FORM 129 A REV. '64

Minn. Proj. No. M 5142 (3)

STATE OF MINNESOTA

DEPARTMENT OF HIGHWAYS

CONSTRUCTION PLAN FOR GRADING, BASE & BIT., C. & G., CHANNELIZATION & SIGNALS

County Highway No. 51

Between 105 TH. LANE N.W. And 111 T.H. AVE. N.W.

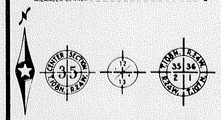
From A POINT 18.65' N. OF THE E. 1/4 COR., SEC. 24, T. 31 N., R. 24 W. To A POINT 16.55' N. OF THE E. 1/4 COR., SEC. 13, T. 31 N., R. 24 W.

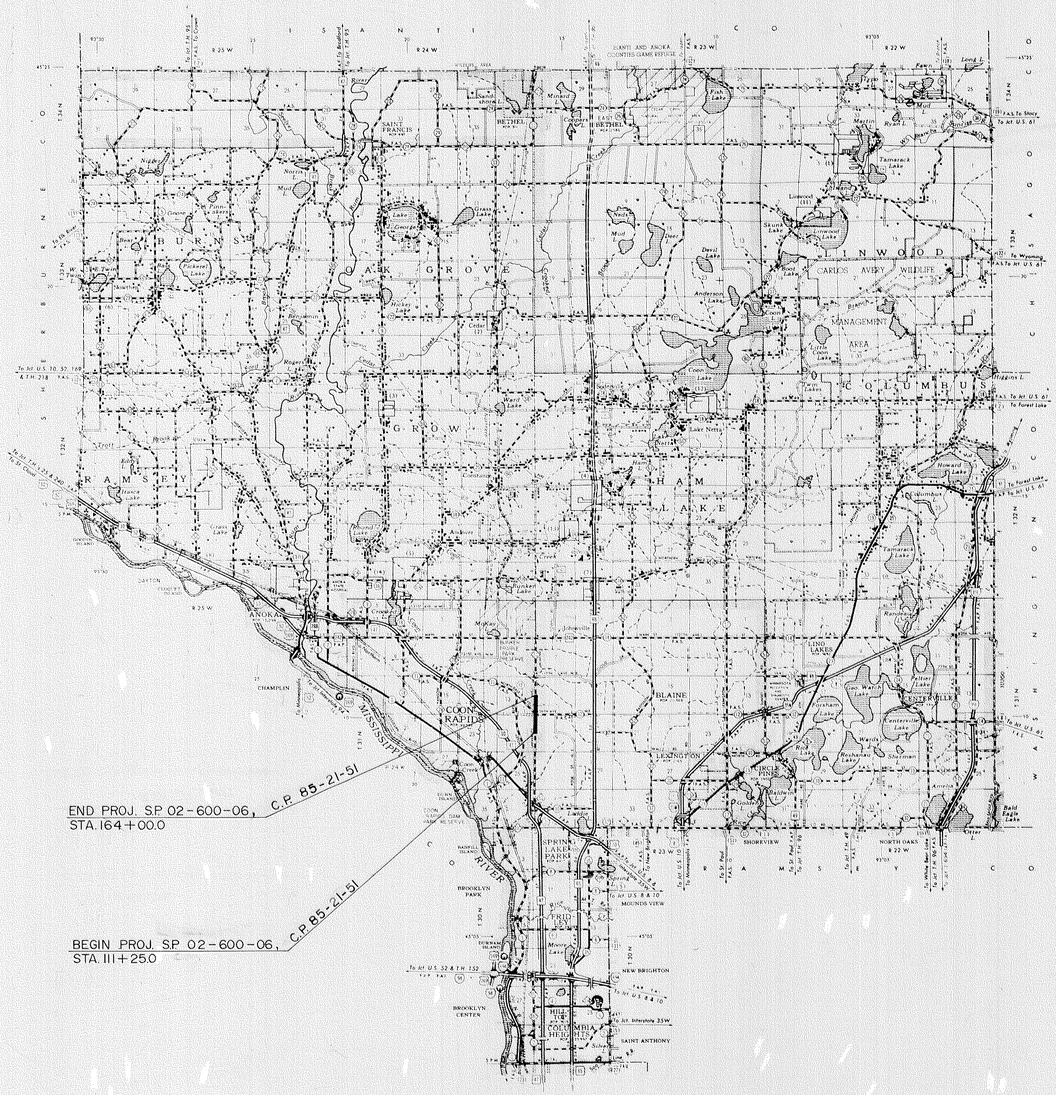
Give proper reference to Sections, Township and Range

GROSS LENGTH 5,275.0 FEET 0.999 MILES
BRIDGES LENGTH ---------- FEET ---------- MILES
EXCEPTIONS LENGTH ---------- FEET ---------- MILES
NET LENGTH 5,275.0 FEET 0.999 MILES

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
PRESENT RIGHT-OF-WAY LINE
CONTROL OF ACCESS LINE
PROPERTY LINE (Except Land Lines)
VACATED PLATTED PROPERTY
CORPORATE OR CITY LIMITS
TRUNK HIGHWAY CENTER LINE
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY LINE
RIVER OR CREEK
DRY RUN
DRAINAGE DITCH
ELECTRIC POWER LINE
TELEPHONE OR TELEGRAPH LINE
JOINT TELEPHONE AND POWER
CONDUIT
TELEPHONE CABLE - AERIAL
TELEPHONE CABLE UNDERGROUND
POWER CABLE UNDERGROUND
GAS MAIN
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW FENCE
STONE WALL OR FENCE
HEDGE
WATER PIPE
SEWER PIPE
DRAIN TILE
SPRINGS
MARSH
TIMBER
ORCHARD
BRUSH
NURSERY
CATCH BASIN
MANHOLE
FIRE HYDRANT
STREET LIGHT
RAILROAD CROSSING SIGN
RAILROAD CROSSING BELL
ELECTRIC WARNING SIGN
CROSSING GATE
CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE
BUILDING (One Story Frame)
F FRAME C CONCRETE
S STONE T TILE
B BRICK ST STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY
MEANDER CORNER





SCALE

INDEX MAP	2 MI.
PLAN & PROFILE HORIZ.	50'
PLAN & PROFILE VERT.	5'
CROSS SECTIONS	10'
SIGNAL	30'

INDEX OF SHEETS

Sheet No. 1 Title Sheet & Layout Map
" No. 2 Est. Quantities
" No. 3-4 Typical Sections & Const Details
" No. 5 Misc. Removals & Const. Details
" No. 6 Storm Sewer
" No. 7-11 Plan & Profile (Univ.)
" No. 12 Plan & Profile (N. Dale)
" No. 13-15 Signing & Striping
" No. 16-18 Traffic Control & Detour
" No. 19-25 Cross Sections (Univ.)
" No. 26-27 Cross Sections (N. Dale)
" No. 28-33 Signal Systems

DESIGN DESIGNATION

ADT (CURRENT YEAR) 13,600
ADT (FUTURE YEAR) 21,760
T (HEAVY COMMERCIAL) H.C.A.D.T. 1,100 +
9 Ton Design, Soil Factor A-3, 50%
Design Speed 45 M.P.H.
Based on Stopping Sight distance, Height of eye 3.50' Height of object 0.50'
Design Speed not achieved at:
STA. ---------- TO STA. ---------- MPH ----------
STA. ---------- TO STA. ---------- MPH ----------

SPECIFICATIONS

THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION," 1983 EDITION AND SUPPLEMENTAL SPECIFICATIONS, DATED MARCH 7, 1985 SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH, IN THE CONSTRUCTION OF THIS PROJECT.

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

Paul K. Lund DATE 1-10-86
COUNTY ENGINEER

ANOKA COUNTY REG. NO. 6549

RECOMMENDED FOR APPROVAL C E Wichselbaum 2/18 1986
DISTRICT STATE AID ENGINEER

RECOMMENDED FOR APPROVAL Julie Skallman 6/9 1986
STATE AID PLANS & SPECIFICATIONS ENGINEER

APPROVED 6/9 1986 Glenden W. Gray
STATE AID ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: ----------
DIVISION ADMINISTRATION DATE

STATE PROJ. NO. 02-600-06
STA. 122+75.0 TO 140+20.0

County Proj. No. 85-21-51
State Proj. No. 02-600-06 S.A.P. ----------
Rec. 5-13-86 ANOKA County, Minnesota. Sheet 1 of 33 Sheets

LOOP DETECTOR SCHEDULE

DESIGNATION	PHASE	SIZE IN FT	LOCATION (1)	FUNCTION
D1-1	1	4-6X6	48'	(1)
D2-1	2	6X6	408'	(1)
D2-2	2	6X6	408'	(1)
D2-3	2	6X6	82'	(2)
D2-4	2	6X6	80'	(2)
D3-1	3	4-6X6	60'	(1)
D4-1	4	2-6X6 (2)	293'	(3) & (8)
D4-2	4	2-6X6	65'	(1)
D4-3	4	2-6X6	52'	(7)
D5-1	5	4-6X6	54'	(1)
D6-1	6	6X6	393'	(1)
D6-2	6	6X6	393'	(1)
D6-3	6	6X6	58'	(2)
D6-4	6	6X6	62'	(2)
D7-1	7	4-6X6	61'	(1)
D8-1	8	2-6X6 (2)	301'	(3) & (8)
D8-2	8	2-6X6	74'	(1)
D8-3	8	2-6X6	60'	(7)

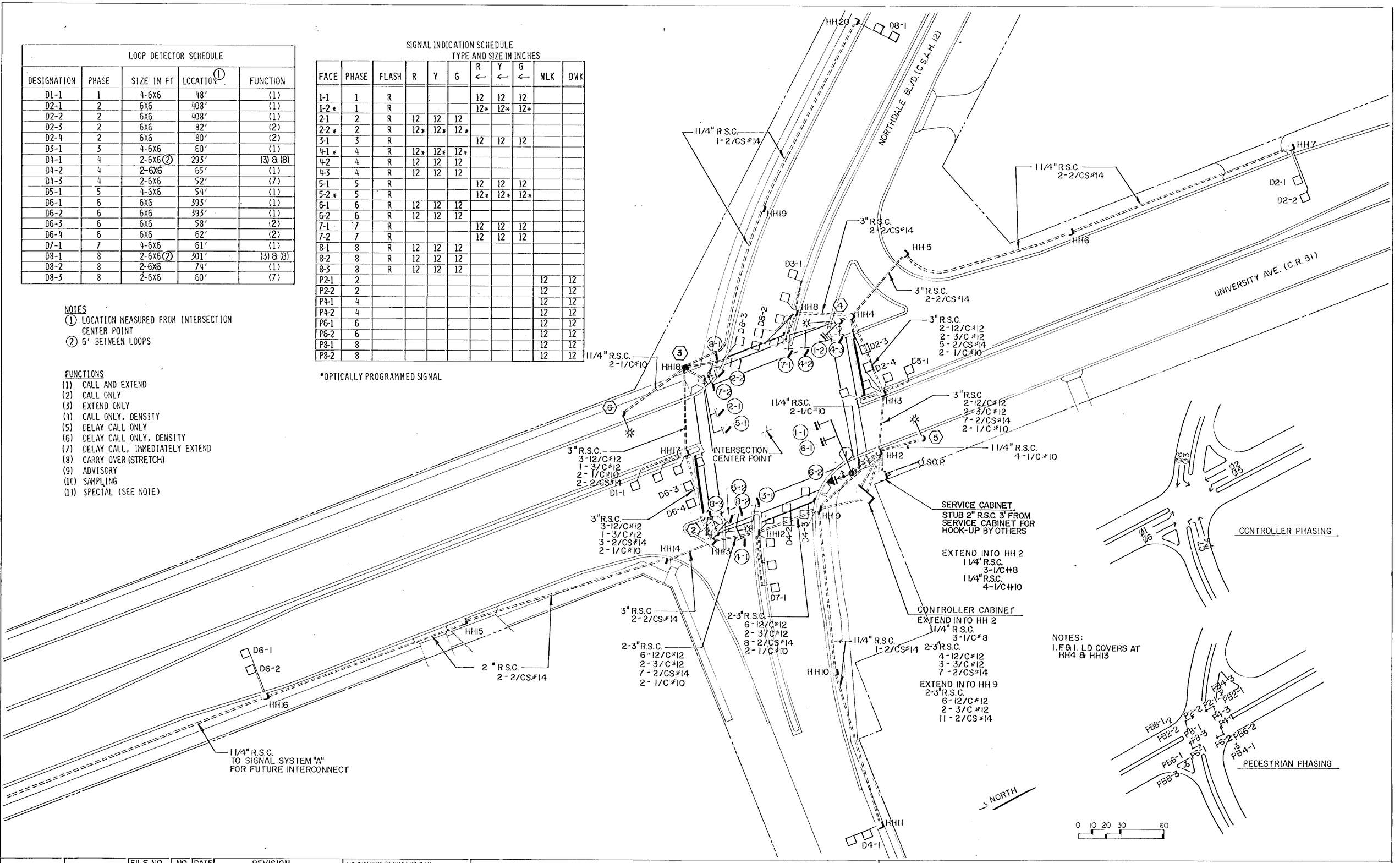
NOTES
(1) LOCATION MEASURED FROM INTERSECTION CENTER POINT
(2) 6' BETWEEN LOOPS

FUNCTIONS
(1) CALL AND EXTEND
(2) CALL ONLY
(3) EXTEND ONLY
(4) CALL ONLY, DENSITY
(5) DELAY CALL ONLY
(6) DELAY CALL ONLY, DENSITY
(7) DELAY CALL, IMMEDIATELY EXTEND
(8) CARRY OVER (STRETCH)
(9) ADVISORY
(10) SAMPLING
(11) SPECIAL (SEE NOTE)

SIGNAL INDICATION SCHEDULE
TYPE AND SIZE IN INCHES

FACE	PHASE	FLASH	R	Y	G	R ←	Y ←	G ←	WLK	DWK
1-1	1	R				12	12	12		
1-2 *	1	R				12*	12*	12*		
2-1	2	R	12	12	12					
2-2 *	2	R	12*	12*	12*					
3-1	3	R				12	12	12		
4-1 *	4	R	12*	12*	12*					
4-2	4	R	12	12	12					
4-3	4	R	12	12	12					
5-1	5	R				12	12	12		
5-2 *	5	R				12*	12*	12*		
6-1	6	R	12	12	12					
6-2	6	R	12	12	12					
7-1	7	R				12	12	12		
7-2	7	R				12	12	12		
8-1	8	R	12	12	12					
8-2	8	R	12	12	12					
8-3	8	R	12	12	12					
P2-1	2								12	12
P2-2	2								12	12
P4-1	4								12	12
P4-2	4								12	12
P6-1	6								12	12
P6-2	6								12	12
P8-1	8								12	12
P8-2	8								12	12

*OPTICALLY PROGRAMMED SIGNAL



NOTES:
1. F & I. LD COVERS AT HH4 & HH13

DESIGN	SCALE	FILE NO.	NO.	DATE	REVISION
DRAWN	AS SHOWN	DATE		1/6/86	VARIOUS D.K.D. PER K.W.A.
CHECKED				5/13/86	VARIOUS D.K.D. PER D.HANSON 3/20/86

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE 5/30/86 REG. NO. 14118

Barton-Aschman Associates, Inc.

SIGNAL SYSTEM "B" - UNIVERSITY AVE. (C.R. 51) & NORTHDALE BLVD. (C.S.A.H. 12)

S.P. 02-600-08 S.A.P. C.P. Sheet No. 32 of 33 Sheets

CONTROLLER CABINET

1 — RED 2-2, YEL 2-2, GRN 2-2, NEU 2-2,P2-2, RED 5-1, YEL 5-1, GRN 5-1, NEU 5-1, DWK P2-2, SPARE, WLK P2-2, EQG

2 — RED 2-1, YEL 2-1, GRN 2-1, NEU 2-1, RED 8-2, YEL 8-2, GRN 8-2, NEU 8-2, SPARE, SPARE, EQG

3 — DWK P4-1,P4-2, NEU P4-1,P4-2, WLK P4-1,P4-2

4 — RED 4-1, YEL 4-1, GRN 4-1, NEU 4-1, SPARE, SPARE, SPARE, NEU P6-2, DWK P6-2, SPARE, WLK P6-2, EQG

5 — DWK P8-1, NEU P8-1, WLK P8-1

5A — DWK P8-2, NEU P8-2, WLK P8-2

6 — RED 8-1, YEL 8-1, GRN 8-1, NEU 8-1, SPARE, SPARE, SPARE, NEU P2-1, DWK P2-1, SPARE, WLK P2-1, EQG

7 — RED 1-1, YEL 1-1, GRN 1-1, NEU 1-1, RED 6-2, YEL 6-2, GRN 6-2, NEU 6-2, P6-1, DWK P6-1, SPARE, WLK P6-1, EQG

8 — RED 4-2, YEL 4-2, GRN 4-2, NEU 4-2, RED 6-1, YEL 6-1, GRN 6-1, NEU 6-1, SPARE, SPARE, SPARE, EQG

9 — PB 2-2, NEU, PB4-1, PB4-2

10 — NEU, PB 6-2, PB 2-1, NEU, PB8-2

11 — PB8-1, NEU, PB 6-1

12 — D4-1, D4-2, D4-3, D1-1, D6-1, D6-2, D6-3, D6-4, D2-1, D2-2, D2-3, D2-4, D5-1, D8-1, CONTROLLER NEU, FLASH

MAST ARM POLE (3)

2-2,5-1,P2-1 — 1, 2 — 2-1,8-2

PB2-1, PB4-2 — 9 — 29A — LUM.

3A — P4-2

HH8: 13 → HH9: 13 → D4-1

HH7: 13 — 1, 2, 3A, 9, 29A; 14 → D4-2; 15 → D4-3

HH6: D1-1 → 16 — 1, 2, 3A, 9, 13, 14, 15, 29A

HH3: 1, 2, 9, 13, 14, 15, 16, 29A; 3A: 3, 4, 10, 17, 18, 19, 20 → D6-3, D6-4

HH2: 1, 2, 3, 4, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 29A; 26, 27; 21, 22, 5A, 6, 11, 23, 24, 25; 5, 7, 8, 12, 29A; 29, 28

HH10: 5A, 6, 11 → 25 D5-1, 23 D2-3, 24 D2-4

HH13: D2-1, D2-2 — 21, 22

HH12: 21, 22

HH11: 21, 22

PEDESTAL POLE (4)

8-1,P2-2 — P8-1 — 5A, 6

PB 2-2,PB8-1 — 11

HH14: 5A, 6, 11

PEDESTAL POLE (2)

4-1,P6-2 — P4-1 — 3A, 3, 4

PB4-1,PB6-2 — 10

HH15: D6-1, D6-2 → 17, 18

HH5: 17, 18

HH4: 17, 18

D8-1 → 26

D8-2 → 27

S.O.P → 32 — BY OTHERS

MAST ARM POLE (1)

1-1,6-2,P6-1 — 4-2,6-1 — 7, 8

P8-2 — 29A, 5

LUM. — 29

TO ST LHT CK. SW. — 2

PB8-2, PB6-1 — 12

SERVICE CABINET

EMERGENCY POWER

SIGNALS: 32 NEU, LIGHTING

CONTROLLER: NEU 28, FLASH

STREET LIGHT 29

NOTES:

1. ALL DETECTOR WIRE SHALL BE SPLICED TO 2/C/S# 14 LEAD CABLES IN HANDHOLES. DETECTOR WIRE SHALL BE CONTINUOUS RUN WITH NO INTERMEDIATE SPLICES.
2. DETECTOR SPLICES SHALL NOT BE COMPLETED UNTIL LOOP CONTINUITY IS TESTED AND APPROVED BY THE ENGINEER.
3. PROVIDE TERMINAL STRIPS IN THE BASE OF ALL POLE STANDARDS WITH TERMINALS FOR EACH CONDUCTOR, EXCEPT CONDUCTORS FOR STREET LIGHTING.
4. PROVIDE IN-LINE FUSES IN BASE OF EACH POLE STANDARDS FOR STREET LIGHTING.
5. POWER CABLES SHALL BE CONTINUOUS RUN WITH NO SPLICES, EXCEPT AS NOTED AT POLE BASE TERMINAL BLOCKS.
6. GROUND CONDUCTORS ARE NOT SHOWN. INSTALL GROUNDING AS SPECIFIED.

DESIGN	SCALE	NO.	DATE	REVISIONS
DRAWN	AS SHOWN		1/6/86	VARIOUS ΔS.N.O. PER K.W.A.
CHECKED				

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Kenneth W. Cable
DATE 12/20/85 REG NO. 7118

Barton-Aschman Associates, Inc.
1610 SOUTH SIXTH STREET MINNEAPOLIS, MINNESOTA 55454

ANOKA COUNTY, MINNESOTA
S.P. 02-600-06

UNIVERSITY AVE. AND EGRET
SIGNAL SYSTEM "A"
FIELD WIRING DIAGRAM

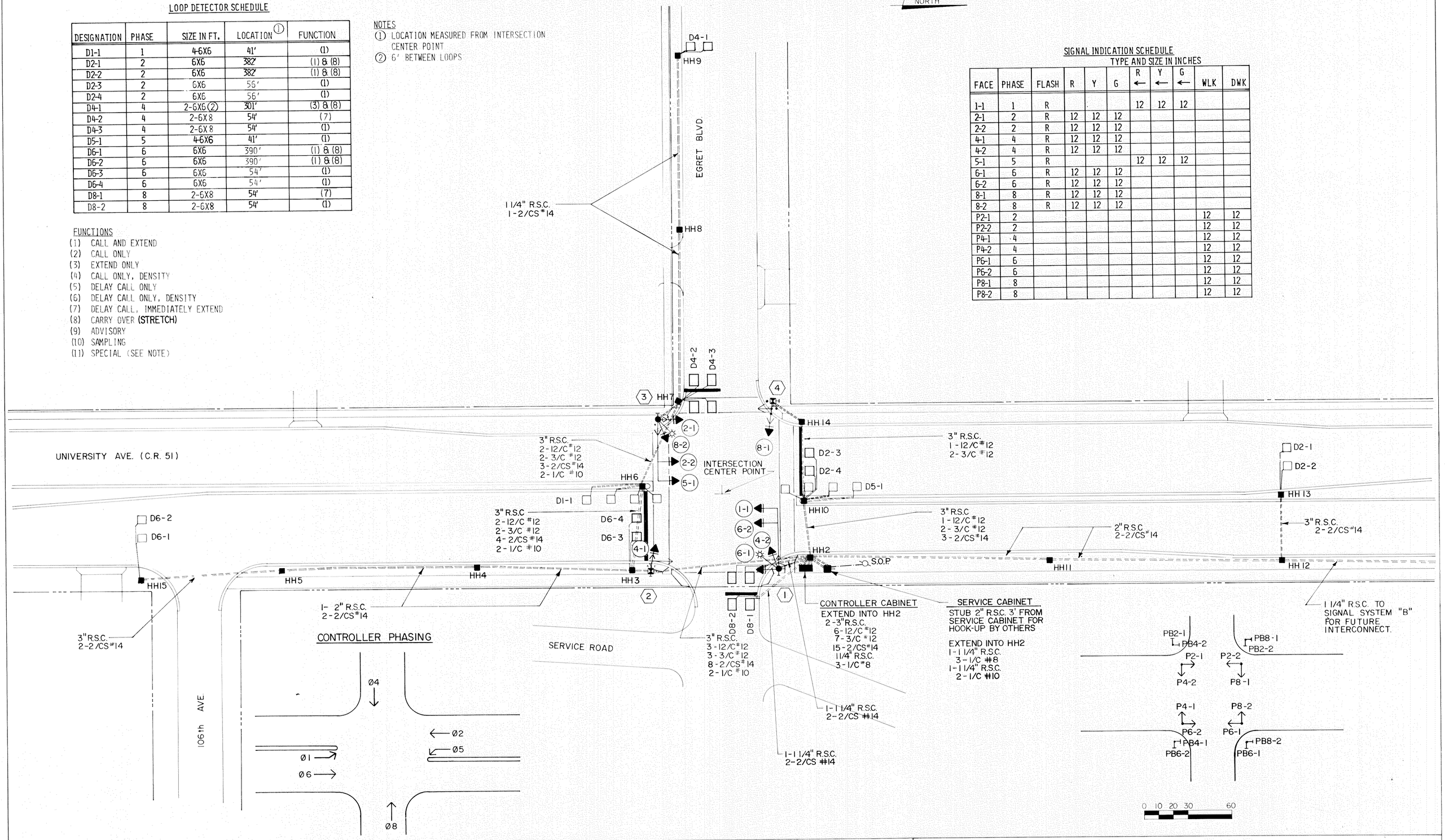
FILE NO.
DATE
SHEET NO. 31 OF 33

LOOP DETECTOR SCHEDULE

DESIGNATION	PHASE	SIZE IN FT.	LOCATION (1)	FUNCTION
D1-1	1	4-6X6	41'	(1)
D2-1	2	6X6	382'	(1) & (8)
D2-2	2	6X6	382'	(1) & (8)
D2-3	2	6X6	56'	(1)
D2-4	2	6X6	56'	(1)
D4-1	4	2-6X6 (2)	301'	(3) & (8)
D4-2	4	2-6X8	54'	(7)
D4-3	4	2-6X8	54'	(1)
D5-1	5	4-6X6	41'	(1)
D6-1	6	6X6	390'	(1) & (8)
D6-2	6	6X6	390'	(1) & (8)
D6-3	6	6X6	54'	(1)
D6-4	6	6X6	54'	(1)
D8-1	8	2-6X8	54'	(7)
D8-2	8	2-6X8	54'	(1)

FUNCTIONS
(1) CALL AND EXTEND
(2) CALL ONLY
(3) EXTEND ONLY
(4) CALL ONLY, DENSITY
(5) DELAY CALL ONLY
(6) DELAY CALL ONLY, DENSITY
(7) DELAY CALL, IMMEDIATELY EXTEND
(8) CARRY OVER (STRETCH)
(9) ADVISORY
(10) SAMPLING
(11) SPECIAL (SEE NOTE)

NOTES
(1) LOCATION MEASURED FROM INTERSECTION CENTER POINT
(2) 6' BETWEEN LOOPS



SIGNAL INDICATION SCHEDULE
TYPE AND SIZE IN INCHES

FACE	PHASE	FLASH	R	Y	G	R ←	Y ←	G ←	WLK	DWK
1-1	1	R				12	12	12		
2-1	2	R	12	12	12					
2-2	2	R	12	12	12					
4-1	4	R	12	12	12					
4-2	4	R	12	12	12					
5-1	5	R				12	12	12		
6-1	6	R	12	12	12					
6-2	6	R	12	12	12					
8-1	8	R	12	12	12					
8-2	8	R	12	12	12					
P2-1	2								12	12
P2-2	2								12	12
P4-1	4								12	12
P4-2	4								12	12
P6-1	6								12	12
P6-2	6								12	12
P8-1	8								12	12
P8-2	8								12	12

DESIGN	SCALE	FILE NO.	NO.	DATE	REVISION
DRAWN	AS SHOWN			1/6/86	VARIOUS PER K.W.A.
CHECKED		DATE		5/13/86	VARIOUS PER D. HANSON 3/20/86

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DATE ____ REG NO. ____

Barton-Aschman Associates, Inc.

SIGNAL SYSTEM "A" - UNIVERSITY AVE. (C.R. 51) & EGRET BLVD.

S.P. 02-600-06 S.A.P. ____ C.P. ____ Sheet No. 30 of 33 Sheets

SIGNAL SYSTEM "A"

POLE SCHEDULE

MAST ARM POLE 1

TYPE P90-A-40-D40-12 MAST ARM POLE WITH TRANSFORMER BASE

LOCATE POLE BASE 38 FEET NORTH AND 51 FEET EAST OF THE INTERSECTION CENTERLINE. ORIENT MAST ARM 90 DEGREES FROM UNIVERSITY AVENUE.

1- 250 WATT HIGH PRESSURE SODIUM LUMINAIRE MOUNTED AT 355 DEGREES WITH P.E.C. AND TEST SWITCH

1- ONE-WAY, 3 SECTION SIGNAL, OVERHEAD AT 40 FEET (1-1)

36" X 48" SIGN "LEFT TURN SIGNAL" OVERHEAD AT 35 FEET

1- ONE-WAY, 3 SECTION SIGNAL, OVERHEAD AT 28 FEET (6-2)

TYPE "D" SIGN "EGRET BLVD" OVERHEAD AT 14 FEET (1)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 270 DEGREES (6-1), WITH ONE SET OF PEDESTRAIN INDICATIONS (P6-1)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 360 DEGREES (4-2), WITH ONE SET OF PEDESTRIAN INDICATIONS (P8-2)

2- PEDESTRIAN PUSHBUTTONS, POLE MOUNTED AT 90 DEGREES (PB8-2) AND 180 DEGREES (PB6-1)

2- STEEL GUARD POSTS

EXTEND INTO HH 2:

1- 3" RSC
2-12/C#12
2-3/C#12
4-1/C#10

PEDESTAL POLE 2

SIGNAL PEDESTAL POLE WITH FRANGIBLE BASE

LOCATE POLE BASE 46 FEET SOUTH AND 52 FEET EAST OF THE INTERSECTION CENTERLINE.

1- ONE-WAY SIGNAL, TYPE 1D, MOUNTED AT 270 DEGREES (4-1) WITH TWO SETS OF PEDESTRIAN INDICATIONS (P4-1 & P6-2)

2- PEDESTRIAN PUSHBUTTONS, POLE MOUNTED AT 90 DEGREES (PB6-2) AND 360 DEGREES (PB4-1)

2- STEEL GUARD POSTS

EXTEND INTO HH 3:

1- 2" RSC
1-12/C#12
3-3/C#12

MAST ARM POLE 3

TYPE P90-A-40-D40-12 MAST ARM POLE WITH TRANSFORMER BASE

LOCATE POLE BASE 43 FEET SOUTH AND 51 FEET WEST OF THE INTERSECTION CENTERLINE ORIENT MAST ARM 90 DEGREES FROM UNIVERSITY AVENUE

1- 250 WATT HIGH PRESSURE SODIUM LUMINAIRE MOUNTED AT 355 DEGREES (NO P.E.C.)

1- ONE-WAY, 3 SECTION SIGNAL; OVERHEAD AT 40 FEET (5-1)

36" X 48" SIGN "LEFT TURN SIGNAL", OVERHEAD AT 35 FEET

1- ONE-WAY, 3 SECTION SIGNAL, OVERHEAD AT 28 FEET (2-2)

TYPE "D" SIGN "EGRET BLVD" OVERHEAD AT 14 FEET (1)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 270 DEGREES (2-1), WITH ONE SET OF PEDESTRIAN INDICATIONS (P2-1)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 360 DEGREES (8-2), WITH ONE SET OF PEDESTRIAN INDICATIONS (P4-2)

2- PEDESTRIAN PUSHBUTTONS, POLE MOUNTED AT 180 DEGREES (PB2-1) AND 270 DEGREES (PB4-2)

2- STEEL GUARD POSTS

EXTEND INTO HH 8:

1- 3" RSC
2-12/C#12
2-3/C#12
2-1/C#10

PEDESTAL POLE 4

SIGNAL PEDESTAL POLE WITH FRANGIBLE BASE

LOCATE POLE BASE 35 FEET NORTH AND 63 FEET WEST OF THE INTERSECTION CENTERLINE.

1- ONE-WAY SIGNAL, TYPE 1D MOUNTED AT 270 DEGREES WITH TWO SETS OF PEDESTRIAN INDICATIONS (P2-2 & P8-1)

2- PEDESTRIAN PUSHBUTTONS, POLE MOUNTED AT 180 DEGREES (PB8-1) AND 270 DEGREES (PB2-2)

2- STEEL GUARD POSTS

EXTEND INTO HH 14:

1- 2" RSC
1-12/C#12
2-3/C#12

SIGNAL SYSTEM "B"

POLE SCHEDULE

MAST ARM POLE 1

TYPE P90-A-40 MAST ARM POLE WITH TRANSFORMER BASE

LOCATE POLE BASE 46 FEET NORTH AND 50 FEET EAST OF THE INTERSECTION CENTERPOINT - ORIENT MAST ARM TO A POINT 46 FEET NORTH AND 10 FEET EAST OF THE INTERSECTION CENTERPOINT.

1- ONE-WAY, 3 SECTION SIGNAL OVERHEAD AT 40 FEET (1-1)

36" X 48" SIGN "LEFT TURN SIGNAL" OVERHEAD AT 35 FEET

1- ONE-WAY, 3 SECTION SIGNAL OVERHEAD AT 28 FEET (6-1)

TYPE "D" SIGN "NORTHDALE BLVD/109TH AVENUE NE" (1) OVERHEAD AT 11 FEET

1- ONE-WAY, 3 SECTION SIGNAL TYPE 10C, POLE MOUNTED AT 270 DEGREES (6-2) WITH TWO SETS OF PEDESTRIAN INDICATIONS (P4-1 & P6-2)

2- PEDESTRIAN PUSH BUTTONS, POLE MOUNTED AT 270 DEGREES (PB4-1) AND 360 DEGREES (PB6-2)

(1) PLACING AND INSTALLING TYPE D SIGNS WILL BE CONSIDERED TO BE INCIDENTAL TO OTHER SYSTEM ITEMS AND THEY ARE NO DIRECT COMPENSATION WILL BE MADE THEREFOR.

EXTEND INTO HH 2

1- 3" RSC
2-12/C#12
1-3/C#12

MAST ARM POLE 2

TYPE P90-A-25-D40-12 MAST ARM POLE WITH TRANSFORMER BASE

LOCATE POLE BASE 58 FEET SOUTH AND 53 FEET EAST OF THE INTERSECTION CENTERPOINT - ORIENT MAST ARM TO A POINT 31 FEET SOUTH AND 54 FEET EAST OF THE INTERSECTION CENTERPOINT.

1- 250 WATT HIGH PRESSURE SODIUM LUMINAIRE MOUNTED AT 15 DEGREES WITH P.E.C. AND TEST SWITCH

1- ONE-WAY, 3 SECTION SIGNAL OVERHEAD AT 25 FEET (3-1)

36" X 48" SIGN "LEFT TURN SIGNAL" OVERHEAD AT 20 FEET

1- ONE-WAY, 3 SECTION SIGNAL OVERHEAD AT 13 FEET (8-2)

1- ONE-WAY, 3 SECTION OPTICALLY PROGRAMABLE SIGNAL OVERHEAD AT 13 FEET (4-1)

TYPE "D" SIGN "UNIVERSITY AVENUE" OVERHEAD AT 6 FEET (1)

1- ONE-WAY, 3 SECTION OPTICALLY PROGRAMABLE SIGNAL, TYPE 10B, POLE MOUNTED AT 360 DEGREES (5-2) WITH ONE SET OF PEDESTRIAN INDICATIONS (P6-1)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 180 DEGREES (8-3) WITH ONE SET OF PEDESTRIAN INDICATIONS (P8-3)

2- PEDESTRIAN PUSH BUTTONS, POLE MOUNTED AT 180 DEGREES (PB8-3 AND 270 DEGREES (PB6-1)

2- STEEL GUARD POSTS

EXTEND INTO HH 14:

1- 3" RSC
3-12/C#12
1-3/C#12
4-1/C#10

MAST ARM POLE 3

TYPE P90-A-40 MAST ARM POLE WITH TRANSFORMER BASE

LOCATE POLE BASE 28 FEET SOUTH AND 54 FEET WEST OF THE INTERSECTION CENTERPOINT - ORIENT MAST ARM TO A POINT 30 FEET SOUTH AND 12 FEET WEST OF THE INTERSECTION CENTERPOINT.

1- ONE-WAY, 3 SECTION SIGNAL OVERHEAD AT 40 FEET (5-1)

36" X 48" SIGN "LEFT TURN SIGNAL" OVERHEAD AT 35 FEET

1- ONE-WAY, 3 SECTION SIGNAL OVERHEAD AT 28 FEET (2-1)

TYPE "D" SIGN "109TH AVENUE NE/NORTHDALE BLVD" (1) OVERHEAD AT 14 FEET

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 360 DEGREES (7-2) WITH ONE SET OF PEDESTRIAN INDICATION (P8-1)

1- TWO-WAY, 3 SECTION SIGNAL, TYPE 20B, POLE MOUNTEDAT 270 DEGREES (2-2, OPTICALLY PROGRAMABLE AND 8-1) WITH ONE SET OF PEDESTRIAN INDICATIONS (P2-2)

2- PEDESTRIAN PUSHBUTTONS, POLE MOUNTED AT 90 DEGREES (PB8-1) AND 360 DEGREES (PB2-2)

EXTEND INTO HH 19:

1- 3" RSC
3-12/C#12
1-3/C#12

MAST ARM POLE 4

TYPE P90-A-35-D40-12 MAST ARM POLE WITH TRANSFORMER BASE

LOCATE POLE BASE 76 FEET NORTH AND 54 FEET WEST OF THE INTERSECTION CENTERPOINT - ORIENT MAST ARM TO A POINT 39 FEET NORTH AND 57 FEET WEST OF THE INTERSECTION CENTERPOINT.

1- 250 WATT HIGH PRESSURE SODIUM LUMINAIRE MOUNTED AT 15 DEGREES (NO P.E.C.)

1- ONE-WAY, 3 SECTION SIGNAL, OVERHEAD AT 35 FEET (7-1)

36" X 48" SIGN "LEFT TURN SIGNAL", OVERHEAD AT 30 FEET

1- ONE-WAY, 3 SECTION SIGNAL, OVERHEAD AT 23 FEET (4-2)

TYPE "D" SIGN "UNIVERSITY AVENUE" OVERHEAD AT 12 FEET (1)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 270 DEGREES (4-3) WITH 1 SET OF PEDESTRIAN INDICATION (P4-3)

1- ONE-WAY, 3 SECTION SIGNAL, TYPE 10B, POLE MOUNTED AT 360 DEGREES (1-2) WITH 1 SET OF PEDESTRIAN INDICATION (P2-1)

2- PEDESTRIAN PUSH BUTTONS, POLE MOUNTED AT 270 DEGREES (PB2-1) AND 360 DEGREES (PB4-2)

2- STEEL GUARD POSTS

EXTEND INTO HH 6:

1- 3" RSC
2-12/C#12
2-3/C#12
2-1/C#10

STREET LIGHT POLE 5

STREET LIGHT POLE TYPE D40-12

LOCATE POLE BASE 100 FEET NORTH AND 44 FEET EAST OF THE INTERSECTION CENTERLINE. ORIENT LUMINAIR 90 DEGREES FROM UNIVERSITY AVENUE.

1- 250 WATT HIGH PRESSURE SODIUM LUMINAIRE WITH P.E.C. AND TEST SWITCH

EXTEND INTO HH 2:

1- 1-1/4" RSC
4-1/C#10

STREET LIGHT POLE 6

STREET LIGHT POLE TYPE D40-12

LOCATE POLE BASE 90 FEET SOUTH AND 50 FEET WEST OF THE INTERSECTION CENTERLINE. ORIENT LUMINAIRE 90 DEGREES FROM UNIVERSITY AVENUE.

1- 250 WATT HIGH PRESSURE SODIUM LUMINAIRE (NO P.E.C.)

EXTEND INTO HH 18:

1- 1-1/4" RSC
2-1/C#10

DESIGN	SCALE	NO.	DATE	REVISIONS
DRAWN	AS SHOWN		1/6/86	VARIOUS S.A.P.'S PER K.W.A.
CHECKED				

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Kenneth W. Anderson
DATE 12/30/85 REG. NO. 7418

Barton-Aschman Associates, Inc.
1610 SOUTH SIXTH STREET MINNEAPOLIS, MINNESOTA 55454

ANOKA COUNTY, MINNESOTA

SIGNAL SYSTEM "A" AND "B"
POLE SCHEDULES
S.P. 02-600-06

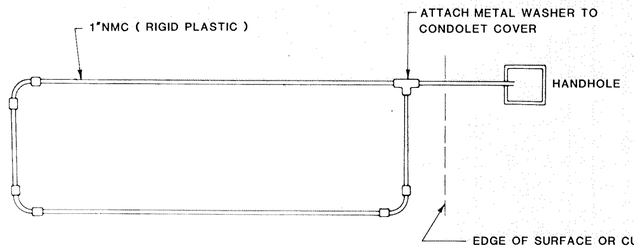
FILE NO.
DATE

SHEET NO. 29 OF 33

LOOP DETECTOR DETAIL "A"

PLAN VIEW

(NOT TO SCALE)



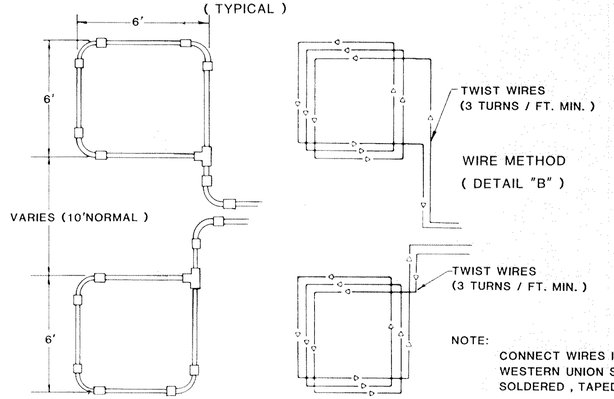
ALL CORNERS SHALL BE STANDARD 90°CONDUIT BENDS

LOOP DETECTOR DETAIL "B"

PLAN VIEW

(NOT TO SCALE)

(TYPICAL)

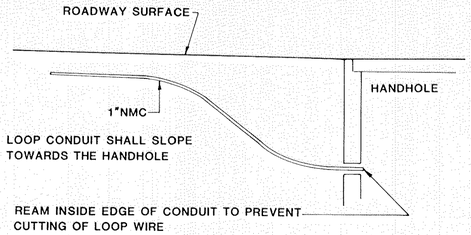


NOTE:

CONNECT WIRES IN HANDHOLE USING WESTERN UNION SPLICE, SOLDERED , TAPED & WATERPROOFED.

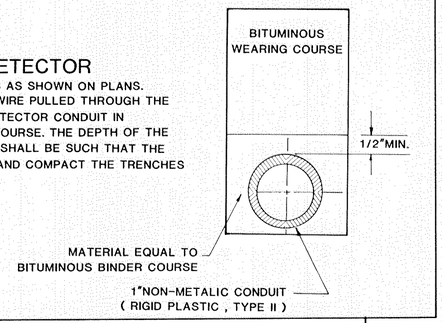
CONDUITS MAY BE PLACED IN COMMON TRENCH.

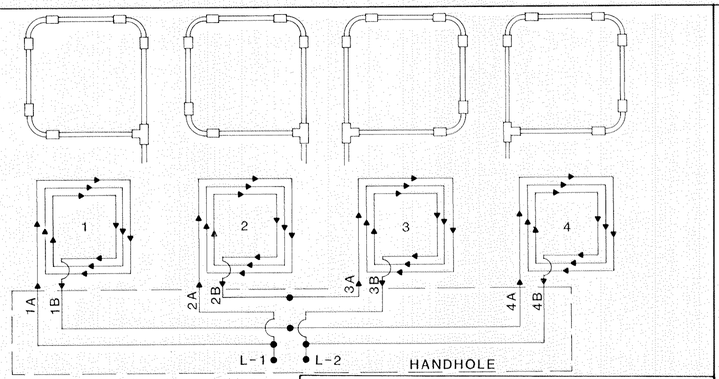
DRAINAGE DETAILS



CONDUIT INSTALLATION DETAIL FOR LOOP DETECTOR

LOOP DETECTOR CONDUITS ARE TO BE INSTALLED IN 3" CUT TRENCHES AS SHOWN ON PLANS. INSTALL EACH COMPLETE DETECTOR ASSEMBLY WITH THE DETECTOR WIRE PULLED THROUGH THE COMPLETE ASSEMBLY TO HANDHOLE. WHERE APPROPRIATE , PLACE DETECTOR CONDUIT IN BITUMINOUS BINDER COURSE PRIOR TO PLACEMENT OF THE WEARING COURSE. THE DEPTH OF THE TRENCH AND THE RESULTANT PLACEMENT OF THE DETECTOR CONDUIT SHALL BE SUCH THAT THE ENTIRE DETECTOR ASSEMBLY DRAINS INTO THE HANDHOLE. BACKFILL AND COMPACT THE TRENCHES WITH MATERIAL EQUIVALENT TO THE MATERIAL REMOVED.





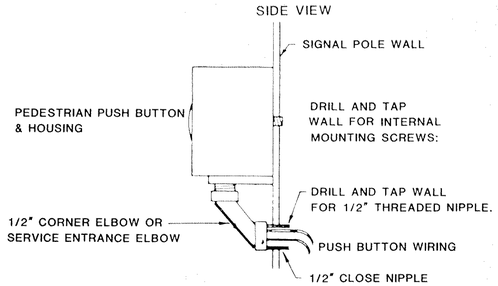
THE LOOP CONNECTIONS SHALL BE SPLICED IN THE HANDHOLE AS FOLLOWS 1B TO 4A, 2B TO 3A, 1A & 2A TO L1, 3B & 4B TO L-2

WIRE METHOD
SPLICE CONTROL CABLE TO L-1 &L-2 IN THE HANDHOLE

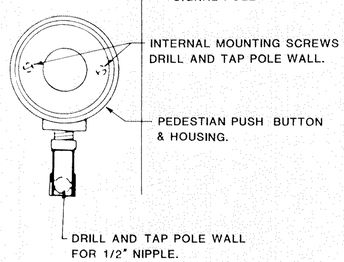
ALL CONDUCTORS SHALL BE TAGGED IN THE HANDHOLE AS SHOWN (1A, 1B, ETC.)

PEDESTRIAN PUSH BUTTON MOUNTING DETAIL

SIDE VIEW



FRONT VIEW



CONDUCTOR COLOR CODING

12/C#12	R	BLK	2-1/C#6
	O	WH	2-1/C#10
	BL	R	
	WH	W	3/C#12
	R/BLK	BLK	
	O/BLK	BLK	
	BL/BLK	CLEAR	2/C#14
	WH/BLK	R OR O	
	BLK	WH OR YEL	3/C#20
	BLK/WH	BLK OR BL	
	G/BLK		
	G		

NOTE:

ALL TERMINAL BLOCK CONNECTIONS SHALL BE ARRANGED AS SPECIFIED ABOVE

ABBREVIATIONS

EQUIPMENT AND INDICATIONS

RED-RED
YEL-YELLOW
GRN-GREEN
WLK-WALK
NEU-NEUTRAL
DWK DON'T WALK
LUM-LUMINAIRE
DNL-DOWNLIGHT
H.H.-HANDHOLE
EQG-EQUIPMENT GROUND
R.S.C.-RIGIT STEEL CONDUIT
GLTA-GREEN LEFT TURN ARROW
YRTA-YELLOW RIGHT TURN ARROW
D2-1(eg)-DETECTOR-PHASE"2"
GR.R-GROUND ROD
SER.-SERVICE
PAI- PEDESTRAIN INDICATIONS
2-1(eg)-SIGNAL HEADS-PHASE"2"
SPR.-SPARE CONDUCTORS
N.M.C.-NON METALLIC CONDUIT
E.V.P.-EMERGENCY VEHICLE PRE-EMPTION
J.B.-JUNCTION BOX
W.P.-WOOD POLE
P.E.C.-PHOTOELECTRIC CELL

CONDUCTOR COLOR CODE

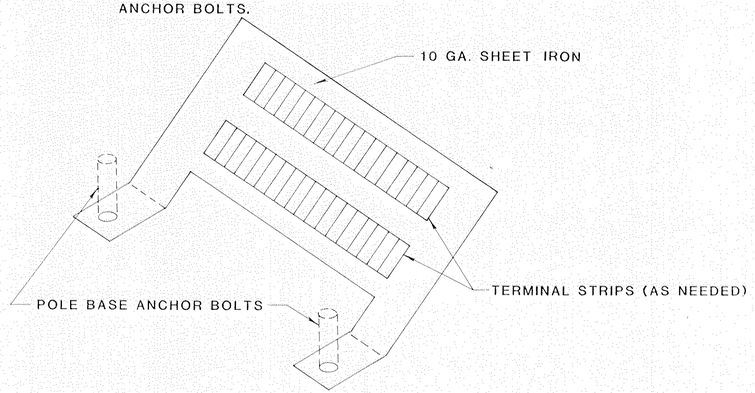
R-RED
O-ORANGE
BL-BLUE
WH-WHITE
G-GREEN
BLK-BLACK
R/BLK -RED WITH BLACK TRACER
O/BLK-ORANGE WITH BLACK TRACER
BL/BLK-BLUE WITH BLACK TRACER
WH/BLK- WHITE WITH BLACK TRACER
BLK/WH BLACK WITH WHITE TRACER

LEGEND OF SYMBOLS

SIGNAL BASE NO.
SIGNAL FACE NO.
LUMINAIRE NO.
CONTROLLER AND CABINET
CONTROLLER AND CABINET-IN PLACE
HANDHOLE
HANDHOLE-IN PLACE
RIGID STEEL CONDUIT (R.S.C.)
RIGID STEEL CONDUIT (R.S.C.)-IN PLACE
SIGNAL FACE WITH BACKGROUND SHIELD
SIGNAL FACE W/O BACKGROUND SHIELD
SIGNAL FACE-IN PLACE
PEDESTRIAN INDICATIONS
PEDESTRIAN INDICATIONS-IN PLACE
PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE
PEDESTRIAN PUSH BUTTON STATION
TRAFFIC SIGNAL PEDESTAL
TRAFFIC SIGNAL PEDESTAL-IN PLACE
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-IN PLACE
WOOD POLE
WOOD POLE-IN PLACE
SOURCE OF POWER
RAILROAD SIGNAL-IN PLACE
RIGHT OF WAY LINE — EXISTING / NEW
CENTER LINE — 3
EDGE OF ROADWAY
SHOULDER LINE
CURB LINE
STOP BAR
CROSSWALK

POLE BASE TERMINAL STRIP

DESIGNED TO BE PLACED THROUGH POLE BASE HANDHOLE AND POSITIONED OVER ANCHOR BOLTS.



SURVEY:	CHECKED BY:	NO	DATE	REVISIONS
DESIGN:				
DRAWN:				

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

DATE 12-11-85 REG. NO. 7118

Barton-Aschman Associates, Inc.
1610 SOUTH SIXTH STREET MINNEAPOLIS, MINNESOTA 55424

DETAIL SHEET

S.P. 02-600-06 S.A.P. C.P. Sheet No. 28 of 33 Sheets

EXCAVATION EMBANKMENT

PROPOSED R/W

END C.&G. CONST. 22+56 LT.

21+90 910.81

PROPOSED R/W

END C.&G. CONST. 21+60 RT.

162 48
TS 15

21+50 911.33

4:1

219 19
TS 15

21+00 911.89

4:1

℄ BIT. ENT. RT
20+69 912.16

35 0
TS 3

20+50 912.31

498 0
TS 18

EXCAVATION EMBANKMENT

24+00 908.22

EAST GUTTER 4TH ST.
23+60 908.55

WEST GUTTER 4TH ST.
23+30 909.03

23+00 909.55

COMMON EXC.	19,279 C.Y.
REGULAR EMB.	3,038 C.Y.
* EXCESS COMMON EXC.	16,240 C.Y.
TOPSOIL BORROW	1064 C.Y.
SHRINKAGE FACTOR	X 1.25
TOTAL TOPSOIL BORROW	1,133 C.Y.

* TO BE DISPOSED OF BY THE CONTRACTOR

STA. 20+50 TO STA. 24+00

NORTHDALE BLVD

State Proj. No. 02-600-06

Sheet No. 27 **of** 33 **Sheets**

EXCAVATION EMBANKMENT

16+00 909.35

℄ BIT ENT LT
+74 909.12

15+00 908.33

℄ BIT ENT RT
+18 907.53

14+00 907.27

13+00 906.54

℄ BIT ENT RT
+89 906.47

12+00 906.04

EXCAVATION EMBANKMENT

19+00 911.89

132 ○
TS 5

+50 911.70

82 ○
TS 10

93 ○
TS 11

148 ○
TS 6

+26 911.54

21 ○
TS 3

144 ○
TS 24

18+00 911.43

96 ○
TS 13

℄ BIT ENT LT
+17 910.54

1 ○
TS 1

96 ○
TS 7

17+00 910.39

BIT. ENT

36 ○
TS 10

℄ BIT ENT RT
+61 910.08

127 ○
TS 17

22 ○
TS 11

NORTHDALE BLVD.

STA. 12+00 TO STA. 19+00

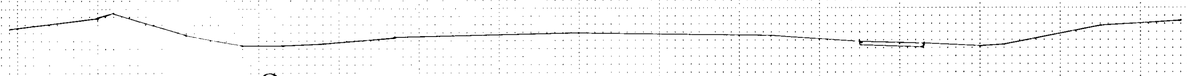
State Proj. No. 02-600-06

Sheet No. 26 **of** 33 **Sheets**

TELLIPPING PLOT CROSS SECTION SHT 4/94 PAGE/PG

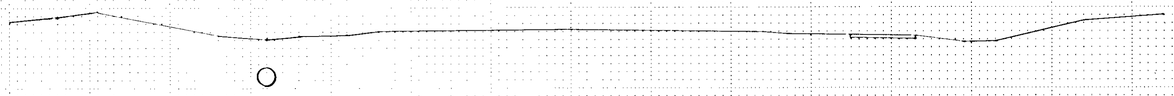
EXCAVATION EMBANKMENT

161+00 897.09

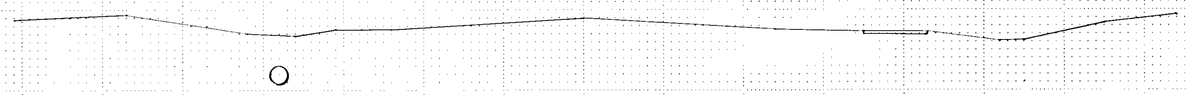


C.B. #61, 160+51
INV. 889.92

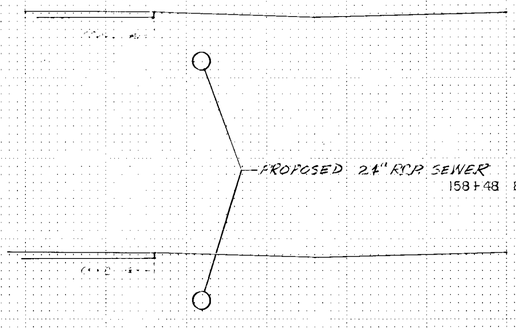
160+00 897.39



159+00 898.05

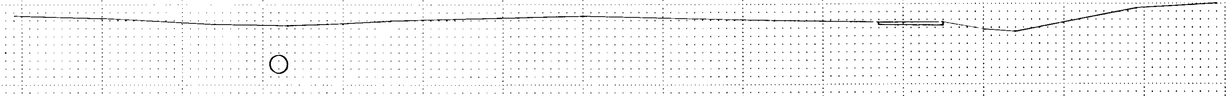


158+80 898.08 NO. GUTTER BIT. ENT. LT. (CONC. 44' OUT.)



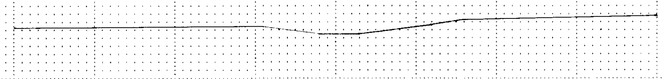
158+48 898.26 SO. GUTTER BIT. ENT. LT. (CONC. 44' OUT.)

158+00 898.59

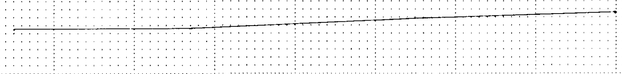


EXCAVATION EMBANKMENT

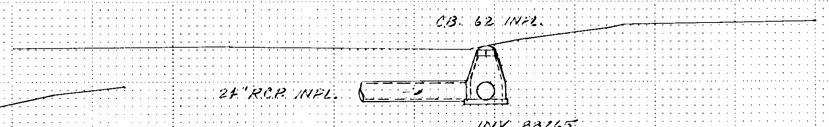
165+00 897.79



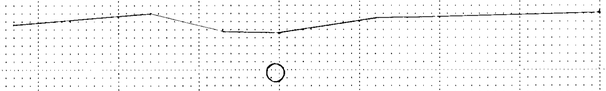
164+28 897.55 ℄ 24' BIT. ENT. LT.



163+95 897.49



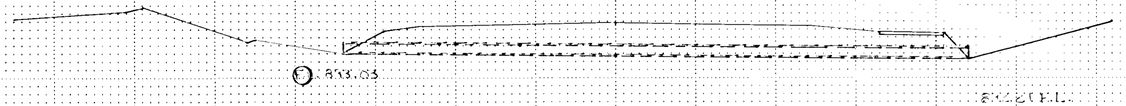
163+00 897.23



PROPOSED 24" RCP SEWER

162+00 896.91

161+62 896.82 ℄ XING 18"x 50' CMP



STA. 158+00 TO 165+00

State Proj. No. 02-600-06 **Sheet No.** 25 **of** 33 **Sheets**

02-600-06

EXCAVATION EMBANKMENT

SAND ENT. 154+00 901.52

END CONST. RT 154+00

MH 58; +89
INV. 895.41

153+00 902.67

169 TS 2.8

END CURB 1.50

CONST. STONE RETAINING WALL

152+00 904.72

92 TS 9

END STONE RETAINING WALL CONST. RT. STA. 151+20

CONST. STONE RETAINING WALL

151+73 905.12

← STREET RESTORATION →

CONST. STONE RETAINING WALL

PROPOSED 21" RCP SEWER

CONST. 8' BIT. BIKEWAY (REPLACEMENT) 200 132.3

REMOVE & REPLACE CONC. WALK

151+42 905.77 ℄ 5' CONC. WALK LT. (34' OUT)

151+39 905.87 NO. GUTTER SCHOOL ENT. LT.

EXCAVATION EMBANKMENT

157+28 898.89

PROPOSED 21" RCP SEWER

157+00 899.17

CB

157+04 CB 4.0

IN. 892.03
OUT 891.83

156+37 899.64

PROPOSED 21" RCP SEWER

156+00 899.81

155+31 900.25 ℄ 14' GRAVEL ENT LT.

155+00 900.54

STA. 151+39 TO 157+28

State Proj. No. 02-600-06 **Sheet No.** 24 **of** 33 **Sheets**

EXCAVATION EMBANKMENT

℄ BIT. RD.
151+27 906.10
SO. GUTTER BIT. RD. LT.
151+15 906.37
PROPOSED 27" R.C.P. SEWER
151+00 906.67
STREET RESTORATION FOR STORM SEWER CONST. LT.
WIDEN ST. TO RT. TO 26'
CONST. STONE RETAINING WALL
CONST. 8' BIT. BIKEWAY (RESTORATION)
150+90 CB#57
INV. 897.21
NO. GUTTER 111th AVE.
150+46 907.74
℄ 111th AVE.
150+31 908.11
SO. GUTTER 111th AVE.
150+17 908.49
150+00 908.89
℄ 12' SAND ENT. RT.
149+90 909.11
℄ 16' BIT. ENT. RT.
149+16 910.77
STONE RETAINING WALL INP.
149+00 910.98
STA.145+00 TO STA.151+27
℄ 16' SAND ENT. RT.
148+38 911.48
148+00 911.63
℄ 18' BIT. ENT. RT.
147+62 911.58
147+00 911.38
℄ 18' SAND ENT. RT.
146+85 911.34
STONE RETAINING WALL INP.
146+50 910.90
℄ 10' BIT. ENT. RT.
146+00 910.37
℄ 10' CONC. ENT. RT.
145+28 909.23
145+00 908.70

FUNCTIONAL CROSS SECTION - OPEN DOTTED
ROGERS CO. - MINNEAPOLIS - ST. PAUL

FED. ROAD DIST. No.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS

EXCAVATION EMBANKMENT

131+00 913.58
NO. GUTTER BUTTERNUT ST. LT.

+12/35

193 8
132

404 35
CS 10

130+70 913.43
℄ BUTTERNUT ST. LT. ℄ 26' BIT. ENT. RT.

130+49 913.41
SO. GUTTER BUTTERNUT ST.

463 154
CS 31

+35/39

130+00 913.30

291 102
CS 16

+11/35

129+00 912.98

+63/43

+61/52

23 11
CS 1

+59/197

CONST. STONE RETAINING WALL

128+50 912.64

176 98
13.14

128+45 912.58

+141/43

107 265
13 30

128+00 912.38

135+55 914.18
℄ 24' BIT. ENT. RT.

+44/26

135+19 914.28
℄ 25' BIT. ENT. RT.

135+00 914.26

394 39
CS 24

134+00 914.28

+69/37

370 39
CS 22

133+00 914.08

+67/35

396 43
CS 21

132+00 913.80

509 54
CS 19

STA. 128+00 TO STA. 135+55

AREAS CHECKED
NO.

FUNCTIONAL CROSS SECTION - OPEN DOTTED
ROGERS CO. - MINNEAPOLIS - ST. PAUL

State Proj. No. 02-600-06 Sheet No. 21 of 33 Sheets

FED. ROAD DIST. No.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS

EXCAVATION EMBANKMENT

123+77 907.91

+89/37 ○ SIGNAL POLE

+89/33 ○ SIGNAL POLE

+14/34

123+00 90738

S.D. 905.50

2-S-B +42/73

CONST. CONC. STEPS 60' L.T.

122+70

+29/53

+04/63

122+00 906.98

S.D. 905.60

+98/66

+60/52 X

℄ 15' BIT. ENT.
121+29 906.74

CONST. STONE RETAINING WALL

+30/32

121+00 906.62

+16/34

NO. GUTTER 106TH AVE.
120+87 906.58

+55/40

WOODS

℄ 106TH AVE.
120+72 906.51

0.30%

3'42 207
TS 36

3'57 306
TS 28

3'48 148
TS 22

+61/52

+89/47

℄ 24' BIT. ENT.
127+58 912.08

4'03 173
TS 24

CONST. STONE RETAINING WALL

+25/38

127+00 911.48

+15/35

+33/50 CHURCH SIGN

4'54 117
TS 26

CONST. STONE RETAINING WALL

126+00 910.17

+70/50

+43/47

CONST. STONE RETAINING WALL +43/42

5'12 38
TS 14

125+00 908.94

NO. EDGE BIT. ENT.
124+53 908.55

3'39 0
13 13

+70/42

+66/31 SIGNAL POLE

+55/40 +55/34 SIGNAL POLE

NO. GUTTER EGRET BLVD.
124+50 908.49

℄ BIT. ENT.
124+31 908.34

℄ EGRET BLVD.
124+25 908.25

SO. EDGE BIT ENT.
124+09 908.09

SO. GUTTER EGRET BLVD.
124+03 907.99

1'44 27
TS 9

STA. 120+72 TO STA. 127+58

AREAS CHECKED NO.

FUNCTIONAL CROSS SECTION - OPEN DITCH
ROGERS CO. - MINNEAPOLIS - ST. PAUL

State Proj. No. 02-600-06 Sheet No. 20 of 33 Sheets

FED. ROAD DIST. No.	STATE	FEDERAL PROJ. NO.	FISCAL YEAR	SHEET No.	TOTAL SHEETS

REVISIONS	AREAS	AREAS CHECKED
NO.		

EXCAVATION EMBANKMENT

EXCAVATION EMBANKMENT

+72/49 BUSH

+04/44 BUSH

CONST. STONE RETAINING WALL

117+00 905.53

511 O
TS 11

+27/34

+70/36 +70/34 End Rock Wall

℄ 10' SAND ENT. LT.
116+61 905.45

+15/36 BUSH

336 O
TS 3

CONST. STONE RETAINING WALL

116+00 905.23

℄ 30' BIT. ENT. LT
115+60 905.19

52 O
TS 0.4

CONST. STONE RETAINING WALL

115+30 905.10

N. GUTTER 105TH LN.
115+10 904.95

SQ. GUTTER 106TH AVE
120+57 906.44

348 O
TS 11

CONST. STONE RETAINING WALL +00/50-OUT

120+00 906.39

WOODS

+16/50-OUT

411 O
TS 13

+18/30

+23/74

+15/34

N. GUTTER 106TH AVE. LT.
119+00 906.16

+16/27-32 +09/30 GAS PIPE

+00/27-32 GUARD POST

O GAS TEST STA.
+22/28

℄ 106TH AVE. LT.
118+85 906.07

SQ. GUTTER 106TH AVE.
118+70 906.02

1-S-9 +24/60

+64/33 END EYE FENCE

+32/ST

+39/51

+24/40

+23 END WOOD FENCE

+21/34-OUT

118+00 905.74

426 O
TS 13

+94/34

+28/36

WOOD FENCE

+68/33

+86/36

+74/39

+68/46

℄ 10' SAND ENT. LT.
117+50 905.67

STA. 115+10 TO STA. 120+57

FUNCTIONAL CROSS SECTION - OPEN DITCH
ROGERS CO. - MINNEAPOLIS - ST. PAUL

State Proj. No. 02-600-06 Sheet No. 19 of 33 Sheets

M.U.T.C.D. CODE	SIZE		INSTALLATION CODE	QUANTITIES STAGE I T.C. PLAN	QUANTITIES STAGE II T.C. PLAN	QUANTITIES DETOUR PLAN
W20-1	48" x 48"	ROAD CONSTRUCTION	AHEAD • (CJ)	1	1	
			500' •			
			1000' •			
			1500' •			
		ROAD CONSTRUCTION	AHEAD •			
			500' •			
			1000' •			
			1500' •			
W20-2	48" x 48"	DETOUR	AHEAD •			
			500' •			
			1000' • (AB)	1	1	1
			1500' • (A)			2
		DETOUR	AHEAD •			
			500' •			
			1000' •			
			1500' •			
W20-3	48" x 48"	ROAD CLOSED	AHEAD •			
			500' • (Q)			1
			1000' • (P)			1
			1500' •			
W20-3	48" x 48"	ROAD CLOSED	AHEAD •			
			500' •			
			1000' •			
TYPE III			1500' • (AC)	1	1	1
	48" x 48"	SINGLE LANE	• (CE)	1	1	
W20-5	48" x 48"	RIGHT LANE CLOSED	• (CG)		1	
W20-5	48" x 48"	LEFT LANE CLOSED	• (CH)	1		
	48" x 48"	LANE SHIFT AHEAD	• (CK)		1	
W1-6L		STEADY BURN LIGHT	• (CD)		3	
TYPE III						
W1-6R		STEADY BURN LIGHT	• (CB)	3		
TYPE III						
M3-1	24" x 12"	NORTH				
M1-5	24" x 24"	51 UNIVERSITY AVENUE CLOSED FOLLOW DETOUR				
TYPE III	8 FT.		• (RS)			2
TYPE III	8 FT.		• (BE)	1	5	

M.U.T.C.D. CODE	SIZE		INSTALLATION CODE	QUANTITIES STAGE I T.C. PLAN	QUANTITIES STAGE II T.C. PLAN	QUANTITIES DETOUR PLAN
R11-2	48" x 30"	ROAD CLOSED	• (M)	4	1	26
TYPE III	8 FT.					
R11-3	48" x 30"	ROAD CLOSED ½ MILE AHEAD LOCAL TRAFFIC ONLY	• (L)			2
M4-10R	48" x 18"	DETOUR				
R11-2	48" x 30"	ROAD CLOSED	• (N)			
M4-10L	48" x 30"	DETOUR				
M4-10R	48" x 30"	DETOUR	• (U)			1
TYPE III	8 FT.					
M4-10L	48" x 30"	DETOUR	• (W)			2
TYPE III	8 FT.					
M4-8	24" x 12"	DETOUR SOUTH	6-1 • (C)			3
M3-3	24" x 12"					
M1-5	24" x 24"	51	6-1 • (D)			3
M5-1	21" x 15"		6-3 • (E)			5
M6-1			•			
M6-3			•			
			•			
			5-1(R) • (B)			3
			5-1(L) • (F)			3
M4-8	24" x 12"	DETOUR NORTH	6-1 • (K)			3
M3-1	24" x 12"					
M1-5	24" x 24"	51	6-1 • (H)	1	1	3
M5-1	21" x 15"		6-3 • (I)			7
M6-1			•			
M6-3			•			
			•			
			5-1(R) • (J)			3
			5-1(L) • (G)	1	1	3
		DETOUR	•			
		DETOUR	•			
		DETOUR	•			
		ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY	•			
		ROAD CONSTRUCTION NEXT MILES	•			

M.U.T.C.D. CODE	SIZE		INSTALLATION CODE	QUANTITIES STAGE I T.C. PLAN	QUANTITIES STAGE II T.C. PLAN	QUANTITIES DETOUR PLAN
		ENTER CONSTRUCTION ZONE PLEASE DRIVE CAREFULLY	•			
		END DETOUR	• (ED)			2
R1-1	48" x 48"	STOP ALL WAY — RED LENS	• (CS)	3	3	16
W3-1	48" x 48"	STOP AHEAD — YELLOW LENS	• (Y)	2	2	10
		DO NOT ENTER	•			
		DO NOT PASS	•			
		NO PASSING ZONE	•			
TYPE I		STEADY BURN LIGHT	• (X) OR	31	38	
TYPE I		STEADY BURN LIGHT	• (X) OR	12		
DRUM			•			
CONE			•			
R4-7A	24" x 30"	KEEP RIGHT	• (BW)	3	3	
X4-2	18" x 18"					

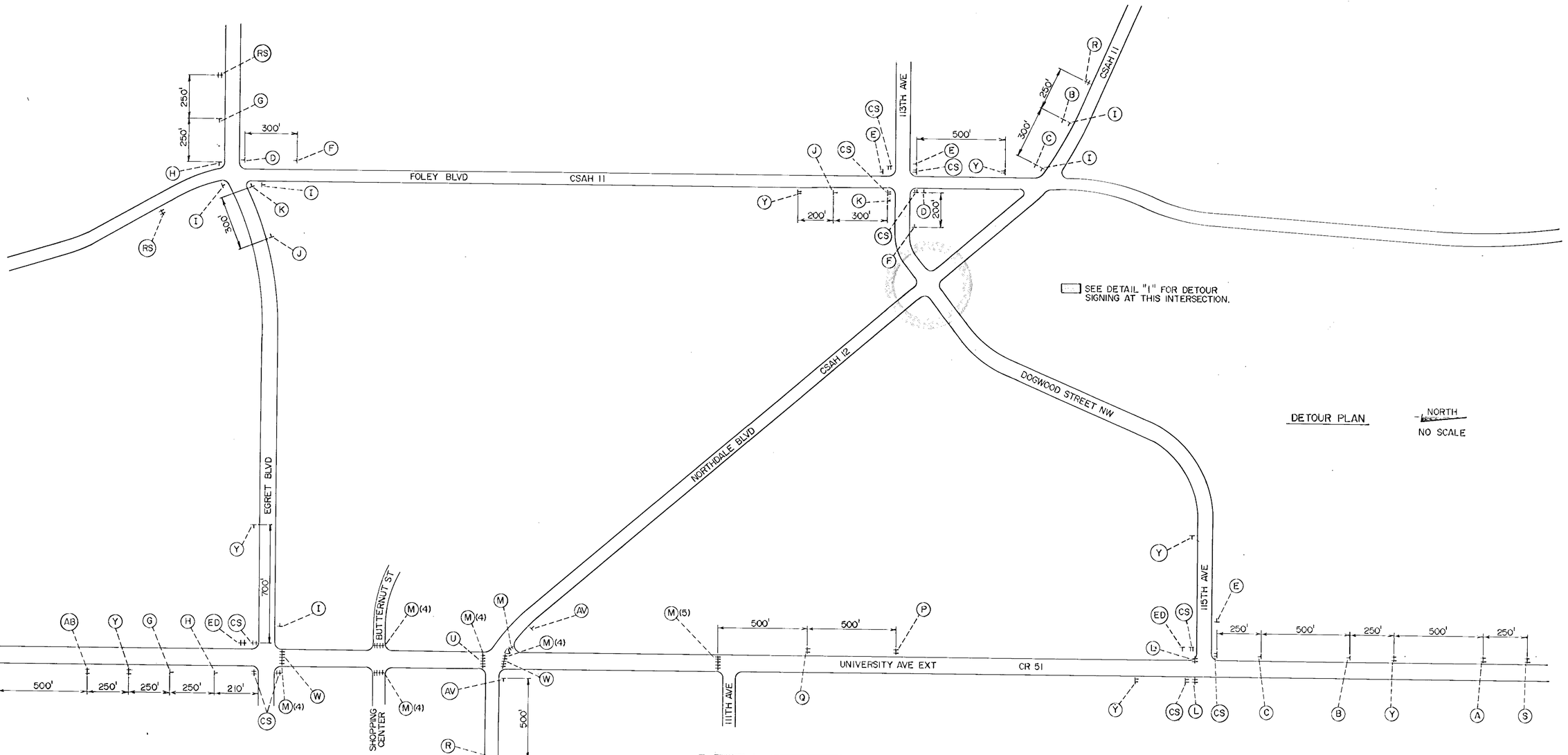
M.U.T.C.D. CODE	SIZE		INSTALLATION CODE	QUANTITIES STAGE I T.C. PLAN	QUANTITIES STAGE II T.C. PLAN	QUANTITIES DETOUR PLAN
		51 UNIVERSITY AVENUE CLOSED FOLLOW DETOUR	• (R)			3
		51 CLOSED AT 11TH AVENUE FOLLOW DETOUR	• (S)			1
			•			
M4-8	24" x 12"	DETOUR				
M1-5	24" x 24"	51	• (AV)			2
M5-	21" x 15"					
			•			
R3-1	24" x 24"		• (BJ)	2	1	
R3-2	24" x 24"		• (BK)	2	1	
	8"-12" x 24"	STEADY BURN LIGHT	• x	31	38	
	8"-12" x 24"	STEADY BURN LIGHT	• (X)	12		
G20-2	60" x 24"	END CONSTRUCTION	• (EC)		1	
R3-7(L)	30" x 30"	LEFT LANE MUST TURN LEFT	• (LT)	1		
TYPE III	8 FT.					

LOCATION _____

REASON FOR DETOUR _____

INSTALLED BY _____ DATE _____ TIME _____

REMOVED BY _____ DATE _____ TIME _____



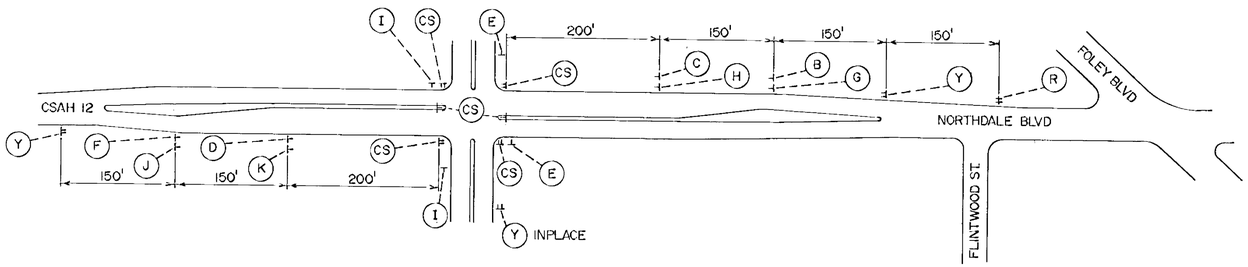
DETOUR PLAN

NORTH
NO SCALE

NOTES: 1. LOCATIONS OF ALL SIGNS ARE APPROXIMATE. THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

2. SEE SHEET 16 FOR DUPLICATE DETOUR SIGNING ON UNIVERSITY AVENUE SOUTH OF EGRET BOULEVARD.

3. ALL WAY STOP IS INPLACE AT FOLEY BOULEVARD / EGRET BOULEVARD INTERSECTION.

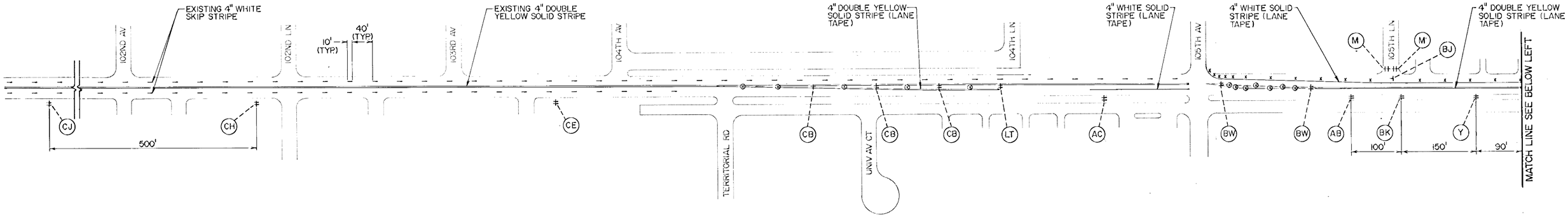


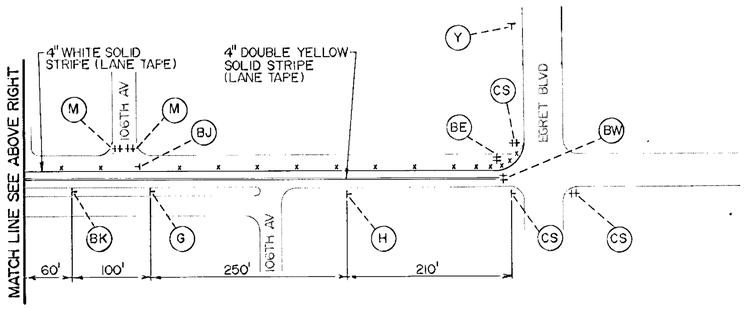
DETAIL "1"
DETOUR SIGNING AT FOLEY BLVD. / NORTHDALE BLVD. INTERSECTION
NO SCALE

NORTH

S.P. 02-600-06 S.A.P. C.P. Sheet No. 17 of 33 Sheets

5/13/86 REVISIONS JKP





PHASE I TRAFFIC CONTROL PLAN

UNIVERSITY AVENUE - 102ND AVENUE TO EGRET BOULEVARD

0 50' 100' 200'

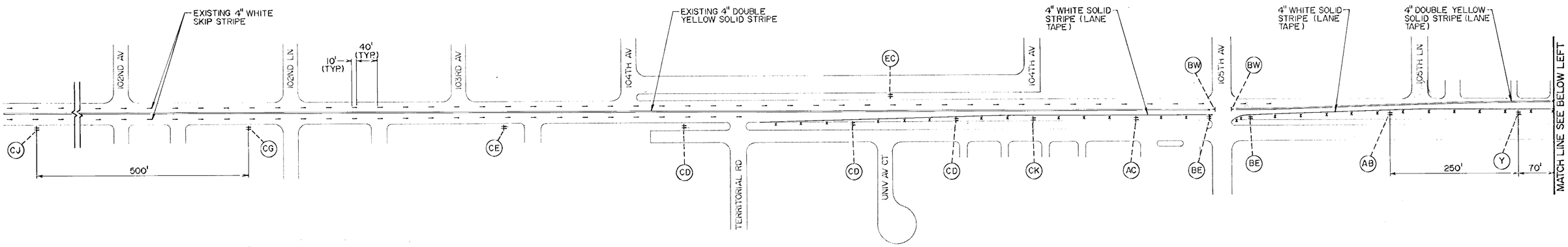
NORTH

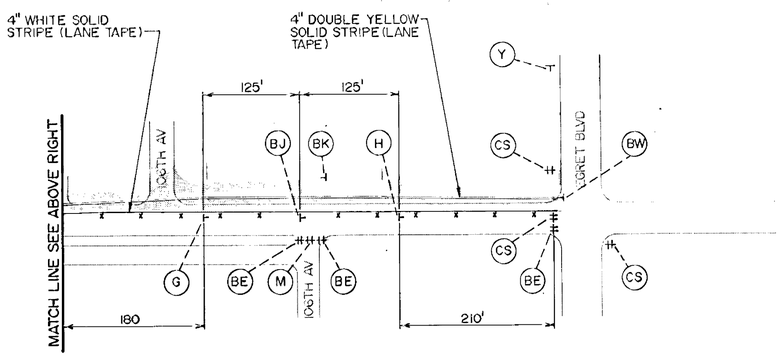
NOTES: 1. LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

2. SEE SHEET 17 FOR DUPLICATE DETOUR SIGNING ON UNIVERSITY AVENUE SOUTH OF EGRET BLVD.

3. APPROXIMATELY 200 LIN. FT. OF PAINTED WHITE LINE AND 1300 LIN. FT. OF PAINTED DOUBLE YELLOW LINE MAY HAVE TO BE REMOVED TO ELIMINATE CONFLICTING STRIPING DURING PHASE I.

4. APPROXIMATELY 4500 LIN. FT. OF YELLOW LANE TAPE AND APPROXIMATELY 1500 LIN. FT. OF WHITE LANE TAPE IS REQUIRED IN PHASE I.





PHASE II TRAFFIC CONTROL PLAN

UNIVERSITY AVENUE - 102ND AVENUE TO EGRET BOULEVARD

0 50' 100' 200'

NORTH

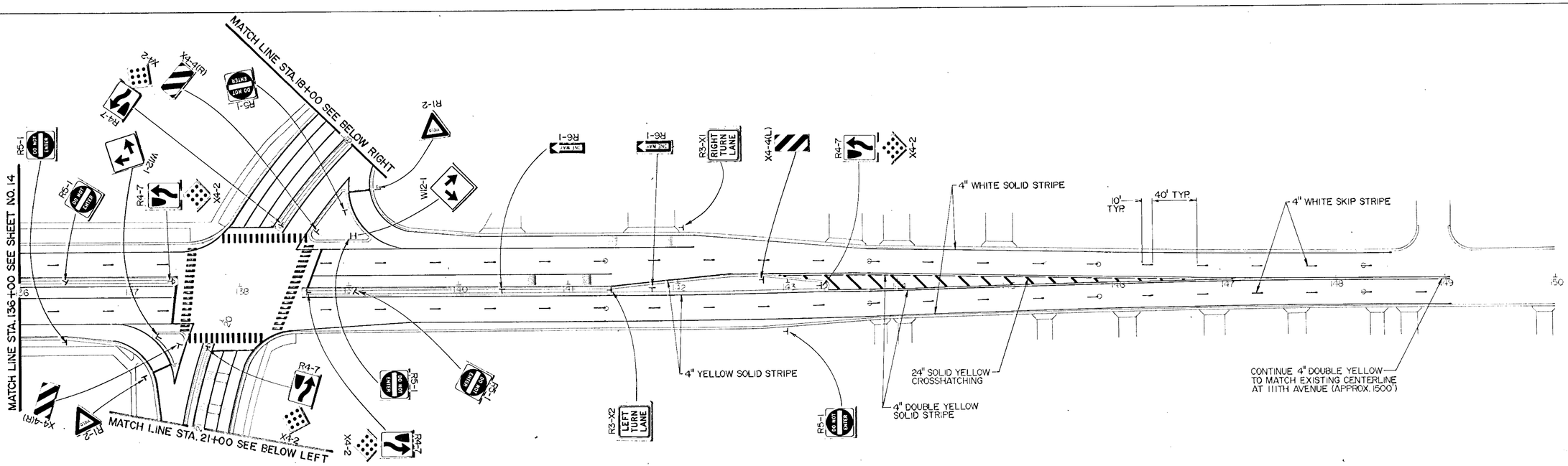
DENOTES ROADWAY CONSTRUCTION COMPLETED DURING PHASE I

NOTES: 1. LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

2. SEE SHEET 17 FOR DUPLICATE DETOUR SIGNING ON UNIVERSITY AVENUE SOUTH OF EGRET BLVD.

3. APPROXIMATELY 3500 LIN. FT. OF YELLOW LANE TAPE AND APPROXIMATELY 2500 LIN. FT. OF WHITE LANE TAPE IS REQUIRED IN PHASE II.

5/13/86 REVISIONS 9KP



UNIVERSITY AVENUE
(STA. 136+00 TO STA. 150+00)

NORTH

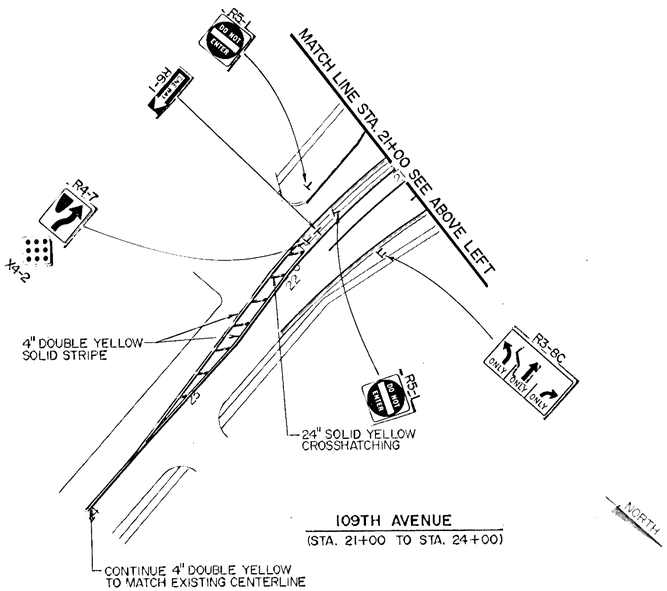
☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2"

☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SEE SHEET 13 FOR SIGNING SCHEDULE AND SIGN POST MOUNTING TYPICALS. (DETAIL "3" AND DETAIL "4.")



109TH AVENUE
(STA. 21+00 TO STA. 24+00)

NORTH

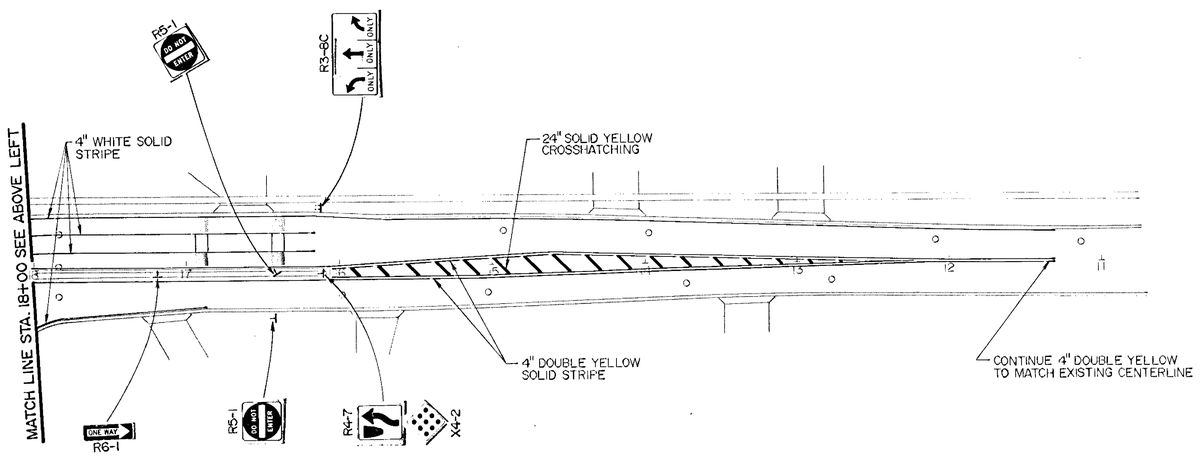
LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SEE SHEET 13 FOR SIGNING SCHEDULE AND SIGN POST MOUNTING TYPICALS. (DETAIL "3" AND DETAIL "4")

☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."



NORTHDALE BOULEVARD
(STA. 11+00 TO STA. 18+00)

NORTH

S.P. 02-600-06 S.A.P. _____ C.P. _____ Sheet No. 15 of 33 Sheets

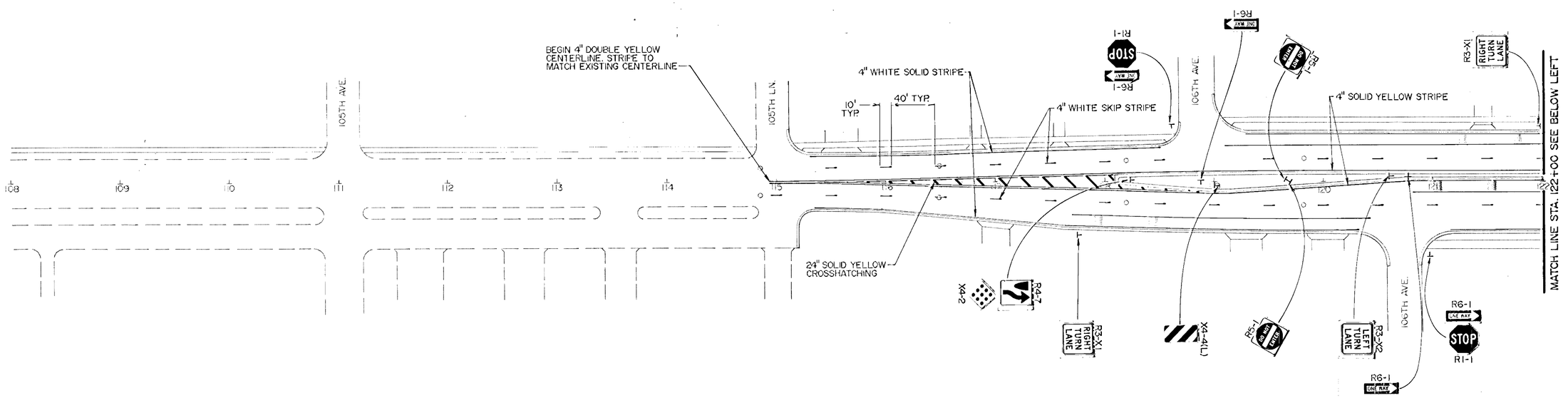
5/13/86 REVISIONS JKP

LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SEE SHEET 13 FOR SIGNING SCHEDULE AND SIGN POST MOUNTING TYPICALS. (DETAIL "3" AND DETAIL "4.")

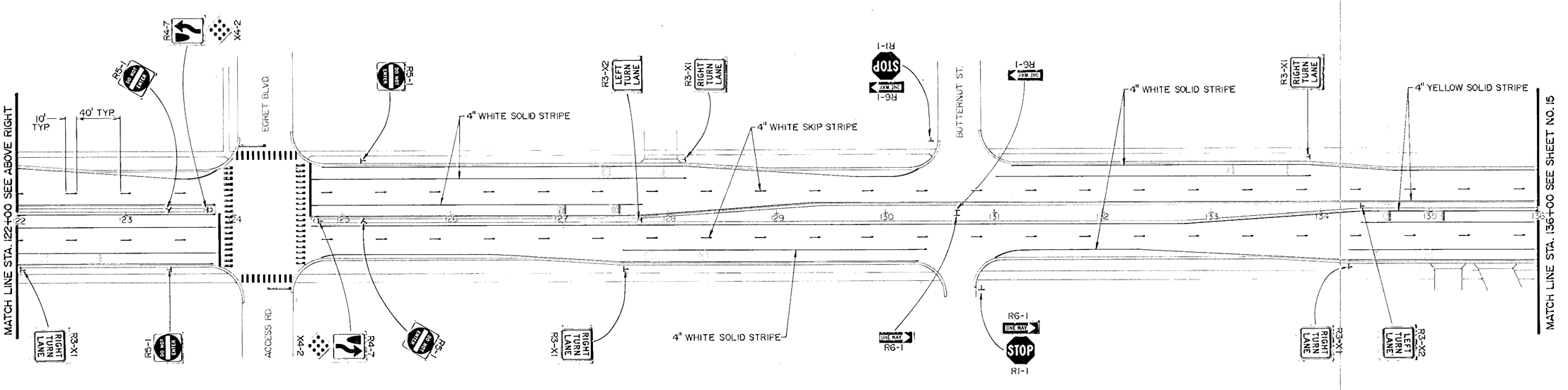
☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

▨ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."



UNIVERSITY AVENUE
(STA. 108+00 TO STA. 122+00)

NORTH



LOCATIONS OF ALL SIGNS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SEE SHEET 13 FOR SIGNING SCHEDULE AND SIGN POST MOUNTING TYPICALS. (DETAIL "3" AND DETAIL "4.")

☐ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

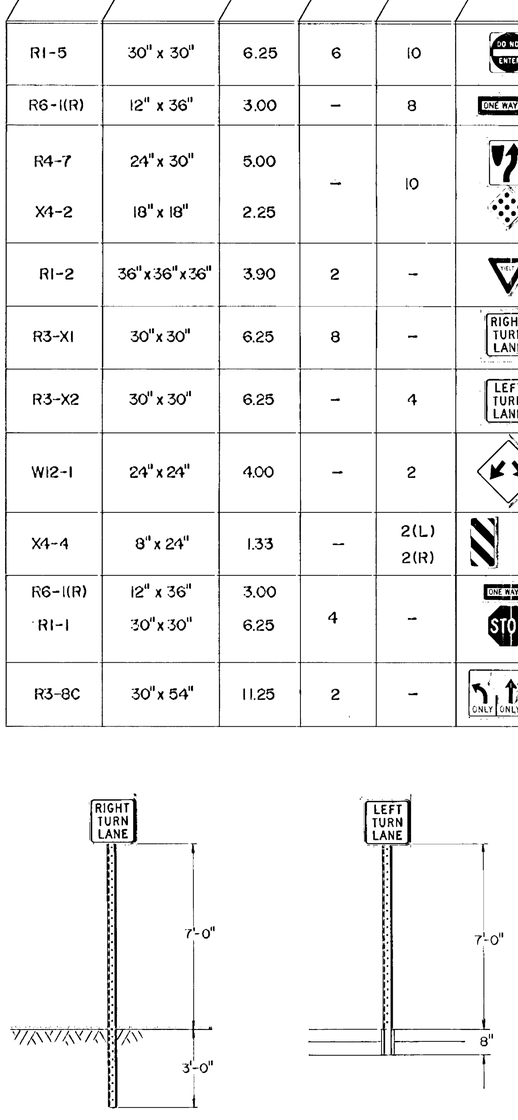
▨ DENOTES PAVEMENT MESSAGE. SEE DETAIL "2."

UNIVERSITY AVENUE
(STA. 122+00 TO STA. 136+00)

NORTH

5/13/86 REVISIONS 9KP

M.U.T.C.D. CODE NUMBER	PANEL SIZE (INCHES)	PANEL AREA (SQ. FT.)	NUMBER OF GROUND POST MOUNTS	NUMBER OF ISLAND MOUNTS	SIGN PANEL LEGEND
R1-5	30" x 30"	6.25	6	10	DO NOT ENTER
R6-1(R)	12" x 36"	3.00	–	8	ONE WAY (RIGHT)
R4-7	24"x 30"	5.00	–	10	KEEP RIGHT
X4-2	18" x 18"	2.25			NINE-BUTTON DELINEATOR
R1-2	36"x36"x36"	3.90	2	–	YIELD
R3-X1	30"x 30"	6.25	8	–	RIGHT TURN LANE
R3-X2	30" x 30"	6.25	–	4	LEFT TURN LANE
W12-1	24" x 24"	4.00	–	2	DOUBLE ARROW
X4-4	8" x 24"	1.33	–	2(L) 2(R)	CLEARANCE MARKER (LEFT) – (RIGHT)
R6-1(R)	12" x 36"	3.00	4	–	ONE WAY (RIGHT)
R1-1	30"x 30"	6.25			STOP
R3-8C	30"x 54"	11.25	2	–	LANE DESIGNATION



DETAIL "4"

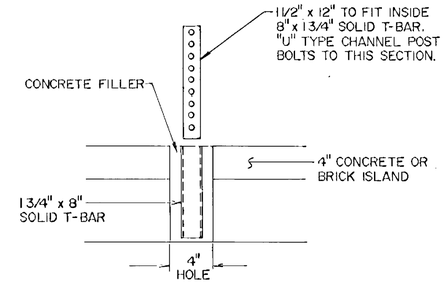
GROUND POST MOUNT TYPICAL — ISLAND MOUNT TYPICAL

DETAIL "2"

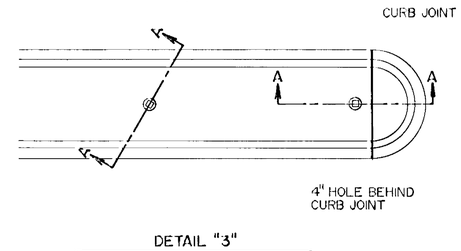
PAVEMENT MESSAGES-TYPES AND LOCATIONS

NOTE: REFER TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

NOTE: ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.



ENLARGED SECTION A-A



4" HOLE BEHIND CURB JOINT

DETAIL "3"

ISLAND MOUNT BREAK-AWAY SIGN POST DETAIL

NOTE: T-BAR FOR THE DO NOT ENTER SIGNS SHALL BE SET AT THE PROPER ANGLE. REFER TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

5/13/86 REVISIONS JKP

ND. ⓁWB PI. 13+25 = A PT. 12' LT. & ⊥ TO SURV. STA. 13+25
Δ = 1°54'33" LT.
D = 2°00'
R = 2,864.79'
T = 47.73'
L = 95.46'
E = 0.40'
N.D. ⓁWB PI. 15+50.13 = A PT. 19.5' LT. & ⊥ TO SURV. STA. 15+50
Δ = 1°54'33" RT.
D = 2°00'
R = 2,864.79'
T = 47.73'
L = 95.46'
E = 0.40'
ⓁOR PI. 20+00 = SURV. PI. 20+00
Δ = 46°57' LT.
D = 12°00'
R = 477.46'
T = 217.34'
L = 407.92'
E = 47.14'
SURV. POT 22+17.34 = ⓁOR PT. 21+90.58
GAS STATION
I-S-F
N.D. ⓁWB PC. 12+77.27 = A PT. 12' LT. & ⊥ TO SURV. STA. 12+77.27
N.D. ⓁWB PT. 13+72.73
N.D. ⓁWB PC. 15+02.40
N.D. ⓁWB PT. 15+97.86
ⓁOR PC. 17+82.66
N.D. ⓁWB POT 17+82.79
BEGIN C&G CONST.
NORTHDALE BLVD.
C.S.A.H. 12
BEGIN FULL CONST. STA. 16+00
CONTROL BOX
UNIVERSITY AVE.
C.R. 51
8' BIKEWAY
7' S.E.
CONC. FLUME
BUS SHELTER
C.&G. TO MATCH EDGE & GRADE OF EXISTING ROADWAY.
END CONST. STA. 22+60.0
TEL SPLICE BOX
SIGN BASE
GAS PUMPS
40'R
50'R
45'R
N.D. ⓁEB PC. 11+12.27 = A PT. 12' RT. & ⊥ TO SURV. STA. 11+12.27
N.D. ⓁEB PT. 12+07.73
N.D. ⓁEB PC. 13+97.43
N.D. ⓁEB PT. 14+92.89
N.D. ⓁEB POT 17+82.82
N.D. ⓁEB PI. 11+60 = A PT. 12' RT. & ⊥ TO SURV. STA. 11+60
Δ = 1°54'33" RT.
D = 2°00'
R = 2,864.79'
T = 47.73'
L = 95.46'
E = 0.40'
N.D. ⓁEB PI. 14+45.16 = A PT 21.5' RT. & ⊥ TO SURV. STA. 14+45
Δ = 1°54'33" LT.
D = 2°00'
R = 2,864.79'
T = 47.73'
L = 95.46'
E = 0.40'
⚠ CONSTRUCT PED. RAMP
B.M. 21 ELEV. 911.71
TOP S.W. COR. CONC. SLAB
STANDARD STA. LT. STA. 139+30
PROFILE GRADE
+75 PVI 911.16
PVI 919.1
+1.07 %
+0.43 %
-0.40 %
-1.22 %
100' V.C.
M = 0.08'
100' V.C.
M = 0.103'
915.00
910.00
905.00
900.00
15
16
17
18
19
20
21
22
23
24
25

CITY OF
COON RAPIDS
PONDING AREA
100 YR. 893.0

FL. 888.89

24" RCP SEWER INPACE

SALVAGE & REPLACE C.M.P. CULVERT
INCIDENTAL TO STORM SEWER CONST.

BIT LOT

TENNIS COURT

WOODS

BEEHIVE C.B.

8" P. BUR

15" X 50' CMP

18" X 20' CMP

24" RCP SEWER INPLACE 0.25%

TO CO. DITCH #39

15" RCP

END PROJECT C.P. 85-21-51
STA. 164+00.0

B.M. 24 ELEV. 898.28
R.R. SPIKE IN P.P.
35' RT. STA. 158+36

B.M. 25 ELEV. 897.32
R.R. SPIKE IN P.P.
35' RT. STA. 166+50

PROFILE GRADE

EXISTING
DITCH PROFILE FT.
SEE NOTE BELOW

24" X 347' RCP SEWER CL. II 0.55%

24" X 346' RCP SEWER CL. II 0.60%

24" RCP SEWER INPLACE 0.25%

892.03

891.83

889.92

887.83

887.65

NOTE: TOPSOIL & SOD QUANTITIES FOR DITCH RESTORATION ARE INCLUDED WITH PLAN TOPSOIL & SOD QUANTITIES.

900.00

895.00

890.00

160

165

170

Rev 5-13-12 RJZ

State Proj. No. 02-600-06

Sheet No. 11 of 33 Sheets

TELEDYNE POST - SINGLE PLAN - PROFILE - 1024

N

REMOVE
15"X 21" CMP INP

SB PT. 143+76.06

SB PC. 145+84.26

SB PI. 147+05.21 = A. PT. 12' LT. & ⊥ TO SURV. STA. 147+05
Δ = 1°12'34" LT.
D = 0°30'
R = 11,459.16'
T = 120.95'
L = 241.89'
E = 0.64'

15" R.C.P. SEWER INP, 0.21%

SB PT. 148+26.15 = A. PT. 2' LT. & ⊥ TO SURV. STA. 148+25.95

PROPOSED ENT.

REMOVE MH. 55 & 15" R.C.P. SEWER BETWEEN MH. 54 & 55 & BETWEEN 55 & 56, TO ALLOW FOR 21" SEWER LINE. SEAL 15" R.C.P. WITH BRICK & MORTAR. (INCIDENTAL)

R.E.A. STATION

BEGIN BITUMINOUS CURB

CONST. STONE RETAINING WALL 46' LT. STA. 151+60 – 152+50

(3) STUMPS

I-S-F 10943
I-S-F 11001
I-S-F 11007
I-S-F 11013
I-S-F 11019
I-S-F 11025
I-S-F 11031
I-S-F 11037
I-S-F 11043

1 1/4" RSC. FOR FUTURE SIGNAL SYSTEM INTERCONNECT.

NB PT. 143+76.06

NB PC. 145+84.26

NOTE: HAND HOLES SHALL BE SPACED 160' MAX. CENTER HAND HOLES 2' FROM BACK OF CURB. RSC. TO BE PLACED 2' FROM BACK OF CURB.

NB PI. 147+05.21 = A. PT. 12' RT. & ⊥ TO SURV. STA. 147+05
Δ = 1°12'34" RT.
D = 0°30'
R = 11,459.16'
T = 120.95'
L = 241.89'
E = 0.64'

2" R.S.C.

2" R.S.C.

CAP END OF 2" R.S.C.

NB PT. 148+26.15 = A. PT. 12' RT. & ⊥ TO SURV. STA. 148+25.95

SEE SHEET NO. 28 FOR LOOP DETECTOR INSTALLATION DETAILS.

BEGIN BITUMINOUS CURB

REMOVE & RECONSTRUCT BIKEWAY TO BLVD. ELEV. RT. STA. 150+55 – 153+00

CONST. STONE RETAINING WALL 46' RT. STA. 150+65 – 151+90

CAUTION = BURIED POWER

END BITUMINOUS CURB

15" R.C.P. SEWER INPLACE

8' BIKE PATH

20' R.

111th AVE.

B.M. 23 ELEV. 911.13
TOP HYD. N.E. QUAD. UNIV. & 111 AVE.

PROFILE GRADE

+1.42%

-2.09%

420' V.C.
M = 1.843'

+90 P.V.C.

P.V.I. 913.92

+10 P.V.T.

EXISTING 15" R.C.P. SEWER INLET ELEV. MH.54 899.81

18"x 163' R.C.P. CL. II 0.40%

21"x 467' R.C.P. SEWER CL. IV 0.40%

21"x 179' R.C.P. CL. IV 0.70%

21"x 259' R.C.P. SEWER CL. IV 0.70%

21"x 355' R.C.P. SEWER CL. II 0.95%

21"x 15' R.C.P. CL. IV 0.70%

900.64
900.44
898.57
898.46
897.21
895.40
892.03
891.83

15"X9' R.C.P. CL-III, 1.0%
12"X15' R.C.P. CL-III, 3.0%
12" R.C.P. APRON
12"X55' R.C.P. CL-III, 1.0%
905.00
904.37
900.44
900.72
900.81
901.50
902.05

895.40
896.24
896.15
12"X9' R.C.P. CL-III, 1.0%

915.00
910.00
905.00
900.00
895.00
890.00

145
150
155

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TELLOYNE POSI - SINGLE PLAN - PROFILE - 16GA

CAUTION - BURIED POWER

BUTTERNUT ST.

25'R.

30'R.

8' BIKEWAY

15' EASEMENT

BIKE WAY NO. 5 CONST. 8' BIKEWAY

7' EASEMENT

EASEMENT

P-BUR

CAUTION

HARDEES REST

GAS STATION

MUNICIPAL WATER SUPPLY INTERCONNECT - 1 EACH

PROPOSED ENT. TO BE CONSTRUCTED BY OTHERS

F&I. 6"-CIP WATERMAIN 2-EACH

℄B PI. 137+47.32, Δ = 0°20'08" LT. = A PT. 21.5' LT. & ⊥ TO SURVEY P.I. STA. 137+47.33

P.I. 137+47.33 Δ = 0°20'08" LT.

℄B PI. 137+47.58 Δ = 0°20'08" LT. = A PT. 21.5' RT. & ⊥ TO SURVEY P.I. STA. 137+47.33

FOR PROPOSED NEW R/W SEE R/W DETAIL BELOW

45'R

50'R

℄R PC. 17+82.66

STA. 140+20.0 END PROJ. NO. 02-600-06 BEGIN PROJ. NO. 65-21-51

40'R.

GAS STATION

℄B PC. 141+34.17 = A PT. 21.5' LT. & ⊥ TO SURV. STA. 141+34.05

℄B PI. 142+55.12 = A PT. 21.5' LT. & ⊥ TO SURV. STA. 142+55
Δ = 1°12'34" RT.
D = 0°30'
R = 11,459.16'
T = 120.95'
L = 241.89'
E = 064'

REMOVE

℄B PT. 143+76.06

6"X 31' C.M.P. INP.

1¼" R.S.C. FOR FUTURE SIGNAL SYSTEM INTERCONNECT.

REMOVE (2) 4" SANITARY SEWER SERVICES TO JCT. WITH 6" SEWER SERVICE. EXTEND WITH 6" SEWER TO 60' FROM ROAD ℄. CONTACT CITY OF BLAINE FOR LOCATIONS.

℄B PI. 142+55.12 = A PT. 21.5' RT. & ⊥ TO SURV. STA. 142+55
Δ = 1°12'34" LT.
D = 0°30'
R = 11,459.16'
T = 120.95'
L = 241.89'
E = 064'

℄B PC. 141+34.17 = A PT. 21.5' RT. & ⊥ TO SURV. STA. 141+34.05

NOTE: HANDHOLES SHALL BE SPACED 160' MAX. CENTER HANDHOLES 2' BEHIND CURB. R.S.C. TO BE PLACED 2' BEHIND CURB.

SIGNAL SYST. 13

REMOVE WATER SERVICE (5) DISCONNECT & PLUG AT WATERMAIN. CONTACT CITY OF BLAINE FOR LOCATIONS.

PLUG 3 - SAN. SEWER SERVICES

1724'

℄R PI. 20+00 = SURV. P.I. 20+00
Δ = 46°57' LT.
D = 12°00'
R = 477.46'
T = 217.34'
L = 407.92'
E = 47.14'

℄R PT 21+90.58 = SURVEY POT. 22+17.34

B.M. 21 ELEV. 911.71
TOP S.W. COR. CONC. SLAB
STANARD STA. LT STA. 139+30

R/W DETAIL

EXISTING R/W

PROPOSED NEW R/W

15'

15'

⚠ CONSTRUCT PED. RAMP

PROFILE GRADE

+0.29%

-0.51%

-1.53%

15" X 356' R.C.P. SEWER CL. III 0.45%

908.02

100' V.C. M= 0.100'

100' V.C. M= 0.128'

400' V.C. M= 1.475

+25 PVI. 913.24

+75 PVI. 914.51

+50 PVI. 905.21

12"X 37' R.C.P. CL. II 0.50%

12"X 17" R.C.P. CL. II 1%

12"X 28' R.C.P. CL. II 1%

12"X 8' R.C.P. CL. II 1%

908.86

908.67

908.50

908.30

908.22

12"X 8' R.C.P. CL. II 1%

902.38

901.88

901.80

901.60

12"X 30' R.C.P. CL. II 1%

15"x 22' R.C.P. CL. II 1%

15" 11' R.C.P. CL. III 1.0%

15"x 12' R.C.P. CL. III 1%

2" 33' R.C.P. CL. III 1%

15" 11' R.C.P. CL. III 1%

901.60

901.49

901.29

901.60

901.01

901.35

901.23

901.55

901.88

18"x 163' R.C.P. CL. II 0.40%

901.29

12"X 8' R.C.P. CL. III 1.0%

901.88

901.96

915.00

910.00

905.00

900.00

130

135

140

144

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TELESTYNE POST - SINGLE PLAN - PROFILE - 102M

LSB P.I. 115+67.50 = A PT. 12' LT. & ⊥ TO SURV. STA. 115+67.50
Δ = 1°38'12" LT.
D = 1°00'
R = 5,729.58'
T = 81.84'
L = 163.67'
E = 0.58'

LSB P.I. 119+00.13 = A PT. 21.5' LT. & ⊥ TO SURV. STA. 119+00
Δ = 1°38'12" RT.
D = 1°00'
R = 5,729.58'
T = 81.84'
L = 163.67'
E = 0.58'

LSB PC. 114+85.66 = A PT. 12' LT. & ⊥ TO SURV. POT. 114+85.66

LSB PT. 116+49.33

LSB PC. 118+18.29

LSB PT. 119+81.96

LSB PT. 115+61.96

LNB PC. 114+85.66 = A PT. 12' RT. & ⊥ TO SURV. POT. 114+85.66

LNB PT. 116+49.33

LNB PC. 118+18.29

LNB P.I. 115+67.50 = A PT. 12' RT. & ⊥ TO SURV. STA. 115+67.50
Δ = 1°38'12" RT.
D = 1°00'
R = 5,729.58'
T = 81.84'
L = 163.67'
E = 0.58'

LNB P.I. 119+00.13 = A PT. 21.5' RT. & ⊥ TO SURV. STA. 119+00
Δ = 1°38'12" LT.
D = 1°00'
R = 5,729.58'
T = 81.84'
L = 163.67'
E = 0.58'

CONST. STONE RETAINING WALL
LT. 115+20 TO 116+20
LT. 116+90 TO 117+45

CONST. STONE RETAINING WALL
LT. 119+15 TO 121+35

CONST. CONC. STEPS 60' LT.
STA. 122+70

END PROJ. NO. 85-21-51 STA. 122+75.0
BEGIN PROJ. NO. 02-600-06

CAUTION: BURIED POWER

REMOVE CONC. C.&G. AND REPLACE TO NEW WALK

SAWCUT

REMOVE BIT. SURFACE

CONST. STONE RETAINING WALL
LT. 124+75 TO 127+45
LT. 128+45 TO 128+80

REMOVE & REPLACE BIT. LOT

BEG. RET. WALL

END RET. WALL

BEG. RET. WALL

END RET. WALL

BEG. RET. WALL

END RET. WALL

REMOVE FLUME STONE RETAINING WALL

REMOVE 12" X 50' CMP SEWER

BIT. PARKING LOT

15" R.C.P. INP, 0.94%

DISCONNECT WATER SERVICE
1" COPPER - 1 EACH

12" X 12' R.C.P. SEWER, 75%
12" R.C.P. APRON

CONST. 8' BIKE PATH

8' BIKE PATH

BIKE PATH

2-S-BL.

105TH LANE

106TH AVE

EGRET BLVD

ACCESS ROAD

GAS TEST STATION

8" PVC

⚠ CONSTRUCT PED. RAMP

B.M. 20 ELEV. 913.06
SPIKE IN PP 75' LT.
STA. 125+40

PROFILE GRADE

18" x 340' R.C.P. SEWER, +0.50%

18" x 164' R.C.P. SEWER CL. II, +0.30%

18" x 274' R.C.P. SEWER CL. II, +0.40%

15" x 276' R.C.P. SEWER CL. II, +0.79%

15" x 92' R.C.P. SEWER CL. II, +0.95%

15" x 356' R.C.P. SEWER CL. III, +0.45%

+0.30%

+1.27%

+0.29%

250' V.C.
M = 0.303'

100' V.C.
M = 0.123'

+75 P.V.I. 90.764

12" x 20' R.C.P. CL. II, 1.0%
18" x 19' R.C.P. CL. II, 0.30%
18" x 7' R.C.P. CL. II, 0.30%

15" R.C.P. INP
0.94%

18" x 28' R.C.P. CL. II, 0.40%
18" x 51' R.C.P. CL. II, 0.30%

12" x 9' R.C.P. CL-II, 1.0%
12" x 42' R.C.P. CL-II, 1.0%

12" x 54' R.C.P. CL II, 1.00%
12" x 30' R.C.P. CL. II, 0.50%
12" x 15' R.C.P. CL. II, 1.0%
12" x 18' R.C.P. CL. II, 1.0%

12" x 20' R.C.P. SEWER CL. II, 1.0%

12" x 42' R.C.P. CL. II, 0.30%
12" x 36' R.C.P. CL. II, 0.30%

12" x 48' R.C.P. CL. II, 0.50%
12" x 32' R.C.P. CL. II, 0.50%
12" x 6' R.C.P. CL. II, 0.50%

12" x 28' R.C.P. CL. III, 1.0%
12" x 48' R.C.P. CL-III, 1.0%
12" x 6' R.C.P. CL-III, 1.0%
12" x 9' R.C.P. CL. III, 1.0%

Rev. 5-13-16 HJP

TELLOYNE POST - SINGLE PLAN - PROFILE - 16GM

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TELEDYNE POST - SINGLE PLAN - PROFILE - 102M

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Sheet No. 1 **of** 33 **Sheets**

NO.	STATION	LOCATION	REMARKS	TYPE	DESIGN	LIN. FT.	REMOVE SEWER PIPE	TOP	OUTLET	DRAINS TO	F&I CASTING NO. ASSEMBLY		12" CL. II	12" CL. III	15" CL. II	15" CL. III	18" CL. II	21" CL. II	21" CL. IV	24" CL. II
1	111+25	29.0' RT.		M.H.	INPLACE			903.34	892.94	42" RCP INPL.		1						22		
2	111+46	24.9' RT.	SALVAGE CASTING, REMOVE CB STRUCTURE	C.B.	A OR F	6.5	12" x 22' RCP	903.37	896.74	M.H. 1	B	2						43		
3	111+55	17.0' LT.		M.H.	A OR F	6.6		903.57	897.08	C.B. 2	A	3								
4	111+46	20.9' LT.	SALVAGE CASTING, REMOVE CB STRUCTURE	C.B.	C OR G	4.6	12" x 48' RCP	903.42	898.60	M.H. 3	B	4	10					324		
5	114+79	5.0' LT. SBL		M.H.	C	5.6		904.53	899.02	M.H. 3	A	5								
6	114+81	51.0' LT.		C.B.	C OR G	5		905.28	900.11	M.H. 5	B	6	34							
7	115+89	51.0' LT.		C.B.	C OR G	4.7		905.26	900.39	C.B. 6	B	7	28							
8	115+31	5.0' LT. SBL		M.H.	C	5.4		904.81	899.48	M.H. 5	A	8					52			
9	115+35	12.9' LT. SBL		C.B.	C OR G	4.3		904.55	900.07	M.H. 8	B	9	9							
10	115+35	12.9' RT. NBL		C.B.	C OR G	4		904.55	900.40	M.H. 8	B	10	42							
11	118+71	5.0' LT. SBL		M.H.	C OR G	4.9		905.97	901.18	M.H. 8	A	11					340			
12	118+71	12.9' RT. SBL		C.B.	C OR G	3.9		905.81	901.76	M.H. 11	B	12	18							
13	118+71	12.9' LT. NBL		C.B.	H	3.7		905.83	901.91	C.B. 12	B	13	15							
14	118+70	59.0' LT. SBL		C.B.	C OR G	3.8		906.14	902.12	M.H. 11	B	14	54							
15	119+00	59.0' LT. SBL		C.B.	H	3.7		906.17	902.27	C.B. 14	B	15	30							
16	119+31	5.0' LT. SBL		M.H.	C OR G	4.9		906.20	901.36	M.H. 11	A	16					60			
17	119+35	23.9' LT. SBL		C.B.	H	3.6		905.71	901.96	M.H. 16	B	17	20							
18	120+95	5.0' LT. SBL		M.H.	C OR G	4.9		906.69	901.85	M.H. 16	A	18					164			
19	121+00	23.9' LT. SBL		C.B.	H	3.6		906.20	902.45	M.H. 18	B	19	20							
19A	121+03	25.0' LT.	SALVAGE CASTING, REMOVE CB. STRUCTURE	C.B.	INPL.		15" x 50' RCP			--		19A								
20	121+02	12.9' RT. SBL		C.B.	C OR G	4.4		906.46	901.91	M.H. 18	B	20					19			
21	121+04	23.9' LT. NBL		C.B.	C OR G	4.1		906.24	901.93	C.B. 20	B	21					7			
21A	121+03	25.0' RT.	SALVAGE CASTING; REMOVE CB. STRUCTURE	C.B.	INPL.		15" x 41' RCP			--		21A								
22	121+22	23.9' RT. NBL		C.B.	C OR G	4		906.27	902.28	CB 21 & MH 23		22					79			
23	121+03	66.0' RT.		M.H.	INPL.		12" x 50' CMP	906.42	901.92	15" RCP INPL.		23					274			
24	123+96	23.8' RT. NBL		M.H.	C OR G	4.6		907.70	903.18	C.B. 22	A	24								
25	124+18	59.0' RT. NBL	CONST. INLET FROM DITCH (12"x12' RCP) & 12" APRON	C.B.	H	2.9		906.63	903.51	M.H. 24	B	25	48							
26	124+52	59.0' RT. NBL		C.B.	H	2.8		906.63	903.64	C.B. 25	B	26	42							
27	124+88	18.9' RT. NBL		C.B.	C OR G	4.2		908.58	904.25	M.H. 24	B	27			92					
28	124+88	12.9' LT. NBL		C.B.	C OR G	3.9		908.72	904.61	C.B. 27	B	28	32							
29	124+88	23.9' RT. SBL		C.B.	C OR G	3.7		908.47	904.64	C.B. 28	B	29	6							
30	124+88	23.9' LT. SBL		C.B.	H	3.4		908.47	904.88	C.B. 29	B	30	48							
31	127+64	15.0' RT. NBL		M.H.	C	5.8		912.12	906.42	C.B. 27	A	31				276				
32	127+64	23.9' RT. NBL		C.B.	C OR G	4.8		911.77	906.76	M.H. 31	B	32		9						
33	127+64	12.9' LT. NBL		C.B.	C OR G	4.9		912.02	906.95	M.H. 31	B	33		28						
34	127+64	23.9' LT. SBL		C.B.	C OR G	4.6		911.80	907.01	C.B. 33	B	34		6						
35	127+85	23.9' LT. SBL		C.B.	C OR G	4.2		911.88	907.53	C.B. 34	B	35		52						
36	131+20	15.0' RT. NBL		M.H.	C	5.3		913.22	908.02	M.H. 31	A	36				356				
37	131+27	18.9' RT. NBL		C.B.	C OR G	4.5		913.00	908.30	M.H. 36	B	37	8							
38	131+25	12.9' LT. NBL		C.B.	C OR G	4.5		913.13	908.50	M.H. 36	B	38	28							
39	131+25	12.9' RT. SBL		C.B.	C OR G	4.3		913.13	908.67	C.B. 38	B	39	17							
40	131+25	23.9' LT. SBL		C.B.	H	3.8		912.88	908.86	C.B. 39	B	40	37							
41	142+07	24.5' LT. SBL		C.B.	SPEC.1	4		906.17	902.38	C.B. 42	D	41	58							
42	142+57	21.1' LT. SBL		C.B.	SPEC.1	4.5		906.15	901.88	C.B. 46	D	42	8							
43	142+50	24.0' LT.	SALVAGE CASTING, REMOVE CB STRUCTURE	C.B.	INPL.		15" x 27' RCP			M.H. 51A		43								
44	142+50	24.0' RT.	SALVAGE CASTING, REMOVE CB STRUCTURE	C.B.	INPL.		12" x 48' RCP			C.B. 43		44								
45	142+70	11' LT. SBL		M.H.	C	5.3		906.50	901.29	C.B. 51	A	45					163			
45A	142+66	1.5' LT. SBL	CONST. MH ON INPLACE 15" RCP SEWER	M.H.	C	5.7		906.64	901.81	MH 45 & 51A	A	45A				11				
46	142+65	20.5' LT. SBL		C.B.	SPEC.1	4.8		906.16	901.60	M.H. 45	D	46				11				
47	142+57	13.5' RT. SBL		C.B.	SPEC.1	5.4		906.32	901.19	M.H. 45A	D	47				18				
48	142+57	13.5' LT. NBL		C.B.	SPEC.1	5.2		906.32	901.35	C.B. 47	D	48				16				
49	142+57	19.5' RT. NBL		C.B.	SPEC.1	4.6		906.18	901.88	C.B. 48	D	49		33						
50	142+65	19.5' RT. NBL		C.B.	SPEC.1	4.5		906.18	901.26	C.B. 49	D	50		8						
51	144+33	12.9' LT. SBL	F&I 12"x15' RCP & 12" RCP APRON TO DRAIN LOW AREA	C.B.	A OR F	6.8		907.44	900.44	M.H. 53	B	51	15						467	
51A	144+33	4.2' LT. SBL	M.H. ON INPLACE 15" RCP RECONST. 2.0' ADJ. CASTING	M.H.	INPL.		15" x 28' CMP	907.74	900.81	CB 51 & MH 54		51A				9				
52	144+33	12.9' RT. NBL		C.B.	C	5.2		907.43	902.23	M.H. 51A	B	52		55					15	
53	149+00	33.0' LT.		M.H.	A OR F	11.6	15" x 49' RCP	909.87	898.57	M.H. 54	A	53							172	
54	149+11	23.0' LT.	CONNECT INPL. 15" RCP INLET REMOVE 15" RCP TO M.H. 55	M.H.	A OR F	11.5	15" x 10' RCP		898.46	C.B. 57	A	54								
55	149+60	23.0' LT.	SALVAGE CASTING, REMOVE INPL. MH. STRUCTURE	MH.	INPL.				899.71	M.H. 56		55								
56	150+47	10.0' RT.	M.H. TO REMAIN INPLACE	M.H.	INPL.				899.33	M.H. INPL.		56								
57	150+90	24.9' LT.		C.B.	A OR F	8.9		906.27	897.21	M.H. 58	B	57						259		
58	153+49	33.0' LT.		M.H.	A OR F	6.8		902.10	895.40	M.H. 60	A	58					355			
59	153+45	24.9' LT.		C.B.	C OR G	5.1		901.53	896.24	M.H. 58	B	59		9						
59A	153+45	23.0' LT.	SALVAGE CASTING, REMOVE CB STRUCTURE SEAL 18" CMP	C.B.	INPL.				898.68	M.H. INPL		59A								347
60	157+84	33.0' LT.		C.B.	A OR F	6.1		(1)897.80	891.83	C.B. 61	C	60								348
61	160+51	33.0' LT.		C.B.	C	5.9		(1)895.75	889.92	C.B. 62	C	61								
62	163+99	41.0' LT.		C.B.	INPL.				887.65	INPL. 24"		62								
										TOTALS		55	619	200	92	697	1158	744	920	695

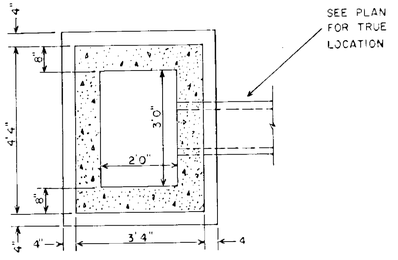
REMOVE CONCRETE CURB & GUTTER

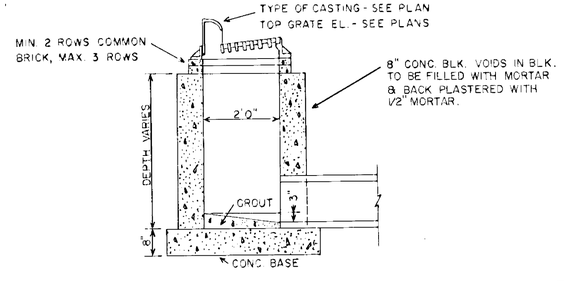
STREET	DESCRIPTION	LINEAR FEET SQ. GUTTER	LINEAR FEET CO. GUTTER
105TH LANE LT	B 618 C&G INP	—	30
115+18 to 120+68 RT	B 618 C&G INP	550	
106TH LANE LT	B 618 C&G INP	55	55
BURET LT	B 618 C&G INP	50	55
BUTTERNUT ST LT	B 618 C&G INP	20	30
SO. ENT. MOBIL		35	45
NO. ENT. MOBIL		45	190
FREE RIGHT ISLAND LT	B 612 C&G INP	240	
SCHOOL ENT LT	B 618 C&G INP	22	22
NORTHDALE ALIGNMENT 11+12 to 19+65	B 618 C&G INP	853	—
12+77 to 18+70		—	680
	SUB TOTALS	1,870	1,107
	TOTALS	2,977 LIN. FT.	

REMOVE SIDEWALK

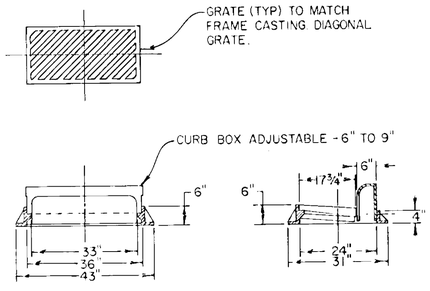
STATION	LOCATION	SQ.FT.
115+18 to 118+68	27-32 LT	1,790
119+03 to 124+05	27-32 LT	2,510
123+92	33-70 LT	185
124+57 to 130+32	27-32 LT	2,875
124+63	24-70 LT	230
131+03 to 137+40	27-32 LT	3,185
151+47	35-45 LT	50
NORTHDALE		
15+50 to LOR 19+75	40-75 RT	2,125
LOR 19+90 to LOR 21+90	5RT-30LT	1,000
LOR 20+10	5-10 RT	30
LOR 20+20 to LOR 21+15	50-60 RT	475
	TOTAL	14,455

DESIGN SPECIAL I





NOTE: TO BE USED WITH C.B. DESIGN SPECIAL I



C.B. CASTING DETAIL - ASSEMBLY D

CASTING ASSEMBLIES			
ASSEMBLY	ITEM	CASTING NO.	QUANTITY
A	FRAME COVER	700-7 712	14
B	FRAME GRATE CURB BOX	801 810 821-B	32
C	FRAME GRATE		2
D	SEE DESIGN SPEC. NO. 1		7

SIDEWALK CONSTRUCTION (SQ. FT.)

STATION	LOCATION	RPLMT 4"	NEW 4"	RPLMT 6"	NEW 6"	RPLMT 8"	NEW 8"
115+10 to 116+74	32-41 LT	820					
116+74 to 116+86	36-41 LT			60			
116+86 to 117+50	38-43 LT	320					
117+50 to 117+62	38-43 LT			60			
117+62 to 118+86	38-45 LT	620					
119+03 to 121+37	54-59 LT	1,170					
121+37 to 121+53	54-59 LT					80	
121+53 to 124+05	54-59 LT	1,260					
123+92	59-70 LT	55					
124+57 to 127+45	27-32 LT	1,440					
124+63	59-70 LT	55					
127+45 to 127+75	54-59 LT					150	
127+75 to 130+32	54-59 LT	1,285					
131+03 to 133+03	54-59 LT	1,000					
133+84 to 134+16	54-59 LT					160	
134+16 to 137+40	54-59 LT	1,620					
151+47	30-45 LT	75					
15+50 to 16+46	45-50 RT	480					
16+46 to 16+76	45-50 RT					150	
16+76 to LOR 19+45	45-50 RT	1,345					
LOR 19+90 to LOR 21+90	65-25 LT	1,000					
LOR 20+55 to LOR 21+15	50-65 RT	300					
	TOTALS	12,845		120		540	

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CLEAR AND GRUB

STATION	LOCATION		DESCRIPTION	CLEAR	GRUB	REMARKS
NORTHDALE ALIGNMENT						
17+03	50	RT	OAK 8" (CLUMP 6)	6	1	
17+80	55	RT	OAK 12" (TRIPLE)			SAVE
20+21	24	LT	ASH 8"	1	1	
20+25	9	LT	ELM 6"	2	1	
20+29	21	LT	PINE 4"	1	1	
20+41	17	LT	ASH 8"	1	1	
20+80	26	LT	ASH 8" DBL	1	1	
20+90	27	LT	ELM 4"	1	1	
21+11	46	LT	OAK 8"	1	1	
21+12	44	LT	STUMP	0	1	
21+14	45	LT	OAK 10"	1	1	
21+79	36	LT	STUMP	0	1	
UNIVERSITY ALIGN						
115+95	45	LT	PINE 6"	1	1	
117+16	59	RT	STUMP	0	1	
117+68	46	LT	OAK 8"	1	1	
117+74	39	LT	OAK 4"	1	1	
117+78	36	LT	OAK 4"	1	1	
118+24	40	LT	OAK 10"	1	1	
118+30	51	LT	OAK 12"			SAVE
118+32	51	LT	OAK 12"			SAVE
120+05	58	LT	OAK 6" (4)	4	1	
120+10	59	LT	OAK 6" (2)	2	1	
121+30	52	LT	PINE 3"			REMOVE
121+60	52	LT	PINE 3"			REMOVE
121+98	66	LT	OAK 6"	1	0	
122+04	63	LT	OAK 6" DBL	2	0	
122+28	53	LT	ELM 3"			REMOVE
123+16	57	LT	ASH 4"	1	1	
123+40	57	LT	ASH 4"	1	1	
123+73	57	LT	ASH 4"	1	1	
123+02	60	LT	OAK 4"	1	1	
123+82	58	LT	OAK 5"	1	1	
124+70	42	LT	OAK 14"	1	1	
125+43	42	LT	OAK 8"(2)	2	1	
125+70	50	LT	OAK 8"	1	1	
126+25	60	LT	ASH 3 3/4 "			REMOVE
127+68	57	LT *	OAK 5"	1	1	
128+59	47	LT	OAK 4"	1	1	
128+61	52	LT	OAK 4"	1	1	
128+73	49	LT	OAK 4"	1	1	
138+36	35-56	RT	ELM 6" ROW (18)	18	18	
138+57	48	RT	OAK 12"	1	1	
138+58	36	RT	ELM 6" ROW (6)	6	6	
138+86	50	RT	OAK 7"	1	1	
138+98	44	RT	OAK 8"	1	1	
139+16	58	RT	OAK 16"	1	1	
139+48	46	RT	OAK 18"	1	1	
139+59	38	RT	PINE 5"	1	1	
139+64	62	RT	PINE 6"			SAVE
139+67	44	RT	ASH 12"	1	1	
139+75	52	RT	PINE 6"	1	1	
139+77	54	RT	OAK 12"	1	1	
139+79	37	RT	PINE 6"	1	1	
139+85	55	RT	OAK 18"	1	1	
140+10	60	RT	OAK 9"	1	1	
140+16	54	RT	OAK 15"	1	1	
140+50	39	RT	ELM 10"	1	1	
140+50	59	RT	ELM 14"	1	1	
141+14	51	RT	ELM 14 (3)	3	1	
141+39	55	RT	OAK 16"			SAVE
141+79	39	RT	ELM 12" (2)	2	1	
142+00	40	RT	ELM 8"	1	1	
142+20	38	RT	ELM 12" (2)	2	1	
142+65	58	RT	OAK 14"			SAVE.
143+20	42	RT	POP 4"	1	1	
143+44	48	RT	BIRCH 8"	1	1	
143+70	48	LT	ELM 3 3/4"			REMOVE
144+36	36	RT	PINE 6"	1	1	
144+60	33	RT	ELM 14"(2)	2	1	
144+77	47	RT	PINE 4"			SAVE
144+89	37	RT	POP 8" (3)	1	1	
145+24	46	RT	PINE 4"			SAVE
145+27	34	RT	ELM 12"	1	1	
145+85	49	LT	LOCUST 5"	1	1	S.S.TRENCH
153+12	42	LT	OAK 6"	1	1	S.S.TRENCH
153+12	43	LT	OAK 5"	1	1	S.S.TRENCH
154+28	44	LT	STUMP	0	1	S.S.TRENCH
154+30	38	LT	STUMP	0	1	S.S.TRENCH
154+63	37	LT	STUMP	0	1	S.S.TRENCH
154+70	44	LT	STUMP	0	1	S.S.TRENCH
			TOTALS	99	87	

SALVAGE AND INSTALL FENCE

STATION	LOCATION	REMARKS	SALVAGE	INSTALL
117+68 - 118+27	33	LT INSTALL @ NEW R/W	59	59
117+68	33-OUT	LT LINE	11	-
118+21	34-OUT	LT LINE	12	-
118+27 - 118+64	33	LT INSTALL @ NEW R/W	37	37
138+61 - 138+94	33	RT REMOVE ALL	33	-
138+61	33-OUT	RT REMOVE ALL LINE	45	-
139+40 - 139+90	33	RT REMOVE ALL	50	-
139+40	33-OUT	RT REMOVE ALL LINE	45	-
139+90	33-OUT	RT REMOVE ALL LINE	45	-
140+80 - 141+45	33	RT REMOVE ALL	65	-
140+80	33-OUT	RT REMOVE ALL LINE	35	-
141+45	33-OUT	RT REMOVE ALL LINE	35	-
143+19 - 143+74	34	RT INSTALL @ NEW R/W 50	55	55
143+19	34-OUT	RT LINE	16	-
143+74	34-OUT	RT LINE	16	-
144+20 - 144+72	32	RT INSTALL @ NEW R/W 50	52	52
144+20	32-OUT	RT LINE	18	-
144+72	32-OUT	RT LINE	18	-
145+46	34-OUT	RT LINE	16	-
155+14	37-OUT	LT R&R FOR STR. SEWER	15	15
		TOTALS	678	210

ADJUST GATEVALVES

STATION	LOCATION	REMARKS
114+82	32 LT	ADJUST
116+07	61 RT	ADJUST
120+44	60 RT	RISER BENT
128+46	72 RT	OK
128+91	68 RT	ADJUST
130+58	60 LT	ADJUST
134+90	29 LT	ADJUST
137+63	34 LT	ADJUST
137+79	22 RT	ADJUST
137+86	31 RT	ADJUST
144+72	26 RT	ADJUST
150+63	22 RT	ADJUST
158+42	53 LT	O.K. AS IS
12+37	25 RT	ADJUST
18+38	25 RT	ADJUST

HYDRANT RELOCATION

	EXISTING LOCATION	NEW LOCATION	REMARKS
1.	114+78 42 LT	114+78 42 LT	NEW
2.	116+07 62 RT	------	OK AS IS
3.	120+44 72 RT	------	OK AS IS
4.	130+44 68 LT	------	OK AS IS
5.	134+91 26 LT	134+11 68 LT	
6.	137+86 33 RT	138+15 78 RT	
7.	144+72 28 RT	144+72 36 RT	
8.	150+53 56 RT	------	OK AS IS
9.	158+42 55 LT	------	OK AS IS
10.	12+37 27 RT	12+37 38 RT	
11.	18+38 32 RT	18+38 39 RT	

NOTE: NEW HYDRANTS FURNISHED BY OTHERS

ADJ. FRAME & RING CASTINGS

STATION	LOCATION		REMARKS
UNIVERSITY			
117+86	46	RT	SAN.
118+84	55	LT	SAN.
120+72	50	RT	SAN.
138+20	10	RT	SAN.
144+51	10	RT	SAN.
NORTHDALE			
15+38	0	LT	O.K. AS IS
18+39	0	LT	SAN.
20+52	28	RT	BELL *
22+29	9	RT	SAN.

* TO BE ADJUSTED BY N.W. BELL

RECONSTRUCT MANHOLES

STATION	LOCATION		REMARKS
UNIVERSITY			
141+50	12	RT	SAN. - 5.4'
147+50	10	RT	SAN. - 6.5'
NORTHDALE			
13+37	26	RT	BELL - 3.0'*

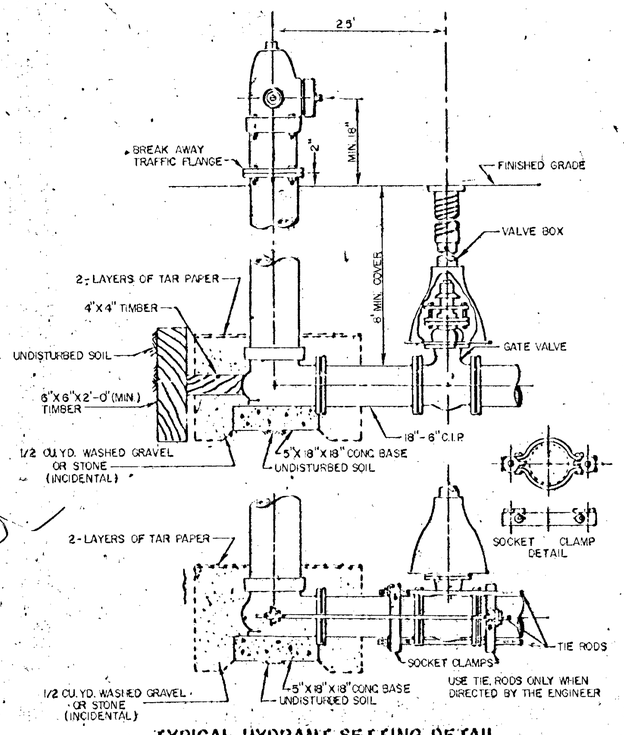
* TO BE RECONSTRUCED BY N.W. BELL

CURB BOXES

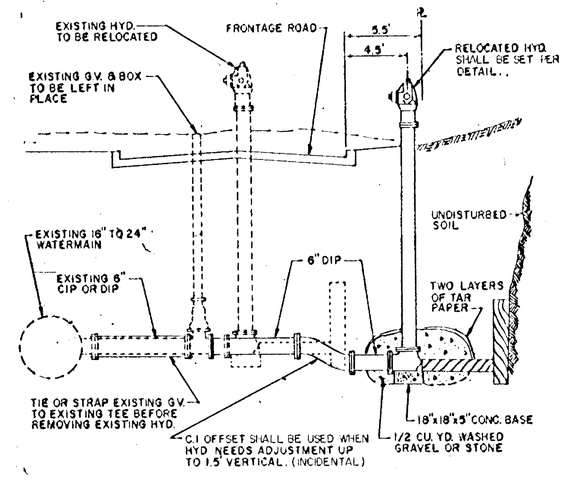
STATION	LOCATION	REMARKS
120+80	33'LT CLINIC	DISCONNECT AT MAIN
138+21	36'RT #10901	DISCONNECT AT MAIN
138+97	36'RT #10907	DISCONNECT AT MAIN
139+50	34'RT #10913	DISCONNECT AT MAIN
140+38	36'RT #10918	DISCONNECT AT MAIN
141+24	34'RT #10925	DISCONNECT AT MAIN
142+00	39'RT VACANT	RELOCATE BEYOND 42' CURB WIDTH
142+67	38'RT VACANT	RELOCATE BEYOND 42' CURB WIDTH
143+48	33'RT #10943	ADJUST
144+20	57'LT CHURCH	O.K. AS IS - NOTE WATER X-ING
145+12	35'RT #11007	ADJUST
146+00	37'RT #11013	ADJUST
146+50	38'RT #11019	ADJUST
147+30	35'RT #11035	ADJUST
148+13	35'RT #11031	ADJUST
148+87	37'RT #11037	OK BEYOND RET WALL
149+66	34'RT #11043	ADJUST
150+32	53'LT #11230	O.K. AS IS
15+97	33'RT CHURCH	ADJUST
16+31	39'LT AMOCO	ADJUST

PLUG SANITARY SEWER WYE

STATION	LOCATION	REMARKS
138+21	33'RT #10901	DISCONNECT AT PROPERTY LINE
138+97	33'RT #10907	DISCONNECT AT PROPERTY LINE
139+50	33'RT #10913	DISCONNECT AT PROPERTY LINE
140+38	33'RT #10918	DISCONNECT AT PROPERTY LINE
141+24	33'RT #10925	DISCONNECT AT PROPERTY LINE



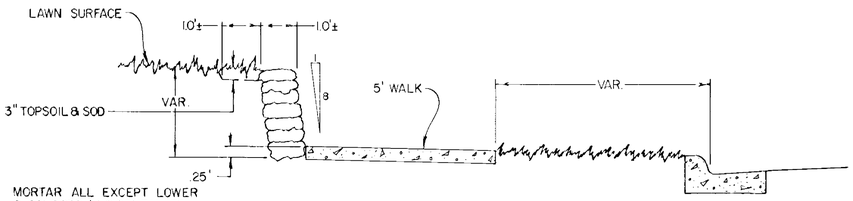
TYPICAL HYDRANT SETTING DETAIL



NOTE: HYDRANT RELOCATION SHALL INCLUDE, ALL TOOLS, MATERIALS AND LABOR TO SECURE THE EXISTING GATE VALVE TO THE EXISTING TEE, REMOVE AND RELOCATE THE EXISTING HYDRANT WITHOUT SHUTTING DOWN THE EXISTING WATERMAIN. CONST. ACCORDING TO DETAILS AS SHOWN.

HYDRANT RELOCATION DETAIL

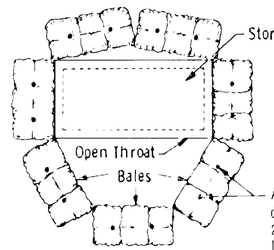
RETAINING WALL DETAIL



MORTAR ALL EXCEPT LOWER 2 COURSES (INCIDENTAL TO STONE MASONRY RETAINING WALL)

RANDOM COURSED DRY RUBBLE MASONRY (LIME STONE QUARRY FACED) – SEE NOTE

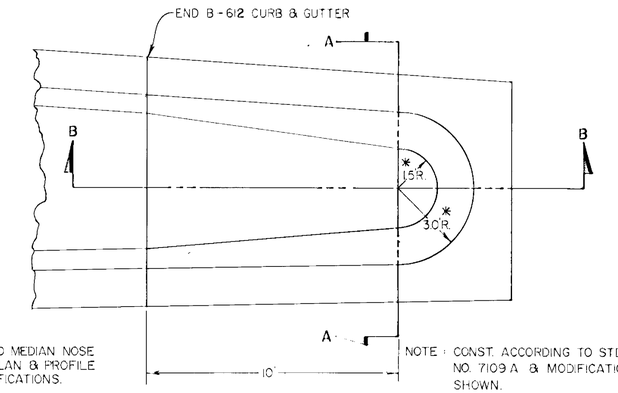
NOTE: RETAINING WALL CONSTRUCTION INCLUDES SOME RECONSTRUCTION OF EXISTING RETAINING WALL. MATERIALS REQUIRED FOR RE-CONSTRUCTION SHALL MATCH THE MATERIALS USED IN THE CONSTRUCTION OF THE EXISTING WALL. (DRY RUBBLE MASONRY & CONC. BL.)



NOTE: HAY BALES INCIDENTAL TO CONSTRUCTION

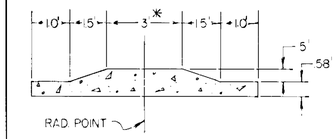
BALE DIVERSION TO PROTECT STORM SEWER INLETS

MEDIAN NOSE DETAIL

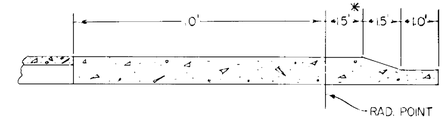


* DENOTES STANDARD MEDIAN NOSE DIMENSIONS. SEE PLAN & PROFILE SHEETS FOR MODIFICATIONS.

NOTE: CONST. ACCORDING TO STD. PLATE NO. 7109.A & MODIFICATIONS AS SHOWN.



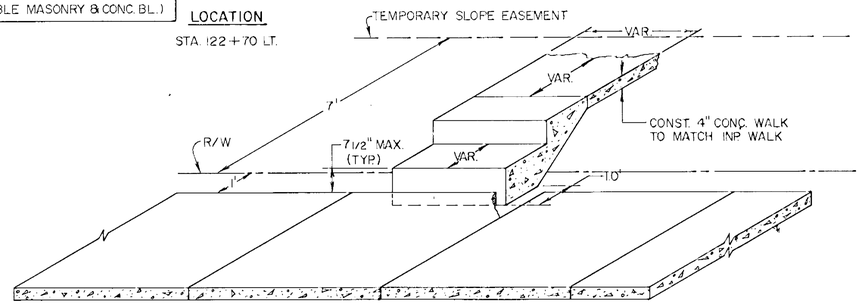
SECTION A-A



SECTION B-B

CONCRETE STEP DETAIL

LOCATION
STA. 122+70 LT.

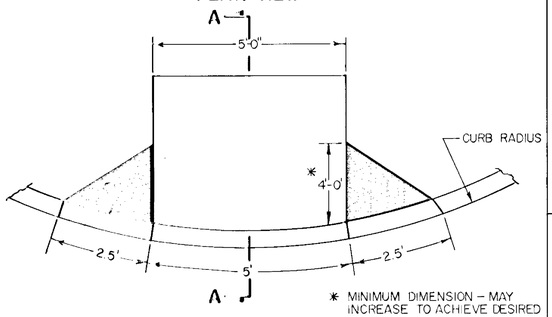


NOTE: STEP CONSTRUCTION TO MATCH SLOPE OF EXISTING YARD. NUMBER OF STEPS VARIABLE.

STEP REMOVAL WILL BE CONSIDERED TO BE INCIDENTAL TO STEP CONST. & NO ADDITIONAL COMPENSATION WILL BE MADE THEREFOR.

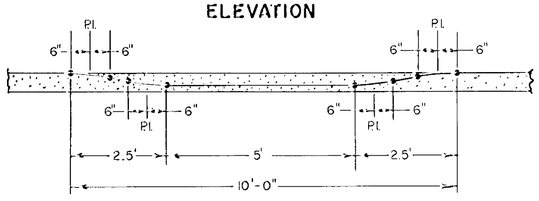
PEDESTRIAN RAMP DETAIL

PLAN VIEW

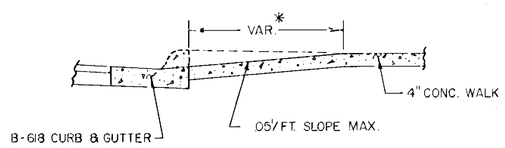


* MINIMUM DIMENSION – MAY INCREASE TO ACHIEVE DESIRED SLOPE.

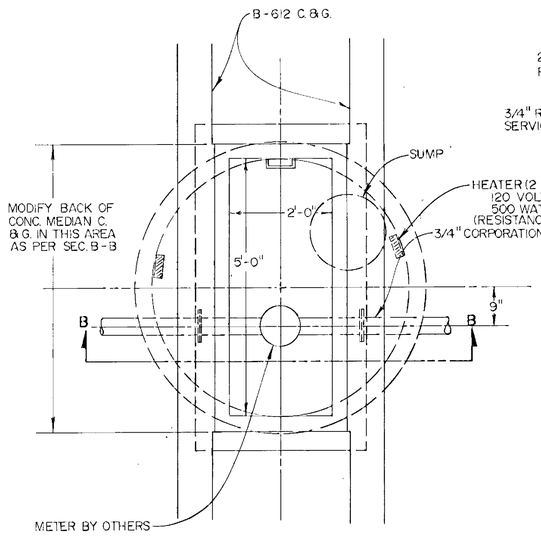
ELEVATION

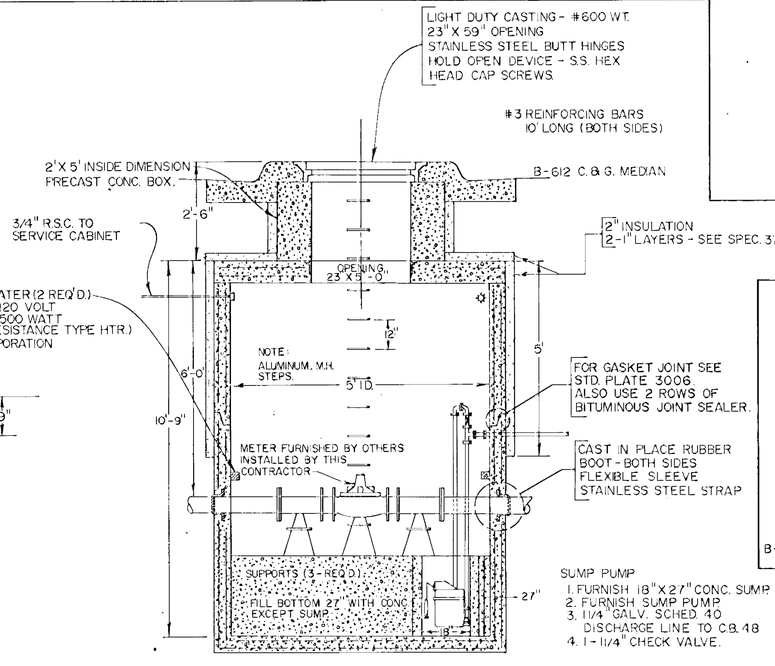


SECTION A-A



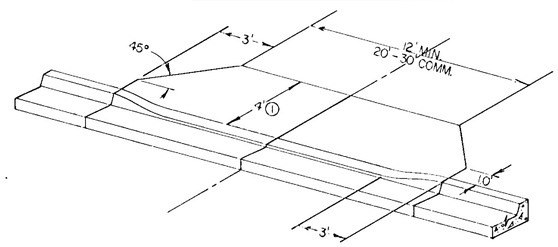
WATER INTERCONNECT M.H. DETAIL

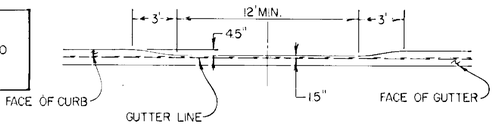


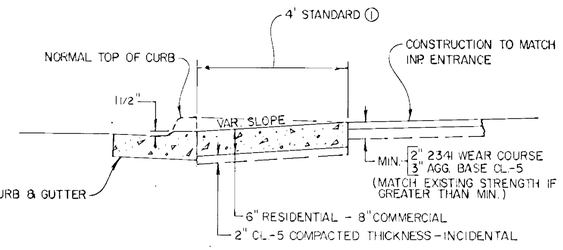


SECTION B-B

CONCRETE APRON DETAIL





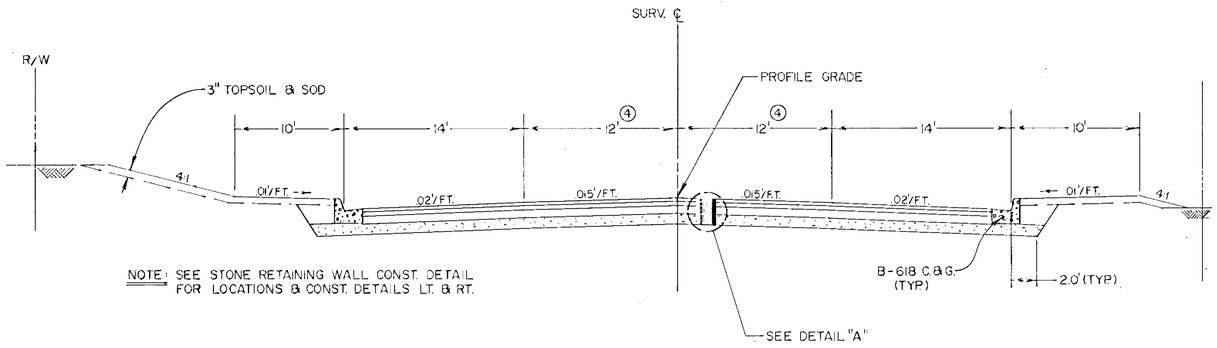


① IN SIDEWALK AREAS EXTEND CONC. APRON TO MATCH SIDEWALK.

NOTE: ALSO SEE STD. PLATE NO. 7035

GRADING, BASE & BITUMINOUS SECTION

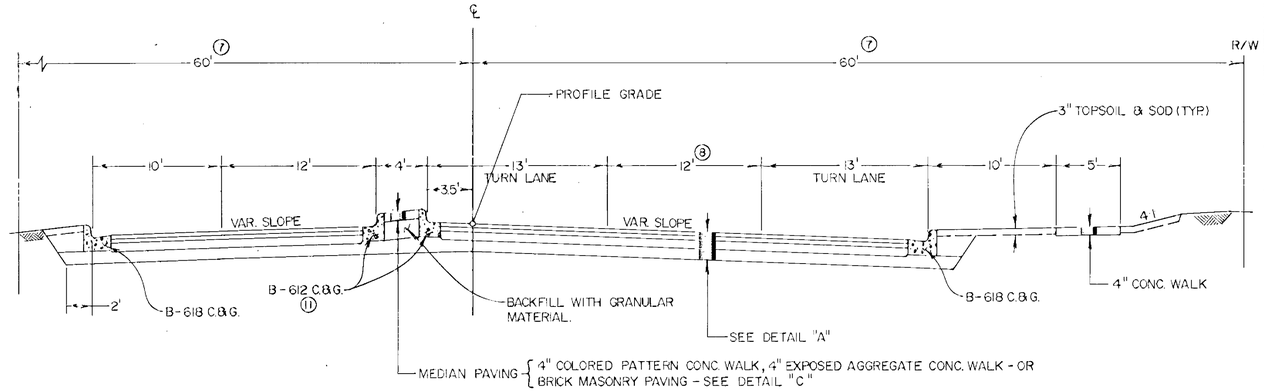
STA. 114+85.66 – STA. 118+13
STA. 143+35 – STA. 150+17 RT.
STA. 143+35 – STA. 151+15 LT.



NOTE: SEE STONE RETAINING WALL CONST. DETAIL FOR LOCATIONS & CONST. DETAILS LT. & RT.

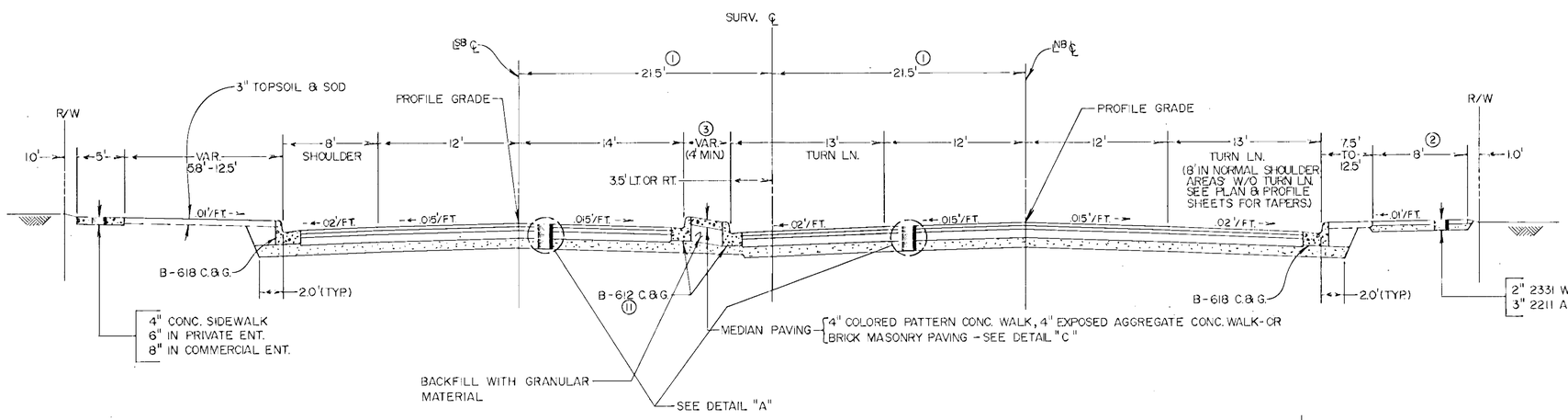
NORTHDALE ALIGNMENT
GRADING, BASE & BITUMINOUS SECTION

STA. 16+00 – STA. OR 22+60



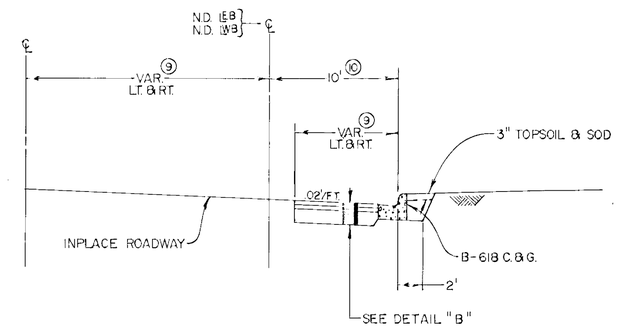
GRADING, BASE & BITUMINOUS SECTION

STA. 118+13 TO STA. 143+35



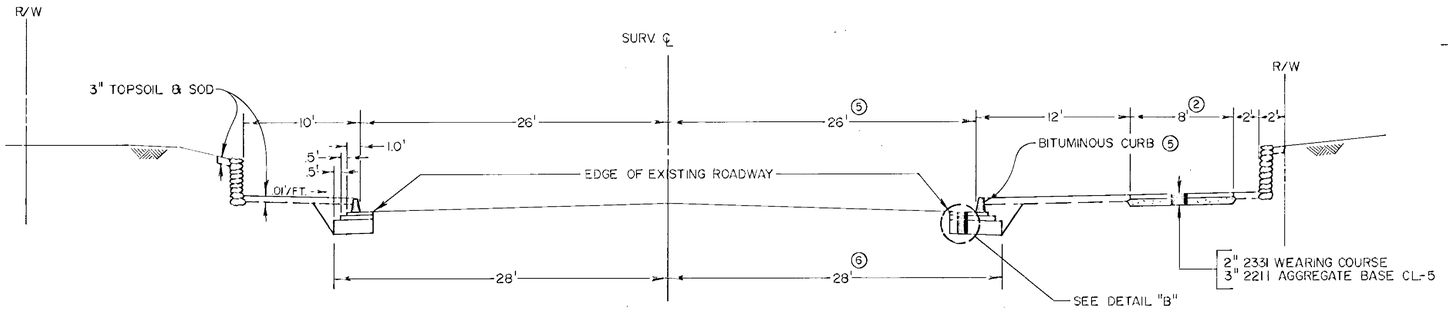
NORTHDALE ALIGNMENT
GRADING, BASE & BITUMINOUS SECTION

SURV. STA. 11+12.27 – SURV. STA. 16+00

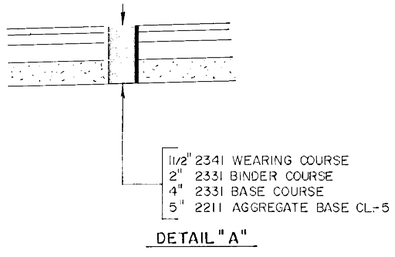


GRADING, BASE & BITUMINOUS SECTION

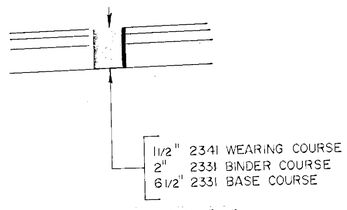
STA. 151+45 – STA. 154+00 LT.
STA. 150+45 – STA. 154+00 RT.



NOTE: SEE PLAN & PROFILE SHEETS FOR RETAINING WALL CONST. LOCATIONS.

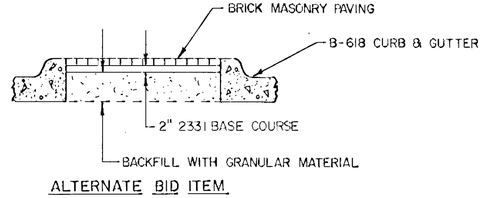


DETAIL "A"



DETAIL "B"

DETAIL "C"



ALTERNATE BID ITEM

① VARIES FROM 21.5' TO 19.74'
STA. 141+34.17 TO STA. 143+35 (℄SB & ℄NB ALIGN.)
VARIES FROM 21.5' TO 19.01'
STA. 118+13 TO STA. 119+81.96 (℄SB & ℄NB ALIGN.)

② BIKE PATH – SEE PLAN & PROFILE SHEETS FOR CONSTRUCTION LOCATIONS.

③ SEE PLAN & PROFILE SHEETS FOR LOCATIONS & GEOMETRICS.

④ VARIES FROM 19.74' – 12'
STA. 143+35 TO STA. 148+26.15 (℄SB & ℄NB ALIGN.)
VARIES FROM 12' – 19.01'
STA. 114+85.66 TO STA. 118+13 (℄SB & ℄NB ALIGN.)

⑤ 24' TO EDGE OF MAT, STA. 152+50 – STA. 154+00 RT.
END BITUMINOUS CURB, STA. 152+50 RT.

⑥ 26' STA. 152+50 – STA. 154+00 RT.

⑦ SEE PLAN & PROFILE SHEETS FOR EXCEPTIONS.

⑧ VARIES IN TAPER AREAS. SEE PLAN & PROFILE SHEETS FOR GEOMETRICS.

⑨ SEE PLAN & PROFILE SHEETS FOR GEOMETRICS.

⑩ EXCEPT IN 15:1 TAPER FOR TURN LANE. SEE PLAN & PROFILE SHEETS FOR GEOMETRICS.

⑪ ALL ISLAND CONST. TO USE B-612 CONC. CURB & GUTTER.

Rev 5-13-86 MJ.

STATEMENT OF ESTIMATED QUANTITIES

	ITEM NO.	ITEM	UNIT	02-600-06 PART. QUANT.	85-21-51 NON-PART. QUANT.	TOTAL QUANT.
	2021.501	MOBILIZATION	LUMP SUM	0.55	0.45	1
	2031.501	FIELD OFFICE,TYPE D	EACH	0.55	0.45	1
	2101.502	CLEARING	TREE	65	34	99
	2101.507	GRUBBING	TREE	58	29	87
	2104.501	REMOVE CURB AND GUTTER	LIN.FT.	2933	44	2977
	2104.501	REMOVE PIPE SEWERS	LIN.FT.		373	373
	2104.501	REMOVE STONE RETAINING WALL	LIN.FT.		174	174
	2104.503	REMOVE CONCRETE SIDEWALK	SQ.FT.	10602	3853	14455
	2104.505	REMOVE CONCRETE PAVEMENT	SQ.YD.	44	702	746
	2104.509	REMOVE MANHOLES OR CATCHBASINS	EACH		8	8
	2104.511	SAWING CONCRETE PAVEMENT	LIN.FT.	64	78	142
	2104.513	SAWING BITUMINOUS PAVEMENT	LIN.FT.	505	617	1122
	2104.521	SALVAGE FENCE	LIN.FT.	218	460	678
	2104.523	SALVAGE CASTINGS	EACH		8	8
(1)	2105.501	COMMON EXCAVATION	CU.YD.	8676	10603	19,279
	2105.525	TOPSOIL BORROW (LV)	CU.YD.	510	623	1133
(2)	2130.501	WATER	M.GAL.	22	28	50
(3)	2211.503	AGG. BASE PLACED, CL-5A	CU.YD.	3531(P)	2124(P)	5655(P)
	2331.504	BIT. MATERIAL FOR MIXTURE	TON	358.8	206.2	565
(4)	2331.510	BINDER COURSE MIXTURE	TON	2458	1434	3892
(5)	2331.514	BASE COURSE MIXTURE	TON	5017	2868	7885
	2331.531	TEMPORARY LANE MARKING	RD.STA.	66	54	120
(6)	0331.601	2" THICK BIT WEARING COURSE	SQ.YD.	546	2468	3014
	2341.504	BIT. MATERIAL FOR MIXTURE	TON	114.3	66.7	181
(7)	2341.508	WEARING COURSE MIXTURE	TON	1843	1076	2919
	2357.502	BIT. MAT'L FOR TACK COAT	GAL.	2234	1303	3537
(13)	2461.501	CONCRETE, MIX NO. 3A32	CU.YD.	3		3
(12)	2501.515	12" RC PIPE APRONS	EACH	1	1	2
(12)	2503.541	12" RCP SEW. DES. 3006	LIN.FT.	266	353	619
(12)	2503.541	12" RCP SEW. DES. 3006 CL III	LIN.FT.	95	101	196
(12)	2503.541	15" RCP SEW. DES. 3006	LIN.FT.	92		92
(12)	2503.541	15" RCP SEW. DES. 3006 CL III	LIN.FT.	623	74	697
(12)	2503.541	18" RCP SEW. DES. 3006	LIN.FT.	274	884	1158
(12)	2503.541	21" RCP SEW. DES. 3006	LIN.FT.		744	744
(12)	2503.541	21" RCP SEW. DES. 3006 CL IV	LIN.FT.		920	920
(12)	2503.541	24" RCP SEW. DES. 3006	LIN.FT.		695	695
(12)	2506.506	CONST. M.H. DESIGN A OR F	LIN.FT.		36.5	36.5
(12)	2506.506	CONST. M.H. DESIGN C OR G	LIN.FT.	15.7	36.7	52.4
(12)	2506.507	CONST. C.B. DESIGN A OR F	LIN.FT.		28.3	28.3
(12)	2506.507	CONST.C.B. DESIGN C OR G	LIN.FT.	43.6	58.9	102.5
(12)	2506.507	CONST. C.B. DESIGN H	LIN.FT.	12.9	14.6	27.5
(12)	2506.507	CONST. C.B. DESIGN SPEC.1	LIN.FT.		32.9	32.9
	2506.511	RECONSTRUCT MANHOLES	LIN.FT.		11.9	11.9
(12)	2506.516	CASTING ASSEMBLIES	EACH	17	38	55
	2506.522	ADJUST FRAME&RING CASTINGS	EACH	4	3	7
	0504.602	RELOCATE HYDRANT	EACH	4	2	6
	0504.602	ADJUST VALVE BOX-WATER	EACH	9	4	13
	0504.602	6" WATER STUBOUT	EACH		2	2
	0504.602	MUNICIPAL WATER INTERCONNECT	EACH		1	1
	0504.602	ADJUST CURB BOX	EACH		9	9
	0504.602	RELOCATE CURB BOX	EACH		2	2
	0504.602	DISCONNECT CURB BOX	EACH		6	6
	0503.602	PLUG 6" SANITARY SEW. WYE	EACH		5	5
	2503.511	6" PIPE SEWER	LIN.FT.		88	88
	0557.603	INSTALL FENCE	LIN.FT.		218	218
	2521.501	4" CONCRETE WALK	SQ. FT.	9197	3648	12845
	2521.501	6" CONCRETE WALK	SQ. FT.		120	120
	2521.501	8" CONCRETE WALK	SQ. FT.	460	80	540
	2531.501	CONC. CURB AND GUT. B 612	LIN.FT.	3410	2398	5808
	2531.501	CONC. CURB AND GUT. B 618	LIN.FT.	3300	5451	8751
	2531.503	CONCRETE MEDIAN	SQ. YD.		18	18
	2531.507	6" CONC. DRIVE.PAVEMENT	SQ. YD.		140	140
	2531.507	8" CONC.DRIVE. PAVEMENT	SQ. YD.	237	118	355
	0411.603	CONSTRUCT STONE RETAINING WALL	SQ. FT.	1540	1935	3475
(8)	0565.603	1.25" RIGID STEEL CONDUIT	LIN.FT.		765	765
(8)	0565.603	2" RIGID STEEL CONDUIT	LIN.FT.		390	390
(8)	0565.602	CONCRETE HANDHOLE	EACH		8	8
(8)	0565.602	LOOP DETECTOR 6'X6'	EACH		2	2
(14)	2565.511	FULL TRF.ACT.TRF.CONT.S.S.(A)	SIG. SYS	1		1
(15)	2565.511	FULL TRF.ACT.TRF.CONT.S.S.(B)	SIG. SYS	1		1
	2575.505	SODDING	SQ. YD.	5100	6237	11337
	2575.531	COM. FERT. ANAL. 10-10-10	TON	0.3	0.3	0.6
	0563.601	TRAFFIC CONTROL	LUMP SUM	0.55	0.45	1
	0564.603	4"SOLID LINE YELLOW PAINT	LIN.FT.	2981	2439	5420
	0564.603	4" SOLID LINE WHITE PAINT	LIN.FT.	6548	5357	11905
	0564.603	24" SOLID LINE WHITE PAINT	LIN.FT.	784	641	1425
	0564.603	4" BROKEN LINE WHITE PAINT	LIN.FT.	693	567	1260
	0564.603	4" DOUBLE SOLID LINE YELLOW PAINT	LIN.FT.	2423	1982	4405
	0564.603	24" SOLID LINE YELLOW PAINT	LIN.FT.	363	297	660
	0564.602	PAVEMENT MESSAGE	EACH	10	8	18
	2564.531	P & I SIGN PANELS TYPE C	SQ.FT.	194	159	353
		ALTERNATE I-1				
(11)	2531.503	BRICK MEDIAN (BRICK OVER ASPHALT)	SQ. YD.	1053	792	1845
		ALTERNATE I-2				
(9)	2531.503	CONCRETE MEDIAN (DESIGN SPECIAL 1)	SQ. YD.	1053	792	1845
		ALTERNATE I-3				
(10)	2531.503	CONCRETE MEDIAN (DESIGN SPECIAL 2)	SQ. YD.	1053	792	1845

STANDARD PLATES

PLATE NO.	DESCRIPTION
0004 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 K	REINFORCED CONCRETE PIPE
3006 D	GASKET JOINT FOR REINFORCED CONCRETE PIPE
3100 F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3145 E	CONCRETE PIPE ENDS
4000 I	MANHOLE OR CATCH BASIN
4002 E	MANHOLE OR CATCH BASIN
4005 K	MANHOLE OR CATCH BASIN
4006 K	MANHOLE OR CATCH BASIN
4010 F	CONCRETE SHORT CONE & ADJUSTING RING
4011 D	PRECAST CONCRETE BASE
4101 C	RING CASTING FOR MANHOLE OR CATCH BASIN
4110 D	COVER CASTING FOR MANHOLE
4126 E	CATCH BASIN FRAME CASTING
4142 D	BEEHIVE GRATE CASTINGS FOR CATCH BASIN
4149 C	GRATE CASTING FOR CATCH BASIN
4161 F	CURB BOX CASTING FOR CATCH BASIN
4180 H	MANHOLE OR CATCH BASIN STEP
7035 J	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7065 C	BITUMINOUS CURB
7100 F	CONCRETE CURB AND GUTTERS
7110 E	CURB & GUTTER CONSTRUCTION AT CATCH BASIN
7111 G	INSTALLATION AND REINFORCEMENT OF CATCH BASIN CASTINGS
8000 I	STANDARD BARRICADES
8003 B	BREAKAWAY SIGN SUPPORT (PLASTIC)
8110 C	TRAFFIC SIGNAL BRACKETING - POLE MOUNTING
8111 B	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
8112 C	PEDESTAL FOUNDATION
8116 C	STEEL GUARD POST
8117 F	PRECAST CONCRETE HANDHOLE (OR PULL BOX)
8119 C	GROUND MOUNTED CABINET FOUNDATION
8120 H	P-80 & P-90 POLE FOUNDATION
8121 B	TRANSFORMER BASE WITH POLE BASE PLATE
8122 C	PEDESTAL AND PEDESTAL BASE
8123 B	POLE & MAST ARM
8124 D	MAST ARM SIGNAL HEAD MOUNTS

DRIVEWAY CONSTRUCTION

STATION	ADDRESS	LT/RT	REMARKS	REMOVALS CONCRETE S.Y.	REMOVALS BIT. S.Y.	CONCRETE DRIVEWAY PAVEMENT APRON SQ.YDS. WIDTH	APRON 6"	APRON 8"	DRIVEWAY SQ.YDS. WIDTH	DRIVEWAY REPLMT. 6"	DRIVEWAY REPLMT. 8"	DRIVEWAY NEW 6"	DRIVEWAY NEW 8"	BITUMINOUS DRIVEWAY SQ. YDS. WIDTH	BITUMINOUS DRIVEWAY SQ. YDS. REPLMT	BITUMINOUS DRIVEWAY SQ. YDS. NEW
115+60	#10546	LT	NOT USED AS ENT.		51											
116+80	#10554	LT				12	7									
117+00	FIELD ENT	RT	OBLITERATE													
117+56	#10560	LT				12	7									
119+27	SO. ENT. CHANTICLEAR PIZZA	RT		14		26		13	26		23			26	12	
120+04	NO. ENT. CHANTICLEAR PIZZA	RT	OBLITERATE	15		27										
121+45	PARK DENTAL CLINIC	LT			82	16		9						16	75	
127+58	#10730 WORD OF LIFE	LT			236	25		13						25	225	
134+00	DEVELOPMENT (NEW)	LT	PAVE TO SIDEWALK			32		16						32		11
135+20	SHOPPING CENTER	RT			109	24		12	24			21		24	16	
135+55	SO. MOBIL GAS STATION	RT			112	22		11	22			20		22	39	
136+75	NO. MOBIL GAS STATION	RT	OBLITERATE													
138+44	#10901	RT	OBLITERATE	44		8										
139+21	#10907	RT	OBLITERATE													
140+03	#10913	RT	OBLITERATE													
140+28	SO. ENT. WOOD	LT			163	30		15						30	80	
140+70	#10919	RT	OBLITERATE													
141+45	#10925	RT	OBLITERATE	47		14										
141+65	NO. ENT. WOOD	LT			205	42		20						42	67	
144+50	NO. ENT. WOOD NEW	LT				24		12						24		27
143+85	#10943	RT			40	18	10							18	10	
144+00	OAK PARK ASSEMBLY OF GOD	LT			69	24		12						24	32	
144+06	#11001	RT		21		12	7		12	5						
144+90	OAK PARK ASSEMBLY OF GOD	LT			37	24		14						24	11	
145+28	#11007	RT		50		14	8		14	42						
146+00	#11013	RT			48	12	7							12	36	
146+85	#11019	RT			19	17	9							17	11	
147+62	#11025	RT			68	17	9							17	55	
148+38	#11031	RT				14	8									
148+65	#11037	RT			58	12	7							12	39	
149+90	#11043	RT				12	7									
150+30	R.E.A. SUBSTATION	LT				12	7									
154+03	#11130	LT	SIR.SEW. RESTORATION			12										
154+57	#11140	LT	SIR.SEW. RESTORATION		27	12								12	27	
155+31	#11150	LT	SIR.SEW. RESTORATION			12										
158+63	B & B STORAGE	LT	SIR.SEW. RESTORATION		71	32								32	71	
NORTHDALE 12+89	PEACE LUTHERN	RT		60		30		15	30		30					
13+32	OAK PARK ASSEMBLY OF GOD	LT		17	17	30		15						30	17	
14+18	PEACE LUTHERN	RT		77	17	30		15	30		13			30	17	
15+74	WEST ENT. WOOD	LT		20	73	30		15						30	53	
16+61	PEACE LUTHERN	RT		77	50	30		15	30		13			30	33	
17+17	EAST ENT. WOOD	LT		14	52	26		13						26	29	
20+69	MOBIL	RT	OBLITERATE													
			TOTALS			93	235		47	79		0	41		955	38

BASIS OF PLANNED QUANTITIES

2331 PLANT MIXED BASE COURSE
BITUMINOUS MIXTURE 110 LBS./S.Y. PER 1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 4.8% BY WT.

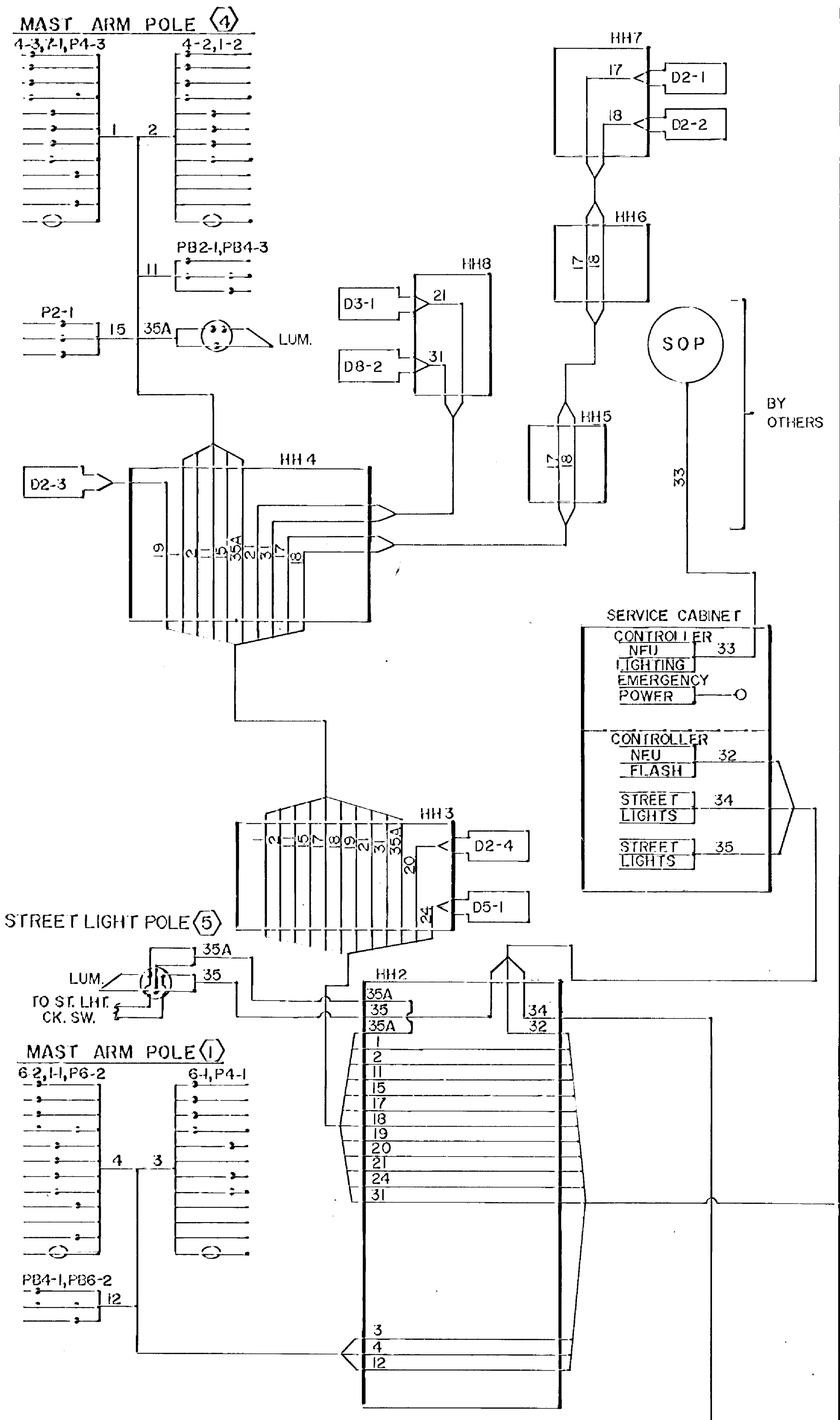
2331 PLANT MIXED BINDER COURSE
BITUMINOUS MIXTURE 110 LBS./S.Y. PER 1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 4.8% BY WT.

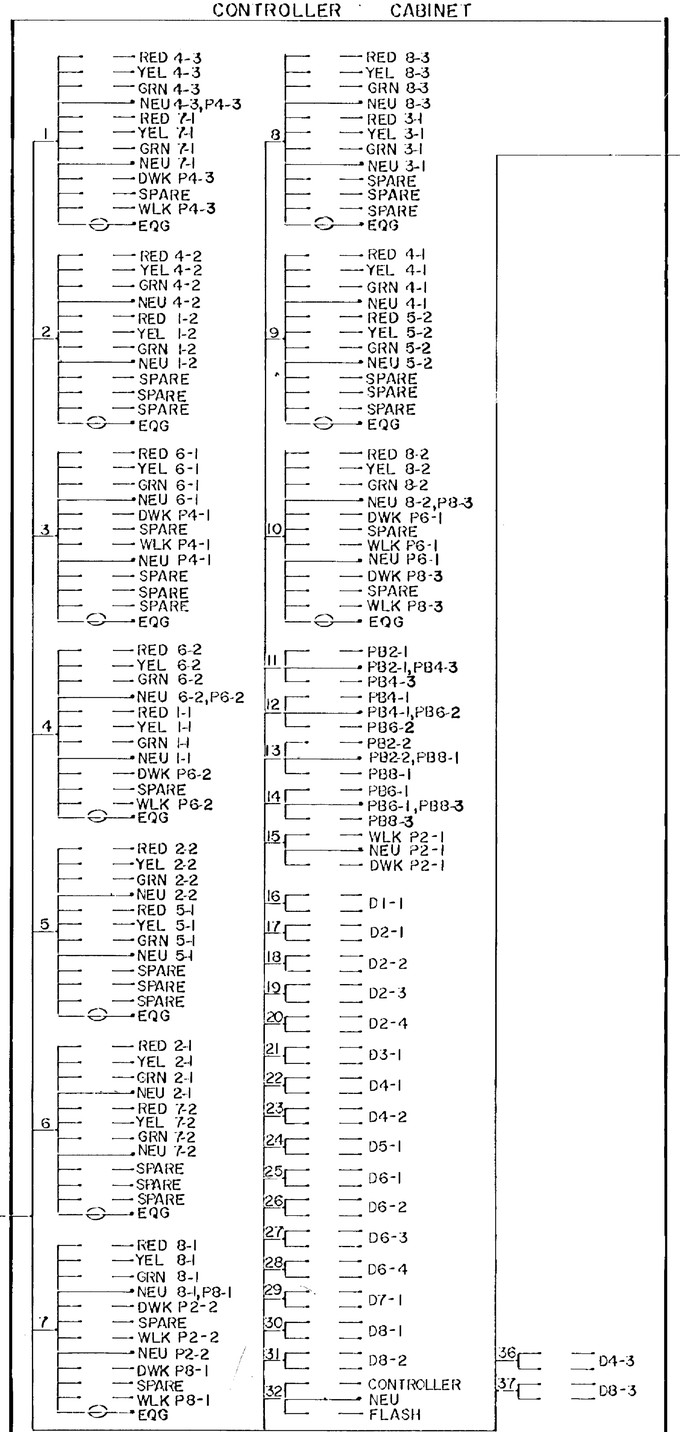
2341 PLANT MIXED WEARING COURSE
BITUMINOUS MIXTURE 110 LBS./S.Y. PER 1" THICKNESS
BITUMINOUS MATERIAL FOR MIXTURE 6.2% BY WT.

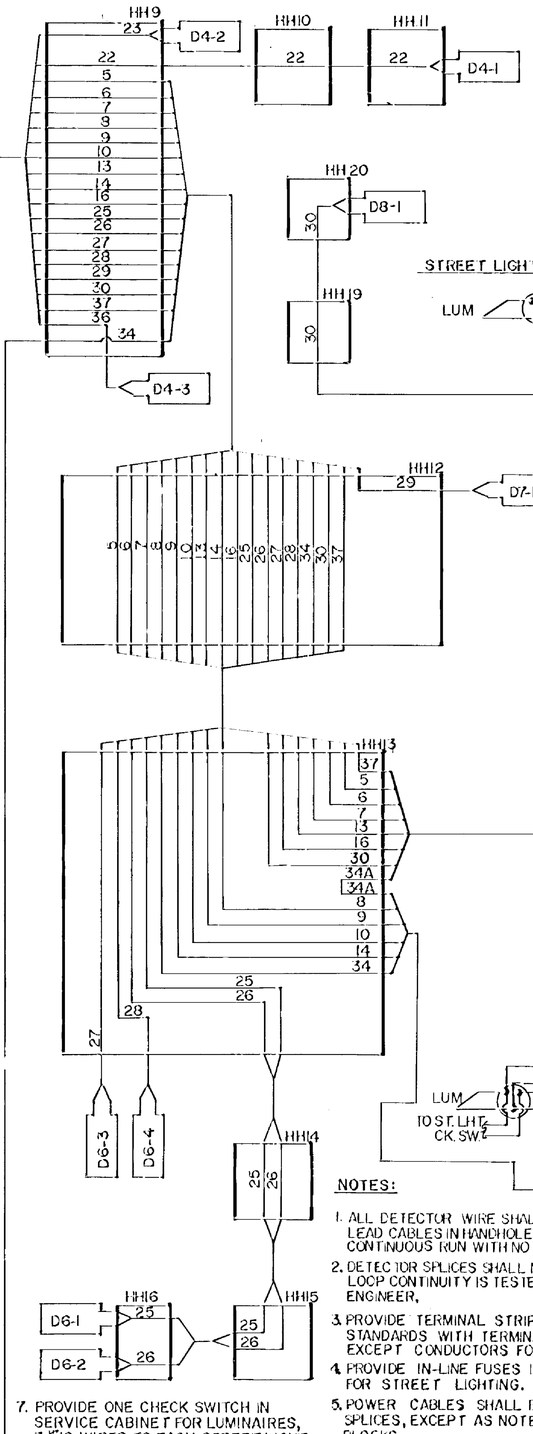
2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. PER S.Y.

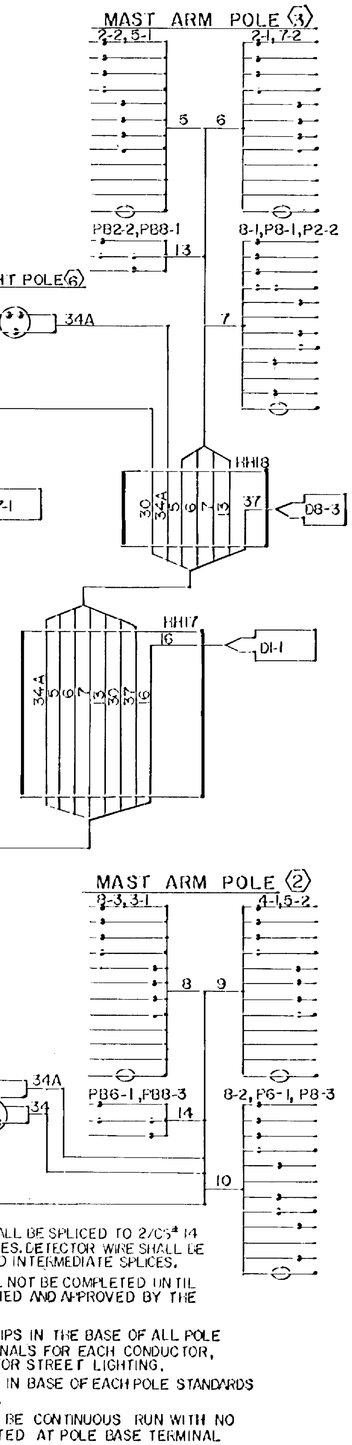
2575 COMMERCIAL FERTILIZER
ANALYSIS 10-10-10, 500 #/ACRE ON ALL SOD AREAS

(1) INCLUDES BITUMINOUS PAVEMENT MATERIAL TO BE REMOVED.
(2) PROVIDED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
(3) INCLUDES 224 CU.YD. FOR STREET APPROACHES.
(4) INCLUDES 165 TONS FOR STREET APPROACHES.
(5) INCLUDES 330 TONS FOR STREET APPROACHES.
(6) PROVIDED FOR DRIVEWAY RESTORATION & BIKE PATH CONST. PAYMENT BY SQ.YD. INCLUDES BITUMINOUS MATERIAL FOR MIXTURE & 3" CL.-5 AGGREGATE BASE. 993 SY. FOR DRIVEWAY RESTORATION & 2021 SY. FOR BIKE PATH.
(7) INCLUDES 124 TONS FOR STREET APPROACHES.
(8) FOR FUTURE SIGNAL AT INTERSECTION WITH 111 th. AVE.
(9) EXPOSED AGGREGATE.
(10) STAMPED AND COLORED CONCRETE TO SIMULATE BRICK.
(11) BRICK OVER BITUMINOUS BASE.
(12) FOR STORM SEWER.
(13) TO BE USED FOR CONC. STEP CONST. STA. 122+70 LT.
(14) ITEM= FULL-TRAFFIC-ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM (A) EGRET BLVD.
(15) ITEM= FULL-TRAFFIC-ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM (B) NORTHDALE BLVD.









NOTES:

1. ALL DETECTOR WIRE SHALL BE SPLICED TO 2/C#14 LEAD CABLES IN HANDHOLES. DETECTOR WIRE SHALL BE CONTINUOUS RUN WITH NO INTERMEDIATE SPLICES.
2. DETECTOR SPLICES SHALL NOT BE COMPLETED UNTIL LOOP CONTINUITY IS TESTED AND APPROVED BY THE ENGINEER.
3. PROVIDE TERMINAL STRIPS IN THE BASE OF ALL POLE STANDARDS WITH TERMINALS FOR EACH CONDUCTOR, EXCEPT CONDUCTORS FOR STREET LIGHTING.
4. PROVIDE IN-LINE FUSES IN BASE OF EACH POLE STANDARDS FOR STREET LIGHTING.
5. POWER CABLES SHALL BE CONTINUOUS RUN WITH NO SPLICES, EXCEPT AS NOTED AT POLE BASE TERMINAL BLOCKS.
6. GROUND CONDUCTORS ARE NOT SHOWN. INSTALL GROUNDING AS SPECIFIED.
7. PROVIDE ONE CHECK SWITCH IN SERVICE CABINET FOR LUMINAIRES, 3#10 WIRES TO EACH STREET LIGHT TO BE AC +, AC + SWITCHED AND NEUTRAL.

DESIGN	SCALE	NO.	DATE	REVISIONS
DRAWN	AS SHOWN		1/6/86	VARIOUS ∅, #∅ PER K.W.A.
CHECKED				

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE 12/10/85 REG NO. 7113

Barton-Aschman Associates, Inc.
1610 SOUTH SIXTH STREET MINNEAPOLIS, MINNESOTA 55454

ANOKA COUNTY, MINNESOTA
S.P. 02-600-06

UNIVERSITY AVE. AND NORTHDALE
SIGNAL SYSTEM "B"
FIELD WIRING DIAGRAM

FILE NO.
DATE
SHEET NO. 33 OF 33