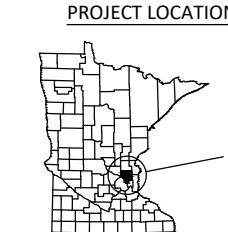


**MINNESOTA DEPARTMENT
OF TRANSPORTATION
CITY OF FRIDLEY
ANOKA COUNTY,
MINNESOTA**
**2022 STREET REHABILITATION
PROJECT NO. ST2022-01**

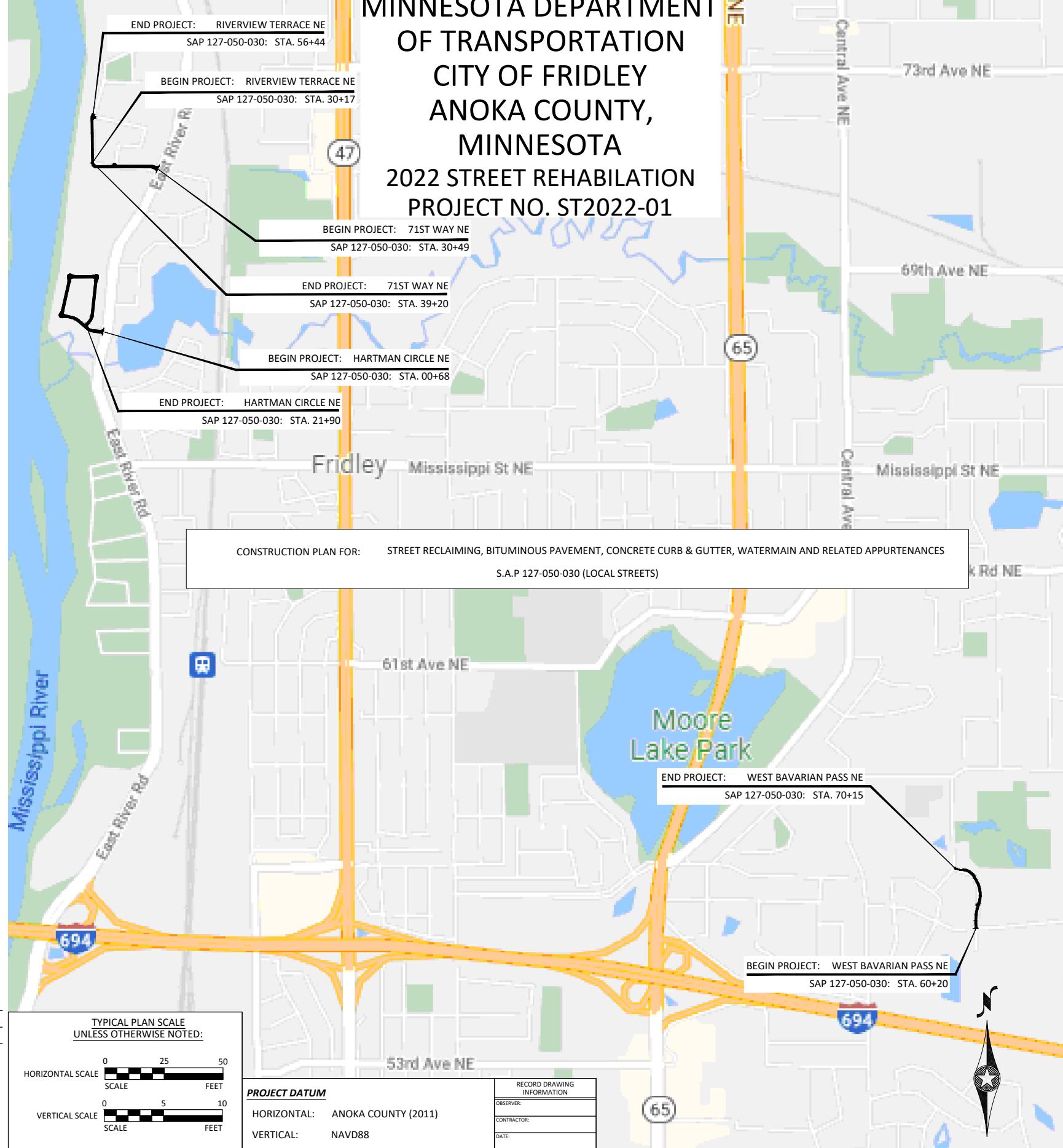
HARTMAN CIRCLE NE	(MSA 050)
STA. 00+68 TO STA. 21+90	
FUNTIONAL CLASSIFICATION	LOCAL
R-VALUE	50
NO. OF TRAFFIC LANES	2
NO. OF BIKING LANES	N/A
ADT (PRESENT YEAR) 2022	300
ADT (PROJECTED YEAR) 2042	330
HCADT (PROJECTED YEAR) 2042	3.84%
DESIGN SPEED	SPEED LOCALLY CONTROLLED
DESIGN LOAD	9 ton
GROSS LENGTH	2,152 FEET (0.41 MILES)
71ST WAY NE	(MSA 050)
STA. 30+49 TO STA. 39+20	
FUNTIONAL CLASSIFICATION	LOCAL
R-VALUE	50
NO. OF TRAFFIC LANES	2
NO. OF BIKING LANES	N/A
ADT (PRESENT YEAR) 2022	800
ADT (PROJECTED YEAR) 2042	880
HCADT (PROJECTED YEAR) 2042	3.86%
DESIGN SPEED	SPEED LOCALLY CONTROLLED
DESIGN LOAD	9 ton
GROSS LENGTH	903 FEET (0.17 MILES)
RIVerview TERRACE NE	(MSA 050)
STA. 50+00 TO STA. 56+44	
FUNTIONAL CLASSIFICATION	LOCAL
R-VALUE	50
NO. OF TRAFFIC LANES	2
NO. OF BIKING LANES	N/A
ADT (PRESENT YEAR) 2022	250
ADT (PROJECTED YEAR) 2042	275
HCADT (PROJECTED YEAR) 2042	3.84%
DESIGN SPEED	SPEED LOCALLY CONTROLLED
DESIGN LOAD	9 ton
GROSS LENGTH	644 FEET (0.12 MILES)
WEST BAVARIAN PASS NE	(MSA 050)
STA. 60+20 TO STA. 70+15	
FUNTIONAL CLASSIFICATION	LOCAL
R-VALUE	50
NO. OF TRAFFIC LANES	2
NO. OF BIKING LANES	N/A
ADT (PRESENT YEAR) 2022	1,200
ADT (PROJECTED YEAR) 2042	1,320
HCADT (PROJECTED YEAR) 2042	3.88%
DESIGN SPEED	SPEED LOCALLY CONTROLLED
DESIGN LOAD	9 ton
GROSS LENGTH	994 FEET (0.19 MILES)

:\\\Engineer\\Projects\\2022\\ST2022-01\\Design\\Drawings\\Sheets\\2022-01-TR-1.dwg 5/23/2022 8:21:34 AM



CITY: FRIDLEY
COUNTY: ANOKA
DISTRICT: METRO

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."



Know what's below.
Call 811 before you dig.



7071 University Avenue NE
Fridley, MN 55432

DESIGNED BY	ISSUED FOR	DATE
BJB		
DRAWN BY		
checked		
JPK		
CLIENT PROJ. NO.		
ST2022-01		

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
STATE AID PROJECT NO. 127-050-030

1
OF
30

--- GOVERNING SPECIFICATIONS ---
THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATION FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM AND BE INSTALLED IN ACCORDANCE
WITH THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD) AND
PART VI, "FIELD MANUAL" FOR TEMPORARY TRAFFIC CONTROL DEVICES.

THE 2013 EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA "STANDARD UTILITY
SPECIFICATIONS" SHALL GOVERN.

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."

SHEET NUMBER	SHEET TITLE
GENERAL	
1	TITLE SHEET
2	LEGEND
3	GENERAL PROJECT NOTES
4	STATEMENT OF ESTIMATED QUANTITIES
5 - 6	QUANTITY TABULATIONS
7 - 9	LOCATION PLAN
CIVIL	
10 - 13	EXISTING CONDITIONS & REMOVAL PLAN
14 - 16	CONSTRUCTION DETAILS
17 - 18	TYPICAL SECTIONS
19 - 20	STORMWATER POLLUTION PREVENTION PLAN
21 - 27	CONSTRUCTION PLANS
28 - 30	SIGNALS PLANS

THIS PLAN SET CONTAINS 30 SHEETS.


JAMES P. KOSLCHAR, P.E.
CITY OF FRIDLEY PUBLIC WORKS DIRECTOR/CITY ENGINEER
Design Engineer: I hereby certify that this plan was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Date 05/10/2022 License Number 26460

05/23/22

Approved: Anoka County Engineer Date _____

District State Aid Engineer: Review for compliance with State Aid Rules/Policy Date _____

Approved for State Aid Funding: State Aid Engineer Date _____

EXISTING TOPOGRAPHIC SYMBOLS

ACCESS GRATE	REGULATION STATION GAS
AIR CONDITION UNIT	SATELLITE DISH
ANTENNA	SIGN TRAFFIC
AUTO SPRINKLER CONNECTION	SIGNAL CONTROL CABINET
BARRICADE PERMANENT	SOIL BORING
BASKETBALL POST	SIREN
BENCH	TELEPHONE BOOTH
BIRD FEEDER	TILE INLET
BOLLARD	TILE OUTLET
BUSH	TILE RISER
CATCH BASIN RECTANGULAR CASTING	TRANSFORMER-ELECTRIC
CATCH BASIN CIRCULAR CASTING	TREE-CONIFEROUS
CURB STOP	TREE-DEAD
CLEAN OUT	TREE-DECIDUOUS
CLVT CULVERT END	TREE STUMP
DRINKING FOUNTAIN	TRAFFIC ARM BARRIER
DOWN SPOUT	TRAFFIC SIGNAL
FILL PIPE	TRASH CAN
FIRE HYDRANT	UTILITY MARKER
FLAG POLE	VALVE
FLARED END / APRON	VALVE POST INDICATOR
FUEL PUMP	VALVE VAULT
GRILL	VENT PIPE
GUY WIRE ANCHOR	WATER SPIGOT
HANDHOLE	WELL
HANDICAP SPACE	WETLAND DELINEATED MARKER
IRRIGATION SPRINKLER HEAD	WETLAND
IRRIGATION VALVE BOX	WET WELL
LIFT STATION CONTROL PANEL	YARD HYDRANT

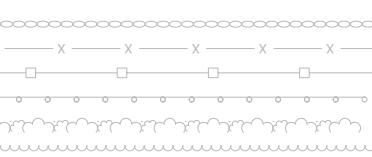
PROPOSED TOPOGRAPHIC SYMBOLS

● 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

⊕ BENCH MARK LOCATION
◇ CONTROL POINT
● MONUMENT IRON FOUND
◎ CAST IRON MONUMENT

EXISTING TOPOGRAPHIC LINES



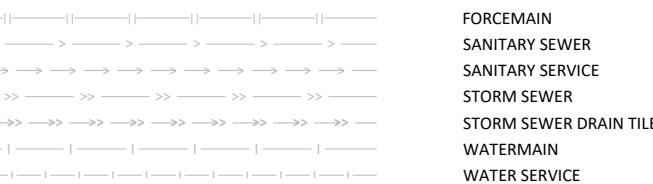
RETAINING WALL
FENCE
FENCE-DECORATIVE
GUARD RAIL
TREE LINE
BUSH LINE

SURVEY LINES



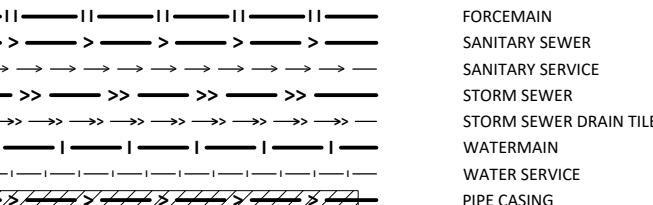
CONTROLLED ACCESS
BOUNDARY
CENTERLINE
EXISTING EASEMENT LINE
PROPOSED EASEMENT LINE
EXISTING LOT LINE
PROPOSED LOT LINE
EXISTING RIGHT-OF-WAY
PROPOSED RIGHT-OF-WAY
SETBACK LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
TEMPORARY EASEMENT

EXISTING UTILITY LINES



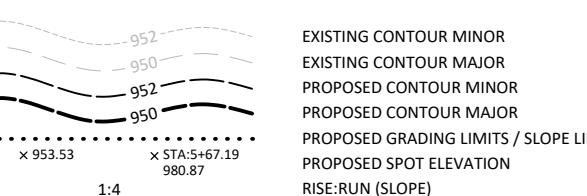
FORCEMAIN
SANITARY SEWER
SANITARY SERVICE
STORM SEWER
STORM SEWER DRAIN TILE
WATERMAIN
WATER SERVICE

PROPOSED UTILITY LINES



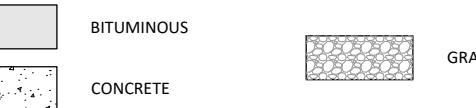
FORCEMAIN
SANITARY SEWER
SANITARY SERVICE
STORM SEWER
STORM SEWER DRAIN TILE
WATERMAIN
WATER SERVICE

GRADING INFORMATION



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

HATCH PATTERNS



GRAVEL

EXISTING PRIVATE UTILITY LINES

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"

F	F	F	F	UNDERGROUND FIBER OPTIC
E	E	E	E	UNDERGROUND ELECTRIC
G	G	G	G	UNDERGROUND GAS
C	C	C	C	UNDERGROUND COMMUNICATION
OE	OE	OE	OE	OVERHEAD ELECTRIC
OC	OC	OC	OC	OVERHEAD COMMUNICATION
OU	OU	OU	OU	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.

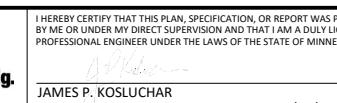
QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHoling UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

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	RCP	REINFORCED CONCRETE PIPE
F.O.	FIELD ORDER	RET	RETAINING		
GRAN	GRANULAR				



7071 University Avenue NE
Fridley, MN 55432

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
LEGEND

SHEET
2
OF
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CONTRACT ADMINISTRATION

1. The Contractor shall notify the engineer in writing 48 hours prior to commencing work on any project item. Notification shall be given per project and per item.
2. The Contractor shall provide names and contact information of the Project Manager, Superintendent and Twenty-four Hour Emergency Response contact assigned to the project prior to commencing work.
3. The Superintendent shall be on site during all utility installation, reclaim, and paving operations.
4. If the Superintendent leaves the site, The Contractor shall designate a responsible representative capable of being on site within one-hour, contact information of the representative shall be provided to the Inspector 48 hours prior to Superintendent leaving site.
5. A Project Schedule showing project phasing, intermediate project deadlines, anticipated substantial completion and final completion shall be submitted by the Contractor at the Pre-Construction meeting.
6. The Project Manager and Superintendent shall schedule and attend a meeting once a week in the office of the City Engineer to discuss project schedule, progress, and issues.
7. A report of work completed the previous week, work scheduled to be completed the current week, and any change to the overall schedule or cost shall be submitted at each weekly project meeting. See Specifications.
8. All work shall conform with local ordinances, laws and rules.

PROJECT REPRESENTATIVE: BRANDON BRODHAG, Engineering 763-238-8086

HOURS OF OPERATION

1. Hours of work are limited to 7:00 am to 7:00 pm Monday through Friday, and 9:00 am to 7:00 pm on Saturdays, unless otherwise approved by the Engineer.

UTILITIES

1. The subsurface utility information in this plan is Utility Level "D". This Utility level was determined according to the guidelines of CI/ASCE 38-02, "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data".
2. The contractor is responsible for locating and protecting all existing utilities. The Contractor shall arrange locates with Gopher State One Call prior to the start of any excavation. Below are contacts for the major utilities related to this project:
 - a. Gopher State One Call 800-252-1166 Emergency Call 811
 - b. Centerpoint Energy 612-321-5502 Emergency 888-944-4564
 - c. Xcel Energy 612-630-4568 Emergency 800-895-1999
 - d. Century Link 612-998-1920
3. In the event of an emergency related to utilities on the project Call 811. In the event of an accident or personal injury Call 911. Upon control of the emergency situation, the contractor shall contact the City within one hour of the incident. A full detailed incident report must be submitted to the Project Engineer within seven (7) days of the event.

CITY OWNED WATER

1. No water service shut-downs will be allowed for longer than 96 hours unless approved by the Engineer. See Specifications.
2. Water service shut down requests must be submitted in writing 72 hours before the planned shutdown.
3. Water will be available from a hydrant identified by the Engineer for the project. A meter is available through the City of Fridley and a security deposit will be submitted by the Contractor. See Specifications.

STAGING

1. The City will assist in identifying potential staging sites upon request, the Contractor shall be responsible to negotiate the use of these areas. See Specifications.
2. The Contractor is responsible to propose a staging area for the work. No additional storage of equipment or materials will be allowed outside of city Right of Way.

NON-CITY OWNED FACILITIES

1. All non-City of Fridley manhole castings must be salvaged and replaced. Castings shall be adjusted to match the final road surface prior to paving the bituminous wear course.
2. Metropolitan Council may provide new castings for the MCES manhole structures. If new castings are not available at the time of paving, the existing castings will be replaced on each structure.

RESIDENTIAL NOTICES & SERVICES

1. The City will notify the residents of the start of work, and final completion. Coordination of all other notifications is the responsibility of the Contractor. See Specifications.
2. The Contractor shall notify residents, and City of Fridley Water Department, of water shut-offs or installation of temporary water service for their property at least 72 hours before the shut-down.
3. The Contractor shall notify the residents of work scheduled in each phase of the project.
4. Prior to starting work on a block, the Contractor shall hand deliver a notice to each property stating the starting date of the work, the dates of closure of the street, the planned date for paving, and expected date of final completion in that area.
5. Any work that will prevent residents from reaching their driveway requires a minimum of 72 hours notice before the work begins.
6. If the contractor is to do any work outside of City Right of Way, the Contractor must obtain a written agreement with the property owner and submit agreement to The Engineer prior to the start of the work.
7. The Contractor shall provide access for mail delivery, garbage collection, and bus service. Any time this access will not be available, the Contractor will provide temporary facilities, and insure service to the residents.

8. If access to garbage and recycling trucks will not be available to an area, the Contractor shall move all waste containers to the nearest end of block before 7:00am, and return them to the respective property before the end of the day.
9. The Contractor will notify The Engineer immediately and respond to Resident complaints within one (1) hour of notification of the complaint. This will include access issues, damage to property, interruption of service, general questions, or others.

LANDSCAPING, TOPSOIL, EROSION CONTROL

1. The Contractor is responsible for protecting all trees and landscaping in the limits of construction, and of adjacent properties. Protection of landscaping shall be incidental to the work.
2. Any tree adjacent to the work requiring trimming to prevent damage to the tree will be done prior to the work, and will be incidental to the work.
3. The Contractor shall be responsible for protection of the stormwater system according to the SWPPP (Sheets 20,21) and the NPDES Construction Stormwater Permit issued by the MPCA.
4. All inlet protection and silt fence must be in place prior to the start of the work.
5. The Contractor will be responsible for all reporting required by the NPDES Permit. See Specifications.
6. Restoration of all boulevards and other project areas must be completed within 7 days of cessation of work in the area, and prior to paving the wear course bituminous surface.

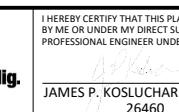
TRAFFIC CONTROL

1. The Contractor shall prepare a traffic control plan showing all signage for the project and detours required as a part of the project. The traffic control plan must be approved by the Engineer prior to any work in the project area.
2. The Contractor will be responsible for maintaining all traffic control during the project, and will be required to make changes if required.
3. All traffic control signage shall be removed within seven (7) days of completion of paving. See Specifications.

CONSTRUCTION STAKING

1. Staking - The Agency will provide one set of construction stakes for utilities and curb at the discretion of the Engineer.
2. The Contractor must request staking a minimum of 48 hours in advance.
3. The Contractor will be responsible for protection of the stakes, and any re-staking if needed. See Specifications.



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.

JAMES P. KOSLUCHEAR
LIC. NO. 26460
DATE 05/10/2022



7071 University Avenue NE
Fridley, MN 55432

DESIGNED	NO.	ISSUED FOR	DATE
DRAWN			
CHECKED			
JPK			

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
GENERAL NOTES

STATEMENT OF ESTIMATED QUANTITIES						
ITEM NO.	MnDOT SPEC NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITIES	STATE AID PARTICIPATING LOCAL STREETS	LOCAL FUNDING/NON-PARTICIPATING
					S.A.P. 127-050-030	QTY
1	2021.501	MOBILIZATION	LS	1	0.70	0.30
2	2104.502	REMOVE GATE VALVE AND BOX	EA	2		2
3	2104.502	REMOVE HYDRANT AND GATE VALVE	EA	1		1
4	2104.502	REMOVE CURB STOP & BOX	EA	7		7
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	149	149	
6	2104.503	REMOVE WATERMAN	LF	605		605
7	2104.503	REMOVE WATER SERVICE PIPE	LF	175		175
8	2104.503	REMOVE CONCRETE CURB & GUTTER	LF	1,390	820	570
9	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SY	81	50	31
10	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	46	30	16
11	2105.507	COMMON EXCAVATION (P) EXCESS RECLAM	CY	1,572	1572	
12	2122.519	SUBGRADE PREPARATION	RDST	16.42	16.42	
13	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	25	25	
14	2215.504	FULL DEPTH RECLAMATION (P)	SY	16,169	16,169	
15	2331.603	BITUMINOUS JOINT SAW & SEAL	LF	3,730	3,730	
16	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	985	985	
17	2360.509	TYPE SP 9.5 WEARING COURSE MIX (3,C)	TN	1,345	1,345	
18	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (3,C)	TN	1,785	1785	
19	2360.604	3" BITUMINOUS DRIVEWAY W/6" CLASS 5 AGGREGATE	SY	81	50	31
20	2503.602	CONNECT TO EXISTING STORM SEWER	EA	2		2
21	2503.603	REPAIR SEWER PIPE (SANITARY SEWER LATERAL)	LF	60		60
22	2504.601	TEMPORARY WATER SERVICE	LS	1		1
23	2504.602	CONNECT TO EXISTING WATERMAIN (INCLUDES EXCAVATION PIT)	EA	4		4
24	2504.602	CONNECT TO EXISTING WATER SERVICE (INCLUDES EXCAVATION PIT)	EA	10		10
25	2504.602	1" CORPORATION STOP	EA	10		10
26	2504.602	1" CURB STOP & BOX	EA	7		7
27	2504.602	6" GATE VALVE & BOX	EA	4		4
28	2504.602	ADJUST GATE VALVE & BOX (WATER)	EA	9	9	
29	2504.602	HYDRANT WITH 6" GATE VALVE ASSEMBLY (INSTALL ONLY)	EA	1		1
30	2504.603	6" WATERMAIN DUCTILE IRON CL 52 (OPEN CUT INSTALLATION)	LF	605		605
31	2504.603	1" WATER SERVICE (TYPE K COPPER)	LF	175		175
32	2504.608	FITTINGS	LB	242		242
33	2506.502	ADJUST FRAME & RING CASTING (SEWER)	EA	23	23	
34	2506.502	ADJUST FRAME & RING CASTING (STORM)	EA	5	5	
35	2506.602	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL	EA	1		1
36	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	1,110	580	530
37	2531.503	CONCRETE CURB & GUTTER DESIGN SPECIAL (SURMOUNTABLE)	LF	280	240	40
38	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SY	46	30	16
39	2531.604	8" CONCRETE VALLEY GUTTER	SY	690	690	
40	2540.601	REPAIR/REPLACE PET FENCE & IRRIGATION SYSTEM	LS	1	0.66	0.34
41	2540.602	REMOVAL, TEMPORARY INSTALLATION & REINSTALLATION OF MAILBOX	LS	1		1
42	2563.601	TRAFFIC CONTROL	LS	1	0.70	0.30
43	2565.602	RIGID PVC LOOP DETECTOR 6' X 6'	EA	1	1	
44	2573.502	STORM DRAIN INLET PROTECTION	EA	13	13	
45	2574.507	COMMON TOPSOIL BORROW	CY	140	40	100
46	2574.508	FERTILIZER TYPE 3	LB	91	26	65
47	2575.505	SEEDING	AC	0.27	0.08	0.19
48	2575.508	SEED MIXTURE 25-151	LB	31	9	22
49	2575.508	HYDRAULIC BONDED FIBER MATRIX	LB	912	264	648

STANDARD PLATES	
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.	
PLATE NO.	DESCRIPTION
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4108F	ADJUSTING RINGS FOR CATCH BASINS & MANHOLES
8000K	CHANNELIZERS (3 SHEETS)

INDEX OF TABULATIONS		
TABLE	TABULATION	PAGE NUMBER
A	BASIS OF ESTIMATED QUANTITIES	4
B	MISCELLANEOUS REMOVALS	5
C	WATERMAIN	5
D	CONCRETE	5
E	ROADWAY SECTION, AGGREGATE & BITUMINOUS	6
F	EROSION CONTROL AND TURF ESTABLISHMENT	6

BASIS FOR ESTIMATED QUANTITIES	
BID ITEM	BASIS
TYPE SP WEARING & NON-WEARING COURSE MIX	110 lb/sy-in
BITUMINOUS TACK COAT	0.06 gal/sy
HYDRAULIC BONDED FIBER MATRIX	3500 lb/ac
SEED, MIXTURE 25-151	120 lb/ac
FERTILIZER TYPE 3 (22-5-10)	350 lb/ac



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JAMES P. KOSLICHAR
LIC. NO. 26460 DATE 05/10/2022



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Fridley, MN 55432

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CLIENT PROJ. NO.
ST2022-01

ISSUED FOR
DATE

S.A.P. # 127-050-030

STATEMENT OF ESTIMATED QUANTITIES

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030

4
OF
30

MISCELLANEOUS REMOVALS												B
ALIGNMENT	STATION	REMOVE GATE VALVE & BOX	REMOVE HYDRANT & GATE VALVE	REMOVE CURB STOP & BOX	REMOVE WATERMAIN	REMOVE WATER SERVICE PIPE	REMOVE CONCRETE CURB & GUTTER	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	REMOVE CONCRETE DRIVEWAY PAVEMENT	FULL DEPTH RECLAMATION	
		EACH	EACH	EACH	LIN FT	LIN FT	LIN FT	LIN FT	SQ YD	SQ YD	SQ YD	
LOCAL STREET, S.A.P. 127-050-030							315	36	15	15	8183	
HARTMAN CIRCLE NE	00+68 TO 21+90						175	42	10	10	3004	
71ST WAY NE	30+49 TO 39+20						130	50	10	5	2175	
RIVERVIEW TERRACE NE	50+00 TO 56+44						200	21	15		2807	
WEST BAVARIAN PASS NE	60+20 TO 70+15						820	149	50	30	16169	
S.A.P. 127-050-030 SUBTOTAL:												
NON-PARTICIPATING/LOCAL FUNDS												
HARTMAN CIRCLE NE	00+68 TO 21+90	2	1	8	605	175	530		9	16		
71ST WAY NE	30+49 TO 39+20											
RIVERVIEW TERRACE NE	50+00 TO 56+44						40		22			
WEST BAVARIAN PASS NE	60+20 TO 70+15											
NON-PARTICIPATING SUBTOTAL:		2	1	8	605	175	570		31	16		
TOTAL:		2	1	8	605	175	1390	149	81	46	16169	

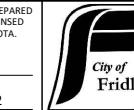
WATER										C
ALIGNMENT	STATION	CONNECT TO EXISTING WATERMAIN	CONNECT TO EXISTING WATER SERVICE	1" CORPORATION STOP	6" GATE VALVE & BOX	HYDRANT WITH 6" GATE VALVE (INSTALL ONLY)	6" WATERMAIN DUCTILE IRON CL 52	1" WATER SERVICE	FITTINGS	
		EACH	EACH	EACH	EACH	EACH	LIN FT	LIN FT	POUND	
NON-PARTICIPATING/LOCAL FUNDS										
HARTMAN CIRCLE NE	00+68 TO 21+90	4	10	10	4	1	605	175	242	
71ST WAY NE	30+49 TO 39+20									
RIVERVIEW TERRACE NE	50+00 TO 56+44									
WEST BAVARIAN PASS NE	60+20 TO 70+15									
NON-PARTICIPATING SUBTOTAL:		4	10	10	4	1	605	175	242	
TOTAL:		4	10	10	4	1	605	175	242	

CONCRETE							D			
ALIGNMENT	STATION	8" CONCRETE VALLEY GUTTER	CONCRETE CURB & GUTTER DESIGN B618	CONCRETE CURB & GUTTER DESIGN SPECIAL (SURMOUNTABLE)	6" CONCRETE DRIVEWAY PAVEMENT	SQ FT	LIN FT	LIN FT	SQ YD	
		SQ FT	LIN FT	LIN FT	SQ YD					
LOCAL STREET, S.A.P. 127-050-030										
HARTMAN CIRCLE NE	00+68 TO 21+90	375	315		15					
71ST WAY NE	30+49 TO 39+20	205	65	110	10					
RIVERVIEW TERRACE NE	50+00 TO 56+44			130	5					
WEST BAVARIAN PASS NE	60+20 TO 70+15	110	200							
S.A.P. 127-050-030 SUBTOTAL:		690	580	240	30					
NON-PARTICIPATING/LOCAL FUNDS										
HARTMAN CIRCLE NE	00+68 TO 21+90		530		16					
71ST WAY NE	30+49 TO 39+20									
RIVERVIEW TERRACE NE	50+00 TO 56+44			40						
WEST BAVARIAN PASS NE	60+20 TO 70+15									
NON-PARTICIPATING SUBTOTAL:			530	40	16					
TOTAL:		690	1110	280	46					



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JAMES P. KOSLICHAR
26460
LIC. NO. _____ DATE 05/10/2022



7071 University Avenue NE
Fridley, MN 55432

DESIGNED BY: BJB
DRAWN BY: BJB
CHECKED BY: JPK
CLIENT PROJ. NO.: ST2022-01

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
QUANTITY TABULATIONS

AGGREGATE & BITUMINOUS									E
ALIGNMENT	STATION	COMMON EXCAVATION (P) EXCESS RECLAIM	SUBGRADE PREPARATION	BITUMINOUS JOINT SAW & SEAL	BITUMINOUS MATERIAL FOR TACK COAT	TYPE SP 9.5 WEARING COURSE MIX (3,C)	TYPE SP 12.5 NON WEAR COURSE MIX (3,C)	3' BITUMINOUS DRIVEWAY W/6" CL. 5 AGGRREGATE	
		CU YD	RDST	LIN FT	GALLONS	TON	TON	SQ YD	
LOCAL STREET, S.A.P. 127-050-030									
HARTMAN CIRCLE NE	00+68 TO 21+90	795	21.22	1860	495	680	900	15	
71ST WAY NE	30+49 TO 39+20	292	8.71	765	185	250	335	10	
RIVERVIEW TERRACE NE	50+00 TO 56+44	211	6.44	455	135	180	240	10	
WEST BAVARIAN PASS NE	60+20 TO 70+15	273	9.95	650	170	235	310	15	
S.A.P. 127-050-030 SUBTOTAL:		1572	46.32	3730	985	1345	1785	50	
NON-PARTICIPATING/LOCAL FUNDS									
HARTMAN CIRCLE NE	00+68 TO 21+90							9	
71ST WAY NE	30+49 TO 39+20								
RIVERVIEW TERRACE NE	50+00 TO 56+44							22	
WEST BAVARIAN PASS NE	60+20 TO 70+15								
NON-PARTICIPATING SUBTOTAL:								31	
	TOTAL:	1572	46	3730	985	1345	1785	81	

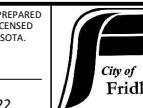
EROSION CONTROL & TURF ESTABLISHMENT								F
ALIGNMENT	STATION	STORM DRAIN INLET PROTECTION	COMMON TOPSOIL BORROW	FERTILIZER TYPE 3	SEEDING	SEED MIXTURE 25-151	HYDRAULIC BONDED FIBER MATRIX	
		EACH	CU YD	POUND	ACRE	POUND	POUND	
LOCAL STREET, S.A.P. 127-050-030								
HARTMAN CIRCLE NE	00+68 TO 21+90	6	16	10	0.03	3	101	
71ST WAY NE	30+49 TO 39+20	2	9	6	0.02	2	56	
RIVERVIEW TERRACE NE	50+00 TO 56+44	3	6	4	0.01	1	42	
WEST BAVARIAN PASS NE	60+20 TO 70+15	2	10	6	0.02	2	64	
S.A.P. 127-050-030 SUBTOTAL:		13	40	26	0.08	9	264	
NON-PARTICIPATING/LOCAL FUNDS								
HARTMAN CIRCLE NE	00+68 TO 21+90		92	60	0.17	20	596	
71ST WAY NE	30+49 TO 39+20							
RIVERVIEW TERRACE NE	50+00 TO 56+44		8	5	0.01	2	51	
WEST BAVARIAN PASS NE	60+20 TO 70+15							
NON-PARTICIPATING SUBTOTAL:			100	65	0.19	22	648	
	TOTAL:	13	140	91	0.26	31	911	



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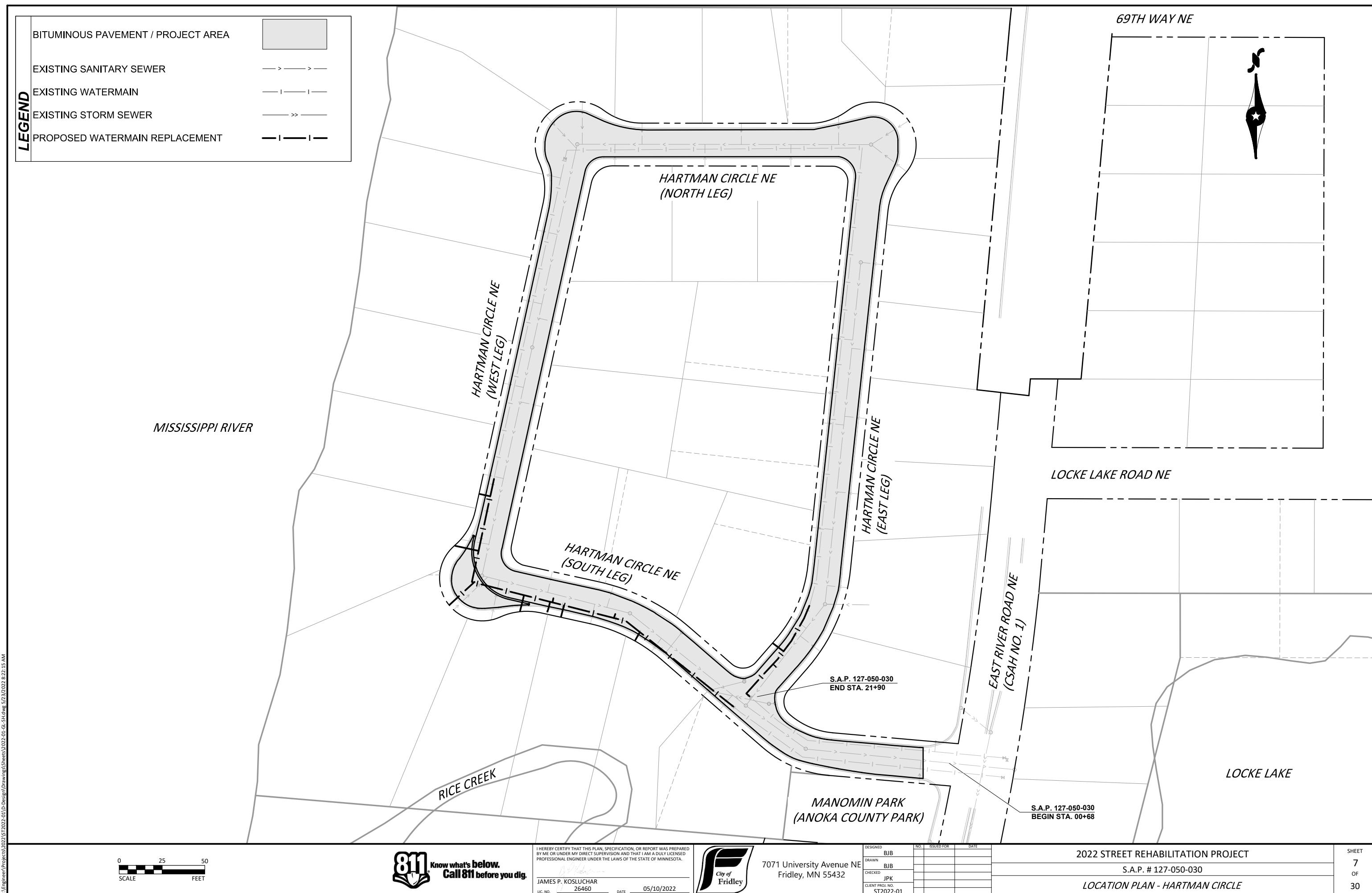
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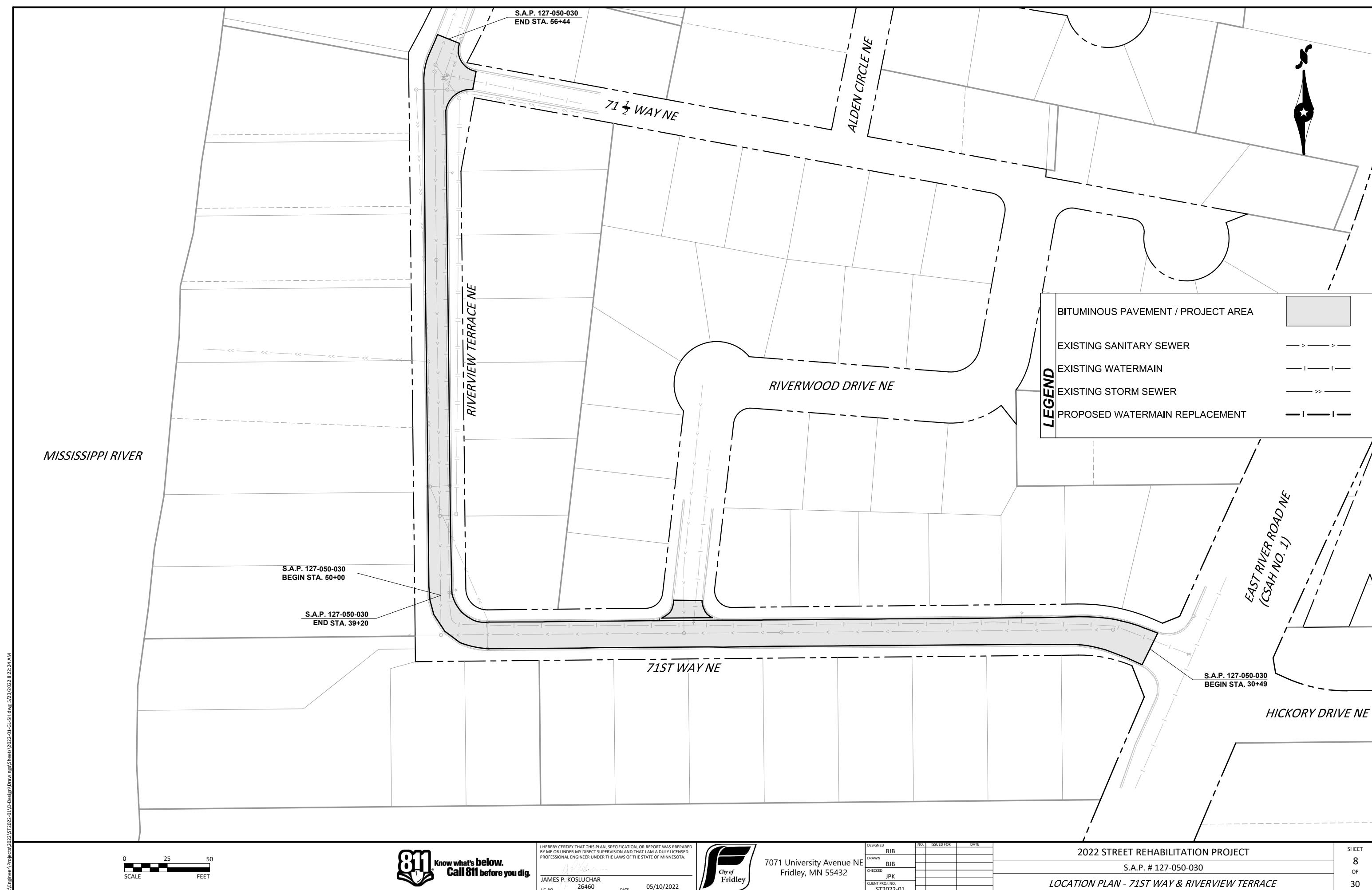
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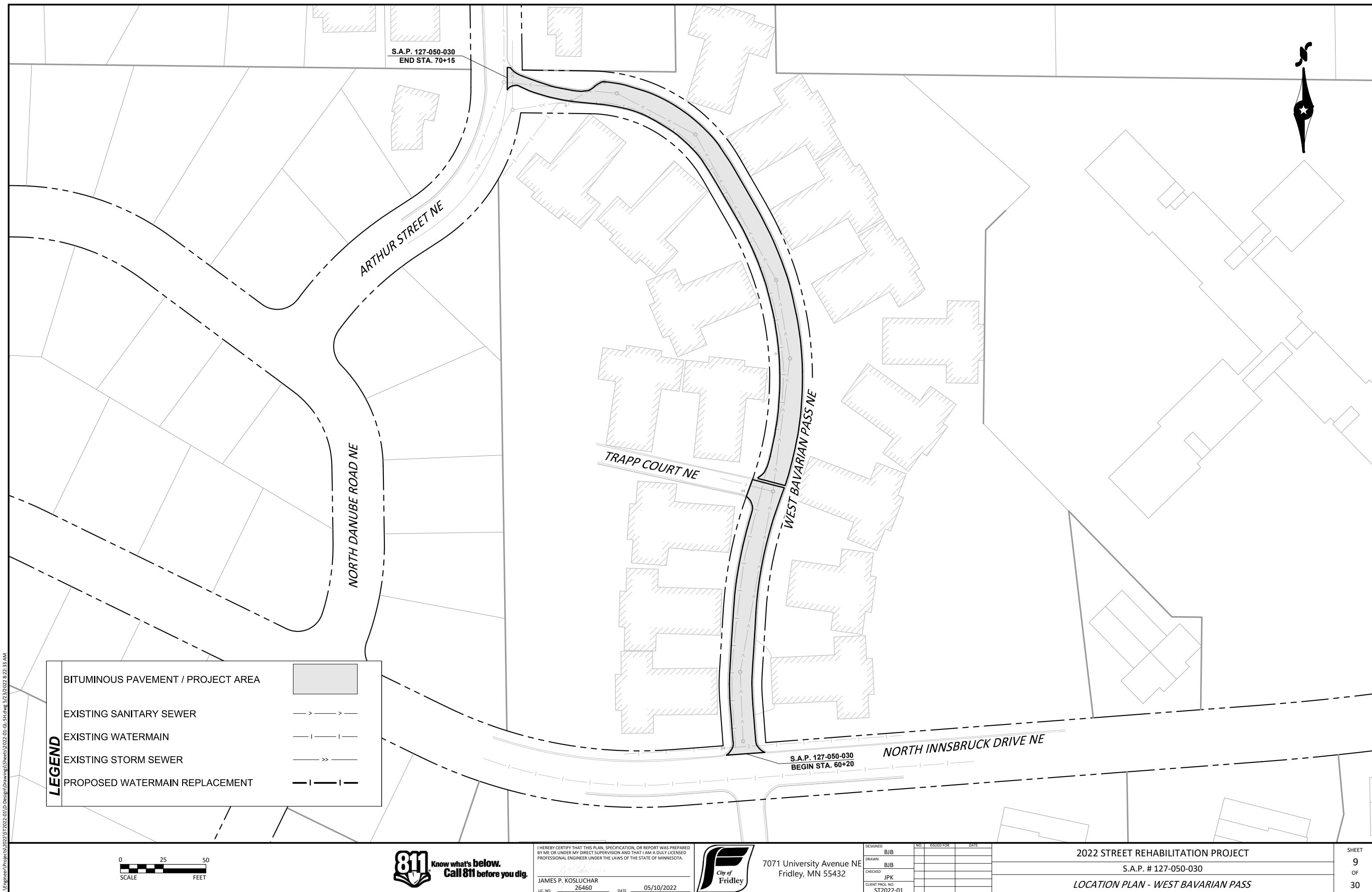
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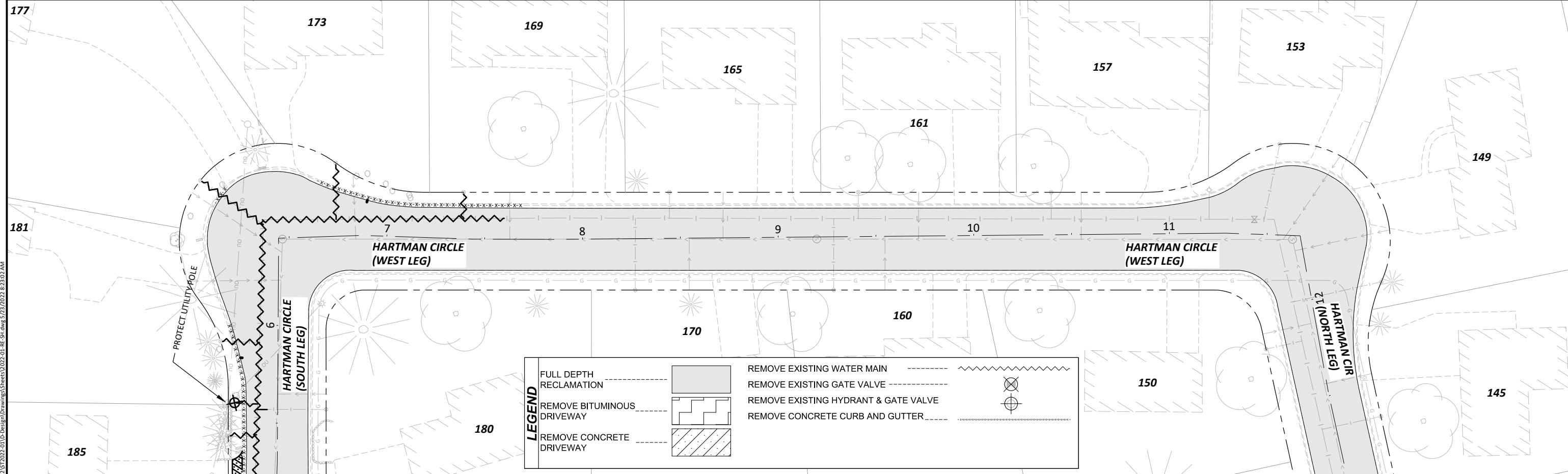
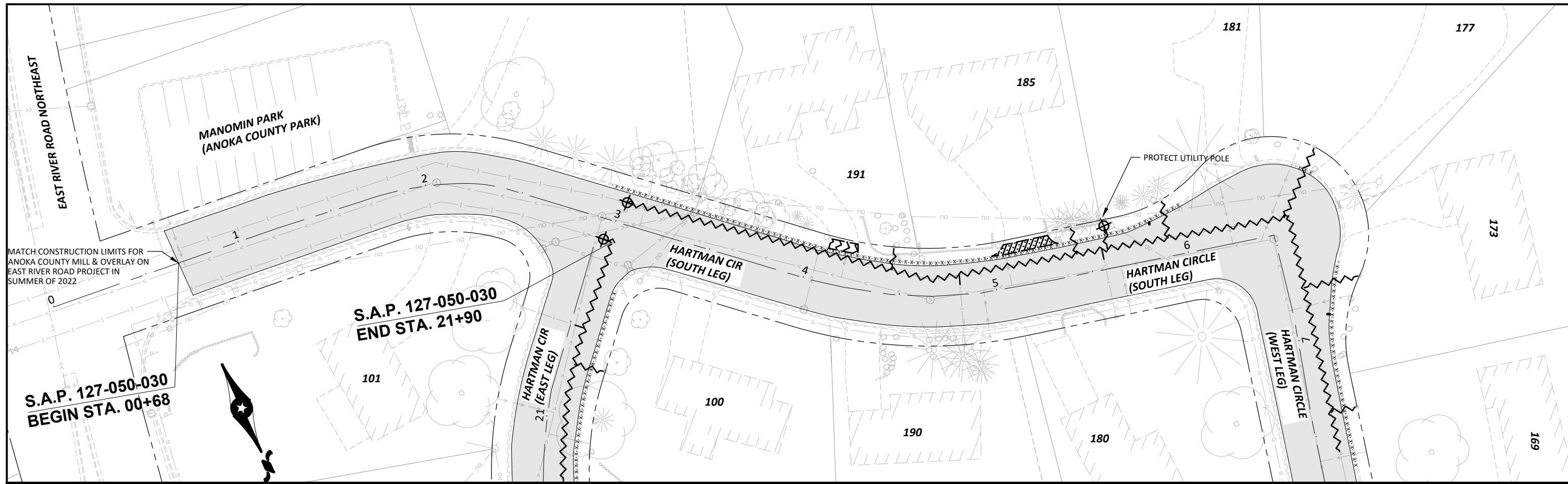
2022 STREET REHABILITATION PROJECT

S.A.P. # 127-050-030
 QUANTITY TABULATIONS





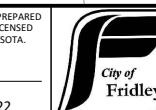




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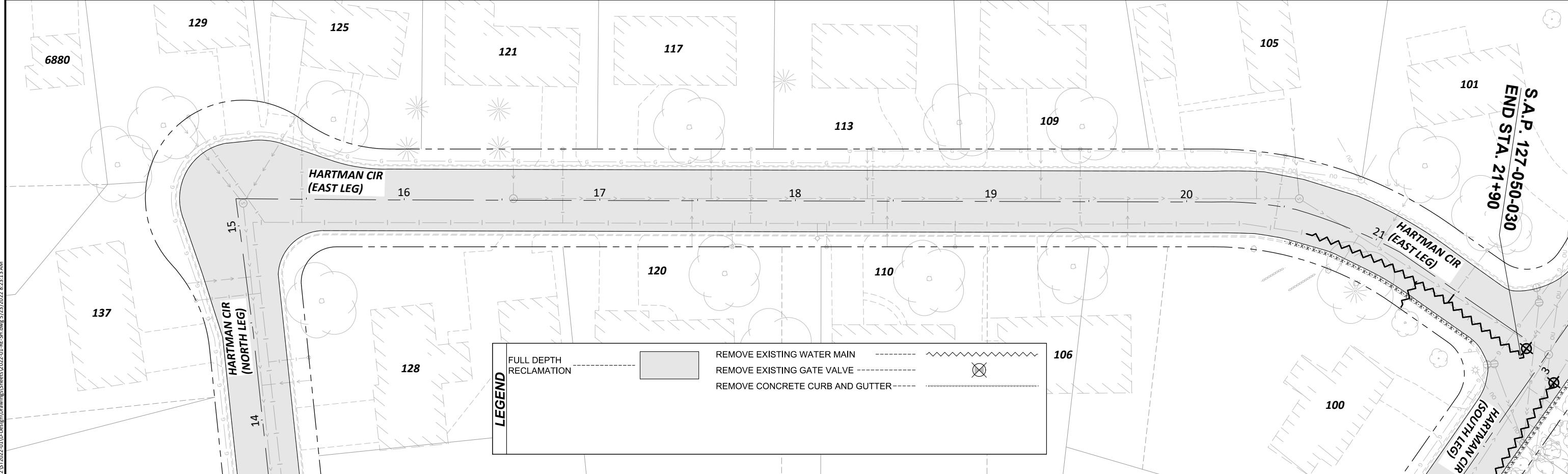
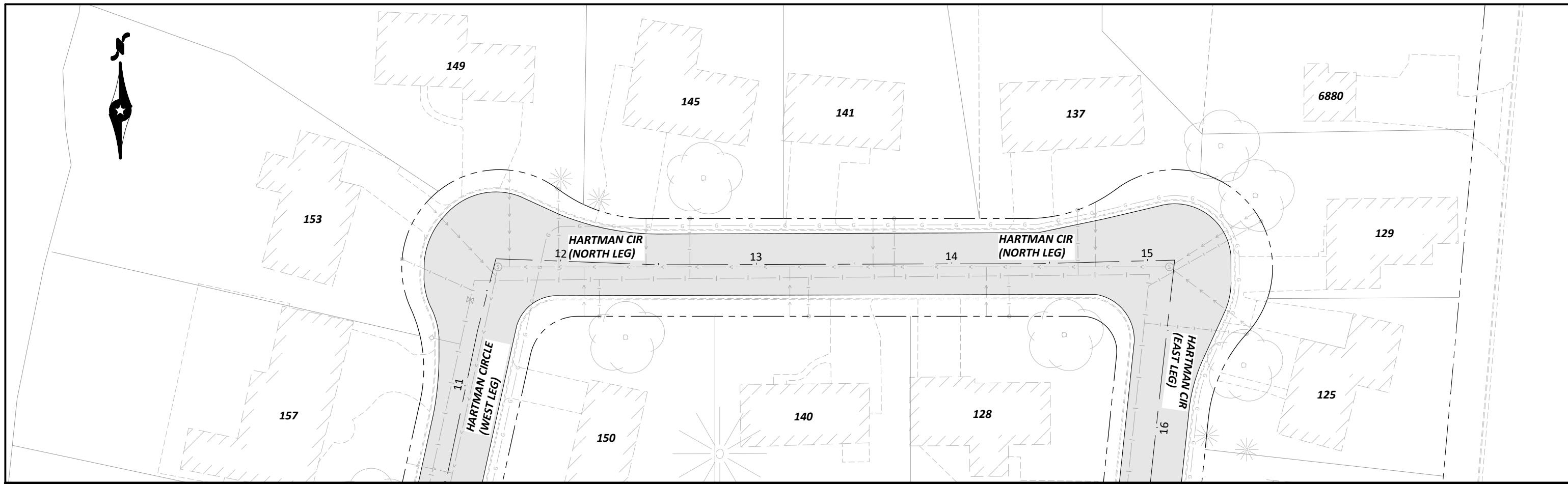


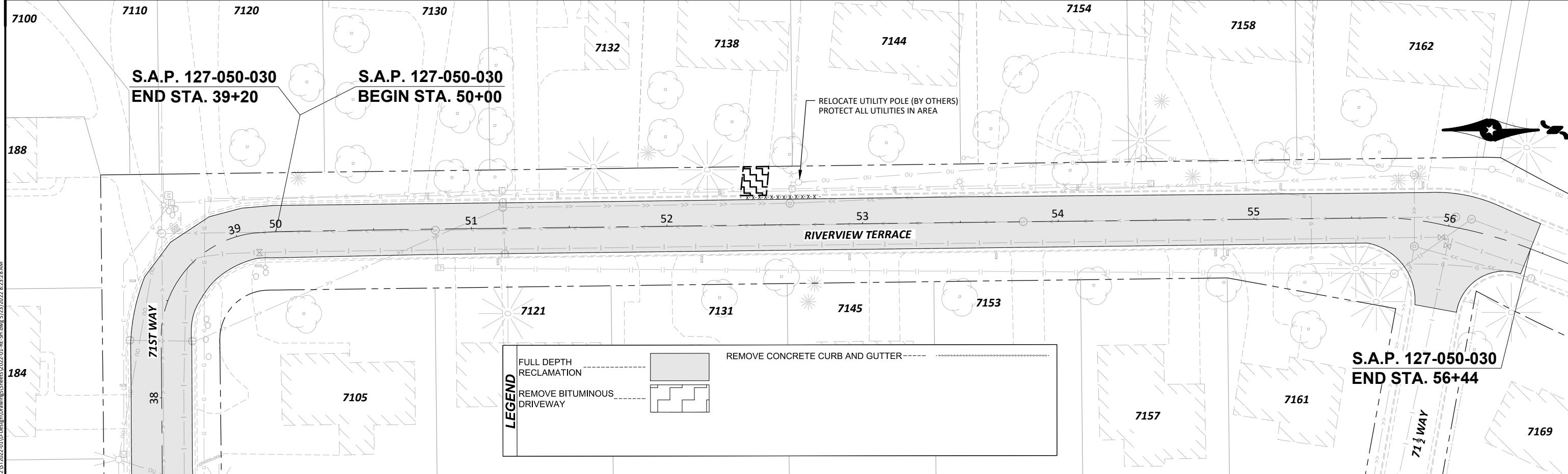
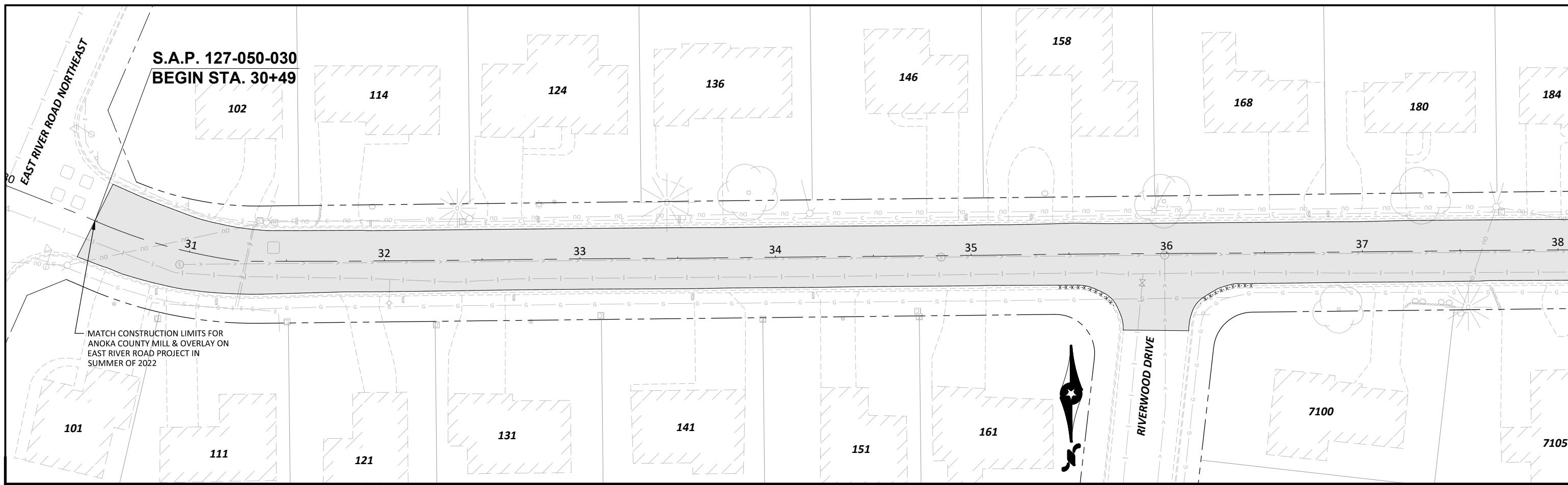
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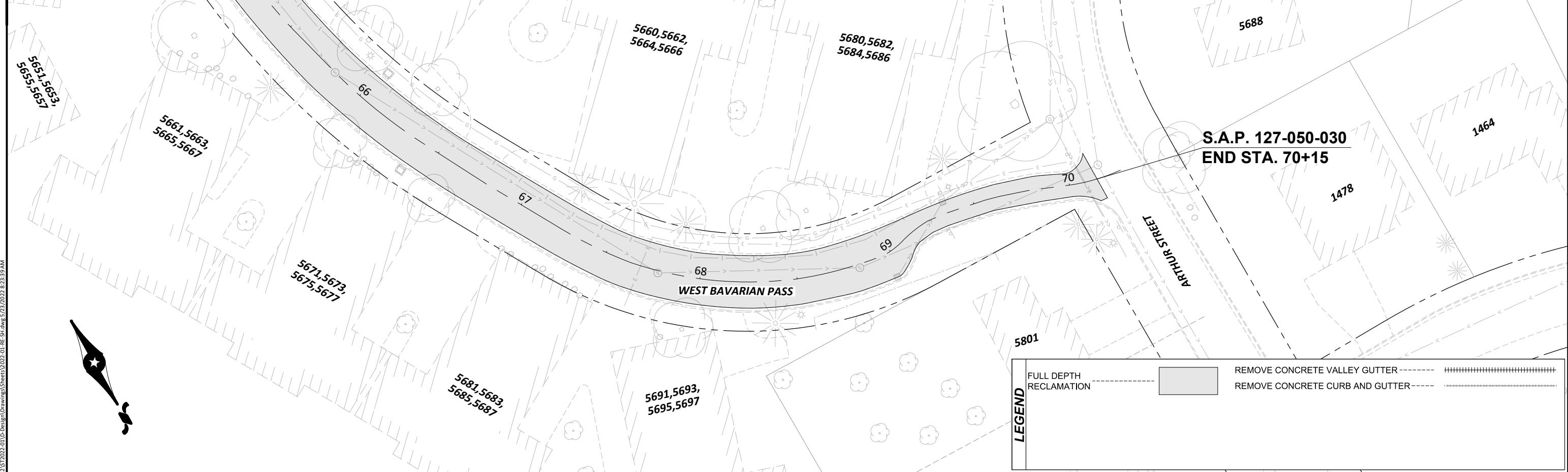
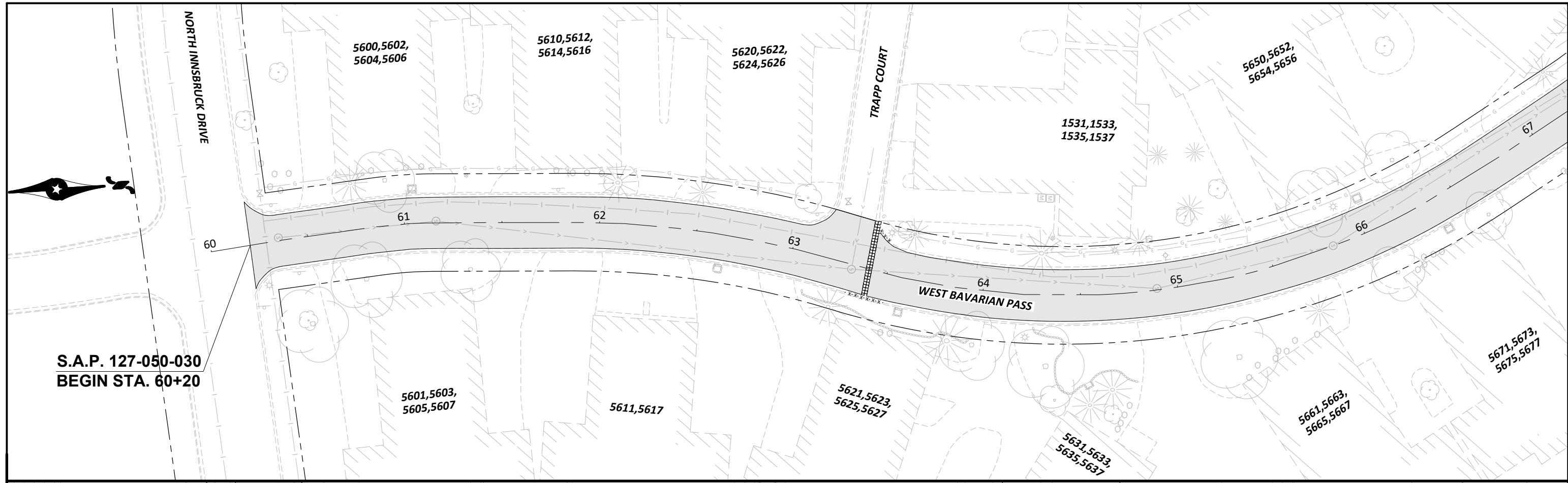
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S.A.P. # 127-050-030

EXISTING CONDITIONS AND REMOVAL PLAN - HARTMAN CIRCLE (1 OF 2)



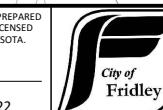




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JAMES P. KOSLUCCHAR
26460
05/

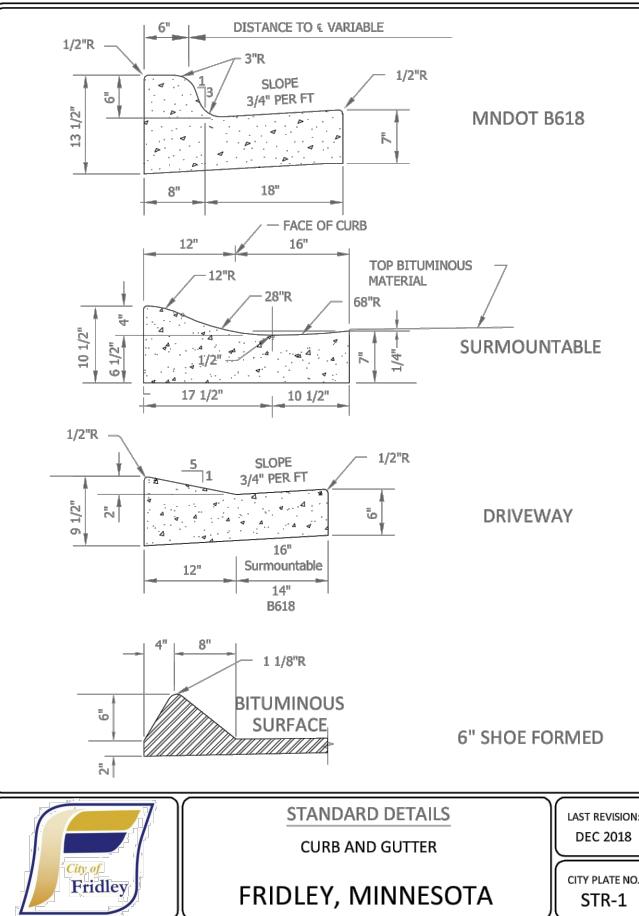


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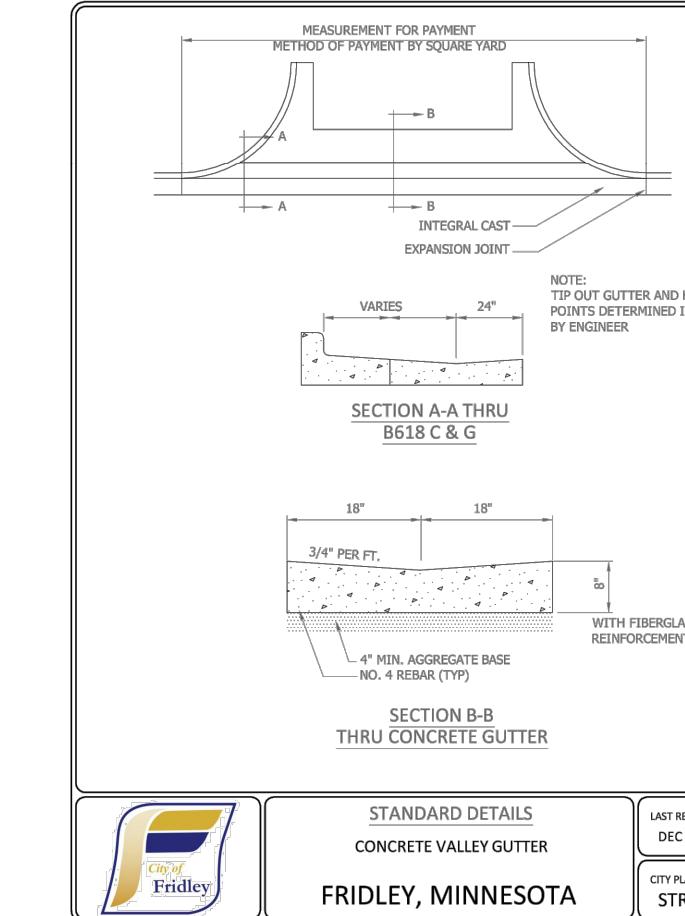
2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030

EXISTING CONDITIONS AND REMOVAL PLAN - WEST BAVARIAN PASS



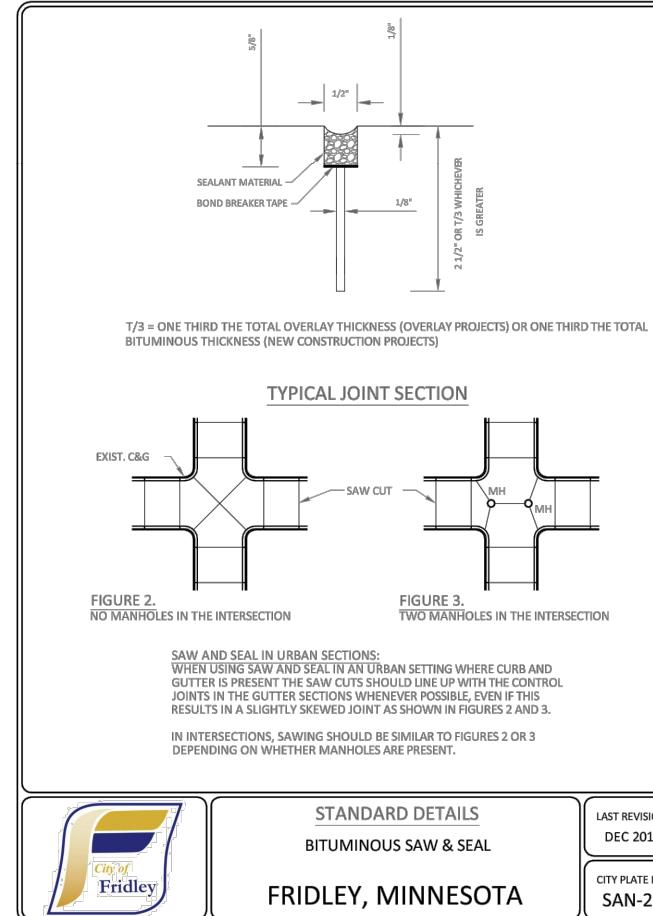
STANDARD DETAILS
CURB AND GUTTER
FRIDLEY, MINNESOTA

LAST REVISION:
DEC 2018
CITY PLATE NO.
STR-1



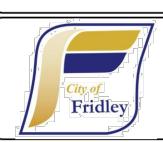
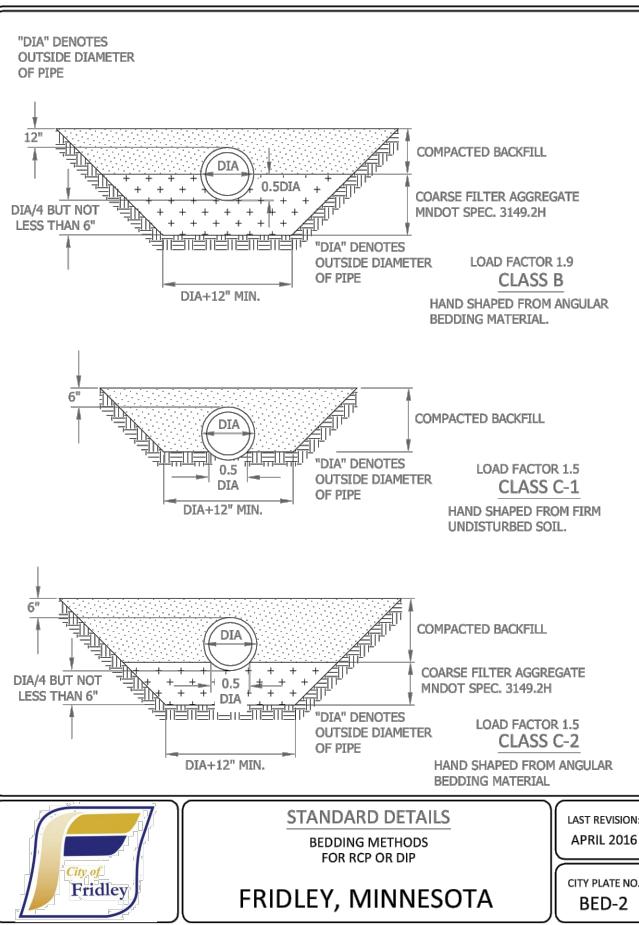
STANDARD DETAILS
CONCRETE VALLEY GUTTER
FRIDLEY, MINNESOTA

LAST REVISION:
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CITY PLATE NO.
STR-10



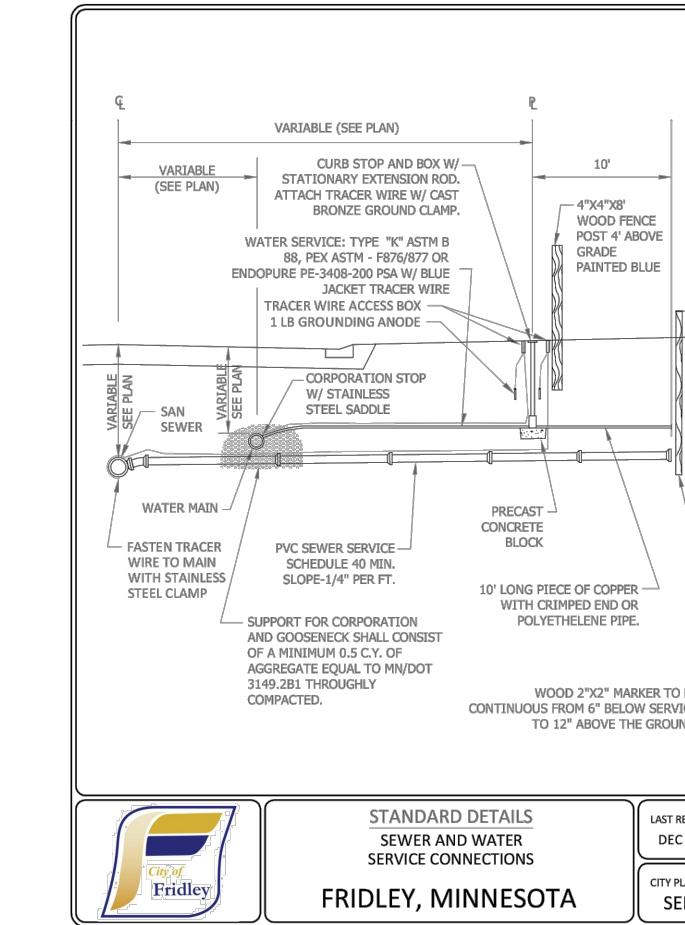
STANDARD DETAILS
BITUMINOUS SAW & SEAL
FRIDLEY, MINNESOTA

LAST REVISION:
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CITY PLATE NO.
SAN-24



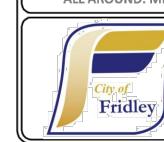
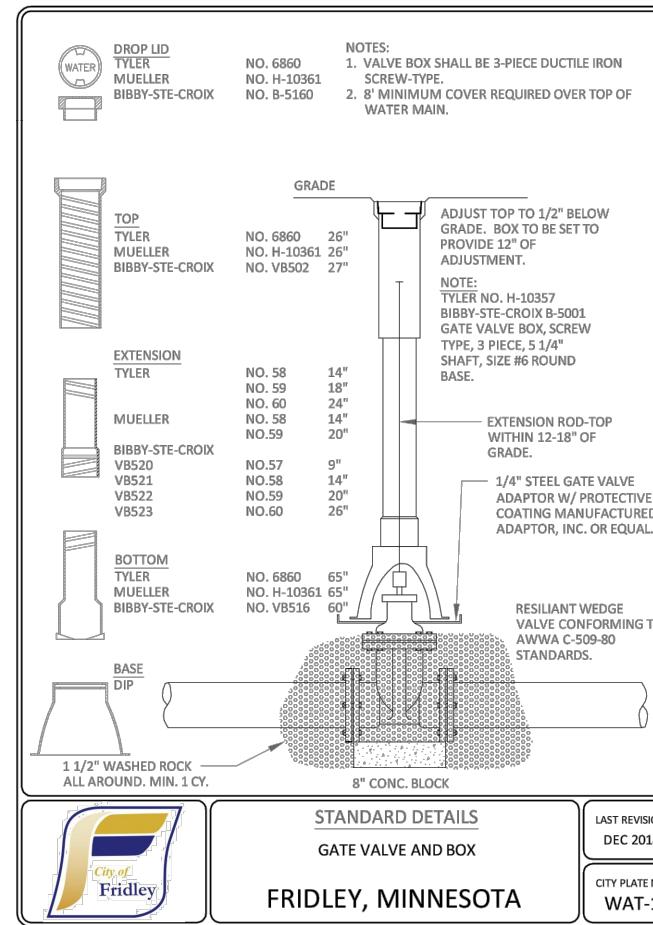
STANDARD DETAILS
BEDDING METHODS
FOR RCP OR DIP
FRIDLEY, MINNESOTA

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CITY PLATE NO.
BED-2



STANDARD DETAILS
SEWER AND WATER
SERVICE CONNECTIONS
FRIDLEY, MINNESOTA

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CITY PLATE NO.
SER-1



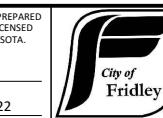
STANDARD DETAILS
GATE VALVE AND BOX
FRIDLEY, MINNESOTA

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CITY PLATE NO.
WAT-1



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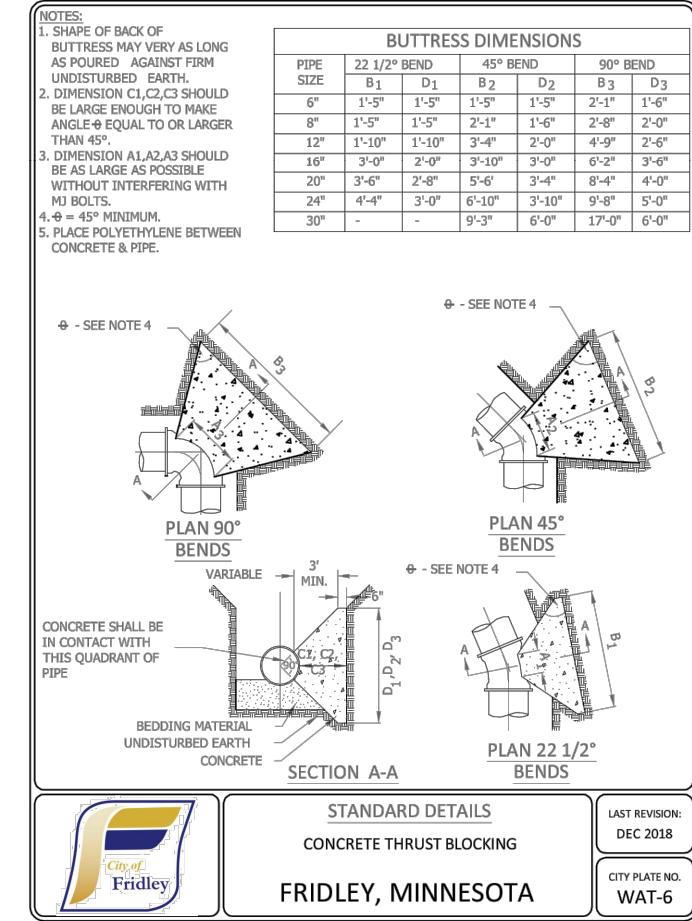
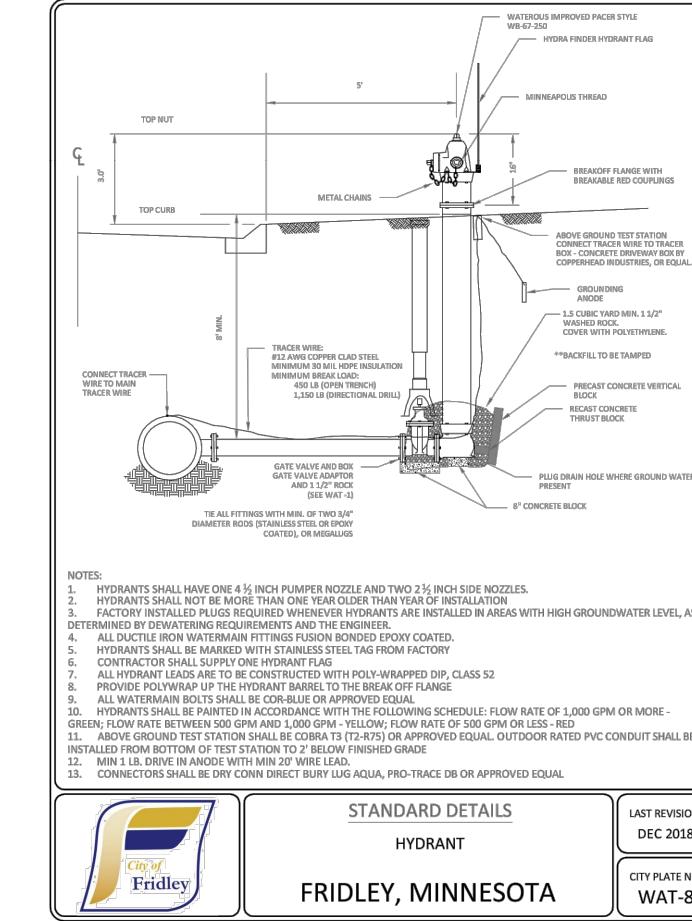
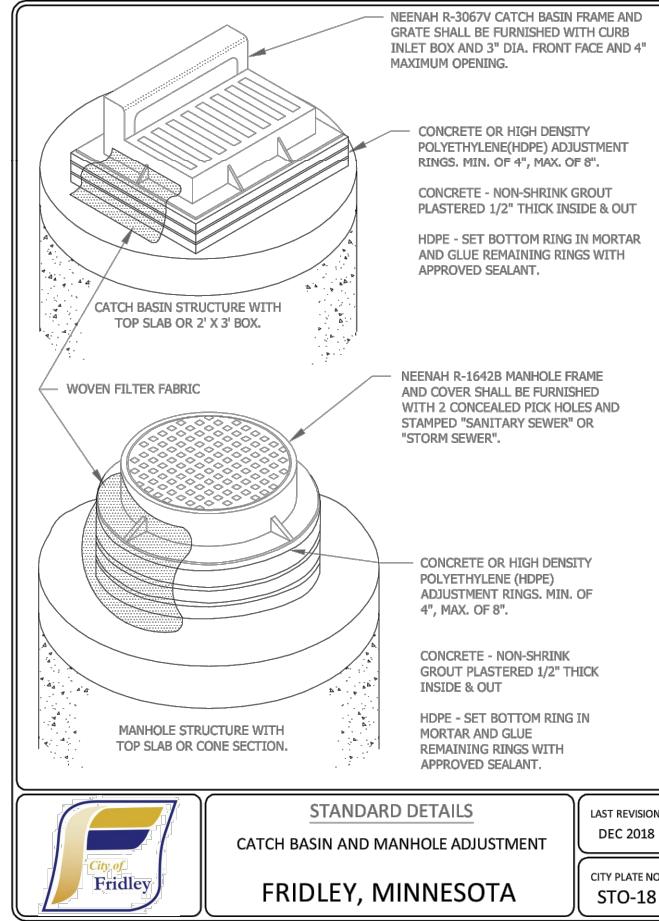
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A. P. Kolsuchar
JAMES P. KOLSUCHAR
LIC. NO. 26460
DATE 05/10/2022



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Fridley, MN 55432

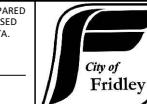
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2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
CONSTRUCTION DETAILS



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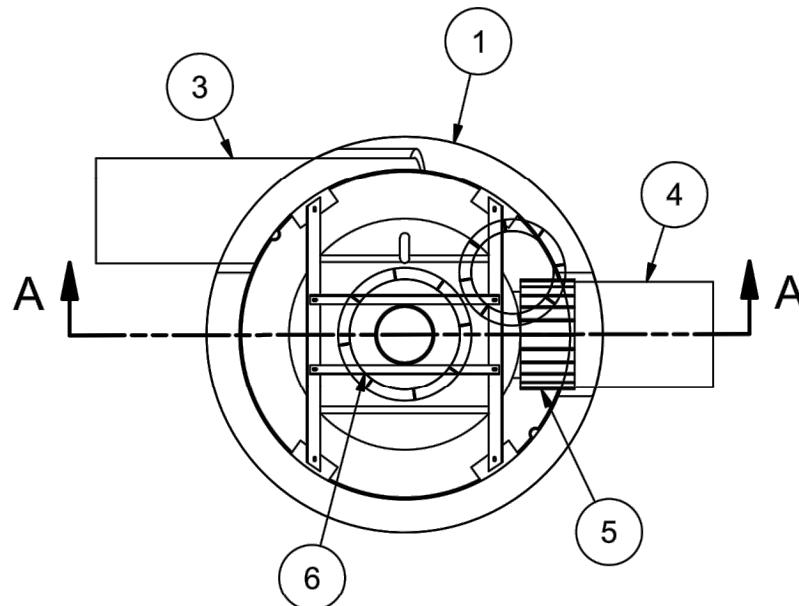
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2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
CONSTRUCTION DETAILS



HYDRO FRAME AND COVER (INCLUDED)

**GRADE RINGS BY OTHERS
AS REQUIRED**

EQUIPMENT PERFORMANCE

The stormwater treatment unit shall adhere to the hydraulic parameters given in the chart below and provide the removal efficiencies and storage capacities as follows:

1. The treatment system shall use an induced vortex to separate pollutants from stormwater runoff.
2. Peak Hydraulic Capacity: 8.0 cfs (227 l/s)
3. Sediment Storage Capacity: 2.10 cu. yd. (1.59 cu. m)
4. Continuous Oil Storage Capacity: 216 gal. (818 liters)
5. Sediment shall be stored in a zone that is isolated from the main flow path and protected from reentrainment by a benching skirt.
6. For more product information including regulatory acceptances, please visit <https://hydro-int.com/en/products/downstream-defender>

ANY WARRANTY GIVEN BY HYDRO INTERNATIONAL WILL APPLY ONLY TO THOSE ITEMS SUPPLIED BY IT. ACCORDINGLY HYDRO INTERNATIONAL CANNOT ACCEPT ANY RESPONSIBILITY FOR ANY STRUCTURE, PLANT, OR EQUIPMENT, (OR THE PERFORMANCE THERE OF) DESIGNED, BUILT, MANUFACTURED, OR SUPPLIED BY ANY THIRD PARTY. HYDRO INTERNATIONAL HAVE A POLICY OF CONTINUOUS DEVELOPMENT AND RESERVE THE RIGHT TO AMEND THE SPECIFICATION. HYDRO INTERNATIONAL CANNOT ACCEPT LIABILITY FOR PERFORMANCE OF ITS EQUIPMENT, (OR ANY PART THEREOF), IF THE EQUIPMENT IS SUBJECT TO CONDITIONS OUTSIDE ANY DESIGN SPECIFICATION. HYDRO INTERNATIONAL OWNS THE COPYRIGHT OF THIS DRAWING, WHICH IS SUPPLIED IN CONFIDENCE. IT MUST NOT BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUPPLIED AND MUST NOT BE REPRODUCED, IN WHOLE OR IN PART, WITHOUT PRIOR PERMISSION IN WRITING FROM HYDRO INTERNATIONAL.



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[Signature]

JAMES P. KOSLUCAR



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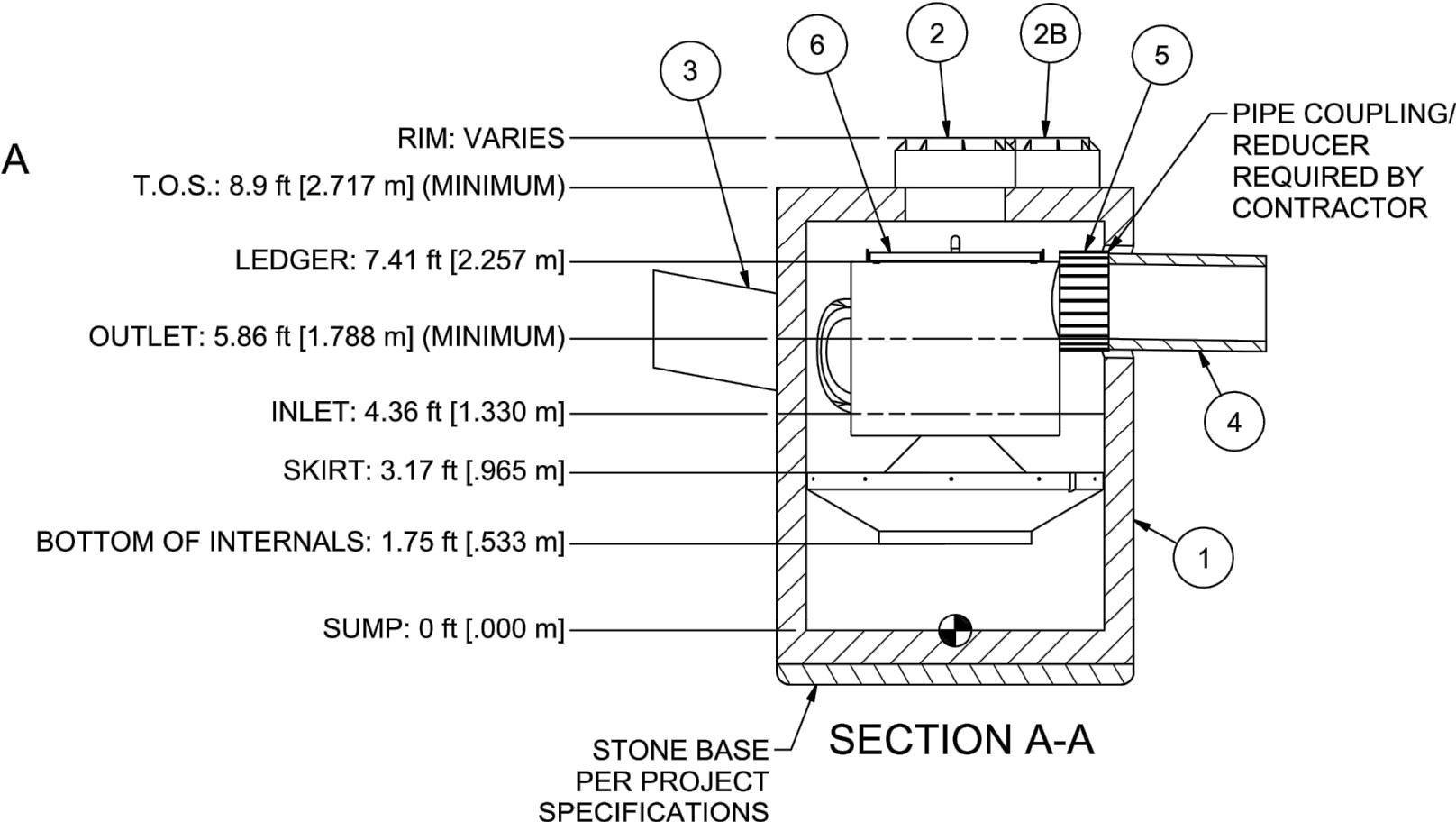
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CHECKED			
NE J PK			
CLIENT PROJ. NO.			

2022 STREET REHABILITATION PROJECT

S.A.P. # 127-050-030

CONSTRUCTION DETAILS

SHEET
16
OF
30



NOTE: NOT FOR CONSTRUCTION.
CONTACT HYDRO FOR SITE
SPECIFIC DETAIL

PARTS LIST

PARTS LIST				
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	72	1800	PRECAST MANHOLE (BY HYDRO VIA PRECASTER)
2	3	24	600	FRAME AND COVER
2B	1	18	450	FRAME AND COVER
3	1	18 (MAX)	450 (MAX)	MAX INLET PIPE (BY OTHERS)
4	1	18 (MAX)	450 (MAX)	MAX OUTLET PIPE (BY OTHERS)
5	1			PIPE COUPLING (BY OTHERS)
6	1			INTERNAL COMPONENTS (PREF-INSTALLED)

Hydro international®

hydro-int.com
<COMPANY>

NOT SCALE DRAWING
STEEL FABRICATION TOLERANCES
LESS OTHERWISE SPECIFIED,
DIMENSIONS ARE IN INCHES

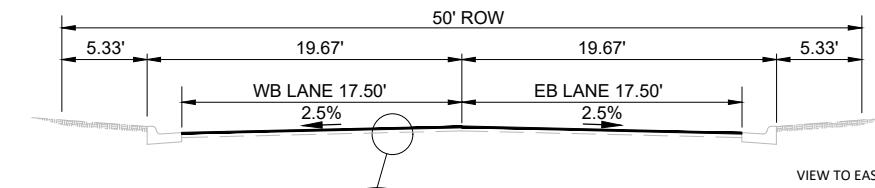
EAR	ANGULAR
- 012in = $\pm 0.04in$	000 - 120in = $\pm 1^\circ$
- 024in = $\pm 0.06in$	120 - 240in = $\pm 0.5^\circ$
- 048in = $\pm 0.08in$	240in >>> = $\pm 0.25^\circ$
- 120in = $\pm 12in$	

in >>> = ±0.20in

WING NO.

LETTER SIZE: SHEET:

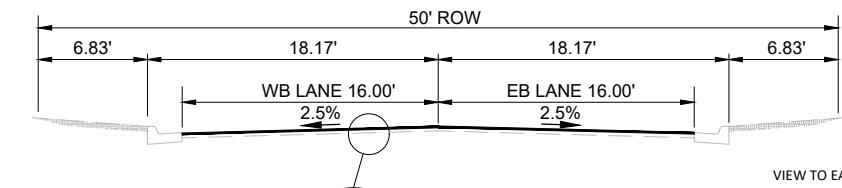
SHEET
16
OF
30



PROPOSED SECTION
1.5" SPWEA340C WEAR COURSE
2" SPNWB330C NON WEAR COURSE
10.5" CL 5 AGGREGATE BASE

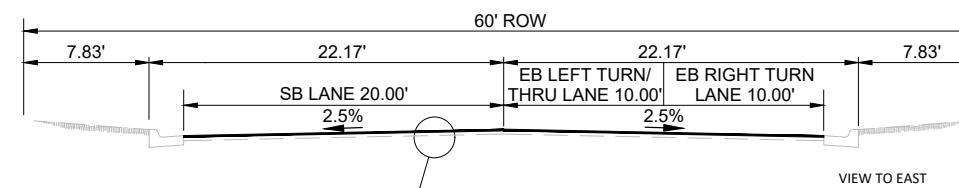
The diagram illustrates the 'EXISTING SECTION (N)' with a 6" BITUMINOUS layer on top of an 8" CLASS V. AGGREGATE SUBGRADE.

HARTMAN CIRCLE
S.A.P.127-050-030 (RECLAIM)
STA. 00+68 - 2+00



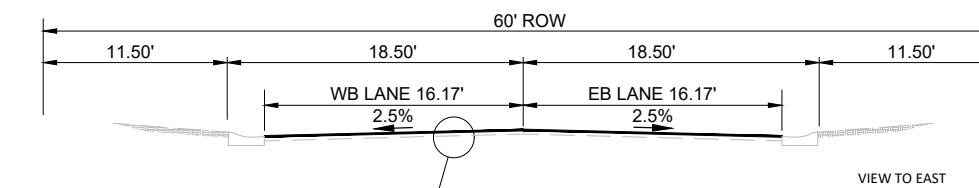
PROPOSED SECTION	EXISTING SECTION (NTS)
1.5" SPWEA340C WEAR COURSE	4.5" BITUMINOUS
2" SPNWBS300C NON WEAR COURSE	4.5" CLASS V. AGGREGATE
5.5" CL 5 AGGREGATE BASE	SUBGRADE

HARTMAN CIRCLE
S.A.P.127-050-030 (RECLAIM)
STA. 2+00 - 21+90

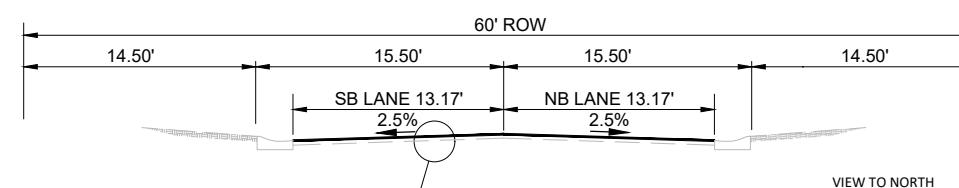


PROPOSED SECTION

71ST WAY
S.A.P.127-050-030 (RECLAIM)
STA. 30+49 - 31+75



71ST WAY
S.A.P.127-050-030 (RECLAIM)
STA. 31+75 - 39+20



PROPOSED SECTION

RIVERVIEW TERRACE



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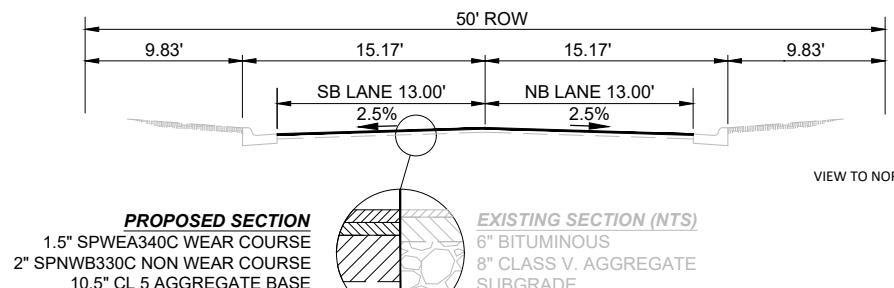
James P. Kosluchar



7071 University Avenue
Fridley, MN 55432

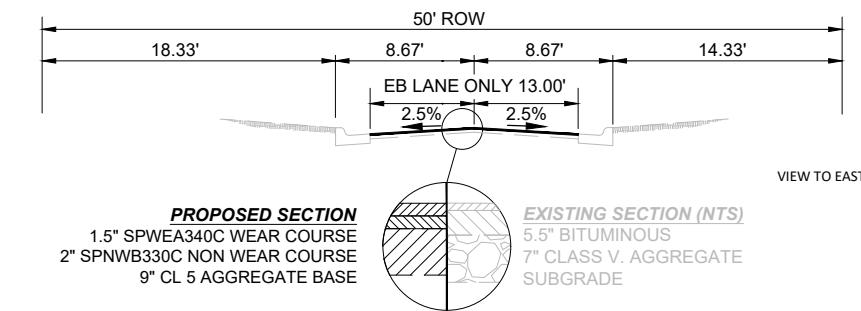
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CHECKED JKP			
CLIENT PROJ. NO. GT02022-01			

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
TYPICAL SECTIONS



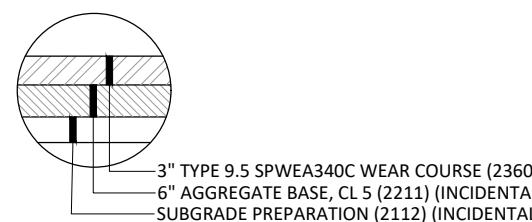
WEST BAVARIAN PAS

S.A.P.127-050-030 (RECLAI
STA. 60+20 - 69+00



WEST BAVARIAN PASS

S.A.P.127-050-030 (RECLAIM)
STA. 69+00 - 70+15



BITUMINOUS DRIVEWAY PAVEMENT

NOT TO SCALE



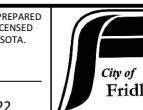
CONCRETE DRIVEWAY PAVEMENT

NOT TO SCALE



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2022 STREET REHABILITATION PROJECT

S.A.P. # 127-050-030

TYPICAL SECTIONS

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 RI00001 (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) "as follows".

1. To provide contact information and training documentation for Construction SWPPP Manager and BMP Installer,
2. When 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. When it is determined that the SWPPP is not achieving objectives of minimizing pollutants in stormwater discharges associated with construction activity, or
4. When the SWPPP is not consistent with the terms and conditions of the permit or is not meeting the requirements 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 practices 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

Downgradient 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 prohibited. No engine degreasing is allowed on site.

The Contractor shall prepare and submit a SWPPP amendment detailing the location and BMPs proposed for storage of materials, solid waste, and portable toilets. The SWPPP amendment shall include shall include a spill prevention and response plan that is appropriate for the materials proposed to be on the site. The SWPPP amendment sheet 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 and reported to and approved by the Engineer.

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 24 hours of discovery unless precluded by legal, regulatory, or physical access in which case the conditions shall be reported immediately to the Engineer and the work shall be completed within 7 calendar days when authorized by the Engineer. Paved surfaces such as streets shall have any escaped or tracked sediment removed by the end of the day that it is discovered. Sediment release, other than on 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.

6. For residential construction only, permit coverage terminates on individual lots if the structures are finished and temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner.

7. For agricultural land only (e.g., pipelines across cropland), the disturbed land must be returned to its preconstruction agricultural use prior to submitting the NOT.

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 less than:

7 calendar days

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 discharges to during fish spawning?	NO

TYPE OF PERMIT	PERMITTING AGENCY	PERMIT STATUS AND CONDITIONS
Construction Stormwater NPDES	MPCA	SHALL BE OBTAINED BY CONTRACTOR



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JAMES P. KOSLICHAR
26460
LIC. NO. _____ DATE 05/10/2022



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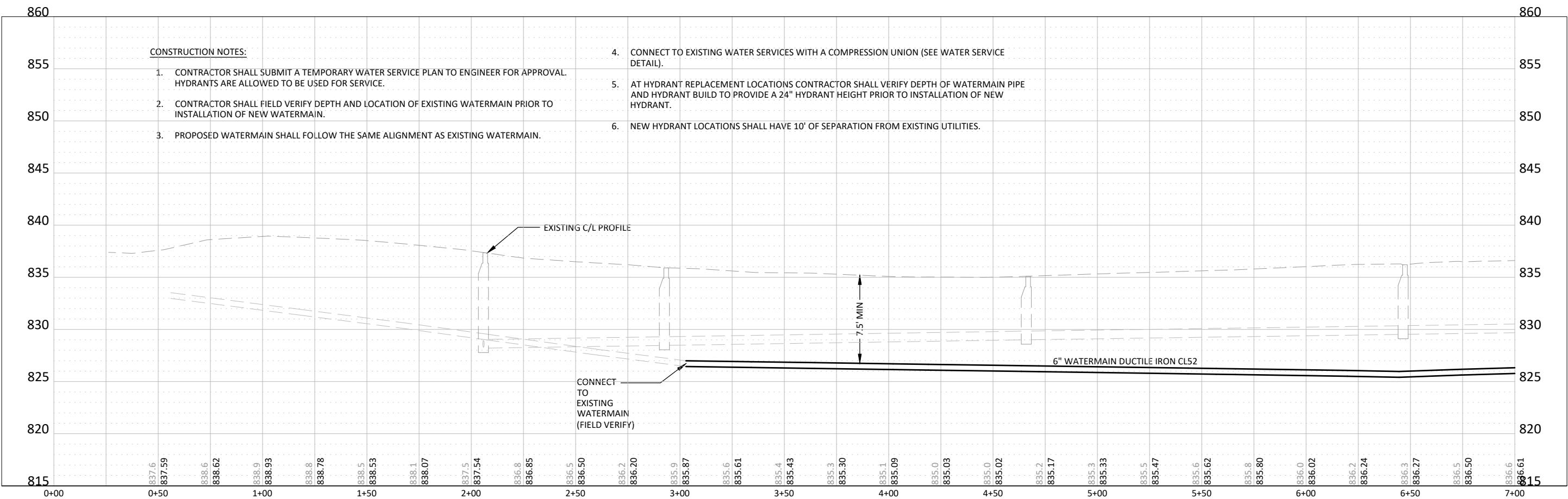
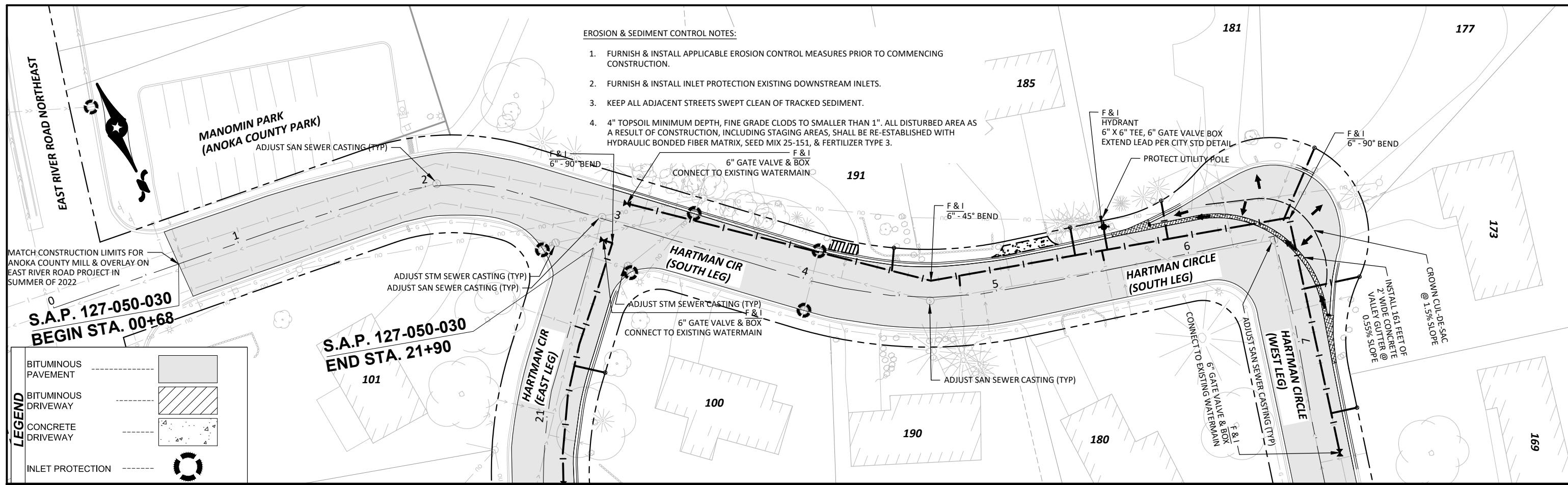
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S.A.P. # 127-050-030

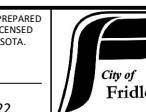
SWPPP NARRATIVE



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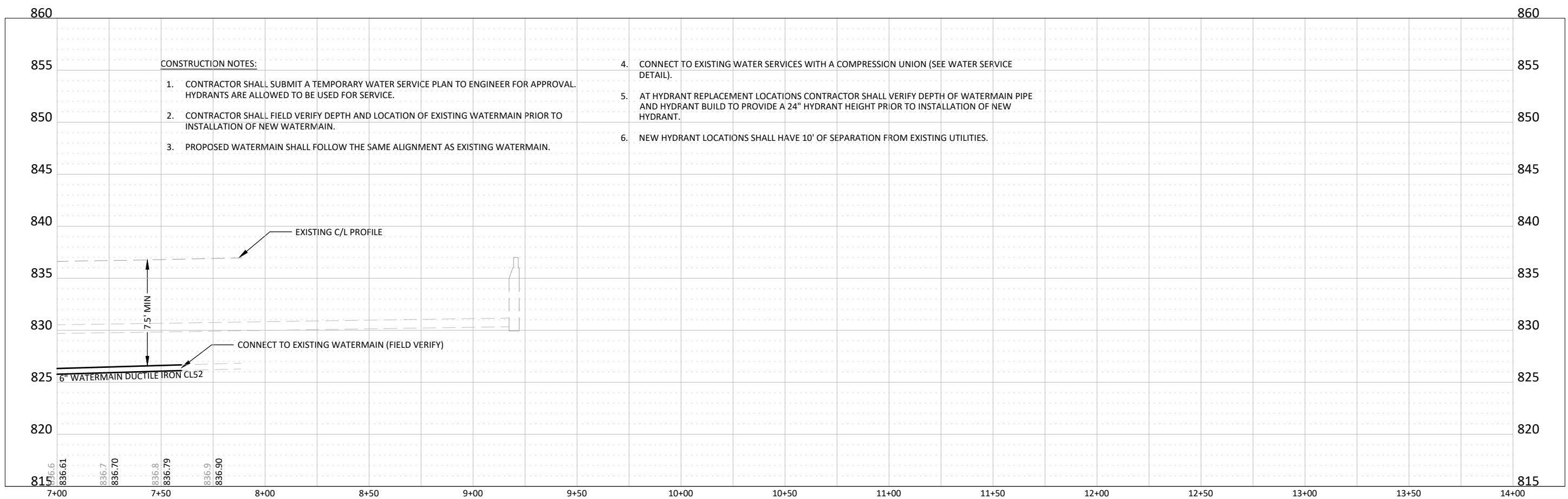
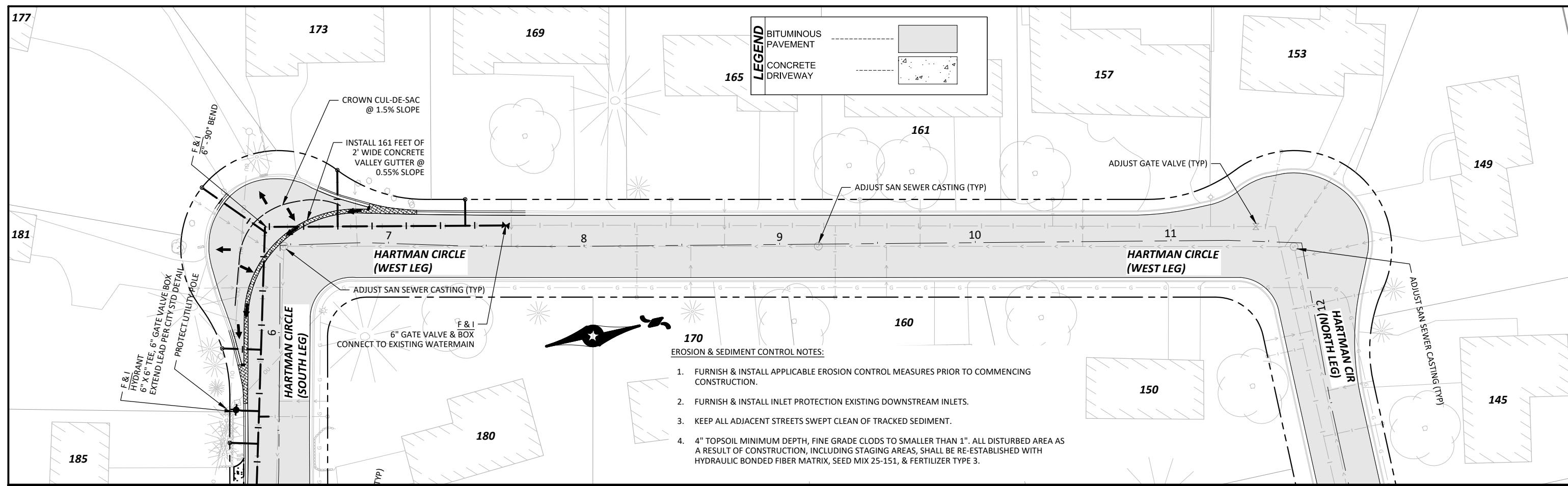
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CONSTRUCTION PLAN - HARTMAN CIRCLE (1 OF 4)



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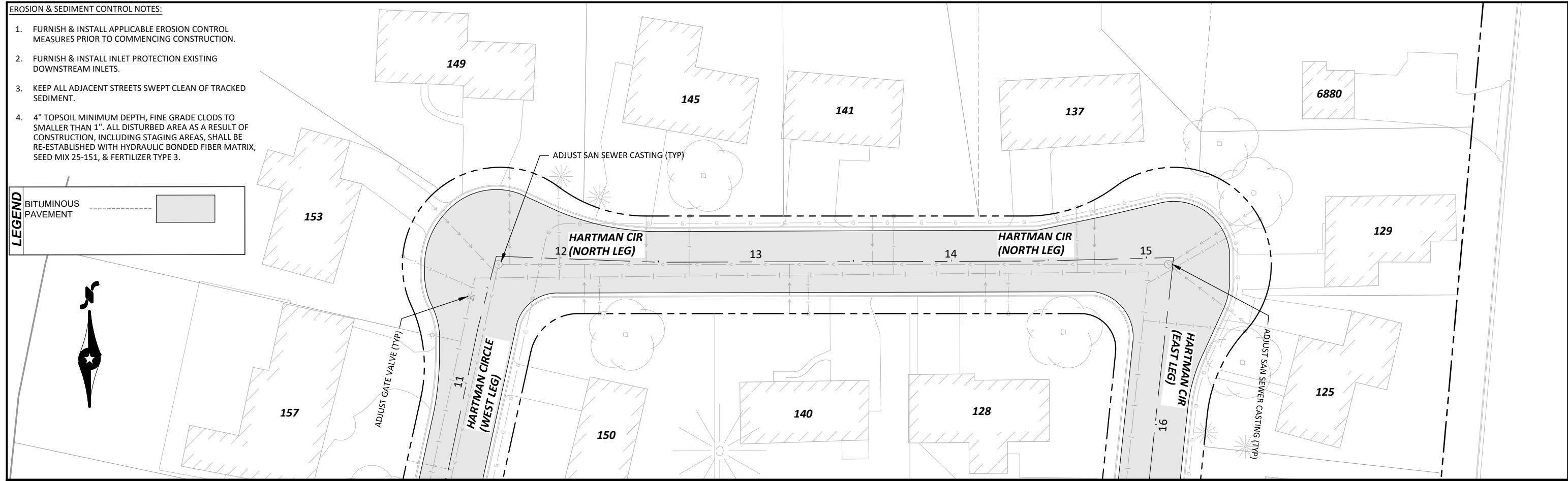
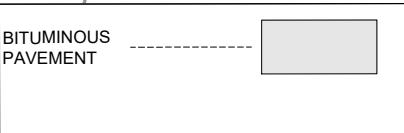
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S.A.P. # 127-050-030

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EROSION & SEDIMENT CONTROL NOTES:

1. FURNISH & INSTALL APPLICABLE EROSION CONTROL MEASURES PRIOR TO COMMENCING CONSTRUCTION.
2. FURNISH & INSTALL INLET PROTECTION EXISTING DOWNSTREAM INLETS.
3. KEEP ALL ADJACENT STREETS SWEEP CLEAN OF TRACED SEDIMENT.
4. 4" TOPSOIL MINIMUM DEPTH, FINE GRADE CLODS TO SMALLER THAN 1". ALL DISTURBED AREA AS A RESULT OF CONSTRUCTION, INCLUDING STAGING AREAS, SHALL BE RE-ESTABLISHED WITH HYDRAULIC BONDED FIBER MATRIX, SEED MIX 25-151, & FERTILIZER TYPE 3.

LEGEND

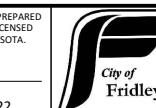


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SCALE FEET



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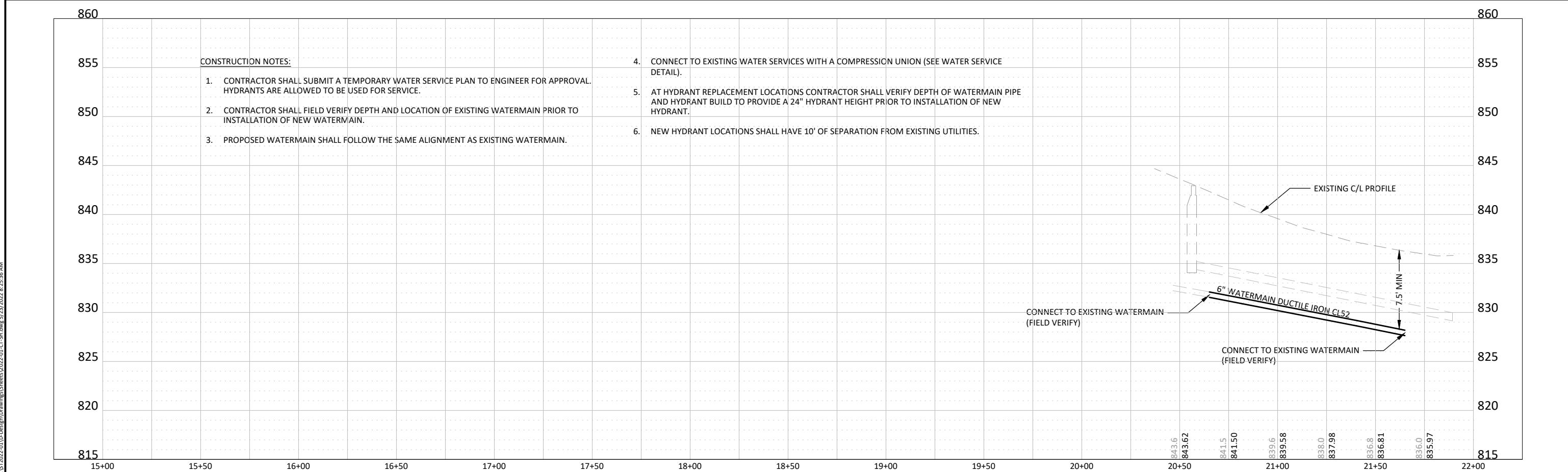
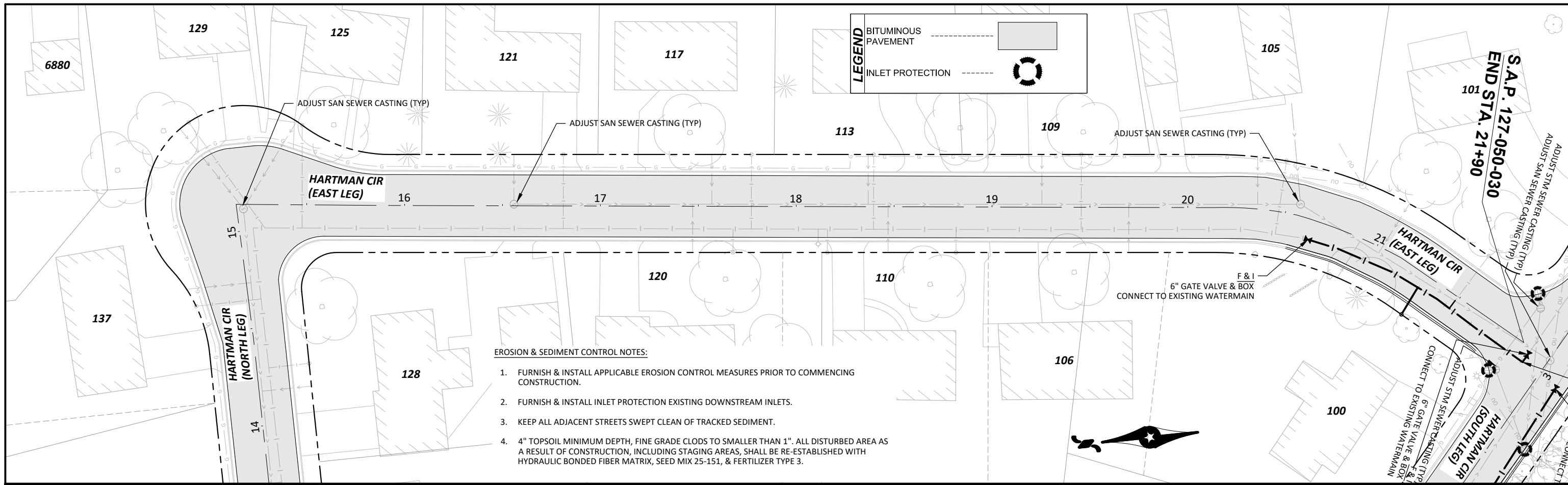
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LIC. NO. 26460
DATE 05/10/2022

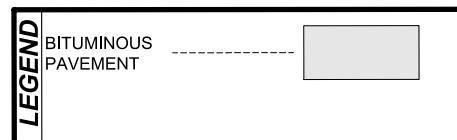
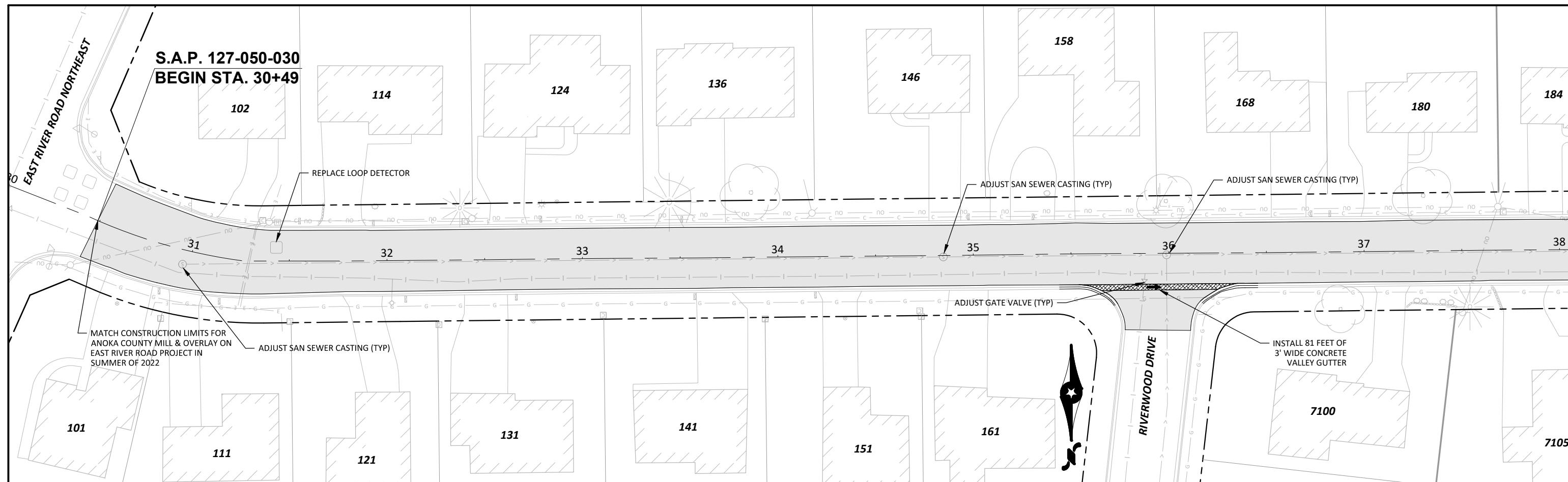


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S.A.P. # 127-050-030
CONSTRUCTION PLAN - HARTMAN CIRCLE (3 OF 4)





EROSION & SEDIMENT CONTROL NOTES:

1. FURNISH & INSTALL APPLICABLE EROSION CONTROL MEASURES PRIOR TO COMMENCING CONSTRUCTION.
2. FURNISH & INSTALL INLET PROTECTION EXISTING DOWNSTREAM INLETS.
3. KEEP ALL ADJACENT STREETS SWEEP CLEAN OF TRACKED SEDIMENT.
4. 4" TOPSOIL MINIMUM DEPTH, FINE GRADE CLODS TO SMALLER THAN 1". ALL DISTURBED AREA AS A RESULT OF CONSTRUCTION, INCLUDING STAGING AREAS, SHALL BE RE-ESTABLISHED WITH HYDRAULIC BONDED FIBER MATRIX, SEED MIX 25-151, & FERTILIZER TYPE 3.

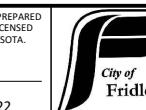
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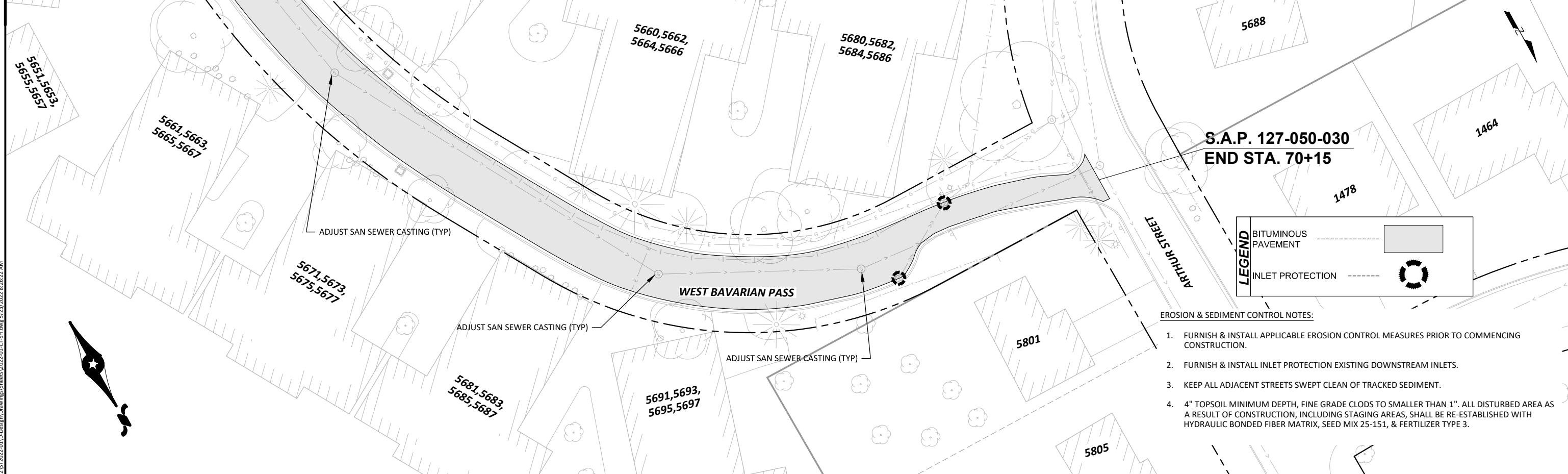
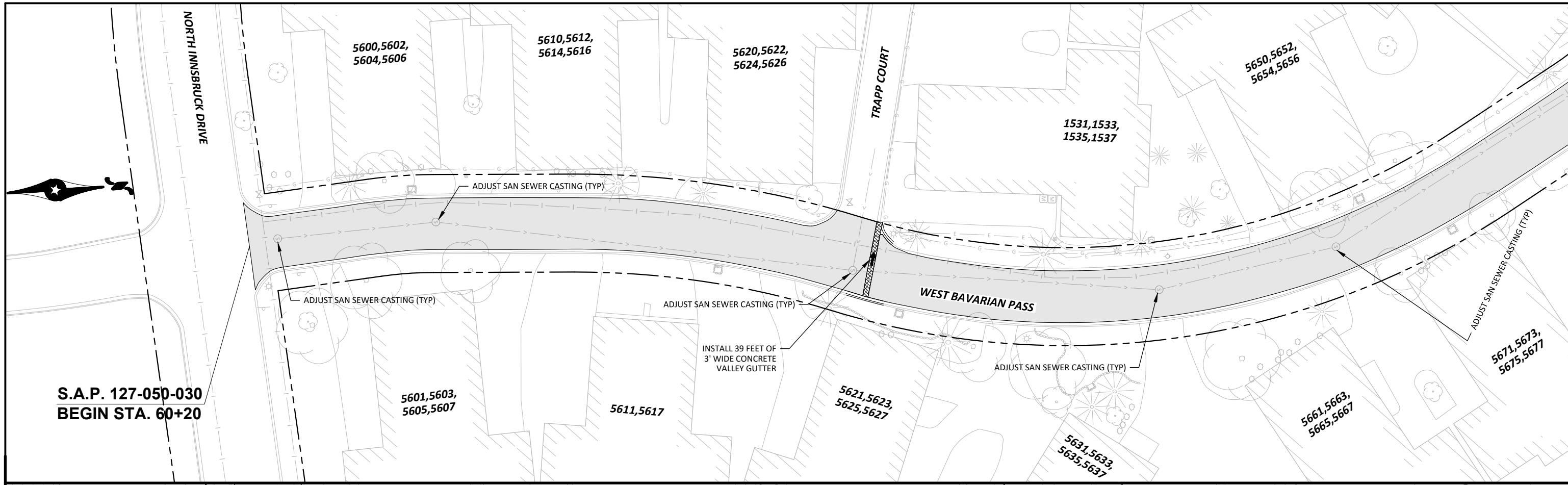
 JAMES P. KOSLCHAR
 LIC. NO. 26460
 DATE 05/10/2022



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2022 STREET REHABILITATION PROJECT
 S.A.P. # 127-050-030
 CONSTRUCTION PLAN - 71ST WAY



*LOOP DETECTORS			
NUMBER	SIZE	FUNCTION	LOCATION
D1-1	2'-6" X 6"	1	5'
D1-2	2'-6" X 6"	1	AS SHOWN
D2-1	6" X 6"	1	300'
D2-2	6" X 6"	1	300'
D4-1	6" X 6"	3/8	120'
D4-2	6" X 6"	7	5'
D4-3	6" X 6"	1	5'
D5-1	2'-6" X 6"	1	5'
D5-2	2'-6" X 6"	1	AS SHOWN
D6-1	6" X 6"	1	300'
D6-2	6" X 6"	1	300'
D8-1	6" X 6"	3/8	120'
D8-2	6" X 6"	7	5'

* NOTE: ALL DETECTORS IN NMC CONDUIT (SEE DETAILS)

LOCATION-DISTANCE FROM STOP LINE TO DETECTOR

FUNCTIONS:

- 1 - CALL AND EXTEND  PVC LOOP DETECTOR D4-1 (6'X6')
- 2 - CALL ONLY
- 3 - EXTEND ONLY
- 4 - CALL ONLY DENS
- 5 - DLY CALL ONLY
- 6 - DLY CALL ONLY DENSITY
- 7 - DLY CALL IMMED EXTEND
- 8 - CARRY OVER
- 9 - ADVISORY
- 10 - CALL DURING # 2 YELLOW
- 11 - CALL DURING # 6 YELLOW

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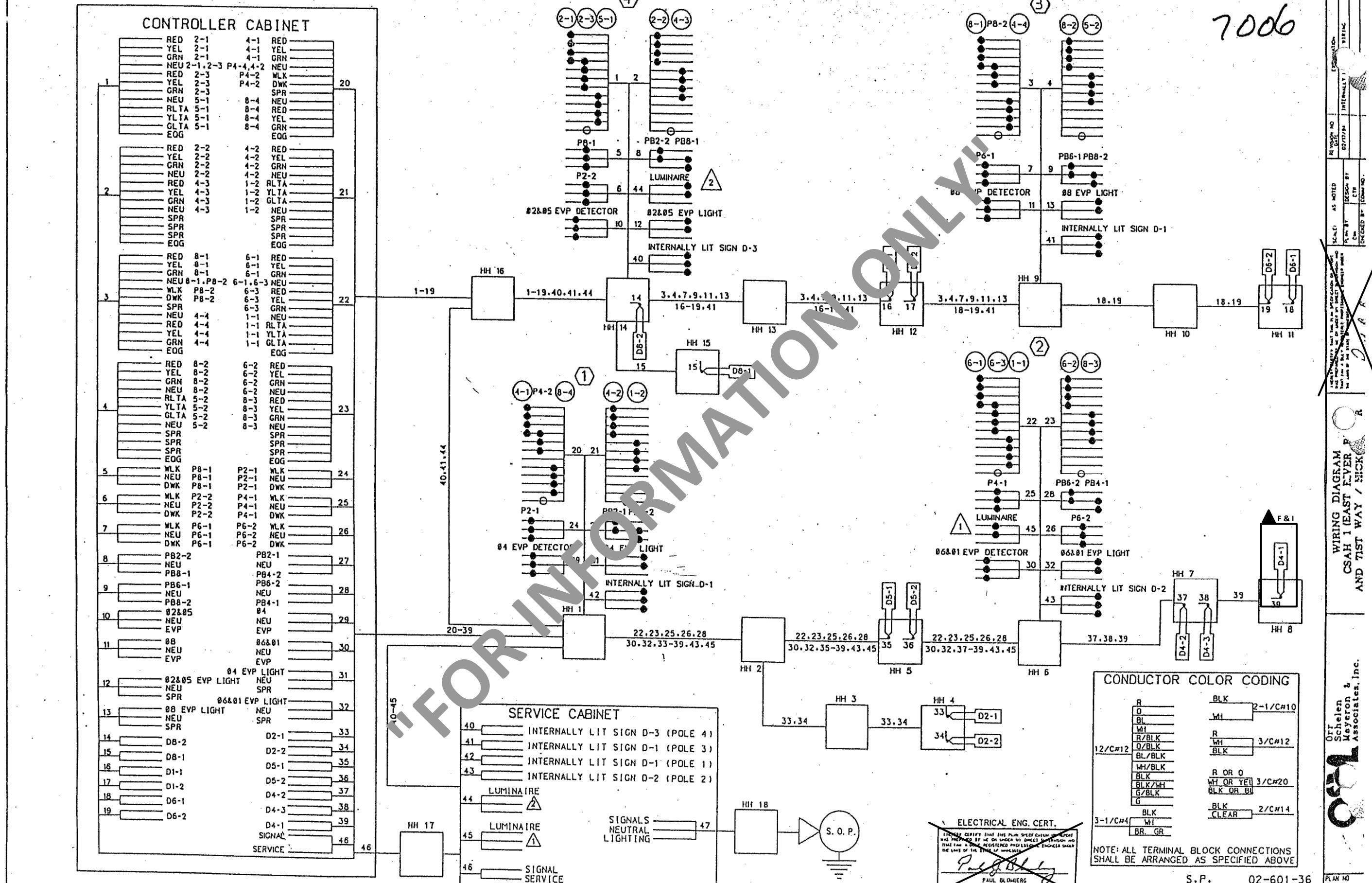
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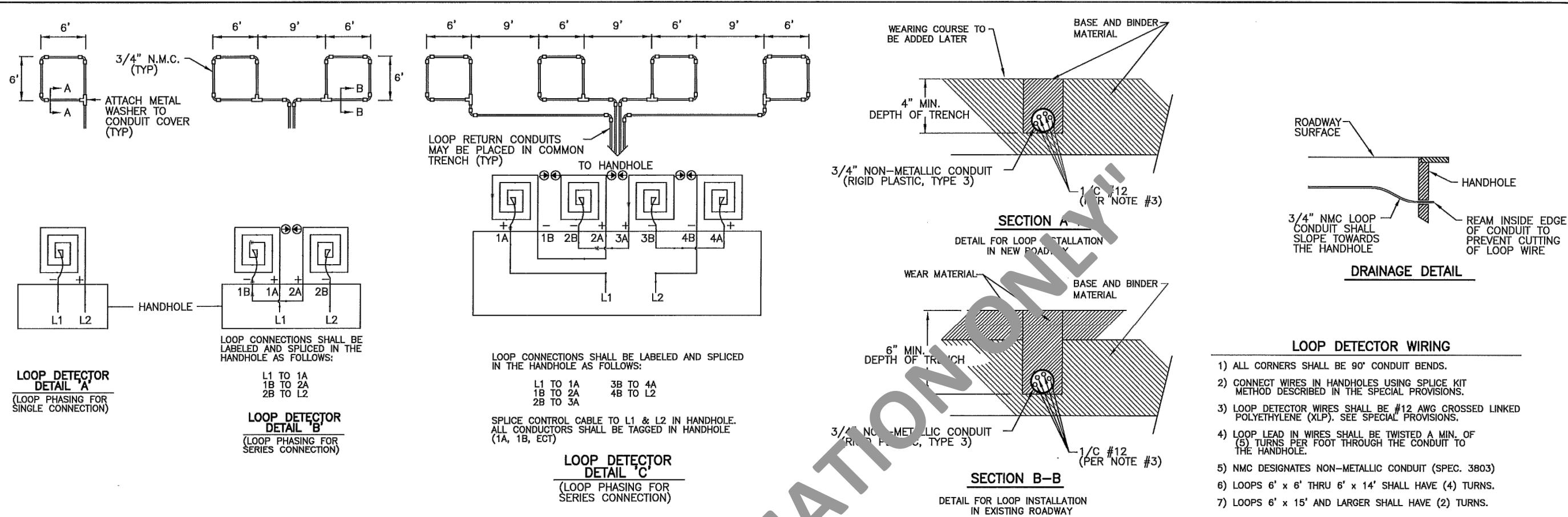
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LEGEND OF SYMBOLS	
CONTROLLER AND SERVICE EQUIP. NO's	(A)
SIGNAL BASE NO.	(1)
SIGNAL FACE NO.	▲
LUMINAIRE NO.	▲
CONTROLLER AND CABINET	■
CONTROLLER AND CABINET - IN PLACE	■■■
HANDHOLE	■
HANDHOLE - IN PLACE	■■■
RIGID STEEL CONDUIT (RSC)	—=—
RIGID STEEL CONDUIT (RSC) - IN PLACE	—=—
SIGNAL FACE WITH BACKGROUND SHIELD	→
SIGNAL FACE W/O BACKGROUND SHIELD	→
SIGNAL FACE - IN PLACE	→
PEDESTRIAN INDICATORS	→
PEDESTRIAN INDICATORS - IN PLACE	→
PEDESTRIAN PUSH BUTTONS ON PEDESTAL OR POLE	○ □
PEDESTRIAN PUSH BUTTON STATION	●
TRAFFIC SIGNAL PEDESTAL	■
TRAFFIC SIGNAL PEDESTAL - INPLACE	■
TRAFFIC SIGNAL POLE AND MAST ARM	●
TRAFFIC SIGNAL POLE AND MAST ARM - IN PLACE	○
STREET LIGHT POLE AND LUMINAIRE	● *
STREET LIGHT POLE AND LUMINAIRE - IN PLACE	○ *
MAST ARM AND LUMINAIRE	*
MAST ARM AND LUMINAIRE - INPLACE	*
WOOD POLE	●
WOOD POLE - IN PLACE	○
SOURCE OF POWER	○
RAILROAD SIGNAL - IN PLACE	ED
RIGHT OF WAY LINE	3
CENTERLINE	3
EDGE OF ROADWAY	—
SHOULDERLINE	—
CURB LINE	—
STOP BAR	—
EMERGENCY VEHICLE PREEMPTION DETECTOR	↔↔

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

CONDUCTOR COLOR CODE

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

ITEM NO	ITEM	UNIT	TABULATION OF SIGNAL QUANTITIES	
			PARTICIPATION	
			SAP 002-678-022	SAP 198-xxx-xxx
2104	REMOVE SIGNAL SYSTEM "B"	EACH	1	
2104	REMOVE SIGNAL SYSTEM "C"	EACH	1	
2545	SERVICE CABINET	EACH	2	
2565	EMERGENCY VEHICLE PREEMPTION SYSTEM "B"	LS	1	
2565	EMERGENCY VEHICLE PREEMPTION SYSTEM "C"	LS	1	
2565	TRAFFIC CONTROL INTERCONNECT	LS	1	
2565	TRAFFIC CONTROL SIGNAL SYSTEM "B"	SYSTEM	1	
2565	TRAFFIC CONTROL SIGNAL SYSTEM "C"	SYSTEM	1	
2565	REVISE SIGNAL SYSTEM "A"	SYSTEM	1	
2565	REVISE FLASHER SYSTEM "D"	SYSTEM	1	
2565	REVISE FLASHER SYSTEM "E"	SYSTEM	1	
2565	PEDESTRIAN CROSSWALK FLASHER SYSTEM	SYSTEM	1	

TRAFFIC SIGNAL STANDARD PLATES	
THESE TRAFFIC SIGNAL STANDARD PLATES AS APPROVED BY FHWA SHALL APPLY:	
PLATE NO.	DESCRIPTION
* 8000 J	CHANNELIZERS, TYPE A, B, C (3 SHEETS)
* 8111 E	TRAFFIC SIGNAL BRACKETING (PEDESTAL MOUNTED) (3 SHEETS)
* 8112 I	PEDESTAL FOUNDATION (FOR TRAFFIC CONTROL SIGNALS)
* 8118 D	SERVICE EQUIPMENT & POLE-TRAFFIC CONTROL SIGNALS
* 8119 C	GROUND MOUNTED CABINET FOUNDATION
* 8121 H	TRANSFORMER BASE & POLE BASE PLATE (2 SHEETS)
* 8122 F	PEDESTAL AND PEDESTAL BASE (FOR TRAFFIC CONTROL SIGNALS SUPPORT) (2 SHEETS)
* 8123 G	POLE & MAST ARM-LUMINAIRES & TRAFFIC LIGHTS ASSEMBLY (2 SHEETS)
* 8126 L	POLE FOUNDATION (PA90 & PA100)
* 8129 A	SHIM AND WASHER (TRAFFIC CONTROL SIGNALS AND ROADWAY LIGHTING)

* — APPLIES TO THIS PROJECT

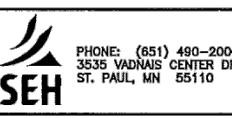
DRAWN BY: JMG			
DESIGNER: JMG			
CHECKED BY: JMG			
DESIGN TEAM	NO.	BY	DATE



Know what's below.
Call 811 before you dig.

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

Name: John M. Gray, PE
Date: January 30, 2018
Lic. No. 22457



ANOKA COUNTY,
MINNESOTA
SAP. 002-678-022

TRAFFIC SIGNAL SYSTEMS "A-C"
DETAILS AND STANDARD PLATES
CSAH 78 (HANSON BLVD NW)
SIGNAL SYSTEMS

FILE NO.
ANOKC 144176
SIGNAL SHEET
1 OF 27

XX
XX



7071 University Avenue NE
Fridley, MN 55432

DESIGNED BY	NO.	ISSUED FOR	DATE
DRAWN BY	BJB		
CHECKED	JPK		
CLIENT PROJ. NO.	ST2022-01		

2022 STREET REHABILITATION PROJECT
S.A.P. # 127-050-030
FOR INFORMATION ONLY - SIGNAL PLANS FOR 71ST WAY & EAST RIVER RD