

PLAN SYMBOLS

- 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 _____
- DRAIN TILE _____
- CULVERT _____
- DROP INLET _____
- GUARD RAIL _____
- BARBED WIRE FENCE _____
- WOVEN WIRE FENCE _____
- CHAIN LINK FENCE _____
- WOODEN FENCE _____
- STONE WALL OR FENCE _____
- HEDGE _____
- RAILROAD CROSSING SIGN _____
- RAILROAD CROSSING BELL _____
- ELECTRIC WARNING SIGN _____
- CROSSING GATE _____
- MEANDER CORNER _____

- SPRINGS _____
- MARSH _____
- TIMBER ORCHARD _____
- BRUSH _____
- NURSERY _____
- CATCH BASIN _____
- FIRE HYDRANT _____
- CATTLE GUARD _____

- OVERPASS (Highway Over) _____
- UNDERPASS (Highway Under) _____
- BRIDGE _____

- BUILDING (One Story Frame) _____
- F-FRAME O-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 _____

UTILITY SYMBOLS

- POWER POLE LINE _____
- TELEPHONE OR TELEGRAPH POLE LINE _____
- JOINT TELEPHONE AND POWER ON POWER POLES _____
- JOINT TELEPHONE AND POWER ON TELEPHONE POLES _____
- ANCHOR _____
- STEEL TOWER _____
- STREET LIGHT _____
- PEDESTAL (TELEPHONE CABLE TERMINAL) _____
- GAS MAIN _____
- WATER MAIN _____
- CONDUIT _____
- TELEPHONE CABLE IN CONDUIT _____
- ELECTRIC CABLE IN CONDUIT _____
- TELEPHONE MANHOLE _____
- ELECTRIC MANHOLE _____
- BURIED COMMUNICATION CABLE _____
- BURIED TELEPHONE CABLE _____
- BURIED ELECTRIC CABLE _____
- SEWER (SANITARY) _____
- SEWER (STORM) _____
- SEWER MANHOLE _____
- HANDHOLE _____
- CATCH BASIN _____

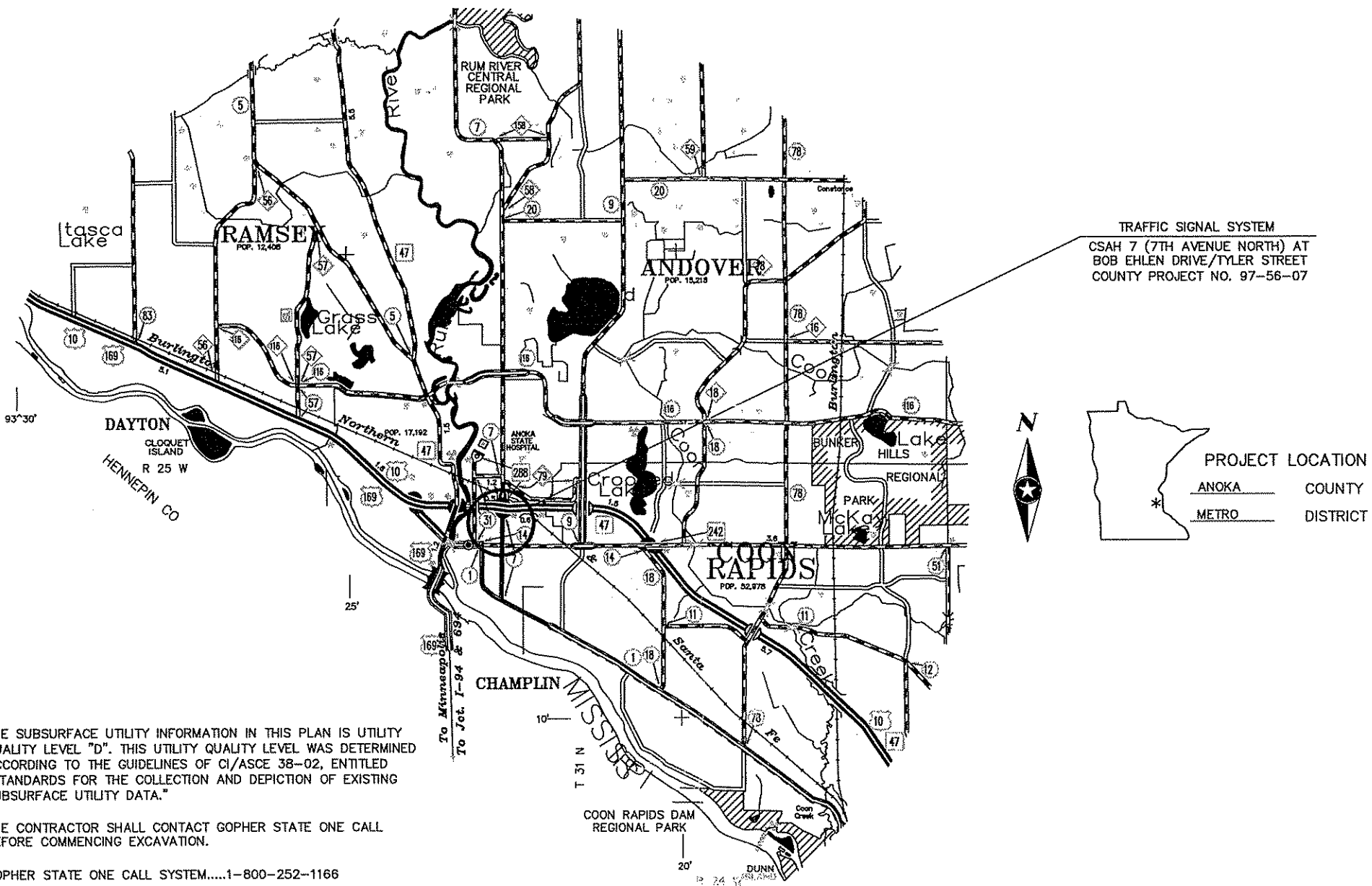
SCALE

INDEX MAP 5000'

GENERAL LAYOUT 20'

**ANOKA COUNTY HIGHWAY DEPARTMENT
CITY OF ANOKA**

**CONSTRUCTION PLAN FOR: ONE (1) FULL-TRAFFIC-ACTUATED
TRAFFIC CONTROL SIGNAL SYSTEM, AND DRIVEWAY RELOCATION**
LOCATED ON: CSAH 7 (7TH AVENUE NORTH) AT BOB EHLEN DRIVE/TYLER STREET
ANOKA COUNTY PROJECT NO. 97-56-07



TRAFFIC SIGNAL SYSTEM
CSAH 7 (7TH AVENUE NORTH) AT
BOB EHLEN DRIVE/TYLER STREET
COUNTY PROJECT NO. 97-56-07

PROJECT LOCATION
ANOKA COUNTY
METRO DISTRICT

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARDS FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL BEFORE COMMENCING EXCAVATION.

GOPHER STATE ONE CALL SYSTEM.....1-800-252-1166

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL DEVICES (CURRENT EDITION).

GOVERNING SPECIFICATIONS

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

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS, STANDARD PLATES AND ESTIMATED QUANTITIES
3-8	MISCELLANEOUS DETAILS
9	INTERSECTION LAYOUT
10	FIELD WIRING DIAGRAM
11	INPLACE SIGNAL SYSTEM (FOR INFORMATION ONLY)
12-14	DRIVEWAY RELOCATION DETAILS
15	UTILITIES

THIS PLAN CONTAINS 15 SHEETS.

DESIGN ENGINEER: 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.

JL Mc
DATE 8/22/07 LIC. NO. 22457

SIGNAL DESIGN ENGINEER: I HEREBY CERTIFY THAT THESE SIGNAL PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, THAT THIS PLAN CONFORMS TO THE MMUTCD (EXCEPT WHERE A VARIANCE HAS BEEN GRANTED), AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JL Mc
DATE 8/22/07 LIC. NO. 22457

APPROVED _____	ANOKA COUNTY ENGINEER	DATE _____
APPROVED _____	CITY OF ANOKA ENGINEER	DATE _____
APPROVED _____		DATE _____
APPROVED _____		DATE _____
APPROVED _____		DATE _____
APPROVED _____		DATE _____
APPROVED _____		DATE _____

**GEOMETRICS
DESIGN DESCRIPTION**

	CSAH 7	BOB EHLEN DR/ TYLER STREET
DESIGN SPEED	35 MPH	30 MPH
EXISTING A.D.T. (2007)	18,800	1,600
PROJECTED A.D.T. (2027)	25,300	2,200
FUNCTIONAL CLASSIFICATION	ARTERIAL/HIGH	COLLECTOR/HIGH
NO. OF TRAFFIC LANES	4	2
NO. OF PARKING LANES	0	0

ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
TITLE SHEET



FULL-TRAFFIC-ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM
CSAH 7 AT BOB EHLEN DR/TYLER STREET

FILE NO.
AANOKC9902.03

COUNTY PROJECT NO. 97-56-07

1
15

LEGEND OF SYMBOLS

CONTROLLER AND SERVICE EQUIP. NO's	(A)
SIGNAL BASE NO.	(1)
SIGNAL FACE NO.	(C)
LUMINAIRE NO.	(L)
CONTROLLER AND CABINET	[Symbol]
CONTROLLER AND CABINET - IN PLACE	[Symbol]
HANDHOLE	[Symbol]
HANDHOLE - IN PLACE	[Symbol]
RIGID STEEL CONDUIT (RSC)	[Symbol]
RIGID STEEL CONDUIT (RSC) - IN PLACE	[Symbol]
SIGNAL FACE WITH BACKGROUND SHIELD	[Symbol]
SIGNAL FACE W/O BACKGROUND SHIELD	[Symbol]
SIGNAL FACE - IN PLACE	[Symbol]
PEDESTRIAN INDICATORS	[Symbol]
PEDESTRIAN INDICATORS - IN PLACE	[Symbol]
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	[Symbol]
PEDESTRIAN PUSH BUTTON STATION	[Symbol]
TRAFFIC SIGNAL PEDESTAL	[Symbol]
TRAFFIC SIGNAL PEDESTAL - INPLACE	[Symbol]
TRAFFIC SIGNAL POLE AND MAST ARM	[Symbol]
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	[Symbol]
STREET LIGHT POLE AND LUMINAIRE	[Symbol]
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	[Symbol]
MAST ARM AND LUMINAIRE	[Symbol]
MAST ARM AND LUMINAIRE - INPLACE	[Symbol]
WOOD POLE	[Symbol]
WOOD POLE - IN PLACE	[Symbol]
SOURCE OF POWER	[Symbol]
RAILROAD SIGNAL - IN PLACE	[Symbol]
RIGHT OF WAY LINE	[Symbol]
CENTERLINE	[Symbol]
EDGE OF ROADWAY	[Symbol]
SHOULDERLINE	[Symbol]
CURB LINE	[Symbol]
STOP BAR	[Symbol]
EMERGENCY VEHICLE PREEMPTION DETECTOR	[Symbol]

ABBREVIATIONS

3-1(EG)	SIGNAL HEAD PHASE "3" - NO "1"
BR. GR.	BARE GROUND
CH. SW.	CHECK SWITCH
CLR	CLEAR
D2-1(EG)	DETECTOR PHASE "2" - NO. "1"
DWK	DON'T WALK
EQQ	EQUIPMENT GROUND
EVP	EMERGENCY VEHICLE PRE-EMPTION
F&I	FURNISH AND INSTALL
FL	FLASH/FLASHING
G	GREEN
GLTA	GREEN LEFT TURN ARROW
GRN	GREEN
GR. R	GROUND ROD
GRTA	GREEN RIGHT TURN ARROW
GTHA	GREEN THRU ARROW
HH	HANDHOLE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
LUM	LUMINAIRE
NEU	NEUTRAL
NMC	NONMETALLIC CONDUIT
P2-1(EG)	PED INDICATION PHASE "2" - NO. "1"
PB	PUSH BUTTON
PB2-1(EG)	PUSH BUTTON PHASE "2" - NO. "1"
PEC	PHOTOELECTRIC CELL
PED	PEDESTRIAN
R	RED
R&S	REMOVE AND SALVAGE
RLTA	RED LEFT TURN ARROW
RRTA	RED RIGHT TURN ARROW
RSC	RIGID STEEL CONDUIT
SOP	SOURCE OF POWER
SPR	SPARE
ST. LHT	STREET LIGHT
STA	STATION
SW	SWITCH
SWD	SWITCHED
S&R	SALVAGE AND REINSTALL
TDW	TELEPHONE DROP WIRE
WLK	WALK
YEL	YELLOW
YLTA	YELLOW LEFT TURN ARROW
YRTA	YELLOW RIGHT TURN ARROW
YTHA	YELLOW THRU ARROW

STATEMENT OF ESTIMATED QUANTITIES

NOTES	ITEM NO	ITEM	UNIT	TOTAL ESTIMATED QUANTITY	PARTICIPATION	
					COUNTY PROJ. 97-56-07	CITY FUNDS
	2021.501	MOBILIZATION	LUMP SUM	1	0.5	0.5
	2101.511	CLEARING AND GRUBBING	LUMP SUM	1	0	1
	2102.501	PAVEMENT MARKING REMOVAL	SQ. FT.	126	126	0
	2104.501	REMOVE CURB AND GUTTER	LIN. FT.	205	97	108
	2104.503	REMOVE CONCRETE SIDEWALK	SQ. FT.	128	0	128
	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	56	56	0
	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	14	14	0
	2104.509	REMOVE SIGN TYPE C	EACH	13	7	6
	2104.509	REMOVE MISCELLANEOUS STRUCTURES (PARKING STOPS)	EACH	8	8	0
	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN. FT.	123	123	0
	2104.601	RELOCATE MISCELLANEOUS STRUCTURES (PARKING STOPS)	LUMP SUM	1	1	0
	2104.604	SALVAGE LANDSCAPE ROCK	SQ. YD.	17	0	17
	2105.525	TOPSOIL BORROW (CV)	CU. YD.	19	19	0
	2211.501	AGGREGATE BASE CLASS 5	TON	82	0	82
	2355.502	BITUMINOUS MATERIAL FOR FOG SEAL	GALLON	102	102	0
	2504.602	ADJUST CURB STOP	EACH	1	1	0
	2521.501	4" CONCRETE WALK	SQ. FT.	300	150	150
	2521.501	8" CONCRETE WALK (HIGH EARLY)	SQ. FT.	128	0	128
	2531.501	CONCRETE CURB AND GUTTER DESIGN B612	LIN. FT.	43	27	16
	2531.501	CONCRETE CURB AND GUTTER DESIGN B618	LIN. FT.	158	108	50
	2531.507	8" CONCRETE DRIVEWAY PAVEMENT (HIGH EARLY)	SQ. YD.	80	0	80
	2531.602	PEDESTRIAN CURB RAMP	EACH	6	3	3
	2540.604	INSTALL LANDSCAPE ROCK	SQ. YD.	17	17	0
	2563.601	TRAFFIC CONTROL	LUMP SUM	1	0.5	0.5
	2564.531	SIGN PANELS TYPE C	SQ. FT.	34	12	22
	2564.531	SIGN PANELS TYPE D	SQ. FT.	60	30	30
	2565.511	FULL TRAFFIC ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM	SIG. SYS.	1	0.5	0.5
	2565.601	EMERGENCY VEHICLE PREEMPTION SYSTEM	LUMP SUM	1	0	1
	2575.501	SEEDING	ACRE	0.02	0.02	0
	2575.502	SEED MIXTURE 110	LB	4	4	0
	2575.511	MULCH MATERIAL TYPE 1	TON	0.04	0.04	0
	2582.501	PAVEMENT MESSAGE (HANDICAPPED SYMBOL)-PAINT	EACH	1	1	0
	2582.502	4" SOLID LINE WHITE-PAINT	LIN. FT.	368	368	0
	2582.502	24" SOLID LINE WHITE-POLY PREFORMED	LIN. FT.	90	45	45
	2582.503	CROSSWALK MARKING-POLY PREFORMED	SQ. FT.	432	216	216

STANDARD PLATES

THESE STANDARD PLATES AS APPROVED BY FHWA SHALL APPLY:

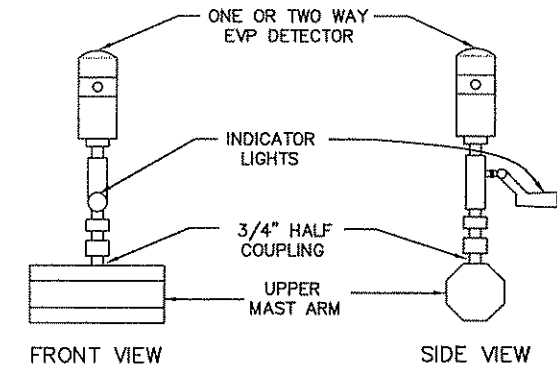
PLATE NO.	DESCRIPTION
* 7035 M	CONCRETE WALK AND CURB RETURNS AT ENTRANCES
* 7036 F	PEDESTRIAN CURB RAMP FOR THE HANDICAPPED
* 7100 H	CONCRETE CURB AND GUTTER DESIGN B AND DESIGN V
* 8000 I	STANDARD BARRICADES
* 8110 D	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
* 8111 D	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
* 8112 D	PEDESTAL FOUNDATION
* 8114 A	PVC HANDHOLE/PULLBOX
* 8115 D	PEDESTRIAN PUSH BUTTON INSTALLATION
* 8118 C	SERVICE EQUIPMENT AND POLE-TRAFFIC CONTROL SIGNALS
* 8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8120 L	PA85 POLE FOUNDATION
* 8121 E	TRANSFORMER BASE AND POLE BASE PLATE
* 8122 D	PEDESTAL AND PEDESTAL BASE
* 8123 E	POLE AND MAST ARM
* 8124 E	MAST ARM SIGNAL HEAD MOUNTS
8126 G	PA90 AND PA100 POLE FOUNDATION

* - APPLIES TO THIS PROJECT

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

EVP DETECTOR AND LIGHT MOUNTING DETAIL ON MAST ARM



DRAWN BY: JMG
 DESIGNER: JMG
 CHECKED BY: JMG
 DESIGN TEAM

NO.	BY	DATE	REVISIONS

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 Date: August 22, 2007
 Name: John M. Gray, PE
 Lic. No. 22457

SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

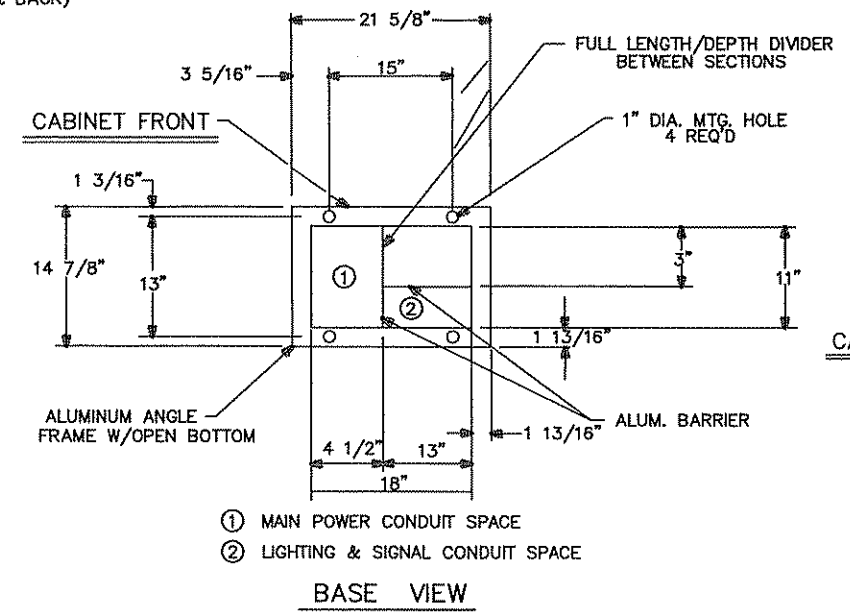
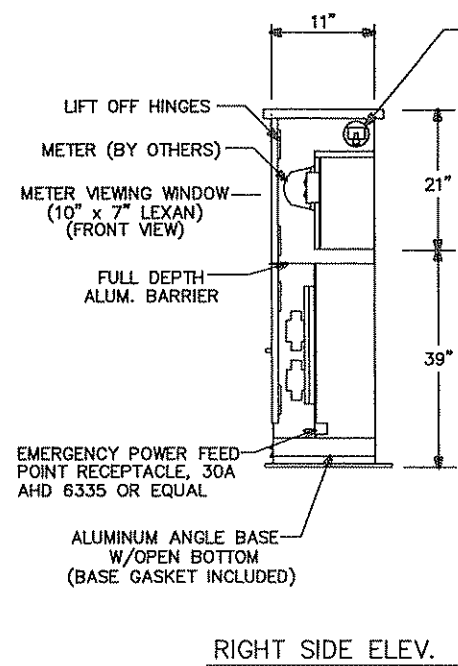
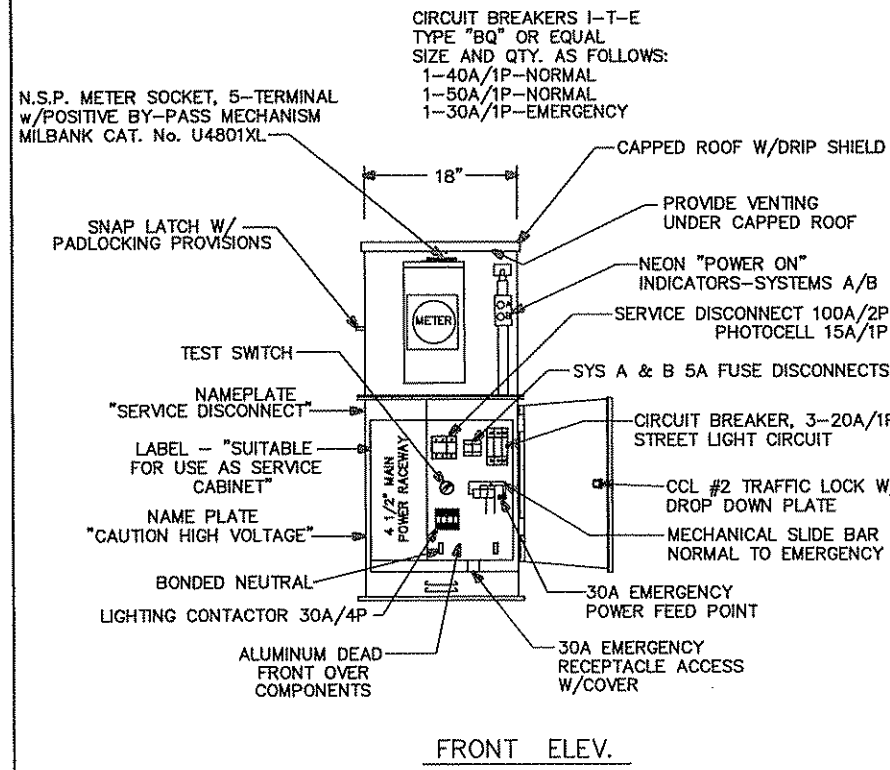
ANOKA COUNTY, MINNESOTA
 CITY OF ANOKA
 COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
 DETAILS, STANDARD PLATES
 AND ESTIMATED QUANTITIES
 CSAH 7 (NORTH 7TH AVENUE) AT
 BOB EHLER DRIVE/TYLER STREET

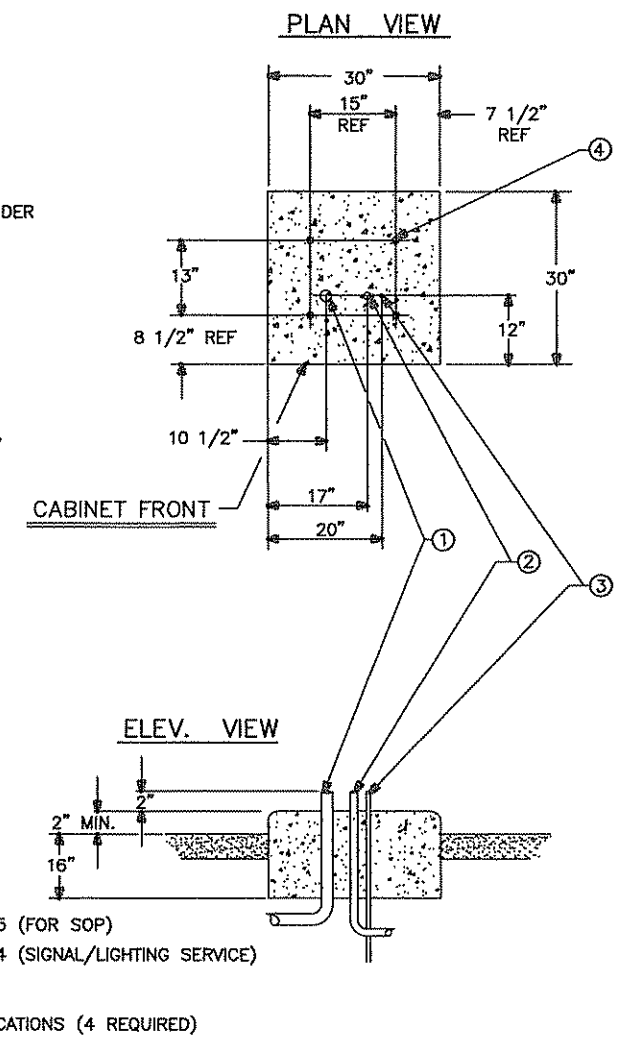
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SIGNAL SERVICE CABINET



SERVICE CABINET FOUNDATION



CONSTRUCTION NOTES

ENCLOSURE SHALL BE FABRICATED FROM 1/8" ALUMINUM FOR OUTDOOR WEATHERPROOF SERVICE.

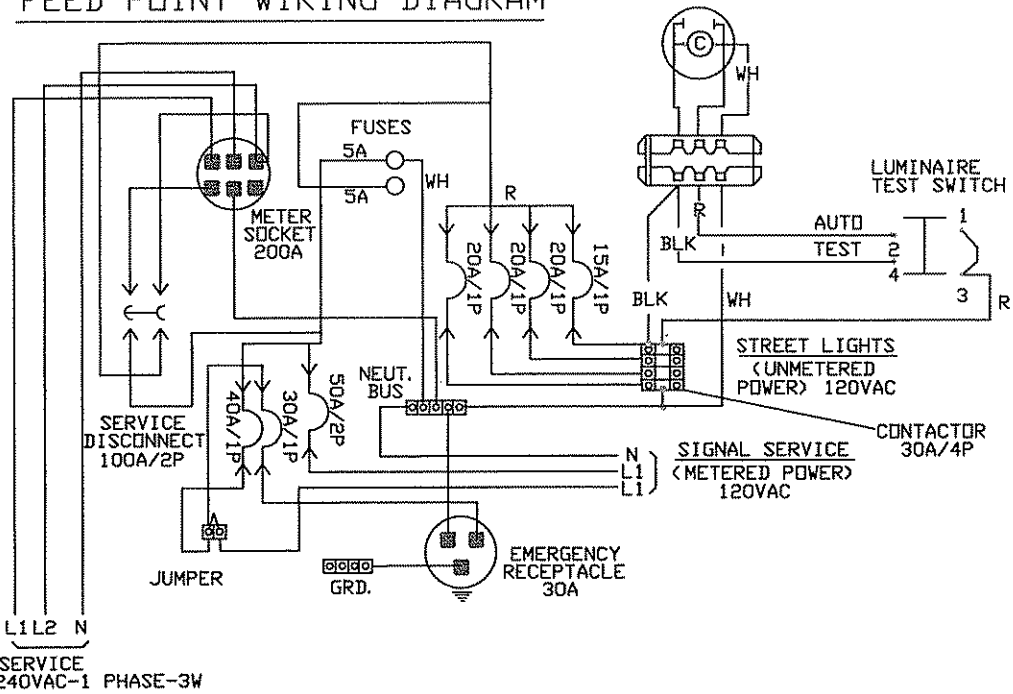
DOORS TO BE NEOPRENE GASKETED. ALL HINGES, PINS AND LOCKS TO BE OF NON-CORRODING CONSTRUCTION.

CABINET SHALL HAVE ANODIC COATING FOR ALL ALUMINUM SURFACES. SEE SPECIAL PROVISIONS.

NEMA 3R ENCLOSURE SHALL BE "UL" APPROVED.

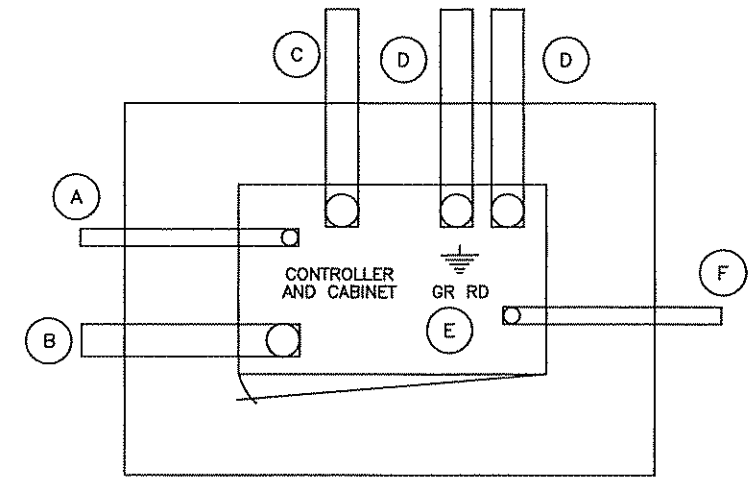
CABINET SHALL HAVE BASE GASKET INCLUDED.

FEED POINT WIRING DIAGRAM



- Ⓐ 2" R.S.C. FOR SERVICE CONNECTION (VIA HH 15)
- Ⓑ 4" R.S.C. TO HH 1
- Ⓒ 4" R.S.C. TO HH 13
- Ⓓ 3" R.S.C. STUBOUT, THREAD & CAP BOTH ENDS (FOR FUTURE USE).
- Ⓔ 5/8" DIA X 15' GROUND ROD
- Ⓕ 1" N.M.C. STUBOUT FOR FUTURE PHONE LINE (BY OTHERS)

SEE INTERSECTION LAYOUT FOR CONDUIT & CABLE INFORMATION



W:\AE\AKING\COMMON\7-808_EHLEN\TITLE-DETAILS.DWG

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CHECKED BY: JMG				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

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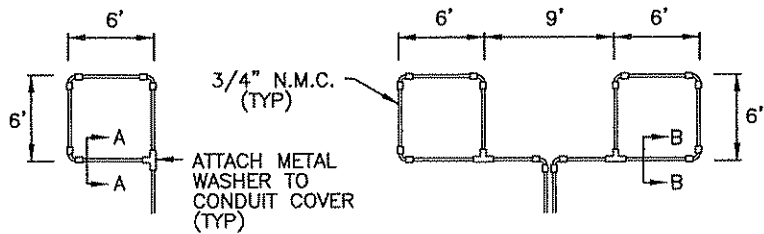
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Date: August 22, 2007 Lic. No. 22457

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
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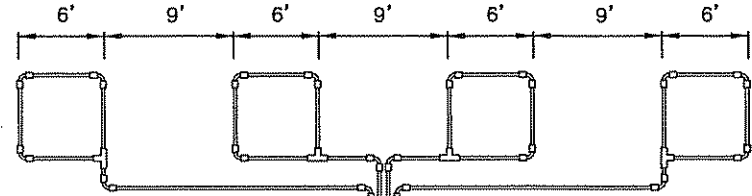
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TRAFFIC SIGNAL SYSTEM
CABINET DETAILS
CSAH 7 (NORTH 7TH AVENUE) AT
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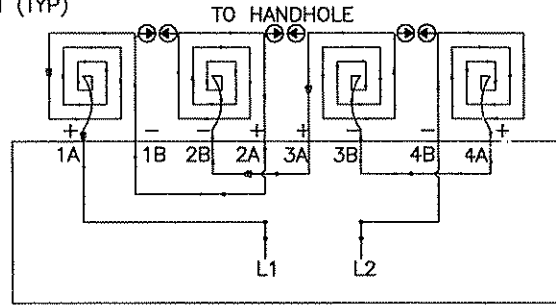
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3/4" N.M.C. (TYP)
ATTACH METAL WASHER TO CONDUIT COVER (TYP)



LOOP RETURN CONDUITS MAY BE PLACED IN COMMON TRENCH (TYP)

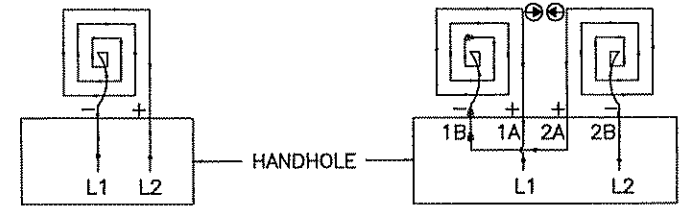


LOOP CONNECTIONS SHALL BE LABELED AND SPLICED IN THE HANDHOLE AS FOLLOWS:

- 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)

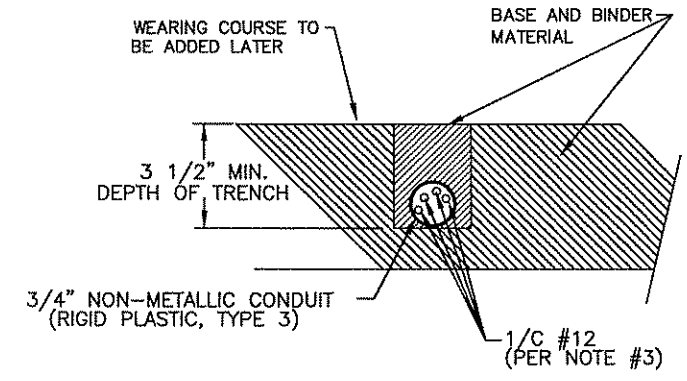


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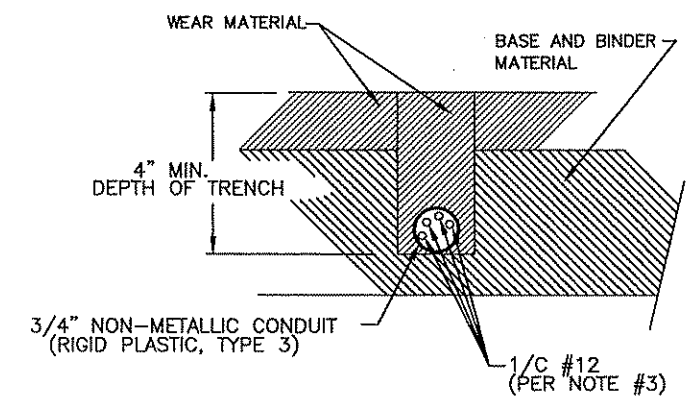
- L1 TO 1A
- 1B TO 2A
- 2B TO L2

LOOP DETECTOR DETAIL 'B'
(LOOP PHASING FOR SERIES CONNECTION)

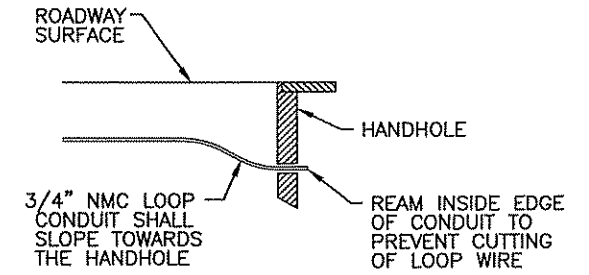
LOOP DETECTOR DETAIL 'A'
(LOOP PHASING FOR SINGLE CONNECTION)



SECTION A-A
DETAIL FOR LOOP INSTALLATION IN NEW ROADWAY



SECTION B-B
DETAIL FOR LOOP INSTALLATION IN EXISTING ROADWAY



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.

W:\E\ANOKA\COMMON\7-BOB_EHLEN\TITLE-DETAILS.DWG

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DESIGNER:	JMG
CHECKED BY:	JMG
DESIGN TEAM	

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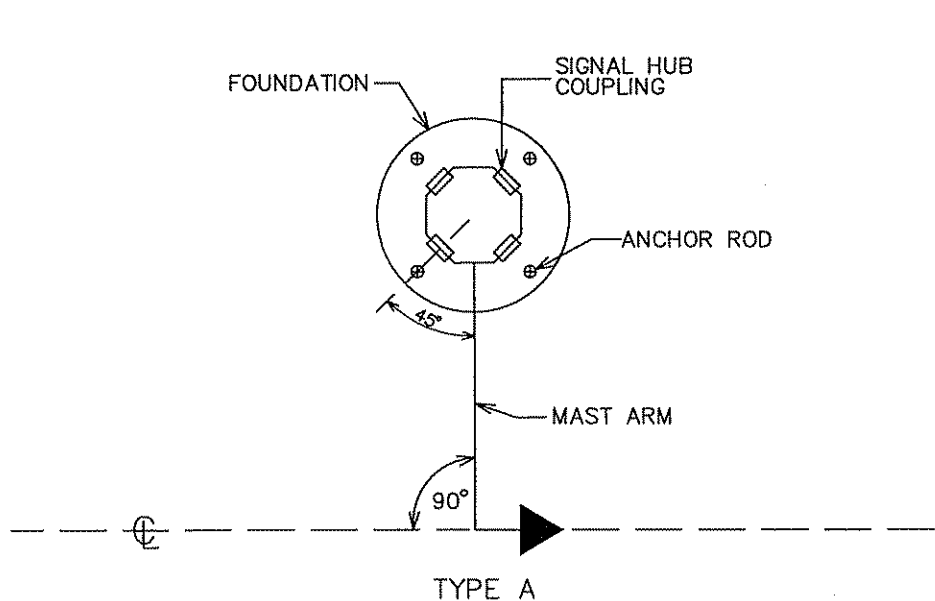
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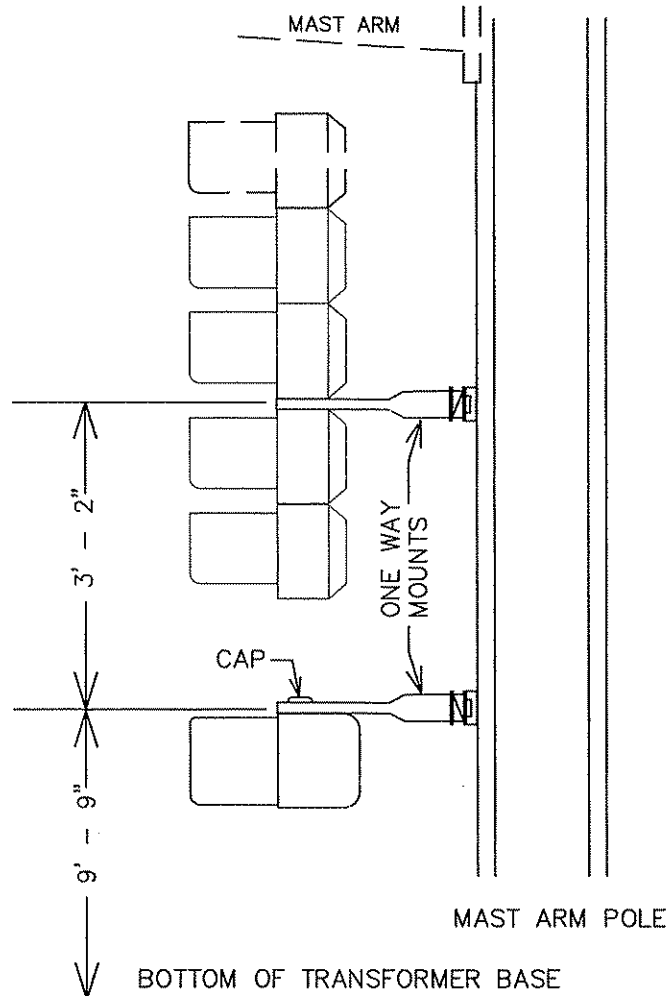
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TRAFFIC SIGNAL SYSTEM
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CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

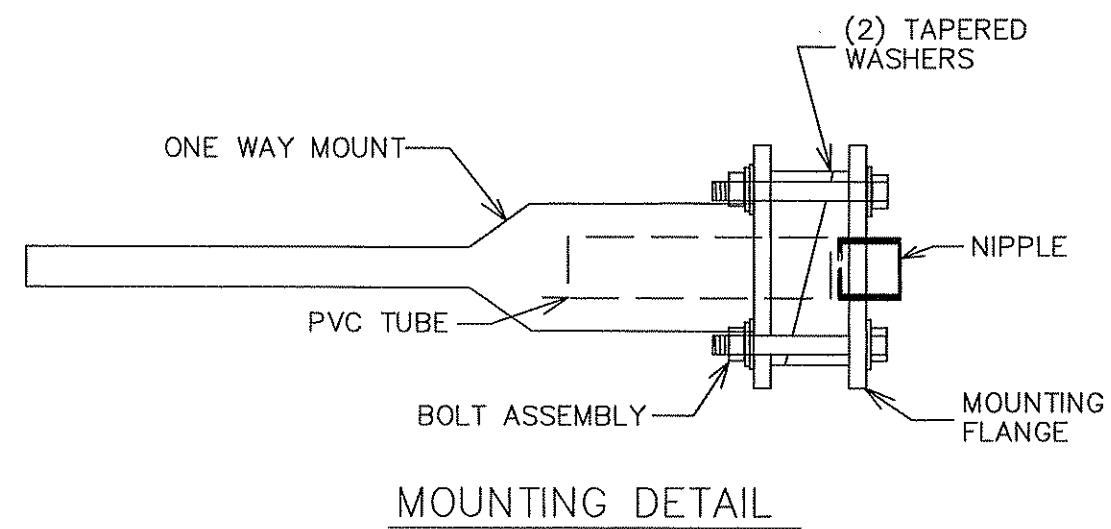
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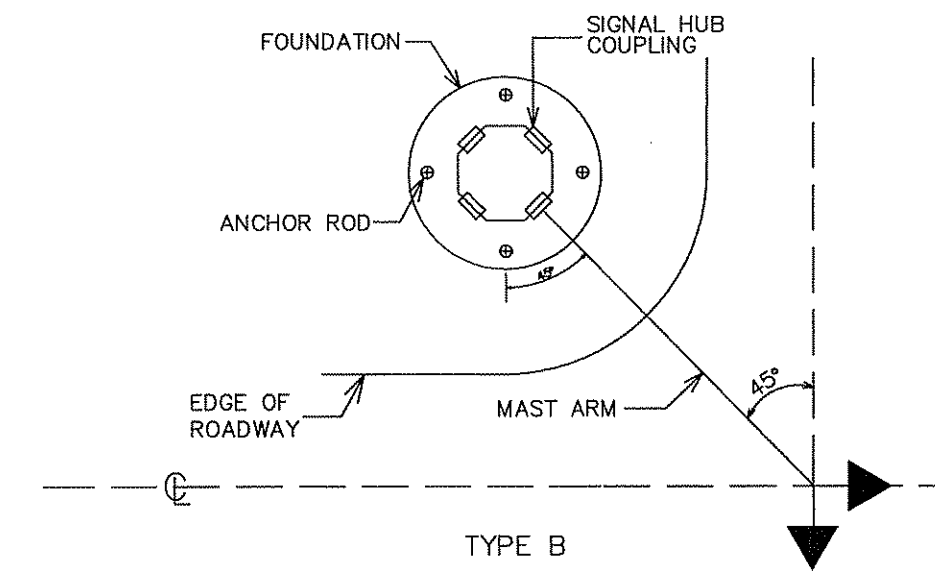
TYPE A
ANCHOR ROD PLACEMENT,
MAST ARM ORIENTATION
AND SIGNAL HUB LOCATIONS



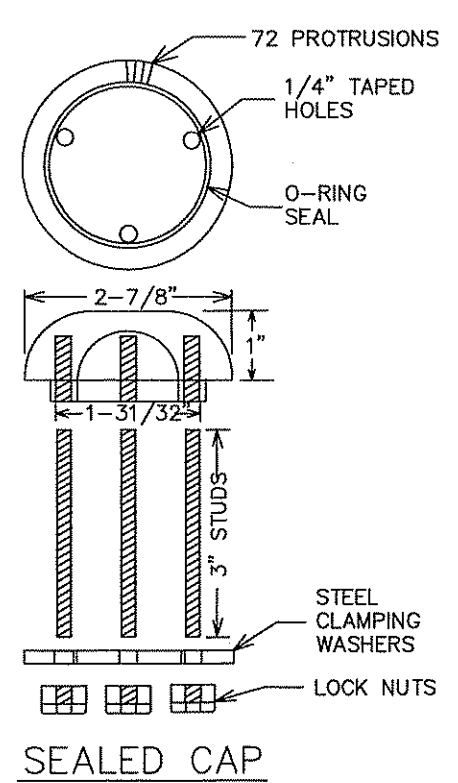
MAST ARM POLE
BOTTOM OF TRANSFORMER BASE



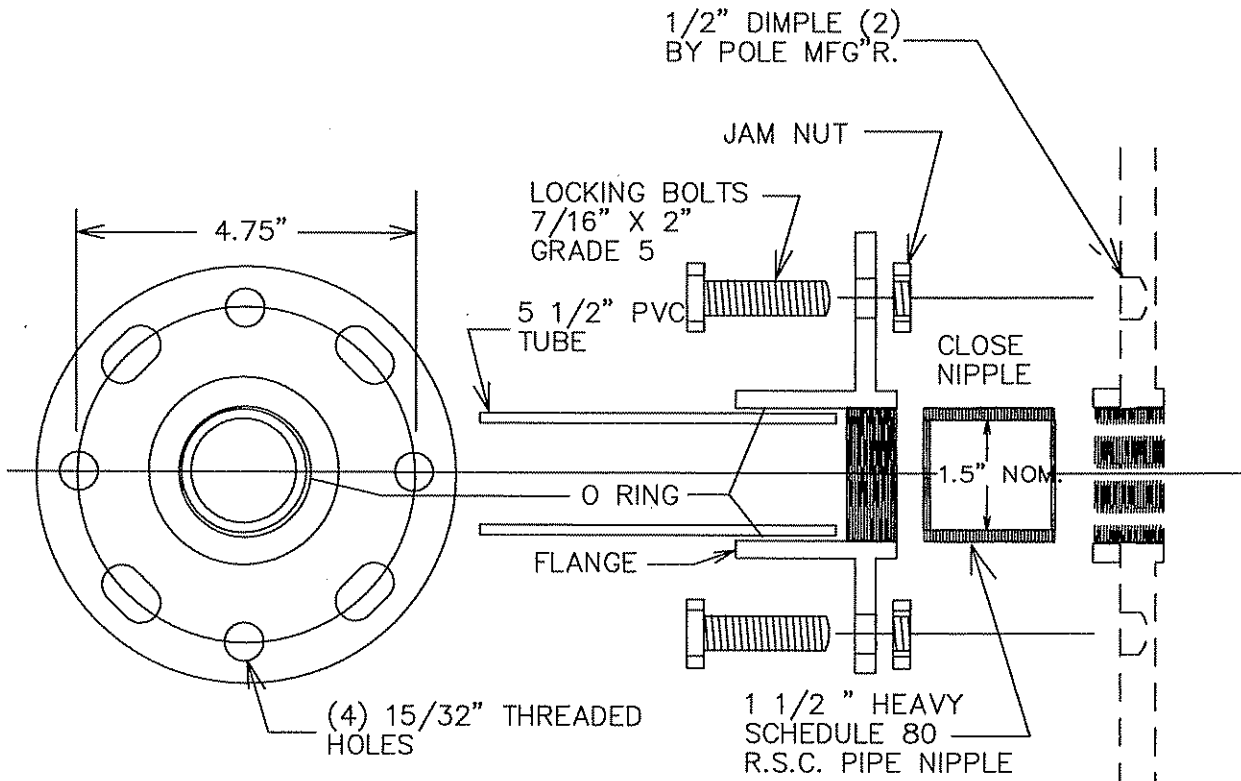
MOUNTING DETAIL



TYPE B
ANCHOR ROD PLACEMENT,
MAST ARM ORIENTATION
AND SIGNAL HUB LOCATIONS



SEALED CAP



NOTE: ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND

MACHINE HUB & NIPPLE

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 Name: John M. Gray, PE
 Lic. No. 22457
 Date: August 22, 2007

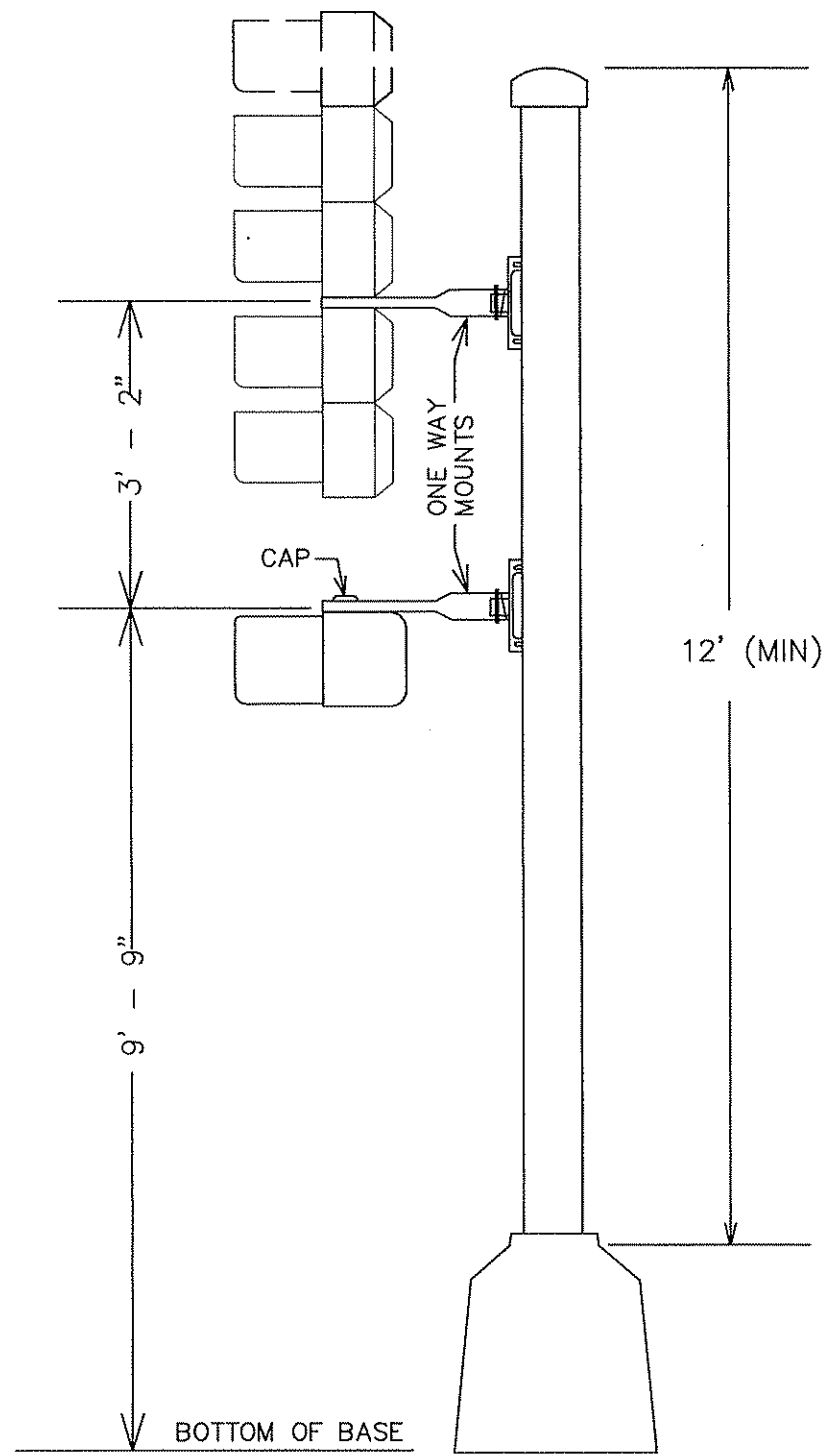
SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
 COUNTY PROJECT NO. 97-56-07

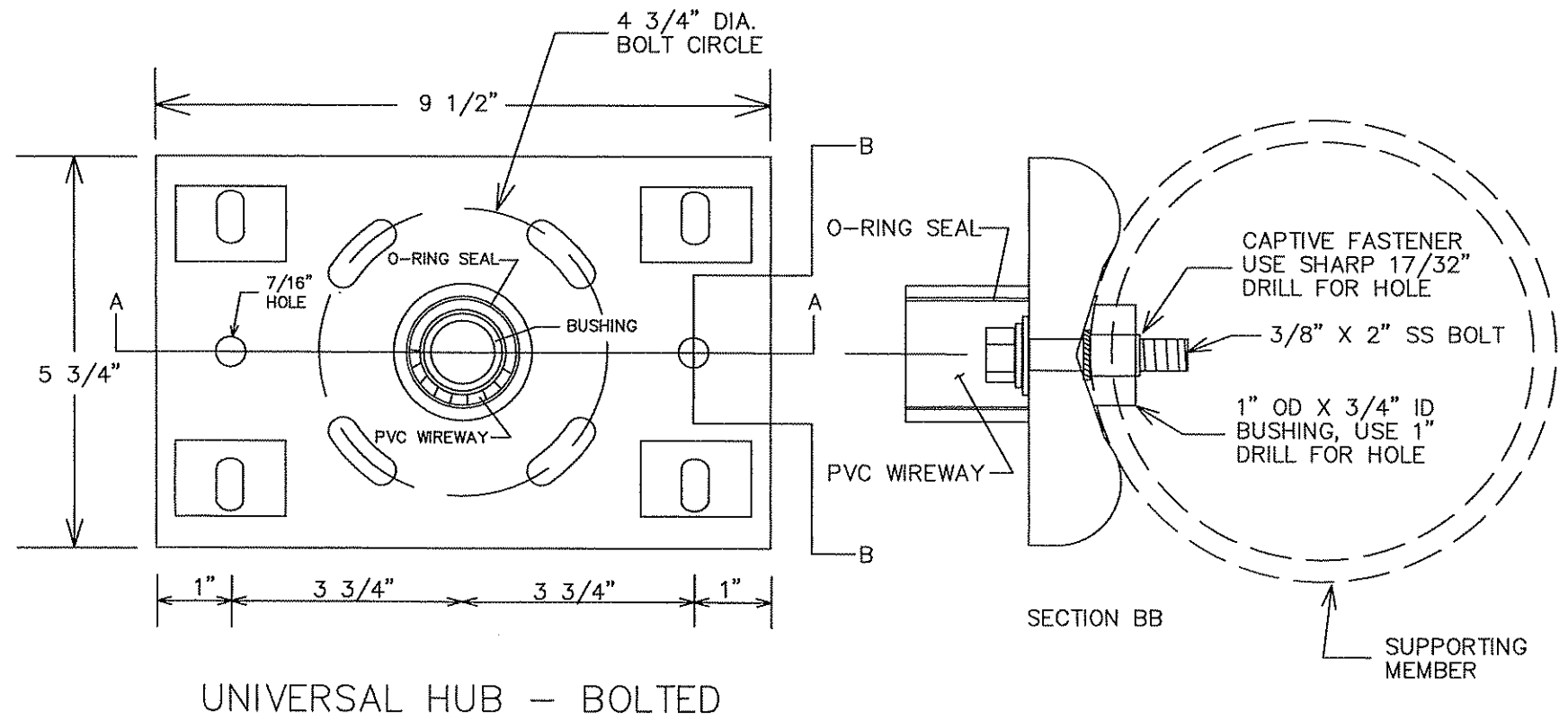
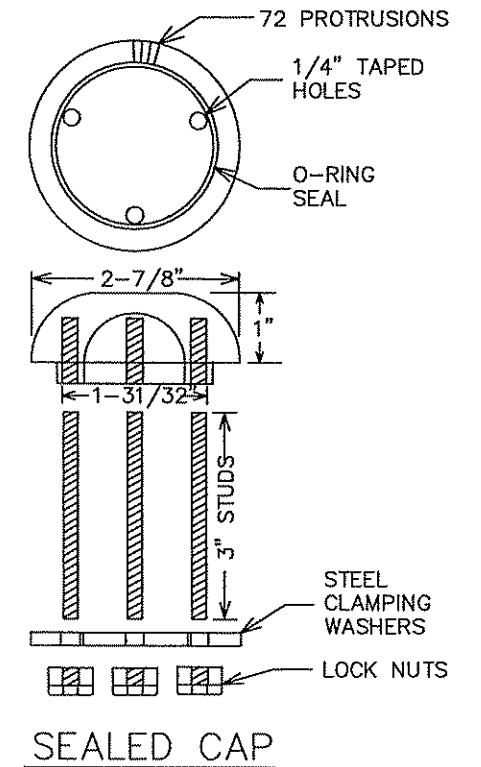
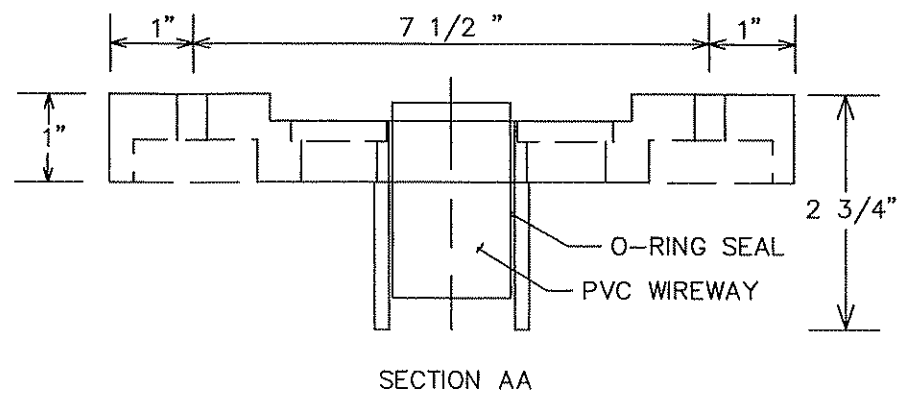
TRAFFIC SIGNAL SYSTEM
ONE-WAY HEAD MOUNT DETAILS
 CSAH 7 (NORTH 7TH AVENUE) AT
 BOB EHLEN DRIVE/TYLER STREET

FILE NO.
 AANOKC9902.03
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TYPICAL MOUNTING ELEVATION



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Name: John M. Gray, PE
Date: August 22, 2009 Lic. No. 22457

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
ONE-WAY HEAD MOUNT DETAILS
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

FILE NO.
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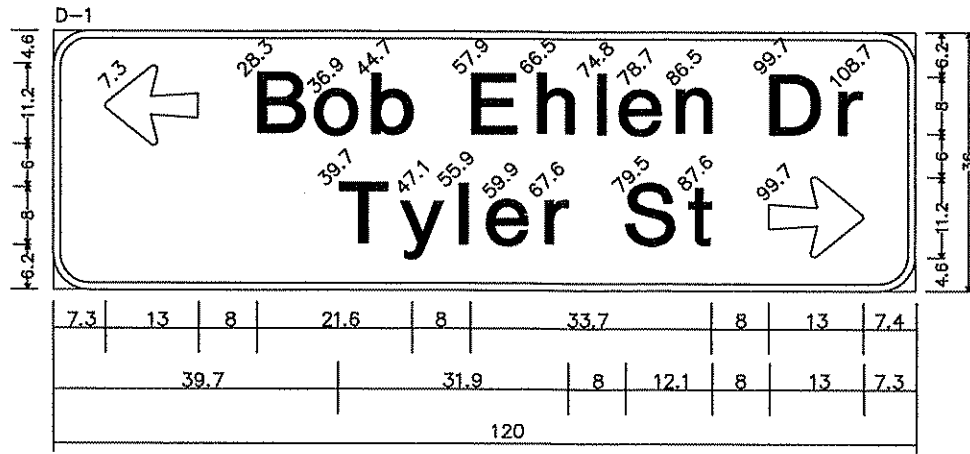
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MAST ARM MOUNTED SIGNS							
SIGN PANELS - TYPE D							
SIGN PANEL	SIZE (in.)	NO. REQ.	NO. POSTS/STIFFENERS PER SIGN	BAND SPACING (**)	SQ. FT. PER SIGN	POLE NO.	α
D-1	120x36	1	5	-	30.00	4	4'
D-2	120x36	1	5	-	30.00	8	4'
TOTAL QUANTITIES		2			60.00		

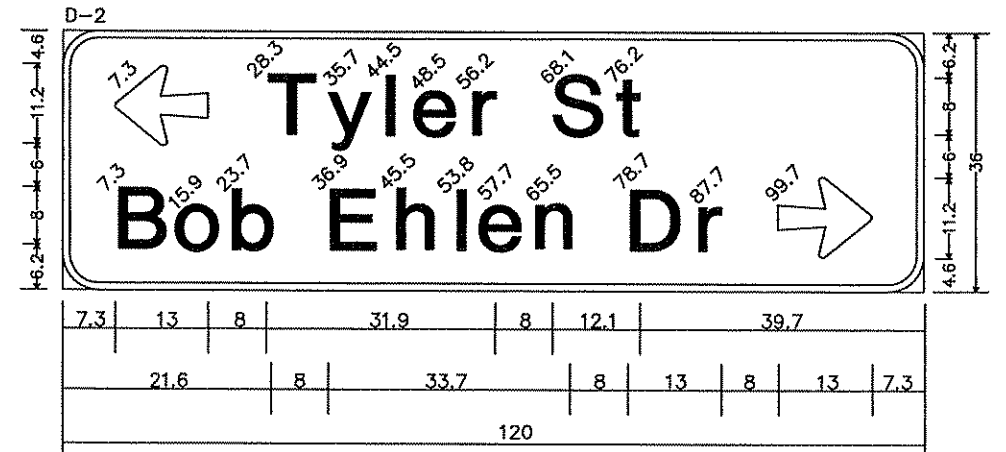
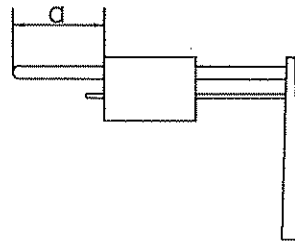
(**)= SPACING BETWEEN STIFFENERS SHALL NOT EXCEED 36 INCHES AND SHALL BE UNIFORMLY SPACED. SEE SPECIAL PROVISIONS AND STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE: 7/06/07) FOR BRACKET SPACING REQUIREMENTS.

SIGNS FOR TRAFFIC SIGNAL SYSTEM							
SIGN PANELS - TYPE C							
SIGN PANEL	SIZE (in.)	NO. REQ.	NO. POSTS/STIFFENERS PER SIGN	BAND SPACING (**)	SQ. FT. PER SIGN	TOTAL AREA (SQ.FT.)	POLE NO. α
R1-1	30x30	2	1-U	-	6.25	12.50	-
R7-8a	12x18	1	1-U	-	1.50	1.50	-
R7-8b	12x6	1	②	-	0.50	0.50	-
R10-6L	24x36	2	①	-	6.00	12.00	1,5
R10-11b	24x24	2	①	-	4.00	8.00	3,7
TOTAL QUANTITIES		8				34.50	

REMOVE SIGN - TYPE C					
PLAN CODE	MMUTCD CODE	QUANTITY	SIGN PANEL SIZE (INCHES)	NO. OF POSTS & TYPE	PANEL LEGEND
A	R1-1	3	30x30	1-U	STOP
B	R3-2	2	24x24	②	NO LEFT TURN
C	R5-1	1	30x30	1-U	DO NOT ENTER
D	R5-1	1	30x30	②	DO NOT ENTER
E	R7-8a	1	12x18		HANDICAP PARKING
F	R10-6L	3	24x36	1-U	STOP HERE ON RED
G	-	1	-	③	STREET NAME SIGNS
H	-	1	-	1-ROUND	STREET NAME SIGNS
TOTAL		13			



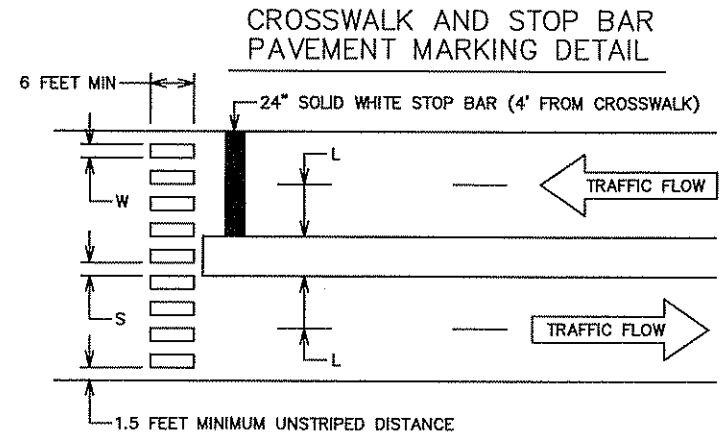
D-1; 120" x 36", 3.0" Radius, 1.0" Border, White on Green
Arrow 5 - 13.0" 180°, (Bob Ehlen Dr) E Mod.
(Tyler St) E Mod., Arrow 5 - 13.0" 0°



D-2; 120" x 36", 3.0" Radius, 1.0" Border, White on Green
Arrow 5 - 13.0" 180°, (Tyler St) E Mod.
(Bob Ehlen Dr) E Mod., Arrow 5 - 13.0" 0°

NOTES:

- COLOR FOR ALL TYPE D SIGNS SHALL BE WHITE LEGEND AND BORDER ON GREEN BACKGROUND, FULLY REFLECTORIZED.
- CORNERS EXTENDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
- FOR STRUCTURAL DETAILS OF MAST ARM MOUNTED SIGNS, SEE STANDARD SIGNS MANUAL, PAGE 105A (REVISION DATE: 7/06/07), AND SPECIAL PROVISIONS.
- SEE STANDARD SIGNS MANUAL FOR ARROW DETAILS.
- FURNISHING AND INSTALLING TYPE C AND D SIGNS SHALL BE MEASURED AND PAID FOR SEPARATELY FROM ITEM NO. 2565. SEE SPECIAL PROVISIONS & ESTIMATED QUANTITIES.
- ALL NEW TYPE C/D SIGN PANELS SHALL BE FABRICATED USING HP SHEETING. SEE SPECIAL PROVISIONS.
- REMOVAL OF INPLACE SIGNS AND POSTS SHALL BE MEASURED AND PAID FOR SEPARATELY FROM ITEM NO. 2565. SEE SPECIAL PROVISIONS AND ESTIMATED QUANTITIES.
- ① = MOUNT SIGN PANEL ON TRAFFIC SIGNAL PEDESTAL POLE.
- ② = SIGN PANEL MOUNTED BELOW OR BACK-TO-BACK WITH OTHER SIGN.
- ③ = SIGN PANEL MOUNTED ON TRAFFIC SIGNAL MAST ARM POLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL CONFLICTING PAVEMENT MARKINGS (ZEBRA CROSSWALK) FROM CENTER OF INTERSECTION (7'-3" x 6' BLOCKS) (MEASURED SEPARATELY FROM ITEM NO. 2565).
- CROSSWALK AND STOP BAR PAVEMENT MARKINGS SHALL BE POLY-PREFORMED MATERIALS IN ACCORDANCE WITH PLANS AND SPECIAL PROVISIONS.
- SEE SHEETS 12-13 REGARDING ADDITIONAL SIGNING AND PAVEMENT MARKINGS TO BE FURNISHED AND INSTALLED AS PART OF THIS PROJECT (TO BE LOCATED IN EAST AND WEST PARKING LOTS AS NOTED ON THESE PLAN SHEETS).
- ALL TRAFFIC CONTROL, MOBILIZATION AND WORK RELATED TO THE INSTALLATION OF THE PAVEMENT MARKINGS SHOWN IN THE PLANS SHALL BE CONSIDERED INCIDENTAL TO PAVEMENT MARKING PAY ITEM.
- PAVEMENT MARKINGS SHALL NOT BE INSTALLED AT INTERSECTION UNTIL WHEN SIGNAL SYSTEM IS READY TO BE MADE OPERATIONAL. PAVEMENT MARKINGS SHALL BE INSTALLED NO EARLIER THAN 3 CALENDAR DAYS PRIOR TO TURN ON OF NEW SIGNAL SYSTEM, AND NO LATER THAN 3 CALENDAR DAYS AFTER TURN ON OF NEW SIGNAL SYSTEM (WEATHER PERMITTING).
- CONTRACTOR SHALL COORDINATE ALL PAVEMENT MARKING INSTALLATION WORK WITH DRIVEWAY WORK TO BE COMPLETED AS PART OF THIS PROJECT.



WIDTH OF INSIDE LANE (L)	WIDTH OF PAINTED AREA (W)	WIDTH OF SPACE (S)
9'	2'	2.5'
10'	2.5'	2.5'
11'	2.5'	3'
12'	3'	3'
13'	3'	3.5'

- NOTES:
- CROSSWALK AREAS TO BE CENTERED AND ALIGNED ON CENTER LINE AND LANE LINES.
 - A MINIMUM OF 1.5 FEET CLEAR DISTANCE MUST BE LEFT ADJACENT TO CURB. IF LAST MARKED AREA FALLS INTO THIS DISTANCE, IT MUST BE OMITTED.
 - 24" STOP BAR LOCATED AS DIRECTED BY ENGINEER.
 - SEE SPECIAL PROVISIONS REGARDING REMOVAL OF INPLACE CROSSWALK MARKINGS.

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DESIGNER: JMG			
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JMG
Name: John M. Gray, PE
Date: August 22, 2002 Lic. No. 22457

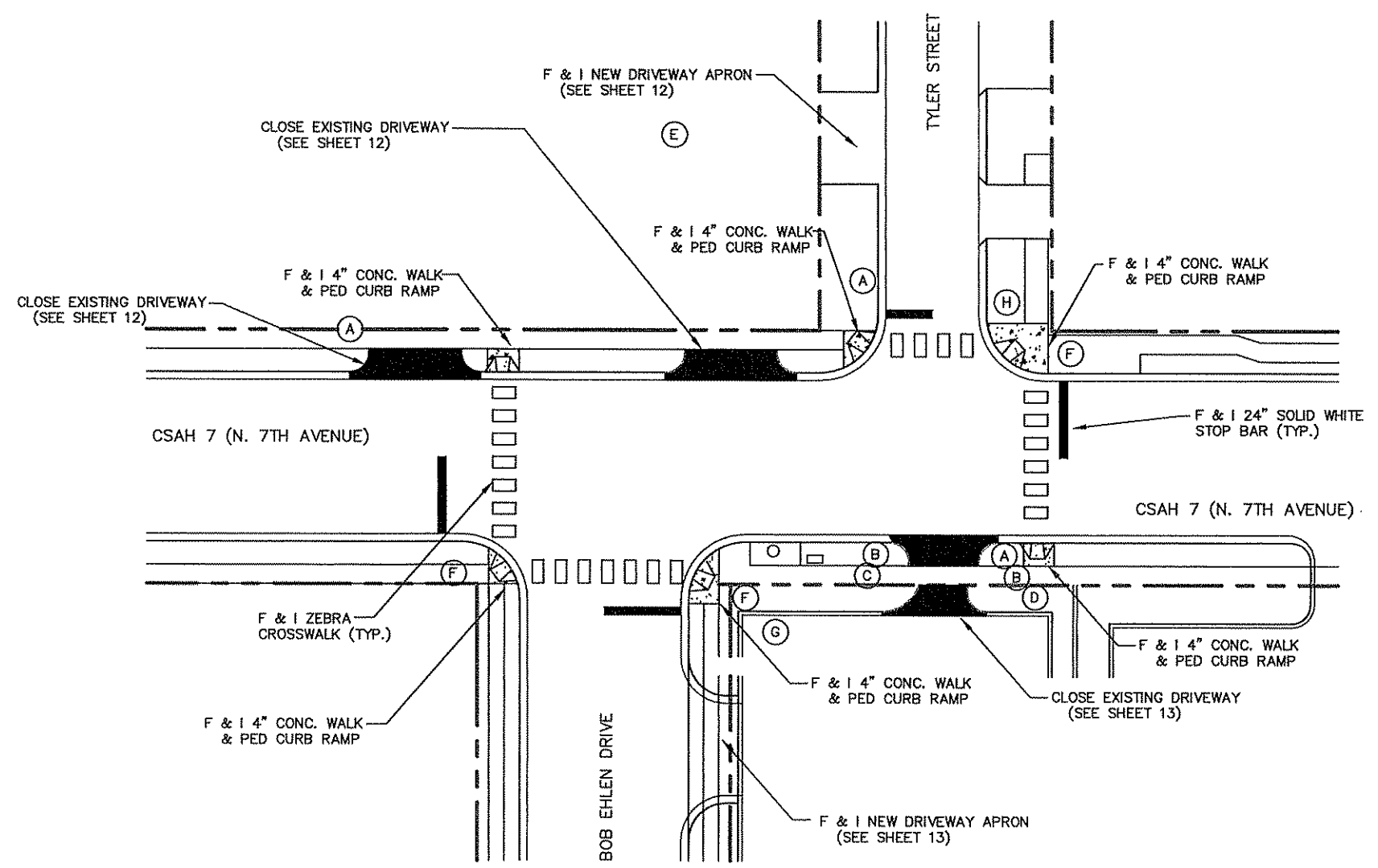
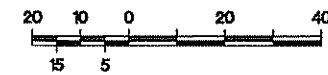
SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
SIGNING & STRIPING DETAILS
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

FILE NO.
AANOKC9902.03
DATE
08/22/07

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(D) = SYMBOL FOR SIGN PANEL TO BE REMOVED BY CONTRACTOR.

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John M. Gray
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: August 22, 2007

PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

ANOKA COUNTY, MINNESOTA
 CITY OF ANOKA
 COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
 MISCELLANEOUS CONSTRUCTION
 CSAH 7 (NORTH 7TH AVENUE) AT
 BOB EHLEN DRIVE/TYLER STREET

FILE NO.	AANOKC9902.03
DATE	08/22/07

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NOTES:

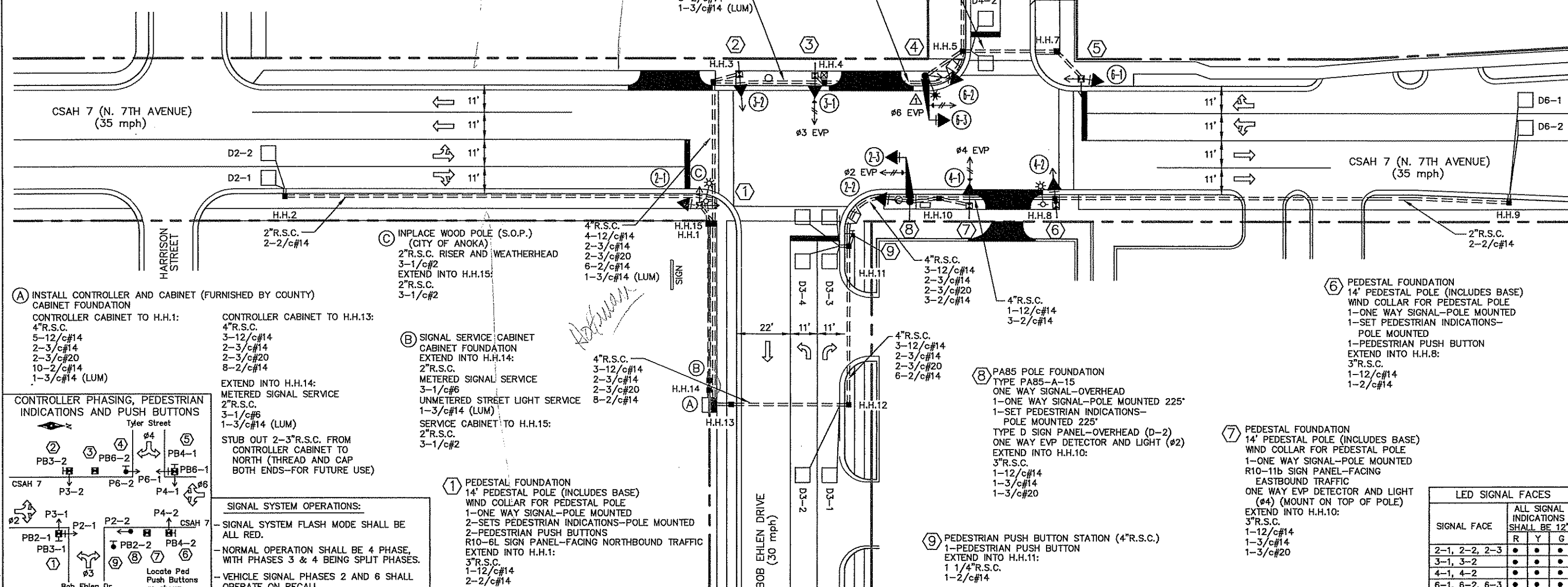
- 1) LOCATION OF POLES, CABINET FOUNDATIONS, LOOP DETECTORS, AND HANDHOLES SHALL BE DETERMINED IN FIELD BY ENGINEER.
- 2) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS-LINKED POLYETHYLENE (XLP) IN 3/4" N.M.C. SEE SPECIAL PROVISIONS AND DETAILS.
- 4) NEW HANDHOLES SHALL BE PVC HANDHOLES WITH METAL FRAMES AND COVERS.
- 5) EACH SIGNAL FACE SHALL HAVE BACKGROUND SHIELD.
- 6) EACH PEDESTRIAN INDICATION SHALL BE A ONE SECTION "FILLED" HAND/WALKING PERSON INDICATION.
- 7) ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL BE LED.
- 8) 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 AND DETAILS.
- 9) A 3/4" HALF COUPLING, 3/4" PIPE NIPPLE AND CONDUIT OUTLET BODY SHALL BE FURNISHED AND INSTALLED 6" FROM THE END OF EACH MAST ARM (FOR EVP).
- 10) SEE SPECIAL PROVISIONS, DETAILS AND REMAINDER OF PLANS FOR INFORMATION REGARDING SIGN PANELS, STRIPING, DRIVEWAY REMOVAL AND CONSTRUCTION, AND CONCRETE WALK TO BE FURNISHED AND INSTALLED BY CONTRACTOR (SEPARATE FROM ITEM NO. 2565 - FULL TRAFFIC ACTUATED TRAFFIC CONTROL SIGNAL SYSTEM).
- 11) CONTRACTOR SHALL MAINTAIN OPERATION OF INPLACE SIGNAL SYSTEM AT ALL TIMES, UNTIL APPROVED BY ENGINEER FOR SIGNAL SYSTEM TO BE TURNED OFF AND REMOVED.
- 12) SEE SPECIAL PROVISIONS REGARDING REMOVAL OF INPLACE SIGNAL SYSTEM (INCIDENTAL TO ITEM NO. 2565 FOR THIS SIGNAL SYSTEM).

NMC LOOP DETECTORS			
NUMBER	SIZE (FT)	LOCATION	FUNCTION
D2-1	6 x 6	180'	1
D2-2	6 x 6	180'	1
D3-1	6 x 6	100'	3,8
D3-2	6 x 6	100'	3,8
D3-3	2-6 x 6	0' & 15'	7
D3-4	2-6 x 6	0' & 15'	7
D4-1	6 x 6	120'	3,8
D4-2	2-6 x 6	0' & 15'	7
D6-1	6 x 6	180'	1
D6-2	6 x 6	180'	1

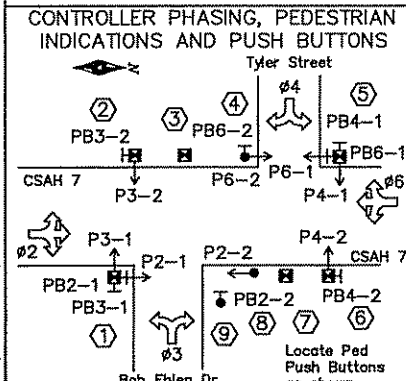
NOTE: LOCATION=DISTANCE FROM STOP BAR TO FRONT OF LOOP DETECTOR.

DETECTOR 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) COUNT DETECTOR



- (A) INSTALL CONTROLLER AND CABINET (FURNISHED BY COUNTY) CABINET FOUNDATION**
- CONTROLLER CABINET TO H.H.1:
 4" R.S.C.
 5-12/c#14
 2-3/c#14
 2-3/c#20
 10-2/c#14
 1-3/c#14 (LUM)
- CONTROLLER CABINET TO H.H.13:
 4" R.S.C.
 3-12/c#14
 2-3/c#14
 2-3/c#20
 8-2/c#14



- (B) SIGNAL SERVICE CABINET CABINET FOUNDATION**
- EXTEND INTO H.H.14:
 2" R.S.C.
 METERED SIGNAL SERVICE
 3-1/c#6
 1-3/c#14 (LUM)
- EXTEND INTO H.H.15:
 2" R.S.C.
 3-1/c#2
- STUB OUT 2-3" R.S.C. FROM CONTROLLER CABINET TO NORTH (THREAD AND CAP BOTH ENDS-FOR FUTURE USE)
- (C) INPLACE WOOD POLE (S.O.P.) (CITY OF ANOKA)**
- 2" R.S.C. RISER AND WEATHERHEAD
 3-1/c#2
 EXTEND INTO H.H.15:
 2" R.S.C.
 3-1/c#2

- (1) PEDESTAL FOUNDATION**
- 14' PEDESTAL POLE (INCLUDES BASE)
 WIND COLLAR FOR PEDESTAL POLE
 1-ONE WAY SIGNAL-POLE MOUNTED
 2-SETS PEDESTRIAN INDICATIONS-POLE MOUNTED
 2-PEDESTRIAN PUSH BUTTONS
 R10-6L SIGN PANEL-FACING NORTHBOUND TRAFFIC
 EXTEND INTO H.H.1:
 3" R.S.C.
 1-12/c#14
 2-2/c#14

- (2) PEDESTAL FOUNDATION**
- 14' PEDESTAL POLE (INCLUDES BASE)
 WIND COLLAR FOR PEDESTAL POLE
 1-ONE WAY SIGNAL-POLE MOUNTED
 1-SET PEDESTRIAN INDICATIONS-POLE MOUNTED
 1-PEDESTRIAN PUSH BUTTON
 EXTEND INTO H.H.3:
 3" R.S.C.
 1-12/c#14
 1-2/c#14

- (3) PEDESTAL FOUNDATION**
- 14' PEDESTAL POLE (INCLUDES BASE)
 WIND COLLAR FOR PEDESTAL POLE
 1-ONE WAY SIGNAL-POLE MOUNTED
 R10-11b SIGN PANEL-FACING WESTBOUND TRAFFIC
 WESTBOUND TRAFFIC
 ONE WAY EVP DETECTOR AND LIGHT (#3) (MOUNT ON TOP OF POLE)
 EXTEND INTO H.H.4:
 3" R.S.C.
 1-12/c#14
 1-3/c#14
 1-3/c#20

- (4) PA85 POLE FOUNDATION**
- TYPE PA85-A-15-D40-9 (DAVIT AT 350")
 LUMINAIRE-250 W HPS
 ONE WAY SIGNAL-POLE MOUNTED 225"
 1-ONE WAY SIGNAL-POLE MOUNTED 225"
 1-SET PEDESTRIAN INDICATIONS-POLE MOUNTED 225"
 1-PEDESTRIAN PUSH BUTTON
 TYPE D SIGN PANEL-OVERHEAD (D-1)
 ONE WAY EVP DETECTOR AND LIGHT (#6)
 EXTEND INTO H.H.5:
 3" R.S.C.
 1-12/c#14
 1-3/c#14
 1-3/c#20
 1-2/c#14
 1-3/c#14 (LUM)

LED SIGNAL FACES

SIGNAL FACE	ALL SIGNAL INDICATIONS SHALL BE 12"		
	R	Y	G
2-1, 2-2, 2-3	•	•	•
3-1, 3-2	•	•	•
4-1, 4-2	•	•	•
6-1, 6-2, 6-3	•	•	•

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 DESIGNER: JMG
 CHECKED BY: JMG

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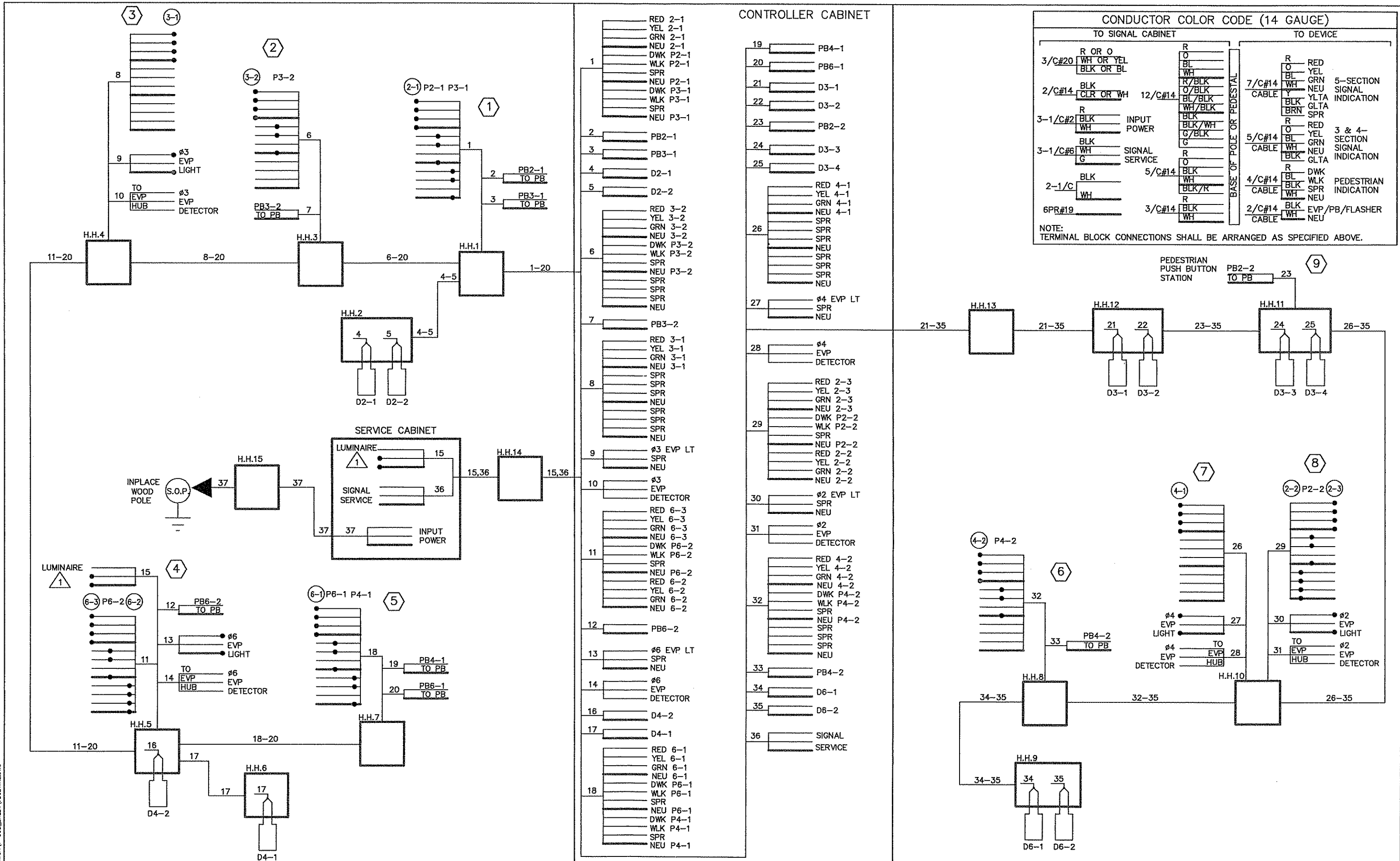
John M. Gray
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: August 22, 2007



ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
 COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
INTERSECTION LAYOUT
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

FILE NO. AANOKC9902.03
 DATE 08/22/07
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SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
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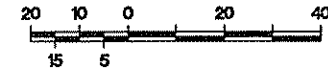
ANOKA COUNTY, MINNESOTA
 CITY OF ANOKA
 COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM
 FIELD WIRING DIAGRAM
 CSAH 7 (NORTH 7TH AVENUE) AT
 BOB EHLEN DRIVE/TYLER STREET

FILE NO.
 AANOKC9902.03
 DATE
 08/22/07
 10
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NOTES:

- 1) INPLACE HANDHOLE IS CONCRETE HANDHOLE WITH TYPE C COVER.
- 2) INPLACE LOOP DETECTORS ARE 6' x 60' SAWCUT DETECTORS.
- 3) PEDESTRIAN INDICATIONS ARE 9" x 9".



② P80 POLE FOUNDATION
TYPE P80-A-10
ONE WAY SIGNAL-OVERHEAD
2-TYPE 10A-POLE MOUNTED 90° & 270°

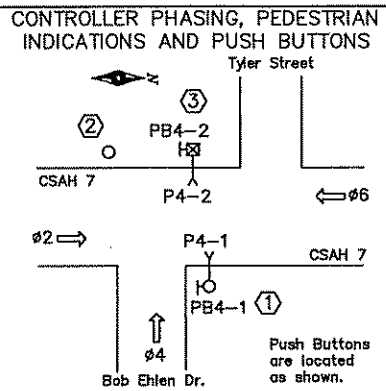
③ PEDESTAL FOUNDATION
10' PEDESTAL POLE AND BASE
TYPE 1C
PEDESTRIAN PUSH BUTTON

① P80 POLE FOUNDATION
TYPE P80-A-10
ONE WAY SIGNAL-OVERHEAD
TYPE 10A-POLE MOUNTED 225°
TYPE 10B-POLE MOUNTED 270°
PEDESTRIAN PUSH BUTTON
STREET NAME SIGNS-POLE MOUNTED

Ⓑ INPLACE WOOD POLE (S.O.P.)
METER AND DISCONNECT
1 1/4"R.S.C. RISER AND WEATHERHEAD
ABOVE METER
1 1/4"R.S.C. RISER BELOW DISCONNECT
TO CONTROLLER CABINET

Ⓐ TEMPORARY CABINET FOUNDATION
CONTROLLER AND CABINET
EXTEND TO POLE 1:
3"R.S.C.
2-12/c#12
2-1/c#12 T.H.W.
EXTEND TO WOOD POLE:
1 1/4"R.S.C.
SERVICE CABLES

NOTE: THIS PLAN SHEET IS BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY (FOR USE IN REMOVAL OF INPLACE SIGNAL SYSTEM). SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION.



SIGNAL SYSTEM OPERATIONS:

- SIGNAL SYSTEM FLASH MODE SHALL BE ALL RED.
- NORMAL OPERATION SHALL BE 2 PHASE.
- VEHICLE SIGNAL PHASES 2 AND 6 SHALL OPERATE ON RECALL.

DRAWN BY:	JMG
DESIGNER:	JMG
CHECKED BY:	JMG
DESIGN TEAM	

NO.	BY	DATE	REVISIONS

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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.

John M. Gray
Name: John M. Gray, PE
Lic. No. 22457
Date: August 22, 2007

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

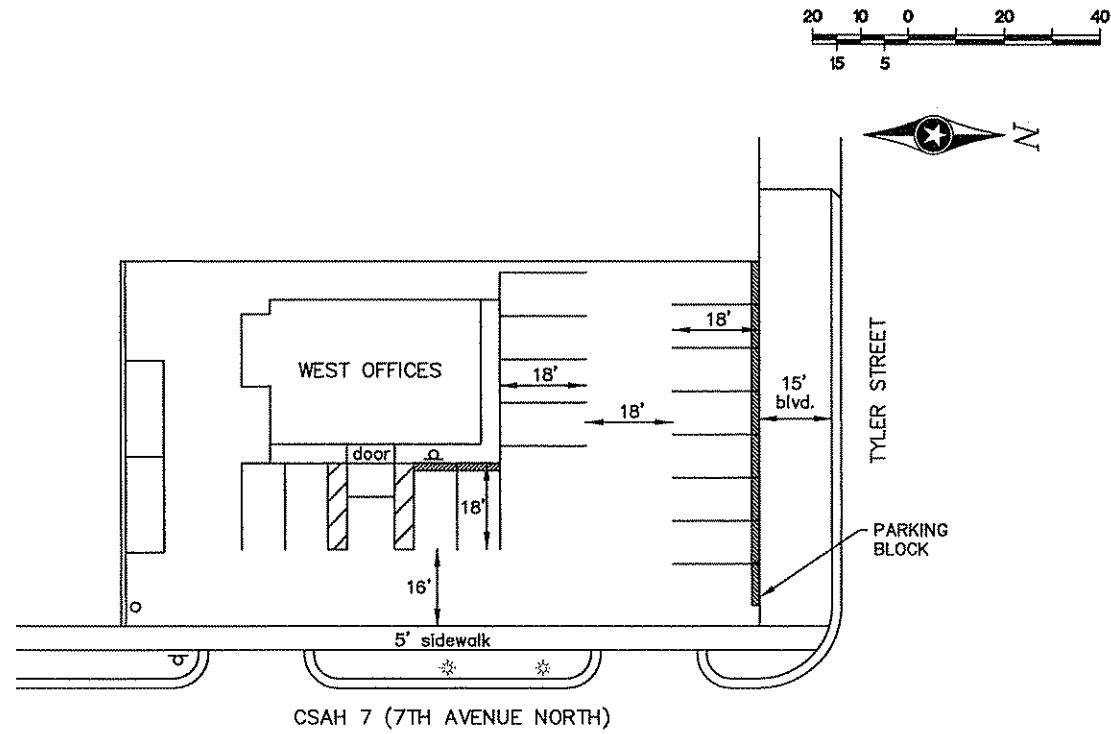
ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
COUNTY PROJECT NO. 97-56-07

INPLACE SIGNAL SYSTEM
FOR INFORMATION ONLY
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

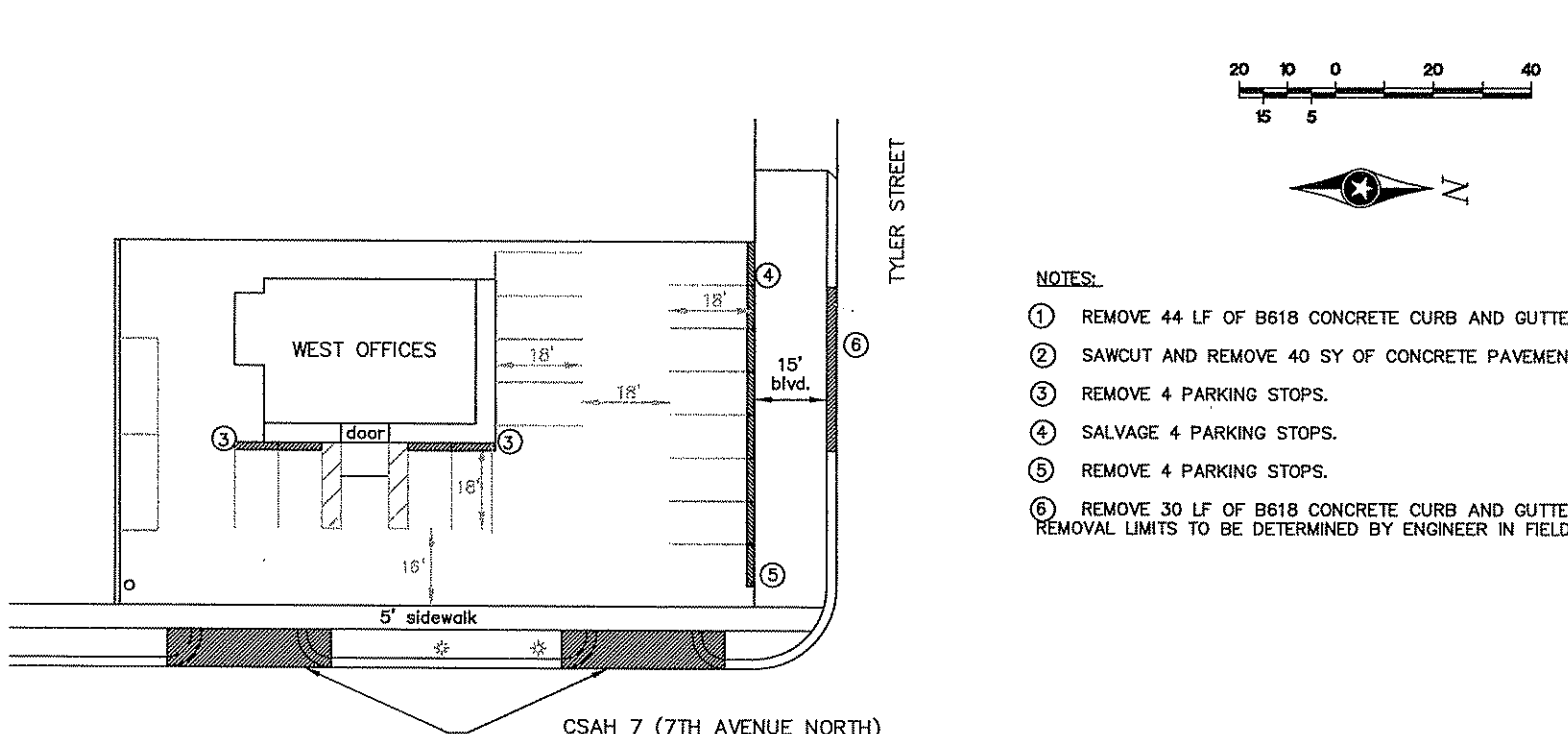
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AANOKC9902.03
DATE
08/22/07
11
15

SIGNAL FACES						
SIGNAL FACE	8" R	8" Y	8" G	12" R	12" Y	12" G
2-1, 6-1	o	o	o			
2-2, 6-2				o	o	o
4-1, 4-2, 4-3	o	o	o			

W:\ANOKA\COUNTY\7-BOB_EHLEN\7INT1.DWG



**EXISTING DRIVEWAYS AND STRIPING
(17 MARKED PARKING SPACES)**

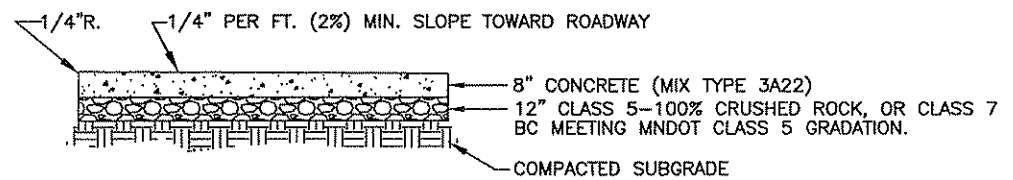


REMOVAL PLAN

- NOTES:**
- ① REMOVE 44 LF OF B618 CONCRETE CURB AND GUTTER.
 - ② SAWCUT AND REMOVE 40 SY OF CONCRETE PAVEMENT.
 - ③ REMOVE 4 PARKING STOPS.
 - ④ SALVAGE 4 PARKING STOPS.
 - ⑤ REMOVE 4 PARKING STOPS.
 - ⑥ REMOVE 30 LF OF B618 CONCRETE CURB AND GUTTER. REMOVAL LIMITS TO BE DETERMINED BY ENGINEER IN FIELD.

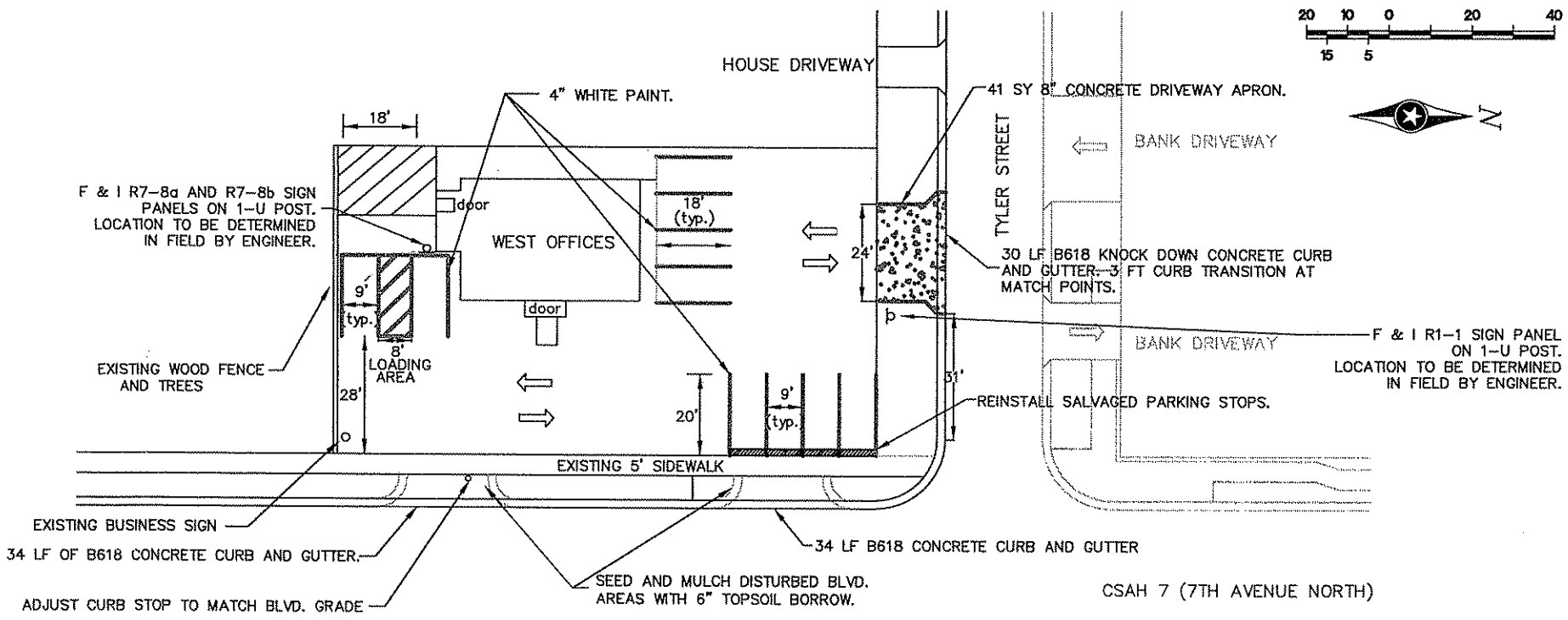
NOTE:
THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL BEFORE COMMENCING EXCAVATION.

GOPHER STATE ONE CALL SYSTEM.....454-0002



- NOTES:**
- 1. TYPICAL SECTION USED FOR CONCRETE WALKS AND APRONS.
 - 2. PLACE EXPANSION MATERIAL BETWEEN CONCRETE WALK AND APRON.

TYPICAL SECTION



**PROPOSED ACCESS RECONSTRUCTION
AND PARKING LOT RESTRIPING
(10 MARKED PARKING SPACES)**

NOTE:
PARKING LOT TO BE FOG SEALED ACCORDING TO MnDOT SPEC. #2355 AND SPECIAL PROVISIONS.

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DESIGNER:	JMG			
CHECKED BY:	JMG			
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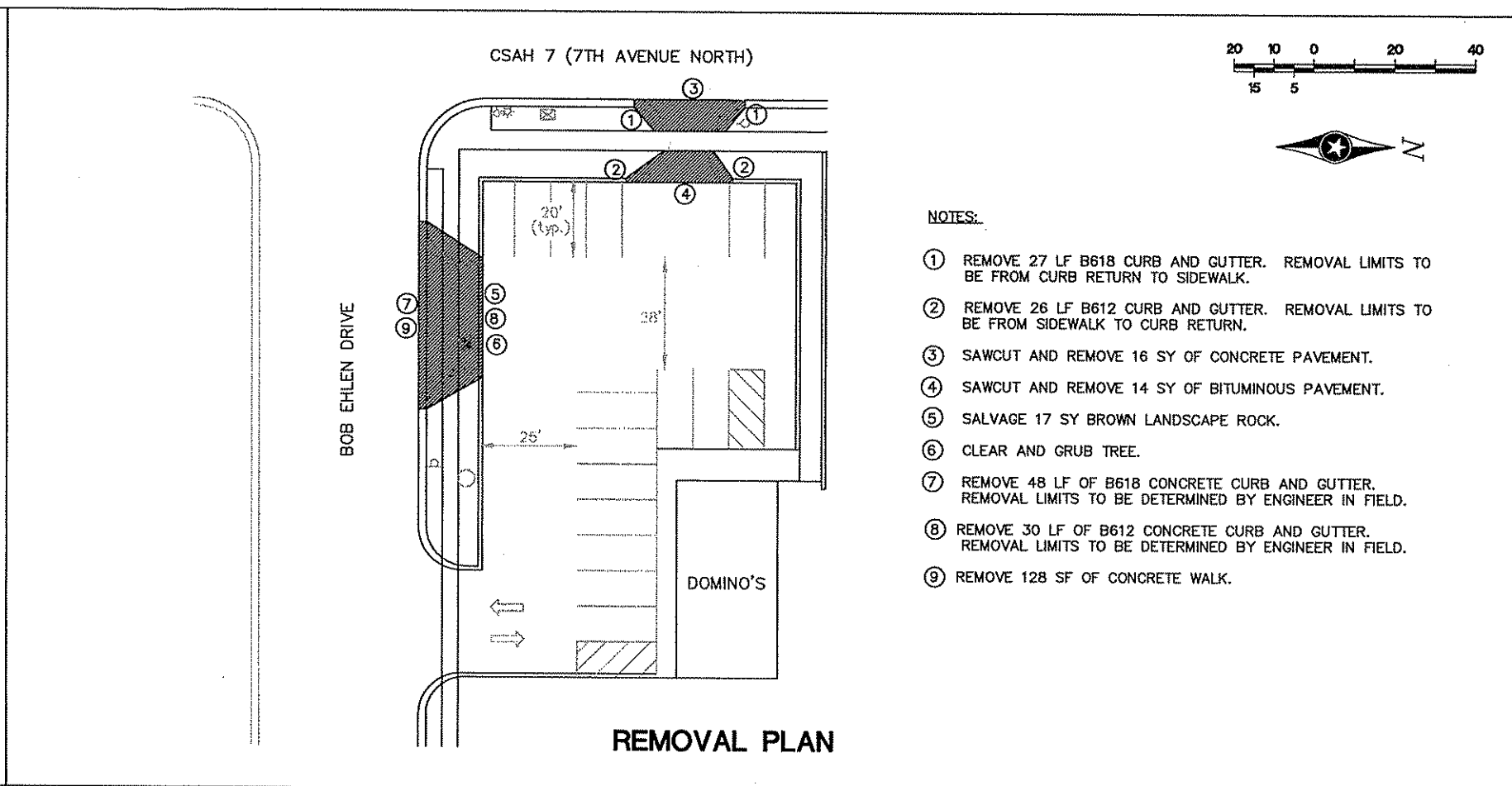
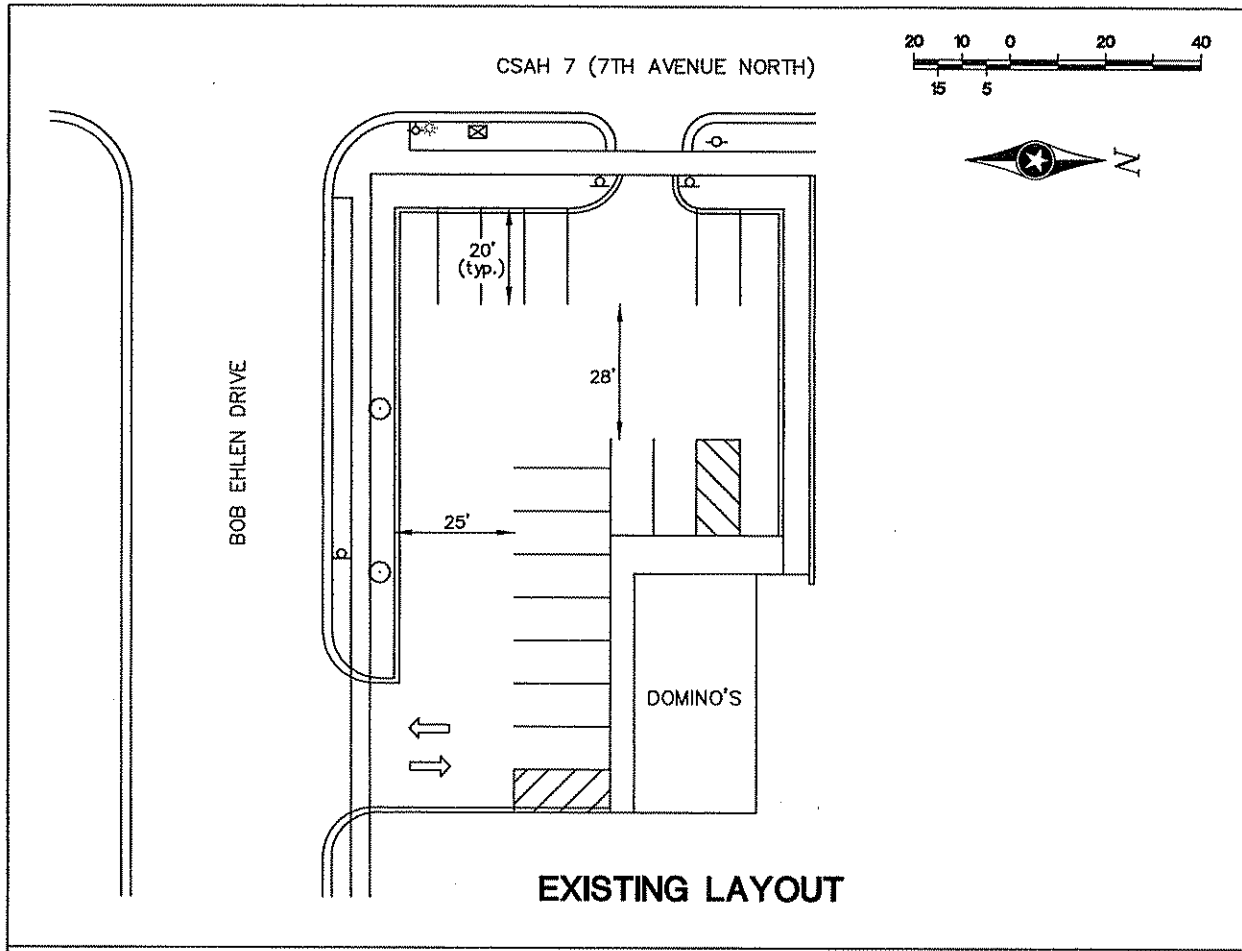
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: August 22, 2007

SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**ANOKA COUNTY, MINNESOTA
CITY OF ANOKA**
 COUNTY PROJECT NO. 97-56-07

**PARKING LOT LAYOUTS
WEST SIDE BUSINESS LOT
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET**

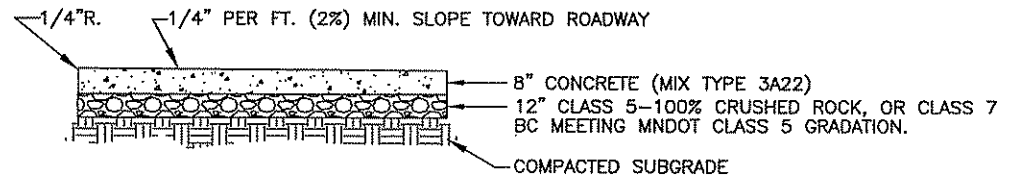
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DATE	08/22/07
12	15



- NOTES:**
- ① REMOVE 27 LF B618 CURB AND GUTTER. REMOVAL LIMITS TO BE FROM CURB RETURN TO SIDEWALK.
 - ② REMOVE 26 LF B612 CURB AND GUTTER. REMOVAL LIMITS TO BE FROM SIDEWALK TO CURB RETURN.
 - ③ SAWCUT AND REMOVE 16 SY OF CONCRETE PAVEMENT.
 - ④ SAWCUT AND REMOVE 14 SY OF BITUMINOUS PAVEMENT.
 - ⑤ SALVAGE 17 SY BROWN LANDSCAPE ROCK.
 - ⑥ CLEAR AND GRUB TREE.
 - ⑦ REMOVE 48 LF OF B618 CONCRETE CURB AND GUTTER. REMOVAL LIMITS TO BE DETERMINED BY ENGINEER IN FIELD.
 - ⑧ REMOVE 30 LF OF B612 CONCRETE CURB AND GUTTER. REMOVAL LIMITS TO BE DETERMINED BY ENGINEER IN FIELD.
 - ⑨ REMOVE 128 SF OF CONCRETE WALK.

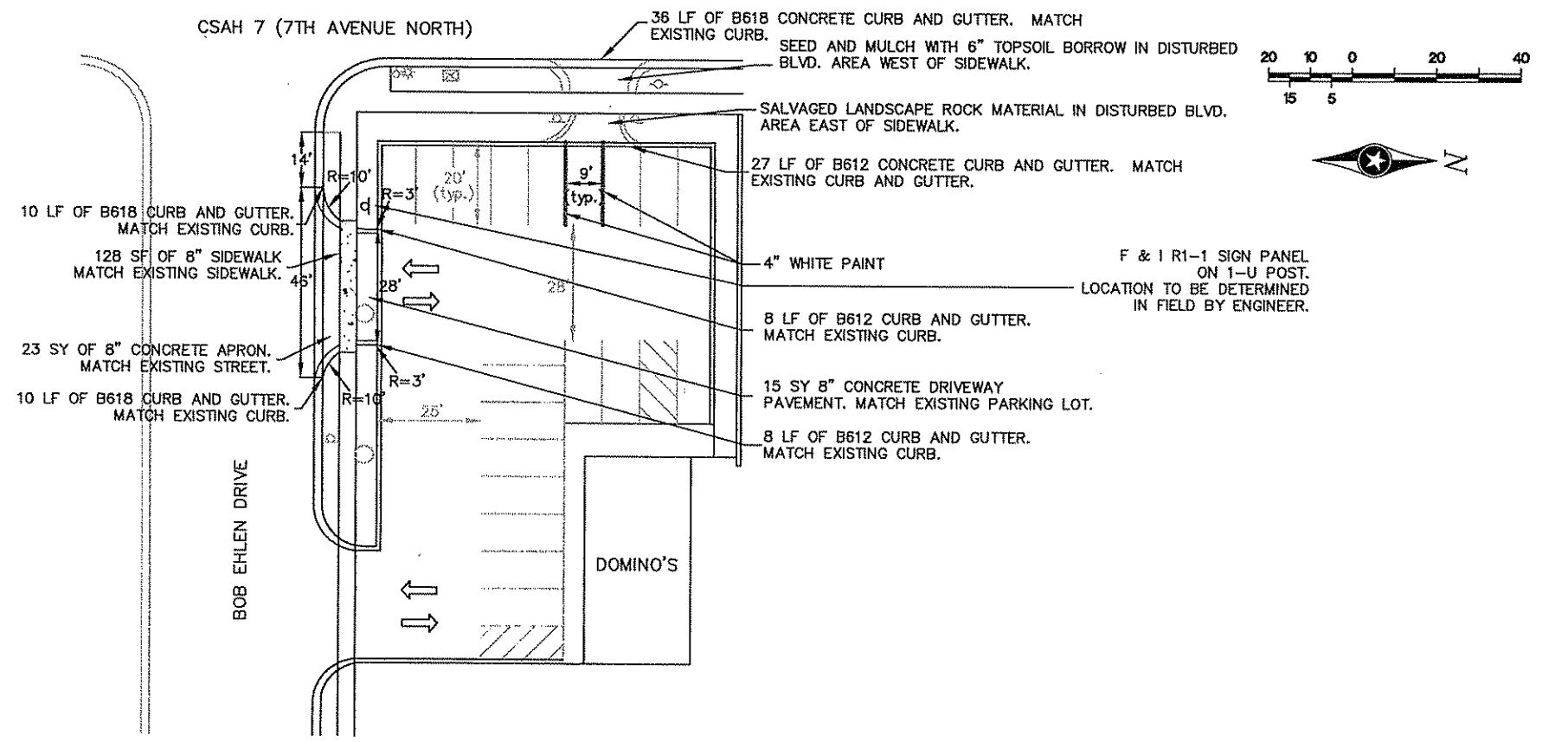
NOTE:
 THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL BEFORE COMMENCING EXCAVATION.

GOPHER STATE ONE CALL SYSTEM.....454-0002



- NOTES:**
1. TYPICAL SECTION USED FOR CONCRETE WALKS AND APRONS.
 2. PLACE EXPANSION MATERIAL BETWEEN CONCRETE WALK AND APRON.

TYPICAL SECTION



**PROPOSED PLAN
 CLOSE CSAH 7 ACCESS, ADD BOB EHLEN ACCESS**

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DESIGNER: JMG				
CHECKED BY: JMG				
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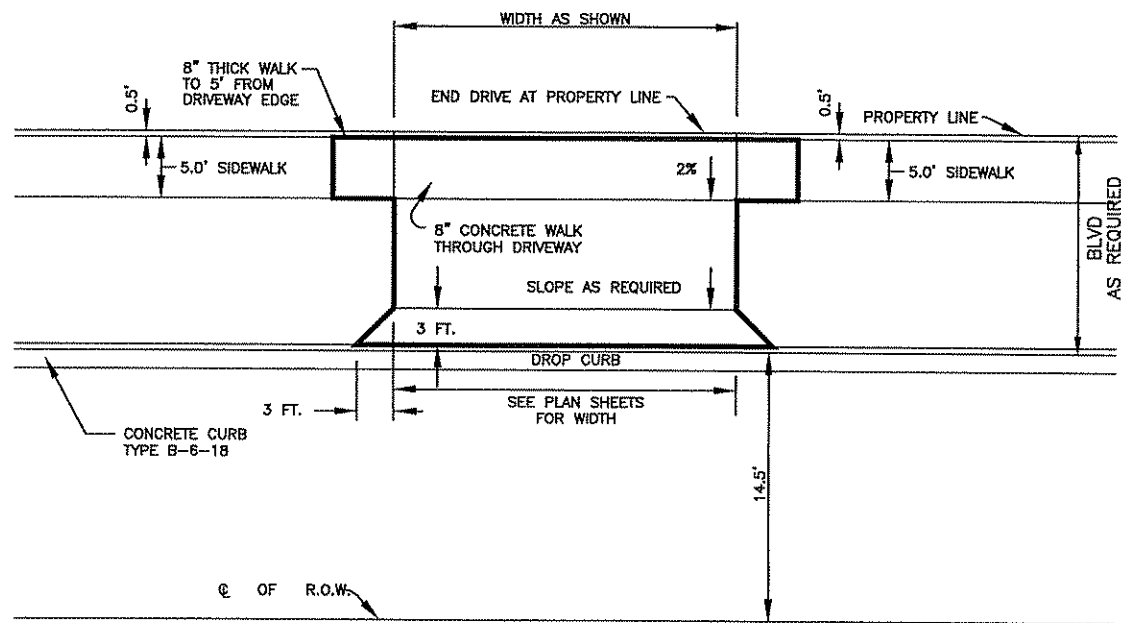
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 Name: John M. Gray, PE
 Lic. No. 22457
 Date: August 22, 2007

SEH
 PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

**ANOKA COUNTY, MINNESOTA
 CITY OF ANOKA**
 COUNTY PROJECT NO. 97-56-07

**PARKING LOT LAYOUTS
 DOMINO'S PARKING LOT
 CSAH 7 (NORTH 7TH AVENUE) AT
 BOB EHLEN DRIVE/TYLER STREET**

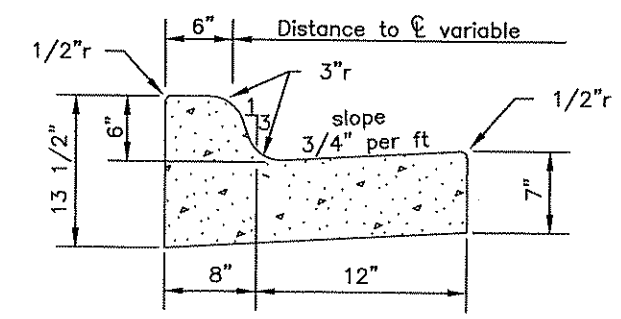
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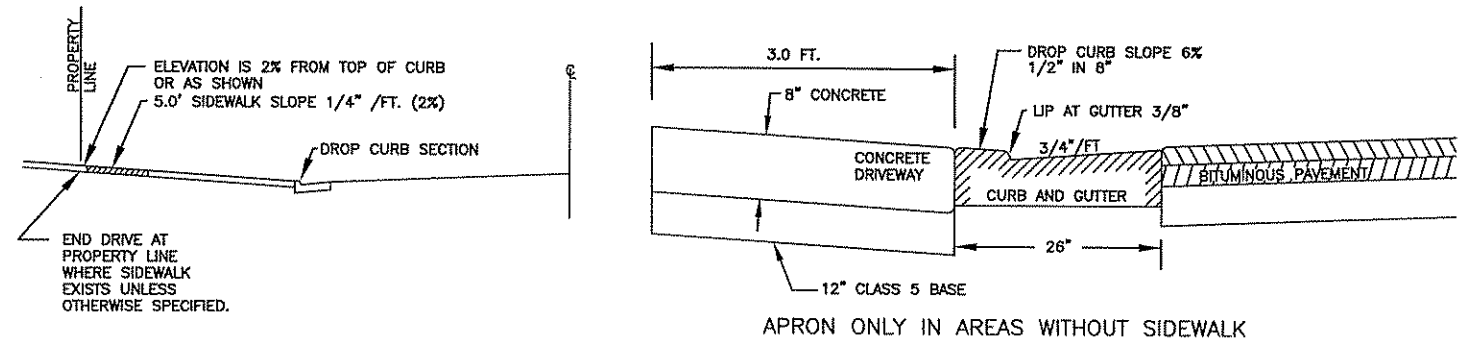
ALL DRIVEWAY SHALL HAVE CONCRETE APRON MINIMUM 3 FT. FROM BACK OF CURB TOWARD PROPERTY LINE.

WHERE SIDEWALK WILL BE INSTALLED AND/OR REPLACED, EXTEND 8" CONCRETE DRIVEWAY PAVEMENT TO AND THROUGH SIDEWALK.

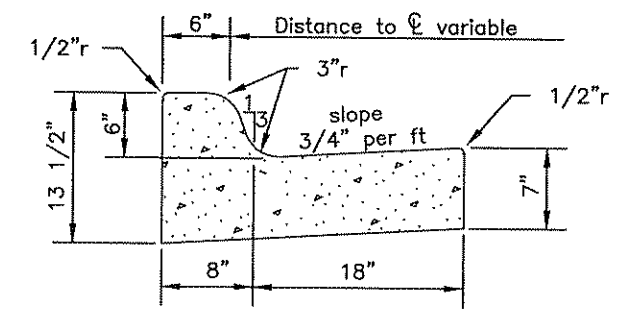
WHERE SIDEWALK IS NOT TO BE INSTALLED AND/OR REPLACED, DRIVEWAY SURFACE TO MATCH EXISTING BEYOND 3 FT. CONCRETE APRON.



MnDOT B612 CURB AND GUTTER



CONCRETE DRIVEWAY ENTRANCE



MnDOT B618 CURB AND GUTTER

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John M. Gray
Name: John M. Gray, PE
Date: August 22, 2007
Lic. No. 22457

SEH
PHONE: (651) 490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

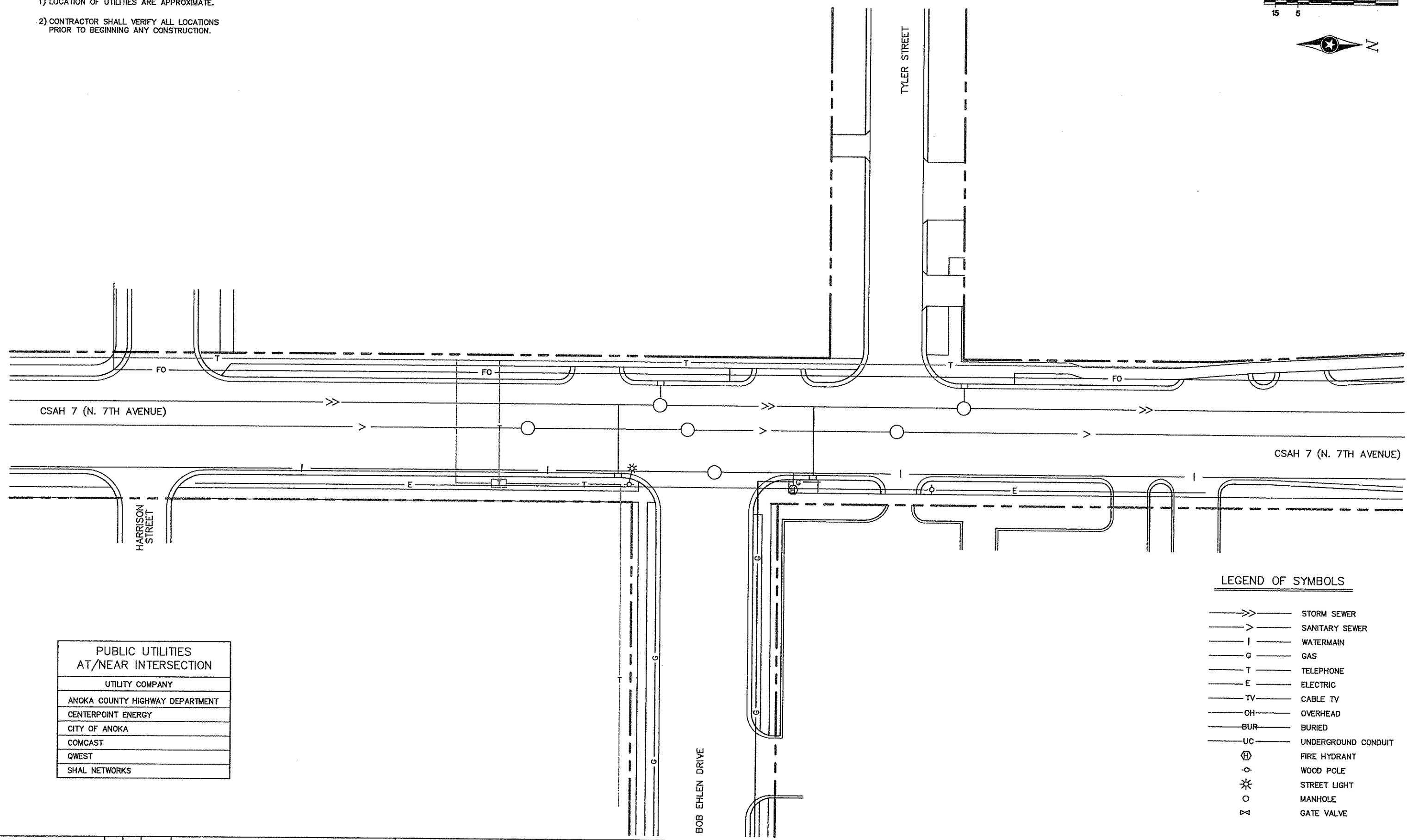
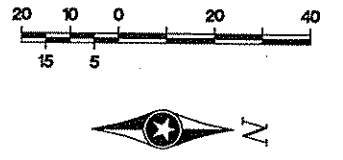
ANOKA COUNTY, MINNESOTA
CITY OF ANOKA
COUNTY PROJECT NO. 97-56-07

PARKING LOT LAYOUTS
DETAILS
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET

FILE NO.	AANOKC9902.03
DATE	08/22/07

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15

NOTES:
 1) LOCATION OF UTILITIES ARE APPROXIMATE.
 2) CONTRACTOR SHALL VERIFY ALL LOCATIONS PRIOR TO BEGINNING ANY CONSTRUCTION.



PUBLIC UTILITIES AT/NEAR INTERSECTION	
UTILITY COMPANY	
ANOKA COUNTY HIGHWAY DEPARTMENT	
CENTERPOINT ENERGY	
CITY OF ANOKA	
COMCAST	
QWEST	
SHAL NETWORKS	

LEGEND OF SYMBOLS	
	STORM SEWER
	SANITARY SEWER
	WATERMAIN
	GAS
	TELEPHONE
	ELECTRIC
	CABLE TV
	OVERHEAD
	BURIED
	UNDERGROUND CONDUIT
	FIRE HYDRANT
	WOOD POLE
	STREET LIGHT
	MANHOLE
	GATE VALVE

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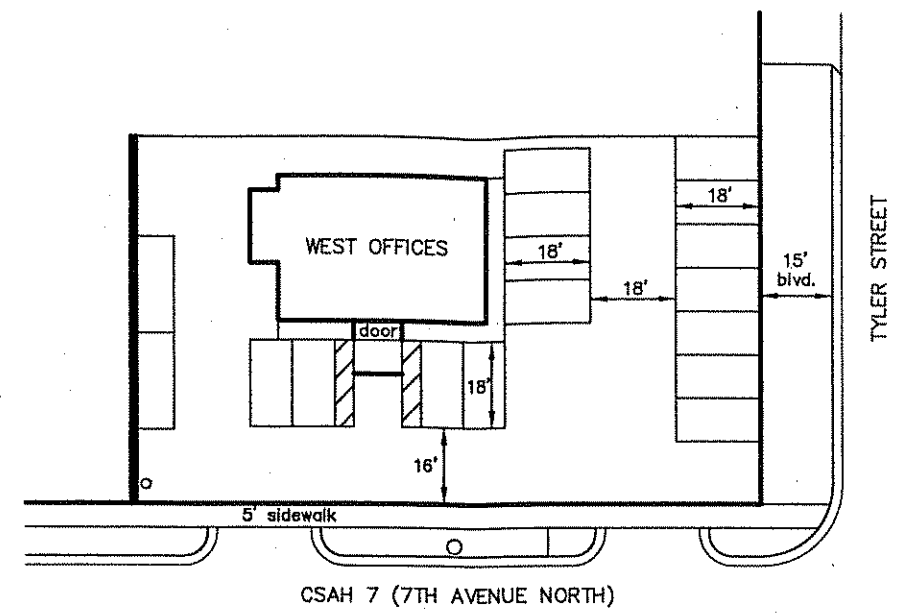
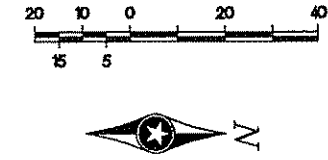
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 Name: John M. Gray, PE
 Lic. No. 22457
 Date: August 22, 2007

PHONE: (651) 490-2000
 3535 VADNAIS CENTER DR.
 ST. PAUL, MN 55110

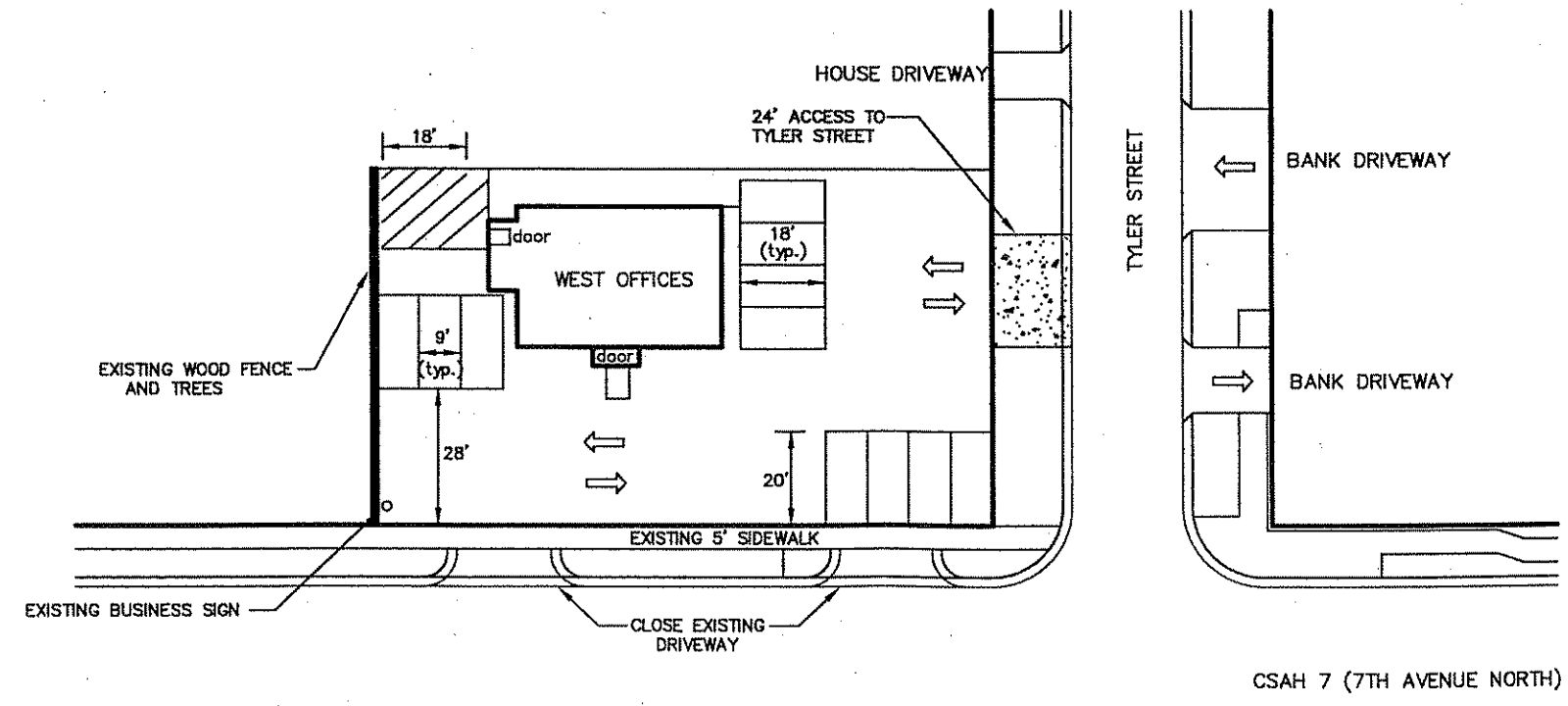
ANOKA COUNTY, MINNESOTA
 CITY OF ANOKA
 COUNTY PROJECT NO. 97-56-07

TRAFFIC SIGNAL SYSTEM UTILITIES
 CSAH 7 (NORTH 7TH AVENUE) AT BOB EHLEN DRIVE/TYLER STREET

FILE NO. AANOKC9902.03	15
DATE 08/22/07	15



**EXISTING DRIVEWAYS AND STRIPING
(17 MARKED PARKING SPACES)**



**PROPOSED ACCESS RECONSTRUCTION
AND PARKING LOT RESTRIPIING
(11 MARKED PARKING SPACES)**

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DESIGNER:	JMG			
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 Name: John M. Gray, P.E.
 Date: December 8, 2005 Lic. No. 22457



**ANOKA COUNTY, MINNESOTA
CITY OF ANOKA**
 COUNTY PROJECT NO. XX-XX-XX
 CITY PROJECT NO. XX-XX

**PARKING LOT LAYOUTS
WEST SIDE BUSINESS LOT
CSAH 7 (NORTH 7TH AVENUE) AT
BOB EHLEN DRIVE/TYLER STREET**

FILE NO.
AANOKC9902.03
 DATE
12/08/05

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2