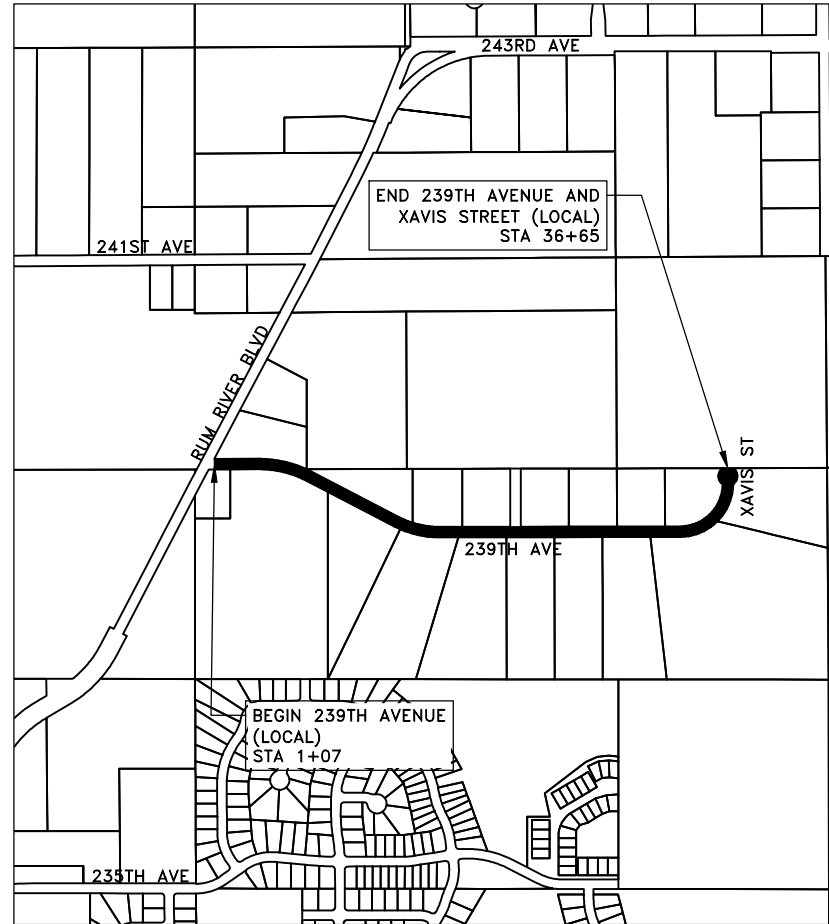
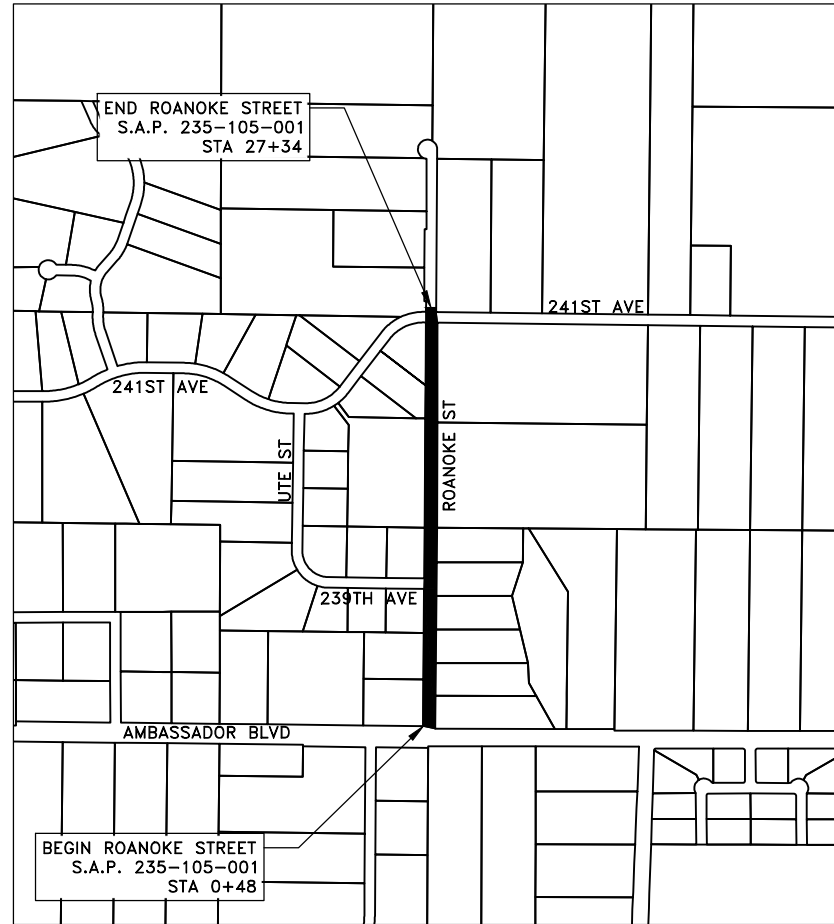
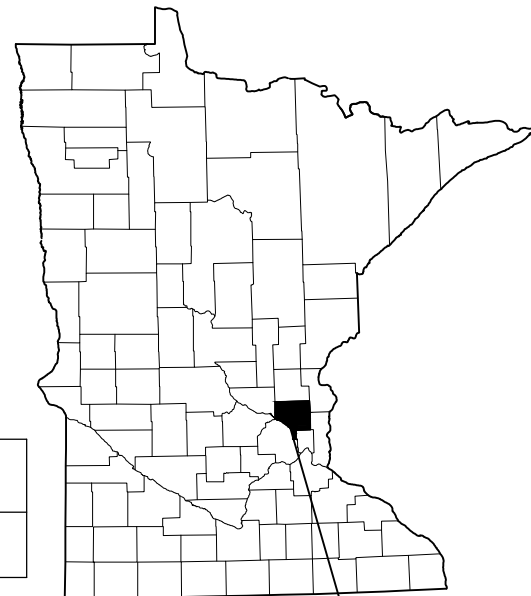
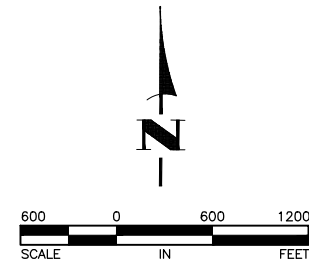


MINNESOTA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS FOR BITUMINOUS PAVEMENT RECLAMATION, BITUMINOUS SURFACING,
EROSION CONTROL AND RESTORATION
2022 STREET REHABILITATION PROJECT
ST. FRANCIS, MINNESOTA

S.A.P. 235-105-001 LOCATED ON ROANOKE STREET FROM AMBASSADOR BOULEVARD TO 241ST AVENUE
SECTION 25 - TOWNSHIP 34 - RANGE 25 & SECTION 30 - TOWNSHIP 34 - RANGE 24



PROJECT LOCATIONS



CITY OF ST. FRANCIS,
ANOKA COUNTY,
MINNESOTA

PROJECT	STA. TO STA.	GROSS LENGTH (FEET)	BRIDGE LENGTH (FEET)	EXCEPTION LENGTH (FEET)	NET LENGTH (FEET)	NET LENGTH (MILES)	ADT (2022)	ADT (2042)	DESIGN ESAL	R VALUE	TON DESIGN	DESIGN SPEED	NUMBER OF LANES	NUMBER OF PARKING LANES	FUNCTIONAL CLASSIFICATION
S.A.P. 235-105-001 ROANOKE STREET	0+48 TO 27+34	2686	0	0	2686	0.51	583	711	55,469	50	10	30	2	0	COLLECTOR

STOPPING SITE DISTANCE BASED ON:
3.5 FEET - HEIGHT OF EYE
2.0 FEET - HEIGHT OF OBJECT



Civil Engineers and Land Surveyors
3601 Thurston Ave., Anoka, Minnesota 55303
763-427-5860 FAX 763-427-0520

THE SUBSURFACE UTILITY INFORMATION
IN THIS PLAN IS UTILITY QUALITY LEVEL
D. THIS QUALITY LEVEL WAS DETERMINED
ACCORDING TO THE GUIDELINES OF
CI/ASCE 38-2, ENTITLED "STANDARD
GUIDELINES FOR THE COLLECTION AND
DEPICTION OF EXISTING SUBSURFACE
UTILITY DATA."

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL APPLY.

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

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE
LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC
CONTROL DEVICES (MMUTCD), INCLUDING THE LATEST FIELD MANUAL FOR
TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

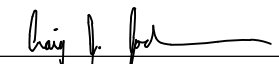
ALL REQUIREMENTS OF THE PROJECT MANUAL FOR THE 2022 STREET
REHABILITATION PROJECT.

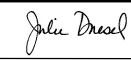
SHEET INDEX

THIS PLAN CONTAINS 34 SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES AND SCHEDULES
3	GENERAL CONSTRUCTION NOTES AND PROJECT LEGEND
4	TYPICAL SECTIONS AND DETAILS
5	EROSION CONTROL NOTES AND DETAILS
6-10	EXISTING CONDITIONS AND TOPOGRAPHY - 239TH AVE AND XAVIS ST
11-19	CONSTRUCTION PLANS - 239TH AVE AND XAVIS ST
20	CONSTRUCTION PLANS - XAVIS ST CUL-DE-SAC
21-23	CONSTRUCTION PLANS - ROANOKE STREET
X1-X11	CROSS SECTIONS

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.

 23461 DATE 5/6/22
CRAIG J. JOCHUM, P.E. LIC. NO.
HAKANSON ANDERSON
DESIGN ENGINEER

 For DATE 5/11/2022
DISTRICT STATE AID ENGINEER: REVIEWED FOR
COMPLIANCE WITH STATE AID RULES/POLICY

 For DATE 5/11/2022
STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

DATE	REVISION

May 11, 2022 -- 10:03am
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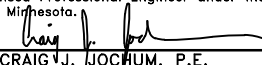
ESTIMATED QUANTITIES						
ITEM NO.	Mn/DOT SPEC. NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	S.A.P. 235-105-001 ROANOKE STREET	239TH AVENUE AND XAVIS STREET - LOCAL FUNDING
					ESTIMATED QUANTITY	ESTIMATED QUANTITY
1	2021.501	MOBILIZATION	LUMP SUM	1	0.24	0.76
2	2104.503	SAWING CONCRETE PAVEMENT - FULL DEPTH	LIN FT	45		45
3	2104.503	SAWING BITUMINOUS PAVEMENT - FULL DEPTH	LIN FT	200	50	150
4	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	90		90
5	2104.504	REMOVE CONCRETE PAVEMENT	SQ YD	20		20
6	2106.603	CONSTRUCT DRAINAGE DITCH	LIN FT	334		334
7	2112.519	SUBGRADE PREPARATION	ROAD STATION	37		37
8	2211.509	AGGREGATE BASE CLASS 2	TON	305	110	195
9	2211.509	AGGREGATE BASE CLASS 5	TON	197	5	192
10	2215.504	FULL DEPTH RECLAMATION	SQ YD	10545		10545
11	2232.504	MILL BITUMINOUS SURFACE	SQ YD	225	190	35
12	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLONS	1053	530	523
13	2360.504	TYPE SP 9.5 WEARING COURSE MIXTURE (2,B) 3.0" THICK	SQ YD	259	90	169
14	2360.509	TYPE SP 4.75 BITUMINOUS MIXTURE FOR TIGHT BLADE LEVELING	TON	40	40	
15	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (2,B)	TON	1723	750	973
16	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (2,B)	TON	1297		1297
17	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	20		20
18	2540.602	MAIL BOX	EACH	26	8	18
19	2563.601	TRAFFIC CONTROL SUPERVISOR	LUMP SUM	1	0.24	0.76
20	2563.601	TRAFFIC CONTROL	LUMP SUM	1	0.24	0.76
21	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	300	100	200
22	2574.507	LOAM TOPSOIL BORROW	CU YD	130	30	100
23	2575.523	WATER	MGAL	62	12	50
24	2575.604	SITE RESTORATION	SQ YD	3750	150	3600

BASIS OF ESTIMATED QUANTITIES	
AGGREGATE BASE CLASS 5	100 lbs/yd ² /in
NON WEARING BITUMINOUS COURSE MIXTURE	110 lbs/yd ² /in
WEARING COURSE BITUMINOUS MIXTURE	110 lbs/yd ² /in.
BITUMINOUS MATERIAL FOR TACK COAT - NEW ASPHALT	0.06 gal/yd ²
BITUMINOUS MATERIAL FOR TACK COAT - OLD ASPHALT	0.07 gal/yd ²
BITUMINOUS MATERIAL FOR TACK COAT - MILLED ASPHALT	0.08 gal/yd ²
HYDRAULIC FIBER BONDED MATRIX	3500 lbs/acre
SEED MIX 25-121	122 lbs/acre
TYPE 1, COMMERCIAL FERTILIZER	300 lbs/acre

STANDARD PLATES	
THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY	
PLATE NO.	DESCRIPTION
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)

DATE	REVISION
5/11/22	ADDED STANDARD PLATES

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.


CRAIG J. JOCHUM, P.E.
Date 5/6/22 Lic. No. 23461

DESIGNED BY: CJJ
DRAWN BY: SGJ
CHECKED BY: TAE



Hakanson Anderson
Civil Engineers and Land Surveyors
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2022 STREET REHABILITATION PROJECT

ESTIMATED QUANTITIES AND
SCHEDULES

CITY OF ST. FRANCIS, MINNESOTA

SHEET
2
OF
23
SHEETS

S.A.P. 235-105-001

1. STRIP AND STOCKPILE ALL INPLACE TOPSOIL AND SLOPE DRESSING IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. IN AREAS OF STREET, SHOULDER, AND INTERSECTION CONSTRUCTION, THE EXPOSED SAND SHALL BE SURFACE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY, ASTM D698, IN AT LEAST THE UPPER 3 FT.
2. SUITABLE GRADING MATERIAL FOR THIS PROJECT SHALL CONSIST OF GRANULAR BORROW AND ALL ONSITE SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, SILT, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. THE MATERIAL SHALL HAVE A CLASSIFICATION OF SP, SM OR SP-SM (USCS CLASSIFICATIONS).
3. IN ANY PAVEMENT WIDENING THE CONTRACTOR SHALL STRIVE TO SUBSTANTIALLY MATCH BACKFILL MATERIAL WITH IN PLACE SOILS TO FORESTALL ABRUPT FROST DIFFERENTIAL. GRANULAR FILL SHALL NOT BE PLACED BESIDE NON GRANULAR SOILS AND VICE VERSA.
4. WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT CUT VERTICALLY TO THE BOTTOM OF INPLACE SURFACING OR TOP OF GRADING SUBGRADE WHICHEVER IS DEEPER AT A 1(V):2(H) TO THE BOTTOM OF EXCAVATION.
5. PROVIDE A SAW CUT WHEN PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT AND AT TERMINI OF CONSTRUCTION TO ENSURE A UNIFORM JOINT.
6. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH MN/DOT SPEC. 2104.
7. USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF PER THE BASIS OF ESTIMATED QUANTITIES BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS.
8. PERFORMANCE GRADED (PG) ASPHALT BINDER PG 58-28, SPEC. 3151, SHALL BE USED FOR ALL BITUMINOUS MIXES ON THIS PROJECT. SPECIFIC PG GRADES SHALL BE STATED IN THE SPECIAL PROVISIONS AND AT THE END OF THE MIX DESIGNATION NUMBER SHOWN ON THE TYPICAL SECTION.
9. THE BITUMINOUS MIXTURES SHALL MEET THE REQUIREMENTS OF SPECIFICATIONS 2360 AND 3159.
10. IF NECESSARY, THE UTILITY COMPANIES WILL RELOCATE THEIR FACILITIES CONCURRENTLY WITH THE CONSTRUCTION OPERATIONS UNDER THIS CONTRACT. CONTRACTOR SHALL SCHEDULE CONSTRUCTION IN COOPERATION WITH UTILITY RELOCATION.
11. ALL TRENCH AND OTHER EXCAVATIONS GREATER THAN 24 INCHES DEEP SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. EXTRA WORK REQUIRED TO BACKFILL AND CORRESPONDINGLY REMOVE MATERIAL THE NEXT WORK DAY SHALL BE INCIDENTAL.
12. THE CONTRACTOR SHALL POST THE SWPPP, AND OTHER REQUIRED DOCUMENTS ON SITE. THE METHOD OF POSTING SHALL BE APPROVED BY THE ENGINEER.
13. CONTRACTOR SHALL SALVAGE AND REINSTALL ALL SIGNS AS REQUIRED TO COMPUTER THE WORK. THIS WORK SHALL BE INCIDENTAL.
14. PAY ITEM 2575 WATER WILL ONLY BE MEASURED AND PAID TO WATER RESTORATION AREAS. ALL OTHER WATER REQUIRED FOR THE CONTRACTOR TO COMPLETE THE WORK SHALL BE INCIDENTAL.

	EXISTING CONTOUR
	RIGHT-OF-WAY
	SECTION LINE
	EXISTING EASEMENT
	DELINEATED WETLAND
	GAS MAIN
	BURIED TELEPHONE CABLE
	OVERHEAD UTILITY
	OVERHEAD ELECTRIC
	BURIED ELECTRIC
	WIRE FENCE
	CHAIN LINK FENCE
	EXISTING STORM SEWER
	EXISTING SANITARY SEWER
	PROPOSED STORM SEWER
	PROPOSED SANITARY SEWER
	PROPOSED WATERMAIN
	EXISTING CONCRETE CURB AND GUTTER
	PROPOSED CONCRETE CURB AND GUTTER
	DRIPLINE
	DECIDUOUS AND CONIFEROUS TREES
	UTILITY PEDESTAL
	POWER POLE
	GUY WIRE
	CATCH BASIN INLETS
	STORM SEWER MANHOLE
	STORM SEWER APRON
	MAILBOX ①
	SIGN
	DETAIL NUMBER
	SHEET NUMBER
	SOIL BORING
	SB-5

① SEE DIVISION 2 OF THE PROJECT MANUAL FOR ADDITIONAL INFORMATION. MAIL BOXES SHALL BE INSTALLED AS REQUIRED BY THE POST MASTER.

DATE	REVISION	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.  CRAIG J. JOCHUM, P.E. Date 5/6/22 Lic. No. 23461

DESIGNED BY:	CJJ
DRAWN BY:	SGJ
CHECKED BY:	TAE



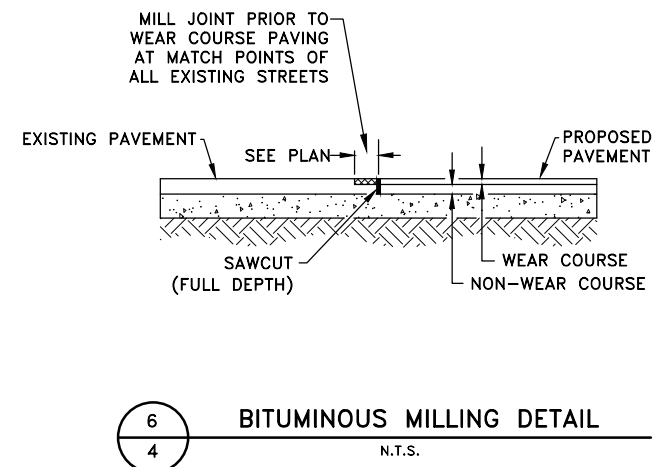
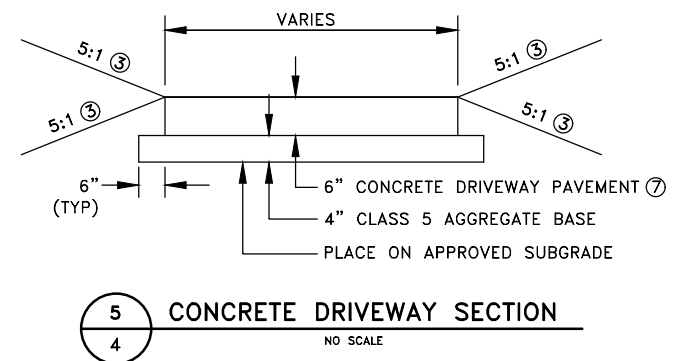
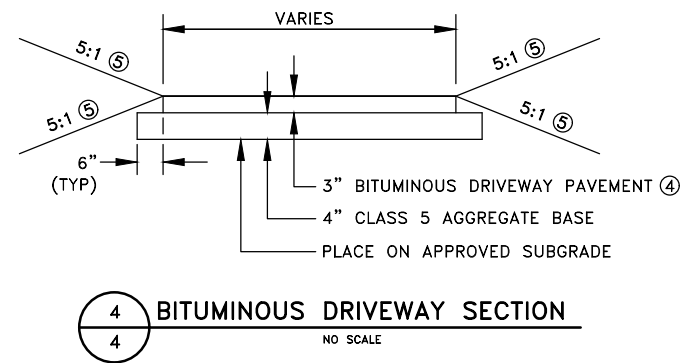
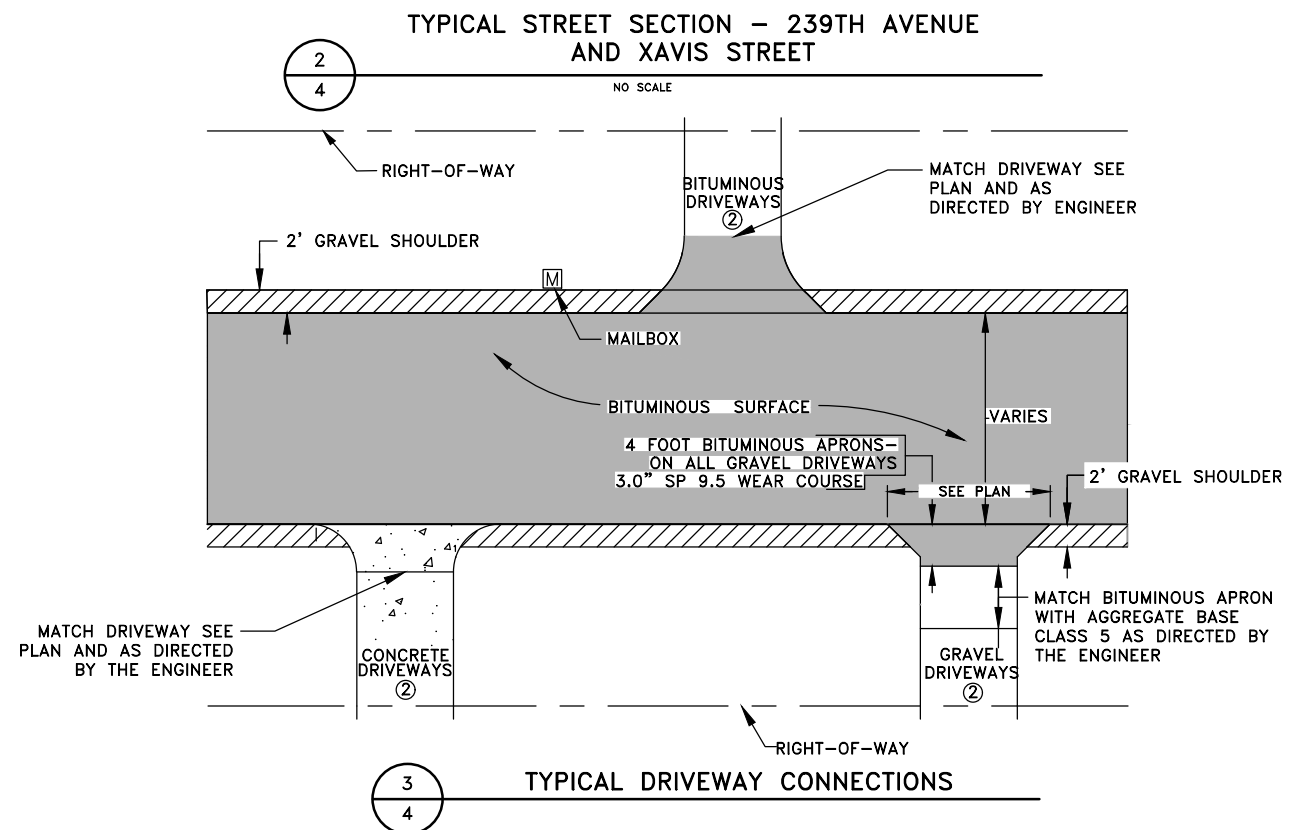
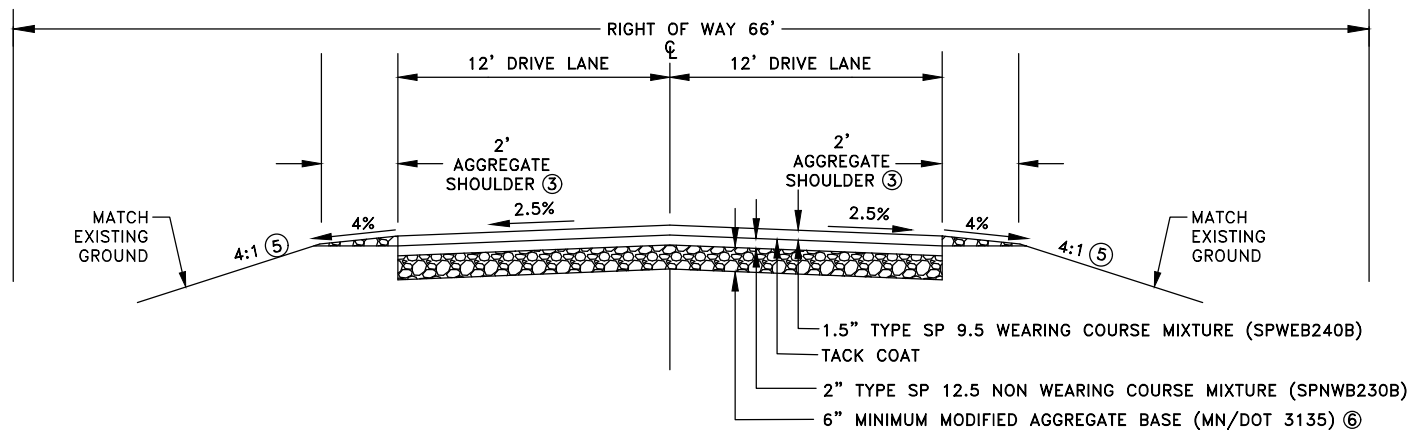
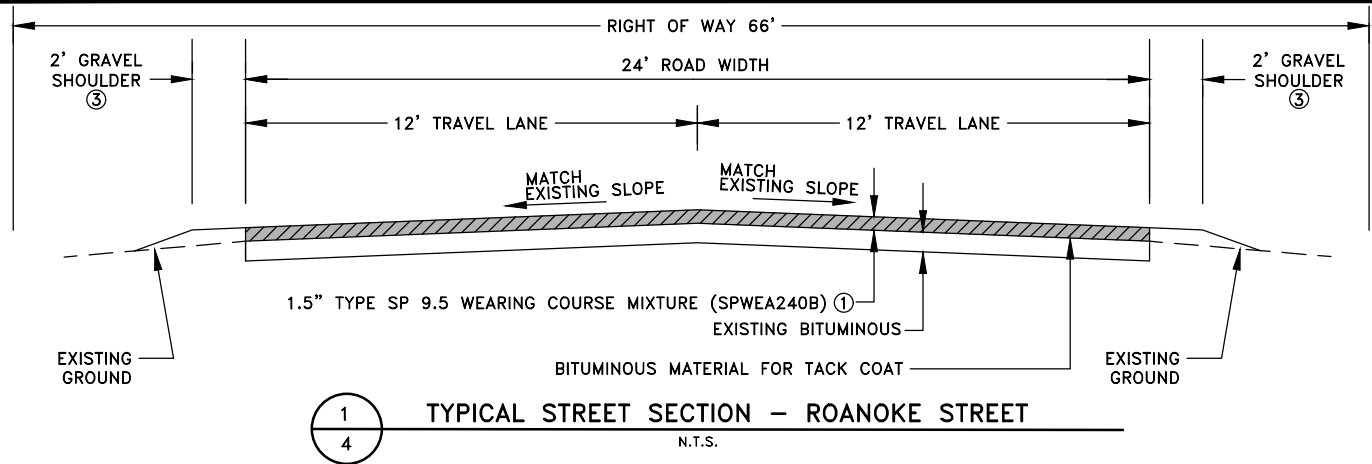
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2022 STREET REHABILITATION PROJECT

GENERAL CONSTRUCTION NOTES
AND PROJECT LEGEND

CITY OF ST. FRANCIS, MINNESOTA

SHEET
3
OF
23
SHEETS



- REFERENCE NOTE:
- PRIOR TO CONSTRUCTION OF THE BITUMINOUS OVERLAY THE CONTRACTOR SHALL PATCH ALL PAVEMENT POTHoles THAT ARE 1/2 INCH OR DEEPER. PATCH WILL BE PAID BY ITEM 2360 TYPE 4.75 BITUMINOUS MIXTURE FOR TIGHT BLADE LEVELING. MIX SHALL BE SPREAD BY GRADER, SKID STEER OR OTHER APPROPRIATE EQUIPMENT. PATCH MATERIAL SHALL BE COMPACTED WITH A STEEL DRUM ROLLER. PATCH SHALL BE TACK COATED PRIOR TO PLACEMENT. TACK COAT WILL BE PAID PER THE BID ITEM.
 - WHEN NECESSARY AND AS DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL MATCH DRIVEWAYS, BEYOND THE 2 FOOT GRAVEL SHOULDER, WITH TOPSOIL. ALL TOPSOIL AND DISTURBED AREAS SHALL BE RESTORED WITH TURF. RESTORATION WILL BE PAID PER ITEM 2575 SITE RESTORATION.
 - SHOULDER SHALL BE AGGREGATE BASE CLASS 2 (LIMESTONE).
 - BITUMINOUS DRIVEWAY PAVEMENT SHALL BE PAID PER ITEM 2360 TYPE 9.5 WEARING COURSE MIXTURE (2,B) 3" THICK.
 - ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED ON SHEET 5.
 - CONTRACTOR SHALL RECLAIM, TO A MINIMUM OF 8 INCHES, IF THERE IS SUFFICIENT EXISTING BITUMINOUS AND AGGREGATE BASE. 6-INCHES SHALL BE THE MINIMUM BASE REQUIRED PRIOR TO PAVING.
 - CONCRETE DRIVEWAY PAVEMENT SHALL BE PAID PER ITEM 2531 6" CONCRETE DRIVEWAY PAVEMENT.

DATE	REVISION

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CRAIG J. JOCHUM, P.E.
Date 5/6/22 Lic. No. 23461

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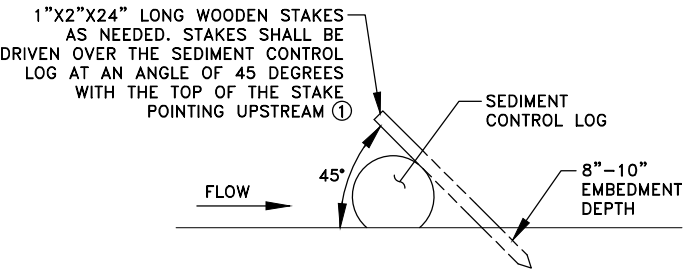
2022 STREET REHABILITATION PROJECT

TYPICAL SECTIONS AND DETAILS

CITY OF ST. FRANCIS, MINNESOTA

SHEET
4
OF
23
SHEETS

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1
5 SEDIMENT CONTROL LOG TYPE STRAW

GENERAL EROSION CONTROL NOTES:

1. PRIOR TO ANY CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL ACQUIRE THE MPCA-CONSTRUCTION STORMWATER GENERAL PERMIT. A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED COVERING CONSTRUCTION ACTIVITIES. THE SWPPP IS INCLUDED IN THE PROJECT MANUAL.
2. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) PRIOR TO GRADING AND REMOVAL ACTIVITIES. BMP'S SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES AND POTENTIAL FOR EROSION HAS PASSED.
3. THE CONTRACTOR SHALL SCHEDULE THEIR OPERATION TO MINIMIZE THE AMOUNT OF DISTURBED AREA AT ANY GIVEN TIME.
4. BMP'S SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND DOCUMENTED IN THE SWPPP INSPECTION LOG. WEEKLY LOGS MUST BE FORWARDED TO THE ENGINEER FOR REVIEW.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS APPROVED BY THE ENGINEER.
6. THE CONTRACTOR SHALL FILE NOTICE OF TERMINATION (NOT) WITH THE MPCA WHEN FINAL STABILIZATION IS APPROVED BY THE ENGINEER.
7. ALL LABOR, MATERIALS, AND EQUIPMENT COSTS NECESSARY TO MANAGE EROSION AND SEDIMENT IN ACCORDANCE WITH THE MN/DOT STANDARD SPECIFICATIONS, MN/DOT EROSION CONTROL HANDBOOK, AND ALL REQUIREMENTS INCLUDED IN THE PROJECT MANUAL SHALL BE PAID PER ITEM 2575-EROSION CONTROL, UNLESS OTHERWISE INCLUDED ON THE PROJECT BID FORM.
8. CONTRACTOR SHALL PROMPTLY SWEEP EXISTING STREETS WHEN ANY SEDIMENT TRACKING OCCURS.
9. THE CONTRACTOR SHALL MEET ALL REQUIREMENTS OF THE GENERAL PERMIT, WHICH IS INCLUDED IN THE PROJECT MANUAL.
10. PRIOR TO THE START OF ANY CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE CERTIFICATION DOCUMENTATION FOR THE EROSION CONTROL SUPERVISOR AND INSTALLERS TO THE ENGINEER.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL INSPECTIONS AND MAINTENANCE AS OUTLINED IN PART IV.E INSPECTIONS AND MAINTENANCE OF THE GENERAL PERMIT, WHICH IS INCLUDED IN THE PROJECT MANUAL.
12. CONTRACTOR SHALL STABILIZE ALL EXPOSED SOIL AREAS IMMEDIATELY TO LIMIT SOIL EROSION BUT IN NO CASE COMPLETED LATER THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITIES IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. DEPENDING ON THE CONTRACTOR'S OPERATION, TEMPORARY SEEDING AND MULCHING MAY BE REQUIRED TO MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND SWPPP. ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR TEMPORARY SEEDING AND MULCHING SHALL BE INCIDENTAL.
13. EROSION CONTROL SHALL CONFORM TO THE MN/DOT EROSION CONTROL HANDBOOK.
14. WHEN SEDIMENTS DEPOSIT IN A WATER OF THE STATE, THE MATERIAL MUST BE REMOVED WITHIN 7 DAYS.
15. PRIOR TO SEEDING, SOIL SHALL BE PREPARED PER MN/DOT SPEC 2574.3.A.4.
16. ALL DISTURBED AREAS REQUIRE TOPSOIL, MN/DOT SEED MIXTURE 25-121, TYPE 1 FERTILIZER AND HYDRAULIC BONDED FIBER MATRIX. SEED SHALL BE PLACED BY HYDROSEEDING AND SHALL BE IN ACCORDANCE WITH MN/DOT SPEC. 2575. APPLICATION OF THE HYDRAULIC BONDED FIBER MATRIX SHALL NE COMPLETED SEPARATELY FROM THE HYDROSEEDING. PLACE HYDRAULIC BONDED FIBER MATRIX PER MN/DOT SPEC 2575.3.E.2.d. RATES OF SEED, FERTILIZER AND HYDRAULIC STABILIZED FIBER MATRIX PLACEMENT SHALL BE IN ACCORDANCE WITH THE BASIS OF ESTIMATED QUANTITIES SCHEDULE SHOWN ON SHEET 2.

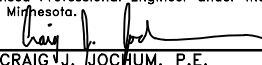
REFERENCE NOTES:

- ① PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

S.A.P. 235-105-001

DATE	REVISION

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CRAIG J. JOCHUM, P.E.
Date 5/6/22 Lic. No. 23461

DESIGNED BY:
CJJ

DRAWN BY:
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TAE



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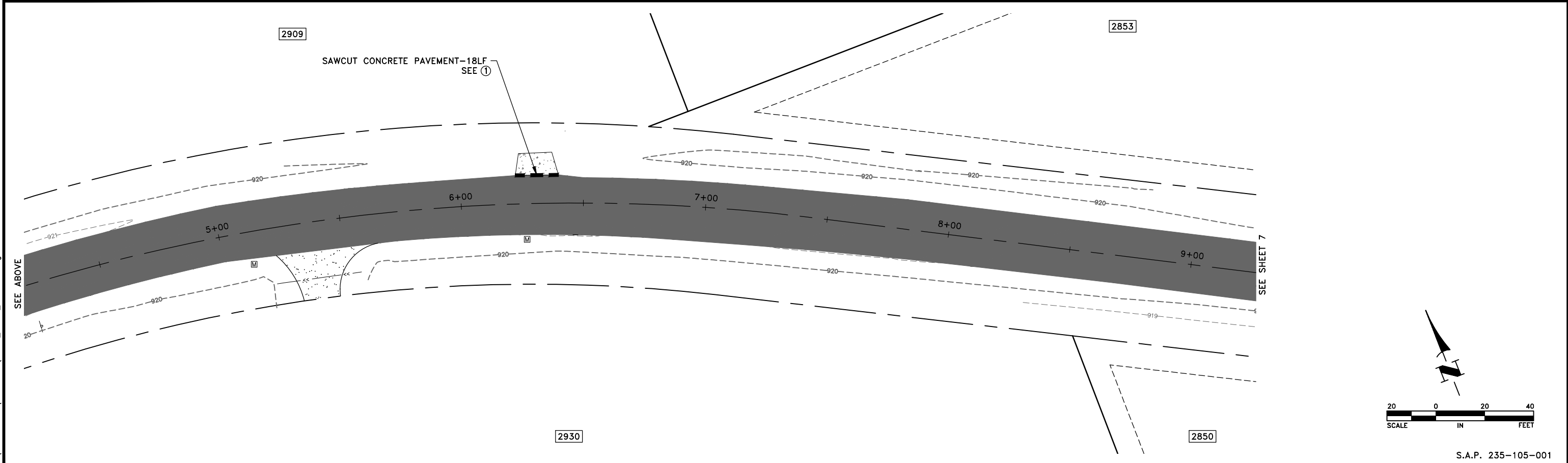
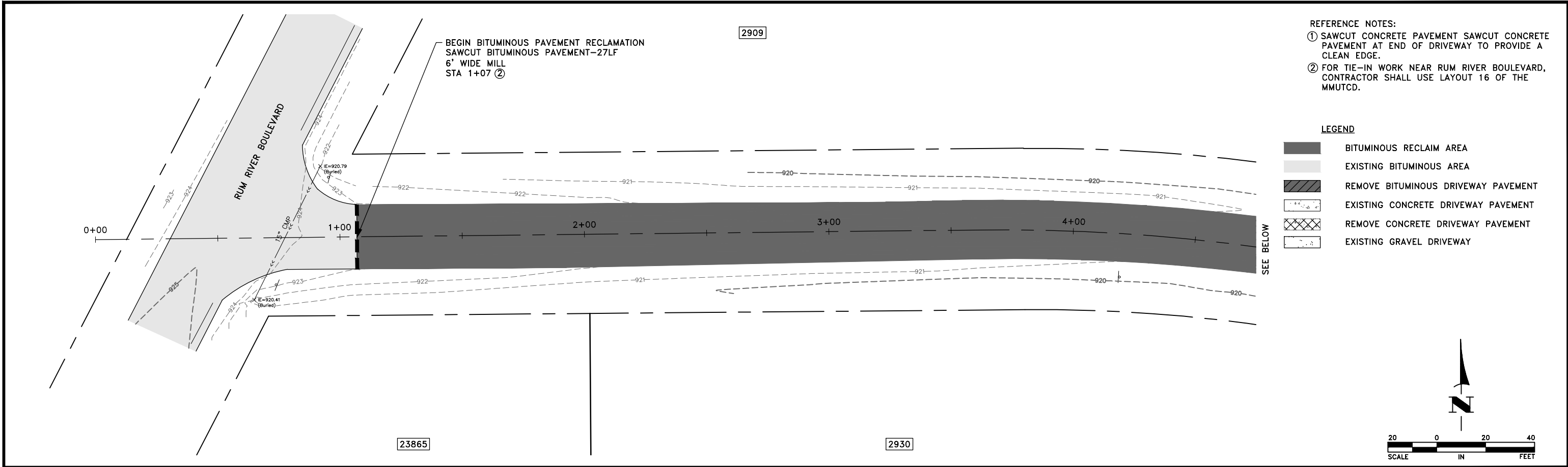
2022 STREET REHABILITATION PROJECT

EROSION CONTROL NOTES AND DETAILS

CITY OF ST. FRANCIS, MINNESOTA

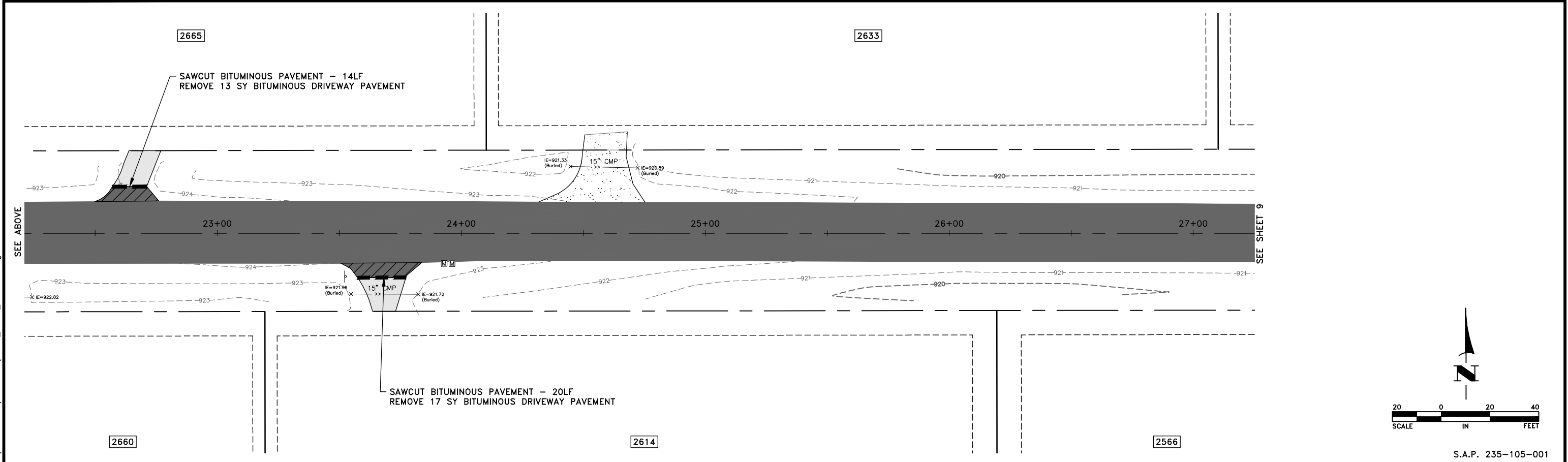
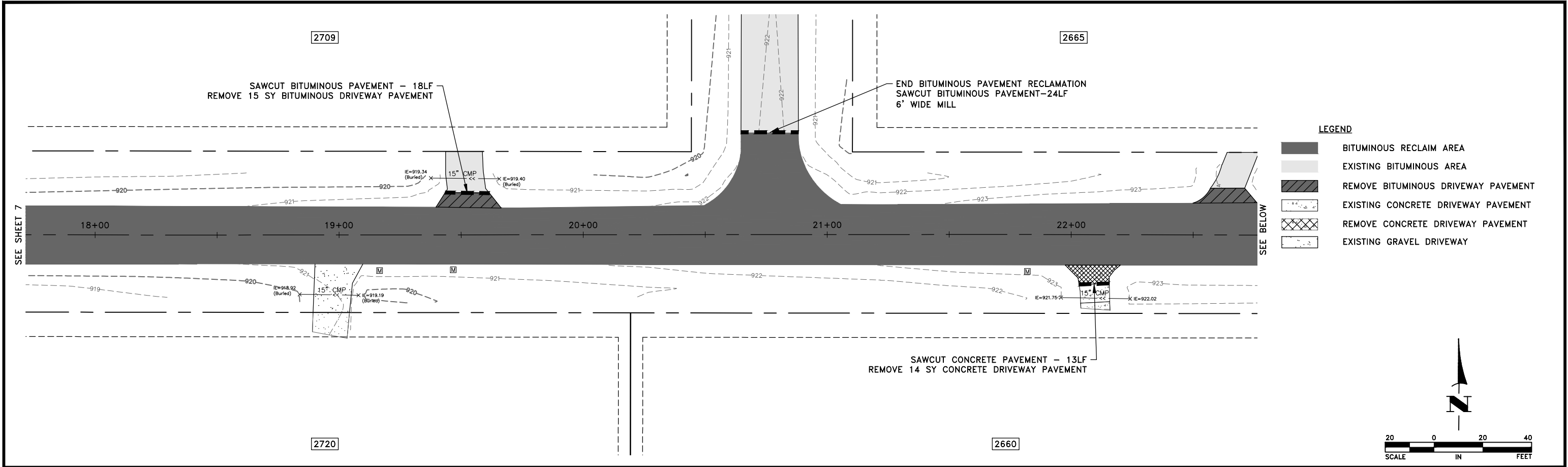
SHEET
5
OF
23
SHEETS

May 11, 2022 - 9:39am
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DATE	REVISION	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.		DESIGNED BY: CJJ		Hakanson Anderson Civil Engineers and Land Surveyors 3601 Thurston Ave., Anoka, Minnesota 55303 763-427-5860 FAX 763-427-0520 www.hakanson-anderson.com	2022 STREET REHABILITATION PROJECT	EXISTING CONDITIONS AND TOPOGRAPHY 239TH AVENUE CITY OF ST. FRANCIS, MINNESOTA	SHEET 6 OF 23 SHEETS
		CRAIG J. JOCHIM, P.E. Date 5/6/22 Lic. No. 23461		DRAWN BY: SGJ					
				CHECKED BY: TAE					

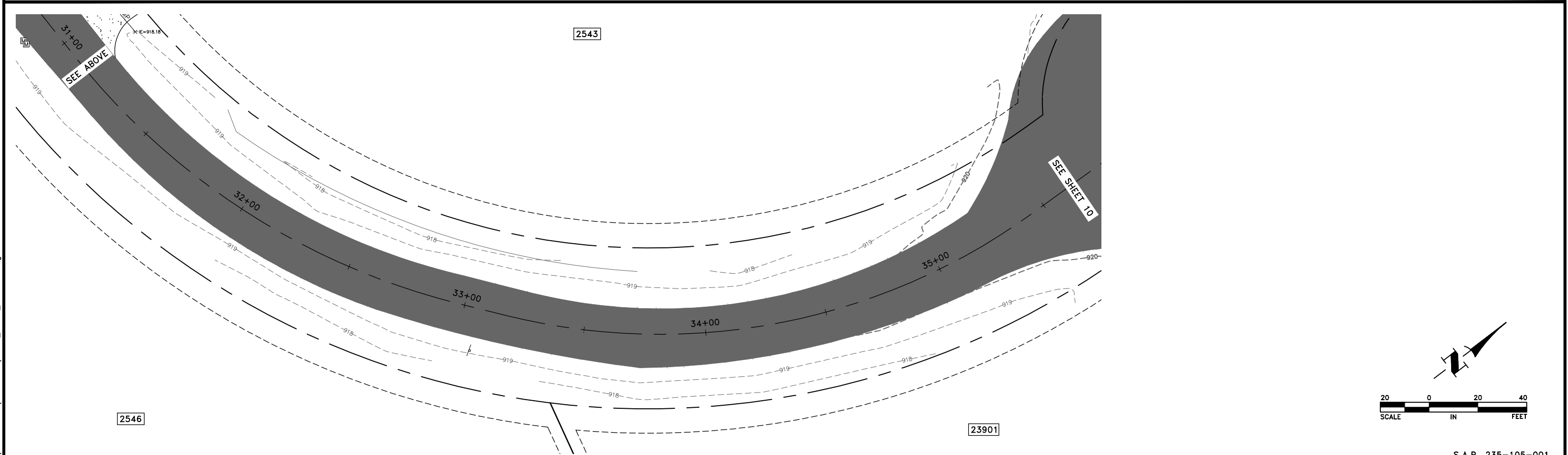
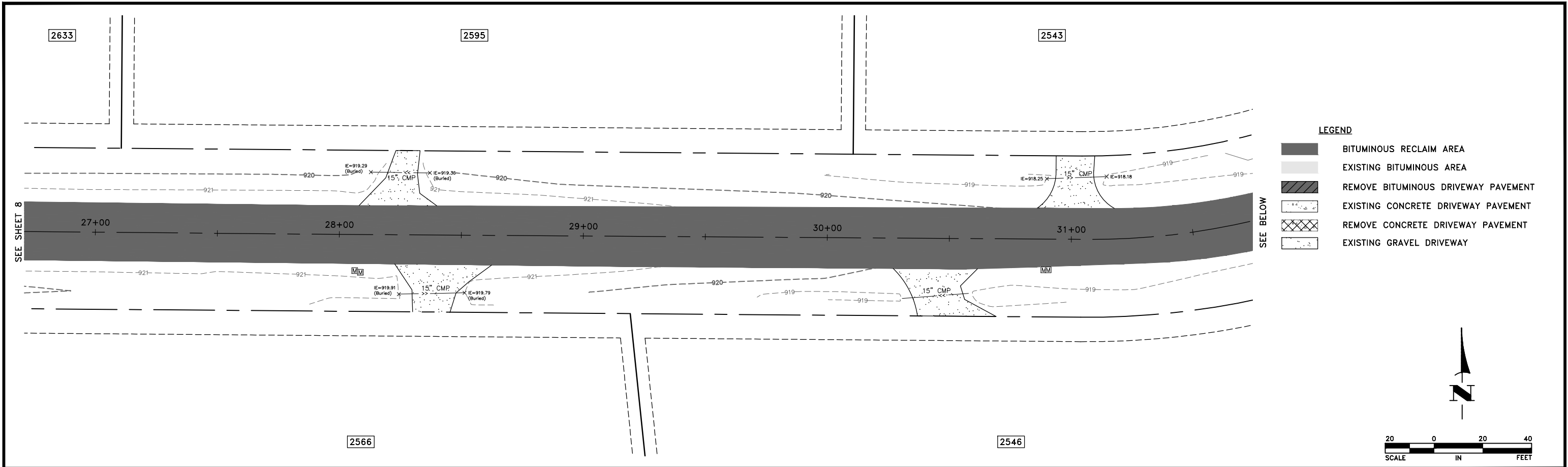
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DATE	REVISION	I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.		DESIGNED BY: CJJ		Hakanson Anderson Civil Engineers and Land Surveyors 3601 Thurston Ave., Anoka, Minnesota 55303 763-427-5860 FAX 763-427-0520 www.hakanson-anderson.com	2022 STREET REHABILITATION PROJECT	EXISTING CONDITIONS AND TOPOGRAPHY	239TH AVENUE CITY OF ST. FRANCIS, MINNESOTA	SHEET 8 OF 23 SHEETS
		CRAIG J. JOCHUM, P.E. Date 5/6/22 Lic. No. 23461		DRAWN BY: SGJ						
				CHECKED BY: TAE						

S.A.P. 235-105-001

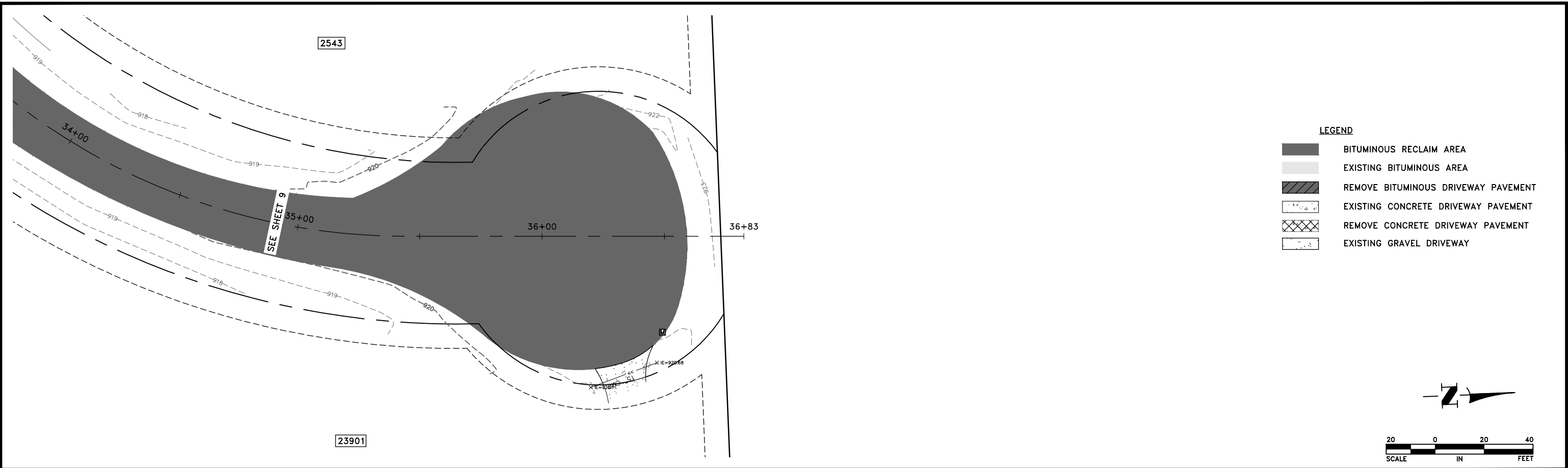
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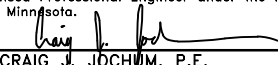
S.A.P. 235-105-001

May 11, 2022 - 9:39am
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CRAIG J. JOCHUM, P.E.
Date 5/6/22 Lic. No. 23461

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DRAWN BY: SGJ
CHECKED BY: TAE



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Civil Engineers and Land Surveyors
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763-427-5860 FAX 763-427-0520
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2022 STREET REHABILITATION PROJECT

EXISTING CONDITIONS AND TOPOGRAPHY

XAVIS STREET
CITY OF ST. FRANCIS, MINNESOTA

SHEET 10	OF 23 SHEETS
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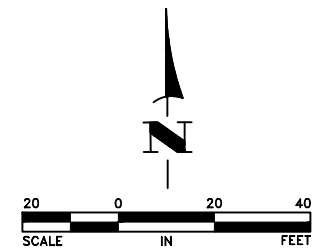
S.A.P. 235-105-001

GENERAL NOTES:
1. SEE SHEET 3/4 FOR ADDITIONAL DRIVEWAY INFORMATION.

REFERENCE NOTES:
① FOR TIE-IN WORK NEAR RUM RIVER BOULEVARD, CONTRACTOR SHALL USE LAYOUT 16 OF THE MMUTCD.

LEGEND

- BITUMINOUS DRIVEWAY PAVEMENT PER 4/4
- EXISTING BITUMINOUS AREA
- CONCRETE DRIVEWAY PAVEMENT PER 5/4
- EXISTING CONCRETE DRIVEWAY PAVEMENT
- GRAVEL DRIVEWAY



MATCH EXISTING PAVEMENT
STA 1+07 ①

RUM RIVER BOULEVARD

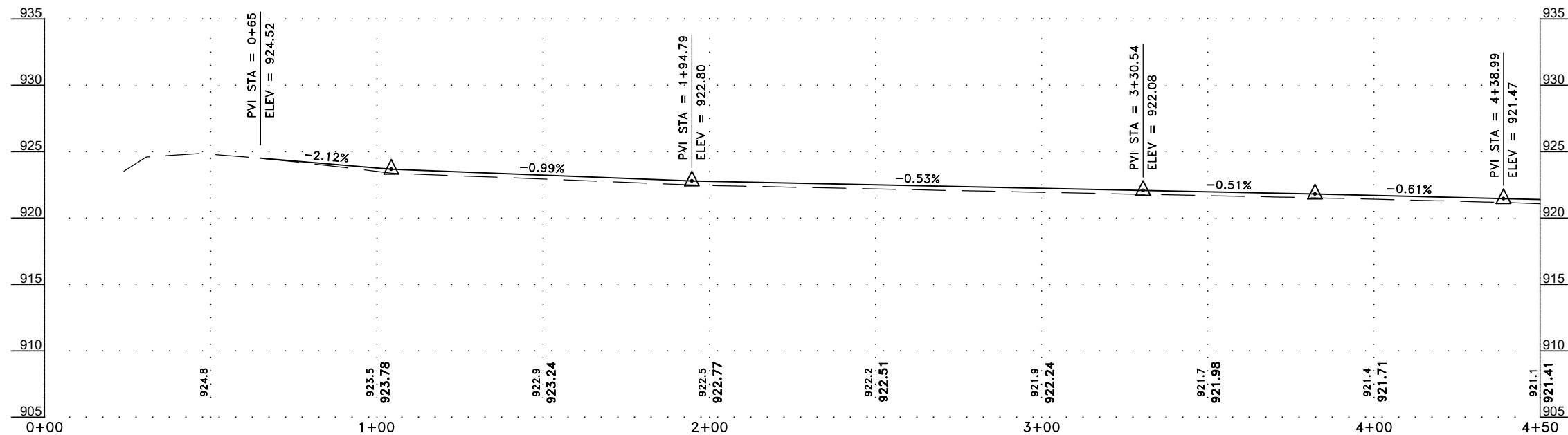
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(Buried)

X E=920.41
(Buried)

2/4

TYPICAL

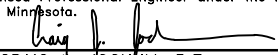
SEE SHEET 12



S.A.P. 235-105-001

DATE	REVISION

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CRAIG J. JOCHEM, P.E.
Date 5/6/22 Lic. No. 23461

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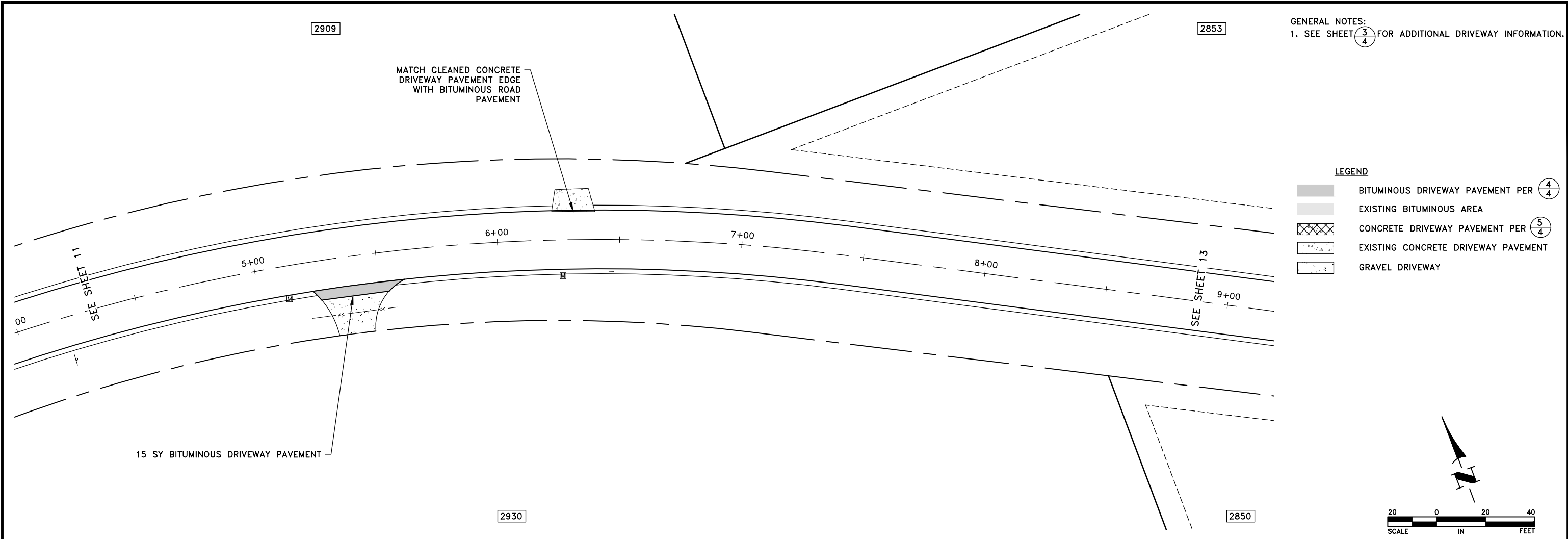
2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLANS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

SHEET
11
OF
23
SHEETS

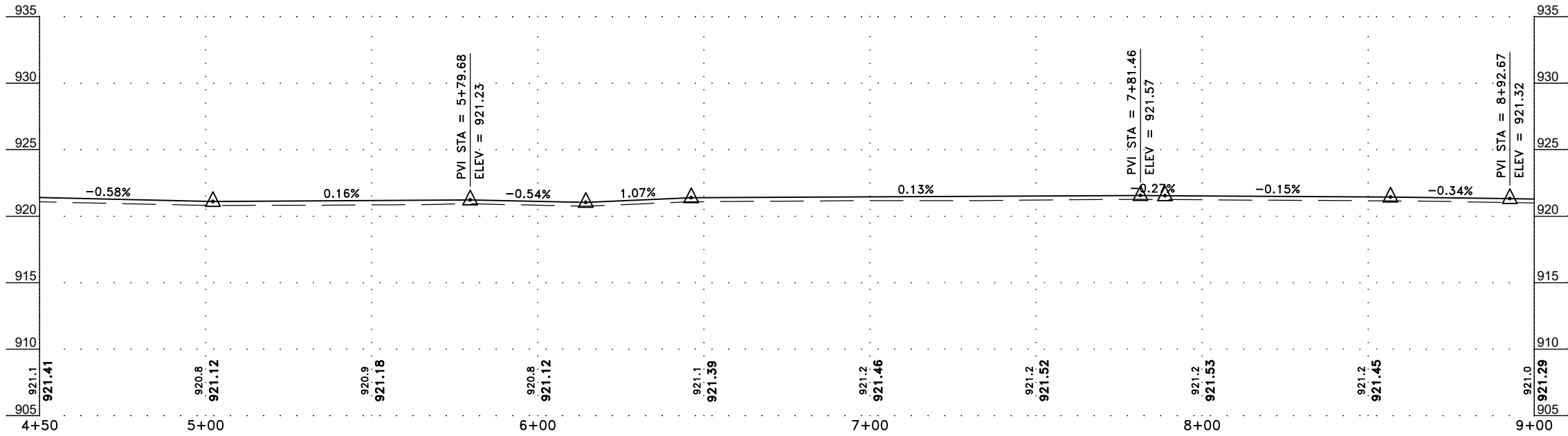
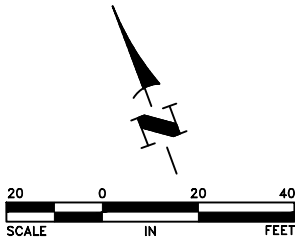
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GENERAL NOTES:
1. SEE SHEET $\frac{3}{4}$ FOR ADDITIONAL DRIVEWAY INFORMATION.

LEGEND

- BITUMINOUS DRIVEWAY PAVEMENT PER $\frac{4}{4}$
- EXISTING BITUMINOUS AREA
- CONCRETE DRIVEWAY PAVEMENT PER $\frac{5}{4}$
- EXISTING CONCRETE DRIVEWAY PAVEMENT
- GRAVEL DRIVEWAY



S.A.P. 235-105-001

DATE	REVISION

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CRAIG J. JOCHEM, P.E.
Date 5/6/22 Lic. No. 23461

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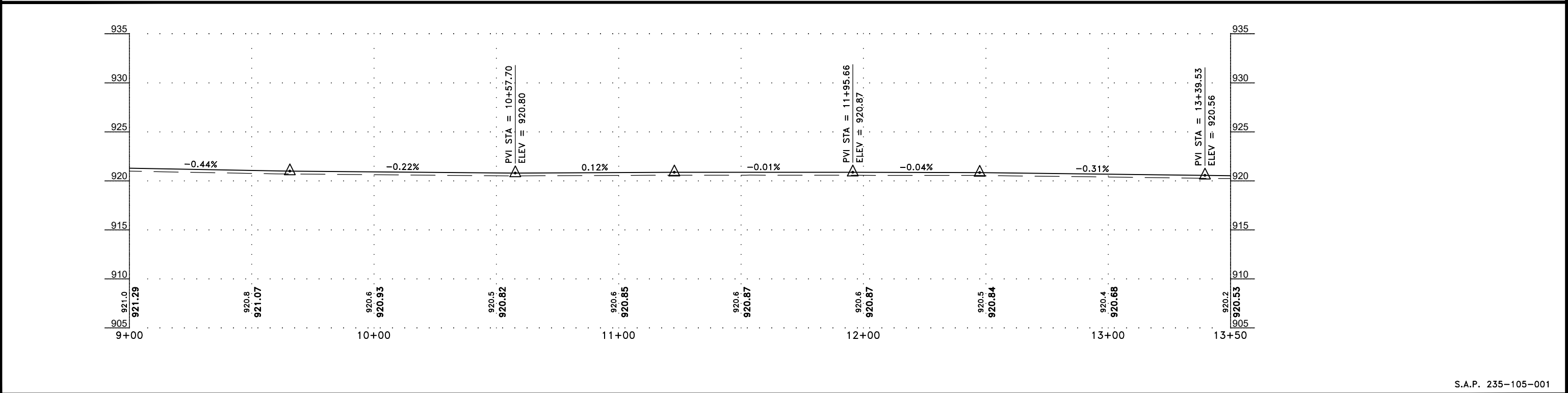
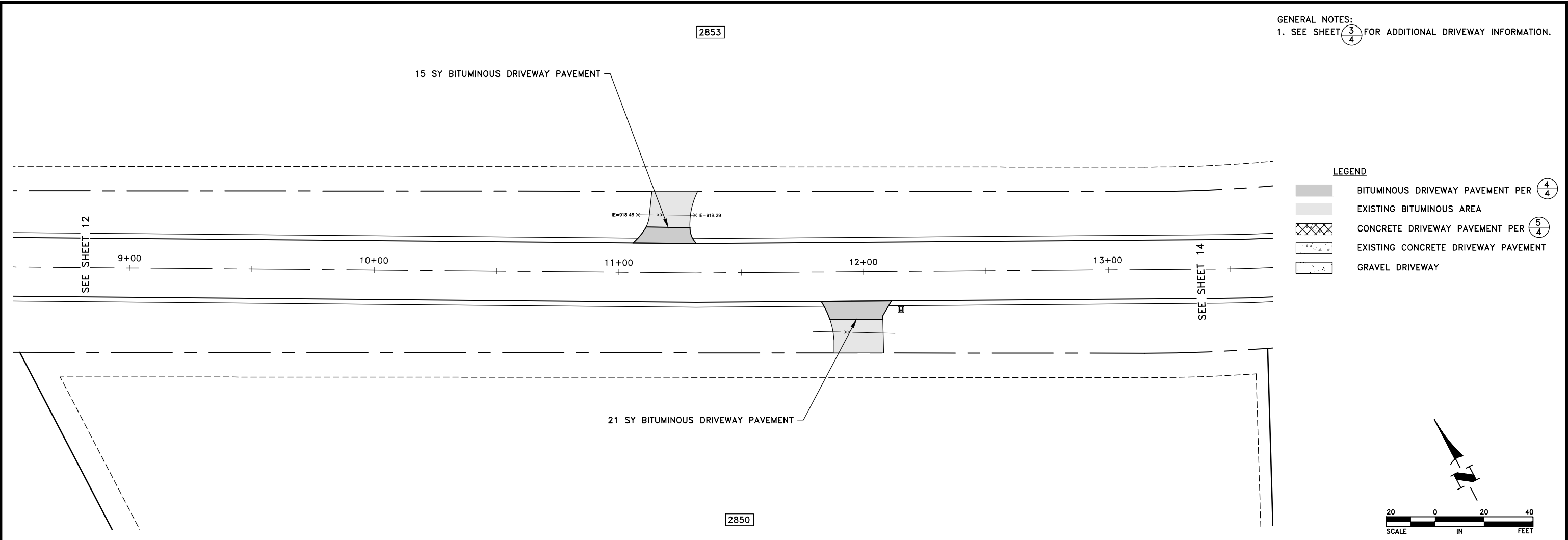
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2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLANS
239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

SHEET
12
OF
23
SHEETS

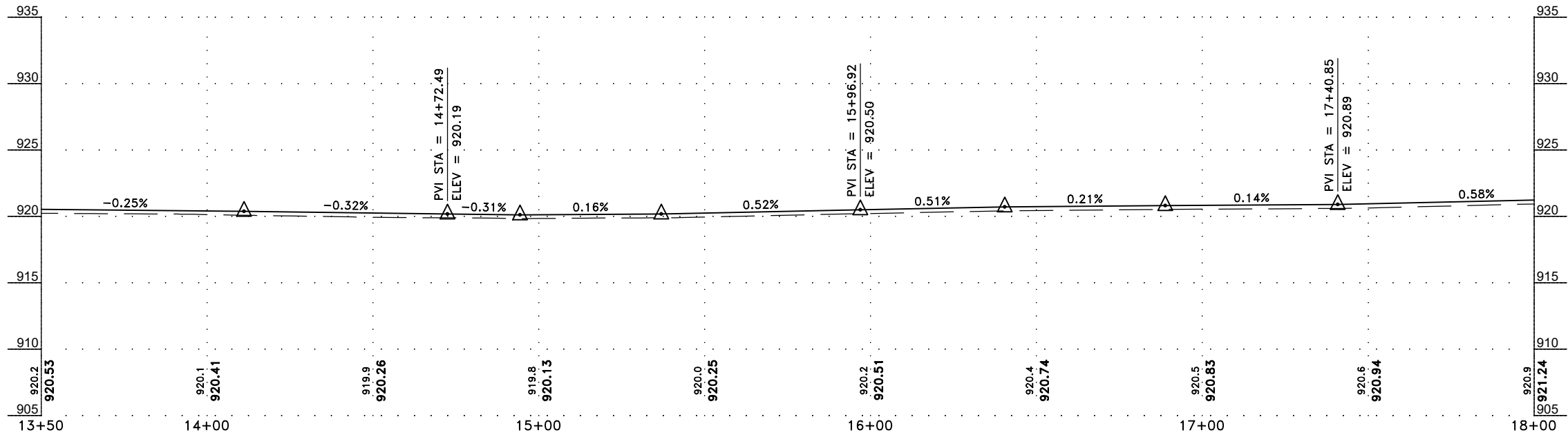
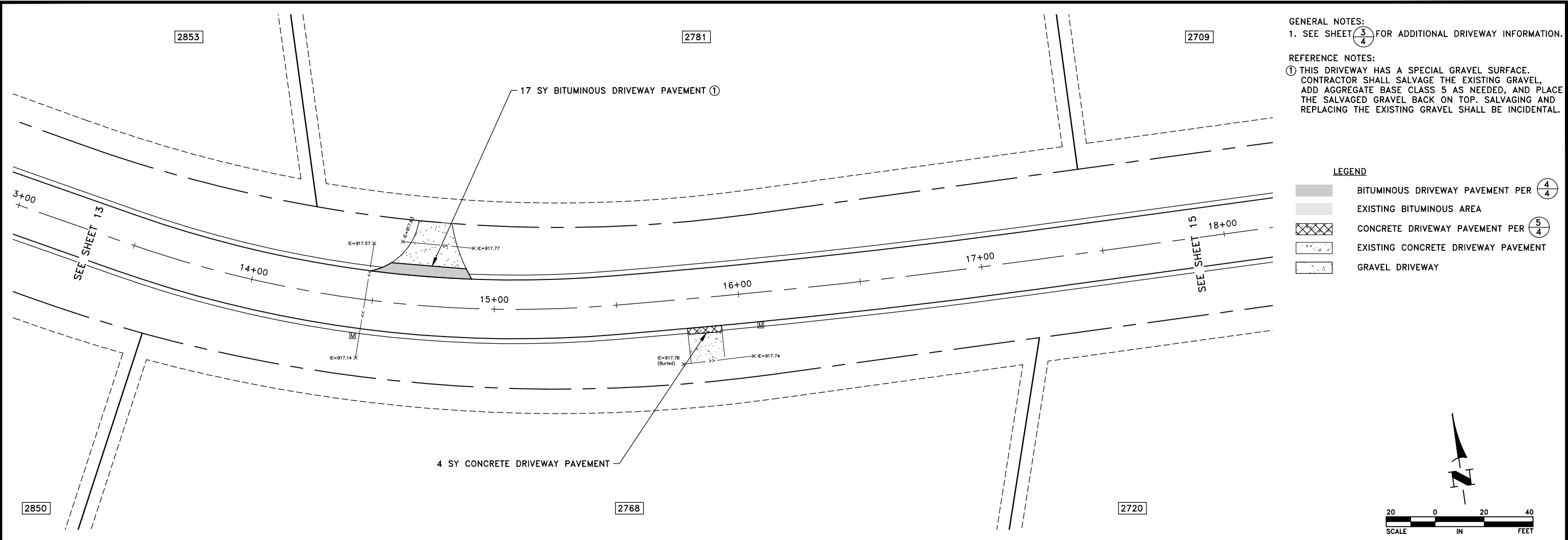
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				DRAWN BY: SGJ					
				CHECKED BY: TAE					

S.A.P. 235-105-001

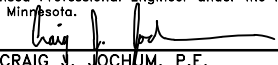
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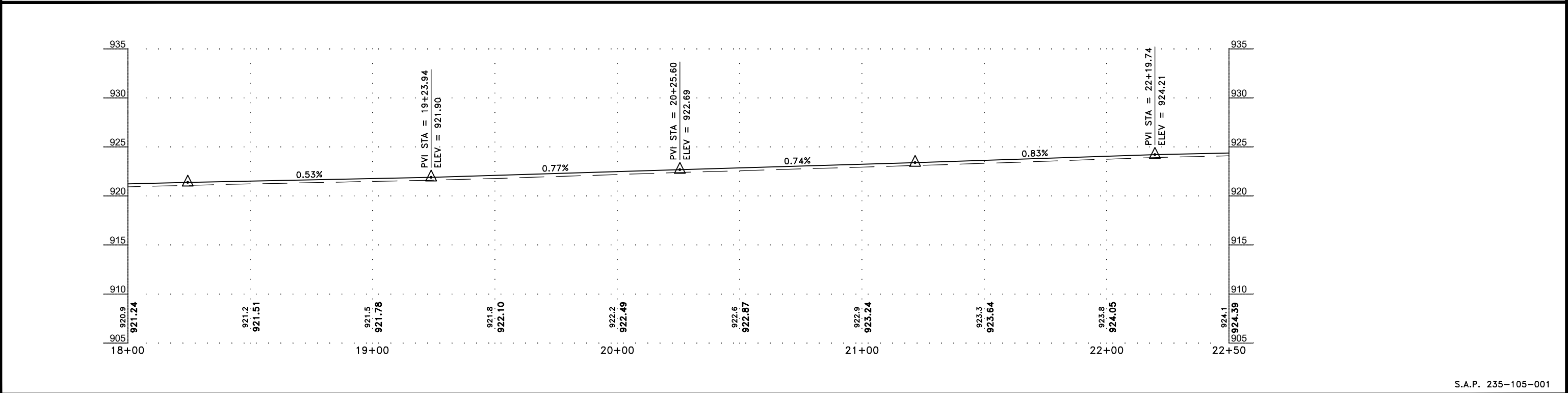
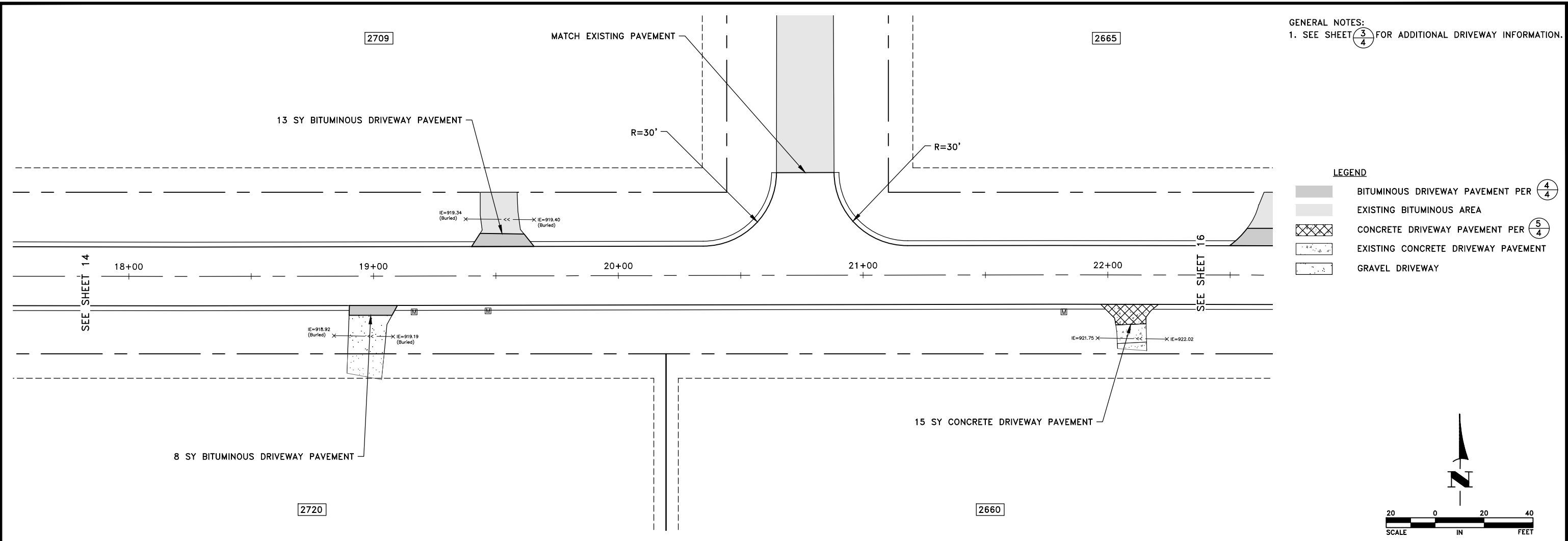
2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLANS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

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14
OF
23
SHEETS

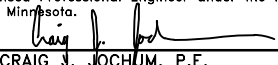
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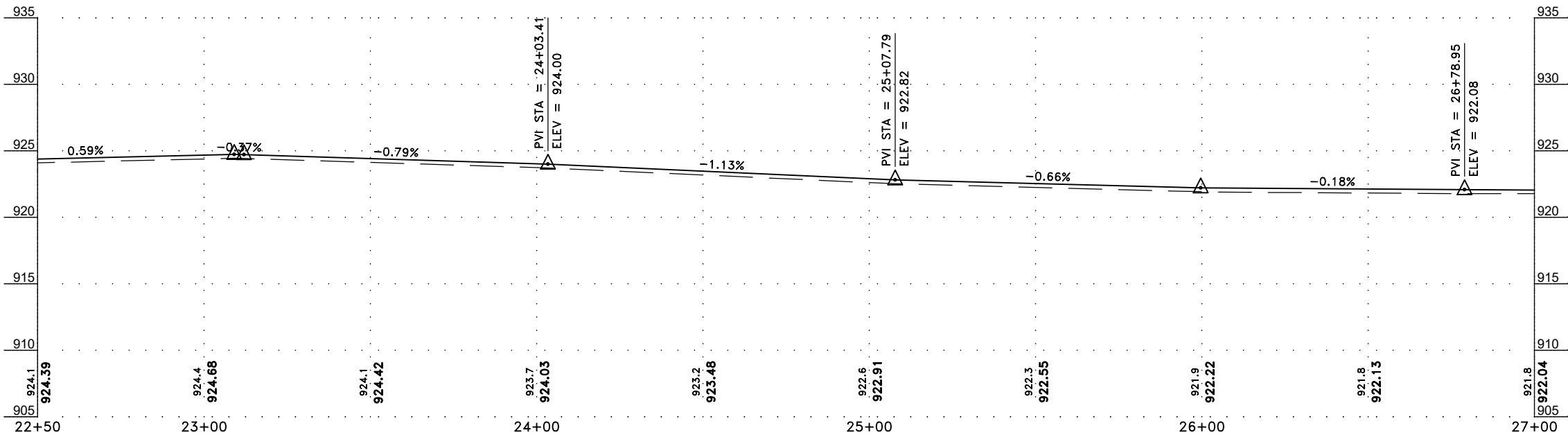
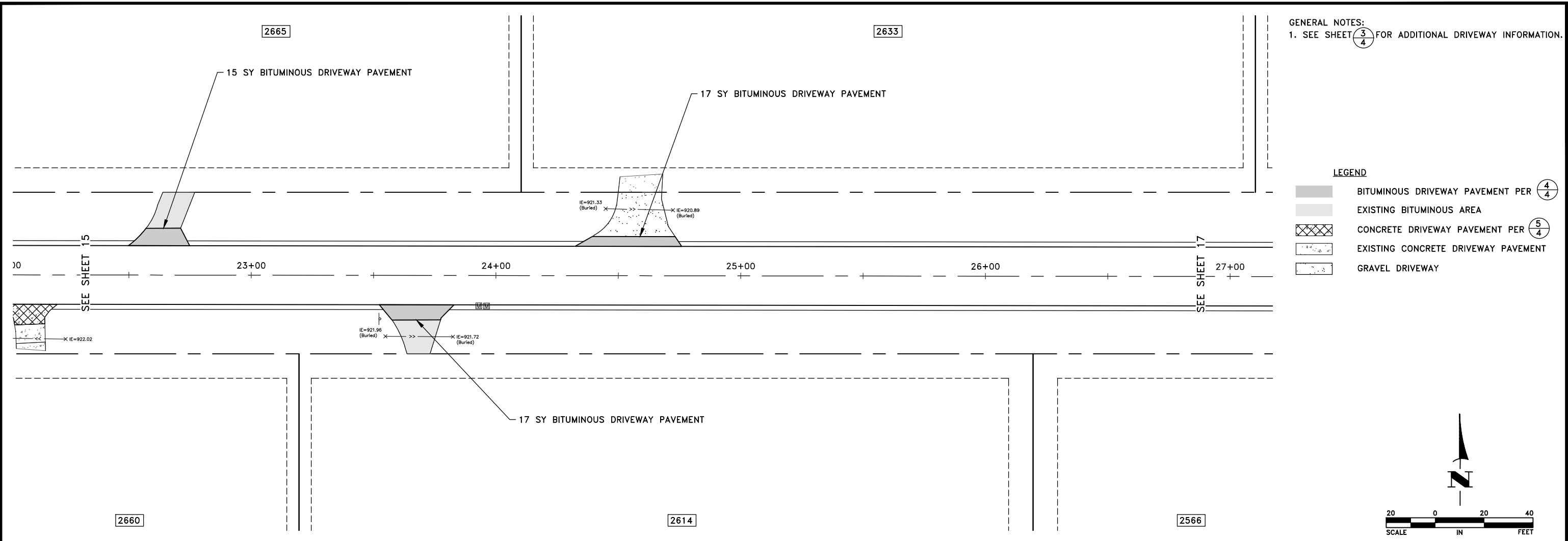
2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLANS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

SHEET
15
OF
23
SHEETS

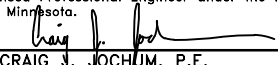
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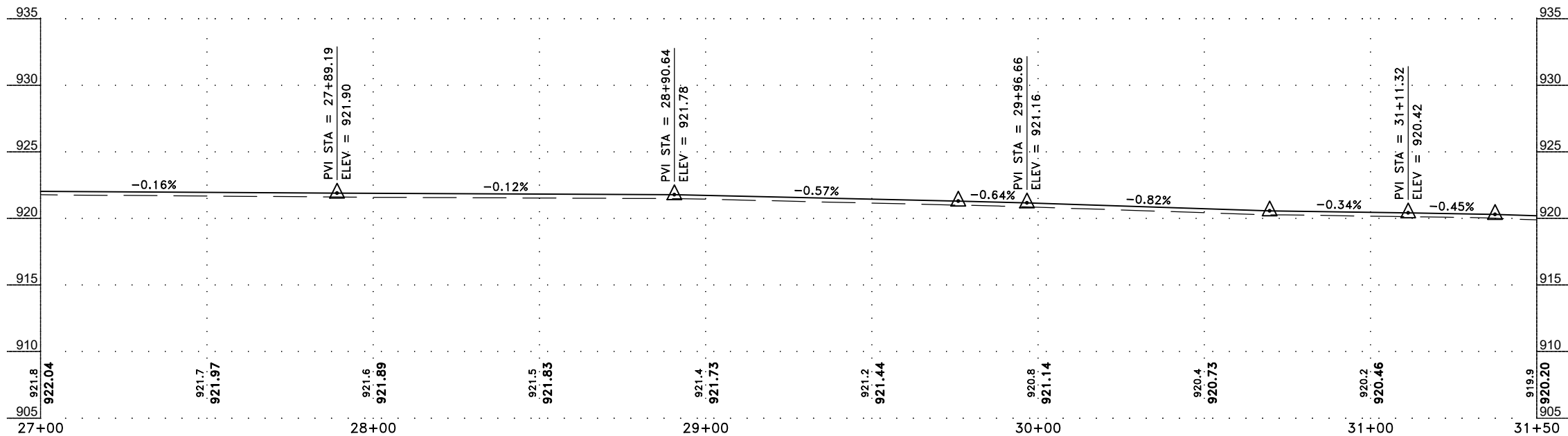
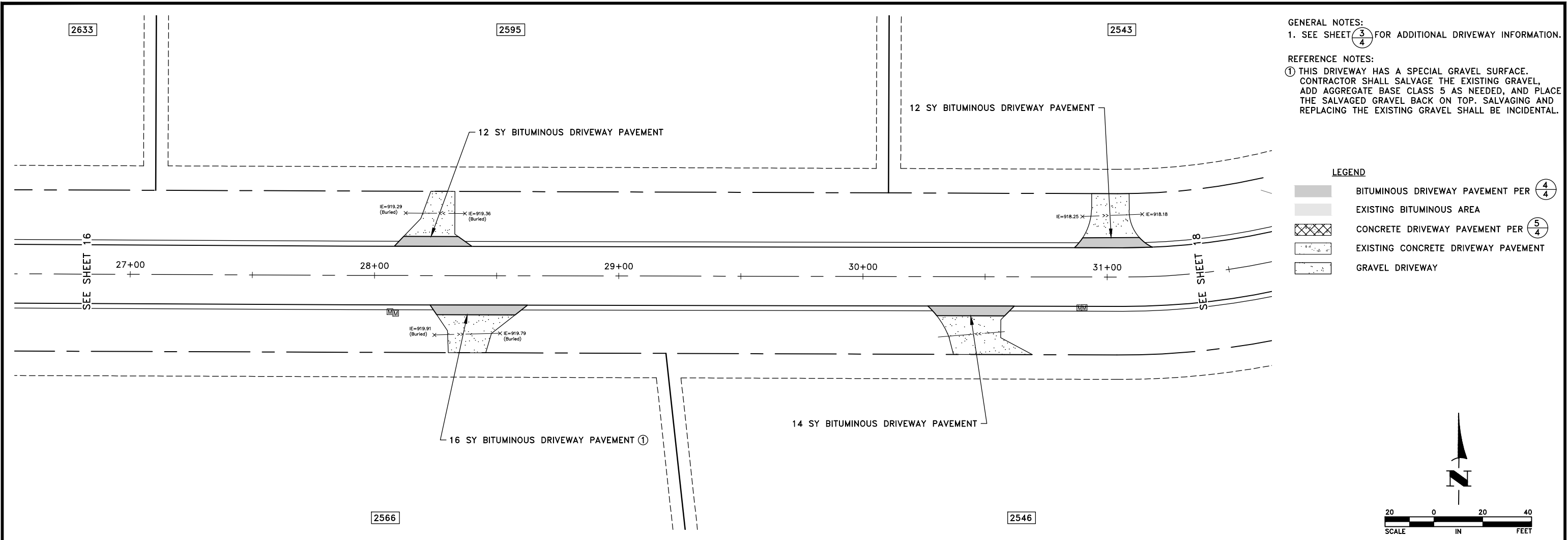
CONSTRUCTION PLANS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

SHEET
16
OF
23
SHEETS

SF321

May 11, 2022 -- 9:40am
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S.A.P. 235-105-001

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2022 STREET REHABILITATION PROJECT

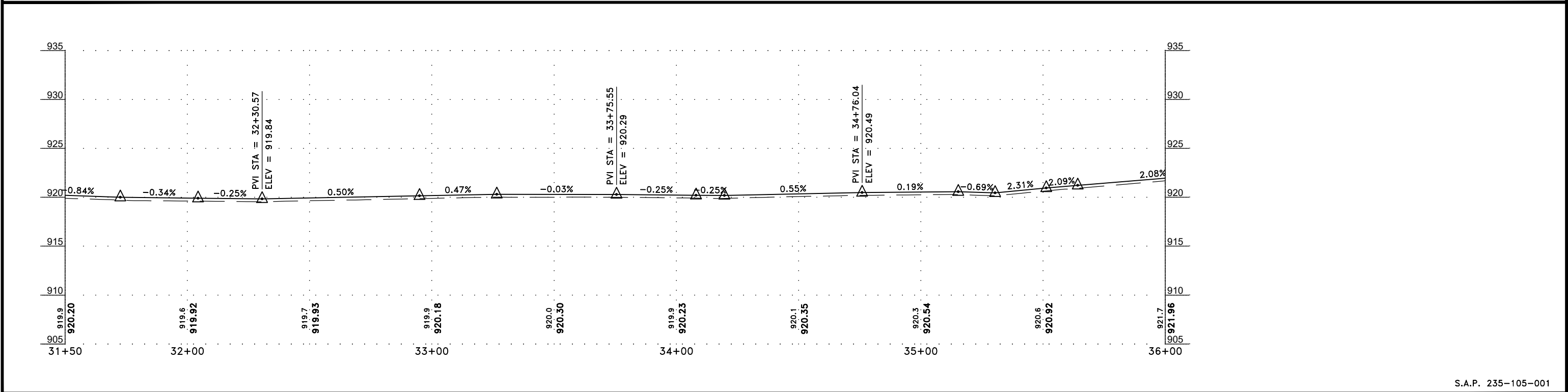
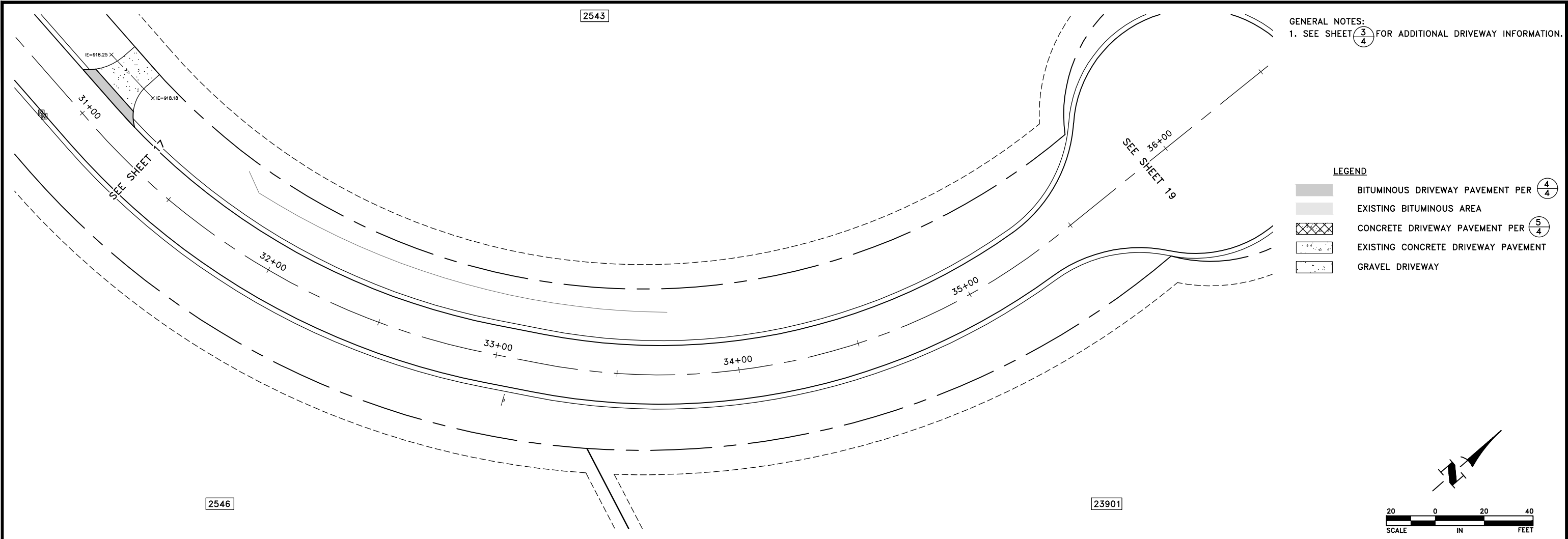
CONSTRUCTION PLANS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

SHEET
17
OF
23
SHEETS

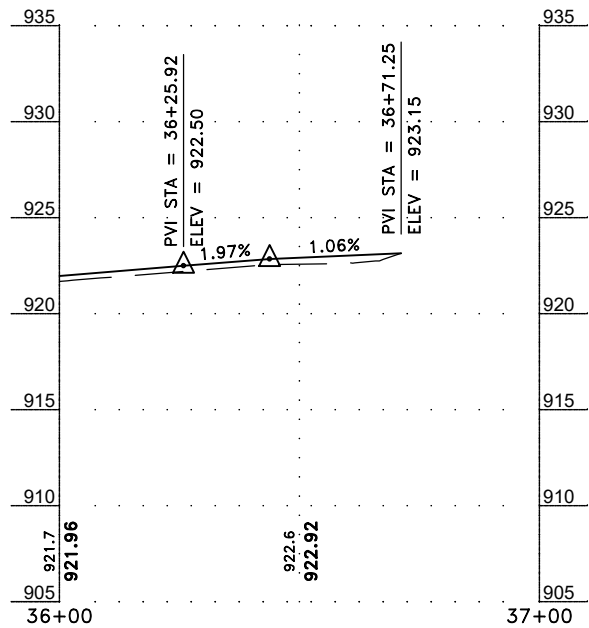
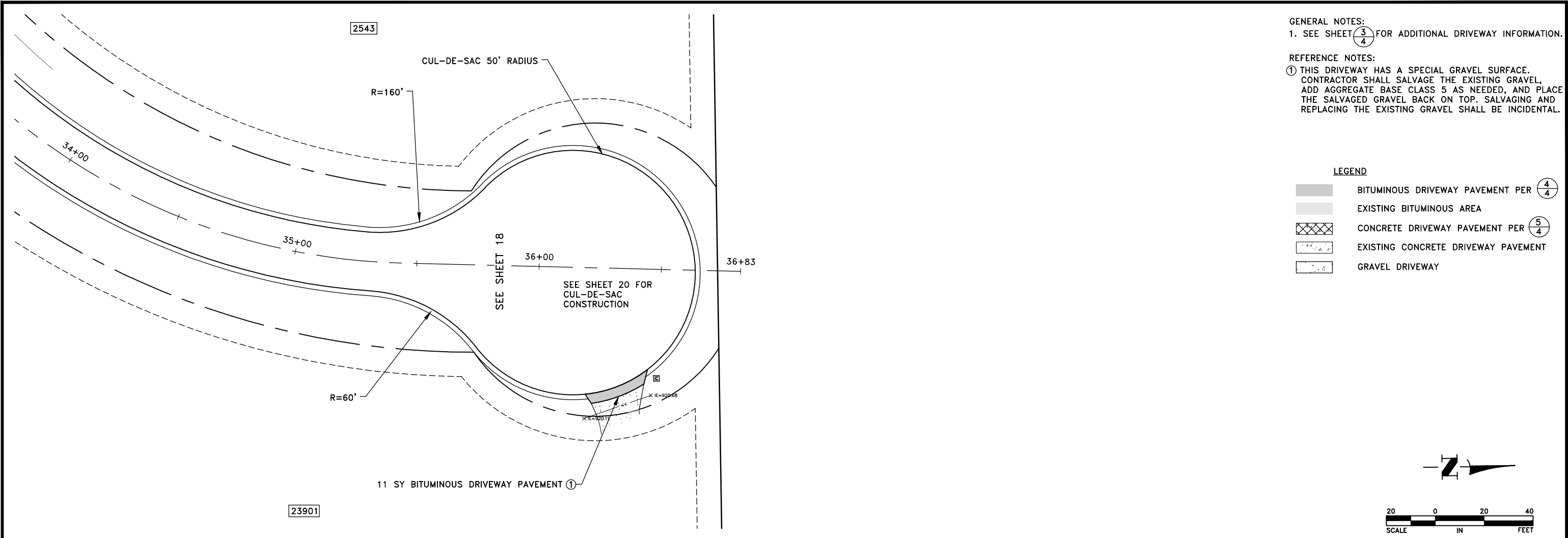
SF321

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				DRAWN BY: SGJ				
				CHECKED BY: TAE				

May 11, 2022 -- 9:40am
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Craig J. Jochem
CRAIG J. JOCHEM, P.E.
Date 5/6/22 Lic. No. 23461

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2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLANS

XAVIS STREET
CITY OF ST. FRANCIS, MINNESOTA

SHEET
19
OF
23
SHEETS

May 11, 2022 - 9:40am
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PROPERTY LINE

SUBCUT SOIL AND PLACE 6
INCHES OF RECLAIM OR CLASS
5 AGGREGATE BASE PRIOR TO
PAVING (INCIDENTAL)

LEGEND

- ✕ 900 FINAL GRADE SPOT ELEVATION
--- EXISTING GRADE
➔ DRAINAGE ARROW

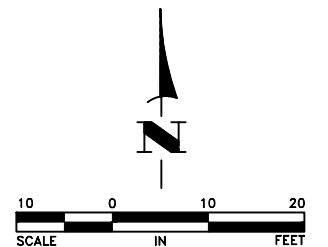
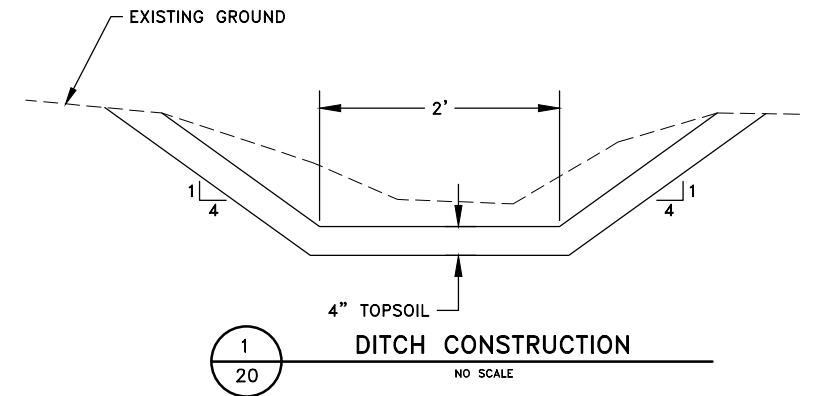
REFERENCE NOTE:

- ① PAID PER ITEM 2106 CONSTRUCT DRAINAGE
DITCH. CONTRACTOR SHALL DISPOSE OF ALL
EXCESS SOIL.

CONSTRUCT 188LF DITCH @ 1.86% ①
SEE 1/20

CONSTRUCT 58LF DITCH @ 3.14% ①
SEE 1/20

CONSTRUCT 88LF DITCH @ 1.26% ①
SEE 1/20



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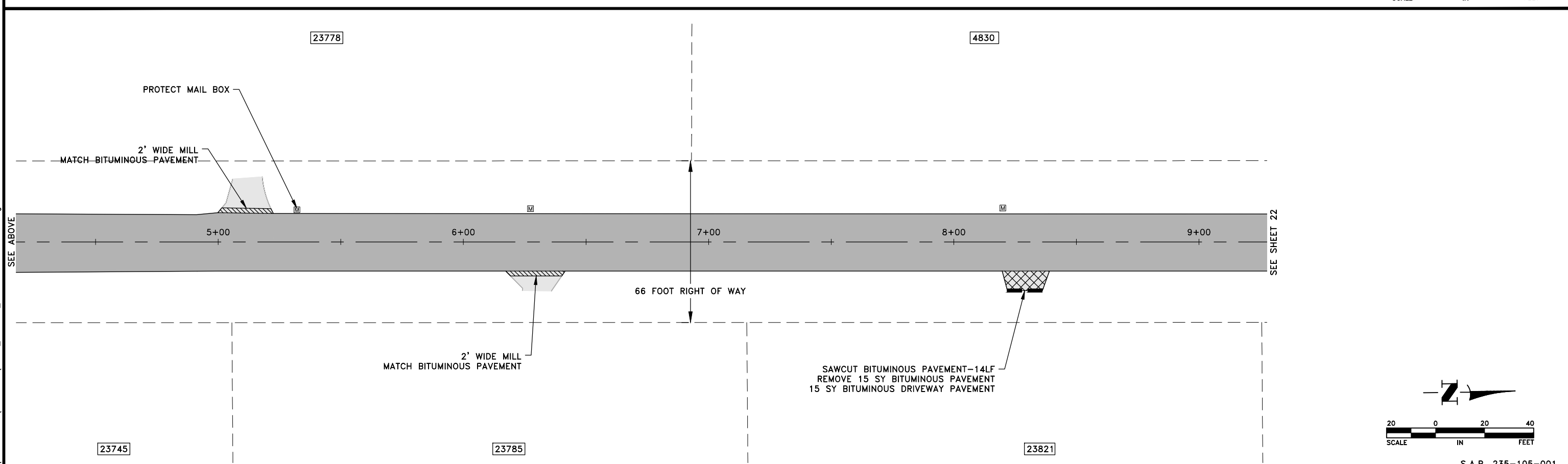
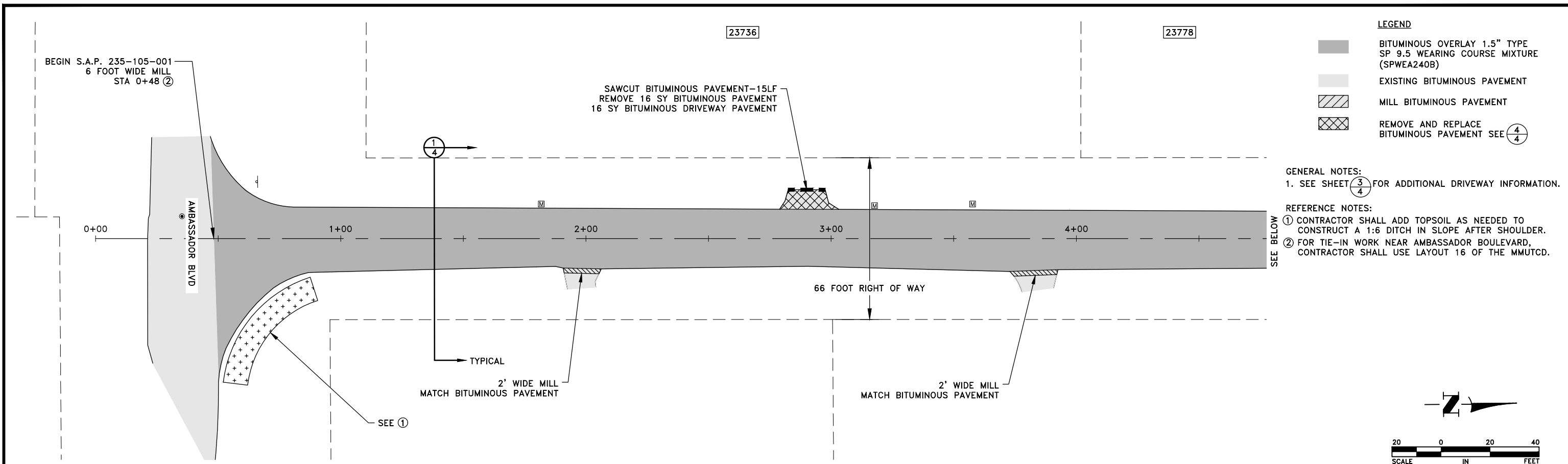
2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLAN

XAVIS STREET CUL-DE-SAC
CITY OF ST. FRANCIS, MINNESOTA

SHEET 20 OF 23 SHEETS

Aug 18, 2022 - 3:48pm
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DATE	REVISION
8/18/22	ANOKA COUNTY COMMENTS

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Craig J. Jochum
CRAIG J. JOCHUM, P.E.
Date 5/6/22 Lic. No. 23461

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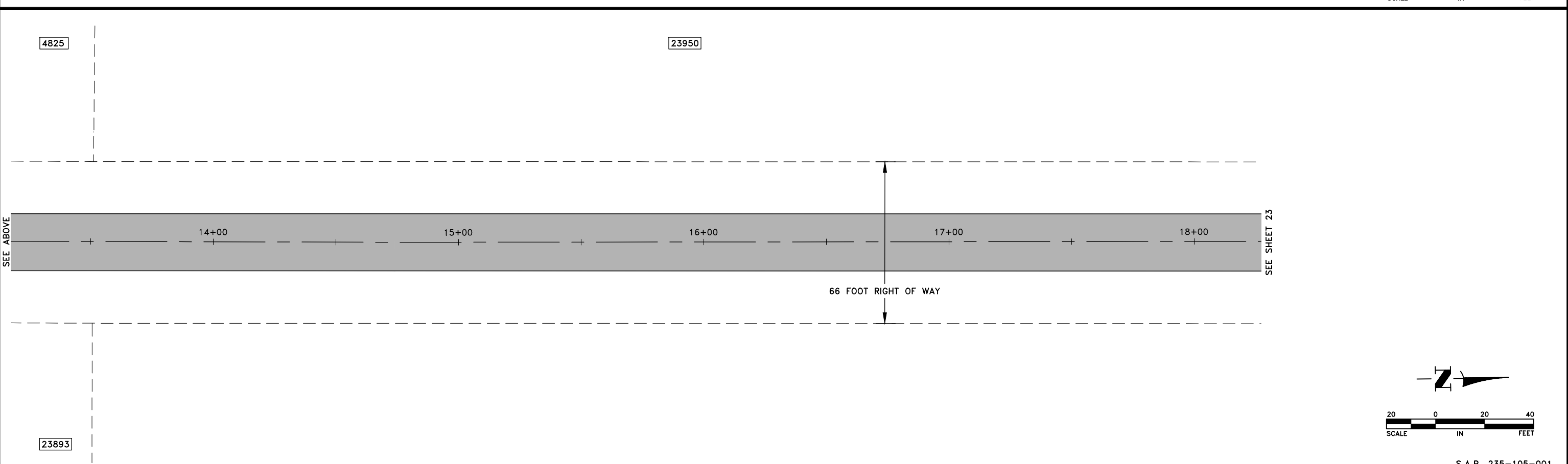
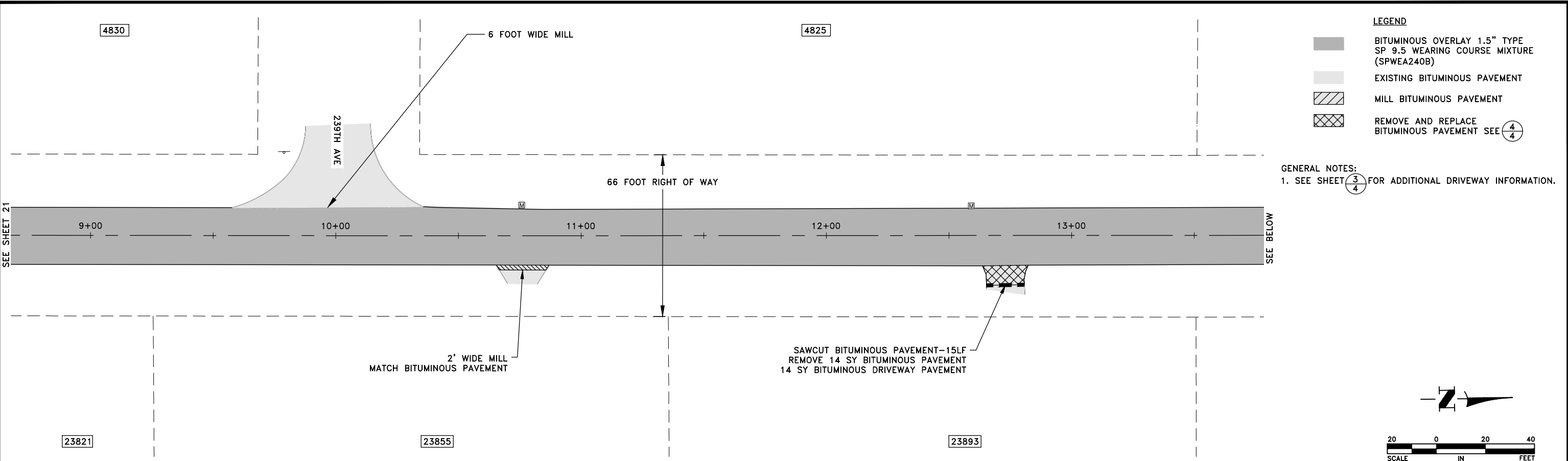
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2022 STREET REHABILITATION PROJECT

CONSTRUCTION PLANS
ROANOKE STREET
CITY OF ST. FRANCIS, MINNESOTA

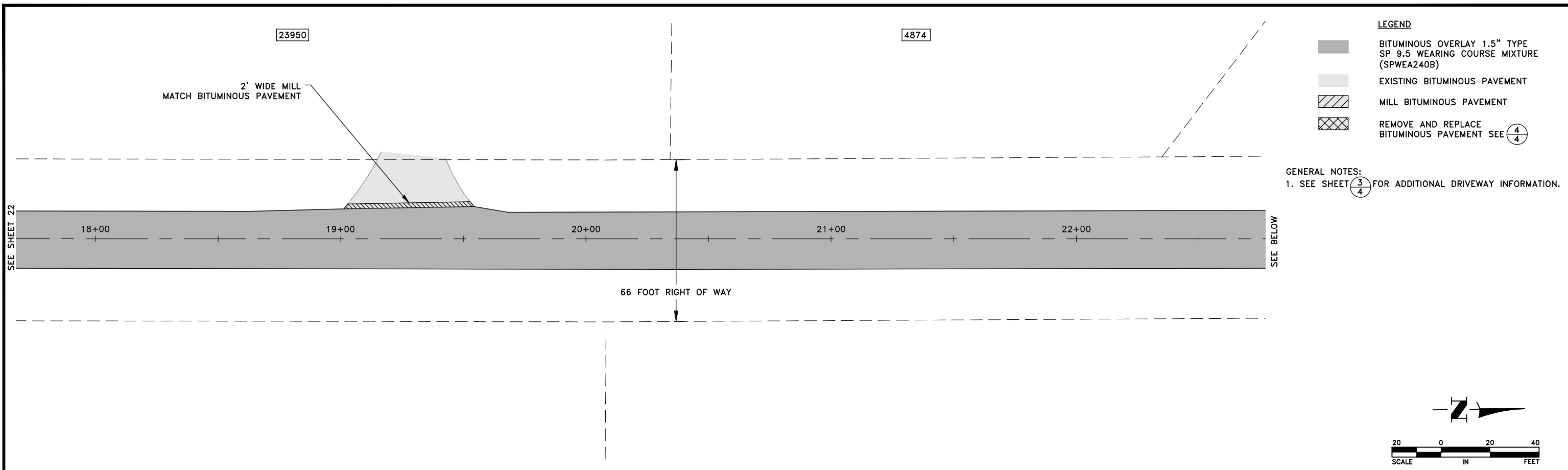
SHEET
21
OF
23
SHEETS

May 11, 2022 - 9:40am
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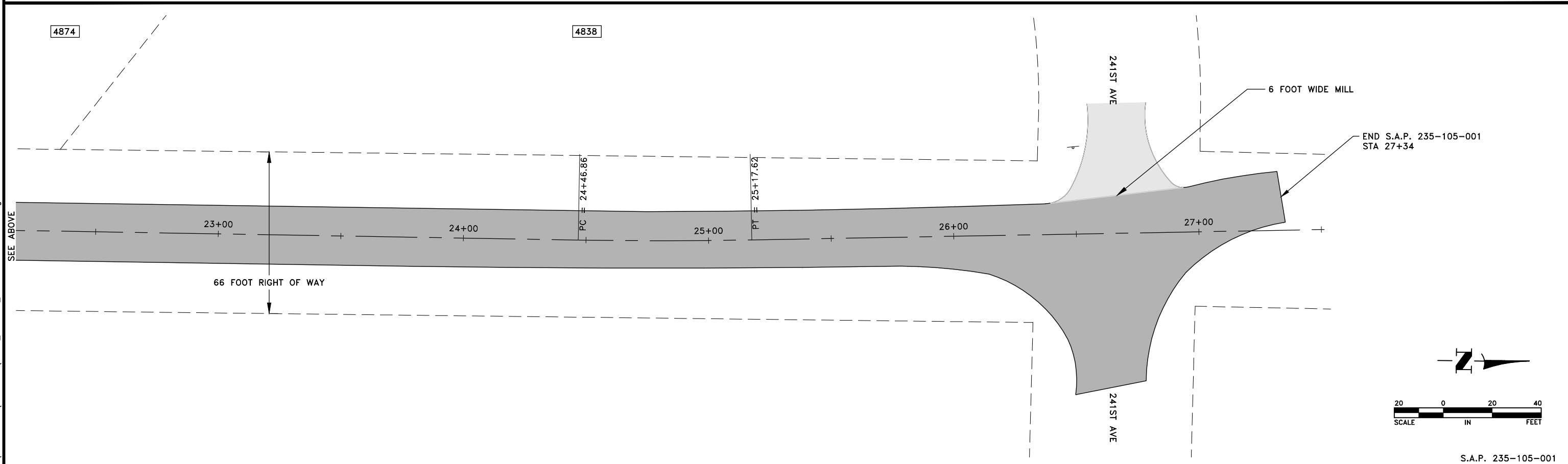
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				DRAWN BY: SGJ											
				CHECKED BY: TAE											

May 11, 2022 - 9:40am
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- LEGEND**
- BITUMINOUS OVERLAY 1.5" TYPE SP 9.5 WEARING COURSE MIXTURE (SPWEA240B)
 - EXISTING BITUMINOUS PAVEMENT
 - MILL BITUMINOUS PAVEMENT
 - REMOVE AND REPLACE BITUMINOUS PAVEMENT SEE

GENERAL NOTES:
1. SEE SHEET FOR ADDITIONAL DRIVEWAY INFORMATION.

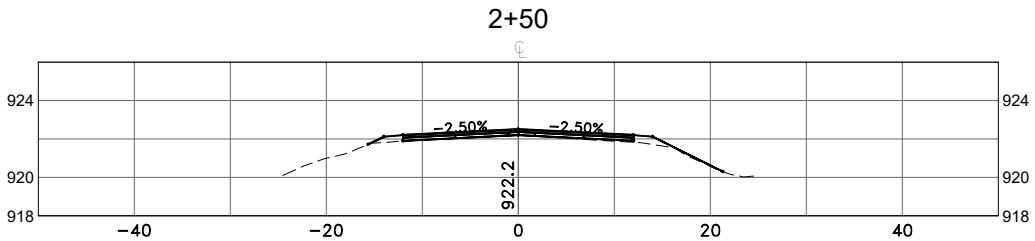
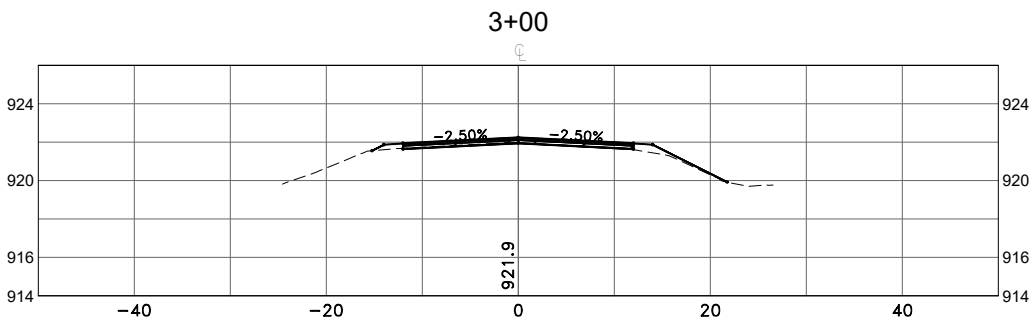
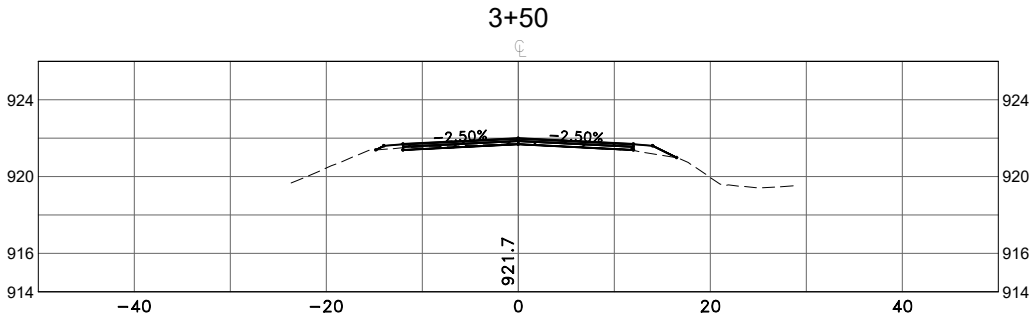
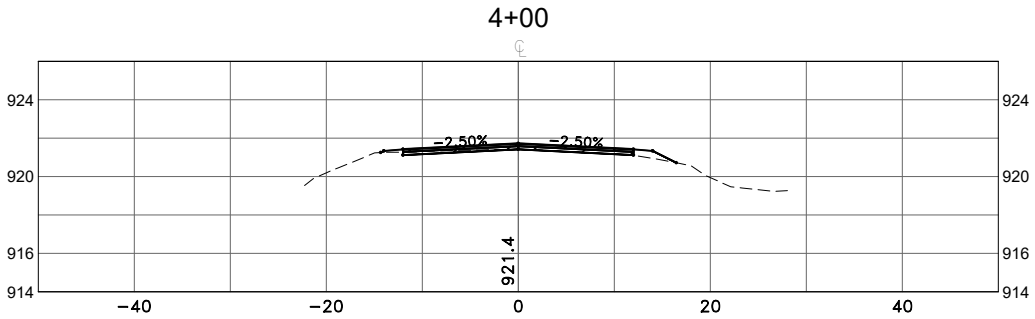
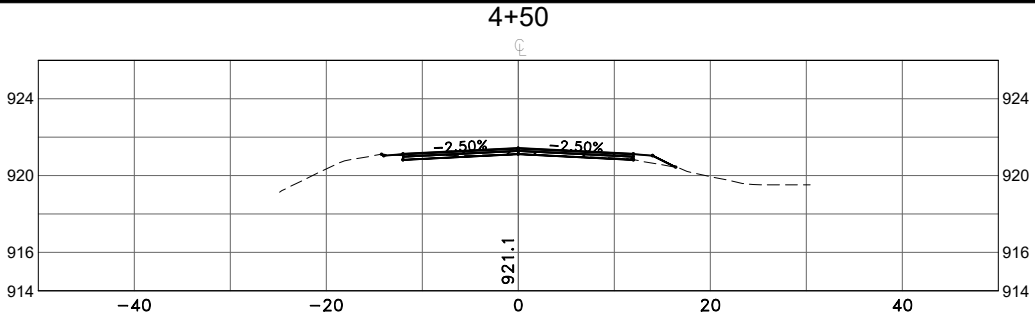
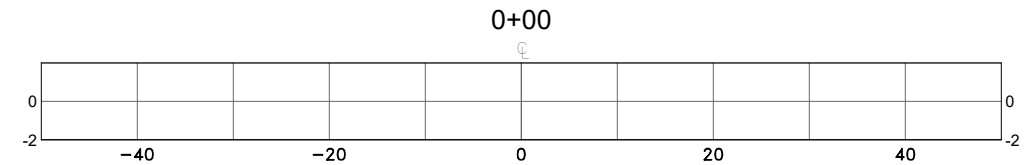
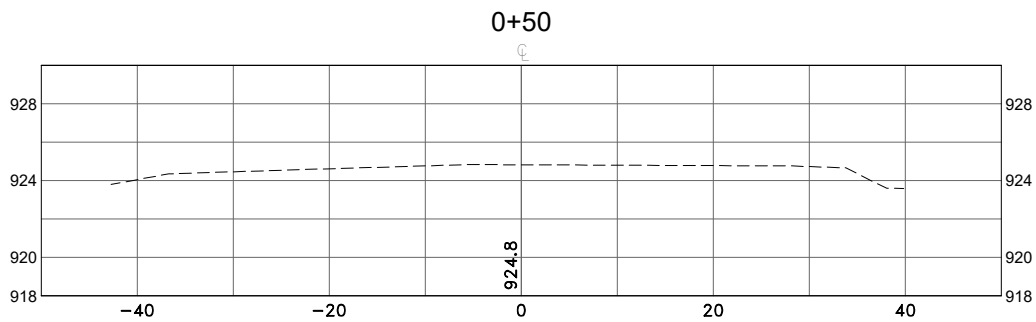
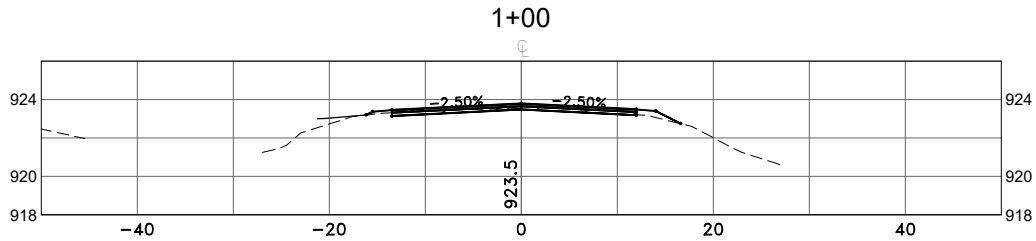
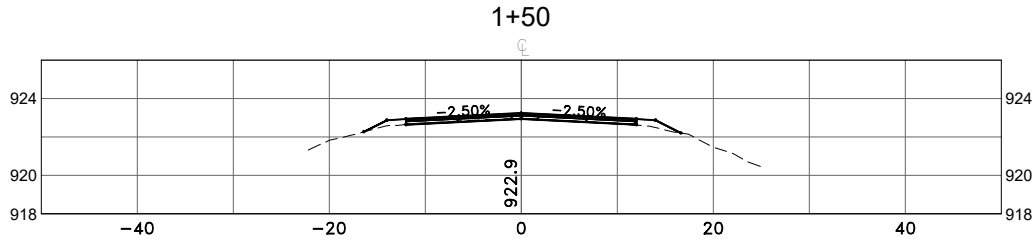
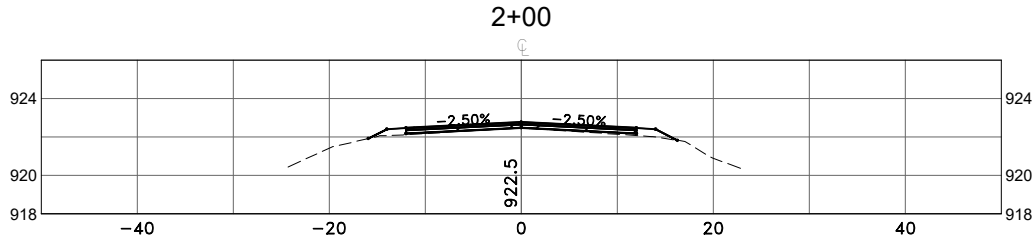


DATE	REVISION	I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.		DESIGNED BY: CJJ		Hakanson Anderson Civil Engineers and Land Surveyors 3601 Thurston Ave., Anoka, Minnesota 55303 763-427-5860 FAX 763-427-0520 www.hakanson-anderson.com	2022 STREET REHABILITATION PROJECT	CONSTRUCTION PLANS ROANOKE STREET CITY OF ST. FRANCIS, MINNESOTA	SHEET 23 OF 23 SHEETS
				DRAWN BY: SGJ					
				CHECKED BY: TAE					

Date 5/6/22 CRAIG J. JOCHUM, P.E. Lic. No. 23461

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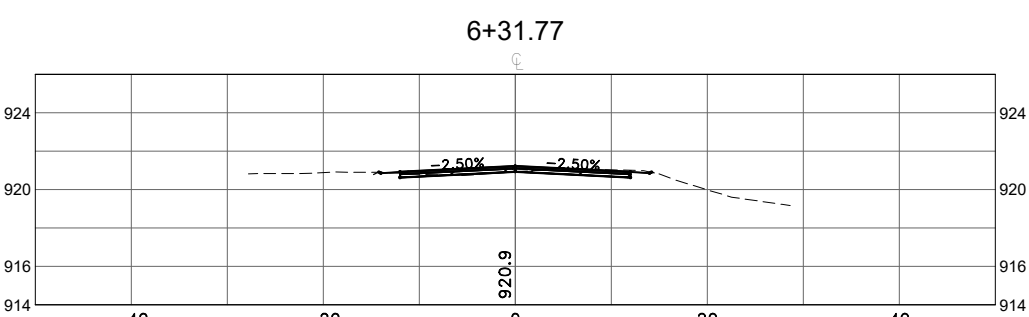
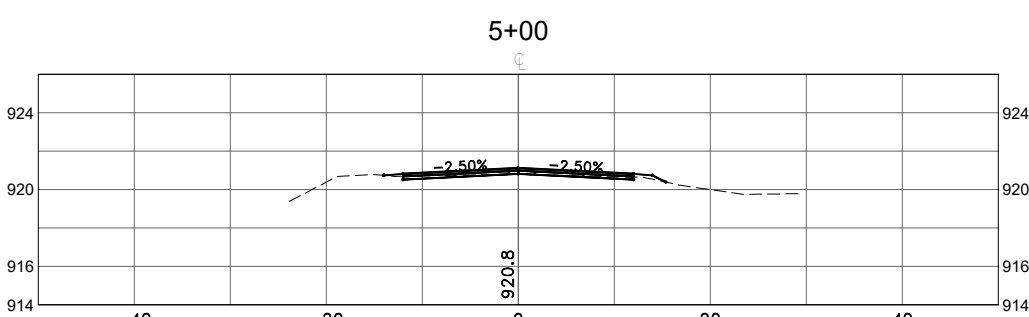
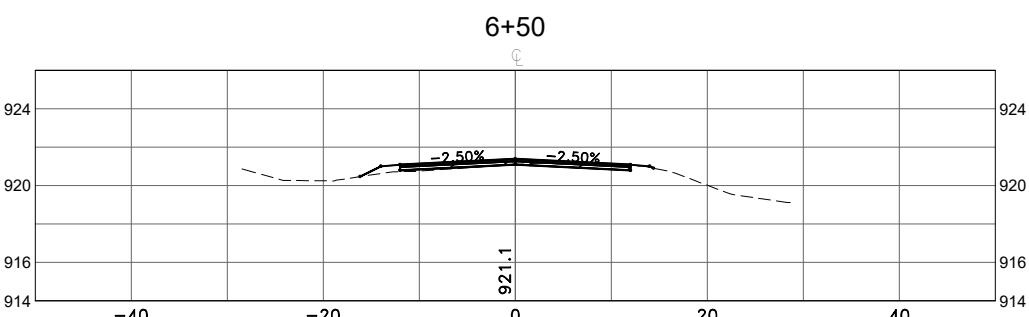
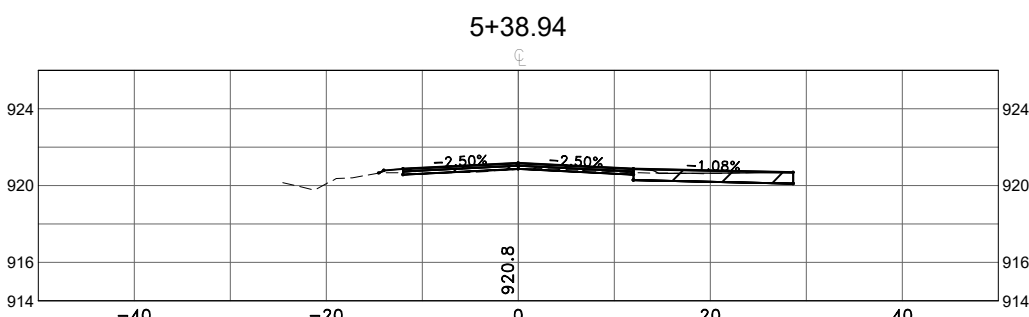
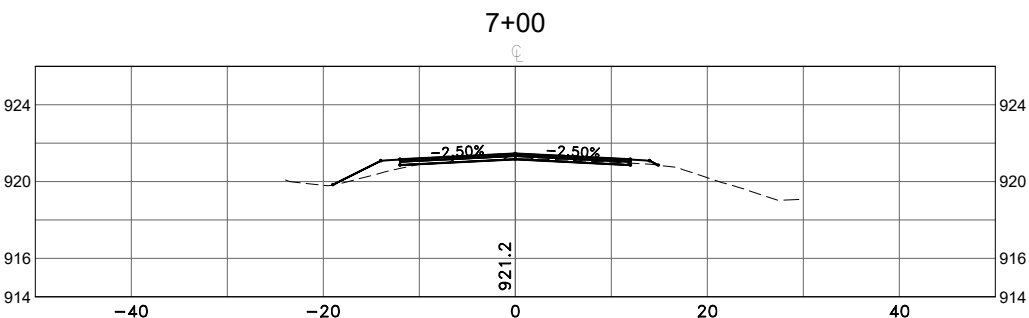
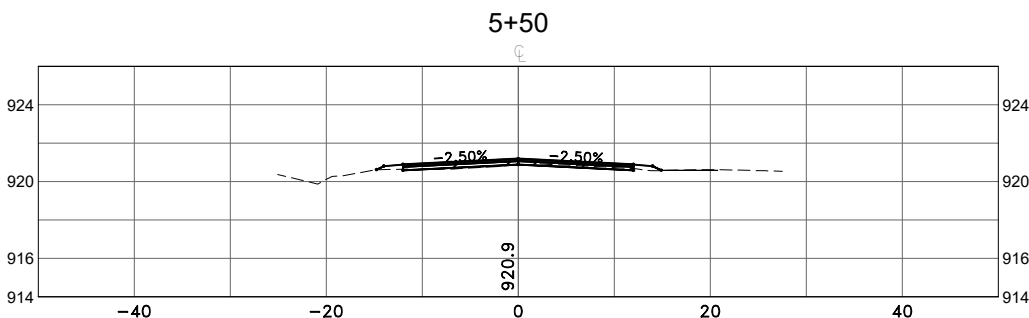
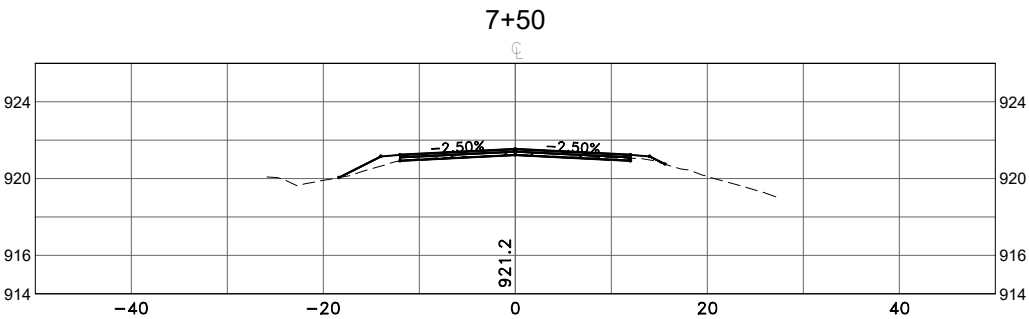
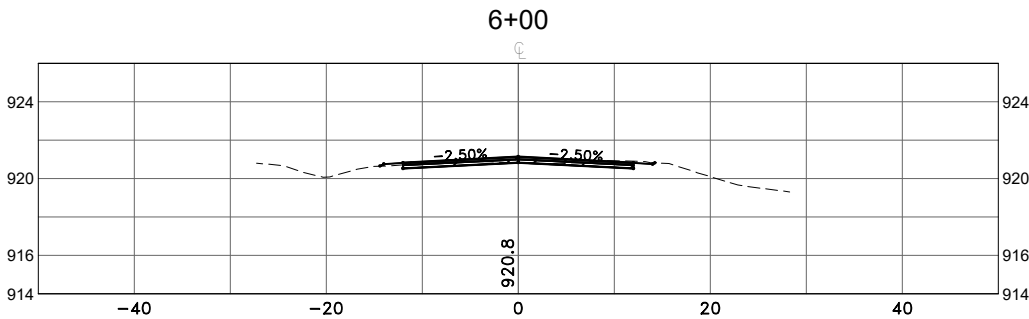
2022 STREET REHABILITATION PROJECT

CROSS SECTIONS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

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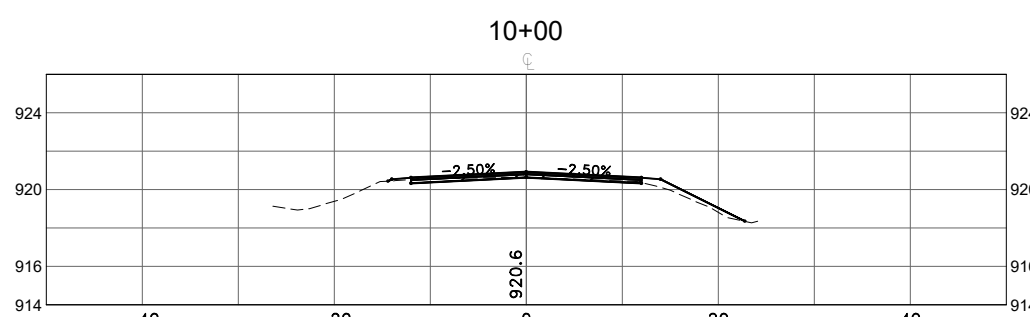
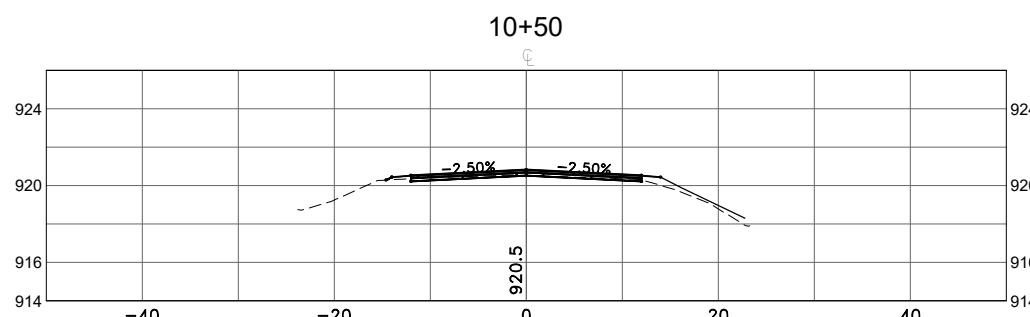
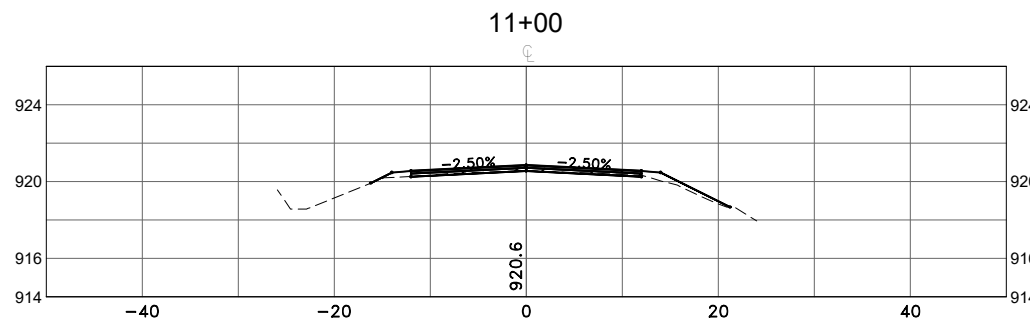
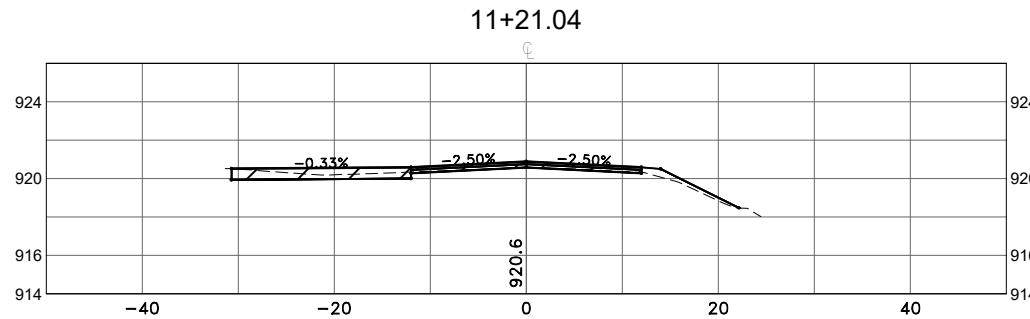
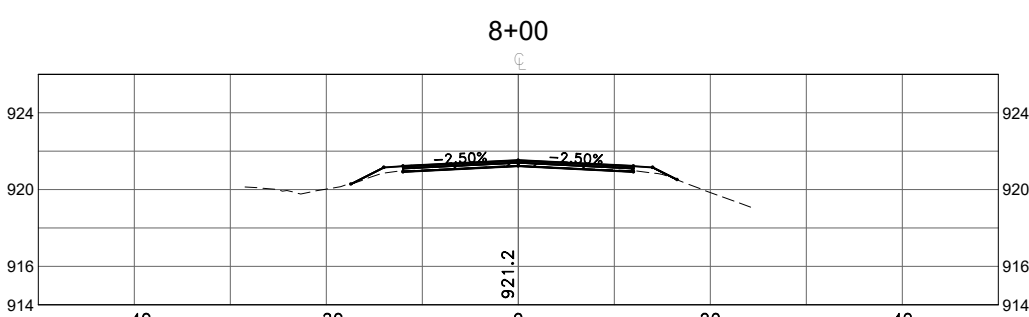
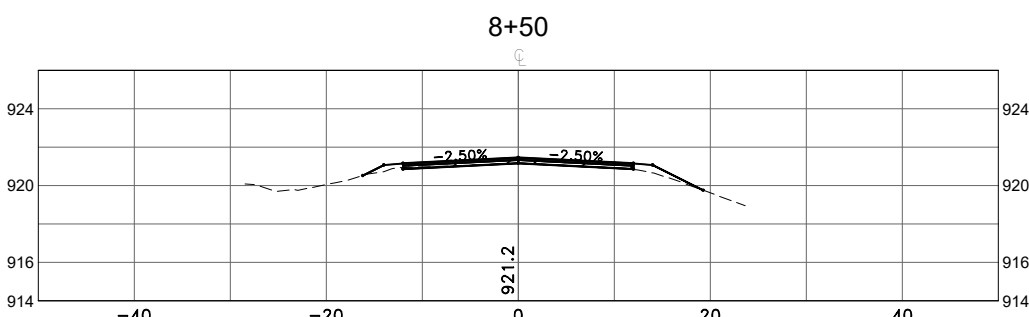
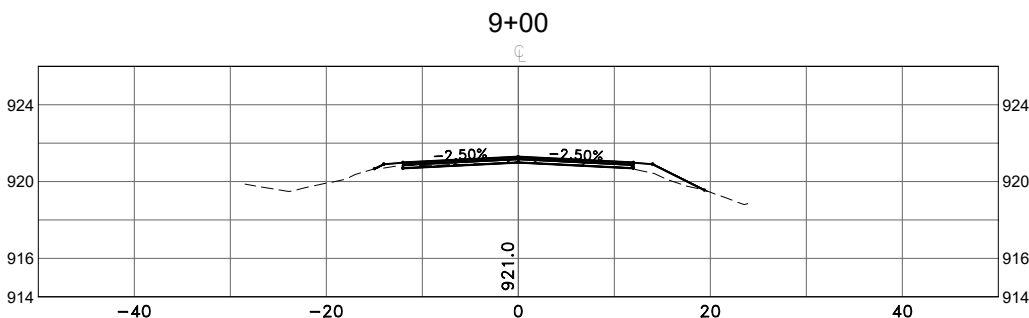
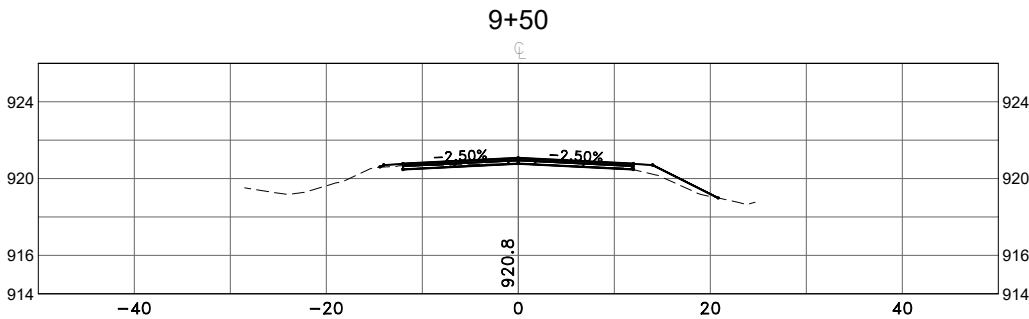
2022 STREET REHABILITATION PROJECT

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239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

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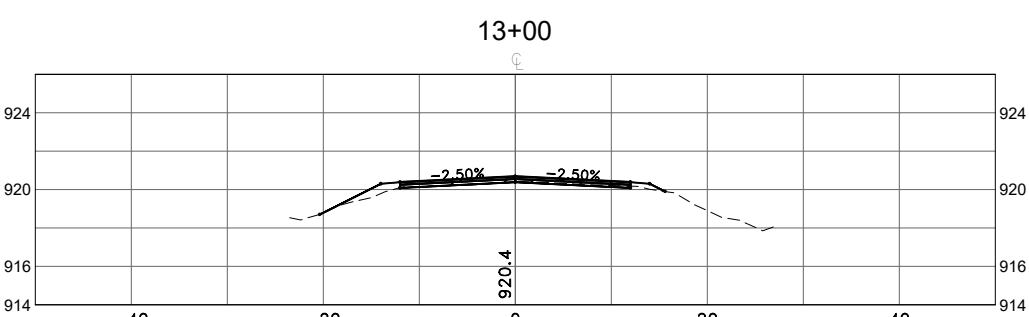
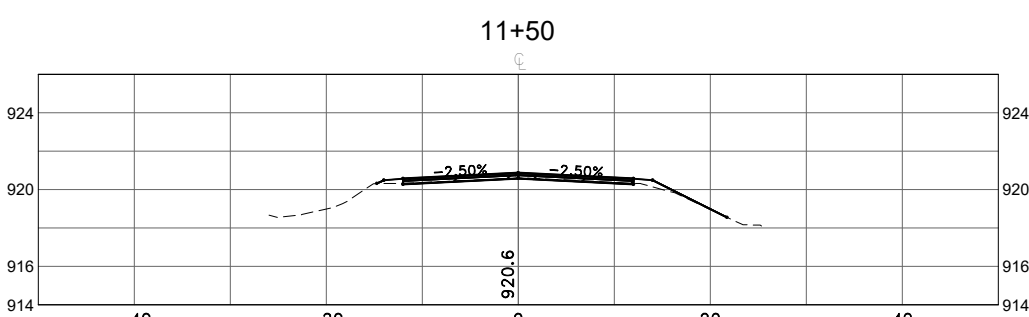
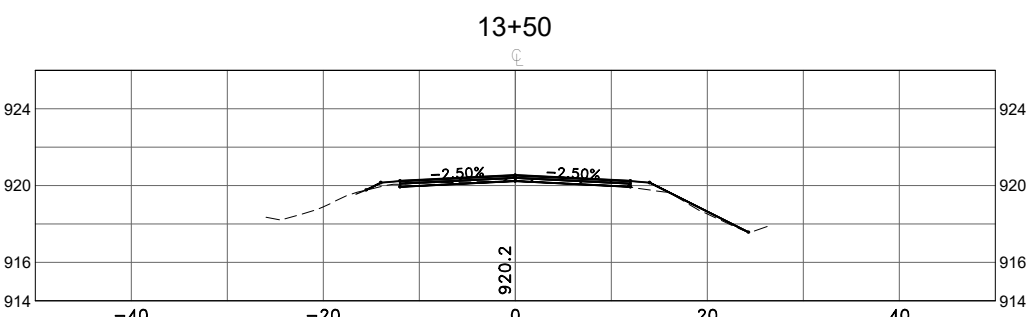
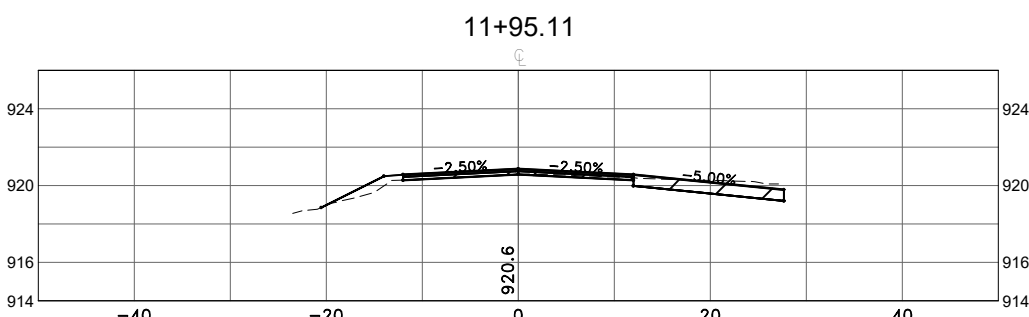
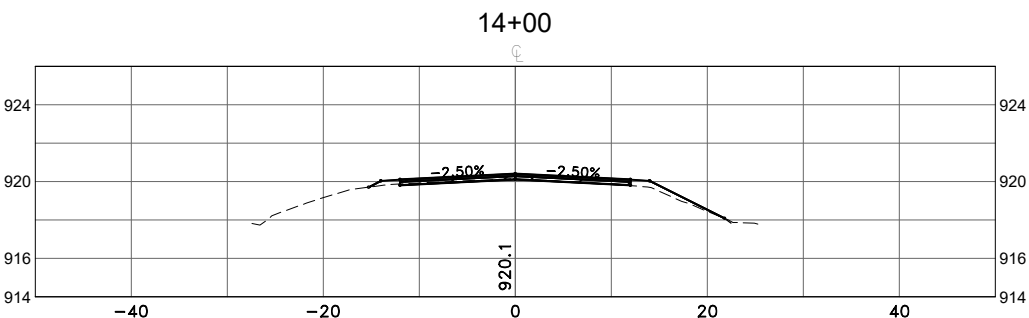
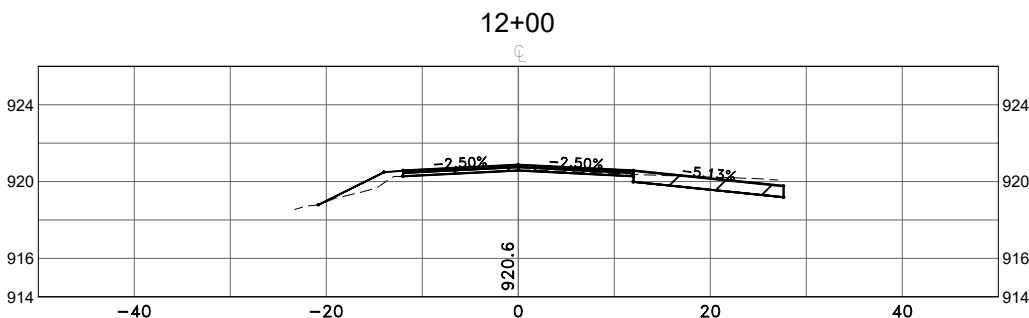
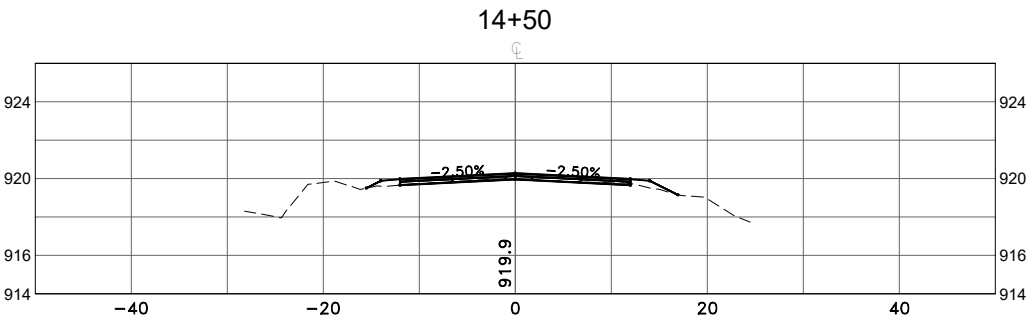
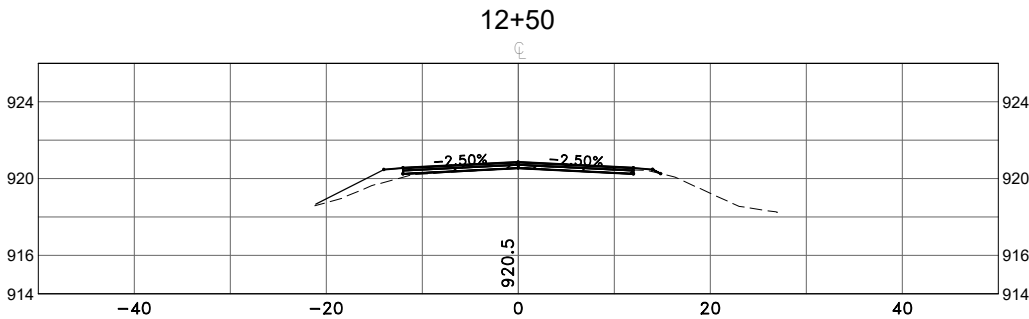
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CITY OF ST. FRANCIS, MINNESOTA

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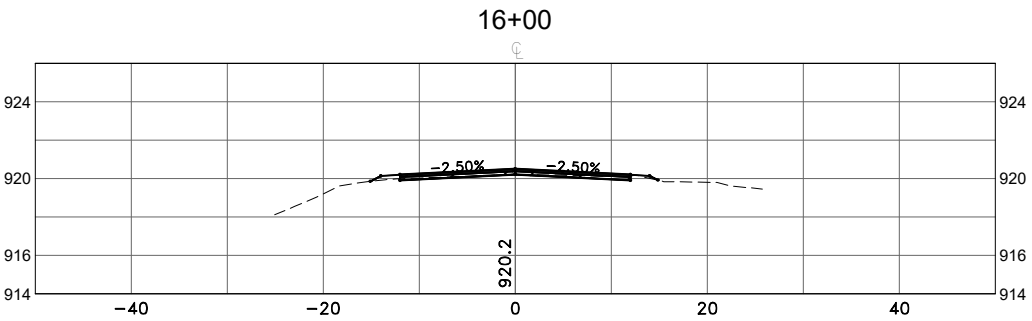
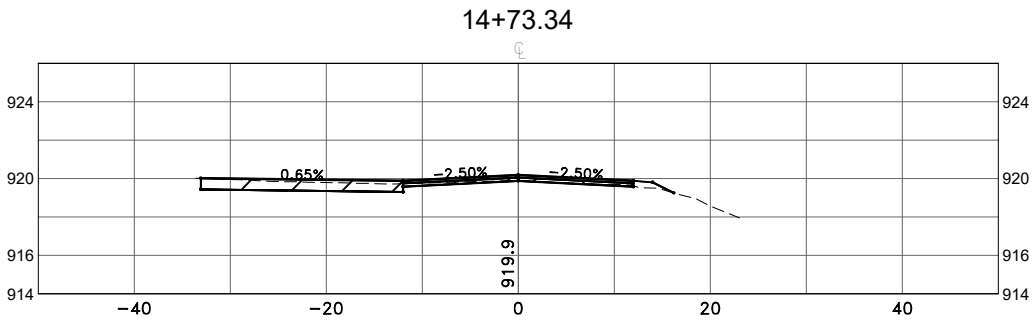
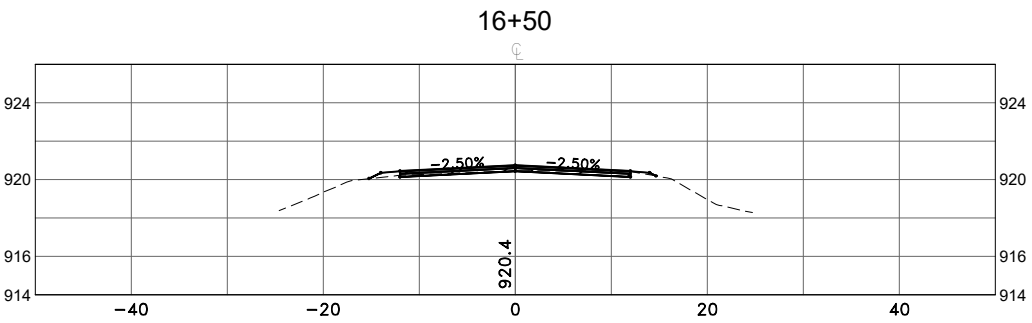
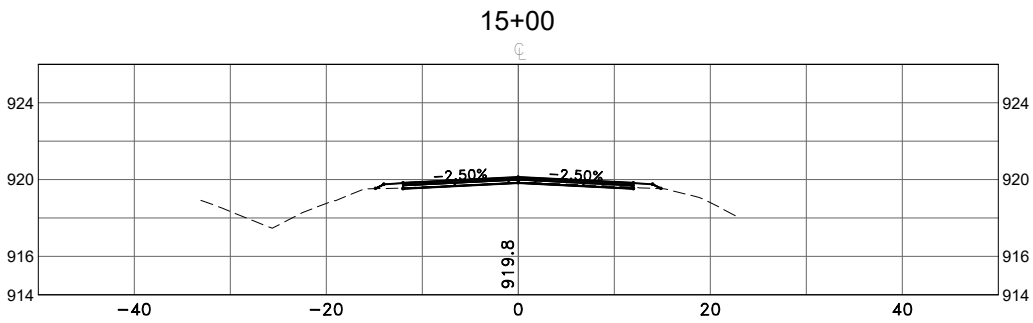
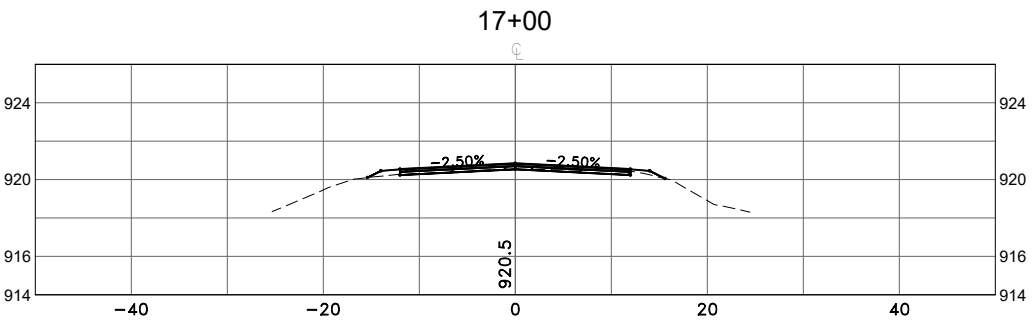
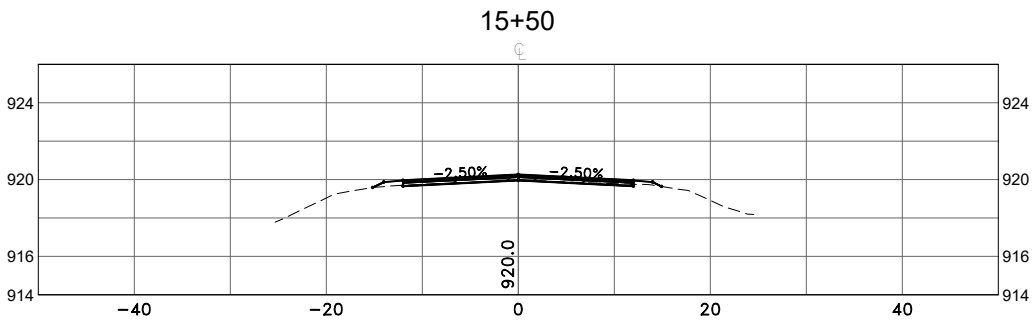
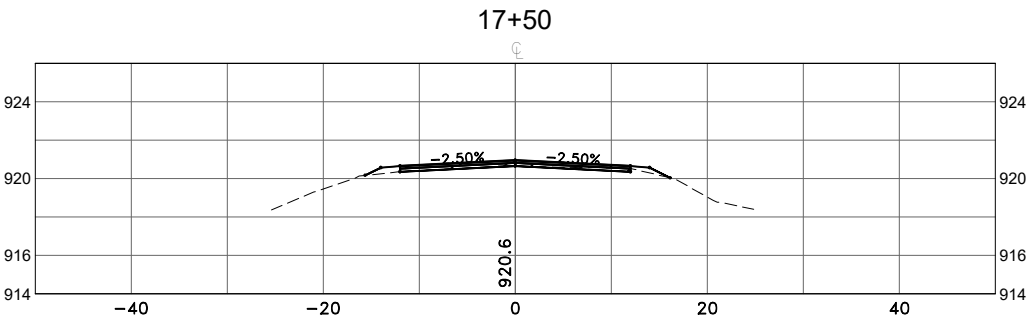
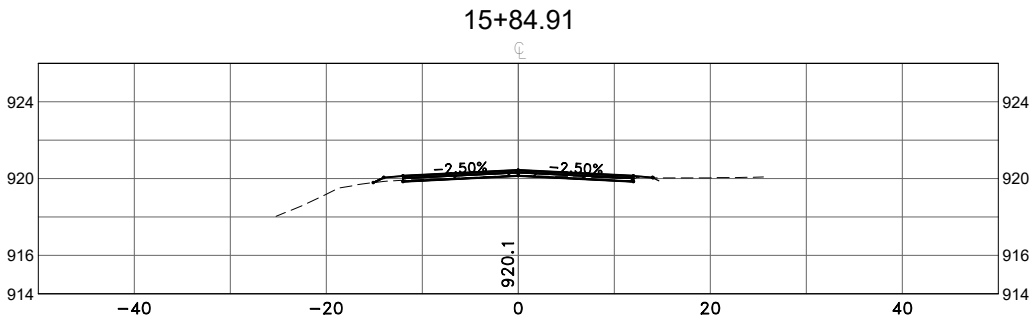
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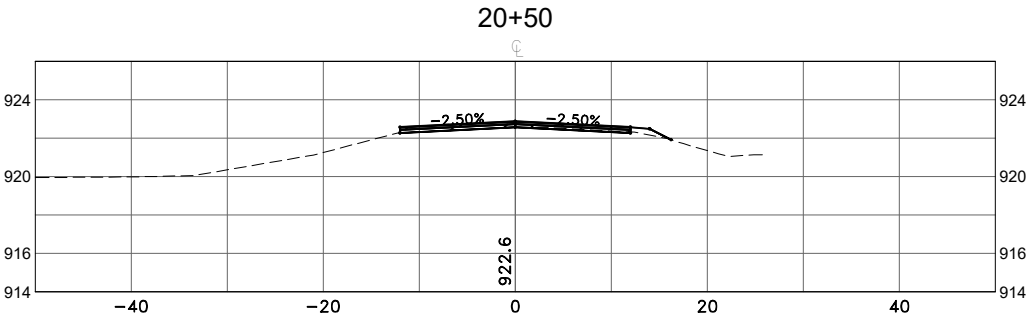
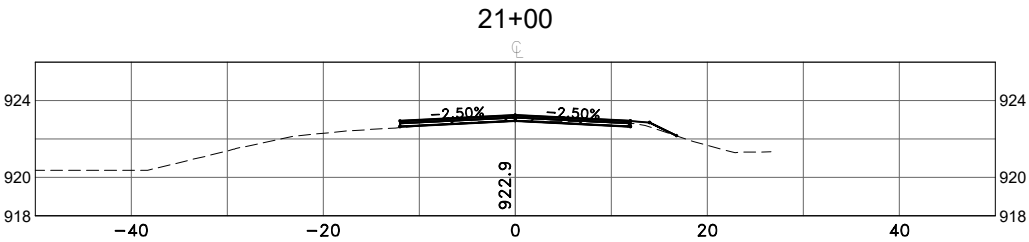
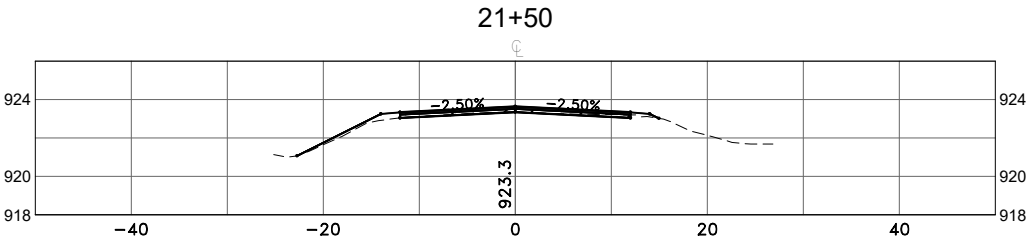
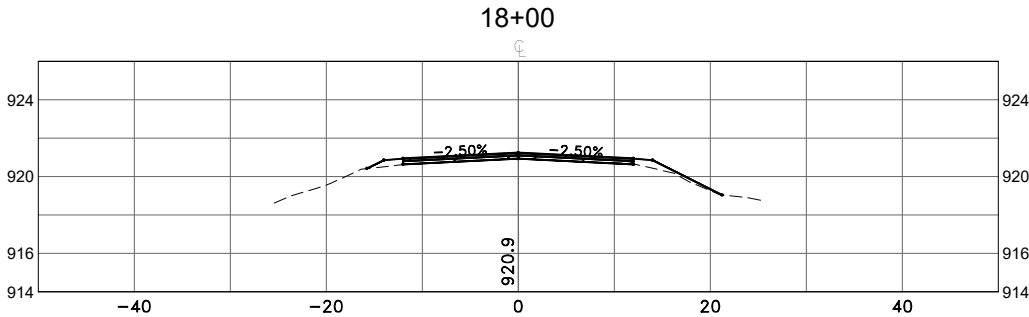
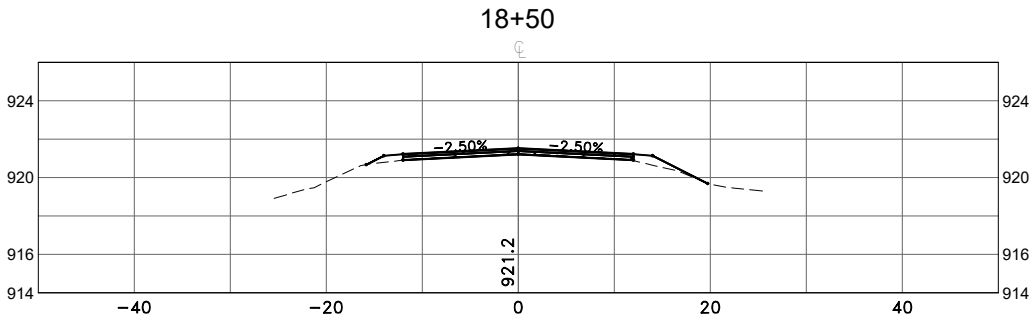
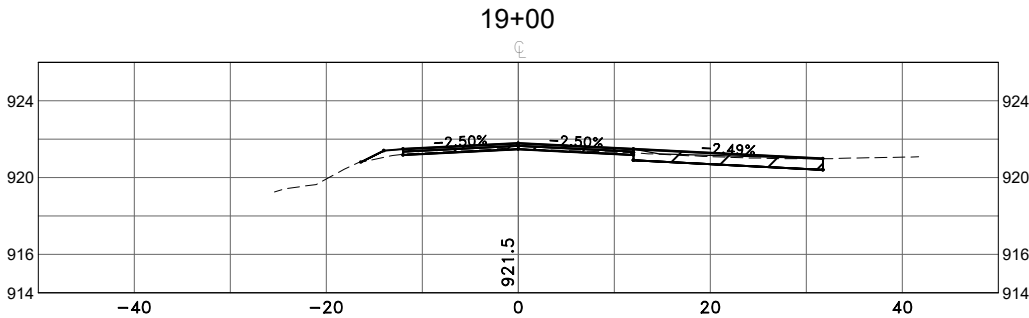
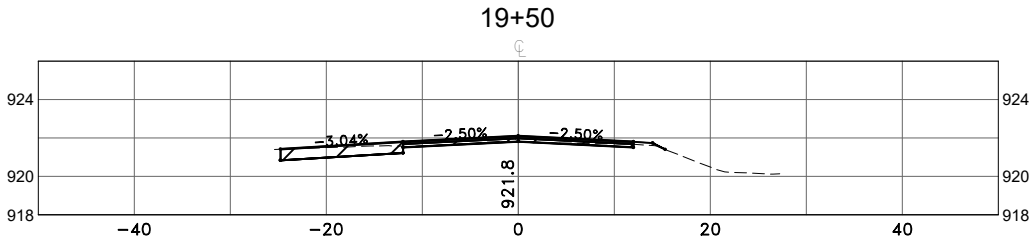
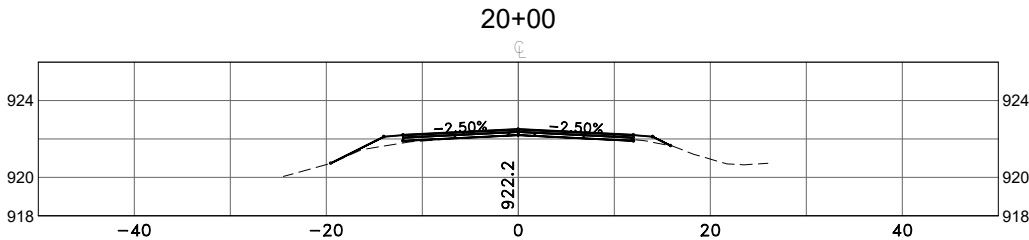
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CITY OF ST. FRANCIS, MINNESOTA

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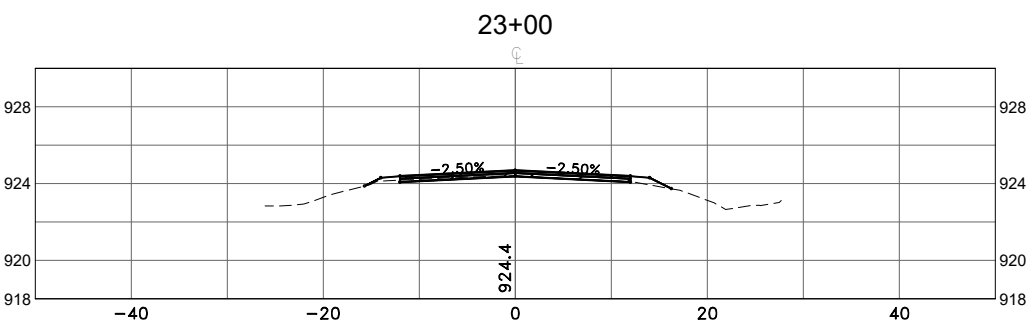
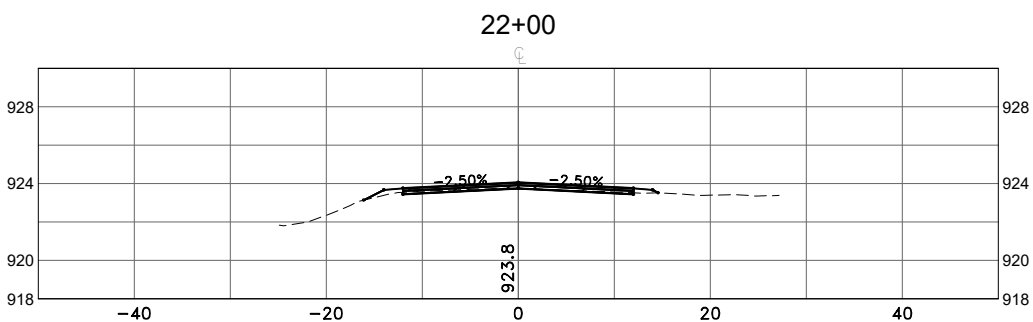
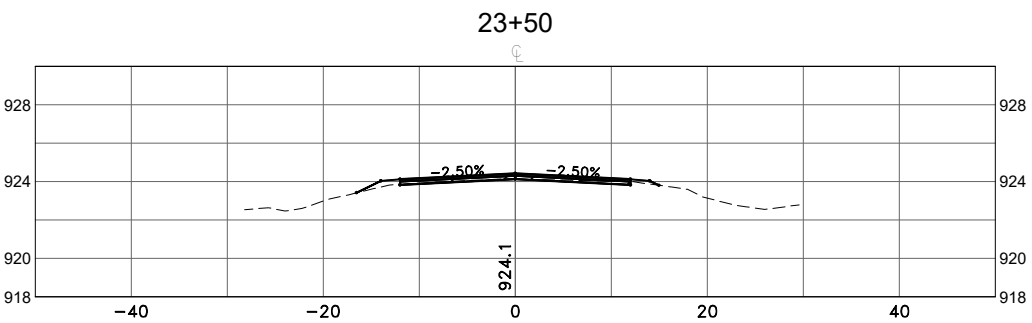
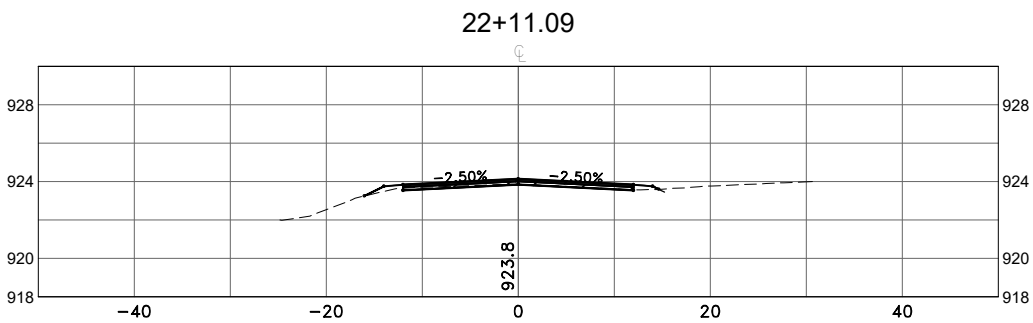
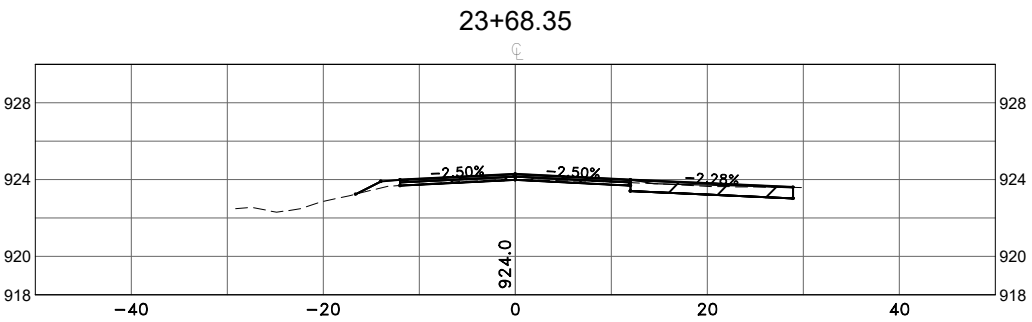
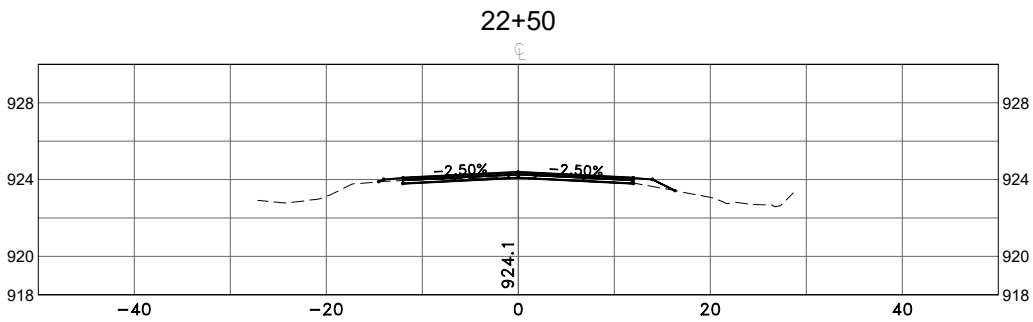
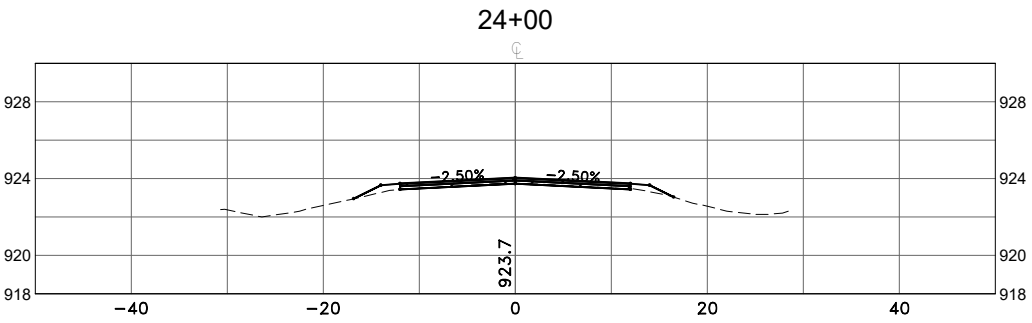
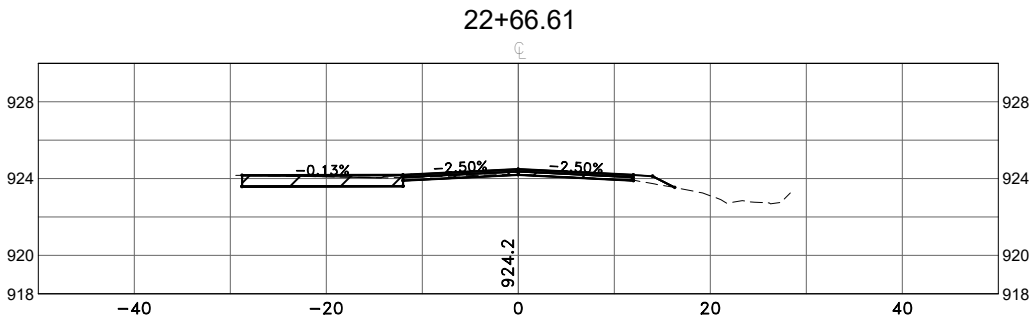
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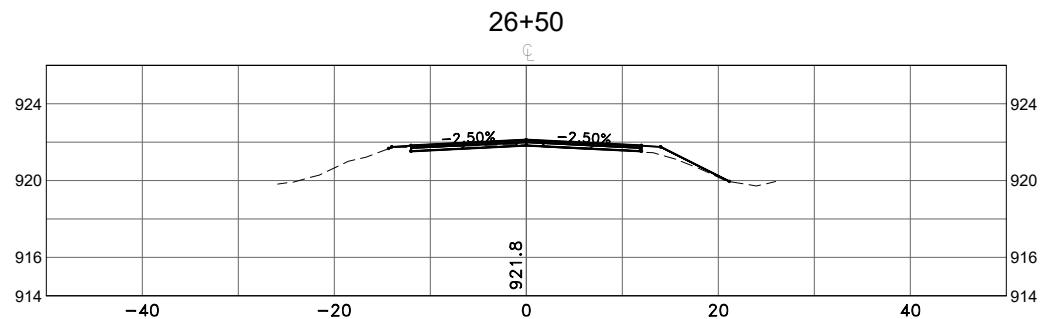
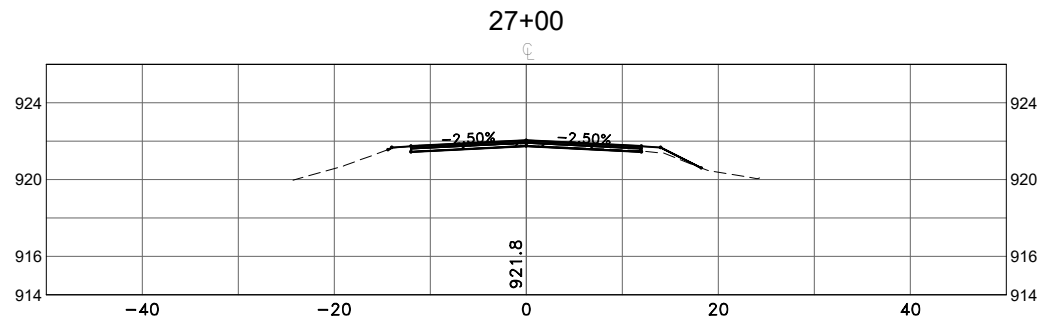
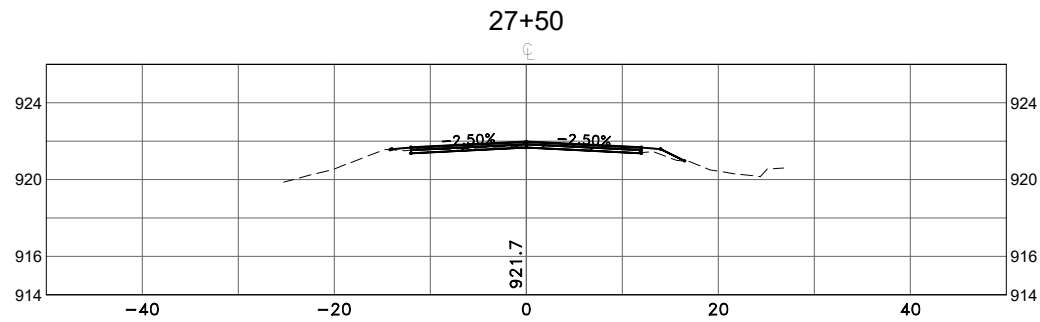
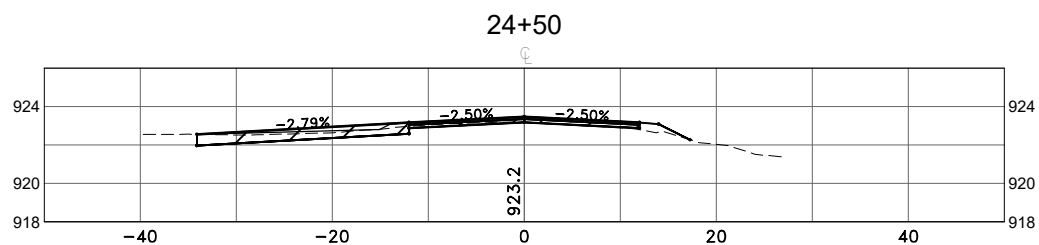
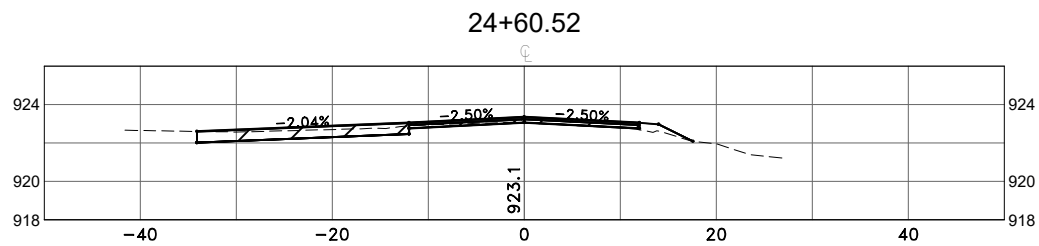
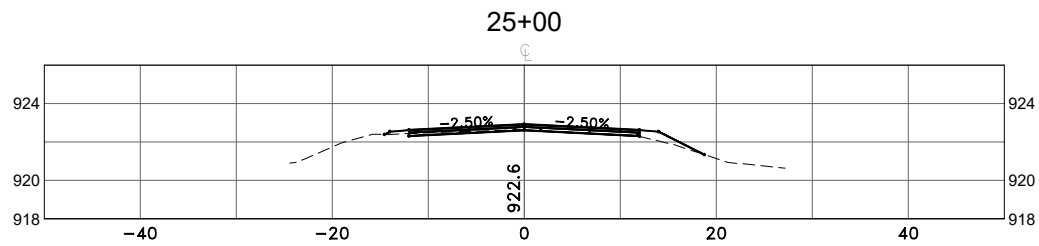
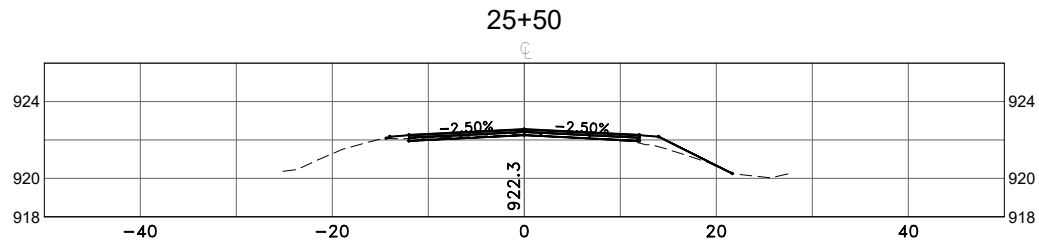
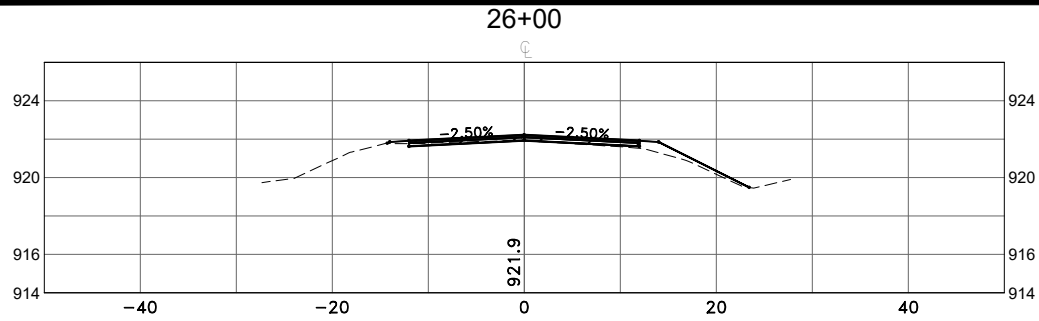
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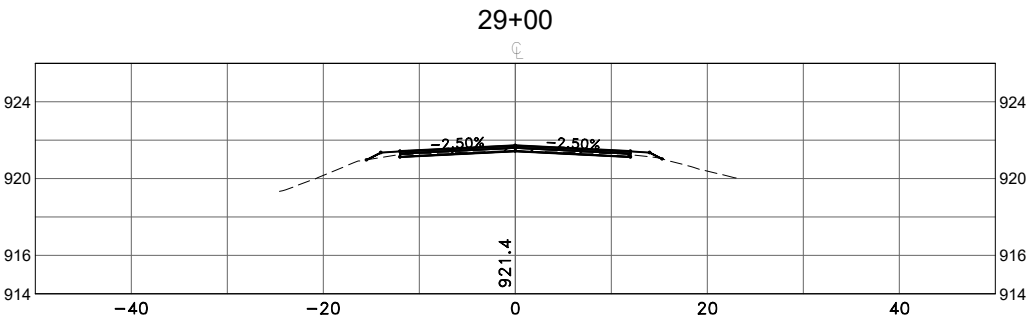
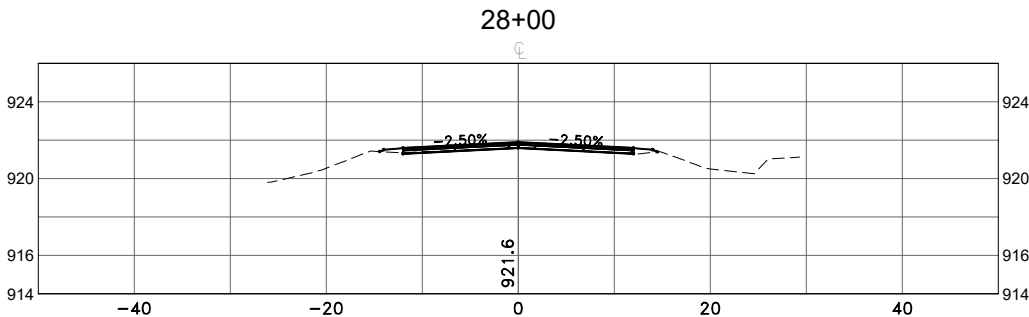
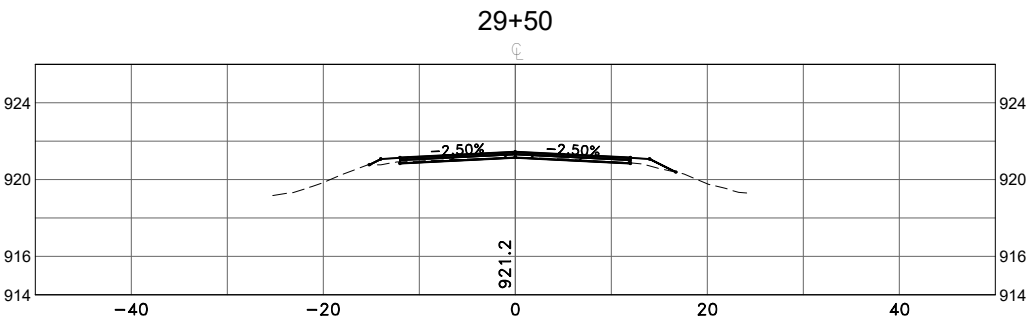
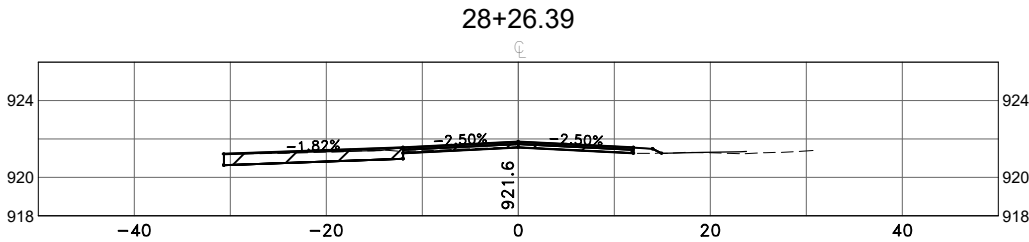
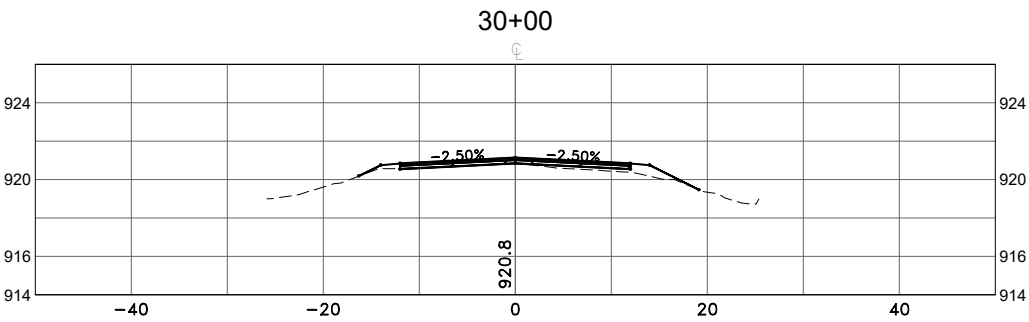
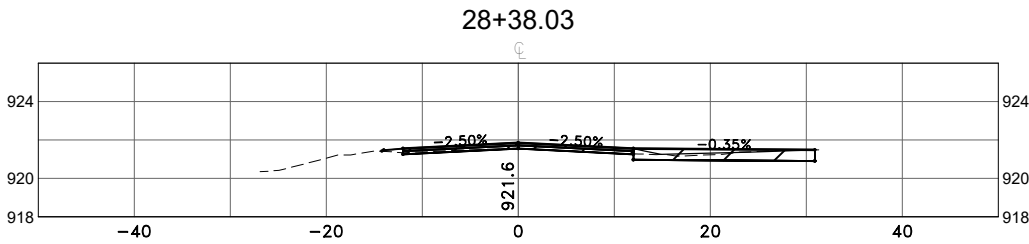
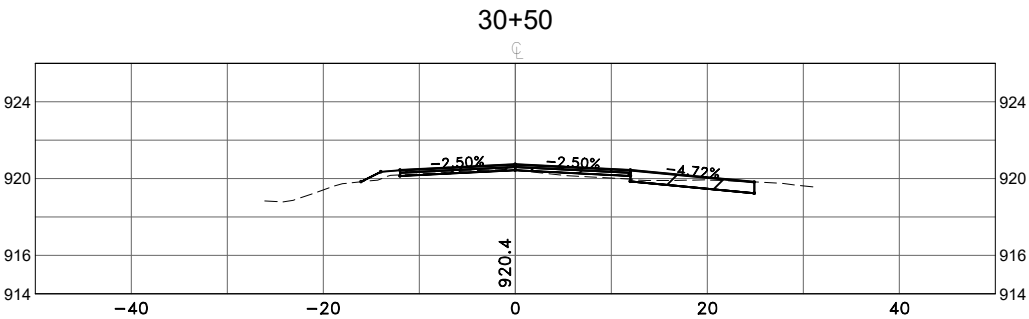
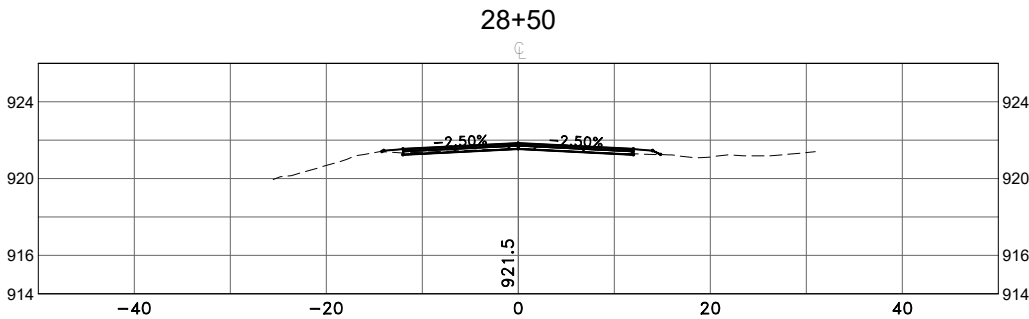
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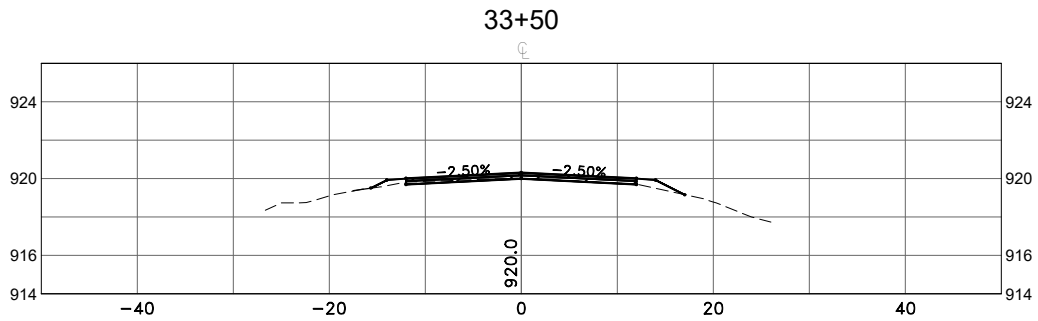
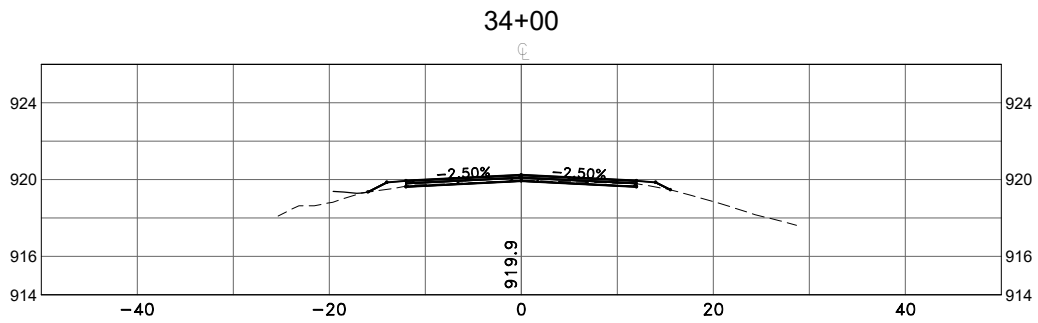
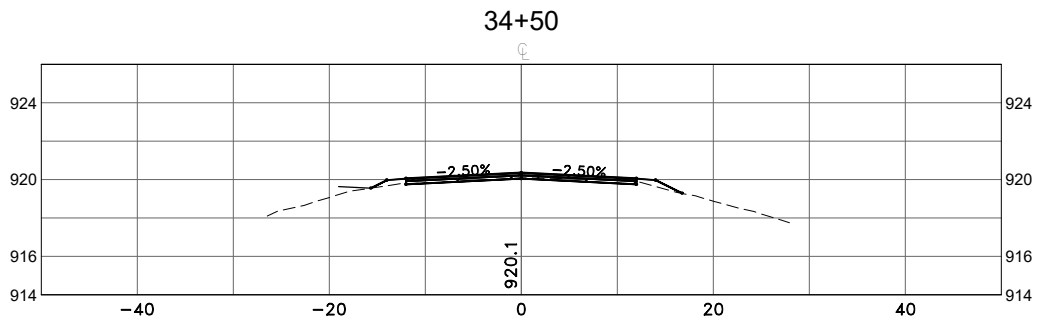
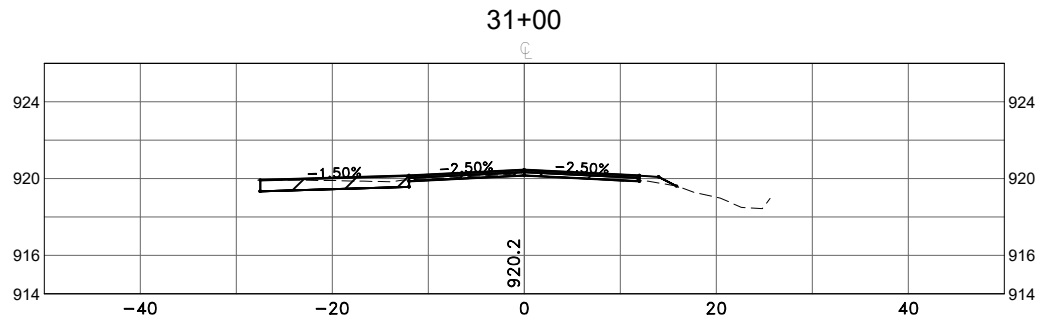
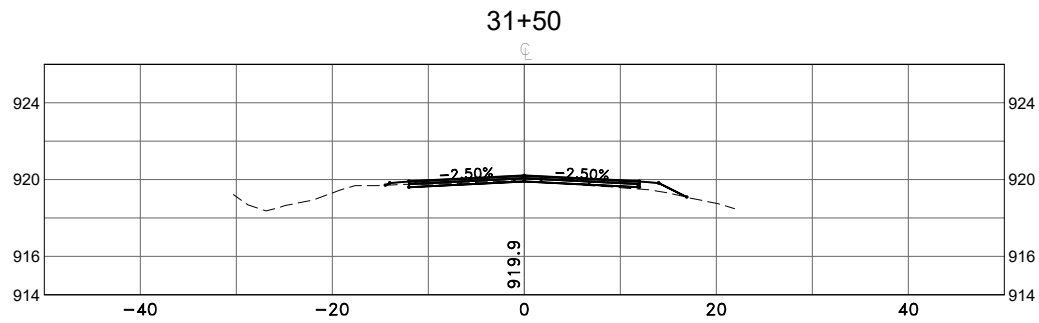
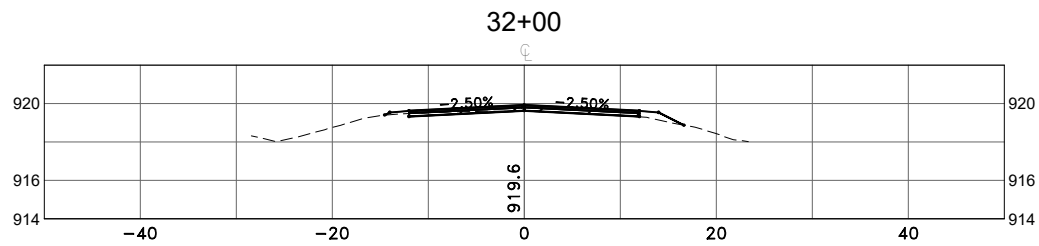
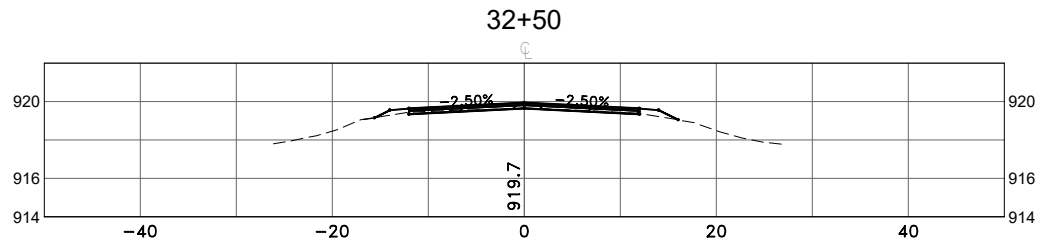
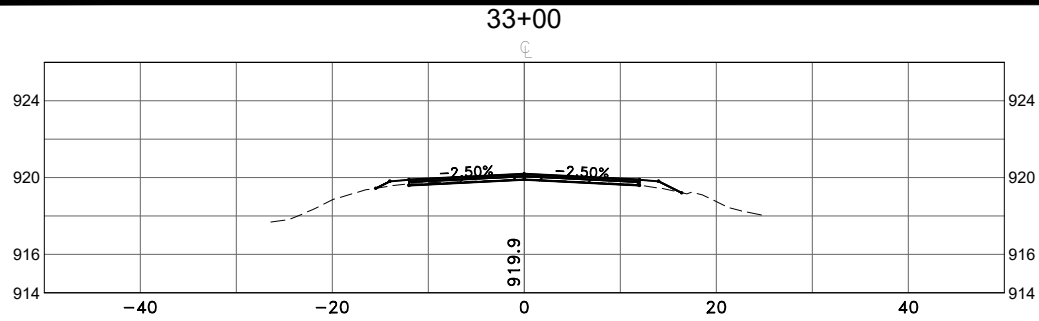
2022 STREET REHABILITATION PROJECT

CROSS SECTIONS

239TH AVENUE
CITY OF ST. FRANCIS, MINNESOTA

SHEET
X9
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X11
SHEETS

May 11, 2022 -- 9:42am
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S.A.P. 235-105-001

DATE	REVISION

DESIGNED BY: CJJ
DRAWN BY: SGJ
CHECKED BY: TAE



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Civil Engineers and Land Surveyors
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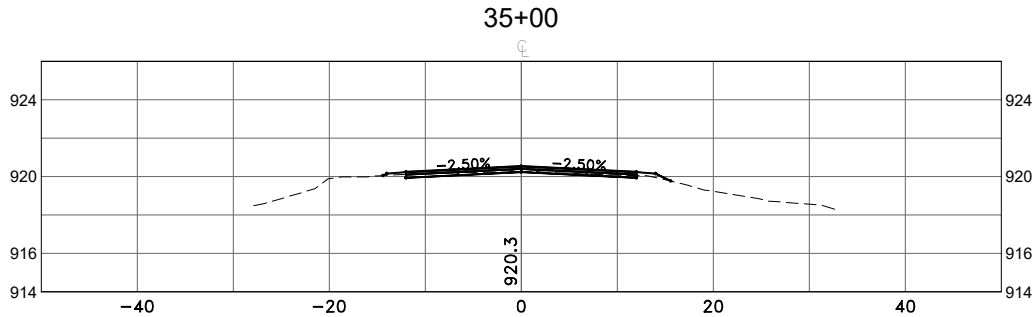
2022 STREET REHABILITATION PROJECT

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