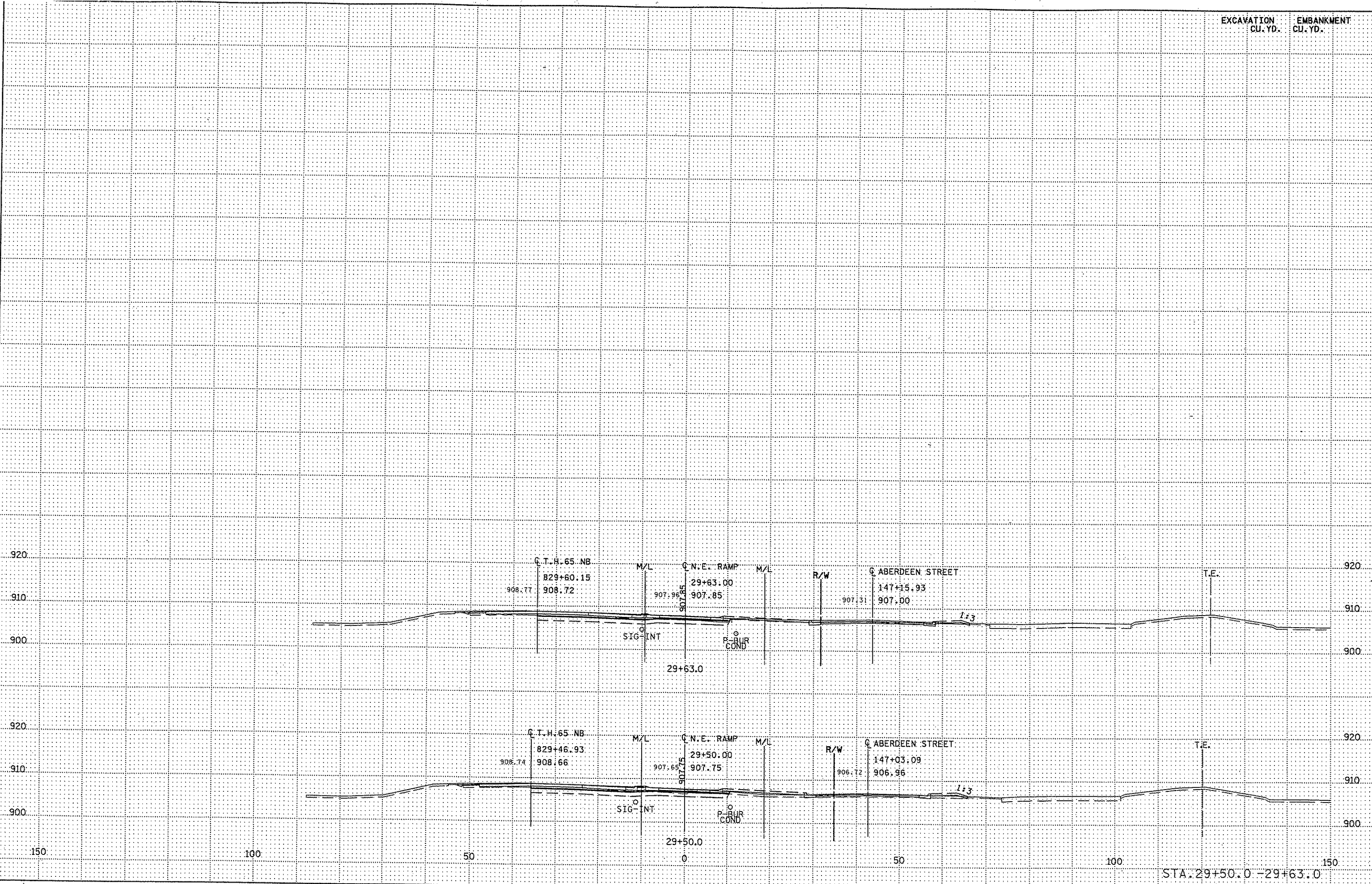
STA. 27+00.0 - 29+00.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

DISTRICT : METRO
PLOT NAME: nr_xp107
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\WER\ner_xp1.dgn

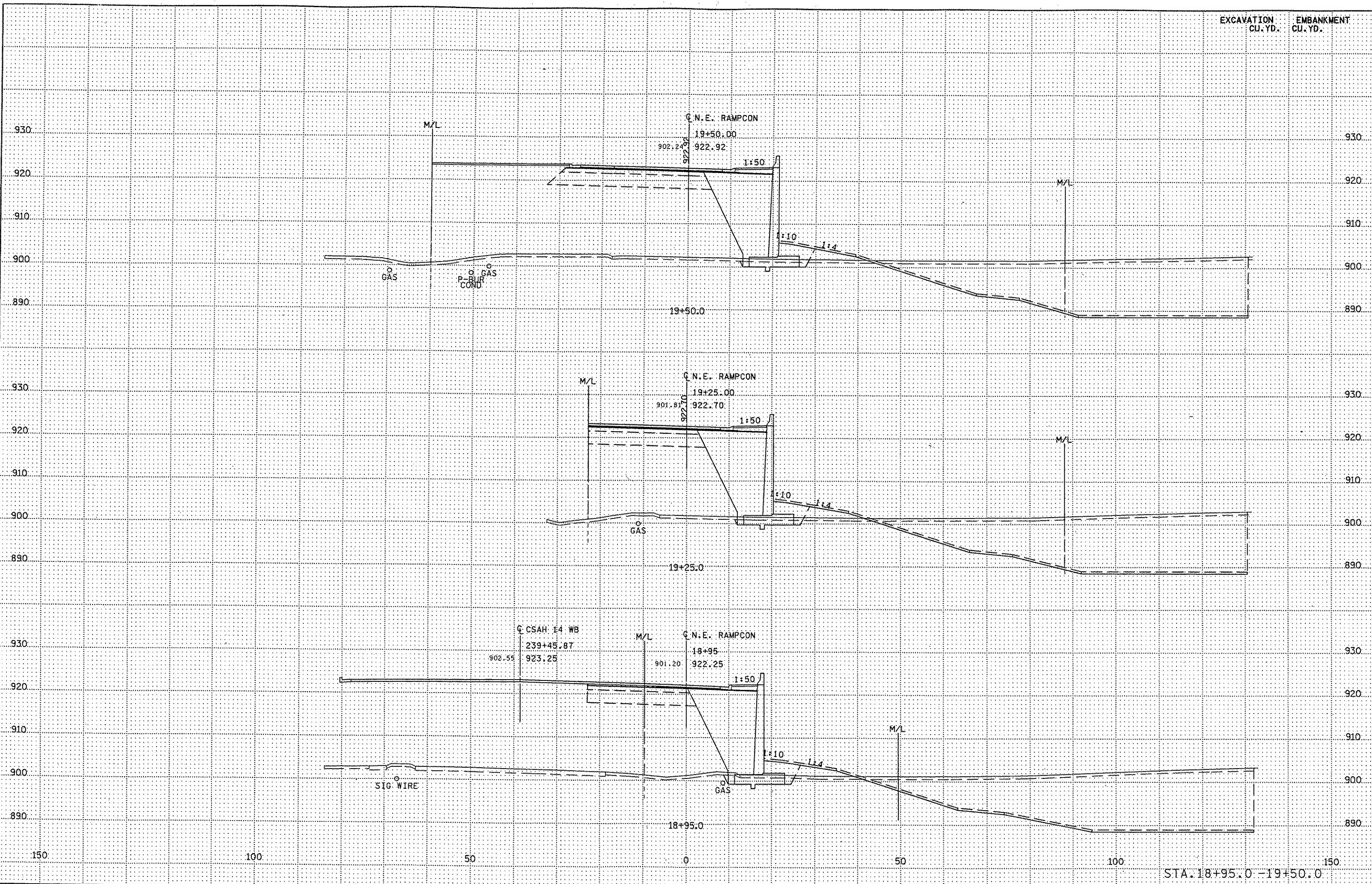


STA. 29+50.0 - 29+63.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

DISTRICT * : METRO
I/PLOT NAME: hcrcon_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\us\WE\hcrcon_xpl.dgn

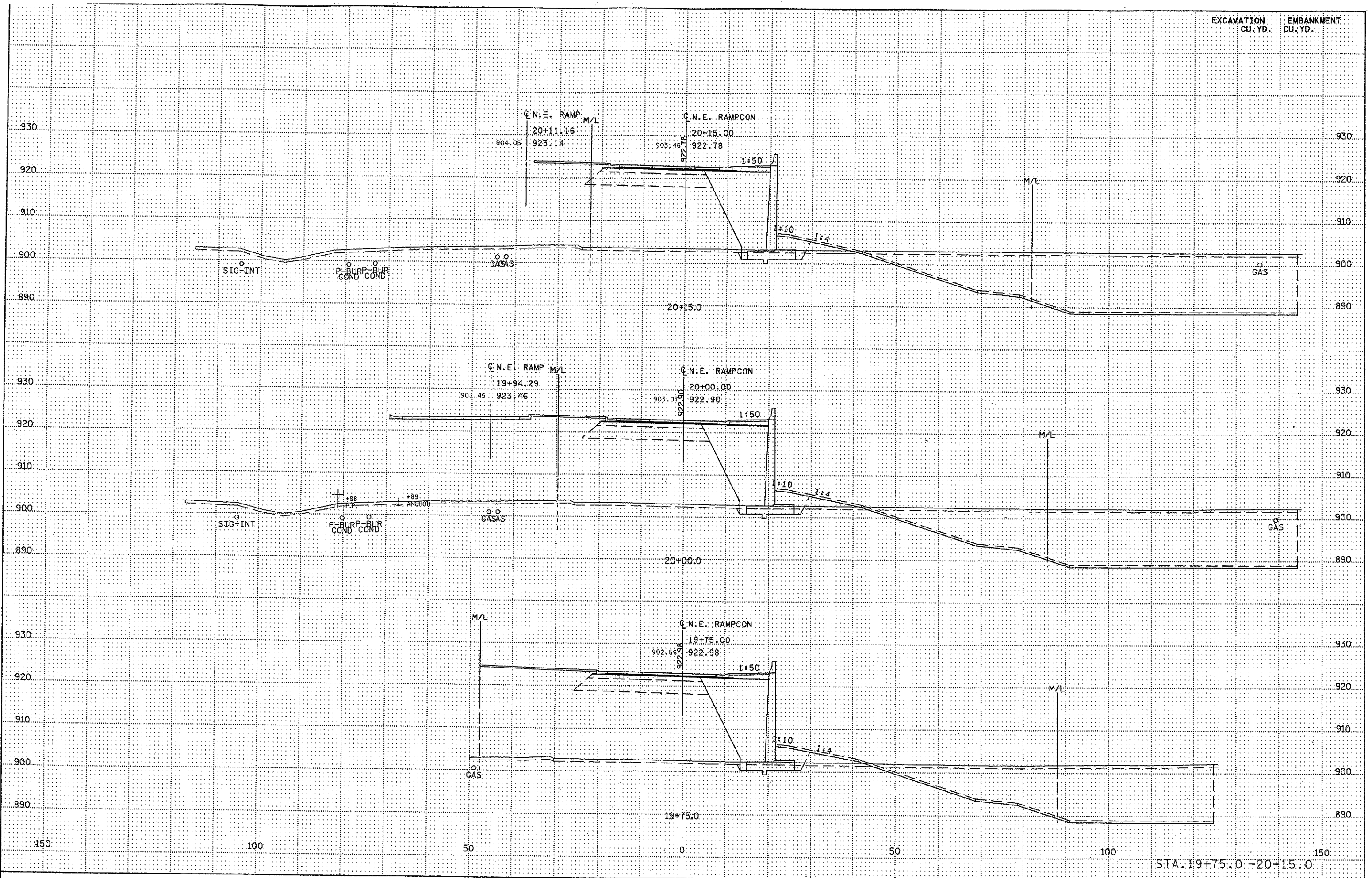


STA. 18+95.0 - 19+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:52

USER: MLIHO
IFLOT NAME: nercon_xpl02
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\NE Rcon\nercon_xpl.dgn

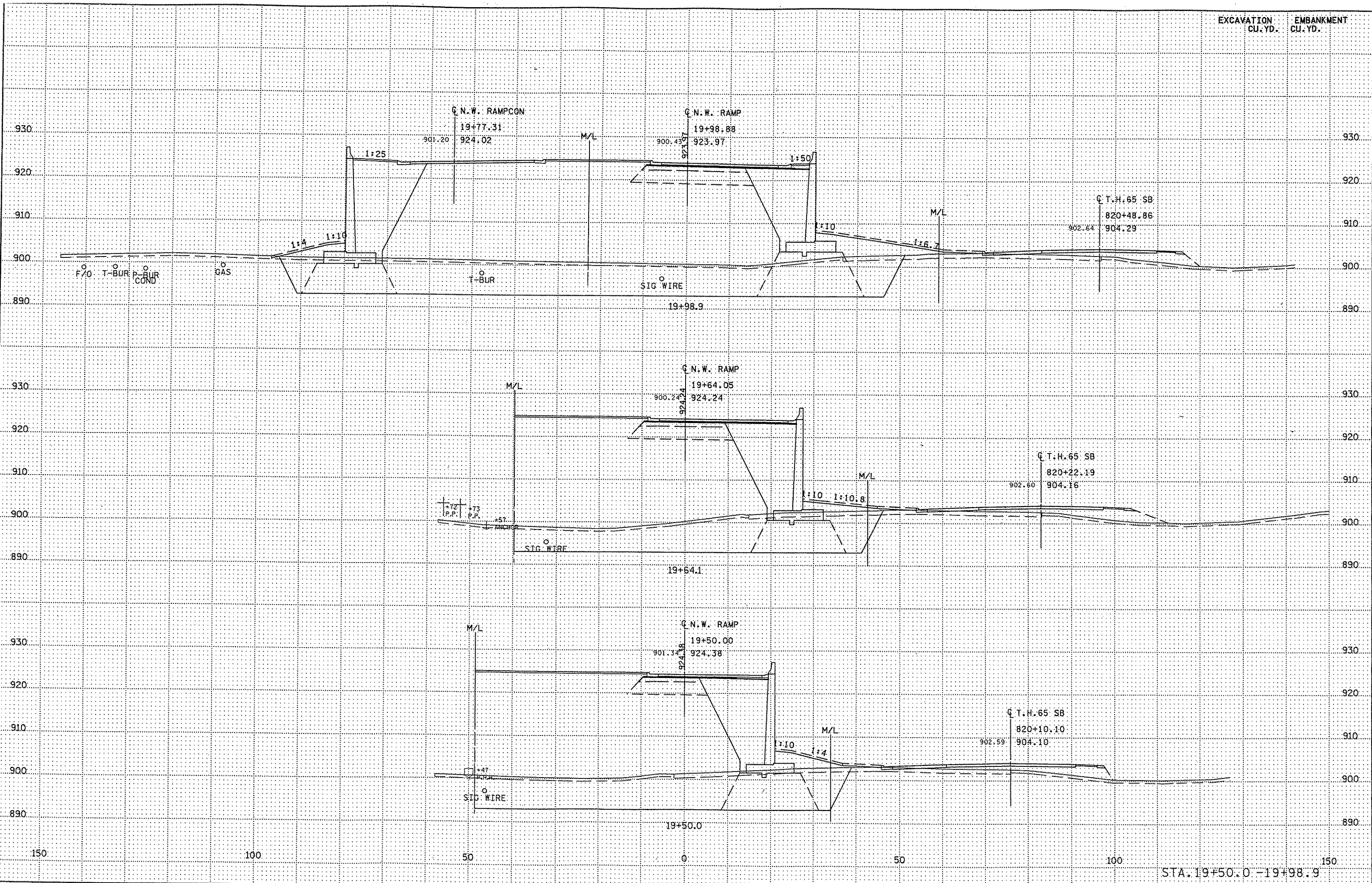


STA. 19+75.0 - 20+15.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:53

DISTRICT #: METRO
 I/PLOT NAME: nwr_xp101
 PATH & FILENAME: S:\DESIGN\0208\23\Final\vs\WFR\wfr_xp1.dgn

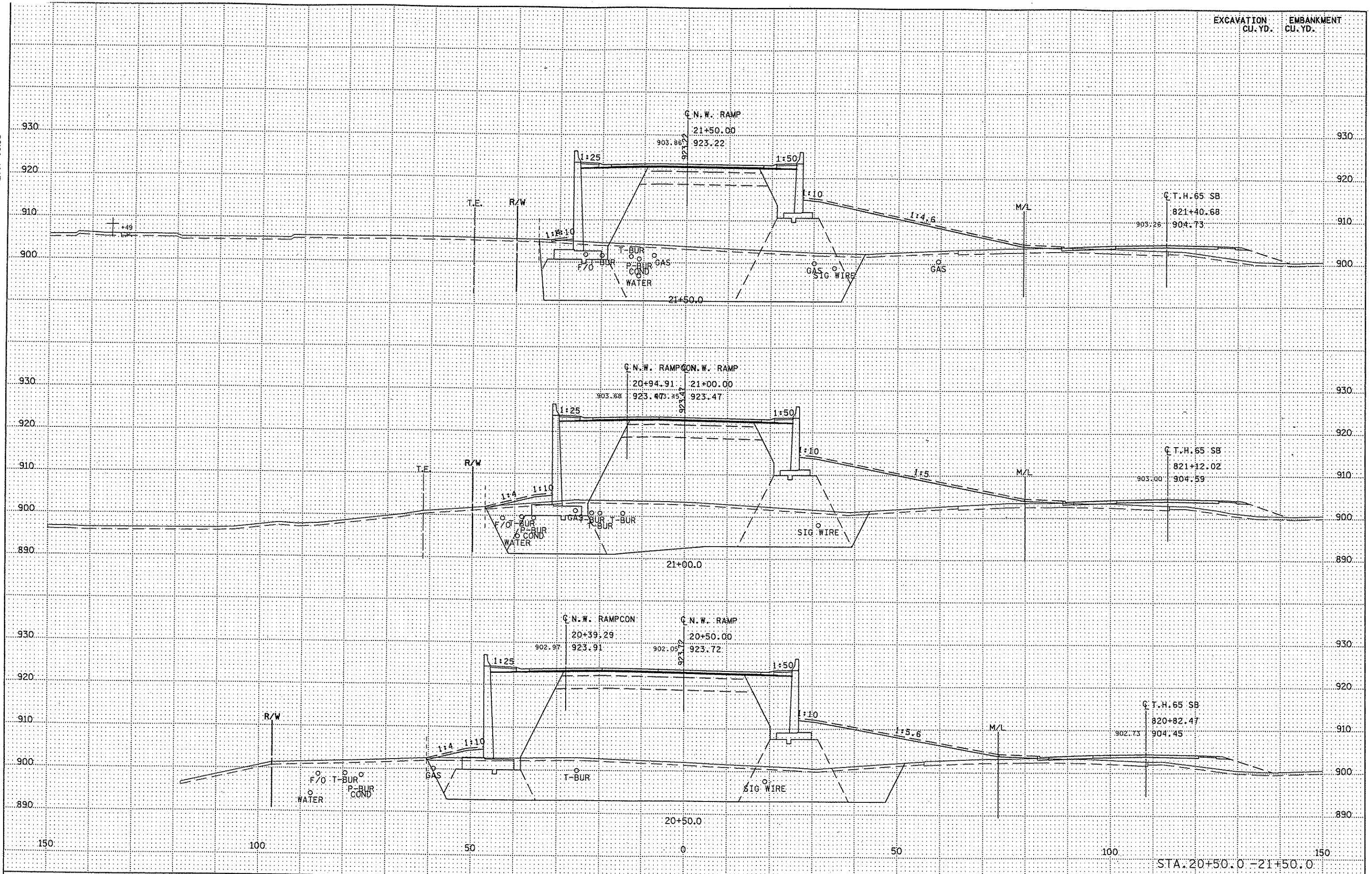


STA. 19+50.0 - 19+98.9

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:53

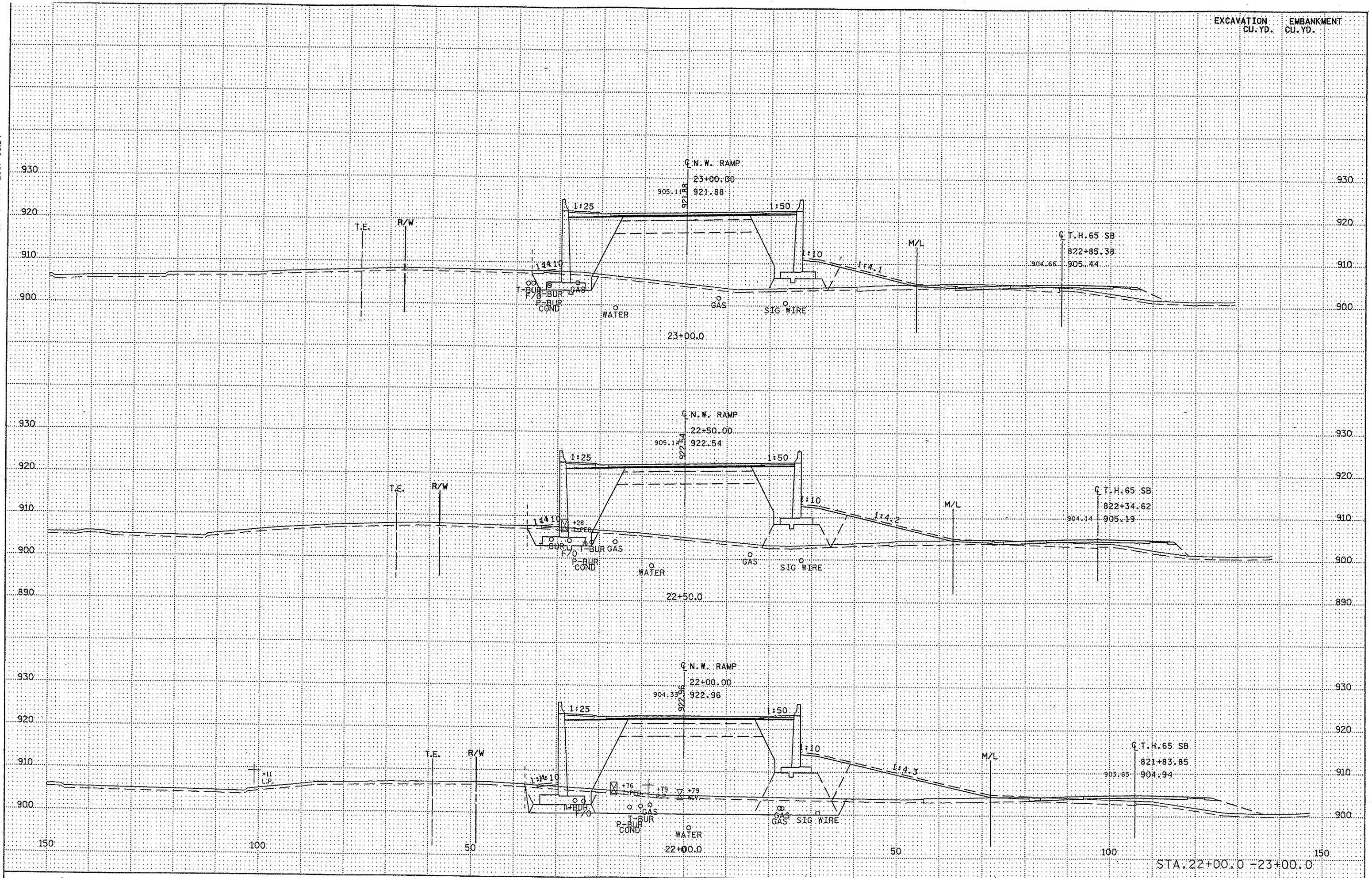
DISTRICT #: METRO
I/PLOT NAME: nwr_xp02
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\WVR\wvr_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT : METRO
PLOT NAME: nwr_xp003
PATH & FILENAME: SADESIGN065\0208\23\Final\vs\WVR\wvr_xpl.dgn

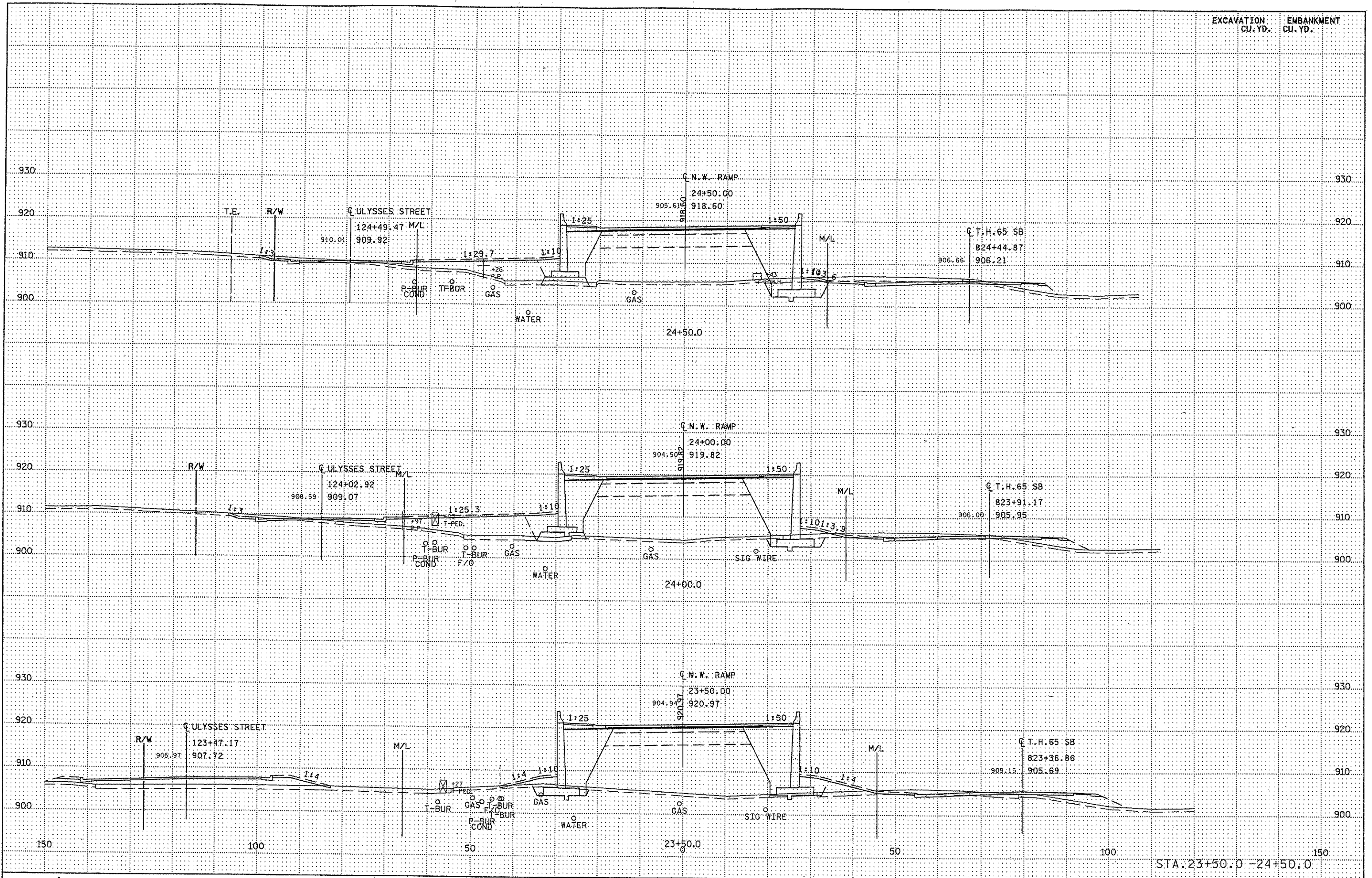


STA. 22+00.0 - 23+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT : METRO
PLOT NAME: rwr_xp004
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\WIR\wr_xpl.dgn

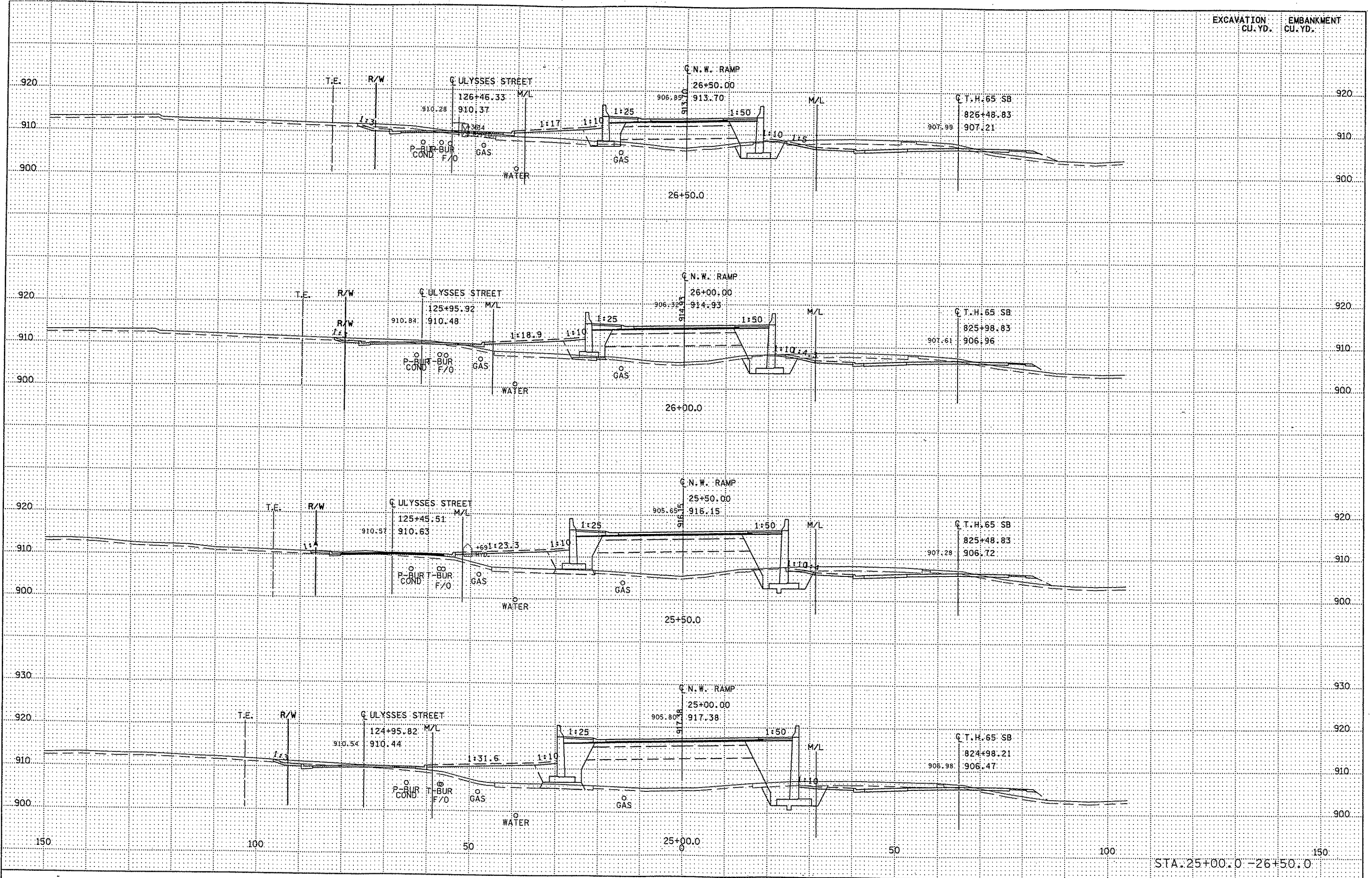


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT #: METRO
I/PLOT NAME: nwr_4p105
PATH & FILENAME: S:\DESIGN\065\0208\123\F\Incl\NWS\NWR\NWR_4p1.dgn

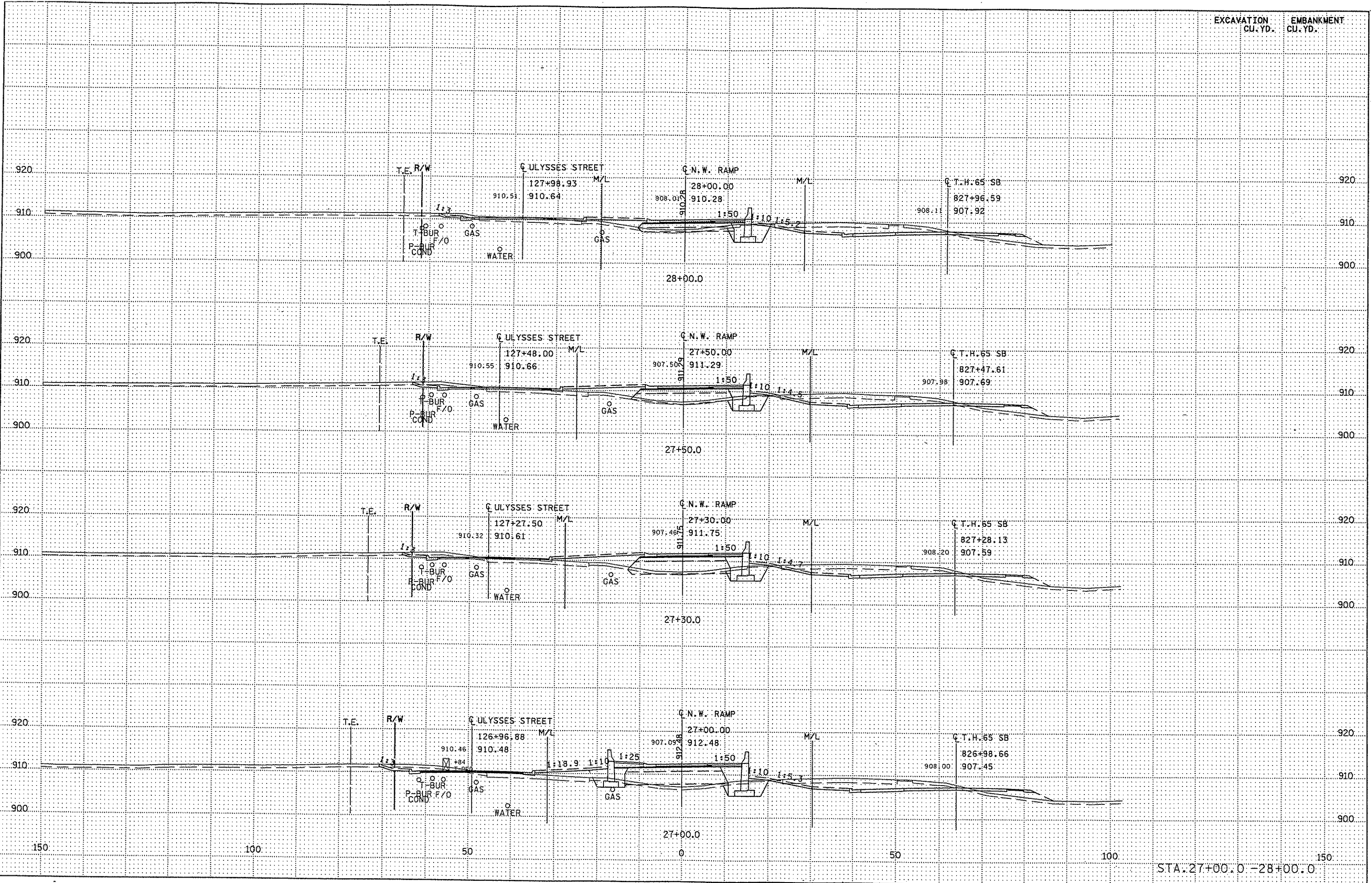


STA. 25+00.0 - 26+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT #: METRO
PLOT NAME: rnr_xp06
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\WVR\wvr_xpl.dgn

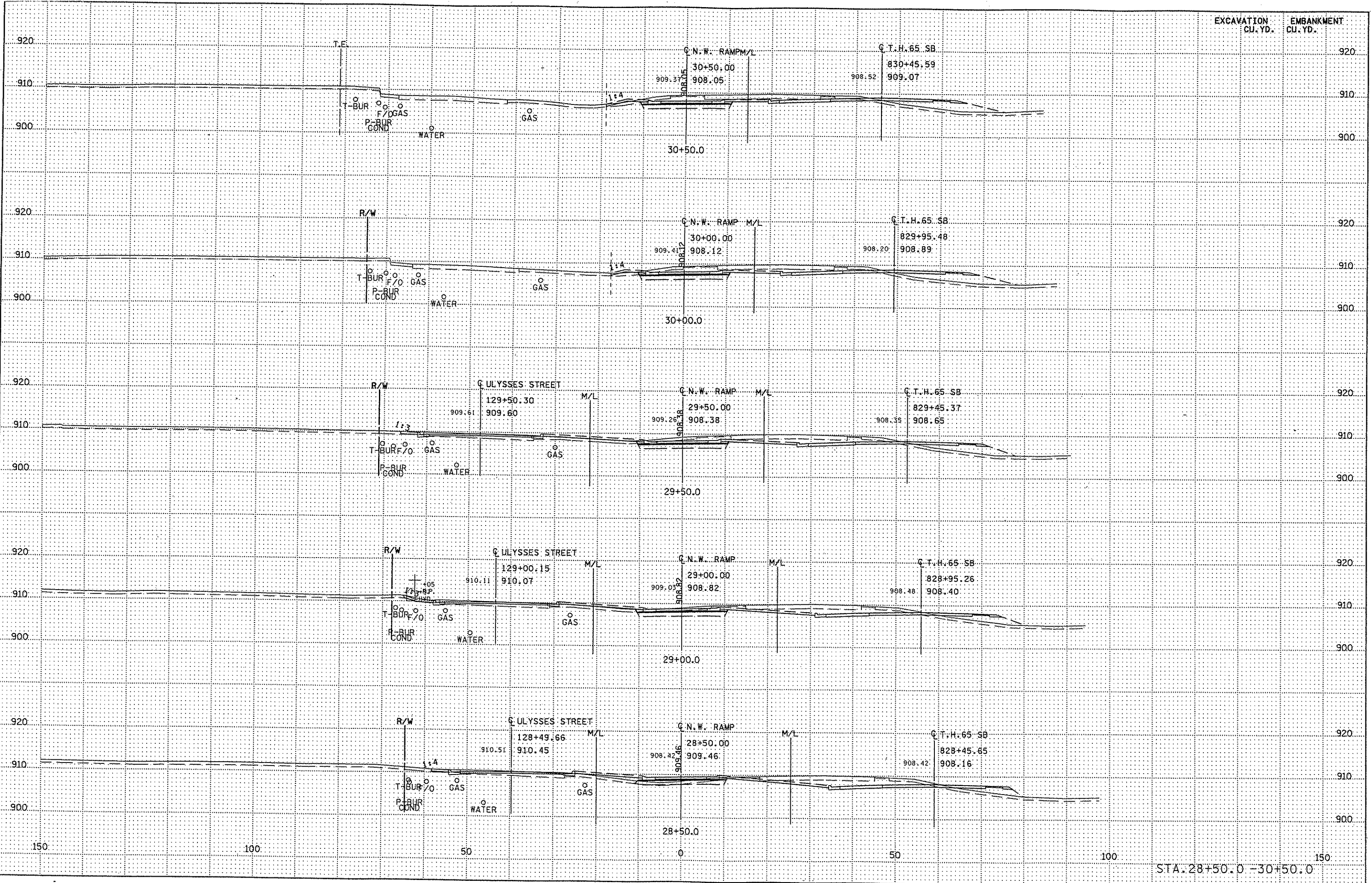


STA. 27+00.0 - 28+00.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT #: METRO
IPLOT NAME: RMT_Apl07
PATH & FILENAME: S:\DESIGN\0650208\23\Final\vs\WFR\wfr_apl.dgn

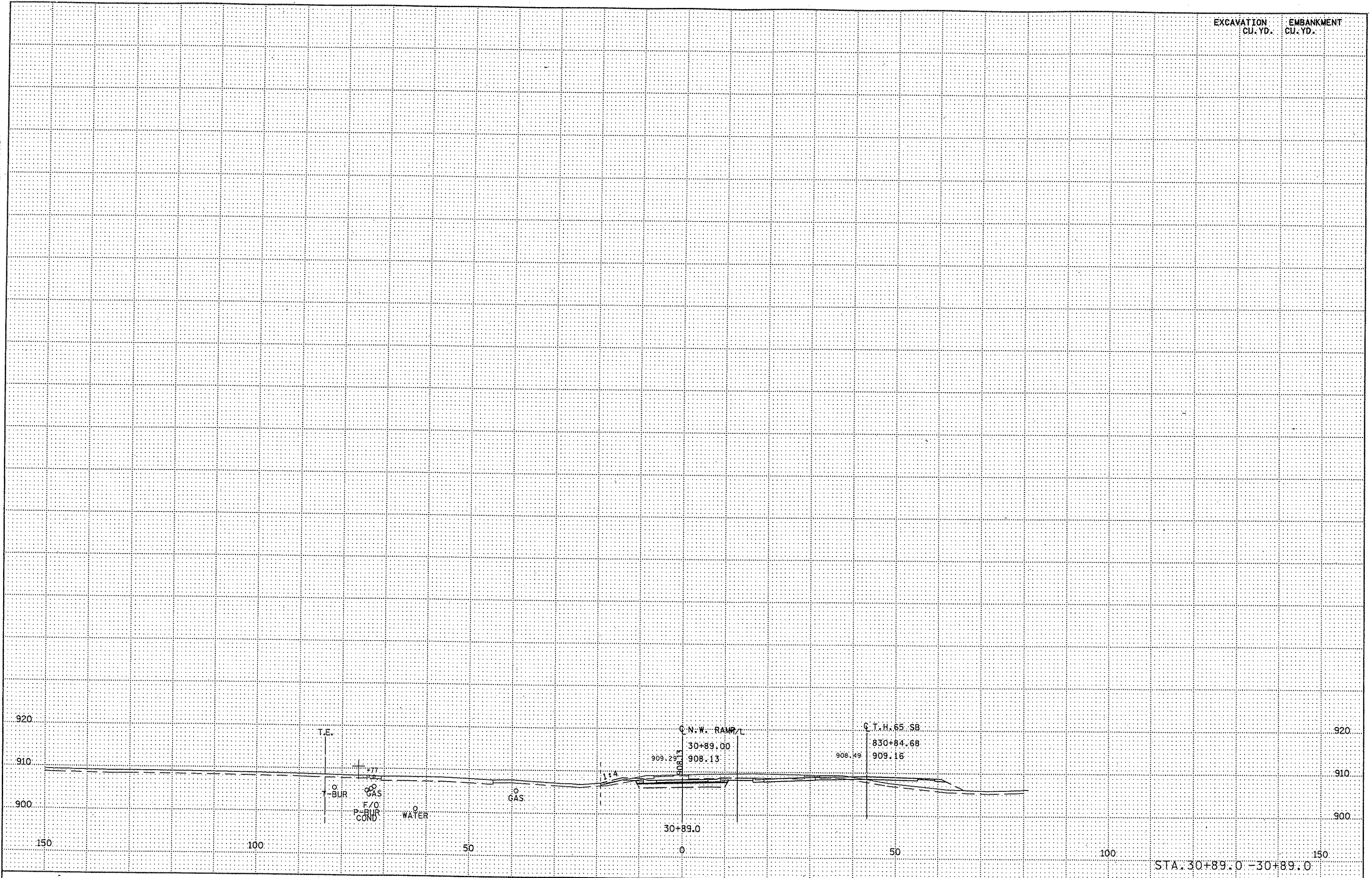


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT #: METRO
PLOT NAME: nwr_1p108
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\NWS\WWR\Nwr_1p1.dgn

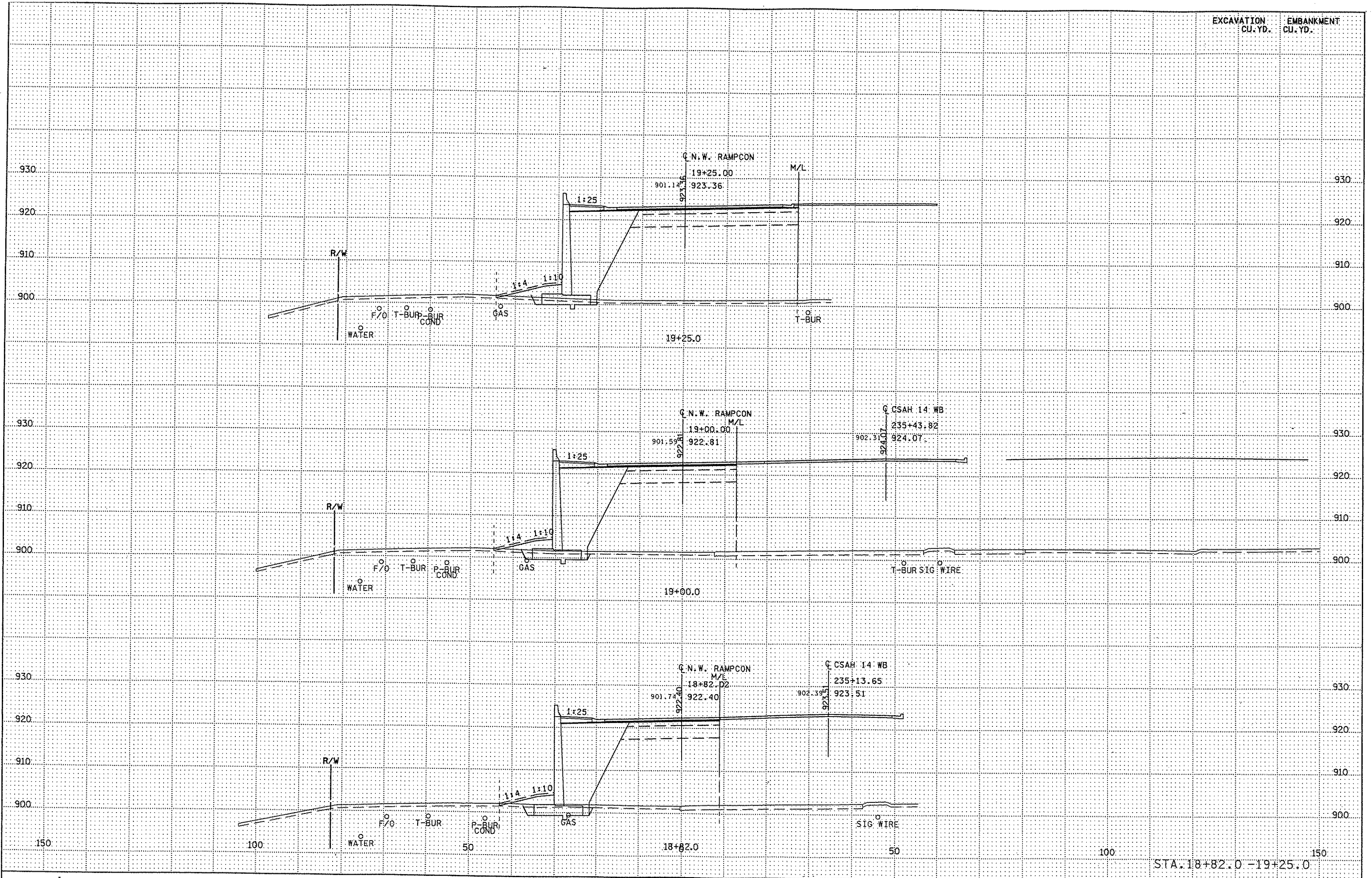


STA. 30+89.0 - 30+89.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

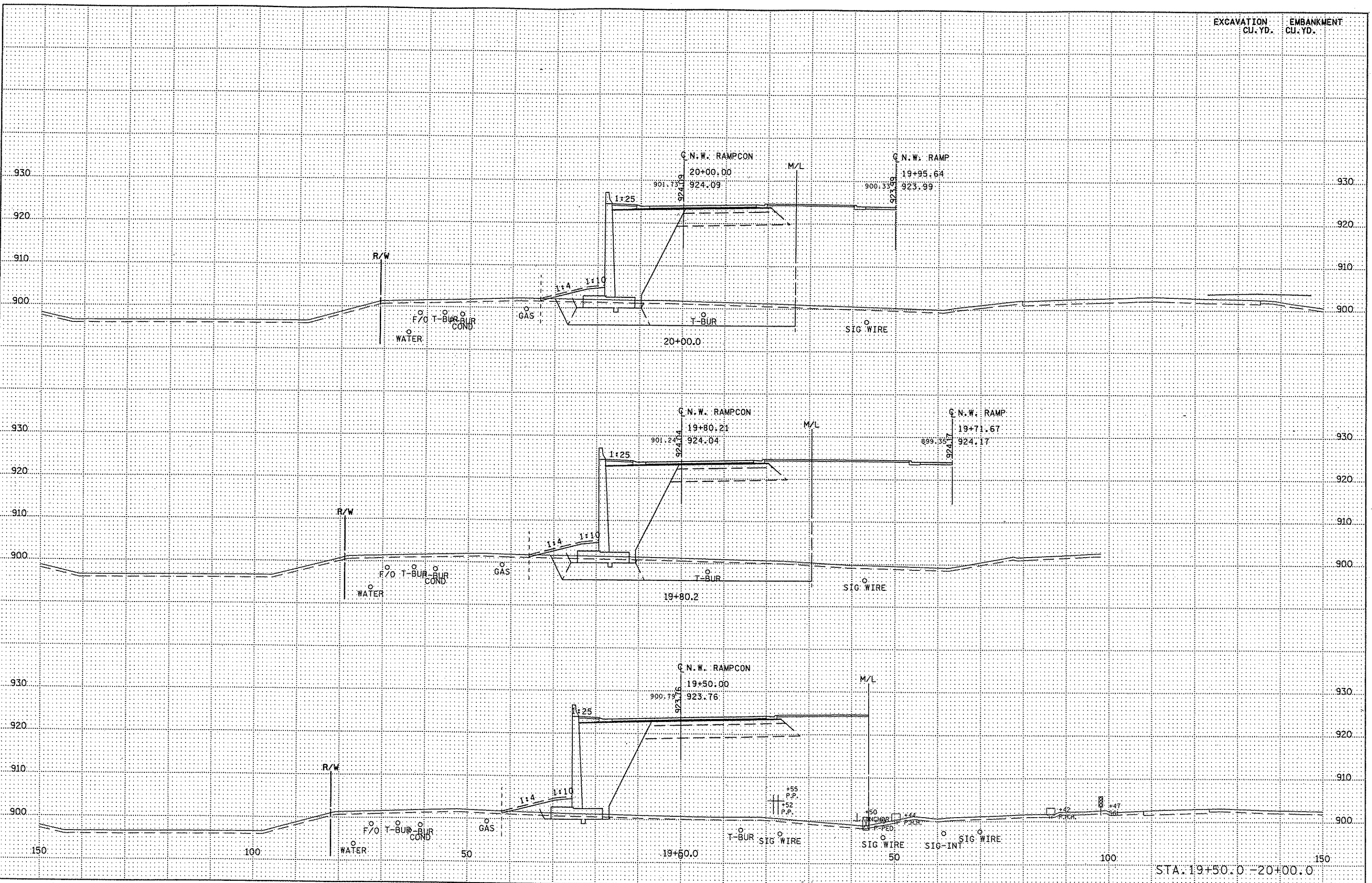
U:\S1\H\1 * : METRO
I\PLOT NAME: nwrcon_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\WWRcon\wwrcon_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

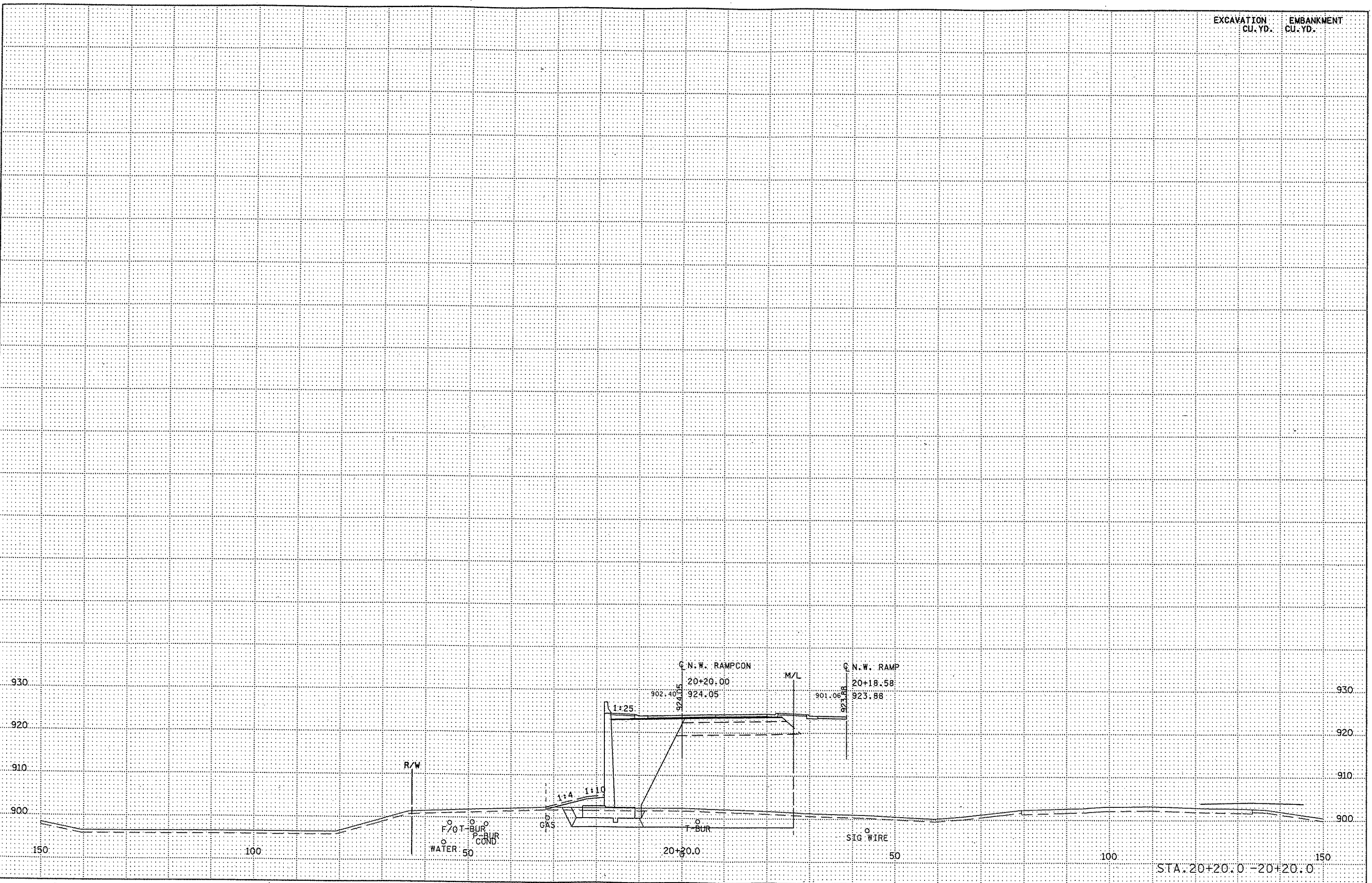
DISTRICT * : METRO
IPLOT NAME: nwrcon_xpl02
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\WWRcon\wrrcon_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:54

DISTRICT : METRO
IPLOT NAME: nwrcon_xpl03
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\us\WFRcon\wfrcon_xpl.dgn



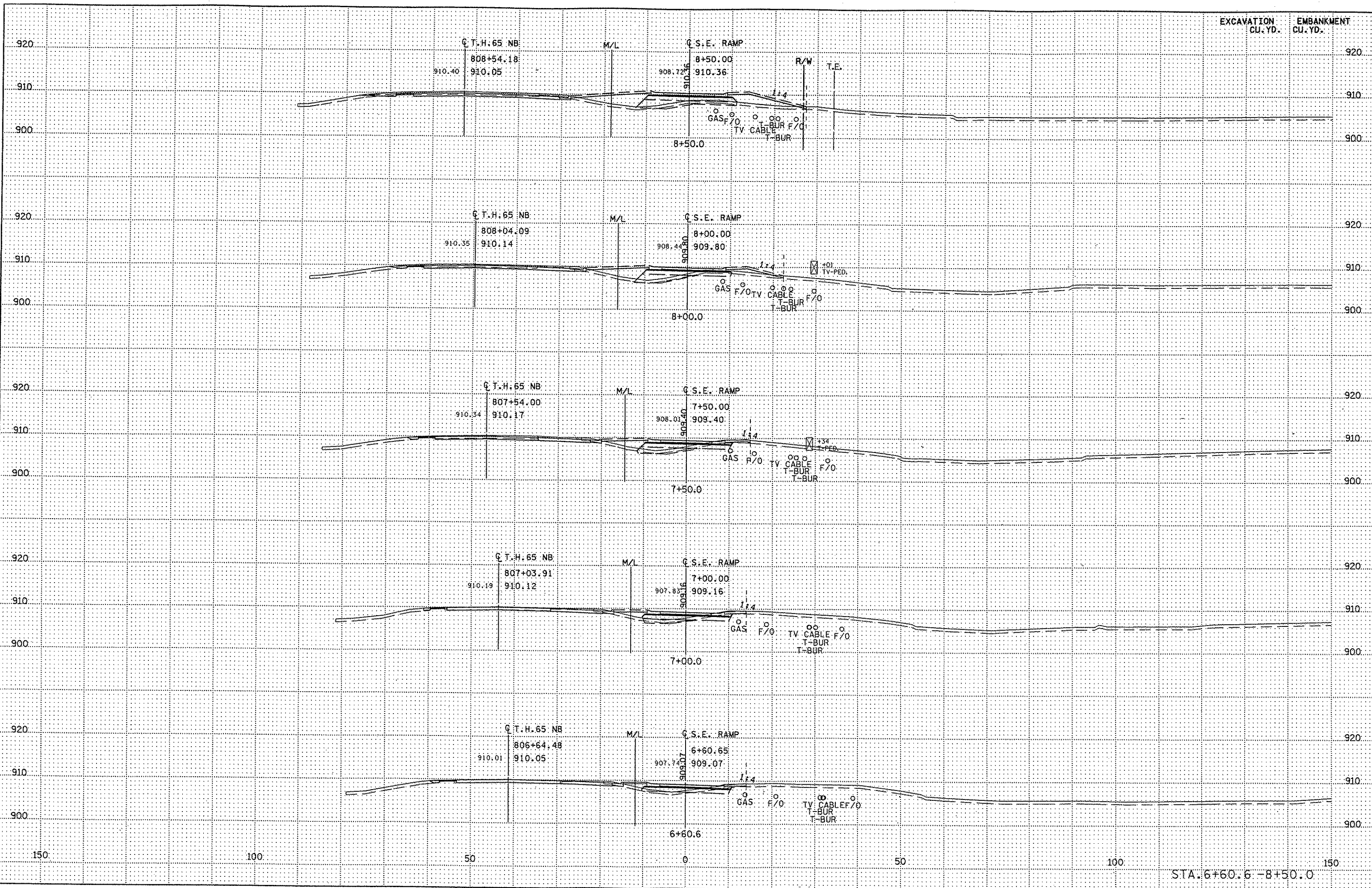
STA. 20+20.0 - 20+20.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

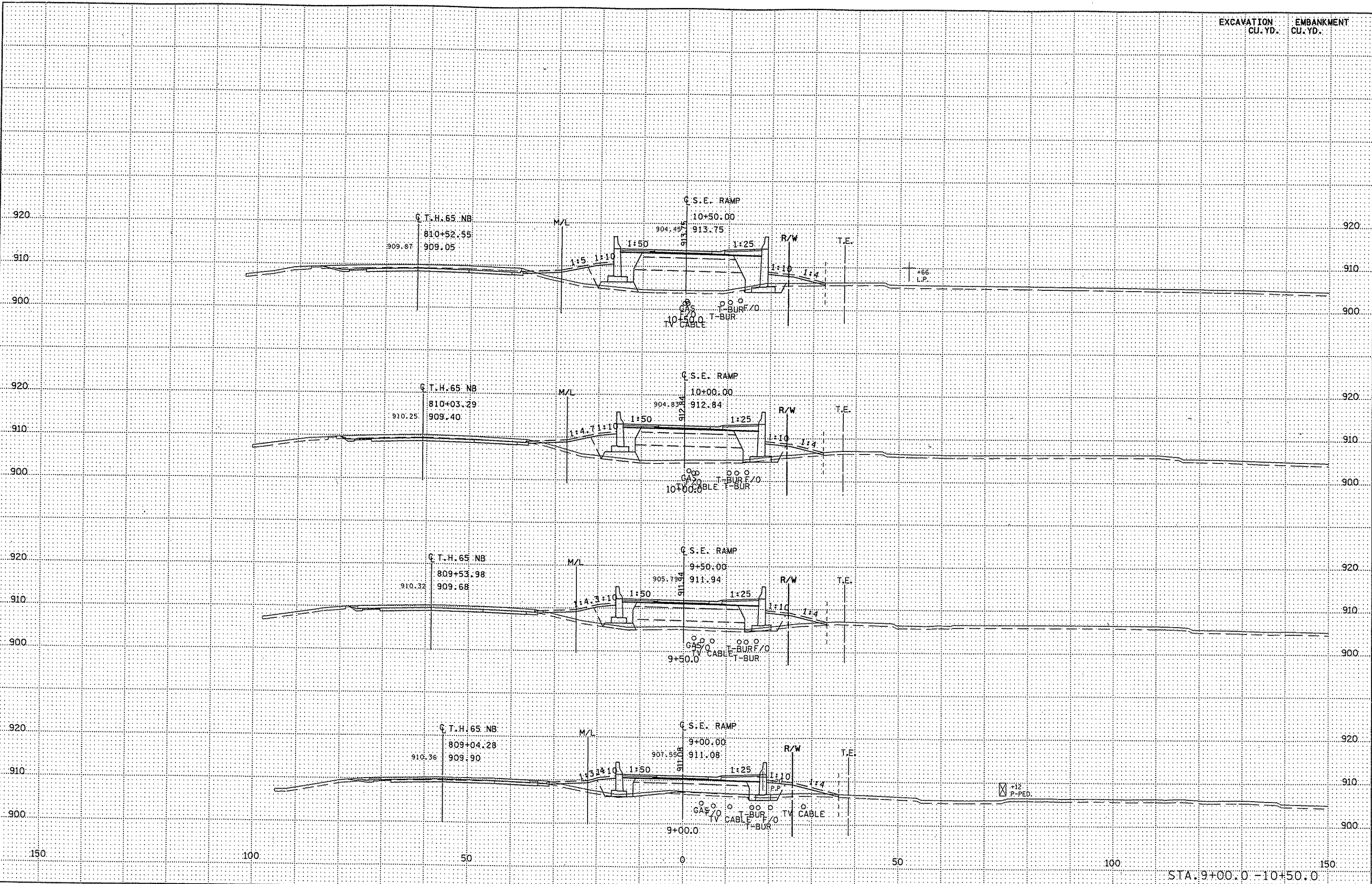
DISTRICT : METRO
PLOT NAME: ser_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\ser_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

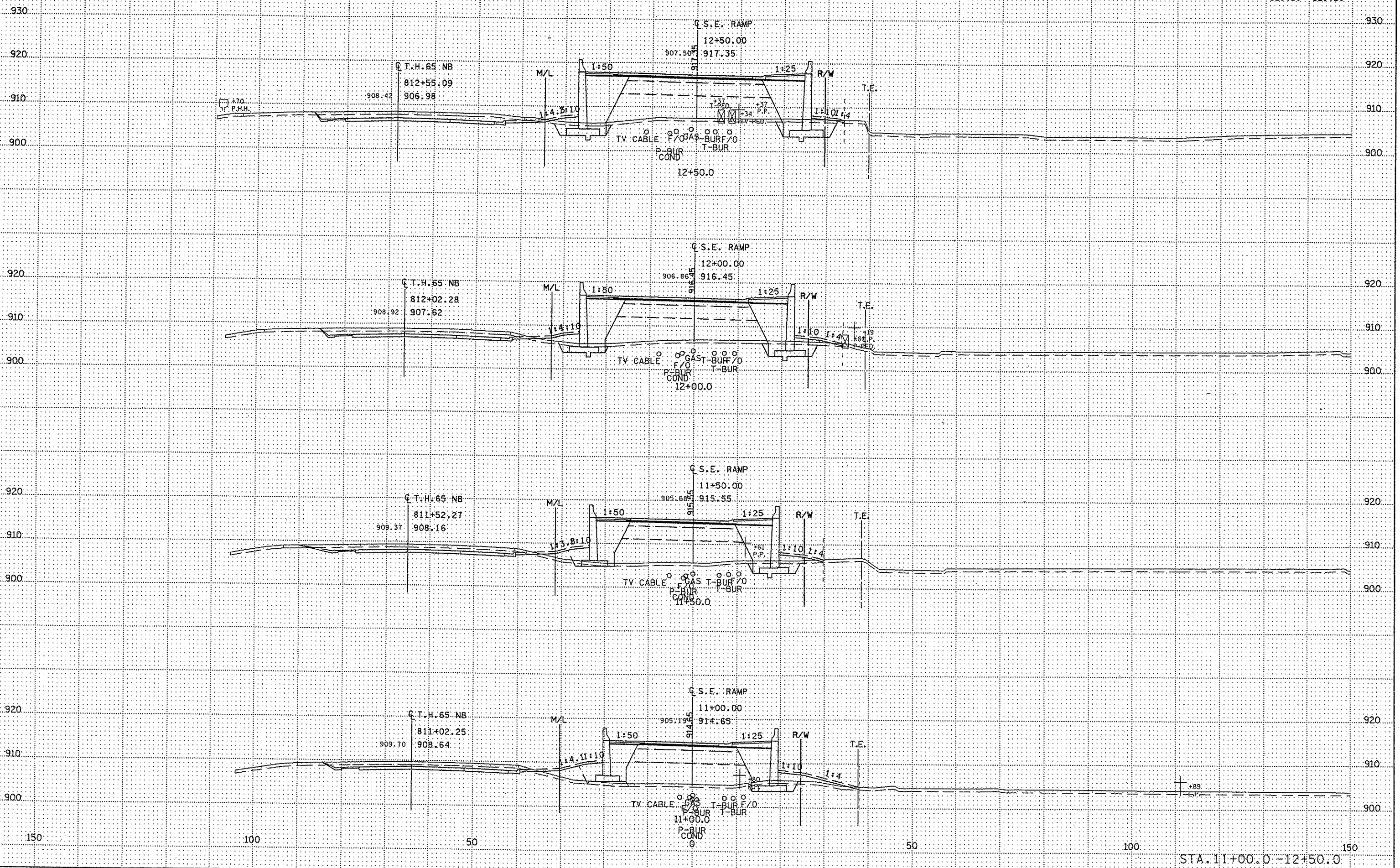
PLOTTED/REVISED: 04-APR-2007 06:55

DISTRICT #: METRO
I/PLOT NAME: ser_xpl02
PATH & FILENAME: S:\DESIGN\065\0208\123\TH\125\SER\ser_xpl.dgn



STA. 9+00.0 - 10+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.



PLOTTED/REVISED: 04-APR-2007 06:55

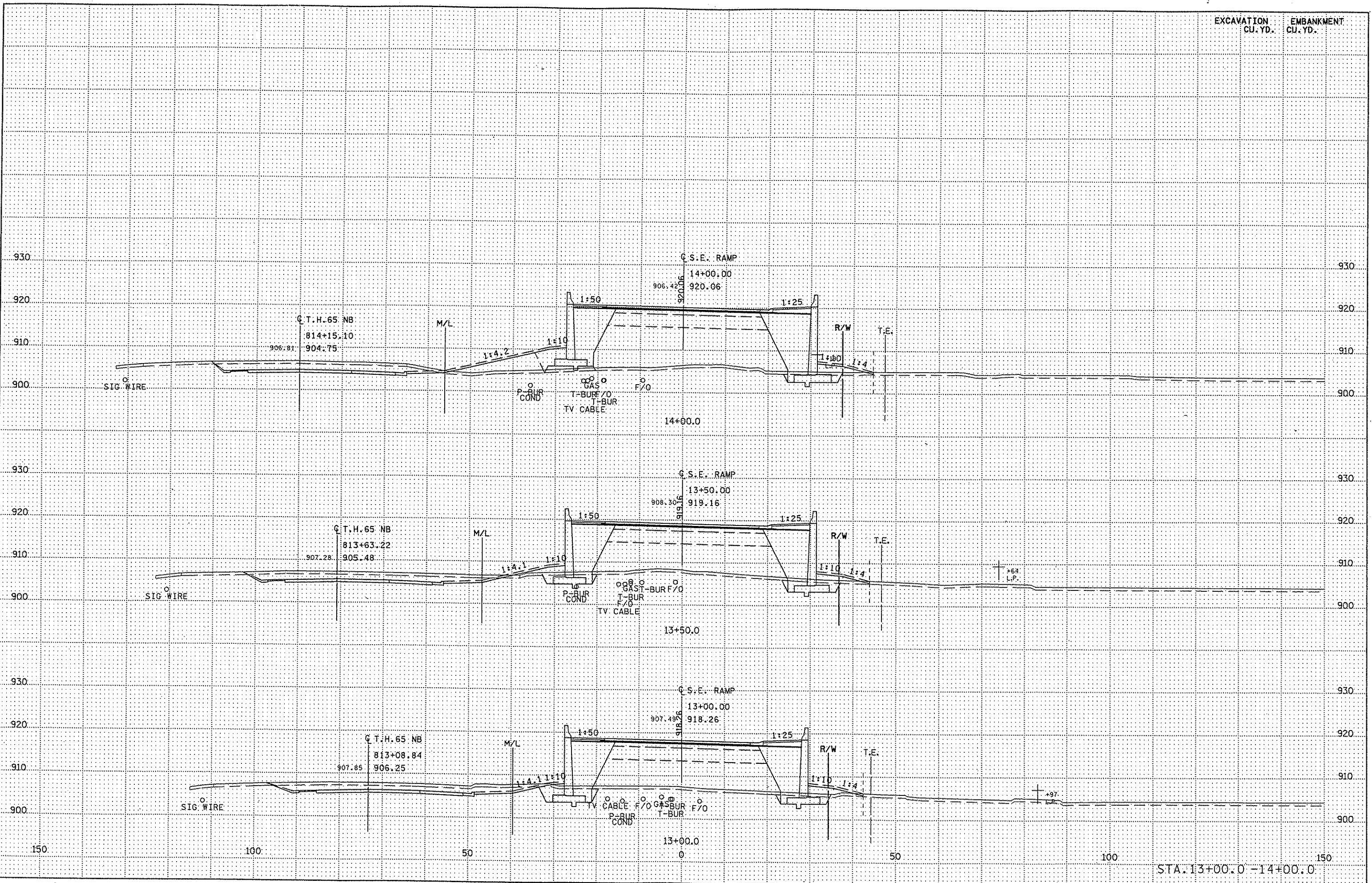
DISTRICT : METRO
PLOT NAME: ser_xpl03
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\us\SER\ser_xpl.dgn

STA. 11+00.0 - 12+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

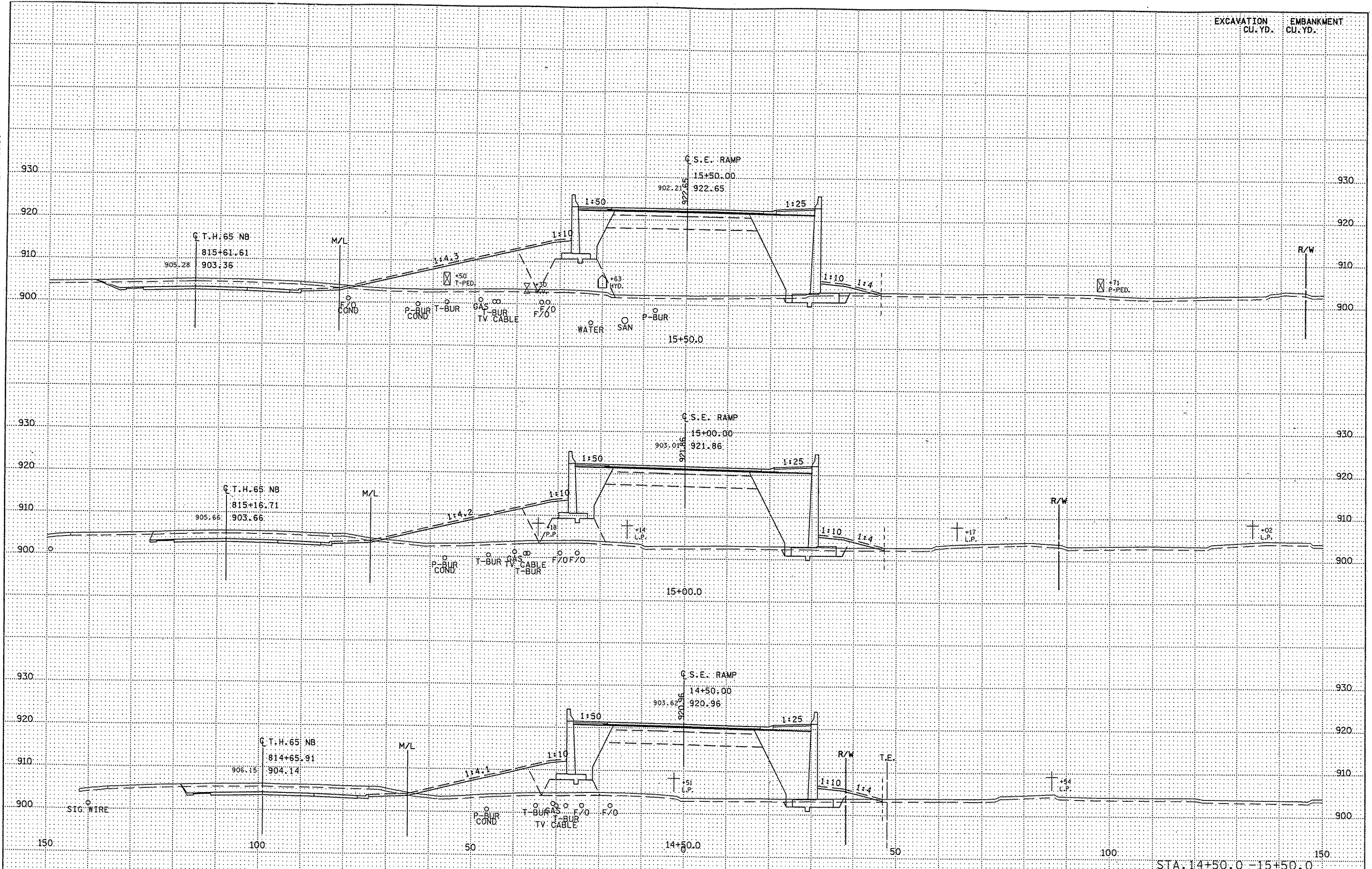
DISTRICT : METRO
PLOT NAME: ser_xpl04
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\ser_xpl.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

DISTRICT #: METRO
PLOT NAME: sr_xp05
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\sr_xp05.dgn

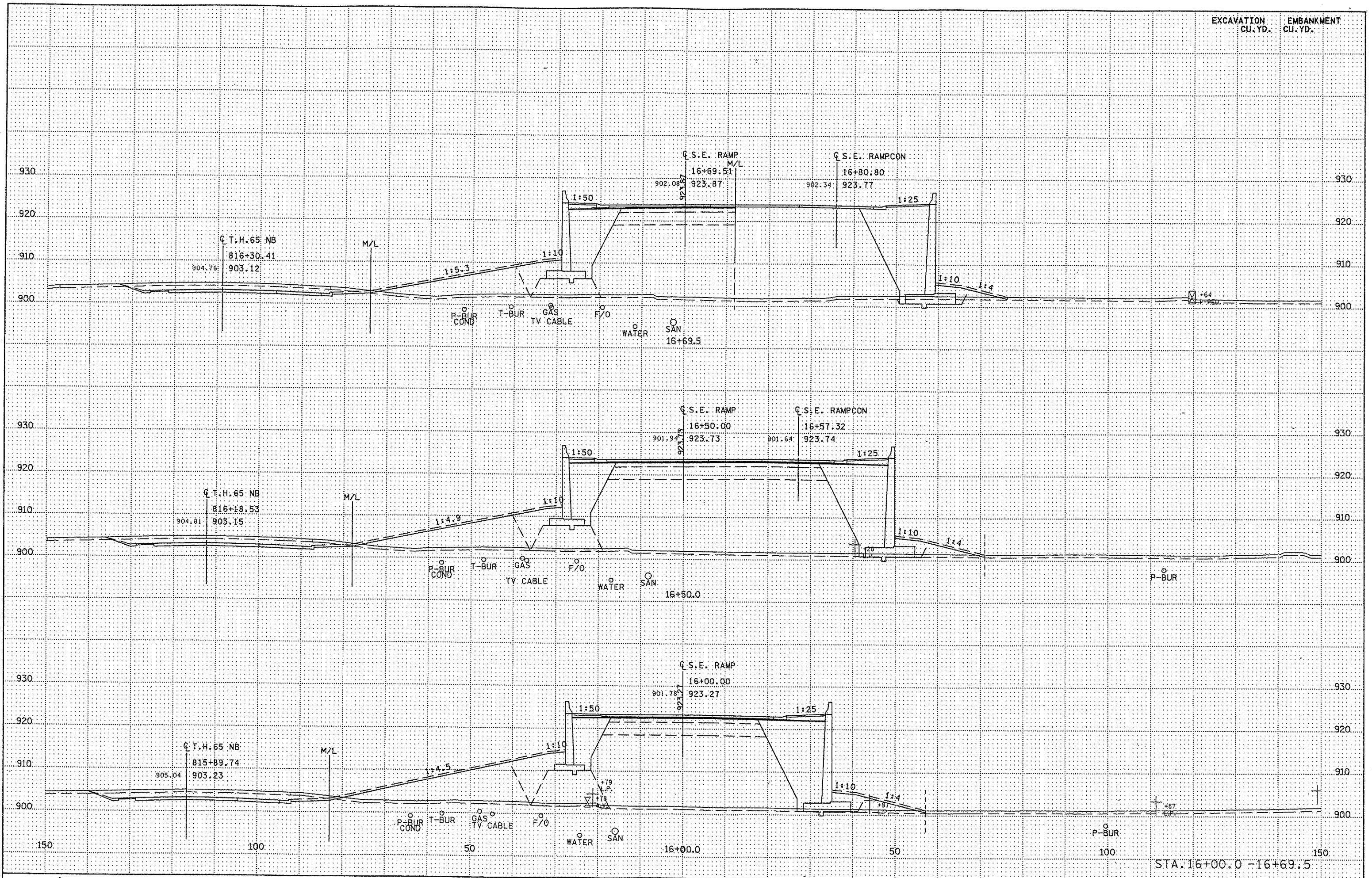


STA. 14+50.0 - 15+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

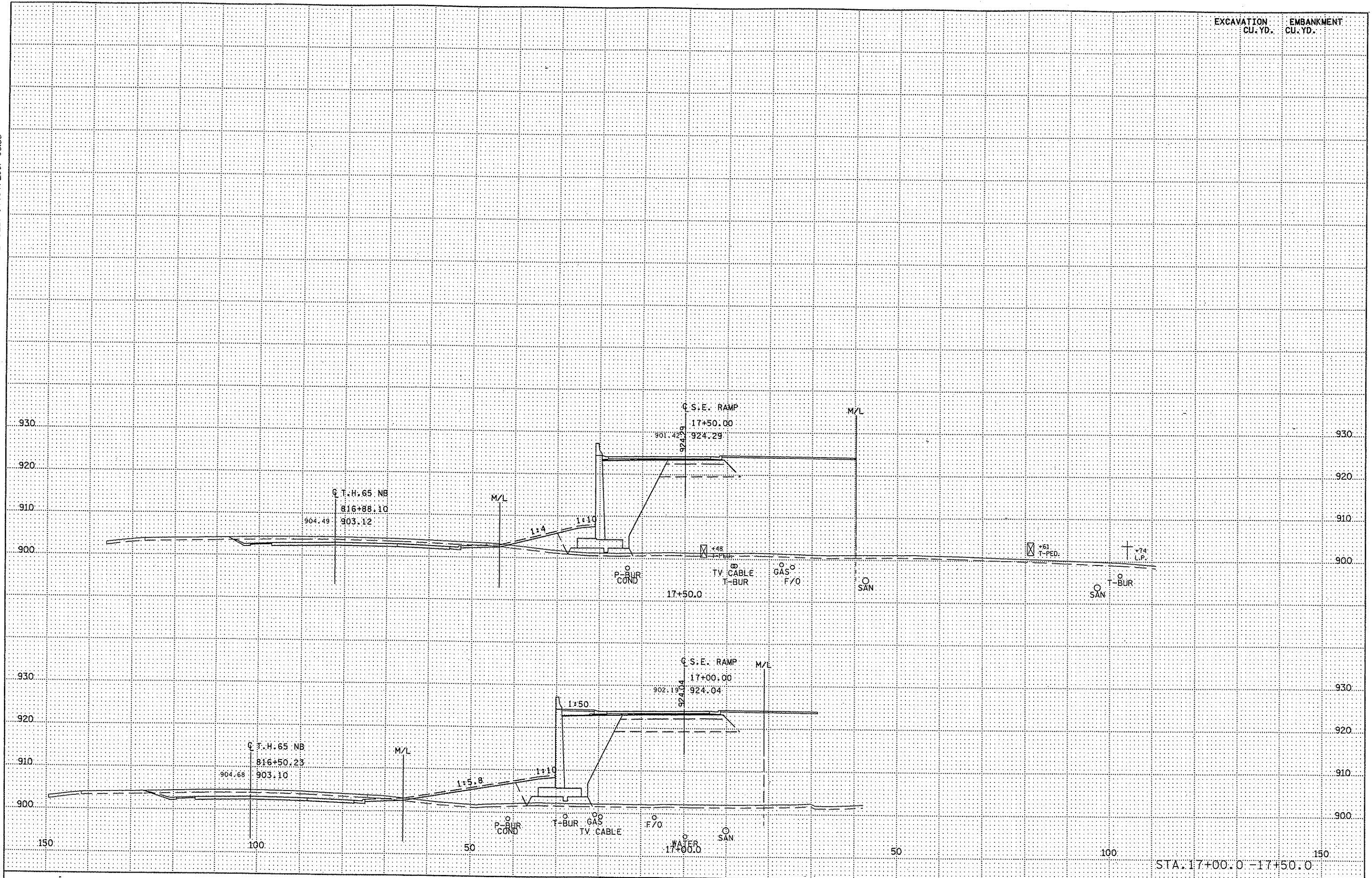
DISTRICT : METRO
PLOT NAME: ser_xp006
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\ser_xp006.dgn



EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

DISTRICT #: METRO
PLOT NAME: ser_xplot
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\ser_xplot.dgn

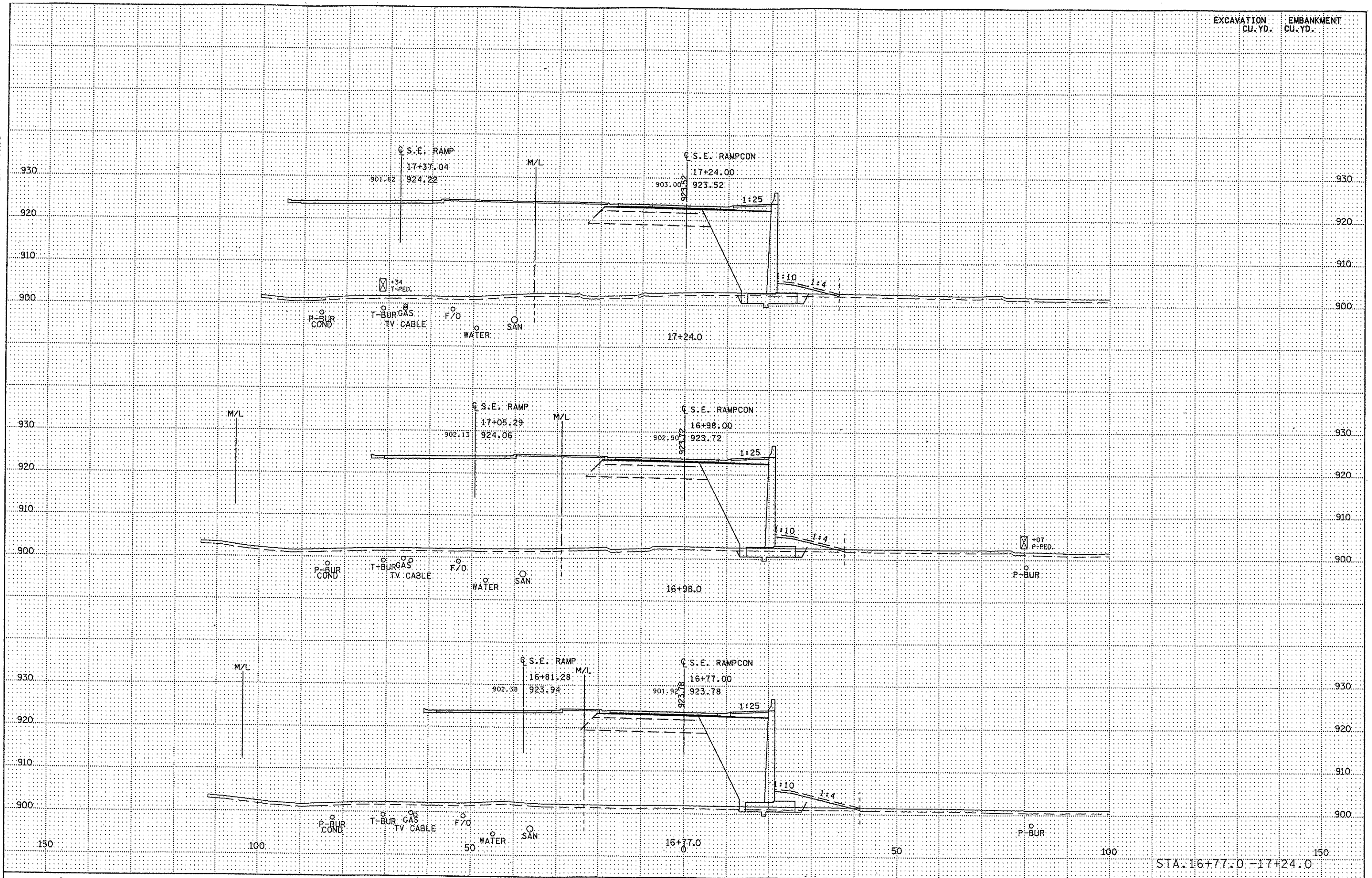


STA. 17+00.0 - 17+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

DISTRICT * : METRO
PLOT NAME: sercon_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Find\vs\SE\Room\sercon_xpl.dgn



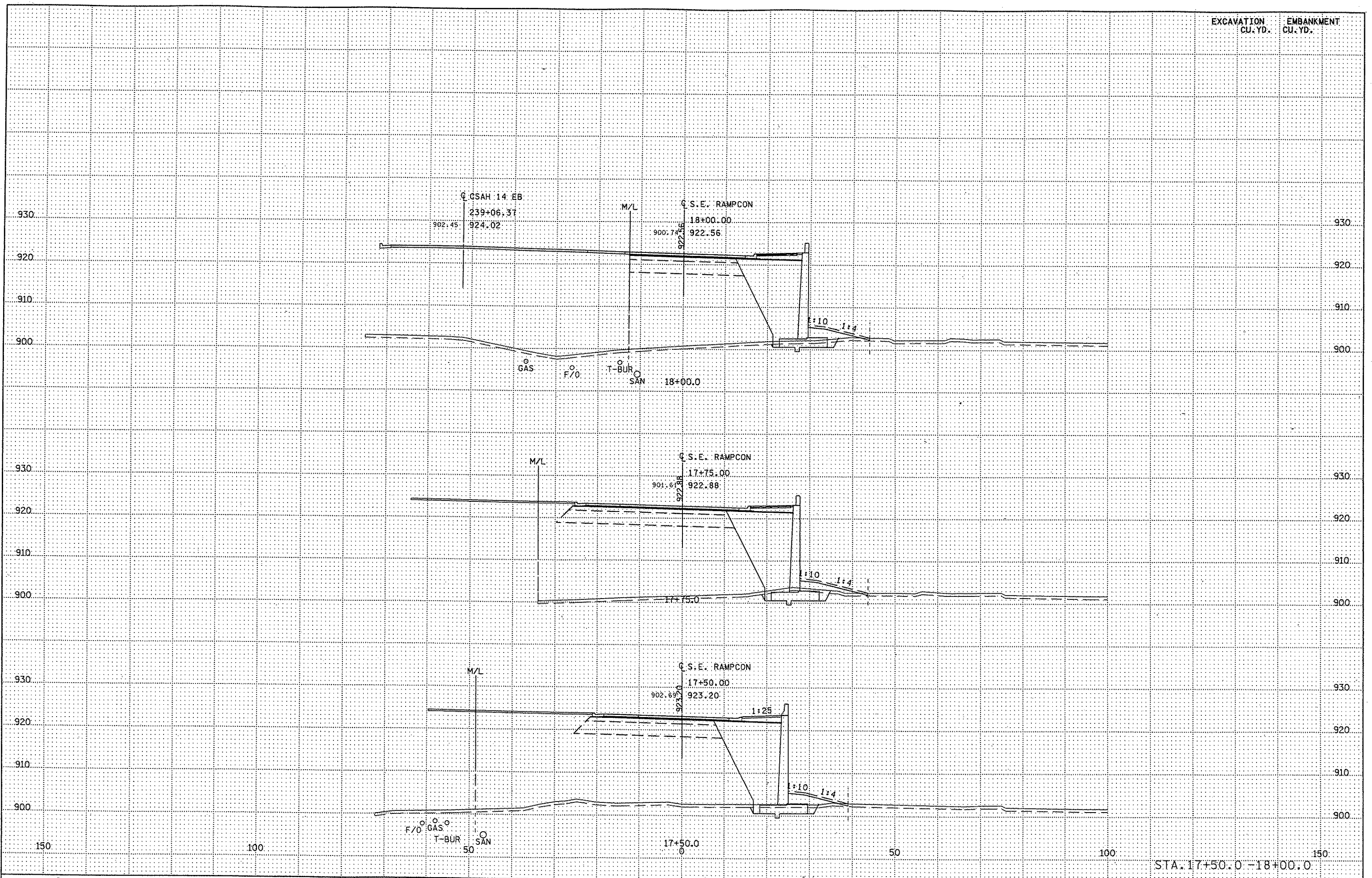
STA. 16+77.0 -17+24.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

DISTRICT : METRO
PLOT NAME: sercon_xpl02
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\ss\SErcon\sercon_xpl.dgn



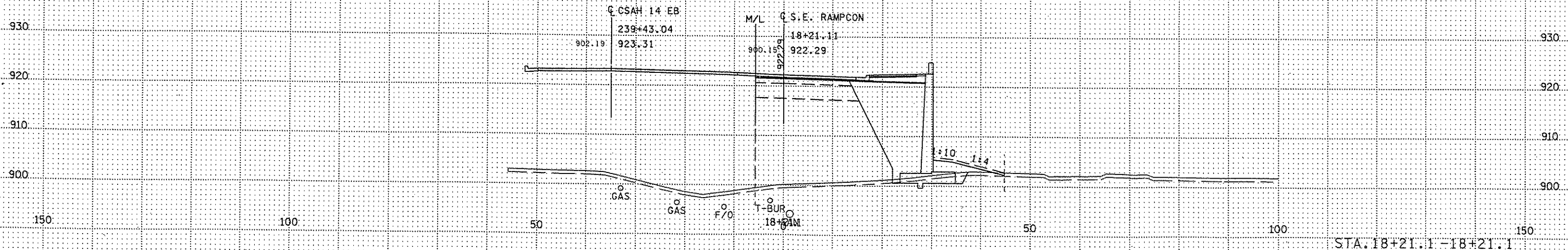
STA. 17+50.0 - 18+00.0

EXCAVATION
CU. YD.

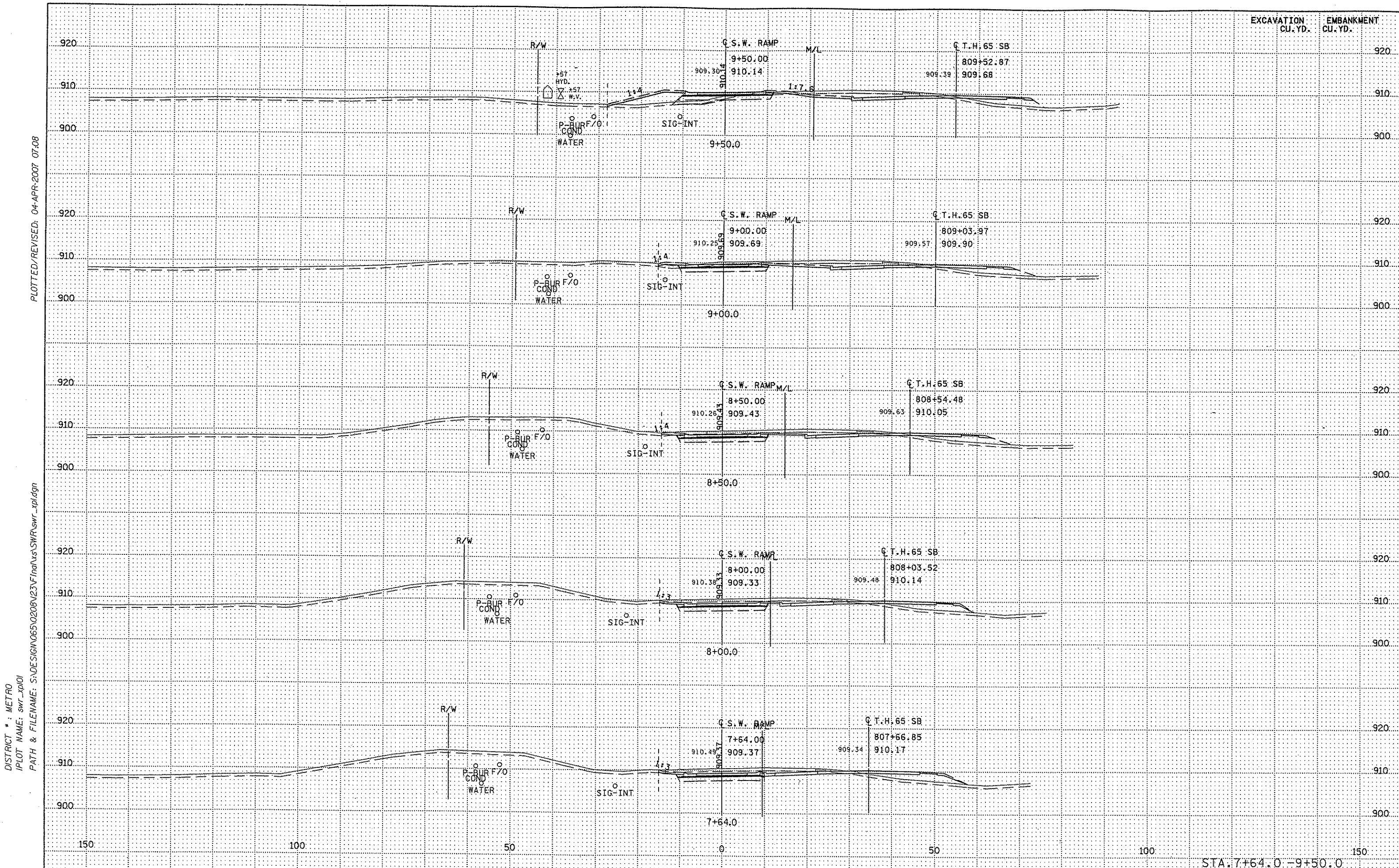
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 06:55

DISTRICT #: METRO
PLOT NAME: sercon_xpl03
PATH & FILENAME: S:\DESIGN\065\0208V2\3\Final\vs_SE\con\sercon_xpl.dgn



STA. 18+21.1 - 18+21.1



PLOTTED/REVISED: 04-APR-2007 07:08

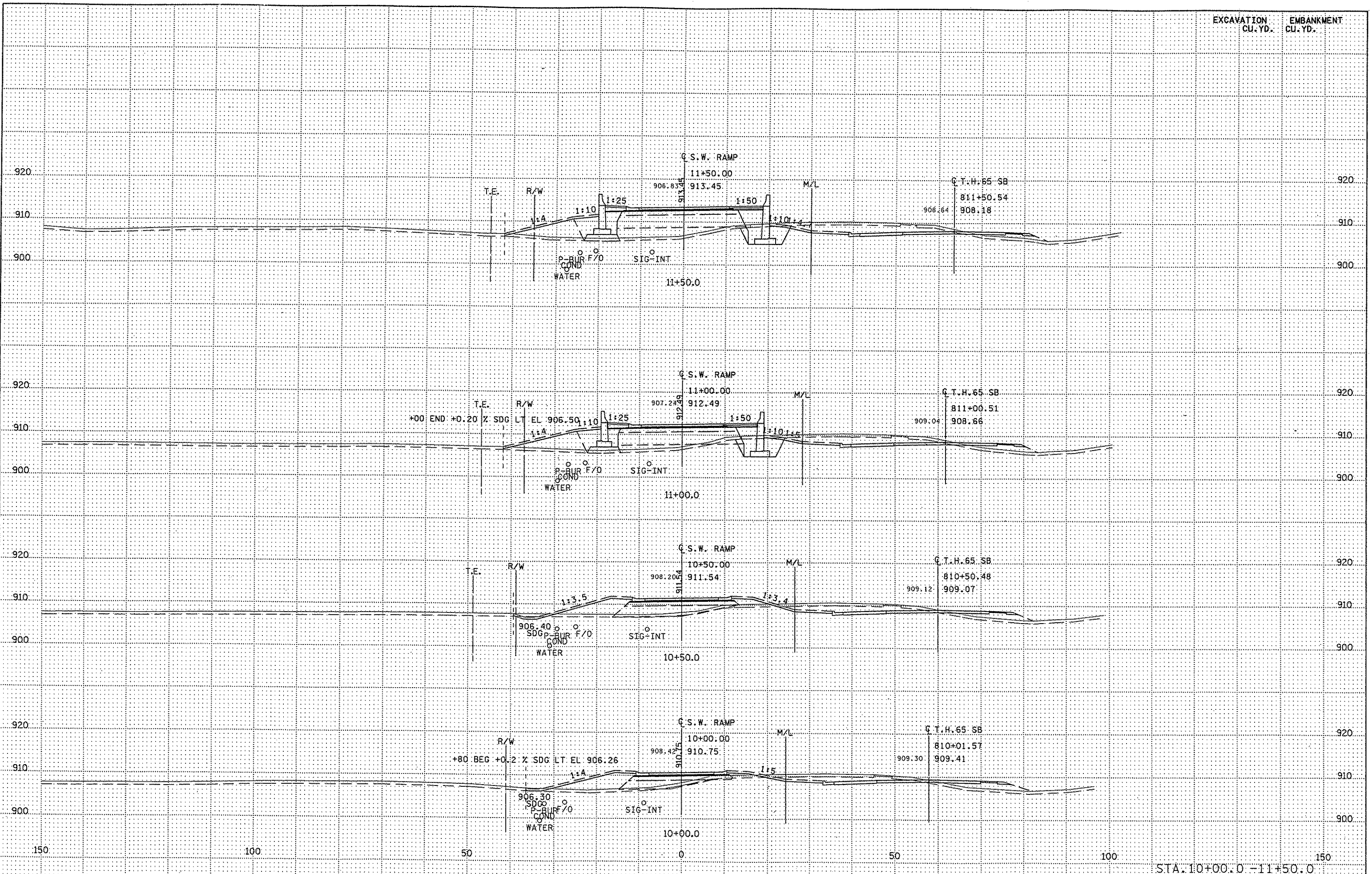
DISTRICT #: METRO
 IPLOT NAME: swr_xpl01
 PATH & FILENAME: S:\DESIGN\0650208\23\Final\swr\swr_xpl.dgn

STA. 7+64.0 - 9+50.0

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:08

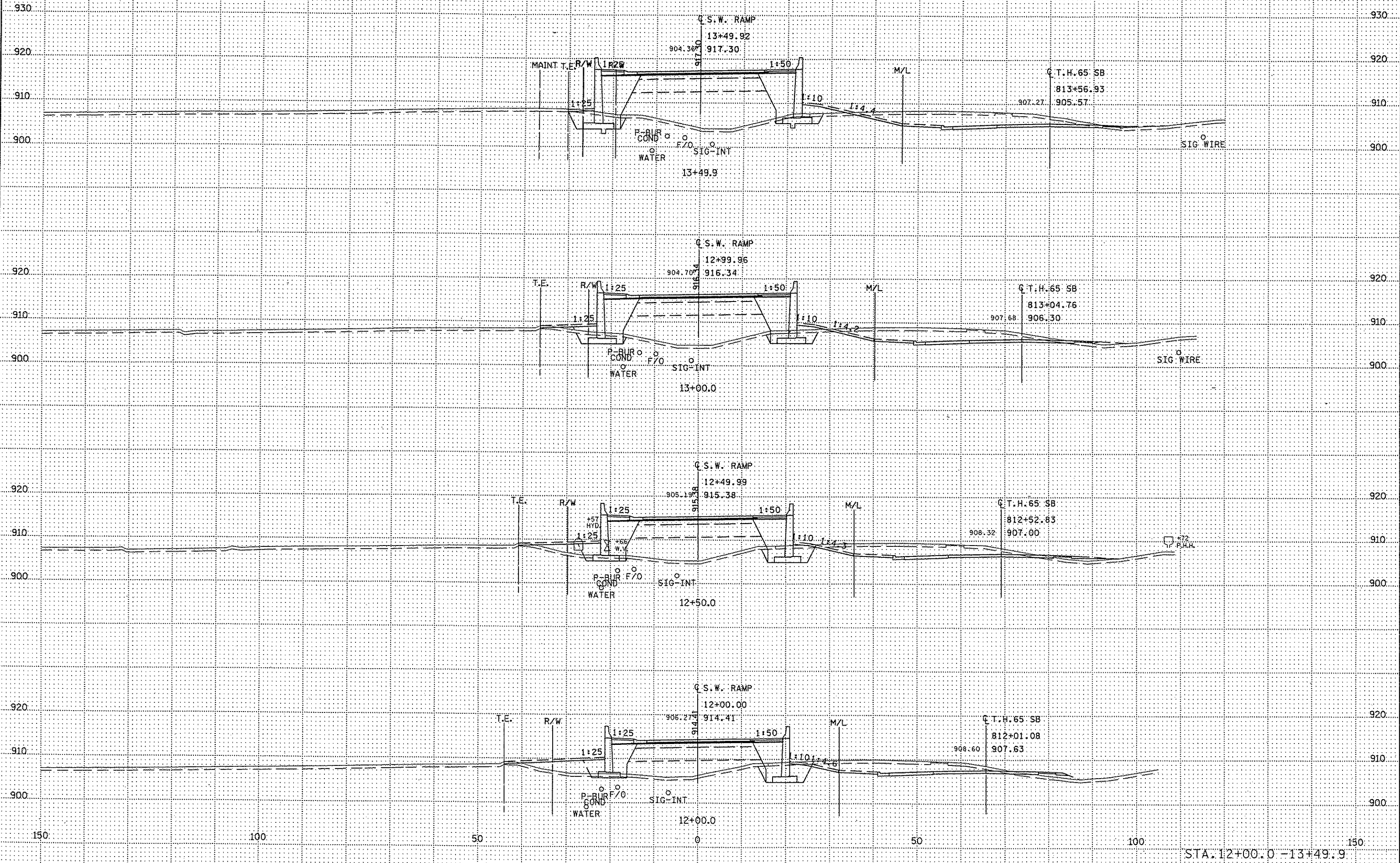
DISTRICT : METRO
PLOT NAME: swr_xpl02
PATH & FILENAME: S:\DESIGN\0650208\23\Final\swr\SWR\swr_xpl.dgn



STA. 10+00.0 - 11+50.0

PLOTTED/REVISED: 04-APR-2007 07:08

EXCAVATION CU. YD. EMBANKMENT CU. YD.

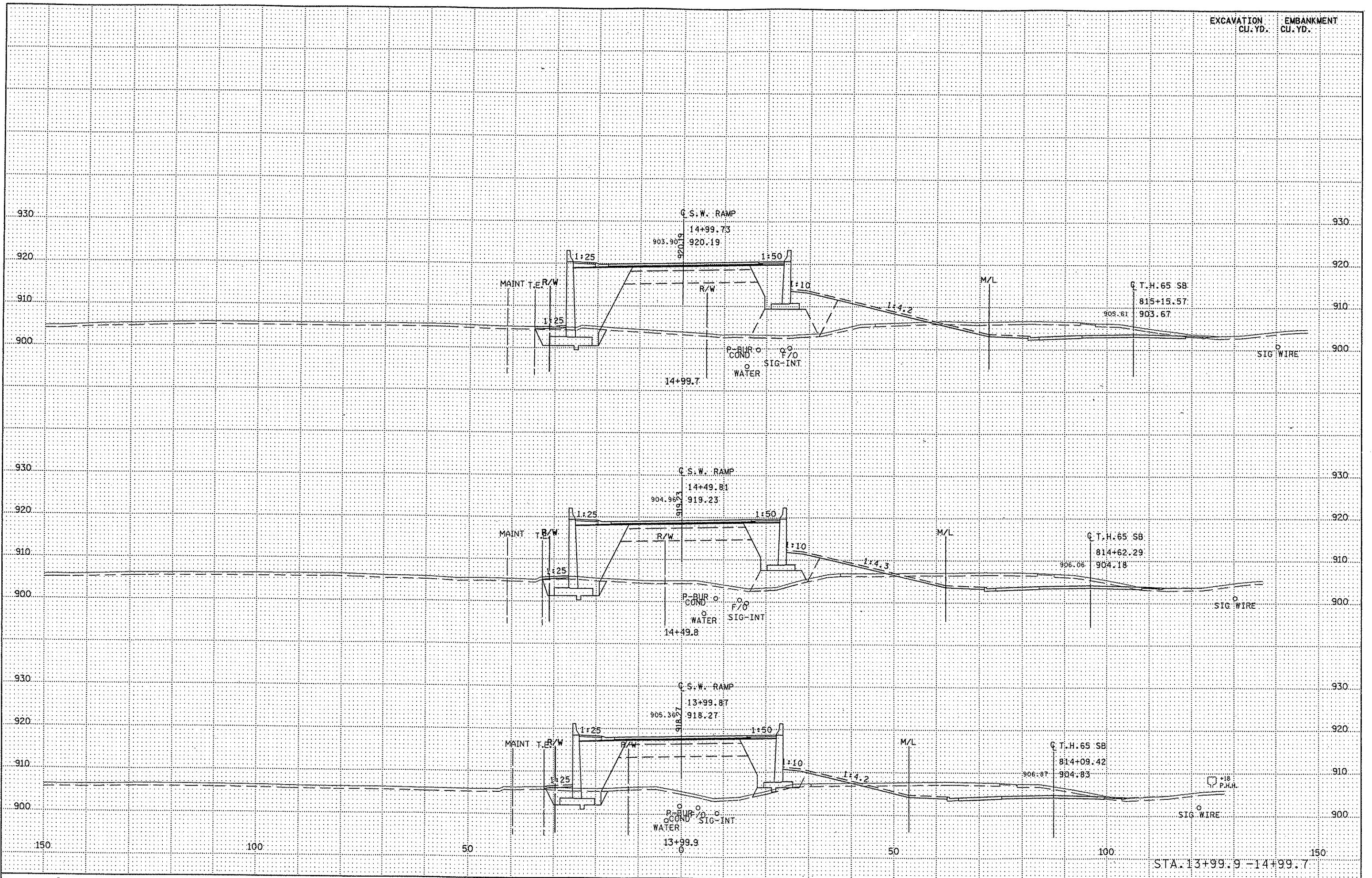


DISTRICT : METRO
PLOT NAME: swr_xp03
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\swr\swr_xpl.dgn

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07.08

DISTRICT : METRO
PLOT NAME: swr_xp104
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\swr\swr_xp104.dgn

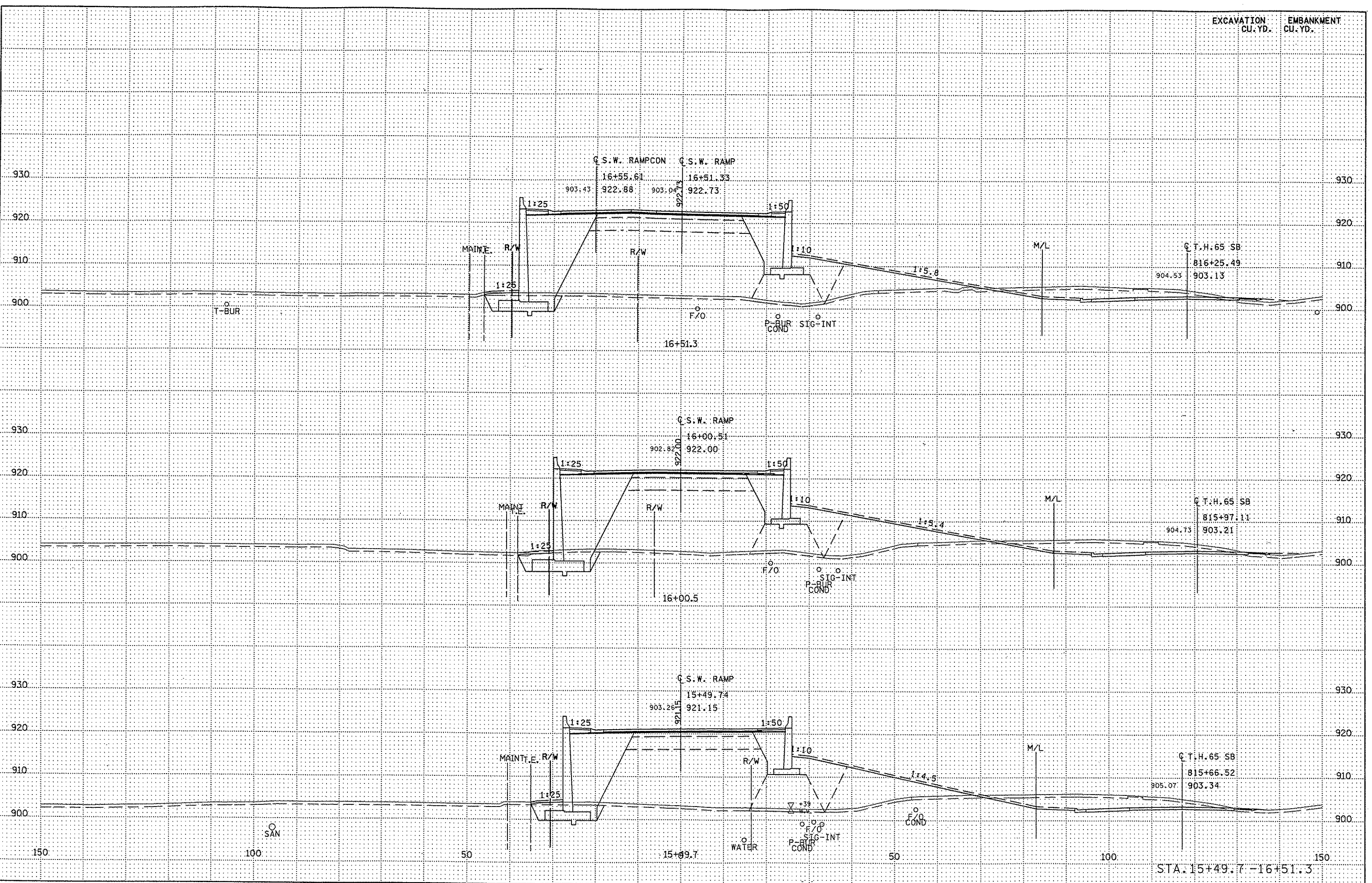


STA. 13+99.9 - 14+99.7

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:08

DISTRICT : METRO
PLOT NAME: swr_xpl05
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\swr\swr_xpl.dgn

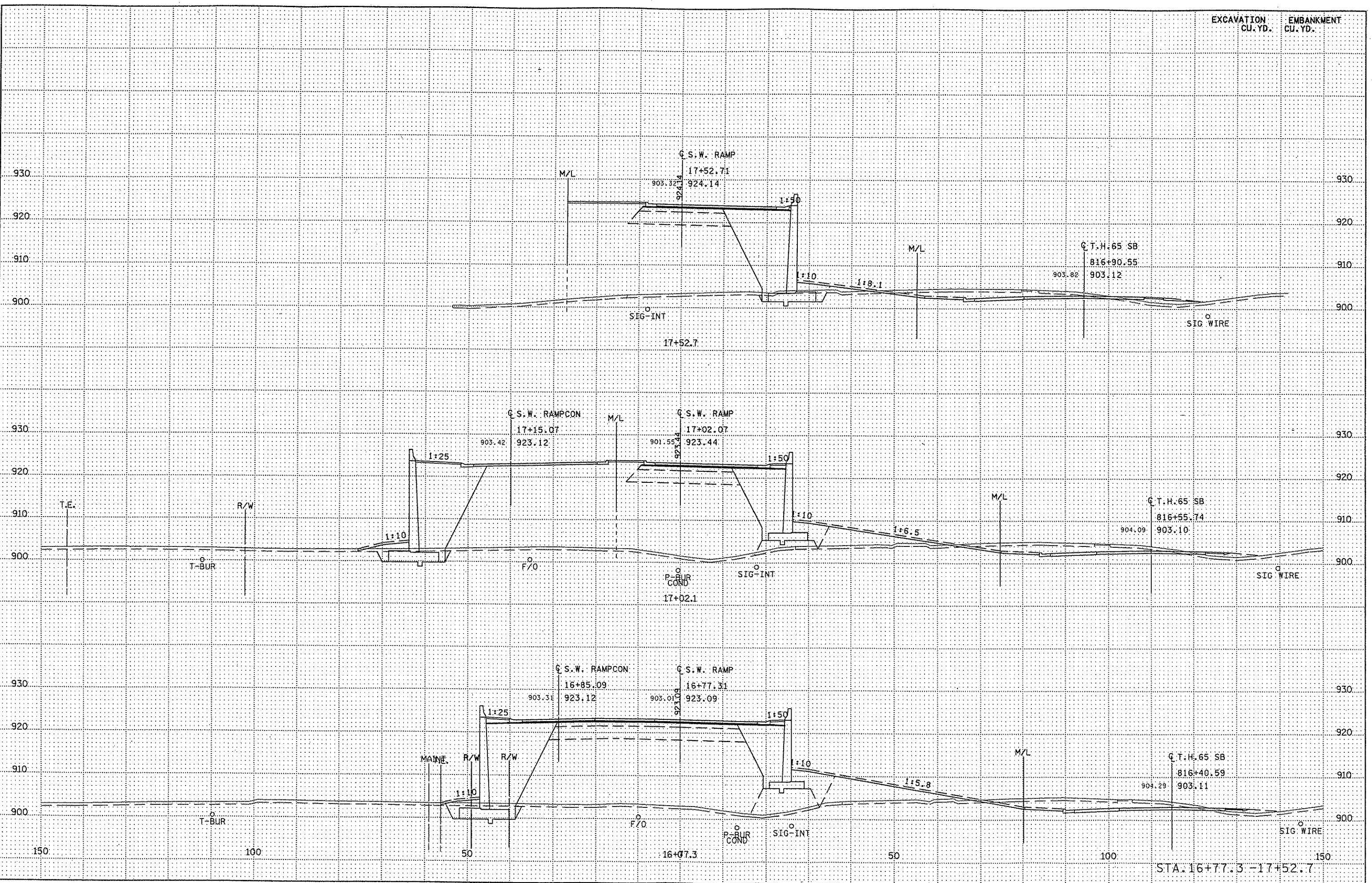


STA. 15+49.7 - 16+51.3

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:08

DISTRICT * : METRO
I/PLOT NAME: swr_xpl06
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\swr\swr_xpl.dgn



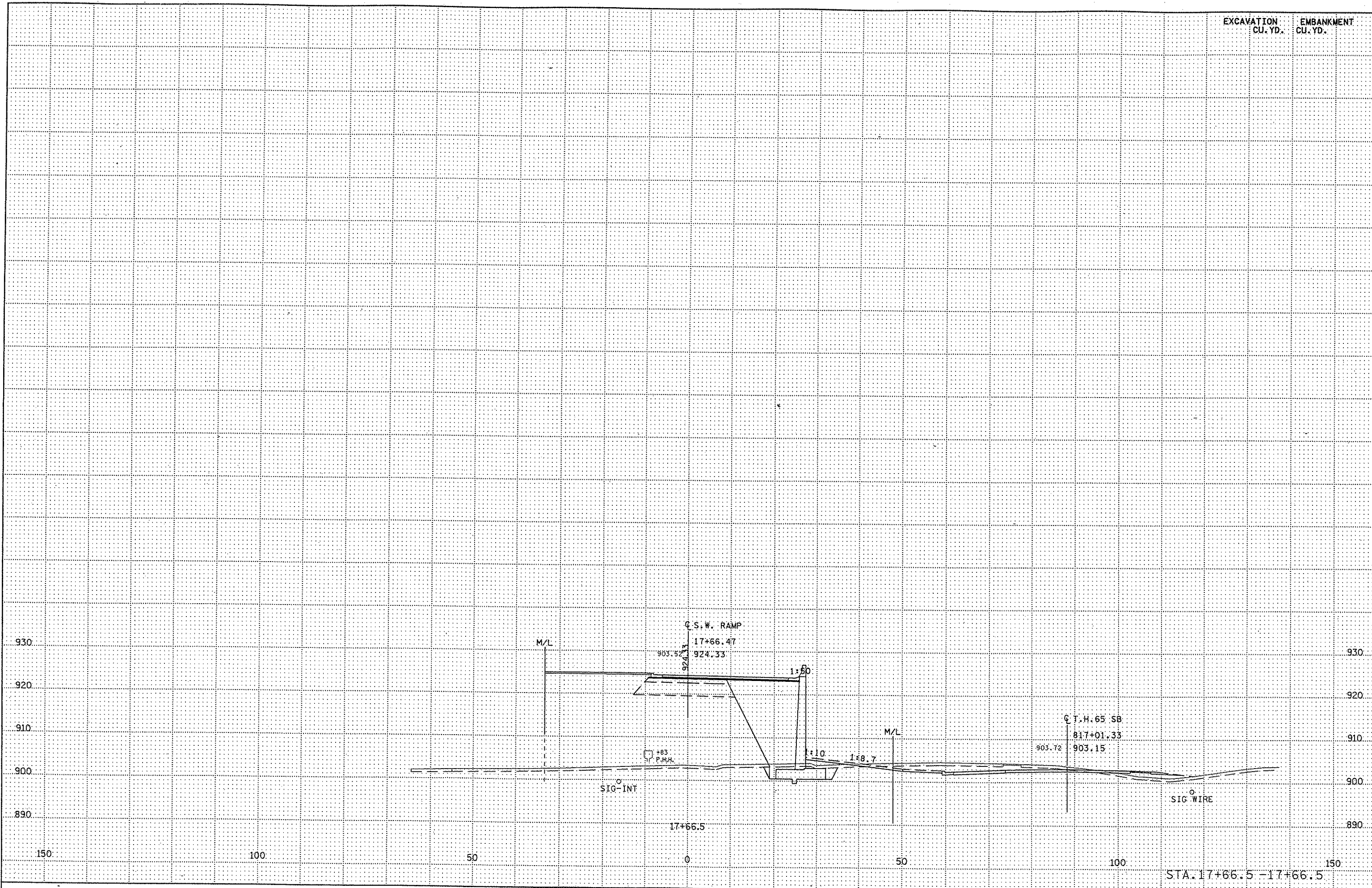
STA. 16+77.3 - 17+52.7

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:08

DISTRICT : METRO
IFLOT NAME: swr_xplot
PATH & FILENAME: S:\DESIGN\065\0208\123\TH\65\SWR\swr_xplot.dgn

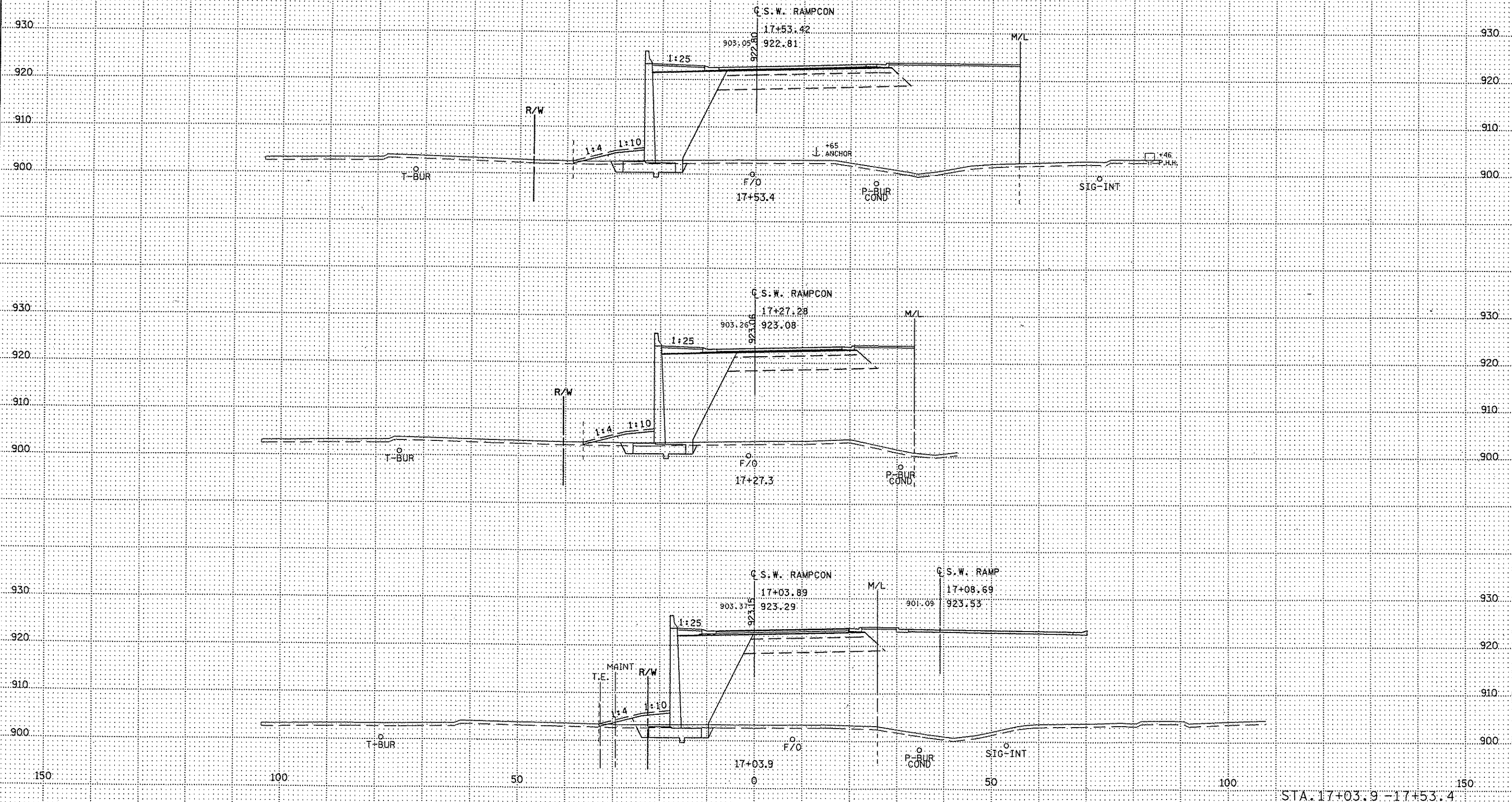


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:08

DISTRICT : METRO
PLOT NAME: swrcon_xpl01
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\SWRCON\swrcon_xpl.dgn

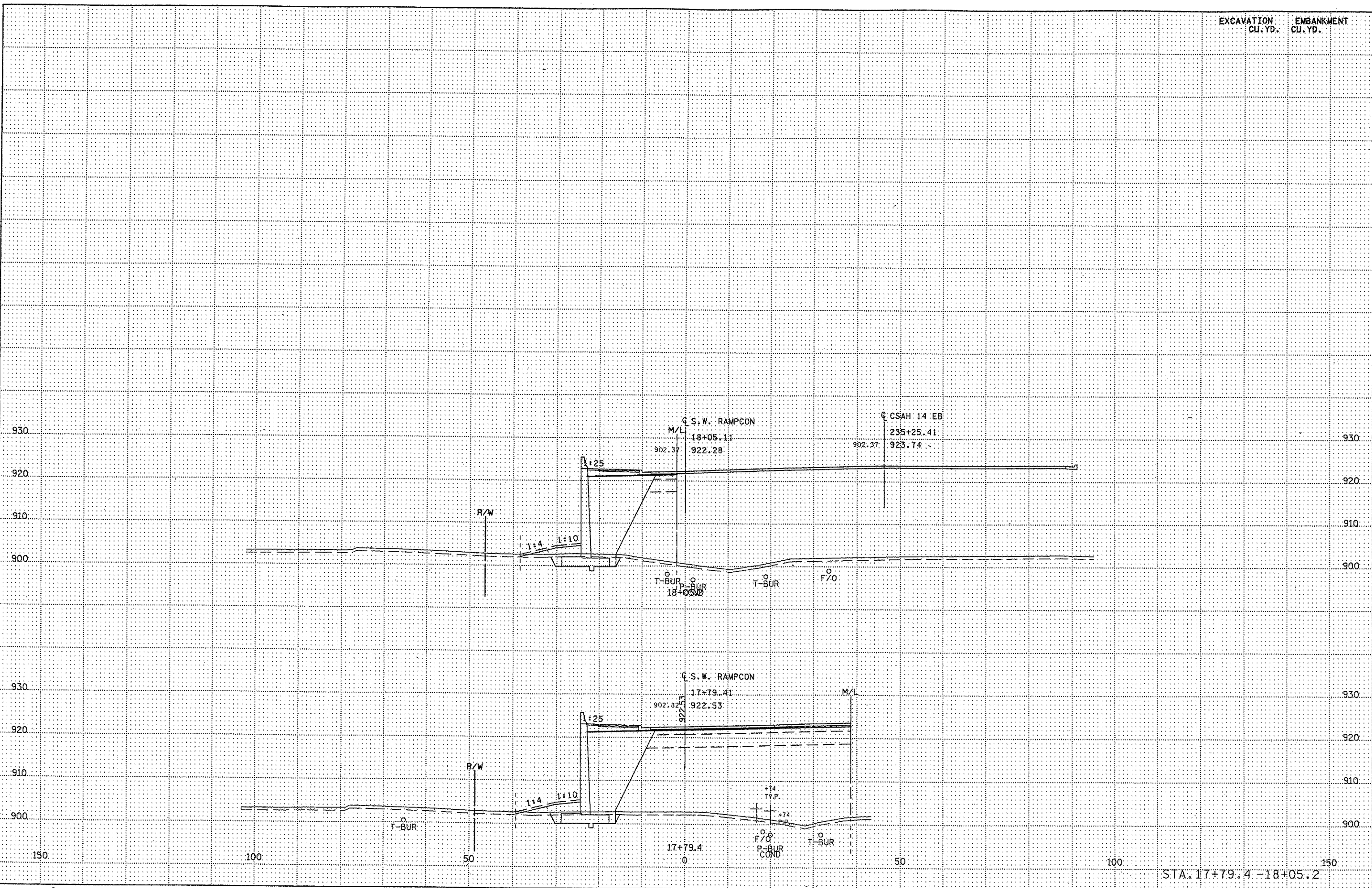


STA. 17+03.9 - 17+53.4

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:08

DISTRICT : METRO
I/PLOT NAME: swrcon_xpl02
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\swrcon\swrcon_xpl.dgn

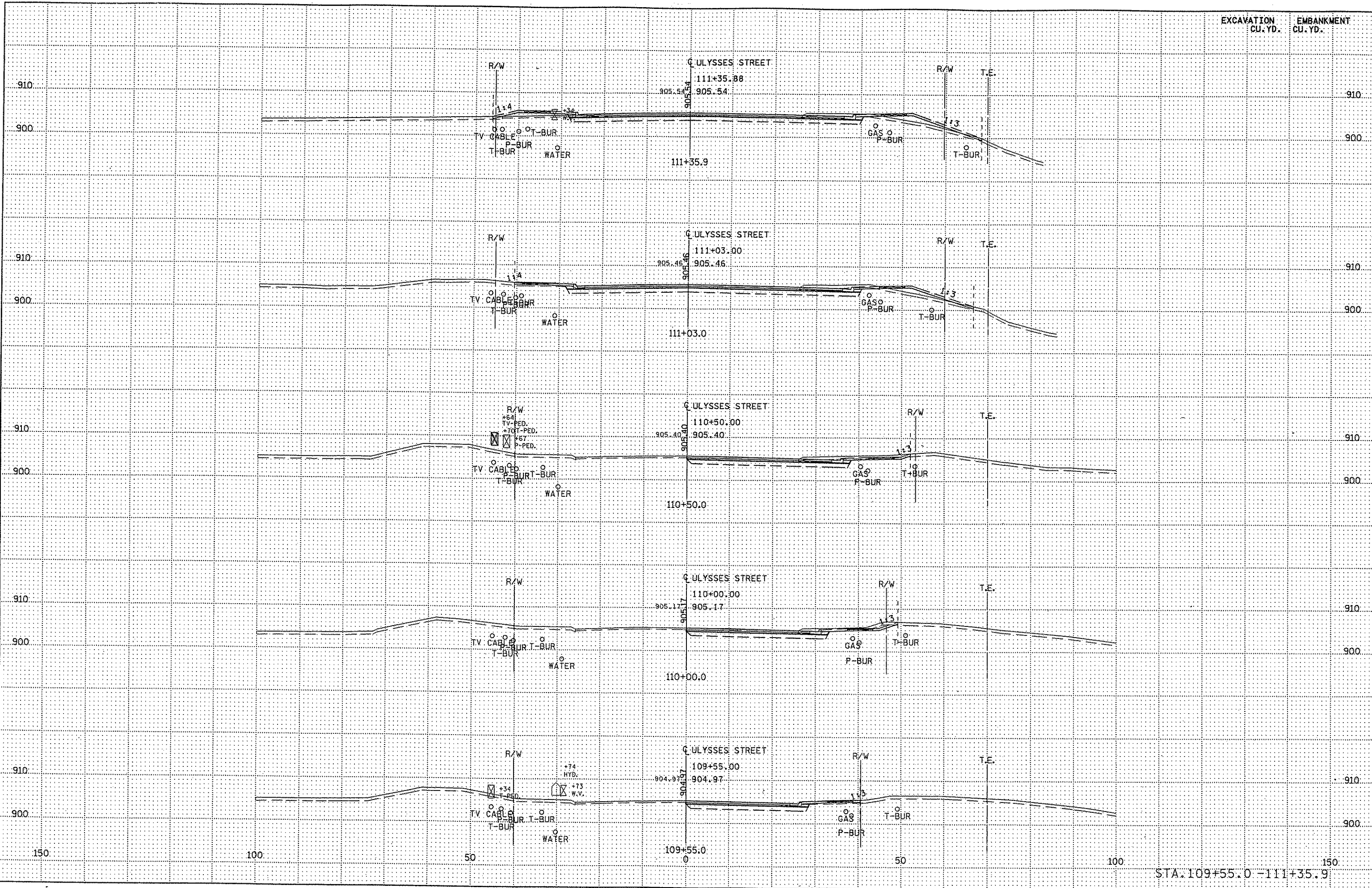


STA. 17+79.4 - 18+05.2

EXCAVATION
CU. YD.
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07.10

DISTRICT : METRO
I-PLOT NAME: ulysse2_xp201
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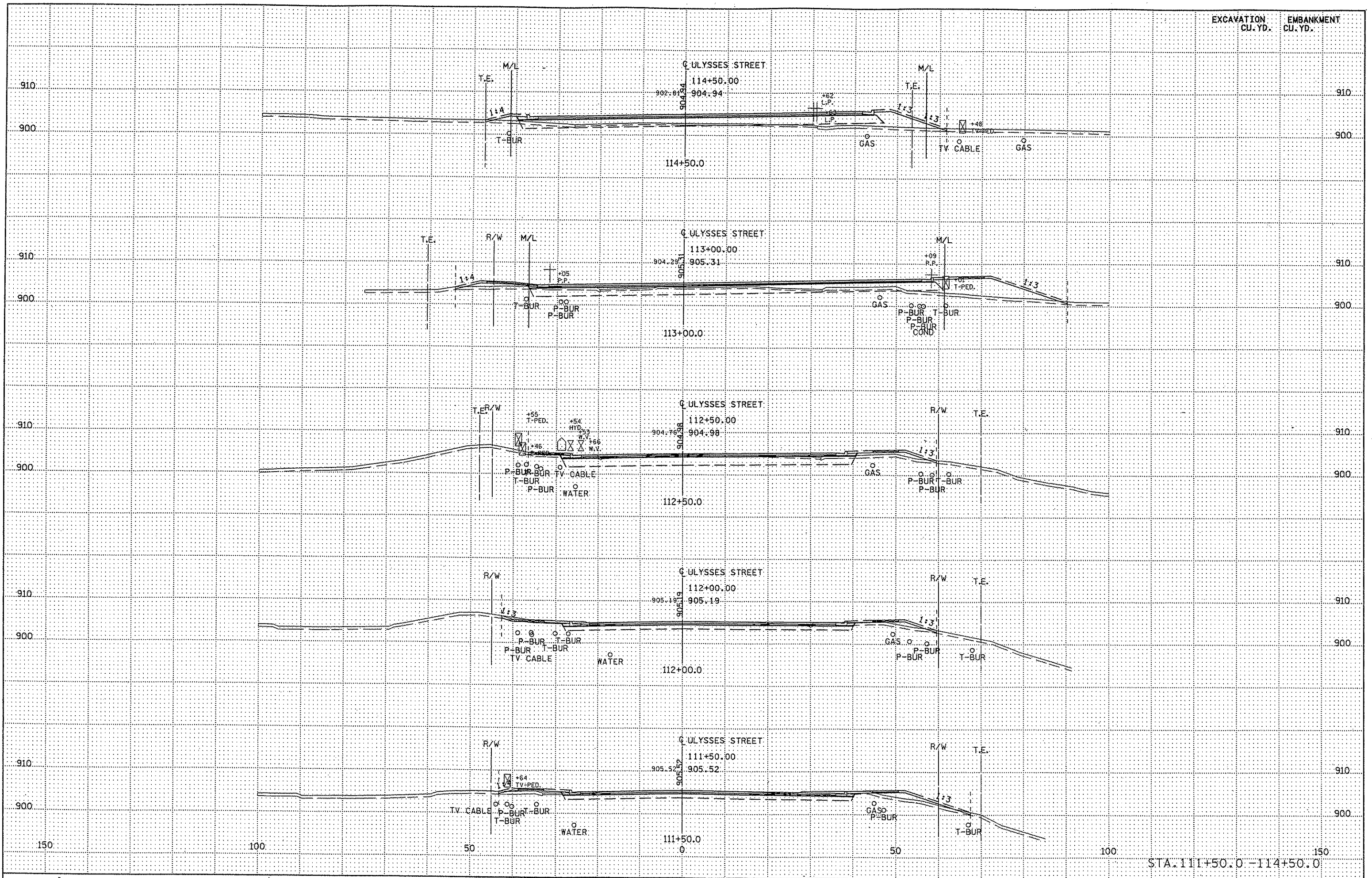


STA. 109+55.0 - 111+35.9

EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:10

DISTRICT : METRO
PLOT NAME: ulyssees2_xp202
PATH & FILENAME: S:\DESIGN\0208\23\Final\ulyssees\ulyssees2_xp2.dgn



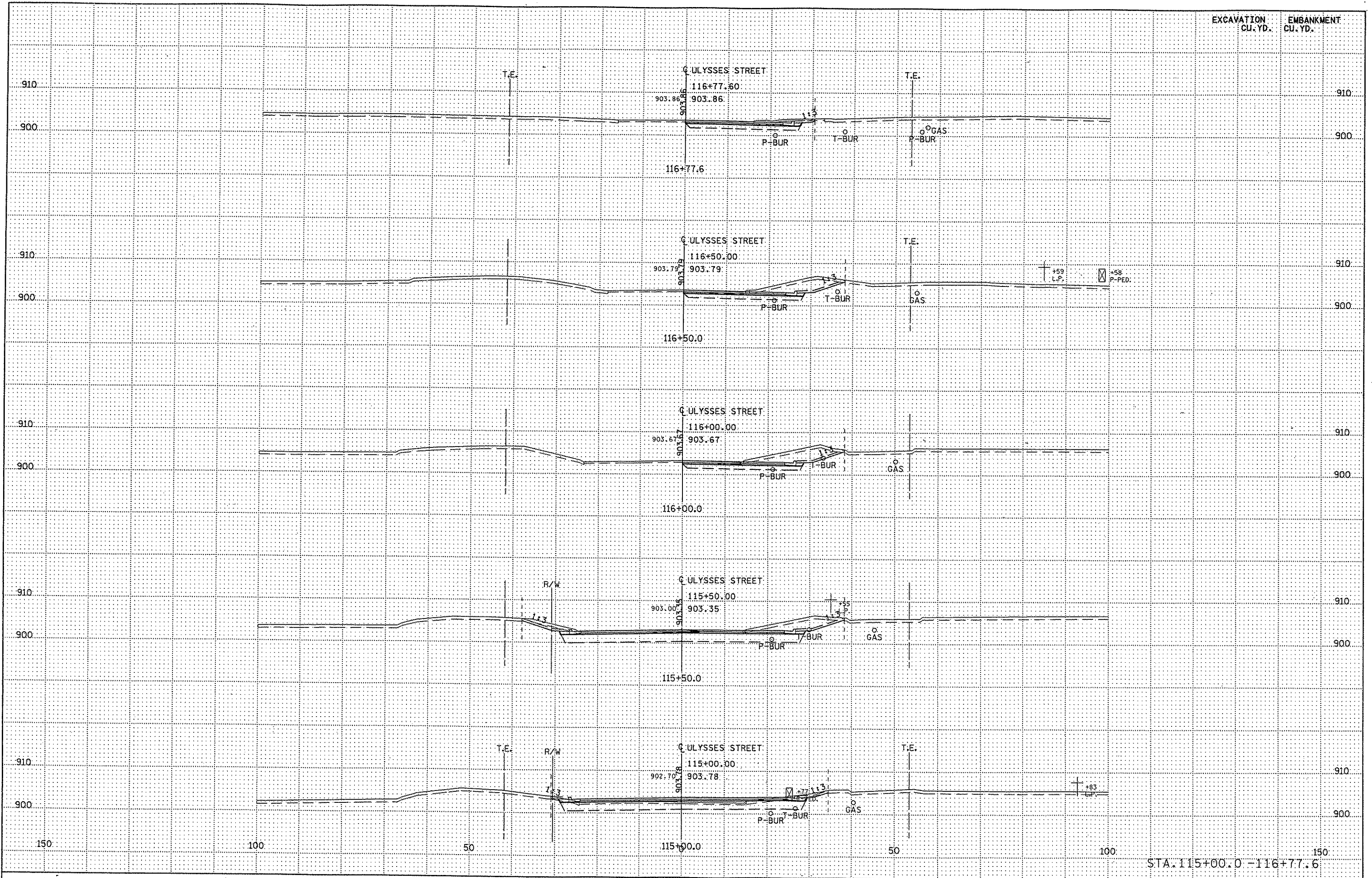
STA. 111+50.0 - 114+50.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:10

DISTRICT : METRO
PLOT NAME: ulysse2_xp203
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\vs\Ulysses\ulysses2_xp2.dgn



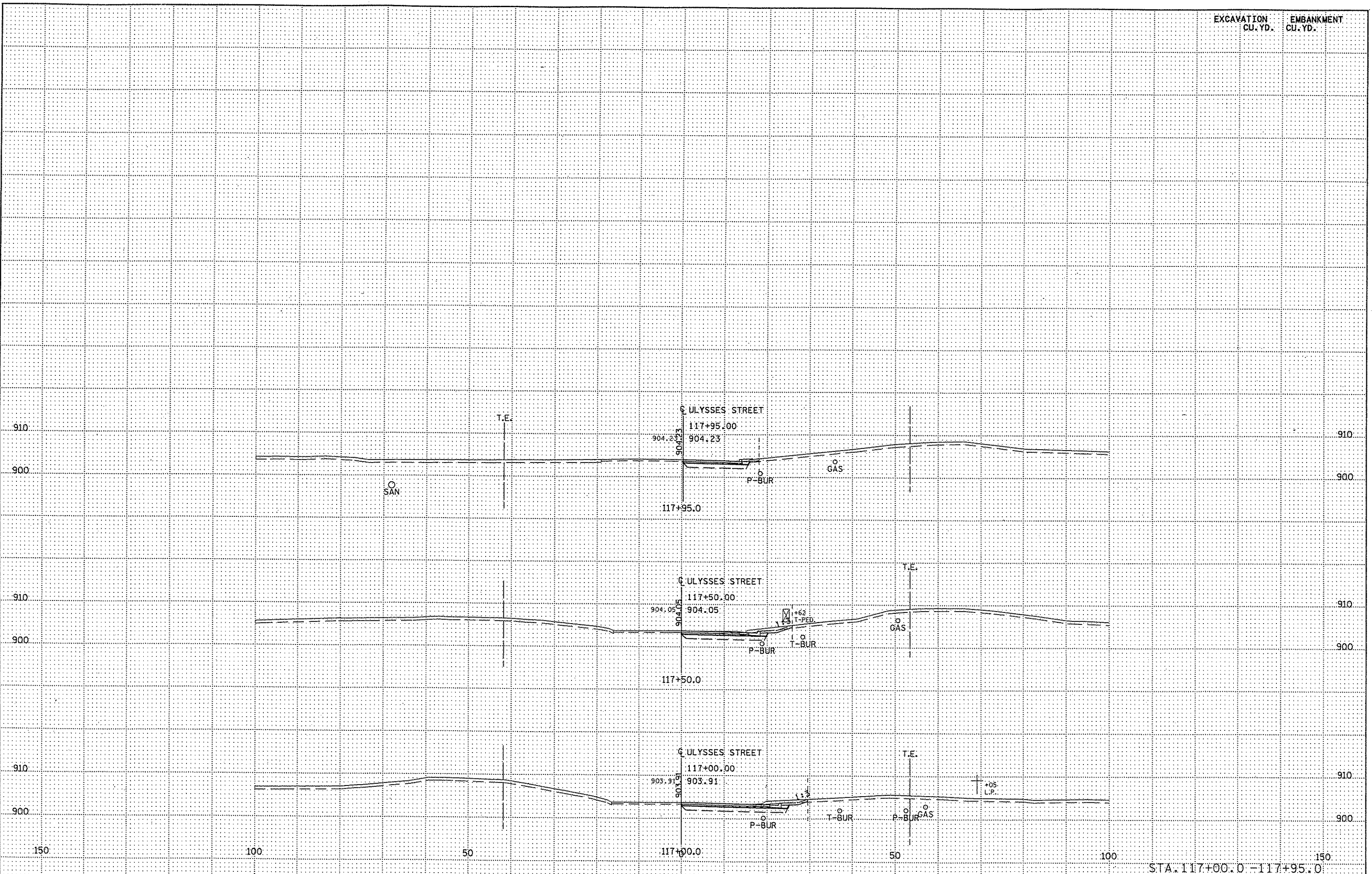
STA. 115+00.0 - 116+77.6

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:10

DISTRICT #: METRO
PLOT NAME: ulysse2_xp204
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\ulysse\ulysse2_xp2.dgn



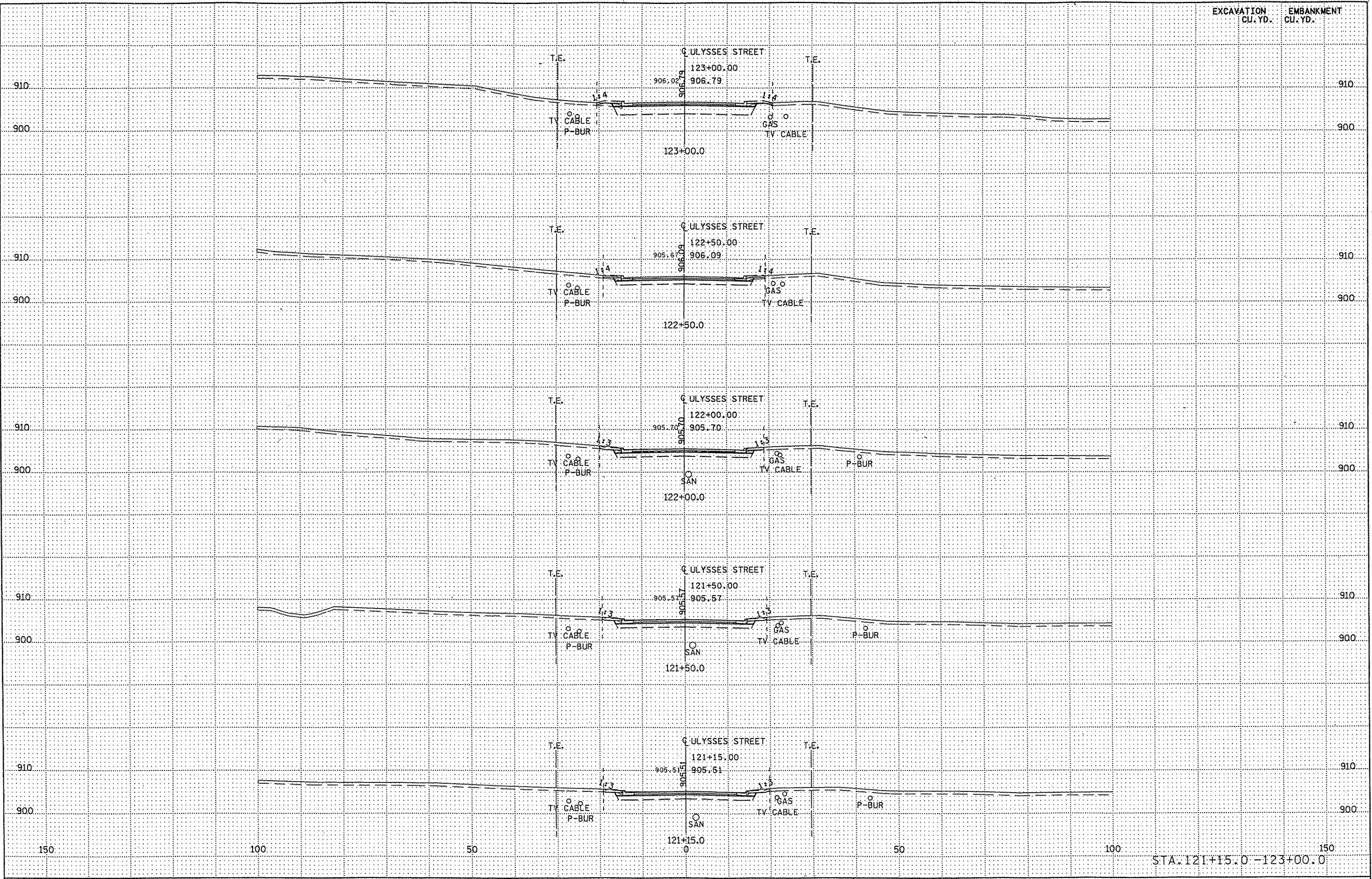
STA. 117+00.0 - 117+95.0

EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:10

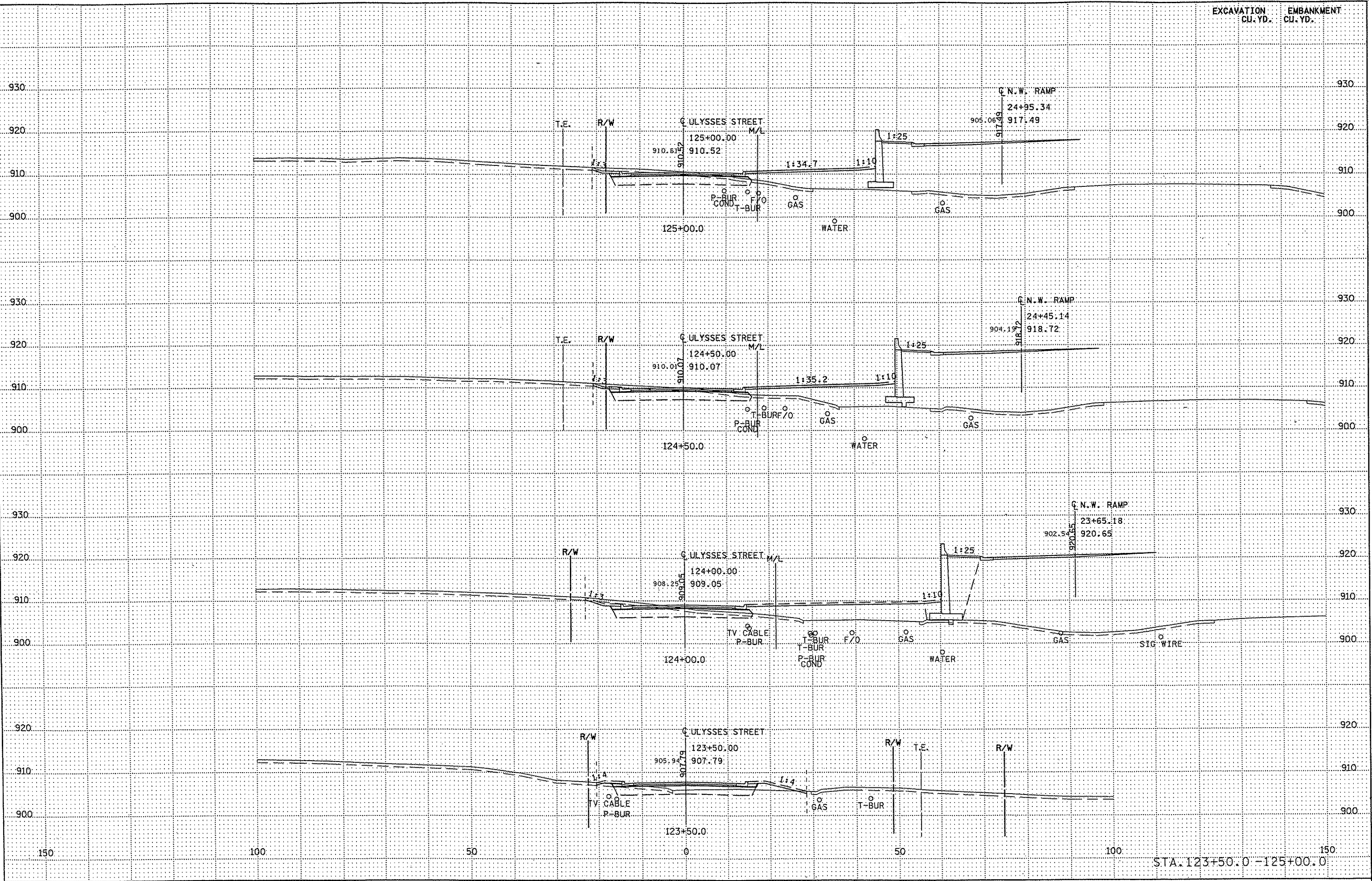
DISTRICT #: METRO
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EXCAVATION CU. YD. EMBANKMENT CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:10

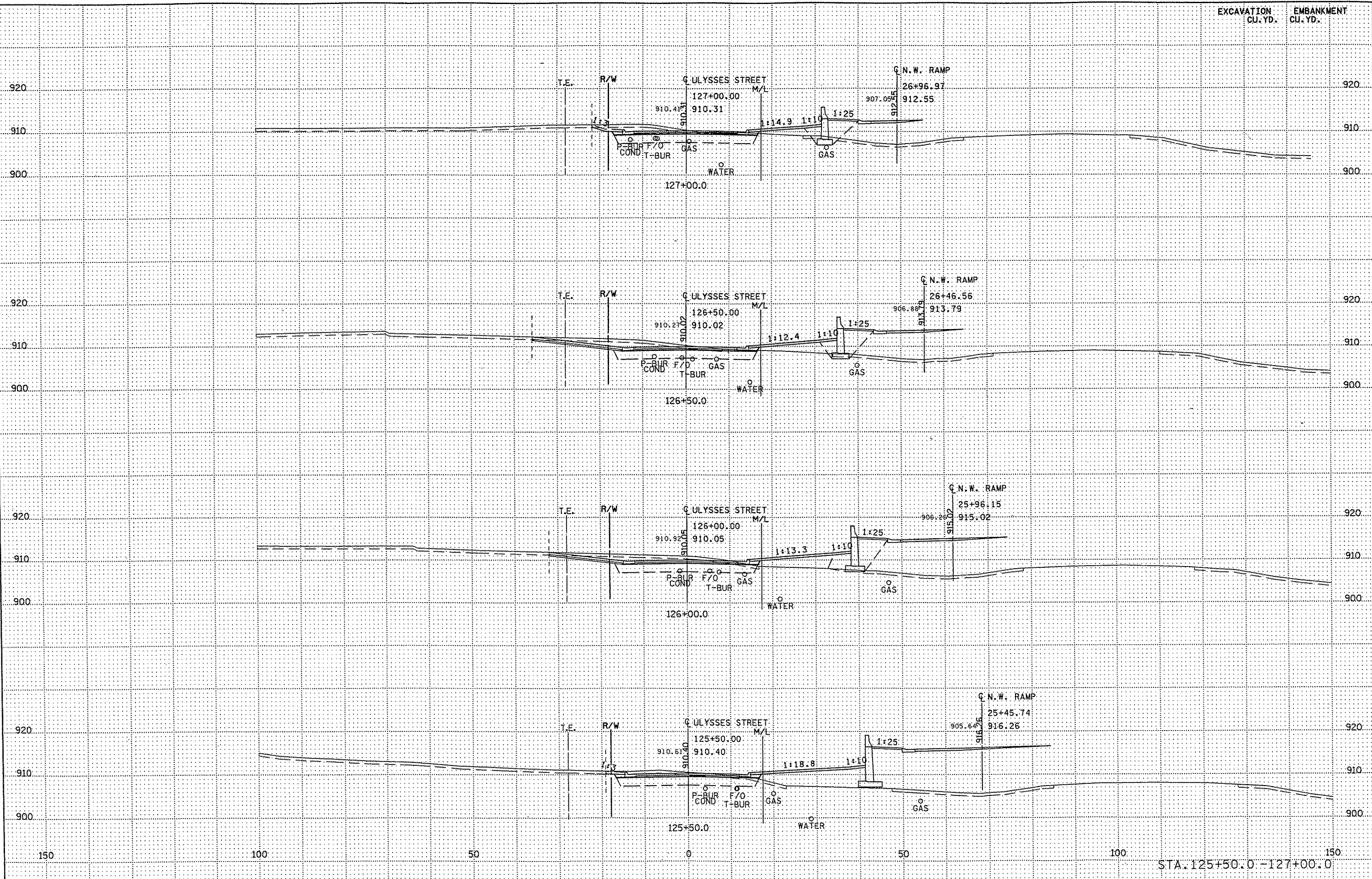
DISTRICT * : METRO
I-PLOT NAME: ulyssees_xp02
PATH & FILENAME: S:\DESIGN\065\0208\123\Final\Ulysses\Ulysses_xpl.dgn



EXCAVATION
CU. YD.
EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:40

DISTRICT # : METRO
PLOT NAME: ulyssees_xp03
PATH & FILENAME: S:\DESIGN\065\0208\23\Tnd\Vis\Ulysses\Ulysses_xp1.dgn

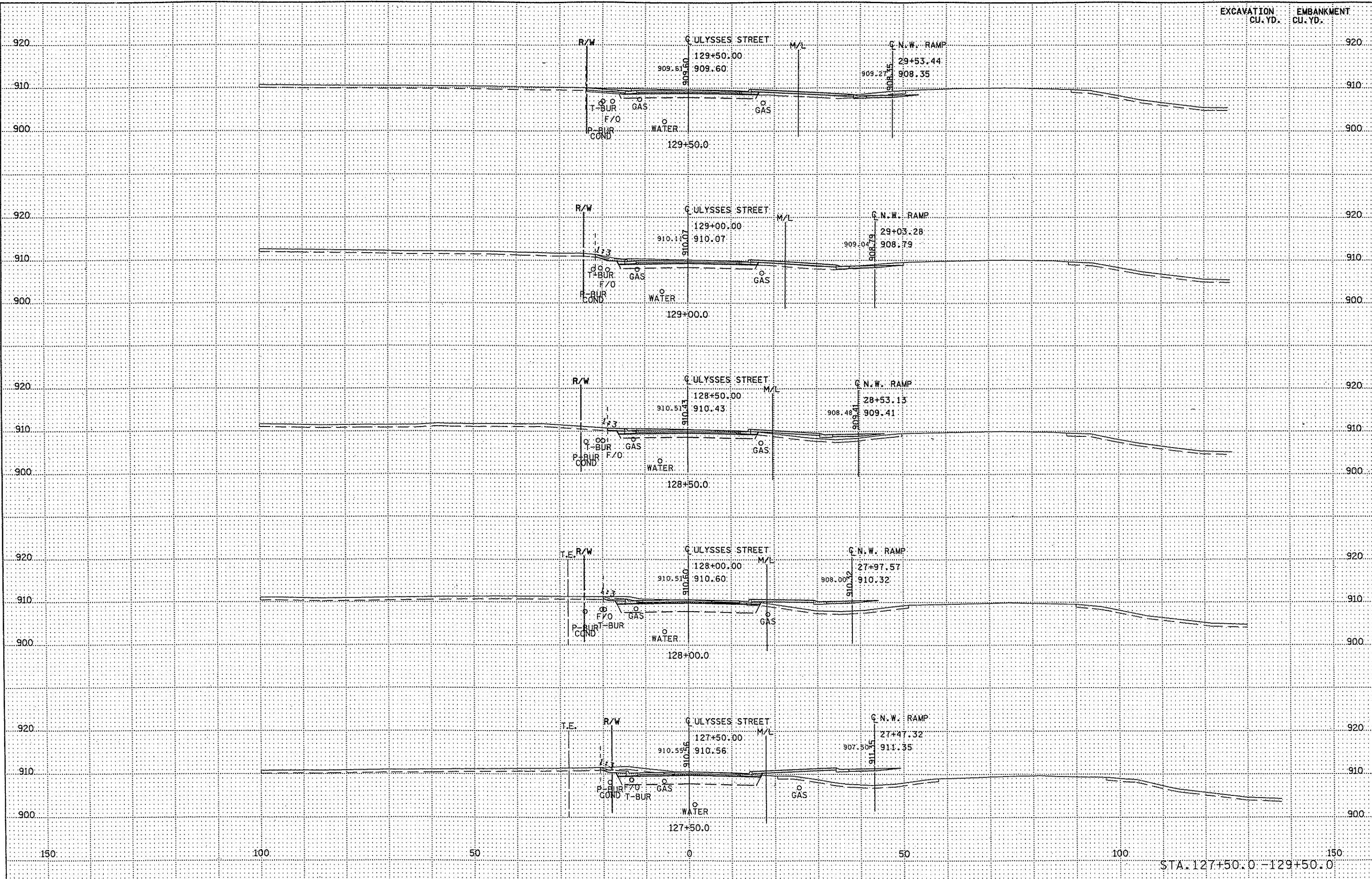


EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:40

DISTRICT : METRO
PLOT NAME: ulysses_xp04
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\vs\Ulysses\ulysses_xpl.dgn



EXCAVATION
CU. YD.

EMBANKMENT
CU. YD.

PLOTTED/REVISED: 04-APR-2007 07:10

DISTRICT : METRO
PLOT NAME: ulyssees_xpl05
PATH & FILENAME: S:\DESIGN\065\0208\23\Final\ulyssees\ulyssees_xpl.dgn

