CITY OF PLYMOUTH

CONSTRUCTION PLANS FOR

36TH AVENUE REHABILITATION

BITUMINOUS PAVEMENT REHABILITATION, CONCRETE CURB AND GUTTER SPOT REPLACEMENT, UTILITY ADJUSTMENTS, AND SIDEWALK/TRAIL ADA IMPROVEMENTS

JANUARY, 2025

RESOURCE LIST

CITY OF PLYMOUTH
CITY HALL
3400 PLYMOUTH BLVD
PLYMOUTH, MN 55447

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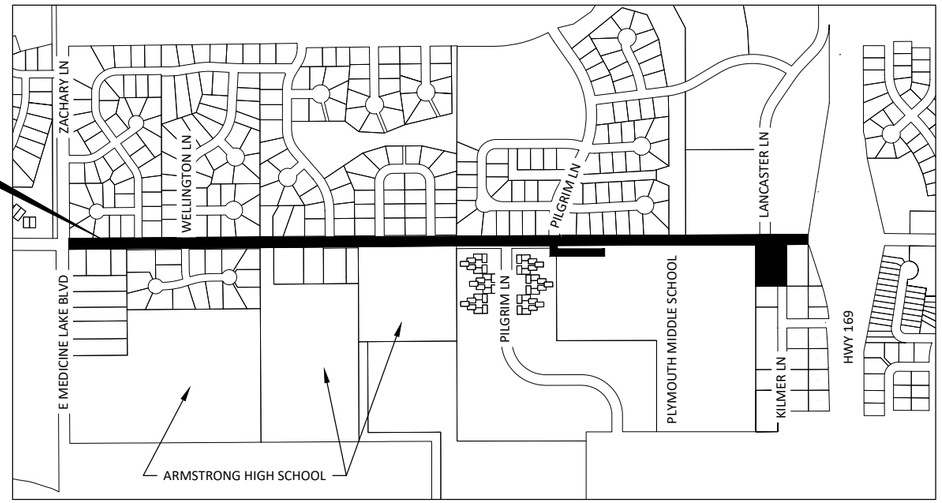
PROJECT LOCATION

MAP OF THE
CITY OF PLYMOUTH
HENNEPIN COUNTY, MN



MAP LEGEND

PROJECT LIMITS

SHEET NUMBER	PAGE NUMBER	SHEET TITLE
GENERAL		
G0.01 - G0.03	1 - 3	TITLE SHEET, LEGEND, GENERAL NOTES
G1.01	4	STATEMENT OF ESTIMATED QUANTITIES
CIVIL		
C0.01- C0.05	5 - 9	EXISTING CONDITIONS & REMOVALS PLANS
C1.01 - C1.22	10 - 31	PHASING PLAN, TYPICAL SECTION, DETAILS, & TABLES
C2.01- C2.08	32 - 39	SWPPP & EROSION CONTROL PLANS
C3.01	40	GRADING PLAN
C4.01 - C4.04	41 - 44	SANITARY SEWER & WATER PLAN & PROFILES
C5.01 - C5.04	45 - 48	STORM SEWER PLAN & PROFILES & STORM LEADS
C6.01 - C6.28	49 - 76	STREET PLAN & PROFILE & INTERSECTION DETAILS
C7.01 - C7.26	77 - 102	PEDESTRIAN CROSSWALK FLASHER SYSTEM, SIGNAL, SIGNING & STRIPING PLANS
C8.01 - C8.27	103 - 129	CROSS SECTIONS
	THIS PLAN SET CONTAINS 129 SHEETS.	

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

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

REVIEWED & APPROVED Joseph Shamla 2/6/2025
ASSISTANT CITY ENGINEER DATE:

BM=976.59
SE QUAD OF MN HWY
169 & 36TH AVE N

HORIZONTAL: HENNEPIN COUNTY NAD83
(1986 ADJ.)

VERTICAL: NAVD88

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
TITLE SHEET

G0.01
1
OF
129

EXISTING TOPOGRAPHIC SYMBOLS

- ACCESS GRATE
- AIR CONDITION UNIT
- ANTENNA
- AUTO SPRINKLER CONNECTION
- BARRICADE PERMANENT
- BASKETBALL POST
- BENCH
- BIRD FEEDER
- BOLLARD
- BUSH
- CATCH BASIN RECTANGULAR CASTING
- CATCH BASIN CIRCULAR CASTING
- CURB STOP
- CLEAN OUT
- CULVERT END
- DRINKING FOUNTAIN
- DOWN SPOUT
- FILL PIPE
- FIRE HYDRANT
- FLAG POLE
- FLARED END / APRON
- FUEL PUMP
- GRILL
- GUY WIRE ANCHOR
- HANDHOLE
- HANDICAP SPACE
- IRRIGATION SPRINKLER HEAD
- IRRIGATION VALVE BOX
- LIFT STATION CONTROL PANEL
- LIFT STATION
- LIGHT ON POLE
- LIGHT-GROUND
- MAILBOX
- MANHOLE-COMMUNICATION
- MANHOLE-ELECTRIC
- MANHOLE-GAS
- MANHOLE-HEAT
- MANHOLE-SANITARY SEWER
- MANHOLE-STORM SEWER
- MANHOLE-UTILITY
- MANHOLE-WATER
- METER
- ORDER MICROPHONE
- PARKING METER
- PAVEMENT MARKING
- PEDESTAL-COMMUNICATION
- PEDESTAL-ELECTRIC
- PEDESTRIAN PUSH BUTTON
- PICNIC TABLE
- POLE-UTILITY
- POLE-BRACE
- POST
- RAILROAD SIGNAL POLE
- REGULATION STATION GAS
- SATELLITE DISH
- SIGN NON TRAFFIC
- SIGN TRAFFIC
- SIGNAL CONTROL CABINET
- SOIL BORING
- SIREN
- TELEPHONE BOOTH
- TILE INLET
- TILE OUTLET
- TILE RISER
- TRANSFORMER-ELECTRIC
- TREE-CONIFEROUS
- TREE-DEAD
- TREE-DECIDUOUS
- TREE STUMP
- TRAFFIC ARM BARRIER
- TRAFFIC SIGNAL
- TRASH CAN
- UTILITY MARKER
- VALVE
- VALVE POST INDICATOR
- VALVE VAULT
- VAULT
- VENT PIPE
- WATER SPIGOT
- WELL
- WETLAND DELINEATED MARKER
- WETLAND
- WET WELL
- YARD HYDRANT

PROPOSED TOPOGRAPHIC SYMBOLS

- CLEANOUT
- MANHOLE
- LIFT STATION
- STORM SEWER CIRCULAR CASTING
- STORM SEWER RECTANGULAR CASTING
- STORM SEWER FLARED END / APRON
- STORM SEWER OUTLET STRUCTURE
- STORM SEWER OVERFLOW STRUCTURE
- CURB BOX
- FIRE HYDRANT
- WATER VALVE
- WATER REDUCER
- WATER BEND
- WATER TEE
- WATER CROSS
- WATER SLEEVE
- WATER CAP / PLUG
- RIP RAP
- DRAINAGE FLOW
- TRAFFIC SIGNS

SURVEY SYMBOLS

- BENCHMARK LOCATION
- CONTROL POINT
- MONUMENT FOUND
- CAST IRON MONUMENT
- STONE MONUMENT

EXISTING TOPOGRAPHIC LINES

- RETAINING WALL
- FENCE
- FENCE-DECORATIVE
- GUARD RAIL
- TREE LINE
- BUSH LINE

SURVEY LINES

- CONTROLLED ACCESS
- BOUNDARY
- CENTERLINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- SETBACK LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- TEMPORARY EASEMENT

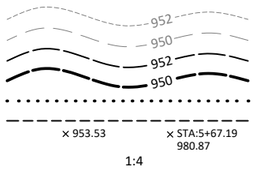
EXISTING UTILITY LINES

- FORCEMAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- WATERMAIN
- WATER SERVICE

PROPOSED UTILITY LINES

- FORCEMAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- WATERMAIN
- WATER SERVICE
- PIPE CASING
- TRENCHLESS PIPE (PLAN VIEW)
- TRENCHLESS PIPE (PROFILE VIEW)

GRADING INFORMATION



- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPOSED CONTOUR MINOR
- PROPOSED CONTOUR MAJOR
- PROPOSED GRADING LIMITS / SLOPE LIMITS
- PROJECT LIMITS
- PROPOSED SPOT ELEVATION
- RISE:RUN (SLOPE)

HATCH PATTERNS

- BITUMINOUS
- GRAVEL
- CONCRETE

EXISTING PRIVATE UTILITY LINES

NOTE:
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- UNDERGROUND FIBER OPTIC
- UNDERGROUND ELECTRIC
- UNDERGROUND GAS
- UNDERGROUND COMMUNICATION
- OVERHEAD ELECTRIC
- OVERHEAD COMMUNICATION
- OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL :

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
EXAMPLE: G-A G-A UNDERGROUND GAS, QUALITY LEVEL A
UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-02.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL.	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
LEGEND

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129

GENERAL TRAFFIC CONTROL NOTES

1. ACCESS TO RESIDENCES AND SIDE STREETS/ CUL-DE-SACS MUST BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION. THE CONTRACTOR MUST SUPPLY ACCESS TO AND FROM THE SITE FOR CONCURRENT CONSTRUCTION PROJECTS, PRIVATE UTILITY IMPROVEMENTS/RELOCATIONS, AND AS OTHERWISE PROVIDED FOR IN THE SPECIFICATIONS.

2. THE CONTRACTOR MUST MAINTAIN GARBAGE AND RECYCLING SERVICE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ACCESS FOR GARBAGE TRUCKS. WHEN INFEASIBLE TO MAINTAIN SUCH ACCESS, THE CONTRACTOR MUST COLLECT CONTAINERS, RELOCATE THEM TO A LOCATION WHERE SUITABLE ACCESS CAN BE PROVIDED, AND RETURN CONTAINERS IN GOOD WORKING CONDITION TO THE SAME PROPERTY FROM WHICH THEY WERE TAKEN. COSTS FOR PROVIDING ACCESS OR HAULING CONTAINERS TO AN ACCESSIBLE LOCATION SHALL BE INCIDENTAL TO THE CONTRACT.

3. THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES MUST CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN MUTCD) AND INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. TRAFFIC CONTROL NOT IN COMPLIANCE WITH MN MUTCD WILL BE SUBJECT TO VIOLATION IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

4. THE ITEM “TRAFFIC CONTROL" BID AS "LUMP SUM" SHALL INCLUDE ALL COSTS FOR PROVIDING TEMPORARY CONTROLS SPECIFIED IN THE PLAN AND OTHER TRAFFIC CONTROL REQUIRED PER THE MN/MUTCD DUE TO THE CONTRACTORS OPERATIONS FOR COMPLETION OF THE PROJECT INCLUDING BUT NOT LIMITED TO, MILLING, RECLAIMING & PAVING, TEMPORARY ROAD CLOSURES IN FULL OR TO THRU TRAFFIC, TEMPORARY LANE CLOSURES, ADJUSTMENTS TO THE TRAFFIC CONTROL PLAN FOR LARGE AND SMALL SCALE STAGING OPERATIONS, AND NECESSARY DETOURS FOR MOTORISTS, BICYCLISTS, AND/OR PEDESTRIANS.THE AMOUNT BID MUST ALSO INCLUDE SUFFICIENT TRAFFIC CONTROL FOR WARNING OF POTENTIAL HAZARDS DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO FLASHING BARRICADES AROUND EQUIPMENT AND OBSTRUCTIONS.

5. CONTRACTOR SHALL PREVENT TRACKING OF BITUMINOUS MATERIAL ONTO THE ADJACENT STREETS OF ALL PROJECT AREAS. IF MATERIAL IS TRACKED ONTO ADJACENT ROADWAYS, THE CONTRACTOR MUST RESTORE THE PAVEMENT TO THE SATISFACTION OF THE CITY.

6. THE CONTRACTOR MUST FURNISH AND INSTALL STANDARD CITY PROJECT SIGNS AT ALL MAJOR ENTRANCES TO THE PROJECT AREA AS DESIGNED ON THE STAGING PLAN. THE SIGNS SHALL FOLLOW THE REQUIREMENTS SHOWN IN THE STANDARD CITY PLATE NO. DWG-1.

UTILITY CONSTRUCTION NOTES

1. REFER TO CITY STANDARDS SPECIFICATIONS FOR STRUCTURE CASTING FRAME & COVER REQUIREMENTS. ALL FRAME & COVER DEVIATIONS SHALL BE INDICATED ON THE PLAN SHEETS.

2. I AND I BARRIERS ARE REQUIRED ON ALL NEW AND EXISTING SANITARY MANHOLES.

REMOVAL NOTES

1. PRIOR TO REMOVALS, REQUIRED EROSION CONTROL DEVICES ARE TO BE INSTALLED.

2. COORDINATE WITH UTILITY OWNER TO RELOCATE POWER AND LIGHT POLES, AND OTHER PRIVATE UTILITIES AS NECESSARY.

3. ALL ADJACENT BITUMINOUS AND CONCRETE SURFACES MUST BE CLEANLY SAWCUT PRIOR TO REMOVAL AND SHALL BE CONSIDERED INCIDENTAL.

4. REMOVALS SHALL BE LIMITED TO AREAS WITHIN THE DEFINED PROJECT LIMITS. RESTORATION OF AREAS OUTSIDE OF PROJECT LIMITS MUST BE COMPLETED AT THE CONTRACTOR'S COST UNLESS OTHERWISE APPROVED.

5. CONTRACTOR MUST FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF MATERIALS REMOVED FROM THIS SITE.

6. PAVEMENT REMOVAL LIMITS SHOWN ON THE PLAN ARE APPROXIMATE. REMOVAL LIMITS MUST BE DETERMINED IN THE FIELD BY THE ENGINEER.

7. ANY TREES, SHRUBS, AND PLANTINGS TO BE REMOVED MUST BE DESIGNATED IN ADVANCE BY THE ENGINEER.

8. CONTRACTOR MUST PROTECT ALL ITEMS DESIGNATED FOR SALVAGE AND PROVIDE APPROPRIATE STORAGE UNTIL RE-INSTALLATION. ANY ITEMS DESIGNATED TO BE SALVAGED WHICH ARE DAMAGED MUST BE REPLACED WITH NEW AT NO COST TO THE OWNER.

9. ANY LANDSCAPING MATERIALS WITHIN R.O.W. TO BE REMOVED MUST BE DESIGNATED IN ADVANCE BY THE ENGINEER AND SHALL BE CONSIDERED INCIDENTAL.

10. ALL ITEMS NOT IDENTIFIED FOR REMOVAL MUST BE PROTECTED DURING CONSTRUCTION.

11. RECLAIM DEPTHS SPECIFIED MAY VARY AND SHALL BE ADJUSTED BY THE CONTRACTOR AS NEEDED TO ACHIEVE THE REQUIRED GRADATIONS AND PAVEMENT SECTIONS. MODIFYING RECLAIM OR PRE-MILLING DEPTHS SHALL BE CONSIDERED INCIDENTAL TO THE RECLAIM AND MILLING ITEMS OF WORK.

CONSTRUCTION NOTES

1. ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS MUST BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.

2. SHAPING & COMPACTION OF THE IN PLACE AGGREGATE BASE (SALVAGED RECLAIM) UNDER BITUMINOUS STREET PAVEMENT WILL BE PAID FOR BY THE SY UNDER THE BID ITEM SUB-GRADE PREPARATION.

3. CHARCOAL GRAY COATED CAST IRON TRUNCATED DOMES ARE REQUIRED FOR PEDESTRIAN RAMPS.

COORDINATION WITH PRIVATE UTILITIES

1. ALL PRIVATE UTILITIES MUST BE PROTECTED. UNLESS DESIGNATED FOR RELOCATION CONTRACTOR MUST COORDINATE WITH ALL PRIVATE UTILITY OWNERS. CALL 1-800-GOPHER1.
2. THE CONTRACTOR MUST COORDINATE THEIR SCHEDULE WITH THE PRIVATE UTILITY COMPANIES TO ENSURE THE PROJECT IS COMPLETED ON TIME.
3. THE PRIVATE UTILITIES SHOWN ON THE PLAN ARE QUALITY LEVEL D. THE LOCATION OF WHERE THE UTILITIES ARE SHOWN ON THE PLAN ARE AS ACCURATE AS THE INFORMATION WHICH WAS PROVIDED BY THE UTILITY COMPANIES. THE CITY WILL NOT BE RESPONSIBLE FOR COMPENSATION TO THE CONTRACTOR FOR ANY COSTS RELATED TO PRIVATE UTILITIES. IT IS ANTICIPATED THAT CENTERPOINT ENERGY WILL BE REPLACING THEIR GAS MAIN IN SOME LOCATIONS ALONG 36TH AVE AND KILMER LN WHICH WILL OCCUR SOMETIME IN SPRING 2025. THE CONTRACTOR SHALL COORDINATE WITH CENTERPOINT ENERGY ON GAS MAIN REPLACEMENTS TO AVOID SCHEDULING CONFLICTS AND PROJECT DELAYS.
4. SEVERAL FIBER OPTIC COMPANIES AND THEIR CONTRACTORS WILL BE INSTALLING FIBER OPTIC CONDUIT AND CABLE THROUGHOUT THE CITY OF PLYMOUTH IN 2025, INCLUDING THE FRICK’S GARDEN PROJECT AREA. THE TIMING OF THESE FIBER OPTIC INSTALLATIONS IS UNKNOWN AND CITY STAFF WILL COORDINATE WITH THE FIBER COMPANIES TO MINIMIZE IMPACTS TO THE PROJECT AS MUCH AS POSSIBLE, BUT THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE FIBER COMPANIES, AS NEEDED LEADING UP TO AND DURING CONSTRUCTION, TO AVOID CONFLICTS WITH THE PROJECT SCHEDULE AND IMPROVEMENTS. COORDINATION WITH THE FIBER OPTIC COMPANIES AND THEIR CONTRACTORS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION WITH NO ADDITIONAL COMPENSATION.
5. THEY CONTRACTOR SHALL BE READY TO MOBILIZE A PAVEMENT REMOVAL CREW TO THE SITE WITHIN 7 CALENDAR DAYS OF CONTRACT AWARD TO REMOVE CONCRETE CURB AND GUTTER AND BITUMINOUS STREET PAVEMENT ALONG THE SOUTH SIDE OF 36TH AVENUE IN THE SHOULDER OF THE ROAD. THESE SPOT REMOVALS WILL BE IN FRONT OF UTILITY POLES TO BE MOVED CLOSER TO THE ROADWAY BY XCEL ENERGY. REMOVALS SHALL BE MEASURED AND PAID BY THEIR RESPECTIVE BID ITEMS AND TRAFFIC CONTROL NECESSARY FOR THE SHOULDER CLOSURE SHALL BE INCLUDED IN THE LUMP SUM ITEM FOR TRAFFIC CONTROL. NO ADDITIONAL MOBILIZATION COSTS SHALL BE PAID BEYOND THE PROJECT LUMP SUM ITEM FOR MOBILIZATION. THESE SPOT CURB AND PAVEMENT REMOVALS FOR THE UTILITY POLE RELOCATIONS WILL NOT TRIGGER ANY MILESTONE COMPLETION DEADLINES.

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
GENERAL CONSTRUCTION NOTES

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	MnDOT #	NOTE	ITEM	UNIT	TOTAL QUANTITY
1	2021.501		MOBILIZATION	LUMP SUM	1.00
2	2101.502		CLEARING	TREE	69
3	2101.502		GRUBBING	TREE	69
4	2104.501		REMOVE CURB AND GUTTER	LIN FT	7413
5	2104.502		SALVAGE MAILBOX	EACH	11
6	2104.502		SALVAGE SIGN PANEL	EACH	60
7	2104.502		REMOVE SIGN POST	EACH	58
8	2104.502		REMOVE DRAINAGE STRUCTURE	EACH	15
9	2104.502		SALVAGE BENCH	EACH	1
10	2104.502		REMOVE HYDRANT	EACH	2
11	2104.503		SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	1140
12	2104.503		SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	220
13	2104.503		REMOVE SEWER PIPE (STORM)	LIN FT	712
14	2104.503		SALVAGE FENCE	LIN FT	538
15	2104.503		SALVAGE RETAINING WALL	LIN FT	9
16	2104.503		REMOVE FENCE	LIN FT	19
17	2104.503		REMOVE RETAINING WALL	LIN FT	190
18	2104.503		REMOVE WATERMAIN	LIN FT	345
19	2104.503		REINSTALL RETAINING WALL	LIN FT	9
20	2104.504	1	RECLAIM BITUMINOUS PAVEMENT (ALL DEPTHS)	SQ YD	21872
21	2104.504		REMOVE BITUMINOUS STREET PAVEMENT	SQ YD	4020
22	2104.504		REMOVE CONCRETE WALK	SQ YD	2020
23	2104.505		REMOVE CONCRETE DRIVEWAY	SQ YD	645
24	2104.602		SALVAGE DECORATIVE/MEMORIAL BOULDERS	EACH	2
25	2104.603		ABANDON WATERMAIN	LIN FT	165
26	2105.504		REMOVE BITUMINOUS TRAIL/DRIVEWAY PAVEMENT	SQ YD	4470
27	2105.507	(P)	FILTRATION BASIN EXCAVATATION	CU YD	831
28	2105.507	(P)	COMMON EXCAVATION	CU YD	13462
29	2105.607	(EV)	SUBGRADE EXCAVATION	CU YD	2446
30	2105.607	(CV)	STABILIZING AGGREGATE (CLASS 5/SALVAGED RECLAIM)	CU YD	2446
31	2105.607	(CV)	SELECT GRANULAR BORROW	CU YD	1594
32	2105.607	(LV)	SELECT GRANULAR TRENCH BACKFILL	CU YD	665
33	2106.607	(EV)	EXCAVATION SPECIAL	CU YD	500
34	2106.609		HAUL AND DISPOSE OF CONTAMINATED SOIL	TON	800
35	2108.504		GEOTEXTILE FABRIC TYPE 5	SQ YD	4777
36	2123.610	2	EXPLORATORY EXCAVATION	HOUR	40
37	2221.509	(CV)	AGGREGATE BASE CLASS 5	CU YD	1307
38	2221.509		CLASS 2 AGGREGAGE SURFACING (GRAVEL DRIVEWAY)	TON	19
39	2231.509	4	BITUMINOUS PATCH (SPWEA240B)	TON	117
40	2232.504		4" MILL BITUMINOUS SURFACE (PRE-MILLING)	SQ YD	8950
41	2357.506		BITUMINOUS MATERIAL FOR TACK COAT	GAL	1604
42	2360.509		TYPE SP 9.5 WEAR COURSE MIX (SPWEB440C)	TON	1376
43	2360.509		TYPE SP 9.5 WEAR COURSE MIX (SPWEB340C)	TON	4908
44	2360.509		TYPE SP 12.5 NON-WEAR COURSE MIX (SPNWB430B)	TON	1720
45	2360.509		TYPE SP 12.5 NON-WEAR COURSE MIX (SPNWB330B)	TON	552
46	2411.618	5	MODULAR BLOCK RETAINING WALL	SQ FT	1125
47	2502.503		6" PVC PIPE DRAIN CLEANOUT	EACH	9
48	2502.603		6" PVC PERFORATED PIPE DRAIN	LIN FT	877
49	2503.503		15" RC PIPE SEWER DESIGN 3006 CL V (STORM)	LIN FT	1471
50	2503.503		18" RC PIPE SEWER DESIGN 3006 CL V (STORM)	LIN FT	531
51	2503.503		21" RC PIPE SEWER DESIGN 3006 CL V (STORM)	LIN FT	495
52	2503.503		27" RC PIPE SEWER DESIGN 3006 CL V (STORM)	LIN FT	44
53	2503.602		CONNECT TO EXISTING STORM SEWER PIPE	EACH	1
54	2503.602		CONNECT TO EXISTING STORM SEWER STRUCTURE	EACH	4
55	2504.601		TEMPORARY WATER SERVICE	LUMP SUM	1.00
56	2504.602		REPAIR WATER VALVE (REPLACE BOLTS & VALVE BOX)	EACH	5
57	2504.602		REPLACE FITTING BOLT	EACH	100
58	2504.602		HYDRANT	EACH	6
59	2504.602	7	ADJUST VALVE BOX	EACH	8
60	2504.602		6" GATE VALVE & BOX	EACH	11
61	2504.602		8" GATE VALVE & BOX	EACH	7
62	2504.602		CONNECT TO EXISTING WATERMAIN	EACH	23
63	2504.602		CURB BOX COVER	EACH	1
64	2504.603		6" PVC WATERMAIN	LIN FT	65
65	2504.603		8" PVC WATERMAIN	LIN FT	515
66	2504.603		4" PVC PIPE SEWER	LIN FT	30
67	2504.604		4" INSULATION	SQ YD	220
68	2504.608		DUCTILE IRON FITTINGS	POUNDS	2055
69	2506.502		CONSTRUCT DRAINAGE STRUCTURE SPECIAL 1 (2' X 3' CATCH BASIN)	EACH	13
70	2506.502		CONSTRUCT DRAINAGE STRUCTURE DESIGN H (27" DIAMETER)	EACH	1
71	2506.502		CONST DRAINAGE STRUCTURE 48" DIAMETER	EACH	18
72	2506.502		CONST DRAINAGE STRUCTURE 60" DIAMETER	EACH	6
73	2506.502		CASTING ASSEMBLY (R-3067) (STORM)	EACH	29
74	2506.502		CASTING ASSEMBLY (R-1642) (STORM)	EACH	4
75	2506.502		CASTING ASSEMBLY (4342) (STORM)	EACH	2
76	2506.502		15" PIPE APRON CL V	EACH	1
77	2506.502		27" PIPE APRON CL V	EACH	1
78	2506.502		ADJUST FRAME & RING CASTING (SPECIAL) (I/I BARRIER) (SANITARY)	EACH	9
79	2506.602		TUF TITE DROP BOX (STORM)	EACH	1
80	2506.602		ADJUST FRAME & RING CASTING (SPECIAL) (STORM)	EACH	5
81	2511.507		RIP RAP CLASS III	CU YD	5
82	2511.602		PLACE DECORATIVE/MEMORIAL BOULDERS	EACH	2
83	2521.501		6" CONCRETE WALK	SQ FT	15828
84	2521.518		4" CONCRETE WALK/MEDIAN	SQ FT	11695
85	2531.503		CONCRETE CURB & GUTTER DESIGN B612	LIN FT	2363
86	2531.503		CONCRETE CURB & GUTTER DESIGN B618	LIN FT	7697
87	2531.503		CONCRETE CURB & GUTTER DESIGN V	LIN FT	56
88	2531.504		6" CONCRETE DRIVEWAY	SQ YD	443
89	2531.518		3" BITUMINOUS WALK	SQ FT	73971
90	2531.602		CONCRETE MEDIAN NOSE	EACH	8
91	2531.603		CONCRETE CURB & GUTTER DESIGN SPECIAL (PARKWAY)	LIN FT	1690
92	2531.604	3	8" VALLEY GUTTER	SQ YD	479
93	2531.618	6	TRUNCATED DOMES	SQ FT	1476
94	2540.602		REINSTALL MAILBOX AND SUPPORT	EACH	11
95	2540.602		REINSTALL BENCH	EACH	1
96	2557.602		TEMPORARY MAILBOX	EACH	11
97	2557.603		INSTALL FENCE	LIN FT	538
98	2557.603		VINYL THREE RAIL FENCE	LIN FT	127
99	2563.601		TRAFFIC CONTROL	LUMP SUM	1.00
100	2563.602		PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	50
101	2564.602		SIGN POST	EACH	97
102	2564.602		INSTALL SALVAGE SIGN	EACH	43
103	2564.618		SIGN PANEL TYPE C	SQ FT	500
104	2564.618		CONSTRUCTION SIGN SPECIAL	SQ FT	300
105	2565.516		TRAFFIC CONTROL SIGNAL SYSTEM A (KILLMER LN / LANCASTER LN)	LUMP SUM	1.00
106	2565.516		PEDESTRIAN CROSSWALK FLASHER SYSTEM A (HIGH SCHOOL)	LUMP SUM	1.00
107	2565.516		PEDESTRIAN CROSSWALK FLASHER SYSTEM B (MIDDLE SCHOOL WEST)	LUMP SUM	1.00
108	2565.516		PEDESTRIAN CROSSWALK FLASHER SYSTEM C (MIDDLE SCHOOL EAST)	LUMP SUM	1.00
109	2571.502		DECIDUOUS TREE 2" CAL B&B (AUTUMN BLAZE MAPLE)	EACH	10
110	2571.602		DECIDUOUS TREE 2.5" CAL B&B (SKYLINE HONEYLOCUST)	EACH	3
111	2571.602		DECIDUOUS TREE 2.5" CAL B&B (PRINCETON AMERICAN ELM)	EACH	4
112	2571.602		CONIFEROUS TREE 6' HT B&B (SPRUCE)	EACH	10
113	2572.602		TRANSPLANT MEMORIAL TREE	EACH	1
114	2573.501		STABILIZED CONSTRUCTION EXIT	LUMP SUM	1.00
115	2573.501		EROSION CONTROL INSPECTOR	LUMP SUM	1.00
116	2573.502		STORM DRAIN INLET PROTECTION	EACH	73
117	2573.503		SILT FENCE TYPE MS	LIN FT	1036
118	2573.503		SEDIMENT CONTROL LOG TYPE WOOD FIBER	LIN FT	4830
119	2574.507	(LV)	COMMON TOPSOIL BORROW	CU YD	2215
120	2574.507	(LV)	FILTER TOPSOIL BORROW	CU YD	166
121	2574.607	(LV)	CLAY LINER	CU YD	236
122	2575.505		SEED AND BLANKET (33-261)	SQ YD	746
123	2575.505		SEED AND BLANKET (25-131)	SQ YD	3803
124	2575.604		HYDROMULCH & SEED (25-131)	SQ YD	10935
125	2581.603		PAVEMENT MARKING REMOVAL	LIN FT	1320
126	2582.503		4" SOLID LINE MULTI-COMPONENT	LIN FT	14450
127	2582.503		4" DOUBLE SOLID LINE MULTI-COMPONENT	LIN FT	3810
128	2582.503		4" BROKEN LINE MULTI-COMPONENT	LIN FT	5070
129	2582.503		24" SOLID LINE MULTI-COMPONENT	LIN FT	95
130	2582.518		PAVEMENT MESSAGE PREFORM THERMOPLASTIC GROUND IN ESR	SQ FT	622
131	2582.518		CROSSWALK PREFORM THERMOPLASTIC GROUND IN ESR	SQ FT	2292
132	2582.518		CROSSWALK LATEX PAINT	SQ FT	210
133	2575.601		LANDSCAPE ALLOWANCE	LUMP SUM	1.00

NOTES:
1. THE DEPTH OF THE RECLAIM OF BITUMINOUS VARIES. NO ADDITIONAL PAYMENT WILL BE PAID FOR EXTRA DEPTH.
2. EXPLORATORY EXCAVATION IS DESCRIBED IN AND WILL ONLY BE PAID FOR IN THE SPECIFICATIONS.
3. SEE CITY DETAIL PLATE STRT-2.
4. THIS BID ITEM IS FOR PATCHING DRIVEWAYS AND ALL OTHER BITUMINOUS PATCH ON THIS PROJECT EXCEPT TRAIL PATCHING. TRAIL PATCHING WILL BE PAID PER SQUARE FT. USING BID 3" BITUMINOUS TRAIL
5. MATERIAL FOR WALL MUST MEET MNDOT SPECIFICATIONS FOR MINIMUM CONCRETE CONTENT IN THE BLOCK. CONTRACTOR TO PROVIDE COLOR SAMPLES TO THE ENGINEER FOR APPROVAL.
6. COLOR FOR TRUNCATED DOMES TO BE CHARCOAL GRAY.
7. SEE CITY DETAIL PLATE W-2.

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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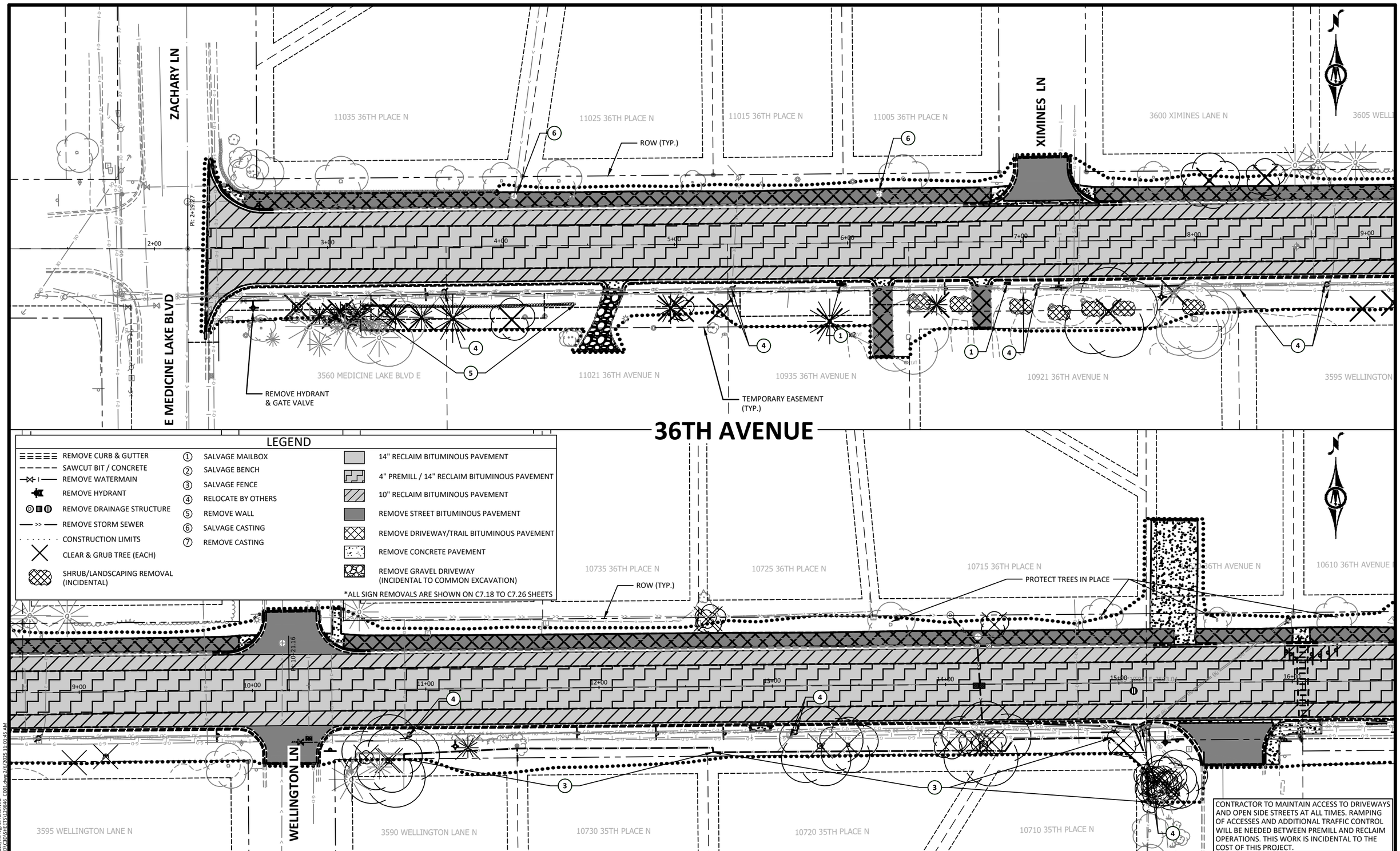
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
STATEMENT OF ESTIMATED QUANTITIES



LEGEND

- REMOVE CURB & GUTTER
- SAWCUT BIT / CONCRETE
- REMOVE WATERMAIN
- REMOVE HYDRANT
- REMOVE DRAINAGE STRUCTURE
- REMOVE STORM SEWER
- CONSTRUCTION LIMITS
- CLEAR & GRUB TREE (EACH)
- SHRUB/LANDSCAPING REMOVAL (INCIDENTAL)

1. SALVAGE MAILBOX
2. SALVAGE BENCH
3. SALVAGE FENCE
4. RELOCATE BY OTHERS
5. REMOVE WALL
6. SALVAGE CASTING
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*ALL SIGN REMOVALS ARE SHOWN ON C7.18 TO C7.26 SHEETS

CONTRACTOR TO MAINTAIN ACCESS TO DRIVEWAYS AND OPEN SIDE STREETS AT ALL TIMES. RAMPING OF ACCESSES AND ADDITIONAL TRAFFIC CONTROL WILL BE NEEDED BETWEEN PREMILL AND RECLAIM OPERATIONS. THIS WORK IS INCIDENTAL TO THE COST OF THIS PROJECT.

HORZ. SCALE 0 25 50 FEET

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EXISTING CONDITIONS & REMOVALS
36TH AVENUE

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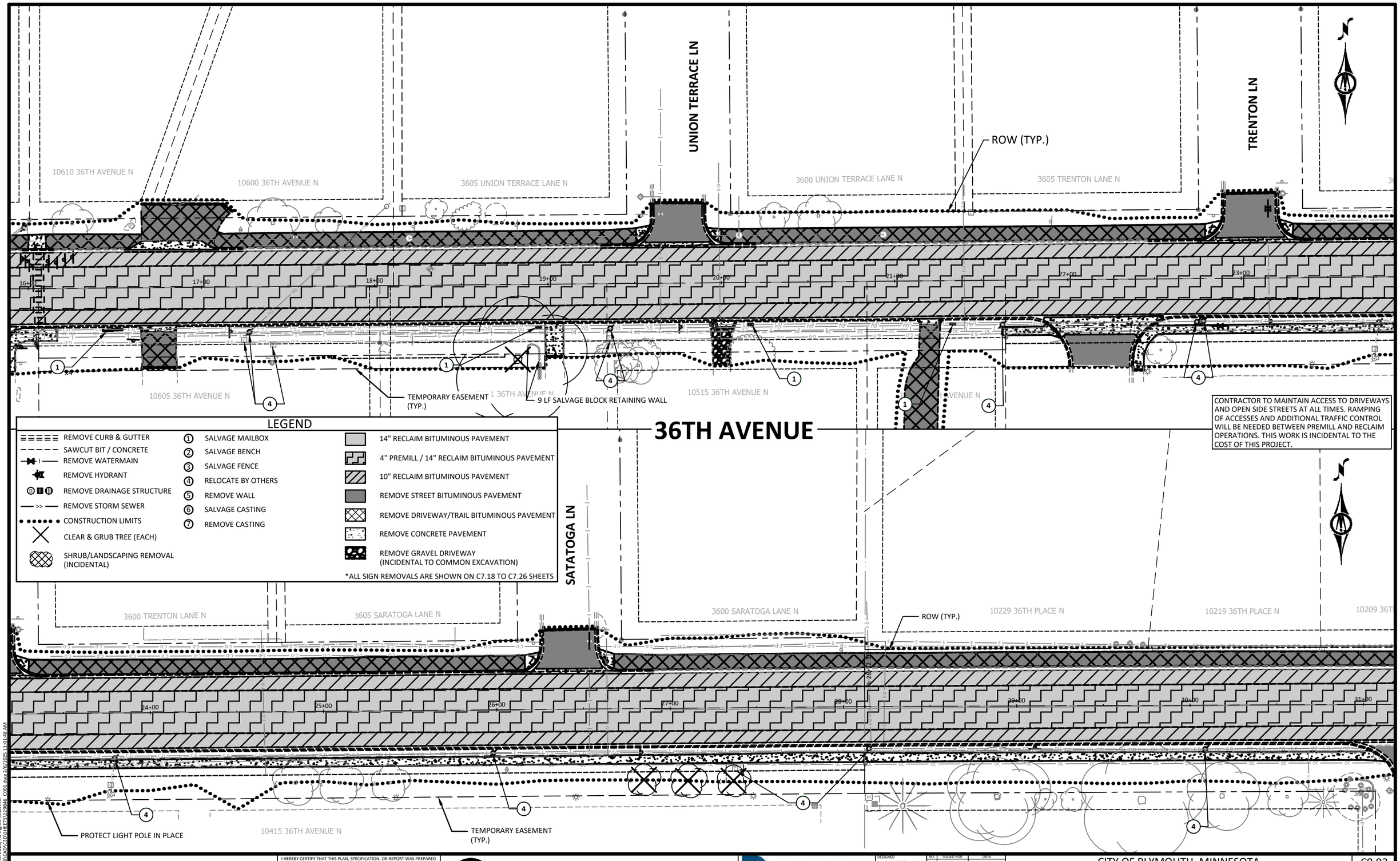

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EXISTING CONDITIONS & REMOVALS
36TH AVENUE

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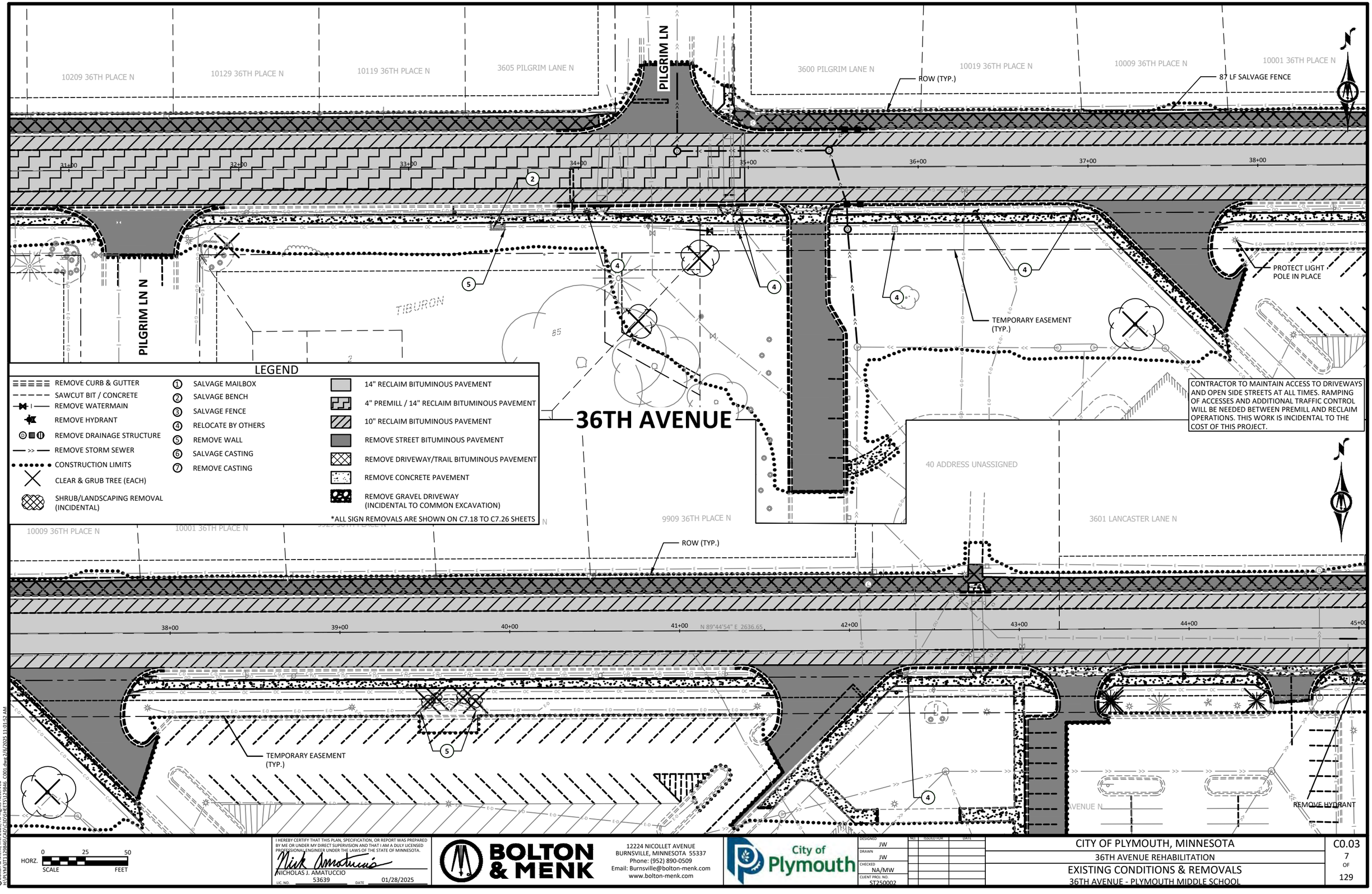

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EXISTING CONDITIONS & REMOVALS
36TH AVENUE - PLYMOUTH MIDDLE SCHOOL

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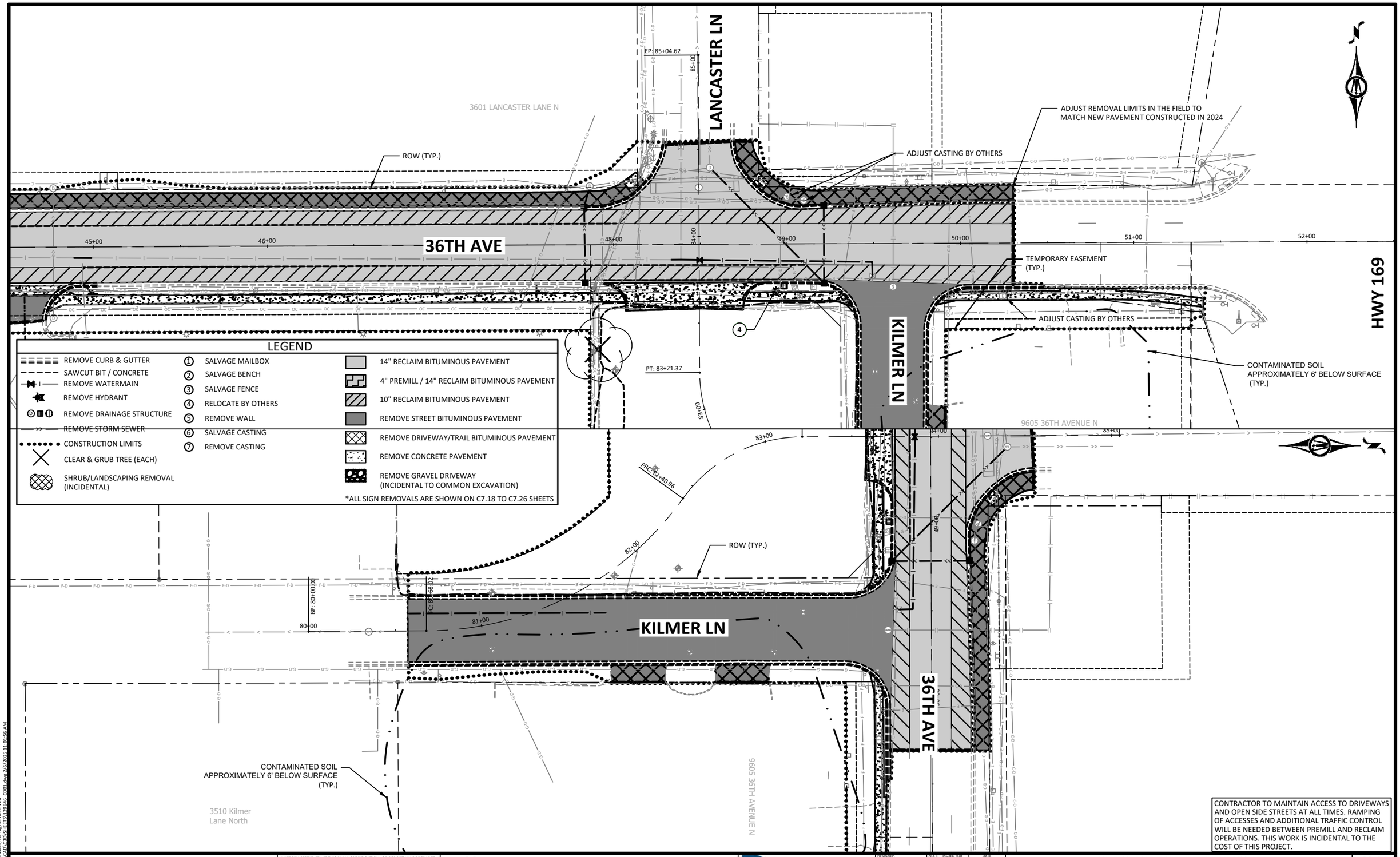

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EXISTING CONDITIONS & REMOVALS
KILMER LN

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LEGEND

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PLYMOUTH MIDDLE SCHOOL

36TH AVE

9909 36TH PLACE N

9901 36th Place North

40 ADDRESS UNASSIGNED

3601 LANCASTER LANE N

ROW (TYP.)

TEMPORARY EASEMENT (TYP.)

CONTRACTOR TO MAINTAIN ACCESS TO DRIVEWAYS AND OPEN SIDE STREETS AT ALL TIMES. RAMPING OF ACCESSES AND ADDITIONAL TRAFFIC CONTROL WILL BE NEEDED BETWEEN PREMILL AND RECLAIM OPERATIONS. THIS WORK IS INCIDENTAL TO THE COST OF THIS PROJECT.

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HORZ. SCALE 0 25 50 FEET

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EXISTING CONDITIONS & REMOVALS
36TH AVENUE - PLYMOUTH MIDDLE SCHOOL

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OF
129

STORM SEWER TABLE

STRUCT. ID	ROADWAY	STA	OFFSET	LT/RT	PROPOSED RIM	EFFLUENT INVERT ELEV.	STRUCT. BUILD	15" FES	27" FES	TUF TITE DRAINAGE BOX	2' X 3' CB	27" DESIGN H MH	48" CBMH 4020	48" CBMH 4022	60" CBMH 4022	CASTINGS					4" PVC PIPE	15" RCP PIPE	18" RCP PIPE	21" RCP PIPE	27" RCP PIPE	CONNECTS	DRAINS TO			NOTES
																F&I R-3067 CASTING	F&I R-3067-C CASTING	F&I R-3067-V CASTING	F&I R-1642-B CASTING	F&I R-4342 CASTING						TO EX STORM PIPE	STRUCT. NO	PIPE GRADE	INVERT ELEV	
			(FT)		(ELEV)	(FT)	(LF)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)	(EA)			(EA)	(EA)	(EA)	(LF)	(LF)	(LF)	(LF)	(LF)	(EA)		(%)		
MH - 11B	36TH AVE	28+10.05	33.5	LT	965.16	961.43	3.73			1		1								1	30	13					MH - 11A	0.69%	961.34	
CBMH - 11A	36TH AVE	28+07.47	20.60	LT	964.65	961.33	3.32				1					1						38					CBMH - 11	0.50%	961.14	
CBMH - 11	36TH AVE	28+07.09	17.35	RT	965.04	961.04	4.00							1		1						122					CBMH - 10	0.47%	960.47	
CBMH - 10	36TH AVE	26+77.94	17.20	RT	964.37	960.37	4.00							1		1						218					CBMH - 9	0.48%	959.32	
CB - 10A	36TH AVE	26+78.27	21.00	LT	963.83	960.66	3.17				1					1						39					CBMH - 10	0.50%	960.47	
CBMH - 9	36TH AVE	24+66.98	17.70	RT	963.26	959.22	4.04							1					1			210					CBMH - 8	0.58%	958.00	
CBMH - 8	36TH AVE	22+56.99	17.70	RT	961.60	957.67	3.93				1			1					1				333				CBMH - 7	0.38%	956.42	
CB - 8A	36TH AVE	22+57.33	21.80	LT	961.68	958.12	3.56				1			1		1						39					CBMH - 8	0.30%	958.00	
CBMH - 7	36TH AVE	19+23.62	17.70	RT	961.27	956.42	4.86							1		1								303			CBMH - 6	0.45%	955.06	
CBMH - 6	36TH AVE	16+20.58	18.42	RT	960.13	954.96	5.17								1	1								93			CBMH - 5	0.35%	954.64	
CB - 6A	36TH AVE	16+20.58	21.80	LT	959.58	955.26	4.32				1							1				40					CBMH - 6	0.50%	955.06	
MH - 1	36TH AVE	14+03.07	40.00	LT	960.54	955.89	4.65						1							1		57				1	CBMH - 1	0.35%	955.69	**FIELD VERIFY INV. ELEV.**
CBMH - 1	36TH AVE	14+56.72	22.00	LT	958.82	955.70	3.13							1		1						10					CBMH - 2	0.64%	955.64	
CBMH - 2	36TH AVE	14+66.69	21.70	LT	958.89	955.59	3.30							1					1				39				CBMH - 4	0.46%	955.41	
CB - 3	36TH AVE	14+56.34	17.70	RT	958.97	954.97	4.00				1					1						10					CBMH - 4	0.20%	954.95	
CBMH - 4	36TH AVE	14+66.34	17.70	RT	958.97	954.95	4.02								1				1					62			CBMH - 5	0.50%	954.64	
CBMH - 5	36TH AVE	15+27.84	18.00	RT	959.13	954.54	4.59		1																44		FES - 1	0.53%	954.30	
EXMH - MS12	36TH AVE	35+63.77	106.00	RT	971.25	966.80	4.45															25					CB - MS1	2.35%	968.50	
CB - MS1	36TH AVE	35+39.19	107.20	RT	970.74	966.12	4.62							1		1						27					CBMH - 14	0.66%	966.89	
CB - MS14	36TH AVE	35+41.83	132.14	RT	970.36	965.70	4.56						1	1		1						25					MH - MS7	-5.64%	967.11	
CB - MS15	36TH AVE	34+75.00	112.00	RT	969.91	965.98	3.93				1								1			28					CBMH - MS2	0.50%	966.07	
CBMH - MS2	36TH AVE	35+22.27	85.72	RT	970.04	965.97	4.07							1					1			34					CBMH - 14	0.50%	965.80	
CBMH - MS5	36TH AVE	37+70.84	93.70	RT	973.99	969.07	4.92				1					1						28					CBMH - MS6	1.00%	968.79	
CBMH - MS6	36TH AVE	37+70.89	65.56	RT	973.51	968.69	4.82							1		1						214					MH - MS7	1.06%	966.42	
MH - MS7	36TH AVE	35+58.60	39.35	RT	970.54	965.26	5.28								1					1			18			1	CBMH - MS8	1.00%	965.08	
CB - MS9	36TH AVE	35+65.87	21.66	RT	969.49	965.41	4.08				1								1			10					CBMH - MS8	0.86%	965.32	
CBMH - MS8	36TH AVE	35+55.87	21.66	RT	969.56	965.29	4.28							1		1							33				MH -MS13	0.48%	964.82	
CBMH - MS10	36TH AVE	35+64.49	21.73	LT	969.47	965.44	4.03				1								1			10					CBMH - MS11	1.38%	965.30	
CBMH - MS11	36TH AVE	35+54.48	21.75	LT	969.49	964.76	4.73								1	1							11				MH - MS13	0.55%	964.82	
MH - MS13	36TH AVE	34+58.23	11.40	LT	969.99	964.66	5.33								1					1			97				MH - MS3	0.47%	964.21	
MH - MS3	36TH AVE	34+58.29	18.70	LT	970.69	964.11	6.58								1					1				37			MH - MS4	1.24%	963.65	
MH - MS4	36TH AVE	34+58.41	6.97	LT	970.62	963.65	6.97						1													1					
																											OCS - 17			
CB - L1	36TH AVE	47+83.53	21.80	RT	975.28	971.72	7.56	1								1						42					FES - 2	0.52%	971.50	
OCS - 17	36TH AVE	48+17.07	49.55	RT	973.40	968.34	5.11							1							1	71					MH - L3	0.48%	968.00	
MH - L3	36TH AVE	48+75.55	9.40	RT	974.83	967.83	7.00							1		1						57				1	EXMH - L7	0.59%	967.49	**FIELD VERIFY INV. ELEV.**
CB - L6	36TH AVE	49+21.40	22.10	LT	973.89	969.89	4.00				1								1			44					CB - L4	0.52%	969.66	
CB - L4	36TH AVE	49+21.21	22.33	RT	974.10	969.56	4.54				1								1			48					MH - L3	3.43%	967.93	
CB - L9	36TH AVE	47+83.57	21.70	LT	975.44	971.44	4.00				1					1						12				1	EXMH - L8	1.50%	971.25	**FIELD VERIFY INV. ELEV.**
						TOTALS		1	1	1	13	1	3	15	6	18	1	10	4	2	30	1471	531	495	44	5				

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

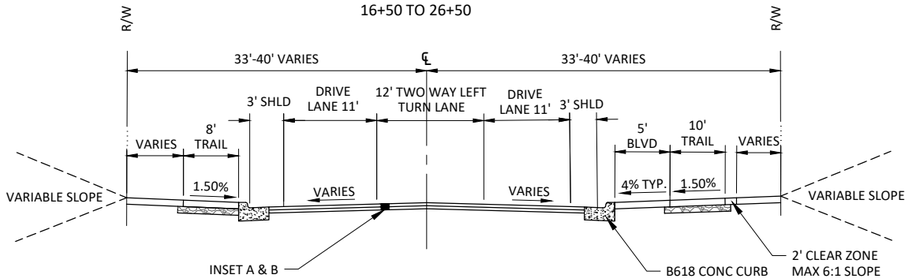
DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
STORM TABLE

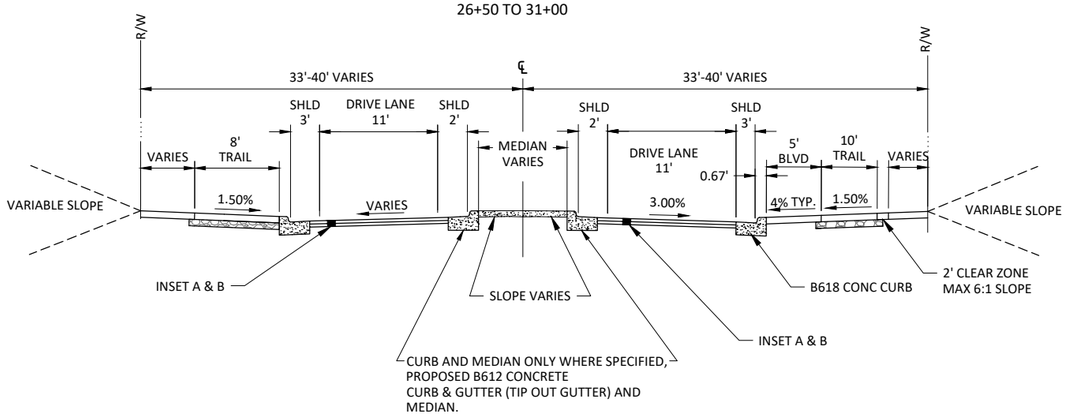
36TH AVE
TYPICAL SECTION

2+25 TO 15+75
16+50 TO 26+50



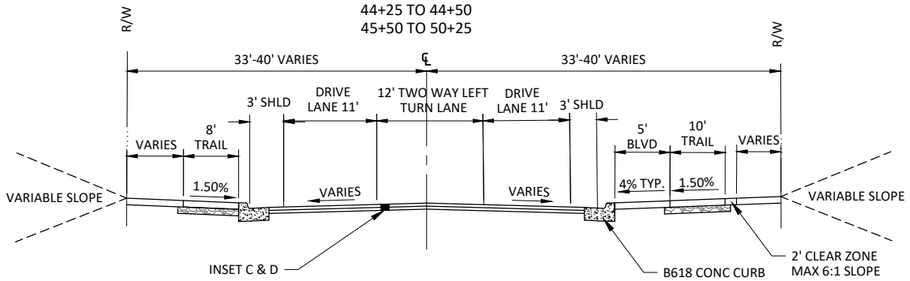
36TH AVE
TYPICAL SECTION

15+75 TO 16+50
26+50 TO 31+00



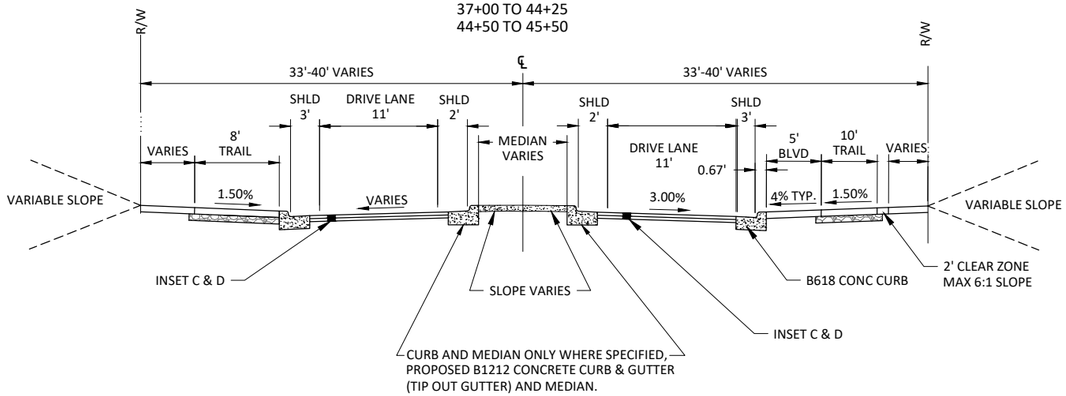
36TH AVE
TYPICAL SECTION

31+00 TO 37+00
44+25 TO 44+50
45+50 TO 50+25



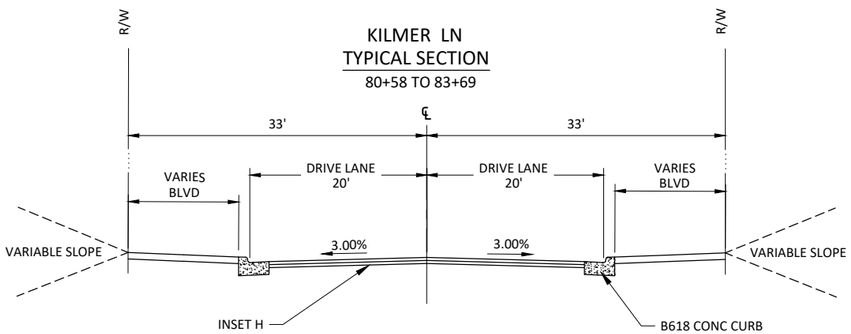
36TH AVE
TYPICAL SECTION

37+00 TO 44+25
44+50 TO 45+50



KILMER LN
TYPICAL SECTION

80+58 TO 83+69



TYPICAL SECTION NOTES:

1. REMOVE AND REPLACE EXISTING CURB AND GUTTER AS SPECIFIED BY THE ENGINEER IN THE FIELD.
2. FULL DEPTH BITUMINOUS PAVEMENT REPLACEMENT SHALL BE IDENTIFIED BY THE ENGINEER IN THE FIELD AFTER MILLING.

TYPICAL SECTIONS ARE NOT TO SCALE

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CHECKED	NA/MW
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NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
TYPICAL SECTIONS

C1.02
11
OF
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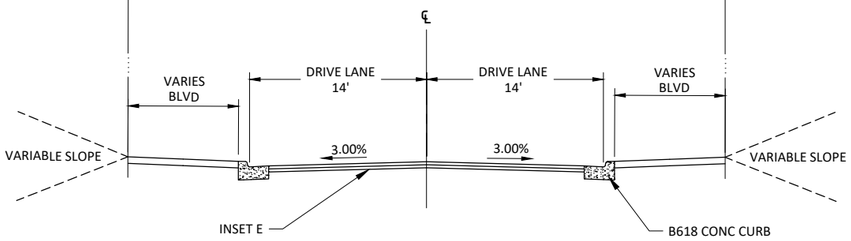
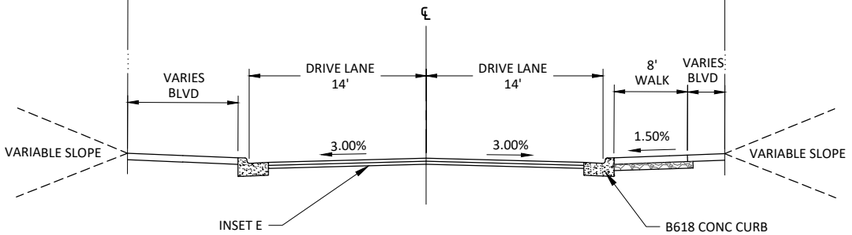
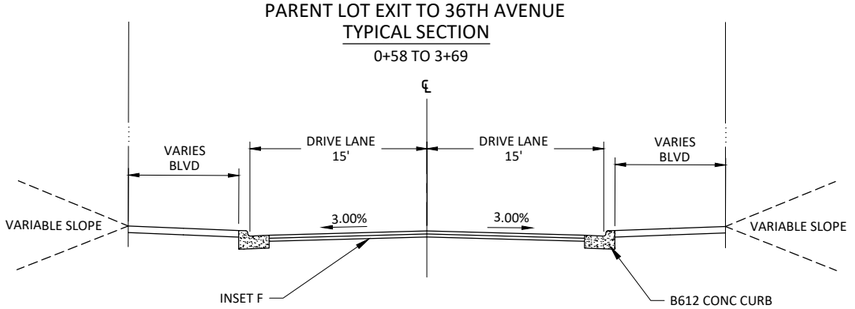
PLYMOUTH MIDDLE SCHOOL
PILGRIM ENTRANCE
TYPICAL SECTION
60+25 TO 61+83



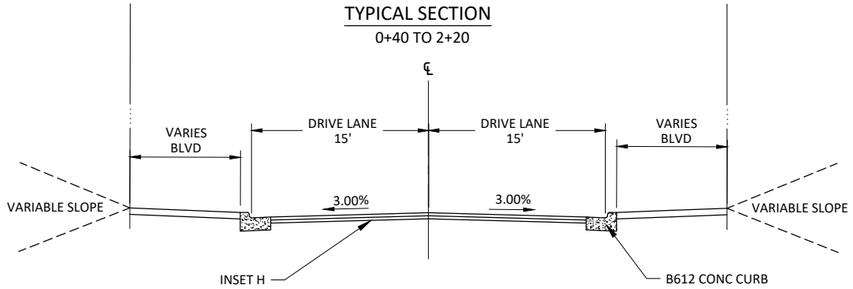
PLYMOUTH MIDDLE SCHOOL
PARENTS LOT
TYPICAL SECTION
70+40 TO 73+00



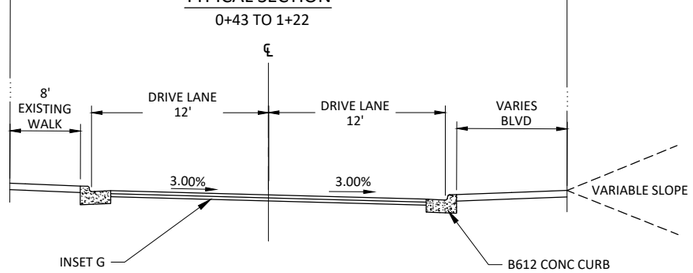
PLYMOUTH MIDDLE SCHOOL
PARENT LOT EXIT TO 36TH AVENUE
TYPICAL SECTION
0+58 TO 3+69



PLYMOUTH MIDDLE SCHOOL
STAFF LOT TO PARENT LOT
TYPICAL SECTION
0+40 TO 2+20



PLYMOUTH MIDDLE SCHOOL
CUL-DE-SAC
TYPICAL SECTION
0+43 TO 1+22



TYPICAL SECTION NOTES:

1. PAVEMENT SLOPES AT INTERSECTIONS SHALL MATCH EXISTING CONDITIONS.
2. REMOVE AND REPLACE EXISTING CURB AND GUTTER AS SPECIFIED BY THE ENGINEER IN THE FIELD.
3. FULL DEPTH BITUMINOUS PAVEMENT REPLACEMENT SHALL BE IDENTIFIED BY THE ENGINEER IN THE FIELD AFTER MILLING. REMOVAL OF BITUMINOUS PAVEMENT AND SAWING BITUMINOUS PAVEMENT SHALL BE INCIDENTAL TO BITUMINOUS PAVEMENT REPLACEMENT.

TYPICAL SECTIONS ARE NOT TO SCALE

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
TYPICAL SECTIONS

C1.03
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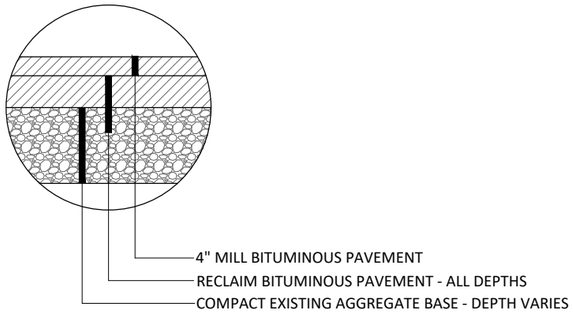
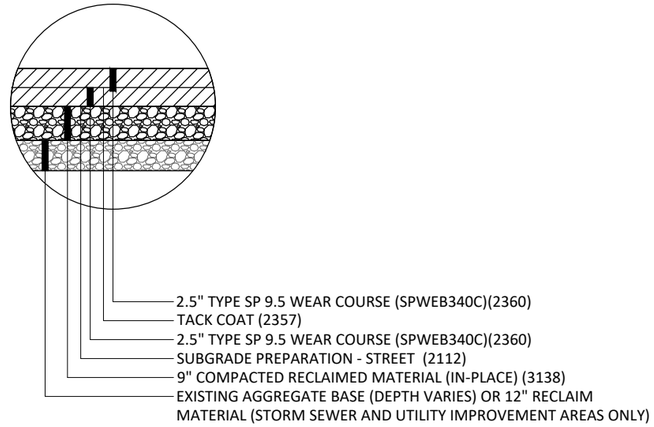


INSET A: EXISTING PAVEMENT SECTION - 36TH AVE WEST OF PILGRIM LN

NOT TO SCALE

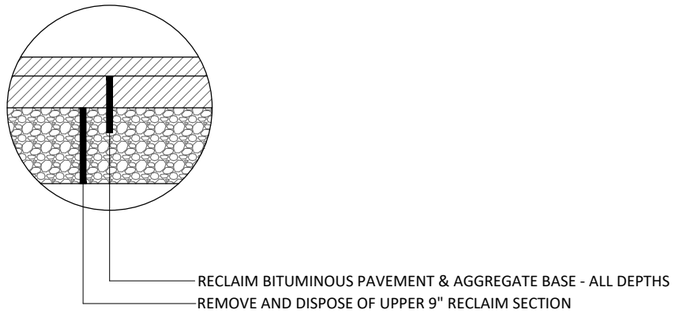
NOTE:
THE CONTRACTOR WILL NEED TO REMOVE ADDITIONAL MATERIAL TO CONSTRUCT THE TYPICAL SECTION (INSET B). THIS WORK IS INCIDENTAL TO THE COST OF RECLAIMING THE BITUMINOUS PAVEMENT.



INSET B: PROPOSED PAVEMENT SECTION - 36TH AVE WEST OF PILGRIM LN

NOT TO SCALE

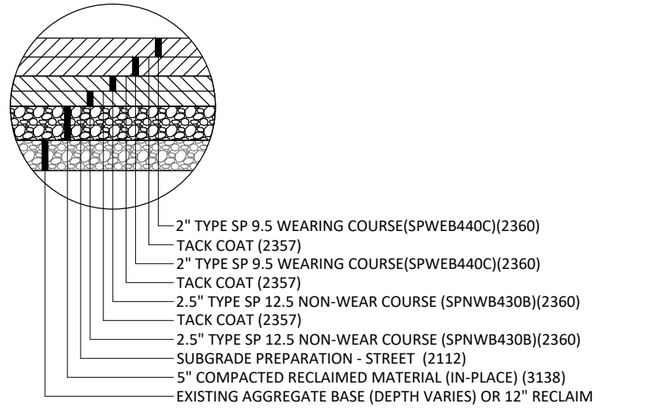
NOTE:
1. THIS TYPICAL SECTION WILL BE FROM 100' WEST OF THE PILGRIM LANE INTERSECTION TO THE 36TH AVENUE BRIDGE. TRANSITION BETWEEN TYPICAL SECTIONS AT A SLOPE OF 1:20.
2. INSTALL 16" AGGREGATE BASE CLASS 5 OR RECLAIM MATERIAL BELOW THE BITUMINOUS IN UTILITY TRENCHES.
3. PAID FOR THOUGH SUBGRADE EXCAVATION AND STABILIZING AGGREGATE BID ITEMS.



INSET C: EXISTING PAVEMENT SECTION - 36TH AVE EAST OF PILGRIM LN

NOT TO SCALE

NOTE:
THE CONTRACTOR WILL NEED TO REMOVE ADDITIONAL MATERIAL TO CONSTRUCT THE TYPICAL SECTION (INSET D). THIS WORK IS INCIDENTAL TO THE COST OF RECLAIMING THE BITUMINOUS PAVEMENT.



INSET D: PROPOSED PAVEMENT SECTION - 36TH AVE EAST OF PILGRIM LN

NOT TO SCALE

NOTE:
1. THIS TYPICAL SECTION WILL BE FROM 100' WEST OF THE PILGRIM LANE INTERSECTION TO THE 36TH AVENUE BRIDGE. TRANSITION BETWEEN TYPICAL SECTIONS AT A SLOPE OF 1:20.
2. INSTALL 16" AGGREGATE BASE CLASS 5 OR RECLAIM MATERIAL BELOW THE BITUMINOUS IN UTILITY TRENCHES.
3. PAID FOR THOUGH SUBGRADE EXCAVATION AND STABILIZING AGGREGATE BID ITEMS.

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DRAWN			
JW			
CHECKED			
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ST250002			

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
TYPICAL SECTIONS

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OF
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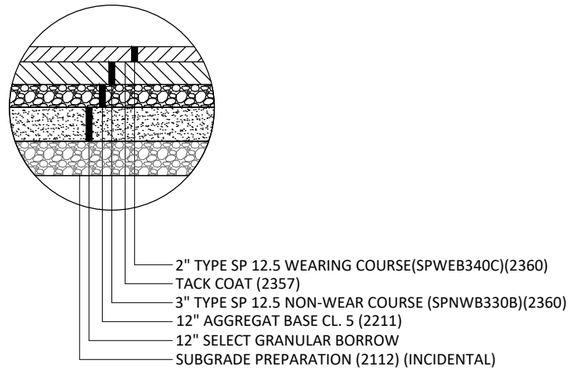
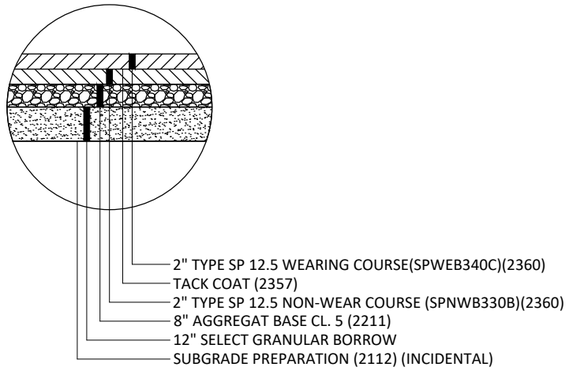


INSET E: PROPOSED PAVEMENT SECTION - PLYMOUTH MIDDLE SCHOOL/ENTRANCE FROM 36TH AVE

60+25 TO 61+83

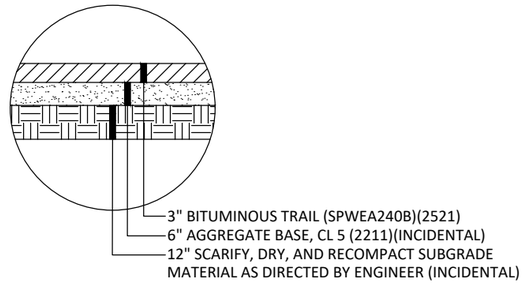
NOT TO SCALE



INSET G PROPOSED PAVEMENT SECTION - STAFF LOT TO PARENT & CUL-DE-SAC

0+43 TO 1+22

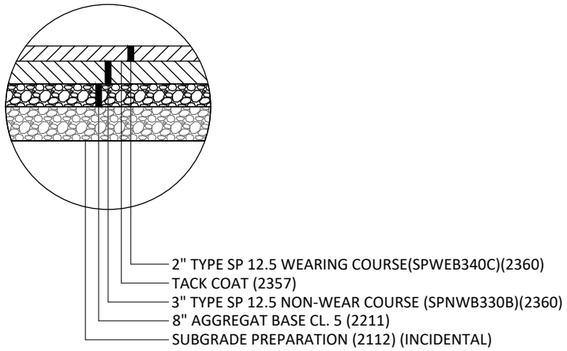
NOT TO SCALE



THREE RIVERS PARK DISTRICT - 3" BITUMINOUS TRAIL

2+55 TO 51+40

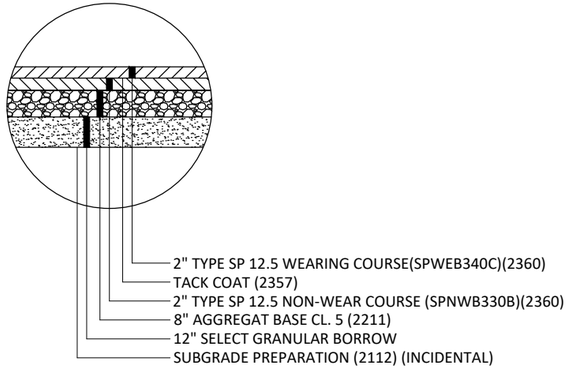
NOT TO SCALE



INSET F: PROPOSED PAVEMENT SECTION - PLYMOUTH MIDDLE SCHOOL/EXIT TO 36TH AVE

0+58 TO 3+69

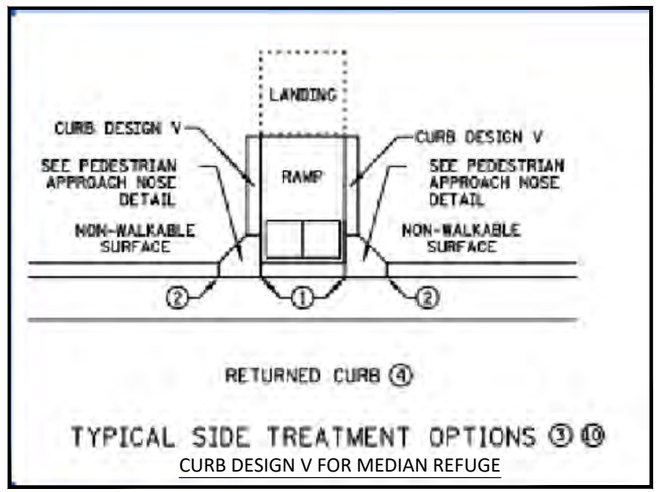
NOT TO SCALE



INSET H: PROPOSED PAVEMENT SECTION - KILMER LN & SIDE STREETS OFF 36TH AVE

80+58 TO 83+69

NOT TO SCALE



CURB DESIGN V FOR MEDIAN REFUGE

NOT TO SCALE

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO

LIC. NO. 53639 DATE 01/28/2025

BOLTON & MENK

12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA

36TH AVENUE REHABILITATION

TYPICAL SECTIONS

C1.05

14 OF 129

CITY OF PLYMOUTH [6"]

(PROJECT NAME) [3"]
(PROJECT NO.) [2-1/2"]

PROCEED WITH CAUTION [6"]

FOR INFORMATION: [2-1/2"]
(PROJECT WEBPAGE)
(763) 509-5500

(CONTRACTOR'S NAME) [2-1/2"]
(ADDRESS)
(LOCAL PHONE NO.)

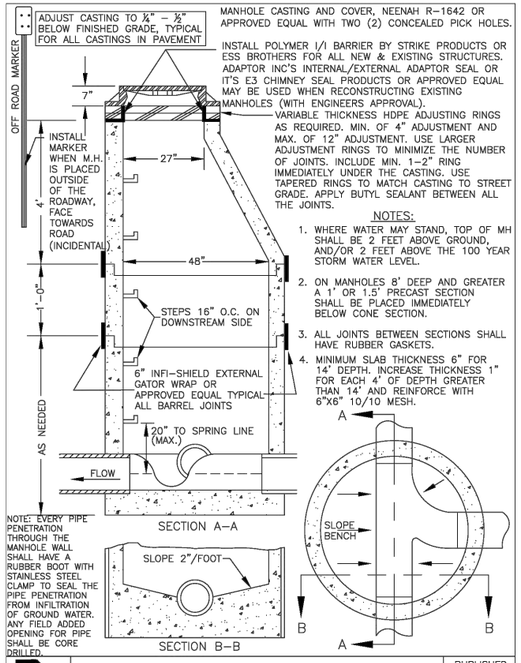
SCHEDULED COMPLETION DATE: [2-1/2"]
(DATE)

NOTE:
Sign shall be 4' x 6' with a white background with black letters, (no hand lettering) and of proper height to be readily visible from an automobile, and located as directed by engineer. Sign shall be mounted on 4"x 4" posts

( ) Project Specific Information

STANDARD DETAILS
STANDARD CITY PROJECT SIGN
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. DWG-1
REVISED 1-22



MANHOLE CASTING AND COVER, NEENAH R-1642 OR APPROVED EQUAL WITH TWO (2) CONCEALED PICK HOLES.

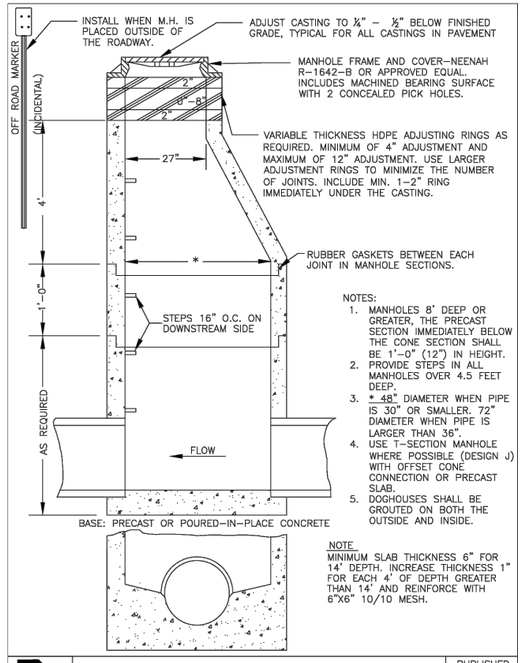
INSTALL POLYMER I/I BARRIER BY STRIKE PRODUCTS OR ESS BROTHERS FOR ALL NEW & EXISTING STRUCTURES. ADAPTOR INC'S INTERNAL/EXTERNAL ADAPTOR SEAL OR IT'S E3 CHIMNEY SEAL PRODUCTS OR APPROVED EQUAL MAY BE USED WHEN RECONSTRUCTING EXISTING MANHOLES (WITH ENGINEERS APPROVAL).

VARIABLE THICKNESS HDPE ADJUSTING RINGS AS REQUIRED. MIN. OF 4" ADJUSTMENT AND MAX. OF 12" ADJUSTMENT. USE LARGER ADJUSTMENT RINGS TO MINIMIZE THE NUMBER OF JOINTS. INCLUDE MIN. 1-2" RING IMMEDIATELY UNDER THE CASTING. USE TAPERED RINGS TO MATCH CASTING TO STREET GRADE. APPLY BUTYL SEALANT BETWEEN ALL THE JOINTS.

NOTES:
1. WHERE WATER MAY STAND, TOP OF MH SHALL BE 2 FEET ABOVE GROUND, AND/OR 2 FEET ABOVE THE 100 YEAR STORM WATER LEVEL.
2. ON MANHOLES 8' DEEP AND GREATER A 1' OR 1.5' PRECAST SECTION SHALL BE PLACED IMMEDIATELY BELOW CONE SECTION.
3. ALL JOINTS BETWEEN SECTIONS SHALL HAVE RUBBER GASKETS.
4. MINIMUM SLAB THICKNESS 6" FOR 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATER THAN 14' AND REINFORCE WITH 6"X6" 10/10 MESH.

STANDARD DETAILS
STANDARD SANITARY SEWER MANHOLE
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. SS-3
REVISED 1-22



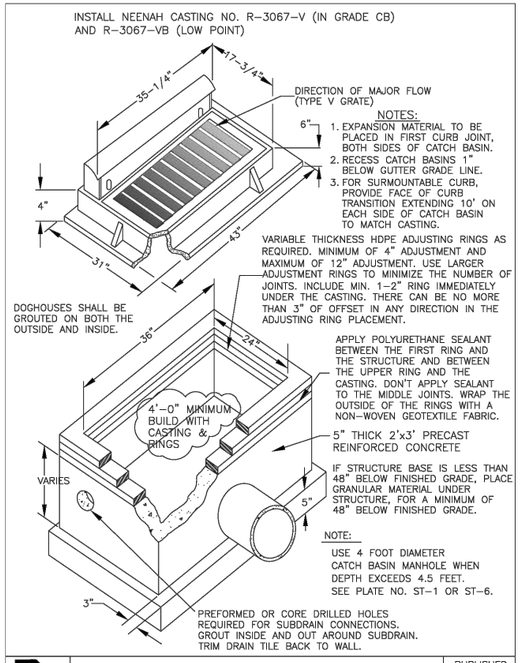
NOTES:
1. MANHOLES 8' DEEP OR GREATER, THE PRECAST SECTION IMMEDIATELY BELOW THE CONE SECTION SHALL BE 1'-0" (12") IN HEIGHT.
2. PROVIDE STEPS IN ALL MANHOLES OVER 4.5 FEET DEEP.
3. * 48" DIAMETER WHEN PIPE IS 30" OR SMALLER. 72" DIAMETER WHEN PIPE IS LARGER THAN 36".
4. USE T-SECTION MANHOLE WHERE POSSIBLE (DESIGN J) WITH OFFSET CONE CONNECTION OR PRECAST SLAB.
5. DOGHOUSES SHALL BE GROUTED ON BOTH THE OUTSIDE AND INSIDE.

NOTE
MINIMUM SLAB THICKNESS 6" FOR 14' DEPTH. INCREASE THICKNESS 1" FOR EACH 4' OF DEPTH GREATER THAN 14' AND REINFORCE WITH 6"X6" 10/10 MESH.

STANDARD DETAILS
STORM SEWER MANHOLE WITH CONE SECTION
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. ST-1
REVISED 1-17

INSTALL NEENAH CASTING NO. R-3067-V (IN GRADE CB) AND R-3067-VB (LOW POINT)



NOTES:
1. EXPANSION MATERIAL TO BE PLACED IN FIRST CURB JOINT, BOTH SIDES OF CATCH BASIN.
2. RECESS CATCH BASINS 1" BELOW GUTTER GRADE LINE.
3. FOR SURMOUNTABLE CURB, PROVIDE FACE OF CURB TRANSITION EXTENDING 10' ON EACH SIDE OF CATCH BASIN TO MATCH CASTING.

VARIABLE THICKNESS HDPE ADJUSTING RINGS AS REQUIRED. MINIMUM OF 4" ADJUSTMENT AND MAXIMUM OF 12" ADJUSTMENT. USE LARGER ADJUSTMENT RINGS TO MINIMIZE THE NUMBER OF JOINTS. INCLUDE MIN. 1-2" RING IMMEDIATELY UNDER THE CASTING. THERE CAN BE NO MORE THAN 3" OF OFFSET IN ANY DIRECTION IN THE ADJUSTING RING PLACEMENT.

APPLY POLYURETHANE SEALANT BETWEEN THE FIRST RING AND THE STRUCTURE AND BETWEEN THE UPPER RING AND THE CASTING. DON'T APPLY SEALANT TO THE MIDDLE JOINTS. WRAP THE OUTSIDE OF THE RINGS WITH A NON-WOVEN GEOTEXTILE FABRIC.

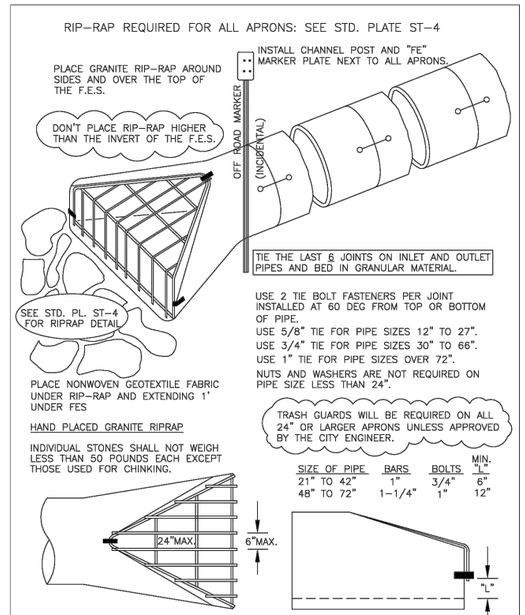
5" THICK 2'x3' PRECAST REINFORCED CONCRETE

IF STRUCTURE BASE IS LESS THAN 48" BELOW FINISHED GRADE, PLACE GRANULAR MATERIAL UNDER STRUCTURE, FOR A MINIMUM OF 48" BELOW FINISHED GRADE.

NOTE:
USE 4 FOOT DIAMETER CATCH BASIN MANHOLE WHEN DEPTH EXCEEDS 4.5 FEET. SEE PLATE NO. ST-1 OR ST-6.

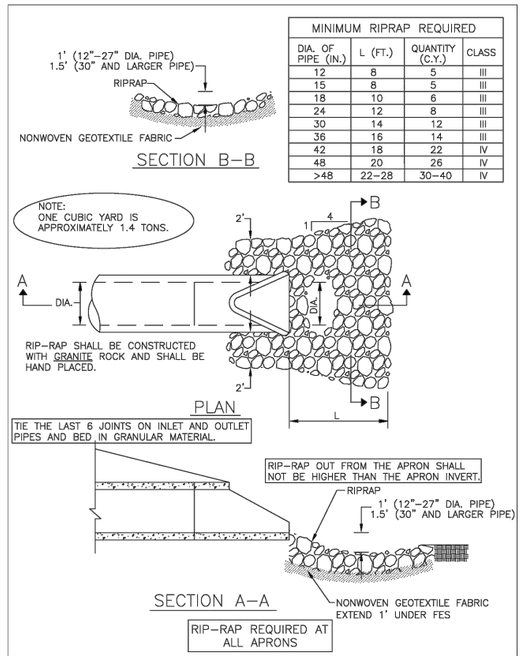
STANDARD DETAILS
CATCH BASIN (MAX. DEPTH 4.5')
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. ST-2
REVISED 1-21



STANDARD DETAILS
INLET & OUTLET F.E.S. WITH TRASH GUARD
CITY OF PLYMOUTH

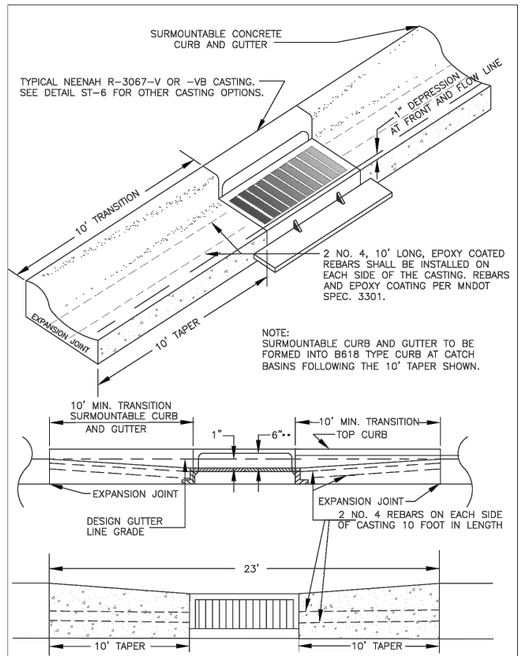
PUBLISHED 1-24
CITY PL. NO. ST-3
REVISED 1-17



MINIMUM RIPRAP REQUIRED			
DIA. OF PIPE (IN.)	L (FT.)	QUANTITY (C.Y.)	CLASS
12	8	5	III
15	8	5	III
18	10	6	III
24	12	8	III
30	14	12	III
36	16	14	III
42	18	22	IV
48	20	26	IV
>48	22-28	30-40	IV

STANDARD DETAILS
RIPRAP DETAIL FOR FLARED END SECTIONS
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. ST-4
REVISED 1-17

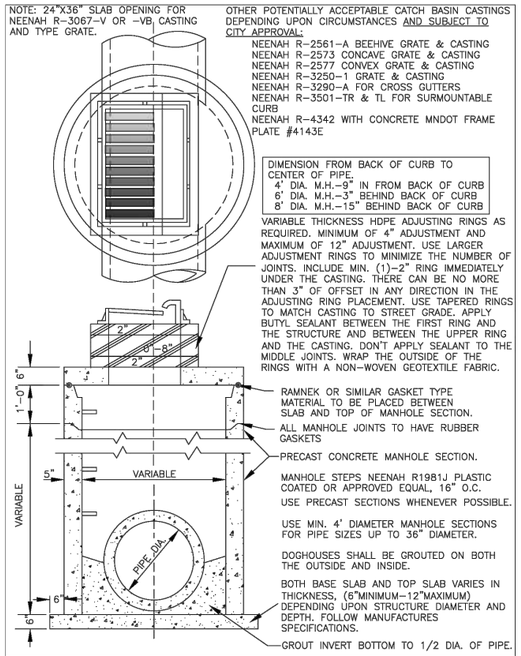


STANDARD DETAILS
CATCH BASIN CASTING INSTALLATION DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. ST-5
REVISED 1-21

NOTE: 24"X36" SLAB OPENING FOR NEENAH R-3067-V OR -VB CASTING AND TYPE GRATE.

OTHER POTENTIALLY ACCEPTABLE CATCH BASIN CASTINGS DEPENDING UPON CIRCUMSTANCES AND SUBJECT TO CITY APPROVAL:
NEENAH R-2561-A BEEHIVE GRATE & CASTING
NEENAH R-2573 CONCAVE GRATE & CASTING
NEENAH R-2577 CONVEX GRATE & CASTING
NEENAH R-3250-1 GRATE & CASTING
NEENAH R-3290-A FOR CROSS GUTTERS
NEENAH R-3501-TR & TL FOR SURMOUNTABLE CURB
NEENAH R-4342 WITH CONCRETE MNDOT FRAME PLATE #4143E



STANDARD DETAILS
PRECAST STORM SEWER CATCH BASIN MANHOLE WITH REINFORCED CONCRETE TOP SLAB
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. ST-6
REVISED 1-21

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City of Plymouth

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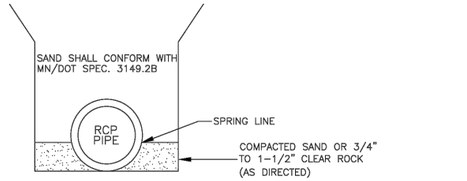
NO.	ISSUED FOR	DATE

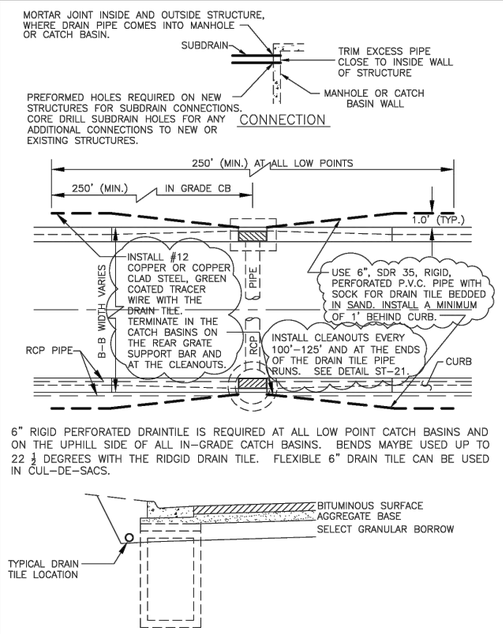
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS

C1.06
15
OF
129



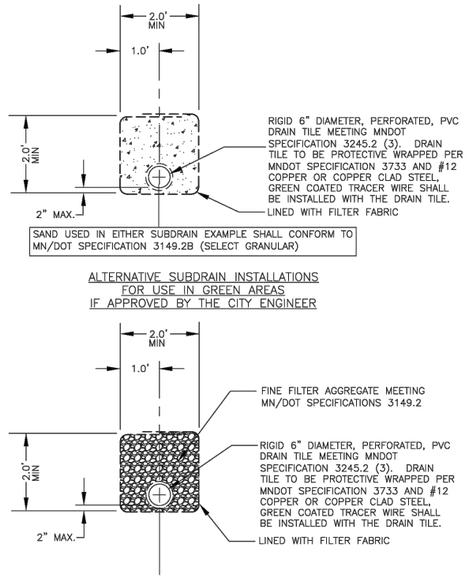
STANDARD DETAILS
STORM SEWER BEDDING
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. ST–8
REVISED 1–24



STANDARD DETAILS
SUBDRAIN DETAILS
CITY OF PLYMOUTH

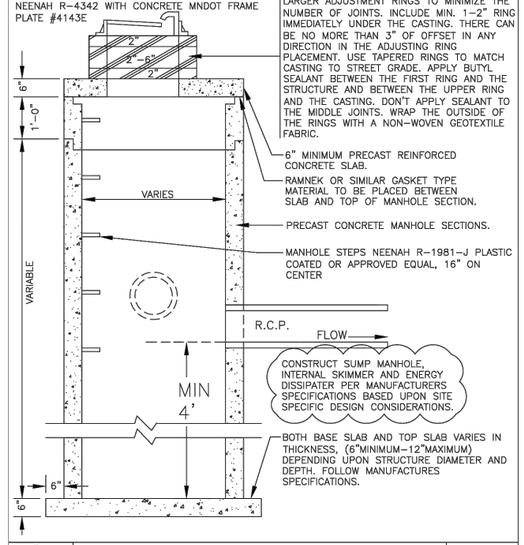
PUBLISHED 1–24
CITY PL. NO. ST–9
REVISED 1–24



STANDARD DETAILS
PERFORATED DRAIN TILE PIPE
CITY OF PLYMOUTH

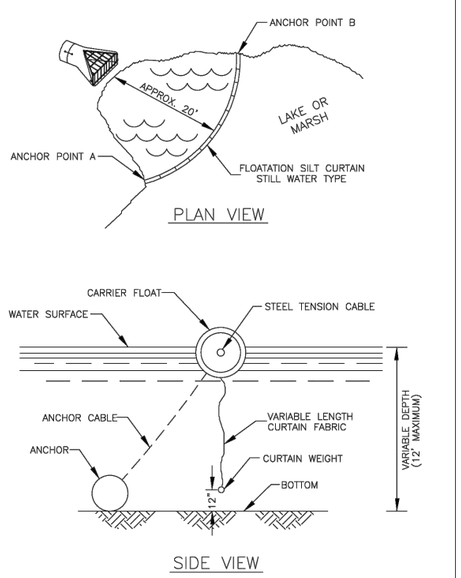
CITY PL. NO. ST–10
REVISED 1–24

NOTE: 24"x36" SLAB OPENING FOR NEENAH R–3067–V OR –VB CASTING AND GRATE. OTHER POTENTIALLY ACCEPTABLE CATCH BASIN CASTINGS DEPENDING UPON THE CIRCUMSTANCES AND SUBJECT TO CITY APPROVAL ARE:
NEENAH R–2561–A BEEHIVE GRATE & CASTING
NEENAH R–2573 CONCAVE GRATE & CASTING
NEENAH R–2577 CONVEX GRATE & CASTING
NEENAH R–3250–1 GRATE & CASTING
NEENAH R–3290–A FOR CROSS GUTTERS
NEENAH R–3501–TR & TL FOR SURMOUNTABLE CURB
NEENAH R–4342 WITH CONCRETE MNDOT FRAME PLATE #4143E



STANDARD DETAILS
SUMP CATCH BASIN MANHOLE
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. ST–11
REVISED 1–21

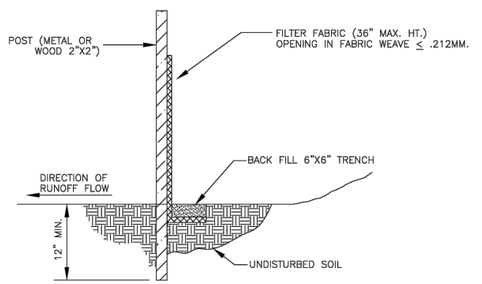


STANDARD DETAILS
FLOATATION SILT CURTAIN DETAIL
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. ST–17
REVISED 3–16

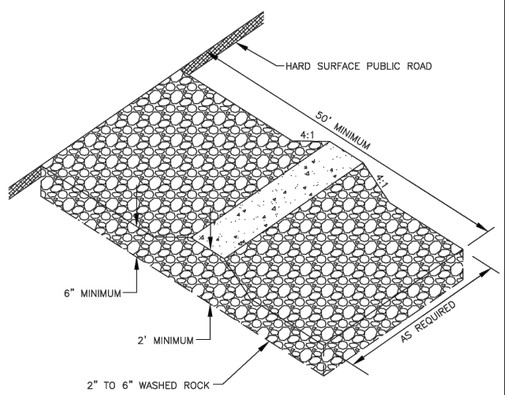
NOTES:

1. DIG A 6"X6" TRENCH ALONG THE INTENDED FENCE LINE.
2. DRIVE ALL POSTS INTO THE GROUND AT THE DOWNHILL SIDE OF THE TRENCH.
3. LAY OUT SILT FENCE ON THE UPHILL SIDE ALONG THE FENCE LINE, AND BACK FILL.
4. WOOD POSTS MAY BE SPACED UP TO 5 FEET APART. STEEL POSTS MAY BE SPACED UP TO 6 FEET APART
5. REMOVE SILT FENCE AFTER TURF IS ESTABLISHED.



STANDARD DETAILS
SILT FENCE DETAIL
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. ST–18
REVISED 1–20



NOTES:

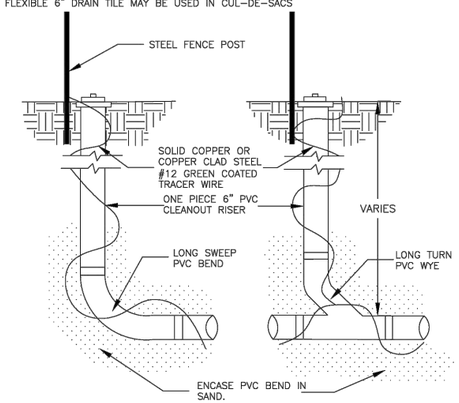
ROCK SHOULD BE 2" TO 6" IN SIZE SUCH AS WASHED ROCK OR CRUSHED CONCRETE

A GEOTEXTILE FABRIC MAY BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.

STANDARD DETAILS
ROCK EXIT TO CONSTRUCTION SITE
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. ST–19
REVISED 1–20

NOTE:
- 6" HUB WITH THREADED PVC CAP, DO NOT GLUE
- COVER WITH FORD METER BOX A–1 CASTING OR APPROVED EQUAL. SET COVER FLUSH WITH FINISHED GRADE AND PLACE TEMPORARY STEEL FENCE POST NEXT TO EACH CLEAN OUT
- TERMINATE #12 GREEN COATED TRACER WIRE UNDER THE METER BOX CASTING AND INSIDE THE CATCH BASINS ON THE REAR GRATE SUPPORT
- INSTALL STEEL FENCE POST BEHIND EACH CLEANOUT
- ENCLOSE LONG SWEEP BEND OR WYE IN AGGREGATE MATERIAL AS SHOWN
- BENDS SHALL NOT BE GREATER THAN 22 ½ DEGREES
- FLEXIBLE 6" DRAIN TILE MAY BE USED IN CUL–DE–SACS



INSTALL CLEANOUTS EVERY 100' TO 125'. CONNECT STREET DRAINTILE CB TO CB WHERE PRACTICAL.

STANDARD DETAILS
PVC STREET DRAIN TILE CLEANOUTS
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. ST–21
REVISED 1–24

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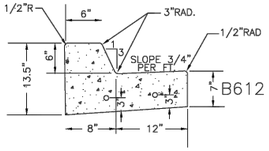
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS

C1.07
16
OF
129

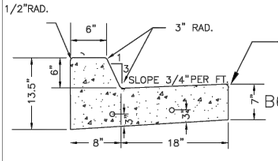
NOTE: B612 CURB MAY BE USED FOR PRIVATE DRIVES AND PARKING LOTS, BUT NOT PUBLIC STREETS



INSTALL AT ALL TRENCHES CROSSINGS OF THE CURB, 2 #4 EPOXY COATED REINFORCING RODS 20' IN LENGTH AND SHALL BE PLACED IN THE LOWER PORTION OF THE CURB

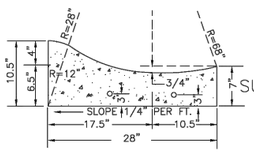
2 # 4 EPOXY COATED REINFORCING RODS EXTENDING FROM BOTH SIDES OF CATCH BASINS NO LESS THEN 10' IN LENGTH

CONTROL JOINTS SHALL CONFORM WITH MNDOT SPEC. 2531.3C. (8' SPACING) CONTROL JOINTS SHALL EXTEND TO THE BACKS OF THE CURBS AND BE 2" DEEP.

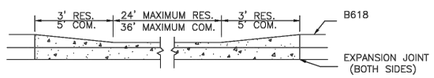


NOTE:
B618 CURB TO BE INSTALLED AT ALL INTERSECTION RADIUS, ALONG OUTLOTS, PARKS, PLAY LOTS, MAJOR ARTERIES, CATCH BASINS, AND SUSTAINED STRETCHES WITH NO DRIVEWAYS.

GENERALLY SURMOUNTABLE CURB TO BE INSTALLED WHERE RESIDENTIAL DRIVEWAYS ARE PLANNED.



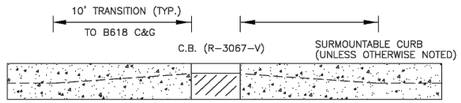
CURING COMPOUND SHALL BE APPLIED IMMEDIATELY AFTER FINISHING AND TO ALL EXPOSED SURFACES INCLUDING THE FRONT AND BACK OF THE CURBS. COVERAGE SHALL BE UNIFORM AND SHALL MATCH THE APPEARANCE OF A WHITE SHEET OF PAPER.

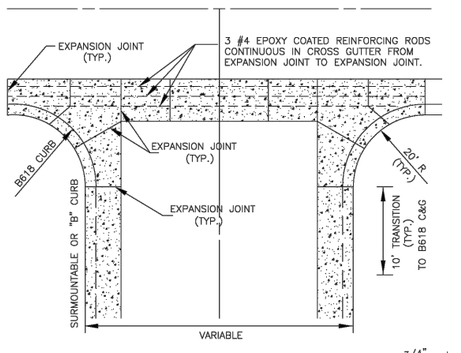


CURB CUT DETAIL

STANDARD DETAILS
STANDARD CURB DETAILS
CITY OF PLYMOUTH

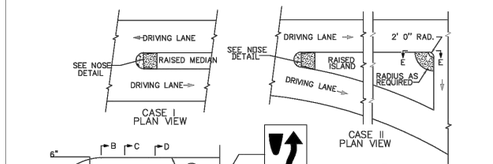
PUBLISHED 1–24
CITY PL. NO. STRT–1
REVISED 1–22

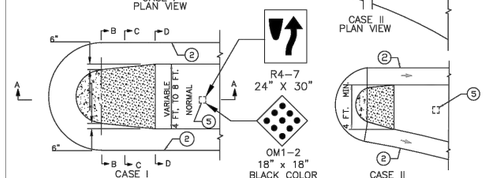




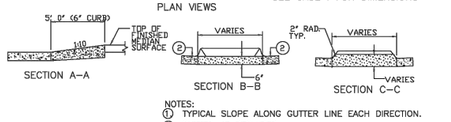
STANDARD DETAILS
CONCRETE CROSS GUTTER
CITY OF PLYMOUTH

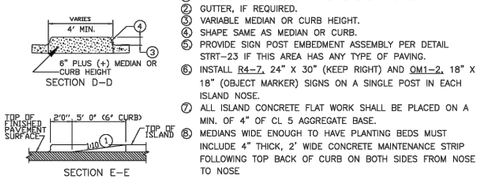
PUBLISHED 1–24
CITY PL. NO. STRT–2
REVISED 1–22





PLAN VIEWS

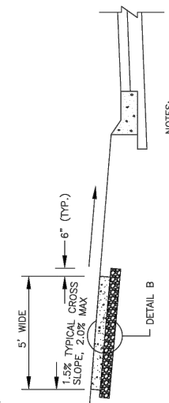




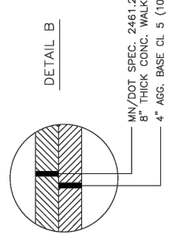
NOTES:
1. TYPICAL SLOPE ALONG GUTTER LINE EACH DIRECTION.
2. GUTTER, IF REQUIRED.
3. VARIABLE MEDIAN OR CURB HEIGHT.
4. SHAPE SAME AS MEDIAN OR CURB.
5. PROVIDE SIGN POST EMBEDMENT ASSEMBLY PER DETAIL STRT–23 IF THIS AREA HAS ANY TYPE OF PAVING.
6. INSTALL R4–7, 24" X 30" (KEEP RIGHT) AND OM1–2, 18" X 18" (OBJECT MARKER) SIGNS ON A SINGLE POST IN EACH ISLAND NOSE.
7. ALL ISLAND CONCRETE FLAT WORK SHALL BE PLACED ON A MIN. OF 4" OF CL 5 AGGREGATE BASE.
8. MEDIANS WIDE ENOUGH TO HAVE PLANTING BEDS MUST INCLUDE 4" THICK, 2' WIDE CONCRETE MAINTENANCE STRIP FOLLOWING TOP BACK OF CURB ON BOTH SIDES FROM NOSE TO NOSE

STANDARD DETAILS
CONCRETE ISLAND APPROACH NOSE DETAIL
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. STRT–9
REVISED 1–20



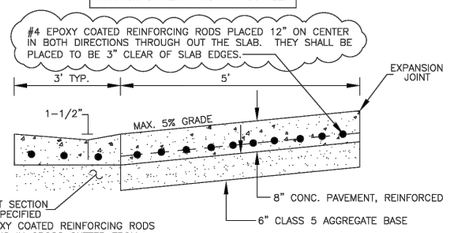
NOTES:
1. MIN 8" THICK CONCRETE SIDEWALK AT ALL RESIDENTIAL DRIVEWAYS AND 8" THICK AT ALL COMMERCIAL DRIVEWAYS.
2. PROVIDE PEDESTRIAN CURB RAMPS AT ALL INTERSECTIONS.
3. PROVIDE EXPANSION JOINT MATERIAL AT 100' MAX SPACING AND 6' SPACING FOR CONTRACTION JOINTS (SAWCUT).
4. PROVIDE EXPANSION JOINT MATERIAL ALONG BUILDINGS OR WHERE WALK IS CONTAINED BETWEEN FIXED OBJECTS.
5. JOINT SPACING SHALL BE EVERY 6'.
6. PLYMOUTH CITY CODE 524.05 SUBD. 1 (J) REQUIRES THAT "SIDEWALKS AND TRAILS SHALL BE INSTALLED AT THE TIME A STREET IS CONSTRUCTED".
7. THE PROFILE GRADE OF THE SIDEWALK SHALL NOT EXCEED THE GRADE OF THE ADJACENT ROADWAY UNLESS AUTHORIZED BY THE CITY ENGINEER.
8. THERE SHALL BE A 2' CLEAR ZONE AT A MAXIMUM 2% CROSS SLOPE ON EITHER SIDE OF THE WALK.

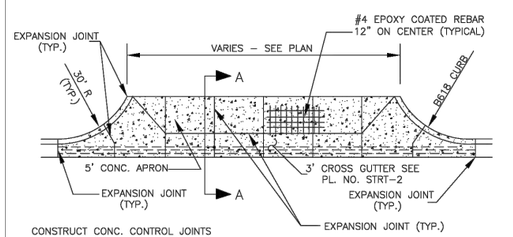


STANDARD DETAILS
CONCRETE WALK SECTION
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. STRT–10
REVISED 1–21

MINIMUM DRIVEWAY WIDTH – 24 FEET
MAXIMUM DRIVEWAY WIDTH – 36 FEET





PLAN

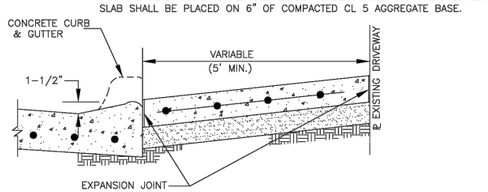
NOTE: DRIVEWAY SHALL BE CONSTRUCTED AS A MONOLITHIC POUR. CURB SHALL NOT BE RUN THROUGH THE DRIVE BUT STOPPED AT THE BEGIN AND END RADIUSES.

SEE PLATES NO. STRT–3 TO 8
FOR PED. CURB RAMPS IF SIDEWALK OR TRAIL IS EXISTING OR TO BE INSTALLED.

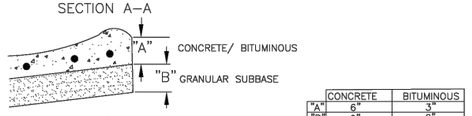
STANDARD DETAILS
INDUSTRIAL / COMMERCIAL DRIVEWAY
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. STRT–12
REVISED 3–23

CONCRETE SLAB 6" MIN. THICKNESS, REINFORCED WITH #4 EPOXY COATED REINFORCING RODS PLACED 18" ON CENTER IN BOTH DIRECTIONS THROUGH OUT THE SLAB. THEY SHALL BE PLACED TO BE 3" CLEAR OF SLAB EDGES. SLAB SHALL BE PLACED ON 6" OF COMPACTED CL 5 AGGREGATE BASE.

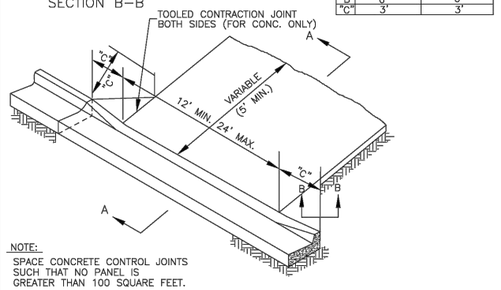


SECTION A–A



	CONCRETE	BITUMINOUS
"A"	6"	3"
"B"	6"	6"
"C"	3'	3'

SECTION B–B

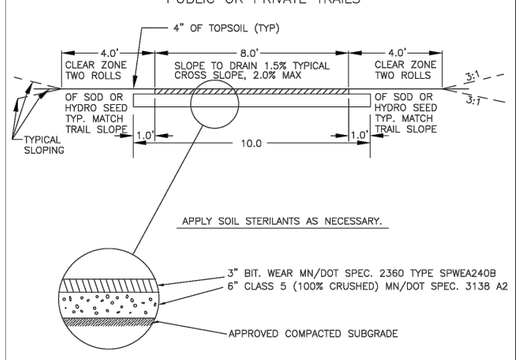


NOTE:
SPACE CONCRETE CONTROL JOINTS SUCH THAT NO PANEL IS GREATER THAN 100 SQUARE FEET.

STANDARD DETAILS
RESIDENTIAL DRIVEWAY DETAIL
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. STRT–13
REVISED 1–20

PUBLIC OR PRIVATE TRAILS



NOTES:
1. PLACE CONCRETE PEDESTRIAN CURB RAMPS AT ALL INTERSECTIONS SEE DETAILS STRT–3 THROUGH STRT–8.
2. PLYMOUTH CITY CODE 524.05 SUBD. 1 (J) REQUIRES THAT "SIDEWALKS AND TRAILS SHALL BE INSTALLED AT THE TIME A STREET IS CONSTRUCTED".
3. THE PROFILE GRADE OF THE TRAIL SHALL NOT EXCEED THE GRADE OF THE ADJACENT ROADWAY UNLESS AUTHORIZED BY THE CITY ENGINEER.

STANDARD DETAILS
TYPICAL TRAIL CROSS SECTION
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. STRT–15
REVISED 1–24

THE INTENT OF THESE SPECIFICATIONS IS TO HAVE A UNIFORM TRAFFIC CONTROL SIGNS THROUGHOUT THE CITY. THIS IS IMPORTANT FOR AESTHETIC PURPOSES AND WILL EASE REPAIRS, KEEPING THE NUMBER AND TYPES OF PARTS NEEDED IN INVENTORY TO A MINIMUM.

THE SPECIFICATIONS INCLUDE, BUT ARE NOT LIMITED TO: REGULATORY, PARKING, SCHOOL, WARNING, PARK AND INFORMATION SIGNS.

ALL SIGNAGE SHALL BE SHOWN ON THE STREET PLANS OR A SEPARATE PLAN SHEET FOR THE PROJECT.

THE CITY PUBLIC WORKS DEPARTMENT SHALL APPROVE ALL SIGNS AND MATERIALS PRIOR TO INSTALLATION. (SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL)

SIGNS:
COMMON SIGN SIZES:
STOP – R1–1, 30" X 30"
"NO PARKING ANY TIME" (SYMBOL W/"ANY TIME" UNDERNEATH)– R7–2A, 12" X 18"
SPEED LIMIT – R2–1, 24" X 30"
STOP AHEAD – W3–1, 36" X 36"
SIGNAL AHEAD – W3–3, 36" X 36"
KEEP RIGHT – R4–7, 24" X 30"
OBJECT MARKER – OM1–2, 18" X 18" (BLACK BACKGROUND W/ YELLOW REFLECTORS)
NO OUTLET – W14–2, 30" X 30"

ALL SIGNS SHALL BE LYLE SIGNS OR APPROVED EQUAL.
ALL SIGNS WILL HAVE "3M" HIGH INTENSITY REFLECTIVE SHEETING OR APPROVED EQUAL.
ALL SIGNS SHALL BE ON ALUMINUM PLATE.
ALL SIGNS UP TO 18" SHALL BE .080 MIN. THICKNESS.
ALL SIGNS OVER 30" SHALL BE 0.100 MIN. THICKNESS.
ALL SIGNS TO BE SIZED ACCORDING TO MN MUTCD MANUAL.
AND PUNCHED WITH ⅜" HOLES MEETING MN/DOT SPECS.
STREET SIGNS SHALL NOT INCLUDE "N" FOR NORTH

POSTS:
THE SIGN SUPPORTS WILL BE EITHER A "U" CHANNEL POST, PAINTED GREEN OR A 3" DIAMETER, 12' LONG TUBE POST. THE POSTS SHALL BE 2 & 3 LBS. PER FT. AND 6,7 AND 8' IN LENGTH. ALL SIGNS UP TO 18" SHALL BE MOUNTED ON 2 U–CHANNEL POSTS, EACH 2 LBS., ONE 7' LONG AND ONE 6' LONG. THE LONGER POST TO BE DRIVEN IN THE GROUND FIRST.
ALL SIGNS 18" TO 30" SHALL USE A 8' – 3 LB. POST AND A 7' – 2 LB. POST, WITH THE 3LB. POST DRIVEN INTO THE GROUND FIRST.
ALL SIGNS OVER 30" SHALL USE 2 SETS OF POSTS. (THE HEAVIER POST PLACED IN THE GROUND FIRST)
ALL U–CHANNEL POSTS WILL BE POUNDED 3' INTO THE GROUND.

PLACEMENT AND MOUNTING HEIGHTS:
SEE PLATES STRT–21 THROUGH STRT–25
ALL TUBE POST SHALL BE PLACED IN A 10" DIAMETER BY 3' DEEP CONCRETE FOOTING FLARED AT THE BOTTOM.
IT WILL BE THE RESPONSIBILITY OF THE INSTALLER TO HAVE ALL UNDERGROUND UTILITIES LOCATED.

STANDARD DETAILS
TRAFFIC SIGN SPECIFICATIONS
CITY OF PLYMOUTH

PUBLISHED 1–24
CITY PL. NO. STRT–21
REVISED 1–20

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS

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OF
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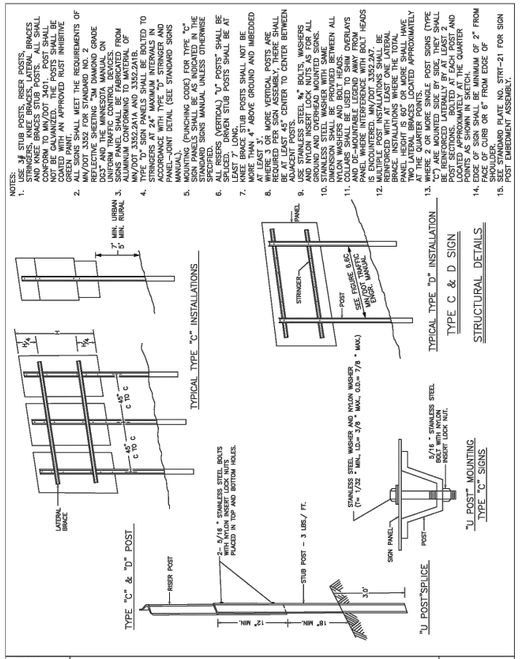
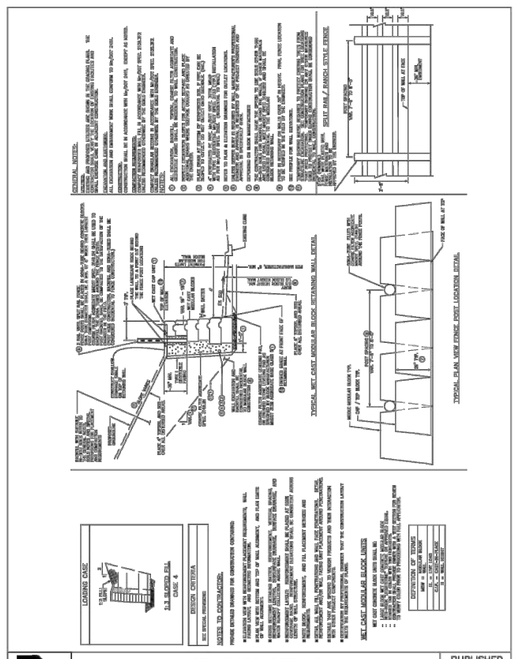


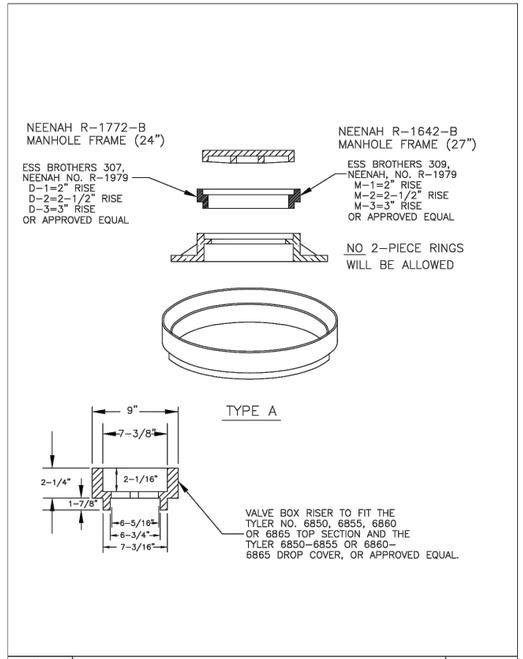
STANDARD DETAILS
TRAFFIC SIGNS
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. STRT-22
REVISED 3-11



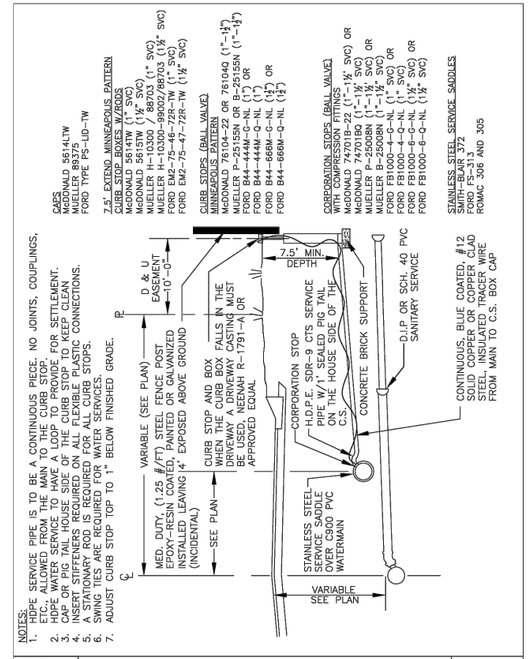
STANDARD DETAILS
TYPICAL RETAINING WALL DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. STRT-26
REVISED 1-24



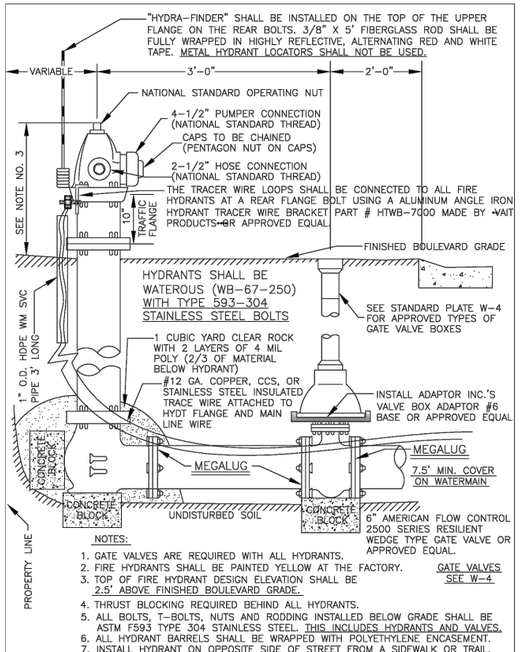
STANDARD DETAILS
RISERS FOR EXTENSION OF
GATE VALVES & MANHOLES
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. STRT-29
REVISED 3-11



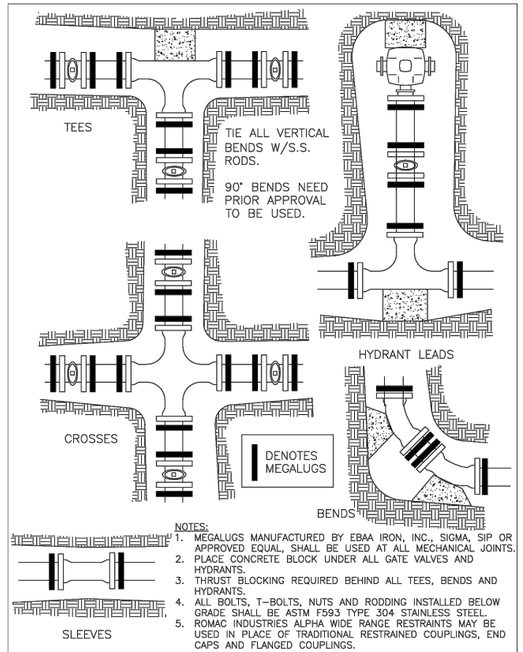
STANDARD DETAILS
SEWER AND WATER SERVICE CONNECTION
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. W-1
REVISED 1-24



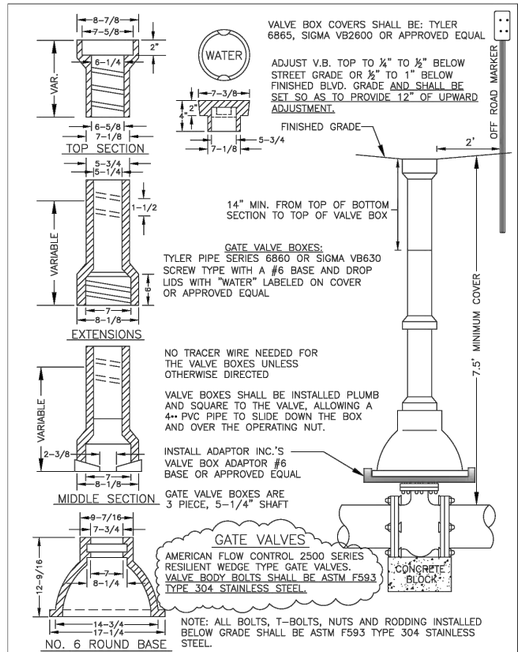
STANDARD DETAILS
HYDRANT AND GATE VALVE INSTALLATION
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. W-2
REVISED 1-24



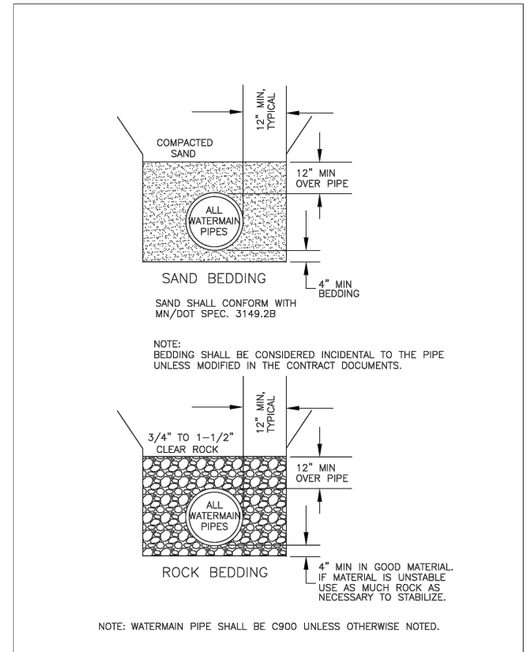
STANDARD DETAILS
TYPICAL MEGALUG LOCATION
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. W-3
REVISED 3-23



STANDARD DETAILS
GATE VALVE AND BOX INSTALLATION
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. W-4
REVISED 3-23



STANDARD DETAILS
WATERMAIN BEDDING
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. W-6
REVISED 1-24

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS

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OF
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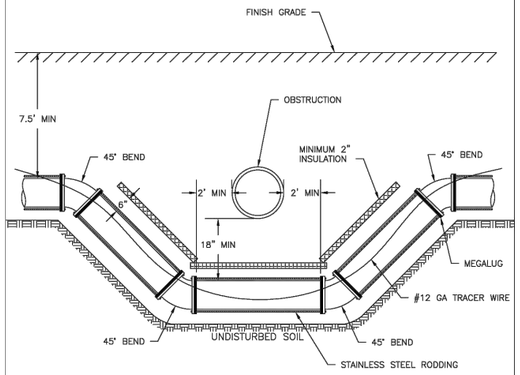


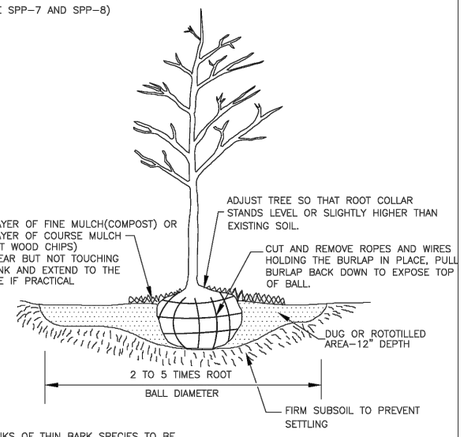
NOTE:
1. SELECT GRANULAR REQUIRED FOR ALL BEDDING
2. ALL VERTICAL BENDS SHALL BE TIED WITH SS RODDING. 2 RODS CONNECTING EACH JOINT 180° APART.
3. TRACER WIRE TO BE RUN WITH OFFSET PVC PIPE. (IF EXISTING WM IS CIP OR DIP, PINCH EXPOSED COPPER TRACER WIRE BETWEEN DOUBLE NUT ON EXISTING SIDES)
4. MEGALUGS MANUFACTURED BY EBAA IRON, SIGMA, SIP OR APPROVED EQUAL SHALL BE USED AT ALL MECHANICAL JOINTS
5. ALL BOLTS, T-BOLTS, NUTS AND RODDING INSTALLED BELOW GRADE SHALL BE ASTM F593 TYPE 304 STAINLESS STEEL
6. ADDITIONAL RODDING AND MEGALUGS MAY BE REQUIRED BY ENGINEER.

STANDARD DETAILS
VERTICAL OFFSET DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. W-8
REVISED 1-24

STAKES NOT RECOMMENDED UNLESS THE TRUNK EASILY WAIVERS 3"-5". IF STAKES ARE NEEDED SEE SPP-4

PRUNING SHOULD BE LIMITED TO ONY BROKEN, DEAD, OR DAMAGED LIMBS AND SHOULD NOT CHANGE THE APPEARANCE OF THE TREE. (SEE SPP-7 AND SPP-8)



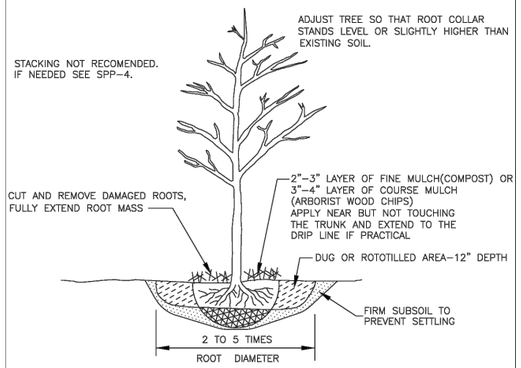
TRUNKS OF THIN BARK SPECIES TO BE WRAPPED FOR WINTER MONTHS OR FALL PLANTINGS. (SEE SPP-4)

STANDARD DETAILS
TREE PLANTING-BALLED AND BURLAPED
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. SPP-2
REVISED 1-24

TRUNKS OF THIN BARKED SPECIES SHOULD BE WRAPPED FOR WINTER MONTHS, OR FALL PLANTING. (SEE SPP-4)

PRUNING SHOULD BE LIMITED TO DEAD, BROKEN, OR DAMAGED LIMBS. (SEE SPP-5 THROUGH SPP-7)



STANDARD DETAILS
TREE PLANTING-BARE ROOT
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. SPP-3
REVISED 1-24

STAKES AND GUY WIRES SHOULD BE USED ONLY IF SUPPORT IS NECESSARY. WHEN USING, AVOID COMMOM PROBLEMS BY FOLLOWING THESE GUIDELINES:

IF MAIN STEM DROOPS, FIND THE BEST PLACE FOR SUPPORT TIES BY MOVING YOUR HAND UP TO THE TRUNK TO LOCATE THE POINT ABOVE WHICH THE TOP CAN STAND STAND UP ON ITS OWN. PLACE THE SUPPORT TIES ABOUT 6" ABOVE THAT POINT.

TIES CAN BE MADE MANY WAYS, BUT A LOOSELY-FITTED FIQURE 8 TIE MADE OF POLYETHYLENE, CLOTH OR WEBBED STRAP IS EASY TO

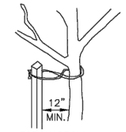
INSTALL, PROVIDES GOOD SUPPORT AND CUSHIONS THE TREE FROM RUBBING AGAINST THE STAKE. USING TWO TIES WILL ALSO MINIMIZE THE CHANCE OF BARK DAMAGE FROM RUBBING.

REGARDLESS OF THE TIE USED, ALLOW SLACK FOR SWAY.

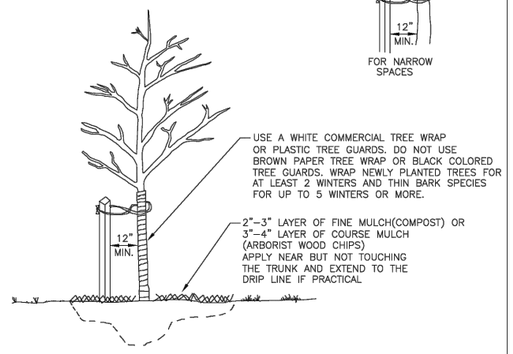
AVOID DRIVING STAKES THROUGH THE ROOT BALL, OR USING STAKES WITH FLANGES THAT WILL BREAK ROOTS WHEN REMOVED.

REMOVE SUPPORT TIES AFTER ONE OR TWO YEARS.

FOR LARGE TREES. SPRINGS IN THE GUY PROVIDE FLEXIBILITY.

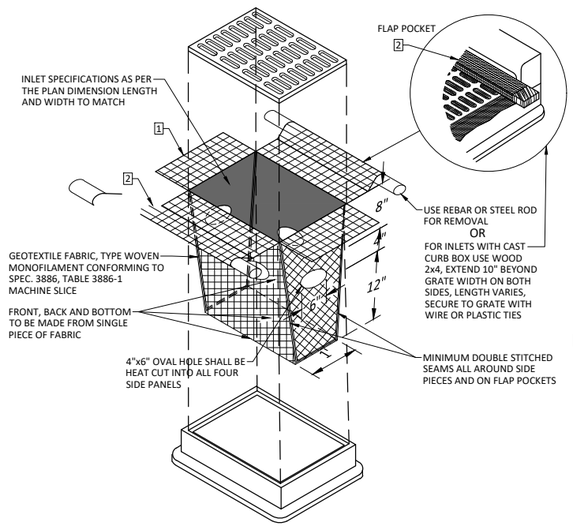


FOR NARROW SPACES



STANDARD DETAILS
STAKING AND WRAPPING TREES
CITY OF PLYMOUTH

PUBLISHED 1-24
CITY PL. NO. SPP-4
REVISED 1-24



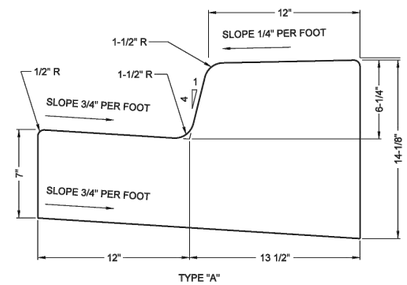
NOTES:
1. INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENTS EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL IN THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
2. FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

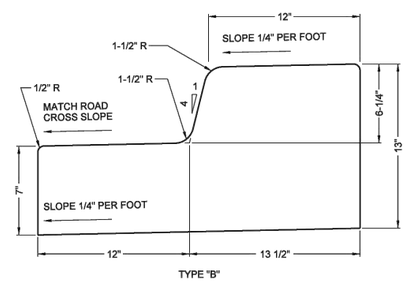
INSTALLATION NOTES:
DO NOT INSTALL PROTECTION IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



TYPE "A"



TYPE "B"

PARKWAY VERTICAL CURB AND GUTTER

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS

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OF
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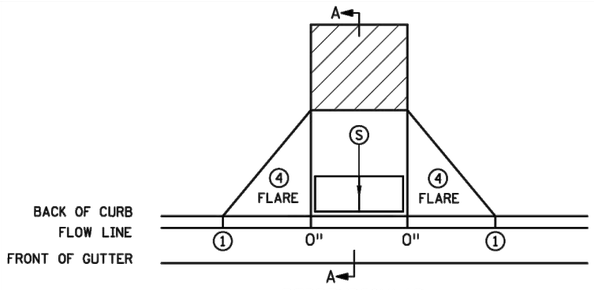

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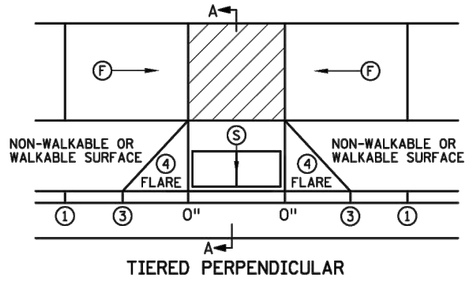

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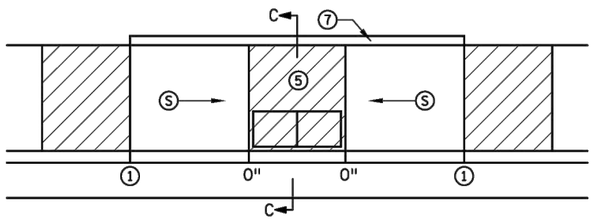

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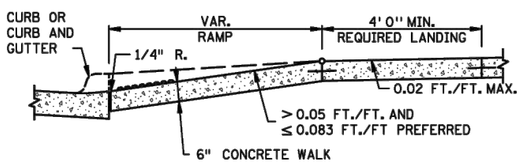
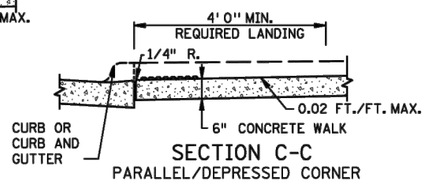


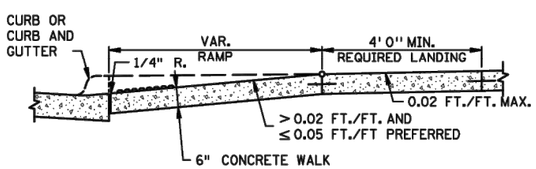
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



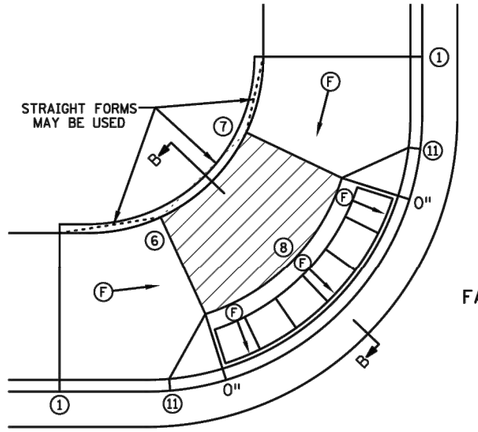
SECTION C-C

PARALLEL/DEPRESSED CORNER

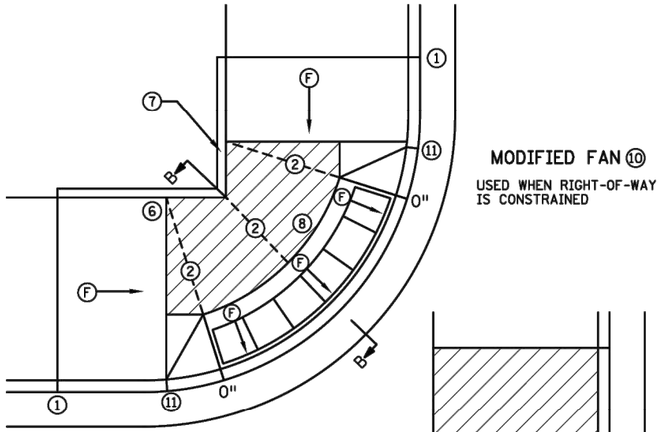


SECTION B-B

FAN

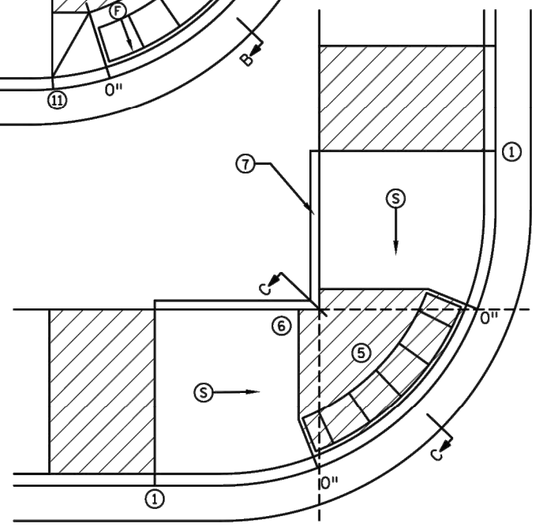


FAN ⑩



MODIFIED FAN ⑩

USED WHEN RIGHT-OF-WAY IS CONSTRAINED



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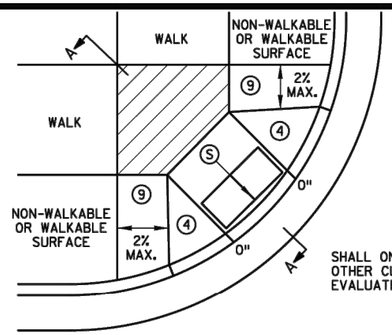

DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.

② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.

③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.

④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.

⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.

⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)

⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.

⑨ PAVE FULL WALK WIDTH.

⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT. LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 1 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS
STANDARD DETAIL

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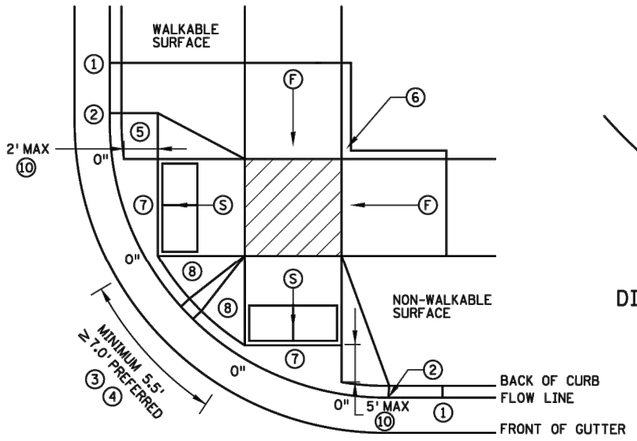
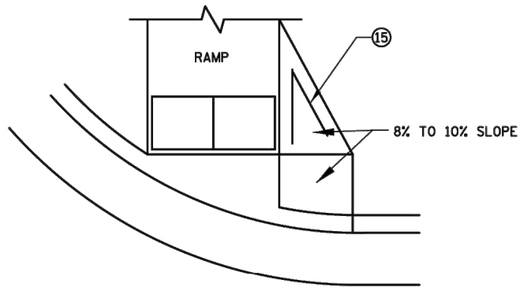
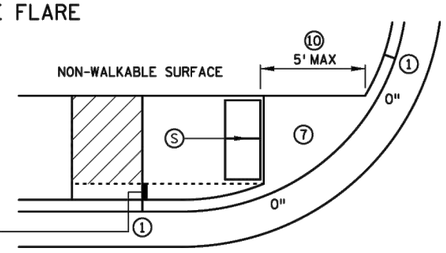


COMBINED DIRECTIONAL

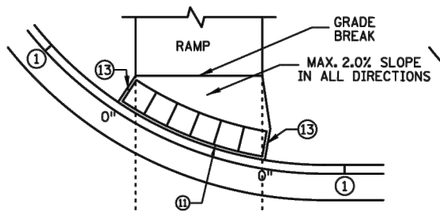


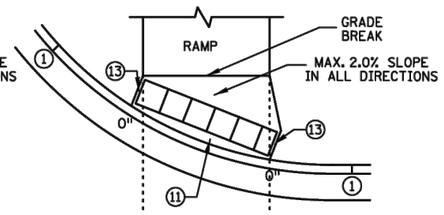
DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.



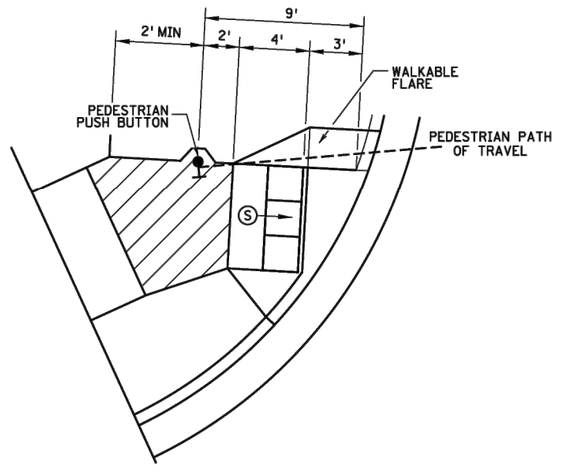
STANDARD ONE-WAY DIRECTIONAL ⑨





DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

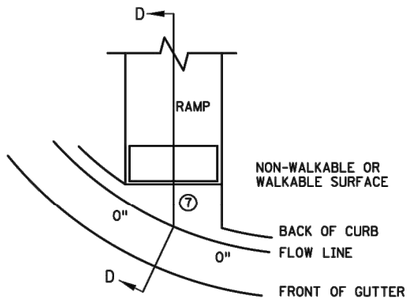
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

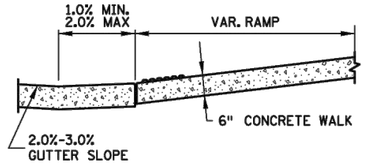


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.250 | 2 OF 6

APPROVED: 11-04-2021
REVISED:

STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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DRAWN	JW
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CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS
STANDARD DETAIL

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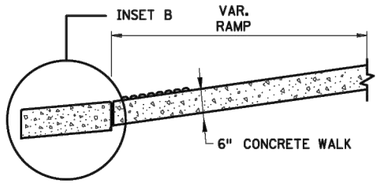
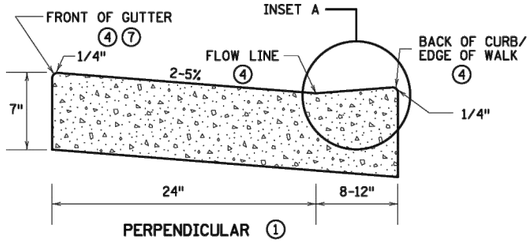
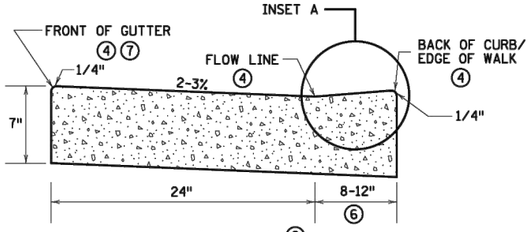
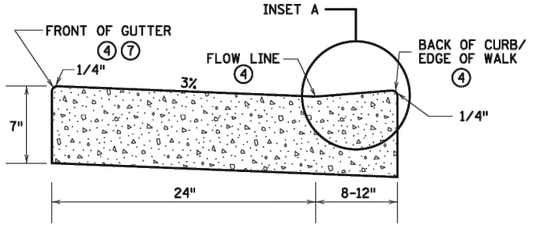




PERPENDICULAR ①

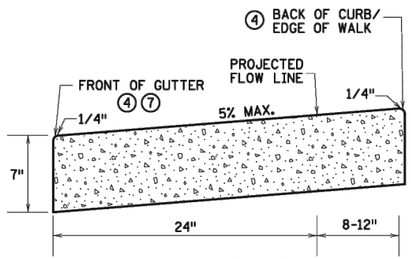


NON PERPENDICULAR ②

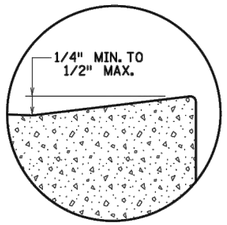


FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)

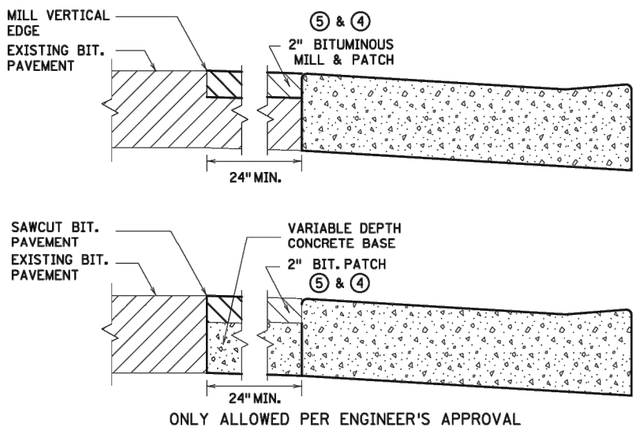
PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



INSET B
OUTFLOW GUTTER ⑧



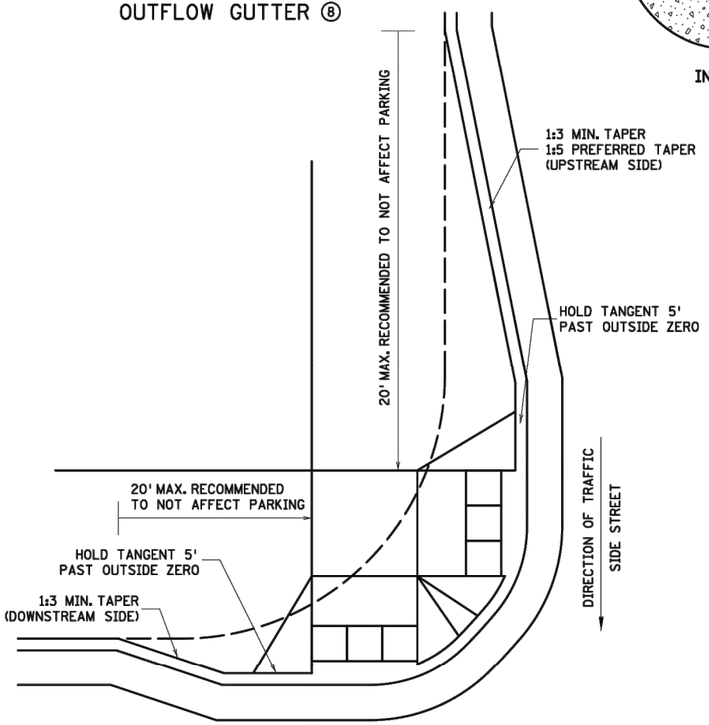
INSET A



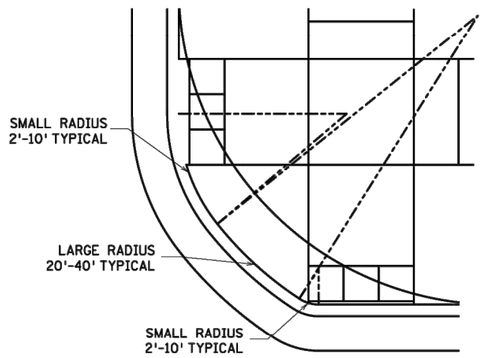
ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.
NO PONDING SHALL BE PRESENT IN THE PAR.
ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.
② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.
⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.
⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:
APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 3 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.
NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS
STANDARD DETAIL

C1.13
22 OF 129

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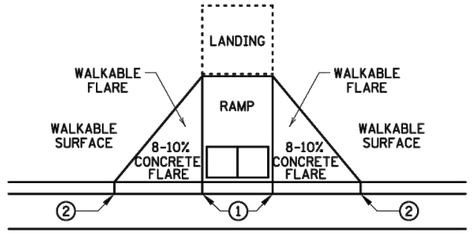
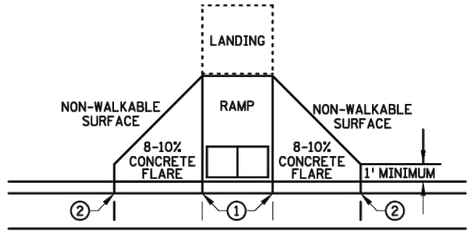


PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
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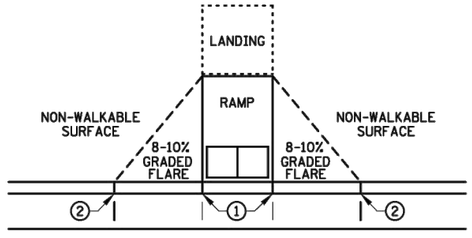
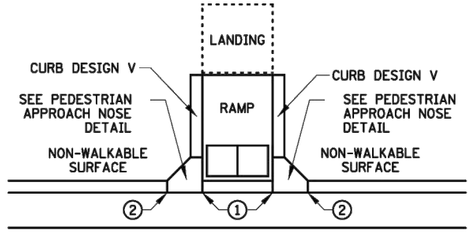
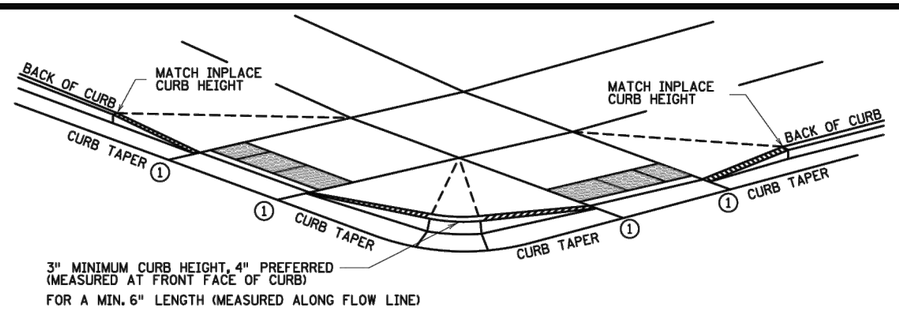


GRADED FLARES

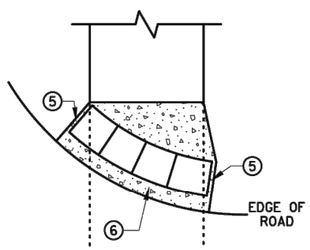


RETURNED CURB ④

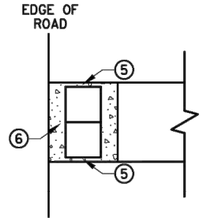
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

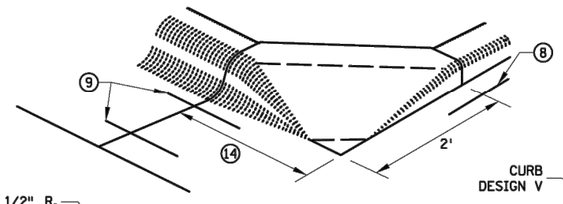


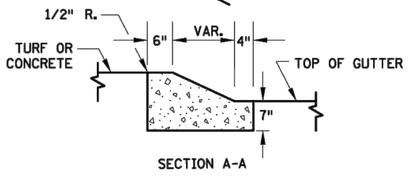
RADIAL DETECTABLE WARNING



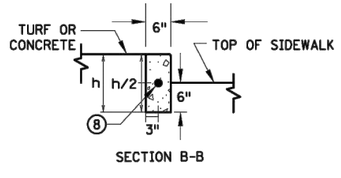
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

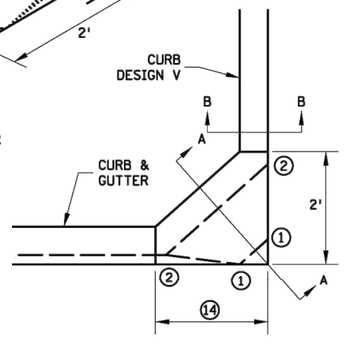




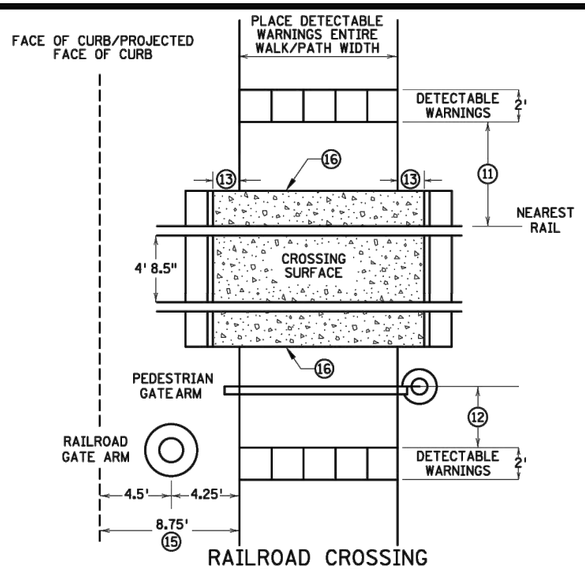
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 4 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS
STANDARD DETAIL

C1.14
23 OF 129

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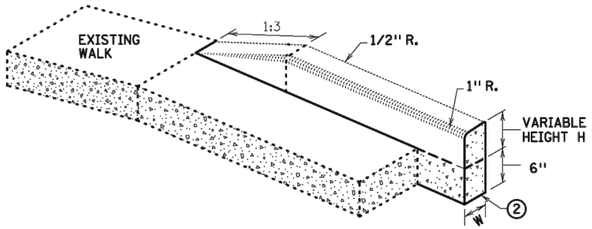
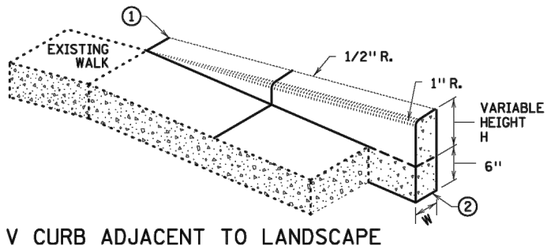
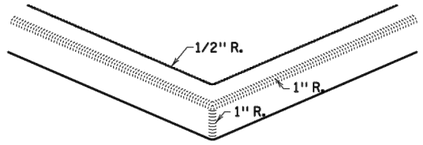


V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

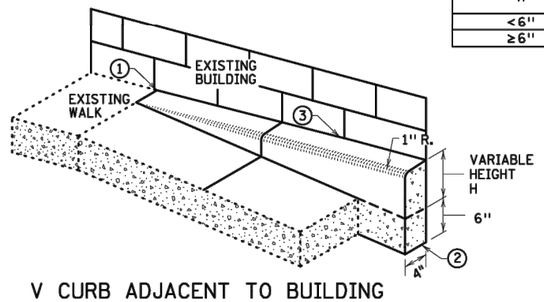


V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

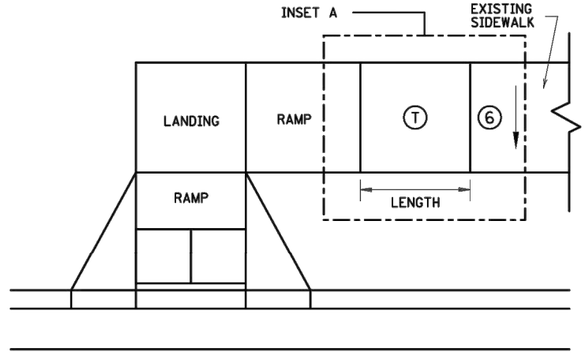


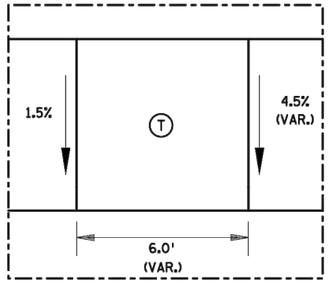
V CURB INTERSECTION

CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
<6"	4"
≥6"	6"



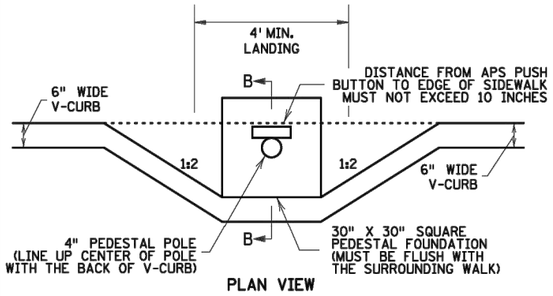
V CURB ADJACENT TO BUILDING OR BARRIER



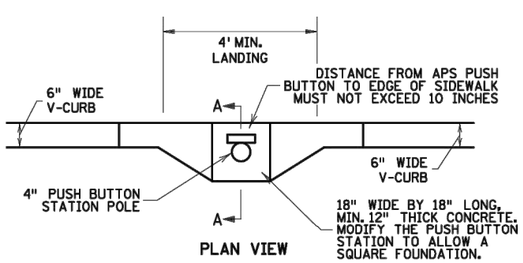


TRANSITION PANEL ④⑤

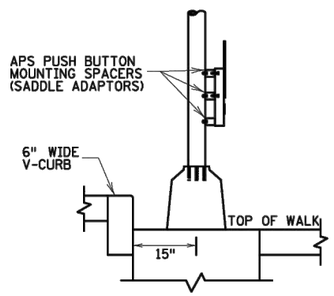
INSET A



PLAN VIEW

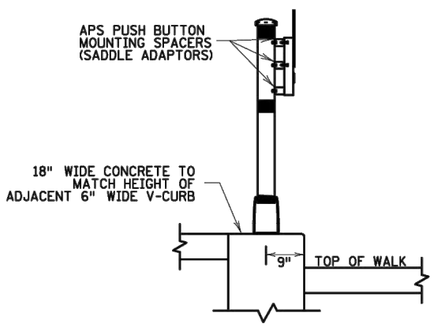


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

⑤ TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

Ⓣ TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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www.bolton-menk.com

City of Plymouth

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DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS
STANDARD DETAIL

C1.15
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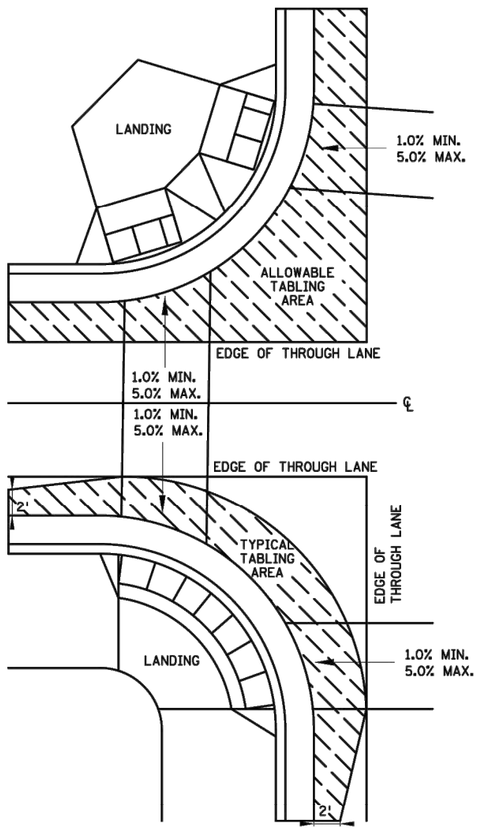
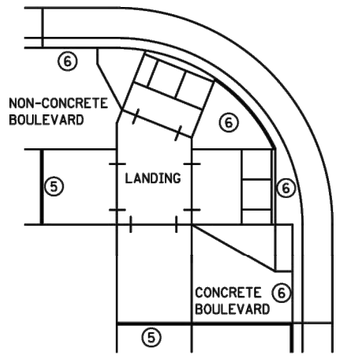
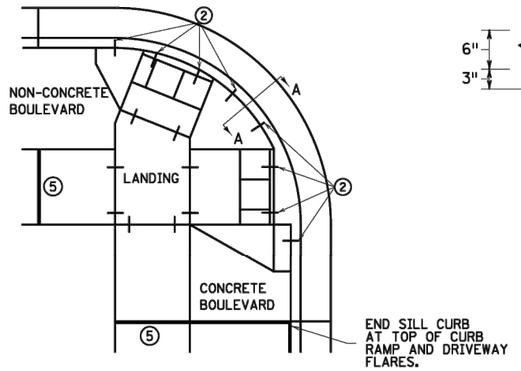


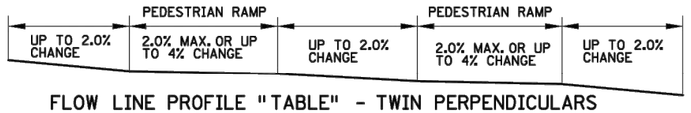
CURB LINE AND ROAD CROSSING ADJUSTMENTS



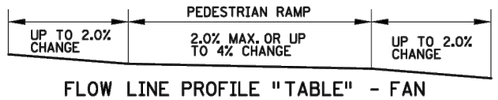
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS



CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS

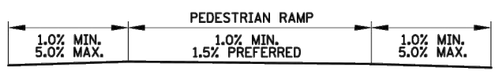


FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS

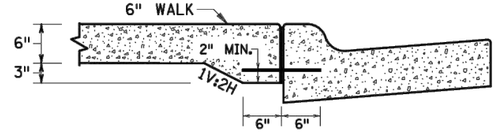


FLOW LINE PROFILE "TABLE" - FAN

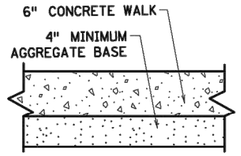
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



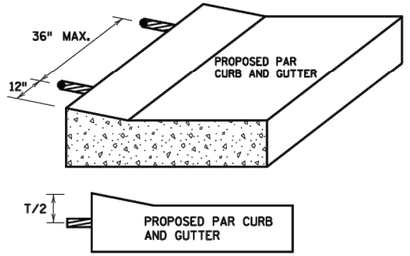
FLOW LINE PROFILE RAISE - FAN



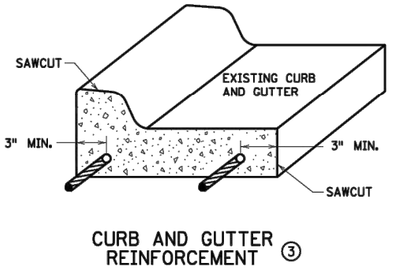
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



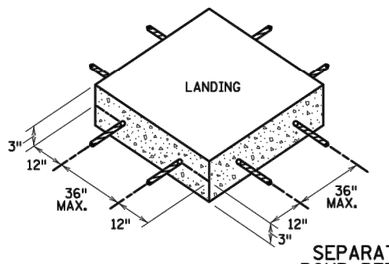
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

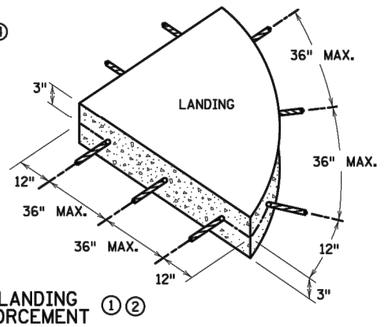


CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER REINFORCEMENT ③





SEPARATE LANDING POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.

④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.

⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 6 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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www.bolton-menk.com

City of Plymouth

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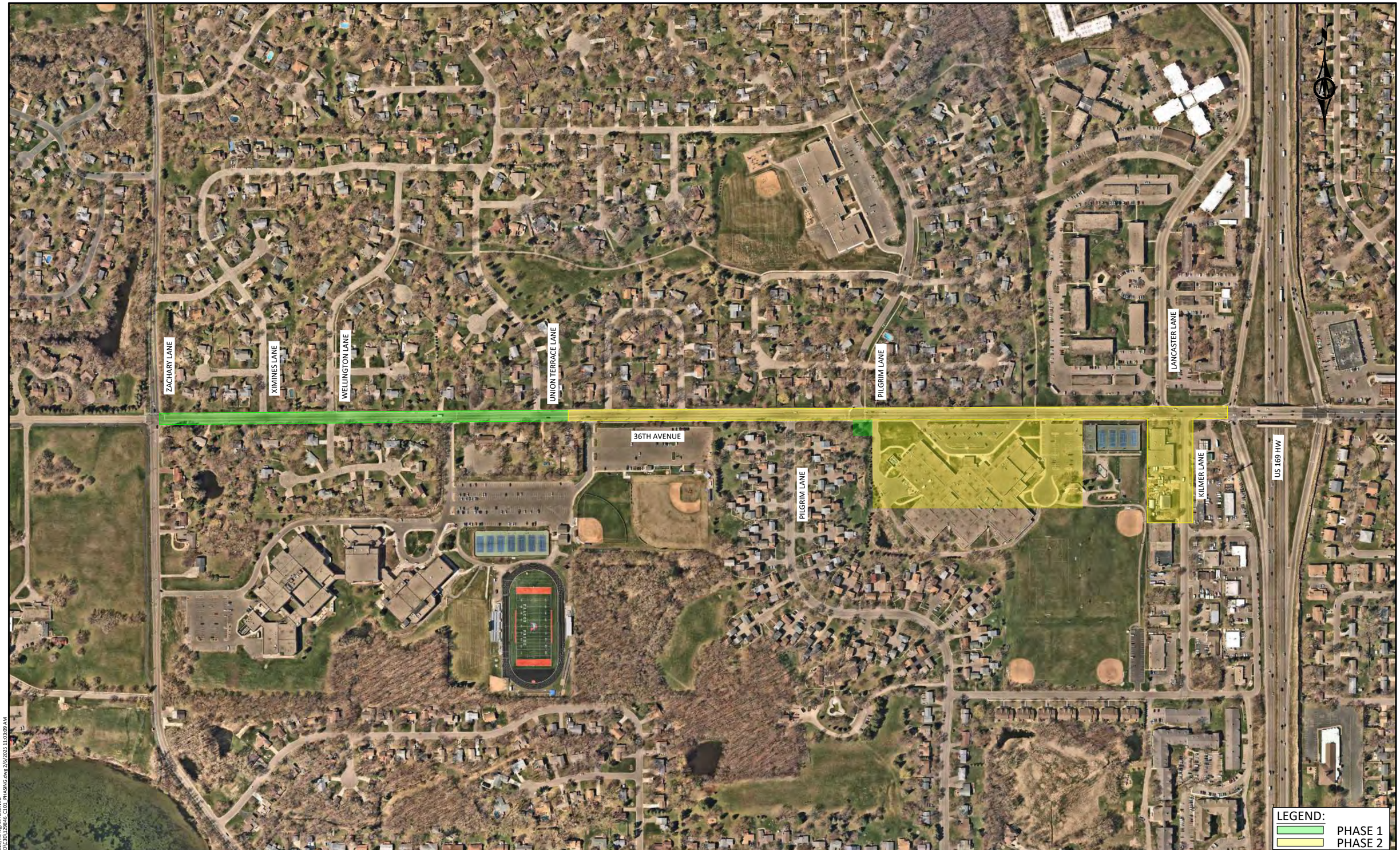
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
DETAILS
STANDARD DETAIL

C1.16
25 OF 129



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PHASING PLAN
36TH AVENUE

ZACHARY LANE
XIMINES LANE
WELLINGTON LANE
OPEN TO CROSSING TRAFFIC DURING PHASE 1
ROAD CLOSED DURING PHASE 1
UNION TERRACE LANE
TRENTON LANE
SARATOGA LANE
PILGRIM LANE
ROAD CLOSED DURING PHASE 1
36TH AVENUE
DRIVEWAY CLOSED DURING PHASE 1
ROAD CLOSED DURING PHASE 1
EAST MEDICINE LAKE BLVD
NEW SCHOOL ENTRANCE AT PILGRIM LN TO BE CONSTRUCTED DURING PHASE 1 AND USED FOR ACCESS TO SCHOOL DURING PHASE 2 CONSTRUCTION
FALCON PRIDE

LEGEND:
PHASE 1

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PHASING PLAN
36TH AVENUE

UNION TERRACE

TRENTON LN

1 OF 2 ROADS OPEN DURING PHASE 2

SARATOGA LN

36TH AVENUE

PILGRIM LANE

ROAD OPEN FOR CROSSING TRAFFIC DURING PHASE 2

LANCASTER LANE

ROAD CLOSED DURING PHASE 2

ROAD CLOSED DURING PHASE 2

ROAD CLOSED DURING PHASE 2

PILGRIM LANE

HARD CLOSURE HERE AND KEEP ACCESS OPEN TO EAST FOR KILMER LN UNTIL NEW INTERSECTION AT LANCASTER/KILMER LN IS CONSTRUCTED AND OPEN TO TRAFFIC

KILMER LANE

US 169 HW

FALCON PRIDE

LEGEND:

PHASE 2

HORZ. 0 60 120

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CITY OF PLYMOUTH, MINNESOTA

36TH AVENUE REHABILITATION

PHASING PLAN

36TH AVENUE

C1.19

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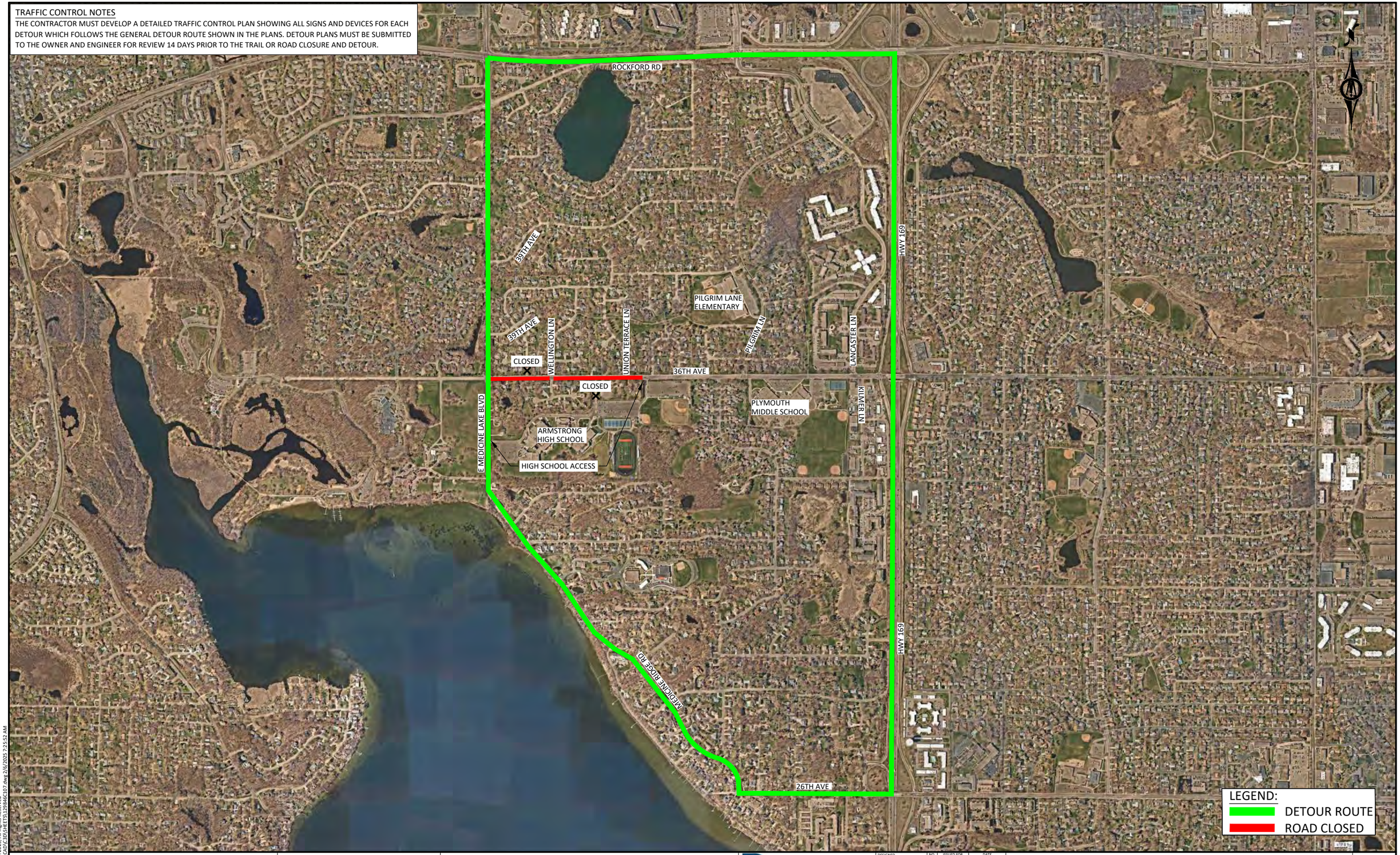
TRAFFIC CONTROL NOTES

THE CONTRACTOR MUST DEVELOP A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL SIGNS AND DEVICES FOR EACH DETOUR WHICH FOLLOWS THE GENERAL DETOUR ROUTE SHOWN IN THE PLANS. DETOUR PLANS MUST BE SUBMITTED TO THE OWNER AND ENGINEER FOR REVIEW 14 DAYS PRIOR TO THE TRAIL OR ROAD CLOSURE AND DETOUR.



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PHASE 1 DETOUR PLAN

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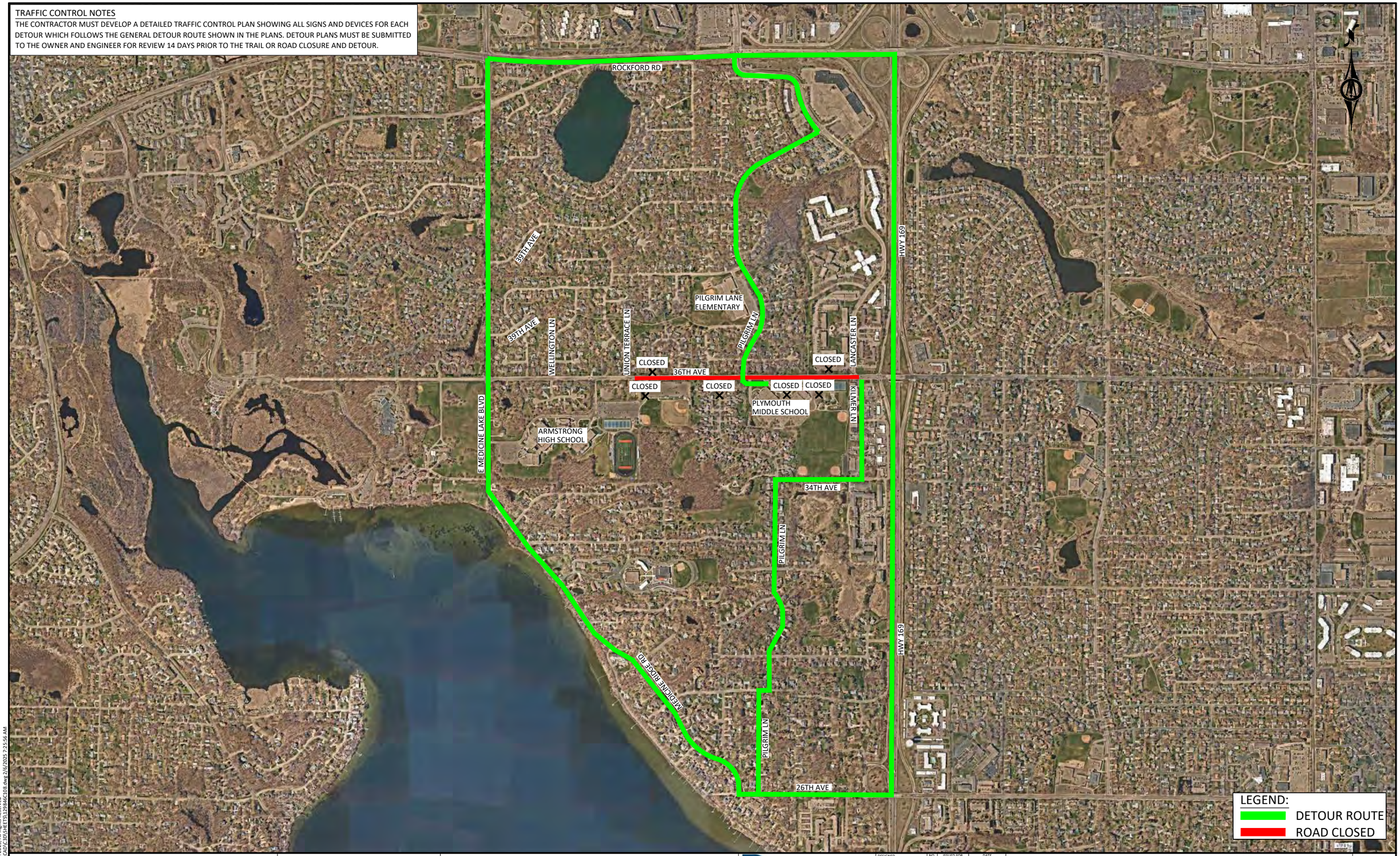
129

TRAFFIC CONTROL NOTES

THE CONTRACTOR MUST DEVELOP A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL SIGNS AND DEVICES FOR EACH DETOUR WHICH FOLLOWS THE GENERAL DETOUR ROUTE SHOWN IN THE PLANS. DETOUR PLANS MUST BE SUBMITTED TO THE OWNER AND ENGINEER FOR REVIEW 14 DAYS PRIOR TO THE TRAIL OR ROAD CLOSURE AND DETOUR.



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PHASE 2 DETOUR PLAN

C1.21
30 OF 129

TRAFFIC CONTROL NOTES

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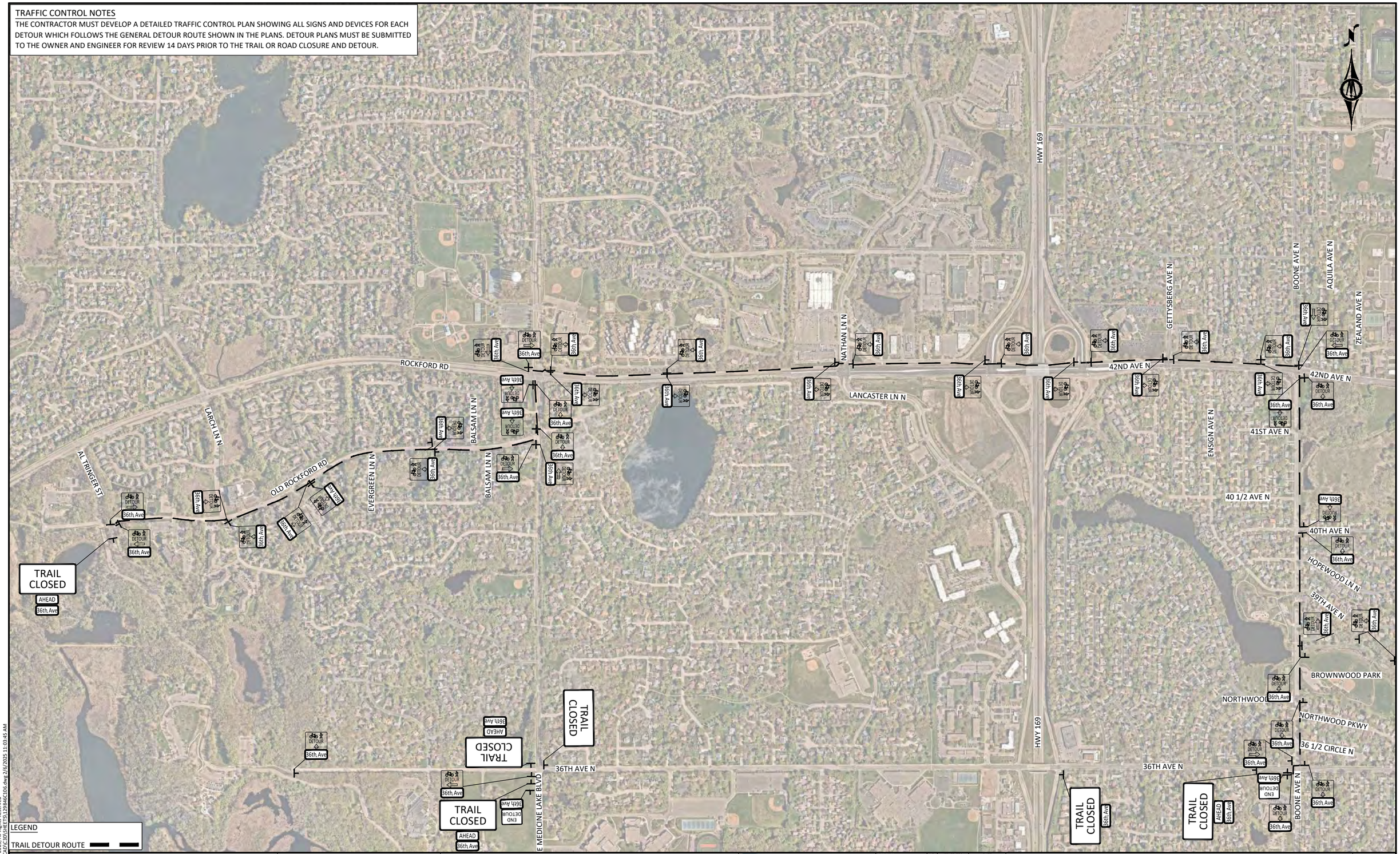

LEGEND

TRAIL DETOUR ROUTE

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/NICHOLAS J. AMATUCCIO

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CITY OF PLYMOUTH, MINNESOTA

36TH AVENUE REHABILITATION

TRAIL DETOUR PLAN

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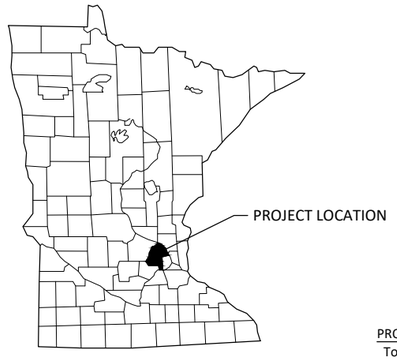
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

36TH AVENUE REHABILITATION

CITY OF PLYMOUTH
HENNEPIN COUNTY, MINNESOTA



LEGEND

- 1-MILE BOUNDARY
- PROJECT BOUNDARY
- IMPAIRED, SPECIAL OR PROTECTED WATERS
- NATIONAL WETLANDS INVENTORY
- RECEIVING WATERS

RESPONSIBLE PARTIES:
The Contractor and Owner will be joint applicants under the MPCA's General Stormwater Permit for Construction Activity as required by the National Pollutant Discharge Elimination System (NPDES) Phase II program.

The Contractor shall provide one or more trained Construction SWPPP Manager(s) knowledgeable and experienced in the application of erosion prevention and sediment control BMPs that will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion prevention and sediment control BMPs.

A Construction SWPPP Manager must be available for an on-site inspection within 72 hours upon request by the MPCA.

	COMPANY	CONTACT PERSON	PHONE
OWNER:	City of Plymouth	Joe Shamla	763-509-5538
SWPPP DESIGNER:	Bolton & Menk, Inc.	Lanol Leichty	952-890-5509
CONTRACTOR:	TBD	TBD	TBD
CONSTRUCTION SWPPP MANAGER:	TBD	TBD	TBD
PARTY RESPONSIBLE FOR LONG TERM O&M:	City of Plymouth	Joe Shamla	763-509-5538

The SWPPP Designer, Construction SWPPP Manager, and BMP Installer must have appropriate training. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Training documentation for the SWPPP Designer is included on the Narrative sheet. The Contractor shall attach training documentation to this SWPPP for the Construction SWPPP Manager and BMP Installer prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

ADDITIONAL COMPENSATION
Payment for all work associated with Erosion and Sediment Control shall be as described in the Project Manual. Unless otherwise authorized by the Owner no additional payment shall be made for any work required to administer and maintain the site erosion and sediment control in compliance with the Minnesota Pollution Control Agency (MPCA) - General Stormwater Permit for Construction Activity (MN R100001) including but not limited to inspection, maintenance, and removal of BMPs or addition of BMPs to accommodate Contractor phasing.

DOCUMENT RETENTION
Permittees must make the SWPPP, including all inspection reports, maintenance records, training records and other information required by this permit, available to federal, state, and local officials within three (3) days upon request for the duration of the permit and for three (3) years following the NOT.

GENERAL STORMWATER DISCHARGE REQUIREMENTS
All requirements listed in Section 5.1 of the Permit for the design of the permanent stormwater management system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

1. The expected amount, frequency, intensity, and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
4. The range of soil particle sizes expected to be present on the site.

Permanent stormwater treatment systems for this project have been designed in accordance with the guidance in the MN Stormwater Manual in place at the time of bidding. Copies of the design information and calculations are part of this SWPPP and will be provided in digital format upon written request to the Engineer.

PROJECT AREAS:

Total Project Size (disturbed area) =	11.3	ACRES
Existing area of impervious surface =	7.7	ACRES
Post construction area of impervious surface =	8.2	ACRES
Total new and reconstructed impervious surface area created =	4.6	ACRES
Planned Construction Start Date:	04/01/2025	
Estimated Construction Completion Date:	11/30/2025	

PERMANENT STORMWATER MANAGEMENT SYSTEM:
Type of storm water management used if more than 1 acre of new impervious surface is created:

	Wet Sedimentation Basin
X	Infiltration/Filtration
	Regional Pond
	Permanent Stormwater Management Not Required

PROJECT LOCATION:

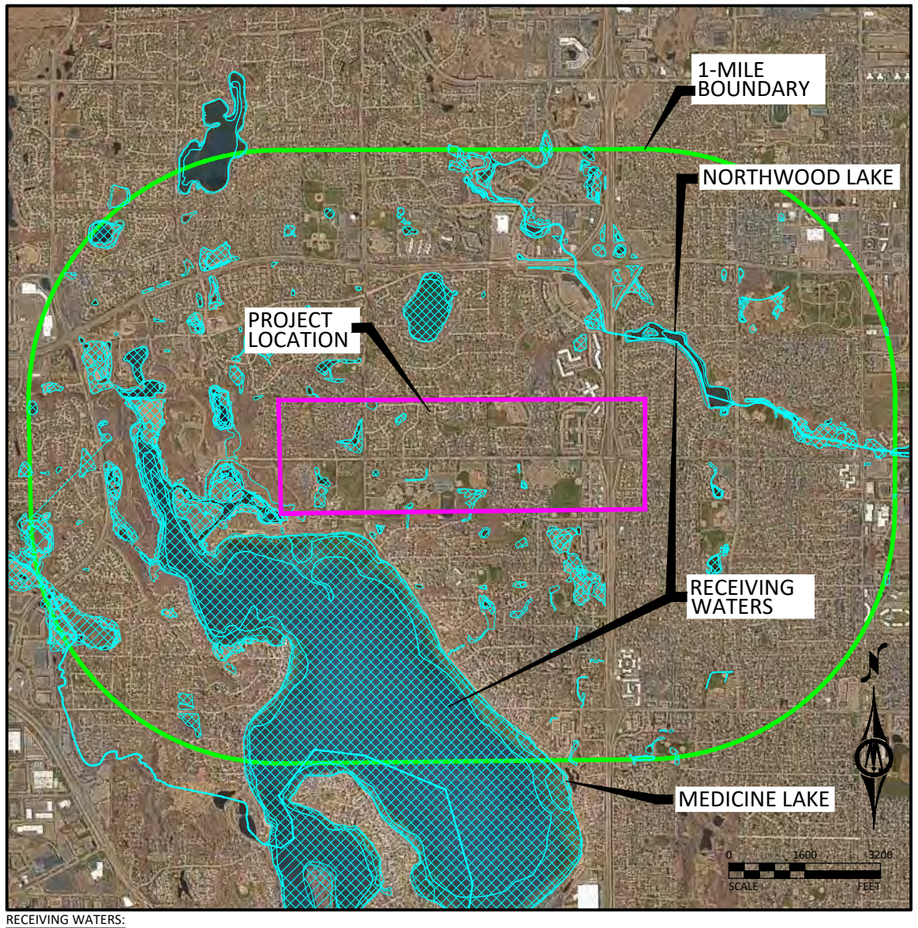
COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
Hennepin	T118N	R22W	13,24	45.021993	-93.411389

BMP SUMMARY	QUANTITY	UNIT
Stabilized Construction Exit	1	EA
Silt Fence, Type MS	1036	LF
Sediment Control Log, Type Wood Fiber	4830	LF
Inlet Protection	73	EA
Riprap	5	CY
Seed & Blanket (33-261)	746	SY
Seed & Blanket (25-151)	3803	SY
Hydromulch & Seed (25-131)	10935	SY

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:
Construction activities include: Site grading, water main improvements, storm sewer, stormwater basin, temporary erosion and sediment control, and permanent stabilization.

Stormwater currently drains into localized storm sewer and eventually reaches either Northwood Lake or Medicine Lake.

After construction is complete stormwater on the west side of the project will continue to drain to the same location, with no change in drainage patterns. The east end of the project will drain into a biofiltration basin, prior to draining into localized storm sewer, with no other changes to the drainage patterns.



RECEIVING WATERS:
Receiving waters, including surface water, wetlands, Public Waters, and stormwater ponds, within 1-mile of the project boundary are identified on the USGS 7.5 min quad map above. Receiving waters that are impaired, the impairment, and WLA are listed as follows. All specific BMPs relative to construction activities listed in the permit for special, prohibited, restricted, or impaired have been incorporated into this plan. All specific BMPs listed in approved TMDLs and those BMPs listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Special, Prohibited, Restricted Water [1]	Flows to Impaired Water Within 1-Mile [2]	USEPA Approved Construction Related TMDL [3]
Northwood Lake	Lake	No	Yes	Nutrients
Medicine Lake	Lake	No	Yes	Fish Bioassessments, Mercury, Nutrients

[1] Special, prohibited, and restricted waters are listed in Section 23 of the MN Construction Stormwater General Permit (MNR100001).
[2] Identified as impaired under section 303 (d) of the federal Clean Water Act for phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.
[3] Construction Related TMDLs include those related to: phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.

IMPLEMENTATION SCHEDULE AND PHASING: The Contractor is required to provide an updated schedule and site management plan meeting the minimum requirements of Section 1717 of the Minnesota Standard Specifications for Construction.

1) Submit SWPPP Updates to Engineer. Submittal shall include any requested changes to the SWPPP, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the SWPPP as designed with no changes.
2) Install perimeter sediment control, inlet protection, and construction exit.
3) Perform removals and clearing operations.
4) Conduct water system improvements.
5) Install storm sewer pipe, catch basins and biofiltration basin.
6) Complete roadway construction.
7) Add additional temporary BMPs as necessary during construction based on inspection reports.
8) Ensure final stabilization measures are complete.
9) Provide digital copy of all Field SWPPP Documentation including Inspection Reports and SWPPP Revisions to the Owner.
10) Submit Notice of Termination (NOT) to MPCA. NOTE: The NOT must be submitted to MPCA before Final Stabilization is considered complete.

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
STORMWATER POLLUTION PREVENTION PLAN
SWPPP PLAN

Information contained in this SWPPP narrative sheet summarizes requirements of the GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PROGRAM - Permit No: MN RI0000I (Permit) as they apply to this project. All provisions of the Permit including those not specifically cited herein shall apply to this project. The Contractor is responsible to be familiar with and comply with all conditions of the permit. The full text of the Permit is available at: https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf

SWPPP AMENDMENTS AND SUBMITTALS

Contractor must prepare and submit to the Engineer a SWPPP amendment as necessary to include additional Best Management Practices (BMPs) to correct problems identified or address the following situations.

1. Contact information and training documentation for Construction SWPPP Manager and BMP Installer,
2. There is a change in construction method of phasing, operation, maintenance, weather or seasonal conditions not anticipated during the design of the SWPPP including but not limited to:
   a. Types and/or Locations of BMPs
   b. Material Storage and Spill Response
   c. Fueling Plans
   d. Locations for Stockpiles, Concrete Washout, and Sanitation Facilities and
   e. Project Phasing
3. It is determined that the SWPPP is not achieving objectives of minimizing pollutants in stormwater discharges associated with construction activity, or
4. The SWPPP is not consistent with the terms and conditions of the permit.

The Contractor may implement SWPPP amendments immediately and is not required to wait for Engineer review of the submittal. The responsibility for completeness of SWPPP amendments and compliance with the Permit lies with the Contractor. Review, comment, or lack of comment by the Engineer on a SWPPP amendment shall not absolve the responsibilities of the Contractor in any way.

If a change order is issued for a design change the SWPPP amendment will be prepared by the Engineer and included in the change order.

In addition to SWPPP amendments, the Contractor shall submit to the Engineer Weekly Erosion and Sediment Control Schedule meeting the requirements of MnDOT 1717.

The Contractor shall keep copies of all SWPPP amendments, Weekly Erosion and Sediment Control Schedules, inspection logs, and maintenance logs with the field copy of the SWPPP. A PDF copy of these documents will be provided along with a copy of the final Field Copy of the SWPPP to the Engineer along with the signed Notice of Termination when final stabilization is complete.

EROSION PREVENTION PRACTICES

Stormwater conveyance channels shall be routed around unstabilized areas. Erosion controls and velocity dissipation devices shall be used at outlets within and along the length of any constructed conveyance channel.

The normal wetted perimeter of all ditches or swales, including storm water management pond slopes, that drain waters from the site must be stabilized within 200' of any property edge or discharge point, including storm sewer inlets, within 24 hours of connection.

Temporary or permanent ditches or swales used as sediment containment during construction do not need to be stabilized during temporary period of use and shall be stabilized within 24 hours after no longer used as sediment containment.

Mulch, hydromulch, tackifier, or similar practice shall not be used in any portion of the wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than 2 percent.

Energy dissipation shall be installed at all temporary or permanent pipe outlets within 24 hours of connection to a surface water or permanent stormwater treatment system.

The Contractor shall phase construction and use construction methods to the extent practical to minimize exposed soils. The project phasing shall be documented in the Weekly Erosion and Sediment Control Schedule.

SEDIMENT CONTROL PRACTICES

Down gradient BMPs including perimeter BMPs must be in place before up gradient land- disturbing activities begin and shall remain in place until final stabilization.

All BMPs that have been adjusted or removed to accommodate short-term activities shall be re-installed or replaced the earlier of the end of the work day or before the next precipitation event even if the activity is not complete.

Inlet BMPs may be removed for specific safety concerns. The BMPs shall be replaced as soon as the safety concern is resolved. The removal shall be documented in the SWPPP as a SWPPP amendment.

Temporary stockpiles must have sediment control BMPs. The Contractor shall prepare and submit to the Engineer a SWPPP amendment showing the location of temporary stockpiles and the BMPs for each stockpile. The SWPPP amendment must meet the minimum requirements of Section 9 of the Permit.

Soil compaction shall be minimized and topsoil shall be preserved, unless infeasible or if construction activities dictate soil compaction or topsoil stripping.

The use of polymers, flocculants, or other sedimentation treatment chemicals are not proposed as part of this SWPPP as designed by the Engineer. If methods or phasing of construction require the use of any of these chemicals, the Contractor shall prepare and submit to the Engineer a SWPPP amendment that meets the minimum requirements of Section 9 of the Permit.

TEMPORARY SEDIMENTATION BASINS

A temporary sedimentation basin has not been included in this SWPPP as designed by the Engineer. If a basin is later determined to be desirable or necessary the Contractor shall prepare and submit to the Engineer a SWPPP amendment. Temporary sedimentation basins shall meet or exceed the minimum requirements of Section 14 of the Permit and shall include a basin draining plan meeting or exceeding the minimum requirements of Section 10 of the Permit. Where the site discharges to Special and/or Impaired Waters the SWPPP amendment shall also meet or exceed the minimum requirements of Section 23 of the permit.

DEWATERING

A dewatering plan has not been included in this SWPPP as designed by the Engineer. If dewatering is required for this project, the Contractor shall prepare and submit to the Engineer a SWPPP amendment. All dewatering shall meet or exceed the minimum requirements of Section 10 of the Permit.

POLLUTION PREVENTION

Products and materials that have the potential to leach pollutants that are stored on the site must be stored in a manner designed to minimize contact with stormwater. Materials that are not a source of potential contamination to stormwater or that are designed for exposure to stormwater are not required to be covered.

Hazardous materials including but not limited to pesticides, fertilizer, petroleum products, curing compounds and toxic waste must be properly stored and protected from stormwater exposure as recommended by the manufacturer in an access restricted area.

Solid waste must be stored, collected and disposed of in compliance with Minnesota Administrative Rules Chapter 7035.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. CH 7041.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. No engine degreasing is allowed on site. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

The Contractor shall prepare and submit a SWPPP amendment detailing the location and BMPs proposed for storage of materials, solid waste, portable toilets, and exterior vehicle or equipment washing on the site. The SWPPP amendment shall include a spill prevention and response plan that is appropriate for the materials proposed to be on the site. The SWPPP amendment shall meet or exceed the minimum requirements of Section 12 of the Permit.

INSPECTION & MAINTENANCE

A trained person shall routinely inspect the entire construction site at the time interval indicated on this sheet of the SWPPP during active construction and within 24-hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24-hours after a rainfall event, the next inspection must be conducted at the time interval indicated in the Receiving Waters Table found on the SITE PLAN AND INFORMATION SHEET of the SWPPP.

All inspections and maintenance conducted during construction must be recorded on the day it is completed and must be retained with the SWPPP. Inspection report forms are available in the Project Specifications. Inspection report forms other than those provided shall be approved by the engineer.

The Contractor may request a change in inspection schedule for the following conditions:

a. Inspections of areas with permanent cover to be reduced to once per month,
b. Inspections of areas that have permanent cover and have had no construction activity for 12 months to be suspended until construction resumes,
c. Inspections of areas where construction is suspended due to frozen ground conditions, inspections to be suspended until the earlier of within 24 hours of runoff occurring, or upon resuming construction.

No change in inspection schedule shall occur until authorized by the Engineer.

Inspections must include:

1. All erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness.
2. Surface waters, including drainage ditches and conveyance systems for evidence of erosion and sediment deposition.
3. Construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles.
4. Infiltration areas to ensure that no sediment from ongoing construction activity is reaching the infiltration area and that equipment is not being driven across the infiltration area.

All non-functioning BMPs and those BMPs where sediment reaches one-half (1/2) of the depth of the BMP, or in the case of sediment basins one-half (1/2) of the storage volume, must be repaired, replaced, or supplemented by the end of the next business day after discovery, or as soon as field conditions allow.

Permittees must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.

Any sediment that escapes the site must be removed and the area stabilized within 7 calendar days of discovery unless precluded by legal, regulatory, or physical access in which case the work shall be completed within 7 calendar days of authorization. Paved surfaces such as streets shall have any escaped or tracked sediment removed by the end of the day or more frequently if directed by the engineer. Sediment release, other than paved surfaces that can be cleaned up with street sweeping shall be reported immediately upon discovery to the Engineer.

PUBLIC WATER RESTRICTIONS:

For public waters that have been promulgated "work in water restrictions" during fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete stabilization within 24-hours during the time period. MN DNR permits are not valid for work in waters that are designated as infested waters unless accompanied by an Infested Waters Permit or written notification has been obtained from MN DNR stating that such permit is not required. There is no exception for pre-existing permits. If a MN DNR Permit has been issued for the project and the water is later designated as infested, the Contractor shall halt all work covered by the MN DNR Permit until an Infested Waters Permit is obtained or that written notification is obtained stating that such permit is not required.

FINAL STABILIZATION

Final Stabilization is not complete until all the following requirements have been met:

1. Substantial Completion has been reached and no ground disturbing activities are anticipated.
2. Permanent cover has been installed with an established minimum uniform perennial vegetation density of 70 percent of its expected final growth. Vegetation is not required in areas where no vegetation is proposed by this project such as impervious surfaces or the base of a sand filter.
3. Accumulated sediment has been removed from all permanent stormwater treatment systems as necessary to ensure the system is operating as designed.
4. All sediment has been removed from conveyance systems
5. All temporary synthetic erosion prevention and sediment control BMPs have been removed. BMPs designated on the SWPPP to remain to decompose on-site may remain.

SITE STABILIZATION COMPLETION:

Stabilization of exposed soils shall begin immediately and shall be completed after the construction activity has temporarily or permanently ceased no later than:	7 calendar days

SITE INSPECTION INTERVAL:

A trained person shall routinely inspect the entire construction site during active construction at an interval of no more than:	7 calendar days and within one day of 1" rain events

SPECIAL ENVIRONMENTAL CONSIDERATIONS AND PERMITS:

1)	Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
2)	Does any portion of the site have the potential to affect threatened or endangered species or their critical habitat?	NO
3)	Does any portion of this site discharge to a Calcareous fen.	NO
4)	Will any portion of the site potentially affect properties listed on the National Register of Historic Places or a known or discovered archeological site?	NO
5)	Have any Karst features have been identified in the project vicinity?	NO
6)	Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO
7)	Has the MN DNR promulgated "work in water restrictions" for any Public Water this site disharges to during fish spawning?	NO

TYPE OF PERMIT	PERMITTING AGENCY	PERMIT STATUS AND CONDITIONS
Construction Stormwater NPDES	MPCA	To Be Applied For
Erosion and Sediment Control	Bassett Creek WMC	To be Applied For

SWPPP DESIGNER TRAINING DOCUMENTATION:

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LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
STORMWATER POLLUTION PREVENTION PLAN
SWPPP NARRATIVE

LEGEND

- PROJECT BOUNDARY
- SOIL TYPE
- IMPAIRED, SPECIAL OR PROTECTED WATERS
- NATIONAL WETLANDS INVENTORY
- DWSMA, LOW VULNERABILITY
- STEEP SLOPES (>33.3%)
- RECEIVING WATERS

N

0 250 500
SCALE FEET

SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
L132A	Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes	C/D	MUHELCL
L22C2	cordova loam, 0 to 2 percent slopes	B	MUHELCL
L22D2	Cordova loam, 0 to 2 percent slopes	B	MUHELCL
L22E	Lester loam, morainic, 18 to 25 percent slopes	B	HEL
L23A	Cordova loam, 0 to 2 percent slopes	C/D	MUHELCL
L24A	Glencoe loam, depressional, 0 to 1 percent slopes	B/D	MUHELCL
L25A	Le Sueur loam, 1 to 3 percent slopes	B/D	MUHELCL
L2B	Malardi-Hawick complex, 1 to 6 percent slopes	A	MUHELCL
L2C	Malardi-Hawick complex, 6 to 12 percent slopes	A	PHEL
L2E	Malardi-Hawick complex, 18 to 35 percent slopes	A	HEL
L36A	Hamel, overwash-Hamel complex, 1 to 4 percent slopes	C/D	MUHELCL
L37B	Angus loam, 2 to 6 percent slopes	C	MUHELCL
L46A	Tomall loam, 0 to 2 percent slopes	B	MUHELCL
L49A	Klossner soils, depressional, 0 to 1 percent slopes	B/D	MUHELCL
L50A	Houghton and Muskego soils, depressional, 0 to 1 percent slopes	C/D	MUHELCL
L60B	Angus-Moon complex, 2 to 5 percent slopes	B	MUHELCL
L61C2	Lester-Metea complex, 6 to 12 percent slopes, eroded	B	PHEL
U3B	Udorthents (cut and fill land), 0 to 6 percent slopes		MUHELCL
U4A	Urban land-Udipsamments (cut and fill land) complex, 0 to 2 percent slopes		MUHELCL
W	Water		N/A

NHEL - Not Highly Erodible Land

PHEL - Potentially Highly Erodible Land

HEL - Highly Erodible Land

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	C2.01
DIRECTION OF FLOW	C2.04 - C2.08
FINAL STABILIZATION	C2.04 - C2.08
SOILS	C2.03
DRAINAGE STRUCTURES	C1.01
DRAINAGE TABULATION	C1.01
STORM SEWER PLAN & PROFILE SHEETS	C5.01 - C5.04
EROSION & SEDIMENT CONTROL DETAILS	C2.04
NARRATIVE & NOTES	C2.01 - C2.02

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
STORMWATER POLLUTION PREVENTION PLAN
SWPPP SOILS

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NOTE:
5 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

NOTE:
13 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

NOTE:
2 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

ZACHARY LN

E MEDICINE LAKE BLVD

XIMINES LN

WELLINGTON LN

36TH AVENUE

EROSION CONTROL LEGEND

- CONSTRUCTION LIMITS
- EXISTING/PROPOSED DRAINAGE FLOW
- INLET PROTECTION
- SCL — SEDIMENT CONTROL LOG
- HI — SILT FENCE (HAND INSTALLED)
- RETAINING WALL
- STABILIZED CONSTRUCTION EXIT
- PRE CONSTRUCTION IMPERVIOUS
- POST CONSTRUCTION IMPERVIOUS
- HYDROMULCH (SEED MIX 25-131)
- SEED & BLANKET (SEED MIX 25-131)
- SEED & BLANKET (SEED MIX 33-261)

HORZ. SCALE 0 25 50 FEET

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EROSION CONTROL & TURF ESTABLISHMENT
36TH AVENUE

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NOTE:
3 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

UNION TERRACE LN

TRENTON LN

SARATOGA LN

36TH AVENUE

EROSION CONTROL LEGEND

- CONSTRUCTION LIMITS
- EXISTING/PROPOSED DRAINAGE FLOW
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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EROSION CONTROL & TURF ESTABLISHMENT
36TH AVENUE

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NOTE:
2 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

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2 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

PILGRIM LN

PILGRIM LN

EROSION CONTROL LEGEND

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- POST CONSTRUCTION IMPERVIOUS
- HYDROMULCH (SEED MIX 25-131)
- SEED & BLANKET (SEED MIX 25-131)
- SEED & BLANKET (SEED MIX 33-261)

TRANSPLANT MEMORIAL TREE & BOULDERS

36TH AVENUE

SKYLINE HONEYLOCUST

PRINCETON AMERICAN ELM

HORZ. SCALE 0 25 50 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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www.bolton-menk.com

City of Plymouth

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CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
EROSION CONTROL & TURF ESTABLISHMENT
36TH AVENUE

NOTE:
5 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

LANCASTER LN

EP: 85+04.62

36TH AVE

KILMER LN

CONTAMINATED SOIL APPROXIMATELY 6' BELOW SURFACE (TYP.)

NOTE:
5 EACH - INSTALL INLET PROTECTION IN EACH DOWNSTREAM CATCH BASIN

BP: 80+00.00

PC: 80+66.02

PT: 83+21.37

CONTAMINATED SOIL APPROXIMATELY 6' BELOW SURFACE (TYP.)

EROSION CONTROL LEGEND

CONSTRUCTION LIMITS	STABILIZED CONSTRUCTION EXIT
EXISTING/PROPOSED DRAINAGE FLOW	PRE CONSTRUCTION IMPERVIOUS
INLET PROTECTION	POST CONSTRUCTION IMPERVIOUS
SCL — SEDIMENT CONTROL LOG	HYDROMULCH (SEED MIX 25-131)
HI — SILT FENCE (HAND INSTALLED)	SEED & BLANKET (SEED MIX 25-131)
RETAINING WALL	SEED & BLANKET (SEED MIX 33-261)

HORZ. SCALE 0 25 50 FEET

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36TH AVENUE REHABILITATION
EROSION CONTROL & TURF ESTABLISHMENT
36TH AVENUE

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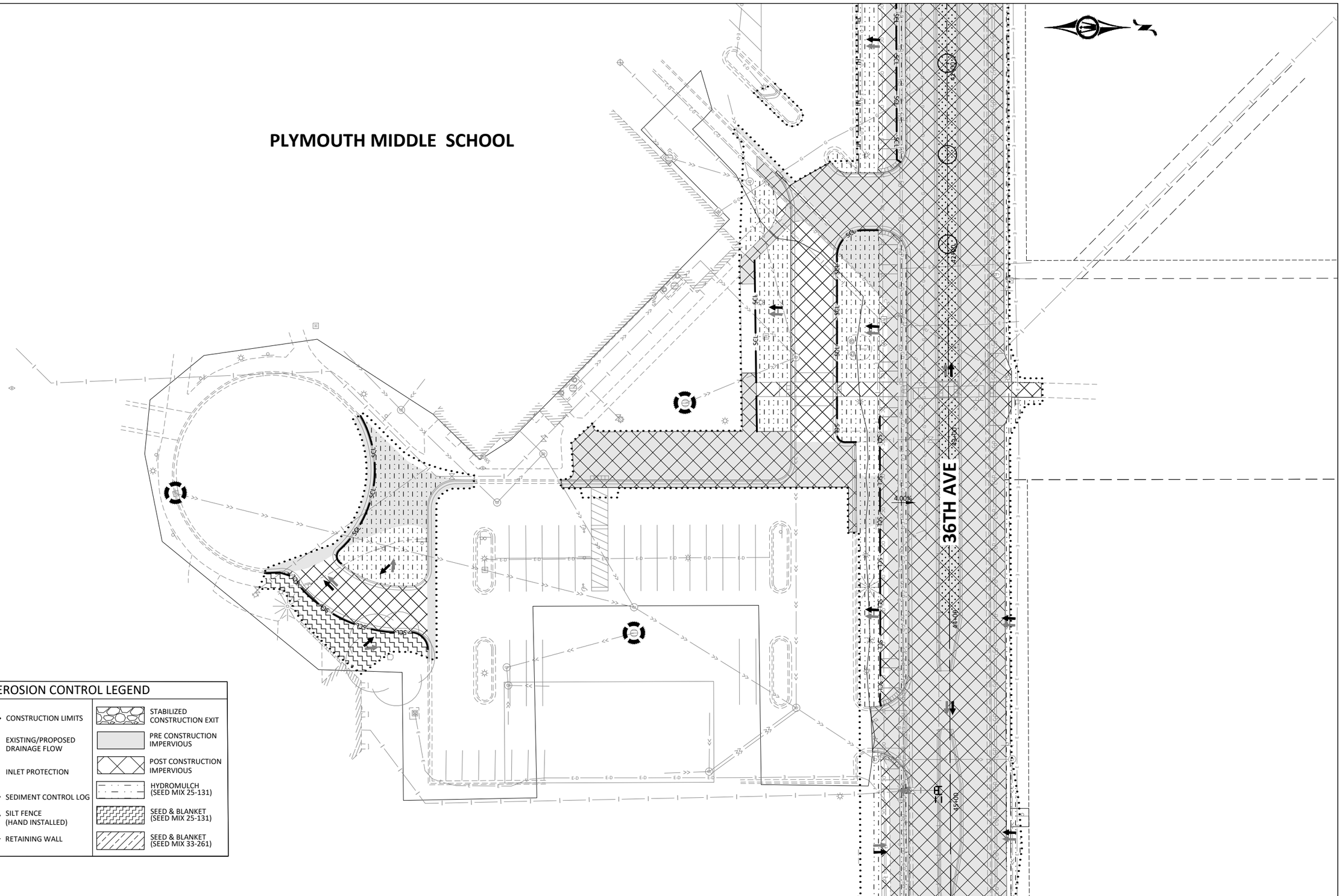
PLYMOUTH MIDDLE SCHOOL



EROSION CONTROL LEGEND

CONSTRUCTION LIMITS	STABILIZED CONSTRUCTION EXIT
EXISTING/PROPOSED DRAINAGE FLOW	PRE CONSTRUCTION IMPERVIOUS
INLET PROTECTION	POST CONSTRUCTION IMPERVIOUS
SCL — SEDIMENT CONTROL LOG	HYDROMULCH (SEED MIX 25-131)
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RETAINING WALL	SEED & BLANKET (SEED MIX 33-261)

HORZ. 0 25 50
SCALE FEET

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EROSION CONTROL & TURF ESTABLISHMENT
36TH AVENUE

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36TH AVE

KILMER LN

974.76

974.72

974.63

973.75

5 CY RIP RAP CL III

SETTLING BASIN
BOTTOM = 970.50
(INCIDENTAL TO FILTRATION
BASING EXCAVATION AND GRADING)

21.31%

32.49%

20.76%

25.59%

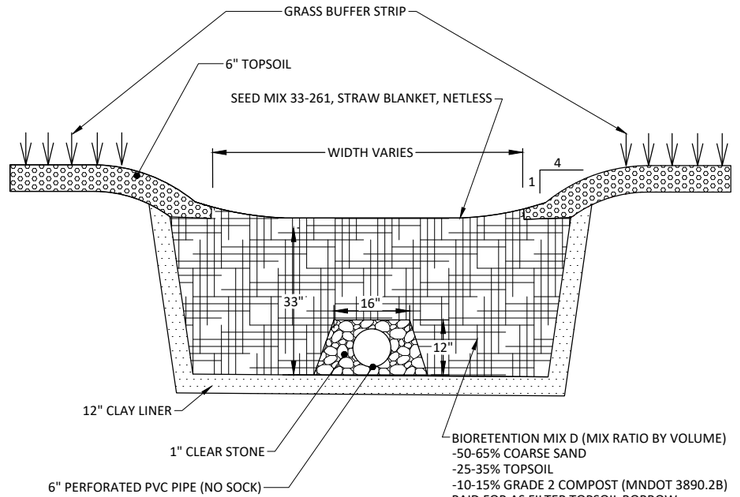
32.28%

BOTTOM ELEVATION: 971.50

CONTAMINATED SOIL
APPROXIMATELY 6' BELOW SURFACE
(TYP.)

NOTE:

1. CONTRACTOR SHALL EXCAVATE THE NECESSARY DEPTH TO CONSTRUCT FILTRATION BASIN AND EMPLOY MEANS TO AVOID COMPACTION OF SOIL WITHIN THE RAIN GARDEN. HEAVY EQUIPMENT SHALL NOT BE ALLOWED WITHIN THE SAND FILTER AREA AT ANY TIME.
2. INSTALL THE SAND FILTER IMMEDIATELY UPON COMPLETION OF THE GRADING FOR THE FILTER BASIN.
3. SAND FILTER TO DRAIN WITHIN 48 HOURS.
4. DOUBLE RING INFILTROMETER TEST TO BE PERFORMED FOR EACH BASIN AFTER INSTALLATION, TO CONFIRM FILTRATION MATERIAL MEETS THE DESIGNED FILTRATION RATE, TO BE APPROVED BY THE ENGINEER.
5. ROUTE PRIVATE DRAINTILE PIPE THROUGH THE WATER FEATURE WALLS.



TYPICAL FILTRATION BASIN CROSS-SECTION
NOT TO SCALE

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36TH AVENUE REHABILITATION
FILTRATION BASIN GRADING PLAN

C3.01
40
OF
129

36TH AVENUE

ZACHARY LANE

XIMINES LANE N

EAST MEDICINE LAKE BLVD

WELLINGTON LANE N

WELLINGTON LANE

ARMSTRONG HIGH SCHOOL ENTRANCE

11035 36TH PLACE N

11025 36TH PLACE N

11015 36TH PLACE N

11005 36TH PLACE N

3600 XIMINES LANE N

3605 WELLINGTON LANE N

3560 MEDICINE LAKE BLVD E

11021 36TH AVENUE N

10935 36TH AVENUE N

10921 36TH AVENUE N

3595 WELLINGTON LANE N

10745 36TH PLACE N

10735 36TH PLACE N

10725 36TH PLACE N

10715 36TH PLACE N

10620 36TH AVENUE N

10610 36TH AVENUE N

10600 36TH AVENUE N

10605 36TH AVENUE N

3590 WELLINGTON LANE N

10730 35TH PLACE N

10720 35TH PLACE N

10710 35TH PLACE N

ROW (TYP.)

ROW (TYP.)

CONSTRUCTION LIMITS (TYP.)

CONSTRUCTION LIMITS (TYP.)

10 LF 6" C900 PVC
10 LF 8" C900 PVC
1 EA 6" GV & BOX
1 EA 8" GV & BOX
1 EA 8"X6" TEE
1 EA HYDRANT
1 EA 8" SLEEVE
2 EA CONNECT TO EX WMN

1 EA 6" GV & BOX
1 EA 8"X6" TEE
15 LF 8" C900 PVC
5 LF 6" C900 PVC
2 EA 8" SLEEVE
2 EA CONNECT TO EX WMN

1 EA HYDRANT
1 EA 8"X6" TEE
1 EA 6" GV & BOX
10 LF 8" C900 PVC
12 LF 6" C900 PVC
1 EA 8" SLEEVE
2 EA CONNECT TO EX WMN

1 EA 8"X6" TEE
1 EA 8" GV & BOX
1 EA 6" GV & BOX
20 LF 8" C900 PVC
10 LF 6" C900 PVC
2 EA 8" SLEEVE
1 EA 6" SLEEVE
3 EA CONNECT TO EX WMN

1 EA HYDRANT
1 EA 8"X6" TEE
1 EA 6" GV & BOX
9 LF 6" C900 PVC
1 EA 6" GV & BOX
10 LF 8" C900 PVC
1 EA 8" SLEEVE
2 EA CONNECT TO EX WMN

1 EA HYDRANT
1 EA 8"X6" TEE
1 EA 6" GV & BOX
10 LF 8" C900 PVC
10 LF 6" C900 PVC
2 EA 8" SLEEVE
2 EA CONNECT TO EX WMN

1 EA 8"X6" TEE
1 EA 6" PLUG
2 EA CONNECT TO EX WMN

NOTES:
NEW VALVE BOXES REQUIRED FOR ALL REPAIRED VALVES AND SHALL BE CONSIDERED INCIDENTAL TO THE VALVE REPAIR. VALVE BOX ADJUSTMENT IS INCIDENTAL TO THE VALVE BOLT REPLACEMENTS.
ALL VALVE BOXES WITHIN SIDEWALKS AND TRAILS MUST ADJUSTED TO BE FLUSH WITH THE CONCRETE OR BITUMINOUS PAVEMENT.

N 89°30'04" E 2593.04

HORZ. SCALE 0 25 50 FEET

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SANITARY & WATER PLAN
36TH AVENUE

C4.01
41
OF
129

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1 EA REPAIR WATER VALVE

ROW (TYP.)

UNION TERRACE LANE

TRENTON LANE

10 LF 6" C900 PVC
1 EA 6" GV & BOX
1 EA 6" SLEEVE
1 EA CONNECT TO EX WM

3605 UNION TERRACE LANE N

3600 UNION TERRACE LANE N

3605 TRENTON LANE N

3600 TRENTON LANE N

3605 SARATOGA LANE N

18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00

10601 36TH AVENUE N

10515 36TH AVENUE N

10505 36TH AVENUE N

CONSTRUCTION LIMITS (TYP.)

ARMSTRONG HIGH SCHOOL ENTRANCE

10 LF 8" C900 PVC
1 EA 8" GV & BOX
1 EA 8" SLEEVE
1 EA CONNECT TO EX WM

10415 36TH AVENUE N

36TH AVENUE

NOTES:
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SARATOGA LANE

10 LF 6" C900 PVC
1 EA 6" GV & BOX
1 EA 6" SLEEVE
1 EA CONNECT TO EX WM

SARATOGA LANE N

3600 SARATOGA LANE N

ROW (TYP.)

10229 36TH PLACE N

10219 36TH PLACE N

10209 36TH PLACE N

10129 36TH PLACE N

10119 36TH PLACE N

26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00

1 EA REPAIR WATER VALVE

CONSTRUCTION LIMITS (TYP.)

PILGRIM LANE

TIBURON

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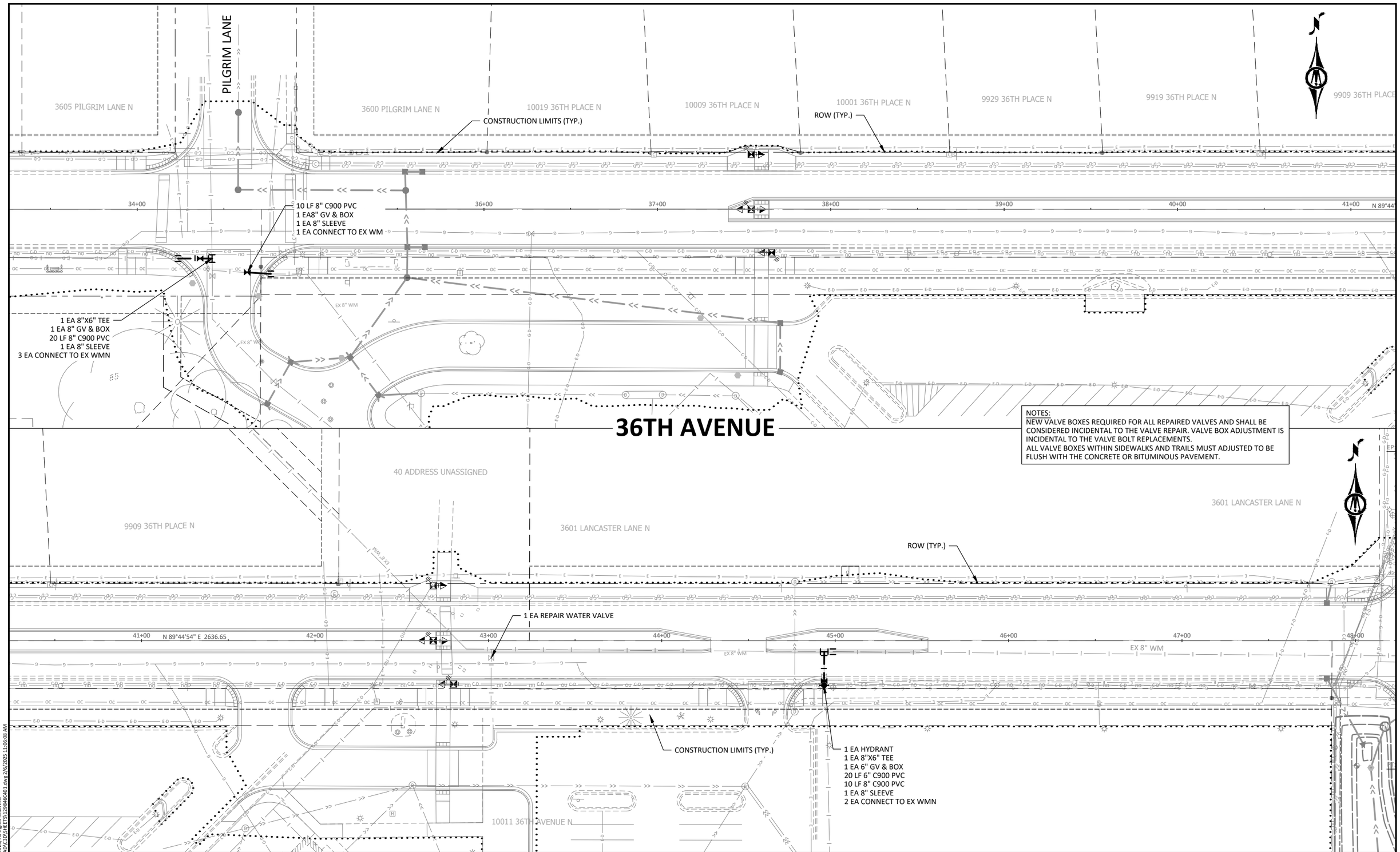
36TH AVENUE REHABILITATION
SANITARY & WATER PLAN
36TH AVENUE



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SANITARY & WATER PLAN
36TH AVENUE

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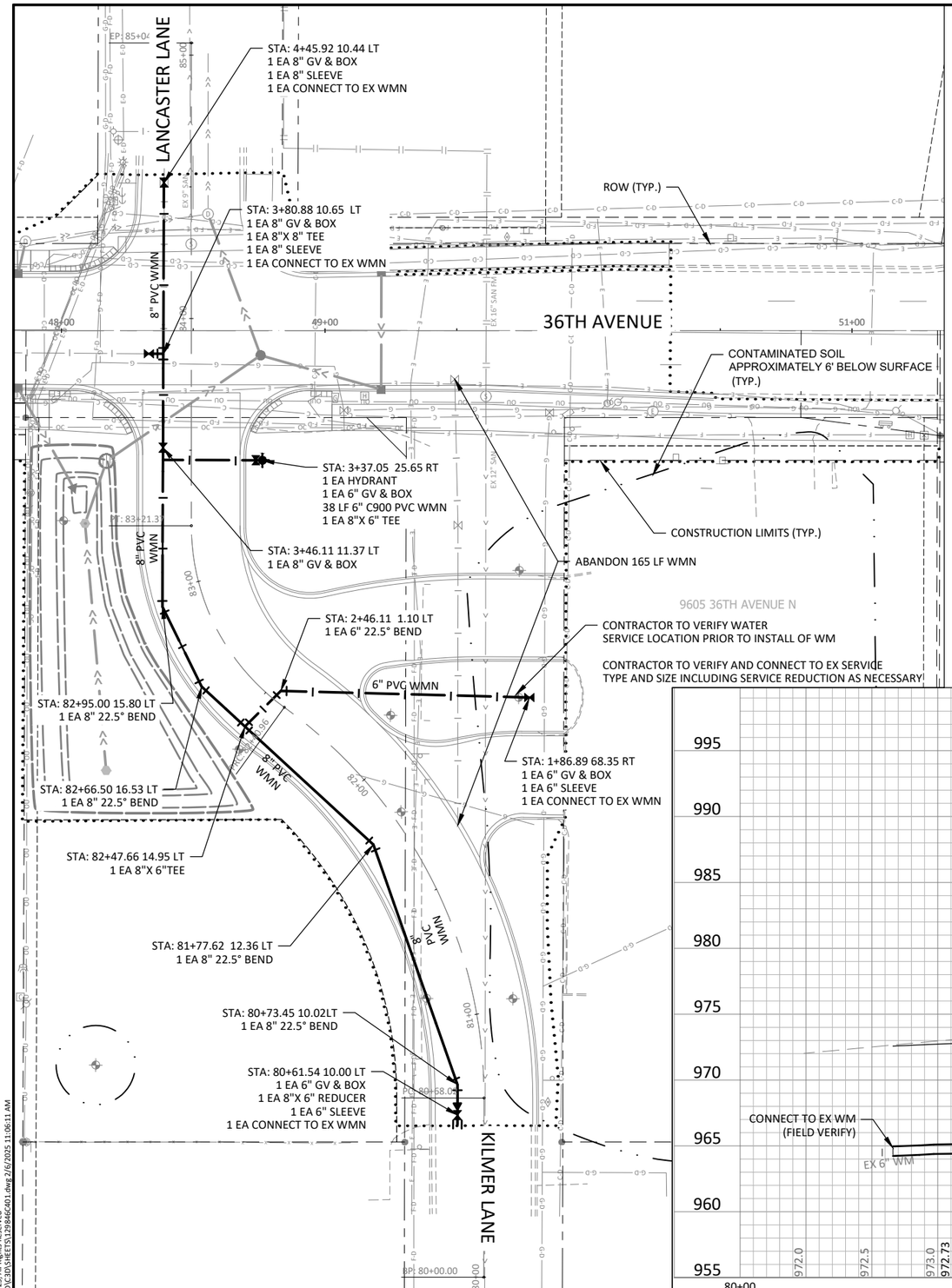
43
OF
129



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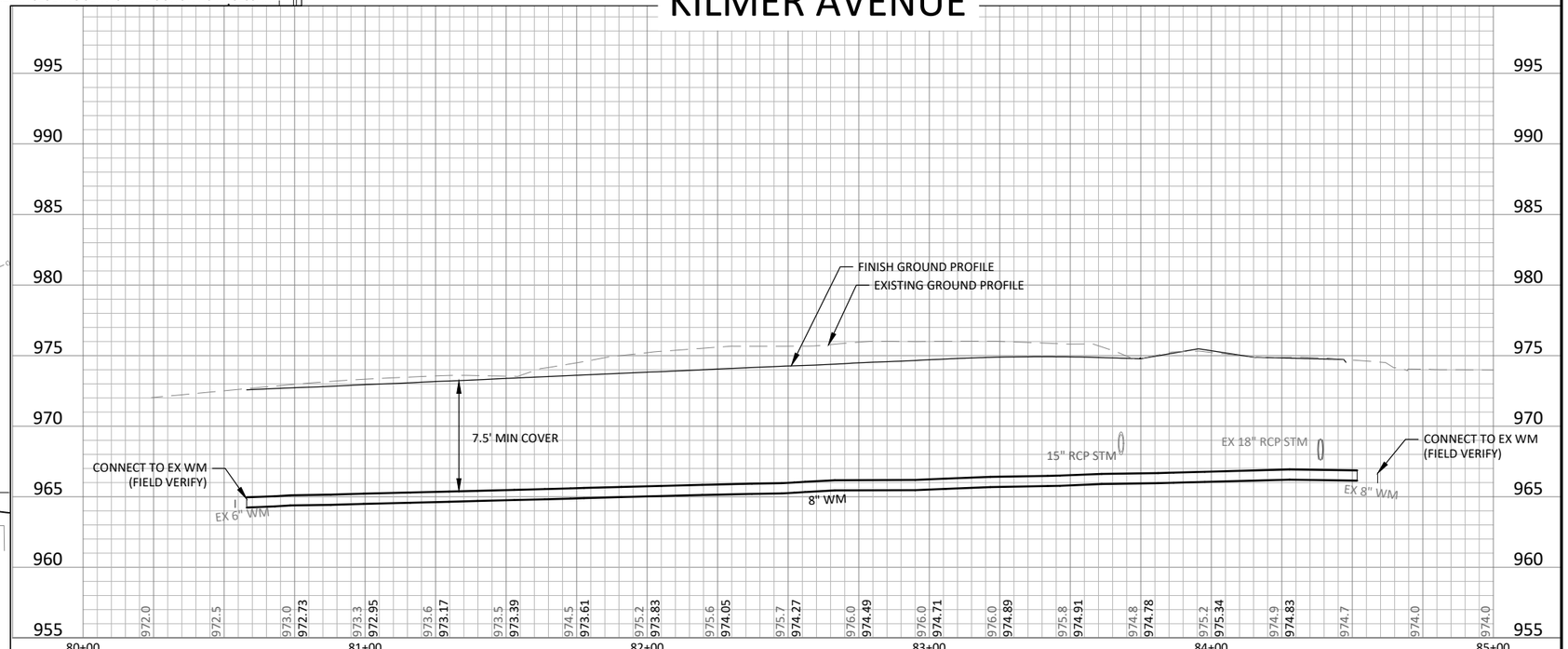

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SANITARY & WATER PLAN
36TH AVENUE

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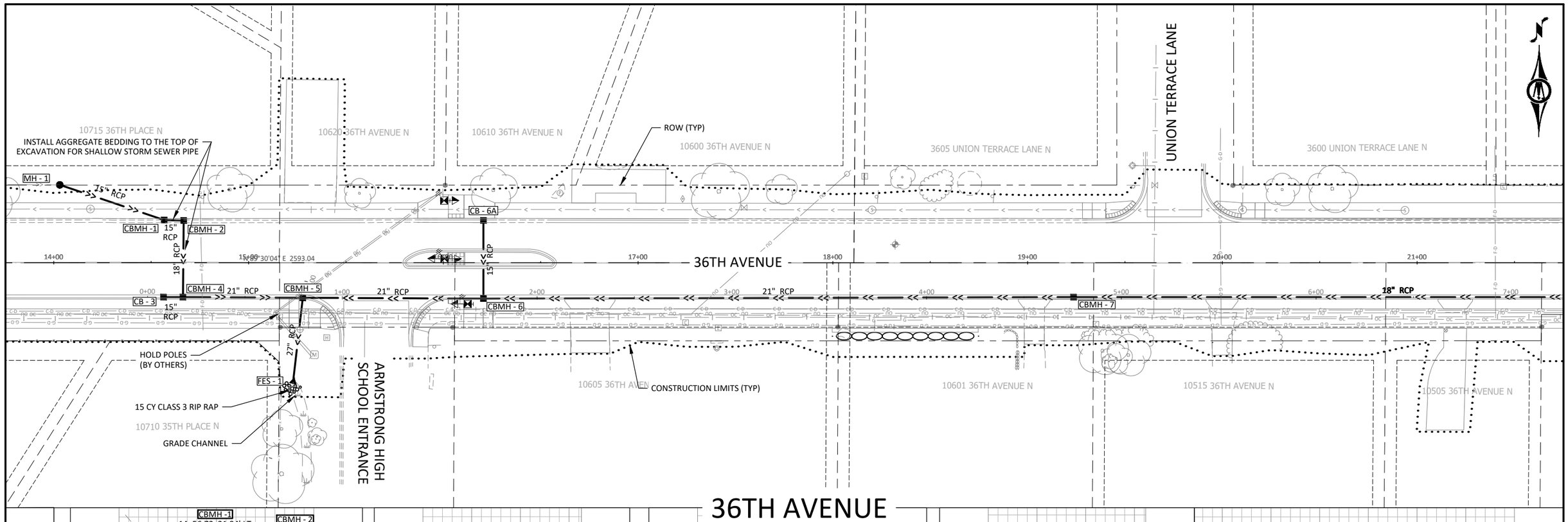
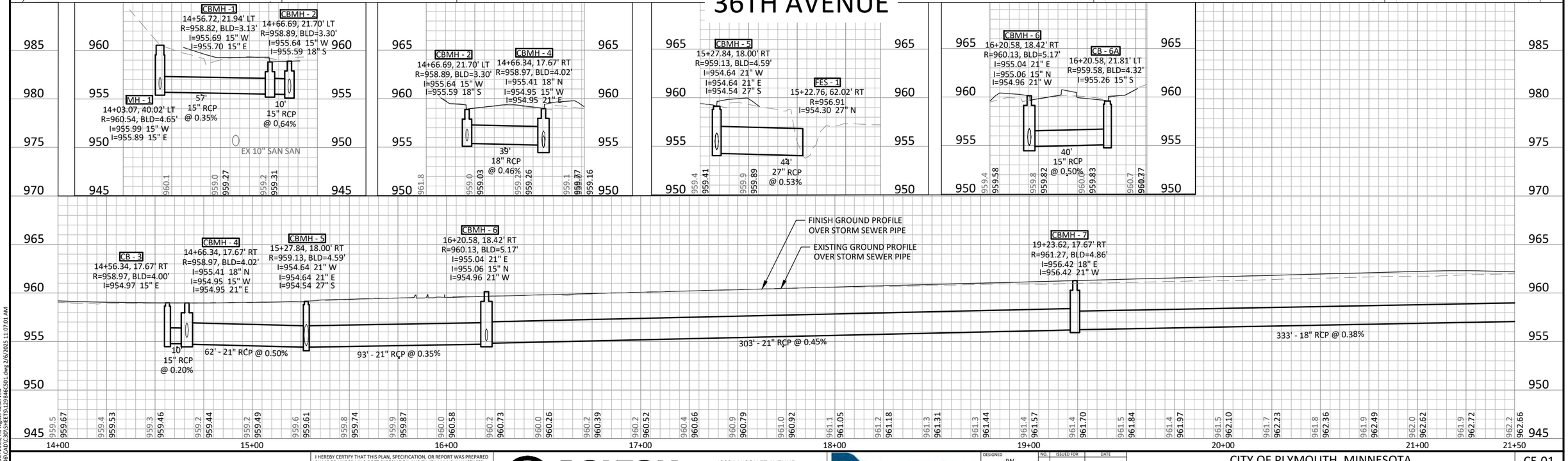


36TH AVENUE



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VERT. SCALE 0 5 10 FEET

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36TH AVENUE REHABILITATION
STORM SEWER PLAN & PROFILE
36TH AVENUE

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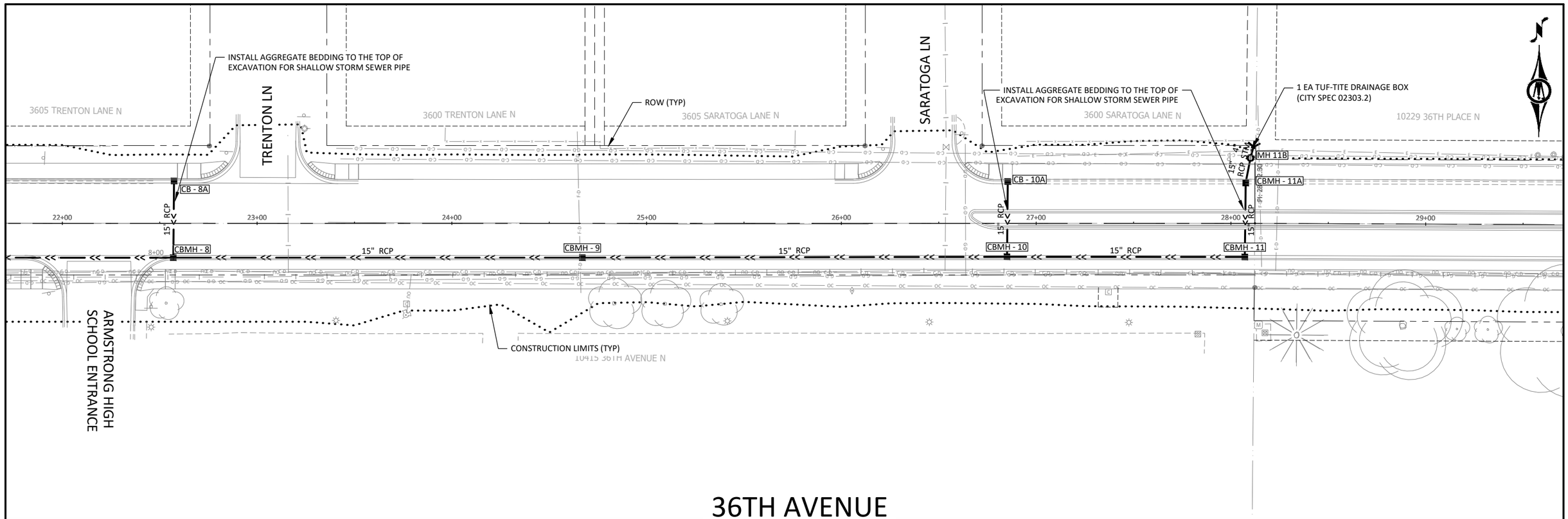
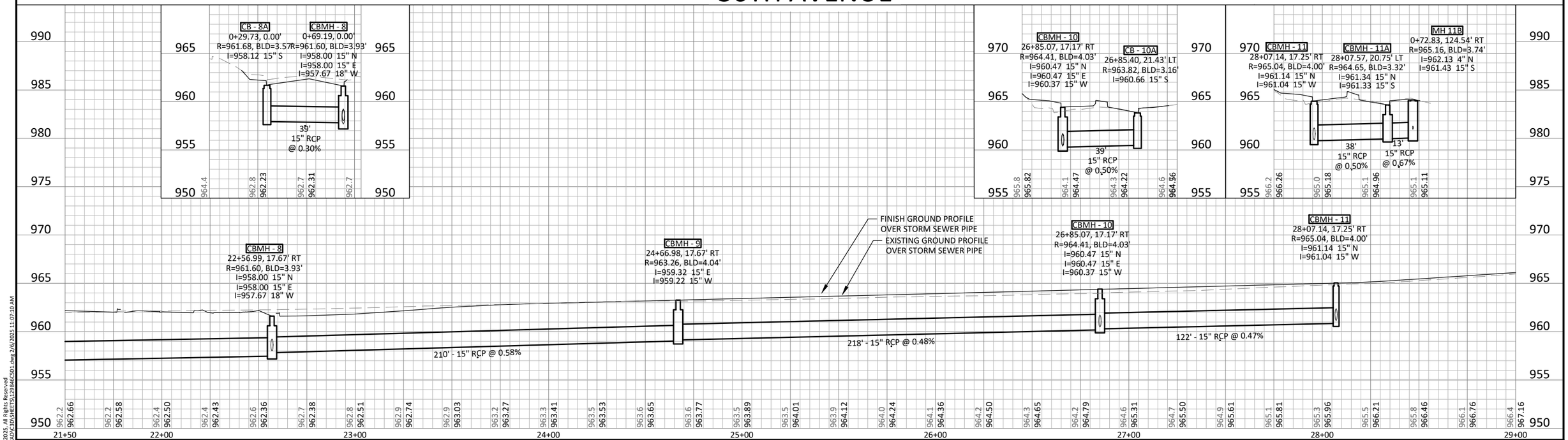


36TH AVENUE



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STORM SEWER PLAN & PROFILE
36TH AVENUE

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46
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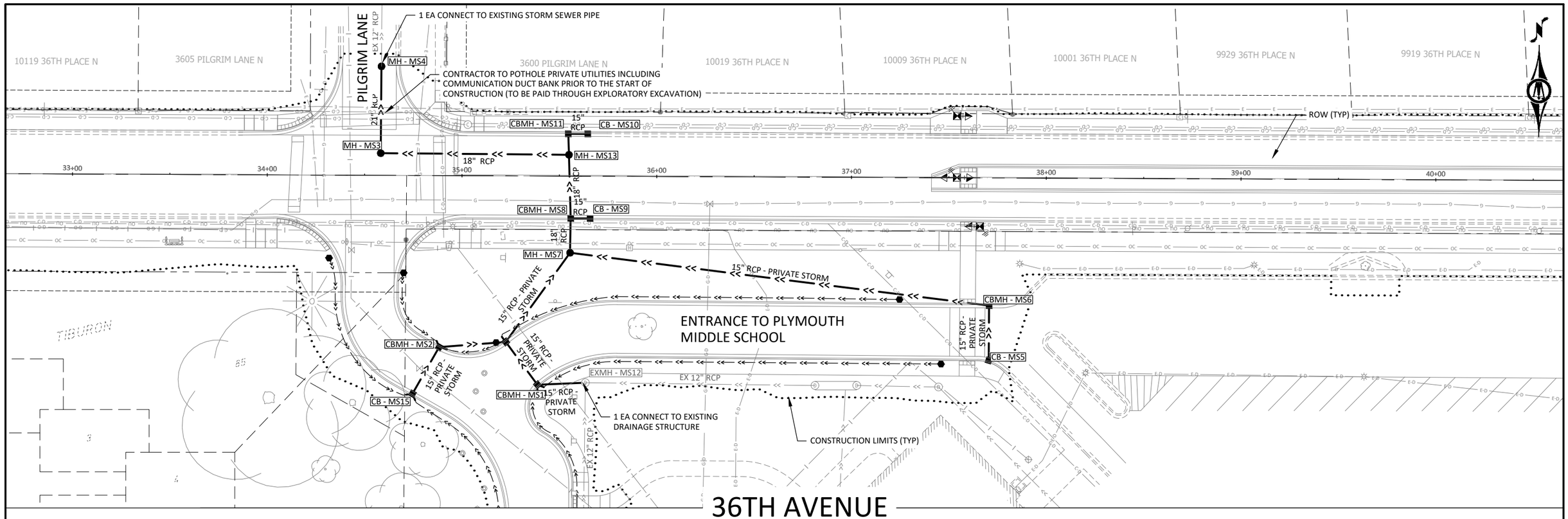

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STORM SEWER PLAN & PROFILE
36TH AVENUE

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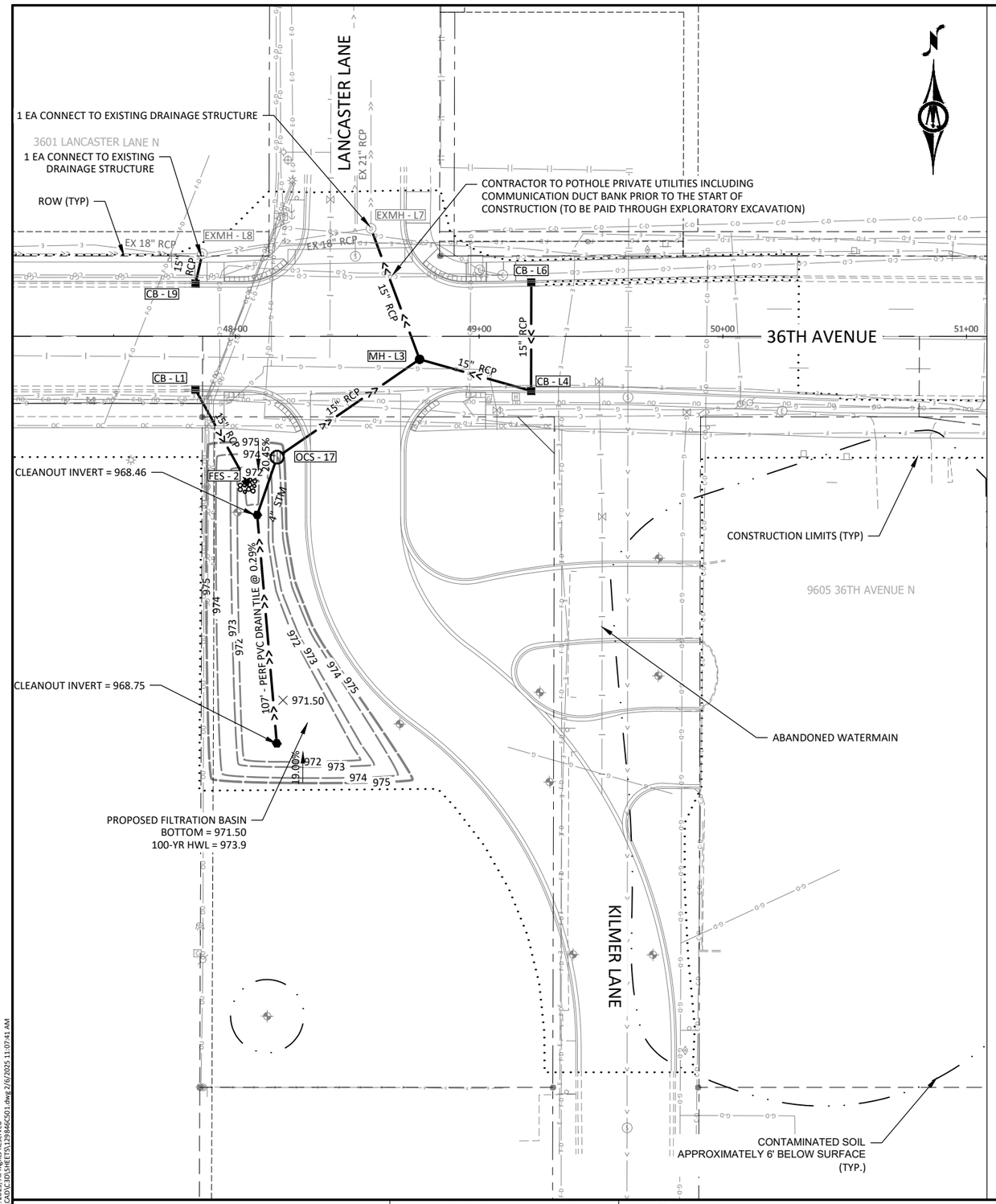

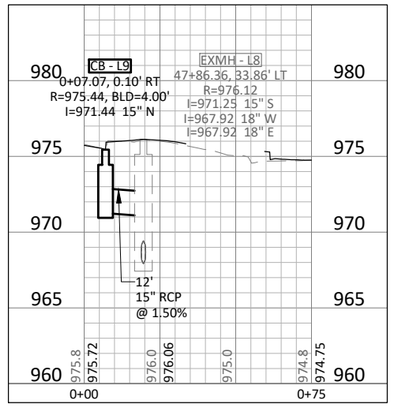

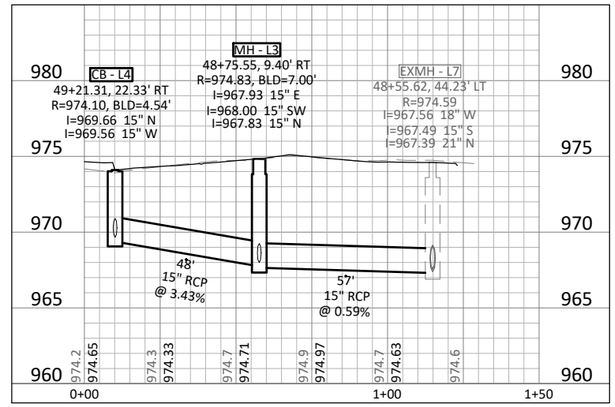

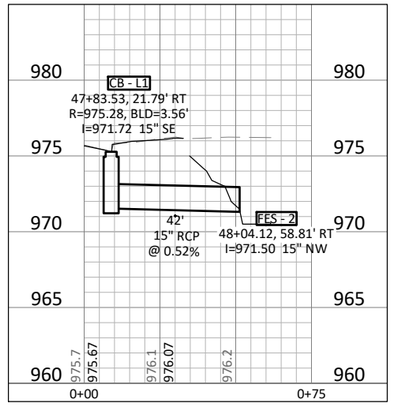

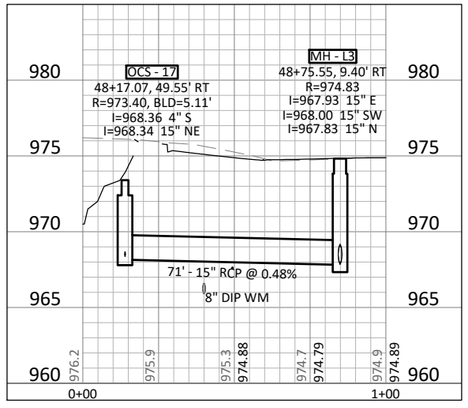

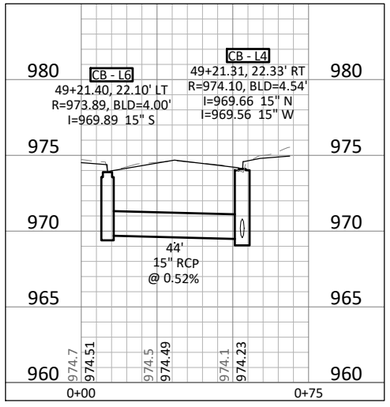

HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

BOLTON & MENK
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
STORM SEWER PLAN & PROFILE
36TH AVENUE - KILMER AVENUE

C5.04
48
OF
129

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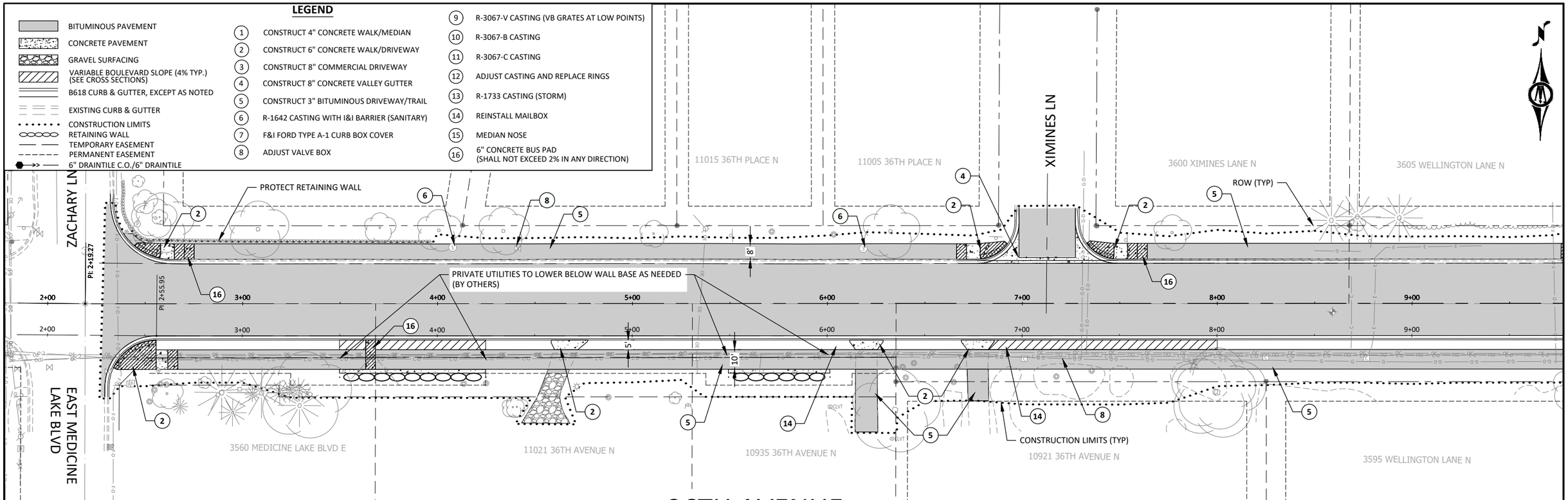
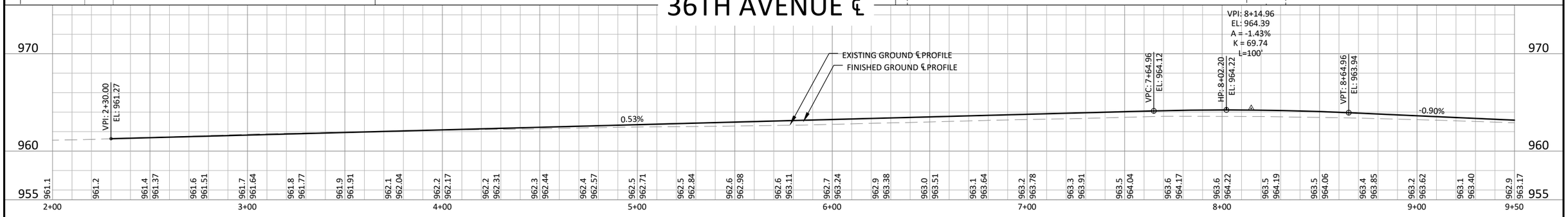
LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- VARIABLE BOULEVARD SLOPE (4% TYP.) (SEE CROSS SECTIONS)
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCTION LIMITS
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE

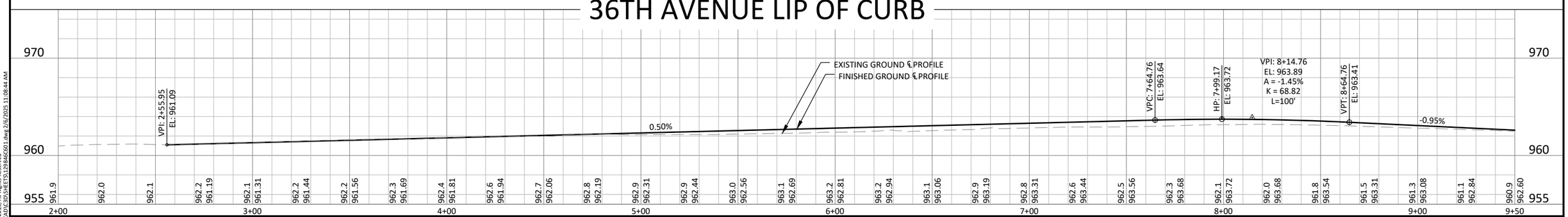
1. CONSTRUCT 4" CONCRETE WALK/MEDIAN
2. CONSTRUCT 6" CONCRETE WALK/DRIVEWAY
3. CONSTRUCT 8" COMMERCIAL DRIVEWAY
4. CONSTRUCT 8" CONCRETE VALLEY GUTTER
5. CONSTRUCT 3" BITUMINOUS DRIVEWAY/TRAIL
6. R-1642 CASTING WITH I&I BARRIER (SANITARY)
7. F&I FORD TYPE A-1 CURB BOX COVER
8. ADJUST VALVE BOX
9. R-3067-V CASTING (VB GRATES AT LOW POINTS)
10. R-3067-B CASTING
11. R-3067-C CASTING
12. ADJUST CASTING AND REPLACE RINGS
13. R-1733 CASTING (STORM)
14. REINSTALL MAILBOX
15. MEDIAN NOSE
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)



36TH AVENUE ℄



36TH AVENUE LIP OF CURB



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.01
49 OF 129

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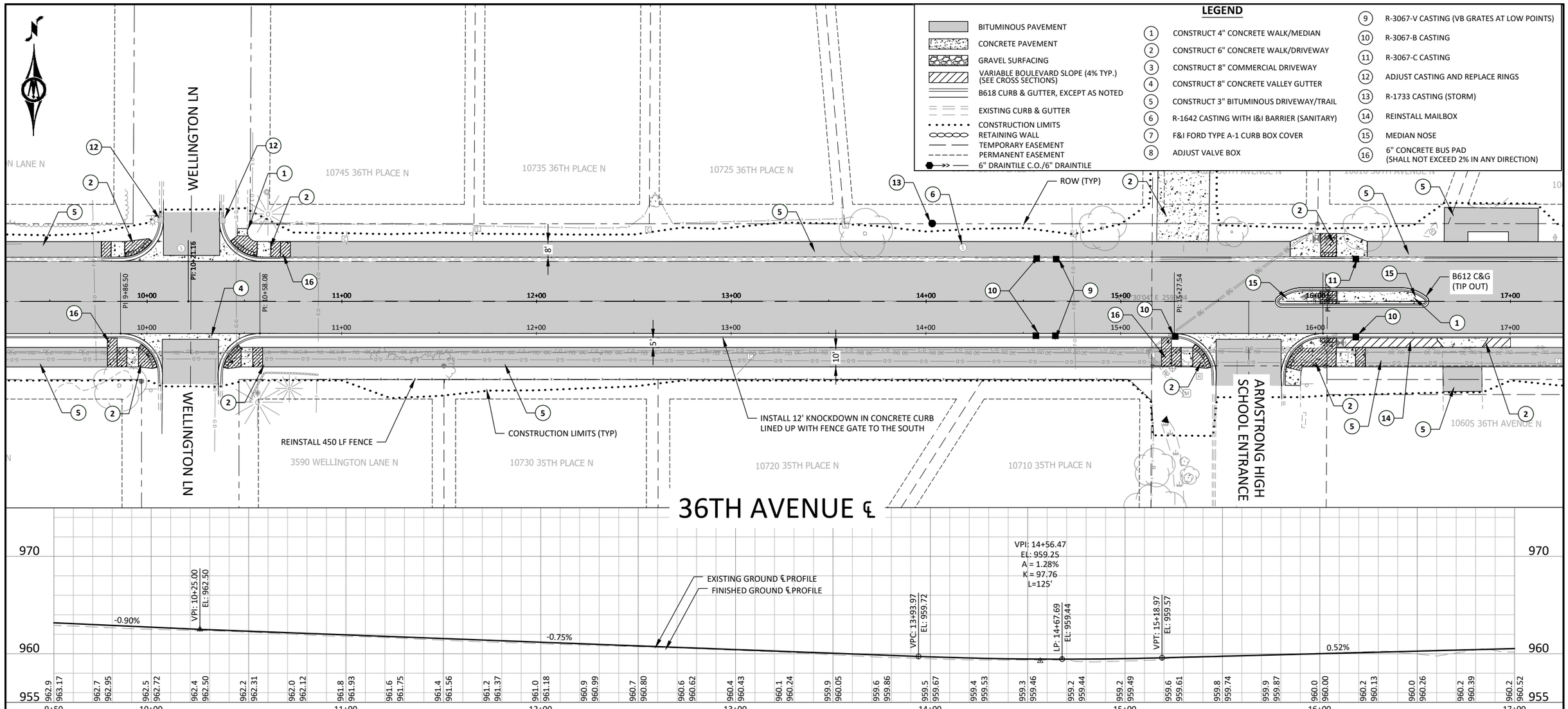
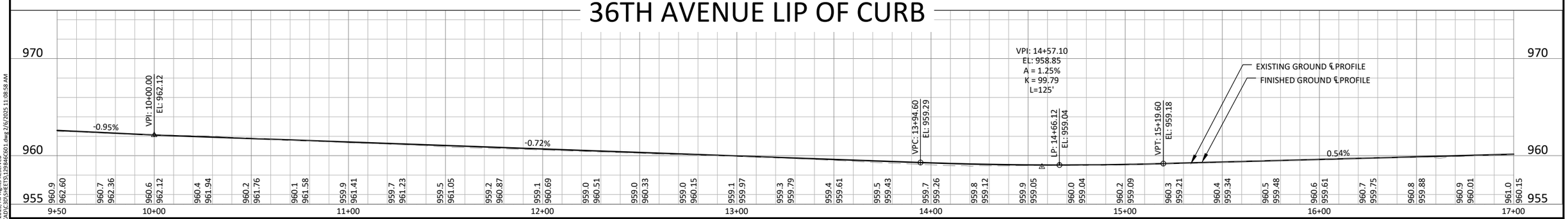


36TH AVENUE LIP OF CURB



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.02
50 OF 129

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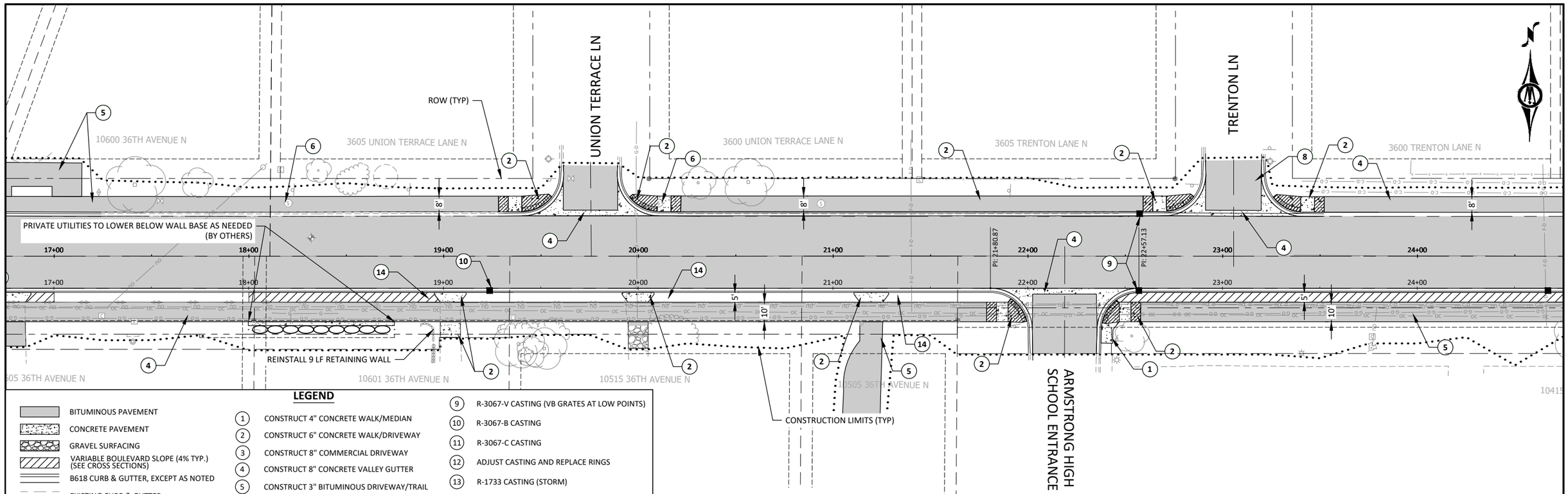

LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- VARIABLE BOULEVARD SLOPE (4% TYP.) (SEE CROSS SECTIONS)
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCTION LIMITS
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE

1. CONSTRUCT 4" CONCRETE WALK/MEDIAN
2. CONSTRUCT 6" CONCRETE WALK/DRIVEWAY
3. CONSTRUCT 8" COMMERCIAL DRIVEWAY
4. CONSTRUCT 8" CONCRETE VALLEY GUTTER
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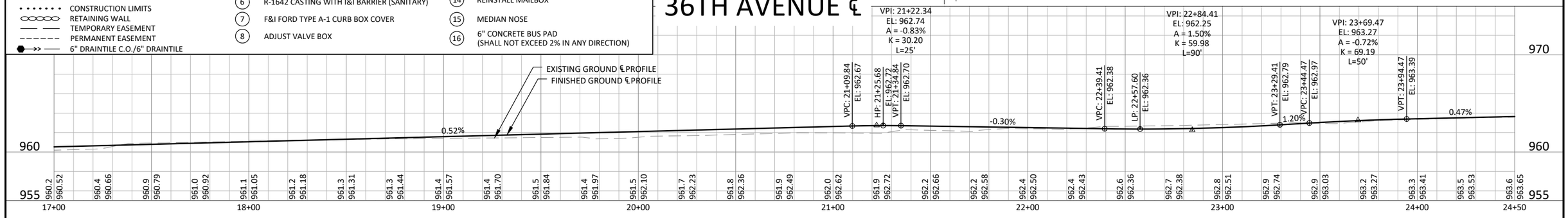
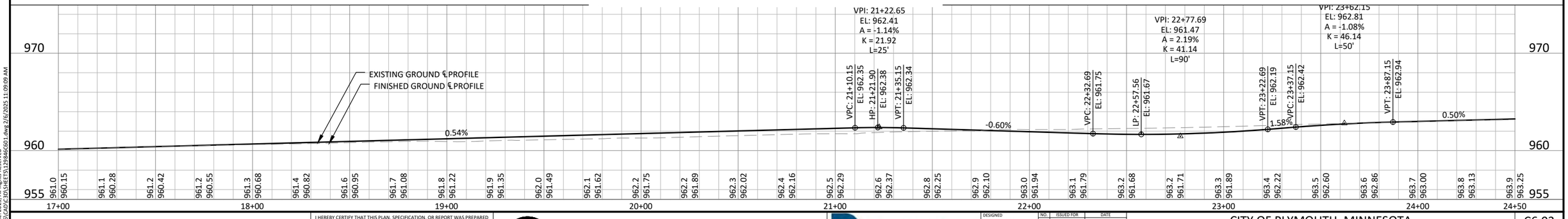
6. R-1642 CASTING WITH I&I BARRIER (SANITARY)
7. F&I FORD TYPE A-1 CURB BOX COVER
8. ADJUST VALVE BOX
9. R-3067-V CASTING (VB GRATES AT LOW POINTS)
10. R-3067-B CASTING
11. R-3067-C CASTING
12. ADJUST CASTING AND REPLACE RINGS
13. R-1733 CASTING (STORM)
14. REINSTALL MAILBOX
15. MEDIAN NOSE
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)

36TH AVENUE ℄



36TH AVENUE LIP OF CURB



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LIC. NO. 53639 DATE 01/28/2025

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www.bolton-menk.com

City of Plymouth

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.03
51
OF
129

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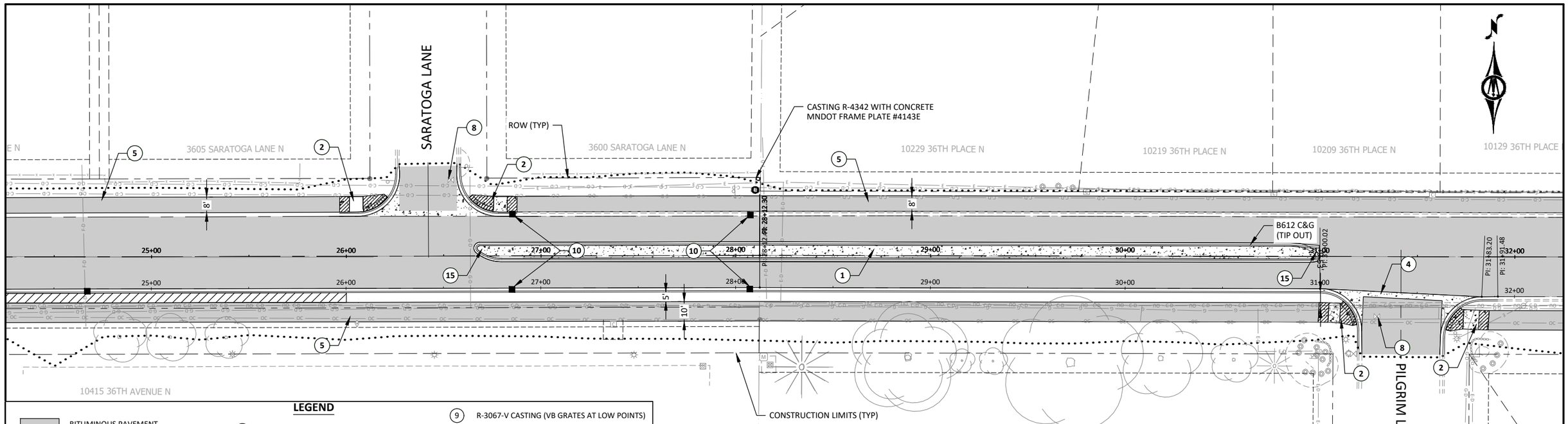

LEGEND

- BITUMINOUS PAVEMENT
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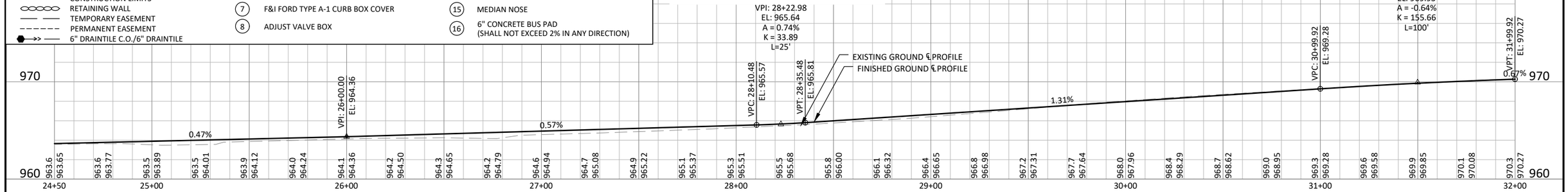
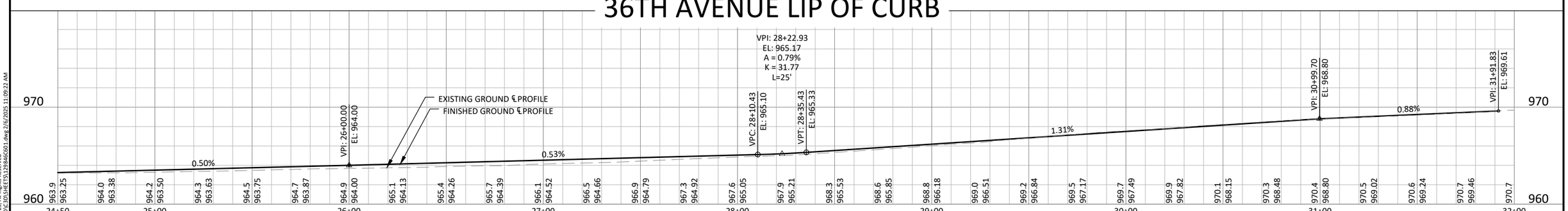
36TH AVENUE ℄



36TH AVENUE LIP OF CURB



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VERT. SCALE 0 5 10 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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BURNSVILLE, MINNESOTA 55337
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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.04
52 OF 129

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LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCTION LIMITS
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE
- VARIABLE BOULEVARD SLOPE (4% TYP.)

1. CONSTRUCT 4" CONCRETE WALK/MEDIAN
2. CONSTRUCT 6" CONCRETE WALK/DRIVEWAY
3. CONSTRUCT 8" COMMERCIAL DRIVEWAY
4. CONSTRUCT 8" CONCRETE VALLEY GUTTER
5. CONSTRUCT 3" BITUMINOUS DRIVEWAY/TRAIL
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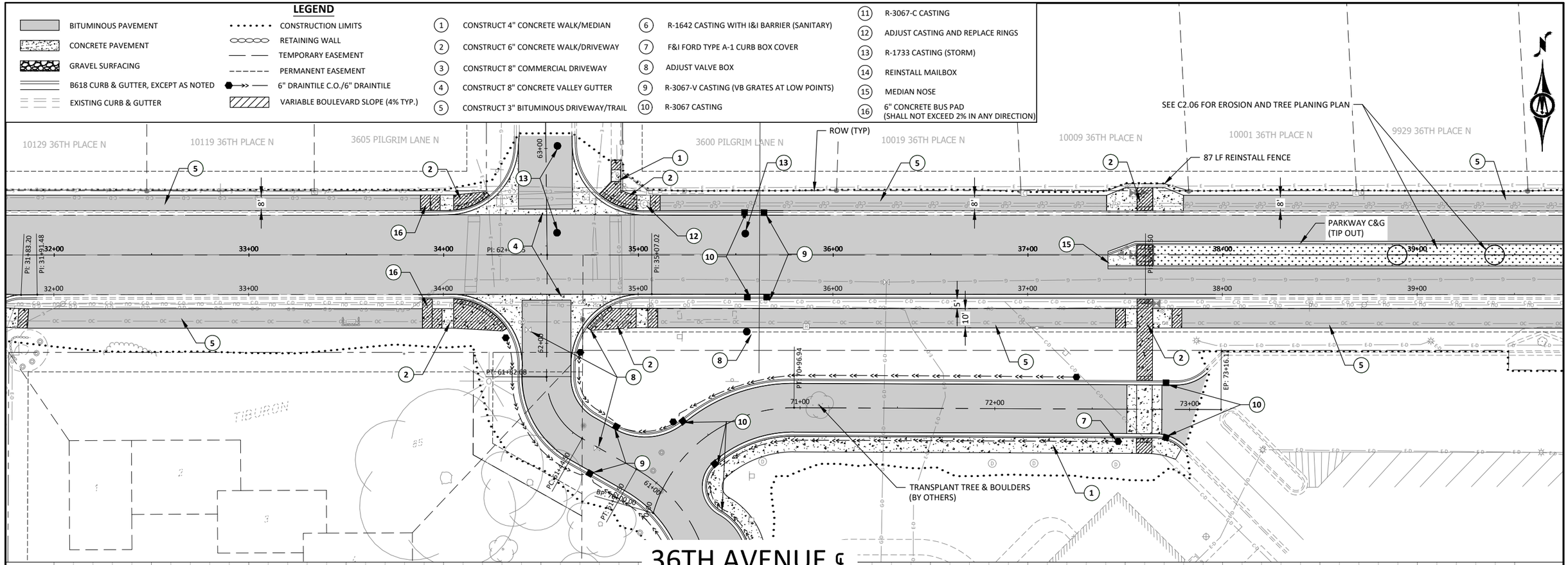
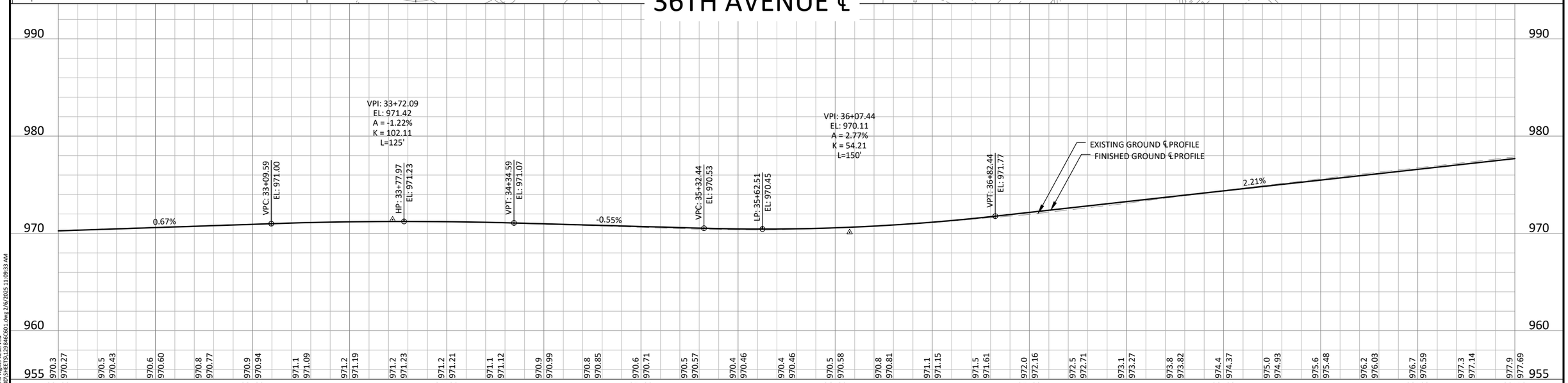
7. F&I FORD TYPE A-1 CURB BOX COVER
8. ADJUST VALVE BOX
9. R-3067-V CASTING (VB GRATES AT LOW POINTS)
10. R-3067 CASTING
11. R-3067-C CASTING
12. ADJUST CASTING AND REPLACE RINGS
13. R-1733 CASTING (STORM)
14. REINSTALL MAILBOX
15. MEDIAN NOSE
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)





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HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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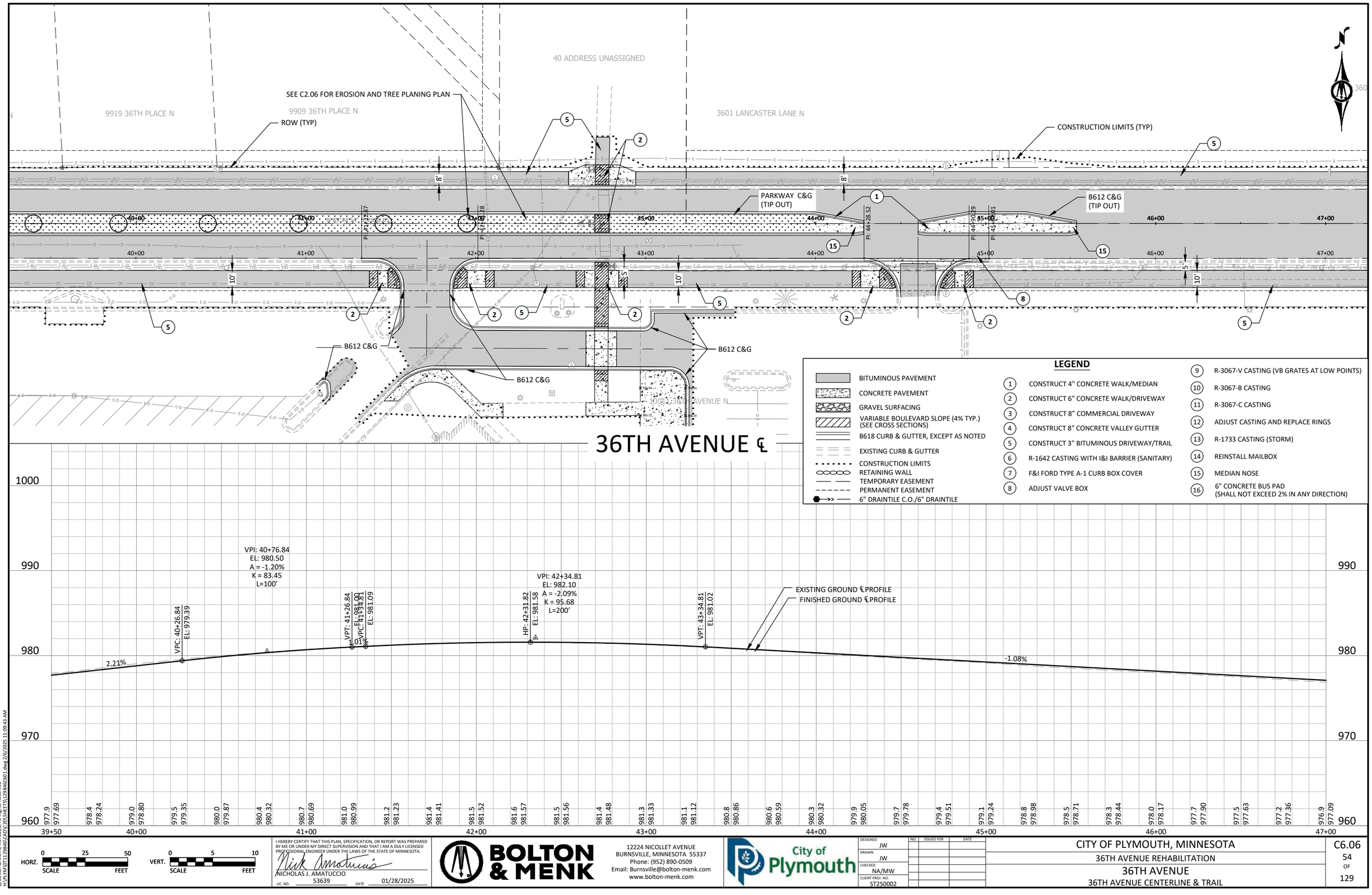
NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.05
53
OF
129



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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.06
54
OF
129

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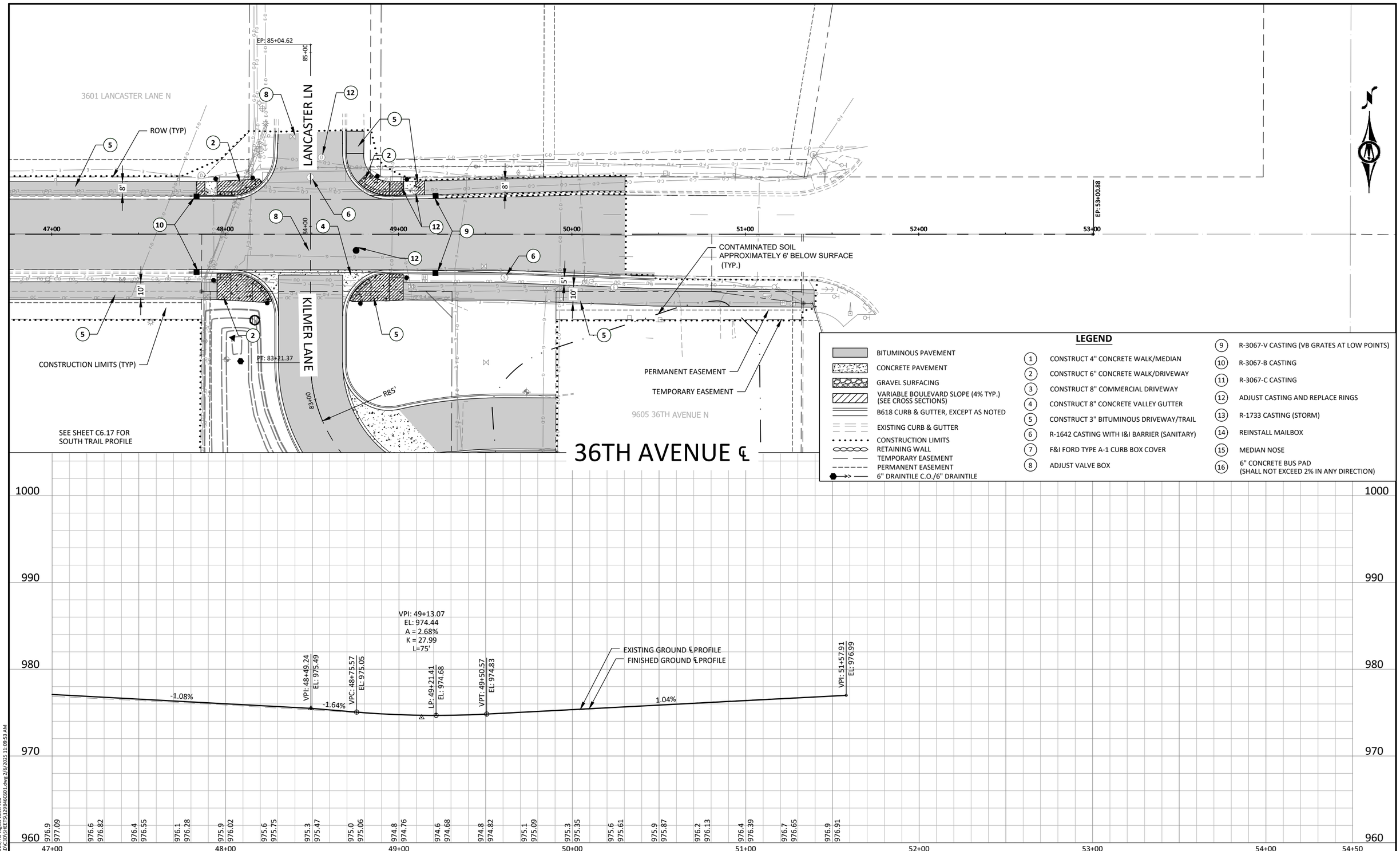

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
36TH AVENUE CENTERLINE & TRAIL

C6.07
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OF
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LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- VARIABLE BOULEVARD SLOPE (4% TYP.) (SEE CROSS SECTIONS)
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCT CASTING
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE

1. CONSTRUCT 4" CONCRETE WALK/MEDIAN
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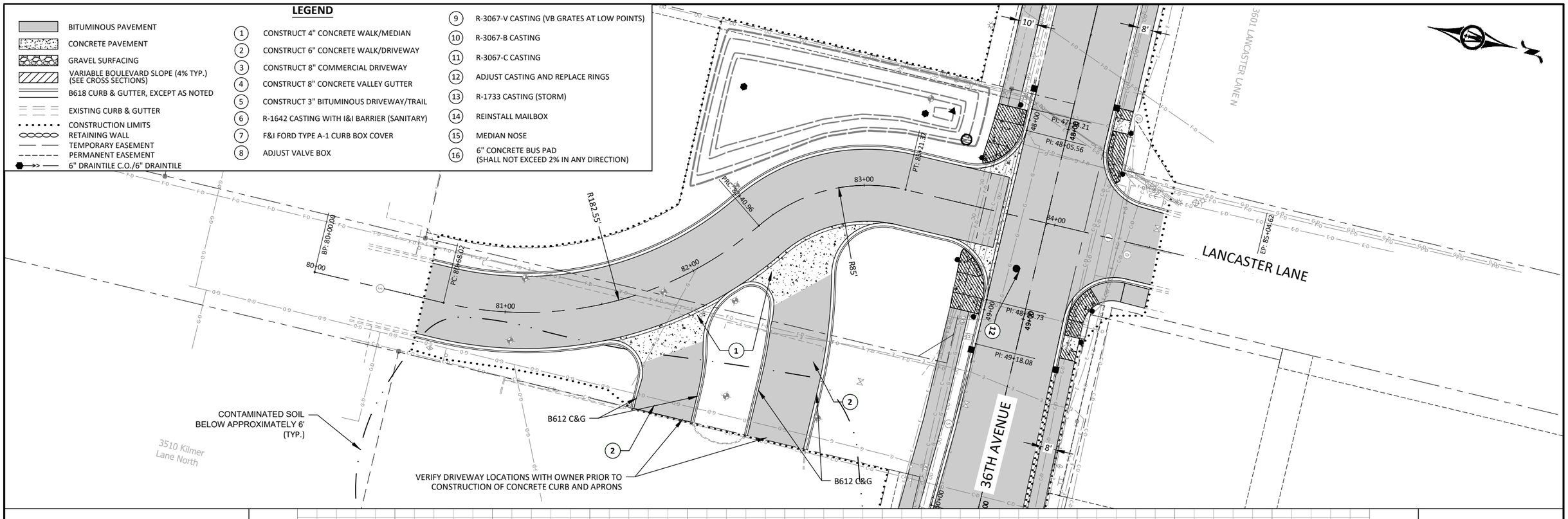
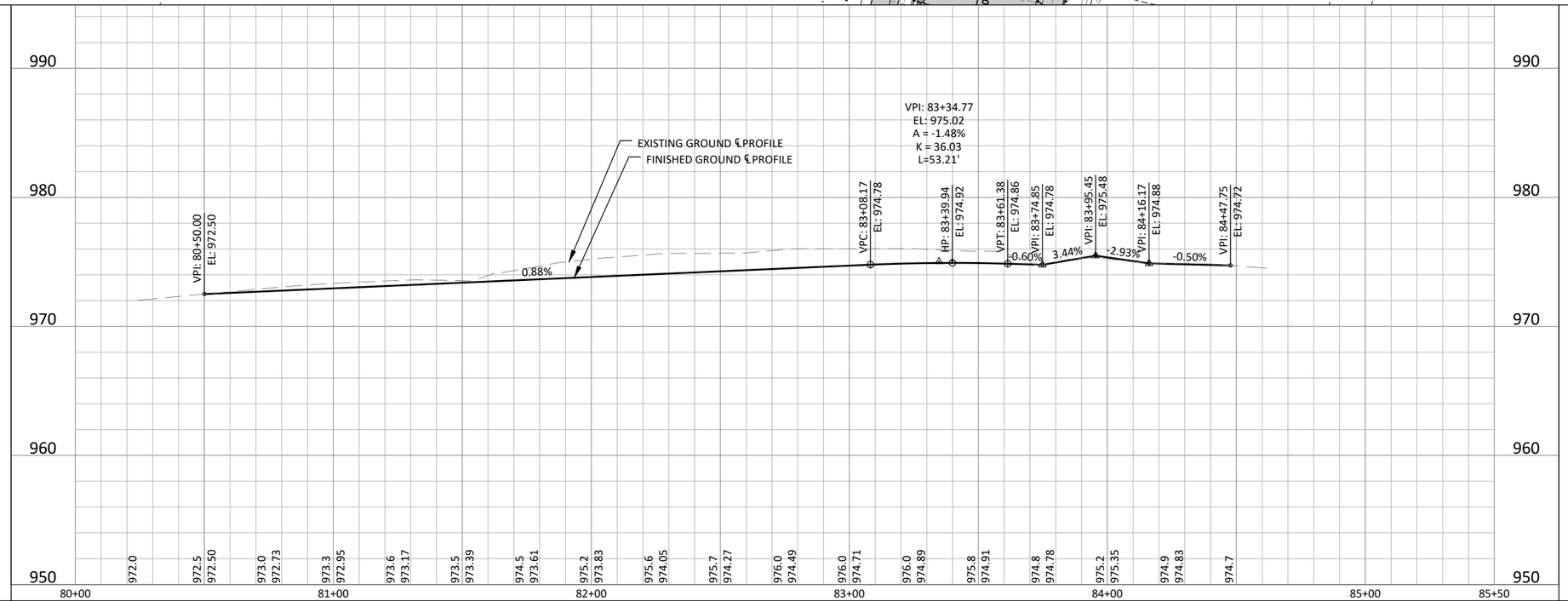
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)





HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 5 10 FEET

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
KILMER LANE

C6.08
56
OF
129

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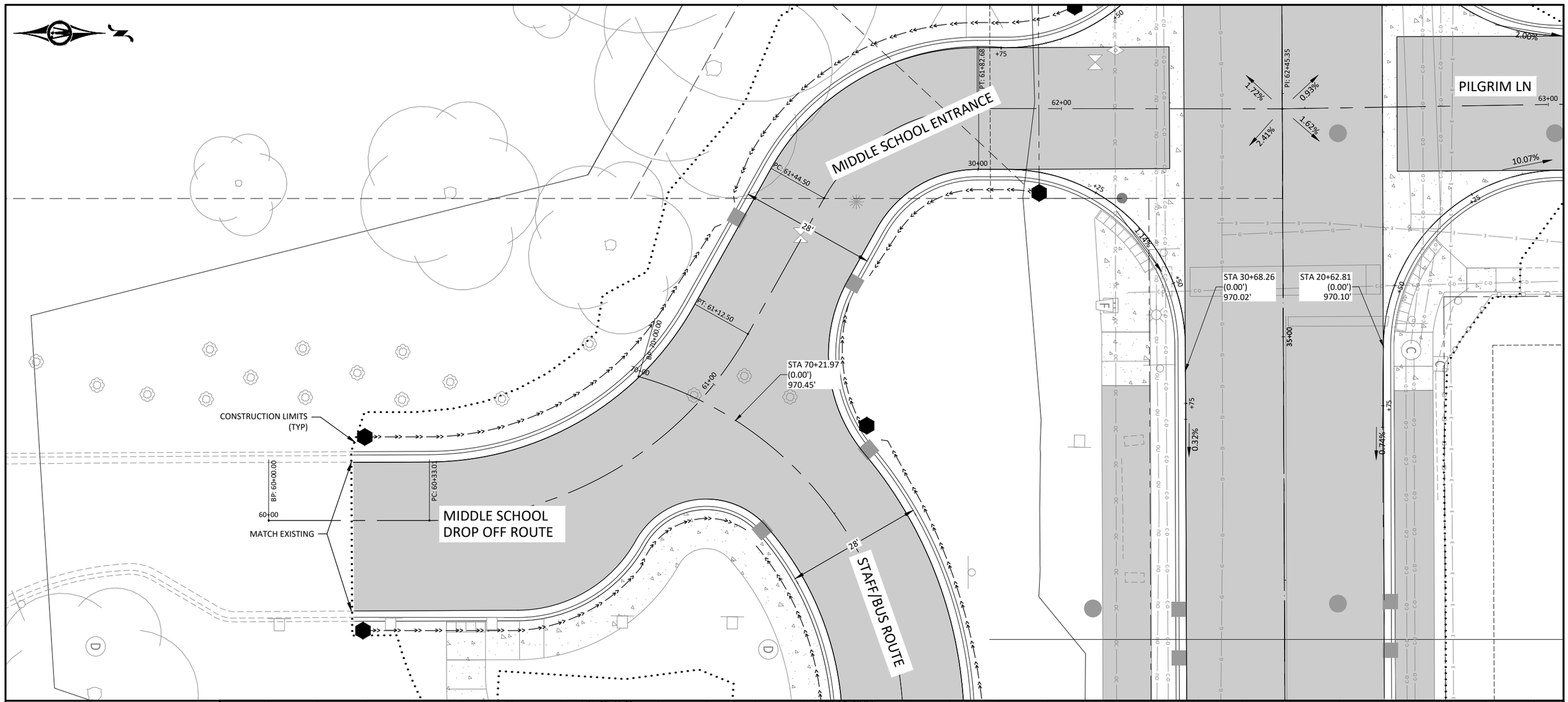

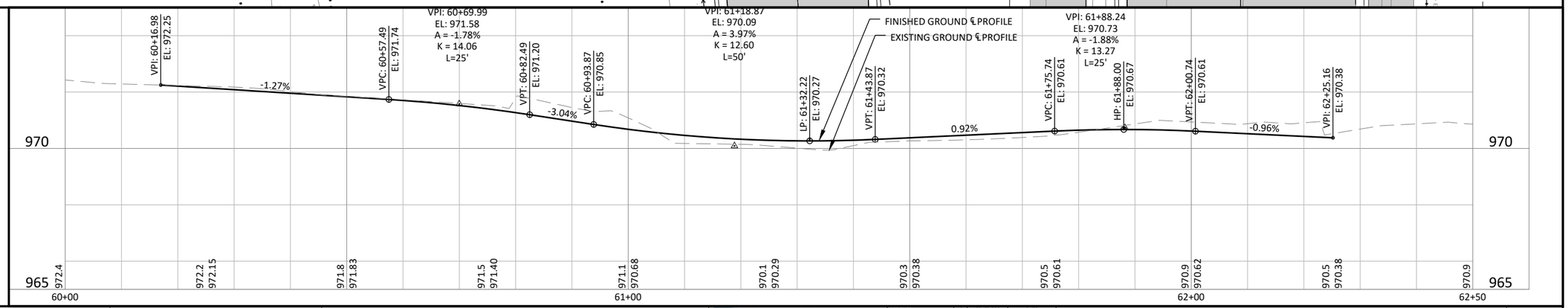

HORZ. SCALE 0 10 20 FEET

VERT. SCALE 0 5 10 FEET

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NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
PLYMOUTH MIDDLE SCHOOL ENTRANCE

C6.09
57 OF 129

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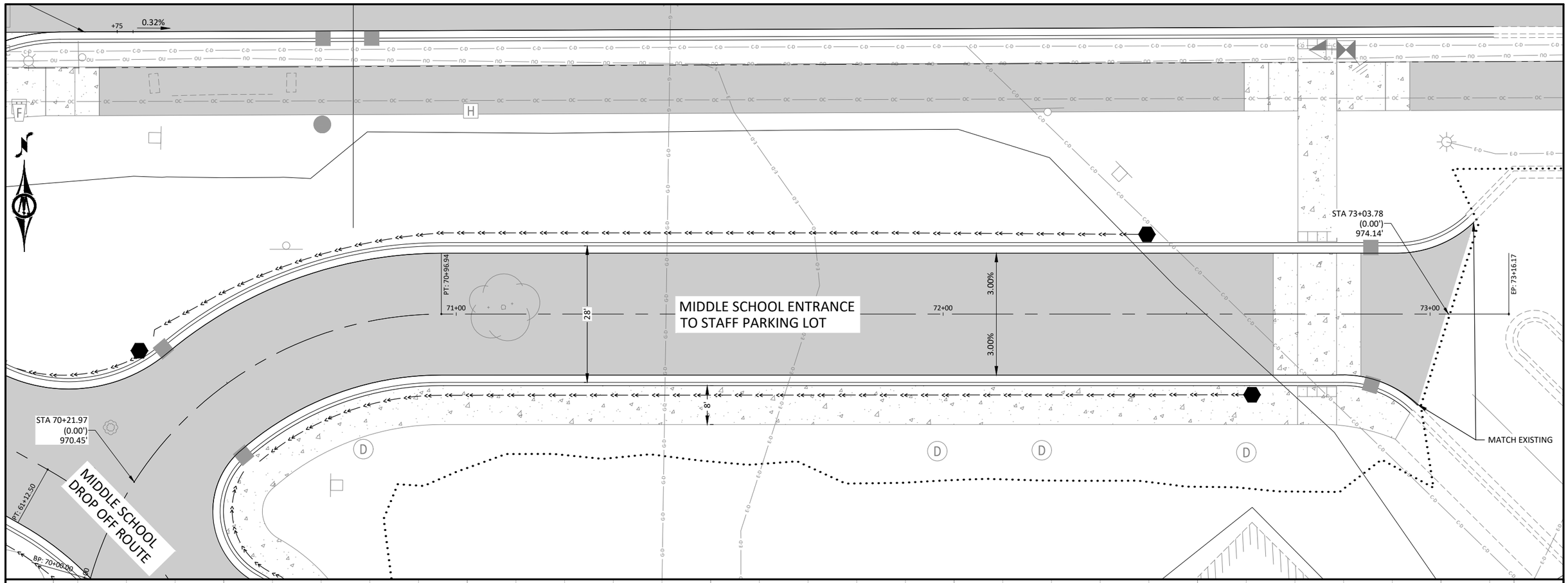

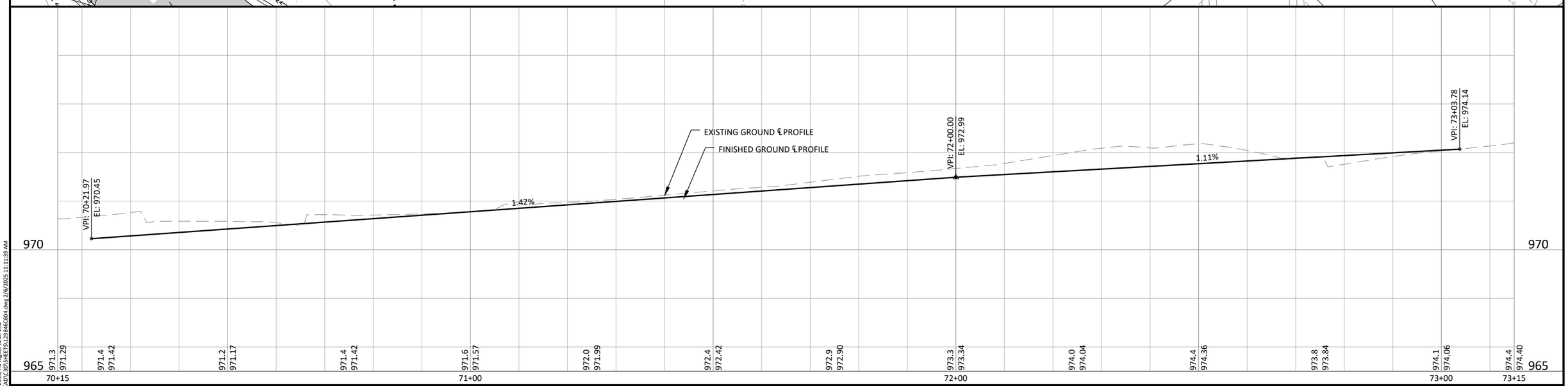

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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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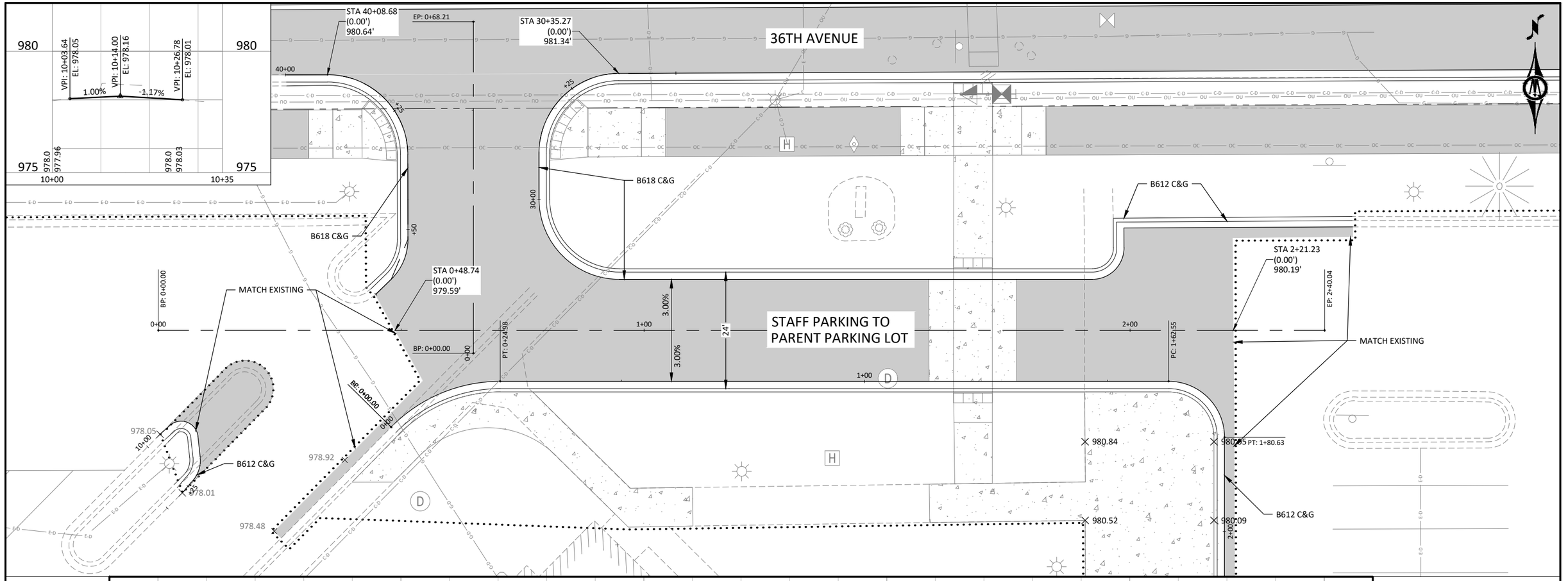
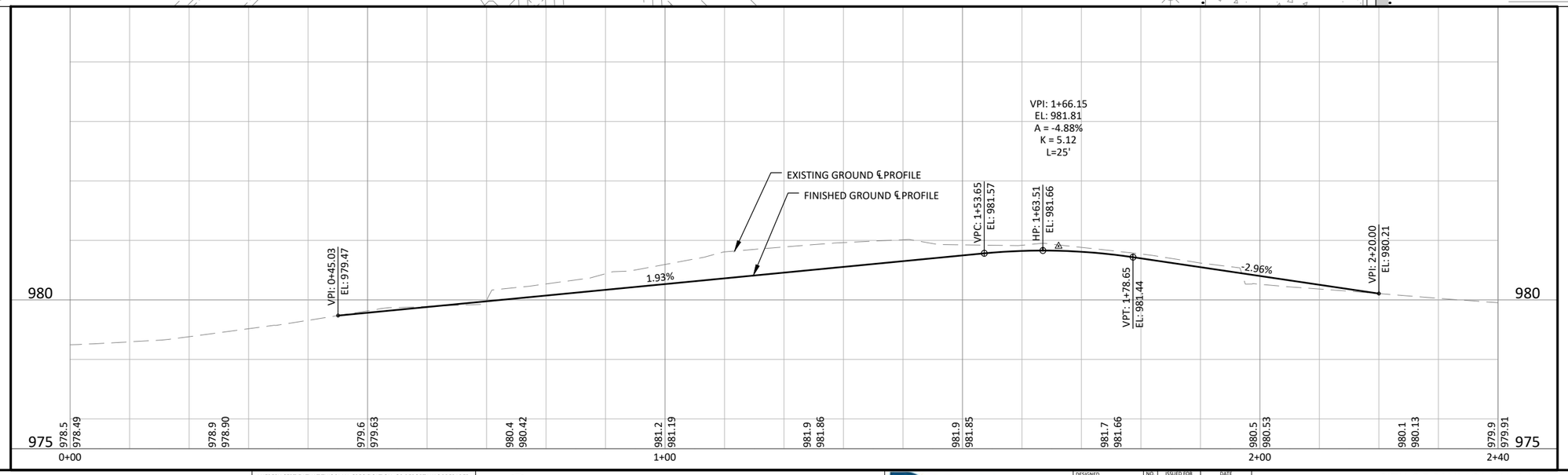
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
PLYMOUTH MIDDLE SCHOOL ENTRANCE TO STAFF PARKING LOT





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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
STAFF PARKING LOT TO PARENT PARKING LOT

C6.11
59 OF 129

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STAFF PARKING TO
PARENT PARKING LOT

PLYMOUTH MIDDLE SCHOOL

PT: 0+24.98

PC: 1+62.55

3.00%

3.00%

24'

BC: 0+00.00

978.92

980.84

980.05 PT: 1+80.63

980.52

980.09

980.31

979.92

980.14

979.75

980.12

979.32

980.14

980.45

980.35

2.01%

1.92%

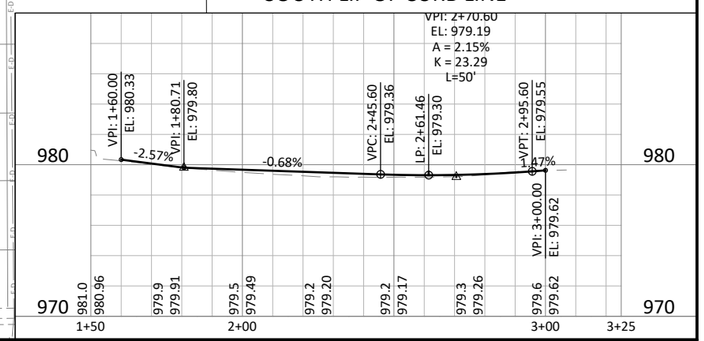
2.55%

B612 C&G

TIP OUT CURB

EP: 3+06.92

SOUTH LIP OF CURB LINE



HORZ. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

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City of Plymouth

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PLYMOUTH MIDDLE SCHOOL PARENT DROP OFF

C6.12
60
OF
129

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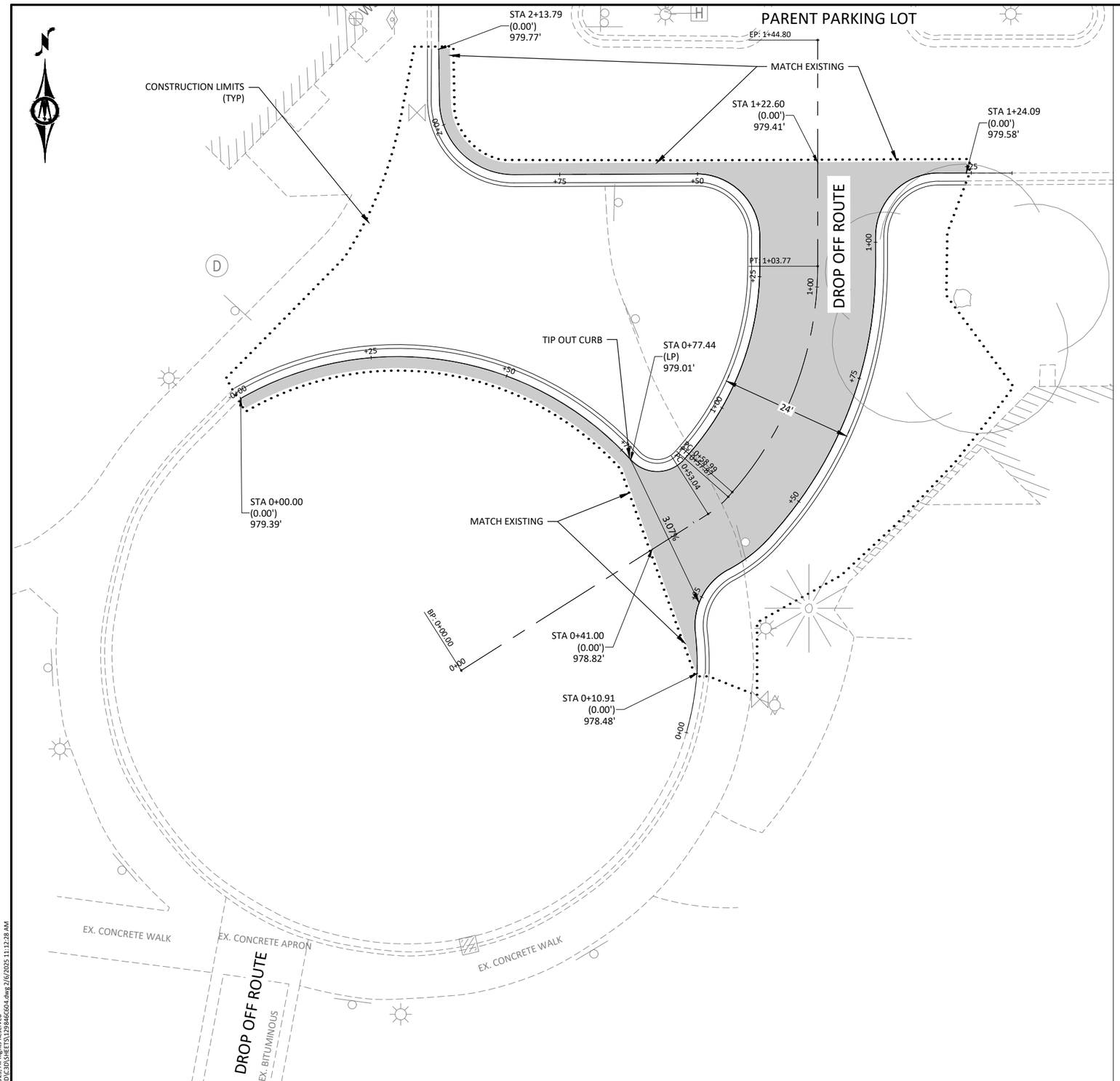

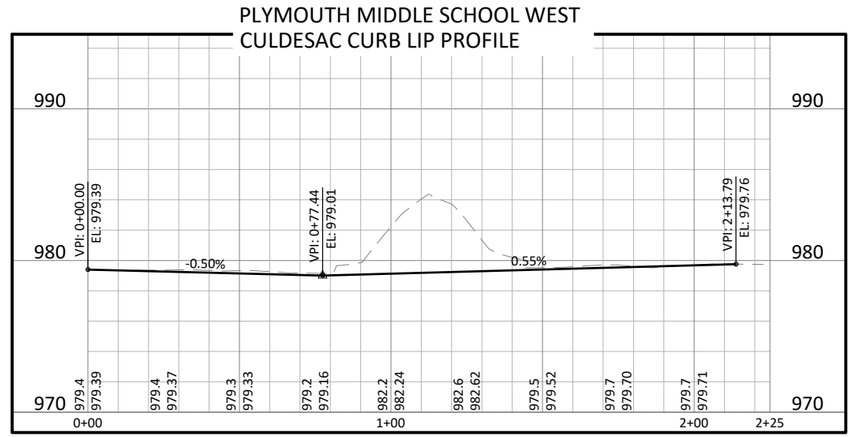

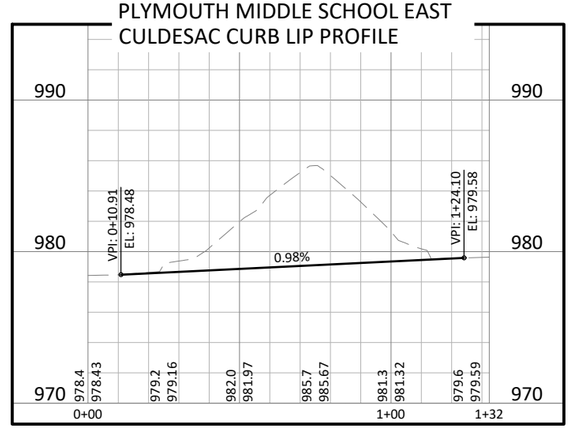

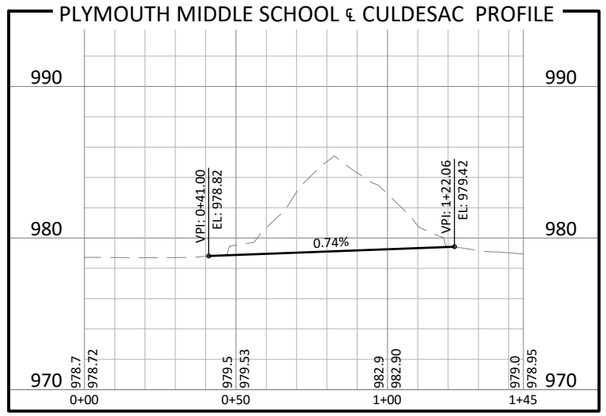

HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 5 10 FEET

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
36TH AVENUE
CUL-DE-SAC TO PARENT PARKING LOT

C6.13
61
OF
129

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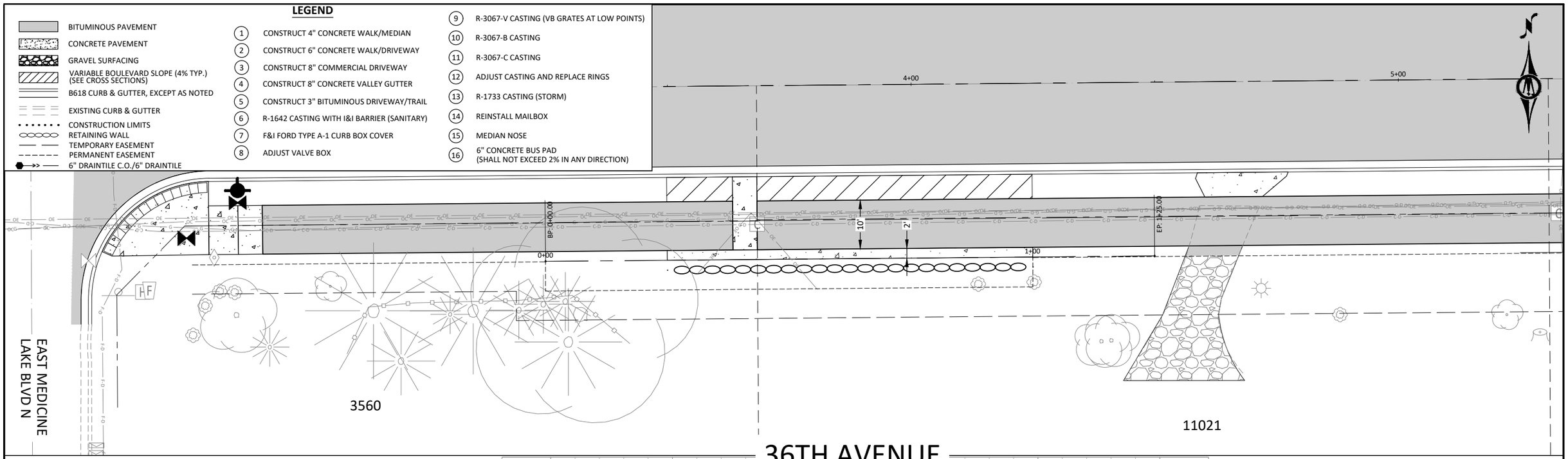
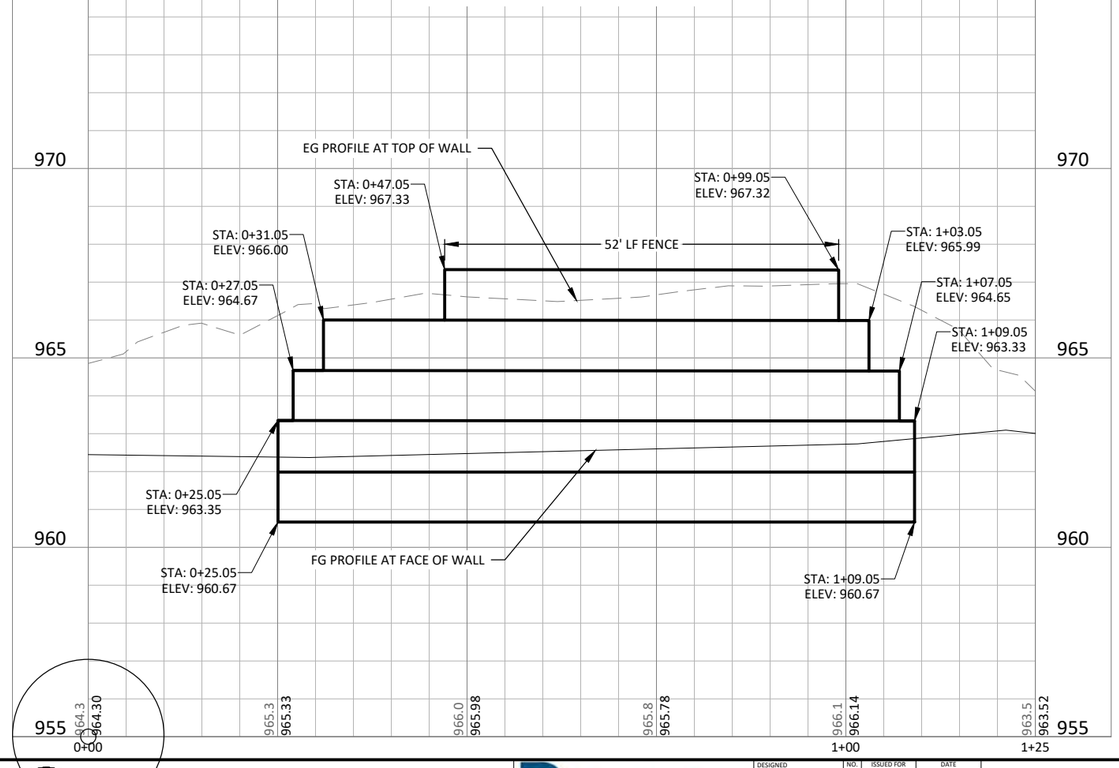
LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- VARIABLE BOULEVARD SLOPE (4% TYP.) (SEE CROSS SECTIONS)
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCTION LIMITS
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE

1. CONSTRUCT 4" CONCRETE WALK/MEDIAN
2. CONSTRUCT 6" CONCRETE WALK/DRIVEWAY
3. CONSTRUCT 8" COMMERCIAL DRIVEWAY
4. CONSTRUCT 8" CONCRETE VALLEY GUTTER
5. CONSTRUCT 3" BITUMINOUS DRIVEWAY/TRAIL
6. R-1642 CASTING WITH I&I BARRIER (SANITARY)
7. F&I FORD TYPE A-1 CURB BOX COVER
8. ADJUST VALVE BOX
9. R-3067-V CASTING (VB GRATES AT LOW POINTS)
10. R-3067-B CASTING
11. R-3067-C CASTING
12. ADJUST CASTING AND REPLACE RINGS
13. R-1733 CASTING (STORM)
14. REINSTALL MAILBOX
15. MEDIAN NOSE
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)





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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
RETAINING WALL PLAN & PROFILE
3+50

C6.14
62
OF
129

LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- VARIABLE BOULEVARD SLOPE (4% TYP.) (SEE CROSS SECTIONS)
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCTION LIMITS
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE

1. CONSTRUCT 4" CONCRETE WALK/MEDIAN
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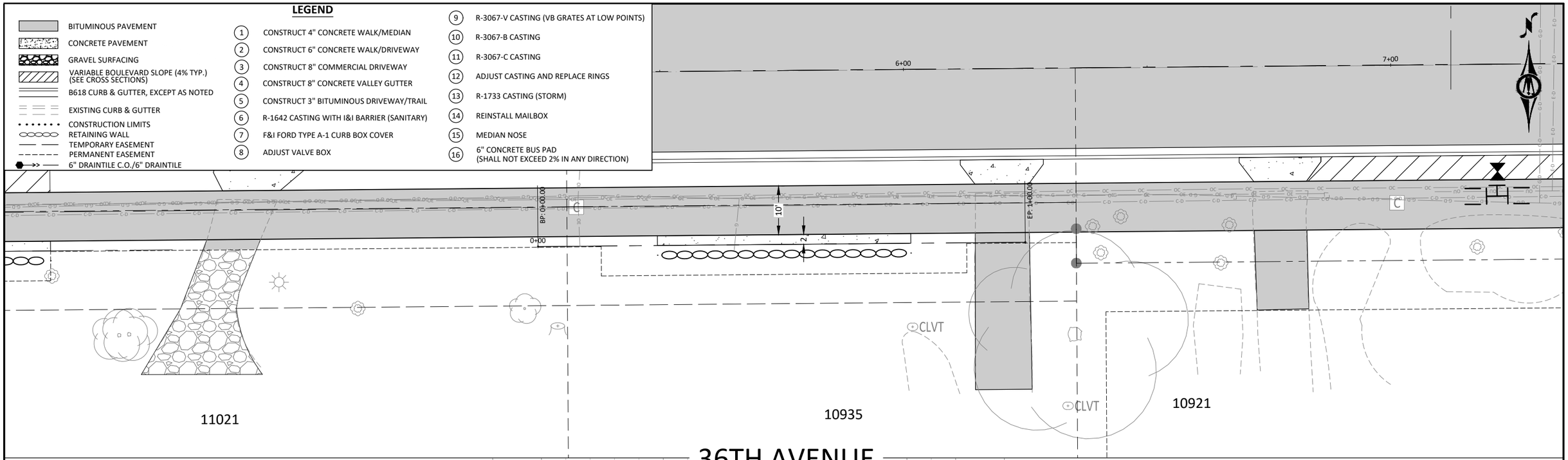
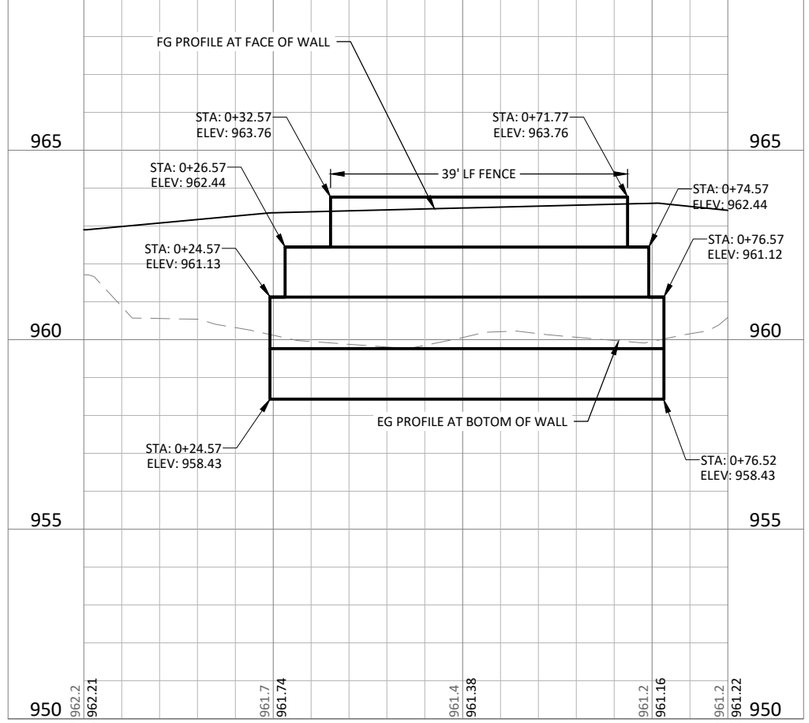
11. R-3067-C CASTING
12. ADJUST CASTING AND REPLACE RINGS
13. R-1733 CASTING (STORM)
14. REINSTALL MAILBOX
15. MEDIAN NOSE
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)





HORZ. SCALE 0 10 20 FEET

VERT. SCALE 0 2 4 FEET

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City of Plymouth

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
RETAINING WALL PLAN & PROFILE
5+50

C6.15
63
OF
129

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LEGEND

- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- GRAVEL SURFACING
- VARIABLE BOULEVARD SLOPE (4% TYP.) (SEE CROSS SECTIONS)
- B618 CURB & GUTTER, EXCEPT AS NOTED
- EXISTING CURB & GUTTER
- CONSTRUCTION LIMITS
- RETAINING WALL
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- 6" DRAINTILE C.O./6" DRAINTILE

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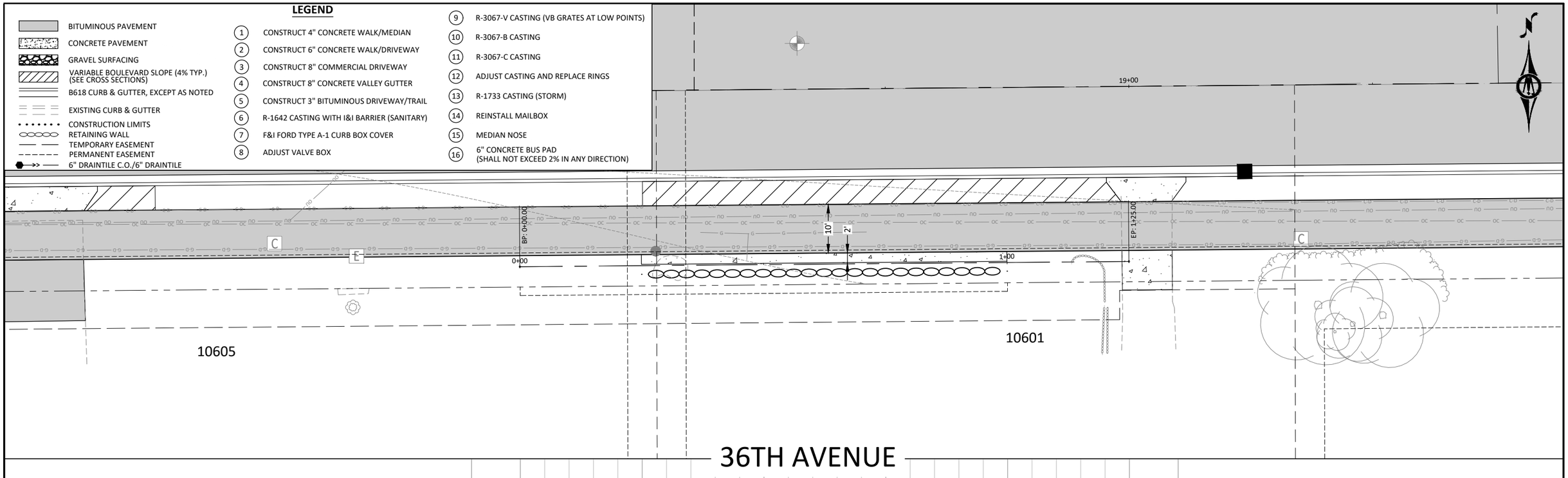
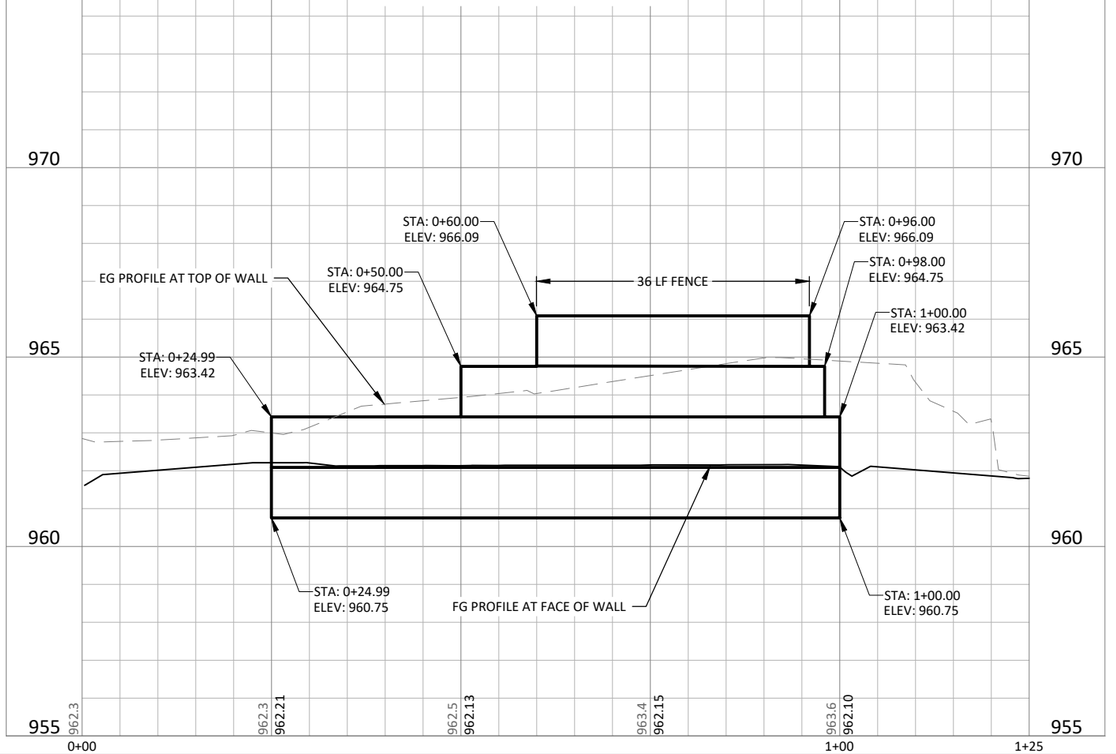
11. R-3067-C CASTING
12. ADJUST CASTING AND REPLACE RINGS
13. R-1733 CASTING (STORM)
14. REINSTALL MAILBOX
15. MEDIAN NOSE
16. 6" CONCRETE BUS PAD (SHALL NOT EXCEED 2% IN ANY DIRECTION)



36TH AVENUE



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HORZ. SCALE 0 10 20 FEET

VERT. SCALE 0 2 4 FEET

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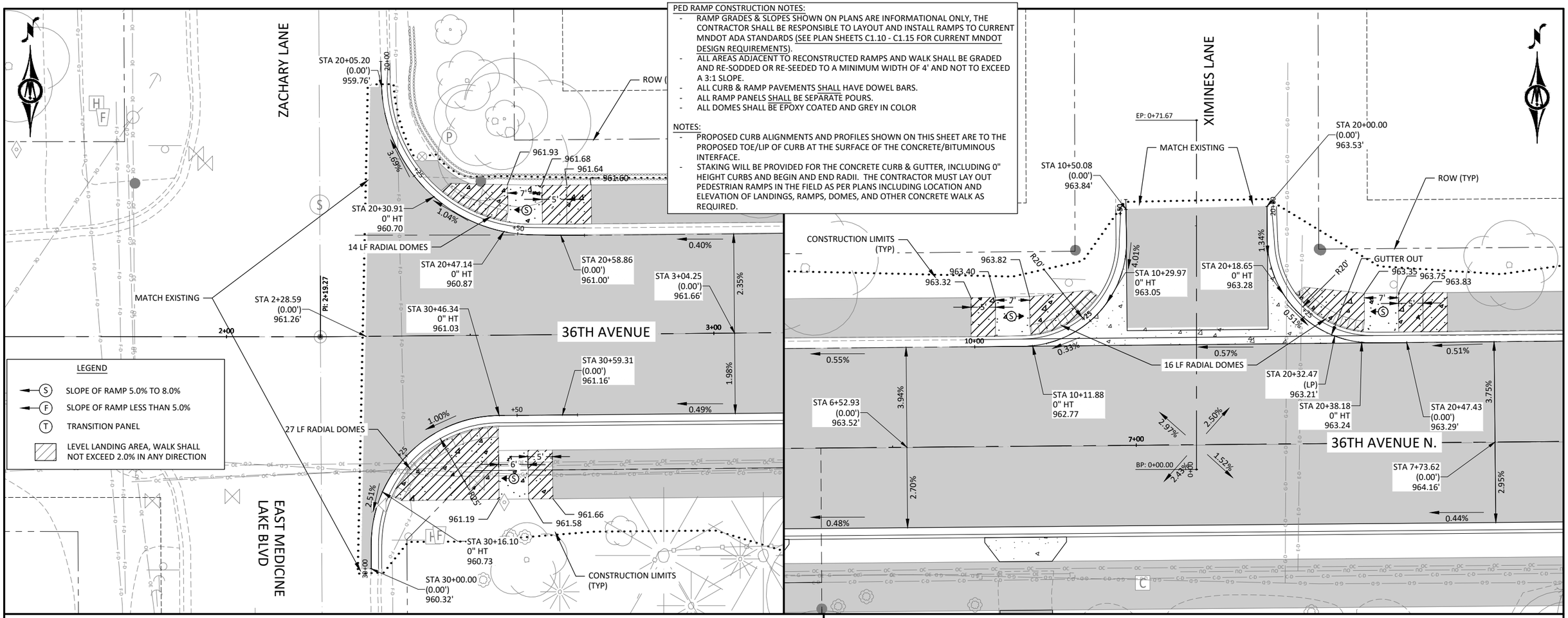
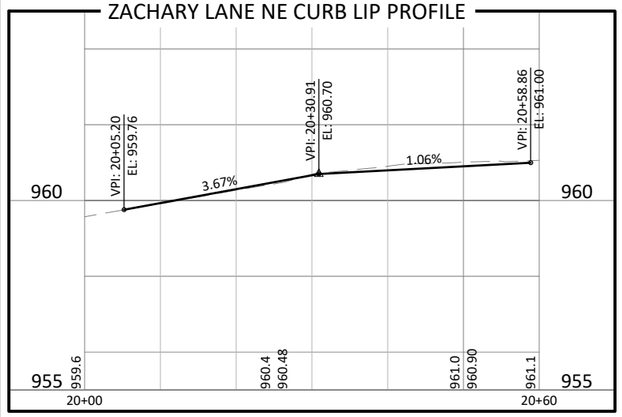
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
RETAINING WALL PLAN & PROFILE
18+00

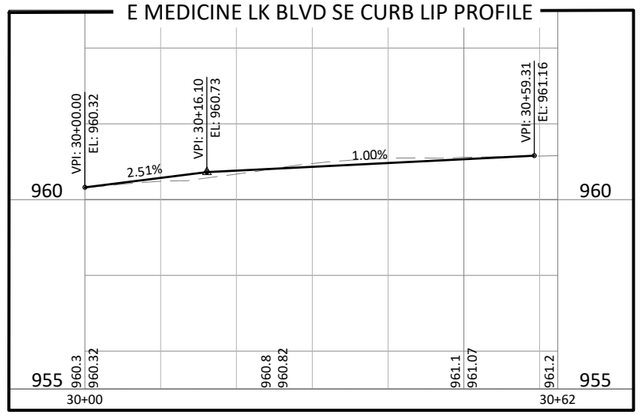
C6.16
64 OF 129

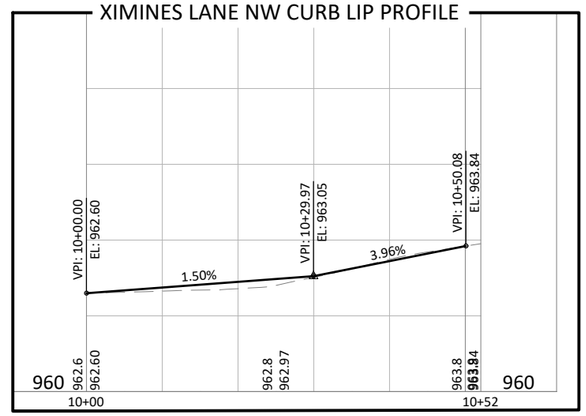
PED RAMP CONSTRUCTION NOTES:
- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C1.10 - C1.15 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

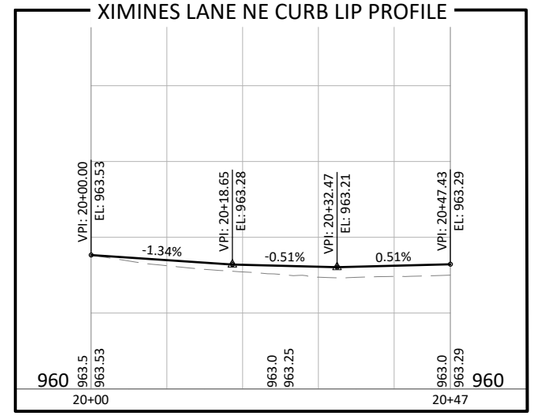
NOTES:
- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.











HORZ. 0 10 20 SCALE FEET
VERT. 0 2 4 SCALE FEET

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/NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
ZACHARY LANE - XIMINES LANE

C6.17
65 OF 129

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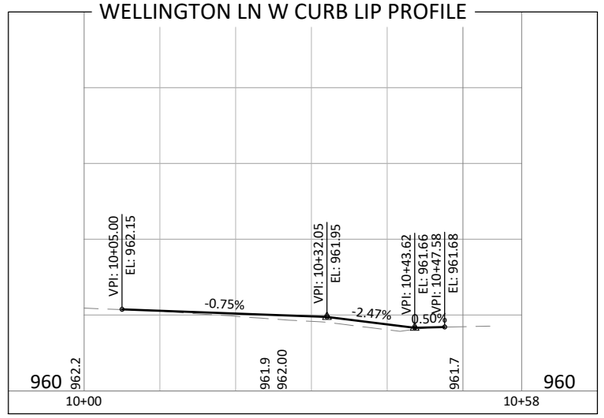
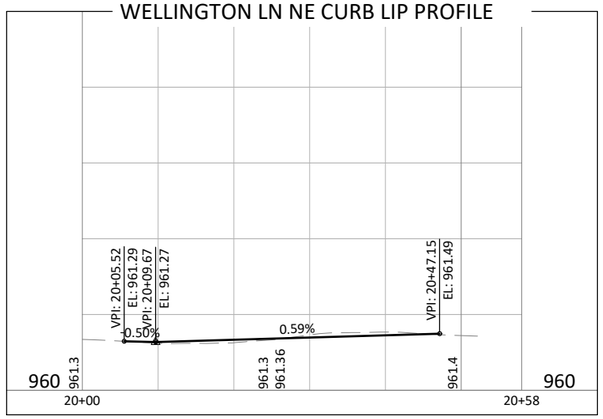
WELLINGTON LN W CURB LIP PROFILE



WELLINGTON LN NE CURB LIP PROFILE



PED RAMP CONSTRUCTION NOTES:

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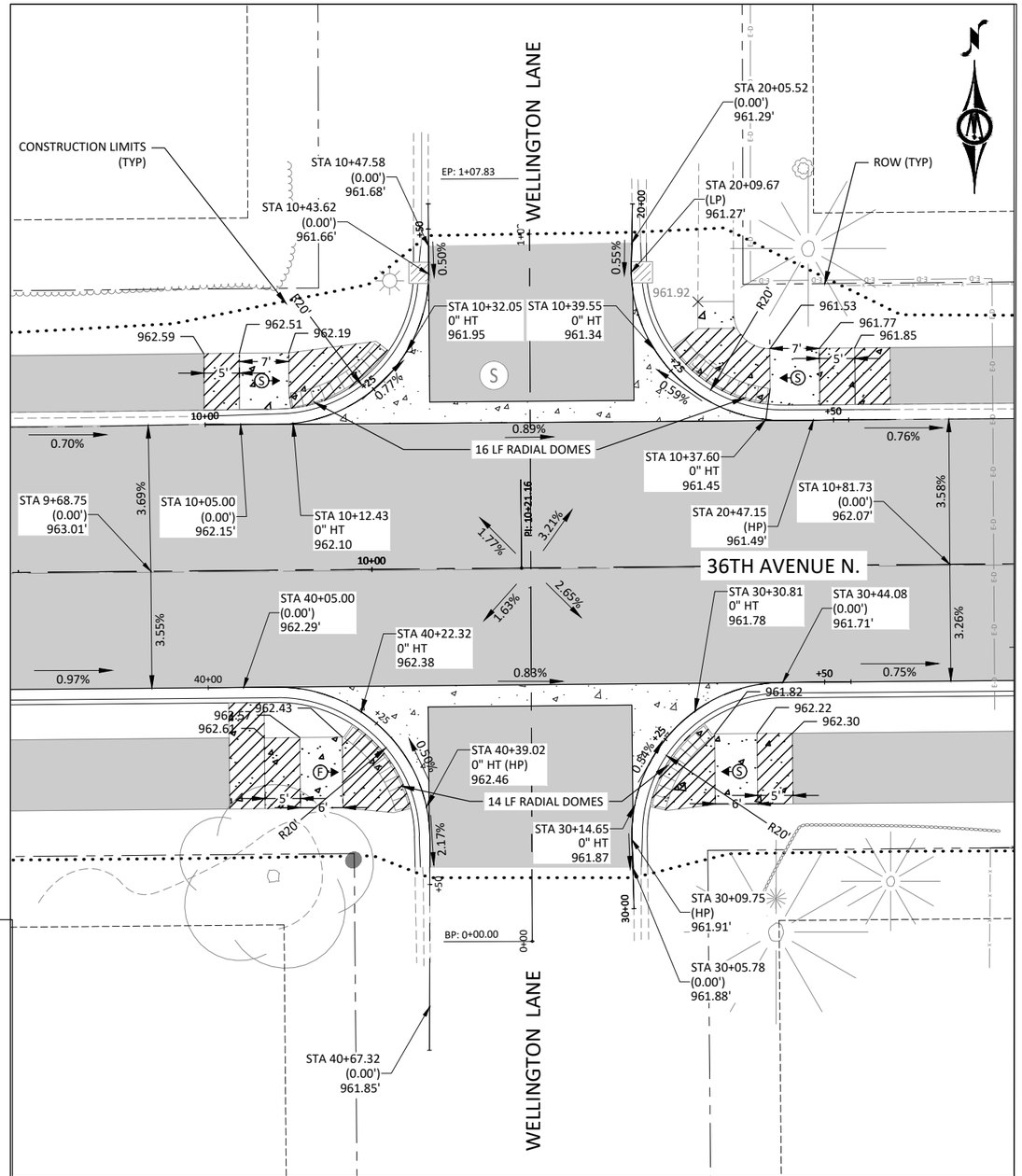

LEGEND

- (S) SLOPE OF RAMP 5.0% TO 8.0%
- (F) SLOPE OF RAMP LESS THAN 5.0%
- (T) TRANSITION PANEL
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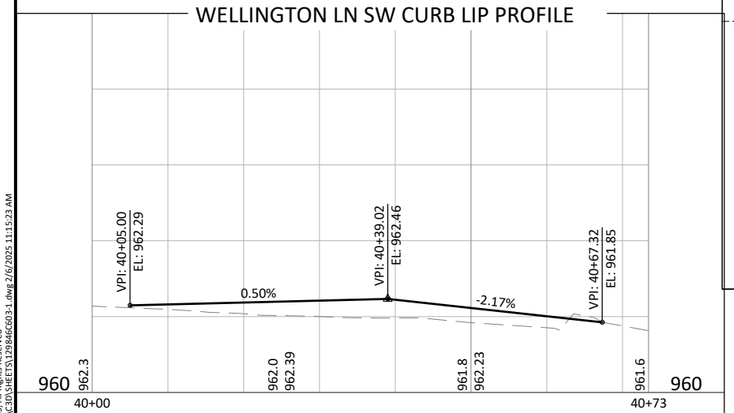
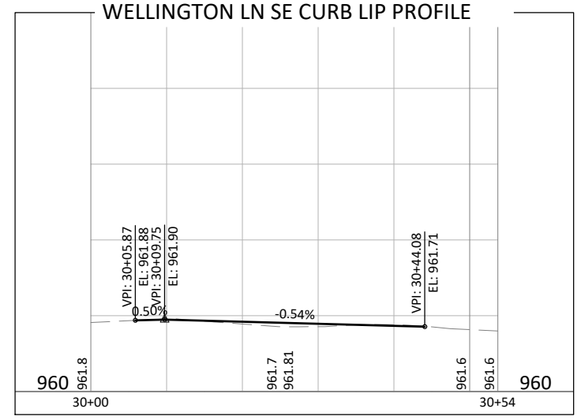
WELLINGTON LN SW CURB LIP PROFILE



WELLINGTON LN SE CURB LIP PROFILE



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HORZ. 0 25 50 SCALE FEET

VERT. 0 2 4 SCALE FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
WELLINGTON LN

C6.18
66
OF
129

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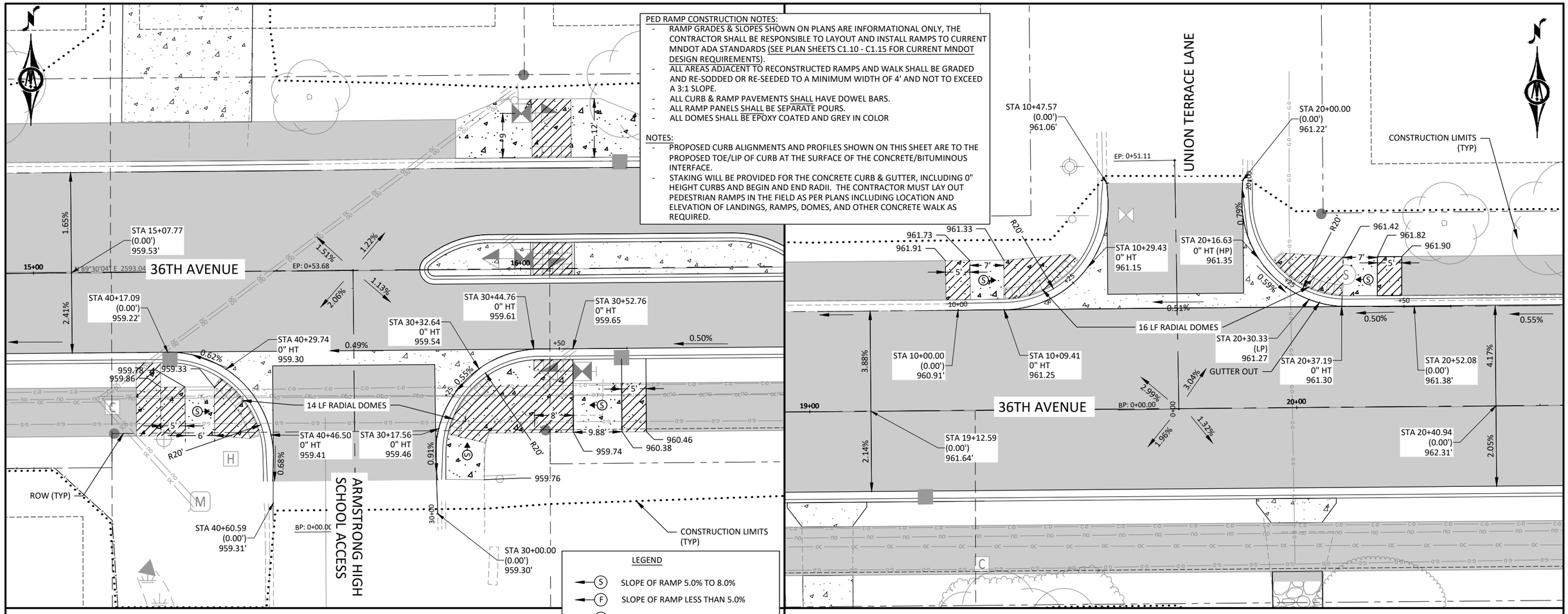

LEGEND
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- (T) TRANSITION PANEL
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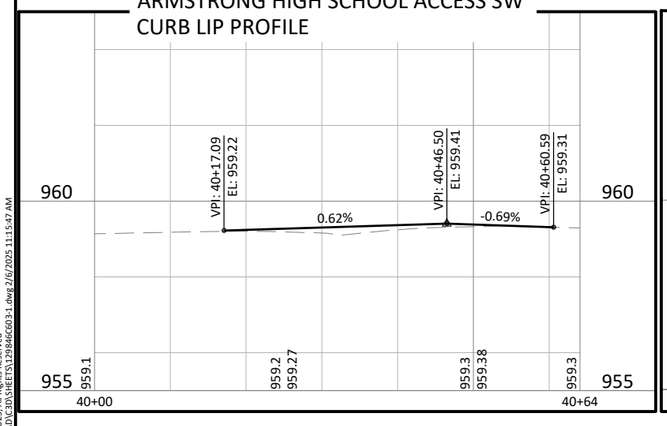
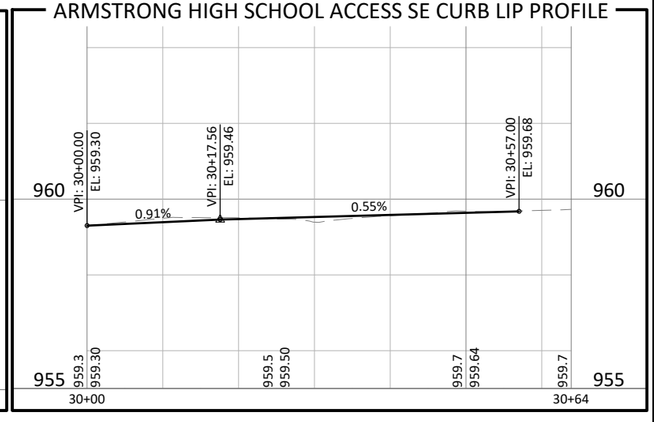
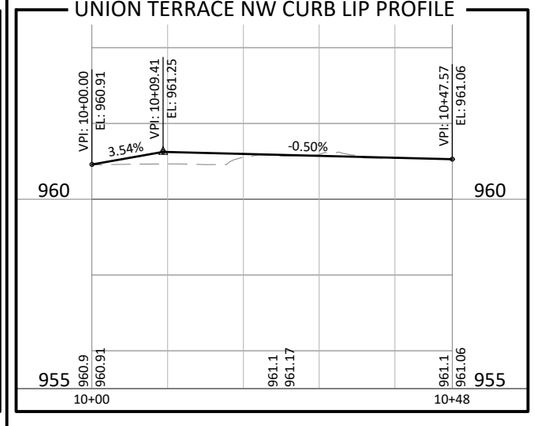
ARMSTRONG HIGH SCHOOL ACCESS SW CURB LIP PROFILE



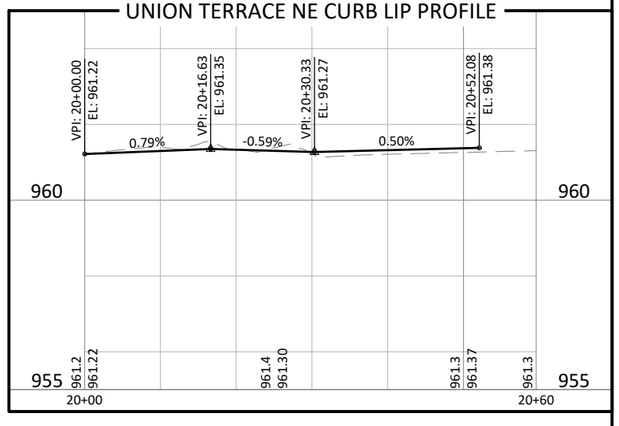
ARMSTRONG HIGH SCHOOL ACCESS SE CURB LIP PROFILE



UNION TERRACE NW CURB LIP PROFILE



UNION TERRACE NE CURB LIP PROFILE



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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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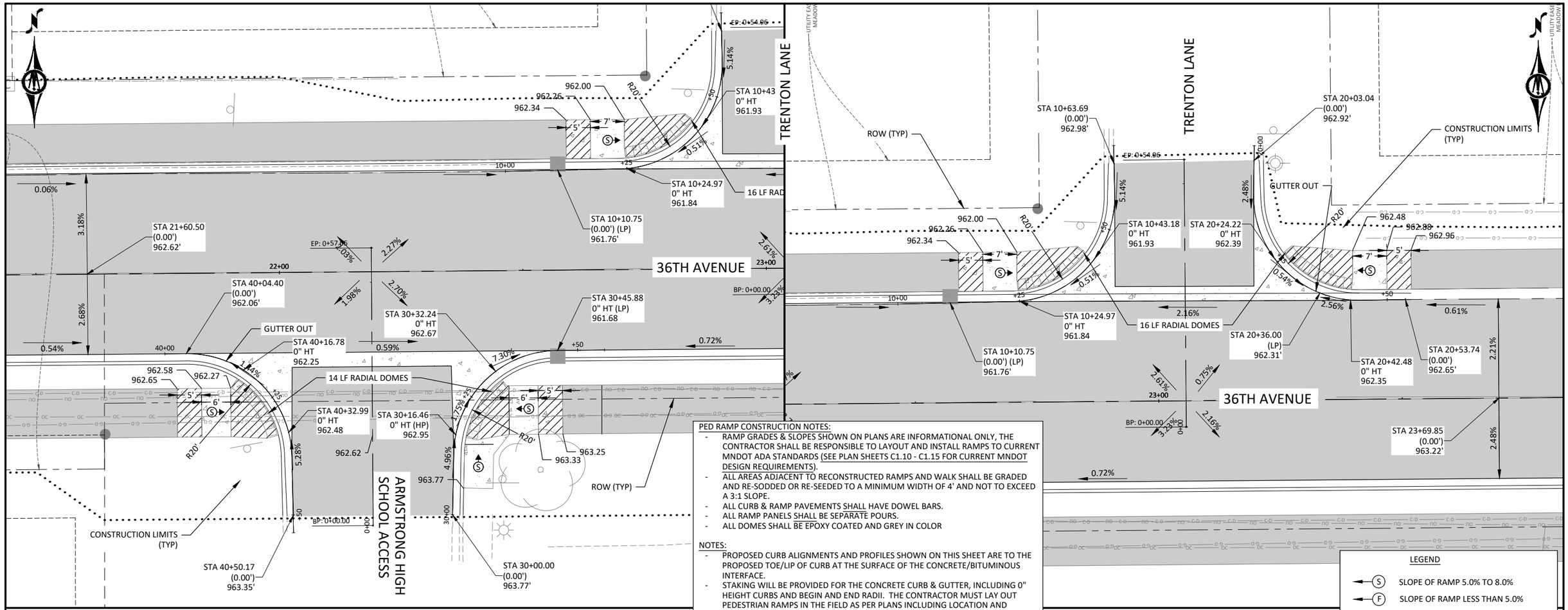
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
ARMSTRONG HIGH SCHOOL ENTERANCE W - UNION TERRACE LN



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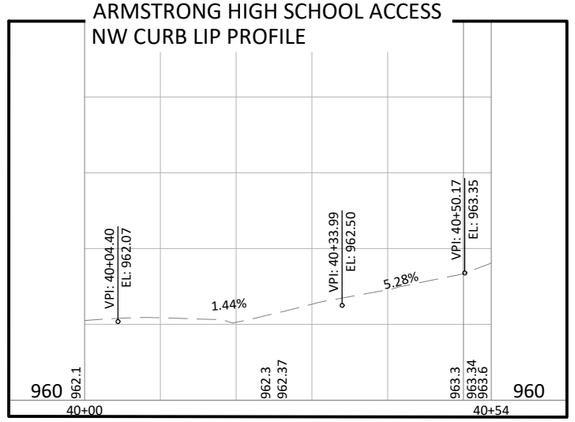
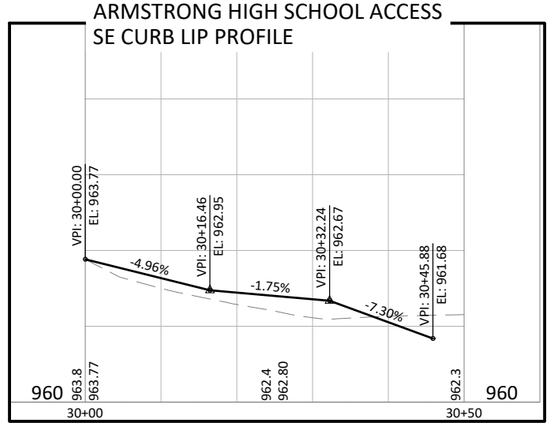
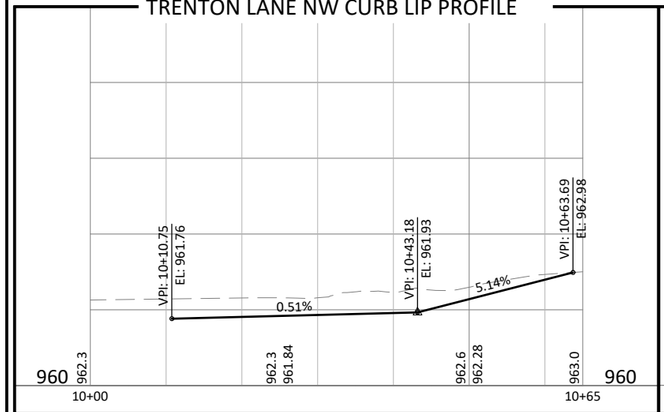
ARMSTRONG HIGH SCHOOL ACCESS NW CURB LIP PROFILE



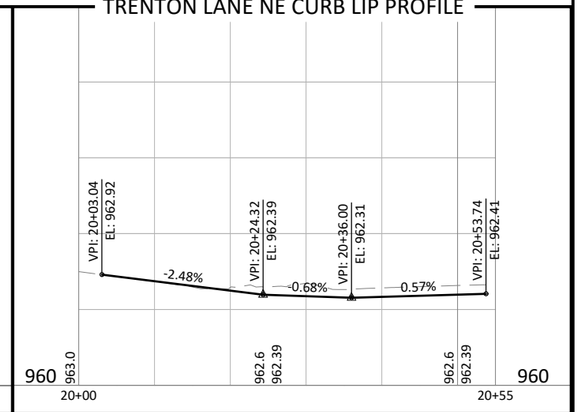
ARMSTRONG HIGH SCHOOL ACCESS SE CURB LIP PROFILE



TRENTON LANE NW CURB LIP PROFILE



TRENTON LANE NE CURB LIP PROFILE



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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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LIC. NO. 53639 DATE 01/28/2025

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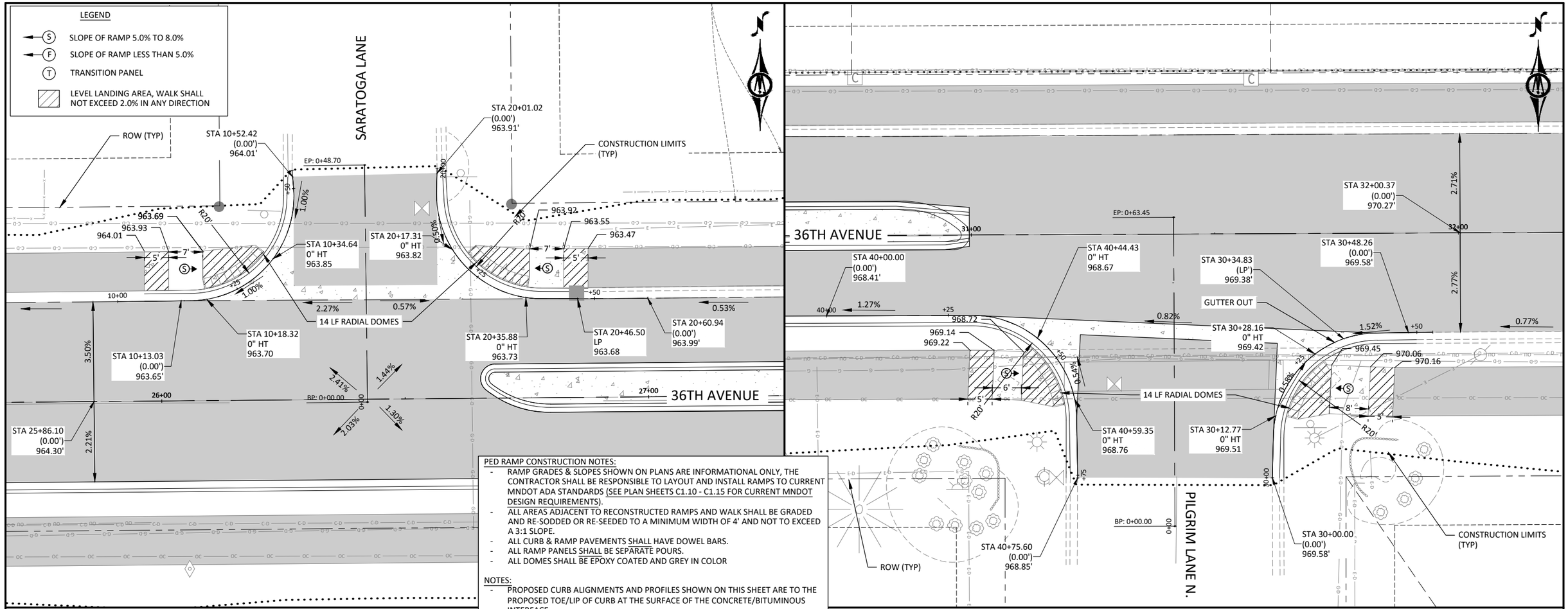
City of Plymouth

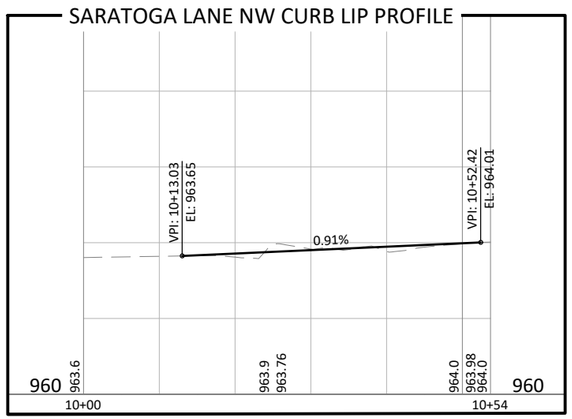
DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

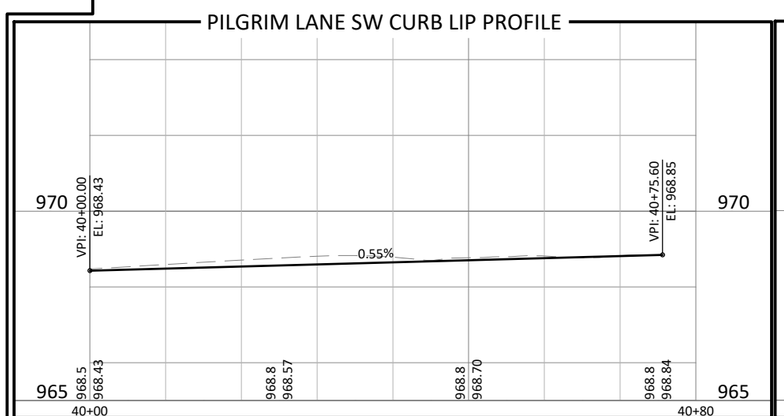
NO.	ISSUED FOR	DATE

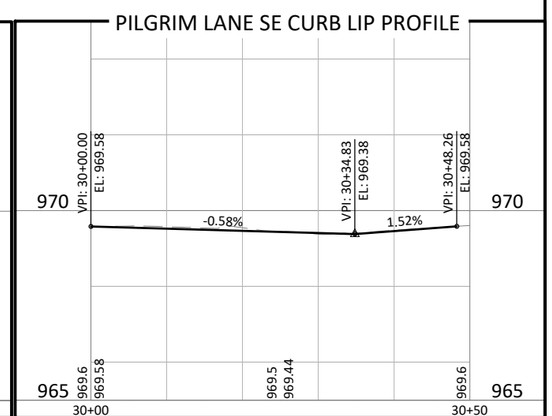
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
ARMSTRONG HIGH SCHOOL ENTERANCE E - TRENTON LN

C6.20
68 OF 129









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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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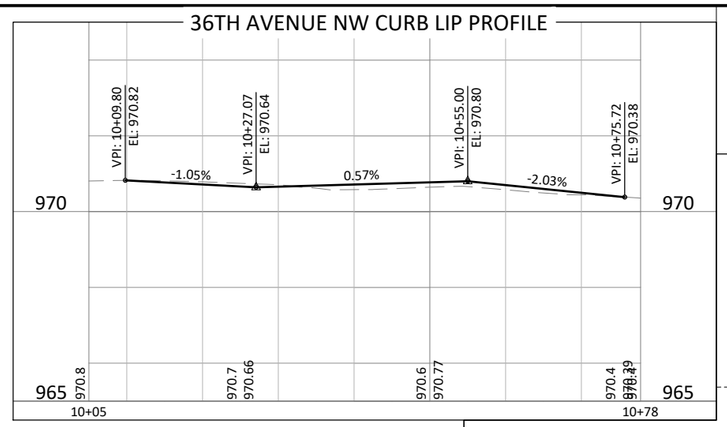
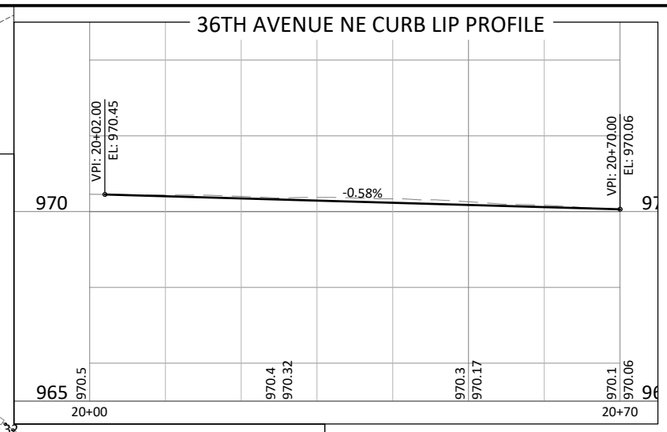
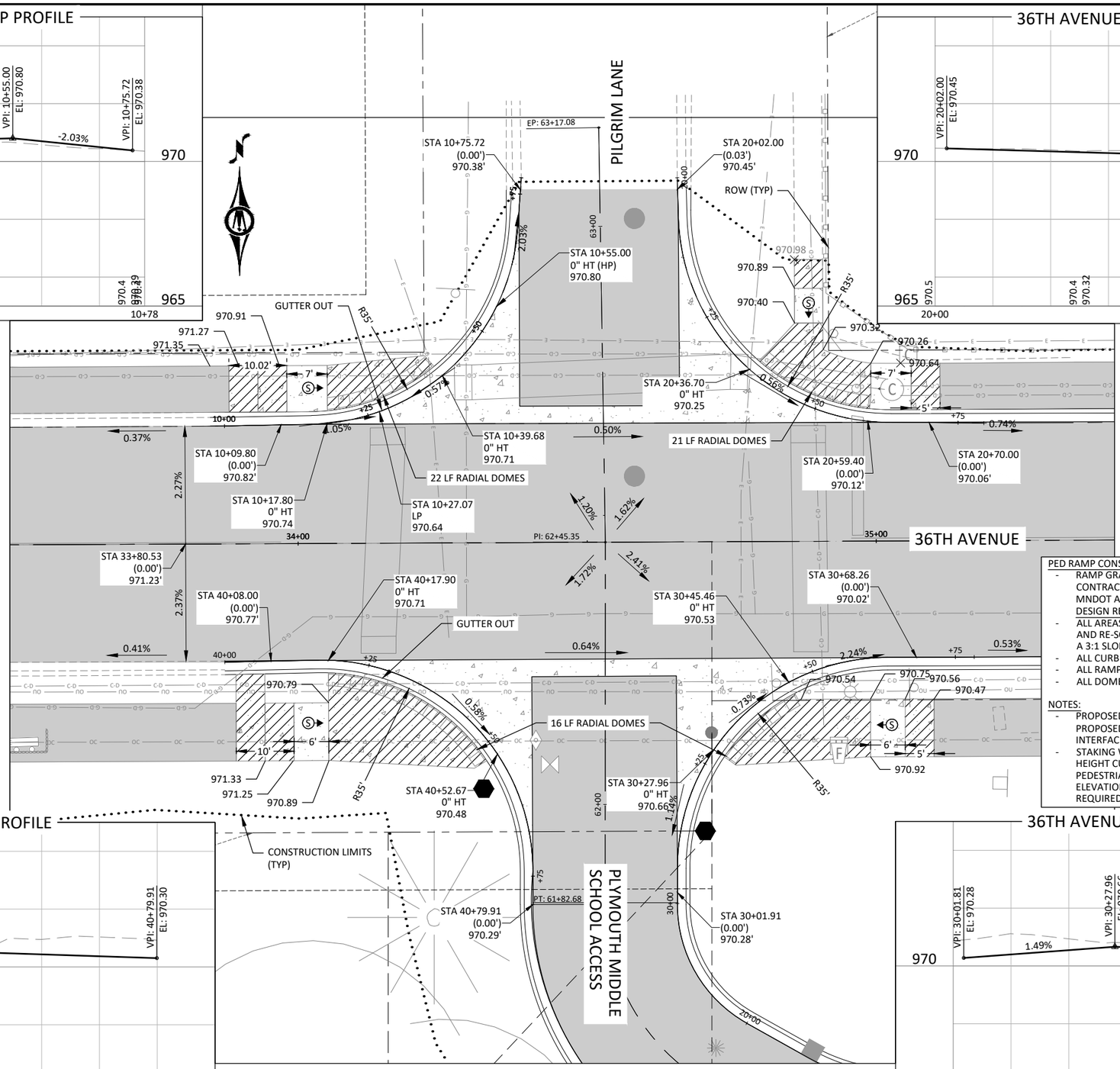
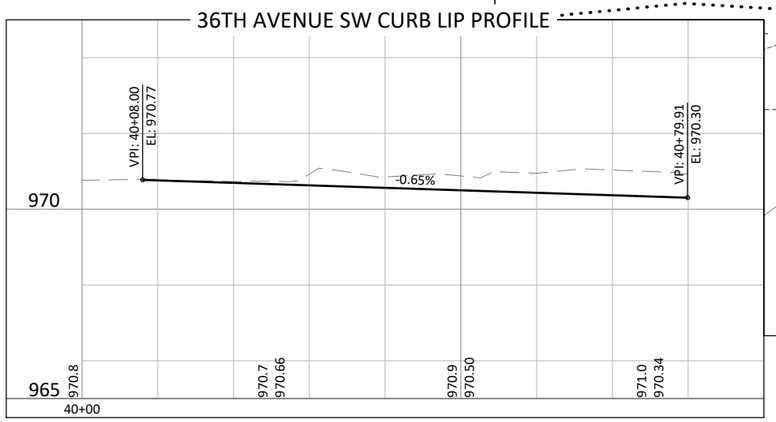
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
SARATOGA LN - PILGRIM LN

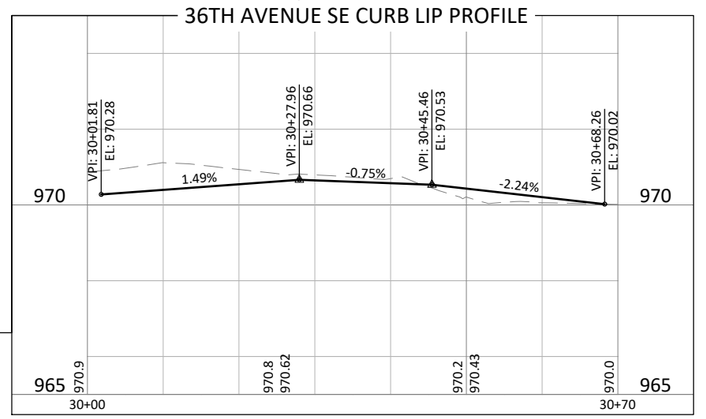
C6.21
69
OF
129











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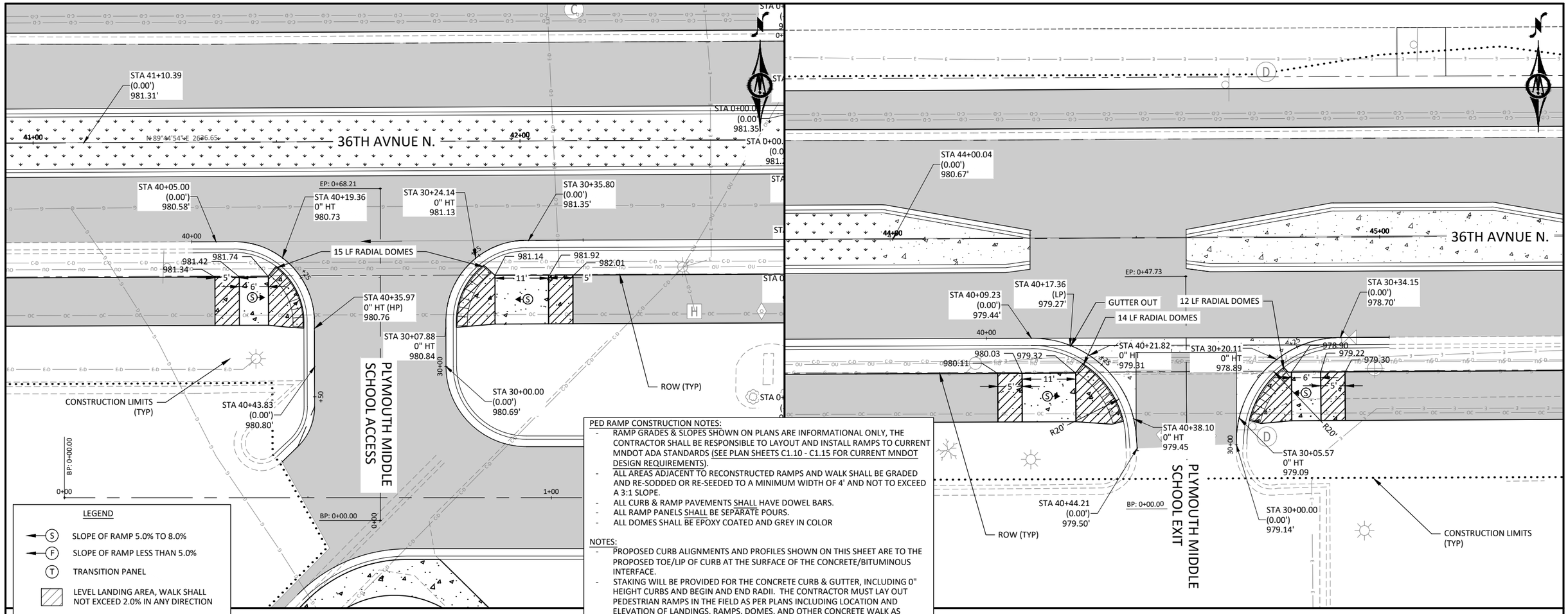
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
PILGRIM LN - PLYMOUTH MIDDLE SCHOOL ENTRANCE



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- (T) TRANSITION PANEL
- LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

PED RAMP CONSTRUCTION NOTES:

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- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

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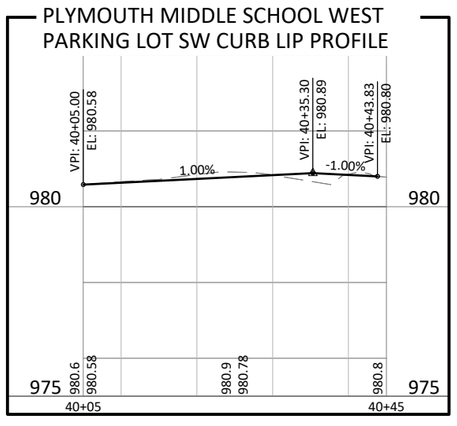
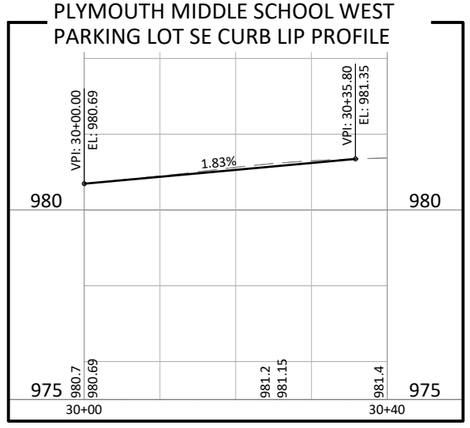
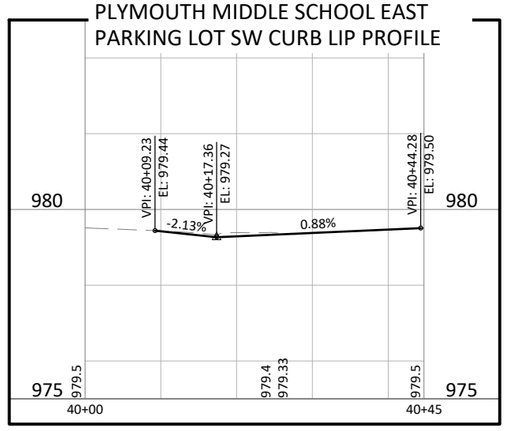
PLYMOUTH MIDDLE SCHOOL WEST PARKING LOT SW CURB LIP PROFILE



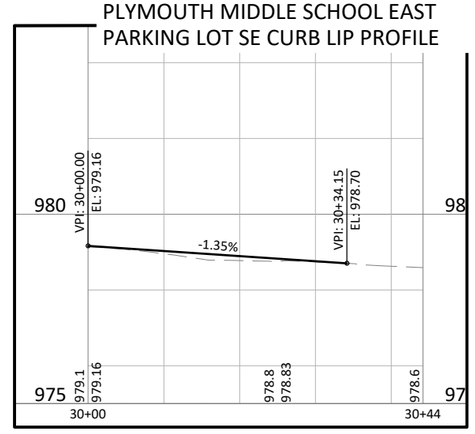
PLYMOUTH MIDDLE SCHOOL WEST PARKING LOT SE CURB LIP PROFILE



PLYMOUTH MIDDLE SCHOOL EAST PARKING LOT SW CURB LIP PROFILE



PLYMOUTH MIDDLE SCHOOL EAST PARKING LOT SE CURB LIP PROFILE



HORZ. SCALE 0 10 20 FEET

VERT. SCALE 0 2 4 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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Email: Burnsville@bolton-menk.com
www.bolton-menk.com

City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
PLYMOUTH MIDDLE SCHOOL PARKING LOT W & E

C6.23
71
OF
129

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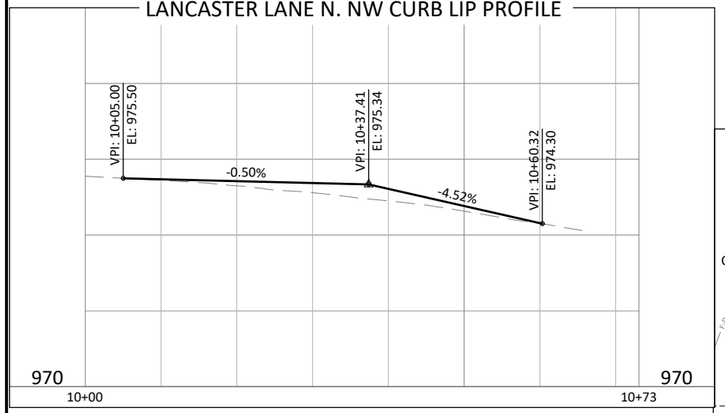
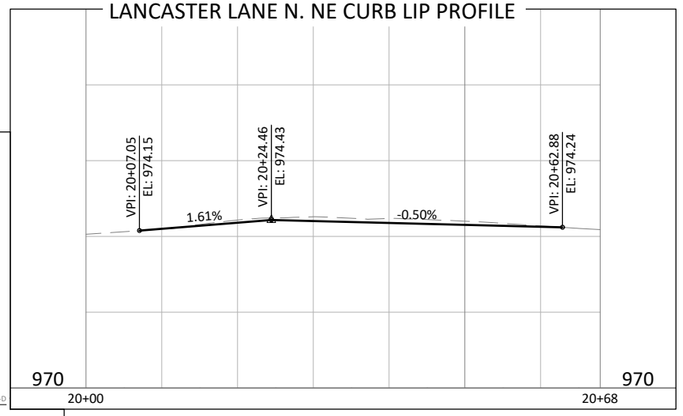
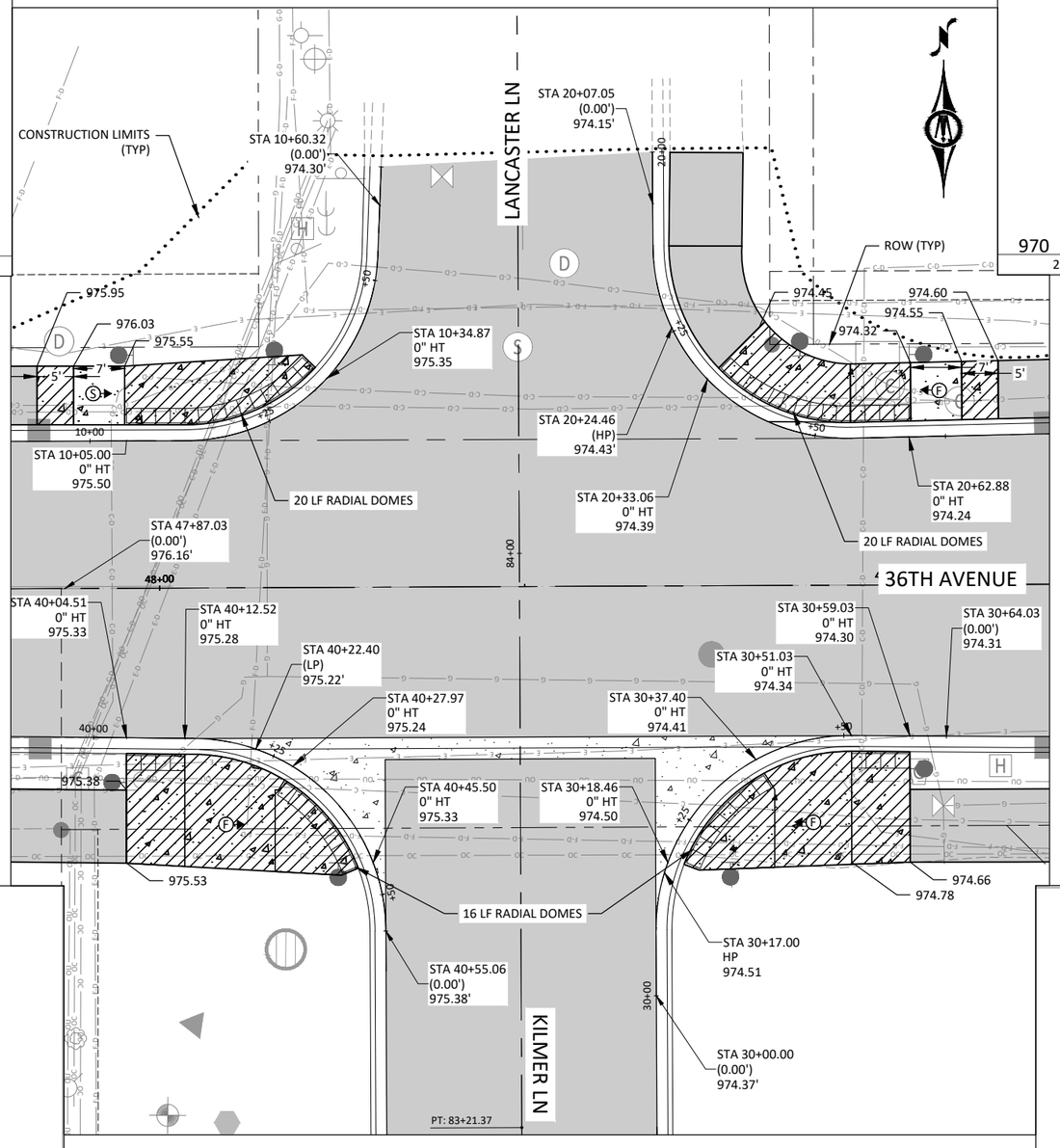
LANCASTER LANE N. NW CURB LIP PROFILE



LANCASTER LANE N. NE CURB LIP PROFILE





LEGEND

- (S) SLOPE OF RAMP 5.0% TO 8.0%
- (F) SLOPE OF RAMP LESS THAN 5.0%
- (T) TRANSITION PANEL
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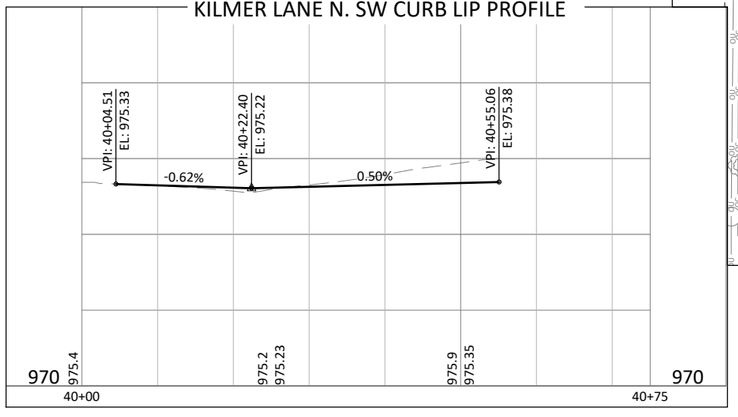
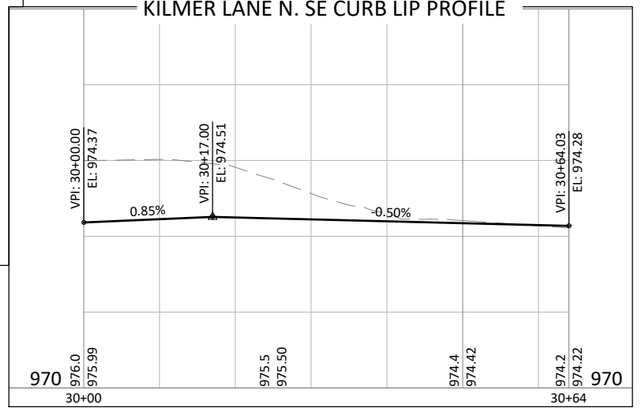
KILMER LANE N. SW CURB LIP PROFILE



KILMER LANE N. SE CURB LIP PROFILE



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HORZ. SCALE 0 25 50 FEET
VERT. SCALE 0 2 4 FEET

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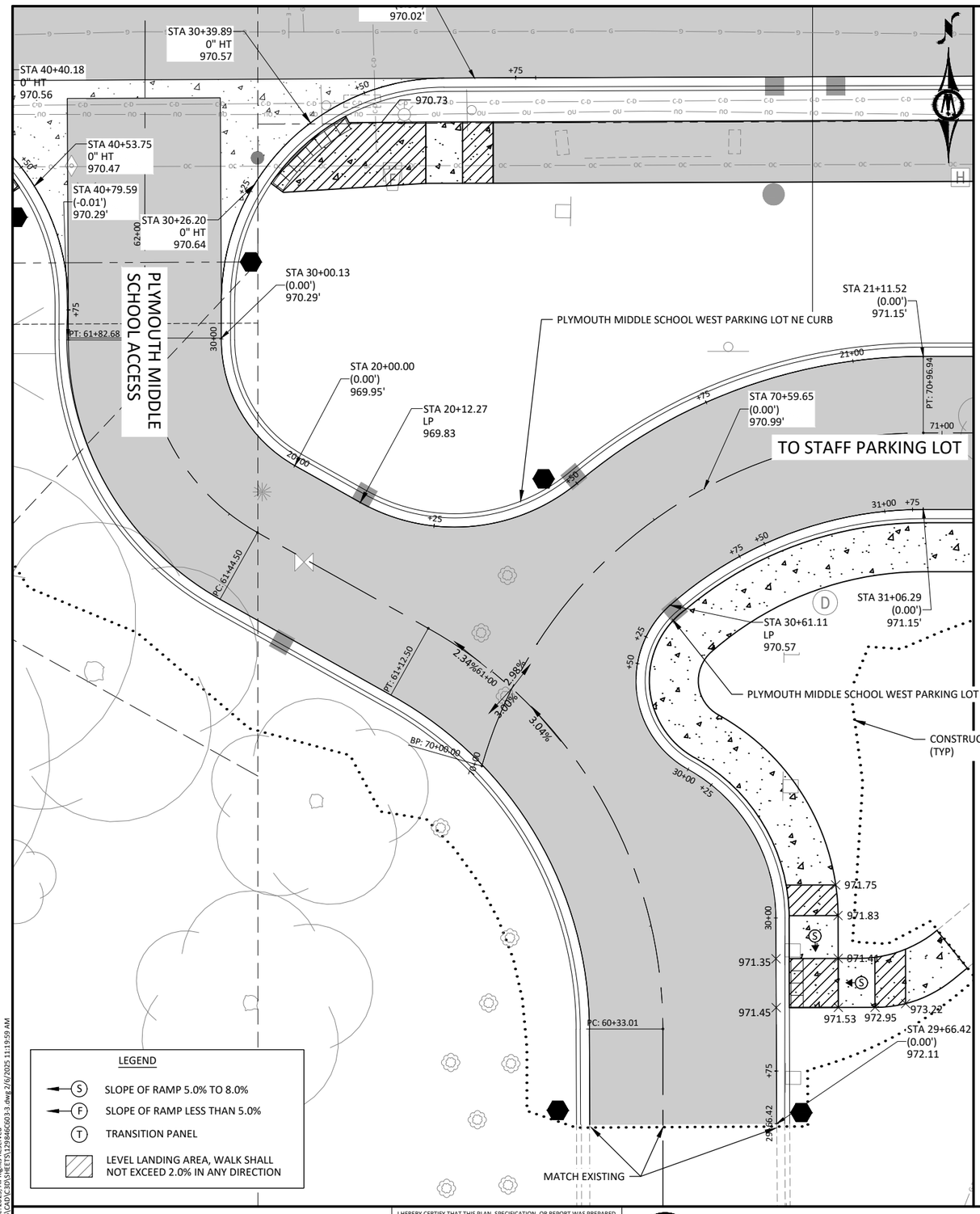
City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
LANCASTER LN - KILMER LN

C6.24
72
OF
129



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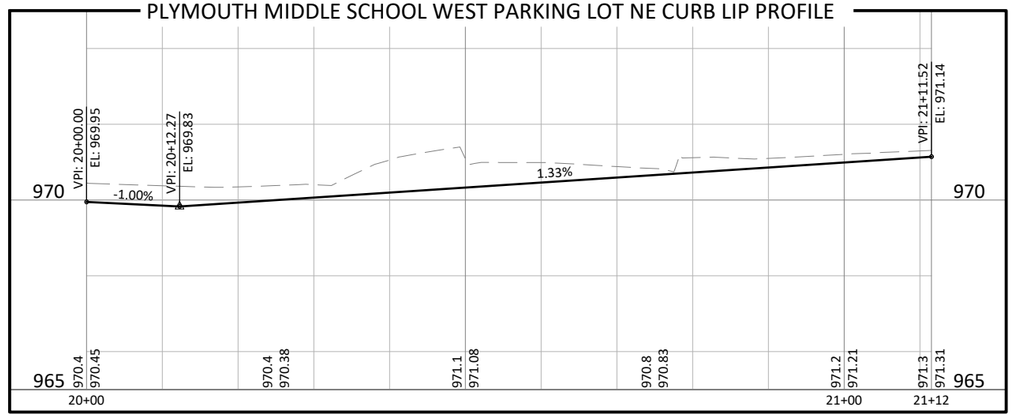
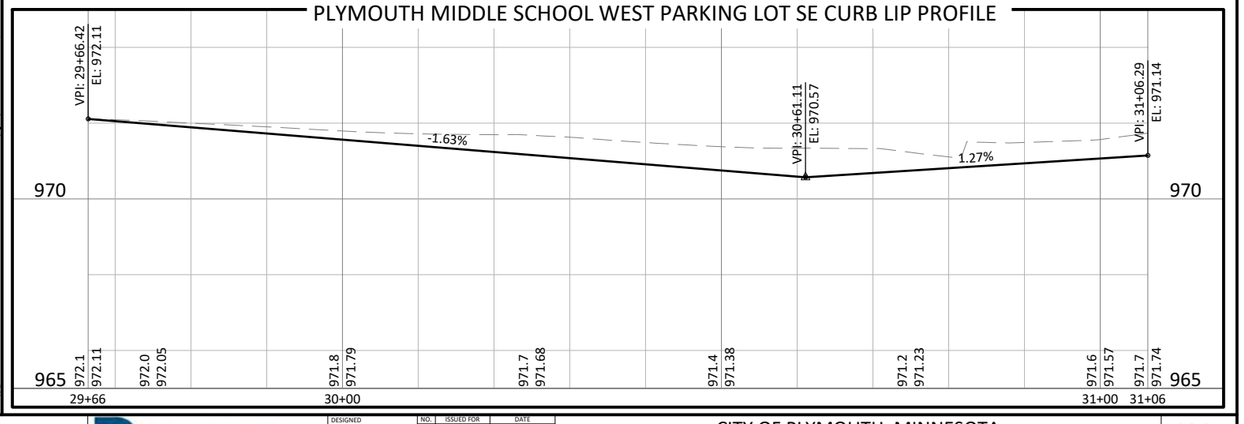
PLYMOUTH MIDDLE SCHOOL WEST PARKING LOT NE CURB LIP PROFILE



PLYMOUTH MIDDLE SCHOOL WEST PARKING LOT SE CURB LIP PROFILE



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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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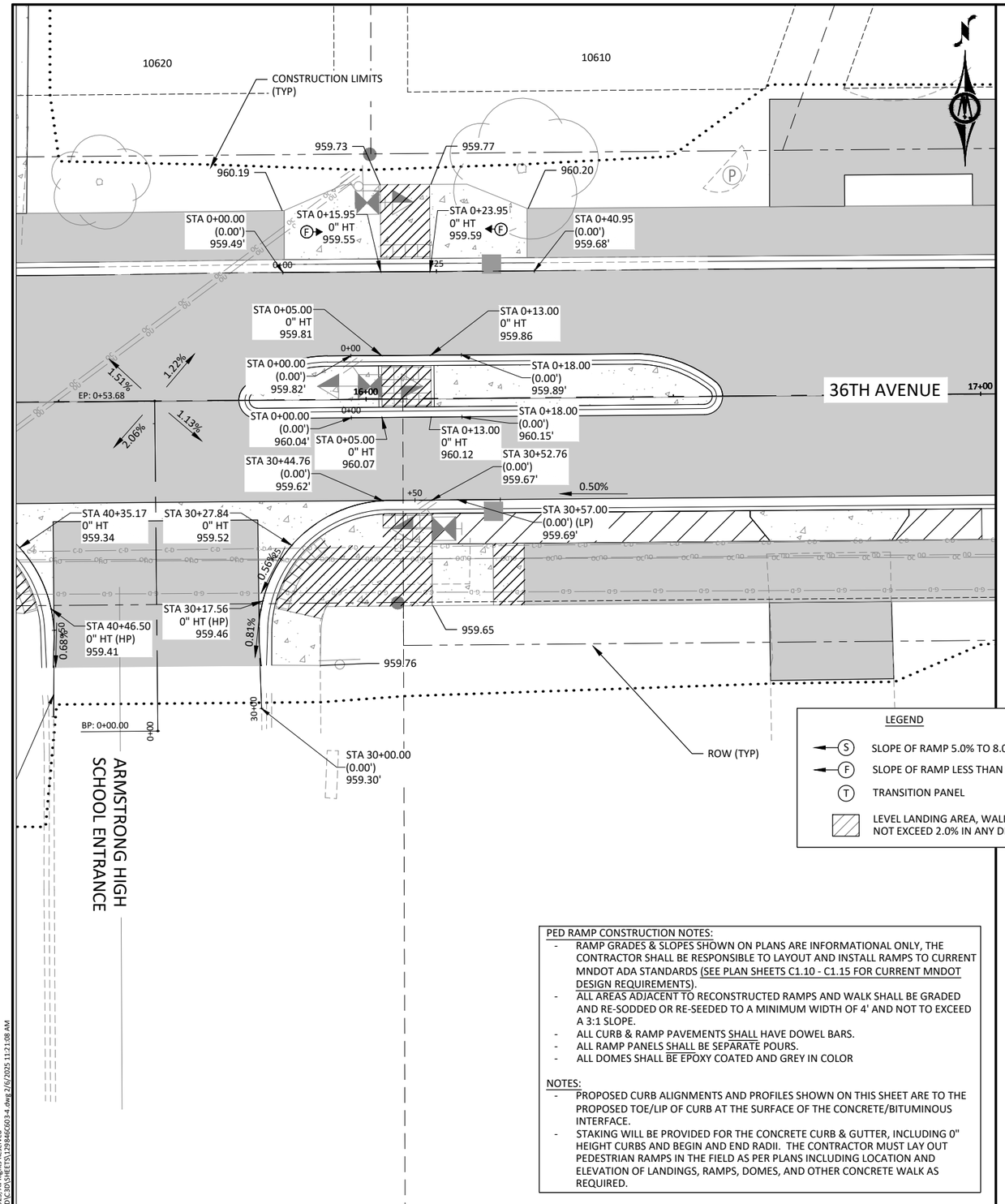
City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
MIDDLE SCHOOL ENTRANCE TO STAFF PARKING LOT



LEGEND

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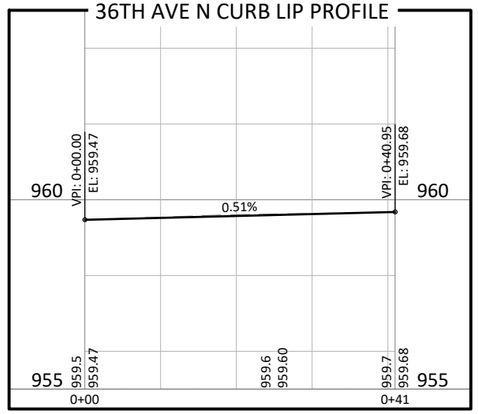
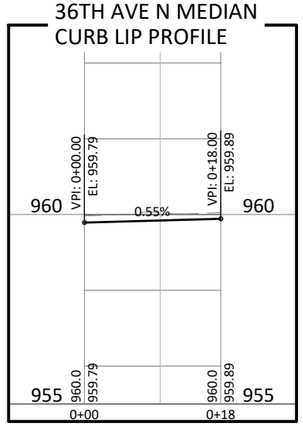
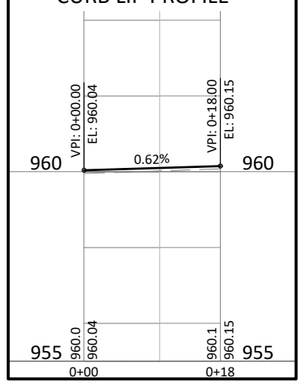
36TH AVE N CURB LIP PROFILE



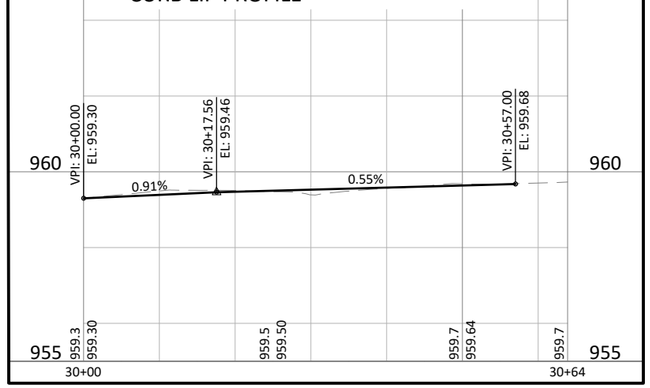
36TH AVE N MEDIAN CURB LIP PROFILE



36TH AVE S MEDIAN CURB LIP PROFILE



ARMSTRONG HIGH SCHOOL ACCESS SE CURB LIP PROFILE



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HORZ. SCALE 0 10 20 FEET
VERT. SCALE 0 2 4 FEET

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City of Plymouth

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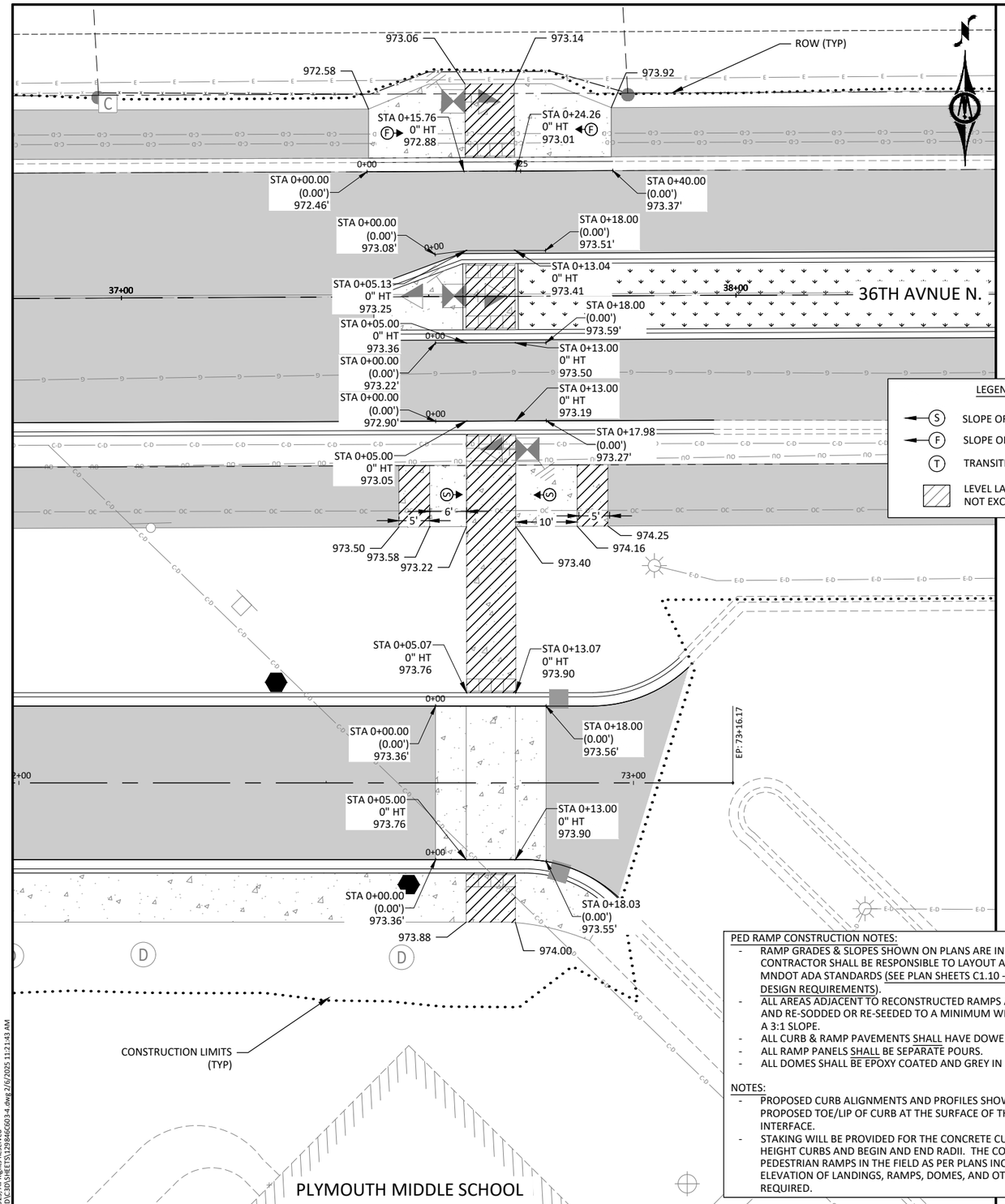
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
RRFB 16+00



LEGEND

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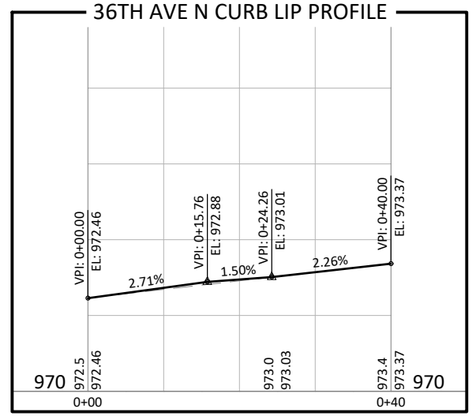
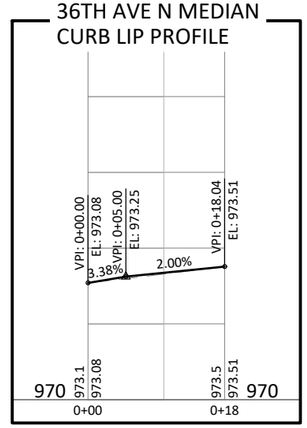
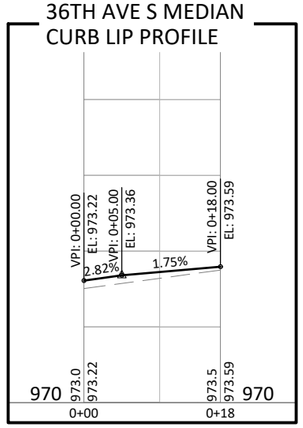
36TH AVE N CURB LIP PROFILE



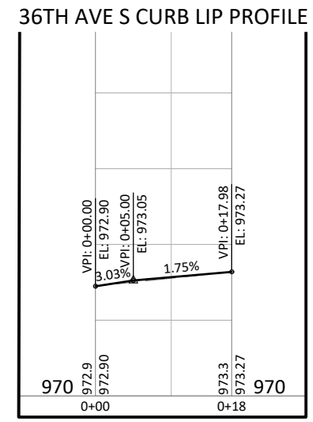
36TH AVE N MEDIAN CURB LIP PROFILE



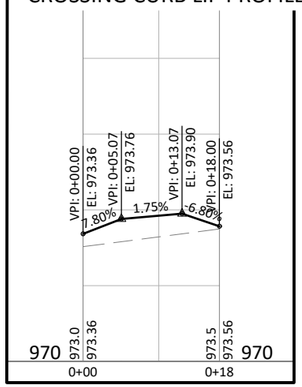
36TH AVE S MEDIAN CURB LIP PROFILE



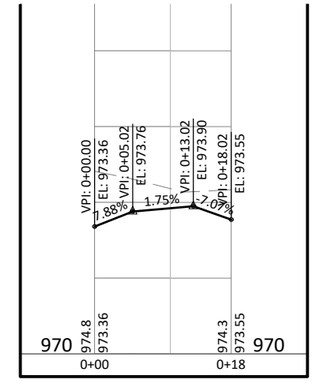
36TH AVE S CURB LIP PROFILE



36TH AVE N RAISED CROSSING CURB LIP PROFILE



36TH AVE S RAISED CROSSING CURB LIP PROFILE



HORZ. SCALE 0 10 20 FEET

VERT. SCALE 0 2 4 FEET

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City of Plymouth

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NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
RRFB 37+50

C6.27
75
OF
129

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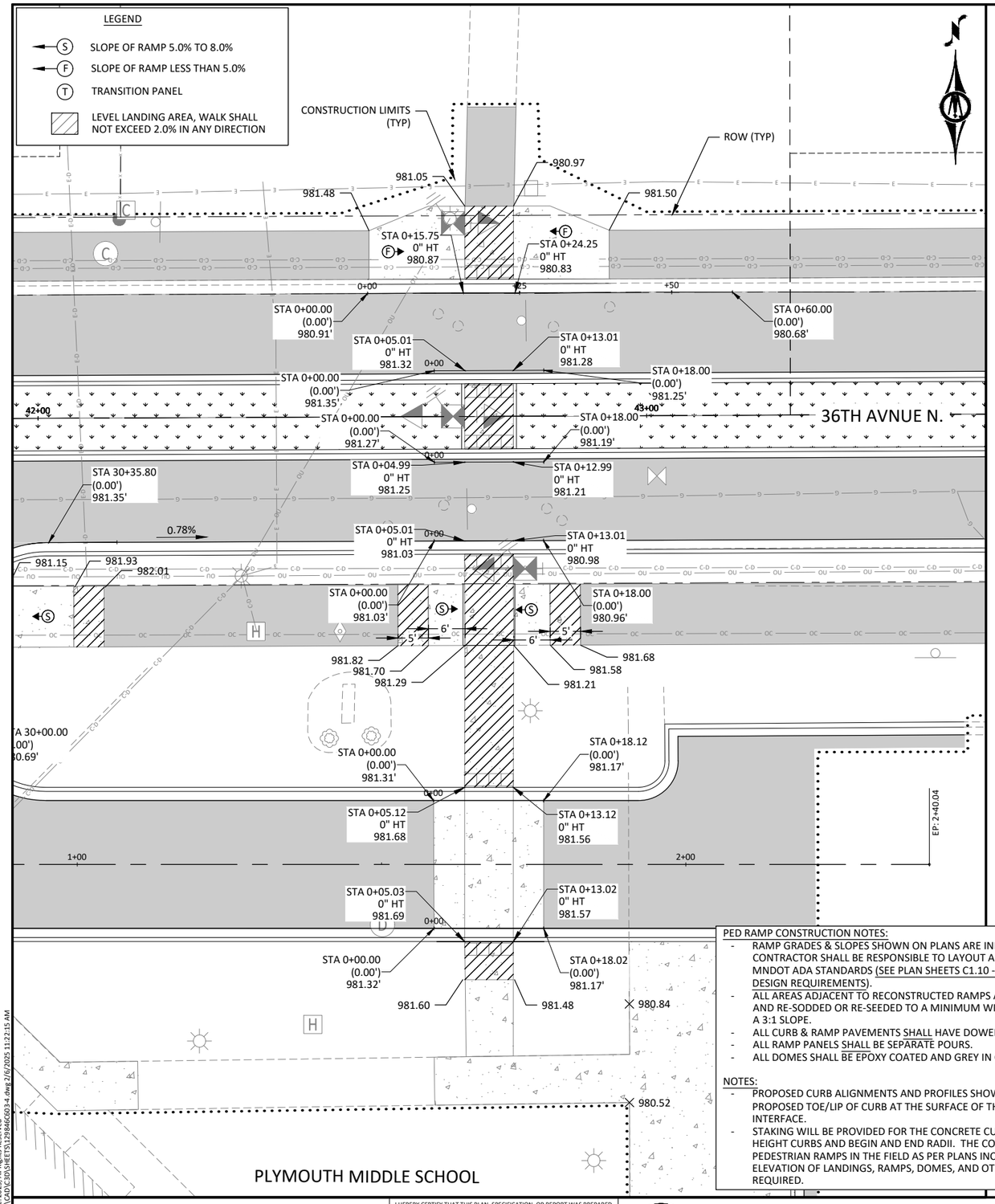

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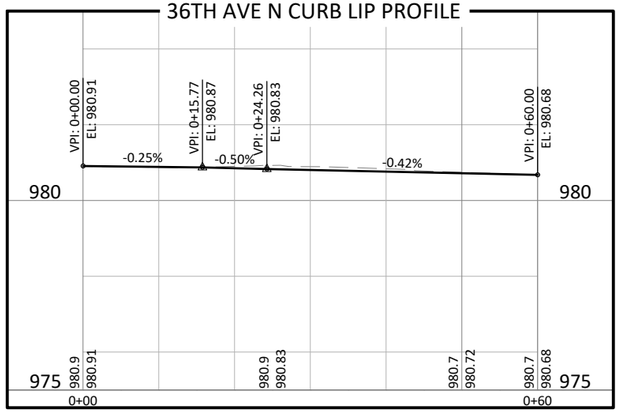
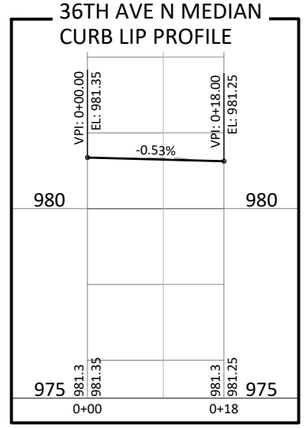
36TH AVE N CURB LIP PROFILE



36TH AVE N MEDIAN CURB LIP PROFILE



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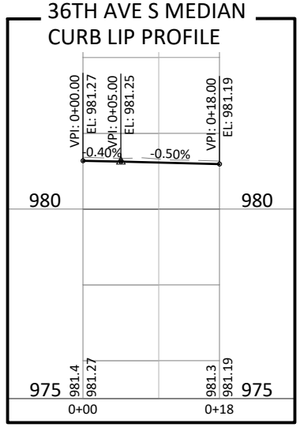

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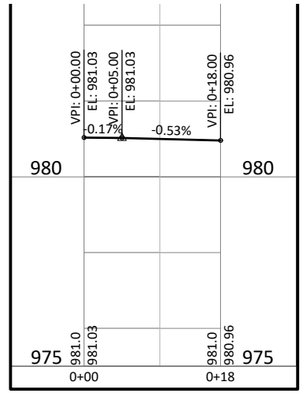
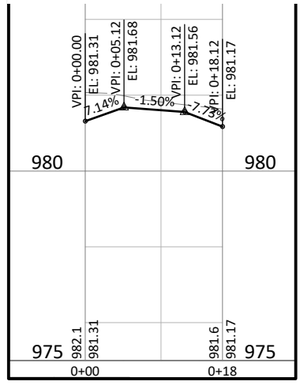
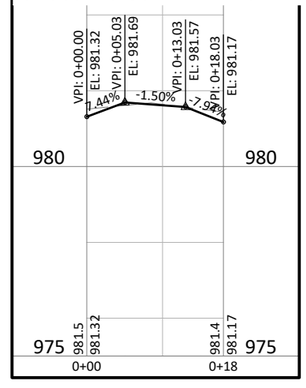


36TH AVE N RAISED CROSSING CURB LIP PROFILE



36TH AVE S RAISED CROSSING CURB LIP PROFILE



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VERT. SCALE 0 2 4 FEET

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
INTERSECTION DETAILS
RRFB 42+75

C6.28
76
OF
129

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NOTES:

1. THE EXACT PLACEMENT OF POLES, AND PEDESTRIAN CURB RAMPS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. THE FLASHERS FOR THIS SYSTEM SHALL BE RECTANGULAR RAPID FLASHING BEACONS (RRFB). SEE SPECIAL PROVISIONS FOR RRFB UNIT DETAILS.
3. ALL SIGNS REQUIRED FOR THE RRFB SYSTEM ARE INCIDENTAL.
4. MOUNTING HEIGHTS FOR ALL SIGNS AND DEVICES SHALL COMPLY WITH THE MN MUTCD.
5. FOR PAVEMENT MARKINGS, SEE SIGNING & STRIPING PLAN.
6. FOR CONSTRUCTION OF PEDESTRIAN RAMPS, SEE PEDESTRIAN RAMP DETAILS.

DRAINAGE & UTILITY EASEMENT PER PLAT OF ROGGEMANNS ADDITION

16+00

37+00

38+00

CITY OF PLY
EASEMENT PER

1
PEDESTAL FOUNDATION
13' PEDESTAL POLE AND BASE
1-RECTANGULAR RAPID FLASHING BEACON
1-S1-1 SIGN (36"X36") FACING WEST
1-W16-7PL SIGN (30"X18")FACING WEST
1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1-APS PB AND SIGN (R10-25) FACING EAST (PB-1)
AND APS PB MOUNTING SPACERS
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD

2
PEDESTAL FOUNDATION
13' PEDESTAL POLE AND BASE
2-RECTANGULAR RAPID FLASHING BEACON
2-S1-1 SIGN (36"X36") AT 90 AND 270 DEG
2-W16-7PR SIGN (30"X18") AT 90 AND 270 DEG
1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD

3
PEDESTAL FOUNDATION
13' PEDESTAL POLE AND BASE
1-RECTANGULAR RAPID FLASHING BEACON
1-S1-1 SIGN (36"X36") FACING EAST
1-W16-7PL SIGN (30"X18")FACING EAST
1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1-APS PB AND SIGN (R10-25) FACING EAST (PB-3)
AND APS PB MOUNTING SPACERS
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD

1
PEDESTAL FOUNDATION
13' PEDESTAL POLE AND BASE
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1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1-APS PB AND SIGN (R10-25) FACING EAST (PB-2)
AND APS PB MOUNTING SPACERS
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD

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City of Plymouth

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DRAWN	AA
CHECKED	ML/NA
CLIENT PROJ. NO.	ST260002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PEDESTRIAN CROSSWALK FLASHER SYSTEM

C7.01
77
OF
129

NOTES:

1. THE EXACT PLACEMENT OF POLES, AND PEDESTRIAN CURB RAMPS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. THE FLASHERS FOR THIS SYSTEM SHALL BE RECTANGULAR RAPID FLASHING BEACONS (RRFB). SEE SPECIAL PROVISIONS FOR RRFB UNIT DETAILS.
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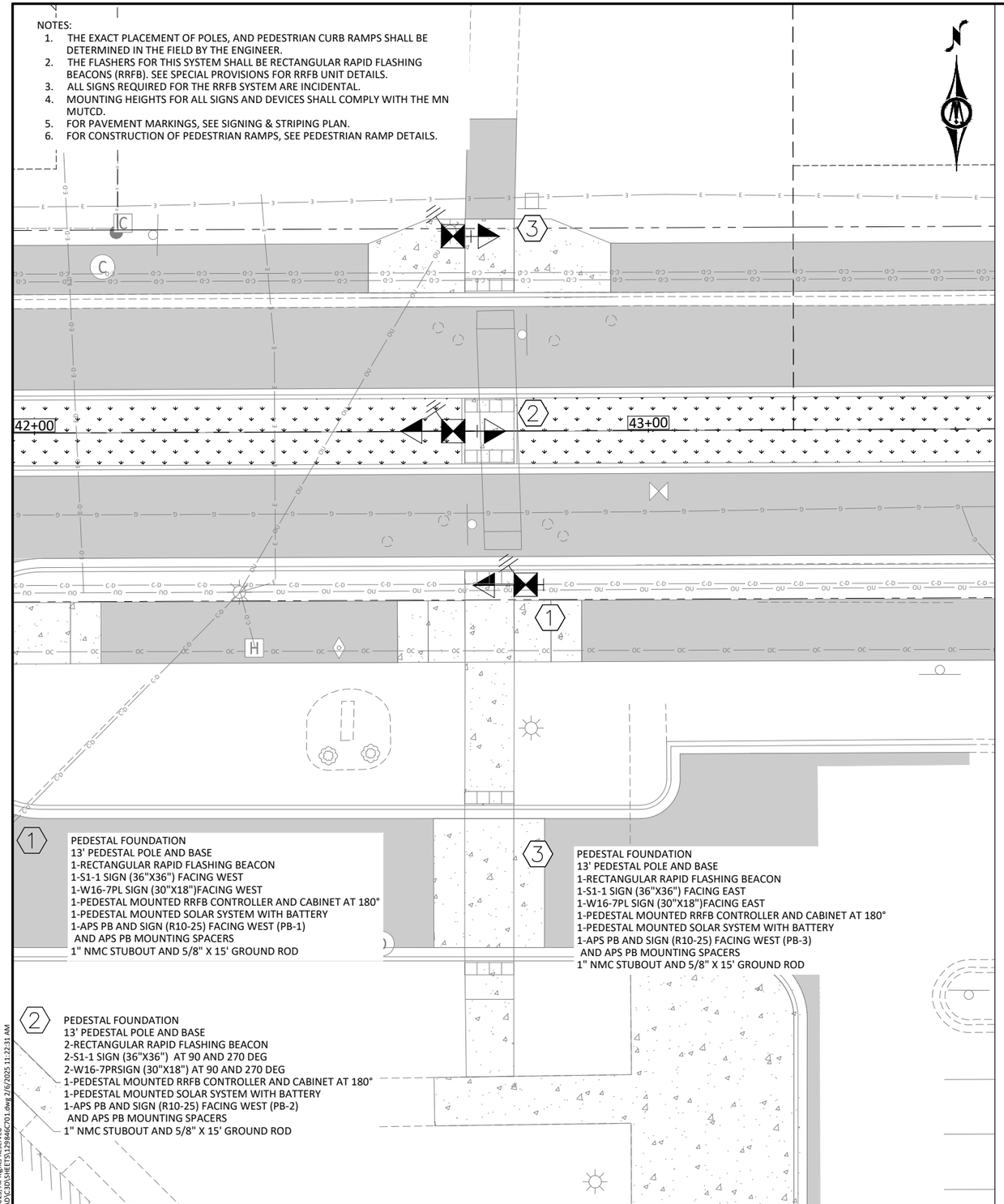

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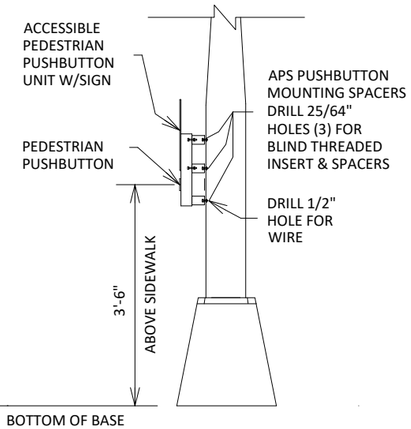
1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1-APS PB AND SIGN (R10-25) FACING WEST (PB-1)
AND APS PB MOUNTING SPACERS
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD

2 PEDESTAL FOUNDATION
13' PEDESTAL POLE AND BASE
2-RECTANGULAR RAPID FLASHING BEACON
2-S1-1 SIGN (36"X36") AT 90 AND 270 DEG
2-W16-7PRSIGN (30"X18") AT 90 AND 270 DEG
1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1-APS PB AND SIGN (R10-25) FACING WEST (PB-2)
AND APS PB MOUNTING SPACERS
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD

3 PEDESTAL FOUNDATION
13' PEDESTAL POLE AND BASE
1-RECTANGULAR RAPID FLASHING BEACON
1-S1-1 SIGN (36"X36") FACING EAST
1-W16-7PL SIGN (30"X18")FACING EAST
1-PEDESTAL MOUNTED RRFB CONTROLLER AND CABINET AT 180°
1-PEDESTAL MOUNTED SOLAR SYSTEM WITH BATTERY
1-APS PB AND SIGN (R10-25) FACING WEST (PB-3)
AND APS PB MOUNTING SPACERS
1" NMC STUBOUT AND 5/8" X 15' GROUND ROD



TYPICAL PEDESTAL MOUNTING

NOT TO SCALE

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HORZ. 0 10 20
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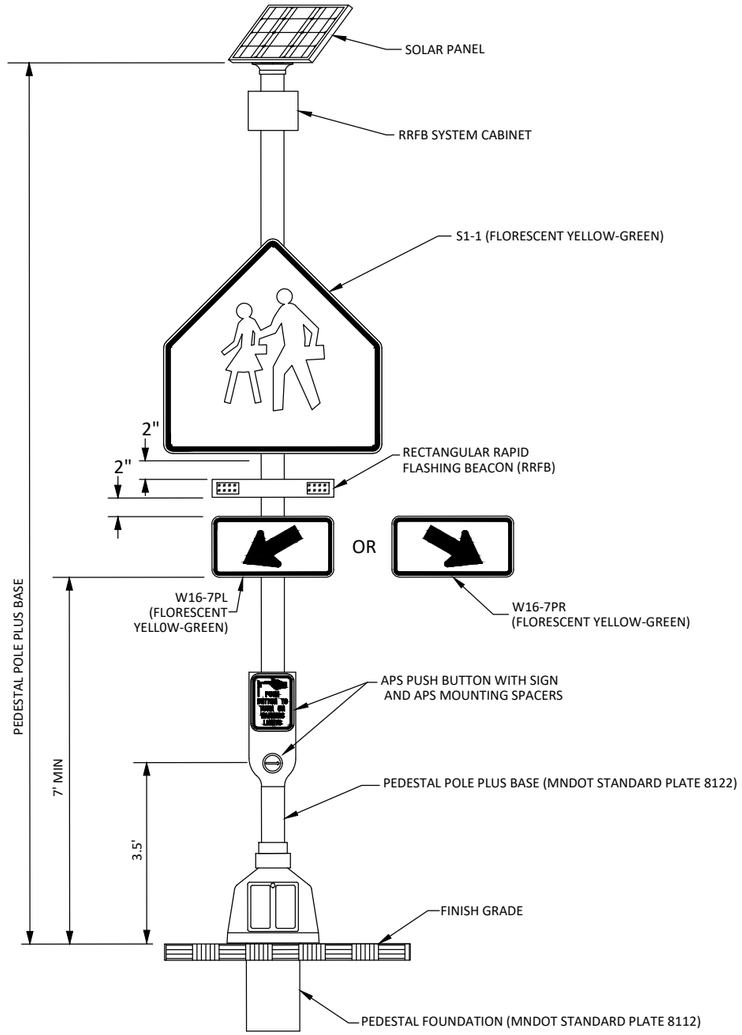
NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PEDESTRIAN CROSSWALK FLASHER SYSTEM



PEDESTRIAN CROSSWALK FLASHER SYSTEM DETAIL

NOT TO SCALE

NOTES:

1. LED DUAL 7" FLASHING ARRAYS ON BEACON TO FACE APPROACHING TRAFFIC. BEACONS SHALL INCLUDE SIDE FACING PEDESTRIAN INDICATION FACING ROADWAY.
2. SEE MNDOT STANDARD PLATE NO. 8112 "PEDESTAL FOUNDATION" FOR FOUNDATION DETAILS.
3. FURNISH AND INSTALL AUDIBLE PUSH BUTTON AND FHWA APPROVED REGULATORY SIGN FOR PEDESTRIAN FLASHER SYSTEM ABOVE PUSH BUTTON. SEE PROVISIONS.

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Michael S. Larson

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
PEDESTRIAN CROSSWALK FLASHER SYSTEM

ABBREVIATIONS

AWF	ADVANCE WARNING FLASHER
C.D.	COUNT DOWN
D2-1 (e.g.)	DETECTOR (PHASE 2, NO. 1)
DEG	DEGREES
DWK	DON'T WALK
F&I	FURNISH AND INSTALL
FL	FLASH/FLASHING
FYA	FLASHING YELLOW ARROW
FYLA	FLASHING YELLOW LEFT ARROW
GLA	GREEN LEFT ARROW
GRN	GREEN INDICATION
GR. RD.	GROUND ROD
GRA	GREEN RIGHT ARROW
GTA	GREEN THRU ARROW
HH	HANDHOLE
IND	INDICATION
INP	INPLACE
INS. GR.	INSULATED GROUND
JB	JUNCTION BOX
LED	LIGHT EMITTING DIODE
LUM	LUMINAIRE
NEU	NEUTRAL
P1-1 (e.g.)	PEDESTRIAN HEAD (PHASE 1, NO. 1)
PB	PUSH BUTTON
PB2-1 (e.g.)	PUSH BUTTON (PHASE 2, NO. 1)
PED	PEDESTRIAN
RED	RED INDICATION
R&S	REMOVE AND SALVAGE
RLA	RED LEFT TURN ARROW
S&I	SALVAGE AND INSTALL
SPR	SPARE
STA	STATION
WLK	WALK INDICATION
YEL	YELLOW INDICATION
YLA	YELLOW LEFT ARROW
YRA	YELLOW RIGHT ARROW

SYMBOLS

- HANDHOLE
- EQ.G CONNECTION
- EVP CONFIRMATORY LIGHT
- EVP DETECTOR
- EVP DETECTOR AND CONFIRMATORY LIGHT
- SPLICE
- FIBER OPTIC SPLICE VAULT (FO)
- PULL VAULT (PV)
- LUMINAIRE NO. (2)
- SIGNAL BASE NO. (3)
- SIGNAL HEAD NO./FLASHER HEAD NO. (3-2)
- BARREL MOUNT BASE NO. (BM 4)
- WOOD POLE NO. (WP 1)
- TELEVISION CAMERA (CCTV) (TV)
- VIDEO DETECTION (V)
- GRIDSMART VIDEO DETECTION

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

INDEX MAP

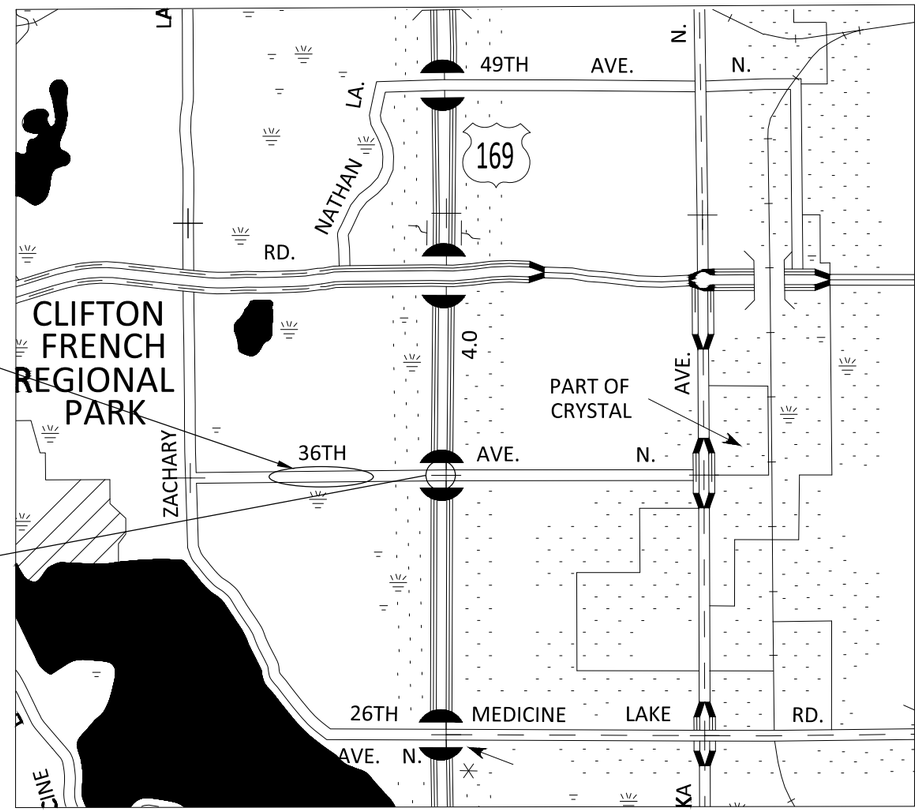
1600

SCALE IN FEET

PROJECT LOCATION
CITY OF PLYMOUTH

PEDESTRIAN CROSSWALK FLASHER SYSTEM
SYSTEM A: 36TH AVE AT HIGH SCHOOL ACCESS
SYSTEM B: 36TH AVE AT MIDDLE SCHOOL WEST CROSSING
SYSTEM C: 36TH AVE AT MIDDLE SCHOOL EAST CROSSING

SIGNAL SYSTEM A
36TH AVE N AT KILLMER
LN/LANCASTER LN



STANDARD PLATES - SIGNAL SYSTEMS

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

PLATE NO.		DESCRIPTION	PLATE NO.		DESCRIPTION
7038	A	DETECTABLE WARNING SURFACE TRUNCATED DOMES	8122	F	PEDESTAL AND PEDESTAL BASE (2 SHEETS)
7113	A	CONCRETE APPROACH NOSE DETAIL	8123	G	POLE AND MAST ARM (2 SHEETS)
8111	E	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED)	8126	L	POLE FOUNDATION (PA90 AND PA100)
8112	I	PEDESTAL FOUNDATION	8129	A	SHIM AND WASHER
8117	G	PRECAST CONCRETE HAND HOLE	8130	E	SAW CUT LOOP DETECTORS
8118	D	SERVICE EQUIPMENT AND POLE	8132	B	PREFORMED RIGID PVC CONDUIT LOOP DETECTOR
8119	C	GROUND MOUNTED CABINET FOUNDATION	8133	A	POLE AND MAST ARM - TYPE BA
8120	Q	POLE FOUNDATION (PA-85)	8134	A	POLE FOUNDATION - TYPE BA
8121	H	TRANSFORMER BASE AND POLE BASE PLATE (2 SHEETS)			

STANDARD PLATES APPLICABLE TO THIS PROJECT

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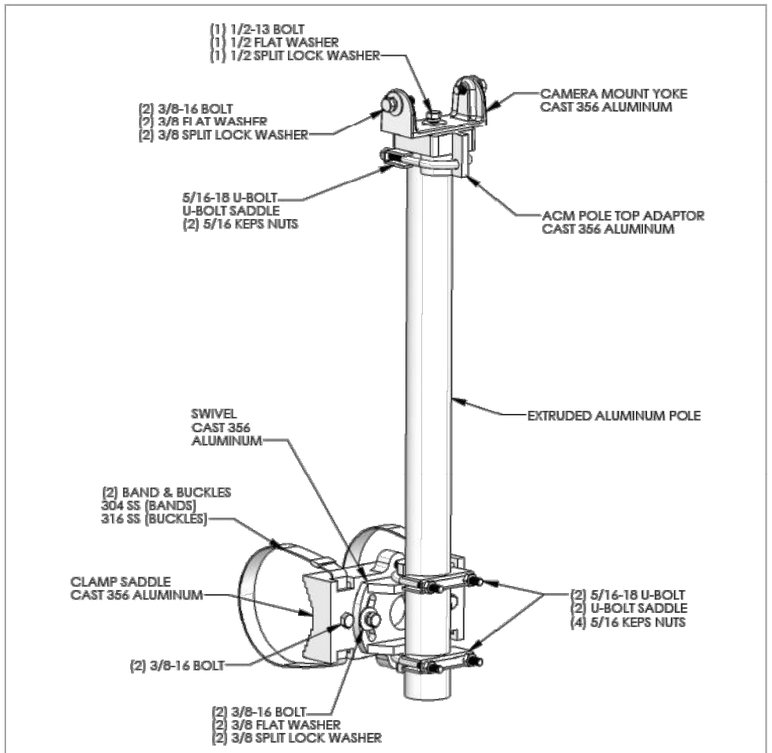
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

C7.04
80
OF
129

ADJUSTABLE CAMERA MOUNTING DETAIL
(NO SCALE)



POLE LENGTHS AVAILABLE
18", 24", 37", 46", 60", 74", 96", 120"

BAND LENGTH	MAST ARM DIA.
29"	2" - 7"
42"	8" - 11"
59"	12" - 17"

NOTES:
1. YELLOW ZINC DICHROMATE PLATED FASTENERS, STAINLESS STEEL HARDWARE AVAILABLE.
2. AVAILABLE WITH CABLE STYLE CLAMP.

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APPROVALS	BY	DATE
DRAWN	TRC	5/16/11
SALES		
ENGINEERING		

DO NOT SCALE DRAWING

SKYBRACKET
MAST ARM MOUNTING HARDWARE

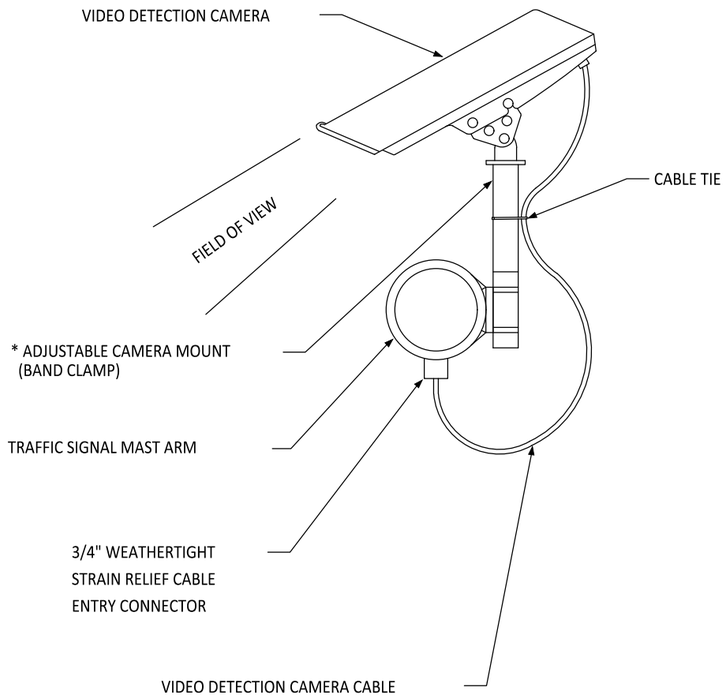
TITLE: ADJUSTABLE CAMERA MOUNT (BAND CLAMP)

SIZE A | DWG. NO. SB29-ACM-74 | REV. A

SCALE: NTS | CAD FILE: SB29-ACM74 | SHEET 1 OF 1

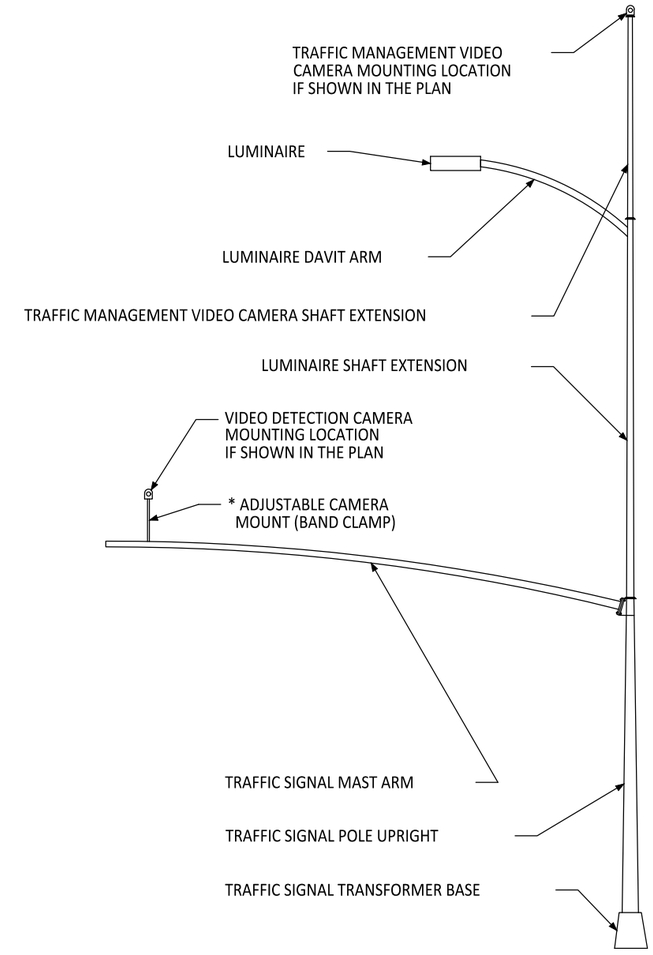
* MAST ARM MOUNTING POLE LENGTH SHALL BE 74". ALL HARDWARE SHALL BE STAINLESS STEEL. AS DIRECTED BY THE ENGINEER

VIDEO DETECTION CAMERA MOUNTING DETAIL
(NO SCALE)



* HEIGHT OF MOUNTING BRACKET SHALL FACILITATE A CLEAR LINE OF SIGHT TO THE INTENDED FIELD OF VIEW AND ALLOW FOR FREE MOVEMENT OF THE VIDEO CAMERA. IF REQUIRED ALL COSTS TO PROVIDE AND INSTALL ADJUSTABLE CAMERA MOUNT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR TRAFFIC CONROL SIGNAL SYSTEM (SYS).

VIDEO CAMERA LOCATIONS DETAIL
(NO SCALE)



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VIDEO DETECTOR DETAILS

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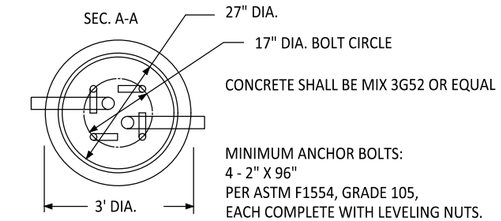
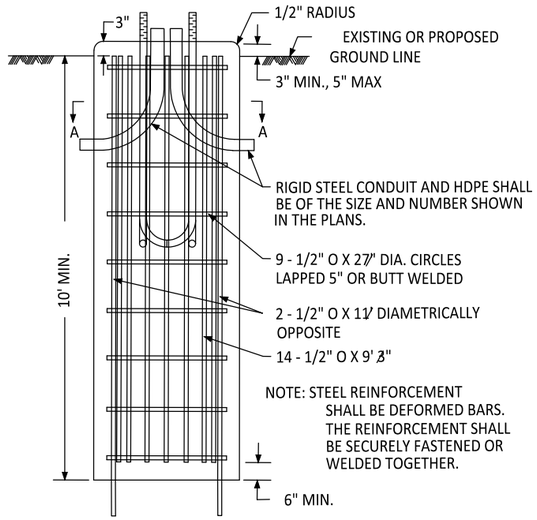
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

C7.05
81
OF
129

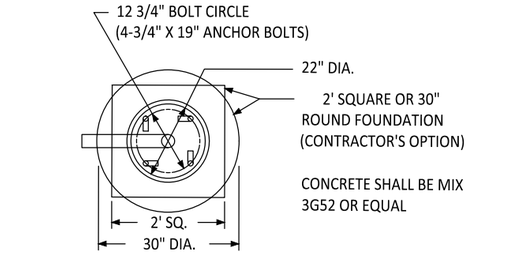
MAST ARM SIGNAL POLE FOUNDATION
(NO SCALE)

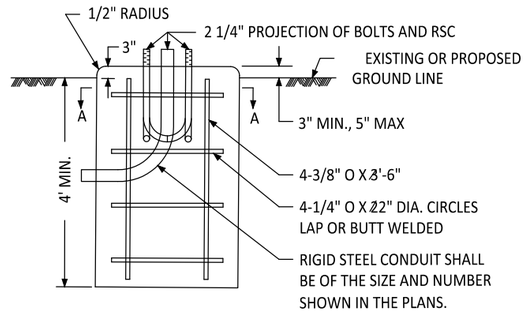




SIGNAL ASSEMBLY PEDESTAL MOUNT FOUNDATION
(NO SCALE)

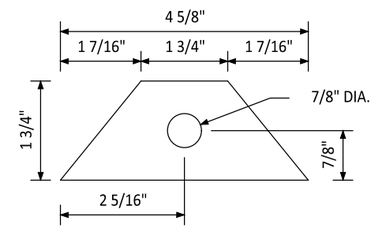
SEC. A-A





NOTE:
STEEL REINFORCEMENT SHALL BE DEFORMED BARS.
THE REINFORCEMENT SHALL BE SECURELY
FASTENED OR WELDED TOGETHER.

SIGNAL ASSEMBLY PEDESTAL MOUNT FLAT WASHER TYPICAL
(NO SCALE)



NOTE:
FLAT WASHERS SHALL BE 1/4" THICK A36
GALVANIZED STEEL.

SIGNAL SYSTEM FOUNDATION DETAILS

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

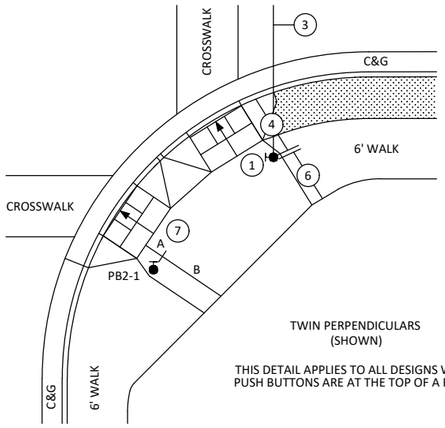
C7.06
82
OF
129

TYPICAL APS PEDESTRIAN PUSH BUTTON LOCATION
(NO SCALE)

THIS IS A GENERAL DETAIL INTENDED TO SHOW THE REQUIREMENTS OF APS PUSH BUTTON LOCATION. FOR PROJECT SPECIFIC INFORMATION REGARDING PEDESTRIAN RAMP LAYOUT AND PUSH BUTTON LOCATIONS, SEE THE PLAN.

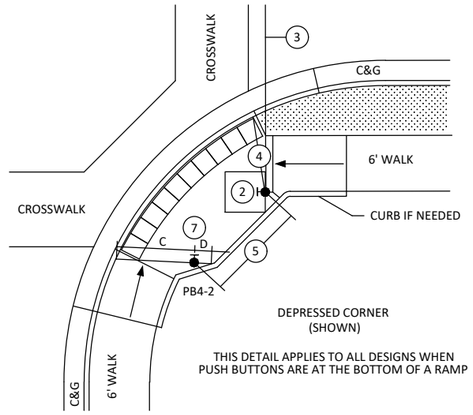
SUPPLEMENTAL GUIDANCE FOR CONSTRUCTING COMPLIANT APS PUSH BUTTONS:

1. THE FACE OF THE BUTTON SHALL BE PARALLEL WITH THE OUTSIDE EDGE OF CROSSWALK.
2. A MINIMUM 4 FT X 4 FT LANDING AREA SHALL BE PROVIDED ADJACENT TO EACH BUTTON, WITH A 2 PERCENT MAXIMUM SLOPE IN ALL DIRECTIONS.
3. BUTTONS SHALL BE WITHIN 5 FT OF THE OUTSIDE EDGE OF THE CROSSWALK.
4. BUTTONS SHALL BE BETWEEN 1.5 FT AND 10 FT FROM THE BACK OF CURB OR EDGE OF ROADWAY, MEASURED IN THE DIRECTION OF TRAVEL. STANDALONE PUSH BUTTON STATIONS SHOULD BE 4' MINIMUM FROM THE BACK OF CURB TO AVOID KNOCKDOWNS.
5. BUTTONS SHALL BE AT LEAST 10 FT APART.
6. PROVIDE A MAINTENANCE ACCESS ROUTE (MAR) WHEREVER POSSIBLE FOR SNOW REMOVAL PURPOSES. A MAR REQUIRES A 6 FT MINIMUM CLEAR DISTANCE BETWEEN A PUSH BUTTON AND ANY OBSTRUCTIONS,INCLUDING BUILDINGS, V-CURB, ELECTRICAL FOUNDATIONS, SIGNAL CABINETS, OR ANOTHER PUSH BUTTON.
7. BUTTON SHOULD BE 2 FT MINIMUM FROM RAMP GRADE BREAK AND BACK OF WALK.



TWIN PERPENDICULARS
(SHOWN)

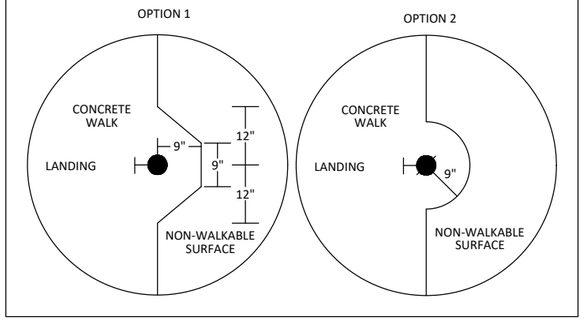
THIS DETAIL APPLIES TO ALL DESIGNS WHEN PUSH BUTTONS ARE AT THE TOP OF A RAMP



DEPRESSED CORNER
(SHOWN)

THIS DETAIL APPLIES TO ALL DESIGNS WHEN PUSH BUTTONS ARE AT THE BOTTOM OF A RAMP

CONTRACTOR MUST USE OPTION 1 OR 2 WHEN THE APS PUSH BUTTON IS SHOWN AT THE EDGE OF WALK. OPTION USED (OR SELECTED) MUST BE THE SAME THROUGHOUT THE ENTIRE PROJECT.



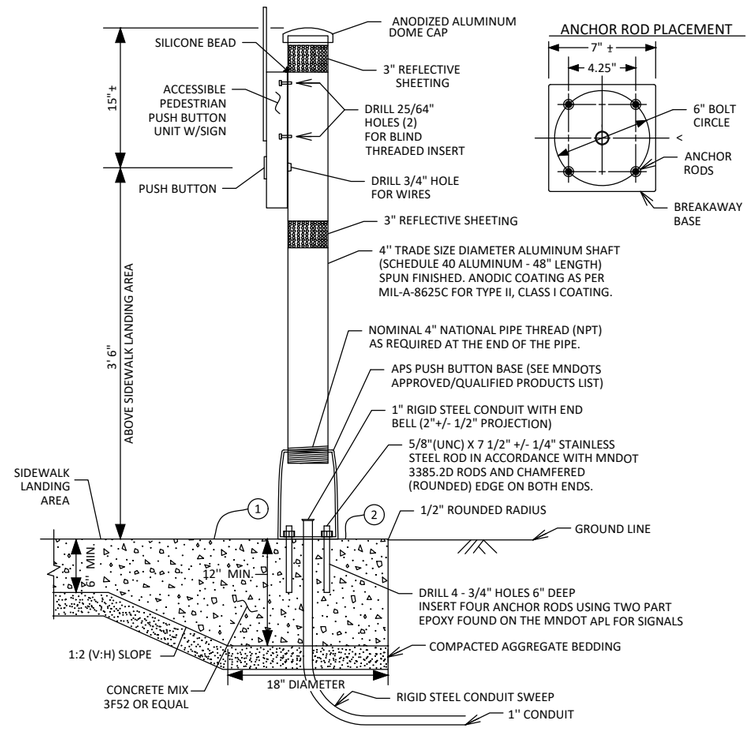
A - DISTANCE MEASURED FROM THE PUSH BUTTON TO THE FRONT OF LANDING/TOP OF RAMP

B - CLEAR DISTANCE MEASURED FROM THE PUSH BUTTON TO THE BACK OF LANDING/EDGE OF WALK

C - CLEAR DISTANCE MEASURED FROM THE PUSH BUTTON TO THE OUTSIDE EDGE OF DOMES IN THE DIRECTION OF TRAVEL

D - CLEAR DISTANCE FROM THE PUSH BUTTON TO THE BACK OF LANDING MEASURED IN THE OPPOSITE DIRECTION OF TRAVEL

ACCESSIBLE PEDESTRIAN SIGNAL (APS)
APS PUSH BUTTON STATION
(NO SCALE)



NOTES:

PLACEMENT AND ORIENTATION OF THE PUSH BUTTON STATION IS CRITICAL. MOUNT THE BUTTON SO THAT THE FACE IS PARALLEL WITH THE ASSOCIATED CROSSWALK. SCREW IN SHAFT TO A TIGHTENED POSITION BEFORE MOUNTING ACCESSIBLE PEDESTRIAN PUSH BUTTON UNIT TO THE SHAFT.

ORIENT ACCESS OPENING ON THE BREAKAWAY PEDESTAL DIRECTLY BELOW THE APS BUTTON.

PLUMB THE PUSH BUTTON STATION WITH LEVELING SHIMS IN ACCORDANCE WITH STANDARD PLATE 8129.

INSTALL BLIND THREADED INSERTS USING MANUFACTURER'S SPECIFIC INSERTION TOOL.

USE ZINC PLATED STEEL 1/4 - 20 UNC BLIND THREADED INSERTS SUITABLE FOR MOUNTING ON SURFACE WALL THICKNESS OF .337. APPROVED BLIND INSERTS ARE LISTED ON MNDOT'S APPROVED/QUALITY PRODUCTS LIST WEBSITE FOR TRAFFIC SIGNALS.

USE APS 1/4 - 20 STAINLESS STEEL MOUNTING BOLTS. APPLY BRUSH ON ANTI SEIZE COMPOUND TO BOLTS PRIOR TO ASSEMBLY.

APPLY A BEAD OF 100% SILICONE SEALANT ALONG THE TOP OF THE PUSH BUTTON UNIT WHERE IT COMES IN CONTACT WITH THE 4" SHAFT.

USE WHITE REFLECTIVE SHEETING AT INTERSECTION CORNERS AND YELLOW REFLECTIVE SHEETING IN CENTER MEDIANS. APPROVED TUBE DELINEATOR SHEETING IS LISTED ON MNDOT'S APPROVED/QUALIFIED PRODUCTS LIST WEBSITE FOR SIGNING.

AN 18" X 6" FIBER FORMING TUBE MAY BE USED FOR THE LOWER HALF OF THE FOUNDATION WHEN CONDITIONS DO NOT ALLOW FOR THE 18" X 6" HOLE TO STAND OPEN.

1. THE PUSH BUTTON STATION FOUNDATION IS MONOLITHIC (POURED AT ONE TIME) WITH THE SIDEWALK. PROVIDE A 1:2 (V:H) SLOPE GRADE WHERE THE 6" MIN SIDEWALK DEPTH TRANSITIONS TO THE 12" MIN FOUNDATION DEPTH. MAINTAIN THE COMPACTED AGGREGATE BEDDING AND THICKNESS USED FOR THE SIDEWALK THROUGHOUT THE SLOPE AND FOUNDATION GRADING. PROVIDE 1:2 (V:H) SLOPE GRADING 360 DEGREES FOR THE TRANSITION FROM THE SIDEWALK TO THE FOUNDATION WHEN THE FOUNDATION IS NOT LOCATED NEAR EDGE OF SIDEWALK AND IS SURROUNDED BY CONCRETE WALK.
2. ENSURE CONCRETE CONTROL JOINTS AND EDGE OF CONCRETE WALK ARE A MINIMUM 9" FROM THE CENTER OF THE PUSH BUTTON FOUNDATION.

APS PUSH BUTTON STATION DETAILS

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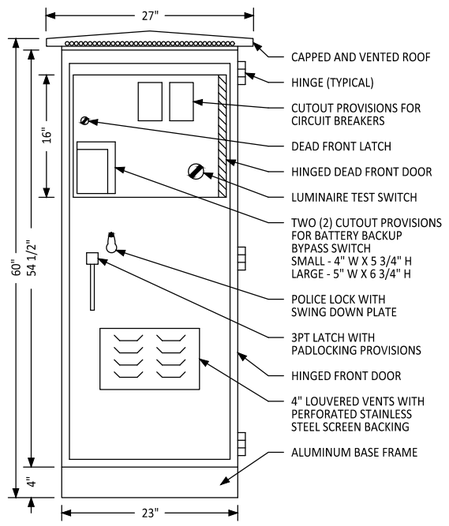
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

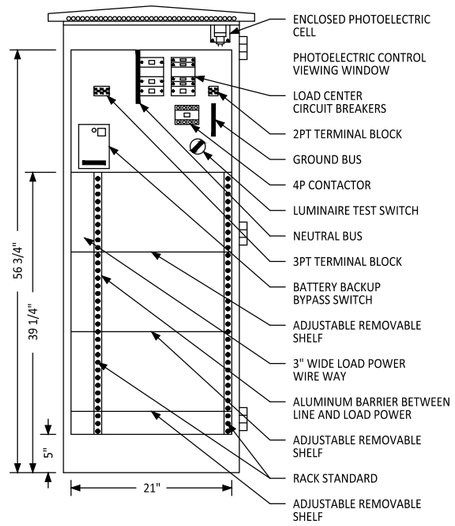
C7.07
83
OF
129

TYPICAL SERVICE CABINET DETAILS

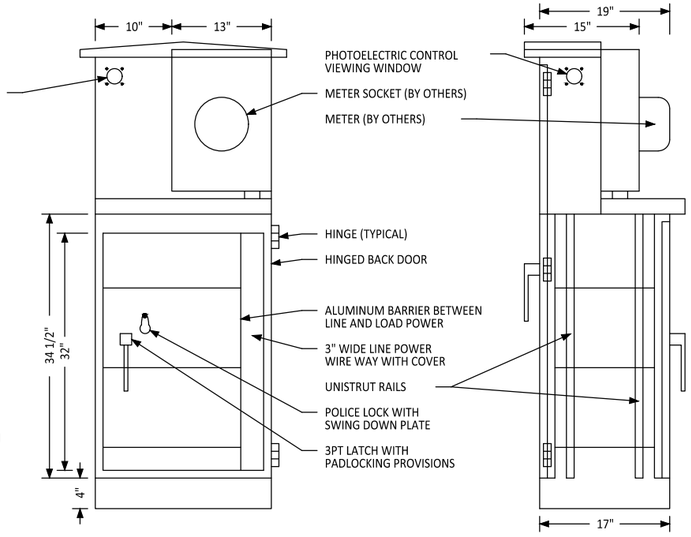
FRONT ELEVATION



FRONT ELEVATION (DOOR REMOVED)

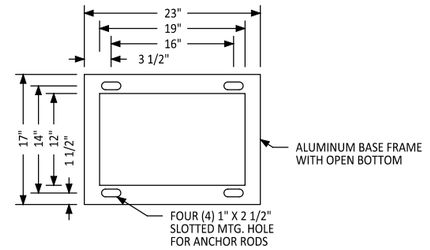


BACK ELEVATION

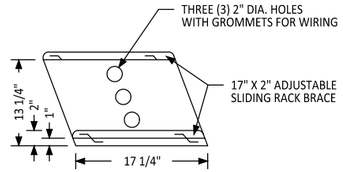


RIGHT SIDE ELEVATION

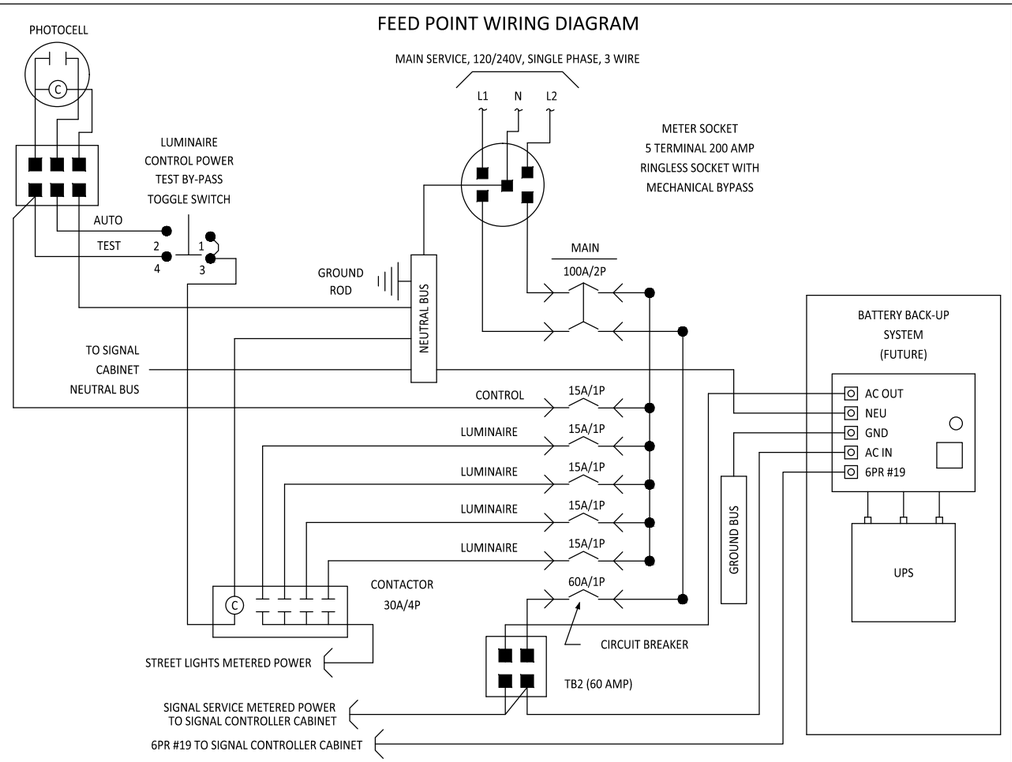
SERVICE CABINET BASE DETAILS



SERVICE CABINET SHELF DETAILS



FEED POINT WIRING DIAGRAM



CONSTRUCTION NOTES

1. EACH SERVICE CABINET SHALL BE FABRICATED FROM 1/8" ALUMINUM FOR OUTDOOR WEATHERPROOF SERVICE. AFTER FABRICATION, THE SERVICE CABINET, BOTH INSIDE AND OUTSIDE, SHALL BE PROTECTED WITH AN EXTERNAL THIRTY (30) MINUTE CLEAR ANODIZED FINISH.

2. ALL HINGES, HINGE PINS AND LOCKS SHALL BE OF NON-CORRODING CONSTRUCTION.

3. THE SERVICE CABINET DOORS SHALL BE ATTACHED TO THE ENCLOSURE WITH NON-CORRODING TAMPERPROOF CARRIAGE BOLTS AND SECURED WITH A STANDARD POLICE LOCK COMPLETE WITH A NUMBER 2 KEY AND SWING DOWN PLATE. PROVIDE ONE (1) KEY.

4. BOTH DOOR OPENINGS SHALL BE PROVIDED WITH A NEOPRENE GASKET TO FORM A COMPLETE SEAL WITH THE ENCLOSURE.

5. PROVIDE A 2" DIA. WEATHERPROOF AND VANDAL RESISTANT CLEAR PLASTIC PHOTOELECTRIC CONTROL VIEWING WINDOW. LOCATED IN THE TOP SECTION OF THE CABINET AND ON THE LEFT OR RIGHT SIDE OF THE CABINET, ORIENTED TO ELIMINATE INTERFERENCE BY MANMADE LIGHT SOURCES AND SHALL NORMALLY FACE NORTH OR EAST.

6. THE CIRCUIT BREAKERS SHALL BE 120/240 VOLT AC, 60 HZ, AND SHALL BE CLEARLY MARKED WITH THE "ON" AND "OFF" POSITIONS AND IDENTIFIED WITH THE LOAD WHICH IT IS CARRYING (E.G. "SIGNALS", "LUMINAIRE WITH NUMBER" OR "FUTURE"). ALL CIRCUIT BREAKERS SHALL BE CLEARLY MARKED IN A MANNER THAT WILL NOT DETERIORATE WITH MOISTURE OR AGE.

7. SHORT CIRCUIT RATING - 10,000 AIC SYMMETRICAL.

8. PROVIDE A PHOTOELECTRIC CONTROL CELL AND LUMINAIRE TEST SWITCH WITHIN THE CABINET.

9. PROVIDE CLEARANCE TO INSTALL OR REMOVE THE PHOTOELECTRIC CONTROL CELL.

10. ALL CONDUIT ENTERING THE FOUNDATION SHALL BE SEALED WITH AN APPROVED DUCT SEAL.

11. EACH SERVICE CABINET SHALL BE U.L. LISTED AND LABELED AS "SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT" AND APPROVED FOR OUTDOOR USE.

12. EACH SERVICE CABINET SHALL BE WELDED TO THE BASE IN ACCORDANCE WITH U.L. STANDARDS.

13. SEE THE INTERSECTION LAYOUT FOR THE REQUIRED NUMBER OF LUMINAIRES AT EACH INTERSECTION.

14. A 1/2" THICK SOLID BUTYL RUBBER GASKET SHALL BE PROVIDED BETWEEN THE CONCRETE FOUNDATION AND THE SERVICE CABINET. THE GASKET SHALL CONSIST OF FOUR (4) STRIPS, SIZED TO FIT THE BASE INCLUDING CORNER HOLE/SLOTS TO ACCOMMODATE THE ANCHOR RODS. PROVIDE A 1/2" GAP FOR DRAINAGE.

15. UNISTRUT RAILS (#A400EA OR EQUIVALENT) USED FOR SHELF SUPPORTS FOR THREE (3) ADJUSTABLE AND REMOVABLE SHELVES SHALL BE MOUNTED TO THE SIDES OF THE SERVICE CABINET.

16. THE 19" RACK IN THE BASE OF THE CABINET SHALL BE CONSTRUCTED TO TIA/EIA 3100 STANDARDS.

17. SEE THE EQUIPMENT PAD DETAIL SHEET FOR TYPICAL ANCHOR ROD DETAILS.

18. THE SERVICE PANEL SHALL BE BATTERY BACK-UP READY ONLY, AND IT SHALL BE SUPPLIED AND INSTALLED WITHOUT BATTERIES AND 6PR#19 CABLE.

SIGNAL SYSTEM SERVICE CABINET DETAILS

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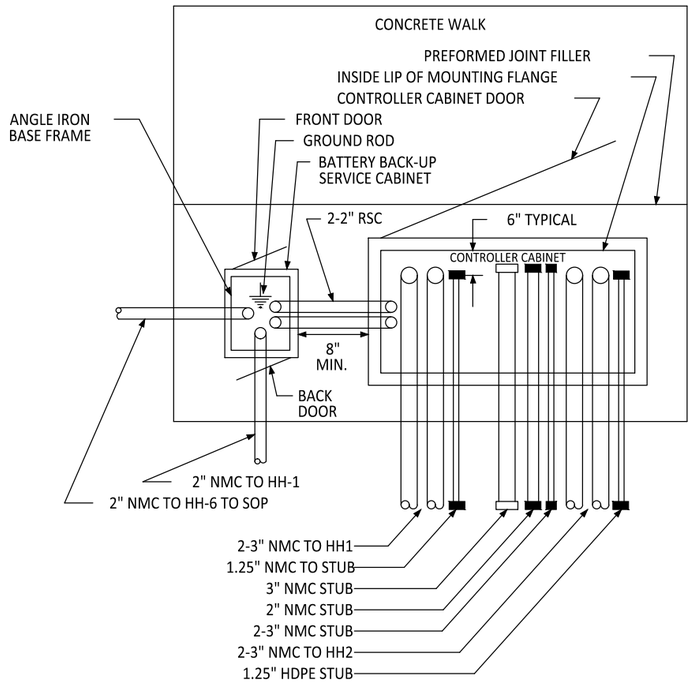
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

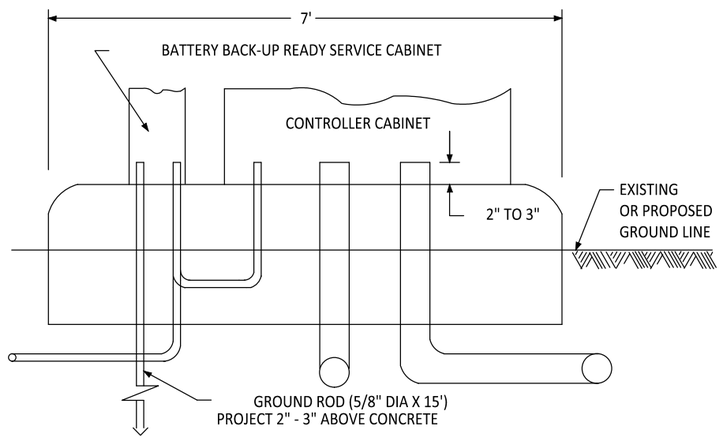
C7.08
84 OF 129

TYPICAL PAD WITH CONTROLLER CABINET AND SERVICE CABINET

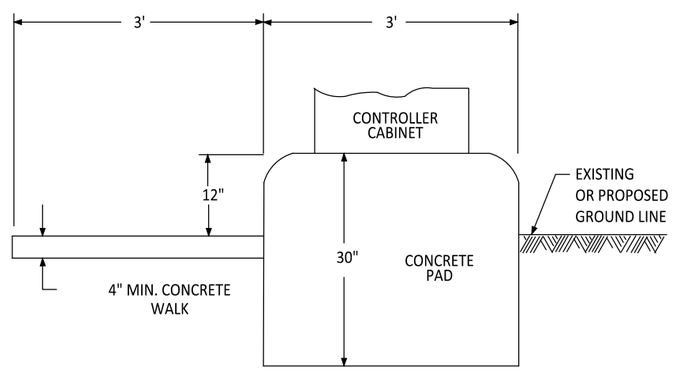
NOT TO SCALE FOR ILLUSTRATION ONLY
SEE SIGNAL PLAN LAYOUT FOR ADDITIONAL INFORMATION
PLAN VIEW



FRONT VIEW



SIDE VIEW

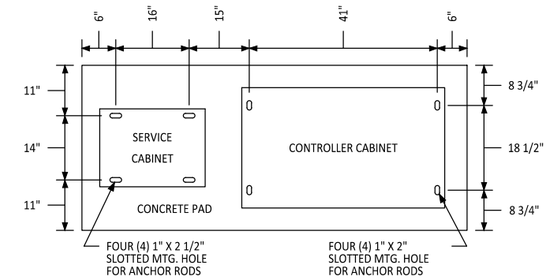


NOTES:

1. THE UPPER PART OF THE CONCRETE PAD SHALL BE BEVELED OR CHAMFERED IN A NEAT MANNER, AS DIRECTED BY THE ENGINEER.
2. THE TOP OF THE CONDUITS SHALL BE THREADED AND CAPPED AFTER INSTALLATION (UNTIL CABLES ARE INSTALLED).
3. THE LOCATION OF CONDUITS WITHIN THE CONCRETE PAD SHALL BE 6" TO THE CENTER OF THE CONDUIT FROM THE INSIDE LIP OF THE MOUNTING FLANGE ON THE DOOR SIDE OF THE CABINET. THE CONDUITS SHALL PROJECT 2" TO 3" ABOVE THE CONCRETE. THE CONDUITS SHALL NOT INTERFERE WITH THE CABINET FUNCTIONS (CONTROL EQUIPMENT, SUPPORTING MEMBERS, ETC.). FINAL CONDUIT LOCATIONS, AS DIRECTED BY THE ENGINEER.
4. CONDUITS WITH BOTH ENDS TERMINATING WITHIN THE PAD SHALL BE INSTALLED WITHIN THE CONCRETE PAD.
5. A CONCRETE SIDEWALK SHALL BE ON THE DOOR SIDE OF THE CONTROLLER CABINET, AS DIRECTED BY THE ENGINEER.
6. THE CONCRETE PAD AND THE CONCRETE WALK SHALL BE CONCRETE MIX 3G52 OR EQUAL, AS DIRECTED BY THE ENGINEER.
7. THE CONCRETE PAD ELEVATION SHALL BE ADJUSTED TO MAINTAIN THE 12" CLEARANCE ABOVE THE EXISTING OR PROPOSED GROUND LINE, AS DIRECTED BY THE ENGINEER.
8. THE SERVICE CABINET DOORS SHALL FACE AWAY FROM THE CONTROLLER CABINET TO AVOID CONFLICT WITH THE CONTROLLER CABINET OR THE CONTROLLER CABINET DOOR OPEN AS SHOWN.
9. THREAD AND CAP BOTH ENDS OF ALL CONDUIT STUBS. THE CAPS LOCATED WITHIN THE CONTROLLER CABINET SHALL BE PERMANENTLY MARKED WITH AN ARROW TO INDICATE THE DIRECTION OF THE CONDUIT STUBS. NO CONDUIT STUB SHALL BE TERMINATED UNDER ANY FORM OF PAVEMENT OR HARD SURFACE, AS DIRECTED BY THE ENGINEER.
10. ORIENT THE CONTROLLER CABINET SUCH THAT WHEN THE CABINET DOOR IS OPENED A PERSON WORKING IN THE CABINET HAS A CLEAR LINE OF SITE TO SEE THE INTERSECTION AND SEE IN THE CABINET. THE CONTROLLER CABINET SHALL NOT BE ORIENTATED SUCH THAT A PERSON HAS THEIR BACK TO THE INTERSECTION WHEN WHEN WORKING IN THE CABINET.

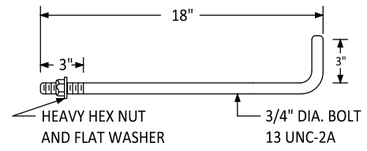
TYPICAL ANCHOR ROD LOCATION CONTROLLER CABINET AND SERVICE CABINET

(NO SCALE)



TYPICAL ANCHOR ROD CONTROLLER CABINET AND SERVICE CABINET

(NO SCALE)



NOTES:

1. MATERIAL STEEL SHALL BE ASTM, A-36. 3/4" DIA. X 21" LONG BEFORE BENDING.
2. HOT DIP GALVANIZE FULL LENGTH. NUTS SHALL RUN FREE AFTER PLATING.
3. RODS TO BE SUPPLIED WITH GALVANIZED HEAVY HEX NUT AND FLAT WASHER, ASTM, A-563 ASSEMBLED AFTER ROD PLATING.

SIGNAL SYSTEM EQUIPMENT PAD DETAILS(SYSTEM "A")

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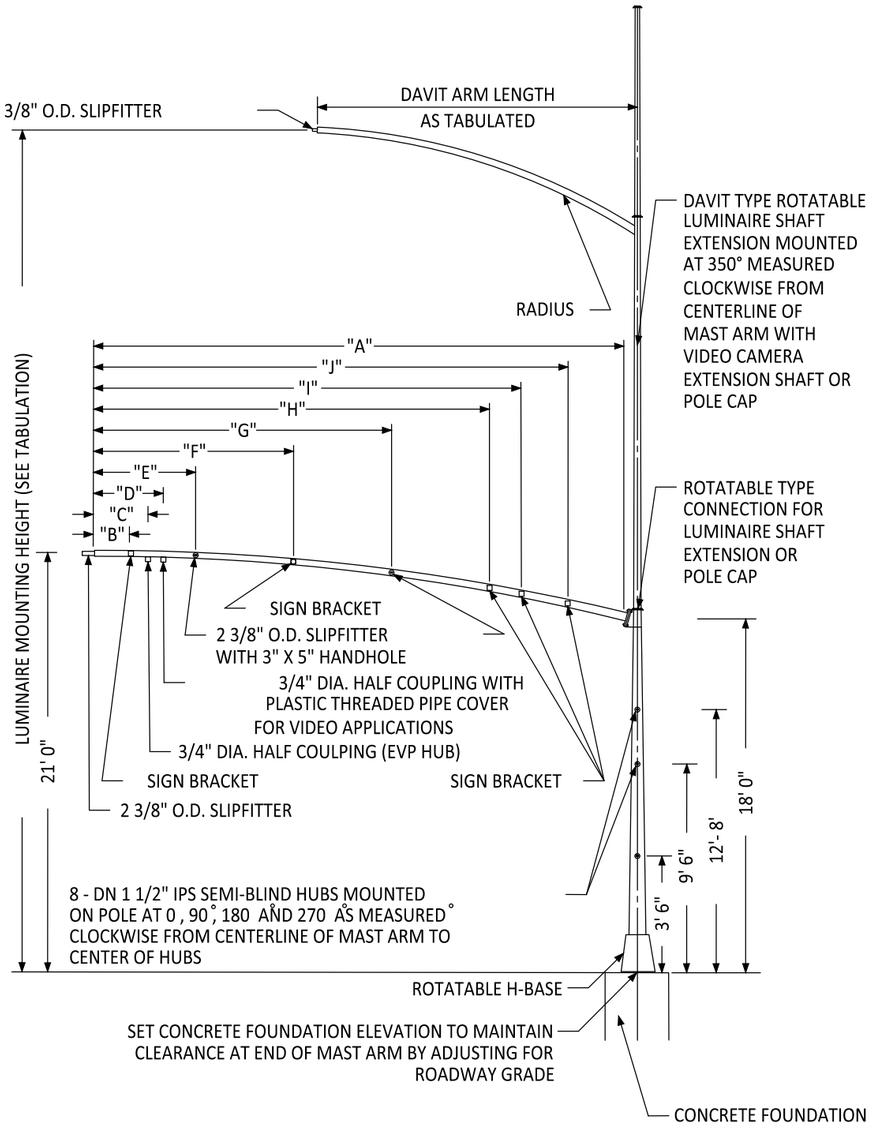
36TH AVENUE REHABILITATION
SIGNAL PLAN

C7.09
85
OF
129

CLASSIC HEAVY MAST ARM SIGNAL POLE AND ROTATABLE LUMINAIRE SHAFT EXTENSION (NO SCALE, SEE SPECIAL PROVISIONS)



MAST ARM POLE MOUNTING DETAILS

POLE	MAST ARM DIMENSIONS										LUMINAIRE MOUNTING HEIGHT	DAVIT ARM LENGTH	VIDEO SHAFT MOUNTING HEIGHT
	"A" MAST ARM	"B" SIGN	"C" EVP HUB	"D" VIDEO HUB	"E" SIG. HEAD	"F" SIGN	"G" SIG. HEAD	"H" SIGN	"I" SIGN	"J" SIGN			
1	40.0'	2.0'	4.0'	6.0'	11.0'	-----	-----	19.0'	22.0'	-----	40.0'	8.0'	
2	20.0'	2.0'	4.0'	6.0'	-----	-----		9.0'	13.0'	17.0'	40.0'	8.0'	
3	30.0'	2.0'	4.0'	6.0'	11.0'	-----	-----	19.0'	22.0'	-----	40.0'	8.0'	
4	30.0'	2.0'	4.0'	6.0'	-----	-----	-----	9.0'	13.0'	17.0'	40.0'	8.0'	

NOTES:

1.) POLE SHAFT SHALL BE BACK RAKED TO SET PLUMB UNDER NORMAL LOAD.

2.) SEE SPECIAL PROVISIONS FOR PAINTING AND GALVANIZING REQUIREMENTS OF MAST ARM SIGNAL POLES.

MAST ARM DETAILS

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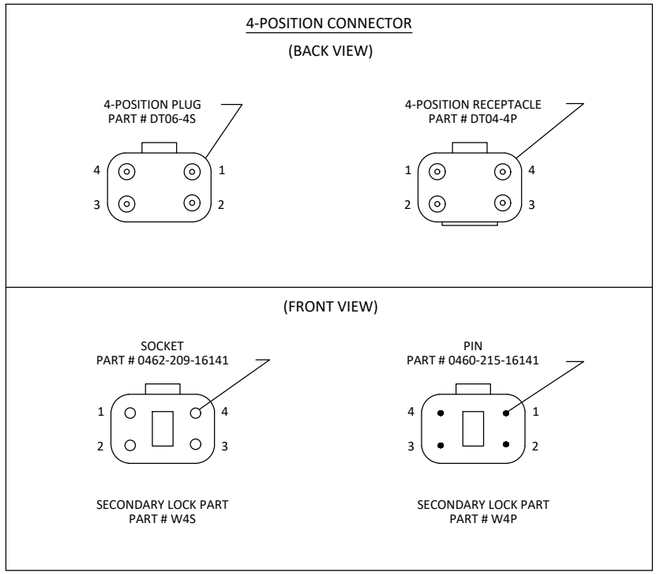
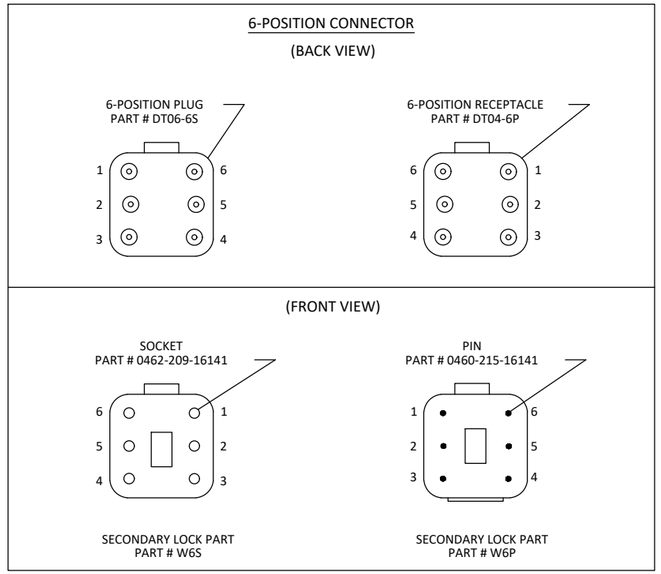
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN





4 Position DT Connector (3 Section Head/DWK/WLK)			
Wire to Control Cabinet	Connector pin #	Wire to Signal Indication	Signal Indication
R or R/BLK or BLK	1	R	RED or DWK
O or O/BLK or BLK/WH or BLK	2	BLK/R	YEL or WLK
BL or BL/BLK or BLK/R or BLK	3	BLK	GRN or SPR
WH or WH/BLK or WH/R	4	WH	NEU

6 Position DT Connector (4 and 5 Section Heads)			
Wire to Control Cabinet	Connector pin #	Wire to Signal Indication	Signal Indication
R	1	R	RED
O	2	O	YEL
BL	3	BL	GRN
WH	4	WH	NEU
O/BLK or BLK/R (6/C)	5	BLK/R	YLA or FYLA
BL/BLK or BLK (6/C)	6	BLK	GLA

4 Position DT Connector (Used with 3 Conductor Cable Only) (EVP LHT/LUM/AWF/ VID CAM/ENF LHT)			
Wire to Control Cabinet	Connector pin #	Wire to Signal Indication	Signal Indication
BLK	1	BLK	EVP LHT or LUM or RED or YEL or VID CAM or ENF LHT or AWF
(Not Used)	2	(Not Used)	(Not Used) (See Note #8)
G	3	G	EQ.G
WH	4	WH	NEU

4 Position DT Connectors (Use Two Connectors for 5 Section FYA Cluster Heads)			
12 Conductor Wire to Control Cabinet	Connector pin #	4 Conductor to Signal Indication	Signal Indication
R	1	R	RED
O	2	BLK/R	YEL
BL	3	BLK	GRN
WH	4	WH	NEU
R/BLK	1	R	FYA
O/BLK	2	BLK/R	YLA
BL/BLK	3	BLK	GLA
WH/BLK	4	WH	NEU

NOTES:

1. DT04-P RECEPTACLE SHALL BE TERMINATED TO THE WIRING HARNESS RUNNING FROM THE BASE/JUNCTION BOX OF THE POLE TO SIGNAL INDICATIONS.
2. DT06-_S PLUG SHALL BE TERMINATED TO THE CABLES RUNNING FROM THE TRAFFIC SIGNAL CABINET TO THE BASE/JUNCTION BOX OF THE POLE.
3. THERE SHALL BE A MINIMUM OF 24 INCHES OF SLACK ON EACH CABLE IN EVERY POLE BASE /JUNCTION BOX.
4. STRIP A MAXIMUM OF 6 INCHES OF THE OUTER JACKET OF EACH SIGNAL CABLE.
5. STRIP .250 INCHES OF INSULATION FROM EACH INDIVIDUAL CONDUCTOR.
6. CRIMP PINS OR SOCKETS USING RATCHETING TYPE CRIMPING TOOL HDT-48-00. NO OTHER CRIMPING TOOL WILL BE ALLOWED.
7. WIRES MUST BE TERMINATED AS DETAILED IN TABLES DEPENDING ON WIRE COUNT.
8. ANY UNUSED PIN MUST HAVE A SEALING PLUG PLACED IN BOTH THE PLUG & RECEPTACLE (PART # 114017).
9. LABEL EACH HALF OF THE CONNECTOR (PLUG AND RECEPTACLE) WITH THE DEVICE DESIGNATION (AS INDICATED IN THE WIRING DIAGRAM) USING A PERMANENT BLACK MARKER.

WIRING CONNECTOR DETAIL

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Michael S. Larson

MICHAEL S. LARSON
LIC. NO. 58850 DATE 01/28/2025

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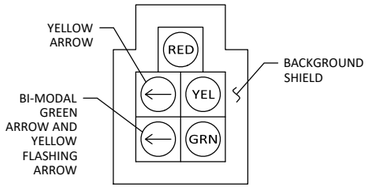
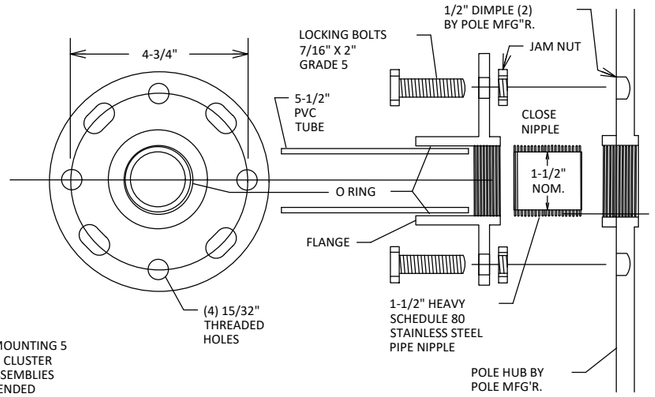
36TH AVENUE REHABILITATION
SIGNAL PLAN

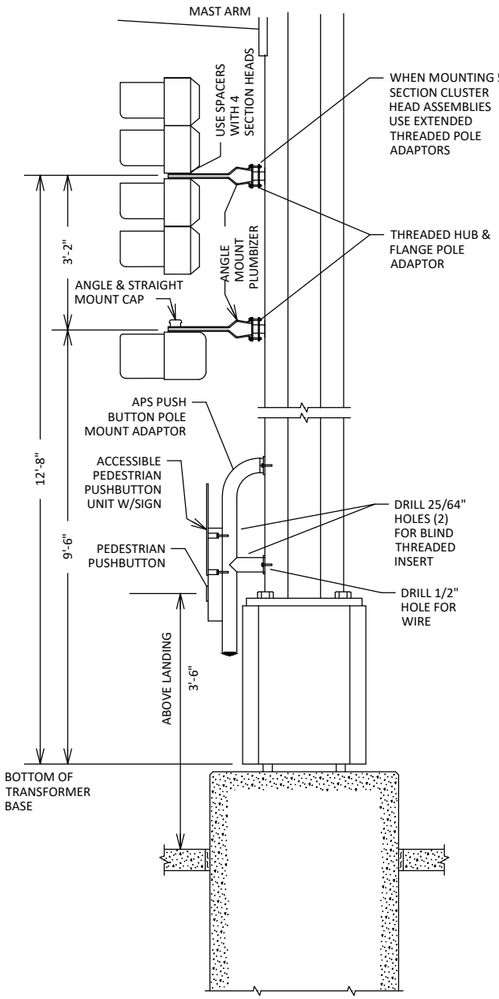
C7.11
87
OF
129



5 SECTION FYA CLUSTER HEAD DETAIL

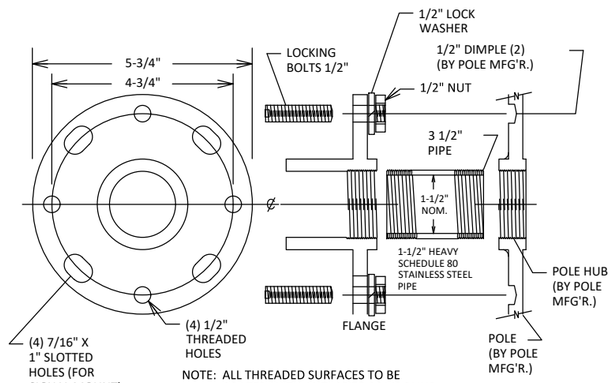


THREADED HUB AND FLANGE POLE ADAPTOR



TYPICAL SIGNAL POLE MOUNTING

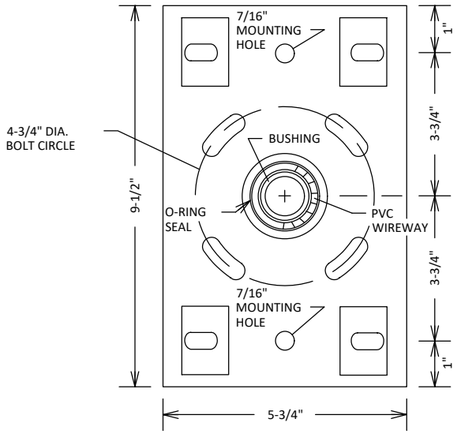
NOT TO SCALE



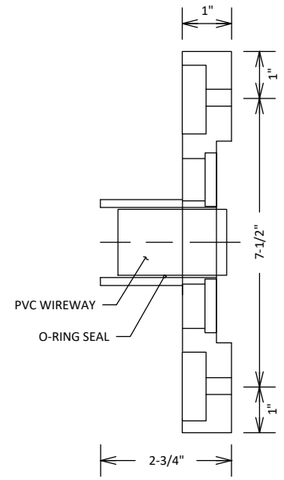
NOTE: ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.

EXTENDED THREADED POLE ADAPTER

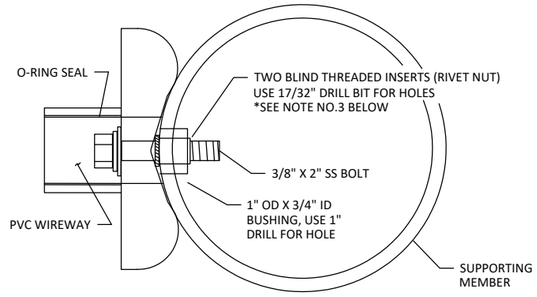
NOTES:
1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.
2. USE SIGNAL HEAD MOUNTED SPACERS FOR 4 SECTION POLY HEADS.
3. SEE STANDARD PLATE NUMBER 8123 FOR ADDITIONAL SIGNAL POLE DETAILS.
4. EXTENDED THREADED POLE ADAPTOR ONLY USED WITH 5 SECTION CLUSTER HEADS.



BOLT ON HUB & FLANGE

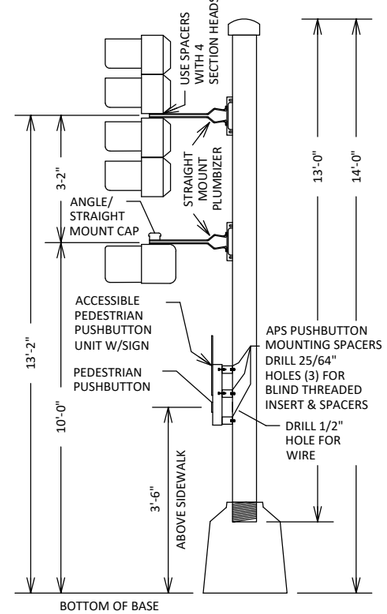


SIDE VIEW



TOP VIEW

NOTES:
1. ALL THREADED SURFACES TO BE COATED WITH ANTI-SEIZE COMPOUND.
2. USE SIGNAL HEAD MOUNTED SPACERS FOR 4 SECTION POLY HEADS.
3. BLIND THREADED INSERTS (RIVET NUT) MUST BE INSERTED USING MANUFACTURERS SPECIFIC INSERTION TOOL. NO OTHER METHOD IS ACCEPTABLE.
4. SEE STANDARD PLATE NUMBER 8122 FOR ADDITIONAL PEDESTAL POLE DETAILS.



TYPICAL PEDESTAL MOUNTING

NOT TO SCALE

SIGNAL POLE MOUNT DETAIL

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

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88
OF
129

INTERSECTION NOTES

1

X: 494997.6849
Y: 184152.2362
SIGNAL POLE FOUNDATION
CLASSIC HEAVY MAST ARM SIGNAL POLE
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11'
2-ANGLE MOUNT SIGNAL HEADS AT 90 AND 180 DEG
2-ANGLE MOUNT CD PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 2+5)
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
1-VIDEO DETECTION CAMERA & MOUNT (V-1)
1-R10-X12 SIGN ADJACENT TO HEAD (5-1)
1-SIGN (LANCASTER LN/ KILMER LN N) (SEE SIGN DETAILS)
3" CONDUIT TO HH 1:
2-6/C 16
5-4/C 16
1-3/C 16 (LUM)
1-3/C 16
1-3/C 20
1-3/C 16 (VID)
1-1/C 6 INS. GR.

2

X: 494922.5158
Y: 184152.2362
SIGNAL POLE FOUNDATION
CLASIC HEAVY MAST ARM SIGNAL POLE
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-ANGLE MOUNT SIGNAL AT 90 AND 180 DEG
2-ANGLE MOUNT CD PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASE 4)
1-ONE WAY EVP DETECTOR (PHASE 8)
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
1-VIDEO DETECTION CAMERA AND MOUNT (V-2)
1-SIGN (36TH AVE) (SEE SIGN DETAILS)
3" CONDUIT TO HH 3:
2-6/C 16
4-4/C 16
1-3/C 16 (LUM)
1-3/C 16
2-3/C 20
1-3/C 16 (VID)
1-1/C 6 INS. GR.

3

X: 494904.9831
Y: 184221.7569
SIGNAL POLE FOUNDATION
CLASSIC HEAVY MAST ARM SIGNAL POLE
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
1-STRAIGHT MOUNT SIGNAL OVERHEAD AT 11'
2-ANGLE MOUNT SIGNAL AT 90 AND 180 DEG
2-ANGLE MOUNT CD PED HEAD AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 1+6)
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
1-VIDEO DETECTION CAMERA AND MOUNT (V-3)
1-R10-X12 SIGN ADJACENT TO HEAD (1-1)
1-SIGN (KILMER LN N/LANCASTER LN) (SEE SIGN DETAILS)
3" CONDUIT TO HH 4:
2-6/C 16
6-4/C 16
1-3/C 16 (LUM)
1-3/C 16
1-3/C 20
1-3/C 16 (VID)
1-1/C 6 INS. GR.

4

X: 494989.7705
Y: 184225.8410
SIGNAL POLE FOUNDATION
CLASSIC HEAVY MAST ARM SIGNAL POLE
1-ANGLE MOUNT SIGNAL OVERHEAD AT 0'
2-STRAIGHT MOUNT SIGNAL HEADS AT 90 AND 180 DEG
2-ANGLE MOUNT CD PED HEADS AT 90 AND 180 DEG
1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT (PHASES 8)
LUMINAIRE-LED (FOR 40' MOUNTING HEIGHT)
1-VIDEO DETECTION CAMERA AND MOUNT (V-4)
1-APS PB & SIGN (LT ARROW)(PB6-1) WITH POLE MOUNT ADAPTOR
1-SIGN (36TH AVE) (SEE SIGN DETAILS)
3" CONDUIT TO HH 5:
2-6/C 16
5-4/C 16
1-3/C 16 (LUM)
1-3/C 16
1-3/C 20
1-3/C 16 (VID)
1-2/C 14
1-1/C 6 INS. GR.

A

EQUIPMENT PAD (SEE DETAIL SHEET)
SERVICE CABINET (SSB NO BATTERY BACKUP SYSTEM OR BATTERIES)
CONTROLLER AND CABINET

3" CONDUIT TO HH 2:
2-6/C 16
6-4/C 16
1-3/C 16
1-3/C 20
1-3/C 16 (VID)
2-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT TO HH 2:
2-6/C 16
4-4/C 16
1-3/C 16
2-3/C 20
1-3/C 16 (VID)
3-2/C 14

3" CONDUIT TO HH 1:
2-6/C 16
5-4/C 16
1-3/C 16
1-3/C 20
1-3/C 16 (VID)
1-2/C 14
1-1/C 6 INS. GR.

3" CONDUIT TO HH 1:
2-6/C 16
5-4/C 16
1-3/C 16
1-3/C 20
1-3/C 16 (VID)
2-2/C 14

GROUND WIRE AND GROUND ROD - MIN 8' OUT FROM PAD
2-2" AND 1-3" CONDUIT STUBBED OUT (CAPPED BOTH ENDS)

CONTROLLER CABINET TO SERVICE CABINET:
2" CONDUIT
3-1/C 6

SERVICE CABINET TO HH6 TO SOP:
2" CONDUIT
3-1/C 2

SERVICE CABINET TO HH1:
2" CONDUIT
4-3/C 16 (LUM)

HH1 TO HH2:
2" CONDUIT
2-3/C 16 (LUM)

SERVICE CABINET TO EXTERNAL GR. RD.:
1" CONDUIT
1-1/C 6 INS. GR.
(SEE EQUIPMENT PAD LAYOUT)

B

INP. POLE MOUNTED TRANSFORMER
EXCEL ENERGY
2" CONDUIT FROM SOP TO HH6 TO CAB
3-1/C 2

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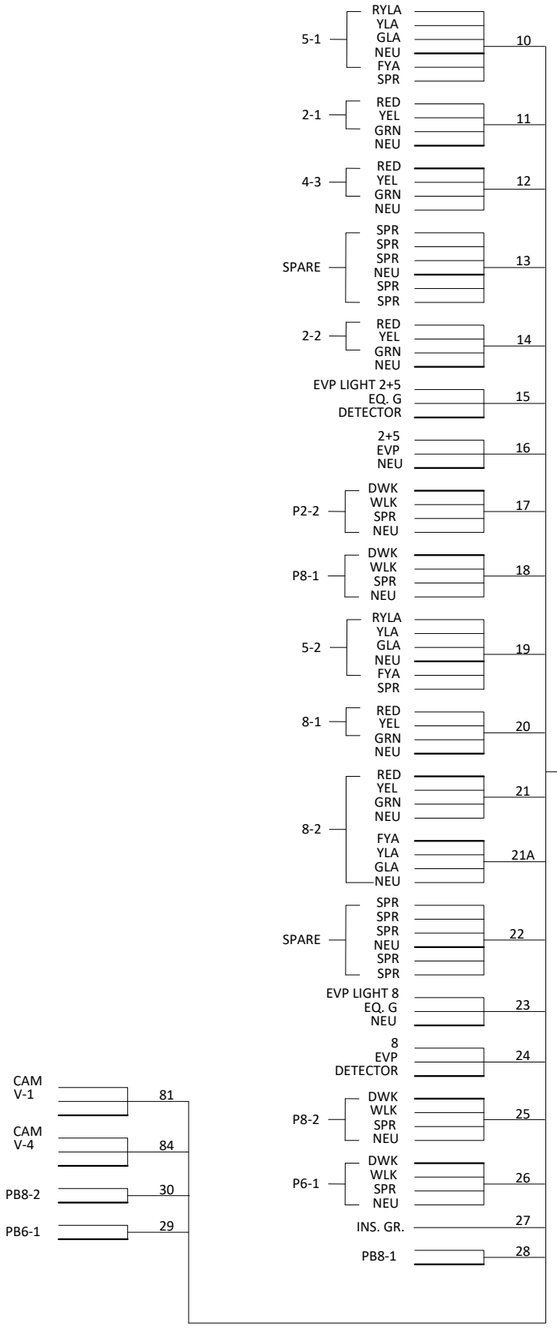
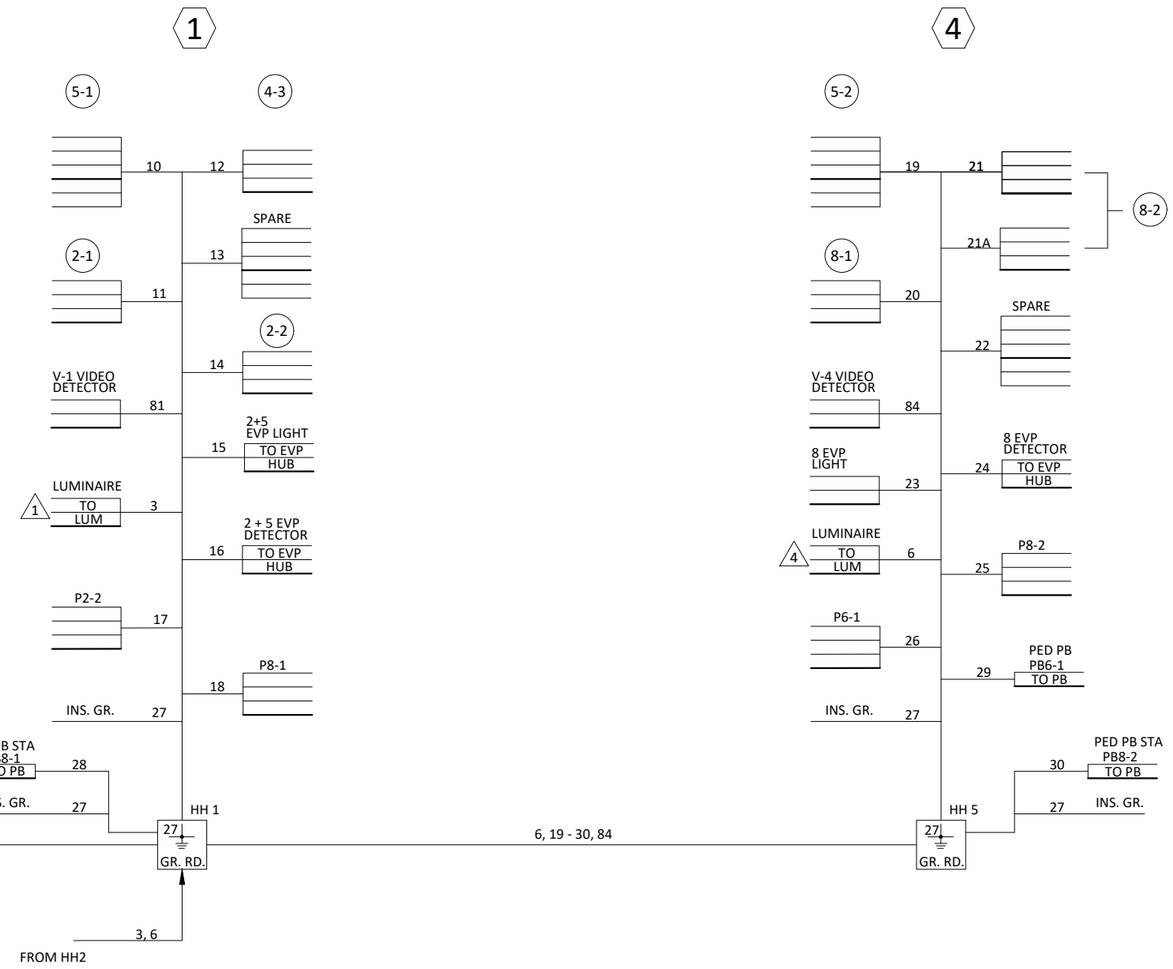
36TH AVENUE REHABILITATION
SIGNAL PLAN

CONTROLLER CABINET





NOTES:

1. SIGNAL SYSTEM INCLUDES BATTERY BACK UP SERVICE CABINET (NO BATTERIES).
2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HAND HOLE NEAREST EACH POLE.
4. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

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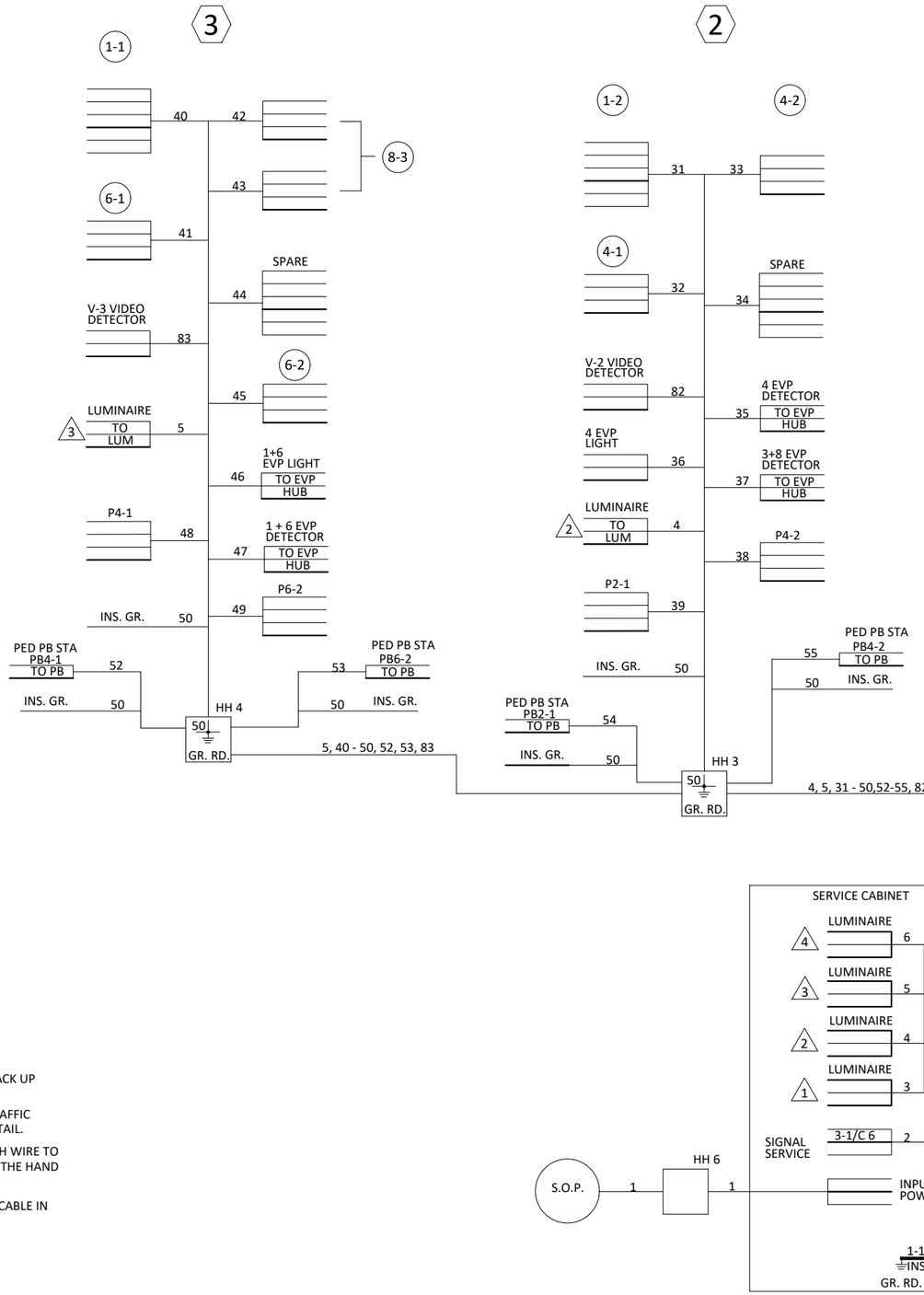
90
OF
129



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2. FOR CONDUCTOR COLOR CODE SEE TRAFFIC SIGNAL POLE WIRING CONNECTOR DETAIL.
3. FOR EACH "SPARE" WIRE, COIL ENOUGH WIRE TO REACH THE END OF THE MAST ARM IN THE HAND HOLE NEAREST EACH POLE.
4. LEAVE ONE LOOP OF SLACK FOR EACH CABLE IN THE POLE BASE.

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91
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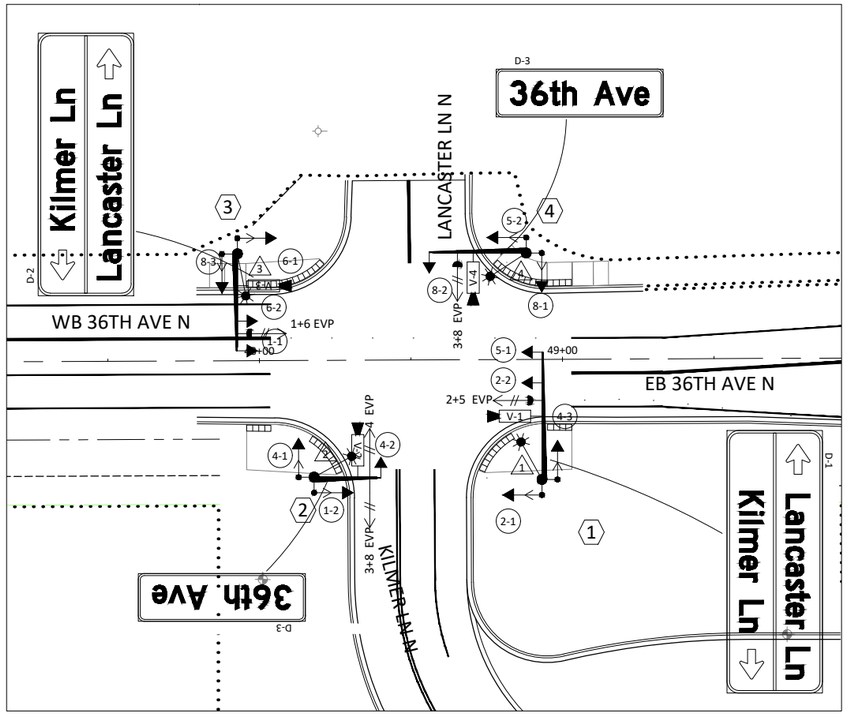
129

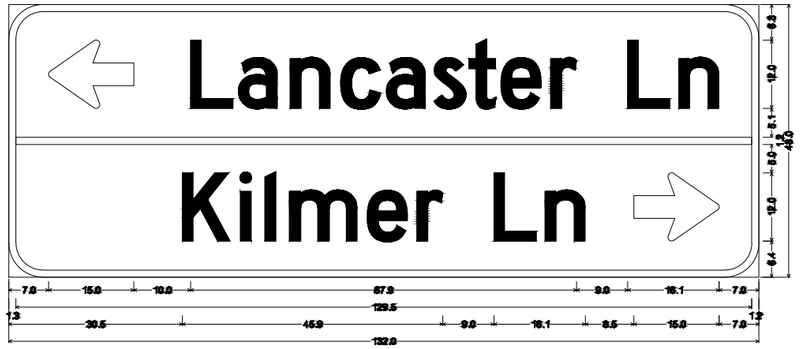


NOTES:

1. SEE SIGNAL PLAN DETAIL SHEET FOR SIGN MOUNTING PLATE LOCATIONS.
2. COLOR - WHITE LEGEND AND BORDER ON GREEN BACKGROUND. ALL SIGNING SHALL USE DG3 SIGN SHEETING.
3. CORNERS EXTRUDING BEYOND THE BORDER SHALL NOT BE TRIMMED.
4. FURNISH AND INSTALL MAST ARM MOUNTED SIGN PANELS SHALL INCLUDED IN THE SIGNAL SYSTEM PAY ITEMS (SEE SPECIAL PROVISIONS).
5. R10-12X SIGNS SHALL BE 36" X 42"

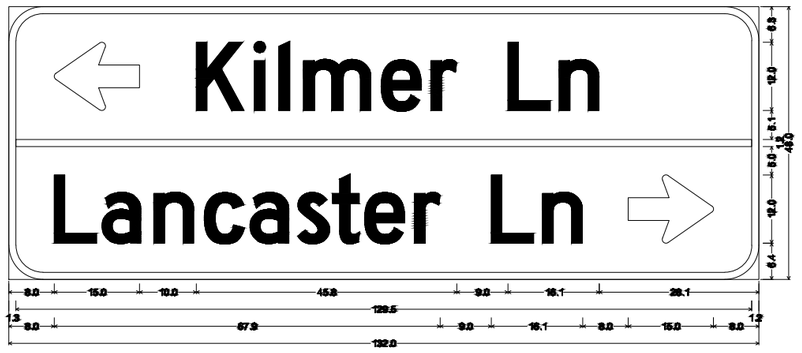
SIGN PANEL DETAILS

D-1



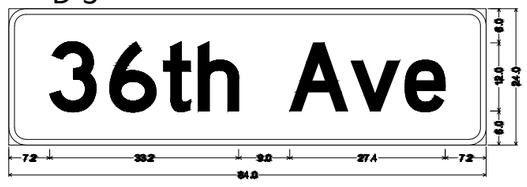
6.0" Radius, 1.2" Border, White on Green;
Arrow Custom - 15.0" 180°; "Lancaster Ln", D.2K; "Kilmer Ln", D.2K; Arrow Custom - 15.0" 0°;

D-2



6.0" Radius, 1.2" Border, White on Green;
Arrow Custom - 15.0" 180°; "Kilmer Ln", D.2K; "Lancaster Ln", D.2K; Arrow Custom - 15.0" 0°;

D-3



3.0" Radius, 1.0" Border, White on Green;
"36th Ave", D.2K;

NOTES:

1. SEE D3-1Ma IN MNDOT STANDARD SIGN SUMMARY.

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

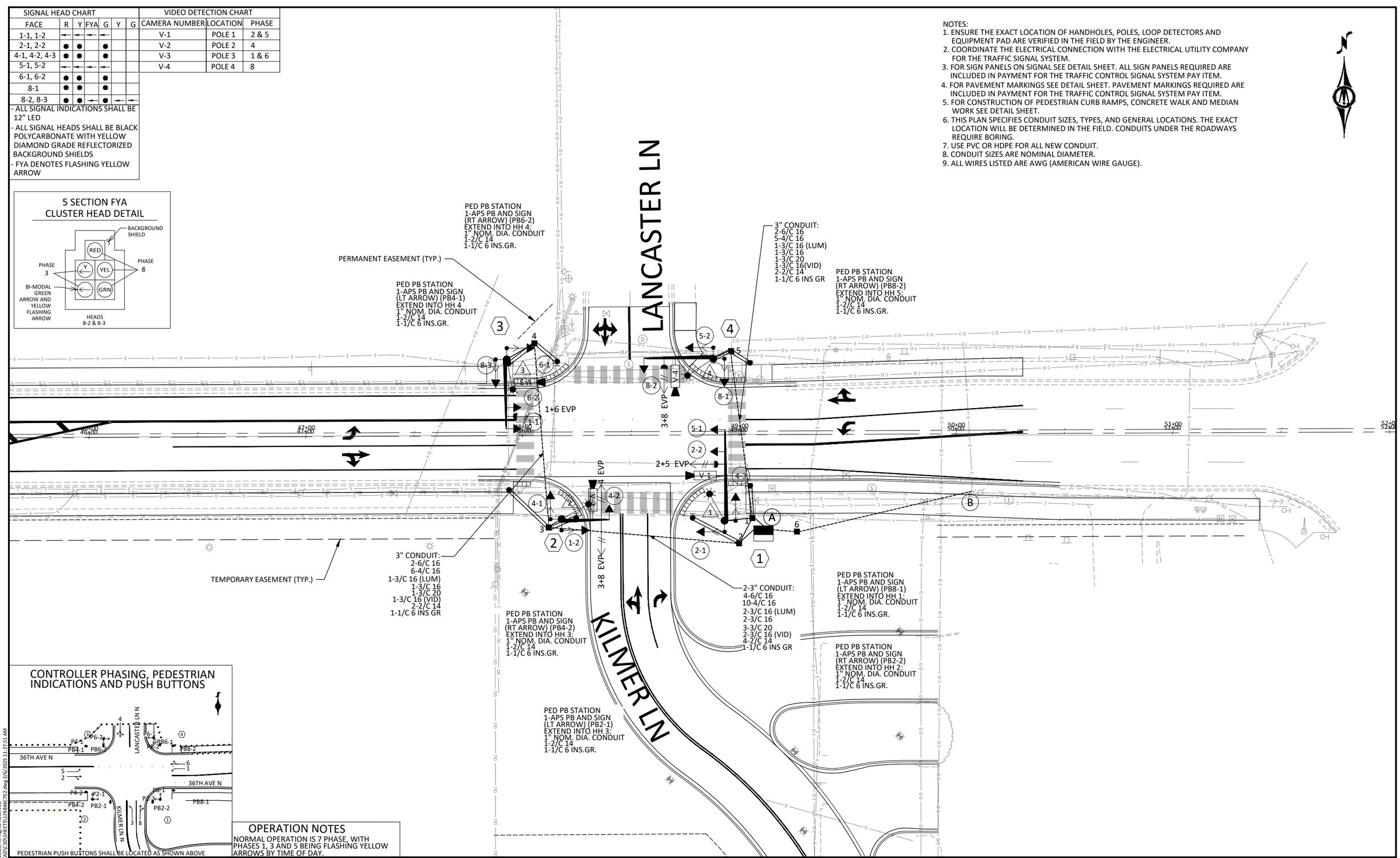
SIGNAL HEAD CHART						
FACE	R	Y	FYA	G	Y	G
1-1, 1-2	←-	←-	←-	←-		
2-1, 2-2	●	●		●		
4-1, 4-2, 4-3	●	●		●		
5-1, 5-2	←-	←-	←-	←-		
6-1, 6-2	●	●		●		
8-1	●	●		●		
8-2, 8-3	●	●	←-	●	←-	←-

- ALL SIGNAL INDICATIONS SHALL BE 12" LED
- ALL SIGNAL HEADS SHALL BE BLACK POLYCARBONATE WITH YELLOW DIAMOND GRADE REFLECTORIZED BACKGROUND SHIELDS
- FYA DENOTES FLASHING YELLOW ARROW

VIDEO DETECTION CHART		
CAMERA NUMBER	LOCATION	PHASE
V-1	POLE 1	2 & 5
V-2	POLE 2	4
V-3	POLE 3	1 & 6
V-4	POLE 4	8

5 SECTION FYA CLUSTER HEAD DETAIL

NOTES:
1. ENSURE THE EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS AND EQUIPMENT PAD ARE VERIFIED IN THE FIELD BY THE ENGINEER.
2. COORDINATE THE ELECTRICAL CONNECTION WITH THE ELECTRICAL UTILITY COMPANY FOR THE TRAFFIC SIGNAL SYSTEM.
3. FOR SIGN PANELS ON SIGNAL SEE DETAIL SHEET. ALL SIGN PANELS REQUIRED ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM PAY ITEM.
4. FOR PAVEMENT MARKINGS SEE DETAIL SHEET. PAVEMENT MARKINGS REQUIRED ARE INCLUDED IN PAYMENT FOR THE TRAFFIC CONTROL SIGNAL SYSTEM PAY ITEM.
5. FOR CONSTRUCTION OF PEDESTRIAN CURB RAMPS, CONCRETE WALK AND MEDIAN WORK SEE DETAIL SHEET.
6. THIS PLAN SPECIFIES CONDUIT SIZES, TYPES, AND GENERAL LOCATIONS. THE EXACT LOCATION WILL BE DETERMINED IN THE FIELD. CONDUITS UNDER THE ROADWAYS REQUIRE BORING.
7. USE PVC OR HDPE FOR ALL NEW CONDUIT.
8. CONDUIT SIZES ARE NOMINAL DIAMETER.
9. ALL WIRES LISTED ARE AWG (AMERICAN WIRE GAUGE).



CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS

PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE

OPERATION NOTES

NORMAL OPERATION IS 7 PHASE, WITH PHASES 1, 3 AND 5 BEING FLASHING YELLOW ARROWS BY TIME OF DAY.

HORZ. SCALE 0 20 40 FEET

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MICHAEL S. LARSON
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www.bolton-menk.com

City of Plymouth

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAL PLAN

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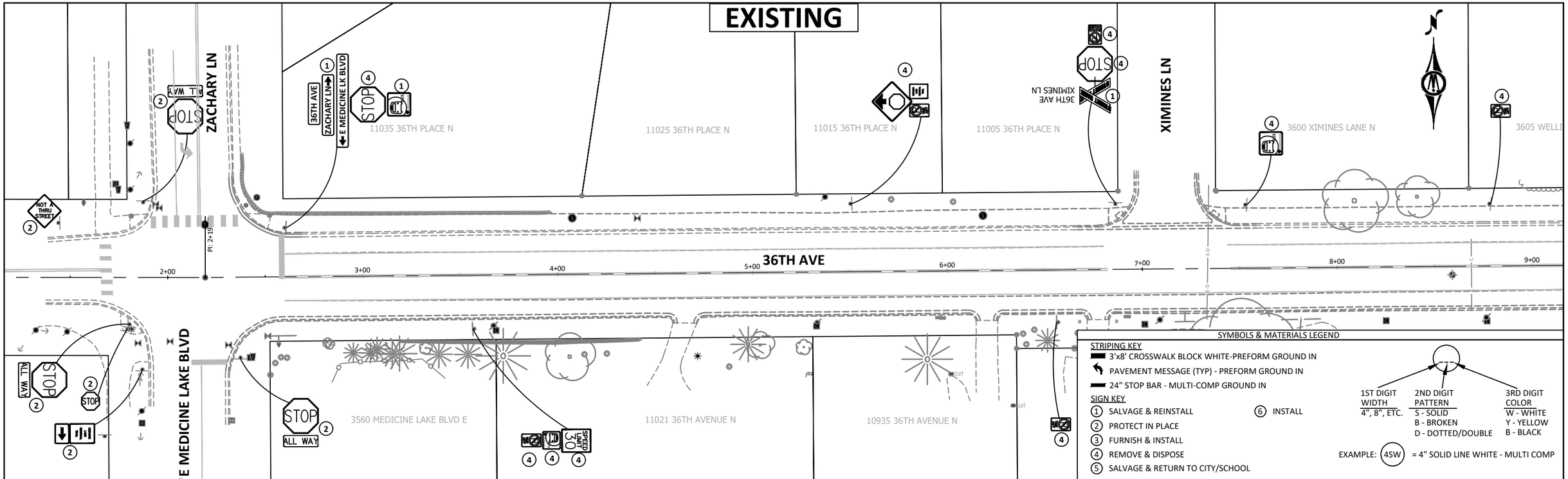

SYMBOLS & MATERIALS LEGEND

STRIPING KEY
- 3'x8' CROSSWALK BLOCK WHITE-PREFORM GROUND IN
- PAVEMENT MESSAGE (TYP) - PREFORM GROUND IN
- 24" STOP BAR - MULTI-COMP GROUND IN

SIGN KEY
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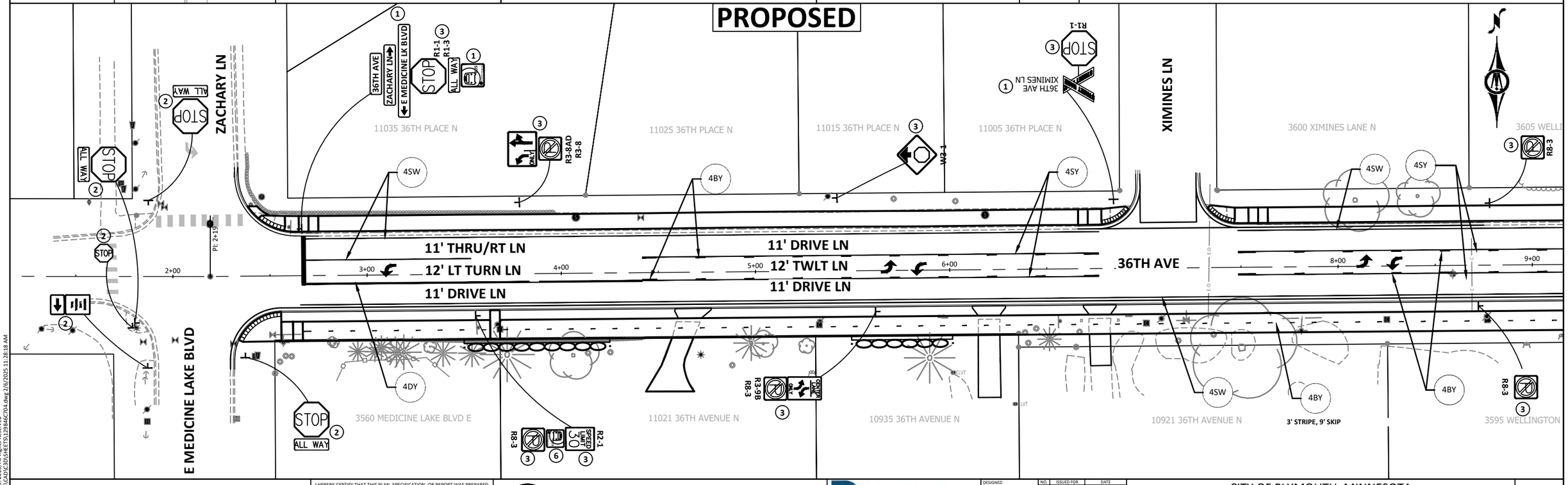
2. PROTECT IN PLACE
3. FURNISH & INSTALL
4. REMOVE & DISPOSE
5. SALVAGE & RETURN TO CITY/SCHOOL
6. INSTALL

1ST DIGIT WIDTH	2ND DIGIT PATTERN	3RD DIGIT COLOR
4", 8", ETC.	S - SOLID B - BROKEN D - DOTTED/DOUBLE	W - WHITE Y - YELLOW B - BLACK

EXAMPLE: (4SW) = 4" SOLID LINE WHITE - MULTI COMP

PROPOSED



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LIC. NO. 53639 DATE 01/28/2025

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAGE & STRIPING PLAN
36TH AVENUE

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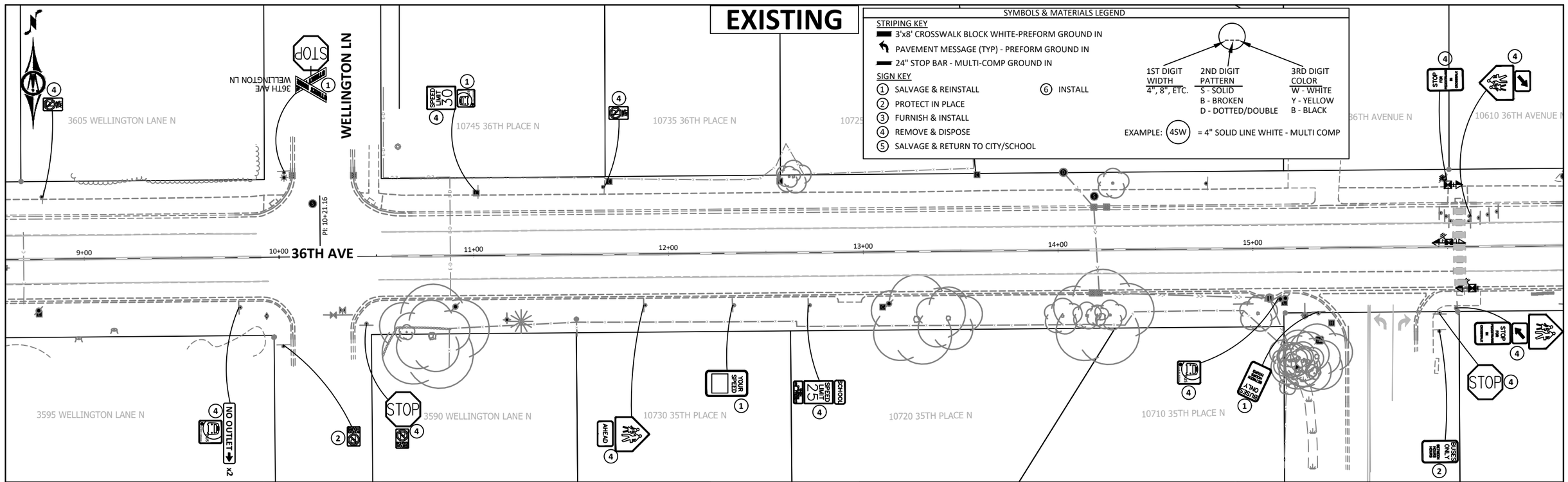

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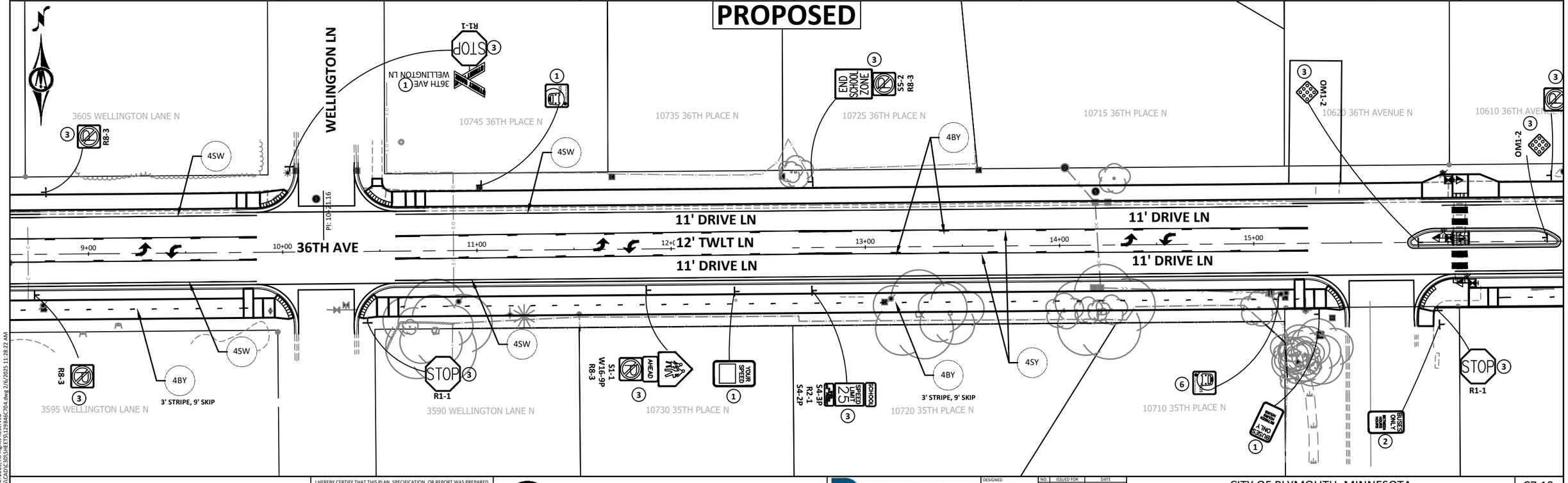

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36TH AVENUE

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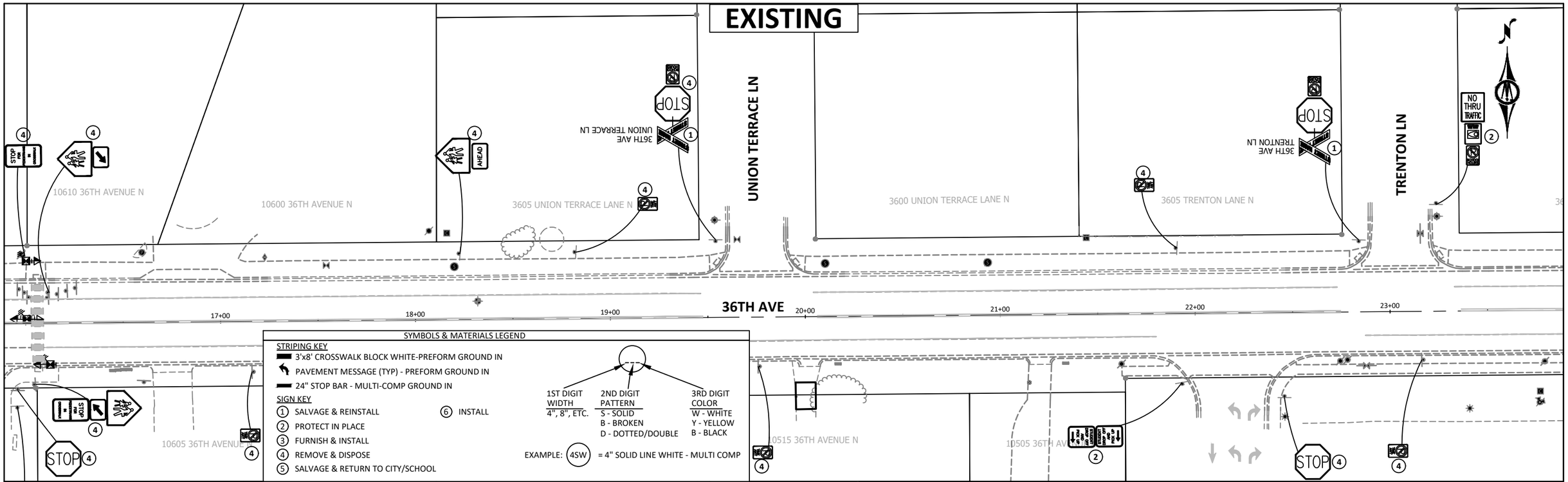

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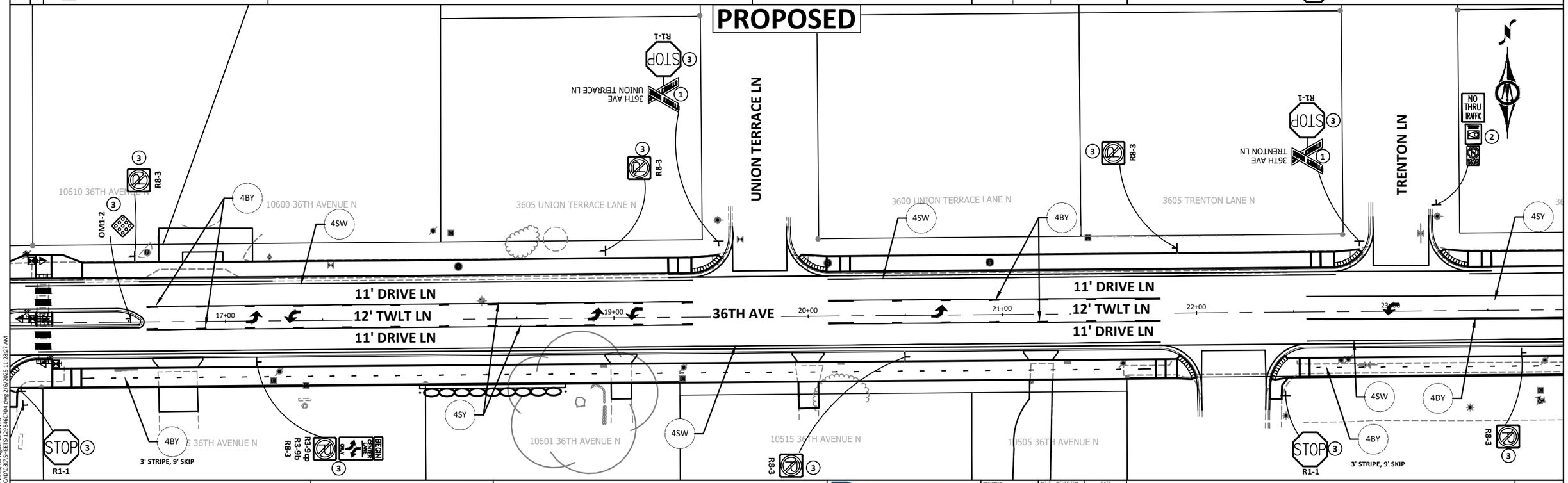

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CITY OF PLYMOUTH, MINNESOTA
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SIGNAGE & STRIPING PLAN
36TH AVENUE

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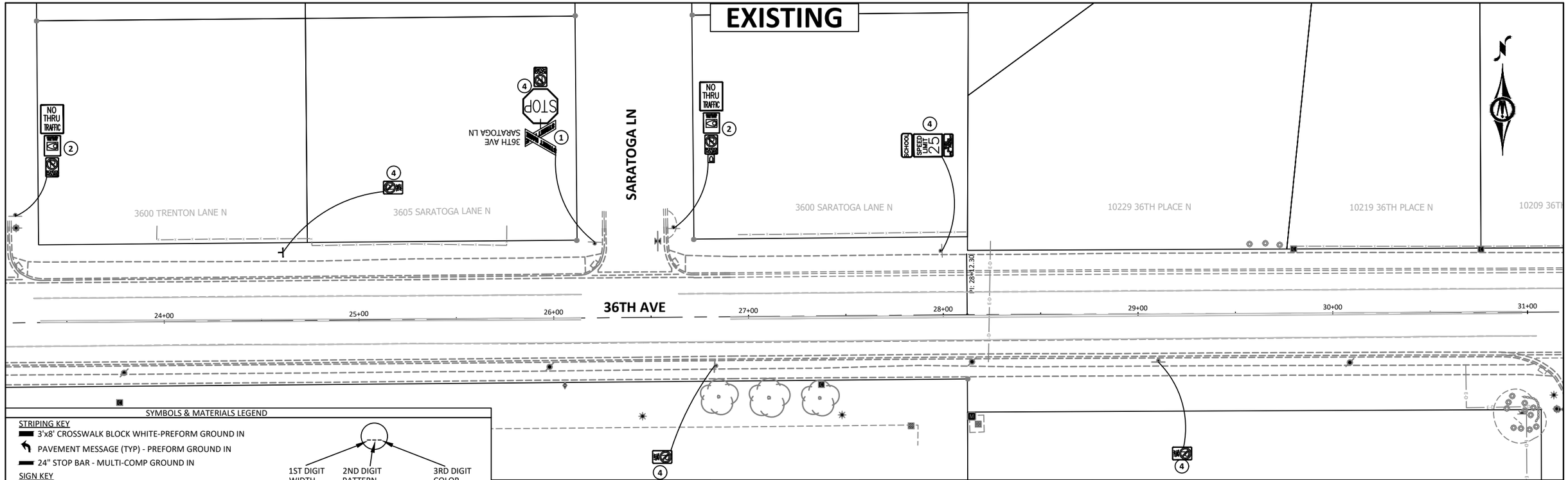

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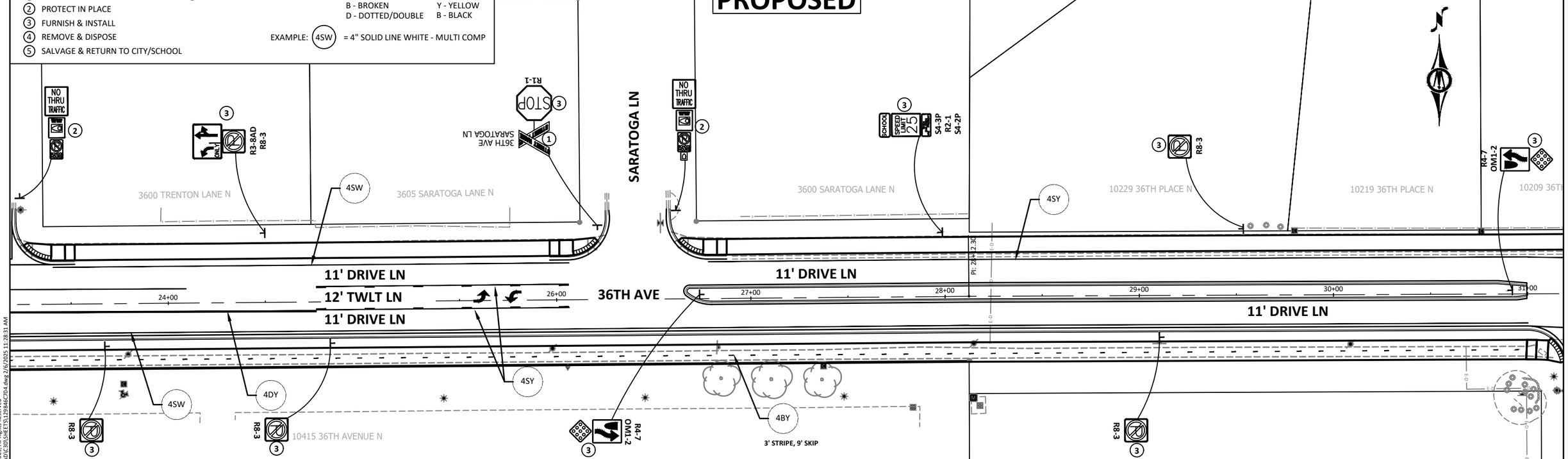

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EXAMPLE: (4SW) = 4" SOLID LINE WHITE - MULTI COMP

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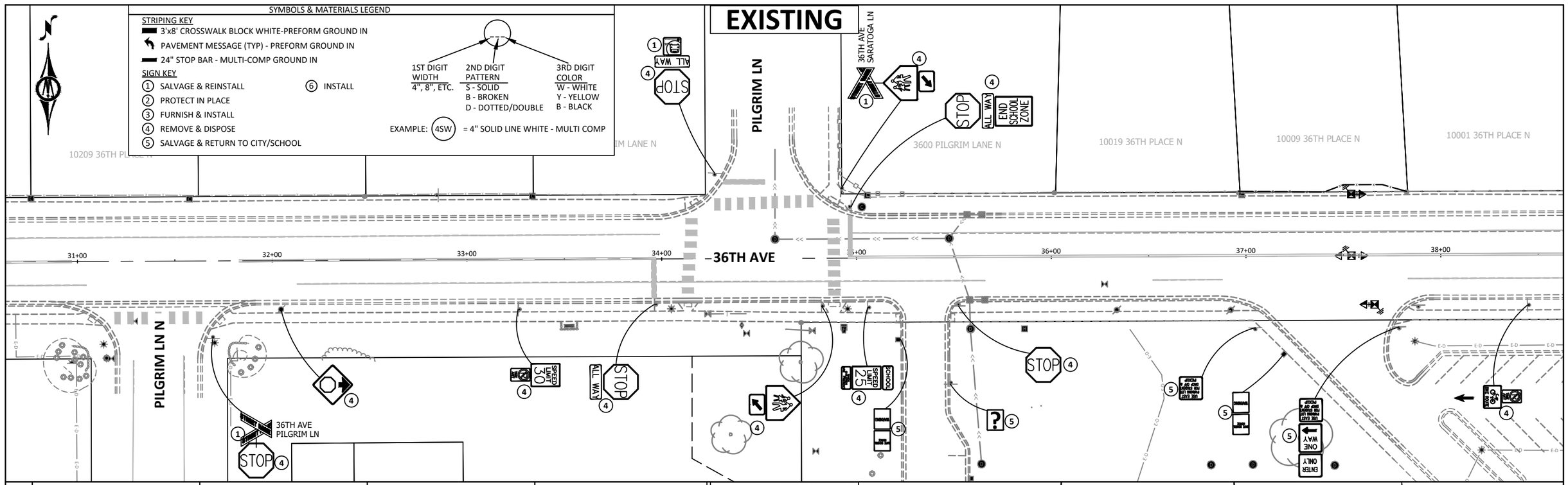

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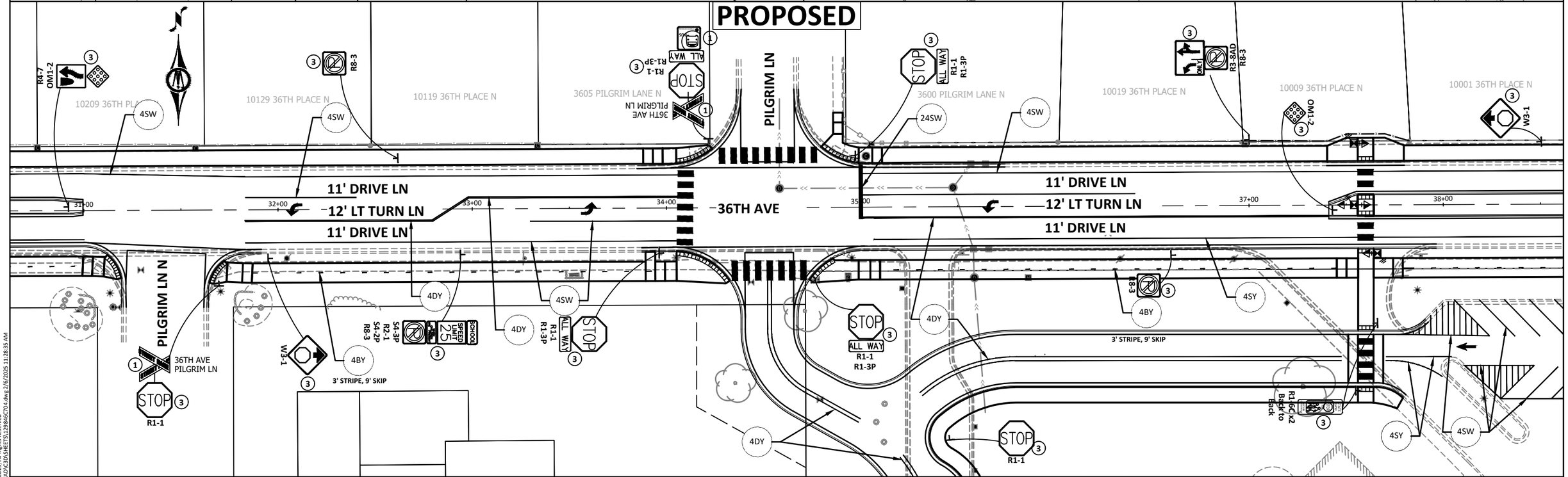

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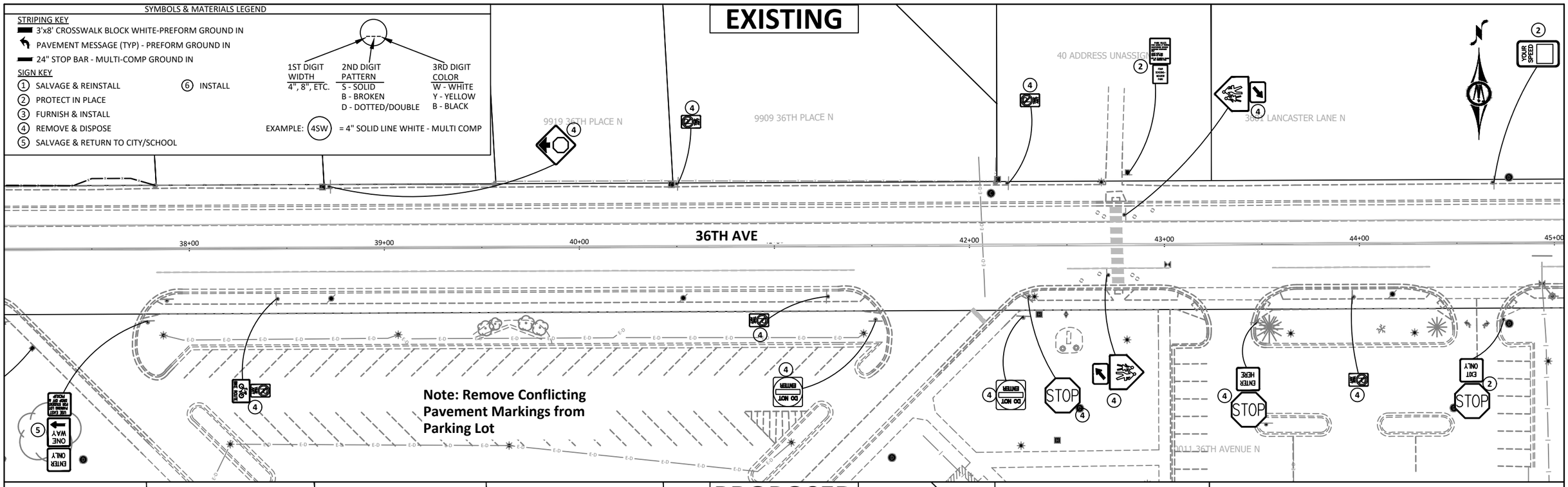

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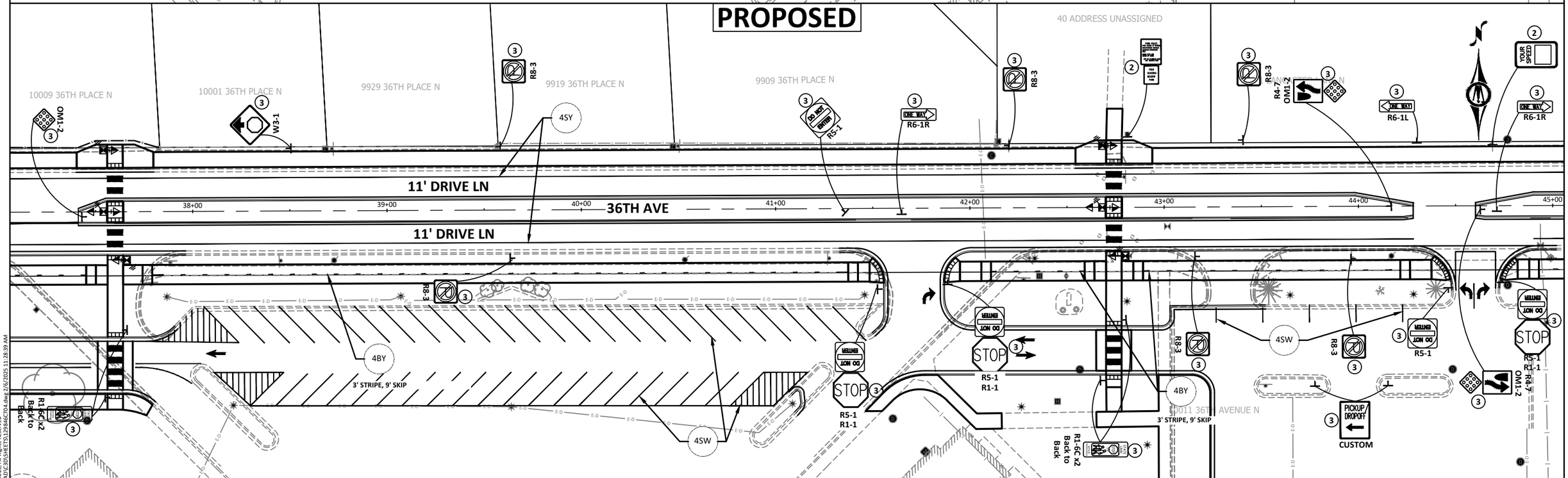

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAGE & STRIPING PLAN
36TH AVENUE

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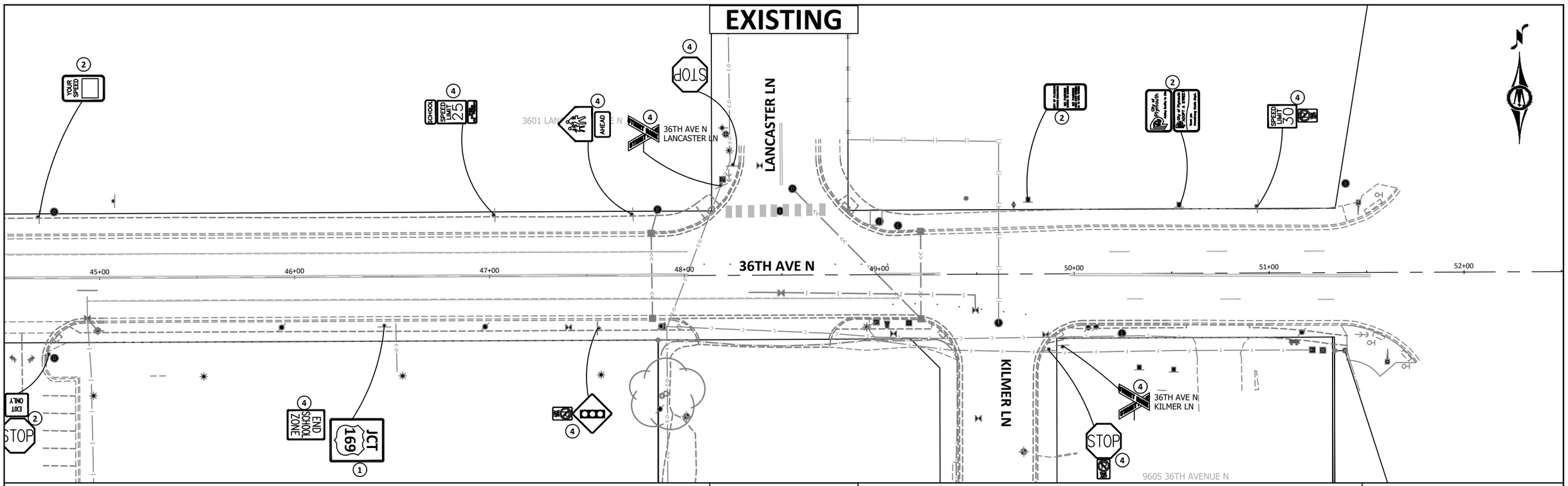

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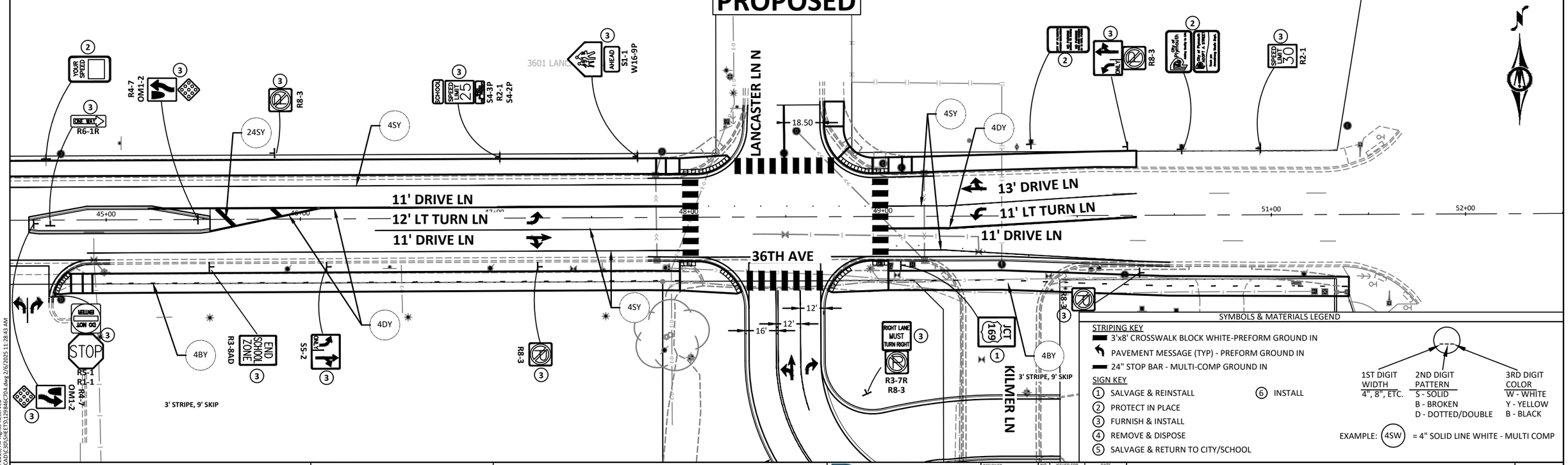

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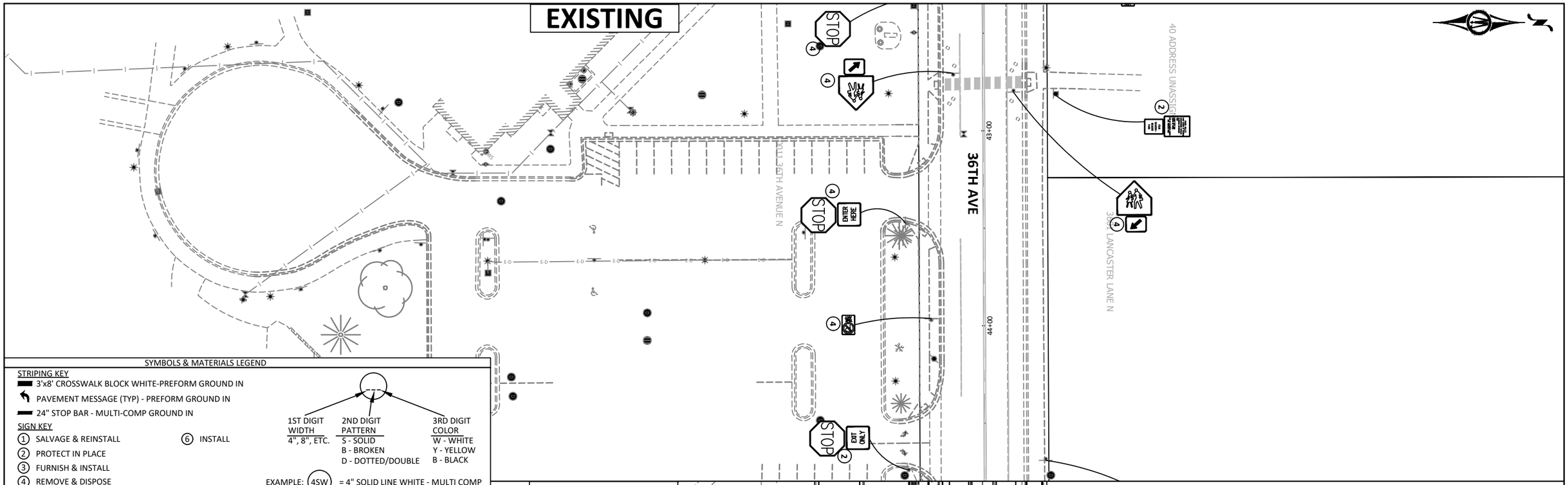

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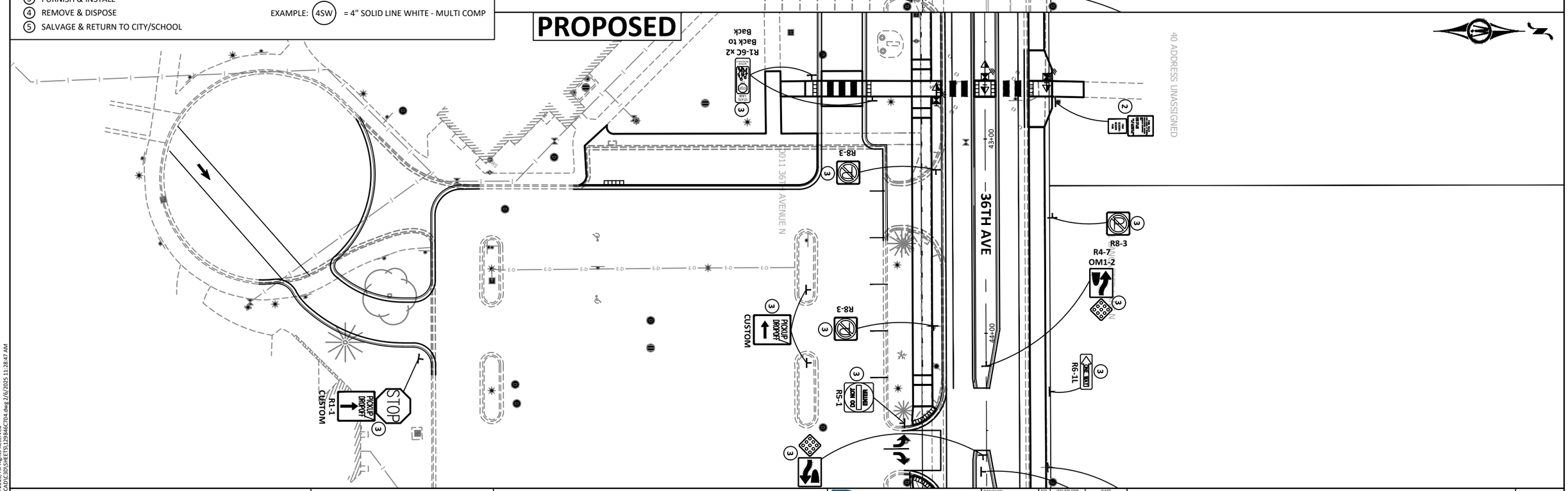

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SIGNAGE & STRIPING PLAN
PLYMOUTH MIDDLE SCHOOL PARKING LOT

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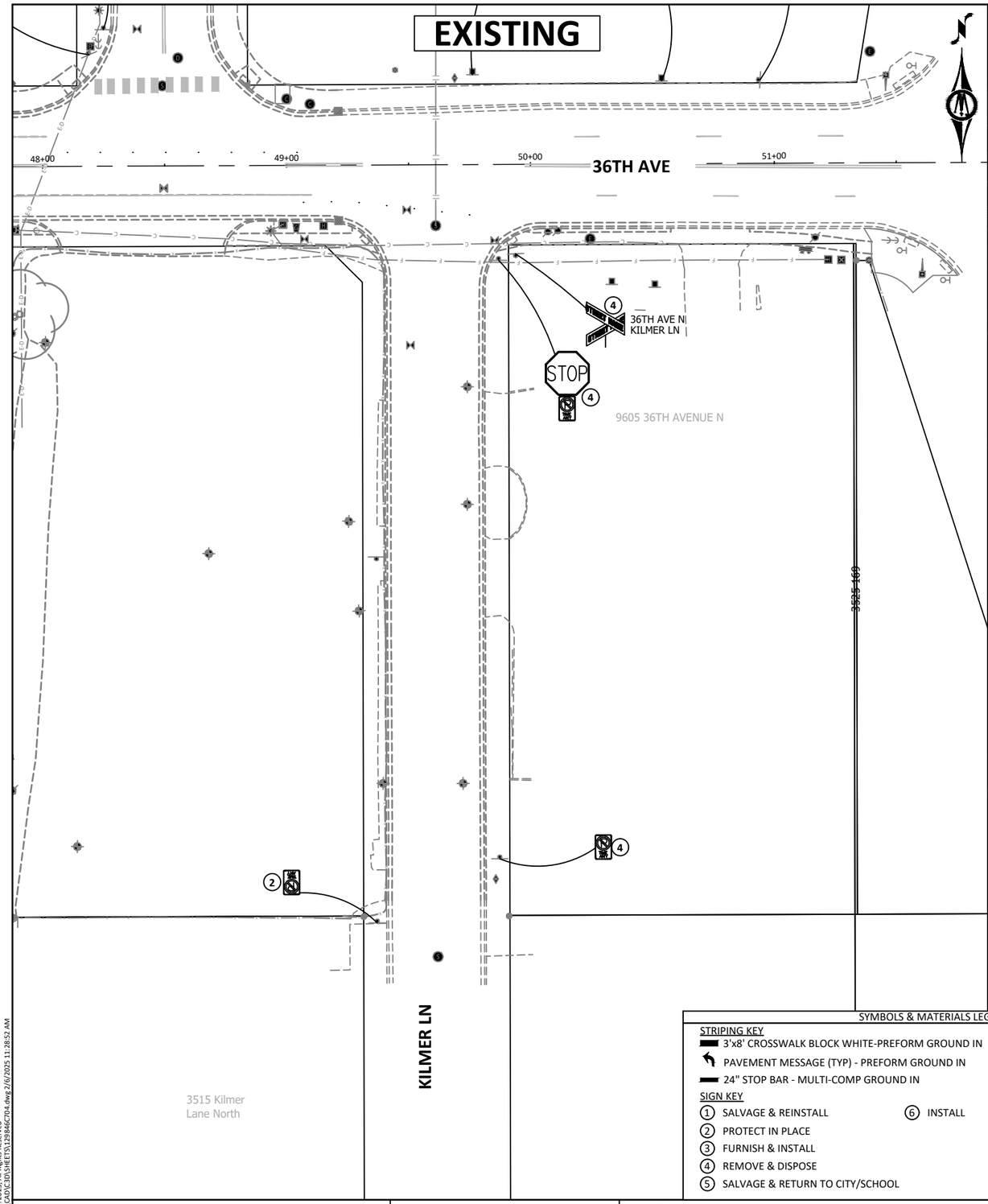

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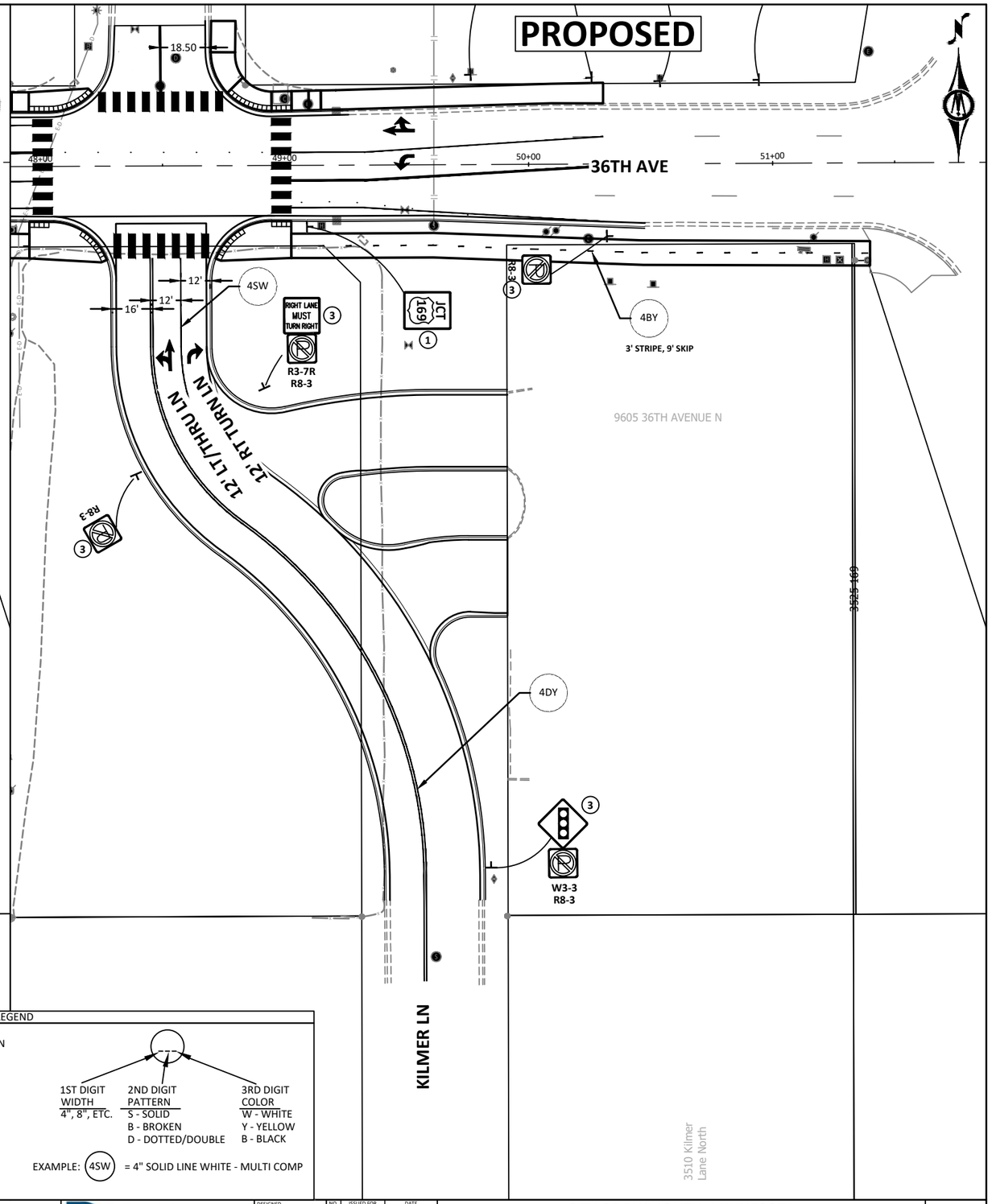

SYMBOLS & MATERIALS LEGEND

STRIPING KEY

- 3'x8' CROSSWALK BLOCK WHITE-PREFORM GROUND IN
- PAVEMENT MESSAGE (TYP) - PREFORM GROUND IN
- 24" STOP BAR - MULTI-COMP GROUND IN

SIGN KEY

1. SALVAGE & REINSTALL
2. PROTECT IN PLACE
3. FURNISH & INSTALL
4. REMOVE & DISPOSE
5. SALVAGE & RETURN TO CITY/SCHOOL
6. INSTALL

1ST DIGIT	2ND DIGIT	3RD DIGIT
WIDTH	PATTERN	COLOR
4", 8", ETC.	S - SOLID	W - WHITE
	B - BROKEN	Y - YELLOW
	D - DOTTED/DOUBLE	B - BLACK

EXAMPLE: (4SW) = 4" SOLID LINE WHITE - MULTI COMP

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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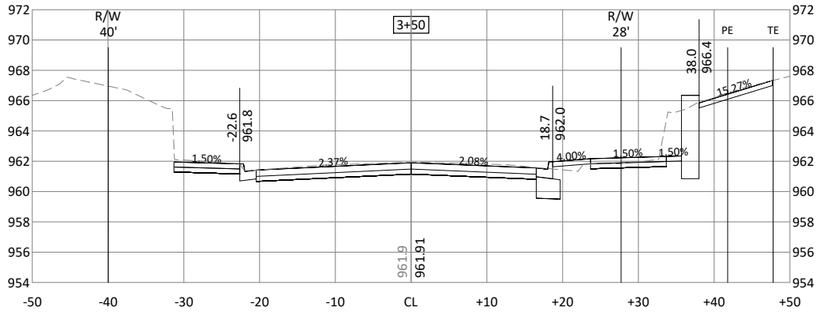
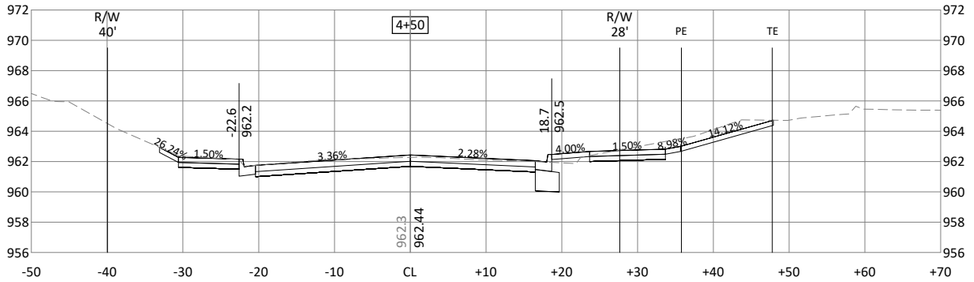
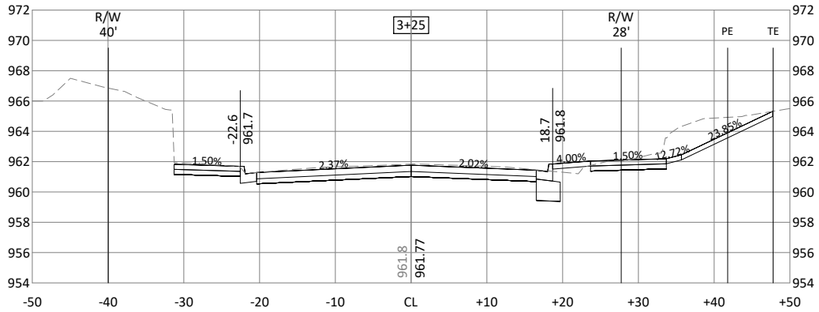
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

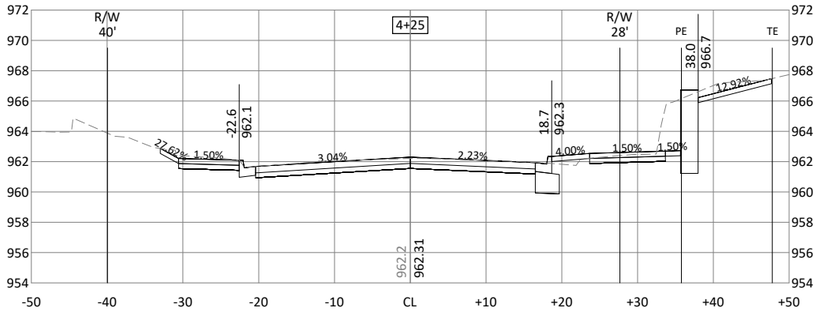
NO.	ISSUED FOR	DATE

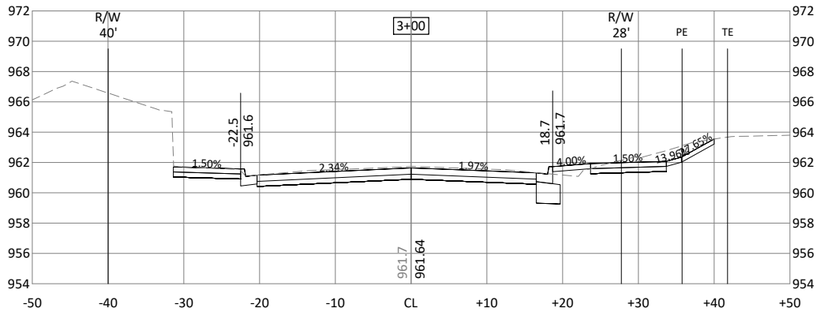
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
SIGNAGE & STRIPING PLAN
KILMER LANE

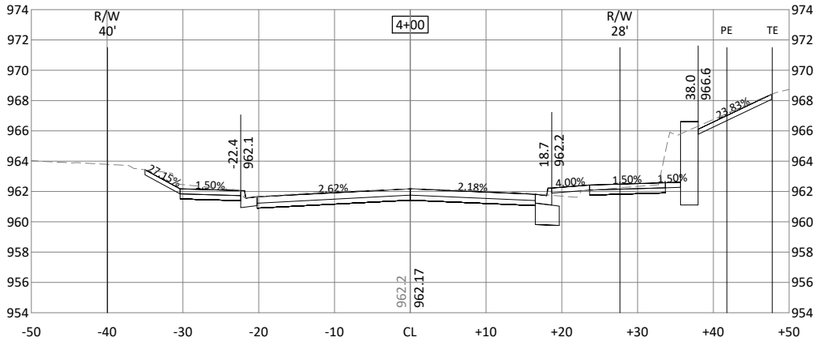


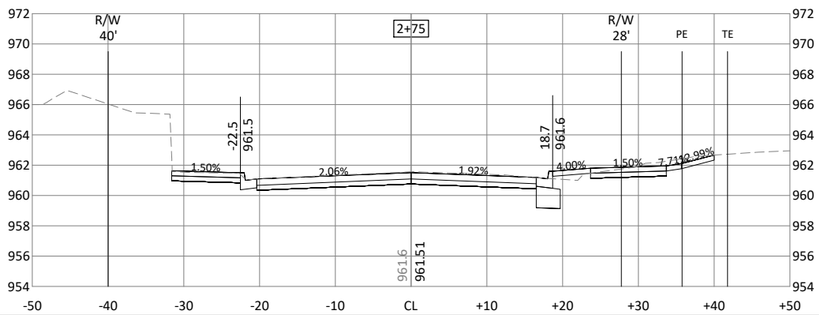


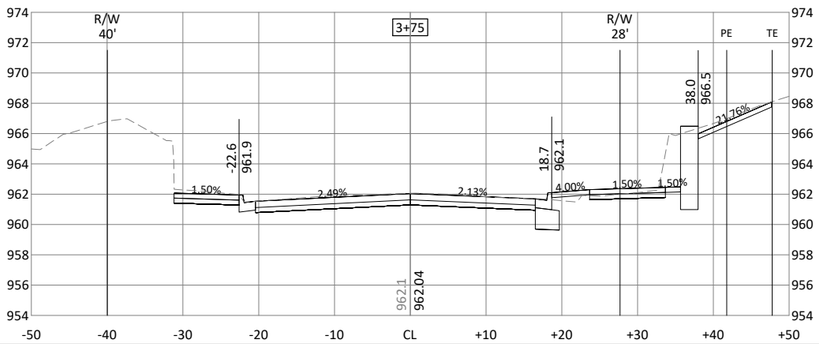












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City of Plymouth

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CLIENT PROJ. NO.	ST250002

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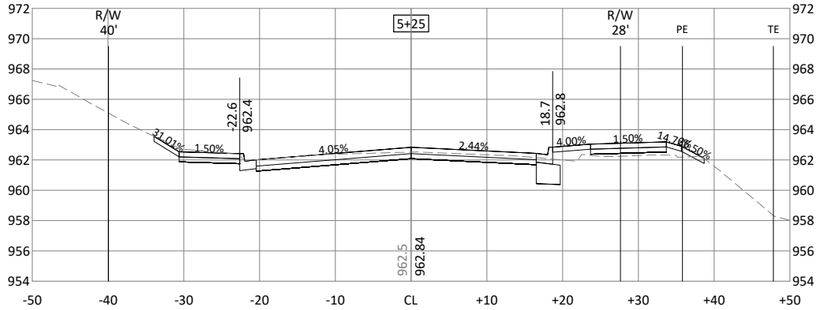
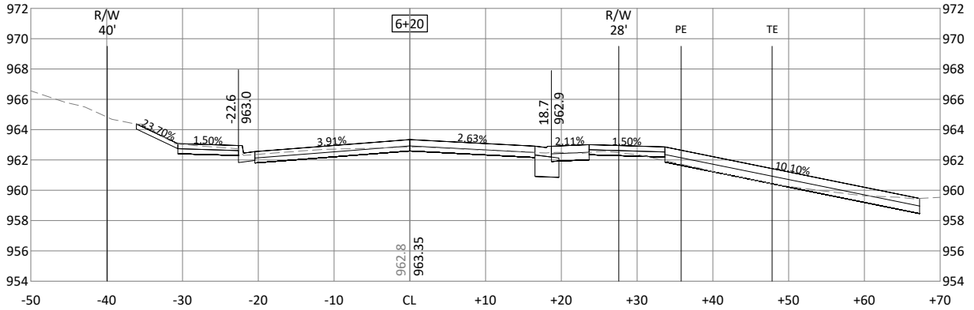
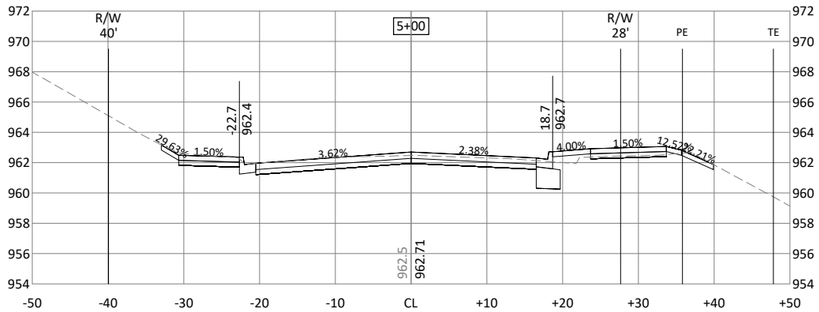
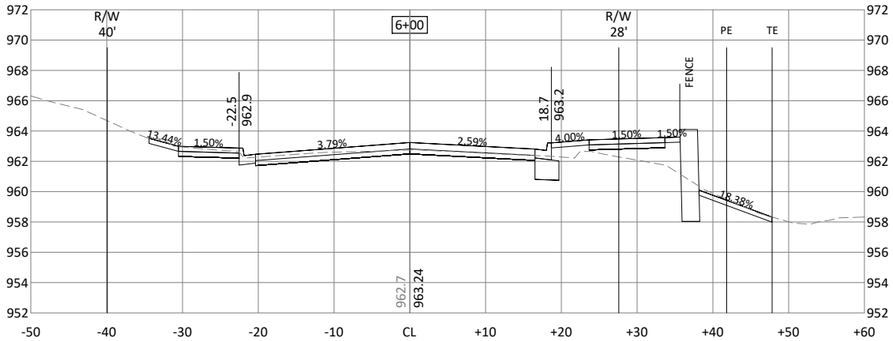
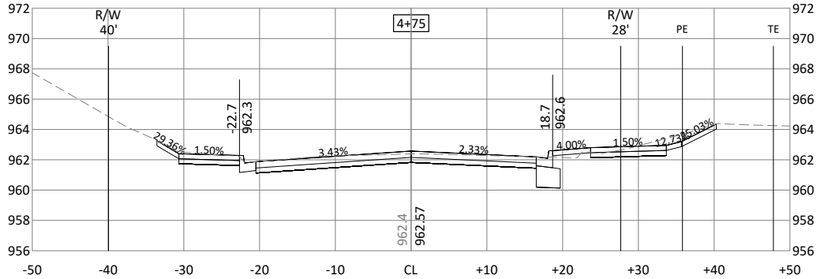
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

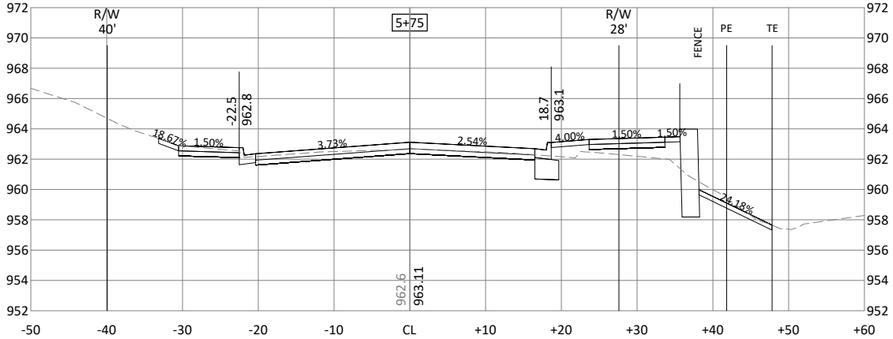


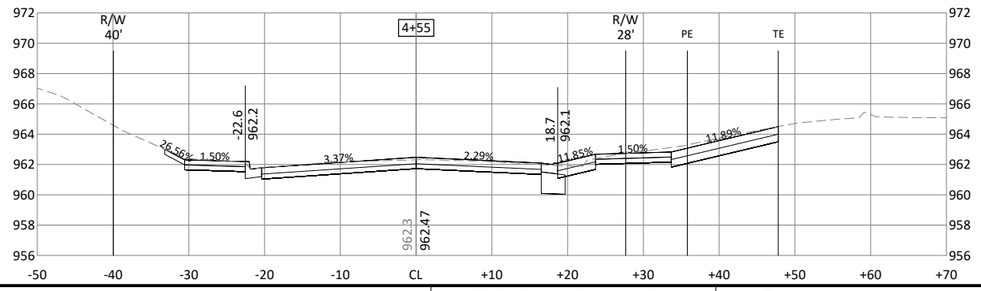


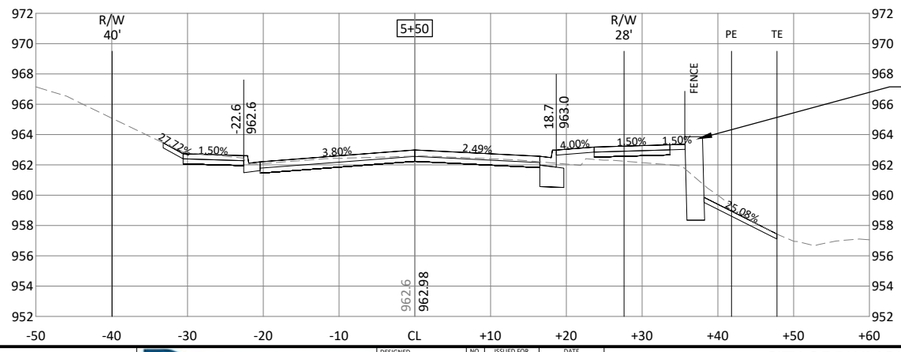












TOP BLOCK TO BE DOUBLE FACED (TYP.)

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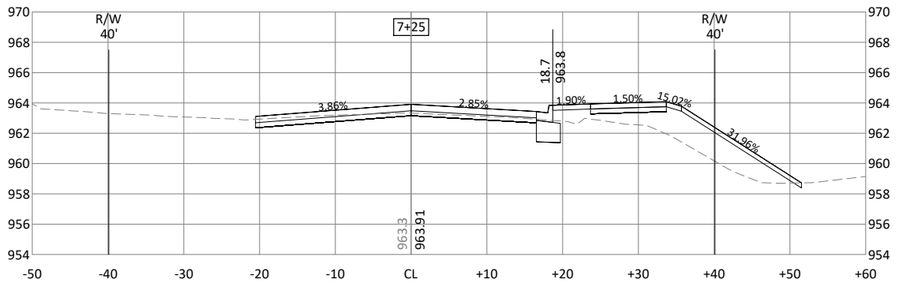
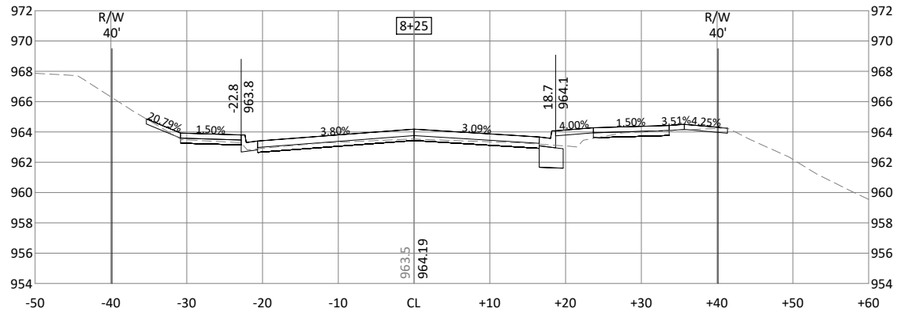
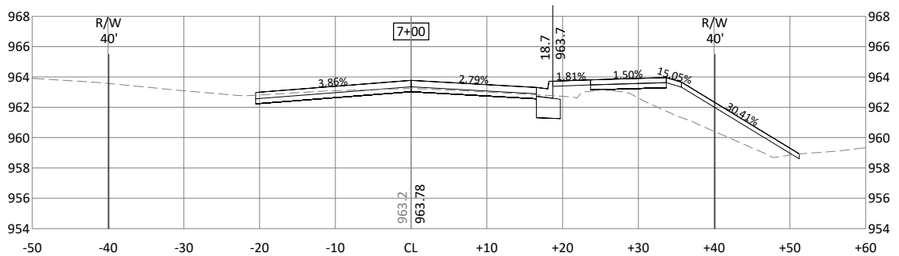
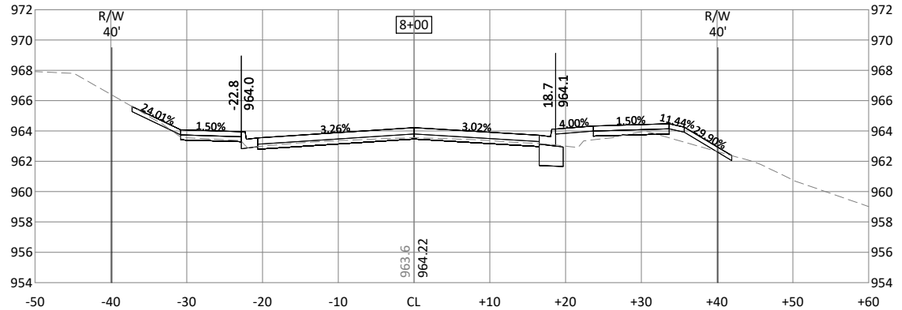
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

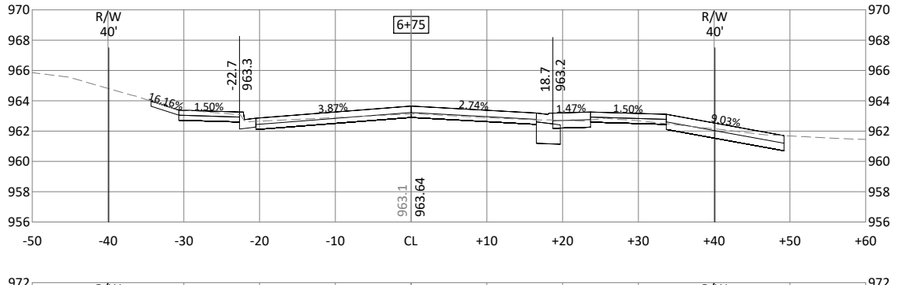
C8.02
104
OF
129

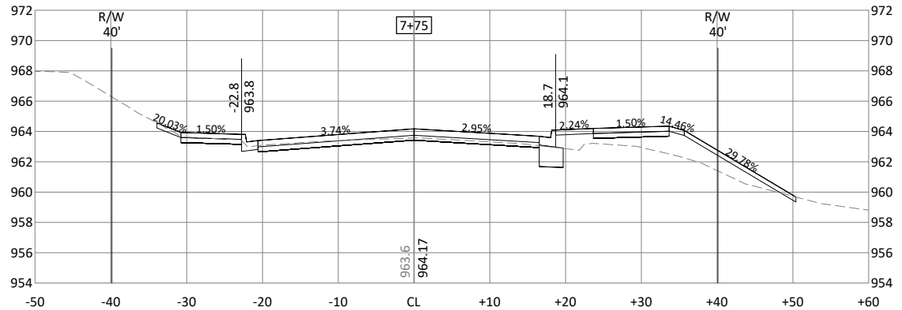


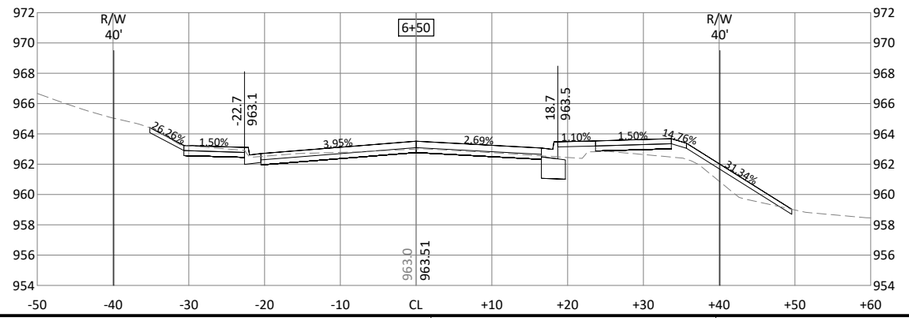


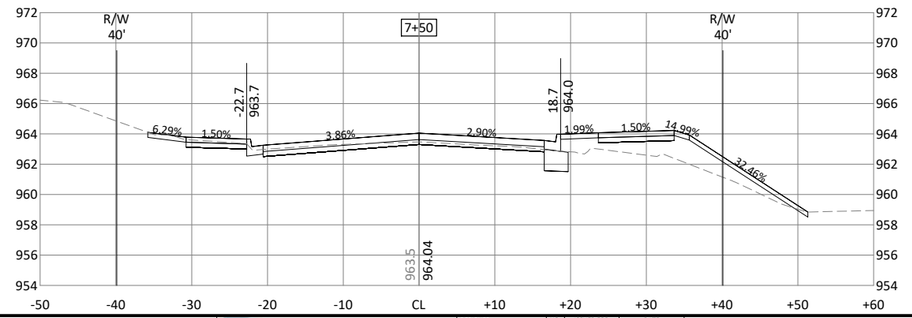












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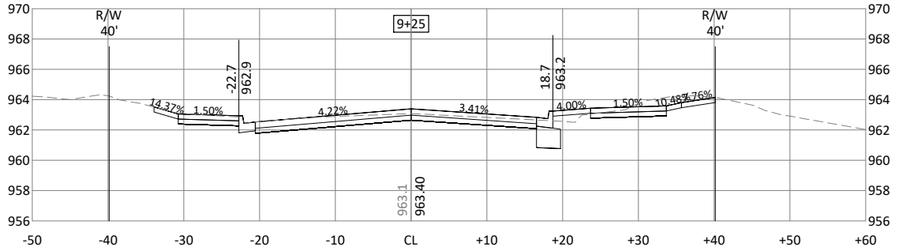
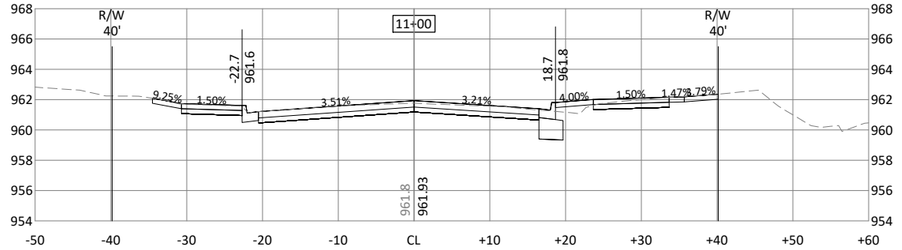
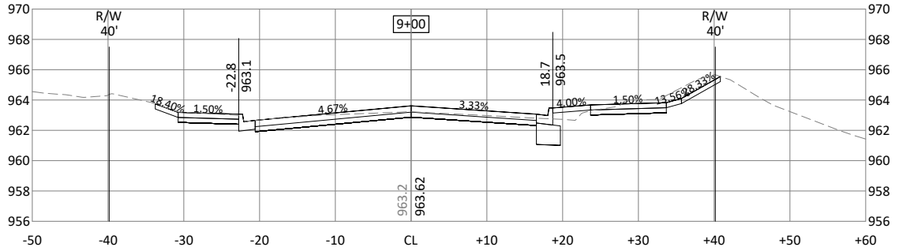
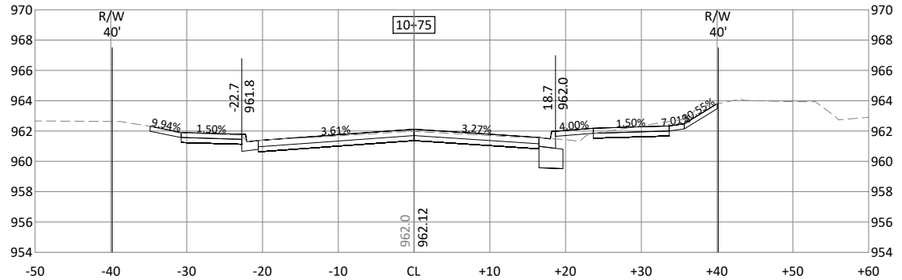
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

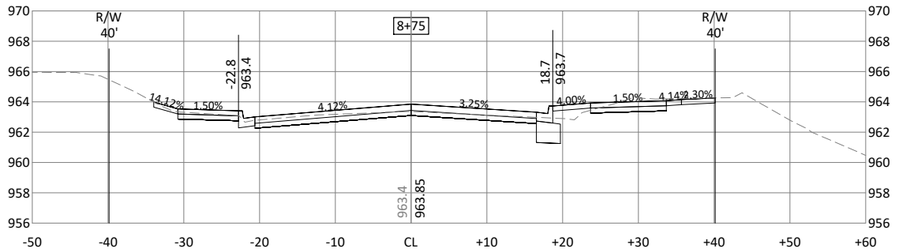
C8.03
105
OF
129

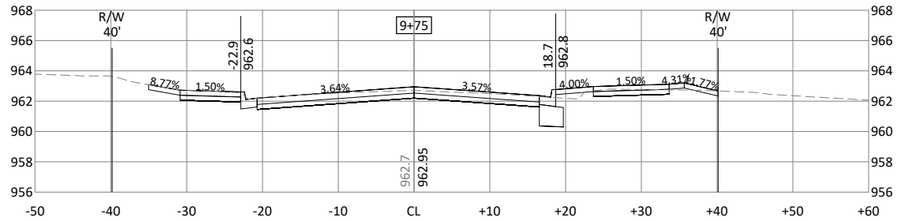


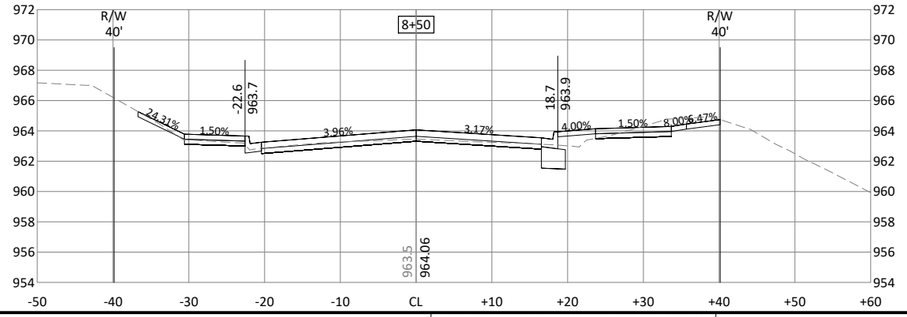


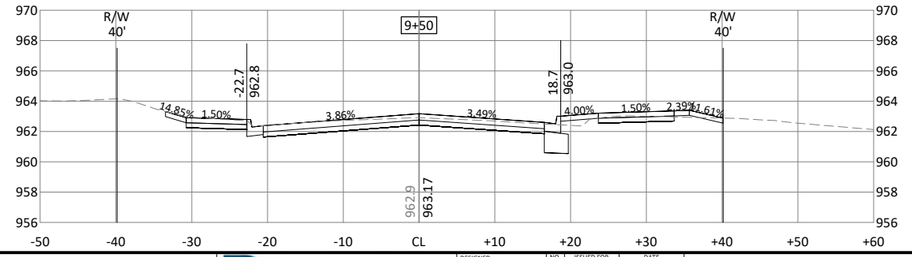












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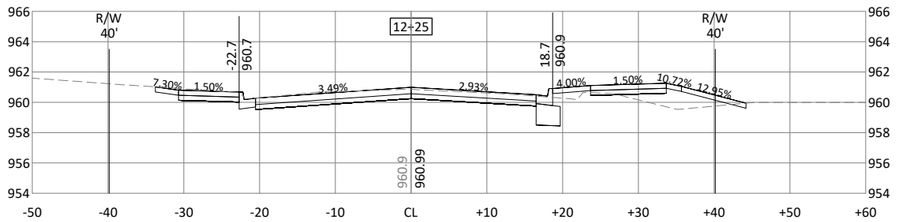
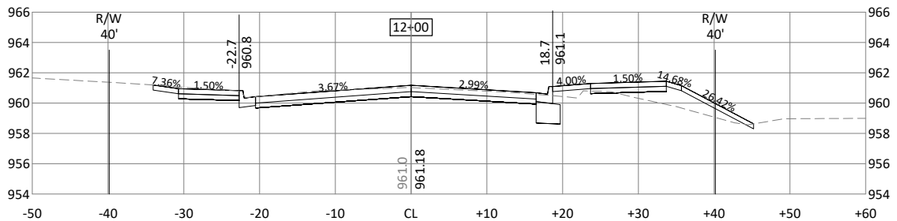
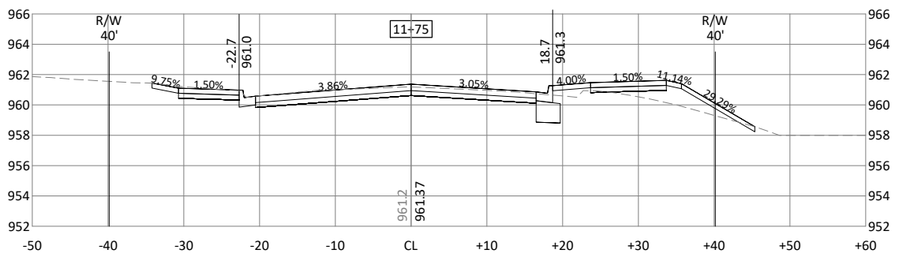
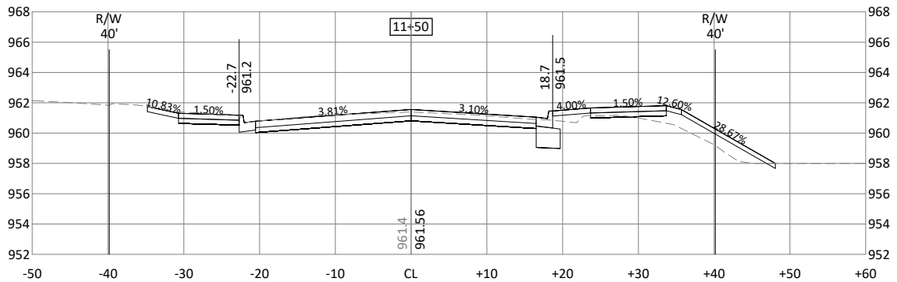
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

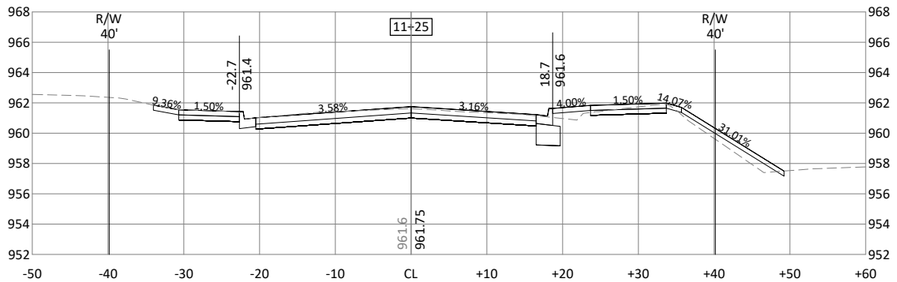
C8.04
106
OF
129

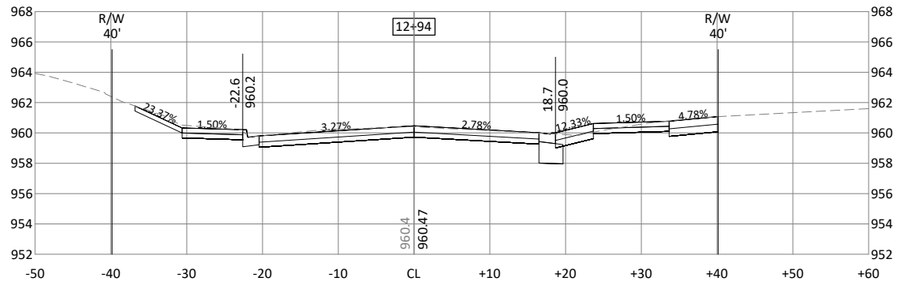


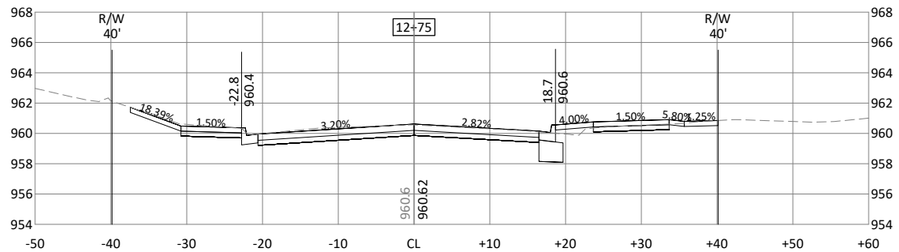


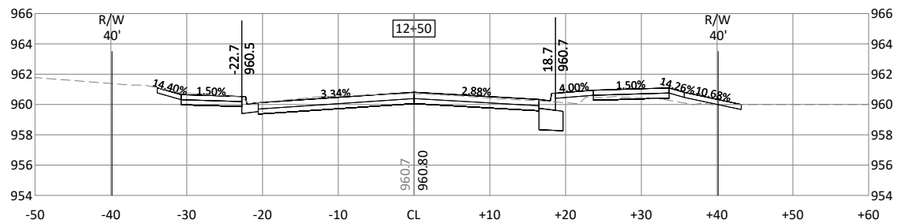












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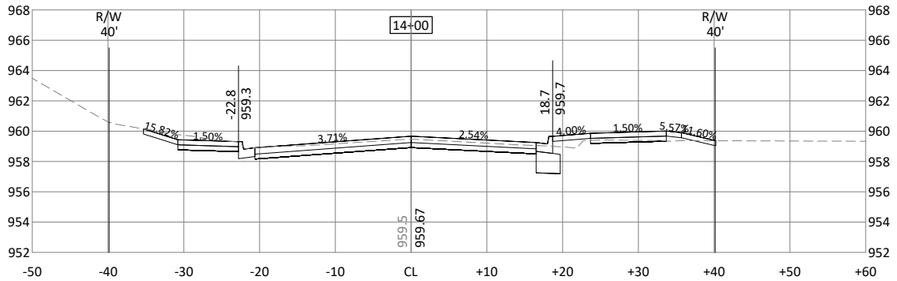
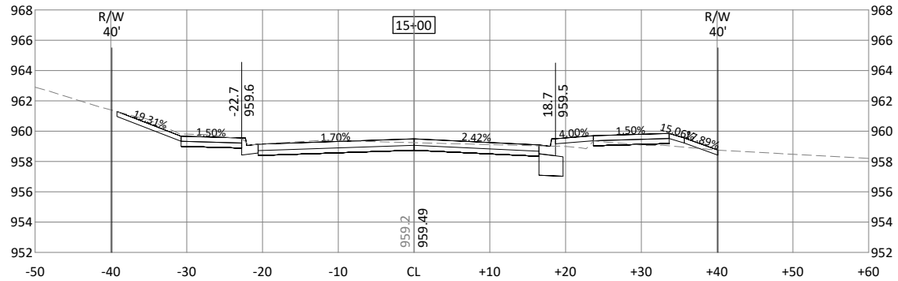
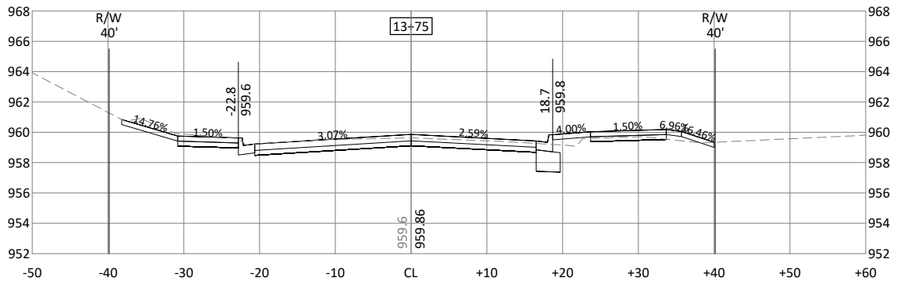
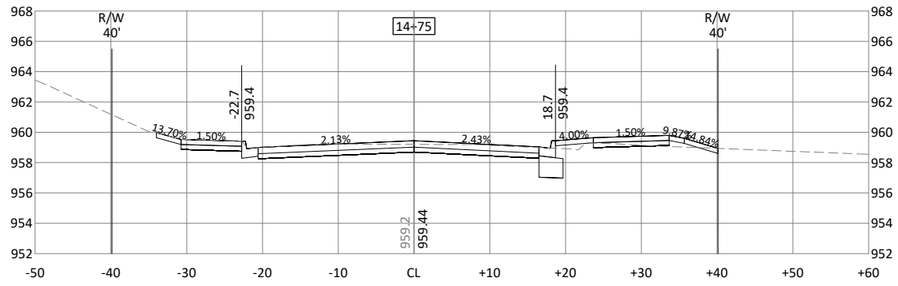
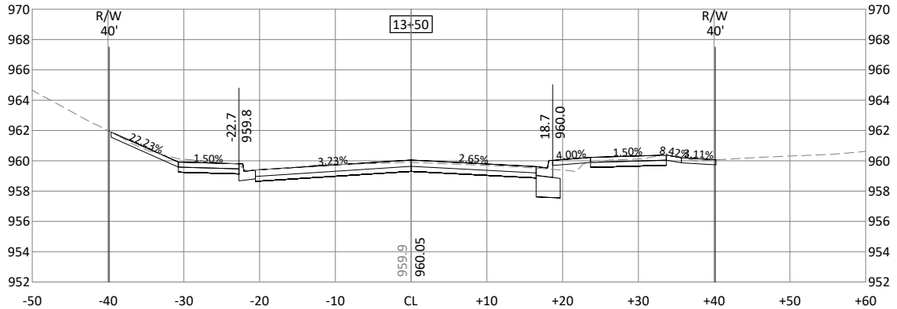
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

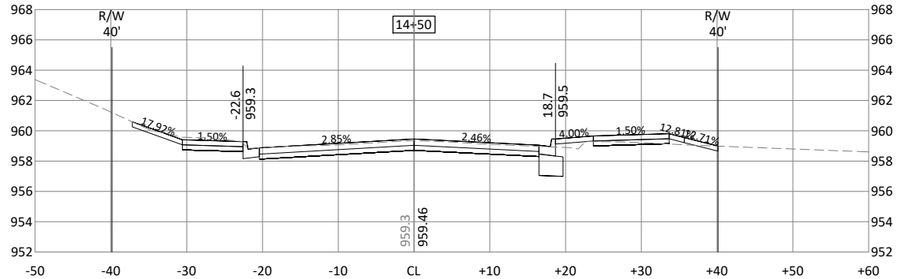


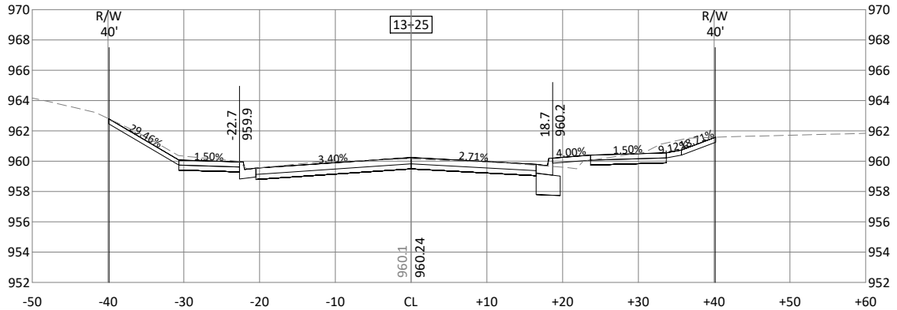


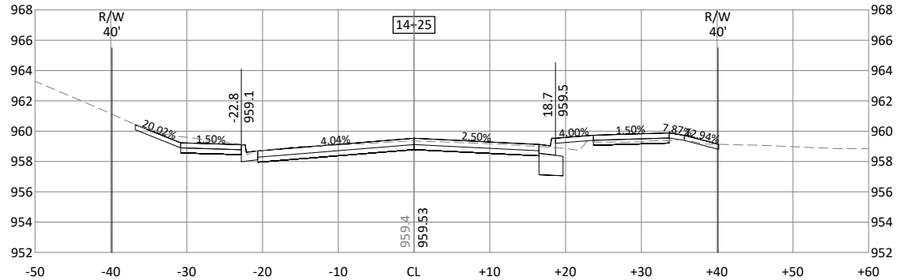












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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www.bolton-menk.com

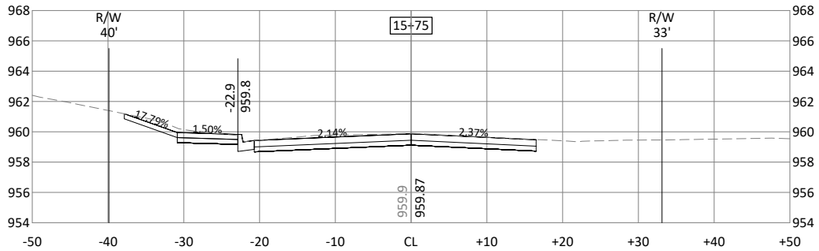
City of Plymouth

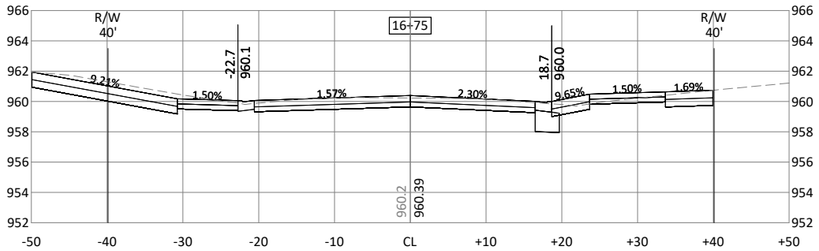
DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

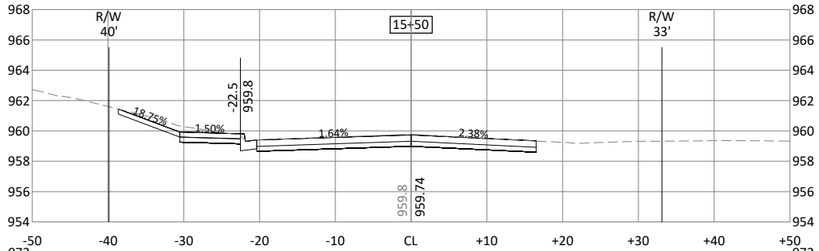
NO.	ISSUED FOR	DATE

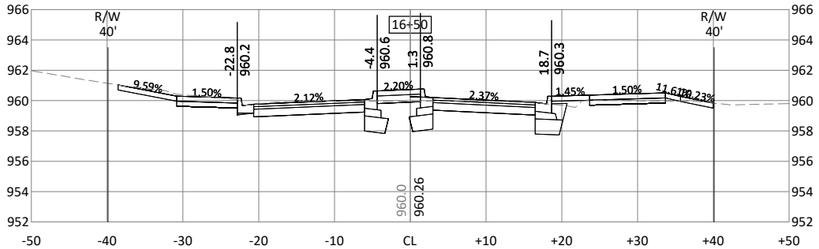
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

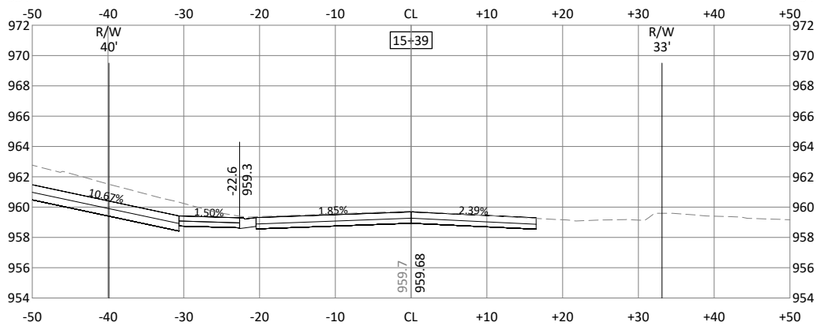
C8.06
108
OF
129

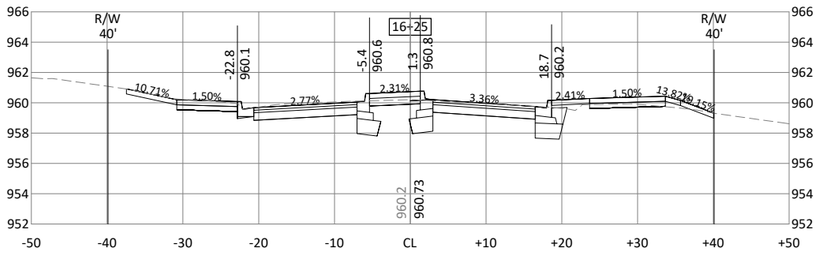


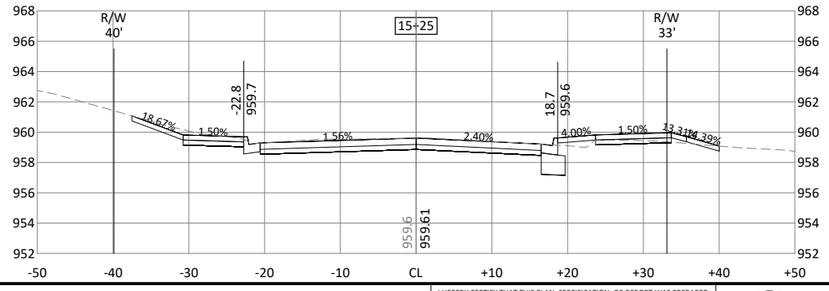


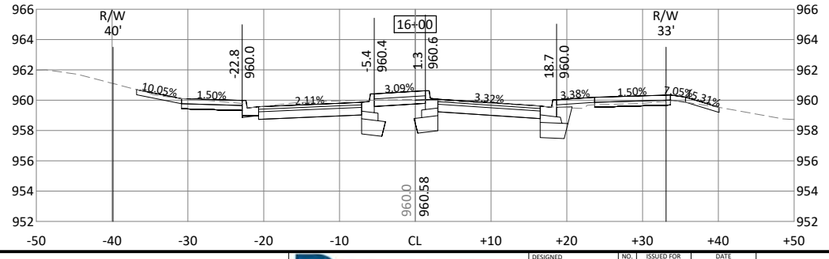












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

C8.07
109
OF
129

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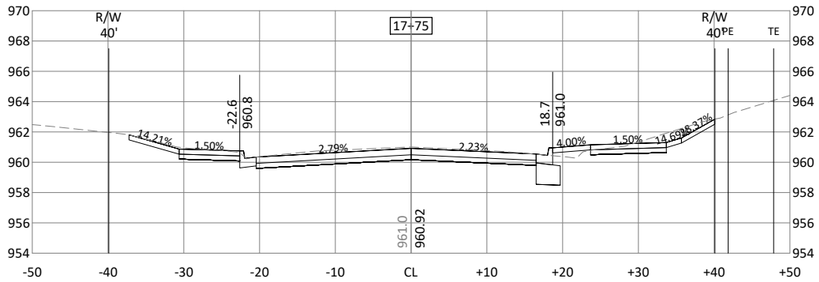

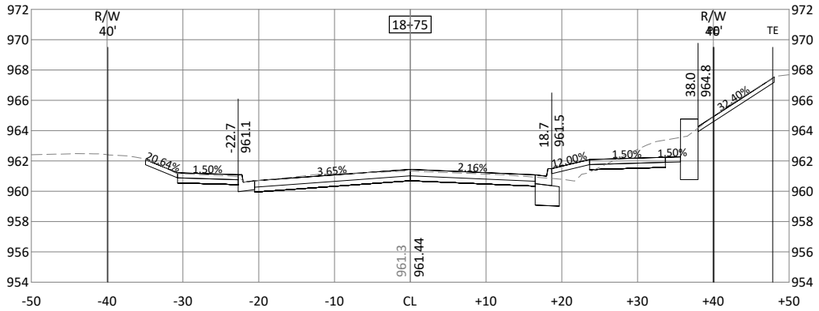

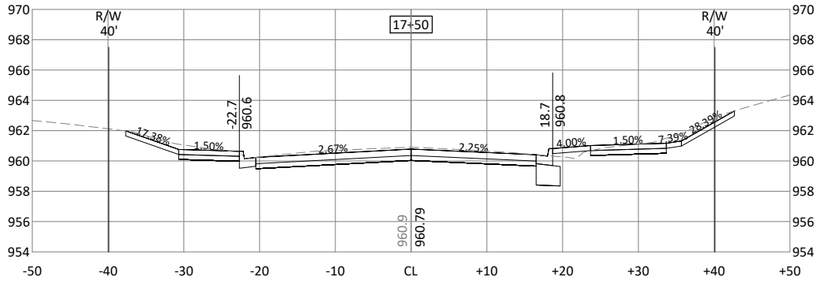

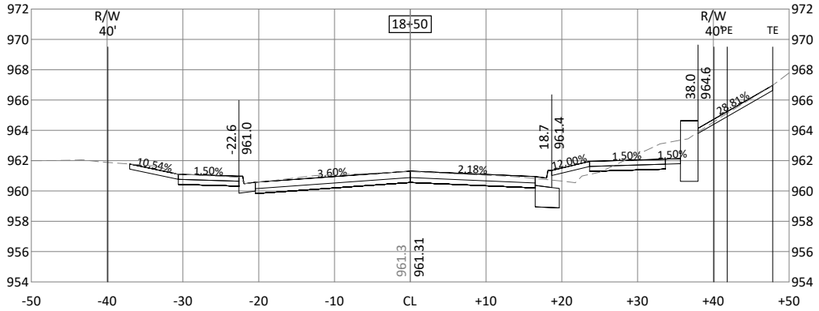

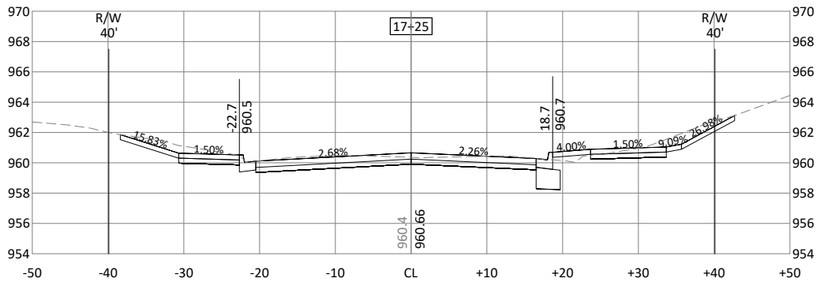

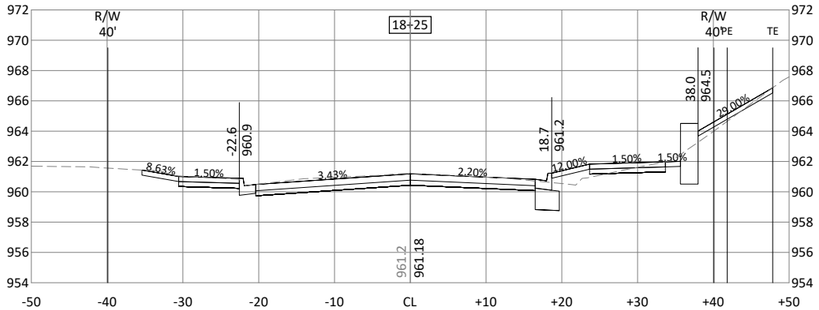

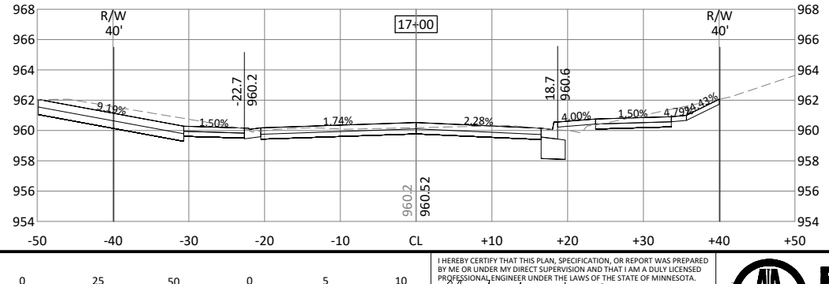

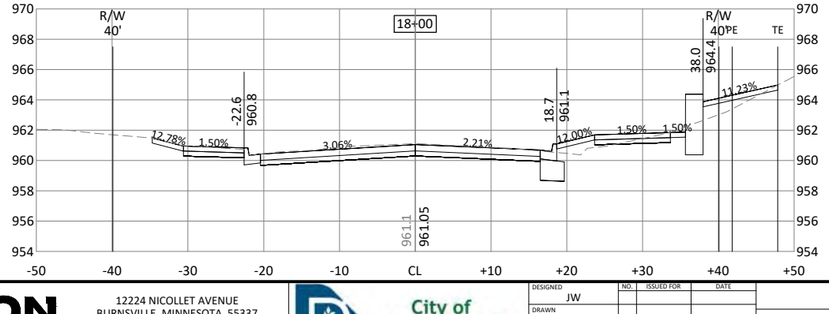

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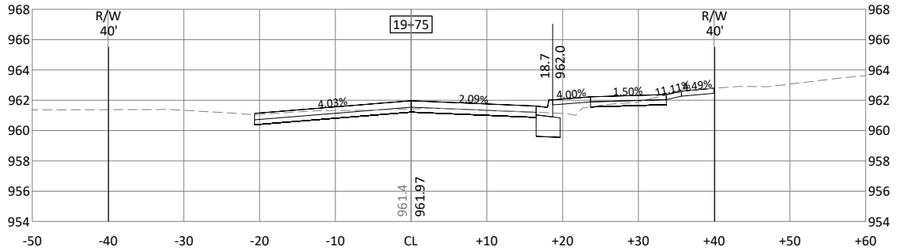
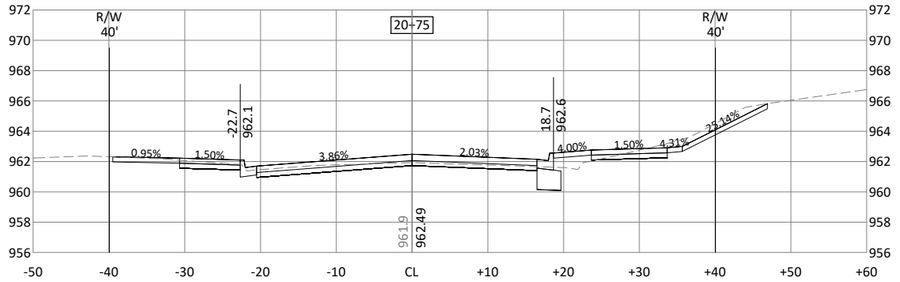
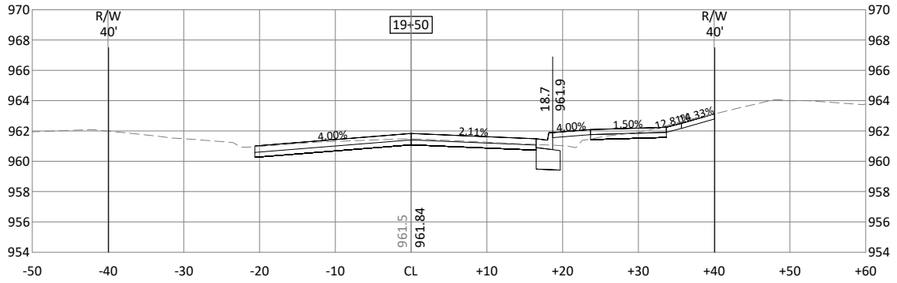
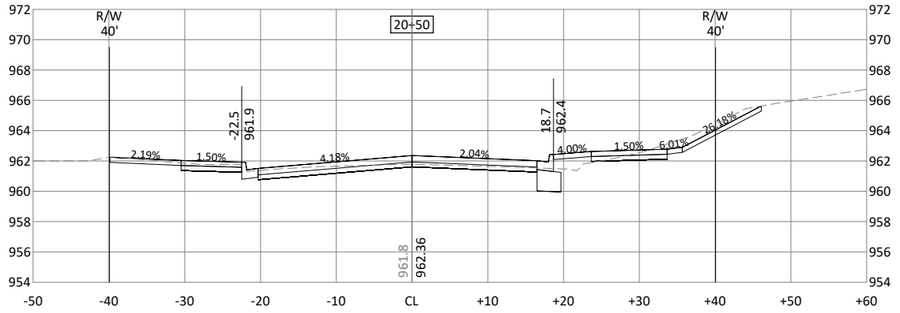
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

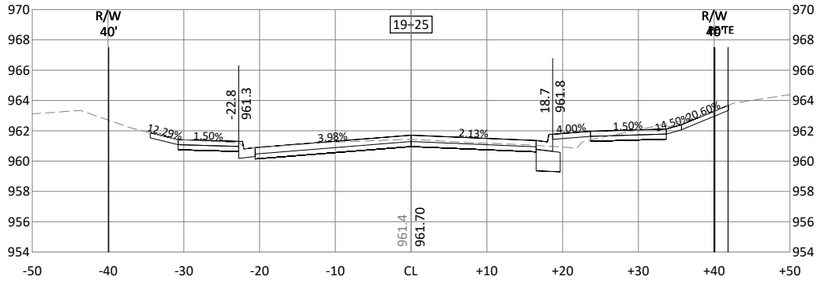
C8.08
110
OF
129

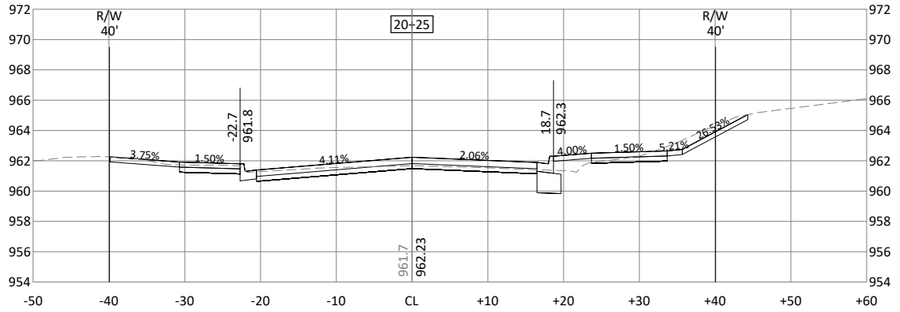


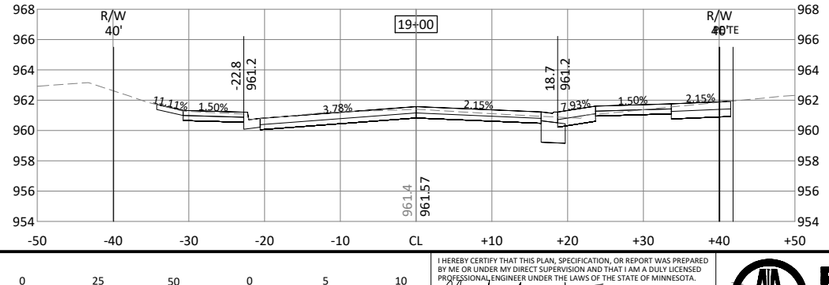


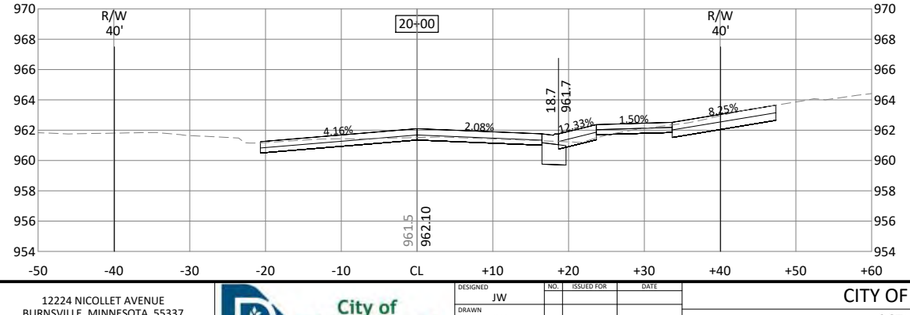












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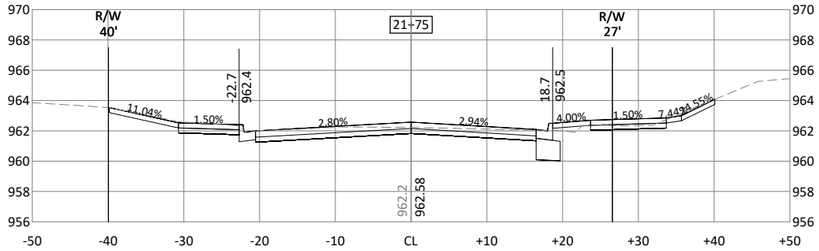
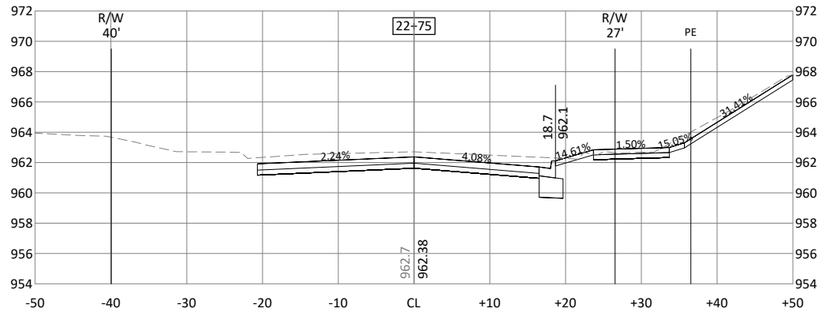
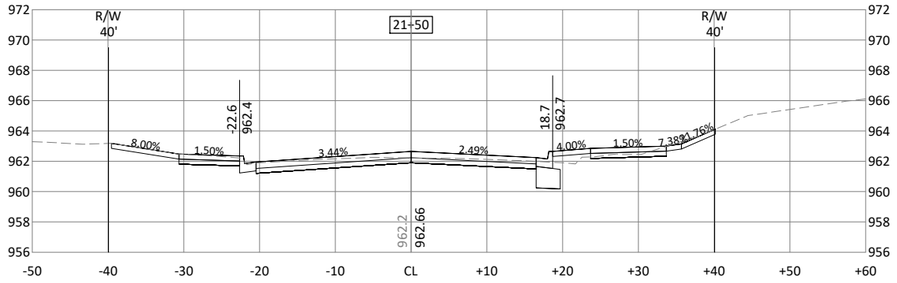
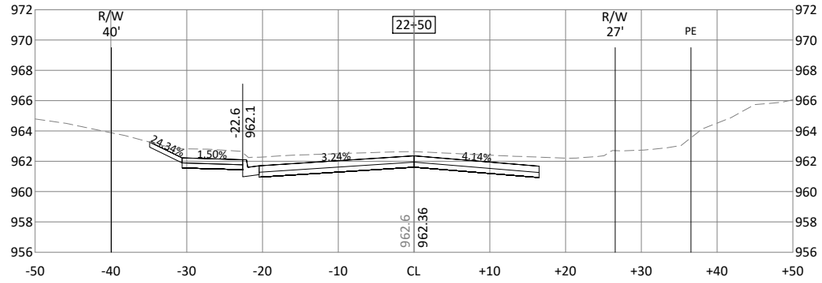
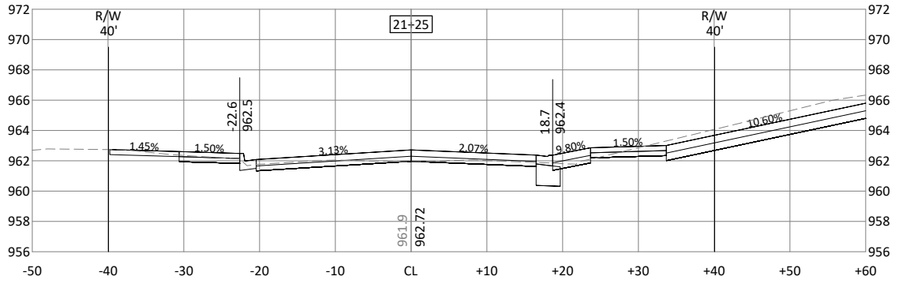
CROSS SECTIONS
36TH AVENUE

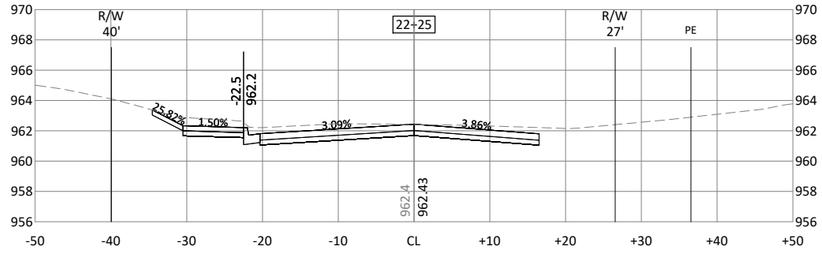


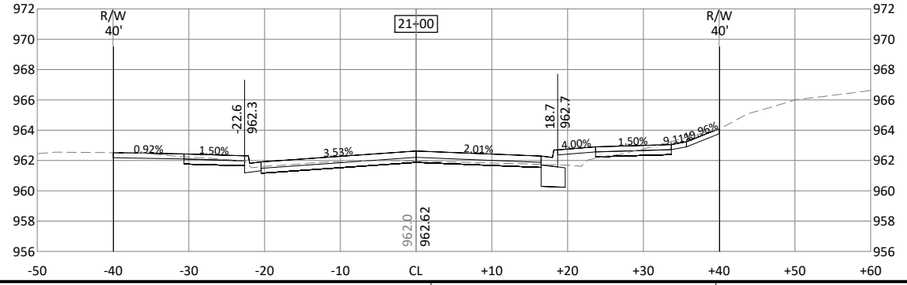


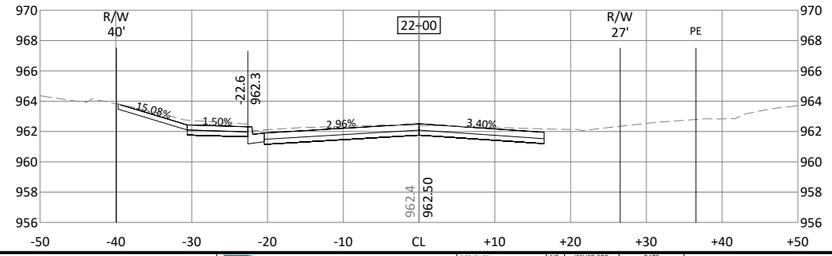












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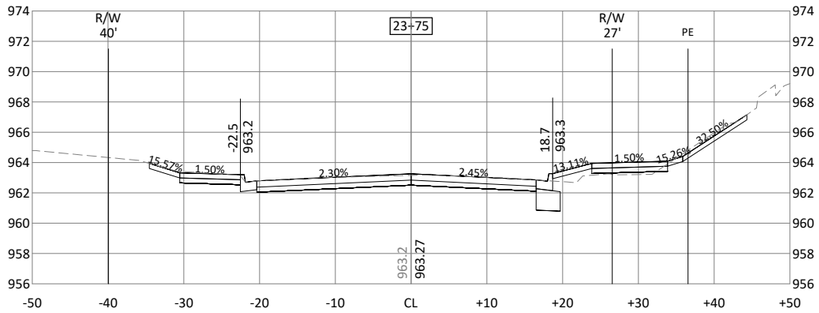
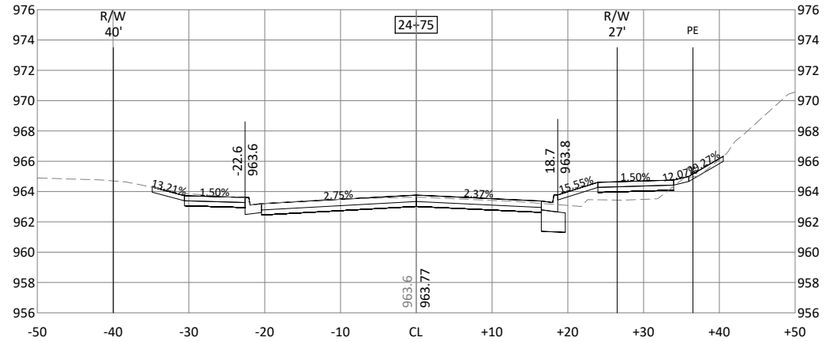
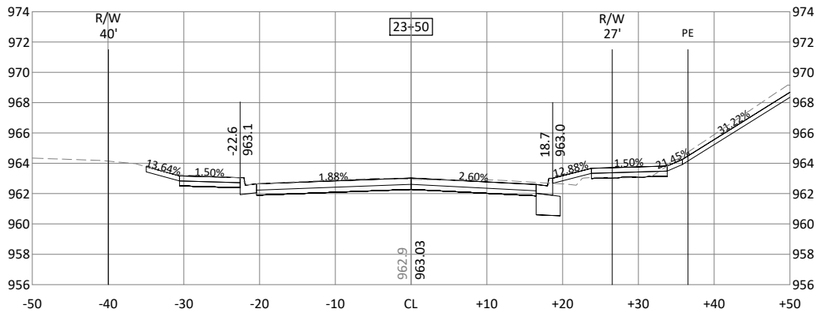
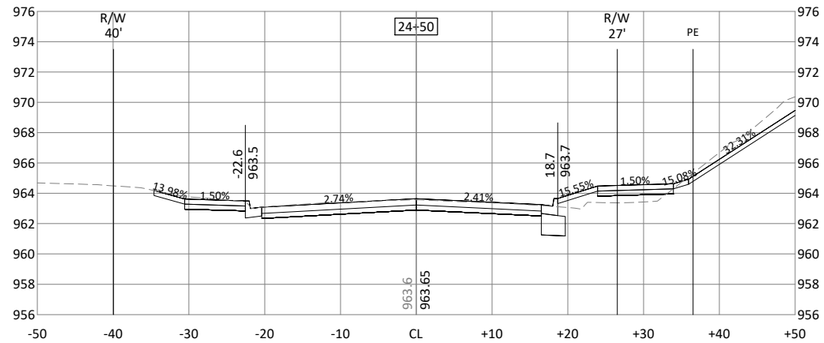
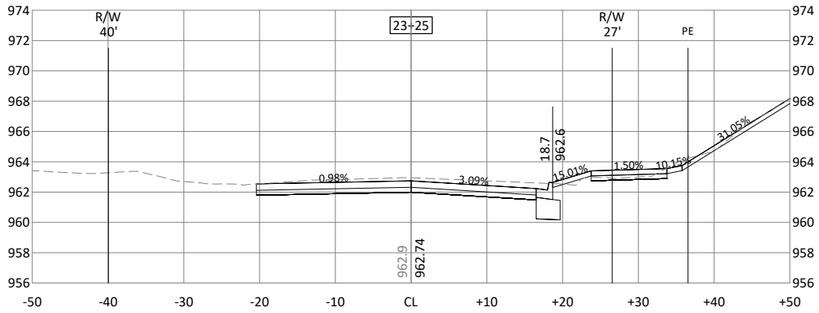
112
OF
129

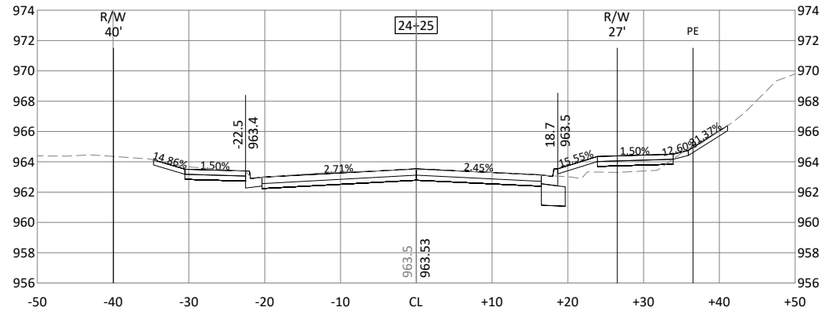


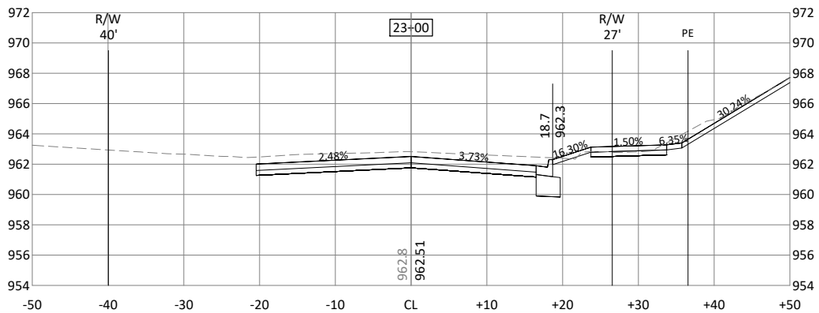


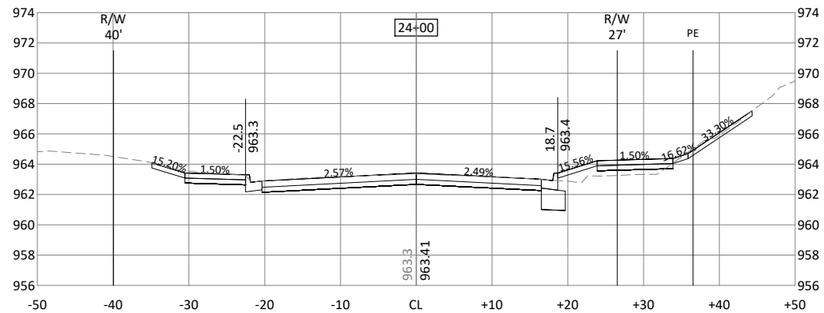












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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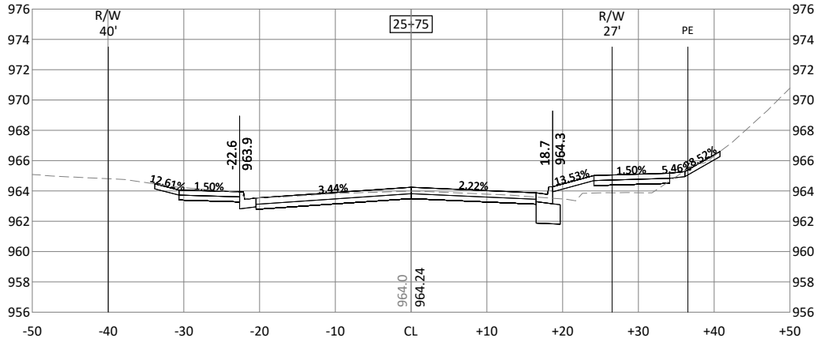
City of Plymouth

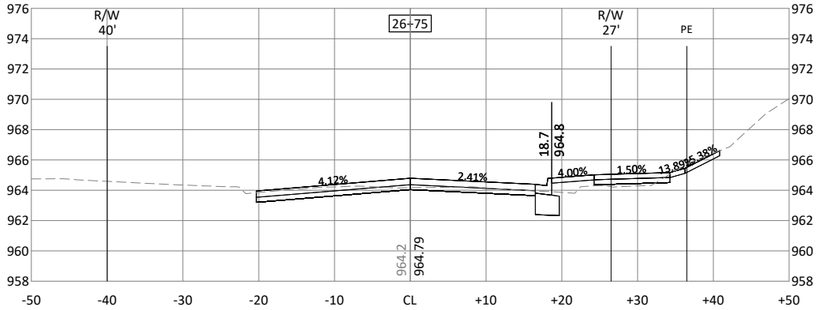
DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

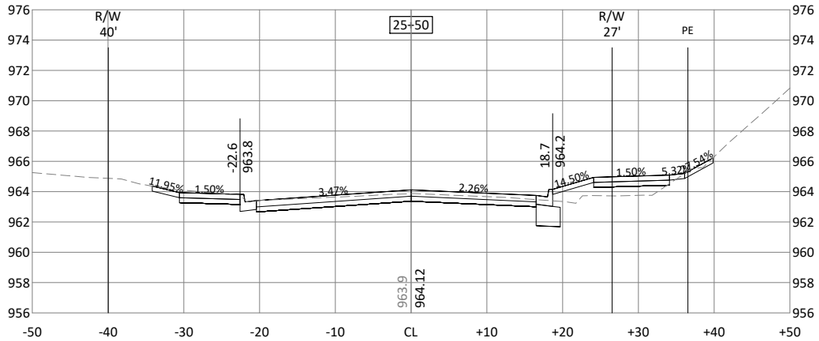
NO.	ISSUED FOR	DATE

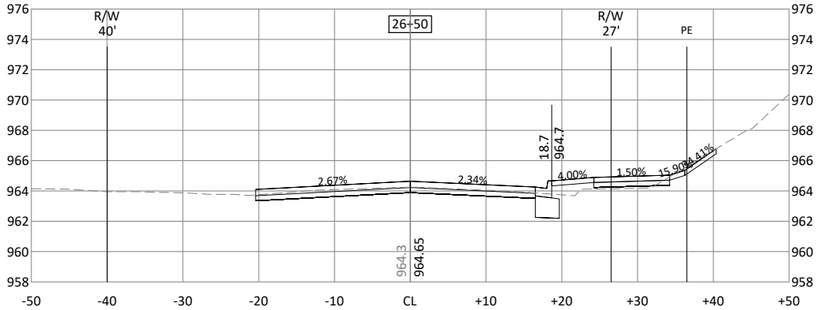
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

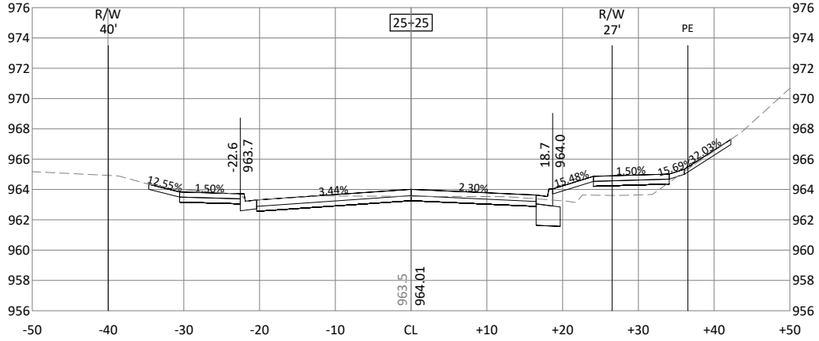
C8.11
113
OF
129

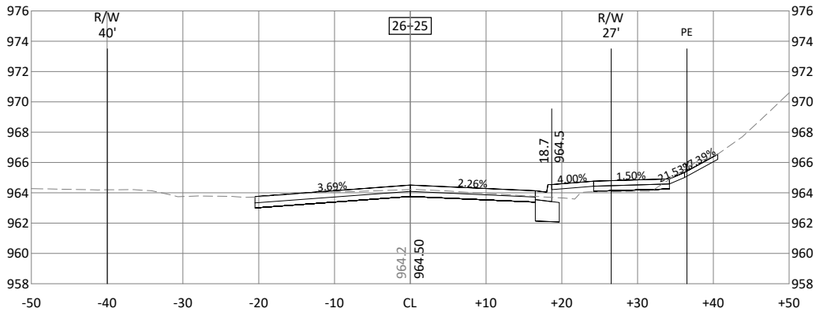


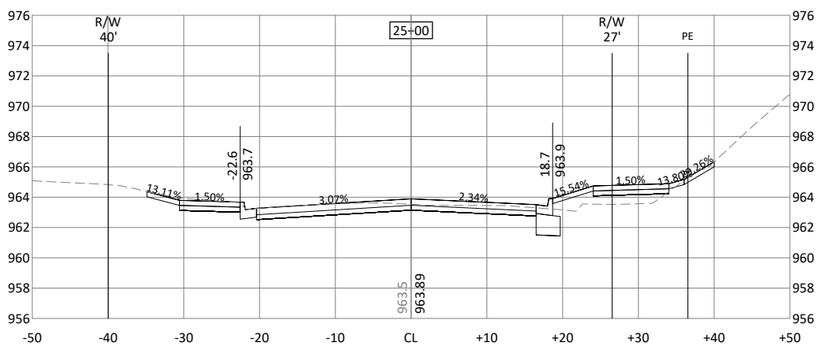


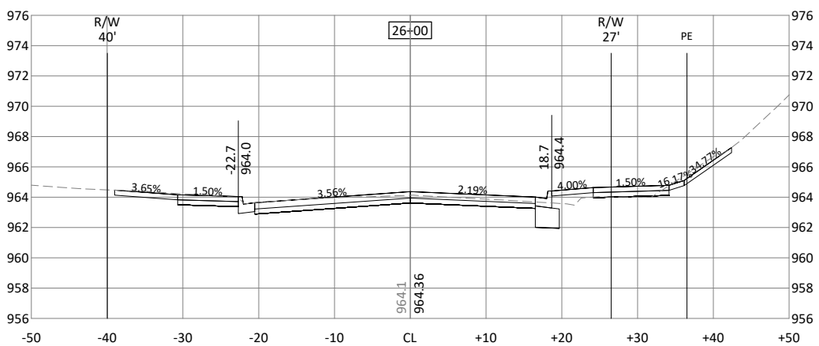












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City of Plymouth

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CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

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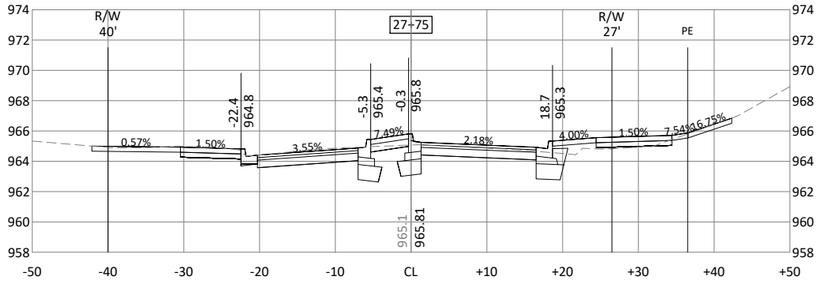
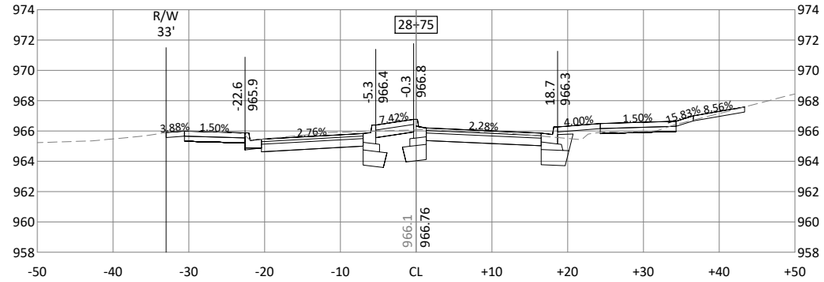
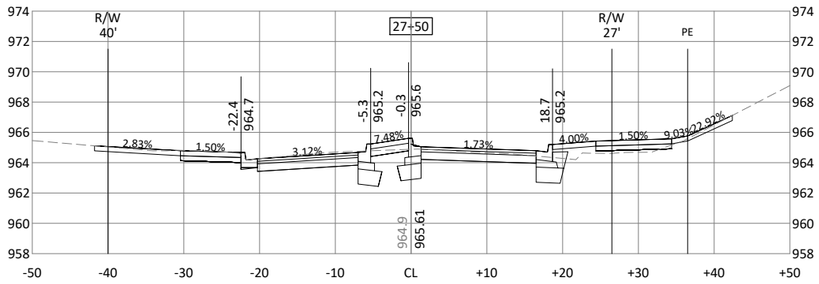
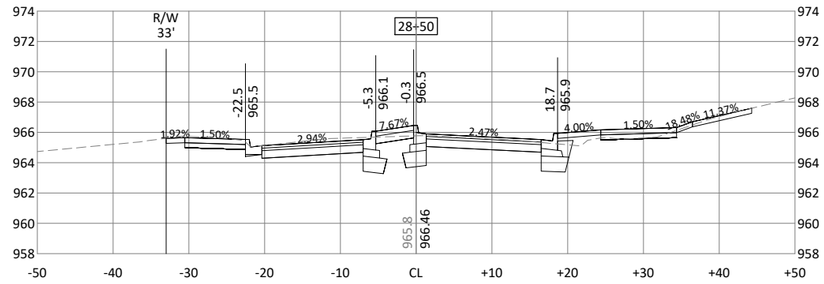
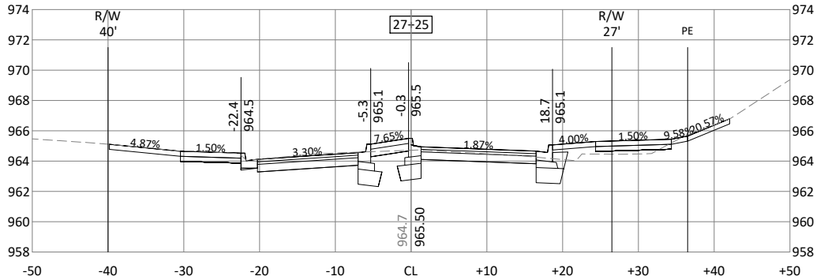
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

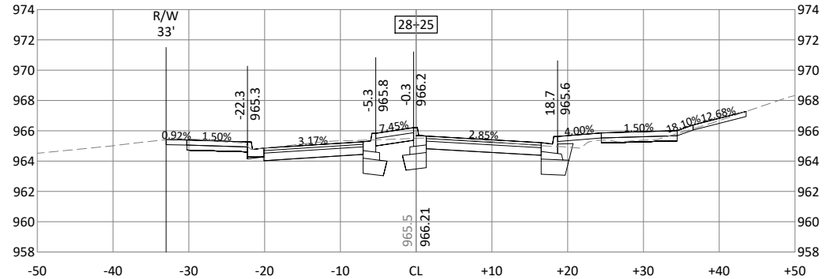


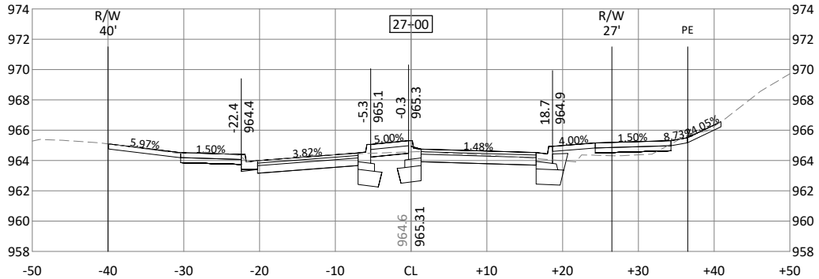


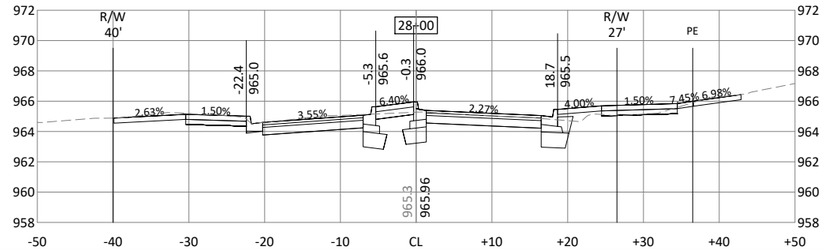












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City of Plymouth

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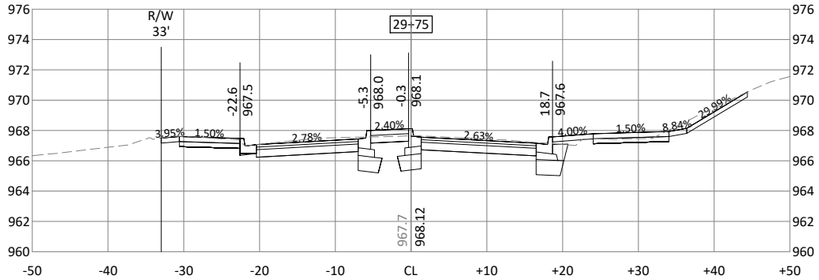
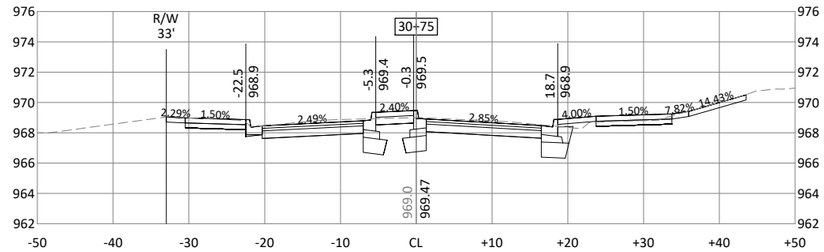
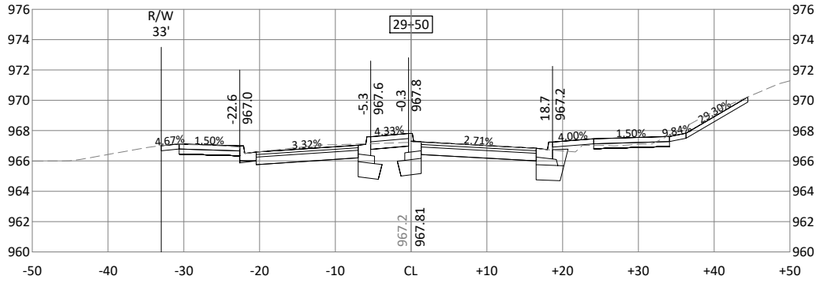
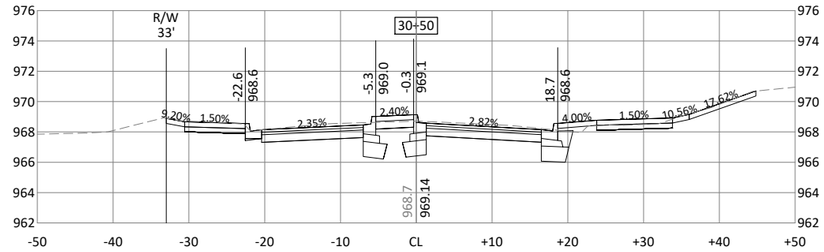
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

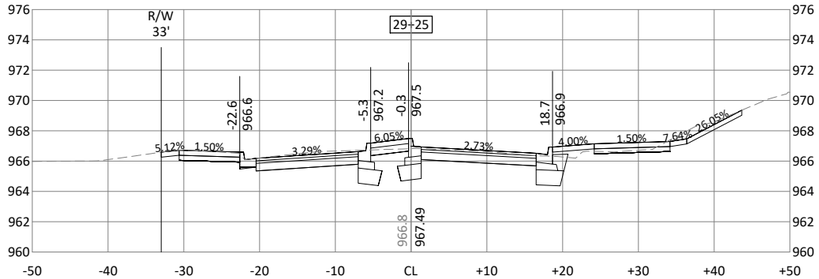
C8.13
115
OF
129

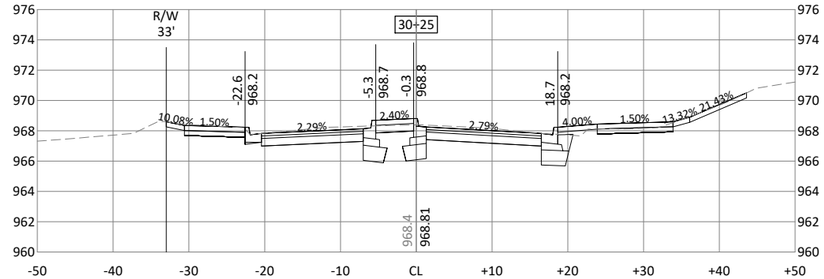


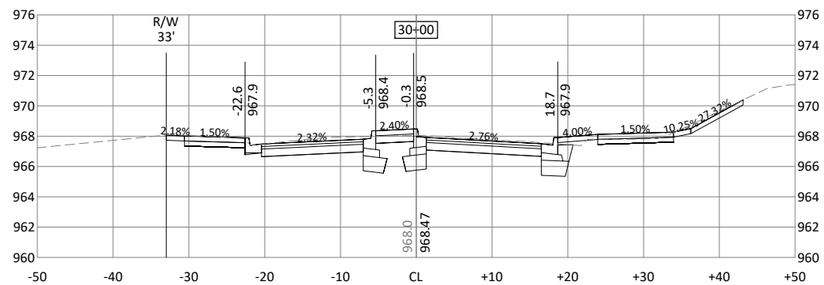












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LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

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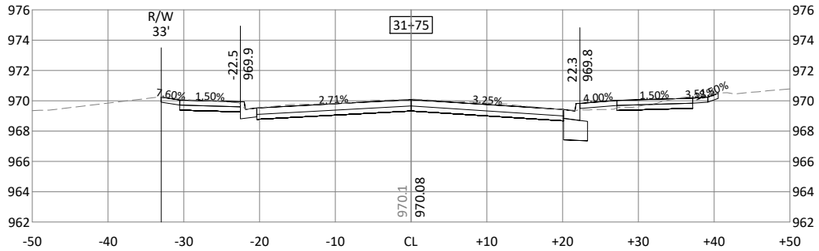
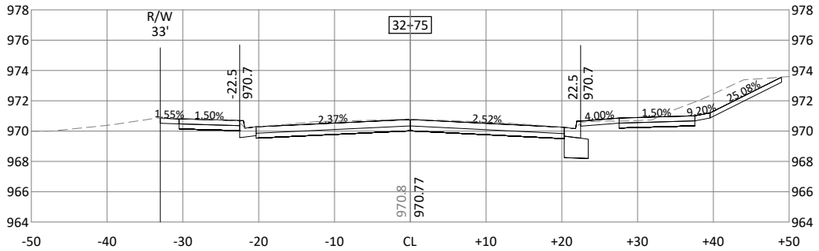
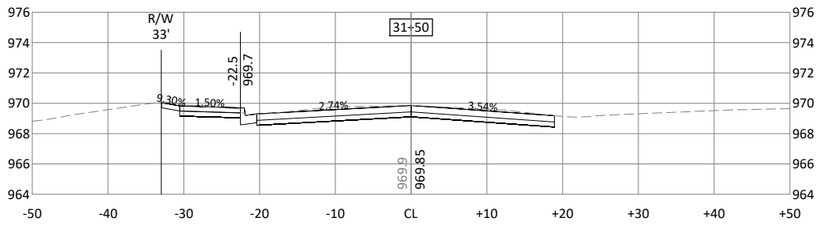
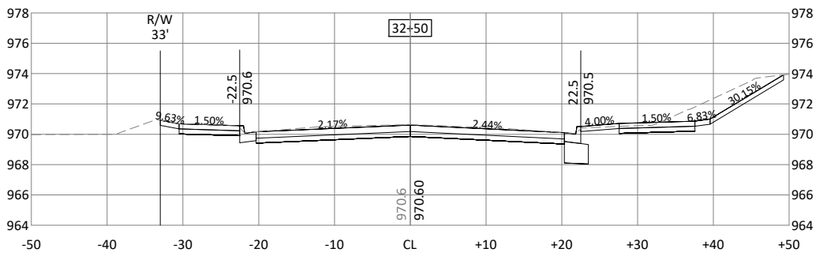
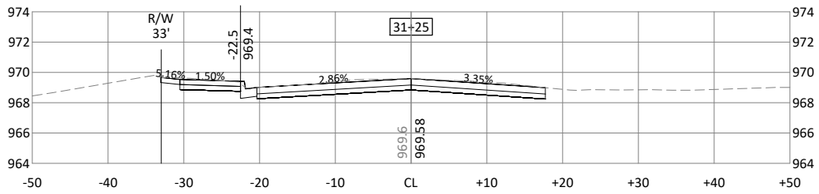
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

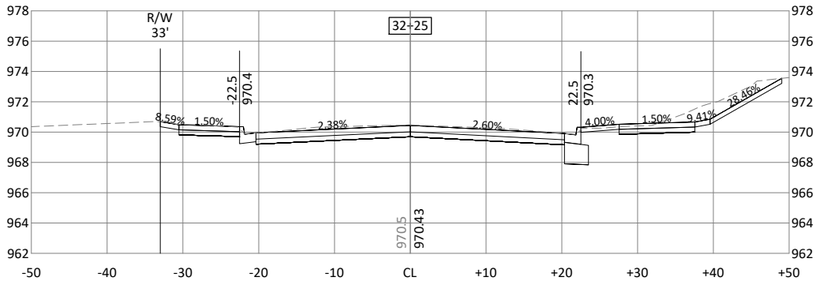


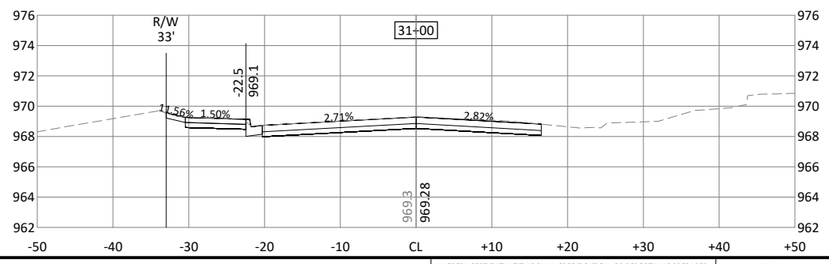


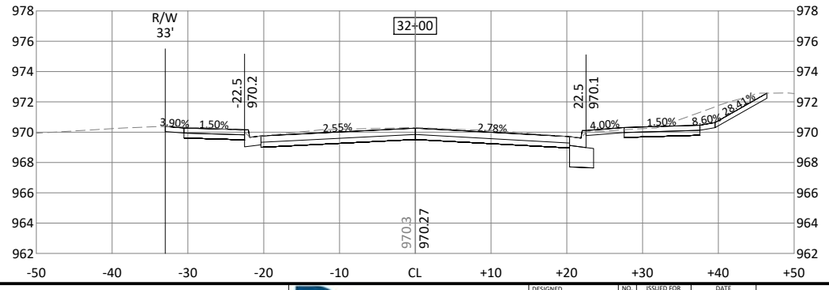












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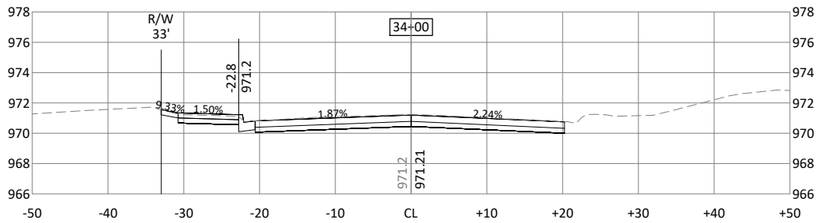
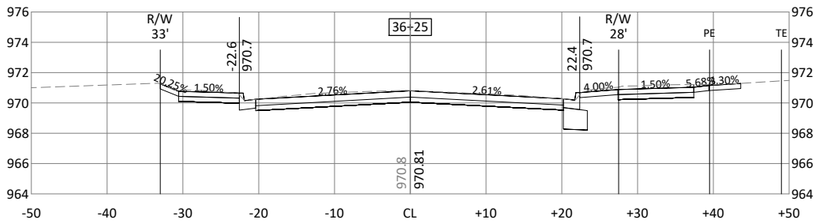
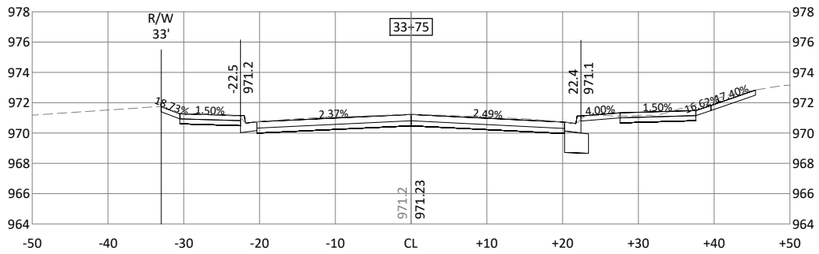
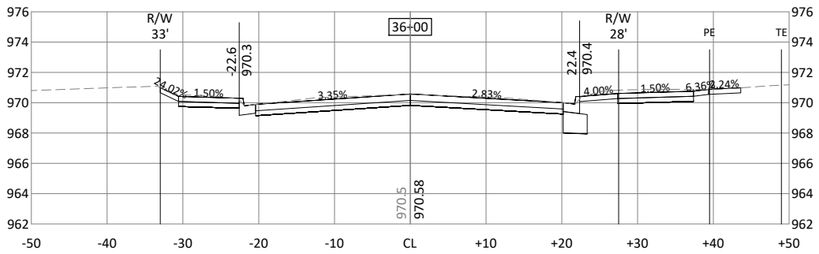
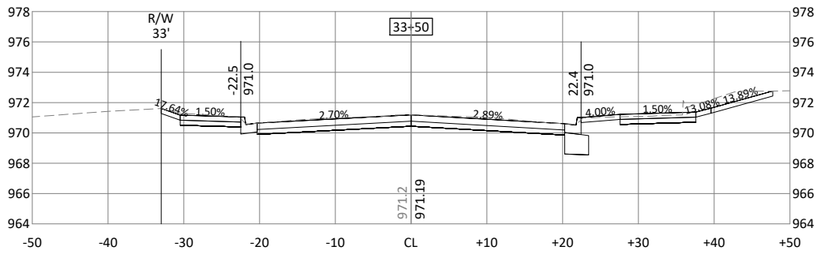
CROSS SECTIONS
36TH AVENUE

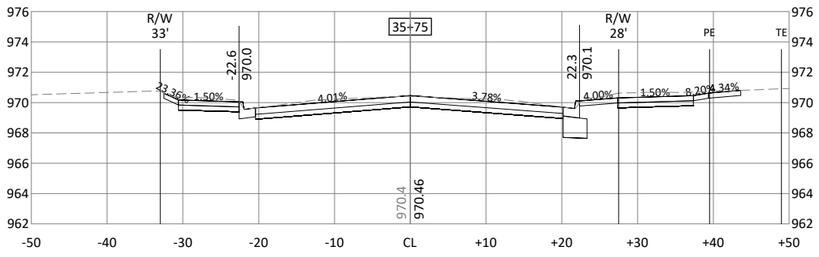


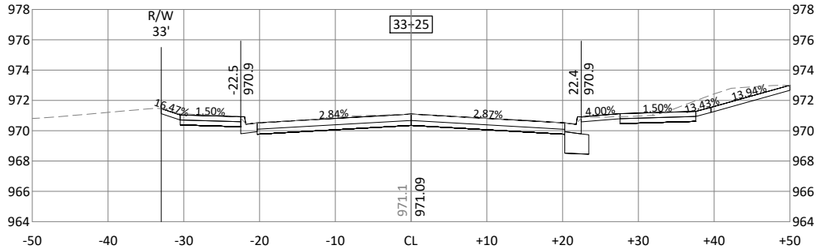


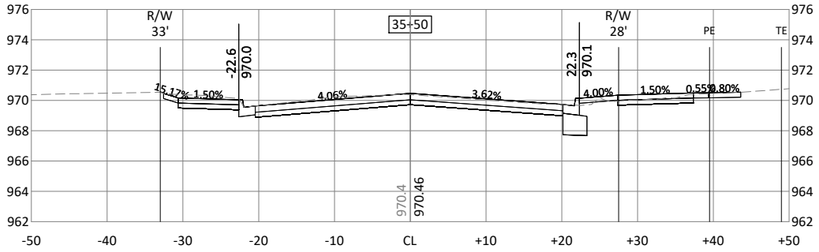


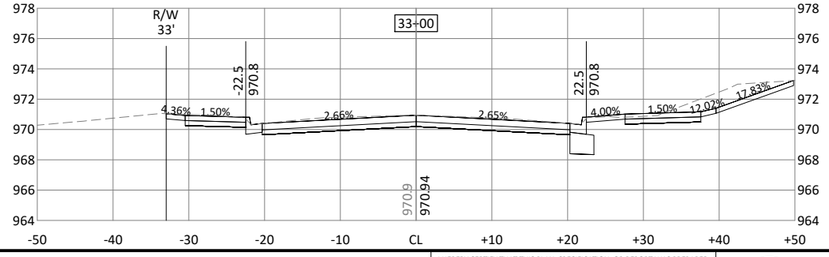


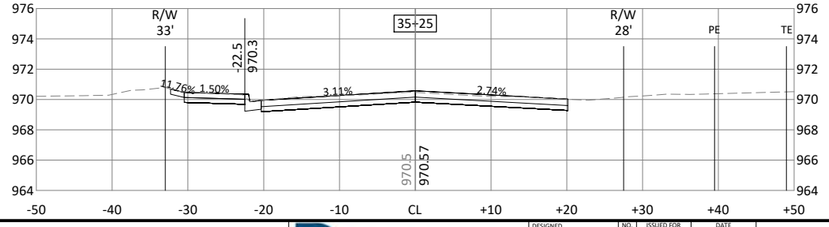












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City of Plymouth

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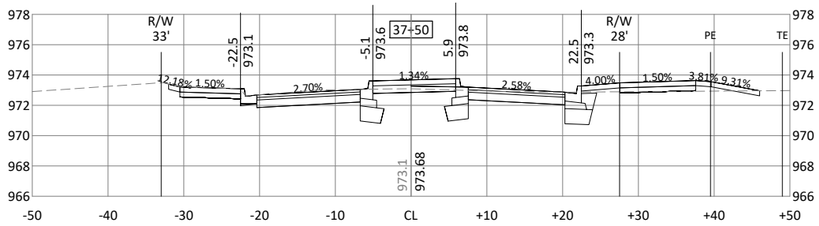
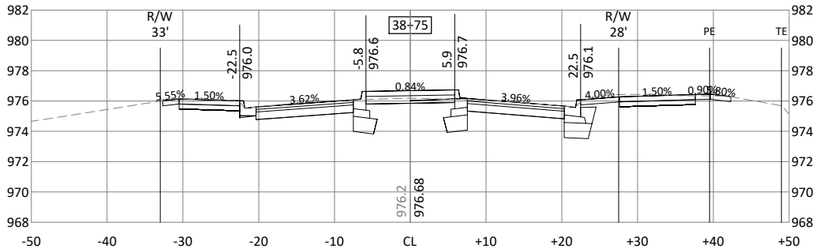
CLIENT PROJ. NO.	ST250002

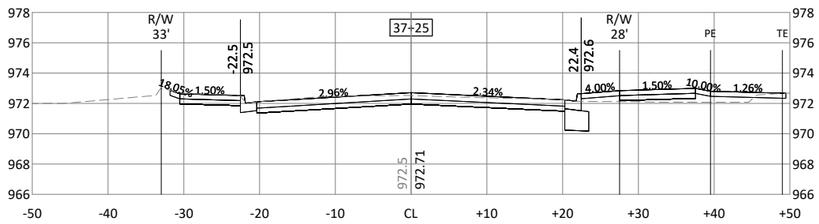
NO.	ISSUED FOR	DATE

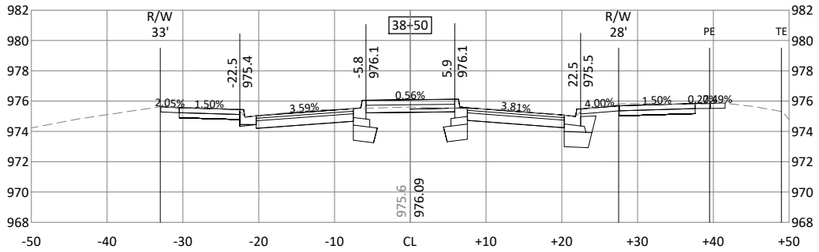
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

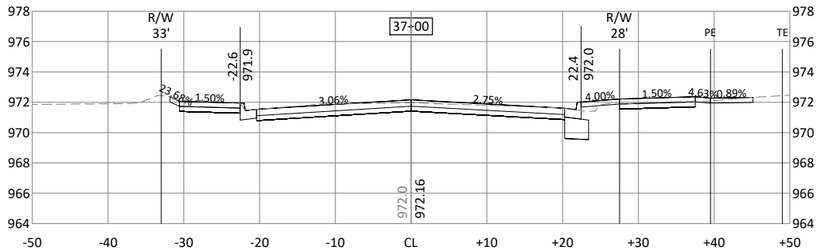
C8.16
118
OF
129

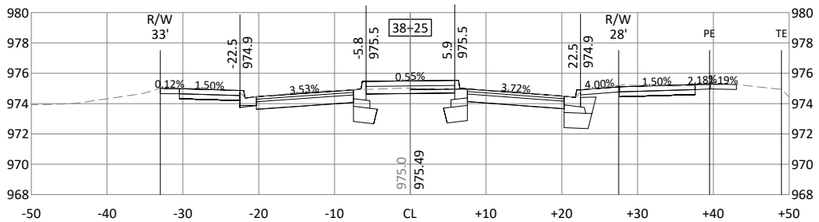


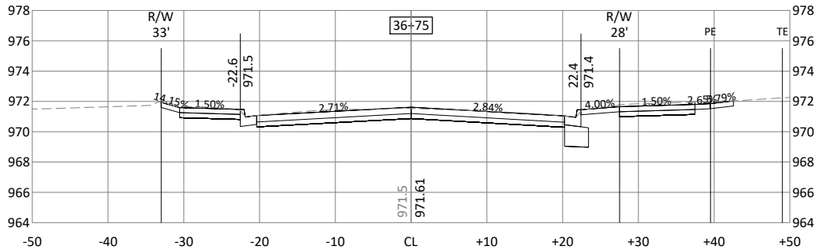


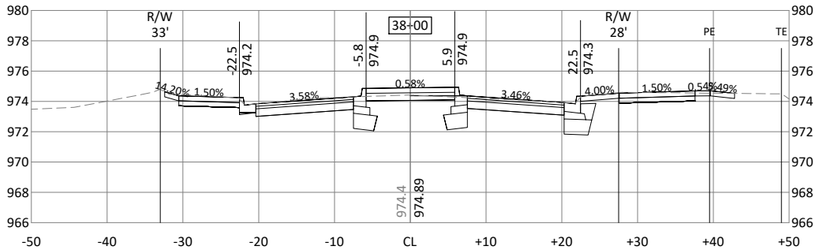


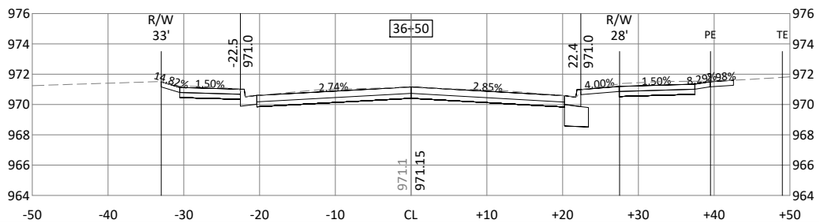


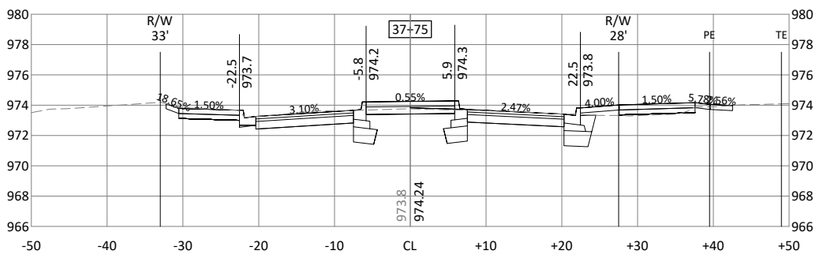












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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36TH AVENUE REHABILITATION
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36TH AVENUE

C8.17
119
OF
129

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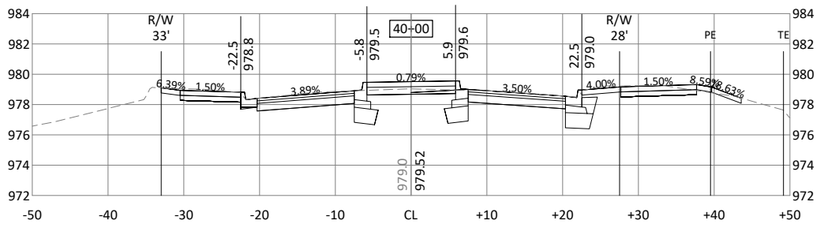

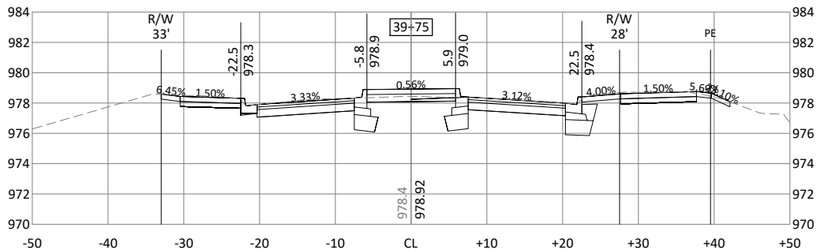

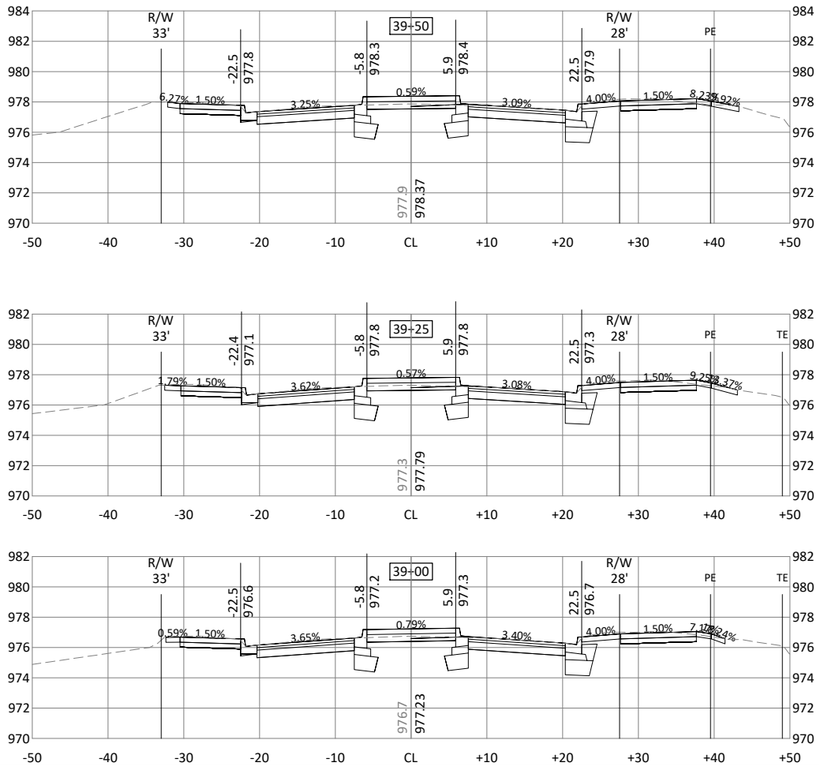

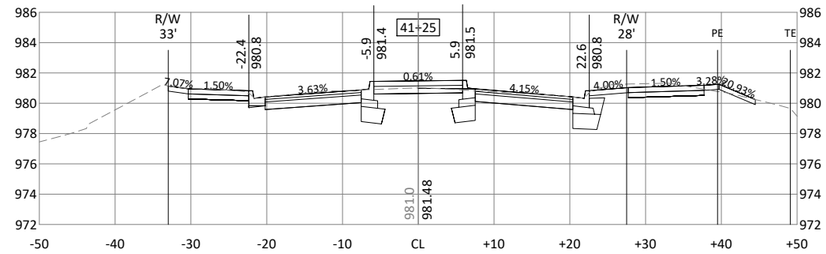

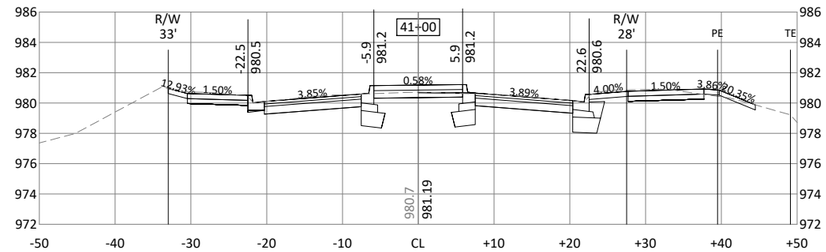

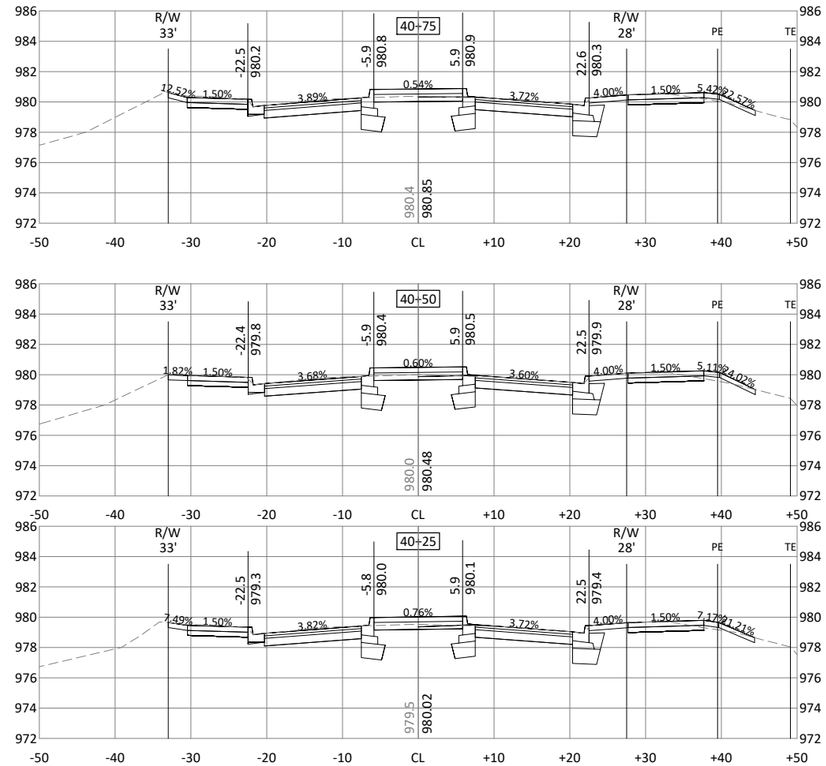

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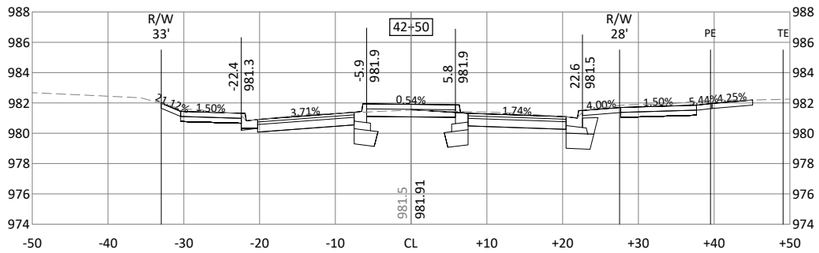

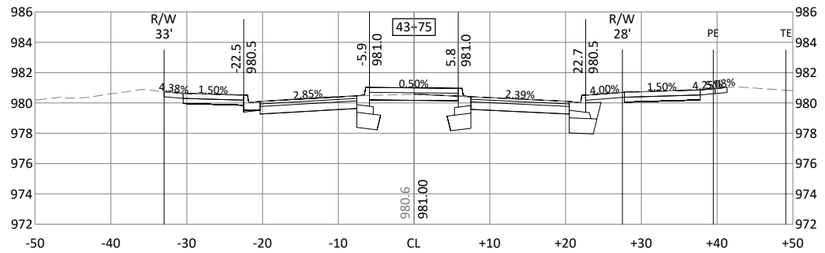

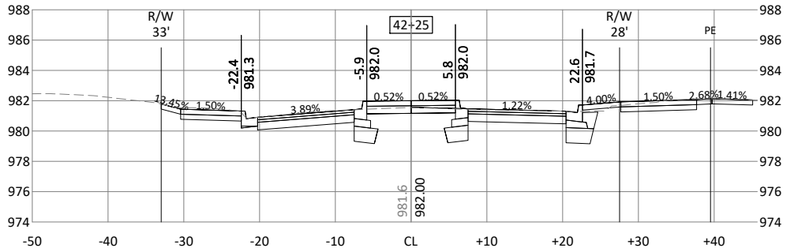

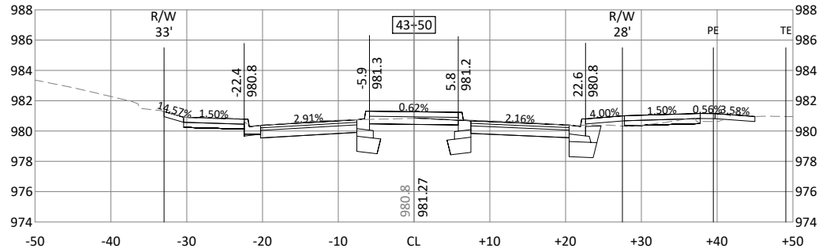

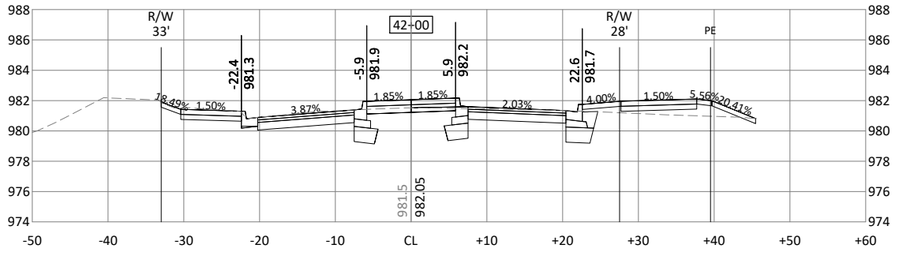

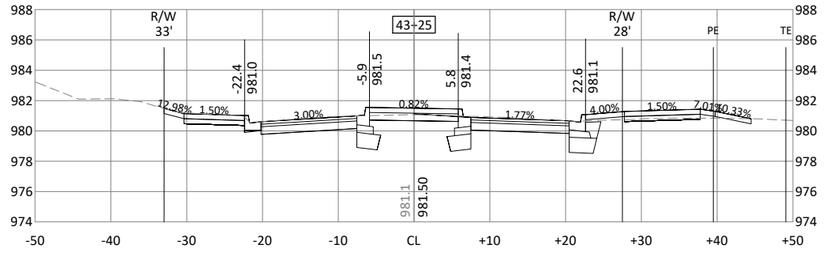

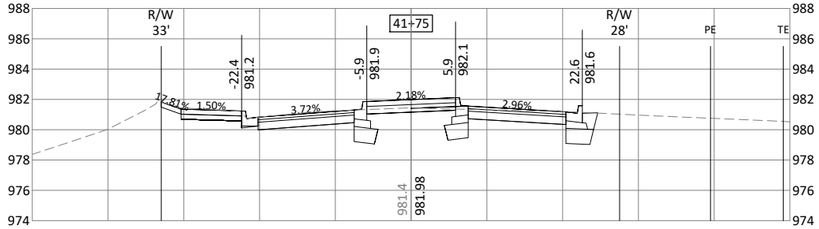

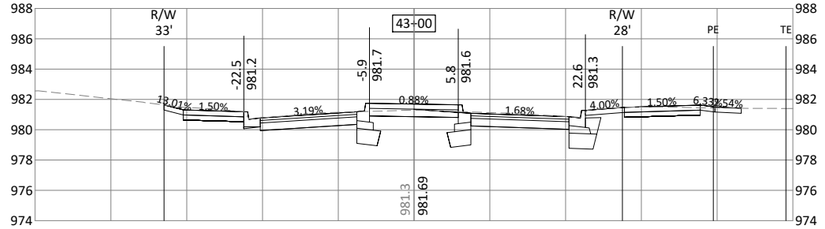

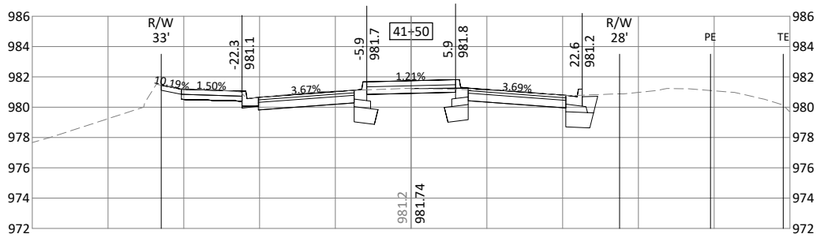

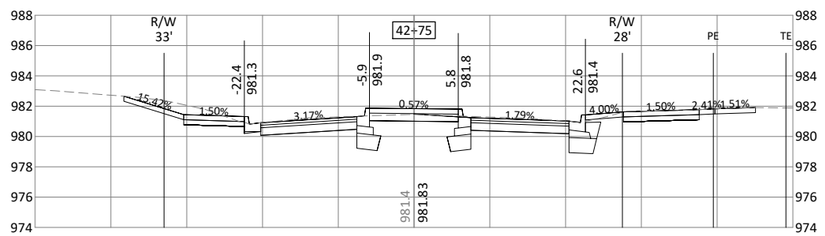

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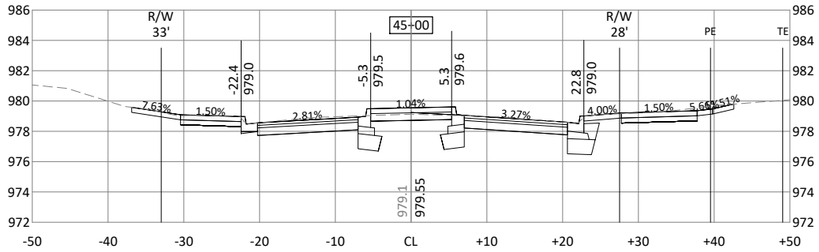

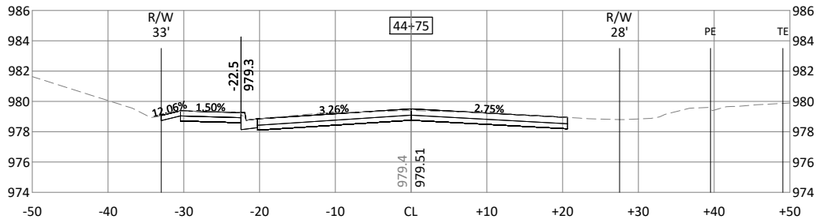

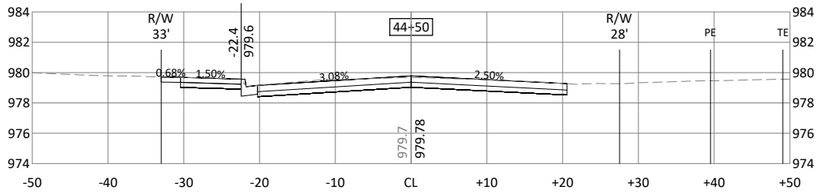

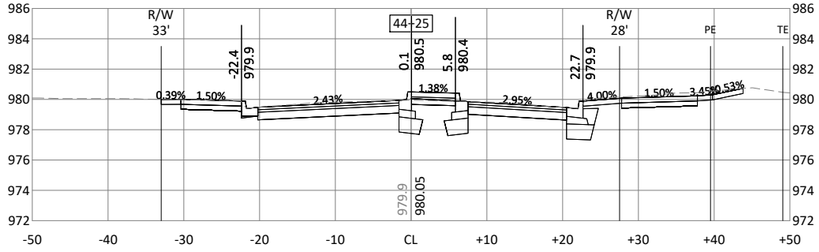

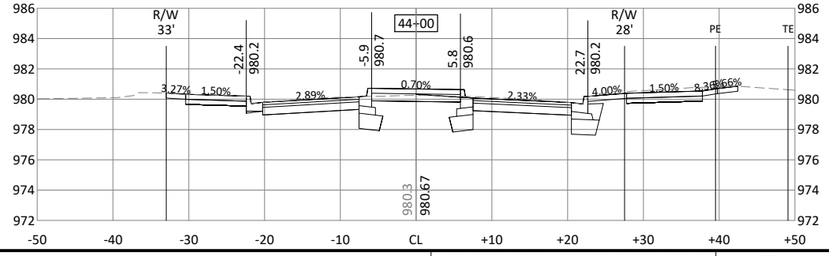

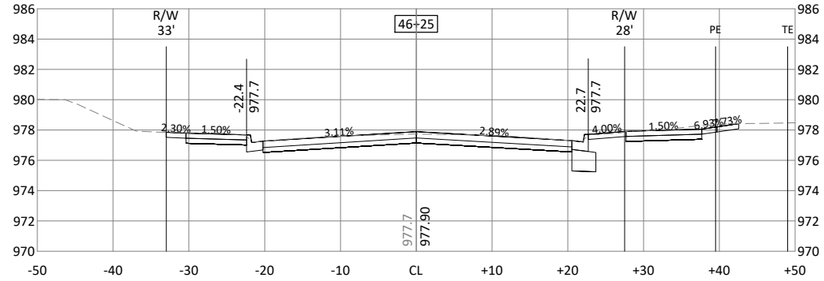

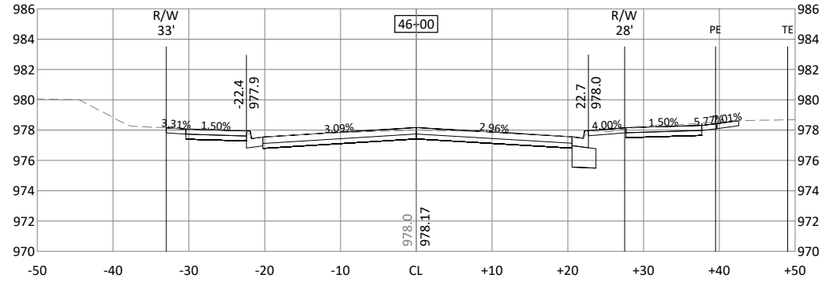

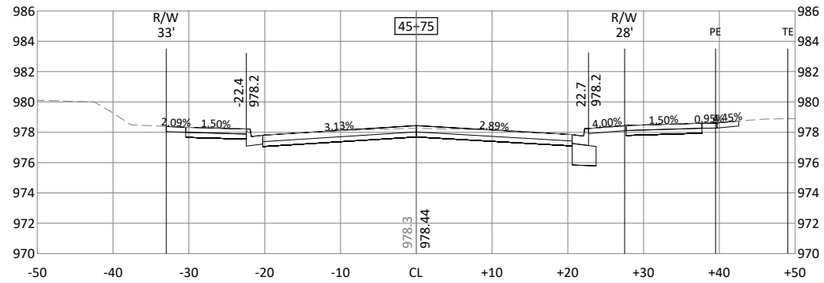

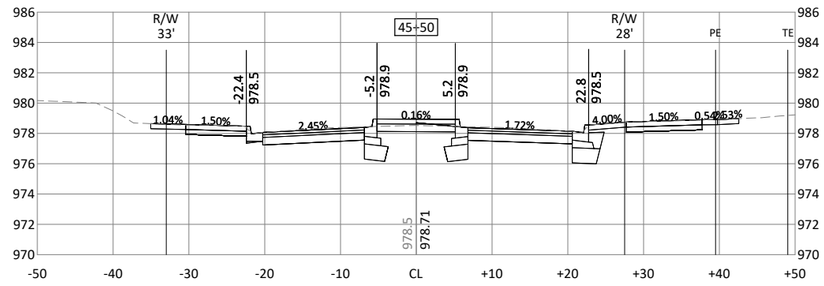

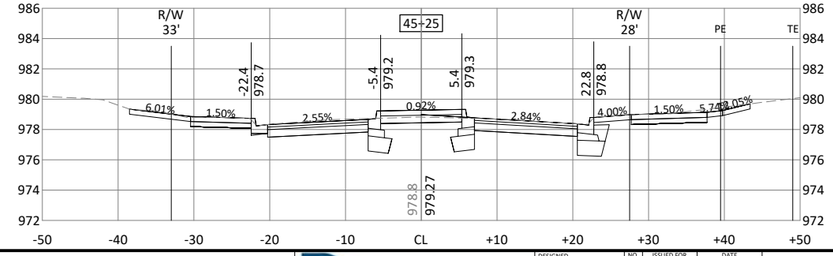

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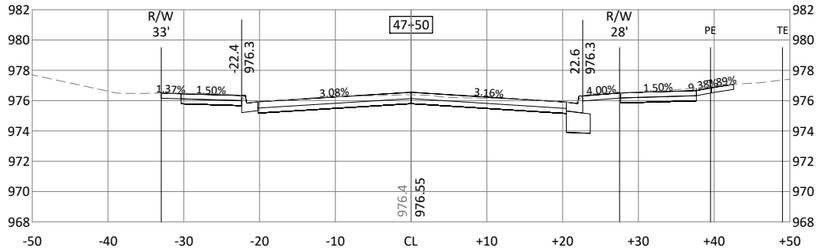

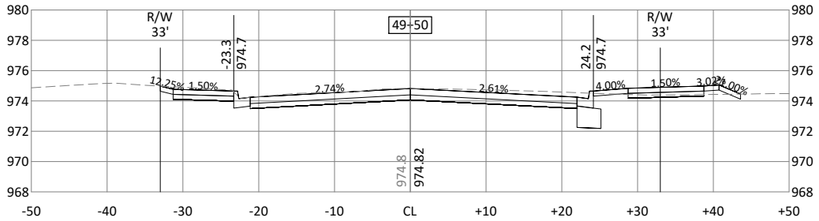

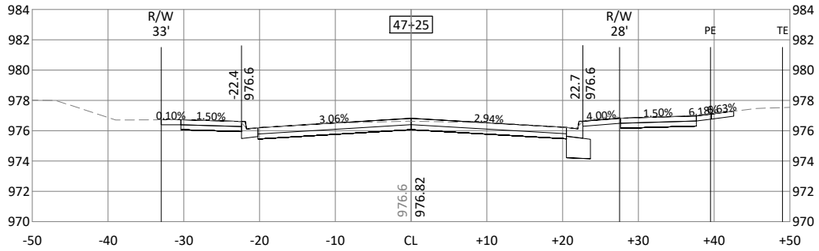

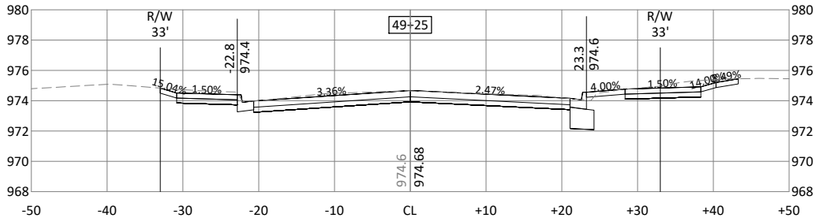

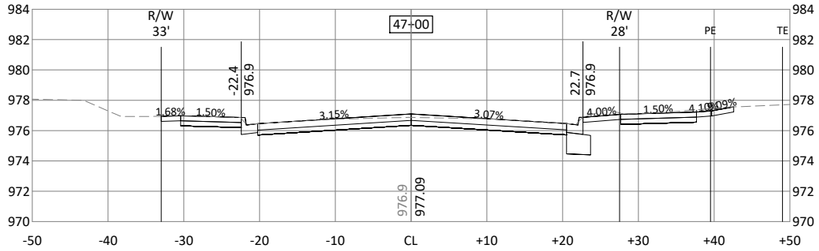

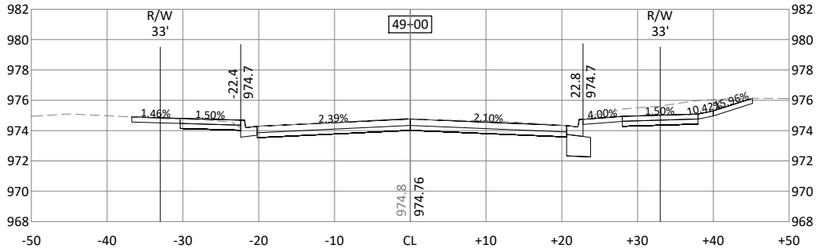

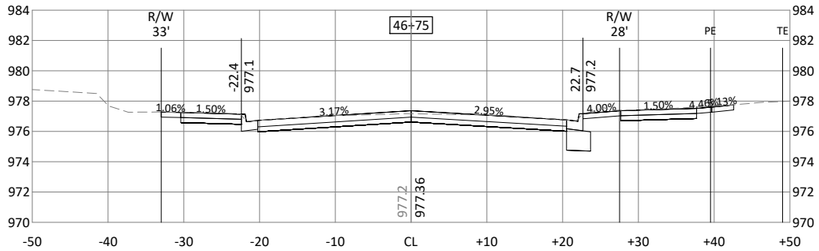

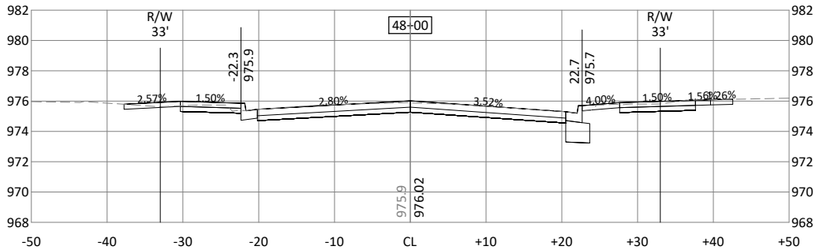

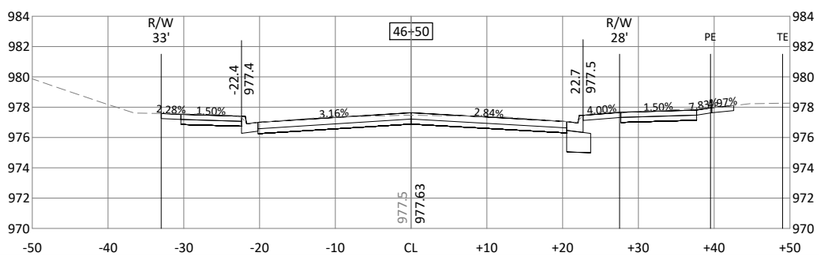

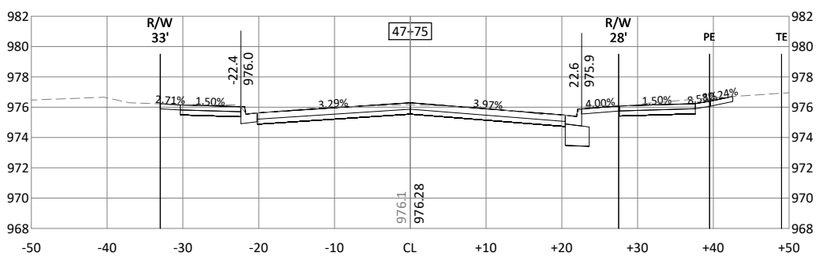

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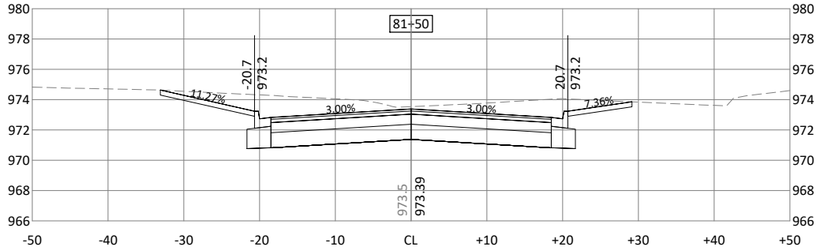
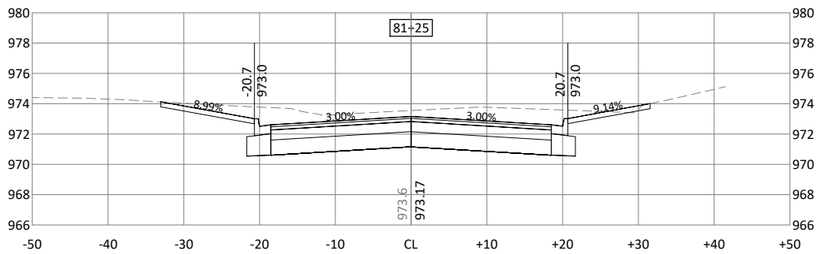
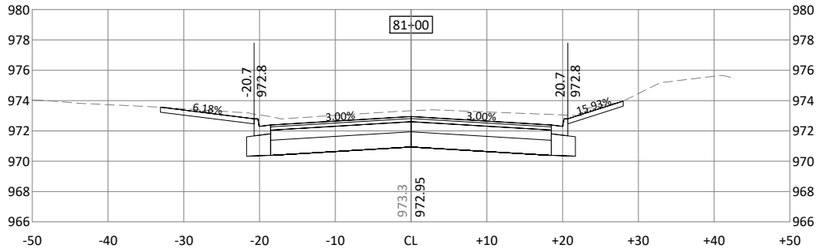
CLIENT PROJ. NO.	ST250002

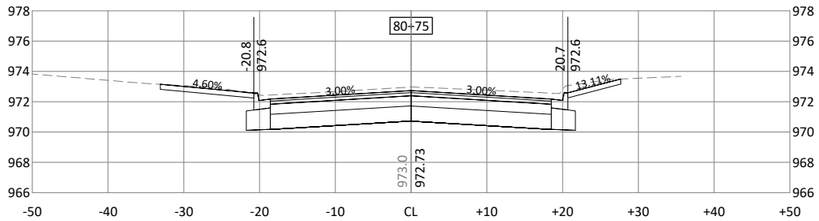
NO.	ISSUED FOR	DATE

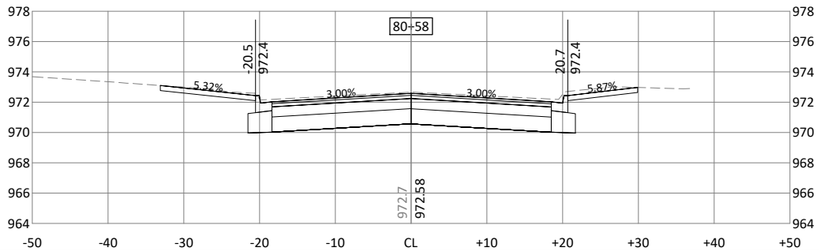
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
36TH AVENUE

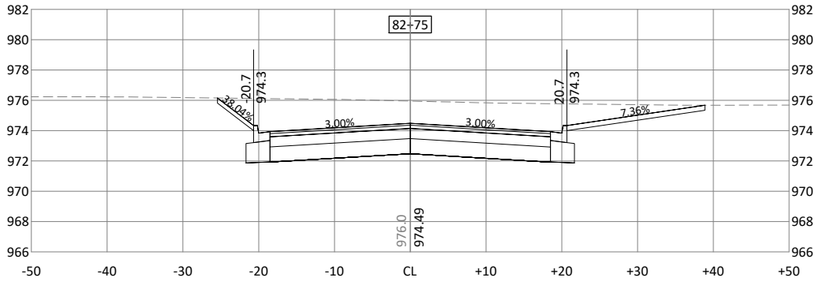


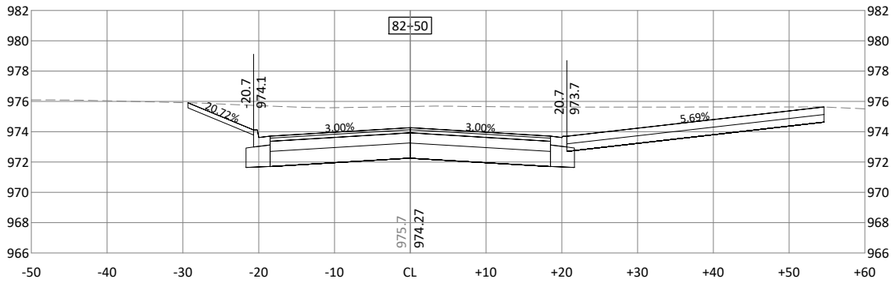


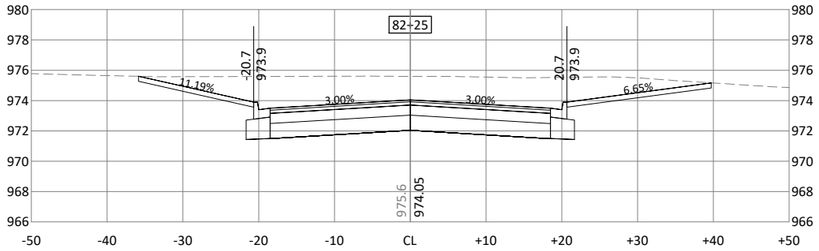


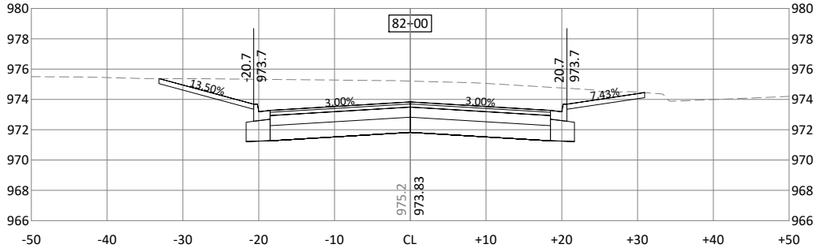


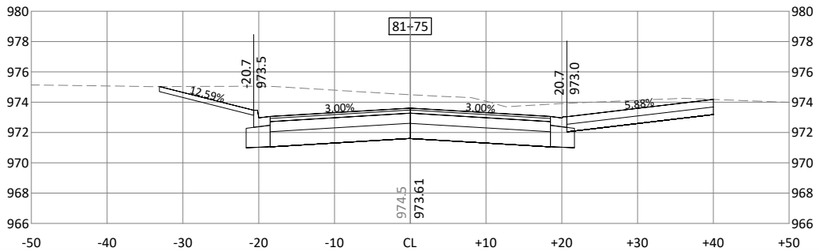












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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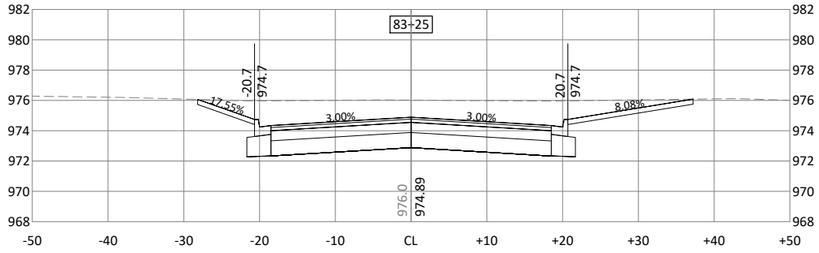
www.bolton-menk.com

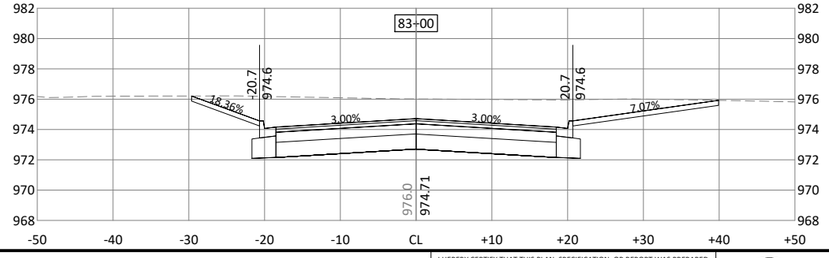
City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
KILMER LANE





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City of Plymouth

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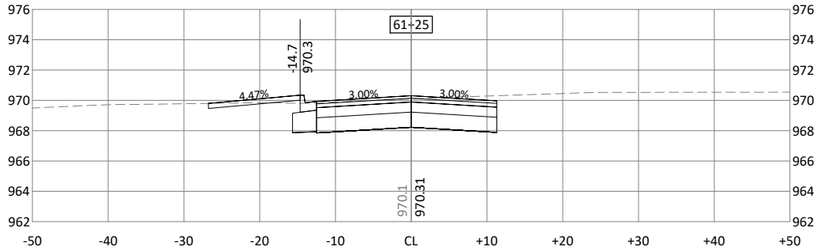
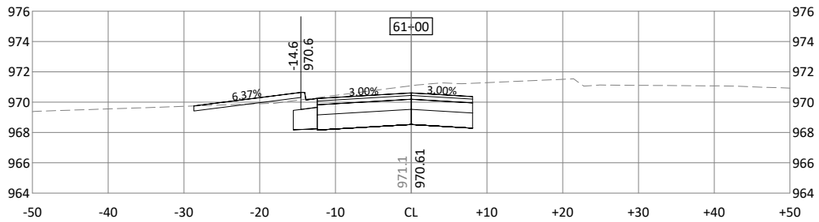
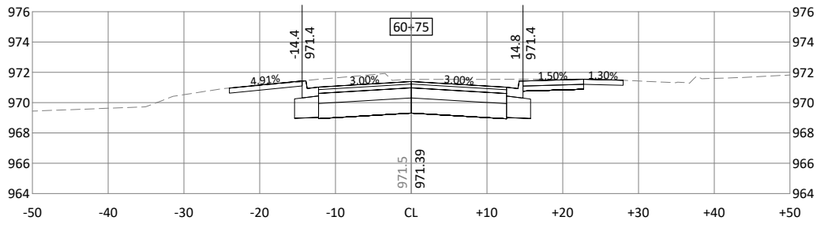
NO.	ISSUED FOR	DATE

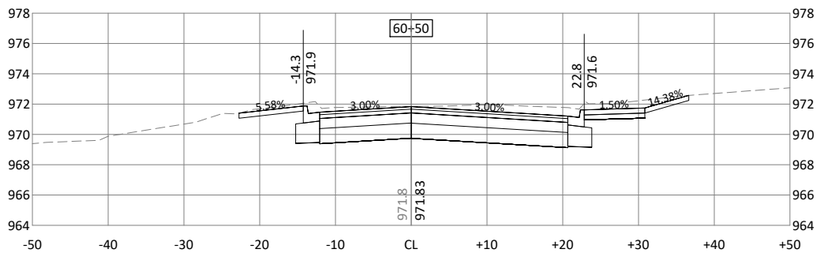
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
KILMER LANE

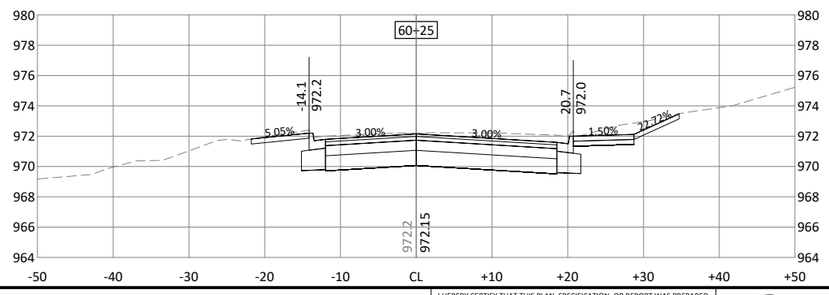
C8.23
125
OF
129

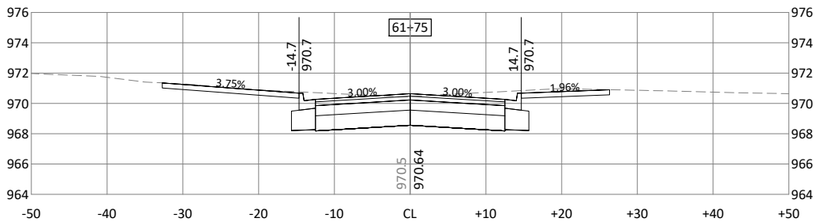


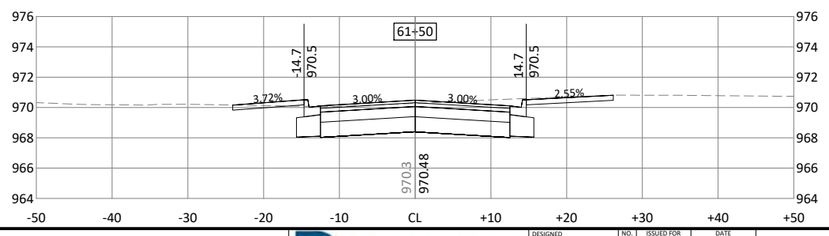












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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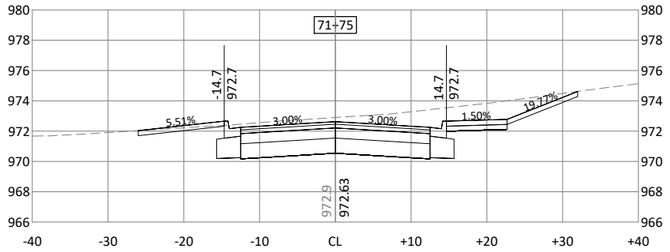
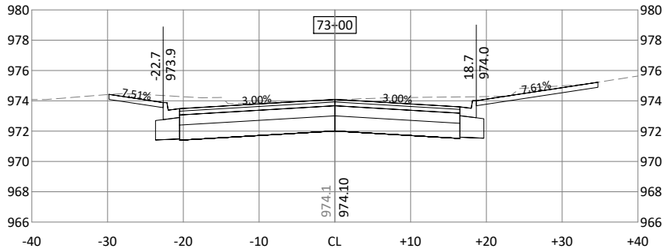
CLIENT PROJ. NO.	ST250002

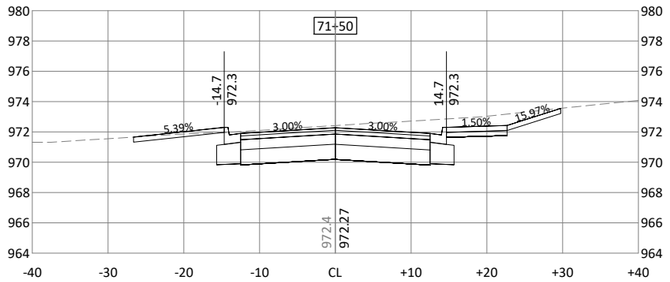
NO.	ISSUED FOR	DATE

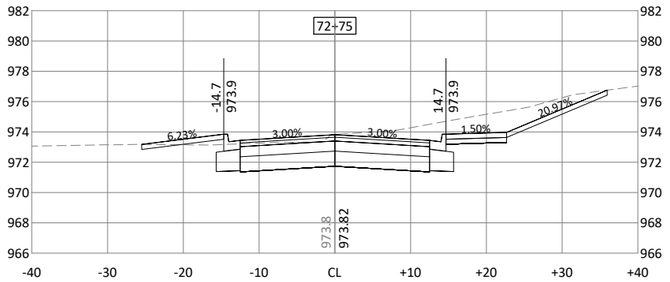
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
MIDDLE SCHOOL ENTRANCE

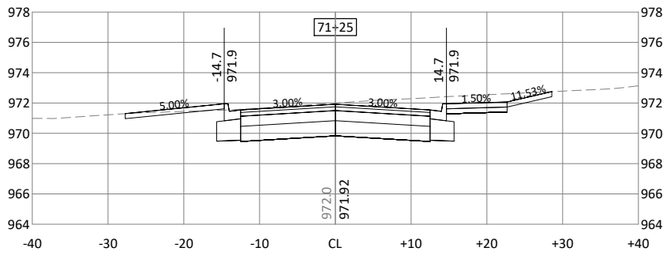
C8.24
126
OF
129

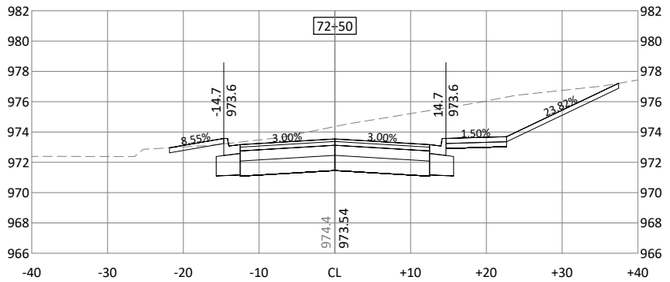


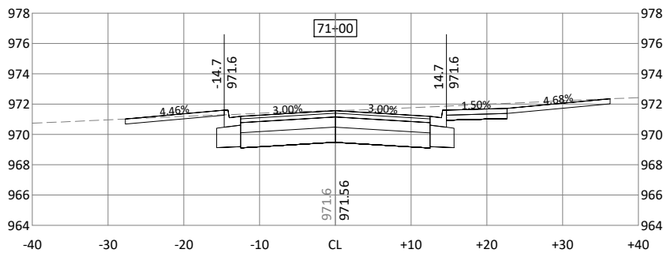


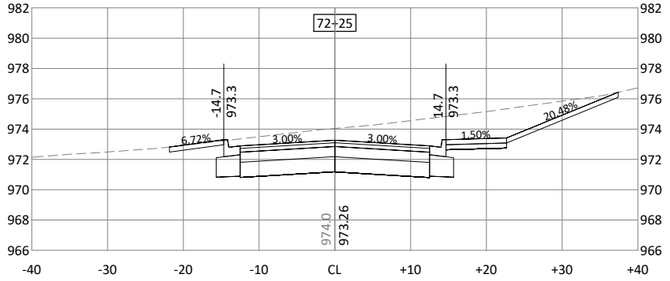


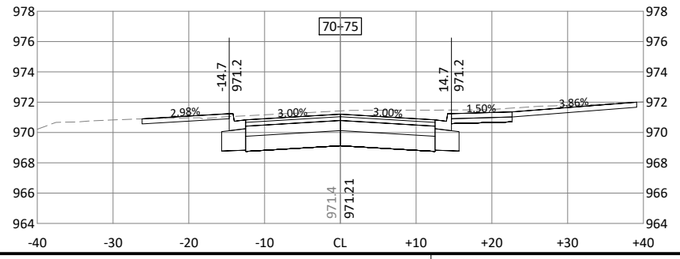


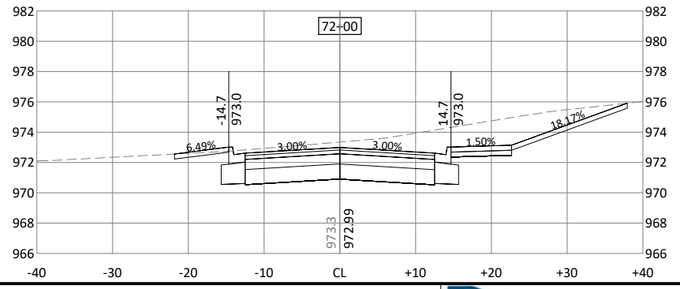












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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

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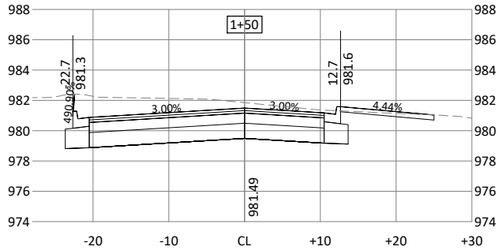
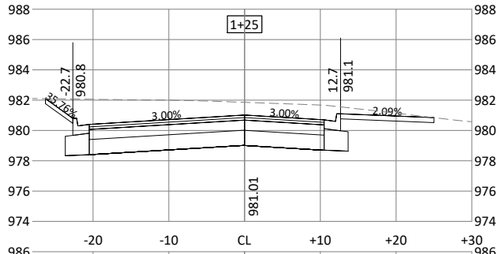
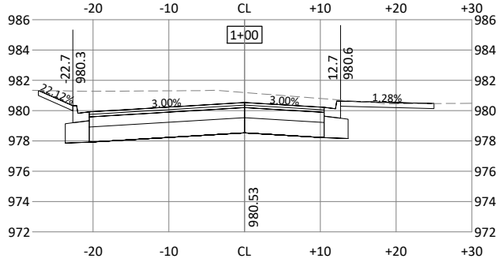
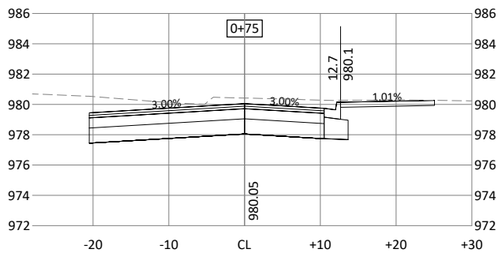
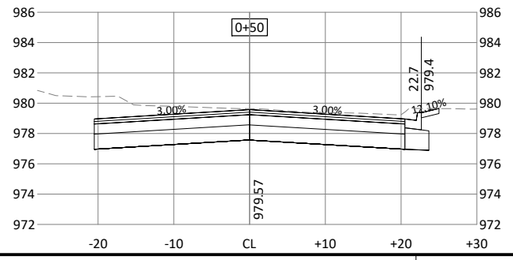
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
MIDDLE SCHOOL ENTRANCE TO STAFF PARKING LOT

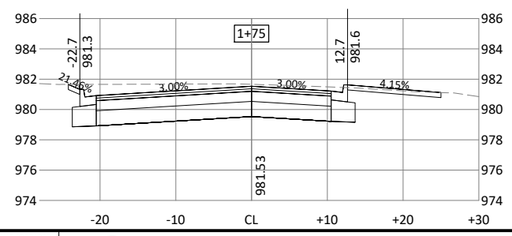












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NICHOLAS J. AMATUCCIO
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City of Plymouth

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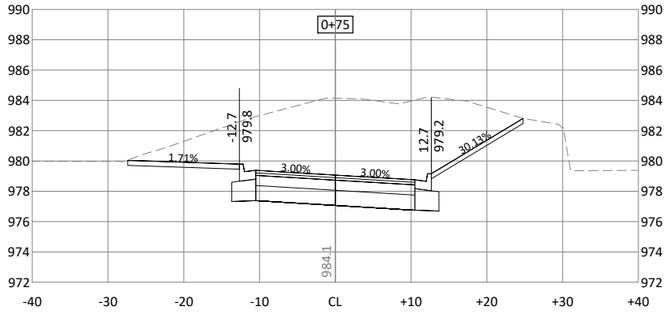
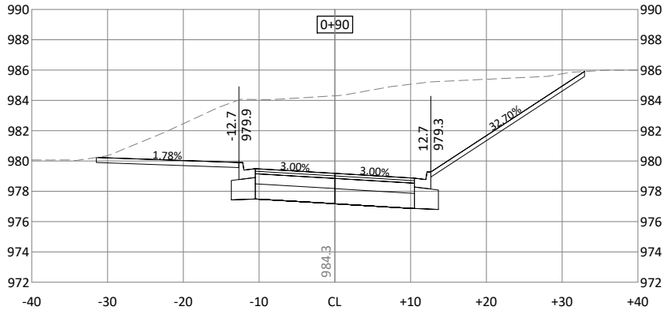
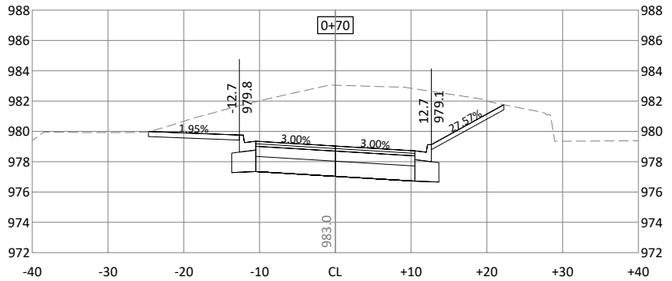
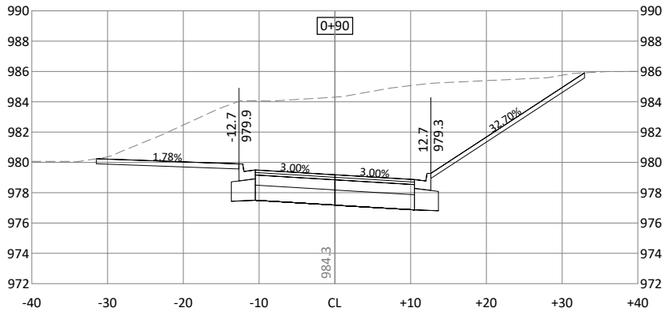
NO.	ISSUED FOR	DATE

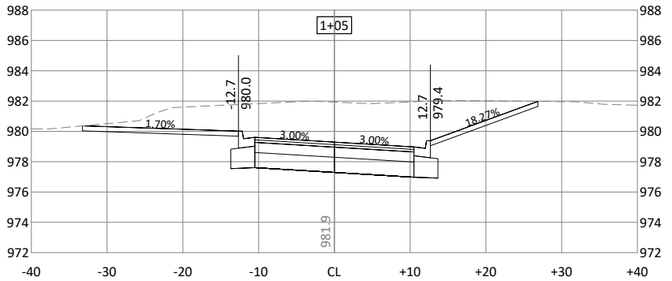
CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
STAFF TO PARENT PARKING LOT

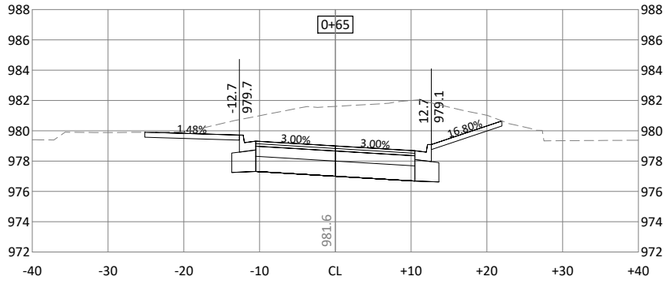


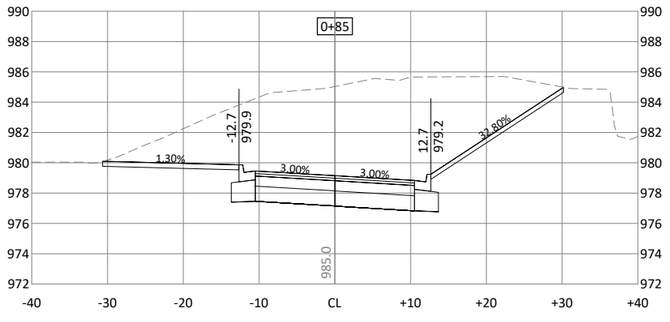


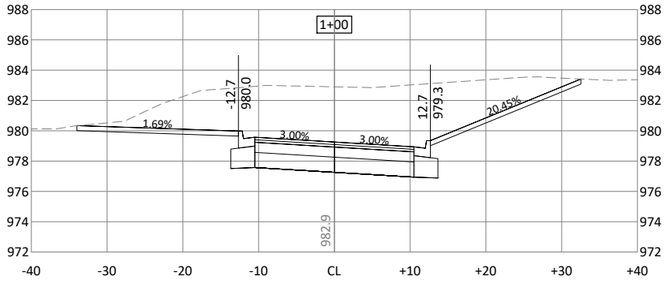


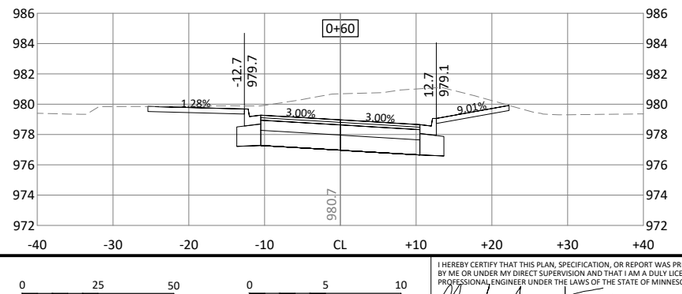


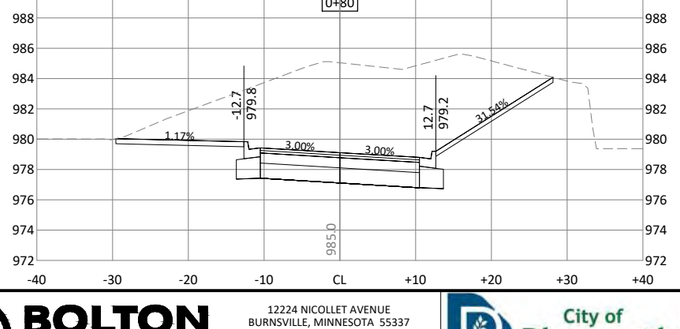


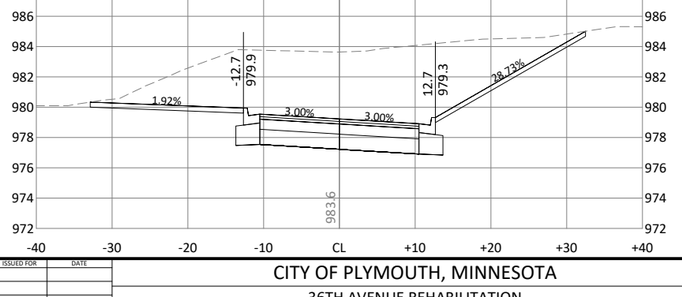












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HORZ. SCALE 0 25 50 FEET

VERT. SCALE 0 5 10 FEET

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/28/2025

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City of Plymouth

DESIGNED	JW
DRAWN	JW
CHECKED	NA/MW
CLIENT PROJ. NO.	ST250002

NO.	ISSUED FOR	DATE

CITY OF PLYMOUTH, MINNESOTA
36TH AVENUE REHABILITATION
CROSS SECTIONS
CUL-DE-SAC TO PARENT PARKING LOT

C8.27
129
OF
129