

04-25-2025 LETTING ITEM 012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

LOCAL STREET: MUN 1147 (WOODCREEK DRIVE)
SECTION 10-00055-00-BR
PROJECT NO.: WGMD(988)
TYPE of IMPROVEMENT: CULVERT REPLACEMENT
WILL COUNTY

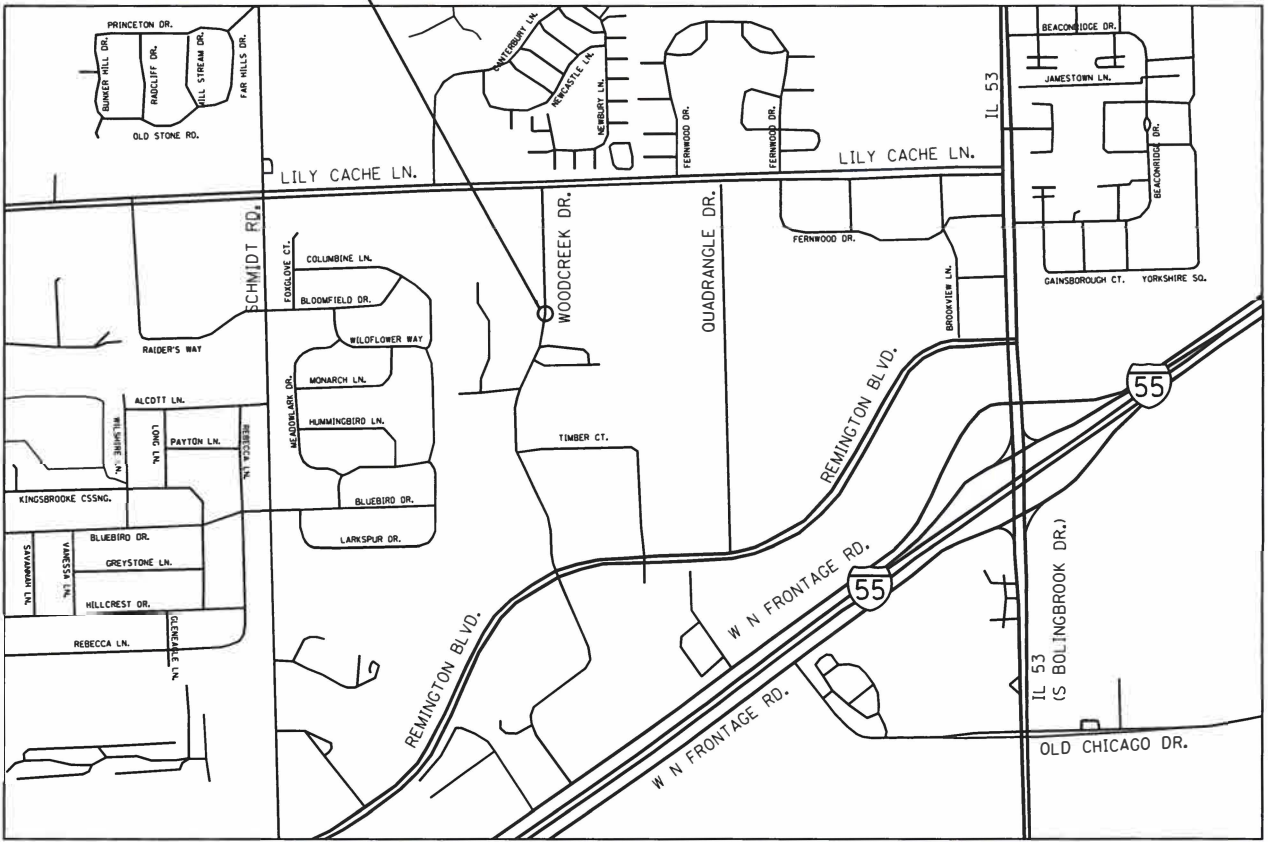
C-91-513-11

TRAFFIC DATA

ROADWAY NAME: WOODCREEK DRIVE
ROAD JURISDICTION: VILLAGE OF BOLINGBROOK
AADT = 2,100 VPD (2024), 0% TRUCKS
DHV = 200 VPD
POSTED SPEED: 25 MPH
ROAD CLASS: LOCAL ROAD

PROJECT LOCATION
EXISTING SN 099-3058

R 10E 3RD PM

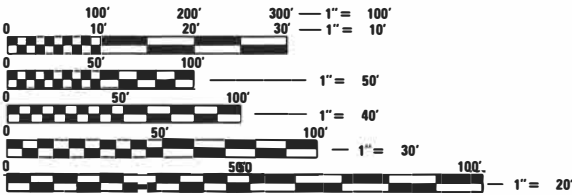


GROSS LENGTH = 100.00 FT. = 0.019 MILE
NET LENGTH = 100.00 FT. = 0.019 MILE

NOT TO SCALE



T 37N



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, PE
CONSULTANT ENGINEER: QUANDEL CONSULTANTS, INC., JAMES R. PUSH, PE

CONTRACT NO. 61K61

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
--	10-00055-00-BR	WILL	21	1
		ILLINOIS	CONTRACT NO. 61K61	



QUANDEL
CONSULTANTS
DESIGN FIRM - PROF/STRUCT ENGINEER
IL LIC. 184D05283-0006

161 NORTH CLARK STREET
SUITE 2975
CHICAGO, IL 60601
312-634-6201

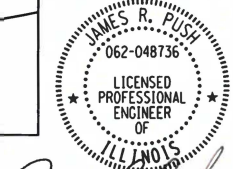
STATE OF ILLINOIS
VILLAGE OF BOLINGBROOK

APPROVED February 7, 2025
[Signature]
VILLAGE OF BOLINGBROOK, VILLAGE ENGINEER

PASSED FEB 18, 2025
[Signature]
DISTRICT 1 ENGINEER OF LOCAL ROADS

Released for Bid
based on Limited
Review Feb 18, 2025
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**



JAMES R. PUSH, P.E.
LICENSE NO.: 062-048736
DATE: January 14, 2025
EXPIRES: NOVEMBER 30, 2025

INDEX OF SHEETS

1	COVER
2	INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
3 – 5	SUMMARY OF QUANTITIES
6	TYPICAL SECTIONS
7	REMOVAL PLAN
8	PLAN & PROFILE
9	DETOUR PLAN
10	EROSION AND SEDIMENT CONTROL PLAN
11	LANDSCAPING PLAN
12	LIGHTING PLAN
13	GENERAL PLAN AND ELEVATION
14	PRECAST CONCRETE BOX CULVERT
15	CONCRETE END SECTIONS, CULVERT NO. 1 DETAILS
16	CAST-IN-PLACE APRON DETAILS
17	CAST-IN-PLACE WINGWALL DETAILS
18	SOUTH ORNAMENTAL RAILING AND C.I.P. HEADWALL DETAILS
19	NORTH ORNAMENTAL RAILING AND C.I.P. CONCRETE BASE DETAILS
20	VILLAGE OF BOLINGBROOK DETAILS
21	MISCELLANEOUS ELECTRICAL DETAILS, SHEET A (BE 702)

IDOT STANDARDS

000001–08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001–07	TEMPORARY EROSION CONTROL SYSTEMS
515001–04	NAME PLATE FOR BRIDGES
602301–04	INLET, TYPE A
604051–04	FRAME AND GRATE, TYPE 11
701006–05	OFF-ROAD OPERATIONS, 2L, 2W, 15* (4.5 M) TO 24*(600 MM) FROM PAVEMENT EDGE
701101–05	OFF-ROAD OPERATIONS, MULTILANE, 15* (4.5 M) TO 24*(600 MM) FROM PAVEMENT EDGE
701301–04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311–03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS – DAY ONLY
701501–06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701801–06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901–10	TRAFFIC CONTROL DEVICES

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL “J.U.L.I.E.” AT 1-800-892-0123 AND THE VILLAGE OF BOLINGBROOK FOR FIELD LOCATION OF BURIED ELECTRIC, TELEPHONE, GAS, AND OTHER FACILITIES AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE ENGINEER DOES NOT WARRANT THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THE PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL THE GROUND WATER AND DIVERT THE STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREA FREE OF WATER. THE METHOD OF CONTROLLING THE WATER SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. NORMAL FLOW SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.
- THE CONTRACTOR SHALL NOT SCALE DIMENSIONS FROM THE CONTRACT PLANS FOR CONSTRUCTION PURPOSES. SCALES, IF SHOWN, ARE FOR INFORMATION ONLY.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND AS-BUILT PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING THE MATERIALS.
- THE DESIGN FILL HEIGHT FOR THIS BOX IS LESS THAN 2 FT. THE PRECAST BOX CULVERT SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 1577.
- NO CHANNEL GRADING OR CULVERT CONSTRUCTION ACTIVITIES WILL BE ALLOWED IN STANDING WATER OR DURING PERIODS OF HIGH FLOWS AND EXCESSIVE CHANNEL FLOW VELOCITIES.
- THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, THE PROPOSED CONCRETE TRUCK WASHOUT LOCATIONS. RUNOFF FROM WASH AREA SHALL BE CONTAINED IN DESIGNATED AREAS SO THAT RUNOFF DOES NOT REACH THE STREAM OR DRAINAGE SYSTEMS. CONCRETE WASTE SOLIDS AND LIQUIDS SHALL BE DISPOSED OF PROPERLY.
- ALL WORK SHALL BE COMPLETED WITHIN PUBLIC RIGHT-OF-WAY WITH NO EQUIPMENT OR MATERIAL STORAGE ON PRIVATE PROPERTY. THE CONTRACTOR'S OPERATIONS AND TEMPORARY STORAGE ACTIVITIES SHALL BE LIMITED TO THE WORK AREA AND CONSTRUCTION LIMITS.
- REMOVALS OF PAVEMENT, CURB AND GUTTERS AND SIDEWALK SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT.
- CONCRETE CURING MATERIALS SHALL BE APPLIED TO ALL NEW CONCRETE GUTTER FLAGS, FACES, TOPS OF CURBS, SIDEWALKS, AND DRIVEWAY PAVEMENTS IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1022 OF THE STANDARD SPECIFICATIONS.
- THE AGGREGATE GRADATION FOR THE AGGREGATE SUBGRADE IMPROVEMENT 12” LOWER LIFT SHALL BE CS 1 OR RR 1.
- ALL NITROGEN, PHOSPHOROUS AND POTASSIUM FERTILIZER NUTRIENTS HAVE BEEN INTENTIONALLY OMITTED FROM THE CONTRACT FOR SEEDING OR SODDING APPLICATION.

COMMITMENTS

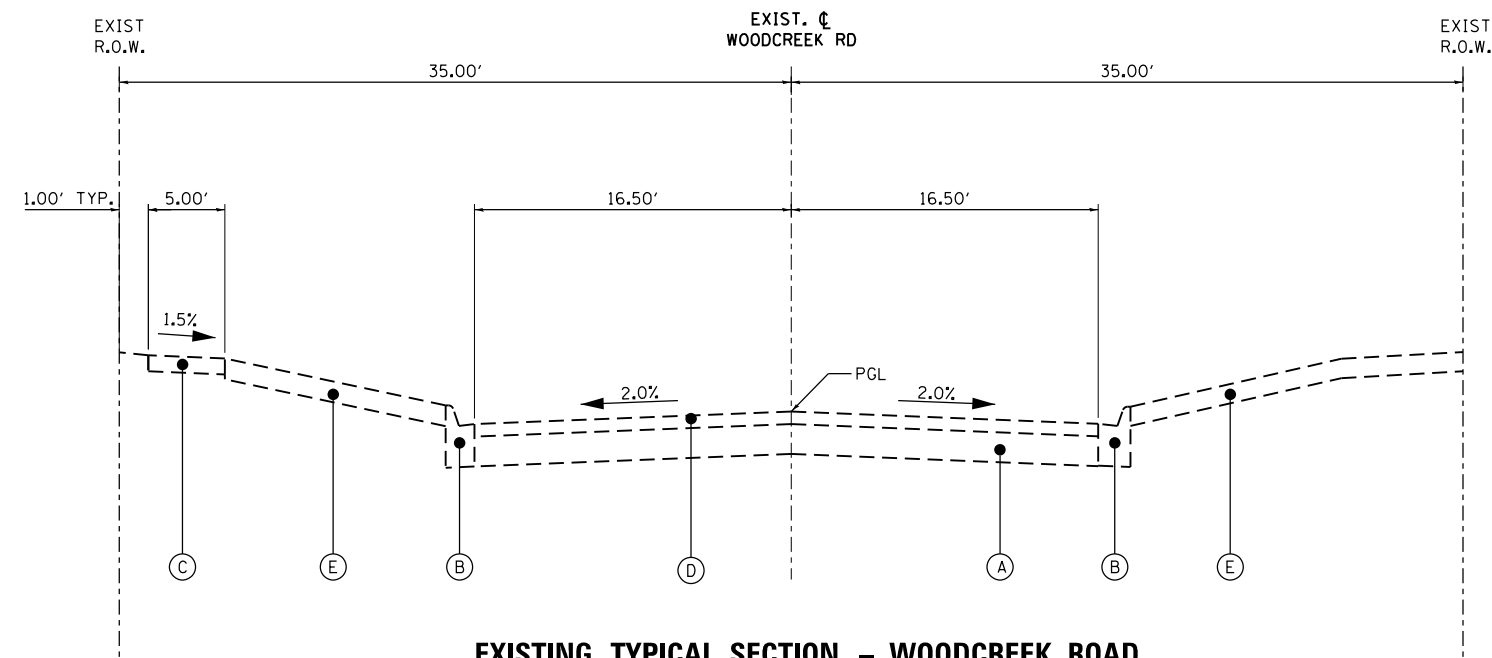
NONE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE - URBAN	
				ROADWAY 0004	BRIDGE REPLACEMENT 0010
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	20	20	
20200100	EARTH EXCAVATION	CU YD	37		37
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	145		145
20300100	CHANNEL EXCAVATION	CU YD	83		83
20700220	POROUS GRANULAR EMBANKMENT	CU YD	198		198
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	423	423	
25000100	SEEDING, CLASS 1	ACRE	0.25	0.25	
25200110	SODDING, SALT TOLERANT	SQ YD	184	184	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10	10	
28000400	PERIMETER EROSION BARRIER	FOOT	625	625	
28000510	INLET FILTERS	EACH	4	4	
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	423	423	
28100127	STONE RIPRAP, CLASS B4	SQ YD	248		248
28200200	FILTER FABRIC	SQ YD	248		248
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	426	426	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	825	825	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	330	330	
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	144	144	

* INDICATES SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE - URBAN	
				ROADWAY 0004	BRIDGE REPLACEMENT 0010
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	42	42	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	675	675	
44000100	PAVEMENT REMOVAL	SQ YD	367	367	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	200	200	
44000600	SIDEWALK REMOVAL	SQ FT	608	608	
50105220	PIPE CULVERT REMOVAL	FOOT	362		362
50200100	STRUCTURE EXCAVATION	CU YD	673		673
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,430		3,430
51500100	NAME PLATES	EACH	1		1
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	3		3
54003000	CONCRETE BOX CULVERTS	CU YD	21.7		21.7
54010705	PRECAST CONCRETE BOX CULVERTS 7' X 5'	FOOT	360		360
60404300	FRAMES AND GRATES, TYPE 3	EACH	4	4	
60609200	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.12	FOOT	200	200	
67100100	MOBILIZATION	L SUM	1		1
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	4	4	
* 81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	308	308	

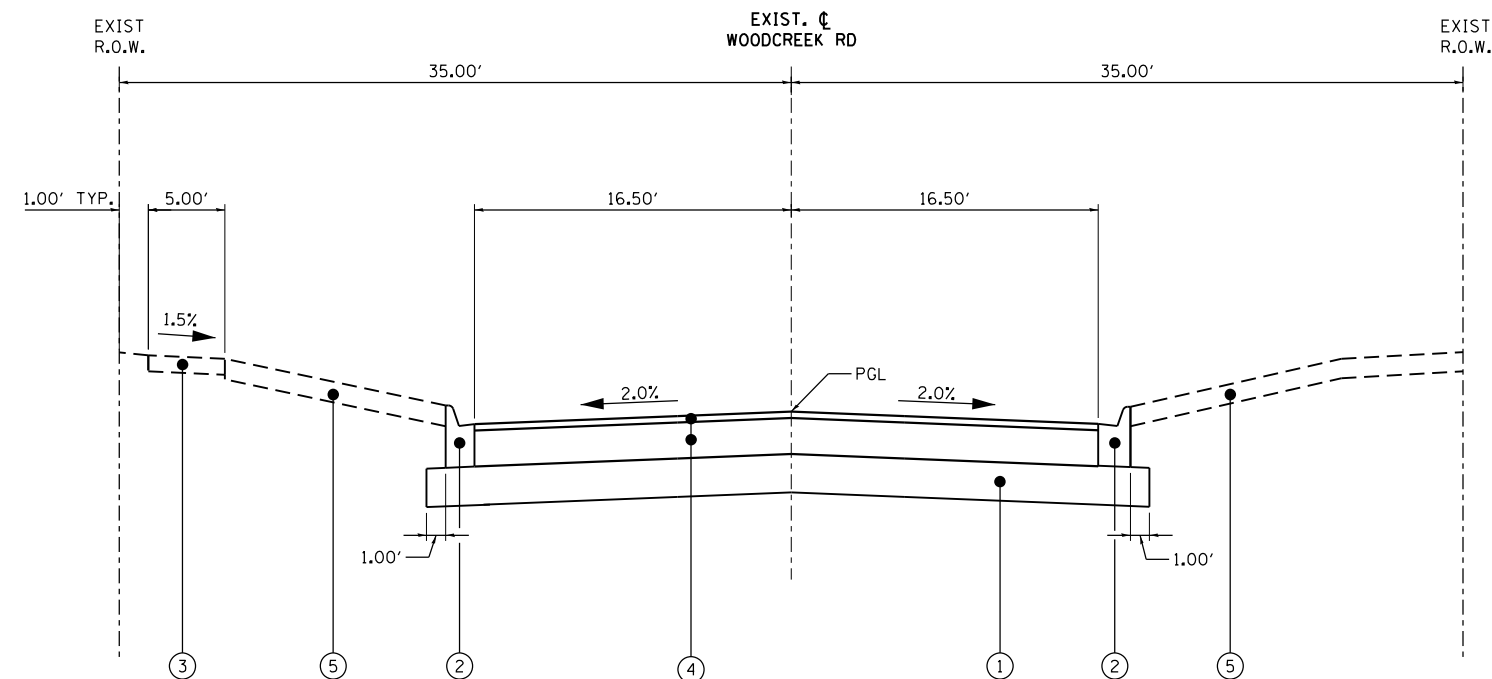
* SPECIALTY ITEM



EXISTING TYPICAL SECTION – WOODCREEK ROAD

STA 19+50.00 TO STA 20+50.00

- EXISTING LEGEND**
- (A) AGGREGATE BASE COURSE 8"
 - (B) COMBINATION CONCRETE CURB AND GUTTER TYPE M-6.12
 - (C) PORTLAND CEMENT CONCRETE SIDEWALK, 5"
 - (D) HOT-MIX ASPHALT PAVEMENT 3"
 - (E) TOPSOIL AND SOD



PROPOSED TYPICAL SECTION – WOODCREEK ROAD

STA 19+50.00 TO STA 20+50.00 (RECONSTRUCTION)

- PROPOSED LEGEND**
- (1) AGGREGATE SUBGRADE IMPROVEMENT 12"
 - (2) COMBINATION CONCRETE CURB AND GUTTER TYPE M-6.12
 - (3) PORTLAND CEMENT CONCRETE SIDEWALK, 5"
 - (4) HOT-MIX ASPHALT PAVEMENT RECONSTRUCTION
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50 (2")
HOT MIX ASPHALT BINDER COURSE, IL-19.0, N50 (7")
 - (5) TOPSOIL AND SOD OR SEED (SALT TOLERANT), SEE LANDSCAPING PLANS

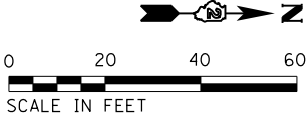
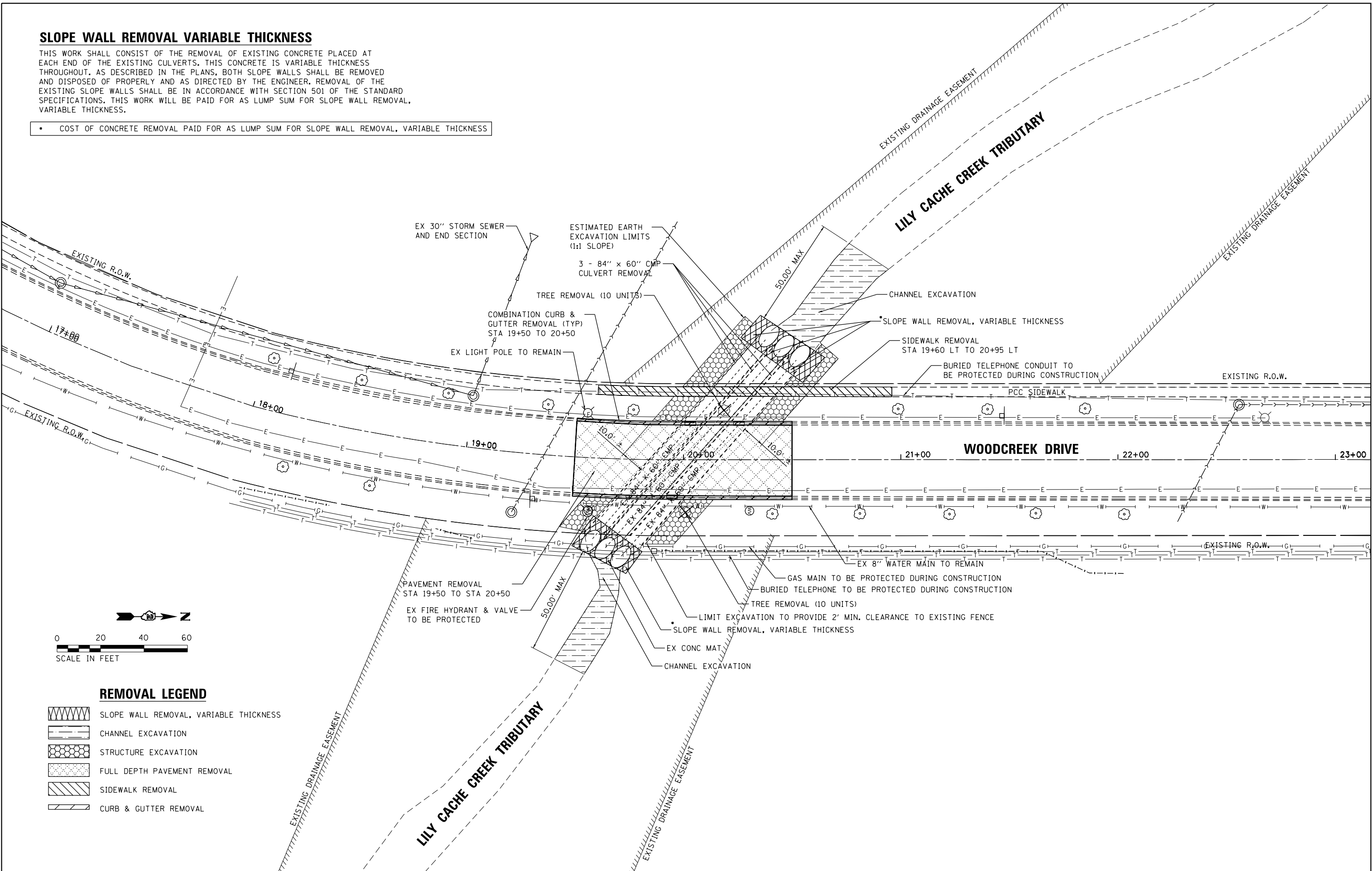
HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
	AIR VOIDS AT NDES	
HOT-MIX ASPHALT PAVEMENT RECONSTRUCTION		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50 (2")	4% AT 50 GYR.	LR 1030-2
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 (7")	4% AT 50 GYR.	LR 1030-2
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA); PER LR 1030-2		

- NOTES:
- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
 - THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

SLOPE WALL REMOVAL VARIABLE THICKNESS

THIS WORK SHALL CONSIST OF THE REMOVAL OF EXISTING CONCRETE PLACED AT EACH END OF THE EXISTING CULVERTS. THIS CONCRETE IS VARIABLE THICKNESS THROUGHOUT. AS DESCRIBED IN THE PLANS, BOTH SLOPE WALLS SHALL BE REMOVED AND DISPOSED OF PROPERLY AND AS DIRECTED BY THE ENGINEER. REMOVAL OF THE EXISTING SLOPE WALLS SHALL BE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AS LUMP SUM FOR SLOPE WALL REMOVAL, VARIABLE THICKNESS.

- COST OF CONCRETE REMOVAL PAID FOR AS LUMP SUM FOR SLOPE WALL REMOVAL, VARIABLE THICKNESS



REMOVAL LEGEND

- SLOPE WALL REMOVAL, VARIABLE THICKNESS
- CHANNEL EXCAVATION
- STRUCTURE EXCAVATION
- FULL DEPTH PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB & GUTTER REMOVAL



USER NAME = jpush	DESIGNED - KCM	REVISED -
	DRAWN - KCM	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JRP	REVISED -
PLOT DATE = 1/28/2025	DATE - 01/14/2025	REVISED -

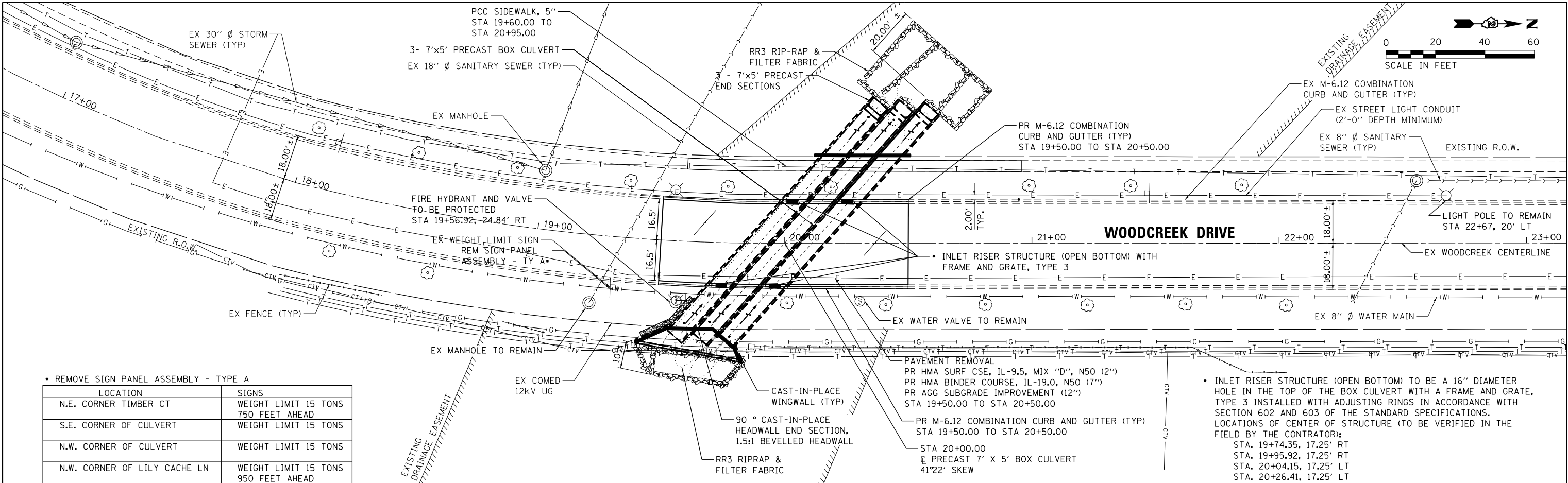


WOODCREEK DRIVE CULVERT REPLACEMENT REMOVAL PLAN			
SCALE: 1" = 20'	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00055-00-BR	WILL	21	7
CONTRACT NO. 61K61				
ILLINOIS FED. AID PROJECT				

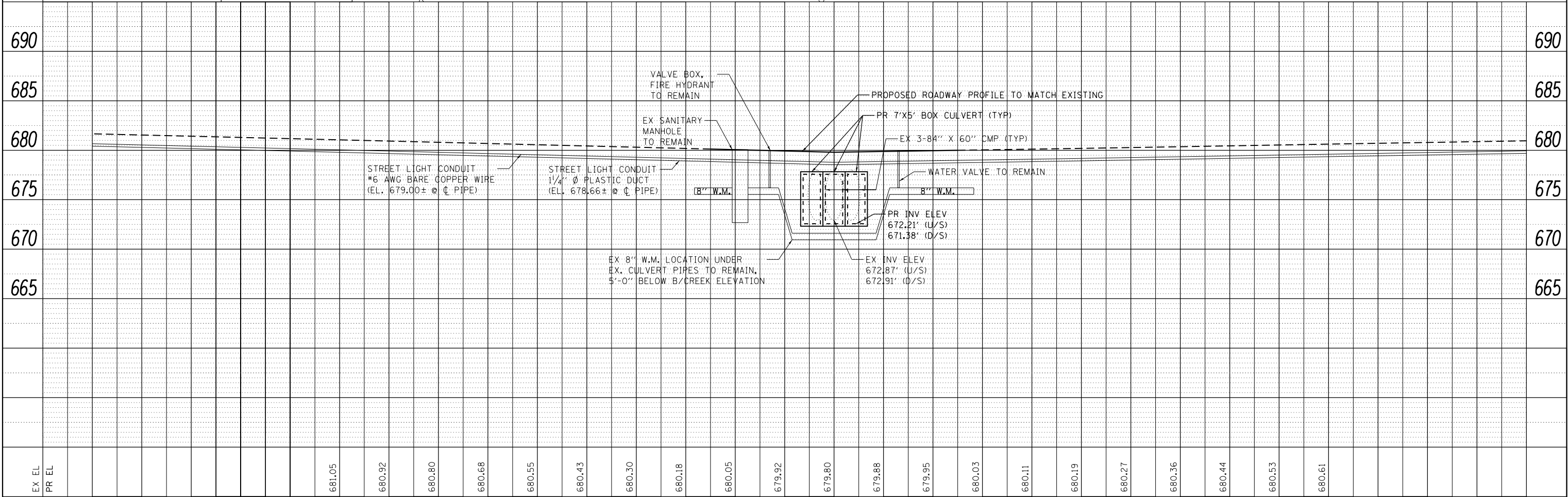
PLAN	DATE	BY
SURVEYED		
NOTED		
ALIGNED		
CHECKED		
FILED		
NO.		

PROFILE	DATE	BY
SURVEYED		
NOTED		
GRADES		
CHECKED		
STRUCTURE		
NOTATIONS		
CHKD		
NO.		



• REMOVE SIGN PANEL ASSEMBLY - TYPE A	
LOCATION	SIGNS
N.E. CORNER TIMBER CT	WEIGHT LIMIT 15 TONS 750 FEET AHEAD
S.E. CORNER OF CULVERT	WEIGHT LIMIT 15 TONS
N.W. CORNER OF CULVERT	WEIGHT LIMIT 15 TONS
N.W. CORNER OF LILY CACHE LN	WEIGHT LIMIT 15 TONS 950 FEET AHEAD

• INLET RISER STRUCTURE (OPEN BOTTOM) TO BE A 16" DIAMETER HOLE IN THE TOP OF THE BOX CULVERT WITH A FRAME AND GRATE, TYPE 3 INSTALLED WITH ADJUSTING RINGS IN ACCORDANCE WITH SECTION 602 AND 603 OF THE STANDARD SPECIFICATIONS. LOCATIONS OF CENTER OF STRUCTURE (TO BE VERIFIED IN THE FIELD BY THE CONTRATOR):	
STA. 19+74.35, 17.25' RT	
STA. 19+95.92, 17.25' RT	
STA. 20+04.15, 17.25' LT	
STA. 20+26.41, 17.25' LT	



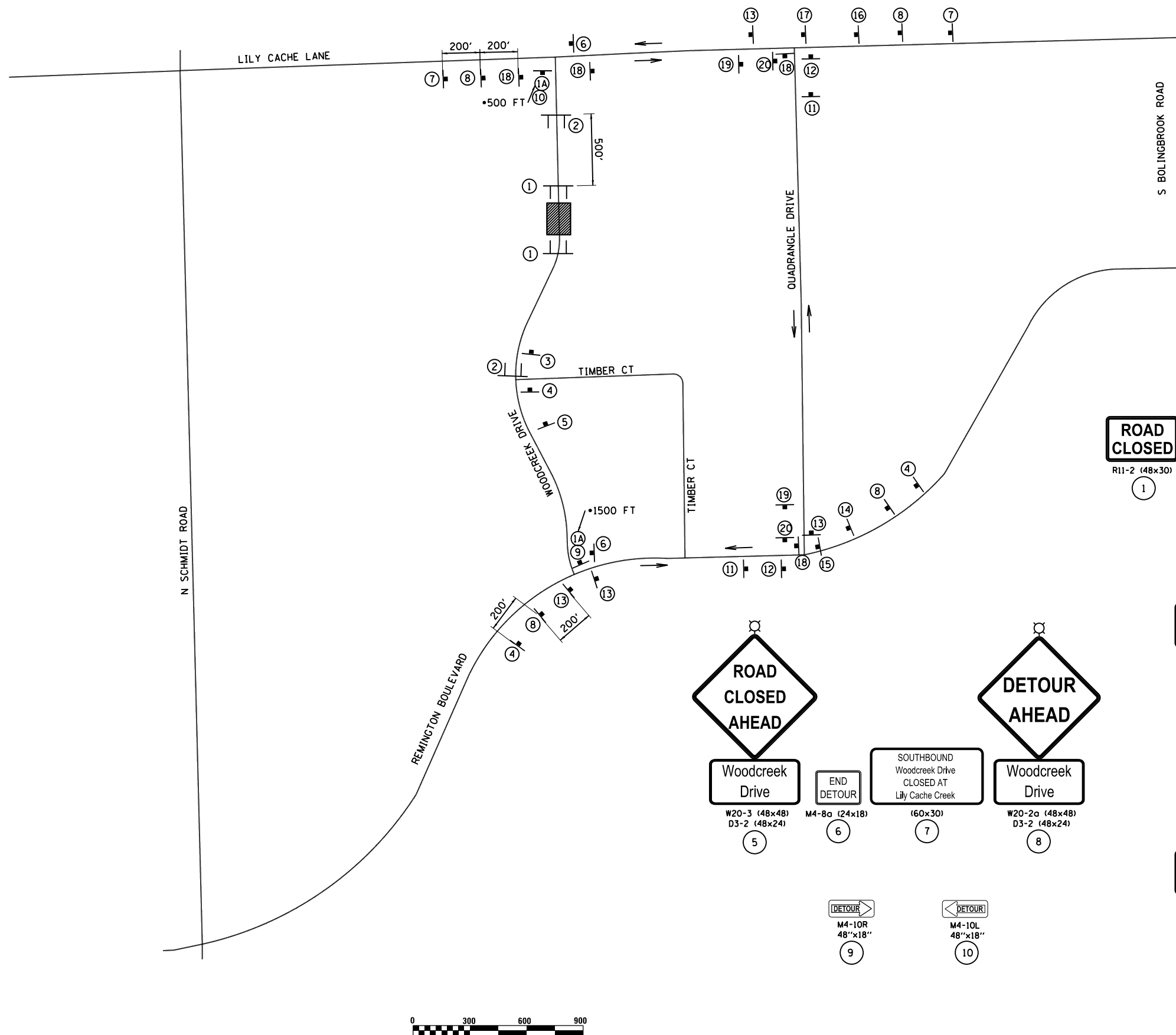


USER NAME : jpush	DESIGNED - KCM	REVISED -
PLOT SCALE : 40.0000' / in.	DRAWN - KCM	REVISED -
PLOT DATE : 1/28/2025	CHECKED - JRP	REVISED -
	DATE - 01/14/2025	REVISED -



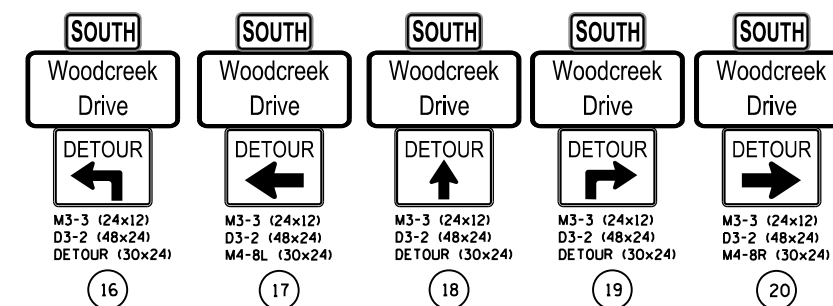
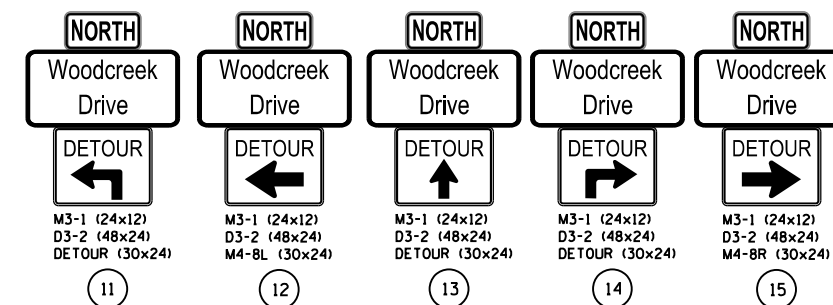
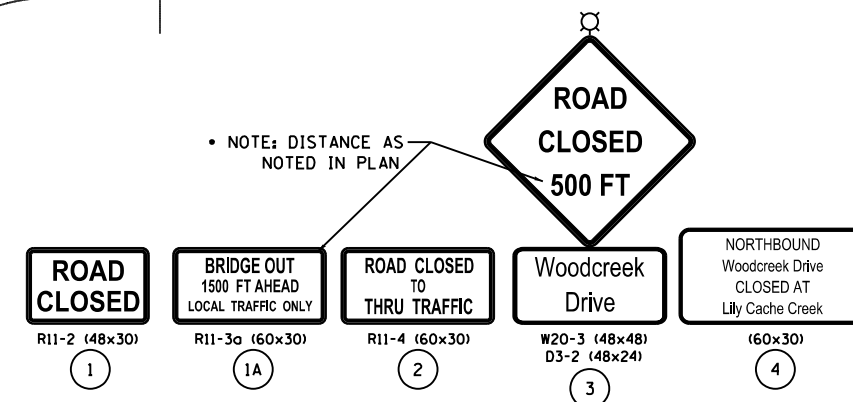
WOODCREEK DRIVE CULVERT REPLACEMENT	
PLAN & PROFILE	
SCALE: 1" = 20'	SHEET 1 OF 1 SHEETS
STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00055-00-BR	WILL	21	8
CONTRACT NO. 61K61				
ILLINOIS FED. AID PROJECT				



TRAFFIC CONTROL LEGEND

- DESIGNATED SIGN POST-MOUNTED IN GROUND PER ARTICLE 701.14 & STANDARD 701901 (SEE SIGN DETAILS)
- TYPE III BARRICADE WITH SIGN UNLESS OTHERWISE NOTED PER STANDARD 701901 (WITH TWO WARNING LIGHTS EACH BARRICADE)
- DETOUR ROUTE
- DETOUR ROUTE SIGN PANEL (SEE DETAILS - THIS SHEET)
- WORK ZONE - FULL CLOSURE



USER NAME : jpush	DESIGNED - AMB	REVISED -
	DRAWN - AMB	REVISED -
PLOT SCALE = 600.0000' / in.	CHECKED - JRP	REVISED -
PLOT DATE = 1/28/2025	DATE - 05/23/2024	REVISED -



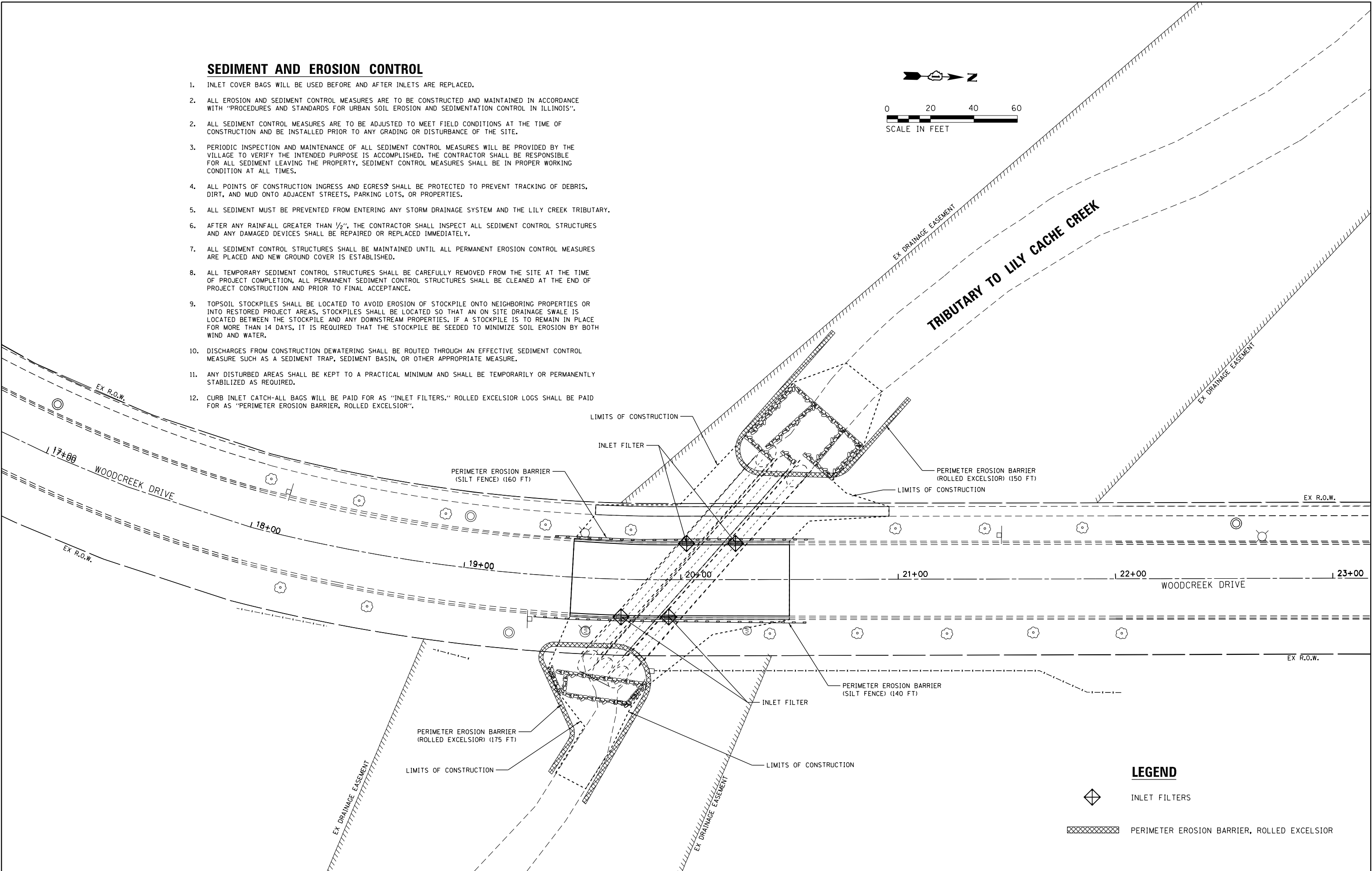
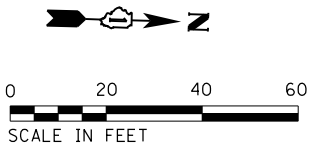
WOODCREEK DRIVE CULVERT REPLACEMENT
DETOUR PLAN

SCALE: 1" = 300' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00055-00-BR	WILL	21	9
CONTRACT NO. 61K61				
ILLINOIS FED. AID PROJECT				

SEDIMENT AND EROSION CONTROL

- 1. INLET COVER BAGS WILL BE USED BEFORE AND AFTER INLETS ARE REPLACED.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH "PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN ILLINOIS".
- 2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF THE SITE.
- 3. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES WILL BE PROVIDED BY THE VILLAGE TO VERIFY THE INTENDED PURPOSE IS ACCOMPLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY, SEDIMENT CONTROL MEASURES SHALL BE IN PROPER WORKING CONDITION AT ALL TIMES.
- 4. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF DEBRIS, DIRT, AND MUD ONTO ADJACENT STREETS, PARKING LOTS, OR PROPERTIES.
- 5. ALL SEDIMENT MUST BE PREVENTED FROM ENTERING ANY STORM DRAINAGE SYSTEM AND THE LILY CREEK TRIBUTARY.
- 6. AFTER ANY RAINFALL GREATER THAN 1/2", THE CONTRACTOR SHALL INSPECT ALL SEDIMENT CONTROL STRUCTURES AND ANY DAMAGED DEVICES SHALL BE REPAIRED OR REPLACED IMMEDIATELY.
- 7. ALL SEDIMENT CONTROL STRUCTURES SHALL BE MAINTAINED UNTIL ALL PERMANENT EROSION CONTROL MEASURES ARE PLACED AND NEW GROUND COVER IS ESTABLISHED.
- 8. ALL TEMPORARY SEDIMENT CONTROL STRUCTURES SHALL BE CAREFULLY REMOVED FROM THE SITE AT THE TIME OF PROJECT COMPLETION, ALL PERMANENT SEDIMENT CONTROL STRUCTURES SHALL BE CLEANED AT THE END OF PROJECT CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE.
- 9. TOPSOIL STOCKPILES SHALL BE LOCATED TO AVOID EROSION OF STOCKPILE ONTO NEIGHBORING PROPERTIES OR INTO RESTORED PROJECT AREAS, STOCKPILES SHALL BE LOCATED SO THAT AN ON SITE DRAINAGE SWALE IS LOCATED BETWEEN THE STOCKPILE AND ANY DOWNSTREAM PROPERTIES. IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN 14 DAYS, IT IS REQUIRED THAT THE STOCKPILE BE SEEDED TO MINIMIZE SOIL EROSION BY BOTH WIND AND WATER.
- 10. DISCHARGES FROM CONSTRUCTION DEWATERING SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE SUCH AS A SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE.
- 11. ANY DISTURBED AREAS SHALL BE KEPT TO A PRACTICAL MINIMUM AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS REQUIRED.
- 12. CURB INLET CATCH-ALL BAGS WILL BE PAID FOR AS "INLET FILTERS." ROLLED EXCELSIOR LOGS SHALL BE PAID FOR AS "PERIMETER EROSION BARRIER, ROLLED EXCELSIOR".



LEGEND

- INLET FILTERS
- PERIMETER EROSION BARRIER, ROLLED EXCELSIOR

NOTES:

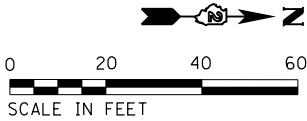
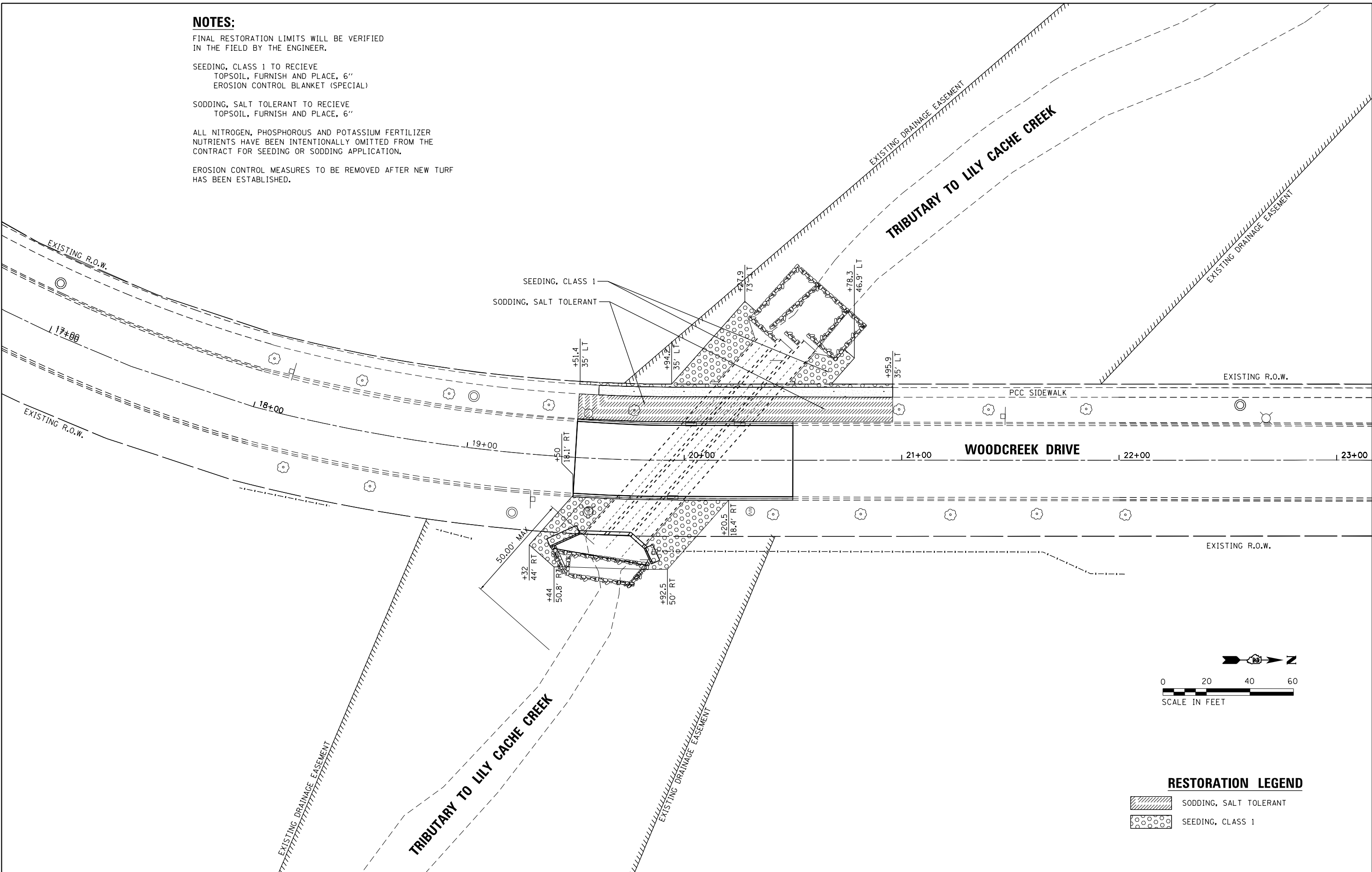
FINAL RESTORATION LIMITS WILL BE VERIFIED
IN THE FIELD BY THE ENGINEER.

SEEDING, CLASS 1 TO RECIEVE
TOPSOIL, FURNISH AND PLACE, 6"
EROSION CONTROL BLANKET (SPECIAL)

SODDING, SALT TOLERANT TO RECIEVE
TOPSOIL, FURNISH AND PLACE, 6"

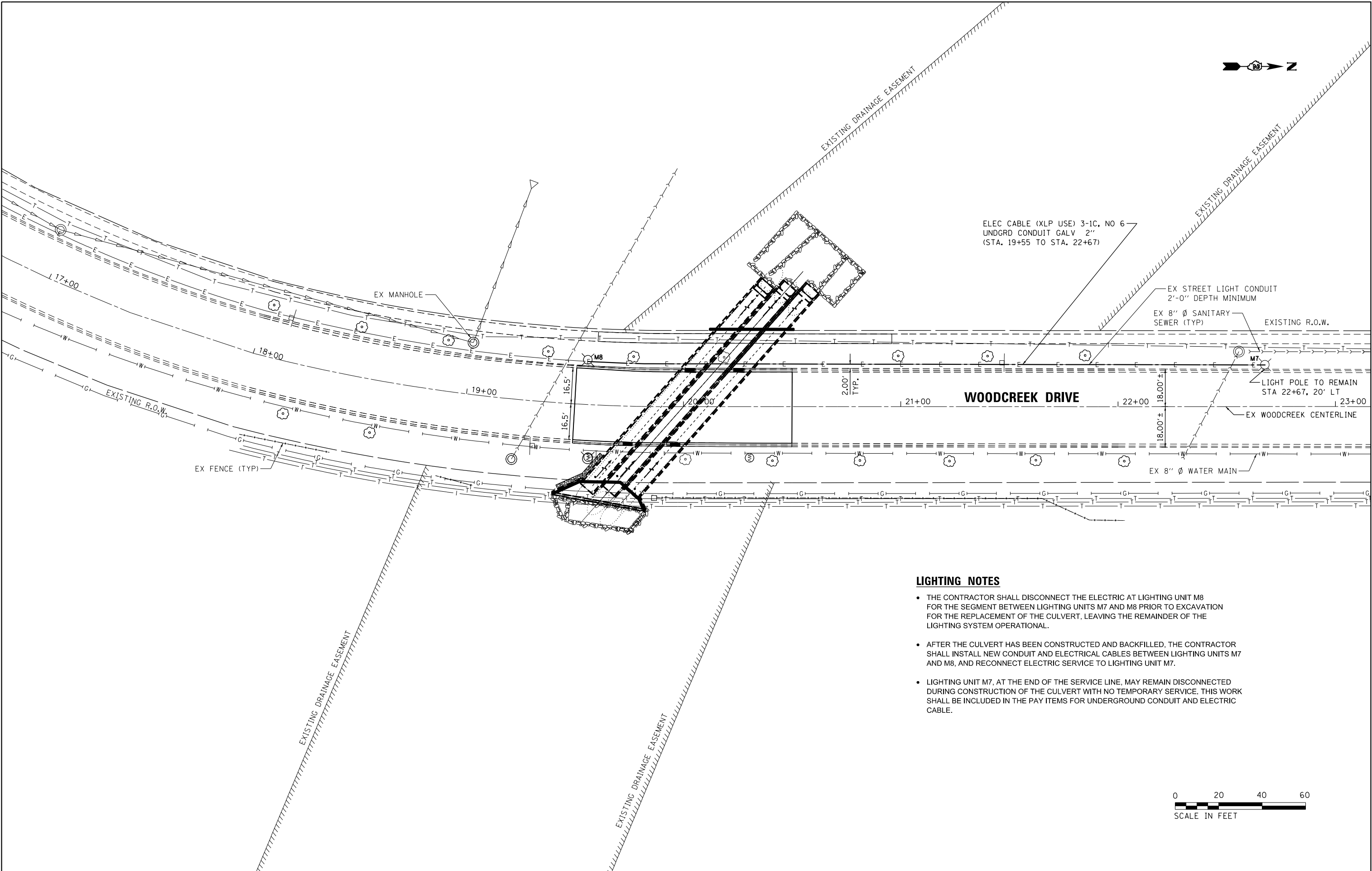
ALL NITROGEN, PHOSPHOROUS AND POTASSIUM FERTILIZER
NUTRIENTS HAVE BEEN INTENTIONALLY OMITTED FROM THE
CONTRACT FOR SEEDING OR SODDING APPLICATION.

EROSION CONTROL MEASURES TO BE REMOVED AFTER NEW TURF
HAS BEEN ESTABLISHED.



RESTORATION LEGEND

- SODDING, SALT TOLERANT
- SEEDING, CLASS 1



LIGHTING NOTES

- THE CONTRACTOR SHALL DISCONNECT THE ELECTRIC AT LIGHTING UNIT M8 FOR THE SEGMENT BETWEEN LIGHTING UNITS M7 AND M8 PRIOR TO EXCAVATION FOR THE REPLACEMENT OF THE CULVERT, LEAVING THE REMAINDER OF THE LIGHTING SYSTEM OPERATIONAL.
- AFTER THE CULVERT HAS BEEN CONSTRUCTED AND BACKFILLED, THE CONTRACTOR SHALL INSTALL NEW CONDUIT AND ELECTRICAL CABLES BETWEEN LIGHTING UNITS M7 AND M8, AND RECONNECT ELECTRIC SERVICE TO LIGHTING UNIT M7.
- LIGHTING UNIT M7, AT THE END OF THE SERVICE LINE, MAY REMAIN DISCONNECTED DURING CONSTRUCTION OF THE CULVERT WITH NO TEMPORARY SERVICE. THIS WORK SHALL BE INCLUDED IN THE PAY ITEMS FOR UNDERGROUND CONDUIT AND ELECTRIC CABLE.



Bench mark: "X" chiseled into existing West concrete sidewalk 100' North and 125' South of existing culvert. Elevation 681.01 (South), 681.00 (North)

Existing Structure: S.N. 099-3058 built in 1973 as triple 7'x5' C.M.P. culvert, 120'-6" end-to-end pipe with angled CMP end sections. The existing structure shall be removed and replaced. Woodcreek Drive will be closed during construction.

No salvage.

ROADWAY CLASSIFICATION

Local Road / Street
ADT: 3,024 (2046), 2,100 (2019)
Posted Speed: 25 mph

LOADING HL -93

Allow 50#/sq. ft for future wearing surface.

DESIGN STRESSES

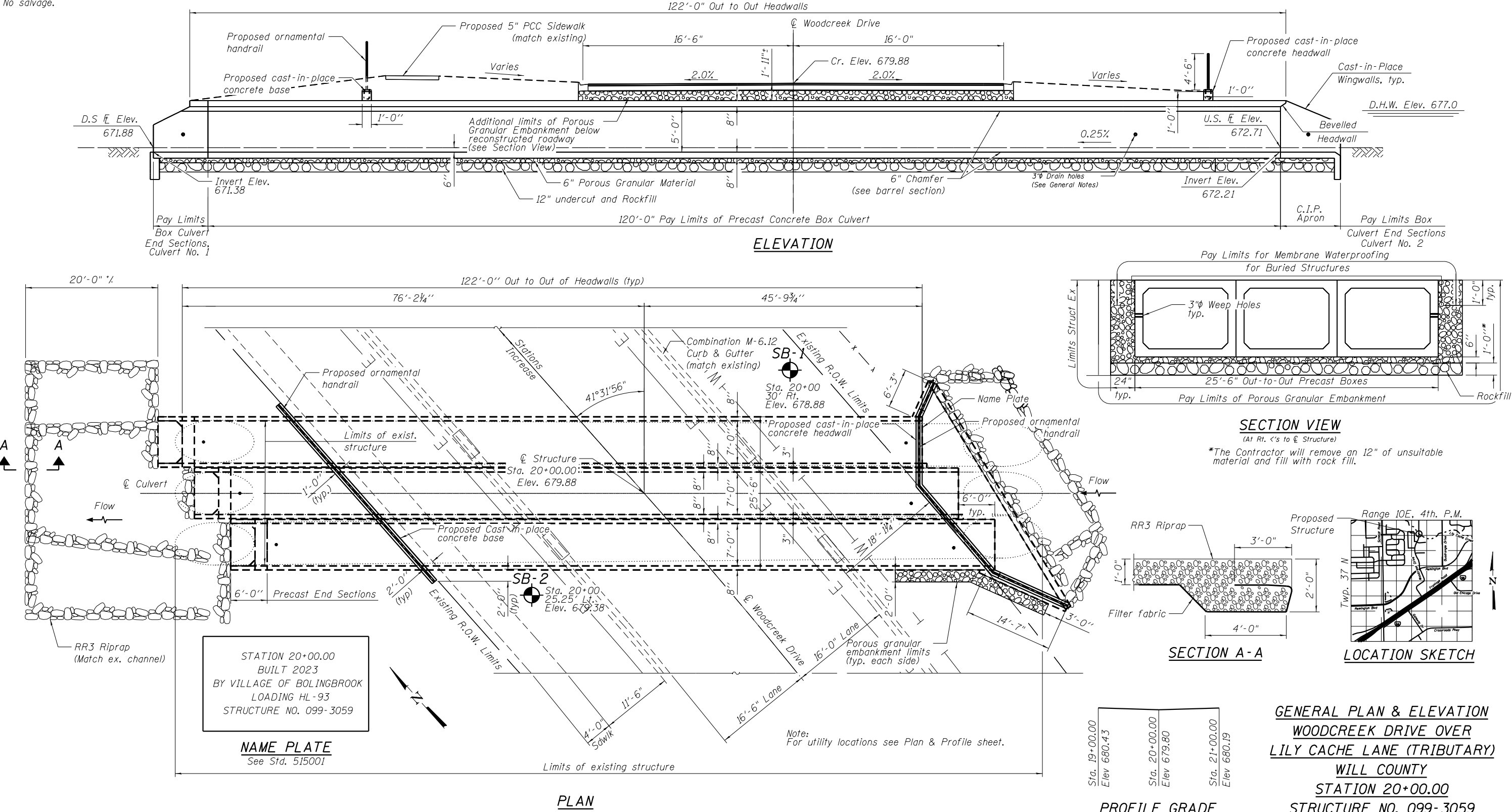
FIELD UNITS:
f'c = 3,500 psi (Cast-in-Place Concrete)
fy = 60,000 psi (reinforcement)
PRECAST UNITS:
f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Reinforcement)

DESIGN SPECIFICATIONS

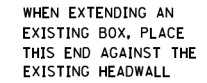
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

WATERWAY INFORMATION

Drainage Area = 2.2 sq. mi.					Low Grade Elev. 679.37 @ Sta. 20+00				
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	482	79.0	88.0	676.9	1.1	0.1	678.0	677.0
Base	100	824	90.0	95.0	678.0	2.1	1.4	680.1	679.4
Max. Calc.	500	1386	90.0	95.0	679.0	1.9	1.8	680.9	680.8



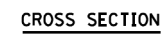
(WITH COVER 2 FEET OR GREATER
ASTM DESIGNATION C1577-14)
DESIGN LOADING: HL-93



LOCATION OF LIFTING HOLES MAY BE VARIED
AS NEEDED TO CLEAR REINFORCEMENT.



- THE D DIMENSION SHALL CONFORM TO THE MANUFACTURER'S STANDARDS.



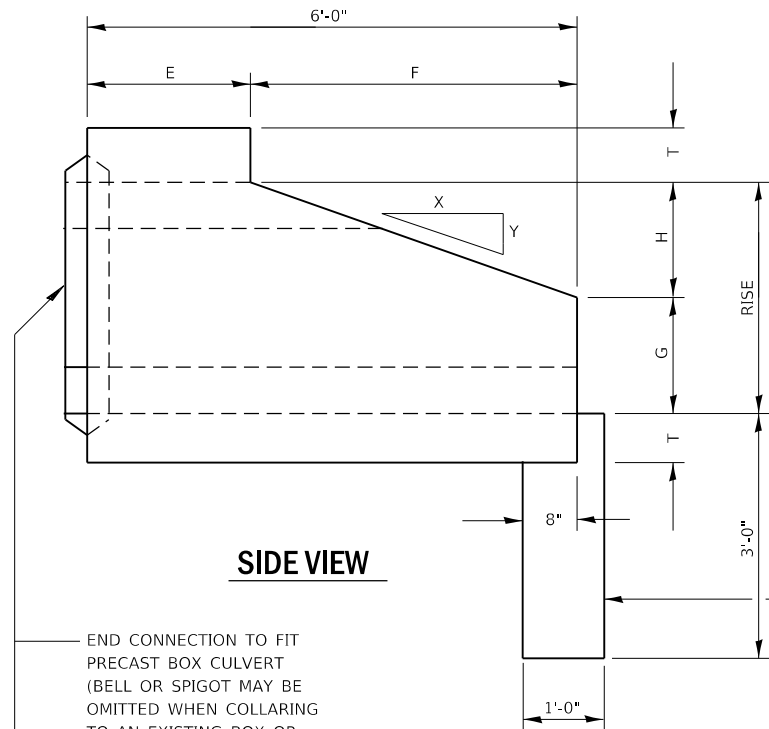
SHOP PLANS FOR THE REINFORCEMENT SHALL BE SUBMITTED
IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE
1006.10(A) OF THE STANDARD SPECIFICATIONS.

THE JOINTS OF THE PRECAST BOX SECTIONS SHALL BE SEALED WITH MASTIC IN ACCORDANCE WITH ARTICLE 1055.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

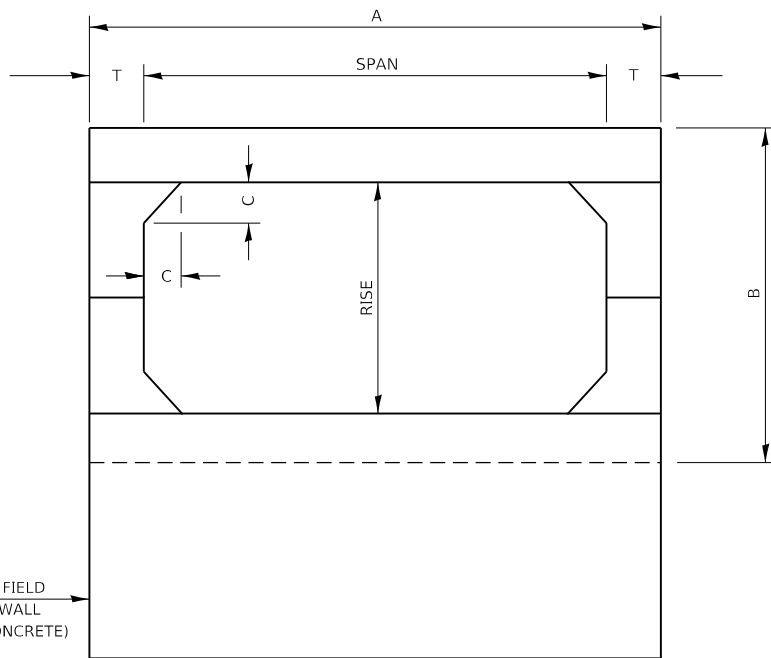
THE TERMS AS₁, AS₂, AND AS₃ DENOTE THE REQUIRED STEEL AREAS FOR REINFORCEMENT AS SPECIFIED IN ASTM C1577-14. REINFORCEMENT SHALL BE OF WELDED WIRE FABRIC CONFORMING TO ASTM A1064.

DIMENSIONS

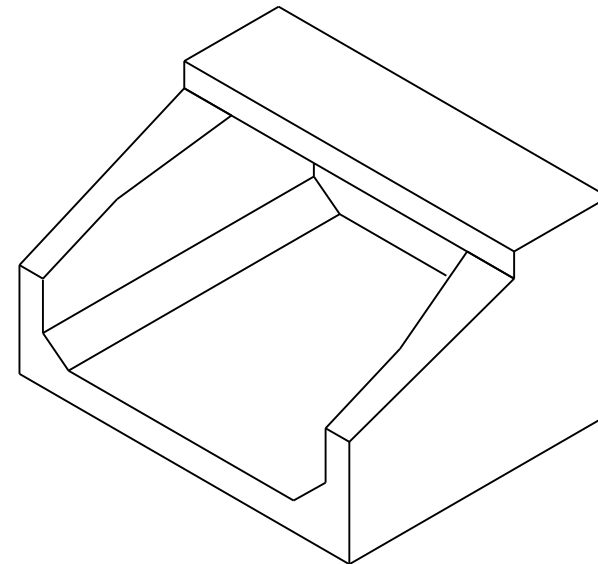
SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)	SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)
2' X2'	4	2-8	2-8	4	9' X5'	9	10-6	6-6	9
3' X2'	4	3-8	2-8	4	9' X6'	9	10-6	7-6	9
3' X3'	4	3-8	3-8	4	9' X7'	9	10-6	8-6	9
4' X2'	5	4-10	2-10	5	9' X8'	9	10-6	9-6	9
4' X3'	5	4-10	3-10	5	9' X9'	9	10-6	10-6	9
4' X4'	5	4-10	4-10	5					
5' X2'	6	6-0	3-0	6	10' X4'	10	11-8	5-8	10
5' X3'	6	6-0	4-0	6	10' X5'	10	11-8	6-8	10
5' X4'	6	6-0	5-0	6	10' X6'	10	11-8	7-8	10
5' X5'	6	6-0	6-0	6	10' X7'	10	11-8	8-8	10
6' X2'	7	7-2	3-2	7	10' X8'	10	11-8	9-8	10
6' X3'	7	7-2	4-2	7	10' X9'	10	11-8	10-8	10
6' X4'	7	7-2	5-2	7	10' X10'	10	11-8	11-8	10
6' X5'	7	7-2	6-2	7					
6' X6'	7	7-2	7-2	7	11' X4'	11	12-10	5-10	11
					11' X6''	11	12-10	7-10	11
					11' X8'	11	12-10	9-10	11
7' X4'	8	8-4	5-4	8	11' X10'	11	12-10	11-10	11
7' X5'	8	8-4	6-4	8	11' X11'	11	12-10	12-10	11
7' X6'	8	8-4	7-4	8					
7' X7'	8	8-4	8-4	8					
					12' X4'	12	14-0	6-0	12
8' X4'	8	9-4	5-4	8	12' X6'	12	14-0	8-0	12
8' X5'	8	9-4	6-4	8	12' X8'	12	14-0	10-0	12
8' X6'	8	9-4	7-4	8	12' X10'	12	14-0	12-0	12
8' X7'	8	9-4	8-4	8	12' X12'	12	14-0	14-0	12
8' X8'	8	9-4	9-4	8					



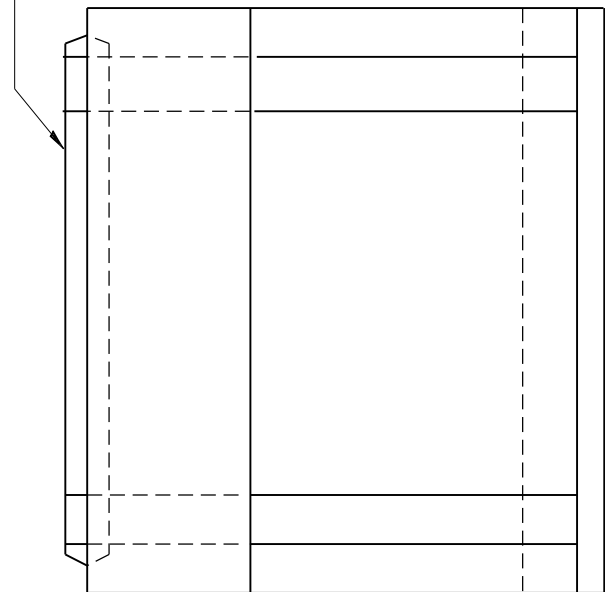
SIDE VIEW



END VIEW



ISOMETRIC VIEW



PLAN

GENERAL NOTES:

1. The Box Culvert Sections shall conform to ASTM C1577.
2. The External Sealing Band shall conform to ASTM C 877. The appropriate portions of Articles 550.02(1) and 1057.01 of the Standard Specifications shall apply.
3. Shop plans for the Precast Reinforced Box Culvert Sections and End Sections shall be submitted in accordance with Article 540.06 of the Standard Specifications.
4. All dimensions shall be verified with the Supplier.

SPAN X RISE	T (INCHES)	A (FT-IN)	B (FT-IN)	C (INCHES)	E (FT-IN)	F (FT-IN)	G (FT-IN)	H (FT-IN)	SLOPE
2' X 2'	4	2 - 8	2 - 8	4	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
3' X 2'	4	3 - 8	2 - 8	4	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
3' X 3'	4	3 - 8	3 - 8	4	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
4' X 2'	5	4 - 10	2 - 10	5	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
4' X 3'	5	4 - 10	3 - 10	5	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
4' X 4'	5	4 - 10	4 - 10	5	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
5' X 2'	6	6 - 0	3 - 0	6	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
5' X 3'	6	6 - 0	4 - 0	6	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
5' X 4'	6	6 - 0	5 - 0	6	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
5' X 5'	6	6 - 0	6 - 0	6		4 - 0	3 - 0	2 - 0	2 : 1
6' X 2'	7	7 - 2	3 - 2	7	3 - 0	3 - 0	1 - 0	1 - 0	3 : 1
6' X 3'	7	7 - 2	4 - 2	7	2 - 0	4 - 0	1 - 8	1 - 4	3 : 1
6' X 4'	7	7 - 2	5 - 2	7	2 - 0	4 - 0	2 - 0	2 - 0	2 : 1
6' X 5'	7	7 - 2	6 - 2	7		4 - 0	3 - 0	2 - 0	2 : 1
7' X 3'	8	8 - 4	4 - 4	8		4 - 0	1 - 8	1 - 4	3 : 1
7' X 4'	8	8 - 4	5 - 4	8		4 - 0	2 - 0	2 - 0	2 : 1
7' X 5'	8	8 - 4	6 - 4	8		4 - 0	3 - 0	2 - 0	2 : 1
8' X 3'	8	9 - 4	4 - 4	8		4 - 0	1 - 8	1 - 4	3 : 1
8' X 4'	8	9 - 4	5 - 4	8		4 - 0	2 - 0	2 - 0	2 : 1
8' X 5'	8	9 - 4	6 - 4	8		4 - 0	3 - 0	2 - 0	2 : 1
9' X 3'	9	10 - 6	4 - 6	9		4 - 0	1 - 8	1 - 4	3 : 1
9' X 4'	9	10 - 6	5 - 6	9		4 - 0	2 - 0	2 - 0	2 : 1
9' X 5'	9	10 - 6	6 - 6	9		4 - 0	3 - 0	2 - 0	2 : 1
10' X 4'	10	11 - 8	5 - 9	10		4 - 0	2 - 0	2 - 0	2 : 1
10' X 5'	10	11 - 8	6 - 8	10		4 - 0	3 - 0	2 - 0	2 : 1

Bar	No.	Size	A	B	C	D	E
w(E)	10	#5	15.75	5'-4"	10'-5"	10'-5	5'-4"
w1(E)	10	#5	13.92	4'-5"	9'-6"	9'-6"	4'-5"
w2(E)	10	#5	12.17	3'-7"	8'-7"	8'-7"	3'-7"
w3(E)	7	#5	7.92	0'-11"	7'-0"	4'-2"	3'-9"
w4(E)	8	#5	14.33	2'-8"	11'-8"	7'-6"	6'-10"
t(E)	7	#5	19.42	7'-7"	11'-10"	11'-10"	7'-7"
t1(E)	7	#5	13.92	4'-4"	9'-7"	9'-7"	4'-4"
t2(E)	10	#5	21.42	5'-4"	16'-1"	11'-0"	10'-5"
t3(E)	6	#5	3.33	-	-	-	-
t4(E)	8	#5	1.33	-	-	-	-
t5(E)	4	#5	6.50	2'-1"	4'-5"	3'-5"	3'-1"

FIELD CUTTING

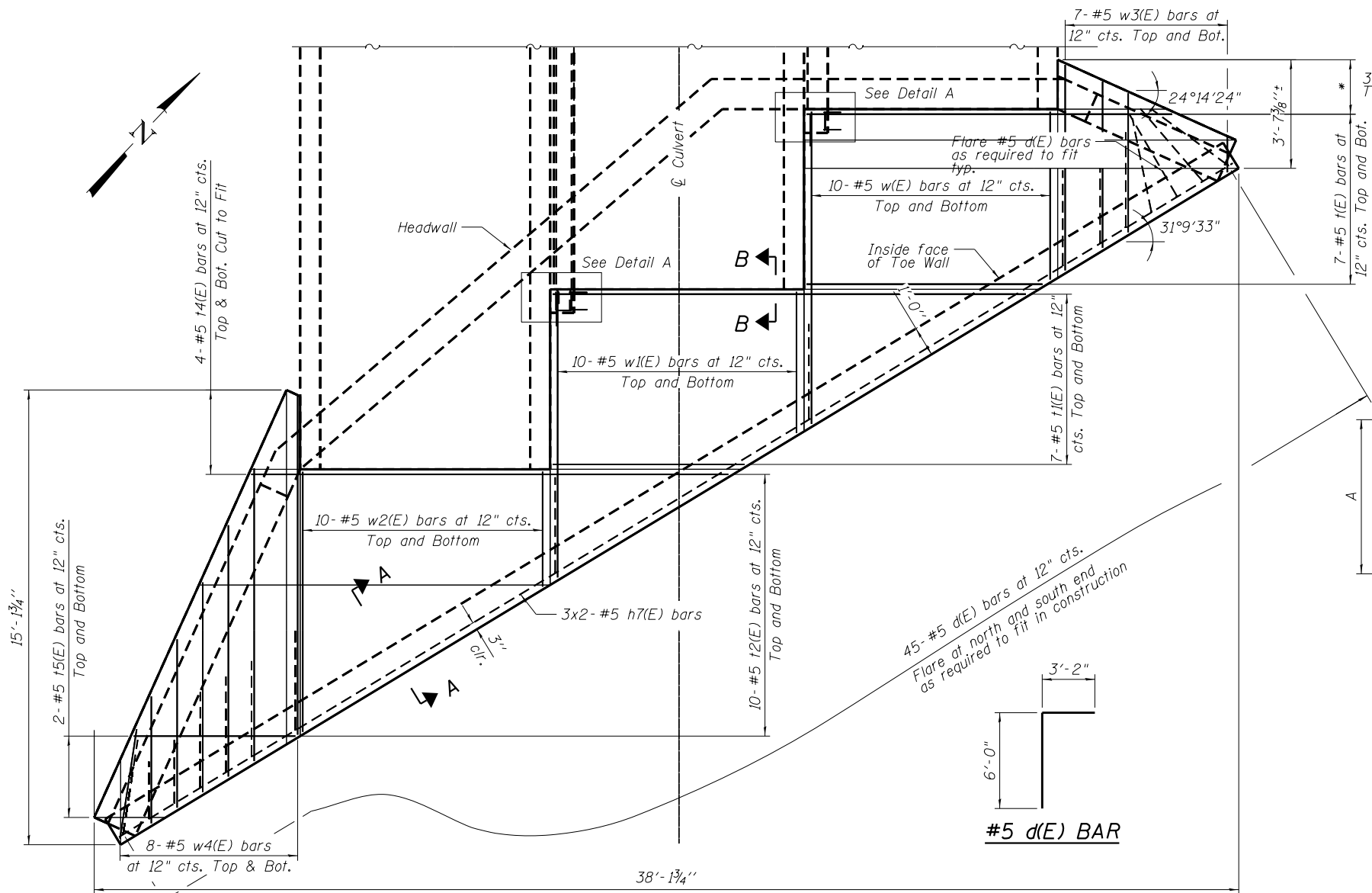
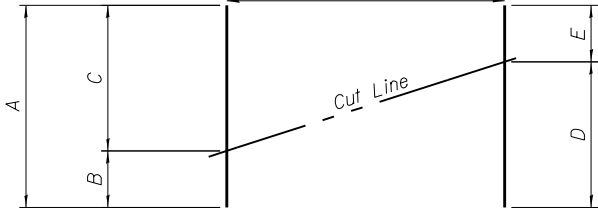
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h7(E)	6	#5	25'-2"	
d(E)	53	#5	9'-2"	
t(E)	7	#5	19'-5"	
t1(E)	7	#5	13'-11"	
t2(E)	10	#5	21'-5"	
t3(E)	6	#5	3'-4"	
t4(E)	8	#5	1'-4"	
t5(E)	4	#5	6'-6"	
u(E)	12	#5	1'-11"	
v4(E)	8	#5	5'-4"	
w(E)	10	#5	15'-9"	
w1(E)	10	#5	13'-11"	
w2(E)	10	#5	12'-2"	
w3(E)	7	#5	7'-11"	
w4(E)	8	#5	14'-4"	
Concrete Box Culverts				Cu. Yd. 13.5
Reinforcement Bars, Epoxy Coated				Pound 1,900

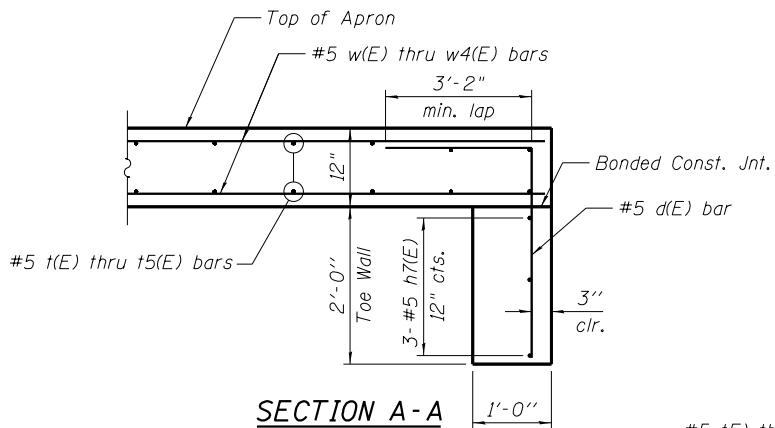
10- #5 w(E) bars at 12" cts.
10- #5 w1(E) bars at 12" cts.
10- #5 w2(E) bars at 12" cts.
7- #5 w3(E) bars at 12" cts.
8- #5 w4(E) bars at 12" cts.
7- #5 t(E) bars at 12" cts.
7- #5 t1(E) bars at 12" cts.
10- #5 t2(E) bars at 12" cts.
4- #5 t5(E) bars at 12" cts.

FIELD CUTTING DIAGRAM

Order bars shown full length. Cut as shown and use remainder of bars in opposite face.



PLAN

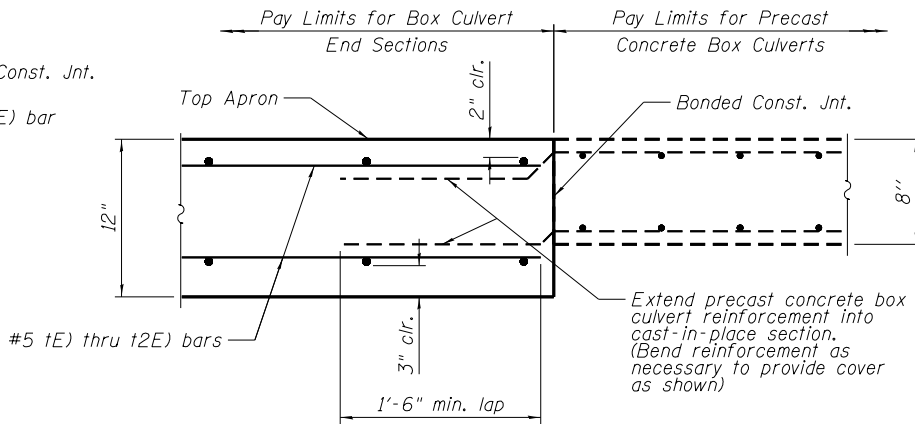


SECTION A-A

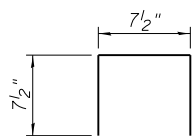
TOE WALL CONSTRUCTION SEQUENCE

1. Perform excavation and construct toe wall.
2. Backfill accordingly and prepare bedding for box culvert end section.
3. Construct remainder of box culvert end section.

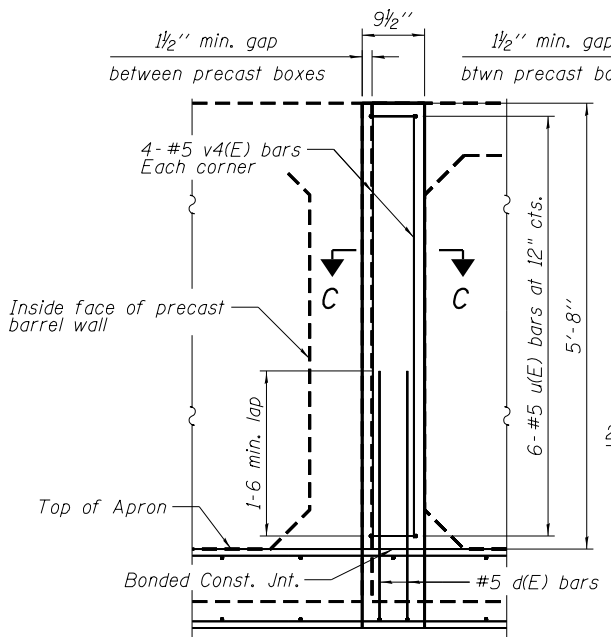
Note: If soil conditions permit, the toe wall may be poured monolithically with the apron of the end section upon approval from the Engineer.



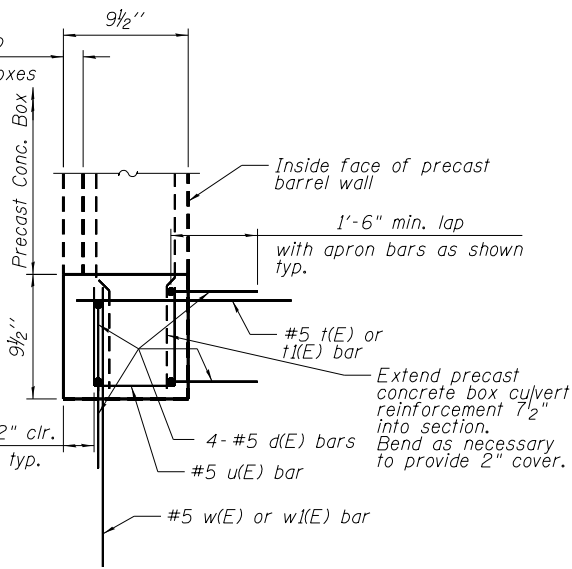
SECTION B-B



#5 u(E) BAR



PARTIAL ELEVATION



SECTION C-C

DETAIL A

(Provide at two locations at shown in plan)



USER NAME = jpush	DESIGNED - DYS	REVISED -
PLOT SCALE = 0:0.5000 m/su / in.	DRAWN - DYS	REVISED -
PLOT DATE = 1/28/2025	CHECKED -	REVISED -
	DATE - 05/23/2024	REVISED -

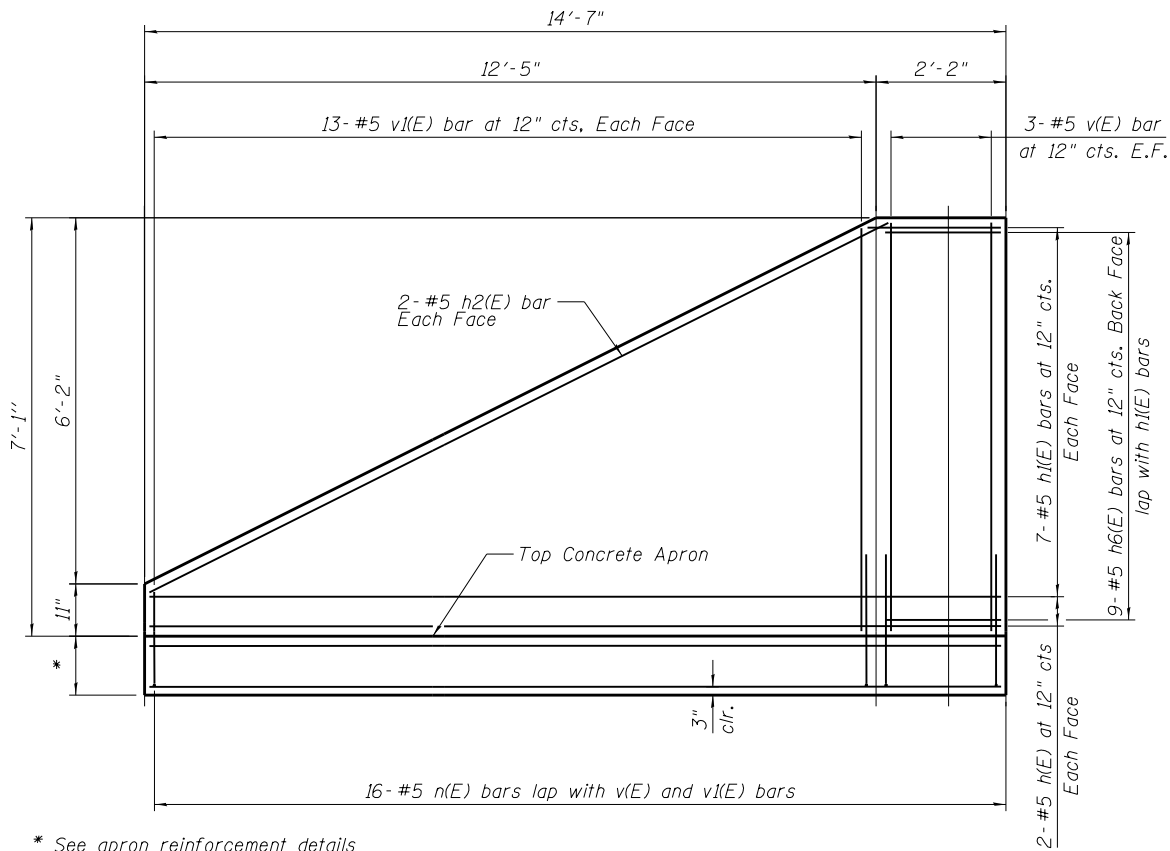


WOODCREEK DRIVE CULVERT REPLACEMENT CAST-IN-PLACE APRON DETAILS

SCALE: N.T.S. SHEET 4 OF 7 SHEETS STA. TO STA.

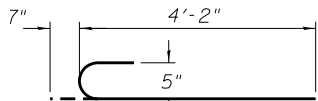
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00055-00-BR	WILL	21	16
CONTRACT NO. 61K61				
ILLINOIS FED. AID PROJECT				

Notes:
E.F. Each Face
See sheet 13 of 17 for concrete apron details

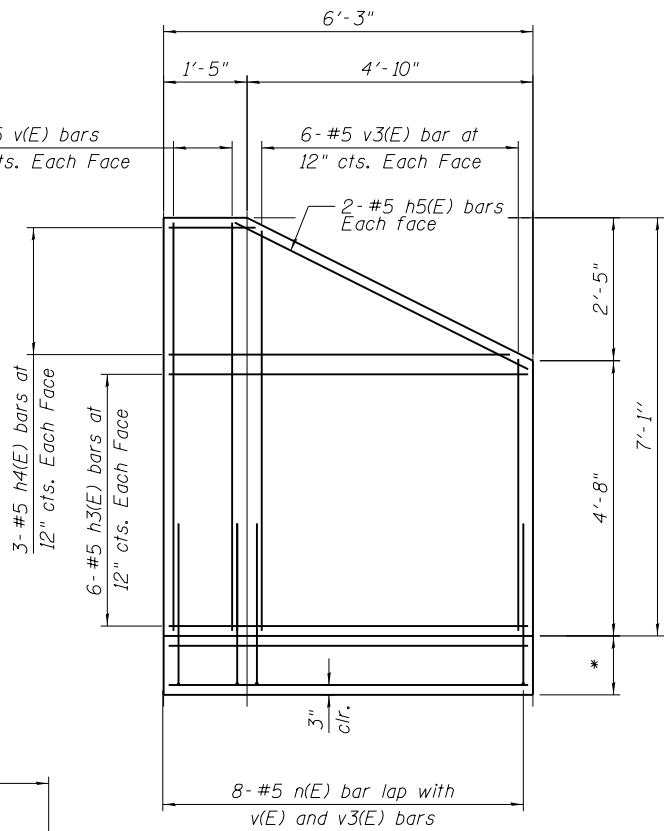


* See apron reinforcement details

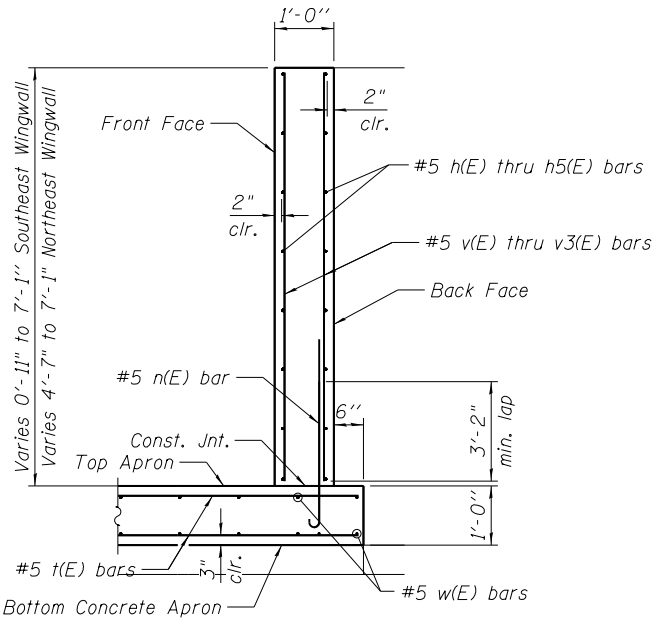
ELEVATION SOUTHEAST WALL
(Long Wall, Front Face)



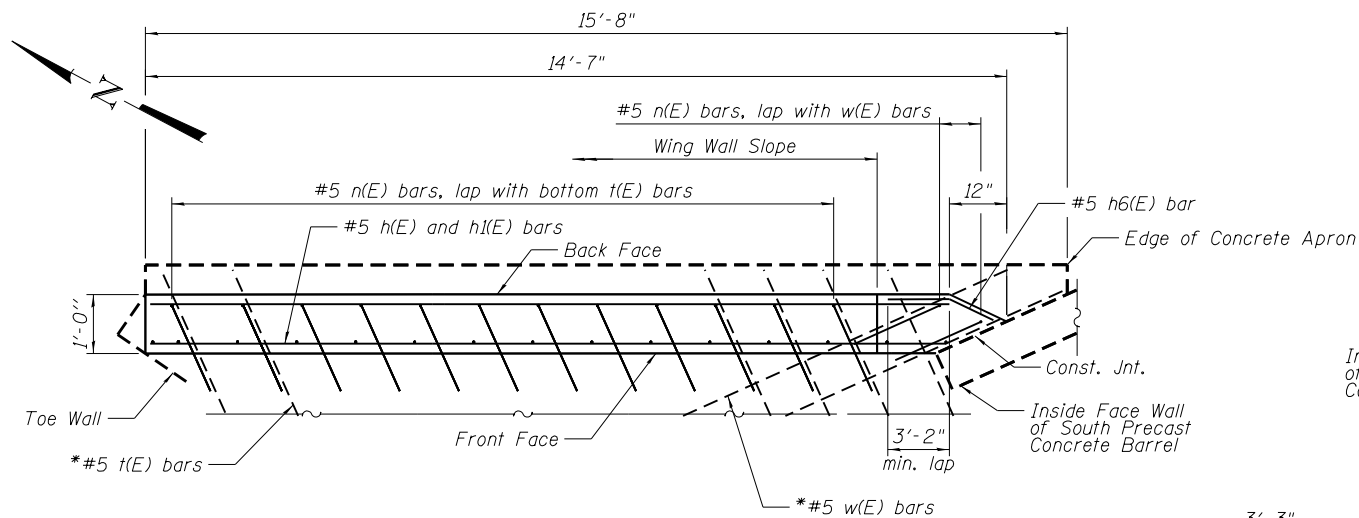
#5 BAR n(E)



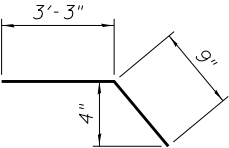
ELEVATION NORTHEAST WALL
(Short Wall, Front Face)



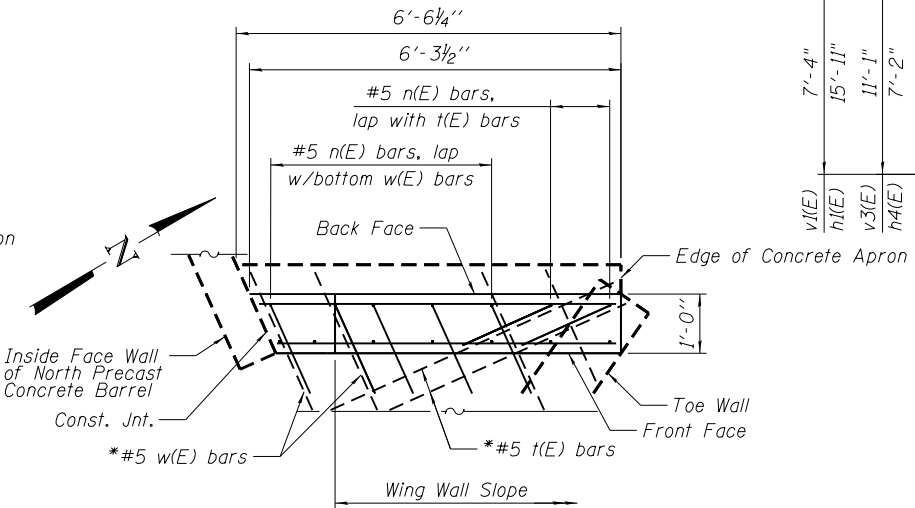
TYPICAL SECTION $Q_{max} = 1,230 \text{ psf}$



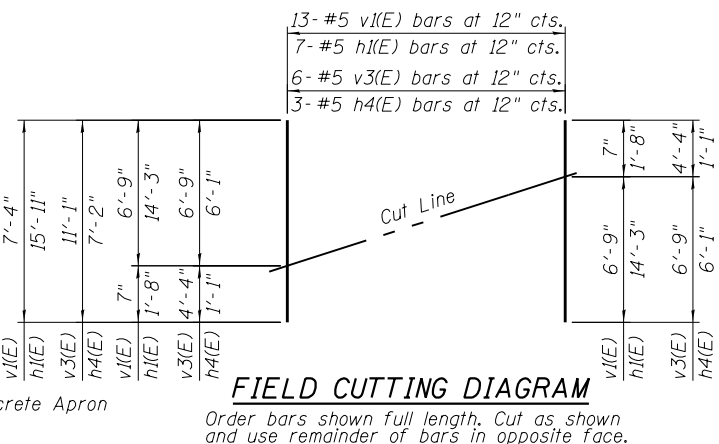
PLAN SOUTHEAST WALL
* Not all bars shown for clarity



#5 BAR h6(E)



PLAN NORTHEAST WALL
* Not all bars shown for clarity



FIELD CUTTING DIAGRAM

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#5	15'-4"	—
h1(E)	7	#5	15'-11"	—
h2(E)	2	#5	13'-7"	—
h3(E)	12	#5	5'-11"	—
h4(E)	3	#5	7'-2"	—
h5(E)	2	#5	5'-2"	—
h6(E)	9	#5	4'-0"	—
n(E)	24	#5	5'-0"	—
v(E)	10	#5	6'-9"	—
v1(E)	13	#5	7'-4"	—
v3(E)	6	#5	11'-1"	—
Concrete Box Culverts			Cu. Yd.	3.9
Reinforcement Bars, Epoxy Coated			Pound	725

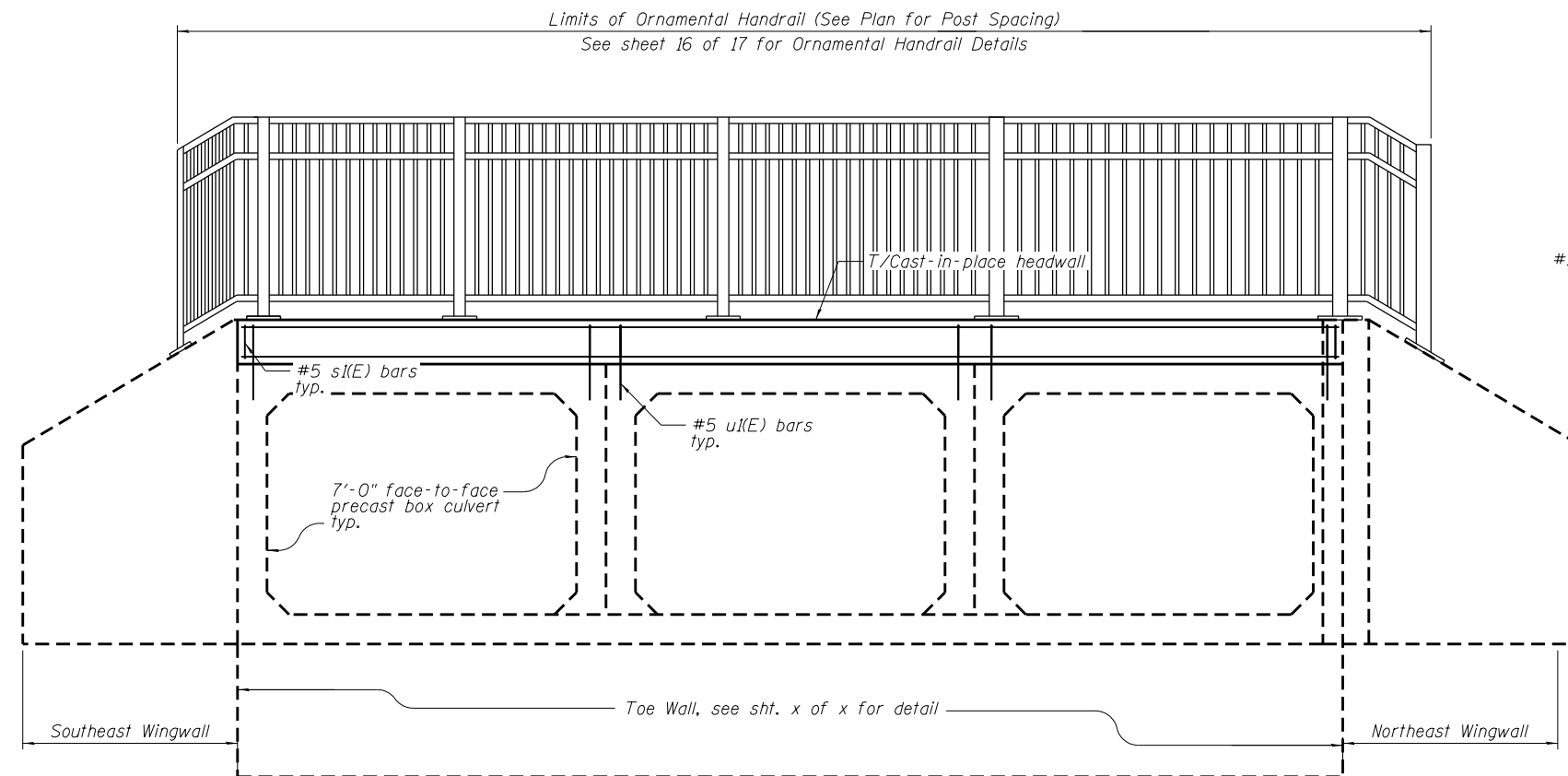


USER NAME : jpush	DESIGNED - DYS	REVISED -
	DRAWN - DYS	REVISED -
PLOT SCALE : 0:0.5000 m/su / in.	CHECKED -	REVISED -
PLOT DATE : 1/28/2025	DATE - 05/23/2024	REVISED -

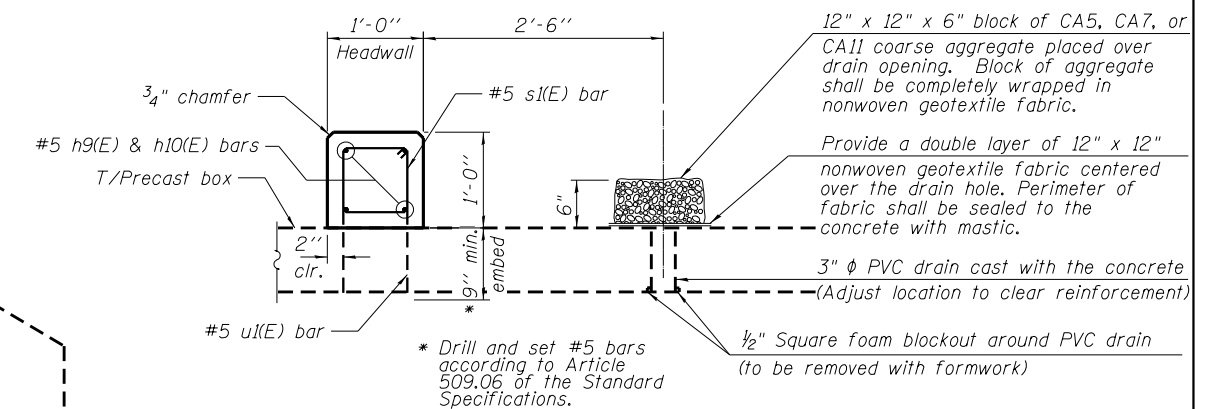


WOODCREEK DRIVE CULVERT REPLACEMENT CAST-IN-PLACE WINGWALL DETAILS			
SCALE: N.T.S.	SHEET 5	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00055-00-BR	WILL	21	17
CONTRACT NO. 61K61				
ILLINOIS FED. AID PROJECT				



**ELEVATION OF SOUTH ORNAMENTAL HANDRAIL
AND C.I.P. HEADWALL**



SECTION THRU HEADWALL AND DRAIN DETAIL

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work. Concrete for headwall construction will be paid for Concrete Box Culverts.)

**NORTH ORNAMENTAL HAND RAIL
AND C.I.P. CONCRETE BASE
BILL OF MATERIAL**

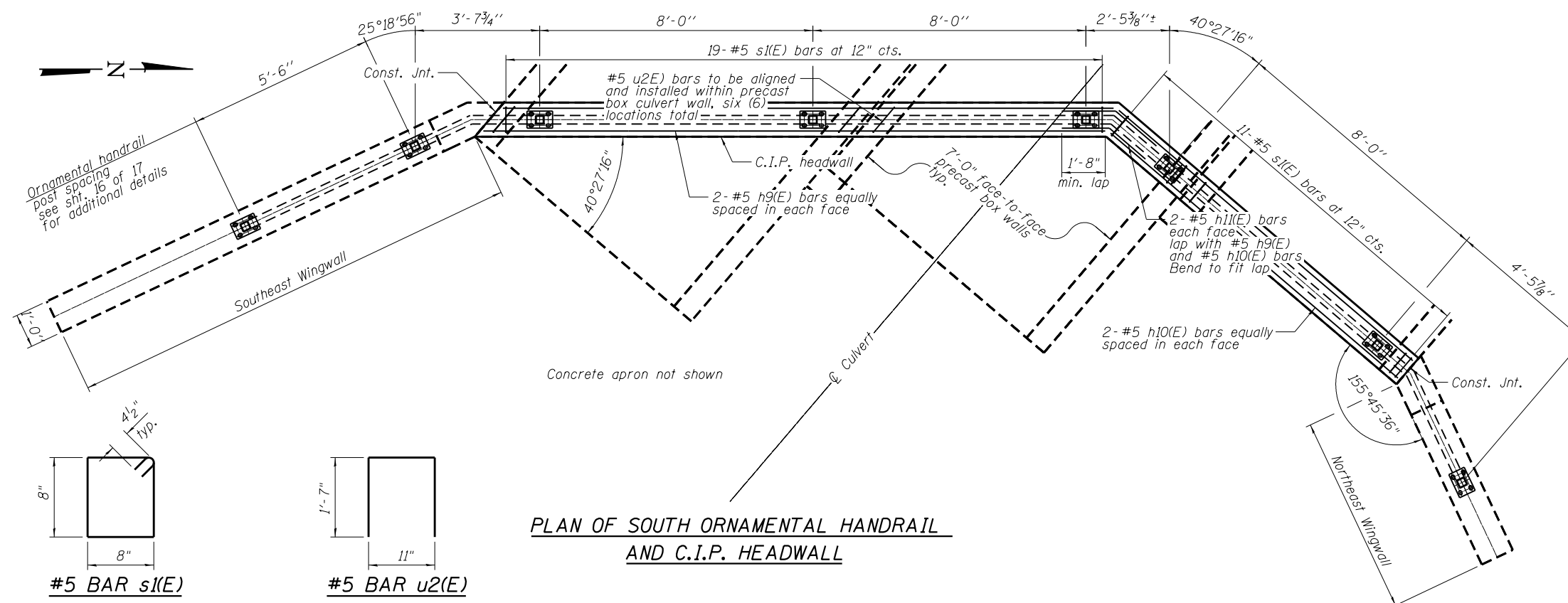
(For information only)

Bar	No.	Size	Length	Shape
h8(E)	12	#5	19'-1"	
s(E)	36	#5	6'-5"	□
u1(E)	6	#5	7'-8"	▢
Concrete Box Culverts		Cu. Yd.	3.2	
Reinforcement Bars		Pound	530	

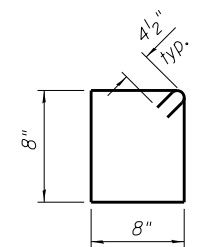
**SOUTH ORNAMENTAL HAND RAIL
AND C.I.P. CONCRETE HEADWALL
BILL OF MATERIAL**

(For information only)

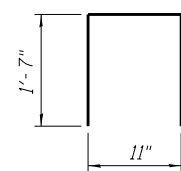
Bar	No.	Size	Length	Shape
h9(E)	4	#5	18'-8"	
h10(E)	4	#5	11'-2"	
h11(E)	4	#5	4'-0"	
s1(E)	30	#5	6'-5"	□
u2(E)	6	#5	4'-2"	▢
Concrete Box Culverts		Cu. Yd.	1.1	
Reinforcement Bars		Pound	275	



**PLAN OF SOUTH ORNAMENTAL HANDRAIL
AND C.I.P. HEADWALL**



#5 BAR s1(E)



#5 BAR u2(E)

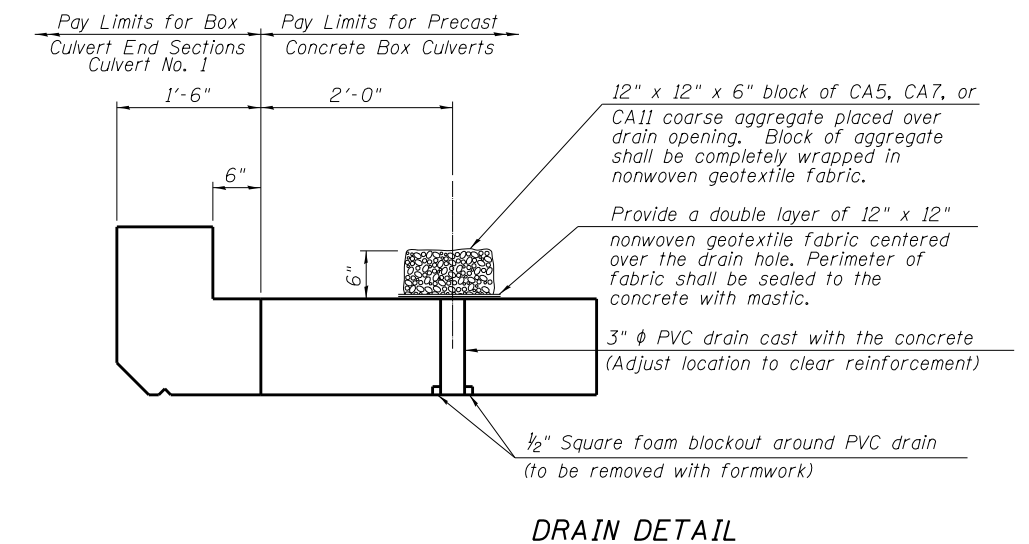
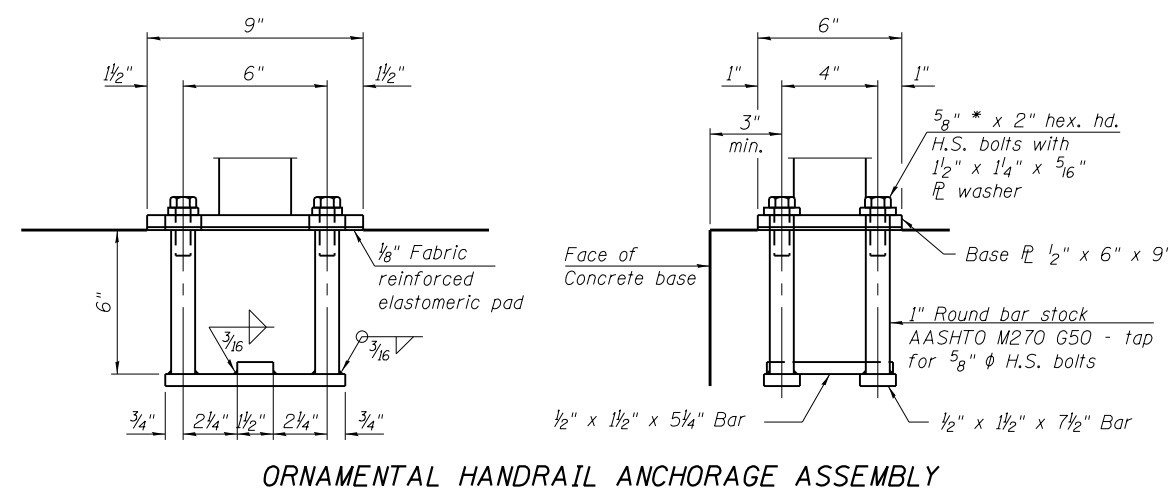
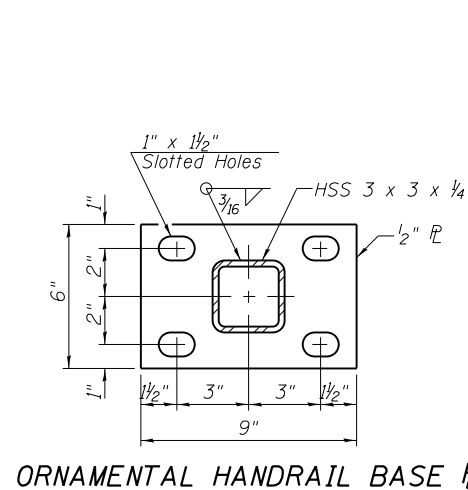
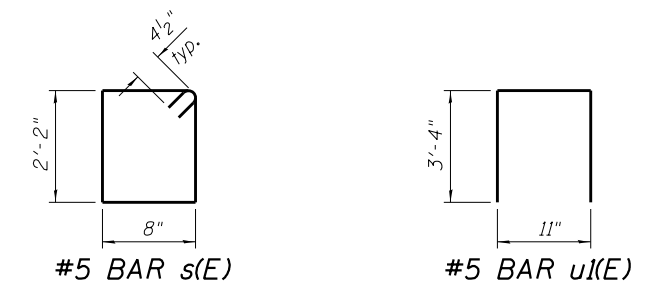
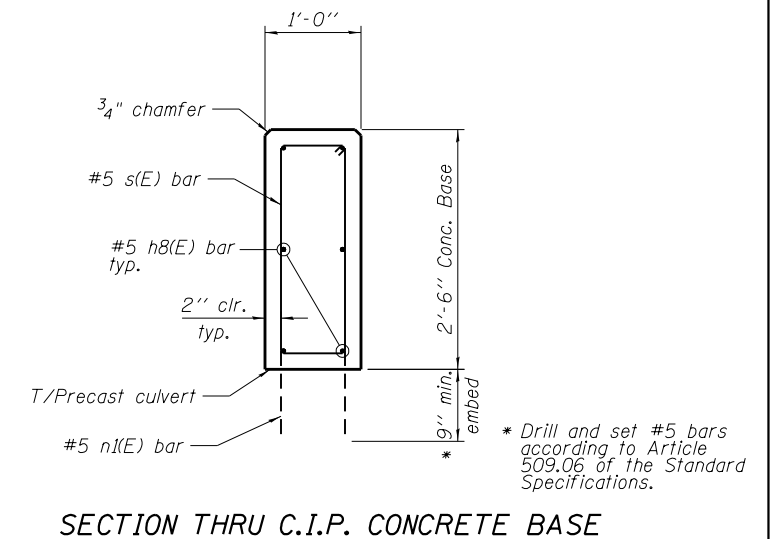
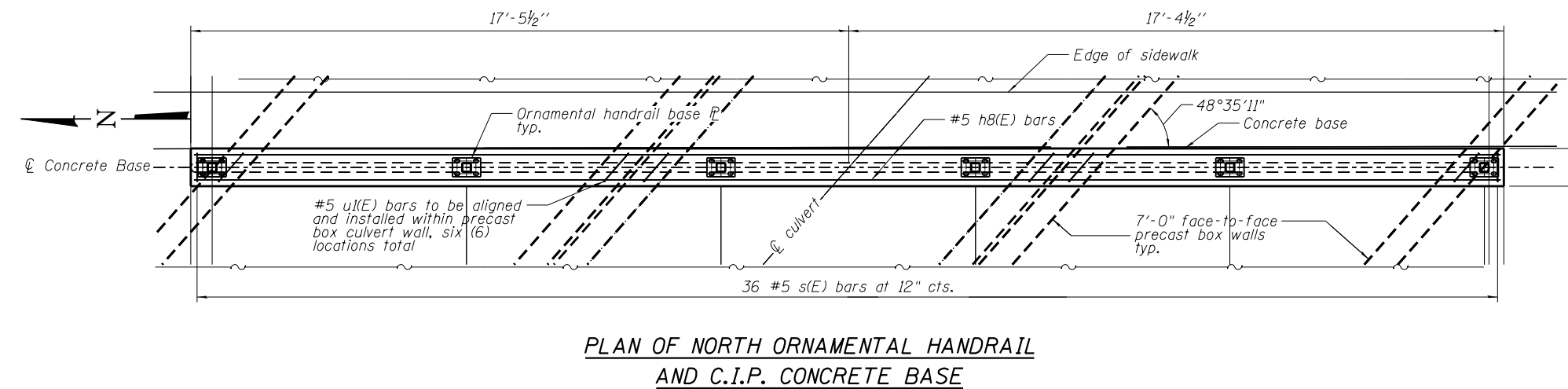
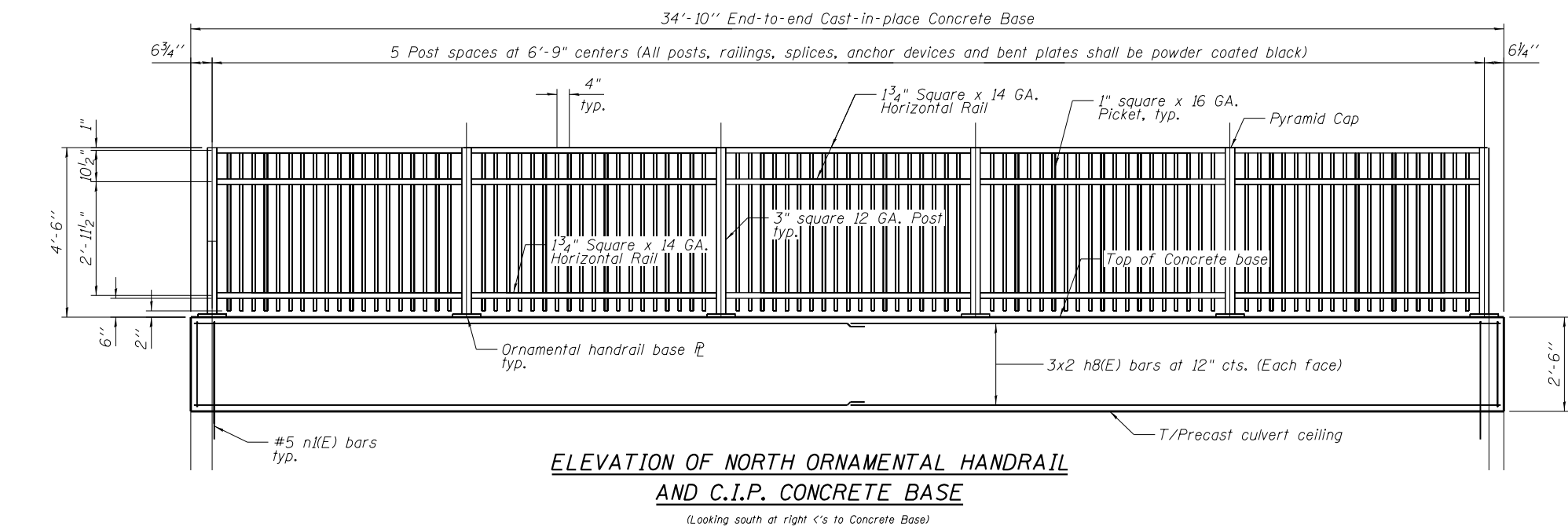


USER NAME : jpush	DESIGNED - DYS	REVISED -
PLOT SCALE : 0:2.0000 '1' / in.	DRAWN - DYS	REVISED -
PLOT DATE : 1/28/2025	CHECKED -	REVISED -
	DATE - 05/23/2024	REVISED -

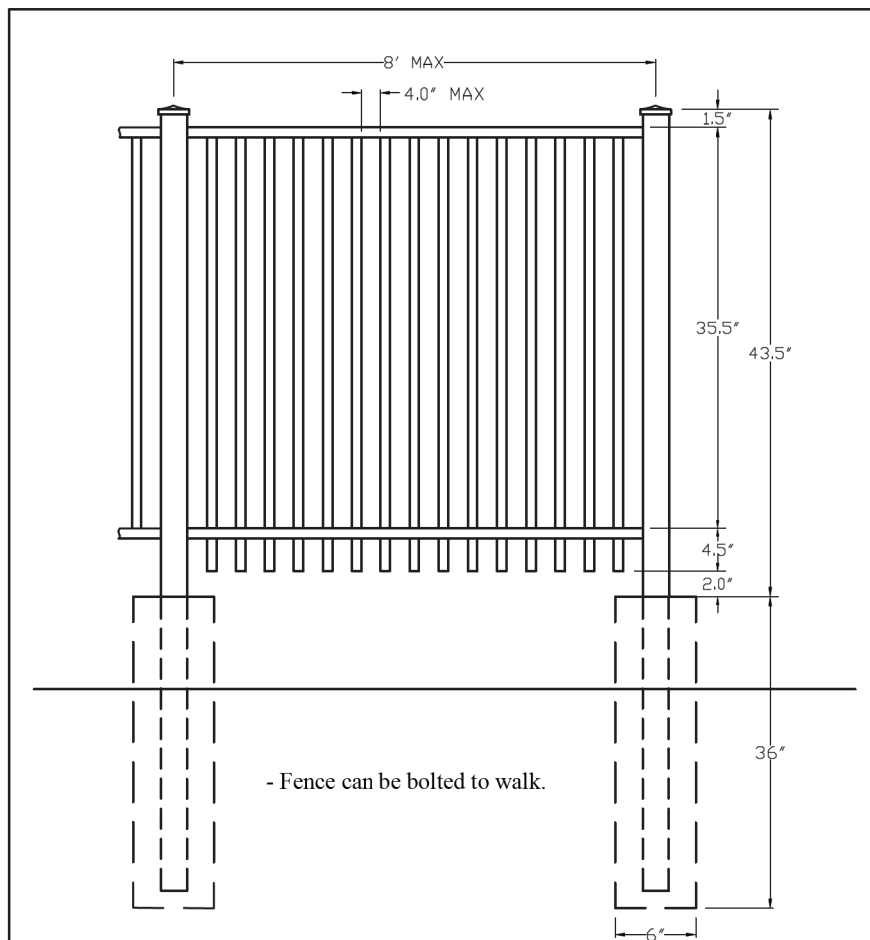


WOODCREEK DRIVE CULVERT REPLACEMENT			
SOUTH ORNAMENTAL HANDRAIL AND C.I.P. HEADWALL DETAILS			
SCALE: N.T.S.	SHEET 6	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00055-00-BR	WILL	21	18
CONTRACT NO. 61K61				
ILLINOIS FED. AID PROJECT				

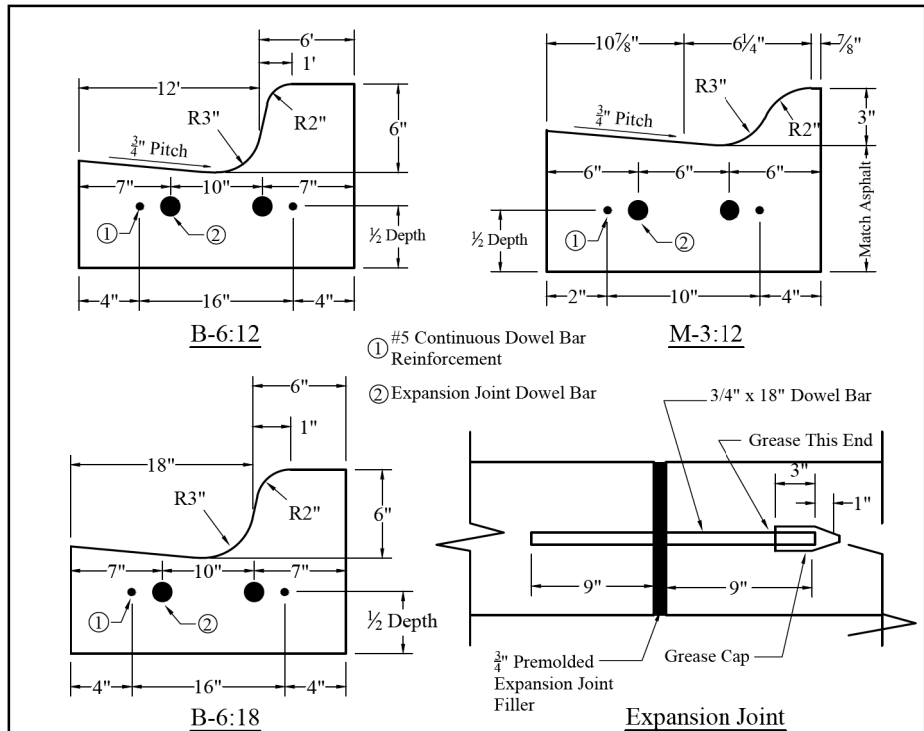


(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



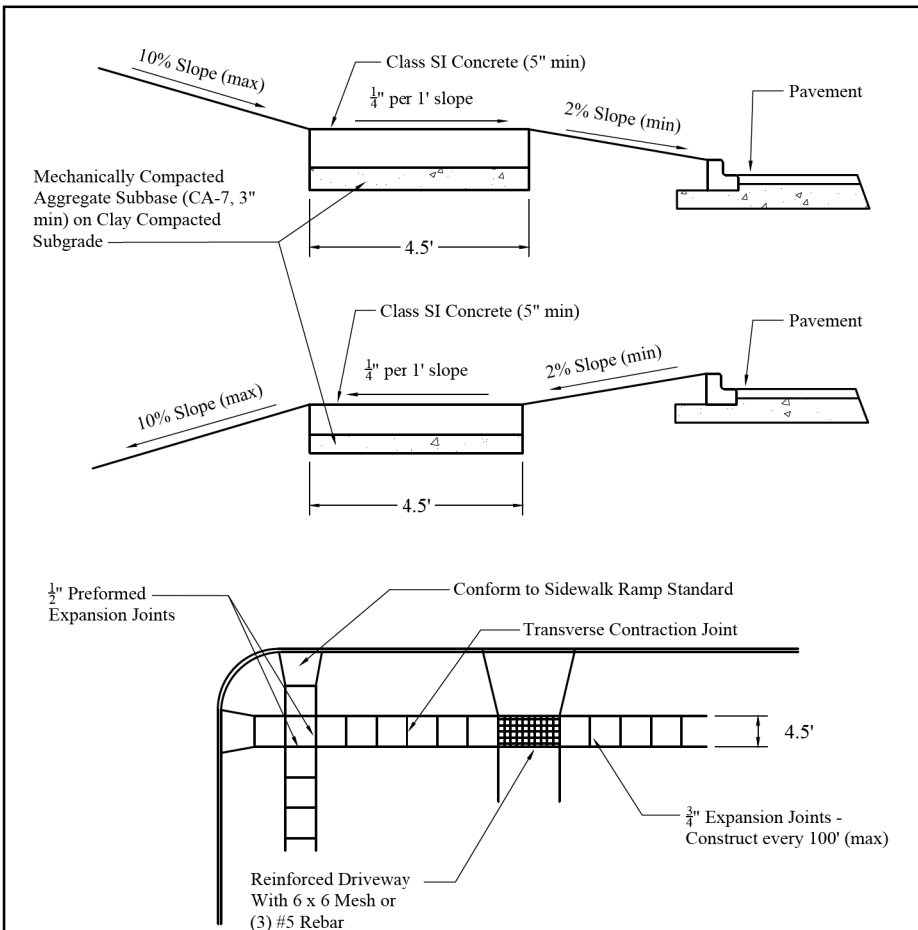
SPECIFICATIONS		
Component	Dimensions	Material
Pickets	0.5" x 0.5"	Iron Sq. Bar
Picket Space	4" Max	
Rails (2)	5" x 1.5" x .25"	Iron Channel
Post	2.0" x 2.0" x 14 ga.	Iron Tube
Color	Black	Enamel

Revisions	Ornamental Iron Fencing
03-07-06 LC	



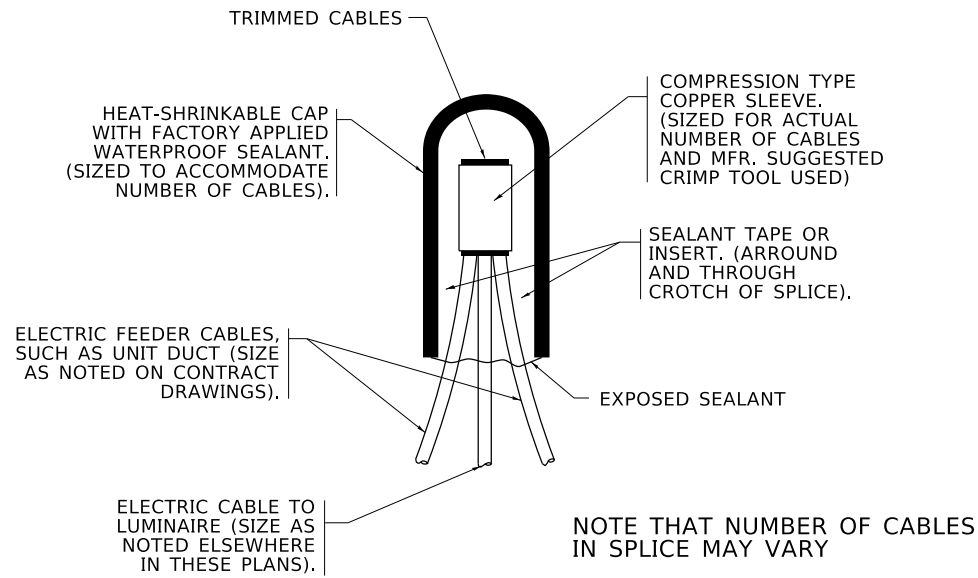
- $\frac{3}{4}$ " preformed expansion strips shall be placed using 2 - $\frac{3}{4}$ " smooth dowel bars with grease caps every 100' for slip formed curb (50' if hand poured), 5' on either side of drainage structures, P.C.s, radius points and back of cul-de-sacs.
- Contraction joints shall be 2" deep and at 12.5' intervals.
- Sawcuts shall be made within 24 hours and sealed with an IDOT approved joint sealant.
- Concrete shall be IDOT class SI.
- All curbs & gutters shall conform to IDOT specifications, except as shown.
- Curing compound is to be used on all curbs & gutters and shall conform to IDOT specifications.
- Temperature protection is required during cold weather per IDOT specifications.
- A 3" stone bedding of crushed stone (CA-6) is required under curb, unless the sub-base is lime stabilized or is composed of natural sand gravel soils.
- Gutter flag thickness shall match the pavement thickness, but in no case less than 8".
- Concrete curb & gutter shall be reinforced with two (2) #5 rebars, except at expansion joints.

Revisions	Typical Curb & Gutter #1
03-13-03 LC	
10-20-04 LC	
01-29-09 LC	
08-30-22 LC	

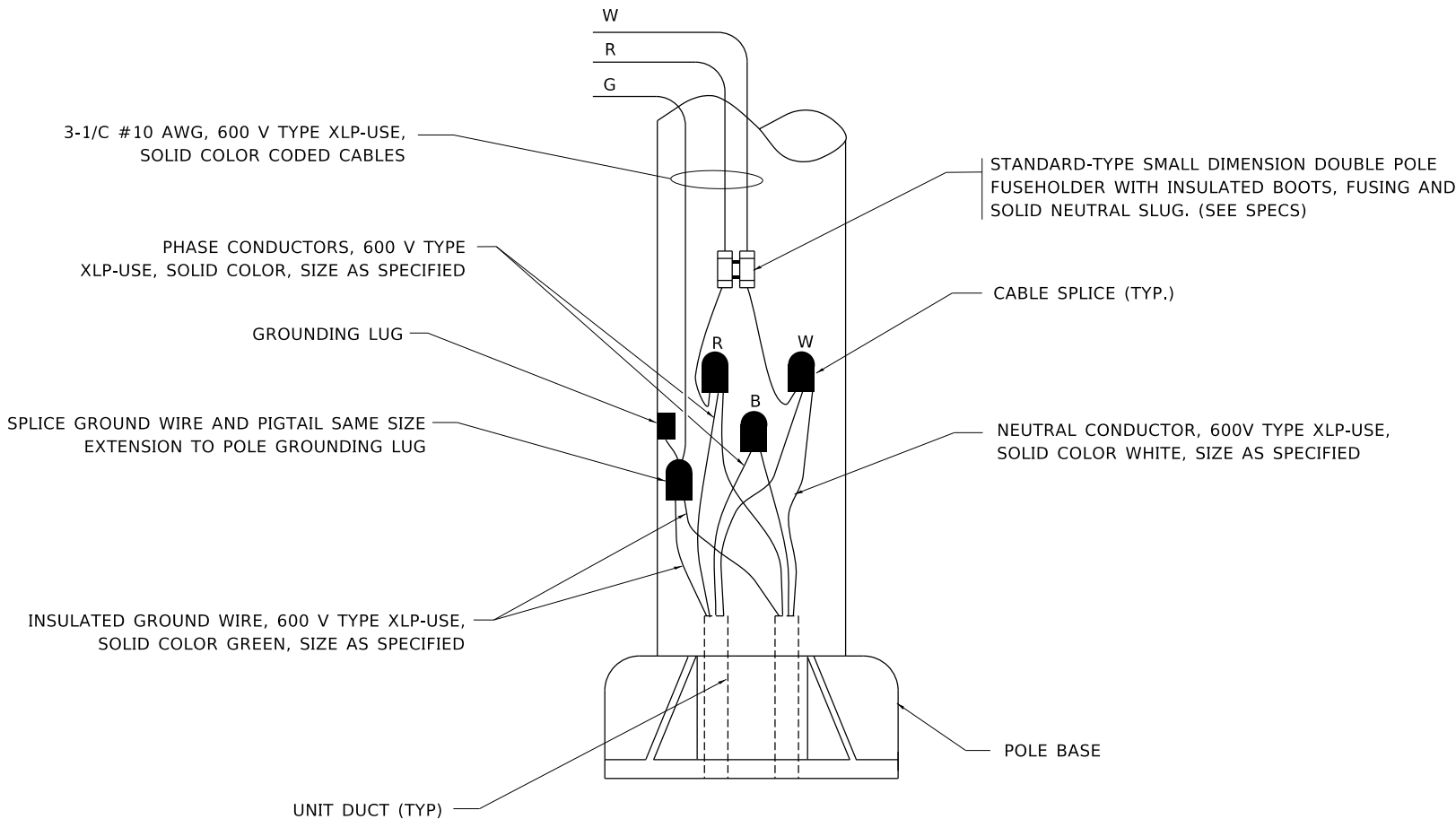


- Concrete shall be Class SI.
- Sidewalk thickness will be a minimum of 5". (6" across driveways)
- Sidewalk shall be reinforced wit 6x6 mesh or (3) #5 rebar across driveways.
- A minimum of 3" of mechanically compacted, crushed aggregate (CA-7) will be used for sub-base.
- (3) #5 rebar will be required at all trench crossings.
- Unsuitable materials will be removed when encountered during construction.
- Sidewalks shall be backfilled within 3 days of removing the forms.

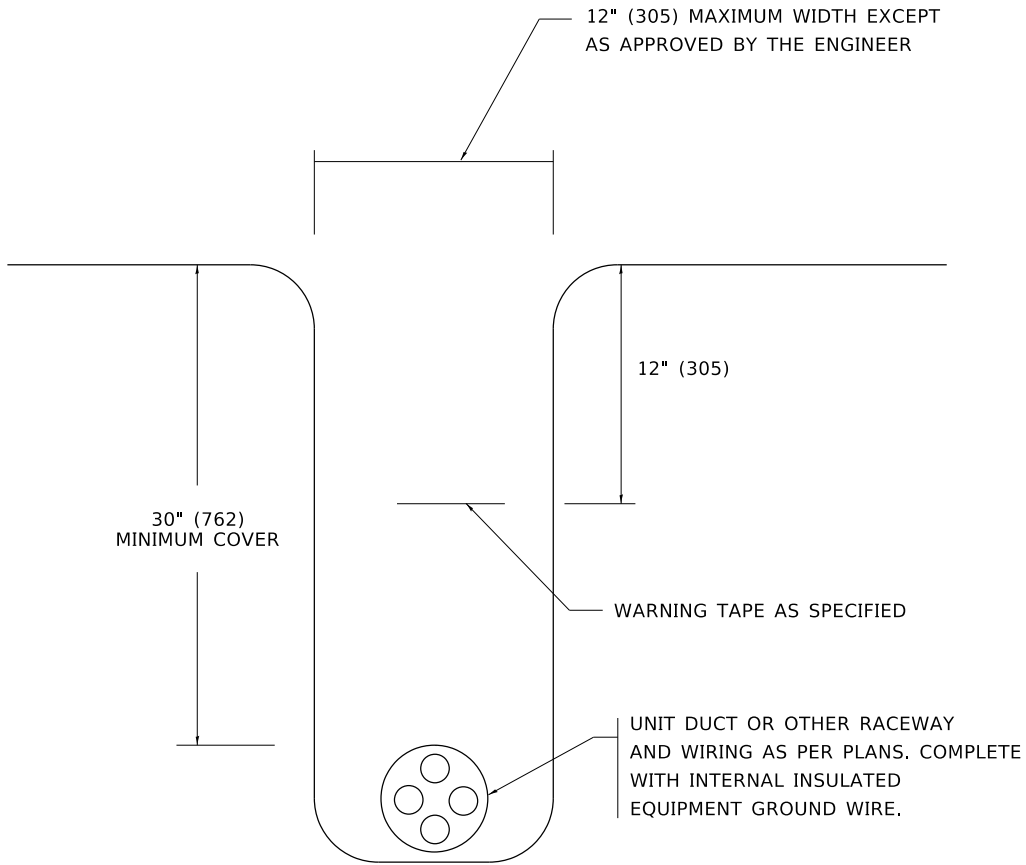
Revisions	Sidewalk Section & Layout
1-05-98 PD	
03-19-14 LC	



TYPICAL SPLICE DETAIL
N.T.S.



POLE WIRING DETAIL
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.

MODEL: Default
FILE: h:\mte\p\planroom\dot.illinois.gov\p\WIDOT\Documents\DOT - Office\District 1\Projects\Dist5\22x34\CADData\CADsheets\be702.dgn

	USER NAME = leysa	DESIGNED -	REVISED - 02/04/2020	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISC. ELECTRICAL DETAILS SHEET A			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						10-00055-00-BR	WILL	21	21
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -						BE-702	CONTRACT NO.		
	PLOT DATE = 3/2/2020	DATE - 08/08/2003	REVISED -		SCALE: NONE	SHEET 1	OF 1 SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT	