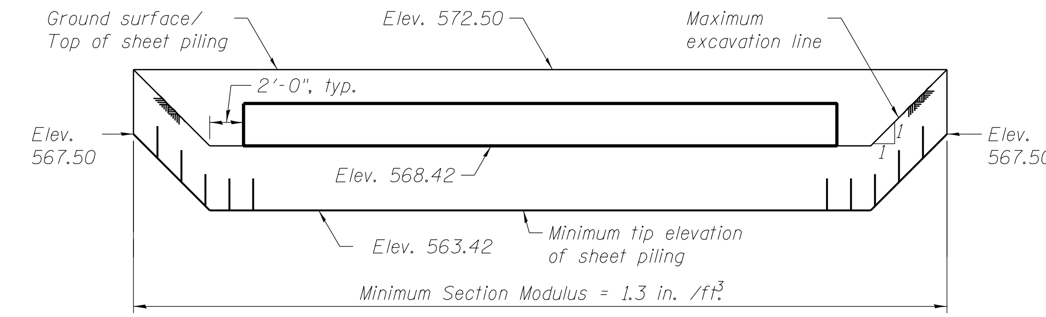
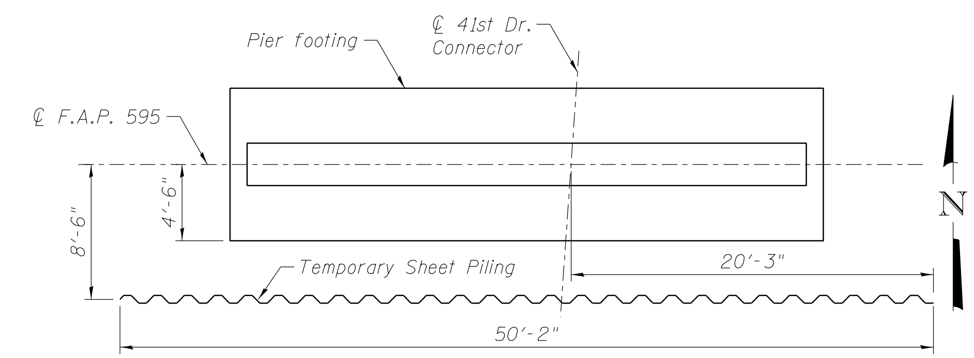
GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. dia., holes 15/16 in. dia., unless otherwise noted.
2. Calculated weight of Structural Steel = 205,180 lb. (Grade 50)
   20,270 lb. (Grade 36)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance ⅛" (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. Concrete Sealer shall be applied to the designated areas of the Pier and Abutments.
8. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the exterior surface and the bottom of the bottom flange of fascia beams, masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Blue, Munsell No. 10B 3/6.
9. Slip forming of parapets will not be allowed.

INDEX OF SHEETS



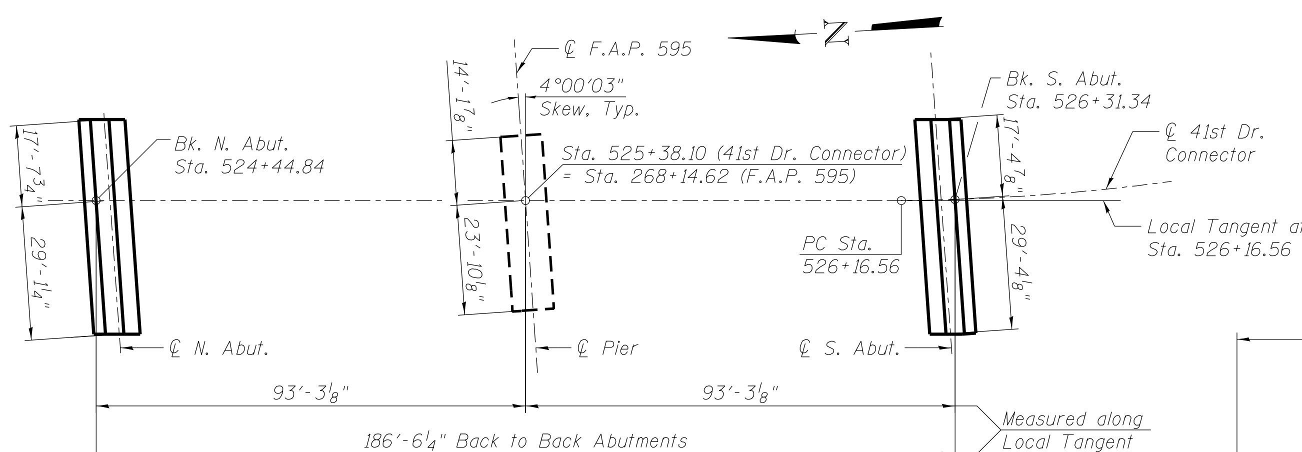
ELEVATION



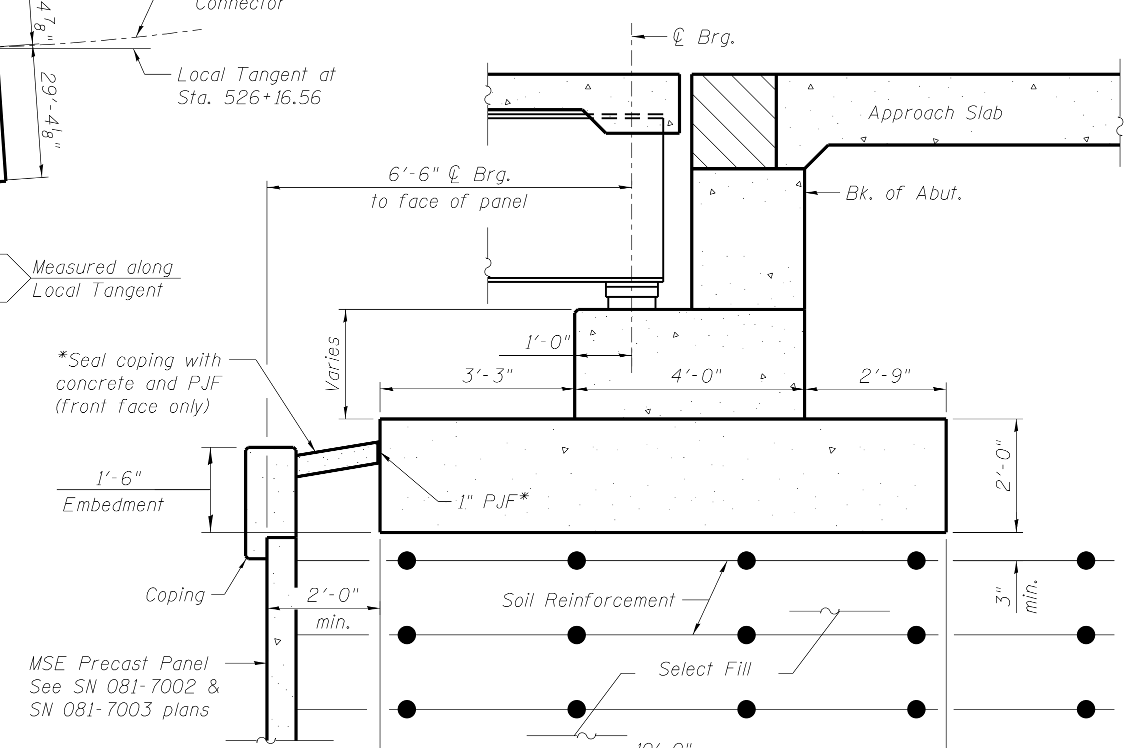
PLAN

TEMPORARY SHEET PILING DETAILS

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.



FOOTING LAYOUT



*The Contractor shall not pour the concrete between the abutment toe and MSE wall coping until the concrete deck has been poured due to settlement of the embankment. Cost included with Concrete Superstructure.

SECTION THRU SPREAD FOOTING ABUTMENT

(Horiz. dim. @ Rt. L's)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUB	SUPER	TOTAL
Structure Excavation	Cu. Yd.	91		91
Concrete Structures	Cu. Yd.	221.1		221.1
Concrete Superstructure	Cu. Yd.		428.1	428.1
Bridge Deck Grooving	Sq. Yd.		809	809
Protective Coat	Sq. Yd.		1,446	1,446
Furnishing And Erecting Structural Steel	L. Sum.		1	1
Stud Shear Connectors	Each		2,916	2,916
Reinforcement Bars, Epoxy Coated	Pound	28,870	117,150	146,020
Bar Splicers	Each		96	96
Bicycle Railing	Foot		60	60
Bridge Fence Railing (Sidewalk)	Foot		183	183
Parapet Railing	Foot		243	243
Furnishing Steel Piles HP12X63	Foot	320		320
Driving Piles	Foot	320		320
Name Plates	Each		1	1
Preformed Joint Strip Seal	Foot		92	92
Elastomeric Bearing Assembly, Type I	Each	12		12
Anchor Bolts, 1"	Each	24		24
Anchor Bolts, 1 1/4"	Each	12		12
Concrete Sealer	Sq. Ft.	2,458		2,458
Conduit Embedded in Structure, 2" Dia., PVC	Foot		490	490
Breakaway Device, Transformer Base, Special	Each		3	3
Drainage Scuppers DS-11	Each		2	2
Drainage System	L Sum		1	1
Temporary Sheet Piling	Sq. Ft.	439		439

Ciorba Group, Inc.
CONSULTING ENGINEERS

USER NAME = mteng	DESIGNED - SMY	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 0.166667 '/ in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA & SUBSTRUCTURE LAYOUT
STRUCTURE NO. 081-0176

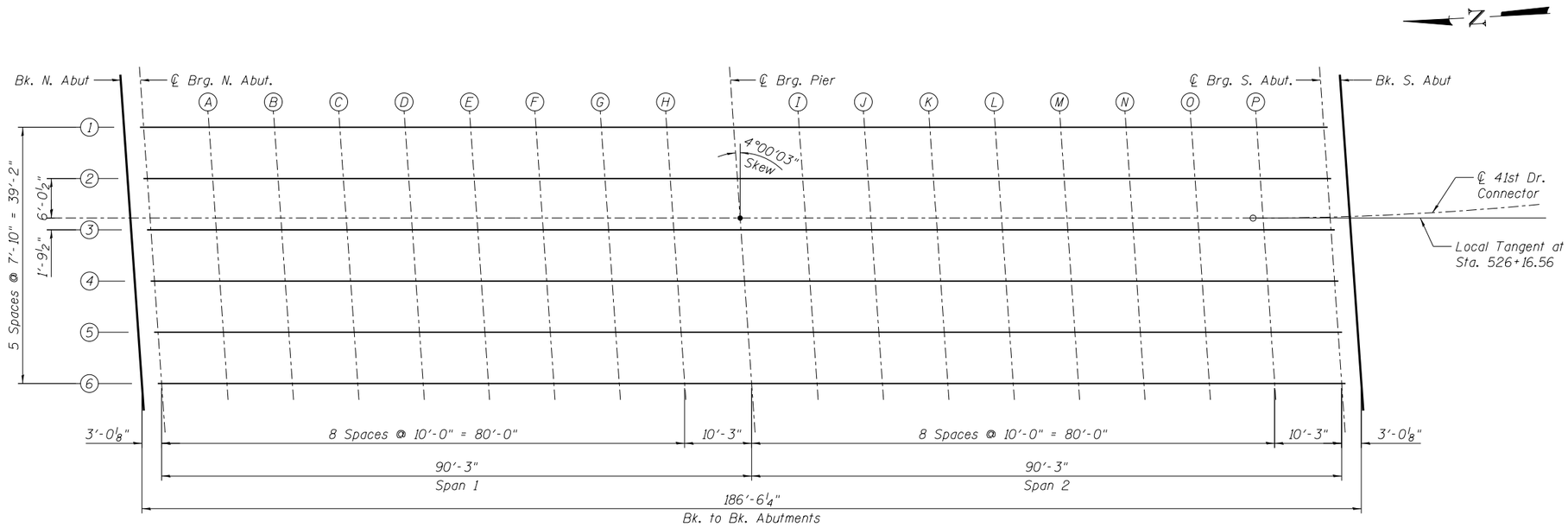
SHEET NO. S-2 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	301

CONTRACT NO. 64B84

ILLINOIS FED. AID PROJECT

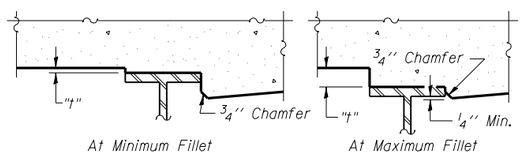
N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-02-General Notes and Substructure Layout.dgn



PLAN

GIRDER 1

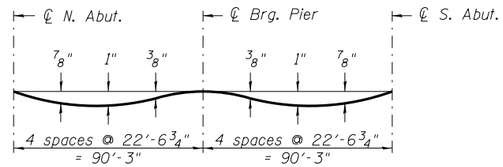
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk N. Abut.	524+43.87	-13.88	595.81	595.81
℄ Brg. N. Abut.	524+46.88	-13.88	595.82	595.82
A	524+56.88	-13.88	595.84	595.88
B	524+66.88	-13.88	595.83	595.90
C	524+76.88	-13.88	595.81	595.90
D	524+86.88	-13.88	595.76	595.85
E	524+96.88	-13.88	595.70	595.78
F	525+06.88	-13.88	595.62	595.67
G	525+16.88	-13.88	595.52	595.55
H	525+26.88	-13.88	595.40	595.41
℄ Brg. Pier	525+37.13	-13.88	595.25	595.25
I	525+47.13	-13.88	595.09	595.10
J	525+57.13	-13.88	594.91	594.94
K	525+67.13	-13.88	594.71	594.77
L	525+77.13	-13.88	594.49	594.57
M	525+87.13	-13.88	594.25	594.34
N	525+97.13	-13.88	594.00	594.09
O	526+07.13	-13.88	593.72	593.79
P	526+17.15	-13.87	593.42	593.46
℄ Brg. S. Abut.	526+27.71	-13.74	593.09	593.09
Bk. S. Abut.	526+30.81	-13.66	592.99	592.99



At Minimum Fillet At Maximum Fillet

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets S-3 and S-4, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets S-3 and S-4.

N:\PROJ\00033930\CONTRACT_1\Design\Structural\CAD\081-0176-D264884-03-Top of Slab Elevations 1.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775-6008
Fax 773.775.4014
Email: office@clorba.com

USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - SMY	REVISED -	
PLOT SCALE = 20.000000 ' / in.	DRAWN - SMY	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – 1
STRUCTURE NO. 081–0176
SHEET NO. S-3 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	302
		CONTRACT NO. 64B84		
	ILLINOIS	FED. AID PROJECT		

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	524+44.42	-6.04	595.98	595.98
℄ Brg. N. Abut.	524+47.43	-6.04	595.98	595.98
A	524+57.43	-6.04	596.00	596.04
B	524+67.43	-6.04	595.99	596.07
C	524+77.43	-6.04	595.97	596.06
D	524+87.43	-6.04	595.92	596.01
E	524+97.43	-6.04	595.86	595.94
F	525+07.43	-6.04	595.78	595.83
G	525+17.43	-6.04	595.68	595.70
H	525+27.43	-6.04	595.55	595.56
℄ Pier	525+37.68	-6.04	595.41	595.41
I	525+47.68	-6.04	595.25	595.25
J	525+57.68	-6.04	595.06	595.09
K	525+67.68	-6.04	594.86	594.92
L	525+77.68	-6.04	594.64	594.72
M	525+87.68	-6.04	594.40	594.49
N	525+97.68	-6.04	594.15	594.23
O	526+07.68	-6.04	593.87	593.94
P	526+17.69	-6.04	593.57	593.61
℄ Brg. S. Abut.	526+28.08	-5.90	593.24	593.24
Bk. S. Abut.	526+31.12	-5.81	593.14	593.14

℄ 41ST DR. CONNECTOR & PGL

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	524+44.84	0.00	596.10	596.10
℄ Brg. N. Abut.	524+47.85	0.00	596.11	596.11
A	524+57.85	0.00	596.12	596.17
B	524+67.85	0.00	596.12	596.19
C	524+77.85	0.00	596.09	596.18
D	524+87.85	0.00	596.05	596.14
E	524+97.85	0.00	595.98	596.06
F	525+07.85	0.00	595.90	595.95
G	525+17.85	0.00	595.80	595.83
H	525+27.85	0.00	595.67	595.68
℄ Pier	525+38.10	0.00	595.53	595.53
I	525+48.10	0.00	595.36	595.37
J	525+58.10	0.00	595.18	595.21
K	525+68.10	0.00	594.98	595.03
L	525+78.10	0.00	594.76	594.84
M	525+88.10	0.00	594.52	594.61
N	525+98.10	0.00	594.26	594.35
O	526+08.10	0.00	593.98	594.05
P	526+18.10	0.00	593.68	593.72
℄ Brg. S. Abut.	526+28.34	0.00	593.36	593.36
Bk. S. Abut.	526+31.34	0.00	593.26	593.26

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	524+44.97	1.79	596.07	596.07
℄ Brg. N. Abut.	524+47.98	1.79	596.07	596.07
A	524+57.98	1.79	596.09	596.13
B	524+67.98	1.79	596.08	596.15
C	524+77.98	1.79	596.06	596.14
D	524+87.98	1.79	596.01	596.10
E	524+97.98	1.79	595.95	596.02
F	525+07.98	1.79	595.86	595.91
G	525+17.98	1.79	595.76	595.79
H	525+27.98	1.79	595.63	595.64
℄ Pier	525+38.23	1.79	595.49	595.49
I	525+48.23	1.79	595.32	595.33
J	525+58.23	1.79	595.14	595.17
K	525+68.23	1.79	594.94	594.99
L	525+78.23	1.79	594.72	594.80
M	525+88.23	1.79	594.48	594.57
N	525+98.23	1.79	594.22	594.31
O	526+08.23	1.79	593.94	594.01
P	526+18.22	1.79	593.64	593.68
℄ Brg. S. Abut.	526+28.43	1.95	593.31	593.31
Bk. S. Abut.	526+31.42	2.03	593.21	593.21

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	524+45.52	9.63	595.90	595.90
℄ Brg. N. Abut.	524+48.52	9.63	595.91	595.91
A	524+58.52	9.63	595.92	595.97
B	524+68.52	9.63	595.92	595.99
C	524+78.52	9.63	595.89	595.98
D	524+88.52	9.63	595.84	595.93
E	524+98.52	9.63	595.78	595.85
F	525+08.52	9.63	595.69	595.75
G	525+18.52	9.63	595.59	595.62
H	525+28.52	9.63	595.46	595.47
℄ Pier	525+38.77	9.63	595.32	595.32
I	525+48.77	9.63	595.15	595.16
J	525+58.77	9.63	594.97	595.00
K	525+68.77	9.63	594.77	594.82
L	525+78.77	9.63	594.54	594.62
M	525+88.77	9.63	594.30	594.39
N	525+98.77	9.63	594.04	594.13
O	526+08.77	9.63	593.76	593.83
P	526+18.73	9.63	593.46	593.50
℄ Brg. S. Abut.	526+28.77	9.79	593.14	593.14
Bk. S. Abut.	526+31.71	9.88	593.04	593.04

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	524+46.06	17.46	595.74	595.74
℄ Brg. N. Abut.	524+49.07	17.46	595.75	595.75
A	524+59.07	17.46	595.76	595.80
B	524+69.07	17.46	595.75	595.83
C	524+79.07	17.46	595.72	595.81
D	524+89.07	17.46	595.68	595.77
E	524+99.07	17.46	595.61	595.69
F	525+09.07	17.46	595.52	595.58
G	525+19.07	17.46	595.42	595.45
H	525+29.07	17.46	595.29	595.30
℄ Pier	525+39.32	17.46	595.14	595.14
I	525+49.32	17.46	594.98	594.99
J	525+59.32	17.46	594.80	594.82
K	525+69.32	17.46	594.59	594.64
L	525+79.32	17.46	594.37	594.44
M	525+89.32	17.46	594.13	594.22
N	525+99.32	17.46	593.86	593.95
O	526+09.32	17.46	593.58	593.65
P	526+19.22	17.47	593.28	593.32
℄ Brg. S. Abut.	526+29.09	17.64	592.96	592.96
Bk. S. Abut.	526+31.99	17.73	592.86	592.86

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	524+46.61	25.29	595.90	595.90
℄ Brg. N. Abut.	524+49.62	25.29	595.91	595.91
A	524+59.62	25.29	595.92	595.96
B	524+69.62	25.29	595.91	595.98
C	524+79.62	25.29	595.88	595.97
D	524+89.62	25.29	595.83	595.92
E	524+99.62	25.29	595.76	595.84
F	525+09.62	25.29	595.68	595.73
G	525+19.62	25.29	595.57	595.60
H	525+29.62	25.29	595.44	595.45
℄ Pier	525+39.87	25.29	595.29	595.29
I	525+49.87	25.29	595.13	595.14
J	525+59.87	25.29	594.94	594.97
K	525+69.87	25.29	594.74	594.79
L	525+79.87	25.29	594.51	594.59
M	525+89.87	25.29	594.27	594.36
N	525+99.87	25.29	594.01	594.10
O	526+09.87	25.29	593.72	593.80
P	526+19.70	25.30	593.43	593.47
℄ Brg. S. Abut.	526+29.41	25.48	593.11	593.11
Bk. S. Abut.	526+32.26	25.57	593.01	593.01

NOTE:
Work this sheet with sheet S-3.

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775-6039
Fax 773.775.4014
E-mail: office@ciorba.com

USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - SMY	REVISED -	
PLOT SCALE = 0:2.0000 '' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS – 2
STRUCTURE NO. 081-0176
SHEET NO. S-4 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	303
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D2E4884-04-Top of Slab Elevations 11.dgn

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+14.22	16.00 Lt.	595.59
A1	524+24.22	16.00 Lt.	595.67
A2	524+34.22	16.00 Lt.	595.73
S. End of N. Appr. Pav't.	524+44.22	16.00 Lt.	595.77

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+14.43	13.00 Lt.	595.65
A1	524+24.43	13.00 Lt.	595.73
A2	524+34.43	13.00 Lt.	595.79
S. End of N. Appr. Pav't.	524+44.43	13.00 Lt.	595.83

℄ 41st Dr. CONNECTOR AND P.G.

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+15.34	0.00	595.93
A1	524+25.34	0.00	596.01
A2	524+35.34	0.00	596.07
S. End of N. Appr. Pav't.	524+45.34	0.00	596.10

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+16.25	13.00 Rt.	595.67
A1	524+26.25	13.00 Rt.	595.74
A2	524+36.25	13.00 Rt.	595.80
S. End of N. Appr. Pav't.	524+46.25	13.00 Rt.	595.84

PARAPET INSIDE FACE

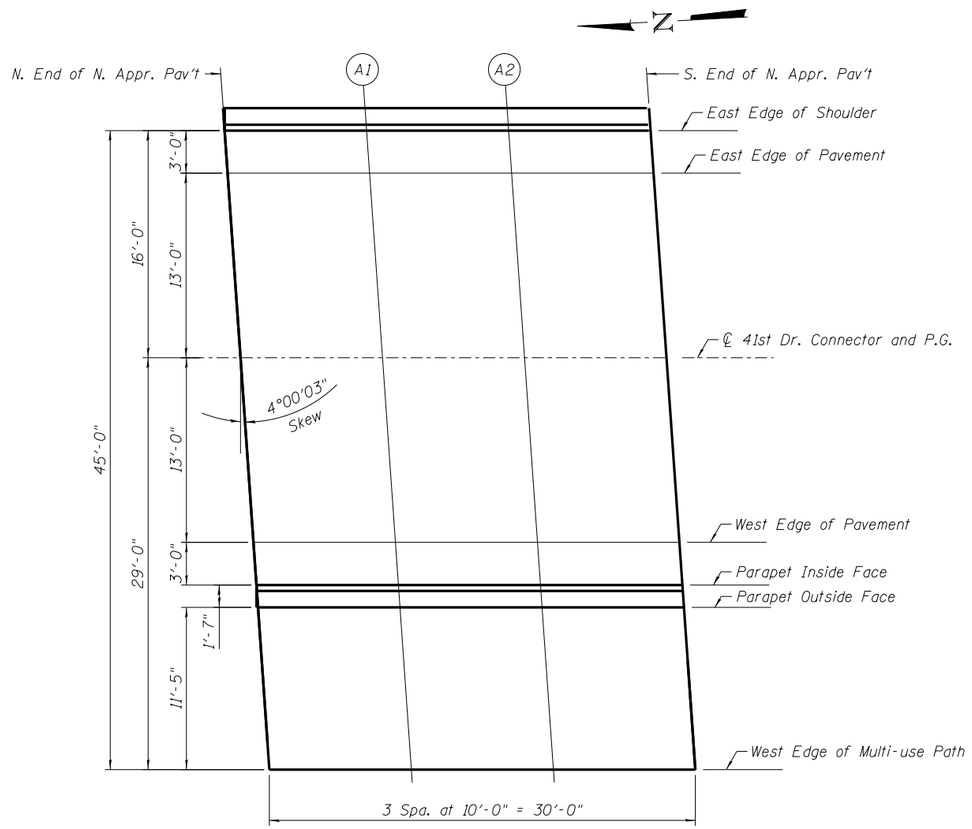
Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+16.46	16.00 Rt.	595.61
A1	524+26.46	16.00 Rt.	595.68
A2	524+36.46	16.00 Rt.	595.74
S. End of N. Appr. Pav't.	524+46.46	16.00 Rt.	595.77

PARAPET OUTSIDE FACE

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+16.57	17.58 Rt.	595.58
A1	524+26.57	17.58 Rt.	595.65
A2	524+36.57	17.58 Rt.	595.71
S. End of N. Appr. Pav't.	524+46.57	17.58 Rt.	595.74

WEST EDGE OF MULTI-USE PATH

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	524+17.37	29.00 Rt.	595.82
A1	524+27.37	29.00 Rt.	595.89
A2	524+37.37	29.00 Rt.	595.95
S. End of N. Appr. Pav't.	524+47.37	29.00 Rt.	595.98



PLAN

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264884-05-Top of North Approach Slab Elevations.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 301 Chicago, Illinois 60656
Tel 773.775.4454
Fax 773.775.4014
Email: ciorba@ciorba.com

USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - SMY	REVISED -	
PLOT SCALE = 10.666667 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 081-0176
SHEET NO. S-5 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	304
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+30.21	15.80 Lt.	592.96
A3	526+40.56	16.10 Lt.	592.60
A4	526+50.92	16.16 Lt.	592.23
S. End of S. Appr. Pav't.	526+61.28	16.00 Lt.	591.83

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+30.32	13.00 Lt.	593.02
A3	526+40.61	13.00 Lt.	592.67
A4	526+50.90	13.00 Lt.	592.29
S. End of S. Appr. Pav't.	526+61.20	13.00 Lt.	591.90

℄ 41st Dr. CONNECTOR AND P.G.

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+30.84	0.00	593.27
A3	526+40.84	0.00	592.93
A4	526+50.84	0.00	592.57
S. End of S. Appr. Pav't.	526+60.84	0.00	592.18

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+31.34	13.00 Rt.	592.99
A3	526+41.06	13.00 Rt.	592.65
A4	526+50.79	13.00 Rt.	592.30
S. End of S. Appr. Pav't.	526+60.51	13.00 Rt.	591.93

PARAPET INSIDE FACE

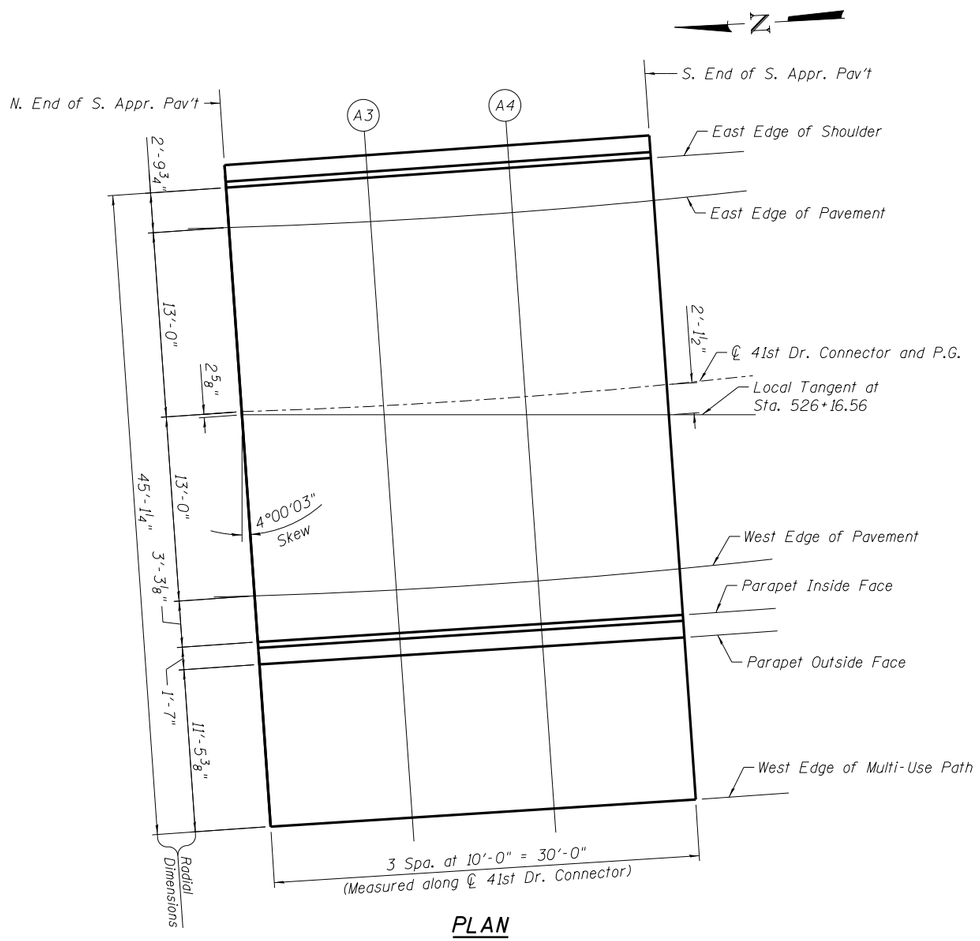
Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+31.45	16.25 Rt.	592.91
A3	526+41.11	16.04 Rt.	592.59
A4	526+50.77	16.04 Rt.	592.24
S. End of S. Appr. Pav't.	526+60.43	16.25 Rt.	591.86

PARAPET OUTSIDE FACE

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+31.51	17.84 Rt.	592.88
A3	526+41.14	17.63 Rt.	592.55
A4	526+50.77	17.63 Rt.	592.20
S. End of S. Appr. Pav't.	526+60.39	17.84 Rt.	591.83

WEST EDGE OF MULTI-USE PATH

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	526+31.91	29.27 Rt.	593.07
A3	526+41.31	29.07 Rt.	592.75
A4	526+50.72	29.07 Rt.	592.41
S. End of S. Appr. Pav't.	526+60.12	29.28 Rt.	592.05



PLAN

N:\PROJ\00033993.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-06-Top of South Approach Slab Elevations.dgn

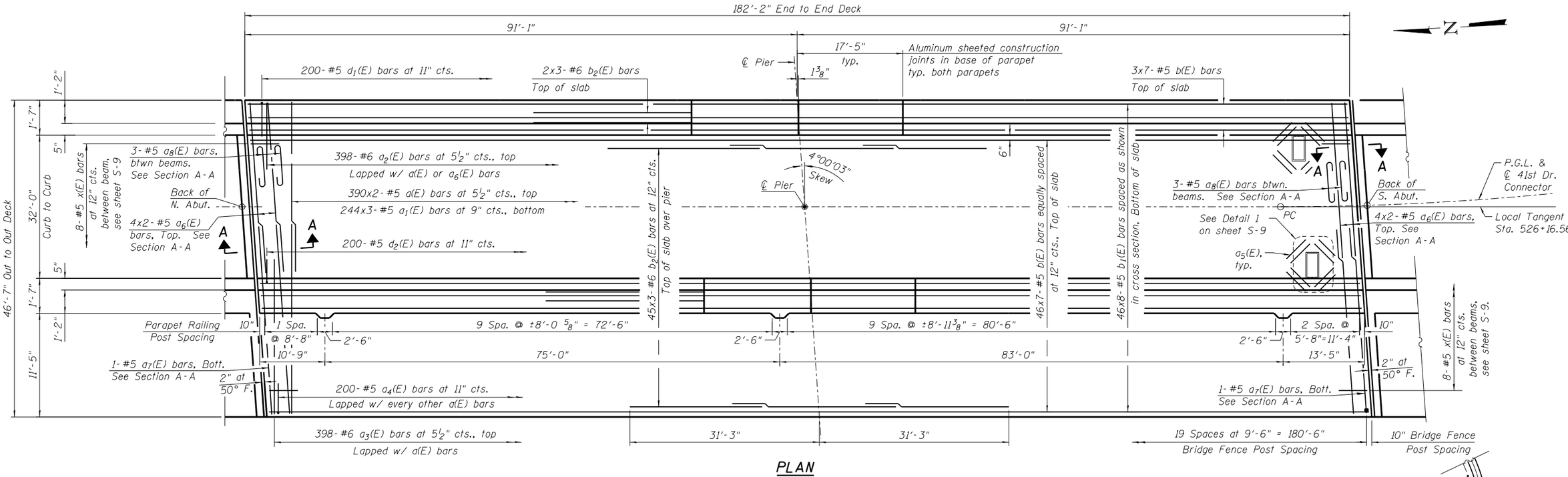
Ciorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775.4600
Fax 773.775.4014
Email chicago@ciorba.com

USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - SMY	REVISED -	
PLOT SCALE = 10:8 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

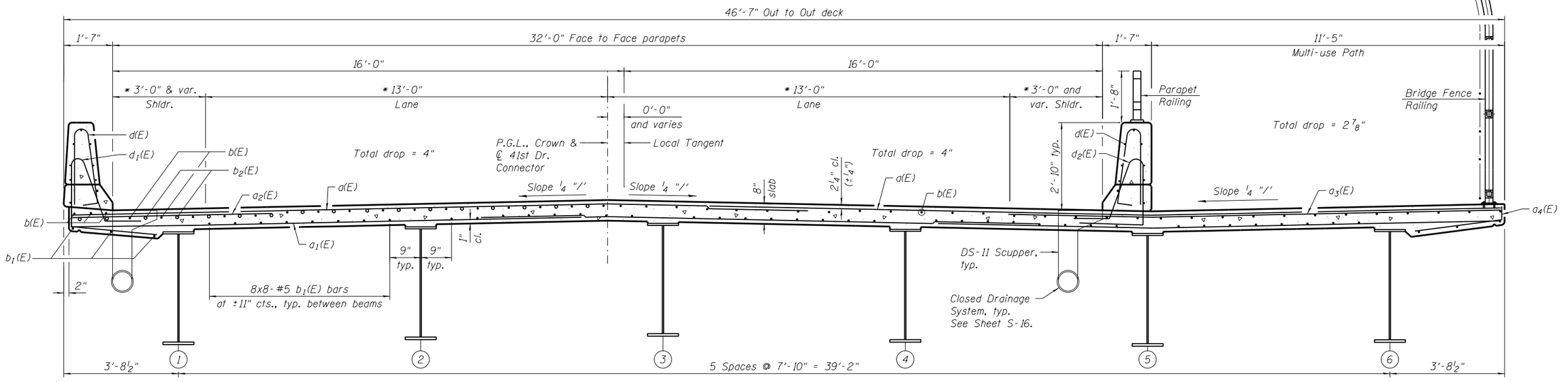
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 081-0176
SHEET NO. S-6 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	305
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



PLAN



NEAR PIER **NEAR MIDSPAN**

MIN. BAR LAP

#5 Bar - 3'-3"
#6 Bar - 3'-10"

CROSS SECTION

(Looking South)

* Indicates radial dimensions

NOTES:

1. See Sheet S-8 for superstructure details and parapet reinforcement.
2. See Sheet S-9 for Section A-A, Bill of Materials and Bar Bending Diagrams.
3. Bars indicated thus 1x2-#5 etc. indicates 1 line of bars with 2 lengths per bar.
4. See sheet S-23 for Bar Splicer Details.
5. Dimensions are based on a rolled rail strip seal joint. If the Contractor elects to use the welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on sheet S-14.

Ciorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.774.4900
Fax 773.775.4014
Email chicago@ciorba.com

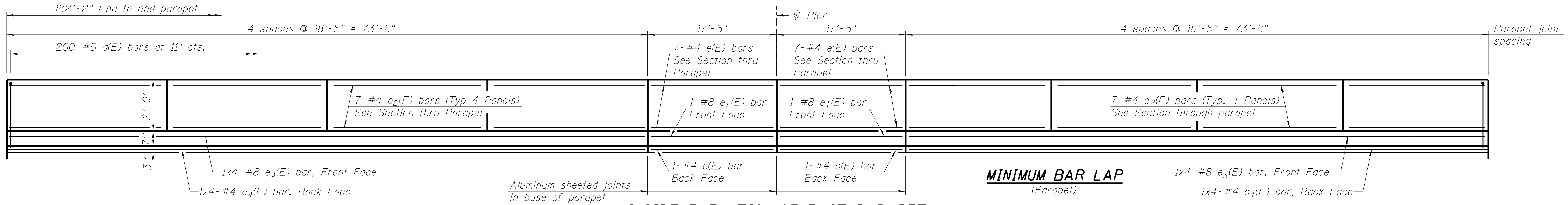
USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - SMY	REVISED -	
PLOT SCALE = 16:8 ':' / in.	DRAWN - SMY/RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN & CROSS SECTION
STRUCTURE NO. 081-0176
SHEET NO. S-7 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	306
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\08003393.00\CONTRACT_1\Design\Structural\CADD\081-0176-D264B84-07-Deck Plan & Cross Section.dgn



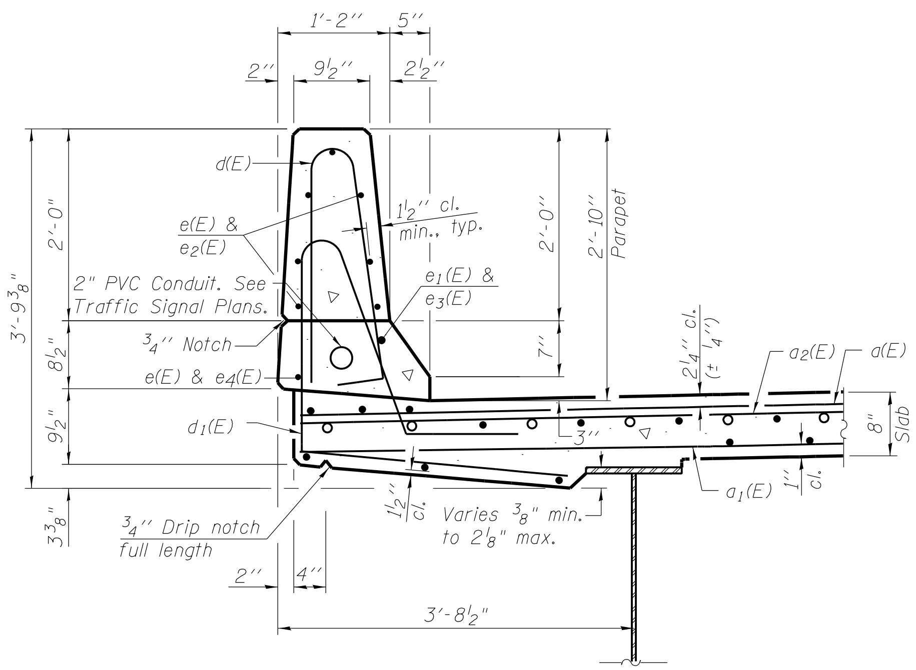
INSIDE ELEVATION OF EAST PARAPET

(West Parapet Similar)

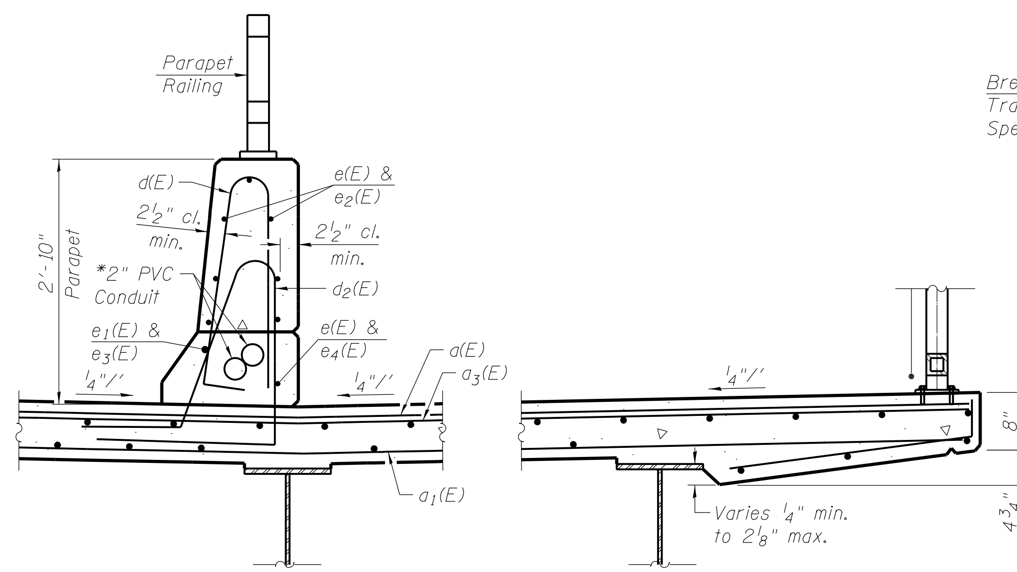
MINIMUM BAR LAP

(Parapet)

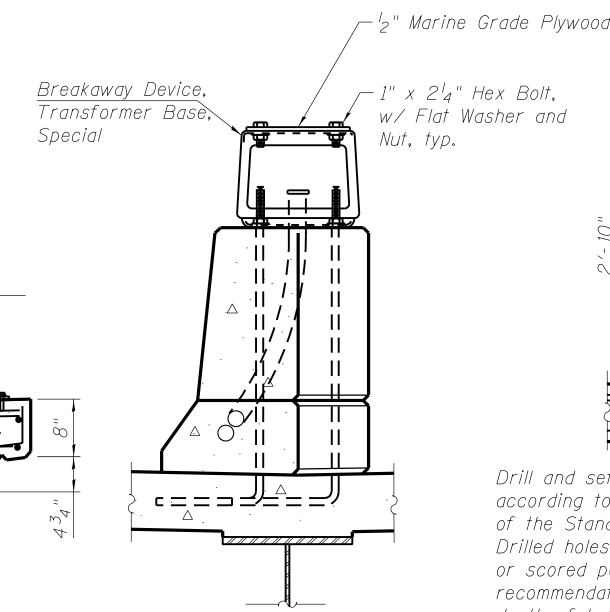
#4 bar = 2'-0"
#8 bar = 5'-2"



SECTION THRU EAST PARAPET

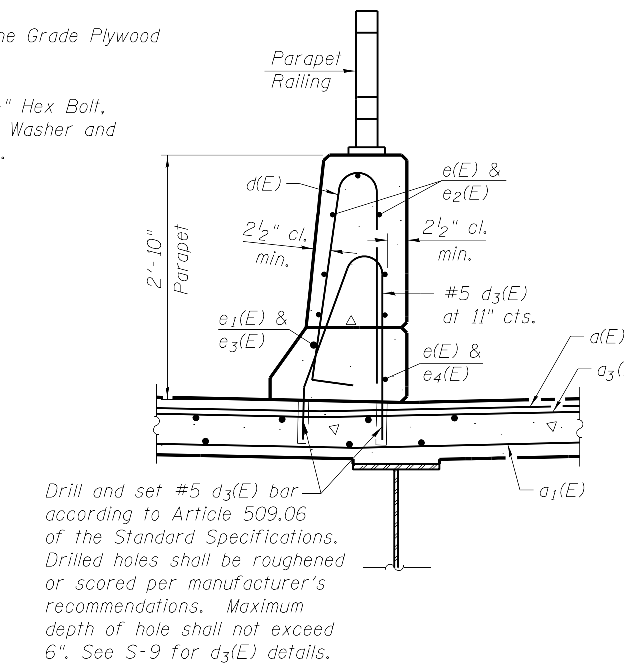


SECTION THRU WEST PARAPET

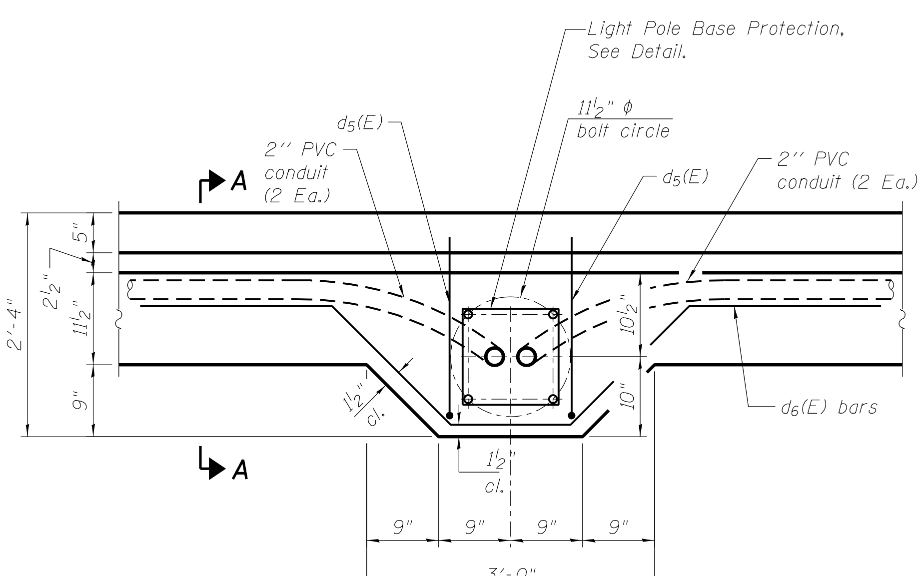


LIGHT POLE BASE PROTECTION DETAIL

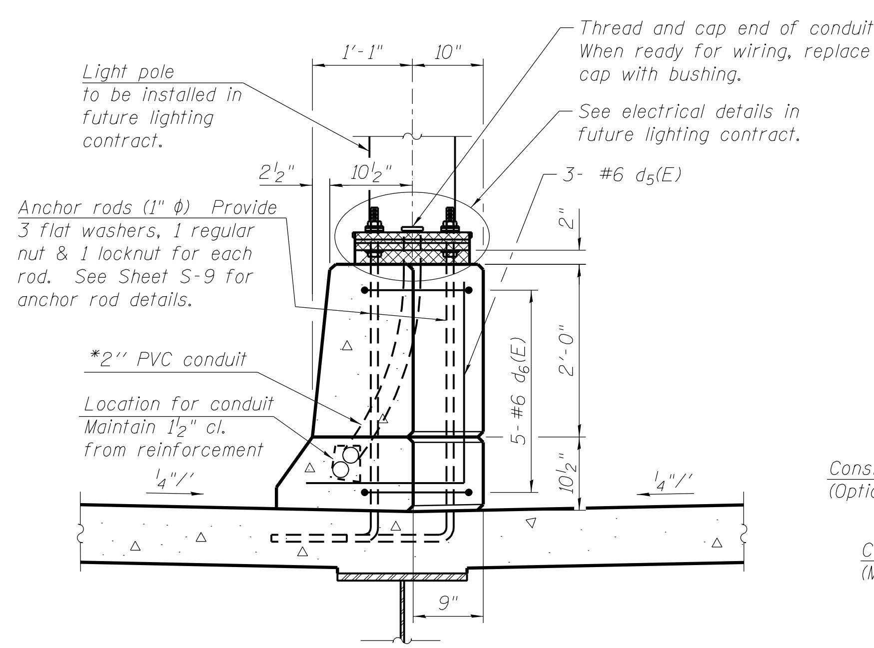
(3 Thus)



ALTERNATE SECTION THRU WEST PARAPET

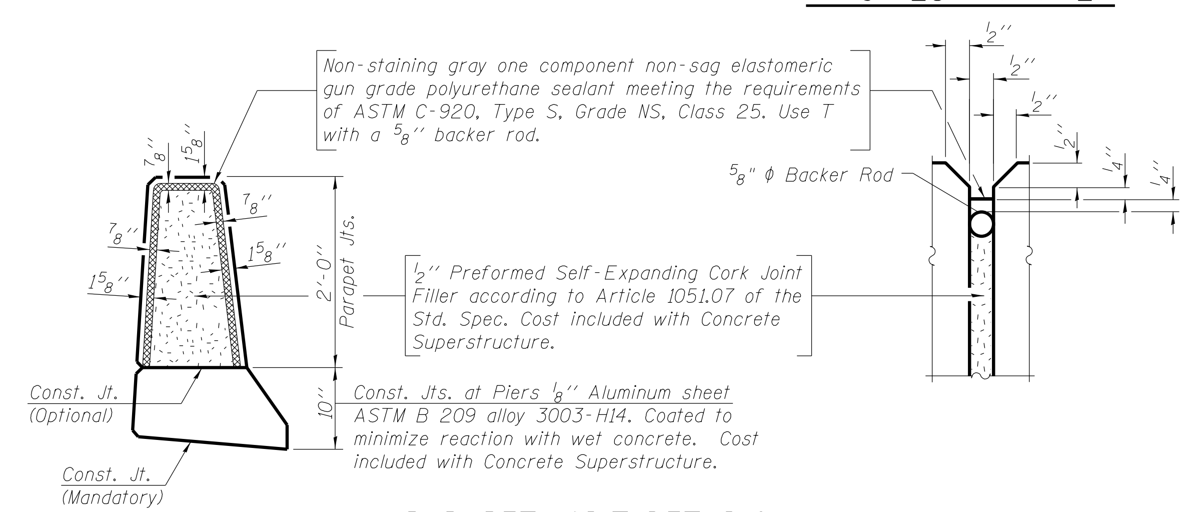


LIGHT POLE BASE DETAIL



SECTION A-A

* Conduit Embedded in Structure, 2" Dia., PVC. (2 Ea.)



PARAPET JOINT DETAILS

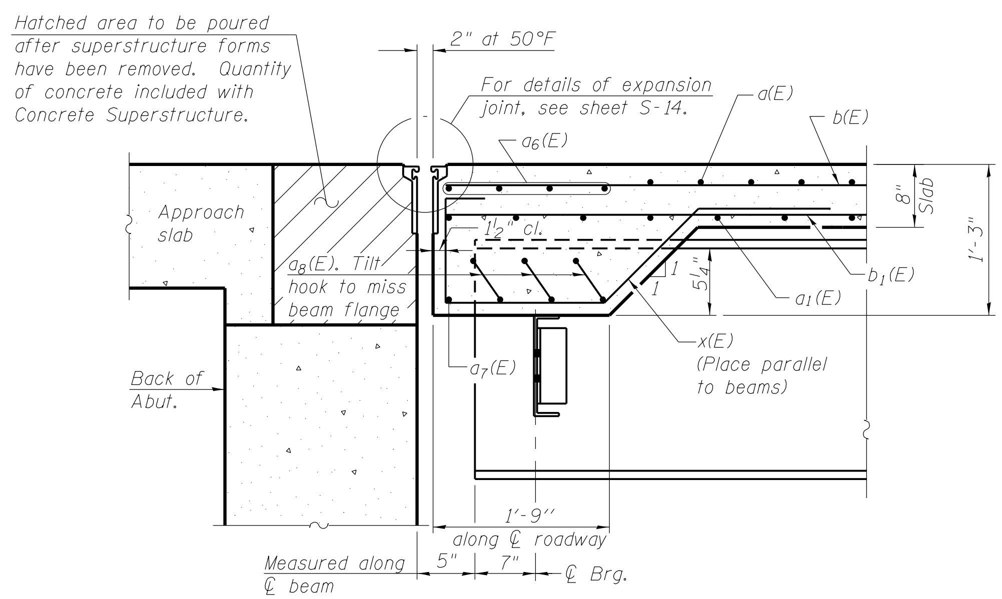
NOTES:

1. Work this sheet with sheets S-7 and S-9.
2. Bars indicated thus 1x2 #5 etc. indicates 1 line of bars with 2 lengths per line.
3. Reinforcement bars shall not pass thru aluminum sheets and cork joint filler.

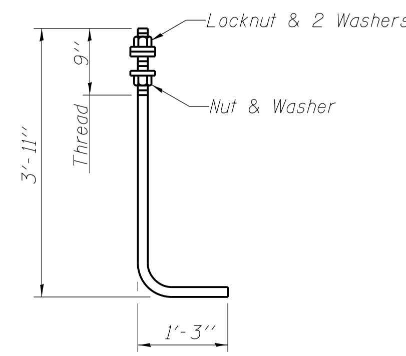
N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-064B84-08-Superstructure Details 1.dgn

Ciorba Group, Inc. CONSULTING ENGINEERS	USER NAME = mteng	DESIGNED - MHT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS - 1 STRUCTURE NO. 081-0176
		CHECKED - BWS	REVISED -		
	PLOT SCALE = 0:2.0000 ' / in.	DRAWN - RD	REVISED -		
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -		SHEET NO. S-8 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	307
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



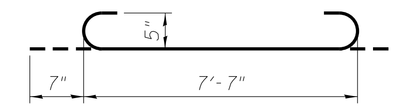
SECTION A-A



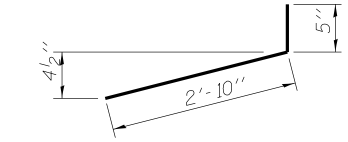
ANCHOR ROD - 1" ϕ

(ASTM F 1554 Grade 105) Full length hot dipped galvanized

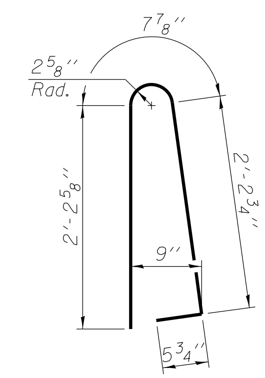
Cost of anchor rods is included with Concrete Superstructure.



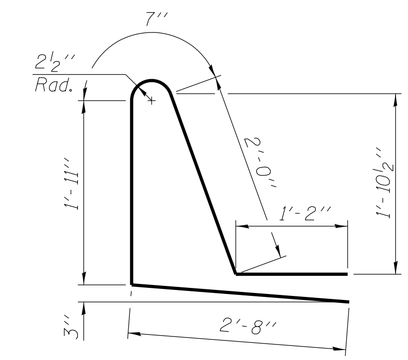
BAR a_8(E)



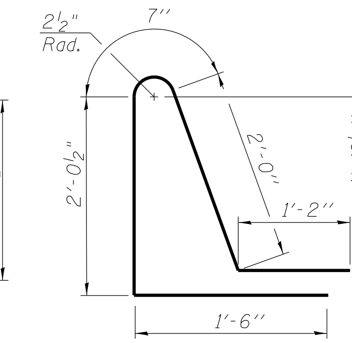
BAR a_4(E)



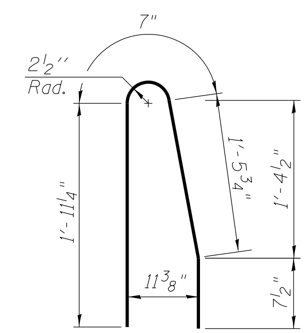
BAR d(E)



BAR d_1(E)

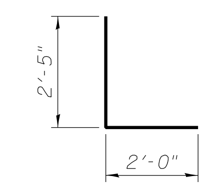


BAR d_2(E)

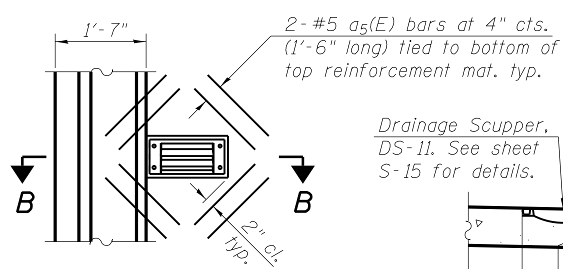


BAR d_3(E)

d3(E) bar is not included in the Bill of Materials. This bar substitutes d2(E) bar if the alternate shown on sheet S-8 is used.

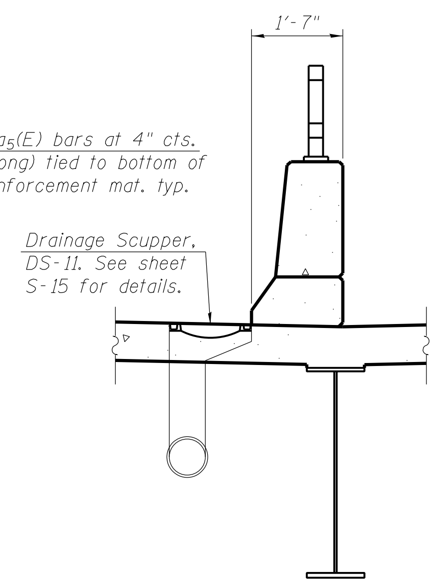


BAR d_5(E)

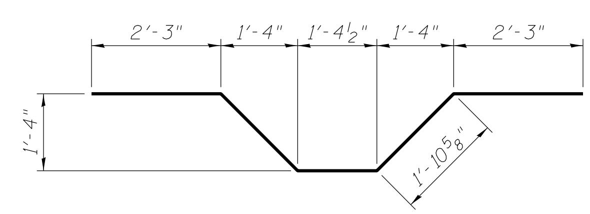


DETAIL 1

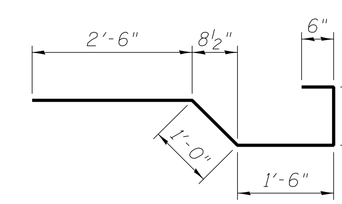
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



SECTION B-B



BAR d_6(E)



BAR x(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	780	# 5	24'-8"	straight
a_1(E)	732	# 5	17'-7"	straight
a_2(E)	398	# 6	6'-6"	straight
a_3(E)	398	# 6	14'-6"	straight
a_4(E)	200	# 5	3'-3"	bent
a_5(E)	16	# 5	1'-6"	straight
a_6(E)	16	# 5	24'-9"	straight
a_7(E)	2	# 5	39'-0"	straight
a_8(E)	30	# 5	8'-9"	hooked
b(E)	343	# 5	28'-10"	straight
b_1(E)	368	# 5	25'-7"	straight
b_2(E)	141	# 6	23'-5"	straight
d(E)	400	# 5	5'-7"	bent
d_1(E)	200	# 5	8'-4"	bent
d_2(E)	200	# 5	7'-4"	bent
d_5(E)	9	# 6	4'-5"	L
d_6(E)	15	# 6	9'-8"	bent
e(E)	32	# 4	17'-1"	straight
e_1(E)	4	# 8	17'-1"	straight
e_2(E)	112	# 4	18'-1"	straight
e_3(E)	16	# 8	22'-3"	straight
e_4(E)	16	# 4	19'-10"	straight
x(E)	80	# 5	6'-5"	bent
Reinforcement Bars, Epoxy Coated			Pound	82,090
Concrete Superstructure			Cu. Yds.	271.9

NOTES:

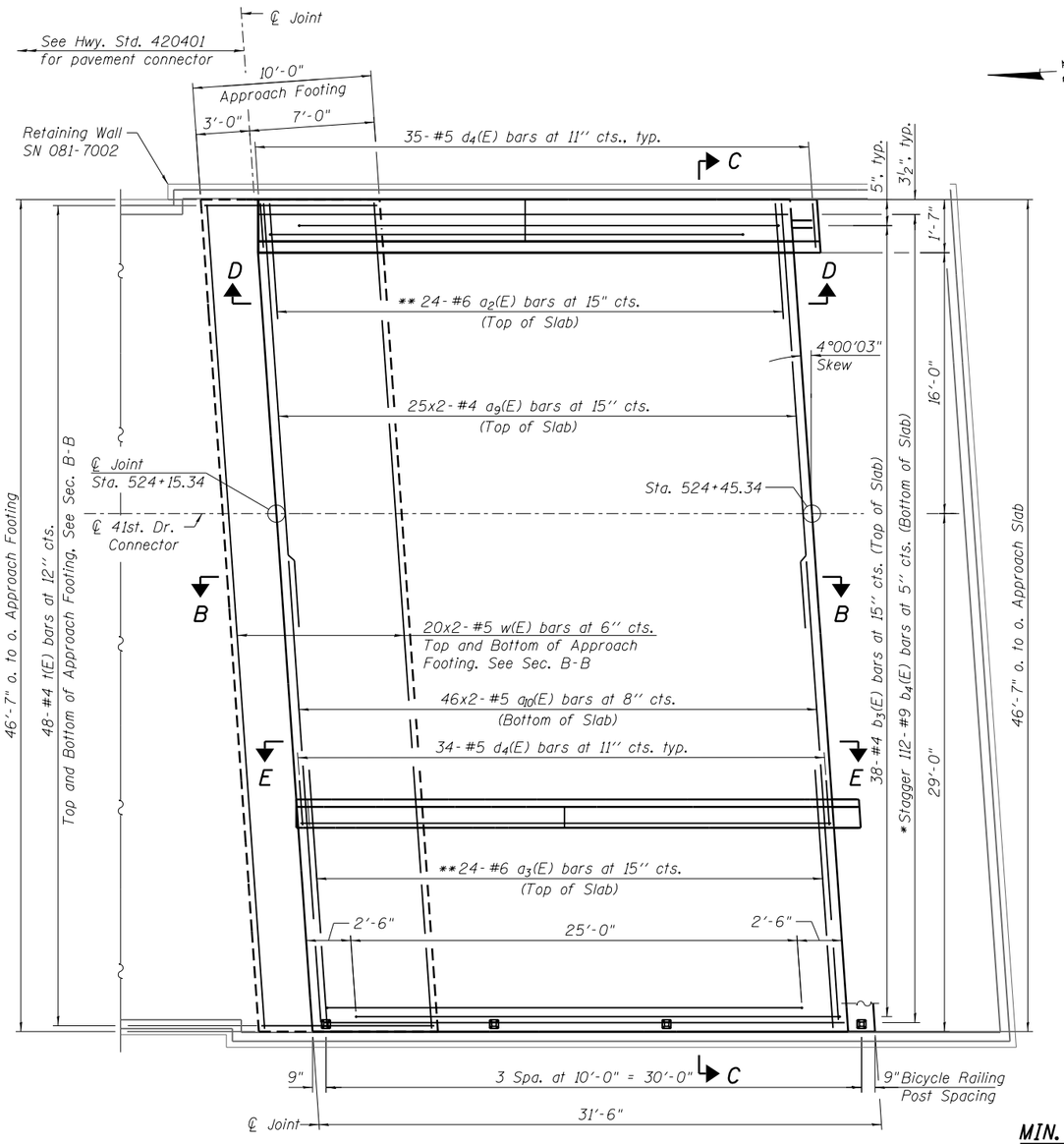
Work this sheet with Sheets S-7 and S-8.

Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - MHT	REVISED -
		CHECKED - BWS	REVISED -
	PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - SMY	REVISED -
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

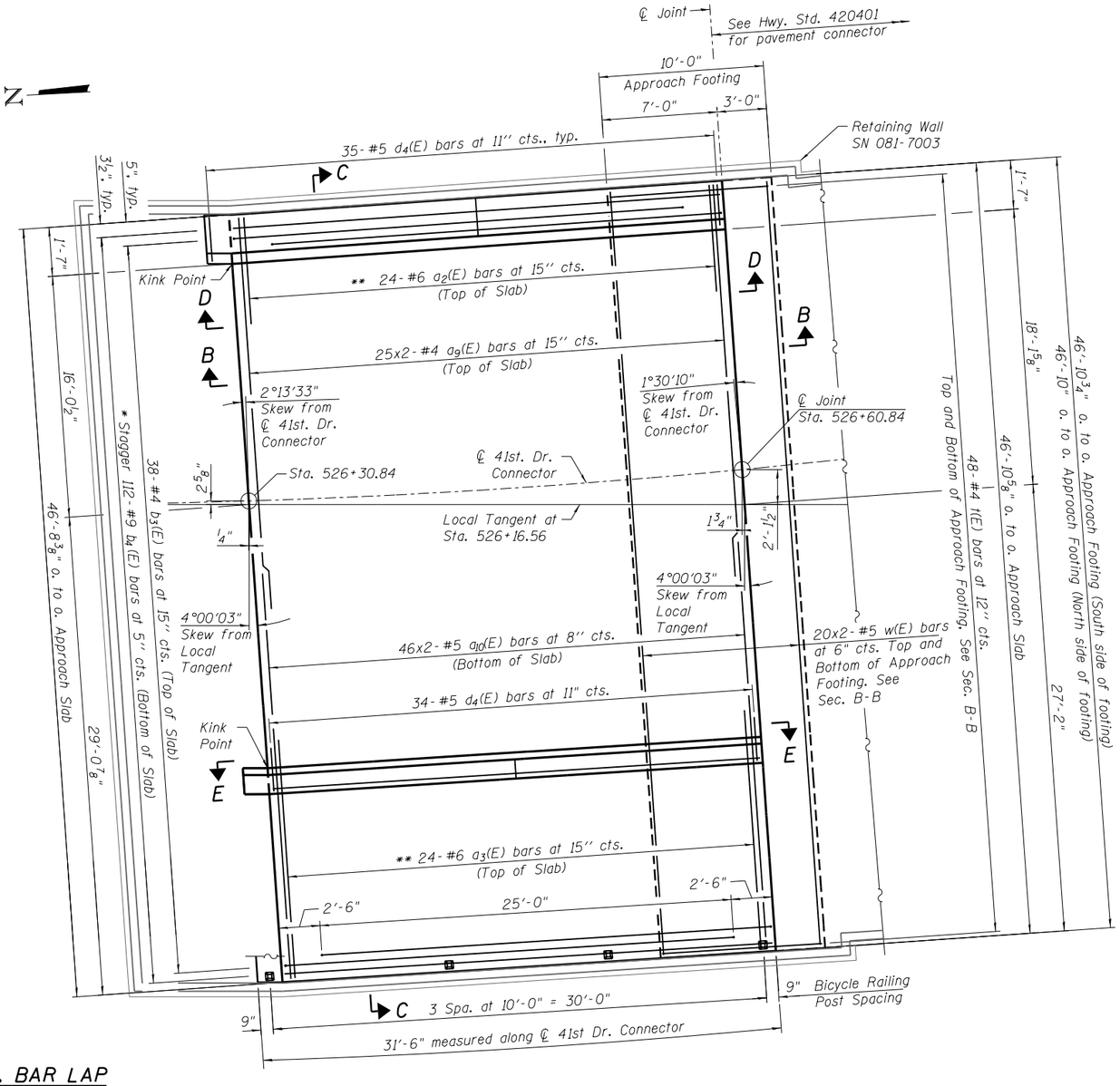
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS – 2
STRUCTURE NO. 081–0176
SHEET NO. S-9 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	308
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



PLAN
NORTH APPROACH



PLAN
SOUTH APPROACH

MIN. BAR LAP

#4 = 2'-11"
#5 = 3'-3"

* Tilt #9 b_4(E) bars as required to maintain clearance.
** Space between a_9(E) bars, typ. ea. parapet.

NOTES:

1. See sheet S-11 for Sections B-B & C-C and Views D-D and E-E.
2. a_9(E) and a_{10}(E) bar spacings measured along ℄ Rdwy.
3. The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1½" for installation purposes.

Ciorba Group, Inc.
CONSULTING ENGINEERS
2007 North Cumberland Avenue
Suite 400, Chicago, Illinois 60656
Tel. 773.775.4008
Fax 773.775.4014
Email: ciorba@ciorba.com

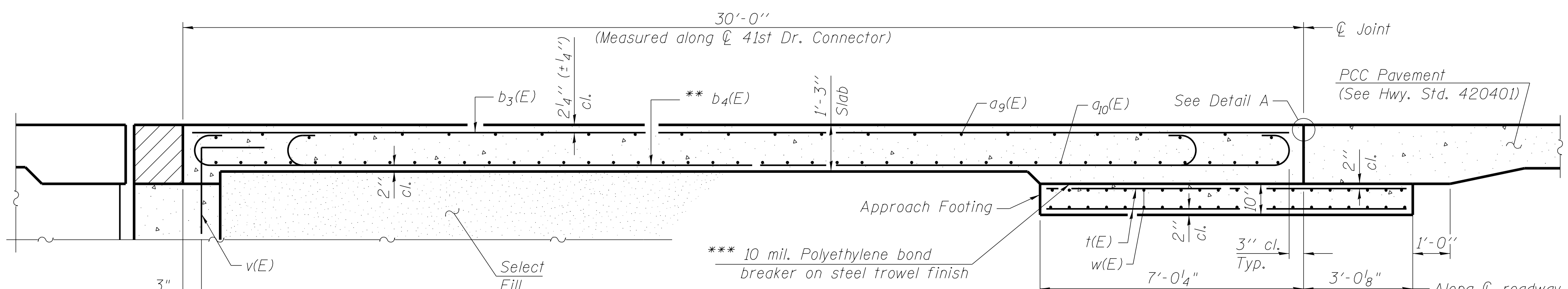
USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - SMY	REVISED -	
PLOT SCALE = 8:4 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

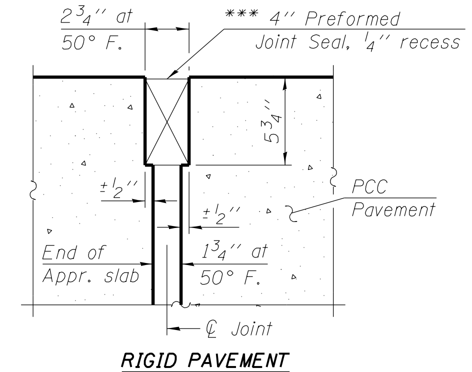
BRIDGE APPROACH SLAB DETAILS – 1
STRUCTURE NO. 081–0176
SHEET NO. S-10 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	309
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264884-10-Bridge Approach Slab Details 1.dgn



SECTION B-B

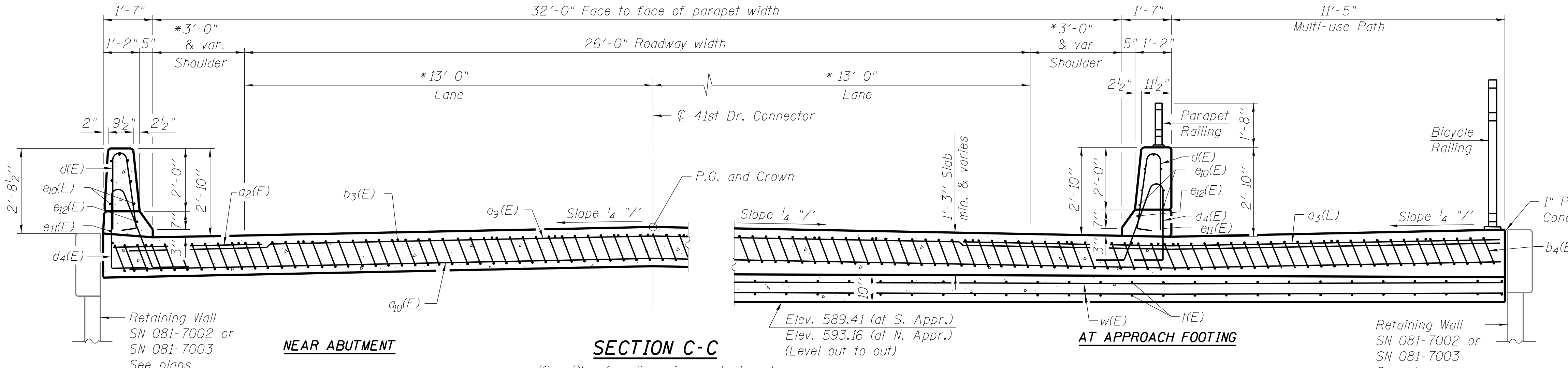


DETAIL A

MIN. BAR LAP

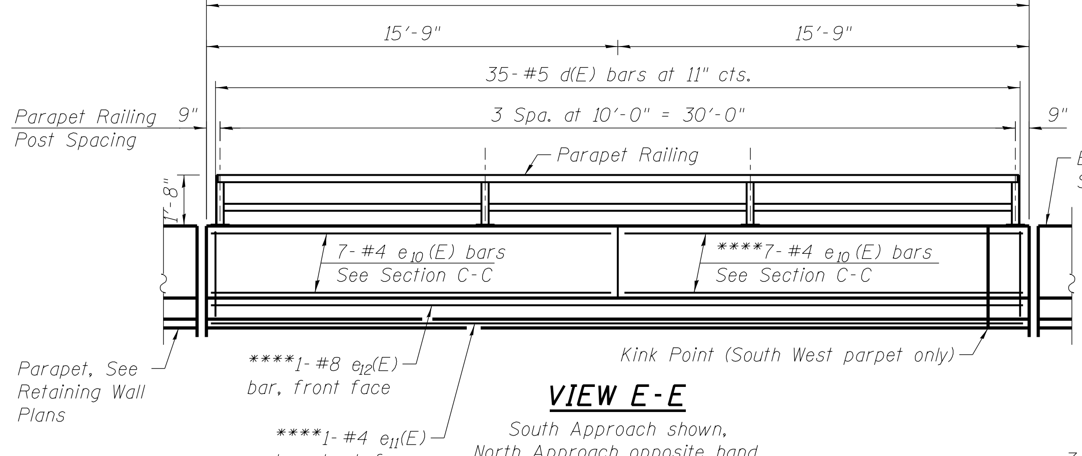
#4 = 2'-11"
#5 = 3'-3"

* Indicates radial dimensions
** Tilt #9 b_4(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.



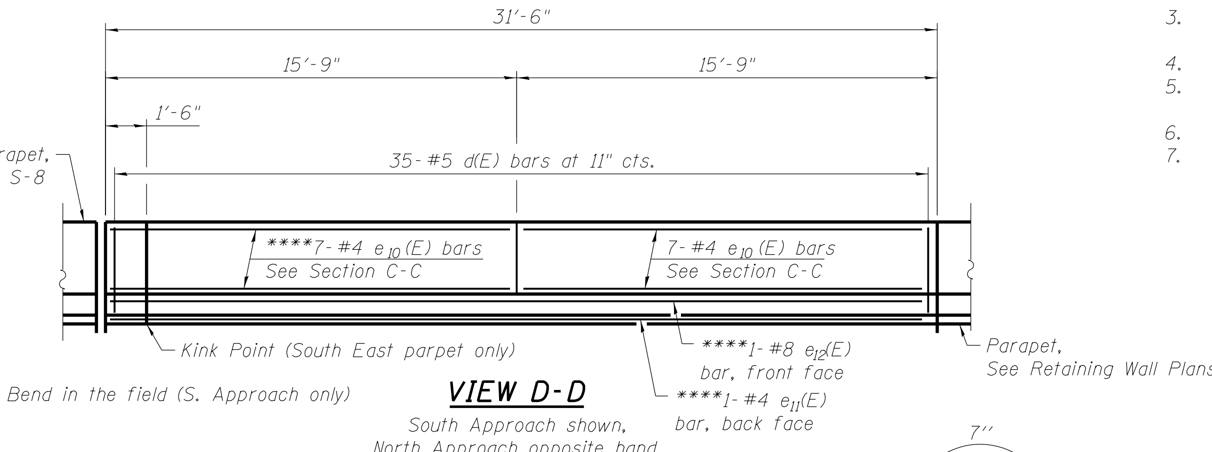
SECTION C-C

(See Plan for dimensions not shown)



VIEW E-E

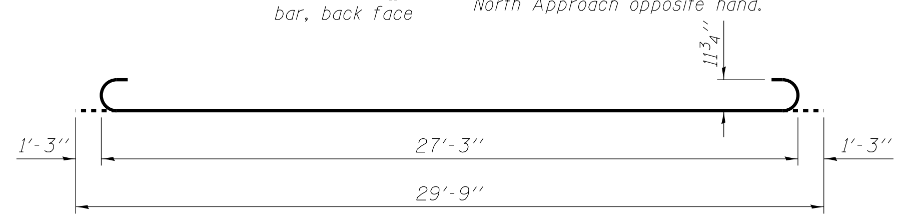
South Approach shown, North Approach opposite hand.



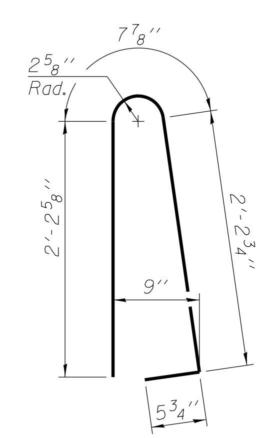
**** Bend in the field (S. Approach only)

VIEW D-D

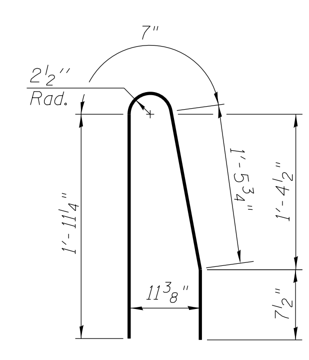
South Approach shown, North Approach opposite hand.



BAR b_4(E)



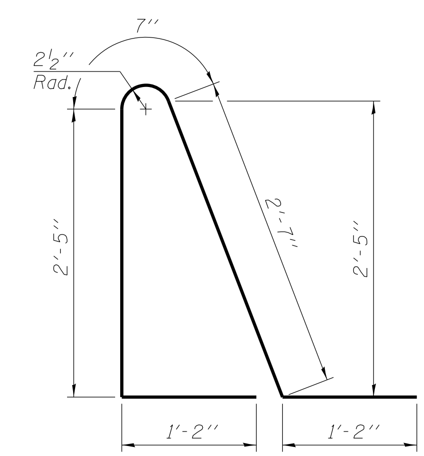
BAR d(E)



BAR d_3(E)

d_3(E) bar is not included in the Bill of Materials.

This bar substitutes d_4(E) bar in the west parpet if the alternate shown on sheet S-8 is used.



BAR d_4(E)

NOTES:

1. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
2. Approach footing concrete shall be paid for as Concrete Structures.
3. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
4. For v(E) bar details, see sheet S-20.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. For additional parapet details, see sheet S-8.
7. For details of Bicycle Railing and Parapet Railing, see sheet S-12.

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_2(E)	48	# 6	6'-6"	straight
a_3(E)	48	# 6	14'-6"	straight
a_9(E)	100	# 4	24'-8"	straight
a_{10}(E)	184	# 5	24'-10"	straight
b_3(E)	76	# 4	29'-8"	straight
b_4(E)	224	# 9	29'-9"	hooked
d(E)	140	# 5	5'-7"	bent
d_4(E)	140	# 5	7'-11"	bent
e_{10}(E)	56	# 4	15'-5"	straight
e_{11}(E)	4	# 4	31'-2"	straight
e_{12}(E)	4	# 8	31'-2"	straight
t(E)	192	# 4	9'-8"	straight
w(E)	160	# 5	24'-11"	straight
Concrete Superstructure		Cu. Yd.	156.2	
Concrete Structures		Cu. Yd.	28.9	
Reinforcement Bars, Epoxy Coated		Pound	40,460	

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-11-Bridge Approach Slab Details 2.dgn

Ciorba Group, Inc. CONSULTING ENGINEERS

USER NAME = mteng	DESIGNED - MHT	REVISED -
	CHECKED - SMY	REVISED -
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

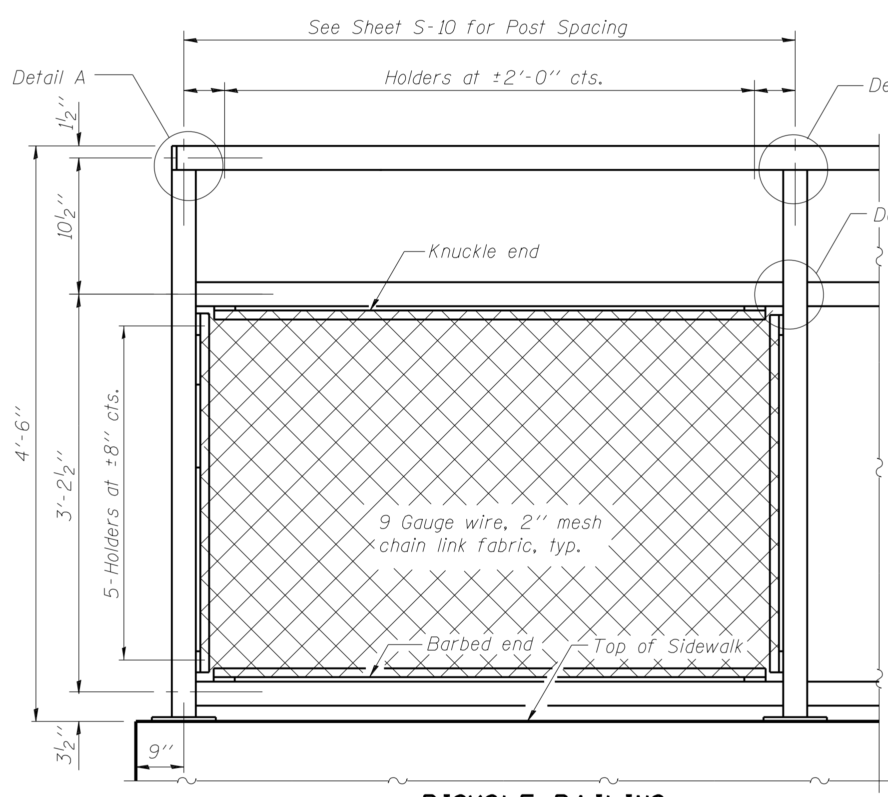
BRIDGE APPROACH SLAB DETAILS – 2
STRUCTURE NO. 081-0176

SHEET NO. S-11 OF S-27 SHEETS

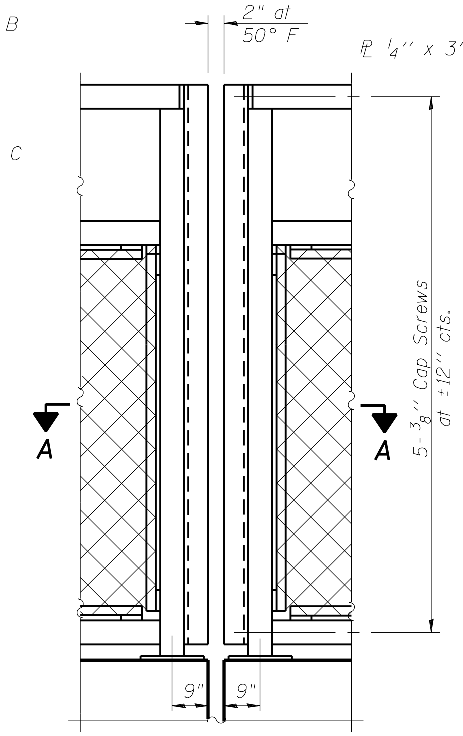
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	310

CONTRACT NO. 64B84

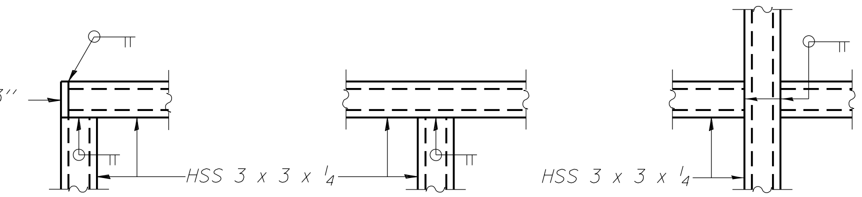
ILLINOIS FED. AID PROJECT



BICYCLE RAILING

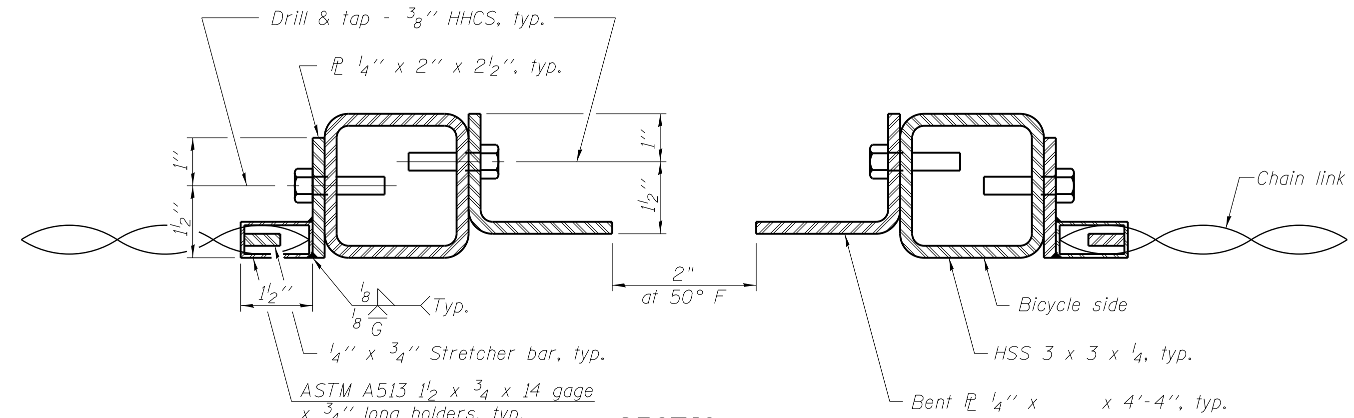


BICYCLE RAILING

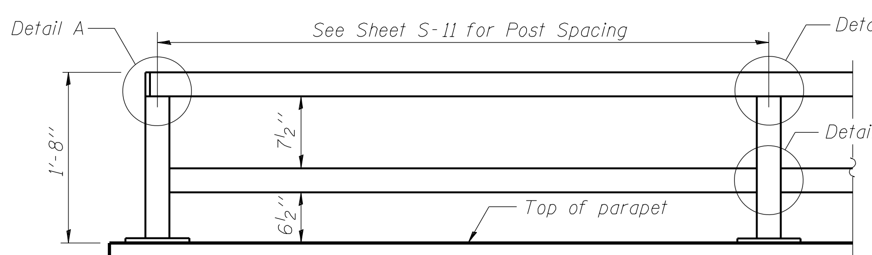


DETAIL A DETAIL B DETAIL C

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

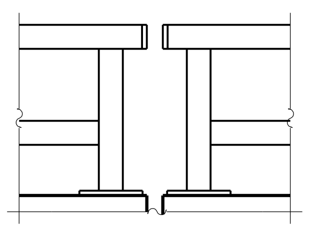


SECTION A-A



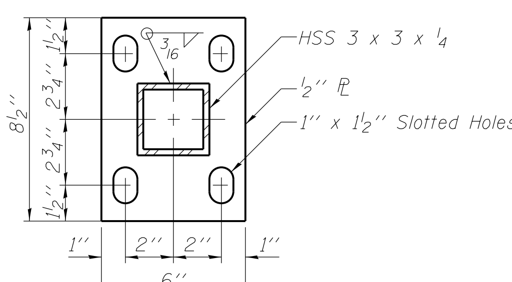
PARAPET RAILING ELEVATION

(Inside Face of Two Element Rail)

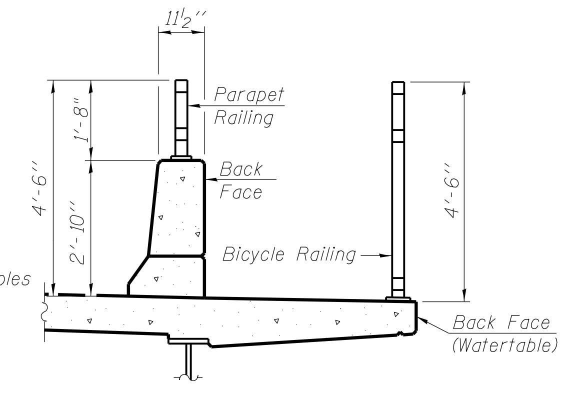


PARAPET RAILING ELEVATION AT EXPANSION JOINT

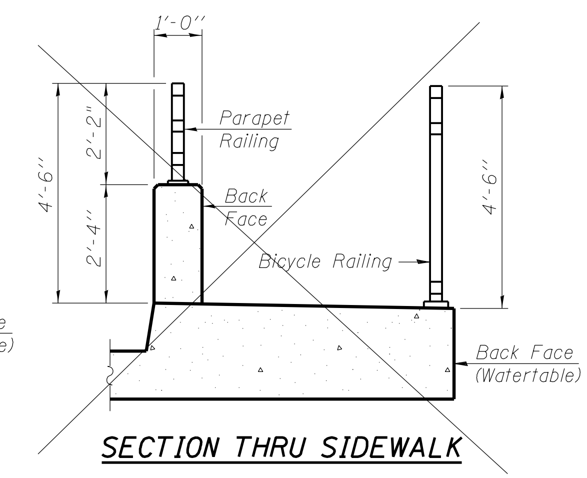
(Two Element Rail Shown - Three Element Rail Similar)



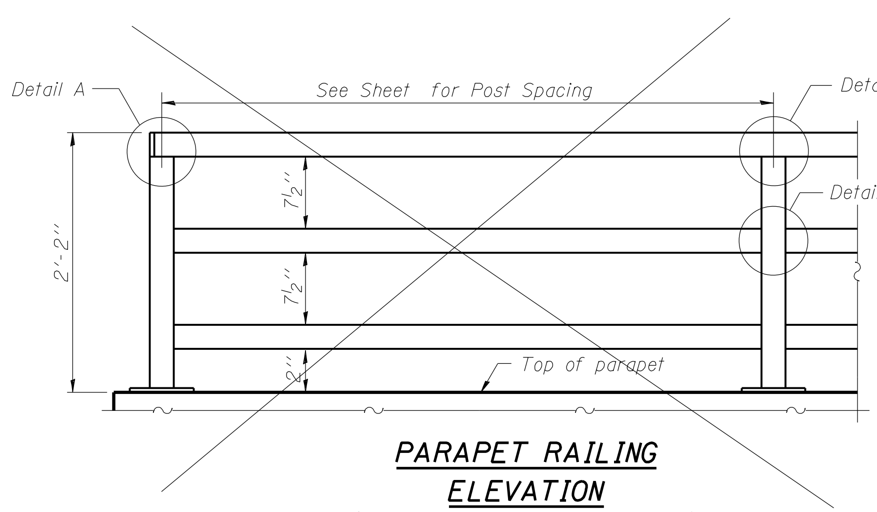
BASE ℘



SECTION THRU DECK

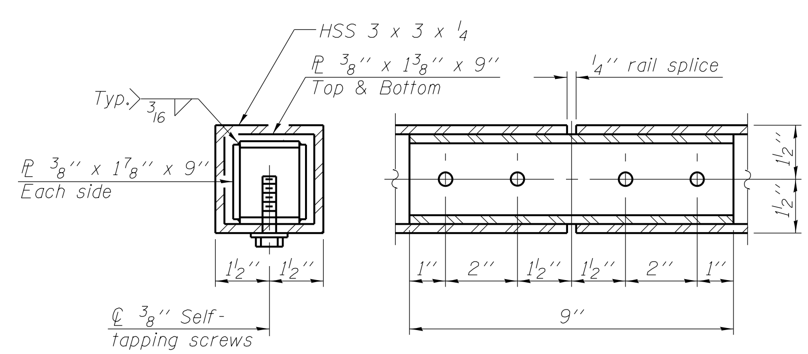


SECTION THRU SIDEWALK

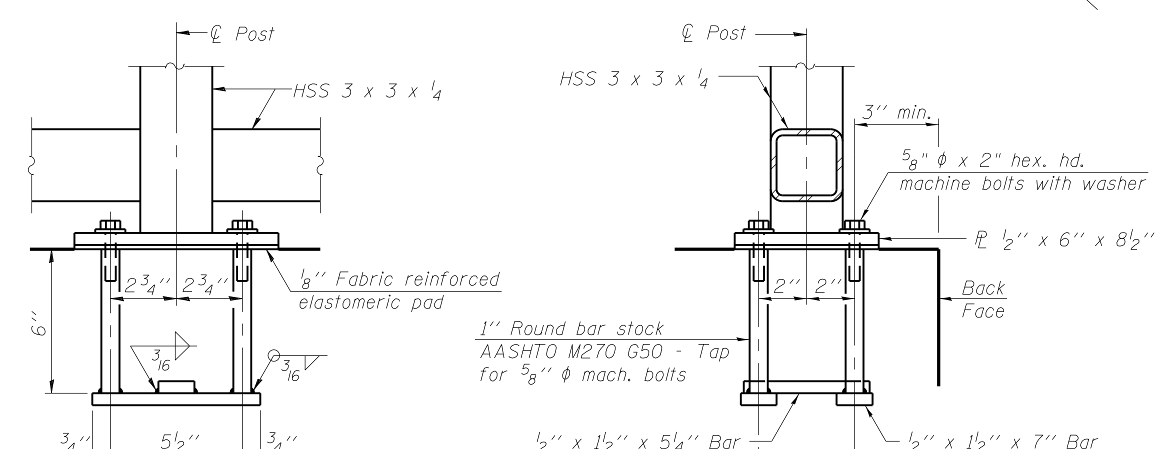


PARAPET RAILING ELEVATION

(Inside Face of Three Element Rail)



RAIL SPLICE



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	60
Parapet Railing	Foot	60

R-29 1-27-12 (10'-0" Maximum Post Spacing)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-0264B84-12-Bicycle Railing.dgn

Ciorba Group, Inc. CONSULTING ENGINEERS

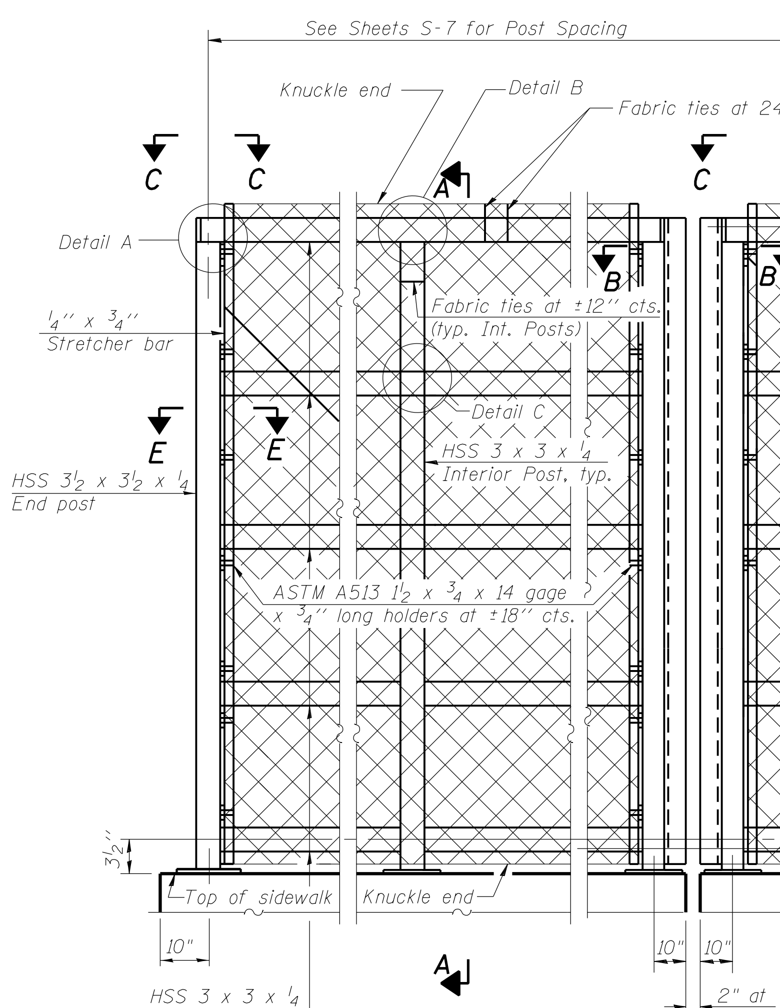
USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

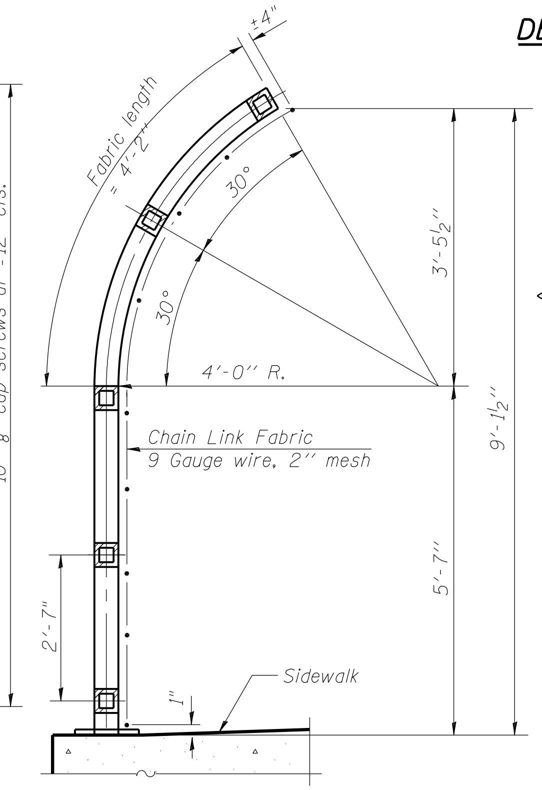
BICYCLE RAILING
STRUCTURE NO. 081-0176

SHEET NO. S-12 OF S-27 SHEETS

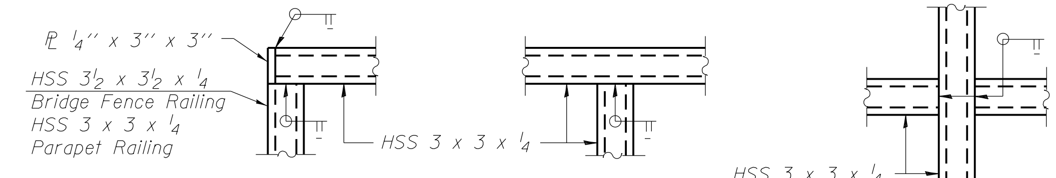
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	311
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



ELEVATION
(Inside Face)

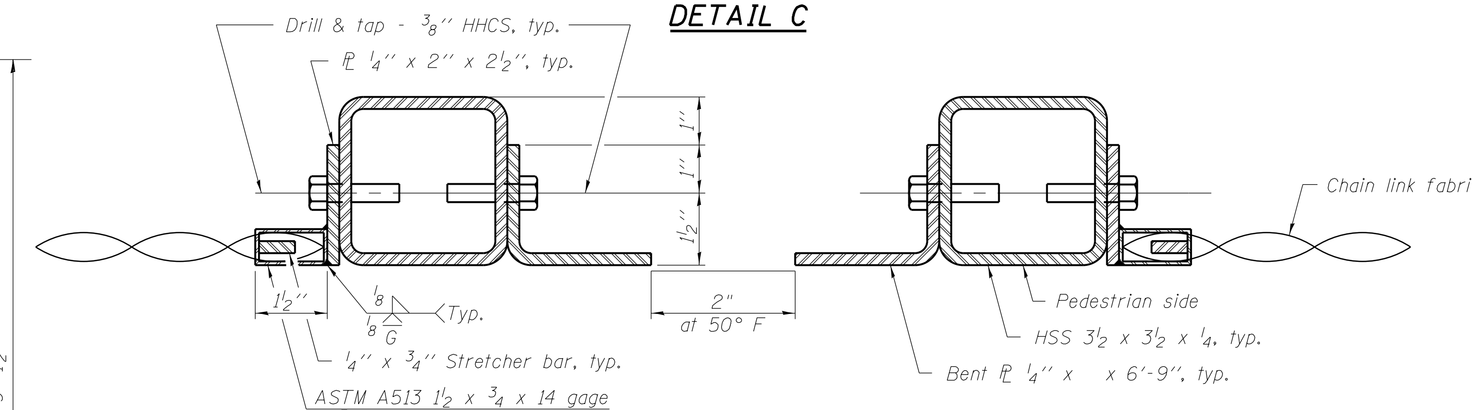


SECTION A-A

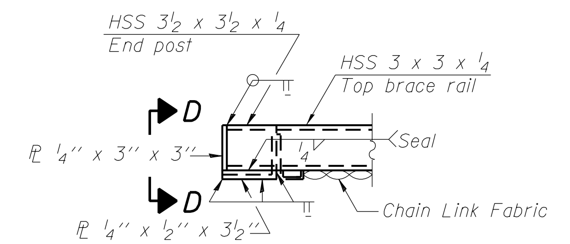


DETAIL A
DETAIL B
DETAIL C

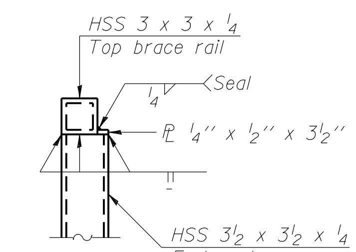
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



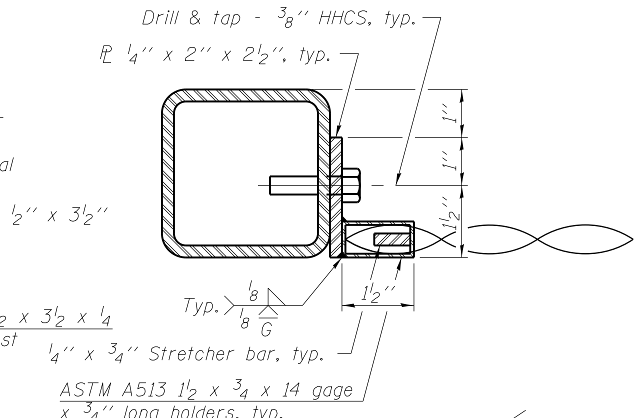
SECTION B-B
(At Expansion Joint)



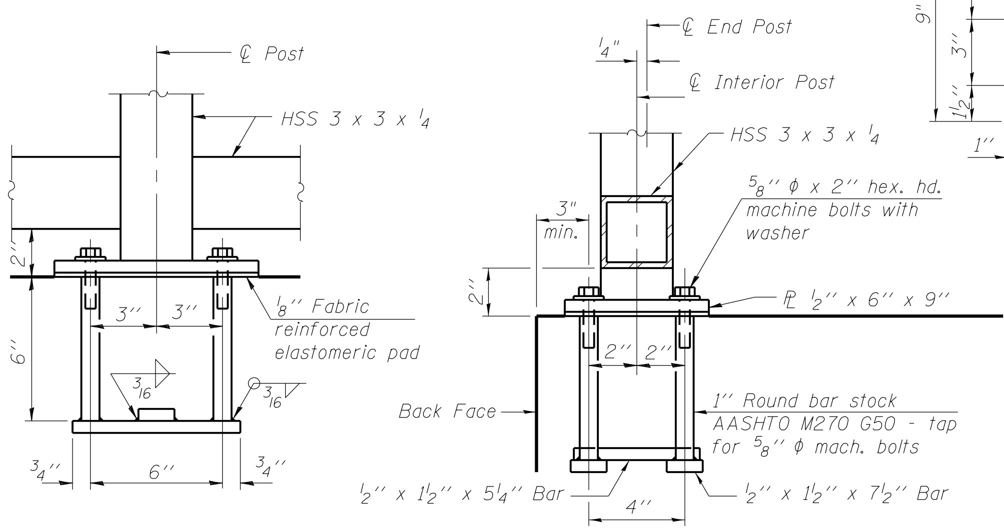
VIEW C-C



VIEW D-D

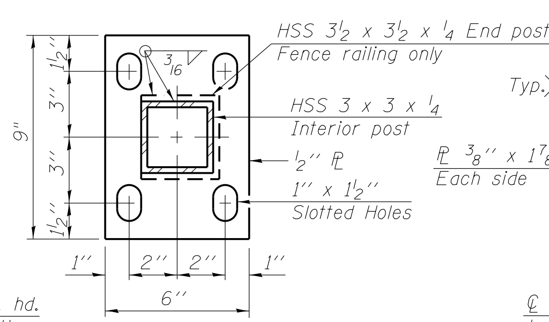


SECTION E-E

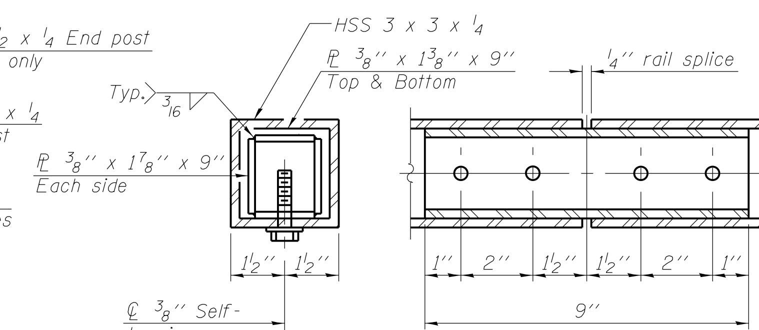


ANCHOR BOLT DETAILS

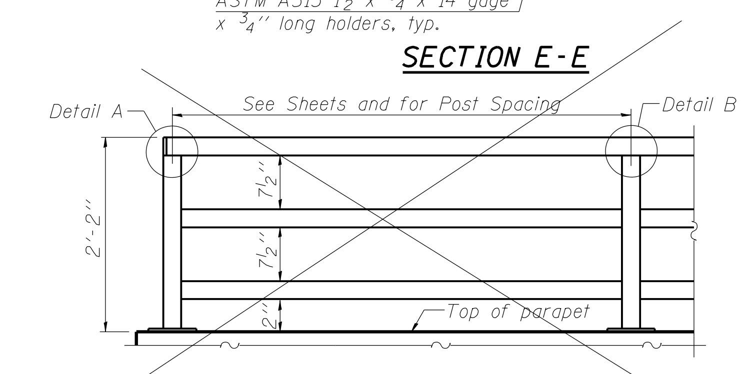
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



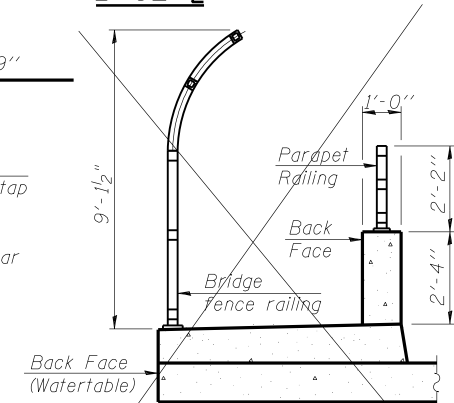
BASE PL



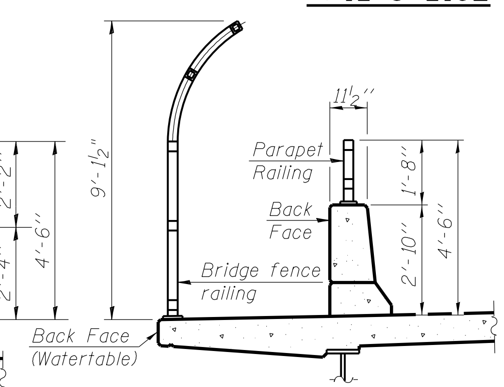
RAIL SPLICE



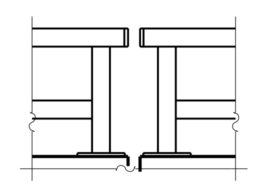
PARAPET RAILING ELEVATION
(Inside Face of Three Element Rail)



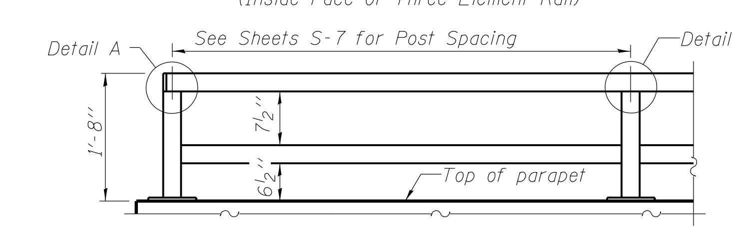
SECTION THRU SIDEWALK



SECTION THRU DECK



PARAPET RAILING ELEVATION AT EXPANSION JOINT
(Two element rail shown - Three element rail similar)



PARAPET RAILING ELEVATION
(Inside face of two element rail)

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing (Sidewalk)	Foot	183
Parapet Railing	Foot	183

R-33

7-1-10 (10'-0" Maximum Post Spacing)

Ciorba Group, Inc. CONSULTING ENGINEERS

USER NAME = mteng	DESIGNED - MHT	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING, SIDEWALK MOUNTED
STRUCTURE NO. 081-0176

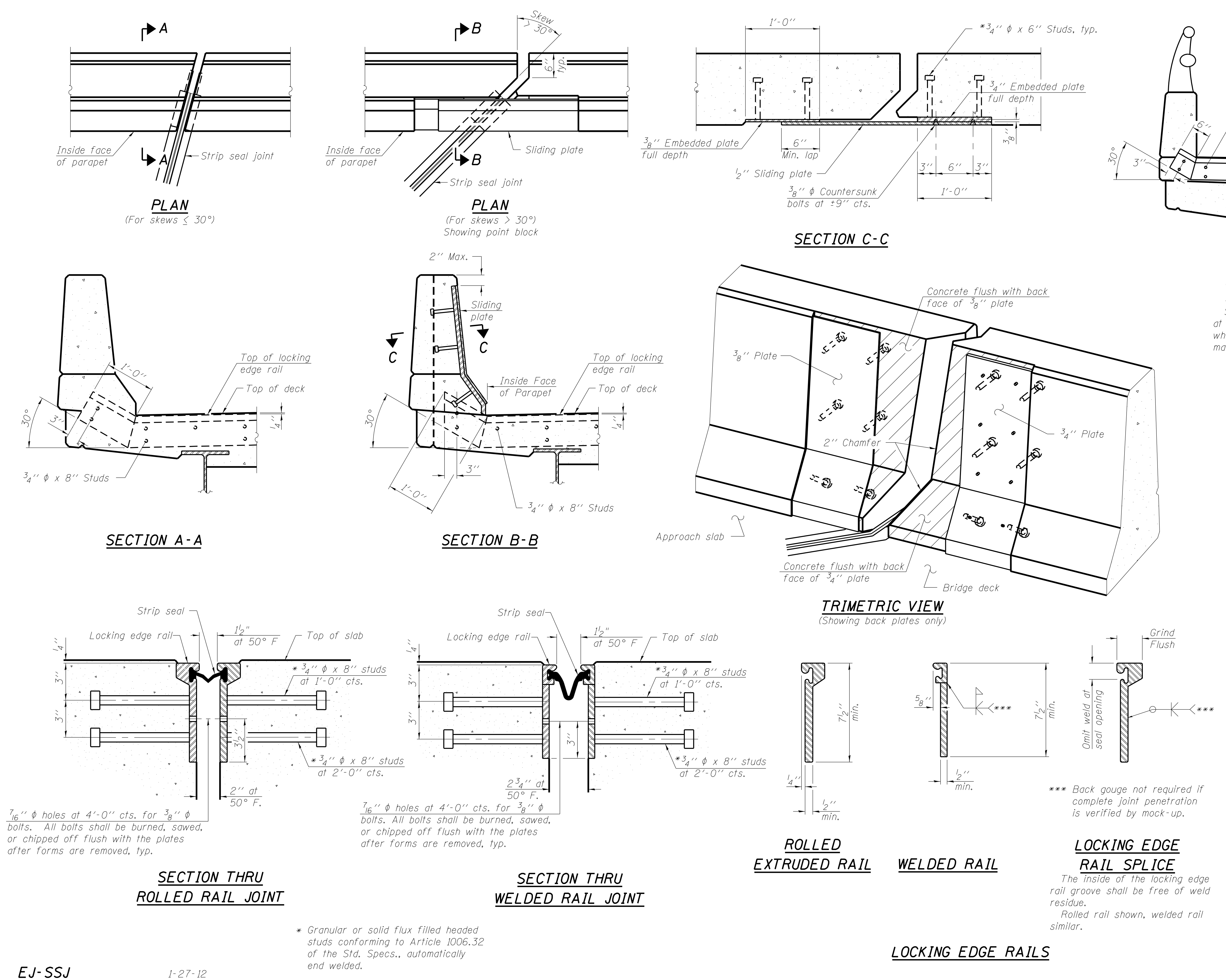
SHEET NO. S-13 OF S-27 SHEETS

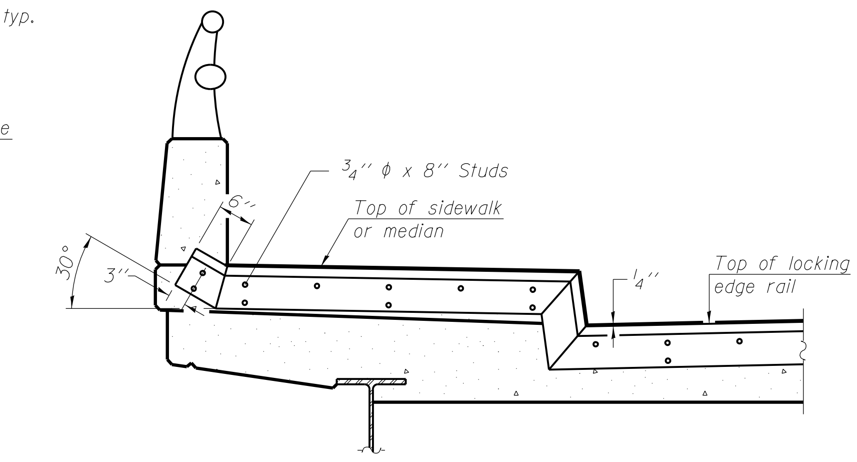
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	312

CONTRACT NO. 64B84

ILLINOIS FED. AID PROJECT

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-0264B84-13-Bridge Fence Railing (Sidewalk Mounted).dgn





TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

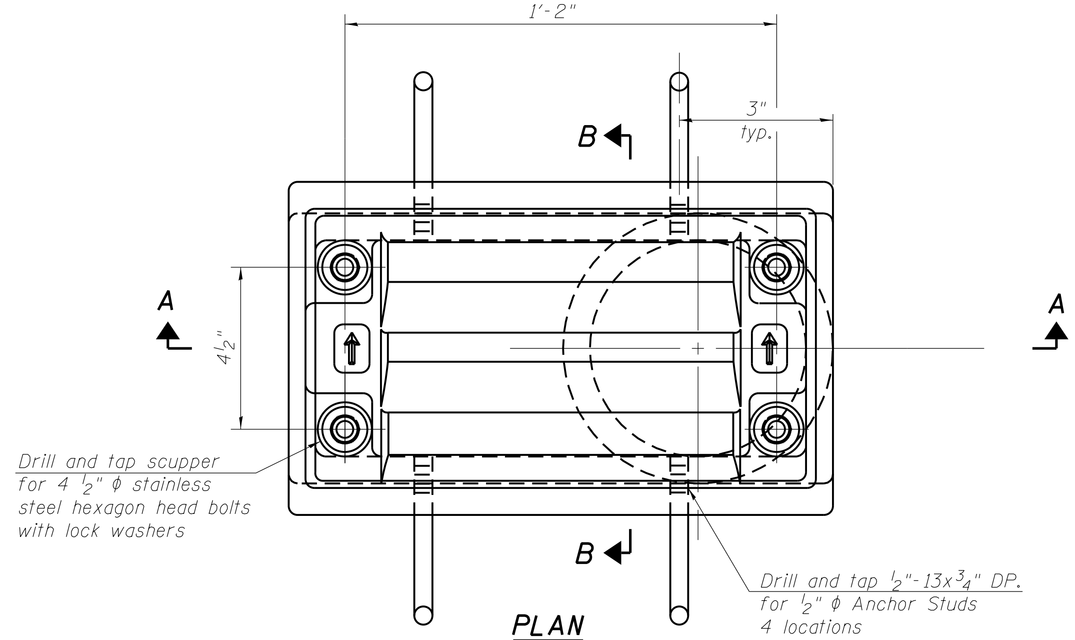
Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

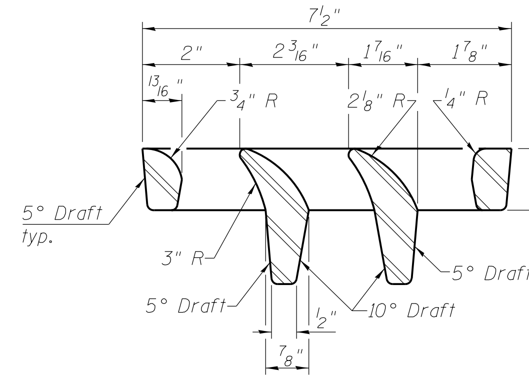
Item	Unit	Total
Preformed Joint Strip Seal	Foot	92

EJ-SSJ 1-27-12

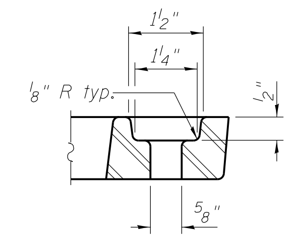
N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-14-Preformed Joint Strip Seal.dgn



PLAN



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

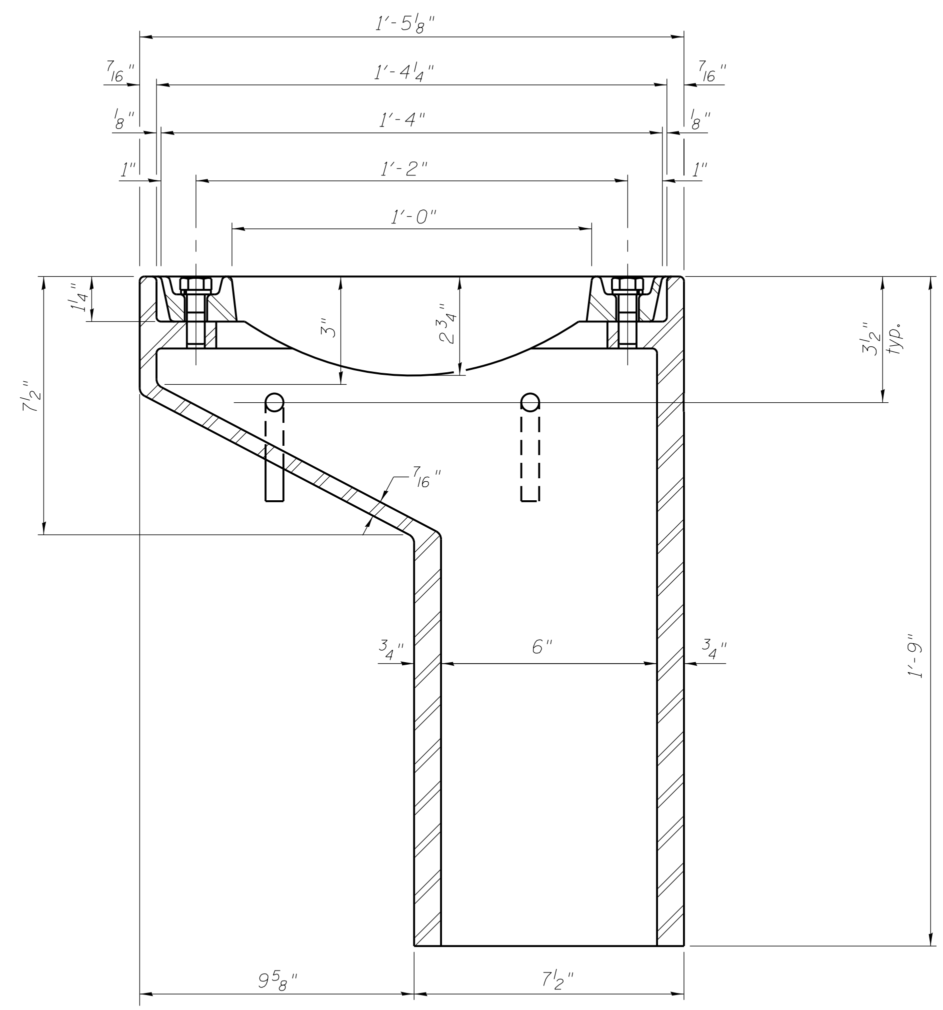
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

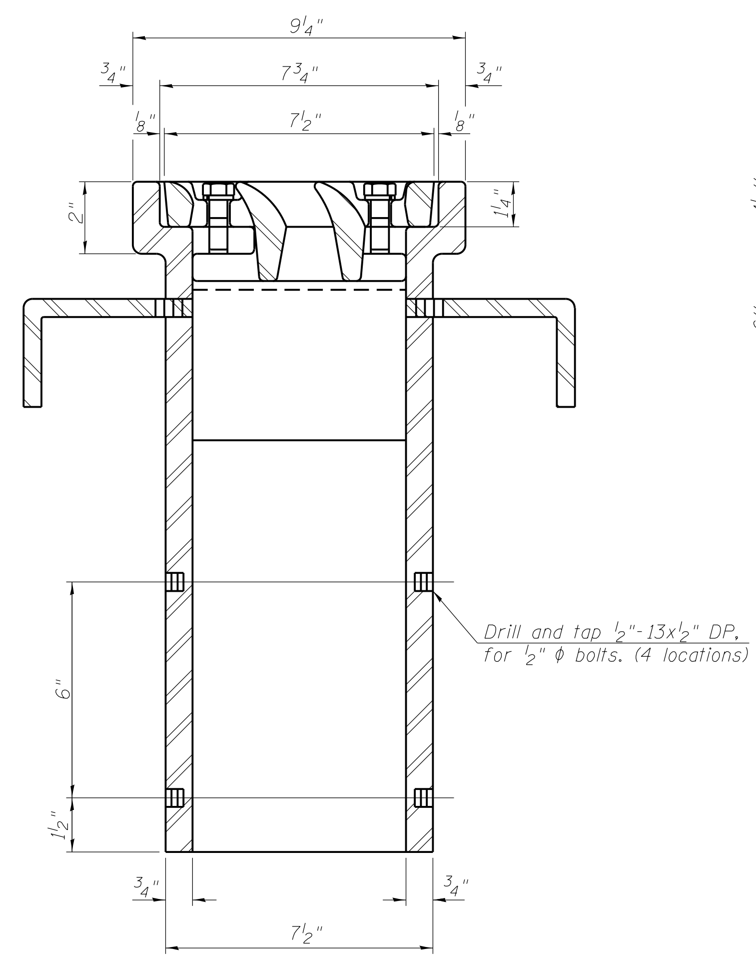
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

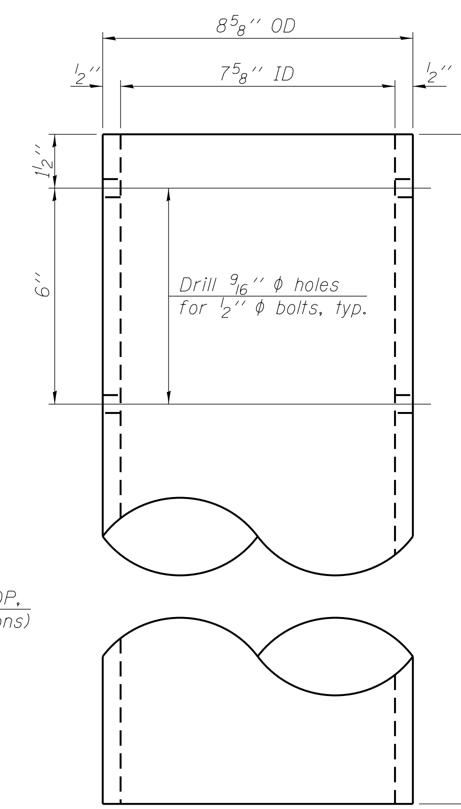


SECTION A-A

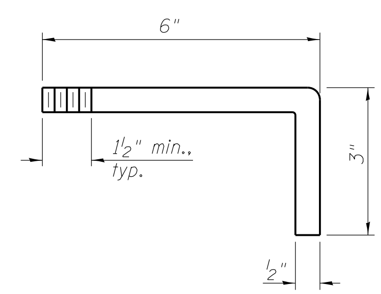
See sheet S-9 for scupper location relative to parapet.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	2

DS-11

7-1-10

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-15-Drainage Scupper DS-11.dgn

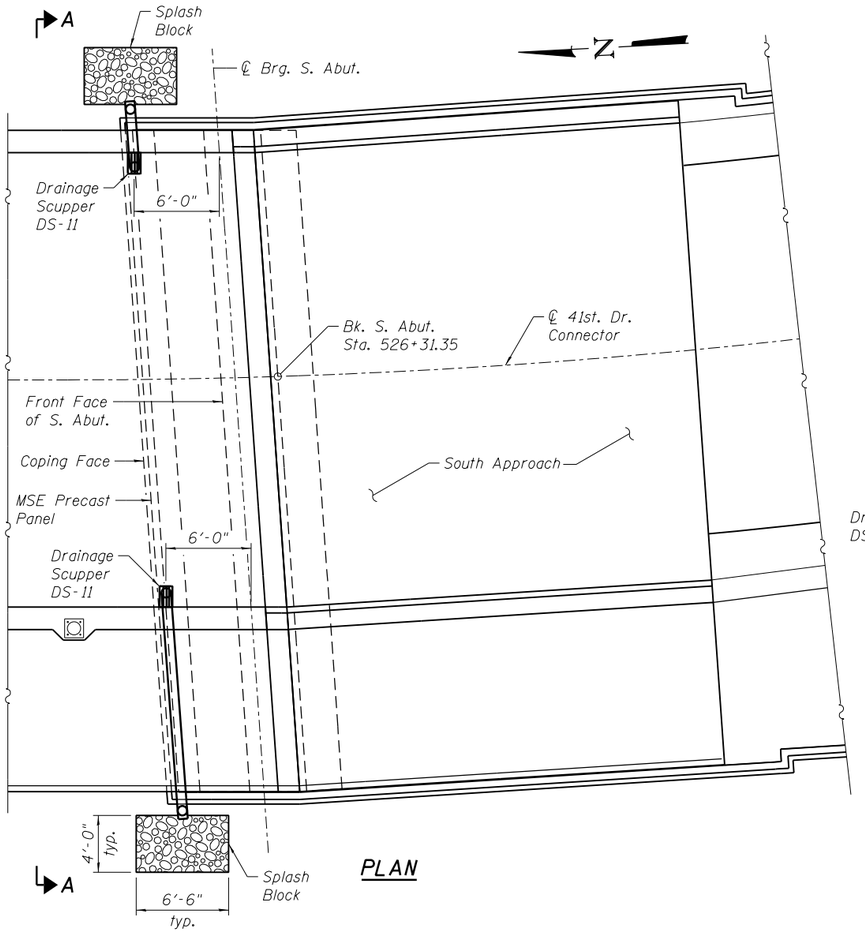
Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - MHT	REVISED -
		CHECKED - BWS	REVISED -
	PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - RD	REVISED -
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

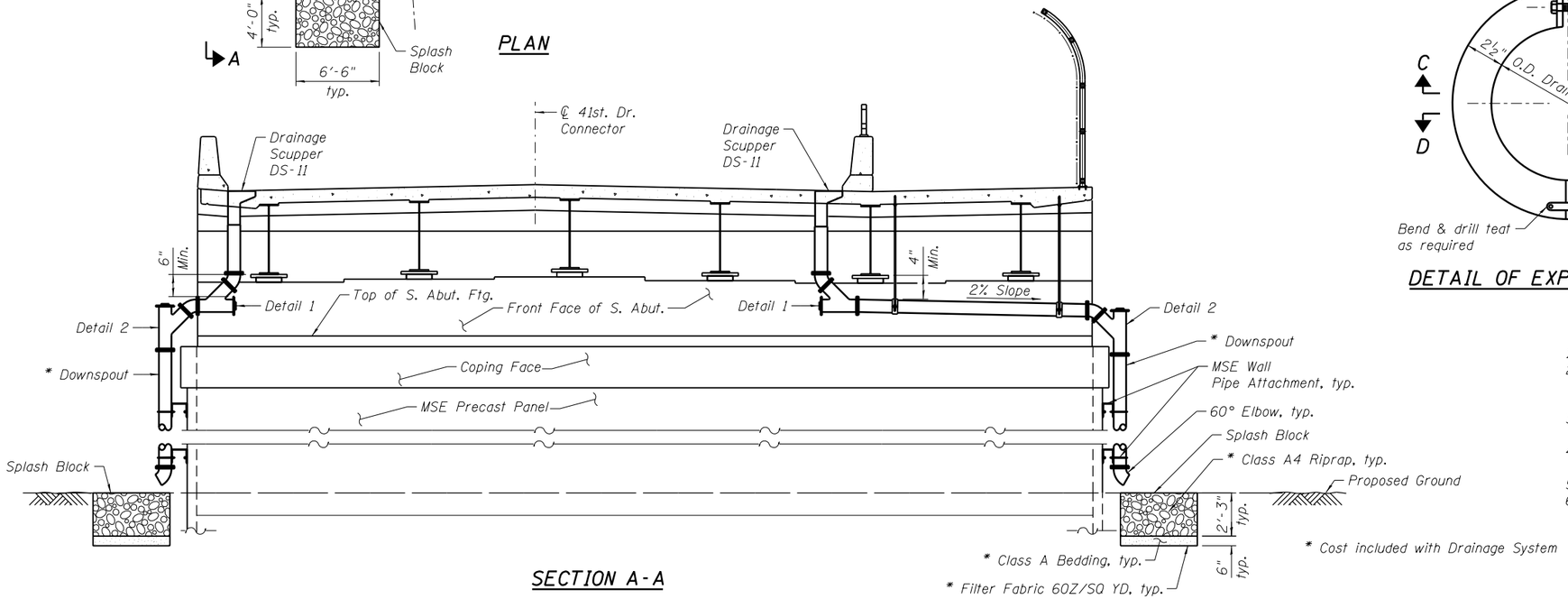
DRAINAGE SCUPPER, DS–11
STRUCTURE NO. 081–0176

SHEET NO. S-15 OF S-27 SHEETS

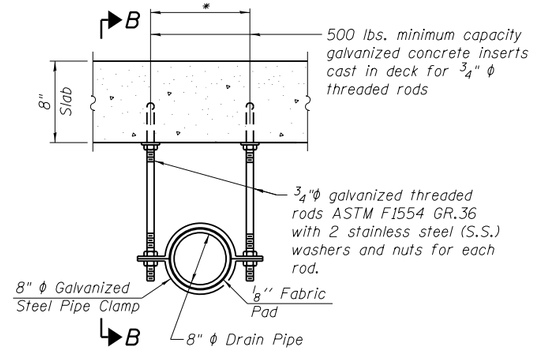
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	314
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



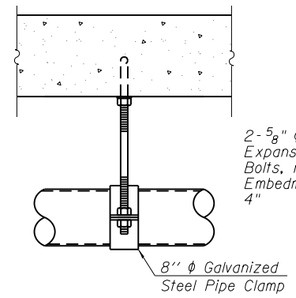
PLAN



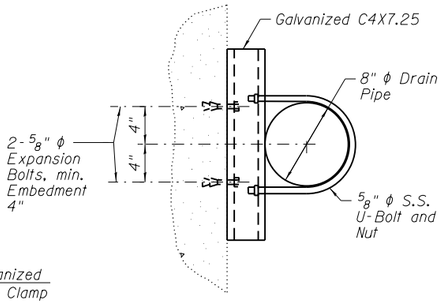
SECTION A-A



COLLECTOR PIPE HANGER DETAIL

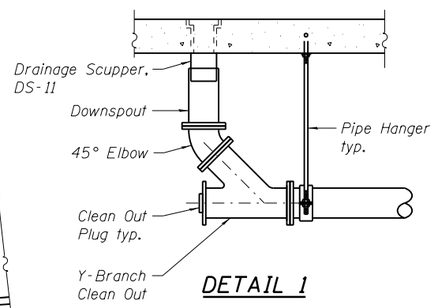


VIEW B-B

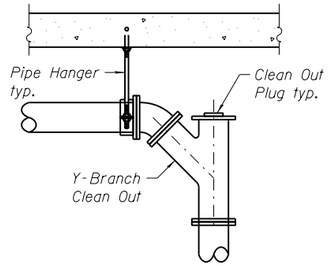


VIEW E-E

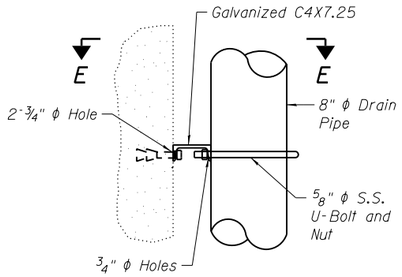
* Dimension as required by Pipe Clamp



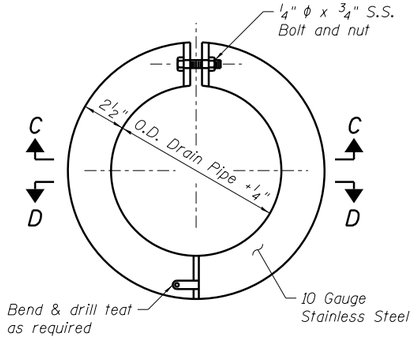
DETAIL 1



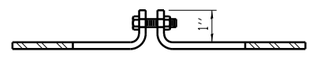
DETAIL 2



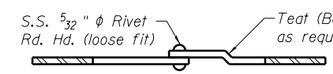
MSE WALL
PIPE ATTACHMENT DETAILS



DETAIL OF EXPANSION COLLAR



SECTION C-C



SECTION D-D

NOTES:

1. Drain pipes and fittings shall be 8" ϕ.
2. Provide structural support from proposed deck slab for drain pipe per manufacturer's recommendation, not to exceed 5' cts. Cost included with "Drainage System".
3. Steel straps, bars and plates shall meet the requirements of AASHTO M270, Grade 36 or 50.
4. All pipes, pipe fittings and brackets needed shall be included with cost of "Drainage System".
5. Work this sheet with Sheet S-15.
6. Color of fiberglass pipe shall be blue.

* Cost included with Drainage System

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Drainage System	L. Sum	1

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4605
Fax 773.775.4514
Email dlk@cgo@clorba.com

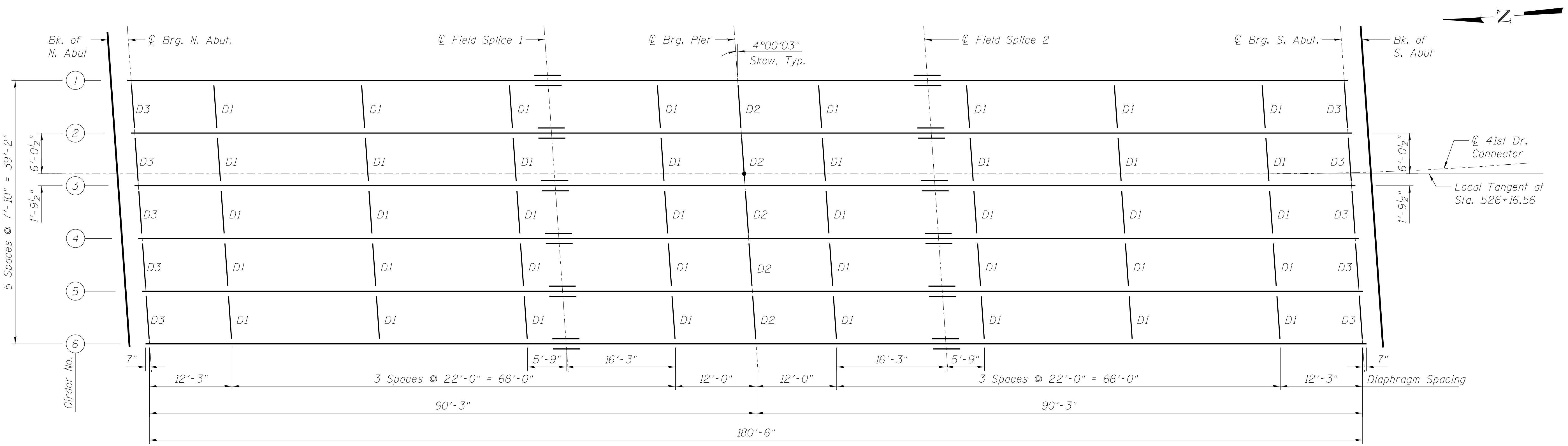
USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 10:8 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

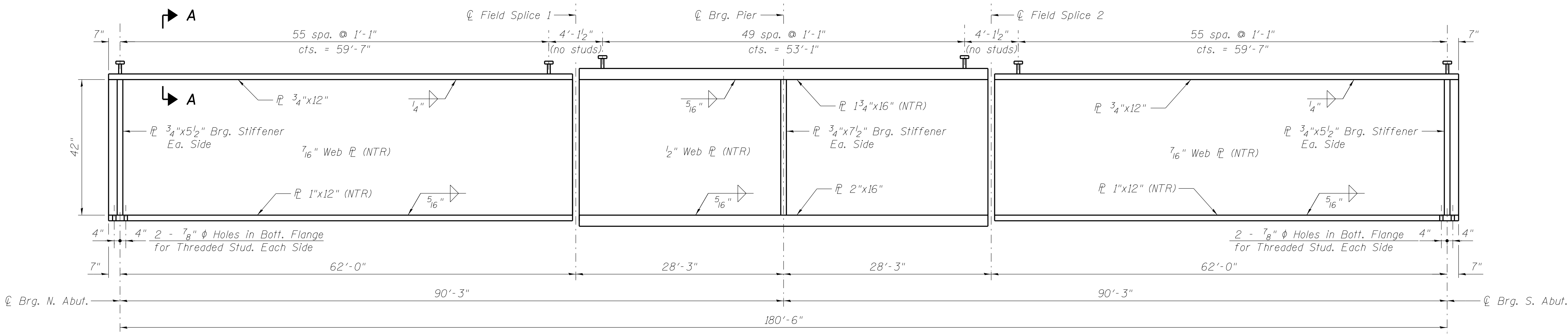
CLOSED DRAINAGE SYSTEM DETAILS
STRUCTURE NO. 081-0176
SHEET NO. S-16 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	315
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

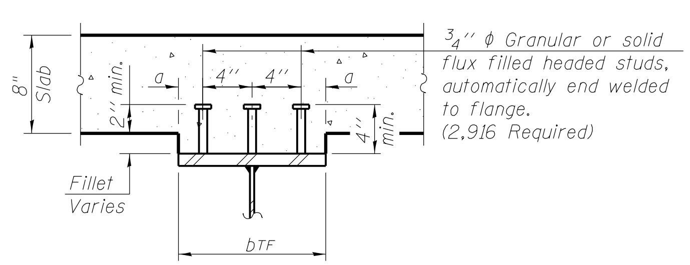
N:\PROJ_\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-16-Closed Drainage System Details.dgn



PLAN



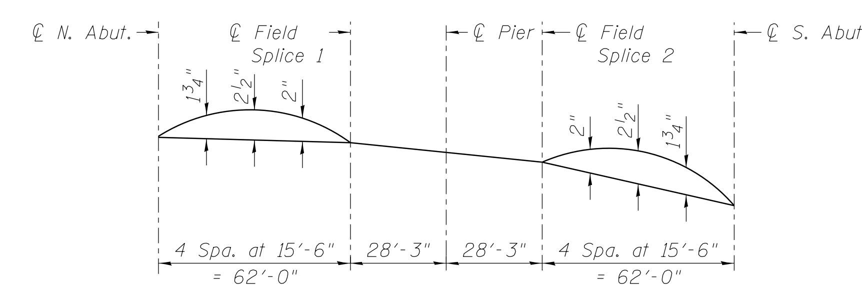
GIRDER ELEVATION



SECTION A-A

EDGE DISTANCES FOR SHEAR STUDS

b_{TF}	a
12"	2"
16"	4"



CAMBER DIAGRAM

NOTES:

1. All plates of girder, including splice plates and bearing stiffeners shall be AASHTO M 270, Grade 50.
2. All diaphragms, angles and connecting plates, may be AASHTO M 270, Grade 36.
3. All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
4. Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
5. See sheet S-19 for bearing details.

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-17-Framing Plan & Elevation.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - APD	REVISED -	
PLOT SCALE = 16.0 ' / in.	DRAWN - SG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND BEAM ELEVATION
STRUCTURE NO. 081–0176

SHEET NO. S-17 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	316

CONTRACT NO. 64B84

ILLINOIS FED. AID PROJECT

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in⁴)	12,252	31,888	12,252
$I_c(n)$	(in⁴)	32,816	-	32,816
$I_c(3n)$	(in⁴)	24,664	-	24,664
$I_c(cr)$	(in⁴)	-	36,067	-
S_s	(in³)	603	1,458	603
$S_c(n)$	(in³)	842	-	842
$S_c(3n)$	(in³)	778	-	778
$S_c(cr)$	(in³)	-	1,522	-
DC1	(k/')	1.024	1.194	1.024
M_{DC1}	('k)	453	1,357	453
DC2	(k/')	0.17	0.17	0.17
M_{DC2}	('k)	83	212	83
DW	(k/')	0.27	0.27	0.27
M_{DW}	('k)	130	328	130
M_{LL+IM}	('k)	1,164	1,540	1,164
M_u (Strength I)	('k)	2,902	5,148	2,902
$\phi_f M_n$	('k)	4,237	7,087	4,237
f_s DC1	(ksi)	9.0	11.2	9.0
f_s DC2	(ksi)	1.3	1.7	1.3
f_s DW	(ksi)	2.0	2.6	2.0
f_s (LL+IM)	(ksi)	16.6	12.1	16.6
f_s (Service II)	(ksi)	33.9	31.2	33.9
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	41.2	-
$\phi_f F_n$	(ksi)	-	-	-
V_f	(k)	29.9	-	29.9

INTERIOR GIRDER REACTION TABLE				
		N. Abut.	Pier	S. Abut.
R_{DC1}	(k)	31.2	127.7	31.2
R_{DC2}	(k)	5.4	20.2	5.4
R_{DW}	(k)	8.4	31.4	8.4
R_{LL+IM}	(k)	87.4	163.4	87.4
R_{Total}	(k)	132.5	342.7	132.5

TOP OF WEB ELEVATIONS

For Fabrication only

	℄ Brg. N. Abut.	℄ Field Splice 1	℄ Pier	℄ Field Splice 2	℄ Brg. S. Abut.
Girder 1	595.01	594.72	594.29	593.86	592.28
Girder 2	595.17	594.87	594.45	594.02	592.43
Girder 3	595.26	594.96	594.53	594.09	592.50
Girder 4	595.10	594.79	594.35	593.93	592.32
Girder 5	594.94	594.62	594.18	593.74	592.15
Girder 6	595.10	594.77	594.33	593.86	592.30

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) ((kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25(M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{LL+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
$M_{LL+IM} / S_c(n)$ or $M_{LL+IM} / S_c(cr)$ as applicable.

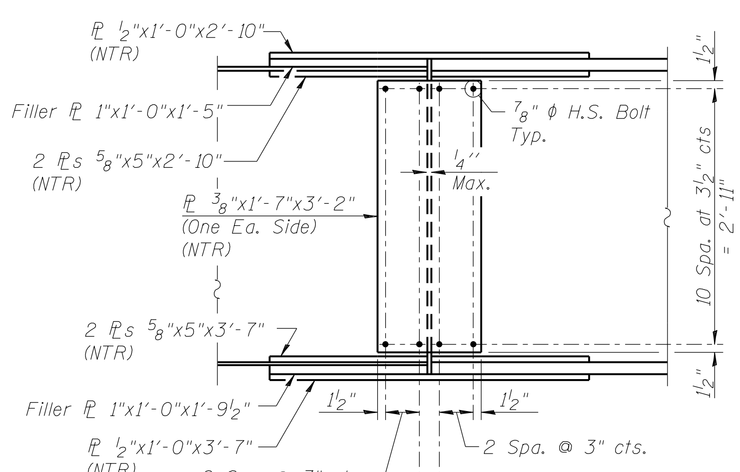
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(LL+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25(f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_{sLL+IM}$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

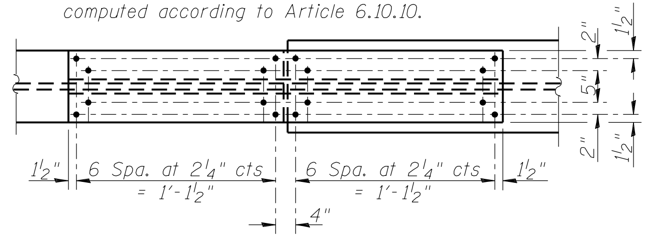
V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.



ELEVATION

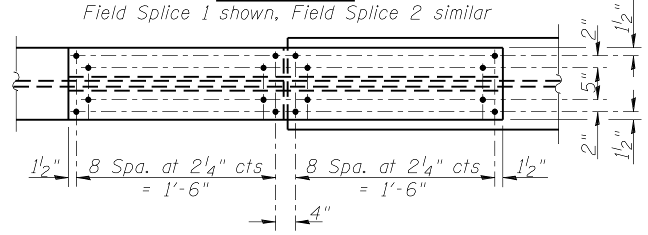
FIELD SPLICE DETAIL

(Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.)



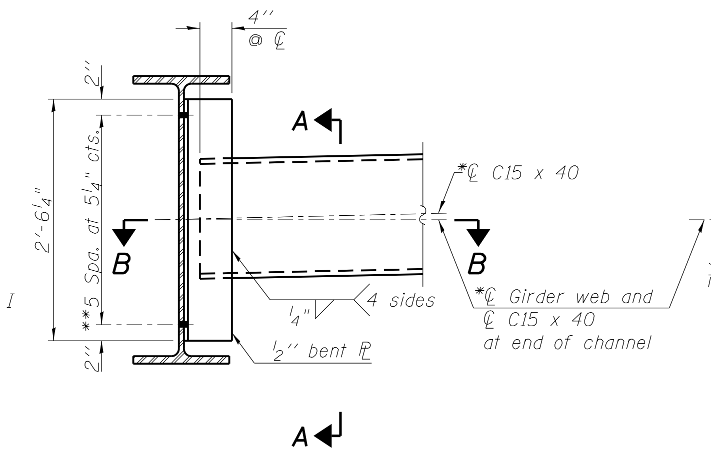
TOP PLAN

Field Splice 1 shown, Field Splice 2 similar

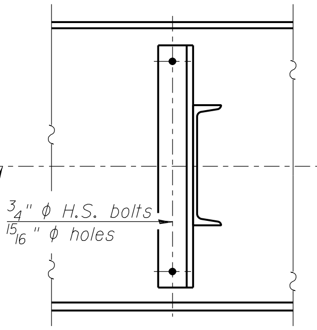


BOTTOM PLAN

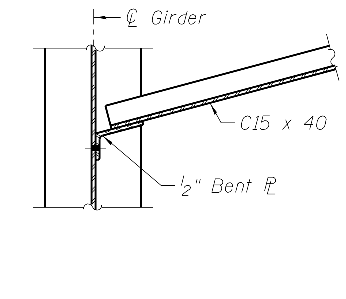
Field Splice 1 shown, Field Splice 2 similar



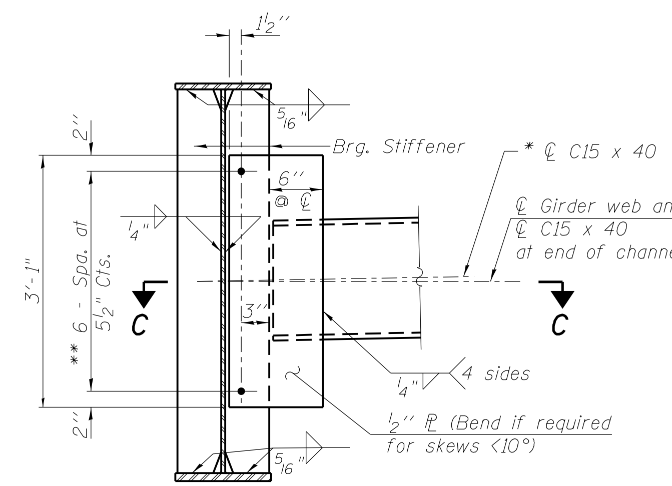
INTERIOR DIAPHRAGM-D1



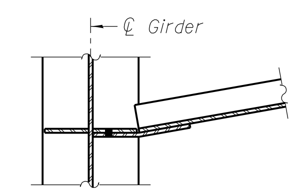
SECTION A-A



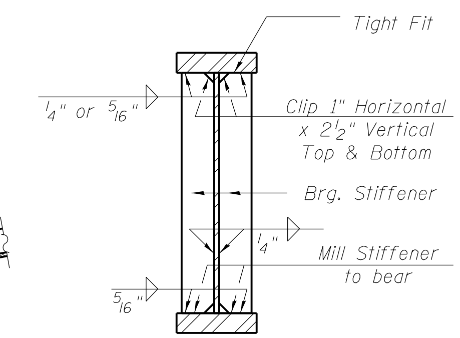
SECTION B-B



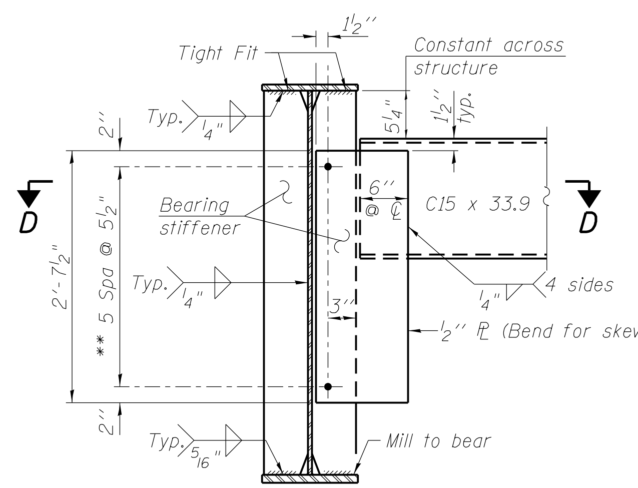
INTERIOR DIAPHRAGM AT PIER-D2



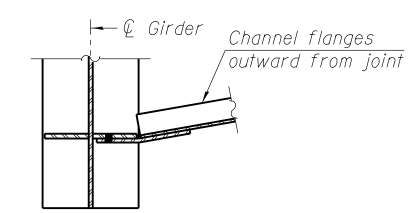
SECTION C-C



SECTION AT PIER AND ABUTMENTS



END DIAPHRAGM AT ABUTMENTS - D3



SECTION D-D

Note:
Two hardened washers required for each set of oversized holes.
* Alternate channel C15x50, is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
The alternate, if utilized, shall be provided at no additional cost to the Department.
** ¾" ϕ HS bolts, 15/16" ϕ holes

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-18-Structural Steel Details.dgn

Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656

USER NAME = mteng	DESIGNED - SMY	REVISED -
	CHECKED - APD	REVISED -
PLOT SCALE = 0:2 ':' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

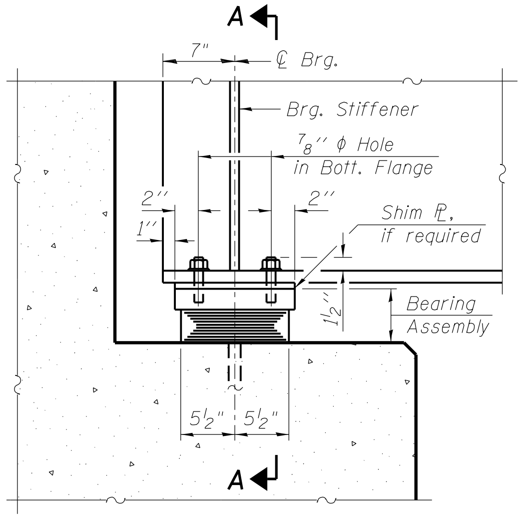
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 081-0176

SHEET NO. S-18 OF S-27 SHEETS

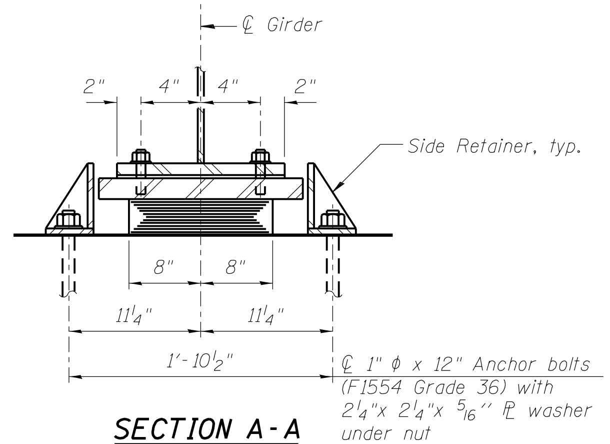
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	317

CONTRACT NO. 64B84

ILLINOIS FED. AID PROJECT



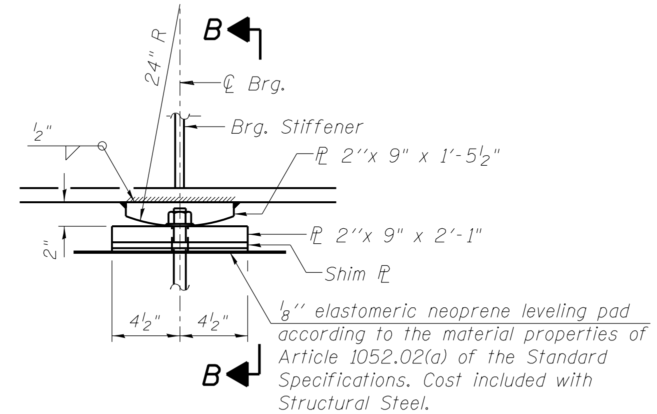
ELEVATION AT ABUT.



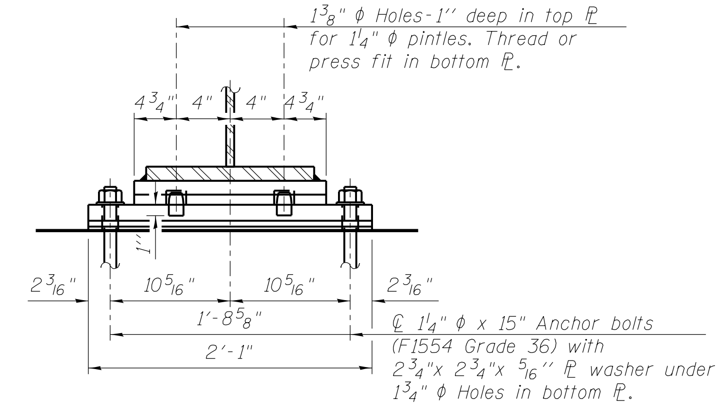
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

(Abutment Bearings 12 Thus.)



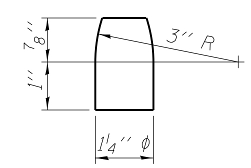
ELEVATION AT PIER



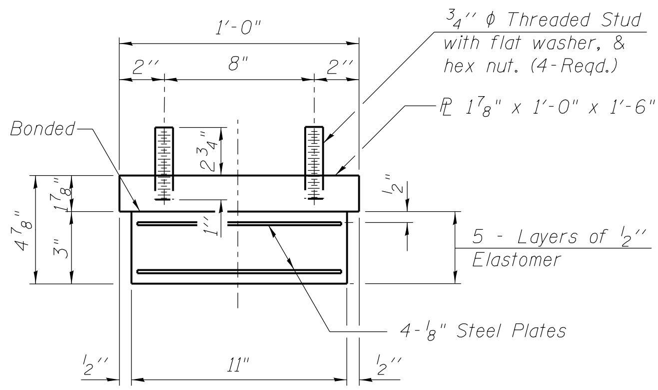
SECTION B-B

FIXED BEARING

(Pier Bearings 6 Thus.)



PINTLE



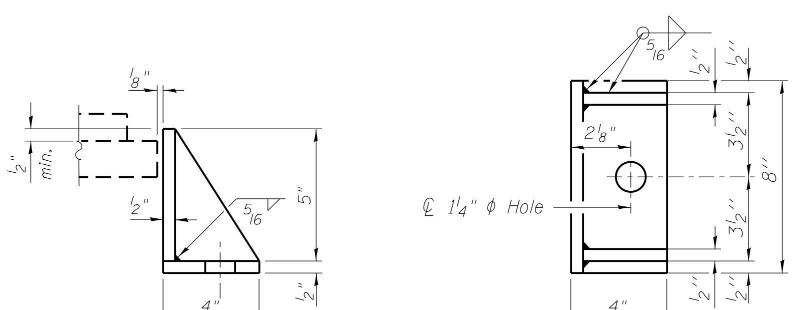
BEARING ASSEMBLY

(Abutment Bearings)

Note:
Shim plates shall not be placed under Bearing Assembly.

NOTES:

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
3. Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
4. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
5. Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
6. Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 1"	Each	24
Anchor Bolts, 1¼"	Each	12

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-19-Bearing Details.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402, Chicago, Illinois 60656
Tel 773.775.4009
Fax 773.775.4014
Email chicago@ciorba.com

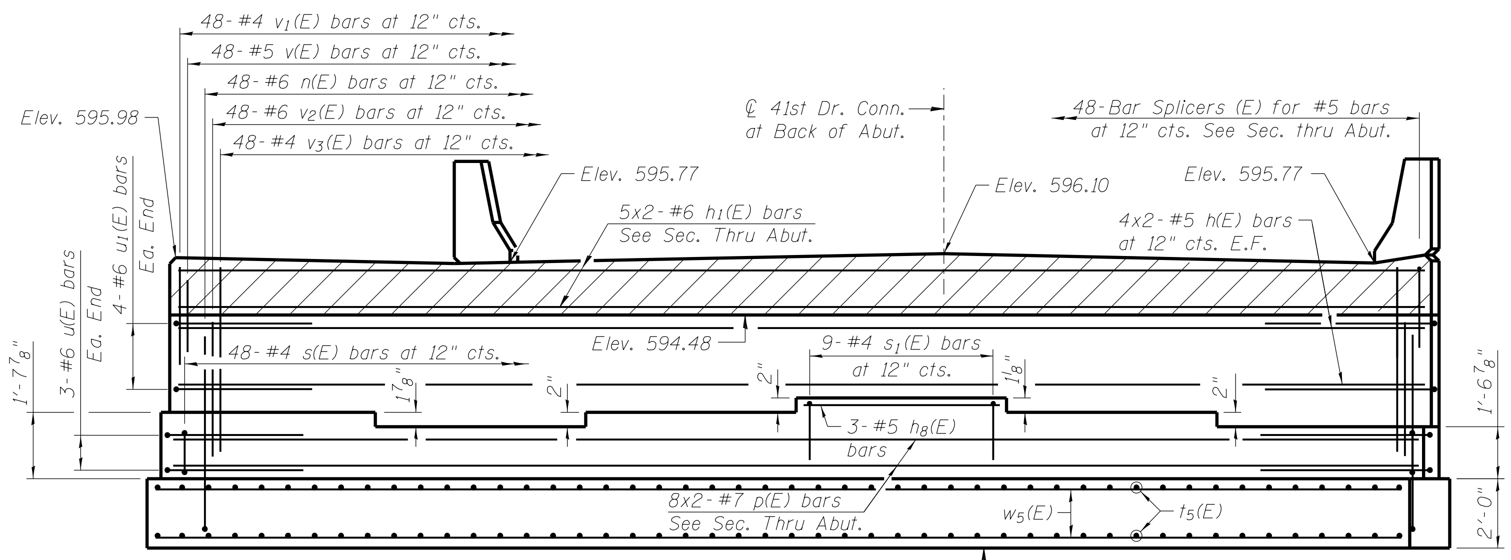
USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - MHT	REVISED -	
PLOT SCALE = 0.2 ' / in.	DRAWN - SMY	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - MHT	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

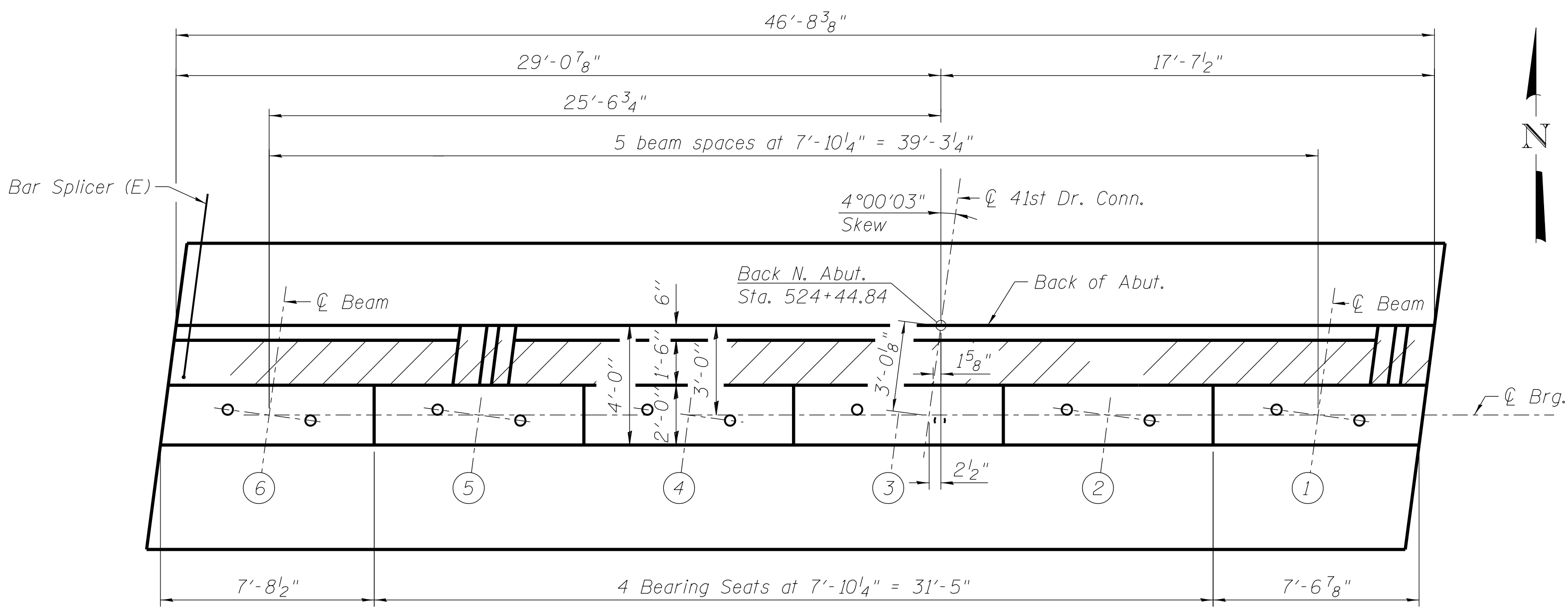
BEARING DETAILS
STRUCTURE NO. 081-0176

SHEET NO. S-19 OF S-27 SHEETS

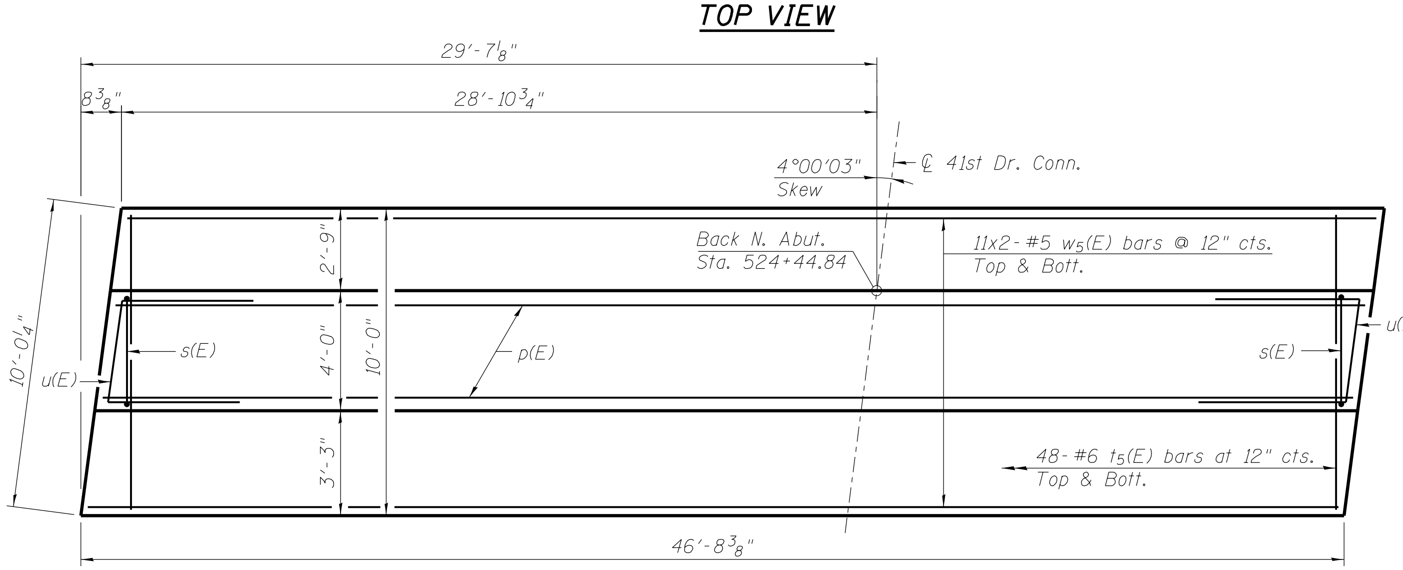
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	318
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



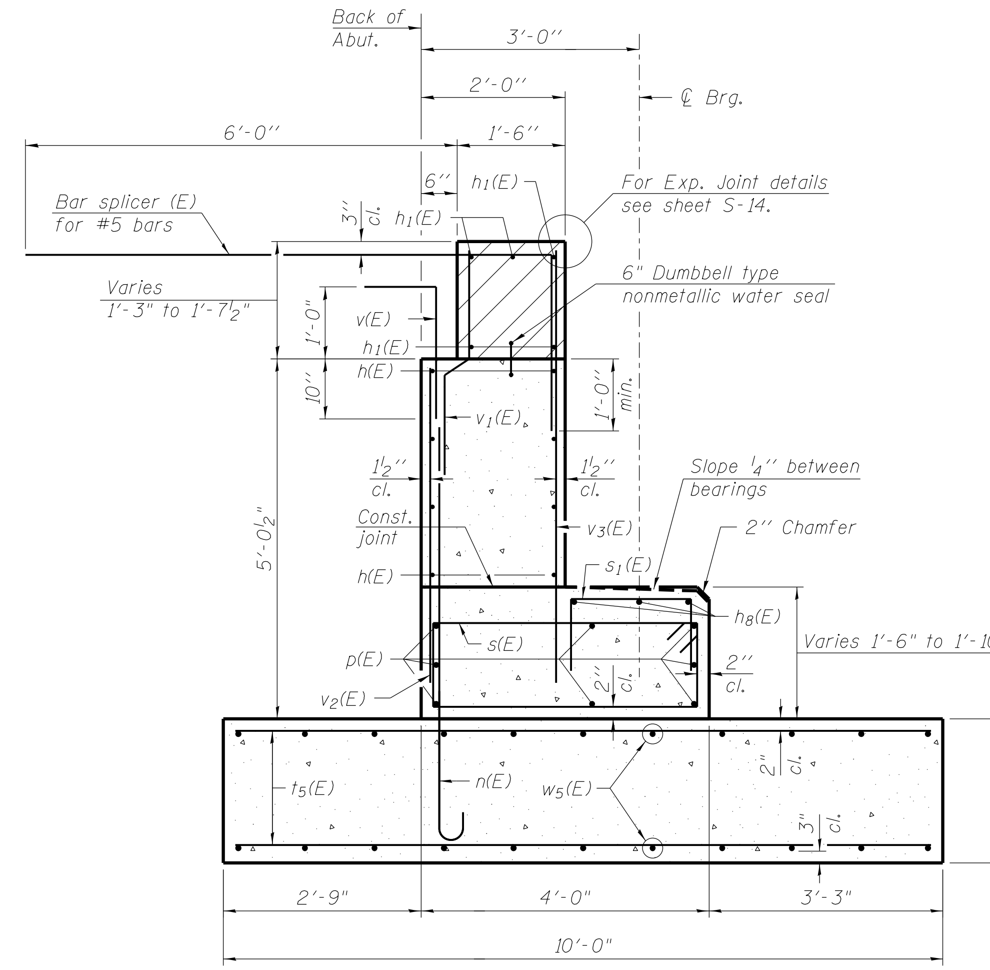
ELEVATION
(Looking North)



TOP VIEW

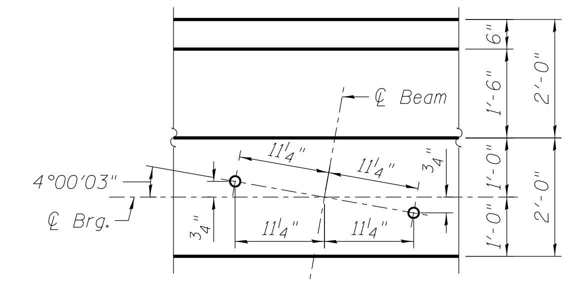


PLAN-BEARING SEAT & FOOTING



SEC. THRU ABUT.

Maximum Applied Service Bearing Pressure: Qmax = 2,420 psf



ANCHOR BOLT LOCATION DETAIL

ABUTMENT BEARING SEAT ELEVATION

①	②	③	④	⑤	⑥
591.01	591.18	591.27	591.10	590.94	591.09

MIN. BAR LAP

#5 = 3'-8"
#6 = 4'-5"
#7 = 5'-10"

NOTES:

1. Pour steps monolithically with bearing seat.
2. For details of Bar Splicers, see sheet S-23.
3. Bars indicated 4x2-#6 etc. indicates 4 lines of bars with 2 lengths per line.
4. Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
5. Space reinforcement in bearing seat to miss anchor bolts.
6. Concrete Sealer to be applied to all exposed surfaces of backwall, bearing seats, front face of bearing seats and footing.
7. For bar bending details and Bill of Material, see Sheet S-20.

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-0264B84-20-North Abutment.dgn

Cilorba Group, Inc.
CONSULTING ENGINEERS

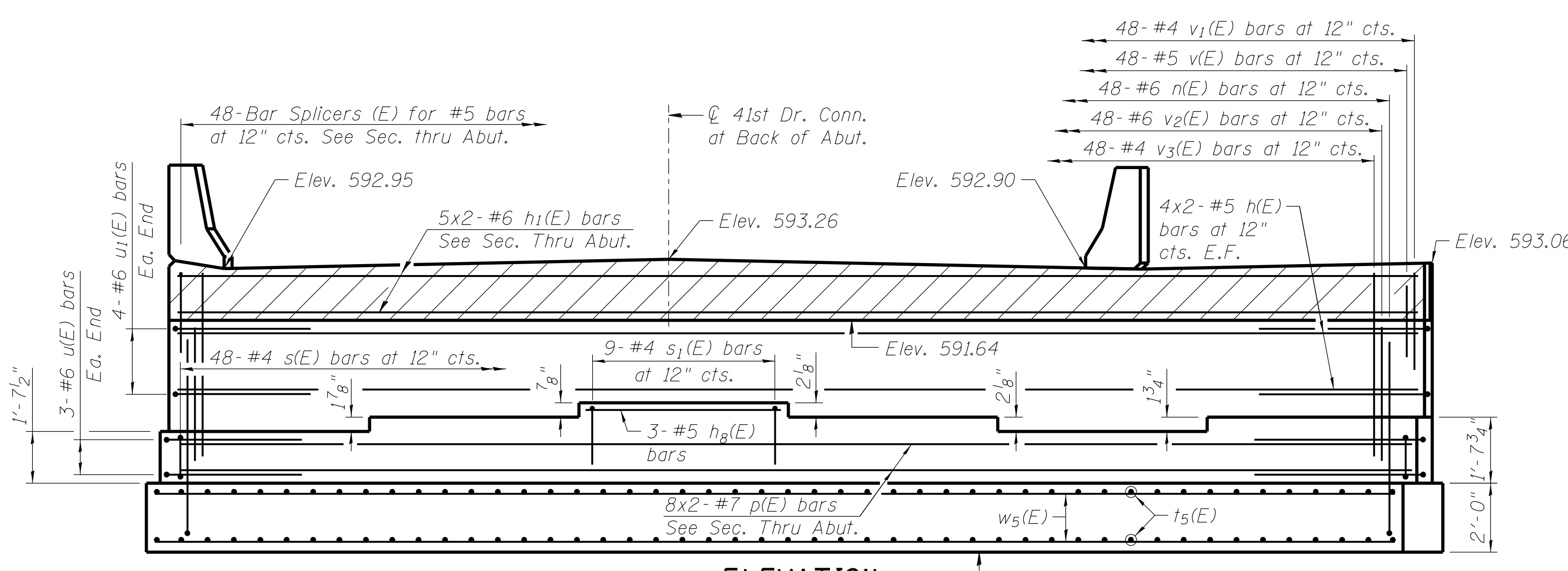
USER NAME = mteng	DESIGNED - SMY	REVISED -
	CHECKED - APD	REVISED -
PLOT SCALE = 0:2.00 ' / in.	DRAWN - SMY	REVISED -
PLOT DATE = 3/11/2013	CHECKED - APD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

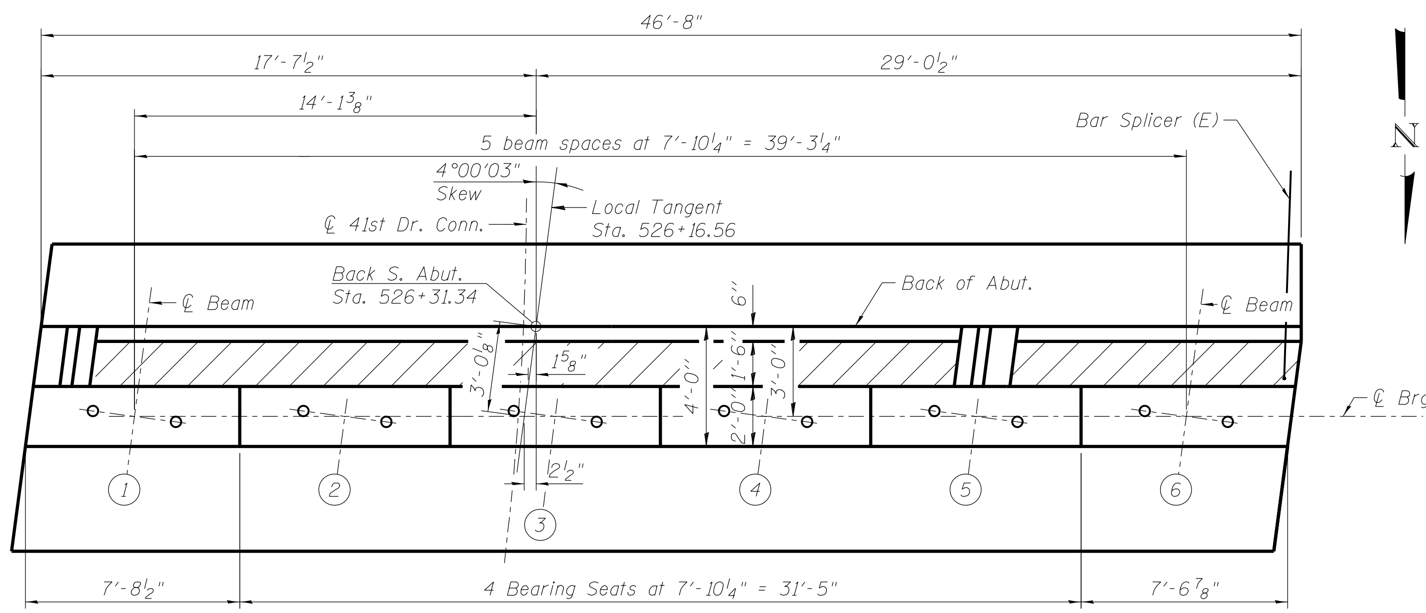
NORTH ABUTMENT
STRUCTURE NO. 081-0176
SHEET NO. S-20 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	319

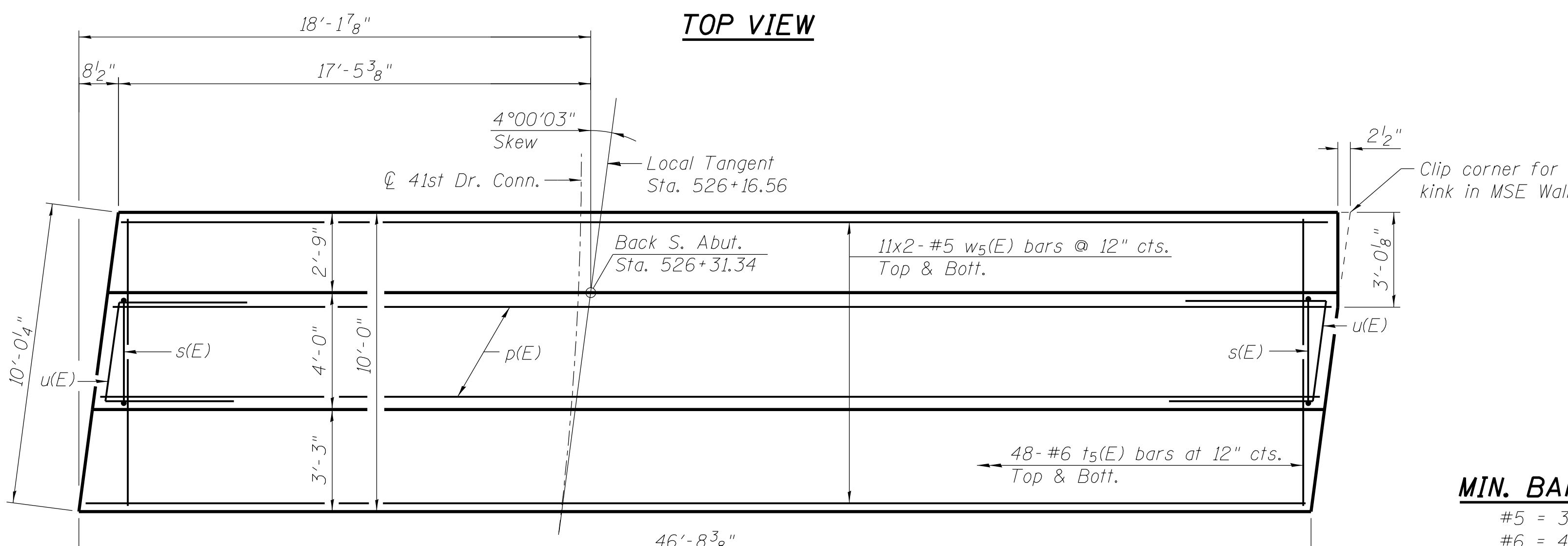
CONTRACT NO. 64B84
ILLINOIS FED. AID PROJECT



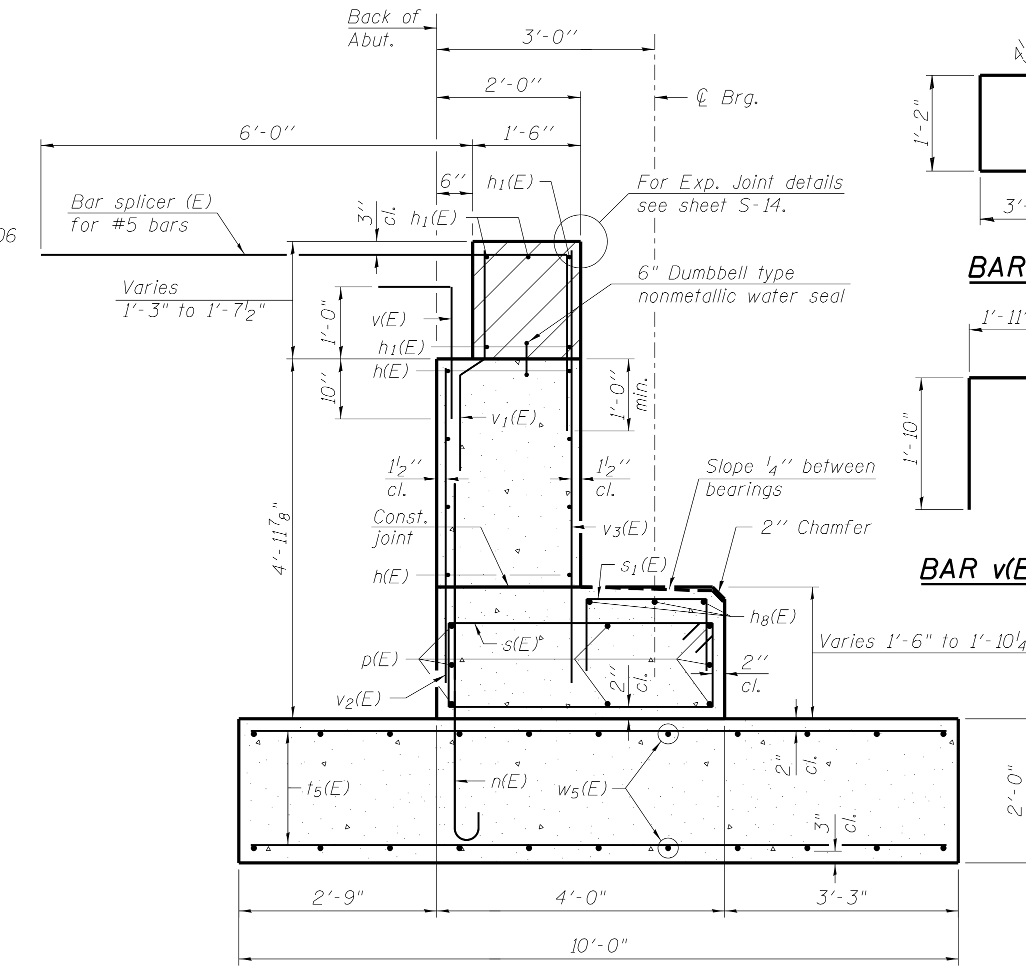
ELEVATION
(Looking South)



TOP VIEW

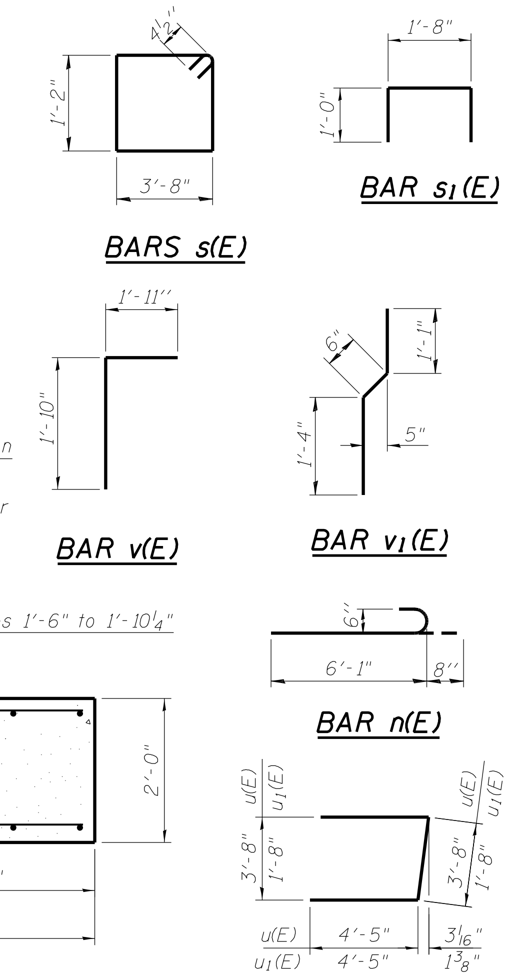


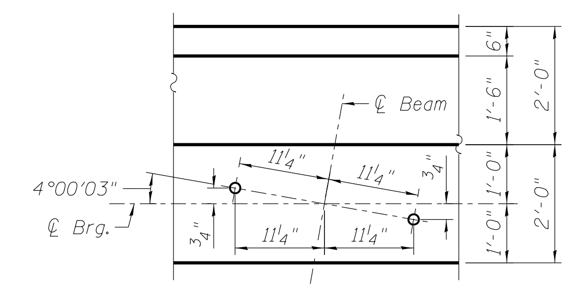
PLAN-BEARING SEAT & FOOTING



SEC. THRU ABUT.

Maximum Applied Service Bearing Pressure: Qmax = 2,420 psf





ANCHOR BOLT LOCATION DETAIL

ABUTMENT BEARING SEAT ELEVATION

①	②	③	④	⑤	⑥
588.28	588.43	588.50	588.33	588.15	588.30

MIN. BAR LAP

#5 = 3'-8"
#6 = 4'-5"
#7 = 5'-10"

NOTES:

1. Pour steps monolithically with bearing seat.
2. For details of Bar Splicers, see sheet S-23.
3. Bars indicated 4x2-#6 etc. indicates 4 lines of bars with 2 lengths per line.
4. Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
5. Space reinforcement in bearing seat to miss anchor bolts.
6. Concrete Sealer to be applied to all exposed surfaces of backwall, bearing seats, front face of bearing seats and footing.

ABUTMENT BILL OF MATERIAL
(for both Abutments)

Bar	No.	Size	Length	Shape
h(E)	32	# 5	25'-1"	——
h_1(E)	20	# 6	25'-1"	——
h_8(E)	6	# 5	7'-6"	——
n(E)	96	# 6	6'-9"	hooked
p(E)	32	# 7	26'-2"	——
s(E)	96	# 4	10'-5"	closed
s_1(E)	18	# 4	3'-8"	U
t_5(E)	192	# 6	9'-8"	——
u(E)	12	# 6	12'-6"	bent
u_1(E)	16	# 6	10'-6"	bent
v(E)	96	# 5	3'-9"	L
v_1(E)	96	# 4	2'-11"	offset
v_2(E)	96	# 6	4'-5"	——
v_3(E)	96	# 4	5'-8"	——
w_5(E)	88	# 5	25'-1"	——
Concrete Structures			Cu. Yd.	115.5
Reinforcement Bars, Epoxy Coated			Pound	12,170
Concrete Sealer			Sq. Ft.	1,143

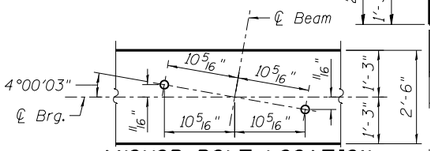
N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-0264B84-21-South Abutment.dgn

Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - SMY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOUTH ABUTMENT STRUCTURE NO. 081-0176
		CHECKED - APD	REVISED -		
	PLOT SCALE = 0:2.00 ':' / in.	DRAWN - SMY	REVISED -		
	PLOT DATE = 3/11/2013	CHECKED - APD	REVISED -		SHEET NO. S-21 OF S-27 SHEETS

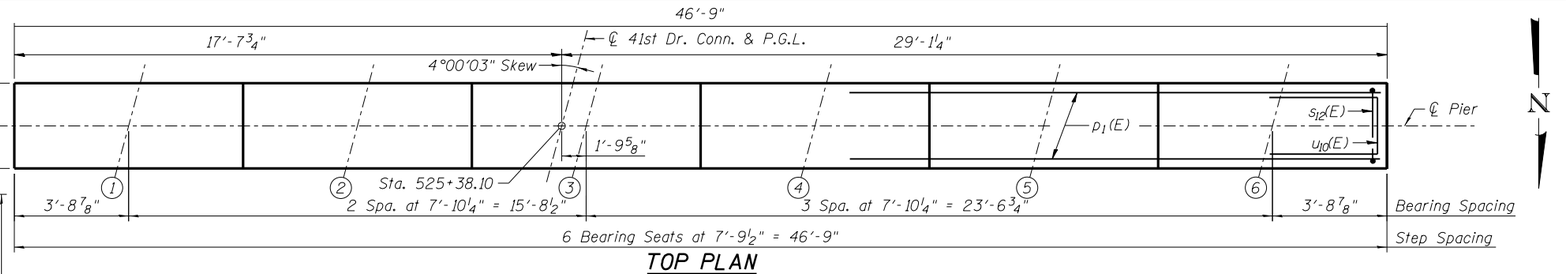
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	320
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet S-24.

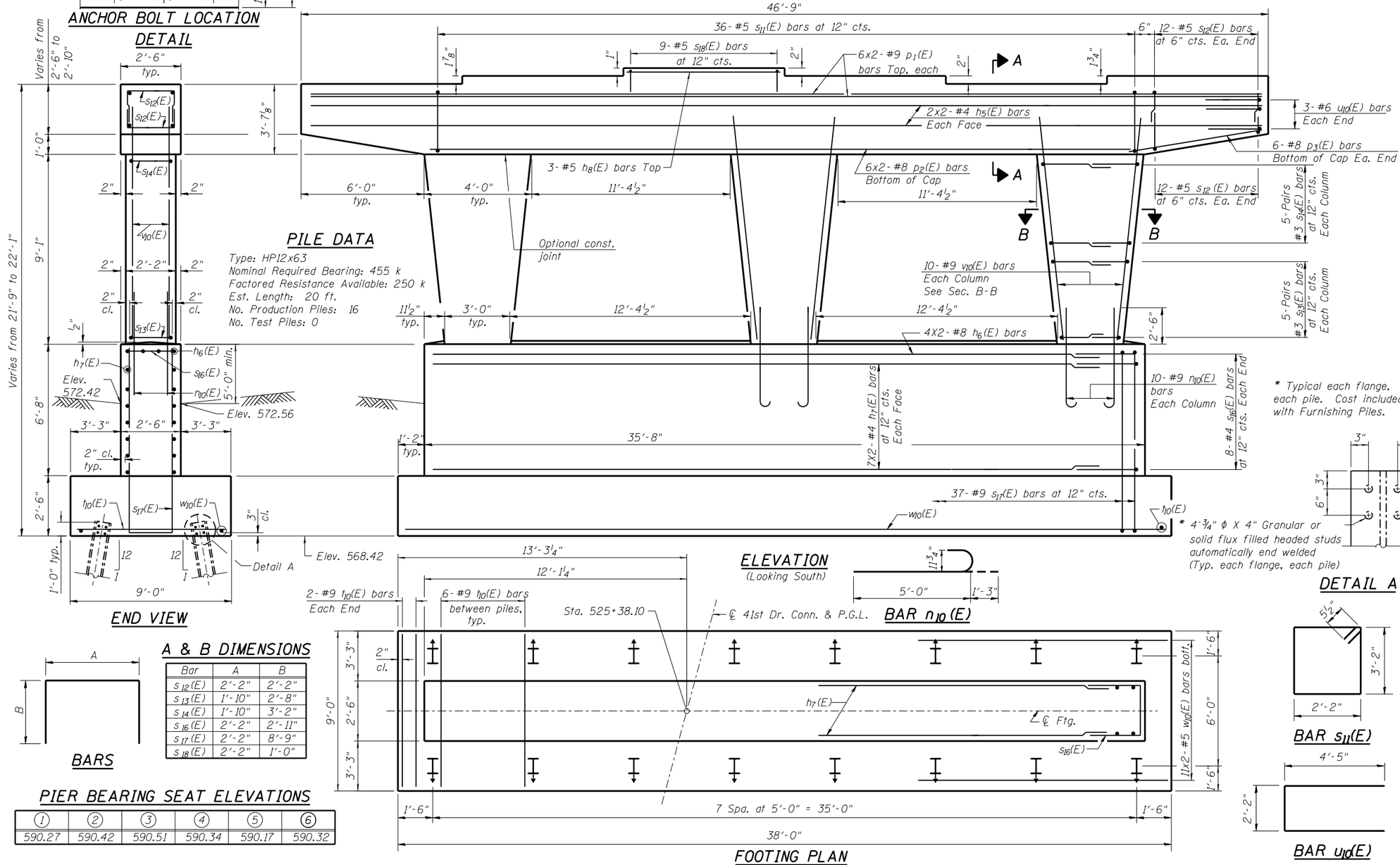
Concrete sealer should be applied to all exposed surfaces of the pier.



ANCHOR BOLT LOCATION DETAIL



TOP PLAN

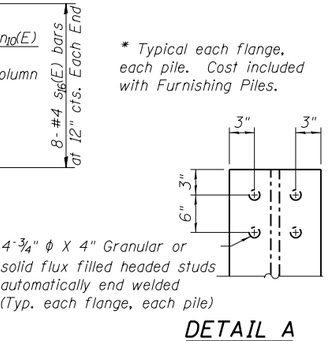


PILE DATA

Type: HP12x63
Nominal Required Bearing: 455 k
Factored Resistance Available: 250 k
Est. Length: 20 ft.
No. Production Piles: 16
No. Test Piles: 0

END VIEW

FOOTING PLAN



BAR $n_{10}(E)$

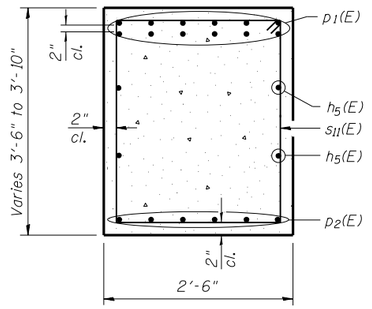
BARS

A & B DIMENSIONS

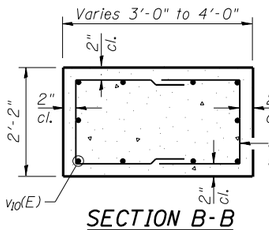
Bar	A	B
$s_{12}(E)$	2'-2"	2'-2"
$s_{13}(E)$	1'-10"	2'-8"
$s_{14}(E)$	1'-10"	3'-2"
$s_{16}(E)$	2'-2"	2'-11"
$s_{17}(E)$	2'-2"	8'-9"
$s_{18}(E)$	2'-2"	1'-0"

PIER BEARING SEAT ELEVATIONS

①	②	③	④	⑤	⑥
590.27	590.42	590.51	590.34	590.17	590.32



SECTION A-A



SECTION B-B

LAP SPLICE

Bar	Min. Lap	Top Bars
#4	2'-7"	2'-11"
#5	3'-3"	3'-8"
#8	6'-9"	7'-8"
#9	8'-7"	9'-8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_5(E)$	8	# 4	24'-8"	
$h_6(E)$	8	# 8	21'-6"	
$h_7(E)$	28	# 4	19'-2"	
$h_8(E)$	3	# 5	7'-6"	
$n_{10}(E)$	30	# 9	6'-3"	
$p_1(E)$	24	# 9	28'-1"	
$p_2(E)$	12	# 8	20'-9"	
$p_3(E)$	12	# 8	5'-11"	
$s_{11}(E)$	36	# 5	11'-7"	
$s_{12}(E)$	48	# 5	6'-6"	
$s_{13}(E)$	30	# 3	7'-2"	
$s_{14}(E)$	30	# 3	8'-2"	
$s_{16}(E)$	16	# 4	8'-0"	
$s_{17}(E)$	37	# 9	19'-8"	
$s_{18}(E)$	9	# 5	4'-2"	
$t_{10}(E)$	46	# 9	8'-6"	
$u_{10}(E)$	6	# 6	11'-0"	
$v_{10}(E)$	30	# 9	10'-11"	
$w_{10}(E)$	22	# 5	20'-5"	
Structure Excavation		Cu. Yd.	91	
Concrete Structures		Cu. Yd.	76.7	
Reinforcement Bars, Epoxy Coated		Pound	11,300	
Furnishing Steel Piles HP 12x63		Foot	320	
Driving Piles		Foot	320	
Concrete Sealer		Sq. Ft.	1,315	

* Typical each flange, each pile. Cost included with Furnishing Piles.

* 4-3/4" ϕ X 4" Granular or solid flux filled headed studs automatically end welded (Typ. each flange, each pile)

DETAIL A

BAR $s_{11}(E)$

BAR $u_{10}(E)$

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4008
Fax 773.775.4014
Email: office@clorba.com

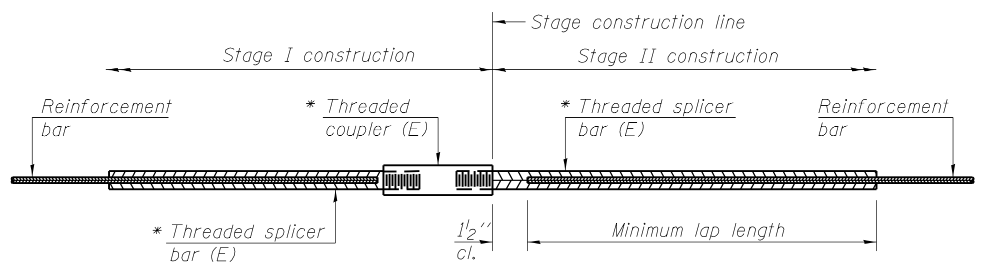
USER NAME = mteng	DESIGNED - SMY	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER
STRUCTURE NO. 081-0176
SHEET NO. S-22 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	321
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\00003393.00\CONTRACT.1\Design\Structural\CAD\081-0176-0264884-22-Pier.dgn



STANDARD BAR SPLICER ASSEMBLY

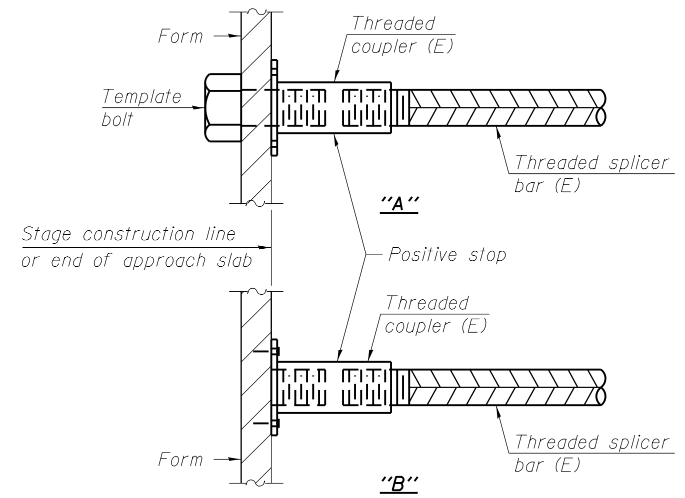
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5''	1'-11''	2'-1''	2'-4''	2'-7''	2'-11''
5	1'-9''	2'-5''	2'-7''	2'-11''	3'-3''	3'-8''
6	2'-1''	2'-11''	3'-1''	3'-6''	3'-10''	4'-5''
7	2'-9''	3'-10''	4'-2''	4'-8''	5'-2''	5'-10''
8	3'-8''	5'-1''	5'-5''	6'-2''	6'-9''	7'-8''
9	4'-7''	6'-5''	6'-10''	7'-9''	8'-7''	9'-8''

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½'' + thread length

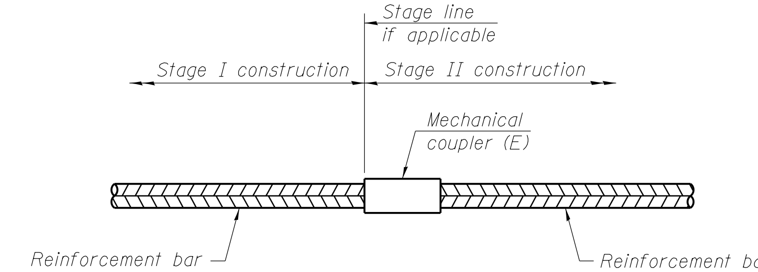
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



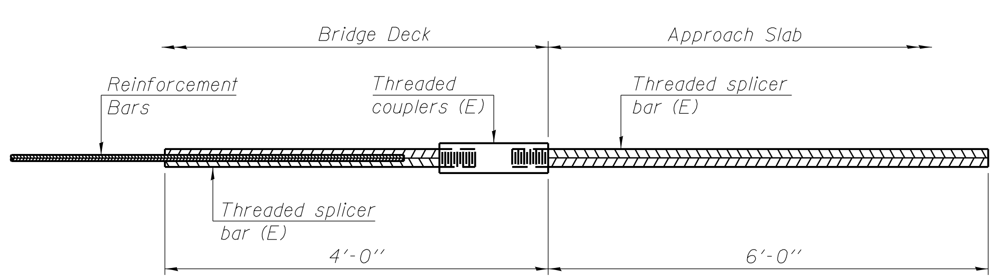
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



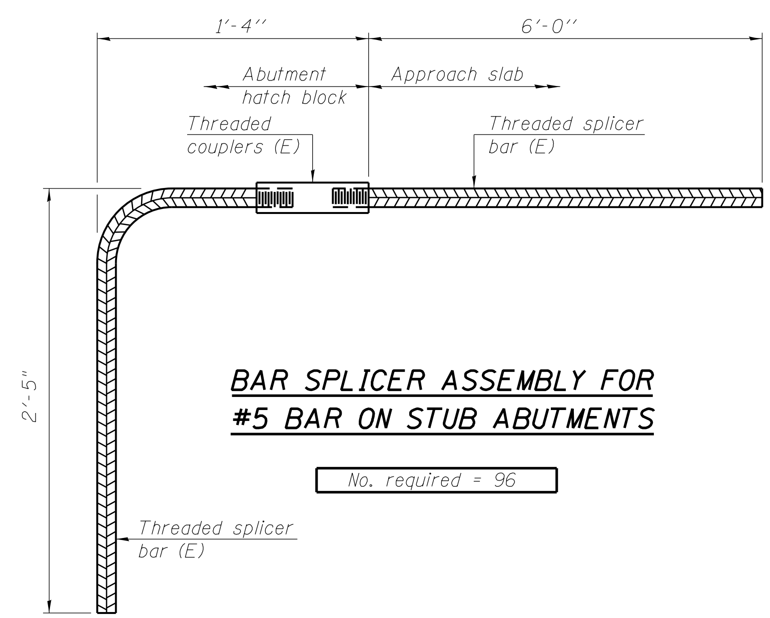
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 96

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

Ciorba Group, Inc. CONSULTING ENGINEERS

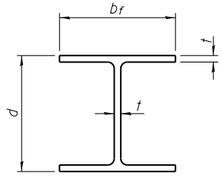
USER NAME = mteng	DESIGNED - MHT	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 081-0176
SHEET NO. S-23 OF S-27 SHEETS

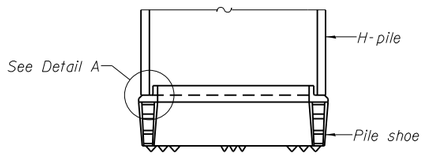
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	322

CONTRACT NO. 64B84
ILLINOIS FED. AID PROJECT

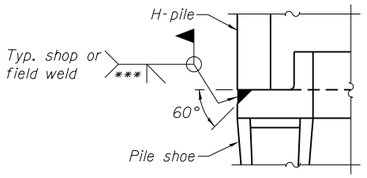


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

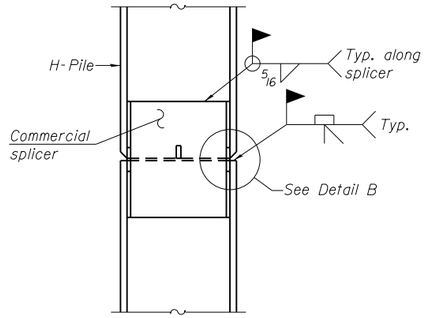


ELEVATION

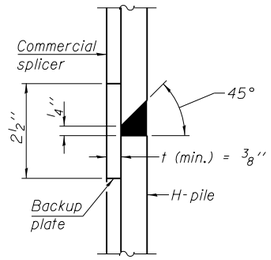


DETAIL A

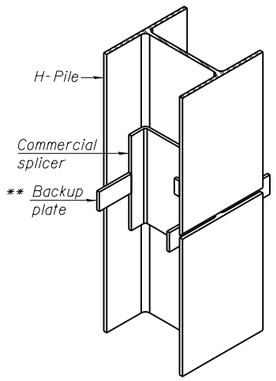
H-PILE SHOE ATTACHMENT



ELEVATION

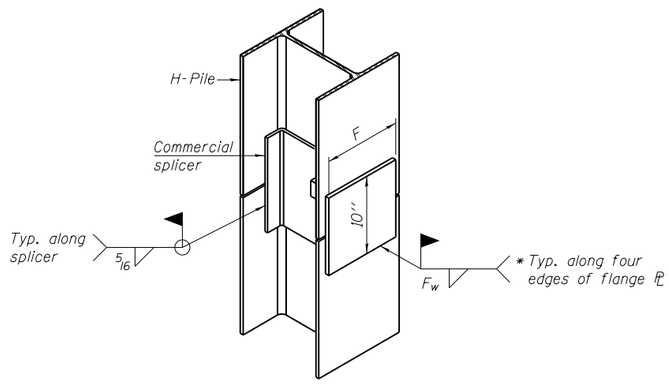


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



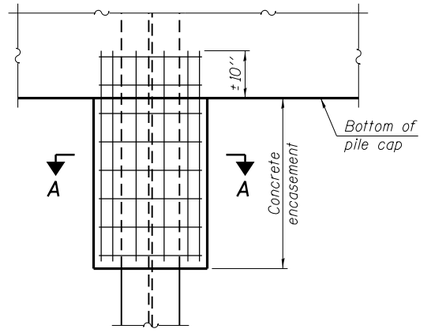
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

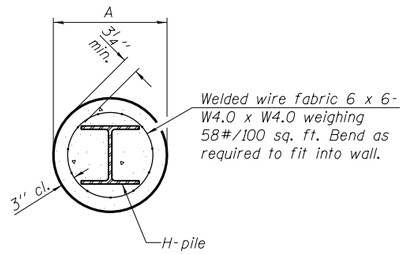
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



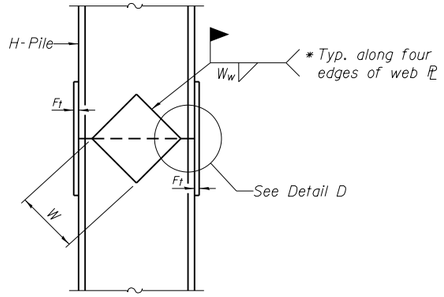
ELEVATION



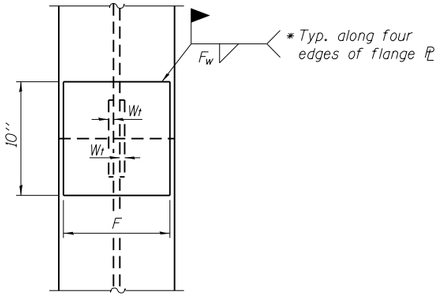
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

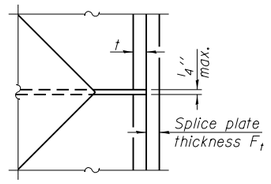
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_f	F_w	W	W_f	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 1-27-12

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 1010 Chicago, Illinois 60656
Tel 773.775.4454
Fax 773.775.4014
Email cMcago@ciorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 081-0176
SHEET NO. S-24 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	323
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\00033930\CONTRACT_1\Design\Structural\CAD\081-0176-D264884-24-HP Pile Details.dgn

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 3/31/05

ROUTE FAP 595 DESCRIPTION P92-082-01 Bridge over John Deere Road at proposed 41st St. Connector LOGGED BY W. Garza

SECTION 142-R LOCATION S. Moline Twp. - 10 SW, **SEC.** , **TWP.** 17N, **RNG.** 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.
Station 525+38.10

BORING NO. B-1c
Station 526+70
Offset 2.00ft Lt CL
Ground Surface Elev. 568.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 561.2 ft ▼
Upon Completion 556.2 ft ▽
After ___ Hrs. ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY SOFT brown SANDY LOAM	566.20			0.2 P	22
VERY SOFT light gray SANDY LOAM	564.70		1 1 3	0.2 P	30
MEDIUM light gray SILTY LOAM	562.20	-5	1 1 3	0.9 B	34
▼ SOFT gray SILTY LOAM with 8% ORGANICS	559.70		1 1 2	0.4 B	47
MEDIUM gray SILTY LOAM with 10% ORGANICS	556.70	-10	1 1 2	0.6 B	48
▽ LOOSE gray clean medium coarse SAND	554.20		1 2 6		
VERY DENSE gray SHALE Auger Refusal @ 16'	552.20	-15	2 55 45		
Borehole continued with rock coring.		-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
IDOT

ROCK CORE LOG

Page 1 of 1

Date 3/31/05

ROUTE FAP 595 DESCRIPTION P92-082-01 Bridge over John Deere Road at proposed 41st St. Connector LOGGED BY W. Garza

SECTION 142-R LOCATION S. Moline Twp. - 10 SW, **SEC.** , **TWP.** 17N, **RNG.** 1W

COUNTY Rock Island CORING METHOD

STRUCT. NO.
Station 525+38.10

BORING NO. B-1c
Station 526+70
Offset 2.00ft Lt CL
Ground Surface Elev. 568.2 ft

CORING BARREL TYPE & SIZE
Core Diameter 1.5 in
Top of Rock Elev. 554.20 ft
Begin Core Elev. 550.70 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Shale: light gray, laminated with mica crystals visible on parting planes, generally soft and chalky. T.S.F.: 547.2 to 546.5 core was cracked.	545.70	-20	1	100	63	3.6	66.9
Shale: as above to 543.7, thereafter no recovery - possible washed out sand seam may explain poor recovery.	540.70	-25	2	40	17	3.6	
Shale: light gray w/sandier fraction, blockier structure than 1st run, though still soft and chalky. T.S.F.: 537.2 to 536.7	535.70	-30	3	100	72	2	183.5
End of Boring		-35					

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - MHT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 1 STRUCTURE NO. 081-0176
	PLOT SCALE = 0:2.0000 ':' / in.	CHECKED - BWS	REVISED -		SHEET NO. S-25 OF S-27 SHEETS
	PLOT DATE = 3/11/2013	DRAWN - SMY	REVISED -		
		CHECKED - BWS	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	324

CONTRACT NO. 64B84
ILLINOIS FED. AID PROJECT

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-D264B84-25-Soil Borings Logs 1.dgn

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 4/14/05

ROUTE FAP 595 DESCRIPTION P92-082-01 Bridge over John Deere Road at proposed 41st Street connector LOGGED BY W. Garza

SECTION 142-R LOCATION S. Moline Twp. - 10 SW, SEC. , TWP. 17N, RNG. 1W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.
Station 525+38.10

BORING NO. B-2c
Station 524+80
Offset ft at CL
Ground Surface Elev. 572.4 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 557.4 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
569.90		0.6 P	14	MEDIUM dark brown LOAM
	4 20+			Old Concrete
568.40				
-5				
565.90	2 3 4	2.1 B	18	VERY STIFF brown SILTY CLAY LOAM
563.40	1 3 3	1.2 B	39	STIFF dark gray SILTY CLAY LOAM
-10				
560.90	1 2 2	0.3 B	40	SOFT gray SILTY LOAM
557.90	1 1 2	0.5 B	66	SOFT/MEDIUM gray SHALEY CLAY LOAM with 10% ORGANICS
▼-15				
555.40	1 6 6			MEDIUM dark gray fine clean SAND
553.40	24 100/11"			VERY DENSE gray SHALE with COAL lens
-20				
550.90	37 100/6"			VERY DENSE gray SHALE with COAL lens
				Borehole continued with rock coring.
-25				
-30				
-35				
-40				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
IDOT

ROCK CORE LOG

Date 4/14/05

ROUTE FAP 595 DESCRIPTION P92-082-01 Bridge over John Deere Road at proposed 41st Street connector LOGGED BY W. Garza

SECTION 142-R LOCATION S. Moline Twp. - 10 SW, SEC. , TWP. 17N, RNG. 1W

COUNTY Rock Island CORING METHOD

STRUCT. NO.
Station 525+38.10

CORING BARREL TYPE & SIZE

Core Diameter 1.5 in
Top of Rock Elev. 555.40 ft
Begin Core Elev. 549.90 ft

BORING NO. B-2c
Station 524+80
Offset ft at CL
Ground Surface Elev. 572.4 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)	Description
	1	100	15	2.4		Shale: light to dark gray, laminated and flaky with mica crystals visible, soft and chalky
-25						
544.90	2	100	63	4	97.7	Shale: as above though not as flaky T.S.F.: 541.9 to 541.3
-30						
539.90	3	100	70	3.4	154.7	Shale: as above with sandier fraction, laminated but tending blockier T.S.F.: 536.1 to 535.7
-35						
534.90						End of Boring
-40						

Color pictures of the cores _____
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-02&4884-26-Soil Borings Logs 2.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue Chicago, Illinois 60656
Tel. 773.775-6000
Fax 773.775.4014
Email: office@clorba.com

USER NAME = mteng	DESIGNED - MHT	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0:2.0000 '' / in.	DRAWN - SMY	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2
STRUCTURE NO. 081-0176
SHEET NO. S-26 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	325
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 5/31/05

ROUTE FAP 595 DESCRIPTION P92-082-01 38th - 41st Connector at John Deere Road LOGGED BY W. Garza

SECTION 142-R LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD _____ HAMMER TYPE CME-45 Automatic

STRUCT. NO. _____
Station _____

BORING NO. B-1d
Station 524+00
Offset ft CL
Ground Surface Elev. 567.7 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft

Groundwater Elev.:
First Encounter _____ ft
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STILY LOAM 567.20				
4.5" Recovery				
564.70				
18.0" Recovery				
562.20	-5			
17.0" Recovery ▼				
559.70				
26.0" Recovery				
557.20	-10			
30.0" Recovery				
554.70				
Refusal				
552.20	-15			
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

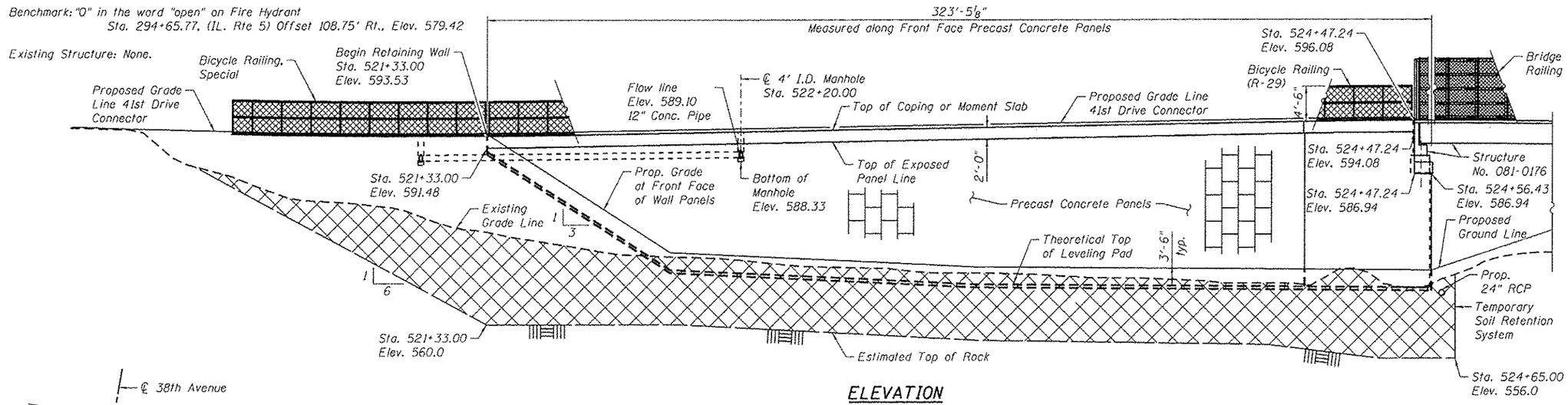
N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\081-0176-02\64B84-27-Soil Borings Logs 3.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775.4008
Fax 773.775.4014
Email: clrbagrp@clorba.com

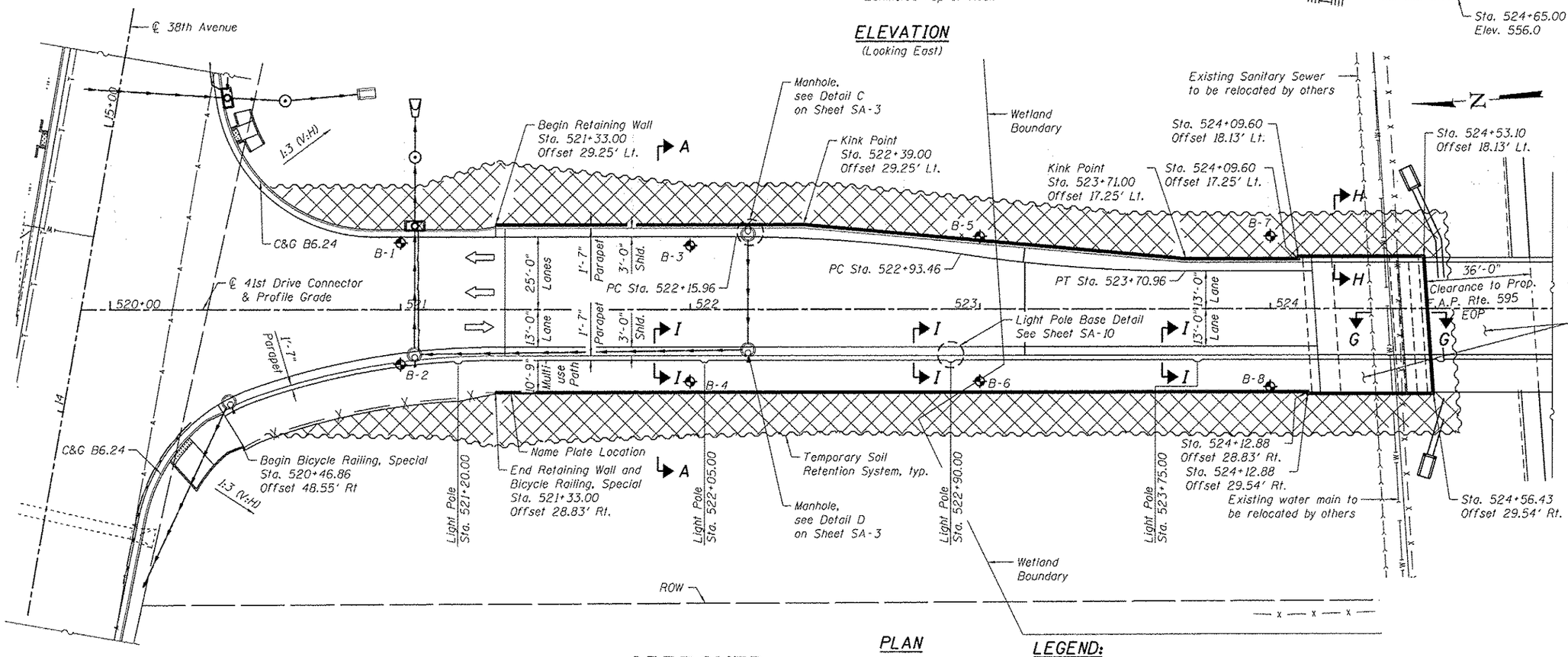
USER NAME = mteng	DESIGNED - MHT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - SMY	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

SOIL BORING LOGS 3
STRUCTURE NO. 081-0176
SHEET NO. S-27 OF S-27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	326
		CONTRACT NO. 64B84		
	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking East)



PLAN

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LEGEND:

- Soil Boring
- * Removal and Disposal of Unsuitable Materials. Rockfill is to be placed up to the top of existing ground or bottom of MSE Wall leveling pad, whichever is lower. See Roadway plans for Removal and Disposal of Unsuitable Materials and Rock Fill quantities.

* Cross hatching not shown under roadway and path for clarity.

STATE OF ILLINOIS
JOSEPH J. HOSANNA JR.
081-004654
LICENSED STRUCTURAL ENGINEER
DATE: 3/11/2013
SEAL EXPIRES: 11/30/2014

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2012 Interims

DESIGN STRESSES

FIELD UNITS

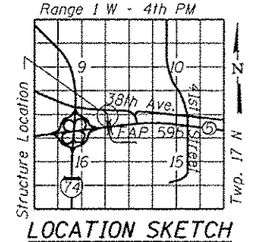
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST UNITS

f'c = 4,500 psi (Precast Face Panels)

NOTES:

1. For Sections A-A & G-G see Sheet SA-3. For Section H-H & I-I see Sheet SA-10.
2. Offsets are measured from the ℄ of 41st Drive Connector to the front face of wall.
3. Ashlar stone formliner to be used on MSE wall panels.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A.P. RTE. 595 - SEC. (142-1)R-1 AND 142-1HB
ROCK ISLAND COUNTY
STATION 521+33.00 TO 524+56.43
STRUCTURE NO. 081-7002

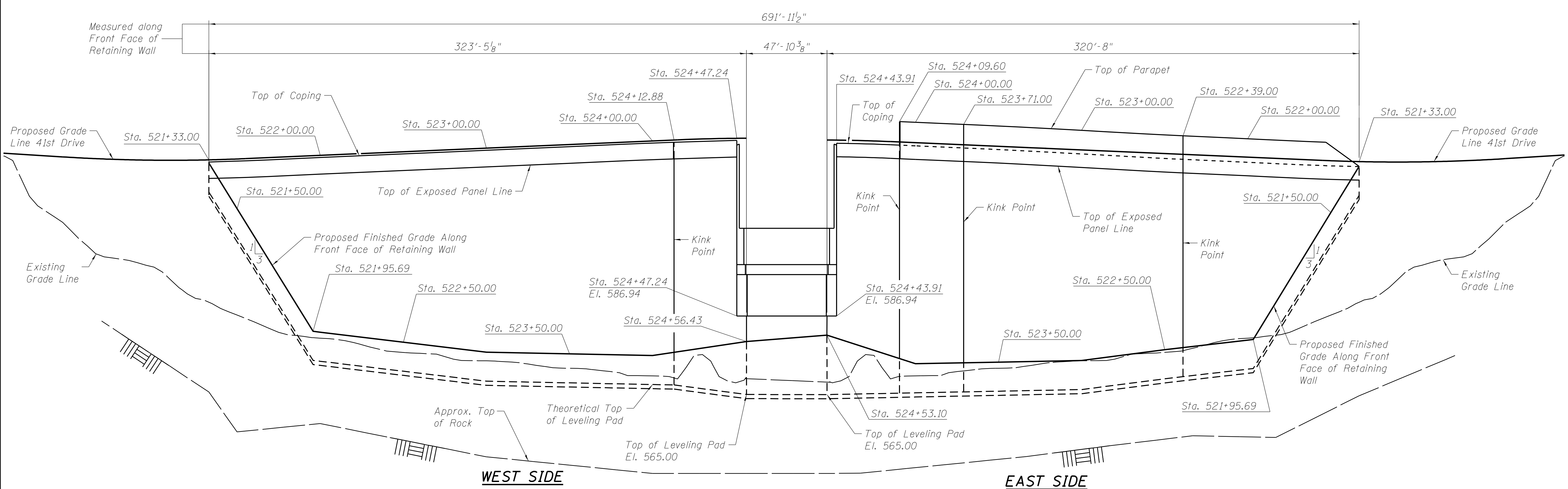
Clarke Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel 773 775 6000 Fax 773 775 6016 Email chicago@clarke.com	USER NAME = rdanley	DESIGNED - APD	REVISED -
		CHECKED - BWS	REVISED -
	PLOT SCALE = 40.0 ' / in.	DRAWN - RD	REVISED -
	PLOT DATE = 3/21/2013	CHECKED - JJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. SA-1 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	327
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\2003393.03\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7882\081-7882.01.General Plan and Elevation.dgn

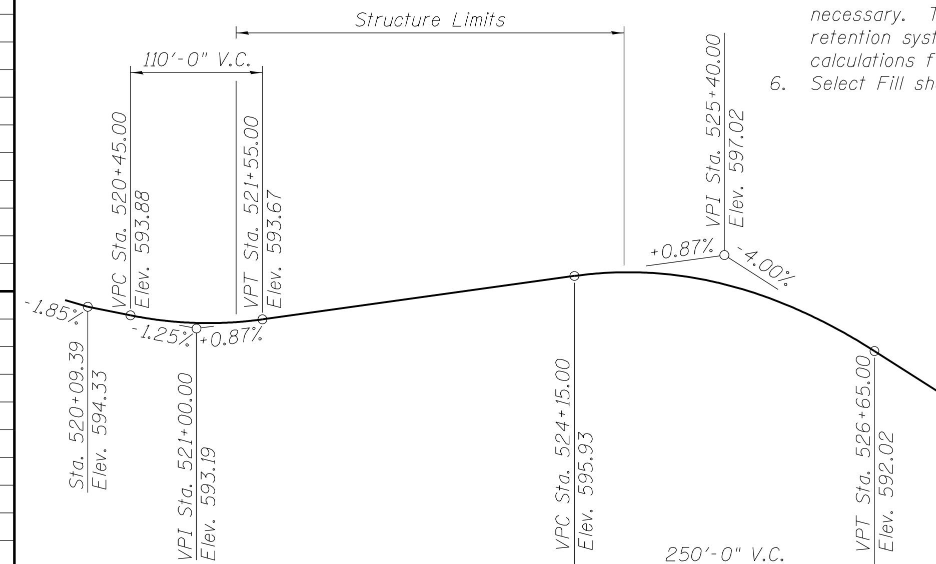


UNFOLDED ELEVATION VIEW

TEMPORARY SOIL RETENTION SYSTEM

	Station	North MSE Wall (SN 081-7002) Elevations: Top of Parapet or Coping	PGL	Top of Exposed Panel Line	*Proposed Finished Grade	Temporary Soil Retention System (TSRS) Elevations: Existing Grade	Approx. Top of Rock	Approx. Height of TSRS (ft)
WEST SIDE	521+33.00	593.47	593.53	591.48	593.41	575.6	565.8	9.8
	521+50.00				587.86	574.5	561.0	13.5
	521+95.69				573.10			
	522+00.00	594.01	594.06	592.02	573.00	572.0	562.0	10.0
	522+50.00				571.80	570.6	560.0	10.6
	523+00.00	594.88	594.93	592.89	570.60	569.4	558.0	11.4
	523+50.00				570.40	568.0	557.0	11.0
	524+00.00	595.75	595.80	593.76	570.20	567.4	556.0	11.4
	524+12.88	595.86	595.88	593.87	570.58	567.4	556.0	11.4
	524+47.24	596.08	596.11	594.08	571.61	567.2	556.0	11.2
	524+56.43	588.94		586.94	571.88	568.5	556.0	12.5
EAST SIDE	524+53.10	588.94		586.94	572.65	568.5	556.0	12.5
	524+43.91	595.85	596.11	593.85	571.91	567.0	556.0	11.0
	524+09.60	598.34		593.63	569.16	567.5	556.0	11.5
	524+00.00	598.25	595.80	593.54	569.20	567.8	556.0	11.8
	523+71.00	598.00		593.29	569.32			
	523+50.00				569.39	568.9	557.0	11.9
	523+00.00	597.28	594.93	592.57	569.54	569.5	558.0	11.5
	522+50.00				570.88	570.7	559.3	11.4
	522+39.00	596.62		591.92	571.14			
	522+00.00	596.27	594.06	591.57	572.05	572.4	560.5	11.9
	521+95.69				572.13			
	521+50.00				587.40	576.2	560.3	15.9
	521+33.00	593.49	593.53	591.03	593.42	578.1	565.3	12.8

* Along front face of Retaining Wall



PROFILE

(Along ℄ 41st Drive Connector)

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Ashlar stone form liner shall be used on MSE wall panels.
3. Stations and offsets are measured from centerline of 41st Drive Connector to the front face of the MSE wall panels.
4. Slipforming of the parapet is prohibited.
5. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
6. Select Fill shall be a free draining material.

INDEX OF SHEETS

STATION 521+33.00 to 524+56.43
BUILT 20__ BY
STATE OF ILLINOIS
SEC (142-1)R-1 AND 142-1HB
LOADING HL93
STRUCTURE NO. 081-7002

NAME PLATE

See Std. 515001

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Superstructure	Cu. Yd.	424.5
Protective Coat	Sq. Yd.	499
Reinforcement Bars, Epoxy Coated	Pound	53,970
Bicycle Railing	Foot	285
Parapet Railing	Foot	352
Name Plates	Each	1
Conduit Embedded In Structure, 2" Dia., Pvc	Foot	794
Junction Box, Stainless Steel, Embedded In Structure, 12" X 10" X 6"	Each	1
Bicycle Railing, Special	Foot	90
Breakaway Device, Transformer Base, Special	Each	3
Mechanically Stabilized Earth Retaining Wall	Sq Ft	15,837
Temporary Soil Retention System	Sq Ft	8,093

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402, Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4014
Email: chicago@ciorba.com

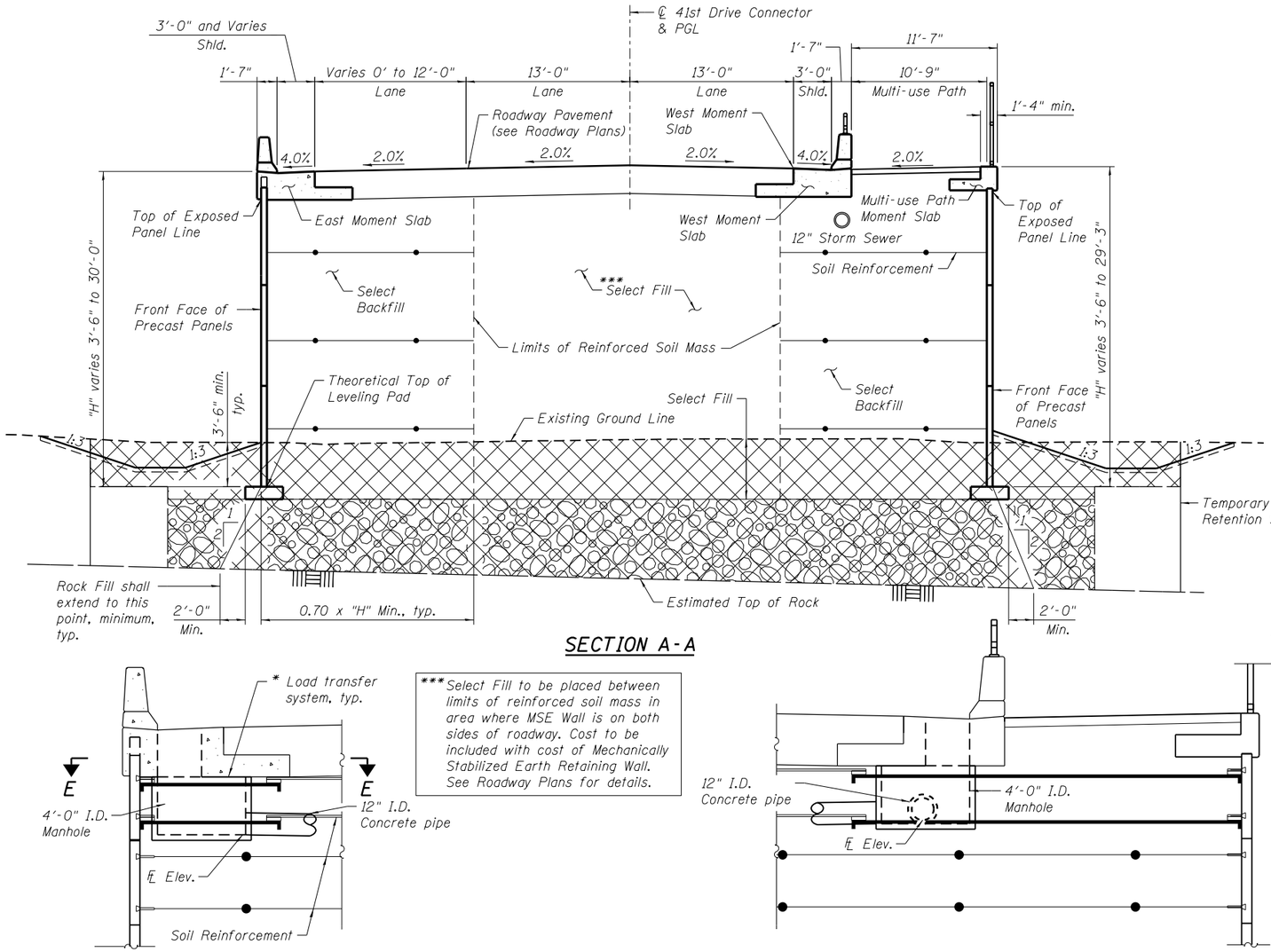
USER NAME = rdanley	DESIGNED - APD	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 60.000000 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/12/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNFOLDED ELEVATION & GENERAL NOTES
STRUCTURE NO. 081-7002

SHEET NO. SA-2 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	328
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



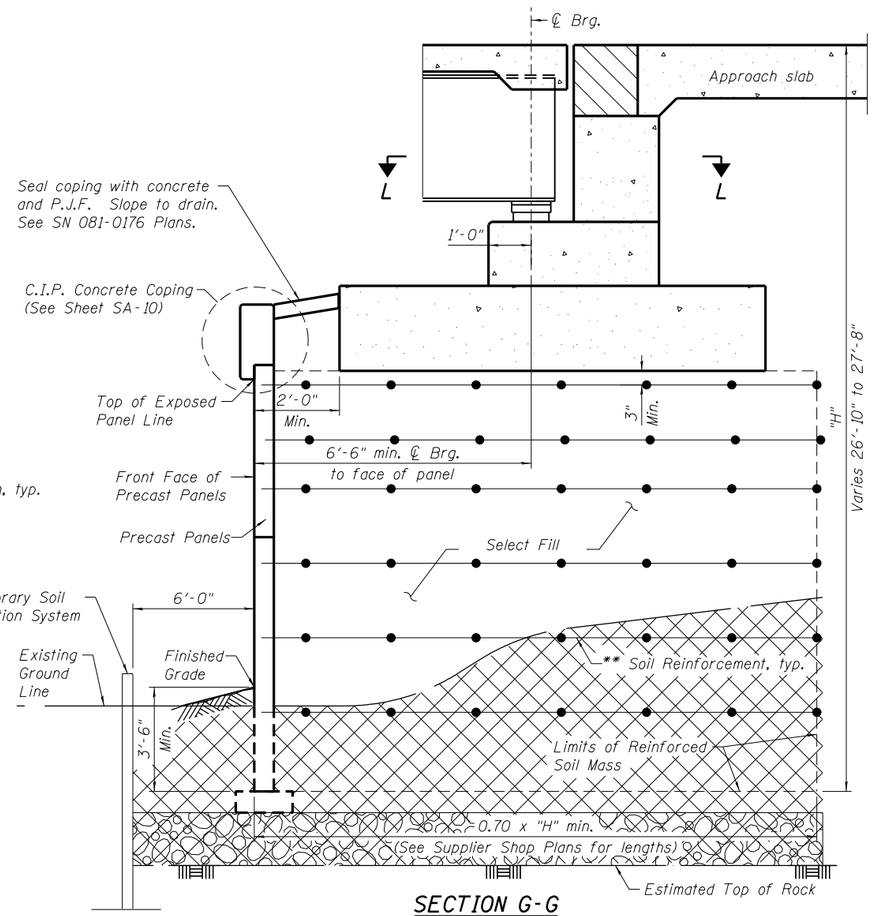
SECTION A-A

DETAIL C

*** Select Fill to be placed between limits of reinforced soil mass in area where MSE Wall is on both sides of roadway. Cost to be included with cost of Mechanically Stabilized Earth Retaining Wall. See Roadway Plans for details.

* M.S.E. supplier to design load transfer system to accommodate concrete pipe and manhole.

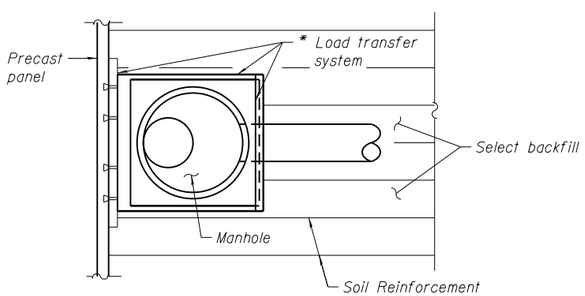
DETAIL D



SECTION G-G

(Typical wall section thru abutment)

** The M.S.E. Wall supplier's internal stability design shall account for the footing's bearing pressure surcharge of 3 ksf and horizontal sliding force of 1.6 kips/ft. of abutment.

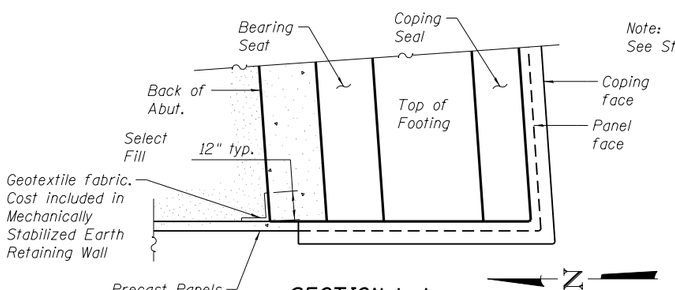


SECTION E-E

LEGEND:

Removal and Disposal of Unsuitable Materials
See Roadway plans for Removal of Unsuitable Materials quantity.

Rock Fill
See Roadway plans for Rock Fill quantity.
Rock Fill is to be placed up to the top of existing ground or bottom of MSE Wall leveling pad, whichever is lower.



SECTION L-L

(at corner of MSE wall)

Note:
See Structure No. 081-0176 Plans for abutment details.

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002.03_Sections_Revised.dgn

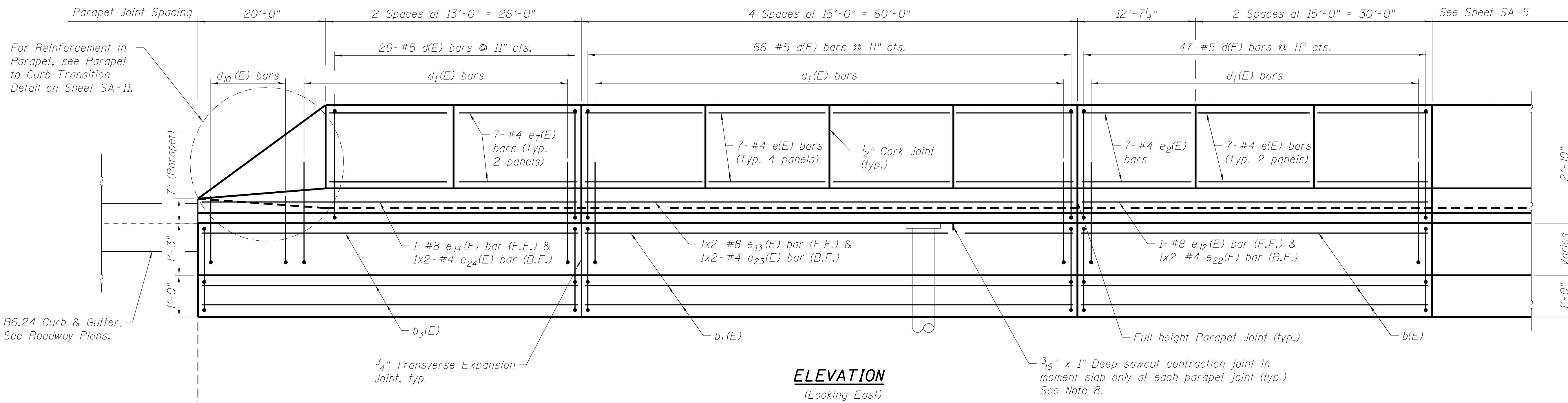
Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4605
Fax 773.775.4614
Email dlh@clorba.com

USER NAME = rdanley	DESIGNED - APD	REVISED - Addendum 1 8/15/2013	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 10:8.000000 '1' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 8/13/2013	CHECKED - JJH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

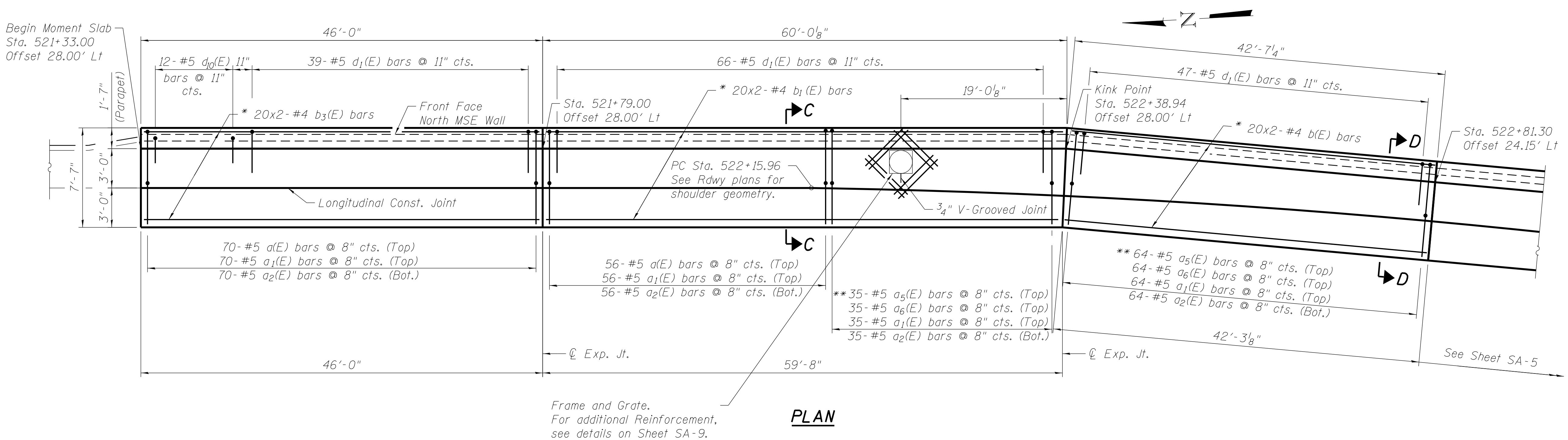
SECTIONS
STRUCTURE NO. 081-7002
SHEET NO. SA-3 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	329
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Looking East)



PLAN

* See cross section for placement.

** Field cut to fit as required.

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. E.S. = Each Side, F.F. = Front Face & B.F. = Back Face
3. Offsets are to front face of parapet.
4. For sections C-C and D-D, see Sheet SA-9.
5. For Bar Bending Diagrams and Bill of Materials, see Sheet SA-11.
6. For Parapet Joint details, see Sheet SA-9.
7. Bend b(E) and b_2(E) bars in field to match curve.
8. For Transverse Contraction Joint details, see Sheet SA-10.
9. For Expansion Joint details, see Sheet SA-9.

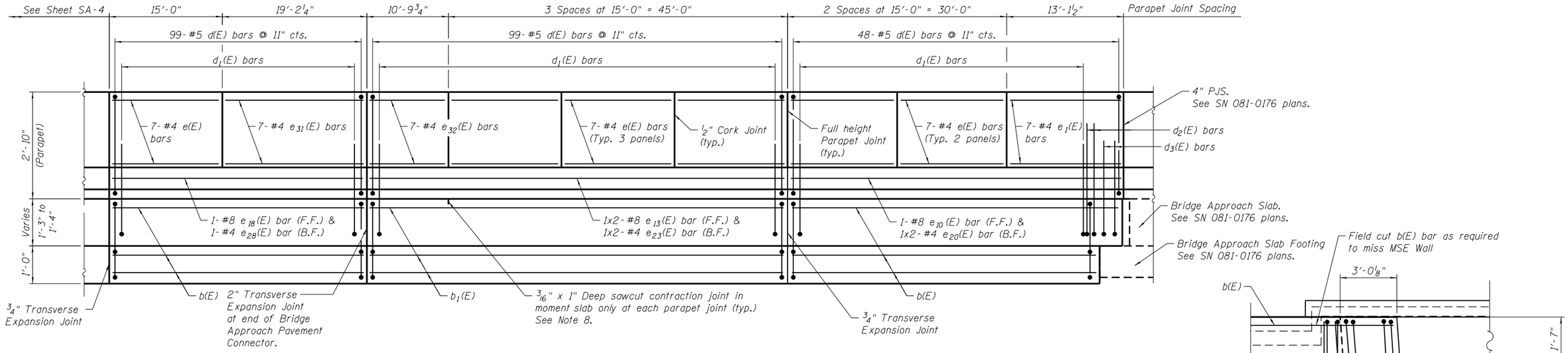
Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656

USER NAME = mteng	DESIGNED - APD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BWS	REVISED -	
PLOT SCALE = 13:4 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

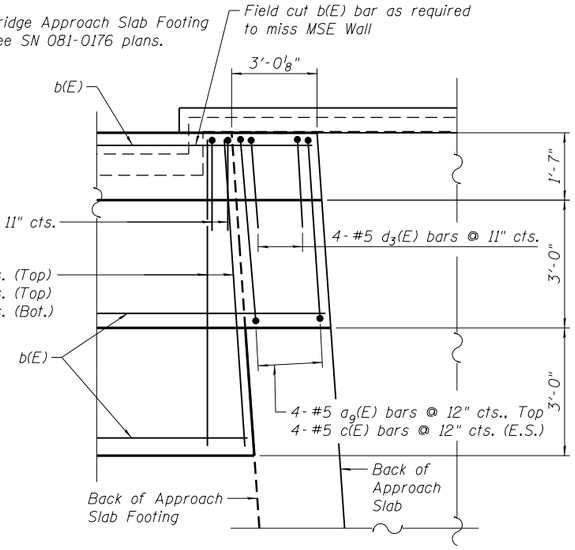
EAST MOMENT SLAB PLAN & ELEVATION (1 OF 2)
STRUCTURE NO. 081-7002

SHEET NO. SA-4 OF SA-16 SHEETS

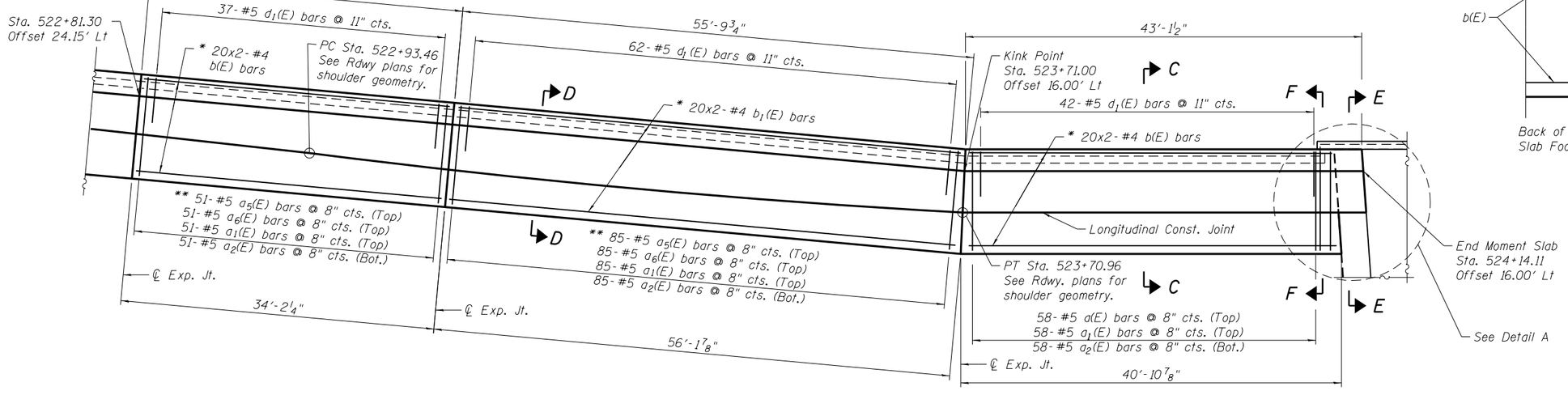
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	330
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



ELEVATION
(Looking East)



DETAIL A



PLAN

* See cross section for placement.

** Field cut to fit as required.

MIN. BAR LAP
#4 bar = 2'-11"
#8 bar = 6'-9"

NOTES:
1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. E.S. = Each Side, F.F. = Front Face, B.F. = Back Face, E.S. = Each Side.
3. Offsets are to front face of parapet.
4. For sections C-C, D-D, E-E & F-F, see Sheet SA-9.
5. For Bar Bending Diagrams and Bill of Materials, see Sheet SA-11.
6. For Parapet Joint details, see Sheet SA-9.
7. Bend $b_1(E)$ bars in field to match curve.
8. For Transverse Contraction Joint details, see Sheet SA-10.
9. For Expansion Joint details, see Sheet SA-9.

Ciorba Group, Inc.
CONSULTING ENGINEERS
2007 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775.4600
Fax 773.775.4014
Email chicago@ciorba.com

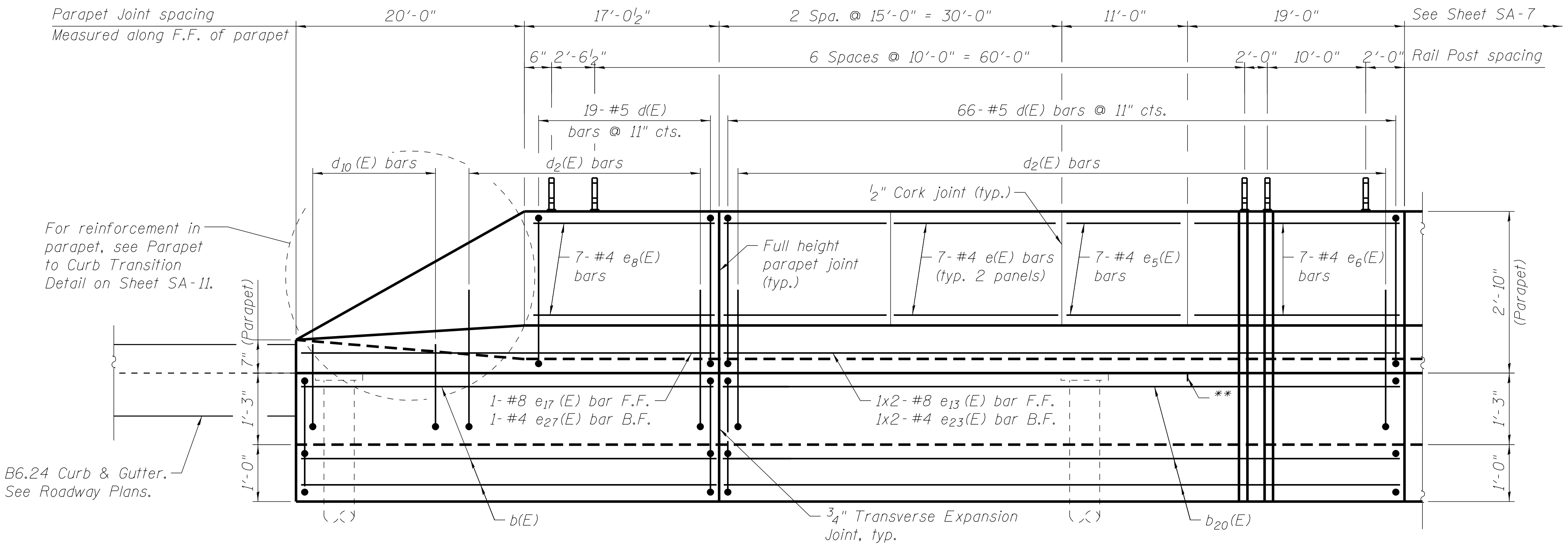
USER NAME = mteng	DESIGNED - APD	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 13:4 '1' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST MOMENT SLAB PLAN & ELEVATION (2 OF 2)
STRUCTURE NO. 081-7002
SHEET NO. SA-5 OF SA-16 SHEETS

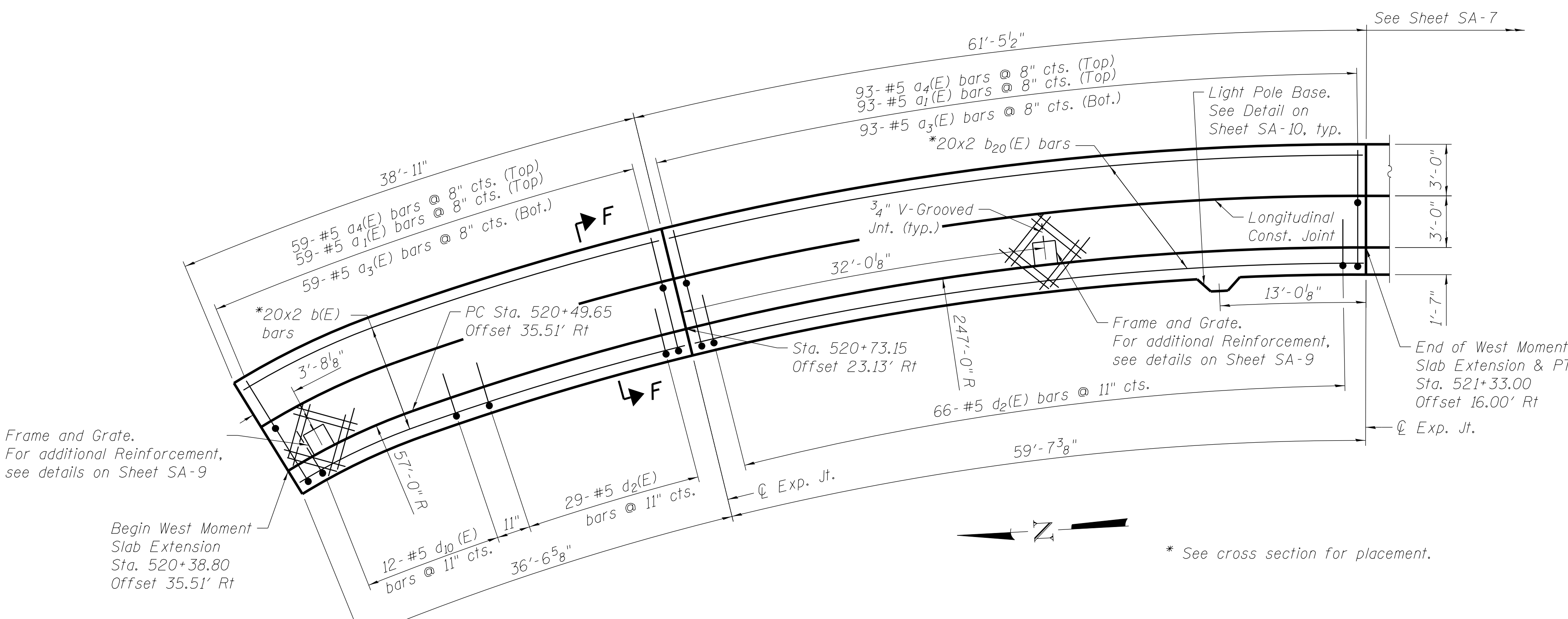
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	331
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\00003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_05_East_Moment_Slab_2.dgn



ELEVATION - WEST MOMENT SLAB EXTENSION

** $\frac{3}{16}$" x 1" Deep sawcut contraction joint in moment slab only at each parapet joint (typ.) See Note 8.



* See cross section for placement.

PLAN - WEST MOMENT SLAB EXTENSION

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. Offsets are from ℄ 41st Drive Connector to front face of parapet.
4. For section F-F, see Sheet SA-9.
5. For bar bending diagrams & Bill of Materials see Sheet SA-11.
6. Bend b(E), b_{20}(E), e(E), e_5(E), e_6(E), e_8(E), e_{13}(E), e_{17}(E), e_{23}(E), and e_{27}(E) bars in field to match curve.
7. For parapet joint details, see Sheet SA-9.
8. For Transverse Contraction Joint details, see Sheet SA-10.
9. For Expansion Joint details, see Sheet SA-9.

N:\PROJ\00033393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_06_West_Moment_Slab-0.dgn

CIorba Group, Inc.
CONSULTING ENGINEERS

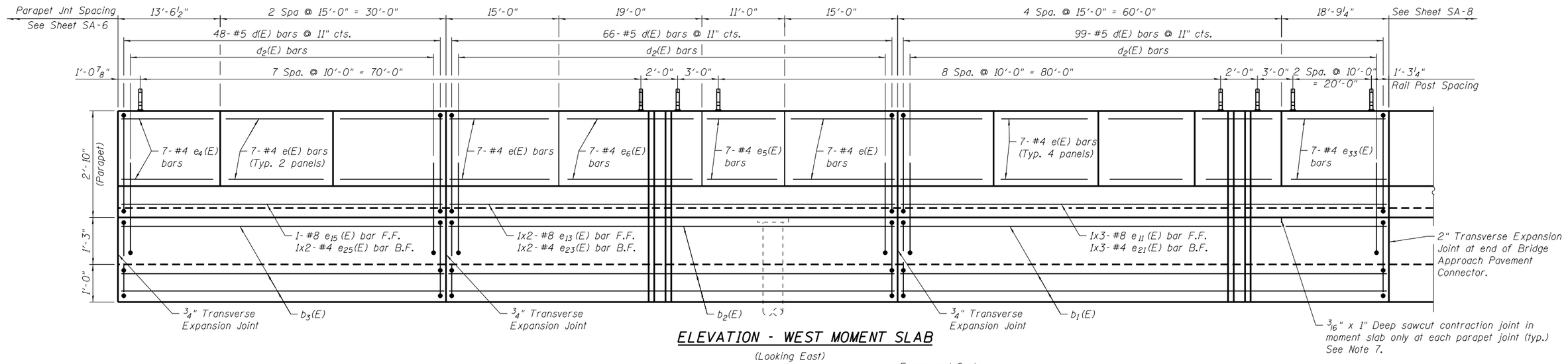
USER NAME = mteng	DESIGNED - APD	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 13:4 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST MOMENT SLAB EXTENSION PLAN & ELEVATION
STRUCTURE NO. 081-7002

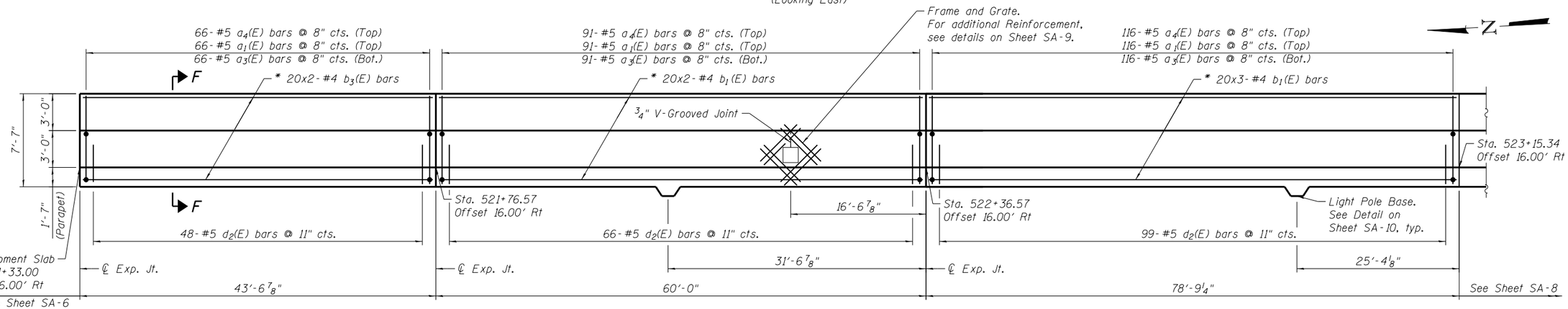
SHEET NO. SA-6 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	332
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

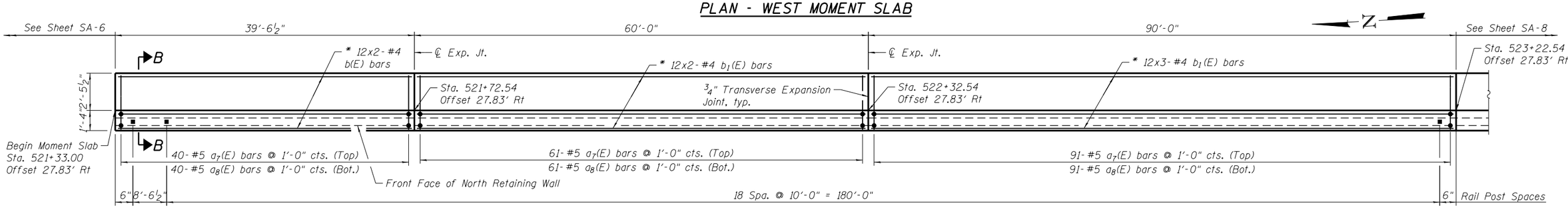


ELEVATION - WEST MOMENT SLAB

(Looking East)



PLAN - WEST MOMENT SLAB



PLAN - MULTI-USE PATH MOMENT SLAB

* See cross section for placement.

** Field cut to fit as required.

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. Offsets are to front face of parapet.
4. For sections B-B and F-F, see Sheet SA-9.
5. For Bar Bending Diagrams and Bill of Materials, see Sheet SA-11.
6. For Parapet Joint details, see Sheet SA-9.
7. For Transverse Contraction Joint details, see Sheet SA-10.
8. For Expansion Joint details, see Sheet SA-9.

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.774.4700
Fax 773.774.4704
Email clrkcago@clorba.com

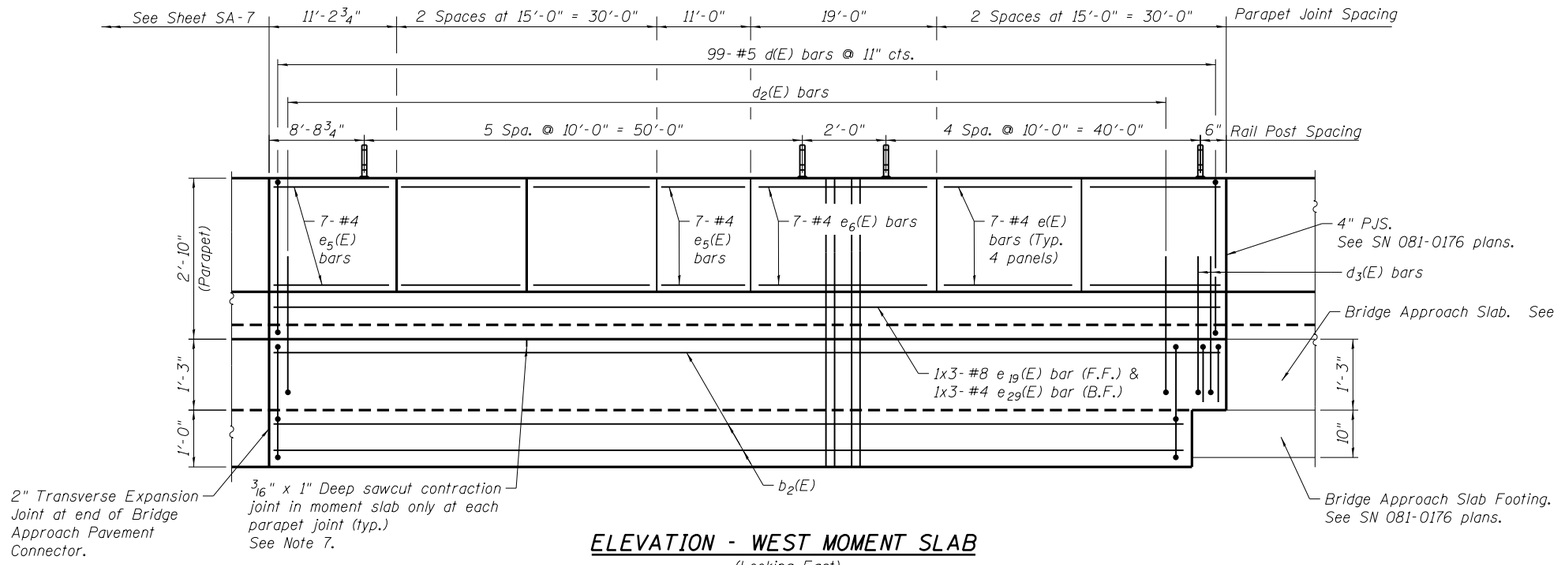
USER NAME = mteng	DESIGNED - APD	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 13:4 '1' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST AND MULTI-USE PATH MOMENT SLABS (1 of 2)
STRUCTURE NO. 081-7002
SHEET NO. SA-7 OF SA-16 SHEETS

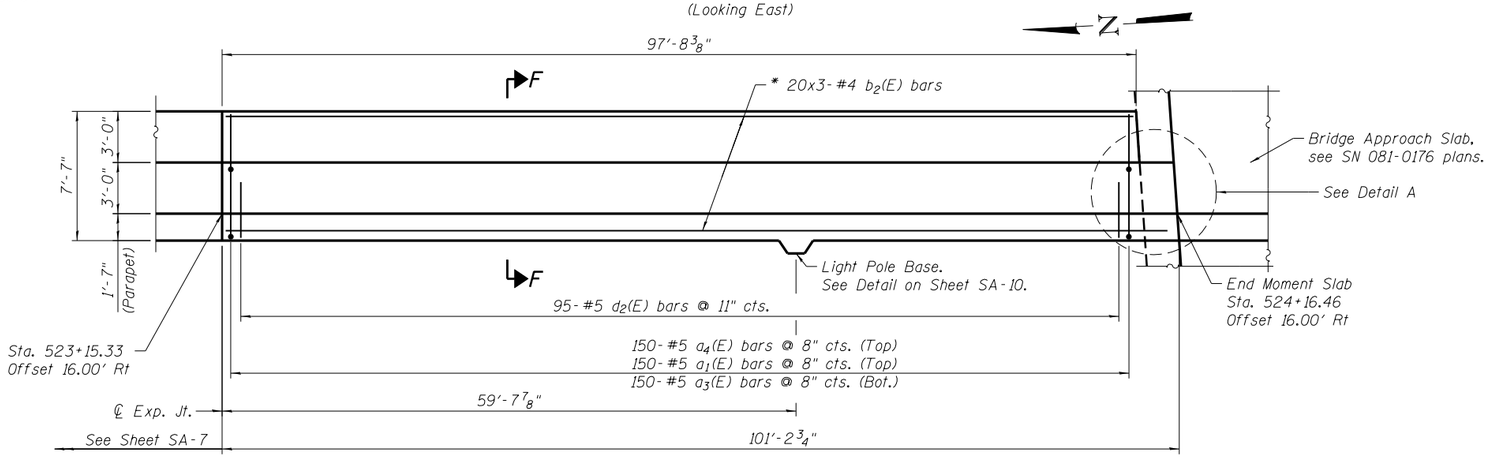
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	333
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\0003393.00\CONTRACT.1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_07_West_Moment_Slab-1.dgn



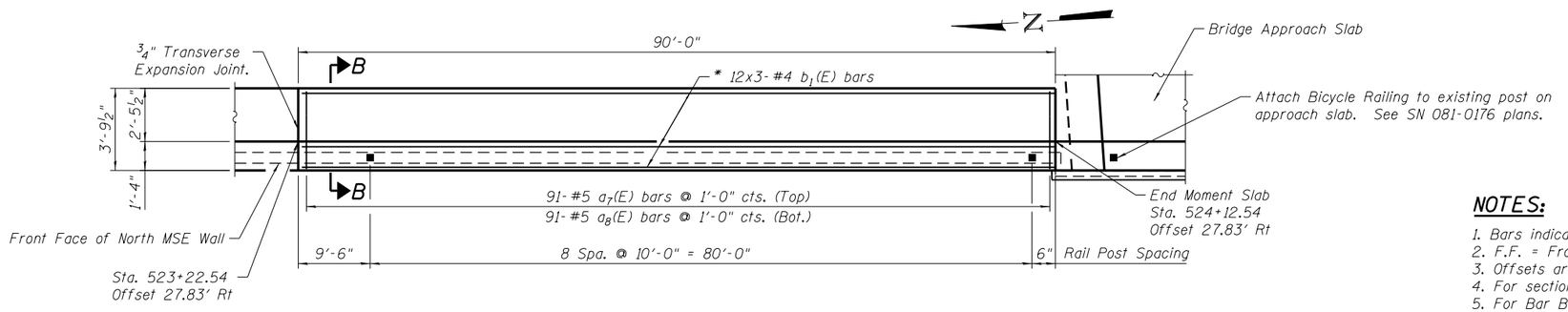
ELEVATION - WEST MOMENT SLAB

(Looking East)



PLAN - WEST MOMENT SLAB

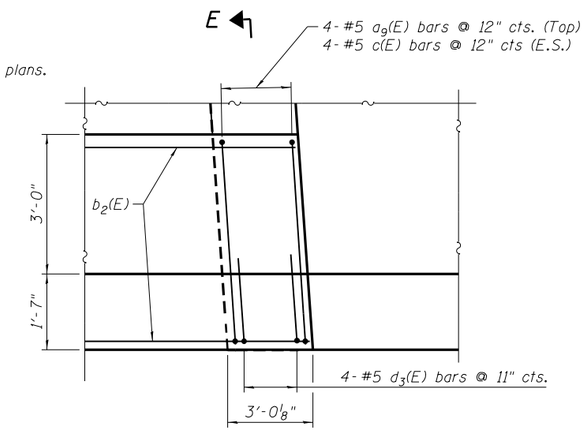
* See cross section for placement.



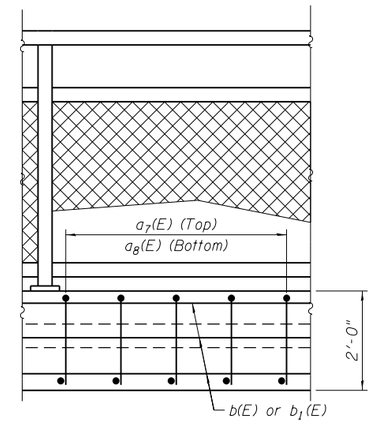
PLAN - MULTI-USE PATH MOMENT SLAB

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"



DETAIL A



TYPICAL ELEVATION - MULTI-USE PATH MOMENT SLAB

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face, B.F. = Back Face, E.S. = Each Side.
3. Offsets are to front face of parapet.
4. For sections B-B, E-E and F-F, see Sheet SA-9.
5. For Bar Bending Diagrams and Bill of Materials, see Sheet SA-11.
6. For Parapet Joint details, see Sheet SA-9.
7. For Transverse Contraction Joint details, see Sheet SA-10.
8. For Expansion Joint details, see Sheet SA-9.

Ciorba Group, Inc.
CONSULTING ENGINEERS
2007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4014
Email: ciorba@ciorba.com

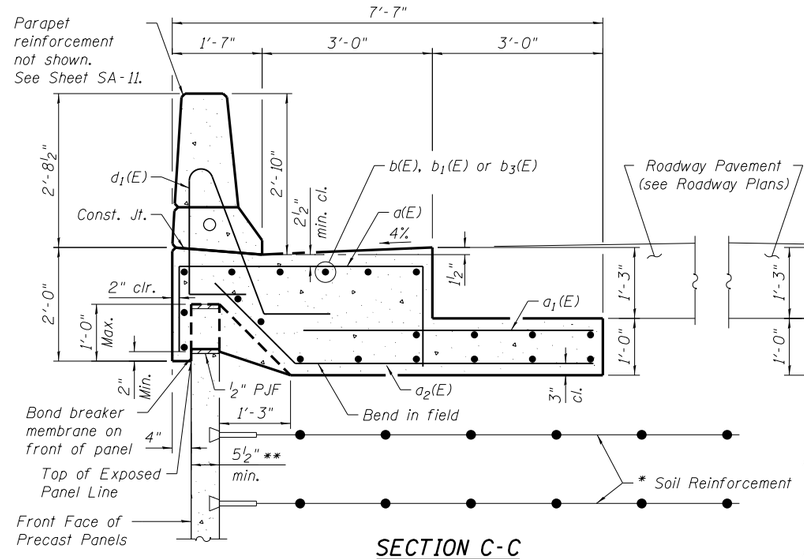
USER NAME = mteng	DESIGNED - APD	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 13:4 '1' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

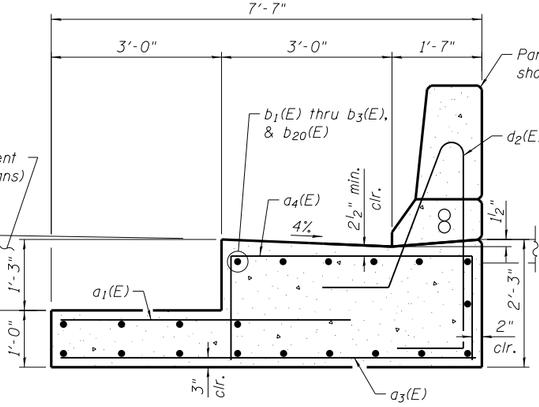
WEST AND MULTI-USE PATH MOMENT SLABS (2 of 2)
STRUCTURE NO. 081-7002
SHEET NO. SA-8 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	334
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_08_West_Moment_Slab-2.dgn



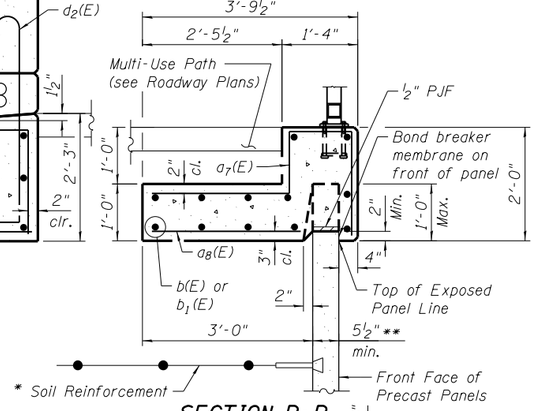
SECTION C-C



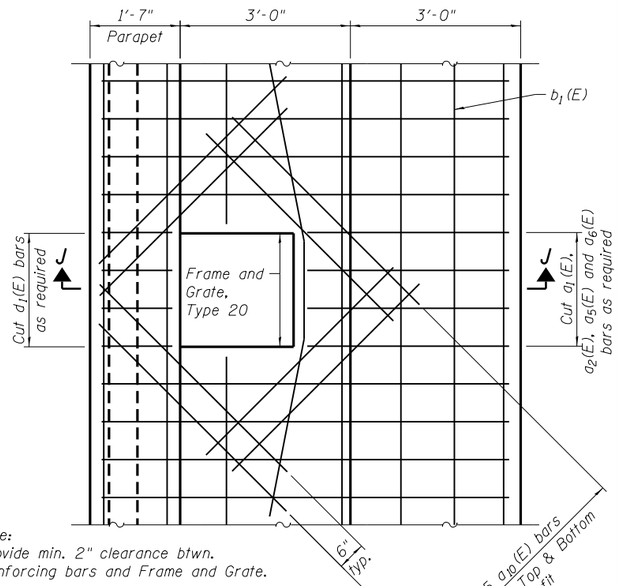
SECTION F-F

* The MSE wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

** See suppliers shop plans for thickness.

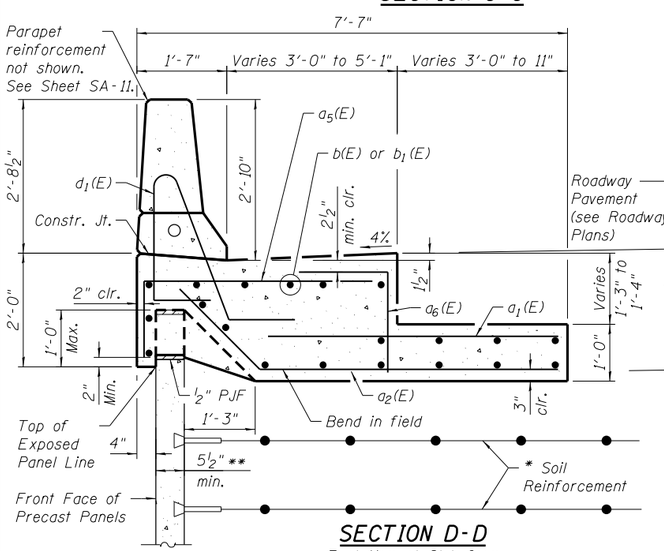


SECTION B-B



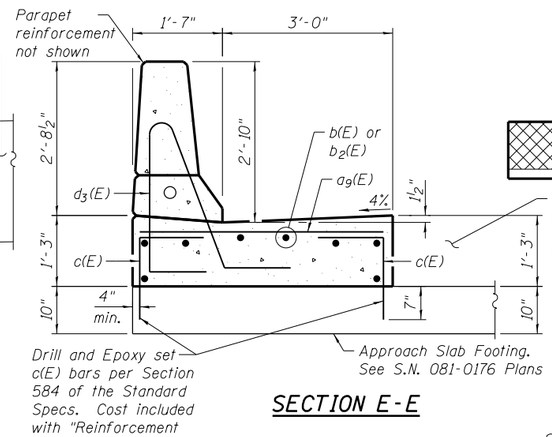
MOMENT SLAB AT MAN HOLE

East Moment Slab shown. West Moment Slab Similar

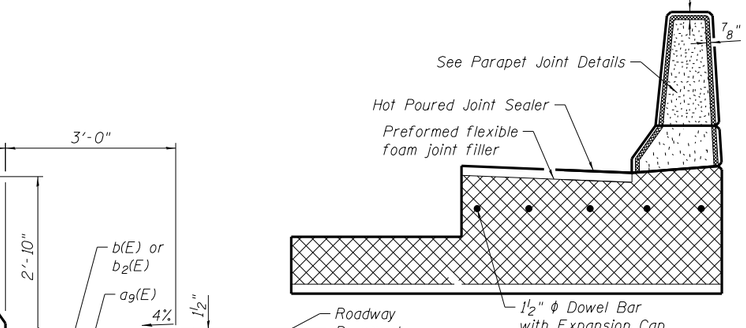


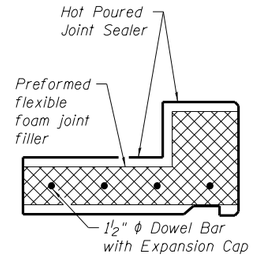
SECTION D-D

East Moment Slab from Sta. 522+15.96 to Sta. 523+70.96

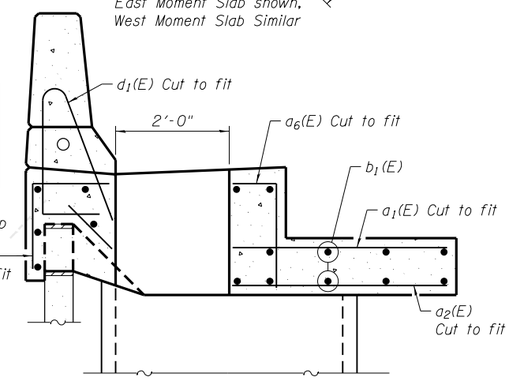


SECTION E-E

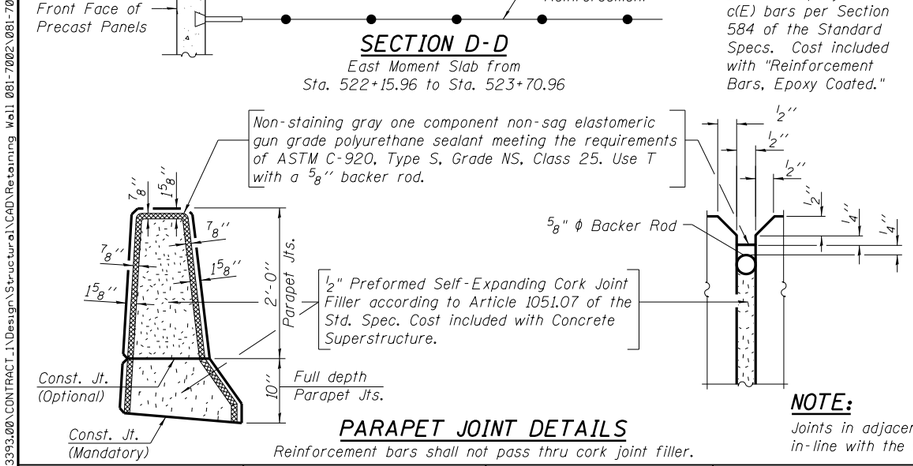




TRANSVERSE EXPANSION JOINT SECTION

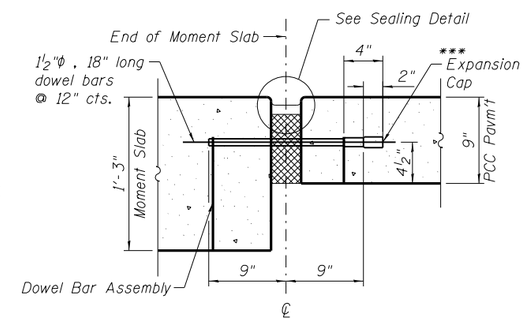


SECTION J-J



PARAPET JOINT DETAILS

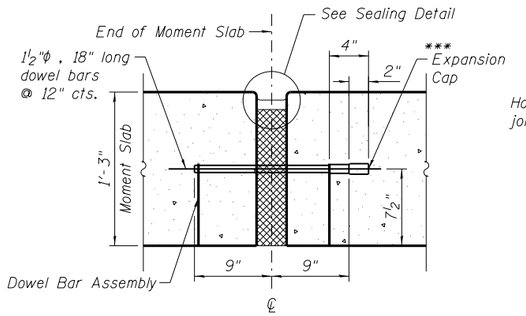
Reinforcement bars shall not pass thru cork joint filler.



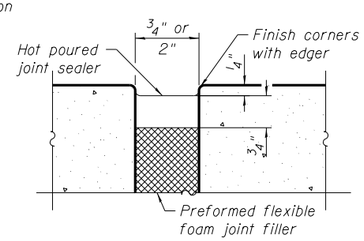
MOMENT SLAB TO PCC PAVEMENT

NOTE:

Joints in adjacent pavement shall be in-line with the moment slab joints.



MOMENT SLAB TO MOMENT SLAB TRANSVERSE EXPANSION JOINT



SEALING DETAIL

Expansion Joint and Dowel Bars included in the cost of Concrete Superstructure.

*** Expansion caps shall be installed on the exposed end of each dowel bar once the header has been removed and the joint filler material has been installed.

Clorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4014
Fax 773.775.4014
Email dhlcago@clorba.com

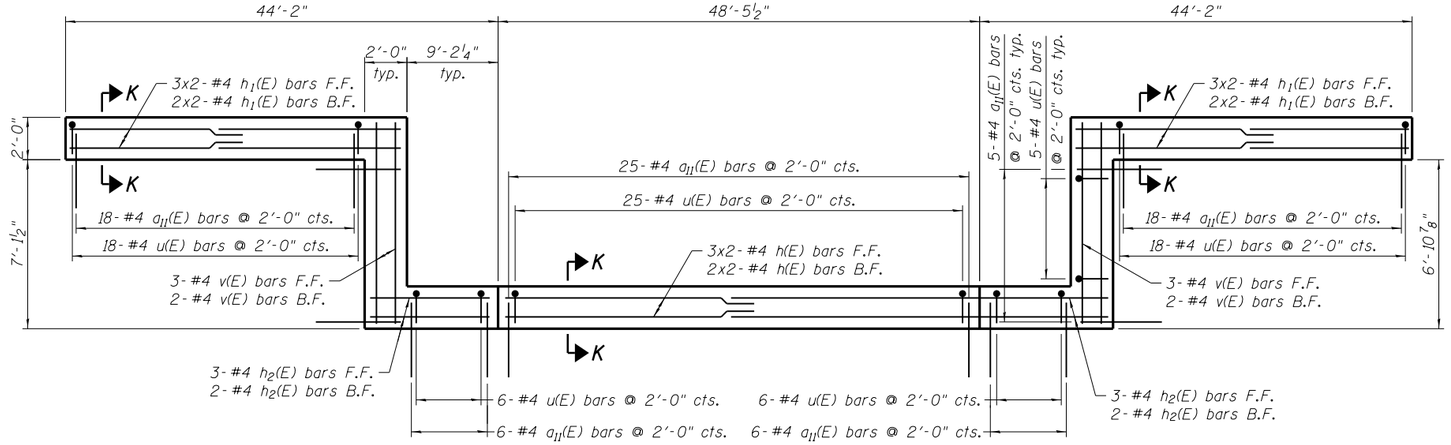
USER NAME = mteng	DESIGNED - APD	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 2:8 '1' / in.	DRAWN - RD	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS - 1
STRUCTURE NO. 081-7002
SHEET NO. SA-9 OF SA-16 SHEETS

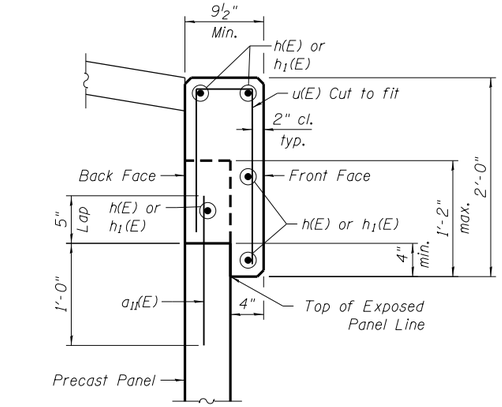
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	335
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\08003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_09_Details1.dgn

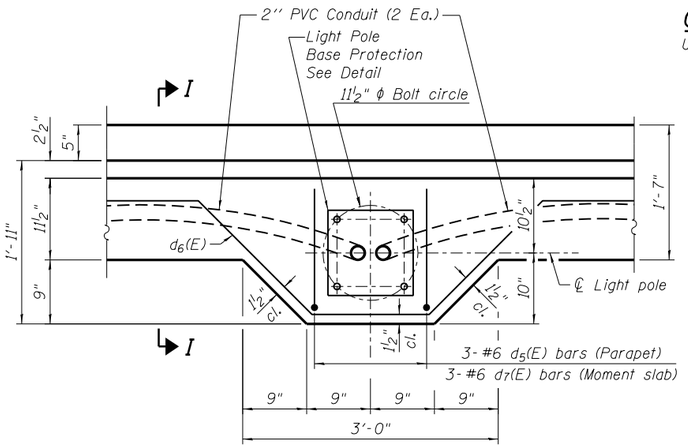


COPING DETAIL

Unfolded Elevation View

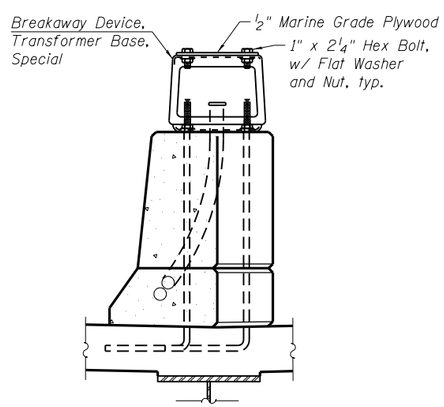


SECTION K-K



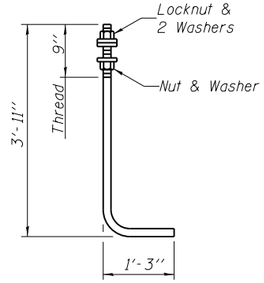
LIGHT POLE BASE DETAIL

(4 Thus)



LIGHT POLE BASE PROTECTION DETAIL

(3 Thus)
Not placed at Sta. 522+90



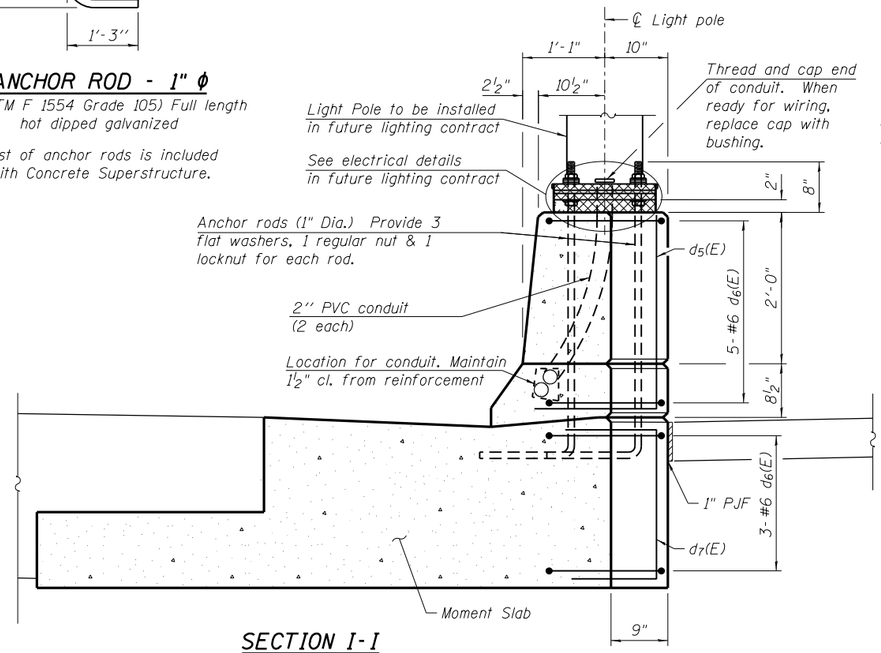
ANCHOR ROD - 1" ϕ

(ASTM F 1554 Grade 105) Full length hot dipped galvanized

Cost of anchor rods is included with Concrete Superstructure.

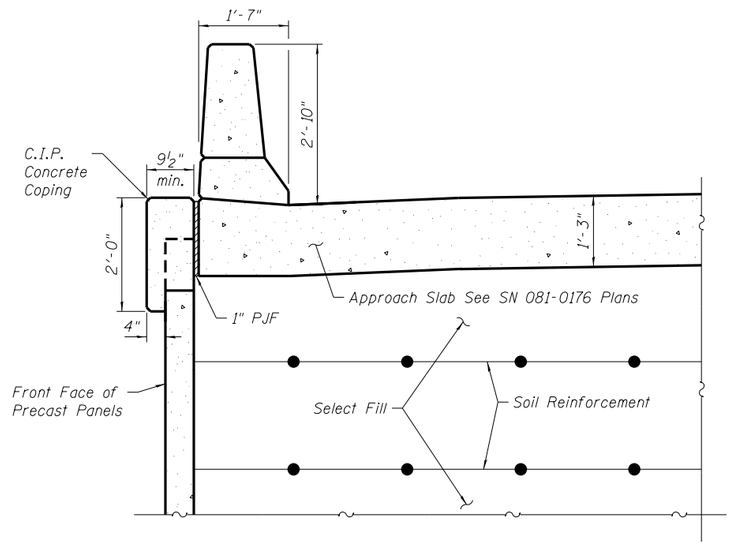
NOTES:

1. Concrete and Reinforcing Steel for Coping are included in the cost of Mechanically Stabilized Earth Retaining Wall.
2. For bar details see Sheet SA-11.
3. F.F. = Front Face, B.F. = Back Face

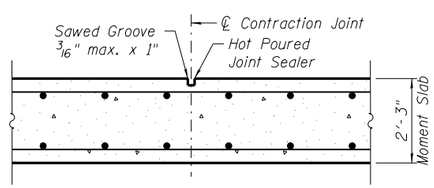


SECTION I-I

(West Moment Slab only)



SECTION H-H



TRANSVERSE CONTRACTION JOINT

See Art. 420.05(c) of Standard Specifications

Note:
Joints in the adjacent pavement shall be in-line with the moment slab joints.

Clorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Suite 402 Chicago Illinois 60656
Tel: 773.775.4005
Fax: 773.775.4514
Email: chicago@clorba.com

USER NAME = mteng	DESIGNED - APD	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 2ø 5/8 ': / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

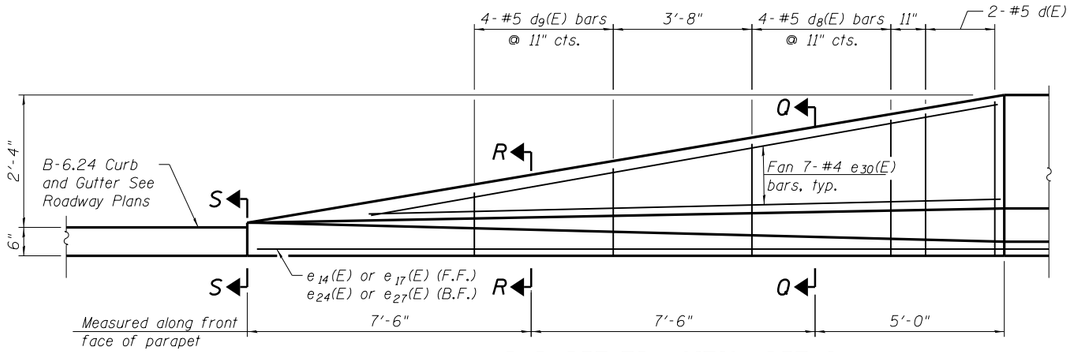
DETAILS – 2
STRUCTURE NO. 081–7002
SHEET NO. SA-10 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	336
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ_0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002.10.Details-2.dgn

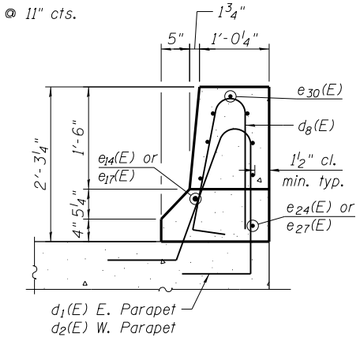
NOTES:

1. Cut $e_{30}(E)$ bars as needed to alleviate congestion near end of parapet.
2. See Sheets SA-4 & SA-6 for $d_1(E)$, $d_2(E)$, and $d_{10}(E)$ spacing.
3. Protective Coat is applied to top of exposed moment slabs, top & inside vertical faces of parapets and top of exposed multi-use path moment slab.

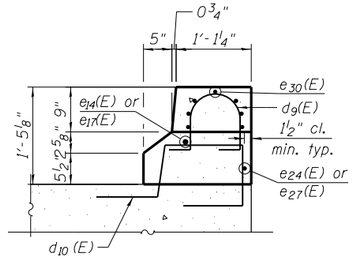


PARAPET TRANSITION DETAIL

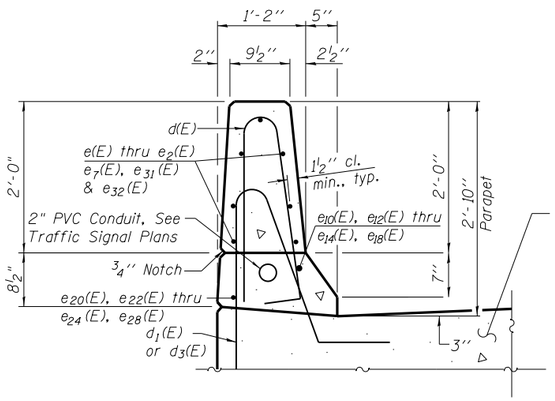
(Looking at Front Face of Parapet)



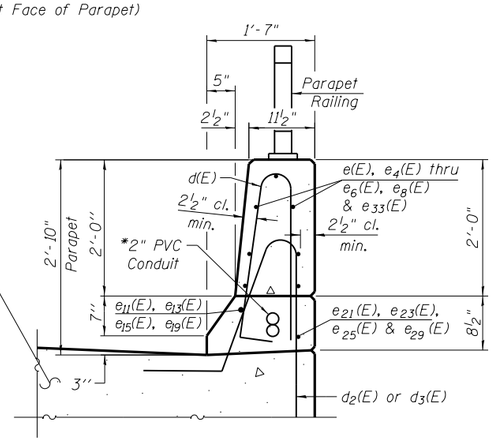
SECTION Q-Q



SECTION R-R

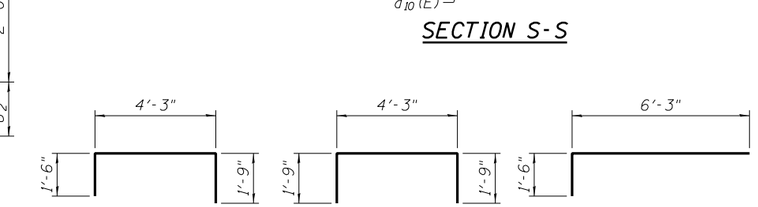


SECTION THRU EAST MOMENT SLAB PARAPET

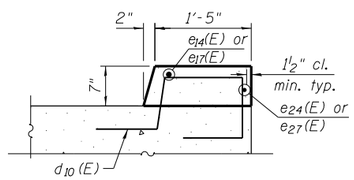


SECTION THRU WEST MOMENT SLAB PARAPET

* Conduit Embeded in Structure. 2" Dia., PVC (2 Ea.)



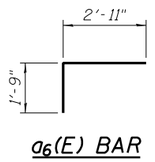
a(E) BAR — $a_4(E)$ BAR — $a_5(E)$ BAR



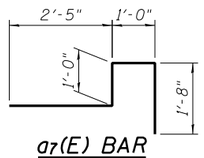
SECTION S-S

BILL OF MATERIAL

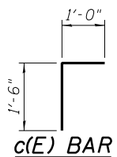
Bar	No.	Size	Length	Shape
a(E)	184	# 5	7'-6"	
$a_1(E)$	997	# 5	4'-10"	
$a_2(E)$	419	# 5	7'-3"	
$a_3(E)$	578	# 5	7'-3"	
$a_4(E)$	578	# 5	7'-9"	
$a_5(E)$	235	# 5	7'-9"	
$a_6(E)$	235	# 5	4'-8"	
$a_7(E)$	283	# 5	6'-1"	
$a_8(E)$	283	# 5	2'-8"	
$a_9(E)$	8	# 5	4'-3"	
$a_{10}(E)$	64	# 5	4'-8"	
b(E)	184	# 4	22'-11"	
$b_1(E)$	276	# 4	31'-10"	
$b_2(E)$	60	# 4	35'-8"	
$b_3(E)$	80	# 4	24'-4"	
$b_{20}(E)$	40	# 4	32'-1"	
c(E)	16	# 5	2'-6"	
d(E)	785	# 5	5'-7"	
$d_1(E)$	293	# 5	7'-6"	
$d_2(E)$	405	# 5	8'-11"	
$d_3(E)$	8	# 5	7'-11"	
$d_5(E)$	12	# 6	4'-5"	
$d_6(E)$	32	# 6	9'-8"	
$d_7(E)$	12	# 6	5'-9"	
$d_8(E)$	8	# 5	4'-8"	
$d_9(E)$	8	# 5	3'-5"	
$d_{10}(E)$	24	# 5	7'-3"	
e(E)	182	# 4	14'-8"	
$e_1(E)$	7	# 4	12'-9"	
$e_2(E)$	7	# 4	12'-3"	
$e_4(E)$	7	# 4	13'-2"	
$e_5(E)$	28	# 4	10'-8"	
$e_6(E)$	21	# 4	18'-8"	
$e_7(E)$	14	# 4	12'-8"	
$e_8(E)$	7	# 4	16'-8"	
$e_{10}(E)$	1	# 8	42'-9"	
$e_{11}(E)$	3	# 8	30'-7"	
$e_{12}(E)$	1	# 8	42'-3"	
$e_{13}(E)$	8	# 8	33'-3"	
$e_{14}(E)$	1	# 8	45'-8"	
$e_{15}(E)$	1	# 8	43'-2"	
$e_{17}(E)$	1	# 8	36'-2"	
$e_{18}(E)$	1	# 8	33'-10"	
$e_{19}(E)$	3	# 8	38'-2"	
$e_{20}(E)$	2	# 4	22'-11"	
$e_{21}(E)$	3	# 4	28'-0"	
$e_{22}(E)$	2	# 4	22'-8"	
$e_{23}(E)$	8	# 4	31'-4"	
$e_{24}(E)$	2	# 4	24'-4"	
$e_{25}(E)$	2	# 4	23'-1"	
$e_{27}(E)$	1	# 4	36'-2"	
$e_{28}(E)$	1	# 4	33'-10"	
$e_{29}(E)$	3	# 4	35'-8"	
$e_{30}(E)$	14	# 4	19'-8"	
$e_{31}(E)$	7	# 4	18'-10"	
$e_{32}(E)$	7	# 4	10'-5"	
$e_{33}(E)$	7	# 4	18'-5"	
Concrete Superstructure		Cu. Yd.	424.5	
Protective Coat		Sq. Yd.	499	
Reinforcement Bars, Epoxy Coated		Pound	53,970	



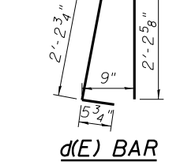
$a_6(E)$ BAR



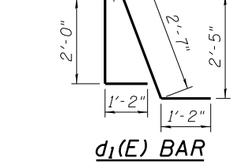
$a_7(E)$ BAR



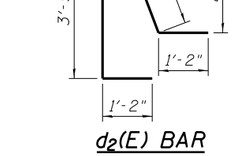
c(E) BAR



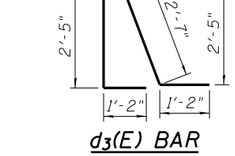
d(E) BAR



$d_1(E)$ BAR



$d_2(E)$ BAR

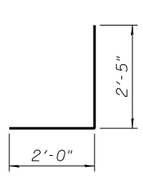


$d_3(E)$ BAR

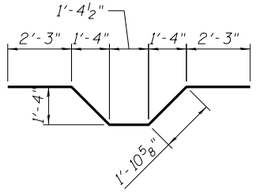
BILL OF MATERIAL - COPING

(For information only)

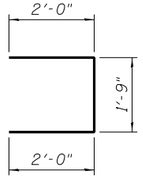
Bar	No.	Size	Length	Shape
$a_{11}(E)$	77	# 4	1'-6"	
h(E)	10	# 4	25'-7"	
$h_1(E)$	20	# 4	18'-7"	
$h_2(E)$	10	# 4	11'-2"	
u(E)	83	# 4	3'-5"	
v(E)	10	# 4	6'-7"	



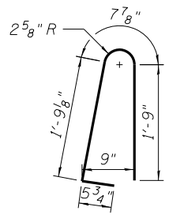
$d_5(E)$ BAR



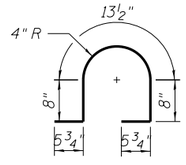
$d_6(E)$ BAR



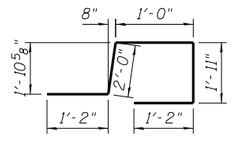
$d_7(E)$ BAR



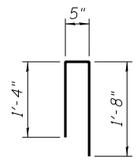
$d_8(E)$ BAR



$d_9(E)$ BAR



$d_{10}(E)$ BAR



u(E) BAR

Ciorba Group, Inc.
CONSULTING ENGINEERS
2007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4008
Fax 773.775.4014
E-mail: office@ciorba.com

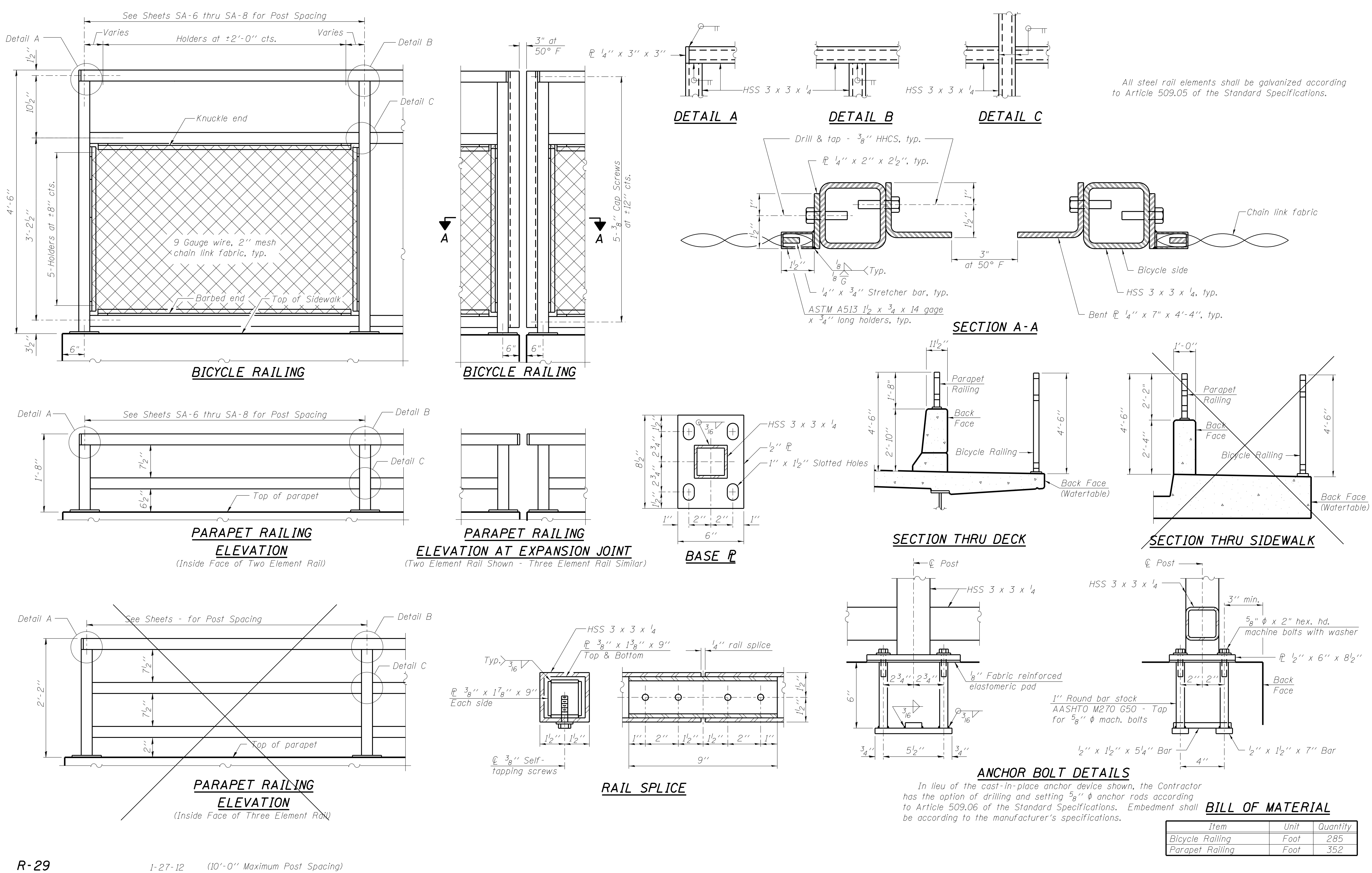
USER NAME = mteng	DESIGNED - APD	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 2:8 '1' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS – 3
STRUCTURE NO. 081-7002
SHEET NO. SA-11 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	337
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT 1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_11_Details-3.dgn



All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ɸ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	285
Parapet Railing	Foot	352

USER NAME = mteng	DESIGNED - APD	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0:2 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

Ciorba Group, Inc.
CONSULTING ENGINEERS

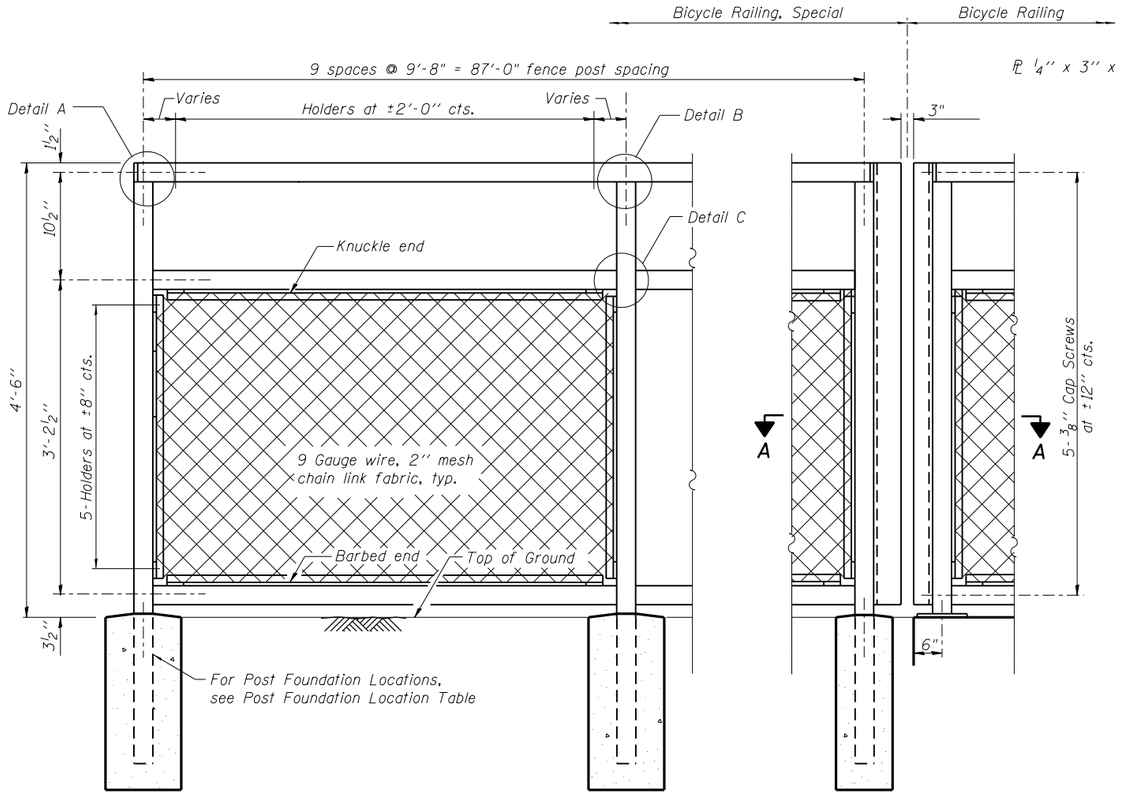
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING
STRUCTURE NO. 081-7002

SHEET NO. SA-12 OF SA-16 SHEETS

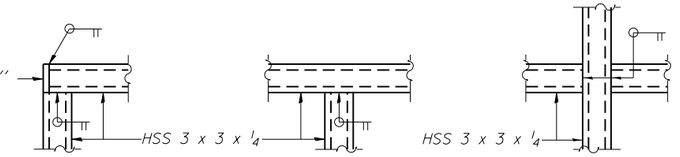
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	338
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_12_Bicycle Railing.dgn



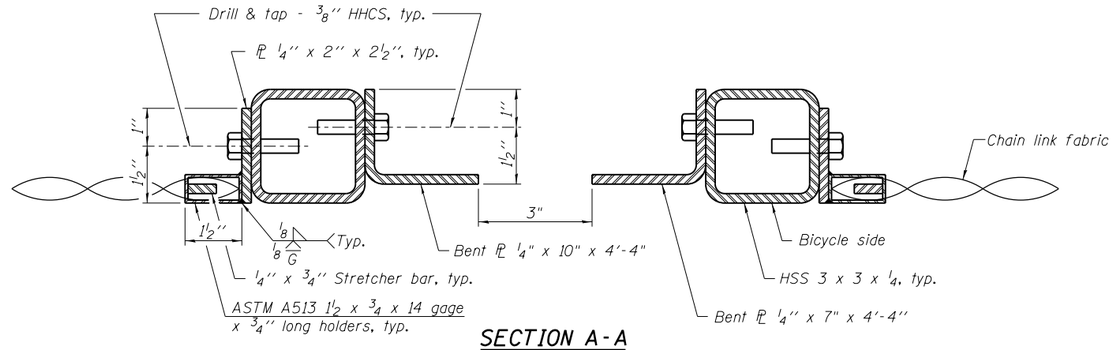
BICYCLE RAILING

(Looking East)

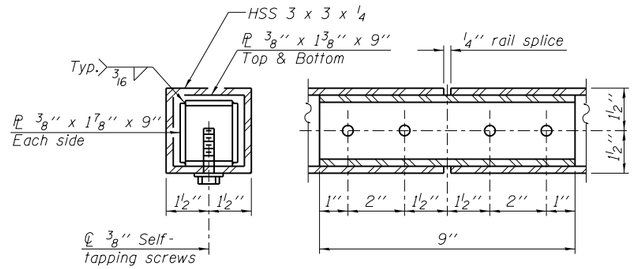


DETAIL A DETAIL B DETAIL C

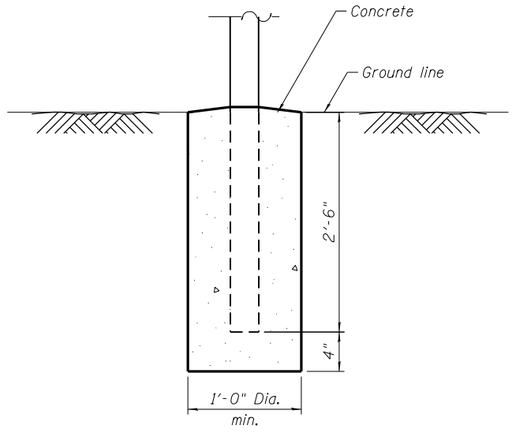
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



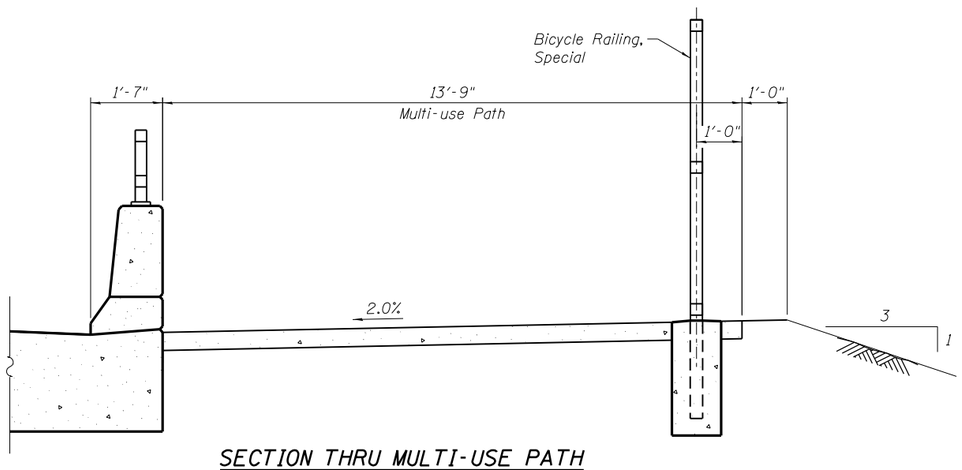
SECTION A-B



RAIL SPLICE



CONCRETE FOUNDATION



SECTION THRU MULTI-USE PATH

(Looking Up Station)

POST FOUNDATION LOCATION TABLE

(Stations taken off ℄ 41st Drive Connector)

Location	Station	Offset
1	520+47.86	47.09 Rt.
2	520+56.20	43.19 Rt.
3	520+65.40	40.21 Rt.
4	520+74.71	37.61 Rt.
5	520+84.12	35.41 Rt.
6	520+93.62	33.60 Rt.
7	521+03.18	32.18 Rt.
8	521+12.79	31.16 Rt.
9	521+22.42	30.29 Rt.
10	521+32.00	29.00 Rt.

NOTES:

1. Cost of concrete foundation included in cost of Bicycle Railing, Special.
2. Concrete shall be according to the requirements of Section 1020 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing, Special	Foot	90

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4005
Fax 773.775.4014
Email: office@ciorba.com

USER NAME = mteng	DESIGNED - APD	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = Ø.2 '' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING, SPECIAL
STRUCTURE NO. 081-7002
SHEET NO. SA-13 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	339
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT.1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002.13_Bicycle Railing-Special.dgn

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1 | Date 9/19/12

ROUTE FAP 595 | DESCRIPTION 081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street | LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB | LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island | DRILLING METHOD Hollow Stem Auger | HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 521+00

BORING NO. B-1
Station 521+00
Offset 23.00ft Lt CL
Ground Surface Elev. 581.4 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
DRY light brown LOAM	579.40				
HARD light brown SILTY CLAY LOAM	577.90		8 8 10	4.5 P	12
HARD light gray SILTY LOAM	575.40	-5	7 9 10	5.5 S	14
HARD light brown SILTY CLAY LOAM	572.90		5 6 8	4.6 S	16
VERY STIFF light brown SILTY CLAY LOAM	570.40	-10	4 7 9	3.5 B	19
STIFF light brown LOAM	567.90		4 4 6	1.6 B	20
End of Boring		-15 -20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1 | Date 9/20/12

ROUTE FAP 595 | DESCRIPTION 081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street | LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB | LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island | DRILLING METHOD Hollow Stem Auger | HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 521+00

BORING NO. B-2
Station 521+00
Offset 19.00ft Rt CL
Ground Surface Elev. 580.3 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
DRY brown SILTY CLAY LOAM	578.30				
DRY brown SILTY LOAM	576.80		4 6 7	0.9 P	12
VERY STIFF brown SILTY CLAY LOAM	574.30	-5	4 6 7	3.9 S	15
STIFF brown SILTY CLAY LOAM	571.80		5 6 7	1.8 B	21
VERY STIFF brown SILTY CLAY LOAM	569.30	-10	3 5 8	2.5 B	21
STIFF light brown SILTY CLAY LOAM	566.80		5 8 9	1.9 B	19
End of Boring		-15 -20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1 | Date 9/20/12

ROUTE FAP 595 | DESCRIPTION 081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street | LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB | LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island | DRILLING METHOD Hollow Stem Auger | HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 522+00

BORING NO. B-3
Station 522+00
Offset 22.00ft Lt CL
Ground Surface Elev. 572.2 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter 557.7 ft ▼
Upon Completion 557.7 ft ▽
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
DRY black SILTY CLAY LOAM	570.20				23
VERY STIFF dark gray SILTY LOAM	568.70		5 5 6	3.5 P	15
HARD dark gray SILTY LOAM	566.20	-5	4 5 5	4.4 S	17
MEDIUM light gray LOAM	563.70		1 3 3	0.7 B	25
SOFT light gray LOAM	560.70	-10	1 1 2	0.3 B	31
VERY STIFF black/dark gray SHALE	558.70		20 37 19	3.3 S	20
VERY DENSE gray SHALE with COAL lens	556.20	▼ -15	100/8" PEN		
End of Boring		-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4014
Email chicago@ciorba.com

USER NAME = mteng	DESIGNED - APD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0:2 ':" / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

SOIL BORING LOGS 1
STRUCTURE NO. 081-7002

SHEET NO. SA-14 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	340
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\00003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_15_Soil_Boring_Logs_2.dgn

Illinois Department of Transportation — SOIL BORING LOG (B-4)

Division of Highways
Illinois Department of Transportation

Page 1 of 1

Date 9/20/12

ROUTE FAP 595 DESCRIPTION 081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 522+00

BORING NO. B-4
Station 522+00
Offset 25.00ft Rt CL
Ground Surface Elev. 572.3 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
DRY brown SILTY CLAY LOAM	570.30				17
VERY STIFF dark gray SILTY LOAM	568.80		4 4 4	2.8 P	15
HARD brown SILTY CLAY LOAM	566.30	-5	4 6 6	5.9 S	15
SOFT light gray SANDY LOAM	563.30		1 1 2	0.3 B	24
VERY DENSE light gray SANDSTONE	561.30	-10	2 15 85		9
VERY DENSE light gray SANDSTONE	558.80		100/1" PEN		
End of Boring		-15 -20			

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
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 — SOIL BORING LOG (B-5)

Division of Highways
Illinois Department of Transportation

Page 1 of 1

Date 9/24/12

ROUTE FAP 595 DESCRIPTION 081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 523+00

BORING NO. B-5
Station 523+00
Offset 25.00ft Lt CL
Ground Surface Elev. 569.5 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
DRY light brown SILTY CLAY LOAM	567.50				16
VERY STIFF dark brown SILTY CLAY LOAM	566.00		2 3 4	2.6 P	18
STIFF dark gray SILTY CLAY LOAM	563.50	-5	4 3 4	1.9 S	22
MEDIUM gray CLAY LOAM	561.00		2 2 2	0.7 B	44
VERY SOFT gray SILTY LOAM with SAND lens	558.00	-10	0 0 1	0.1 B	38
VERY DENSE gray SHALE	556.00		34 100/8" PEN		
End of Boring		-15 -20			

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
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 — SOIL BORING LOG (B-6)

Division of Highways
Illinois Department of Transportation

Page 1 of 1

Date 9/24/12

ROUTE FAP 595 DESCRIPTION 081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 523+00

BORING NO. B-6
Station 523+00
Offset 25.00ft Rt CL
Ground Surface Elev. 569.3 ft

Surface Water Elev. ____ ft
Stream Bed Elev. ____ ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF light brown SILTY CLAY LOAM	567.30			3.3 P	18
HARD dark brown SILTY CLAY LOAM	565.80		3 3 5	4.2 S	19
STIFF gray SILTY CLAY LOAM	563.30	-5	3 3 4	1.5 B	21
MEDIUM gray CLAY LOAM with 5% ORGANICS	560.80		2 2 2	0.7 B	43
STIFF tan LOAM with SILT lens	557.80	-10	0 2 5	1.0 P	28
VERY DENSE gray SHALE	555.80		40 100/7" PEN		
End of Boring		-15 -20			

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/25/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 524+00

BORING NO. B-7
Station 524+00
Offset 25.00ft Lt CL
Ground Surface Elev. 567.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM light brown SILTY CLAY LOAM			0.5 P	27
565.70				
MEDIUM dark gray SILTY CLAY LOAM		3 3 4	0.5 P	37
564.20				
MEDIUM gray CLAY LOAM	-5	2 2 3	0.7 B	32
561.70				
SOFT gray CLAY LOAM with 11% ORGANICS		1 1 2	0.3 B	61
559.20				
SOFT gray SILTY CLAY with 19% ORGANICS		2 1 2	0.3 B	105
557.20	-10	6		
VERY DENSE gray SHALE		18 32 61		
555.70				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7002 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 10/1/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1) R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7002
Station 524+00

BORING NO. B-8
Station 524+00
Offset 27.00ft Rt CL
Ground Surface Elev. 567.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOOSE light brown SILTY LOAM				18
565.50				
MEDIUM dark gray SILTY CLAY LOAM		1 3 4	0.8 P	33
564.00				
MEDIUM dark gray SILTY CLAY LOAM	-5	1 2 2	0.5 B	32
561.50				
VERY SOFT light gray CLAY LOAM with 10% ORGANICS		1 1 2	0.2 B	67
559.00				
VERY SOFT gray SILTY CLAY with 13% ORGANICS, SHALE lens	-10	0 1 14	0.2 P	83
556.00				
VERY DENSE gray weathered SHALE		24 25 42		
554.00				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7002\081-7002_16_Soil_Boring_Logs_3.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Chicago, Illinois 60656
Tel 773.775.4400
Fax 773.775.4014
Email dWago@ciorba.com

USER NAME = mteng	DESIGNED - APD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0.2 '/ in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

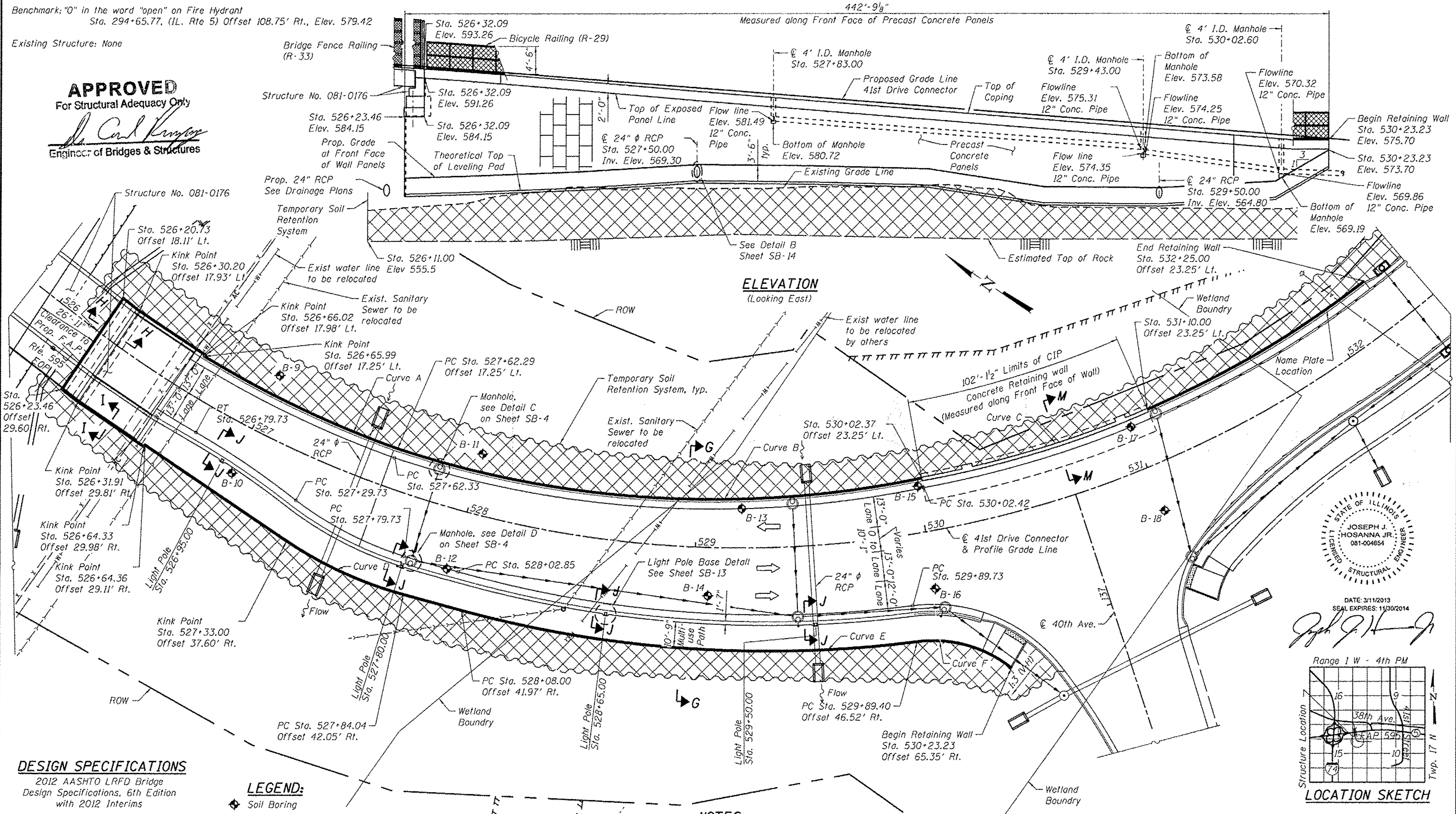
SOIL BORING LOGS 3
STRUCTURE NO. 081-7002
SHEET NO. SA-16 OF SA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 AND 142-1HB	ROCK ISLAND	507	342
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Benchmark: "O" in the word "open" on Fire Hydrant
Sta. 294+65.77, (IL. Rte 5) Offset 108.75' Rt., Elev. 579.42

Existing Structure: None

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



442'-9 1/8"
Measured along Front Face of Precast Concrete Panels
Sta. 526+32.09 Elev. 593.26
Bicycle Railing (R-29)
Bridge Fence Railing (R-33)
Structure No. 081-0176
Sta. 526+32.09 Elev. 591.26
Sta. 526+23.46 Elev. 584.15
Sta. 526+32.09 Elev. 584.15
Prop. Grade at Front Face of Wall Panels
Theoretical Top of Leveling Pad
Top of Exposed Panel Line
℄ 24" ϕ RCP Sta. 527+50.00 Inv. Elev. 569.30
Flow line Elev. 581.49 12" Conc. Pipe
℄ 4' I.D. Manhole Sta. 527+83.00
Bottom of Manhole Elev. 580.72
Proposed Grade Line 41st Drive Connector
Top of Coping
Precast Concrete Panels
Existing Grade Line
℄ 4' I.D. Manhole Sta. 529+43.00
Flowline Elev. 575.31 12" Conc. Pipe
Flow line Elev. 574.35 12" Conc. Pipe
Bottom of Manhole Elev. 573.58
Flowline Elev. 574.25 12" Conc. Pipe
℄ 4' I.D. Manhole Sta. 530+02.60
Flowline Elev. 570.32 12" Conc. Pipe
Begin Retaining Wall Sta. 530+23.23 Elev. 575.70
Sta. 530+23.23 Elev. 573.70
Flowline Elev. 569.86 12" Conc. Pipe
Bottom of Manhole Elev. 569.19
℄ 24" RCP Sta. 529+50.00 Inv. Elev. 564.80
Prop. 24" RCP See Drainage Plans
Temporary Soil Retention System
Sta. 526+11.00 Elev 555.5
See Detail B Sheet SB-14
Estimated Top of Rock
ELEVATION
(Looking East)
Structure No. 081-0176
Sta. 526+20.73 Offset 18.11' Lt.
Kink Point Sta. 526+30.20 Offset 17.93' Lt.
Exist water line to be relocated
Exist. Sanitary Sewer to be relocated
Kink Point Sta. 526+66.02 Offset 17.98' Lt.
Kink Point Sta. 526+65.99 Offset 17.25' Lt.
PC Sta. 527+62.29 Offset 17.25' Lt.
Curve A
Manhole, see Detail C on Sheet SB-4
Temporary Soil Retention System, typ.
Exist. Sanitary Sewer to be relocated
Exist water line to be relocated by others
102'-1 1/2" Limits of CIP Concrete Retaining wall (Measured along Front Face of Wall)
Curve C
Sta. 531+10.00 Offset 23.25' Lt.
End Retaining Wall Sta. 532+25.00 Offset 23.25' Lt.
Wetland Boundry
Name Plate Location
ROW
Sta. 526+23.46 Offset 29.60' Rt.
PT Sta. 526+79.73
24" ϕ RCP
PC Sta. 527+29.73
PC Sta. 527+62.33
PC Sta. 527+79.73
Manhole, see Detail D on Sheet SB-4
PC Sta. 528+02.85
Light Pole Base Detail See Sheet SB-13
Sta. 530+02.37 Offset 23.25' Lt.
Curve B
PC Sta. 530+02.42
℄ 41st Drive Connector & Profile Grade Line
PC Sta. 529+89.73
℄ 40th Ave.
Kink Point Sta. 526+31.91 Offset 29.81' Rt.
Kink Point Sta. 526+64.33 Offset 29.98' Rt.
Kink Point Sta. 526+64.36 Offset 29.11' Rt.
Kink Point Sta. 527+33.00 Offset 37.60' Rt.
Light Pole Sta. 526+95.00
Light Pole Sta. 527+80.00
Light Pole Sta. 528+65.00
Light Pole Sta. 529+50.00
Curve D
Curve E
Curve F
Flow
10'-9" Multi-use Path
PC Sta. 528+08.00 Offset 41.97' Rt.
PC Sta. 527+84.04 Offset 42.05' Rt.
PC Sta. 529+89.40 Offset 46.52' Rt.
Begin Retaining Wall Sta. 530+23.23 Offset 65.35' Rt.
Wetland Boundry
PLAN
Range 1 W - 4th PM
Twp. 17 N
38th Ave.
41st Street
F.A.P. 595
Structure Location
LOCATION SKETCH

JOSEPH J. HOSANNA JR. 081-004654
LICENSED STRUCTURAL ENGINEER, STATE OF ILLINOIS
DATE: 3/11/2013
SEAL EXPIRES: 11/30/2014

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2012 Interims

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

f'c = 4,500 psi (Precast Face Panels)

LEGEND:

- Soil Boring
- Temporary Easement
- * Removal and Disposal of Unsuitable Materials Rock Fill is to be placed up to the top of existing ground or bottom of MSE Wall leveling pad, whichever is lower. See Roadway plans for Removal and Disposal of Unsuitable Materials and Rock Fill quantities.
- * Cross hatching not shown under roadway and path for clarity.

NOTES:

1. See sheet SB-4 for Sections G-G & H-H and sheet SB-13 for Sections I-I & J-J. See sheet SB-16 for Section M-M.
2. Offsets are measured from the ℄ of 41st Drive Connector to the front face of wall.
3. Ashlar stone formliner to be used on MSE wall panels.
4. See sheet SB-2 for curve data and sheet SB-3 for profile data.

GENERAL PLAN & ELEVATION
F.A.P. RTE. 595 - SEC. (142-1)R-1 AND 142-1HB
ROCK ISLAND COUNTY
STATION 526+20.73 TO 532+25.00
STRUCTURE NO. 081-7003

Ciorba Group, Inc. CONSULTING ENGINEERS	USER NAME = rdonley	DESIGNED - SMY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - BWS	REVISED -	
	PLOT SCALE = 400.0 ' / in.	DRAWN - RD	REVISED -	
	PLOT DATE = 3/21/2013	CHECKED - BWS	REVISED -	

SHEET NO. SB-1 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	343
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\2083391.01\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_01_GPE.dgn

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Ashlar stone form liner shall be used on MSE wall panels.
3. Stations and offsets are measured from centerline of 41st Drive Connector to the front face of the MSE wall panels.
4. Slipforming at the parapet is prohibited.
5. The select fill chosen for the MSE walls shall be a free draining material.

INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Structures	Cu. Yd.	155.1
Concrete Superstructure	Cu. Yd.	542.5
Form Liner Textured Surface	Sq. Ft.	791
Protective Coat	Sq. Yd.	930
Reinforcement Bars, Epoxy Coated	Pound	81,220
Bicycle Railing	Foot	399
Parapet Railing	Foot	351
Name Plates	Each	1
Geocomposite Wall Drain	Sq. Yd.	66
Conduit Embedded in Structure, 2" Dia., PVC	Foot	820
Junction Box, Stainless Steel, Embedded In Structure, 12" X 10" X 6"	Each	1
Breakaway Device, Transformer Base, Special	Each	4
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	14,978
Temporary Soil Retention System	Sq. Ft.	12,719

STATION 526+20.73 TO 532+25.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P 595 SEC. (142-1)R-1 AND 142-1HB
LOADING HL 93
STRUCTURE NO. 081-7003

NAME PLATE

See Std. 515001

CURVE A DATA

Δ = 11° 57′ 34″
R = 444.11′
T = 46.52′
L = 92.70′
E = 2.43′
Begin Curve A Sta. 526+65.99 Offset: 17.25′ Lt.
End Curve A Sta. 527+62.29 Offset: 17.25′ Lt.

CURVE B DATA

Δ = 29° 51′ 35″
R = 440.57′
T = 117.47′
L = 229.60′
E = 15.39′
Begin Curve B Sta. 527+62.29 Offset: 17.25′ Lt.
End Curve B Sta. 530+02.36 Offset: 23.25′ Lt.

CURVE C DATA

Δ = 27° 40′ 14″
R = 437.75′
T = 107.81′
L = 211.41′
E = 13.08′
Begin Curve C Sta. 530+02.36 Offset: 23.25′ Lt.
End Curve C Sta. 532+25.00 Offset: 23.25′ Lt.

41ST DRIVE CONNECTOR CURVE DATA

Δ = 96° 59′ 51″
D = 12° 25′ 43″
T = 521.04′
L = 780.44′
E = 234.71′
R = 461.00′
S.E. = N.C.
P.C. = Sta. 526+16.56
P.T. = Sta. 533+97.00
P.I. = Sta. 531+37.60

CURVE D DATA

Δ = 18° 50′ 32″
R = 169.83′
T = 28.18′
L = 55.85′
E = 2.32′
Begin of Curve D Sta. 527+33.00 Offset: 37.60′ Rt.
End of Curve D Sta. 527+84.04 Offset: 42.05′ Rt.

CURVE E DATA

Δ = 22° 34′ 41″
R = 504.66′
T = 100.74′
L = 198.87′
E = 9.96′
Begin of Curve E Sta. 528+08.00 Offset: 41.97′ Rt.
End of Curve E Sta. 529+89.40 Offset: 46.52′ Rt.

CURVE F DATA

Δ = 46° 00′ 28″
R = 54.17′
T = 23.00′
L = 43.50′
E = 4.68′
Begin of Curve E Sta. 529+89.40 Offset: 46.52′ Rt.
End of Curve E Sta. 530+23.23 Offset: 65.35′ Rt.

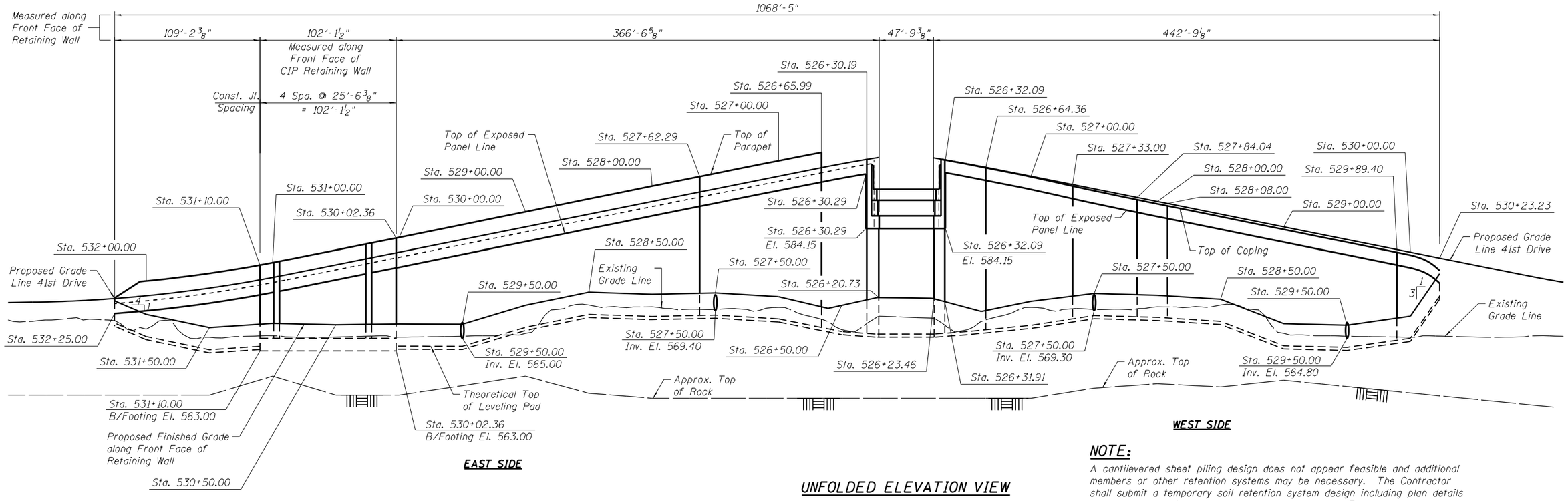
N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_02_General_Notes_Revised.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4014
Email chicago@ciorba.com

USER NAME = rdanley	DESIGNED - SMY	REVISED - Addendum 1 8/15/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - BWS	REVISED -	
PLOT SCALE = 60.000000 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 8/15/2013	CHECKED - BWS	REVISED -	

GENERAL NOTES & TOTAL BILL OF MATERIAL
STRUCTURE NO. 081–7003
SHEET NO. SB-2 OF SB-21 SHEETS

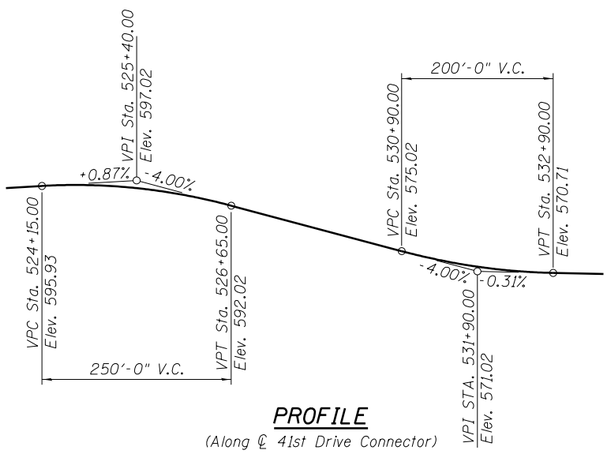
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	344
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



NOTE:

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

UNFOLDED ELEVATION VIEW



PROFILE
(Along ℄ 41st Drive Connector)

EAST SIDE

Station	South MSE Wall (S.N. 081-7003) East Side Elevations				Temporary Soil Retention System (TSRS) Elevations		
	Top of Parapet or Coping	PGL	Top of Exposed Panel Line	*Proposed Finished Grade	Existing Grade	Approx. Top of Rock	Approx. Height of TSRS (ft)
532+25.00	571.38	571.30	568.93	570.92			
532+00.00				568.78	566.3	556.0	10.3
531+50.00				566.69	565.2	556.0	9.2
531+10.00	576.59	574.26	571.88	567.23			
531+00.00	576.96	574.63	572.25	567.36	565.3	559.0	6.3
530+50.00				567.15	565.2	556.0	9.2
530+02.36	580.86	578.53	576.15	567.26			
530+00.00				567.27	565.3	556.0	9.3
529+50.00				567.23	565.8	557.5	8.3
529+00.00	585.00	582.62	580.30	570.24	569.9	559.0	10.9
528+50.00				572.29	569.8	556.3	13.5
528+00.00	589.05	586.62	584.35	571.96	569.6	555.5	14.1
527+62.29	590.58	588.13	585.87	572.13			
527+50.00				572.18	569.8	555.5	14.3
527+00.00	593.07	590.62	588.37	571.58	569.6	555.5	14.1
526+65.99	594.43	591.98	589.73	569.98			
526+50.00				570.21	569.6	555.5	14.1
526+30.29	593.08		591.08	571.35			
526+30.19	592.97			571.08			
526+20.73	586.15	593.60	584.15	571.45			

* Along Front Face of Retaining Wall.

WEST SIDE

Station	South MSE Wall (S.N. 081-7003) West Side Elevations				Temporary Soil Retention System (TSRS) Elevations		
	Top of Coping or Moment Slab	PGL	Top of Exposed Panel Line	*Proposed Finished Grade	Existing Grade	Approx. Top of Rock	Approx. Height of TSRS (ft)
526+23.46	586.15	593.51	584.15	571.26			
526+31.91				570.81			
526+32.09	593.26		591.26	571.00			
526+50.00				569.83	568.8	555.5	13.3
526+64.36	591.95	592.05	589.95	569.40			
527+00.00	590.54	590.62	588.54	570.86	568.8	555.5	13.3
527+33.00	589.07	589.30	587.07	571.68			
527+50.00				572.10	568.7	556.3	12.4
527+84.04	586.90	587.26	584.90	571.91			
528+00.00	586.26	586.62	584.26	571.82	569.5	557.0	12.5
528+08.00	585.93	586.30	583.93	571.72			
528+50.00				571.18	569.2	556.5	12.7
529+00.00	582.21	582.62	580.21	567.31	565.0	558.0	7.0
529+50.00				567.07	565.3	557.0	8.3
529+89.40	578.59	579.04	576.59	568.20			
530+00.00	578.14	578.62	576.14	568.50	565.3	556.0	9.3
530+23.23	575.70	577.69	573.70	575.21			

* Along Front Face of Retaining Wall.

Clorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4014
Fax 773.775.4014
Email dhlcago@clorba.com

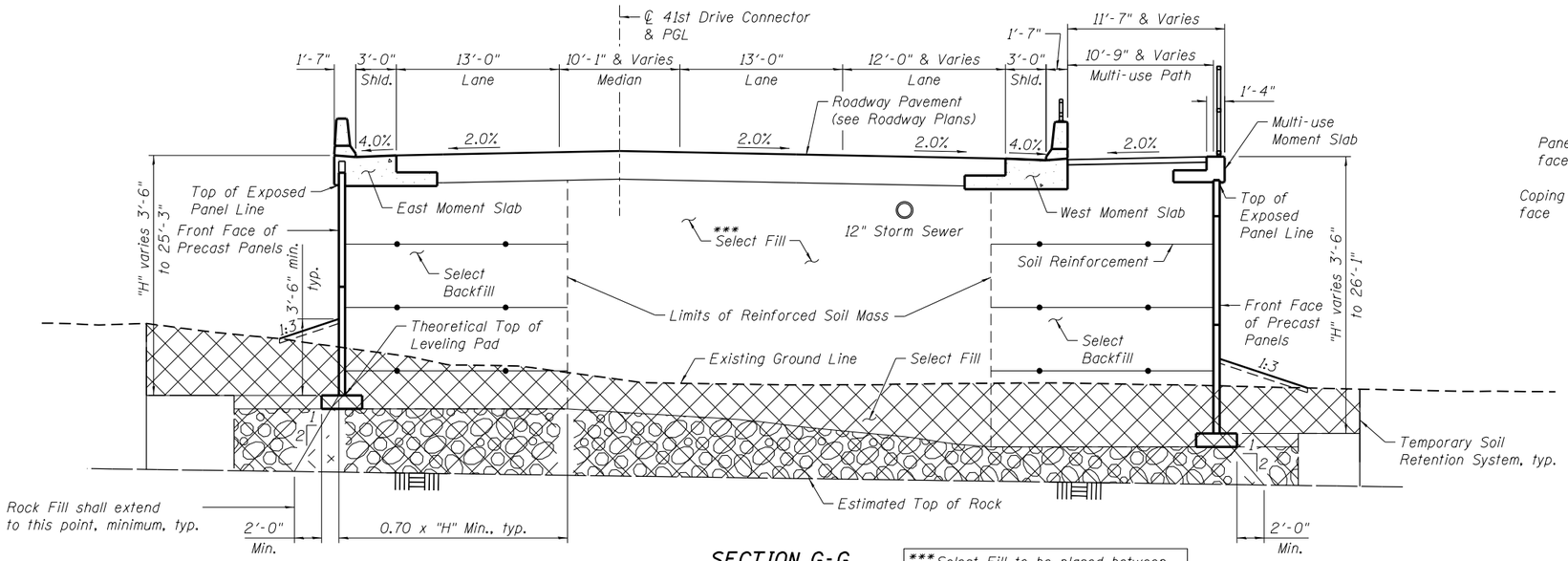
USER NAME = rdanley	DESIGNED - SMY	REVISED - Addendum 1 8/15/2013
	CHECKED - BWS	REVISED -
PLOT SCALE = 80.000000 ' / in.	DRAWN - RD	REVISED -
PLOT DATE = 8/15/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNFOLDED ELEVATION VIEW
STRUCTURE NO. 081-7003
SHEET NO. SB-3 OF SB-21 SHEETS

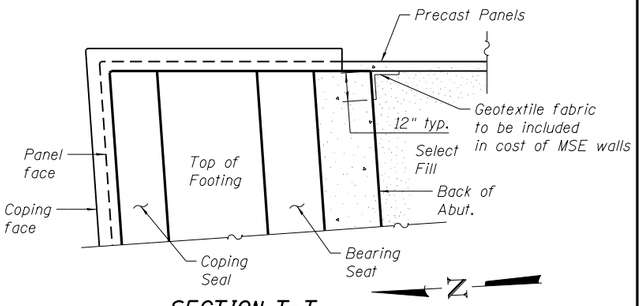
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	345
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\08003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_03.Unfolded.Elevation.View.Revised.dgn



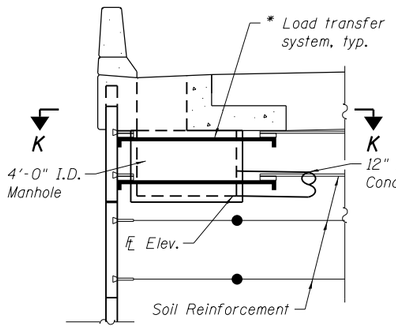
SECTION G-G

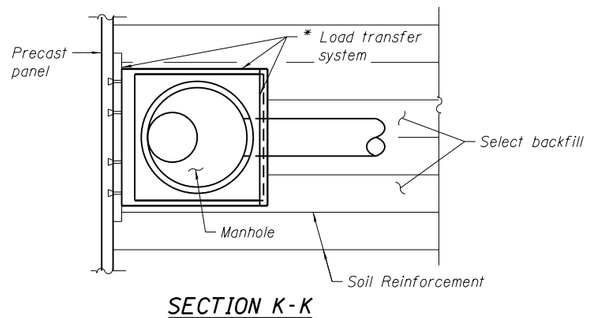
*** Select Fill to be placed between limits of reinforced soil mass in area where MSE Wall is on both sides of roadway. Cost to be included with cost of Mechanically Stabilized Earth Retaining Wall. See Roadway Plans for details.



SECTION T-T

(at corner of MSE wall)

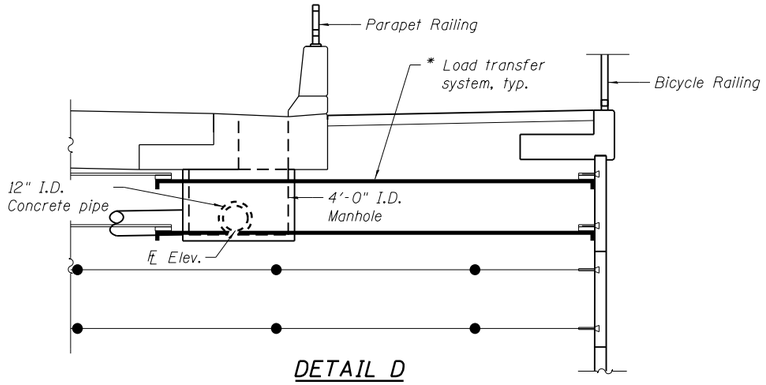




SECTION K-K

DETAIL C

* M.S.E. supplier to design load transfer system to accommodate concrete pipe and manhole

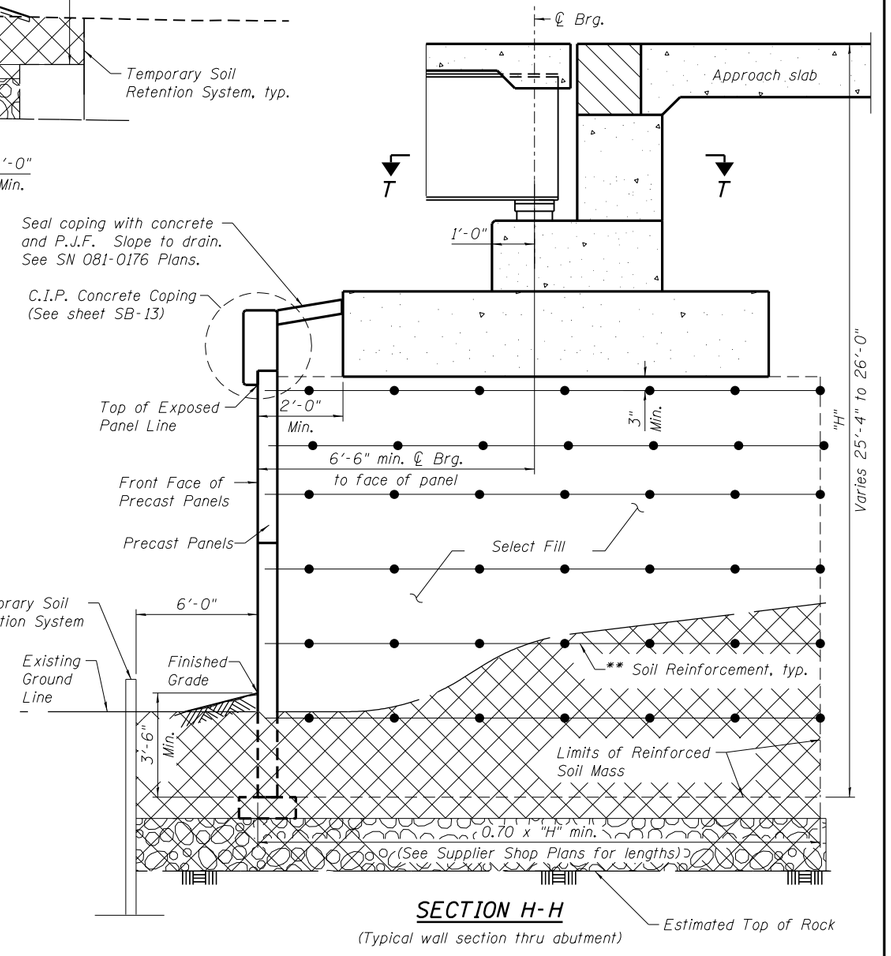


DETAIL D

LEGEND:

Removal and Disposal of Unsuitable Materials
See Roadway plans for Removal of Unsuitable Materials quantity.

Rock Fill
See Roadway plans for Rock Fill quantity.
Rock Fill is to be placed up to the top of existing ground or bottom of MSE Wall leveling pad, whichever is lower.



SECTION H-H

(Typical wall section thru abutment)

** The M.S.E. Wall supplier's internal stability design shall account for the footing's bearing pressure surcharge of 3 ksf and horizontal sliding force of 1.6 kips/ft. of abutment.

Note:
See Structure No. 081-0176 Plans for abutment details.

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_04_Sections_Revised.dgn

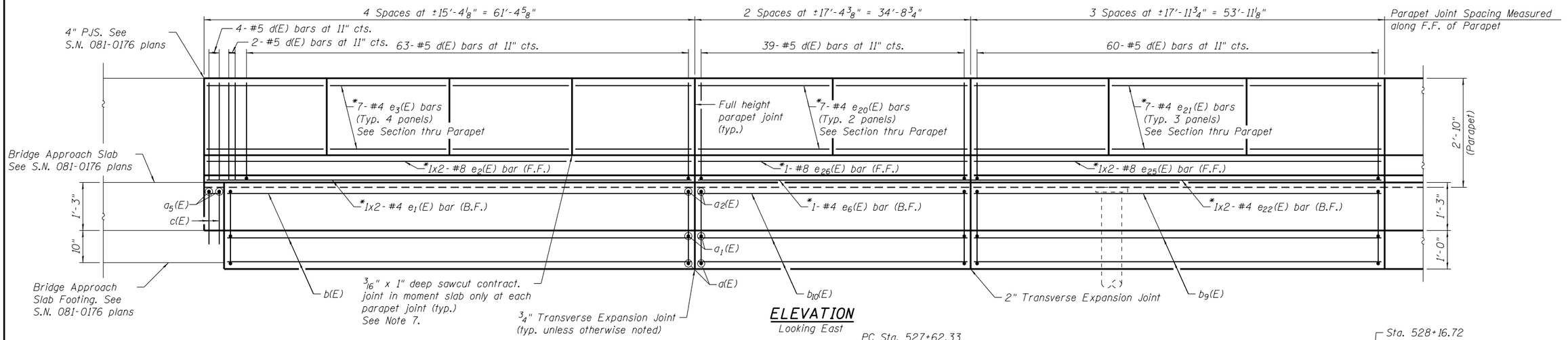
Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775-6008
Fax 773.775.4014
Email: office@clorba.com

USER NAME = rdanley	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 10.666667 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 8/15/2013	CHECKED - BWS	REVISED -	

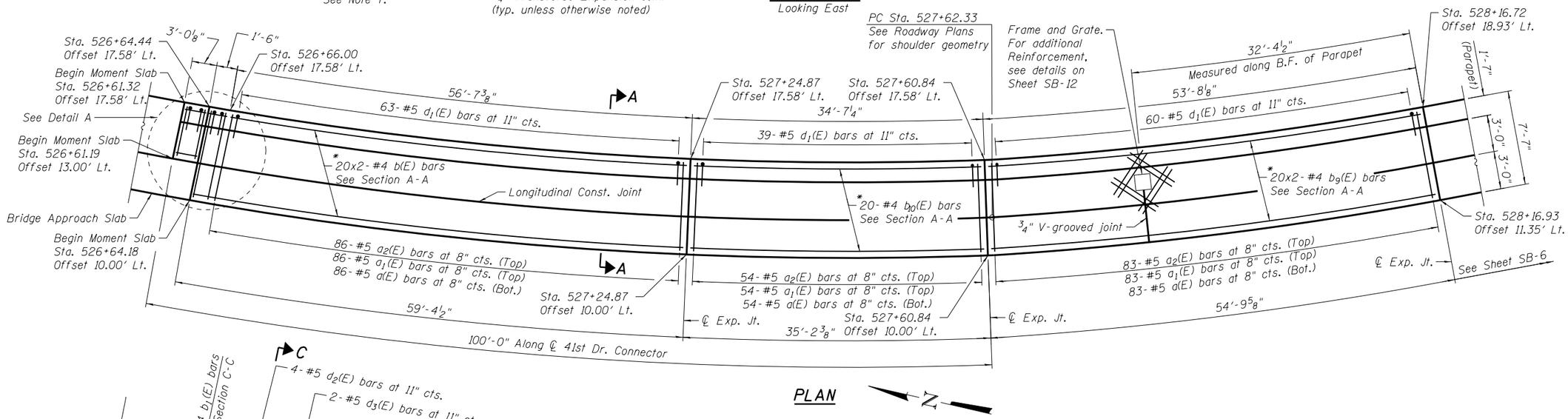
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTIONS
STRUCTURE NO. 081-7003
SHEET NO. SB-4 OF SB-21 SHEETS

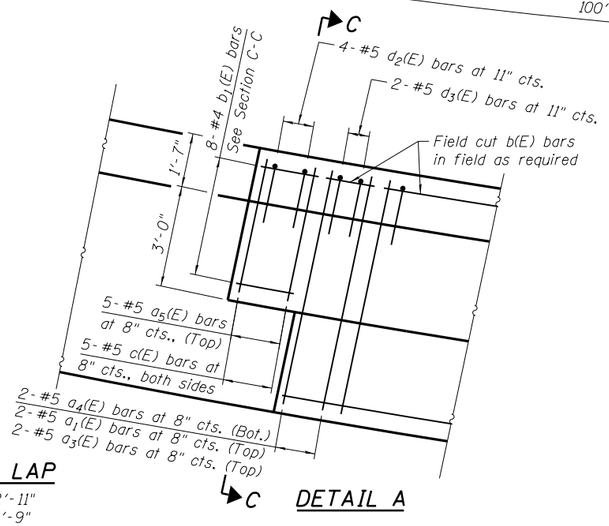
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	346
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



ELEVATION
Looking East



PLAN



DETAIL A

MIN. BAR LAP
#4 bar = 2'-11"
#8 bar = 6'-9"

* Bend and cut in field as required.

NOTES:
1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Sections A-A & C-C, see Sheet SB-12.
4. For Section thru Parapet, Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Parapet Joint details, see Sheet SB-12.
6. For Expansion Joint details, see Sheet SB-12.
7. For Transverse Contraction Joint details, see Sheet SB-13.

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4605
Fax 773.775.4514
Email dlh@clorba.com

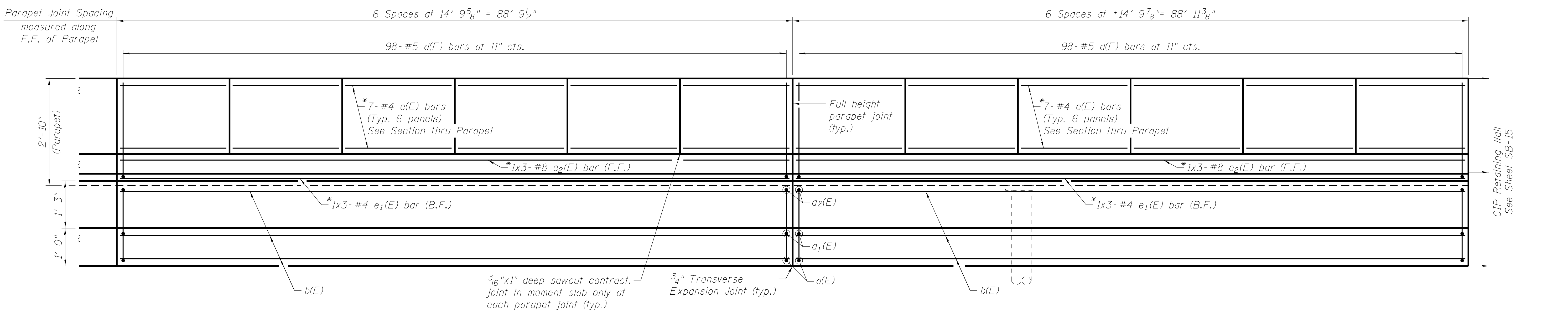
USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 13.4 '1' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST MOMENT SLAB PLAN & ELEVATION (1 OF 3)
STRUCTURE NO. 081-7003
SHEET NO. SB-5 OF SB-21 SHEETS

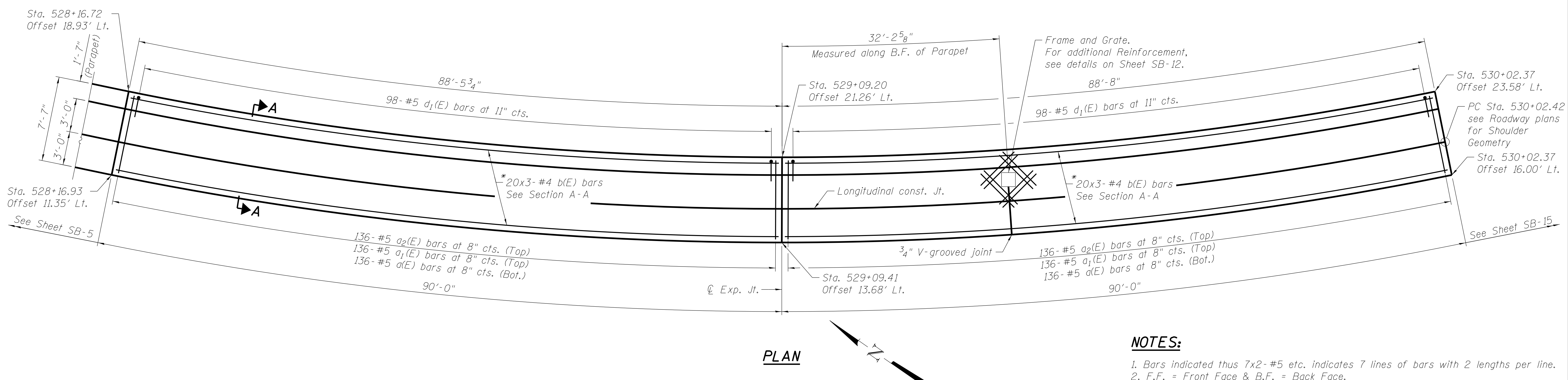
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	347
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retainning Wall 081-7003\081-7003.05_East_Moment_Slab_1.dgn



ELEVATION

Looking East



PLAN

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

* Bend and cut in field as required.

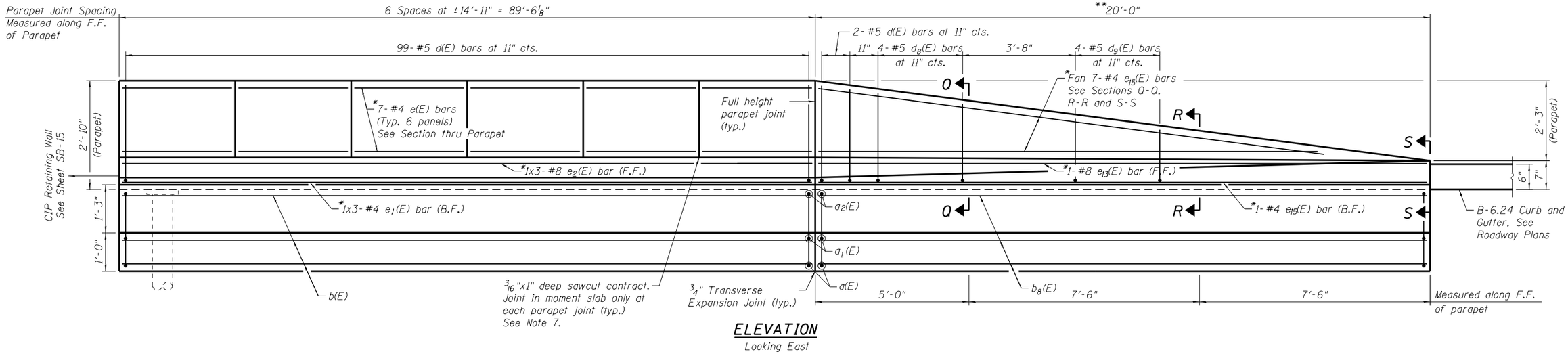
NOTES:

1. Bars indicated thus 7x2- #5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Section A-A, see Sheet SB-12.
4. For Section thru Parapet, Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Parapet Joint details, see Sheet SB-12.
6. For Expansion Joint details, see Sheet SB-12.
7. For Transverse Contraction Joint details, see Sheet SB-13.

Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - SMY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EAST MOMENT SLAB PLAN & ELEVATION (2 OF 3) STRUCTURE NO. 081-7003
		CHECKED - BWS	REVISED -		
	PLOT SCALE = 13:4 ':' / in.	DRAWN - SRG	REVISED -		
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -		SHEET NO. SB-6 OF SB-21 SHEETS

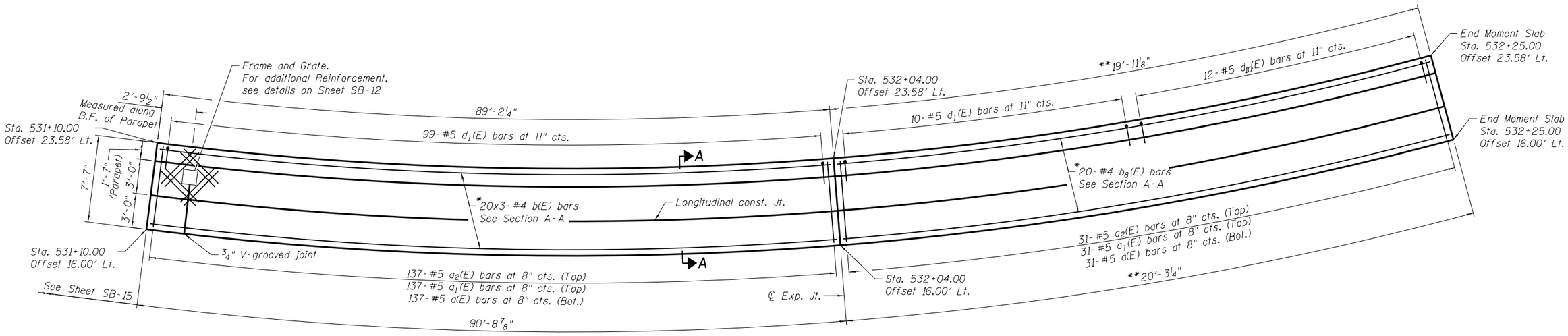
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	348
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003.06.East_Moment_Slab_2.dgn



ELEVATION

Looking East



PLAN

N

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

* Bend and cut in field as required.

** Drawing is stretched to show reinforcement detailing more clearly.

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Section A-A, see Sheet SB-12. For Sections Q-Q, R-R & S-S, see Sheet SB-14.
4. For Section thru Parapet, Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Parapet Joint details, see Sheet SB-12.
6. Cut e_{15}(E) bars as needed to alleviate congestion near end of parapet.
7. For Expansion Joint details, see Sheet SB-12.
8. For Transverse Contraction Joint details, see Sheet SB-13.

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Chicago, Illinois 60656
Tel. 773.775.4008
Fax 773.775.4014
Email: office@clorba.com

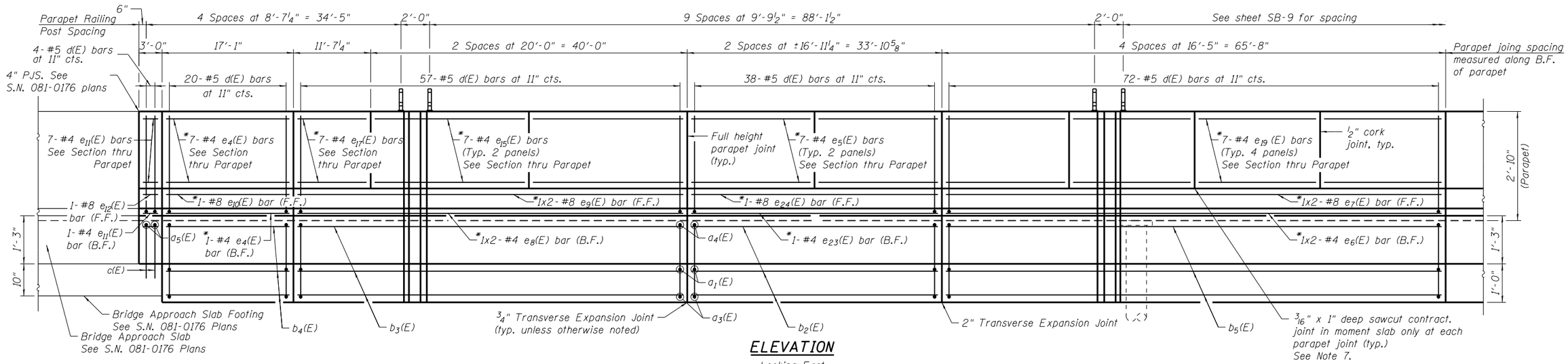
USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 13:4 '1' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST MOMENT SLAB PLAN & ELEVATION (3 OF 3)
STRUCTURE NO. 081-7003
SHEET NO. SB-7 OF SB-21 SHEETS

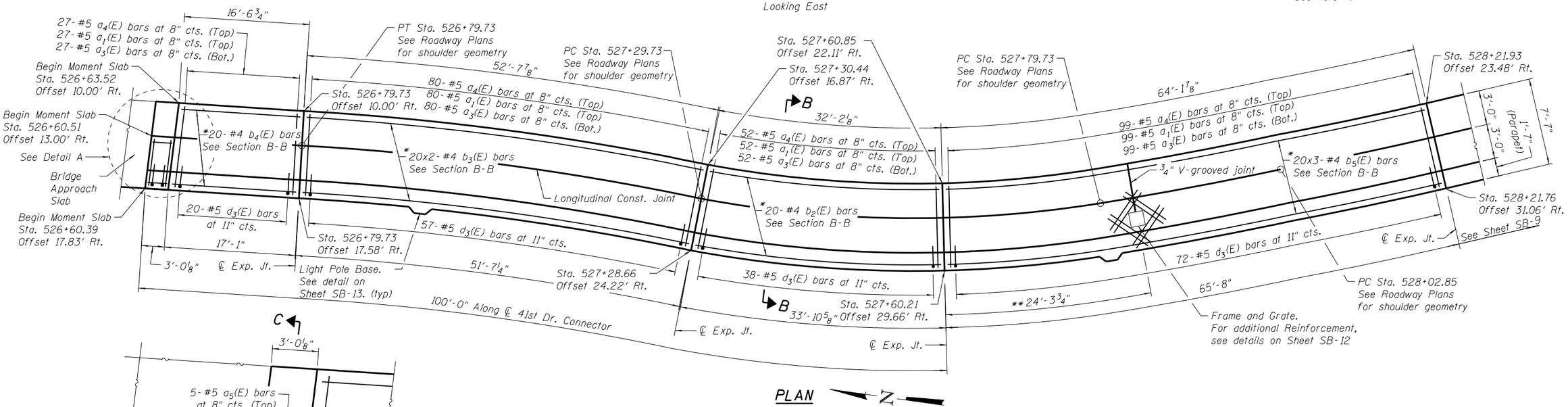
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	349
		CONTRACT NO. 64B84		
		ILLINOIS	FED. AID PROJECT	

N:\PROJ\08003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_07_East_Moment_Slab_3.dgn

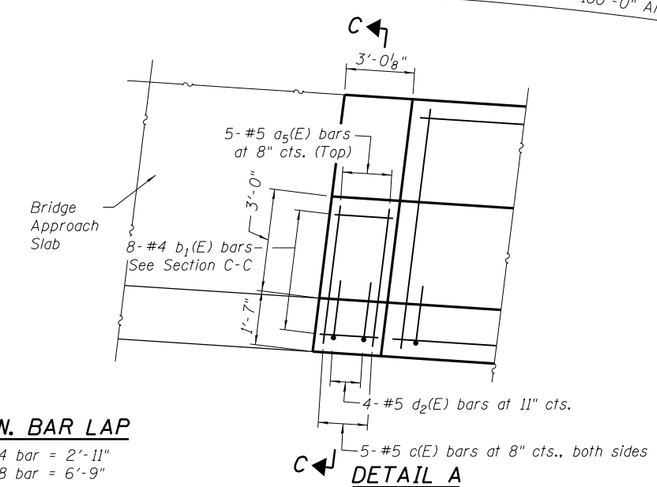


ELEVATION

Looking East



PLAN



DETAIL A

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

* Bend and cut in field as required.

**Measured along back face of parapet.

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Sections B-B & C-C, see Sheet SB-12.
4. For Section thru Parapet, Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Parapet Joint details, see Sheet SB-12.
6. For Expansion Joint details, see Sheet SB-12.
7. For Transverse Contraction Joint details, see Sheet SB-13.

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel: 773.775.4605
Fax: 773.775.4514
Email: dl4cago@clorba.com

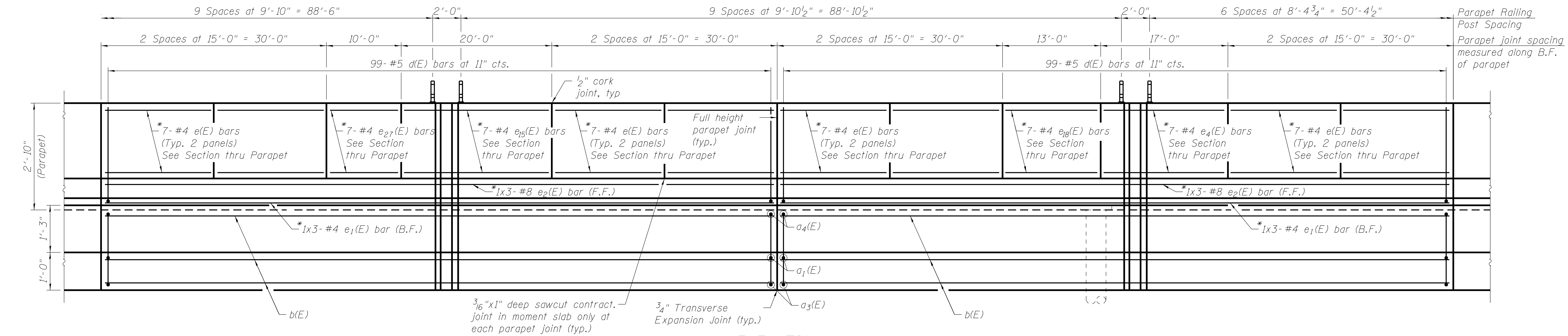
USER NAME = rdanley	DESIGNED - SMY	REVISED - Addendum 1 8/15/2013	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 13:4 '1' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 8/15/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST MOMENT SLAB PLAN & ELEVATION (1 OF 3)
STRUCTURE NO. 081-7003
SHEET NO. SB-8 OF SB-21 SHEETS

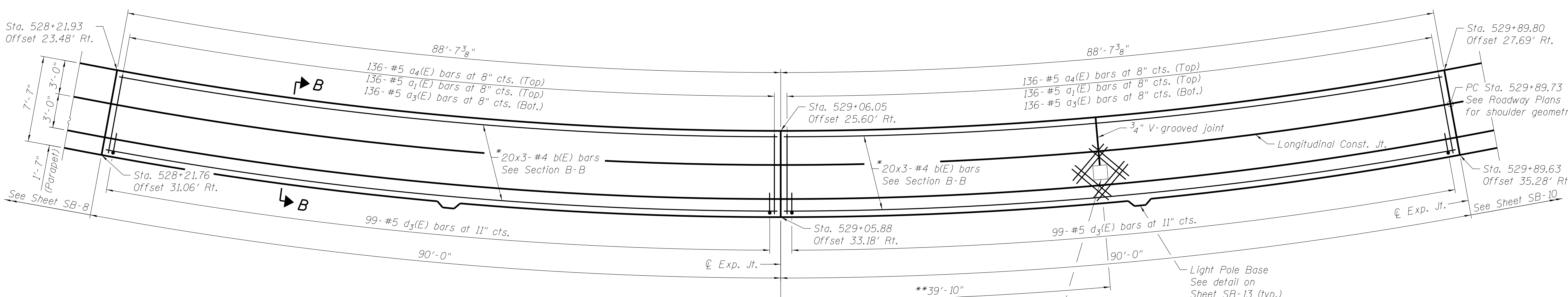
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	350
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003.08_West_Moment_Slab_1_Revised.dgn



ELEVATION

Looking East



PLAN

N

Frame and Grate. For additional Reinforcement, see details on Sheet SB-12.

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

* Bend and cut in field as required.

** Measured along back face of parapet.

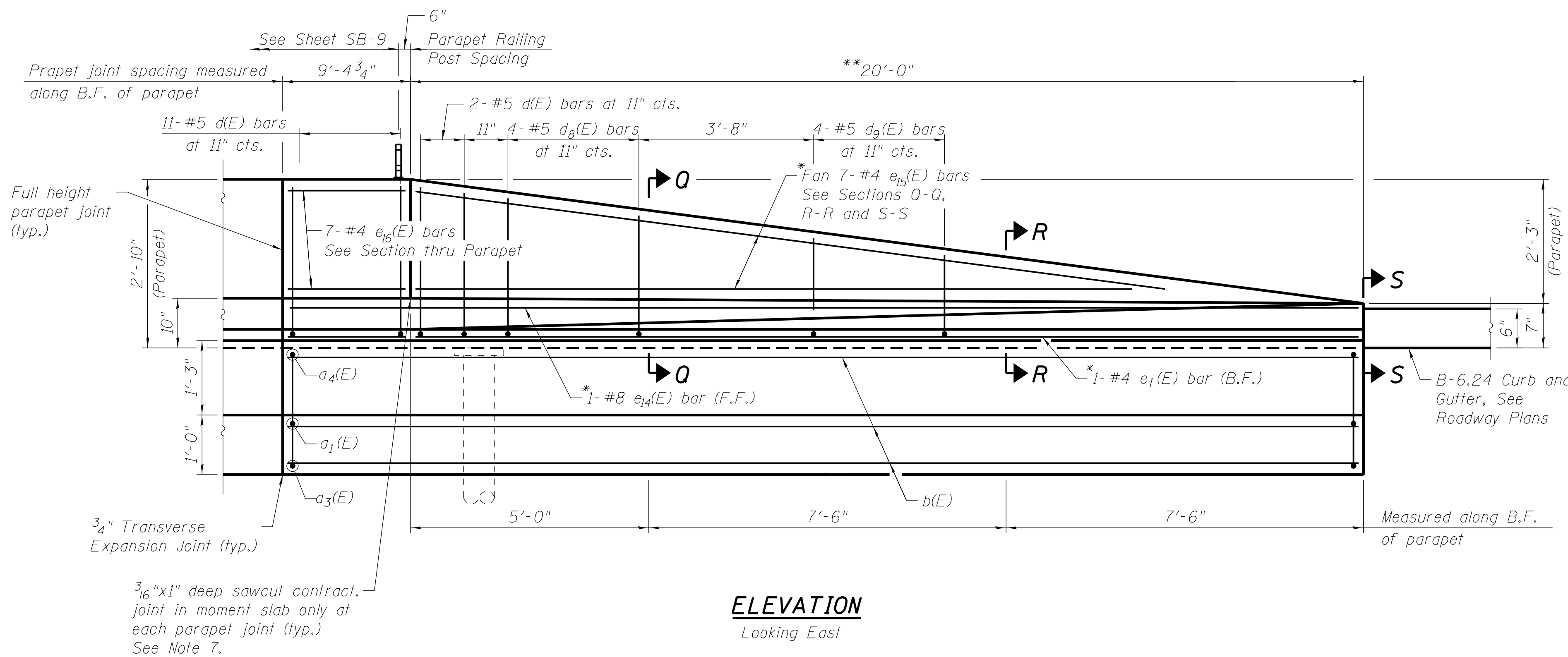
NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Section B-B, see Sheet SB-12.
4. For Section thru Parapet, Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Parapet Joint details, see Sheet SB-12.
6. For Expansion Joint details, see Sheet SB-12.
7. For Transverse Contraction Joint details, see Sheet SB-13.

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_09_West_Moment_Slab_2.dgn

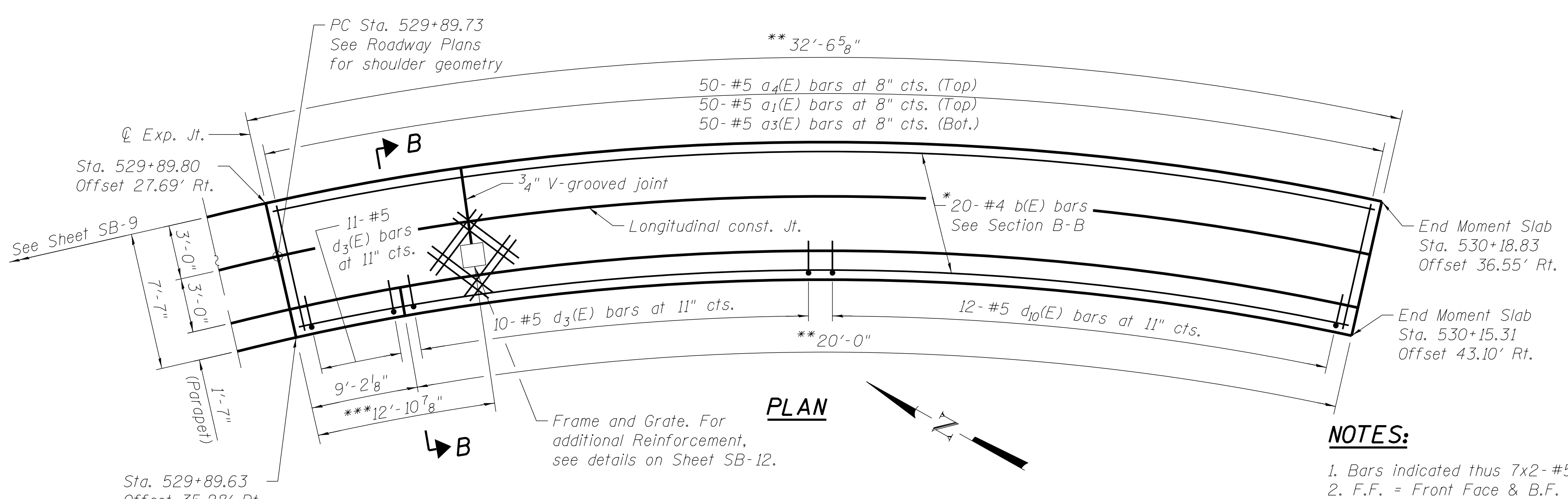
Cíorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - SMY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST MOMENT SLAB PLAN & ELEVATION (2 OF 3) STRUCTURE NO. 081-7003
		CHECKED - BWS	REVISED -		
	PLOT SCALE = 13:4 ' / in.	DRAWN - SRG	REVISED -		
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -		SHEET NO. SB-9 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	351
		CONTRACT NO. 64B84		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

Looking East



PLAN

MIN. BAR LAP

#4 bar = 2'-11"
#8 bar = 6'-9"

* Bend and cut in field as required.

** Drawing is stretched to show reinforcement detail more clearly.

*** Measured along back face of parapet.

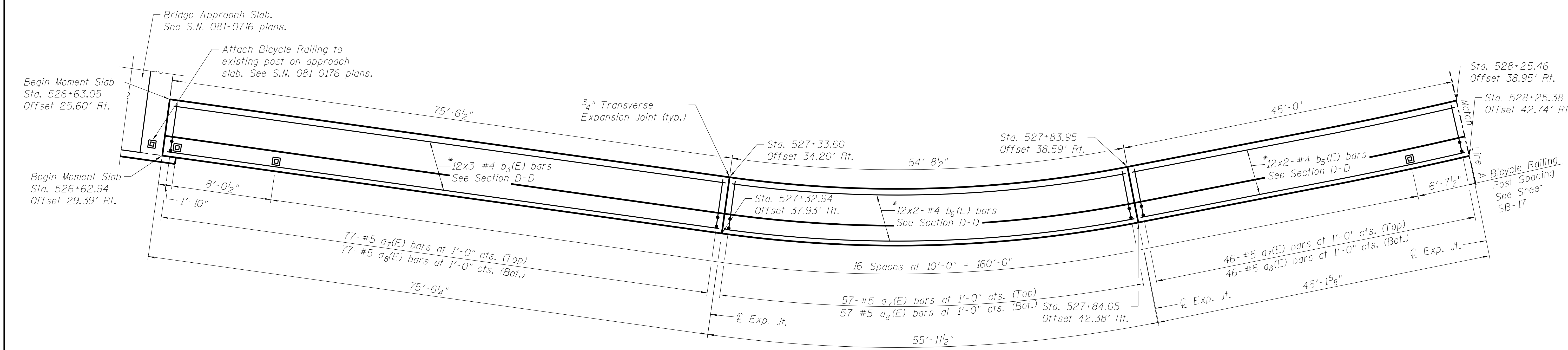
NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Section B-B, see Sheet SB-12. For Section Q-Q, R-R & S-S, see Sheet SB-14.
4. For Section thru Parapet, Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Parapet Joint details, see Sheet SB-12.
6. Cut e_{15}(E) bars as needed to alleviate congestion near end of parapet.
7. For Expansion Joint details, see Sheet SB-12.
8. For Transverse Contraction Joint details, see Sheet SB-13.

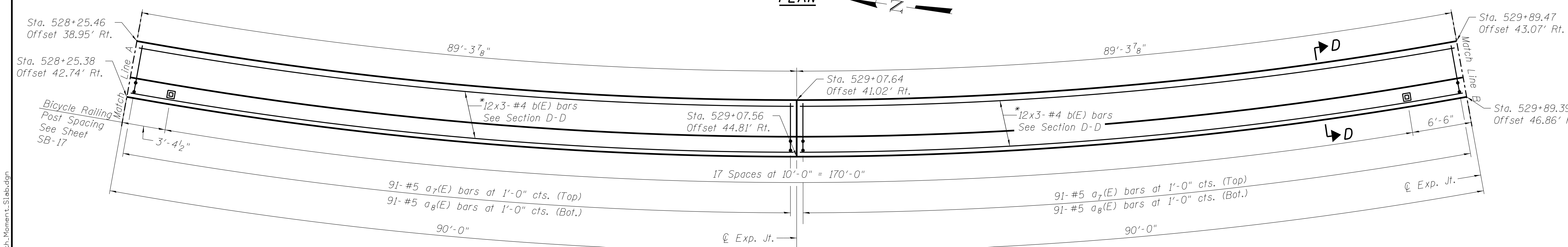
Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402, Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4014
Email chicago@ciorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST MOMENT SLAB PLAN & ELEVATION (3 OF 3) STRUCTURE NO. 081-7003
	CHECKED - BWS	REVISED -		
PLOT SCALE = 13.4 ' / in.	DRAWN - SRG	REVISED -		
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -		SHEET NO. SB-10 OF SB-21 SHEETS

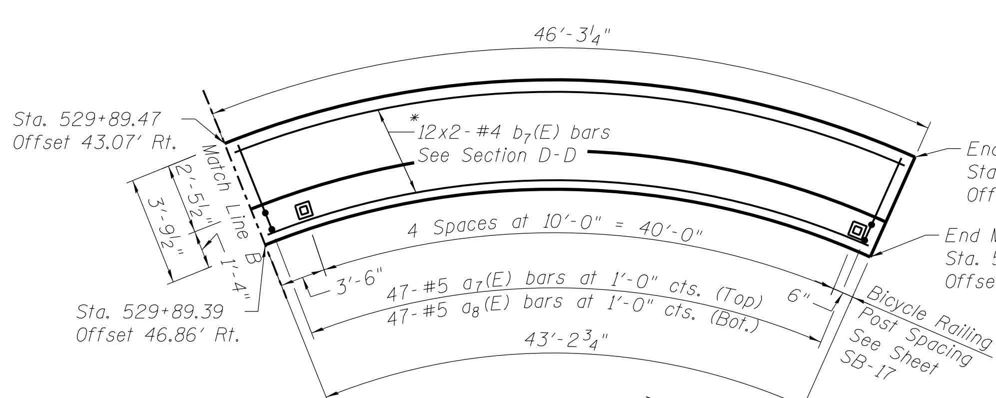
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	352
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



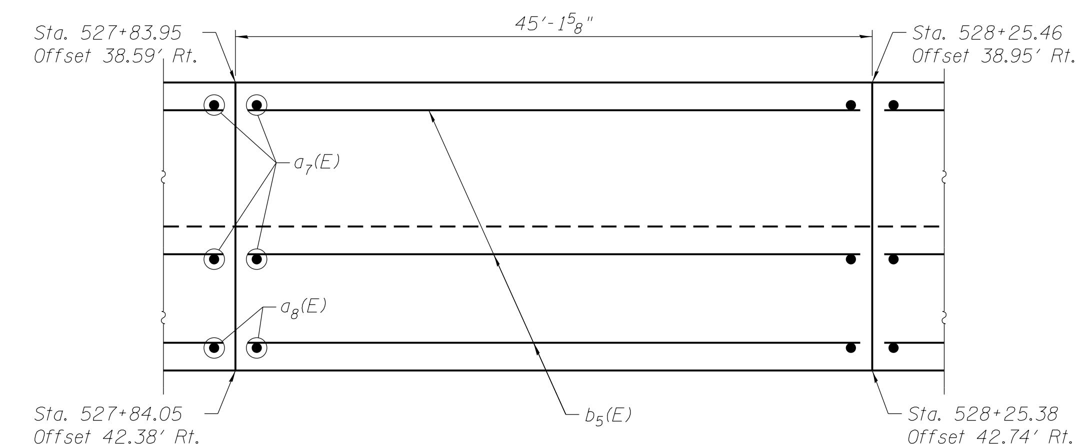
PLAN



PLAN



PLAN



PARTIAL ELEVATION

45′-1⅝" Section Shown
Typical for full-length of
Multi-use Moment Slab

MIN. BAR LAP

#4 bar = 2′-11"

* Bend and cut in field as required.

NOTES:

1. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
2. F.F. = Front Face & B.F. = Back Face.
3. For Section D-D, see Sheet SB-12.
4. For Bar Diagrams and Bill of Materials, see Sheet SB-14.
5. For Expansion Joint details, see Sheet SB-12.

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402, Chicago, Illinois 60656

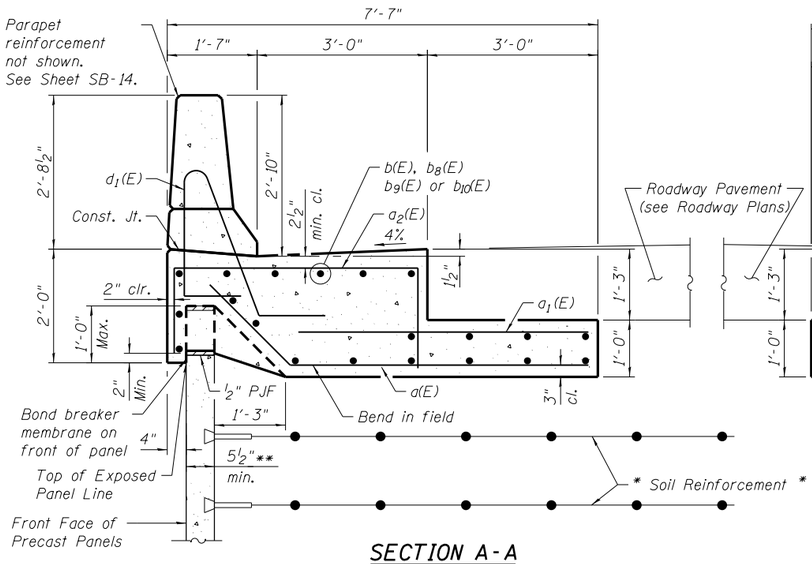
USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 13:4 ':' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

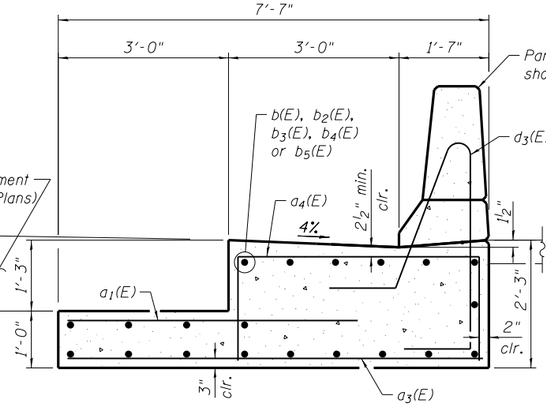
MULTI-USE PATH MOMENT SLAB PLAN
STRUCTURE NO. 081-7003

SHEET NO. SB-11 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	353
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



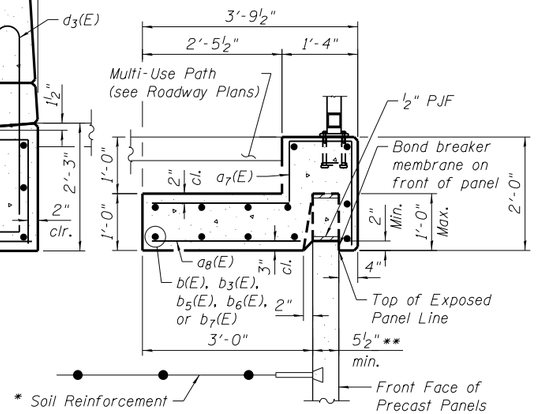
SECTION A-A



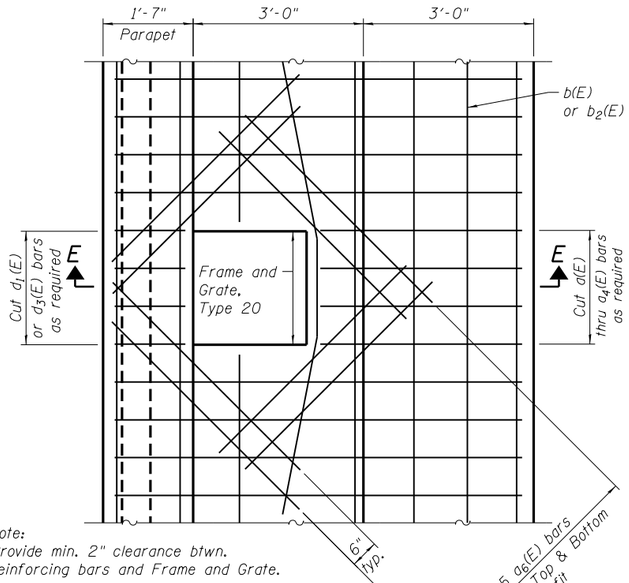
SECTION B-B

* The MSE wall supplier's internal stability design shall account for the anchorage slab's bearing pressure surcharge of 1.0 ksf and horizontal sliding force of 0.5 kips/ft. of wall.

** See suppliers shop plans for thickness.



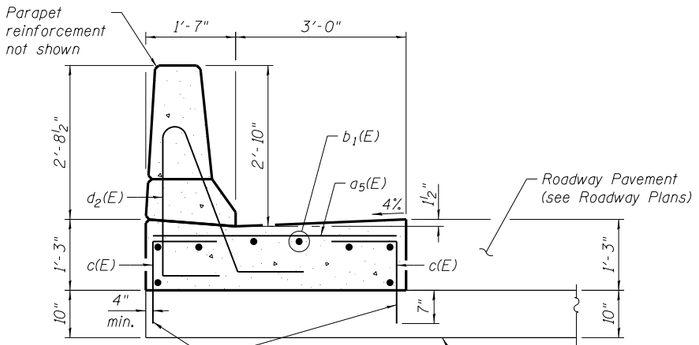
SECTION D-D



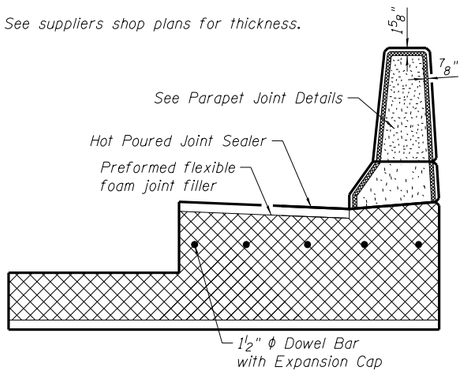
Note:
Provide min. 2" clearance btwn. reinforcing bars and Frame and Grate.

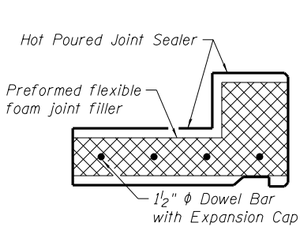
MOMENT SLAB AT MAN HOLE

East Moment Slab shown. West Moment Slab Similar without MSE Wall. (6 Thus)

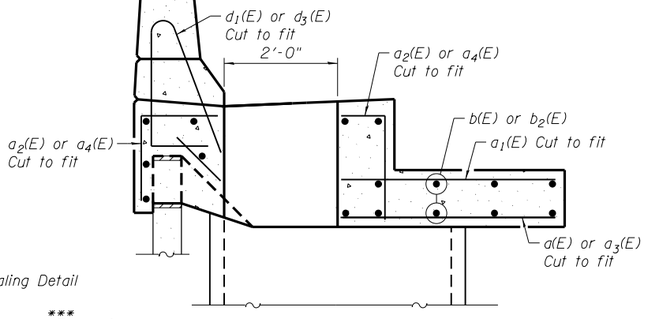


SECTION C-C

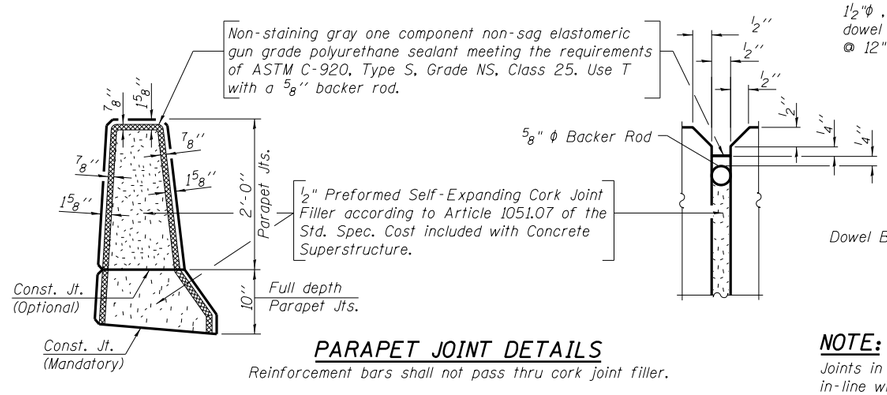




TRANSVERSE EXPANSION JOINT SECTION

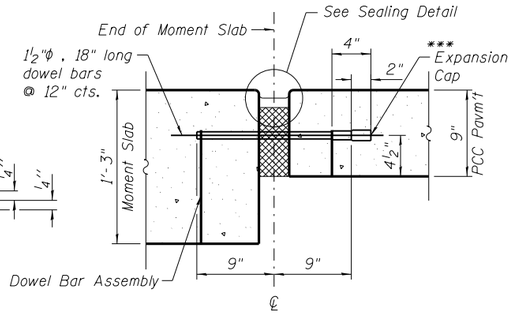


SECTION E-E

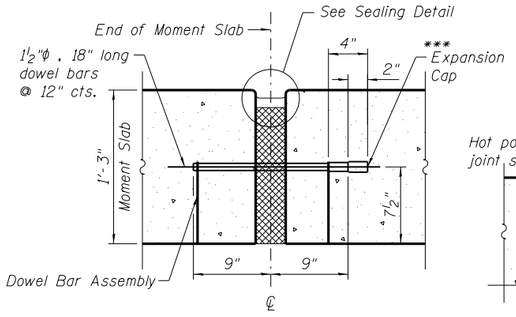


PARAPET JOINT DETAILS

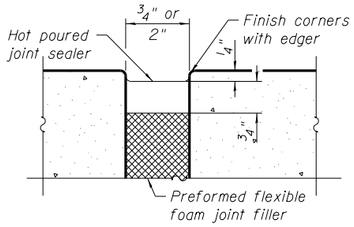
Reinforcement bars shall not pass thru cork joint filler.



MOMENT SLAB TO PCC PAVEMENT



MOMENT SLAB TO MOMENT SLAB TRANSVERSE EXPANSION JOINT



SEALING DETAIL

NOTE:

Joints in adjacent pavement shall be in-line with the moment slab joints.

Expansion Joint and Dowel Bars included in the cost of Concrete Superstructure.

*** Expansion caps shall be installed on the exposed end of each dowel bar once the header has been removed and the joint filler material has been installed.

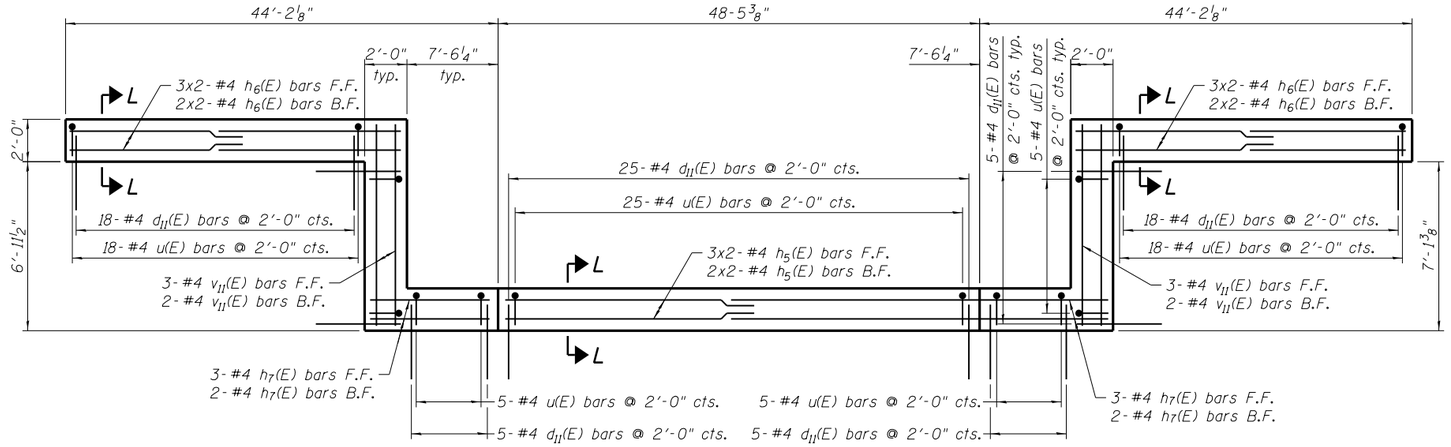
Ciorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Chicago, Illinois 60656
Tel 773.775.4600
Fax 773.775.4014
Email chicago@ciorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 2:8 '1' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

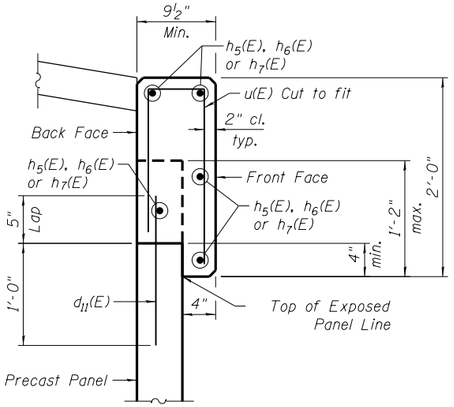
DETAILS – 1
STRUCTURE NO. 081–7003
SHEET NO. SB-12 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	354
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

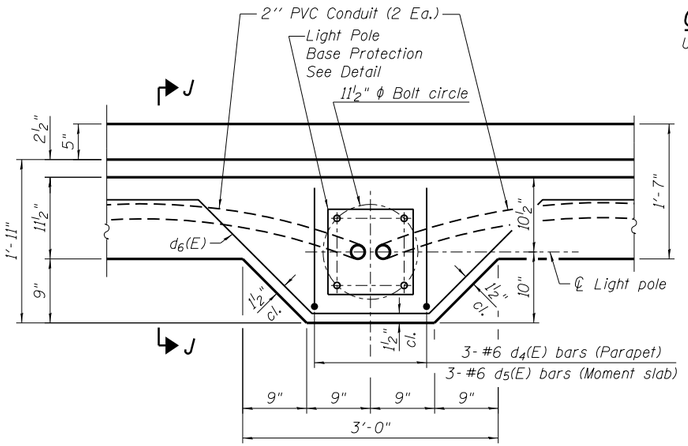


COPING DETAIL

Unfolded Elevation View

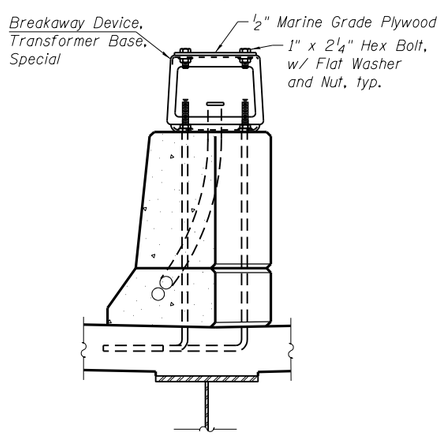


SECTION L-L



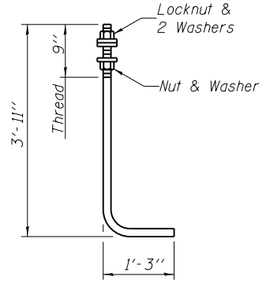
LIGHT POLE BASE DETAIL

(4 Thus)



LIGHT POLE BASE PROTECTION DETAIL

(4 Thus)



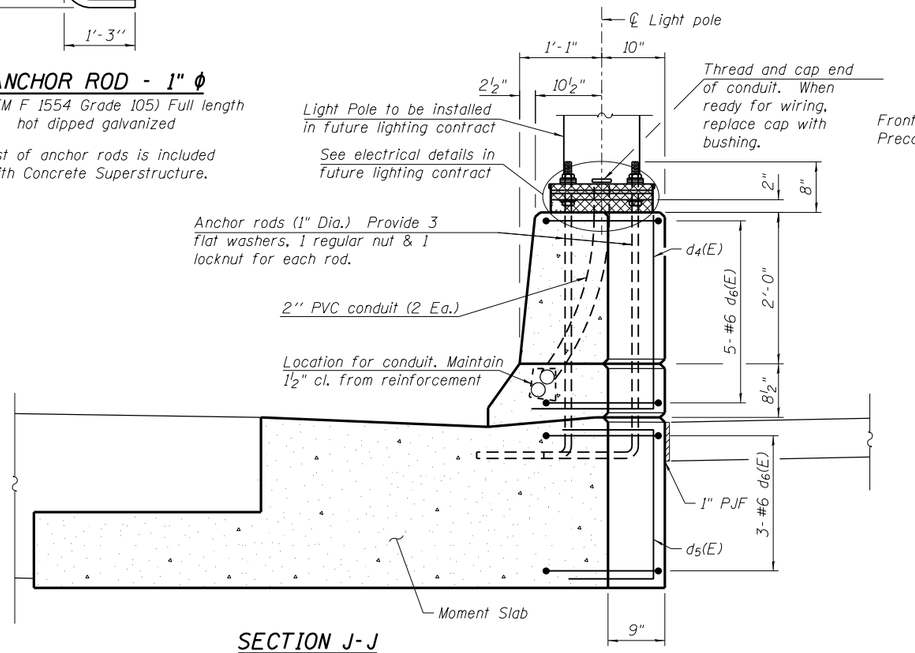
ANCHOR ROD - 1" ϕ

(ASTM F 1554 Grade 105) Full length hot dipped galvanized

Cost of anchor rods is included with Concrete Superstructure.

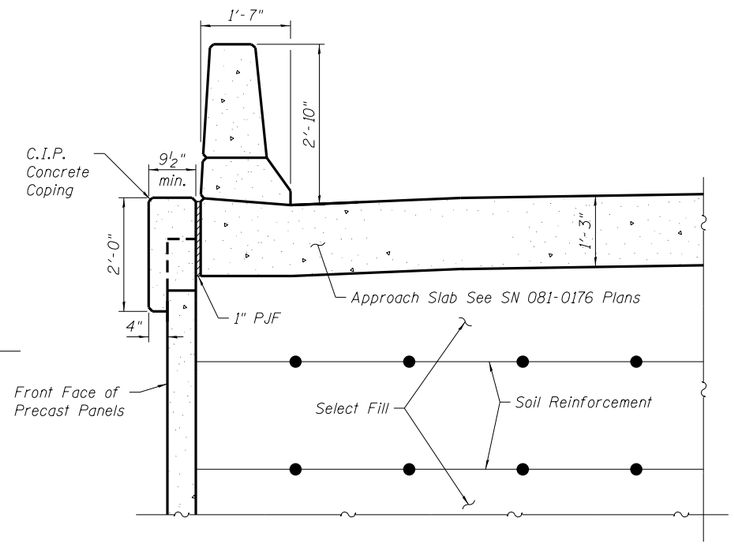
NOTES:

1. Concrete and Reinforcing Steel for Coping are included in the cost of Mechanically Stabilized Earth Retaining Wall.
2. For bar bending details and Bill of Material, see Sheet SB-14.
3. F.F. = Front Face, B.F. = Back Face

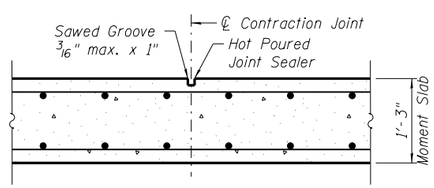


SECTION J-J

West Moment Slab Only



SECTION I-I



TRANSVERSE CONTRACTION JOINT

See Art. 420.05(c) of Standard Specifications

Note:
Joints in the adjacent pavement shall be in-line with the moment slab joints.

N:\PROJ_0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_13_Details-2.dgn

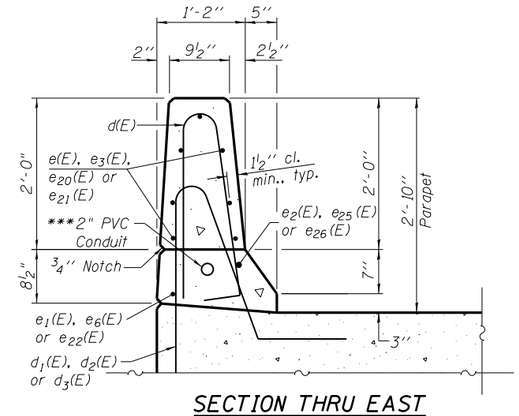
Ciorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Suite 402, Chicago, Illinois 60656
Tel: 773.775.4005
Fax: 773.775.4514
Email: chicago@ciorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 2ø 5/8 ': / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

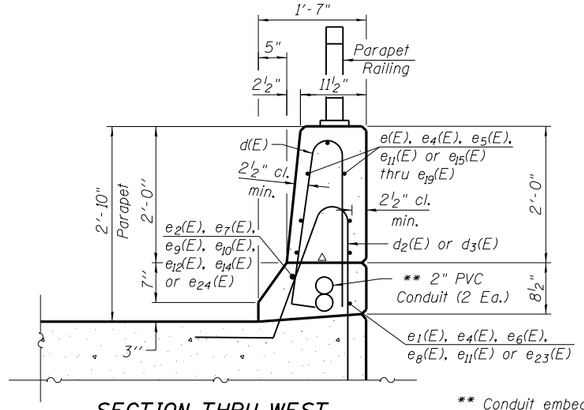
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS - 2
STRUCTURE NO. 081-7003
SHEET NO. SB-13 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	355
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



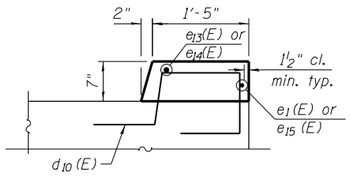
SECTION THRU EAST MOMENT SLAB PARAPET



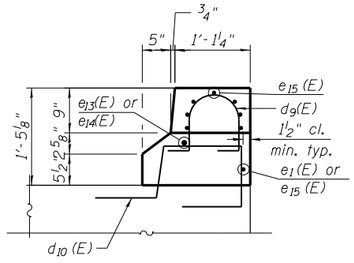
SECTION THRU WEST MOMENT SLAB PARAPET

** Conduit embeded in structure, 2" Dia., PVC

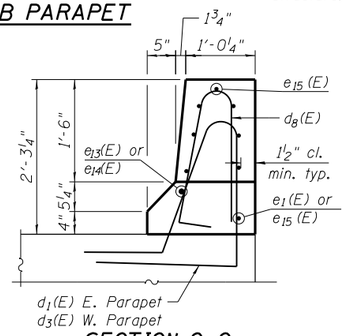
*** See Traffic Signal Plans



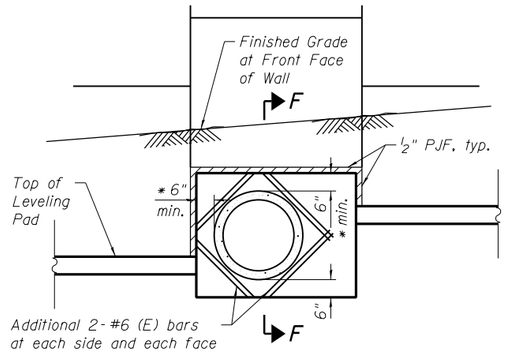
SECTION S-S



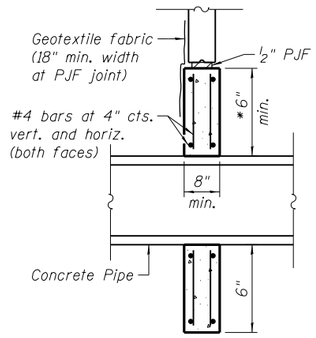
SECTION R-R



SECTION Q-Q



DETAIL B



SECTION F-F

* Cast-in-place (C.I.P.) panel dimensions to be determined by precast panel supplier. Cost of C.I.P. panels including reinforcement in the C.I.P. panel and geotextile fabric is included in the pay item "Mechanically Stabilized Earth Retaining Wall".

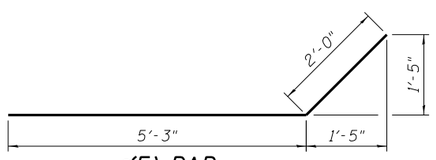
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	663	# 5	7'-3"	
a1(E)	1245	# 5	4'-10"	
a2(E)	663	# 5	7'-6"	
a3(E)	582	# 5	7'-3"	
a4(E)	582	# 5	7'-9"	
a5(E)	10	# 5	4'-3"	
a6(E)	96	# 5	4'-8"	
a7(E)	409	# 5	6'-1"	
a8(E)	409	# 5	2'-8"	
b(E)	432	# 4	32'-1"	
b1(E)	16	# 4	2'-8"	
b2(E)	20	# 4	33'-7"	
b3(E)	76	# 4	27'-2"	
b4(E)	20	# 4	16'-9"	
b5(E)	84	# 4	23'-11"	
b6(E)	24	# 4	29'-4"	
b7(E)	24	# 4	24'-6"	
b8(E)	20	# 4	19'-11"	
b9(E)	40	# 4	28'-9"	
b10(E)	20	# 4	34'-11"	
c(E)	20	# 5	2'-6"	
d(E)	867	# 5	5'-7"	
d1(E)	467	# 5	7'-6"	
d2(E)	8	# 5	7'-11"	
d3(E)	408	# 5	8'-11"	
d4(E)	12	# 6	4'-5"	
d5(E)	12	# 6	5'-9"	
d6(E)	32	# 6	9'-8"	
d8(E)	8	# 5	4'-8"	
d9(E)	8	# 5	3'-5"	
d10(E)	24	# 5	7'-3"	
e(E)	182	# 4	14'-8"	
e1(E)	18	# 4	32'-1"	
e2(E)	17	# 8	34'-7"	
e3(E)	28	# 4	15'-1"	
e4(E)	15	# 4	16'-9"	
e5(E)	14	# 4	16'-7"	
e6(E)	3	# 4	34'-5"	
e7(E)	2	# 8	36'-1"	
e8(E)	2	# 4	27'-2"	
e9(E)	2	# 8	29'-1"	
e10(E)	1	# 8	16'-9"	
e11(E)	8	# 4	2'-8"	
e12(E)	1	# 8	2'-8"	
e13(E)	1	# 8	19'-8"	
e14(E)	1	# 8	29'-1"	
e15(E)	36	# 4	19'-8"	
e16(E)	7	# 4	9'-1"	
e17(E)	7	# 4	11'-4"	
e18(E)	7	# 4	12'-8"	
e19(E)	28	# 4	16'-1"	
e20(E)	14	# 4	17'-1"	
e21(E)	21	# 4	17'-8"	
e22(E)	2	# 4	28'-4"	
e23(E)	1	# 4	33'-7"	
e24(E)	1	# 8	33'-7"	
e25(E)	2	# 8	30'-3"	
e26(E)	1	# 8	34'-5"	
e27(E)	7	# 4	9'-8"	
Concrete Superstructure			Cu. Yd.	542.5
Protective Coat			Sq. Yd.	930
Reinforcement Bars, Epoxy Coated			Pound	65,160

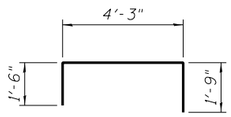
COPING BILL OF MATERIAL

(For Information Only)

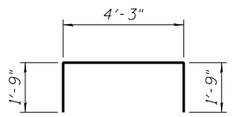
Bar	No.	Size	Length	Shape
d11(E)	81	# 4	1'-5"	
h5(E)	10	# 4	25'-7"	
h6(E)	20	# 4	18'-9"	
h7(E)	10	# 4	9'-2"	
u(E)	81	# 4	3'-5"	
v11(E)	10	# 4	8'-9"	



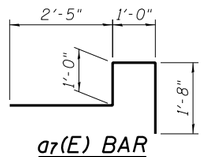
a(E) BAR



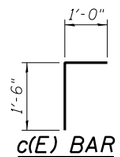
a2(E) BAR



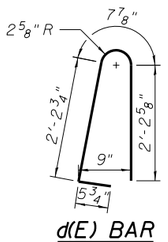
a4(E) BAR



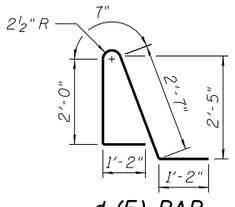
a7(E) BAR



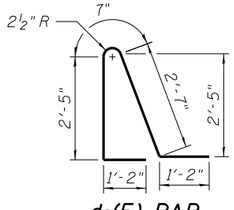
c(E) BAR



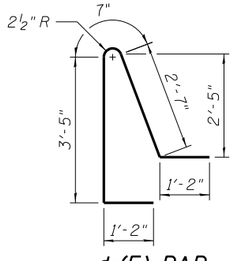
d(E) BAR



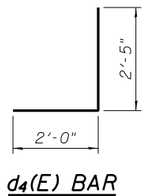
d1(E) BAR



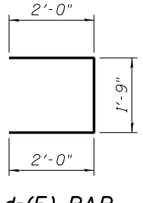
d2(E) BAR



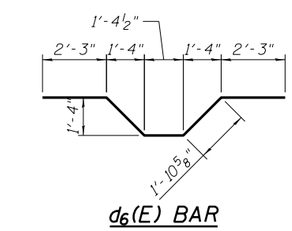
d3(E) BAR



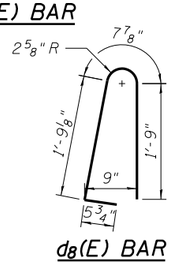
d4(E) BAR



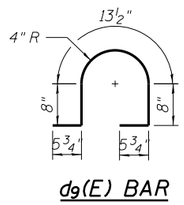
d5(E) BAR



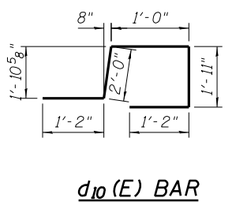
d6(E) BAR



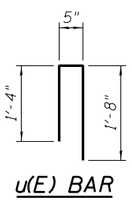
d8(E) BAR



d9(E) BAR



d10(E) BAR



u(E) BAR

NOTES:

1. See Sheets SB-5 thru SB-10 for $d_1(E)$, $d_2(E)$, $d_3(E)$ & $d_{10}(E)$ spacing.
2. Protective Coat is applied to top of exposed moment slabs, top & inside vertical faces of parapets and top of exposed multi-use path moment slab.

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003.14.Details-3.Revised.dgn

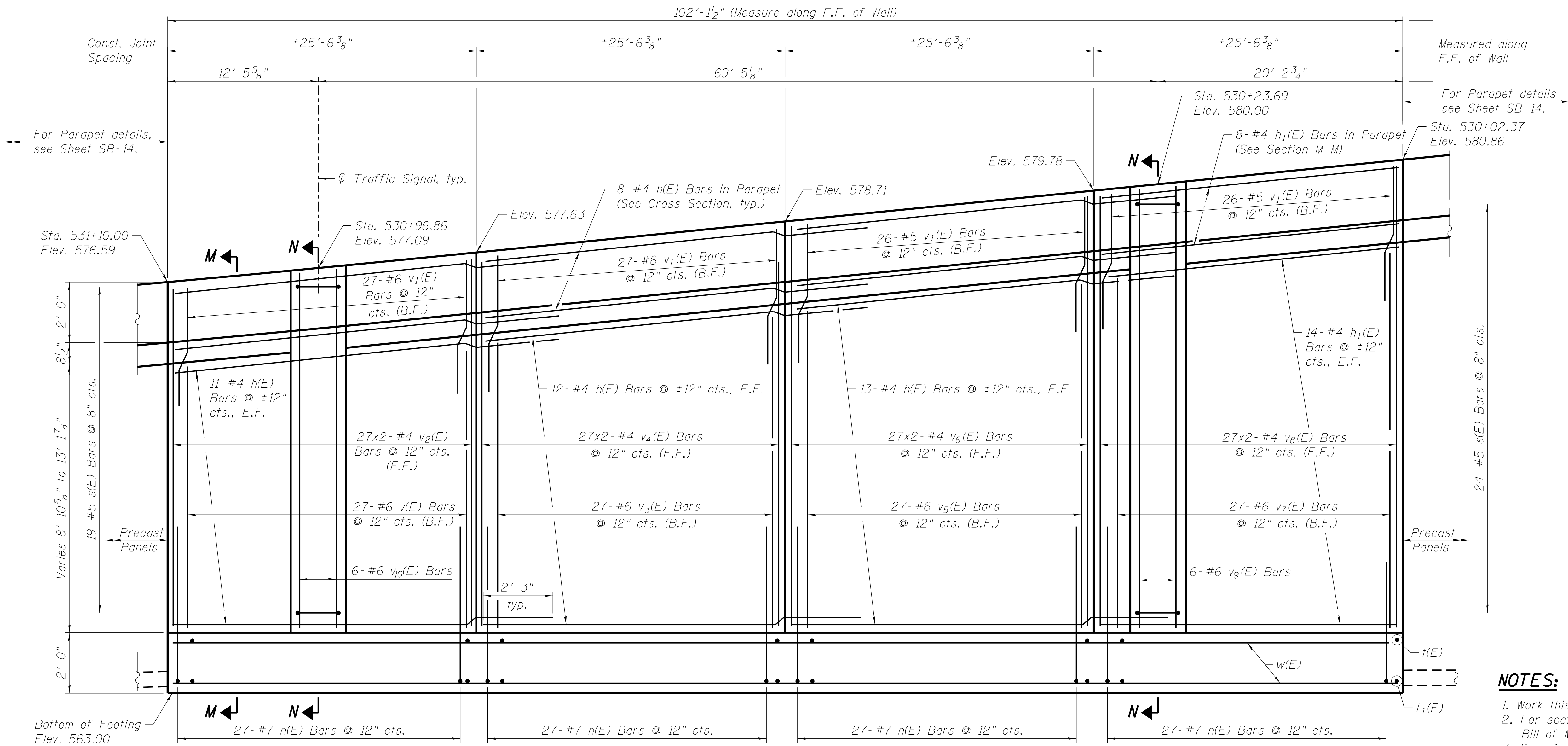
Ciorba Group, Inc.
CONSULTING ENGINEERS
1007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel: 773.775.4005
Fax: 773.775.4014
Email: chicago@ciorba.com

USER NAME = rdanley	DESIGNED - SMY	REVISED - Addendum 1 8/15/2013	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 2:8 '/ in.	DRAWN - RD	REVISED -	
PLOT DATE = 8/15/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS - 3
STRUCTURE NO. 081-7003
SHEET NO. SB-14 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	356
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

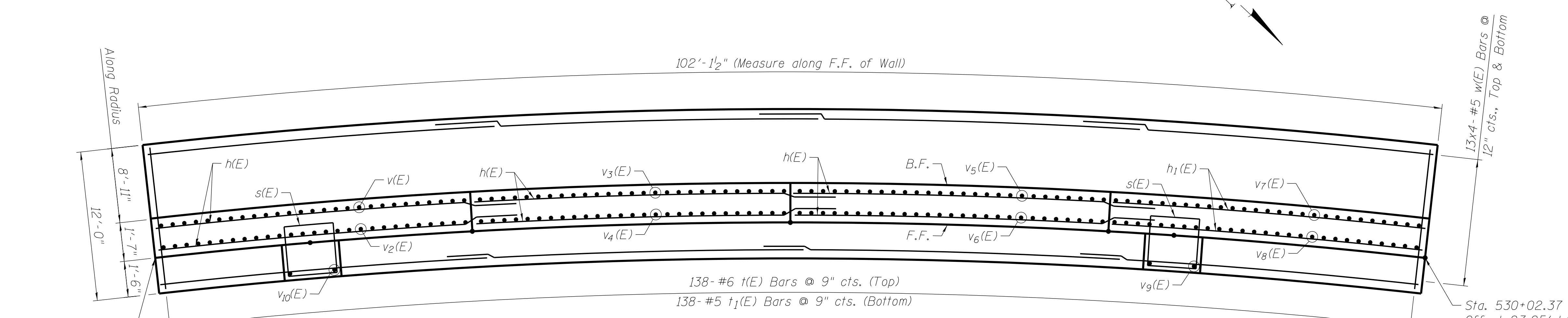


ELEVATION

Looking at F.F. of Wall

NOTES:

1. Work this sheet with Sheet SB-16.
2. For sections M-M & N-N, Bar Bending Details and Bill of Materials, see Sheet SB-16.
3. Bars indicated thus 7x2-#5 etc. indicates 7 lines of bars with 2 lengths per line.
4. Bend w(E), h(E) and h_1(E) bars in field to match curve.
5. F.F. = Front Face & B.F. = Back Face.



FOOTING PLAN

MIN. BAR LAP

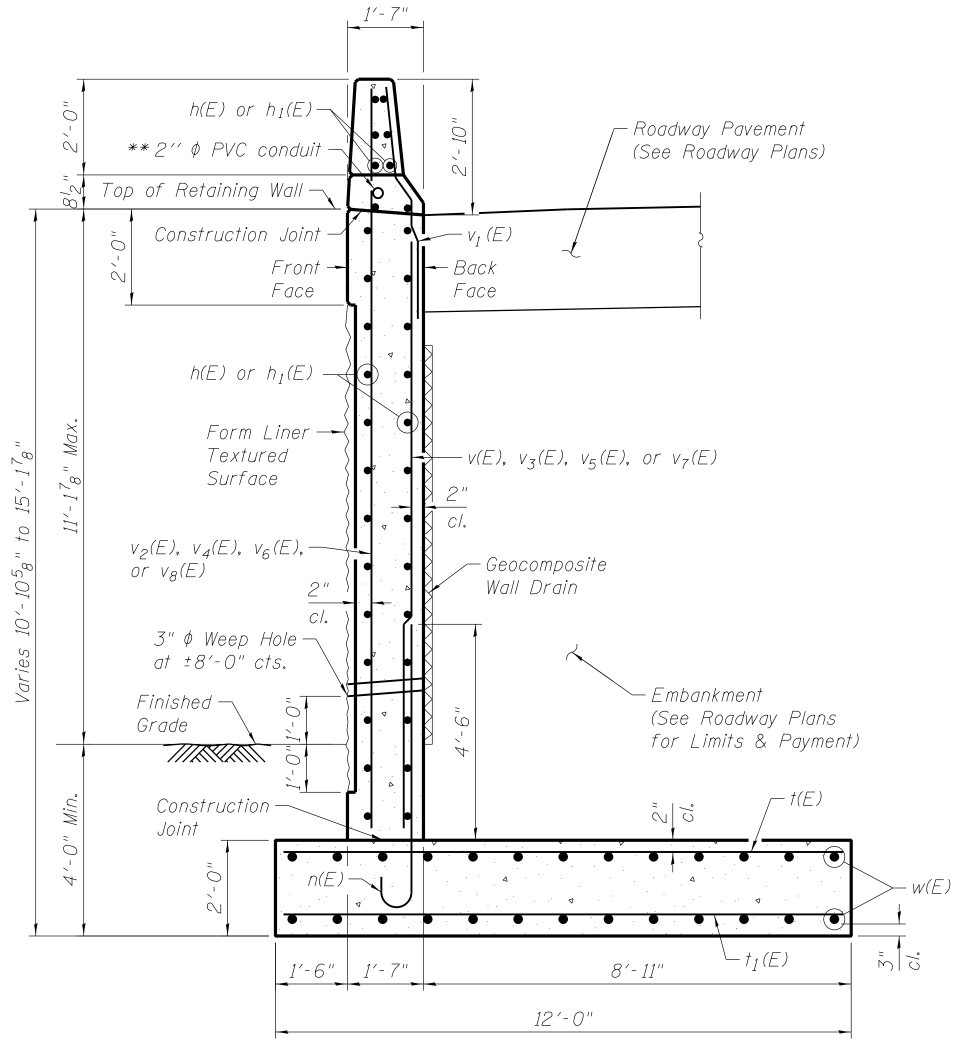
#5 bar = 3'-3"
#4 bar = 2'-3"

Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014 Email chicago@ciorba.com	USER NAME = mteng	DESIGNED - BWS	REVISED -
		CHECKED - SMY	REVISED -
	PLOT SCALE = 10:0 ' / in.	DRAWN - RD	REVISED -
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

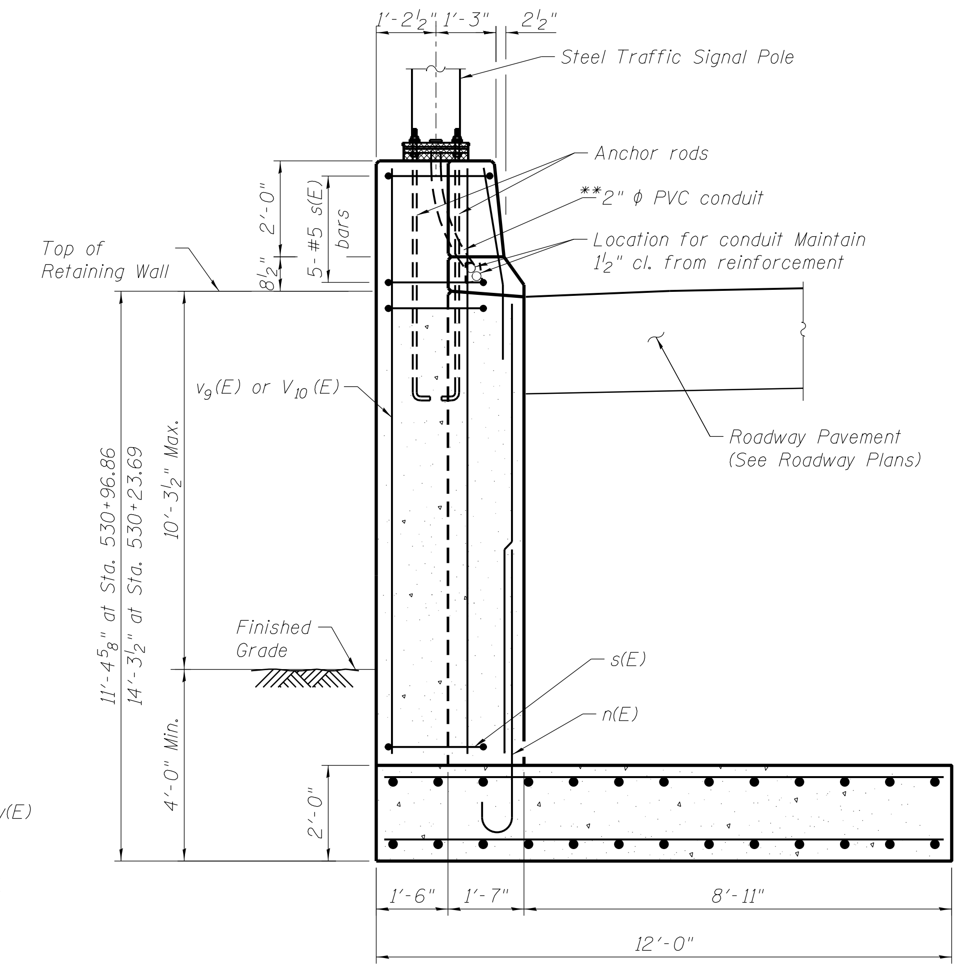
CIP RETAINING WALL DETAILS 1
STRUCTURE NO. 081-7003
SHEET NO. SB-15 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	357
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

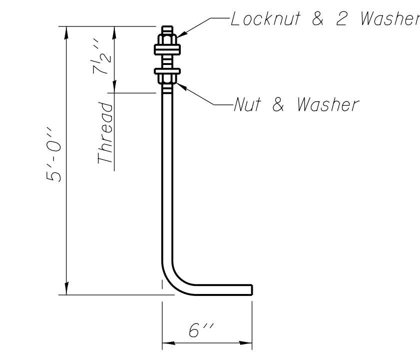


SECTION M-M

Maximum Applied Bearing Pressure = 4,100 psf
Maximum Allowable Bearing Pressure = 7,000 psf



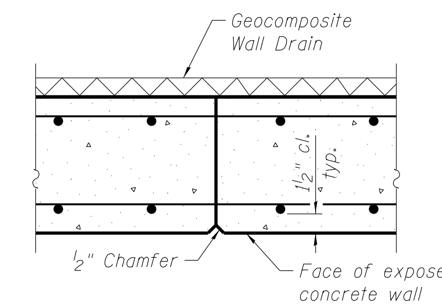
SECTION N-N



ANCHOR ROD - 1½" ϕ

(ASTM F 1554 Grade 105) Full length hot dipped galvanized

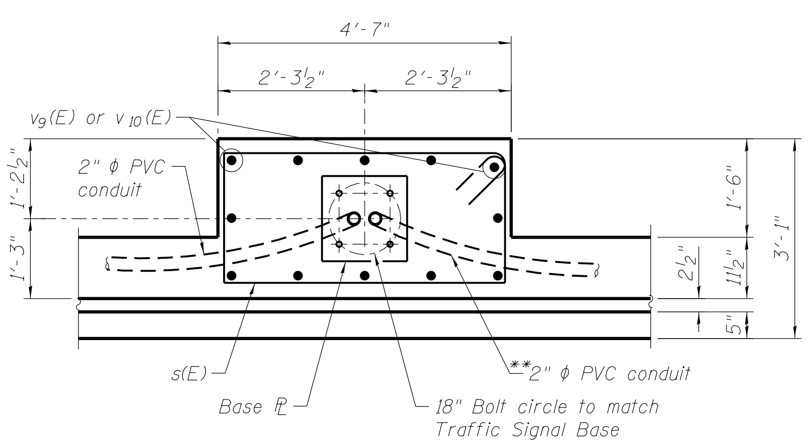
Cost of anchor rods is included with Concrete Structures.



CONSTRUCTION JOINT

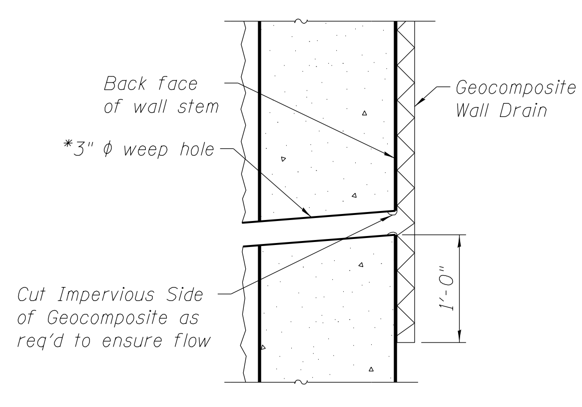
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	90	# 4	27'-10"	
h_1(E)	34	# 4	25'-2"	
n(E)	108	# 7	7'-1"	
s(E)	44	# 5	13'-7"	
t(E)	138	# 6	11'-6"	
t_1(E)	138	# 5	11'-6"	
v(E)	27	# 6	8'-5"	
v_1(E)	104	# 6	8'-2"	
v_2(E)	54	# 4	7'-4"	
v_3(E)	27	# 6	9'-6"	
v_4(E)	54	# 4	7'-10"	
v_5(E)	27	# 6	10'-7"	
v_6(E)	54	# 4	8'-5"	
v_7(E)	27	# 6	11'-8"	
v_8(E)	54	# 4	8'-11"	
v_9(E)	12	# 6	14'-8"	
v_{10}(E)	12	# 6	11'-9"	
w(E)	104	# 5	27'-11"	
Concrete Structures			Cu. Yd.	155.1
Reinforcement Bars, Epoxy Coated			Pound	16,060
Form Liner Textured Surface			Sq. Ft.	791
Geocomposite Wall Drain			Sq. Yd.	66



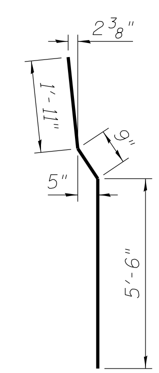
TRAFFIC SIGNAL BASE DETAIL

** See Traffic Signal Plans

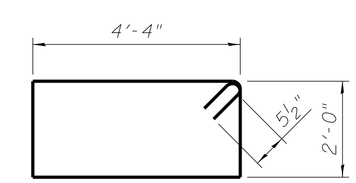


* Weep hole spacing shall be at ±8'-0" horizontally.

WEEP HOLE DRAIN DETAIL



BAR v_1(E)



BAR s(E)

BAR n(E)

NOTE:
Form Liner to be Ashlar Stone Form Liner to match Form Liner used on MSE Wall panels.

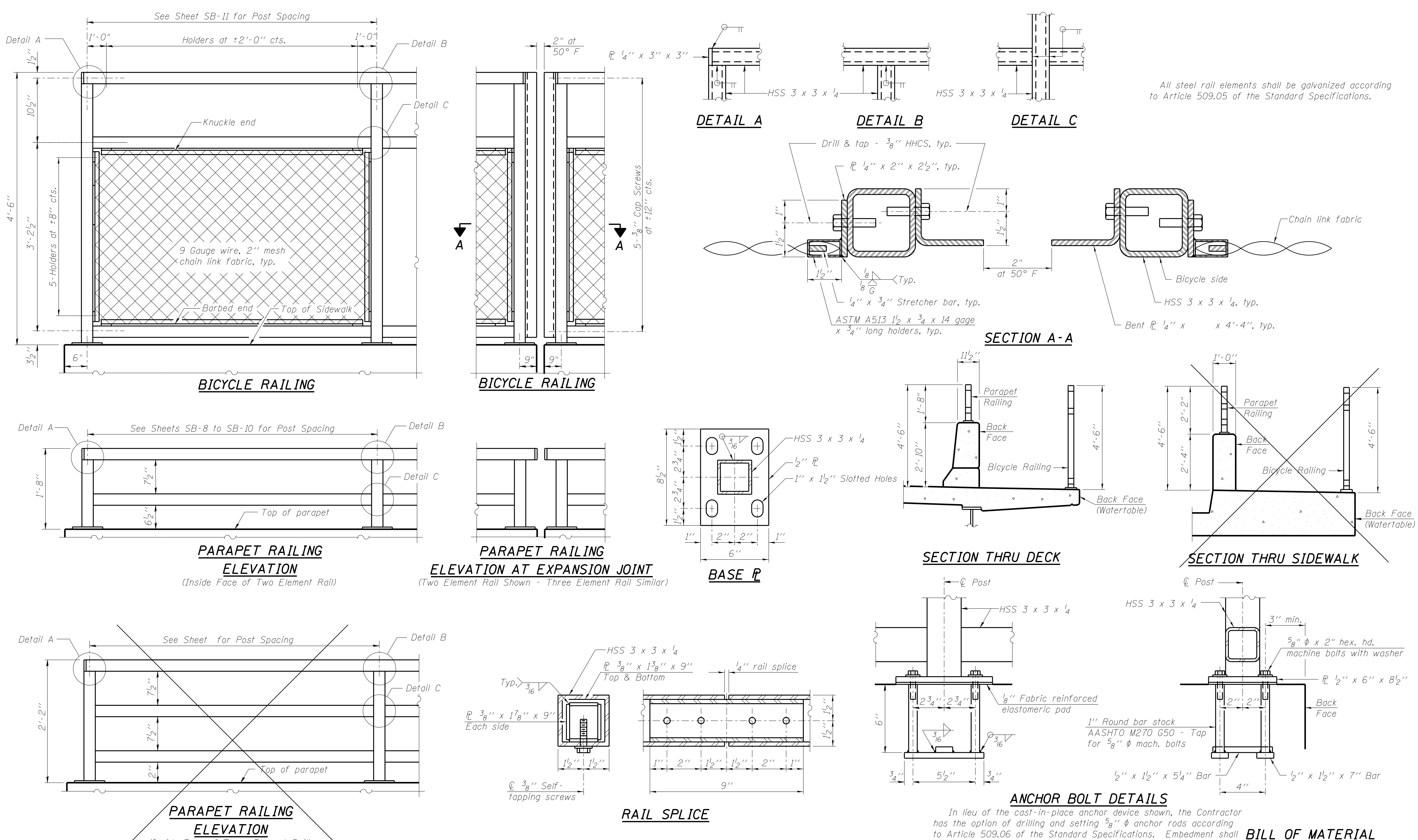
Ciorba Group, Inc. CONSULTING ENGINEERS	USER NAME = mteng	DESIGNED - BWS	REVISED -
		CHECKED - SMY	REVISED -
	PLOT SCALE = 20.0 ' / in.	DRAWN - RD	REVISED -
	PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CIP RETAINING WALL DETAILS 2
STRUCTURE NO. 081-7003
SHEET NO. SB-16 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	358
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_16_CIP_Retaining_Wall_Details_2.dgn



In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	399
Parapet Railing	Foot	351

R-29 1-27-12 (10'-0" Maximum Post Spacing)

Ciorba Group, Inc.
CONSULTING ENGINEERS

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0.2 ':' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BICYCLE RAILING
STRUCTURE NO. 081-7003

SHEET NO. SB-17 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	359
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/28/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 527+00

BORING NO. B-9
Station 527+00
Offset 26.00ft Lt CL
Ground Surface Elev. 569.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 555.2 ft ▼
Upon Completion 555.2 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOOSE dark gray LOAM				12
568.20				
MEDIUM tan fine SAND		11 8 5		10
565.70				
MEDIUM light gray SILTY LOAM	-5	2 2 3	0.7 B	30
563.70				
MEDIUM light gray SILTY LOAM		0 1 2	0.5 B	49
561.20				
SOFT gray SILTY LOAM	-10	1 1 2	0.3 B	42
558.70				
SOFT gray SILTY LOAM with 11% ORGANICS		0 1 2	0.4 B	51
555.70				
LOOSE gray fine SAND	-15	1 1 5		
553.20				
VERY DENSE gray weathered SHALE Auger Refusal @ 19'		10 20 37		
550.70				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/28/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 527+00

BORING NO. B-10
Station 527+01
Offset 21.00ft Rt CL
Ground Surface Elev. 569.3 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 557.3 ft ▼
Upon Completion 557.3 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM gray LOAM			0.5 P	9
567.30				
STIFF tan SILTY CLAY LOAM		3 3 3	1.5 P	22
565.80				
MEDIUM light gray SILTY LOAM	-5	0 2 2	0.5 B	32
563.30				
MEDIUM light gray SILTY LOAM		1 2 0	0.7 B	34
560.80				
SOFT gray SILTY LOAM with 10% ORGANICS	-10	0 1 2	0.4 B	57
557.80				
MEDIUM gray clean medium coarse SAND		0 4 6		
555.80				
MEDIUM gray SANDY GRAVEL Auger Refusal @ 16.5'	-15	10 13 13		
552.80				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/28/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 528+00

BORING NO. B-11
Station 528+00
Offset 26.00ft Lt CL
Ground Surface Elev. 570.9 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 558.9 ft ▼
Upon Completion 556.9 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan LOAM			0.5 P	11
568.90				
VERY STIFF tan LOAM		5 5 5	3.2 P	11
566.90				
MEDIUM gray fine SAND	-5	6 9 8		
564.40				
STIFF gray SILTY LOAM		2 3 4	1.1 B	38
562.40				
MEDIUM light gray SILTY LOAM	-10	0 2 2	0.6 B	32
559.90				
SOFT gray SILTY LOAM		0 0 0	0.3 B	49
556.90 ▽				
VERY DENSE gray weathered SHALE	-15	0 0 100/6"		
554.40				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003.18 Soil Boring Logs 1.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Suite 402 Chicago Illinois 60656
Tel: 773.775.4005
Fax: 773.775.4014
Email: chicago@clorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 1
STRUCTURE NO. 081-7003
SHEET NO. SB-18 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	360
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/28/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 528+00

BORING NO. B-12
Station 527+98
Offset 26.00ft Rt CL
Ground Surface Elev. 569.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 555.2 ft ▼
Upon Completion 555.2 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF tan LOAM			1.0 P	9
567.70				
STIFF tan/brown SANDY LOAM		8 16 10	2.0 P	7
566.20				
MEDIUM gray SILTY LOAM	-5	3 4 5	0.6 P	23
563.70				
SOFT light gray SILTY LOAM		1 2 3	0.3 P	31
561.20				
MEDIUM light gray SILTY LOAM	-10	1 1 3	0.5 B	26
558.70				
VERY SOFT light gray SILTY LOAM with 9% ORGANICS		0 1 1	0.2 P	59
555.70				
top 1" medium SAND	-15	5		
VERY DENSE gray weathered SHALE		15 100/4.5"		
553.70				
End of Boring	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/27/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 529+00

BORING NO. B-13
Station 529+20
Offset 17.00ft Lt CL
Ground Surface Elev. 565.9 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 558.9 ft ▼
Upon Completion 558.9 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
563.90				
SOFT gray SILTY CLAY LOAM		2 1 3	0.3 P	26
562.40				
SOFT gray SILTY LOAM	-5	1 2 2	0.4 B	35
559.40				
MEDIUM gray clean medium coarse SAND		2 5 6		
556.90				
VERY DENSE light gray weathered SHALE	-10	2 8 100/4"		
554.90				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/27/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 529+00

BORING NO. B-14
Station 529+06
Offset 21.00ft Rt CL
Ground Surface Elev. 565.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 558.0 ft ▼
Upon Completion 558.0 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILTY CLAY LOAM			0.5 P	24
563.00				
MEDIUM gray SILTY CLAY LOAM		1 1 2	0.6 P	24
561.50				
SOFT light gray SILTY LOAM	-5	1 1 3	0.3 B	39
558.50				
LOOSE gray clean medium coarse SAND		2 3 4		
556.00				
VERY DENSE gray weathered SHALE	-10	100/7"		
554.00				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003.19_Soil_Boring_Logs_2.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4605
Fax 773.775.4614
Email dlchicago@clorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2
STRUCTURE NO. 081-7003
SHEET NO. SB-19 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	361
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/27/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 530+00

BORING NO. B-15
Station 530+00
Offset 20.00ft Lt CL
Ground Surface Elev. 565.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 557.1 ft ▼
Upon Completion 558.1 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown LOAM with 9% ORGANICS			0.5 P	42
563.10				
MEDIUM dark gray SILTY CLAY LOAM		2 2 4	0.9 B	25
561.60				
SOFT gray SILTY LOAM	-5	1 1 3	0.3 B	46
558.60				
SOFT gray LOAM with SAND lens		1 1 6	0.3 P	60
556.10				
VERY DENSE gray weathered SHALE	-10	13 20 75		
554.10				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/27/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 530+00

BORING NO. B-16
Station 530+00
Offset 25.00ft Rt CL
Ground Surface Elev. 565.2 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 557.2 ft ▼
Upon Completion 557.2 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM dark gray SILTY CLAY LOAM			0.8 P	23
563.20				
MEDIUM gray SILTY CLAY LOAM		2 3 4	0.5 B	24
561.70				
MEDIUM gray SILTY LOAM	-5	1 2 3	0.7 B	23
558.70				
VERY SOFT gray LOAM with SAND lens		1 4 7	0.2 P	54
556.20				
VERY DENSE light gray weathered SHALE	-10	10 100/8"		
554.20				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/27/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 531+00

BORING NO. B-17
Station 531+00
Offset 19.00ft Lt CL
Ground Surface Elev. 563.3 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 558.3 ft ▼
Upon Completion 558.3 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SOFT brown with 29% ORGANICS				117
563.30				
MEDIUM gray LOAM with SAND lens		1 1 3	0.5 B	21
561.80				
MEDIUM gray SILTY LOAM	-5	0 1 2	0.5 B	37
558.80				
MEDIUM light gray clean medium coarse SAND		2 5 6		
556.30				
Wash VERY DENSE light gray weathered SHALE	-10	5 100/5"		
554.30				
End of Boring	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003.20.Soil_Boring_Logs_3.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel: 773.775.4009
Fax: 773.775.4014
Email: chicago@clorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -	
	CHECKED - BWS	REVISED -	
PLOT SCALE = 0.1667 ' / in.	DRAWN - SRG	REVISED -	
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 3
STRUCTURE NO. 081-7003
SHEET NO. SB-20 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	362
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

081-7003 Proposed MSE Wall @ John Deere Road, along south side of 38th Avenue, 400' W. of 35th Street

Date 9/27/12

ROUTE FAP 595 DESCRIPTION LOGGED BY W. Garza

SECTION (142-1)R-1 & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-7003
Station 531+00

BORING NO. B-18
Station 531+00
Offset 20.00ft Rt CL
Ground Surface Elev. 565.4 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 558.4 ft
Upon Completion 559.4 ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
563.40				
VERY SOFT gray LOAM	1 1 1	0.2 P	27	
561.90				
SOFT light gray SILTY LOAM with SAND lens	1 1 2	0.3 B	35	
558.90 ▽				
MEDIUM gray clean medium coarse SAND ▼	1 4 6			
556.40				
VERY DENSE gray weathered SHALE	3 20 100/3"			
554.40				
End of Boring				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

N:\PROJ\0003393.00\CONTRACT_1\Design\Structural\CAD\Retaining Wall 081-7003\081-7003_21 Soil Boring Logs 4.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
2007 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel. 773.775.4009
Fax 773.775.4014
Email: ciorba@ciorba.com

USER NAME = mteng	DESIGNED - SMY	REVISED -
	CHECKED - BWS	REVISED -
PLOT SCALE = 0.1667 ' / in.	DRAWN - SRG	REVISED -
PLOT DATE = 3/11/2013	CHECKED - BWS	REVISED -

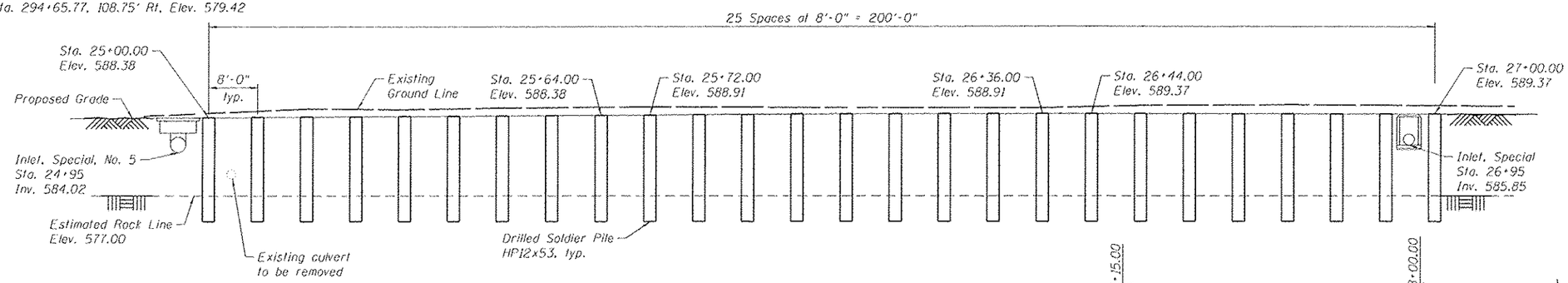
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 4
STRUCTURE NO. 081-7003
SHEET NO. SB-21 OF SB-21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 and 142-1HB	ROCK ISLAND	507	363
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		

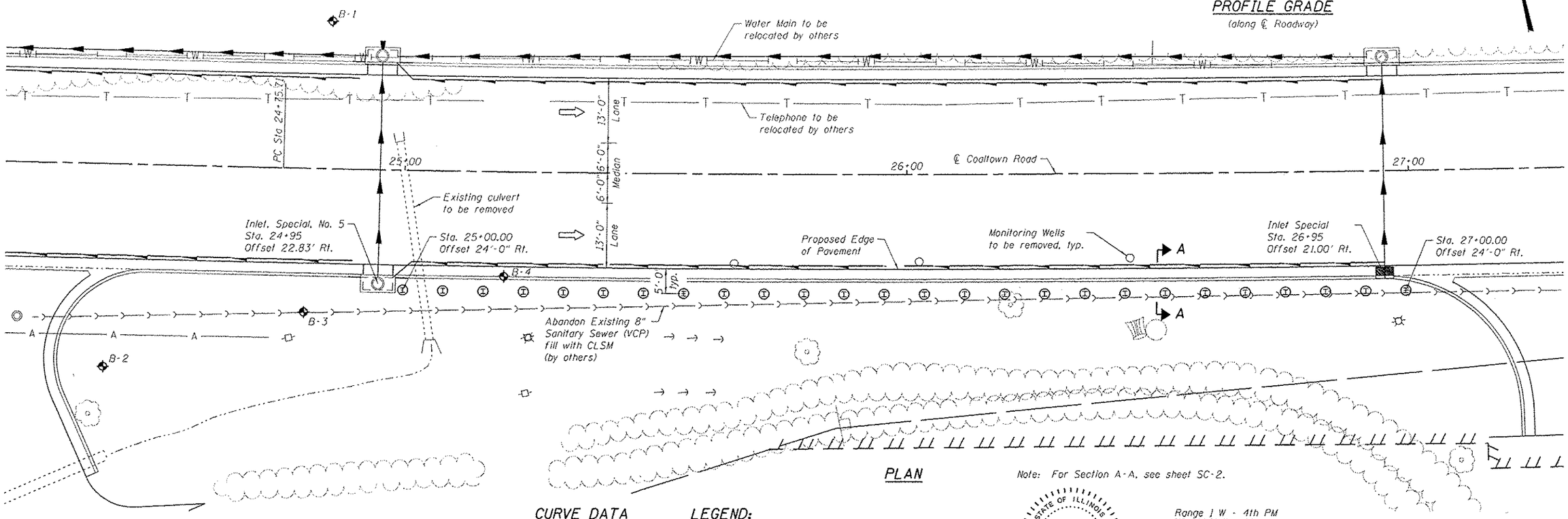
Benchmark: Fire Hydrant. FAP. 595 Sta. 294+65.77, 108.75' Rt. Elev. 579.42

Existing Stucture: No Structure.



ELEVATION
(Looking North)

PROFILE GRADE
(along ℄ Roadway)



PLAN

Note: For Section A-A, see sheet SC-2.

CURVE DATA
(Coaltown Road)

Δ = 7° 11' 46" (LT)
D = 1° 00' 00"
T = 360.27'
L = 719.60'
E = 11.32'
R = 5,729.58'
P.C. = Sta. 24+75.71
P.T. = Sta. 31+95.31
P.I. = Sta. 28+35.98

LEGEND:

- Existing Underground Sanitary Sewer
- A — Existing Aerial Line
- T — Existing Underground Telephone Line
- W — Existing Underground Water Main
- Proposed HP12x53 Soldier Pile

DESIGN SPECIFICATIONS

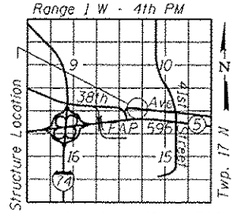
2012 AASHTO LRFD Bridge
Design Specifications, 6th Edition
with 2012 Interims

DESIGN STRESSES
FIELD UNITS

f'c = 4,000 psi
fy = 36,000 psi (M270 Grade 36)

STATE OF ILLINOIS
JOSEPH J. HOSANNA JR.
081-004654
LICENSED STRUCTURAL ENGINEER

DATE: 8/14/2013
SEAL EXPIRES: 11/30/2014



LOCATION SKETCH

GENERAL PLAN & ELEVATION
COALTOWN ROAD
ILLINOIS F.A.P. RTE 595
SECTION (142-1)R & 142-1HB
ROCK ISLAND COUNTY
STATION 25+00.00 TO 27+00.00
STRUCTURE NO. 081-P003

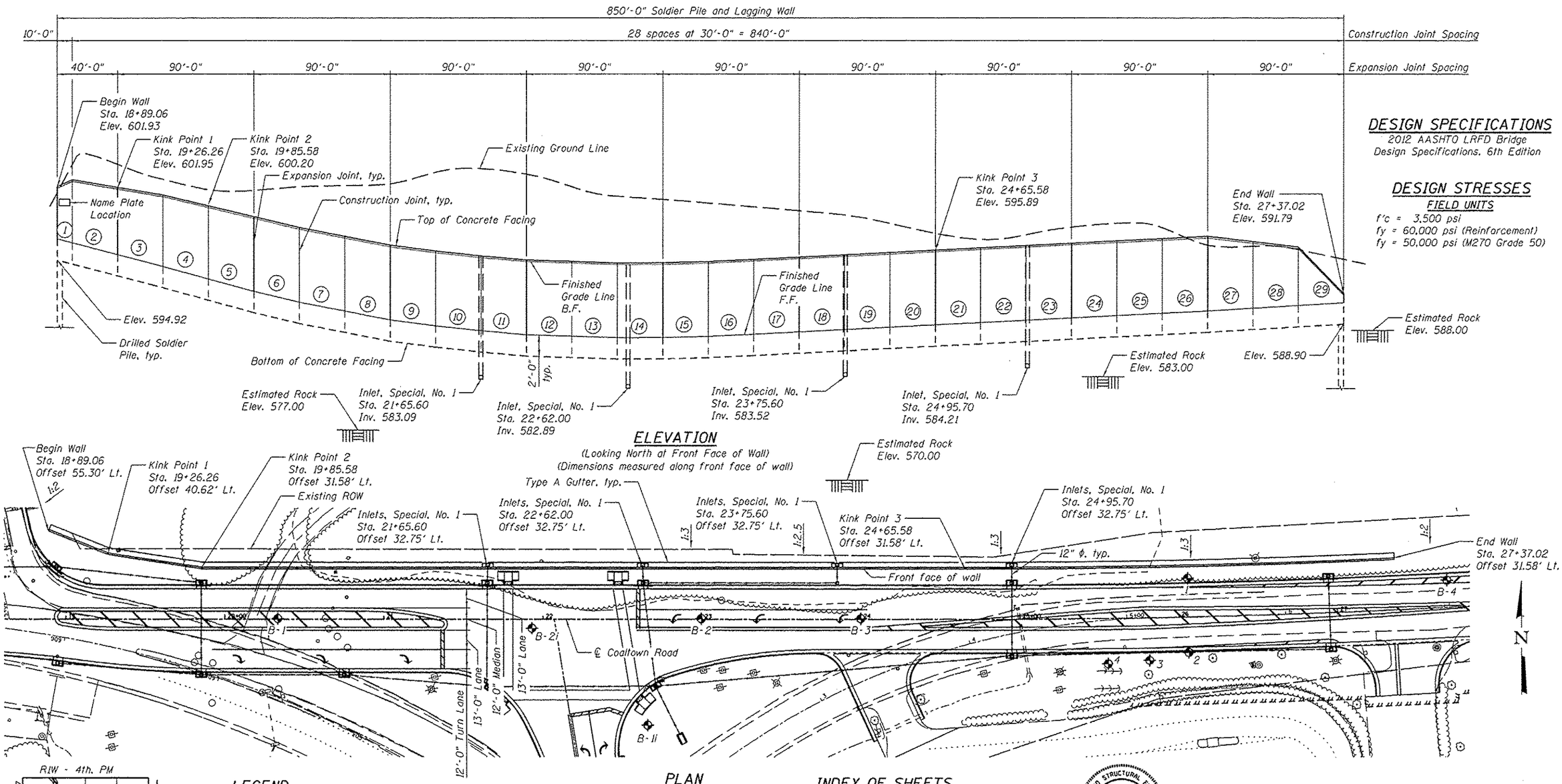
Clarke Group, Inc. CONSULTING ENGINEERS	USER NAME = rdonley	DESIGNED - BWS	REVISED - Addendum 1 8/15/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - JJH	REVISED -	
	PLOT SCALE = 20.000000 ' / in.	DRAWN - RD	REVISED -	
	PLOT DATE = 8/19/2013	CHECKED - JJH	REVISED -	SHEET NO. SC-1 OF SC-4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363A
		CONTRACT NO. 64884		
	ILLINOIS FED. AID PROJECT			

N:\PROJ\6223393.02\CONTRACT_1\Design\Structural\CAD\Soldier_Pile_Wall_064884\Soldier_Pile_Wall_1-Plan.dgn

Bench Mark: Fire Hydrant on IL Rte. 5 at Sta. 294+65.77, 108.75' RT, Elev. 579.42.

Existing Structure: None



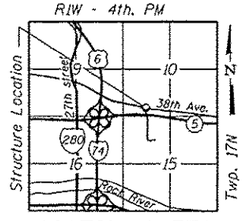
DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)



LOCATION SKETCH

LEGEND

- (#) Panel Number
- Soil Boring Location
- Underground Water Line
- Underground Sanitary Sewer
- Underground Telephone Line

INDEX OF SHEETS

Note:
Wall offsets are measured from the ℄ of proposed Coaltown Road to the front face of the wall. The installation of the proposed water main in front of the retaining wall and the temporary soil retention system required to brace the excavation and the retaining wall, will be performed in a separate contract and paid for by others.

LICENSED STRUCTURAL ENGINEER * MICHAEL T. HALEY 81-5991 CHATHAM * STATE OF ILLINOIS

Michael T. Haley 8-14-13

Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2014
Date

GENERAL PLAN AND ELEVATION
COALTOWN ROAD
FAP 595 - SECTION (142-1)R & 142-1HB
ROCK ISLAND COUNTY
STA. 18+89.06 TO STA. 27+37.02
S.N. 081-P002

LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois	USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
	FILE NAME =	CHECKED - VPT	REVISED
	PLOT SCALE =	DRAWN - AJF	REVISED
	PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-1 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363E
		CONTRACT NO. 64884		
	ILLINOIS FED. AID PROJECT			

BORING NO. 1

Page 1 of 1

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 4+25, 40' left of centerline

Approx. Surface Elev.: 101 ft

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf	
	LEAN TO SILTY CLAY WITH ORGANICS (COLLUVIAL DEPOSIT) Gray Soft				HS						
		3		1	ST	8		34	83	*400	C=200 psf C=250 psf
		98									
	CLAYEY SILT Tan to Brown Stiff	4	ML	2	ST	17		26	95	2620	C=1460 psf C=2100 psf
		97	CH					23	107		
	FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE Brown and Gray Medium to Stiff	5	CH	3	ST	17		25 20	100 111	1650	
			CH	4	ST	18		19	115	2220	
		10	CH	5	ST	14		16	104	3985	
			CH	6	ST	10		13	115	2950	
		13									
	MODERATELY WEATHERED SHALE* ** Gray Thinly bedded Medium			7	ST	18	87	13			
		15		8	ST	18	50/3"	11			
				9	ST	14	50/5"	10			
					RB						
		20									
		23									
	BOTTOM OF BORING	78									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft			
WL	▽ 1	W.S.	▼
WL	▼		▼
WL			

Terracon

BORING STARTED	4-14-03		
BORING COMPLETED	4-14-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/2/03

BORING NO. 2

Page 1 of 1

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 3+65, 16' right of centerline

Approx. Surface Elev.: 91 ft

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	FILL, LEAN CLAY, TRACE ORGANICS Dark Brown				PA					
		2.5	CL CH	1	ST	12		25	103	2070
		88.5								
	LEAN TO FAT CLAY Brown Medium to Stiff		CL CH	2	ST	14		21	104	*2000 1500
		5	CL CH	3	ST	10		19	107	2630
		7								
	FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE Brown and Gray to Dark Gray Stiff		CH	4	ST	16		22	106	2520
			CH	5	SS	15	14	28		*3000
		10	CH	6	SS	12	17	41		*3000
		14	CH	7	SS		24	3		
		77								
	HIGHLY TO MODERATELY WEATHERED SHALE* ** Gray and Brown Soft to Medium	15		8	SS	22	56	16		
				9	SS	24	80	13		
				10	SS	24	44	25		
		20		11	SS	18	20/6" 50/6"	14		
		21								
	BOTTOM OF BORING	70								

***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft			
WL	▽ 10	W.S.	▼
WL	▼		▼
WL			

Terracon

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/2/03

BORING NO. 3

Page 1 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 4+08, 16' right of centerline

Approx. Surface Elev.: 91 ft

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	FILL, LEAN TO SILTY CLAY WITH ORGANICS Gray to Brown				PA					
		3		1	ST	15		16	111	2515
		88								
	SILTY TO FAT CLAY Brown Medium		CL CH	2	ST	20		21	107	1770
		5								
		86	CH	3	SS	12		21	108	1930
	FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE Brown to Gray Stiff				PA					
			CH	4	ST	22	16			*2500
		10	CH	5	ST	18	15	19		*2500
			CH	6	ST	20	24	3		
		14								
		77		7	ST	24	37	27		
	HIGHLY TO MODERATELY WEATHERED SHALE* ** Brown and Gray Soft to Medium	15		8	ST	16	80/10"	16		
				9	ST	16	95/12"	22		
				10	ST	24	50	16		
		20		11	ST	24	75/10"	16		
				12	ST	24	30/6" 50/6"	15		
		25								
		66								

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL	▽ 11	W.S.	▼
WL	▼		▼
WL			

Terracon

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/2/03

N:\PROJ\0003393.00\CONTRACT.1\Design\Structural\CAD\Solder_Pile_Wall_064B84\Solder_Pile_Wall_3.dgn

Clorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue
Suite 402 Chicago, Illinois 60656
Tel 773.775.4005
Fax 773.775.4014
Email clrbagp@clorba.com

USER NAME = rdanley	DESIGNED - BWS	REVISED - Addendum 1 8/15/2013	
	CHECKED - JJH	REVISED -	
PLOT SCALE = 0.2.0000 ' / in.	DRAWN - RD	REVISED -	
PLOT DATE = 8/15/2013	CHECKED - JJH	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS - 1
STRUCTURE NO. 081-P003
SHEET NO. SC-3 OF SC-4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363C
		CONTRACT NO. 64B84		
	ILLINOIS	FED. AID PROJECT		

BORING NO. 3

Page 2 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: SPT - N '' BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, psf
	BOTTOM OF BORING ***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft				BORING STARTED	4-3-03		
WL	▽ 11	W.S.	▼	BORING COMPLETED	4-3-03		
WL	▼		▼	RIG	93	FOREMAN	JC
WL				APPROVED	WKB	JOB #	07035019

Terracon

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/23/03

BORING NO. 4

Page 1 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 4+50, 16' right of centerline

Approx. Surface Elev.: 91 ft

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: SPT - N '' BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, psf
	FILL, LEAN TO FAT CLAY WITH ROOTS				PA					
	Gray	1.5	CL CH	1	ST	10		19	106	1300
	LEAN TO FAT CLAY 89.5 Brown Soft to Medium		CL CH	2	ST	10		19	107	1850
		5	CH	3	ST	17		28	96	700
	FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE 85 Brown and Gray Stiff	6	CH	4	ST	24		17		*2500
			CH	5	SS	20	14	24		*3000
		10	CH	6	SS	22	13	18		
			CH	7	SS	22	29	10		
	HIGHLY TO MODERATELY WEATHERED SHALE* ** 76 Brown and Gray Soft to Medium	15		8	SS	22	40	15		
				9	SS	24	26/6" 50/6"	18		
		20		10	SS	24	65	24		
				11	SS	22	90/9"	20		
				12	SS	16	50/5"			
		25		13	SS	24	80/10"			
	27 64									

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft				BORING STARTED	4-3-03		
WL	▽ 13	W.S.	▼	BORING COMPLETED	4-3-03		
WL	▼		▼	RIG	93	FOREMAN	JC
WL				APPROVED	WKB	JOB #	07035019

Terracon

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/23/03

BORING NO. 4

Page 2 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY, in.	SAMPLES: SPT - N '' BLOWS / ft.	TESTS: WATER CONTENT, %	TESTS: DRY UNIT WT pcf	TESTS: UNCONFINED STRENGTH, psf
	BOTTOM OF BORING ***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft				BORING STARTED	4-3-03		
WL	▽ 13	W.S.	▼	BORING COMPLETED	4-3-03		
WL	▼		▼	RIG	93	FOREMAN	JC
WL				APPROVED	WKB	JOB #	07035019

Terracon

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/23/03

N:\PROJ\0003393.00\CONTRACT.1\Design\Structural\CAD\Soldier_Pile_Wall_064B84\Soldier_Pile_Wall_4.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5007 North Cumberland Avenue
Chicago, Illinois 60656
Tel: 773.775.4600
Fax: 773.775.4214
Email: chicago@ciorba.com

USER NAME = rdanley	DESIGNED - BWS	REVISED - Addendum 1 8/15/2013
	CHECKED - JJH	REVISED -
PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - RD	REVISED -
PLOT DATE = 8/15/2013	CHECKED - JJH	REVISED -

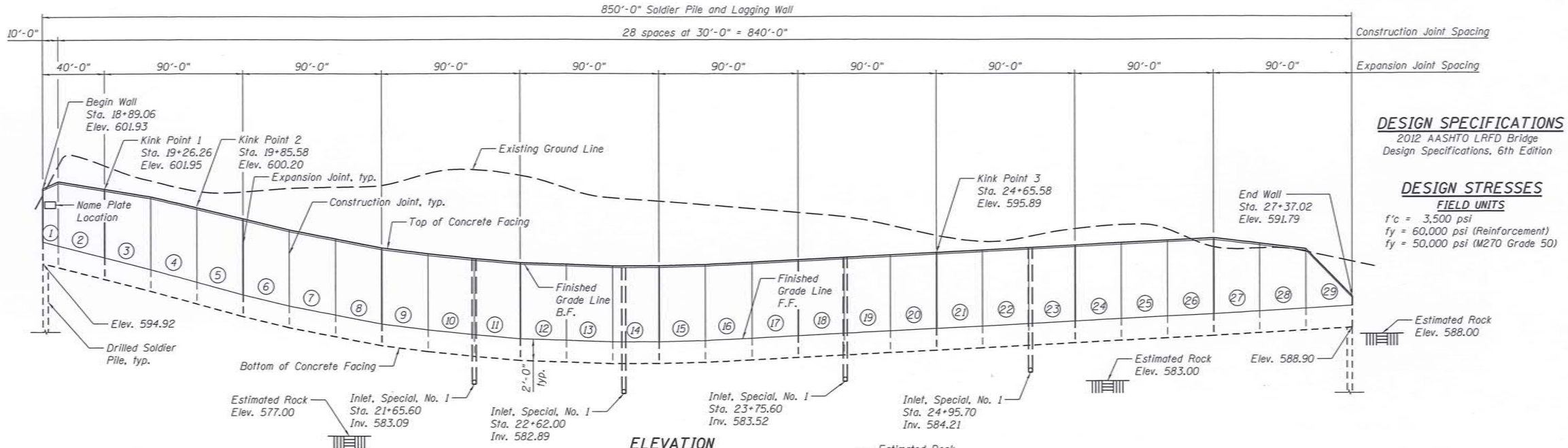
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS – 2
STRUCTURE NO. 081–P003
SHEET NO. SC-4 OF SC-4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363D
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Fire Hydrant on IL Rte. 5 at Sta. 294+65.77, 108.75' RT, Elev. 579.42.

Existing Structure: None



ELEVATION

(Looking North at Front Face of Wall)
(Dimensions measured along front face of wall)

PLAN

DESIGN SPECIFICATIONS

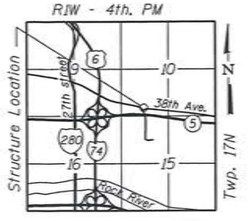
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

RJW - 4th. PM



LOCATION SKETCH

LEGEND

- Panel Number
- Soil Boring Location
- Underground Water Line
- Underground Sanitary Sewer
- Underground Telephone Line

INDEX OF SHEETS

Note:
Wall offsets are measured from the ℄ of proposed Coaltown Road to the front face of the wall. The installation of the proposed water main in front of the retaining wall and the temporary soil retention system required to brace the excavation and the retaining wall, will be performed in a separate contract and paid for by others.

LICENSED STRUCTURAL ENGINEER * STATE OF ILLINOIS * MICHAEL T. HALEY 81-5991 CHATHAM

Michael J. Haley 8-14-13

Michael T. Haley — Date
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2014

GENERAL PLAN AND ELEVATION
COALTOWN ROAD
FAP 595 - SECTION (142-1)R & 142-1HB
ROCK ISLAND COUNTY
STA. 18+89.06 TO STA. 27+37.02
S.N. 081-P002

LIN ENGINEERING, LTD. Consulting Engineers, Springfield, Illinois	USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
	FILE NAME =	CHECKED - VPT	REVISED
	PLOT SCALE =	DRAWN - AJF	REVISED
	PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-1 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363E
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

The contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.

Ashlar stone form liner shall be used on all locations labeled with Form Liner Textured Surface.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	114
Concrete Structures	Cu. Yd.	324.8
Form Liner Textured Surface	Sq. Ft.	5,795
Protective Coat	Sq. Yd.	644
Stud Shear Connectors	Each	2,008
Reinforcement Bars, Epoxy Coated	Pound	33,610
Name Plates	Each	1
Geocomposite Wall Drain	Sq. Yd.	433
Concrete Gutter, Type A	Foot	850
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	11,954
Drilling and Setting Soldier Piles (In Rock)	Cu. Ft.	3,633
Untreated Timber Lagging	Sq. Ft.	5,958
Furnishing Soldier Piles (W Section)	Foot	3,176
Pipe Underdrains for Structures 6"	Foot	850
Temporary Soil Retention System	Sq. Ft.	1,374

STATION 18+89.06
BUILT BY
STATE OF ILLINOIS
LOADING HL-93
STRUCTURE NO. 081-P002

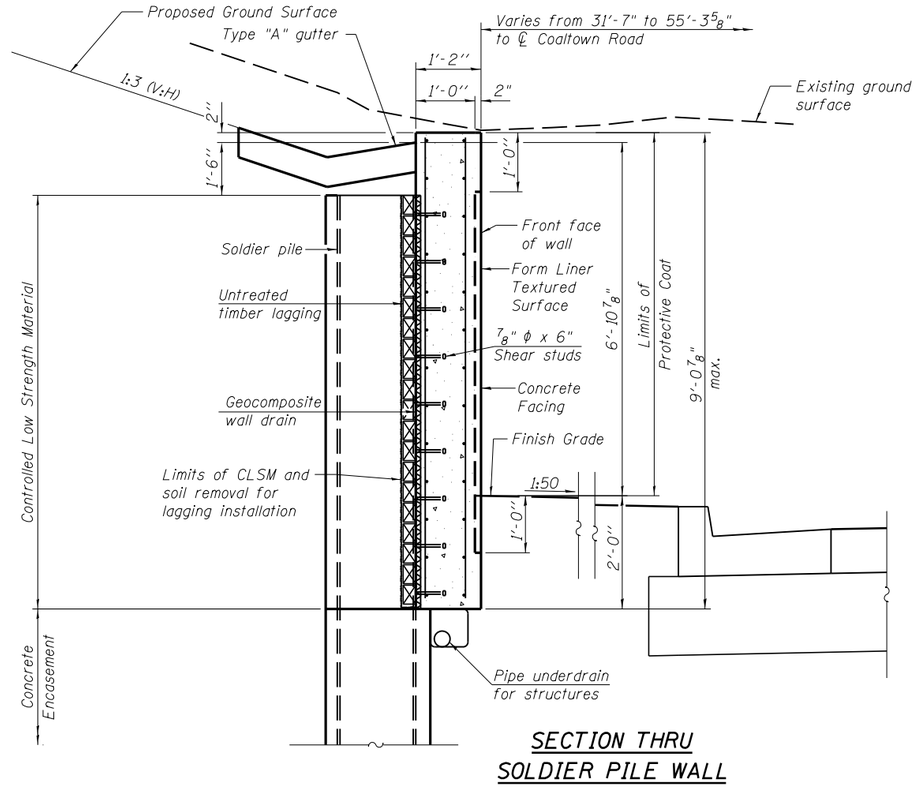
NAME PLATE

See Std. 515001

CURVE DATA

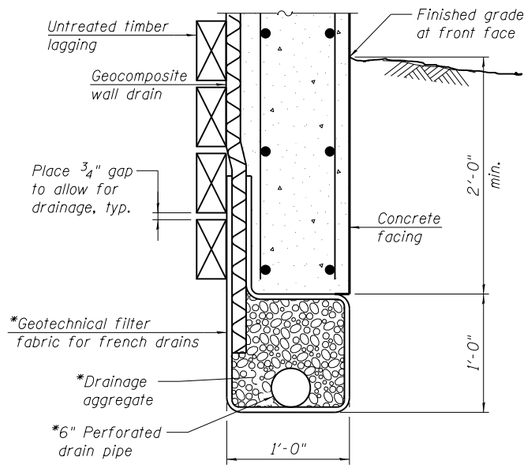
(Proposed Curve Coaltown Road)

PI Sta. = 28+35.98
Δ = 7°11' 46" (Rt.)
D = 1°00' 00"
R = 5,729.58'
T = 360.27'
L = 719.60'
E = 11.32'
P.C. Sta. = 24+75.71
P.T. Sta. = 31+95.31

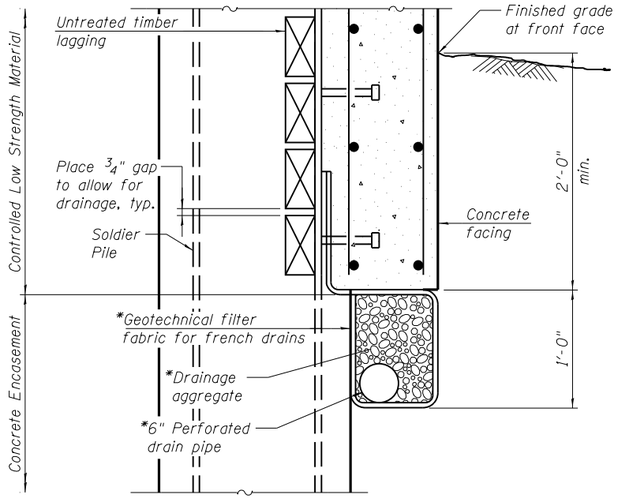


SECTION THRU SOLDIER PILE WALL

*Included in the cost of Pipe Underdrains for Structures, 6".

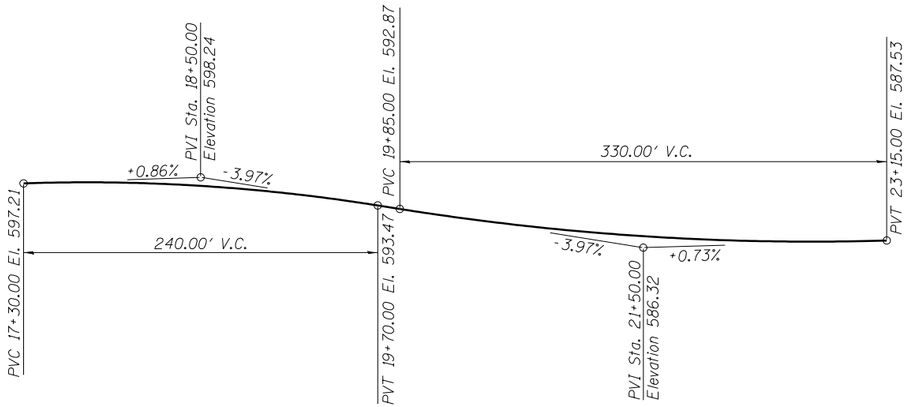


BETWEEN SOLDIER PILES



AT SOLDIER PILES

UNDERDRAIN DETAIL FOR SOLDIER PILE WALLS



PROFILE GRADE LINE

(along Coaltown Road)

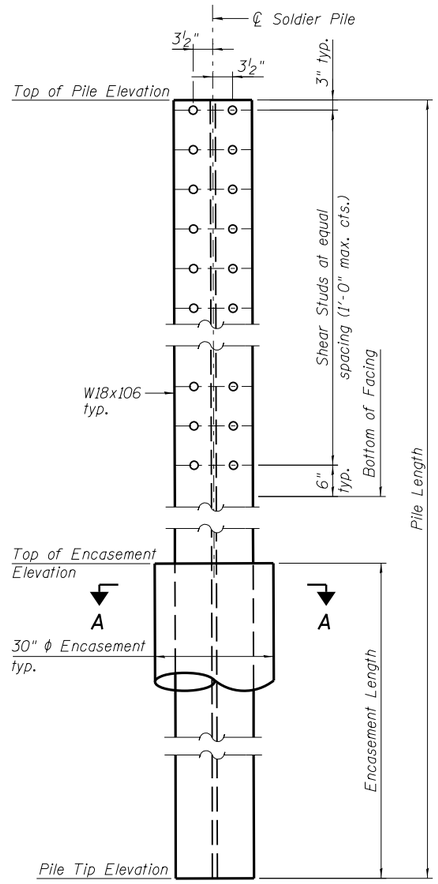
LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	FILE NAME =	CHECKED - VPT	REVISED	
	PLOT SCALE =	DRAWN - AJF	REVISED	
	PLOT DATE =	CHECKED - MTH	REVISED	

GENERAL DATA
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-2 OF SD-18

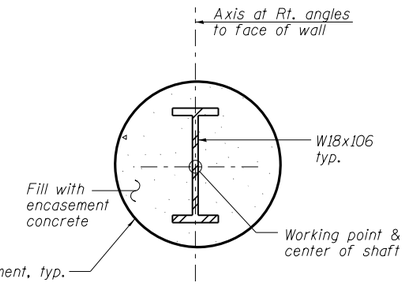
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363F
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

SOLDIER PILE DATA

Panel	Soldier Pile Designation	Station	Offset (ft)	Pile Size	Top of Soldier Pile Elevation	Pile Tip Elevation	Top of Encasement Concrete	Estimated Length of Soldier Pile	Est. Top of Rock Elevation	Number of Shear Connectors
1	1	18+91.63	56.38	W18x106	600.34	575.67	594.85	24.67 ft	580.67	10
	2	18+97.21	54.18	W18x106	600.73	575.54	594.63	25.19 ft	580.54	12
2	3	19+01.76	52.39	W18x106	600.80	575.43	594.44	25.37 ft	580.43	12
	4	19+07.34	50.18	W18x106	600.69	575.30	594.22	25.39 ft	580.30	12
	5	19+12.92	47.98	W18x106	600.57	575.17	594.00	25.40 ft	580.17	12
	6	19+18.50	45.78	W18x106	600.46	575.04	593.77	25.42 ft	580.04	12
	7	19+24.08	43.58	W18x106	600.34	574.92	593.55	25.43 ft	579.92	12
3	8	19+29.38	42.12	W18x106	600.23	574.79	593.33	25.44 ft	579.79	14
	9	19+35.31	41.22	W18x106	600.11	574.66	593.10	25.45 ft	579.66	14
	10	19+41.24	40.31	W18x106	600.00	574.52	592.88	25.48 ft	579.52	14
	11	19+47.17	39.41	W18x106	599.88	574.38	592.66	25.50 ft	579.38	14
	12	19+53.10	38.50	W18x106	599.77	574.24	592.43	25.53 ft	579.24	14
4	13	19+59.03	37.60	W18x106	599.59	574.11	592.20	25.48 ft	579.11	14
	14	19+64.96	36.70	W18x106	599.36	573.97	591.96	25.39 ft	578.97	14
	15	19+70.90	35.79	W18x106	599.12	573.83	591.73	25.29 ft	578.83	14
	16	19+76.83	34.89	W18x106	598.89	573.69	591.49	25.20 ft	578.69	14
	17	19+82.76	33.98	W18x106	598.65	573.56	591.26	25.09 ft	578.56	14
5	18	19+88.58	33.53	W18x106	598.42	573.42	591.02	25.00 ft	578.42	14
	19	19+94.58	33.53	W18x106	598.18	573.28	590.79	24.90 ft	578.28	14
	20	20+00.58	33.53	W18x106	597.95	573.14	590.55	24.81 ft	578.14	14
	21	20+06.58	33.53	W18x106	597.71	573.01	590.31	24.70 ft	578.01	14
	22	20+12.58	33.53	W18x106	597.48	572.87	590.08	24.61 ft	577.87	14
6	23	20+18.58	33.53	W18x106	597.26	572.73	589.86	24.53 ft	577.73	14
	24	20+24.58	33.53	W18x106	597.06	572.59	589.66	24.47 ft	577.59	14
	25	20+30.58	33.53	W18x106	596.85	572.45	589.45	24.40 ft	577.45	14
	26	20+36.58	33.53	W18x106	596.65	572.31	589.25	24.34 ft	577.31	14
	27	20+42.58	33.53	W18x106	596.44	572.17	589.04	24.27 ft	577.17	14
7	28	20+48.58	33.53	W18x106	596.26	572.03	588.86	24.23 ft	577.03	14
	29	20+54.58	33.53	W18x106	596.09	571.89	588.69	24.20 ft	576.89	14
	30	20+60.58	33.53	W18x106	595.93	571.76	588.53	24.17 ft	576.76	14
	31	20+66.58	33.53	W18x106	595.76	571.62	588.36	24.14 ft	576.62	14
	32	20+72.58	33.53	W18x106	595.59	571.48	588.19	24.11 ft	576.48	14
8	33	20+78.58	33.53	W18x106	595.43	571.34	588.03	24.09 ft	576.34	14
	34	20+84.58	33.53	W18x106	595.26	571.20	587.86	24.06 ft	576.20	14
	35	20+90.58	33.53	W18x106	595.09	571.06	587.70	24.03 ft	576.06	14
	36	20+96.58	33.53	W18x106	594.93	570.92	587.53	24.01 ft	575.92	14
	37	21+02.58	33.53	W18x106	594.76	570.78	587.36	23.98 ft	575.78	14
9	38	21+08.58	33.53	W18x106	594.62	570.64	587.22	23.98 ft	575.64	14
	39	21+14.58	33.53	W18x106	594.51	570.50	587.11	24.01 ft	575.50	14
	40	21+20.58	33.53	W18x106	594.40	570.37	587.00	24.03 ft	575.37	14
	41	21+26.58	33.53	W18x106	594.29	570.23	586.89	24.06 ft	575.23	14
	42	21+32.58	33.53	W18x106	594.18	570.09	586.78	24.09 ft	575.09	14
10	43	21+38.58	33.53	W18x106	594.08	569.95	586.68	24.13 ft	574.95	14
	44	21+44.58	33.53	W18x106	593.99	569.81	586.59	24.18 ft	574.81	14
	45	21+50.58	33.53	W18x106	593.89	569.67	586.49	24.22 ft	574.67	14
	46	21+56.58	33.53	W18x106	593.80	569.53	586.40	24.27 ft	574.53	14
	47	21+62.58	33.53	W18x106	593.71	569.39	586.31	24.32 ft	574.39	14
11	48	21+68.58	33.53	W18x106	593.62	569.25	586.22	24.37 ft	574.25	14
	49	21+74.58	33.53	W18x106	593.55	569.12	586.15	24.43 ft	574.12	14
	50	21+80.58	33.53	W18x106	593.47	568.97	586.07	24.50 ft	573.97	14
	51	21+86.58	33.53	W18x106	593.40	568.77	586.00	24.63 ft	573.77	14
	52	21+92.58	33.53	W18x106	593.32	568.57	585.92	24.75 ft	573.57	14
12	53	21+98.08	33.53	W18x106	593.27	568.39	585.87	24.88 ft	573.39	14
	54	22+03.08	33.53	W18x106	593.25	568.22	585.85	25.03 ft	573.22	14
	55	22+08.08	33.53	W18x106	593.22	568.05	585.83	25.17 ft	573.05	14
	56	22+13.08	33.53	W18x106	593.20	567.89	585.80	25.31 ft	572.89	14
	57	22+18.08	33.53	W18x106	593.18	567.72	585.78	25.46 ft	572.72	14
	58	22+23.08	33.53	W18x106	593.15	567.56	585.76	25.59 ft	572.56	14
13	59	22+28.08	33.53	W18x106	593.13	567.39	585.73	25.74 ft	572.39	14
	60	22+33.08	33.53	W18x106	593.11	567.22	585.71	25.89 ft	572.22	14
	61	22+38.08	33.53	W18x106	593.08	567.06	585.69	26.02 ft	572.06	14
	62	22+43.08	33.53	W18x106	593.06	566.89	585.66	26.17 ft	571.89	14
	63	22+48.08	33.53	W18x106	593.04	566.72	585.64	26.32 ft	571.72	14
	64	22+53.08	33.53	W18x106	593.01	566.56	585.62	26.45 ft	571.56	14
14	65	22+58.58	33.53	W18x106	593.00	566.38	585.61	26.62 ft	571.38	14
	66	22+64.91	33.53	W18x106	593.01	566.17	585.61	26.84 ft	571.17	14
	67	22+68.99	33.53	W18x106	593.01	566.03	585.61	26.98 ft	571.03	14
	68	22+73.08	33.53	W18x106	593.01	565.89	585.62	27.12 ft	570.89	14
	69	22+78.08	33.53	W18x106	593.02	565.73	585.62	27.29 ft	570.73	14
	70	22+83.08	33.53	W18x106	593.02	565.56	585.62	27.46 ft	570.56	14
15	71	22+88.08	33.53	W18x106	593.03	565.40	585.63	27.63 ft	570.40	14
	72	22+93.08	33.53	W18x106	593.05	565.23	585.65	27.82 ft	570.23	14
	73	22+98.08	33.53	W18x106	593.07	565.06	585.67	28.01 ft	570.06	14
	74	23+03.08	33.53	W18x106	593.09	565.28	585.69	27.81 ft	570.28	14
	75	23+08.08	33.53	W18x106	593.11	565.73	585.71	27.38 ft	570.73	14
	76	23+13.08	33.53	W18x106	593.13	566.18	585.73	26.95 ft	571.18	14
16	77	23+18.08	33.53	W18x106	593.16	566.63	585.76	26.53 ft	571.63	14
	78	23+23.08	33.53	W18x106	593.19	567.08	585.79	26.11 ft	572.08	14
	79	23+28.08	33.53	W18x106	593.22	567.53	585.83	25.69 ft	572.53	14
	80	23+33.08	33.53	W18x106	593.26	567.98	585.86	25.28 ft	572.98	14
	81	23+38.08	33.53	W18x106	593.29	568.43	585.90	24.86 ft	573.43	14
	82	23+43.08	33.53	W18x106	593.33	568.88	585.93	24.45 ft	573.88	14
17	83	23+48.08	33.53	W18x106	593.36	569.33	585.97	24.03 ft	574.33	14
	84	23+53.08	33.53	W18x106	593.40	569.78	586.00	23.62 ft	574.78	14
	85	23+58.08	33.53	W18x106	593.44	570.23	586.04	23.21 ft	575.23	14
	86	23+63.08	33.53	W18x106	593.47	570.68	586.08	22.79 ft	575.68	14
	87	23+68.08	33.53	W18x106	593.51	571.13	586.11	22.38 ft	576.13	14
	88	23+72.58	33.53	W18x106	593.54	571.53	586.15	22.01 ft	576.53	14
18	89	23+78.58	33.53	W18x106	593.59	572.07	586.19	21.52 ft	577.07	14
	90	23+84.58	33.53	W18x106	593.63	572.61	586.23	21.02 ft	577.61	14
	91	23+90.58	33.53	W18x106	593.67	573.15	586.28	20.52 ft	578.15	14
	92	23+96.58	33.53	W18x106	593.72	573.69	586.32	20.03 ft	578.69	14
	93	24+02.58	33.53	W18x106	593.76	574.08	586.37	19.68 ft	579.08	14
19	94	24+08.58	33.53	W18x106	593.81	574.25	586.41	19.56 ft	579.25	14
	95	24+14.58	33.53	W18x106	593.85	574.43	586.45	19.42 ft	579.43	14
	96	24+20.58	33.53	W18x106	593.89	574.61	586.50	19.28 ft	579.61	14
	97	24+26.58	33.53	W18x106	593.94	574.78	586.54	19.16 ft	579.78	14
	98	24+32.58	33.53	W18x106	593.98	574.96	586.58	19.02 ft	579.96	14
20	99	24+38.58	33.53	W18x106	594.02	575.13	586.63	18.89 ft	580.13	14
	100	24+44.58	33.53	W18x106	594.07	575.31	586.67	18.76 ft	580.31	14
	101	24+50.58	33.53	W18x106	594.11	575.49	586.71	18.62 ft	580.49	14
	102	24+56.58	33.53	W18x106	594.16	575.66	586.76	18.50 ft	580.66	14
	103	24+62.58	33.53	W18x106	594.20	575.84	586.80	18.36 ft	580.84	14
21	104	24+68.61	33.53	W18x106	594.24	576.02	586.85	18.22 ft	581.02	14
	105	24+74.61	33.54	W18x106	594.29	576.19	586.89	18.10 ft	581.19	14
	106	24+80.61	33.55	W18x106	594.33	576.37	586.93	17.96 ft	581.37	14
	107	24+86.61	33.54	W18x106	594.38	576.55	586.98	17.83 ft	581.55	14
	108	24+92.61	33.54	W18x106	594.42	576.72	587.02	17.70 ft	581.72	14
22	109	24+98.77	33.54	W18x106	594.46	576.91	587.07	17.56 ft	581.91	14
	110	25+04.77	33.55	W18x106	594.51	577.08	587.11	17.43 ft	582.08	14
	111	25+10.77	33.55	W18x106	594.55	577.26	587.15	17.29 ft	582.26	14
	112	25+16.77	33.55	W18x106	594.60	577.43	587.20	17.17 ft	582.43	14
	113	25+22.77	33.54	W18x106	594.64	577.61	587.24	17.03 ft	582.61	14
23	114	25+28.94	33.54	W18x106	594.68	577.79	587.29	16.89 ft	582.79	14
	115	25+34.94	33.55	W18x106	594.73	577.97	587.33	16.76 ft	582.97	14
	116	25+40.94	33.55	W18x106	594.77	578.15	587.37	16.62 ft	583.15	14
	117	25+46.94	33.55	W18x106	594.81	578.32	587.42	16.49 ft	583.32	14
	118	25+52.94	33.54	W18x106	594.86	578.50	587.46	16.36 ft	583.50	14
24	119	25+59.10	33.54	W18x106	594.90	578.68	587.51	16.22 ft	583.68	14
	120	25+65.10	33.55	W18x106	594.95	578.86	587.55	16.09 ft	583.86	14
	121	25+71.10	33.55	W18x106	594.99	579.03	587.59	15.96 ft	584.03	14
	122	25+77.10	33.55	W18x106	595.03	579.17	587.64	15.86 ft	584.17	14
	123	25+83.10	33.54	W18x106	595.08	579.32	587.68	15.76 ft	584.32	14
25	124	25+89.27	33.54	W18x106	595.12	579.47	587.72	15.65 ft	584.47	14
	125	25+95.27	33.55	W18x106	595.17	579.61	587.77	15.56 ft	584.61	14
	126	26+01.27	33.55	W18x106	595.21	579.75	587.81	15.46 ft	584.75	14
	127	26+07.27	33.55	W18x106	595.25	579.90	587.86	15.35 ft	584.90	14
	128	26+13.27	33.54	W18x106	595.30	580.04	587.90	15.26 ft	585.04	14
26	129	26+19.44	33.54	W18x106	595.34	580.19	587.94	15.15 ft	585.19	14
	130	26+25.44	33.55	W18x106	595.38	580.34	587.99	15.04 ft	585.34	14
	131	26+31.44	33.55	W18x106	595.43	580.48	588.03	14.95 ft	585.48	14
	132	26+37.44	33.55	W18x106	595.47	580.63	588.08	14.84 ft	585.63	14
	133	26+43.44	33.54	W18x106	595.52	580.77	588.12	14.75 ft	585.77	14
27	134	26+49.61	33.54	W18x106	595.49	580.92	588.17	14.57 ft	585.92	14
	135	26+55.61	33.55	W18x106	595.39	581.07	588.22	14.32 ft	586.07	14
	136	26+61.61	33.55	W18x106	595.28	581.21	588.27	14.07 ft	586.21	14
	137	26+67.61	33.55	W18x106	595.18	581.36	588.32	13.82 ft	586.36	14
	138	26+73.61	33.54	W18x106	595.08	581.50	588.37	13.58 ft	586.50	12
28	139	26+79.77	33.54	W18x106	594.98	581.65	588.42	13.33 ft	586.65	12
	140	26+85.77	33.55	W18x106	594.88	581.80	588.47	13.08 ft	586.80	12
	141	26+91.77	33.55	W18x106	594.78	581.94	588.52	12.84 ft	586.94	12
	142	26+97.77	33.55	W18x106	594.68	582.08	588.57	12.60 ft	587.08	12
	143	27+03.77	33.54	W18x106	594.57	582.23	588.62	12.34 ft	587.23	12
29	144	27+09.94	33.54	W18x106	594.07	582.38	588.67	11.69 ft	587.38	10
	145	27+15.94	33.55	W18x106	593.19	582.52	588.72	10.67 ft	587.52	8
	146	27+21.94	33.55	W18x106	592.31	582.67	588.78	9.64 ft	587.67	6
	147	27+27.94	33.55	W18x106	591.43	582.81	588.83	8.62 ft	587.81	6
	148	27+33.94	33.54	W18x106	590.55	582.96	588.88	7.59 ft	587.96	4



SOLDIER PILE ELEVATION AND SHEAR STUD CONNECTION DETAILS



SECTION A-A

Note:
Rock elevations at each pile are estimated by interpolating between rock elevations provided in soil boring logs.
Stations and offsets are measured from ℄ Coaltown Road to the working point.

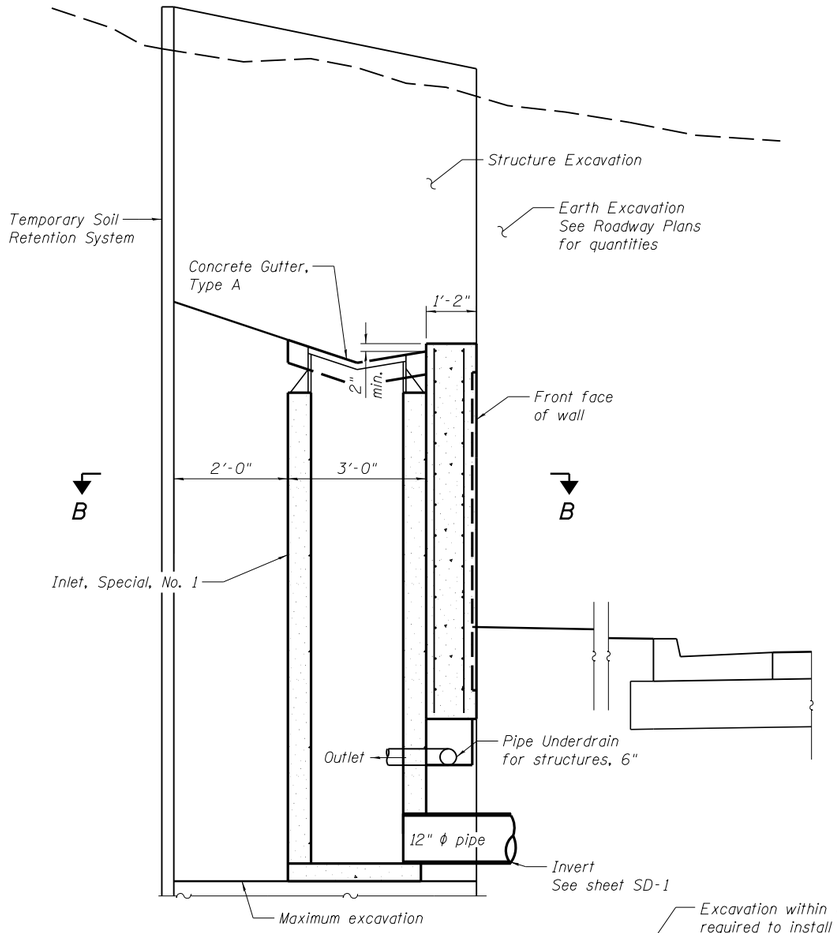
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

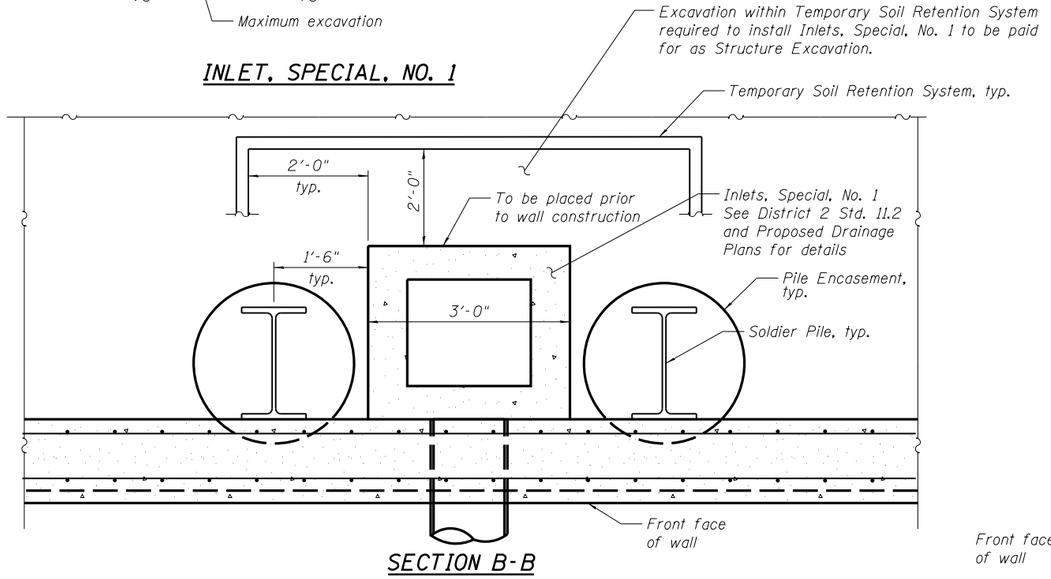
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOLDIER PILE DETAILS
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-3 OF SD-18

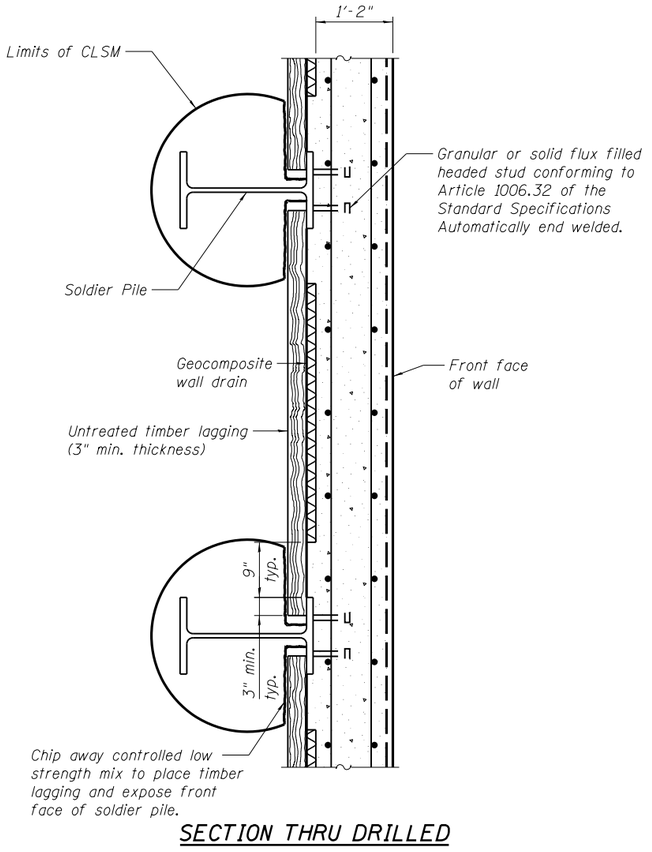
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363G
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



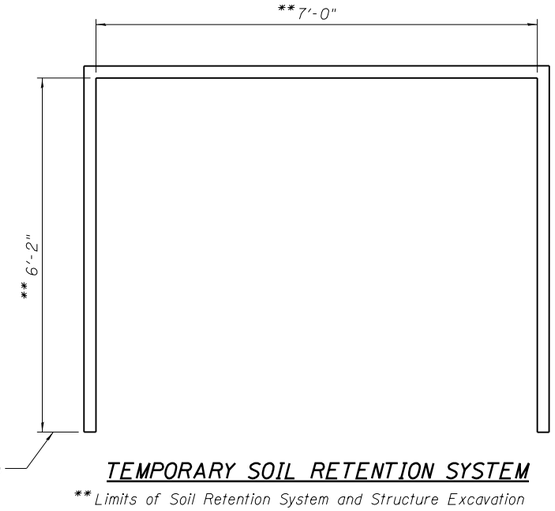
INLET, SPECIAL, NO. 1



SECTION B-B

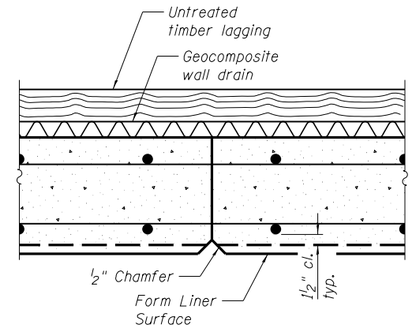


SECTION THRU DRILLED SOLDIER PILE WALL

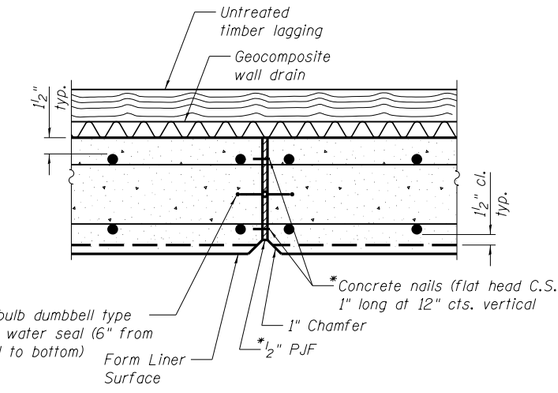


TEMPORARY SOIL RETENTION SYSTEM

** Limits of Soil Retention System and Structure Excavation

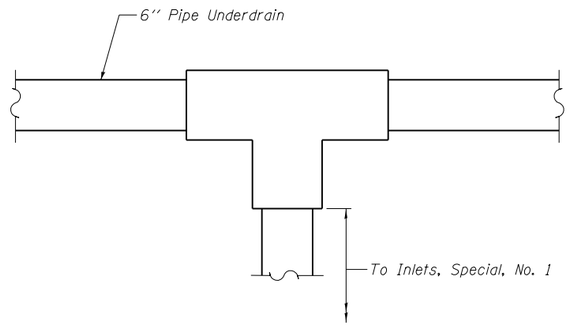


CONSTRUCTION JOINT



EXPANSION JOINT

* Cost included with Concrete Structures.



PIPE UNDERDRAIN OUTLET

See Sheet SD-1 for locations of Inlets Special

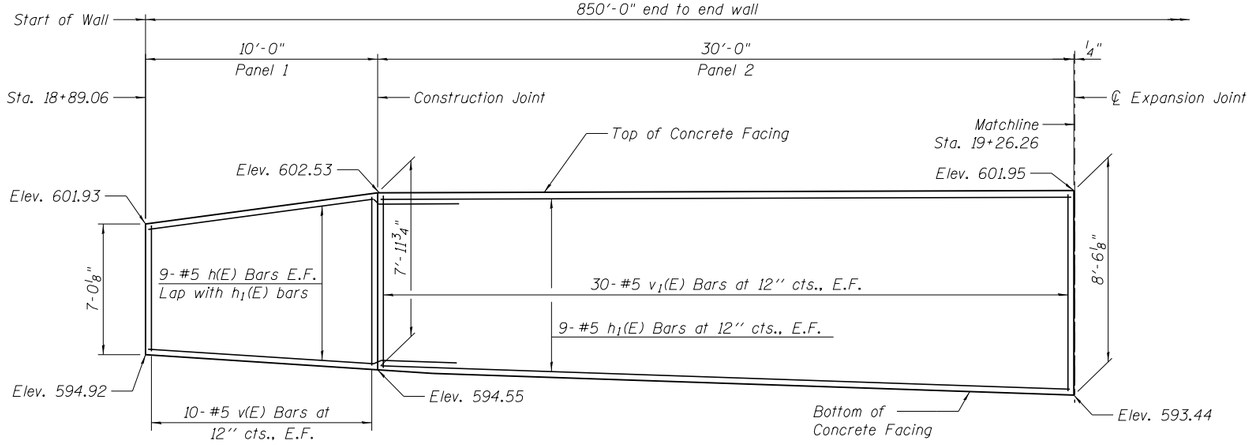
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

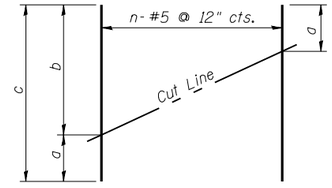
DRAINAGE DETAILS
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-4 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363H
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



ELEVATION - PANELS 1 AND 2

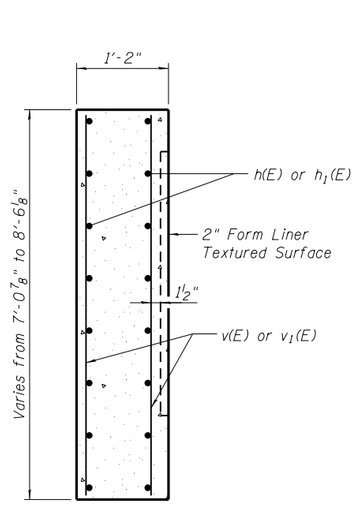
(Looking at Front Face)
(Dimensions Measured along Front Face)



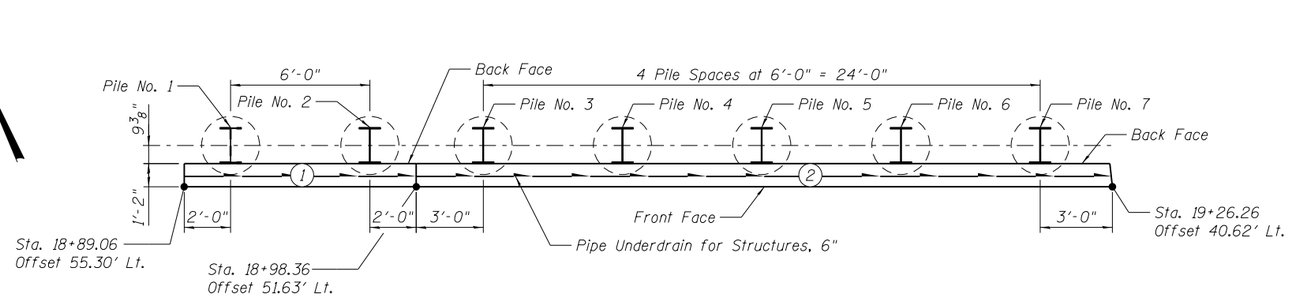
FIELD CUTTING DIAGRAM

Order v(E) and v_1(E) full length. Cut as shown and use remainder of bars in opposite face.

Bar	n	a	b	c
v(E)	10	6'-7"	7'-7"	14'-2"
v_1(E)	30	7'-7"	8'-1"	15'-8"



SECTION THRU CIP FACING



PLAN

BAR LIST

Bar	No.	Size	Length	Shape
h(E)	18	#5	13'-3"	——
h_1(E)	18	#5	29'-9"	——
v(E)	10	#5	14'-2"	——
v_1(E)	30	#5	15'-8"	——

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.
Bend h(E) bars in field.

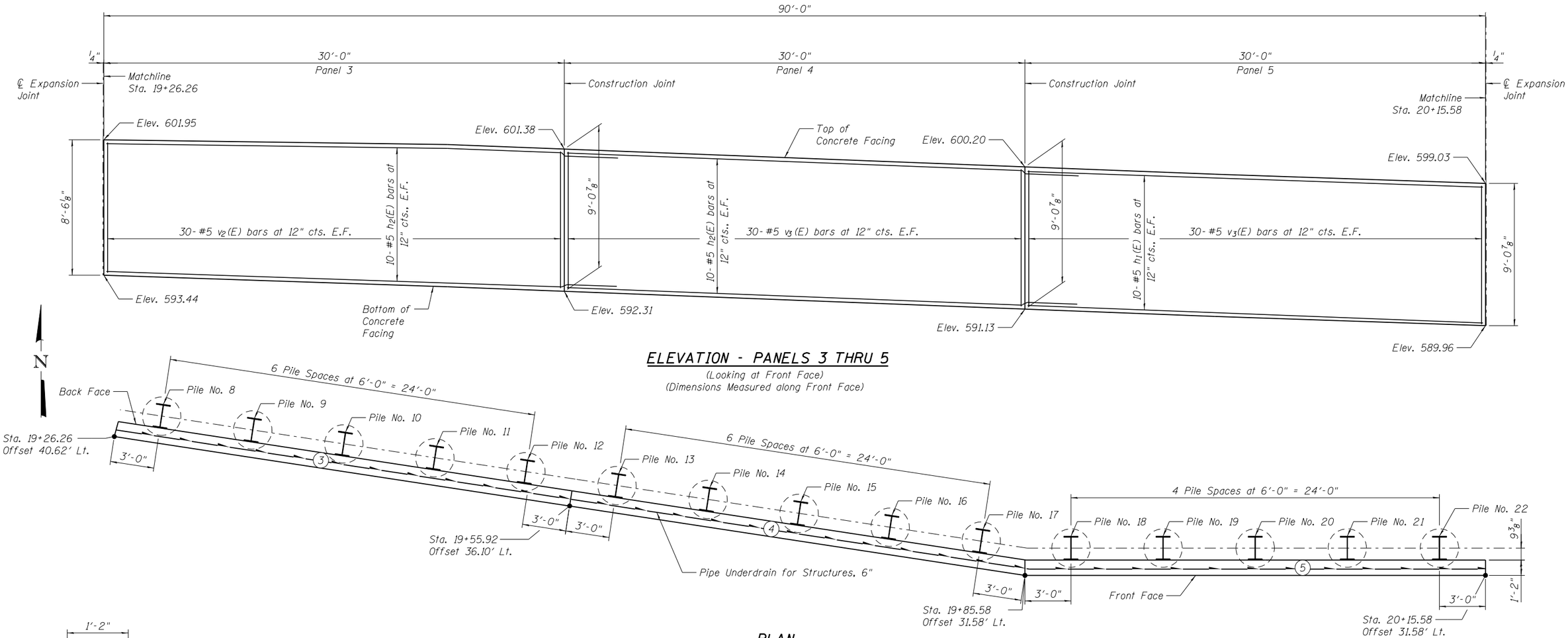
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-5 OF SD-18

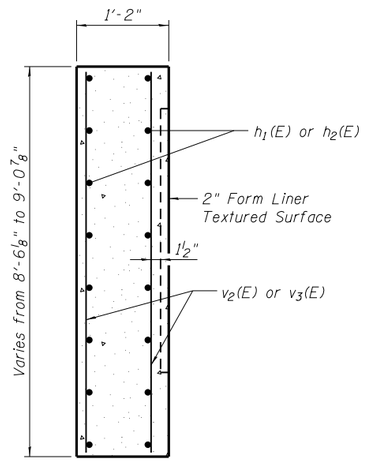
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	3631
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



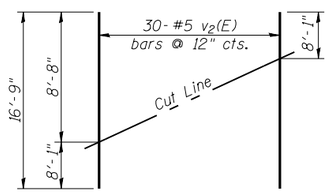
ELEVATION - PANELS 3 THRU 5

(Looking at Front Face)
(Dimensions Measured along Front Face)

PLAN



SECTION THRU CIP FACING



FIELD CUTTING DIAGRAM

Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.

LEGEND

(#) = Panel Number

E.F. = Each Face

MINIMUM BAR LAP

#5 bar = 3'-3"

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_2(E)$	30	#5	16'-9"	——
$v_3(E)$	120	#5	8'-8"	——

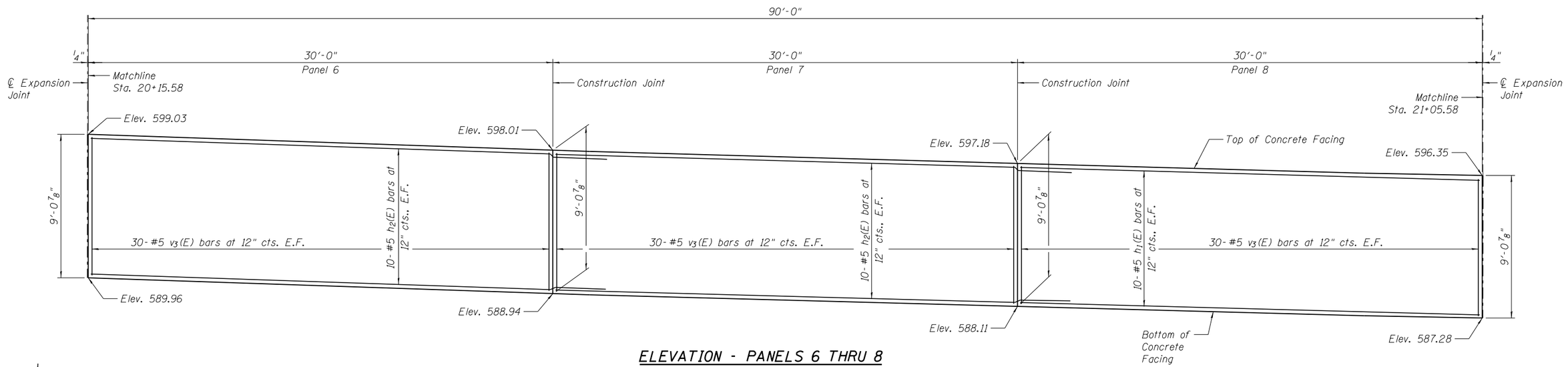
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

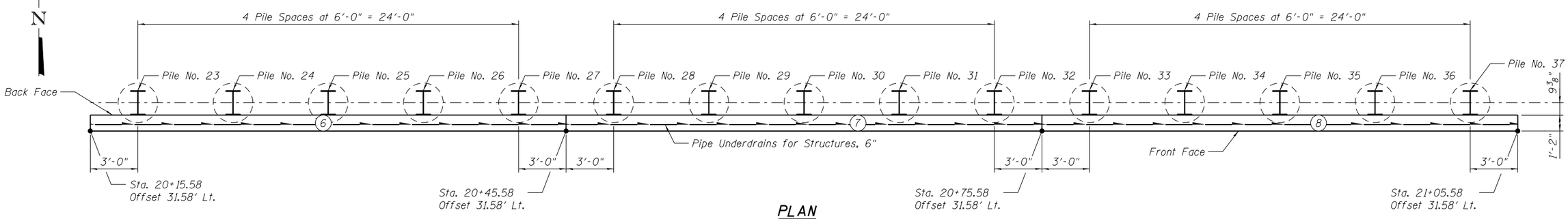
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-6 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363J
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

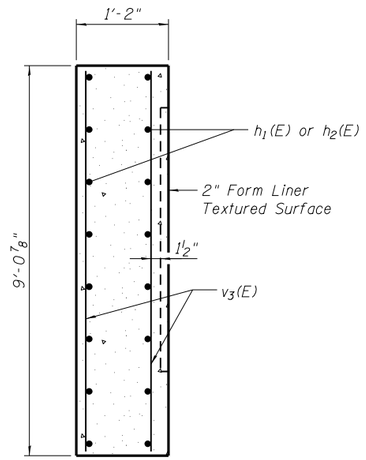


ELEVATION - PANELS 6 THRU 8

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

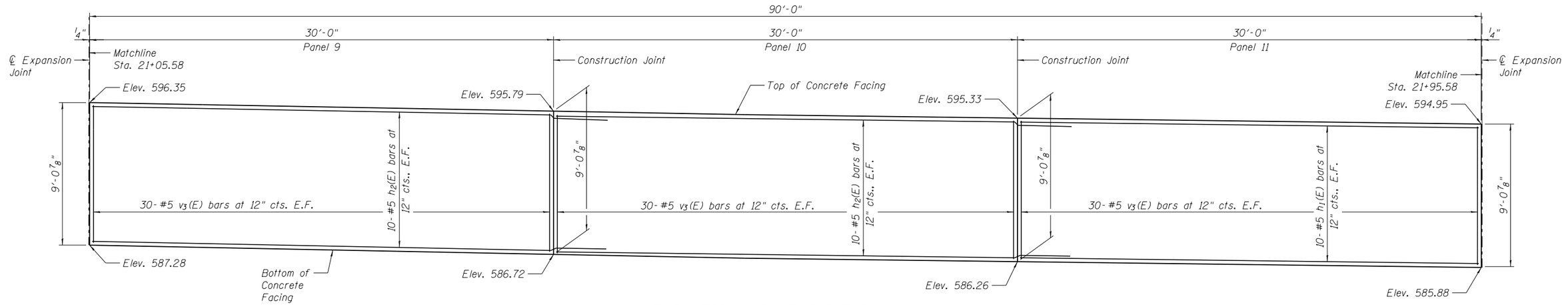
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

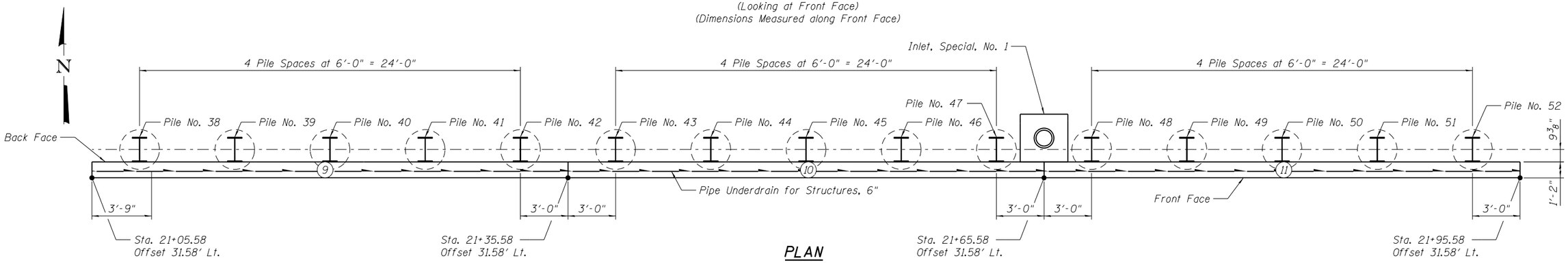
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-7 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363K
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

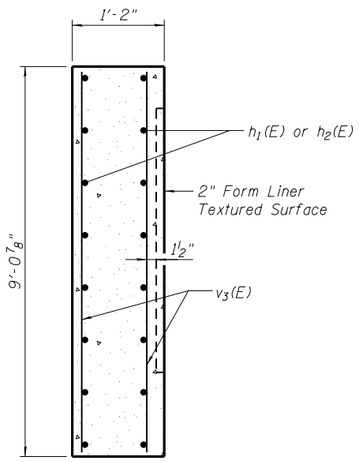


ELEVATION - PANELS 9 THRU 11

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

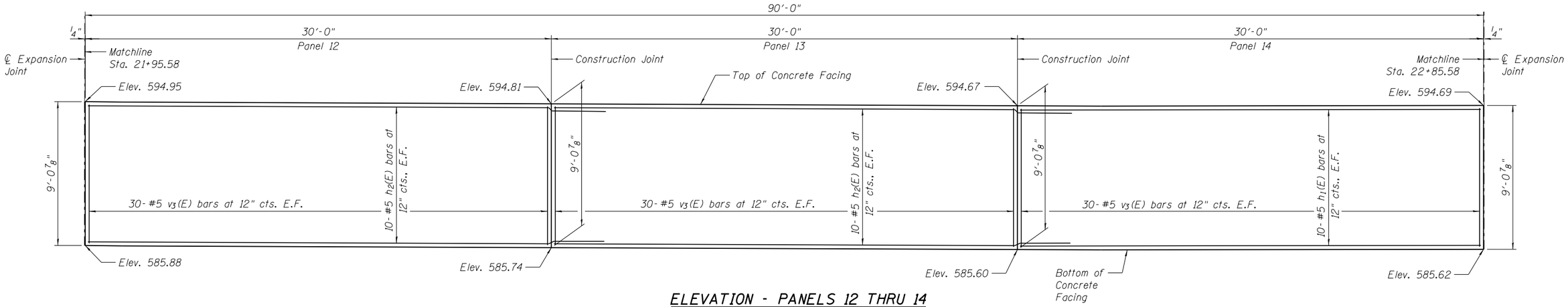
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

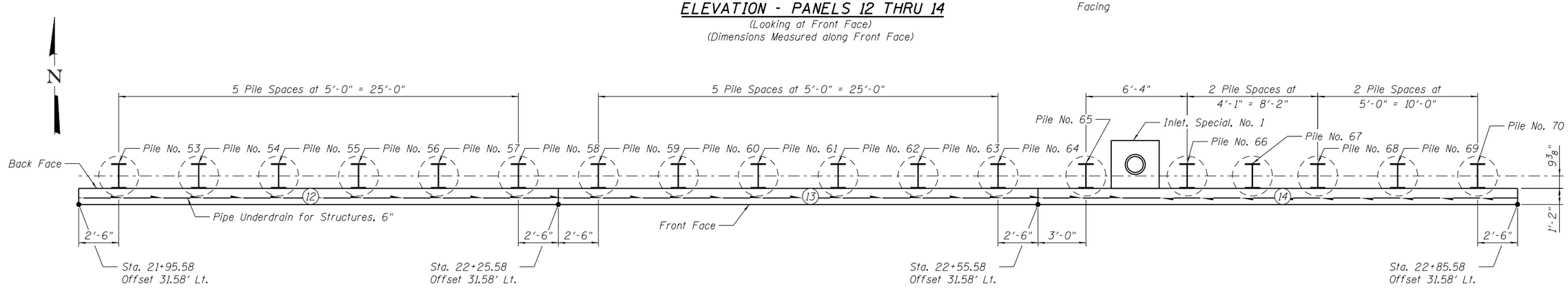
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-8 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363L
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

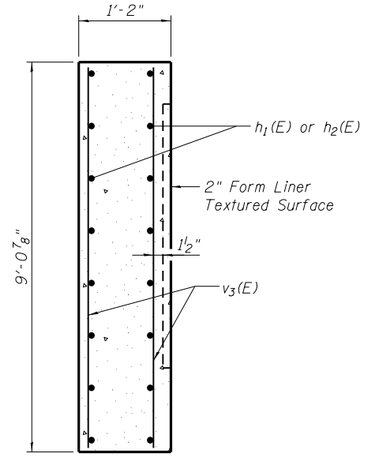


ELEVATION - PANELS 12 THRU 14

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-03 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

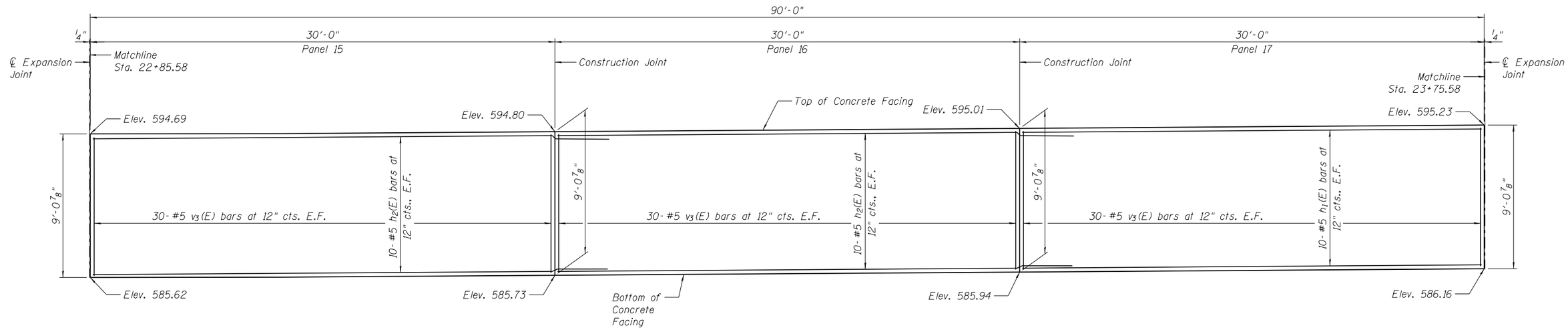
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

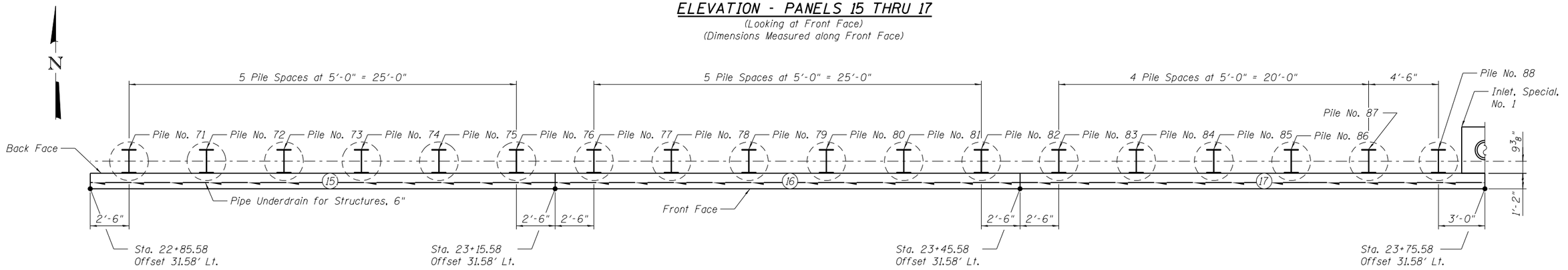
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-9 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363M
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

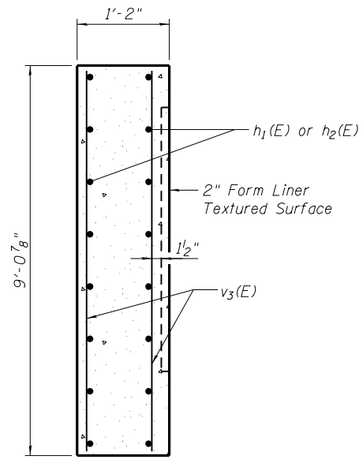


ELEVATION - PANELS 15 THRU 17

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

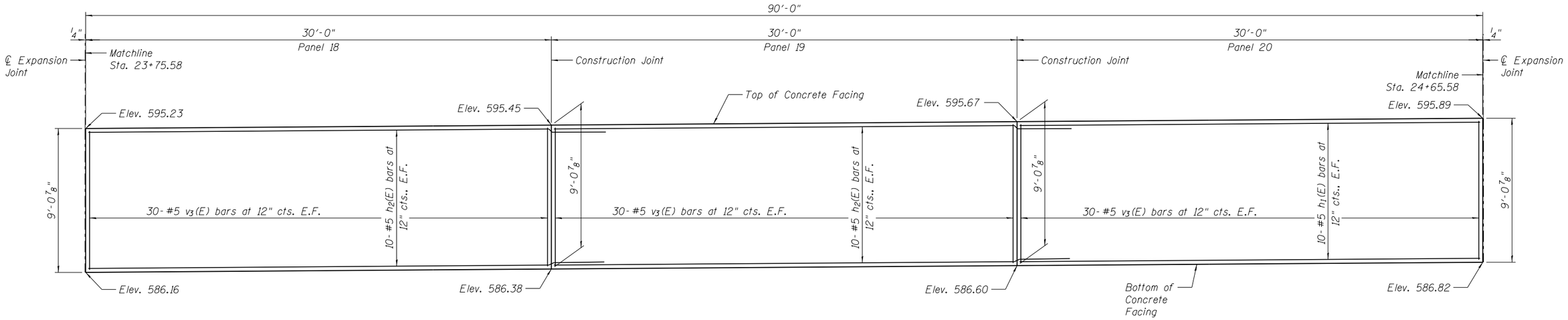
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

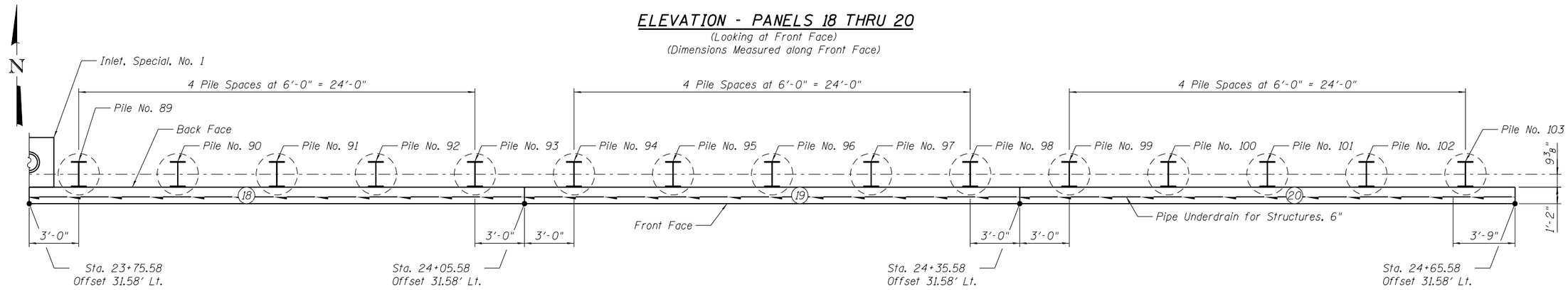
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-10 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363N
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

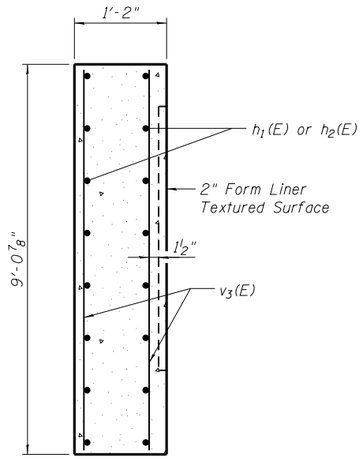


ELEVATION - PANELS 18 THRU 20

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

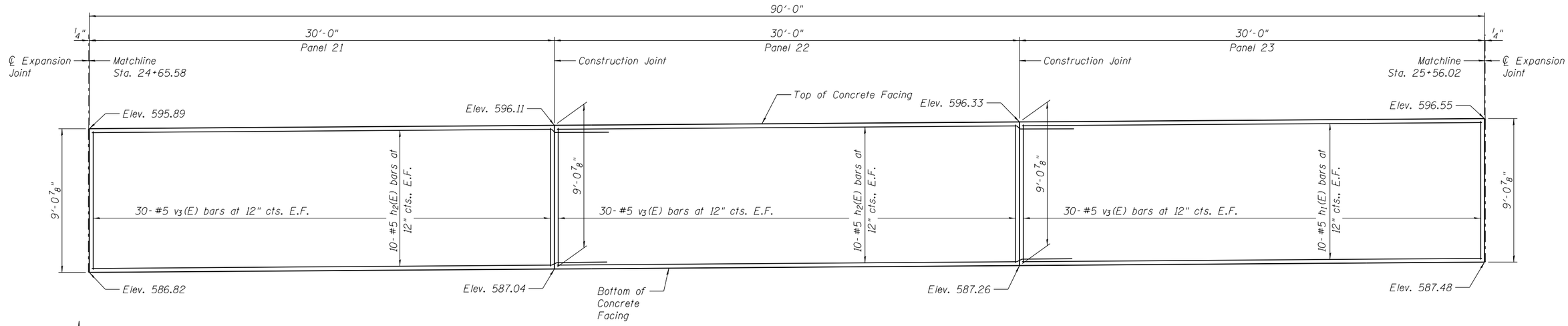
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

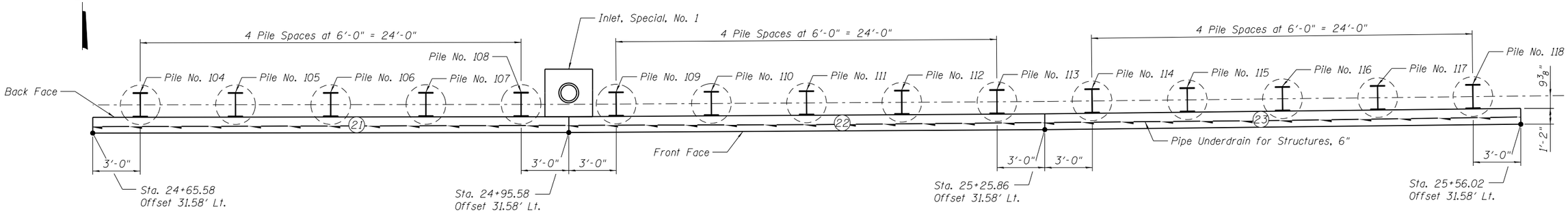
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-11 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	3630
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

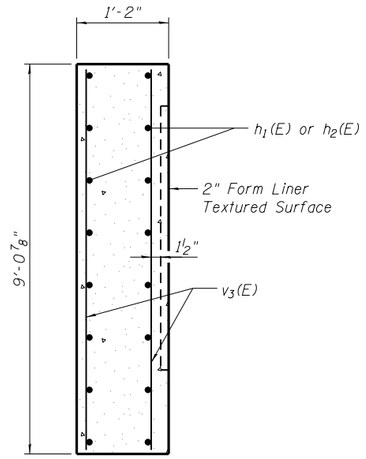


ELEVATION - PANELS 21 THRU 23

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

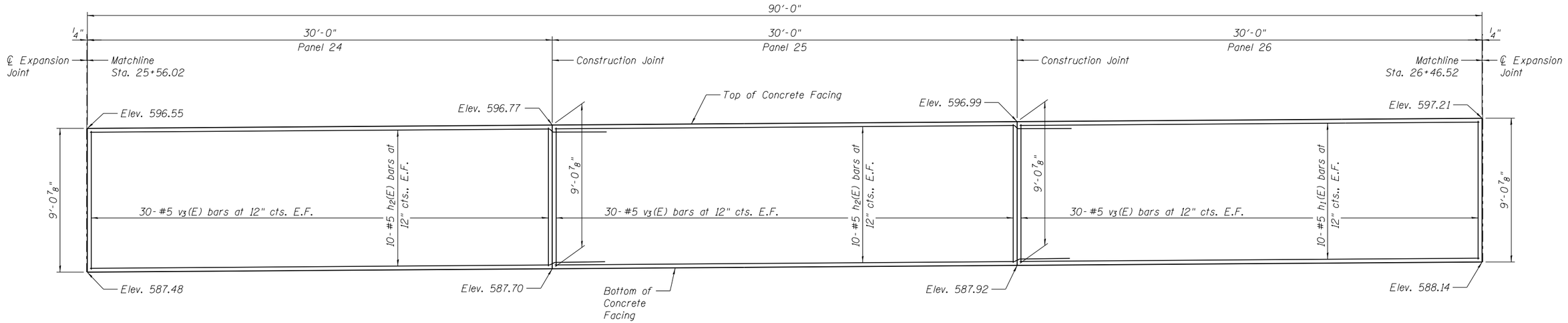
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

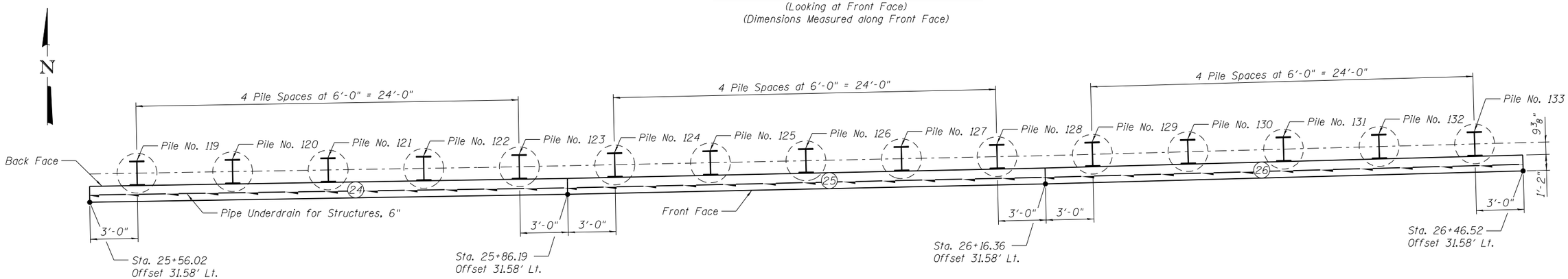
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-12 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363P
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

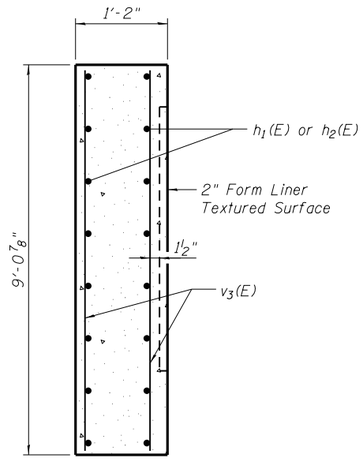


ELEVATION - PANELS 24 THRU 26

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18.
Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	20	#5	29'-9"	——
$h_2(E)$	40	#5	33'-3"	——
$v_3(E)$	180	#5	8'-8"	——

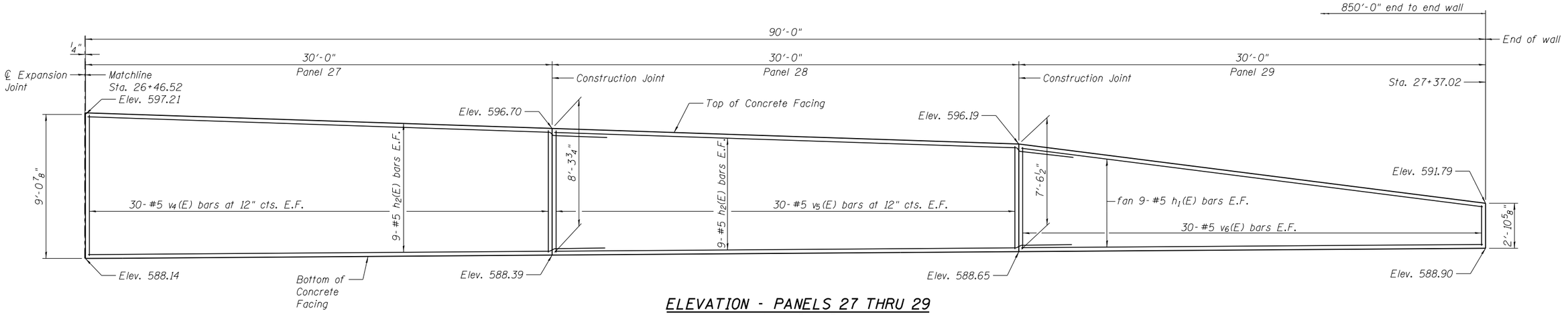
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

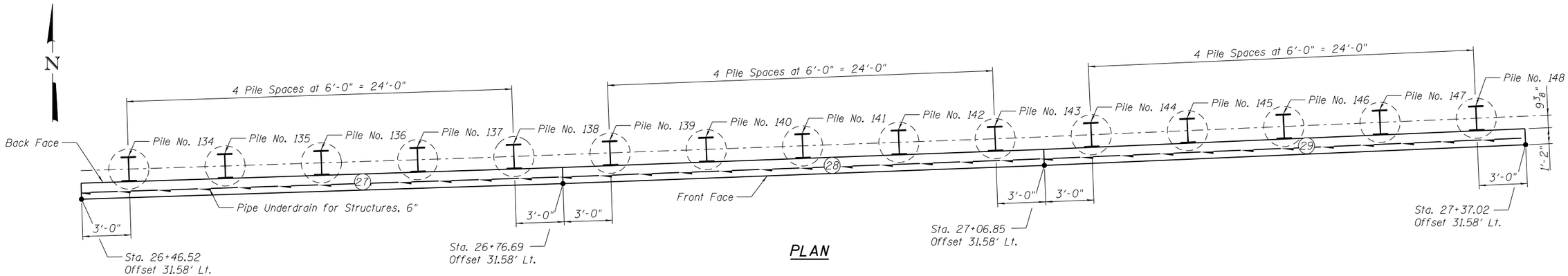
CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-13 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	3630
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

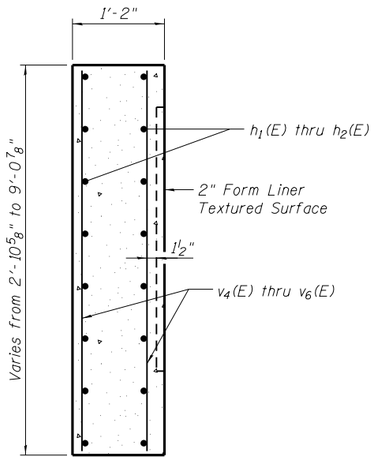


ELEVATION - PANELS 27 THRU 29

(Looking at Front Face)
(Dimensions Measured along Front Face)



PLAN



SECTION THRU CIP FACING

MINIMUM BAR LAP

#5 bar = 3'-3"

LEGEND

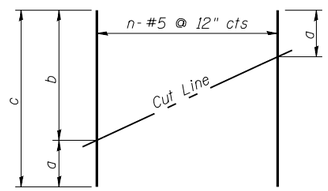
(#) = Panel Number

E.F. = Each Face

Notes:
For Top of Pile Elevations & Pile Tip Elevations, see Soldier Pile Summary on Sheet SD-3 of SD-18. Space reinforcement to miss shear studs.

BAR LIST

Bar	No.	Size	Length	Shape
$h_1(E)$	18	#5	29'-9"	——
$h_2(E)$	36	#5	33'-3"	——
$v_4(E)$	30	#5	16'-7"	——
$v_5(E)$	30	#5	15'-1"	——
$v_6(E)$	30	#5	9'-8"	——



FIELD CUTTING DIAGRAM

Order $v_4(E)$, $v_5(E)$ & $v_6(E)$ full length. Cut as shown and use remainder of bars in opposite face.

Bar	n	a	b	c
$v_4(E)$	30	8'-8"	7'-11"	16'-7"
$v_5(E)$	30	7'-11"	7'-2"	15'-1"
$v_6(E)$	30	7'-2"	2'-6"	9'-8"

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE FACING
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-14 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363R
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/13/12

ROUTE FAP 595 DESCRIPTION D92-003-06 x proposed traffic signals, 38th Avenue with 38th Street North LOGGED BY W. Garza

SECTION (142-1, 142) R LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.
Station

BORING NO. B-1i
Station 22+62
Offset 60.00ft Rt
Ground Surface Elev. 580.1 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF gray CLAY LOAM			1.3 P	30
	578.10			
VERY STIFF gray/tan LOAM		4 4 6	3.1 P	16
	576.60			
VERY STIFF gray CLAY LOAM	-5	3 4 7	3.3 S	21
	574.10			
STIFF brown LOAM		2 3 4	1.2 B	25
	571.60			
STIFF light brown SILTY CLAY LOAM	-10	3 4 6	1.2 B	23
	569.10			
STIFF gray/tan CLAY LOAM		4 6 9	2.0 S	18
	566.60			
STIFF gray/tan CLAY LOAM	-15	2 4 8	1.9 S	20
	564.10			
VERY STIFF gray/tan CLAY LOAM		3 5 9	3.1 S	24
	561.60			
VERY STIFF gray (Shale) CLAY	-20	2		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF gray (Shale) CLAY *(continued)*		6 9	3.1 S	20
	558.60			
DENSE gray SHALE		7 15 23		
	556.60			
VERY DENSE gray SHALE	-25	100/5"		
	554.10			
End of Boring				
	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Date 3/13/12

ROUTE FAP 595 DESCRIPTION D92-003-06 x proposed traffic signals, 38th Avenue with 38th Street North LOGGED BY W. Garza

SECTION (142-1, 142) R LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.
Station

BORING NO. B-2i
Station 21+78
Offset 0.00ft CL of C.T. Road
Ground Surface Elev. 587.0 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY CLAY LOAM			1.8 P	19
	585.00			
STIFF brown SILTY CLAY LOAM		3 4 5	1.9 B	
	583.50			
VERY STIFF brown SILTY CLAY LOAM	-5	4 5 7	2.5 B	17
	581.00			
VERY STIFF black/tan gray CLAY LOAM with COAL		2 3 5	2.5 B	32
	578.50			
VERY STIFF tan/gray CLAY LOAM	-10	3 5 7	3.7 B	20
	576.00			
HARD light gray CLAY		3 6 8	4.1 B	19
	573.50			
HARD light gray CLAY	-15	3 5 10	4.4 B	16
	571.00			
VERY STIFF tan/gray CLAY LOAM TILL or GRAVEL		12 14 9	3.2 P	24
	568.50			
VERY STIFF tan CLAY LOAM	-20	2		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF tan CLAY LOAM *(continued)*		5 9	3.5	25
	566.00			
No Recovery		6 6 9		
	563.00			
DENSE gray SHALE	-23	4 13 23		
	561.00			
VERY DENSE gray SHALE		23 39 56		
	558.50			
VERY DENSE gray SHALE	-30	100/6"		
	556.00			
End of Boring				
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

BORING NO. 1

CLIENT CITY OF MOLINE

SITE 3800 38TH AVENUE MOLINE, ILLINOIS

PROJECT SLOPE STUDY

Boring Location: Sta. 4+25, 40' left of centerline

Approx. Surface Elev.: 101 ft

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf	
					HS						
	LEAN TO SILTY CLAY WITH ORGANICS (COLLUVIAL DEPOSIT) ▽3 Gray Soft			1	ST	8		34	83	*400	C=200 psf C=250 psf
3	98										
	CLAYEY SILT Tan to Brown Stiff	4	ML	2	ST	17		26	95	2620	C=1460 psf
4	97		CH					23	107		C=2100 psf
	FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE Brown and Gray Medium to Stiff	5	CH	3	ST	17		25 20	100 111	1650	
			CH	4	ST	18		19	115	2220	
			CH	5	ST	14		16	104	3985	
		10	CH	6	ST	10		13	115	2950	
				7	ST	18	87	13			
				8	ST	18	50/3"	11			
		15		9	ST	14	50/5"	10			
					RB						
		20									
23	**MODERATELY WEATHERED SHALE***** Gray Thinly bedded Medium										
78	BOTTOM OF BORING										

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft
WL ▽ 1 W.S. ▽
WL ▽ ▽
WL

Terracon

BORING STARTED 4-14-03
BORING COMPLETED 4-14-03
RIG 93 FOREMAN JC
APPROVED WKB JOB # 07035019

SOILROCK LE 99 07035019.GPJ TERRACON.GDT 6/23/03

(Sheet 1 of 4)

LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORINGS RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02	F.A.P. RTE. 595	SECTION (142-1)R & 142-1HB
	FILE NAME =	CHECKED - VPT	REVISED				
	PLOT SCALE =	DRAWN - AJF	REVISED				
	PLOT DATE =	CHECKED - MTH	REVISED		SD-15 OF SD-18		

COUNTY	TOTAL SHEETS	SHEET NO.
ROCK ISLAND	507	363S

CONTRACT NO. 64B84

ILLINOIS FED. AID PROJECT

BORING NO. 2

Page 1 of 1

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 3+65, 16' right of centerline

Approx. Surface Elev.: 91 ft

DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
FILL, LEAN CLAY, TRACE ORGANICS Dark Brown				PA					
2.5 / 88.5		CL CH	1	ST	12		25	103	2070
LEAN TO FAT CLAY Brown Medium to Stiff		CL CH	2	ST	14		21	104	*2000 1500
7 / 84	5	CL CH	3	ST	10		19	107	2630
FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE Brown and Gray to Dark Gray Stiff		CH	4	ST	16		22	106	2520
	10	CH	5	SS	15	14	28		*3000
		CH	6	SS	12	17	41		*3000
14 / 77		CH	7	SS		24	3		
HIGHLY TO MODERATELY WEATHERED SHALE*** Gray and Brown Soft to Medium	15		8	SS	22	56	16		
			9	SS	24	80	13		
	20		10	SS	24	44	25		
21 / 70			11	SS	18	20/6" 50/6"	14		
BOTTOM OF BORING									

***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
**CME 140 lb. SPT automatic hammer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 10	W.S. ▼		
WL ▽	▼		
WL			

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

Terracon

BOREHOLE 99_07035019.GPJ TERRACON.GDT 6/23/03

BORING NO. 3

Page 1 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 4+08, 16' right of centerline

Approx. Surface Elev.: 91 ft

DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
FILL, LEAN TO SILTY CLAY WITH ORGANICS Gray to Brown				PA					
3 / 88			1	ST	15		16	111	2515
SILTY TO FAT CLAY Brown Medium		CL CH	2	ST	20		21	107	1770
5 / 86	5	CH	3	SS	12		21	108	1930
FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE Brown to Gray Stiff				PA					
		CH	4	ST	22	16			*2500
	10	CH	5	ST	18	15	19		*2500
		CH	6	ST	20	24	3		
14 / 77			7	ST	24	37	27		
HIGHLY TO MODERATELY WEATHERED SHALE*** Brown and Gray Soft to Medium	15		8	ST	16	80/10"	16		
			9	ST	16	95/12"	22		
	20		10	ST	24	50	16		
			11	ST	24	75/10"	16		
			12	ST	24	30/6" 50/6"	15		
25 / 66	25								

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 11	W.S. ▼		
WL ▽	▼		
WL			

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

Terracon

BOREHOLE 99_07035019.GPJ TERRACON.GDT 6/23/03

BORING NO. 3

Page 2 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
BOTTOM OF BORING									

***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 11	W.S. ▼		
WL ▽	▼		
WL			

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

Terracon

BOREHOLE 99_07035019.GPJ TERRACON.GDT 6/23/03

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-16 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363T
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

BORING NO. 4

Page 1 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

Boring Location: Sta. 4+50, 16' right of centerline

Approx. Surface Elev.: 91 ft

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
					PA					
	1.5 FILL, LEAN TO FAT CLAY WITH ROOTS — Gray — 89.5									
	LEAN TO FAT CLAY — Brown — Soft to Medium		CL CH	1	ST	10		19	106	1300
			CL CH	2	ST	10		19	107	1850
	6 — 85	5	CH	3	ST	17		28	96	700
	FAT CLAY WITH FRAGMENTS OF WEATHERED SHALE — Brown and Gray — Stiff		CH	4	ST	24		17		*2500
			CH	5	SS	20	14	24		*3000
		10	CH	6	SS	22	13	18		
			CH	7	SS	22	29	10		
	15 — 76									
	HIGHLY TO MODERATELY WEATHERED SHALE*** — Brown and Gray — Soft to Medium	15		8	SS	22	40	15		
				9	SS	24	26/6" 50/6"	18		
		20		10	SS	24	65	24		
				11	SS	22	90/9"	20		
				12	SS	16	50/5"			
		25		13	SS	24	80/10"			
	27 — 64									

Continued Next Page

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 13	W.S.	▼	
WL ▽		▼	
WL			

Terracon

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/25/03

BORING NO. 4

Page 2 of 2

CLIENT: CITY OF MOLINE

SITE: 3800 38TH AVENUE, MOLINE, ILLINOIS

PROJECT: SLOPE STUDY

GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, in.	SAMPLES SPT - N ** BLOWS / ft.	TESTS WATER CONTENT, %	TESTS DRY UNIT WT pcf	TESTS UNCONFINED STRENGTH, psf
	BOTTOM OF BORING									
	***Classification of rock materials has been estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.									

The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual.

*Pocket Penetrometer
*Calibrated Hand Penetrometer

WATER LEVEL OBSERVATIONS, ft			
WL ▽ 13	W.S.	▼	
WL ▽		▼	
WL			

Terracon

BORING STARTED	4-3-03		
BORING COMPLETED	4-3-03		
RIG	93	FOREMAN	JC
APPROVED	WKB	JOB #	07035019

BOREHOLE 99 07035019.GPJ TERRACON.GDT 6/25/03

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 6/27/13

ROUTE FAP 595 DESCRIPTION OB1-P002 Retaining Wall, 38th Street LOGGED BY W. Garza

SECTION (142-1) & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-P002
Station 18+89 to 27+37

BORING NO. B-1
Station 20+50
Offset ft Prop. CL
Ground Surface Elev. 595.75 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY CLAY LOAM	593.75	2 4 5	1.3 B	21
MEDIUM light brown SILTY CLAY LOAM	592.25 -5	2 3 4	0.7 B	23
MEDIUM tan SILTY LOAM	589.75	3 2 5	0.8 P	23
MEDIUM tan SILTY LOAM	587.25 -10	1 1 4	0.8 B	27
VERY STIFF light brown CLAY LOAM	584.75	3 4 7	2.7 B	26
STIFF tan SANDY LOAM	582.25 -15	3 4 7	1.8 P	14
VERY STIFF light gray SILTY CLAY	579.75	5 6 9	3.5 B	17
VERY STIFF gray SHALE	576.75 -20	4		
VERY STIFF gray SHALE (continued)	574.75	8 8	3.3 B	21
DENSE gray SHALE	572.25	14 20 25		13
DENSE light gray SHALE	569.75 -25	9 13 26		15
End of Boring	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

LIN ENGINEERING, LTD. Consulting Engineers Springfield, Illinois	USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
	FILE NAME =	CHECKED - VPT	REVISED
	PLOT SCALE =	DRAWN - AJF	REVISED
	PLOT DATE =	CHECKED - MTH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-17 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363U
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 6/27/13

ROUTE FAP 595 DESCRIPTION 081-P002 Retaining Wall, 38th Street LOGGED BY W. Garza

SECTION (142-1) & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-P002
Station 18+89 to 27+37

BORING NO. B-2
Station 23+00
Offset ft Prop CL
Ground Surface Elev. 595.6 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 575.6 ft ▼
Upon Completion 575.6 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY CLAY LOAM			1.0 P	17
	593.60			
MEDIUM brown SILTY CLAY LOAM	-5		0.5 P	18
	589.60			
SOFT light brown SILTY CLAY LOAM	-10		0.3 P	21
	584.60			
SOFT light brown SILTY CLAY LOAM	-15		0.3 P	23
	579.60			
	-20			
SOFT light brown moist CLAY LOAM (continued)			0.3 P	24
	574.10			
STIFF light gray CLAY LOAM			1.1 P	19
	572.10			
	-25			
Shale @ 26'	569.60			
VERY STIFF gray SHALE			2.5 P	25
	565.60			
End of Boring	-30			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 6/28/13

ROUTE FAP 595 DESCRIPTION 081-P002 Retaining Wall, 38th Street LOGGED BY W. Garza

SECTION (142-1) & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-P002
Station 18+89 to 27+37

BORING NO. B-3
Station 24+00
Offset ft Prop CL
Ground Surface Elev. 590.5 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter 578.5 ft ▼
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF light gray CLAY LOAM			1.1 P	21
	588.50			
STIFF light gray CLAY LOAM		17 14 9	1.8 S	19
	587.00			
MEDIUM tan LOAM	-5	3 4 7	0.8 P	25
	584.50			
MEDIUM tan CLAY LOAM		5 4 5	0.6 P	32
	582.00			
VERY STIFF tan/gray CLAY LOAM with COAL lens	-10	5 7 10	2.3 S	21
	579.00			
HARD gray SHALE		9 12 17	4.6 S	19
	577.00			
HARD light gray SHALE	-15	12 15 22	4.6 S	22
	574.50			
	572.00			
VERY DENSE gray SHALE	-20	13		
VERY DENSE gray SHALE (continued)	569.50		22 33	
End of Boring	-25			
	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 6/28/13

ROUTE FAP 595 DESCRIPTION 081-P002 Retaining Wall, 38th Street LOGGED BY W. Garza

SECTION (142-1) & 142-1HB LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 081-P002
Station 18+89 to 27+37

BORING NO. B-4
Station 27+50
Offset 17.00ft Lt CL
Ground Surface Elev. 592.8 ft

Surface Water Elev. ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Shoulder				
	590.80			
MEDIUM tan/light gray CLAY LOAM		3 3 6	0.6 P	21
	588.80			
HARD light gray SHALE	-5	5 8 11	5.0 S	19
	586.80			
HARD gray SHALE		12 20 26	5.1 S	15
	584.30			
VERY DENSE light gray SHALE	-10	52 100/4.9"		
	581.80			
VERY DENSE light gray SHALE	580.30	100/6"		
End of Boring				
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
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)

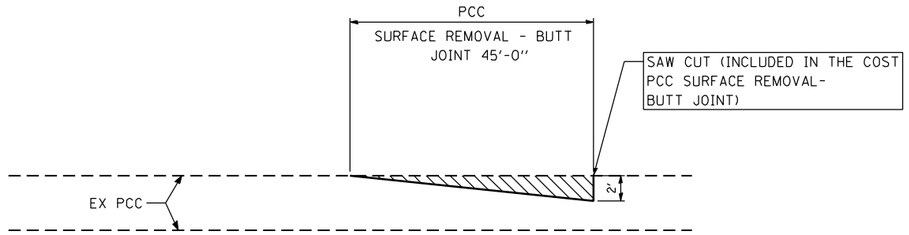
LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME =	DESIGNED - TBP	REVISED ADDENDUM 1 8/15/2013
FILE NAME =	CHECKED - VPT	REVISED
PLOT SCALE =	DRAWN - AJF	REVISED
PLOT DATE =	CHECKED - MTH	REVISED

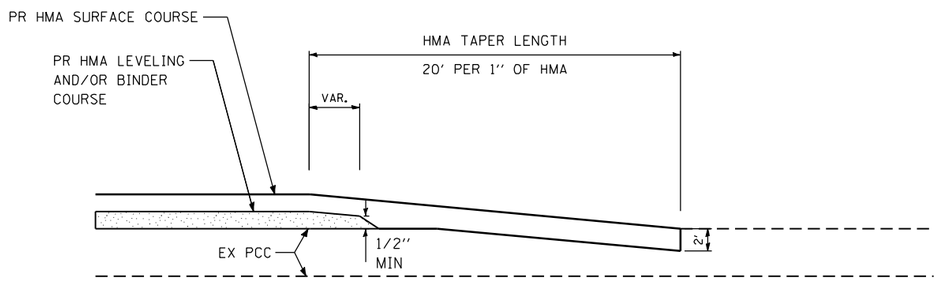
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
RETAINING WALL – STA. 18+89.06 TO STA. 27+37.02
SD-18 OF SD-18

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	363V
		CONTRACT NO. 64B84		
		ILLINOIS FED. AID PROJECT		



BUTT JOINT DETAIL

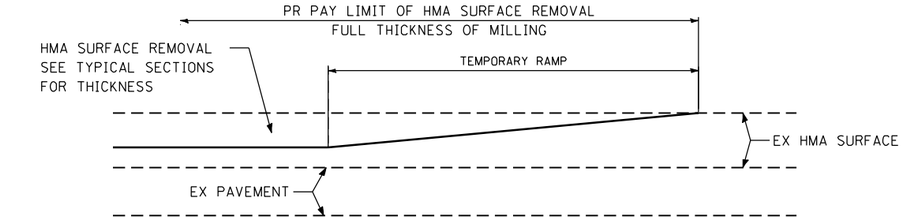


NOTES:

1. THE SURFACE COURSE SHALL BE COMPLETED IMMEDIATELY UPON REMOVAL OF EXISTING PCC SURFACE IF THE ROADWAY IS OPEN TO TRAFFIC.
2. THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

PCC SURFACE REMOVAL - BUTT JOINT DETAIL

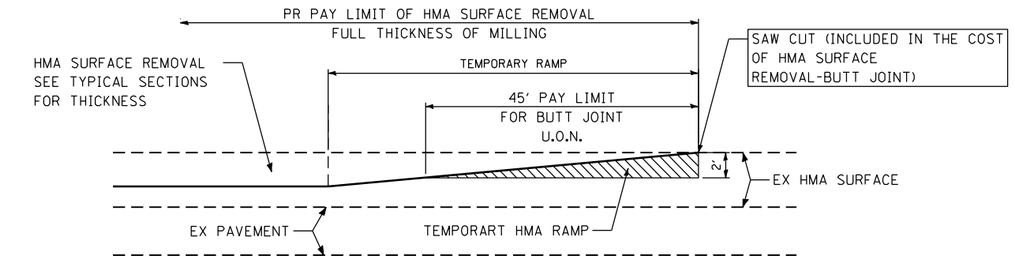
NTS



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

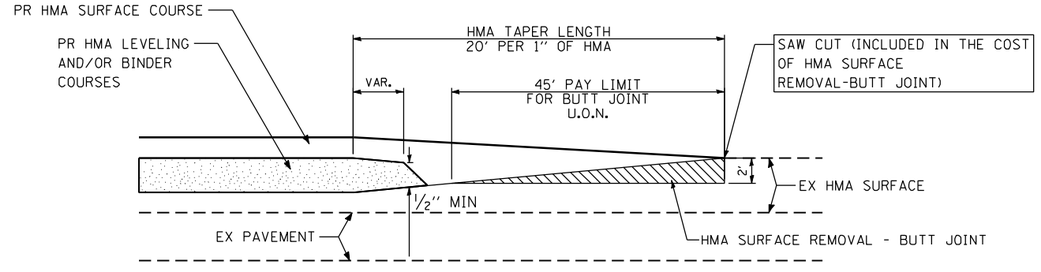
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2



BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING

NOTES:

1. THE TEMPORARY RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
2. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
3. TEMPORARY RAMP LENGTH = 40 X SURFACE REMOVAL THICKNESS.
4. SEE ARTICLE 406.08 AND 406.14 OF THE STANDARDS SPECIFICATIONS FOR "HMA SURFACE REMOVAL, BUTT JOINT".
5. THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT".

HMA SURFACE REMOVAL - BUTT JOINT DETAIL

NTS

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espino	DESIGNED - JAS	REVISED -
	DRAWN - AMD	REVISED -
PLOT SCALE = 266.000532 ' / IN.	CHECKED - DMM	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

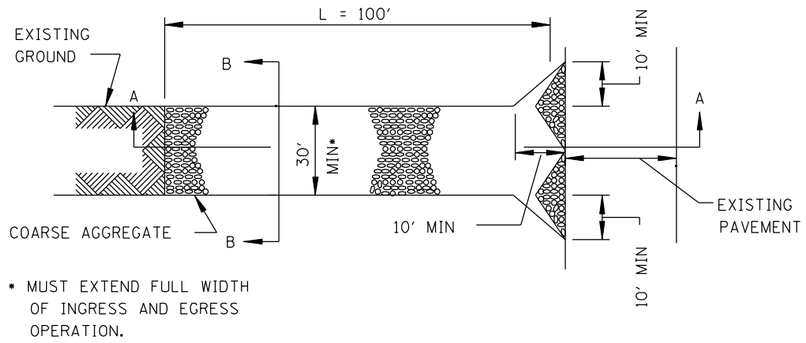
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 595 (JOHN DEERE ROAD)
DETAILS

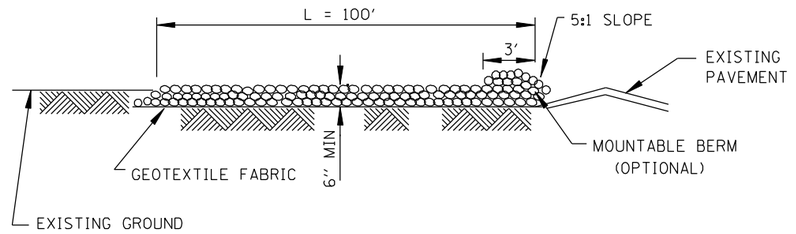
SCALE: N/A | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	364
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

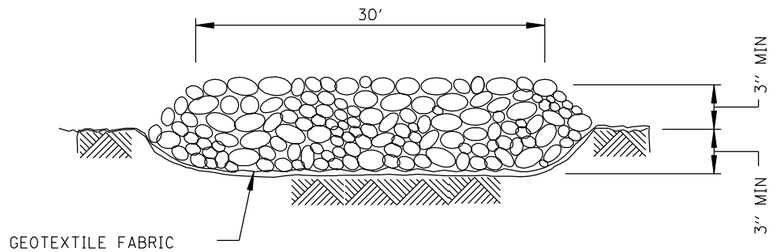
FILE NAME = n:\proj\0803393.00\contract_1\design\misc_sheets\02B4B84-sht-Details01.dgn



PLAN



SECTION A-A



STABILIZED CONSTRUCTION ENTRANCE DETAIL

NTS

NOTES: SEE SPECIAL PROVISIONS

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espina	DESIGNED - JAS	REVISED -
	DRAWN - AMD	REVISED -
PLOT SCALE = 266.000532 ' / IN.	CHECKED - DMM	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

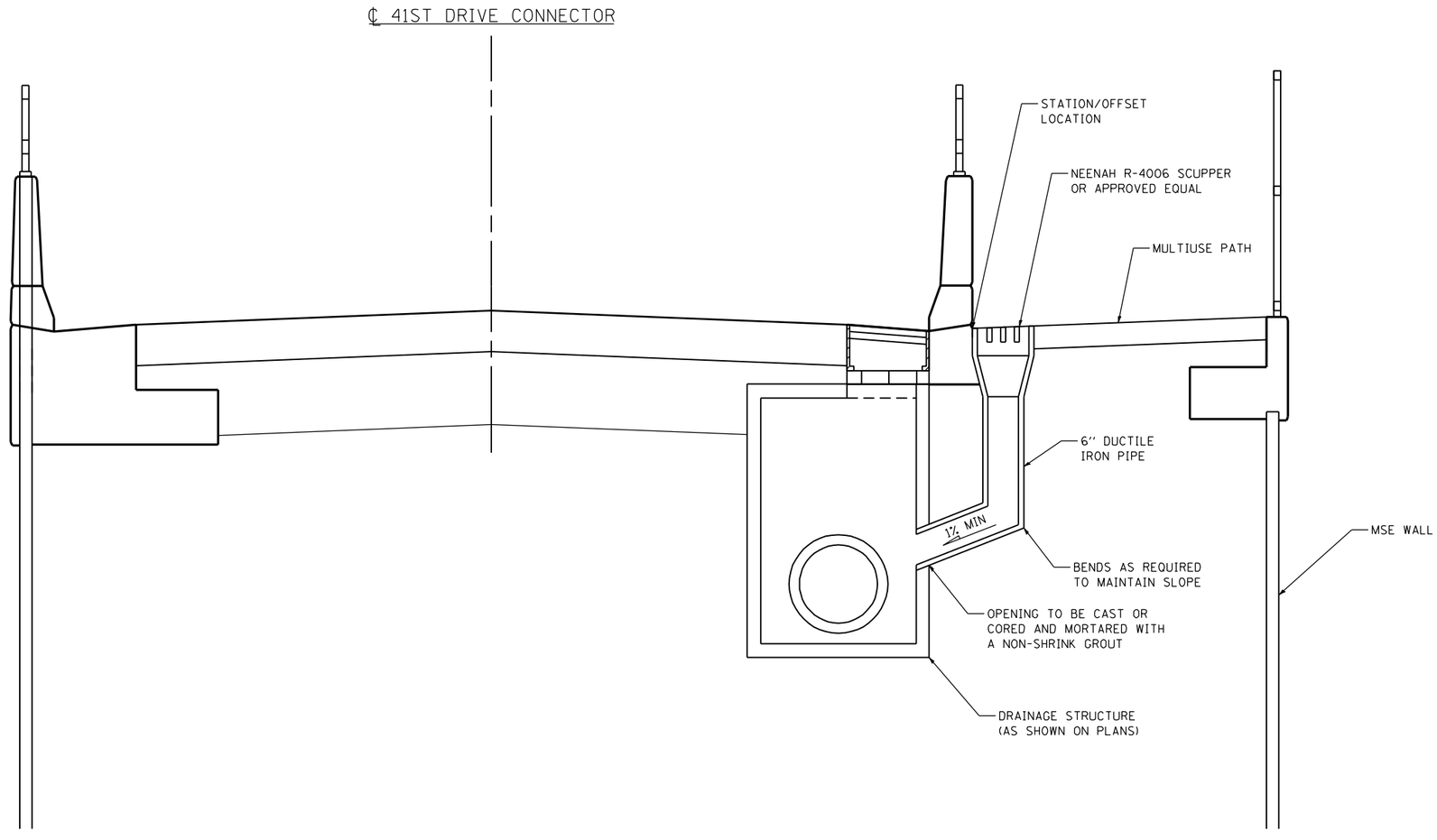
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 595 (JOHN DEERE ROAD)
DETAILS

SCALE: N/A | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	365
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

FILE NAME = n:\proj\00023393.000\contract_1\design\misc.sheets\0264B84-sht-Details02.dgn



DRAINAGE SCUPPERS (SPECIAL) DETAIL
NTS

NOTES:

1. SEE STATE AND DISTRICT 2 STANDARDS FOR DRAINAGE STRUCTURE DETAILS.
2. FOR DRAINAGE STRUCTURE AND PIPE INFORMATION SEE DRAINAGE SCHEDULES.
3. THE COST OF 6'' DUCTILE IRON PIPE AND BENDS AS REQUIRED SHALL BE INCLUDED IN THE COST OF THIS ITEM.

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.776.4009 Fax 773.776.4014

USER NAME = espino	DESIGNED - DMM	REVISED -
	DRAWN - JLP	REVISED -
PLOT SCALE = 20.00 ' / IN.	CHECKED - DMM	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

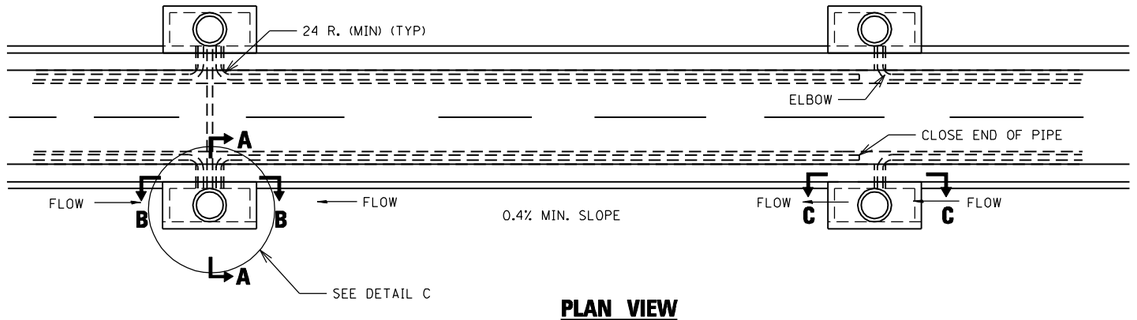
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 595 (JOHN DEERE ROAD)
DETAILS

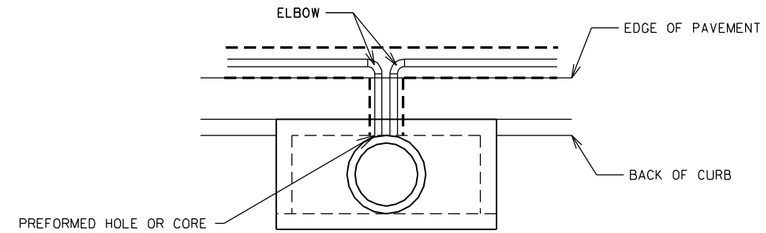
SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	366
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

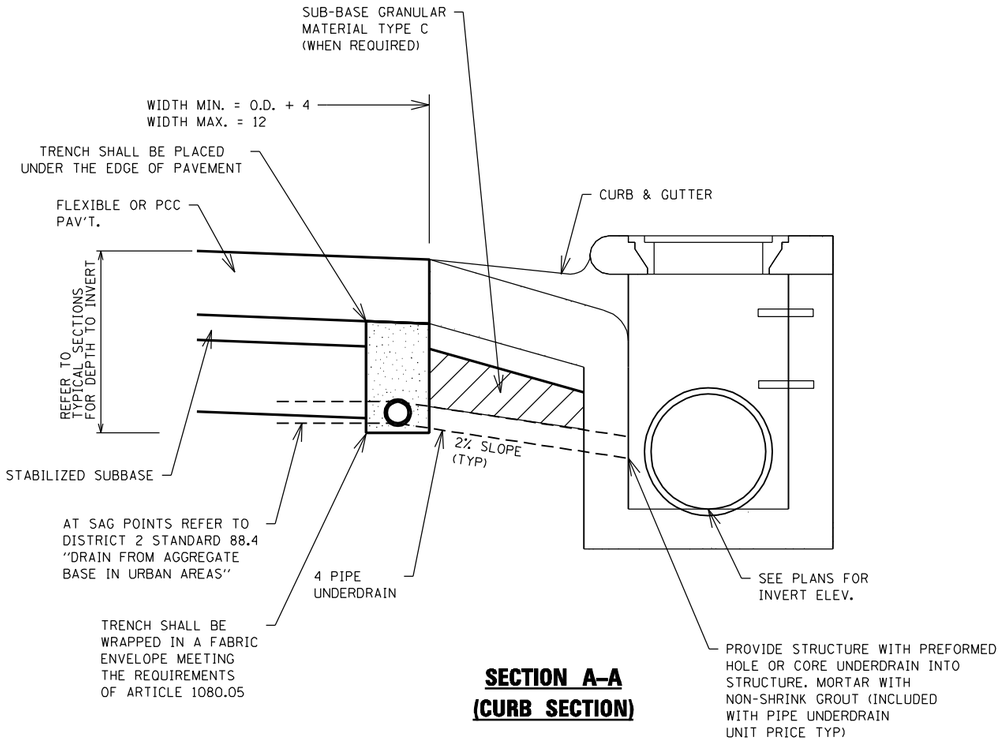
FILE NAME = n:\proj\0803393.00\contract_1\design\misc_sheets\D264B84-sht-Details03.dgn



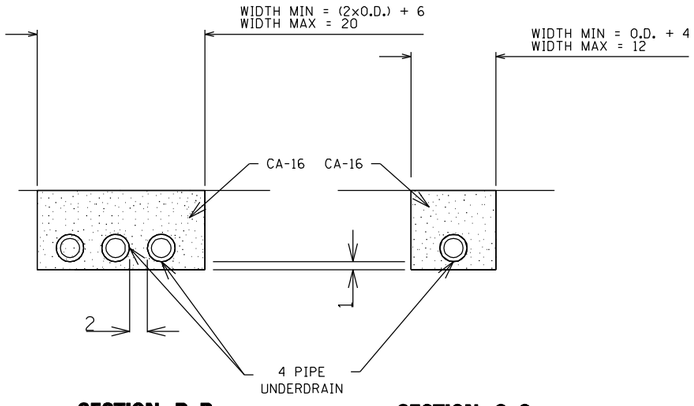
PLAN VIEW



DETAIL C



SECTION A–A
(CURB SECTION)



SECTION B–B **SECTION C–C**

NOTES:

1. THE 24 RADIUS ON THE DRAINAGE FITTING IS ONLY A MINIMUM, LARGER RADII MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED.

2. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

SUB-SURFACE DRAIN DETAILS
NTS

FILE NAME = n:\proj\08023393.00\contract_1\design\misc_sheets\02B4B84-sht-Details04.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.776.4009 Fax 773.776.4014

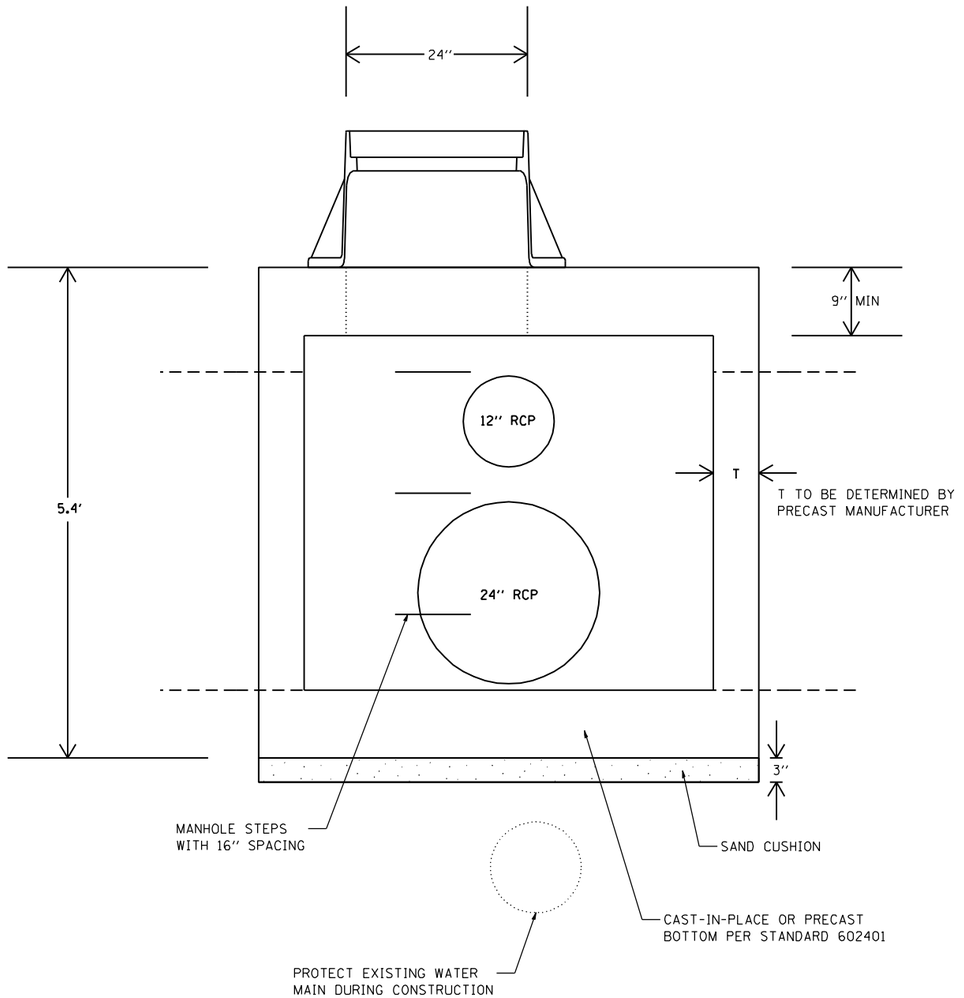
USER NAME = espino	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = 2.0000 ' / IN.	CHECKED - _____	REVISED - _____
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

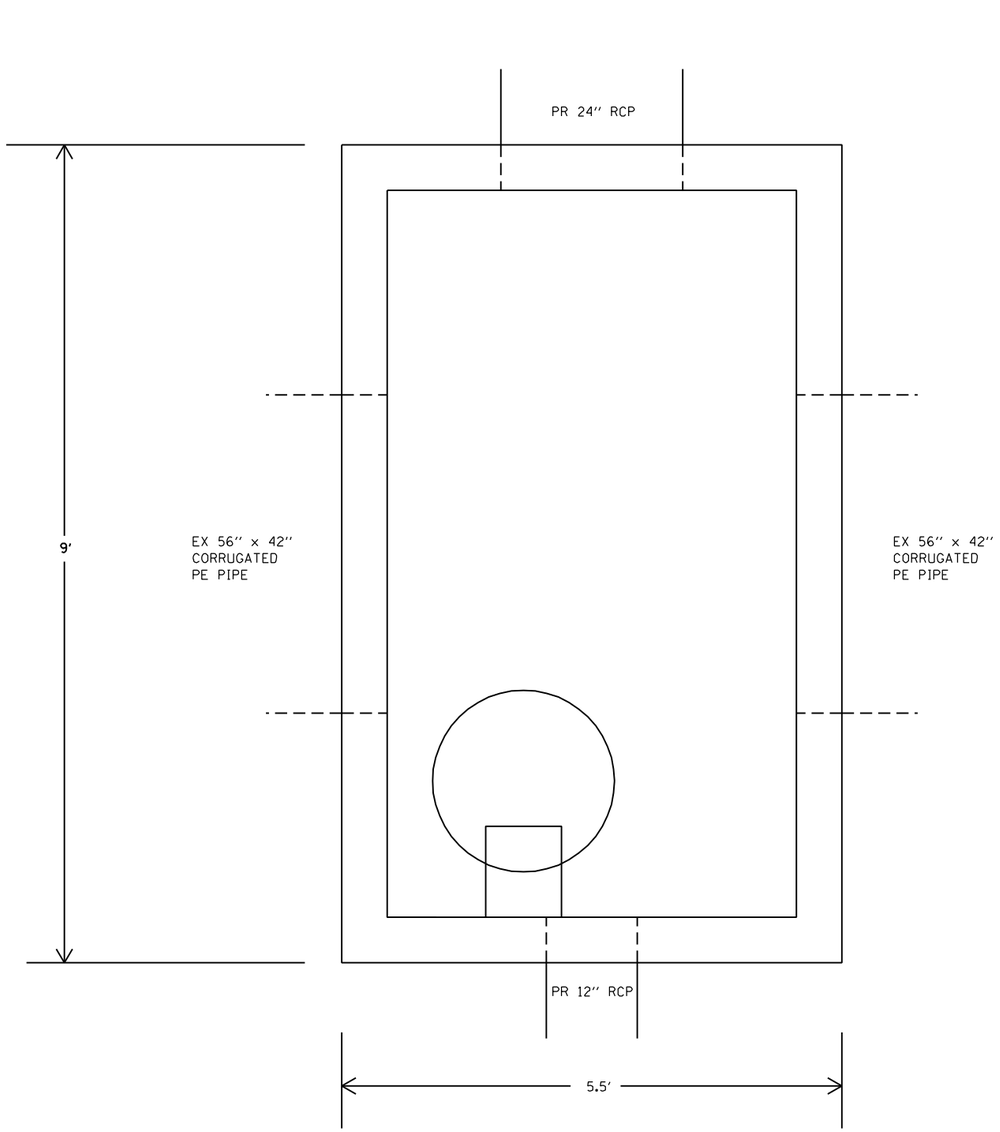
FAP 595 (JOHN DEERE ROAD)
DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	367
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			



ELEVATION VIEW



PLAN VIEW

NOTES:

1. SEE DRAINAGE PLANS FOR RIM, PIPE INVERTS, AND TYPE OF FRAME AND LID OR GRATE.
2. THE REMOVAL OF THE EXISTING CORRUGATED PE PIPE REQUIRED TO CONSTRUCT THE STRUCTURE SHALL BE INCLUDED IN THE COST OF THE DRAINAGE STRUCTURE SPECIAL.
3. THE CONNECTION OF THE EXISTING CORRUGATED PE PIPE SHALL BE INCLUDED IN THE COST OF THE DRAINAGE STRUCTURE SPECIAL, INCLUDING FURNISHING AND INSTALLING ADDITIONAL SECTIONS OF PIPE.
4. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

DRAINAGE STRUCTURE SPECIAL DETAIL
NTS

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espina	DESIGNED - TJP	REVISED -
	DRAWN - AMD	REVISED -
PLOT SCALE = 20.00 ' / IN.	CHECKED - DJQ	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

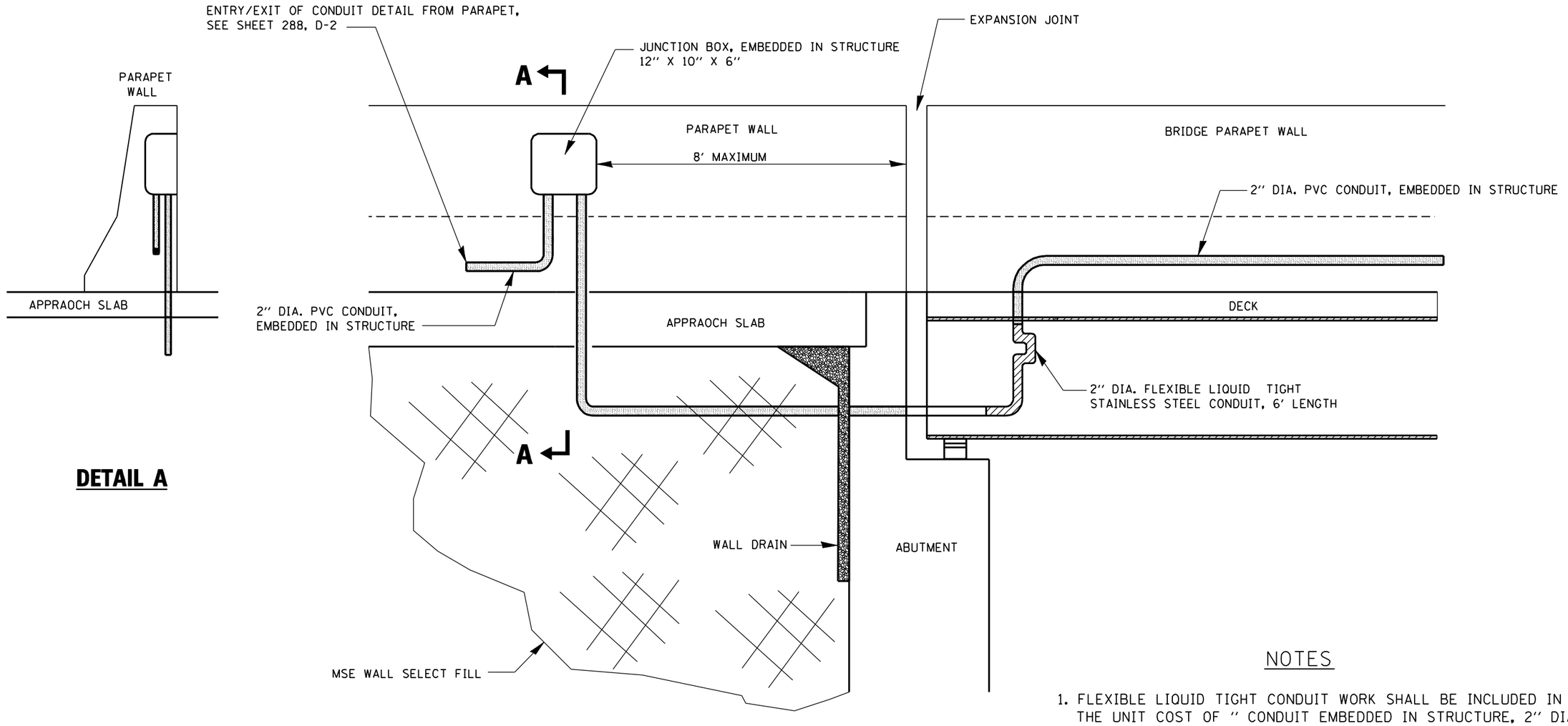
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 595 (JOHN DEERE ROAD)
DETAILS

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	368
		CONTRACT NO. 64B84		
	ILLINOIS FED. AID PROJECT			

FILE NAME = n:\proj\0803393.00\contract\design\misc.sheets\D264B84-sht-Details05.dgn



DETAIL A

NOTES

1. FLEXIBLE LIQUID TIGHT CONDUIT WORK SHALL BE INCLUDED IN THE UNIT COST OF '' CONDUIT EMBEDDED IN STRUCTURE, 2'' DIA. PVC
2. LOCATION OF THE LIGHT POLES ARE SHOWN ON THE STRUCTURE PLANS (SN 081-0176, 081-7002, 081-7003)

FILE NAME = N:\PROJ\0003393.00\CONTRACT.1\Design\Misc.Sheets\D264B84-sht-details06.dgn	USER NAME = espina	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 '' / IN.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 8/15/2013	DATE -	REVISED -

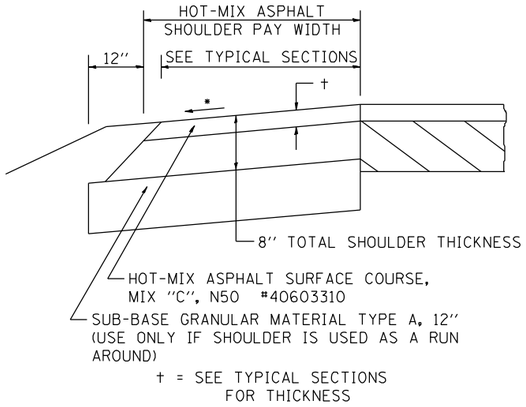
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONDUIT THRU BRIDGE EXPANSION JOINT

SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R-1 & 142-1HB	ROCK ISLAND	507	368A
		CONTRACT NO. 64B84		
		ILLINOIS	FED. AID PROJECT	

HOT–MIX ASPHALT SHOULDER



GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX ''C'', N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX ''C'', N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX ''C'', N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX ''C'', N50 #40603310.

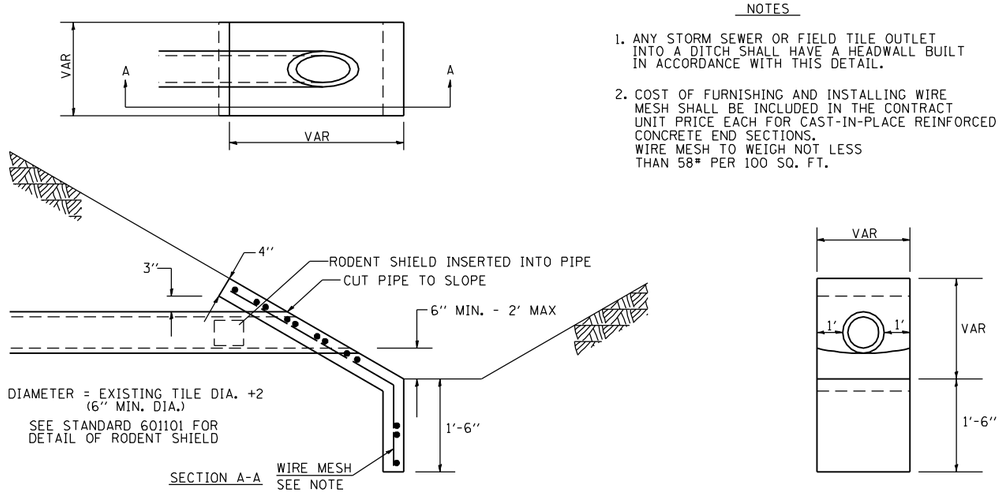
REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

REVISED - 6-06-11

HOT–MIX ASPHALT SHOULDER 23.4a

CAST–IN–PLACE REINFORCED CONCRETE END SECTIONS



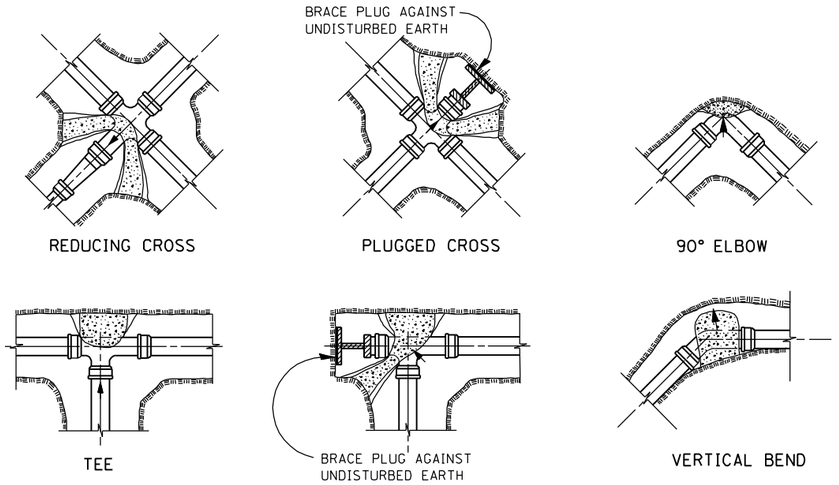
NOTES

1. ANY STORM SEWER OR FIELD TILE OUTLET INTO A DITCH SHALL HAVE A HEADWALL BUILT IN ACCORDANCE WITH THIS DETAIL.
2. COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

REVISED - 9-07-10

CAST–IN–PLACE REINFORCED CONCRETE END SECTIONS 28.4

THRUST BLOCK DETAILS



NOTES:
ALL BLOCKS TO BEAR AGAINST UNDISTURBED EARTH.
ARROWS INDICATE DIRECTION OF THRUST.
ALL BLOCKS TO BE CLASS SI CONCRETE.
ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

REVISED - 10-20-87

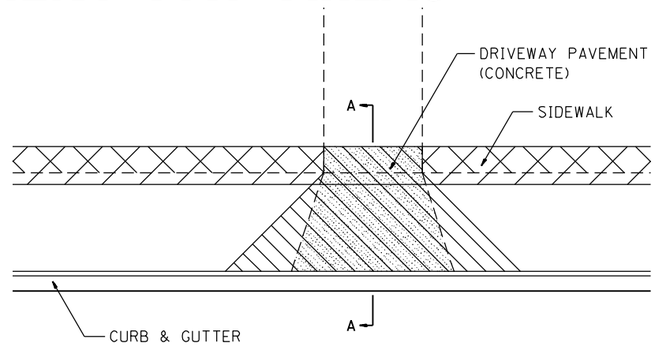
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

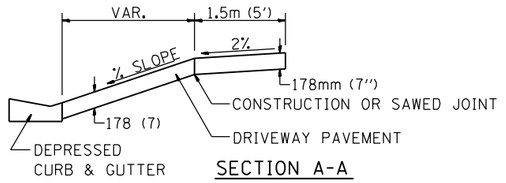
THRUST BLOCK DETAILS 34.4

SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

PAY FOR AS

- SIDEWALK REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- PCC SIDEWALK 127 (5)
- PCC DRIVEWAY PAVEMENT 178 (7)





FOR DETAILS ON DIMENSIONS AND GRADES, SEE DISTRICT STANDARD 25.1 OR PLANS.

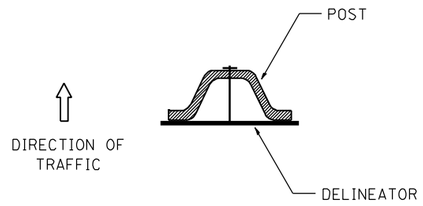
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 10-15-04	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507 / 369
REVISED -				CONTRACT NO. 64B84	
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

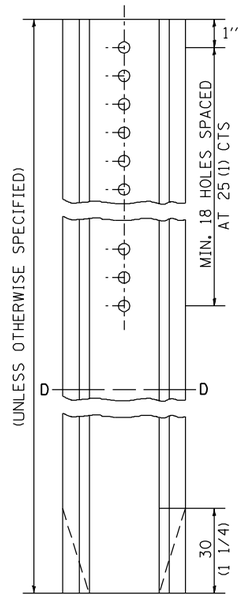
PLOT DATE = 3/11/2013

SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS 35.4

DELINEATOR AND POST ORIENTATION




SECTION D-D



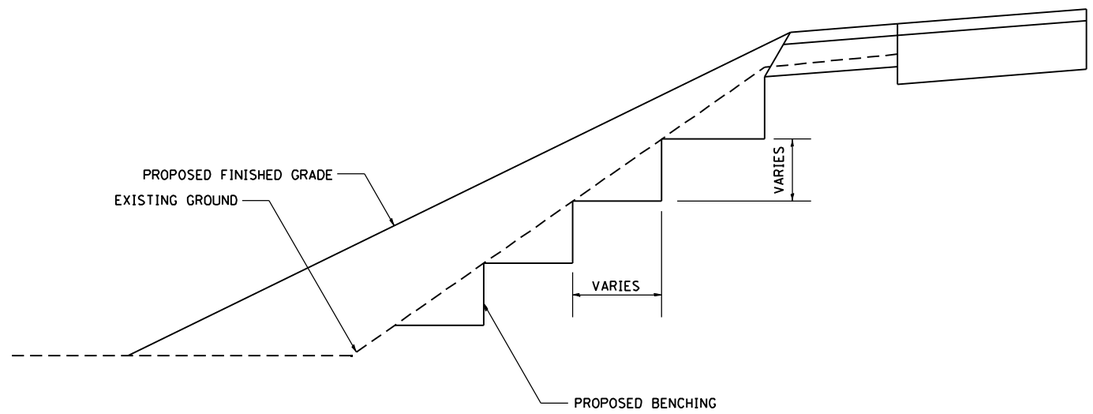
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180° . THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 11-01-07

DELINEATOR AND POST ORIENTATION **37.4**

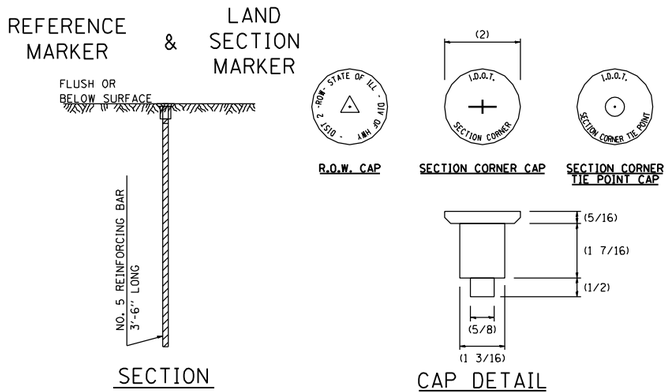
TYPICAL BENCHING ON EXISTING EMBANKMENT



REVISED - 2-22-06

TYPICAL BENCHING ON EXISTING EMBANKMENT **50.4**

LAND SECTION & REFERENCE MARKERS



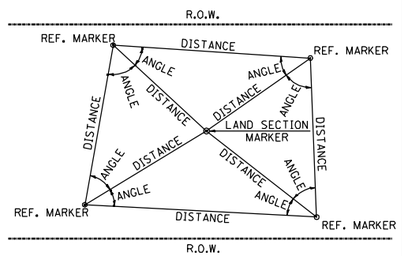
R.O.W. CAP

SECTION CORNER CAP

SECTION CORNER TIE POINT CAP

CAP DETAIL

METHOD OF REFERENCING MARKERS



- USE INSTRUMENT TIES TO NEARBY LAND-MARKS (STEEPLES, TOWERS, SILOS, ETC...)
- IN CULTIVATED FIELDS, SET 28" OR MORE BELOW GROUND SURFACE.
- IN FENCE LINE OR PROTECTED AREA SET TOP AT GROUND LEVEL SO AS NOT TO BE DISTURBED BY MOWING.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

METHOD OF REFERENCING POINTS

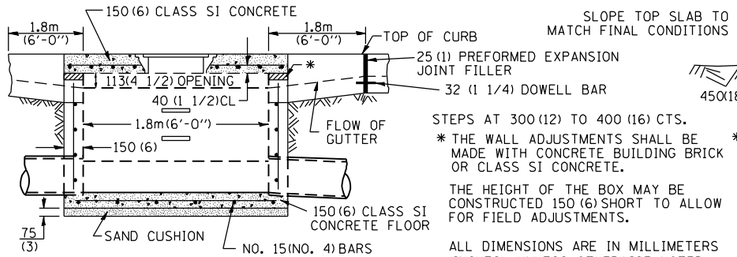
REFERENCE MARKERS SHALL BE USED TO TIE IN PERMANENT LAND SECTION AND 1/4 SECTION CORNERS. WHERE LAND SECTION MARKERS FALL IN THE SHOULDERS OR GRAVEL SURFACES, THE TOP OF THE BAR SHALL BE KEPT 3" BELOW THE SURFACE. LAND SECTION MARKERS LOCATED IN TRAFFIC LANES SHALL BE REPLACED BY CORE DRILL AND RESETTING PIN.

ALUMINUM CAPS SHALL BE PLACED ON TOP OF THE REINFORCEMENT BAR. THERE ARE 3 TYPES OF CAPS, ONE FOR THE RIGHT-OF-WAY CORNERS, ONE FOR THE SECTION CORNERS AND ONE FOR THE SECTION CORNER TIE POINTS. THE CAPS WILL BE SUPPLIED BY THE SURVEYOR WHO IS RESPONSIBLE FOR MONUMENTING CORNERS.

REVISED - 03-05-10

LAND SECTION & REFERENCE MARKERS **63.4**

INLET SPECIAL NO. 5



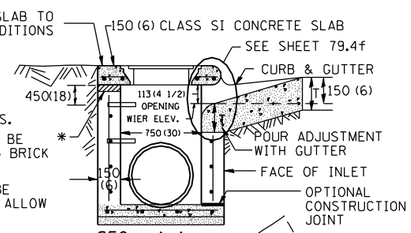
FRONT VIEW

STEPS AT 300 (12) TO 400 (16) CTS.

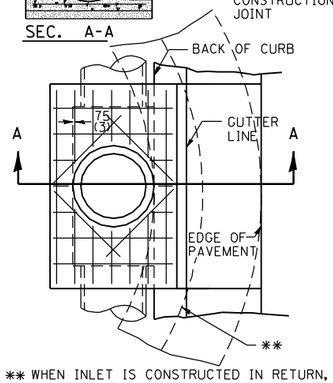
* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



SEC. A-A



** WHEN INLET IS CONSTRUCTED IN RETURN, THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

25 (1) PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLET SPECIAL NO. 5 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 1.5 m (5 ft.)

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

EXCEPT AS NOTED HEREON INLET SPECIAL NO. 5 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

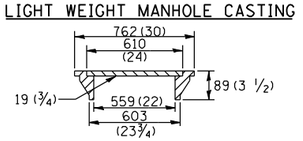
THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 5 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADJACENT TO AND 1.8m (6 FT) ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

LIGHT WEIGHT MANHOLE CASTING



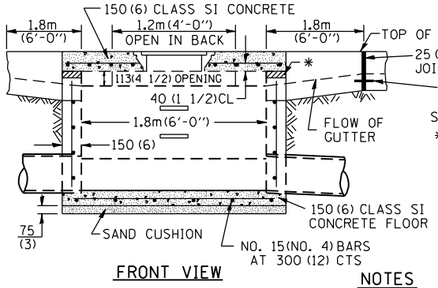
TOTAL WEIGHT 73 KG. (160 LBS.)

REVISED - 4-4-11	REGION 2 / DISTRICT 2 STANDARD		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -			595	(142-1)R & 142-1HB	ROCK ISLAND	507	370
REVISED -					CONTRACT NO. 64B84		
REVISED -	SCALE: 40.0000 ' / IN.	SHEET NO. OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

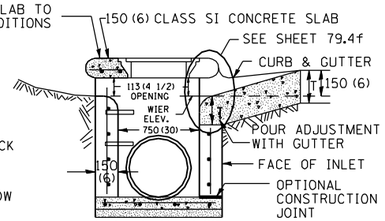
PLOT DATE = 3/11/2013

INLET SPECIAL NO. 5 **79.4b**

INLET SPECIAL NO. 6



FRONT VIEW



SEC. A-A

STEPS AT 300 (12) TO 400 (16) CTS.

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

SEE STANDARD 602701 FOR DETAILS OF STEPS.

25 (1) PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLET SPECIAL NO. 6 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

NOTES

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 1.5 m (5 ft.)

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

EXCEPT AS NOTED HEREON INLET SPECIAL NO. 6 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

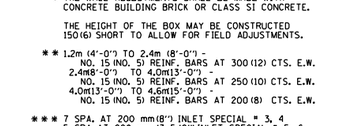
THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 6 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

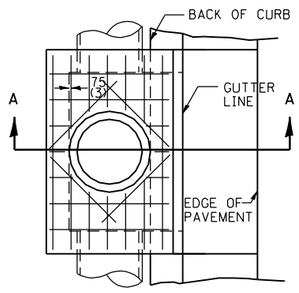
THE CURB AND GUTTER ADJACENT TO AND 1.8m (6 FT) ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

LIGHT WEIGHT MANHOLE CASTING



TOTAL WEIGHT 73 KG. (160 LBS.)



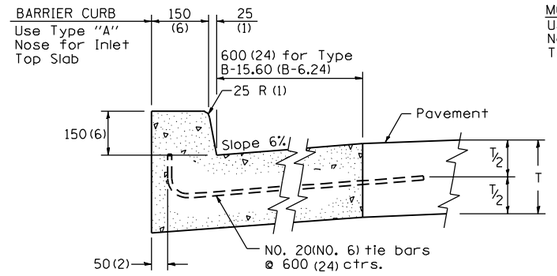
TOP VIEW

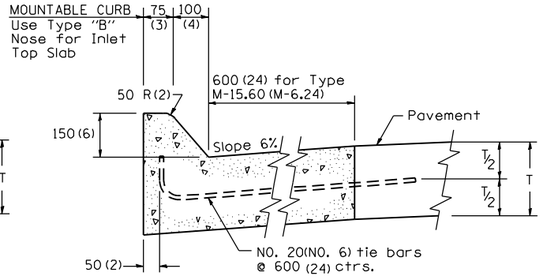
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 4-4-11

INLET SPECIAL NO. 6 **79.4c**

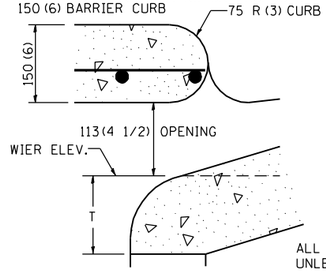
NOSE TYPE FOR INLET TOP SLAB





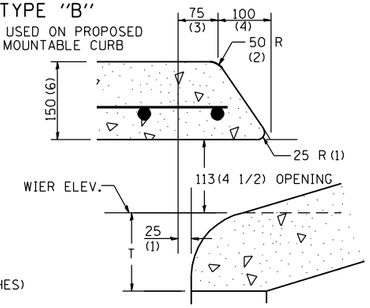
TYPE "A"

TO BE USED ON EXISTING OR PROPOSED 150 (6) BARRIER CURB



TYPE "B"

TO BE USED ON PROPOSED 150 (6) MOUNTABLE CURB

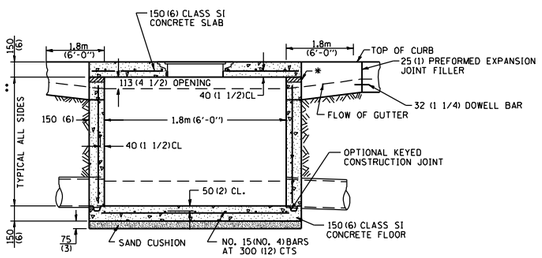


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

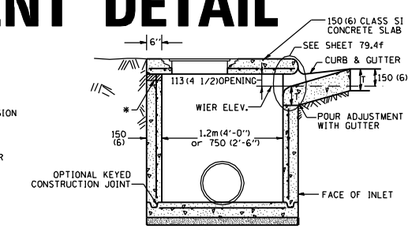
REVISED - 9-29-10

NOSE TYPE FOR INLET TOP SLAB **79.4f**

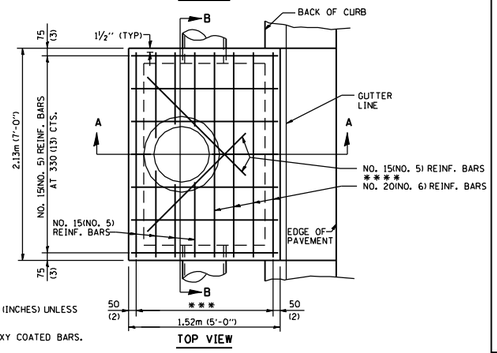
INLET SPECIAL NO. 3, 4, 5, 6 REINFORCEMENT DETAIL



SEC. B-B



SEC. A-A



TOP VIEW

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

** 1.2m (4'-0") TO 2.4m (8'-0") - NO. 15 (NO. 5) REINF. BARS AT 300 (12) CTS. E.W.
2.4m (8'-0") TO 4.0m (13'-0") - NO. 15 (NO. 5) REINF. BARS AT 250 (10) CTS. E.W.
4.0m (13'-0") TO 4.6m (15'-0") - NO. 15 (NO. 5) REINF. BARS AT 200 (8) CTS. E.W.

*** 7 SPA. AT 200 mm (8") INLET SPECIAL * 3, 4
5 SPA AT 208 mm (7 5/8") INLET SPECIAL * 5, 6
2 REBARS FOR INLET SPECIAL 3 & 4 @ 65"

**** 4 REBARS FOR INLET SPECIAL 5 & 6 @ 24"

NOTES

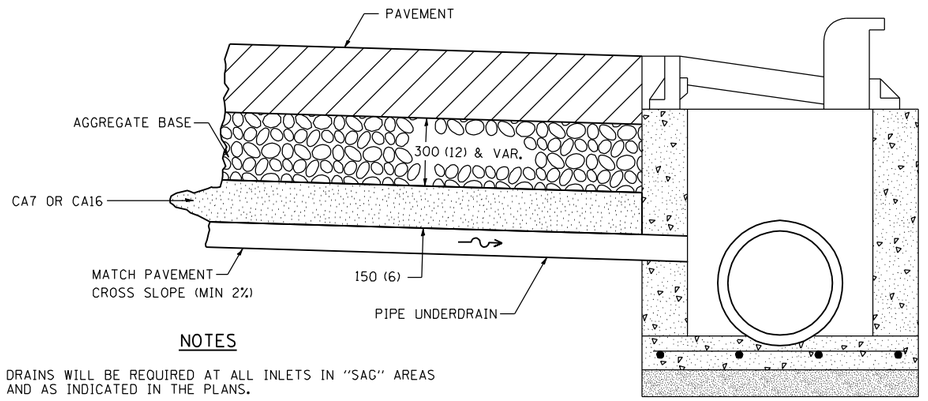
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TOP SLAB REINFORCEMENT TO BE EPOXY COATED BARS.

REVISED - 4-4-11

INLET SPECIAL NO. 3, 4, 5, 6 REINFORCEMENT DETAIL **79.4g**

DRAIN FOR AGGREGATE BASES IN URBAN AREAS



NOTES

DRAINS WILL BE REQUIRED AT ALL INLETS IN "SAG" AREAS AND AS INDICATED IN THE PLANS.

THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER METER (FOOT) FOR PIPE UNDERDRAINS OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

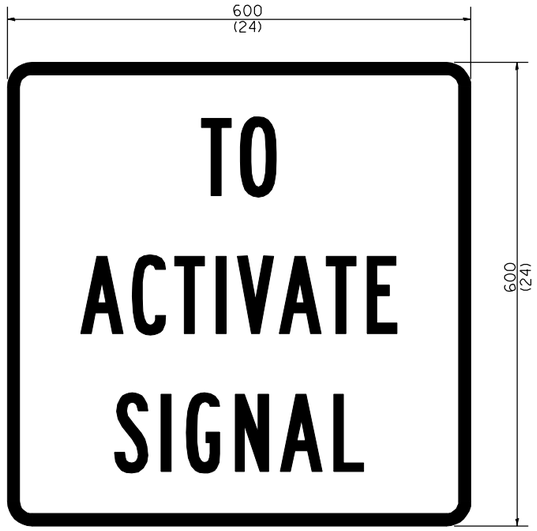
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 4-4-11	**REGION 2 / DISTRICT 2 STANDARD**	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507 / 371
REVISED -				CONTRACT NO. 64B84	
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

PLOT DATE = 3/11/2013

DRAIN FOR AGGREGATE BASES IN URBAN AREAS **88.4**

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 600(24)

100(4) CAPITAL LETTERS - BLACK

13(1/2) BORDER - BLACK

WHITE REFLECTIVE - TYPE AP
HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

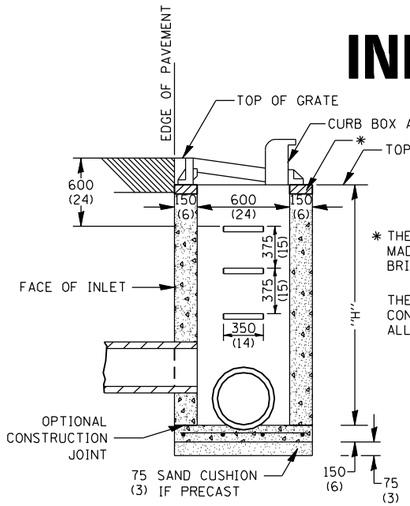
REVISED - 1-22-07

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISED -	**REGION 2 / DISTRICT 2 STANDARD**	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507	372
REVISED -				CONTRACT NO. 64B84		
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

PLOT DATE = 3/11/2013

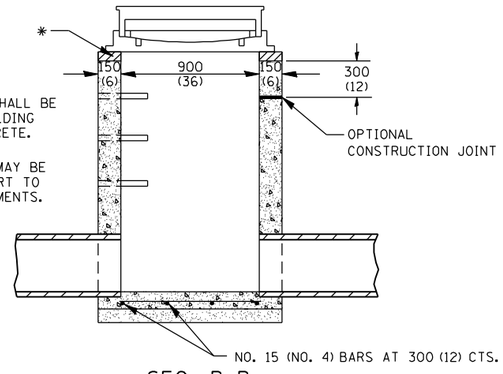
INLET SPECIAL



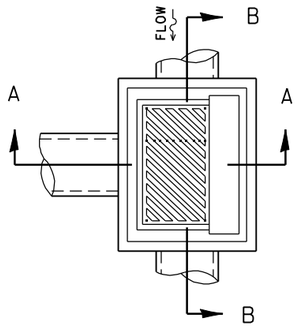
SEC. A-A

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.



SEC. B-B



NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

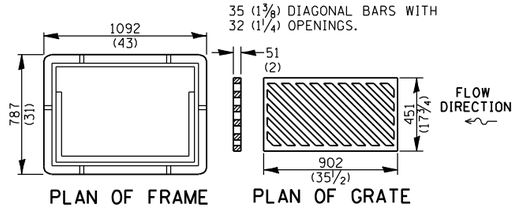
WEIGHT OF CAST IRON FRAME & GRATE = 240 kg (530 lbs.) ± .
STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 1.5 m (5 ft) .

DETAIL OF FRAME & GRATE

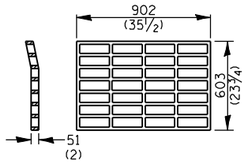
NOTES

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 27.5 MPa (4,000 psi) AFTER 28 DAYS.

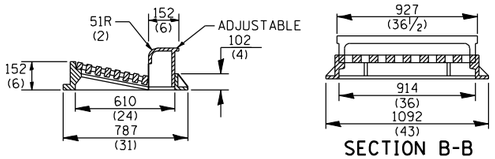
THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.



PLAN OF FRAME PLAN OF GRATE



PLAN OF GRATE *



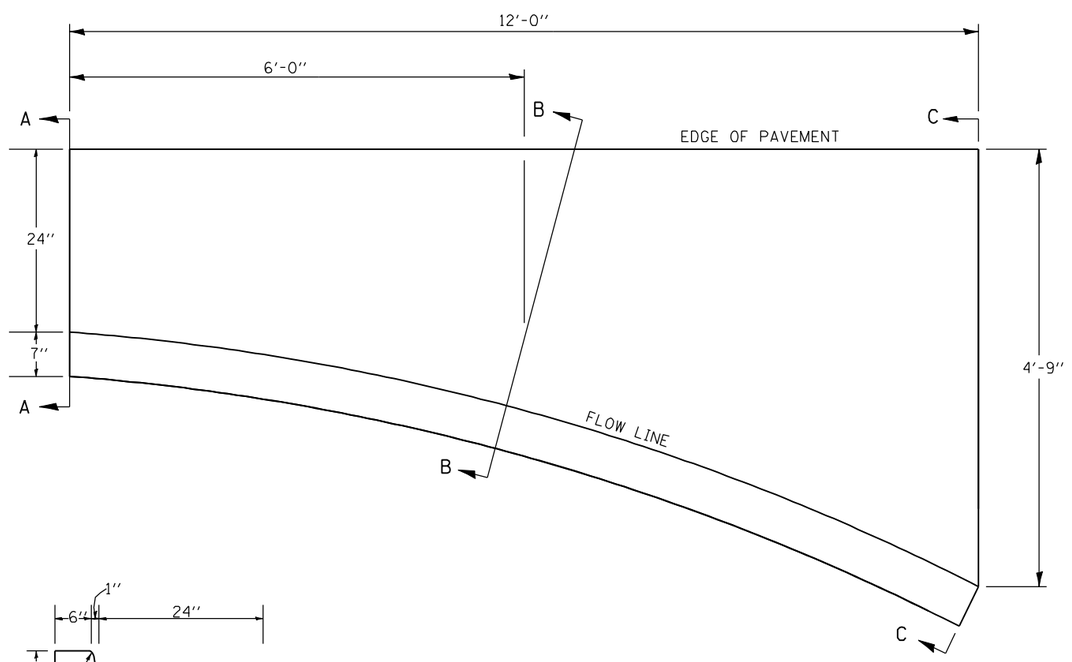
SECTION A-A SECTION B-B

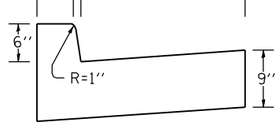
* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

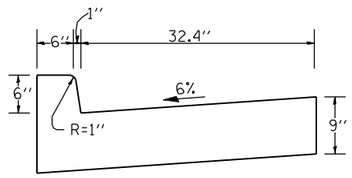
REVISED - 11-10-94

STANDARD INLET FOR CURB & GUTTER TYPE B–6.24

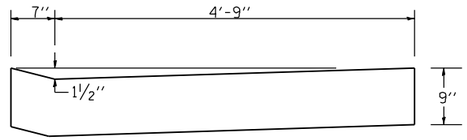




SECTION A-A



SECTION B-B



SECTION C-C

NOTES

Class SI Concrete shall be used throughout.

The Curb and Gutter inlet will be paid for at the contract unit price per cubic yard for Class SI Concrete (OUTLETS).

Joints shall be constructed in accordance with the requirementsof Article 606.07 of the Standard Specifications.

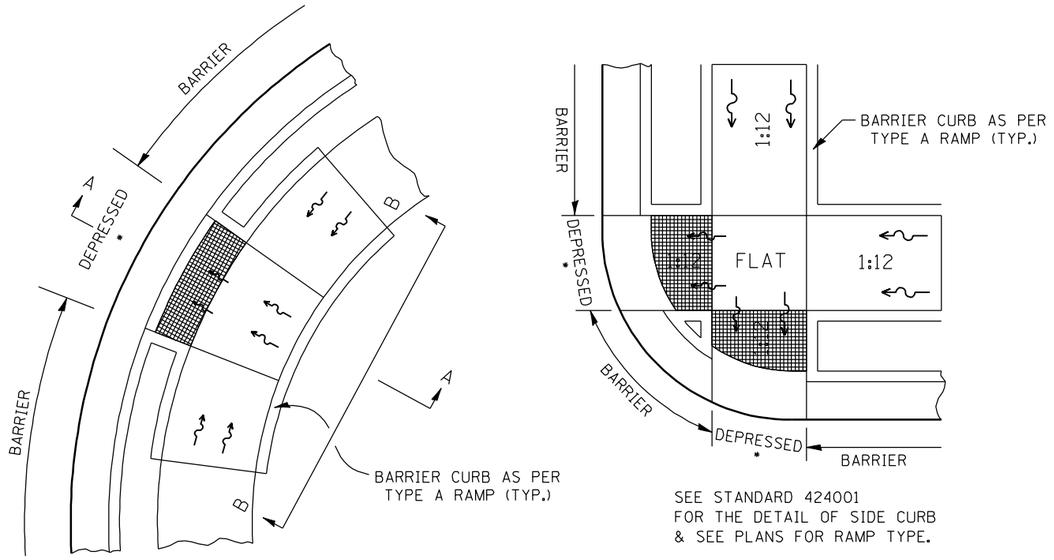
When curb and gutter is constructed adjacent to flexible pavement, a 1" expansion joint shall be installed at construction joints.

- QUANTITY -

Section A-A to C-C
(1.23 Cu. Yds.)
Class SI Concrete

REVISED - 10-10-06	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507	373
REVISED -				CONTRACT NO. 64B84		
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

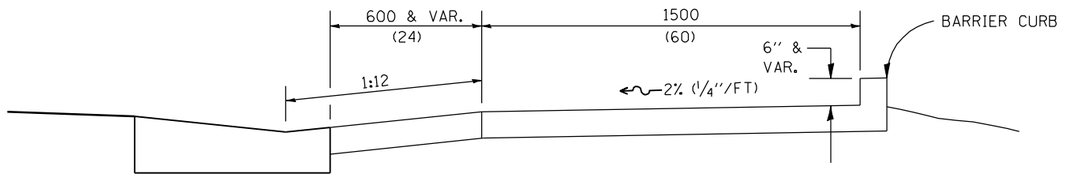
DISABLED RAMP DETAIL FOR TYPE A



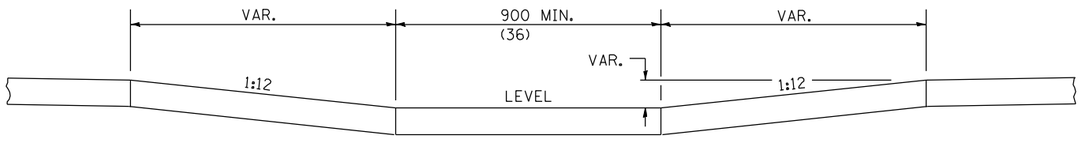
SEE STANDARD 424001 FOR THE DETAIL OF SIDE CURB & SEE PLANS FOR RAMP TYPE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

* SEE NOTE BELOW



SECTION A-A

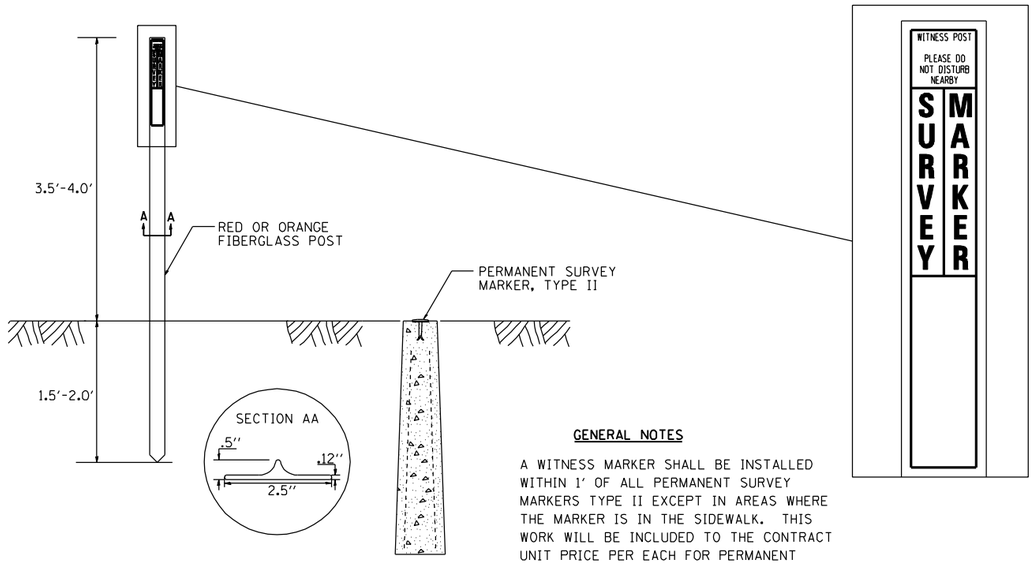


SECTION B-B

NOTES : THIS DETAIL TO BE USED IN CONJUNCTION WITH STATE STANDARD 424001.
THE MAXIMUM ALLOWABLE CROSS SLOPE FOR SIDEWALK IS 2% (1/4"/FT).
THE MAXIMUM ALLOWABLE SIDEWALK GRADE IS 8% (1/12"/FT). IF SPACE LIMITATIONS PROHIBIT THE USE OF THE 1:12 SLOPE, THEN SLOPES BETWEEN 1:10 ARE 1:12 ARE PERMITTED FOR A MAXIMUM RISE OF 150 (6). SLOPES 1:8 AND 1:10 ARE ALLOWED FOR A MAXIMUM RISE OF 75 (3). SLOPES STEEPER THAN 1:8 ARE NOT PERMITTED.
THE DEPRESSED CURB IS NOT STANDARD. THE RISE IS 13(1/2) INSTEAD OF 40(1 1/2).

REVISED - 10-15-10

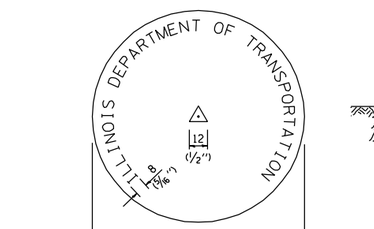
WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



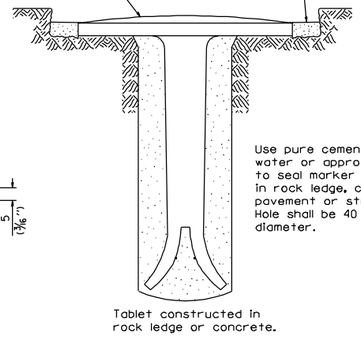
GENERAL NOTES

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

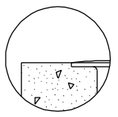
PERMANENT SURVEY MARKERS, TYPE II



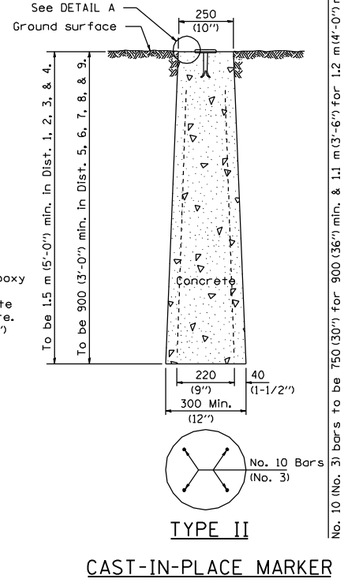
BRASS OR ALUMINUM TABLET



TYPE II



DETAIL A



TYPE II

CAST-IN-PLACE MARKER

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 4-4-11	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507	374
REVISED -				CONTRACT NO. 64B84		
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

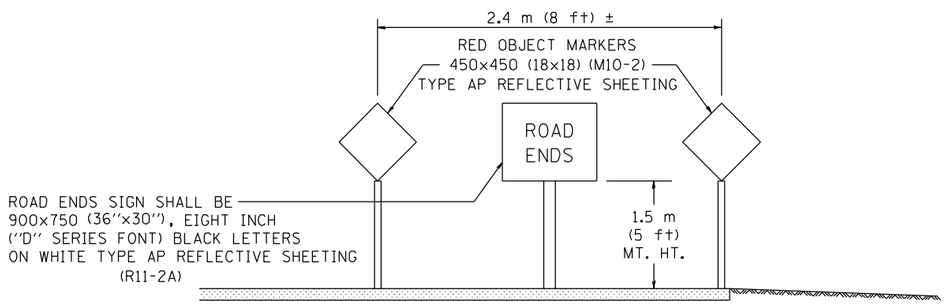
PLOT DATE = 3/11/2013

TERMINATION OF DEAD END ROADS

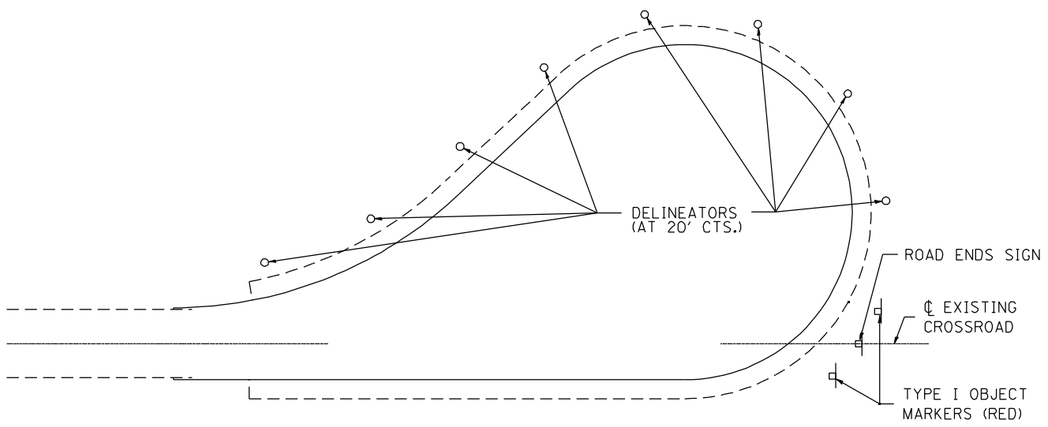
NOTES: A "NO OUTLET" (36"x36" YELLOW) SIGN SHALL BE ERECTED SLIGHTLY BEYOND THE LAST ROAD INTERSECTING THE ROAD WITH NO OUTLET. IF THIS INTERSECTION IS MORE THAN 457 m (1500 FT) FROM TERMINATION POINT, OR IF SIGHT DISTANCE TO THE CLOSURE IS LESS THAN 152 m (500 FT), A ROAD ENDS 152m (500 FT.) (WB-16) SIGN SHALL BE ERECTED 152m (500 FT.) IN ADVANCE OF THE TERMINATION OF THE ROAD. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "TERMINATION OF DEAD END ROADS" WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE SIGNS AND DELINEATORS.

USE 100x150 (4x6) WOOD POSTS INSTALLED IN ACCORDANCE WITH ARTICLE 730.0 OF STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS. USE APPLICABLE PARTS OF STANDARD 720001 FOR SIGN MOUNTING.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



TERMINATION SIGNING



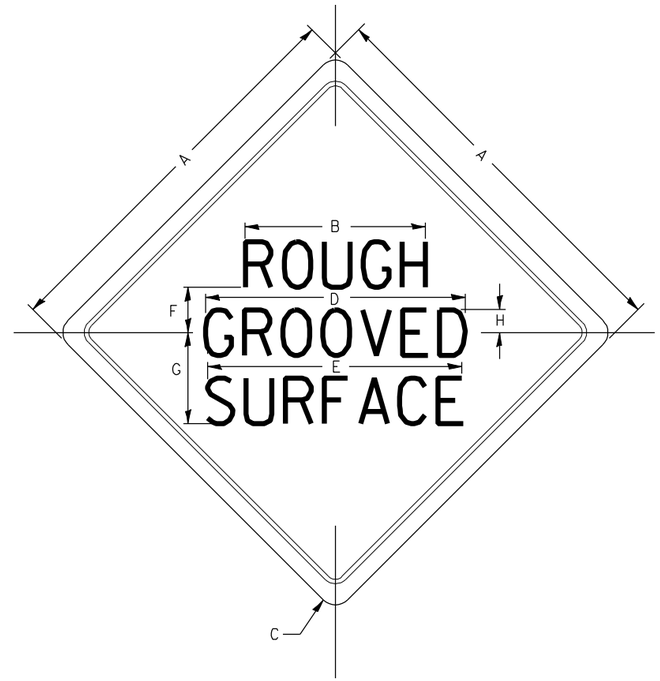
TRAFFIC CONTROL
TYPICAL CUL-DE-SAC

REVISED - 1-22-07

ROUGH GROOVED SURFACE SIGN

ILLINOIS STANDARD W8-I107

SIGN PANEL TYPE 1



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

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
1200x1200 (48x48)	1200 (48.0)	600 (24.1)	75 (3.0)	850 (34.0)	825 (33.0)	150 (6.0)	325 (13.0)	88 (3.5)

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD.
	1	2	3			
1200x1200 (48x48)	7C	7C	7C	20 (0.8)	30 (1.2)	B4-48D

ALL DIMENSIONS IN INCHES.

GENERAL NOTES

SIGN PANELS AND FACE MATERIALS SHALL BE ACCORDING TO SECTION 720 OF THE STANDARD SPECIFICATIONS

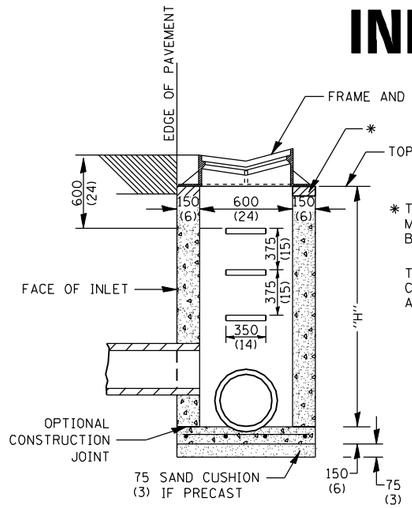
METAL POSTS SHALL BE IN ACCORDANCE WITH STD. 720011.

ALL MOUNTING HARDWARE SHALL BE ALUMINUM, STAINLESS STEEL, ZINC OR CADMIUM PLATED STEEL AND SHALL BE INCLUDED TO THE COST OF THE INSTALLATION.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 1-09-08	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507	375
REVISED -				CONTRACT NO. 64B84		
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

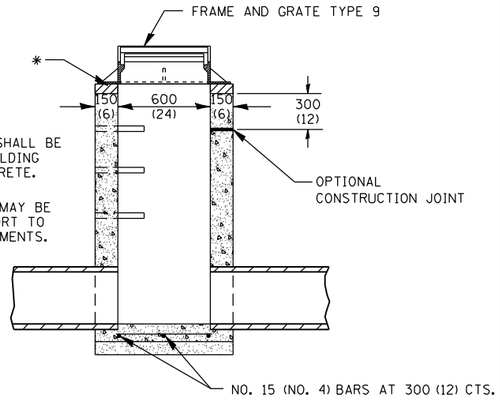
INLETS, SPECIAL, No. 1

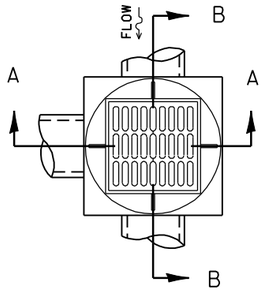


SEC. A-A

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.





NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

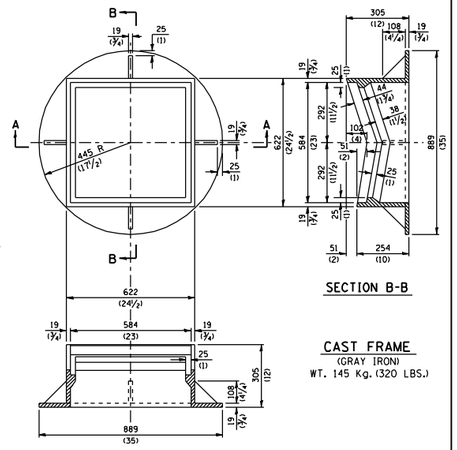
THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

WEIGHT OF CAST IRON FRAME & GRATE = 200kg (440 LBS.).
STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 1524 (60).

DETAIL OF FRAME & GRATE

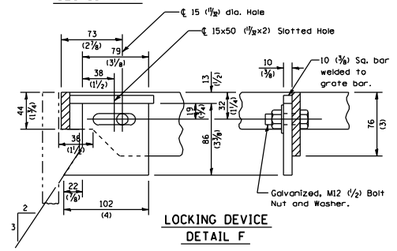
FRAME AND GRATES TYPE 9



SECTION B-B

CAST FRAME
(GRAY IRON)
WT. 145 Kg. (320 LBS.)

SECTION A-A

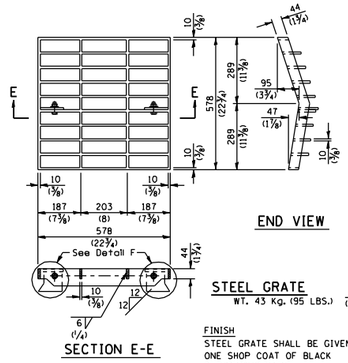


LOCKING DEVICE
DETAIL F

NOTES

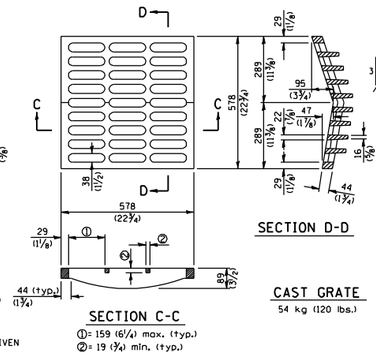
CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 27.5 MPa (4,000 PSI) AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL, No. 1 SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLAB, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.



STEEL GRATE
WT. 43 Kg. (95 LBS.)

FINISH
STEEL GRATE SHALL BE GIVEN ONE SHOP COAT OF BLACK BITUMINOUS PAINT.



CAST GRATE
54 kg (120 lbs.)

GENERAL NOTES

THE MATERIAL FOR STEEL GRATE SHALL CONFORM TO ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS.

THE USE OF EITHER A CAST GRATE OR A STEEL GRATE WITH THE CAST FRAME SHALL BE THE OPTION OF THE CONTRACTOR.

THE CAST GRATE MAY BE MADE OF EITHER GRAY IRON OR DUCTILE IRON CONFORMING TO THE STANDARD SPECIFICATIONS. DUCTILE IRON CASTING SHALL BE GRADE 65-45-12

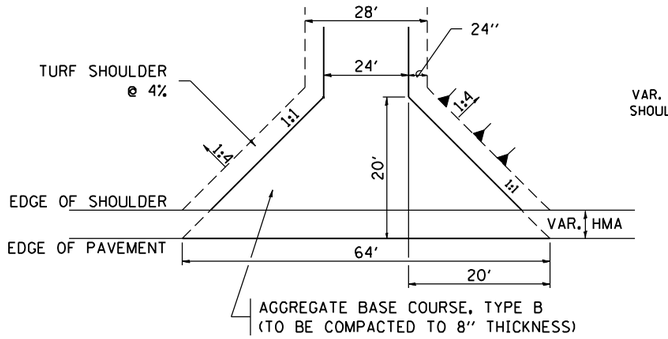
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 1-27-00

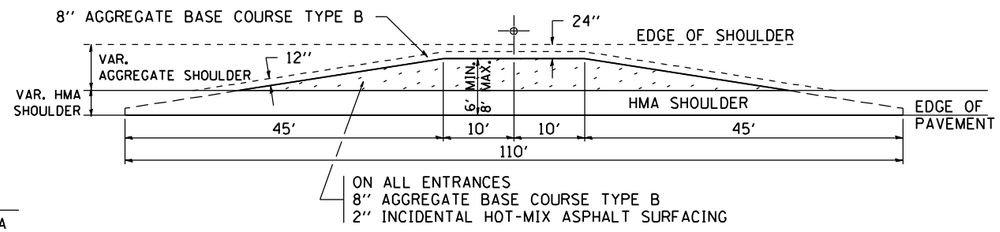
REVISED -	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
REVISED -		595	(142-1)R & 142-1HB	ROCK ISLAND	507 / 375A
REVISED -				CONTRACT NO. 64B84	
REVISED -	SCALE: 40.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

PLOT DATE = 8/15/2013

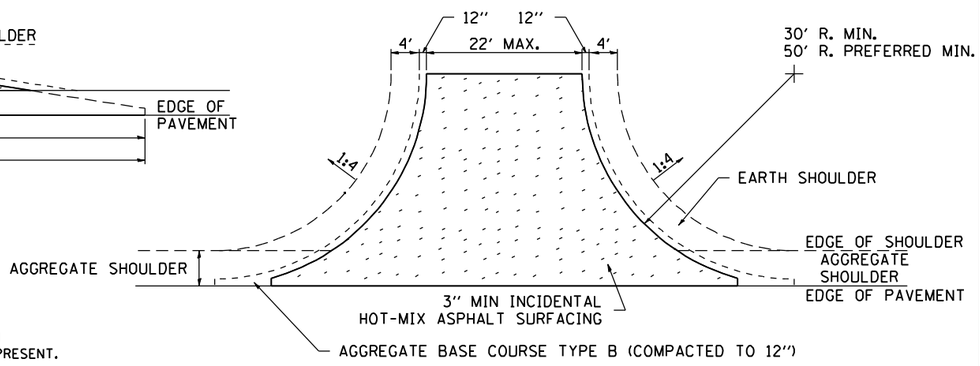
HOT–MIX ASPHALT APPROACHES AND MAILBOX RETURNS



FIELD ENTRANCE



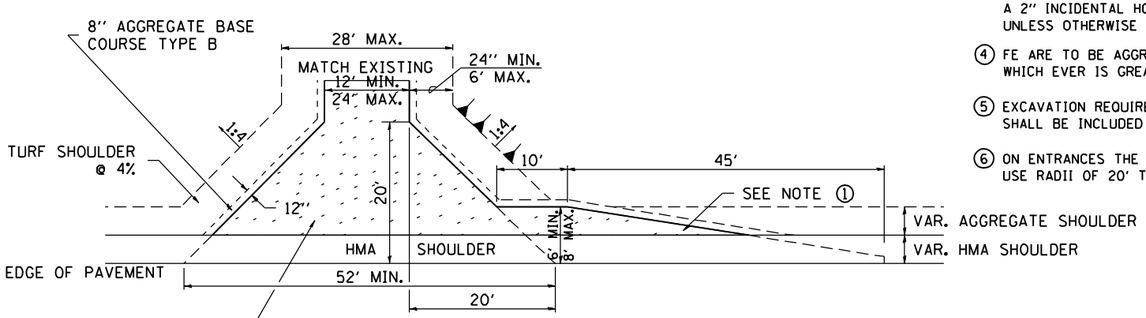
MAILBOX TURNOUT



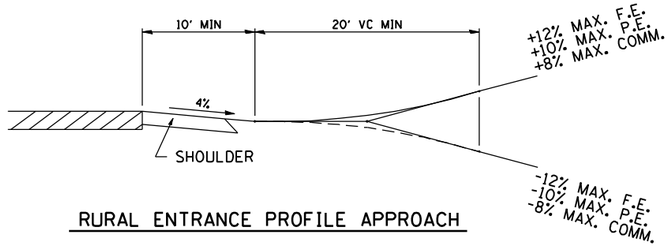
SIDE ROAD RETURN/EARTH SHOULDER

NOTE

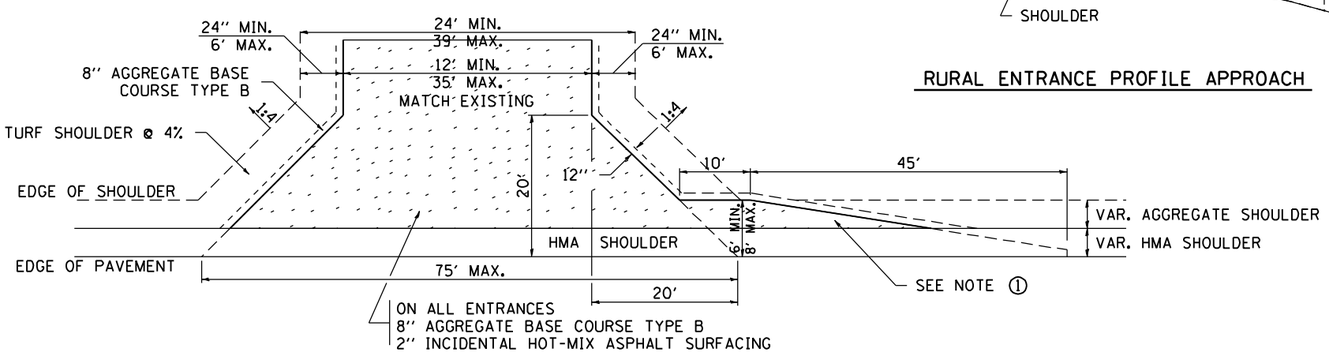
1. TURNOUTS ARE TO BE CONSTRUCTED ON THE APPROACH SIDE OF ALL PE & CE REGARDLESS IF A MAILBOX IS PRESENT.
2. ALL PE & CE ARE TO BE SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
3. ALL PE & CE TO BE CONSTRUCTED WITH AN 8'' AGGREGATE BASE COURSE, TYPE B AND WITH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



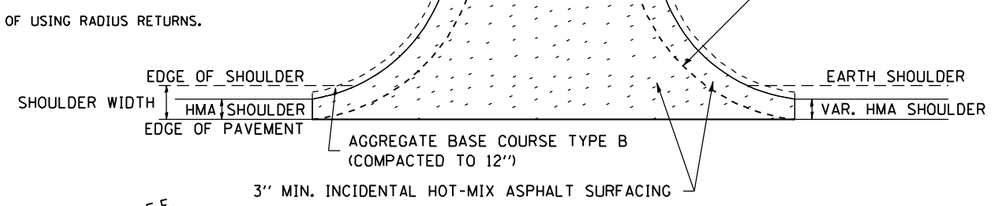
PRIVATE ENTRANCE



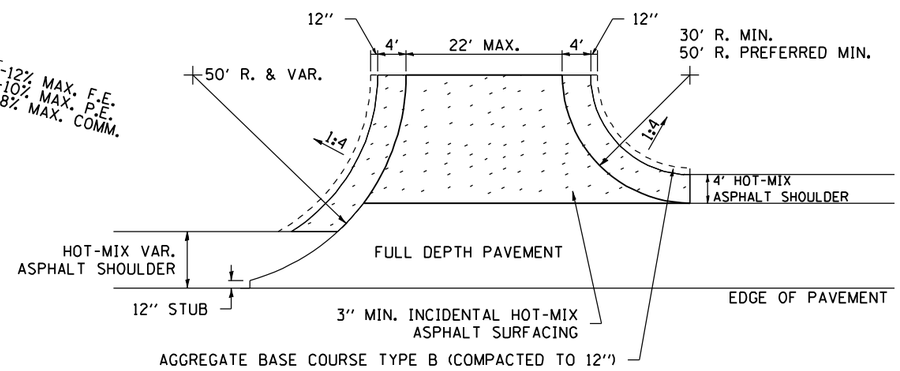
RURAL ENTRANCE PROFILE APPROACH



COMMERCIAL ENTRANCE



SIDE ROAD RETURN/HMA SHOULDER



SIDE ROAD RETURN WITH RIGHT TURN LANE

FILE NAME = n:\proj\0003393.00\contract_1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 12-07-10
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

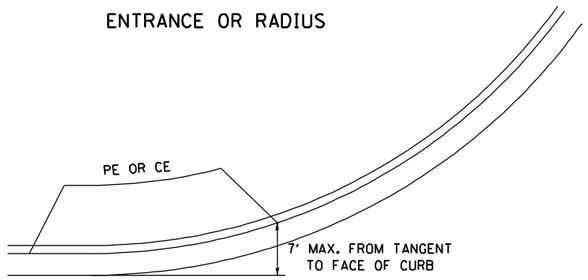
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

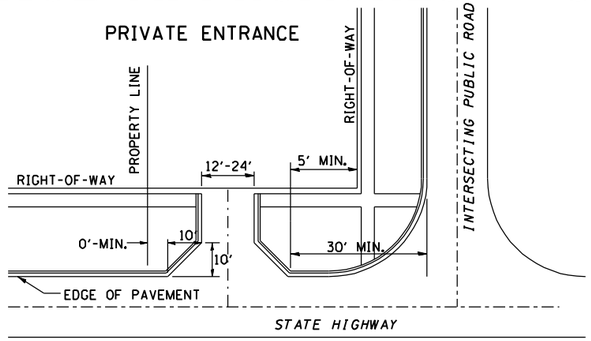
REGION 2 / DISTRICT 2 STANDARD

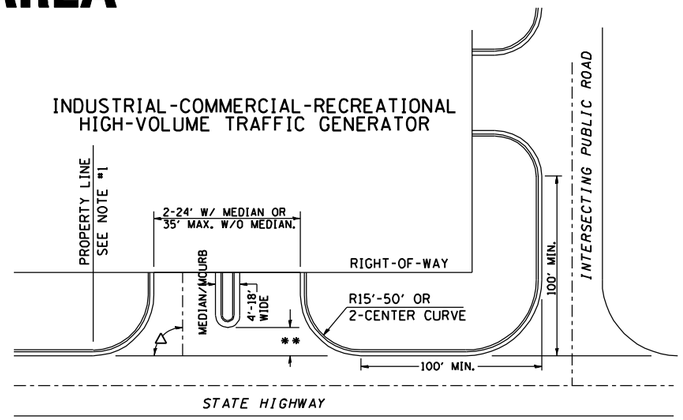
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	376
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ENTRANCE APPROACHES – URBAN AREA



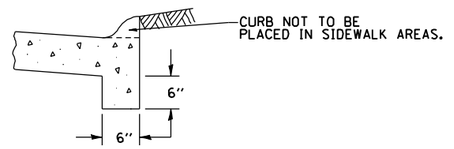




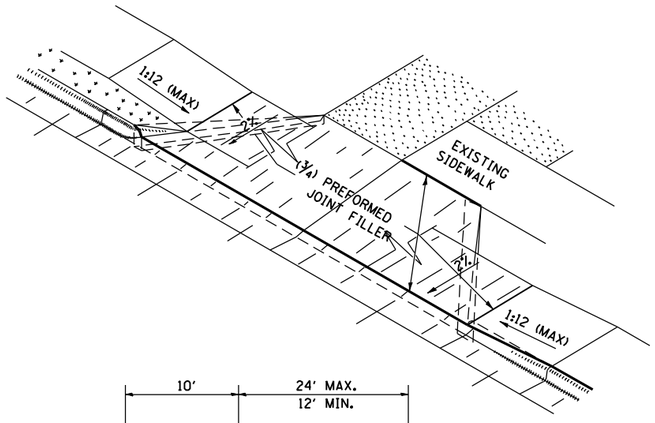
A MINIMUM OF 440 FEET SHALL BE MAINTAINED BETWEEN CENTER LINES OF ADJACENT DRIVEWAYS.
△ 90° DESIRABLE. 45° MIN. ANGLE PERMITTED ONLY FOR ONE-WAY DRIVEWAYS.
60° MIN. ANGLE FOR TWO-WAY DRIVEWAYS.

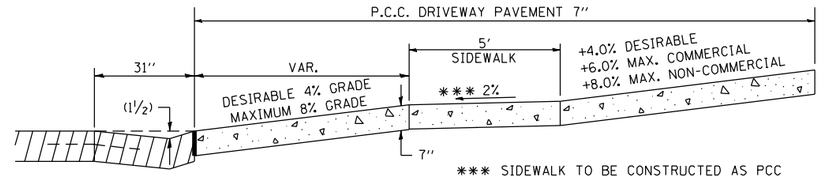
NOTE: #1 ENCROACHMENT ON THE ADJACENT PROPERTY OWNER LAND REQUIRES HIS OR HER WRITTEN APPROVAL.

** 4'-10' IF HIGHWAY CURBED.
AT EDGE OF SHOULDER IF HIGHWAY UNCURBED.



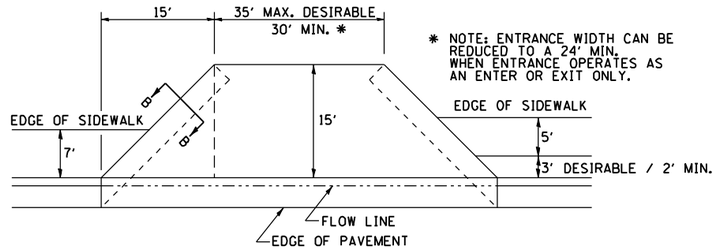
SEC B-B



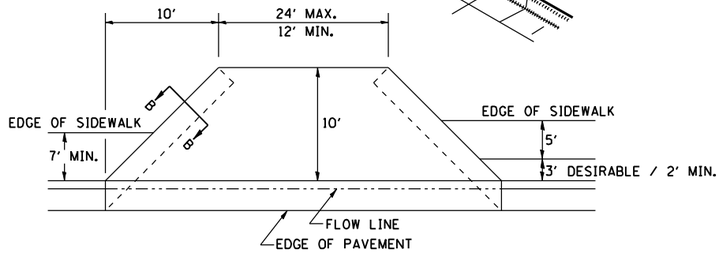


*** SIDEWALK TO BE CONSTRUCTED AS PCC DRIVEWAY PAVEMENT 7" THROUGH THE WIDTH OF THE DRIVEWAY. SEE DIST. STD. 35.4

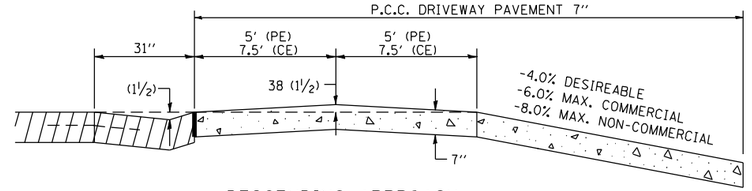
ASCENDING APPROACH



LOW TO MODERATE VOLUME COMMERCIAL ENTRANCE

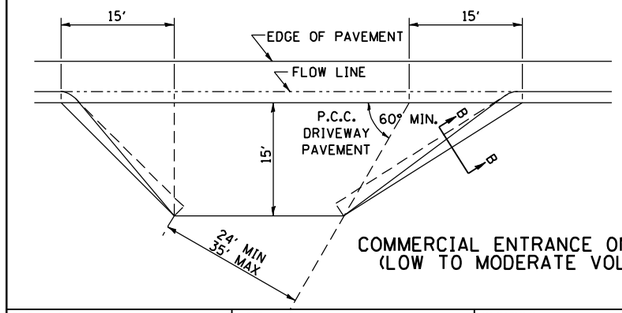


PRIVATE ENTRANCE

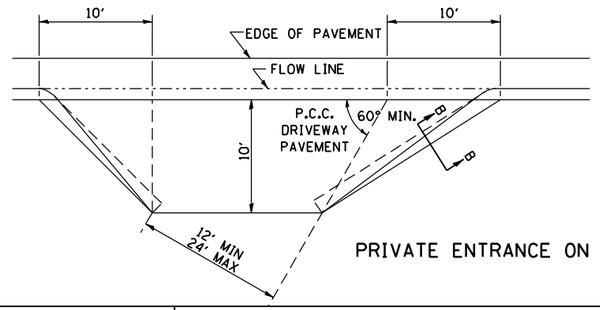


DESCENDING APPROACH
(NO SIDEWALK)

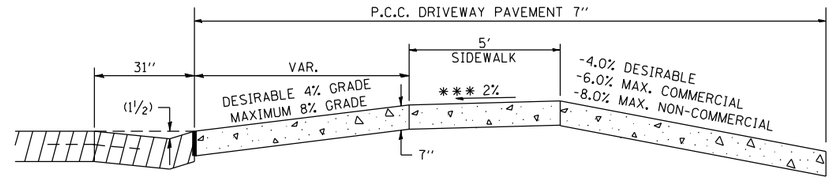
NOTE: CURVED ENTRANCE RETURNS MAY BE USED FOR LOW TO MODERATE VOLUME LOCATIONS WITH REVIEW ON A CASE-BY-CASE BASIS.



COMMERCIAL ENTRANCE ON SKEW
(LOW TO MODERATE VOLUME)



PRIVATE ENTRANCE ON SKEW



DESCENDING APPROACH
(WITH SIDEWALK)

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 12-07-10
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

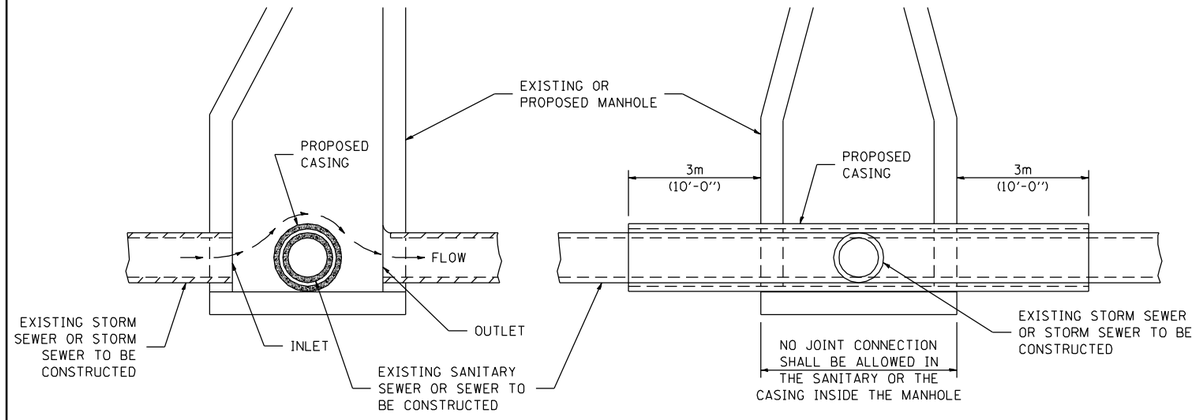
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	377
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SEWER AND WATER MAIN CROSSINGS



ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 50 (2) LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

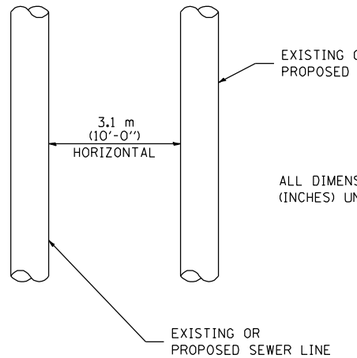
AT GRADE CROSSING OF SANITARY AND STORM SEWER

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

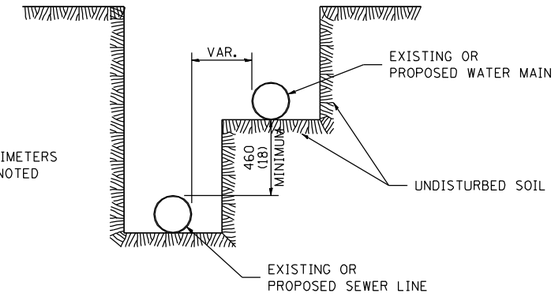
WHEN PROPOSED SEWER (OR WATER) IS LOCATED 3.1 m (10'-0") OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 3.1 m (10'-0") FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.



PLAN VIEW

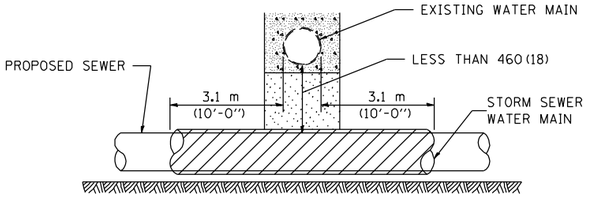
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED



WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS

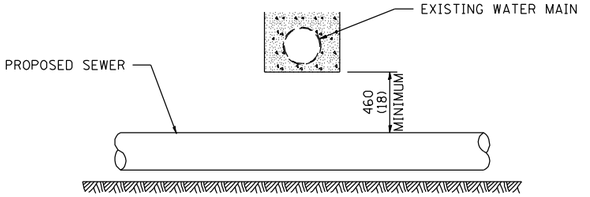
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

MAINTAIN 460 (18) MINIMUM VERTICAL SEPARATION FOR 3.1m (10') HORIZONTALLY

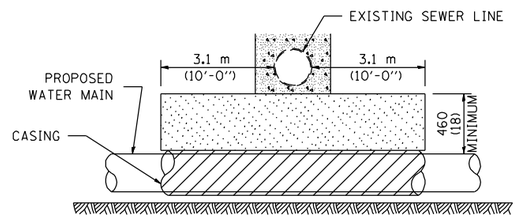


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT

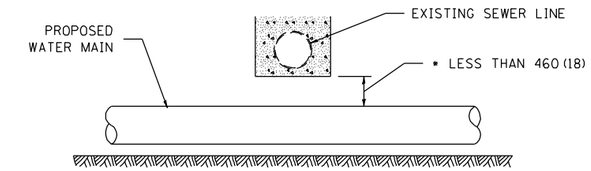
PLACE TRENCH BACKFILL FOR 3.1 m (10') ON EITHER SIDE OF SEWER LINE



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 50 (2) LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

MAINTAIN 460 (18) MINIMUM VERTICAL SEPARATION FOR 3.1 m (10') HORIZONTALLY

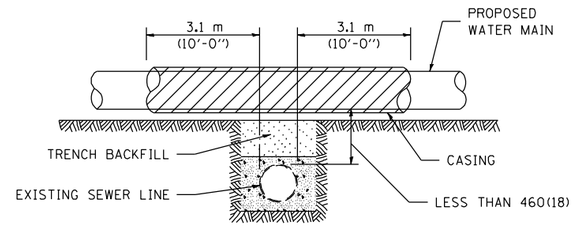


• NOT ALLOWED
MUST MAINTAIN 460 (18) VERTICAL SEPARATION

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER

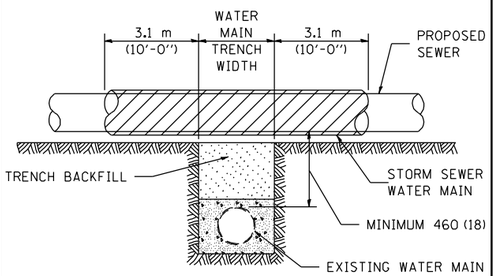


CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 50 (2) LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE

PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN.



ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

EXISTING WATER MAIN BELOW PROPOSED SEWER LINE WITH MINIMUM 460 (18) VERTICAL SEPARATION

FILE NAME = n:\proj\0003393.00\contract_1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 10-15-04
	PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED -
	PLOT DATE = 3/11/2013	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

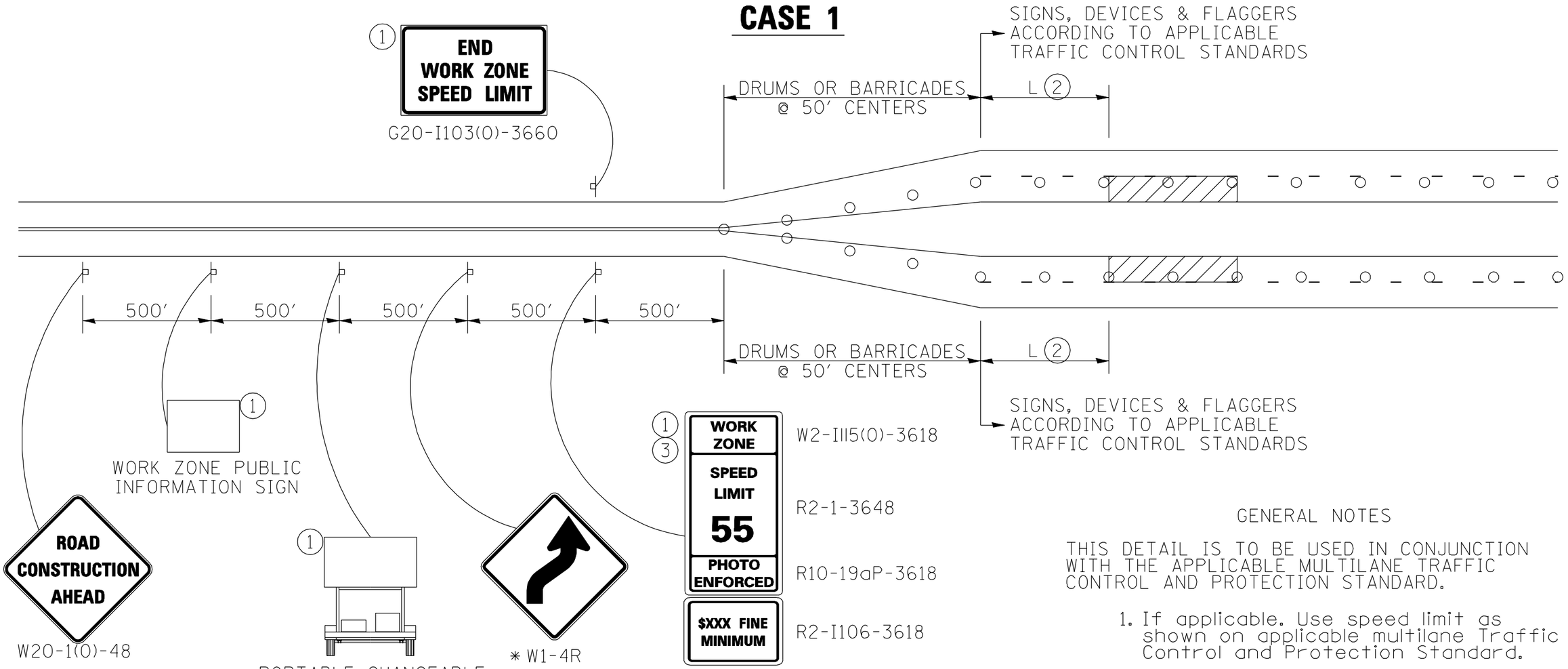
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	378
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR TRANSITION AREAS

CASE 1



GENERAL NOTES

THIS DETAIL IS TO BE USED IN CONJUNCTION WITH THE APPLICABLE MULTILANE TRAFFIC CONTROL AND PROTECTION STANDARD.

1. If applicable. Use speed limit as shown on applicable multilane Traffic Control and Protection Standard.
2. If the work is within 2500 feet of the transition when the speed is > 40 mph, or 1500 feet for all other speeds, the detail shall be used.
3. WORK ZONE SPEED LIMIT 55 BEGINS shall be replaced with WORK ZONE SPEED LIMIT 45 BEGINS where the workers are within 500 feet of the transition.

THIS TRAFFIC CONTROL DETAIL SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

○ DRUMS OR BARRICADES

▨ WORK AREA

NOTE: STANDARDS 701301 AND 701306 SHALL NOT BE USED WITHIN 500 FEET OF THE TRANSITION.

* DEPENDS ON GEOMETRICS OF THE TRANSITION. MAY SWITCH THE "STAY IN YOUR LANE" AND "WEAVE SIGNS"

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 1-16-13
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

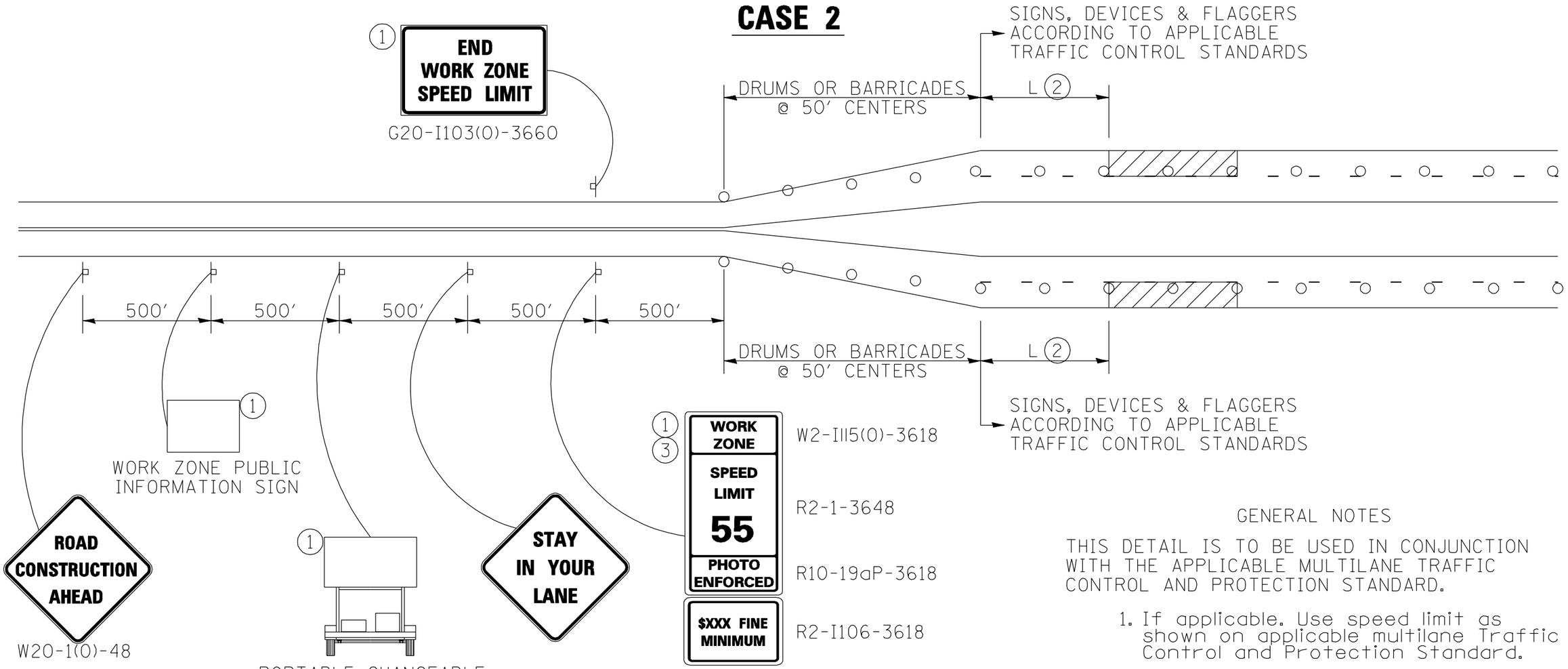
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	379
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR TRANSITION AREAS

CASE 2



◯ DRUMS OR BARRICADES

▨ WORK AREA

NOTE: STANDARDS 701301 AND 701306 SHALL NOT BE USED WITHIN 500 FEET OF THE TRANSITION.

GENERAL NOTES

THIS DETAIL IS TO BE USED IN CONJUNCTION WITH THE APPLICABLE MULTILANE TRAFFIC CONTROL AND PROTECTION STANDARD.

1. If applicable. Use speed limit as shown on applicable multilane Traffic Control and Protection Standard.
2. If the work is within 2500 feet of the transition when the speed is > 40 mph, or 1500 feet for all other speeds, the detail shall be used.
3. WORK ZONE SPEED LIMIT 55 BEGINS shall be replaced with WORK ZONE SPEED LIMIT 45 BEGINS where the workers are within 500 feet of the transition.

THIS TRAFFIC CONTROL DETAIL SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 1-16-13
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

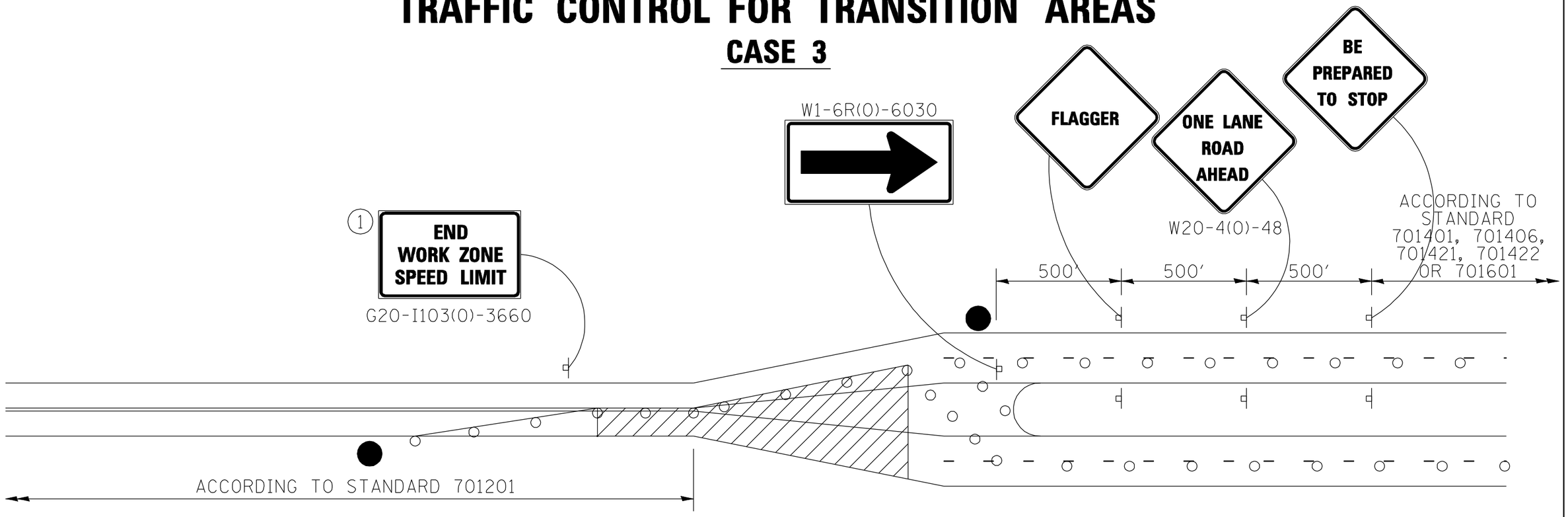
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	380
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR TRANSITION AREAS

CASE 3



● FLAGGER WITH TRAFFIC CONTROL SIGN

○ DRUMS OR BARRICADES

▨ WORK AREA

NOTE: STANDARDS 701301 AND 701306 SHALL NOT BE USED WITHIN 500 FEET OF THE TRANSITION.

GENERAL NOTES

THIS DETAIL IS TO BE USED IN CONJUNCTION WITH THE APPLICABLE MULTILANE TRAFFIC CONTROL AND PROTECTION STANDARD.

1. If applicable. Use speed limit as shown on applicable multilane Traffic Control and Protection Standard.
2. If the work is within 2500 feet of the transition when the speed is > 40 mph, or 1500 feet for all other speeds, the detail shall be used.
3. WORK ZONE SPEED LIMIT 55 BEGINS shall be replaced with WORK ZONE SPEED LIMIT 45 BEGINS where the workers are within 500 feet of the transition.

THIS TRAFFIC CONTROL DETAIL SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 3-05-12
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

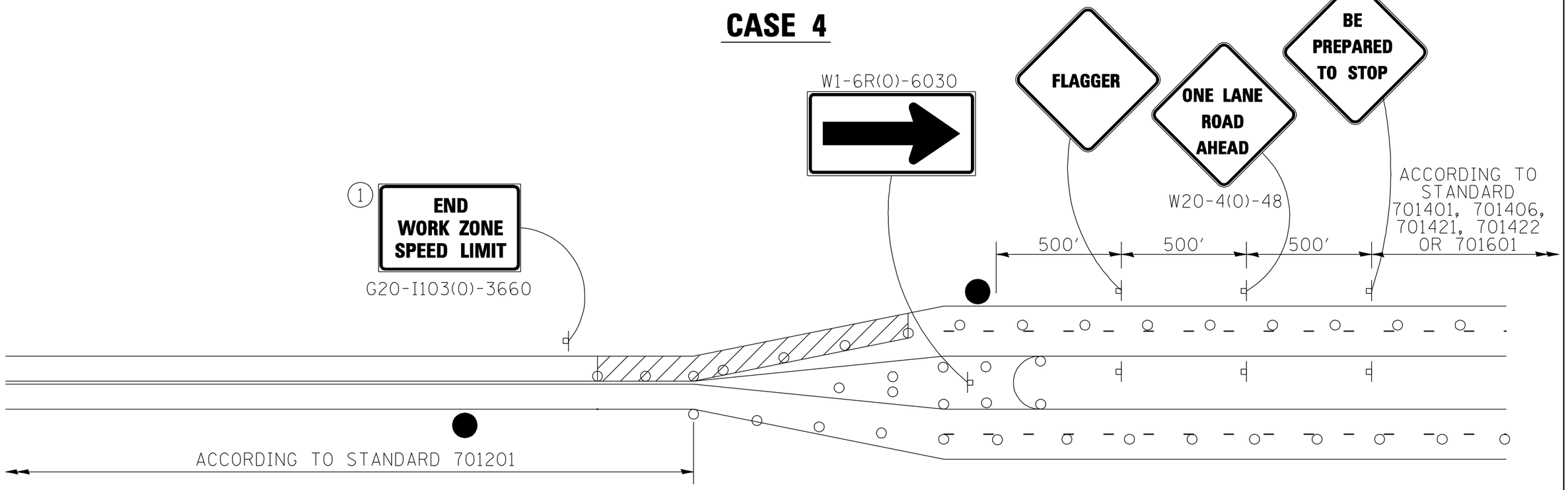
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	381
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR TRANSITION AREAS

CASE 4



● FLAGGER WITH TRAFFIC CONTROL SIGN

○ DRUMS OR BARRICADES

▨ WORK AREA

NOTE: STANDARDS 701301 AND 701306 SHALL NOT BE USED WITHIN 500 FEET OF THE TRANSITION.

GENERAL NOTES

THIS DETAIL IS TO BE USED IN CONJUNCTION WITH THE APPLICABLE MULTILANE TRAFFIC CONTROL AND PROTECTION STANDARD.

1. If applicable. Use speed limit as shown on applicable multilane Traffic Control and Protection Standard.
2. If the work is within 2500 feet of the transition when the speed is > 40 mph, or 1500 feet for all other speeds, the detail shall be used.
3. WORK ZONE SPEED LIMIT 55 BEGINS shall be replaced with WORK ZONE SPEED LIMIT 45 BEGINS where the workers are within 500 feet of the transition.

THIS TRAFFIC CONTROL DETAIL SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 3-05-12
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

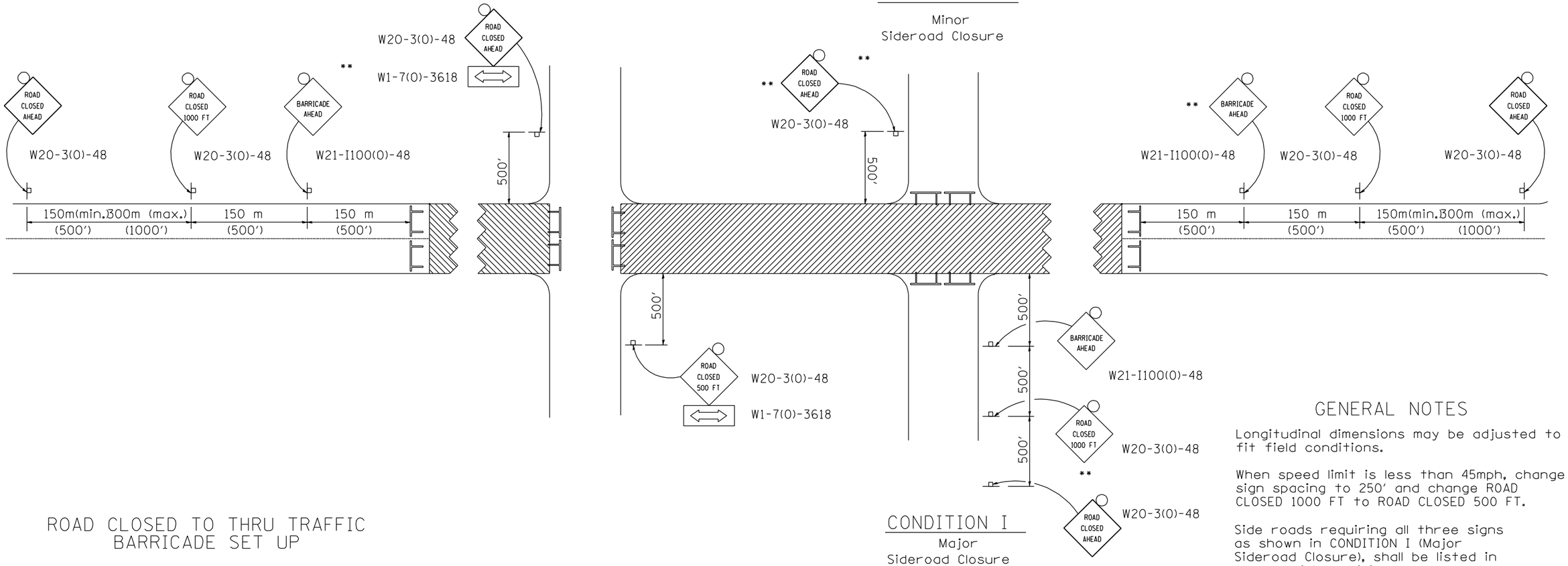
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	382
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL FOR ROAD CLOSURE

CONDITION II

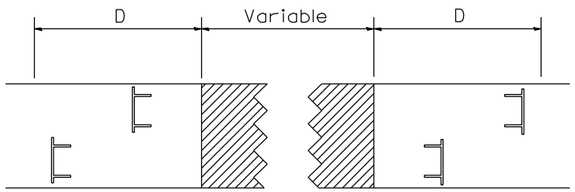
Minor
Sideroad Closure



CONDITION I

Major
Sideroad Closure

ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To All Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 600 m (2000') an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

SYMBOLS

Work area

Type III Barricade with Flashers

Sign with flashing light

GENERAL NOTES

Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

** Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

All dimensions are in millimeters (inches) unless otherwise shown.

TYPICAL APPLICATION FOR ROAD CLOSURE

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 1-11-08
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

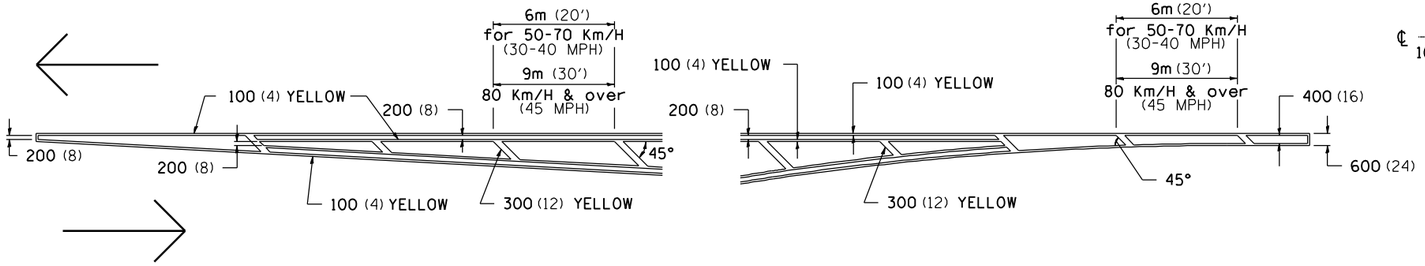
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

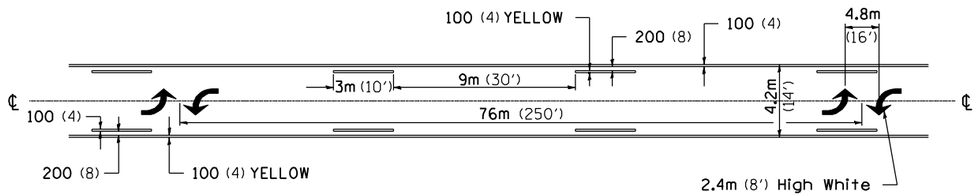
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	383
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

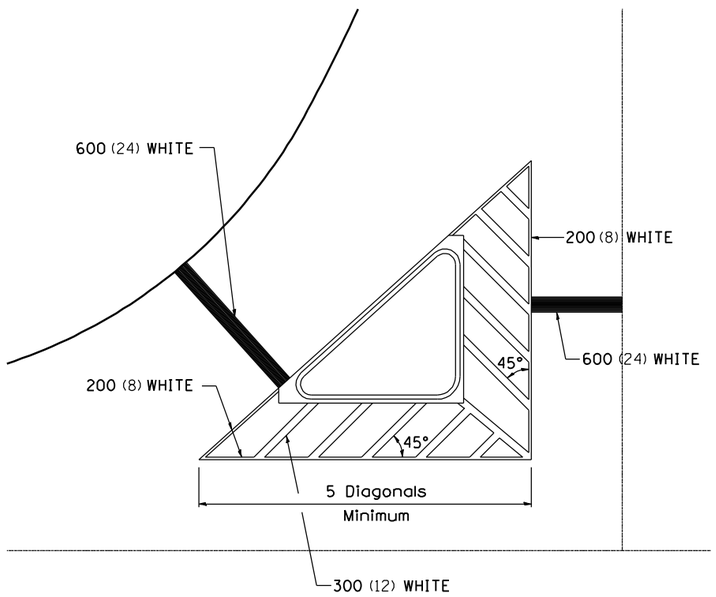


MEDIAN PAVEMENT MARKING

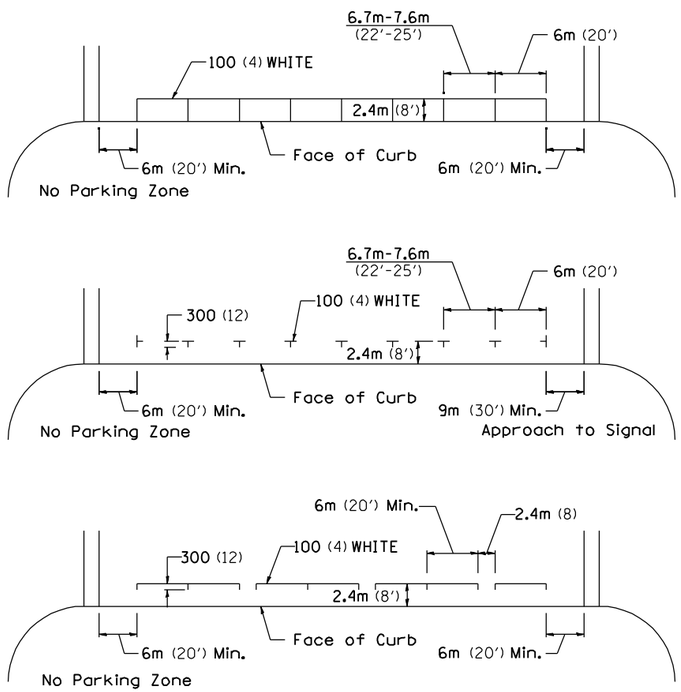


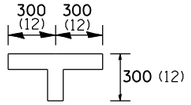
•• ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH



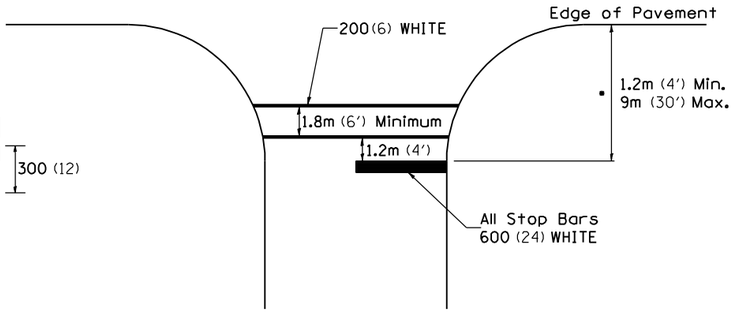
TYPICAL PARKING SPACING





STANDARD CROSSWALK MARKING

See Schedules for Locations



• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 4-4-11
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

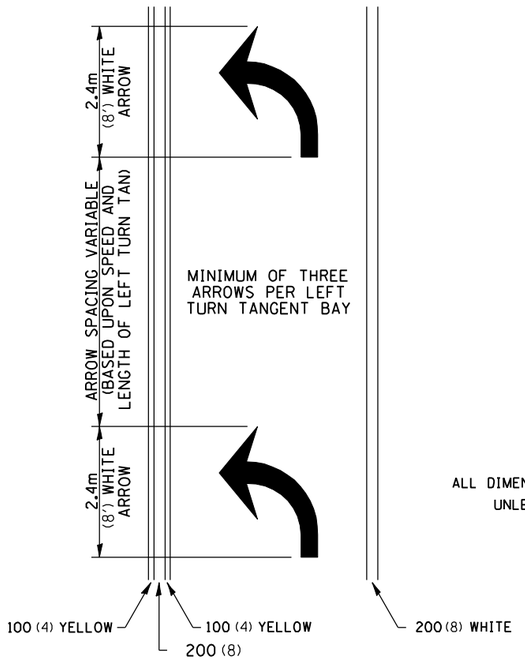
REGION 2 / DISTRICT 2 STANDARD

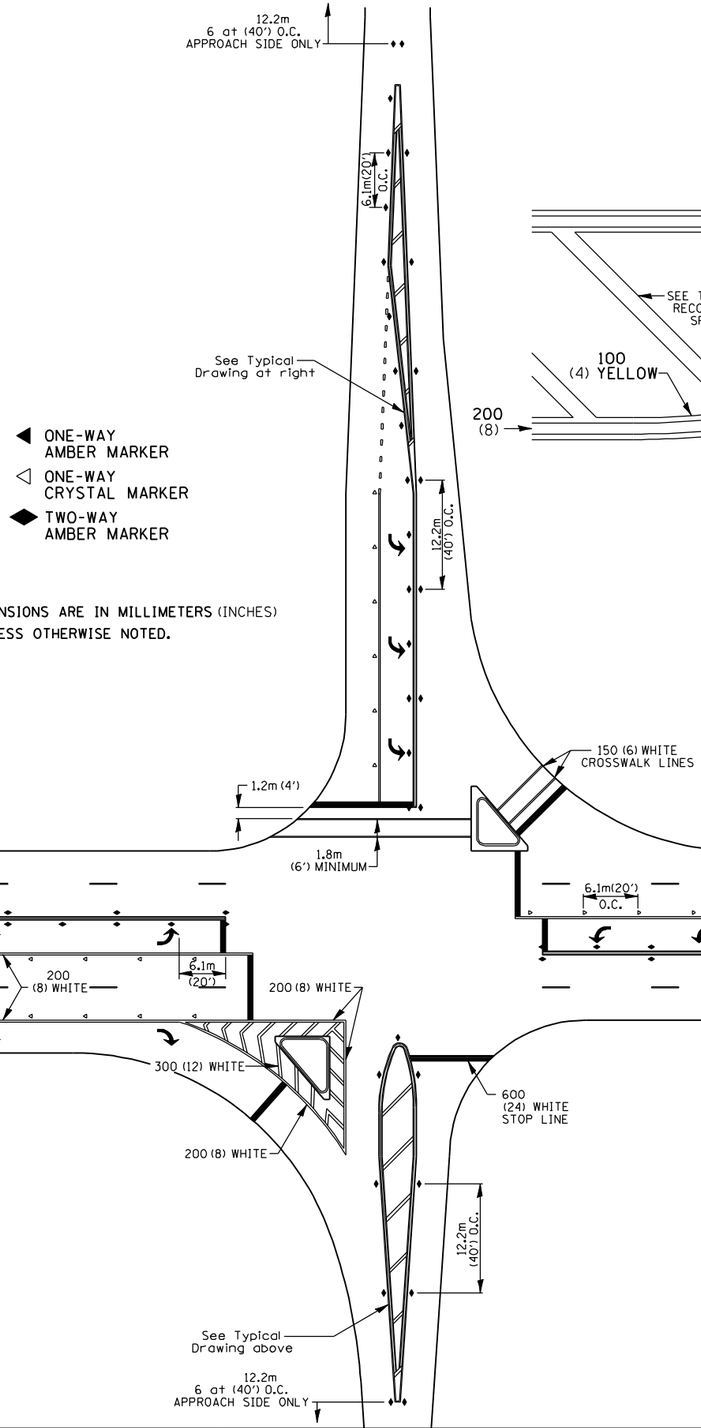
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	384
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

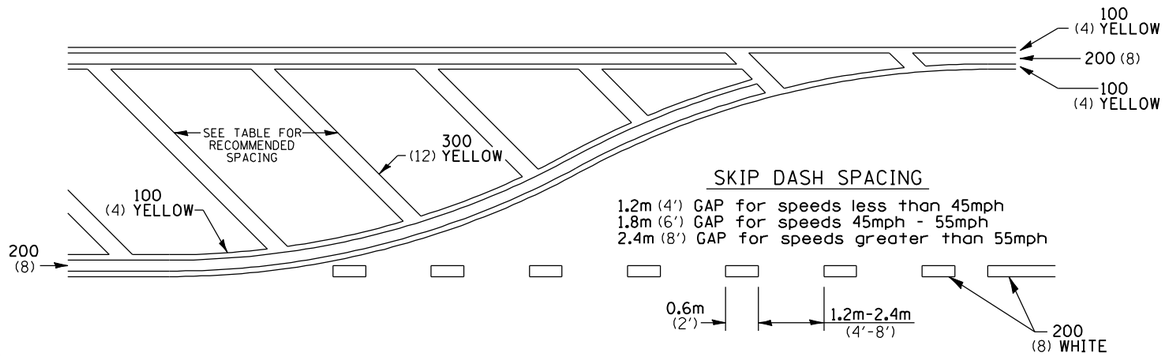
ARROW LAYOUT





ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

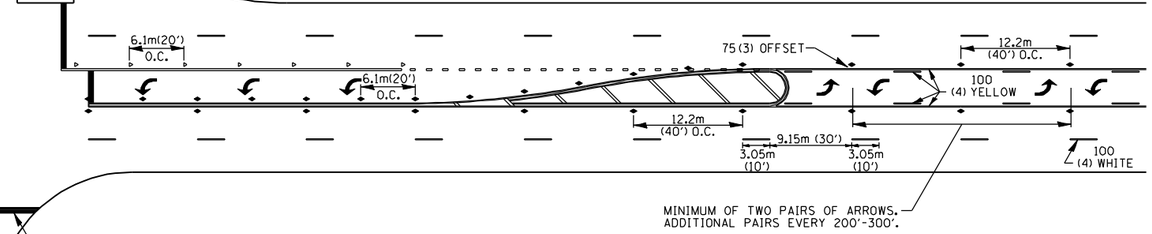
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

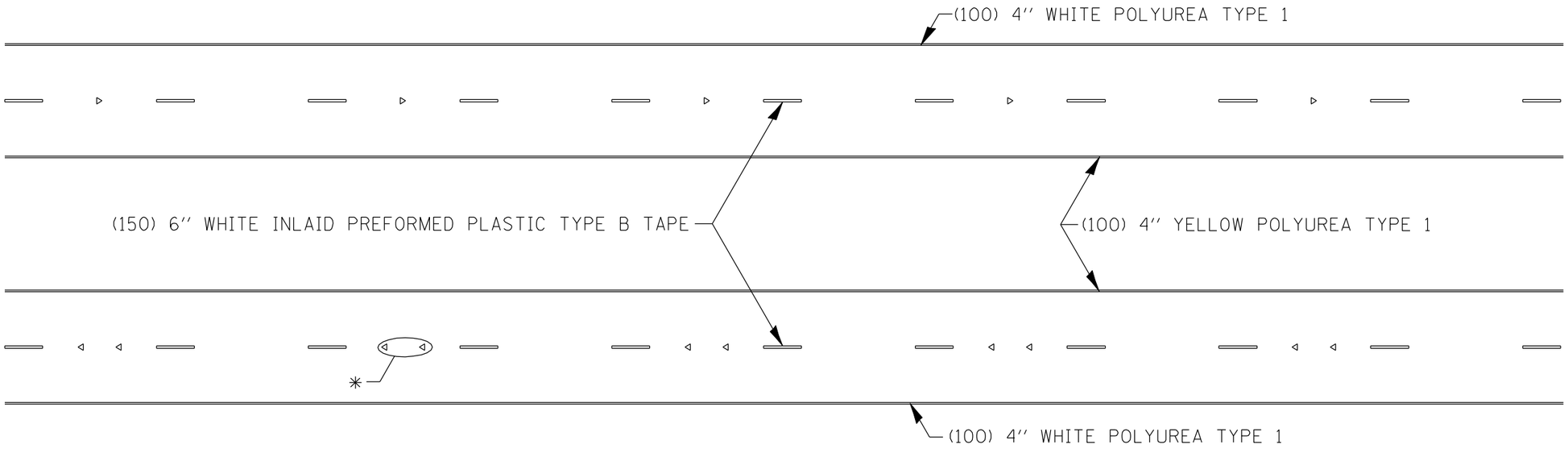
Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 50Km/H (30MPH)	15.3m (50')	4.53m (15')	3.05m (10')
50-60Km/H (30-40MPH)	22.9m (75')	6.1m (20')	4.53m (15')
70Km/H (45MPH) & over	22.9m (75')	9.05m (30')	6.1m (20')

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.



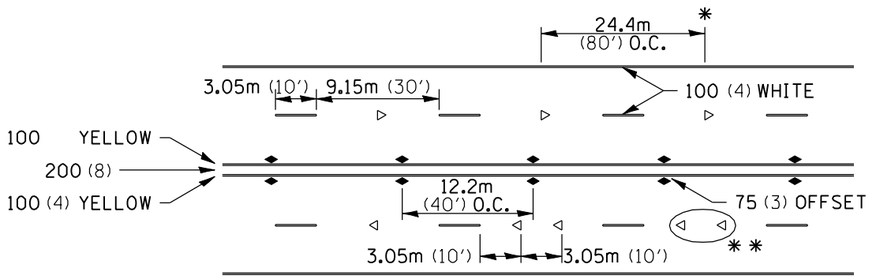
FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 4-4-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					595	(142-1)R & 142-1HB	ROCK ISLAND	507	385
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -							CONTRACT NO. 64B84		
	PLOT DATE = 3/11/2013	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
  USE DOUBLE MARKERS WHEN ADT ≥ 25,000.

MULTI–LANE / DIVIDED



SYMBOLS

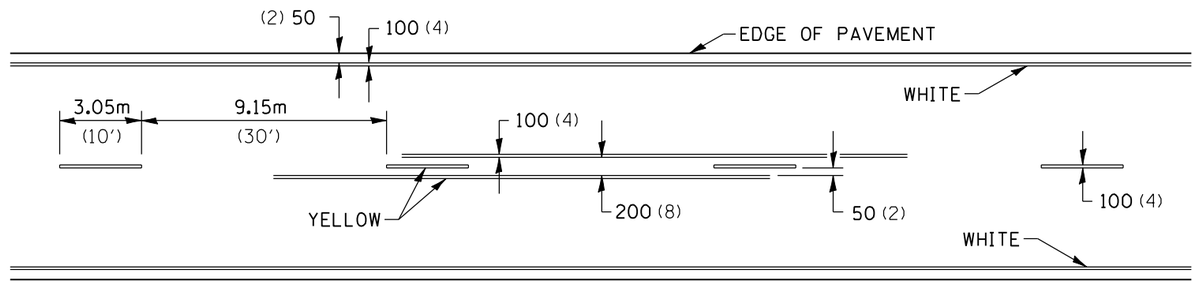
* REDUCE TO 12.2m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15Km/H (10MPH) LOWER THAN POSTED SPEEDS.

** USE DOUBLE MARKERS WHEN ADT ≥ 25,000

MULTI–LANE / UNDIVIDED

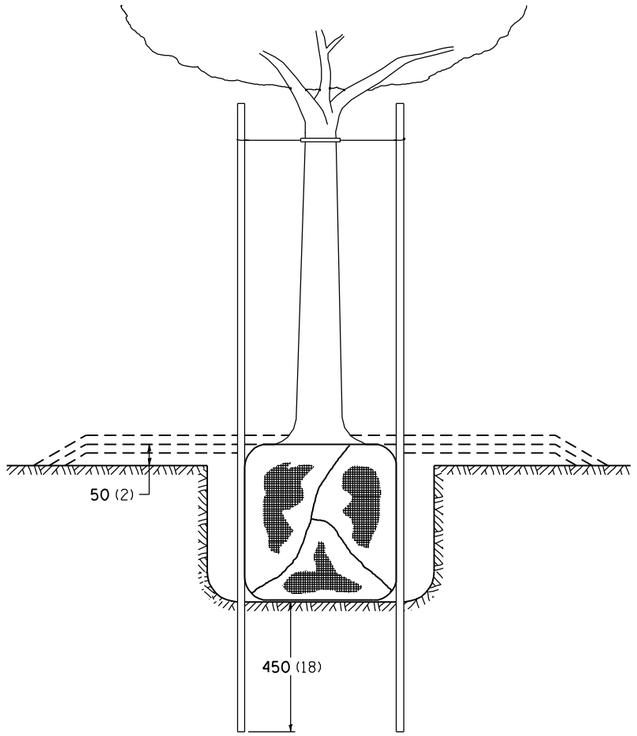
(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 4-4-11	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					595	(142-1)R & 142-1HB	ROCK ISLAND	507	386
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -							CONTRACT NO. 64B84		
	PLOT DATE = 3/11/2013	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

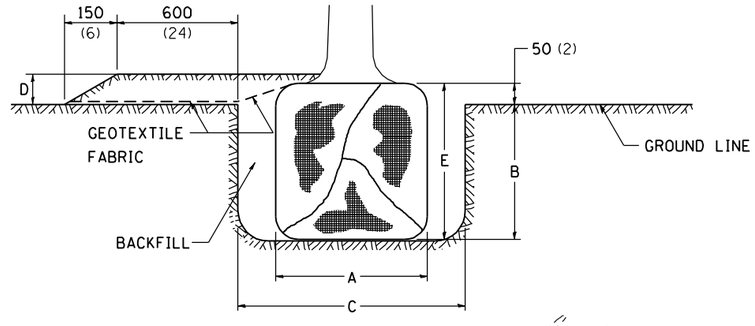
DETAILS OF PLANTING AND BRACING TREES

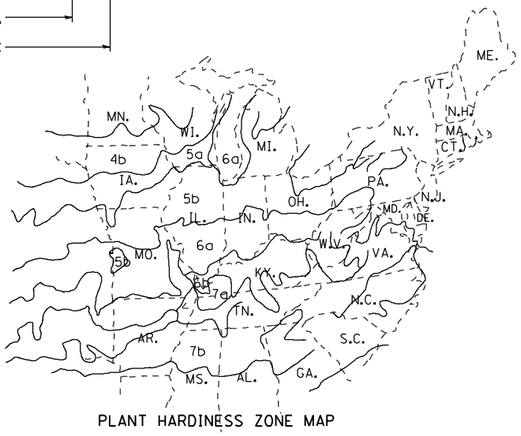


TREES SMALLER THAN 115 (4 1/2) IN DIAMETER

SMALL TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
1.5-1.8m (5'-6')	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.5-1.8m (5'-6') BB	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.8-2.0m (6'-7') BB	450 (18)	300 (12)	750 (30)	100 (4)	350 (14)	0.41 (0.54)
2.0-2.4m (7'-8') BB	500 (20)	275 (11)	750 (30)	100 (4)	325 (13)	0.41 (0.54)
2.4-3.0m (8'-10') BB	600 (24)	350 (14)	900 (36)	100 (4)	400 (16)	0.47 (0.61)
3.0-3.6m (10'-12') BB	650 (26)	375 (15)	900 (36)	100 (4)	425 (17)	0.47 (0.61)

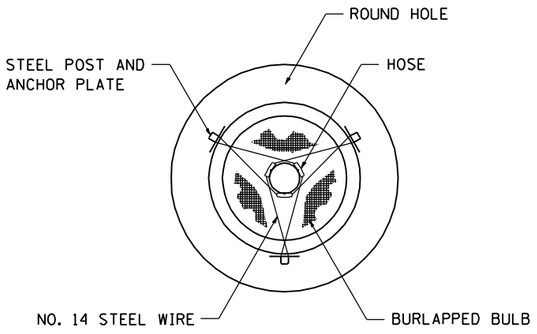
LARGE TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 (2-2 1/2)BB	600 (24)	350 (14)	1200 (48)	100 (4)	400 (16)	0.60 (0.78)
65-75 (2 1/2-3)BB	700 (28)	425 (17)	1200 (48)	100 (4)	475 (19)	0.60 (0.78)
75-90 (3-3 1/2) BB	800 (32)	425 (17)	1500 (60)	100 (4)	475 (19)	0.73 (0.96)
90-100 (3 1/2-4) BB	900 (36)	500 (20)	1500 (60)	100 (4)	550 (22)	0.73 (0.96)
100-115 (4-4 1/2) BB	1000 (40)	550 (22)	1800 (72)	100 (4)	600 (24)	0.89 (1.16)
115-125 (4 1/2-5) BB	1100 (44)	600 (24)	1800 (72)	100 (4)	650 (26)	0.89 (1.16)
125-140 (5-5 1/2) BB	1200 (48)	675 (27)	2100 (84)	100 (4)	725 (29)	1.06 (1.38)

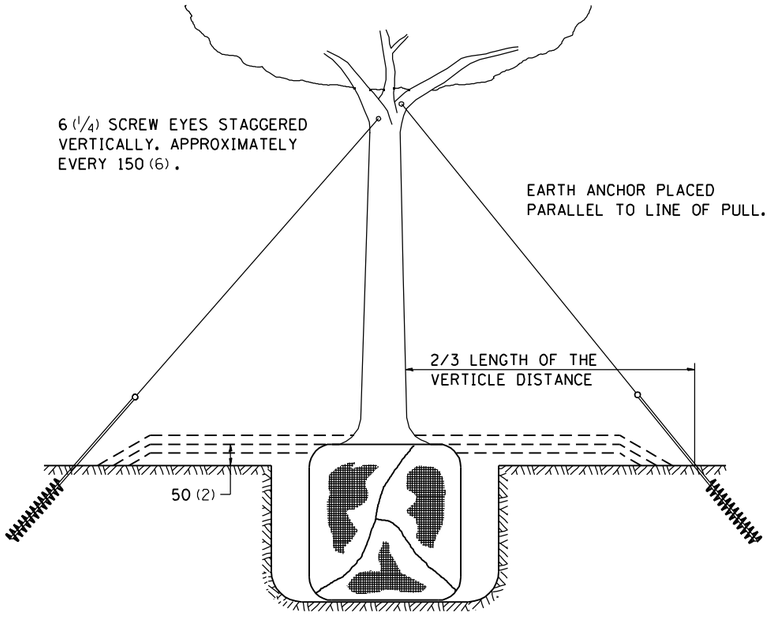




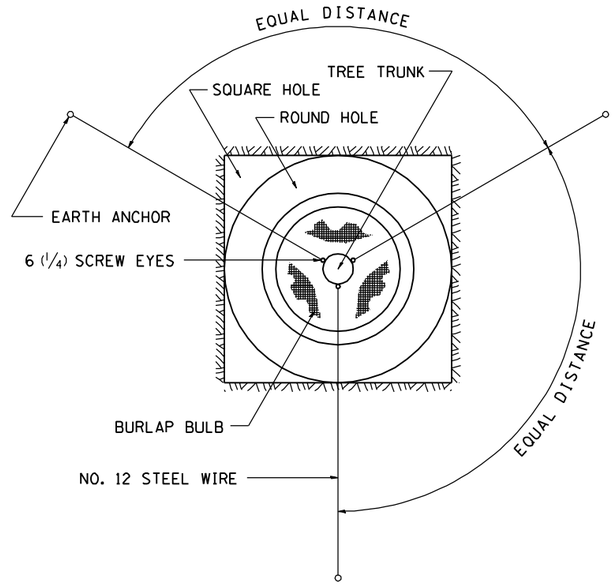
PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PUBLICATION NO. 814





TREES OVER 115 (4 1/2) IN DIAMETER



ALL DIMENSIONS ARE IN MILLIMETERS (INCHES)
UNLESS OTHERWISE NOTED.

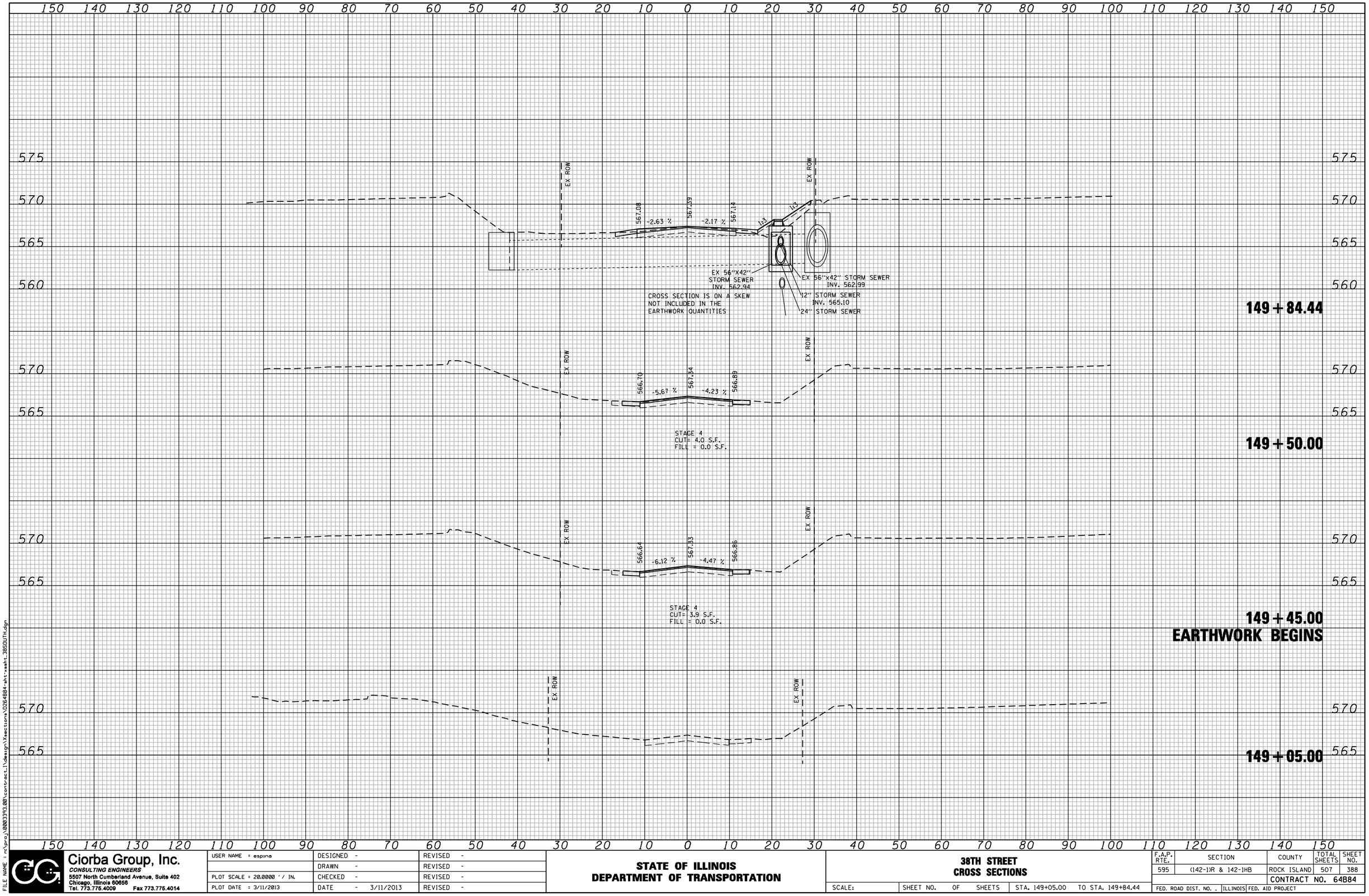
FILE NAME = n:\proj\0003393.00\contract.1\design\misc_sheets\D264B84-sht-District2Standards.dgn	USER NAME = espina	DESIGNED -	REVISED - 10-15-04
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 3/11/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	387
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espino	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

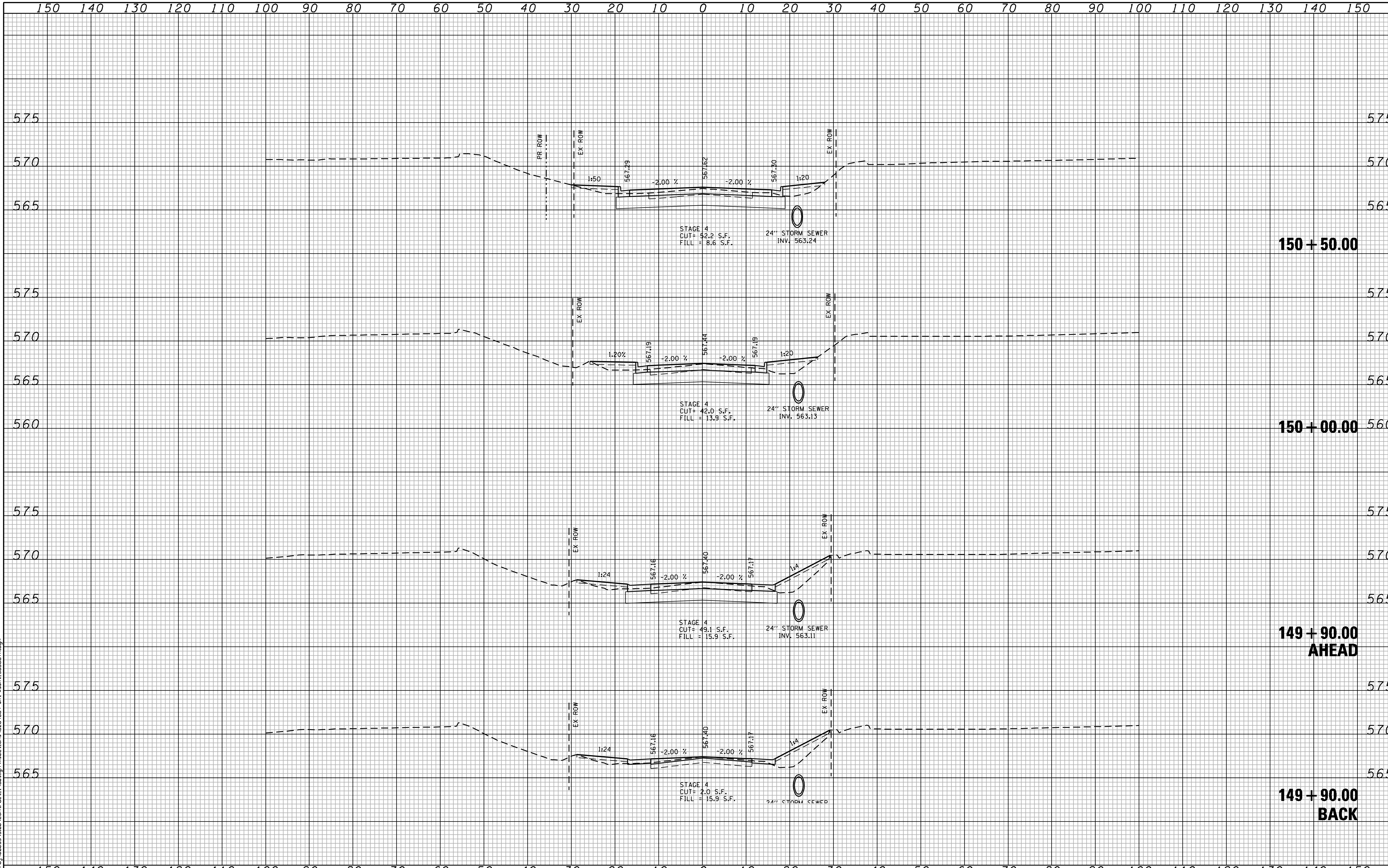
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 149+05.00 TO STA. 149+84.44

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	388
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

FILE NAME : n:\proj\0003393.00\contract_1\design\Xsections\D264B84-sht-xsht-38SOUTH.dgn



Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espina	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

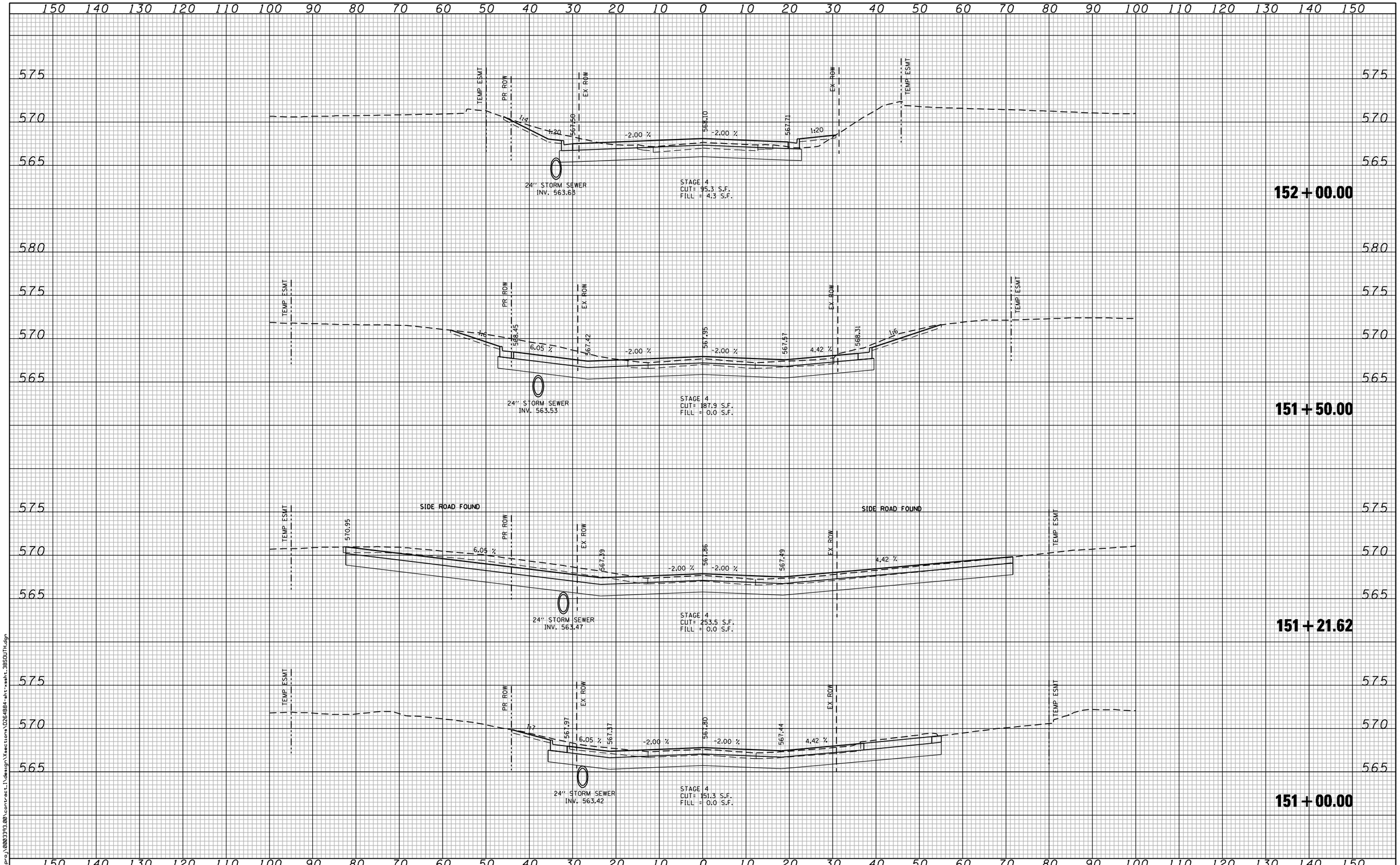
SCALE: | SHEET NO. OF SHEETS | STA. 149+89.98 TO STA. 150+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	389

CONTRACT NO. 64B84

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

FILE NAME : n:\proj\0003393.00\contract.1\design\Xsections\0264884-sht-xssht-38SOUTH.dgn



FILE NAME = n:\proj\0003393.00\contract.1\design\Xsections\0264884-sht-xsht-38SOUTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

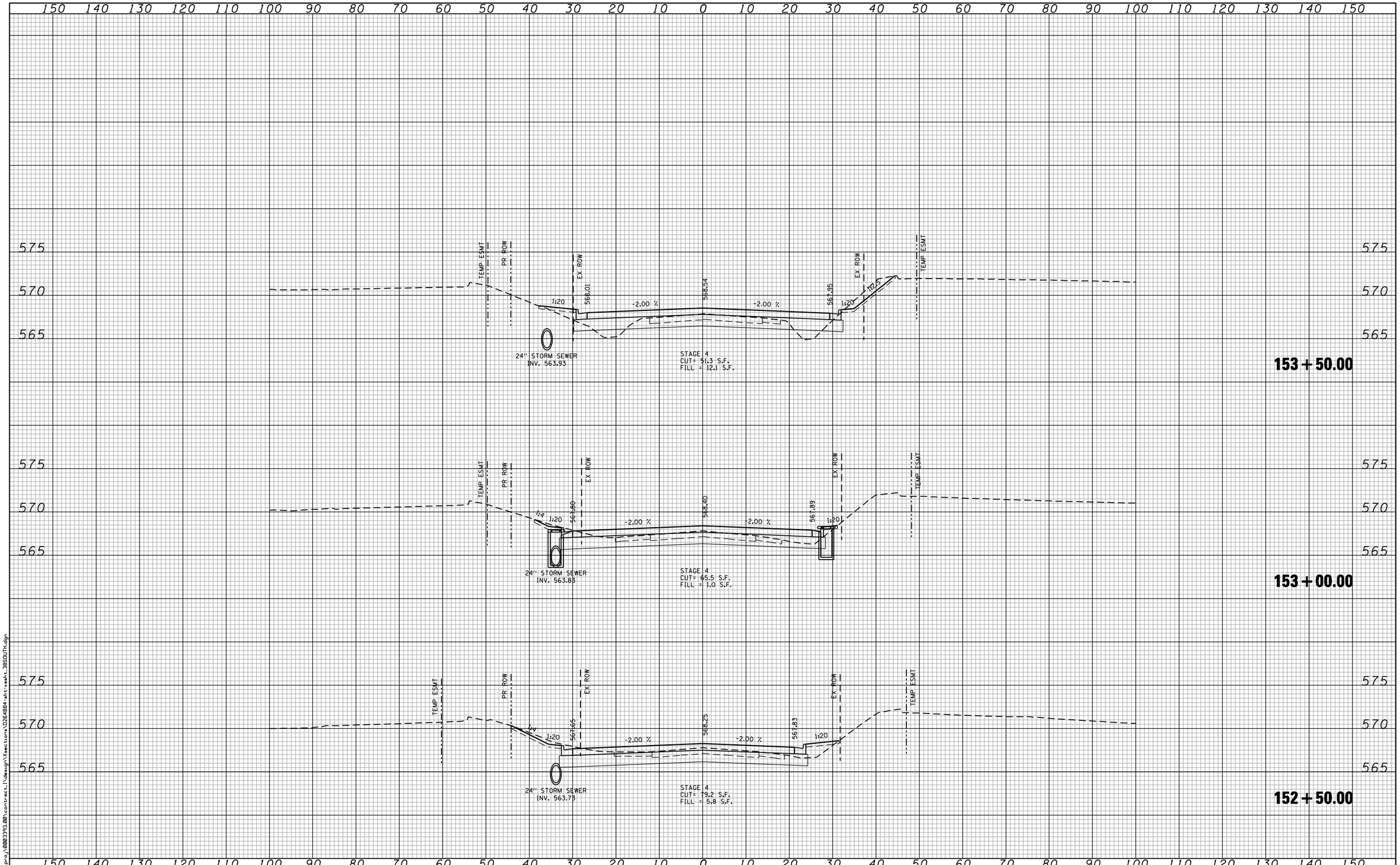
USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 151+00.00 TO STA. 152+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	390
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



FILE NAME = n:\proj\0003393.00\contract_1\design\Xsections\0264884-sht-xsht-38SOUTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

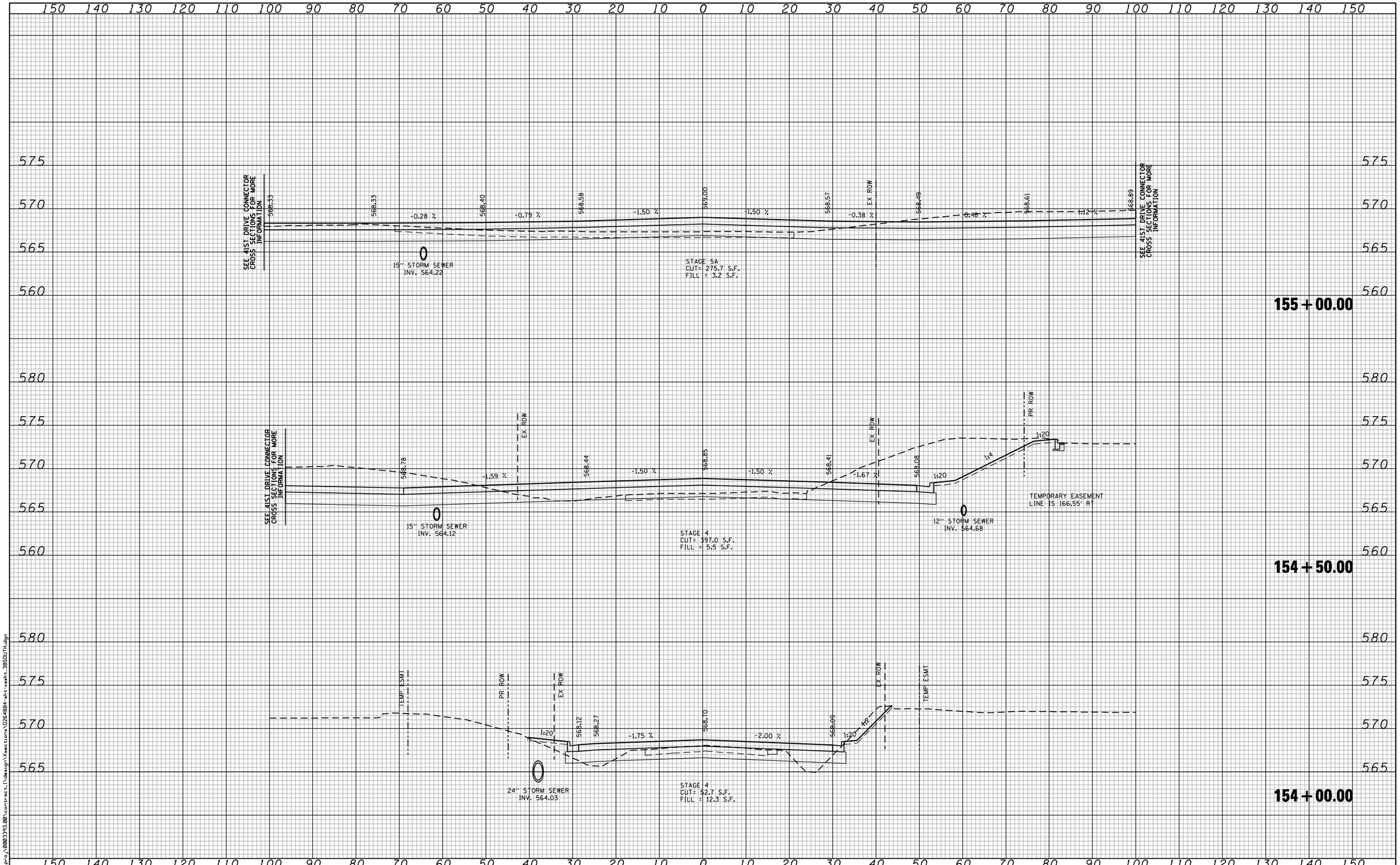
USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 152+50.00 TO STA. 153+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	391
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



FILE NAME = n:\proj\0003393.00\contract.1\design\Xsections\0264884-sht-xsht-38SOUTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

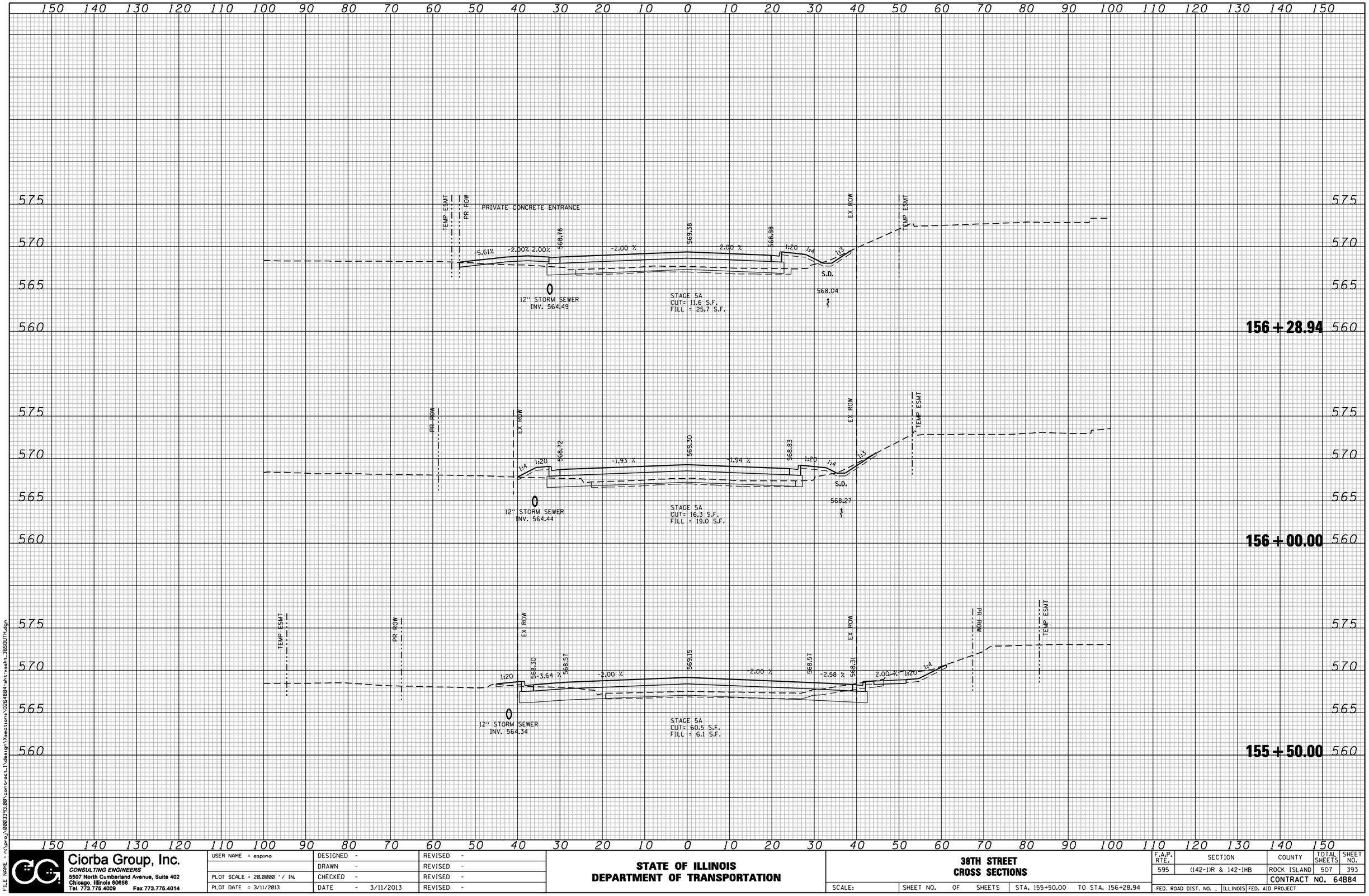
USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 154+00.00 TO STA. 155+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	392
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



FILE NAME = n:\proj\0002393.00\contract_1\design\Xsections\0264884-sht-xsht-38SOUTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

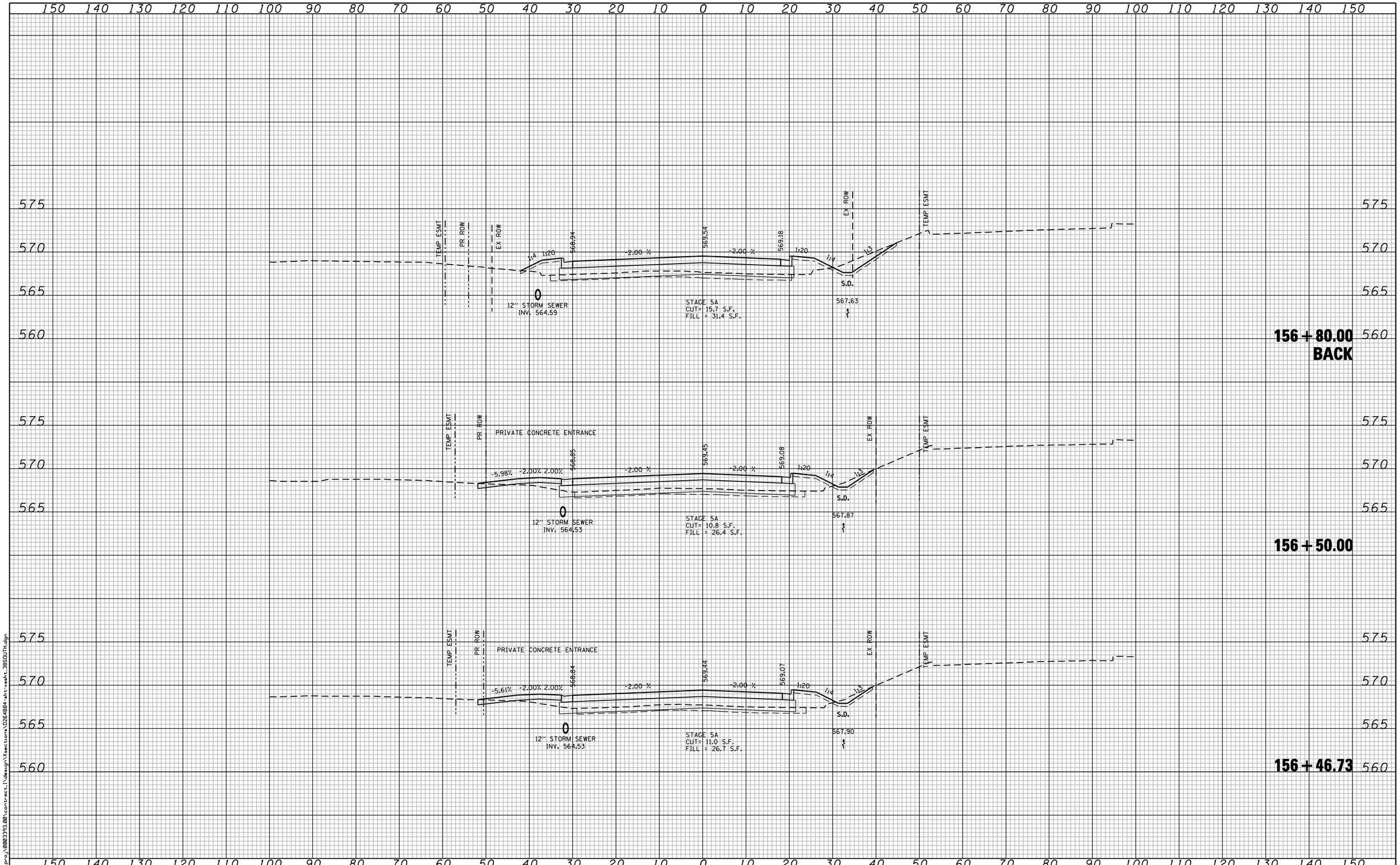
USER NAME = espino	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 155+50.00 TO STA. 156+28.94

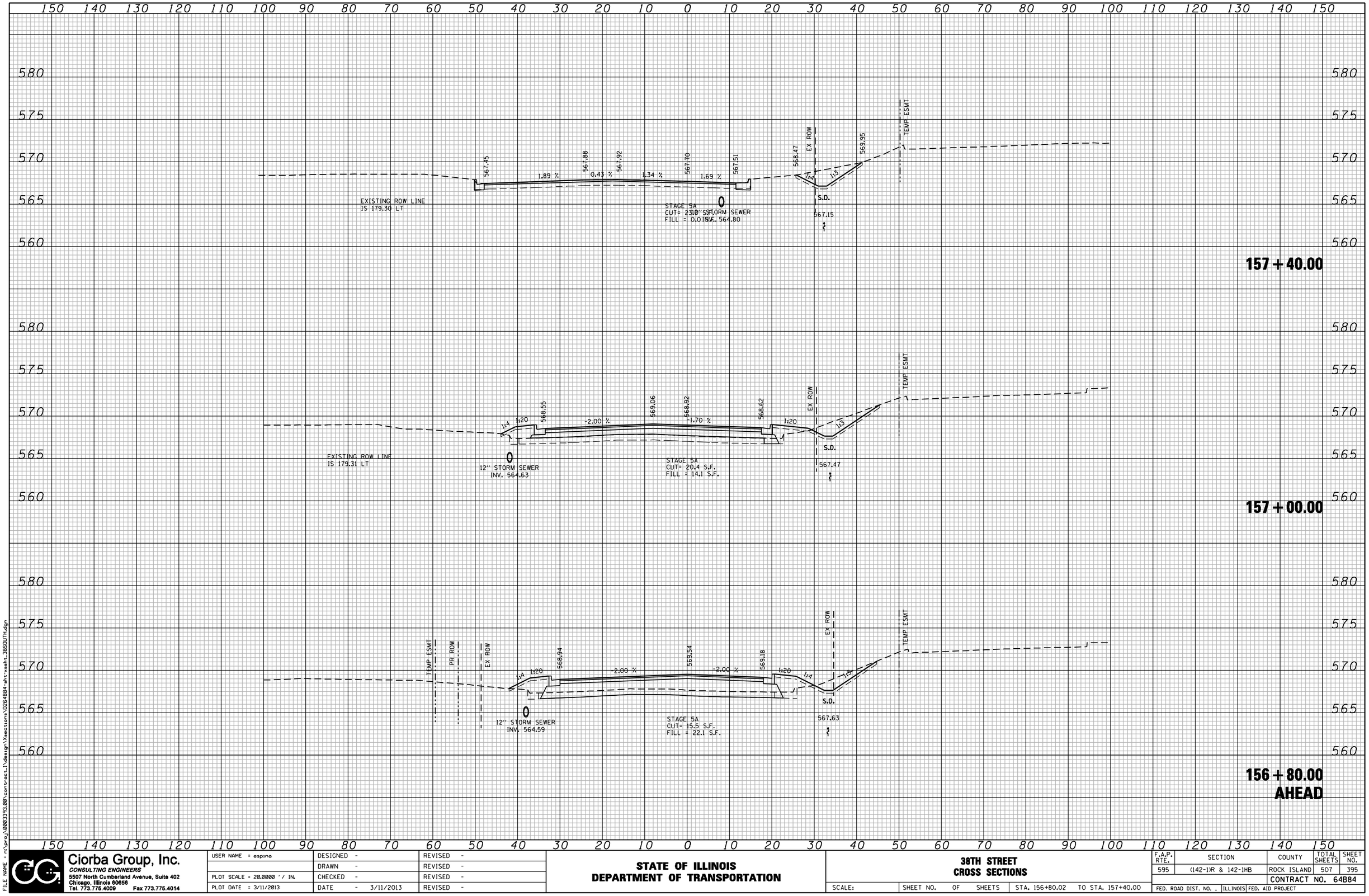
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	393
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



Ciorba Group, Inc. CONSULTING ENGINEERS 5507 North Cumberland Avenue, Suite 402 Chicago, Illinois 60656 Tel. 773.775.4009 Fax 773.775.4014	USER NAME = espina	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	38TH STREET CROSS SECTIONS
		DRAWN -	REVISED -		
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -		
	PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 156+46.73 TO STA. 156+80.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	394
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

FILE NAME = n:\proj\0003393.00\contract_1\design\Xsections\0264884-sht-xsht-38SOUTH.dgn



FILE NAME = n:\proj\00023993.00\contract\design\Sections\0264B84-sht-xsht-38SOUTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espino	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 156+80.02 TO STA. 157+40.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	395
		CONTRACT NO. 64B84		

FED. ROAD DIST. NO. - | ILLINOIS | FED. AID PROJECT

STA 158+50.00 TO STA 161+00.00
EARTHWORK OMISSION

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

570
565
575
570
565
560
580
575
570
565
560

EX A.C.

STAGE 5A
CUT= 0.0 S.F.
FILL = 0.0 S.F.

S.D.
565.99

CROSS SECTION IS IN IL 5 ROW

158+50.00
BACK

EXISTING ROW LINE
IS 199.94 LT

STAGE 5A
CUT= 22.3 S.F.
FILL = 0.0 S.F.

568.48
EX ROW

1:3
1:3
1:3

568.73
TEMP ESMT

S.D.
566.67

158+00.00

EXISTING ROW LINE
IS 179.29 LT

STAGE 5A
CUT= 25.2 S.F.
FILL = 0.0 S.F.

568.50
EX ROW

1:3
1:3
1:3

569.98
TEMP ESMT

S.D.
567.07

157+50.00

FILE NAME = n:\proj\0003393.00\contract_1\design\Xsections\0264884-sht-xsht_38SOUTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

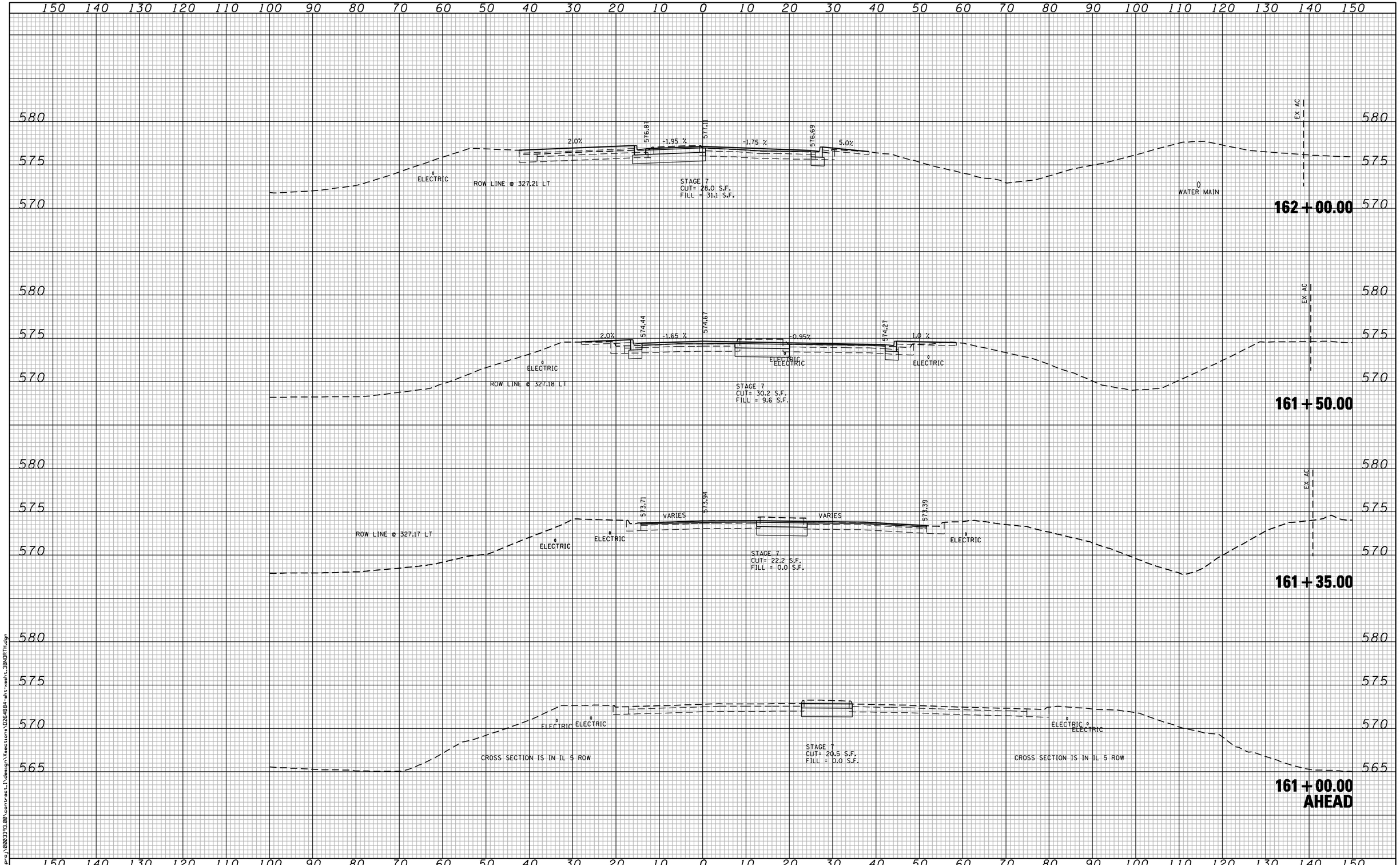
USER NAME = espino	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 157+50.00 TO STA. 158+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	396
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



FILE NAME = n:\proj\0003393.00\contract.1\design\Xsections\0264884-sht-xsht-38NORTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 161+00.00 TO STA. 162+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	397
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

585
580
575

ROW LINE @ 327.24 LT

TELEPHONE

577.71

1:50

579.99

-2.00 %

580.25

-2.00 %

579.77

1:50

STAGE 7
CUT= 137.9 S.F.
FILL = 31.6 S.F.

12" STORM SEWER
INV. 575.96

577.65

1:4

1:3

585
580
575

162 + 50.00

580
575
570

ROW LINE @ 327.21 LT

1:50

577.90

1:50

577.24

-2.00 %

577.50

-2.00 %

577.02

1:20

STAGE 7
CUT= 65.1 S.F.
FILL = 43.9 S.F.

12" STORM SEWER
INV. 573.28

EX AC

WATER MAIN

580
575
570

162 + 08.00
AHEAD

580
575
570

ROW LINE @ 327.21 LT

1:50

577.90

1:50

577.24

-2.00 %

577.50

-2.00 %

577.02

1:20

STAGE 7
CUT= 29.3 S.F.
FILL = 43.1 S.F.

12" STORM SEWER
INV. 573.28

EX AC

WATER MAIN

580
575
570

162 + 08.00
BACK

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

FILE NAME = m:\proj\0003393.00\contract.1\design\Xsections\0264884-ant-xsht.38NORTH.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

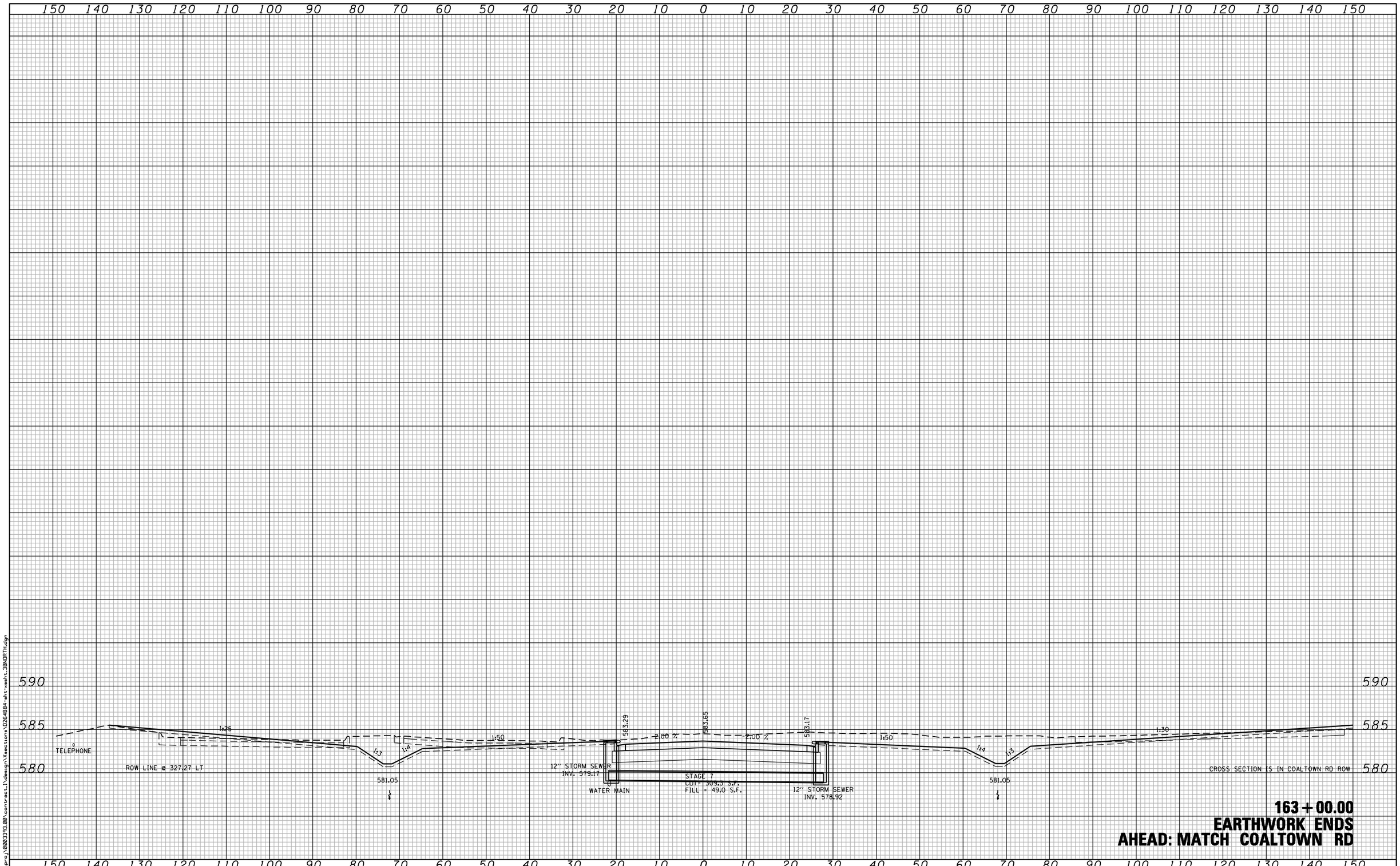
USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 162+07.98 TO STA. 162+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	398
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		



163 + 00.00
EARTHWORK ENDS
AHEAD: MATCH COALTOWN RD

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

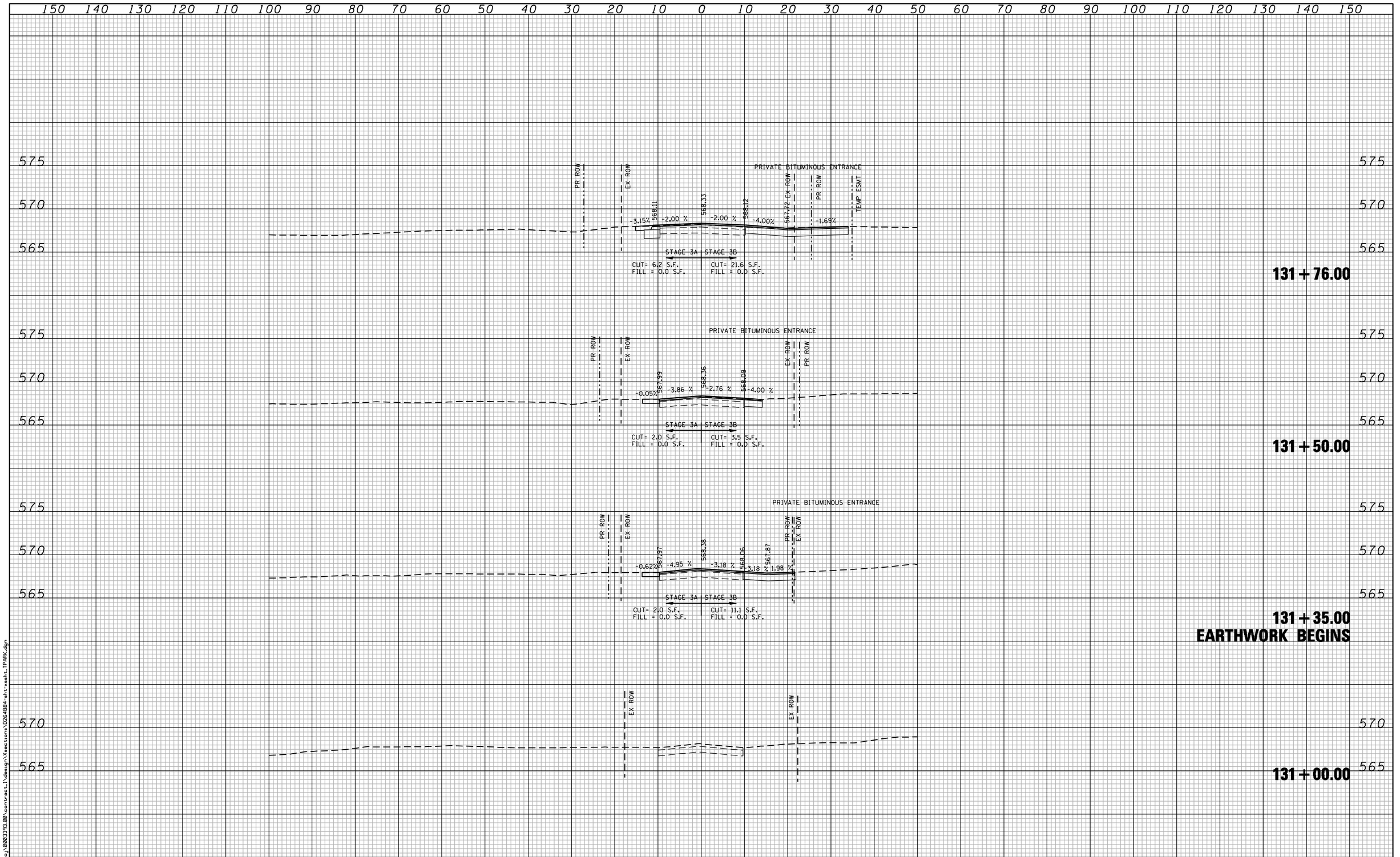
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

38TH STREET
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 163+00.00 TO STA. 163+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	399
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

FILE NAME = m:\proj\0003393.00\contract.1\design\Xsections\0264884-sht-xsht-38NORTH.dgn



FILE NAME = n:\proj\60023993.00\contract_1\design\Xsections\02B4B84-sht-xsht_TPARK.dgn

Ciorba Group, Inc.
CONSULTING ENGINEERS
5507 North Cumberland Avenue, Suite 402
Chicago, Illinois 60656
Tel. 773.775.4009 Fax 773.775.4014

USER NAME = espina	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 3/11/2013	DATE - 3/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED 40TH AVENUE
CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 131+00.00 TO STA. 131+76.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	(142-1)R & 142-1HB	ROCK ISLAND	507	400
		CONTRACT NO. 64B84		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		