

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7825	(K-15d) HF-1	ADAMS	10	1
FED. ROAD DIST. NO. 6	ILLINOIS	CONTRACT NO. 72J81		

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES
3	CEDAR CREEK GRADING PLAN
4-10	STRUCTURE PLANS - SN 001-0034

STANDARDS

STANDARD NOS.
000001-06 001006

**PROPOSED
HIGHWAY PLANS**

FAU ROUTE 7825 (IL 96/North 24th Street)
SECTION (K-15d) HF-1
PROJECT STP-7825(006)
BRIDGE FABRICATION (PRECAST WALL)
ADAMS COUNTY

C-96-045-17
FABRICATION PLANS FOR MODULAR WALL

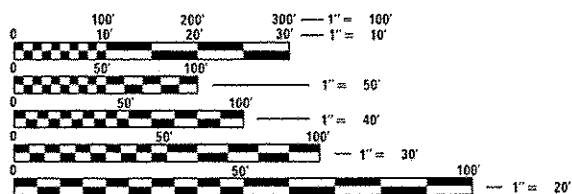
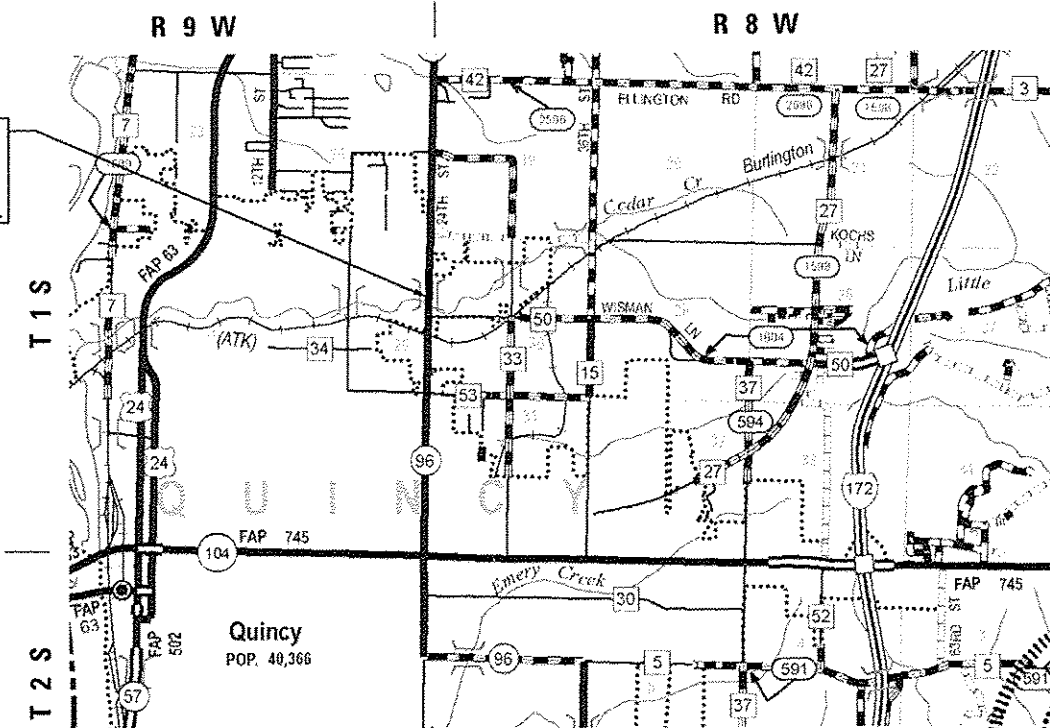
D-96-045-17



LOCATION OF SECTION INDICATED THUS: -

DESIGN DESIGNATION:
FAU 7825
MINOR ARTERIAL (URBAN)
ADT = 5,900 (2015)
SU = 4.2%
MU = 7.2%

PR S.N. 001-0034
IL 96 OVER CEDAR CREEK
STA. 29+86.50 SKEW = 10°
FURNISH, STORAGE & DELIVERY OF
PRECAST MODULAR RETAINING WALL



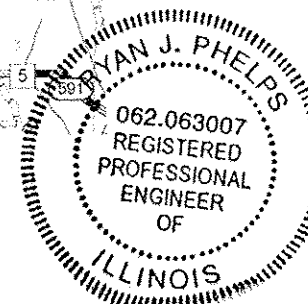
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: JAY EDWARDS (217) 785-0597
TEAM MANAGER: FRANK SHIMKUS (217) 785-9102

CONTRACT NO. 72J81

LOCATION MAP
SCALE: 1" = 5000'



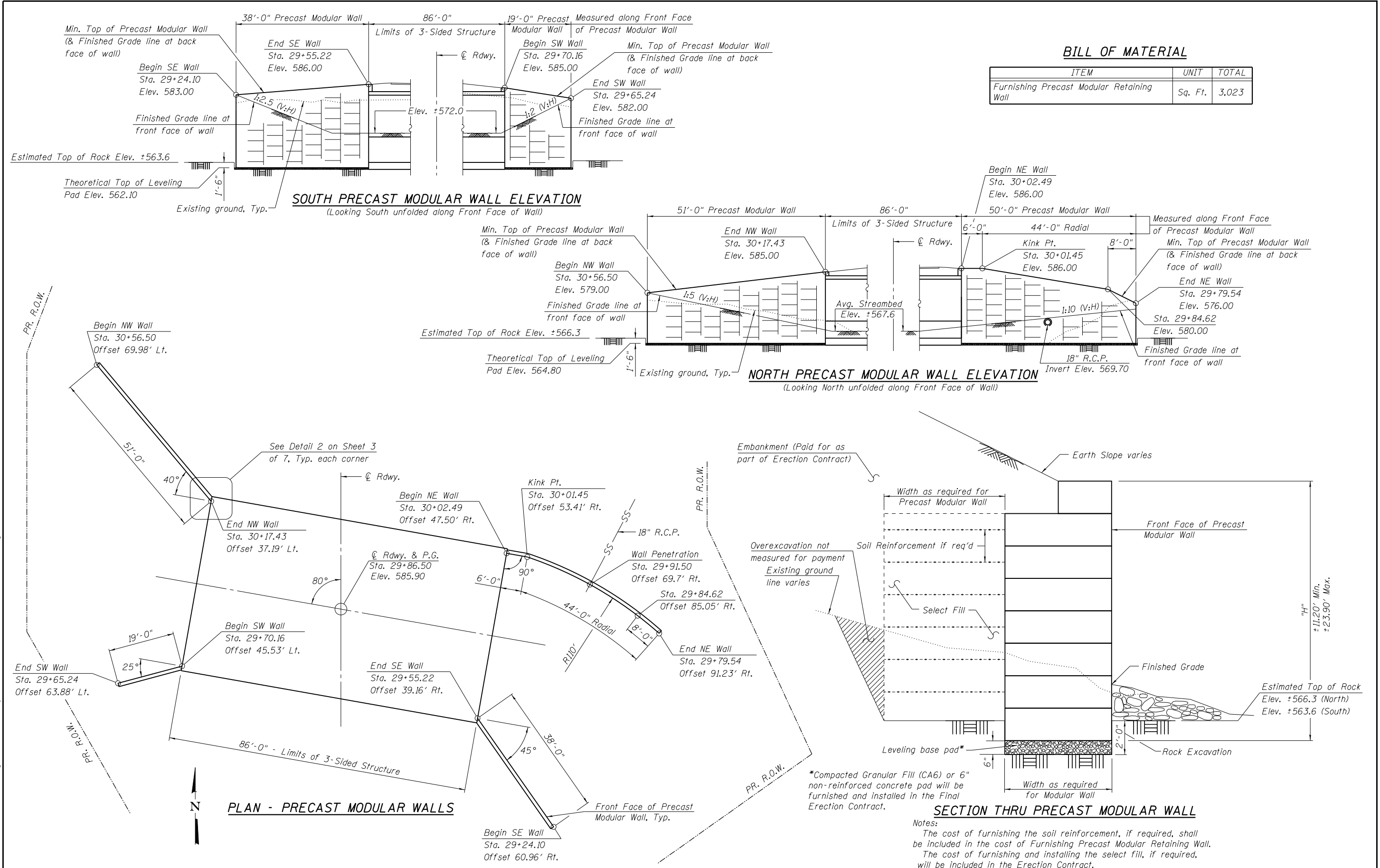
RJ Phelps 2-10-17
RYAN J. PHELPS DATE
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-063007
LICENSE EXPIRES NOVEMBER 30, 2017

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED February 14, 2017
Jeffrey M. South REGIONAL ENGINEER
May 24, 2017
Mareen M. Adair, P.E. ENGINEER OF DESIGN AND ENVIRONMENT
May 24, 2017
Janice DIRECTOR OF PROGRAM DEVELOPMENT

PLANS PREPARED BY:
KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
106 North 24th Street, Quincy, IL Ph: (217) 223-2670 • Fax: (217) 223-2683
1528 Paris Creek Road, Hannibal, MO Ph: (573) 221-8020 • Fax: (573) 221-8822
108 & 1/2 Street, Suite 100, Burlington, IL Ph: (618) 753-1525 • Fax: (618) 752-2385
145 North Normal Street, Coleburg, IA Ph: (562) 242-4842 • Fax: (562) 242-2792
Internet Address: www.klingner.com

STATE OF ILLINOIS DESIGN FIRM # 1842738
**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**



BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing Precast Modular Retaining Wall	Sq. Ft.	3,023

SOUTH PRECAST MODULAR WALL ELEVATION
(Looking South unfolded along Front Face of Wall)

NORTH PRECAST MODULAR WALL ELEVATION
(Looking North unfolded along Front Face of Wall)

PLAN - PRECAST MODULAR WALLS

SECTION THRU PRECAST MODULAR WALL

Notes:
The cost of furnishing the soil reinforcement, if required, shall be included in the cost of Furnishing Precast Modular Retaining Wall.
The cost of furnishing and installing the select fill, if required, will be included in the Erection Contract.

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors

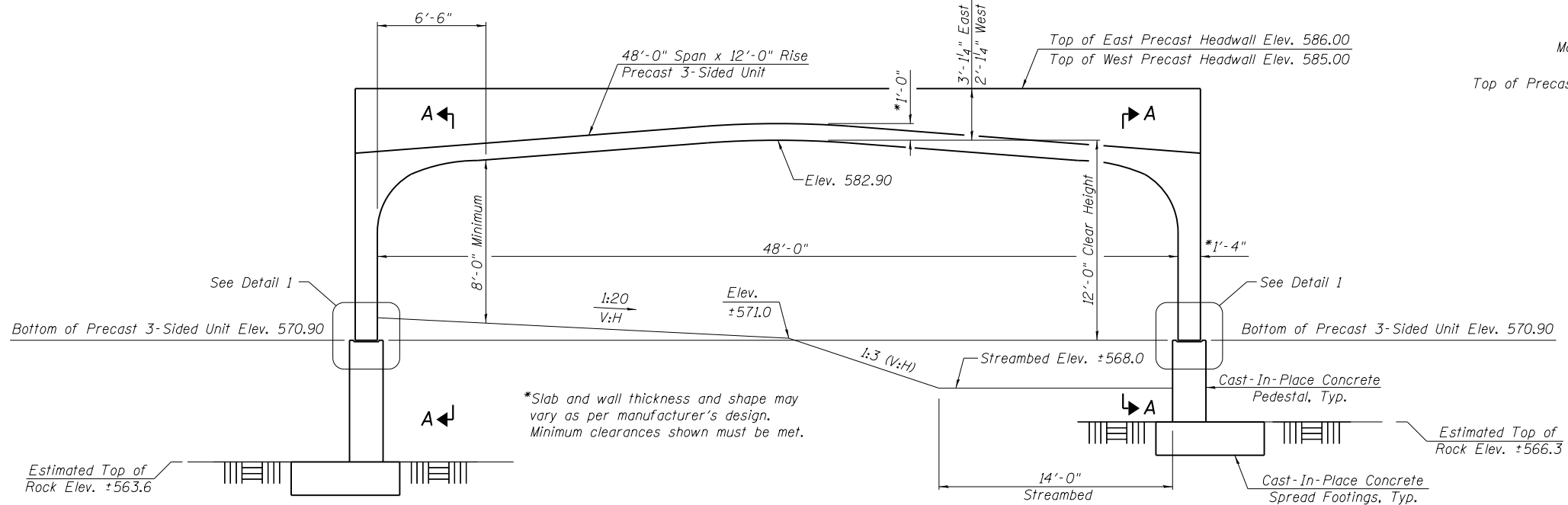
USER NAME = rjp	DESIGNED - RJP	REVISED -
PLOT SCALE = 26.1246' / in.	CHECKED - ADL	REVISED -
PLOT DATE = 2/10/2017	DRAWN - RJP	REVISED -
	CHECKED - ADL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

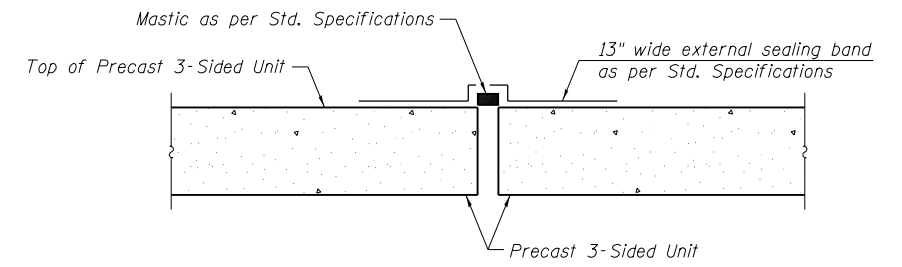
PRECAST MODULAR WALL DETAILS
STRUCTURE NO. 001-0034
SHEET NO. 2 OF 7 SHEETS

F.A.P. RTE. 7825	SECTION (K-15d) HF-1	COUNTY ADAMS	TOTAL SHEETS 10	SHEET NO. 5
CONTRACT NO. 72J81				
ILLINOIS FED. AID PROJECT Klingner & Associates P.C.				

G:\187-115\108276\VD 4 - IL 96 Eads Creek\Bridge Plans\Material Only\Contract Plans - Modular Wall\Modular Wall Details.dgn



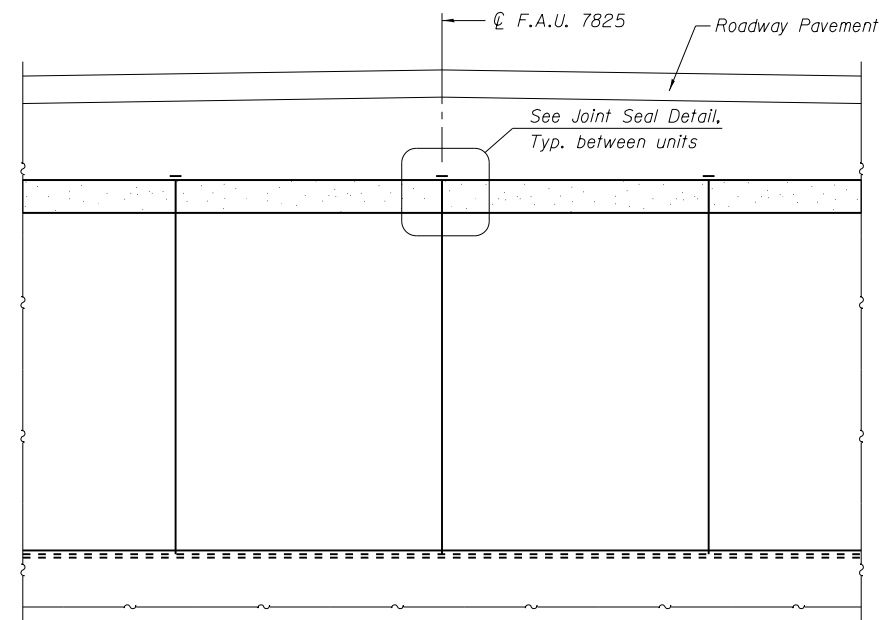
THREE-SIDED STRUCTURE ELEVATION
(At Rt. L's to structure)



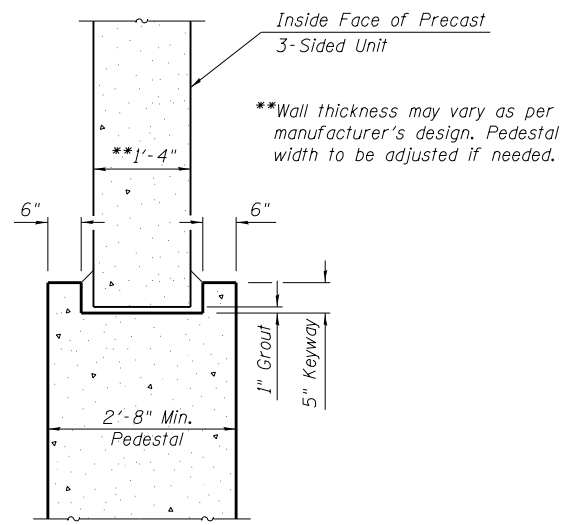
JOINT SEAL DETAIL

Note:
Joint Seal is on top and both sides of each precast unit. Cost of furnishing mastic and sealing band shall be included with Furnishing Three-Sided Precast Concrete Structures. Installation will be included in the cost of Erecting Three-Sided Precast Concrete Structures in Erection Contract.

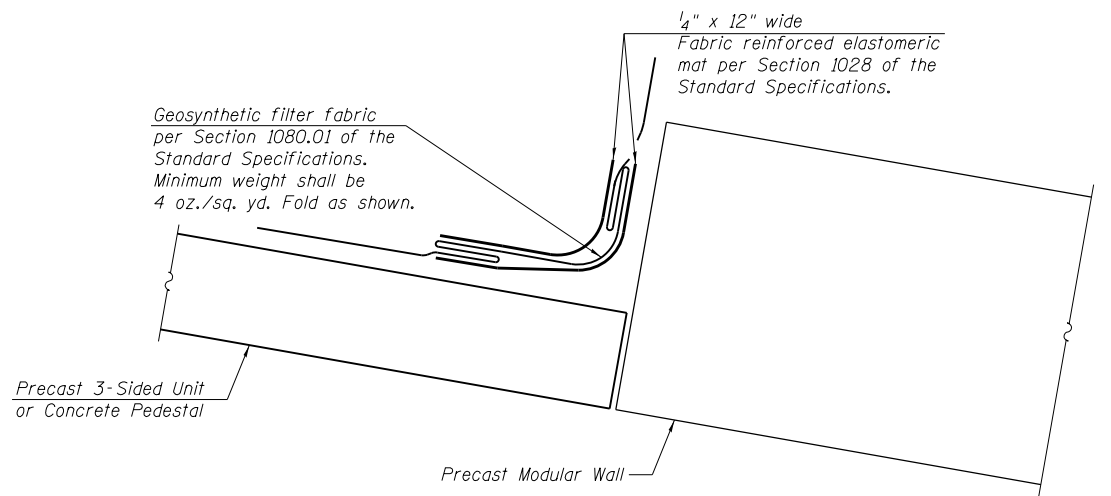
THIS SHEET FOR INFORMATION ONLY



SECTION A-A



DETAIL 1
(Detail For Information Only)



DETAIL 2

Note:
The cost of furnishing and installing the elastomeric mat and filter fabric shall be included in the cost of Erecting Three-Sided Precast Concrete Structures in Erection Contract.

G:\1081\1082\6\NO 4 - IL 96 Cedar-Creek\Bridges\Plans\Water\Only Contract Plans -Modular Wall\Three-Sided Details\sdgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors

USER NAME = r.jp	DESIGNED - RJP	REVISED -
PLOT SCALE = 26.3135' / 1" =	CHECKED - ADL	REVISED -
PLOT DATE = 2/10/2017	DRAWN - RJP	REVISED -
	CHECKED - ADL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

THREE-SIDED STRUCTURE DETAILS
STRUCTURE NO. 001-0034

SHEET NO. 3 OF 7 SHEETS

F.A.P. RTE. 7825	SECTION (K-15d) HF-1	COUNTY ADAMS	TOTAL SHEETS 10	SHEET NO. 6
CONTRACT NO. T2J81				
ILLINOIS FED. AID PROJECT				

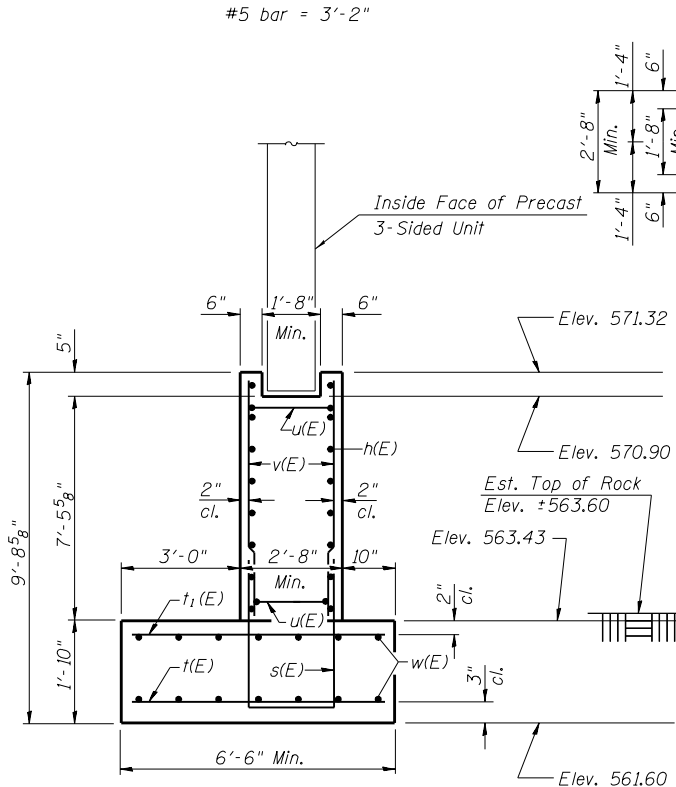
Klingner & Associates P.C.

THIS SHEET FOR
INFORMATION ONLY

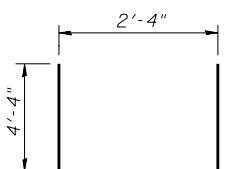
Notes:
 Precast footing option will not be allowed for this contract.
 Bars indicated thus 7x3-#5 etc. indicates 7 lines of bars with 3 lengths per line.
 The bottom of footing elevations shall be adjusted to ensure a minimum embedment of 22 inches in non-weathered rock. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.
 Pedestal width to be adjusted if needed to accommodate Three-Sided Structure during Erection Contract.

MINIMUM BAR LAP

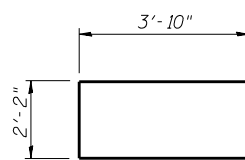
#5 bar = 3'-2"



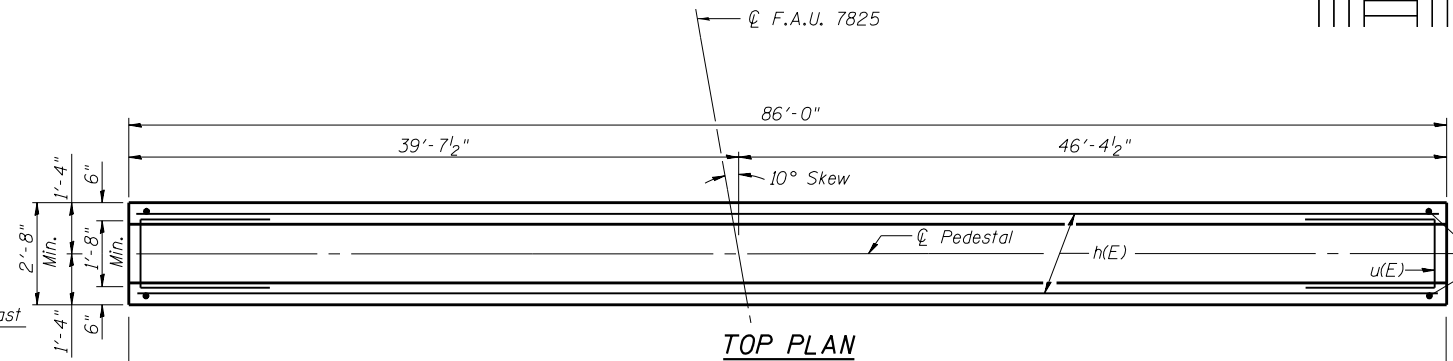
END VIEW



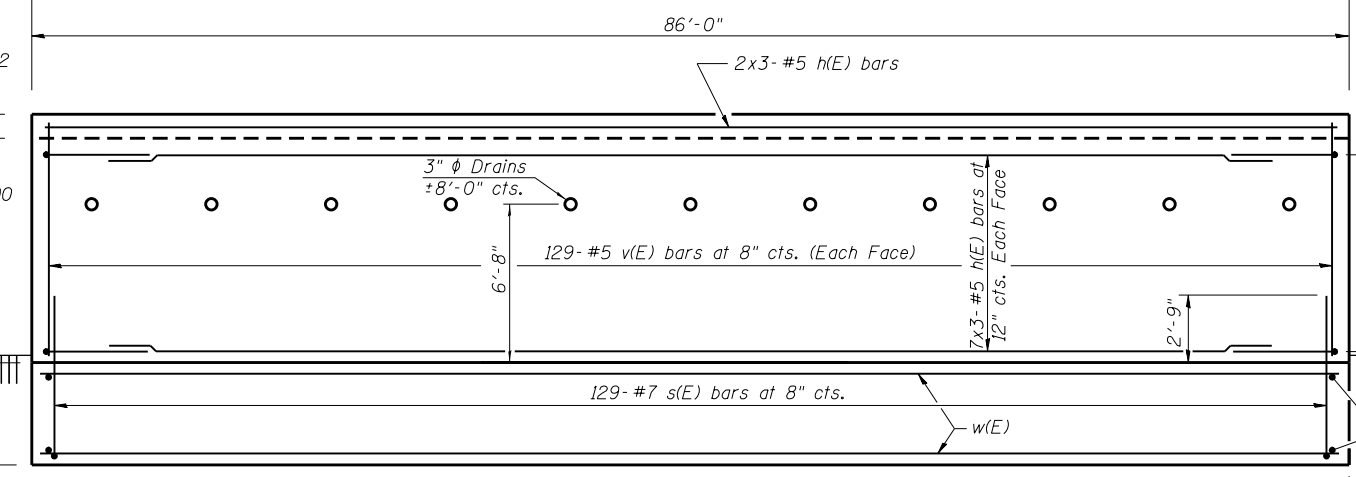
BAR s(E)



BAR u(E)

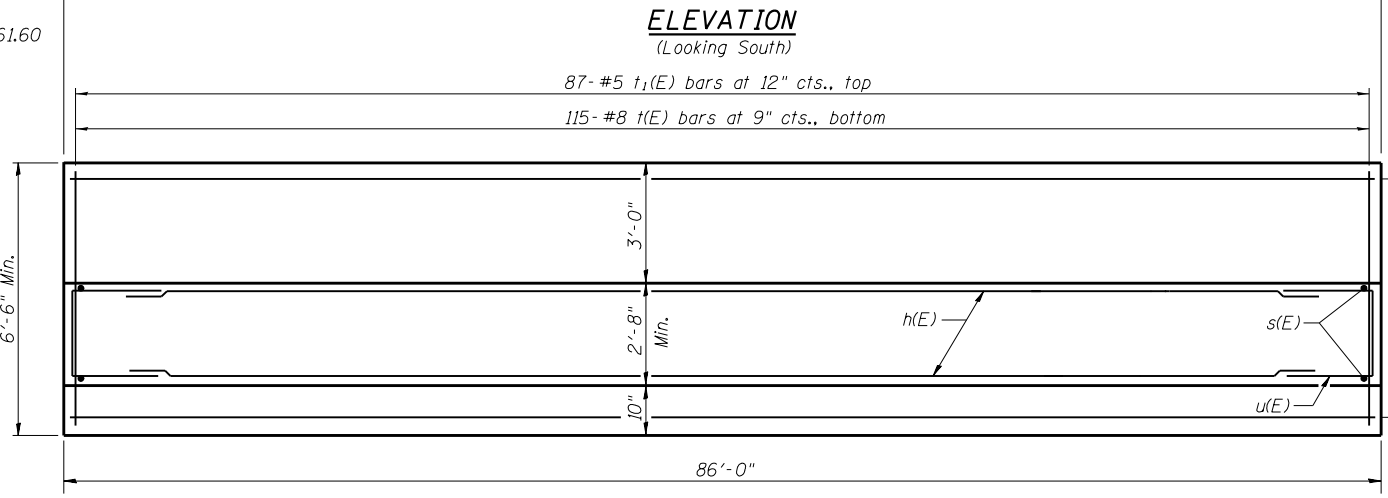


TOP PLAN

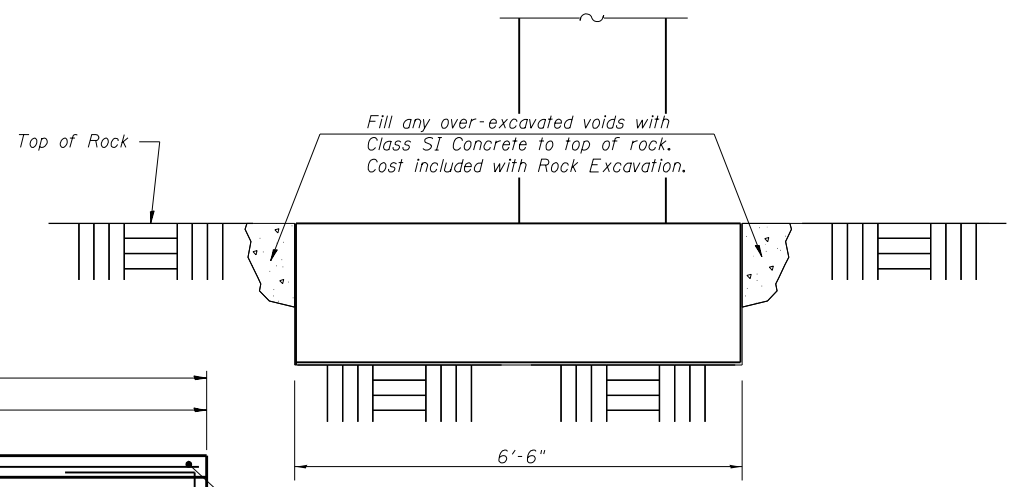


ELEVATION

(Looking South)



FOOTING PLAN



FOOTING EXCAVATION DETAIL

G:\UP\1\as\100276\WD 4 - IL 96 Cedar Creek Bridge Plans\Material Only Contract Plans - Modular - Mod\1\Footing.dgn



USER NAME = r.jp
 PLOT SCALE = 26.4080' / 1" / in.
 PLOT DATE = 2/10/2017

DESIGNED - RJP	REVISIONS
CHECKED - ADL	REVISIONS
DRAWN - RJP	REVISIONS
CHECKED - ADL	REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOUTH FOOTING DETAILS
 STRUCTURE NO. 001-0034
 SHEET NO. 4 OF 7 SHEETS

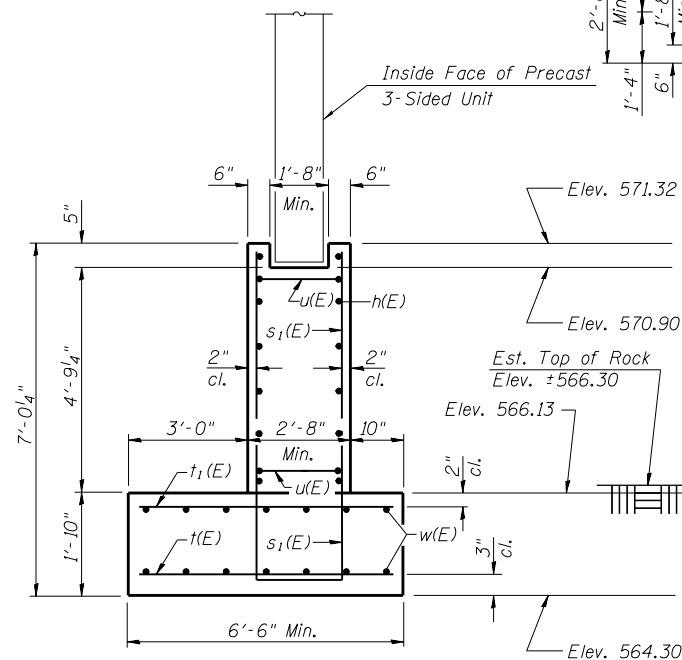
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7825	(K-15d) HF-1	ADAMS	10	7
CONTRACT NO. 72J81				

THIS SHEET FOR
INFORMATION ONLY

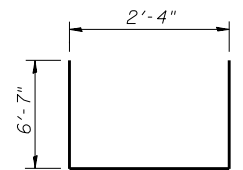
Notes:
Precast footing option will not be allowed for this contract.
Bars indicated thus 5x3-#5 etc. indicates 5 lines of bars with 3 lengths per line.
The bottom of footing elevations shall be adjusted to ensure a minimum embedment of 22 inches in non-weathered rock. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.
Pedestal width to be adjusted if needed to accommodate Three-Sided Structure during Erection Contract.

MINIMUM BAR LAP

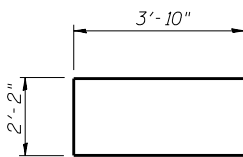
#5 bar = 3'-2"



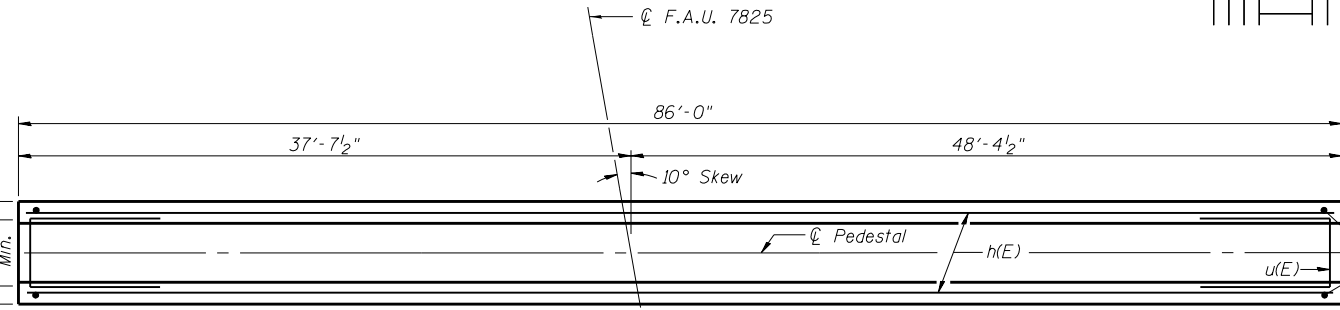
END VIEW



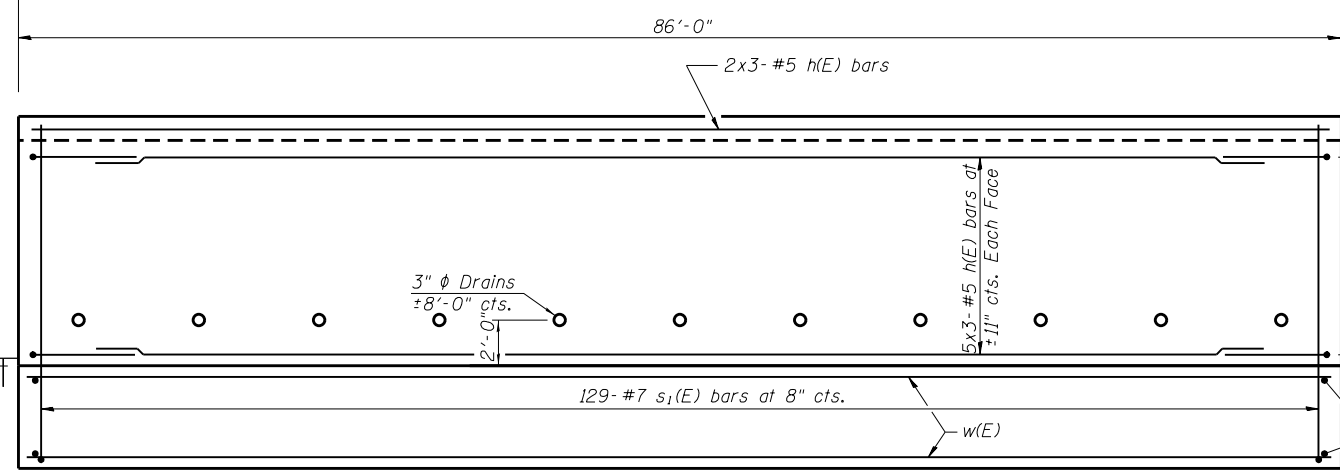
BAR $s_1(E)$



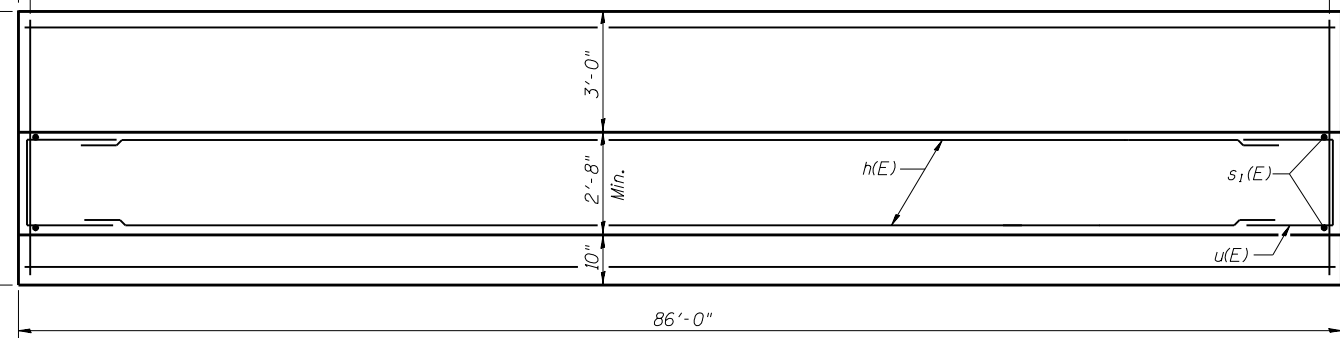
BAR $u(E)$



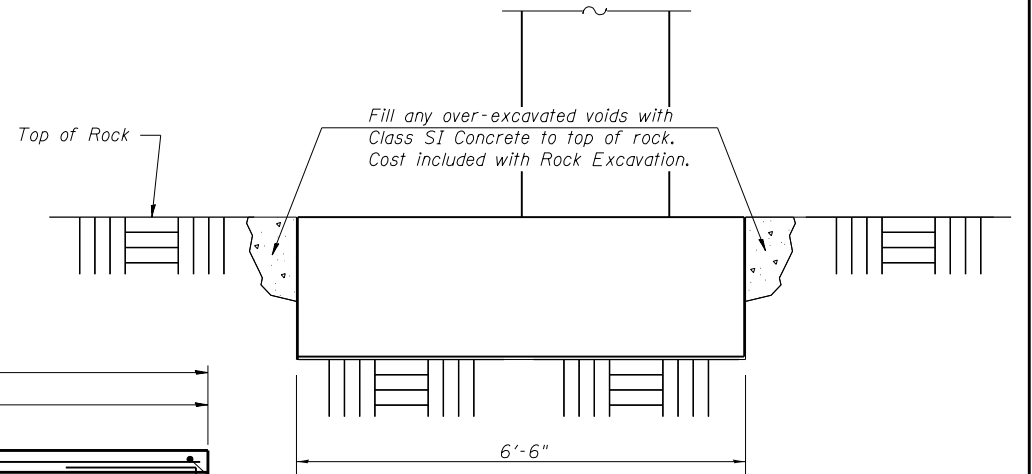
TOP PLAN



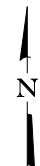
ELEVATION
(Looking North)



FOOTING PLAN



FOOTING EXCAVATION DETAIL



D:\1001\100276\WD 4 - IL 96 Cedar Creek Bridge Plans\Material Only Contract Plans - Modular\Modular\Modular\Footing.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors

USER NAME = rjp
PLOT SCALE = 26.2961' / in.
PLOT DATE = 2/10/2017

DESIGNED - RJP	REVISED -
CHECKED - ADL	REVISED -
DRAWN - RJP	REVISED -
CHECKED - ADL	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH FOOTING DETAILS
STRUCTURE NO. 001-0034

SHEET NO. 5 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7825	(K-15d) HF-1	ADAMS	10	8
CONTRACT NO. 72J81				

ILLINOIS FED. AID PROJECT
Klingner & Associates P.C.

THIS SHEET FOR
INFORMATION ONLY

Illinois Department of Transportation
Division of Highways
District 6

Page 1 of 1
Date 10/20/15

ROUTE IL 96 (N 24th St) DESCRIPTION IL 96 over Cedar Creek LOGGED BY S. Jones

SECTION 11B-3 LOCATION SEC. TWP. RNG. PM

COUNTY Adams DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 001-0032Ex
Station 29+88

BORING NO. 1-S Abut
Station 29+37
Offset 31.0ft RT
Ground Surface Elev. 584.6 ft

DEPTH (ft)	BLOW COUNT	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT	UCS (tsf)	MOISTURE (%)
0				Tan and Reddish Brown dry SILTY CLAY poor recovery	0			
3					3			
4	4.0				4			
5					5			
6					6			
7					7			
8					8			
9					9			
10					10			
11					11			
12					12			
13					13			
14					14			
15					15			
16					16			
17					17			
18					18			
19					19			
20					20			
21					21			
22					22			
23					23			
24					24			
25					25			
26					26			
27					27			
28					28			
29					29			
30					30			
31					31			
32					32			
33					33			
34					34			
35					35			
36					36			
37					37			
38					38			
39					39			
40					40			

Surface Water Elev. 568.71 ft
Stream Bed Elev. 566.91 ft
Groundwater Elev.:
First Encounter 567.1 ft
Upon Completion 567.1 ft
After Hrs. _____

Tan and Gray Moist Clay Residuum to Dirty Broken LIMESTONE and (continued) Borehole continued with rock coring.

563.60

100/31

577.60

Brown to Reddish Brown and Gray SILTY CLAY LOAM w/ oxidation nodules, moist

575.10

Dk Brown SILT to SILTY LOAM, dry

573.10

Med Grained Brown SAND to Dk Brown SILTY LOAM w/ Oxidation

571.10

Brown Moist Med Grained SAND w/ Large Chert Nodules rock lodged in spoon, poor recovery

567.60

Med to Coarse SAND w/ Chert Nodules turning to weathered LS FREE WATER

565.60

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 6

Page 1 of 1
Date 10/20/15

ROUTE IL 96 (N 24th St) DESCRIPTION IL 96 over Cedar Creek LOGGED BY S. Jones

SECTION 11B-3 LOCATION SEC. TWP. RNG. PM

COUNTY Adams CORING METHOD Water

STRUCT. NO. 001-0032Ex
Station 29+88

BORING NO. 1-S Abut
Station 29+37
Offset 31.0ft RT
Ground Surface Elev. 584.6 ft

CORING BARREL TYPE & SIZE NQ2WL
Core Diameter 2 in
Top of Rock Elev. 563.60 ft
Begin Core Elev. 562.90 ft

DEPTH (ft)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
0				
1	100	88		599.3
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

Tan and Lt Gray Microcrystalline LIMESTONE
Open Joints 2"-6"
1" shale seam @22.3'

563.60

562.10

Lt Gray Microcrystalline LIMESTONE
Open Joints 2"-12"

560.20

Lt Gray Microcrystalline LIMESTONE w/ Gray and Tan Chert Nodules
Closed Joints 6"-12"

555.20

Lt and Dk Gray Macrocrystalline LIMESTONE
Closed Joints 2"-12" with dk gray clay to clayey shale
@30.75' to 31' multiple 1/8" shale seams

553.60

1193.9

477.9

466.2

1411.4

1255.5

Color pictures of the cores Yes, On File
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run BBS, form 138 (Rev. 8-99)

BORING 1-S ABUT

D:\Projects\108275\10 - IL 96 Cedar Creek\Bridges Plans\Material Only\Contract Plans - Modular Well\Boring.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors

USER NAME = r.jp	DESIGNED - RJP	REVISED -
CHECKED - ADL	REVISED -	
PLOT SCALE = 26.6284' / in.	DRAWN - RJP	REVISED -
PLOT DATE = 2/18/2017	CHECKED - ADL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS
STRUCTURE NO. 001-0034**

SHEET NO. 6 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7825	(K-15d) HF-1	ADAMS	10	9
CONTRACT NO. 72J81				
ILLINOIS FED. AID PROJECT				

Klingner & Associates P.C.

THIS SHEET FOR
INFORMATION ONLY

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Page 1 of 1
Date 9/24/15

ROUTE IL 96 (N 24th St) DESCRIPTION IL 96 over Cedar Creek LOGGED BY M. Tappan

SECTION 11B-3 LOCATION SEC. , TWP. , RNG. , PM

COUNTY Adams DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 001-0032Ex Station 29+88

BORING NO. 2 N Abut Station 30+56 Offset 6.5ft LT Ground Surface Elev. 586.8 ft

DEPTH (ft)	DESCRIPTION	DEPTHS (ft)	MOISTURE (%)	UNCONSOLIDATED SOIL TESTS
0	crystalline Limestone gravel to Brown Weathered Cherty crystalline Limestone Borehole continued with rock coring.	100/4"		
0				
2			1.2	
3			P	
580.80				
0	Brown Moist SILTY CLAY w/ Iron Oxidation nodules			
2			1.8	
3			B	
578.30				
0	Brown Moist SILTY CLAY LOAM to Brown and Dk Gray Moist LOAM w/ angular Cherty Limestone Gravel			
2			1.5	
2			P	
575.80				
0	Gray and Yellowish Brown Moist SAND LOAM w/ angular Chery Limestone Gravel			
2			0.9	
4			S-10	
573.30				
0	Lt Gray Moist CLAY LOAM Residuum w/ White Angular Chery Limestone Gravel			
2				
4			B	
10				
0	Lt Yellowish Brown			
2			0.9	
4			B	
2	Yellowish Brown dirty broken			
4				
20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced by Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name: S:\SOILS\SOILS\ADAMS\BRIDGE BORINGS\001-0034 IL 96 OVER CEDAR CREEK.GPJ; Data Template: D:\TEMP\LT.GDT; Date Printed: 2/22/16
Latitude: 39.575269 Longitude: 90.227482 Datum: NAD83 Job Number: 75069

Illinois Department of Transportation
Division of Highways
District 6

ROCK CORE LOG

Page 1 of 1
Date 9/24/15

ROUTE IL 96 (N 24th St) DESCRIPTION IL 96 over Cedar Creek LOGGED BY M. Tappan

SECTION 11B-3 LOCATION SEC. , TWP. , RNG. , PM

COUNTY Adams CORING METHOD Water

STRUCT. NO. 001-0032Ex Station 29+88

BORING NO. 2 N Abut Station 30+56 Offset 6.5ft LT Ground Surface Elev. 586.8 ft

CORING BARREL TYPE & SIZE NQ2WL Core Diameter 2 in
Top of Rock Elev. 586.30 ft
Begin Core Elev. 585.20 ft

DEPTH (ft)	DESCRIPTION	RECOVERY (%)	COVER (%)	Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
0	Lt Gray fossiliferous Macrocrystalline LIMESTONE w/ some Lt Brown Chert Nodules open joints 2"-12"					
1		95	82			669.3
418.2						
0	Lt Gray Microcrystalline Cherty LIMESTONE w/ multiple Chert Seams var 1"-10" open joints 2"-12" Chert Seams have vertical fractures					
561.10						
0	Gray to Lt Brown Microcrystalline Weathered LIMESTONE w/ Multiple Chert Seams 1/2"-4" closed joints 2"-12" w/ olive brown clayey shale					
557.80						205
556.30						1271.7
0	Sample #3 Had A Diagonal Mud Line 29.2 - 29.5 ft					
35						
40						

Color pictures of the cores Yes, On File
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run BBS, form 138 (Rev. 8-99)

ROCK CORE 001-0034 IL 96 OVER CEDAR CREEK.GPJ; Data Template: D:\TEMP\LT.GDT; 2/22/16

BORING 2 N ABUT



USER NAME = r.jp	DESIGNED - RJP	REVISED -
PLOT SCALE = 26.4199' / in.	CHECKED - ADL	REVISED -
PLOT DATE = 2/10/2017	DRAWN - RJP	REVISED -
	CHECKED - ADL	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS
STRUCTURE NO. 001-0034**

SHEET NO. 7 OF 7 SHEETS

F.A.P. RTE. 7825	SECTION (K-15d) HF-1	COUNTY ADAMS	TOTAL SHEETS 10	SHEET NO. 10
CONTRACT NO. 72J81				

ILLINOIS FED. AID PROJECT
Klingner & Associates P.C.

D:\BTL\110276\10 4 - IL 96 Cedar Creek\Bridge Plans\Master\Only Contract Plans -Modular- Mat\BoringLog.dgn