

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	17-00654-00-BR	WINNEBAGO	50	1
ILLINOIS				
WHA# 1519M18				

ATTENTION CONTRACTORS 04-29-2022 LETTING ITEM 147

THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF MATERIALS AND PHYSICAL RESEARCH, "PROJECT PROCEDURES GUIDE" IS APPLICABLE TO THIS PROJECTS

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

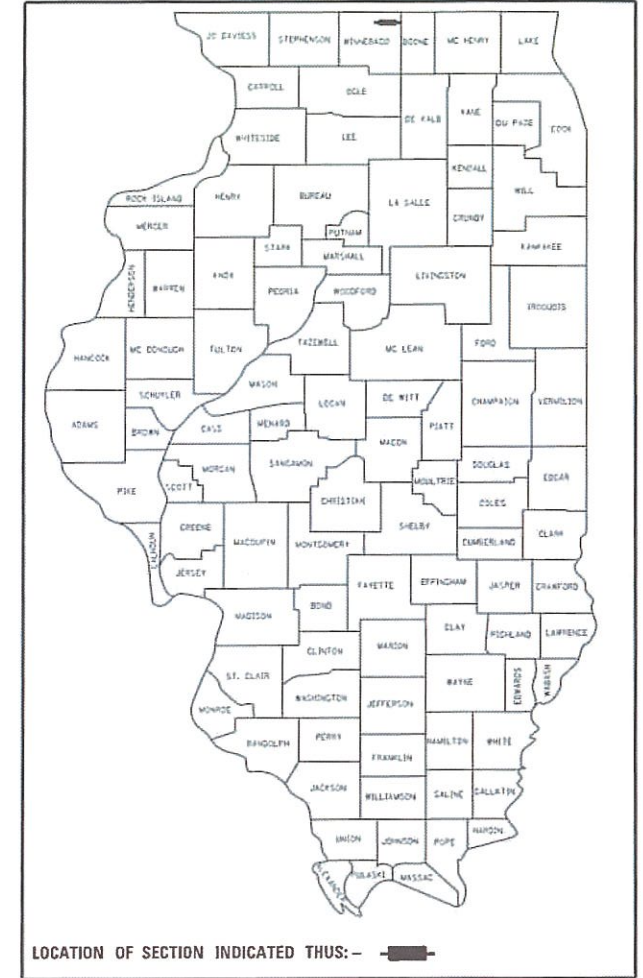
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID PROJECT
SURFACE TRANSPORTATION
RURAL - BRIDGE (FY-22)**

**SECTION NO: 17-00654-00-BR
FAU 5000 C.H. 71A (GLEASMAN ROAD)
TWO LOCATIONS OVER TWO UNNAMED CREEKS**

**PROJECT NO: BDEC(446)
CULVERT REPLACEMENT
WINNEBAGO COUNTY**

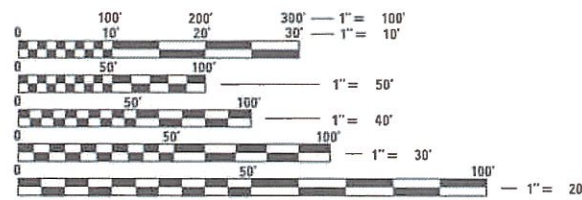
C-92-059-18



**FOR INDEX OF SHEETS, HIGHWAY STANDARDS,
UTILITIES, PROJECT HORIZONTAL AND
VERTICAL CONTROL - SEE SHEET NO. 2**

**EX S.N. 101-5016
PR S.N. 101-5168
WEST STRUCTURE STA: 6+75 TO 13+25
FAU 5000 (GLEASMAN ROAD)
FUNCTIONAL CLASSIFICATION
LOCAL ROAD OR STREET
DESIGN SPEED 50 MPH
2022 ADT = 825 - 6% TRUCKS
3R GUIDELINES**

**EX S.N. 101-5167
PR S.N. 101-5169
EAST STRUCTURE STA: 18+50 TO 23+00
CH 71A (GLEASMAN ROAD)
FUNCTIONAL CLASSIFICATION
MAJOR COLLECTOR
DESIGN SPEED 50 MPH
2012 ADT = 1450 - 4% TRUCKS
3R GUIDELINES**

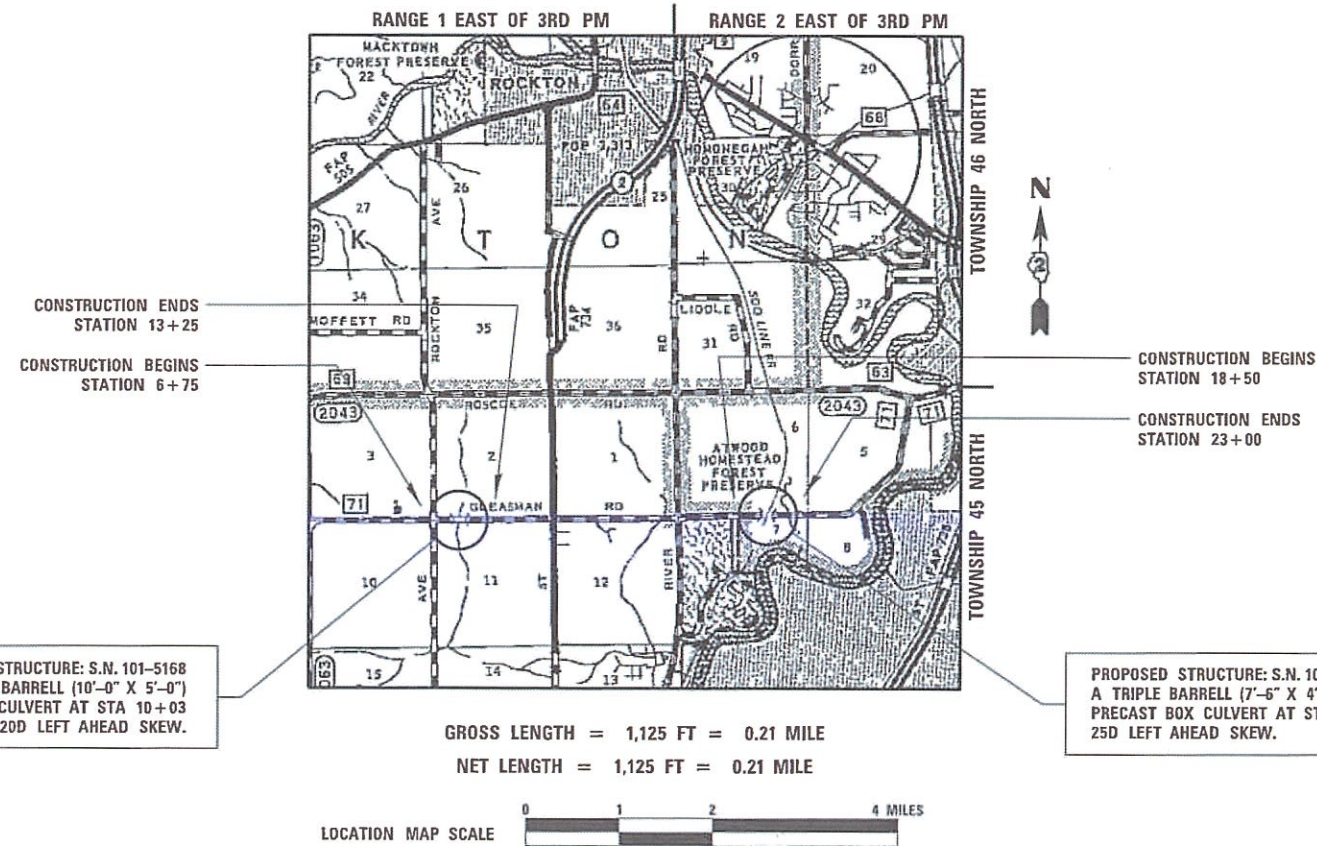


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

**PROJECT ENGINEER - MRL
PROJECT MANAGER - MRL**

CONTRACT NO. 85725



**PROPOSED STRUCTURE: S.N. 101-5168
A FOUR BARRELL (10'-0" X 5'-0")
PRECAST BOX CULVERT AT STA 10+03
20D LEFT AHEAD SKEW.**

**PROPOSED STRUCTURE: S.N. 101-5169
A TRIPLE BARRELL (7'-6" X 4'-6")
PRECAST BOX CULVERT AT STA 20+00
25D LEFT AHEAD SKEW.**

WINNEBAGO COUNTY HIGHWAY DEPARTMENT	
APPROVED	<i>[Signature]</i> 2/25/22 WINNEBAGO COUNTY ENGINEER
PASSED	<i>[Signature]</i> 3/4/22 DISTRICT 2 LOCAL ROADS & STREETS ENGINEER
RELEASING FOR BID BASED ON LIMITED REVIEW	<i>[Signature]</i> 3/4/22 DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER

PROF. F. S. SUTIN
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
DATE: *[Signature]*
EXPIRES 11/30/23
3-3-2022

**WILLETT HOFMANN
& ASSOCIATES INC**
ENGINEERING ARCHITECTURE LAND SURVEYING
809 EAST 2ND STREET, DIXON, IL 61021-0367
T: 815-284-3381 DESIGN FIRM: #184-00918

FILE: S:\PROJECTS\2018\1519M18\MCH\DESIGN\CAD_SHEETS\1519M18_Cover.dgn

PRINT_ORGANIZER.BW.plt 3/3/2022 11:11:19 AM = PLOTTED

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES & PROJECT CONTROL
- 3-4 SUMMARY OF QUANTITIES
- 5-6 TYPICAL SECTIONS
- 7-9 SCHEDULE OF QUANTITIES
- 10 SN 101-5168 (WEST) - PLAN & PROFILE
- 11 SN 101-5168 (WEST) - EROSION CONTROL PLAN
- 12 SN 101-5168 (WEST) - GENERAL PLAN AND ELEVATION
- 13-15 SN 101-5168 (WEST) - STRUCTURAL DETAILS
- 16 SN 101-5168 (WEST) - BORING LOGS
- 17-26 SN 101-5168 (WEST) - CROSS SECTIONS
- 27 SN 101-5169 (EAST) - PLAN & PROFILE
- 28 SN 101-5169 (EAST) - EROSION CONTROL PLAN
- 29 SN 101-5169 (EAST) - GENERAL PLAN AND ELEVATION
- 30-32 SN 101-5169 (EAST) - STRUCTURAL DETAILS
- 33 SN 101-5169 (EAST) - BORING LOGS
- 34-41 SN 101-5169 (EAST) - CROSS SECTIONS
- 42-50 REGION 2 / DISTRICT 2 STANDARD DETAILS

HIGHWAY STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006-00 DECIMAL OF AN INCH AND OF A FOOT
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-04 NAME PLATE FOR BRIDGE
- 542306-03 PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
- 630001-12 STEEL PLATE BEAM GUARDRAIL
- 630301-09 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 630111-01 WEAK POST GUARDRAIL ATTACHED TO CULVERT
- 635001-02 DELINEATORS
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEEDS > 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
- 701901-08 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-04 SIGN PANEL ERECTION DETAILS
- 720011-01 METAL POSTS FOR SIGN MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

THE CONTRACTOR SHALL VERIFY THAT THE QUANTITIES SHOWN IN THESE PLAN AND CONTRACT DOCUMENTS ARE SUBSTANTIALLY CORRECT; AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO THE BID DATE.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION IN ORDER TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION. WORK PERFORMED OR MATERIALS AND EQUIPMENT INSTALLED WITHOUT INSPECTION MAY BE CONSIDERED UNACCEPTABLE AT THE DISCRETION OF THE ENGINEER AND MY HAVE TO BE REPLACED AT NO COST TO THE ENGINEER OR OWNER.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL EQUIPMENT, MATERIAL AND CONSTRUCTION METHODS ADHERE TO THE REQUIREMENTS AND STIPULATIONS OF THE MOST CURRENT ADDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL CONSTRUCTION MATERIALS WITHIN THE RIGHT-OF-WAY MUST BE IDOT CERTIFIED. DOCUMENTATION OF MATERIAL CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO INSTALLATION FOR APPROVAL. ALL CONSTRUCTION MATERIAL NEEDING INSPECTION SHALL BE DONE ACCORDING TO THE LATEST IDOT PROJECT AND PROCEDURES GUIDE.

THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKERS AND SECTION OR SUBSECTION MONUMENTS ENCOUNTERED UNTIL AN OWNER, AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKERS AND SECTION OR SUBSECTION MONUMENTS, UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

EXISTING MAIL BOXES, STREET SIGNS AND TRAFFIC SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, PROTECTED AND RESET BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION. THE COST OF REMOVING AND RESETTING IS TO BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL). THE CONTRACTOR SHALL VERIFY THE LOCATIONS WITH THE ENGINEER PRIOR TO RESETTING.

ALL TREES LESS THAN 6" DIAMETER WITHIN THE CONSTRUCTION LIMITS AND SHOWN ON THE PLANS TO BE REMOVED WILL NOT BE PAID FOR UNDER THE PAY ITEMS FOR "TREE REMOVAL". THE COST OF REMOVING THESE TREES SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING TREES. NO ROOTS SHALL REMAIN EXPOSED FOR LONGER THAN 24 HOURS. ALL TREE PROTECTION MEASURES SHALL BE IN ACCORDANCE WITH ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE PER CUBIC YARD OF EARTH EXCAVATION (SPECIAL).

GENERAL NOTES (CONT.)

EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, TANKS, WELLS OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT OF WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 501.04 OF THE STANDARD SPECIFICATIONS, WITHOUT ANY ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS OR CONCRETE SURFACE, OR WHERE SAW CUTTING IS STATED ON THE PLANS, THE EXISTING SURFACE SHALL BE SAWS IN A NEAT STRAIGHT LINE FOR THE FULL DEPTH OF THE PAVEMENT. THE COST OF SAW CUTTING IS TO BE INCLUDED WITH THE UNIT BID PRICES FOR REMOVAL ITEMS WITHIN THE CONTRACT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR SAW CUTTING.

CURBS SHALL BE SAW CUT AT 12' TO 15' INTERVALS AND TO MATCH PAVEMENT JOINTS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

ALL BORROW / WASTE / USE SITES MUST BE APPROVED BY THE DEPARTMENT / OWNER PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTH MOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT OF WAY AREA DISTURBED BY THE CONTRACTOR MUST BE CAPABLE OF SUPPORTING VEGETATION. THE SOIL PROPERTIES MUST MATCH THAT OF THE PROPERTIES OF LOCAL SOILS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE PER SQUARE YARD FOR TOPSOIL FURNISH AND PLACE 4". NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

FERTILIZER NUTRIENTS SHALL BE APPLIED AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. ALL FERTILIZER COSTS SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR SEEDING OR SODDING. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

SEE CROSS SECTION SHEETS WITHIN THIS PLAN SET FOR DETAILS ON SPECIAL DITCHES AND DESIRED FORE SLOPES, DITCH DEPTHS, AND BACK SLOPES.

PAVEMENT MARKINGS SHALL BE DONE ACCORDING TO STANDARD 780001, EXCEPT AS FOLLOWS:

1. ALL WORDS, SUCH AS "ONLY" SHALL BE 8 FEET HIGH.
2. ALL NON-FREEWAY ARROWS SHALL BE THE LARGE SIZE.
3. THE DISTANCE BETWEEN YELLOW NO-PASSING LINES SHALL BE 8 INCHES. NOT 7 INCHES, AS SHOWN IN THE DETAIL OF TYPICAL LANE AND EDGE LINES.
4. CENTERLINE SKIP DASH PAVEMENT MARKING ON MULTI-LANE DIVIDED, MULTI-LANE UNDIVIDED, AND ONE-WAY ROADWAYS SHALL BE ACCORDING TO DISTRICT STANDARD 41.1.

ALL PAVEMENT SHALL BE CLEANED AND FREE OF DEBRIS PRIOR TO ANY PAVEMENT MARKING OPERATIONS.

ALL PAVEMENT SHALL BE CLEANED AND "FRESH OIL" SIGNS SHALL BE PLACED AT ALL INTERSECTIONS OF THE STREETS APPROACHING THE CONSTRUCTION SITE PRIOR TO APPLYING BITUMINOUS MATERIALS (PRIME COAT) AND (TACK COAT).

THE AREA TO BE PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED WITH HMA ON THE NEXT DAYS PRODUCTIVITY, BUT NO MORE THAN FIVE (5) DAYS IN ADVANCE OF THE PLACEMENT OF HMA, UNLESS APPROVED BY THE ENGINEER.

TEMPORARY HMA RAMPS SHALL BE INSTALLED AS NEEDED ON MAINLINE AND SIDE STREETS. THE COSTS FOR THE RAMPS SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE PER TON OF HOT-MIX ASPHALT SURFACE COURSE. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

ALL DUST ON-SITE SHALL BE CONTROLLED BY THE USE OF WATER BASED PRODUCTS ONLY. NO OILS OR PETROLEUM BASED AGENTS SHALL BE PERMITTED FOR DUST CONTROL.

DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL ENSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUIRED DUE TO DELAYS OR UNSTABLE MATERIALS CREATED AS A RESULT THEREOF.

AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL SWEEP OR CLEAN (NOT FLUSH) ANY CONSTRUCTION MATERIAL FROM THE STREET TO PREVENT TRACKING. THE ENGINEER SHALL HAVE AUTHORIZATION TO DETERMINE THE ADEQUACY OF THE CONTRACTOR'S EROSION CONTROL EFFORTS. THE DEPARTMENT / OWNER SHALL HAVE AUTHORITY TO SUSPEND OR LIMIT THE CONTRACTOR'S OPERATIONS PENDING ADEQUATE PERFORMANCE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES THROUGHOUT THE COURSE OF THE PROJECT. THE COST FOR ALL MAINTAINED AND ADJUSTMENTS TO THE EROSION CONTROL MEASURES SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR EACH EROSION CONTROL DEVICE.

ANYTIME DURING CONSTRUCTION OPERATIONS, IF ANY DEBRIS IS DEPOSITED INTO THE FLOW LINE OF ANY DRAINAGE STRUCTURE, DITCHES, ETC., SUCH THAT THE NATURAL FLOW LINE HAS BEEN OBSTRUCTED, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE THIS DEBRIS PRIOR TO THE CLOSE OF EACH WORKING DAY, AND ENSURE POSITIVE DRAINAGE THROUGH ALL STRUCTURES, STORM SEWERS, DITCHES, ETC. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS FOR THIS PROJECT, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FIELD TILES, UNDERGROUND AND SURFACE UTILITIES AS OUTLINED IN SECTION 107 OF THE STANDARD SPECIFICATIONS. ANY FIELD TILE OR UTILITY DAMAGED DURING CONSTRUCTION REGARDLESS IF THEY ARE SHOW ON THE PLANS SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

GENERAL NOTES (CONT.)

THE CONTRACTOR IS REQUIRED TO PROTECT THE VARIOUS UTILITIES DURING CONSTRUCTION. ANY DAMAGE THAT OCCURS TO THE VARIOUS UTILITIES DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE. AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS.

IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT JULIE AND COORDINATE THE UTILITY LOCATE (JULIE'S NUMBER IS 800 - 892 - 0123). A MINIMUM OF 48 HOURS ADVANCED NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE FOLLOWING LISTED UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS, AND ARE MEMBERS OF JULIE:

<p>COMED ADDRESS: ONE LINCOLN CENTRE OAKBROOK TERRACE, IL 60181 CONTACT: AMIR MAHMUTAGIC PHONE: 630 - 437 - 2212 E-MAIL: AMIR.MAHMUTAGIC@COMED.COM</p>	<p>COMCAST ADDRESS: 688 INDUSTRIAL DRIVE, ELMHURST, IL 60126 CONTACT: MARTHA GIERAS PHONE: 224 - 229 - 5862 E-MAIL: MARTHA_GIERAS@COMCAST.COM</p>
--	---

<p>NICOR GAS ADDRESS: 1844 FERRY ROAD NAPERVILLE, IL 60563 CONTACT: CHARLES M. PARROTT PHONE: 630 - 388 - 3319</p>	<p>ROCK RIVER WATER RECLAMATION ADDRESS: 3501 KISHWAUKEE STREET ROCKFORD, IL 61109 CONTACT: CHRIS BAER PHONE: 815 - 387 - 7678</p>
--	--

<p>FRONTIER COMMUNICATIONS ADDRESS: 112 ELM STREET SYCAMORE, IL 60178 CONTACT: KALIN HINSHAW PHONE: 815 - 895 - 1515 E-MAIL: KALIN.HINSHAW@FTR.COM</p>	<p>NORTH PARK PUBLIC WATER ADDRESS: 1350 TURRET DRIVE MACHESNEY PARK, IL 61115 CONTACT: EDWARD RICE PHONE: 815 - 633 - 5461 E-MAIL: ERICE@NORTH PARKWATER.ORG</p>
--	---

IF THERE ARE ANY UTILITIES WHICH ARE NOT MEMBERS OF JULIE THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THIS AND REQUESTING SAID UTILITIES TO FIELD VERIFY AND MARK PERTINENT UTILITY LOCATIONS.

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AT LEAST 48 HOURS PRIOR TO WORK.

THE APPLICABLE PORTIONS OF ARTICLE 105.07 OF THE STANDARD SPECIFICATIONS SHALL APPLY EXCEPT FOR THE FOLLOWING: THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE THE VERTICAL DEPTHS OF THE UNDERGROUND UTILITIES WHICH MAY INTERFERE WITH CONSTRUCTION OPERATIONS. THIS WORK WILL NOT BE MEASURED OR PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES FOR THE ITEM OF CONSTRUCTION INVOLVED.

FINAL INSPECTION OF THE WORK PERFORMED UNDER THIS CONTRACT WILL BE DONE BY THE ENGINEER OR DEPARTMENT / OWNER PRIOR TO FINAL ACCEPTANCE. DEFECTS SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT COST TO THE OWNER PRIOR TO ISSUANCE OF THE FINAL PAYMENT. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED WITH REGARD TO WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL PAYMENT OF THE CONTRACTOR. DEFECTS WHICH ARISE DURING THE GUARANTEE PERIOD SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER WITHIN 30 DAYS OF RECEIVING NOTIFICATION OF THE DEFECT.

PROJECT CONTROL

VERTICAL CONTROL				
BENCHMARK	STATION	ELEVATION	DESCRIPTION	CULVERT LOCATION
WHA 400	38.10' RT 10+19.07	787.99	RR SPIKE IN PP S/E CORNER OF CULVERT	WEST
WHA 401	38.44' RT 7+21.47	787.91	RR SPIKE IN 1ST PP WEST OF CULVERT	WEST
WHA 402	31.42' LT 20+55.91	716.04	RR SPIKE IN 1ST PP EAST OF CULVERT	EAST
WHA 403	37.52' RT 18+69.49	718.59	RR SPIKE IN 1ST PP WEST OF CULVERT	EAST

HORIZONTAL CONTROL						
POINT #	STATION	NORTHING	EASTING	ELEVATION	DESCRIPTION	CULVERT LOCATION
WHA 31	24.94' RT 21+26.06	2089529.31	2599632.37	718.74	1/4" IP	EAST
WHA 32	25.46' LT 19+19.08	2089572.65	2599423.80	716.05	1/4" IP	EAST
WHA 34	18.00' LT 13+41.23	2089160.04	2586595.90	797.30	IP W/CAP (FGA)	WEST
WHA 35	14.74' RT 8+60.95	2089117.53	2586116.39	789.24	IP W/CAP (FGA)	WEST
WHA 150	16.35' LT 6+58.00	2089144.49	2585912.85	788.76	IPS W/CAP (WHA)	WEST
WHA 151	46.67' RT 19+15.35	2089500.43	2599422.52	716.71	IPS W/CAP	EAST

FILE = S:\PROJECTS\2018\1519M18_WCH\DESIGN\CAD_SHEET\1519M18_General-Notes.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



GENERAL NOTES & PROJECT CONTROL

SHEET 1 OF 1

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	2
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

SUMMARY OF QUANTITIES

PAY CODE	PAY ITEM NAME	UNIT	F.A.U. 5000 QUANTITY	C.H. 71A QUANTITY	TOTAL QUANTITY
Δ 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	112		112
Δ 20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT		60	60
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	54	155	209
20400800	FURNISHED EXCAVATION	CU YD	17		17
20700110	POROUS GRANULAR EMBANKMENT	TON	359	267	626
20800150	TRENCH BACKFILL	CU YD		6	6
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2,080	1,432	3,512
25100630	EROSION CONTROL BLANKET	SQ YD	2,600	1,790	4,390
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	86	59	145
28000305	TEMPORARY DITCH CHECKS	FOOT	36	32	68
28000400	PERIMETER EROSION BARRIER	FOOT	504	666	1,170
28000500	INLET AND PIPE PROTECTION	EACH		1	1
* 30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	398	1,113	1,511
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD		104	104

* INDICATES SPECIAL PROVISION PROVIDED
 Δ SPECIALTY ITEMS

PAY CODE	PAY ITEM NAME	UNIT	F.A.U. 5000 QUANTITY	C.H. 71A QUANTITY	TOTAL QUANTITY
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	820	2,403	3,223
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	82	230	312
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	62	171	233
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	41	115	156
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON		9	9
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	674	502	1,176
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6,170	3,700	9,870
51500100	NAME PLATES	EACH	1	1	2
54003000	CONCRETE BOX CULVERTS	CU YD	55.9	33.6	89.5
54011005	PRECAST CONCRETE BOX CULVERTS 10' X 5'	FOOT	192		192
54214503	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 18"	EACH		2	2
542A5473	PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 18"	FOOT		28	28
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	268	10	278

* INDICATES SPECIAL PROVISION PROVIDED

PRINT_ORGANIZER.BW.plt; 3/17/2022 11:41:23 AM = PLOTTED

S:\PROJECTS\2018\1519M18_WINCH DESIGN\CAD_SHEETS\1519M18_Summary of - 01.dgn

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

REVISION	DATE	BY	REMARKS

DESIGNED	GBC
DRAWN	GBC
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



WILLETT HOFMANN & ASSOCIATES INC
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, Moline, IL 61205
 T: 309-317-1119 DESIGN FIRM # 164-000918

SUMMARY OF QUANTITIES

SHEET 1 OF 2

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	3
F.A.U. 5000		WHA*	1519M18	
[ILLINOIS]				

SUMMARY OF QUANTITIES

PAY CODE	PAY ITEM NAME	UNIT	F.A.U. 5000 QUANTITY	C.H. 71A QUANTITY	TOTAL QUANTITY
△ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT		187.5	187.5
△ 63000050	WEAK POST GUARDRAIL ATTACHED TO CULVERT CASE I	FOOT		34	34
△ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH		2	2
63200310	GUARDRAIL REMOVAL	FOOT	933		933
67100100	MOBILIZATION	L SUM	0.5	0.5	1
△ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH		2	2
△ 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	600	1,800	2,400
△ 78200006	GUARDRAIL REFLECTORS, TYPE B	EACH		4	4
* Z0013798	CONSTRUCTION LAYOUT	L SUM	0.5	0.5	1
* X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	268	148	416
* X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	933		933
* X2501020	SEEDING, CLASS 2A (SPECIAL)	ACRE	0.45	0.33	0.78
* X4201600	PORTLAND CEMENT CONCRETE PAVEMENT (VARIABLE DEPTH)	SQ YD		113	113
* X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	0.5	0.5	1

* INDICATES SPECIAL PROVISION PROVIDED
 △ SPECIALTY ITEMS

PAY CODE	PAY ITEM NAME	UNIT	F.A.U. 5000 QUANTITY	C.H. 71A QUANTITY	TOTAL QUANTITY
* XX009526	PRECAST CONCRETE BOX CULVERTS 7.5' x 4.5'	FOOT		136	136

* INDICATES SPECIAL PROVISION PROVIDED

PRINT_ORGANIZER.BW.plt.ctb 3/17/2022 11:14:46 AM - PLOTTED

S:\PROJECTS\2018\1519M18_WINCH\DESIGN\CAD_SHEETS\1519M18_Summary-of-QTYs.dgn

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)

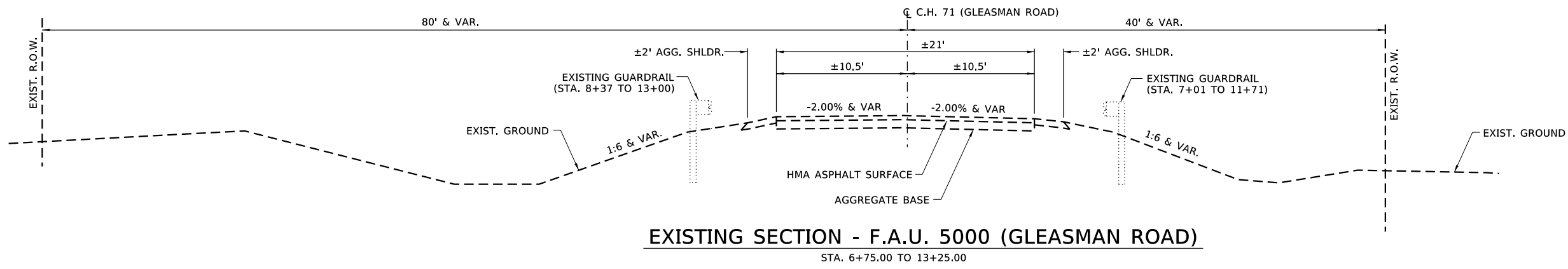


SUMMARY OF QUANTITIES
SHEET 2 OF 2

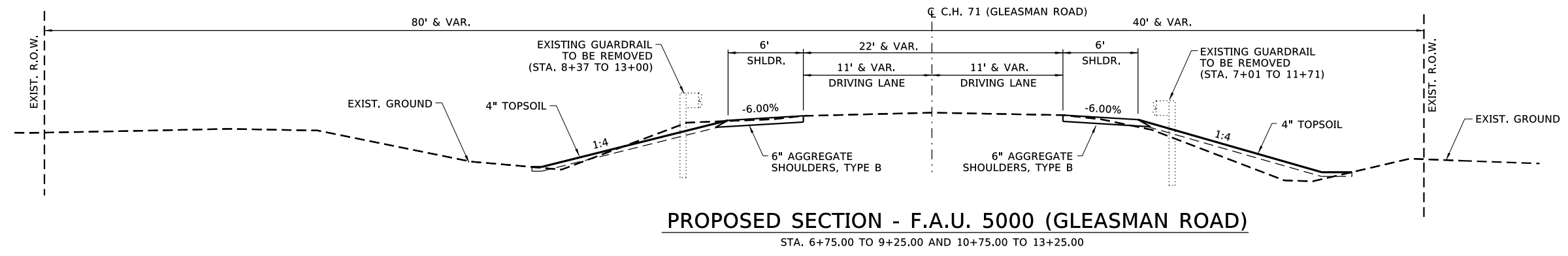
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	4
F.A.U. 5000		WHA* 1519M18		
ILLINOIS				

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:12:05 AM - PLOTTED

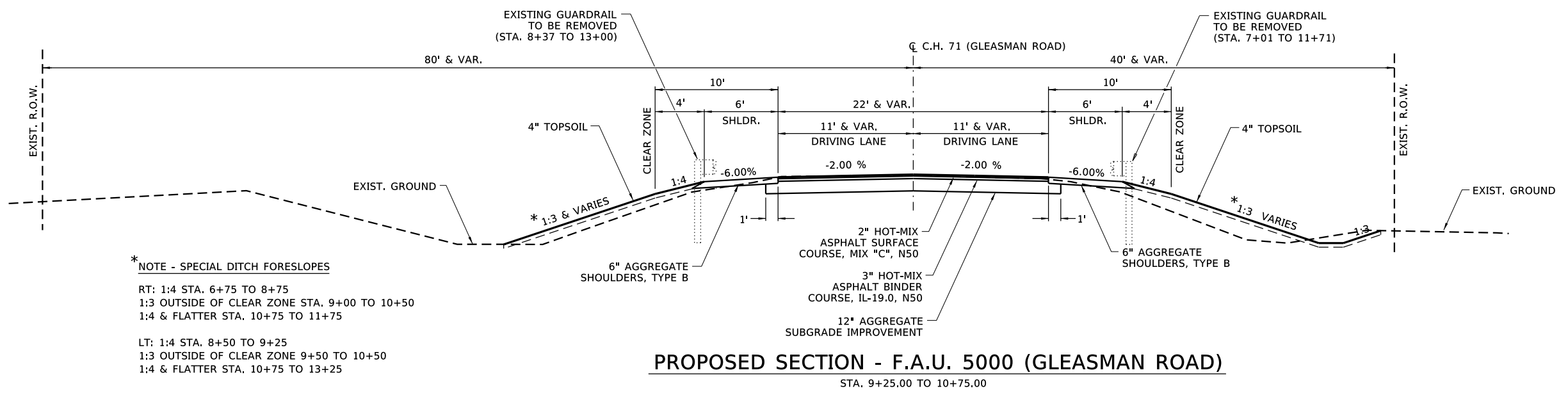
FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\sr_101-5168 (West)\1519M18_Typical.ctb (West).dgn



EXISTING SECTION - F.A.U. 500 (GLEASMAN ROAD)
STA. 6+75.00 TO 13+25.00



PROPOSED SECTION - F.A.U. 500 (GLEASMAN ROAD)
STA. 6+75.00 TO 9+25.00 AND 10+75.00 TO 13+25.00



PROPOSED SECTION - F.A.U. 500 (GLEASMAN ROAD)
STA. 9+25.00 TO 10+75.00

*** NOTE - SPECIAL DITCH FORESLOPES**
 RT: 1:4 STA. 6+75 TO 8+75
 1:3 OUTSIDE OF CLEAR ZONE STA. 9+00 TO 10+50
 1:4 & FLATTER STA. 10+75 TO 11+75
 LT: 1:4 STA. 8+50 TO 9+25
 1:3 OUTSIDE OF CLEAR ZONE 9+50 TO 10+50
 1:4 & FLATTER STA. 10+75 TO 13+25

PAVEMENT MIXTURE REQUIREMENTS

	CONSTRUCTION	
MIXTURE USE:	SURFACE	BINDER
PG	PG 58-28	PG 58-28
DESIGN AIR VOIDS	4.0 @ N50	4.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 19.0
FRICTION AGGREGATE	C	N/A
MIX UNIT WEIGHT	112 LBS / SY / INCH	
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA

**HOT-MIX ASPHALT PAVEMENT STRUCTURAL DESIGN
F.A.U. 500 (GLEASMAN ROAD)**

STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2042
 CLASS III STREET
 USE
 2" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C" N50
 3" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
 12" AGGREGATE SUB-GRADE IMPROVEMENT

P.V. 94
 S.U. 5
 M.U. 1 } 1058 ADT

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA. 10+03)

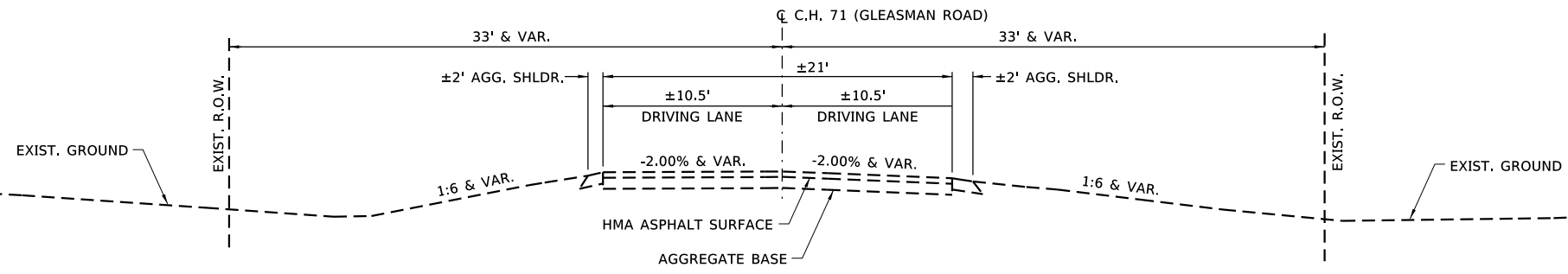


SN 101-5168 (WEST CULVERT)
TYPICAL SECTIONS
 SHEET 1 OF 1 SHEETS

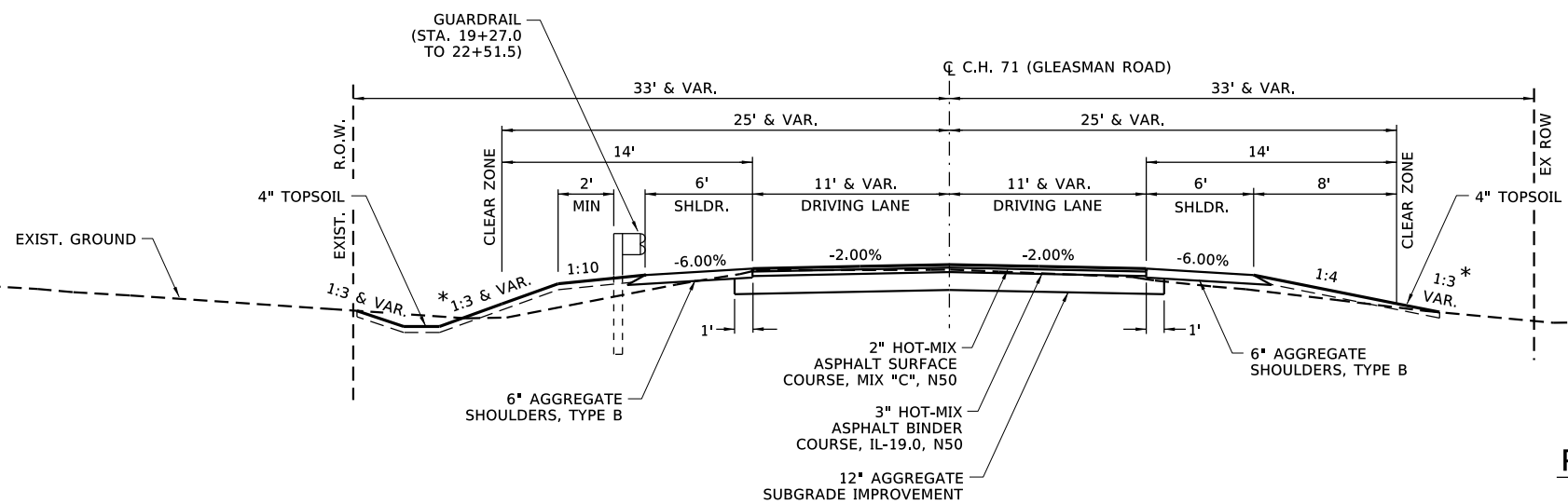
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	5
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:12:06 AM - PLOTTED



EXISTING SECTION - C.H. 71A (GLEASMAN ROAD)
STA. 18+50.00 TO 23+00.00



PROPOSED SECTION - C.H. 71A (GLEASMAN ROAD)
STA. 18+50.00 TO 23+00.00

PAVEMENT MIXTURE REQUIREMENTS

MIXTURE USE:	CONSTRUCTION	
	SURFACE	BINDER
PG	PG 58-28	PG 58-28
DESIGN AIR VOIDS	4.0 @ N50	4.0 @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 19.0
FRICITION AGGREGATE	C	N/A
MIX UNIT WEIGHT	112 LBS / SY / INCH	
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA

*** NOTE - SPECIAL DITCH FORESLOPES**
 RT: 1:4 & FLATTER STA. 18+50 TO 20+25
 1:3 STA. 20+25 TO 22+00
 1:4 STA. 22+25 TO 23+25

 LT: 1:4 STA. 18+50 TO 19+00
 1:2 BEHIND GUARDRAIL 19+30 TO 22+00
 1:4 STA. 22+50 TO 23+25

**HOT-MIX ASPHALT PAVEMENT
STRUCTURAL DESIGN
C.H. 71A (GLEASMAN ROAD)**

STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2042
 CLASS III STREET

USE 2" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50 3" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 12" AGGREGATE SUB-GRADE IMPROVEMENT	P.V. 95 S.U. 4 M.U. 1	} 1,860 ADT	
---	-----------------------------	-------------	--

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Sr-101-5169-East\1519M18-Typicals (East).dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



SN 101-5169 (EAST CULVERT)
TYPICAL SECTIONS
SHEET 1 OF 1 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	6
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

SCHEDULE OF QUANTITIES

EARTHWORK SCHEDULE

C.H. 71 (GLEASMAN ROAD) OVER UNNAMED CREEK

LOCATION	EARTH EXCAVATION SPECIAL X2020410 (Cu Yd)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	EARTH BALANCE WASTE (+) OR FURNISHED EXCAVATION (-) 20400800 (Cu Yd)
C.H. 71 GLEASMAN ROAD				
S.N. 101-5168 (WEST)	417	313	330	-17
S.N. 101-5169 (EAST)	516	387	343	44
TOTALS	933	700	673	27

SCHEDULE OF QUANTITIES

TREE REMOVAL (6 TO 15 UNITS DIAMETER)

STATION	UNIT	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+66 RT 40'	6	
9+66 RT 40'	24	3 @ 8"
9+74 RT 39'	6	
9+74 RT 39'	24	3 @ 8"
9+81 RT 38'	10	
9+81 RT 38'	42	3 @ 14"
PROJECT TOTAL	112	

TREE REMOVAL (OVER 15 UNITS DIAMETER)

STATION	UNIT	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
22+00 RT 26'	60	
PROJECT TOTAL	60	

REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

STATION	CU YD	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+00 to 11+00	54	2FT DEPTH
SUB TOTAL:	54	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 to 23+00	155	2FT DEPTH
SUB TOTAL:	155	
PROJECT TOTAL	209	20% OF PAVED AREA

TRENCH BACKFILL

STATION	CU YD	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
19+05.5 LT 26.9' to 19+33.2 LT 28.0'	6	2.4' DEPTH
PROJECT TOTAL	6	

TOPSOIL FURNISH AND PLACE, 4"

STATION	SQ YD	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
RT 6+50 - 9+82	749	
LT 7+75 to 9+88	617	
RT 9+90 to 11+88	273	
LT 10+31 to 13+50	441	
SUB TOTAL:	2,080	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 18+50 to 18+93	53	
LT 18+46 to 19+14	93	
RT 19+09 to 19+74	105	
LT 19+28 to 19+90	124	
RT 20+03 to 23+35	493	
LT 20+23 to 23+35	542	
SUB TOTAL:	1,410	
PROJECT TOTAL	3,490	

EROSION CONTROL BLANKET

STATION	SQ YD	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
RT 6+50 - 9+82	749	
LT 7+75 to 9+88	617	
RT 9+90 to 11+88	273	
LT 10+31 to 13+50	441	
TEMP SEEDING	520	25% CONTINGENCY FOR TEMP IF NEEDED
SUB TOTAL:	2,600	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 18+50 to 18+93	53	
LT 18+46 to 19+14	93	
RT 19+09 to 19+74	105	
LT 19+28 to 19+90	124	
RT 20+03 to 23+35	493	
LT 20+23 to 23+35	542	
TEMP SEEDING	352	25% CONTINGENCY FOR TEMP IF NEEDED
SUB TOTAL:	1,762	
PROJECT TOTAL	4,362	

TEMPORARY EROSION CONTROL SEEDING

STATION	POUND	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
RT & LT 6+50 to 13+50	86	0.43 ACRE
SUB TOTAL:	86	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT & LT 18+40 to 23+35	58	.29 ACRE
SUB TOTAL:	58	
PROJECT TOTAL	144	2 APPLICATIONS 100LB / ACRE

TEMPORARY DITCH CHECKS

STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
RT 7+00	8	
RT 8+00	8	
RT 9+00	8	
LT 9+00	12	
SUB TOTAL:	36	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 22+00	8	
RT 22+50	8	
RT 23+00	8	
LT 23+00	8	
SUB TOTAL:	32	
PROJECT TOTAL	68	

PERIMETER EROSION BARRIER

STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
RT 9+90 to 11+80	190	
LT 10+40 to 13+50	314	
SUB TOTAL:	504	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 18+40 to 18+90	52	
LT 18+84 to 19+14	30	
LT 19+32 to 19+98	66	
RT 19+05 to 19+85	80	
RT 20+03 to 22+00	198	
LT 20+35 to 22+75	240	
SUB TOTAL:	666	
PROJECT TOTAL	1,170	

PRINT_ORGANIZER.BV.plt 3/4/2022 3:33:14 PM = PLOTTED

FILE = S:\PROJECTS\2018\1519M18 - WCH\DESIGN\CAD_SHEETS\1519M18 - Schedule of QTY.dgn

REVISION	DATE	BY	REMARKS
DESIGNED		CBG	
DRAWN		CBG	
REVIEWED		GFS	
APPROVED		GFS	

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



SCHEDULE OF QUANTITIES

SHEET 1 OF 3

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	7
	F.A.U. 5000	WHA*	1519M18	

ILLINOIS

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

SCHEDULE OF QUANTITIES

INLET AND PIPE PROTECTION		
STATION	EACH	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+99.5 LT 26.3'	1	FLARED END SECTION
PROJECT TOTAL	1	
28000500		

AGGREGATE SUBGRADE IMPROVEMENT - 12"		
STATION	SQ YD	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+25 to 10+75	398	ROADWAY BASE
SUB TOTAL:	398	TOP 4" - CA06 OR CA10 BOTTOM 8" - CS01
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 to 19+85	354	ROADWAY BASE
20+15 to 23+00	759	TOP 4" - CA06 OR CA10 BOTTOM 8" - CS01
SUB TOTAL:	1,113	
PROJECT TOTAL	1,511	
30300112		

AGGREGATE BASE COURSE, TYPE B - 8"		
STATION	SQ YD	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
CE RT 19+01	50	HMA ENTRANCE BASE
FE LT 19+20	54	FIELD ENTRANCE
PROJECT TOTAL	104	
35102000		

BITUMINOUS MATERIALS (PRIME COAT)		
STATION	POUND	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+25 to 10+75	820	APPLY ON AGG
SUB TOTAL:	820	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 to 19+85	728	APPLY ON AGG
20+15 to 23+00	1,564	APPLY ON AGG
CE RT 19+01	111	APPLY ON AGG
SUB TOTAL:	2,403	
		CALCULATION BASE ON .25 LBS / SQ FT
PROJECT TOTAL	3,223	
40600275		

BITUMINOUS MATERIALS (TACK COAT)		
STATION	POUND	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+25 to 10+75	82	APPLY ON HMA
SUB TOTAL:	82	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 to 19+85	73	APPLY ON HMA
20+15 to 23+00	157	APPLY ON HMA
SUB TOTAL:	230	
		CALCULATION BASE ON .025 LBS / SQ FT
PROJECT TOTAL	312	
40600290		

HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50		
STATION	TON	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+25 - 10+75	62	3" - ROADWAY
SUB TOTAL:	62	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 - 19+90	54	3" - ROADWAY
20+10 - 23+00	117	3" - ROADWAY
SUB TOTAL:	171	
		CALCULATION BASE ON 112 LBS / SQ YD / INCH
PROJECT TOTAL	233	
40603080		

HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50		
STATION	TON	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+25 - 10+75	41	2" - ROADWAY
SUB TOTAL:	41	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 - 19+20	37	2" - ROADWAY
20+10 - 23+00	78	2" - ROADWAY
SUB TOTAL:	115	
		CALCULATION BASE ON 112 LBS / SQ YD / INCH
PROJECT TOTAL	156	
40604050		

INCIDENTAL HOT-MIX ASPHALT SURFACING		
STATION	TON	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
CE RT 19+01	9	3" - ENTRANCE
		CALCULATION BASE ON 112 LBS / SQ YD / INCH
PROJECT TOTAL	9	
40800050		

AGGREGATE SHOULDERS, TYPE B - 6"		
STATION	SQ YD	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
LT 8+00 to 13+25	340	
RT 6+75 to 11+85	334	
SUB TOTAL:	674	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 18+50 to 18+90	20	
LT 18+50 to 19+02	20	
RT 19+14 to 19+80	41	
LT 19+25 to 19+90	43	
RT 20+07 to 23+00	189	
LT 20+20 to 23+15	189	
SUB TOTAL:	502	
PROJECT TOTAL	1,176	
48101500		

PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVELNT ROUND-SIZE 18"		
STATION	EACH	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+99.5 LT 26.3'	1	
19+39.2 LT 28.2'	1	
PROJECT TOTAL	2	
54214503		

PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 18"		
STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
19+05.5 LT 26.9' to 19+33.2 LT 28.0'	28	ENTRANCE CULVERT
PROJECT TOTAL	28	
542A5473		

STEEL PLATE BEAM GUARDRAIL TYPE A, 6 FOOT POSTS		
STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
LT 19+78.5 to 19+91.0	12.5	
LT 20+25.0 to 22+00.0	175.0	
PROJECT TOTAL	187.5	
63000001		

PRINT_ORGANIZER_BW.plt.ctb 3/4/2022 3:34:09 PM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18 - WINCH\DESIGN\CAD_SHEETS\1519M18_Schedule-of-QTY.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



SCHEDULE OF QUANTITIES
SHEET 2 OF 3

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	8
F.A.U. 5000		WHA* 1519M18		
ILLINOIS				

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

SCHEDULE OF QUANTITIES

WEAK POST GUARDRAIL ATTACHED TO CULVERT CASE 1		
STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
LT 19+91.0 to 20+25.0	34	
PROJECT TOTAL	34	
63000050		

TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT		
STATION	EACH	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
LT 19+27.0 to 19+78.5	1	
LT 22+00.0 to 22+51.5	1	
PROJECT TOTAL	2	
63100167		

GUARDRAIL REMOVAL		
STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
LT 8+37 - 13+00	463	
RT 7+01 - 11+71	470	
PROJECT TOTAL	933	
63200310		

TERMINAL MARKER - DIRECT APPLIED		
STATION	EACH	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
17' LT 19+27	1	
17' LT 22+51	1	
PROJECT TOTAL	2	
72501000		

THERMOPLASTIC PAVEMENT MARKING - LINE 4"		
STATION	FOOT	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
9+25 - 10+75	300	DBL YELLOW AT CENTERLINE
LT & RT 9+25 - 10+75	300	WHITE EDGE LINES
SUB TOTAL:	600	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
18+50 - 23+00	900	DBL YELLOW AT CENTERLINE
LT & RT 18+50 - 23+00	900	WHITE EDGE LINES
SUB TOTAL:	1,800	
PROJECT TOTAL	2,400	
78000200		

GUARDRAIL REFLECTORS, TYPE B		
STATION	EACH	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
LT 19+27.0 to 22+51.5	4	MONODIRECTIONAL CRYSTAL
PROJECT TOTAL	4	
78200006		

SEEDING, CLASS 2A (SPECIAL)		
STATION	ACRE	REMARKS
GLEASMAN ROAD - S.N. 101-5168 (WEST)		
RT 6+50 - 9+82	0.16	
LT 7+75 to 9+88	0.13	
RT 9+90 to 11+88	0.06	
LT 10+31 to 13+50	0.10	
SUB TOTAL:	0.45	
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 18+50 to 18+93	0.02	
LT 18+46 to 19+14	0.02	
RT 19+09 to 19+74	0.03	
LT 19+28 to 19+90	0.03	
RT 20+03 to 23+35	0.11	
LT 20+23 to 23+35	0.12	
SUB TOTAL:	0.33	
PROJECT TOTAL	0.78	
X2501020*		

PORTLAND CEMENT CONCRETE PAVEMENT (VARIABLE DEPTH)		
STATION	SQ YD	REMARKS
GLEASMAN ROAD - S.N. 101-5169 (EAST)		
RT 19+80 - LT 20+20	113	34FT WIDE ACROSS THE STRUCTURE EDGE OF SHLDR TO EDGE OF SHLDR
PROJECT TOTAL	113	
X4201600*		

PRINT_ORGANIZER.BW.plt 3/4/2022 3:35:57 PM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\1519M18_Schedule-of-QTY.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



SCHEDULE OF QUANTITIES
SHEET 3 OF 3

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	9
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

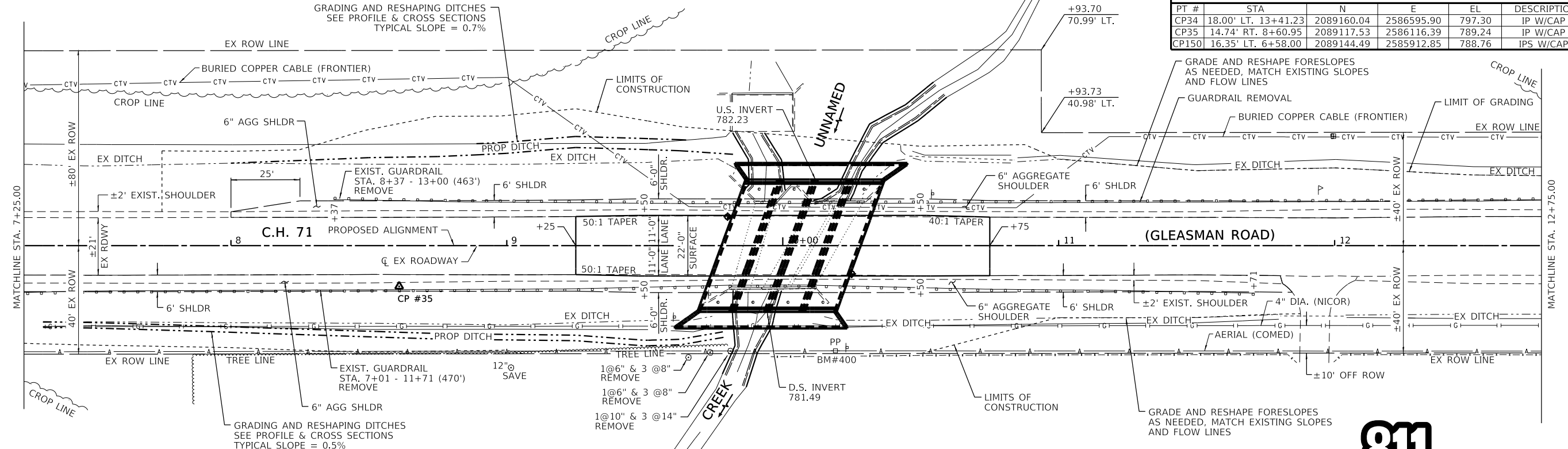
This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:13:13 AM - PLOTTED

BENCH MARK #400: R.R. SPIKE IN P.P. SE CORNER OF CULVERT
38.10' RT. OF STA. 10+19.07, EL. 787.99

BENCH MARK #401: R.R. SPIKE IN FIRST P.P. WEST OF CULVERT
38.44' RT. OF STA. 7+21.47, EL. 787.91

C.H. 71 (GLEASMAN ROAD) OVER UNNAMED CREEK STATION 10+03 - HORIZONTAL CONTROL POINTS					
PT #	STA	N	E	EL	DESCRIPTION
CP34	18.00' LT. 13+41.23	2089160.04	2586595.90	797.30	IP W/CAP
CP35	14.74' RT. 8+60.95	2089117.53	2586116.39	789.24	IP W/CAP
CP150	16.35' LT. 6+58.00	2089144.49	2585912.85	788.76	IPS W/CAP

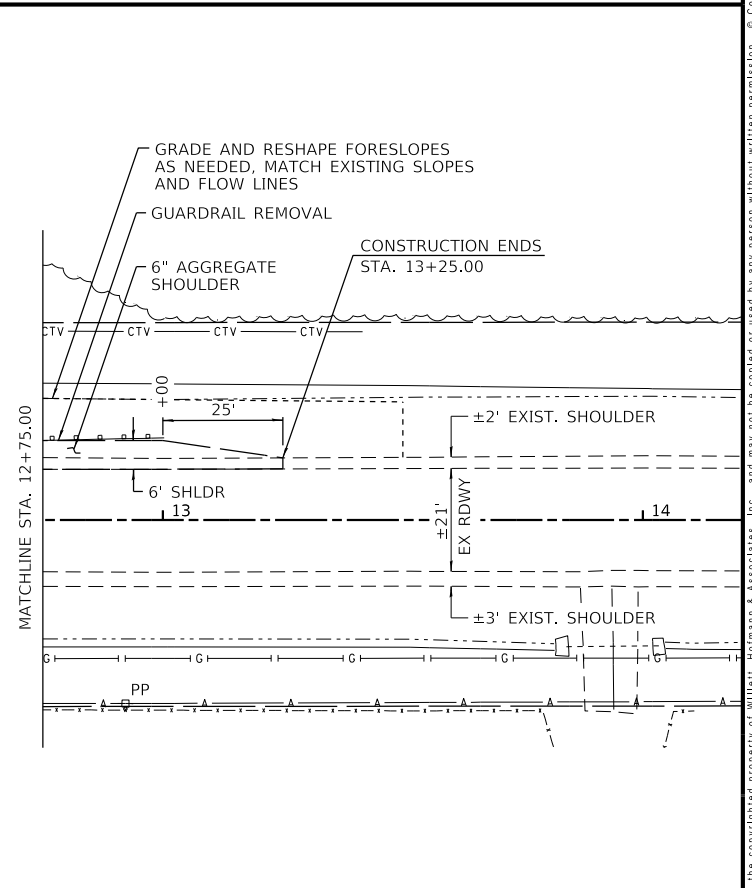
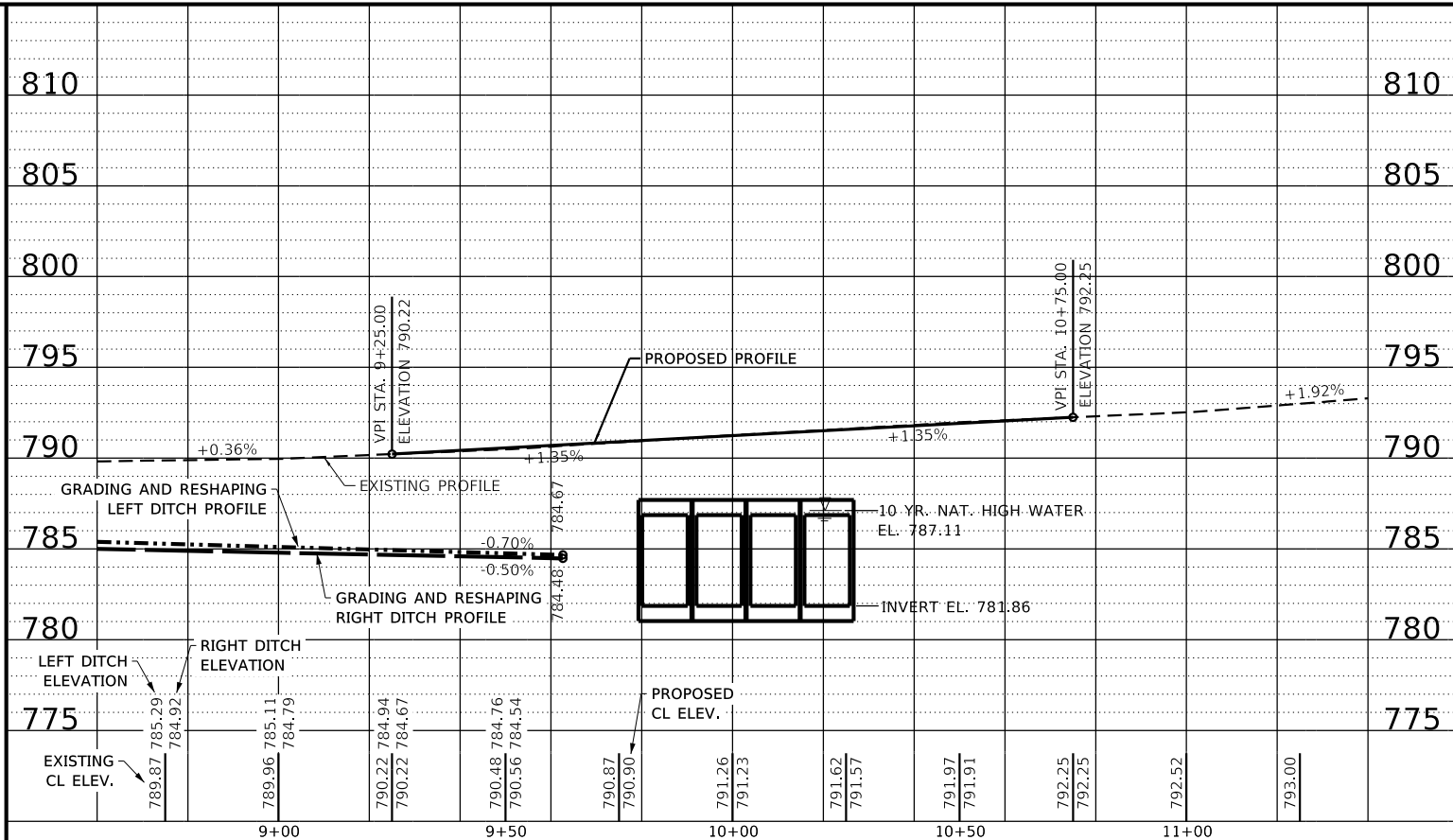
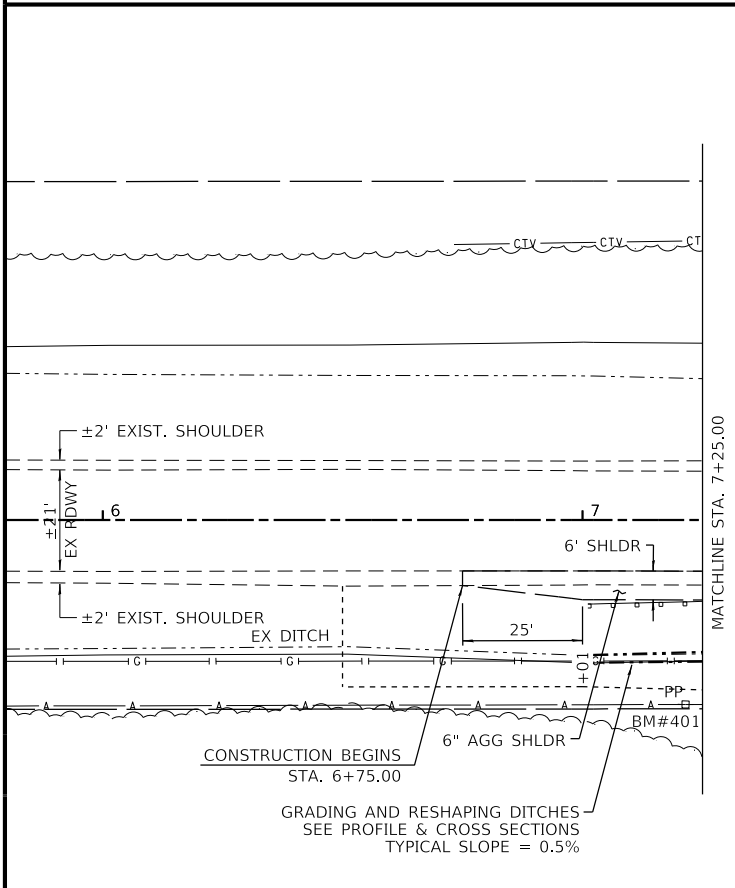
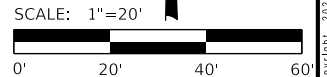


EXISTING STRUCTURE: S.N. 101-5016
THE ORIGINAL STRUCTURE IS A DOUBLE BARREL (7'-6"X5'-0") REINFORCED CONCRETE BOX CULVERT AT STA. 10+11, SKEWED 40° LEFT AHEAD. AN ADDITIONAL SINGLE BARREL (7'-0"X5'-0") REINFORCED CONCRETE BOX CULVERT, SKEWED 10° RT. AHEAD WAS ADDED AT STA. 9+91 AFTER THE ORIGINAL CONSTRUCTION.

PROPOSED STRUCTURE: S.N. 101-5168
A QUADRUPLE BARREL (10'-0" X 5'-0") PRECAST CONCRETE BOX CULVERT AT STA. 10+03, SKEWED 20° LEFT AHEAD.



Know what's below.
Call before you dig.



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



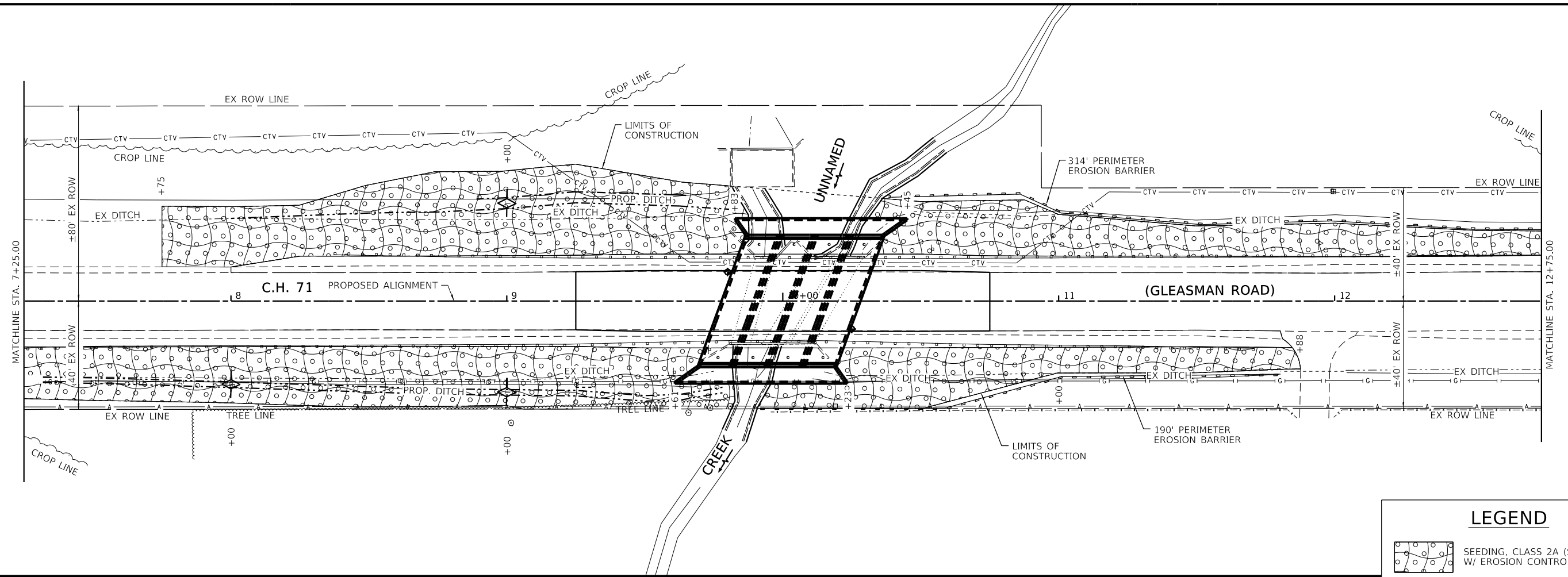
SN 101-5168 (WEST CULVERT)
PLAN AND PROFILE
SCALE: 1" = 20'-0"
SHEET NO. 1 OF 1 SHEETS
STA. 7+25.00 TO STA. 12+75.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	10
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

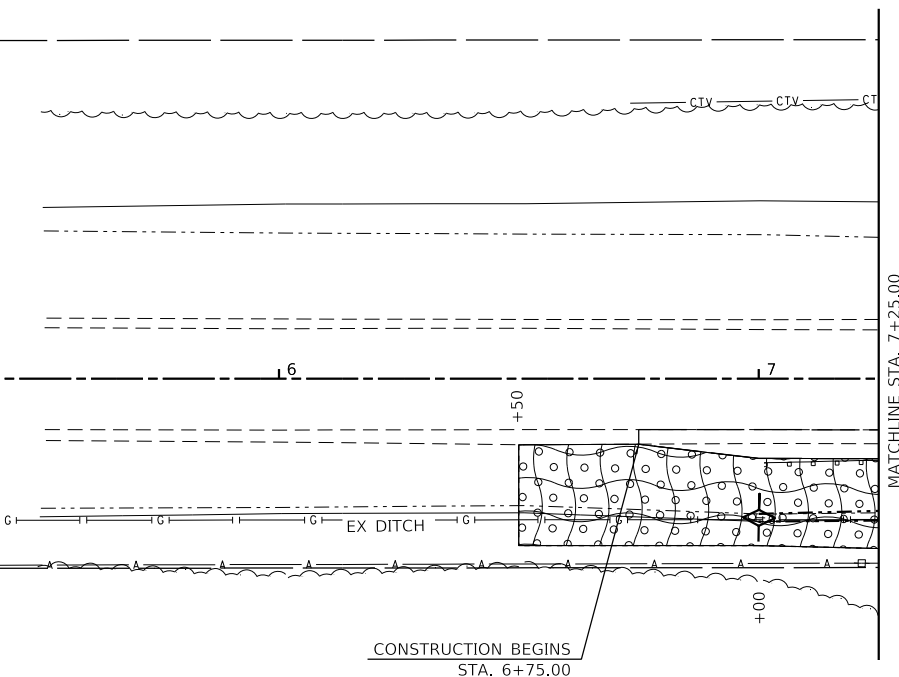
PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:51:14 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str. 101-5168 (West)\1519M18.Erosion Control Plan (West).dgn



LEGEND

- SEEDING, CLASS 2A (SPECIAL) W/ EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECKS



EROSION CONTROL NOTES:

TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS. /ACRES.

EROSION CONTROL BLANKET SHALL BE INSTALLED TO ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 1V:5H AND IN CRITICAL AREAS (I.E. DETENTION BASIN PERIMETERS, STREAMBANKS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING.

ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY AND CLEANED WHEN NECESSARY.

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL.

TEMPORARY DITCH CHECKS SHALL COMPLY WITH SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD 280001 LOCATED IN THE PROPOSAL.

EROSION CONTROL BLANKET SHALL BE PLACED IN DITCHES AS SHOWN ON THIS EROSION CONTROL PLAN SHEET AND IN ACCORDANCE WITH SECTION 251 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

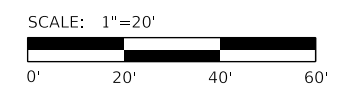
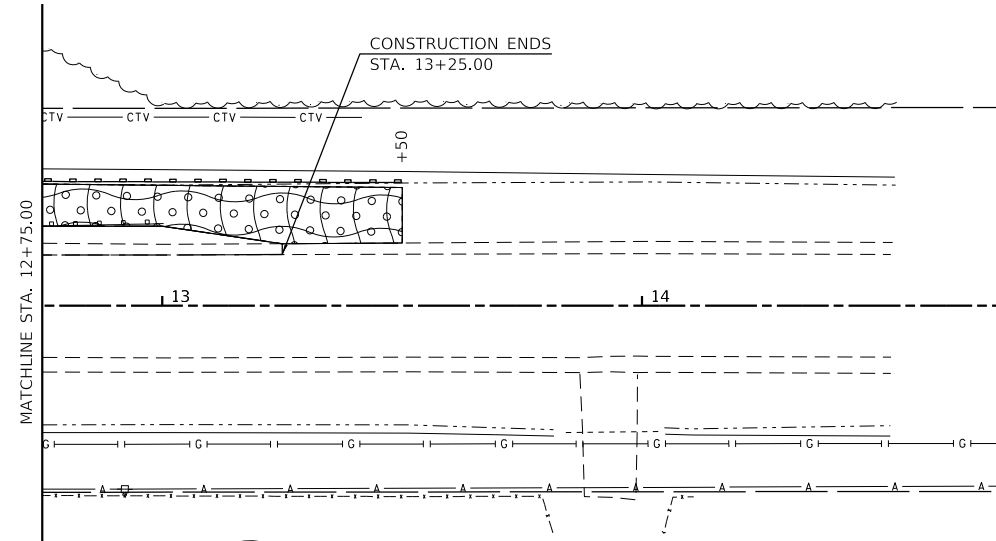
THE USE OF GREEN DYE IN THE EROSION CONTROL BLANKET IS NOT ACCEPTABLE.

THE USE OF ASPHALT AS A BINDER IS NOT ACCEPTABLE.

ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

PERIMETER EROSION BARRIER SHALL BE PLACED AROUND ANY TEMPORARY EARTH STOCKPILES.

AREA OF CONSTRUCTION SITE:
 THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 0.79 ACRES OF WHICH 0.69 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)

WILLET HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM: # 184-000918

SN 101-5168 (WEST CULVERT)
EROSION CONTROL PLAN
 SCALE: 1" = 20'-0" SHEET NO. 1 OF 1 SHEETS STA. 4+00.00 TO STA. 16+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	11
WHA# 1519M18			ILLINOIS	

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

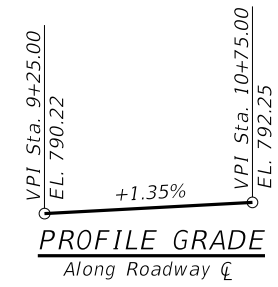
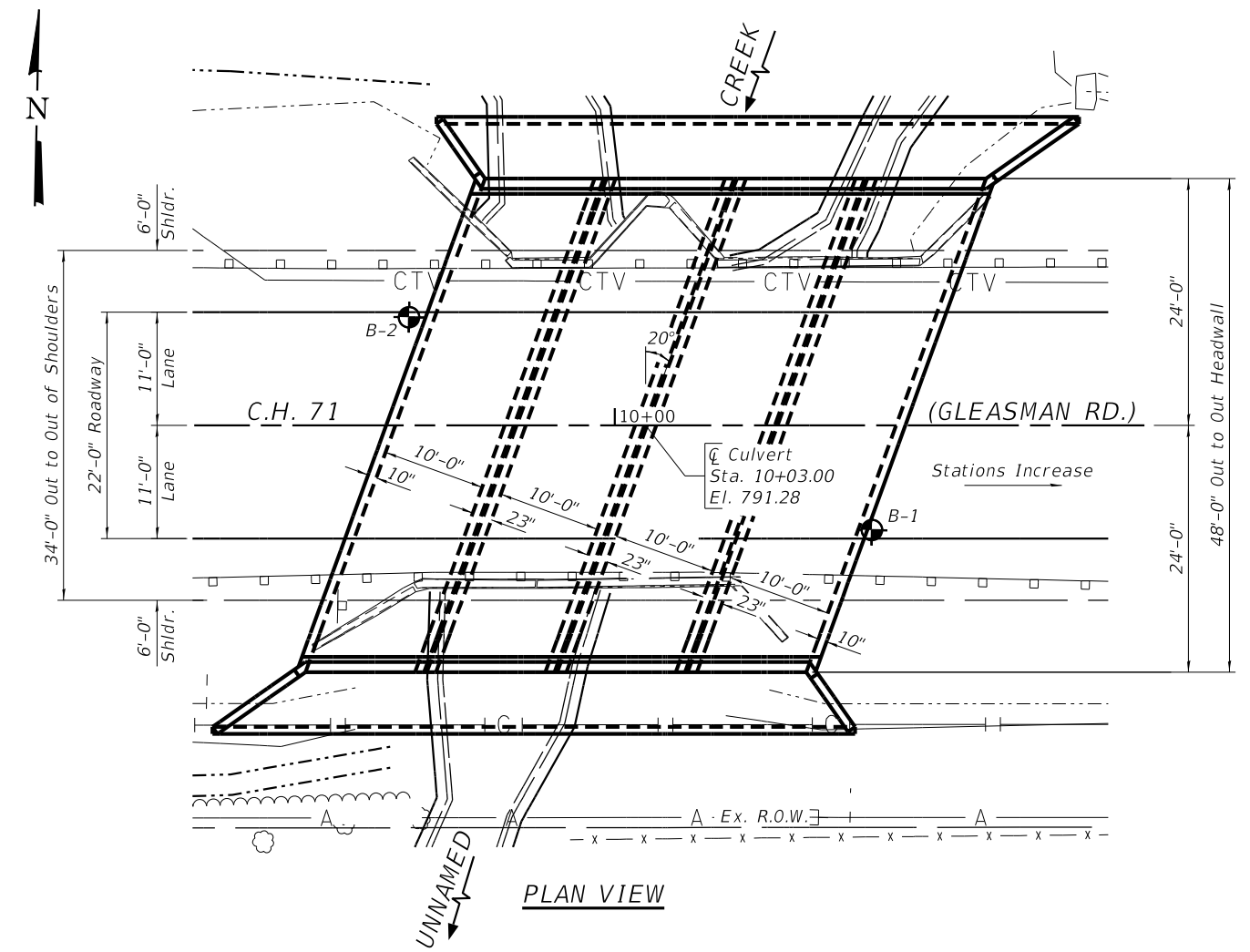
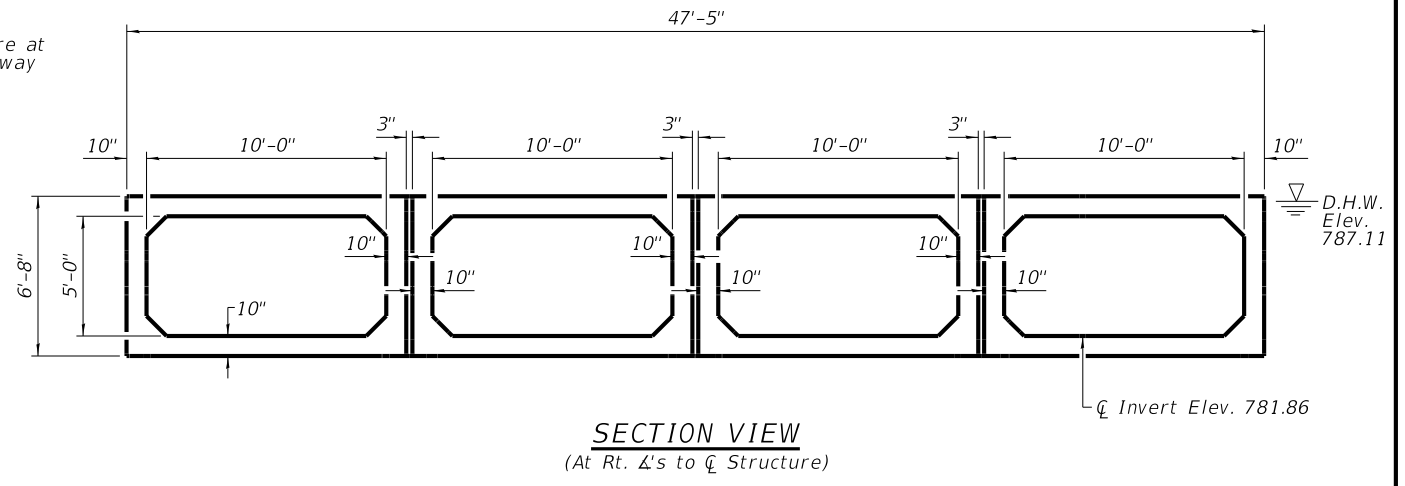
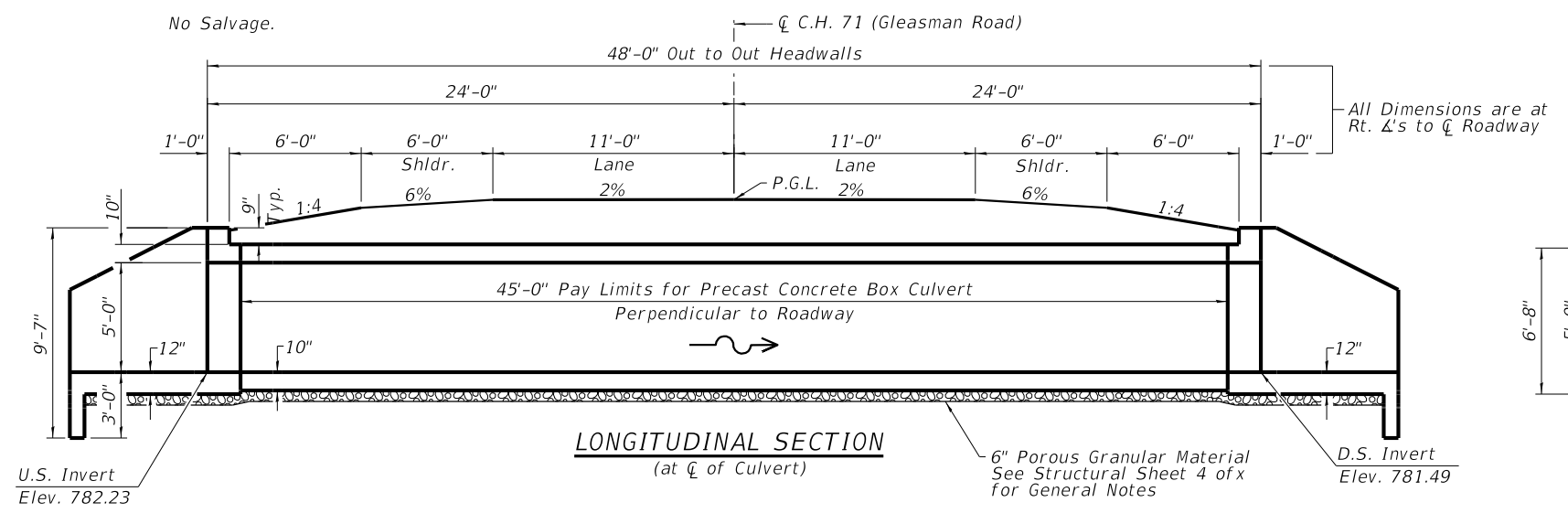
PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:51:15 AM - PLOTTED
 FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str. 101-5168 (West)\1519M18_Waterway_Sketch (West).dgn

Existing Structure: S.N. 101-5016 Built in 1935 as Route SA16, Section 63-B MFT. The existing structure is a double barrel (7'-6"x5'-0") reinforced concrete box culvert at Sta. 10+03. Skewed 30° Left Ahead. In 1943 an additional single barrel (7'-0"x5'-0") reinforced concrete box culvert was added to the West of the existing structure. Road will be closed to traffic during construction.

Bench Mark : #400 Railroad spike in first power pole East of the existing structure 38.0' Rt. of Sta. 10+18.99. Elev. 787.99

INDEX OF STRUCTURAL SHEETS (S.N. 101-5168)

- 1 General Plan & Elevation
- 2-4 Multi-Cell Precast Concrete Box Culvert Apron End Section Details
- 5 Soil Borings



UNNAMED CREEK
 BUILT 2022 BY
 WINNEBAGO CO.
 SECTION 17-00654-00-BR
 C.H. 71 STA. 10+03
 STR. NO. 101-5168 LOADING HL-93

NAME PLATE LETTERING
Refer To Std. 515001

HIGHWAY CLASSIFICATION

Gleasman Road
 Functional Class: Local Road
 ADT: 825 (2021) ; 958 (2042)
 ADTT: 53 (2021); 57 (2042)
 DHV: 96
 Design Speed: 50 m.p.h.
 Posted Speed: 55 m.p.h.
 2-Way Traffic
 Directional Distribution: 50:50

WATERWAY INFORMATION

Drainage Area = 0.99 Sq. Mi. Low Grade El. 790.22 @ Sta. 9+25

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	20	500	80	195	787.11	0.94	0.91	788.05	789.02
Base	100	752	85	200	787.37	1.53	1.21	788.90	788.58
Scour Check	200	875	88	200	787.48	1.55	1.36	789.03	788.84
Max. Calc	500	1050	91	200	787.63	1.72	1.14	789.35	788.77

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

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

DESIGN STRESSES

CAST IN PLACE UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

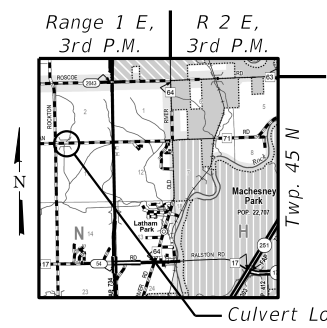
PRECAST UNITS

Per ASTM C1577 Specifications



DATE: 2/28/22
 EXPIRES 11/30/22

"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES'."



GENERAL PLAN AND ELEVATION

C.H. 71 (GLEASMAN ROAD) OVER UNNAMED CREEK
SEC. 17-00654-00-BR
WINNEBAGO COUNTY
STATION 10+03.00
STRUCTURE NO. 101-5168

REVISION	DATE	BY	REMARKS
DESIGNED		ESG	
DRAWN		DAN	
REVIEWED		ESG	
APPROVED		MRL	

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



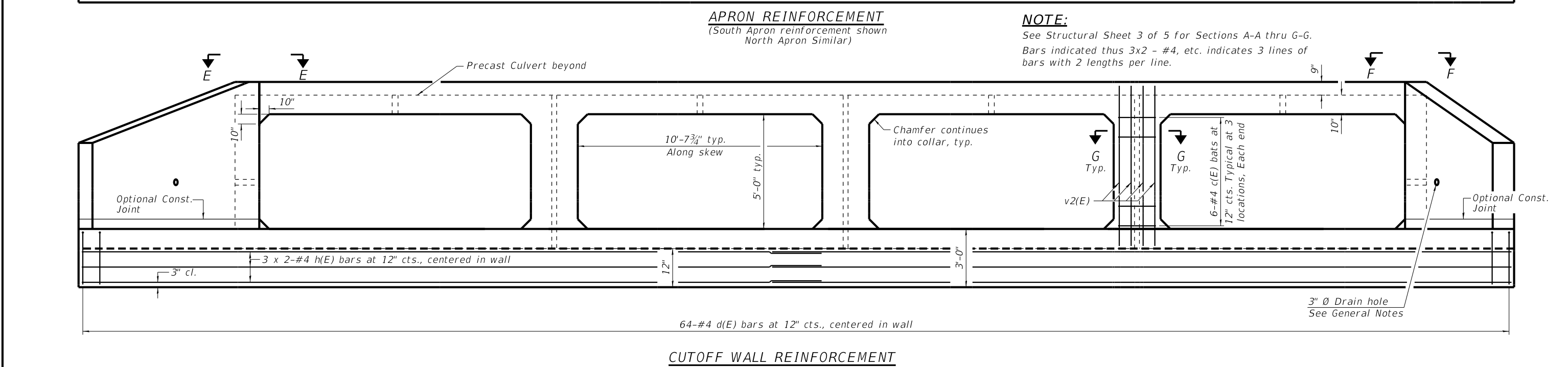
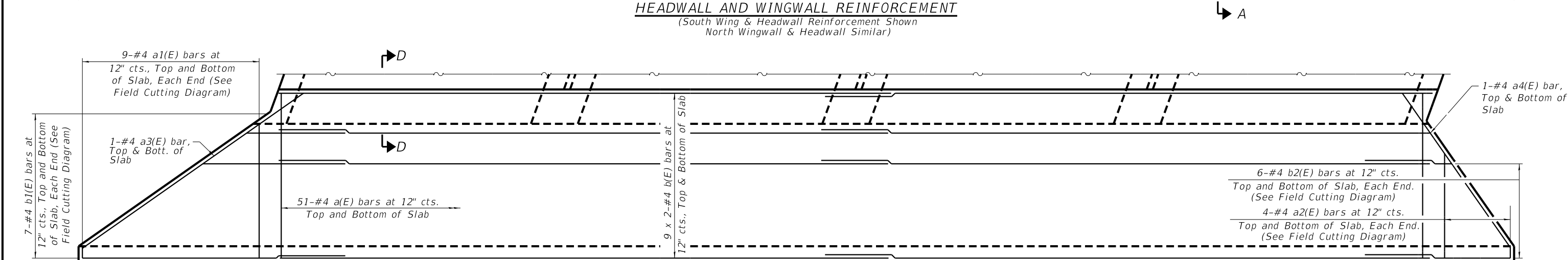
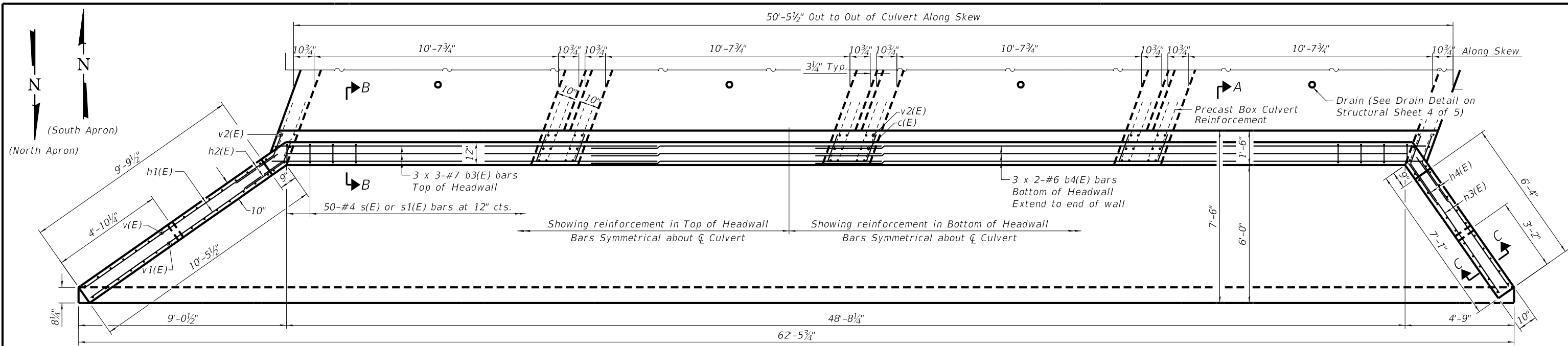
STRUCTURAL SHEET NO. 1 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	12
WHA* 1519M18				

ILLINOIS

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Str.-101-5168 (West)\1519M18-Culvert Details.dgn
 PRINT_ORGANIZER.BW.plt cfig 3/3/2022 4:43:57 PM - PLOTTED



NOTE:
See Structural Sheet 3 of 5 for Sections A-A thru G-G.
Bars indicated thus 3x2 - #4, etc. indicates 3 lines of bars with 2 lengths per line.

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

WINNEBAGO COUNTY
 F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA. 10+03)



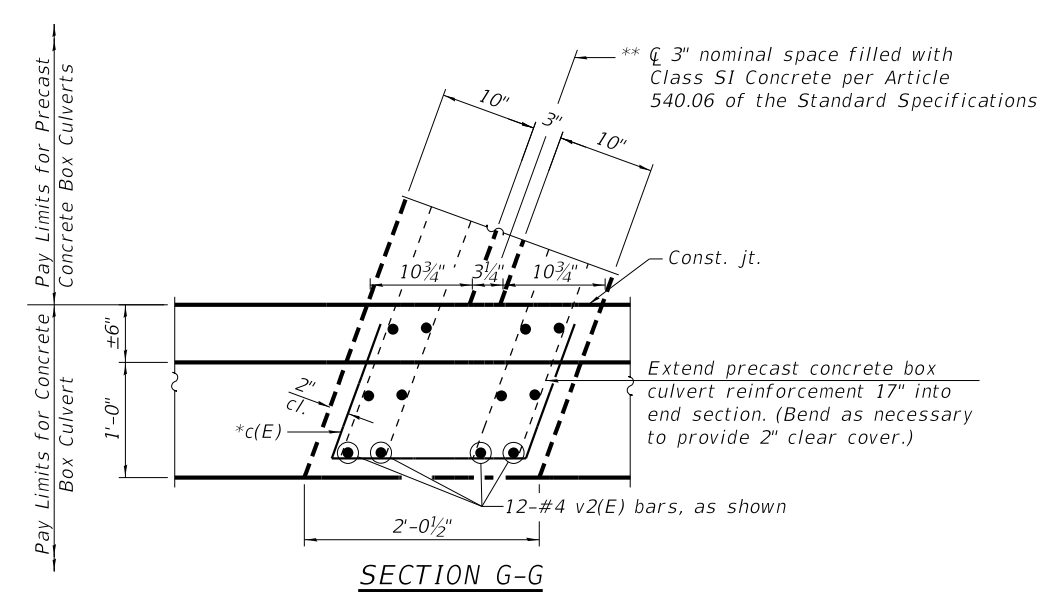
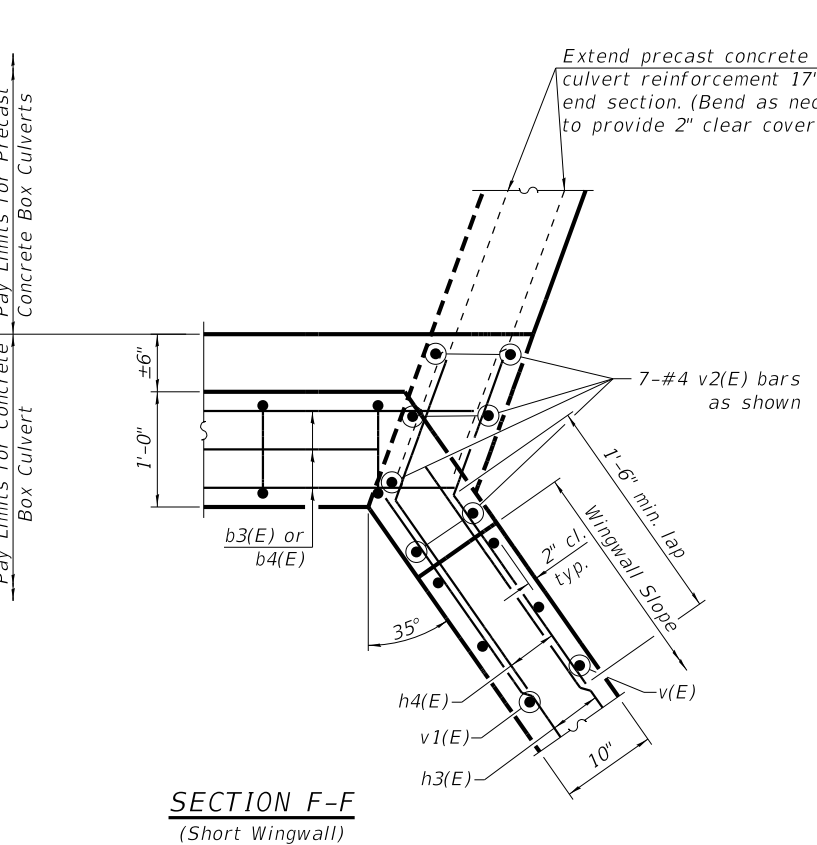
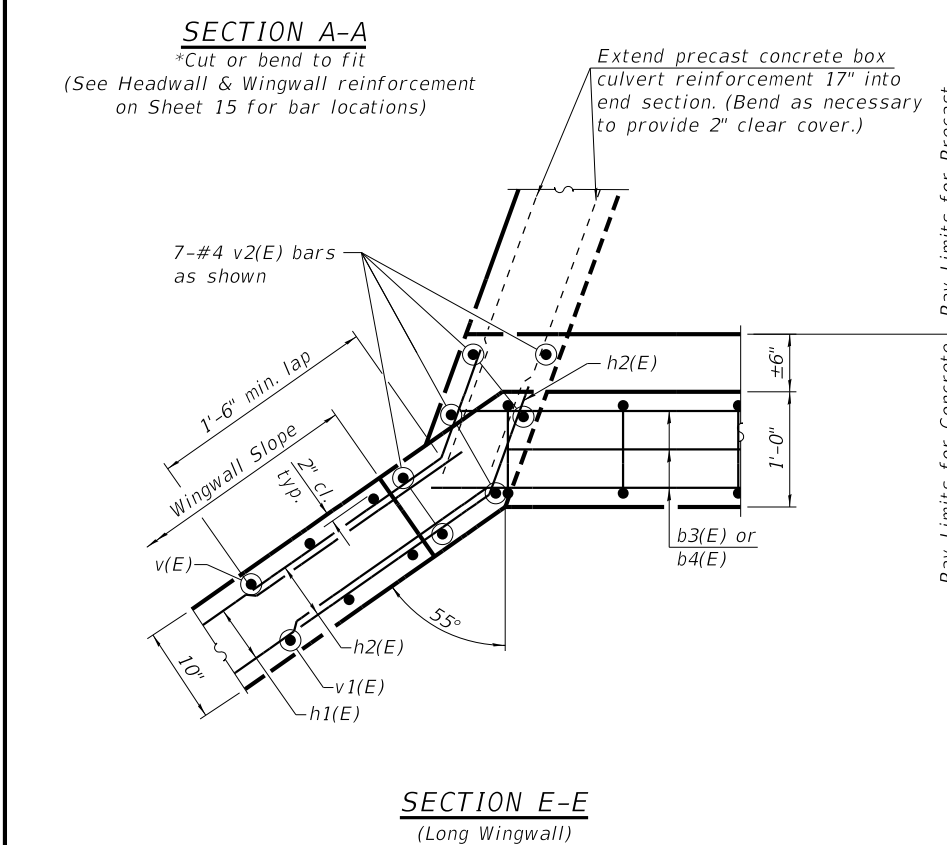
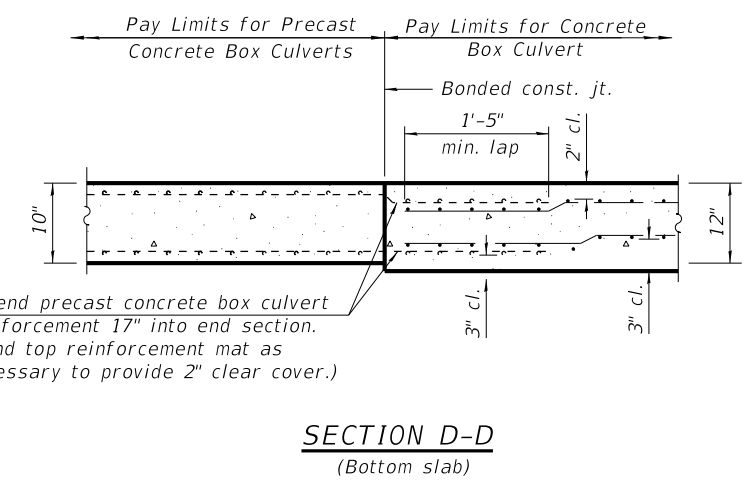
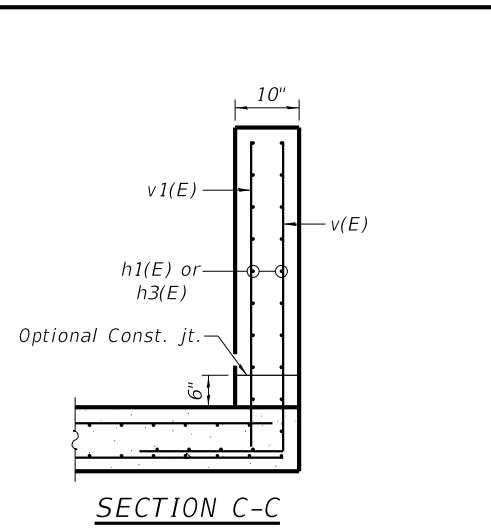
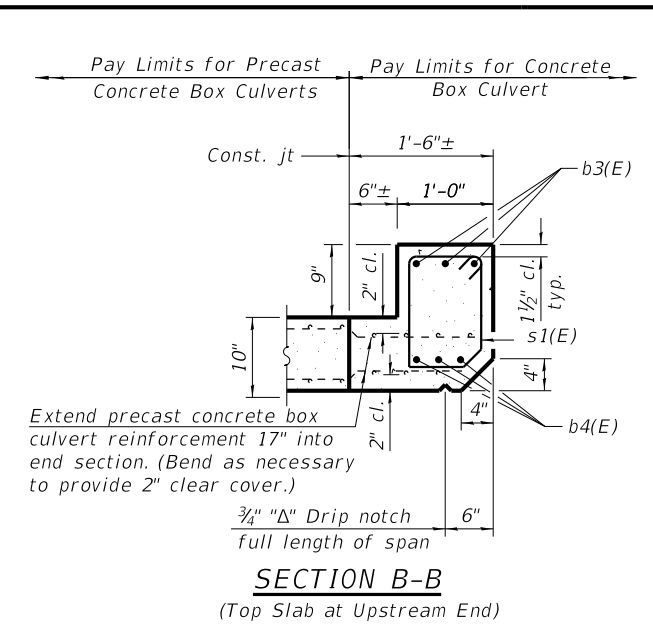
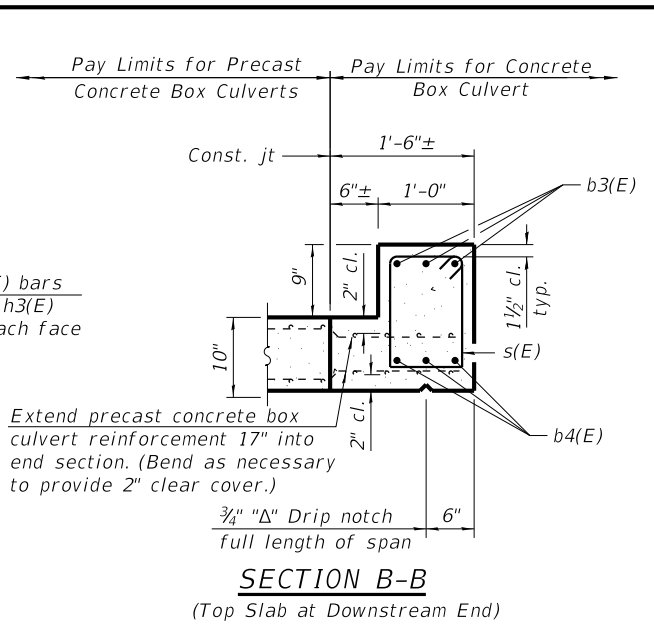
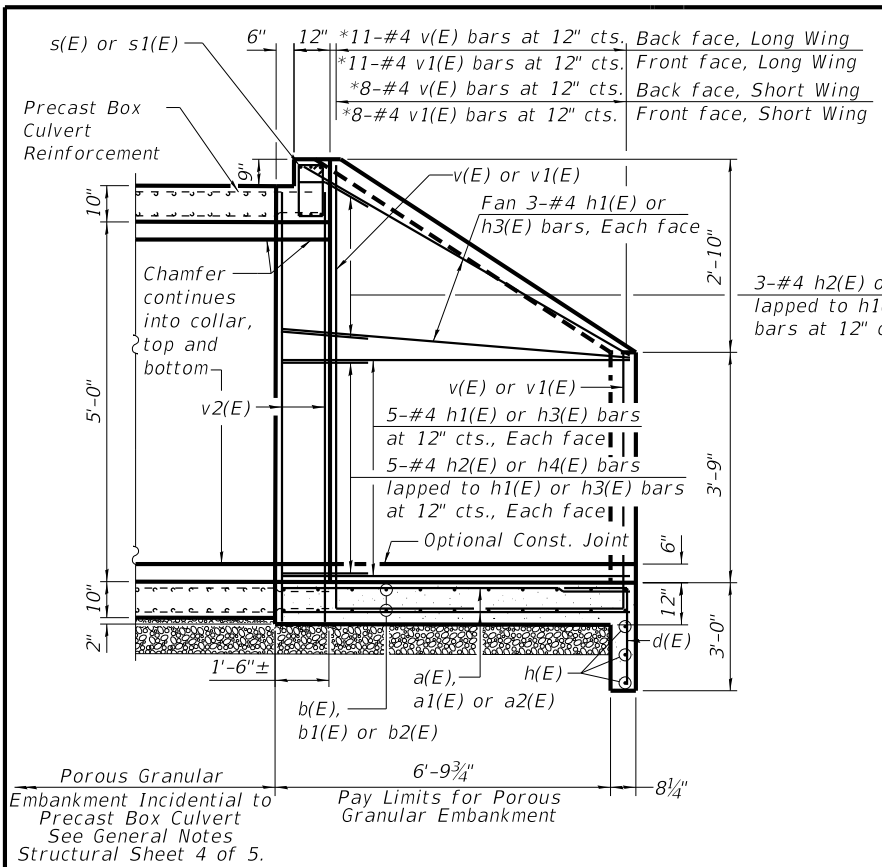
MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS - STRUCTURE NO. 101-5168
 STRUCTURAL SHEET NO. 2 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	13
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:32:24 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Str-101-5168 (West)\1519M18-Culvert Details.dgn



** Concrete used to fill 3" nominal space shall not be measured separately for payment, but shall be considered incidental to the Pay Item "Precast Concrete Box Culverts 10'x5"

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)

WILLET-HOFMANN & ASSOCIATES INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

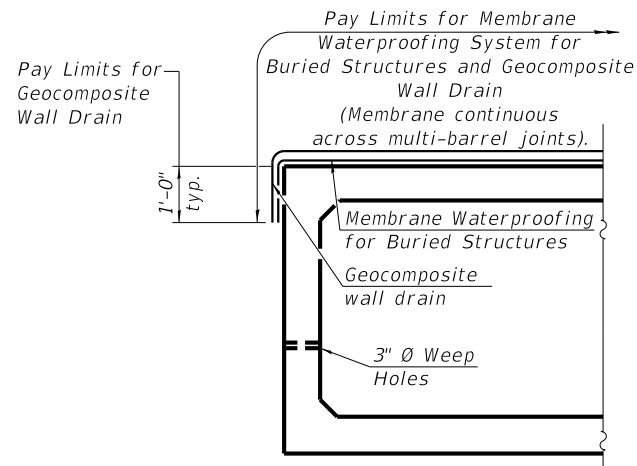
MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS - STRUCTURE NO. 101-5168
STRUCTURAL SHEET NO. 3 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	14
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

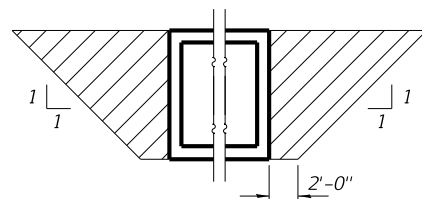
PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:13:25 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Str-101-5168 (West)\1519M18-Culvert Details.dgn

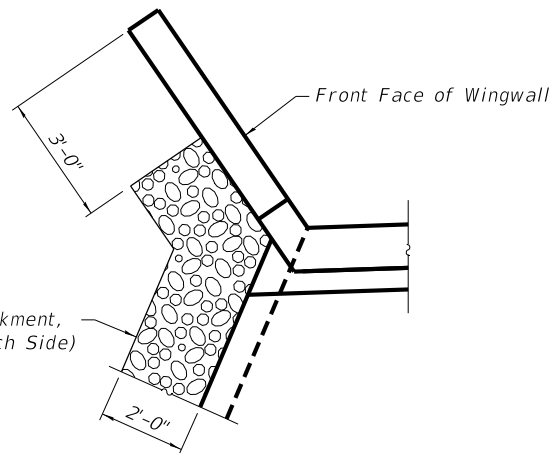


MEMBRANE WATERPROOFING FOR PRECAST CULVERTS

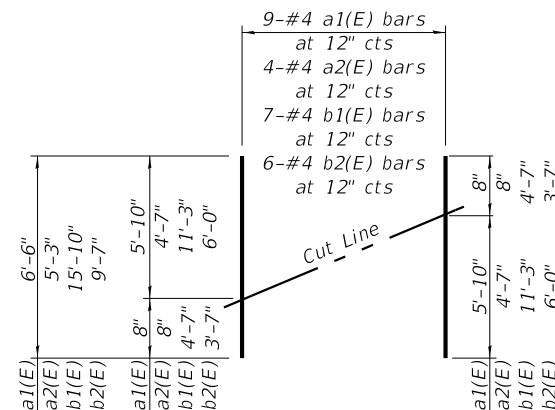
NOTE:
Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.



PAY LIMITS FOR POROUS GRANULAR EMBANKMENT
(Hatched area)



PAY LIMITS FOR POROUS GRANULAR EMBANKMENT AT WINGWALLS

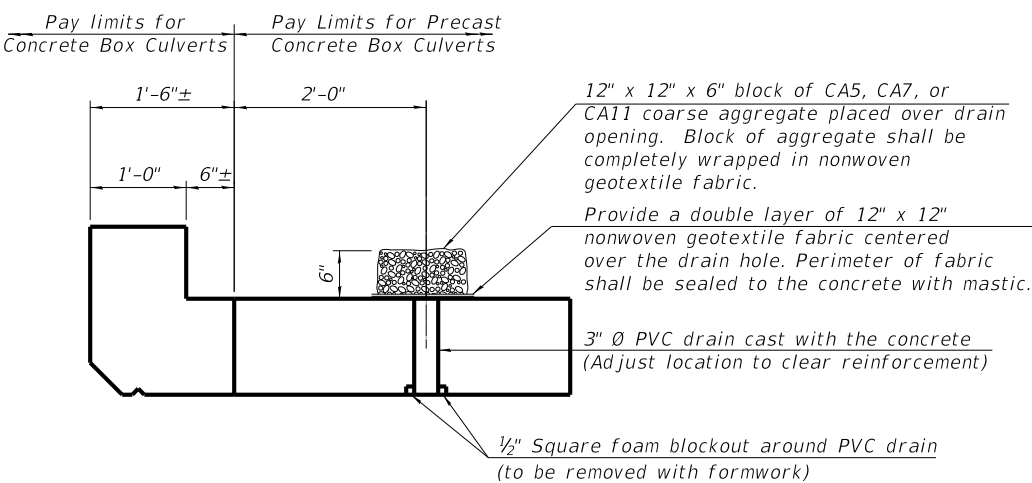


FIELD CUTTING DIAGRAM

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

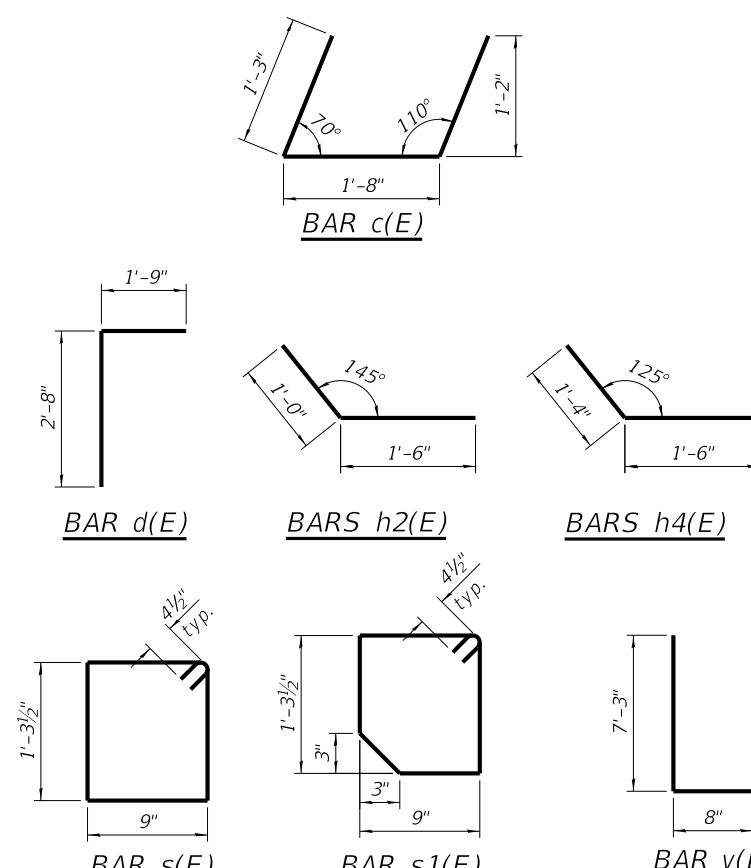
BILL OF MATERIAL - N. & S. APRONS

Bar	No.	Size	Length	Shape
a(e)	204	4	7'-2"	—
a1(e)	18	4	6'-6"	—
a2(e)	8	4	5'-3"	—
a3(e)	4	4	11'-9"	—
a4(e)	4	4	8'-2"	—
b(e)	72	4	26'-6"	—
b1(e)	14	4	15'-10"	—
b2(e)	12	4	9'-7"	—
b3(e)	12	7	27'-2"	—
b4(e)	12	6	27'-6"	—
c(e)	36	4	4'-2"	└┘
d(e)	128	4	4'-5"	└┘
h(e)	12	4	32'-7"	—
h1(e)	32	4	10'-4"	—
h2(e)	32	4	2'-6"	└┘
h3(e)	32	4	6'-11"	—
h4(e)	32	4	2'-10"	└┘
s(e)	50	4	4'-10"	□
s1(e)	50	4	4'-9"	□
v(e)	38	4	7'-11"	└┘
v1(e)	38	4	7'-3"	—
v2(e)	100	4	6'-6"	—
Removal of Existing Structures		Each	1	
Name Plates		Each	1	
Reinforcement Bars, Epoxy Coated		Pound	6,170	
Precast Concrete Box Culverts, 10' x 5'		Foot	192	
Concrete Box Culverts		Cu. Yd.	55.9	
Porous Granular Embankment		Tons	359	
Geocomposite Wall Drain		Sq. Yd.	268	
Membrane Waterproofing system for buried Structures		Sq. Yd.	268	



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.)



GENERAL NOTES

The design fill height for this box is 2.68 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
Reinforcement bars shall conform to the requirements of ASTM A706 or 60.

Size	Lap
#4	2'-7"
#5	3'-2"
#6	4'-9"
#7	5'-6"

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END SECTION DETAILS - STRUCTURE NO. 101-5168
STRUCTURAL SHEET NO. 4 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	15
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:13:26 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Sr. 101-5168 (West)\1519M18_Boring_Logs.dgn

PROJECT **Gleasant Road Culvert, S.N. 101-5168, Winnebago County, IL**

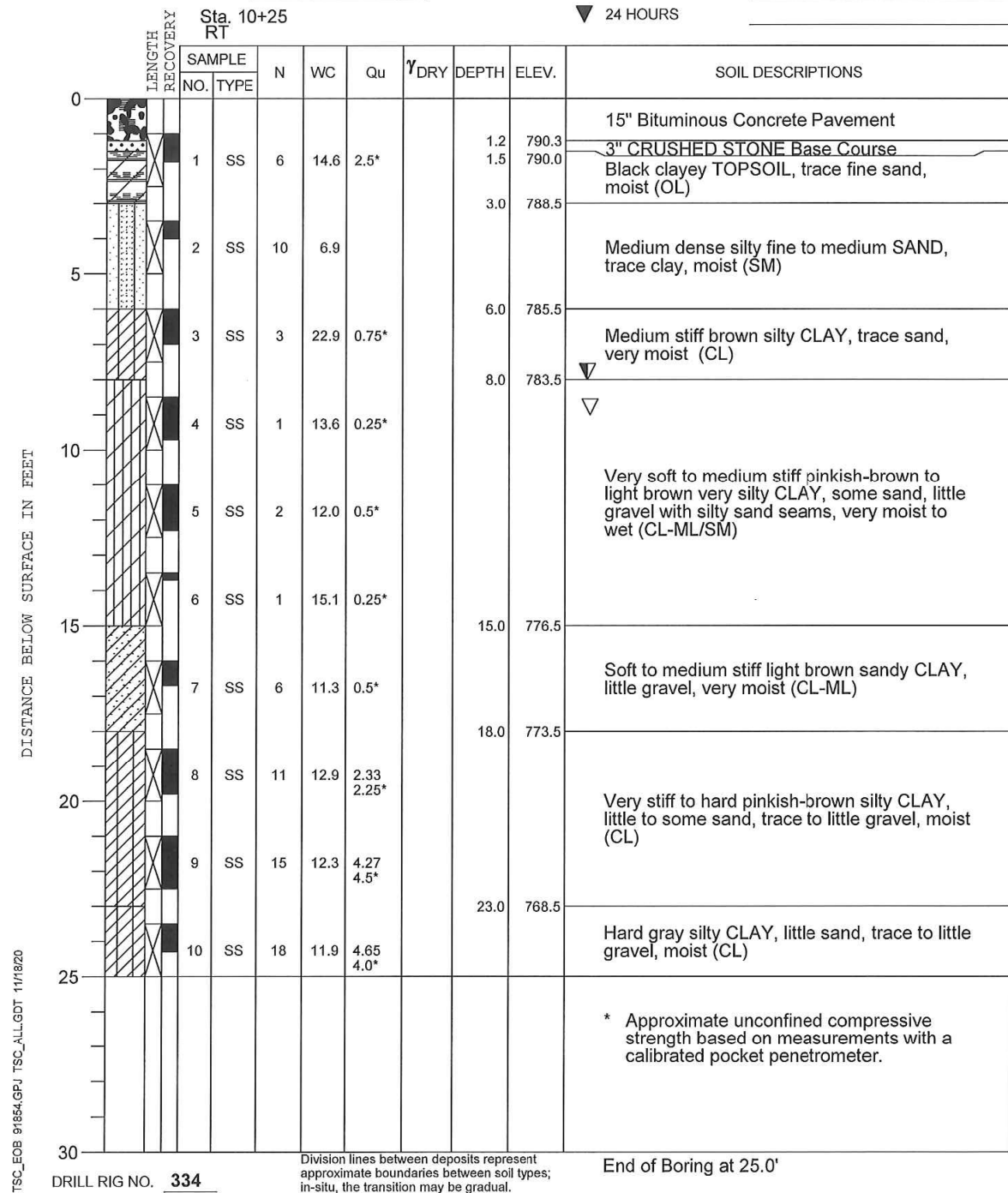
CLIENT **Winnebago County Highway Department, Rockford, Illinois**

BORING **1** DATE STARTED **11-5-20** DATE COMPLETED **11-5-20** JOB **L-91,854**

ELEVATIONS
GROUND SURFACE **791.5**

END OF BORING **766.5**

WATER LEVEL OBSERVATIONS
▽ WHILE DRILLING **8.0'**
▽ AT END OF BORING **9.0'**
▽ 24 HOURS



PROJECT **Gleasant Road Culvert, S.N. 101-5168, Winnebago County, IL**

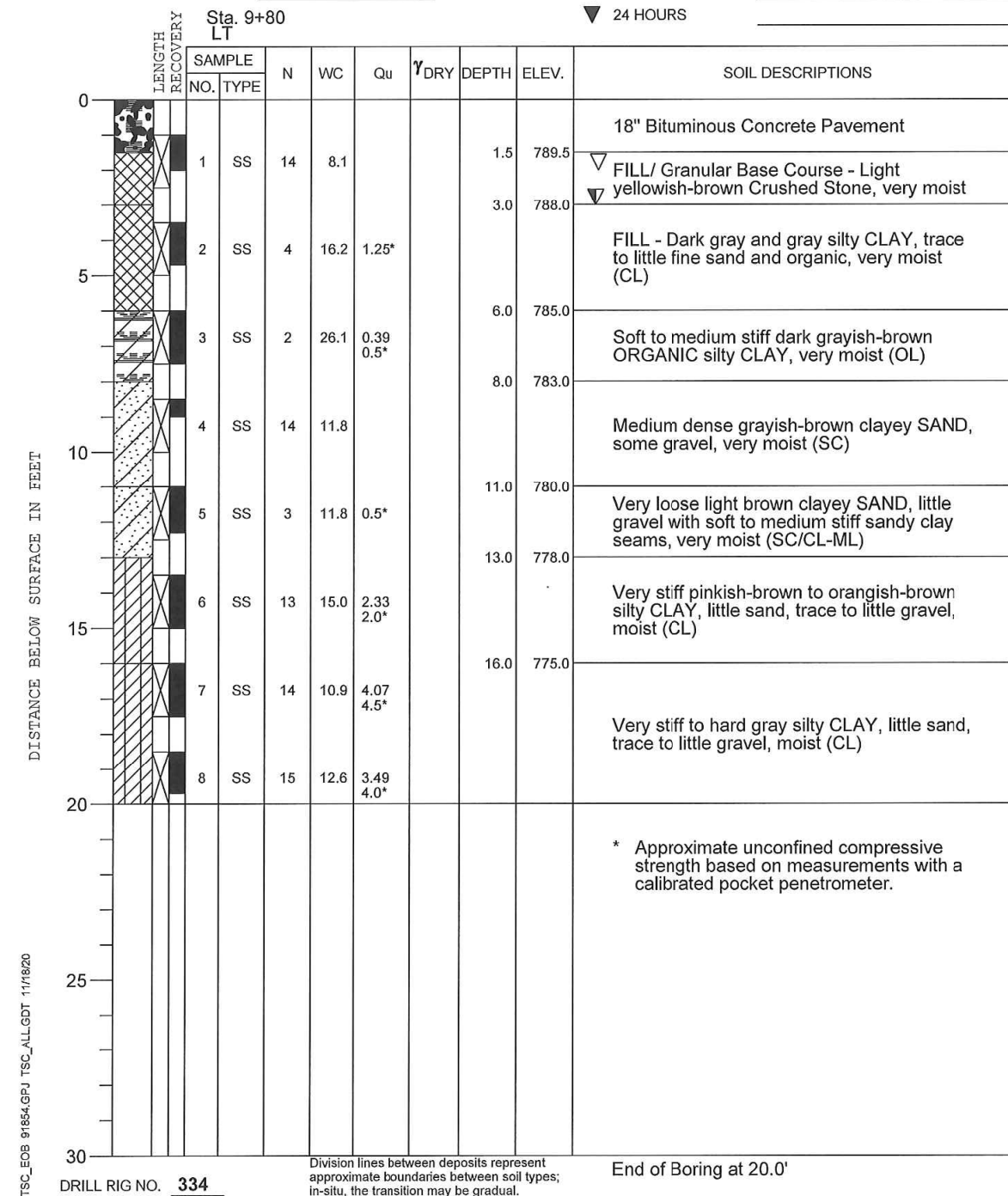
CLIENT **Winnebago County Highway Department, Rockford, Illinois**

BORING **2** DATE STARTED **11-5-20** DATE COMPLETED **11-5-20** JOB **L-91,854**

ELEVATIONS
GROUND SURFACE **791.0**

END OF BORING **771.0**

WATER LEVEL OBSERVATIONS
▽ WHILE DRILLING **3.0'**
▽ AT END OF BORING **2.0'**
▽ 24 HOURS



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



BORING LOGS

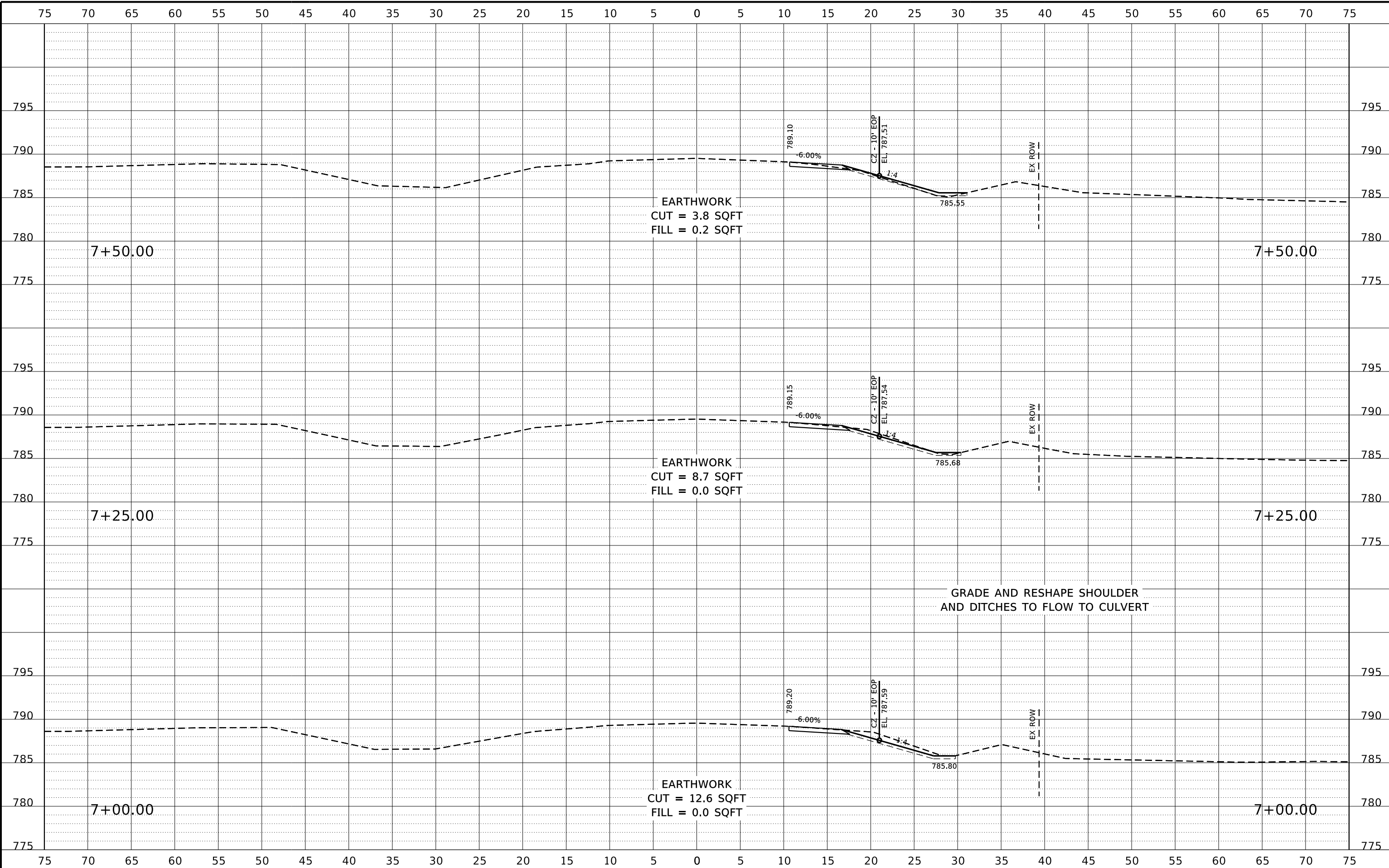
STRUCTURAL SHEET NO. 5 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	16
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

PRINT_ORGANIZER_BV.plt.ctb 3/3/2022 11:13:49 AM - PLOTTED

S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str-101-5168 (West)\1519M18.XS Sheets (West).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



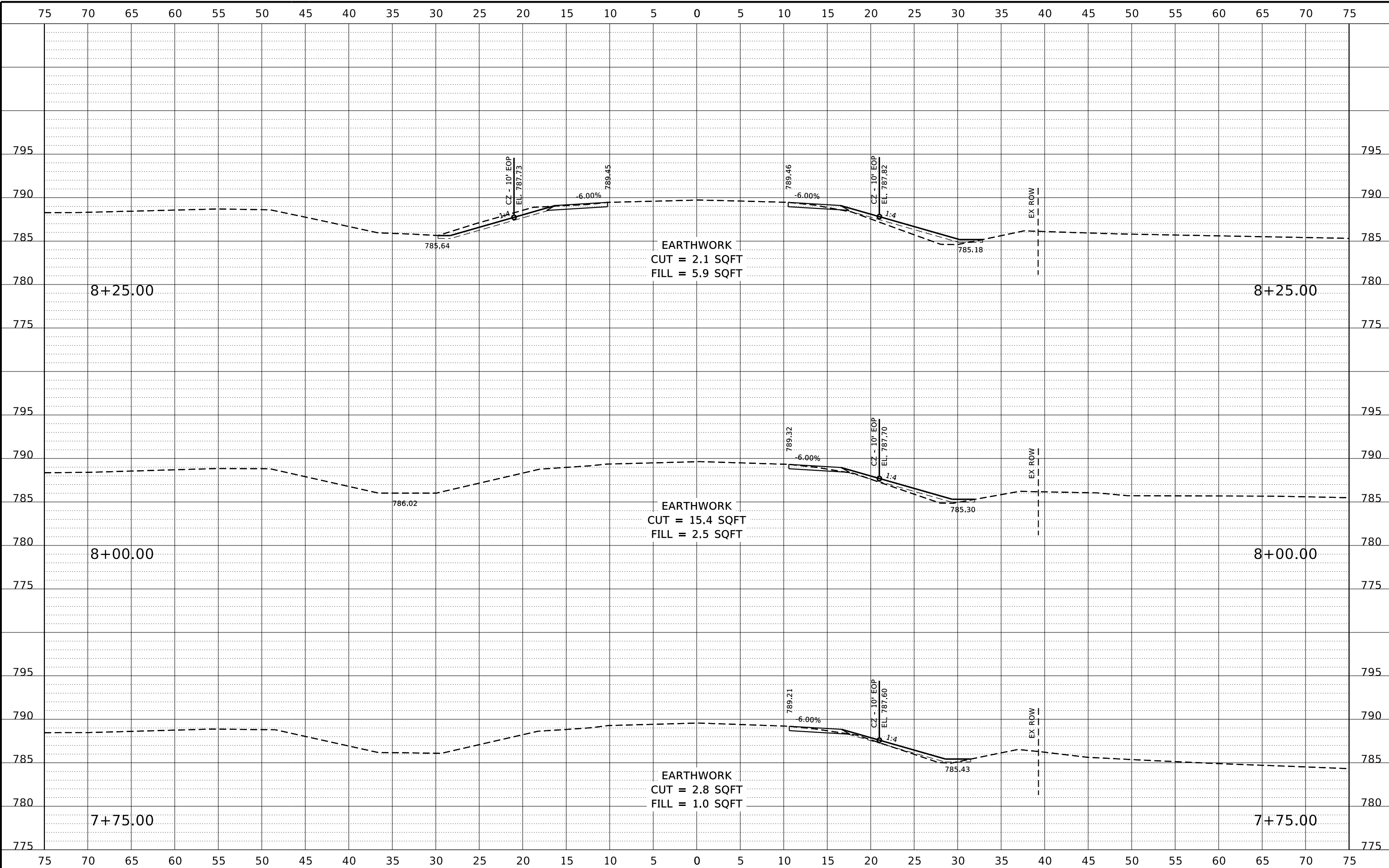
SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 1 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	17
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:13:50 AM - PLOTTED

S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str_101-5168 (West)\1519M18_XS Sheets (West).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)

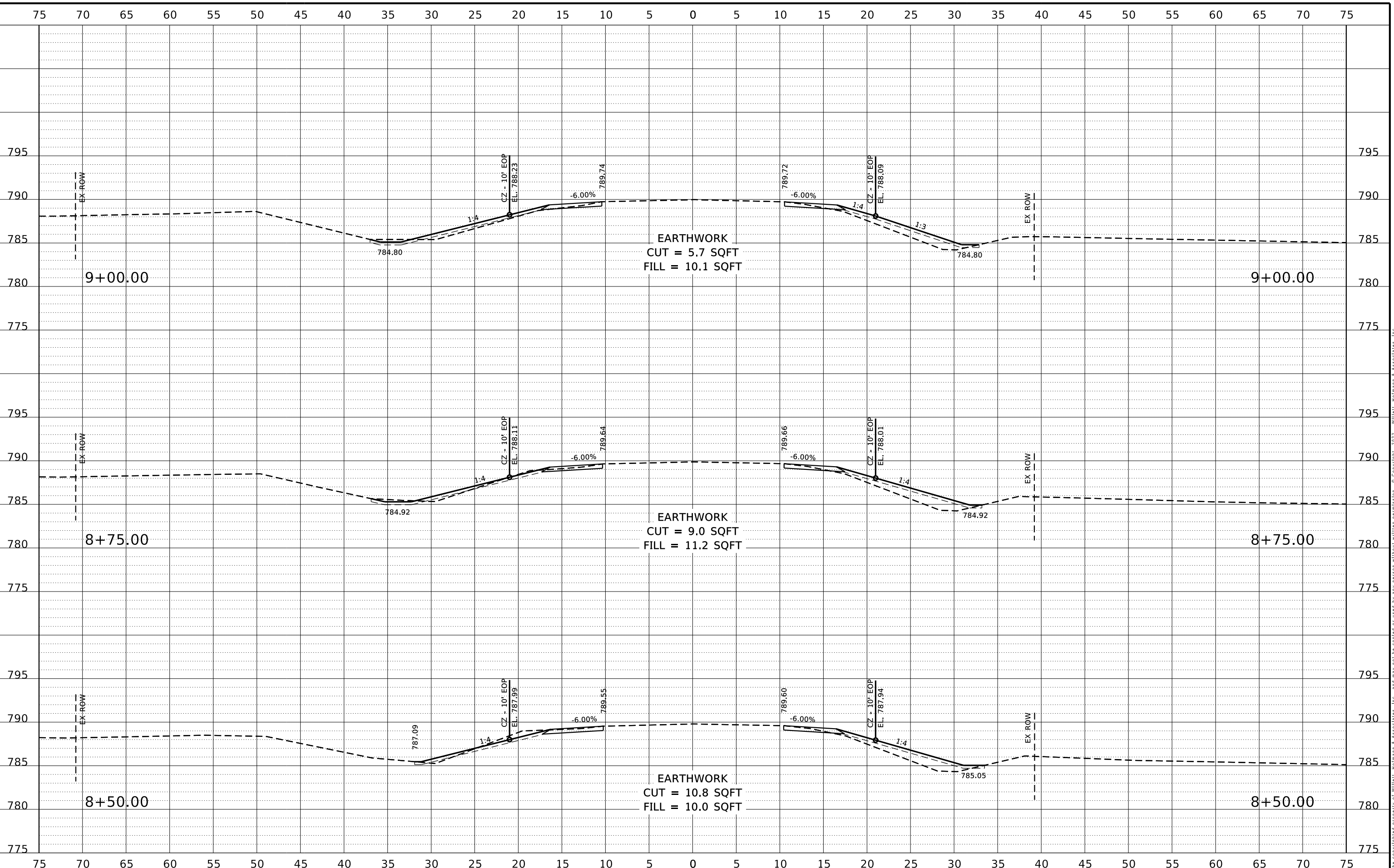


SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 2 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	18
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str_101-5168 (West)\1519M18_XS Sheets (West).dgn
 PRINT_ORGANIZER_BV.plt cefg 3/3/2022 11:13:50 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)

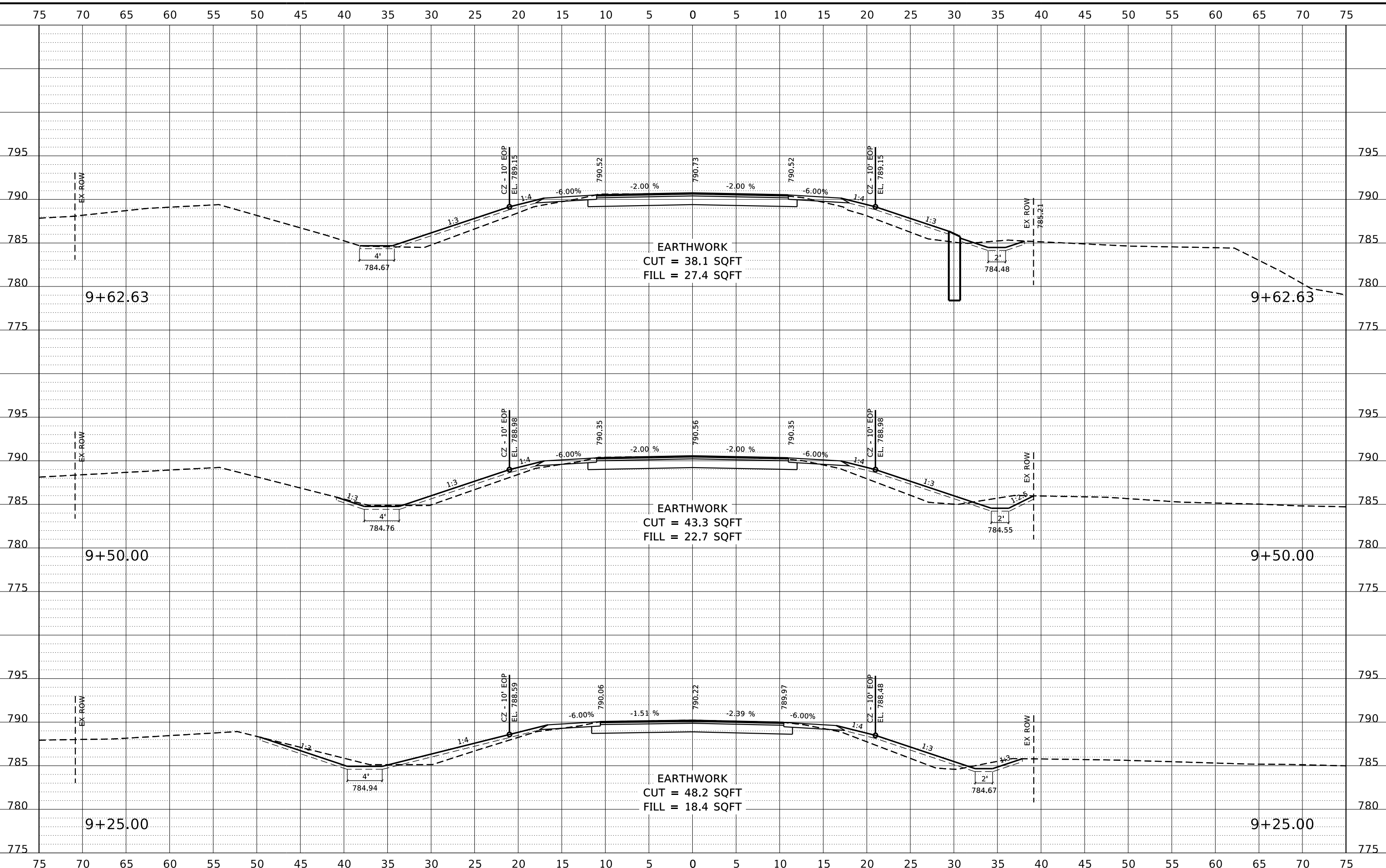


SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 3 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	19
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str_101-5168 (West)\1519M18.XS Sheets (West).dgn
 PRINT_ORGANIZER_BW.plt cefg 3/3/2022 11:13:51 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



SN 101-5168 (WEST CULVERT)
CROSS SECTIONS

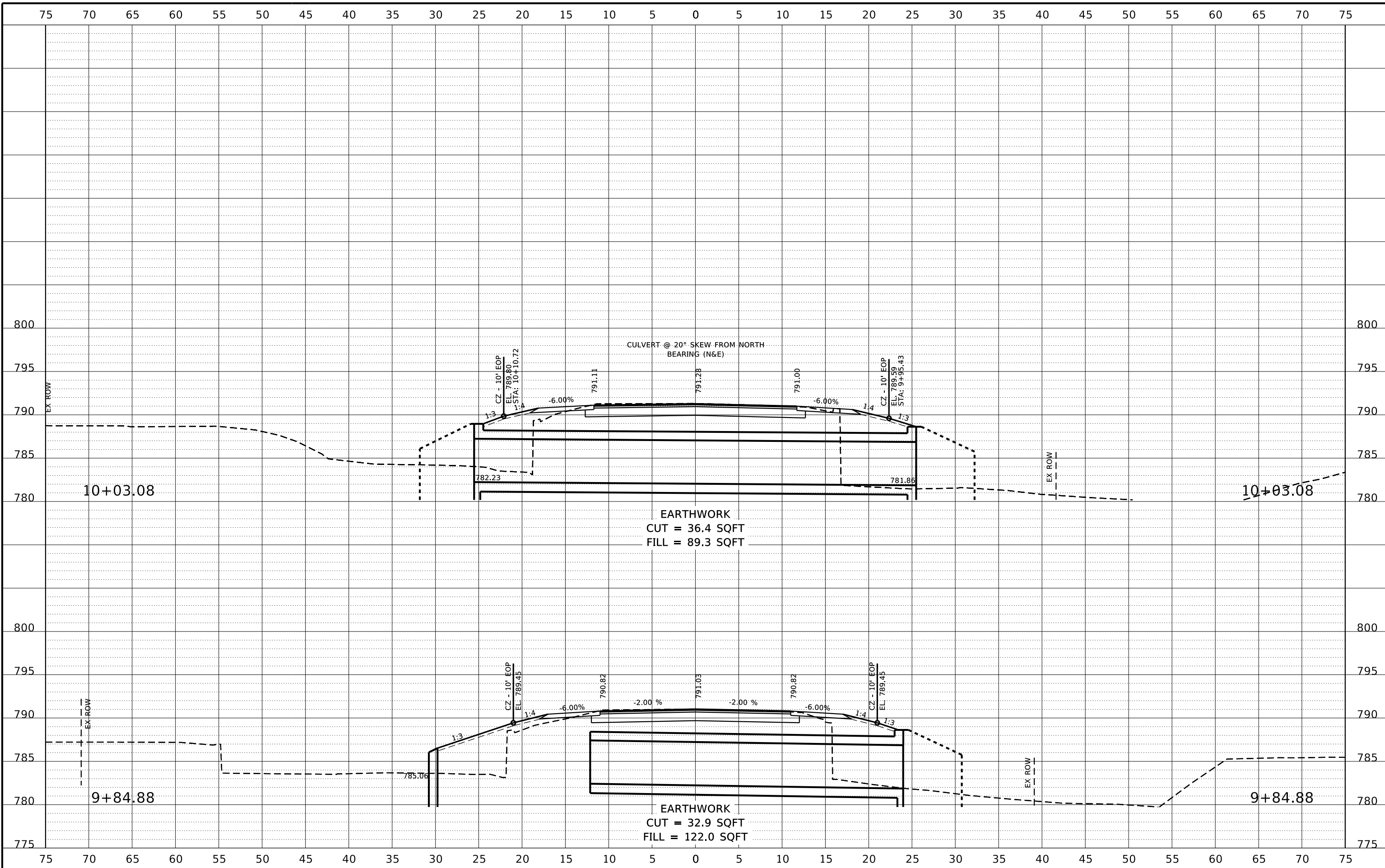
SHEET 4 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	20
WHA* 1519M18				
ILLINOIS				

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:13:52 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WCH\DESIGN\CAD_SHEETS\Str_101-5168 (West)\1519M18.XS Sheets (West).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



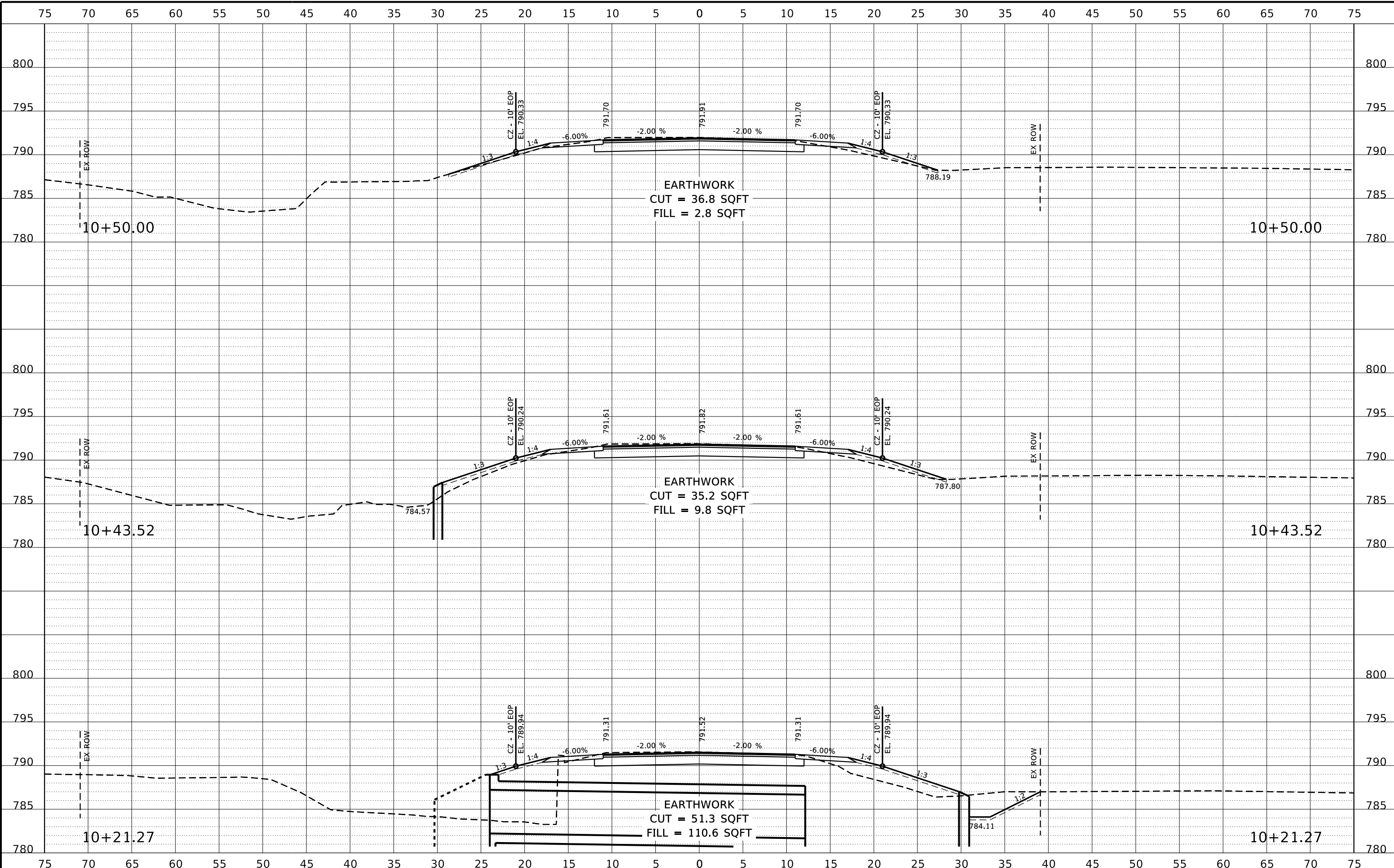
SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 5 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	21
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER.BV.plt.ctb 3/3/2022 11:13:52 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WCH\DESIGN\CAD_SHEETS\Sr_101-5168 (West)\1519M18.XS Sheets (West).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)

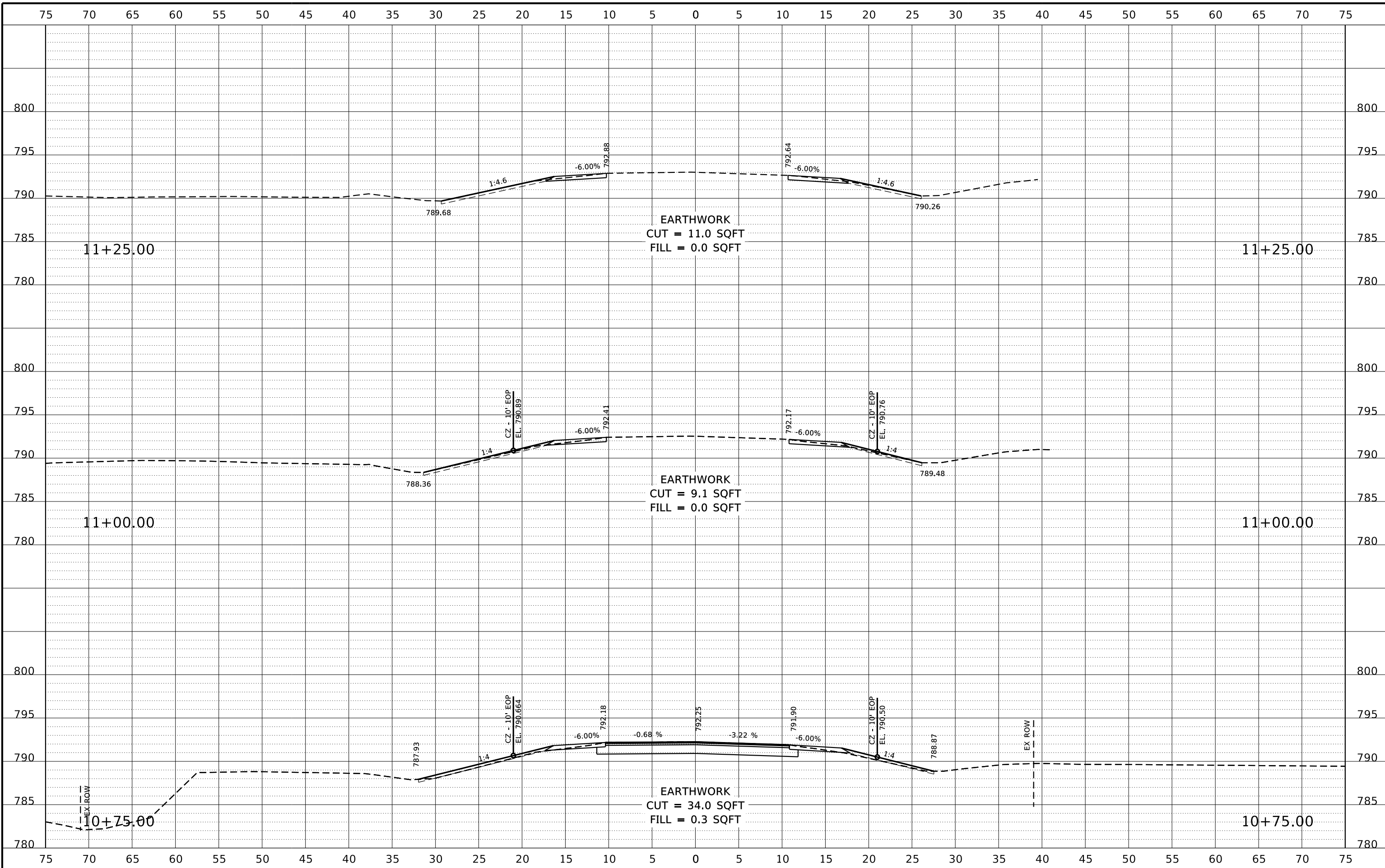


SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 6 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	22
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BV.plt.ctb 3/3/2022 11:13:53 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)

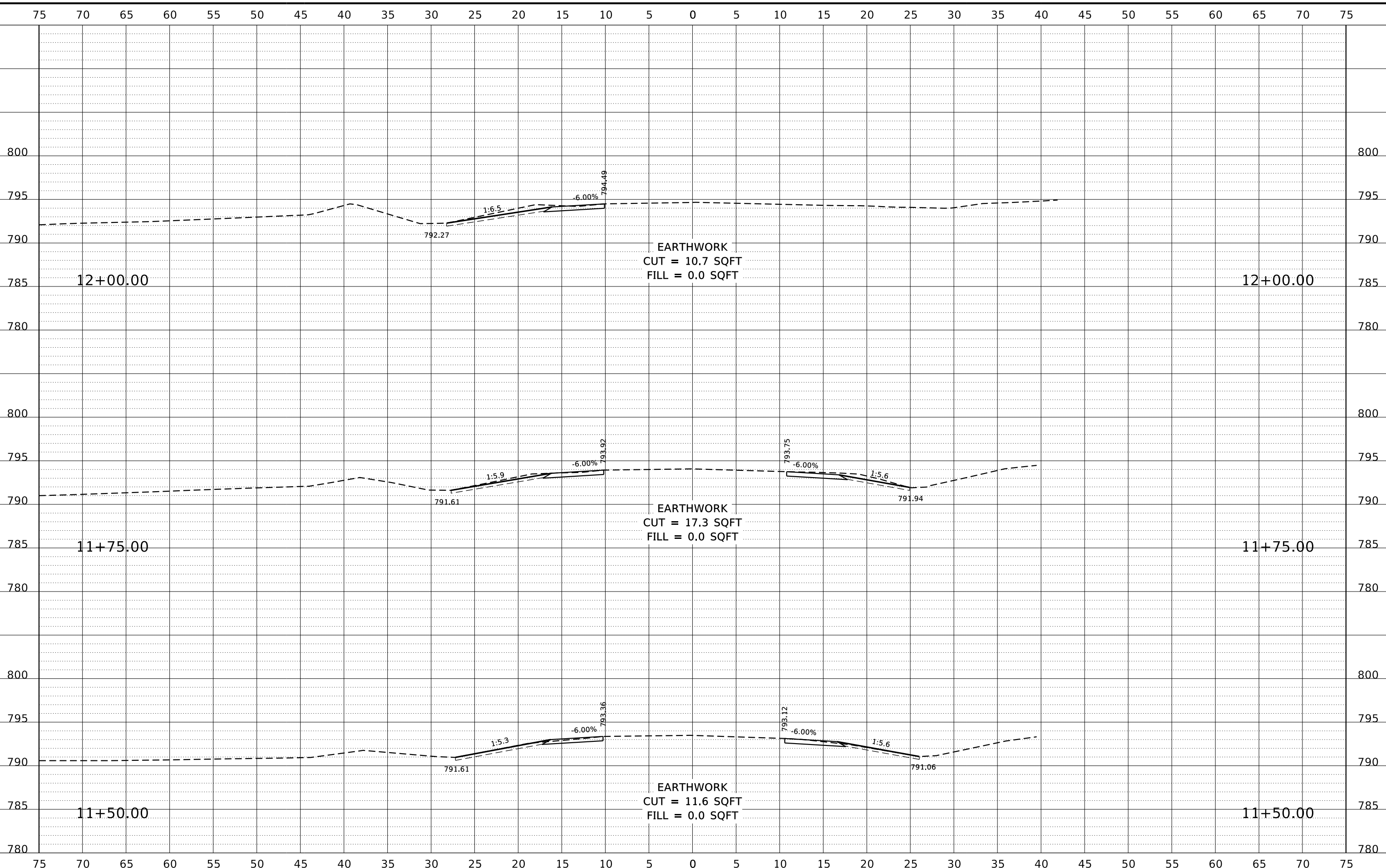


SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 7 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	23
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:13:53 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



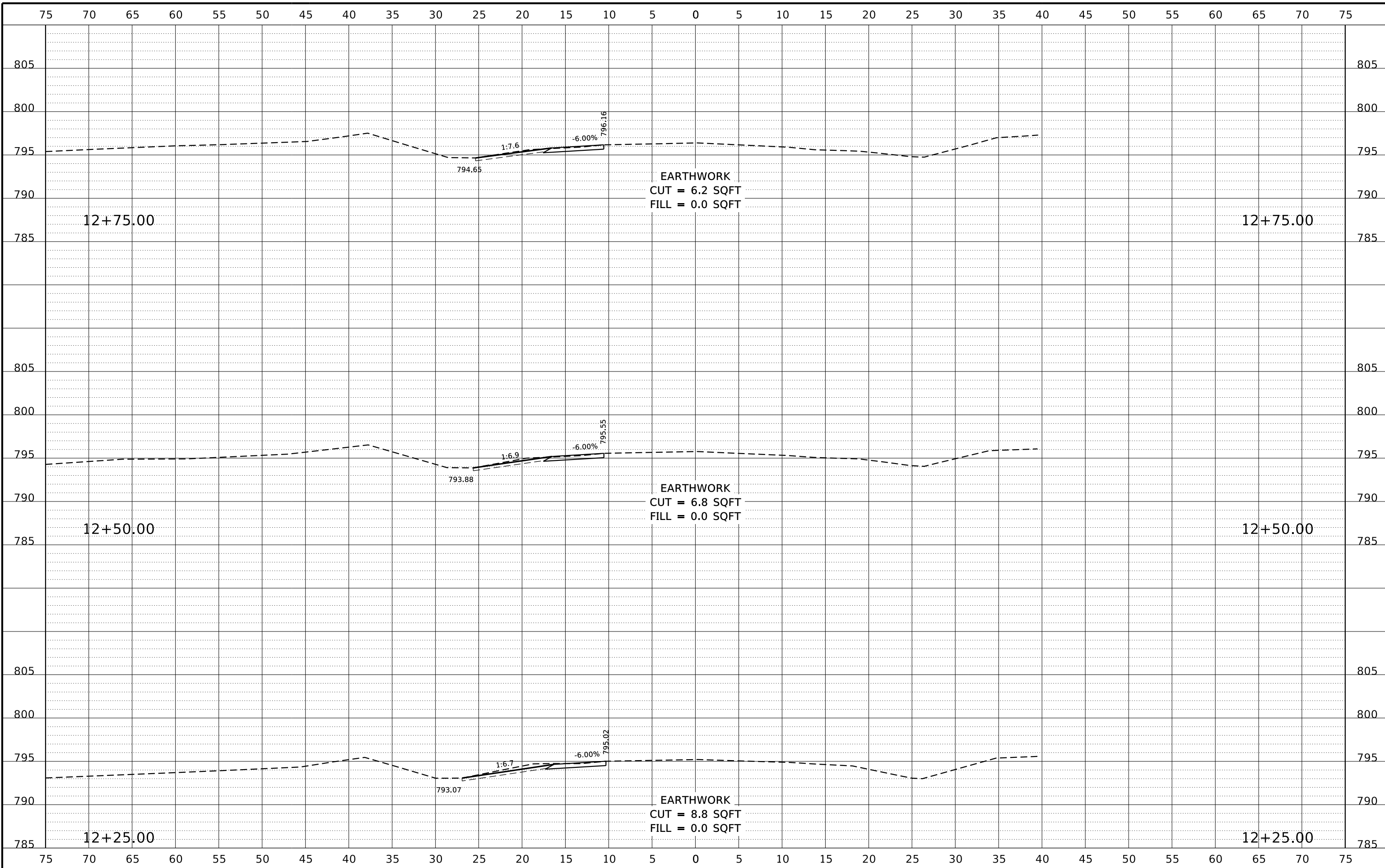
SN 101-5168 (WEST CULVERT)
CROSS SECTIONS

SHEET 8 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	24
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt cefg 3/3/2022 11:13:54 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



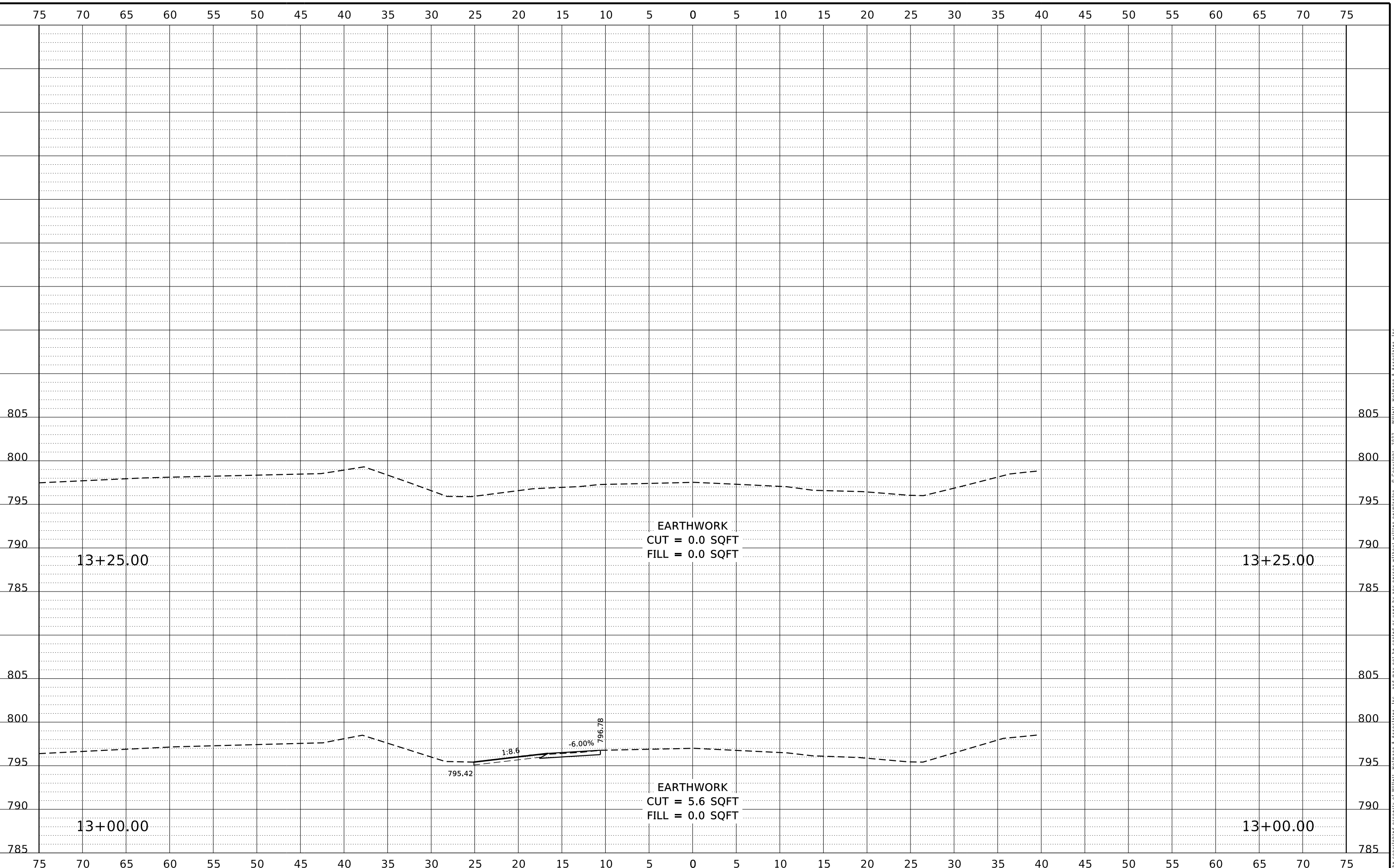
SN 101-5168 (WEST CULVERT)
CROSS SECTIONS
SHEET 9 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	25
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:13:54 AM - PLOTTED

S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str-101-5168 (West)\1519M18.XS Sheets (West).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA. 10+03)



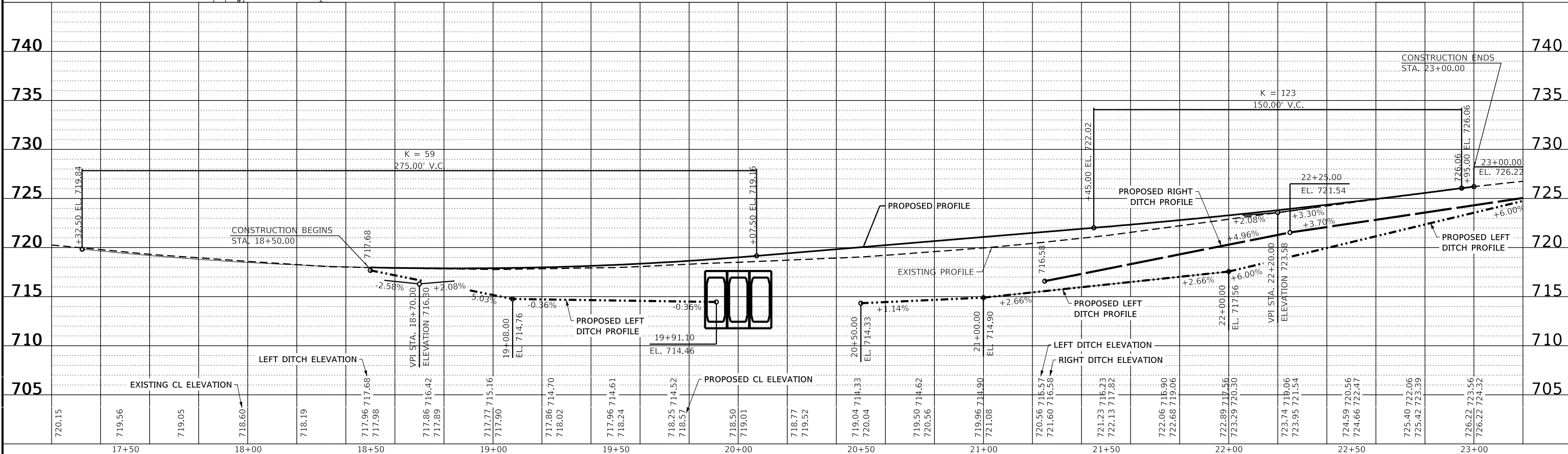
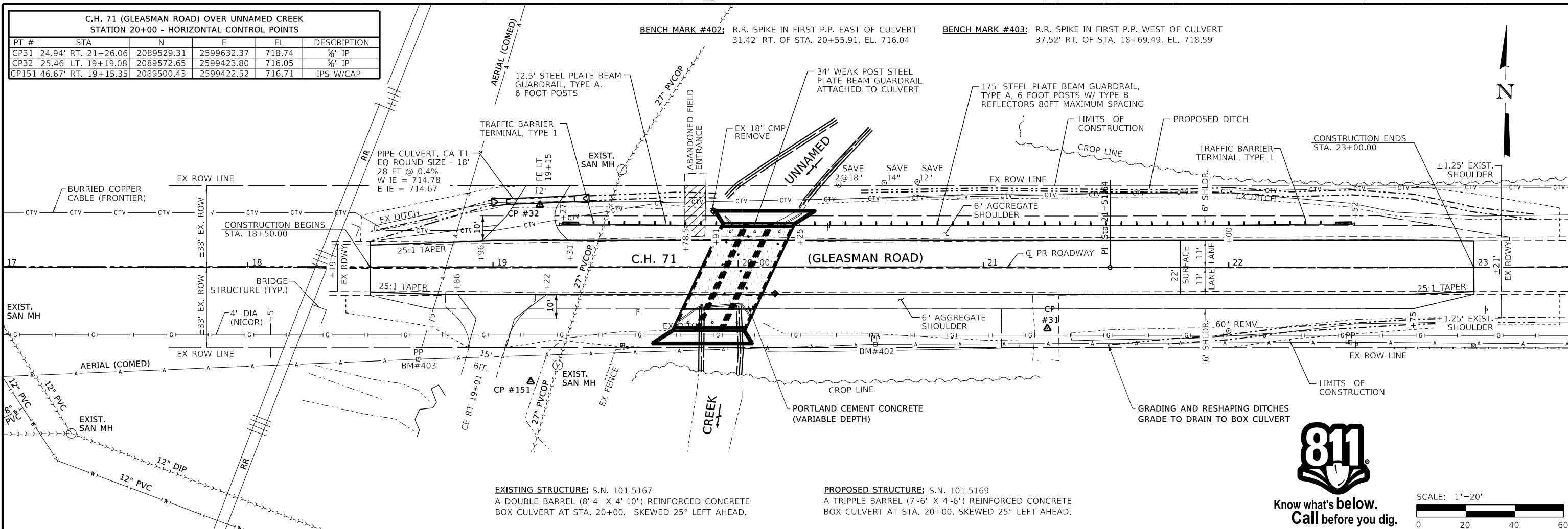
SN 101-5168 (WEST CULVERT)
CROSS SECTIONS

SHEET 10 OF 10

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	26
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/4/2022 3:39:39 PM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

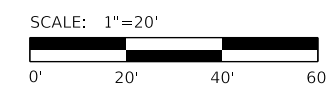
WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



SN 101-5169 (EAST CULVERT)
PLAN AND PROFILE

SCALE: 1" = 20'-0" SHEET NO. 1 OF 1 SHEETS STA. 18+50.00 TO STA. 23+00.00

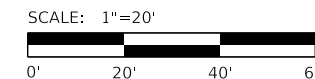
C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	27
WHA* 1519M18				



This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

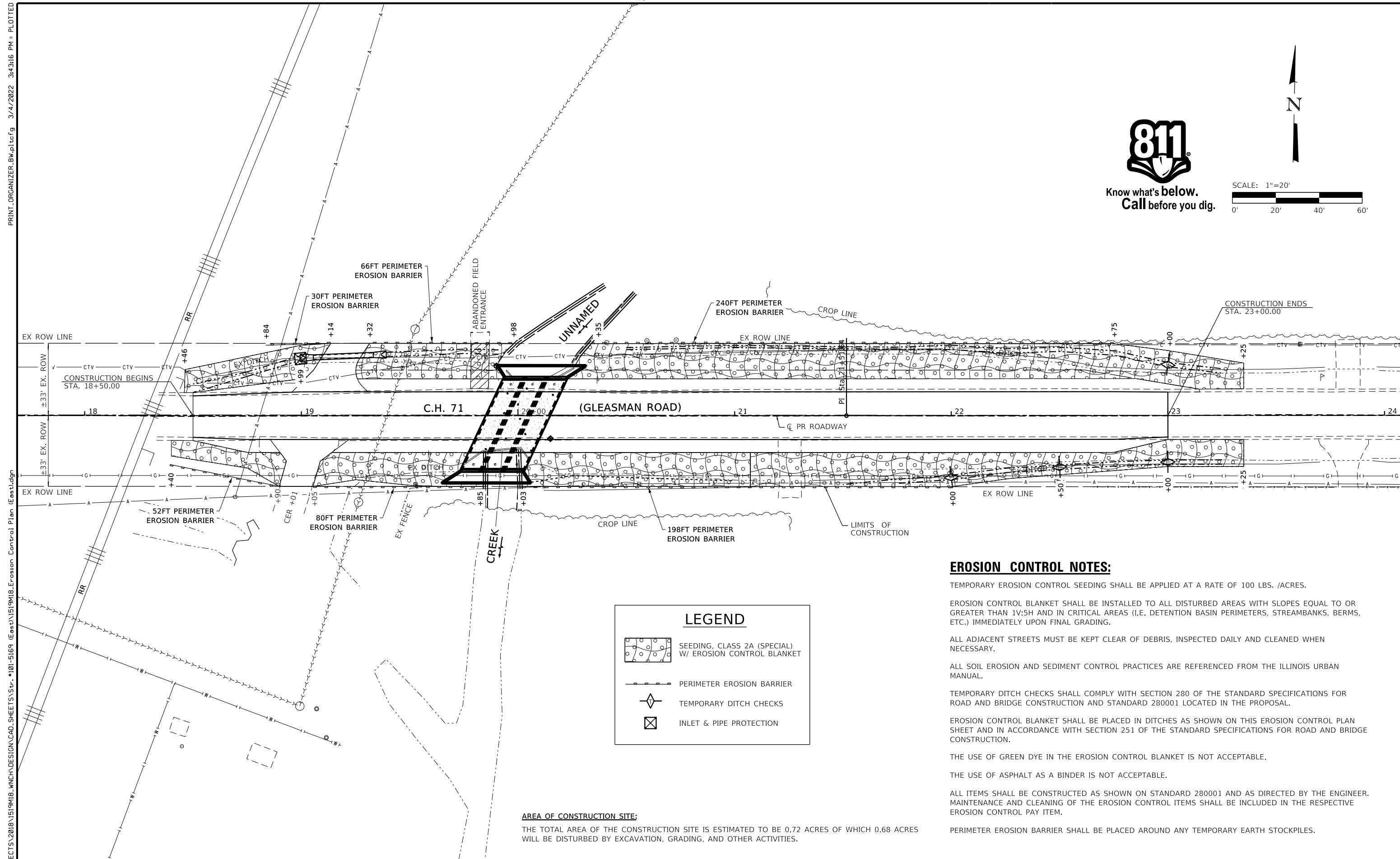


Know what's below.
Call before you dig.



PRINT_ORGANIZER_BW.plt.ctb 3/4/2022 3:43:16 PM - PLOTTED

S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD_SHEETS\Str. 101-5169 (East)\1519M18-Erosion Control Plan (Eros).dgn



LEGEND

	SEEDING, CLASS 2A (SPECIAL) W/ EROSION CONTROL BLANKET
	PERIMETER EROSION BARRIER
	TEMPORARY DITCH CHECKS
	INLET & PIPE PROTECTION

AREA OF CONSTRUCTION SITE:
THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 0.72 ACRES OF WHICH 0.68 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

- EROSION CONTROL NOTES:**
- TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS. /ACRES.
 - EROSION CONTROL BLANKET SHALL BE INSTALLED TO ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 1V:5H AND IN CRITICAL AREAS (I.E. DETENTION BASIN PERIMETERS, STREAMBANKS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING.
 - ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY AND CLEANED WHEN NECESSARY.
 - ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL.
 - TEMPORARY DITCH CHECKS SHALL COMPLY WITH SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD 280001 LOCATED IN THE PROPOSAL.
 - EROSION CONTROL BLANKET SHALL BE PLACED IN DITCHES AS SHOWN ON THIS EROSION CONTROL PLAN SHEET AND IN ACCORDANCE WITH SECTION 251 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - THE USE OF GREEN DYE IN THE EROSION CONTROL BLANKET IS NOT ACCEPTABLE.
 - THE USE OF ASPHALT AS A BINDER IS NOT ACCEPTABLE.
 - ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.
 - PERIMETER EROSION BARRIER SHALL BE PLACED AROUND ANY TEMPORARY EARTH STOCKPILES.

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)

WILLET HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

SN 101-5169 (EAST CULVERT)
EROSION CONTROL PLAN

SCALE: 1" = 20'-0" SHEET NO. 1 OF 1 SHEETS STA. 18+50.00 TO STA. 23+00.00

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	28
WHA* 1519M18				
ILLINOIS				

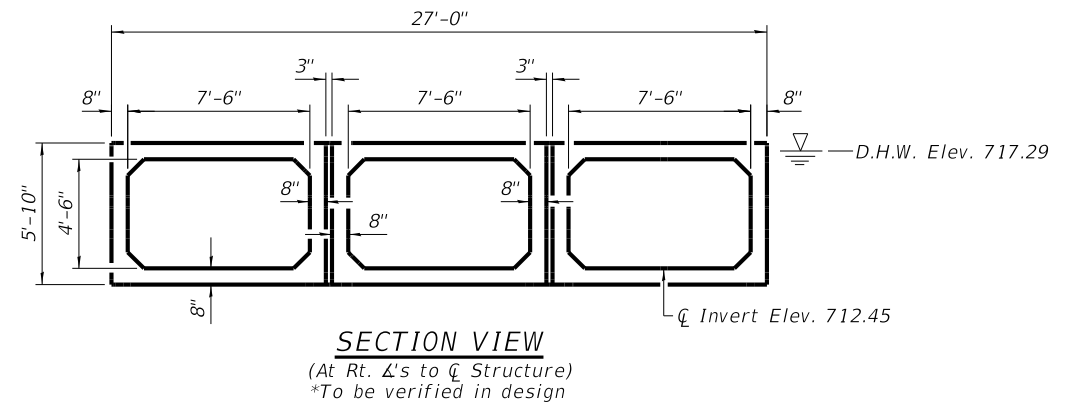
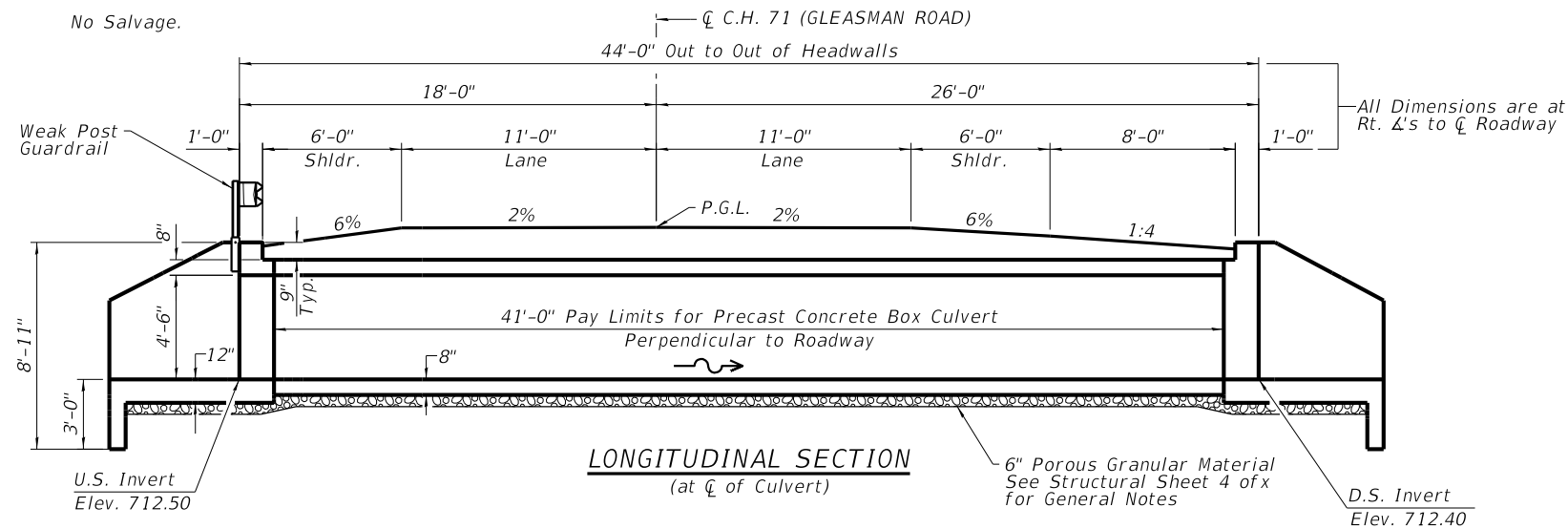
This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

Existing Structure: S.N. 101-5167 Built in 1914 as C.H. 17, Section Widened 48-15D. The existing structure is a double barrel (8'-4"x4'-10") reinforced concrete box culvert at Sta. 20+00. Skewed 30° Left Ahead. Road will be closed to traffic during construction.

Bench Mark : #402 Railroad spike in first power pole east of the existing structure 38.81' Rt. of Sta. 20+56.06. Elev. 716.04

INDEX OF STRUCTURAL SHEETS (S.N. 101-5169)

- 1 General Plan & Elevation
- 2-4 Multi-Cell Precast Concrete Box Culvert Apron End Section Details
- 5 Soil Borings



UNNAMED CREEK
BUILT 2022 BY
WINNEBAGO CO.
SECTION 17-00654-00-BR
C.H. 71 STA. 20+00
STR. NO. 101-5169 LOADING HL-93

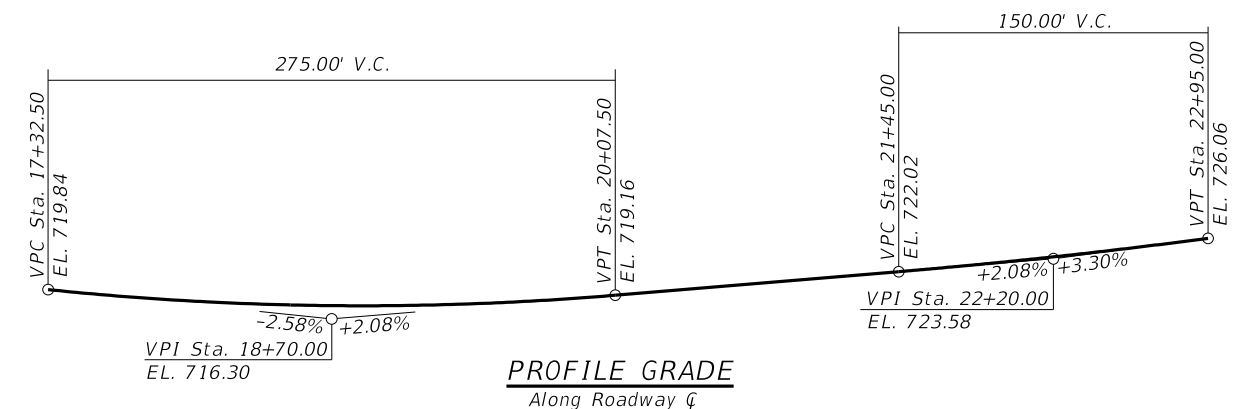
NAME PLATE LETTERING
Refer To Std. 515001

HIGHWAY CLASSIFICATION

Gleasant Road
Functional Class: Major Collector
ADT: 1450 (2021) ; 1683 (2042)
ADTT: 58 (2021); 67 (2042)
DHV: 168
Design Speed: 50 m.p.h.
Posted Speed: 55 m.p.h.
2-Way Traffic
Directional Distribution: 50:50

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition



**DESIGN STRESSES
CAST IN PLACE UNITS**

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

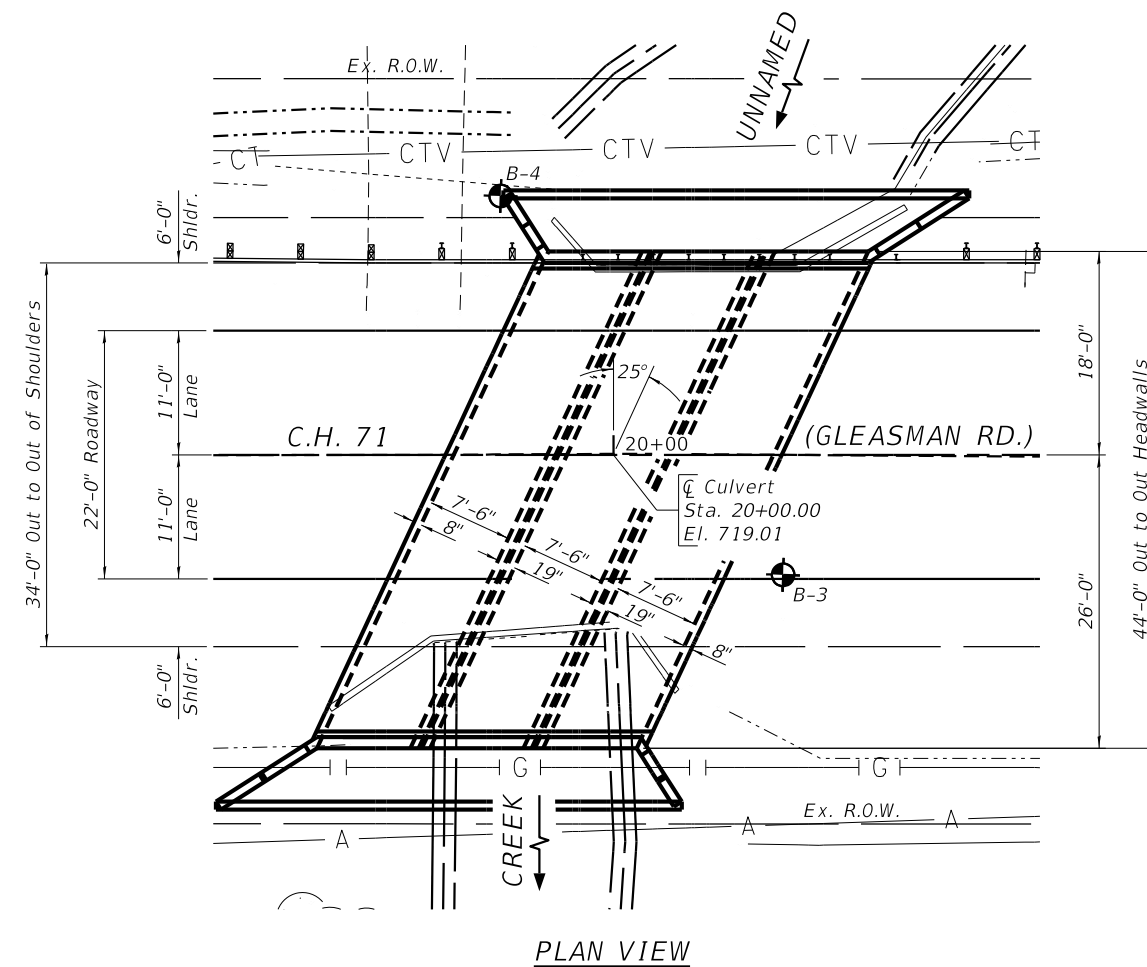
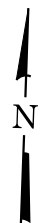
PRECAST UNITS
Per ASTM C1577 Specifications

LOADING HL-93

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

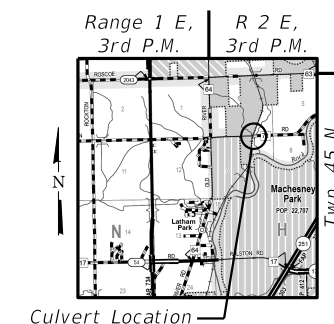
WATERWAY INFORMATION

		Q		Nat.		Head - Ft.		Headwater El.	
Flood	Freq. Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	20	720	80	101	717.29	0.99	0.68	718.28	717.97
Base	100	1060	80	101	717.81	1.17	0.97	718.98	718.78
Check	200	1229	80	101	718.01	1.26	1.13	719.27	719.14
Max. Calc	500	1460	80	101	718.26	1.26	1.13	719.52	719.39



DATE: 2/28/22
EXPIRES 11/30/22

"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES'."



**GENERAL PLAN AND ELEVATION
C.H. 71 (GLEASMAN ROAD) OVER
UNNAMED CREEK
SEC. 17-00654-00-BR
WINNEBAGO COUNTY
STATION 20+00.00
STRUCTURE NO. 101-5169**

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:13:58 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Str.-101-5169 (East)\1519M18-Waterway Sketch (East).dgn

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

**WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)**

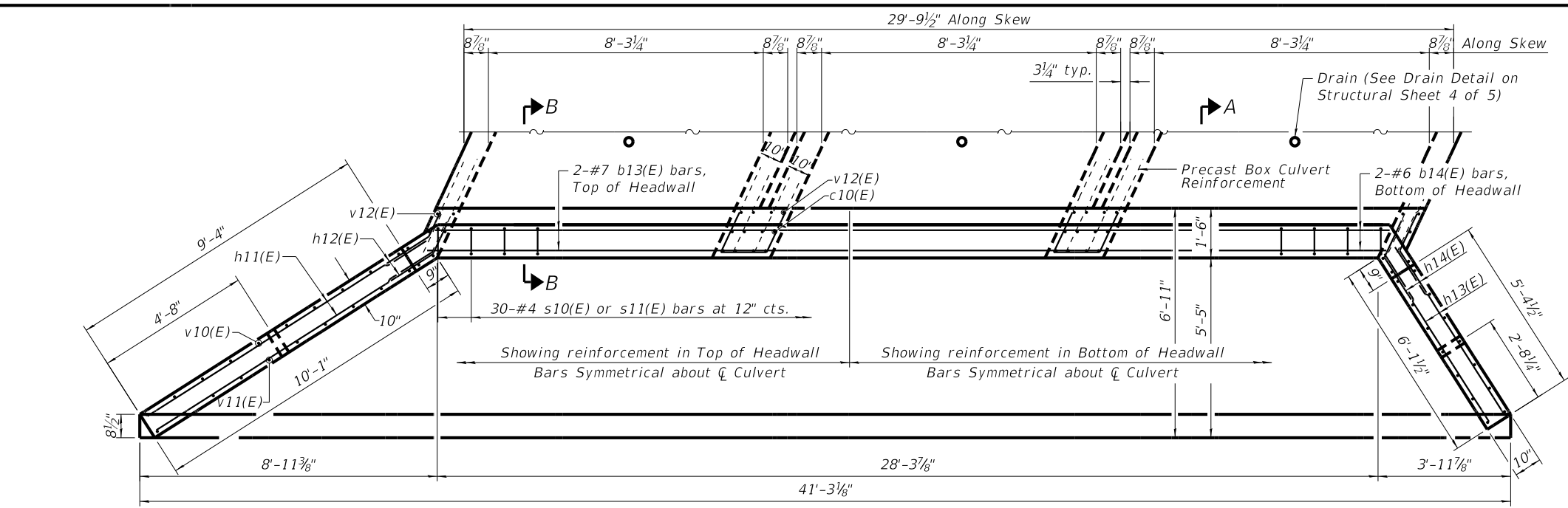
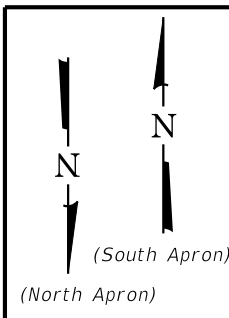


STRUCTURAL SHEET NO. 1 OF 5 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	29
WHA* 1519M18			ILLINOIS	

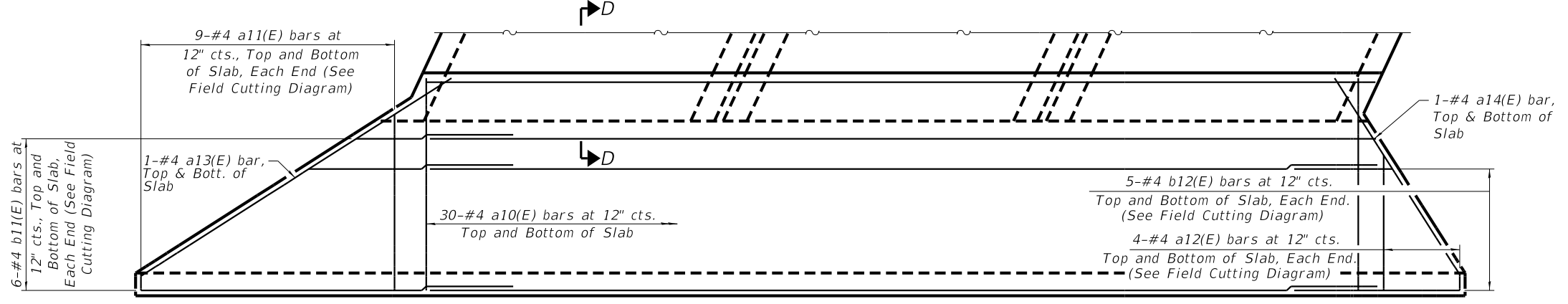
This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Sr. 101-5169 (Eas)\1519M18-Culvert Details.dgn
 PRINT_ORGANIZER.BW.plt cefg 3/3/2022 4:45:19 PM - PLOTTED



HEADWALL AND WINGWALL REINFORCEMENT

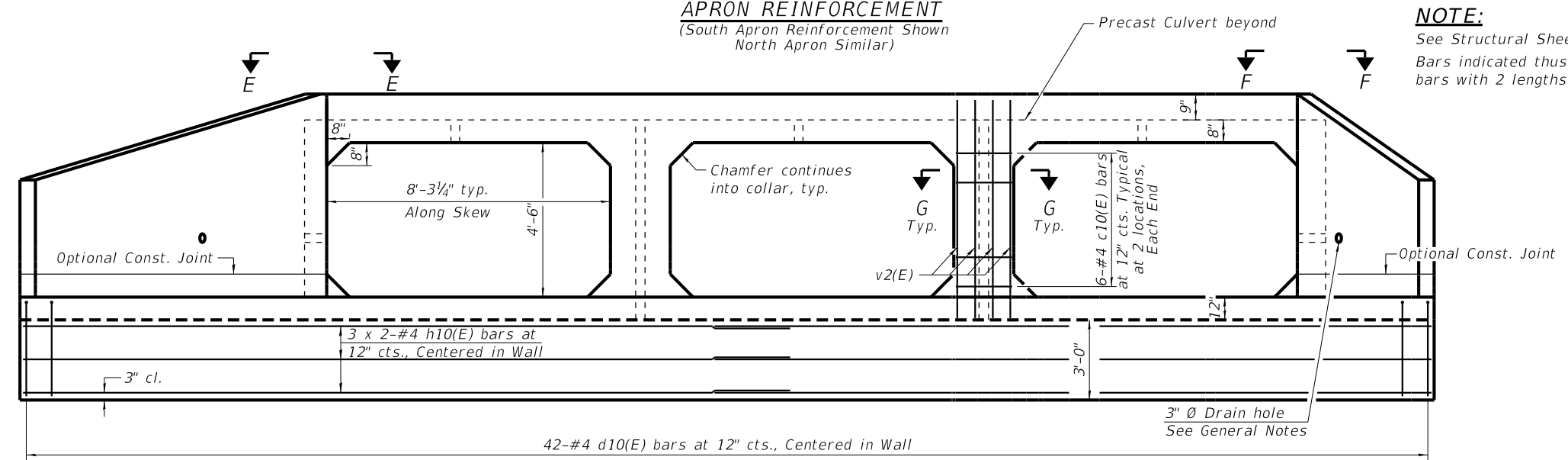
(South Wingwall & Headwall Reinforcement Shown
North Wingwall & Headwall Similar)



APRON REINFORCEMENT

(South Apron Reinforcement Shown
North Apron Similar)

NOTE:
See Structural Sheet 3 of 5 for Sections A-A thru G-G.
Bars indicated thus 3x2 - #4, etc., indicates 3 lines of bars with 2 lengths per line.



CUTOFF WALL REINFORCEMENT

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



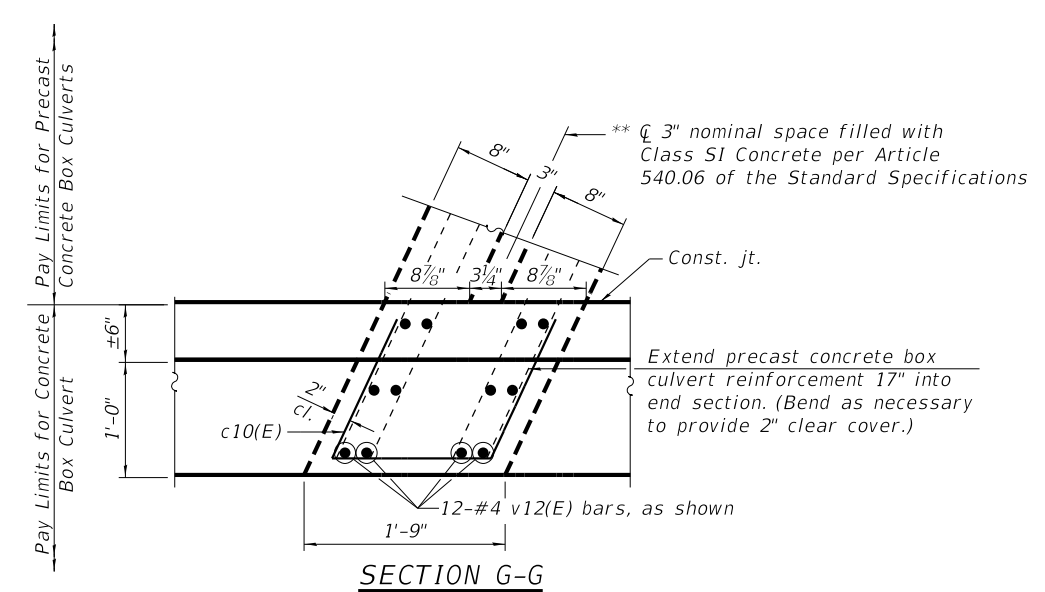
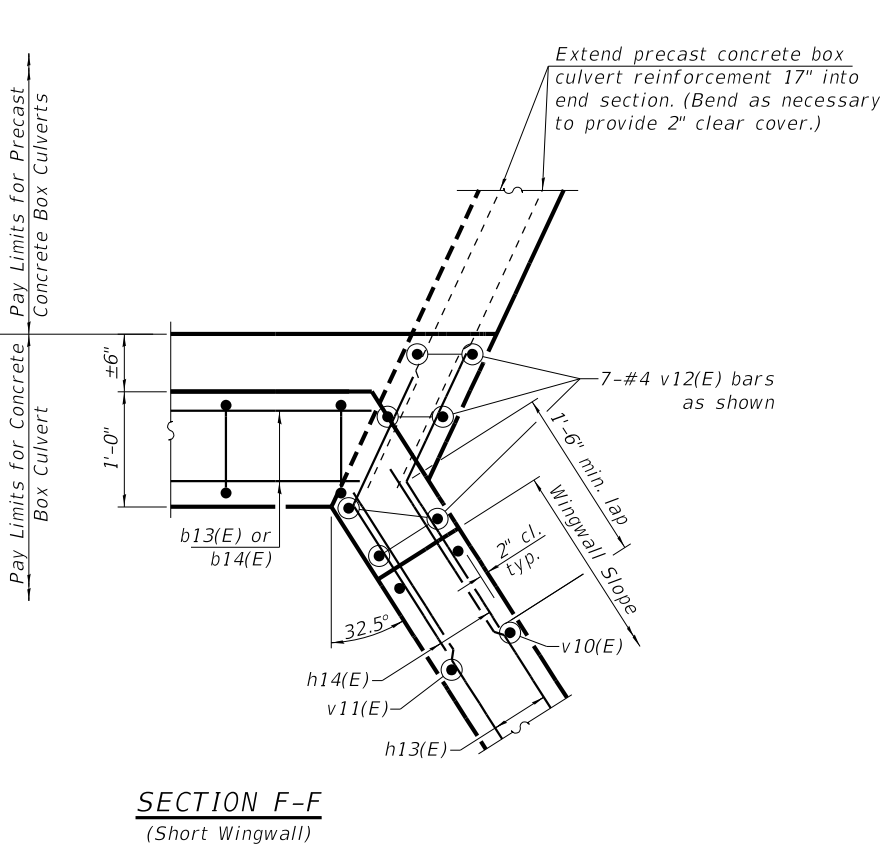
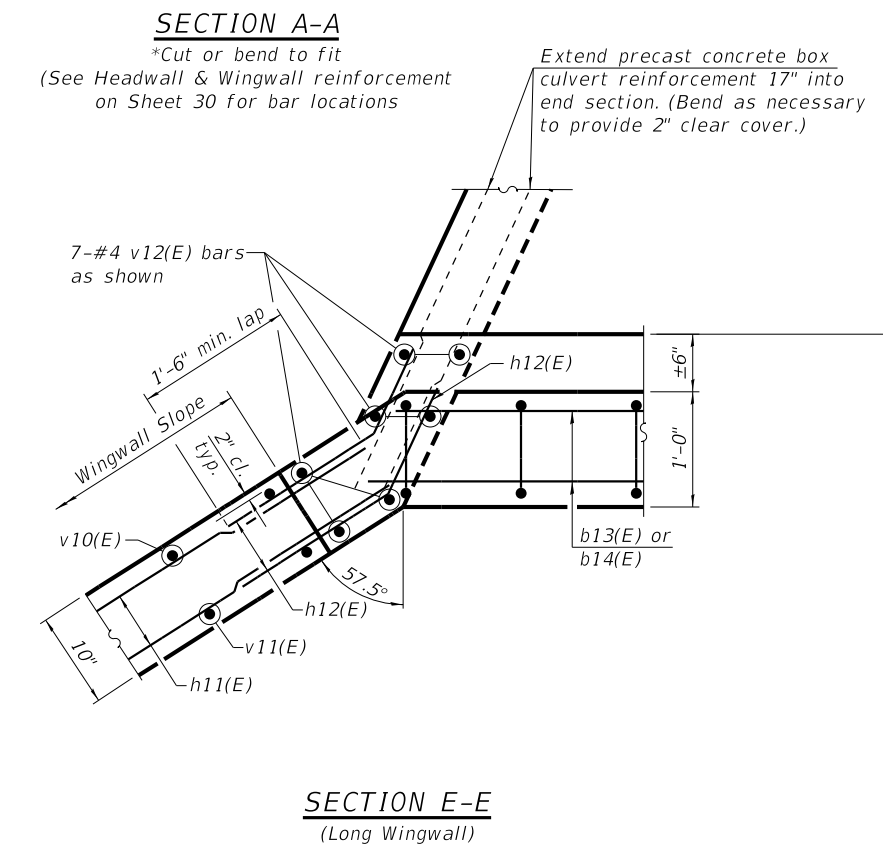
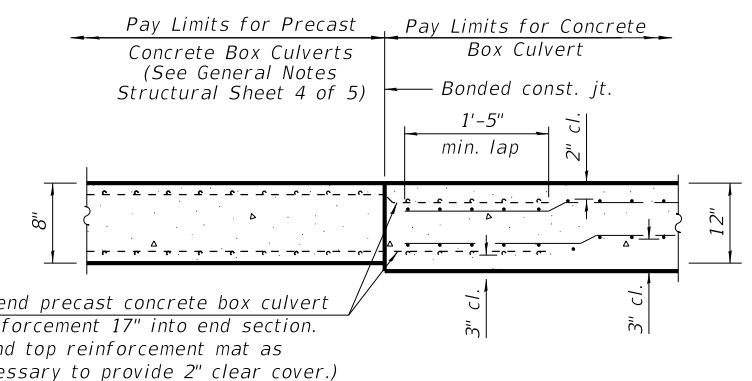
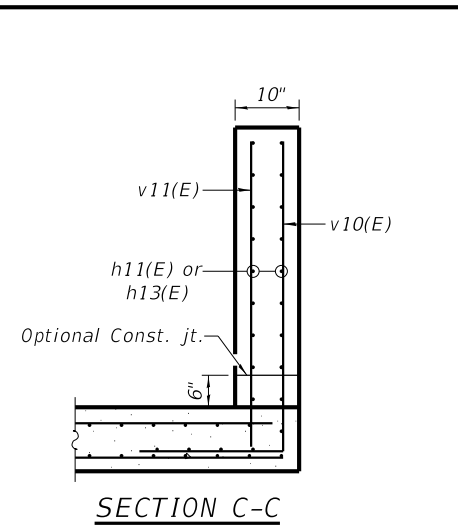
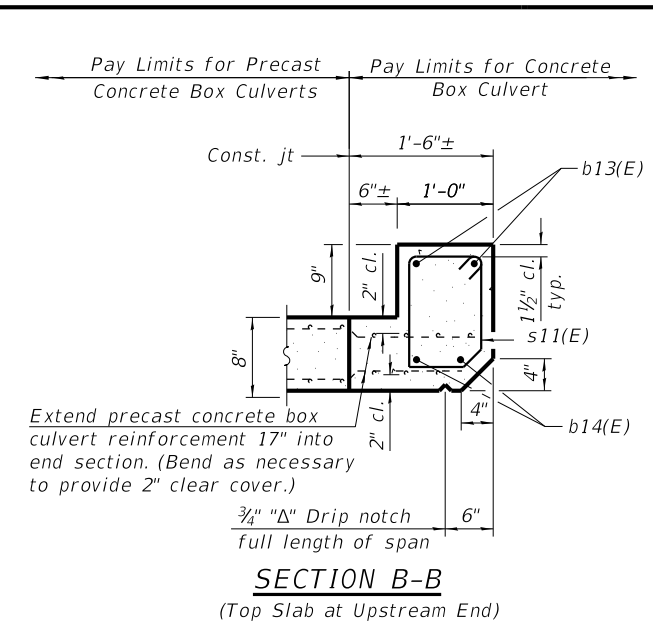
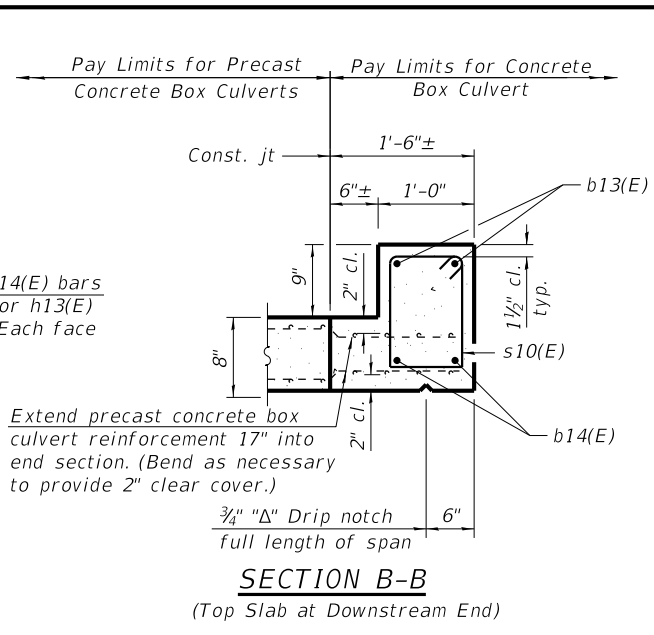
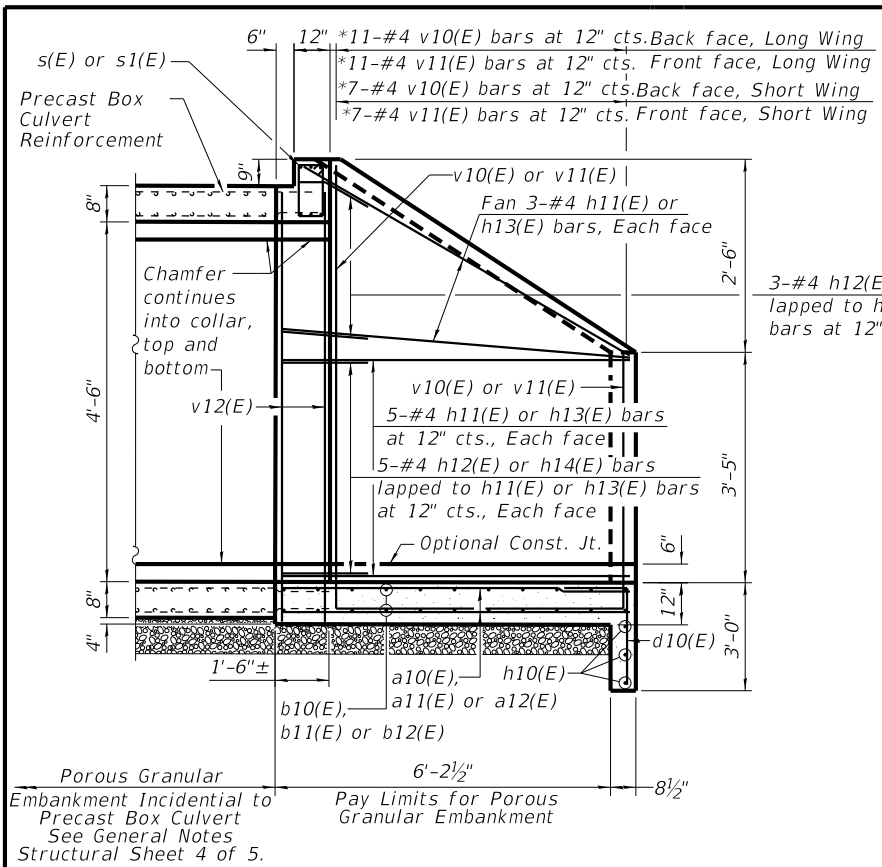
MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS - STRUCTURE NO. 101-5169
STRUCTURAL SHEET NO. 2 OF 5 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	30
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:44:09 AM - PLOTTED

S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Sr. 101-5169 (Eas)\1519M18-Culvert Details.dgn



** Concrete used to fill 3" nominal space shall not be measured separately for payment, but shall be considered incidental to the Pay Item "Precast Concrete Box Culverts 7'-6" x 4'-6".

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

WINNEBAGO COUNTY
 C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5169 (STA. 20+00)



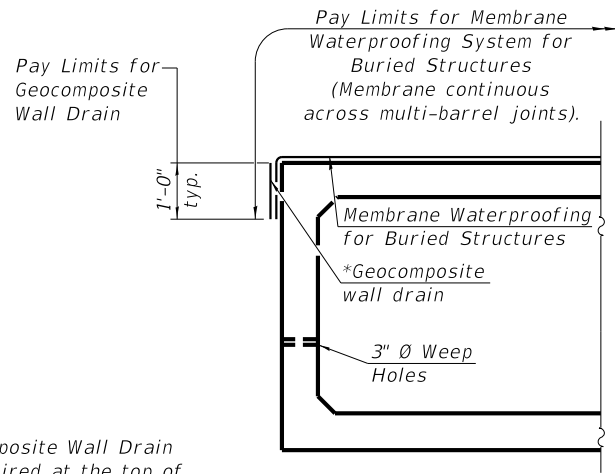
MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END
 SECTION DETAILS - STRUCTURE NO. 101-5169
 STRUCTURAL SHEET NO. 3 OF 5 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	31
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER.BW.plt.ctb 3/9/2022 1:56:16 PM - PLOTTED

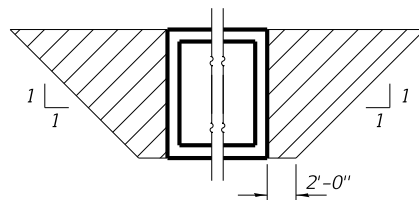
S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Str. 101-5169 (Eas)\1519M18-Culvert Details.dgn



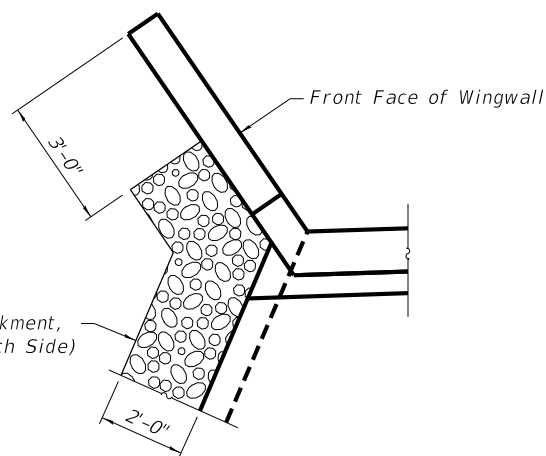
*Geocomposite Wall Drain not required at the top of the culvert.

MEMBRANE WATERPROOFING FOR PRECAST CULVERTS

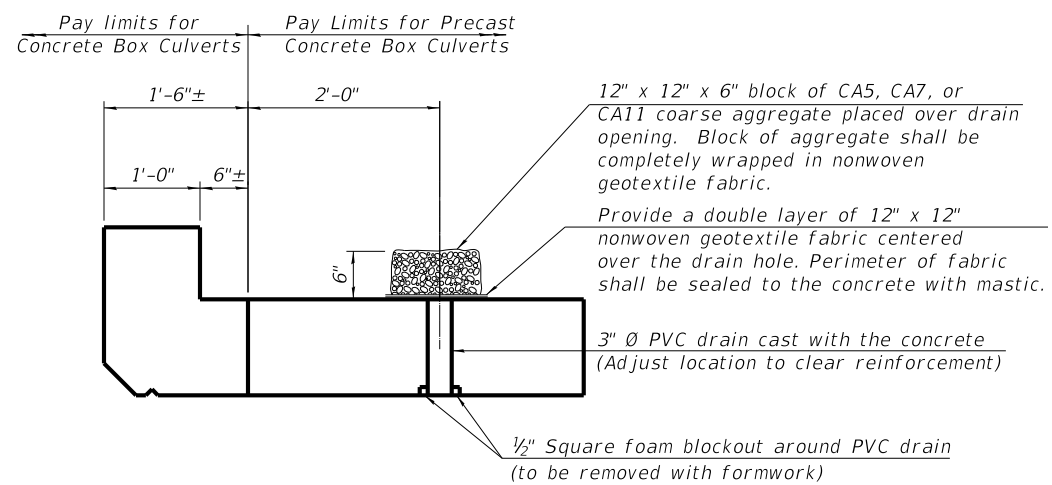
NOTE: Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.



PAY LIMITS FOR POROUS GRANULAR EMBANKMENT (Hatched area)

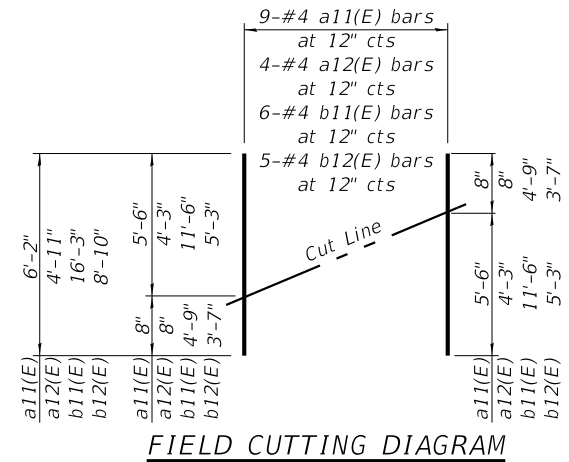


PAY LIMITS FOR POROUS GRANULAR EMBANKMENT PLAN VIEW



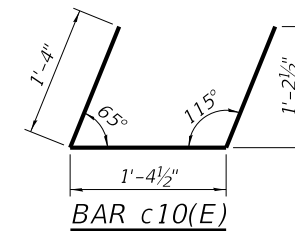
DRAIN DETAIL

(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.)

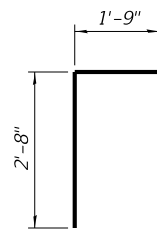


FIELD CUTTING DIAGRAM

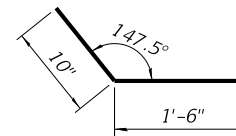
Order bars shown full length. Cut as shown and use remainder of bars in opposite apron corner.



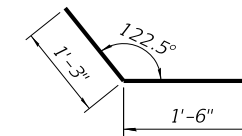
BAR c10(E)



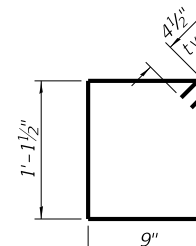
BAR d10(E)



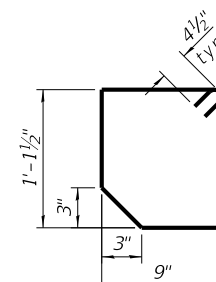
BARS h12(E)



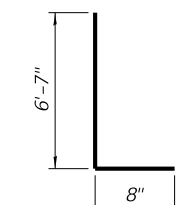
BARS h14(E)



BAR s10(E)



BAR s11(E)



BAR v10(E)

MINIMUM BAR LAP	
Size	Lap
#4	2'-7"
#5	3'-2"
#6	4'-9"
#7	5'-6"

BILL OF MATERIAL - N. & S. APRONS

Bar	No.	Size	Length	Shape
a10(e)	120	4	6'-7"	—
a11(e)	18	4	6'-2"	—
a12(e)	8	4	4'-11"	—
a13(e)	4	4	11'-5"	—
a14(e)	4	4	7'-2"	—
b10(e)	32	4	29'-4"	—
b11(e)	12	4	16'-3"	—
b12(e)	10	4	8'-10"	—
b13(e)	4	7	28'-0"	—
b14(e)	4	6	29'-5"	—
c10(e)	24	4	4'-1"	┌
d10(e)	84	4	4'-5"	└
h10(e)	12	4	21'-11"	—
h11(e)	32	4	9'-11"	—
h12(e)	32	4	2'-4"	└
h13(e)	32	4	6'-0"	—
h14(e)	32	4	2'-9"	└
s10(e)	30	4	4'-6"	□
s11(e)	30	4	4'-5"	□
v10(e)	36	4	7'-3"	└
v11(e)	36	4	6'-7"	—
v12(e)	76	4	5'-10"	—
Removal of Existing Structures	Each		1	
Name Plate	Each		1	
Reinforcement Bars, Epoxy Coated	Pound		3,700	
Precast Concrete Box Culverts, 7.5' x 4.5'	Foot		136	
Concrete Box Culverts	Cu. Yd.		33.6	
PCC Pavement (Variable Depth)	Sq. Yd.		113	
Porous Granular Embankment	Tons		267	
Geocomposite Wall Drain	Sq. Yd.		10	
Membrane Waterproofing System for Buried Structures	Sq. Yd.		148	
Weak Post Guardrail Attached to Culvert, Case 1	Foot		34	

GENERAL NOTES

The design fill height for this box is 0 ft. The precast box culvert sections shall conform to the requirements of ASTM C 1577.
 Drain holes shall be provided on exterior culvert walls for each precast box segment with a clear rise greater than 3 ft. The drain hole shall be located within 1/3 of the clear rise of the box culvert, shall not intercept the haunch, and shall conform to the requirements of Article 503.11 of the Standard Specification.
 Nonwoven geotextile fabric shall conform to the requirements of Art. 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.
 Precast concrete box culverts and box culvert end sections shall be backfilled with Porous Granular Embankment in the required excavation areas on the sides of the box culvert from the top of the box culvert to the bottom of the box culvert. This area of PGE is included in the Porous Granular Embankment pay item. The 6-inch thick layer of porous granular material required under the precast concrete box culvert, according to Section 540.06 of the standard specifications, shall also apply to the end sections. Cost of this porous granular material will not be paid for separately but shall be included in the unit price of the work for which it is required.
 Reinforcement bars shall conform to the requirements of ASTM A706 or 60.

REVISION	DATE	BY	REMARKS

DESIGNED	ESG
DRAWN	DAN
REVIEWED	ESG
APPROVED	MRL

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END
SECTION DETAILS - STRUCTURE NO. 101-5169
STRUCTURAL SHEET NO. 4 OF 5 SHEETS

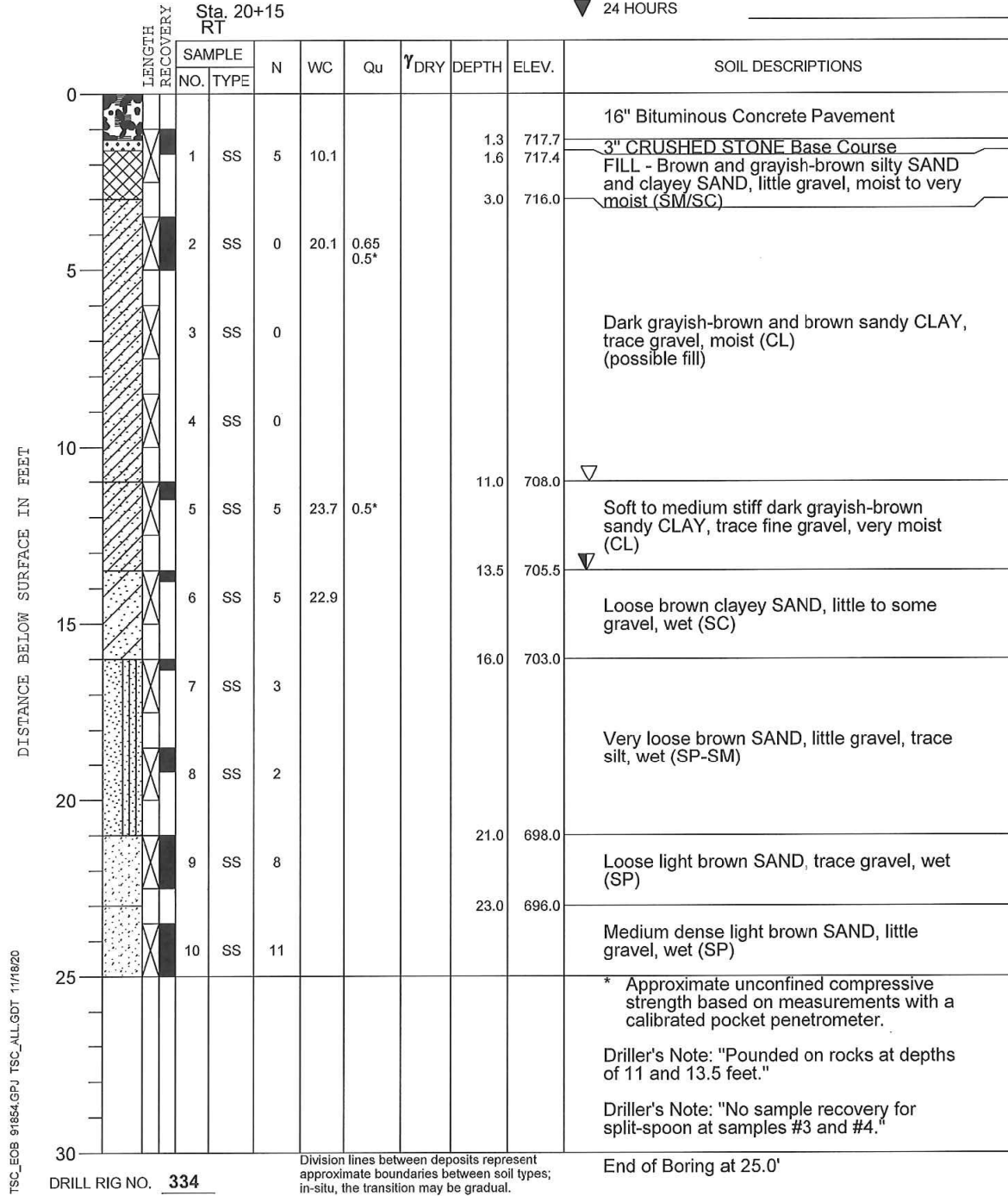
C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	32
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PROJECT **Gleasant Road Culvert, S.N. 101-5169, Winnebago County, IL**
 CLIENT **Winnebago County Highway Department, Rockford, Illinois**
 BORING **3** DATE STARTED **11-5-20** DATE COMPLETED **11-5-20** JOB **L-91,854**



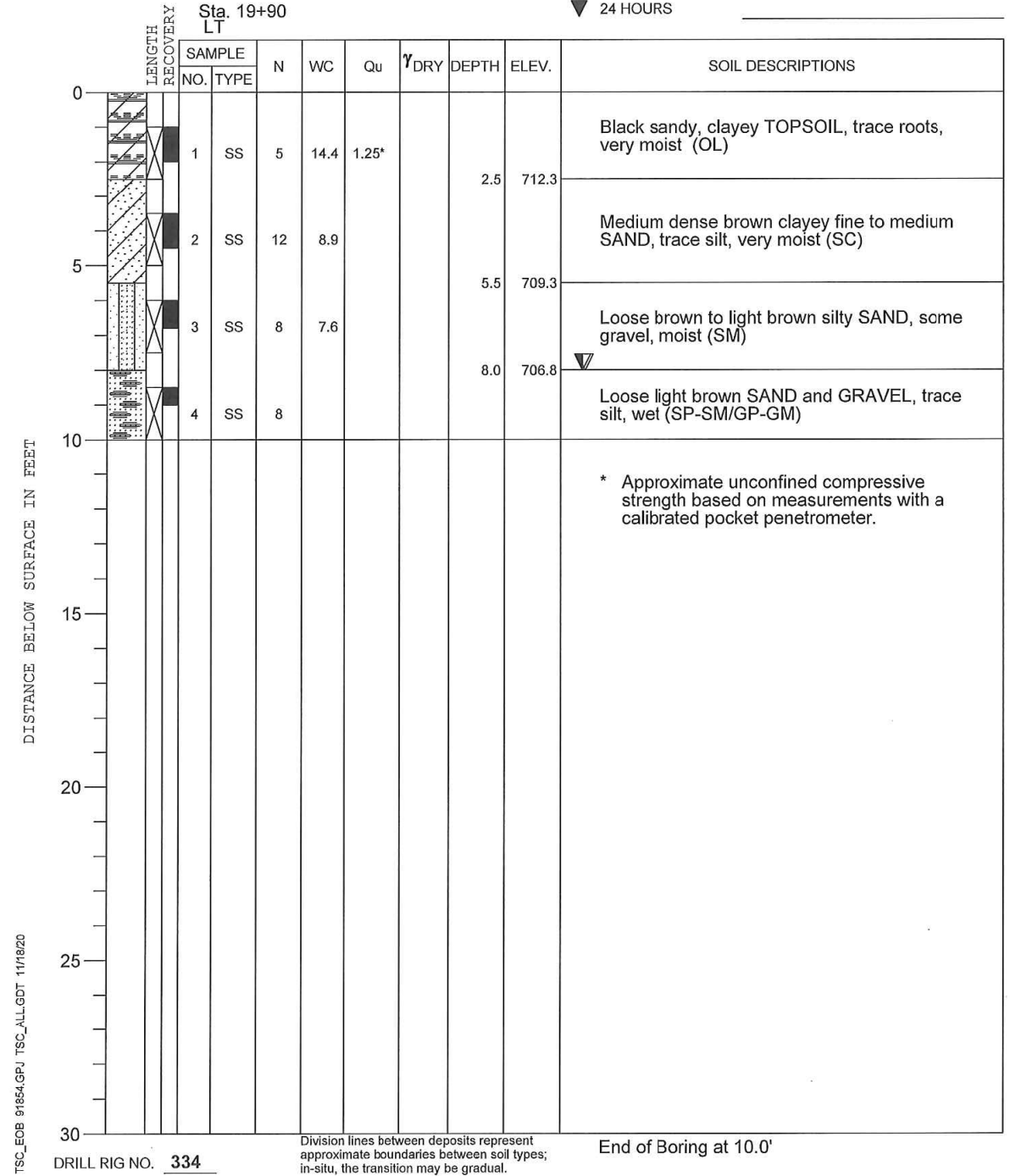
ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE **719.0** WHILE DRILLING **13.5'**
 END OF BORING **694.0** AT END OF BORING **11.0'**
 24 HOURS



PROJECT **Gleasant Road Culvert, S.N. 101-5169, Winnebago County, IL**
 CLIENT **Winnebago County Highway Department, Rockford, Illinois**
 BORING **4** DATE STARTED **11-5-20** DATE COMPLETED **11-5-20** JOB **L-91,854**



ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE **714.8** WHILE DRILLING **8.0'**
 END OF BORING **704.8** AT END OF BORING **8.0'**
 24 HOURS



PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:41:12 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WINCH\DESIGN\CAD_SHEETS\Sr. 101-5169 (East)\1519M18_Boring_Logs.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5169 (STA. 20+00)



WILLET HOFMANN & ASSOCIATES INC
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM: # 184-000918

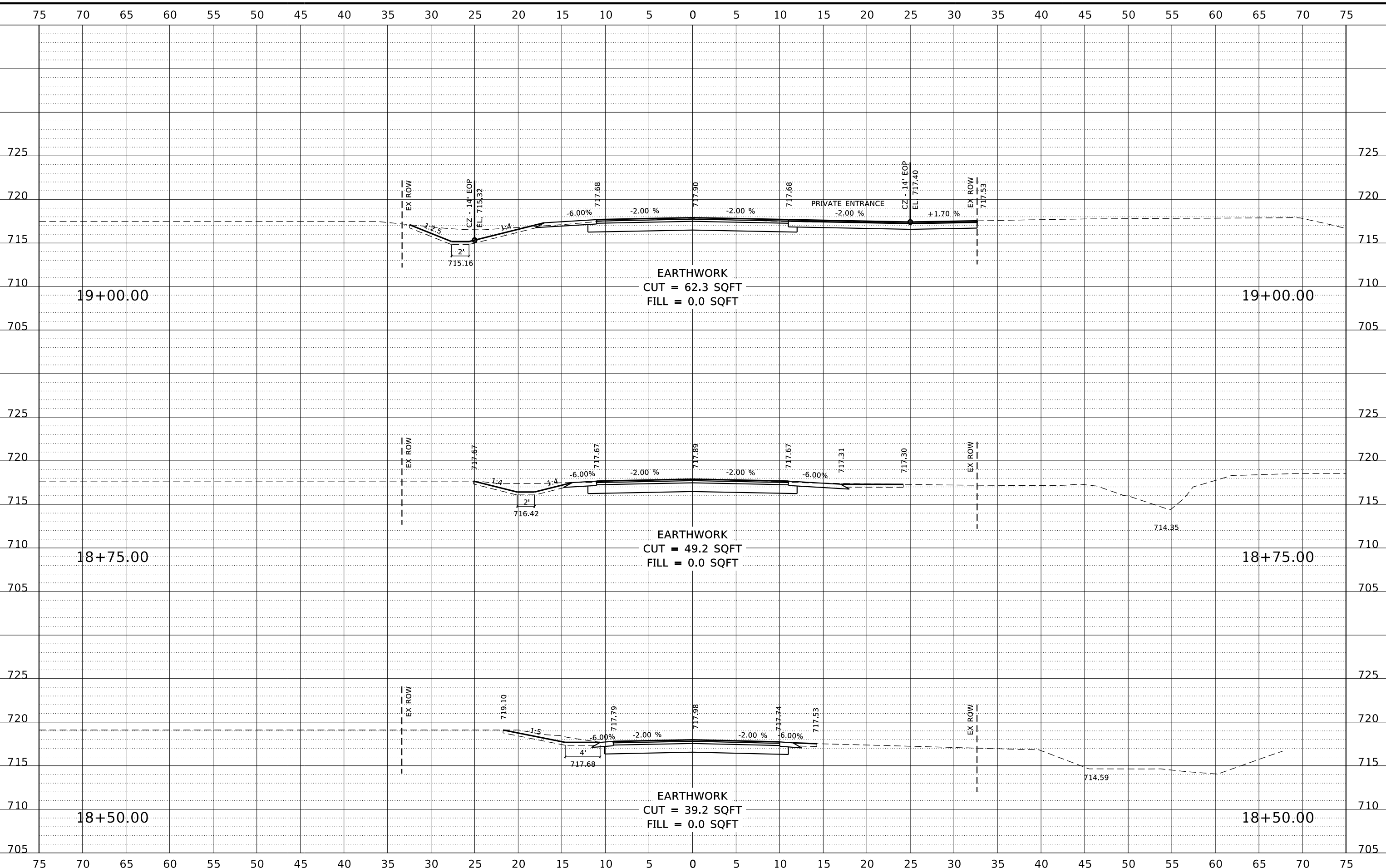
BORING LOGS

STRUCTURAL SHEET NO. 5 OF 5 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	33
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str_101-5169 (East)\1519M18_XS_Sheets (East).dgn
 PRINT_ORGANIZER_BW.plt cefg 3/3/2022 11:4:35 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



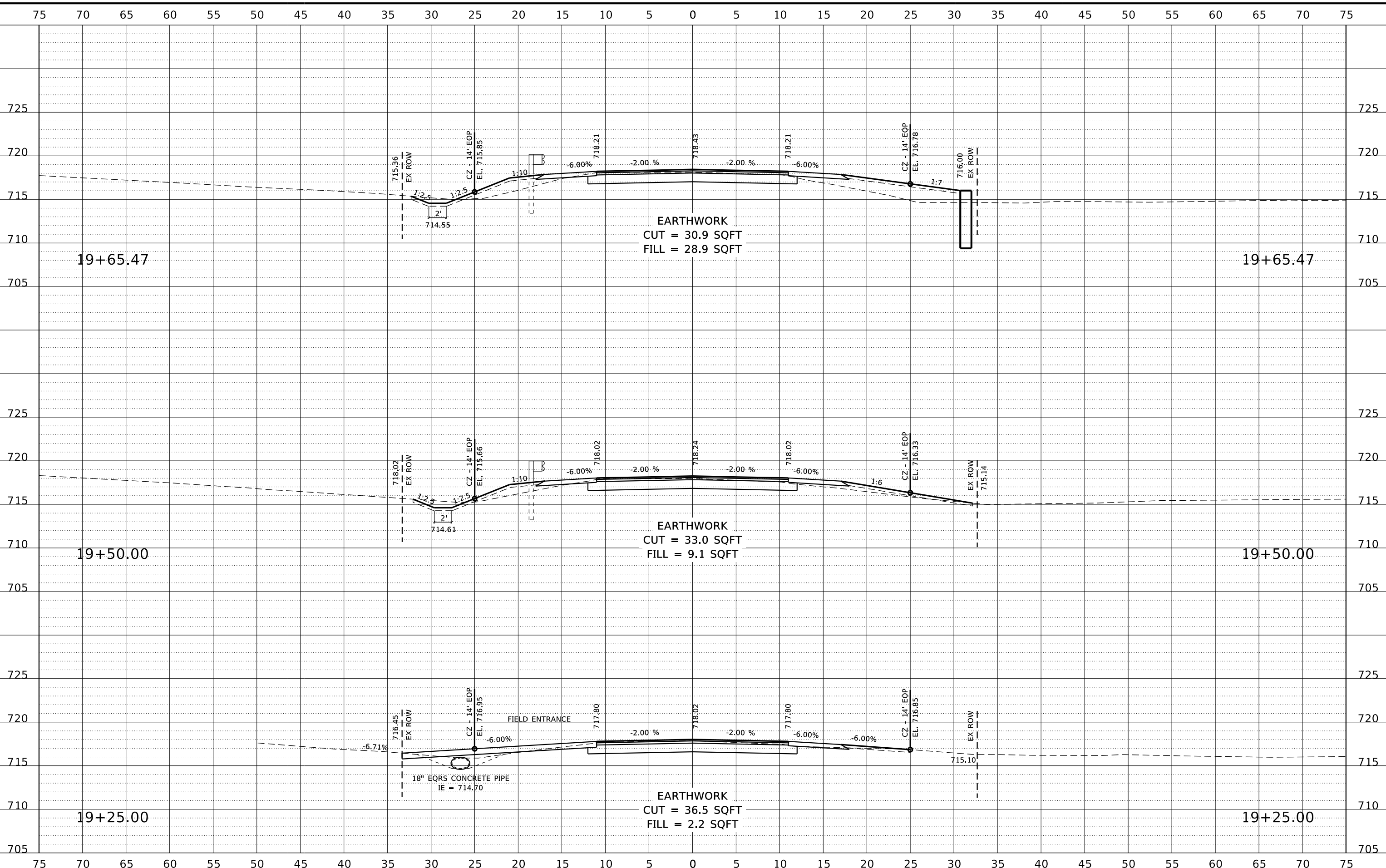
SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

SHEET 1 OF 8

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	34
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str_101-5169 (East)\1519M18_XS Sheets (East).dgn
 PRINT_ORGANIZER_BW.plt c:\3/3/2022 11:44:36 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



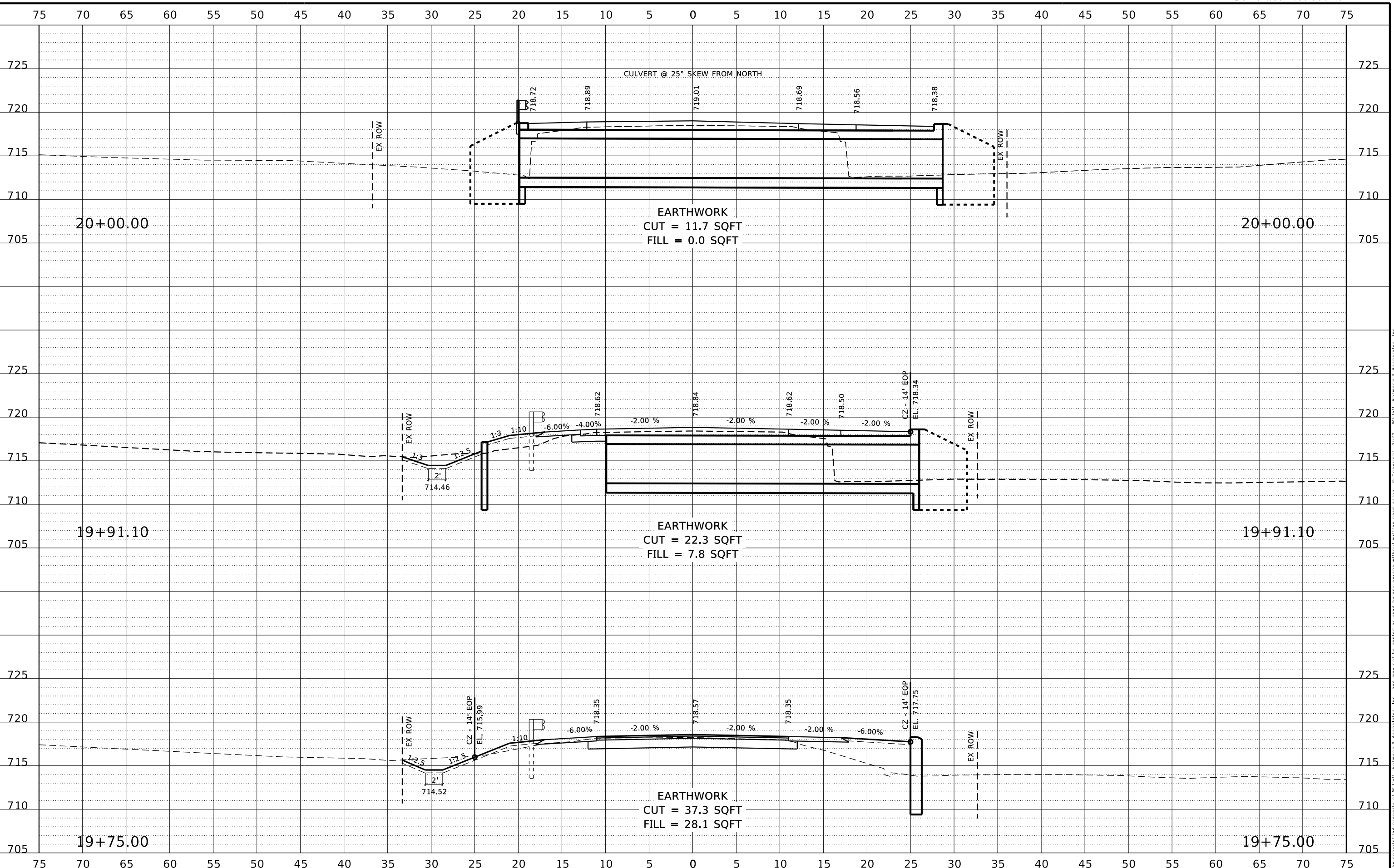
SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

SHEET 2 OF 8

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	35
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Sr-101-5169 (East)\1519M18_XS Sheets (East).dgn
 PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:43:36 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



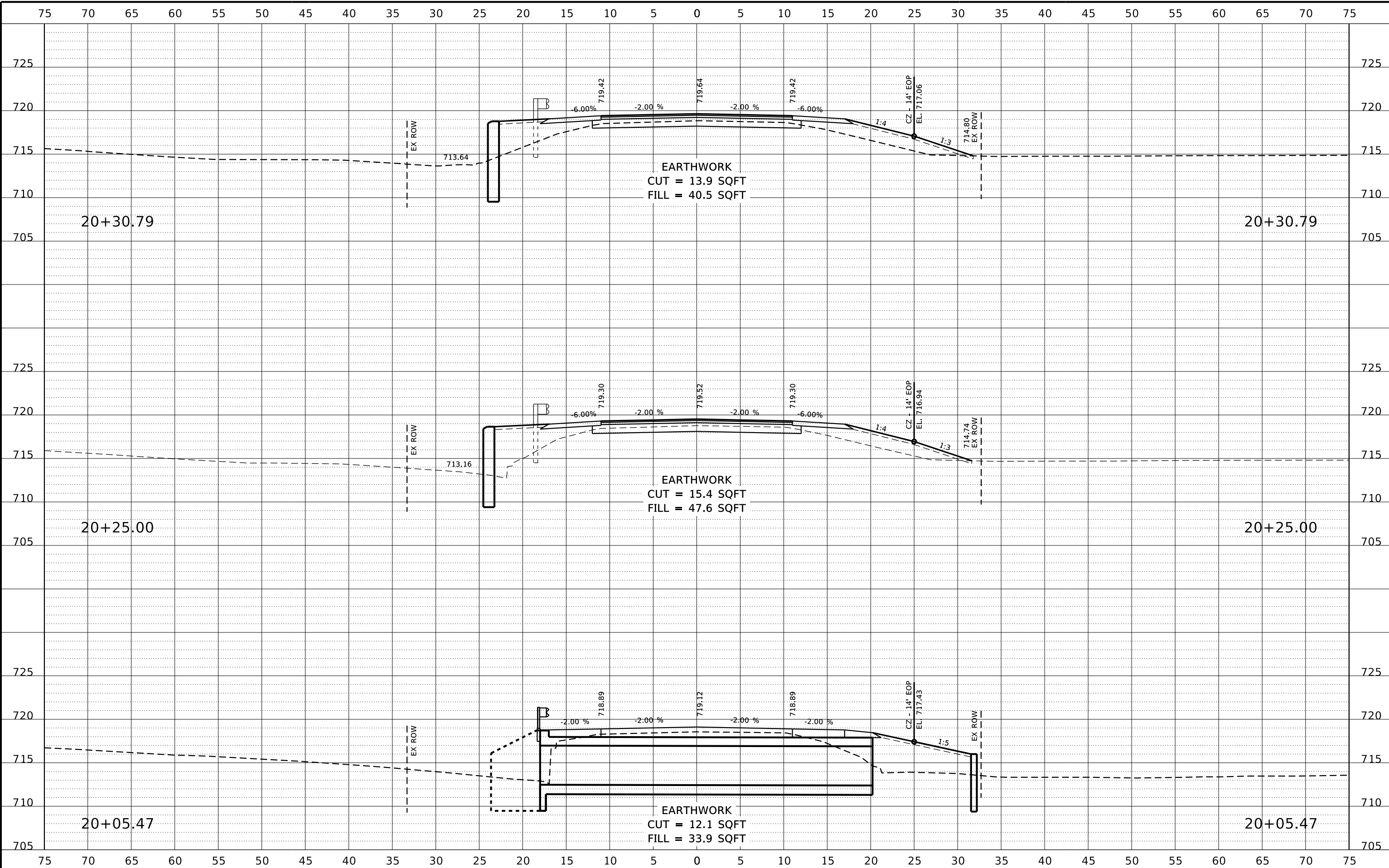
SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	36
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:44:37 AM - PLOTTED

S:\PROJECTS\2018\1519M18_WINCH\DESIGN\CAD_SHEETS\Str-101-5169 (East)\1519M18_XS Sheets (East).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5169 (STA. 20+00)



WILLET HOFMANN & ASSOCIATES INC
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM: # 184-000918

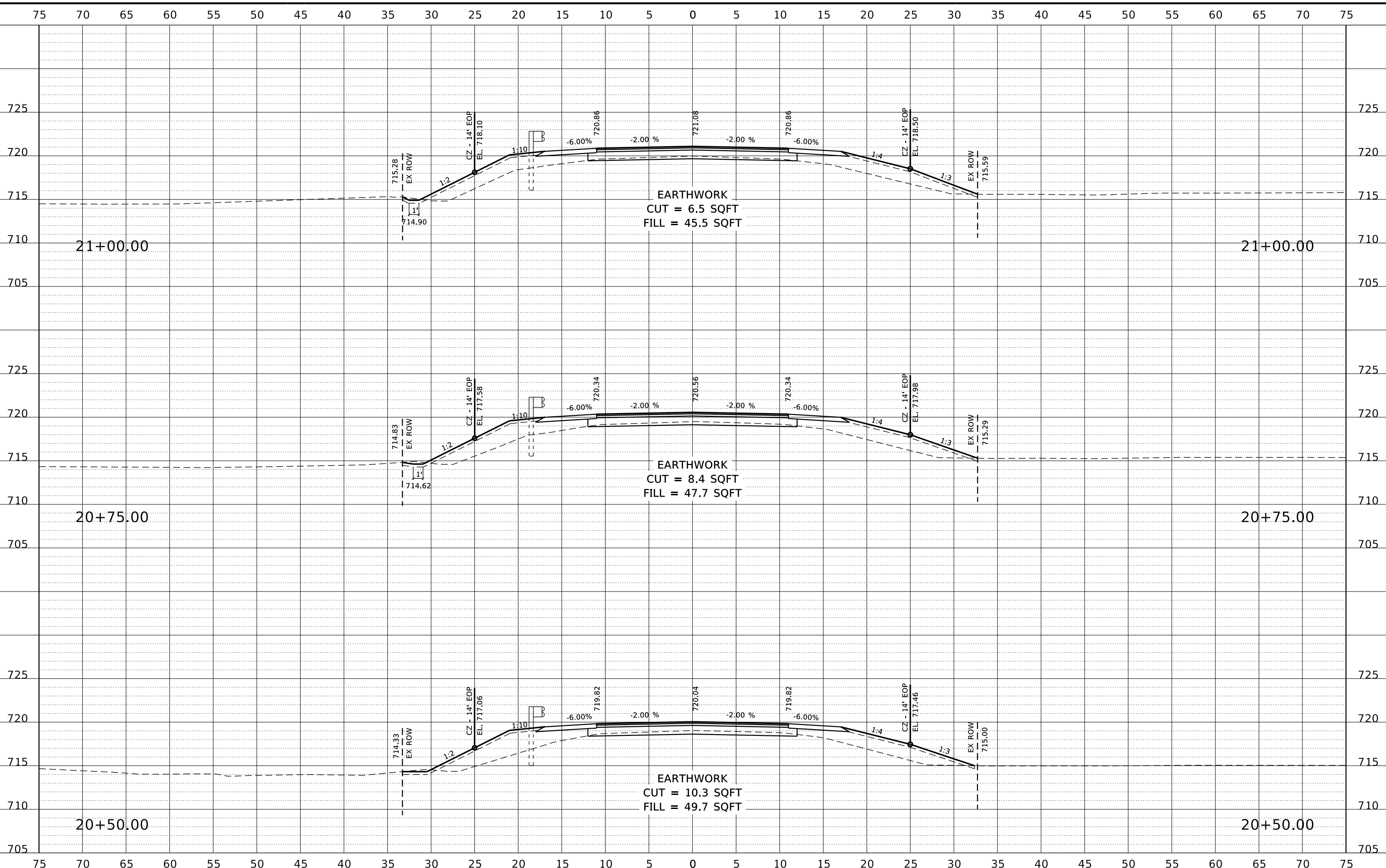
SN 101-5169 (EAST CULVERT)
 CROSS SECTIONS

SHEET 4 OF 8

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	37
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\Sr-101-5169 (East)\1519M18_XS Sheets (East).dgn
 PRINT_ORGANIZER.BV.plt c:\3/3/2022 11:44:37 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

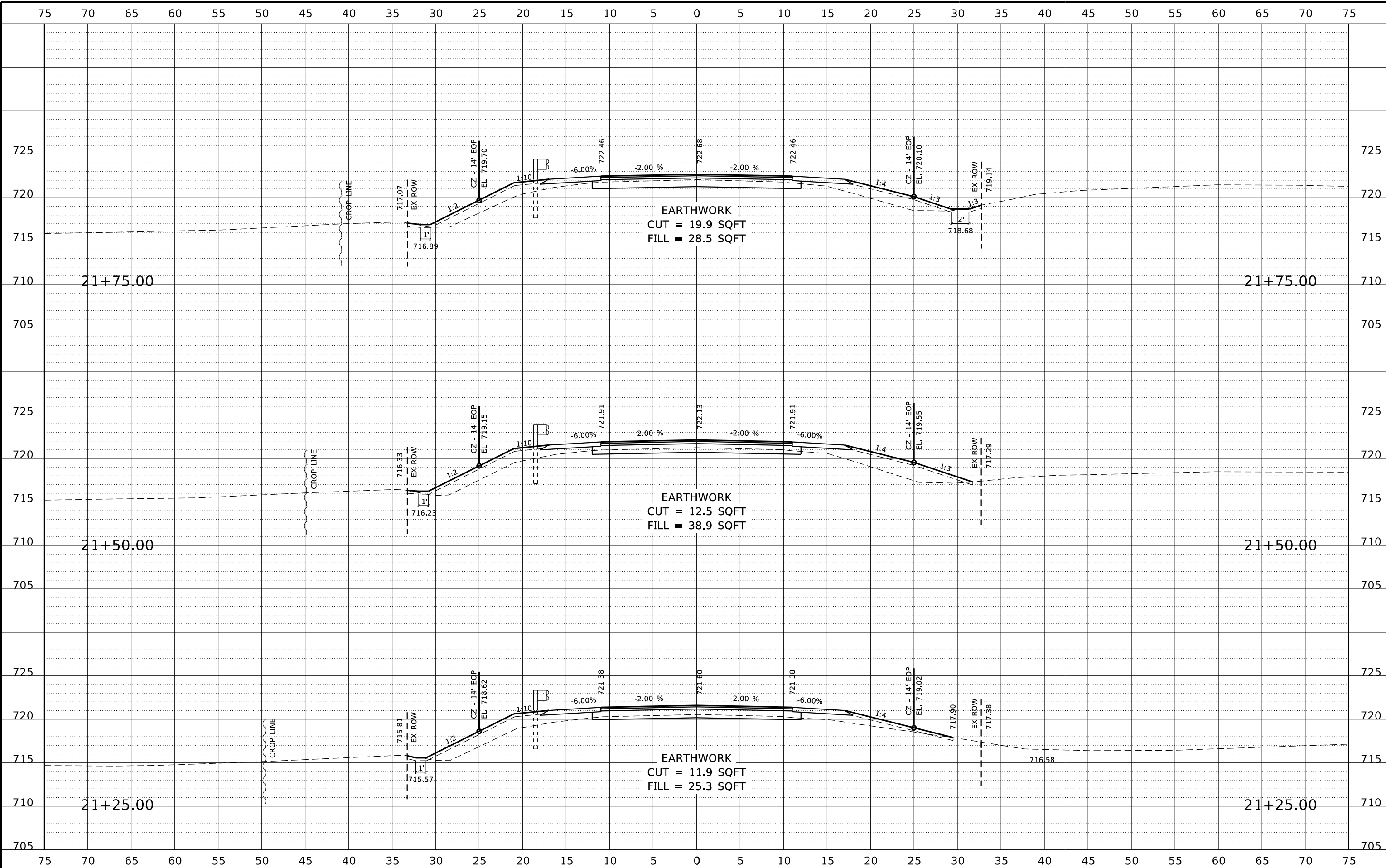
SHEET 5 OF 8

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	38
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

PRINT_ORGANIZER_BW.plt.ctb 3/4/2022 3:44:11 PM - PLOTTED

S:\PROJECTS\2018\1519M18_WCH\DESIGN\CAD_SHEETS\Str_101-5169 (East)\1519M18_XS_Sheets (East).dgn



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

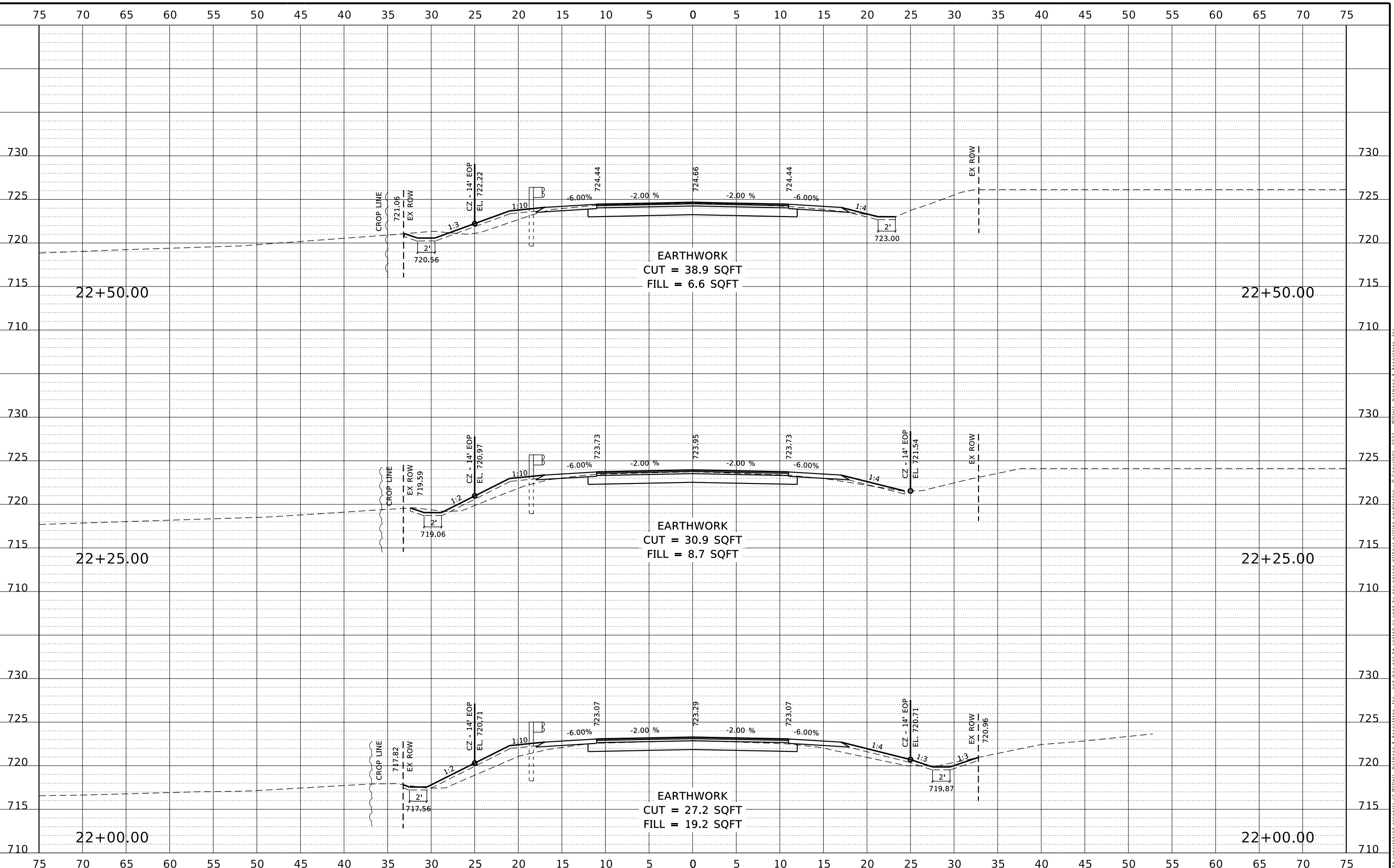
SHEET 6 OF 8

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	39
WHA* 1519M18				

ILLINOIS

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18_WCH\DESIGN\CAD_SHEETS\Str_101-5169 (East)\1519M18_XS Sheets (East).dgn
 PRINT_ORGANIZER.BW.plt cefg 3/3/2022 11:43:39 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



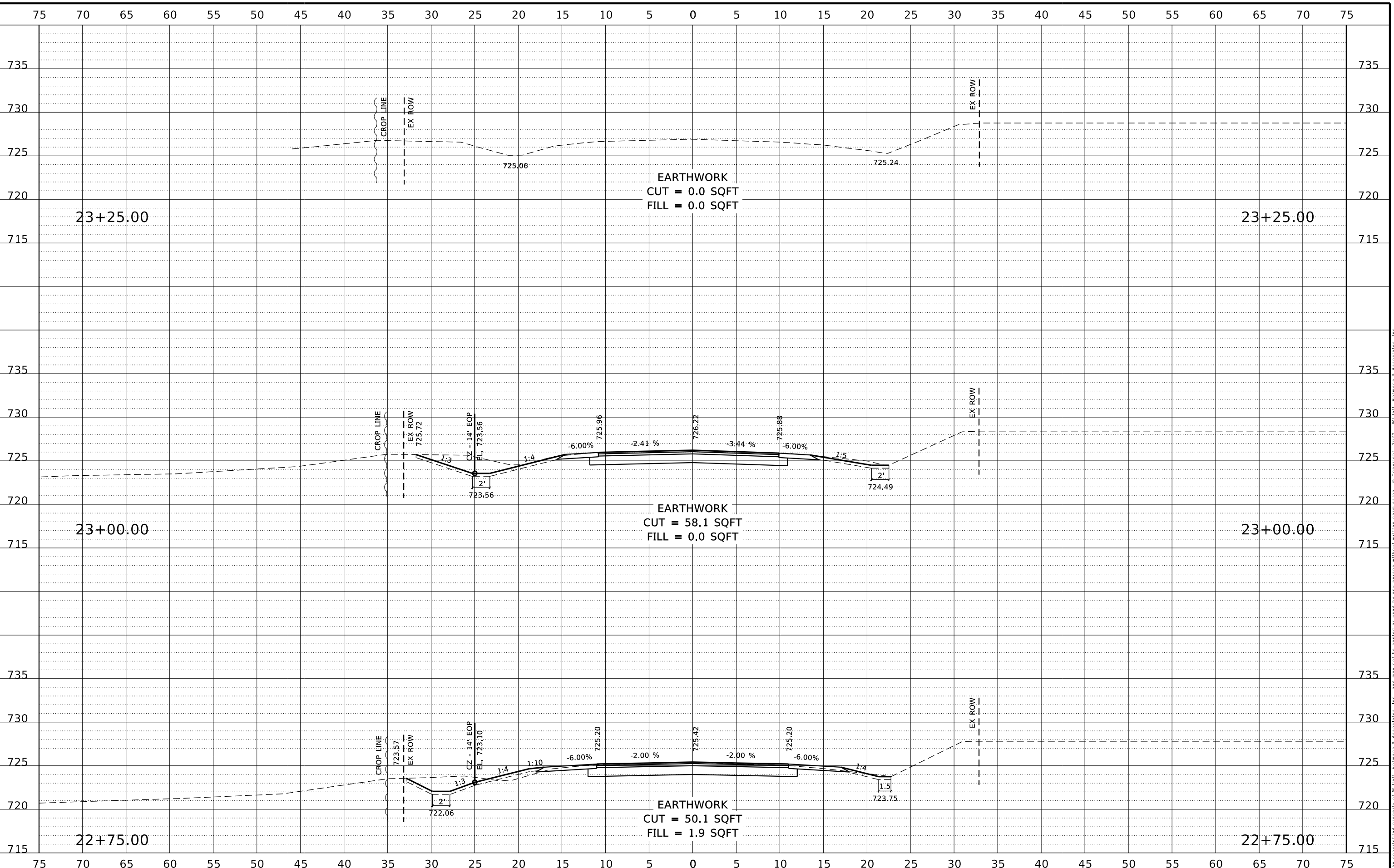
SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

SHEET 7 OF 8

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	40
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\Str-101-5169 (East)\1519M18_XS Sheets (East).dgn
 PRINT_ORGANIZER_BW.plt c:\3/3/2022 11:44:39 AM - PLOTTED



REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5169 (STA. 20+00)



SN 101-5169 (EAST CULVERT)
CROSS SECTIONS

SHEET 8 OF 8

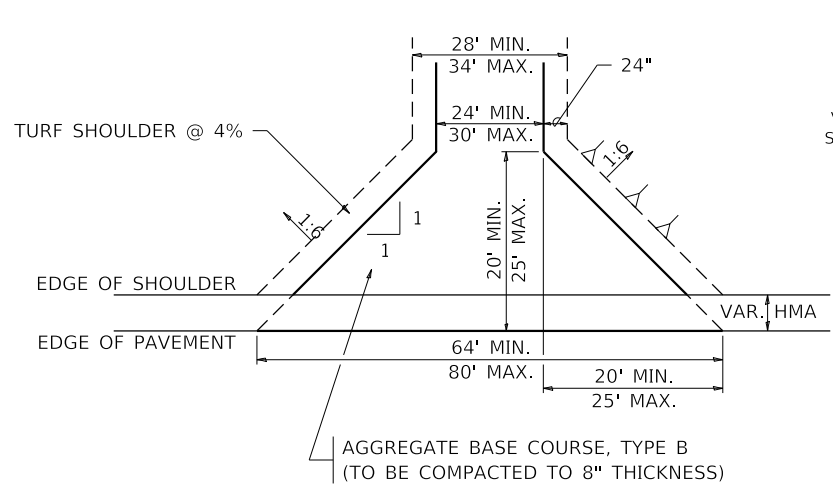
C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71A	17-00654-00-BR	WINNEBAGO	50	41
WHA* 1519M18			ILLINOIS	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

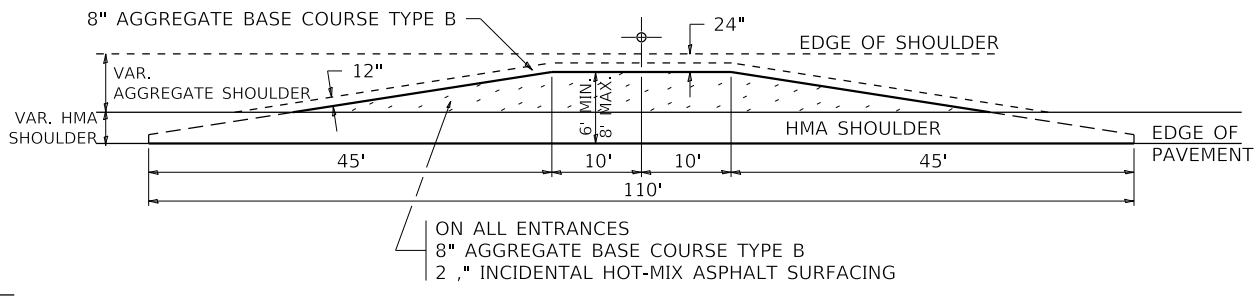
HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS

PRINT_ORGANIZER_BW.plt 3/3/2022 11:44:40 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18_WNCH\DESIGN\CAD_SHEETS\1519M18_District-Stander-ds.dgn



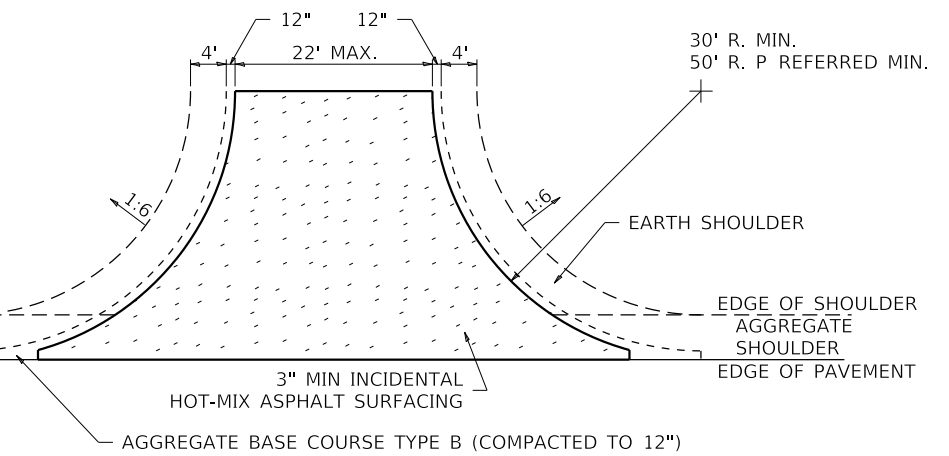
FIELD ENTRANCE



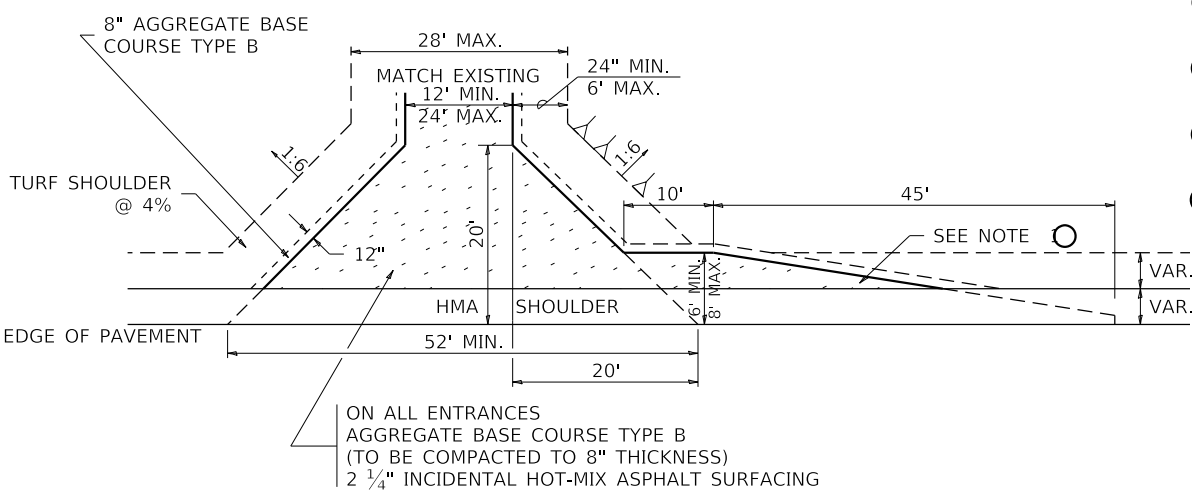
MAILBOX TURNOUT

NOTE

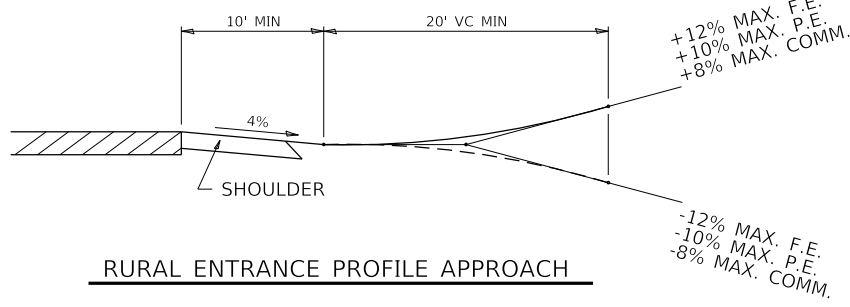
- ① TURNOUTS ARE TO BE CONSTRUCTED ON THE APPROACH SIDE OF ALL PE & CE REGARDLESS IF A MAILBOX IS PRESENT.
- ② ALL PE & CE ARE TO BE SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
- ③ ALL PE & CE TO BE CONSTRUCTED WITH AN 8" AGGREGATE BASE COURSE, TYPE B AND WITH A 2 1/4" INCIDENTAL HOT-MIX ASPHALT SURFACING, UNLESS OTHERWISE NOTED.
- ④ FE ARE TO BE AGGREGATE TO RIGHT OF WAY OR TOUCH DOWN, WHICH EVER IS GREATEST.
- ⑤ EXCAVATION REQUIRED FOR PLACEMENT OF AGGREGATE BASE COURSE SHALL BE INCLUDED IN THE COST OF THE AGGREGATE BASE COURSE.
- ⑥ ON ENTRANCES THE CONTRACTOR HAS THE OPTION OF USING RADIUS RETURNS. USE RADII OF 20' TO 60'.
- ⑦ SIDE ROADS SHALL HAVE 3" INCIDENTAL PLACED IN TWO 1 1/2" LIFTS.



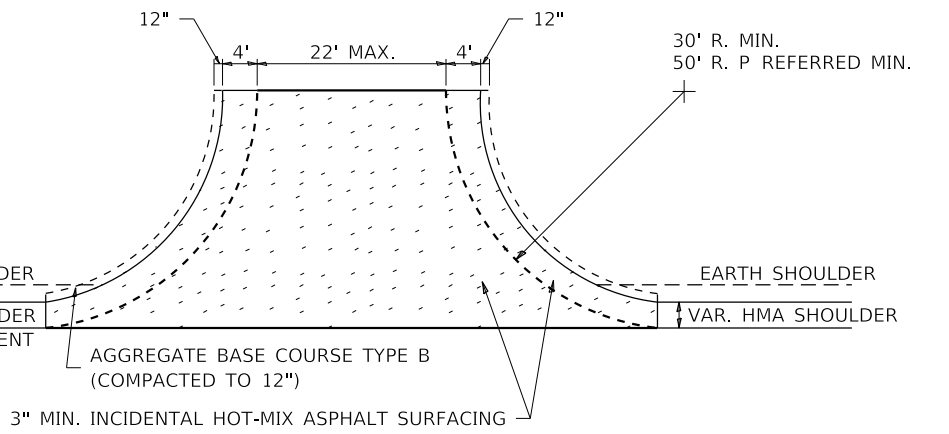
SIDE ROAD RETURN/EARTH SHOULDER



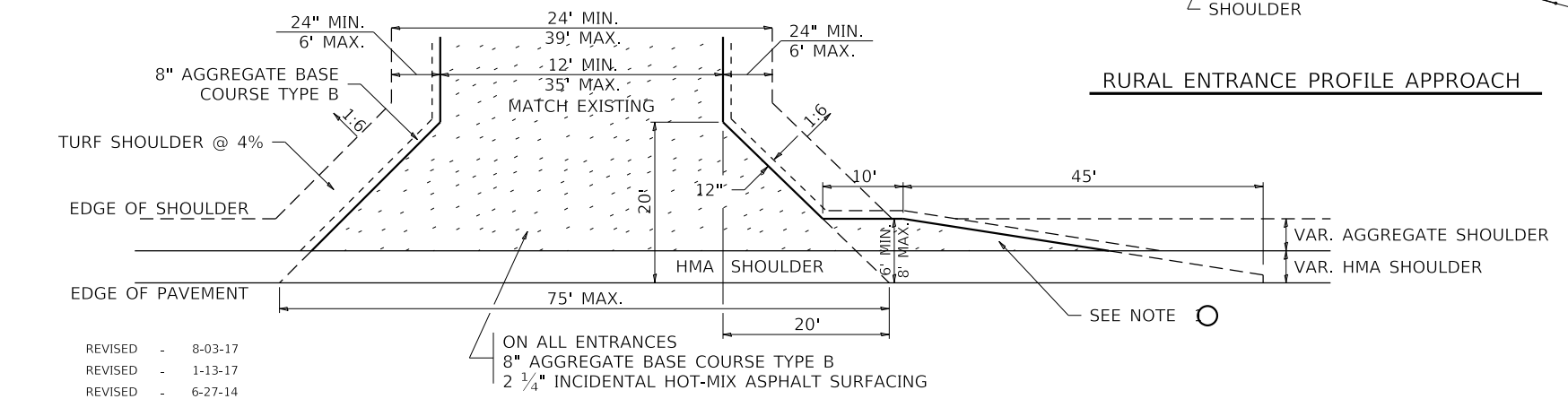
PRIVATE ENTRANCE



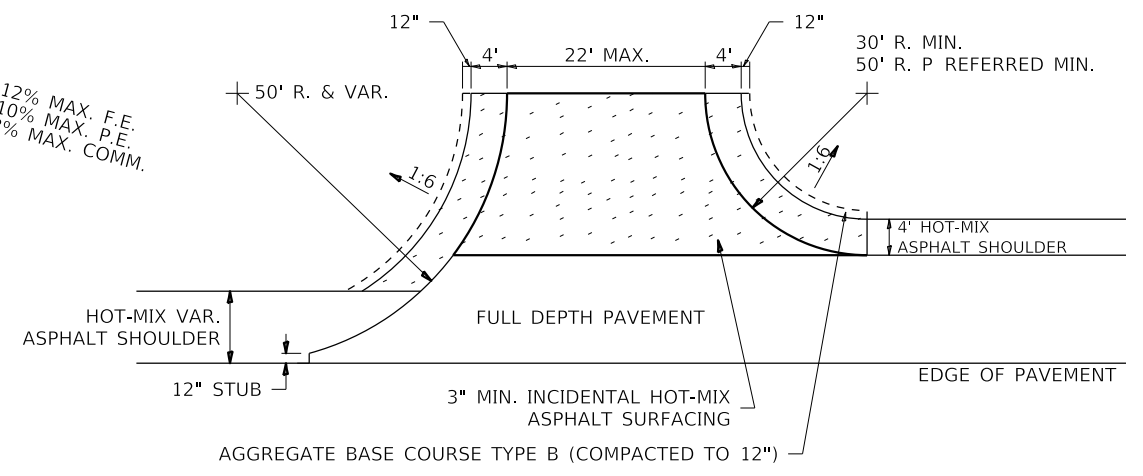
RURAL ENTRANCE PROFILE APPROACH



SIDE ROAD RETURN/HMA SHOULDER



COMMERCIAL ENTRANCE



SIDE ROAD RETURN WITH RIGHT TURN LANE

- REVISED - 8-03-17
- REVISED - 1-13-17
- REVISED - 6-27-14
- REVISED - 8-27-13

HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS 20.1

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



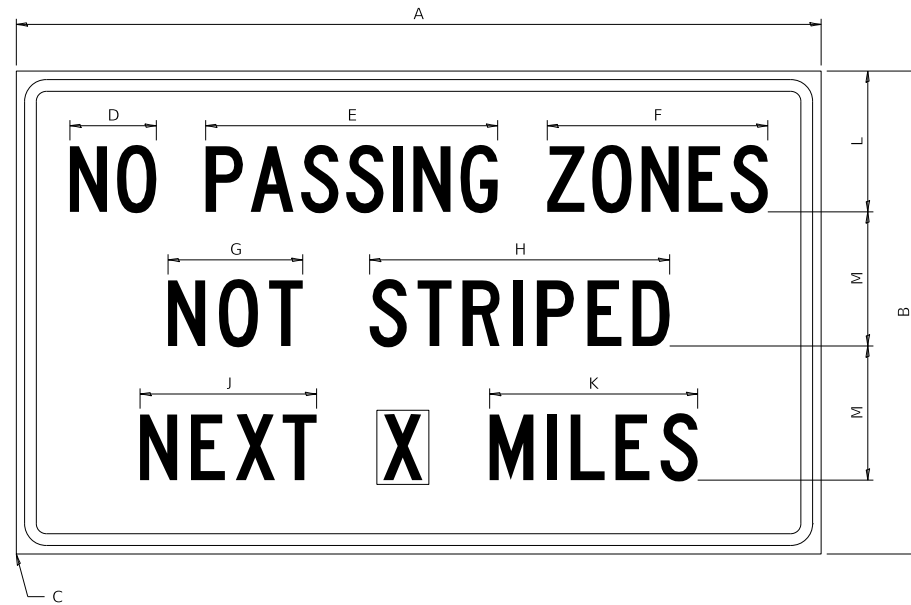
REGION 2 / DISTRICT 2 STANDARD	
SHEET 1 OF 1 SHEETS	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	42
F.A.U. 5000		WHA* 1519M18		
ILLINOIS				

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD G20-I100



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
60 x 36	60.00	36.00	2.25	6.4	21.80	16.40	10.00	22.40	13.20	15.50	10.50	10.00

SIGN SIZE	SERIES BY LINE			MARGIN	BORDER
	1	2	3		
60 x 36	5C	5C	5C	0.625	0.875

Sign not to scale

GENERAL NOTES

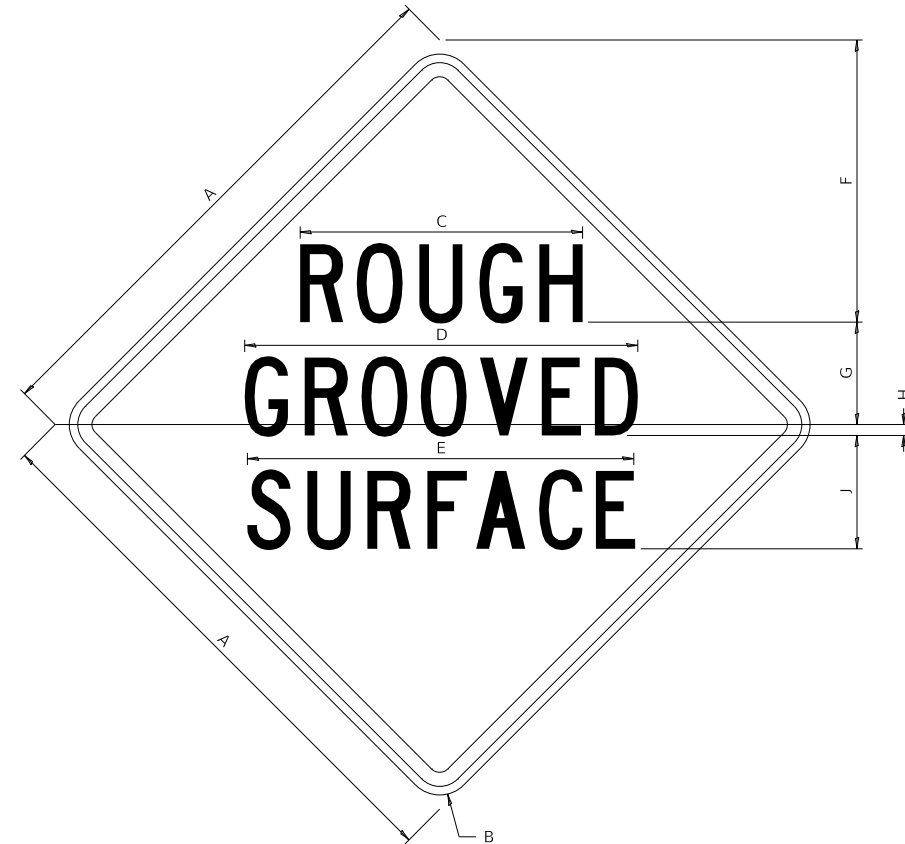
All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

ILLINOIS STANDARD W8-I107



COLOR LEGEND AND BORDER BACKGROUND BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48 x 48	48.00	3.00	25.00	34.80	34.20	24.94	9.00	1.00	10.00

SIGN SIZE	SERIES BY LINE			MARGIN	BORDER
	1	2	3		
48 x 48	7C	7C	7C	1.250	0.750

Sign not to scale

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:14:41 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18 - WINCH\DESIGN\CAD_SHEETS\1519M18_District-Standard.dgn

REVISED - 3-02-16
 REVISED -
 REVISED -
 REVISED -

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



REGION 2 / DISTRICT 2 STANDARD

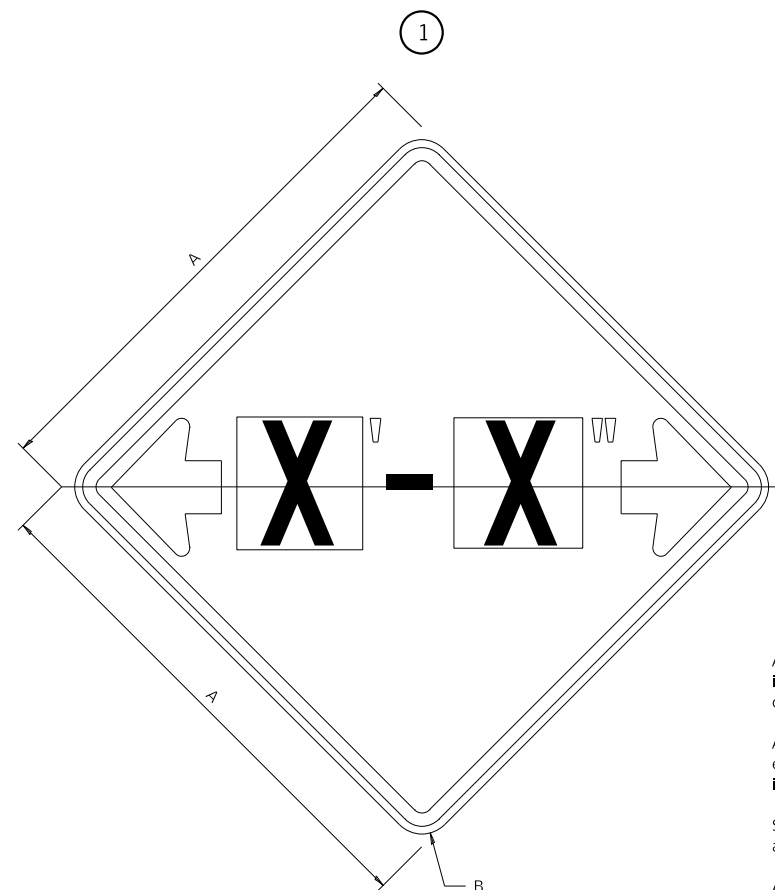
SHEET 1 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	43
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

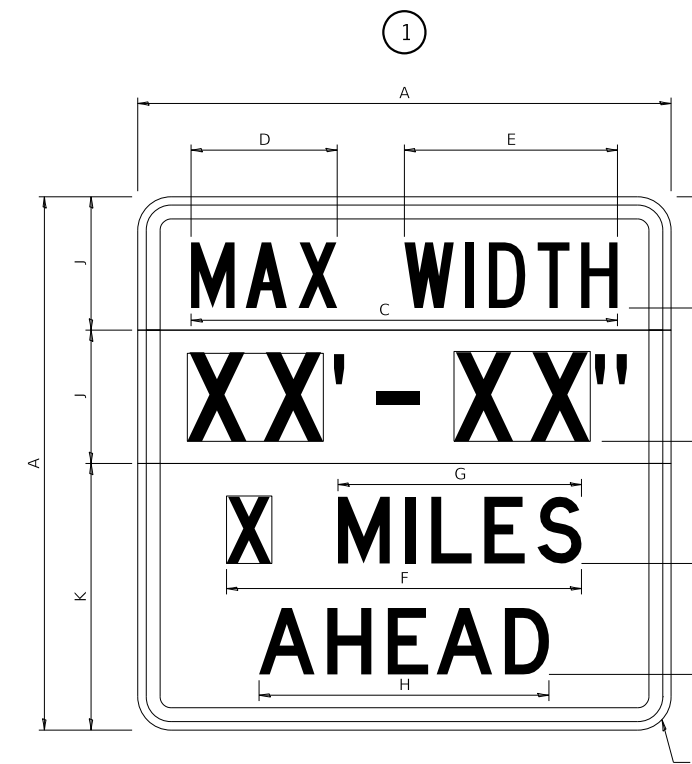
This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD W12-I102



ILLINOIS STANDARD W12-I103



GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

COLOR LEGEND AND BORDER BLACK NON-REFLECTORIZED
 BACKGROUND FL ORANGE REFLECTORIZED

SIGN SIZE	DIMENSIONS	
	A	B
48 x 48	48.00	3.00

① Illinois Standard signs W12-I102 and W12-I103 shall be used as described in the special provisions.

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
	1		
48 x 48	12C	0.750	1.250

Sign not to scale

REVISED - 3-02-16
 REVISED -
 REVISED -
 REVISED -

COLOR LEGEND AND BORDER BLACK NON-REFLECTORIZED
 BACKGROUND WHITE REFLECTORIZED
 BACKGROUND (WIDTH) FL ORANGE REFLECTORIZED

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
48 x 48	48.00	3.00	38.40	13.20	19.20	32.00	22.00	26.20	12.00	24.00	10.00	11.00

SIGN SIZE	SERIES BY LINE				MARGIN	BORDER
	1	2	3	4		
48 x 48	6C	8D	6D	6D	0.750	1.250

Sign not to scale

XX'-XX" WIDTH AND X MILES ARE VARIABLE
 TOP AND BOTTOM OF BACKGROUND WHITE

WORK ZONE SIGN DETAILS SHEET 2 OF 4 34.1

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:14:41 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18 - WINCH\DESIGN\CAD_SHEETS\1519M18 - District-Standard.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



REGION 2 / DISTRICT 2 STANDARD

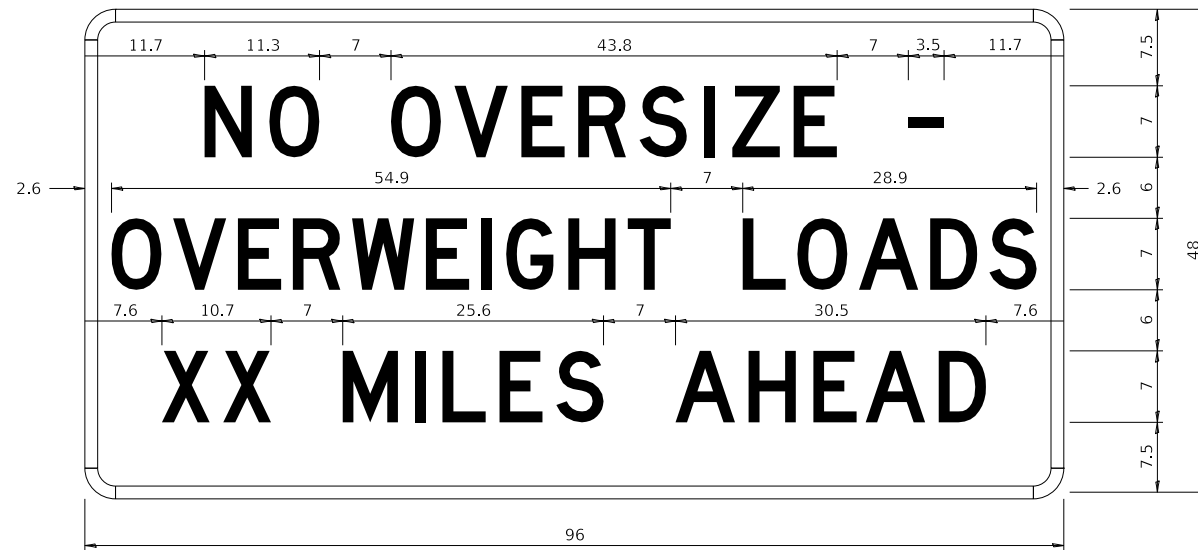
SHEET 2 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	44
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

WORK ZONE SIGN DETAILS

ROAD CLOSED TO OVERSIZED LOADS



COLOR	LEGEND AND BORDER BACKGROUND	BLACK ORANGE	NON-REFLECTORIZED REFLECTORIZED
-------	------------------------------	--------------	---------------------------------

Permit Loads - Loads Over 13 Feet; 3.0" Radius, 1.3" Border;
 [NO OVERSIZE -] D; [OVERWEIGHT LOADS] D 85% spacing; [XX MILES AHEAD] D;
 Table of letter and object lefts.

N	O	O	V	E	R	S	I	Z	E	-
11.7	18.1	30.0	36.2	42.8	48.4	54.4	60.7	63.5	69.5	80.8

O	V	E	R	W	E	I	G	H	T	L	O	A	D	S
2.6	8.6	15.0	20.4	26.2	33.4	38.8	41.3	47.4	53.2	64.5	69.9	75.9	82.9	88.7

X	X	M	I	L	E	S	A	H	E	A	D
7.6	13.6	25.3	32.3	35.1	40.6	46.2	57.9	65.1	71.4	76.6	83.7

REVISED - 3-02-16
 REVISED -
 REVISED -
 REVISED -

Sign not to scale

STOP LINE SIGN FOR TEMPORARY SIGNALS



COLOR	LEGEND AND BORDER BACKGROUND	BLACK WHITE	NON-REFLECTORIZED REFLECTORIZED
-------	------------------------------	-------------	---------------------------------

SIGN SIZE	SERIES BY LINE		
	1	2	3
24 x 24	4C	4C	4C

Sign not to scale

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

WORK ZONE SIGN DETAILS SHEET 3 OF 4 34.1

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



REGION 2 / DISTRICT 2 STANDARD

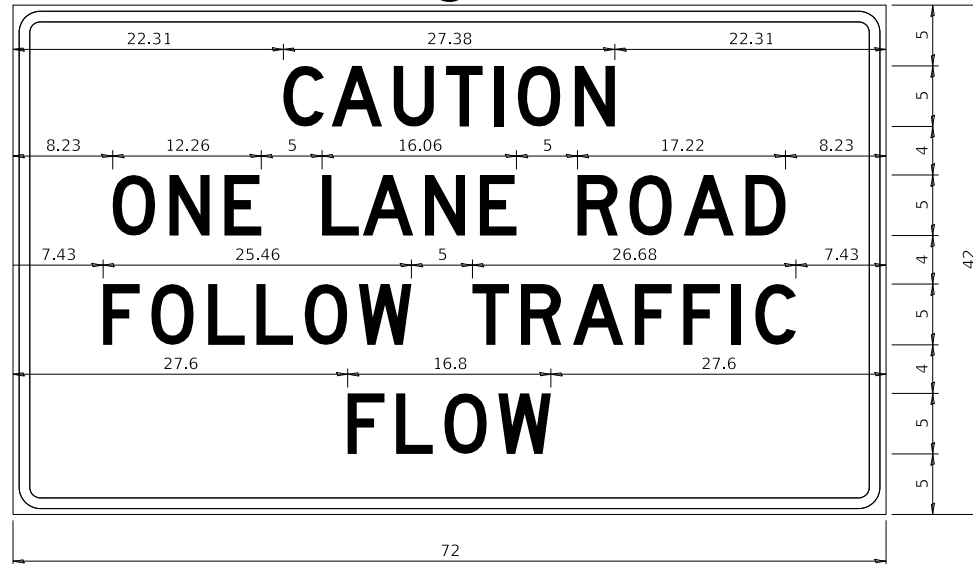
SHEET 3 OF 4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	45
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

PRINT_ORGANIZER_BW.plt:fig 3/3/2022 11:44:42 AM - PLOTTED

ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS

②



COLOR	LEGEND AND BORDER BACKGROUND	BLACK ORANGE	NON-REFLECTORIZED REFLECTORIZED
-------	------------------------------	--------------	---------------------------------

2.25" Radius, 0.88" Border, 0.50" Indent;
[CAUTION] D; [ONE LANE ROAD] D;
[FOLLOW TRAFFIC] D; [FLOW] D

② This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

Table Of Widths And Spaces

22.31	C	3.36	0.62	A	4.18	0.94	U	3.36	0.94	T	3.04	0.94	I	0.78	1.17	O	3.52	1.17	N	3.36	22.31
-------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	-------

8.23	O	3.51	1.17	N	3.36	1.18	E	3.04
------	---	------	------	---	------	------	---	------

5.00	L	3.05	0.31	A	4.18	0.94	N	3.36	1.17	E	3.05
------	---	------	------	---	------	------	---	------	------	---	------

5.00	R	3.36	0.93	O	3.52	0.94	A	4.18	0.93	D	3.36	8.23
------	---	------	------	---	------	------	---	------	------	---	------	------

7.43	F	3.04	0.94	O	3.52	1.17	L	3.04	0.94	L	3.05	0.94	O	3.51	0.94	W	4.37
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------

5.00	T	3.05	0.94	R	3.36	0.94	A	4.18	0.93	F	3.05	0.94	F	3.04	0.94	I	0.78	1.18	C	3.35	7.43
------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------	---	------	------

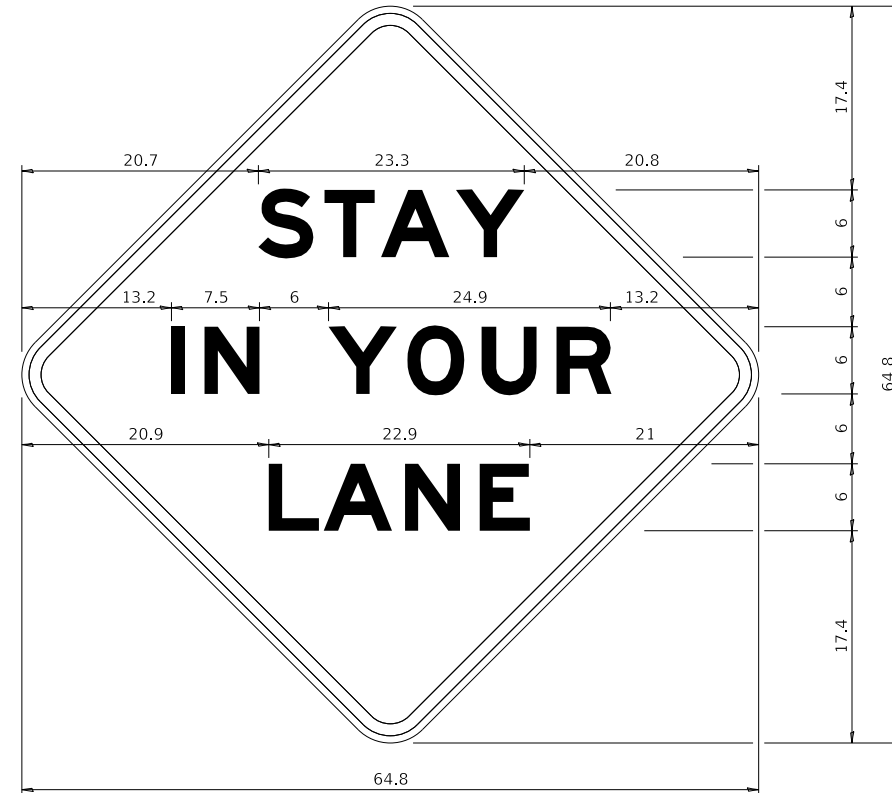
27.60	F	3.05	0.94	L	3.04	0.94	O	3.52	0.93	W	4.38	27.60
-------	---	------	------	---	------	------	---	------	------	---	------	-------

Sign not to scale

REVISED - 3-02-16
REVISED -
REVISED -
REVISED -

WORK ZONE SIGN DETAILS

STAY IN YOUR LANE



COLOR	LEGEND AND BORDER BACKGROUND	BLACK ORANGE	NON-REFLECTORIZED REFLECTORIZED
-------	------------------------------	--------------	---------------------------------

48.0" across sides 3.8" Radius, 1.0" Border, 0.6" Indent;
"STAY" E Mod; "IN YOUR" E Mod; "LANE" E Mod;

Table of Letter and Object Lefts

S	T	A	Y
20.7	26.8	31.6	38.0

I	N	Y	O	U	R
13.2	15.9	26.7	33.9	40.5	46.8

L	A	N	E
20.9	25.8	33.1	39.4

Sign not to scale

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\1519M18-District-Standard.dgn

REVISION	DATE	BY	REMARKS	DESIGNED	GBG	DRAWN	DLB	REVIEWED	GFS	APPROVED	GFS	REMARKS

WINNEBAGO COUNTY	F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK	SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)
------------------	---	---

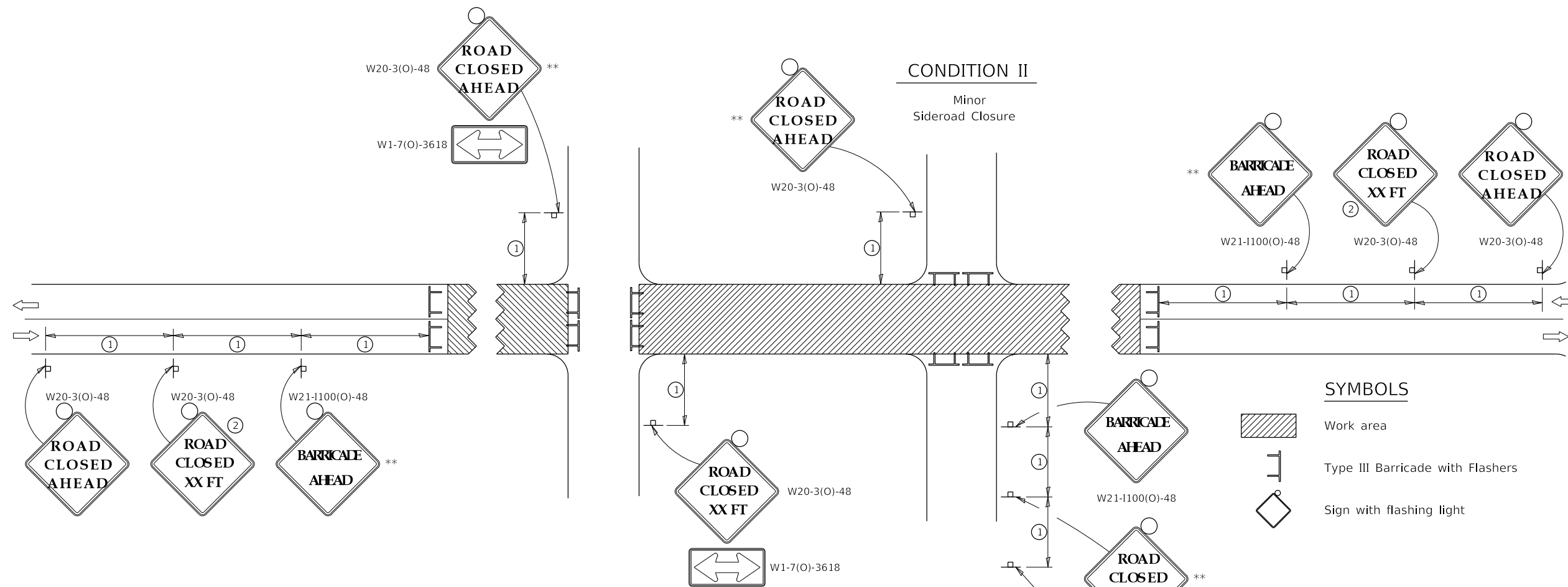
WILLET HOFMANN & ASSOCIATES INC	ENGINEERING ARCHITECTURE LAND SURVEYING	1515 FIFTH AVENUE, SUITE 102, MOULINE, IL 61265	T: 309-517-1119 DESIGN FIRM: # 184-000918
--	---	---	---

REGION 2 / DISTRICT 2 STANDARD	SHEET 4 OF 4 SHEETS
--------------------------------	---------------------

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	46
F.A.U. 5000		WHA*	1519M18	

This document is the copyrighted property of Willett, Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett, Hofmann & Associates, Inc.

TRAFFIC CONTROL FOR ROAD CLOSURE



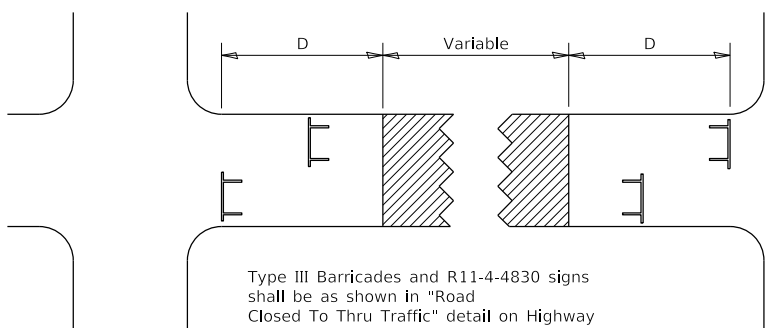
①

SIGN SPACING TABLE	
Posted Speed	Sign Spacing
45 MPH and above	500'
Below 45 MPH	250'

②

SIGN LEGEND	
Posted Speed Limit	Distance
45 MPH and above	1000'
Below 45 MPH	500'

ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

GENERAL NOTES

- Longitudinal dimensions may be adjusted to fit field conditions.
- Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.
- ** Where local access is to be maintained, barricades are to be set up as shown in "Road Closed To Thru Traffic". Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.
- All dimensions are in inches unless otherwise shown.

- REVISED - 8-03-17
- REVISED - 1-05-16
- REVISED - 8-27-13
- REVISED - 10-17-11

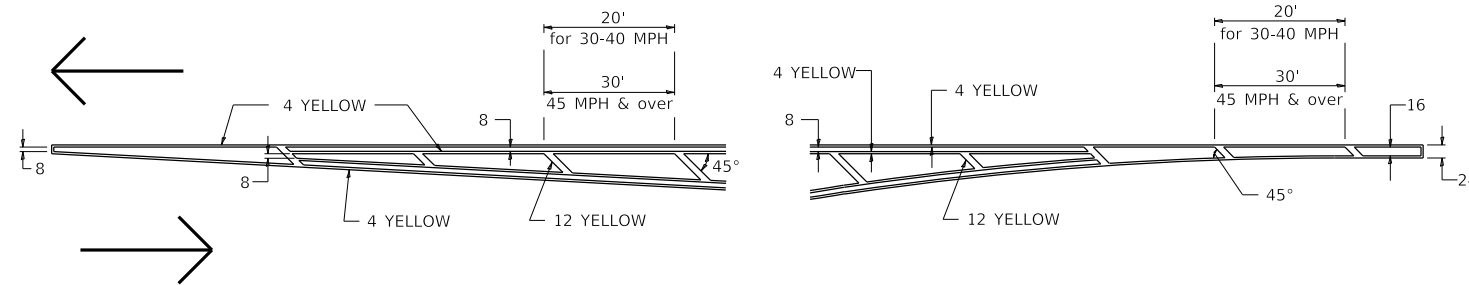
PRINT_ORGANIZER.BW.plt; 3/3/2022 11:44:43 AM - PLOTTED

S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD-SHEETS\1519M18-District-Standard.dgn

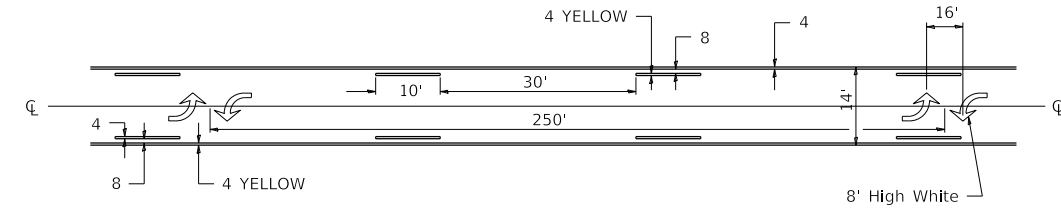
DESIGNED	GBG	WINNEBAGO COUNTY F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)	WILLET HOFMANN & ASSOCIATES, INC. ENGINEERING ARCHITECTURE LAND SURVEYING 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265 T: 309-517-1119 DESIGN FIRM # 184-000918	REGION 2 / DISTRICT 2 STANDARD SHEET 1 OF 1 SHEETS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DRAWN	DLB				5000	17-00654-00-BR	WINNEBAGO	50	47	
REVIEWED	GFS				F.A.U. 5000		WHA* 1519M18			
APPROVED	GFS				ILLINOIS					

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

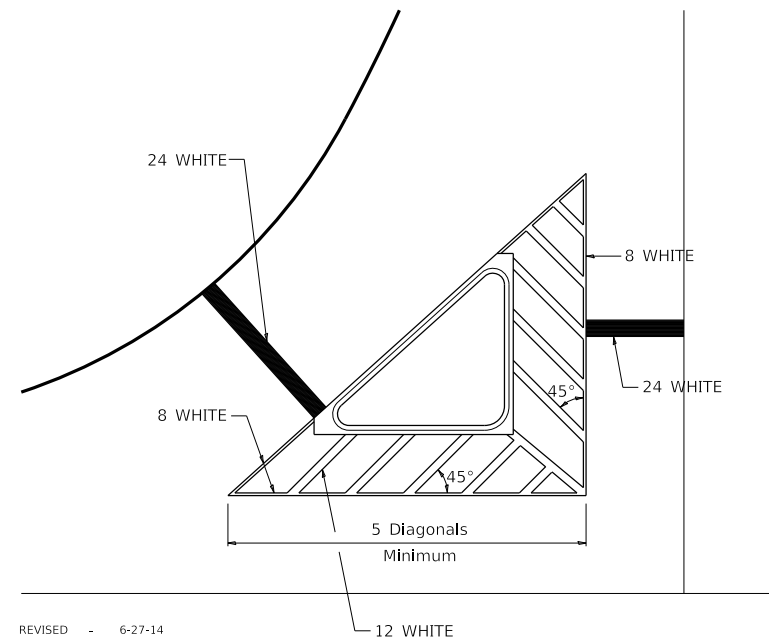


MEDIAN PAVEMENT MARKING



** ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

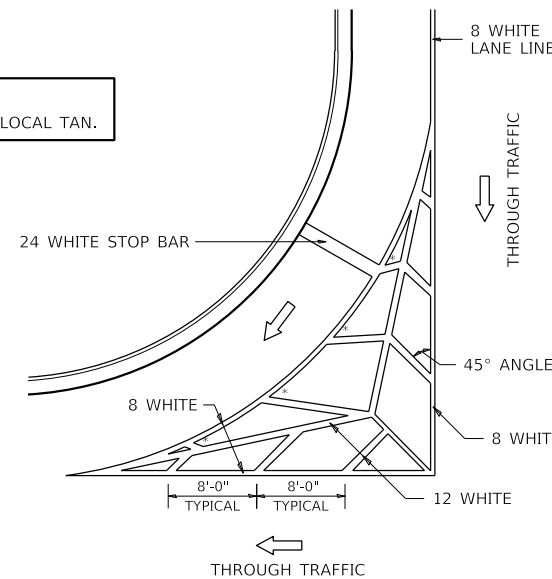
TYPICAL ISLAND OFFSET SHOULDER WIDTH



REVISED - 6-27-14
 REVISED - 3-05-12
 REVISED -
 REVISED -

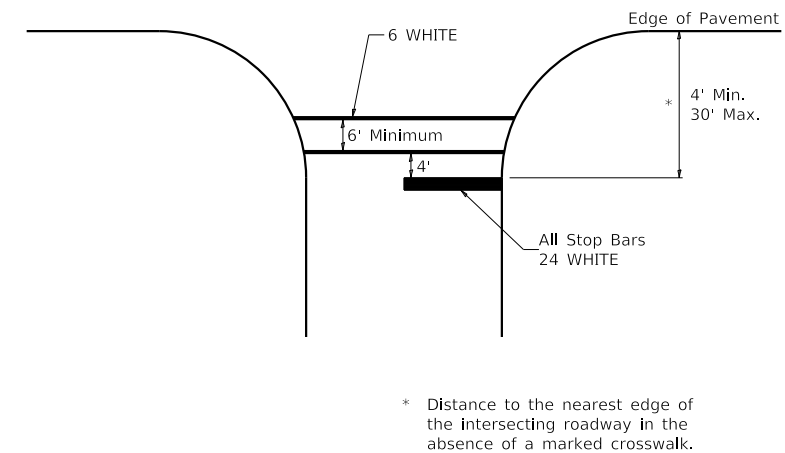
TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:
 * 45° TO LOCAL TAN.



STANDARD CROSSWALK MARKING

See Schedules for Locations



TYPICAL PAVEMENT MARKINGS SHEET 1 OF 3 41.1

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:14:43 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD_SHEETS\1519M18-District-Standard.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
 F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
 SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



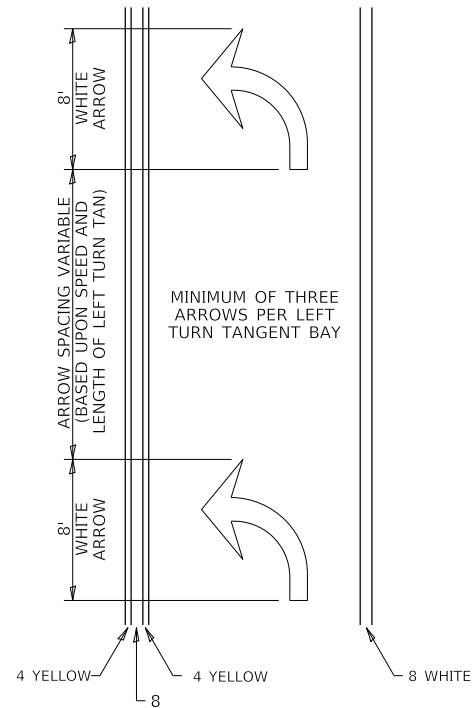
REGION 2 / DISTRICT 2 STANDARD
 SHEET 1 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	48
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT

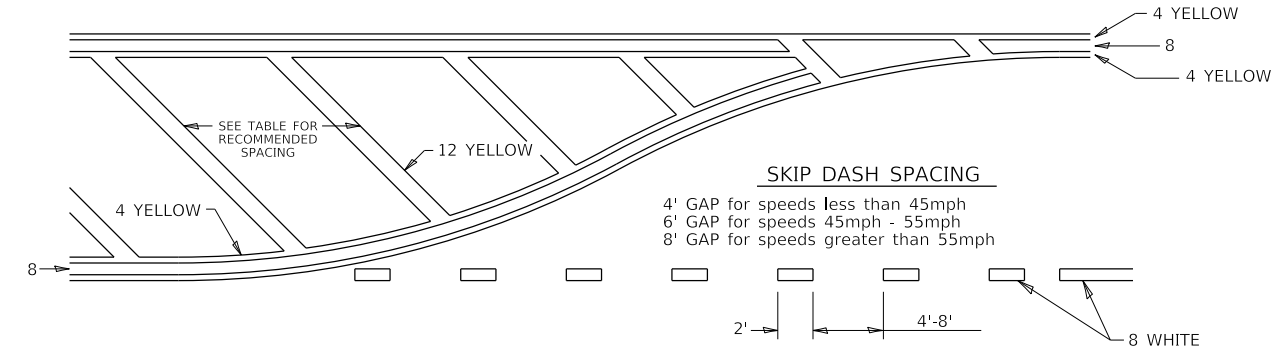


MINIMUM OF THREE ARROWS PER LEFT TURN TANGENT BAY

- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◇ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

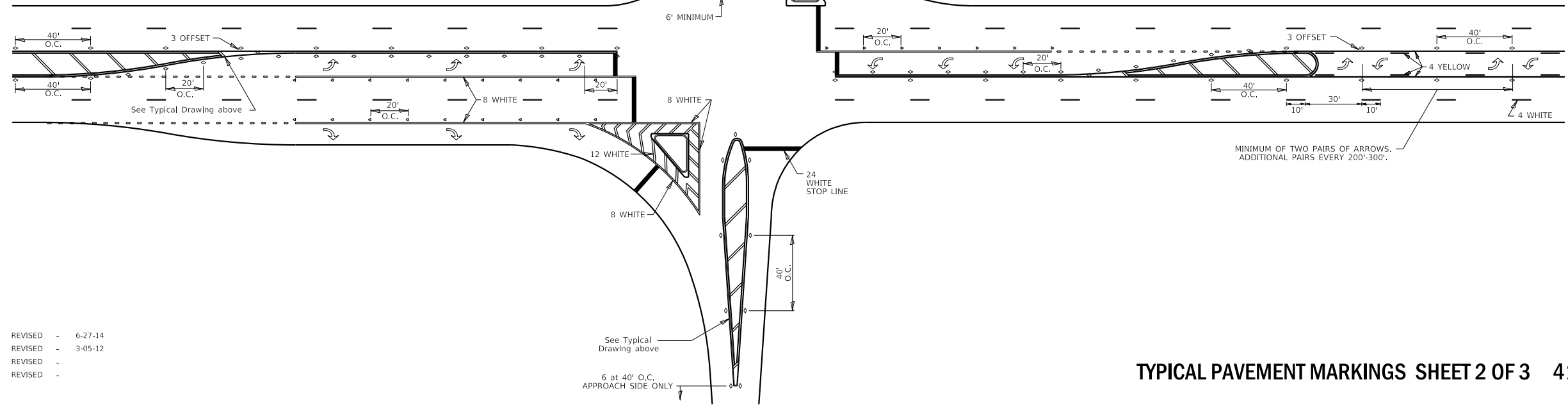
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 30MPH	50'	15'	10'
30-40MPH	75'	20'	15'
45MPH & over	75'	30'	20'

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



- REVISED - 6-27-14
- REVISED - 3-05-12
- REVISED -
- REVISED -

TYPICAL PAVEMENT MARKINGS SHEET 2 OF 3 41.1

PRINT_ORGANIZER_BW.plt.ctb 3/3/2022 11:44:44 AM - PLOTTED

S:\PROJECTS\2018\1519M18 - WINCH\DESIGN\CAD_SHEETS\1519M18 - District-Standard.dgn

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	DLB
REVIEWED	GFS
APPROVED	GFS

WINNEBAGO COUNTY
F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK
SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)



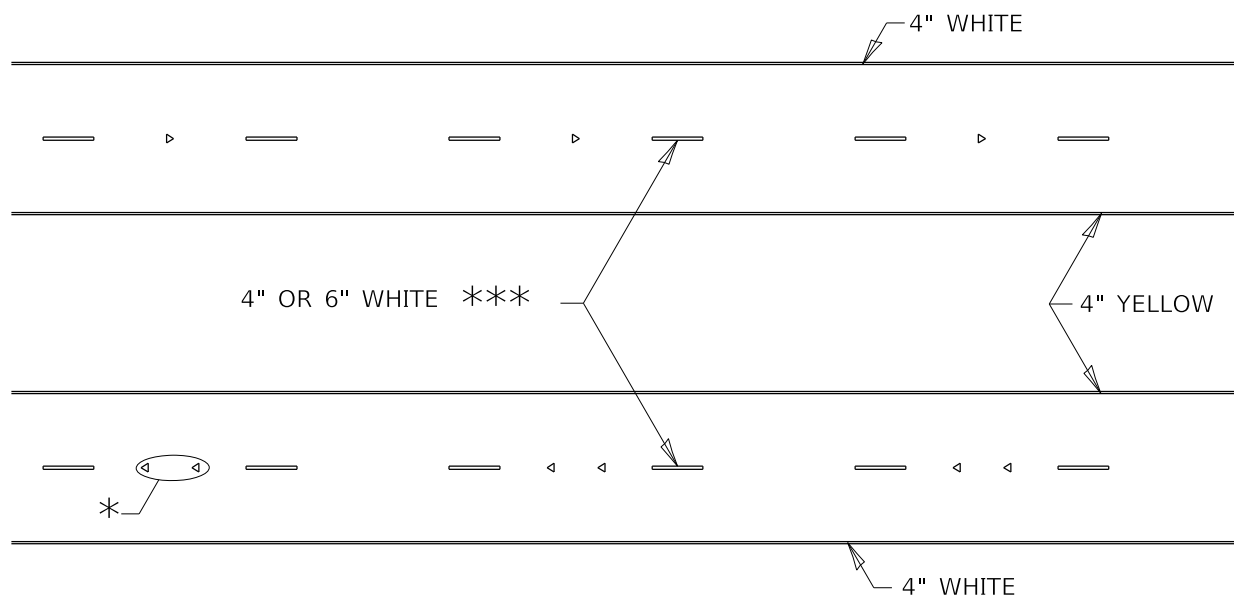
REGION 2 / DISTRICT 2 STANDARD

SHEET 2 OF 3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	49
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

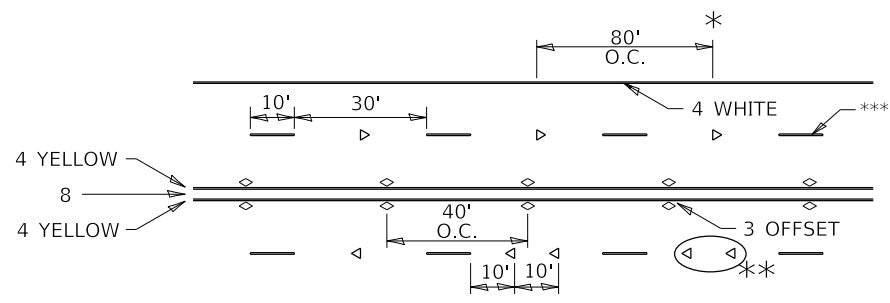
This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT ≥ 20,000.

MULTI-LANE / DIVIDED



* REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.

** USE DOUBLE MARKERS WHEN ADT ≥ 20,000

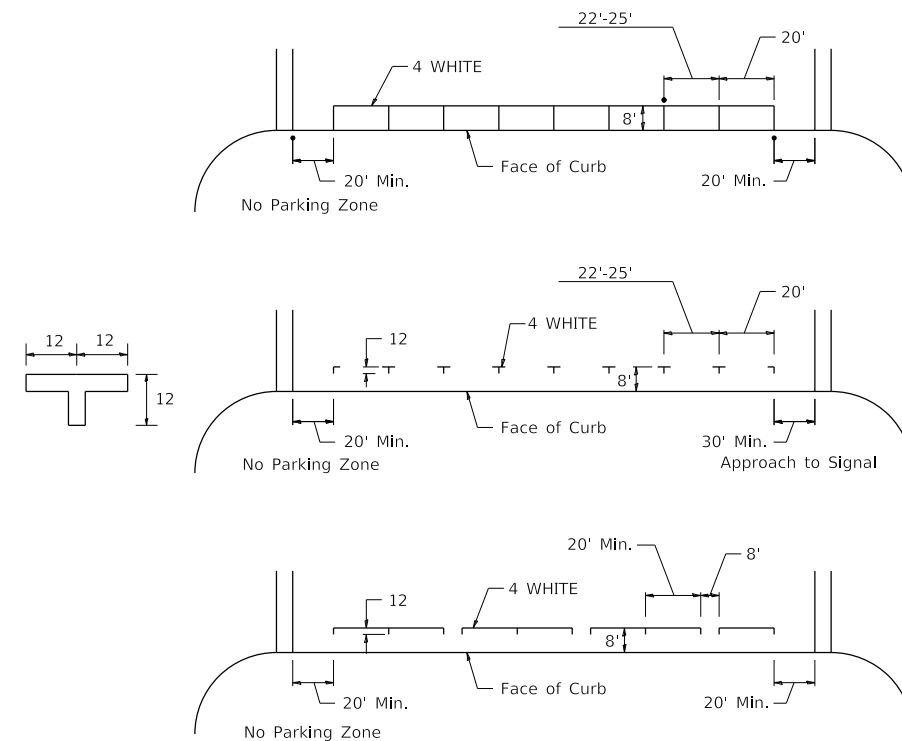
*** CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND OVER USE 6" LINE.

MULTI-LANE / UNDIVIDED & ONE WAY

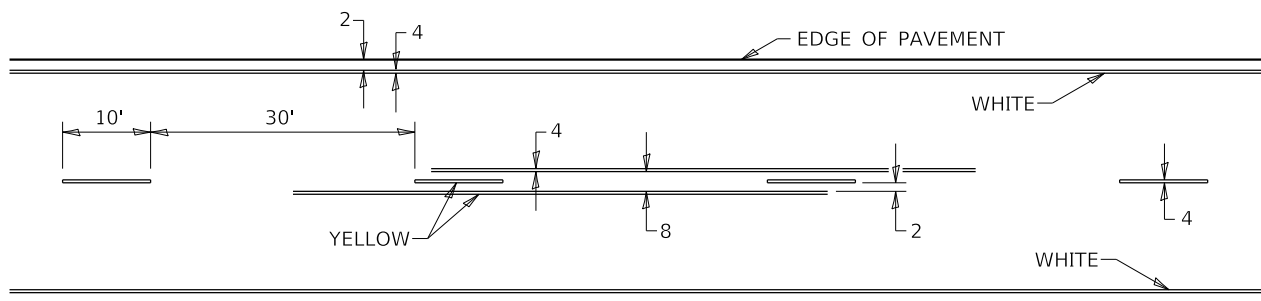
(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS
DETAIL NOT HIGHWAY STANDARD 781001)

REVISED	-	6-27-14
REVISED	-	8-27-13
REVISED	-	11-28-12
REVISED	-	

TYPICAL PARKING SPACING



TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES



TYPICAL PAVEMENT MARKINGS SHEET 3 OF 3 41.1

PRINT_ORGANIZER.BW.plt.ctb 3/3/2022 11:44:44 AM - PLOTTED

FILE = S:\PROJECTS\2018\1519M18-WNCH\DESIGN\CAD_SHEETS\1519M18-District-Standard.dgn

REVISION	DATE	BY	REMARKS
DESIGNED	GBG		
DRAWN	DLB		
REVIEWED	GFS		
APPROVED	GFS		

WINNEBAGO COUNTY F.A.U. 5000 & C.H. 71A (GLEASMAN ROAD) OVER UNNAMED CREEK SN 101-5168 (STA: 10+03) - & - SN 101-5169 (STA: 20+00)	
---	--

REGION 2 / DISTRICT 2 STANDARD SHEET 3 OF 3 SHEETS	
---	--

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
5000	17-00654-00-BR	WINNEBAGO	50	50
F.A.U. 5000		WHA*	1519M18	
ILLINOIS				

This document is the copyrighted property of Willett-Hofmann & Associates, Inc., and may not be copied or used by any person without written permission. © Copyright 2022 Willett-Hofmann & Associates, Inc.