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11/18/2022 LETTING ITEM 092

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ROCK ISLAND COUNTY HIGHWAY DEPARTMENT

PLANS FOR PROPOSED FEDERAL AID PROJECT

**F.A.S. 209 (C.H. 11/322nd ST. W.)
SECTION 20-00381-00-DR
RETAINING WALL REPLACEMENT
PROJECT HHX6(218)
JOB NO. C-92-078-20
ROCK ISLAND COUNTY**

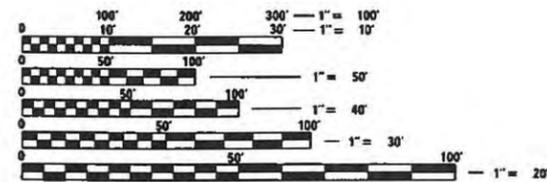
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	1
WHA# 1078M20		CONTRACT NO. 85728		
		[ILLINOIS] FED. AID PROJECT HHX6(218)		



SEE SHEET 2 FOR A LIST OF UTILITIES.

ATTENTION CONTRACTORS

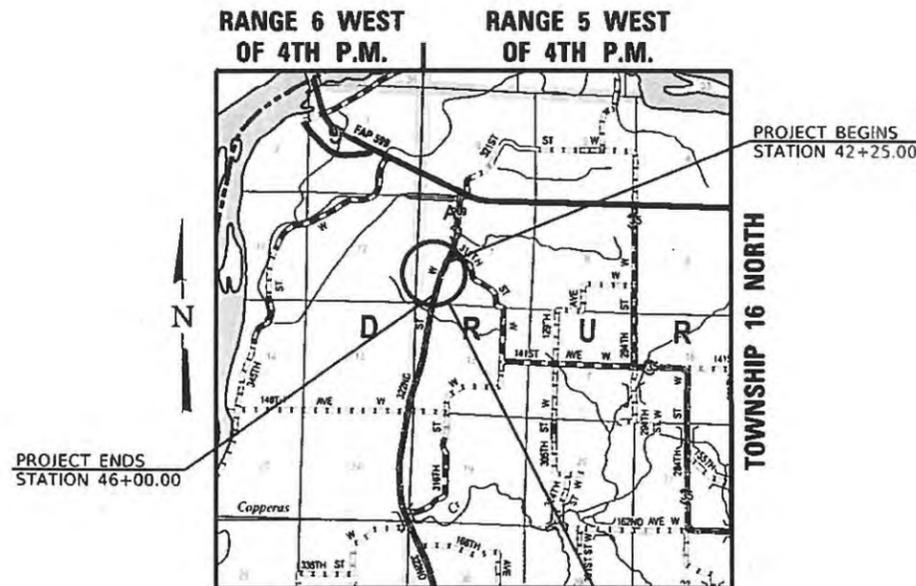
THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF MATERIALS AND PHYSICAL RESEARCH, "PROJECT PROCEDURES GUIDE" IS APPLICABLE TO THIS PROJECTS



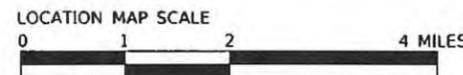
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. DIG NO. X221302801-00X
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

**PROJECT ENGINEER – ATK
PROJECT MANAGER – MRL
CONTRACT NO. 85728**



A 324' TANGENT DRILLED SHAFT RETAINING WALL



GROSS LENGTH = 375 FT. = 0.07 MILE
NET LENGTH = 375 FT. = 0.07 MILE



DATE: 09/12/2022
EXPIRES 11/30/23

ROCK ISLAND COUNTY HIGHWAY DEPARTMENT		
APPROVED	<i>John C. Mansa</i> 9/13/2022	2022
ROCK ISLAND COUNTY ENGINEER		
PASSED	<i>Shawn C. Johnson</i> 9/16/2022	2022
DISTRICT 2 LOCAL ROADS & STREETS ENGINEER		
RELEASING FOR BID BASED ON LIMITED REVIEW	<i>Marcos Almadeno</i> 9/16/2022	2022
REGION 2 ENGINEER		



**WILLETT HOFMANN
& ASSOCIATES INC**
ENGINEERING ARCHITECTURE LAND SURVEYING

1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

GENERAL NOTES

1. THE CONTRACTOR SHALL COOPERATE WITH LANDOWNERS AND TENANTS REGARDING ACCESS TO PRIVATE PROPERTY, AS WELL AS THE U.S. POST OFFICE FOR MAIL DELIVERY. ALL EXISTING SIGNAGE AND MAILBOXES ALONG THE STREET SHALL BE REMOVED AND RE-INSTALLED AS DIRECTED BY THE ENGINEER. THE COST OF REMOVING AND RE-INSTALLING SIGNS SHALL BE INCIDENTAL TO EARTH EXCAVATION.
2. EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, WELLS, OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT OF WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 501.04 AND 501.05 OF THE STANDARD SPECIFICATIONS, WITHOUT ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.
3. WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS OR CONCRETE SURFACE, OR WHERE SAWING IS STATED ON THE PLANS, THE EXISTING SURFACE SHALL BE SAWED IN A NEAT, STRAIGHT LINE. COST OF SAWING IS TO BE INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT.
4. NO OVERHAUL HAS BEEN COMPUTED AND NONE SHALL BE PAID FOR FROM ANY SOURCE.
5. ANY TEMPORARY SEEDING THAT IS DIRECTED BY THE ENGINEER SHALL BE PAID AS TEMPORARY EROSION CONTROL SEEDING.
6. THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FIELD TILES, UNDERGROUND AND SURFACE UTILITIES AS OUTLINED IN ARTICLE 107.20 OF THE STANDARD SPECIFICATIONS, EVEN THOUGH THEY MAY NOT BE SHOWN IN THE PLANS. ANY FIELD TILE THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
8. 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.
9. WHEN REQUIRED DUE TO THE TEMPERATURE, PROTECTIVE COAT SHALL BE APPLIED TO CONCRETE. THE APPLICATION OF THE PROTECTIVE COAT SHALL BE IN ACCORDANCE WITH SECTION 420 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
10. THE CONTRACTOR MAY CREATE TEMPORARY EARTH PLATFORMS FOR WALL CONSTRUCTION FROM AVAILABLE MATERIAL. FINAL GRADING SHALL BE PERFORMED WHEN WALL CONSTRUCTION IS COMPLETE. TEMPORARY EARTH PLATFORM CONSTRUCTION AND REMOVAL SHALL BE CONTRACTORS COST AND RESPONSIBILITY.
11. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A LIST OF MATERIALS USED AND IDENTIFY THEIR ASSOCIATED IDOT CERTIFICATION, SHALL PROVIDE THE ENGINEER WITH A COPY OF ALL MATERIAL TESTING COMPANY RESULTS, SHALL SIGN AND PROVIDE THE ENGINEER ON A WEEKLY BASIS WEEKLY FIELD REPORTS UTILIZING THE APPROPRIATE IDOT FORM, SHALL SUBMIT TO THE ENGINEER A CERTIFICATION LETTER THAT CERTIFIES COMPLIANCE WITH THE PLANS AND SPECIFICATIONS.
12. THE LOCATION AND ELEVATION OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.
13. THE CONTRACTOR WILL BE ALLOWED TO ADJUST THE EARTHWORK SLOPES AS APPROVED BY THE ENGINEER TO SMOOTH OUT EARTH SLOPE TRANSITIONS. THE CONTRACTOR SHALL STILL MEET THE MINIMUM 6" DEPTH OF FILL OVER THE DRILLED SHAFTS FOR THE RETAINING WALL.

UTILITIES

FRONTIER COMMUNICATIONS - KALIN HINSHAW
815-895-1515
112 ELM ST.
SYCAMORE, ILLINOIS 60178
kalin.hinshaw@ftr.com

MIDAMERICAN ENERGY - MATT KOVACIC
309-793-3704
811 5TH AVE.
ROCK ISLAND, ILLINOIS 61201
mskovacic@midamerican.com

STANDARDS

85728

IDOT STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701316-13 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS ≥ 45 MPH
- 701901-08 TRAFFIC CONTROL DEVICES
- 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 & MARKERS)

REGION 2 / DISTRICT 2 STANDARDS

- 34.1 WORK ZONE SIGN DETAILS
- 41.1 TYPICAL PAVEMENT MARKINGS

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

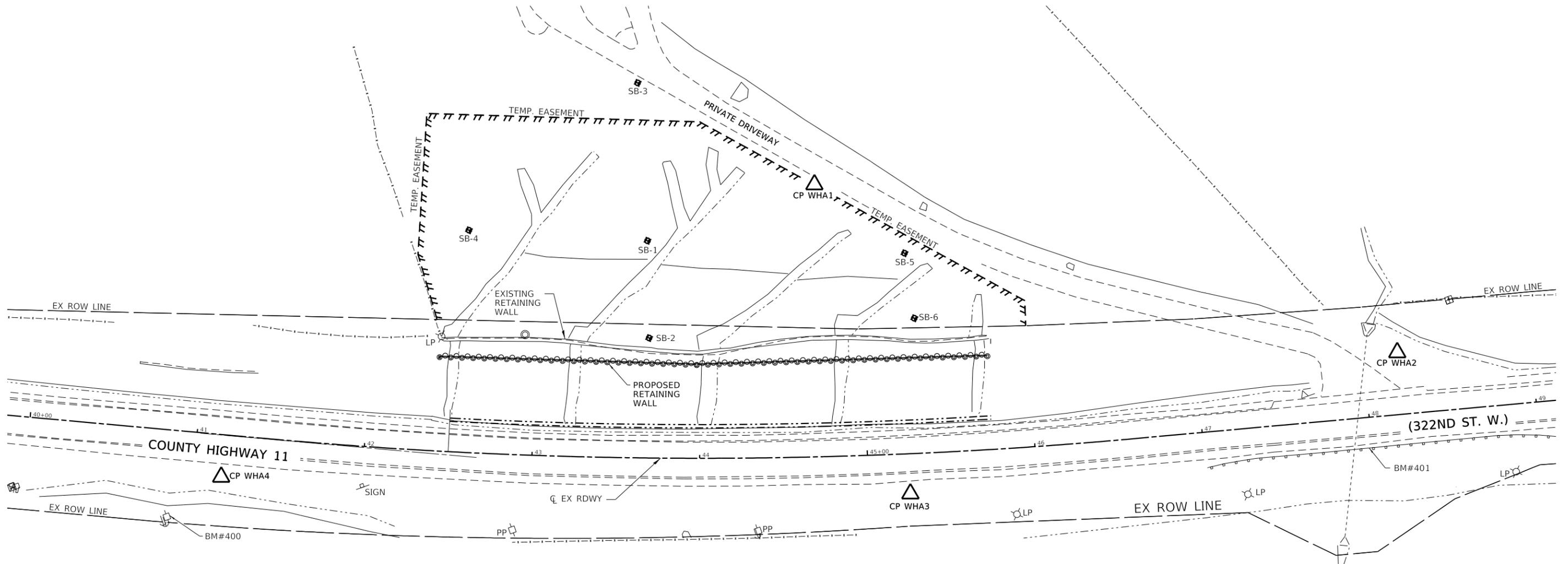
ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



GENERAL NOTES & STANDARDS

SHEET NO. 1 OF 1 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	2
WHA # 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

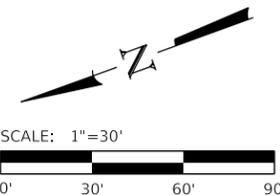


C.H. 11 (322ND ST. W.) RETAINING WALL - STA. 42+40.28 - 45+76.51 HORIZONTAL CONTROL POINTS					
PT #	STA	N	E	EL	DESCRIPTION
WHA1	162.00' LT. 44+72.47	1722906.63	2065242.53	617.11	1/2" REBAR
WHA2	37.00' LT. 48+20.17	1722613.81	2065030.61	578.47	1/2" REBAR
WHA3	24.00' RT. 45+24.61	1722915.31	2065050.23	573.63	1/2" REBAR
WHA4	25.00' RT. 41+16.59	1723298.27	2065199.25	568.38	1/2" REBAR

C.H. 11 (322ND ST. W.) RETAINING WALL - STA. 42+40.28 - 45+76.51 BENCHMARKS					
BM #	STA	N	E	EL	DESCRIPTION
400	51.58' RT. 40+86.36	1723334.62	2065189.29	568.60	RR SPIKE IN PP NW OF RETAINING WALL
401	18.63' RT. 47+96.36	1722650.40	2064981.50	581.25	TOP OF BRACE ON GR 10' S OF CULVERT



Know what's below.
Call before you dig.



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



BENCHMARKS & CONTROL POINTS

SHEET NO. 1 OF 1 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	3
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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SUMMARY OF QUANTITIES
CONSTRUCTION TYPE CODE: 0044

85728

PAY CODE	PAY ITEM NAME	UNIT	QUANTITY
20400800	FURNISHED EXCAVATION	CU YD	50
20900110	POROUS GRANULAR BACKFILL	CU YD	236
21101600	TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH	SQ YD	381
25100630	EROSION CONTROL BLANKET	SQ YD	6,501
28000305	TEMPORARY DITCH CHECKS	FOOT	42
28000400	PERIMETER EROSION BARRIER	FOOT	557
28200200	FILTER FABRIC	SQ YD	381
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	207
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	52
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	459
48101200	AGGREGATE SHOULDERS, TYPE B	TON	43
* 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	135
50300225	CONCRETE STRUCTURES	CU YD	78.7
50800105	REINFORCEMENT BARS	POUND	77,410

SUMMARY OF QUANTITIES (CONT.)
CONSTRUCTION TYPE CODE: 0044

PAY CODE	PAY ITEM NAME	UNIT	QUANTITY
51603000	DRILLED SHAFT IN SOIL	CU YD	186
51604000	DRILLED SHAFT IN ROCK	CU YD	134
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	344
60108200	PIPE UNDERDRAINS 6" (SPECIAL)	FOOT	366
67100100	MOBILIZATION	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	303
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	789
70307210	TEMPORARY PAVEMENT MARKING - LINE 24" - TYPE IV TAPE	FOOT	20
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,500
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	240
* Z0013798	CONSTRUCTION LAYOUT	L SUM	1
* X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	446
* X2501020	SEEDING, CLASS 2A (SPECIAL)	ACRE	1.4
* X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

* DENOTES SPECIAL PROVISION
Δ SPECIALTY ITEMS

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

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



WILLETT HOFMANN
ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, AUBURN, IL 61205
T. 309.517.1119 DESIGN #114-000219

SUMMARY OF QUANTITIES
SHEET NO. 1 OF 1 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	4
WHA* 1078M20			CONTRACT NO. 85728	
[ILLINOIS] FED. AID PROJECT HIXG121B				

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SCHEDULE OF QUANTITIES

EARTHWORK SCHEDULE

C.H. 11 (322ND ST. W.)

LOCATION	EARTH EXCAVATION (SPECIAL)	STRUCTURE EXCAVATION	EARTH & STRUCTURE EXCAVATION ADJUSTED FOR SHRINKAGE (C)	EMBANKMENT	SPOILS PRODUCED FROM DRILLED SHAFTS	SPOILS ADJUSTED FOR SHRINKAGE	EARTHWORK BALANCE (+) WASTE OR (-) SHORTAGE
	(A)	(B)	0.75(A+B)	(D)		(E)	(C+E) - (D)
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
TOTAL	446	135	436	411	184	69	94

TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH		
STATION	SQ YD	REMARKS
LT STA 42+25 TO 46+00	381	PLACE AT EXISTING AGG. DRAINS
PROJECT TOTAL	381	

21101600

BITUMINOUS MATERIALS (TACK COAT)		
STATION	POUND	REMARKS
LT STA 42+25 TO 46+00	207	0.025 LB./SQ. FT. OVER BIT.
PROJECT TOTAL	207	

40600290

TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE		
STATION	FOOT	REMARKS
LT STA 41+00 TO 47+45	645	TEMPORARY SIGNAL PHASE (SOLID LINE)
STA 40+40 TO 47+55	72	POST MILLING CL (4' DASH - 40' MAX SKIP)
STA 40+40 TO 47+55	72	POST HMA PAVING CL (4' DASH - 40' MAX SKIP)
PROJECT TOTAL	789	SOLID LINE MARKINGS = WHITE SKIP DASH MARKINGS = YELLOW

70307120

EROSION CONTROL BLANKET		
STATION	SQ YD	REMARKS
LT STA 42+25 TO 46+00	6501	SEEDING LOCATIONS
PROJECT TOTAL	6501	

25100630

HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50		
STATION	TON	REMARKS
LT STA 42+25 TO 46+00	52	2" MAINLINE 2" * 112 LBS/SQ YD/IN
PROJECT TOTAL	52	

40604050

TEMPORARY PAVEMENT MARKING - LINE 24" - TYPE IV TAPE		
STATION	FOOT	REMARKS
LT STA 40+40	10	
LT STA 47+55	10	
PROJECT TOTAL	20	

70307210

TEMPORARY DITCH CHECKS		
STATION	FOOT	REMARKS
LT STA 42+50	8	
LT STA 43+25	8	
LT STA 43+95	9	
LT STA 44+50	9	
LT STA 45+25	8	
PROJECT TOTAL	42	

28000305

HOT-MIX ASPHALT SURFACE REMOVAL, 2"		
STATION	SQ YD	REMARKS
LT STA 42+25 TO 46+00	459	DEPTH OF 2"
PROJECT TOTAL	459	

44000157

PAINT PAVEMENT MARKING -LINE 4"		
STATION	FOOT	REMARKS
LT STA 40+40 TO 47+55	1500	CL MARKINGS - YELLOW EAST EDGE LINE - WHITE
PROJECT TOTAL	1500	

78001110

PERIMETER EROSION BARRIER		
STATION	FOOT	REMARKS
	557	
PROJECT TOTAL	557	

28000400

AGGREGATE SHOULDERS, TYPE B		
STATION	TON	REMARKS
LT STA 42+25 TO 46+00	43	6" THICK
PROJECT TOTAL	43	

48101200

PAVEMENT MARKING REMOVAL - WATER BLASTING		
STATION	SQ FT	REMARKS
STA 40+40 TO 47+55	240	EXISTING CL MARKINGS
PROJECT TOTAL	240	

78300202

FILTER FABRIC		
STATION	SQ YD	REMARKS
LT STA 42+42 TO 45+73	381	5 LOCATIONS - SEE EROSION CONTROL PLAN
PROJECT TOTAL	381	

28200200

SHORT TERM PAVEMENT MARKING REMOVAL		
STATION	SQ FT	REMARKS
LT STA 41+00 TO 47+45	215	TYPE IV TAPE - 4"
LT STA 40+40	20	TYPE IV TAPE - STOP BAR
LT STA 47+55	20	TYPE IV TAPE - STOP BAR
STA 40+40 TO 47+55	48	POST MILLING & POST PAVING (CL SKIP DASH)
PROJECT TOTAL	303	

70300150

SEEDING, CLASS 2A (SPECIAL)		
STATION	ACRE	REMARKS
LT STA 42+25 TO 46+00	1.4	
PROJECT TOTAL	1.4	

*X2501020

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



SCHEDULE OF QUANTITIES
SHEET NO. 1 OF 1 SHEETS

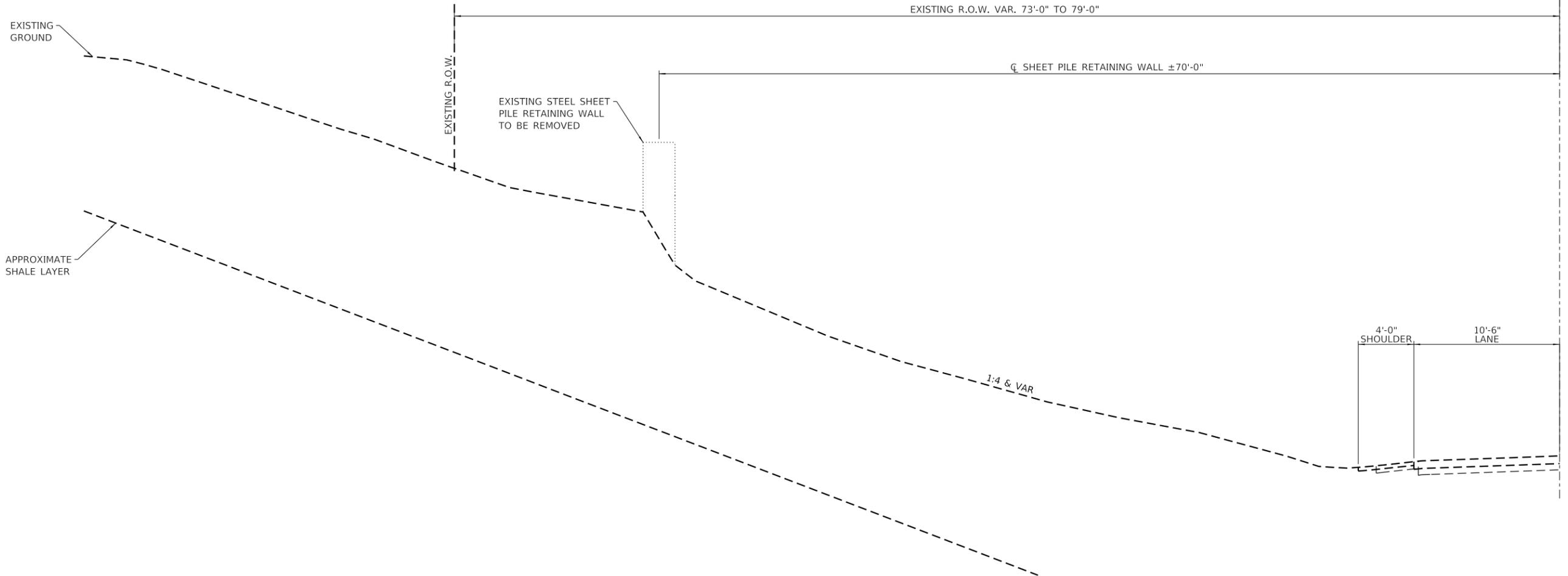
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11	20-00381-00-DR	ROCK ISLAND	50	5
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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C.C.H. 11



EXISTING TYPICAL SECTION
STA. 42+40.00 - STA. 45+75.00

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
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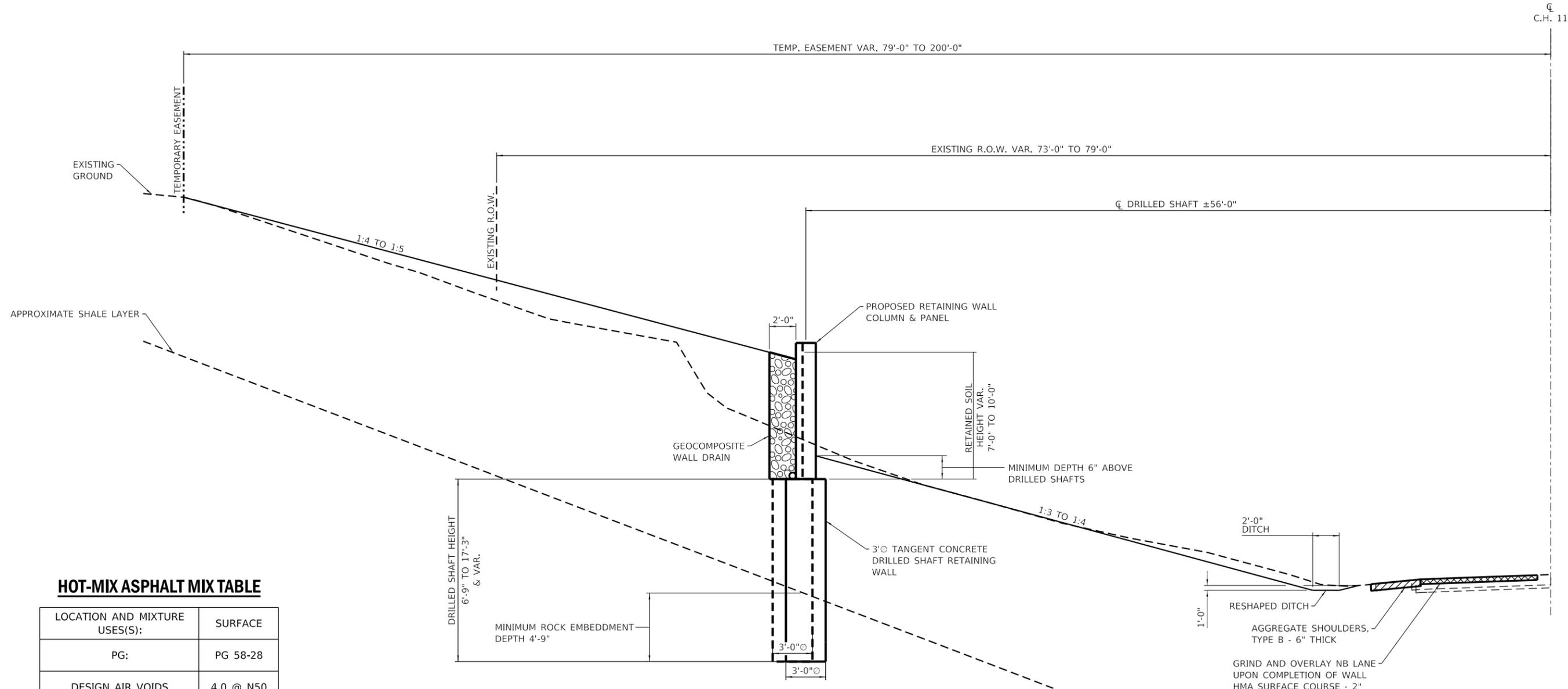
ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



EXISTING RETAINING WALL
TYPICAL SECTION
SHEET NO. 1 OF 1 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	6
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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HOT-MIX ASPHALT MIX TABLE

LOCATION AND MIXTURE USES(S):	SURFACE
PG:	PG 58-28
DESIGN AIR VOIDS	4.0 @ N50
MIXTURE COMPOSITION	IL 9.5
FRICTION AGGREGATE	C
MIX WEIGHT	112 LB/SY/IN
QUALITY MANAGEMENT PROGRAM	QC / QA
SUBLOT SIZE	N / A
MATERIAL TRANSFER DEVICE	N / A

PROPOSED TYPICAL SECTION

STA. 42+40.00 - STA. 45+75.00

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



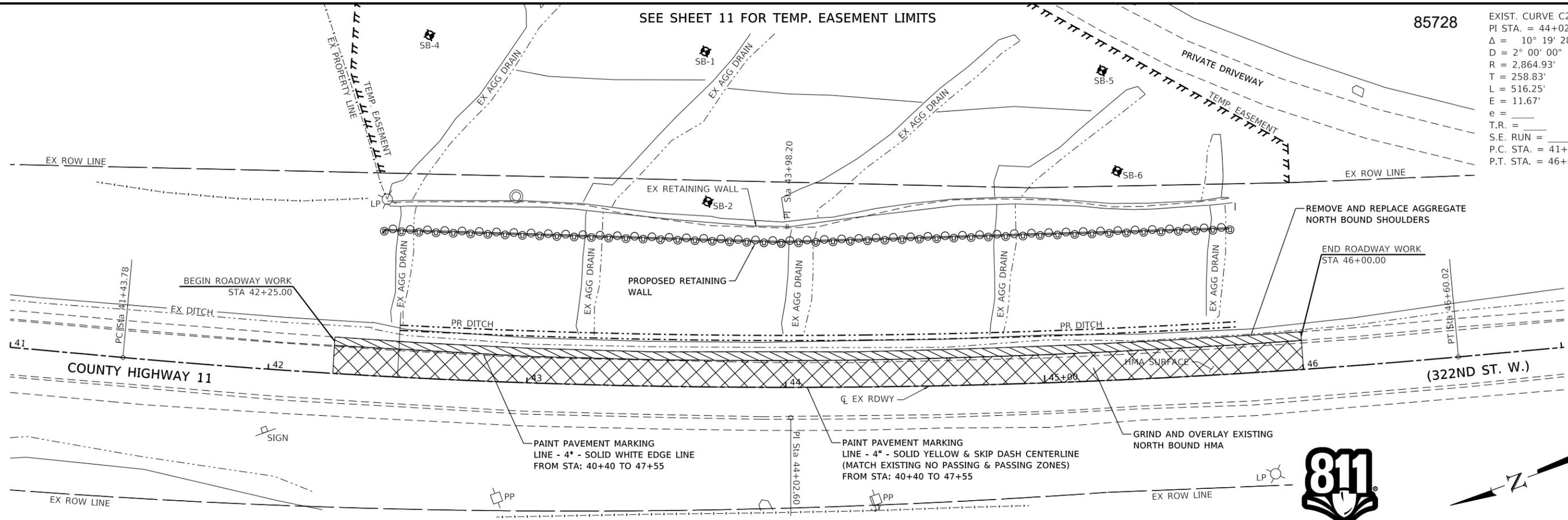
PROPOSED RETAINING WALL TYPICAL SECTION
 SHEET NO. 1 OF 1 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	7
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

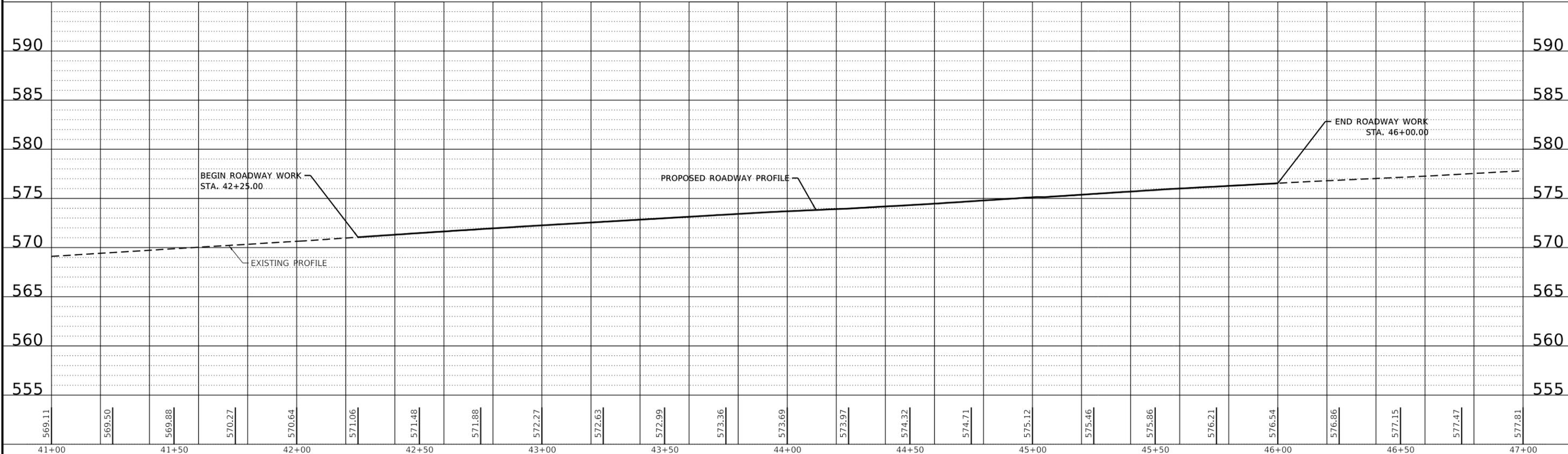
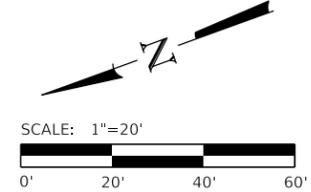
SEE SHEET 11 FOR TEMP. EASEMENT LIMITS

85728

EXIST. CURVE C2
 PI STA. = 44+02.60
 $\Delta = 10^\circ 19' 28''$ (LT)
 $D = 2^\circ 00' 00''$
 $R = 2,864.93'$
 $T = 258.83'$
 $L = 516.25'$
 $E = 11.67'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 41+43.78$
 $P.T. STA. = 46+60.02$



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



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

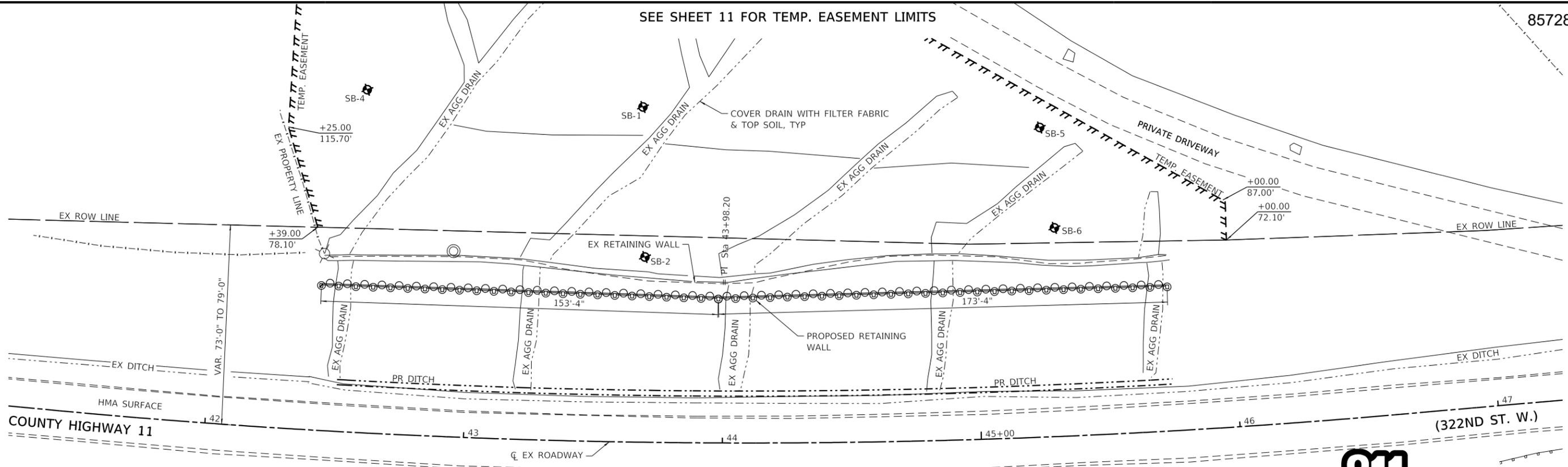
ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

C.H. 11 (322ND ST. W.)
PLAN AND PROFILE

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	8
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

SEE SHEET 11 FOR TEMP. EASEMENT LIMITS

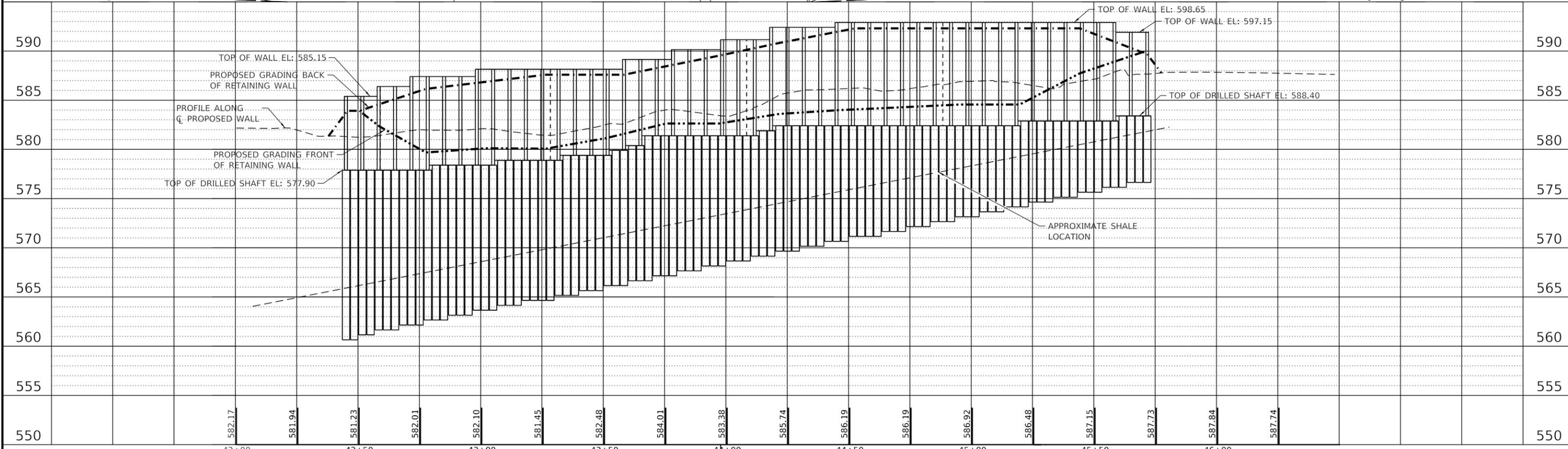


EXISTING WALL:
325' STEEL PILE RETAINING WALL
W/ SOLDIER PILE TIE BACKS

PROPOSED WALL:
A 330' DRILLED SHAFT FOUNDATION RETAINING
WALL SUPPORTING CONCRETE COLUMNS AND
WEB WALLS

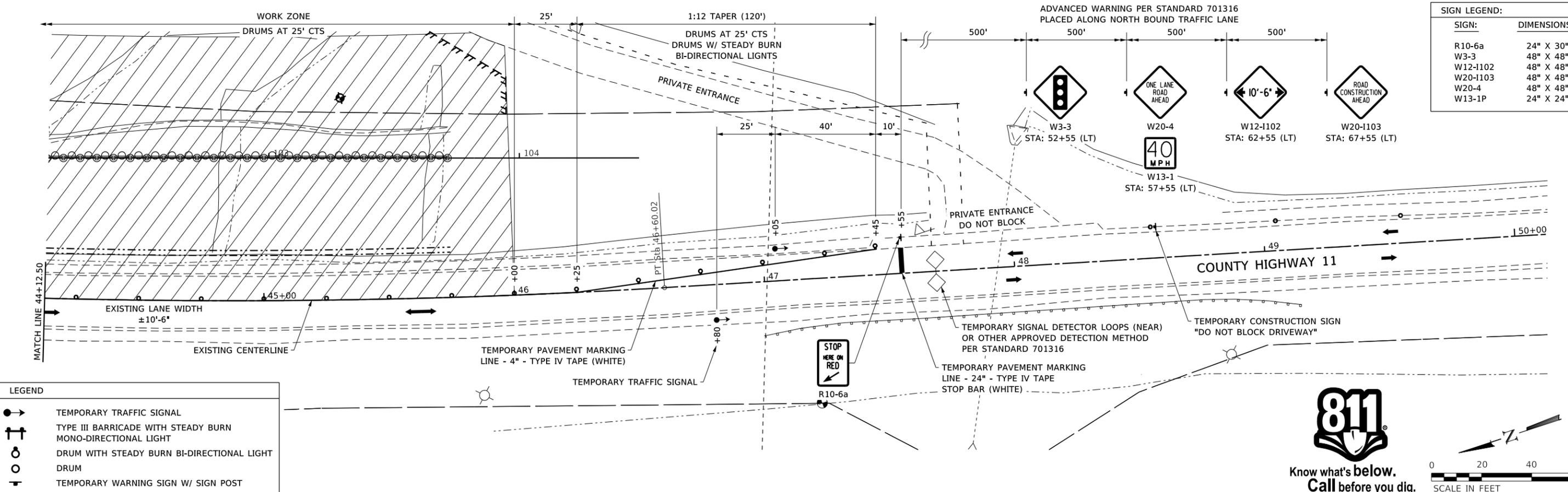
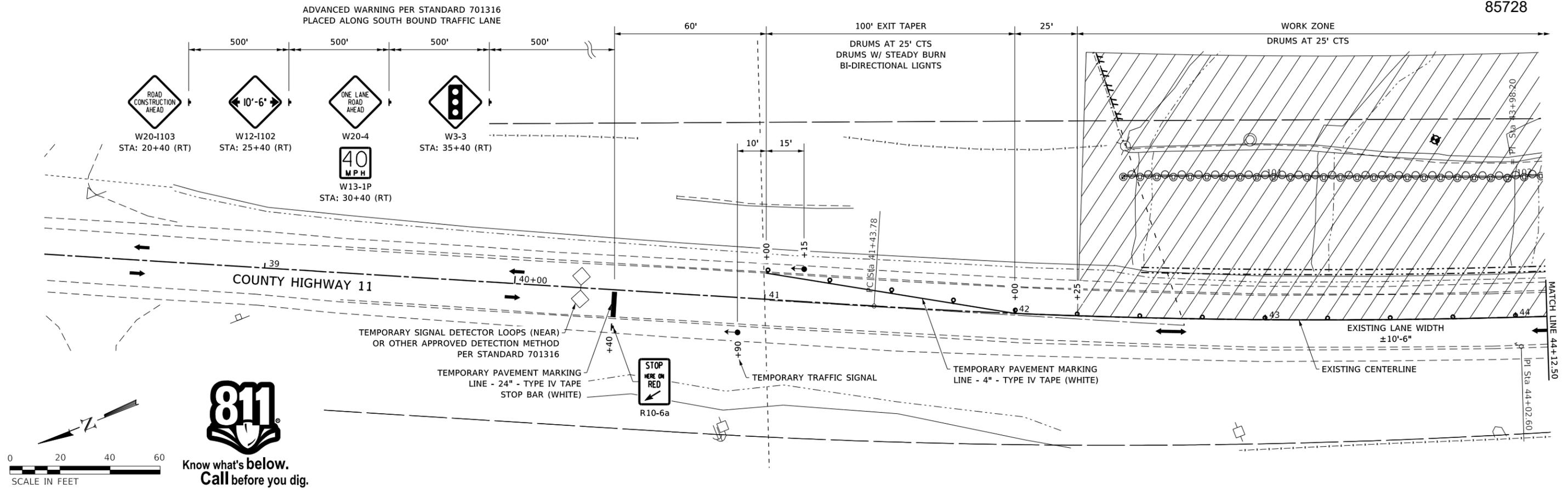


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REVISION	DATE	BY	REMARKS

DESIGNED	ATK	ROCK ISLAND COUNTY C.H. 11 (322ND ST. W.) RETAINING WALL STA. 42+40.28 - 45+76.51	WILLET HOFMANN & ASSOCIATES INC. ENGINEERING ARCHITECTURE LAND SURVEYING 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265 T: 309-517-1119 DESIGN FIRM # 184-000918	RETAINING WALL PLAN & PROFILE SHEET 1 OF 1	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DRAWN	GBG				11	20-00381-00-DR	ROCK ISLAND	50	9	
REVIEWED					WHA# 1078M20		CONTRACT NO. 85728			
APPROVED					ILLINOIS FED. AID PROJECT		HHX6(218)			



SIGN:	DIMENSIONS:
R10-6a	24" X 30"
W3-3	48" X 48"
W12-1102	48" X 48"
W20-1103	48" X 48"
W20-4	48" X 48"
W13-1P	24" X 24"

REVISION	DATE	BY	REMARKS

DESIGNED	GBG
DRAWN	GBG
REVIEWED	ATK
APPROVED	MRL

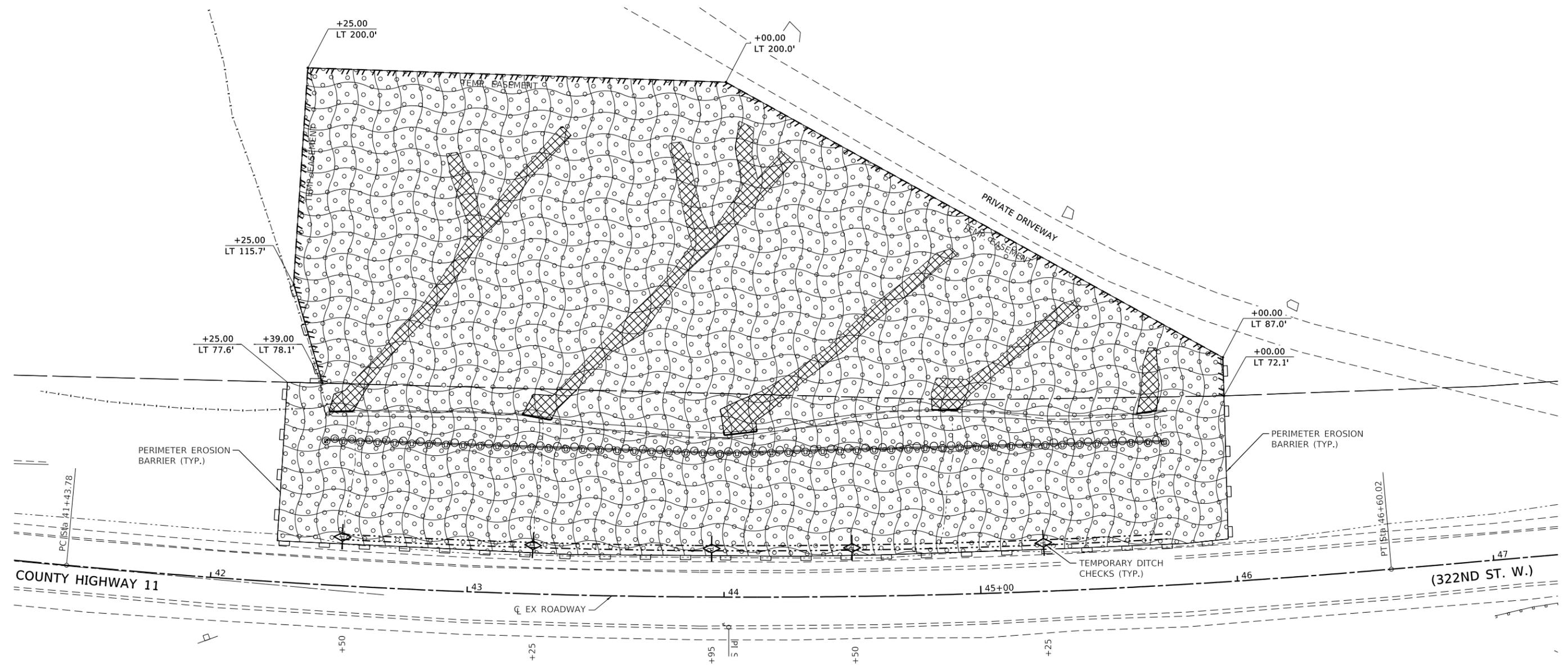
ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



TRAFFIC CONTROL PLAN
 SHEET 1 OF 1

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	10
WHA # 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				





LEGEND

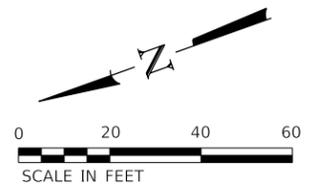
-  TEMPORARY DITCH CHECKS
-  PERIMETER EROSION BARRIER
-  SEEDING, CLASS 2A (SPECIAL)
-  EROSION CONTROL BLANKET
-  TOP SOIL VARIABLE DEPTH W/ FILTER FABRIC

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH	SQ YD	381
EROSION CONTROL BLANKET	SQ YD	6,501
TEMPORARY DITCH CHECKS	FOOT	42
PERIMETER EROSION BARRIER	FOOT	557
FILTER FABRIC	SQ YD	381
SEEDING, CLASS 2A (SPECIAL)	ACRE	1.4



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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



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

EROSION CONTROL PLAN

SHEET 1 OF 1

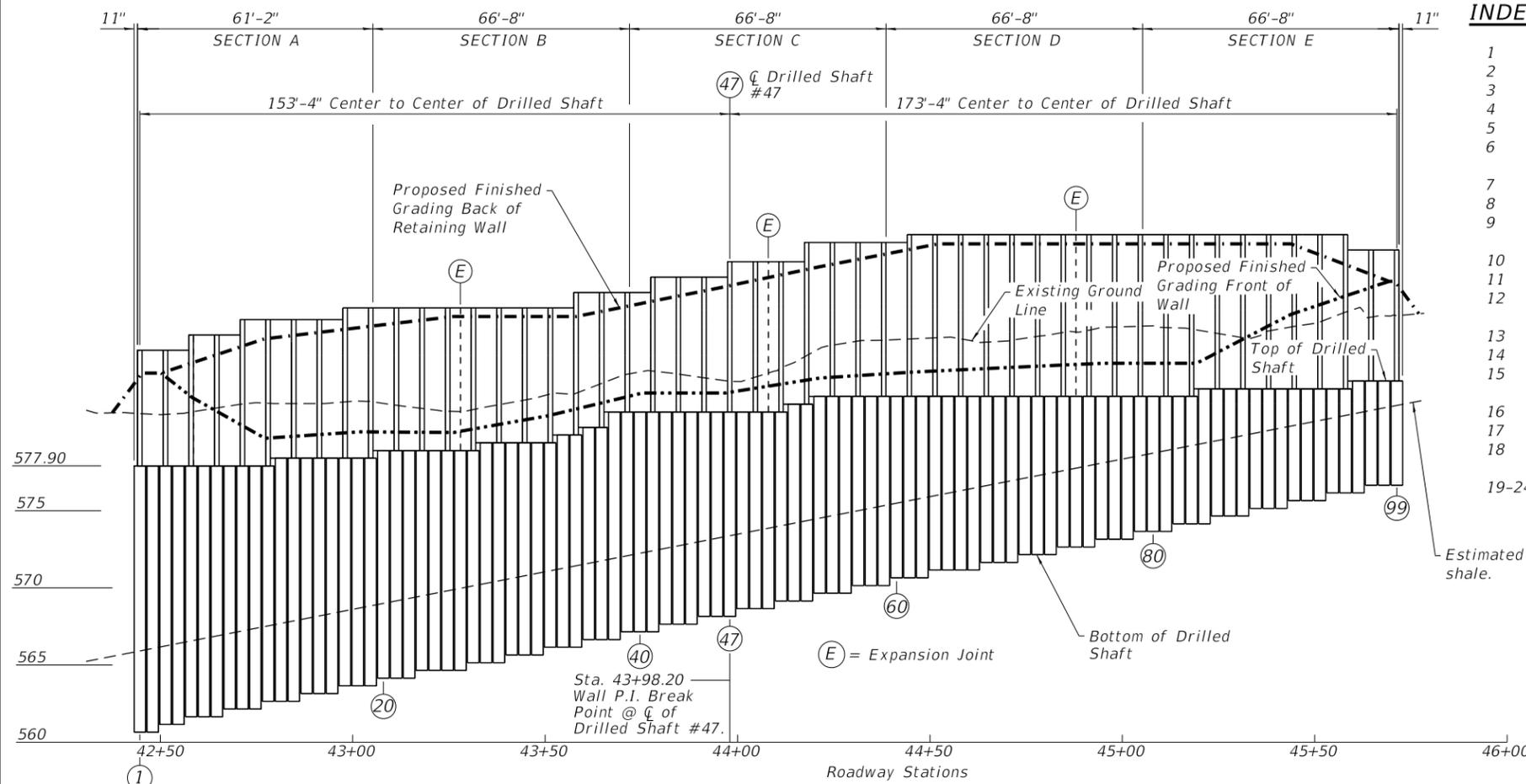
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	11

WHA# 1078M20 CONTRACT NO. 85728

ILLINOIS FED. AID PROJECT HHX6(218)

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ELEVATION VIEW

INDEX OF STRUCTURAL SHEETS

- 1 General Plan and Elevation
- 2 Dimension Layout
- 3 Typical Retaining Wall Structural Details
- 4 Retaining Wall Elevation - Section A
- 5 Drilled Shaft Elevation - Section A
- 6 Bill of Material and Drilled Shaft Table - Section A
- 7 Retaining Wall Elevation - Section B
- 8 Drilled Shaft Elevation - Section B
- 9 Bill of Material and Drilled Shaft Table - Section B
- 10 Retaining Wall Elevation - Section C
- 11 Drilled Shaft Elevation - Section C
- 12 Bill of Material and Drilled Shaft Table - Section C
- 13 Retaining Wall Elevation - Section D
- 14 Drilled Shaft Elevation - Section D
- 15 Bill of Material and Drilled Shaft Table - Section D
- 16 Retaining Wall Elevation - Section E
- 17 Drilled Shaft Elevation - Section E
- 18 Bill of Material and Drilled Shaft Table - Section E
- 19-24 Boring Logs

BILL OF MATERIAL 85728

ITEM	UNIT	TOTAL
POROUS GRANULAR BACKFILL	CU YD	236
*REMOVAL OF EXISTING STRUCTURES	EACH	1
STRUCTURE EXCAVATION	CU YD	135
CONCRETE STRUCTURES	CU YD	78.7
REINFORCEMENT BARS	POUND	77,410
*DRILLED SHAFT IN SOIL	CU YD	186
*DRILLED SHAFT IN ROCK	CU YD	134
GEOCOMPOSITE WALL DRAIN	SQ YD	344
PIPE UNDERDRAINS 6" (SPECIAL)	FOOT	366

*See special provisions.

GENERAL NOTES:

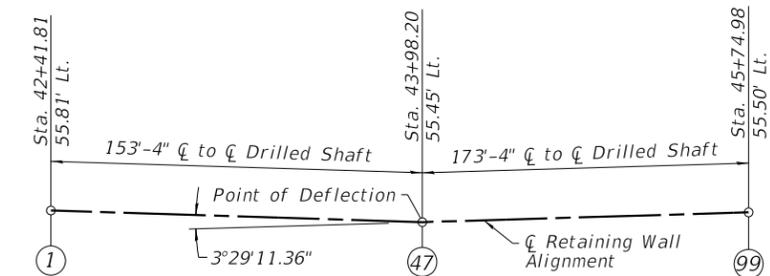
All exposed edges of the concrete columns and wall shall be chamfered 3/4"

DESIGN SPECIFICATIONS
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

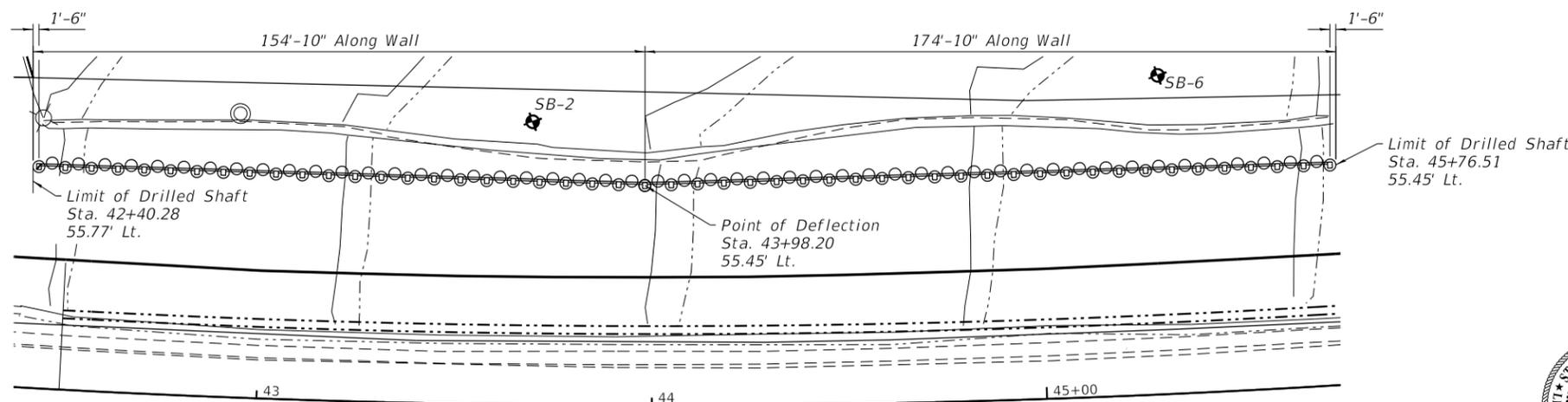
DESIGN STRESSES

PROPOSED FIELD UNITS

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



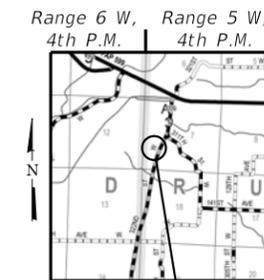
WALL HORIZONTAL ALIGNMENT



PLAN VIEW



DATE: 09/12/2022
EXPIRES 11/30/22



GENERAL PLAN AND ELEVATION
RETAINING WALL ALONG
C.H. 11 (322ND ST. W.)
SEC. 20-00381-00-DR
ROCK ISLAND COUNTY
STATION 49+38.20
STRUCTURE NO. - N/A

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



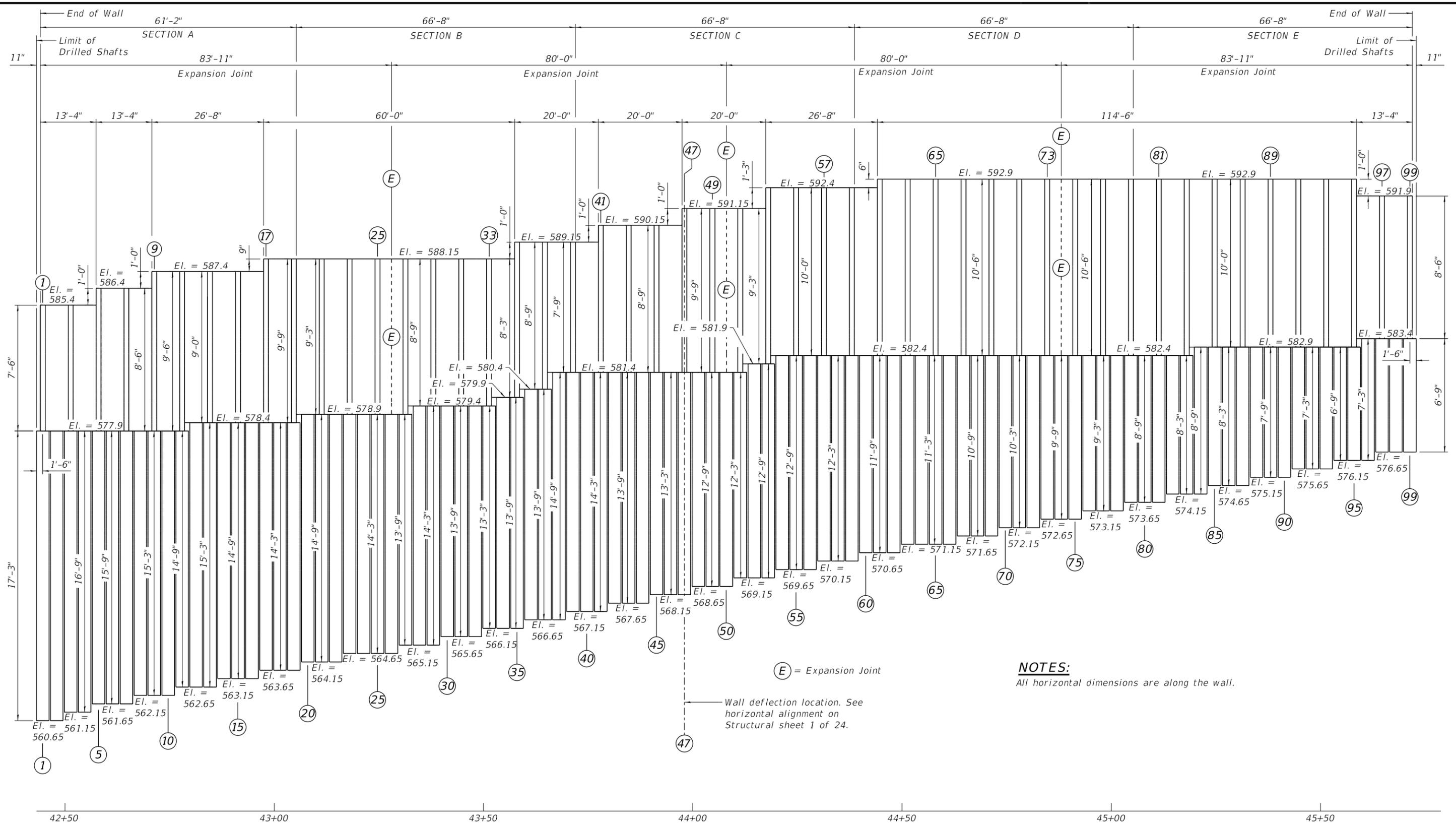
STRUCTURAL SHEET NO. 1 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	12
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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ELEVATION VIEW
(Looking East)

NOTES:
All horizontal dimensions are along the wall.

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

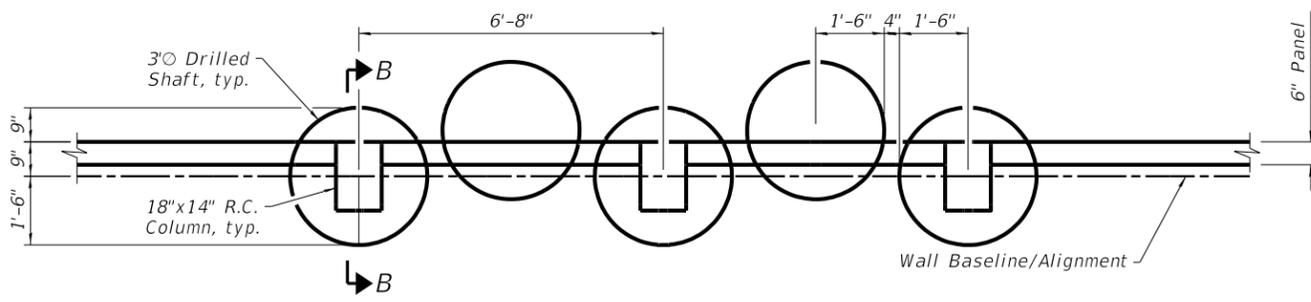
ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

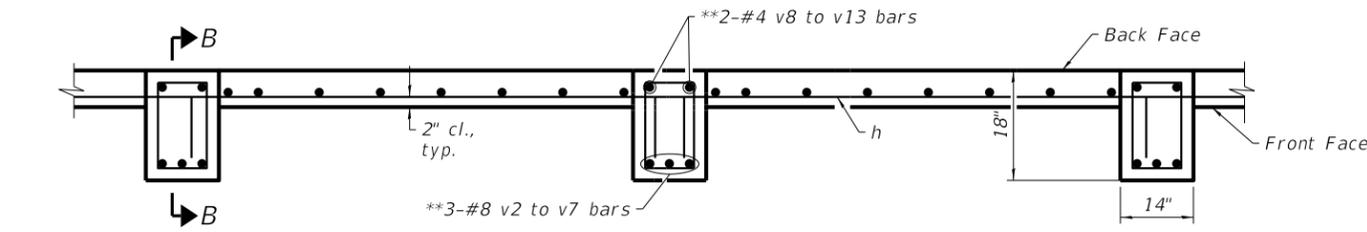
DIMENSION LAYOUT
STRUCTURAL SHEET NO. 2 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	13
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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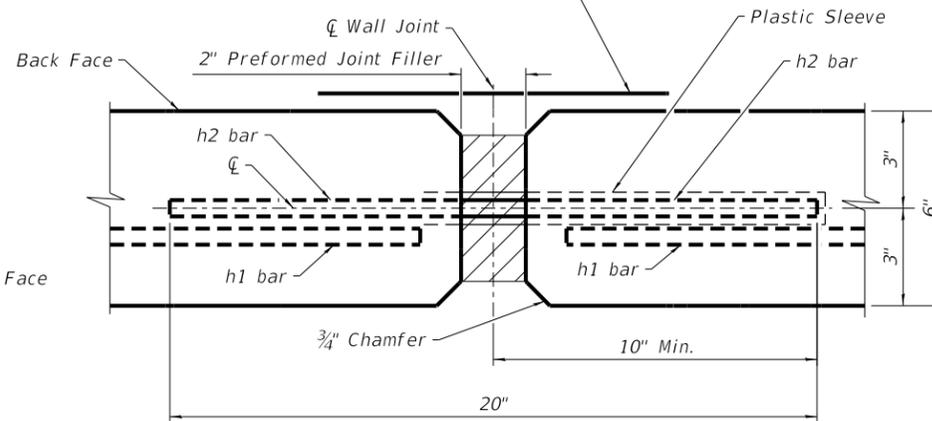


PARTIAL WALL & DRILLED SHAFT PLAN VIEW

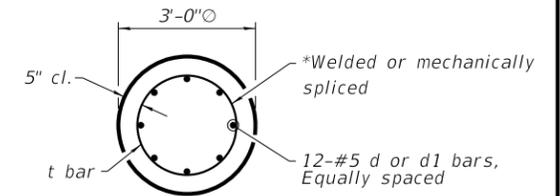


PARTIAL WALL PLAN VIEW

****Provide a double layer of 12" x panel height nonwoven geotextile fabric centered over both sides of the wall joint. Perimeter of fabric shall be sealed to the concrete with mastic.



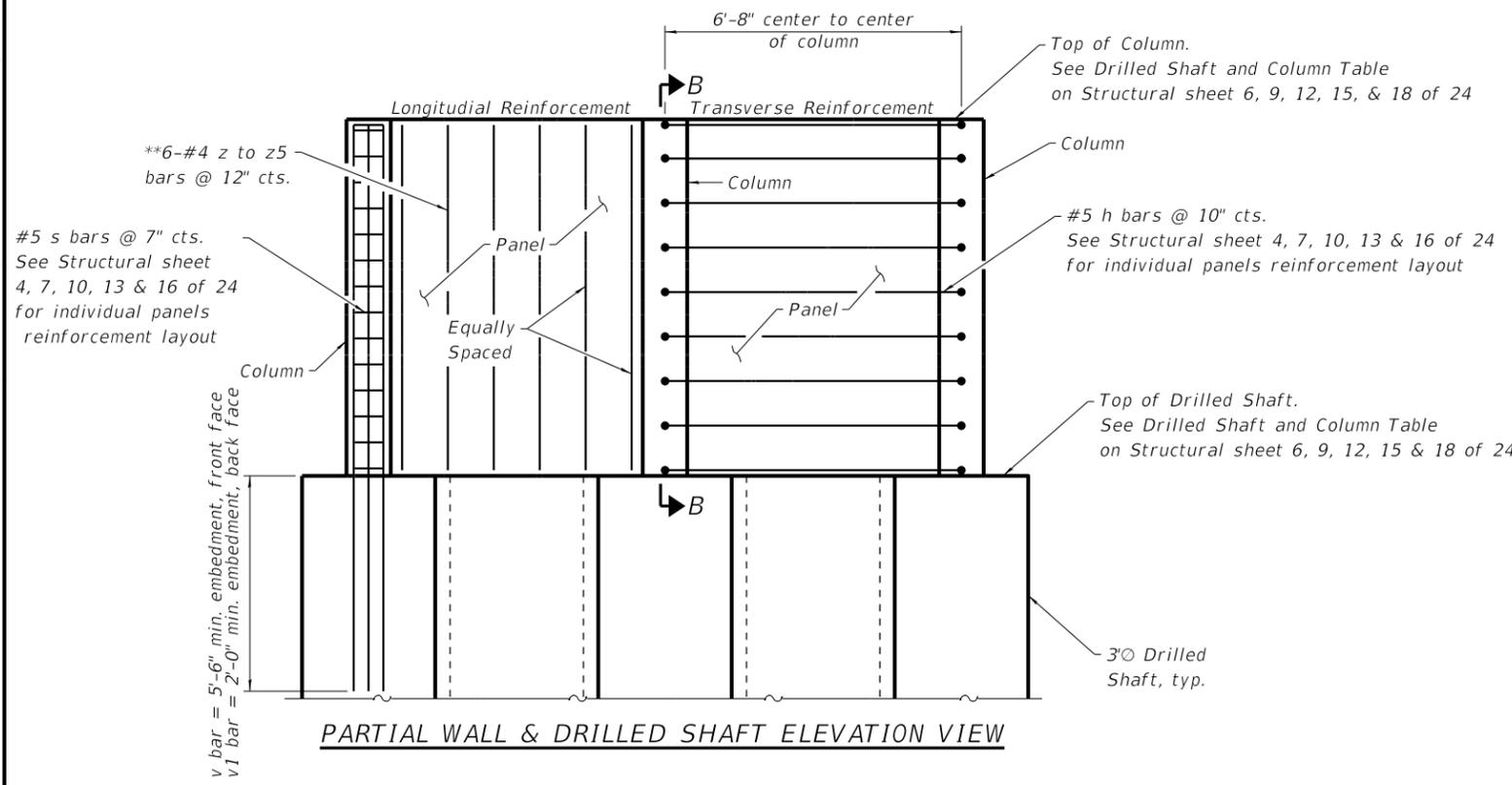
EXPANSION JOINT DETAIL (TYP.)



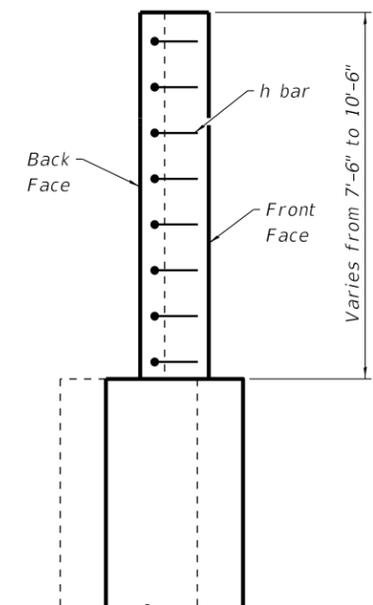
DRILLED SHAFT SECTION A-A

NOTE:

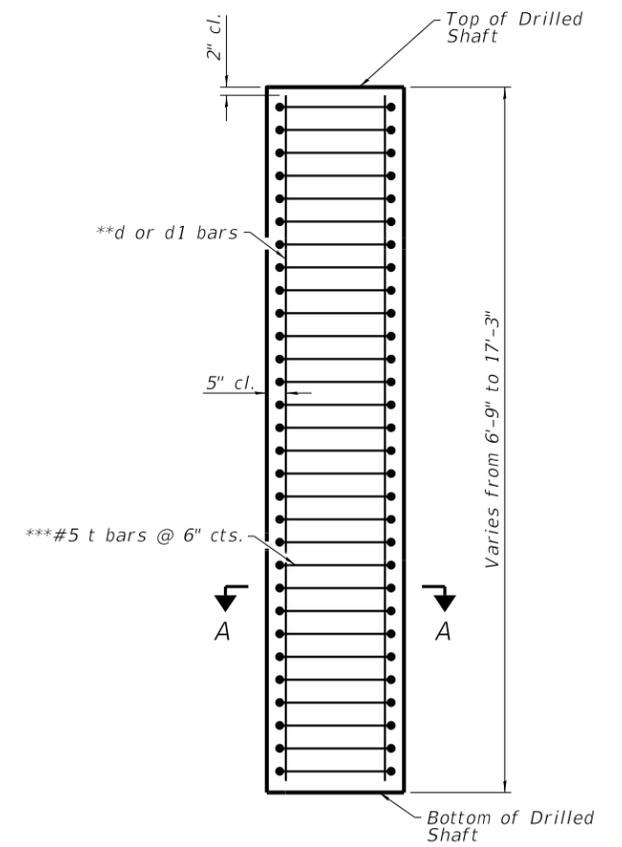
- *Shop weld per AWS D1.4
- **Cut to fit
- ***25% more bars are available to account for variations in the potential elevation of the shale layer.
- Individual drilled shafts shall be monolithically poured
- ****Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01 of the Standard Specifications. The minimum weight of the fabric shall be 6 ounces per square yard.



PARTIAL WALL & DRILLED SHAFT ELEVATION VIEW



WALL & DRILLED SHAFT SECTION B-B



DRILLED SHAFT ELEVATION

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

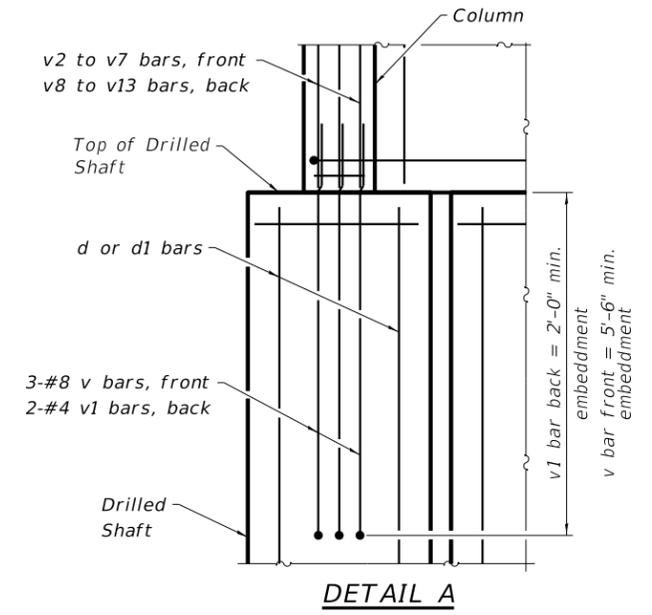
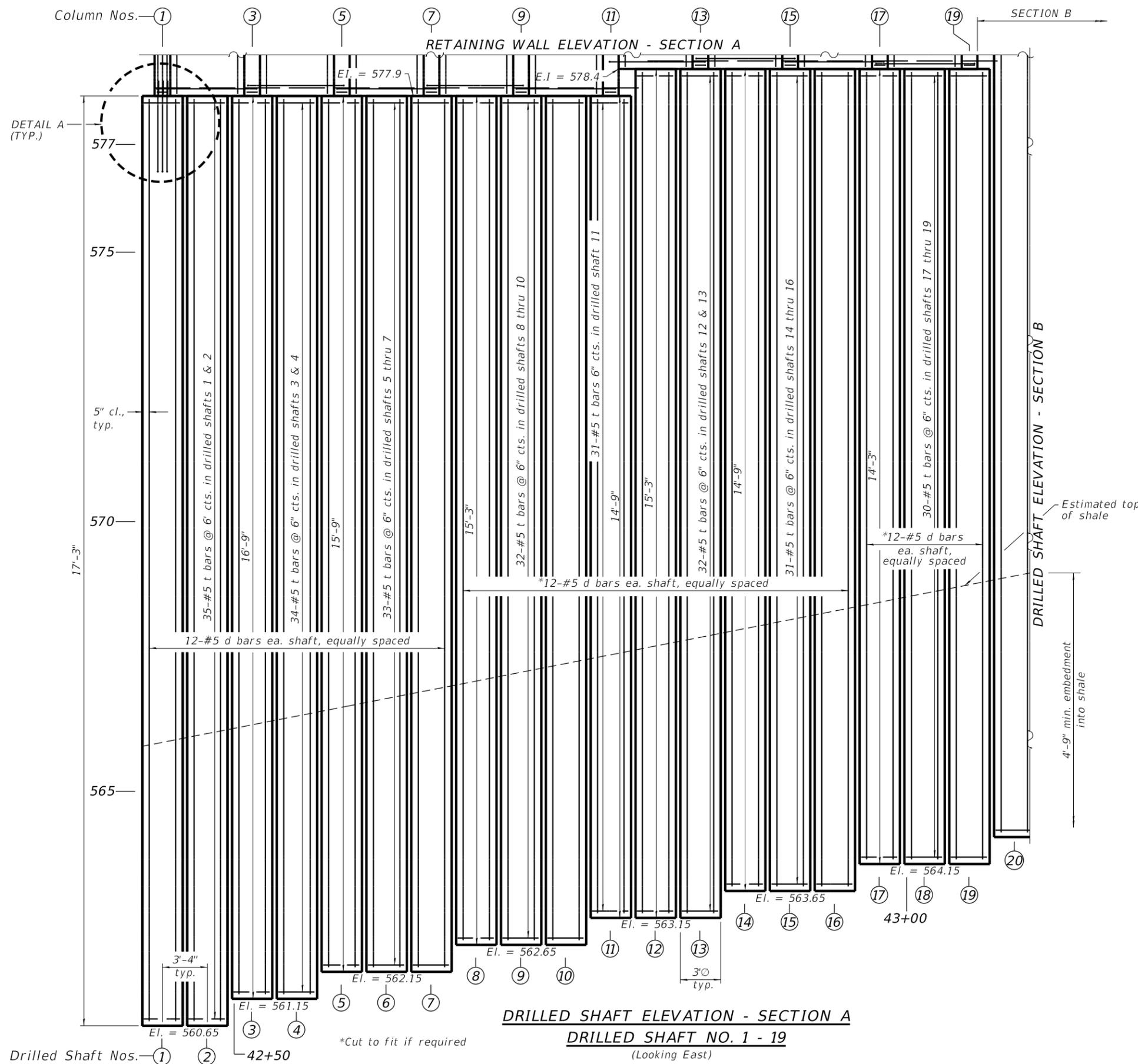
WILLET HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM: # 184-000918

TYPICAL RETAINING WALL STRUCTURAL DETAILS

STRUCTURAL SHEET NO. 3 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	14
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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- NOTES:**
- Drilled shaft #20 and wall reinforcement past Column #19 are included in Section B.
 - For Bar List see Structural sheet 6 of 24.
 - For individual drilled shafts & column details see Structural sheet 6 of 24.
 - For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.
 - Minimum lap of v bars = 5'-6".
 - Minimum lap of v1 bars = 2'-0".

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



DRILLED SHAFT ELEVATION - SECTION A
(DRILLED SHAFT NO. 1 - 19)
 STRUCTURAL SHEET NO. 5 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	16
WHA# 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

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DRILLED SHAFT & COLUMN TABLE - SECTION A

DRILLED SHAFT NO	TOP OF DRILLED SHAFT ELEV.	BOTTOM OF DRILLED SHAFT ELEV.	ESTIMATED TOTAL SHAFT LENGTH (FT.)	MINIMUM ROCK EMBEDMENT	EXPECTED ROCK EMBEDMENT	COLUMN NO	TOP OF COLUMN	COLUMN LENGTH (FT.)
1	577.9	560.65	17.25	4.75	5.26	1	585.4	7.5
2	577.9	560.65	17.25	4.75	5.42			
3	577.9	561.15	16.75	4.75	5.08	3	585.4	7.5
4	577.9	561.15	16.75	4.75	5.25			
5	577.9	562.15	15.75	4.75	4.91	5	586.4	8.5
6	577.9	562.15	15.75	4.75	5.07			
7	577.9	562.15	15.75	4.75	5.23	7	586.4	8.5
8	577.9	562.65	15.25	4.75	4.90			
9	577.9	562.65	15.25	4.75	5.06	9	587.4	9.5
10	577.9	562.65	15.25	4.75	5.22			
11	577.9	563.15	14.75	4.75	4.88	11	587.4	9.5
12	578.4	563.15	15.25	4.75	5.05			
13	578.4	563.15	15.25	4.75	5.21	13	587.4	9
14	578.4	563.65	14.75	4.75	4.87			
15	578.4	563.65	14.75	4.75	5.03	15	587.4	9
16	578.4	563.65	14.75	4.75	5.20			
17	578.4	564.15	14.25	4.75	4.86	17	588.15	9.75
18	578.4	564.15	14.25	4.75	5.02			
19	578.4	564.15	14.25	4.75	5.18	19	588.15	9.75

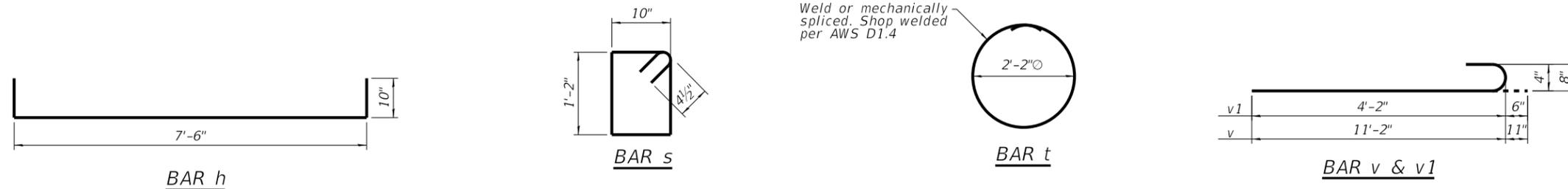
BILL OF MATERIAL - SECTION A

Bar	No.	Size	Length	Shape
d	228	#5	29' - 7"	—
h	103	#5	9' - 2"	┌┐
s	160	#5	4' - 9"	□
t	762	#5	7' - 4"	○
v	30	#8	12' - 1"	┌┐
v1	20	#4	4' - 8"	┌┐
v2	6	#8	7' - 5"	—
v3	6	#8	8' - 5"	—
v4	6	#8	8' - 11"	—
v5	12	#8	9' - 5"	—
v8	4	#4	7' - 5"	—
v9	4	#4	8' - 5"	—
v10	4	#4	8' - 11"	—
v11	8	#4	9' - 5"	—
z	12	#4	7' - 5"	—
z1	12	#4	8' - 5"	—
z2	18	#4	8' - 11"	—
z3	12	#4	9' - 5"	—
POROUS GRANULAR BACKFILL			CU YD	40
CONCRETE STRUCTURES			CU YD	13.9
REINFORCEMENT BARS			POUND	16,800
DRILLED SHAFT IN SOIL			CU YD	54
DRILLED SHAFT IN ROCK			CU YD	26
GEOCOMPOSITE WALL DRAIN			SQ YD	58
PIPE UNDERDRAINS 6" (SPECIAL)			FOOT	78

NOTES:

25% extra t bars are in the bill of material to account for variations in the elevation of the shale layer.

d bar length oversized to account for variations in the elevation of the shale layer.



Weld or mechanically spliced. Shop welded per AWS D1.4

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

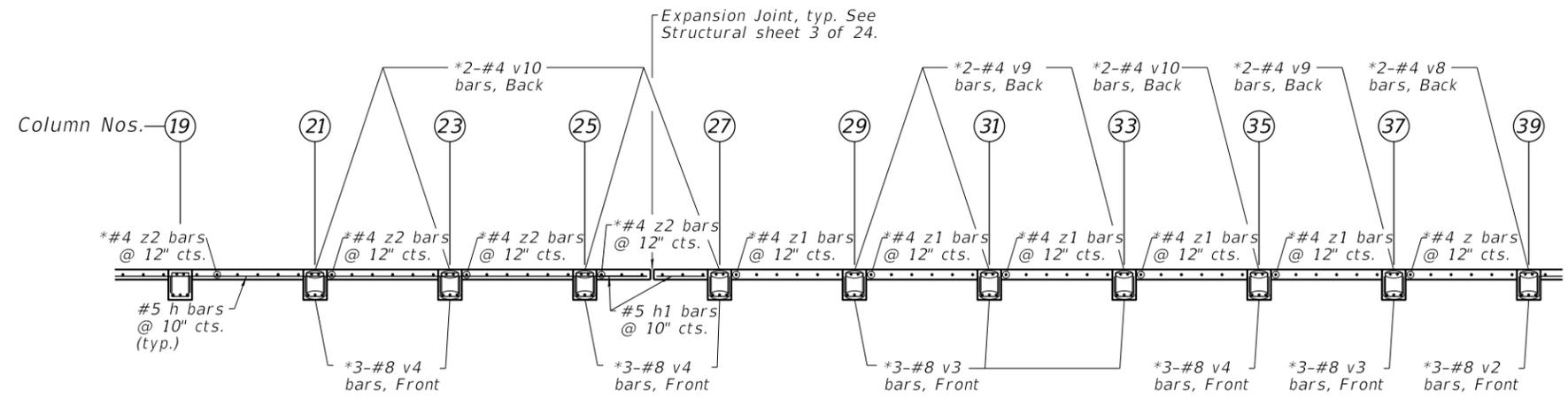
ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

BILL OF MATERIAL AND DRILLED SHAFT TABLE
SECTION A
STRUCTURAL SHEET NO. 6 OF 24 SHEETS

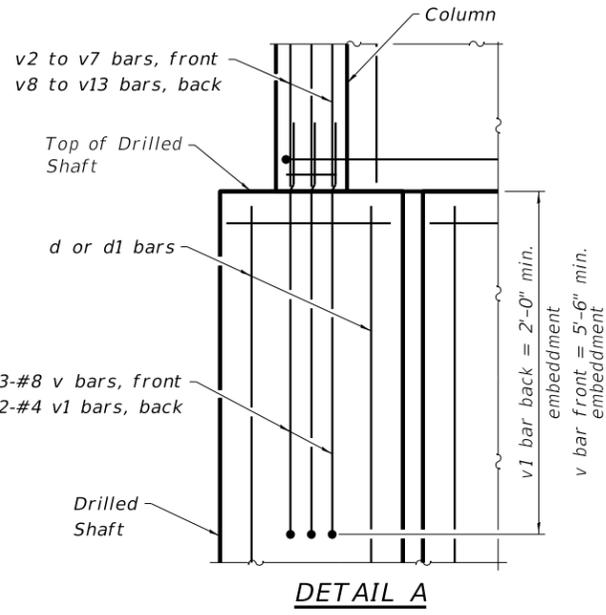
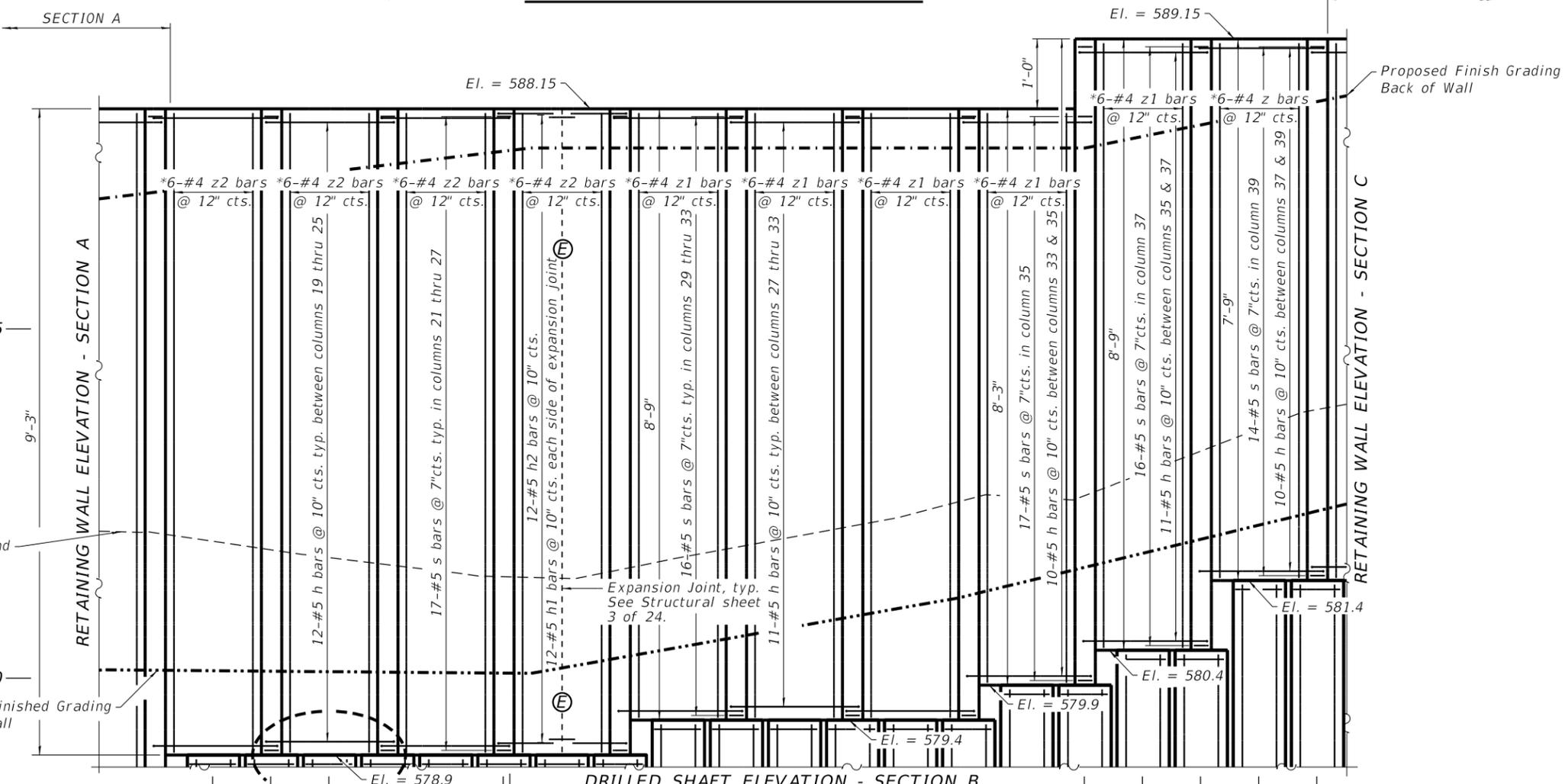
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	17
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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*Cut to fit if required

REINFORCING PLAN - SECTION B



ⓔ = Expansion Joint

NOTES:

- Drilled shaft #40 and wall reinforcement past Column #39 are included in Section C.
- Drilled shaft #19 and column #19 are included in Section A.
- For Bar List see Structural sheet 9 of 24.
- For individual drilled shafts & column details see Structural sheet 9 of 24.
- For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.
- Minimum lap of v bars = 5'-6".
- Minimum lap of v1 bars = 2'-0".

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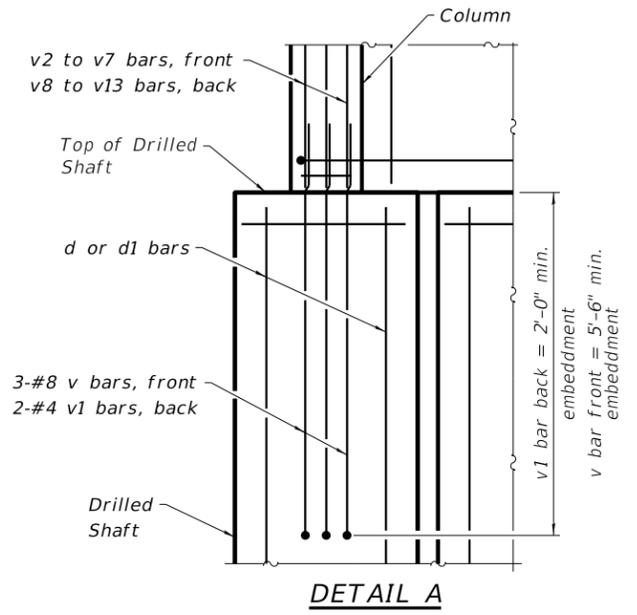
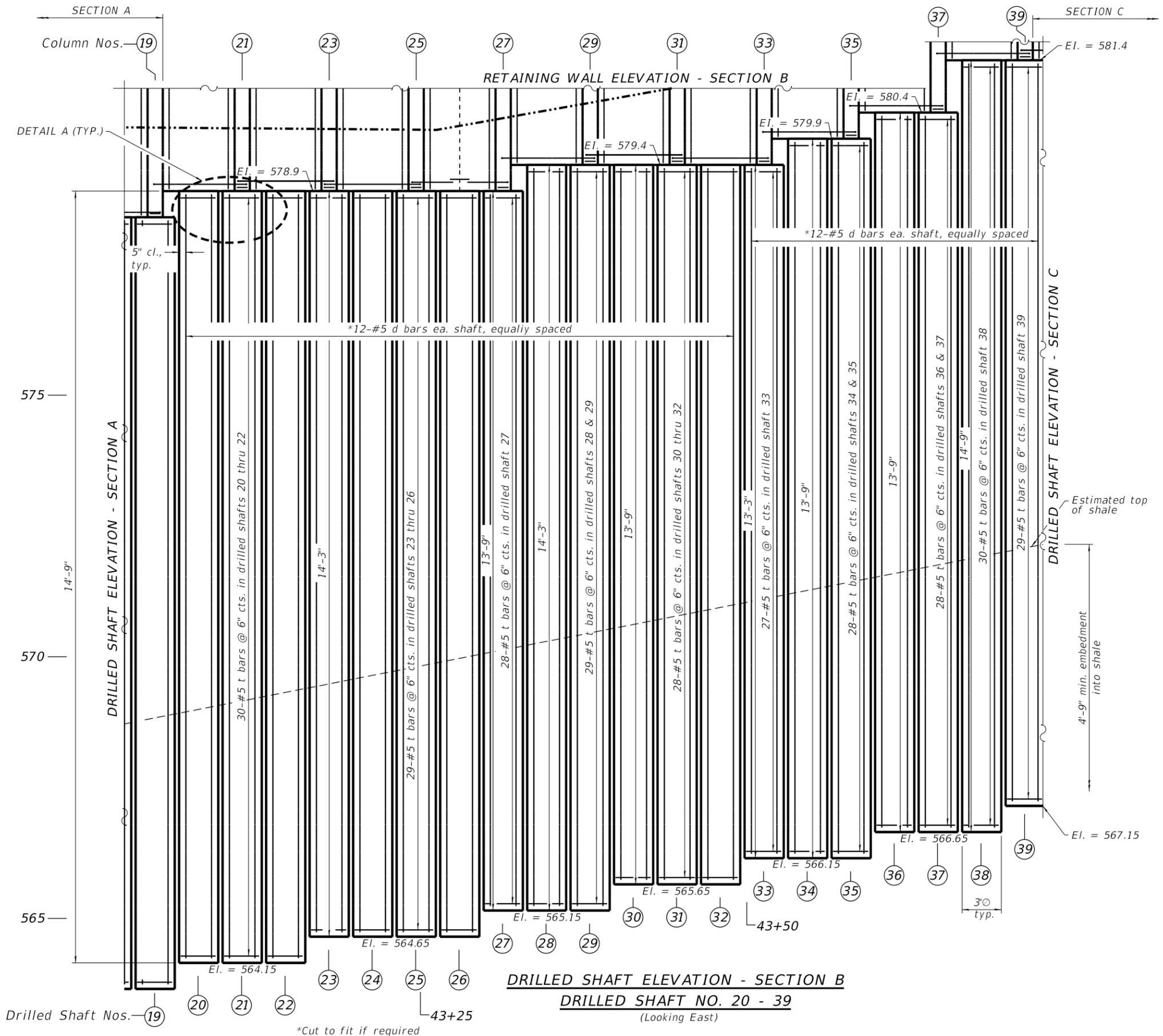
REVISION	DATE	BY	REMARKS
DESIGNED	ATK		
DRAWN	DAN		
REVIEWED	ATK		
APPROVED	MRL		

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



RETAINING WALL ELEVATION - SECTION B
 (COLUMN NO. 21 - 39)
 STRUCTURAL SHEET NO. 7 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	18
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				



NOTES:

Drilled shaft #40 and wall reinforcement past Column #39 are included in Section C.

Drilled shaft #19 and column #19 are included in Section A.

For Bar List see Structural sheet 9 of 24.

For individual drilled shafts & column details see Structural sheet 9 of 24.

For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.

Minimum lap of v bars = 5'-6".

Minimum lap of v1 bars = 2'-0".

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



DRILLED SHAFT ELEVATION - SECTION B
(DRILLED SHAFT NO. 20-39)
STRUCTURAL SHEET NO. 8 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	19
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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DRILLED SHAFT & COLUMN TABLE - SECTION B

DRILLED SHAFT NO	TOP OF DRILLED SHAFT ELEV.	BOTTOM OF DRILLED SHAFT ELEV.	ESTIMATED TOTAL SHAFT LENGTH (FT.)	MINIMUM ROCK EMBEDMENT	EXPECTED ROCK EMBEDMENT	COLUMN NO	TOP OF COLUMN	COLUMN LENGTH (FT.)
20	578.9	564.15	14.75	4.75	4.85			
21	578.9	564.15	14.75	4.75	5.01	21	588.15	9.25
22	578.9	564.15	14.75	4.75	5.17			
23	578.9	564.65	14.25	4.75	4.83	23	588.15	9.25
24	578.9	564.65	14.25	4.75	5.00			
25	578.9	564.65	14.25	4.75	5.16	25	588.15	9.25
26	578.9	564.65	14.25	4.75	5.32			
27	578.9	565.15	13.75	4.75	4.98	27	588.15	9.25
28	579.4	565.15	14.25	4.75	5.15			
29	579.4	565.15	14.25	4.75	5.31	29	588.15	8.75
30	579.4	565.65	13.75	4.75	4.97			
31	579.4	565.65	13.75	4.75	5.13	31	588.15	8.75
32	579.4	565.65	13.75	4.75	5.30			
33	579.4	566.15	13.25	4.75	4.96	33	588.15	8.75
34	579.9	566.15	13.75	4.75	5.12			
35	579.9	566.15	13.75	4.75	5.28	35	589.15	9.25
36	580.4	566.65	13.75	4.75	4.95			
37	580.4	566.65	13.75	4.75	5.11	37	589.15	8.75
38	581.4	566.65	14.75	4.75	5.27			
39	581.4	567.15	14.25	4.75	4.93	39	589.15	7.75

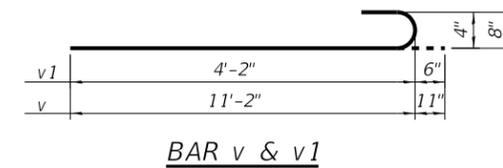
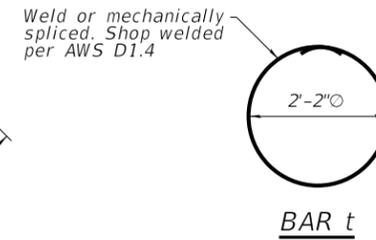
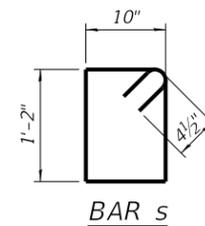
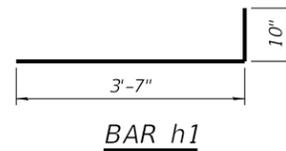
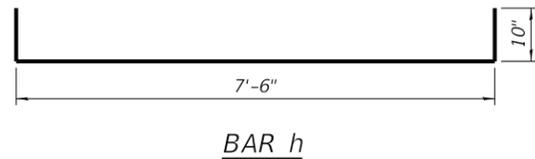
BILL OF MATERIAL - SECTION B

Bar	No.	Size	Length	Shape
d	240	#5	29' - 7"	—
h	100	#5	9' - 2"	┌┐
h1	24	#5	4' - 5"	┌┌┌
h2	12	#5	1' - 8"	—
s	163	#5	4' - 9"	□
t	718	#5	7' - 4"	○
v	30	#8	12' - 1"	┌┐┌
v1	20	#4	4' - 8"	┌┐
v2	3	#8	7' - 5"	—
v3	12	#8	8' - 5"	—
v4	15	#8	8' - 11"	—
v8	2	#4	7' - 5"	—
v9	8	#4	8' - 5"	—
v10	10	#4	8' - 11"	—
z	6	#4	7' - 5"	—
z1	12	#4	8' - 5"	—
z2	24	#4	8' - 11"	—
POROUS GRANULAR BACKFILL			CU YD	45
CONCRETE STRUCTURES			CU YD	14.9
REINFORCEMENT BARS			POUND	16,970
DRILLED SHAFT IN SOIL			CU YD	48
DRILLED SHAFT IN ROCK			CU YD	27
GEOCOMPOSITE WALL DRAIN			SQ YD	66
PIPE UNDERDRAINS - 6" (SPECIAL)			FOOT	67

NOTES:

25% extra t bars are in the bill of material to account for variations in the elevation of the shale layer.

d bar length oversized to account for variations in the elevation of the shale layer.



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

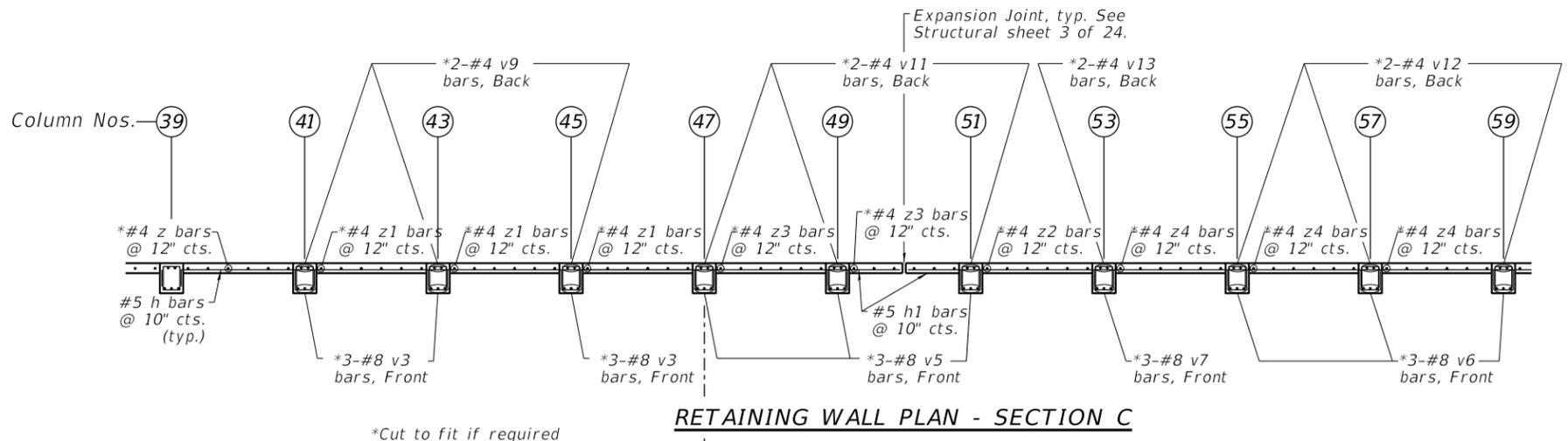
BILL OF MATERIAL AND DRILLED SHAFT TABLE
SECTION B
STRUCTURAL SHEET NO. 9 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	20
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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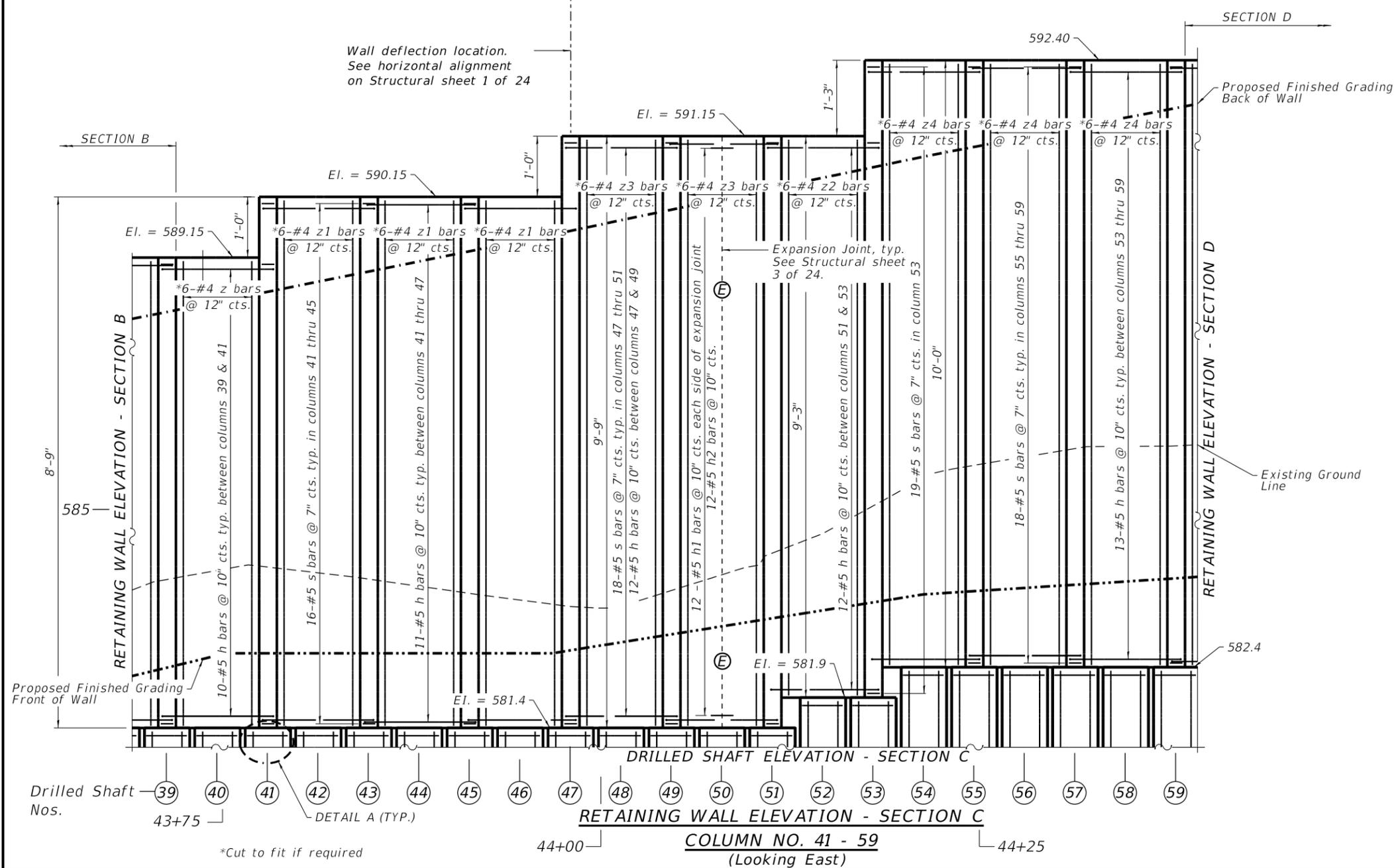
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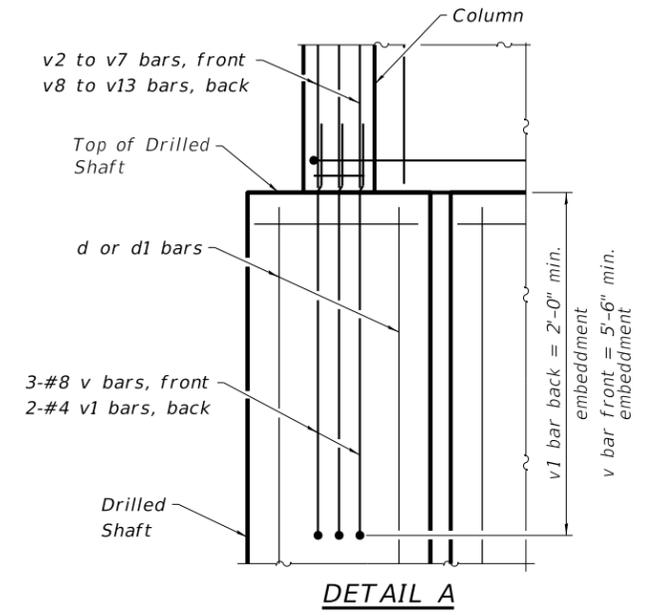
*Cut to fit if required

RETAINING WALL PLAN - SECTION C



Wall deflection location. See horizontal alignment on Structural sheet 1 of 24

SECTION D



DETAIL A

ⓔ = Expansion Joint

NOTES:

- Drilled shaft #60 and wall reinforcement past Column #59 are included in Section D.
- Drilled shaft #39 and column #39 are included in Section B.
- For Bar List see Structural sheet 12 of 24.
- For individual drilled shafts & column details see Structural sheet 12 of 24.
- For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.
- Minimum lap of v bars = 5'-6".
- Minimum lap of v1 bars = 2'-0".

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

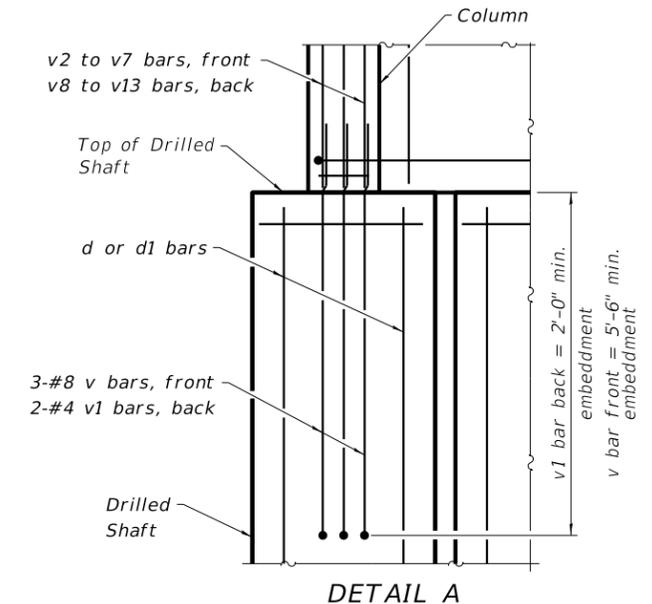
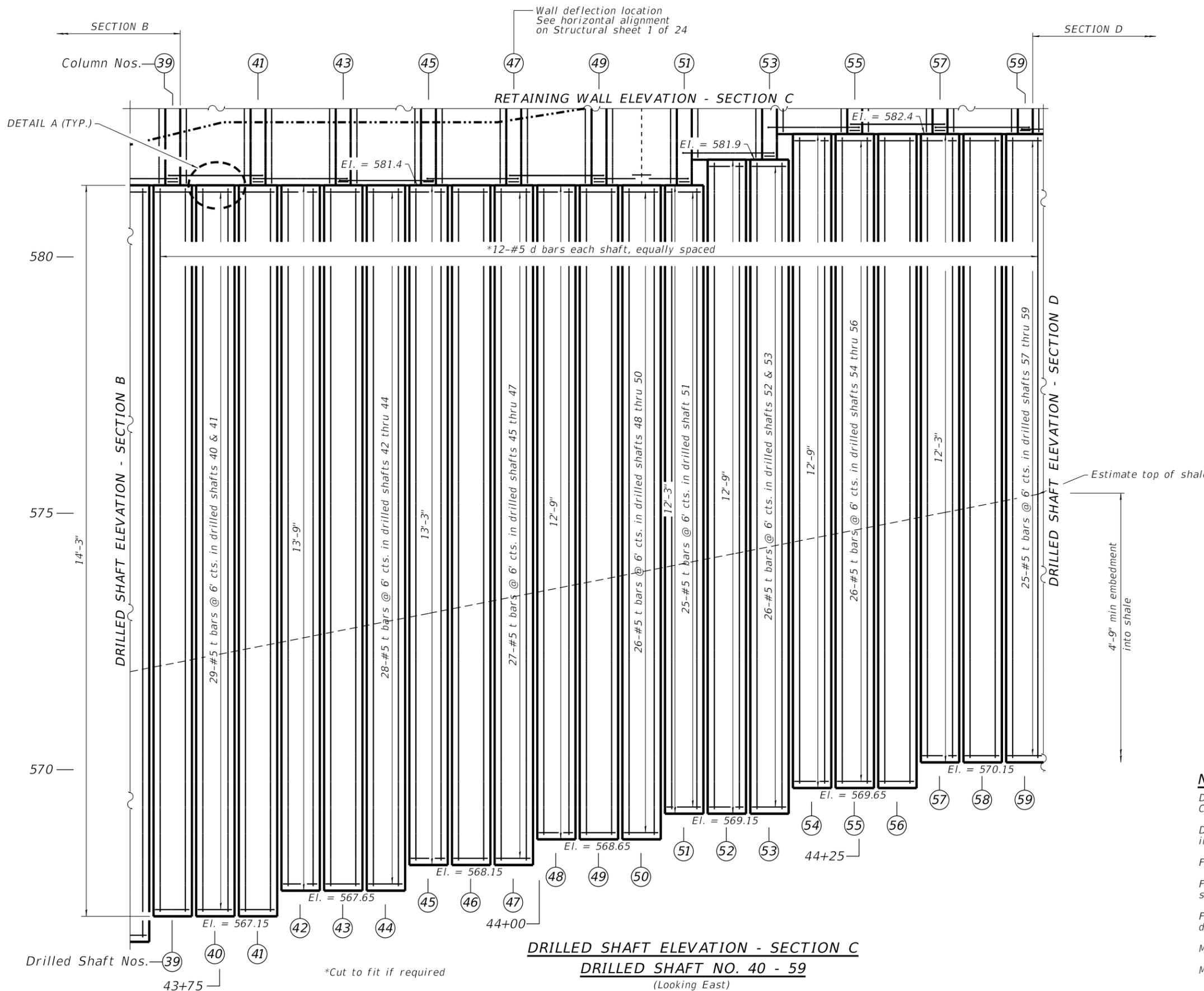
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 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM # 184-000918

RETAINING WALL ELEVATION - SECTION C
(COLUMN NO. 41 - 59)
STRUCTURAL SHEET NO. 10 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	21
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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- NOTES:**
- Drilled shaft #60 and wall reinforcement past Column #59 are included in Section D.
 - Drilled shaft #39 and column #39 are included in Section B.
 - For Bar List see Structural sheet 12 of 24.
 - For individual drilled shafts & column details see Structural sheet 12 of 24.
 - For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.
 - Minimum lap of v bars = 5'-6".
 - Minimum lap of v1 bars = 2'-0".

REVISION	DATE	BY	REMARKS

DESIGNED ATK
 DRAWN DAN
 REVIEWED ATK
 APPROVED MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

WILLET HOFMANN & ASSOCIATES, INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
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DRILLED SHAFT ELEVATION - SECTION C
 (DRILLED SHAFT NO. 40 - 59)

STRUCTURAL SHEET NO. 11 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	22
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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DRILLED SHAFT & COLUMN TABLE - SECTION C

DRILLED SHAFT NO	TOP OF DRILLED SHAFT ELEV.	BOTTOM OF DRILLED SHAFT ELEV.	ESTIMATED TOTAL SHAFT LENGTH (FT.)	MINIMUM ROCK EMBEDMENT	EXPECTED ROCK EMBEDMENT	COLUMN NO	TOP OF COLUMN	COLUMN LENGTH (FT.)
40	581.4	567.15	14.25	4.75	5.10			
41	581.4	567.15	14.25	4.75	5.26	41	590.15	8.75
42	581.4	567.65	13.75	4.75	4.92			
43	581.4	567.65	13.75	4.75	5.08	43	590.15	8.75
44	581.4	567.65	13.75	4.75	5.25			
45	581.4	568.15	13.25	4.75	4.91	45	590.15	8.75
46	581.4	568.15	13.25	4.75	5.07			
47	581.4	568.15	13.25	4.75	5.23	47	591.15	9.75
48	581.4	568.65	12.75	4.75	4.90			
49	581.4	568.65	12.75	4.75	5.06	49	591.15	9.75
50	581.4	568.65	12.75	4.75	5.22			
51	581.4	569.15	12.25	4.75	4.88	51	591.15	9.75
52	581.9	569.15	12.75	4.75	5.04			
53	581.9	569.15	12.75	4.75	5.21	53	592.4	10.5
54	582.4	569.65	12.75	4.75	4.87			
55	582.4	569.65	12.75	4.75	5.03	55	592.4	10
56	582.4	569.65	12.75	4.75	5.19			
57	582.4	570.15	12.25	4.75	4.86	57	592.4	10
58	582.4	570.15	12.25	4.75	5.02			
59	582.4	570.15	12.25	4.75	5.18	59	592.4	10

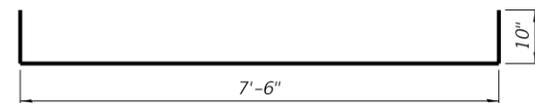
BILL OF MATERIAL - SECTION C

Bar	No.	Size	Length	Shape
d	240	#5	29' - 7"	—
h	106	#5	9' - 2"	┌┐
h1	24	#5	4' - 5"	┌┐
h2	12	#5	1' - 8"	—
s	175	#5	4' - 9"	□
t	664	#5	7' - 4"	○
v	30	#8	12' - 1"	┌┐┌┐
v1	20	#4	4' - 8"	┌┐┌┐
v3	9	#8	8' - 5"	—
v5	9	#8	9' - 5"	—
v6	9	#8	9' - 8"	—
v7	3	#8	10' - 2"	—
v9	6	#4	8' - 5"	—
v11	6	#4	9' - 5"	—
v12	6	#4	9' - 8"	—
v13	2	#4	10' - 2"	—
z	6	#4	7' - 5"	—
z1	18	#4	8' - 5"	—
z2	6	#4	8' - 11"	—
z3	12	#4	9' - 5"	—
z4	18	#4	9' - 8"	—
POROUS GRANULAR BACKFILL			CU YD	48
CONCRETE STRUCTURES			CU YD	16
REINFORCEMENT BARS			POUND	16,750
DRILLED SHAFT IN SOIL			CU YD	42
DRILLED SHAFT IN ROCK			CU YD	27
GEOCOMPOSITE WALL DRAIN			SQ YD	69
PIPE UNDERDRAINS 6" (SPECIAL)			FOOT	67

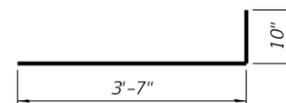
NOTES:

25% extra t bars are in the bill of material to account for variations in the elevation of the shale layer.

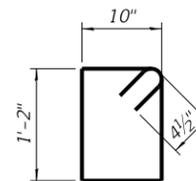
d bar length oversized to account for variations in the elevation of the shale layer.



BAR h

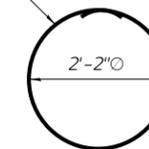


BAR h1

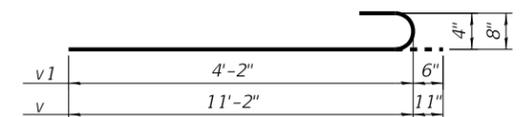


BAR s

Weld or mechanically spliced. Shop welded per AWS D1.4



BAR t



BAR v & v1

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

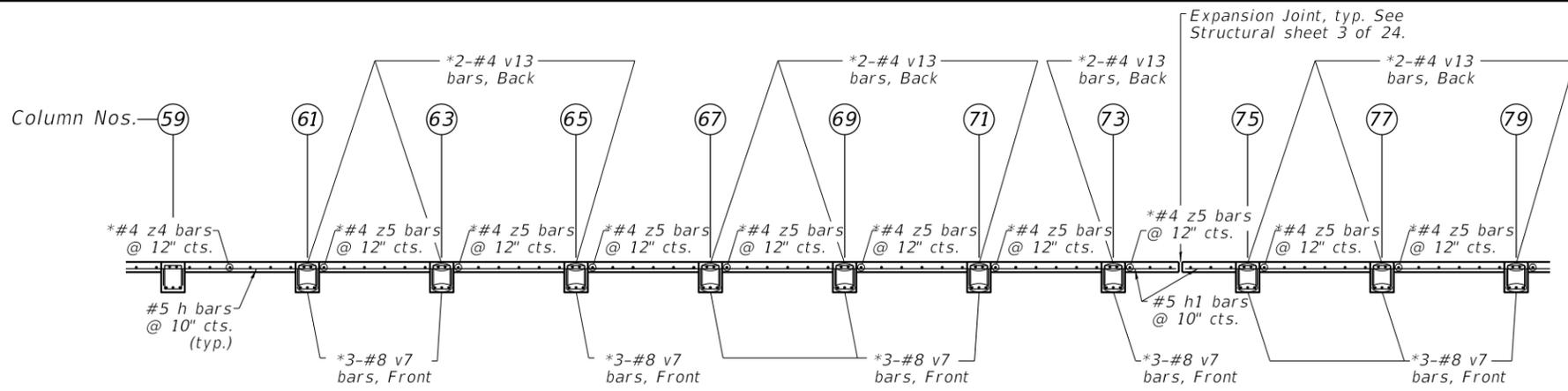
ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

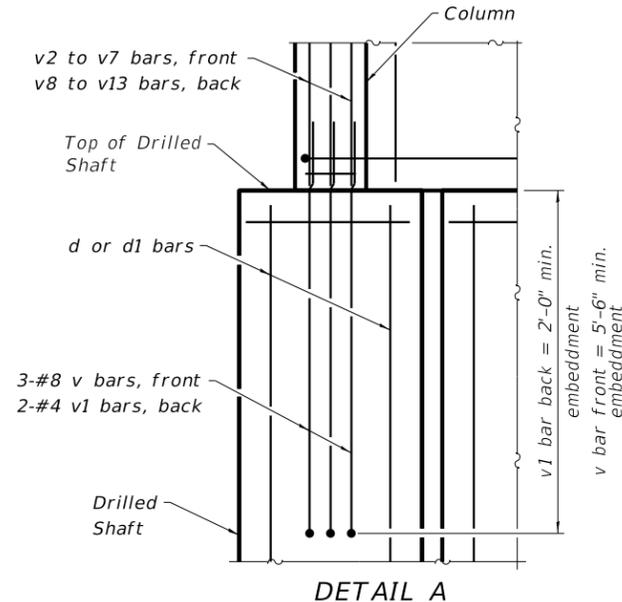
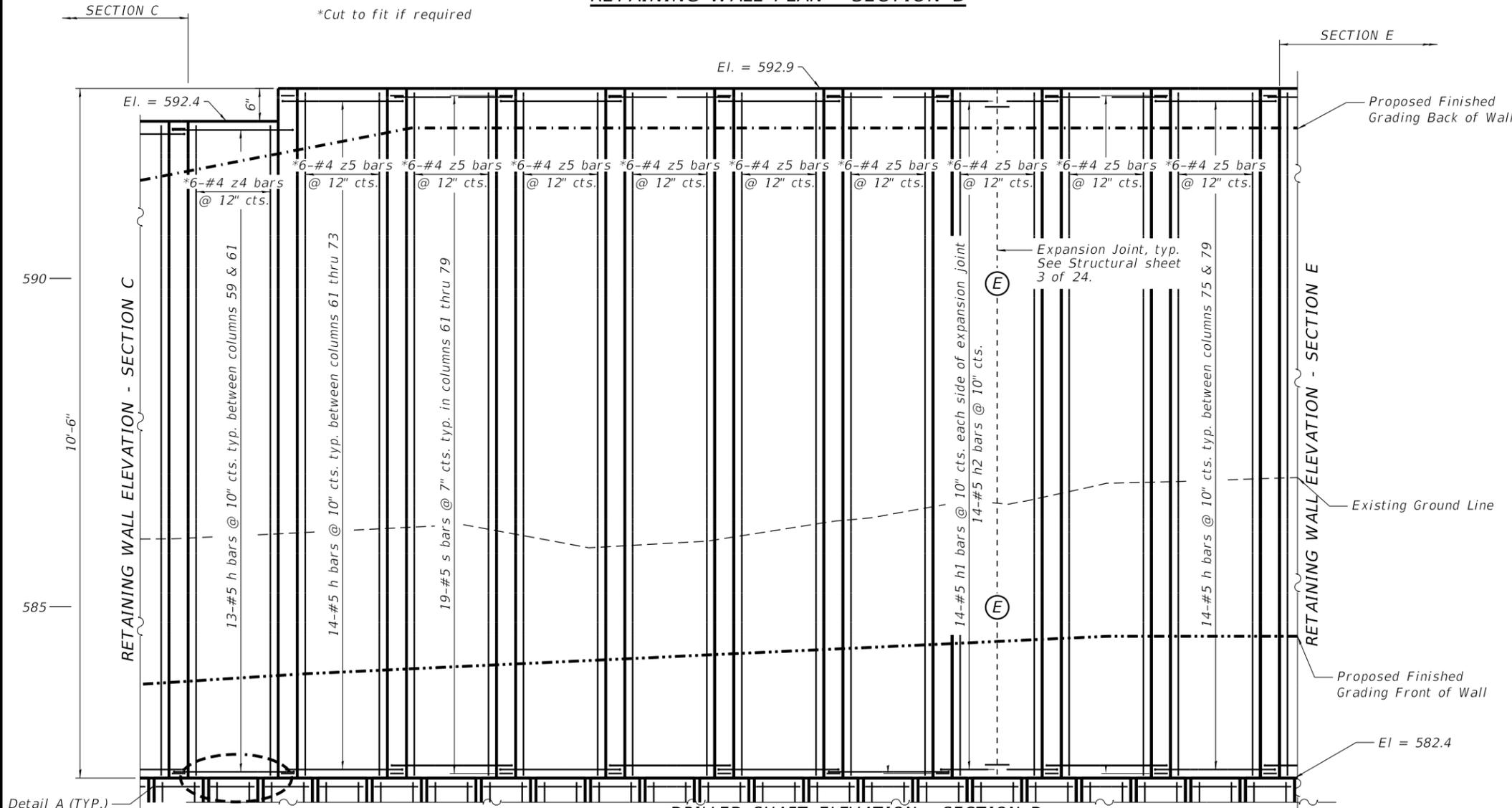
BILL OF MATERIAL AND DRILLED SHAFT TABLE
SECTION C
STRUCTURAL SHEET NO. 12 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	23
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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REINFORCING PLAN - SECTION D



(E) = Expansion Joint

- NOTES:**
- Drilled shaft #80 and wall reinforcement past Column #79 are included in Section E.
 - Drilled shaft #59 and column #59 are included in Section C.
 - For Bar List see Structural sheet 15 of 24.
 - For individual drilled shafts & column details see Structural sheet 15 of 24.
 - For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.
 - Minimum lap of v bars = 5'-6".
 - Minimum lap of v1 bars = 2'-0".

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

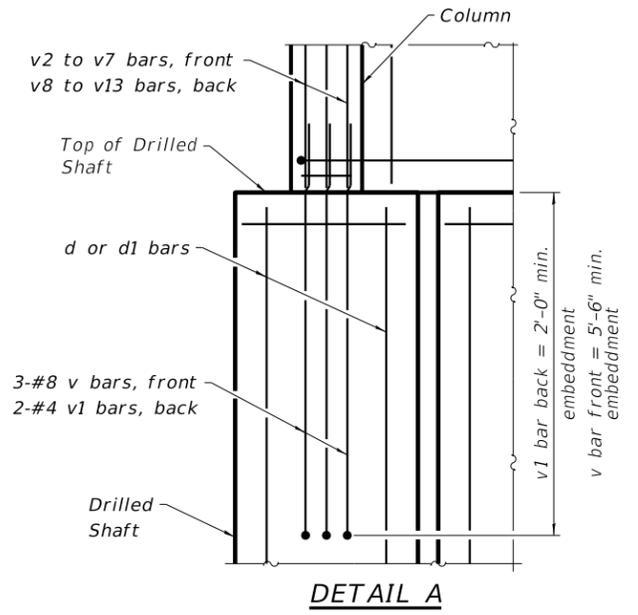
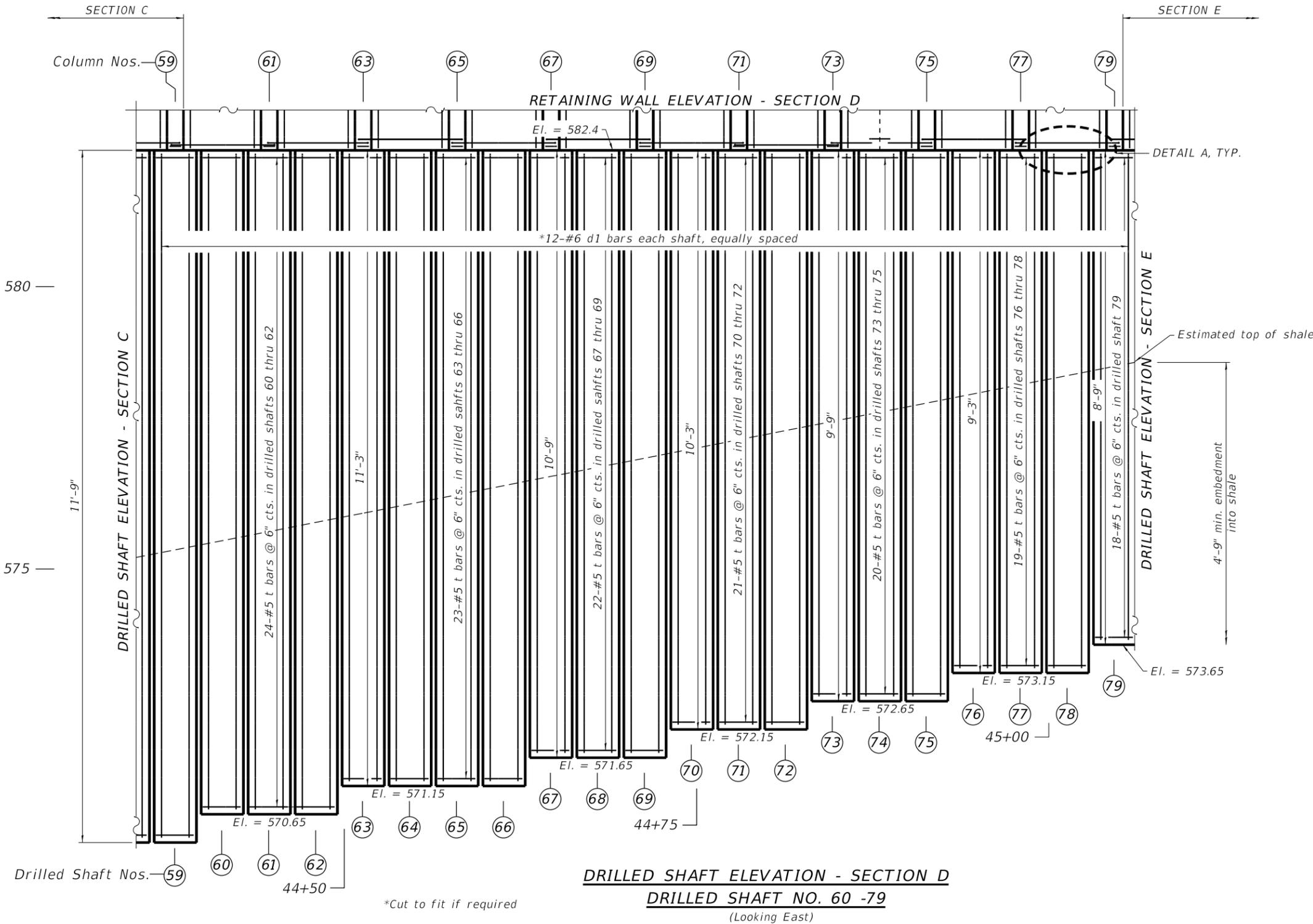
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ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOULINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

RETAINING WALL ELEVATION - SECTION D
(COLUMN NO. 61 - 79)
STRUCTURAL SHEET NO. 13 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	24
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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NOTES:

Drilled shaft #80 and wall reinforcement past Column #79 are included in Section E.

Drilled shaft #59 and column #59 are included in Section C.

For Bar List see Structural sheet 15 of 24.

For individual drilled shafts & column details see Structural sheet 15 of 24.

For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.

Minimum lap of v bars = 5'-6".

Minimum lap of v1 bars = 2'-0".

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

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

DRILLED SHAFT ELEVATION - SECTION D
(DRILLED SHAFT NO. 60 - 79)

STRUCTURAL SHEET NO. 14 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	25
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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DRILLED SHAFT & COLUMN TABLE - SECTION D

DRILLED SHAFT NO	TOP OF DRILLED SHAFT ELEV.	BOTTOM OF DRILLED SHAFT ELEV.	ESTIMATED TOTAL SHAFT LENGTH (FT.)	MINIMUM ROCK EMBEDMENT	EXPECTED ROCK EMBEDMENT	COLUMN NO	TOP OF COLUMN	COLUMN LENGTH (FT.)
60	582.4	570.65	11.75	4.75	4.84			
61	582.4	570.65	11.75	4.75	5.01	61	592.9	10.5
62	582.4	570.65	11.75	4.75	5.17			
63	582.4	571.15	11.25	4.75	4.83	63	592.9	10.5
64	582.4	571.15	11.25	4.75	4.99			
65	582.4	571.15	11.25	4.75	5.16	65	592.9	10.5
66	582.4	571.15	11.25	4.75	5.32			
67	582.4	571.65	10.75	4.75	4.98	67	592.9	10.5
68	582.4	571.65	10.75	4.75	5.14			
69	582.4	571.65	10.75	4.75	5.31	69	592.9	10.5
70	582.4	572.15	10.25	4.75	4.97			
71	582.4	572.15	10.25	4.75	5.13	71	592.9	10.5
72	582.4	572.15	10.25	4.75	5.29			
73	582.4	572.65	9.75	4.75	4.96	73	592.9	10.5
74	582.4	572.65	9.75	4.75	5.12			
75	582.4	572.65	9.75	4.75	5.28	75	592.9	10.5
76	582.4	573.15	9.25	4.75	4.94			
77	582.4	573.15	9.25	4.75	5.11	77	592.9	10.5
78	582.4	573.15	9.25	4.75	5.27			
79	582.4	573.65	8.75	4.75	4.93	79	592.9	10.5

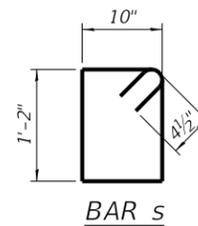
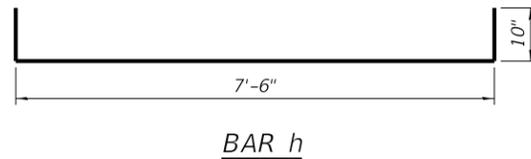
BILL OF MATERIAL - SECTION D

Bar	No.	Size	Length	Shape
d	84	#5	29' - 7"	—
d1	156	#5	19' - 7"	—
h	125	#5	9' - 2"	┌┐
h1	28	#5	4' - 5"	┌┐
h2	14	#5	1' - 8"	—
s	190	#5	4' - 9"	□
t	535	#5	7' - 4"	○
v	30	#8	12' - 1"	┌┐
v1	20	#4	4' - 8"	┌┐
v7	30	#8	10' - 2"	—
v13	20	#4	10' - 2"	—
z4	6	#4	9' - 8"	—
z5	54	#4	10' - 2"	—
z5	54	#4	10' - 2"	—
POROUS GRANULAR BACKFILL				CU YD 53
CONCRETE STRUCTURES				CU YD 17.5
REINFORCEMENT BARS				POUND 14,550
DRILLED SHAFT IN SOIL				CU YD 28
DRILLED SHAFT IN ROCK				CU YD 27
GEOCOMPOSITE WALL DRAIN				SQ YD 78
PIPE UNDERDRAINS - 6" (SPECIAL)				FOOT 67

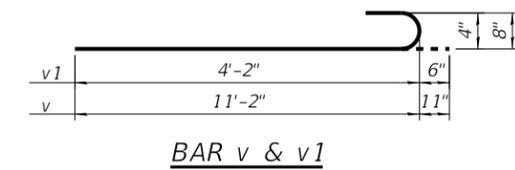
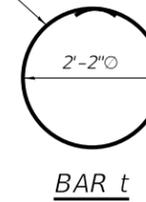
NOTES:

25% extra t bars are in the bill of material to account for variations in the elevation of the shale layer.

d bar length oversized to account for variations in the elevation of the shale layer.



Weld or mechanically spliced. Shop welded per AWS D1.4



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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

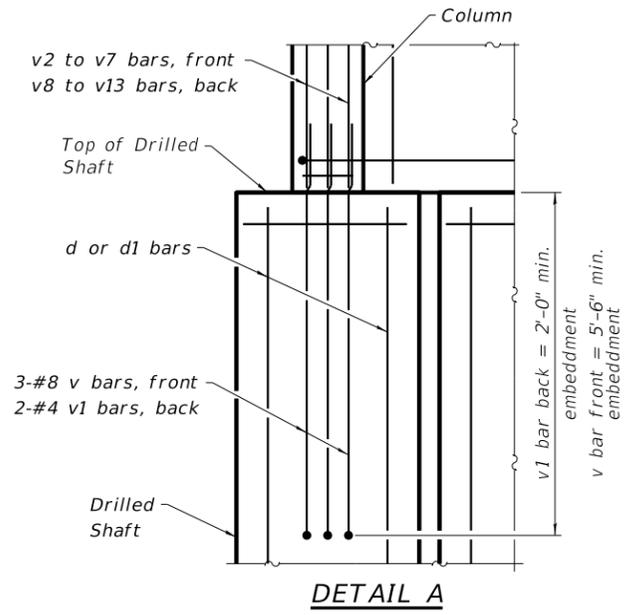
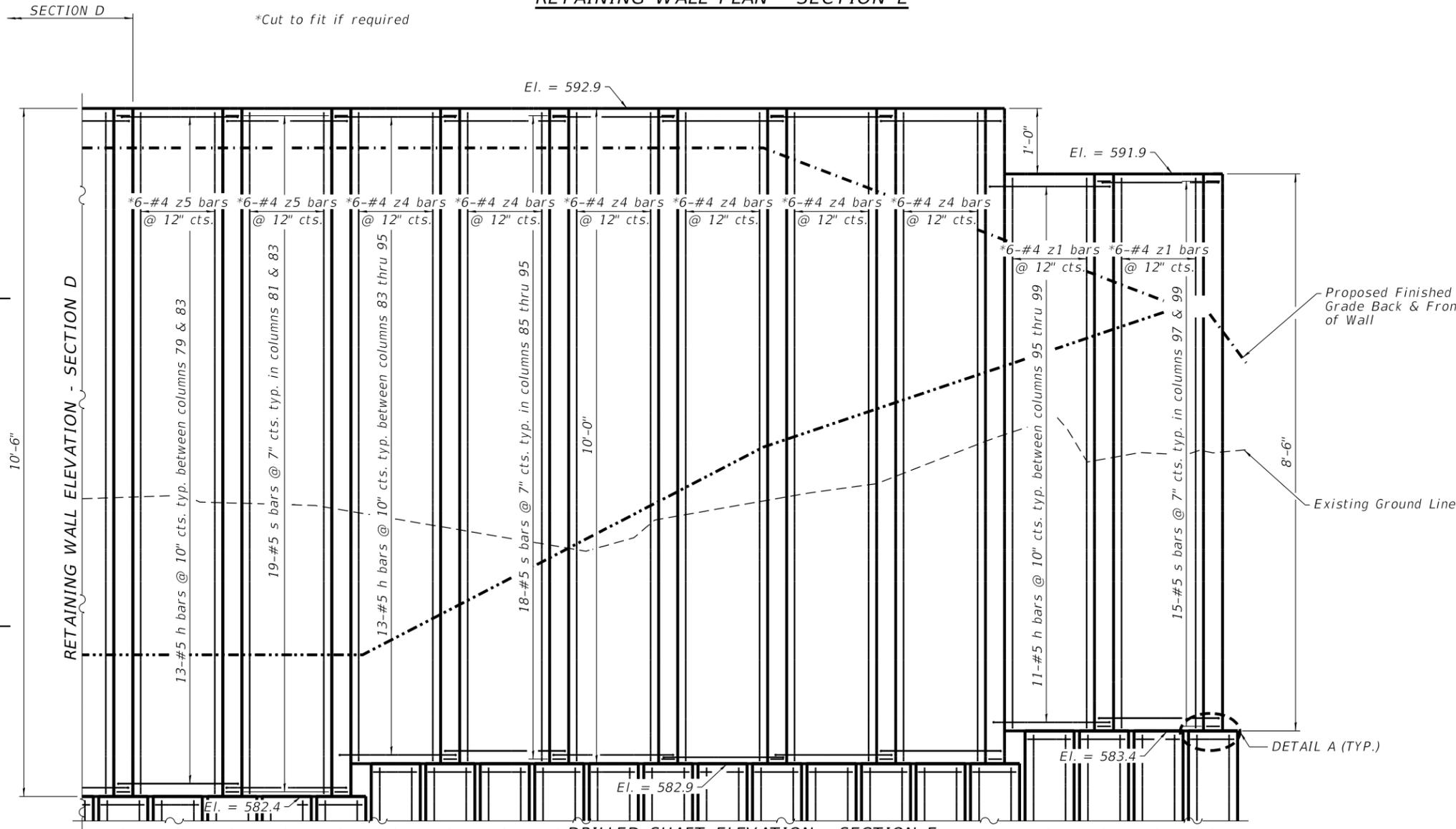
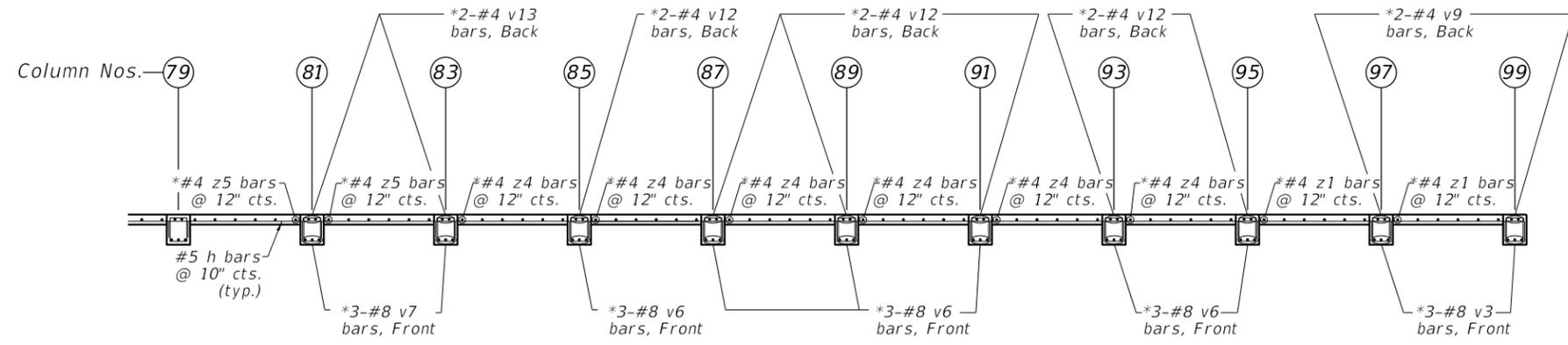
BILL OF MATERIAL AND DRILLED SHAFT TABLE
SECTION D
STRUCTURAL SHEET NO. 15 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	26
WHA# 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

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S:\PROJECTS\2020\1078M20.RIC.Ret\DESIGN\CAD\SHEETS\1078M20.Retaining Wall Elevation - Section E.dgn



NOTES:

For Bar List see Structural sheet 18 of 24.

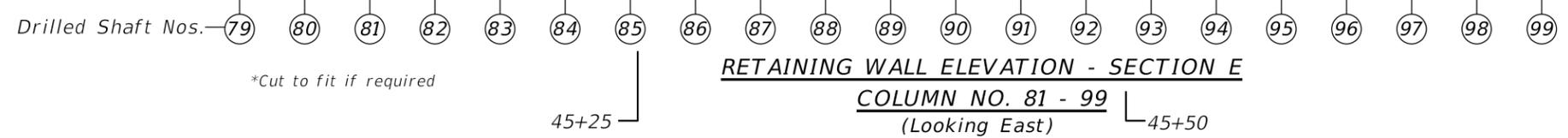
Drilled shaft #79 and column #79 are included in Section D.

For individual drilled shafts & column details see Structural sheet 3 of 24.

For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.

Minimum lap of v bars = 5'-6".

Minimum lap of v1 bars = 2'-0".



REVISION	DATE	BY	REMARKS

DESIGNED ATK
 DRAWN DAN
 REVIEWED ATK
 APPROVED MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

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

RETAINING WALL ELEVATION - SECTION E (COLUMN NO. 81 - 99)

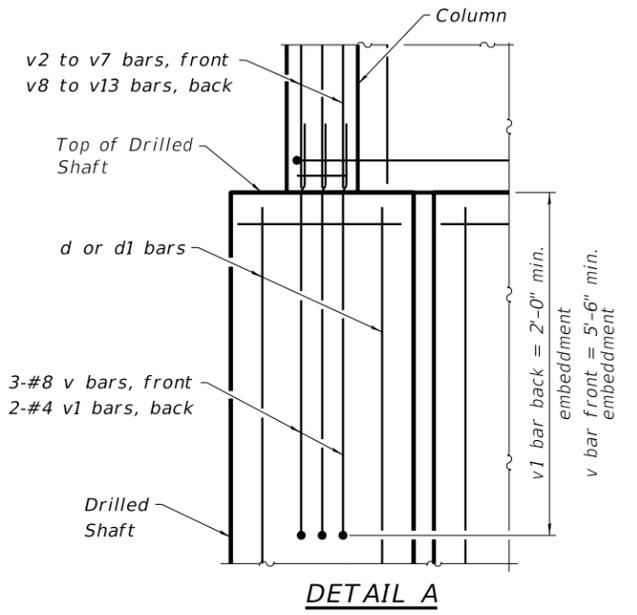
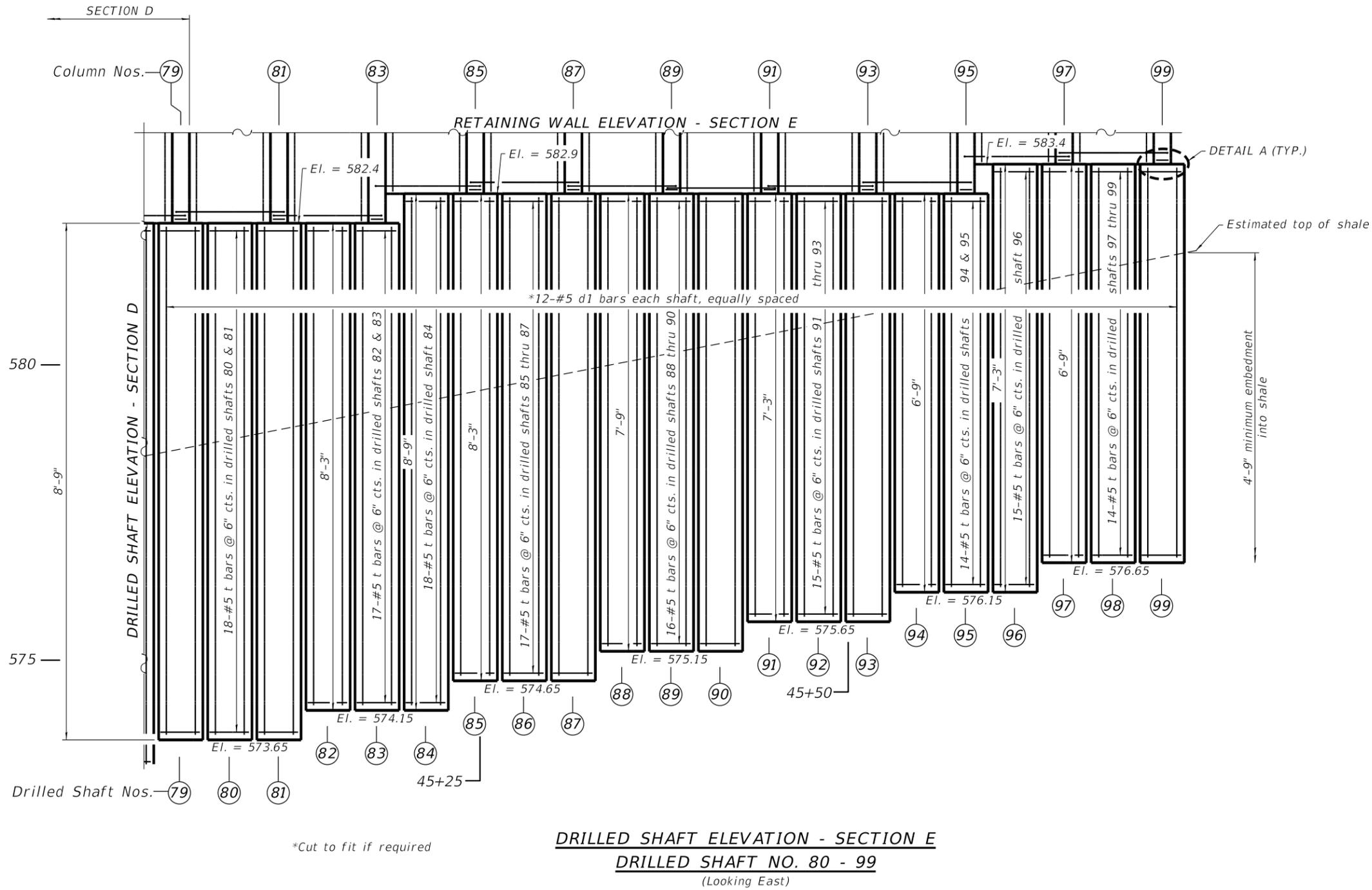
STRUCTURAL SHEET NO. 16 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	27
WHA # 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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S:\PROJECTS\2020\1078M20.RIC.Ret\vol\DESIGN\CAD\SHEETS\1078M20-Drilled Shaft Elevation - Section E.dgn



- NOTES:**
- For Bar List see Structural sheet 18 of 24.
 - Drilled shaft #79 and column #79 are included in Section D.
 - For individual drilled shafts & column details see Structural sheet 18 of 24.
 - For drilled shafts, column, wall sections, and details see Structural sheet 3 of 24.
 - Minimum lap of v bars = 5'-6".
 - Minimum lap of v1 bars = 2'-0".

*Cut to fit if required

DRILLED SHAFT ELEVATION - SECTION E
DRILLED SHAFT NO. 80 - 99
 (Looking East)

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

DRILLED SHAFT ELEVATION - SECTION E
(DRILLED SHAFT NO. 80 - 99)
STRUCTURAL SHEET NO. 17 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	28
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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DRILLED SHAFT & COLUMN TABLE - SECTION E

DRILLED SHAFT NO	TOP OF DRILLED SHAFT ELEV.	BOTTOM OF DRILLED SHAFT ELEV.	ESTIMATED TOTAL SHAFT LENGTH (FT.)	MINIMUM ROCK EMBEDMENT	EXPECTED ROCK EMBEDMENT	COLUMN NO	TOP OF COLUMN	COLUMN LENGTH (FT.)
80	582.4	573.65	8.75	4.75	5.09			
81	582.4	573.65	8.75	4.75	5.26	81	592.9	10.5
82	582.4	574.15	8.25	4.75	4.92			
83	582.4	574.15	8.25	4.75	5.08	83	592.9	10.5
84	582.9	574.15	8.75	4.75	5.24			
85	582.9	574.65	8.25	4.75	4.91	85	592.9	10
86	582.9	574.65	8.25	4.75	5.07			
87	582.9	574.65	8.25	4.75	5.23	87	592.9	10
88	582.9	575.15	7.75	4.75	4.89			
89	582.9	575.15	7.75	4.75	5.06	89	592.9	10
90	582.9	575.15	7.75	4.75	5.22			
91	582.9	575.65	7.25	4.75	4.88	91	592.9	10
92	582.9	575.65	7.25	4.75	5.04			
93	582.9	575.65	7.25	4.75	5.21	93	592.9	10
94	582.9	576.15	6.75	4.75	4.87			
95	582.9	576.15	6.75	4.75	5.03	95	592.9	10
96	583.4	576.15	7.25	4.75	5.19			
97	583.4	576.65	6.75	4.75	4.86	97	591.9	8.5
98	583.4	576.65	6.75	4.75	5.02			
99	583.4	576.65	6.75	4.75	5.18	99	591.9	8.5

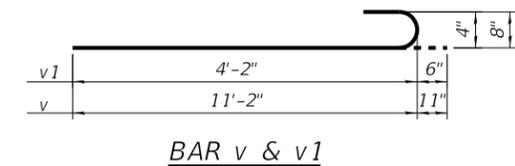
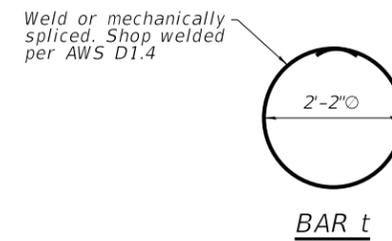
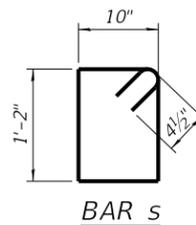
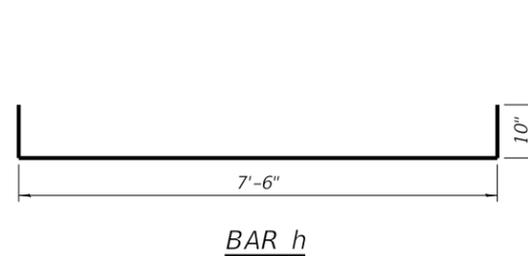
BILL OF MATERIAL - SECTION E

Bar	No.	Size	Length	Shape
d1	240	#5	19' - 7"	—
h	126	#5	9' - 2"	┌
s	176	#5	4' - 9"	□
t	399	#5	7' - 4"	○
v	30	#8	12' - 1"	┌
v1	20	#4	4' - 8"	┌
v3	6	#8	8' - 5"	—
v6	18	#8	9' - 8"	—
v7	6	#8	10' - 2"	—
v9	4	#4	8' - 5"	—
v12	12	#4	9' - 8"	—
v13	4	#4	10' - 2"	—
z1	12	#4	8' - 5"	—
z4	36	#4	9' - 8"	—
z5	12	#4	10' - 2"	—
POROUS GRANULAR BACKFILL			CU YD	50
CONCRETE STRUCTURES			CU YD	16.4
REINFORCEMENT BARS			POUND	12,340
DRILLED SHAFT IN SOIL			CU YD	14
DRILLED SHAFT IN ROCK			CU YD	27
GEOCOMPOSITE WALL DRAIN			SQ YD	73
PIPE UNDERDRAINS 6" (SPECIAL)			FOOT	87

NOTES:

25% extra t bars are in the bill of material to account for variations in the elevation of the shale layer.

d bar length oversized to account for variations in the elevation of the shale layer.



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

BILL OF MATERIAL AND DRILLED SHAFT TABLE
SECTION E
STRUCTURAL SHEET NO. 18 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	29
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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BORING LOG NO. SB-1

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION	DEPTH (FL)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
		See Exploration Plan Latitude: 41.3945° Longitude: -91.0098° Approximate Surface Elev.: 606.0 (Ft.) +/-											
			0.2										
		2" Root Zone											
		LEAN TO FAT CLAY (CL/CH) , dark brown to brown, very stiff											
			4.5			8		1	4050	21.6	104		
		FAT CLAY (CH) , brown, stiff (residual soil)											
			6.5			12	4-4-5 N=9	2		18.6			
		SHALE , brown, weathered											
						13	5-12-12 N=24	3		15.9			
						16	7-10-13 N=23	4		15.7			
						18	5-9-11 N=20	5		20.6		38-21-17	59
		brown and gray at Sample 5				10	8-14-22 N=36	6		17.4			
		SHALE , brown and gray				17	10-25-28 N=53	7		14.9			
						15	15-26-36 N=62	8		13.9			
		trace coal, dark gray				12	26-50/5"	9		9.7		40-21-19	99
						8	48-50/2"	10		9.4			

Stratification lines are approximate. In-situ, the transition may be gradual.
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.
 Hammer Type: Automatic

Advancement Method: Continuous-Flight Hollow-Stem Auger
 Incliner set at 45 feet from ground surface and 3 feet of pipe set above ground.
 See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).

Abandonment Method: Incliner and piezometer constructed
 See Supporting Information for explanation of symbols and abbreviations.

WATER LEVEL OBSERVATIONS
 None observed while drilling
 9.5' on 11/24/20
 10' on 5/13/21

Terracon
 870 40th Ave
 Bettendorf, IA

Boring Started: 11-17-2020
 Drill Rig: 719
 Project No.: 07205083

Boring Completed: 11-17-2020
 Driller: DL

BORING LOG NO. SB-1

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION	DEPTH (FL)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
		See Exploration Plan Latitude: 41.3945° Longitude: -91.0098° Approximate Surface Elev.: 606.0 (Ft.) +/-											
		SHALE , brown and gray (continued)											
						5	46-50/2"	11		8.9			
						5	50/5"	12		8.5			
						3	50/3"	13		8.2			
						3	50/4"	14		7.8			
		transitions to dark gray at about 36.5 feet (cannot smell organics)				6	42-50/3"	15		13.2			
						8	28-50/4"	16		10.6			
		transitions to light gray at about 40 feet				7	40-50/3"	17		8.5			
						3	50/4"	18		6.6			
						3	50/3"	19		4.8			
		Boring Terminated at 48 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.
 Hammer Type: Automatic

Advancement Method: Continuous-Flight Hollow-Stem Auger
 Incliner set at 45 feet from ground surface and 3 feet of pipe set above ground.
 See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).

Abandonment Method: Incliner and piezometer constructed
 See Supporting Information for explanation of symbols and abbreviations.

WATER LEVEL OBSERVATIONS
 None observed while drilling
 9.5' on 11/24/20
 10' on 5/13/21

Terracon
 870 40th Ave
 Bettendorf, IA

Boring Started: 11-17-2020
 Drill Rig: 719
 Project No.: 07205083

Boring Completed: 11-17-2020
 Driller: DL

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THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 07205083 ROCK ISLAND COUNTY.GPJ TERRACON_DATATEMPLATE.GDT 7/1/21

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 07205083 ROCK ISLAND COUNTY.GPJ TERRACON_DATATEMPLATE.GDT 7/1/21

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

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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. 19 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	30
WHA # 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

BORING LOG NO. SB-2

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.3945° Longitude: -91.0100° Approximate Surface Elev.: 592.0 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1	0.5	6" Topsoil	591.5+/-										
		LEAN TO FAT CLAY (CL/CH), brown to dark brown, medium stiff						1	1760	27.0	98		
		brown, stiff at Sample 2						2	2810	17.9	104		
2		brown-gray, stiff at Sample 3						3	2440	25.8	101		
		brown-gray, medium stiff at Sample 4						4		24.7		52-23-29	89
		3-3-4 N=7						5	2650	29.4	94		
3	11.5	FAT CLAY (CH), gray brown to dark brown, stiff (residual soil)	580.5+/-					6		14.4			
		10-22-28 N=50						7		9.4			
		23-50/6"						8		8.9			
		36-50/2"						9		7.0			
		50/6"						10					
		50/5"											
5		SHALE, gray dark gray at Sample 6	577.5+/-										
		calcareous at about 23.5 feet											

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger Inclinator set at 27 feet from ground surface and 3 feet of pipe set above ground	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any). See Supporting Information for explanation of symbols and abbreviations.	Notes:
Abandonment Method: Inclinator and piezometer constructed		
WATER LEVEL OBSERVATIONS ▽ 23.5' while drilling ▽ 17' on 11/24/20 ▽ 8.5' on 5/13/21	 870 40th Ave Bettendorf, IA	Boring Started: 11-17-2020 Boring Completed: 11-17-2020 Drill Rig: 719 Driller: DL Project No.: 07205083

BORING LOG NO. SB-2

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.3945° Longitude: -91.0100° Approximate Surface Elev.: 592.0 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		SHALE, gray (continued)											
								3		6.7			
								3		6.0			
		50/4"						11					
		50/5"						12					
		Boring Terminated at 30.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger Inclinator set at 27 feet from ground surface and 3 feet of pipe set above ground	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any). See Supporting Information for explanation of symbols and abbreviations.	Notes:
Abandonment Method: Inclinator and piezometer constructed		
WATER LEVEL OBSERVATIONS ▽ 23.5' while drilling ▽ 17' on 11/24/20 ▽ 8.5' on 5/13/21	 870 40th Ave Bettendorf, IA	Boring Started: 11-17-2020 Boring Completed: 11-17-2020 Drill Rig: 719 Driller: DL Project No.: 07205083

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

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



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 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. 20 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	31
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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BORING LOG NO. SB-3

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.3944° Longitude: -91.0095° Approximate Surface Elev.: 629.0 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1	0.5	6" Topsoil	628.5+/-										
		LEAN CLAY (CL), trace sand, brown, medium stiff				8		1	1830	18.0	107		
	4.0	LEAN TO FAT CLAY (CL/CH), trace sand, brown, stiff	625+/-			7		2	3520	24.3	100		
2		gray-brown, very stiff at Sample 3				14		3	4190	21.2	105		
	8.5	SHALE, gray-brown, highly weathered	620.5+/-					4				59-24-35	97
		trace coal at about 11.5 feet						5		18.1			
	14.0	SHALE, gray	615+/-					6		15.2			
		with dark gray at Sample 9						7		13.0			
								8		12.4			
								9		11.2			
								10		10.4			

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger Piezometer set at 30.5 feet	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).	Notes:
Abandonment Method: Boring backfilled with bentonite grout upon completion	See Supporting Information for explanation of symbols and abbreviations.	
WATER LEVEL OBSERVATIONS None observed while drilling None observed after drilling	Terracon 870 40th Ave Bettendorf, IA	Boring Started: 11-17-2020 Drill Rig: 719 Project No.: 07205083
		Boring Completed: 11-17-2020 Driller: DL

BORING LOG NO. SB-3

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.3944° Longitude: -91.0095° Approximate Surface Elev.: 629.0 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		SHALE, gray (continued)											
								11		9.9			
								12		9.6			
		Boring Terminated at 30.5 Feet	30.5										

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger Piezometer set at 30.5 feet	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).	Notes:
Abandonment Method: Boring backfilled with bentonite grout upon completion	See Supporting Information for explanation of symbols and abbreviations.	
WATER LEVEL OBSERVATIONS None observed while drilling None observed after drilling	Terracon 870 40th Ave Bettendorf, IA	Boring Started: 11-17-2020 Drill Rig: 719 Project No.: 07205083
		Boring Completed: 11-17-2020 Driller: DL

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51


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. 21 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	32
WHA # 1078M20			CONTRACT NO. 85728	
[ILLINOIS] FED. AID PROJECT HHX6(218)				

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BORING LOG NO. SB-4

Page 1 of 2

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.3947° Longitude: -91.0097° Approximate Surface Elev.: 606.5 (Ft.) +/-	DEPTH (FL.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
1			0.5										
		6" Topsoil											
2		LEAN CLAY (CL) , trace sand and organics, gray and brown (possible fill)											
			4.0										
		SHALE , brown, highly weathered											
			5										
		root at Sample 4											
			10										
			15										
			20										
			25										

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).	Notes:
Abandonment Method: Boring backfilled with bentonite grout upon completion	See Supporting Information for explanation of symbols and abbreviations.	
WATER LEVEL OBSERVATIONS None observed while drilling None observed after drilling	Terracon 870 40th Ave Bettendorf, IA	Boring Started: 11-17-2020 Drill Rig: 719 Project No.: 07205083
		Boring Completed: 11-17-2020 Driller: DL

BORING LOG NO. SB-4

Page 2 of 2

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 41.3947° Longitude: -91.0097° Approximate Surface Elev.: 606.5 (Ft.) +/-	DEPTH (FL.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
		SHALE , gray (continued)											
			6										
			8										
			30										

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger	See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).	Notes:
Abandonment Method: Boring backfilled with bentonite grout upon completion	See Supporting Information for explanation of symbols and abbreviations.	
WATER LEVEL OBSERVATIONS None observed while drilling None observed after drilling	Terracon 870 40th Ave Bettendorf, IA	Boring Started: 11-17-2020 Drill Rig: 719 Project No.: 07205083
		Boring Completed: 11-17-2020 Driller: DL

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51


WILLETT 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. 22 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	33
WHA # 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

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BORING LOG NO. SB-5

PROJECT: Rock Island County CH-11 Slope Evaluation CLIENT: Willett, Hofmann & Associates, Inc.
SITE: 322nd Street Rock Island County, Illinois

Table with columns: MODEL LAYER, GRAPHIC LOG, LOCATION, DEPTH, WATER LEVEL OBSERVATIONS, SAMPLE TYPE, RECOVERY, FIELD TEST RESULTS, SAMPLE NUMBER, UNCONFINED COMPRESSIVE STRENGTH, WATER CONTENT, DRY UNIT WEIGHT, ATTERBERG LIMITS, PERCENT FINES. Includes soil descriptions like Topsoil, Sandy Lean Clay, Lean to Fat Clay, Lean Clay, and Shale.

Stratification lines are approximate. In-situ, the transition may be gradual. Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.
Advancement Method: Continuous-Flight Hollow-Stem Auger
Abandonment Method: Boring backfilled with bentonite grout upon completion
Notes: See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
Water Level Observations: None observed while drilling, None observed after drilling
Terracon logo and contact info: 870 40th Ave Bettendorf, IA

BORING LOG NO. SB-5

PROJECT: Rock Island County CH-11 Slope Evaluation CLIENT: Willett, Hofmann & Associates, Inc.
SITE: 322nd Street Rock Island County, Illinois

Table with columns: MODEL LAYER, GRAPHIC LOG, LOCATION, DEPTH, WATER LEVEL OBSERVATIONS, SAMPLE TYPE, RECOVERY, FIELD TEST RESULTS, SAMPLE NUMBER, UNCONFINED COMPRESSIVE STRENGTH, WATER CONTENT, DRY UNIT WEIGHT, ATTERBERG LIMITS, PERCENT FINES. Includes shale description and 'Boring Terminated at 30 Feet'.

Stratification lines are approximate. In-situ, the transition may be gradual. Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.
Advancement Method: Continuous-Flight Hollow-Stem Auger
Abandonment Method: Boring backfilled with bentonite grout upon completion
Notes: See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
Water Level Observations: None observed while drilling, None observed after drilling
Terracon logo and contact info: 870 40th Ave Bettendorf, IA

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Table with columns: REVISION, DATE, BY, REMARKS, DESIGNED, DRAWN, REVIEWED, APPROVED.

ROCK ISLAND COUNTY C.H. 11 (322ND ST. W.) RETAINING WALL STA. 42+40.28 - 45+76.51



BORING LOGS STRUCTURAL SHEET NO. 23 OF 24 SHEETS

Table with columns: C.H., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., ILLINOIS FED. AID PROJECT.

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BORING LOG NO. SB-6

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION	DEPTH (FL)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
		See Exploration Plan Latitude: 41.3941° Longitude: -91.0102° Approximate Surface Elev.: 598.0 (Ft.) +/-											
1	0.5	4" Topsoil	597.5+/-										
		FAT CLAY (CH), dark brown, stiff											
								1	2080	31.8	93		
								2	2670	29.4	96		
								3					
		FAT CLAY (CH), brown, stiff (residual soil)					4-7-7 N=14			16.0			
		very stiff at Sample 4					3-8-10 N=18			19.3			
							6-12-27 N=39			16.7		49-24-25	86
		SHALE, gray with brown, weathered											
		COAL, black					9-36-24 N=60			10.9			
		SHALE, gray					11-26-50/4"			21.4			
							26-48-50/2"			15.6			
							34-50/5"			14.5			
							38-50/2"			12.9			

Stratification lines are approximate. In-situ, the transition may be gradual.
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger
 Abandonment Method: Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
 See Supporting Information for explanation of symbols and abbreviations.

Notes:
 Boring Started: 11-17-2020
 Boring Completed: 11-17-2020
 Drill Rig: 719
 Driller: DL
 Project No.: 07205083

Terracon
 870 40th Ave
 Bettendorf, IA

WATER LEVEL OBSERVATIONS
 14' while drilling
 None observed after drilling

BORING LOG NO. SB-6

PROJECT: Rock Island County CH-11 Slope Evaluation **CLIENT:** Willett, Hofmann & Associates, Inc.
SITE: 322nd Street
 Rock Island County, Illinois

MODEL LAYER	GRAPHIC LOG	LOCATION	DEPTH (FL)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	SAMPLE NUMBER	UNCONFINED COMPRESSIVE STRENGTH (psf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
		See Exploration Plan Latitude: 41.3941° Longitude: -91.0102° Approximate Surface Elev.: 598.0 (Ft.) +/-											
		SHALE, gray (continued)											
							50/4"	11		6.7			
							44-50/4"	12		6.2			
		Boring Terminated at 30.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.
 Classification of rock estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

Advancement Method: Continuous-Flight Hollow-Stem Auger
 Abandonment Method: Boring backfilled with bentonite grout upon completion

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
 See Supporting Information for explanation of symbols and abbreviations.

Notes:
 Boring Started: 11-17-2020
 Boring Completed: 11-17-2020
 Drill Rig: 719
 Driller: DL
 Project No.: 07205083

Terracon
 870 40th Ave
 Bettendorf, IA

WATER LEVEL OBSERVATIONS
 14' while drilling
 None observed after drilling

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

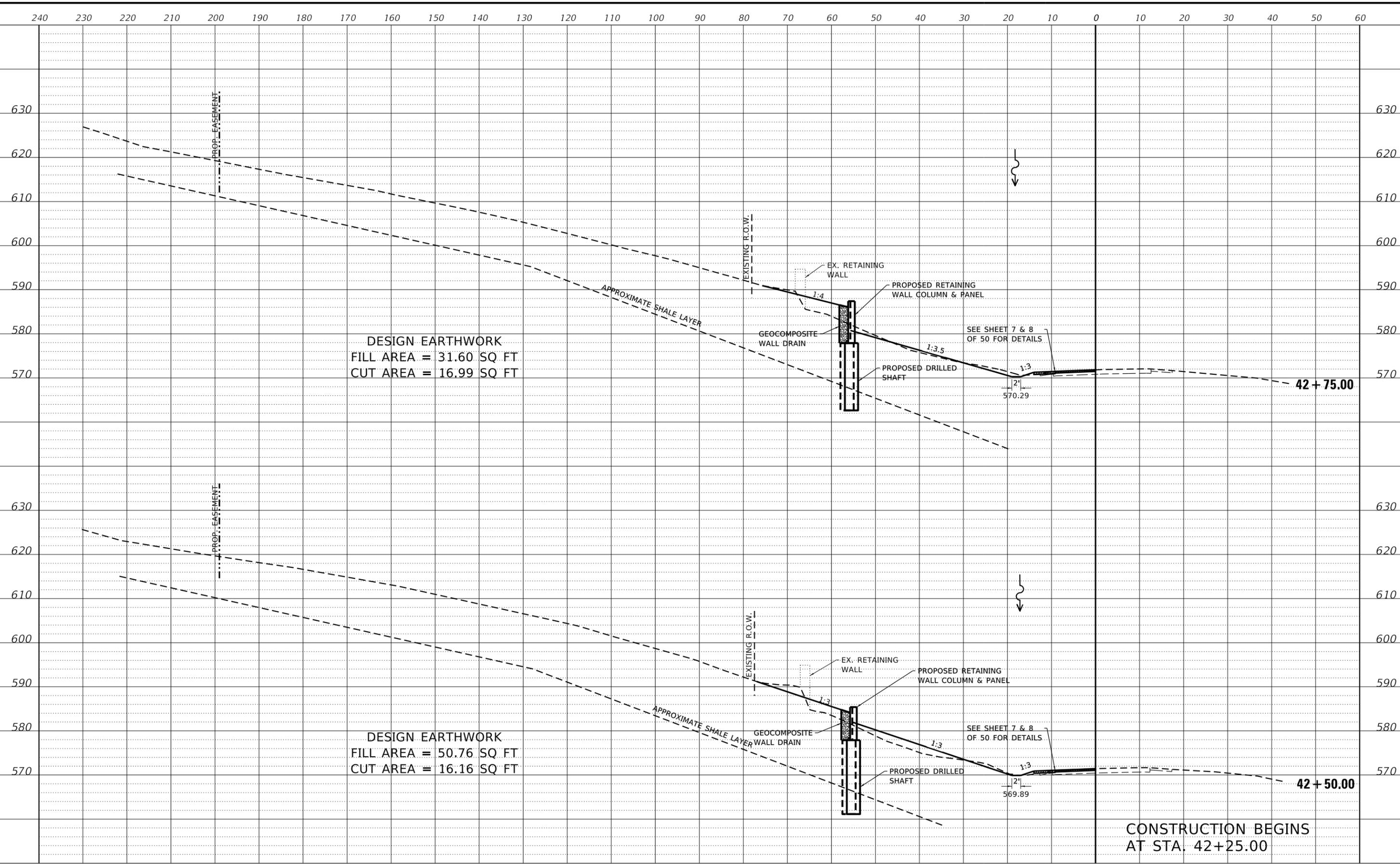


BORING LOGS

STRUCTURAL SHEET NO. 24 OF 24 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	35
WHA # 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

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CONSTRUCTION BEGINS AT STA. 42+25.00

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



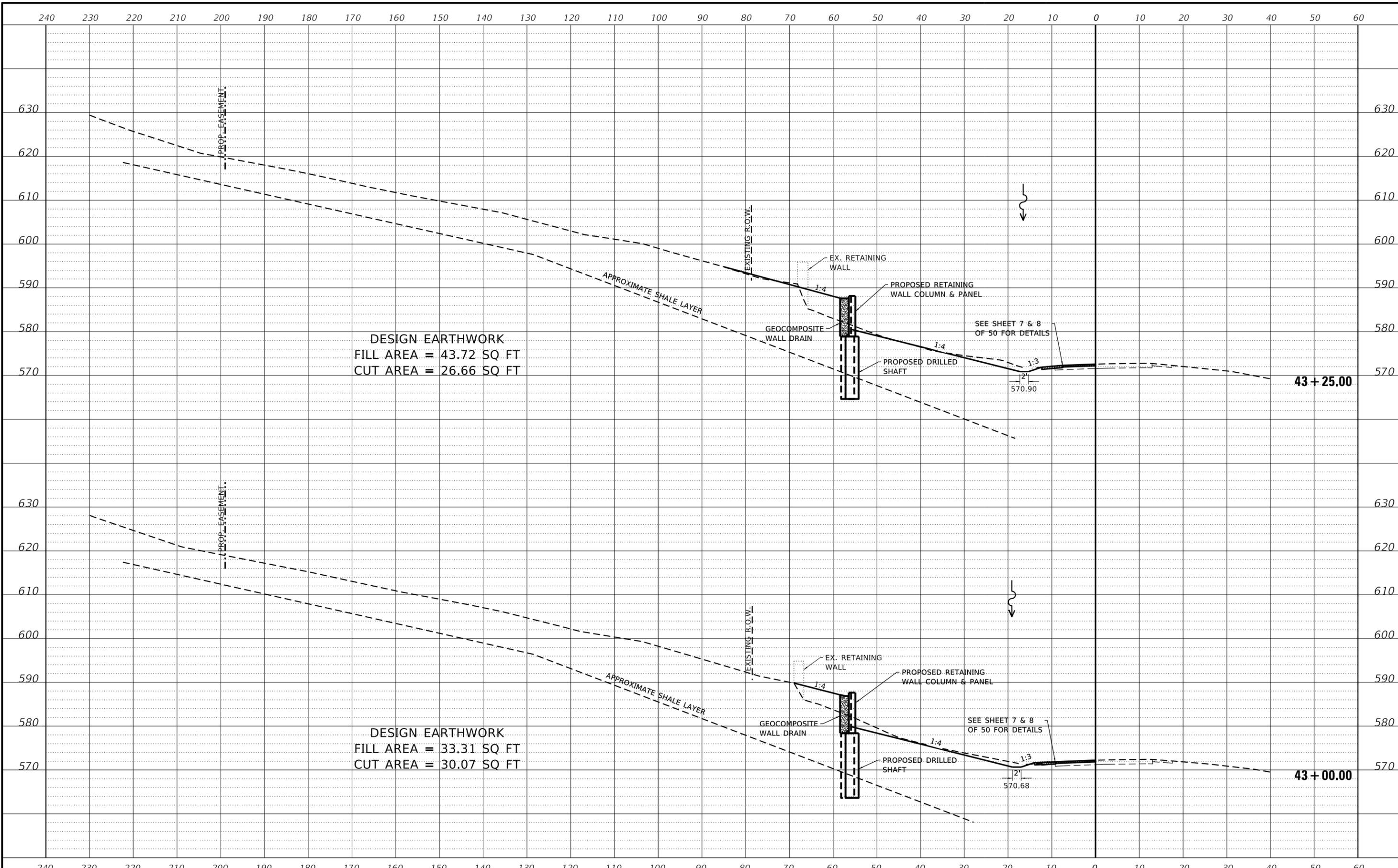
CROSS SECTIONS		
C.H.	SECTION	COUNTY
11	20-00381-00-DR	ROCK ISLAND
WHA# 1078M20		CONTRACT NO. 85728
ILLINOIS FED. AID PROJECT HHX6(218)		

TOTAL SHEETS	SHEET NO.
50	36

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



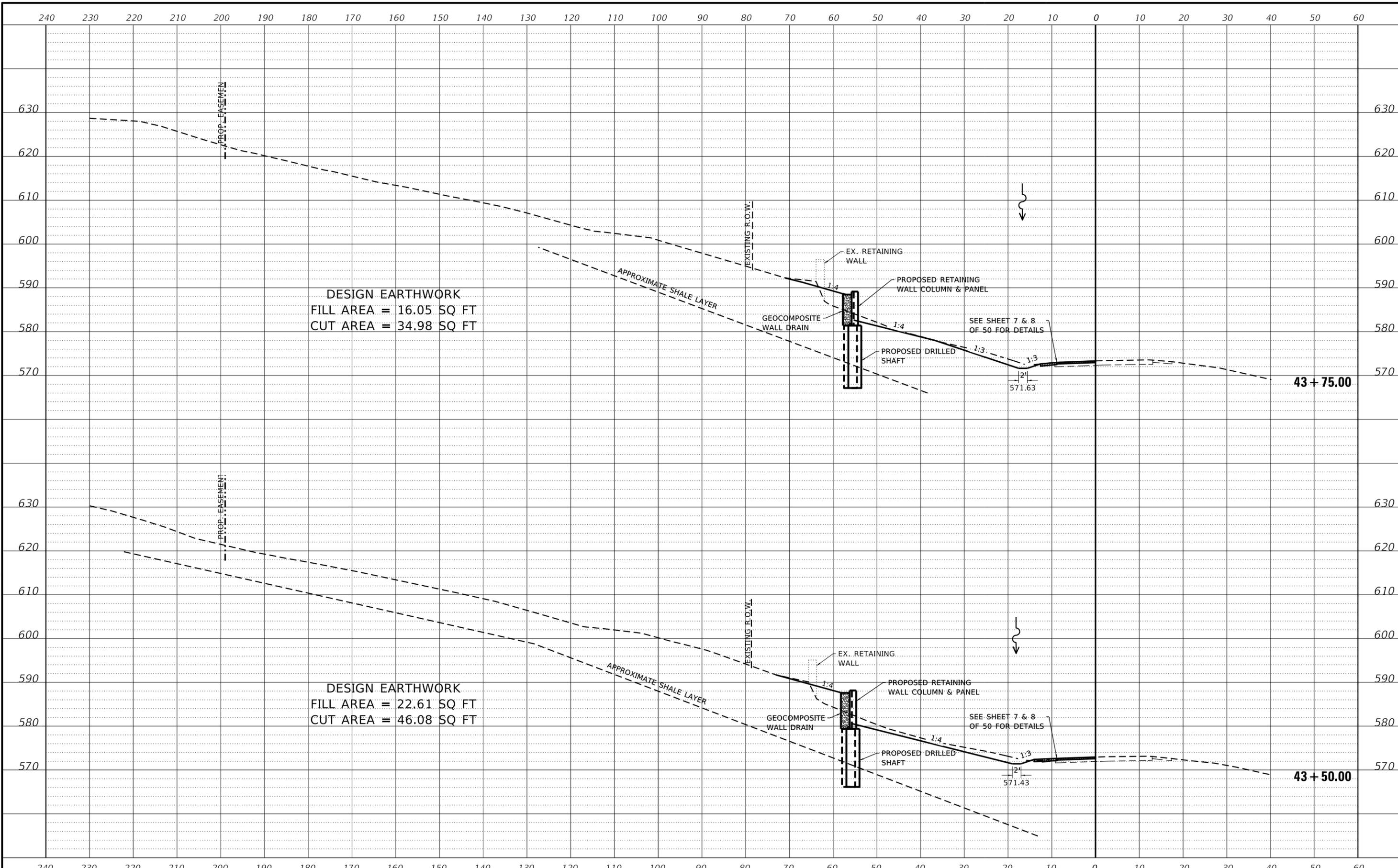
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 SHEET NO. 2 OF 8 SHEETS
 STA. 43+00.00 TO STA. 43+25.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	37
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



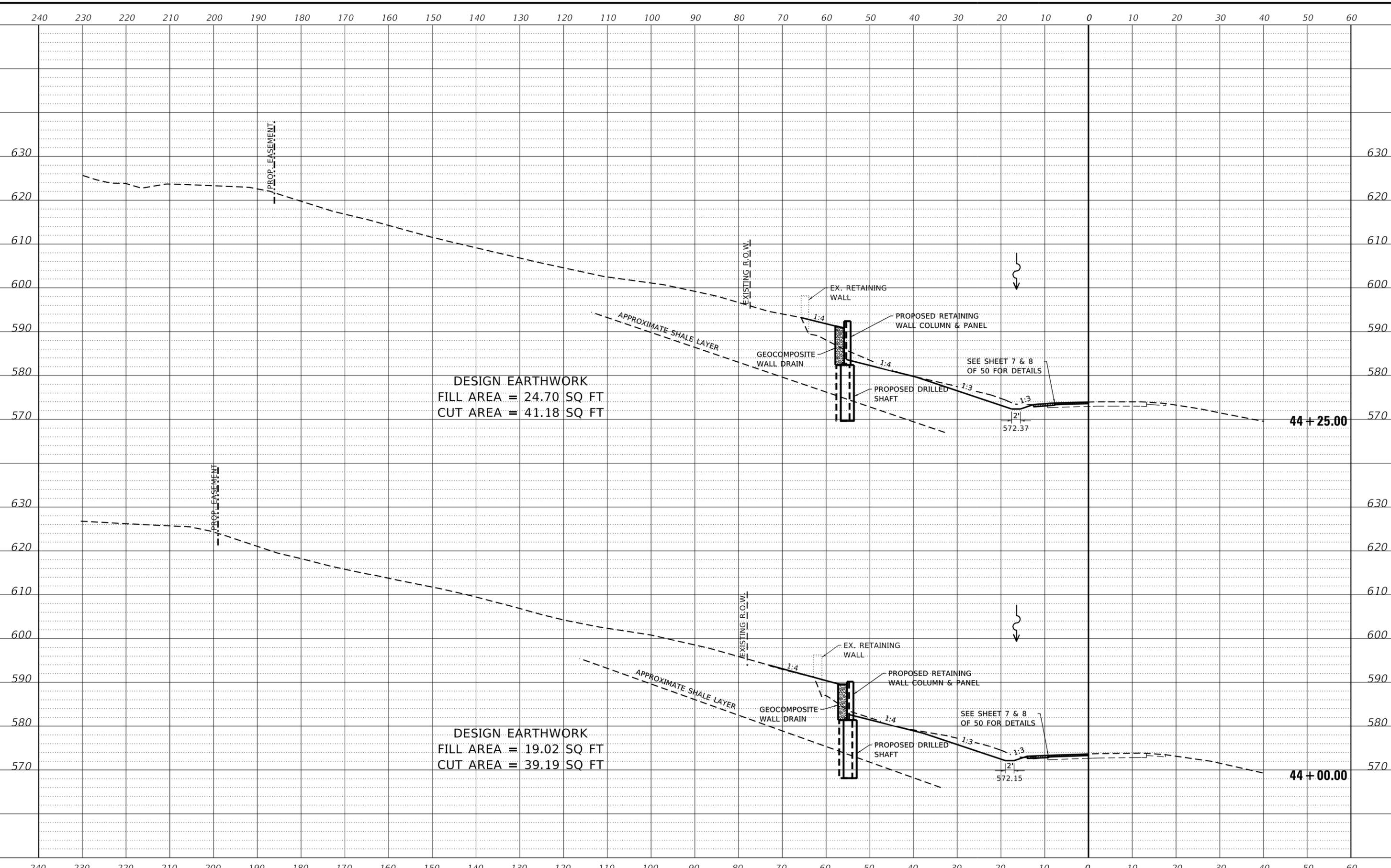
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SCALE: 1" = 10'-0" SHEET NO. 3 OF 8 SHEETS STA. 43+50.00 TO STA. 43+75.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	38
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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DESIGN EARTHWORK
 FILL AREA = 24.70 SQ FT
 CUT AREA = 41.18 SQ FT

DESIGN EARTHWORK
 FILL AREA = 19.02 SQ FT
 CUT AREA = 39.19 SQ FT

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

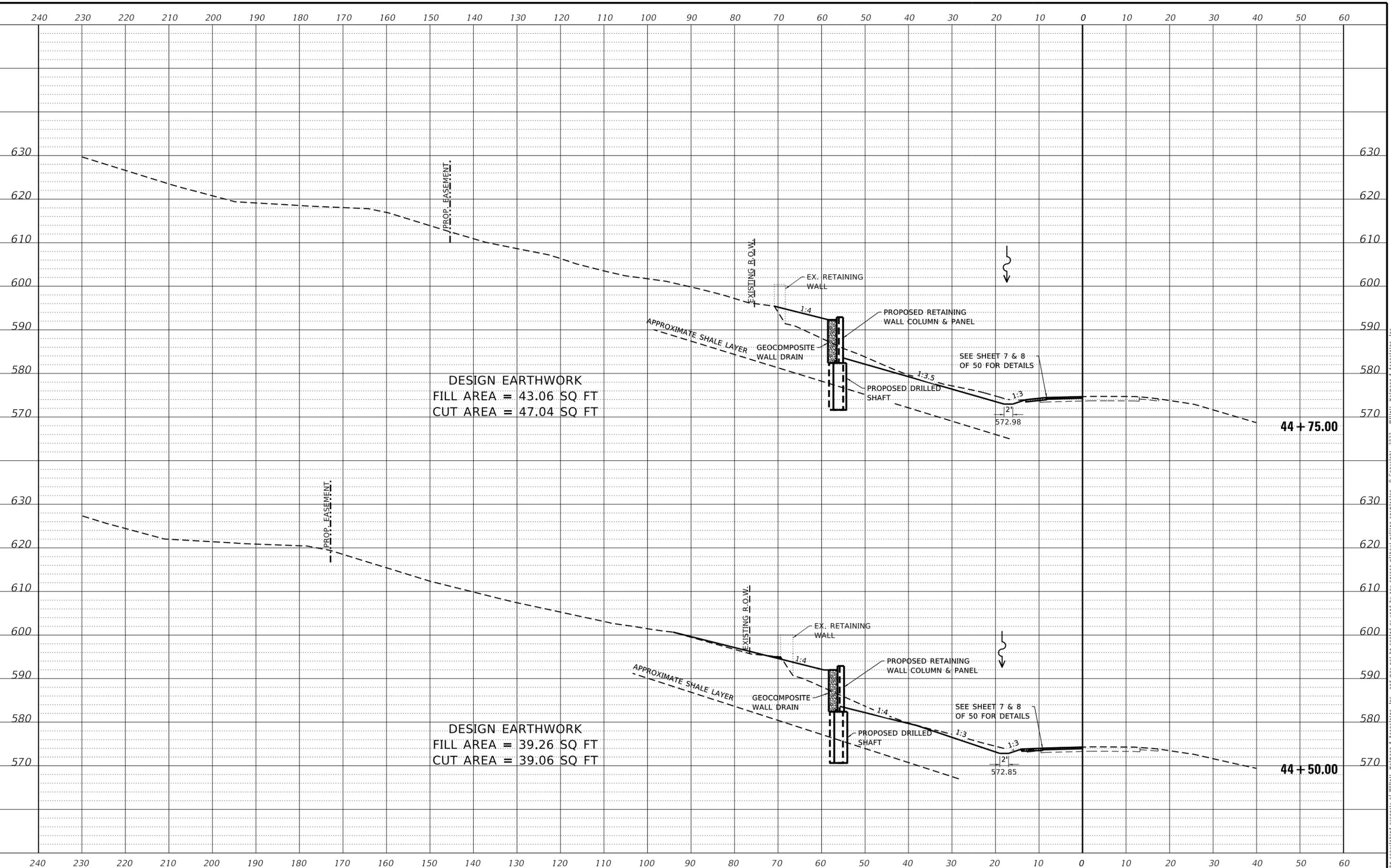


CROSS SECTIONS
 SCALE: 1" = 10'-0"
 SHEET NO. 4 OF 8 SHEETS
 STA. 44+00.00 TO STA. 44+25.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	39
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



CROSS SECTIONS		
C.H.	SECTION	COUNTY
11	20-00381-00-DR	ROCK ISLAND
WHA# 1078M20		CONTRACT NO. 85728
ILLINOIS FED. AID PROJECT HHX6(218)		

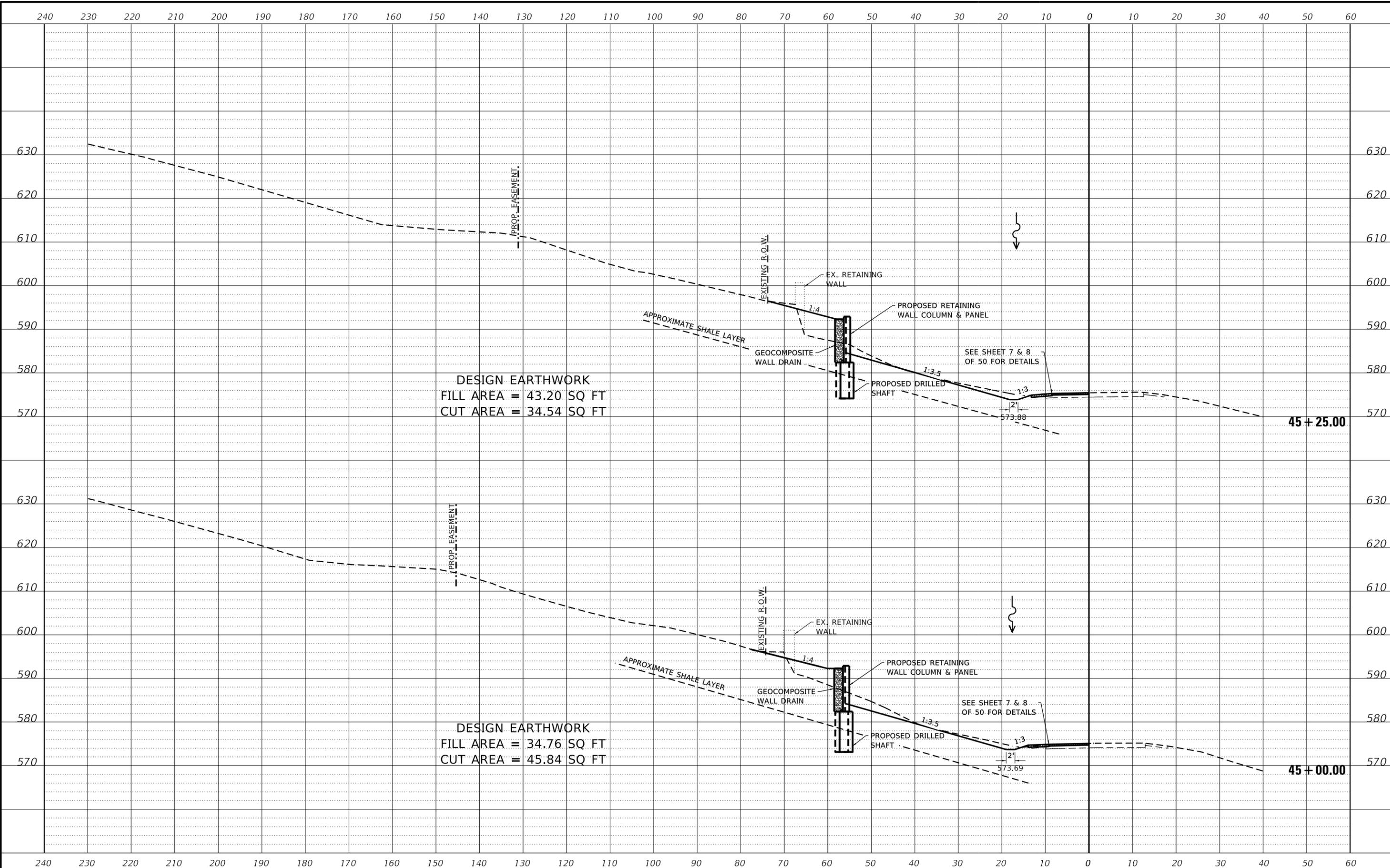
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TOTAL SHEETS	SHEET NO.
50	40

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



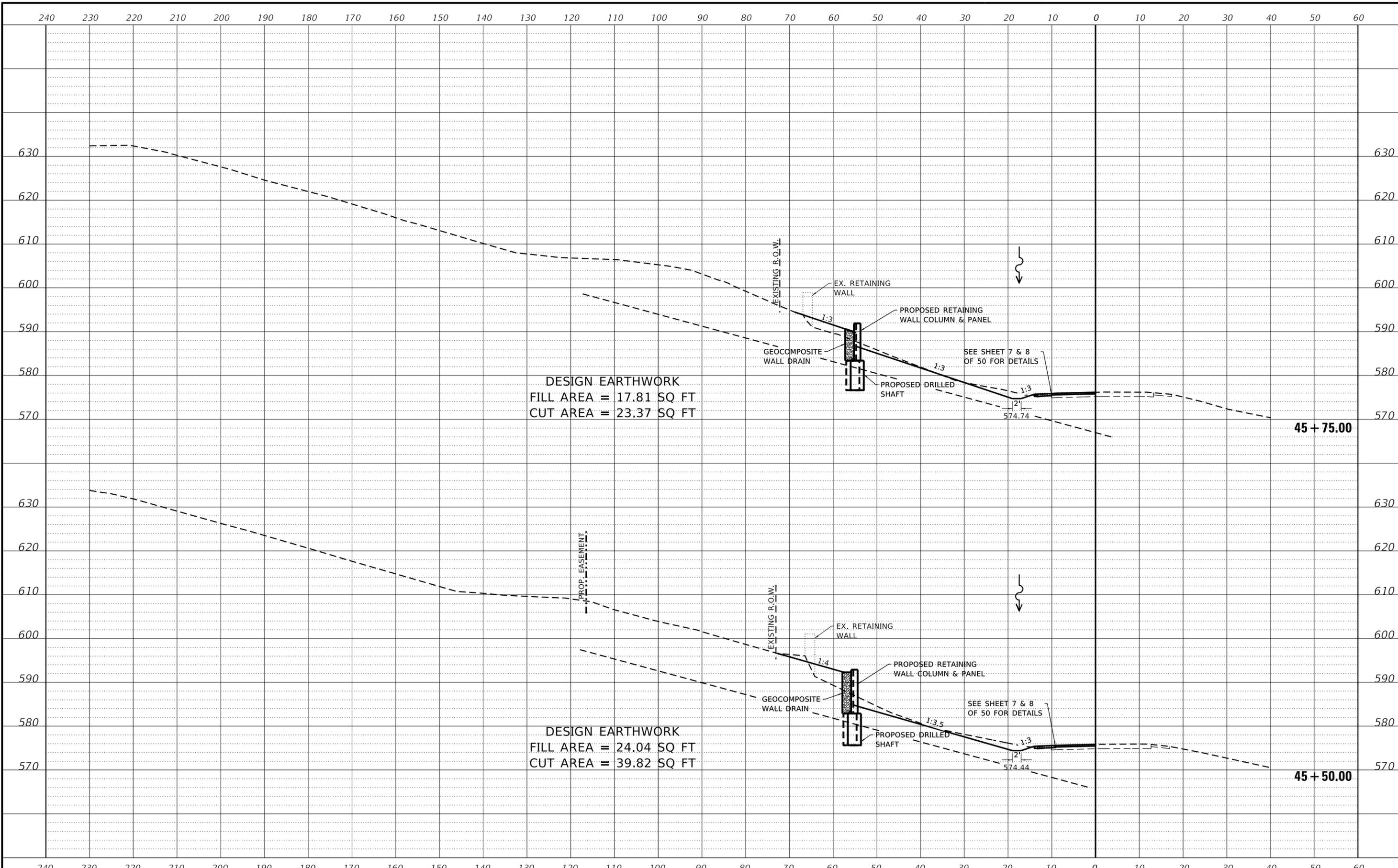
CROSS SECTIONS		
C.H.	SECTION	COUNTY
11	20-00381-00-DR	ROCK ISLAND
WHA# 1078M20		CONTRACT NO. 85728
ILLINOIS FED. AID PROJECT HHX6(218)		

SCALE: 1" = 10'-0"	SHEET NO. 6 OF 8 SHEETS	STA. 45+00.00 TO STA. 45+25.00
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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



CROSS SECTIONS

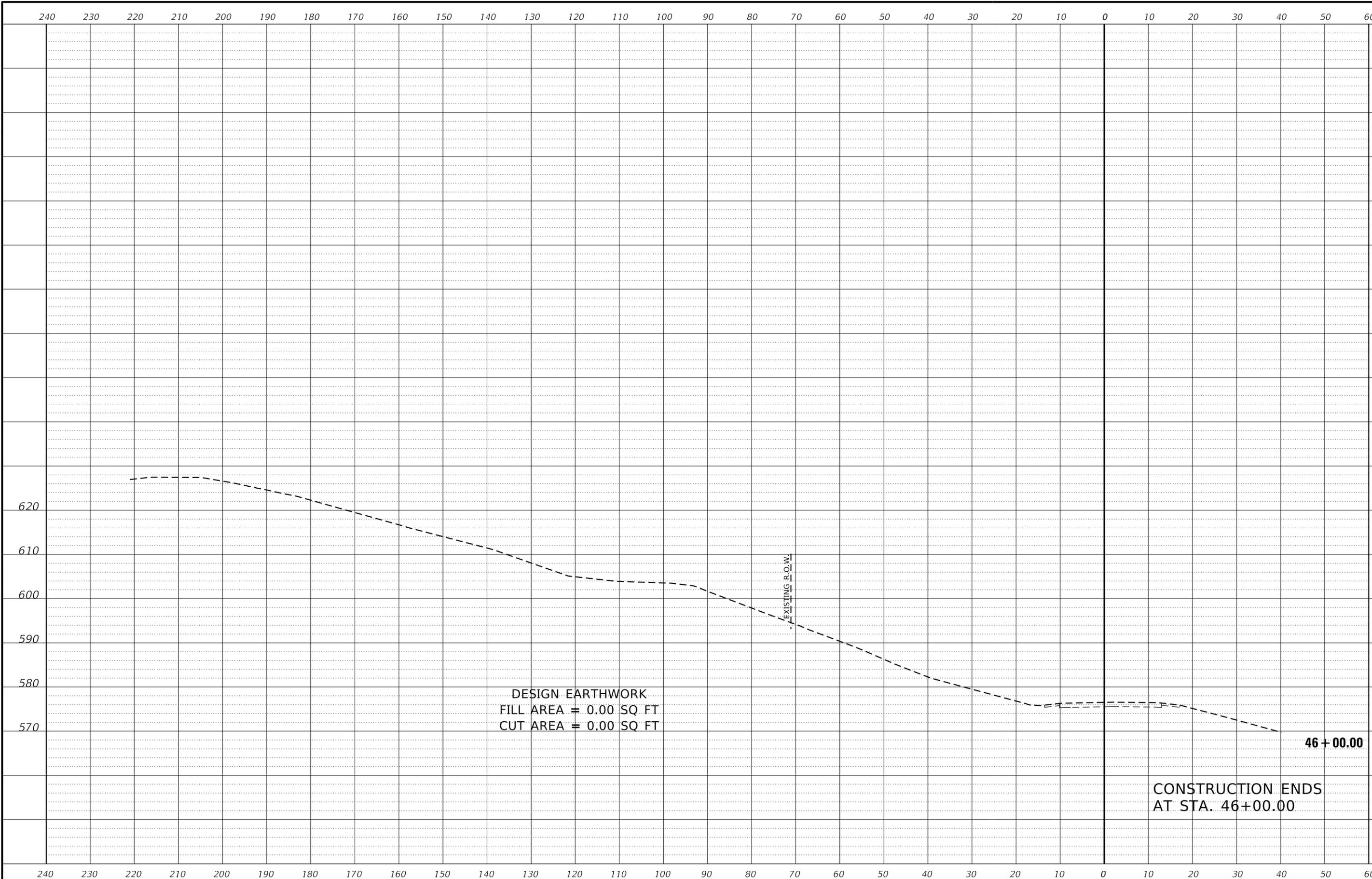
SCALE: 1" = 10'-0" SHEET NO. 7 OF 8 SHEETS STA. 45+50.00 TO STA. 45+75.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	42
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51



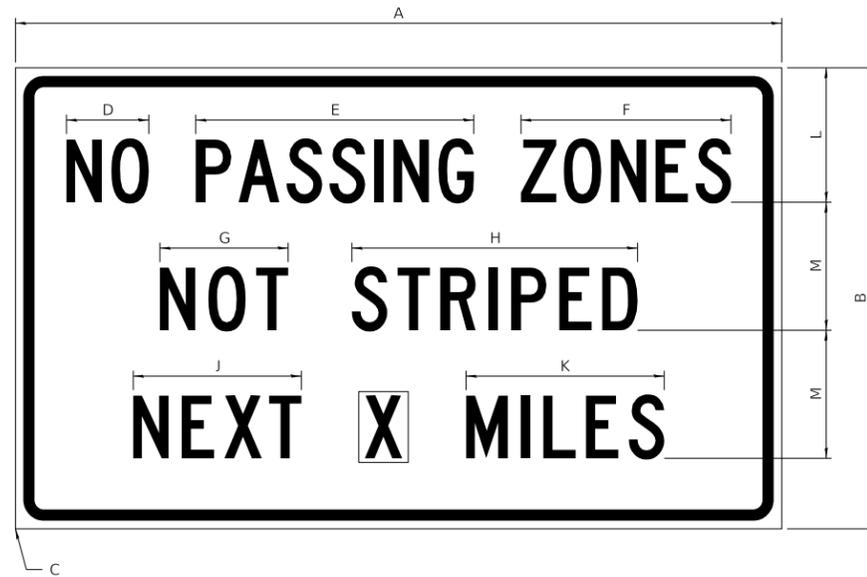
CROSS SECTIONS		
SCALE: 1" = 10'-0"	SHEET NO. 8 OF 8 SHEETS	STA. 46+00.00 TO STA. 46+00.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	43
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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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

WORK ZONE SIGN DETAILS SHEET 1 OF 4 34.1

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

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51



REGION 2 / DISTRICT 2 STANDARD

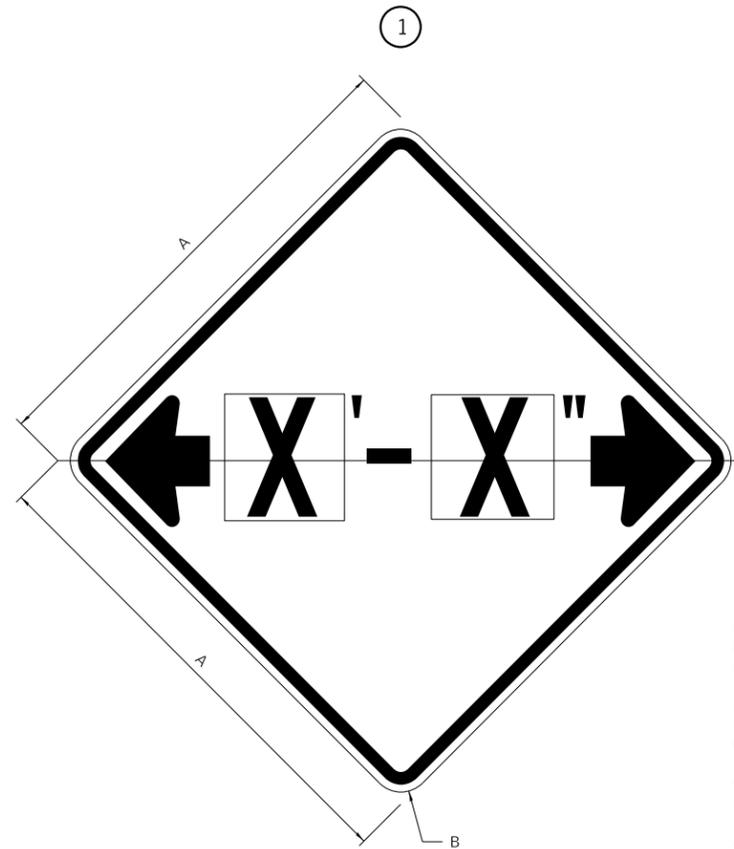
SHEET 1 OF 4 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	44
WHA# 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

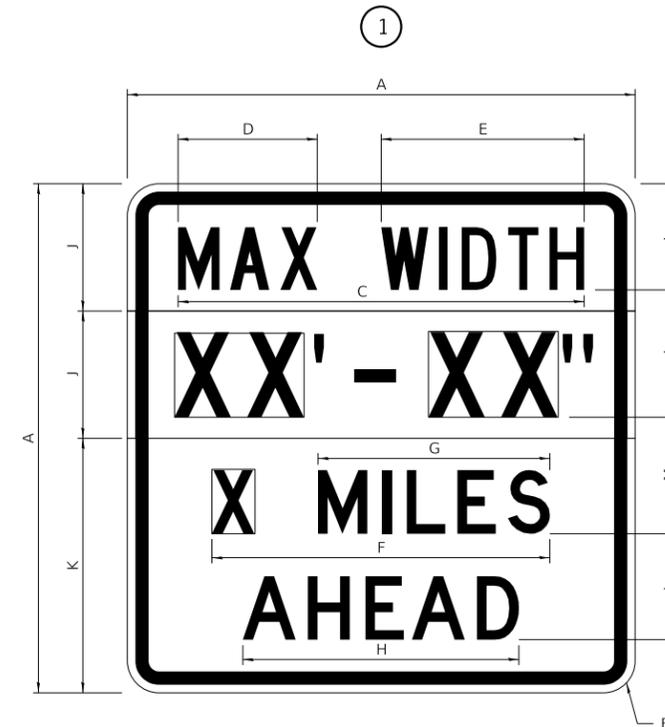
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WORK ZONE SIGN DETAILS

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 BACKGROUND BLACK FL ORANGE NON-REFLECTORIZED 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 BACKGROUND (WIDTH) BLACK WHITE FL ORANGE NON-REFLECTORIZED REFLECTORIZED 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

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

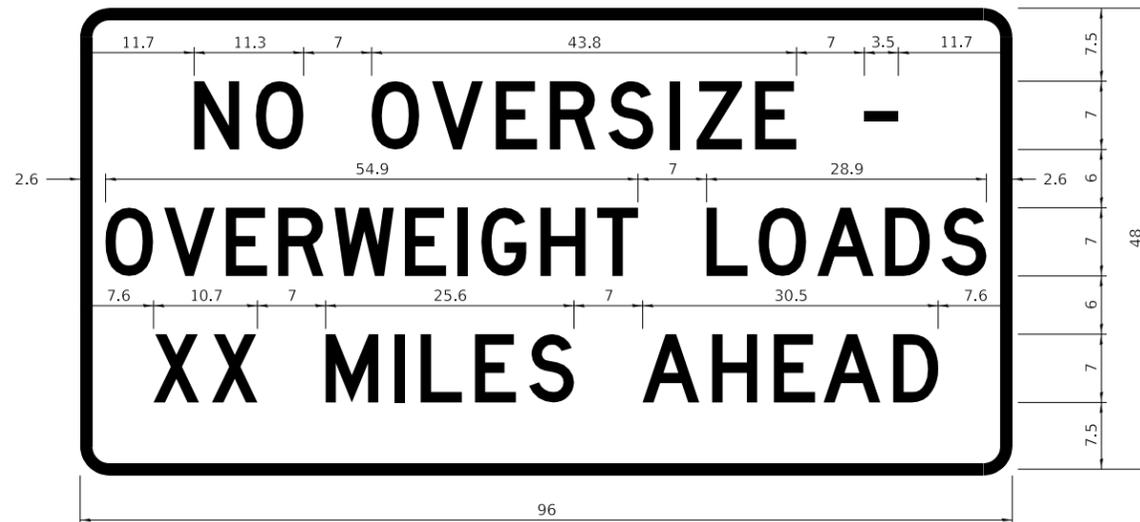
ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

REGION 2 / DISTRICT 2 STANDARD
 SHEET 2 OF 4 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	45
WHA# 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

WORK ZONE SIGN DETAILS

ROAD CLOSED TO OVERSIZED LOADS



STOP LINE SIGN FOR TEMPORARY SIGNALS



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

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.

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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

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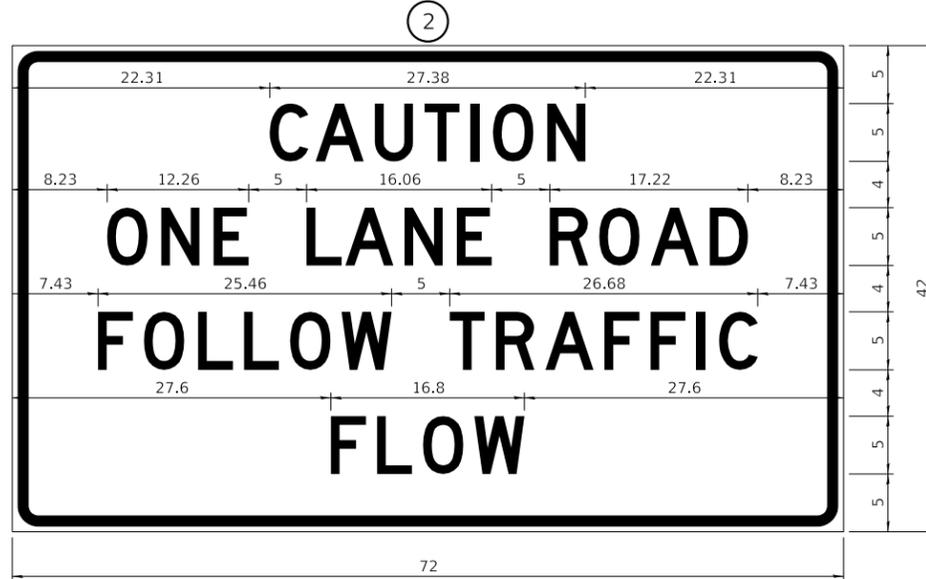
FILE = S:\PROJECTS\2020\1078M20_RIC.Ret\Vol\DESIGN\CADD\SHEETS\1078M20_District-Standard.dgn

DESIGNED	ATK	ROCK ISLAND COUNTY C.H. 11 (322ND ST. W.) RETAINING WALL STA. 42+40.28 - 45+76.51	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	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN	DAN				11	20-00381-00-DR	ROCK ISLAND	50	46
REVIEWED	ATK				WHA# 1078M20		CONTRACT NO. 85728		
APPROVED	MRL				SHEET 3 OF 4 SHEETS		ILLINOIS FED. AID PROJECT HHX6(218)		

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ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS

WORK ZONE SIGN DETAILS



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 -

GENERAL NOTES

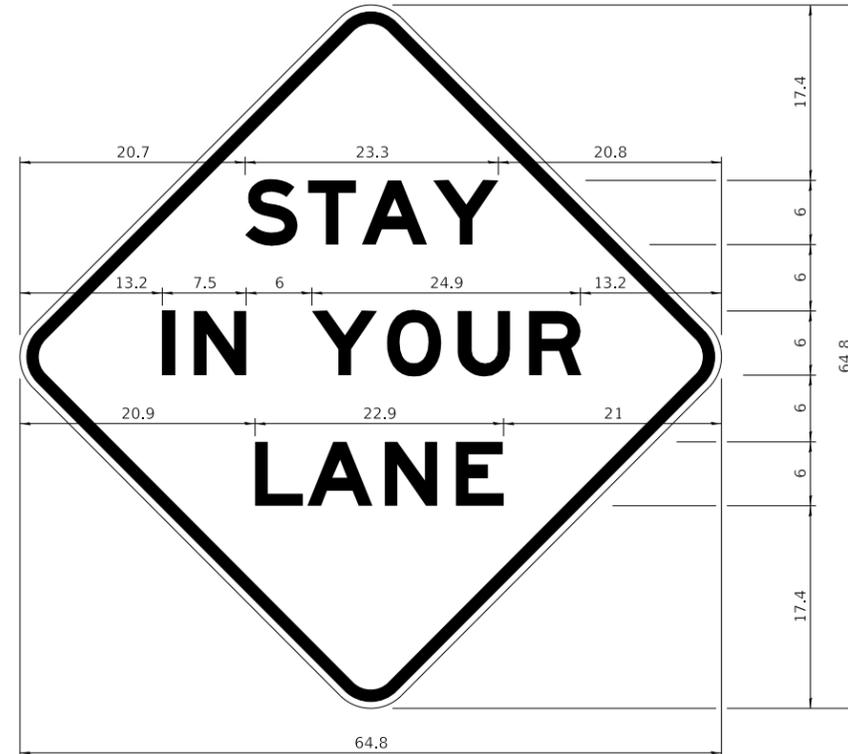
All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

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

All dimensions are in inches unless otherwise noted.

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

WORK ZONE SIGN DETAILS SHEET 4 OF 4 34.1

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

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

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

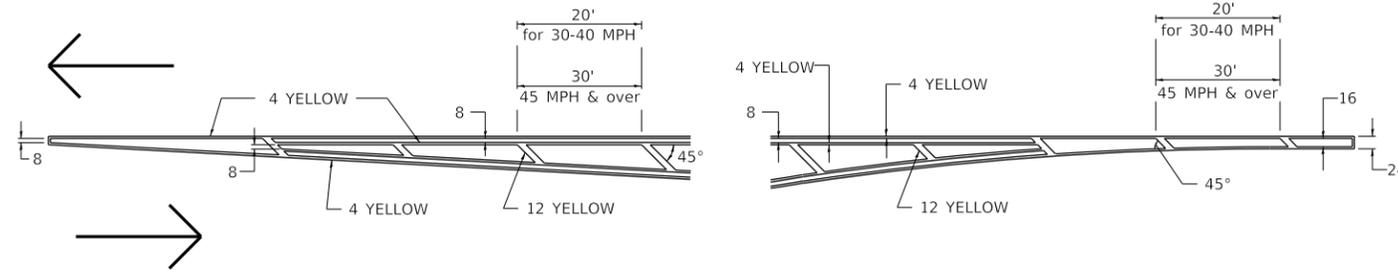
REGION 2 / DISTRICT 2 STANDARD
SHEET 4 OF 4 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	47
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

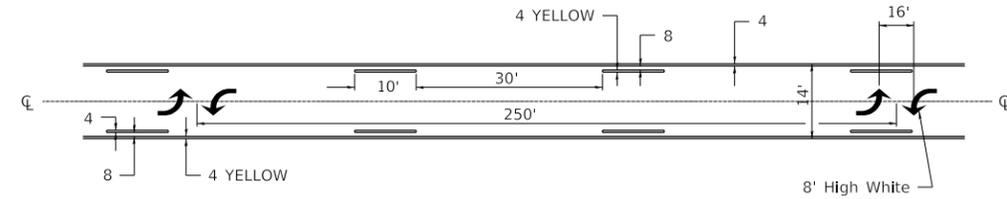
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TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

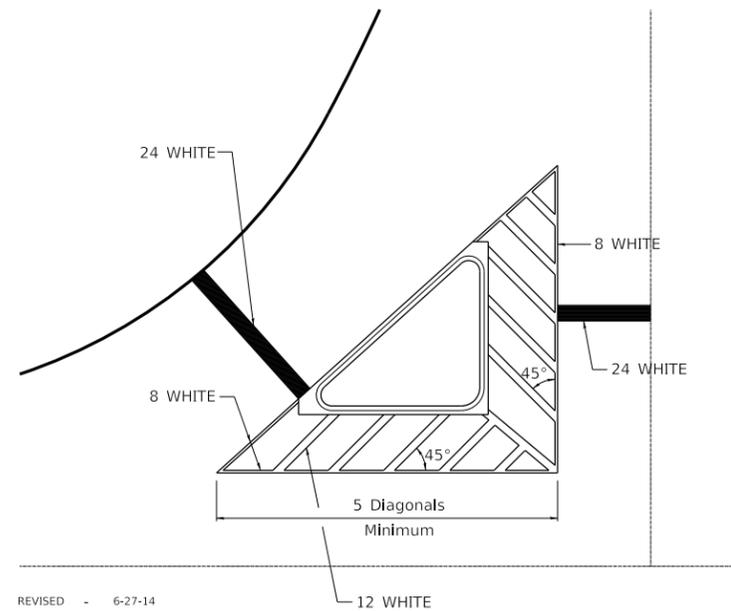


MEDIAN PAVEMENT MARKING



** ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

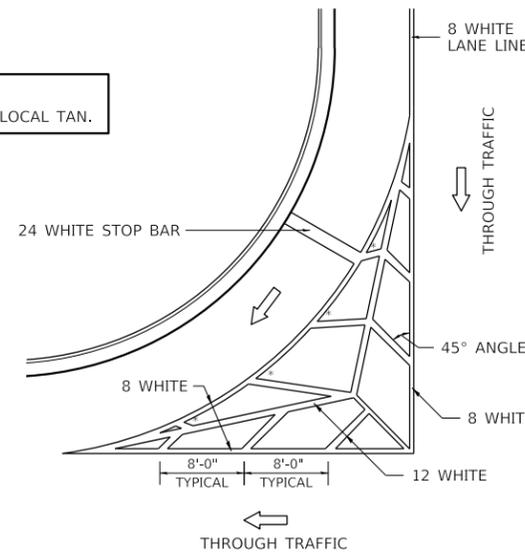
TYPICAL ISLAND OFFSET SHOULDER WIDTH



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

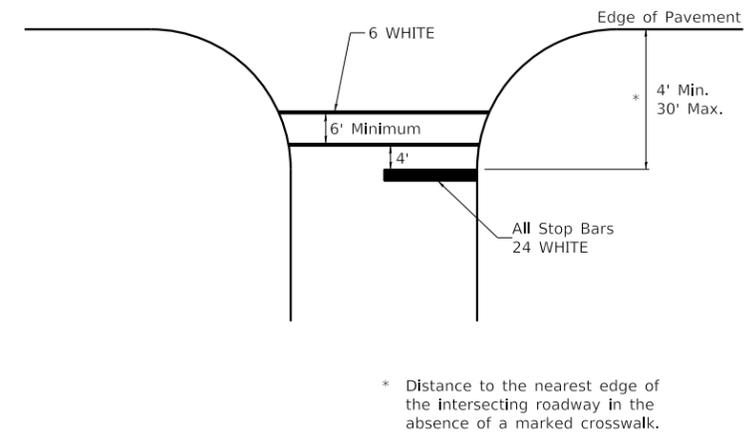
TYPICAL MARKING FOR PAINTED ISLANDS

NOTE:
 * 45° TO LOCAL TAN.



STANDARD CROSSWALK MARKING

See Schedules for Locations



TYPICAL PAVEMENT MARKINGS SHEET 1 OF 3 41.1

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

ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

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

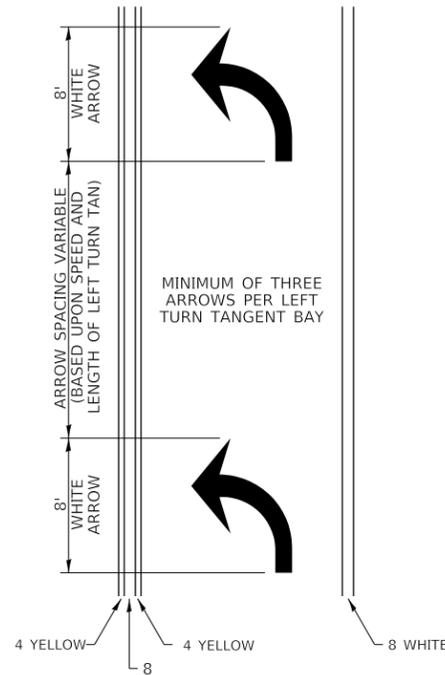
REGION 2 / DISTRICT 2 STANDARD
 SHEET 1 OF 3 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	48
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

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TYPICAL PAVEMENT MARKINGS

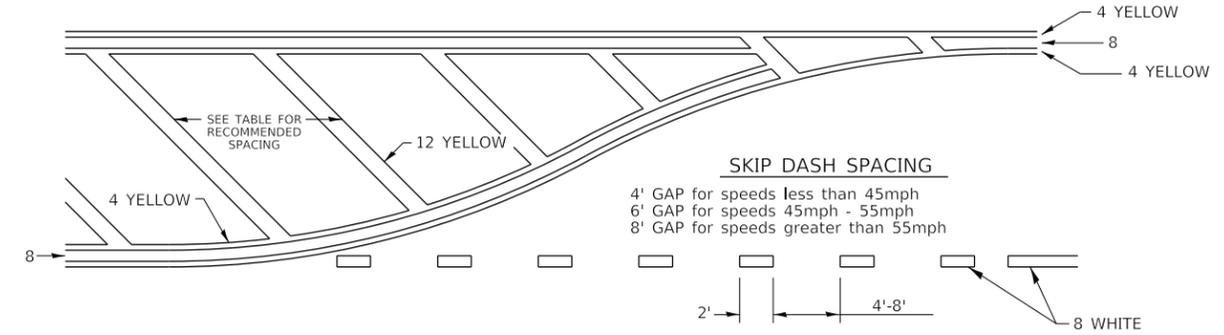
ARROW LAYOUT



- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

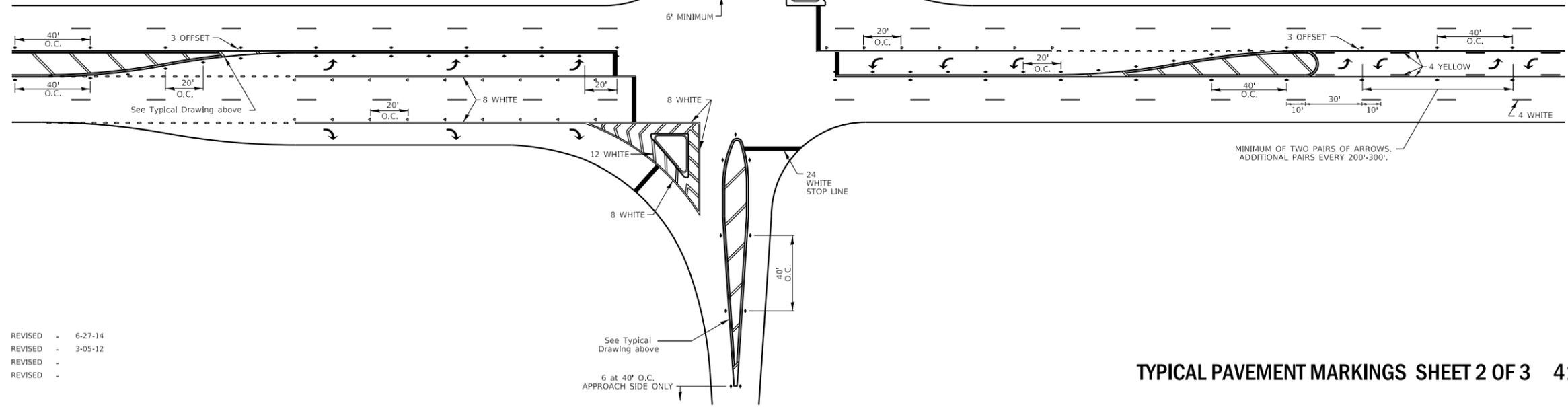
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



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

FILE = S:\PROJECTS\2020\1078M20.RIC.Ret\Vol\DESIGN\CAD_SHEETS\1078M20.District-Standard.dgn
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ROCK ISLAND COUNTY
 C.H. 11 (322ND ST. W.)
 RETAINING WALL STA. 42+40.28 - 45+76.51

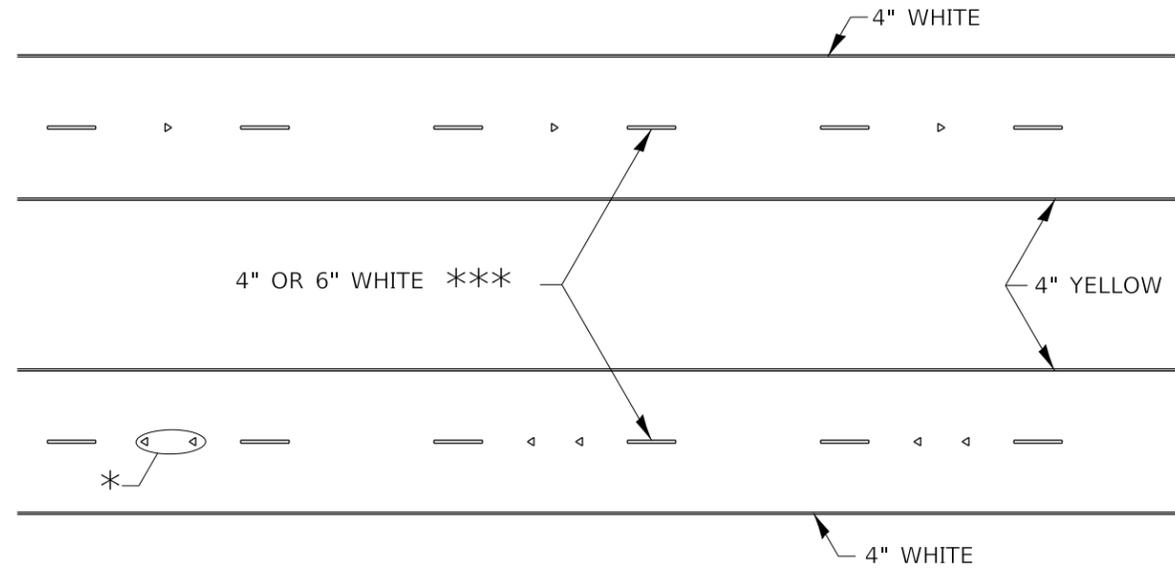
WILLET HOFMANN & ASSOCIATES INC
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM: # 184-000918

REGION 2 / DISTRICT 2 STANDARD
 SHEET 2 OF 3 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	49
WHA# 1078M20		CONTRACT NO. 85728		
ILLINOIS FED. AID PROJECT HHX6(218)				

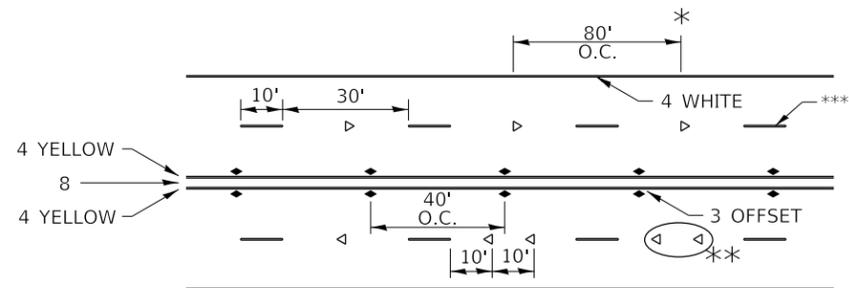
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TYPICAL PAVEMENT MARKINGS



* 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

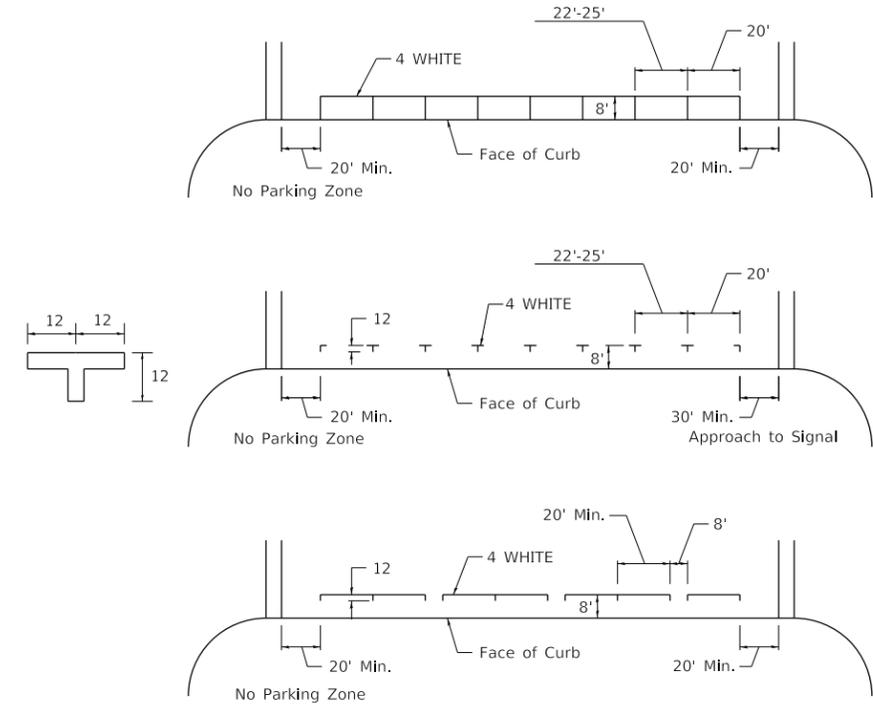
*** CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND OVER USE 6" LINE.

MULTI-LANE / UNDIVIDED & ONE WAY

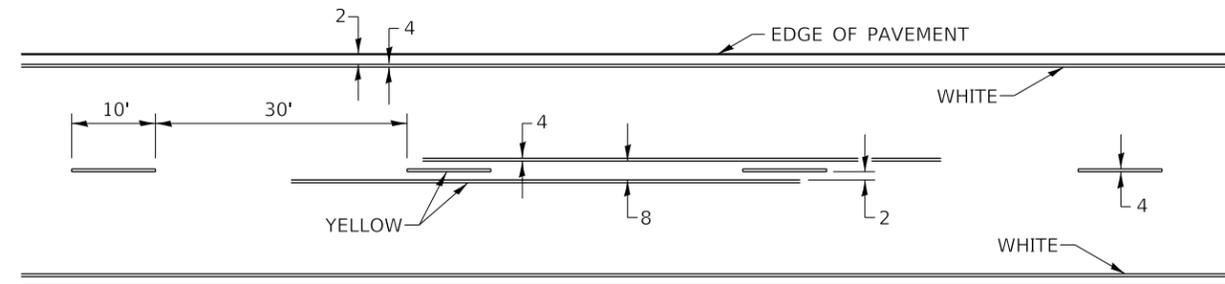
(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS
DETAIL NOT HIGHWAY STANDARD 781001)

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

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REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

ROCK ISLAND COUNTY
C.H. 11 (322ND ST. W.)
RETAINING WALL STA. 42+40.28 - 45+76.51

WILLET HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
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REGION 2 / DISTRICT 2 STANDARD
SHEET 3 OF 3 SHEETS

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11	20-00381-00-DR	ROCK ISLAND	50	50
WHA# 1078M20			CONTRACT NO. 85728	
ILLINOIS FED. AID PROJECT HHX6(218)				

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