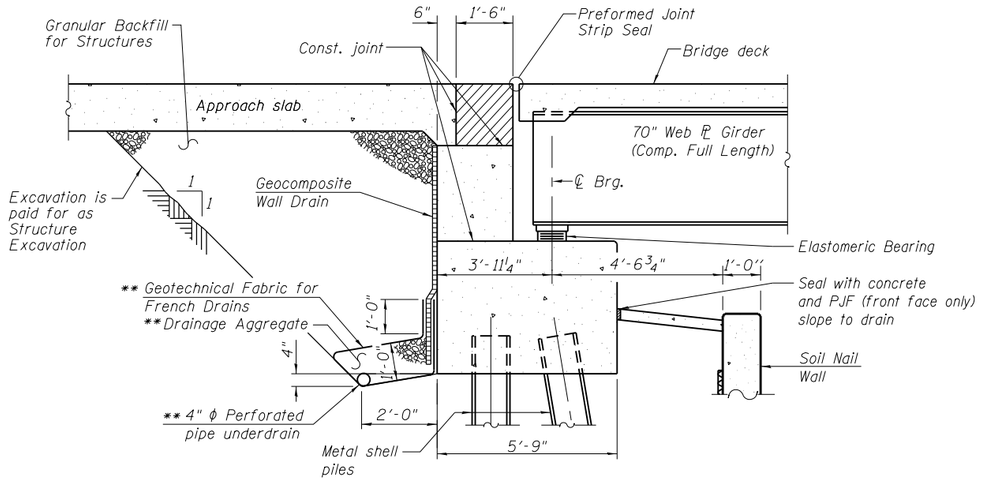
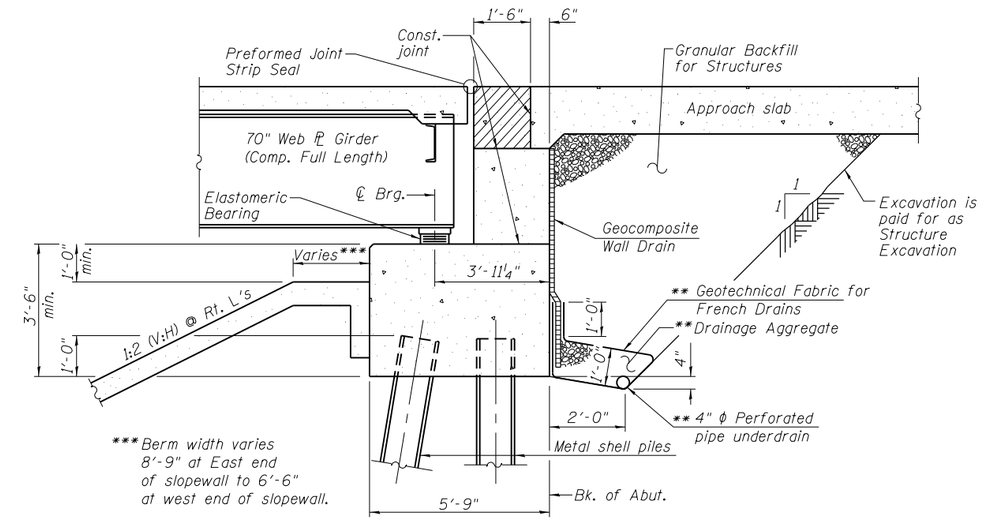


SECTION THRU NORTH ABUTMENT

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



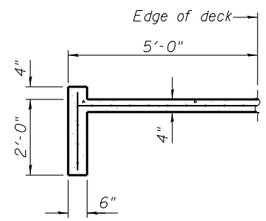
SECTION THRU SOUTH ABUTMENT

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

***Berm width varies 8'-9" at East end of slopewall to 6'-6" at west end of slopewall.

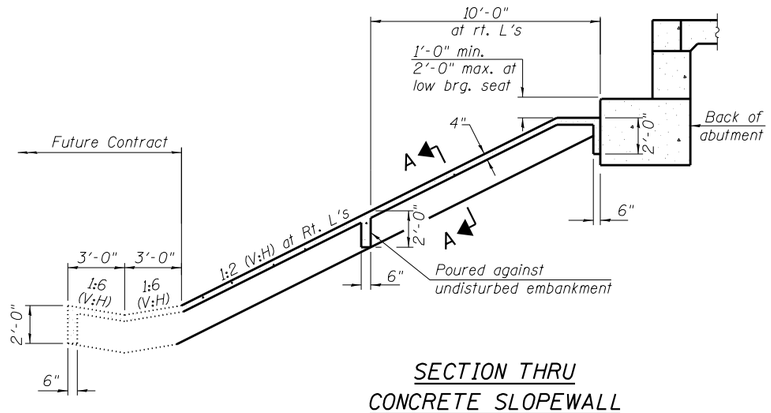
**Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A

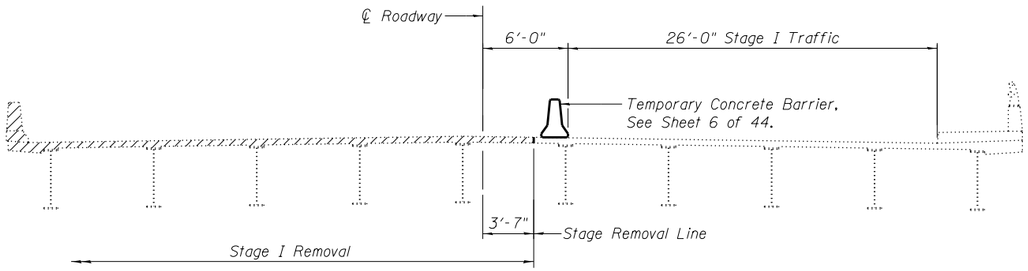
Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weiging 58 lbs. per 100 sq. ft.



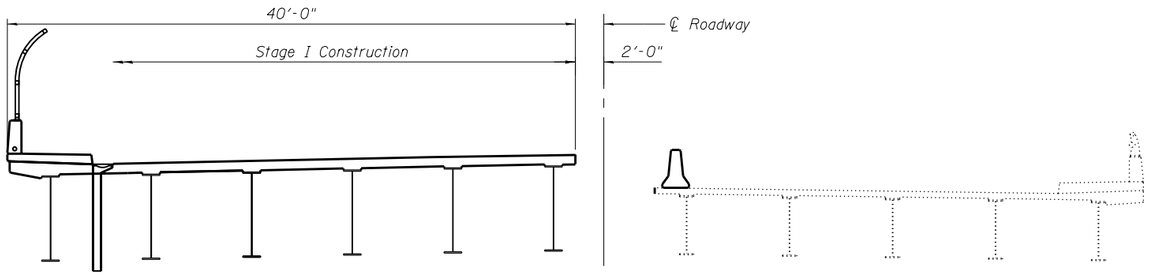
SECTION THRU CONCRETE SLOPEWALL

* (10-34HB-3)BR&(10-5-1HB)BR-1

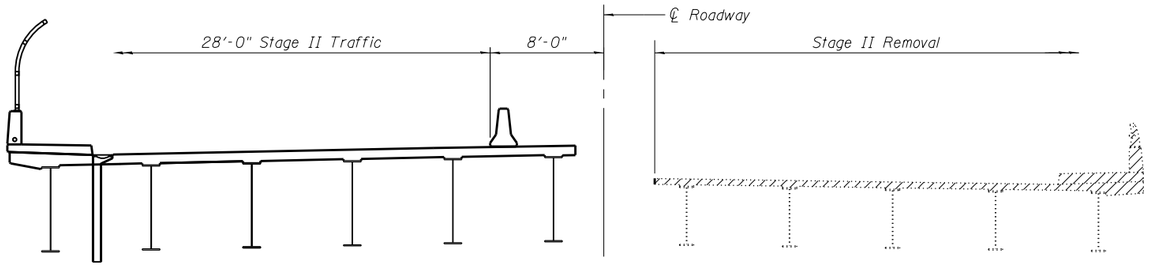
FILE NAME = 0101270-70B38-003-General Data.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 010-1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.3190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	101
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		SHEET NO. 3 OF 44 SHEETS			ILLINOIS FED. AID PROJECT		



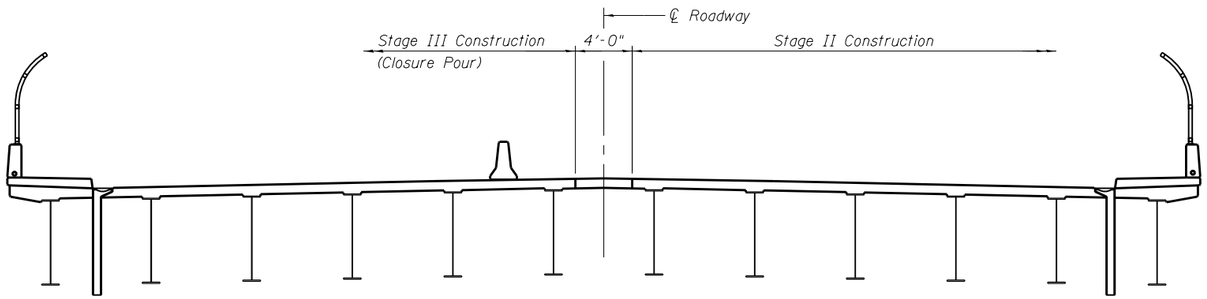
STAGE I REMOVAL



STAGE I CONSTRUCTION



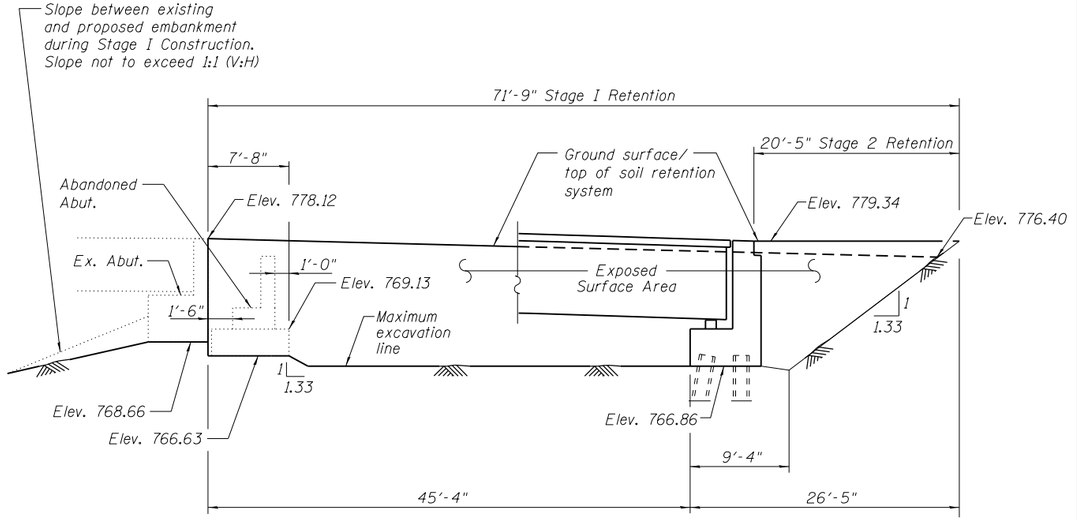
STAGE II REMOVAL



STAGE II & III CONSTRUCTION

Notes:
All staging cross sections are looking North.
For quantity of Temporary Concrete Barrier, see roadway plans.
Hatched area indicates Removal of Existing Structures.
The Stage Construction Joint for the Substructure is different than for the Superstructure.

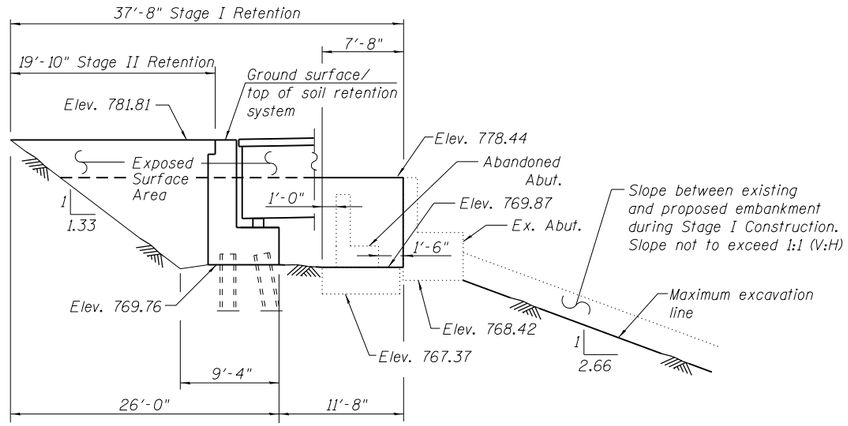
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



TEMPORARY SOIL RETENTION AT NORTH ABUTMENT

BILL OF MATERIAL

Item	Unit	Total
Temp. Soil Retention System	Sq. Ft.	1,028



TEMPORARY SOIL RETENTION AT SOUTH ABUTMENT

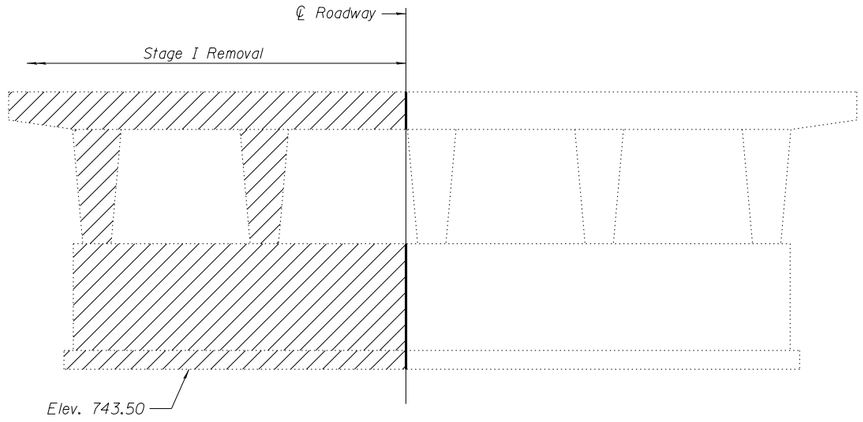
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-004-Stg Const Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

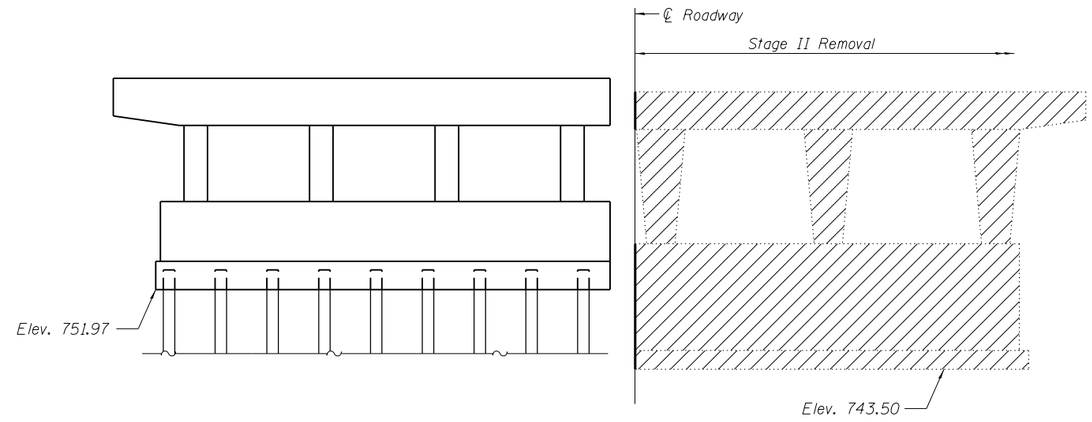
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 010-1270
SHEET NO. 4 OF 44 SHEETS

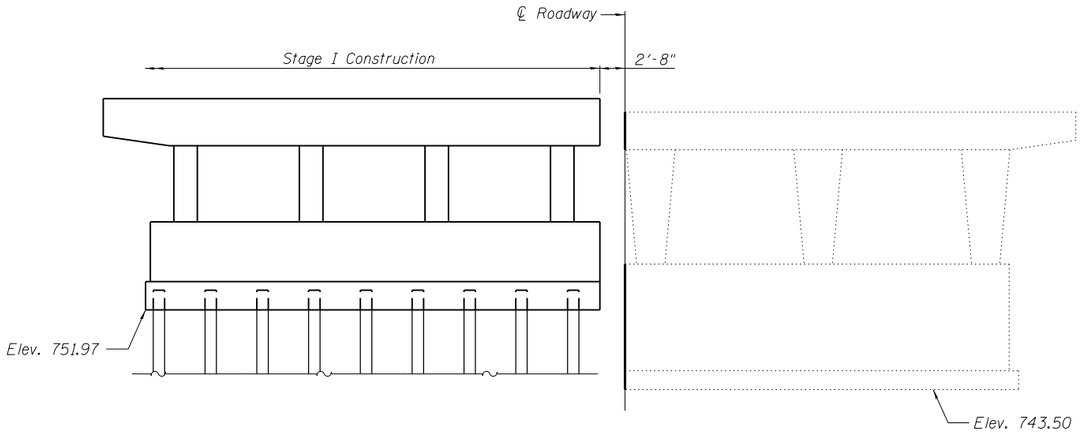
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	102
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



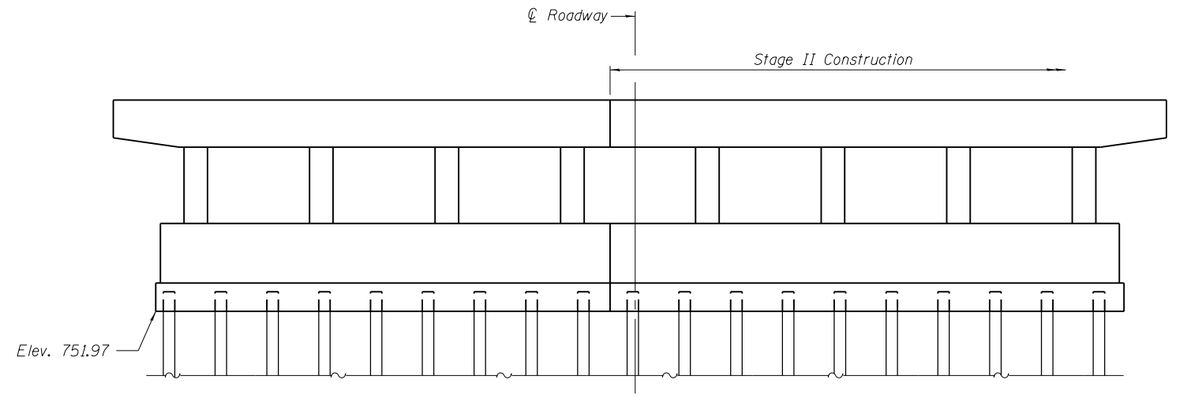
STAGE I REMOVAL
(Looking North)
(Horizontal Dimensions shown aloing ℄ of Pier)



STAGE II REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)
(Horizontal Dimensions shown aloing ℄ of Pier)



STAGE II CONSTRUCTION
(Looking North)

STAGE CONSTRUCTION SEQUENCE FOR PIER

1. Install Temporary Soil Retention System at existing pier.
2. Complete Stage I Removal.
3. Drive piles beginning at Elevation 743.50.
4. Backfill to Elevation 751.97 and complete Stage I Pier Construction.
5. Repeat 2 thru 4 for Stage II

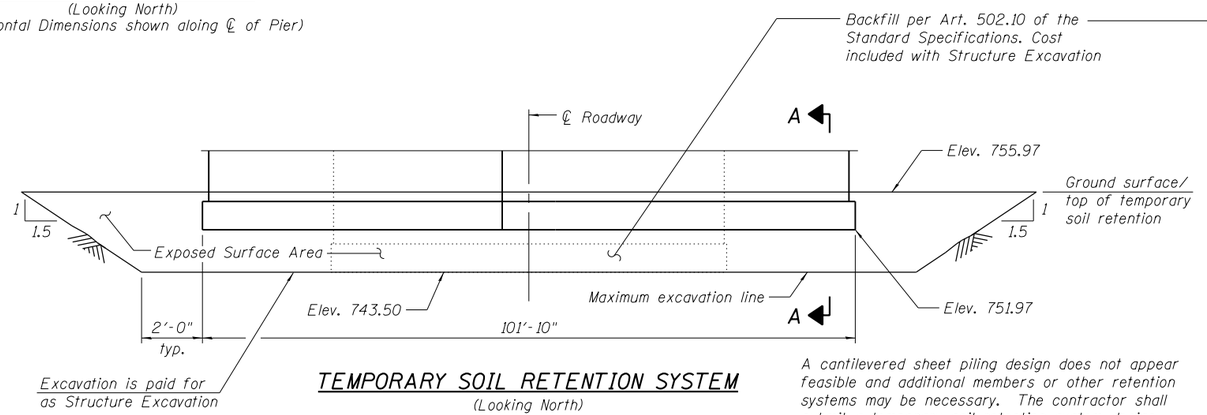
Notes:

Partial removal of existing Pier shown in all sections. Prior to Stage I removal, pier and abutments shall be saw cut full depth at substructure stage removal line.

The Stage Construction Joint for the Substructure is different than for the Superstructure.

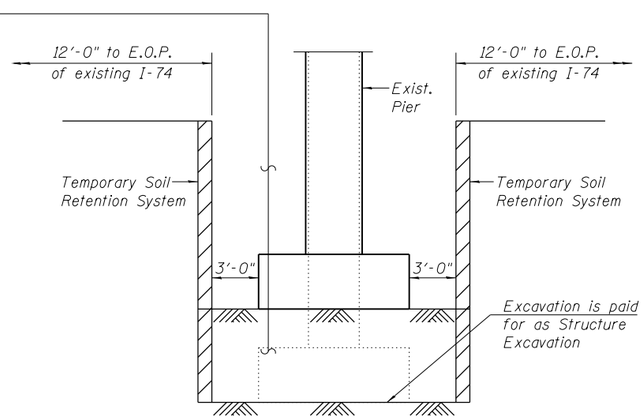
BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	3,106



TEMPORARY SOIL RETENTION SYSTEM
(Looking North)
(Horizontal Dimensions shown along ℄ of Pier)

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.

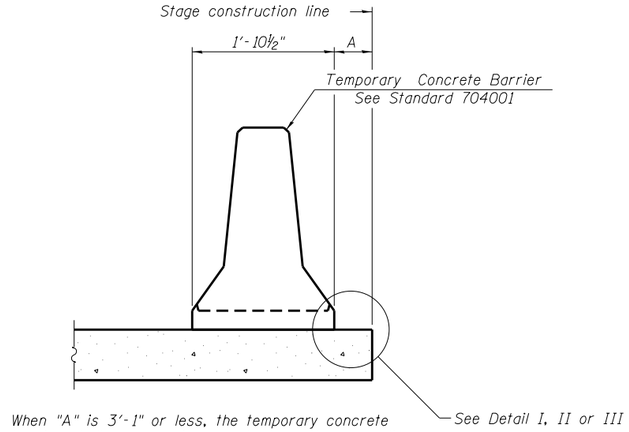


SECTION A-A

* (10-34HB-3)BR&(10-5-1HB)BR-1

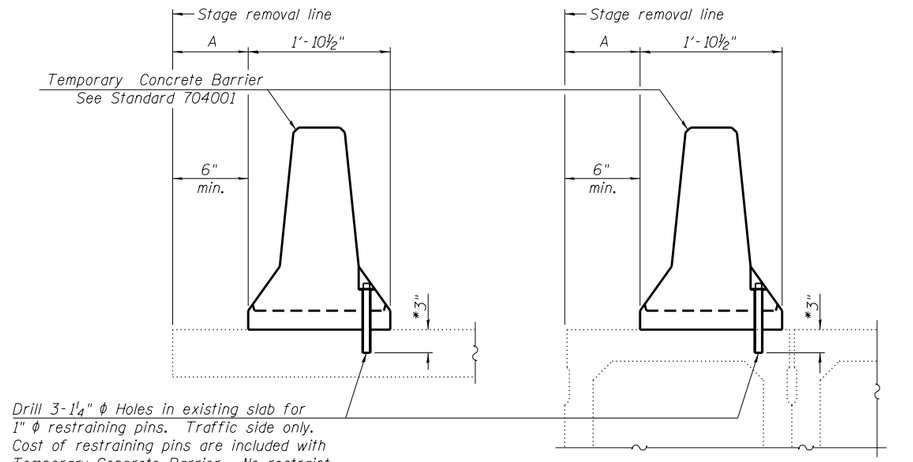
FILE NAME = 0101270-70B38-005-Stg Const Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION DETAILS STRUCTURE NO. 010-1270
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE • 618.997.9190		CHECKED - BWP	REVISED -		SHEET NO. 5 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 2/10/2020	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	103
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

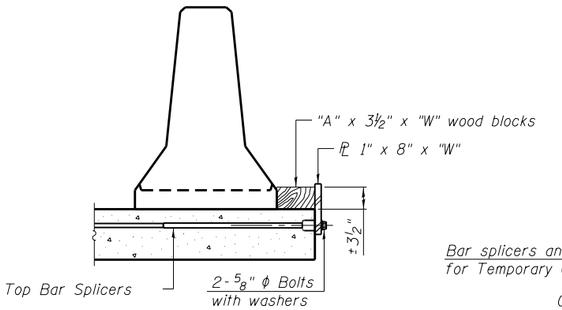


EXISTING SLAB

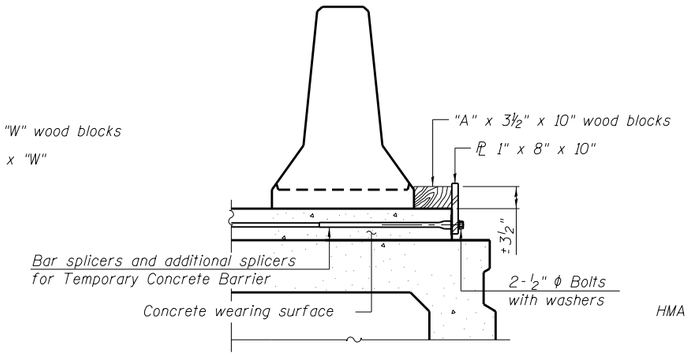
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

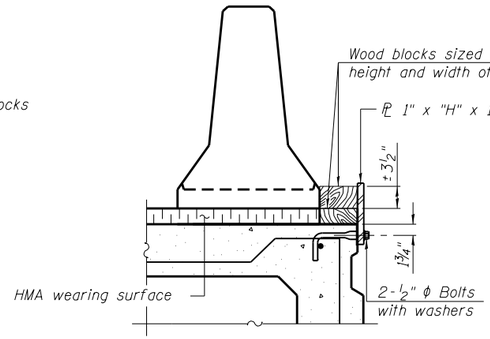
SECTIONS THRU SLAB OR DECK BEAM



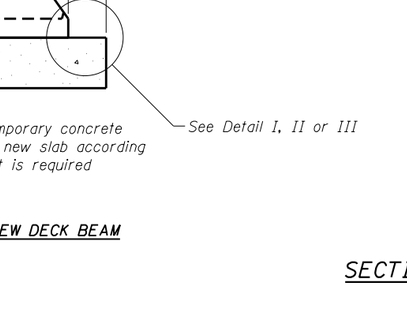
DETAIL I



DETAIL II

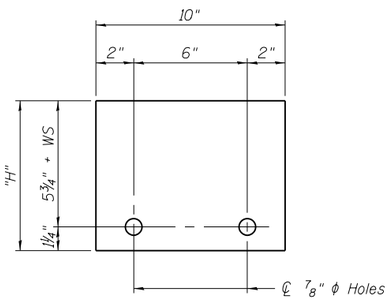


DETAIL III



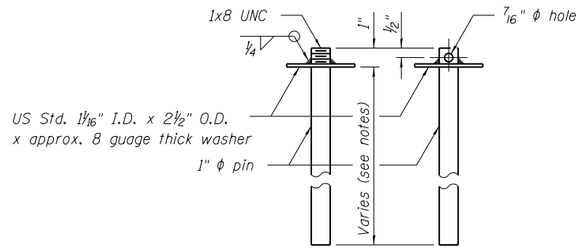
STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)

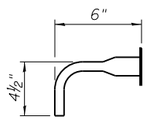


STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

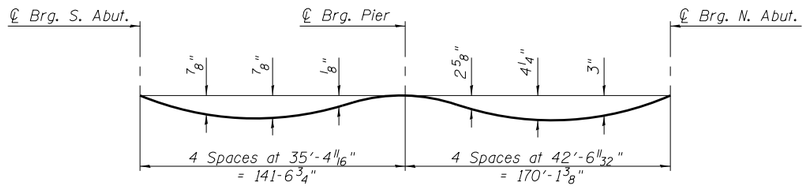
** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-026-Temporary Concrete Barrier	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 010-1270
SHEET NO. 6 OF 44 SHEETS

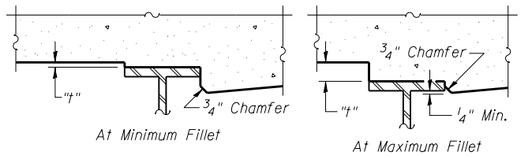
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	104
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only).

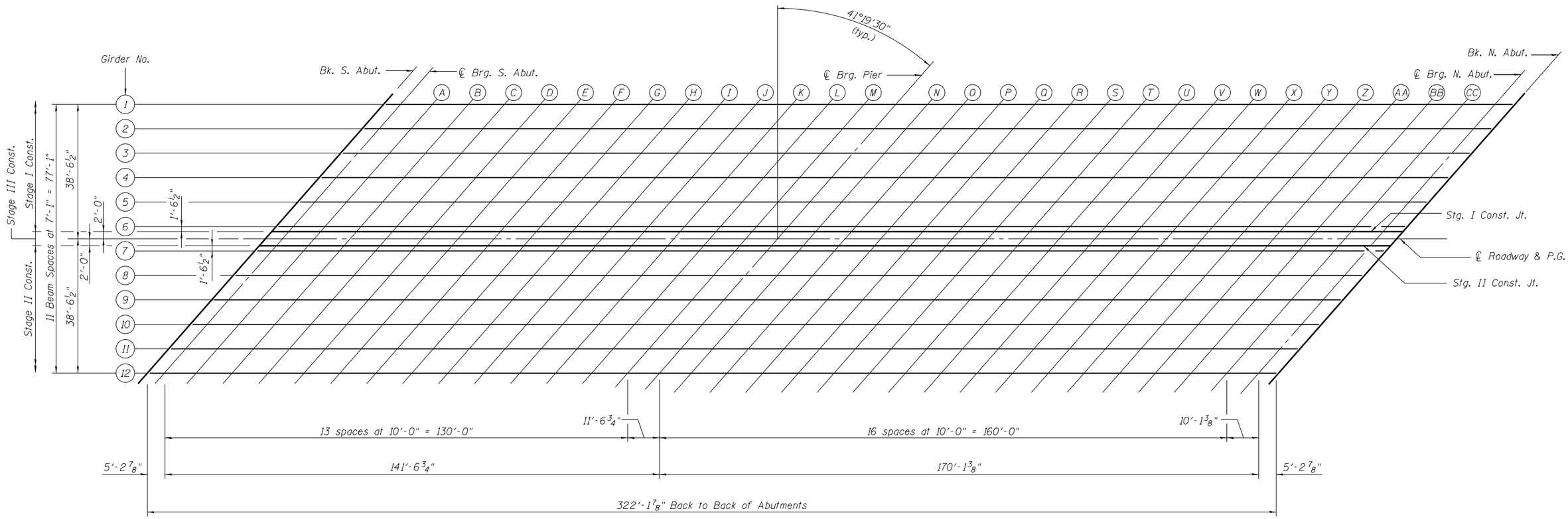
Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on Sheets 8 thru 12.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on Sheets 8, 9, 10, 11, and 12 of 44, minus slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on Sheets 8, 9, 10, 11, and 12 of 44. For grinding the deck, see Special Provisions.

FILLET HEIGHTS



PLAN

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-007-TOS Elevations.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 7 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	105
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+91.38	-38.96	781.69	781.71
℄ S. Abut	17+96.62	-38.96	781.76	781.78
A	18+06.62	-38.96	781.87	781.92
B	18+16.62	-38.96	781.96	782.04
C	18+26.62	-38.96	782.04	782.14
D	18+36.62	-38.96	782.11	782.21
E	18+46.62	-38.96	782.16	782.26
F	18+56.62	-38.96	782.19	782.29
G	18+66.62	-38.96	782.20	782.30
H	18+76.62	-38.96	782.20	782.28
I	18+86.62	-38.96	782.18	782.24
J	18+96.62	-38.96	782.15	782.19
K	19+06.62	-38.96	782.10	782.12
L	19+16.62	-38.96	782.04	782.05
M	19+26.62	-38.96	781.95	781.96
℄ Brg. Pier	19+38.18	-38.96	781.84	781.86
N	19+48.18	-38.96	781.72	781.77
O	19+58.18	-38.96	781.59	781.67
P	19+68.18	-38.96	781.44	781.57
Q	19+78.18	-38.96	781.27	781.45
R	19+88.18	-38.96	781.09	781.32
S	19+98.18	-38.96	780.89	781.17
T	20+08.18	-38.96	780.68	781.00
U	20+18.18	-38.96	780.45	780.80
V	20+28.18	-38.96	780.20	780.57
W	20+38.18	-38.96	779.94	780.31
X	20+48.18	-38.96	779.66	780.02
Y	20+58.18	-38.96	779.37	779.70
Z	20+68.18	-38.96	779.05	779.35
AA	20+78.18	-38.96	778.73	778.97
BB	20+88.18	-38.96	778.38	778.56
CC	20+98.18	-38.96	778.02	778.12
℄ N. Abut.	21+08.29	-38.96	777.66	777.68
Bk. N. Abut.	21+13.53	-38.96	777.47	777.49

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+85.15	-31.88	781.75	781.78
℄ S. Abut	17+90.39	-31.88	781.83	781.85
A	18+00.39	-31.88	781.95	782.00
B	18+10.39	-31.88	782.05	782.13
C	18+20.39	-31.88	782.14	782.24
D	18+30.39	-31.88	782.22	782.32
E	18+40.39	-31.88	782.28	782.38
F	18+50.39	-31.88	782.32	782.42
G	18+60.39	-31.88	782.34	782.44
H	18+70.39	-31.88	782.35	782.43
I	18+80.39	-31.88	782.34	782.40
J	18+90.39	-31.88	782.32	782.36
K	19+00.39	-31.88	782.28	782.31
L	19+10.39	-31.88	782.23	782.24
M	19+20.39	-31.88	782.15	782.17
℄ Brg. Pier	19+31.95	-31.88	782.05	782.07
N	19+41.95	-31.88	781.94	781.99
O	19+51.95	-31.88	781.82	781.91
P	19+61.95	-31.88	781.68	781.81
Q	19+71.95	-31.88	781.53	781.71
R	19+81.95	-31.88	781.35	781.58
S	19+91.95	-31.88	781.17	781.44
T	20+01.95	-31.88	780.96	781.28
U	20+11.95	-31.88	780.74	781.09
V	20+21.95	-31.88	780.51	780.87
W	20+31.95	-31.88	780.25	780.63
X	20+41.95	-31.88	779.98	780.34
Y	20+51.95	-31.88	779.70	780.04
Z	20+61.95	-31.88	779.40	779.69
AA	20+71.95	-31.88	779.08	779.32
BB	20+81.95	-31.88	778.75	778.92
CC	20+91.95	-31.88	778.40	778.50
℄ N. Abut.	21+02.06	-31.88	778.03	778.05
Bk. N. Abut.	21+07.30	-31.88	777.84	777.86

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+78.92	-24.79	781.79	781.81
℄ S. Abut	17+84.16	-24.79	781.86	781.88
A	17+94.16	-24.79	781.99	782.04
B	18+04.16	-24.79	782.11	782.18
C	18+14.16	-24.79	782.21	782.30
D	18+24.16	-24.79	782.29	782.40
E	18+34.16	-24.79	782.36	782.47
F	18+44.16	-24.79	782.41	782.52
G	18+54.16	-24.79	782.45	782.54
H	18+64.16	-24.79	782.47	782.54
I	18+74.16	-24.79	782.47	782.53
J	18+84.16	-24.79	782.46	782.50
K	18+94.16	-24.79	782.43	782.45
L	19+04.16	-24.79	782.38	782.40
M	19+14.16	-24.79	782.32	782.33
℄ Brg. Pier	19+25.72	-24.79	782.23	782.25
N	19+35.72	-24.79	782.13	782.18
O	19+45.72	-24.79	782.02	782.11
P	19+55.72	-24.79	781.89	782.02
Q	19+65.72	-24.79	781.75	781.92
R	19+75.72	-24.79	781.58	781.81
S	19+85.72	-24.79	781.41	781.68
T	19+95.72	-24.79	781.21	781.53
U	20+05.72	-24.79	781.00	781.35
V	20+15.72	-24.79	780.78	781.14
W	20+25.72	-24.79	780.53	780.91
X	20+35.72	-24.79	780.27	780.63
Y	20+45.72	-24.79	780.00	780.34
Z	20+55.72	-24.79	779.71	780.00
AA	20+65.72	-24.79	779.40	779.64
BB	20+75.72	-24.79	779.08	779.25
CC	20+85.72	-24.79	778.74	778.84
℄ N. Abut.	20+95.83	-24.79	778.38	778.40
Bk. N. Abut.	21+01.07	-24.79	778.19	778.21

* (10-34HB-3)BR&(10-5-1HB)BR-1

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+72.69	-17.71	781.80	781.82
℄ S. Abut	17+77.93	-17.71	781.88	781.90
A	17+87.93	-17.71	782.02	782.07
B	17+97.93	-17.71	782.15	782.22
C	18+07.93	-17.71	782.26	782.35
D	18+17.93	-17.71	782.36	782.46
E	18+27.93	-17.71	782.43	782.54
F	18+37.93	-17.71	782.49	782.60
G	18+47.93	-17.71	782.54	782.63
H	18+57.93	-17.71	782.57	782.64
I	18+67.93	-17.71	782.58	782.64
J	18+77.93	-17.71	782.58	782.62
K	18+87.93	-17.71	782.56	782.58
L	18+97.93	-17.71	782.52	782.54
M	19+07.93	-17.71	782.47	782.48
℄ Brg. Pier	19+19.49	-17.71	782.39	782.41
N	19+29.49	-17.71	782.31	782.36
O	19+39.49	-17.71	782.20	782.29
P	19+49.49	-17.71	782.08	782.21
Q	19+59.49	-17.71	781.95	782.13
R	19+69.49	-17.71	781.80	782.03
S	19+79.49	-17.71	781.63	781.91
T	19+89.49	-17.71	781.45	781.76
U	19+99.49	-17.71	781.25	781.59
V	20+09.49	-17.71	781.03	781.40
W	20+19.49	-17.71	780.80	781.17
X	20+29.49	-17.71	780.55	780.91
Y	20+39.49	-17.71	780.28	780.62
Z	20+49.49	-17.71	780.00	780.30
AA	20+59.49	-17.71	779.70	779.94
BB	20+69.49	-17.71	779.39	779.57
CC	20+79.49	-17.71	779.06	779.16
℄ N. Abut.	20+89.60	-17.71	778.71	778.73
Bk. N. Abut.	20+94.84	-17.71	778.52	778.54

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+66.46	-10.63	781.81	781.83
℄ S. Abut	17+71.70	-10.63	781.90	781.92
A	17+81.70	-10.63	782.05	782.10
B	17+91.70	-10.63	782.18	782.26
C	18+01.70	-10.63	782.30	782.40
D	18+11.70	-10.63	782.41	782.51
E	18+21.70	-10.63	782.50	782.60
F	18+31.70	-10.63	782.57	782.67
G	18+41.70	-10.63	782.62	782.72
H	18+51.70	-10.63	782.66	782.74
I	18+61.70	-10.63	782.69	782.74
J	18+71.70	-10.63	782.69	782.73
K	18+81.70	-10.63	782.68	782.71
L	18+91.70	-10.63	782.66	782.67
M	19+01.70	-10.63	782.62	782.63
℄ Brg. Pier	19+13.26	-10.63	782.55	782.57
N	19+23.26	-10.63	782.47	782.52
O	19+33.26	-10.63	782.38	782.46
P	19+43.26	-10.63	782.27	782.40
Q	19+53.26	-10.63	782.15	782.32
R	19+63.26	-10.63	782.00	782.23
S	19+73.26	-10.63	781.85	782.12
T	19+83.26	-10.63	781.67	781.99
U	19+93.26	-10.63	781.48	781.83
V	20+03.26	-10.63	781.28	781.64
W	20+13.26	-10.63	781.05	781.43
X	20+23.26	-10.63	780.82	781.18
Y	20+33.26	-10.63	780.56	780.90
Z	20+43.26	-10.63	780.29	780.58
AA	20+53.26	-10.63	780.00	780.24
BB	20+63.26	-10.63	779.70	779.87
CC	20+73.26	-10.63	779.38	779.48
℄ N. Abut.	20+83.37	-10.63	779.04	779.06
Bk. N. Abut.	20+88.61	-10.63	778.86	778.88

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+60.23	-3.54	781.81	781.83
℄ S. Abut	17+65.47	-3.54	781.90	781.92
A	17+75.47	-3.54	782.07	782.11
B	17+85.47	-3.54	782.21	782.28
C	17+95.47	-3.54	782.34	782.44
D	18+05.47	-3.54	782.46	782.56
E	18+15.47	-3.54	782.55	782.66
F	18+25.47	-3.54	782.64	782.74
G	18+35.47	-3.54	782.70	782.79
H	18+45.47	-3.54	782.75	782.83
I	18+55.47	-3.54	782.78	782.84
J	18+65.47	-3.54	782.80	782.84
K	18+75.47	-3.54	782.80	782.83
L	18+85.47	-3.54	782.79	782.80
M	18+95.47	-3.54	782.76	782.77
℄ Brg. Pier	19+07.03	-3.54	782.70	782.72
N	19+17.03	-3.54	782.63	782.68
O	19+27.03	-3.54	782.55	782.64
P	19+37.03	-3.54	782.45	782.58
Q	19+47.03	-3.54	782.34	782.51
R	19+57.03	-3.54	782.20	782.43
S	19+67.03	-3.54	782.06	782.33
T	19+77.03	-3.54	781.89	782.21
U	19+87.03	-3.54	781.71	782.06
V	19+97.03	-3.54	781.52	781.88
W	20+07.03	-3.54	781.30	781.68
X	20+17.03	-3.54	781.08	781.44
Y	20+27.03	-3.54	780.83	781.17
Z	20+37.03	-3.54	780.57	780.86
AA	20+47.03	-3.54	780.29	780.53
BB	20+57.03	-3.54	780.00	780.17
CC	20+67.03	-3.54	779.69	779.79
℄ N. Abut.	20+77.14	-3.54	779.36	779.38
Bk. N. Abut.	20+82.38	-3.54	779.18	779.20

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-009-TOS Elevations.dgn | USER NAME = | DESIGNED - CMV | REVISED -
PLOT SCALE = | CHECKED - BWP | REVISED -
PLOT DATE = 4/29/2019 | DRAWN - BJV | REVISED -
CHECKED - BWP | REVISED -

BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.
403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: 618.997.9190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 9 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	107
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

STAGE I CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+58.88	-2.00	781.81	781.83
℄ S. Abut	17+64.12	-2.00	781.90	781.92
A	17+74.12	-2.00	782.07	782.12
B	17+84.12	-2.00	782.22	782.29
C	17+94.12	-2.00	782.35	782.44
D	18+04.12	-2.00	782.47	782.57
E	18+14.12	-2.00	782.57	782.67
F	18+24.12	-2.00	782.65	782.75
G	18+34.12	-2.00	782.72	782.81
H	18+44.12	-2.00	782.77	782.85
I	18+54.12	-2.00	782.81	782.86
J	18+64.12	-2.00	782.82	782.86
K	18+74.12	-2.00	782.83	782.85
L	18+84.12	-2.00	782.81	782.83
M	18+94.12	-2.00	782.79	782.80
℄ Brg. Pier	19+05.68	-2.00	782.73	782.75
N	19+15.68	-2.00	782.67	782.72
O	19+25.68	-2.00	782.59	782.67
P	19+35.68	-2.00	782.49	782.62
Q	19+45.68	-2.00	782.38	782.56
R	19+55.68	-2.00	782.25	782.48
S	19+65.68	-2.00	782.10	782.38
T	19+75.68	-2.00	781.94	782.26
U	19+85.68	-2.00	781.76	782.11
V	19+95.68	-2.00	781.57	781.94
W	20+05.68	-2.00	781.36	781.73
X	20+15.68	-2.00	781.13	781.49
Y	20+25.68	-2.00	780.89	781.23
Z	20+35.68	-2.00	780.63	780.92
AA	20+45.68	-2.00	780.36	780.60
BB	20+55.68	-2.00	780.06	780.24
CC	20+65.68	-2.00	779.76	779.86
℄ N. Abut.	20+75.79	-2.00	779.43	779.45
Bk. N. Abut.	20+81.03	-2.00	779.25	779.27

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+57.12	0.00	781.81	781.83
℄ S. Abut	17+62.36	0.00	781.90	781.92
A	17+72.36	0.00	782.07	782.12
B	17+82.36	0.00	782.22	782.30
C	17+92.36	0.00	782.36	782.45
D	18+02.36	0.00	782.48	782.58
E	18+12.36	0.00	782.58	782.69
F	18+22.36	0.00	782.67	782.77
G	18+32.36	0.00	782.74	782.83
H	18+42.36	0.00	782.79	782.87
I	18+52.36	0.00	782.83	782.89
J	18+62.36	0.00	782.85	782.89
K	18+72.36	0.00	782.86	782.88
L	18+82.36	0.00	782.85	782.86
M	18+92.36	0.00	782.82	782.83
℄ Brg. Pier	19+03.92	0.00	782.77	782.79
N	19+13.92	0.00	782.71	782.76
O	19+23.92	0.00	782.63	782.72
P	19+33.92	0.00	782.54	782.67
Q	19+43.92	0.00	782.43	782.61
R	19+53.92	0.00	782.30	782.53
S	19+63.92	0.00	782.16	782.44
T	19+73.92	0.00	782.00	782.32
U	19+83.92	0.00	781.83	782.18
V	19+93.92	0.00	781.64	782.00
W	20+03.92	0.00	781.43	781.80
X	20+13.92	0.00	781.20	781.57
Y	20+23.92	0.00	780.96	781.30
Z	20+33.92	0.00	780.71	781.00
AA	20+43.92	0.00	780.44	780.68
BB	20+53.92	0.00	780.15	780.32
CC	20+63.92	0.00	779.84	779.94
℄ N. Abut.	20+74.03	0.00	779.52	779.54
Bk. N. Abut.	20+79.27	0.00	779.34	779.37

STAGE II CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+55.36	2.00	781.75	781.77
℄ S. Abut	17+60.60	2.00	781.84	781.86
A	17+70.60	2.00	782.01	782.06
B	17+80.60	2.00	782.17	782.24
C	17+90.60	2.00	782.30	782.40
D	18+00.60	2.00	782.43	782.53
E	18+10.60	2.00	782.53	782.64
F	18+20.60	2.00	782.62	782.73
G	18+30.60	2.00	782.70	782.79
H	18+40.60	2.00	782.75	782.83
I	18+50.60	2.00	782.79	782.85
J	18+60.60	2.00	782.82	782.86
K	18+70.60	2.00	782.83	782.85
L	18+80.60	2.00	782.82	782.83
M	18+90.60	2.00	782.80	782.81
℄ Brg. Pier	19+02.16	2.00	782.75	782.77
N	19+12.16	2.00	782.69	782.74
O	19+22.16	2.00	782.62	782.70
P	19+32.16	2.00	782.53	782.66
Q	19+42.16	2.00	782.42	782.60
R	19+52.16	2.00	782.29	782.52
S	19+62.16	2.00	782.16	782.43
T	19+72.16	2.00	782.00	782.32
U	19+82.16	2.00	781.83	782.18
V	19+92.16	2.00	781.64	782.01
W	20+02.16	2.00	781.43	781.81
X	20+12.16	2.00	781.21	781.57
Y	20+22.16	2.00	780.98	781.32
Z	20+32.16	2.00	780.72	781.02
AA	20+42.16	2.00	780.45	780.70
BB	20+52.16	2.00	780.17	780.34
CC	20+62.16	2.00	779.87	779.97
℄ N. Abut.	20+72.27	2.00	779.55	779.57
Bk. N. Abut.	20+77.51	2.00	779.37	779.39

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-010-TOS Elevations.dgn | USER NAME = | DESIGNED - CMV | REVISED -
PLOT SCALE = | CHECKED - BWP | REVISED -
PLOT DATE = 4/29/2019 | DRAWN - BJV | REVISED -
CHECKED - BWP | REVISED -

BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE: 618.997.9190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 10 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	108
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+54.01	3.54	781.70	781.72
℄ S. Abut	17+59.25	3.54	781.79	781.81
A	17+69.25	3.54	781.97	782.01
B	17+79.25	3.54	782.12	782.20
C	17+89.25	3.54	782.26	782.36
D	17+99.25	3.54	782.39	782.49
E	18+09.25	3.54	782.50	782.60
F	18+19.25	3.54	782.59	782.69
G	18+29.25	3.54	782.66	782.76
H	18+39.25	3.54	782.72	782.80
I	18+49.25	3.54	782.77	782.82
J	18+59.25	3.54	782.79	782.83
K	18+69.25	3.54	782.80	782.83
L	18+79.25	3.54	782.80	782.81
M	18+89.25	3.54	782.78	782.79
℄ Brg. Pier	19+00.81	3.54	782.73	782.75
N	19+10.81	3.54	782.68	782.73
O	19+20.81	3.54	782.60	782.69
P	19+30.81	3.54	782.51	782.64
Q	19+40.81	3.54	782.41	782.59
R	19+50.81	3.54	782.29	782.52
S	19+60.81	3.54	782.15	782.43
T	19+70.81	3.54	782.00	782.32
U	19+80.81	3.54	781.83	782.18
V	19+90.81	3.54	781.64	782.01
W	20+00.81	3.54	781.44	781.81
X	20+10.81	3.54	781.22	781.58
Y	20+20.81	3.54	780.99	781.32
Z	20+30.81	3.54	780.74	781.03
AA	20+40.81	3.54	780.47	780.71
BB	20+50.81	3.54	780.18	780.36
CC	20+60.81	3.54	779.89	779.99
℄ N. Abut.	20+70.92	3.54	779.57	779.59
Bk. N. Abut.	20+76.16	3.54	779.39	779.41

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+47.78	10.63	781.46	781.48
℄ S. Abut	17+53.02	10.63	781.57	781.59
A	17+63.02	10.63	781.75	781.80
B	17+73.02	10.63	781.92	781.99
C	17+83.02	10.63	782.07	782.16
D	17+93.02	10.63	782.20	782.31
E	18+03.02	10.63	782.32	782.43
F	18+13.02	10.63	782.42	782.52
G	18+23.02	10.63	782.51	782.60
H	18+33.02	10.63	782.58	782.65
I	18+43.02	10.63	782.63	782.69
J	18+53.02	10.63	782.67	782.71
K	18+63.02	10.63	782.69	782.71
L	18+73.02	10.63	782.69	782.71
M	18+83.02	10.63	782.68	782.69
℄ Brg. Pier	18+94.58	10.63	782.65	782.67
N	19+04.58	10.63	782.60	782.65
O	19+14.58	10.63	782.54	782.63
P	19+24.58	10.63	782.46	782.59
Q	19+34.58	10.63	782.37	782.55
R	19+44.58	10.63	782.26	782.48
S	19+54.58	10.63	782.13	782.40
T	19+64.58	10.63	781.98	782.30
U	19+74.58	10.63	781.82	782.17
V	19+84.58	10.63	781.65	782.02
W	19+94.58	10.63	781.46	781.83
X	20+04.58	10.63	781.25	781.61
Y	20+14.58	10.63	781.02	781.36
Z	20+24.58	10.63	780.78	781.08
AA	20+34.58	10.63	780.53	780.77
BB	20+44.58	10.63	780.25	780.43
CC	20+54.58	10.63	779.96	780.06
℄ N. Abut.	20+64.69	10.63	779.65	779.67
Bk. N. Abut.	20+69.93	10.63	779.49	779.51

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+41.55	17.71	781.23	781.25
℄ S. Abut	17+46.79	17.71	781.33	781.35
A	17+56.79	17.71	781.53	781.58
B	17+66.79	17.71	781.70	781.78
C	17+76.79	17.71	781.86	781.96
D	17+86.79	17.71	782.01	782.11
E	17+96.79	17.71	782.14	782.24
F	18+06.79	17.71	782.25	782.35
G	18+16.79	17.71	782.35	782.44
H	18+26.79	17.71	782.42	782.50
I	18+36.79	17.71	782.49	782.55
J	18+46.79	17.71	782.54	782.57
K	18+56.79	17.71	782.57	782.59
L	18+66.79	17.71	782.58	782.60
M	18+76.79	17.71	782.58	782.59
℄ Brg. Pier	18+88.35	17.71	782.56	782.58
N	18+98.35	17.71	782.52	782.57
O	19+08.35	17.71	782.47	782.56
P	19+18.35	17.71	782.40	782.53
Q	19+28.35	17.71	782.32	782.50
R	19+38.35	17.71	782.22	782.44
S	19+48.35	17.71	782.10	782.37
T	19+58.35	17.71	781.96	782.28
U	19+68.35	17.71	781.82	782.16
V	19+78.35	17.71	781.65	782.02
W	19+88.35	17.71	781.47	781.84
X	19+98.35	17.71	781.27	781.63
Y	20+08.35	17.71	781.05	781.39
Z	20+18.35	17.71	780.82	781.12
AA	20+28.35	17.71	780.58	780.82
BB	20+38.35	17.71	780.31	780.49
CC	20+48.35	17.71	780.03	780.13
℄ N. Abut.	20+58.46	17.71	779.74	779.76
Bk. N. Abut.	20+63.70	17.71	779.57	779.59

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-011-TOS Elevations.dgn | USER NAME = | DESIGNED - CMV | REVISED -
PLOT SCALE = | CHECKED - BWP | REVISED -
PLOT DATE = 4/29/2019 | DRAWN - BJV | REVISED -
CHECKED - BWP | REVISED -

BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE: 618.997.9190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 11 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	109
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+35.32	24.79	780.98	781.00
℄ S. Abut	17+40.56	24.79	781.09	781.11
A	17+50.56	24.79	781.30	781.35
B	17+60.56	24.79	781.48	781.56
C	17+70.56	24.79	781.66	781.75
D	17+80.56	24.79	781.81	781.91
E	17+90.56	24.79	781.95	782.06
F	18+00.56	24.79	782.07	782.17
G	18+10.56	24.79	782.18	782.27
H	18+20.56	24.79	782.27	782.34
I	18+30.56	24.79	782.34	782.40
J	18+40.56	24.79	782.40	782.44
K	18+50.56	24.79	782.44	782.46
L	18+60.56	24.79	782.46	782.48
M	18+70.56	24.79	782.47	782.48
℄ Brg. Pier	18+82.12	24.79	782.46	782.48
N	18+92.12	24.79	782.44	782.49
O	19+02.12	24.79	782.39	782.48
P	19+12.12	24.79	782.34	782.47
Q	19+22.12	24.79	782.26	782.44
R	19+32.12	24.79	782.17	782.40
S	19+42.12	24.79	782.06	782.34
T	19+52.12	24.79	781.94	782.26
U	19+62.12	24.79	781.80	782.15
V	19+72.12	24.79	781.64	782.01
W	19+82.12	24.79	781.47	781.85
X	19+92.12	24.79	781.28	781.64
Y	20+02.12	24.79	781.08	781.42
Z	20+12.12	24.79	780.86	781.15
AA	20+22.12	24.79	780.62	780.86
BB	20+32.12	24.79	780.37	780.54
CC	20+42.12	24.79	780.10	780.20
℄ N. Abut.	20+52.23	24.79	779.81	779.83
Bk. N. Abut.	20+57.47	24.79	779.65	779.68

GIRDER 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+29.09	31.88	780.72	780.74
℄ S. Abut	17+34.33	31.88	780.84	780.86
A	17+44.33	31.88	781.05	781.10
B	17+54.33	31.88	781.25	781.32
C	17+64.33	31.88	781.43	781.52
D	17+74.33	31.88	781.60	781.70
E	17+84.33	31.88	781.74	781.85
F	17+94.33	31.88	781.88	781.98
G	18+04.33	31.88	781.99	782.08
H	18+14.33	31.88	782.09	782.17
I	18+24.33	31.88	782.18	782.23
J	18+34.33	31.88	782.24	782.28
K	18+44.33	31.88	782.29	782.32
L	18+54.33	31.88	782.33	782.34
M	18+64.33	31.88	782.35	782.36
℄ Brg. Pier	18+75.89	31.88	782.35	782.37
N	18+85.89	31.88	782.33	782.38
O	18+95.89	31.88	782.30	782.39
P	19+05.89	31.88	782.25	782.38
Q	19+15.89	31.88	782.19	782.37
R	19+25.89	31.88	782.11	782.34
S	19+35.89	31.88	782.01	782.29
T	19+45.89	31.88	781.90	782.22
U	19+55.89	31.88	781.77	782.12
V	19+65.89	31.88	781.62	781.99
W	19+75.89	31.88	781.46	781.83
X	19+85.89	31.88	781.28	781.64
Y	19+95.89	31.88	781.09	781.43
Z	20+05.89	31.88	780.88	781.17
AA	20+15.89	31.88	780.65	780.89
BB	20+25.89	31.88	780.41	780.58
CC	20+35.89	31.88	780.15	780.25
℄ N. Abut.	20+46.00	31.88	779.87	779.89
Bk. N. Abut.	20+51.24	31.88	779.72	779.74

GIRDER 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	17+22.86	38.96	780.43	780.45
℄ S. Abut	17+28.10	38.96	780.55	780.57
A	17+38.10	38.96	780.77	780.82
B	17+48.10	38.96	780.98	781.05
C	17+58.10	38.96	781.17	781.26
D	17+68.10	38.96	781.35	781.45
E	17+78.10	38.96	781.51	781.61
F	17+88.10	38.96	781.65	781.75
G	17+98.10	38.96	781.77	781.87
H	18+08.10	38.96	781.88	781.96
I	18+18.10	38.96	781.98	782.04
J	18+28.10	38.96	782.06	782.09
K	18+38.10	38.96	782.12	782.14
L	18+48.10	38.96	782.16	782.18
M	18+58.10	38.96	782.19	782.20
℄ Brg. Pier	18+69.66	38.96	782.20	782.23
N	18+79.66	38.96	782.20	782.25
O	18+89.66	38.96	782.18	782.26
P	18+99.66	38.96	782.14	782.27
Q	19+09.66	38.96	782.08	782.26
R	19+19.66	38.96	782.01	782.24
S	19+29.66	38.96	781.93	782.20
T	19+39.66	38.96	781.82	782.14
U	19+49.66	38.96	781.70	782.05
V	19+59.66	38.96	781.57	781.93
W	19+69.66	38.96	781.42	781.79
X	19+79.66	38.96	781.25	781.61
Y	19+89.66	38.96	781.06	781.40
Z	19+99.66	38.96	780.86	781.16
AA	20+09.66	38.96	780.65	780.89
BB	20+19.66	38.96	780.41	780.59
CC	20+29.66	38.96	780.16	780.26
℄ N. Abut.	20+39.77	38.96	779.90	779.92
Bk. N. Abut.	20+45.01	38.96	779.75	779.77

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-012-TOS Elevations.dgn | USER NAME = | DESIGNED - CMV | REVISED -
PLOT SCALE = | CHECKED - BWP | REVISED -
PLOT DATE = 4/29/2019 | DRAWN - BJV | REVISED -
CHECKED - BWP | REVISED -

BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.
403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: 618.997.9190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 12 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	110
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF WEST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	17+63.84	-41.00	781.51	781.53
A1	17+73.84	-41.00	781.67	781.69
A2	17+83.84	-41.00	781.82	781.84
N. End S. Appr. Pav't.	17+93.84	-41.00	781.96	781.98

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	17+54.16	-30.00	781.29	781.31
A1	17+64.16	-30.00	781.47	781.49
A2	17+74.16	-30.00	781.63	781.65
N. End S. Appr. Pav't.	17+84.16	-30.00	781.78	781.80

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	17+27.79	0.00	781.20	781.22
A1	17+37.79	0.00	781.42	781.44
A2	17+47.79	0.00	781.63	781.65
N. End S. Appr. Pav't.	17+57.79	0.00	781.82	781.84

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	17+59.44	-36.00	781.26	781.28
A1	17+69.44	-36.00	781.43	781.45
A2	17+79.44	-36.00	781.59	781.61
N. End S. Appr. Pav't.	17+89.44	-36.00	781.73	781.75

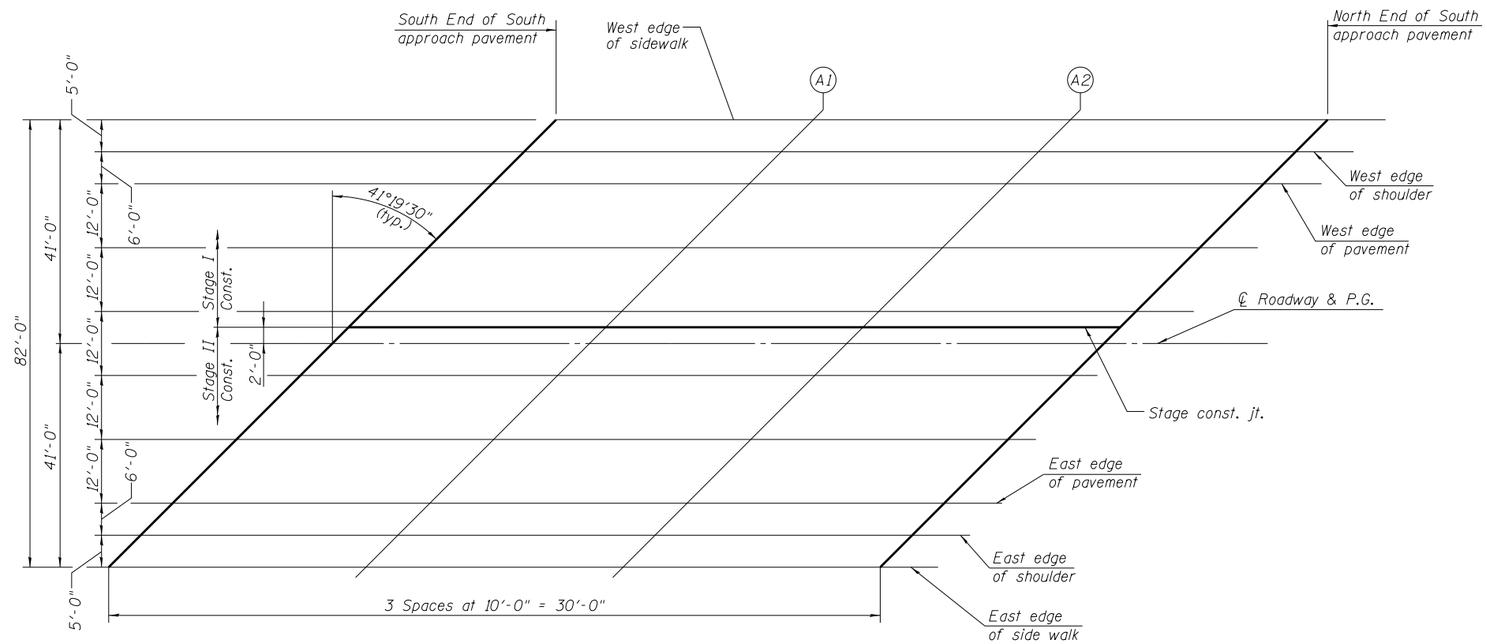
STAGE CONST. JOINT (CONCRETE WEARING SURFACE)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	17+29.54	-2.00	781.21	781.23
A1	17+39.54	-2.00	781.43	781.45
A2	17+49.54	-2.00	781.63	781.65
N. End S. Appr. Pav't.	17+59.54	-2.00	781.82	781.84

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	17+01.41	30.00	780.06	780.08
A1	17+11.41	30.00	780.33	780.35
A2	17+21.41	30.00	780.58	780.60
N. End S. Appr. Pav't.	17+31.41	30.00	780.81	780.83

N



PLAN

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	16+96.13	36.00	779.79	779.81
A1	17+06.13	36.00	780.06	780.08
A2	17+16.13	36.00	780.32	780.34
N. End S. Appr. Pav't.	17+26.13	36.00	780.57	780.59

EAST EDGE OF EAST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	16+91.73	41.00	779.84	779.86
A1	17+01.73	41.00	780.12	780.14
A2	17+11.73	41.00	780.38	780.40
N. End S. Appr. Pav't.	17+21.73	41.00	780.63	780.65

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-013-South Approach Slab.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 13 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	111
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF WEST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	21+14.66	-41.00	777.66	777.68
A3	21+24.66	-41.00	777.30	777.32
A4	21+34.66	-41.00	776.93	776.95
N. End N. Appr. Pav't.	21+44.66	-41.00	776.57	776.59

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	21+04.98	-30.00	777.96	777.98
A3	21+14.98	-30.00	777.60	777.62
A4	21+24.98	-30.00	777.24	777.26
N. End N. Appr. Pav't.	21+34.98	-30.00	776.87	776.89

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	20+78.60	0.00	779.37	779.39
A3	20+88.60	0.00	779.02	779.04
A4	20+98.60	0.00	778.66	778.68
N. End N. Appr. Pav't.	21+08.60	0.00	778.30	778.32

WEST EDGE OF SHOULDER

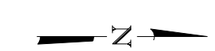
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	21+10.26	-36.00	777.65	777.67
A3	21+20.26	-36.00	777.28	777.30
A4	21+30.26	-36.00	776.92	776.94
N. End N. Appr. Pav't.	21+40.26	-36.00	776.56	776.58

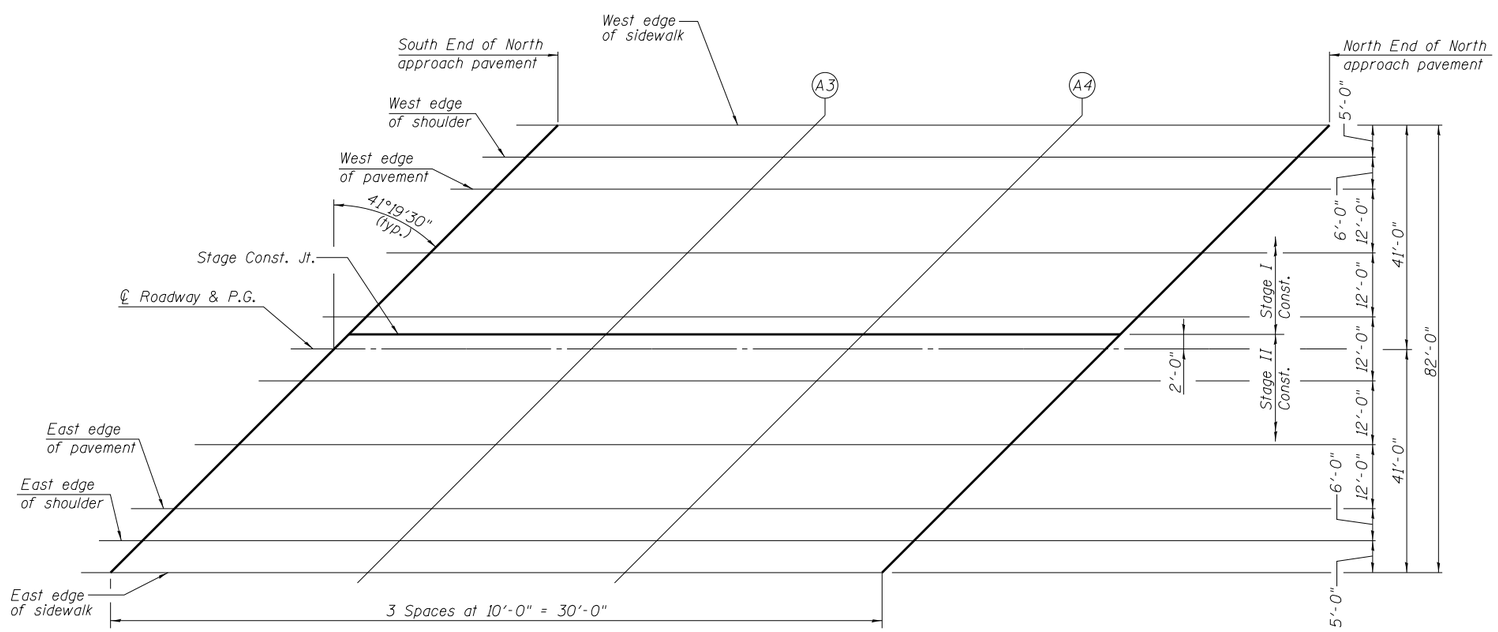
STAGE CONST. JOINT (CONCRETE WEARING SURFACE)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	20+80.36	-2.00	779.28	779.30
A3	20+90.36	-2.00	778.93	778.95
A4	21+00.36	-2.00	778.57	778.59
N. End N. Appr. Pav't.	21+10.36	-2.00	778.21	778.23

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	20+52.23	30.00	779.73	779.75
A3	20+62.23	30.00	779.43	779.45
A4	20+72.23	30.00	779.11	779.13
N. End N. Appr. Pav't.	20+82.23	30.00	778.78	778.80





PLAN

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	20+46.95	36.00	779.76	779.78
A3	20+56.95	36.00	779.46	779.48
A4	20+66.95	36.00	779.15	779.17
N. End N. Appr. Pav't.	20+76.95	36.00	778.83	778.85

EAST EDGE OF EAST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	20+42.55	41.00	780.05	780.07
A3	20+52.55	41.00	779.77	779.79
A4	20+62.55	41.00	779.47	779.49
N. End N. Appr. Pav't.	20+72.55	41.00	779.15	779.17

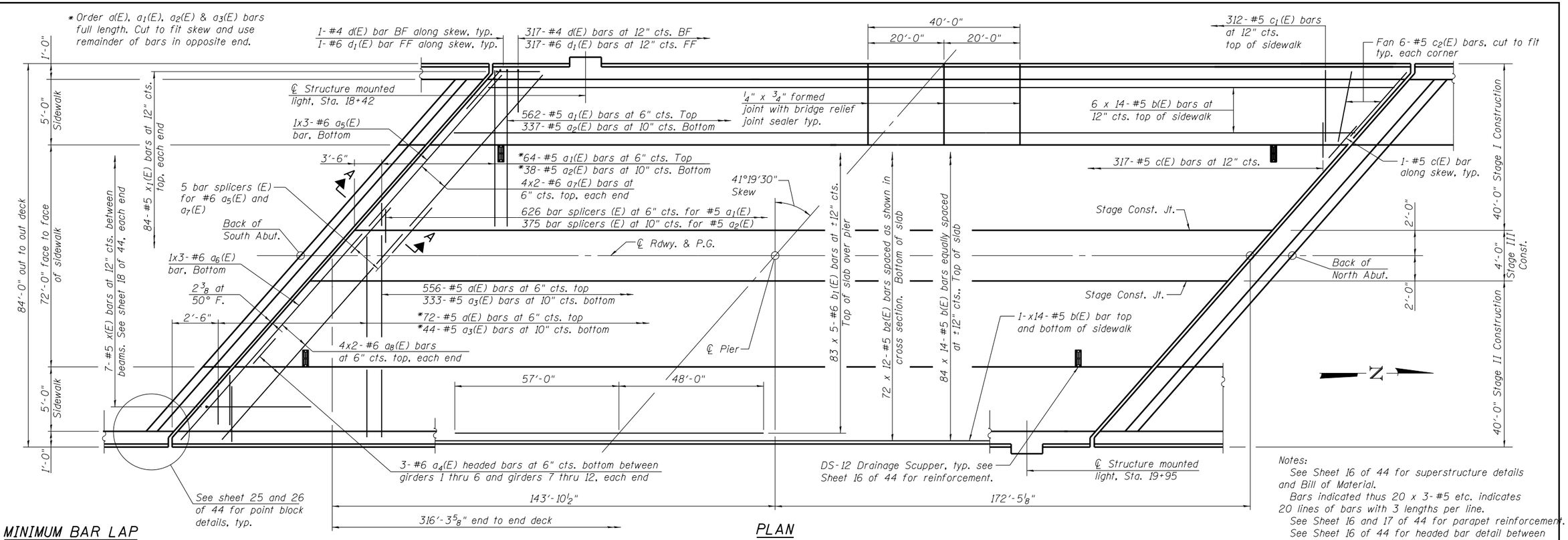
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-014-North Approach Slab.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 010-1270
SHEET NO. 14 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	112
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



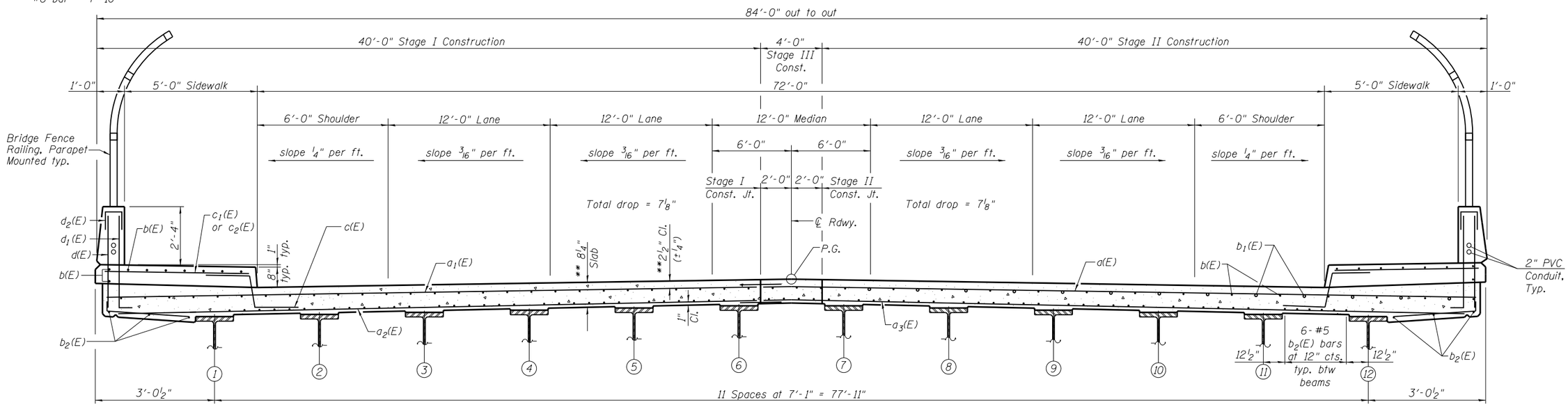
Notes:
See Sheet 16 of 44 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 16 and 17 of 44 for parapet reinforcement.
See Sheet 16 of 44 for headed bar detail between girder 6 and 7.
See Sheet 18 of 44 for Section A-A.

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"

PLAN

(See sheet 1 of 44 for Scupper location)



NEAR MIDSPAN

** Prior to grinding.

CROSS SECTION

(Looking North)

NEAR PIER

S-2-L(>30°) 1-27-12

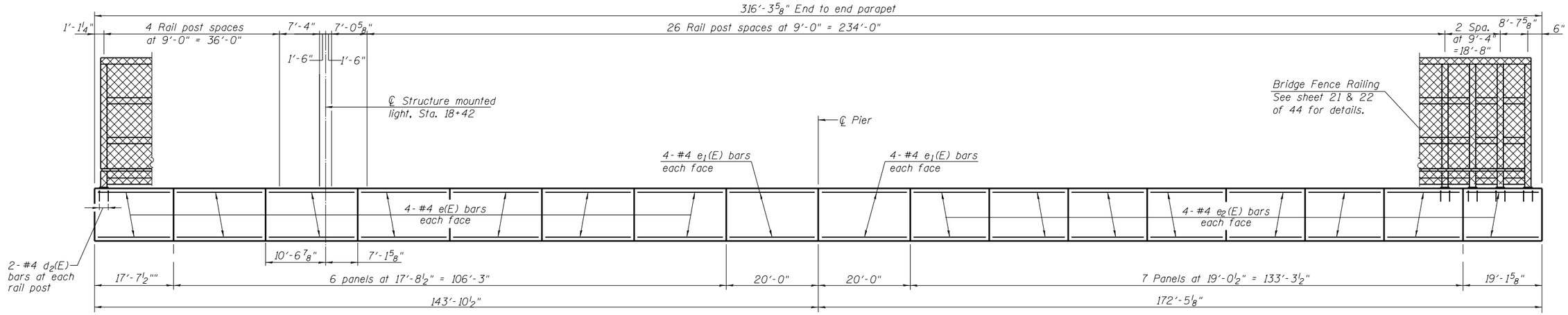
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-015-Superstructure.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

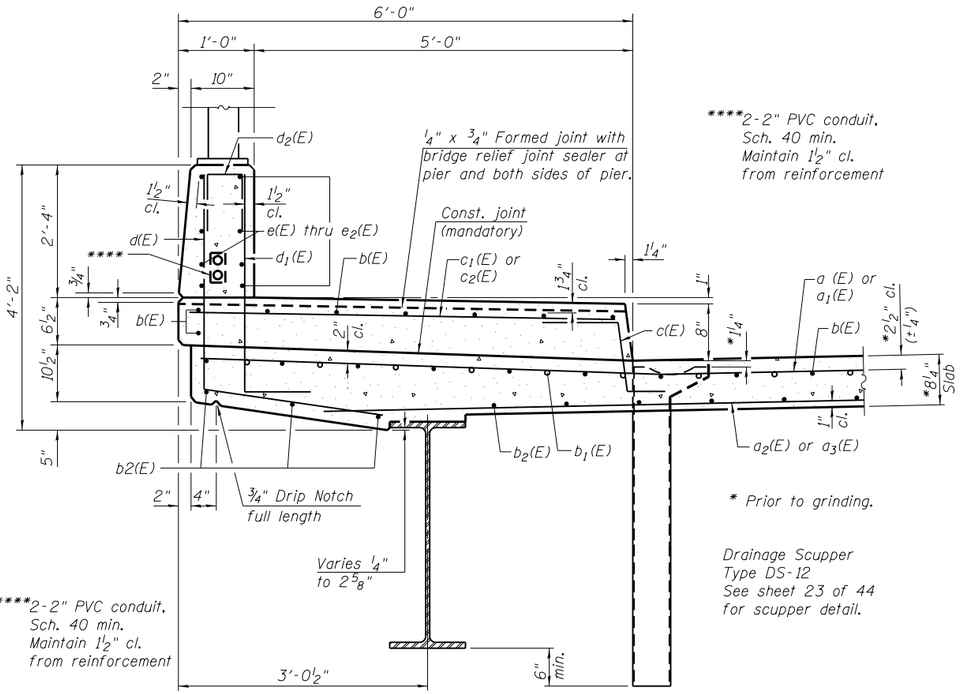
SUPERSTRUCTURE
STRUCTURE NO. 010-1270
SHEET NO. 15 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	113
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

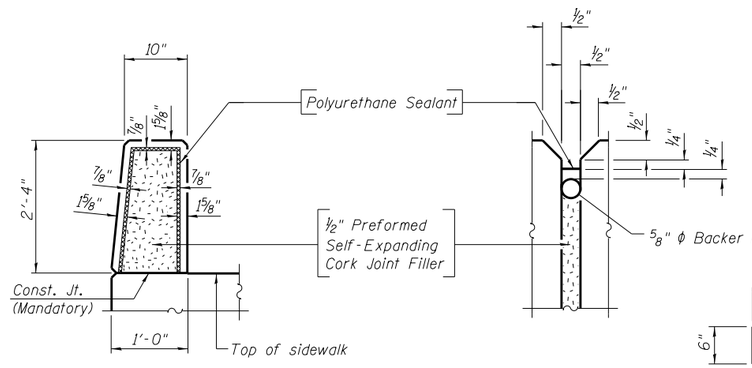


INSIDE ELEVATION OF WEST PARAPET

(Looking West)



SECTION THRU SIDEWALK



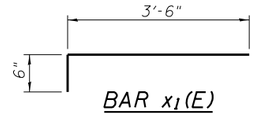
PARAPET JOINT DETAILS

Notes:

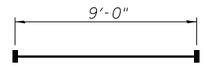
The 1/2" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

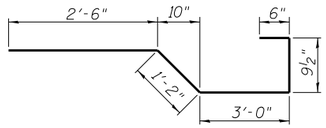


BAR $x_1(E)$

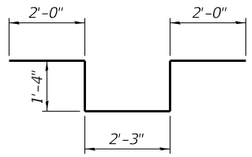


BAR $a_4(E)$

(Headed)



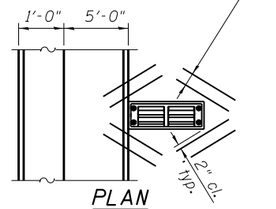
BAR x(E)



BAR $d_4(E)$

** In lieu of bottom leg, c(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6". Bars shall be placed to miss the drilled hole locations.

2-#5 $a_{11}(E)$ bars at 4" cts. (2'-0" long) tied to bottom of top reinforcement mat, typ.



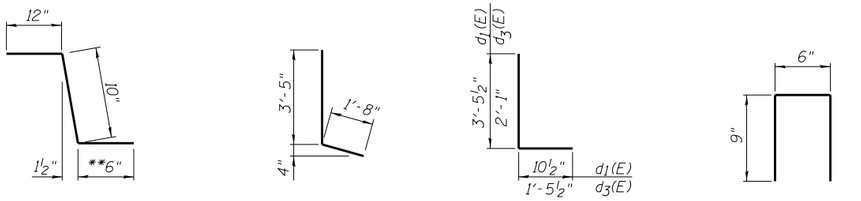
PLAN

Note:

Cut longitudinal reinforcement to clear drainage scuppers.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	628	#5	43'-6"	
$a_1(E)$	626	#5	39'-6"	
$a_2(E)$	375	#5	38'-8"	
$a_3(E)$	377	#5	42'-8"	
$a_4(E)$	60	#6	9'-0"	
$a_5(E)$	6	#6	20'-9"	
$a_6(E)$	6	#6	21'-9"	
$a_7(E)$	16	#6	28'-10"	
$a_8(E)$	16	#6	31'-5"	
$a_9(E)$	6	#6	2'-10"	
$a_{10}(E)$	6	#6	6'-0"	
$a_{11}(E)$	32	#5	2'-0"	
b(E)	1,400	#5	25'-10"	
$b_1(E)$	415	#6	25'-0"	
$b_2(E)$	864	#5	29'-7"	
c(E)	638	#5	2'-4"	
$c_1(E)$	624	#5	5'-7"	
$c_2(E)$	24	#5	7'-5"	
d(E)	638	#4	5'-1"	L
$d_1(E)$	638	#6	4'-4"	L
$d_2(E)$	148	#4	2'-0"	⊓
$d_3(E)$	6	#6	3'-7"	L
$d_4(E)$	10	#6	8'-11"	
e(E)	112	#4	17'-4"	
$e_1(E)$	32	#4	19'-8"	
$e_2(E)$	128	#4	18'-8"	
x(E)	154	#5	7'-11"	
$x_1(E)$	168	#5	4'-0"	
Reinforcement Bars, Epoxy Coated			Pound	186,280
Concrete Superstructure			Cu. Yds.	890.0



BAR c(E) BAR d(E) BAR $d_1(E)$ & $d_3(E)$ BAR $d_2(E)$

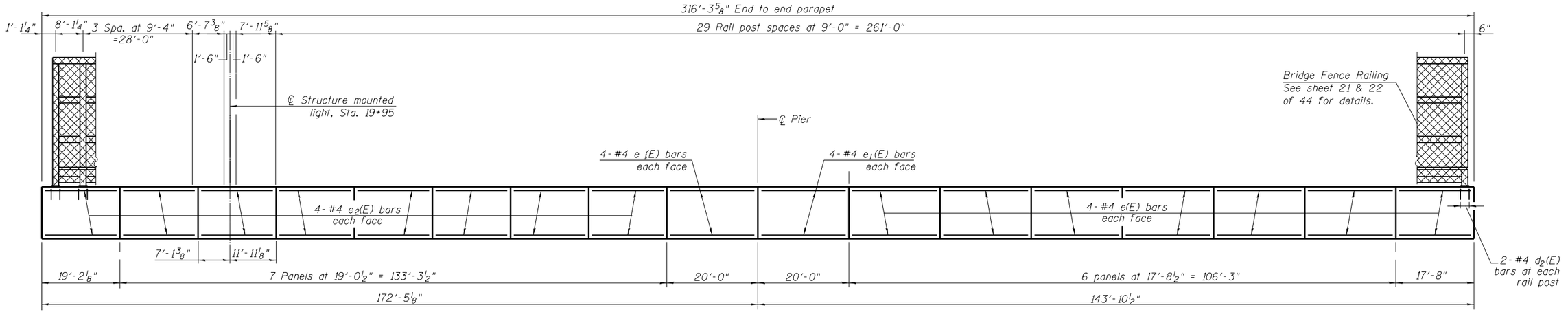
*** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-016-Super Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/30/2019	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

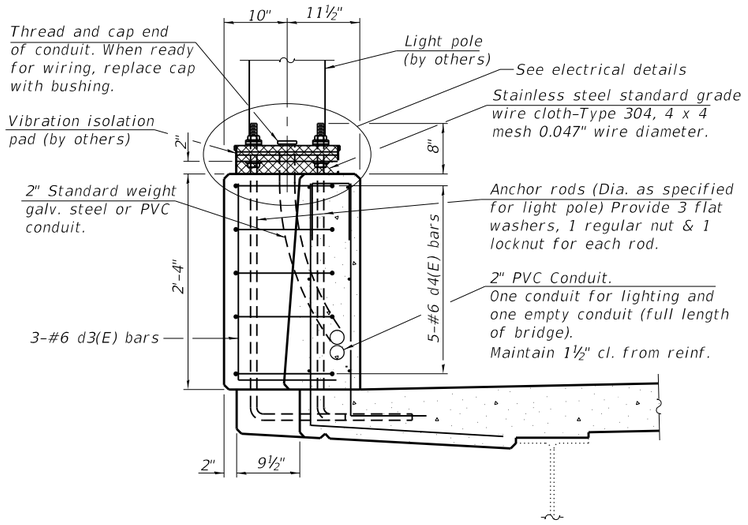
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 010-1270
SHEET NO. 16 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	***	CHAMPAIGN	264	114
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

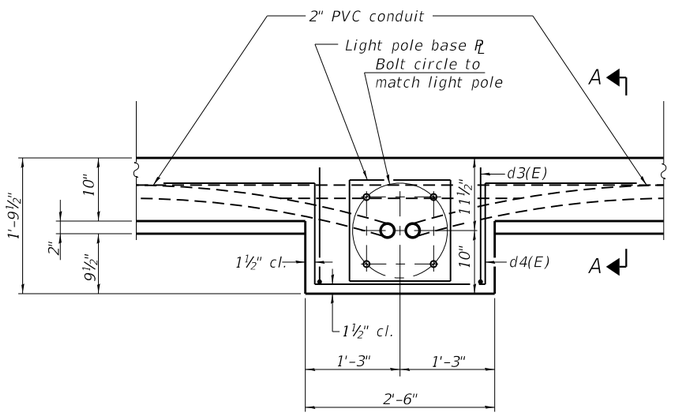


INSIDE ELEVATION OF EAST PARAPET

(Looking East)

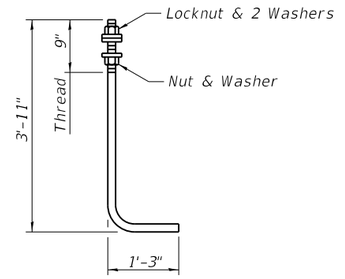


SECTION A-A



PLAN

Note:
Cost of anchor rods and conduit is included with Concrete Superstructure.

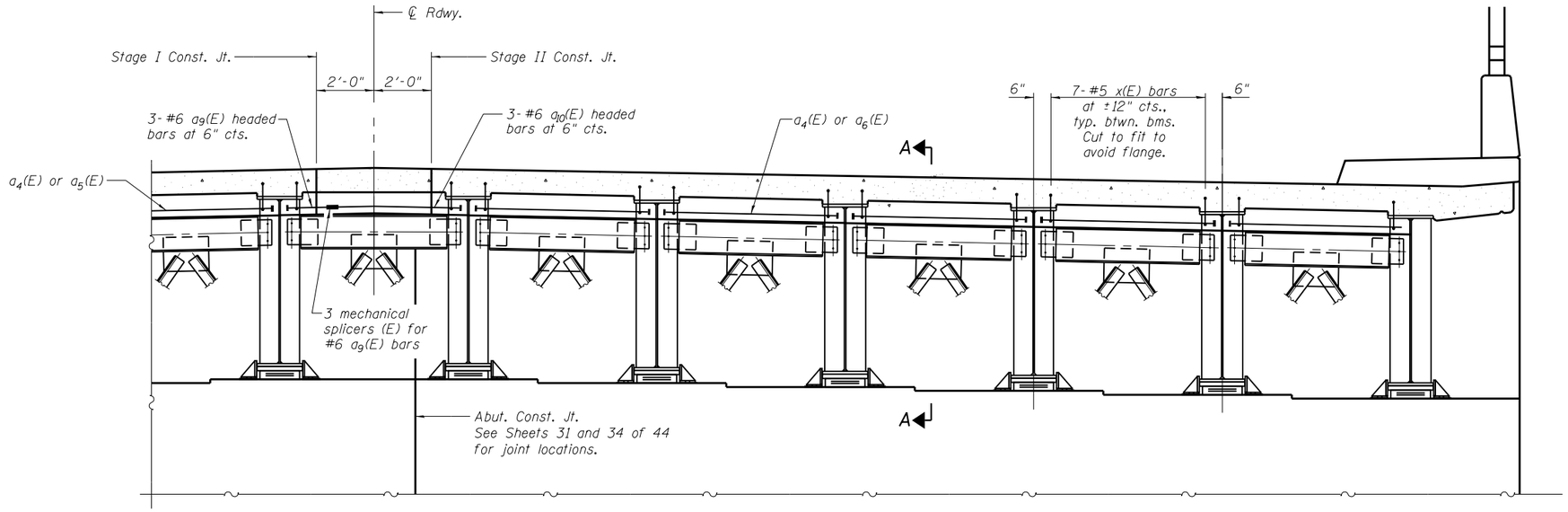


ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105)

* (10-34HB-3)BR&(10-5-1HB)BR-1

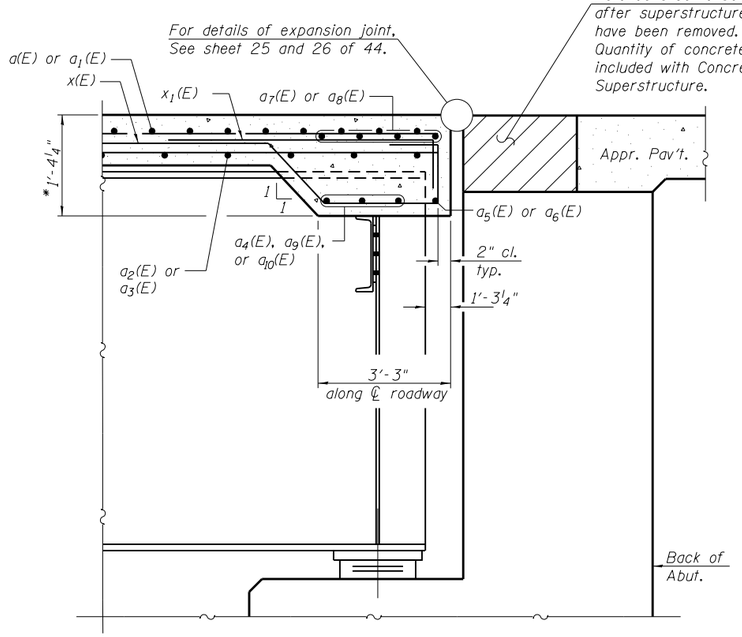
FILE NAME = 0101270-70B38-017-Super Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 010-1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9780		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	115
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/30/2019	CHECKED - BWP	REVISED -		SHEET NO. 17 OF 44 SHEETS			ILLINOIS FED. AID PROJECT		



DIAPHRAGM AT ABUTMENT

(Full cross frame not shown for clarity)
(North abutment shown, looking north, south abutment similar)

Notes:
See sheet 16 of 44 for superstructure details and bill of material.
The x(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For details of bars x(E) and x_1(E) see sheet 16 of 44.



SECTION A-A

(at Rt. L's)

** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-018-Diaphragm Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -
		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

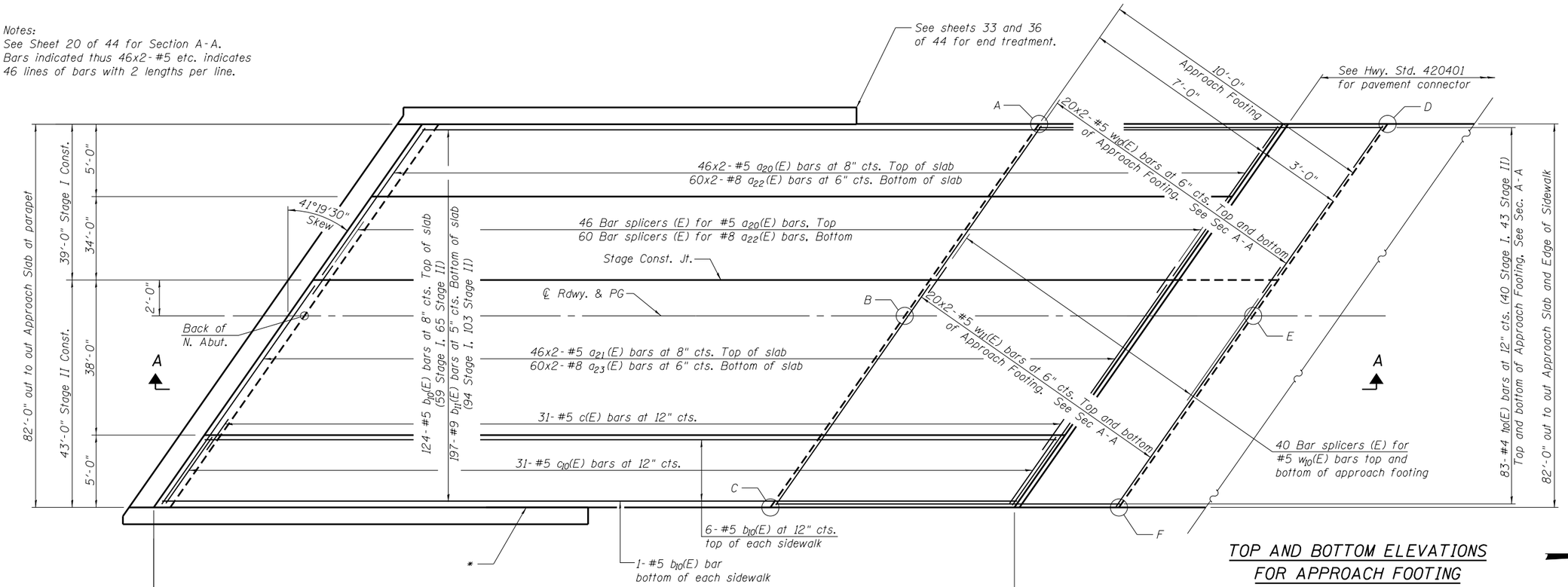
BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
RAYMOND, ILLINOIS 62560
PHONE - 618.897.9160

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 010-1270
SHEET NO. 18 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	116
		CONTRACT NO. 70B38		
		ILLINOIS	FED. AID PROJECT	

Notes:
See Sheet 20 of 44 for Section A-A.
Bars indicated thus 46x2-#5 etc. indicates 46 lines of bars with 2 lengths per line.



PLAN
(North approach shown. South approach similar)

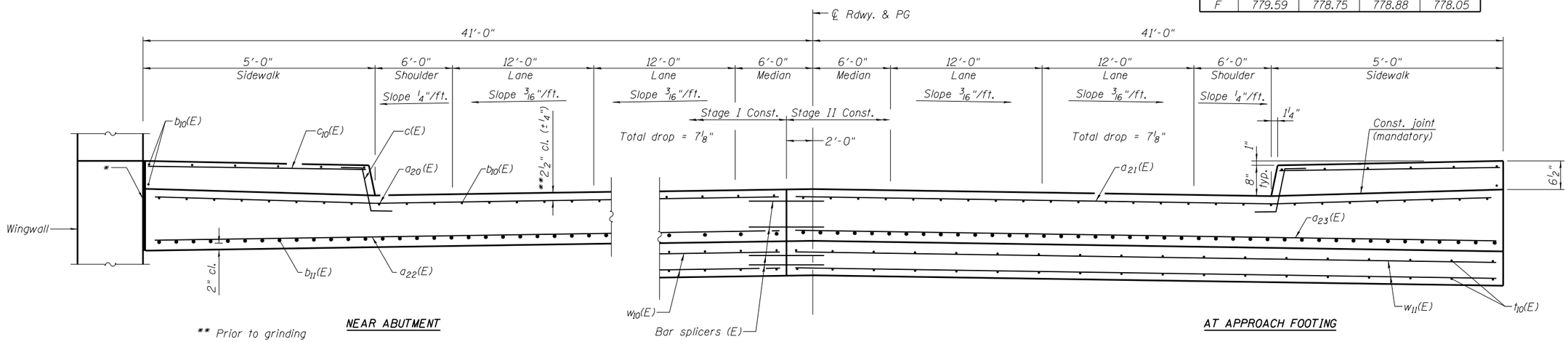
TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	South Approach		North Approach	
Point	Top	Bottom	Top	Bottom
A	781.53	780.70	776.78	775.94
B	780.16	779.32	777.39	776.56
C	779.97	779.13	779.31	778.48
D	781.31	780.47	776.29	775.46
E	779.85	779.02	776.91	776.07
F	779.59	778.75	778.88	778.05

MINIMUM BAR LAP

#5 bar = 3'-9"
#8 bar = 6'-9"

* Preformed Expansion Joint Filler according to Article 1051.09 of the Standard Specifications; full depth of slab and sidewalk, full length of parapet. Typ. each parapet.



** Prior to grinding

NEAR ABUTMENT

AT APPROACH FOOTING

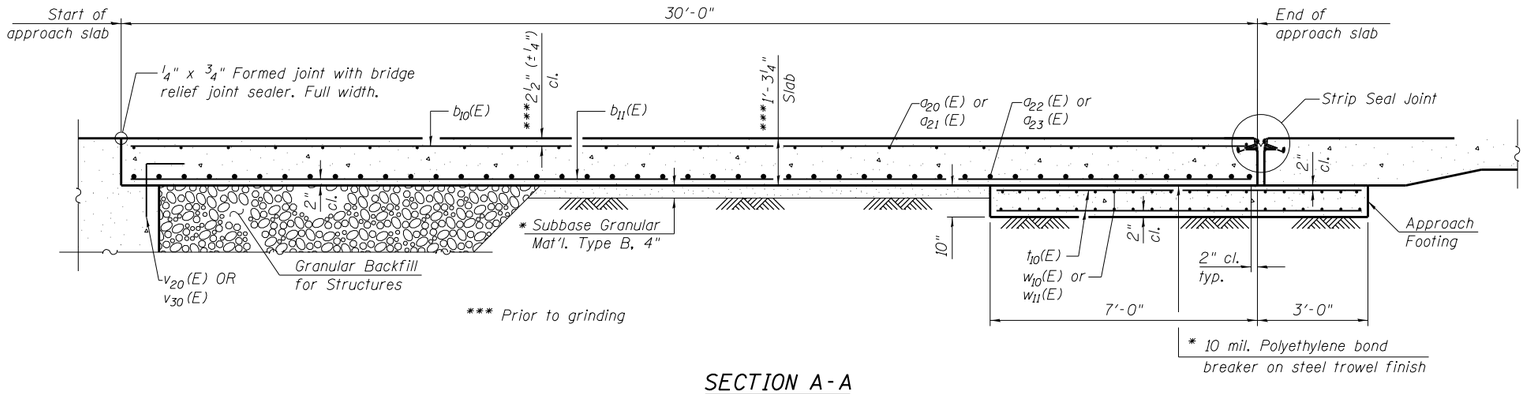
CROSS SECTION
(Looking North)

(Sheet 1 of 2)

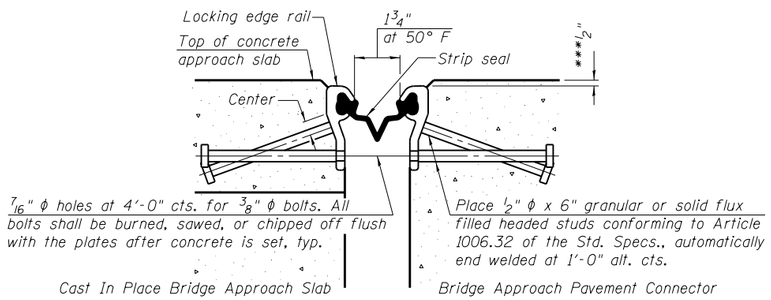
***(10-34HB-3)BR & (10-5-1HB)BR-1

FILE NAME = 0101270-70B38-019-Bridge Approach Slab.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 010-1270
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-(618)997-3190		CHECKED - BWP	REVISED -		SHEET NO. 19 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

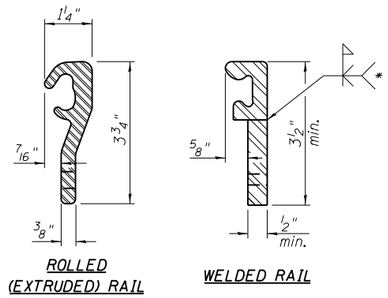
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	***	CHAMPAIGN	264	117
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



SECTION A-A

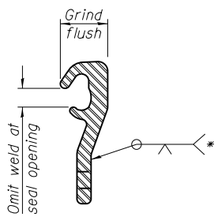


SECTION THRU STRIP SEAL JOINT



LOCKING EDGE RAIL

* Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement.

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The strip seal shall extend 6" beyond the edge of the approach slab on each end. 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 and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

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

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

Parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 3 of 44.

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{20}(E)	184	#5	27'-8"	
a_{21}(E)	184	#5	30'-5"	
a_{22}(E)	240	#8	29'-3"	
a_{23}(E)	240	#8	32'-0"	
b_{10}(E)	276	#5	29'-8"	
b_{11}(E)	394	#9	29'-8"	
c(E)	124	#5	2'-4"	
c_{10}(E)	124	#5	6'-1"	
t_{10}(E)	166	#4	9'-8"	
w_{10}(E)	160	#5	27'-8"	
w_{11}(E)	160	#5	30'-5"	
Concrete Superstructure			Cu. Yd.	20.5
Concrete Superstructure (Approach Slab)			Cu. Yd.	235.0
Concrete Structures			Cu. Yd.	50.6
Reinforcement Bars, Epoxy Coated			Pound	110,530
Preformed Joint Strip Seal			Foot	219

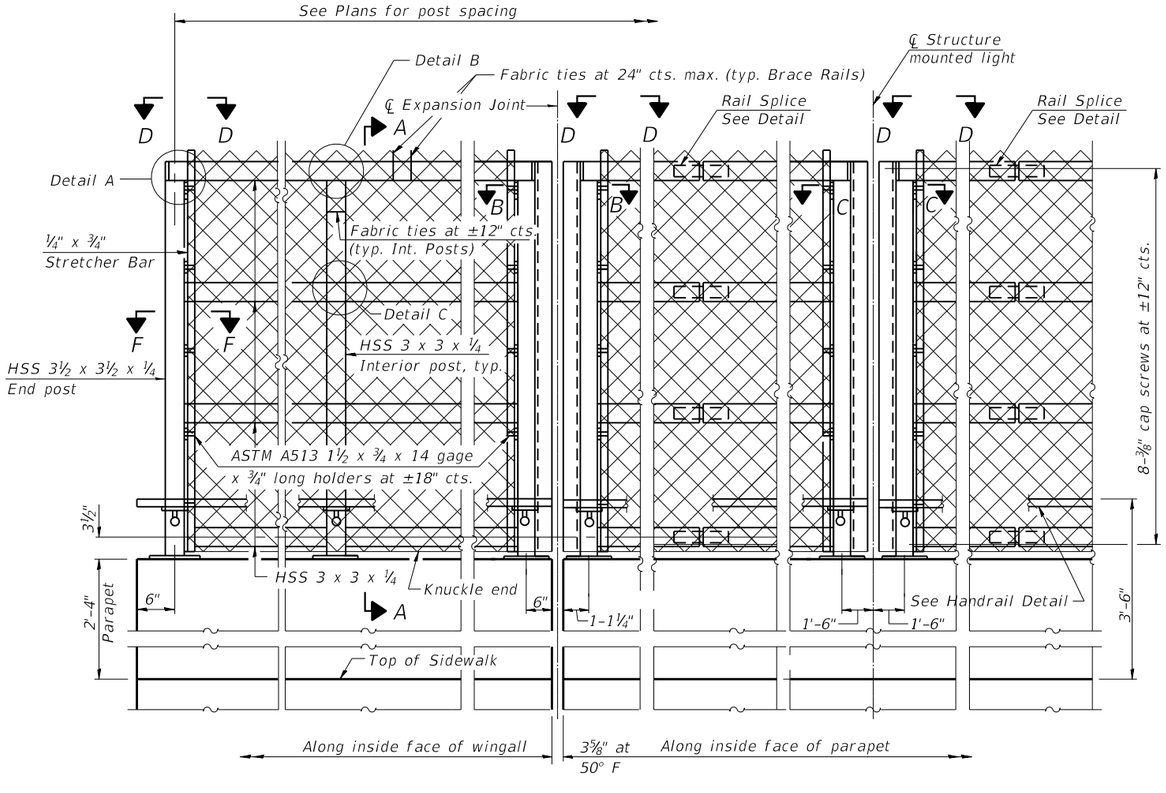
**** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-020-Bridge Approach Slab.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE 618.997.9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

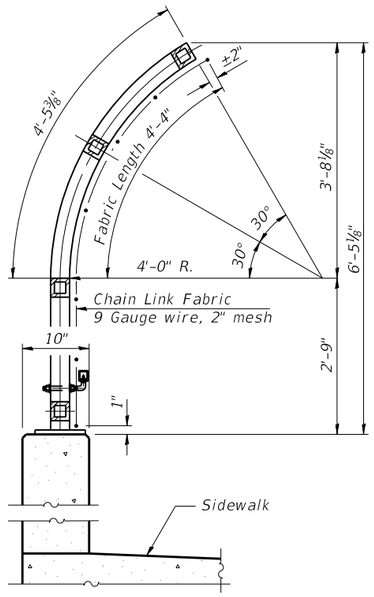
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 010-1270
SHEET NO. 20 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	****	CHAMPAIGN	264	118
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

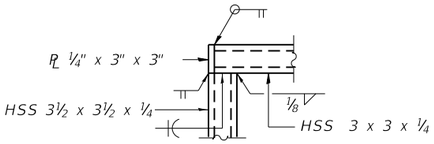


ELEVATION
(Inside Face)

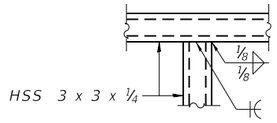


SECTION A-A

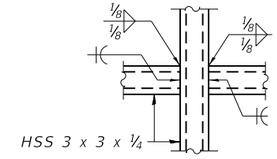
Notes:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications. All of these elements, except the chain link fabric and ties, shall also be powder coated. At a minimum, the powder coating process shall consist of a zinc phosphate pretreatment/wash, a gray zinc rich primer coat, and a black top coat. See Special Provisions.
The galvanized chain link fabric and ties shall be vinyl coated black according to Section 509 and Article 1006.27(a)(1)d of the Standard Specifications.
CVN testing may be omitted for the railing.



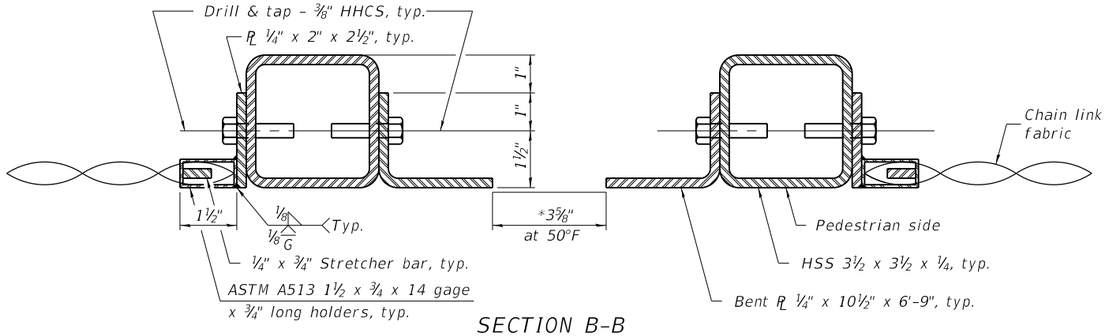
DETAIL A



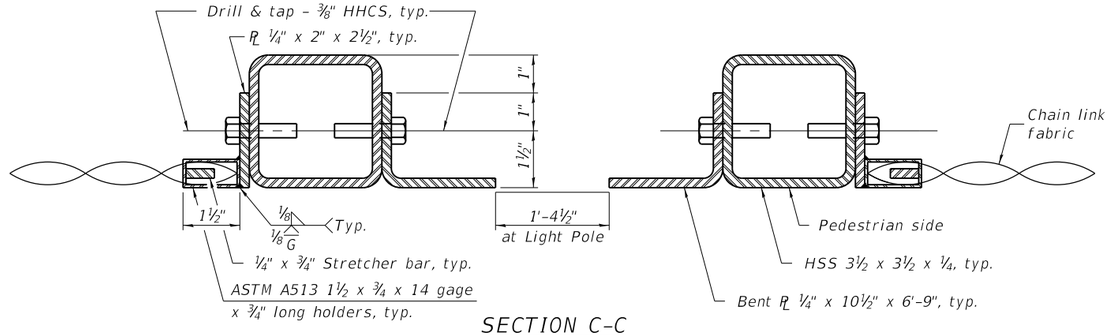
DETAIL B



DETAIL C



SECTION B-B
(At Expansion Joint, along frong face of parapet)

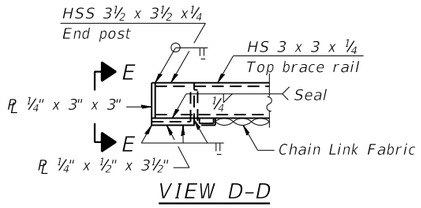


SECTION C-C
(At Light Poles)

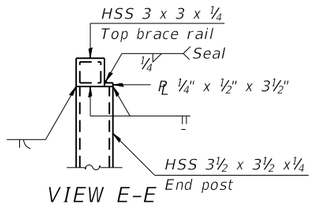
(Sheet 1 of 2)

* (10-34HB-3)BR&(10-5-1HB)BR-1

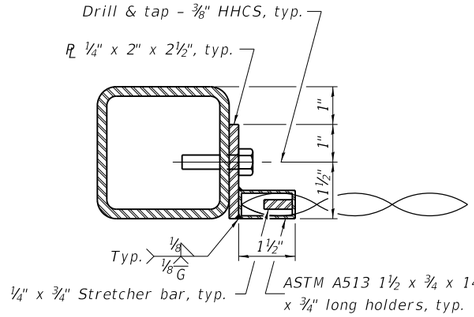
FILE NAME = 0101270-70B38-021-Bridge Fence Railing.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE FENCE RAILING, PARAPET MOUNTED STRUCTURE NO. 010-1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	119
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 5/6/2019	CHECKED - BWP	REVISED -		SHEET NO. 21 OF 44 SHEETS			ILLINOIS FED. AID PROJECT		



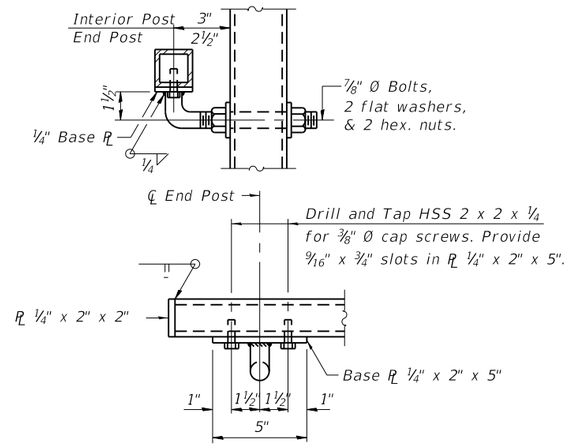
VIEW D-D



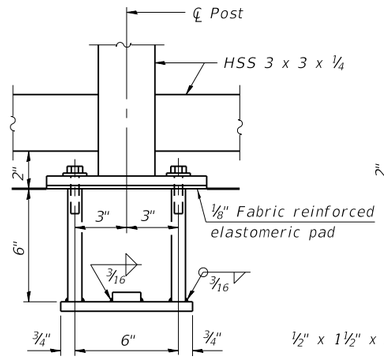
VIEW E-E

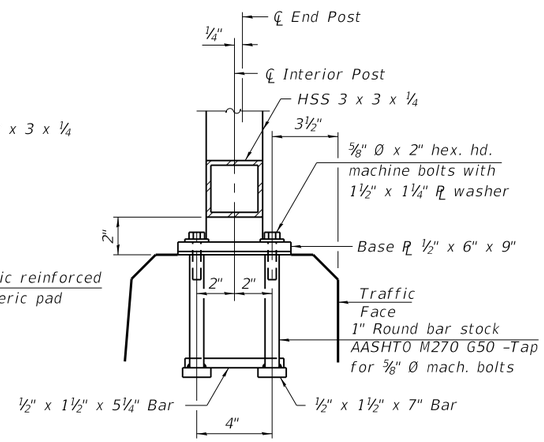


SECTION F-F



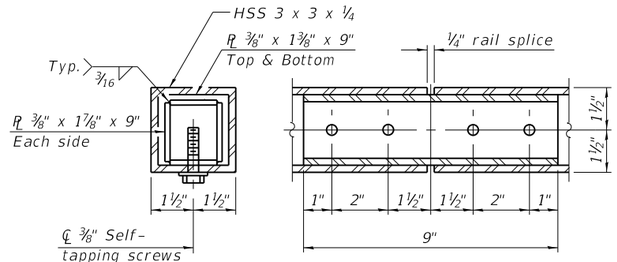
HANDRAIL DETAIL



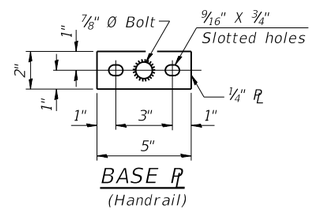


ANCHOR BOLT DETAILS

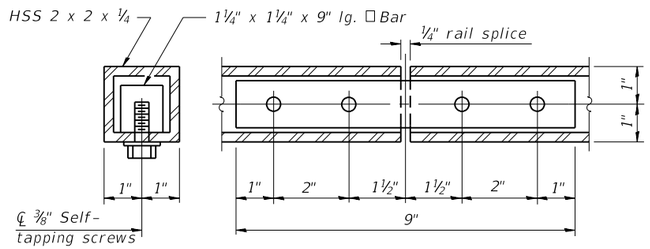
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" Ø anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



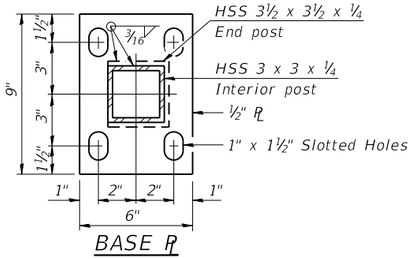
RAIL SPLICE



BASE PL
(Handrail)



HANDRAIL SPLICE



BASE PL

BILL OF MATERIAL

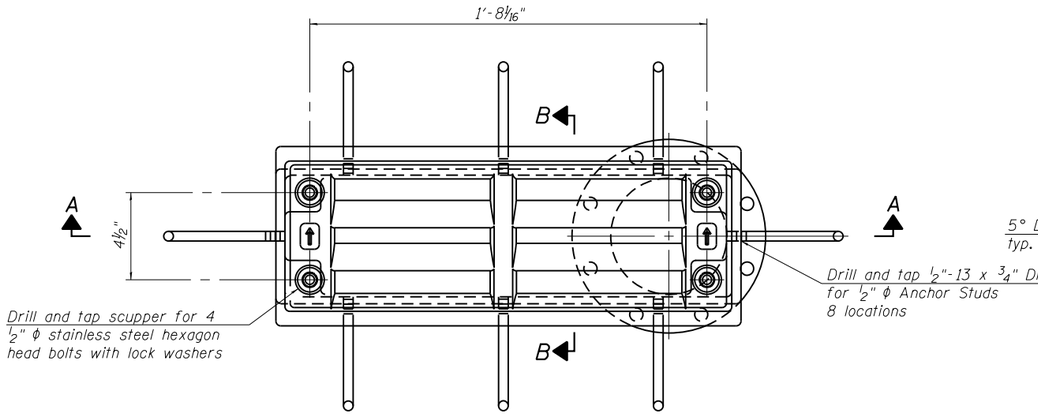
Item	Unit	Quantity
Bridge Fence Railing	Foot	701

(Sheet 2 of 2)

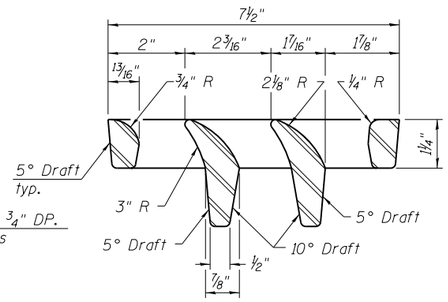
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-022-Bridge Fence Railing.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BRIDGE FENCE RAILING, PARAPET MOUNTED STRUCTURE NO. 010-1270
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -		SHEET NO. 22 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 2/10/2020	CHECKED - BWP	REVISED -		

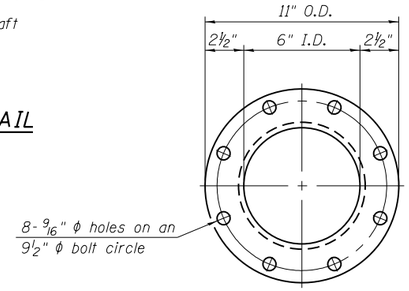
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	120
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



PLAN



VANE GRATE 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.

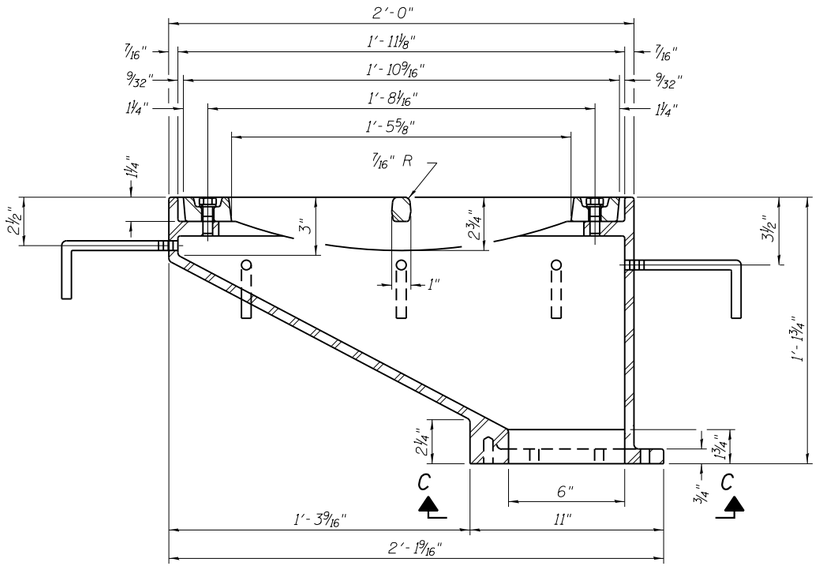
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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.

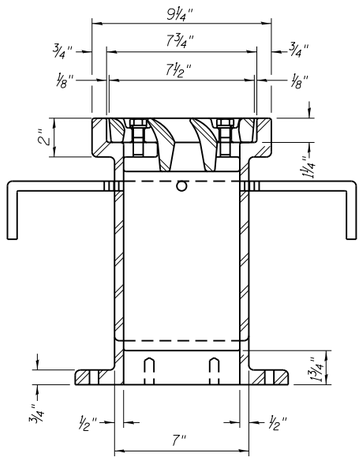
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

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.

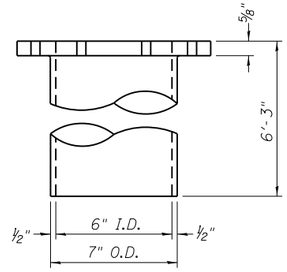


SECTION A-A

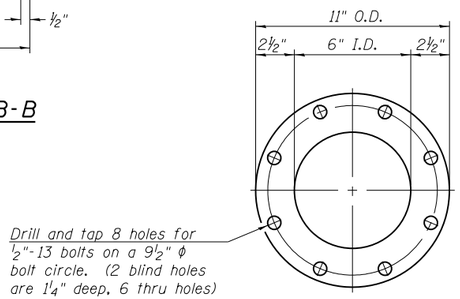
See sheet 16 of 44 for scupper location relative to parapet.



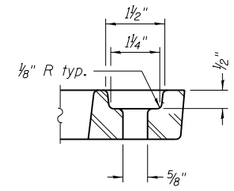
SECTION B-B



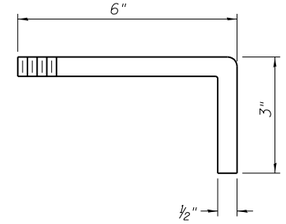
DOWNSPOUT



VIEW C-C



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

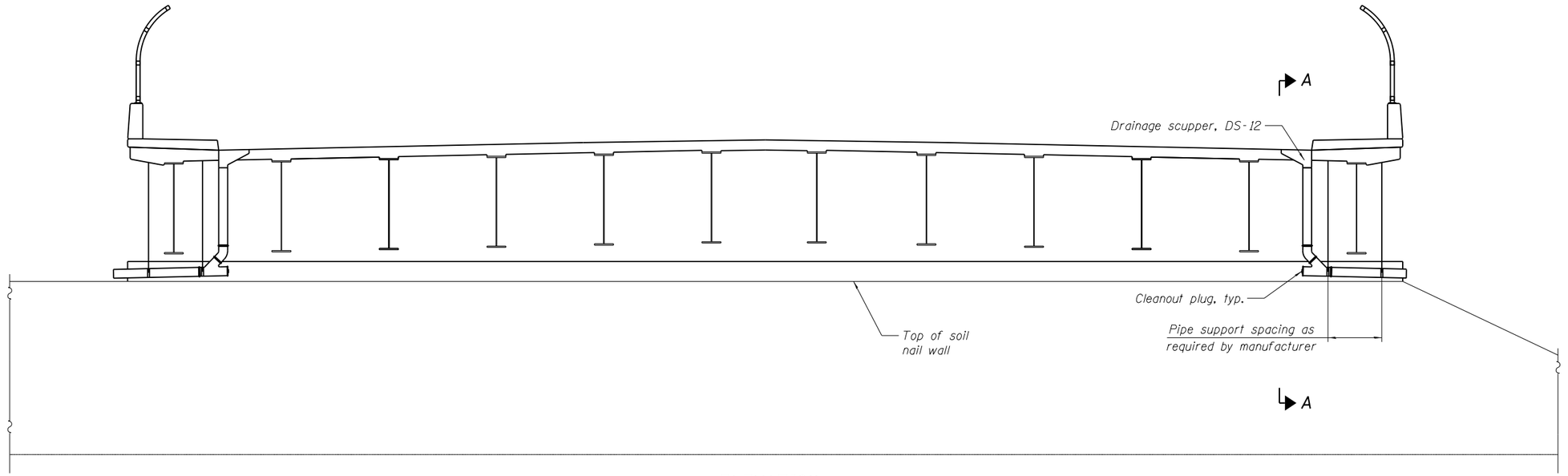
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	4

DS-12 2-17-2017

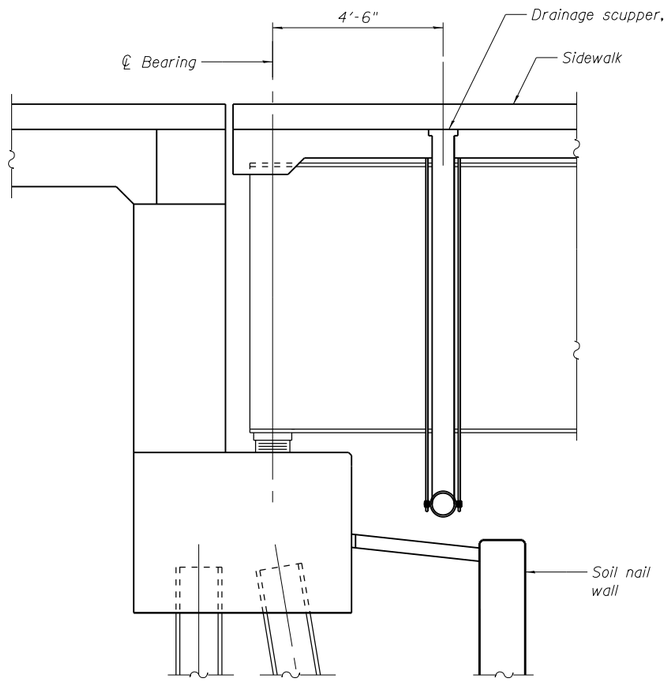
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-023-Drainage Scupper.dgn	USER NAME =	DESIGNED - CMV	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**DRAINAGE SCUPPER, DS-12 STRUCTURE NO. 010-1270**
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE 618.997.9780		CHECKED - BWP	REVISED -		SHEET NO. 23 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

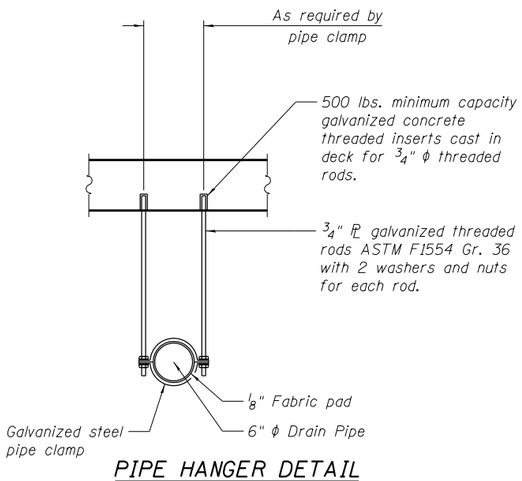
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	121
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



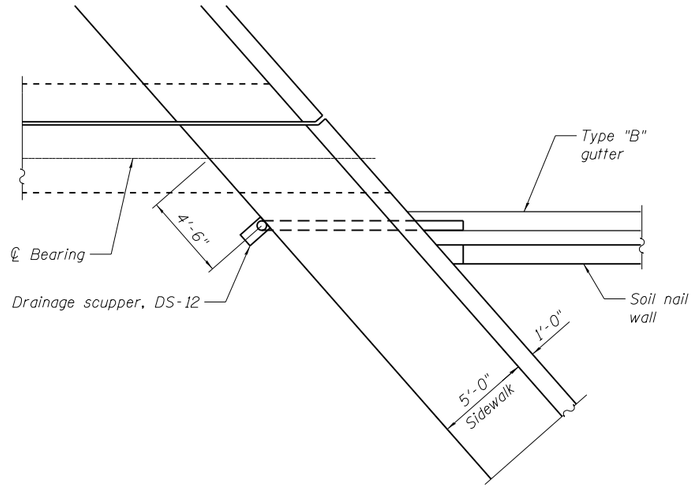
ELEVATION
Looking north



SECTION A-A



PIPE HANGER DETAIL



DRAINAGE SYSTEM PLAN
East end shown, west end similar

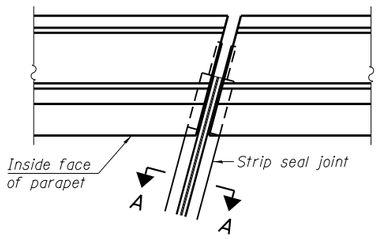
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-024-Drainage System.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

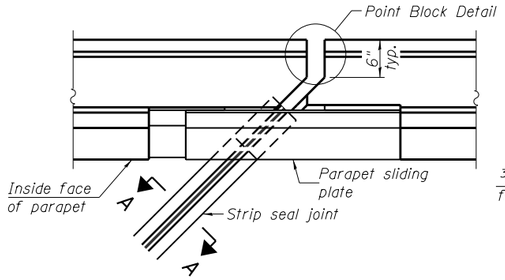
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM
STRUCTURE NO. 010-1270
SHEET NO. 24 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	122
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

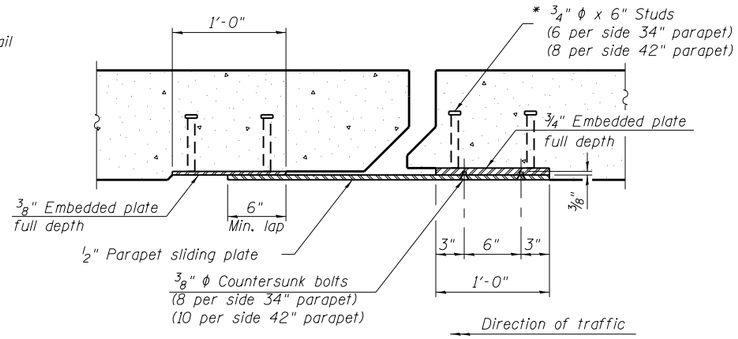


FOR SKEWS = 30°



FOR SKEWS > 30°

PLAN AT PARAPET



SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". 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 configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

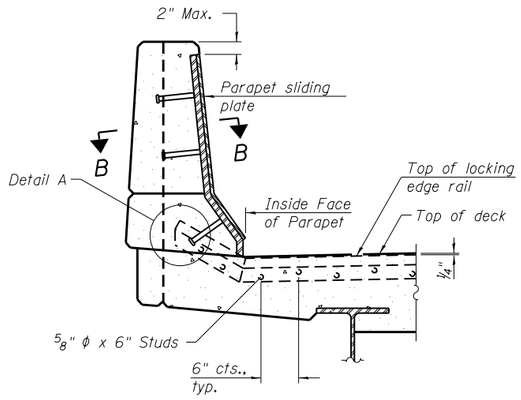
The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

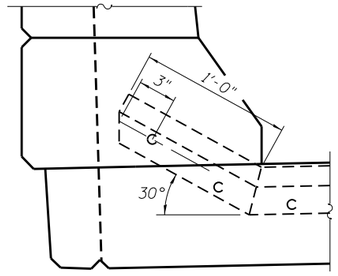
34" F-shape barrier shown, 42" F-shape similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

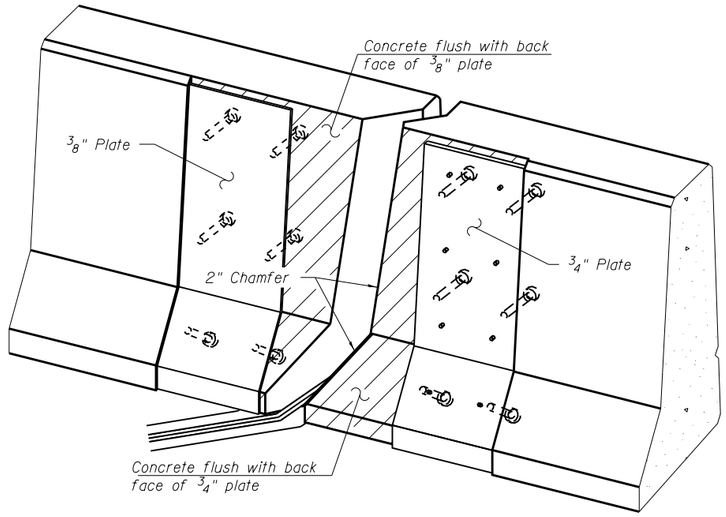


ELEVATION AT PARAPET

(Skews > 30° shown. Skews = 30° similar except as shown in plan view.)



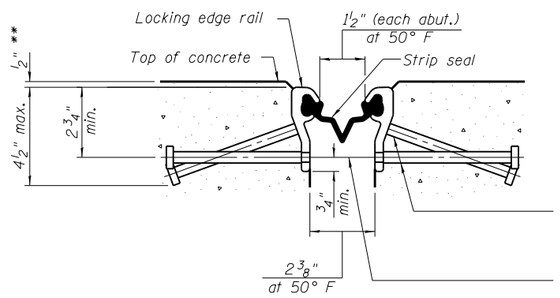
DETAIL A



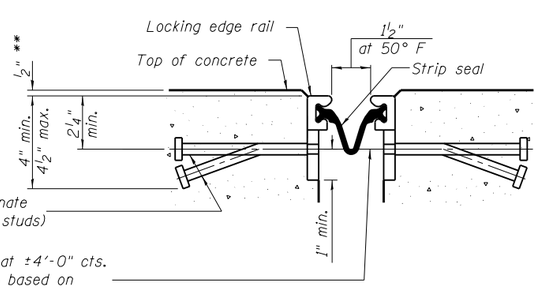
TRIMETRIC VIEW

(Showing embedded plates only)

** Prior to grinding



SHOWING ROLLED RAIL JOINT



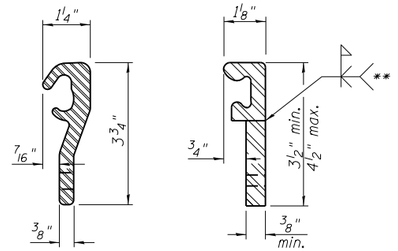
SHOWING WELDED RAIL JOINT

* 5/8" ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

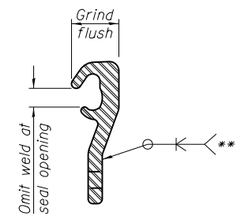


ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	219

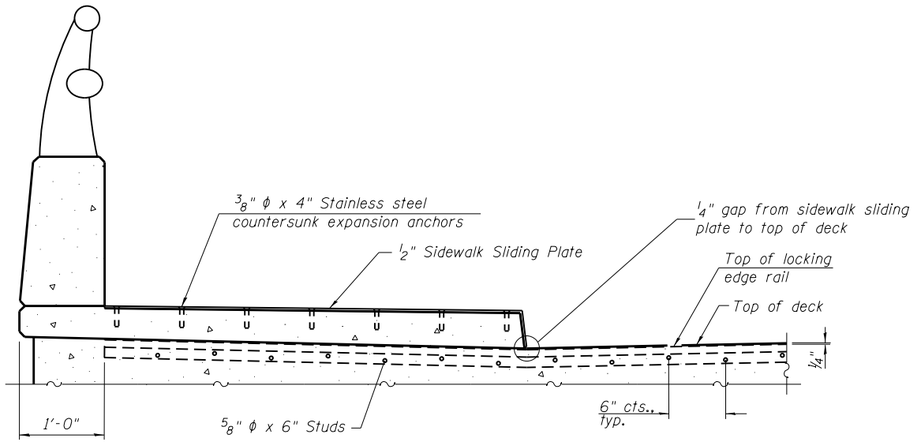
EJ-SS-S 8-11-17

(Sheet 1 of 2)

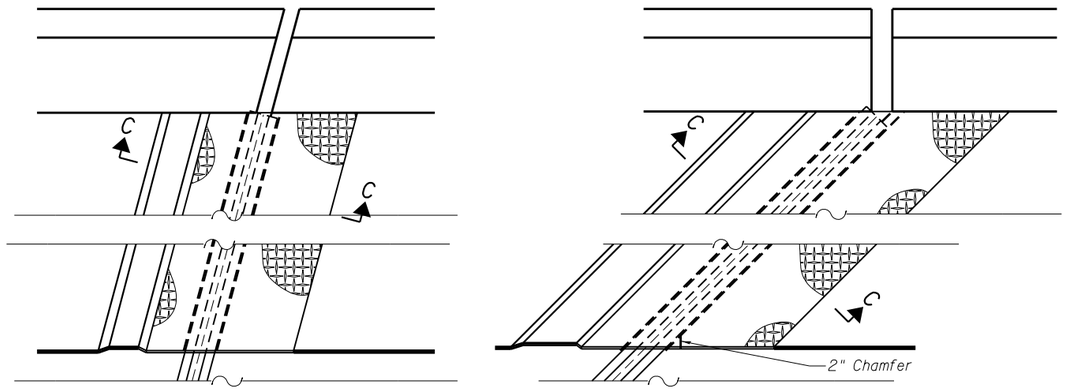
***(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-025-Expansion Joint Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 010-1270
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9150		CHECKED - BWP	REVISED -		SHEET NO. 25 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	***	CHAMPAIGN	264	123
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



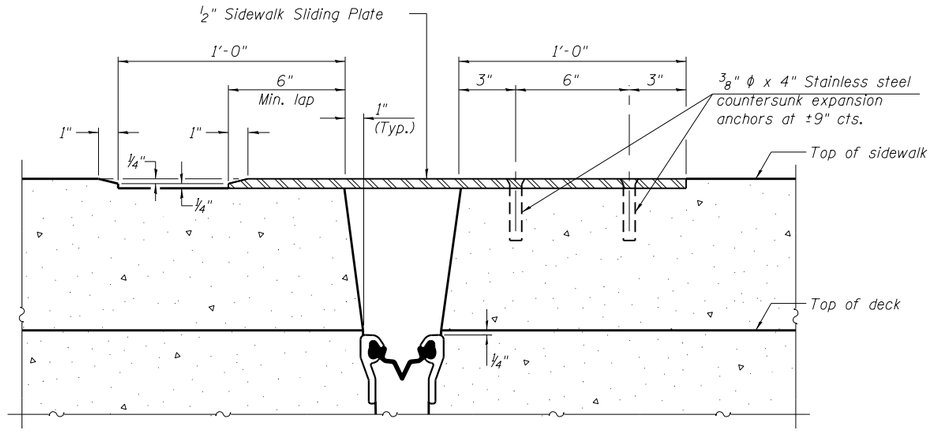
ELEVATION AT RAISED SIDEWALK



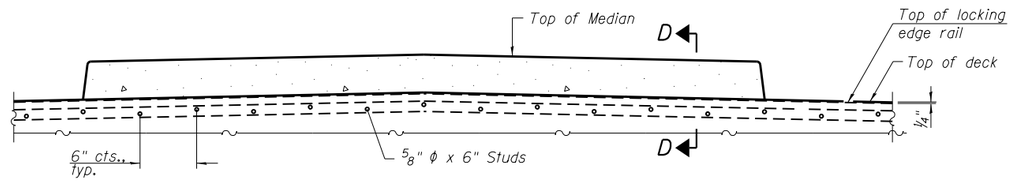
(FOR SKEWS = 30°)

(FOR SKEWS > 30°)

PLAN AT RAISED SIDEWALK

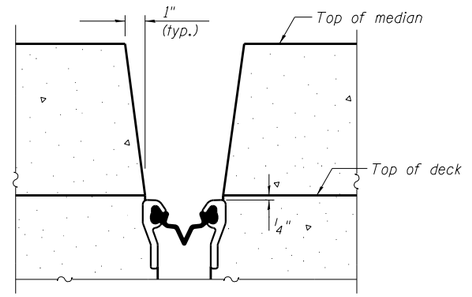


SECTION C-C



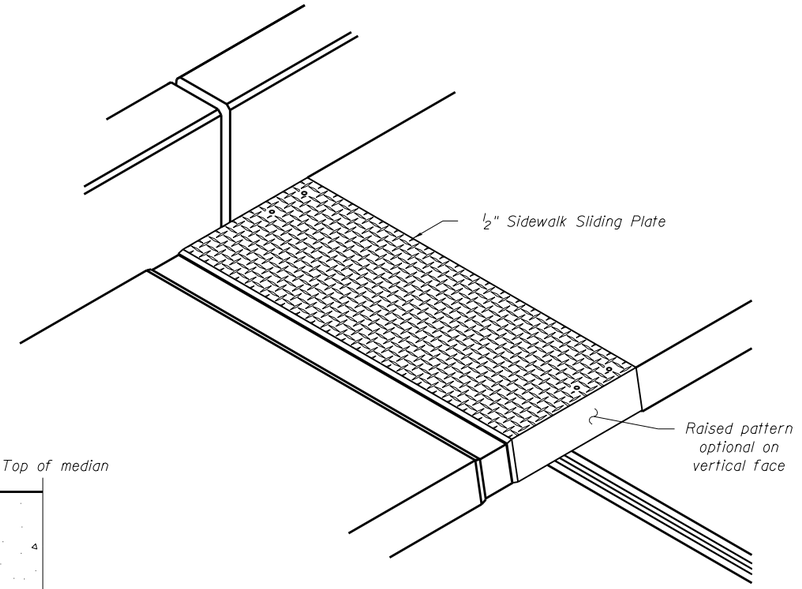
ELEVATION AT MEDIAN

For skews > 30°, chamfer acute corners 2" similar to sidewalk.



SECTION D-D

(at Rt. ℄'s)



TRIMETRIC VIEW

EJ-SS-S 8-11-17

(Sheet 2 of 2)

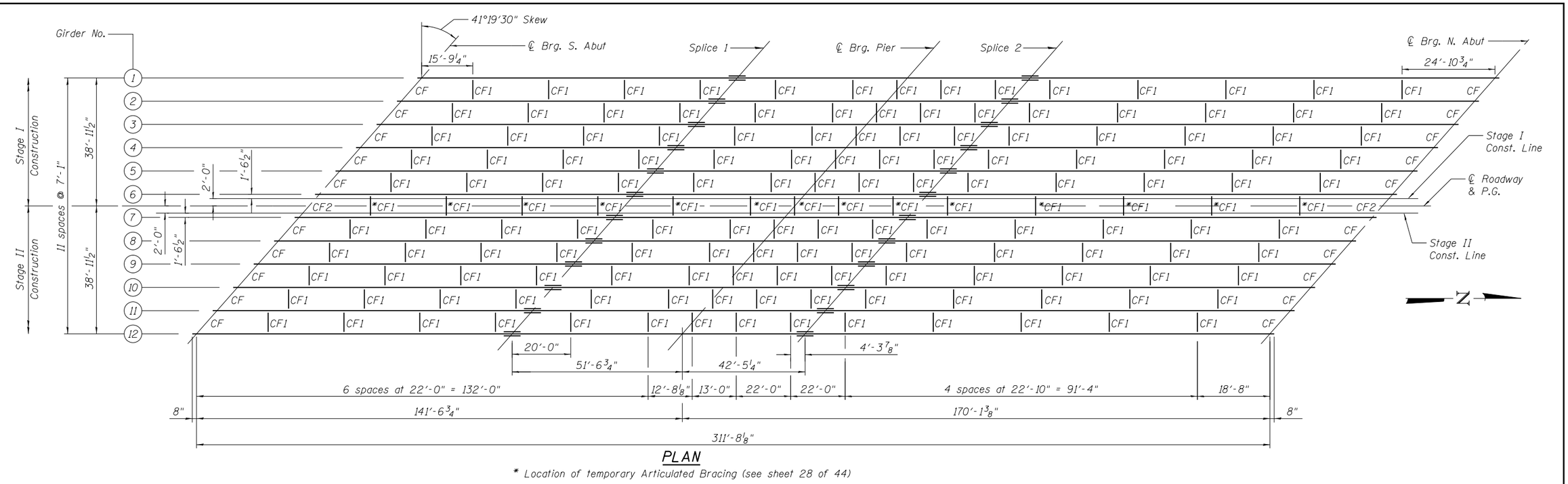
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-026-Expansion Joint Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

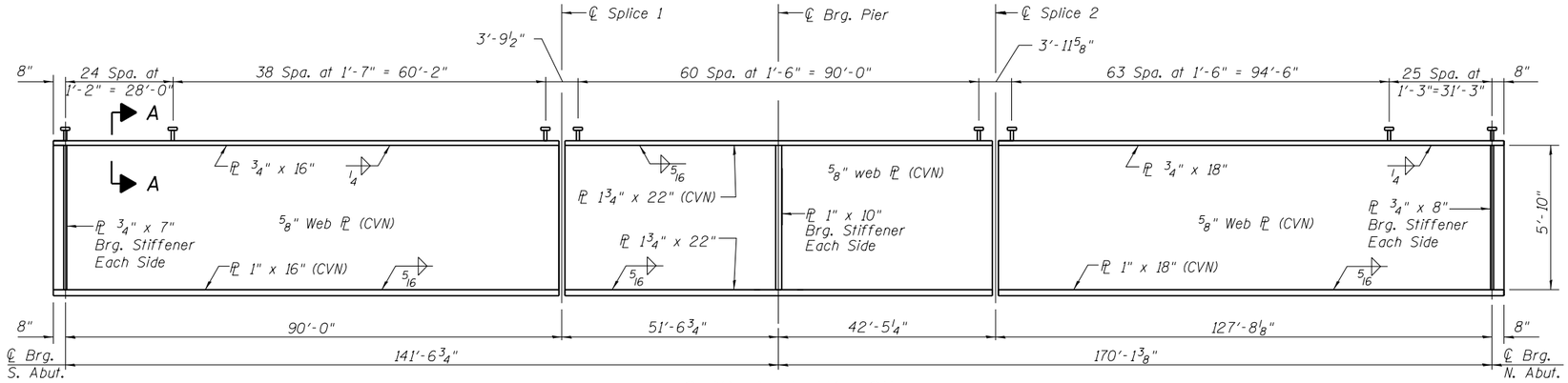
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 010-1270
SHEET NO. 26 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	124
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



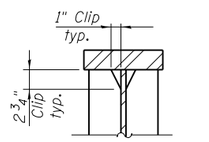
PLAN

* Location of temporary Articulated Bracing (see sheet 28 of 44)



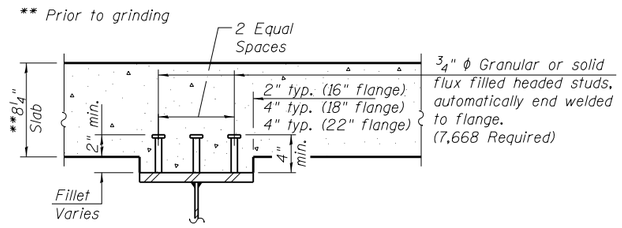
GIRDER ELEVATION

"CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.



DETAIL "C"

(Typical Top and Bottom Flanges)

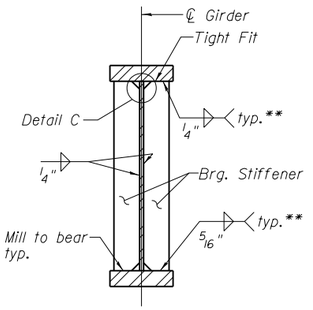


SECTION A-A

Notes:

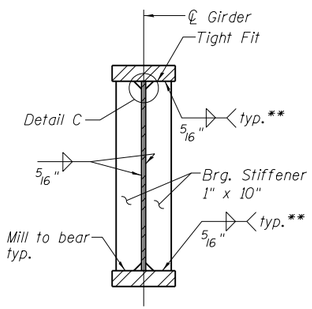
All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

All flange, web, and bearing stiffener plates shall be AASHTO M270, Grade 50.



BEARING STIFFENER AT ABUTMENT

(No. plates required = 48)



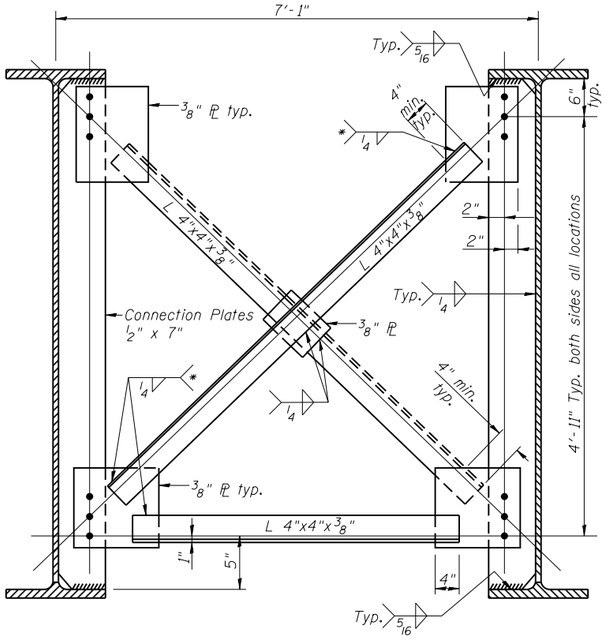
BEARING STIFFENER AT PIER

(No. plates required = 24)

** Terminate weld ¼" (± ⅛") from the end of plate intersects.

*** (10-34HB-3)BR&(10-5-1HB)BR-1

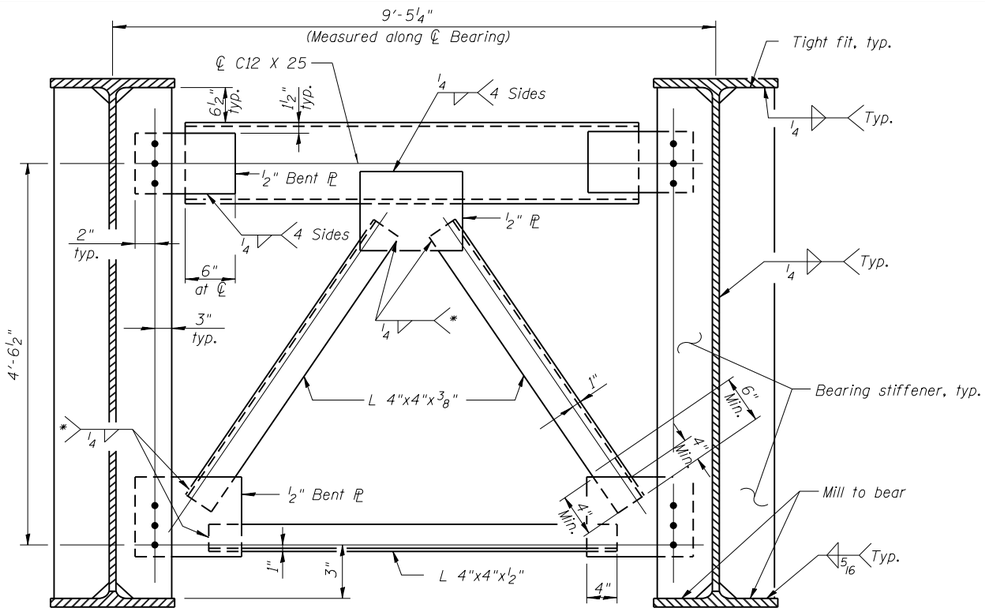
FILE NAME = 0101270-70B38-027-Structural Steel.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL STRUCTURE NO. 010–1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -			7158	***	CHAMPAIGN	264	125
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		SHEET NO. 27 OF 44 SHEETS			ILLINOIS FED. AID PROJECT		



INTERIOR CROSS FRAME CF1

(No. Req'd. = 154)

* Fillet weld angles along 3 sides on one face of gusset plate



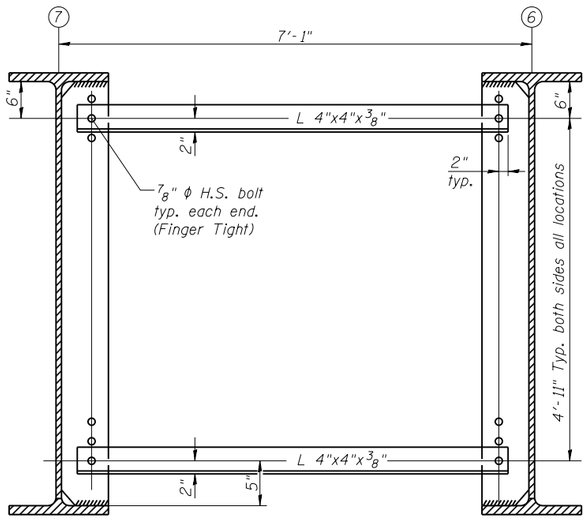
END CROSS FRAME CF

(No. Req'd. = 20)

* Weld on near side of 1/2" plate.

Notes:

Use 3/4" ϕ H.S. bolts with 15/16" ϕ holes for all cross frame connections.
Two hardened washers required for each set of oversized holes.
Place end cross frame with channel flanges and outstanding legs outward from abutment backwall.



TEMPORARY ARTICULATED BRACING

(No. Req'd. = 14)

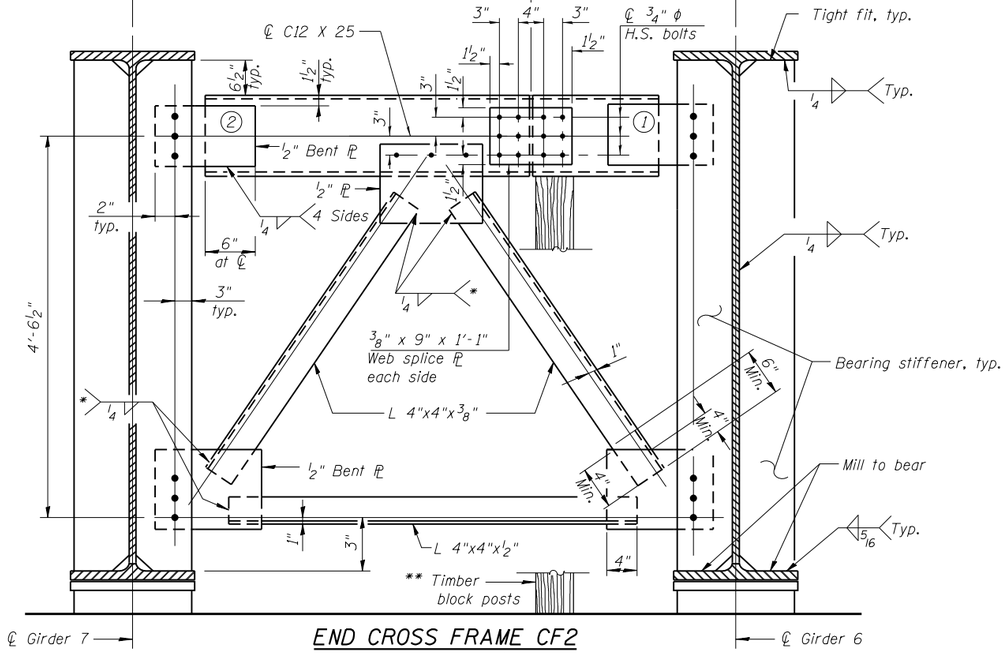
See CF1 for details not shown above.

After closure pour is complete, temporary braces shall be replaced by cross frames CF1 and as shown on framing plan.

END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE

1.) Order cross frame in three sections.
2.) Attach section ① of cross frame to girder 6.
3.) Place timber block posts between section ① of cross frame and abutment bearing section.
4.) Attach section ② of cross frame to both girder 7 and section ① of cross frame during stage II construction with splice plates.
5.) Remove timber block posts.
6.) Install lower portion of cross frame.

** Cost of Timber Block Posts is included with Structural Steel.



END CROSS FRAME CF2

(No. Req'd. = 2)

* Weld on near side of 1/2" plate.

***(10-34HB-3)BR&(10-5-1HB)BR-1

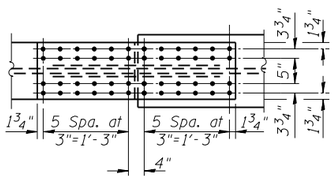
FILE NAME = 0101270-70B38-028-Structural Steel.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL DETAILS STRUCTURE NO. 010-1270
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-(618)997-3190		CHECKED - BWP	REVISED -		SHEET NO. 28 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	***	CHAMPAIGN	264	126
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

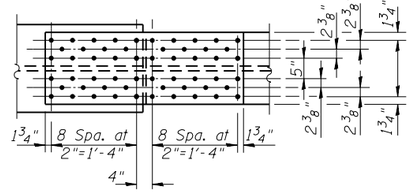
*TOP OF WEB ELEVATIONS

Location	℄ Brg. S. Abut.	℄ Splice 1	℄ Brg. Pier	℄ Splice 2	℄ Brg. N. Abut.
Girder 1	780.95	781.29	780.85	780.48	776.85
Girder 2	781.01	781.45	781.06	780.74	777.22
Girder 3	781.06	781.58	781.24	780.96	777.57
Girder 4	781.08	781.69	781.40	781.17	777.90
Girder 5	781.09	781.80	781.56	781.37	778.23
Girder 6	781.10	781.89	781.71	781.56	778.56
Girder 7	780.99	781.88	781.74	781.64	778.76
Girder 8	780.76	781.74	781.66	781.59	778.85
Girder 9	780.53	781.60	781.57	781.55	778.93
Girder 10	780.29	781.45	781.47	781.49	779.00
Girder 11	780.03	781.28	781.36	781.42	779.06
Girder 12	779.74	781.08	781.21	781.32	779.09

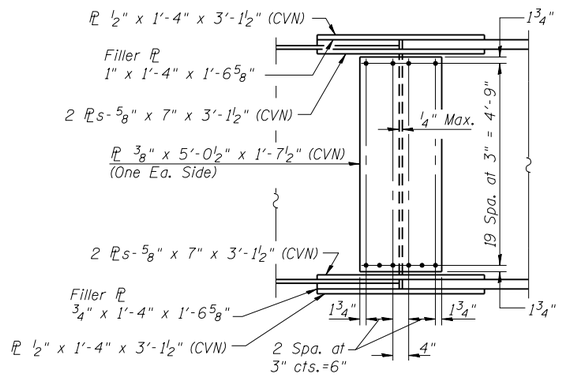
*For fabrication use only.



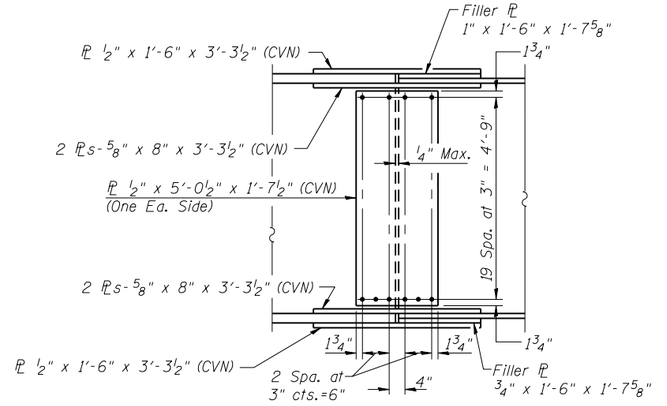
TOP & BOTTOM FLANGE



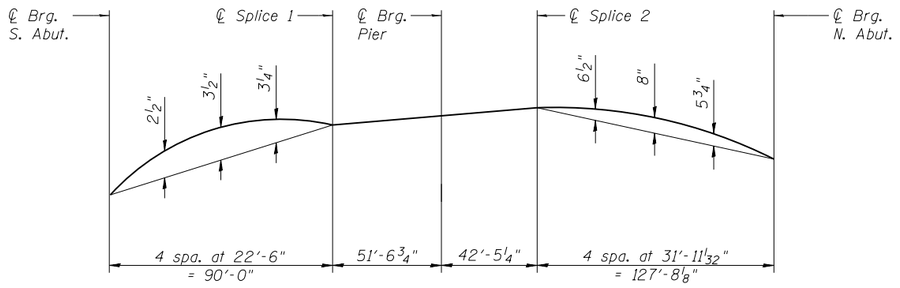
TOP & BOTTOM FLANGE



FIELD SPLICE 1 DETAIL



FIELD SPLICE 2 DETAIL



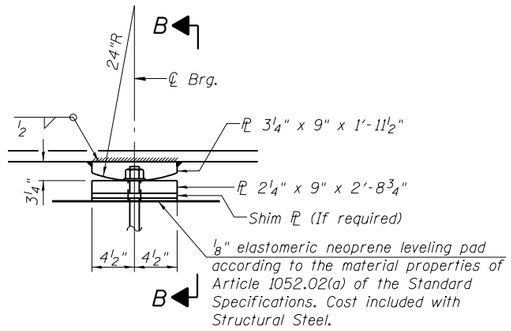
CAMBER DIAGRAM

Notes:
Use 7/8" ϕ H.S. bolts with 15/16" ϕ holes for all splice connections.
"CVN denotes Charpy-V-Notch impact energy requirements, Zone 2.
All splice plates shall be AASHTO M 270 Grade 50.

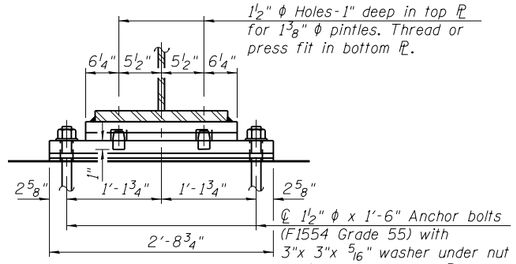
**(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-029-Structural Steel Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL DETAILS STRUCTURE NO. 010-1270
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: 618.997.3190		CHECKED - BWP	REVISED -		
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		SHEET NO. 29 OF 44 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	127
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

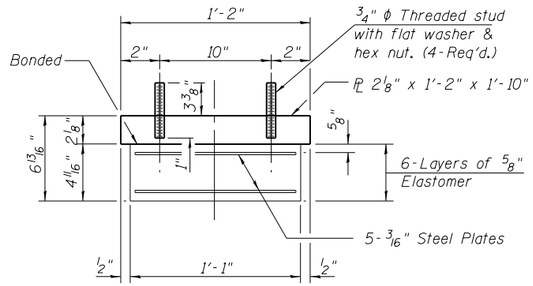


ELEVATION AT PIER



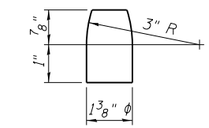
SECTION B-B

FIXED BEARING

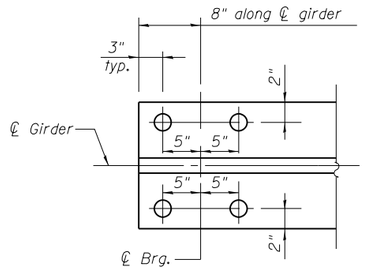


BEARING ASSEMBLY

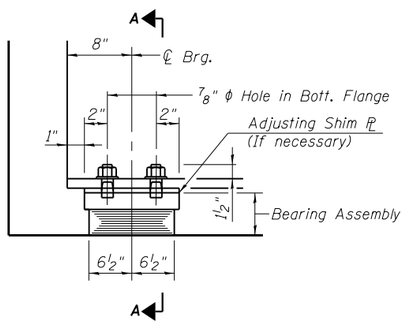
Note: Shim plates shall not be placed under bearing assembly.



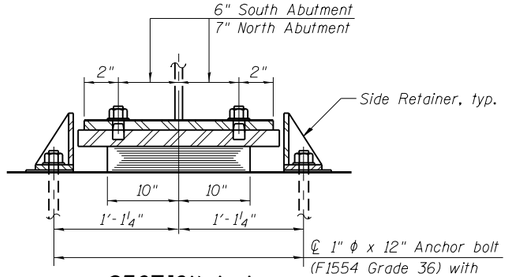
PINTLE



NORTH AND SOUTH END OF GIRDER PLAN
(showing bottom flange)



ELEVATION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type 1	Each	24
Anchor Bolts, 1" ϕ	Each	48
Anchor Bolts, 1½" ϕ	Each	24

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in^4)	52,760	116,984	57,099
$I_c(n)$	(in^4)	121,032	200,274	127,610
$I_c(3n)$	(in^4)	88,317	155,243	93,378
$I_c(cr)$	(in^4)	---	128,431	---
S_s	(in^3)	1,552	3,183	1,687
$S_c(n)$	(in^3)	2,137	7,174	2,276
$S_c(3n)$	(in^3)	1,928	4,195	2,061
$S_c(cr)$	(in^3)	---	3,288	---
DC1	(k/')	1,071	1,263	1,085
M_{DC1}	('k)	925	4,117	2,043
DC2	(k/')	0,333	0,333	0,333
M_{DC2}	('k)	317	1,209	673
DW	(k/')	0,337	0,337	0,337
M_{DW}	('k)	321	1,224	681
LLDF		0,571	0,556	0,543
M_{L+IM}	('k)	2,082	2,780	2,436
M_U (Strength I)	('k)	5,678	13,359	8,680
$\phi_f M_n$	('k)	10,884	14,210	10,914
f_s DC1	(ksi)	7,2	15,5	14,5
f_s DC2	(ksi)	2,0	4,4	3,9
f_s DW	(ksi)	2,0	4,5	4,0
f_s (L+IM)	(ksi)	11,7	10,2	12,8
f_s (Service II)	(ksi)	26,3	37,6	39,1
$0.95R_hF_{yf}$	(ksi)	47,5	47,5	47,5
f_s (Total)(Strength I)	(ksi)	---	49,4	---
$\phi_f F_n$	(ksi)	---	---	---
V_f	(k)	36,5	29,4	35,4

GIRDER REACTION TABLE

		South Abut.		Pier		North Abut.	
		Interior	Exterior	Interior	Exterior	Interior	Exterior
LLDF		0,749	0,602	0,749	0,602	0,749	0,602
OCF		---	1,180	---	---	---	1,180
R_{DC1}	(k)	46,5	51,3	229,4	251,6	66,5	73,4
R_{DC2}	(k)	15,0	15,0	67,6	67,6	21,2	21,2
R_{DW}	(k)	15,2	15,2	68,4	68,4	21,5	21,5
R_{LL}	(k)	79,1	75,0	177,1	142,4	84,3	80,0
R_{IM}	(k)	16,3	15,5	29,8	23,9	16,5	15,7
R_{Total}	(k)	172,1	172,0	572,3	553,9	210,0	211,8

Notes:

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.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured. Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

All bearing plates and pintles shall be AASHTO M270 Grade 50.

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

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (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 (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

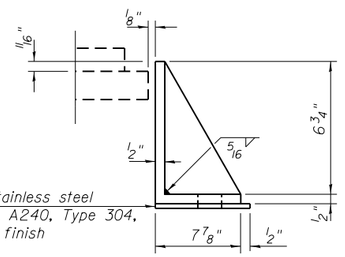
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

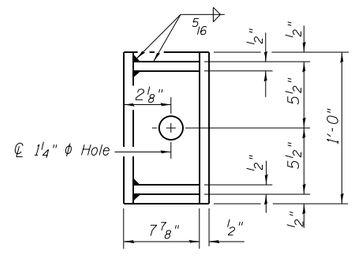
$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

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

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

V_r: Maximum factored shear range in span computed according to Article 6.10.10.





SIDE RETAINER

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

FILL PLATE THICKNESS

	S. Abut.	Pier	N. Abut.
Girder 1	---	---	---
Girder 2	---	---	---
Girder 3	½"	---	---
Girder 4	---	---	---
Girder 5	¼"	---	---
Girder 6	¼"	⅝"	---
Girder 7	---	---	---
Girder 8	---	---	---
Girder 9	---	---	---
Girder 10	---	---	---
Girder 11	---	---	⅝"
Girder 12	---	---	---

* (10-34HB-3)BR&(10-5-1)BR-1

FILE NAME = 0101270-70B38-030-Bearing Details.dgn | USER NAME = | PLOT SCALE = | PLOT DATE = 4/29/2019

DESIGNED - CMV | CHECKED - BWP | DRAWN - BJV | CHECKED - BWP

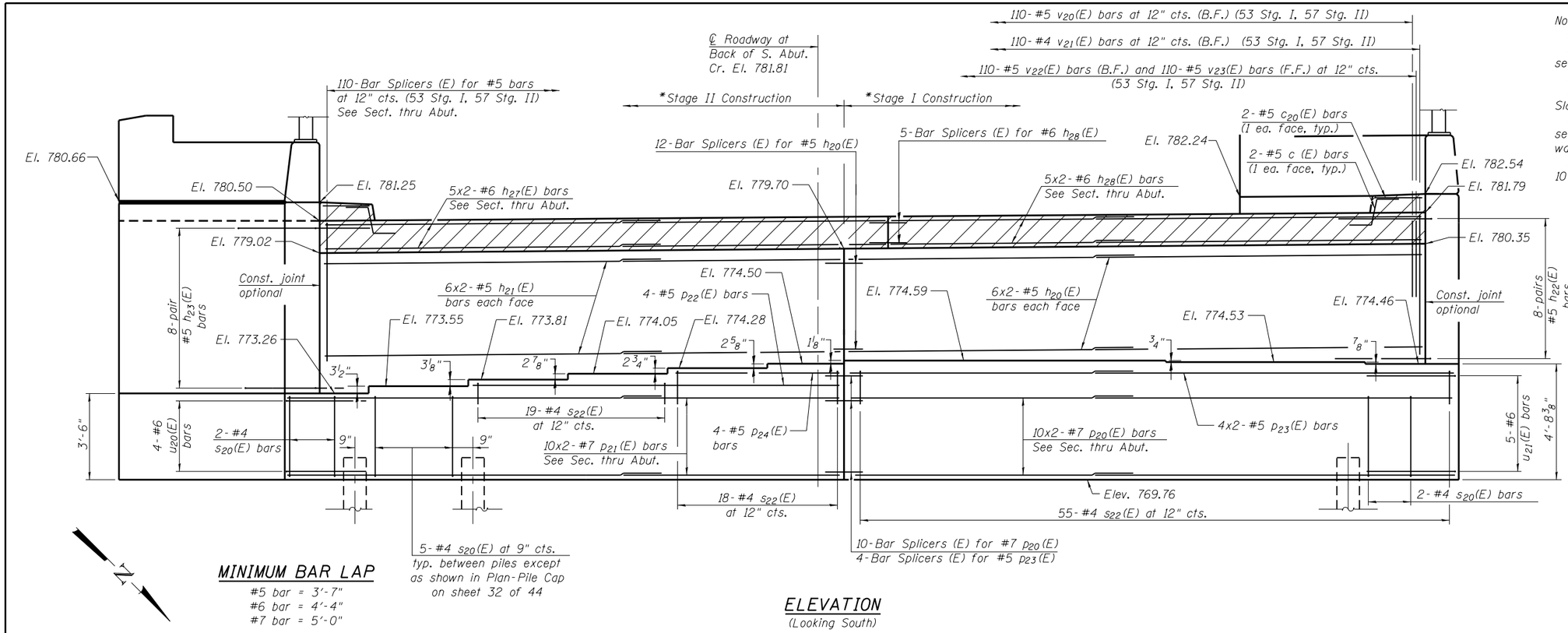
REVISED - | REVISED - | REVISED - | REVISED -

BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.
403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE • 618.997.3190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 010-1270
SHEET NO. 30 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	128
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



MINIMUM BAR LAP

#5 bar = 3'-7"
#6 bar = 4'-4"
#7 bar = 5'-0"

ELEVATION

(Looking South)

*The Stage Construction Joint for the Abutment is different than for the Superstructure.

Notes:

For details of Bar Splicers, see sheet 42 of 44.

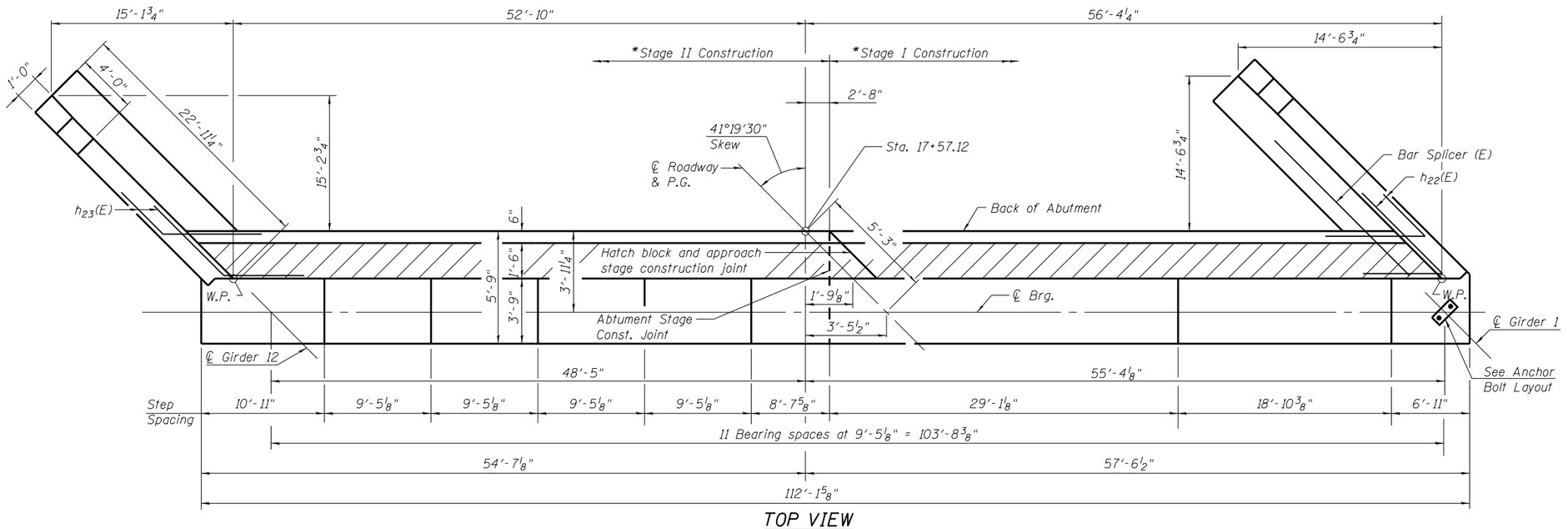
For wingwall reinforcing locations and details, see sheet 33 of 44.

All edges shall have a ¾" chamfer.

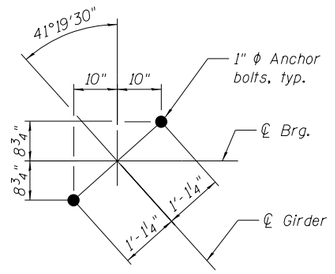
Approach sidewalk to be poured with Approach Slab.

Concrete sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.

Bars indicated thus 10x2-#7 etc. indicates 10 lines of bars with 2 lengths per line.



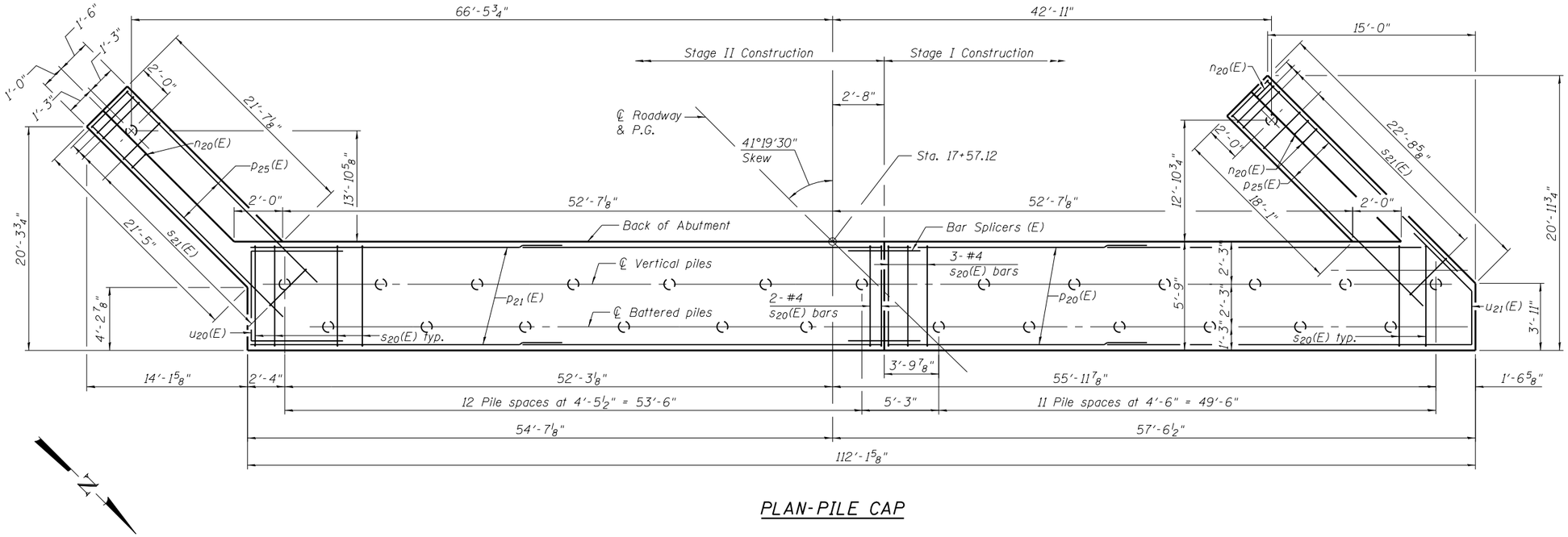
TOP VIEW



ANCHOR BOLT LAYOUT

**(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-031-South Abutment.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOUTH ABUTMENT STRUCTURE NO. 010-1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -			7158	**	CHAMPAIGN	264	129
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		SHEET NO. 31 OF 44 SHEETS			ILLINOIS FED. AID PROJECT		



PLAN-PILE CAP

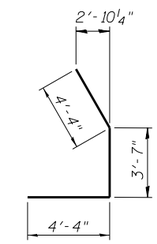
PILE DATA

Type: Metal Shell 12"x0.250" walls with pile shoes
Nominal Required Bearing: 315 kips
Factored Resistance Available: 173 kips
Est. Length: 64'
No. Production Piles: 26
No. Test Piles: 1
Pile shoes: 27

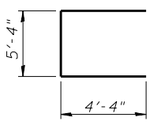
SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
c (E)	4	#5	2'-4"	
c_{20}(E)	4	#5	6'-1"	
d_{20}(E)	12	#4	2'-0"	
h_{20}(E)	24	#5	28'-8"	
h_{21}(E)	24	#5	29'-10"	
h_{22}(E)	16	#5	10'-7"	
h_{23}(E)	16	#5	10'-7"	
h_{24}(E)	40	#4	22'-3"	
h_{25}(E)	12	#4	18'-3"	
h_{26}(E)	16	#4	3'-9"	
h_{27}(E)	10	#6	30'-8"	
h_{28}(E)	10	#6	28'-0"	
n_{20}(E)	46	#6	15'-7"	
p_{20}(E)	20	#7	29'-10"	
p_{21}(E)	20	#7	31'-0"	
p_{22}(E)	4	#5	36'-8"	
p_{23}(E)	8	#5	29'-1"	
p_{24}(E)	4	#5	17'-8"	
p_{25}(E)	12	#7	22'-2"	
s_{20}(E)	124	#4	17'-11"	
s_{21}(E)	60	#4	9'-5"	
s_{22}(E)	92	#4	9'-5"	
u_{20}(E)	4	#6	14'-0"	
u_{21}(E)	5	#6	12'-3"	
v_{20}(E)	110	#5	3'-9"	
v_{21}(E)	110	#4	3'-0"	
v_{22}(E)	110	#5	8'-2"	
v_{23}(E)	110	#5	9'-5"	
v_{25}(E)	76	#6	10'-1"	
v_{26}(E)	20	#6	11'-4"	
Structure Excavation		Cu. Yd.	444	
Concrete Structures		Cu. Yd.	176.0	
Reinforcement Bars, Epoxy Coated		Pound	14,880	
Furnishing-Metal Shell Piles, 12" x 0.250"		Foot	1,664	
Driving Piles		Foot	1,664	
Pile Shoes		Each	27	
Test Pile, Metal Shells		Each	1	
Concrete Sealer		Sq. Ft.	1,685	

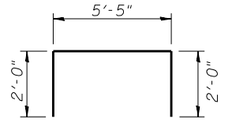
For details of Bar Splicers, see sheet 42 of 44.
For details of piles see sheet 41 of 44.



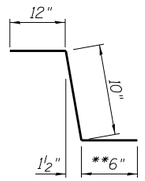
BAR u_{21}(E)



BAR u_{20}(E)

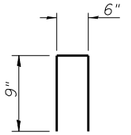


BAR s_{22}(E)

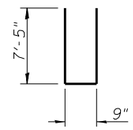


BAR c(E)

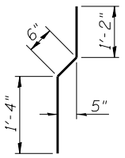
** In lieu of bottom leg, c(E) bars may be cored and set according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of cored hole shall not exceed 6".



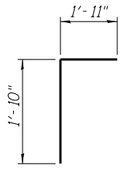
BAR d_{20}(E)



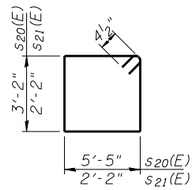
BAR n_{20}(E)



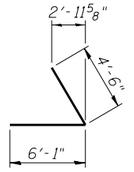
BAR v_{21}(E)



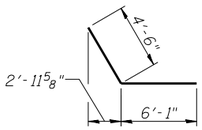
BAR v_{20}(E)



BARS s_{20}(E) & s_{21}(E)



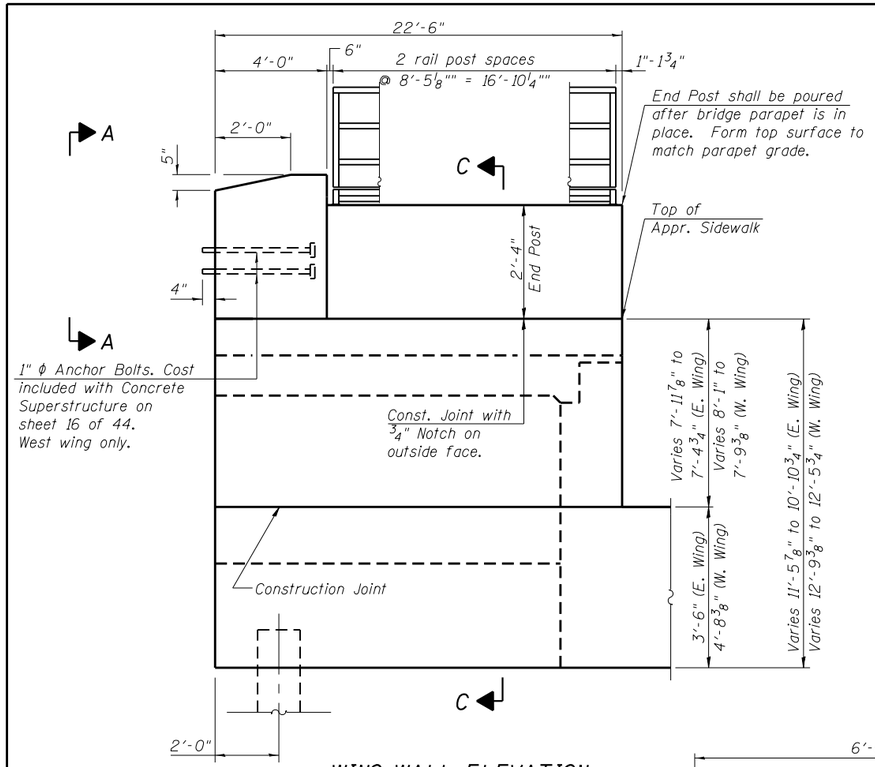
BAR h_{22}(E)



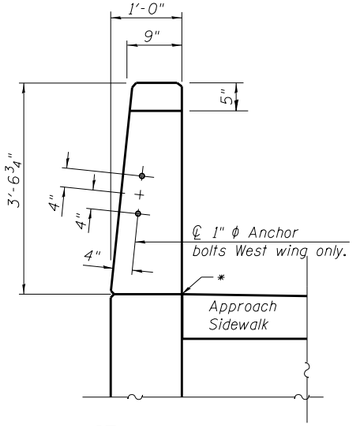
BAR h_{23}(E)

* (10-34HB-3)BR&(10-5-1HB)BR-1

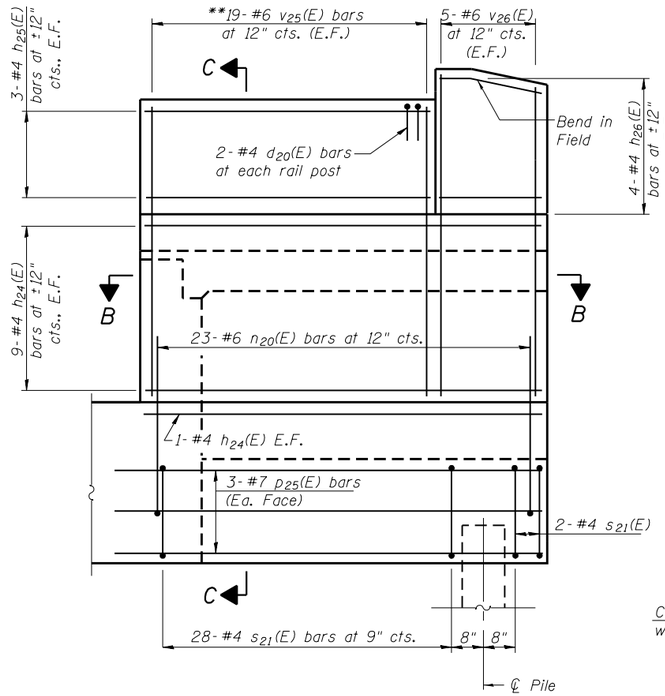
FILE NAME = 0101270-70B38-032-South Abutment.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOUTH ABUTMENT STRUCTURE NO. 010-1270	F.A.U. RTE. 7158
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9180		CHECKED - BWP	REVISED -			SECTION *
	PLOT SCALE =	DRAWN - BJV	REVISED -		SHEET NO. 32 OF 44 SHEETS	COUNTY CHAMPAIGN
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -			TOTAL SHEETS 264
						SHEET NO. 130
						CONTRACT NO. 70B38
						ILLINOIS FED. AID PROJECT



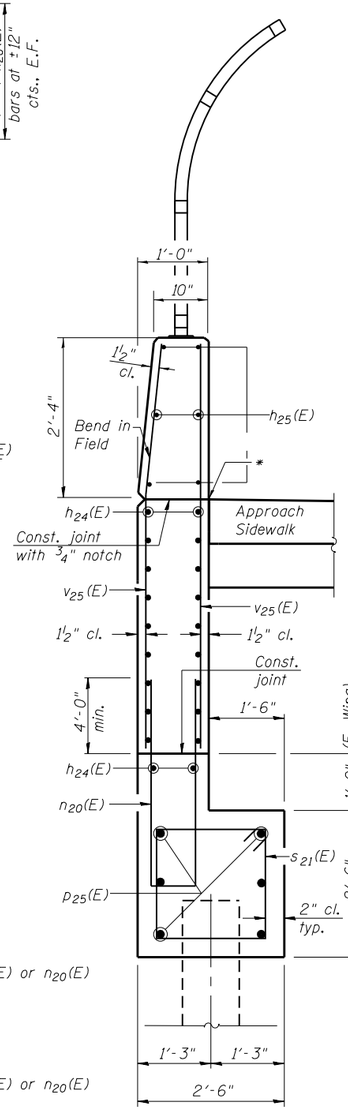
WING WALL ELEVATION
Showing Dimensions



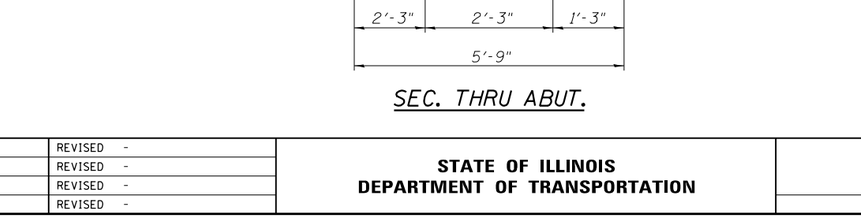
VIEW A-A



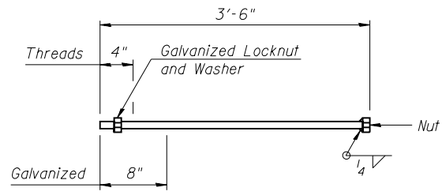
WING WALL ELEVATION
Showing Reinforcement



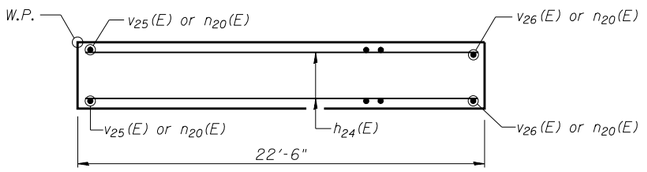
SECTION C-C



SEC. THRU ABUT.



1" ϕ ANCHOR BOLT



SECTION B-B

* Preformed Joint Filler according to Article 1051.09 of the Standard Specifications: full depth of slab, full length of of wall. Typ each wall.

** Cut bars as required to fit wall height.

Notes:

Quantity of concrete in end post included with Concrete Superstructure on sheet 16 of 44.

Quantity of Bridge Fence Railing included on Sheet 22 of 44.

Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

Space reinforcement in cap to miss anchor bolts.

E.F. denotes Each Face. F.F. denotes Front Face and B.F. denotes Back Face.

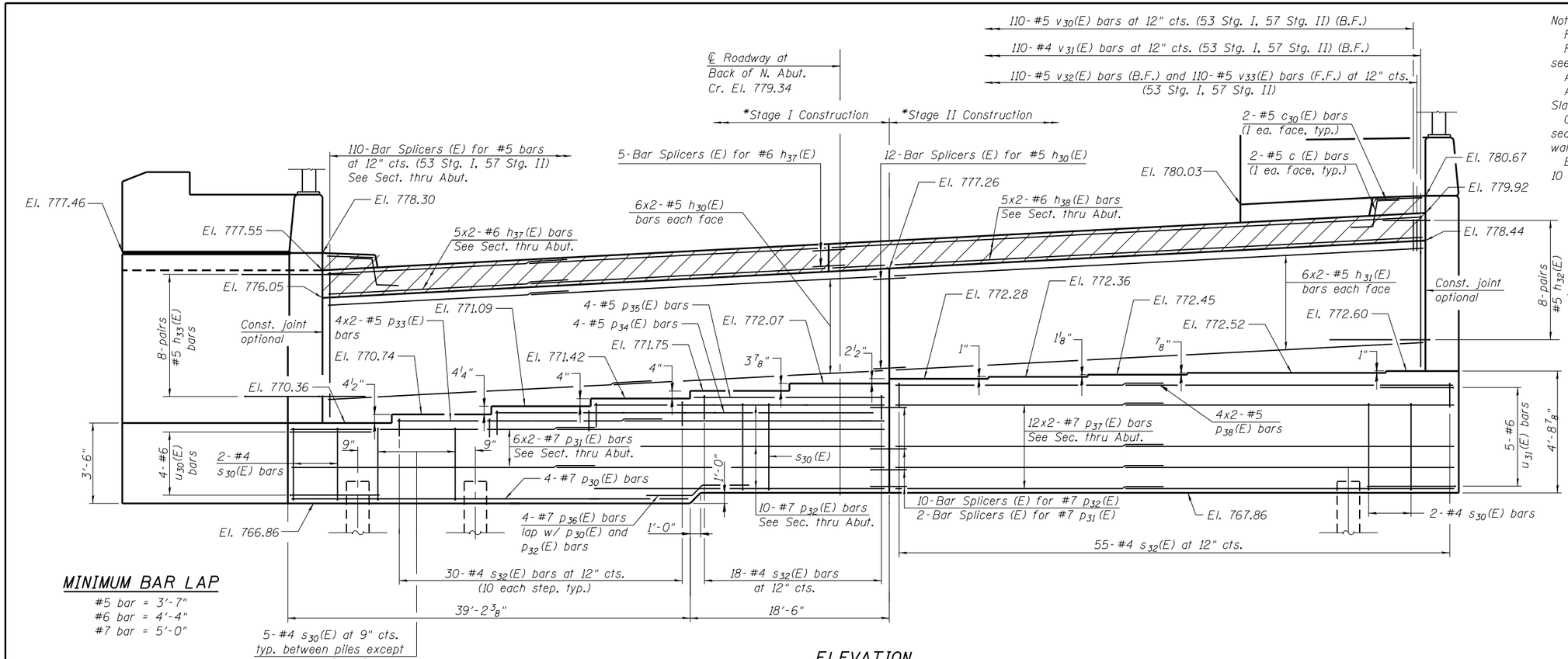
Pour steps monolithically with cap.

Bar Splicer (E) for #5 bars shall be placed parallel to the approach pavement reinforcement.

***(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-033-South Abutment Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOUTH ABUTMENT DETAILS STRUCTURE NO. 010-1270**	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -			7158	***	CHAMPAIGN	264	131
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 5/6/2019	CHECKED - BWP	REVISED -		SHEET NO. 33 OF 44 SHEETS			ILLINOIS FED. AID PROJECT		

Notes:
For details of Bar Splicers, see sheet 42 of 44.
For wingwall reinforcing locations and details, see sheet 36 of 44.
All edges shall have a $\frac{3}{4}$" chamfer.
Approach sidewalk to be poured with Approach Slab.
Concrete sealer shall be applied to the bearing seats and front faces of the hatched block, back wall, and abutment cap.
Bars indicated thus 10x2-#7 etc. indicates 10 lines of bars with 2 lengths per line.

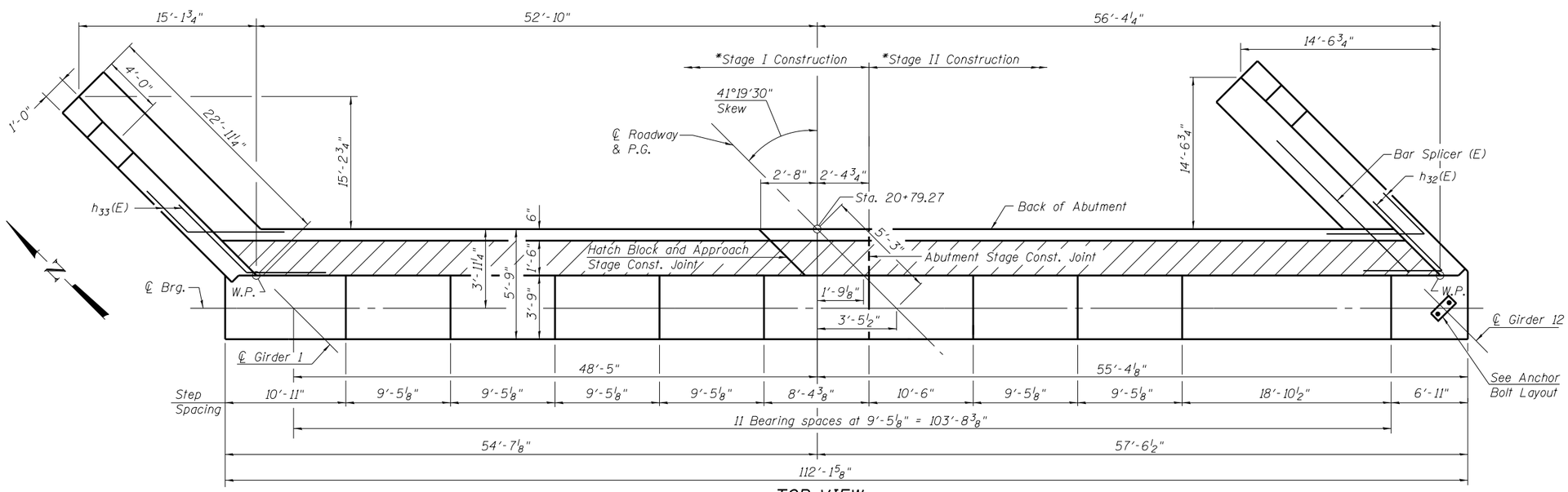


MINIMUM BAR LAP

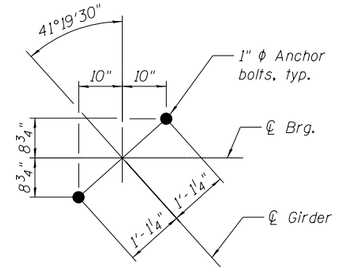
#5 bar = 3'-7"
#6 bar = 4'-4"
#7 bar = 5'-0"

ELEVATION
(Looking North)

*The Stage Construction Joint for the Abutment is different than for the Superstructure.



TOP VIEW



ANCHOR BOLT LAYOUT

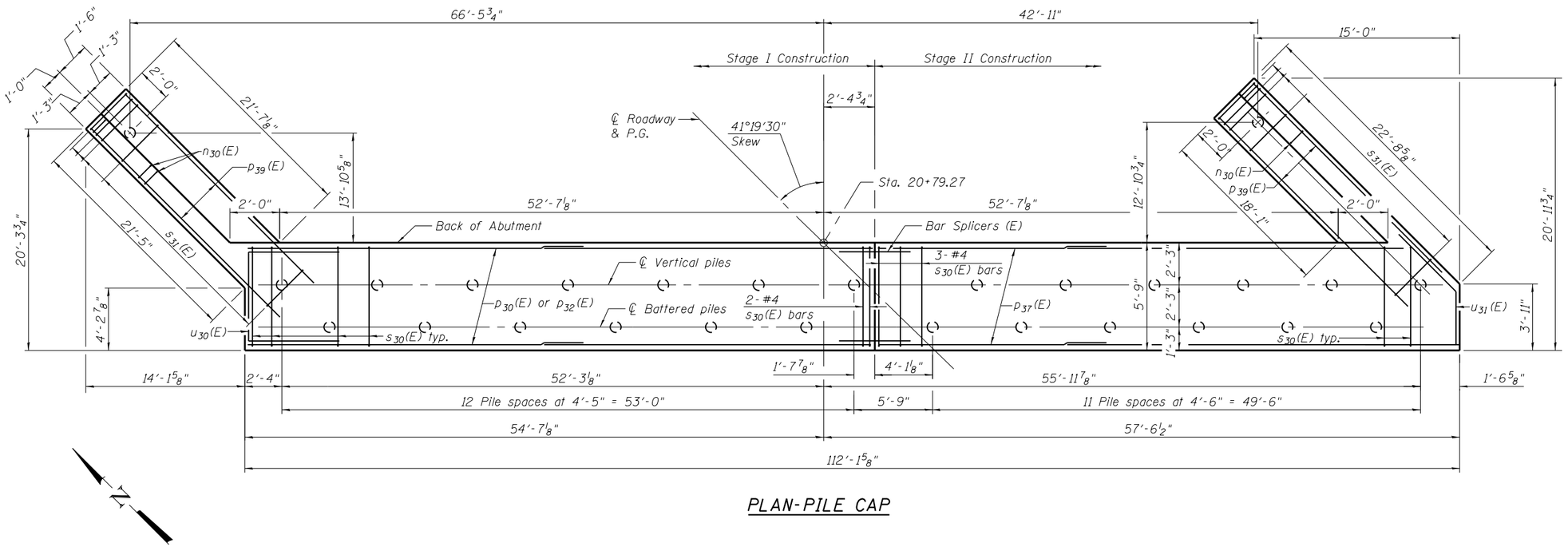
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-034-North Abutment.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MAHON, ILLINOIS 61269 PHONE - 618.997.9780		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 010-1270
SHEET NO. 34 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	132
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



PLAN-PILE CAP

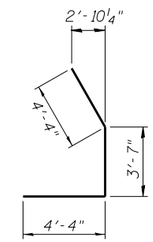
PILE DATA

Type: Metal Shell 12"x0.250" wall
Nominal Required Bearing: 328 kips
Factored Resistance Available: 180 kips
Est. Length: 70'
No. Production Piles: 26
No. Test Piles: 1

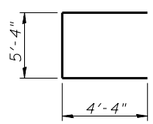
Piles shall be driven through 18" diameter precored holes extending to elevation 750.25 according to Article 512.09(c) of the Standard Specifications. Cost included with driving piles.

NORTH ABUTMENT BILL OF MATERIAL

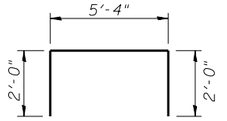
Bar	No.	Size	Length	Shape
c (E)	4	#5	2'-4"	
c_{10} (E)	4	#5	6'-1"	
d_{30}(E)	12	#4	2'-0"	
h_{30}(E)	24	#5	30'-2"	
h_{31} (E)	24	#5	28'-9"	
h_{32}(E)	16	#5	10'-7"	
h_{33}(E)	16	#5	10'-7"	
h_{34}(E)	40	#4	22'-3"	
h_{35}(E)	12	#4	18'-3"	
h_{36}(E)	16	#4	3'-9"	
h_{37}(E)	10	#6	28'-0"	
h_{38}(E)	10	#6	30'-9"	
n_{30}(E)	46	#6	15'-9"	
p_{30}(E)	4	#7	39'-0"	
p_{31} (E)	12	#7	31'-3"	
p_{32}(E)	10	#7	27'-0"	
p_{33}(E)	8	#5	24'-9"	
p_{34}(E)	4	#5	36'-4"	
p_{35}(E)	4	#5	17'-6"	
p_{36}(E)	4	#7	11'-5"	
p_{37}(E)	24	#7	29'-11"	
p_{38}(E)	8	#5	29'-3"	
p_{39}(E)	12	#7	22'-2"	
s_{30}(E)	124	#4	17'-11"	
s_{31}(E)	60	#4	9'-5"	
s_{32}(E)	103	#4	9'-5"	
u_{30}(E)	4	#6	14'-0"	
u_{31}(E)	5	#6	12'-3"	
v_{30}(E)	110	#5	3'-9"	
v_{31}(E)	110	#4	3'-0"	
v_{32}(E)	110	#5	8'-3"	
v_{33}(E)	110	#5	9'-6"	
v_{35}(E)	76	#6	10'-1"	
v_{36}(E)	20	#6	11'-4"	
Structure Excavation		Cu. Yd.	442	
Concrete Structures		Cu. Yd.	170.8	
Reinforcement Bars, Epoxy Coated		Pound	15,000	
Furnishing-Metal Shell Piles, 12" x 0.250"		Foot	1,820	
Driving Piles		Foot	1,820	
Test Pile, Metal Shells		Each	1	
Concrete Sealer		Sq. Ft.	1,679	



BAR u_{31}(E)

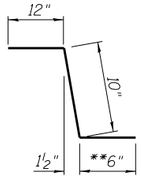


BAR u_{30}(E)

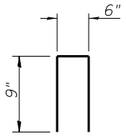


BAR s_{32}(E)

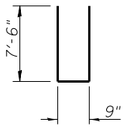
** In lieu of bottom leg, c(E) bars may be cored and set according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of cored hole shall not exceed 6".



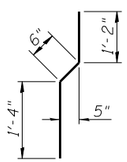
BAR c(E)



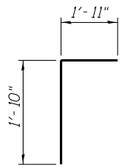
BAR d_{30}(E)



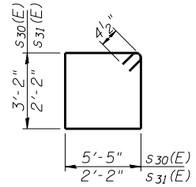
BAR n_{30}(E)



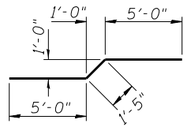
BAR v_{31}(E)



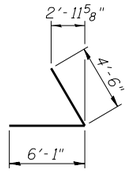
BAR v_{30}(E)



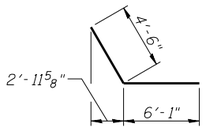
BARS s_{30}(E) & s_{31}(E)



BAR p_{36}(E)



BAR h_{32}(E)



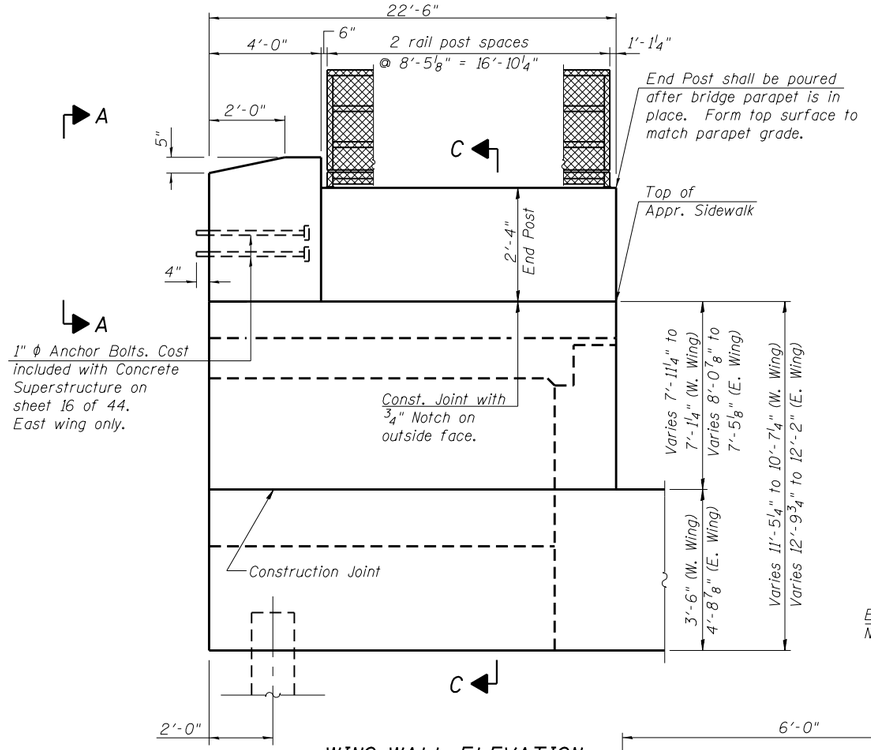
BAR h_{33}(E)

For details of Bar Splicers, see sheet 42 of 44.
For details of piles, see sheet 41 of 44.

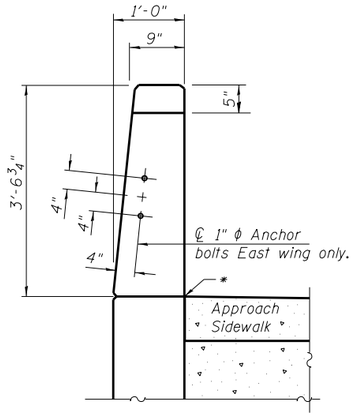
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-035-North Abutment.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NORTH ABUTMENT STRUCTURE NO. 010-1270
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.3190		CHECKED - BWP	REVISED -		SHEET NO. 35 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

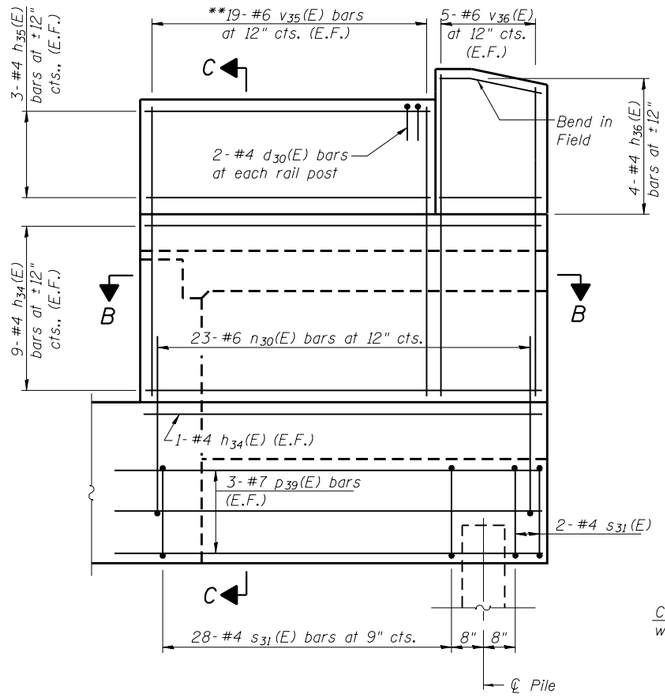
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	133
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



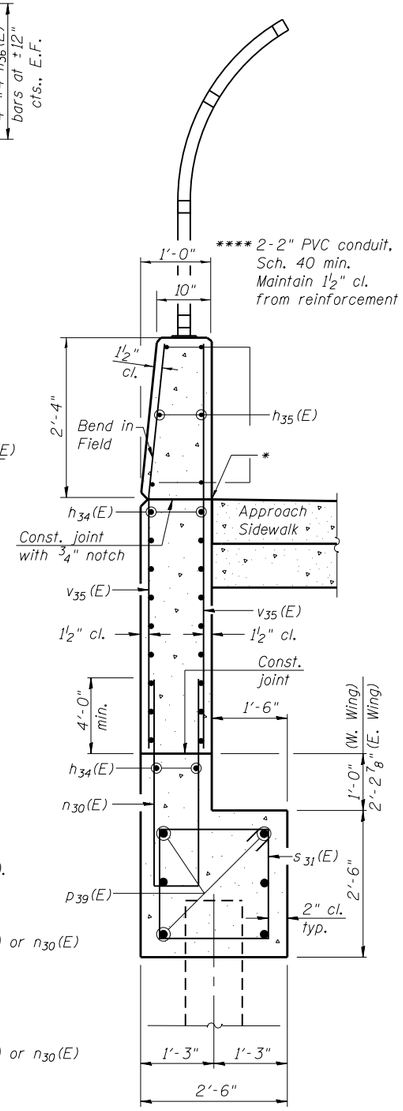
WING WALL ELEVATION
Showing Dimensions



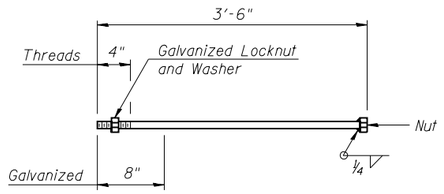
VIEW A-A



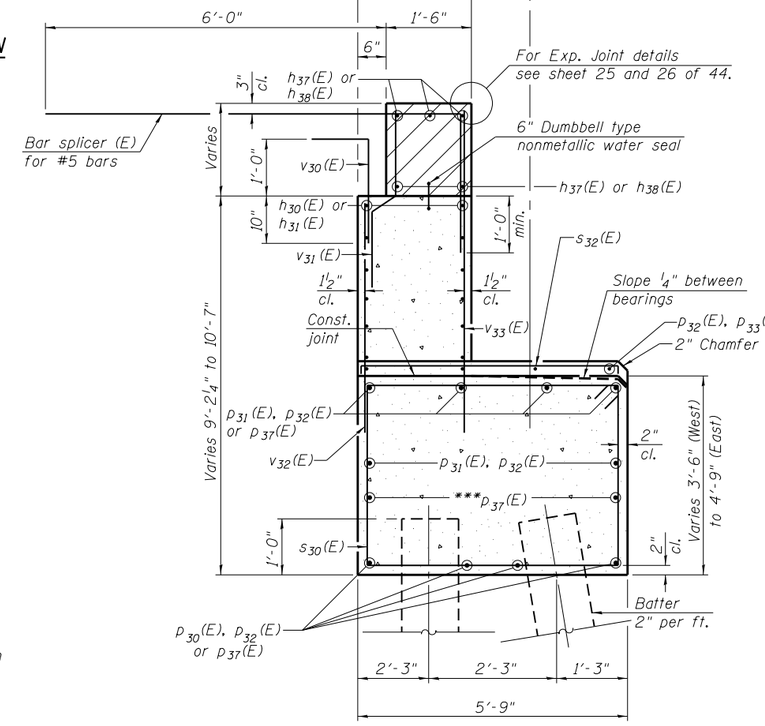
WING WALL ELEVATION
Showing Reinforcement



SECTION C-C



1" ϕ ANCHOR BOLT

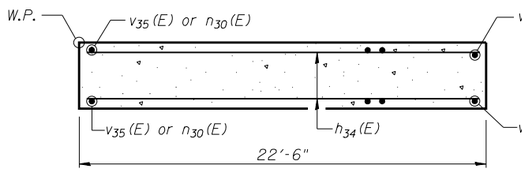


SEC. THRU ABUT.

* Preformed Joint Filler according to Article 1051.09 of the Standard Specifications: full depth of slab, full length of of wall. Typ each wall.

** Cut bars as required to fit wall height.

*** Bars located in Stage II Const. only (See Elevation View sheet 34 of 44).



SECTION B-B

Notes:

Quantity of concrete in end post included with Concrete Superstructure on sheet 16 of 44.

Quantity of Bridge Fence Railing included on Sheet 22 of 44.

Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

Space reinforcement in cap to miss anchor bolts.

E.F. denotes Each Face. F.F. denotes Front Face and B.F. denotes Back Face.

Pour steps monolithically with cap.

Bar Splicer (E) for #5 bars shall be placed parallel to the approach pavement reinforcement.

***** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-036-North Abutment Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 5/6/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

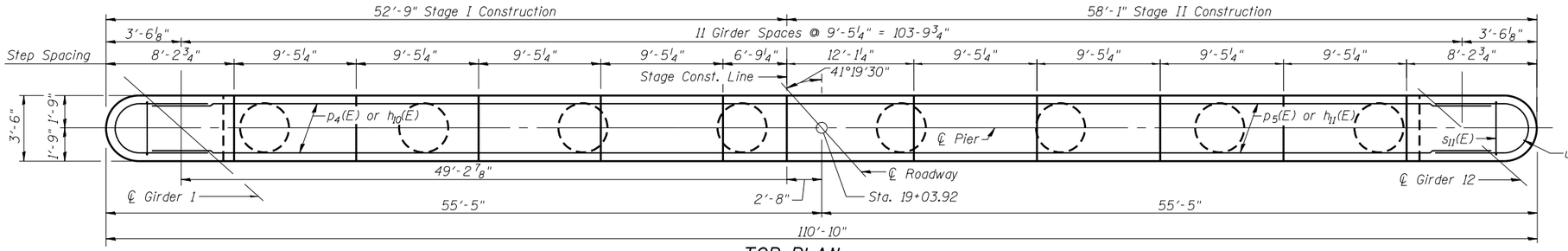
NORTH ABUTMENT DETAILS
STRUCTURE NO. 010-1270
SHEET NO. 36 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*****	CHAMPAIGN	264	134
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

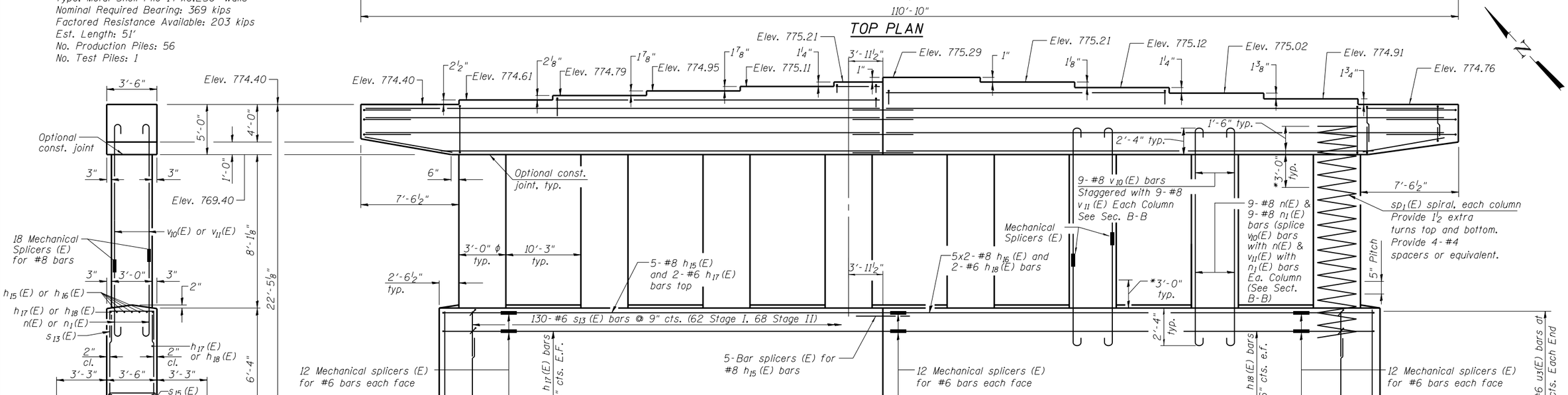
Notes:
When splicing of spiral reinforcement is necessary, the spirals shall be provided with $1\frac{1}{2}$ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 41 of 44.
For pier cap reinforcement, see sheet 38 of 44.
Bars indicated thus 10 x 2-#5 etc. indicates 10 lines of bars with 2 lengths per line.

PILE DATA

Type: Metal Shell Pile 14"x0.250" walls
Nominal Required Bearing: 369 kips
Factored Resistance Available: 203 kips
Est. Length: 51'
No. Production Piles: 56
No. Test Piles: 1



TOP PLAN

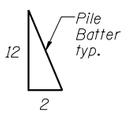


ELEVATION

(Looking North)

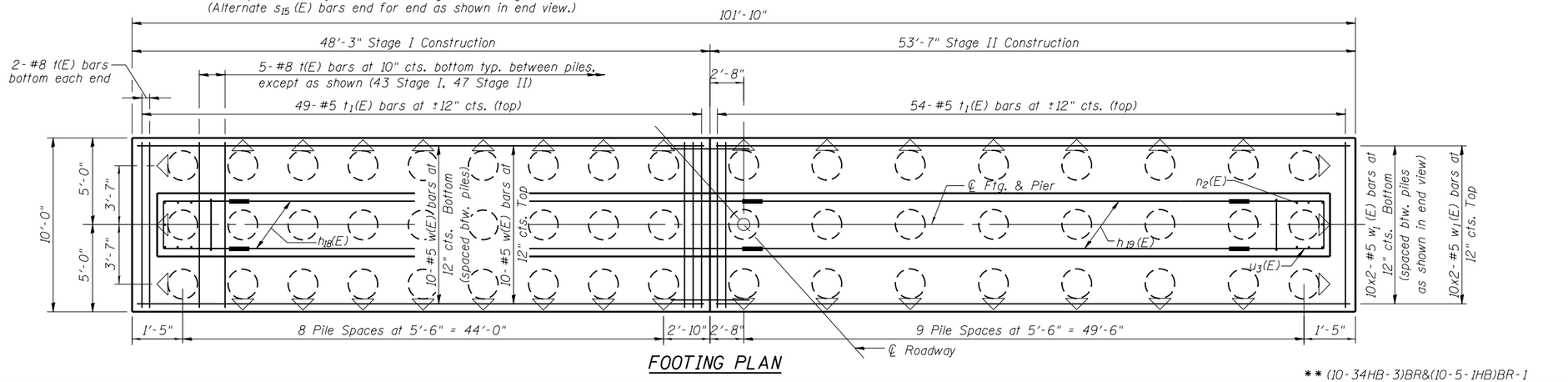
* Splicing of reinforcement will not be allowed in this region.

END VIEW



MINIMUM BAR LAP

#5 bar = 3'-9"
#8 bar = 8'-2"



FOOTING PLAN

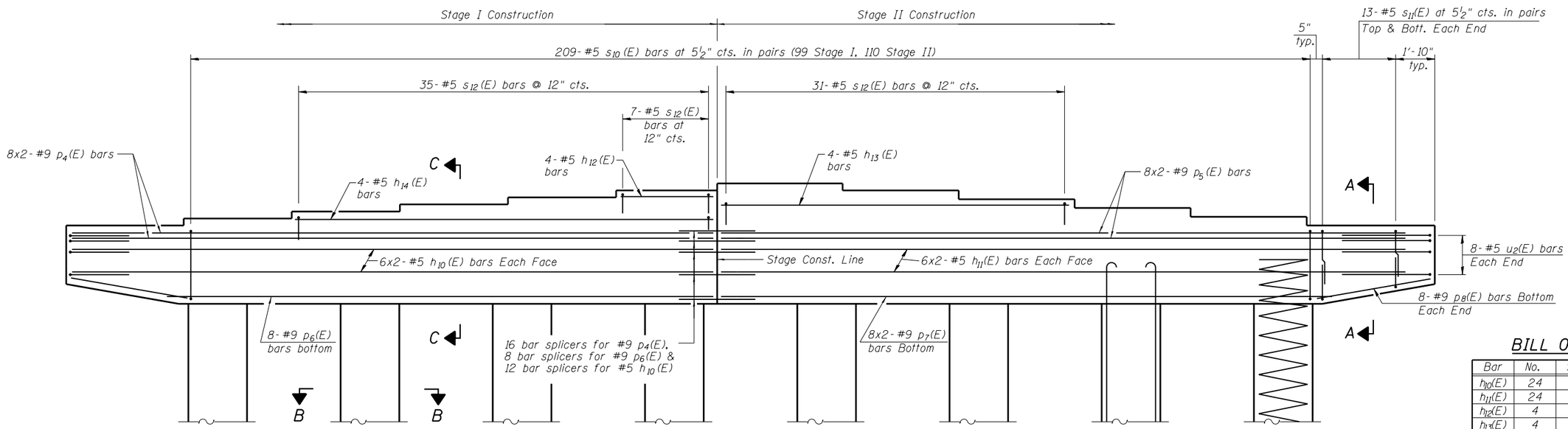
** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-037-Pier.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9150		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER
STRUCTURE NO. 010-1270
SHEET NO. 37 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	135
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



PIER CAP DETAIL
(Looking North)

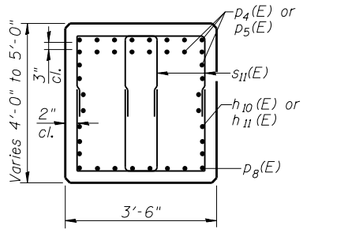
MINIMUM BAR LAP

#5 bar = 3'-9"
#6 bar = 5'-4"
#8 bar = 8'-2"
#9 bar = 10'-4"

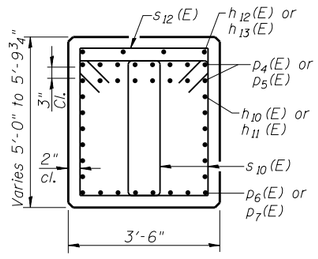
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{10}(E)	24	#5	27'-4"	—
h_{11}(E)	24	#5	30'-0"	—
h_{12}(E)	4	#5	6'-5"	—
h_{13}(E)	4	#5	30'-7"	—
h_{14}(E)	4	#5	34'-9"	—
h_{15}(E)	5	#8	45'-10"	—
h_{16}(E)	10	#8	30'-0"	—
h_{17}(E)	24	#6	42'-8	—
h_{18}(E)	24	#6	48'-0"	—
n(E)	72	#8	6'-9"	⊐
n_1(E)	72	#8	8'-9"	⊐
n_2(E)	14	#6	9'-5"	⊐
p_4(E)	32	#9	30'-9"	—
p_5(E)	32	#9	33'-3"	—
p_6(E)	8	#9	45'-7"	—
p_7(E)	16	#9	30'-6"	—
p_8(E)	16	#9	6'-11"	—
s_{10}(E)	418	#5	14'-7"	□
s_{11}(E)	104	#5	10'-0"	⊔
s_{12}(E)	73	#5	7'-2"	⊔
s_{13}(E)	130	#5	11'-10"	⊔
s_{14}(E)	130	#5	20'-2"	⊔
s_{15}(E)	858	#4	3'-11"	⊐
** sp_1(E)	8	#5	11'-2"	∿∿
t(E)	94	#8	14'-6"	⊔
t_1(E)	103	#5	9'-6"	—
u_2(E)	16	#5	12'-3"	⊔⊔
u_3(E)	24	#6	13'-4"	⊔⊔
v_{10}(E)	72	#8	7'-11"	⊐
v_{11}(E)	72	#8	5'-11"	⊐
w(E)	20	#5	47'-11"	—
w_1(E)	40	#5	28'-6"	—
Structure Excavation		Cu. Yd.	219	
Concrete Structures		Cu. Yd.	291.4	
Reinforcement Bars, Epoxy Coated		Pound	46,920	
Furnishing Metal Shell Piles, 14" x 0.25"		Foot	2,856	
Driving Piles		Foot	2,856	
Test Pile, Metal Shells		Each	1	

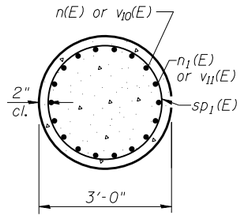
**Length is height of spiral.



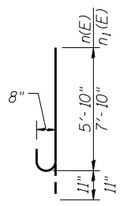
SEC. A-A



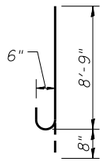
SEC. C-C



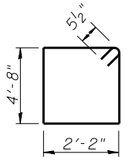
SEC. B-B



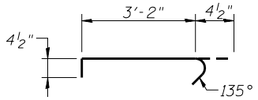
BARS n(E) & n_1(E)



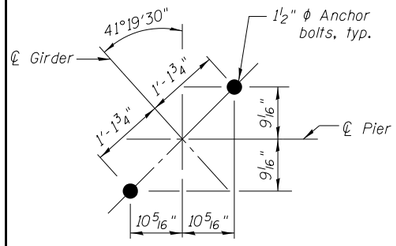
BAR n_2(E)



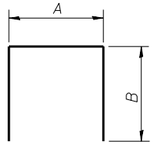
BAR s_{10}(E)



BAR s_{15}(E)
(alternate end for end)



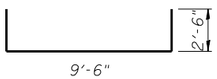
ANCHOR BOLT LAYOUT



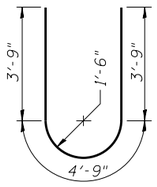
BARS s_{11}(E), s_{12}(E) s_{13}(E) and s_{14}(E)

A & B DIMENSIONS

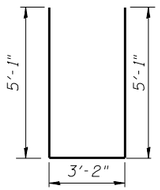
Bar	A	B
s_{11}(E)	2'-2"	3'-11"
s_{12}(E)	3'-2"	2'-0"
s_{13}(E)	3'-2"	4'-4"
s_{14}(E)	3'-2"	8'-6"



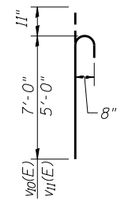
BAR t(E)



BAR u_2(E)



BAR u_3(E)

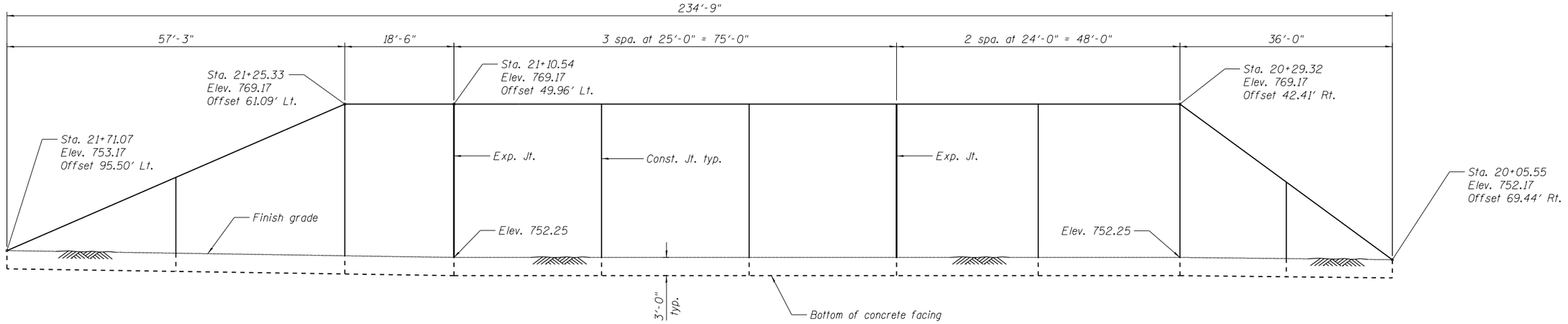


BAR v_{10}(E) & v_{11}(E)

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-038-Pier.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER STRUCTURE NO. 010-1270
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -		SHEET NO. 38 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	136
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



NORTH ABUTMENT SOIL NAIL WALL

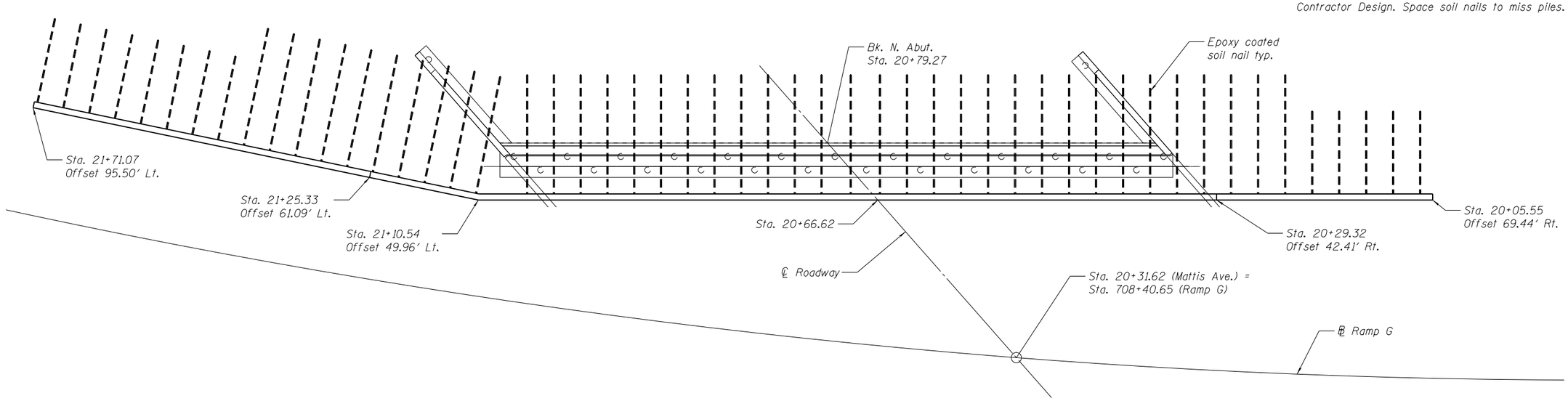
(Unfolded Elevation Looking North)

Notes:

Wall offsets are measured to the front face of the concrete facing.

Soil nail wall to be constructed after completion of Stage II construction.

Soil nail size, length, and spacing, shall be per Contractor Design. Space soil nails to miss piles.



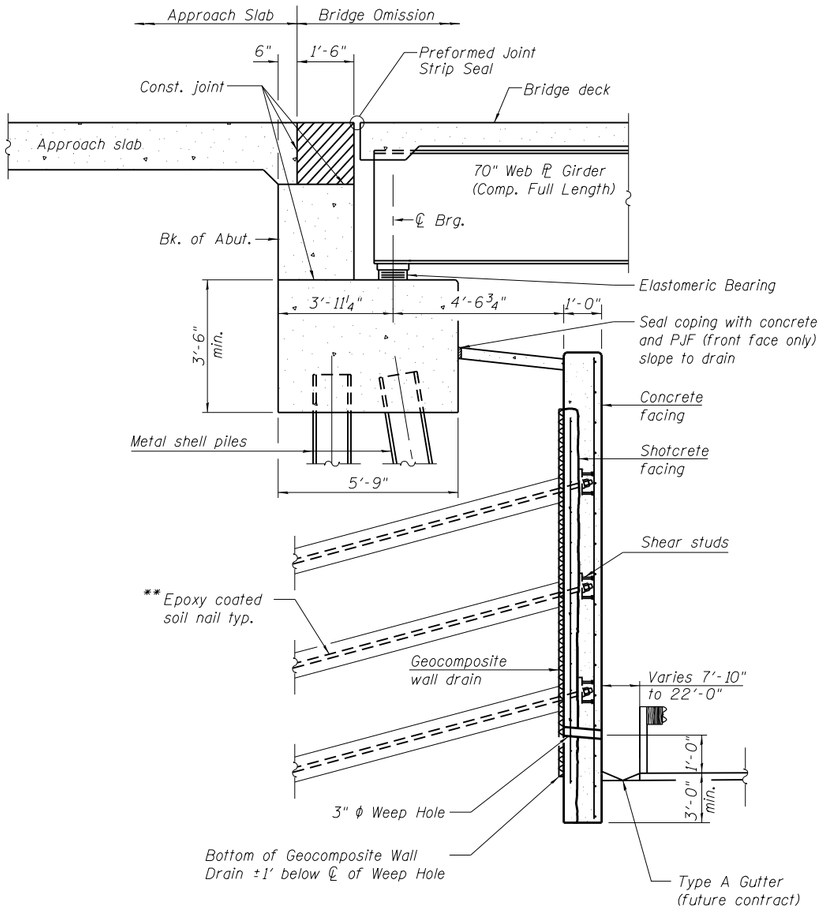
PLAN-NORTH ABUTMENT SOIL NAIL WALL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Soil Nail Wall	Sq. Ft.	3,638
Geocomposite Wall Drain	Sq. Yd.	359

* (10-34HB-3)BR&(10-5-1HB)BR-1

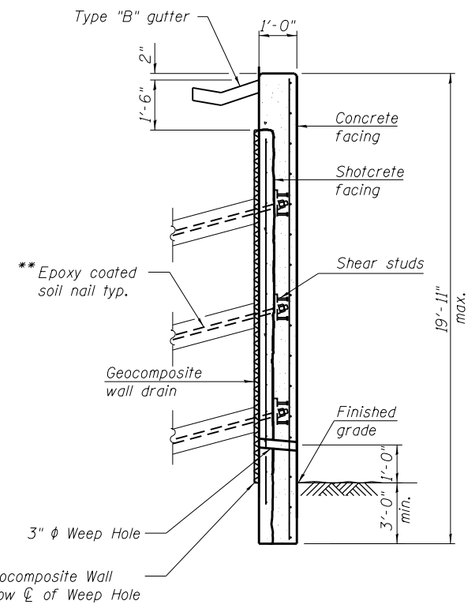
FILE NAME = 0101270-70B38-039-Soil Nail Wall.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL NAIL WALL STRUCTURE NO. 010-1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MAHOMET, ILLINOIS 61853 PHONE - 618.997.9190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	137
	PLOT SCALE =	DRAWN - BJV	REVISED -		SHEET NO. 39 OF 44 SHEETS			CONTRACT NO. 70B38		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -					ILLINOIS	FED. AID PROJECT	



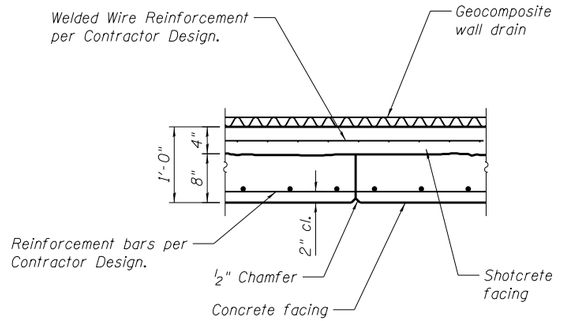
SECTION THRU NORTH ABUTMENT

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

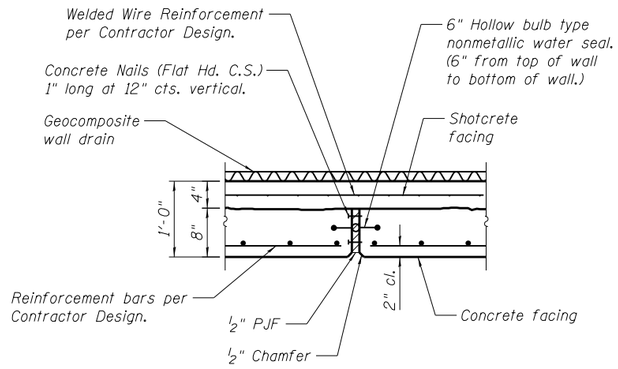
** Soil nail size, length, and spacing, shall be per Contractor Design. Space soil nails to miss piles.



SECTION THRU SOIL NAIL WALL



CONSTRUCTION JOINT



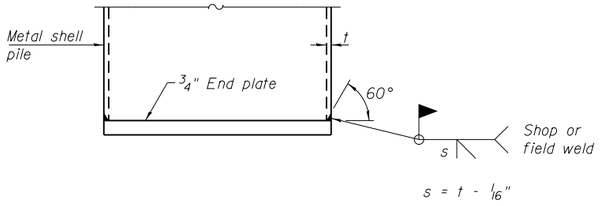
EXPANSION JOINT

*** (10-34HB-3)BR&(10-5-1HB)BR-1

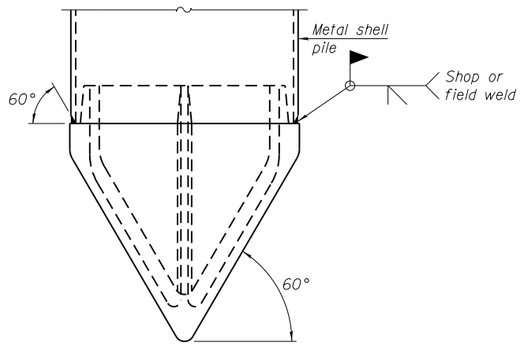
FILE NAME = 0101270-70B38-040-Soil Nail Wall Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL NAIL WALL DETAILS STRUCTURE NO. 010-1270	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -			7158	***	CHAMPAIGN	264	138
	PLOT SCALE =	DRAWN - BJV	REVISED -						CONTRACT NO. 70B38	
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		SHEET NO. 40 OF 44 SHEETS			ILLINOIS	FED. AID PROJECT	

METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

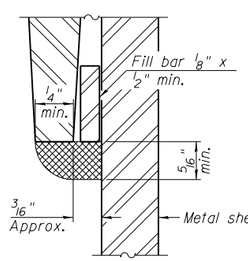


END PLATE ATTACHMENT

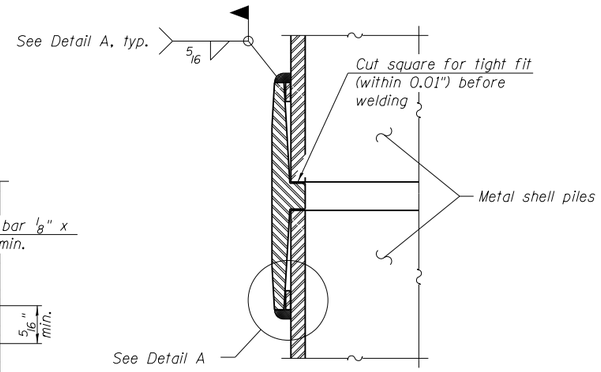


PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).

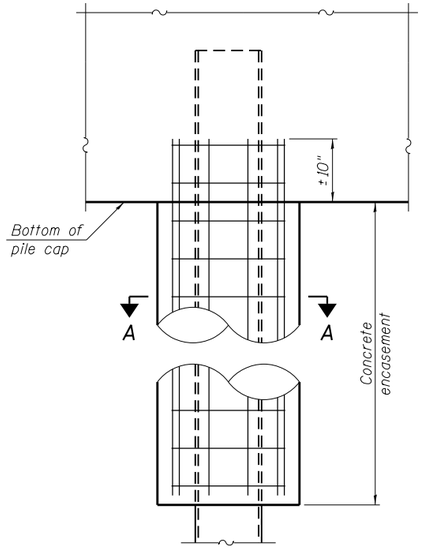


DETAIL A

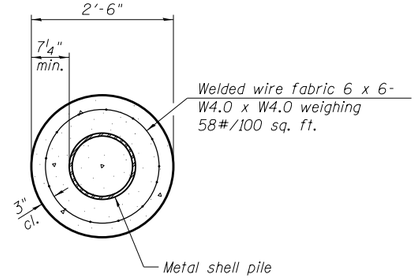


WELDED COMMERCIAL SPLICE

Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

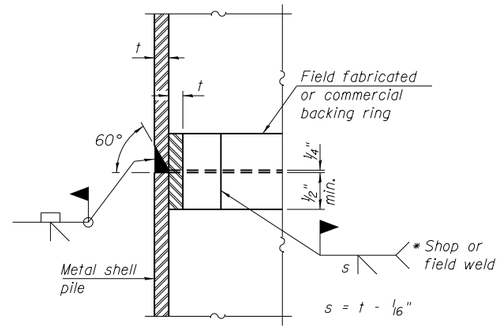


ELEVATION



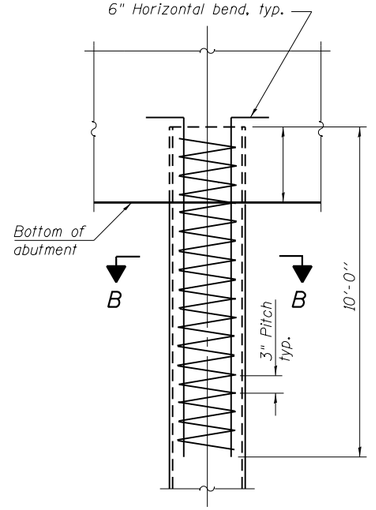
SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT AT PIERS

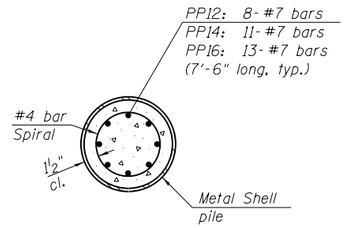


COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

F-MS 2-17-2017

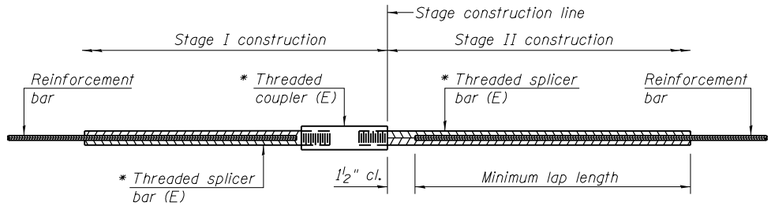
**(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-041-Metal Shell Pile Details.dgn	USER NAME =	DESIGNED - CMV	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO.
SHEET NO. 41 OF 44 SHEETS

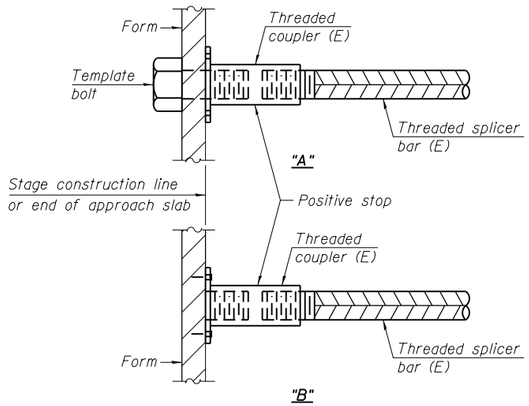
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	139
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

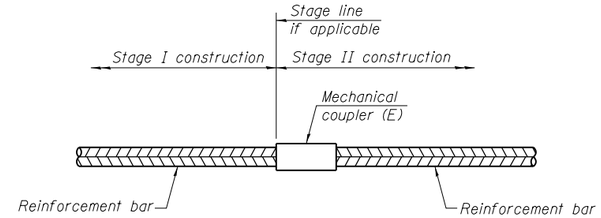
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	1001	3'-6"
Diaphragms	#6	10	4'-10"
Approach Slabs	#5	92	3'-6"
Approach Slabs	#8	120	4'-9"
Approach Footings	#5	80	3'-6"
S. Abutment Cap	#7	10	5'-0"
N. Abutment Cap	#7	12	5'-0"
S. Abutment Steps	#5	4	3'-7"
S. Abutment Backwall	#5	12	3'-7"
N. Abutment Backwall	#5	12	3'-7"
S. Abut. Hatch Block	#6	5	4'-0"
N. Abut. Hatch Block	#6	5	4'-0"
Pier Cap	#9	24	10'-4"
Pier Steps	#5	12	3'-7"
Pier Crashwall	#8	5	8'-2"
Pier Footing	#5	20	3'-7"



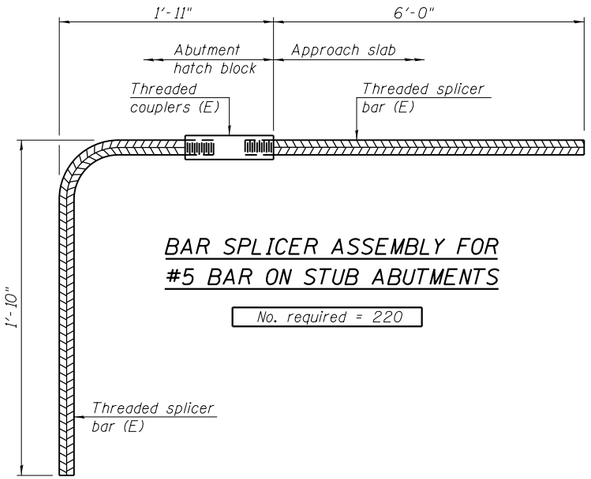
INSTALLATION AND SETTING METHODS

"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
Pier Columns	#8	144
Pier Crash Wall	#6	72
S. Diaphragm	#6	3
N. Diaphragm	#6	3



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 220

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 2-17-2017

** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-042-Bar Splicers.dgn	USER NAME =	DESIGNED - CMV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 010-1270
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -		SHEET NO. 42 OF 44 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/29/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	140
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/20/15

ROUTE I-57/74 DESCRIPTION South Abut Boring Mattis Ave/I-74 LOGGED BY TLM

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-1 (Mattis Ave I-74)
Station 16+37
Offset 26.5ft Right
Ground Surface Elev. 776.87 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

Groundwater Elev.:
▽ First Encounter 718.9 ft
▽ Upon Completion ft
▼ After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
12" HMA 775.87				FILL: Silty Clay Loam, brown, medium *(continued)*			
12" Aggregate Base 774.87							
FILL: Silt Clay, brown, stiff, trace gravel	4						
	7	2.06	12.7		3		
	7	B					
	4						
	4	1.5	12.3		3	0.16	14.1
-5	8	P		-25	5	B	
	4						
	7	3.92	14.0				
	5	B					
	3				3		
	3	2.5	14.2		5	0.41	13.8
-10	3	P		-30	7	B	
	4						
	4	1.07	16.8				
	7	B					
	4			742.87	3		
	8	2.06	14.3	SILTY CLAY: Gray, stiff	4	1.24	12.6
-15	13	B		-35	6	B	
	5						
759.87	24	2.5	10.8				
FILL: Silty Clay, brown, hard, pieces of ashpalt	27	P					
757.87	3			738.37			
				SILTY CLAY TILL: Gray, stiff	4		
FILL: Silty Clay Loam, brown, medium	3	1.24	15.3		4	1.07	12.7
-20	6	B		-40	7	B	

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

File Name P:\GINT\PROJECTS\S1 57 74 CHAMPAIGN COUNTY.GPJ Data Template DOTEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/20/15

ROUTE I-57/74 DESCRIPTION South Abut Boring Mattis Ave/I-74 LOGGED BY TLM

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-1 (Mattis Ave I-74)
Station 16+37
Offset 26.5ft Right
Ground Surface Elev. 776.87 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

Groundwater Elev.:
▽ First Encounter 718.9 ft
▽ Upon Completion ft
▼ After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
SILTY CLAY TILL: Gray, stiff *(continued)*				SAND and GRAVEL: Medium dense, coarse *(continued)* 715.87			
				SILTY CLAY TILL: Gray, hard			
	4				13		
	7	1.40	10.9		10	4.0	10.7
-45	10	B		-65	13	P	
	3				8		
	5	1.65	11.2		11	2.47	12.3
-50	7	B		-70	18	B	
	4			703.37	7		
2" Sand seam at 54 ft.	8	1.75	12.9	SILTY LOAM TILL: Gray, medium dense (very fine silty sand)	12		15.4
-55	8	P		-75	16		
▽ 718.87							
SAND and GRAVEL: Medium dense, coarse	9				4		
-60	9		18.4	-80	10		10.8
					15		

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

File Name P:\GINT\PROJECTS\S1 57 74 CHAMPAIGN COUNTY.GPJ Data Template DOTEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/20/15

ROUTE I-57/74 DESCRIPTION South Abut Boring Mattis Ave/I-74 LOGGED BY TLM

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-1 (Mattis Ave I-74)
Station 16+37
Offset 26.5ft Right
Ground Surface Elev. 776.87 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

Groundwater Elev.:
▽ First Encounter 718.9 ft
▽ Upon Completion ft
▼ After Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
695.87			
SILTY CLAY LOAM TILL: Gray			
	5		
	12	2.56	10.6
-85	17	B	
	7		
	11	2.23	12.8
686.87 -90	18	B	
End of Boring			
-95			
-100			

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

File Name P:\GINT\PROJECTS\S1 57 74 CHAMPAIGN COUNTY.GPJ Data Template DOTEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-043-Soil Boring Logs.dgn	USER NAME =	DESIGNED - CMV	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

SOIL BORING LOGS
STRUCTURE NO. 010-1270
SHEET NO. 43 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	141
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/20/15

ROUTE I-57/74 DESCRIPTION North Abut Mattis Ave over I-74 LOGGED BY MLL

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-3 (Mattis Ave I-74)
Station 20+78
Offset 26.0ft Right
Ground Surface Elev. 776.90 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	
775.90				12" HMA
774.90				12" Aggregate Base
	7			FILL: Silty Clay, brown, hard
773.40	9	4.12	14.3	
	9	B		
	5			FILL: Silty Clay, brown, very stiff
	6	2.39	16.3	
-5	7	B		
	5			
	5			No Recovery
	5			
768.90				
	4			FILL: Silty Clay, gray, very stiff
	5	1.65	12.6	
-10	7	B		
	4			
	4	1.65	17.8	
	6	B		
763.90				
	2			FILL: Silty Clay, brown, very stiff
	3	1.48	27.5	
-15	3	B		
761.40				
	2			FILL: Silty Clay, gray, very stiff
	6	1.65	16.9	
	13	B		
758.90				
	5			FILL: Silty Clay, brown, some gravel
	5	1.6	13.1	
-20	5	P		

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	
				FILL: Silty Clay, brown, some gravel *(continued)*
	3			
	3	1.40	26.3	
-25	5	B		
	4			
	5			
-30	6		9.3	
	4			
	5			
-35	8	B		
742.40				
	7	2.06	11.2	SILTY CLAY: Gray
-40	13	P		
736.90				

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

File Name:P:\GINT\PROJECTS\ 57-74 CHAMPAIGN COUNTY.GPJ Data Template DISTEMPLT.GDT Data Printed 3/2/15
Latitude Longitude Datum: Job Number MCE-14044

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/20/15

ROUTE I-57/74 DESCRIPTION North Abut Mattis Ave over I-74 LOGGED BY MLL

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-3 (Mattis Ave I-74)
Station 20+78
Offset 26.0ft Right
Ground Surface Elev. 776.90 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	
				SILTY CLAY TILL: Gray
	5			
	7	2.56	10.7	
-45	10	B		
	3			
	7	2.31	11.3	
-50	7	B		
	4			
	7	2.06	10.1	
-55	12	B		
	9			
	13	3.0	10.1	
-60	17	P		

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	
				SILTY CLAY TILL: Gray *(continued)*
	4			
	6	2.06	13.0	
-65	8	B		
	4			
	8	1.24	12.5	
-70	10	B		
	4			
	8	0.82	12.8	
701.90 -75	11	B		
				End of Boring
-80				

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

File Name:P:\GINT\PROJECTS\ 57-74 CHAMPAIGN COUNTY.GPJ Data Template DISTEMPLT.GDT Data Printed 3/2/15
Latitude Longitude Datum: Job Number MCE-14044

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

Project
Route FAI-74
Section (10-5-1,14-14-1)R
County Champaign

Bridge S.N. 010-0T01
I-74 over Mattis Avenue
STA. 18+94.65
Boring No. SB1 Station 19+21

Date 10/30/90
Bored By Winschief
Checked By TGB
Offset 33' LT

Surface Water El. Groundwater El. at Completion Dry After Hours

	EL.	N	Qu TSF	W%
Ground Surface 754.8	0			
BROWN SAND LOAM				
	5			
		4		19
748.3				
BROWN CLAY LOAM TILL		8		
		10	2.9	15
745.8				
				GRAY CLAY LOAM TILL
	10	8		
		12	3.1	12
		8		
		11	3.1	11
GRAY CLAY LOAM TILL	15			
		12	3.5	9.0
		8		
		12	3.5	11
	20	8		
		10	2.5	12
		8		
		11	2.7	12

	EL	N	Qu TSF	W%
	25	8		
		8	2.1	12
		8		
		10	2.7	12
	30	8		
		10	2.1	11
	35			
		17	7.0	12
	40	8		
		17	5.4	12
	45			

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

S.N. 010-0101
Boring SB1 Cont.

	EL.	N	Qu TSF	W%
	45	8		
		12	2.7	13
GRAY CLAY LOAM TILL				
	50	8		
704.3		10	2.5	13
LIMIT OF BORING				
	55			

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101270-70B38-044-Soil Boring Logs.dgn	USER NAME =	DESIGNED - CMV	REVISED -	
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: 618/997-3190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 010-1270
SHEET NO. 44 OF 44 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	142
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

Bench Mark: Chisled "□" on crash wall at the east end of Pier 1 of SN 010-0100. Elev. 772.23.

Existing Structure: S.N. 010-0100 built 1965 as F.A.U. 7158 (Mattis Ave.), Section 10-34HB-3 at Station 24+90.58. The existing structure consists of a four span steel wide flange beam bridge supported by open stub abutments on concrete piles and multi-column reinforced concrete piers. 332'-4" back-to-back abutments. 33'-8" out-to-out deck. Structure to be removed and replaced using stage construction.

No Salvage

---------- In Elevation View, indicates portion of roadway configuration to be constructed in future contract.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (superstructure concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

LOADING HL-93

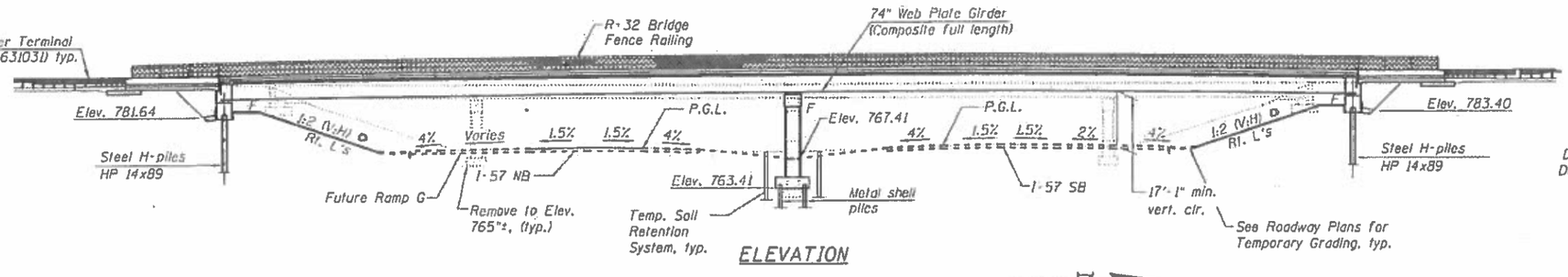
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.135 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.234 g
Soil Site Class = D

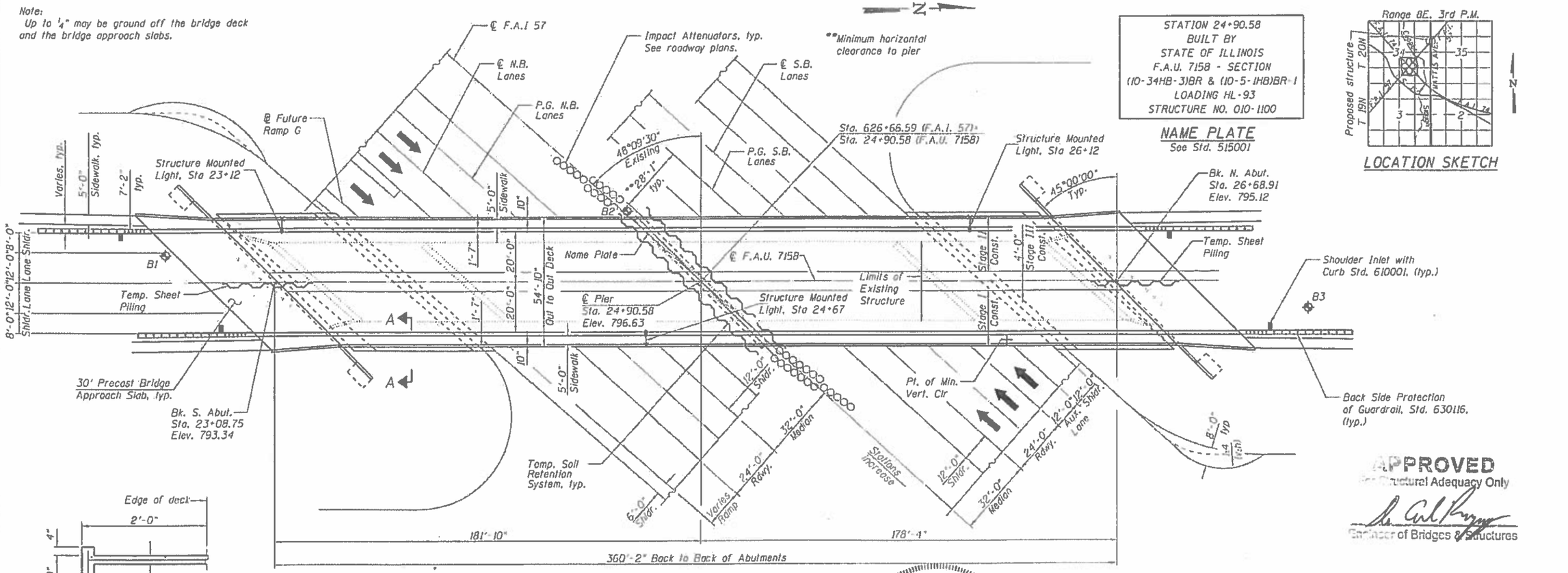
DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims.



ELEVATION

Note:
Up to 1/4" may be ground off the bridge deck and the bridge approach slabs.



* PLAN

SECTION A-A

*Future roadway configurations of F.A.I 57 and Ramp G shown.

STATION 24+90.58
BUILT BY
STATE OF ILLINOIS
F.A.U. 7158 - SECTION
(10-34HB-3)BR & (10-5-1HB)BR-1
LOADING HL-93
STRUCTURE NO. 010-1100

NAME PLATE

See Std. 515001

LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
GERALD B. ROTHERHAM
081-005673
STATE OF ILLINOIS

Exp.: 11/30/2020

GENERAL PLAN & ELEVATION
MATTIS AVE. OVER F.A.I. 57
F.A.U. 7158-SECTION (10-34HB-3)BR & (10-5-1HB)BR-1
CHAMPAIGN COUNTY
STATION 24+90.58
STRUCTURE NO. 010-1100

••• (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 010100-78038-001-GPE.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BFW BACON | FARMER | WORKMAN		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/26/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	•••	CHAMPAIGN	264	143
		CONTRACT NO. 70838		
		ILLINOIS FED. AID PROJECT		

INDEX OF SHEETS

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, hot dip galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel: AASHTO M 270 Gr. 50 = 902,700 lbs.
AASHTO M 270 Gr. 36 = 56,490 lbs.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

All structural steel shall be metallized. Cost included in Furnishing and Erecting Structural Steel. See Special Provisions.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

1) At least 72 hours shall have elapsed from the end of the previous pour.
2) The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.

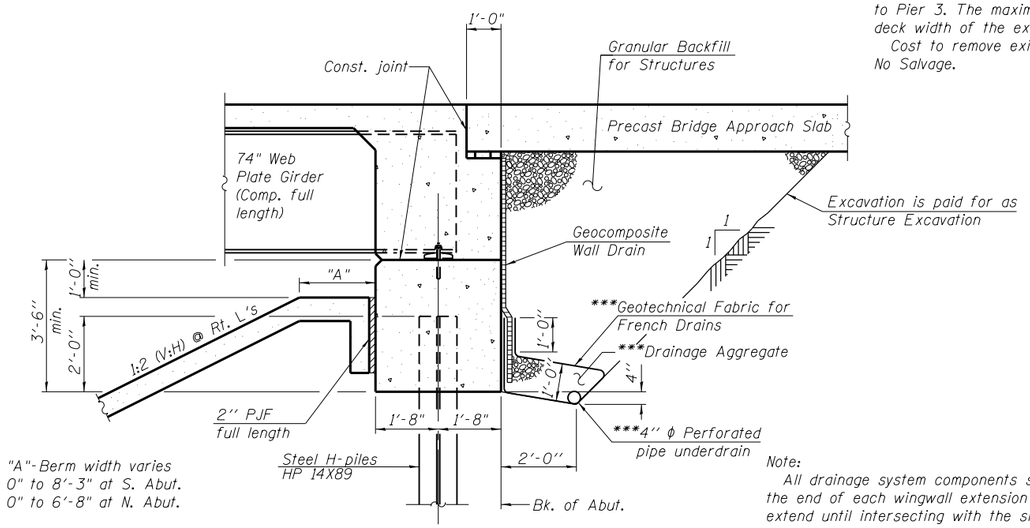
The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.

The maximum pay length of Protective Shield shall extend from existing Pier 1 to Pier 3. The maximum pay width of Protective Shield shall be equal to the overall deck width of the existing bridge.

Cost to remove existing protective shield included with removal of existing structures. No Salvage.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 2	Each			1
Protective Shield	Sq. Yd.	754		754
Structure Excavation	Cu. Yd.		822	822
Concrete Structures	Cu. Yd.		446.7	446.7
Concrete Superstructure	Cu. Yd.	815.1		815.1
Protective Coat	Sq. Yd.	3,255		3,255
Furnishing and Erecting Structural Steel	L. Sum	0.43		0.43
Stud Shear Connectors	Each	5,016		5,016
Reinforcement Bars, Epoxy Coated	Pound	199,260	50,060	249,320
Bar Splicers	Each	1,228	167	1,395
Mechanical Splicers	Each		150	150
Bridge Fence Railing	Foot	832		832
Parapet Railing	Foot	831		831
Slope Wall 4 Inch	Sq. Yd.		776	776
Furnishing Metal Shell Piles 14"x0.250"	Foot		1,680	1,680
Furnishing Steel Piles HP14x89	Foot		1,722	1,722
Driving Piles	Foot		3,402	3,402
Test Pile Metal Shells	Each		1	1
Test Pile Steel HP14x89	Each		2	2
Name Plates	Each		1	1
Preformed Joint Strip Seal	Foot		167	167
Anchor Bolts, 1"	Each		32	32
Anchor Bolts, 1½"	Each		16	16
Temporary Sheet Piling	Sq. Ft.		1,713	1,713
Temporary Soil Retention System	Sq. Ft.		1,477	1,477
Geocomposite Wall Drain	Sq. Yd.		230	230
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,113		1,113
Concrete Wearing Surface, 5"	Sq. Yd.	380		380
Precast Bridge Approach Slab	Sq. Ft.	3,240		3,240
Granular Backfill for Structures	Cu. Yd.		540	540
Diamond Grinding (Bridge Section)	Sq. Yd.	1,962		1,962
Pipe Underdrains for Structures 4"	Foot		292	292
Temporary Support System	Each		3	3
Powder Coating of Parapet Railing and Bridge Fence Railing	L Sum	0.60		0.60



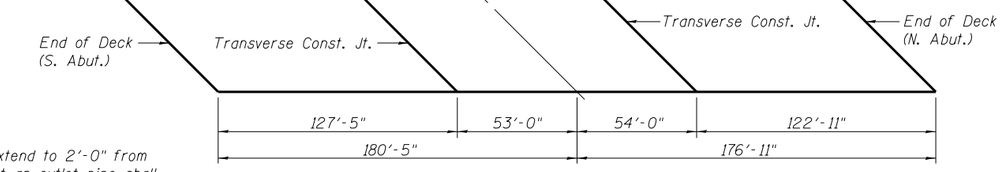
"A"-Berm width varies
0" to 8'-3" at S. Abut.
0" to 6'-8" at N. Abut.

SECTION THRU INTEGRAL ABUTMENT

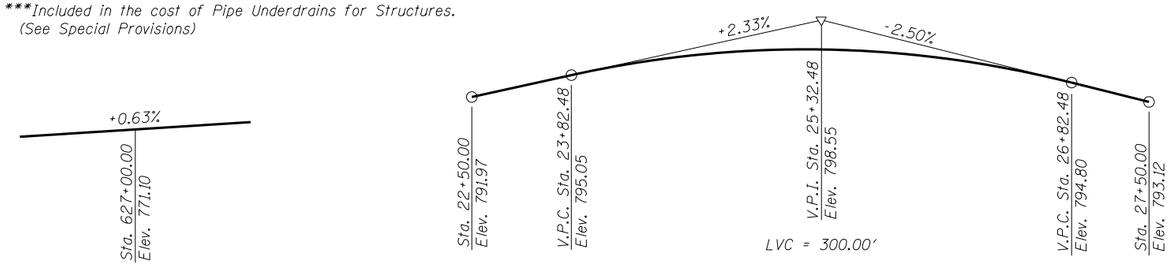
(Horizontal Dimensions @ Rt. L's)

***Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall extension except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



DECK POURING SEQUENCE



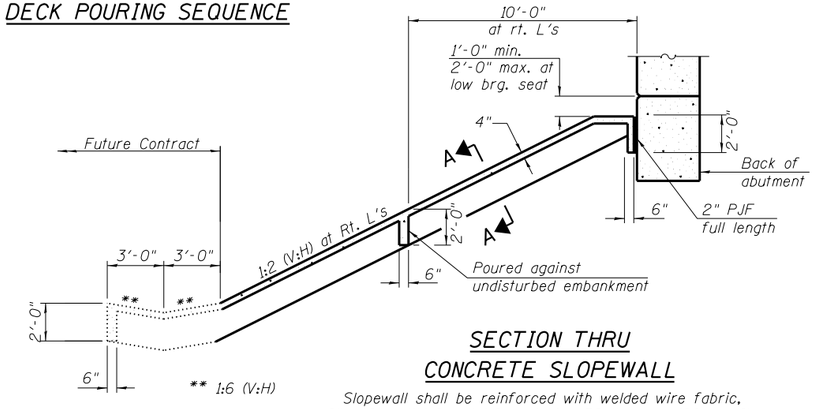
FUTURE PROFILE GRADE F.A.I. 57

(along N.B. & S.B. PGL)

PROFILE GRADE F.A.U. 7158 (MATTIS AVE.)

(along ℄ roadway)

The profile grade shows the final elevations after grinding.

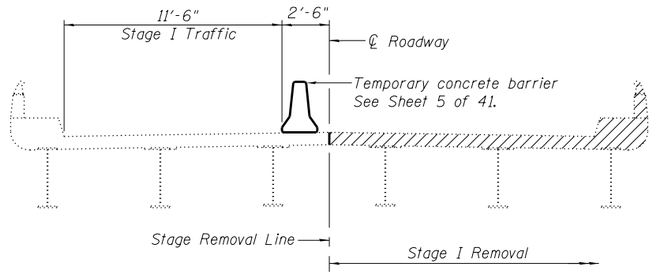


SECTION THRU CONCRETE SLOPEWALL

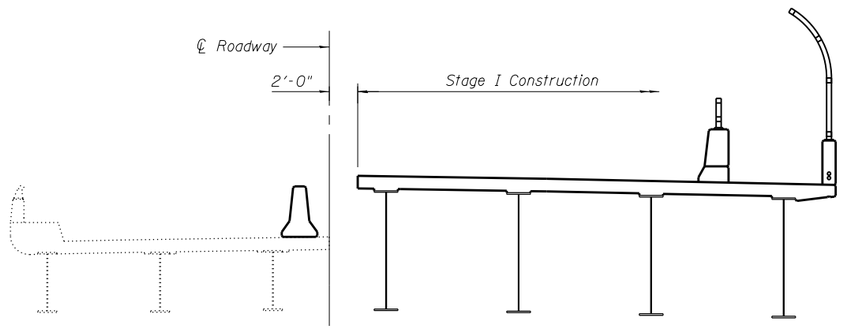
Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

* (10-34HB-3)BR&(10-5-1HB)BR-1

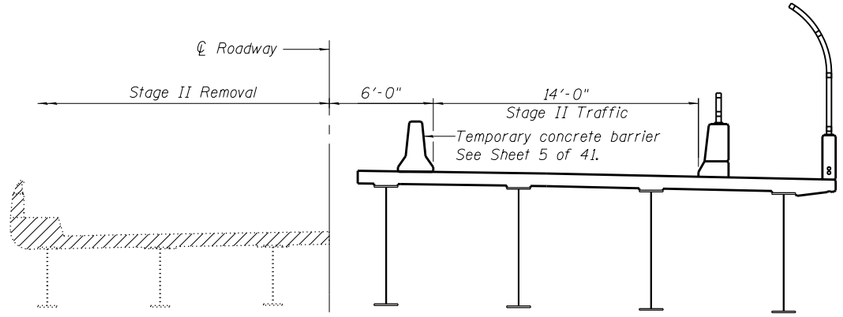
FILE NAME = 0101100-70B38-002 General Data.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL DATA STRUCTURE NO. 010-1100	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: (618)997-3190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	144
	PLOT SCALE =	DRAWN - BJV	REVISED -		SHEET NO. 2 OF 41 SHEETS				CONTRACT NO. 70B38	
	PLOT DATE = 2/10/2020	CHECKED - BWP	REVISED -					ILLINOIS	FED. AID PROJECT	



STAGE I REMOVAL



STAGE I CONSTRUCTION



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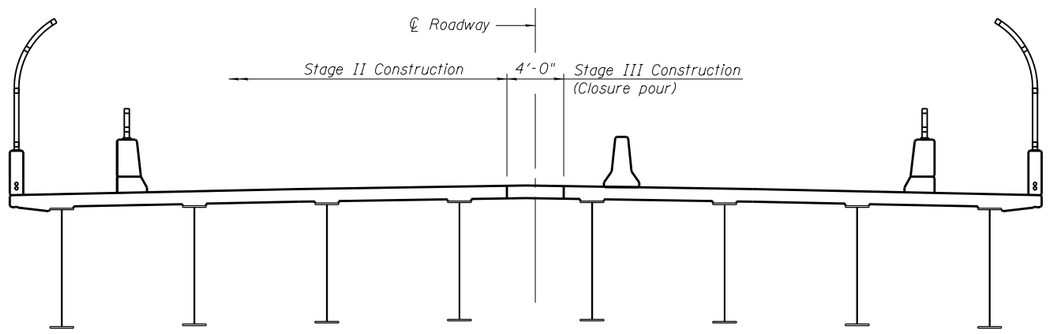
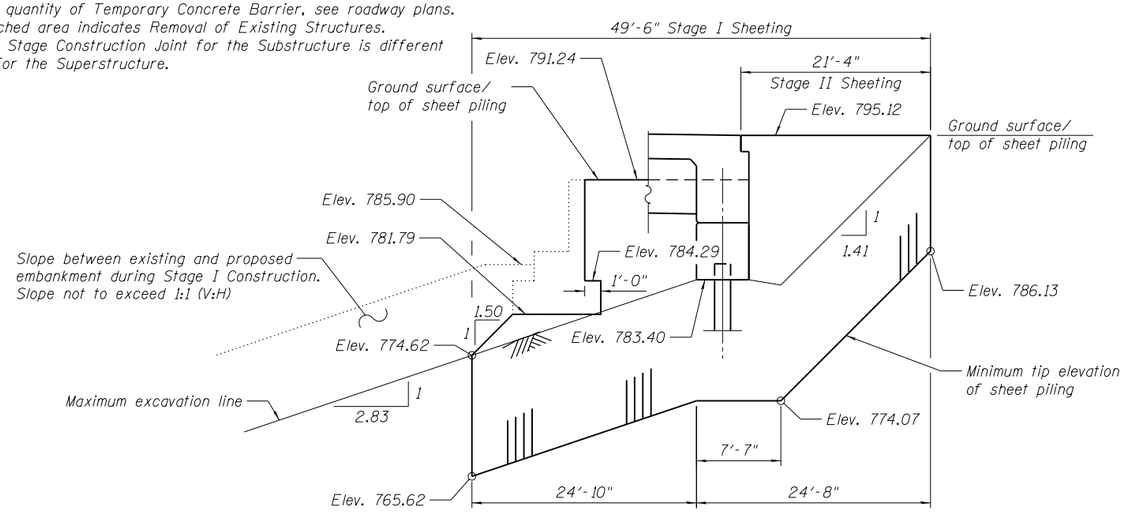
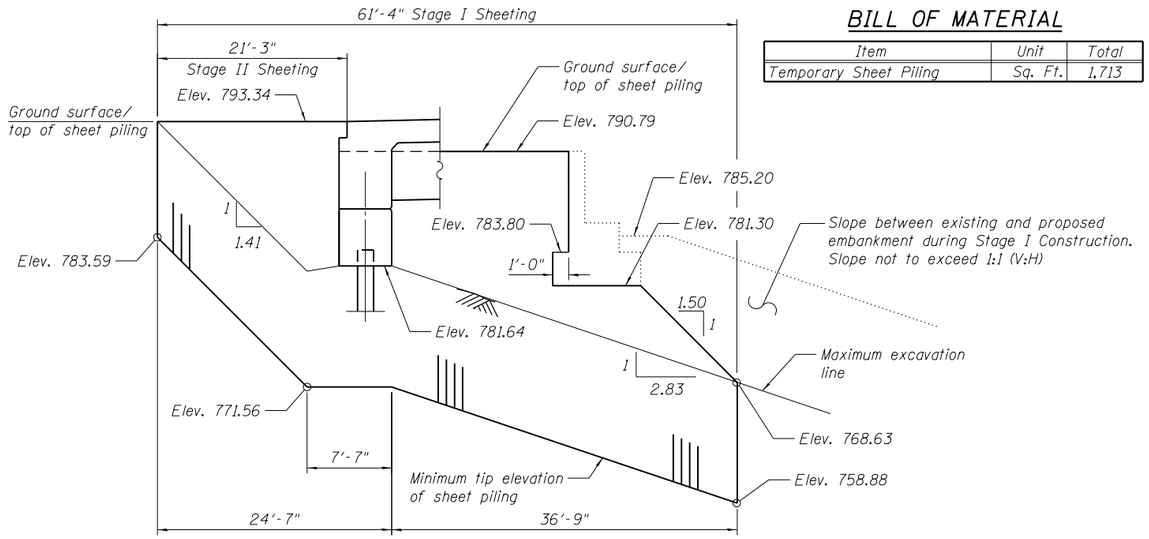


STAGE II & III CONSTRUCTION

Notes:
The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
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.
All staging cross sections are looking North.
For quantity of Temporary Concrete Barrier, see roadway plans.
Hatched area indicates Removal of Existing Structures.
The Stage Construction Joint for the Substructure is different than for the Superstructure.



TEMPORARY SHEET PILING
AT NORTH ABUTMENT
(Minimum Section Modulus= 9.4 in^3/ft)

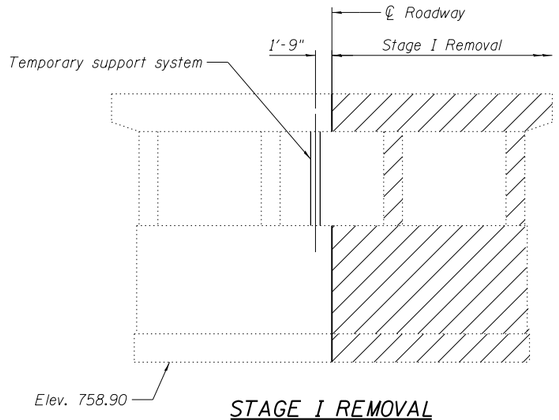


BILL OF MATERIAL

Item	Unit	Total
Temporary Sheet Piling	Sq. Ft.	1,713

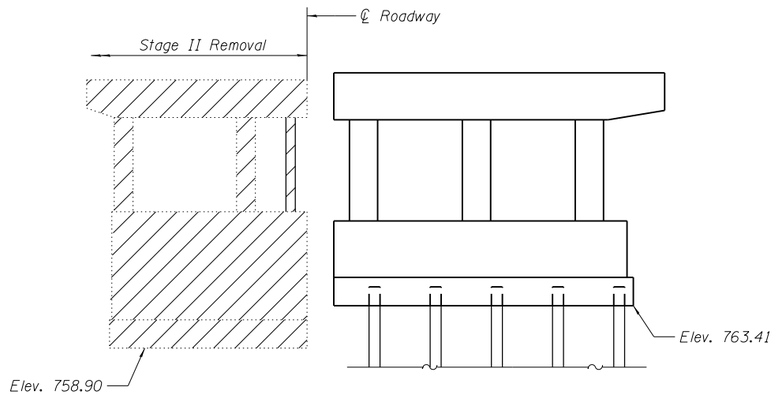
TEMPORARY SHEET PILING
AT SOUTH ABUTMENT
(Minimum Section Modulus= 12.8 in^3/ft)

* (10-34HB-3)BR&(10-5-1HB)BR-1



STAGE I REMOVAL

(Looking North)
(Horizontal Dimensions shown along ℄ of Pier)



STAGE II REMOVAL

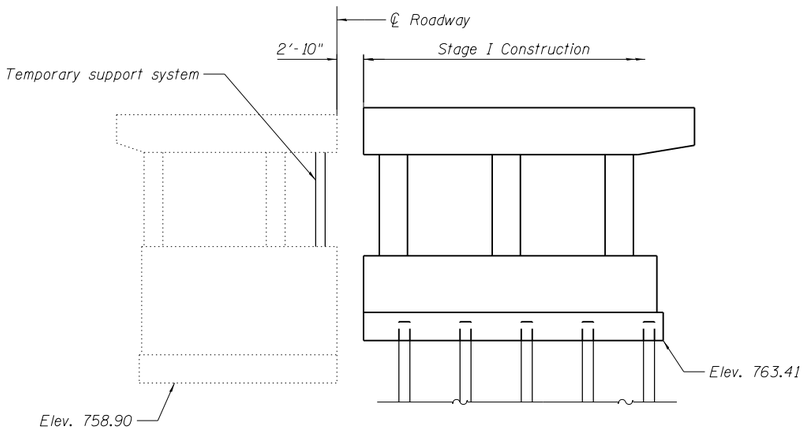
(Looking North)

Notes:

Partial removal of existing Pier 2 shown in all sections. Existing Piers 1 and 3 similar. A Temporary Support System will be required to support each existing pier during Stage I Construction and must be in place before piers are saw cut. Prior to Stage I removal, piers and abutments shall be saw cut full depth at substructure stage removal line. See Special Provisions.

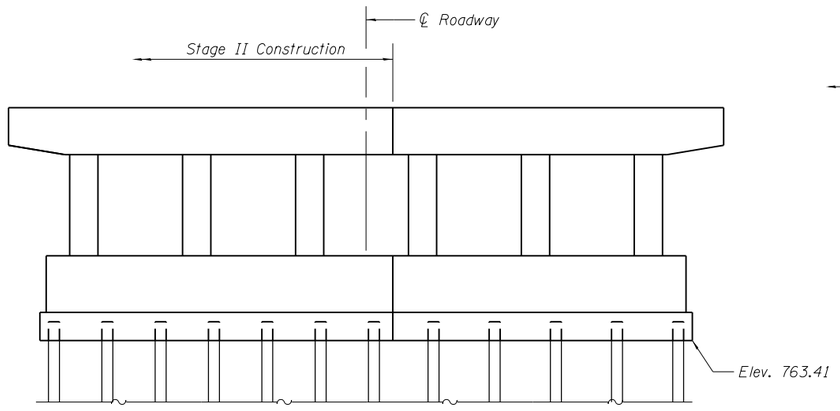
The temporary support system shall be capable of supporting a design service vertical Dead Load of 28 kips and a vertical Live Load of 2 kips.

The Stage Construction Joint for the Substructure is different than for the Superstructure.



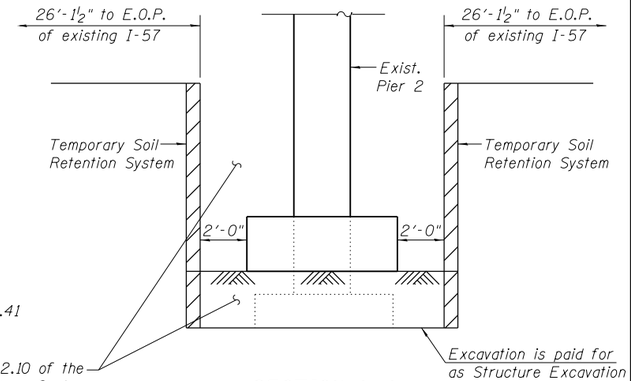
STAGE I CONSTRUCTION

(Looking North)
(Horizontal Dimensions shown along ℄ of Pier)



STAGE II CONSTRUCTION

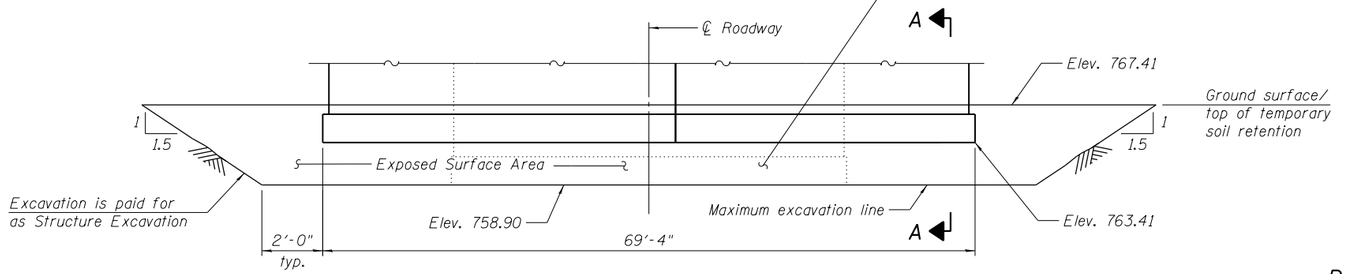
(Looking North)



SECTION A-A

STAGE CONSTRUCTION SEQUENCE FOR PIER

1. Install Temporary Support System at each existing pier.
2. Complete Stage I Removal.
3. Drive piles beginning at Elevation 758.90.
4. Backfill to Elevation 763.41 and complete Stage I Pier Construction.
5. Repeat 2 thru 4 for Stage II



TEMPORARY SOIL RETENTION SYSTEM AT PIER 2

(Looking North)
(Horizontal Dimensions shown along ℄ of Pier)

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.

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	1,477
Temporary Support System	Each	3

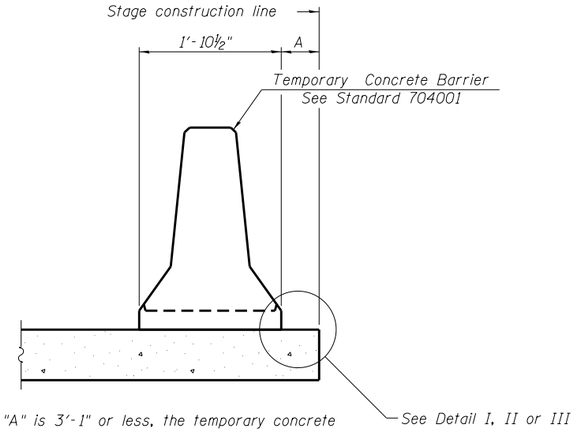
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-004-Stg Const Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: +1(618)573-9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 2/10/2020	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

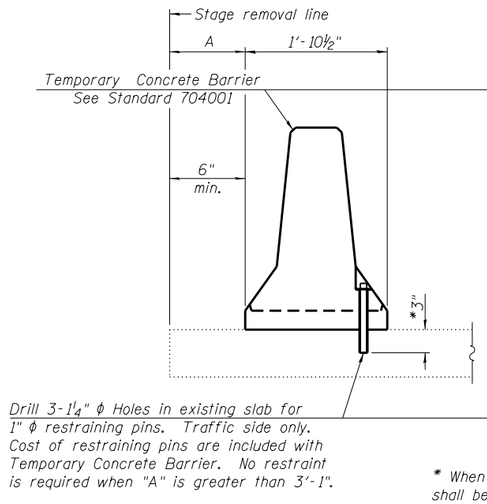
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 010-1100
SHEET NO. 4 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	146
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

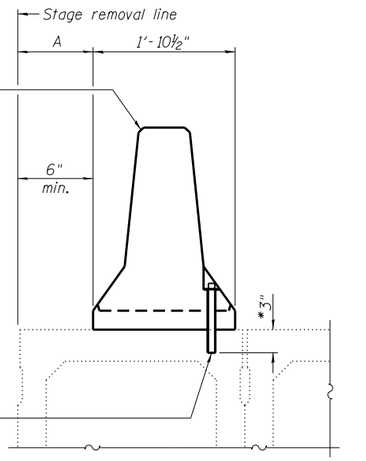


When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



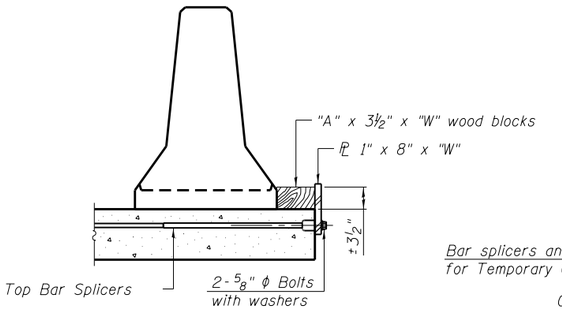
EXISTING SLAB



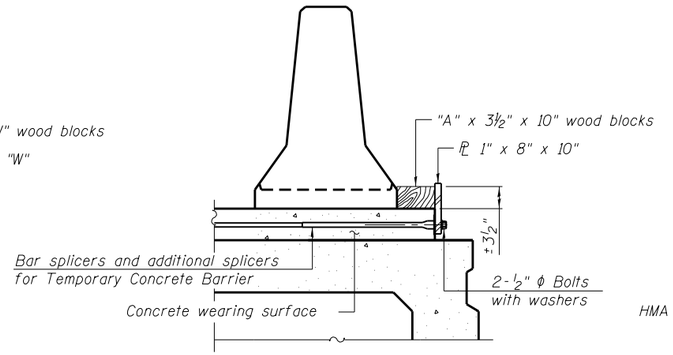
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

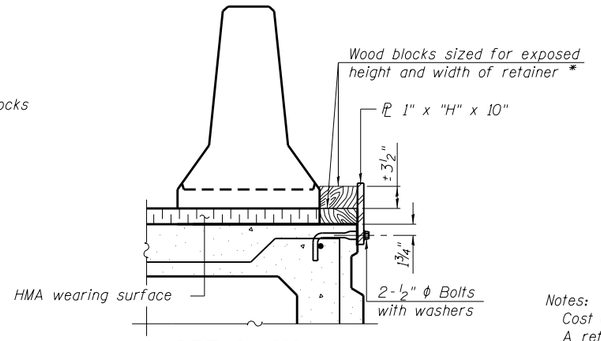
SECTIONS THRU SLAB OR DECK BEAM



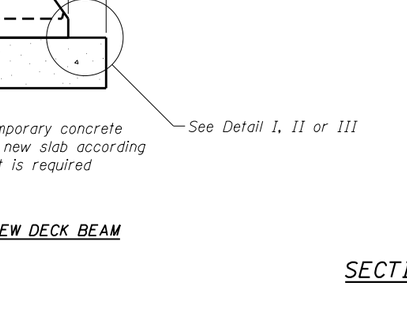
DETAIL I



DETAIL II

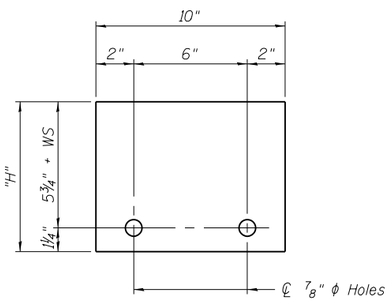


DETAIL III



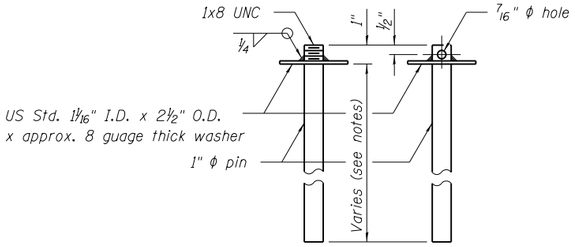
STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)

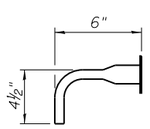


STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)



RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

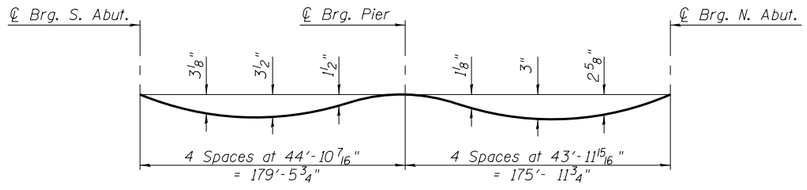
** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-025-Temporary Concrete Barrier	USER NAME =	DESIGNED - AAH	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 010-1100
SHEET NO. 5 OF 41 SHEETS

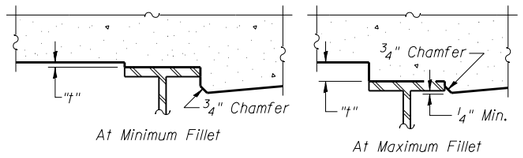
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	147
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



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 and grinding as shown on Sheets 7 thru 10 of 41.

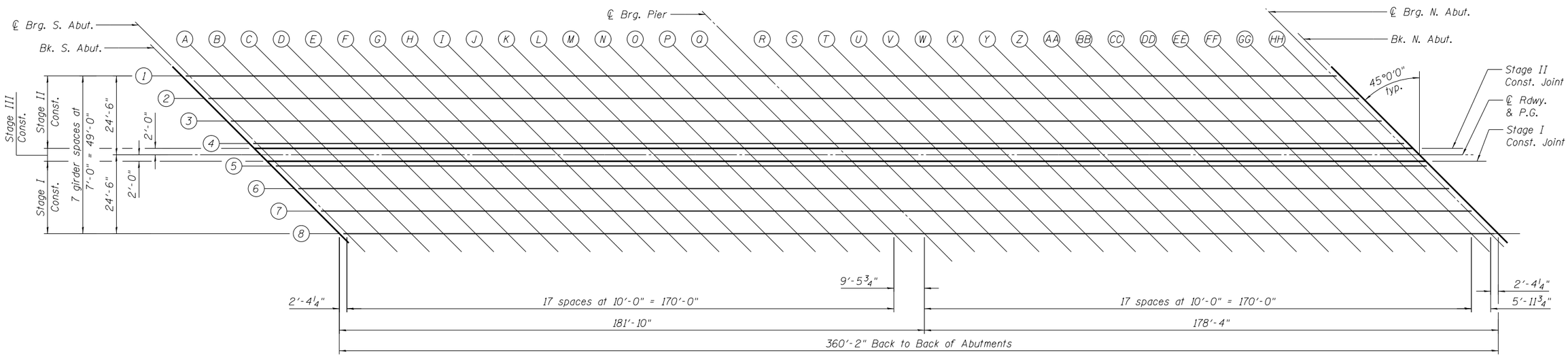


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on Sheets 7 thru 10 of 41, minus slab thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on Sheets 7 thru 10 of 41. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

N



* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 01011100-70B38-006-TOS Elevations.dgn	USER NAME =	DESIGNED - AAH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TOP OF SLAB ELEVATIONS STRUCTURE NO. 010-1100**
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -		SHEET NO. 6 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	148
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	22+84.25	-24.50	792.32	792.34
℄ Brg. S. Abut.	22+86.61	-24.50	792.37	792.39
A	22+96.61	-24.50	792.61	792.70
B	23+06.61	-24.50	792.84	792.99
C	23+16.61	-24.50	793.07	793.28
D	23+26.61	-24.50	793.31	793.57
E	23+36.61	-24.50	793.54	793.84
F	23+46.61	-24.50	793.77	794.09
G	23+56.61	-24.50	794.00	794.34
H	23+66.61	-24.50	794.24	794.56
I	23+76.61	-24.50	794.47	794.78
J	23+86.61	-24.50	794.70	794.98
K	23+96.61	-24.50	794.92	795.17
L	24+06.61	-24.50	795.12	795.33
M	24+16.61	-24.50	795.31	795.47
N	24+26.61	-24.50	795.48	795.60
O	24+36.61	-24.50	795.63	795.72
P	24+46.61	-24.50	795.77	795.82
Q	24+56.61	-24.50	795.89	795.93
℄ Brg. Pier	24+66.08	-24.50	795.99	796.01
R	24+76.08	-24.50	796.08	796.11
S	24+86.08	-24.50	796.16	796.20
T	24+96.08	-24.50	796.22	796.28
U	25+06.08	-24.50	796.26	796.36
V	25+16.08	-24.50	796.28	796.42
W	25+26.08	-24.50	796.29	796.47
X	25+36.08	-24.50	796.29	796.50
Y	25+46.08	-24.50	796.26	796.51
Z	25+56.08	-24.50	796.23	796.50
AA	25+66.08	-24.50	796.17	796.45
BB	25+76.08	-24.50	796.10	796.39
CC	25+86.08	-24.50	796.01	796.29
DD	25+96.08	-24.50	795.91	796.16
EE	26+06.08	-24.50	795.79	796.01
FF	26+16.08	-24.50	795.66	795.83
GG	26+26.08	-24.50	795.51	795.62
HH	26+36.08	-24.50	795.34	795.40
℄ Brg. N. Abut.	26+42.06	-24.50	795.23	795.25
Bk. N. Abut.	26+44.42	-24.50	795.19	795.21

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	22+91.25	-17.50	792.63	792.65
℄ Brg. S. Abut.	22+93.61	-17.50	792.68	792.70
A	23+03.61	-17.50	792.92	793.00
B	23+13.61	-17.50	793.15	793.30
C	23+23.61	-17.50	793.38	793.59
D	23+33.61	-17.50	793.61	793.87
E	23+43.61	-17.50	793.85	794.14
F	23+53.61	-17.50	794.08	794.40
G	23+63.61	-17.50	794.31	794.65
H	23+73.61	-17.50	794.55	794.87
I	23+83.61	-17.50	794.78	795.09
J	23+93.61	-17.50	795.00	795.28
K	24+03.61	-17.50	795.21	795.46
L	24+13.61	-17.50	795.40	795.61
M	24+23.61	-17.50	795.58	795.74
N	24+33.61	-17.50	795.73	795.85
O	24+43.61	-17.50	795.88	795.96
P	24+53.61	-17.50	796.00	796.05
Q	24+63.61	-17.50	796.11	796.15
℄ Brg. Pier	24+73.08	-17.50	796.20	796.22
R	24+83.08	-17.50	796.28	796.31
S	24+93.08	-17.50	796.35	796.39
T	25+03.08	-17.50	796.39	796.46
U	25+13.08	-17.50	796.42	796.52
V	25+23.08	-17.50	796.44	796.57
W	25+33.08	-17.50	796.44	796.61
X	25+43.08	-17.50	796.42	796.63
Y	25+53.08	-17.50	796.38	796.63
Z	25+63.08	-17.50	796.34	796.61
AA	25+73.08	-17.50	796.27	796.55
BB	25+83.08	-17.50	796.19	796.47
CC	25+93.08	-17.50	796.09	796.37
DD	26+03.08	-17.50	795.98	796.23
EE	26+13.08	-17.50	795.85	796.06
FF	26+23.08	-17.50	795.70	795.87
GG	26+33.08	-17.50	795.54	795.65
HH	26+43.08	-17.50	795.36	795.42
℄ Brg. N. Abut.	26+49.06	-17.50	795.24	795.26
Bk. N. Abut.	26+51.42	-17.50	795.20	795.22

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	22+98.25	-10.50	792.93	792.95
℄ Brg. S. Abut.	23+00.61	-10.50	792.98	793.00
A	23+10.61	-10.50	793.22	793.31
B	23+20.61	-10.50	793.45	793.60
C	23+30.61	-10.50	793.68	793.89
D	23+40.61	-10.50	793.92	794.18
E	23+50.61	-10.50	794.15	794.45
F	23+60.61	-10.50	794.38	794.70
G	23+70.61	-10.50	794.61	794.95
H	23+80.61	-10.50	794.85	795.17
I	23+90.61	-10.50	795.07	795.39
J	24+00.61	-10.50	795.29	795.57
K	24+10.61	-10.50	795.48	795.73
L	24+20.61	-10.50	795.66	795.87
M	24+30.61	-10.50	795.83	795.99
N	24+40.61	-10.50	795.97	796.09
O	24+50.61	-10.50	796.10	796.19
P	24+60.61	-10.50	796.22	796.27
Q	24+70.61	-10.50	796.32	796.35
℄ Brg. Pier	24+80.08	-10.50	796.40	796.42
R	24+90.08	-10.50	796.47	796.50
S	25+00.08	-10.50	796.52	796.56
T	25+10.08	-10.50	796.55	796.62
U	25+20.08	-10.50	796.57	796.67
V	25+30.08	-10.50	796.58	796.71
W	25+40.08	-10.50	796.56	796.74
X	25+50.08	-10.50	796.53	796.75
Y	25+60.08	-10.50	796.49	796.74
Z	25+70.08	-10.50	796.43	796.70
AA	25+80.08	-10.50	796.35	796.64
BB	25+90.08	-10.50	796.26	796.54
CC	26+00.08	-10.50	796.15	796.43
DD	26+10.08	-10.50	796.02	796.27
EE	26+20.08	-10.50	795.88	796.10
FF	26+30.08	-10.50	795.72	795.90
GG	26+40.08	-10.50	795.55	795.67
HH	26+50.08	-10.50	795.36	795.42
℄ Brg. N. Abut.	26+56.06	-10.50	795.24	795.26
Bk. N. Abut.	26+58.42	-10.50	795.19	795.21

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-007-TOS Elevations.dgn | USER NAME = | DESIGNED - AAH | REVISED -
CHECKED - BWP | REVISED -
PLOT SCALE = | DRAWN - BJV | REVISED -
PLOT DATE = 4/25/2019 | CHECKED - BWP | REVISED -

BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
RANSON, ILLINOIS 62959
PHONE - 618.867.9160

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1100
SHEET NO. 7 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	149
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+05.25	-3.50	793.20	793.22
℄ Brg. S. Abut.	23+07.61	-3.50	793.26	793.28
A	23+17.61	-3.50	793.49	793.58
B	23+27.61	-3.50	793.72	793.88
C	23+37.61	-3.50	793.95	794.17
D	23+47.61	-3.50	794.19	794.45
E	23+57.61	-3.50	794.42	794.72
F	23+67.61	-3.50	794.65	794.97
G	23+77.61	-3.50	794.89	795.22
H	23+87.61	-3.50	795.12	795.44
I	23+97.61	-3.50	795.33	795.65
J	24+07.61	-3.50	795.53	795.82
K	24+17.61	-3.50	795.72	795.97
L	24+27.61	-3.50	795.89	796.09
M	24+37.61	-3.50	796.04	796.20
N	24+47.61	-3.50	796.18	796.29
O	24+57.61	-3.50	796.30	796.38
P	24+67.61	-3.50	796.40	796.45
Q	24+77.61	-3.50	796.49	796.52
℄ Brg. Pier	24+87.08	-3.50	796.56	796.58
R	24+97.08	-3.50	796.61	796.64
S	25+07.08	-3.50	796.65	796.70
T	25+17.08	-3.50	796.68	796.75
U	25+27.08	-3.50	796.69	796.79
V	25+37.08	-3.50	796.68	796.82
W	25+47.08	-3.50	796.65	796.83
X	25+57.08	-3.50	796.61	796.83
Y	25+67.08	-3.50	796.56	796.80
Z	25+77.08	-3.50	796.49	796.76
AA	25+87.08	-3.50	796.40	796.68
BB	25+97.08	-3.50	796.29	796.58
CC	26+07.08	-3.50	796.17	796.45
DD	26+17.08	-3.50	796.04	796.29
EE	26+27.08	-3.50	795.88	796.10
FF	26+37.08	-3.50	795.71	795.88
GG	26+47.08	-3.50	795.53	795.65
HH	26+57.08	-3.50	795.33	795.39
℄ Brg. N. Abut.	26+63.06	-3.50	795.20	795.22
Bk. N. Abut.	26+65.42	-3.50	795.15	795.17

STAGE II CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+06.75	-2.00	793.26	793.28
℄ Brg. S. Abut.	23+09.11	-2.00	793.31	793.33
A	23+19.11	-2.00	793.55	793.64
B	23+29.11	-2.00	793.78	793.94
C	23+39.11	-2.00	794.01	794.23
D	23+49.11	-2.00	794.25	794.51
E	23+59.11	-2.00	794.48	794.78
F	23+69.11	-2.00	794.71	795.03
G	23+79.11	-2.00	794.95	795.28
H	23+89.11	-2.00	795.17	795.50
I	23+99.11	-2.00	795.39	795.70
J	24+09.11	-2.00	795.59	795.87
K	24+19.11	-2.00	795.77	796.02
L	24+29.11	-2.00	795.94	796.14
M	24+39.11	-2.00	796.09	796.25
N	24+49.11	-2.00	796.22	796.34
O	24+59.11	-2.00	796.34	796.42
P	24+69.11	-2.00	796.44	796.49
Q	24+79.11	-2.00	796.52	796.56
℄ Brg. Pier	24+88.58	-2.00	796.59	796.61
R	24+98.58	-2.00	796.64	796.67
S	25+08.58	-2.00	796.68	796.72
T	25+18.58	-2.00	796.70	796.77
U	25+28.58	-2.00	796.71	796.81
V	25+38.58	-2.00	796.70	796.84
W	25+48.58	-2.00	796.67	796.85
X	25+58.58	-2.00	796.63	796.85
Y	25+68.58	-2.00	796.57	796.82
Z	25+78.58	-2.00	796.50	796.77
AA	25+88.58	-2.00	796.41	796.69
BB	25+98.58	-2.00	796.30	796.59
CC	26+08.58	-2.00	796.18	796.45
DD	26+18.58	-2.00	796.04	796.29
EE	26+28.58	-2.00	795.88	796.10
FF	26+38.58	-2.00	795.71	795.88
GG	26+48.58	-2.00	795.52	795.64
HH	26+58.58	-2.00	795.32	795.38
℄ Brg. N. Abut.	26+64.56	-2.00	795.19	795.21
Bk. N. Abut.	26+66.92	-2.00	795.14	795.16

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+08.75	0.00	793.34	793.36
℄ Brg. S. Abut.	23+11.11	0.00	793.39	793.41
A	23+21.11	0.00	793.63	793.71
B	23+31.11	0.00	793.86	794.01
C	23+41.11	0.00	794.09	794.30
D	23+51.11	0.00	794.32	794.58
E	23+61.11	0.00	794.56	794.85
F	23+71.11	0.00	794.79	795.11
G	23+81.11	0.00	795.02	795.36
H	23+91.11	0.00	795.25	795.58
I	24+01.11	0.00	795.46	795.78
J	24+11.11	0.00	795.66	795.94
K	24+21.11	0.00	795.83	796.08
L	24+31.11	0.00	796.00	796.20
M	24+41.11	0.00	796.14	796.31
N	24+51.11	0.00	796.27	796.39
O	24+61.11	0.00	796.39	796.47
P	24+71.11	0.00	796.49	796.54
Q	24+81.11	0.00	796.57	796.60
℄ Brg. Pier	24+90.58	0.00	796.63	796.65
R	25+00.58	0.00	796.68	796.71
S	25+10.58	0.00	796.72	796.76
T	25+20.58	0.00	796.74	796.80
U	25+30.58	0.00	796.74	796.84
V	25+40.58	0.00	796.73	796.86
W	25+50.58	0.00	796.70	796.87
X	25+60.58	0.00	796.65	796.87
Y	25+70.58	0.00	796.59	796.84
Z	25+80.58	0.00	796.51	796.78
AA	25+90.58	0.00	796.42	796.70
BB	26+00.58	0.00	796.31	796.59
CC	26+10.58	0.00	796.18	796.46
DD	26+20.58	0.00	796.04	796.29
EE	26+30.58	0.00	795.88	796.10
FF	26+40.58	0.00	795.71	795.88
GG	26+50.58	0.00	795.52	795.63
HH	26+60.58	0.00	795.31	795.37
℄ Brg. N. Abut.	26+66.56	0.00	795.18	795.20
Bk. N. Abut.	26+68.92	0.00	795.12	795.15

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 01011100-70B38-008-TOS Elevations.dgn
USER NAME =
PLOT SCALE =
PLOT DATE = 4/25/2019

DESIGNED - AAH
CHECKED - BWP
DRAWN - BJV
CHECKED - BWP

REVISED -
REVISED -
REVISED -
REVISED -

BACON | FARMER | WORKMAN
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1100
SHEET NO. 8 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	150
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

STAGE I CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+10.75	2.00	793.35	793.37
℄ Brg. S. Abut.	23+13.11	2.00	793.41	793.43
A	23+23.11	2.00	793.64	793.73
B	23+33.11	2.00	793.87	794.03
C	23+43.11	2.00	794.11	794.32
D	23+53.11	2.00	794.34	794.60
E	23+63.11	2.00	794.57	794.87
F	23+73.11	2.00	794.81	795.12
G	23+83.11	2.00	795.04	795.37
H	23+93.11	2.00	795.26	795.59
I	24+03.11	2.00	795.47	795.78
J	24+13.11	2.00	795.66	795.94
K	24+23.11	2.00	795.84	796.09
L	24+33.11	2.00	796.00	796.20
M	24+43.11	2.00	796.14	796.30
N	24+53.11	2.00	796.27	796.39
O	24+63.11	2.00	796.38	796.46
P	24+73.11	2.00	796.47	796.53
Q	24+83.11	2.00	796.55	796.59
℄ Brg. Pier	24+92.58	2.00	796.61	796.63
R	25+02.58	2.00	796.66	796.69
S	25+12.58	2.00	796.69	796.73
T	25+22.58	2.00	796.71	796.78
U	25+32.58	2.00	796.71	796.81
V	25+42.58	2.00	796.69	796.83
W	25+52.58	2.00	796.66	796.83
X	25+62.58	2.00	796.61	796.83
Y	25+72.58	2.00	796.54	796.79
Z	25+82.58	2.00	796.46	796.73
AA	25+92.58	2.00	796.37	796.65
BB	26+02.58	2.00	796.25	796.54
CC	26+12.58	2.00	796.12	796.40
DD	26+22.58	2.00	795.98	796.23
EE	26+32.58	2.00	795.82	796.03
FF	26+42.58	2.00	795.64	795.81
GG	26+52.58	2.00	795.44	795.56
HH	26+62.58	2.00	795.23	795.29
℄ Brg. N. Abut.	26+68.56	2.00	795.10	795.12
Bk. N. Abut.	26+70.92	2.00	795.05	795.07

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+12.25	3.50	793.36	793.38
℄ Brg. S. Abut.	23+14.61	3.50	793.42	793.44
A	23+24.61	3.50	793.65	793.74
B	23+34.61	3.50	793.88	794.04
C	23+44.61	3.50	794.12	794.33
D	23+54.61	3.50	794.35	794.61
E	23+64.61	3.50	794.58	794.88
F	23+74.61	3.50	794.82	795.14
G	23+84.61	3.50	795.05	795.38
H	23+94.61	3.50	795.27	795.60
I	24+04.61	3.50	795.48	795.79
J	24+14.61	3.50	795.67	795.95
K	24+24.61	3.50	795.84	796.09
L	24+34.61	3.50	796.00	796.20
M	24+44.61	3.50	796.14	796.30
N	24+54.61	3.50	796.26	796.38
O	24+64.61	3.50	796.37	796.45
P	24+74.61	3.50	796.46	796.52
Q	24+84.61	3.50	796.54	796.57
℄ Brg. Pier	24+94.08	3.50	796.60	796.62
R	25+04.08	3.50	796.64	796.67
S	25+14.08	3.50	796.67	796.71
T	25+24.08	3.50	796.69	796.75
U	25+34.08	3.50	796.68	796.78
V	25+44.08	3.50	796.66	796.80
W	25+54.08	3.50	796.63	796.80
X	25+64.08	3.50	796.58	796.79
Y	25+74.08	3.50	796.51	796.76
Z	25+84.08	3.50	796.43	796.70
AA	25+94.08	3.50	796.33	796.61
BB	26+04.08	3.50	796.21	796.50
CC	26+14.08	3.50	796.08	796.35
DD	26+24.08	3.50	795.93	796.18
EE	26+34.08	3.50	795.77	795.99
FF	26+44.08	3.50	795.59	795.76
GG	26+54.08	3.50	795.39	795.51
HH	26+64.08	3.50	795.18	795.24
℄ Brg. N. Abut.	26+70.06	3.50	795.04	795.06
Bk. N. Abut.	26+72.42	3.50	794.99	795.01

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+19.25	10.50	793.42	793.44
℄ Brg. S. Abut.	23+21.61	10.50	793.47	793.49
A	23+31.61	10.50	793.71	793.79
B	23+41.61	10.50	793.94	794.09
C	23+51.61	10.50	794.17	794.38
D	23+61.61	10.50	794.40	794.67
E	23+71.61	10.50	794.64	794.93
F	23+81.61	10.50	794.87	795.19
G	23+91.61	10.50	795.10	795.43
H	24+01.61	10.50	795.31	795.63
I	24+11.61	10.50	795.50	795.82
J	24+21.61	10.50	795.68	795.96
K	24+31.61	10.50	795.84	796.09
L	24+41.61	10.50	795.99	796.19
M	24+51.61	10.50	796.12	796.28
N	24+61.61	10.50	796.23	796.35
O	24+71.61	10.50	796.33	796.41
P	24+81.61	10.50	796.41	796.46
Q	24+91.61	10.50	796.47	796.51
℄ Brg. Pier	25+01.08	10.50	796.52	796.54
R	25+11.08	10.50	796.56	796.59
S	25+21.08	10.50	796.57	796.62
T	25+31.08	10.50	796.58	796.64
U	25+41.08	10.50	796.56	796.66
V	25+51.08	10.50	796.53	796.67
W	25+61.08	10.50	796.48	796.66
X	25+71.08	10.50	796.42	796.64
Y	25+81.08	10.50	796.34	796.59
Z	25+91.08	10.50	796.25	796.52
AA	26+01.08	10.50	796.14	796.42
BB	26+11.08	10.50	796.01	796.30
CC	26+21.08	10.50	795.87	796.14
DD	26+31.08	10.50	795.71	795.96
EE	26+41.08	10.50	795.53	795.75
FF	26+51.08	10.50	795.34	795.51
GG	26+61.08	10.50	795.13	795.25
HH	26+71.08	10.50	794.91	794.97
℄ Brg. N. Abut.	26+77.06	10.50	794.77	794.79
Bk. N. Abut.	26+79.42	10.50	794.71	794.73

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-009-TOS Elevations.dgn
USER NAME =
PLOT SCALE =
PLOT DATE = 4/25/2019

DESIGNED - AAH
CHECKED - BWP
DRAWN - BJV
CHECKED - BWP

REVISED -
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403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE • 618.997.9190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1100
SHEET NO. 9 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	151
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+26.25	17.50	793.44	793.46
℄ Brg. S. Abut.	23+28.61	17.50	793.50	793.52
A	23+38.61	17.50	793.73	793.82
B	23+48.61	17.50	793.96	794.12
C	23+58.61	17.50	794.20	794.41
D	23+68.61	17.50	794.43	794.69
E	23+78.61	17.50	794.66	794.96
F	23+88.61	17.50	794.89	795.21
G	23+98.61	17.50	795.11	795.44
H	24+08.61	17.50	795.31	795.63
I	24+18.61	17.50	795.49	795.80
J	24+28.61	17.50	795.66	795.94
K	24+38.61	17.50	795.81	796.06
L	24+48.61	17.50	795.94	796.15
M	24+58.61	17.50	796.06	796.22
N	24+68.61	17.50	796.16	796.28
O	24+78.61	17.50	796.25	796.33
P	24+88.61	17.50	796.32	796.37
Q	24+98.61	17.50	796.37	796.41
℄ Brg. Pier	25+08.08	17.50	796.41	796.43
R	25+18.08	17.50	796.43	796.46
S	25+28.08	17.50	796.44	796.48
T	25+38.08	17.50	796.43	796.50
U	25+48.08	17.50	796.40	796.50
V	25+58.08	17.50	796.36	796.50
W	25+68.08	17.50	796.30	796.48
X	25+78.08	17.50	796.23	796.45
Y	25+88.08	17.50	796.14	796.39
Z	25+98.08	17.50	796.03	796.31
AA	26+08.08	17.50	795.91	796.20
BB	26+18.08	17.50	795.77	796.06
CC	26+28.08	17.50	795.62	795.90
DD	26+38.08	17.50	795.45	795.70
EE	26+48.08	17.50	795.26	795.48
FF	26+58.08	17.50	795.06	795.23
GG	26+68.08	17.50	794.84	794.96
HH	26+78.08	17.50	794.61	794.66
℄ Brg. N. Abut.	26+84.06	17.50	794.46	794.48
Bk. N. Abut.	26+86.42	17.50	794.40	794.42

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	23+33.25	24.50	793.46	793.48
℄ Brg. S. Abut.	23+35.61	24.50	793.51	793.54
A	23+45.61	24.50	793.75	793.84
B	23+55.61	24.50	793.98	794.14
C	23+65.61	24.50	794.21	794.43
D	23+75.61	24.50	794.45	794.71
E	23+85.61	24.50	794.68	794.98
F	23+95.61	24.50	794.90	795.22
G	24+05.61	24.50	795.10	795.44
H	24+15.61	24.50	795.29	795.62
I	24+25.61	24.50	795.46	795.78
J	24+35.61	24.50	795.62	795.90
K	24+45.61	24.50	795.76	796.01
L	24+55.61	24.50	795.88	796.09
M	24+65.61	24.50	795.99	796.15
N	24+75.61	24.50	796.08	796.20
O	24+85.61	24.50	796.15	796.24
P	24+95.61	24.50	796.21	796.26
Q	25+05.61	24.50	796.26	796.29
℄ Brg. Pier	25+15.08	24.50	796.28	796.30
R	25+25.08	24.50	796.29	796.32
S	25+35.08	24.50	796.29	796.33
T	25+45.08	24.50	796.27	796.33
U	25+55.08	24.50	796.23	796.33
V	25+65.08	24.50	796.18	796.31
W	25+75.08	24.50	796.11	796.29
X	25+85.08	24.50	796.02	796.24
Y	25+95.08	24.50	795.92	796.17
Z	26+05.08	24.50	795.80	796.08
AA	26+15.08	24.50	795.67	795.95
BB	26+25.08	24.50	795.52	795.81
CC	26+35.08	24.50	795.36	795.63
DD	26+45.08	24.50	795.17	795.43
EE	26+55.08	24.50	794.98	795.20
FF	26+65.08	24.50	794.76	794.93
GG	26+75.08	24.50	794.53	794.65
HH	26+85.08	24.50	794.29	794.34
℄ Brg. N. Abut.	26+91.06	24.50	794.14	794.16
Bk. N. Abut.	26+93.42	24.50	794.08	794.10

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 01011100-70B38-010-TOS Elevations.dgn
USER NAME =
PLOT SCALE =
PLOT DATE = 4/25/2019

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403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE 618.997.9190

DESIGNED -	AAH	REVISED -
CHECKED -	BWP	REVISED -
DRAWN -	BJV	REVISED -
CHECKED -	BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 010-1100
SHEET NO. 10 OF 41 SHEETS

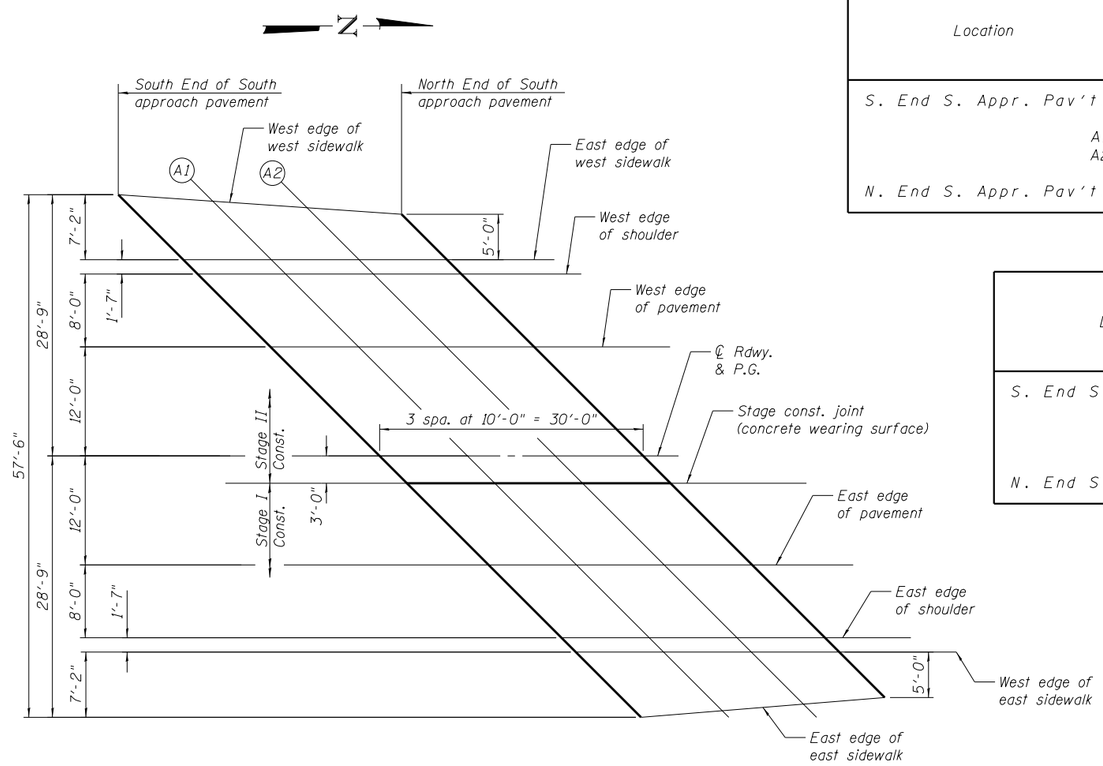
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	152
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF WEST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+51.41	-28.75	791.47	791.49
A1	22+62.14	-28.03	791.73	791.75
A2	22+72.86	-27.31	792.00	792.02
N. End S. Appr. Pav't.	22+83.58	-26.58	792.26	792.28

EAST EDGE OF WEST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+58.58	-21.58	791.78	791.80
A1	22+68.58	-21.58	792.01	792.03
A2	22+78.58	-21.58	792.25	792.27
N. End S. Appr. Pav't.	22+88.58	-21.58	792.48	792.50



PLAN

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+60.16	-20.00	791.85	791.87
A1	22+70.16	-20.00	792.08	792.10
A2	22+80.16	-20.00	792.32	792.34
N. End S. Appr. Pav't.	22+90.16	-20.00	792.55	792.57

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+68.16	-12.00	792.20	792.22
A1	22+78.16	-12.00	792.44	792.46
A2	22+88.16	-12.00	792.67	792.69
N. End S. Appr. Pav't.	22+98.16	-12.00	792.90	792.92

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+92.16	12.00	792.76	792.78
A1	23+02.16	12.00	793.00	793.02
A2	23+12.16	12.00	793.23	793.25
N. End S. Appr. Pav't.	23+22.16	12.00	793.46	793.48

WEST EDGE OF EAST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	23+01.75	21.58	792.79	792.81
A1	23+11.75	21.58	793.02	793.04
A2	23+21.75	21.58	793.25	793.27
N. End S. Appr. Pav't.	23+31.75	21.58	793.49	793.51

EAST EDGE OF EAST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	23+08.91	28.75	792.81	792.83
A1	23+18.19	28.03	793.04	793.06
A2	23+27.47	27.31	793.27	793.29
N. End S. Appr. Pav't.	23+36.75	26.58	793.50	793.52

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+80.16	0.00	792.67	792.69
A1	22+90.16	0.00	792.90	792.92
A2	23+00.16	0.00	793.14	793.16
N. End S. Appr. Pav't.	23+10.16	0.00	793.37	793.39

STAGE CONST. JOINT (CONCRETE WEARING SURFACE)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	22+83.16	3.00	792.69	792.71
A1	22+93.16	3.00	792.93	792.95
A2	23+03.16	3.00	793.16	793.18
N. End S. Appr. Pav't.	23+13.16	3.00	793.39	793.41

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End S. Appr. Pav't.	23+00.16	20.00	792.78	792.80
A1	23+10.16	20.00	793.02	793.04
A2	23+20.16	20.00	793.25	793.27
N. End S. Appr. Pav't.	23+30.16	20.00	793.48	793.50

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-011-TOS S Appr Elev.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -	TOP OF SOUTH APPROACH SLAB ELEVATIONS STRUCTURE NO. 010-1100
	PLOT SCALE =	DRAWN - BJV	REVISED -	SHEET NO. 11 OF 41 SHEETS
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	153
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF WEST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+40.92	-26.58	795.16	795.18
A3	26+50.20	-27.31	795.00	795.02
A4	26+59.48	-28.03	794.83	794.85
N. End N. Appr. Pav't.	26+68.75	-28.75	794.64	794.66

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+47.50	-20.00	795.22	795.24
A3	26+57.50	-20.00	795.02	795.04
A4	26+67.50	-20.00	794.80	794.82
N. End N. Appr. Pav't.	26+77.50	-20.00	794.57	794.59

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+67.50	0.00	795.16	795.18
A3	26+77.50	0.00	794.92	794.94
A4	26+87.50	0.00	794.68	794.70
N. End N. Appr. Pav't.	26+97.50	0.00	794.43	794.45

EAST EDGE OF WEST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+45.92	-21.58	795.22	795.24
A3	26+55.92	-21.58	795.02	795.04
A4	26+65.92	-21.58	794.81	794.83
N. End N. Appr. Pav't.	26+75.92	-21.58	794.57	794.59

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+55.50	-12.00	795.23	795.25
A3	26+65.50	-12.00	795.01	795.03
A4	26+75.50	-12.00	794.78	794.80
N. End N. Appr. Pav't.	26+85.50	-12.00	794.54	794.56

STAGE CONST. JOINT (CONCRETE WEARING SURFACE)

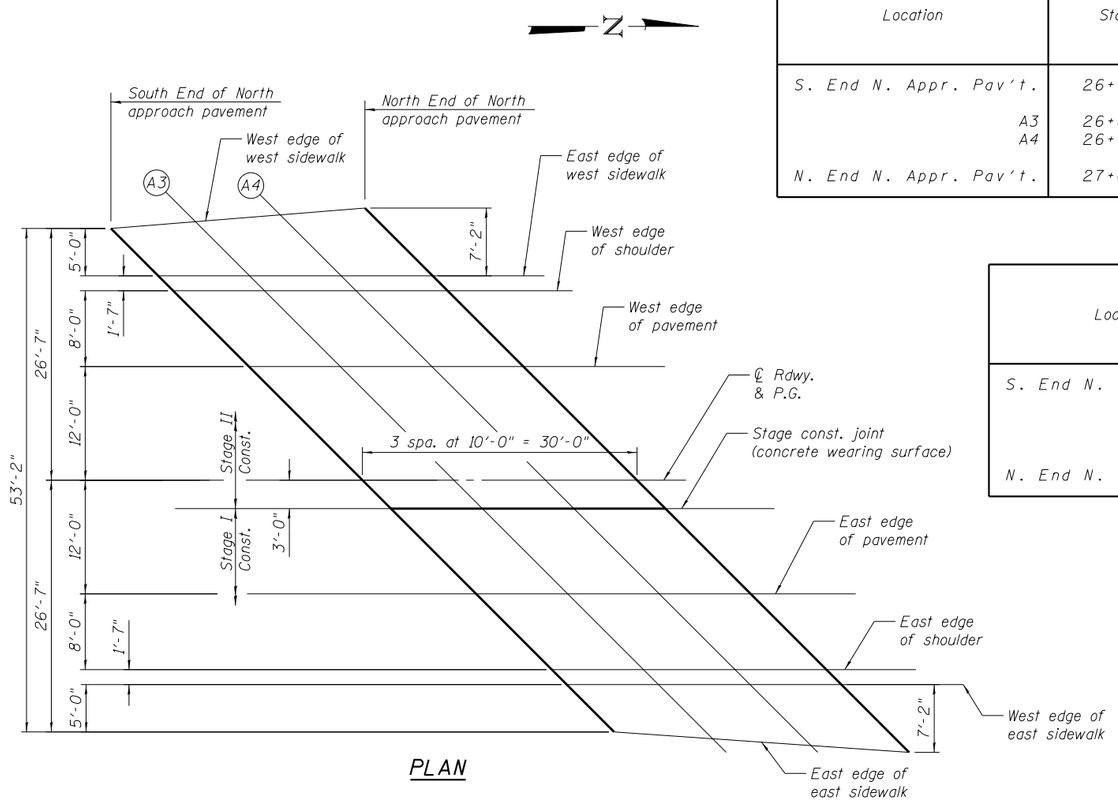
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+70.50	3.00	795.04	795.06
A3	26+80.50	3.00	794.80	794.82
A4	26+90.50	3.00	794.55	794.57
N. End N. Appr. Pav't.	27+00.50	3.00	794.30	794.32

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+79.50	12.00	794.69	794.71
A3	26+89.50	12.00	794.44	794.46
A4	26+99.50	12.00	794.19	794.21
N. End N. Appr. Pav't.	27+09.50	12.00	793.94	793.96

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+87.50	20.00	794.32	794.34
A3	26+97.50	20.00	794.07	794.09
A4	27+07.50	20.00	793.82	793.84
N. End N. Appr. Pav't.	27+17.50	20.00	793.57	793.59



PLAN

WEST EDGE OF EAST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+89.09	21.58	794.25	794.27
A3	26+99.09	21.58	794.00	794.02
A4	27+09.09	21.58	793.75	793.77
N. End N. Appr. Pav't.	27+19.09	21.58	793.50	793.52

EAST EDGE OF EAST SIDEWALK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Grinding
S. End N. Appr. Pav't.	26+94.09	26.58	794.02	794.04
A3	27+04.81	27.31	793.74	793.76
A4	27+15.53	28.03	793.45	793.47
N. End N. Appr. Pav't.	27+26.25	28.75	793.17	793.19

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-012-TOS N Appr Elev.dgn | USER NAME = | PLOT SCALE = | PLOT DATE = 4/25/2019

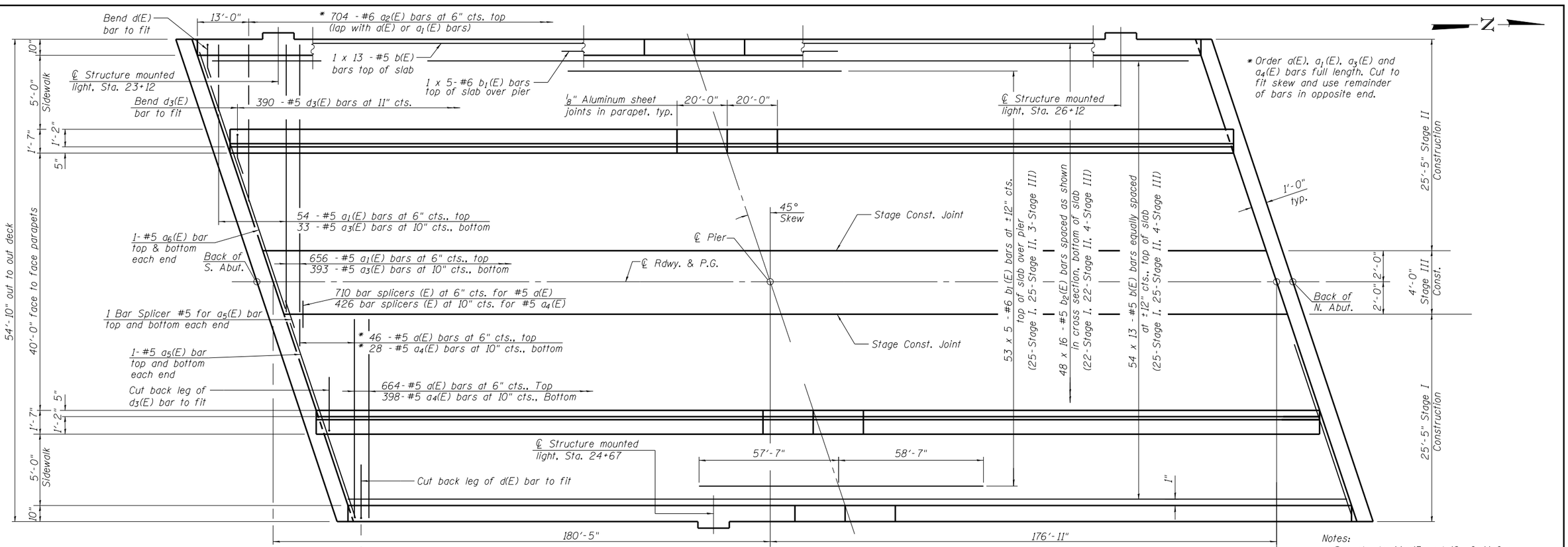
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC.
403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-(618)997-3190

DESIGNED - AAH	CHECKED - BWP	REVISED -
DRAWN - BJV	CHECKED - BWP	REVISED -
		REVISED -
		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 010-1100
SHEET NO. 12 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	154
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

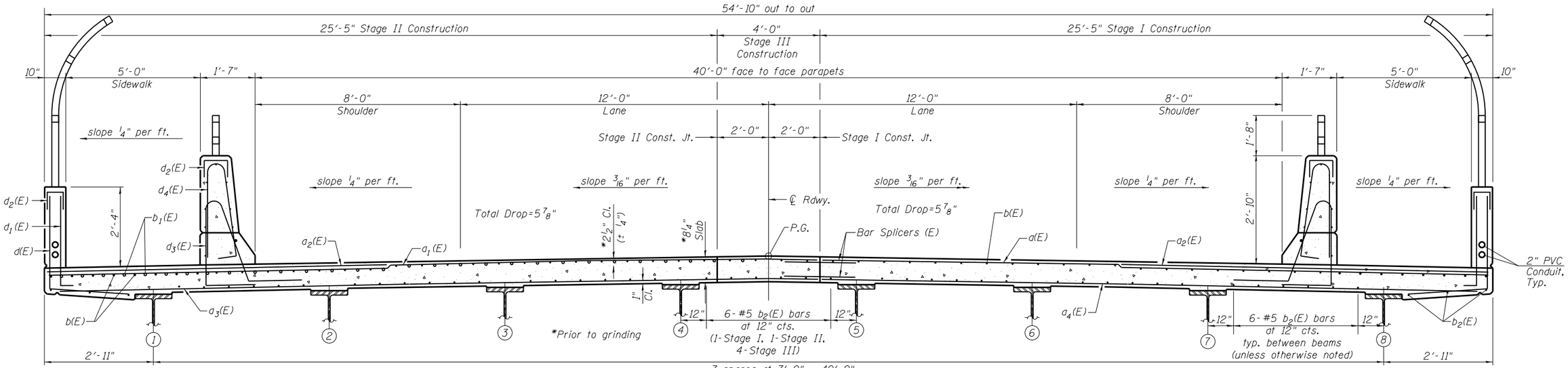


MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 4'-10"

PARTIAL PLAN

Notes:
See sheets 14, 15 and 16 of 41 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.

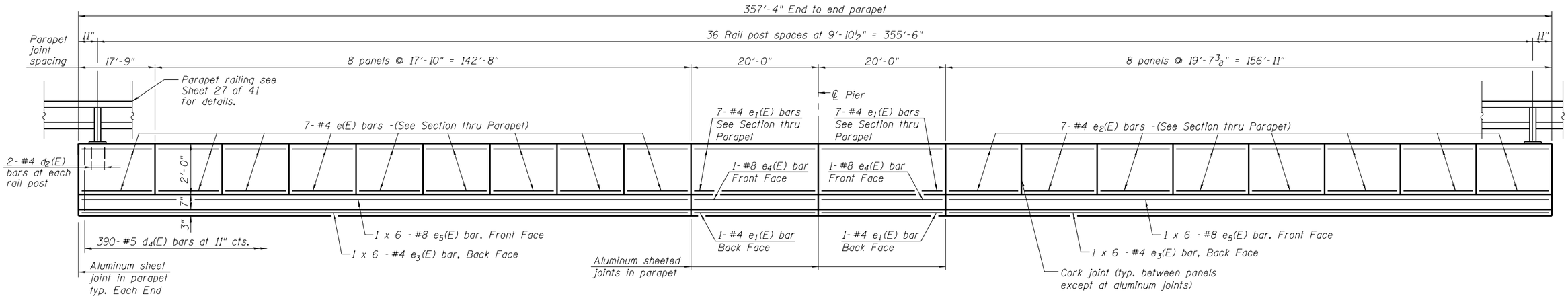


CROSS SECTION

(Looking North)

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-013-Superstructure.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE STRUCTURE NO. 010-1100	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	155
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 13 OF 41 SHEETS			ILLINOIS FED. AID PROJECT		

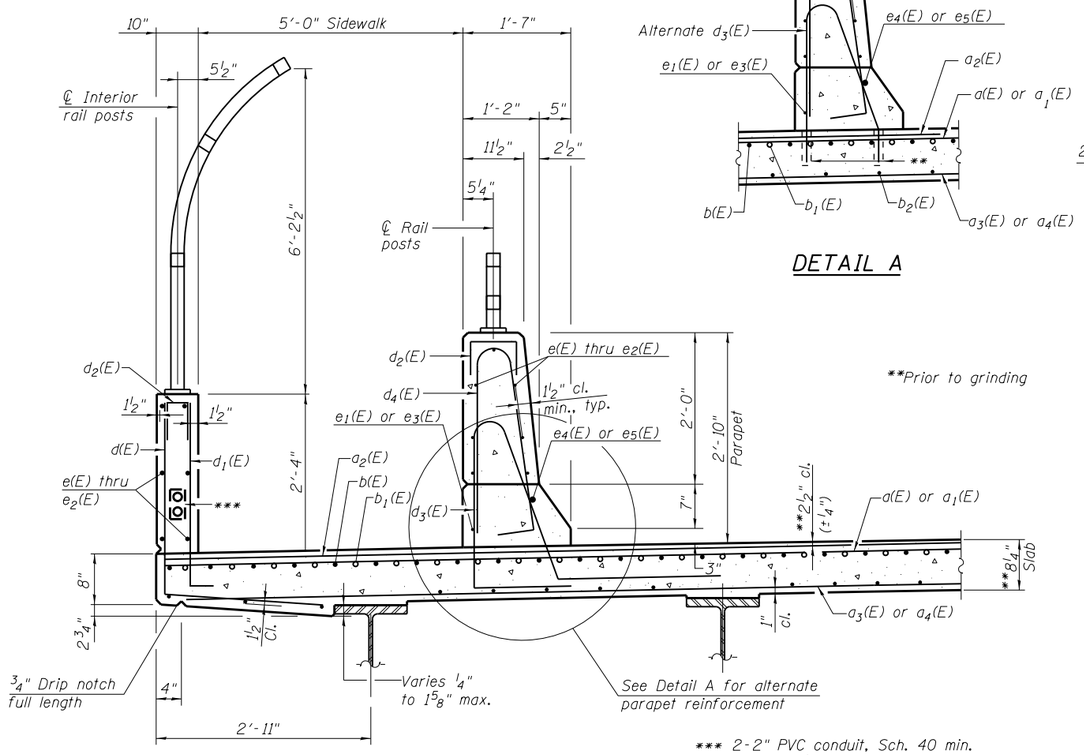


INSIDE ELEVATION OF WEST ROADWAY PARAPET

(East Parapet Similar)

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"

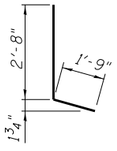


**Prior to grinding

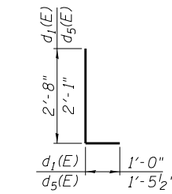
*** 2-2" PVC conduit, Sch. 40 min. Maintain 1½" cl. from reinforcement

SECTION THRU SIDEWALK

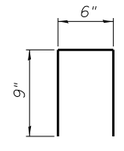
DETAIL A



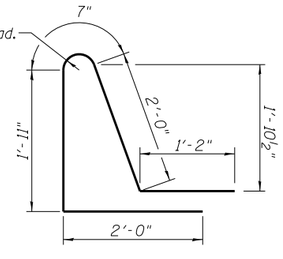
BAR d(E)



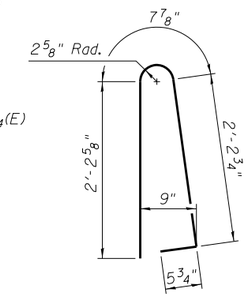
BAR d1(E) & d5(E)



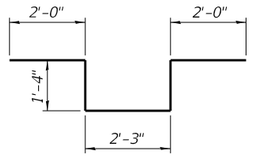
BAR d2(E)



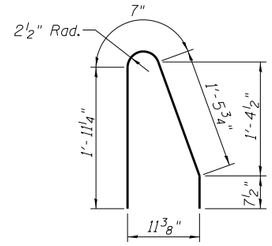
BAR d3(E)



BAR d4(E)



BAR d6(E)

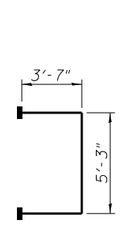


ALTERNATE BAR d3(E)

Drill and set Alternate #5 $d_3(E)$ bar according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of hole shall not exceed 6".

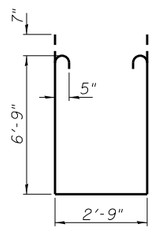
The Contractor shall take all necessary precautions to prevent drilled hole interference with deck reinforcement bars. Locate longitudinal bars to miss drilled locations. Locate drilled holes to miss transverse bars in deck.

If alternate parapet reinforcement is chosen, cost of alternate $d_3(E)$ bars, drilling, and setting is included with the cost of Reinforcement Bars, Epoxy Coated.



BAR s(E)

(Headed)



BAR s1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	710	#5	25'-1"	——
a1(E)	710	#5	29'-1"	——
a2(E)	1408	#6	12'-6"	——
a3(E)	426	#5	29'-5"	——
a4(E)	426	#5	24'-5"	——
b(E)	728	#5	30'-9"	——
b1(E)	275	#6	27'-2"	——
b2(E)	768	#5	25'-8"	——
d(E)	716	#4	4'-5"	L
d1(E)	716	#6	3'-8"	L
d2(E)	304	#4	2'-0"	⊓
d3(E)	780	#5	7'-8"	⅃
d4(E)	780	#5	5'-7"	⅂
d5(E)	9	#6	3'-7"	L
d6(E)	15	#6	8'-11"	⅄
e(E)	234	#4	17'-5"	——
e1(E)	56	#4	19'-8"	——
e2(E)	208	#4	19'-3"	——
e3(E)	24	#4	29'-0"	——
e4(E)	4	#8	19'-8"	——
e5(E)	24	#8	31'-8"	——
m(E)	14	#6	41'-3"	——
m1(E)	14	#6	35'-7"	——
m2(E)	84	#6	9'-6"	——
m3(E)	24	#6	3'-9"	——
m4(E)	96	#5	4'-0"	——
s(E)	98	#5	12'-5"	⊐
s1(E)	96	#5	17'-5"	⊏
Reinforcement Bars, Epoxy Coated		Pound	178,290	
Concrete Superstructure		Cu. Yds.	791.7	

Bars indicated thus 1 x 2- #8 etc. indicates 1 line of bars with 2 lengths per line.

* (10-34HB-3)BR&(10-5-1HB)BR-1

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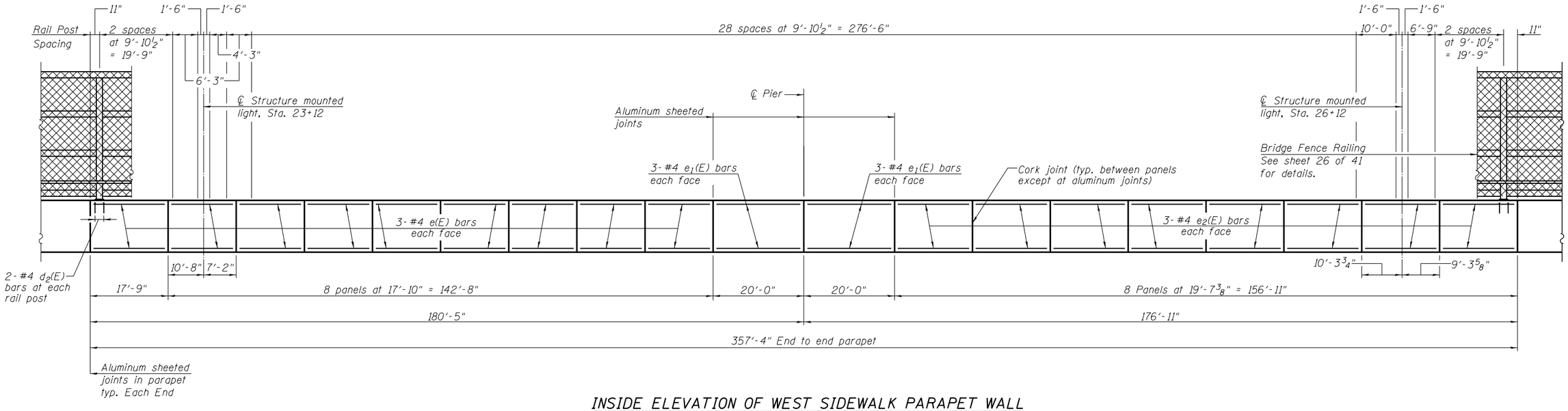
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
HAVANA, ILLINOIS 62644
PHONE - 618.997.9780

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

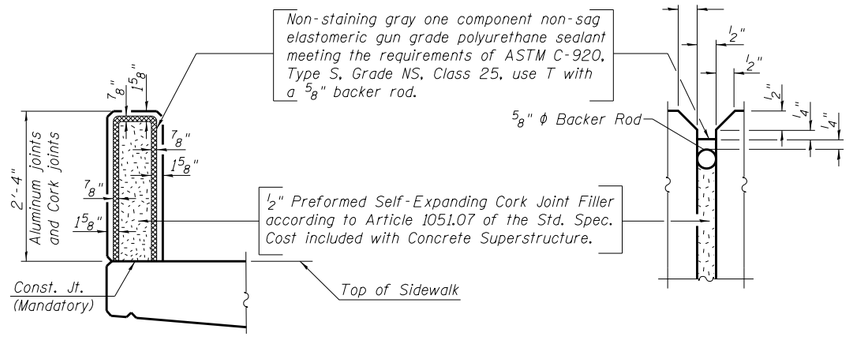
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 010-1100
SHEET NO. 14 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	156
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

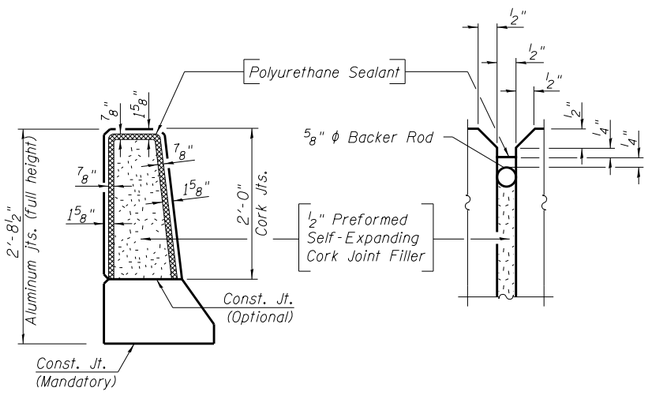


INSIDE ELEVATION OF WEST SIDEWALK PARAPET WALL

(Looking West)



SIDEWALK PARAPET JOINT DETAILS



PARAPET JOINT DETAILS

Notes:

The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The Polyurethane Sealant shall be non-staining gray one component non-sag elastomeric gun grade meeting the requirements of ASTM C-920. Type S. Grade NS. Class 25. Use T with a ⅝" backer rod.

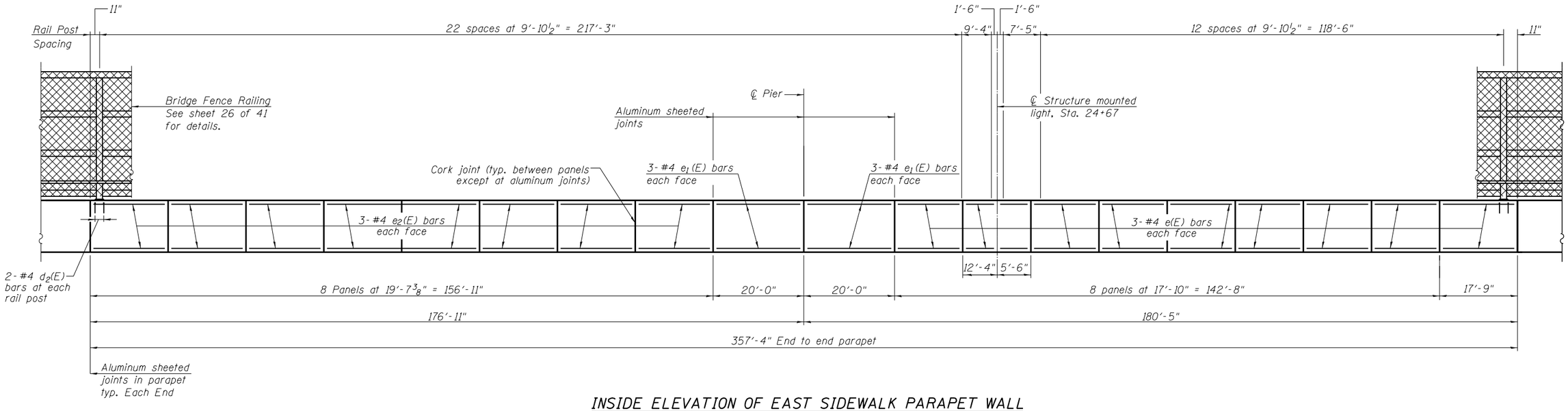
The ½" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

Headed bars shall conform to ASTM A970 with threaded attachment Class HA and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

* (10-34HB-3)BR&(10-5-1HB)BR-1

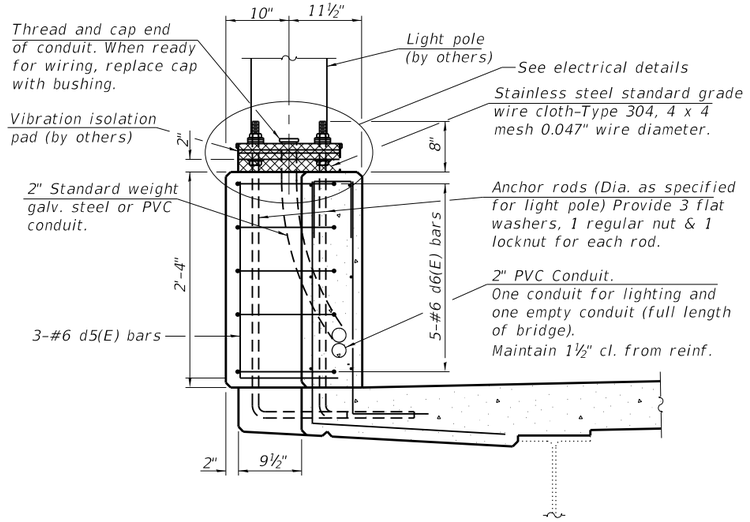
FILE NAME = 0101100-70B38-015-Super Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SUPERSTRUCTURE DETAILS STRUCTURE NO. 010-1100**
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -		SHEET NO. 15 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	157
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

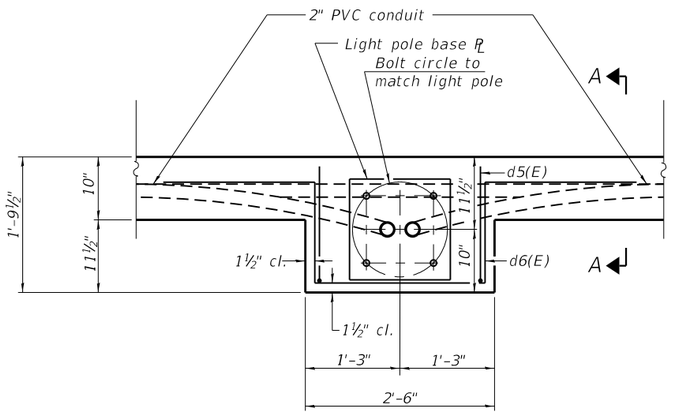


INSIDE ELEVATION OF EAST SIDEWALK PARAPET WALL

(Looking East)

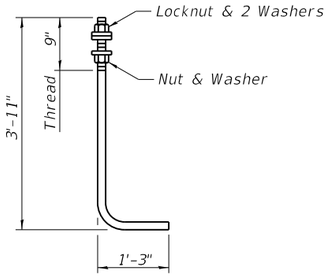


SECTION A-A



PLAN

Note:
Cost of anchor rods and conduit is included with Concrete Superstructure.

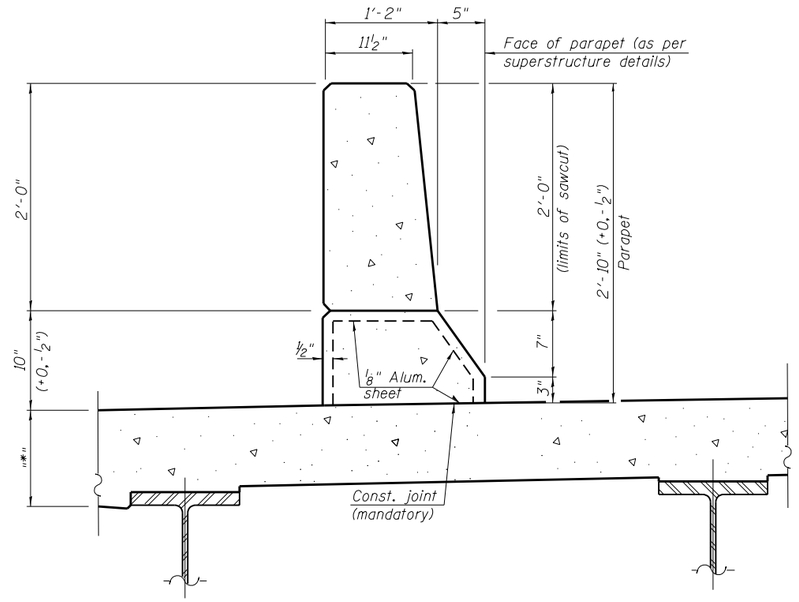


ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105)

* (10-34HB-3)BR&(10-5-1HB)BR-1

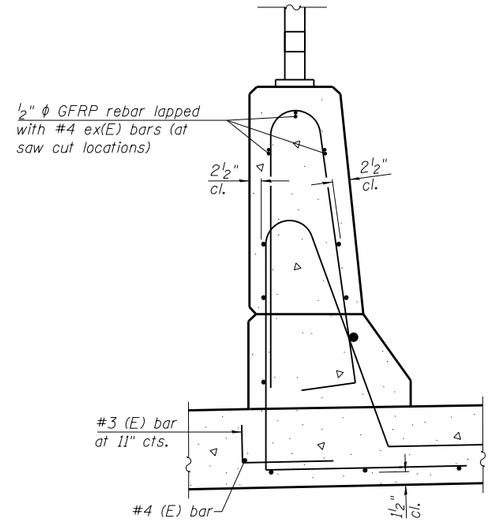
FILE NAME = 0101100-70B38-016-Super Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 010-1100	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.9190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	158
	PLOT SCALE =	DRAWN - BJV	REVISED -		SHEET NO. 16 OF 41 SHEETS				CONTRACT NO. 70B38	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -					ILLINOIS	FED. AID PROJECT	



*See Superstructure Details.

34" F SHAPE PARAPET SECTION

(Showing dimensions)



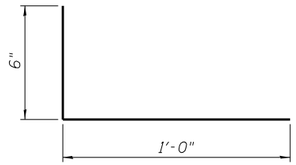
SECTION

(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

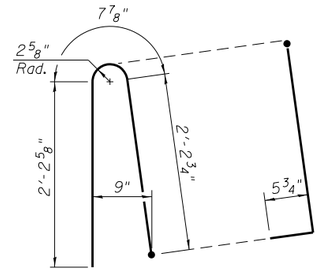
GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler and in lieu of full height aluminum sheets at and near piers.

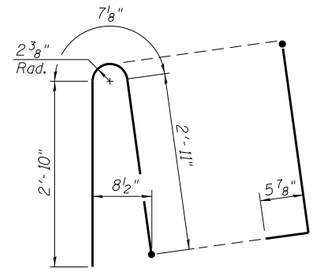


#3 (E) BAR



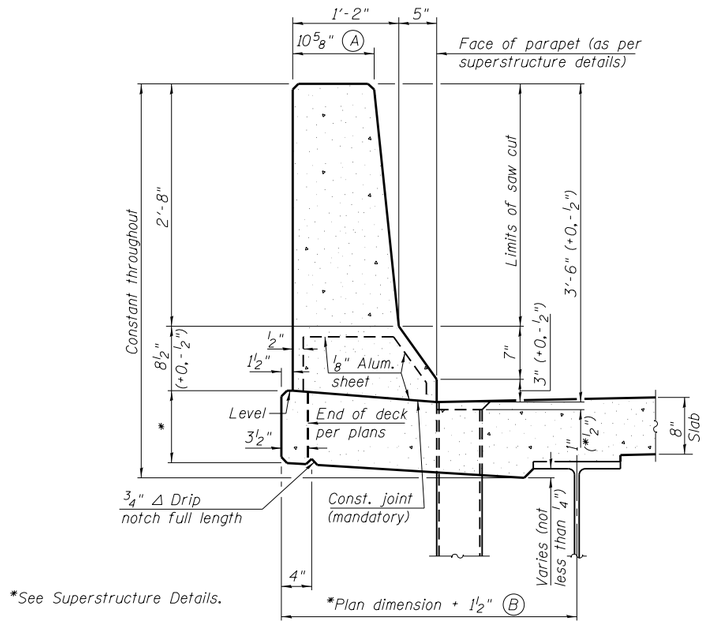
ALTERNATE BAR d(E)

(For 34" parapet when conduit is present)



ALTERNATE BAR d(E)

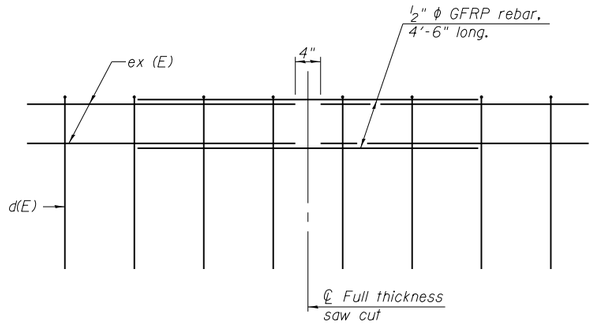
(For 42" parapet when conduit is present)



*See Superstructure Details.

42" F SHAPE PARAPET SECTION

(Showing dimensions)



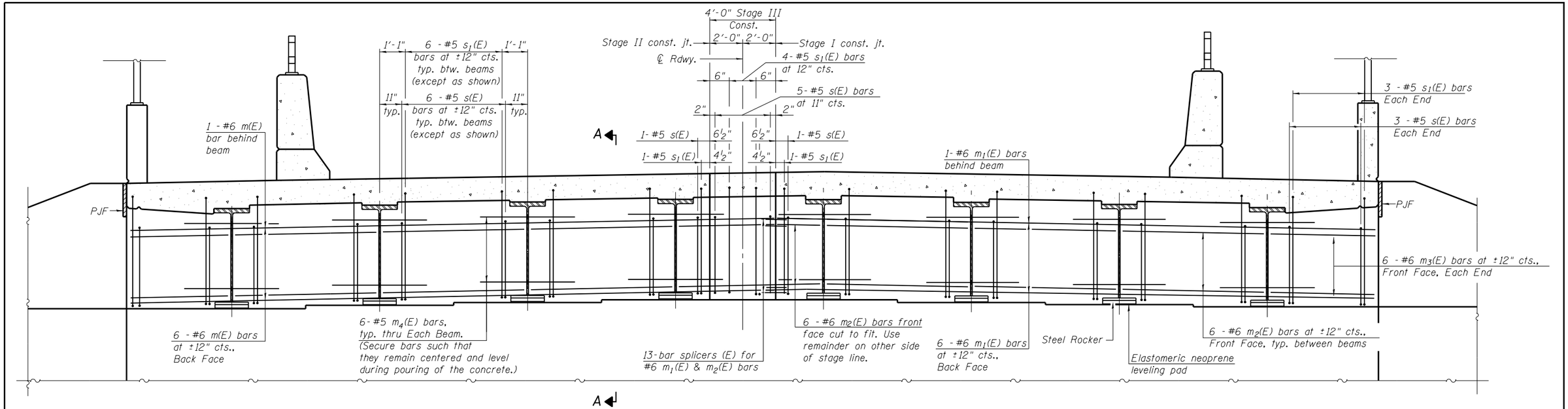
GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

**(10-34HB-3)BR&(10-5-1HB)BR-1

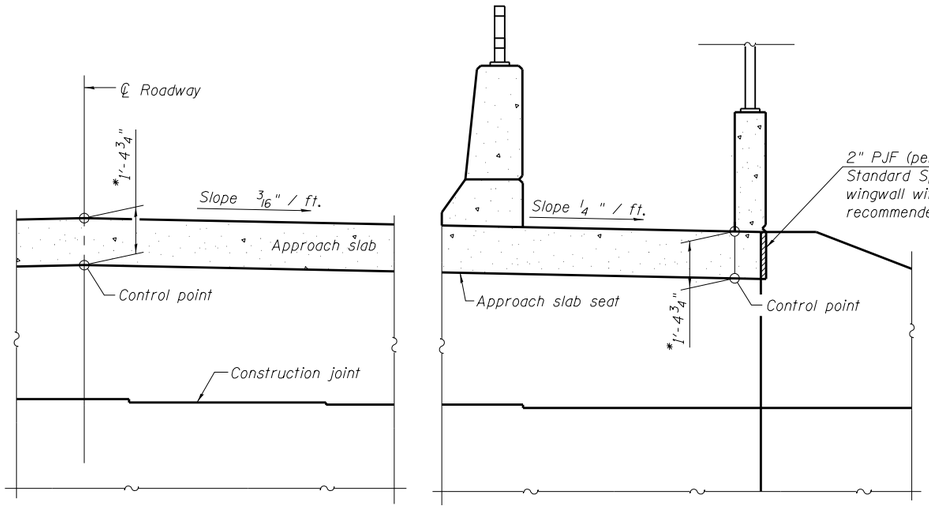
FILE NAME = 0101100-70B38-017-Concrete Parapet Slipform USER NAME =		DESIGNED - AAH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**CONCRETE PARAPET SLIPFORMING OPTION STRUCTURE NO. 010-1100**
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -		SHEET NO. 17 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	159
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



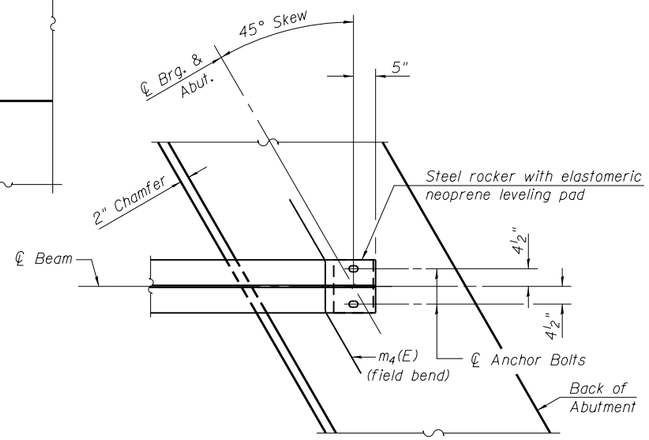
DIAPHRAGM ELEVATION AT ABUTMENT

(Looking North)
N. Abutment shown, S. Abutment similar



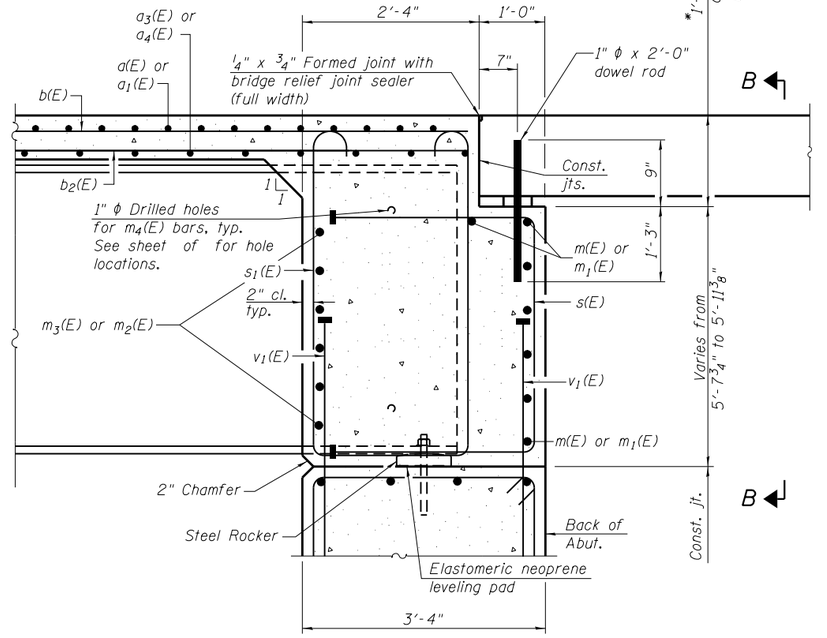
*Prior to grinding

SECTION B-B



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)



SECTION A-A

(at Rt. L's)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 14 of 41.

Concrete in diaphragm is included with Concrete Superstructure on sheet 14 of 41.

For details of bars s(E) and s_1(E) see sheet 14 of 41.

The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

The approach slab seat shall have a constant slope determined from the control points shown.

For bearing details see sheet 30 of 41.

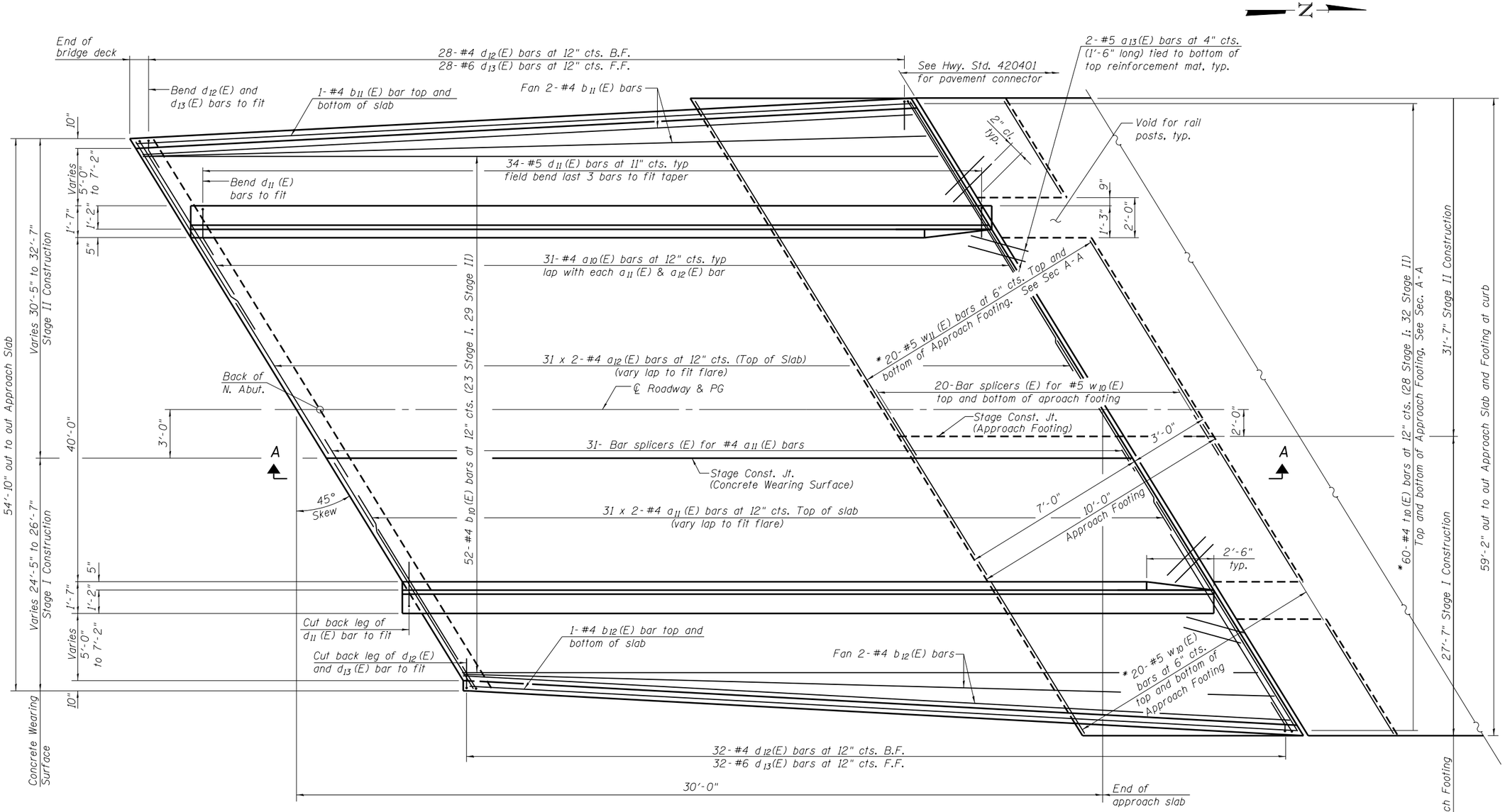
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-018-Diaphragm Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET HAVANA, ILLINOIS 62644 PHONE - 618.997.9190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 010-1100
SHEET NO. 18 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	160
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



PLAN

(Showing wearing surface, North approach shown, South approach similar.)

*Cut to fit void for rail post.

MINIMUM BAR LAP

#4 bar = 2'-5"

** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-019-Prec Br Appr Slab.dgn	USER NAME =	DESIGNED - AAH	REVISED -
		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

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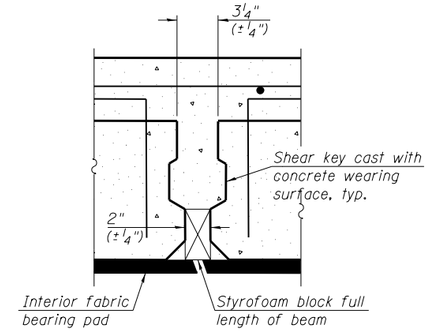
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.9190

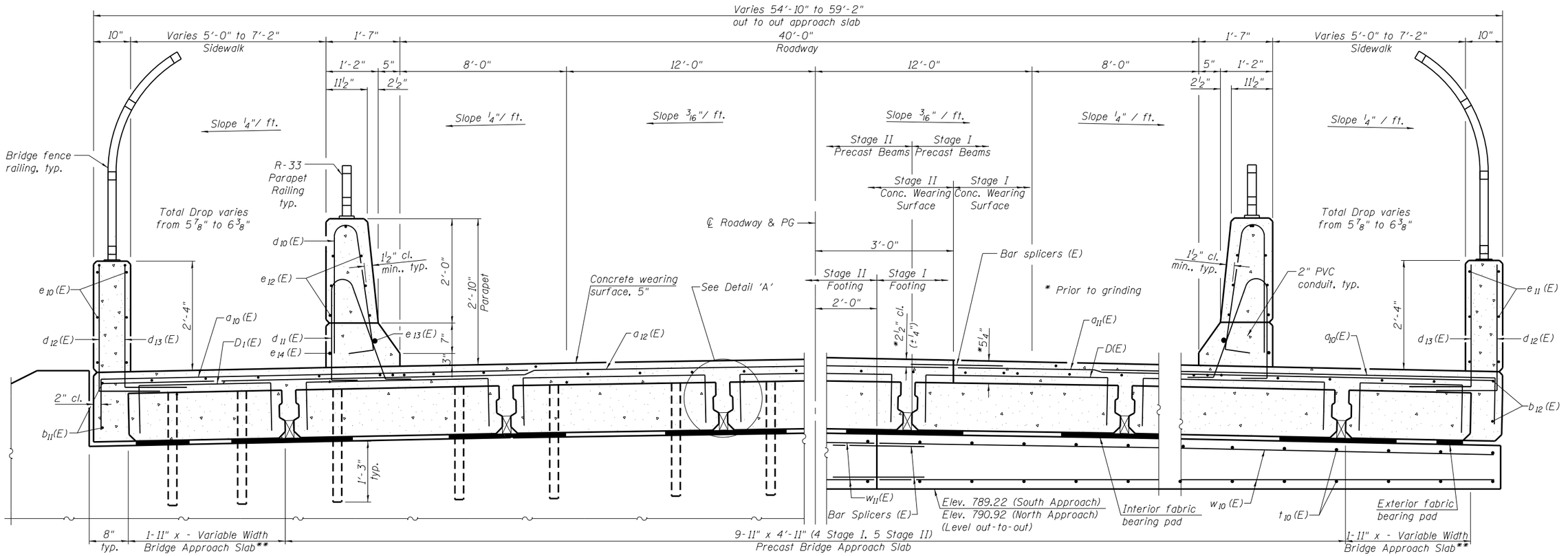
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 010-1100
SHEET NO. 19 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	161
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



DETAIL 'A'



NEAR ABUTMENT

CROSS SECTION
(Looking North)

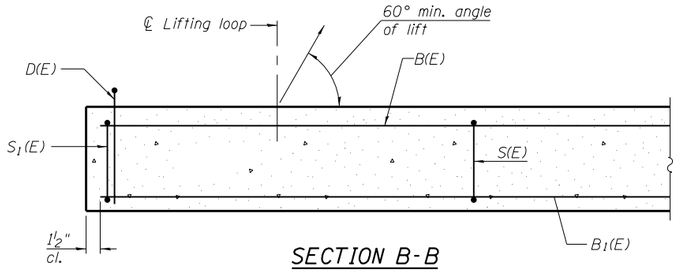
AT APPROACH FOOTING

** Varies from 3'-9½" - 5'-11½"

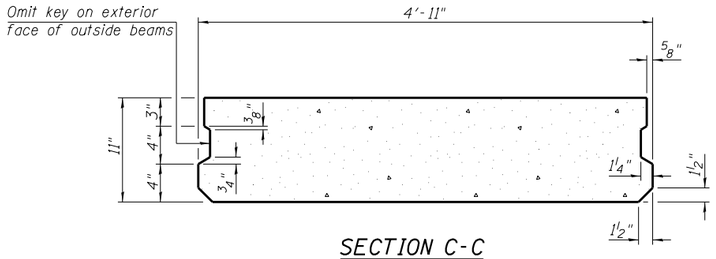
***(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-020-Prec Br Appr Slab.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PRECAST BRIDGE APPROACH SLAB STRUCTURE NO. 010-1100
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -		SHEET NO. 20 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	***	CHAMPAIGN	264	162
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



SECTION B-B



SECTION C-C
(Showing dimensions)

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Bridge Approach Slab.

Cast-in-place substitution of Precast Bridge Approach Slab is not allowed.

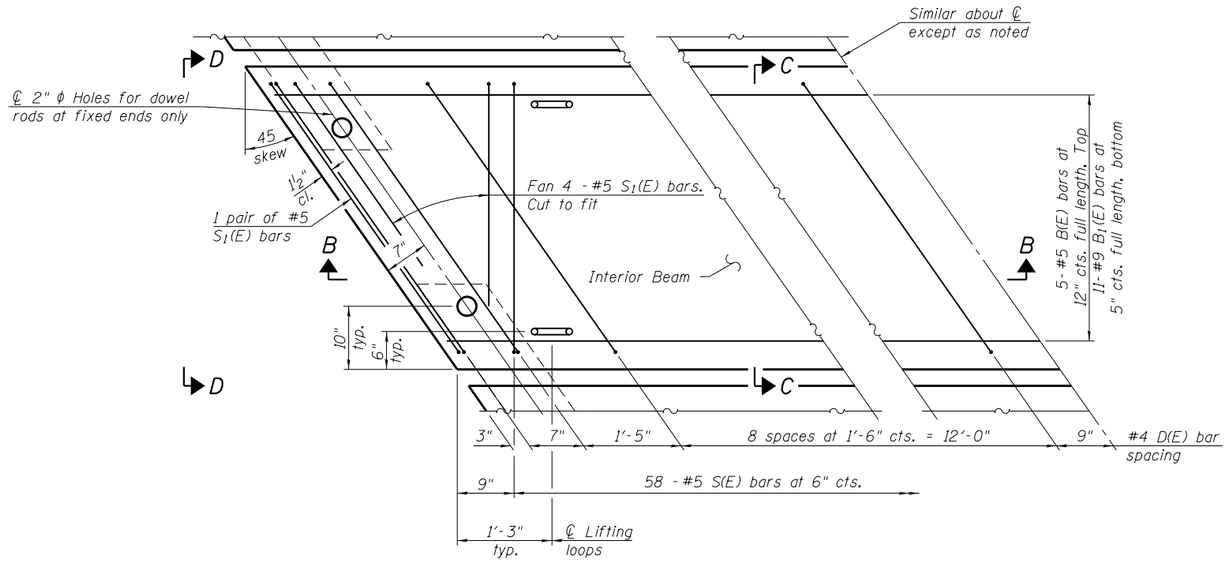
The top surface of precast bridge approach slabs shall be finished similar to precast prestressed deck beams with concrete wearing surface as specified in the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Bridge Approach Slab.

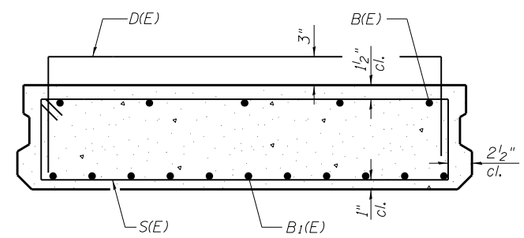
A minimum 2 ½" ϕ lifting pins shall be used to engage the lifting loops during handling.

Compressive strength of precast concrete, f'c shall be 6,000 psi.

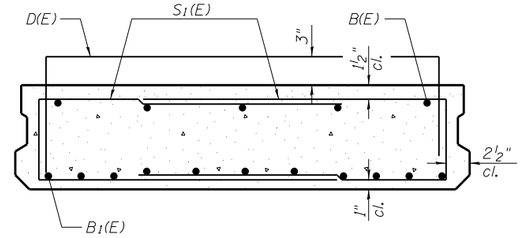
Compressive strength of precast concrete during initial lifting, f'ci shall be 5,000 psi.



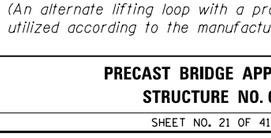
PLAN VIEW
(showing precast bridge approach beams)
(Spacing of D(E) and D1(E) bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)



SECTION C-C
(Showing reinforcement)

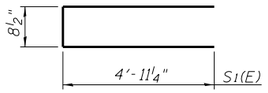


VIEW D-D
(Showing reinforcement)

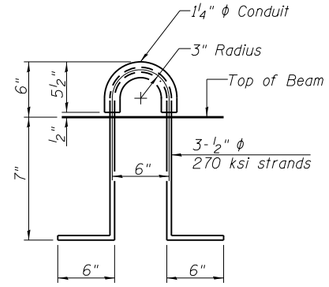


BARS D(E)

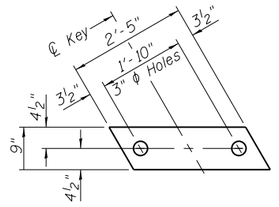
BARS S(E)



BARS S1(E)



LIFTING LOOP DETAIL
(An alternate lifting loop with a proof load of 25,000 lbs. and utilized according to the manufacturer's recommendations may be used)



INTERIOR **EXTERIOR**

FABRIC BEARING PAD

Notes:

All bearing pads shall be ½" thick.

Omit holes for fabric bearing pads at approach slab footing end of beams.

Expansion bearing pad shall be bonded to the approach slab footing.

BAR LIST
EACH INTERIOR BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	5	#5	29'-8"	—
B1(E)	11	#9	29'-8"	—
D(E)	22	#4	8'-4"	□
S(E)	58	#5	11'-4"	⌐
S1(E)	12	#5	10'-7"	⌐

BA-P-34FS-R(>30°) 07-22-16

(Beams: 36" min. width; 72" max. width)

* (10-34HB-3)BR&(10-5-1HB)BR-1

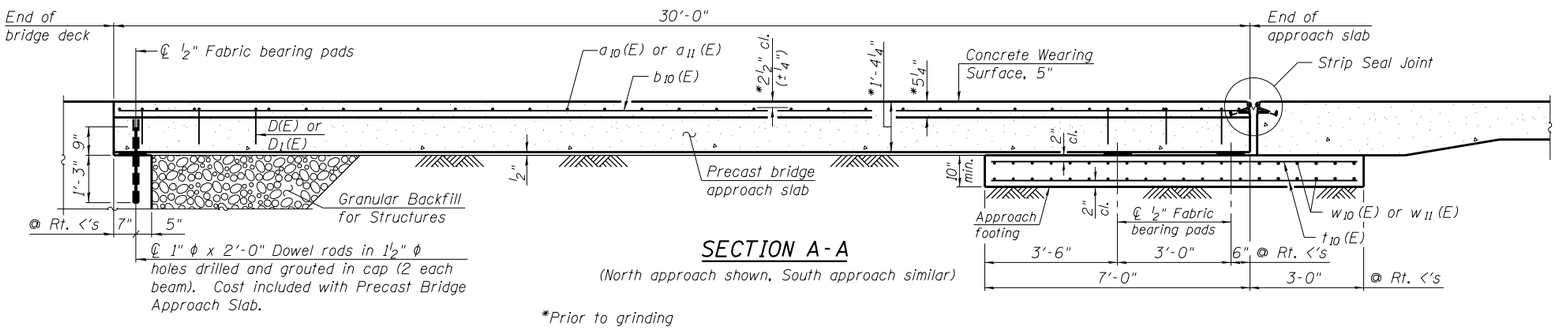
FILE NAME = 0101100-70B38-021-Prec Br Appr Slab.dgn	USER NAME =	DESIGNED - AAH	REVISED -
		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

BFW
BACON | FARMER | WORKMAN
ENGINEERING & TESTING, INC.
403 NORTH COURT STREET
MARION, ILLINOIS 62959
PHONE - 618.997.3780

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 010-1100
SHEET NO. 21 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	163
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

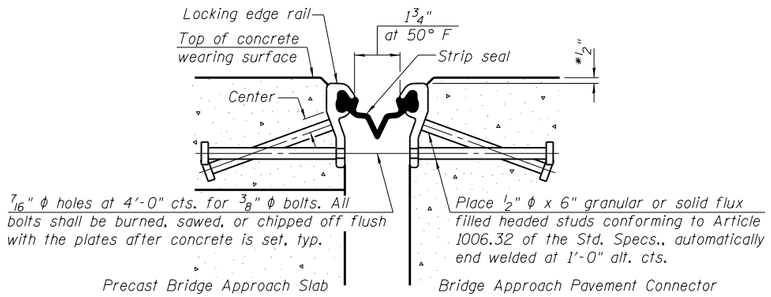


℄ 1" ϕ x 2'-0" Dowel rods in 1 1/2" ϕ holes drilled and grouted in cap (2 each beam). Cost included with Precast Bridge Approach Slab.

SECTION A-A

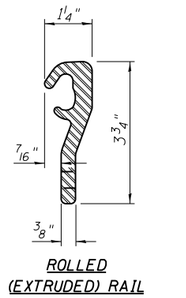
(North approach shown, South approach similar)

*Prior to grinding

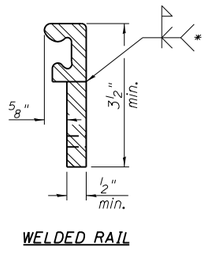


SECTION THRU STRIP SEAL JOINT

(@ Rt. <'s)



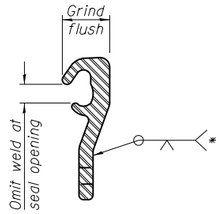
ROLLED (EXTRUDED) RAIL



WELDED RAIL

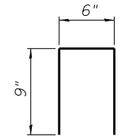
LOCKING EDGE RAIL

* Back gouge not required if complete joint penetration is verified by mock-up.

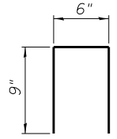


LOCKING EDGE RAIL SPLICE

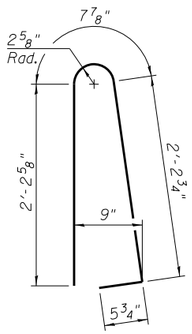
The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



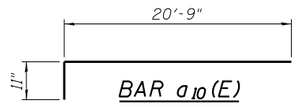
BAR d_2(E)



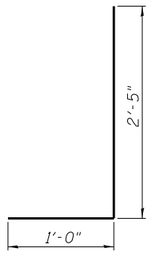
BAR d_2(E)



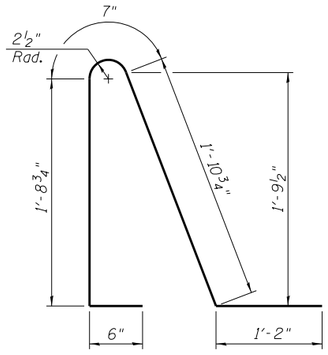
BAR d_{10}(E)



BAR a_{10}(E)



BAR d_{12}(E) & d_{13}(E)



BAR d_{11}(E)

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement.

After precast bridge approach slabs have been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and cured according to Article 1020.13(a)(3) or 1020.13(a)(5) of the Standard Specifications for a minimum of 24 hours before casting the shear keys and wearing surface.

Any concrete poured monolithically with the wearing surface, such as curbs, shall not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The strip seal shall extend 6" beyond the edge of the approach slab on each end. 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 and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

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

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

Parapet concrete shall be paid for as Concrete Superstructure.

Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 41.

TWO APPROACHES - BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{10}(E)	124	#4	21'-8"	
a_{11}(E)	124	#4	19'-11"	
a_{12}(E)	124	#4	24'-1"	
a_{13}(E)	16	#4	1'-6"	
b_{10}(E)	104	#4	29'-8"	
b_{11}(E)	8	#4	27'-6"	
b_{12}(E)	8	#4	31'-10"	
d_2(E)	56	#4	2'-0"	
d_{10}(E)	136	#5	5'-7"	
d_{11}(E)	136	#5	5'-11"	
d_{12}(E)	120	#4	3'-5"	
d_{13}(E)	120	#6	3'-5"	
e_{10}(E)	24	#4	13'-7"	
e_{11}(E)	24	#4	15'-9"	
e_{12}(E)	56	#4	14'-8"	
e_{13}(E)	4	#8	29'-8"	
e_{14}(E)	4	#4	29'-8"	
t_{10}(E)	240	#4	13'-9"	
w_{10}(E)	80	#5	38'-8"	
w_{11}(E)	80	#5	44'-4"	
Concrete Superstructure		Cu. Yd.	23.4	
Concrete Structures		Cu. Yd.	129.2	
Reinforcement Bars, Epoxy Coated		Pound	20,970	
Precast Bridge Approach Slab		Sq. Ft.	3,240	
Concrete Wearing Surface, 5''		Sq. Yd.	380	
Preformed Joint Strip Seal		Foot	167	

BA-P-34FS-R(>30°) 07-22-16 (Beams: 36" min. width; 72" max. width)

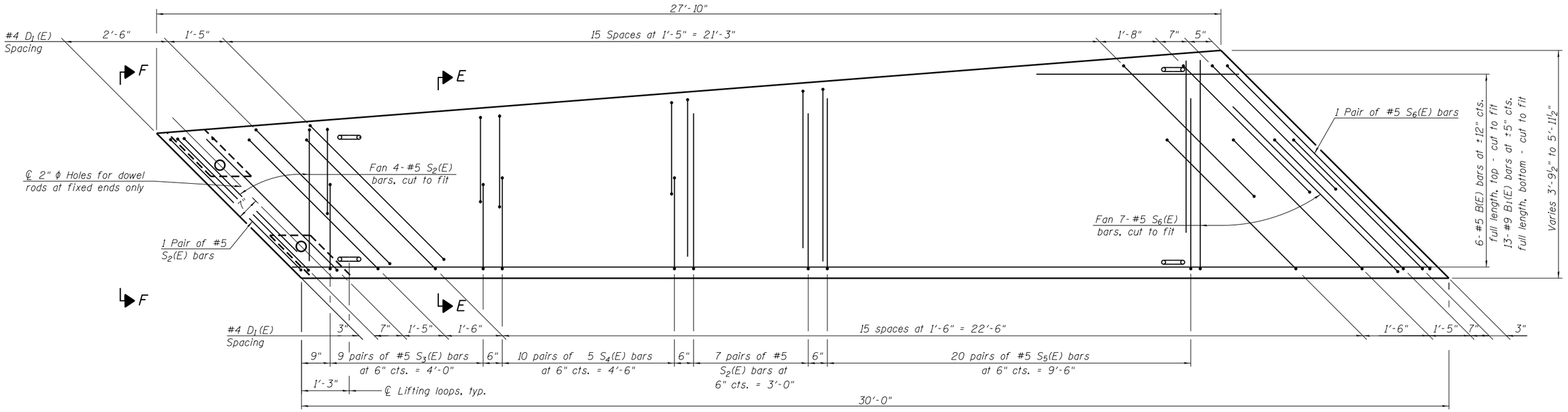
** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-022-Prec Br Appr Slab.dgn	USER NAME =	DESIGNED - AAH	REVISED -	
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 010-1100
SHEET NO. 22 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	164
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



PLAN

(Showing the West variable width exterior beam at the North approach slab. East exterior beam at South approach slab similar.)

(showing precast bridge approach beams)
(Spacing of D_1(E) bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)

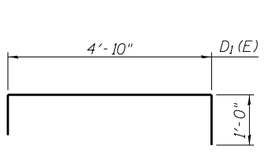
MINIMUM BAR LAP

#5 bar = 3'-6"

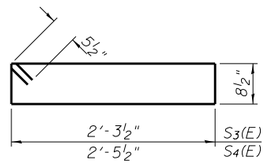
BAR LIST EACH EXTERIOR NW OR SE BEAM

(For information only)

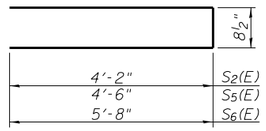
Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
B_1(E)	13	#9	29'-8"	—
D_1(E)	41	#4	6'-10"	⌐
S_2(E)	20	#5	9'-1"	⌐
S_3(E)	18	#5	6'-11"	⌐
S_4(E)	20	#5	7'-3"	⌐
S_5(E)	40	#5	9'-9"	⌐
S_6(E)	9	#5	12'-1"	⌐



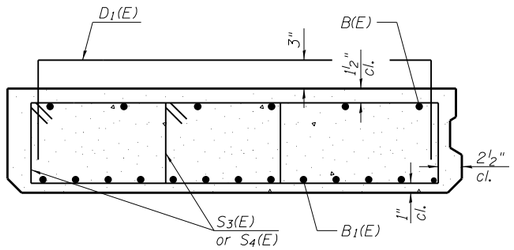
BARS D_1(E)



BARS S_3(E) & S_4(E)

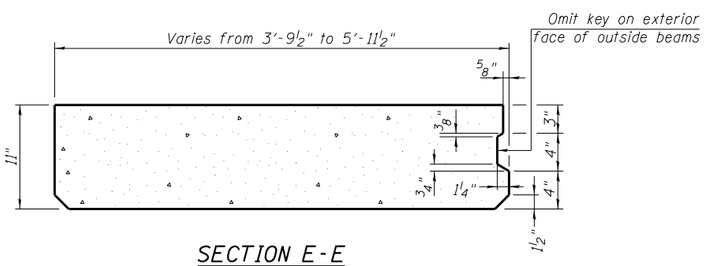


BARS S_2(E), S_5(E) & S_6(E)



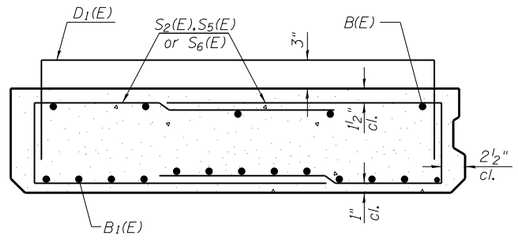
SECTION E-E

(Showing reinforcement)



SECTION E-E

(Showing dimensions)



SECTION F-F

(Showing reinforcement)

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-023-Prec Br Appr Slab (Variable Width).dgn
USER NAME =
PLOT SCALE =
PLOT DATE = 4/25/2019

DESIGNED - AAH
CHECKED - BWP
DRAWN - BJV
CHECKED - BWP
REVISED -
REVISED -
REVISED -
REVISED -

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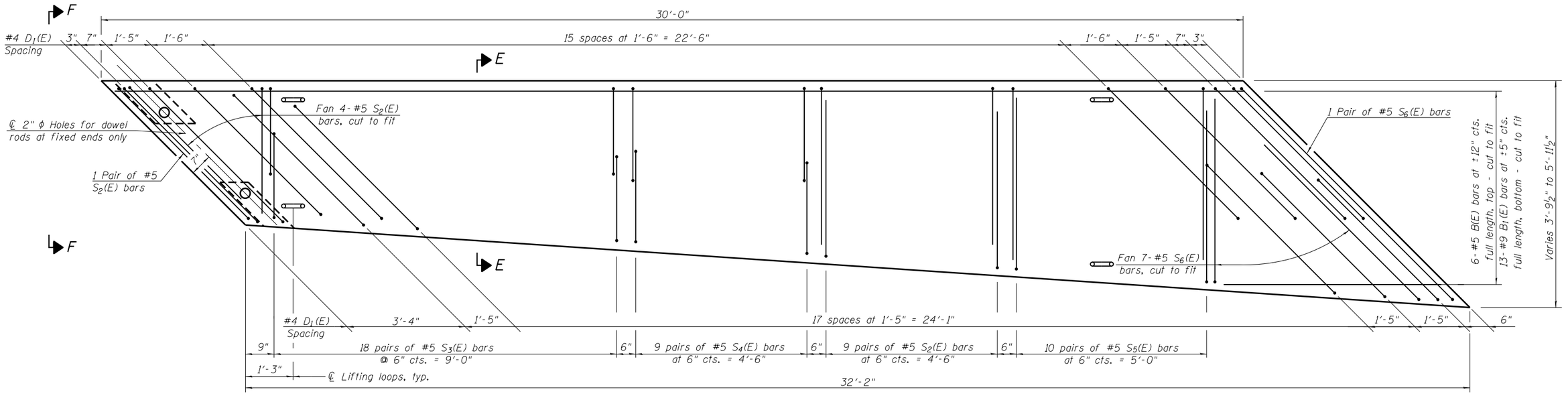
403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST BRIDGE APPROACH SLAB
STRUCTURE NO. 010-1100
SHEET NO. 23 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	165
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		



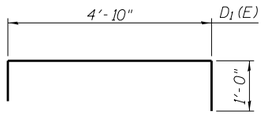
PLAN

(Showing the East variable width exterior beam at the North approach slab.
West exterior beam at South approach slab similar.)

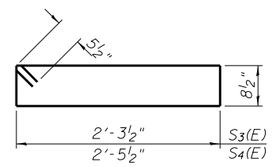
(showing precast bridge approach beams)
(Spacing of $D_1(E)$ bars may be adjusted up to 3" to miss the dowel rod holes and the lifting loops at the beam ends)

MINIMUM BAR LAP

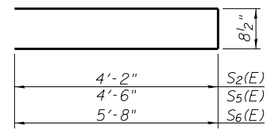
#5 bar = 3'-6"



BARS $D_1(E)$



BARS $S_3(E)$ & $S_4(E)$

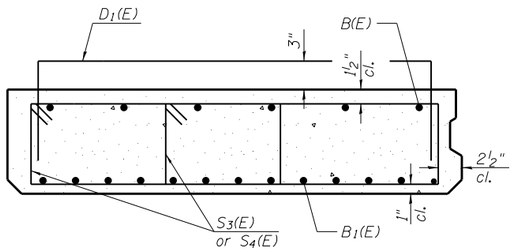


BARS $S_2(E)$, $S_5(E)$ & $S_6(E)$

BAR LIST EACH EXTERIOR NE OR SW BEAM

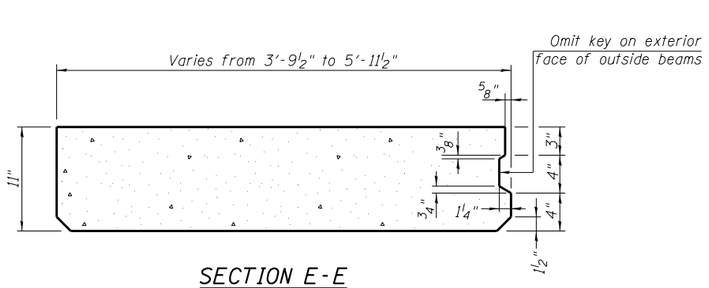
(For information only)

Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
$B_1(E)$	13	#5	29'-8"	—
$D_1(E)$	43	#4	6'-10"	⊓
$S_2(E)$	24	#5	9'-1"	▭
$S_3(E)$	36	#5	6'-11"	▭
$S_4(E)$	18	#5	7'-3"	▭
$S_5(E)$	20	#5	9'-9"	▭
$S_6(E)$	9	#5	12'-1"	▭



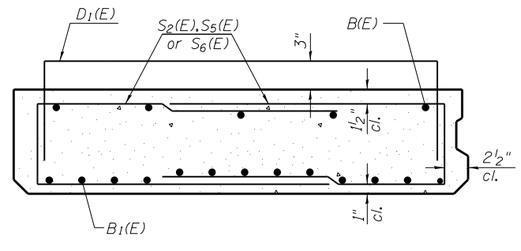
SECTION E-E

(Showing reinforcement)



SECTION E-E

(Showing dimensions)

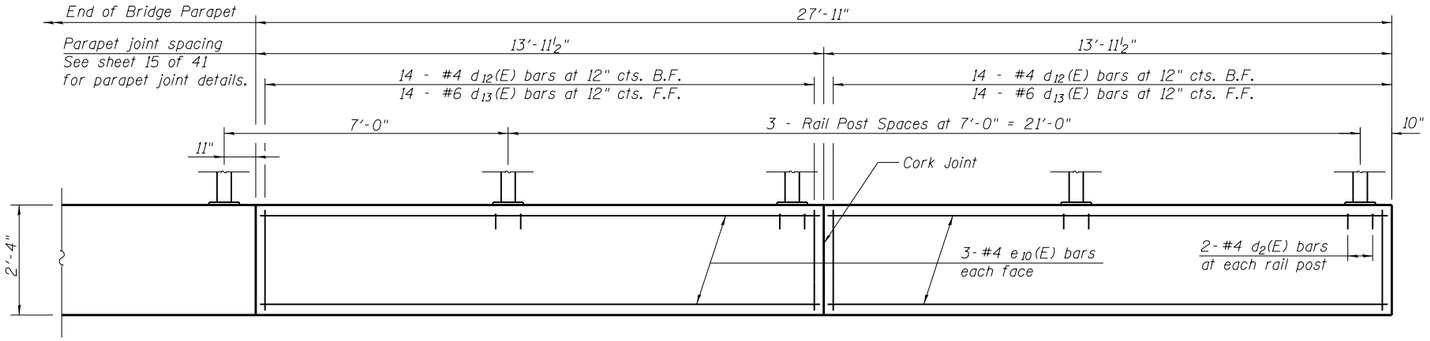


SECTION F-F

(Showing reinforcement)

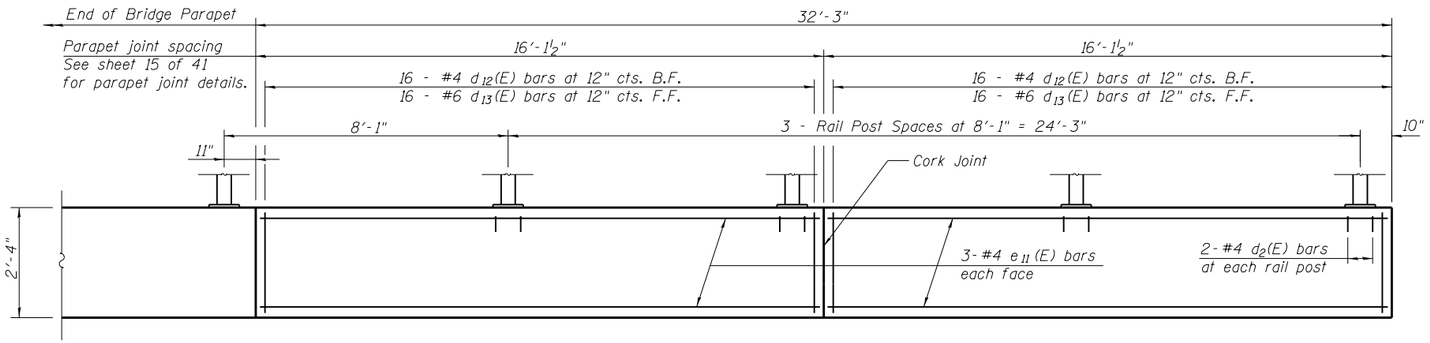
* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-024-Prec Br Appr Slab (Variable Width)BR.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PRECAST BRIDGE APPROACH SLAB STRUCTURE NO. 010-1100	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9180		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	166
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 24 OF 41 SHEETS			ILLINOIS FED. AID PROJECT		



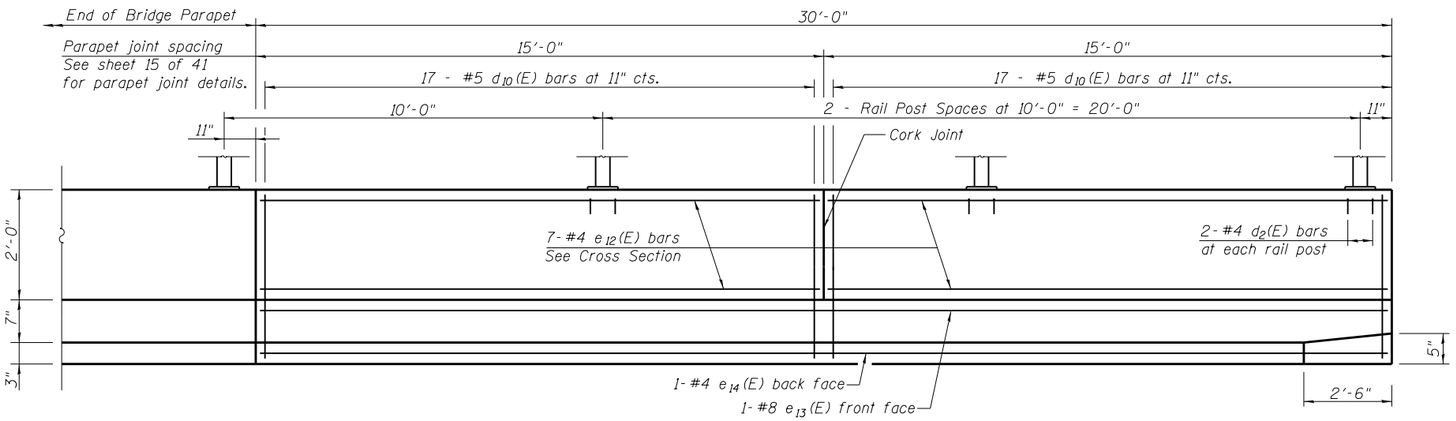
INSIDE ELEVATION OF PARAPET WALL

(West Sidewalk Parapet at North approach shown. East Sidewalk Parapet at South Approach Similar)



INSIDE ELEVATION OF PARAPET WALL

(East Sidewalk Parapet at North approach shown. West Sidewalk Parapet at South Approach Similar)

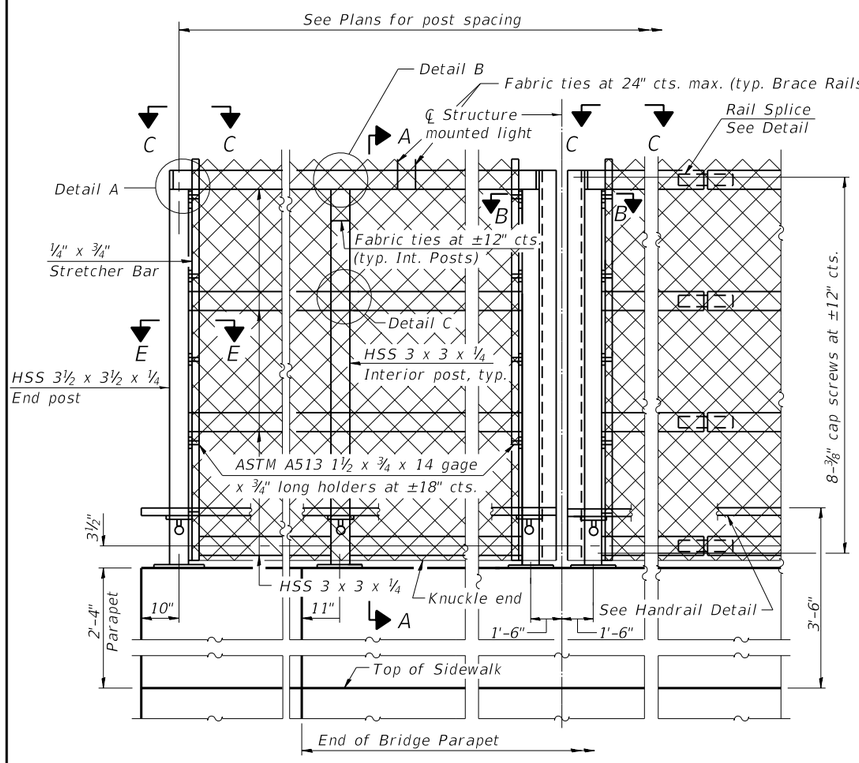


INSIDE ELEVATION OF PARAPET

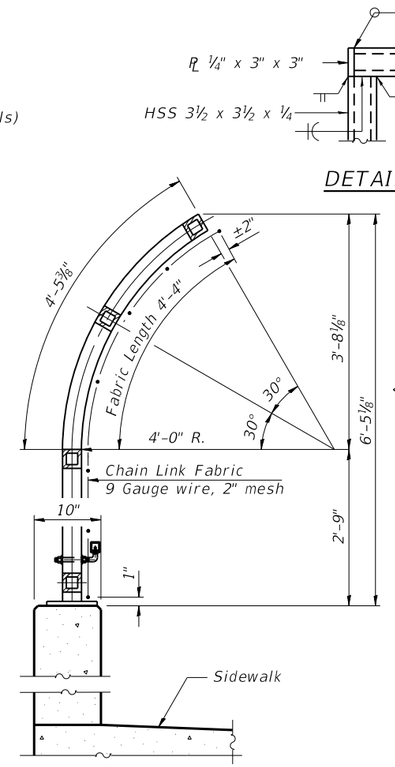
(West Roadway Parapet at North Approach shown. East Roadway Parapet at South Approach similar)

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-025-Prec Br Appr Slab.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PRECAST BRIDGE APPROACH SLAB STRUCTURE NO. 010-1100	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	167
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 25 OF 41 SHEETS			ILLINOIS FED. AID PROJECT		

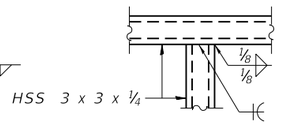


ELEVATION
(Inside Face)

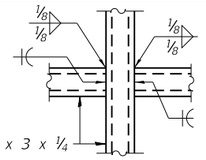


SECTION A-A

DETAIL A

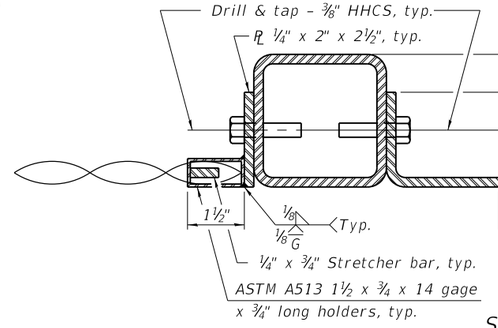


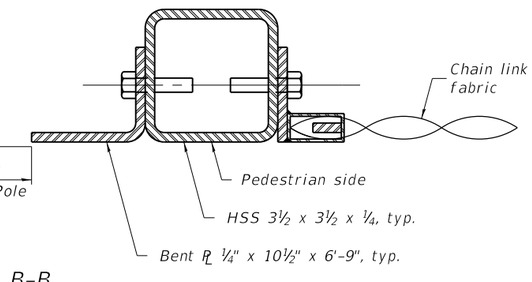
DETAIL B



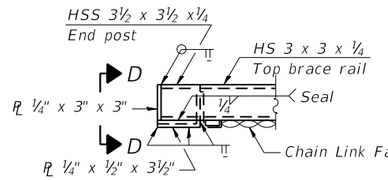
DETAIL C

Notes:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications. All of these elements, except the chain link fabric and ties, shall also be powder coated. At a minimum, the powder coating process shall consist of a zinc phosphate pretreatment/wash, a gray zinc rich primer coat, and a black top coat. See Special Provisions.
The galvanized chain link fabric and ties shall be vinyl coated black according to Section 509 and Article 1006.27(a)(1)d of the Standard Specifications.
CVN testing may be omitted for the railing.

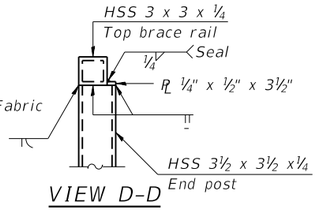




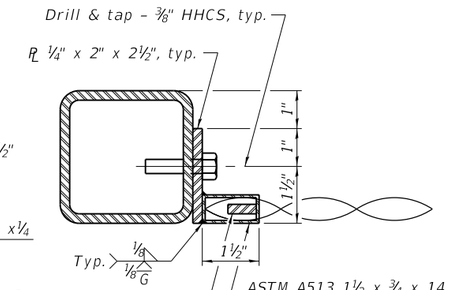
SECTION B-B
(At Light Poles)

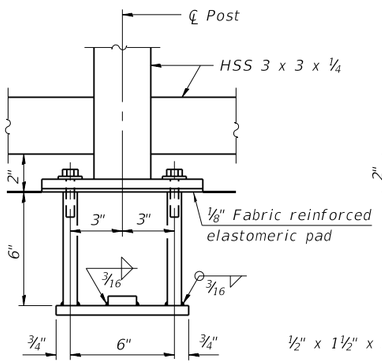


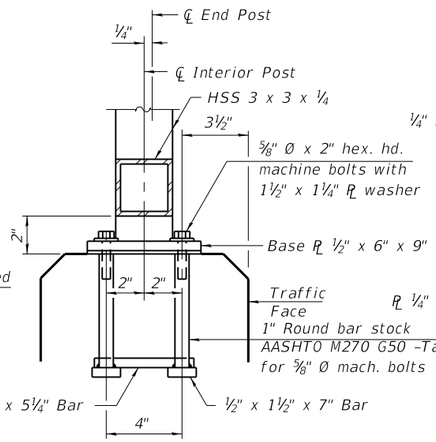
VIEW C-C



VIEW D-D

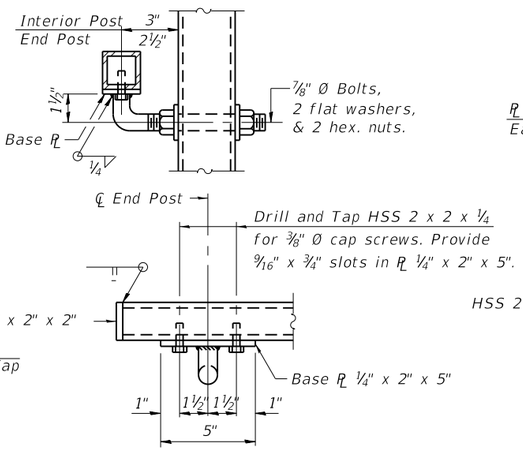




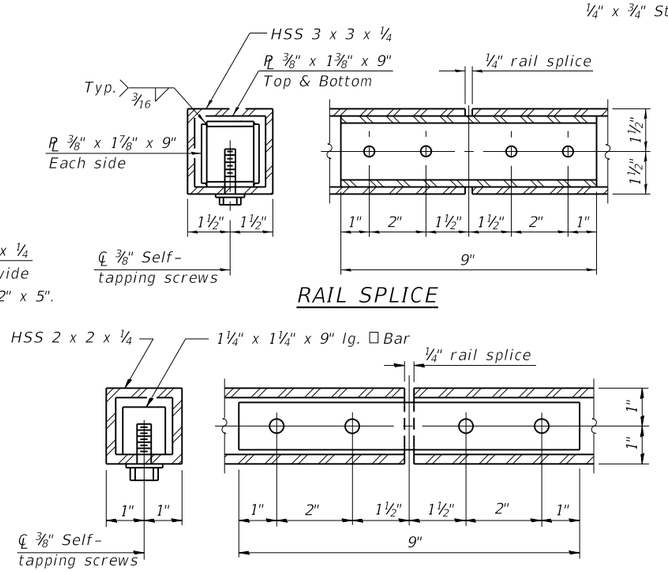


ANCHOR BOLT DETAILS

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

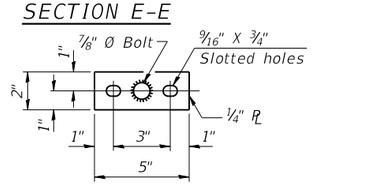


HANDRAIL DETAIL

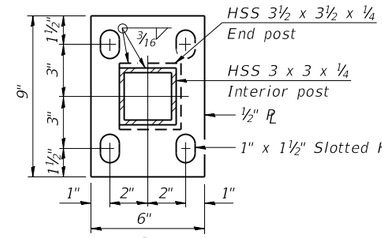


RAIL SPLICE

HANDRAIL SPLICE



SECTION E-E



BASE ℄
(Handrail)

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	832

** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 01011100-70B38-026-Bridge Fence Railing.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.5190		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 2/10/2020	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

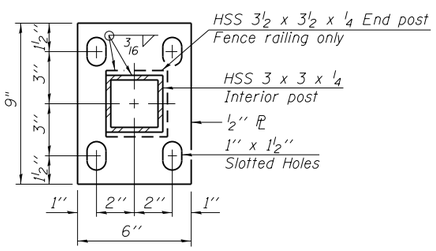
BRIDGE FENCE RAILING, PARAPET MOUNTED
STRUCTURE NO. 010-1100
SHEET NO. 26 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	168
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

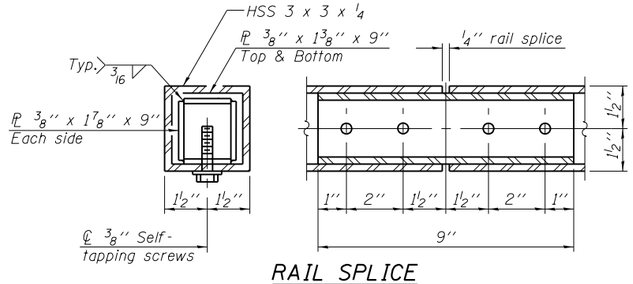
Notes:

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications. All of these elements shall also be powder coated. At a minimum, the powder coating process shall consist of a zinc phosphate pretreatment/wash, a gray zinc rich primer coat, and a black top coat. See Special Provisons.

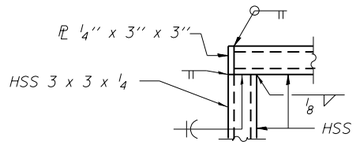
All structural steel tubing, post and railing, for parapet railing shall be CVN tested according to 1006.34(b) of the Standard Specifications.



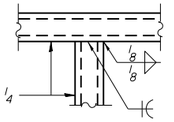
BASE PL



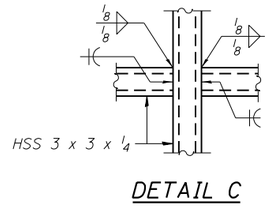
RAIL SPLICE



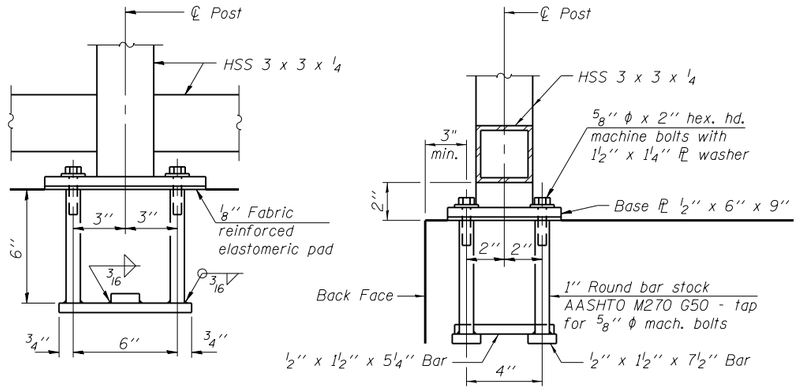
DETAIL A



DETAIL B



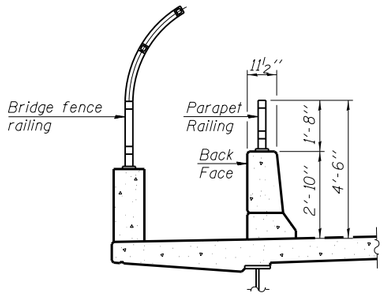
DETAIL C



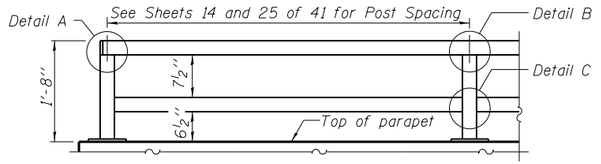
ANCHOR BOLT DETAILS

(10'-0" Maximum Post Spacing)

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.



SECTION THRU DECK



PARAPET RAILING ELEVATION

(Inside face of two element rail)

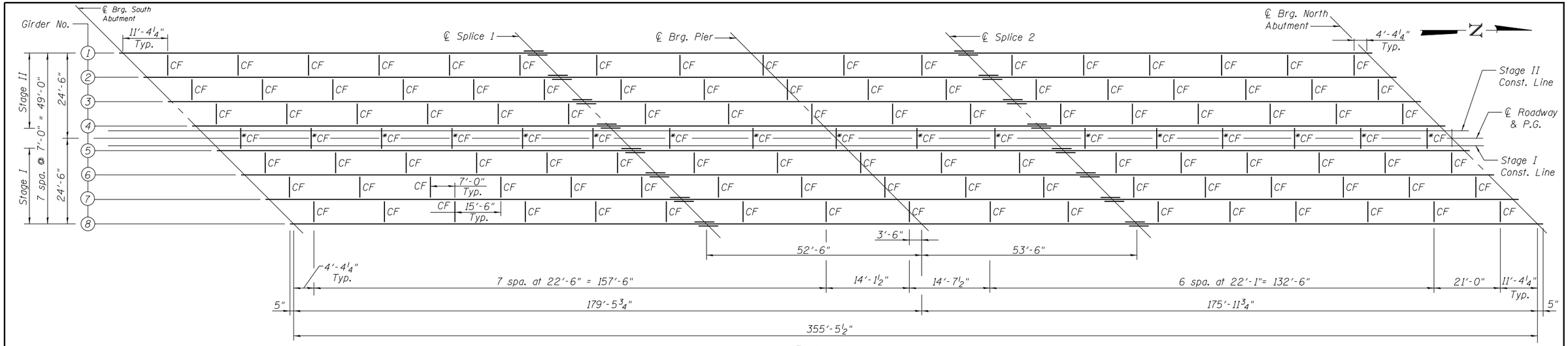
BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing	Foot	831

* (10-34HB-3)BR&(10-5-1HB)BR-1

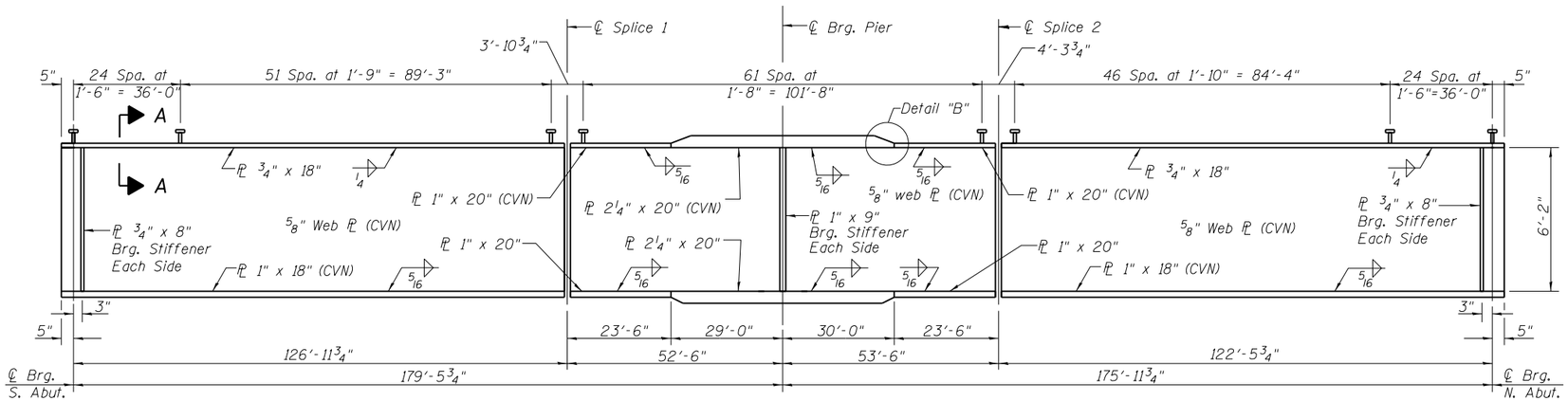
FILE NAME = 0101100-70B38-027-Parapet Railing .dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARAPET RAILING STRUCTURE NO. 010-1100
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -		SHEET NO. 27 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 2/10/2020	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	169
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		



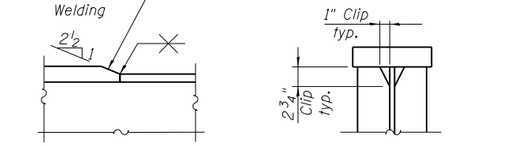
PLAN

* Location of Temporary Articulated Bracing (see sheet 29 of 41)



GIRDER ELEVATION

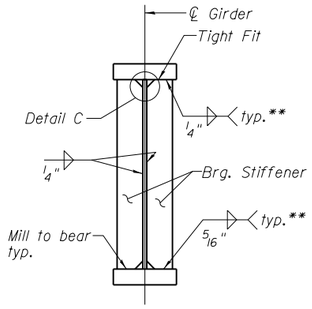
"CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.



DETAIL "B"

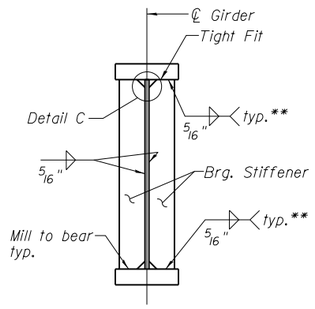
DETAIL "C"

(Typical Top and Bottom Flanges)



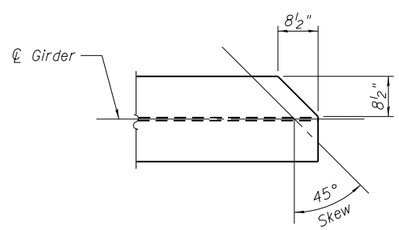
BEARING STIFFENER AT ABUTMENT

(No. plates required = 32)



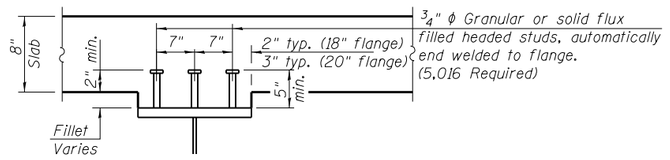
BEARING STIFFENER AT PIER

(No. plates required = 16)



TOP FLANGE CLIPPING DETAIL

(North end shown, South end similar)

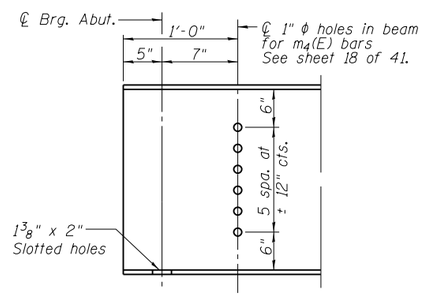


SECTION A-A

Notes:

All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

All flange, web, and bearing stiffener plates shall be AASHTO M270, Grade 50.



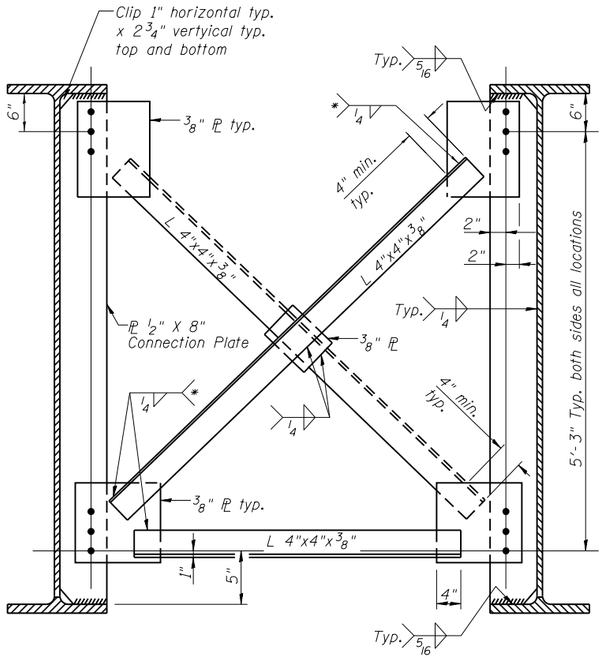
TYP. END OF BEAM ELEVATION

** Terminate weld ¼" from outside edges of PL's.

*** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-028-Structural Steel.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL STRUCTURE NO. 010-1100
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -		SHEET NO. 28 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

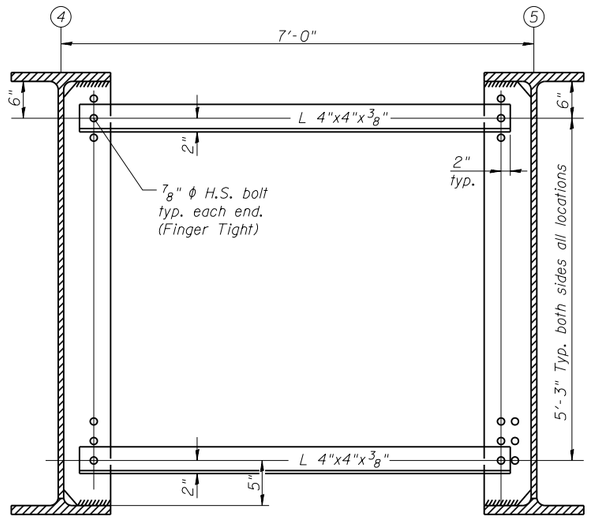
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	***	CHAMPAIGN	264	170
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



INTERIOR CROSS FRAME CF

(No. Req'd. =119)

* Fillet weld angles along 3 sides on one face of gusset plate

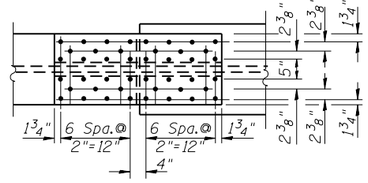


TEMPORARY ARTICULATED BRACING

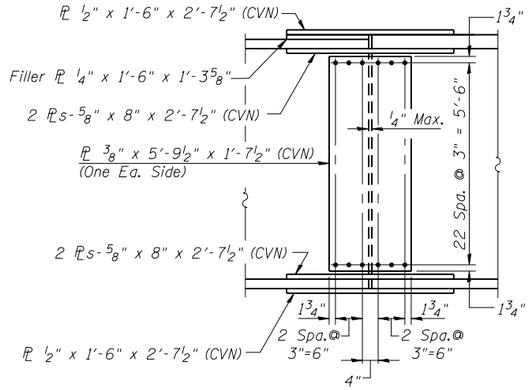
(No. Req'd. = 17)

See CF for details not shown above.

After closure pour is complete, temporary braces shall be replaced by cross frames CF and as shown on framing plan.



TOP & BOTTOM FLANGE



FIELD SPLICE 1 & 2 DETAIL

Notes:

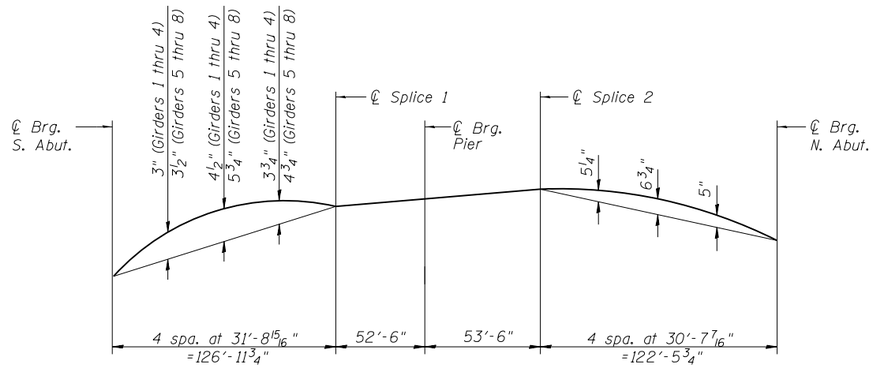
Use 7/8" ϕ H.S. bolts with 15/16" ϕ holes for all splice connections.

"CVN denotes Charpy-V-Notch impact energy requirements, Zone 2.

All splice plates shall be AASHTO M 270 Grade 50.

Use 3/4" ϕ H.S. bolts with 15/16" ϕ holes for all cross frame connections, except as shown for the Temporary Articulated Bracing.

Two hardened washers required for each set of oversized holes.



CAMBER DIAGRAM

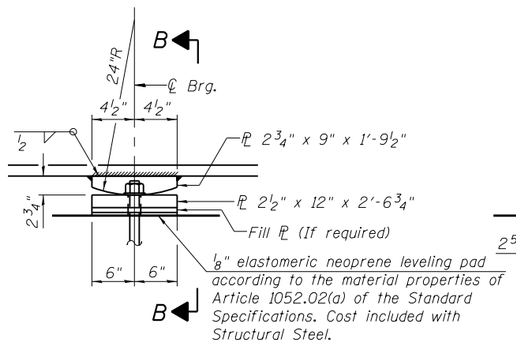
**TOP OF WEB ELEVATIONS

Location	℄ Brg. S. Abut.	℄ Splice 1	℄ Brg. Pier 1	℄ Splice 2	℄ Brg. N. Abut.
Girder 1	791.56	794.55	795.05	795.56	794.42
Girder 2	791.87	794.82	795.26	795.71	794.43
Girder 3	792.18	795.08	795.46	795.85	794.44
Girder 4	792.45	795.30	795.62	795.95	794.40
Girder 5	792.61	795.40	795.66	795.93	794.24
Girder 6	792.67	795.38	795.59	795.80	793.96
Girder 7	792.69	795.32	795.47	795.62	793.65
Girder 8	792.71	795.26	795.34	795.43	793.33

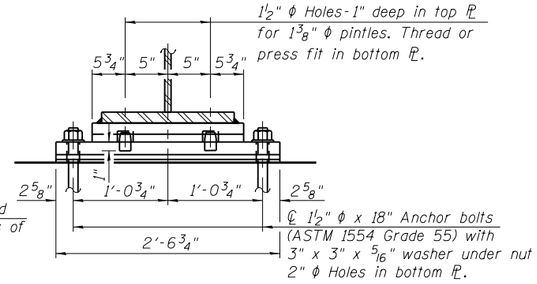
**For fabrication use only.

***(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-029-Structural Steel.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STRUCTURAL STEEL DETAILS STRUCTURE NO. 010-1100	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -			7158	***	CHAMPAIGN	264	171
	PLOT SCALE =	DRAWN - BJV	REVISED -						CONTRACT NO. 70B38	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 29 OF 41 SHEETS		ILLINOIS	FED. AID PROJECT		

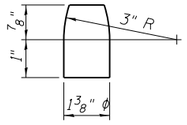


ELEVATION AT PIER



SECTION B-B

FIXED BEARING



PINTLE

INTERIOR GIRDER MOMENT TABLE					
			0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in^4)		64,904	151,960	64,904
$I_c(n)$	(in^4)		143,317	249,609	143,317
$I_c(3n)$	(in^4)		104,804	195,556	104,804
$I_c(cr)$	(in^4)		---	164,355	---
S_s	(in^3)		1,813	3,872	1,813
$S_c(n)$	(in^3)		2,445	4,478	2,445
$S_c(3n)$	(in^3)		2,209	4,194	2,209
$S_c(cr)$	(in^3)		---	3,977	---
DC1	(k/')		1.062	1.293	1.062
M_{DC1}	('k)		2,076	5,182	1,929
DC2	(k/')		0.275	0.275	0.275
M_{DC2}	('k)		557	1,264	516
DW	(k/')		0.323	0.323	0.323
M_{DW}	('k)		655	1,485	606
LLDF			0.54	0.54	0.54
M_{L+IM}	('k)		2,690	3,203	2,626
M_u (Strength I)	('k)		8,981	15,890	8,561
$\phi_f M_n$	('k)		11,832	16,940	11,933
f_s DC1	(ksi)		13.7	16.1	12.8
f_s DC2	(ksi)		3.0	3.8	2.8
f_s DW	(ksi)		3.6	4.5	3.3
f_s (L+IM)	(ksi)		13.2	9.7	12.9
f_s (Service II)	(ksi)		37.5	36.9	35.6
$0.95R_hF_{yf}$	(ksi)		47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)		---	48.5	---
$\phi_f F_n$	(ksi)		---	---	---
V_r	(k)		30.8	30.4	31.1

GIRDER REACTION TABLE							
		West Abut.		Pier		East Abut.	
		Interior	Exterior	Interior	Exterior	Interior	Exterior
LLDF		0.743	0.545	0.743	0.545	0.743	0.545
OCF		---	1.200	---	---	---	1.200
R_{DC1}	(k)	68.0	66.6	259.9	254.8	65.7	64.4
R_{DC2}	(k)	17.6	17.6	63.1	63.1	17.0	17.0
R_{DW}	(k)	20.7	20.7	74.1	74.1	20.0	20.0
R_{LL}	(k)	86.5	76.1	188.3	138.1	85.8	75.5
R_{IM}	(k)	16.5	14.5	29.9	21.9	16.5	14.5
R_{Total}	(k)	209.3	195.5	615.3	552.0	205.0	191.4

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

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (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 (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

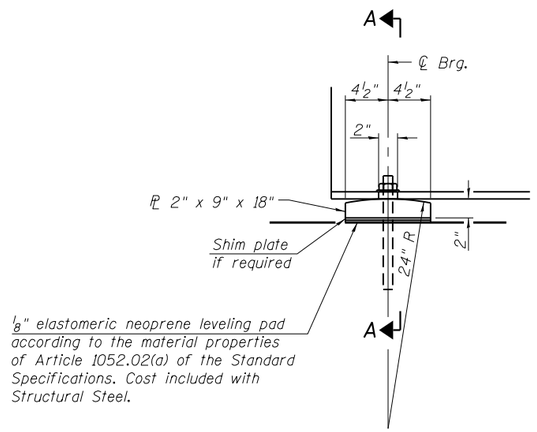
f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

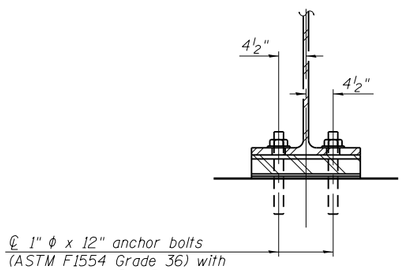
$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

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

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

V_r: Maximum factored shear range in span computed according to Article 6.10.10.





SECTION A-A

ELEVATION AT ABUTMENT

FIXED BEARING

Notes:

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.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All bearing plates and pintles shall be AASHTO M270 Grade 50.

All bearing plates, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

FILL PLATE THICKNESS

	S. Abut.	Pier	N. Abut.
Girder 1	---	---	⅜"
Girder 2	---	---	½"
Girder 3	---	---	½"
Girder 4	---	½"	---
Girder 5	---	⅛"	---
Girder 6	⅝"	---	---
Girder 7	---	---	---
Girder 8	¼"	---	---

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1" ϕ	Each	32
Anchor Bolts, 1½" ϕ	Each	16

* (10-34HB-3)BR&(10-5-1HB)BR-1

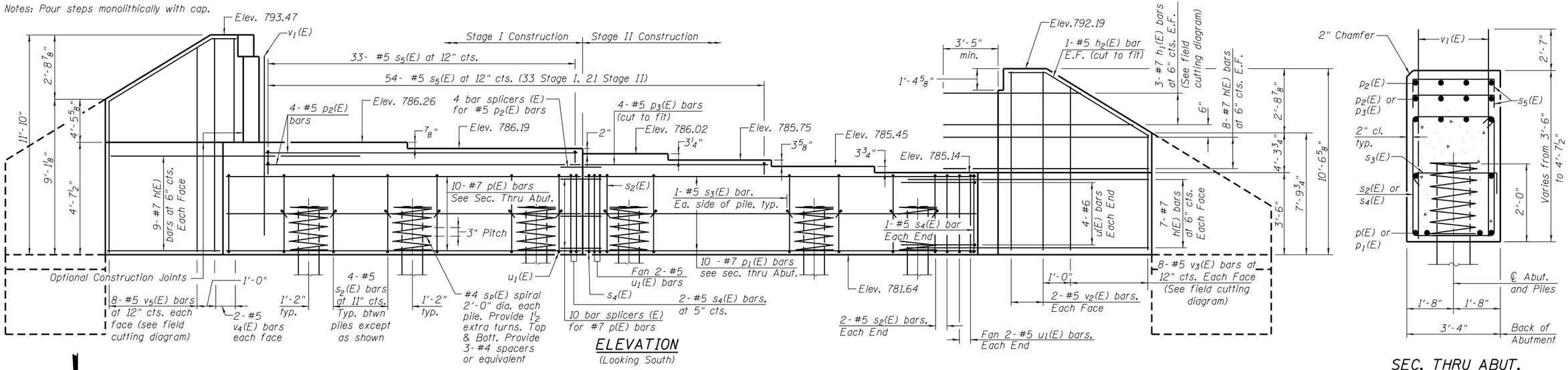
FILE NAME = 01011100-70B38-030-Fixed Brg Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -	
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9160		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIXED BEARING DETAILS
STRUCTURE NO. 010-1100
SHEET NO. 30 OF 41 SHEETS

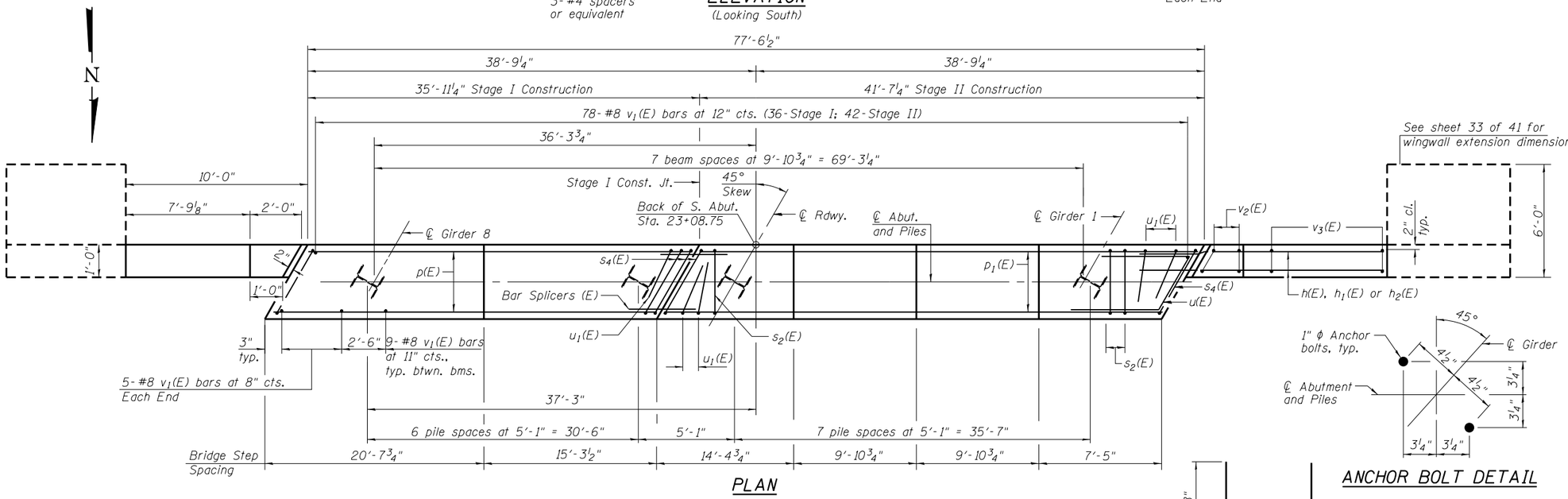
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	172
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

Notes: Pour steps monolithically with cap.



ELEVATION
(Looking South)

SEC. THRU ABUT.
Dimensions at right angles to abutment.



PLAN

See sheet 33 of 41 for wingwall extension dimensions

ANCHOR BOLT DETAIL

BILL OF MATERIAL

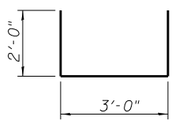
Bar	No.	Size	Length	Shape
h(E)	64	#7	13'-3"	
$h_1(E)$	6	#7	23'-8"	
$h_2(E)$	4	#5	9'-10"	
p(E)	10	#7	35'-7"	
$p_1(E)$	10	#7	41'-3"	
$p_2(E)$	8	#5	35'-7"	
$p_3(E)$	4	#5	23'-11"	
$s_2(E)$	57	#5	13'-3"	
$s_3(E)$	30	#5	4'-0"	
$s_4(E)$	5	#5	15'-9"	
$s_5(E)$	87	#5	7'-0"	
$s_p(E)$	15	#4	2'-0"	
u(E)	8	#6	11'-8"	
$u_1(E)$	7	#5	8'-6"	
$v_1(E)$	151	#8	5'-11"	
$v_2(E)$	4	#5	10'-3"	
$v_3(E)$	8	#5	17'-4"	
$v_4(E)$	4	#5	11'-6"	
$v_5(E)$	8	#5	19'-11"	
Structure Excavation		Cu. Yd.	221	
Concrete Structures		Cu. Yd.	47.9	
Reinforcement Bars, Epoxy Coated		Pound	9,340	
Furnishing Steel Piles, HP14x89		Foot	812	
Driving Piles		Foot	812	
Test Pile Steel, HP14x89		Each	1	

For details of piles see sheet 36 of 41.

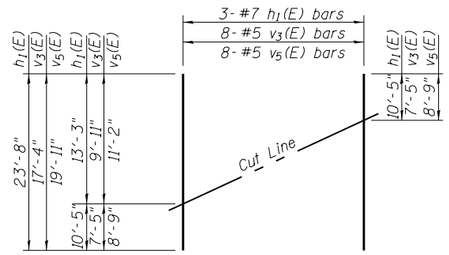
* Length is height of spiral.

PILE DATA

Type: HP 14x89
Nominal Required Bearing: 339k
Factored Resistance Available: 186k
Est. Length: 58'
No. Production Piles: 14
No. Test Piles: 1

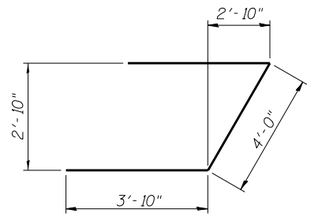


BAR $s_5(E)$

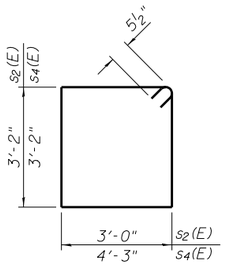


FIELD CUTTING DIAGRAM

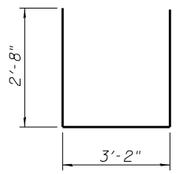
Order $h_1(E)$, $v_3(E)$ and $v_5(E)$ full length. Cut as shown and use remainder of bars in opposite face.



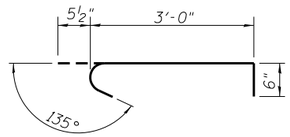
BAR u(E)



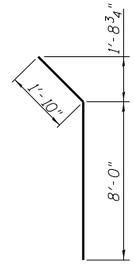
BAR $s_2(E)$ & $s_4(E)$



BAR $u_1(E)$



BAR $s_3(E)$



BAR $h_2(E)$

** (10-34HB-3)BR&(10-5-1HB)BR-1

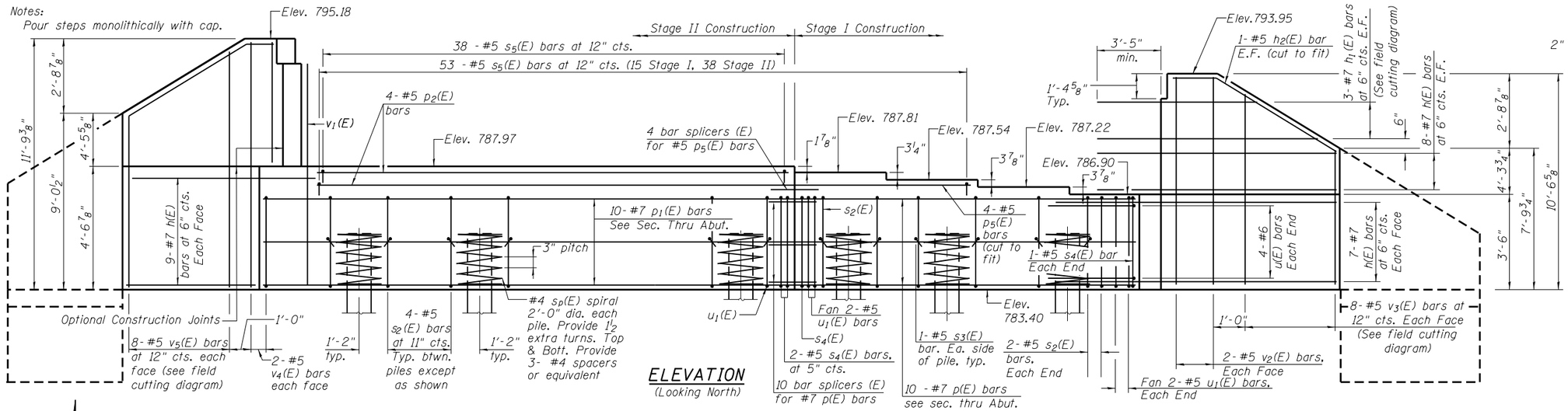
FILE NAME = 0101100-70B38-031-South Abutment.dgn	USER NAME =	DESIGNED - AAH	REVISED -	
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.3190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 010-1100
SHEET NO. 31 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	173
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

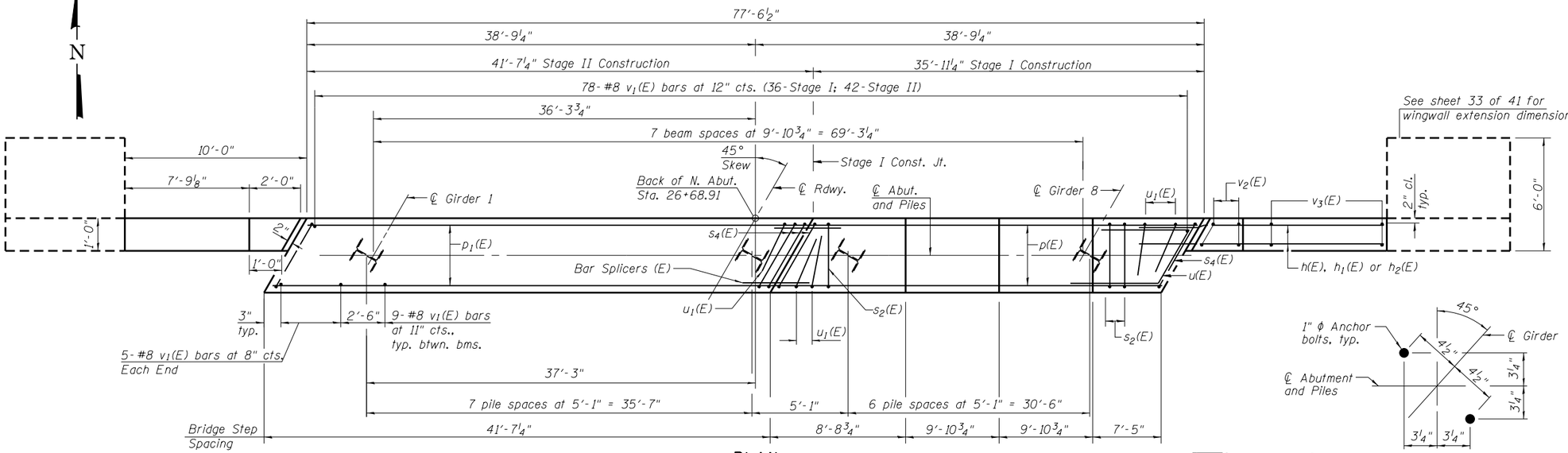
Notes:
Pour steps monolithically with cap.



SEC. THRU ABUT.

Dimensions at right angles to abutment.

N



PLAN

See sheet 33 of 41 for wingwall extension dimensions

ANCHOR BOLT DETAIL

BILL OF MATERIAL

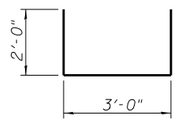
Bar	No.	Size	Length	Shape
h(E)	64	#7	13'-3"	
h_1(E)	6	#7	23'-8"	
h_2(E)	4	#5	9'-10"	
p(E)	10	#7	35'-7"	
p_1(E)	10	#7	41'-3"	
p_2(E)	8	#5	35'-7"	
p_5(E)	4	#5	18'-4"	
s_2(E)	57	#5	13'-3"	
s_3(E)	30	#5	4'-0"	
s_4(E)	5	#5	15'-9"	
s_5(E)	87	#5	7'-0"	
* s_p(E)	15	#4	2'-0"	
u(E)	8	#6	11'-8"	
u_1(E)	7	#5	8'-6"	
v_1(E)	151	#8	5'-11"	
v_2(E)	4	#5	10'-3"	
v_3(E)	8	#5	17'-4"	
v_4(E)	4	#5	11'-6"	
v_5(E)	8	#5	19'-11"	
Structure Excavation		Cu. Yd.	221	
Concrete Structures		Cu. Yd.	48.0	
Reinforcement Bars, Epoxy Coated		Pound	9,320	
Furnishing Steel Piles, HP14x89		Foot	910	
Driving Piles		Foot	910	
Test Pile Steel, HP14x89		Each	1	

For details of piles see sheet 36 of 41.

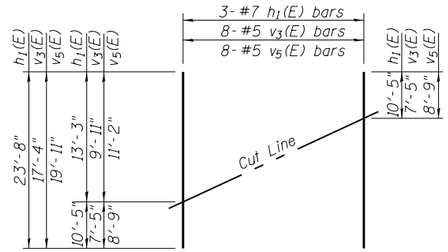
* Length is height of spiral.

PILE DATA

Type: HP 14x89
Nominal Required Bearing: 333k
Factored Resistance Available: 183k
Est. Length: 65'
No. Production Piles: 14
No. Test Piles: 1

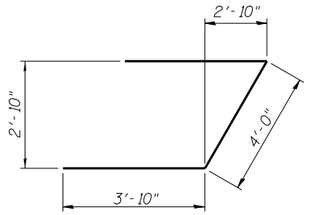


BAR s_5(E)

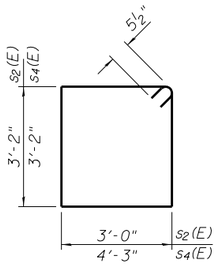


FIELD CUTTING DIAGRAM

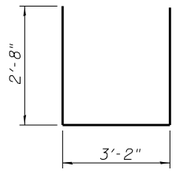
Order h_1(E), v_3(E) and v_5(E) full length. Cut as shown and use remainder of bars in opposite face.



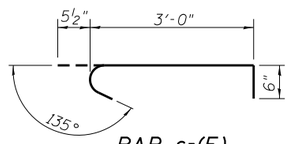
BAR u(E)



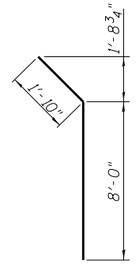
BAR s_2(E) & s_4(E)



BAR u_1(E)



BAR s_3(E)



BAR h_2(E)

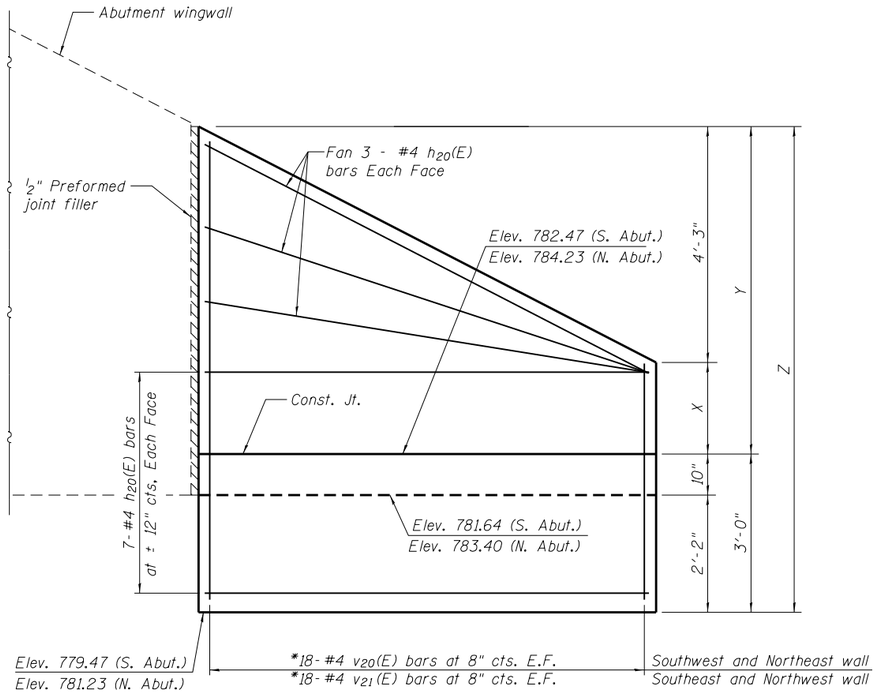
** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-032-North Abutment.dgn	USER NAME =	DESIGNED - AAH	REVISED -	
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

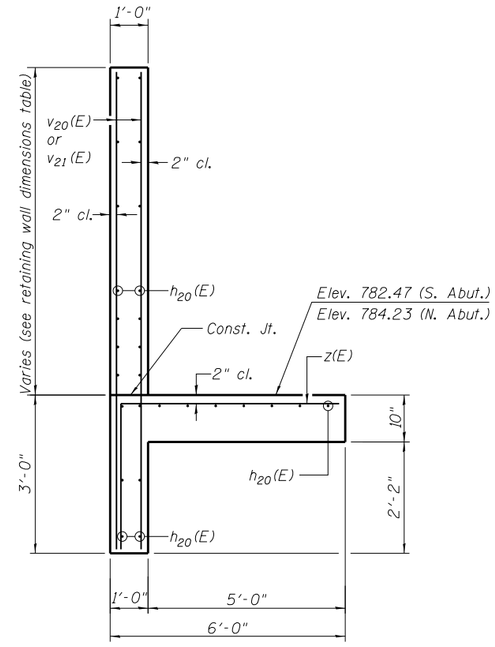
NORTH ABUTMENT
STRUCTURE NO. 010-1100
SHEET NO. 32 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	174
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



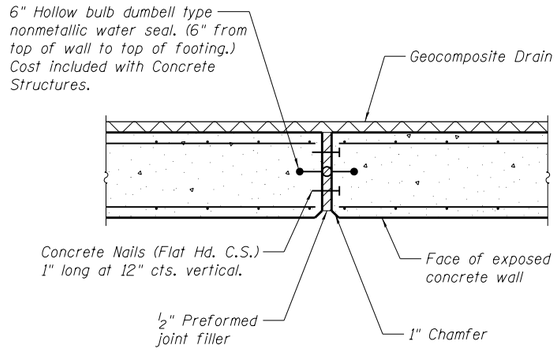
ELEVATION

* See field cutting Diagram

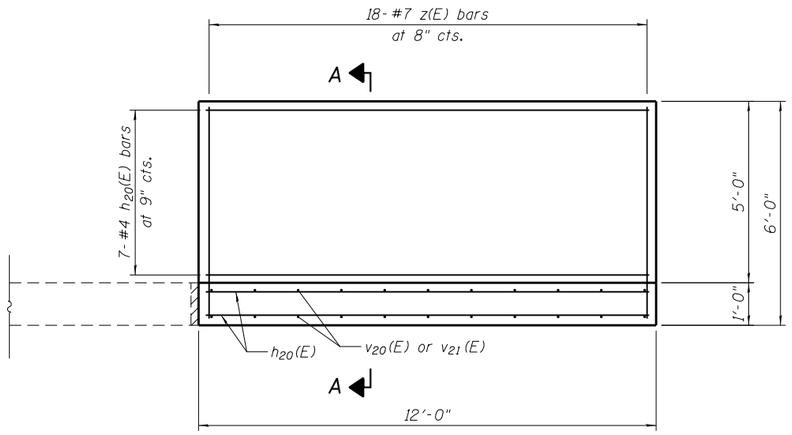


SECTION A-A

Maximum Applied Service Bearing Pressure, Qmax = 2,900 psf



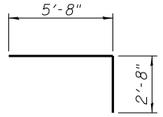
EXPANSION JOINT DETAIL



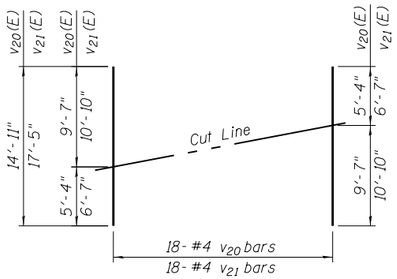
PLAN

WINGWALL EXTENSION DIMENSIONS

	South Abut.		North Abut.	
Dimension	West	East	West	East
X	2'-8 3/4"	4'-0 1/8"	3'-11 1/2"	2'-8 3/4"
Y	6'-11 3/4"	8'-3 1/8"	8'-2 1/2"	6'-11 3/4"
Z	9'-11 3/4"	11'-3 1/8"	11'-2 1/2"	9'-11 3/4"



BAR z(E)



FIELD CUTTING DIAGRAM

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

BILL OF MATERIAL
4 WINGWALL EXTENSIONS

Bar	No.	Size	Length	Shape
h20(E)	108	#4	11'-8"	
v20(E)	36	#4	14'-11"	
v21(E)	36	#4	17'-5"	
z(E)	72	#7	8'-4"	
Concrete Structures			Cu. Yd.	22.5
Reinforcement Bars, Epoxy Coated			Pound	2,850

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-033-Wingwalls.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9780		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

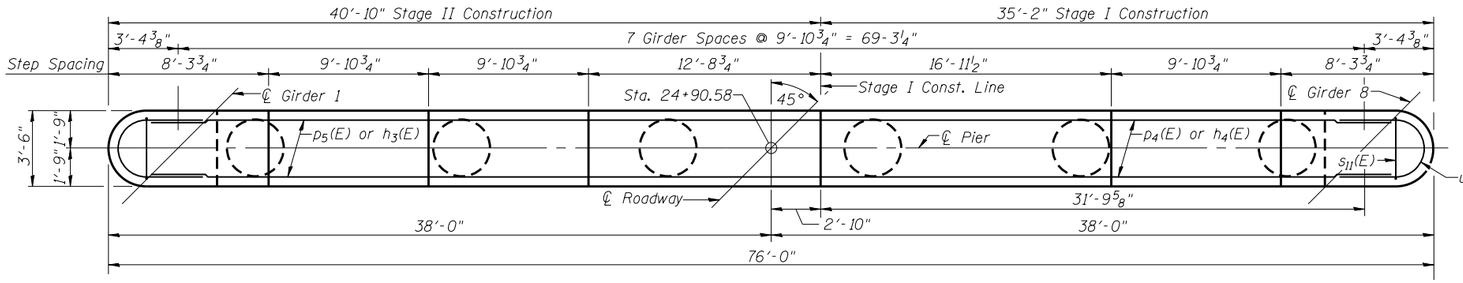
WINGWALL EXTENSIONS
STRUCTURE NO. 010-1100

SHEET NO. 33 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	175
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

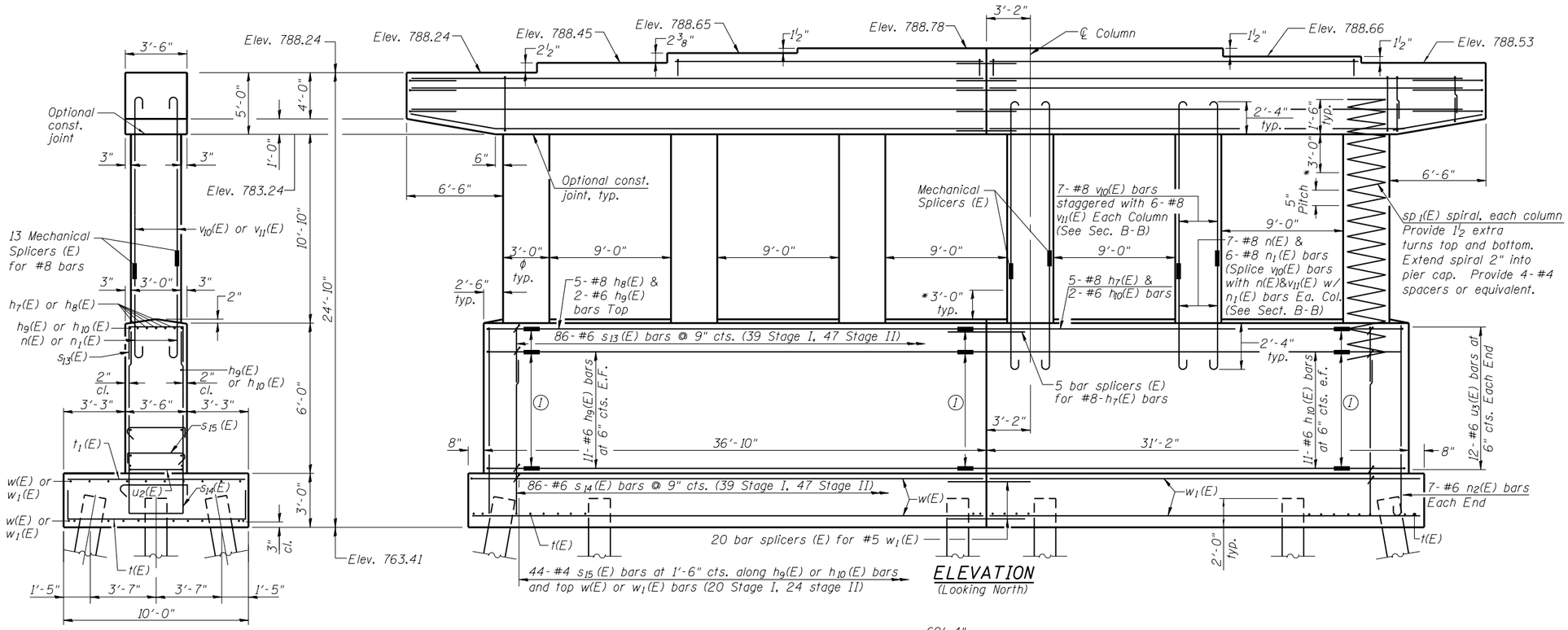
PILE DATA

Type: Metal Shell Pile 14" x 0.250" walls
Nominal Required Bearing: 383K
Factored Resistance Available: 210K
Est. Length: 48 ft.
No. Production Piles: 35
No. Test Piles: 1

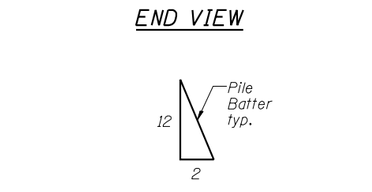


Notes:
When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 37 of 41.
For pier cap reinforcement, see sheet 35 of 41.

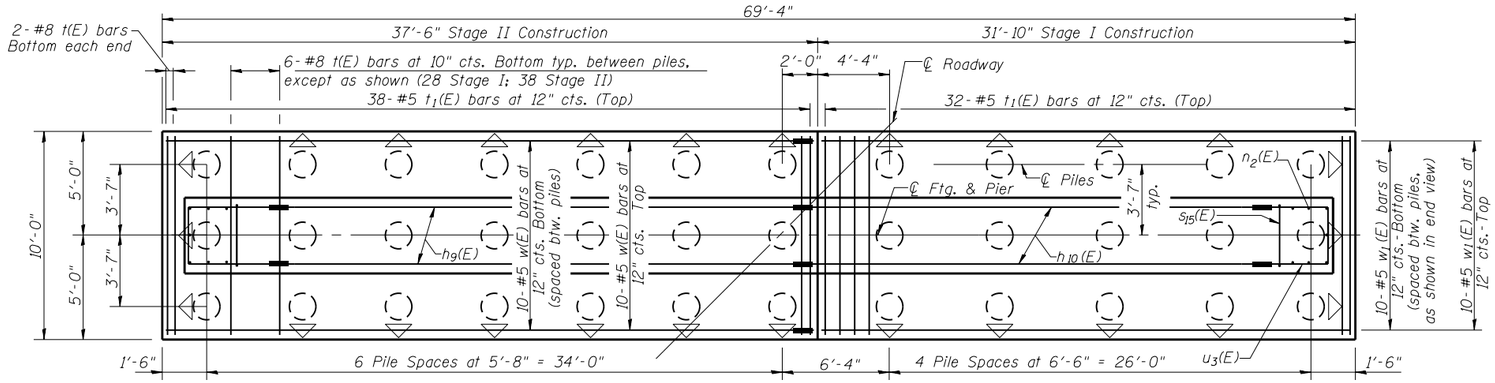
TOP PLAN



ELEVATION
(Looking North)



END VIEW



FOOTING PLAN

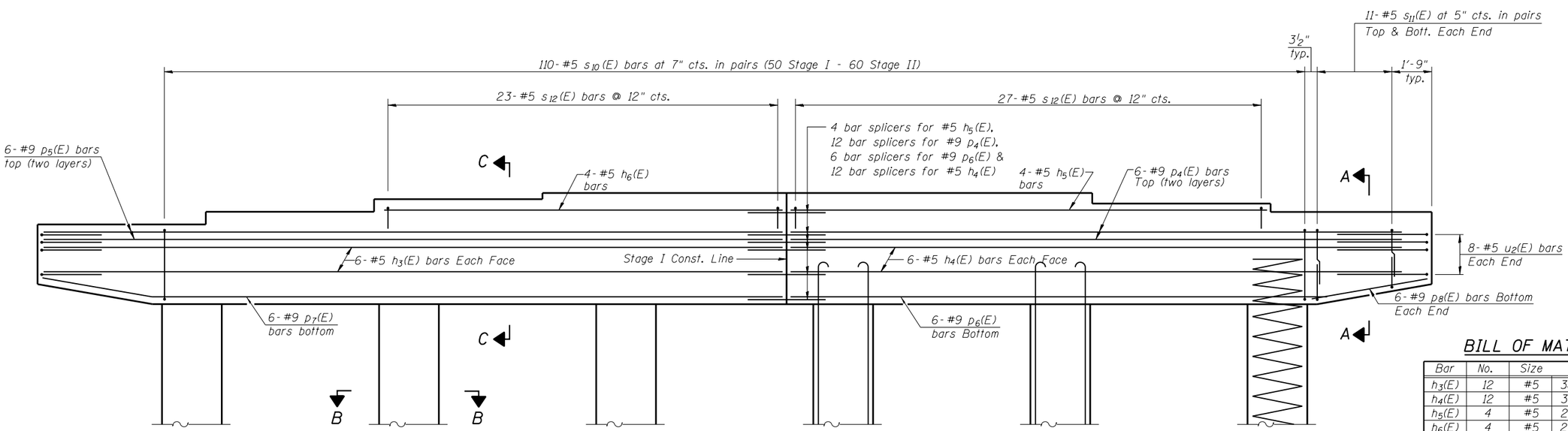
** (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-034-Pier.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE: 618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER
STRUCTURE NO. 010-1100
SHEET NO. 34 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	176
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

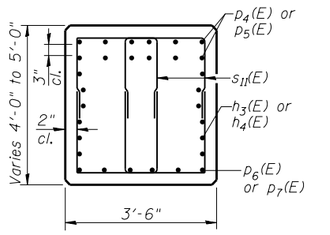


PIER CAP DETAIL
(Looking North)

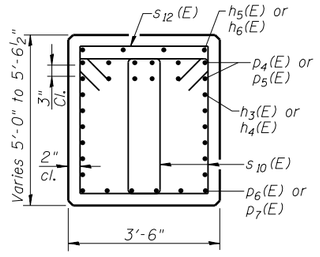
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_3(E)	12	#5	38'-11"	—
h_4(E)	12	#5	33'-3"	—
h_5(E)	4	#5	26'-6"	—
h_6(E)	4	#5	22'-3"	—
h_7(E)	5	#8	29'-3"	—
h_8(E)	5	#8	34'-11"	—
h_9(E)	24	#6	29'-5"	—
h_{10}(E)	24	#6	26'-2"	—
n(E)	42	#8	6'-9"	⊃
n_1(E)	36	#8	8'-9"	⊃
n_2(E)	14	#6	8'-1"	⊃
p_4(E)	12	#9	33'-3"	—
p_5(E)	12	#9	38'-11"	—
p_6(E)	6	#9	29'-0"	—
p_7(E)	6	#9	34'-8"	—
p_8(E)	12	#9	5'-11"	—
s_{10}(E)	220	#5	14'-7"	⊔
s_{11}(E)	88	#5	10'-0"	⊔
s_{12}(E)	50	#5	7'-2"	⊔
s_{13}(E)	86	#5	9'-10"	⊔
s_{14}(E)	86	#5	19'-6"	⊔
s_{15}(E)	572	#4	3'-11"	⊐
* sp_1(E)	6	#5	13'-10"	∿
t(E)	70	#8	14'-6"	⊔
t_1(E)	70	#5	9'-6"	—
u_2(E)	16	#6	11'-11"	⊔
u_3(E)	24	#6	14'-10"	⊔
v_{10}(E)	42	#8	10'-7"	⊃
v_{11}(E)	36	#8	8'-7"	⊃
w(E)	20	#5	37'-2"	—
w_1(E)	20	#5	31'-6"	—
Structure Excavation		Cu. Yd.	152	
Concrete Structures		Cu. Yd.	199.1	
Reinforcement Bars, Epoxy Coated		Pound	28.550	
Furnishing Metal Shell Piles, 14" x 0.25"		Foot	1.680	
Driving Piles		Foot	1.680	
Test Pile, Metal Shells		Each	1	

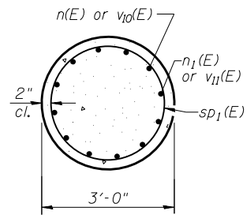
*Length is height of spiral.



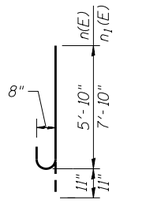
SEC. A-A



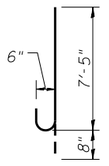
SEC. C-C



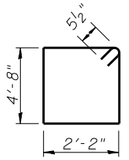
SEC. B-B



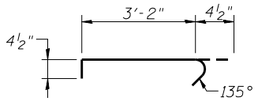
BARS n(E) & n_1(E)



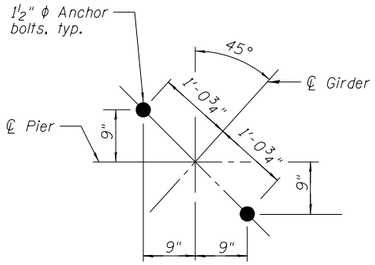
BAR n_2(E)



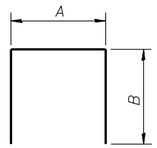
BAR s_{10}(E)



BAR s_{15}(E)
(alternate end for end)



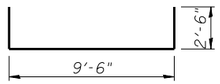
ANCHOR BOLT LAYOUT



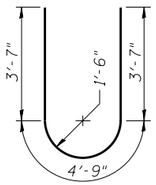
BARS s_{11}(E), s_{12}(E) s_{13}(E) and s_{14}(E)

A&B DIMENSIONS

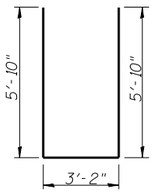
Bar	A	B
s_{11}(E)	2'-2"	3'-11"
s_{12}(E)	3'-2"	2'-0"
s_{13}(E)	3'-2"	3'-4"
s_{14}(E)	3'-2"	8'-2"



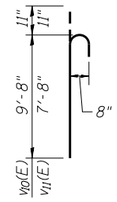
BAR t(E)



BAR u_2(E)



BAR u_3(E)



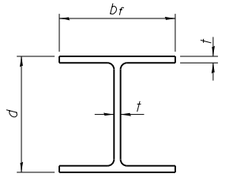
BAR v_{10}(E) & v_{11}(E)

**(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-035-Pier.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9190		CHECKED - BWP	REVISED -	
	PLOT SCALE =	DRAWN - BJV	REVISED -	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -	

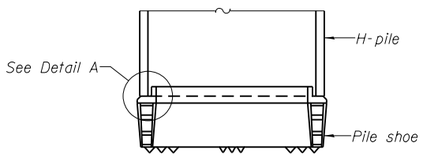
PIER
STRUCTURE NO. 010-1100
SHEET NO. 35 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	177
		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			

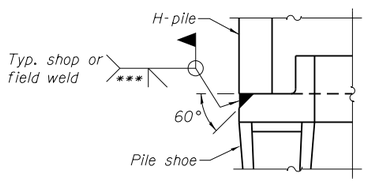


STEEL PILE TABLE

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"

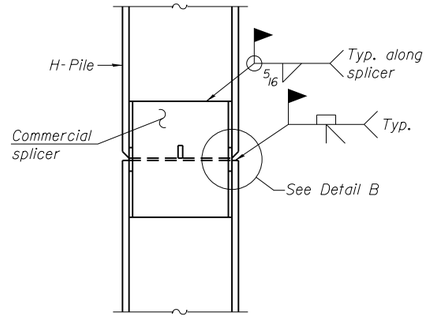


ELEVATION

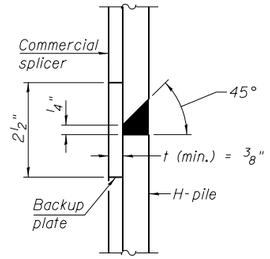


DETAIL A

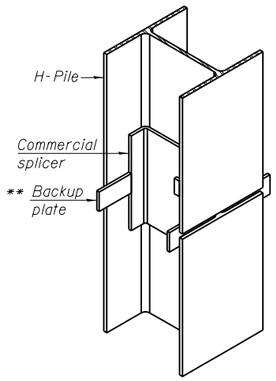
H-PILE SHOE ATTACHMENT



ELEVATION

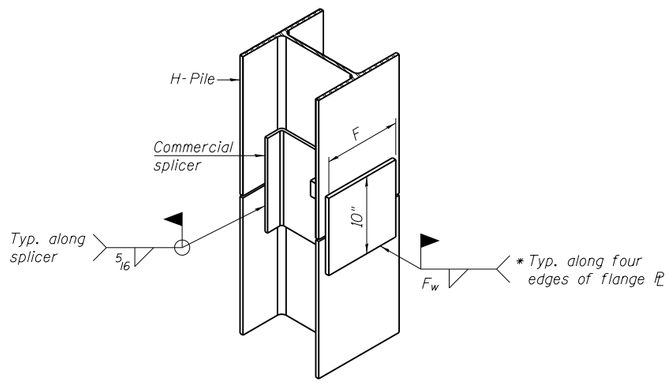


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



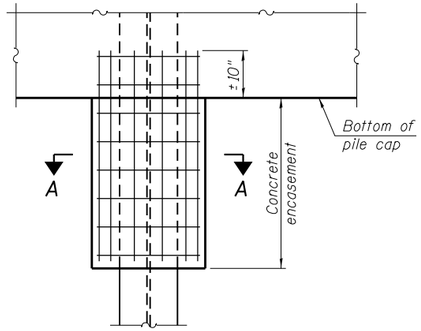
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

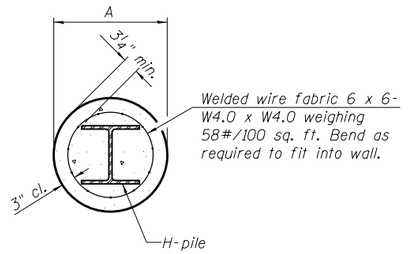
* Interrupt welds 1/4" from end of web and/or each flange.

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

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



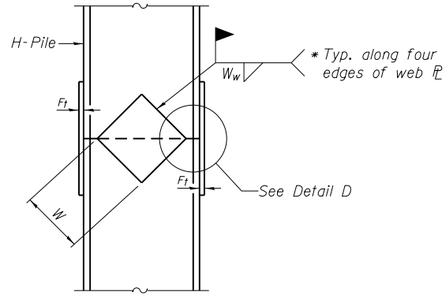
ELEVATION



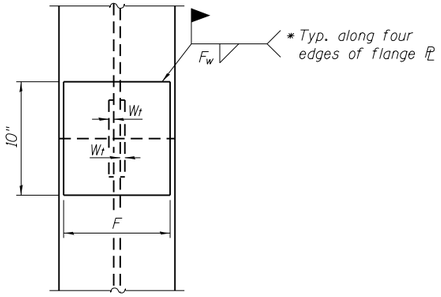
SECTION A-A

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

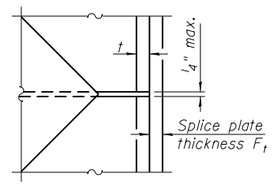
PILE ENCASEMENT



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.

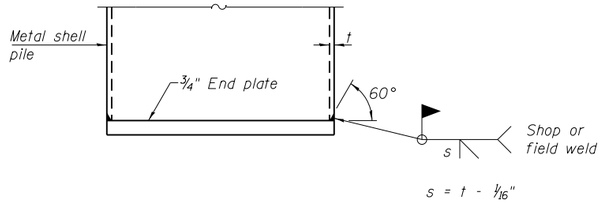
F-HP 2-17-2017

**** (10-34HB-3)BR&(10-5-1HB)BR-1

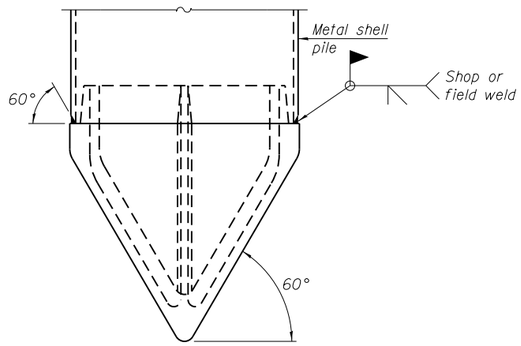
FILE NAME = 0101100-70B38-036-HP Pile Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HP PILE DETAILS STRUCTURE NO. 010-1100	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.3190		CHECKED - BWP	REVISED -			7158	****	CHAMPAIGN	264	178
	PLOT SCALE =	DRAWN - BJV	REVISED -						CONTRACT NO. 70B38	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 36 OF 41 SHEETS			ILLINOIS	FED. AID PROJECT	

METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470

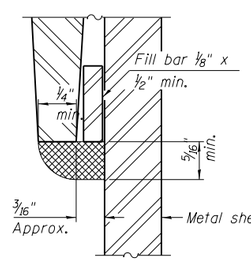


END PLATE ATTACHMENT

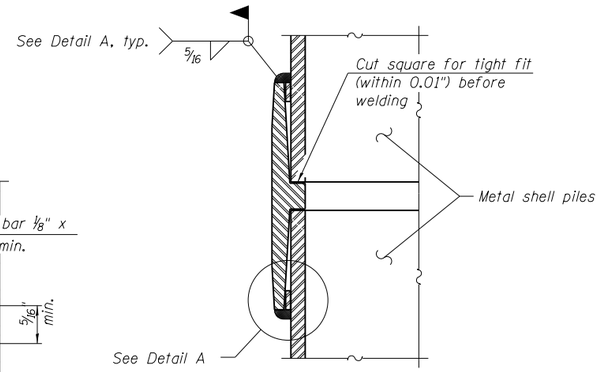


PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).

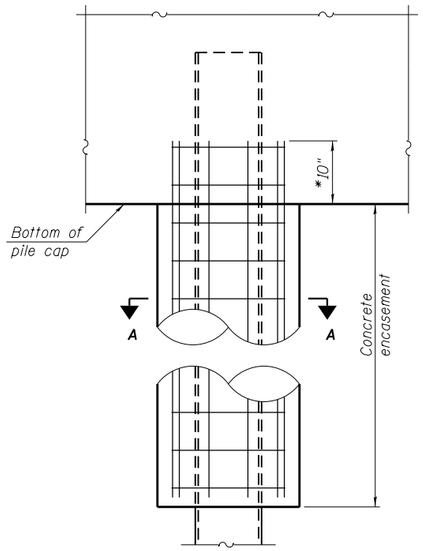


DETAIL A

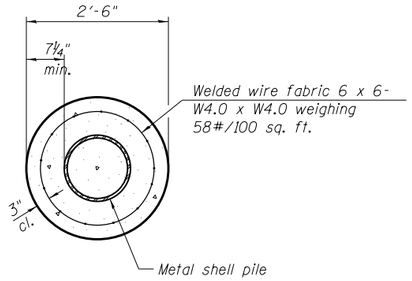


WELDED COMMERCIAL SPLICE

Notes:
The ⅛" x ½" min. fill bar may be constructed of 2 bars with a ⅛" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

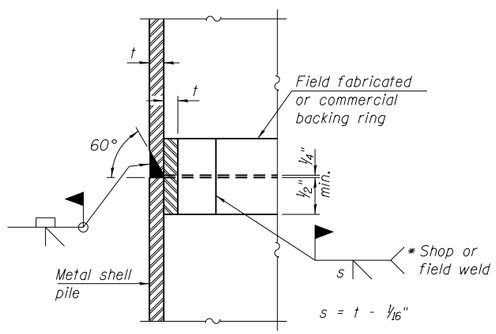


ELEVATION



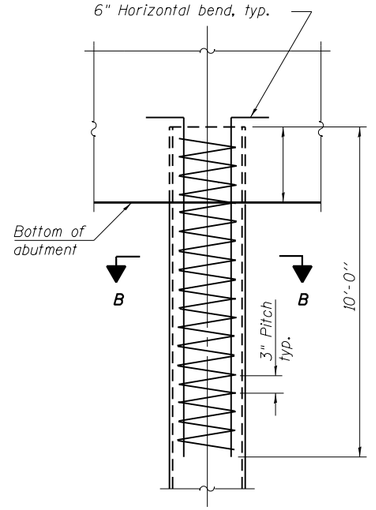
SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT AT PIERS

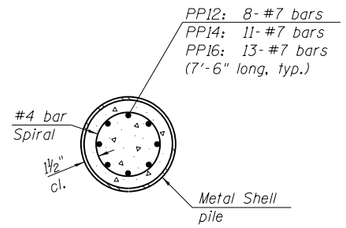


COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

REINFORCEMENT AT ABUTMENTS

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

F-MS 2-17-2017

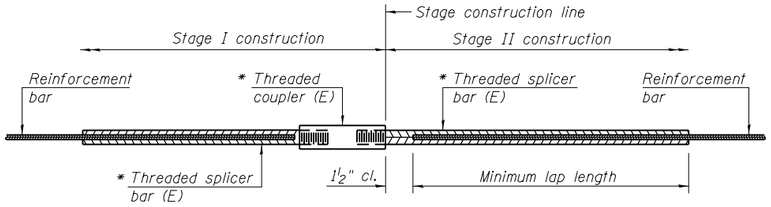
**(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 01011100-70B38-037-Metal Shell Pile Details.dgn	USER NAME =	DESIGNED - AAH	REVISED -
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE-618.997.9160		CHECKED - BWP	REVISED -
	PLOT SCALE =	DRAWN - BJV	REVISED -
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METAL SHELL PILE DETAILS
STRUCTURE NO. 010-1100
SHEET NO. 37 OF 41 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	**	CHAMPAIGN	264	179
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

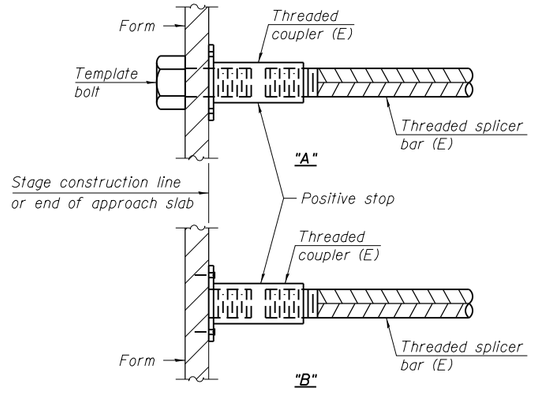


STANDARD BAR SPLICER ASSEMBLY

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

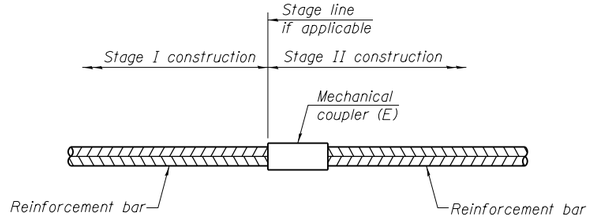
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	1140	3'-6"
Diaphragms	#6	26	4'-0"
Approach Slab	#4	62	2'-5"
Approach Footing	#5	80	3'-7"
South Abutment Cap	#7	10	5'-0"
South Abutment Step	#5	4	3'-7"
North Abutment Cap	#7	10	5'-0"
North Abutment Step	#5	4	3'-7"
Pier Top Cap	#9	18	10'-4"
Pier Step & EF	#5	16	3'-7"
Pier Top Crashwall	#8	5	8'-2"
Pier Footing	#5	20	3'-7"



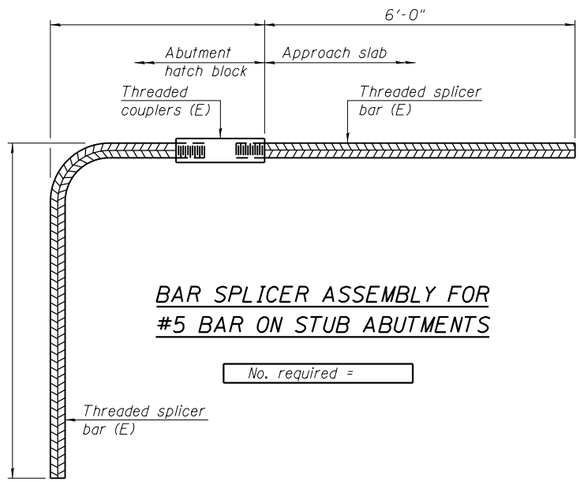
INSTALLATION AND SETTING METHODS

"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
Pier Column	#8	78
Pier Crash Wall	#6	72



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

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

2-17-2017

**(10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-038-Bar Splicers.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICERS STRUCTURE NO. 010-1100	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9780		CHECKED - BWP	REVISED -			7158	**	CHAMPAIGN	264	180
	PLOT SCALE =	DRAWN - BJV	REVISED -					CONTRACT NO. 70B38		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 38 OF 41 SHEETS			ILLINOIS FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/21/15

ROUTE I-57/74 **DESCRIPTION** South Abut Mattis Ave over I-57 **LOGGED BY** MLL, TQC

SECTION 10(5-1-RS-1, 14-1,6)R **LOCATION** , **SEC.** 34, **TWP.** 20N, **RNG.** 8E, 3 **PM**

COUNTY Champaign **DRILLING METHOD** HSA **HAMMER TYPE** Auto

STRUCT. NO.
Station

BORING NO. B-1 (Mattis Ave I-57)
Station 22+63
Offset 11.5ft Left
Ground Surface Elev. 789.97 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

Groundwater Elev.:
▽ **First Encounter** 755.6 ft
▽ **Upon Completion** ft
▼ **After** Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
4" HMA Shoulder 789.64			
6" Concrete 789.14			
9" Aggregate Base 788.39	5		
FILL: Silty Clay, brown/gray	7	3.50	14.2
	7	B	
	4		
	2	0.82	22.6
-5	3	B	
783.97			
FILL: Silty clay, gray, very stiff	5		
	8	4.5	13.2
	8	P	
	3		
	5	3.5	10.3
-10	7	B	
	4		
	4	1.24	16.9
	5	B	
776.97			
FILL: Silty Clay, gray/brown, medium	3		
	3	1.75	18.2
-15	4	P	
773.97			
SILTY CLAY: Black 773.47	4		
FILL: Silty Clay, black/brown/gray, medium	4	1.98	18.0
	5	B	
	3		
	4	4.5	18.7
-20	4	P	

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
FILL: Silty Clay, black/brown/gray, medium *(continued)*			
766.97			
SILTY CLAY: Black, stiff	4		
	5	5.15	25.3
-25	8	B	
760.97	2		
SILTY CLAY: Gray, medium	2	0.99	25.1
-30	3	B	
	3		
755.97			
SAND: 4" seam ▽ 755.64	5	1.40	19.5
SILTY CLAY TILL: Gray, stiff, wet	6	B	
-35			
	2		
	3	1.32	13.5
-40	5	B	

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

File Name P:\GINT\PROJECTS\I 57 74 CHAMPAIGN COUNTY.GPJ Data Template D6TEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

Date 1/21/15

ROUTE I-57/74 **DESCRIPTION** South Abut Mattis Ave over I-57 **LOGGED BY** MLL, TQC

SECTION 10(5-1-RS-1, 14-1,6)R **LOCATION** , **SEC.** 34, **TWP.** 20N, **RNG.** 8E, 3 **PM**

COUNTY Champaign **DRILLING METHOD** HSA **HAMMER TYPE** Auto

STRUCT. NO.
Station

BORING NO. B-1 (Mattis Ave I-57)
Station 22+63
Offset 11.5ft Left
Ground Surface Elev. 789.97 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

Groundwater Elev.:
▽ **First Encounter** 755.6 ft
▽ **Upon Completion** ft
▼ **After** Hrs. ft

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
SILTY CLAY TILL: Gray, stiff, wet *(continued)*			
	2		
	5	1.65	13.3
-45	7	B	
742.97			
SILTY CLAY TILL: Gray, very stiff, wet	6		
	10	0.99	13.6
-50	12	B	
	5		
	9	1.90	11.6
-55	11	B	
	4		
	8	1.24	11.4
-60	12	B	

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
SILTY CLAY TILL: Gray, very stiff, wet *(continued)*			
726.22	4		
SAND: Gray, medium dense, coarse, wet	6		18.2
-65	9		
721.47	5		
SILTY CLAY: Gray, very stiff, with trace sand	7	1.5	11.3
-70	9	P	
716.47	5		
SILTY CLAY: Gray, hard, with trace sand	12	5.36	13.8
714.97 -75	18	B	
End of Boring			
-80			

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

File Name P:\GINT\PROJECTS\I 57 74 CHAMPAIGN COUNTY.GPJ Data Template D6TEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 01011100-70B38-039-Soil Boring Logs.dgn	USER NAME =	DESIGNED - AAH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**SOIL BORING LOGS STRUCTURE NO. 010-1100**
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MARION, ILLINOIS 62959 PHONE - 618.997.9160		CHECKED - BWP	REVISED -		SHEET NO. 39 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	181
		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 2/13/15

ROUTE I-57/74 DESCRIPTION N. Mat. Ave. Pier Boring Overpass I-57 LOGGED BY GW

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO.
Station

BORING NO. B-2 (Mattis Ave I-57)
Station 24+59
Offset 30.0ft Left
Ground Surface Elev. 769.28 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DESCRIPTION
				TOPSOIL: Silty Clay, dark brown, moist
768.28				
	3			SILTY CLAY: Brown, stiff, moist, trace organics
	5	1.25	23.0	
	6	P		
	5			
	10	2.14	16.2	
-5	10	B		very stiff, trace gravel
	4			
	7	3.63	14.1	becomes more grayish-green
	9	B		
	3			
	11	1.75	14.9	
-10	13	P		
758.28				
	4			SILTY CLAY TILL: Gray, very stiff, moist, trace gravel
	7	3.79	11.4	
	9	B		
	5			
	7	3.30	11.8	
-15	9	B		
753.28				
	7			CLAYEY SAND: Gray, medium dense, moist, trace gravel
	10		16.2	
	14			
750.78				
	4			SILTY CLAY TILL: Gray, very stiff, moist, trace gravel
	7	2.47	11.2	
-20	9	B		
				SILTY CLAY TILL: Gray, very stiff, moist, trace gravel *(continued)*
				some fine-medium grained sand, hard
-25	8			
	16	1.0	9.4	
	16	S		
	9			
-30	11	2.99	10.6	
	32	S		
738.78				
				gravel pocket
738.28				
735.78				
	7			SILTY CLAY TILL: Gray, very stiff, moist, trace gravel
	8	1.90	11.7	
-35	9	B		
	4			
	8	1.32	10.6	
-40	10	B		

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

File Name P:\GINT\PROJECTS\ 57.74 CHAMPAIGN COUNTY.GPJ Data Template D6TEMPLT.GDT Date Printed 3/2/15
Latitude 40.152069 Longitude -88.277124 Datum Job Number MCE-14044

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 2/13/15

ROUTE I-57/74 DESCRIPTION N. Mat. Ave. Pier Boring Overpass I-57 LOGGED BY GW

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE AUTO

STRUCT. NO.
Station

BORING NO. B-2 (Mattis Ave I-57)
Station 24+59
Offset 30.0ft Left
Ground Surface Elev. 769.28 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)	DESCRIPTION
				SILTY CLAY TILL: Gray, very stiff, moist, trace gravel *(continued)*
725.78				
	5			SILTY CLAY TILL: Gray, stiff, moist, trace gravel
	8	1.90	12.7	
-45	12	B		
	6			
	11	3.88	11.5	
-50	17	B		
	4			
	6	2.23	12.6	trace pebbles
-55	11	B		
	3			
	6	1.81	12.6	
-60	11	B		
				SILTY CLAY TILL: Gray, stiff, moist, trace gravel *(continued)*
	3			
	6	1.73	12.8	
-65	10	B		
	4			
	7	2.47	12.7	
-70	12	B		
	4			
	7	2.33	12.4	
694.28 -75	13	B		
				End of Boring
-80				

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

File Name P:\GINT\PROJECTS\ 57.74 CHAMPAIGN COUNTY.GPJ Data Template D6TEMPLT.GDT Date Printed 3/2/15
Latitude 40.152069 Longitude -88.277124 Datum Job Number MCE-14044

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-040-Soil Boring Logs.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 010-1100	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MAYON, ILLINOIS 61999 PHONE - 618.997.9780		CHECKED - BWP	REVISED -			7158	*	CHAMPAIGN	264	182
	PLOT SCALE =	DRAWN - BJV	REVISED -						CONTRACT NO. 70B38	
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		SHEET NO. 40 OF 41 SHEETS			ILLINOIS	FED. AID PROJECT	

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/21/15

ROUTE I-57/74 DESCRIPTION North Abut Mattis Ave over I-57 LOGGED BY MLL

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-3 (Mattis Ave I-57)
Station 27+50
Offset 11.5ft Right
Ground Surface Elev. 790.90 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
5" HMA Shoulder 790.48			
7" Aggregate Base 789.90			
FILL: Silty Clay, gray, stiff	5		
	6 9	1.81 B	12.2
	3		
	4 5	3.50 B	12.4
-5			
	5		
	6 7	3.50 P	14.2
	3		
	5 7	2.27 B	15.4
-10			
	3		
	5 5	1.07 B	21.9
778.40 FILL: Silty Clay, gray/brown, medium			
	2		
	3 4	1.32 B	19.6
-15			
	4		
	4 5	1.32 B	21.8
772.90 SILTY CLAY: Black/Gray, medium			
	2		
771.40 SILTY CLAY: Gray, medium	3 4	0.58 B	21.2
-20			
SILTY CLAY: Gray, medium *(continued)*			
768.90 SILTY CLAY: Brown/Gray, soft			
	2		
	2 3	0.49 B	31.4
-25			
	3		
763.90 SILTY CLAY TILL: Brown/Gray, stiff			
	3		
	5 6	1.40 B	14.3
-30			
	3		
758.90 SILTY CLAY TILL: Gray, stiff			
	3		
	5 6	4.5 P	11.0
-35			
	4		
753.40 SILTY CLAY: Gray, very stiff			
	4		
	6 11	2.89 B	10.4
750.90 -40			

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

File Name P:\GINT\PROJECTS\I 57 74 CHAMPAIGN COUNTY.GPJ Data Template D6TEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Date 1/21/15

ROUTE I-57/74 DESCRIPTION North Abut Mattis Ave over I-57 LOGGED BY MLL

SECTION 10(5-1-RS-1, 14-1,6)R LOCATION , SEC. 34, TWP. 20N, RNG. 8E, 3 PM

COUNTY Champaign DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.
Station

BORING NO. B-3 (Mattis Ave I-57)
Station 27+50
Offset 11.5ft Right
Ground Surface Elev. 790.90 ft

Surface Water Elev. n/a ft
Stream Bed Elev. ft

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

DEPTH (ft)	BLOWS	UCS Qu (tsf)	MOIST (%)
SILTY CLAY TILL: Gray, very stiff			
	7		
	11 14	1.40 B	9.5
-45			
	7		
	8 11	1.03 B	9.5
-50			
	7		
738.90 SILTY CLAY: Gray, medium			
	4		
	6 8	1.24 B	12.8
-55			
	4		
733.90 SILTY CLAY TILL: Gray, stiff			
	4		
	7 10	0.99 B	11.6
-60			
SILTY CLAY TILL: Gray, stiff *(continued)*			
	4		
	7 10	1.65 B	12.7
-65			
723.40 SILTY CLAY TILL: Gray, hard			
	7		
	15 22	2.62 B	11.3
-70			
718.90 SILTY CLAY TILL: Gray, very stiff			
	7		
	9 12	3.09 B	12.6
715.90 -75			
End of Boring			
-80			

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

File Name P:\GINT\PROJECTS\I 57 74 CHAMPAIGN COUNTY.GPJ Data Template D6TEMPLT.GDT Date Printed 3/2/15
Latitude Longitude Datum Job Number MCE-14044

* (10-34HB-3)BR&(10-5-1HB)BR-1

FILE NAME = 0101100-70B38-041-Soil Boring Logs.dgn	USER NAME =	DESIGNED - AAH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS STRUCTURE NO. 010-1100
BFW BACON | FARMER | WORKMAN ENGINEERING & TESTING, INC. 403 NORTH COURT STREET MAYON, ILLINOIS 61999 PHONE - 618.997.9780		CHECKED - BWP	REVISED -		SHEET NO. 41 OF 41 SHEETS
	PLOT SCALE =	DRAWN - BJV	REVISED -		
	PLOT DATE = 4/25/2019	CHECKED - BWP	REVISED -		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7158	*	CHAMPAIGN	264	183
		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

5475005
CLEARLAKE, LLC
TOTAL HOLDING AREA = 25.95 AC.±
TOTAL ROW AREA REQUIRED = 0.559 AC.±
TRACT "A" ROW AREA REQUIRED = 0.102 AC.±
TRACT "B" ROW AREA REQUIRED = 0.457 AC.±
AREA OF REMAINING = 25.391 AC.±

PROP. CURVE RAMPA-2
PI STA. = 135+74.90
Δ = 6° 18' 53" (LT)
D = 0° 42' 43"
R = 8,047.66'
T = 443.94'
L = 886.97'
E = 12.23'
e = MATCH I-74
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 131+30.96
P.T. STA. = 140+17.93

NE ¼ SEC. 3, T.19 N., R. 8 E. OF 3RD P.M.

SE ¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

NW ¼, SEC. 2, T.19 N., R. 8 E. OF 3RD P.M.

℄ US 150

EXIST. R.O.W.

CLEARLAKE BLVD

Lot 2

CORPORATE PARK CENTRE

Lot 1A

EXIST A/C R.O.W. & A/C

MATCHLINE STA. 1074+00 FAI 74

℄ RAMP A

℄ FAI 74

S 42°02'09" E

EXIST. R.O.W. & A/C

PC Sta. 502+81.04

MATCHLINE STA. 721+00 RAMP G

℄ RAMP E

℄ RAMP G

PROP. R.O.W. & A/C

137+15.00
57.63' RT.
RAMP A

137+15.00
90.00' RT.
RAMP A

5475005A

PROP. R.O.W.

138+60.00
90.00' RT.
RAMP A

138+60.00
61.34' RT.
RAMP A

RAMPA-2

14+40.00
105.00' LT.
MATTIS AVE.
BEGIN A/C LINE

19+11.13
185.00' LT.
MATTIS AVE.

16+75.00
175.00' LT.
MATTIS AVE.

PT Sta. 188+26.01

N 85° 15' 15" E

(100')

(90')

(115')

PROP. R.O.W. & A/C

5475005B

PI Sta. 140+17.93

PC Sta. 711+68.16

N 31°06'27" W

PI Sta. 712+91.46

716+35.00
150.00' RT.
RAMP G

5475004

5475004TE

720+00.00
176.00' RT.
RAMP G

26+55.00, 81.48' LT.
MATTIS AVE.
BEGIN A/C

STA. 1087+94.94 ℄ I-74 =
STA. 19+01.76 ℄ N. MATTIS AVE.

EAST LINE OF NE 1/4, SEC. 3-19-8

MATTIS AVE.

EAST LINE OF SE 1/4, SEC. 34-20-8

W. ANTHONY DR.

MATCHLINE STA. 32+00 MATTIS AVE.

ANITA DRIVE

LAND ACQUISTION PROJECT
BEGINS STATION 14+40.00

PC Sta. 706+58.07

PT Sta. 702+71.67

N 01°47'25" W

N 47°59'37" W

NOTES

BEARING BASED ON ILLINOIS STATE PLANE COORDINATES, EAST ZONE NAD 83 (1983/07)

⊠ RIGHT OF WAY MARKER FOUND
● IRON PIN OR PIPE FOUND
◔ PERMANENT SURVEY MARKER FOUND
△ STONE FOUND
○ FENCE POST FOUND
— x — x — x EXISTING FENCE
( ) RECORD DATA
FIELD WORK COMPLETED = 2018

5475004
TAG COMMERCIAL, LLC
DOCUMENT NO. 2013R29624
TOTAL HOLDING AREA = 55.86 AC.±
TOTAL ROW AREA REQUIRED = 28.881 AC.±
AREA OF REMAINING = 26.979 AC.±
TOTAL TEMPORARY EASEMENT AREA REQUIRED = 5.117 AC.±

* (10-34HB-3)BR & (10-5-1HB)BR-1

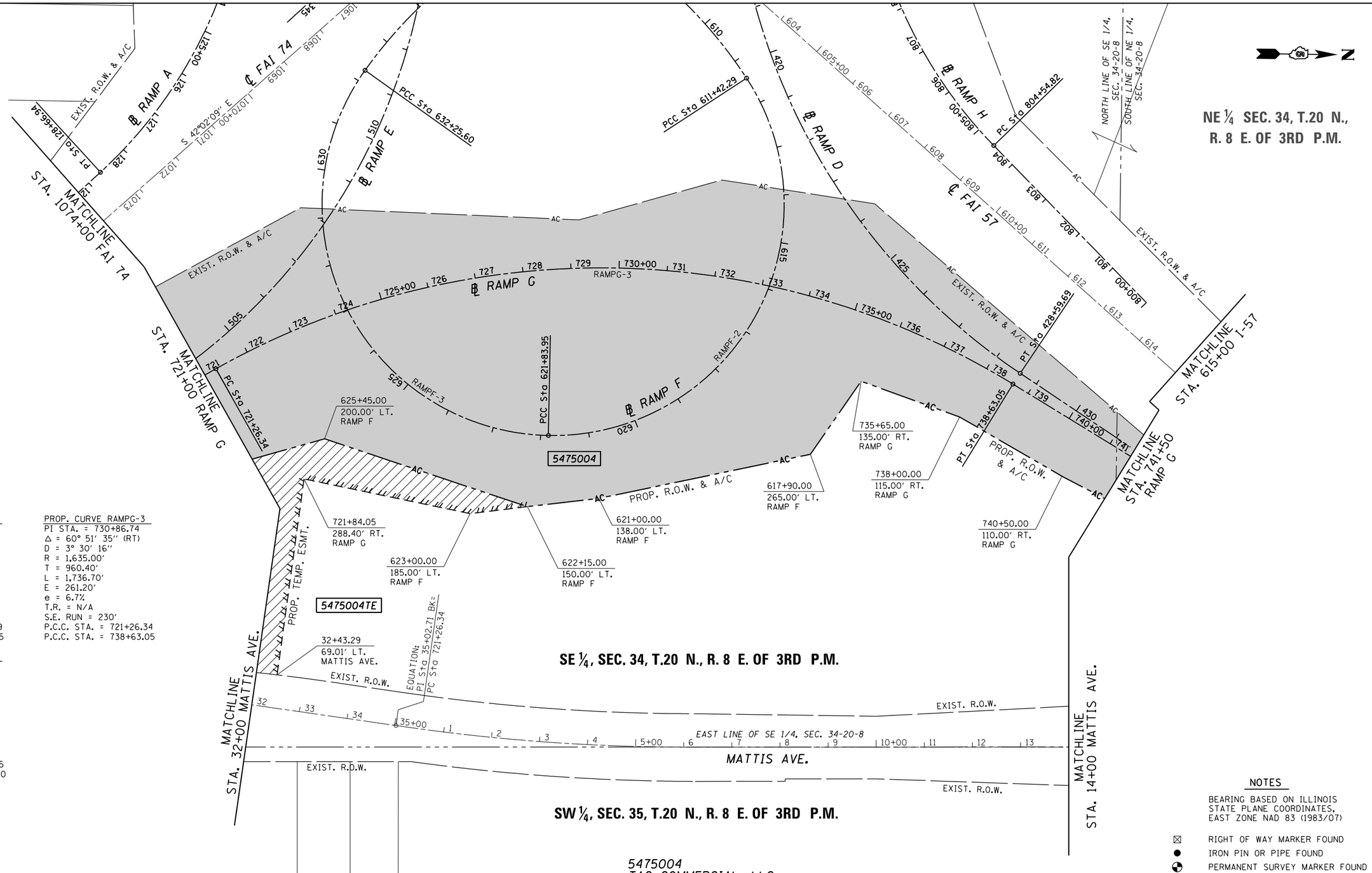
FILE NAME	USER NAME = Rob Heady	DESIGNED - BJD	REVISED -
...\5475XXX_sht_ROW Plan_001.dgn		DRAWN - RAH	REVISED -
	PLOT SCALE = 200.0000 ' / in.	CHECKED - DSE	REVISED -
	PLOT DATE = 4/25/2019 - 3:50:07 PM	DATE - 02/08/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

PROJECT | JOB NO. R-95-047-15
SCALE: 1" = 200' | SHEET 1 OF 5 SHEETS | STA. 701+00 TO STA. 721+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	*	CHAMPAIGN	264	184
		CONTRACT NO. 70B38		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROP. CURVE RAMPF-2
PI STA. = 620+51.51
Δ = 124° 20′ 18″ (RT)
D = 11° 56′ 12″
R = 480.00′
T = 909.21′
L = 1,041.65′
E = 548.14′
e = 8.0%
T.R. = N/A
S.E. RUN = N/A
P.C.C. STA. = 611+42.99
P.C.C. STA. = 621+83.95

PROP. CURVE RAMPF-3
PI STA. = 630+93.16
Δ = 124° 20′ 18″ (RT)
D = 11° 56′ 12″
R = 480.00′
T = 909.21′
L = 1,041.65′
E = 548.14′
e = 8.0%
T.R. = N/A
S.E. RUN = N/A
P.C.C. STA. = 621+83.95
P.C.C. STA. = 632+25.60

PROP. CURVE RAMPG-3
PI STA. = 730+86.74
Δ = 60° 51′ 35″ (RT)
D = 3° 30′ 16″
R = 1,635.00′
T = 960.40′
L = 1,736.70′
E = 261.20′
e = 6.7%
T.R. = N/A
S.E. RUN = 230′
P.C.C. STA. = 721+26.34
P.C.C. STA. = 738+63.05

5475004
TAG COMMERCIAL, LLC
DOCUMENT NO. 2013R29624
TOTAL HOLDING AREA = 55.86 AC.±
TOTAL ROW AREA REQUIRED = 28.881 AC.±
AREA OF REMAINING = 26.979 AC.±
TOTAL TEMPORARY EASEMENT AREA REQUIRED = 5.117 AC.±

NOTES

BEARING BASED ON ILLINOIS STATE PLANE COORDINATES, EAST ZONE NAD 83 (1983/07)

- ⊠ RIGHT OF WAY MARKER FOUND
- ● IRON PIN OR PIPE FOUND
- ◒ PERMANENT SURVEY MARKER FOUND
- △ STONE FOUND
- ○ FENCE POST FOUND
- — x — x — x EXISTING FENCE
- ( ) RECORD DATA
- FIELD WORK COMPLETED = 2018

* (10-34HB-3)BR & (10-5-1HB)BR-1

FILE NAME: ...\5475XXX_sht_ROW Plan_002.dgn	USER NAME = Rob Heady	DESIGNED - BJD	REVISED -
		DRAWN - RAH	REVISED -
	PLOT SCALE = 200.0000 ' / in.	CHECKED - DSE	REVISED -
	PLOT DATE = 4/25/2019 - 3:55:14 PM	DATE - 02/08/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

	PROJECT	JOB NO. R-95-047-15
SCALE: 1" = 200'	SHEET 2 OF 5 SHEETS	STA. 721+00 TO STA. 741+50

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	*	CHAMPAIGN	264	185
		CONTRACT NO. 70B38		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NE ¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

SE ¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

NW ¼, SEC. 35, T.20 N., R. 8 E. OF 3RD P.M.

MATCHLINE STA. 615+00 I-57

MATCHLINE STA. 741+50 RAMP G

MATCHLINE STA. 14+00 MATTIS AVE.

EXIST. R.O.W. & A/C

PROP. R.O.W. & A/C LINE

℄ RAMP G

RAMP G-2

N 32° 02′ 38″ E

N 30° 53′ 53″ E

N 00°37′58″ W

N 00°39′28″ W

N 40° 03′ 55″ E

N 41° 12′ 40″ E

PI Sta 745+39.61

PC Sta 746+04.61

PI Sta 749+54.61

PI Sta 27+54.90

NORTH LINE OF SE 1/4, SEC. 34-20-8

SOUTH LINE OF NE 1/4, SEC. 34-20-8

NORTH LINE OF NE 1/4, SEC. 34-20-8

EAST LINE OF SE 1/4, SEC. 34-20-8

WEST LINE OF NE 1/4, SEC. 35-20-8

MATTIS AVE.

747+00.00, 60.00′ RT.
RAMP G

21+25.00, 125.00′ LT.
MATTIS AVE.

19+85.00, 125.00′ LT.
MATTIS AVE.

19+35.00, 90.09′ LT.
MATTIS AVE.
END A/C
EXIST. R.O.W. & A/C

25+08.64
145.00′ LT.
MATTIS AVE.
BEGIN A/C LINE

PROPOSED R.O.W. & A/C LINE

29+10.00
110.00′ LT.
MATTIS AVE.

29+10.00
94.10 LT.
MATTIS AVE.
END A/C LINE

23+30.00
89.60′ RT.
MATTIS AVE.

23+30.00, 105.00′ RT.
MATTIS AVE.

PROPOSED R.O.W. & A/C LINE

24+43.12
105.00′ RT.
MATTIS AVE.

30+10.00, 79.45′ RT.
MATTIS AVE.
END A/C LINE

PROPOSED R.O.W. & A/C LINE

29+00.00, 120.00′ RT.
MATTIS AVE.

28+06.47, 135.00′ RT.
MATTIS AVE.
BEGIN A/C LINE

5475003A

5475002

5475001

5475004

Lot 1

Lot 2

Lot 3

Lot 12

Portion A

REPLAT OF INTERSTATE RESEARCH PARK LOT 15 SUBDIVISION

℄ FAI 57

5475003
TAG ALONG PROPERTIES

DOCUMENT NO. 2013R01408

TOTAL HOLDING AREA	= 41.11 AC.±
TOTAL ROW AREA REQUIRED	= 2.597 AC.±
TRACT "A" ROW AREA REQUIRED	= 0.236 AC.±
TRACT "B" ROW AREA REQUIRED	= 2.361 AC.±
AREA OF REMAINING	= 38.513 AC.±

5475001
EDELMAN REAL ESTATE, LLC

DOCUMENT NO. 2017R22575

TOTAL HOLDING AREA	= 5.80 AC.±
TOTAL ROW AREA REQUIRED	= 0.180 AC.±
AREA OF REMAINING	= 5.620 AC.±

5475002
NEWT DODDS

DOCUMENT NO. 2003R03446

TOTAL HOLDING AREA	= 4.20 AC.±
TOTAL ROW AREA REQUIRED	= 0.037 AC.±
AREA OF REMAINING	= 4.163 AC.±

5475004
TAG COMMERCIAL, LLC

DOCUMENT NO. 2013R29624

TOTAL HOLDING AREA	= 55.86 AC.±
TOTAL ROW AREA REQUIRED	= 28.881 AC.±
AREA OF REMAINING	= 26.979 AC.±
TOTAL TEMPORARY EASEMENT AREA REQUIRED	= 5.117 AC.±

PROP. CURVE RAMPG-5
PI STA. = 747+79.90
△ = 8° 01′ 35″ (RT)
D = 2° 17′ 31″
R = 2,500.00′
T = 175.29′
L = 350.00′
E = 6.14′
e = 5.0%
T.R. = N/A
S.E. RUN = 170′
P.C. STA. = 746+04.61
P.T. STA. = 749+54.61

NOTES

BEARING BASED ON ILLINOIS STATE PLANE COORDINATES, EAST ZONE NAD 83 (1983/07)

- ⊠ RIGHT OF WAY MARKER FOUND
- ● IRON PIN OR PIPE FOUND
- ⊕ PERMANENT SURVEY MARKER FOUND
- △ STONE FOUND
- ○ FENCE POST FOUND
- — x — x — x EXISTING FENCE
- ( ) RECORD DATA
- FIELD WORK COMPLETED = 2018

* (10-34HB-3)BR & (10-5-1HB)BR-1

FILE NAME: ...\5475XXX_sht_ROW Plan_003.dgn	USER NAME = Rob Heady	DESIGNED - BJD	REVISED -
		DRAWN - RAH	REVISED -
	PLOT SCALE = 200.0000 ' / in.	CHECKED - DSE	REVISED -
	PLOT DATE = 4/25/2019 - 3:58:34 PM	DATE - 02/08/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

	PROJECT	JOB NO. R-95-047-15
SCALE: 1" = 200'	SHEET 3 OF 5 SHEETS	STA. 741+50 TO STA. 755+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	*	CHAMPAIGN	264	186
		CONTRACT NO. 70B38		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SW ¼, SEC. 27, T.20 N., R. 8 E. OF 3RD P.M.

NW¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

SE¼, SEC. 28, T.20 N., R. 8 E. OF 3RD P.M.

NE ¼, SEC. 33, T.20 N., R. 8 E. OF 3RD P.M.

NW¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

5475003
TAG ALONG PROPERTIES
DOCUMENT NO. 2013R01408

TOTAL HOLDING AREA	= 41.11 AC.±
TOTAL ROW AREA REQUIRED	= 2.597 AC.±
TRACT "A" ROW AREA REQUIRED	= 0.236 AC.±
TRACT "B" ROW AREA REQUIRED	= 2.361 AC.±
AREA OF REMAINING	= 38.513 AC.±

WEST LINE OF SW ¼, SEC. 27-20-8
EAST LINE OF SE ¼, SEC. 28-20-8

SOUTH LINE OF SW ¼, SEC. 27-20-8
NORTH LINE OF NW ¼, SEC. 34-20-8

WEST LINE OF NW ¼, SEC. 34-20-8
EAST LINE OF NE ¼, SEC. 33-20-8

℄ DUNCAN ROAD

EXIST. R.O.W.

EXIST. R.O.W. & A/C

EX. A/C

PROP. R.O.W. & A/C

1850+00.00
120.14' LT.
FAI 74
BEGIN A/C LINE

1859+00.00
145.00' LT.
FAI 74

5475003B

1831 1832 1833 1834 1835+00 1836 1837 1838 1839 1840+00 1841 1842 1843 1844 1845+00 1846 1847 1848 1849 1850+00 1851 1852 1853 1854 1855+00 1856 1857 1858 1859 1860+00

S 42° 01' 32" E

S 42° 02' 15" E

℄ FAI 74

℄ FAI 74

STA. 1837+29.80 ℄ I-74 =
STA. 89+80.58 ℄ DUNCAN ROAD

EQUATION:
Sta 1845+92.22 BK =
Sta 1845+93.65 AH

Sta 1845+95.31 P.I.

MATCHLINE STA 1861+00 FAI-74

Lot 2 of
ATKINS WEST INDUSTRIAL
SUBDIVISION

NOTES

BEARING BASED ON ILLINOIS STATE PLANE COORDINATES, EAST ZONE NAD 83 (1983/07)

- ☒ RIGHT OF WAY MARKER FOUND
- ● IRON PIN OR PIPE FOUND
- ◕ PERMANENT SURVEY MARKER FOUND
- △ STONE FOUND
- ○ FENCE POST FOUND
- — x — x — x EXISTING FENCE
- ( ) RECORD DATA
- FIELD WORK COMPLETED = 2018

* (10-34HB-3)BR & (10-5-1HB)BR-1

FILE NAME: ...\5475XXX_sht_ROW Plan_004.dgn	USER NAME = Rob Heady	DESIGNED - BJD	REVISED -
		DRAWN - RAH	REVISED -
	PLOT SCALE = 200.0000 ' / in.	CHECKED - DSE	REVISED -
	PLOT DATE = 4/25/2019 - 4:03:54 PM	DATE - 02/08/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

	PROJECT	JOB NO. R-95-047-15
SCALE: 1" = 200'	SHEET 4 OF 5 SHEETS	STA. 1832+00 TO STA. 1861+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	*	CHAMPAIGN	264	187
		CONTRACT NO. 70B38		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROP. CURVE RAMPH-1
PI STA. = 814+42.14
Δ = 91° 36′ 27″ (RT)
D = 5° 58′ 06″
R = 960.00′
T = 987.32′
L = 1,534.90′
E = 417.10′
e = 8.0%
T.R. = N/A
S.E. RUN = 275′
PC STA. = 804+54.82
PT STA. = 819+89.72

NW¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

NE¼ SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

5475003
TAG ALONG PROPERTIES
DOCUMENT NO. 2013R01408

TOTAL HOLDING AREA	**= 41.11 AC.±**
TOTAL ROW AREA REQUIRED	**= 2.597 AC.±**
TRACT "A" ROW AREA REQUIRED	= 0.236 AC.±
TRACT "B" ROW AREA REQUIRED	= 2.361 AC.±
AREA OF REMAINING	**= 38.513 AC.±**

WEST LINE OF NE ¼, SEC. 34-20-8
EAST LINE OF NW ¼, SEC. 34-20-8

SE¼ SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

1038+40.00
150.00′ LT.
FAI 74

1037+65.00
150.00′ LT.
FAI 74

1037+00.00
135.00′ LT.
FAI 74

1869+00.00
140.00′ LT.
FAI 74

830+65.00
60.00′ RT.
RAMP H

826+00.00
75.00′ RT.
RAMP H

824+00.00
65.00′ RT.
RAMP H

817+05.00, 100.74′ RT.
RAMP H
END A/C

818+40.00
90.00′ RT.
RAMP H

T 20 N
34
R 8 E

PROP. R.O.W. & A/C
EXIST. R.O.W. & A/C
5475003B
AC
℄ RAMP H
RAMPF-1
EQUATION:
PI Sta 1870+24.62 BK=
Sta 1035+05.17 AH
N 43° 10′ 00″ W
N 43° 10′ 53″ W
PI Sta 825+54.40
PT Sta 819+89.72
S 42° 02′ 15″ E
S 42° 02′ 09″ E
℄ FAI 74
PI Sta. 1044+04.75
MATCHLINE STA 1861+00 FAI-74
℄ RAMP B
℄ RAMP D
℄ RAMP C
EXIST. R.O.W.
℄ MIDWEST COURT
Lot 2 of ATKINS WEST INDUSTRIAL SUBDIVISION
ATKINS 150 SUBDIVISION PHASE 1
Lot 101
Lot 102 of ATKINS 150 SUBDIVISION PHASE I
SOUTH LINE OF NW ¼, SEC. 34-20-8
NORTH LINE OF SW ¼, SEC. 34-20-8

NOTES

BEARING BASED ON ILLINOIS STATE PLANE COORDINATES, EAST ZONE NAD 83 (1983/07)

- ⊠ RIGHT OF WAY MARKER FOUND
- ● IRON PIN OR PIPE FOUND
- ⊕ PERMANENT SURVEY MARKER FOUND
- △ STONE FOUND
- ○ FENCE POST FOUND
- — x — x — x EXISTING FENCE
- ( ) RECORD DATA
- FIELD WORK COMPLETED = 2018

NW¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

SW¼, SEC. 34, T.20 N., R. 8 E. OF 3RD P.M.

* (10-34HB-3)BR & (10-5-1HB)BR-1

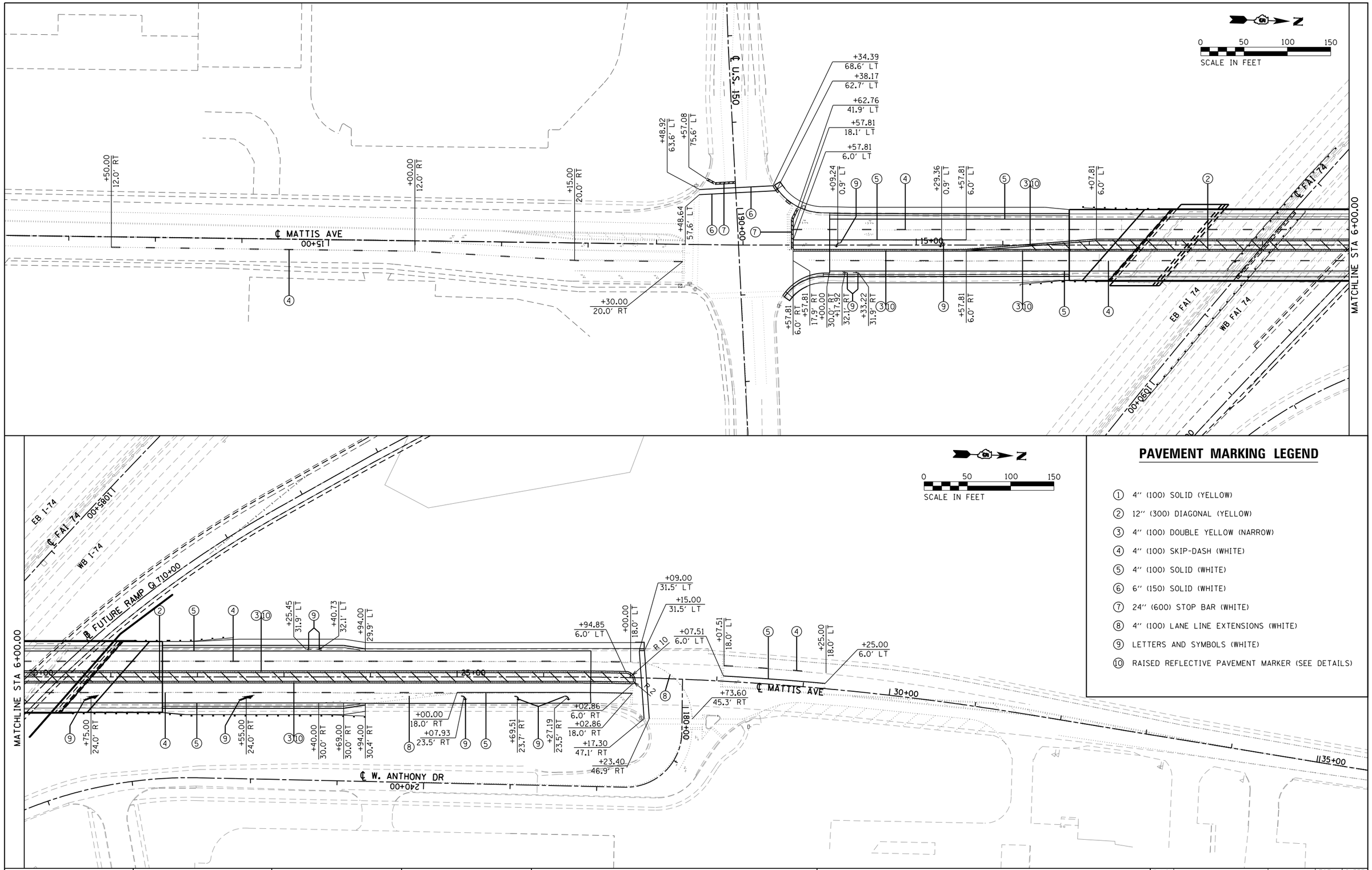
FILE NAME: ...\5475XXX_sht_ROW Plan_005.dgn	USER NAME = Rob Heady	DESIGNED - BJD	REVISED -
		DRAWN - RAH	REVISED -
	PLOT SCALE = 200.0000 ′ / in.	CHECKED - DSE	REVISED -
	PLOT DATE = 4/25/2019 - 4:09:31 PM	DATE - 02/08/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

	PROJECT	JOB NO. R-95-047-15
SCALE: 1″ = 200′	SHEET 5 OF 5 SHEETS	STA. 1861+00 TO STA. 1055+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	*	CHAMPAIGN	264	188
		CONTRACT NO. 70B38		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

1. 4" (100) SOLID (YELLOW)
2. 12" (300) DIAGONAL (YELLOW)
3. 4" (100) DOUBLE YELLOW (NARROW)
4. 4" (100) SKIP-DASH (WHITE)
5. 4" (100) SOLID (WHITE)
6. 6" (150) SOLID (WHITE)
7. 24" (600) STOP BAR (WHITE)
8. 4" (100) LANE LINE EXTENSIONS (WHITE)
9. LETTERS AND SYMBOLS (WHITE)
10. RAISED REFLECTIVE PAVEMENT MARKER (SEE DETAILS)

FILE NAME = D570B38-sht-pmk.dgn	USER NAME = bemery	DESIGNED - MKK	REVISED -
		DRAWN - MKK	REVISED -
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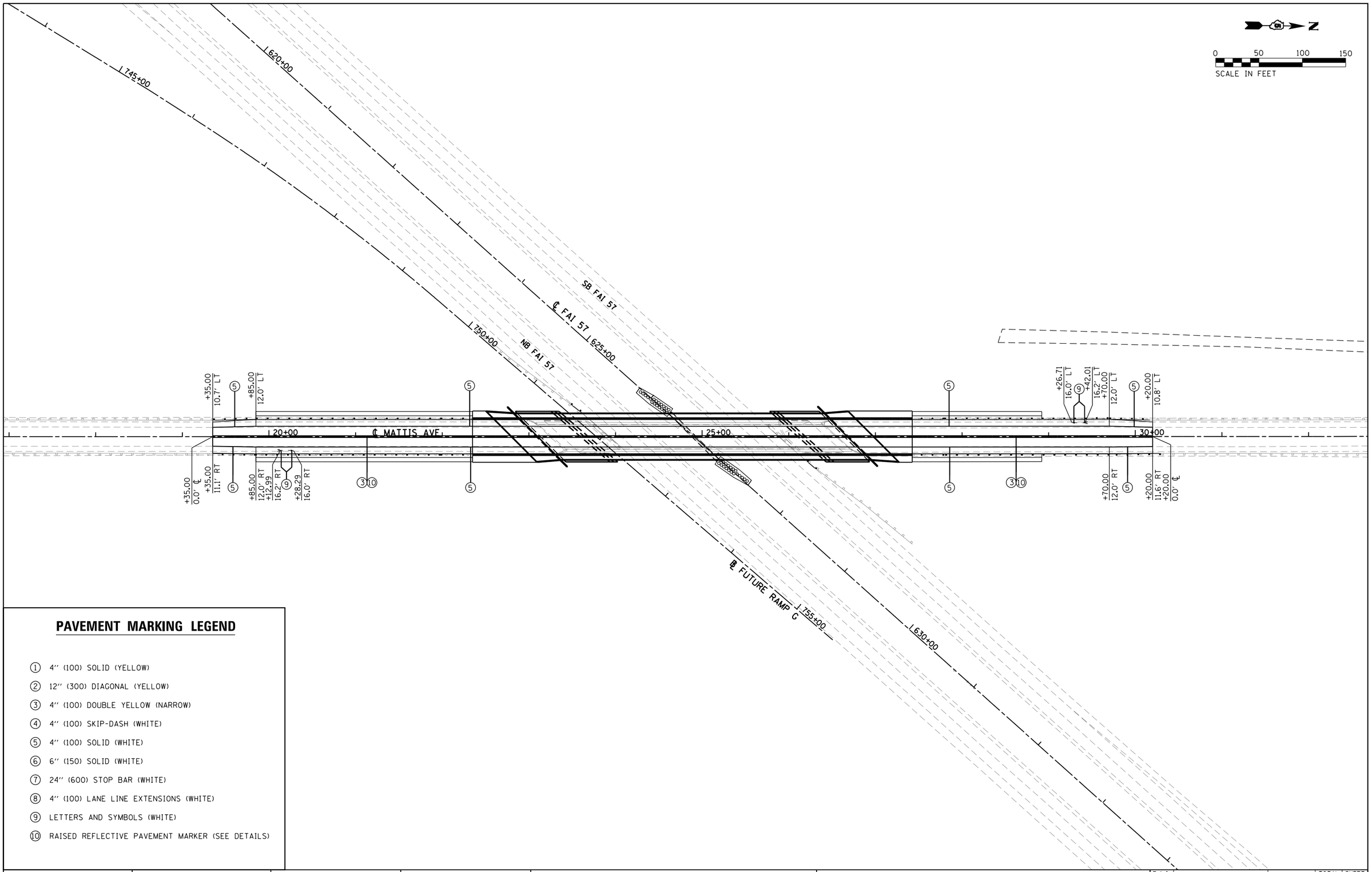
Default	PLOT DATE = 5/9/2019 - 6:48:33 AM	DATE - 05/07/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
MATTIS AVE OVER I-74

SCALE: 1" = 50' | SHEET 0F SHEETS | STA. 18+00.00 | TO STA. 35+00.00 R1

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	189
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



PAVEMENT MARKING LEGEND

1. 4'' (100) SOLID (YELLOW)
2. 12'' (300) DIAGONAL (YELLOW)
3. 4'' (100) DOUBLE YELLOW (NARROW)
4. 4'' (100) SKIP-DASH (WHITE)
5. 4'' (100) SOLID (WHITE)
6. 6'' (150) SOLID (WHITE)
7. 24'' (600) STOP BAR (WHITE)
8. 4'' (100) LANE LINE EXTENSIONS (WHITE)
9. LETTERS AND SYMBOLS (WHITE)
10. RAISED REFLECTIVE PAVEMENT MARKER (SEE DETAILS)

FILE NAME = D570B38-sht-pmk.dgn	USER NAME = bemery	DESIGNED - MKK	REVISED -
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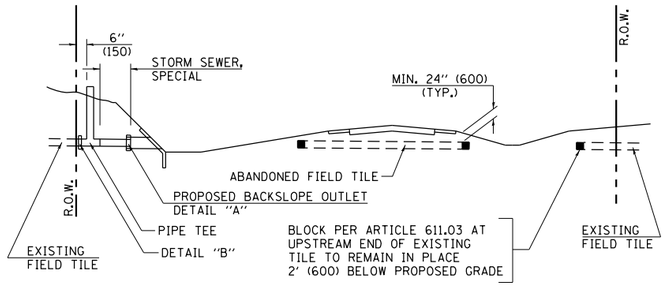
Default	PLOT DATE = 5/9/2019 - 6:48:34 AM	DATE - 05/07/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
MATTIS AVE OVER I-57

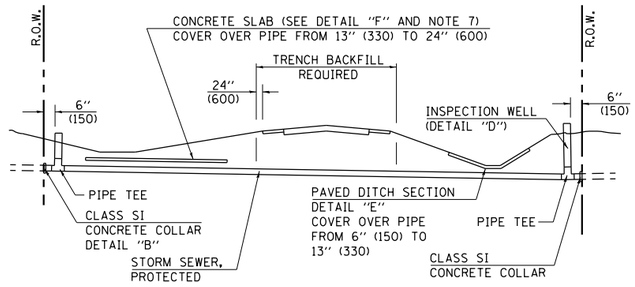
SCALE: 1'' = 50' | SHEET OF SHEETS | STA. 17+00.00 R2 TO STA. 32+00.00 R2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	190
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		



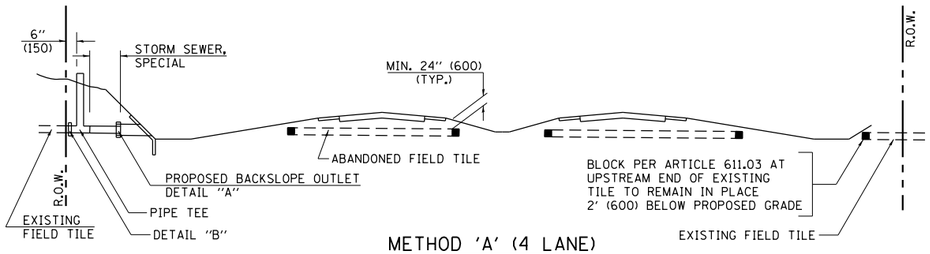
METHOD 'A' (2 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE



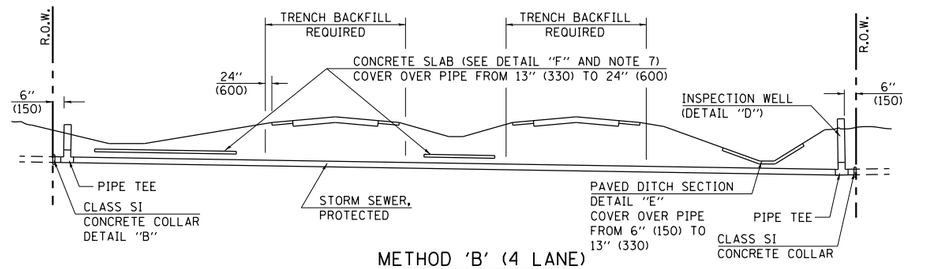
METHOD 'B' (2 LANE)

STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENT AND PAVED DITCH



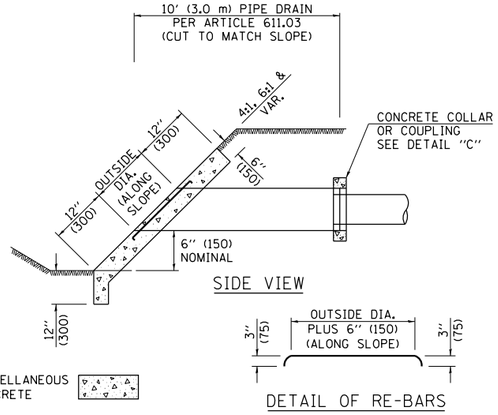
METHOD 'A' (4 LANE)

STORM SEWER FLOW LINE ABOVE PROPOSED DITCH FLOW LINE

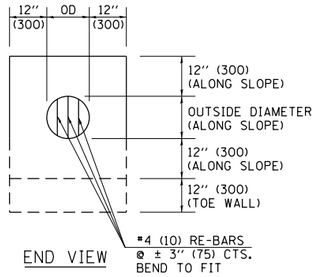


METHOD 'B' (4 LANE)

STORM SEWER LESS THAN 2' (600 mm) BELOW DITCH FLOW LINE AND STORM SEWERS CROSSING UNDER PAVEMENTS AND PAVED DITCHES

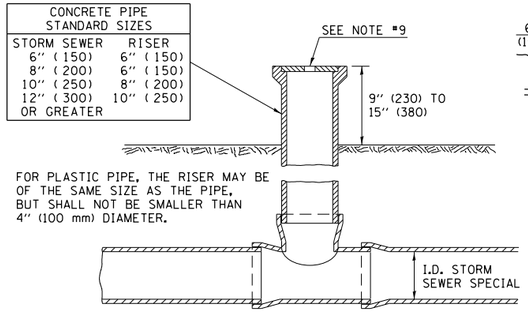


DETAIL OF RE-BARS



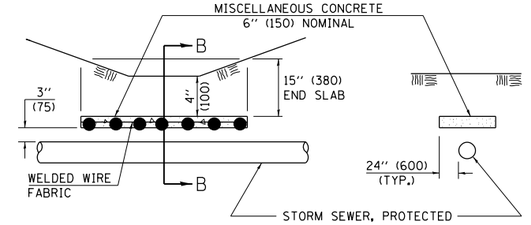
END VIEW

CONCRETE PIPE STANDARD SIZES	
STORM SEWER	RISER
6" (150)	6" (150)
8" (200)	6" (150)
10" (250)	8" (200)
12" (300) OR GREATER	10" (250)



INSPECTION WELL

DETAIL "D"

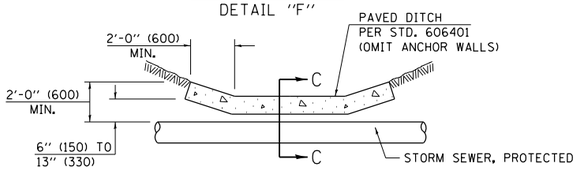


SLAB ELEVATION

SECTION B-B

CONCRETE SLAB

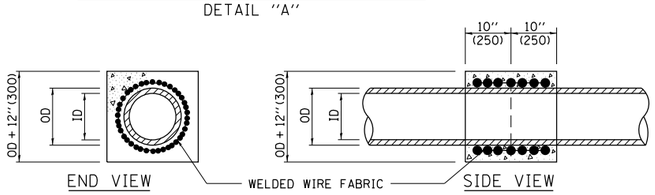
DETAIL "F"



PAVED DITCH ELEVATION

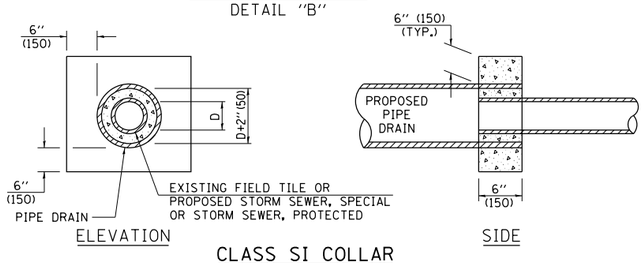
HEADWALL FOR BACKSLOPE OUTLET

DETAIL "A"



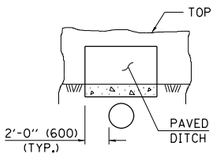
CONCRETE COLLAR

DETAIL "B"



CLASS SI COLLAR

DETAIL "C"



SECTION C-C

PAVED DITCH

DETAIL "E"

GENERAL NOTES

1. EXISTING FIELD TILE ENCOUNTERED BY EXPLORATION TRENCH SHALL BE INSPECTED BY THE ENGINEER FOR UNOBSTRUCTED FLOW WITHIN THE LIMITS OF THE RIGHT-OF-WAY.
2. ONLY FIELD TILE THAT DOES NOT HAVE SATISFACTORY FLOW AND OR HAS VISIBLE SIGNS OF DETERIORATION (SINK HOLES, ETC.) SHALL BE REPLACED WITHIN THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH METHOD "B".
3. INSPECTION WELLS SHALL BE CONSTRUCTED APPROXIMATELY 6" (150 mm) INSIDE OF BOTH RIGHT-OF-WAY LINES AT ALL FIELD TILE LOCATIONS.
4. EXISTING FIELD TILE ABANDONED UNDER EXISTING PAVEMENTS OR PAVED SHOULDERS SHALL BE FILLED WITH FLOWABLE GROUT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.
5. NON-CIRCULAR FIELD TILE SHALL BE REPLACED WITH STORM SEWER, SPECIAL OF AT LEAST THE SAME CROSS SECTIONAL AREA. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR THE MINIMUM DEPTH OF COVER.
6. THE 6" (150 mm) CONCRETE SLAB OR DITCH LINING SHALL BE POURED THE LENGTH OF THE TRENCH AT ALL DITCH FLOW LINE LOCATIONS WITHIN THE RIGHT-OF-WAY WITH LESS THAN 2' (600 mm) OF EARTH COVER. MISCELLANEOUS CONCRETE SHALL BE USED ACCORDING TO SECTION 611.
7. ALL MISCELLANEOUS SLABS, APRONS AND DITCH LININGS SHALL BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN FOR PAVED DITCH IN STANDARD 606401.
8. HEADWALL FOR BACKSLOPE OUTLET MAY BE USED FOR PIPE DRAIN DIAMETERS UP TO 10" (250 mm). SPECIAL DESIGNS WILL BE REQUIRED FOR LARGER SIZES.
9. THE INSPECTION WELL LID FOR P.C.C. PIPE SHALL BE CONSTRUCTED OF 3/8" (10 mm) CAST IRON AND PROVIDED WITH A 1" (25 mm) DIAMETER HOLE IN CENTER. THE LID FOR THE OTHER PIPE MATERIALS SHALL BE A GRATE ASSEMBLY PREFABRICATED FOR AND COMPATIBLE WITH THE PIPE SYSTEM.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 61101011A

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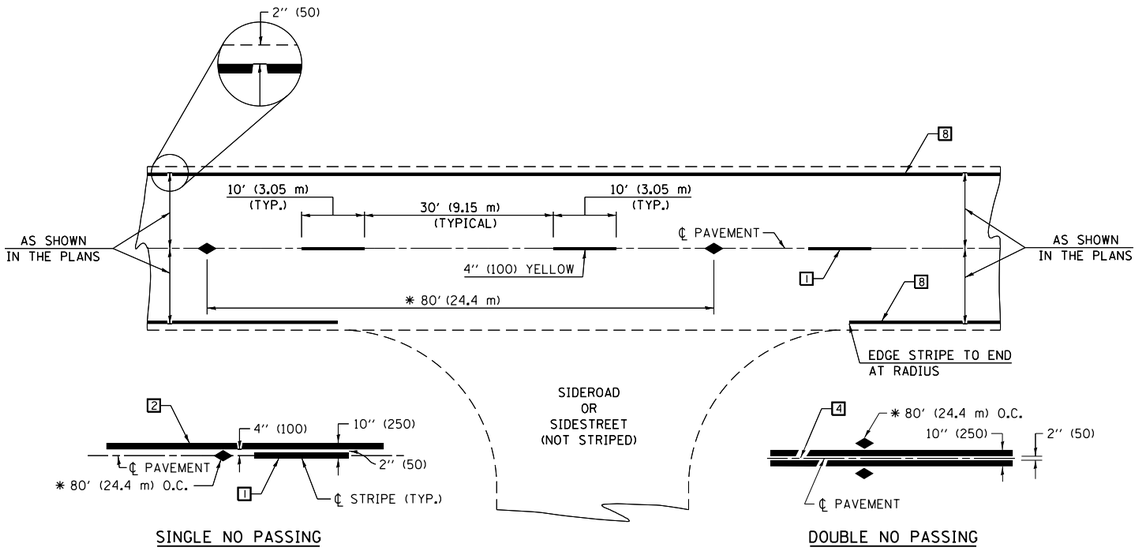
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIELD TILE SYSTEMS (TREATMENT OF EXISTING)

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	191
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



SINGLE NO PASSING

DOUBLE NO PASSING

* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

TWO LANE/TWO WAY

TYPICAL PAVEMENT MARKING LEGEND

1 4" (100) SKIP-DASH (YELLOW)

2 4" (100) SOLID (YELLOW)

3 12" (300) DIAGONAL (YELLOW)

4 4" (100) DOUBLE YELLOW (NARROW)

5 RESERVED

6 RESERVED

7 4" (100) SKIP-DASH (WHITE)

8 4" (100) SOLID (WHITE)

9 12" (300) DIAGONAL (WHITE)

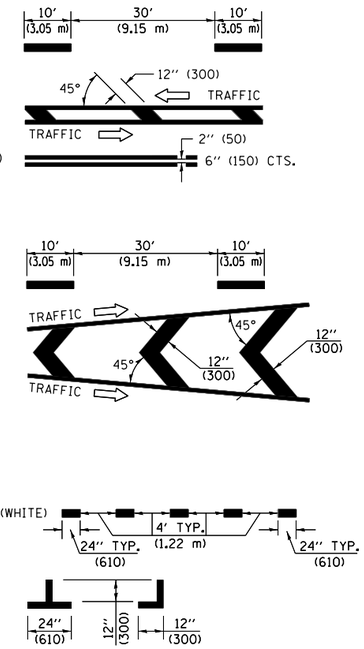
10 6" (150) SOLID (WHITE)

11 24" (600) STOP BAR (WHITE)

12 8" (200) SOLID (WHITE)

13 4" (100) LANE LINE EXTENSIONS (WHITE)

14 4" (100) PARKING WHITE



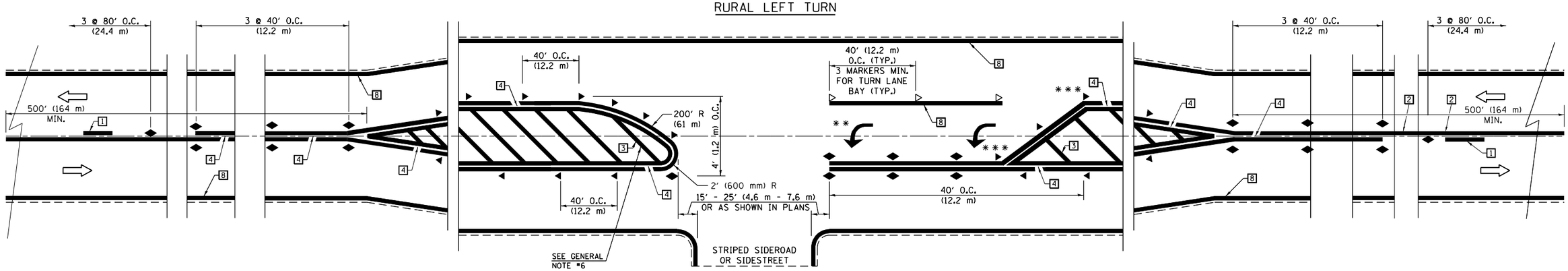
TYPICAL PAVEMENT MARKERS LEGEND

◆ TWO-WAY AMBER MARKER

▶ ONE-WAY AMBER MARKER

▷ ONE-WAY CRYSTAL MARKER

RURAL LEFT TURN



*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

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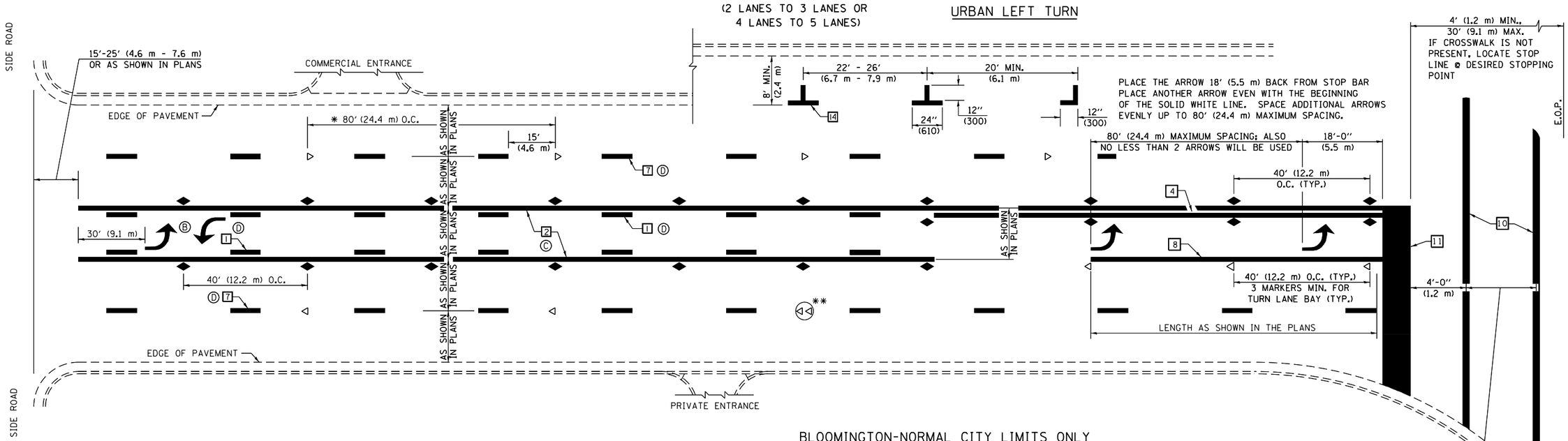
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	192
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		

URBAN LEFT TURN



* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

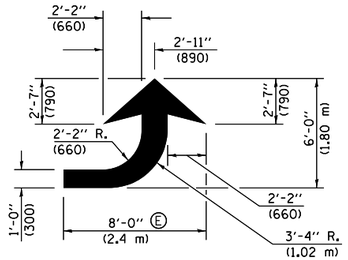
GENERAL NOTES:

Ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.

Ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.

Ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.

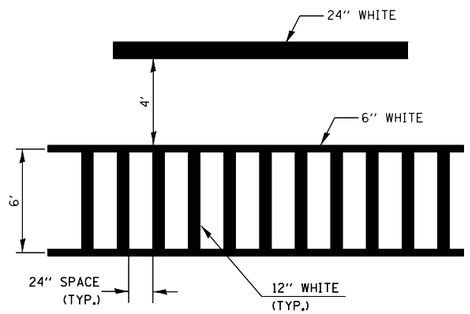
Ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



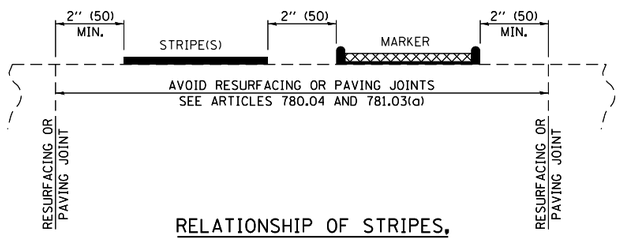
LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m^2)
(WHITE)

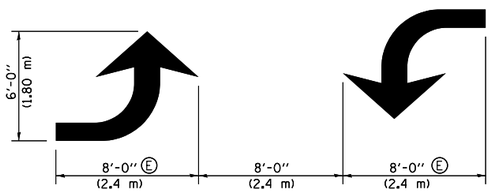
BLOOMINGTON-NORMAL CITY LIMITS ONLY



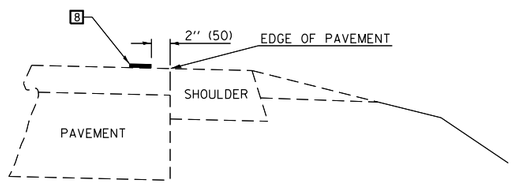
TYPICAL SPACING FOR
CROSSWALKS & STOP BARS



RELATIONSHIP OF STRIPES,
MARKERS AND JOINTS



TYPICAL DOUBLE
TURN ARROWS (WHITE)



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT

(SAFETY SHOULDER OR PAVED SURFACE)
SEE ARTICLE 780.04

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

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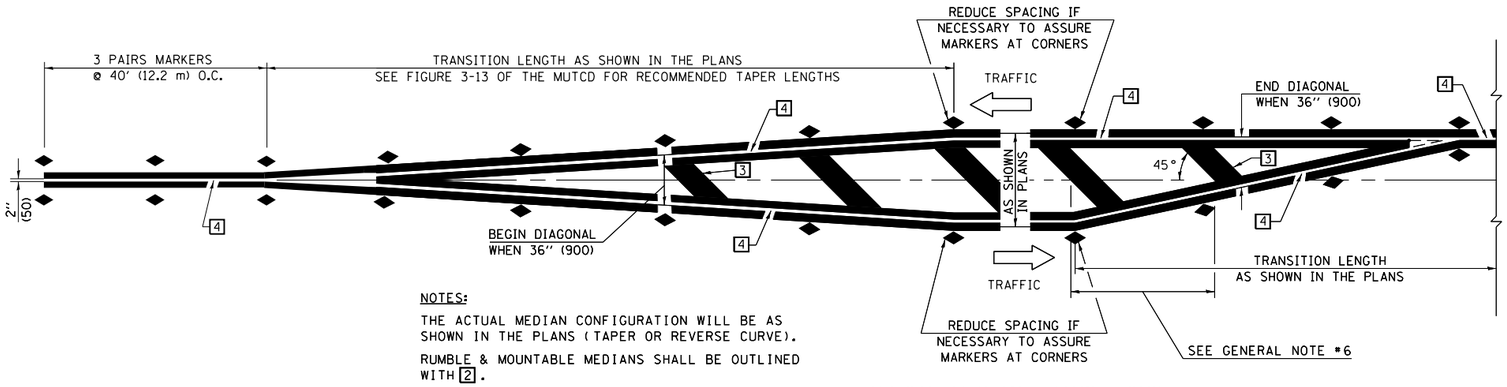
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	193
	• (10-34HB-3)BR&(10-5-1HB)BR-1	CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			



NOTES:

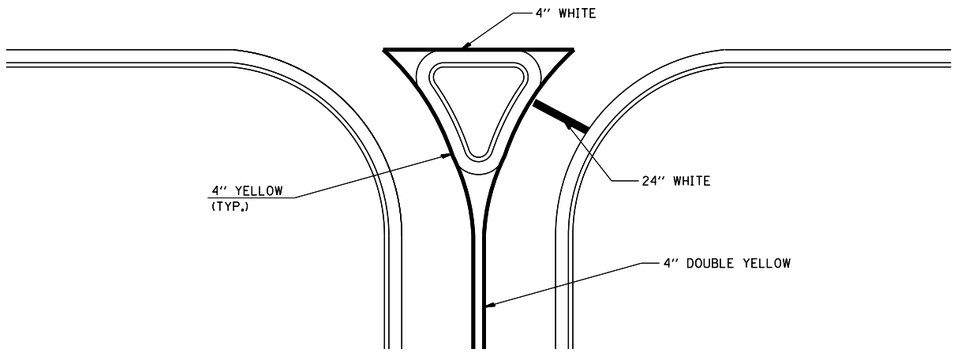
THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).

RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

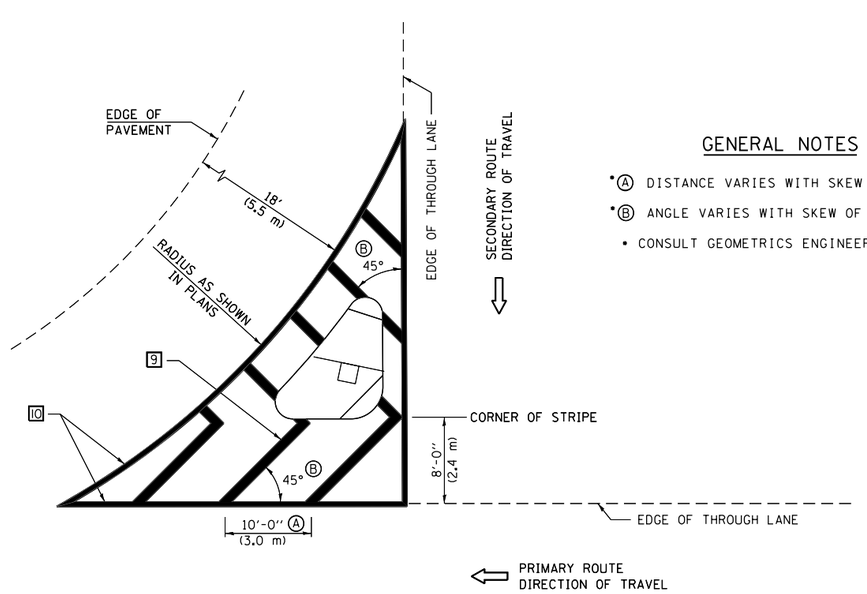
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
   < 30 MPH USE 15' (< 50 km/h USE 4.5 m)
   30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
   >45 MPH USE 30' (>75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



GENERAL NOTES

*Ⓐ DISTANCE VARIES WITH SKEW OF INTERSECTION.

*Ⓑ ANGLE VARIES WITH SKEW OF INTERSECTION.

• CONSULT GEOMETRICS ENGINEER

ISLAND

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

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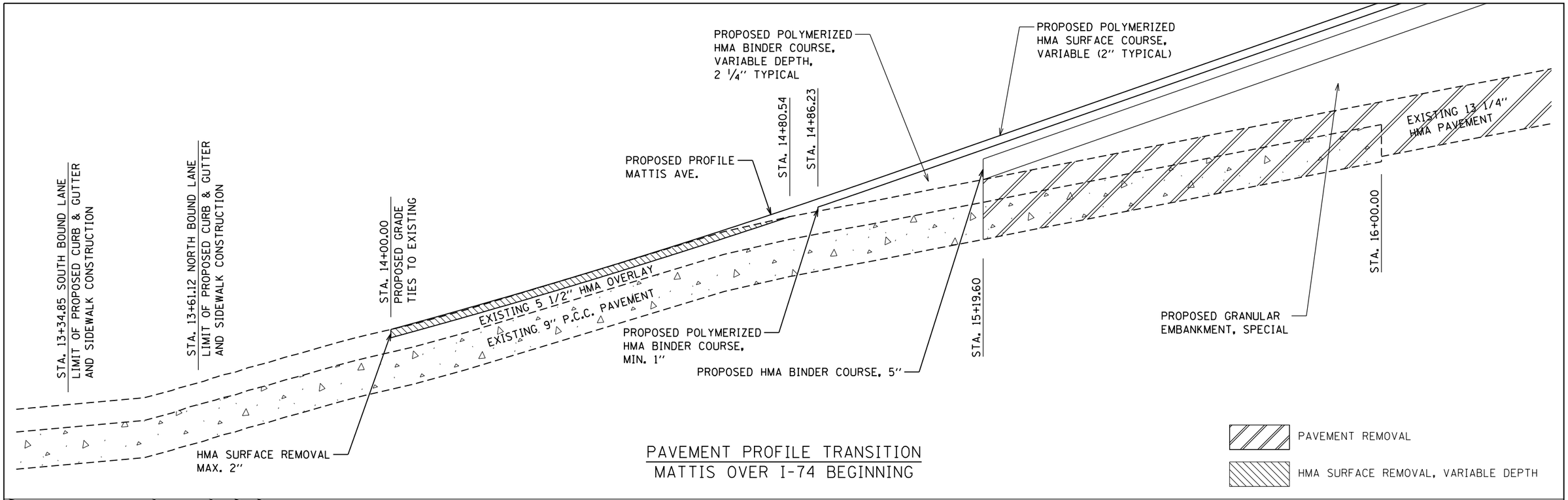
Default	PLOT DATE = 5/9/2019 - 6:48:55 AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

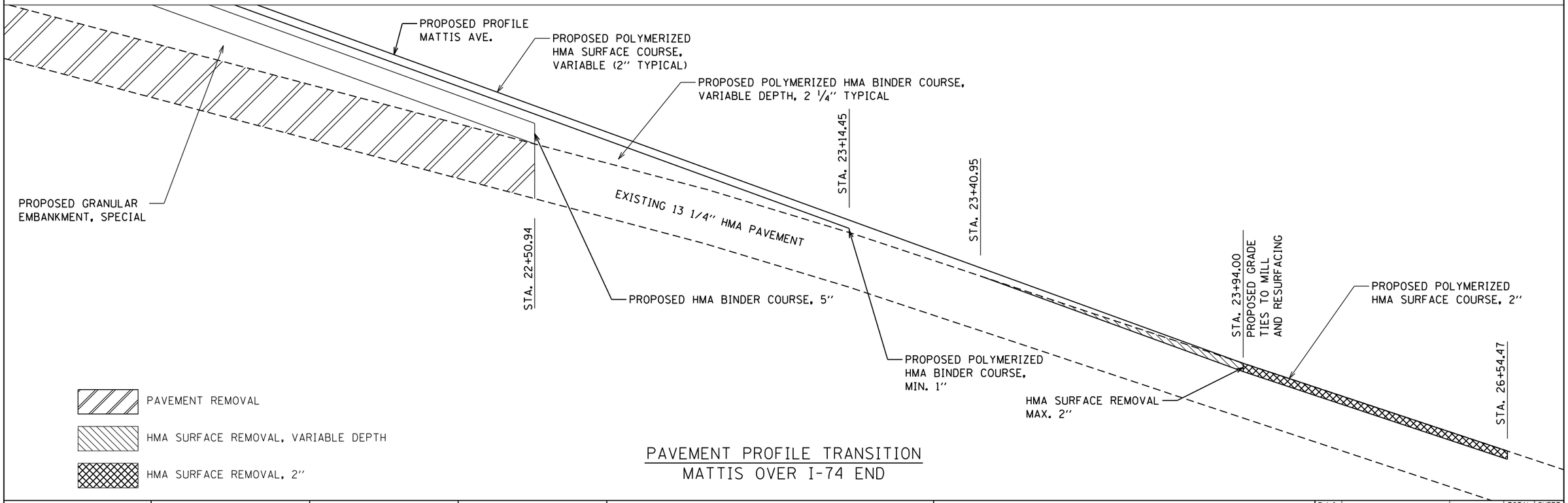
PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	194
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
		ILLINOIS FED. AID PROJECT		



PAVEMENT PROFILE TRANSITION
MATTIS OVER I-74 BEGINNING



PAVEMENT PROFILE TRANSITION
MATTIS OVER I-74 END

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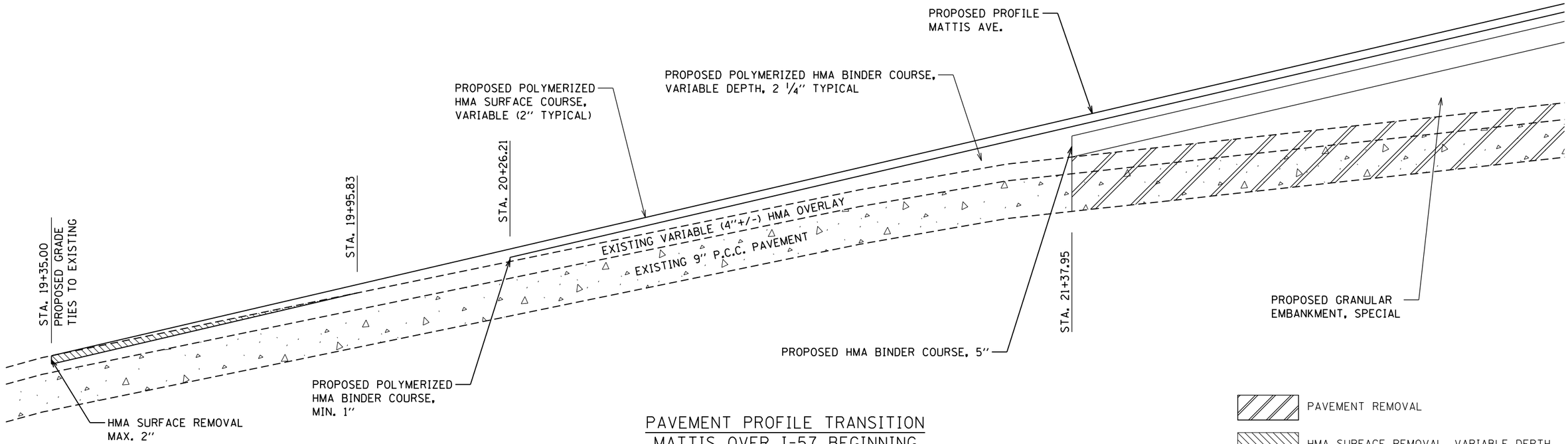
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT PROFILE TRANSITIONS
MATTIS AVE. OVER I-74

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	195
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
ILLINOIS FED. AID PROJECT				



PAVEMENT PROFILE TRANSITION
MATTIS OVER I-57 BEGINNING

PAVEMENT PROFILE TRANSITION
MATTIS OVER I-57 END

FILE NAME = D570B38-sht-Details.dgn	USER NAME = bemery	DESIGNED - CWW	REVISED -
		DRAWN - CWW	REVISED -
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - BJE	REVISED -
	PLOT DATE = 5/9/2019 - 6:48:55 AM	DATE - 05/07/2019	REVISED -

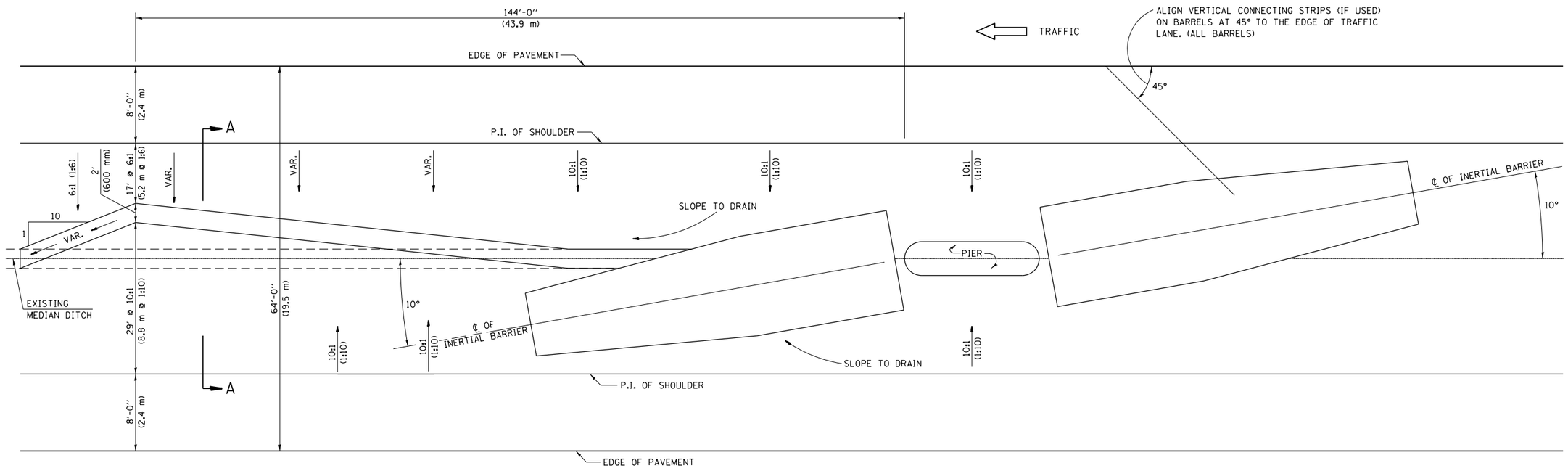
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

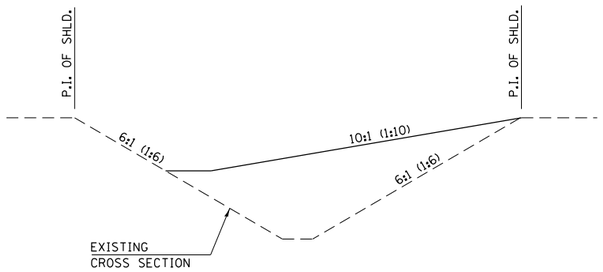
PAVEMENT PROFILE TRANSITIONS
MATTIS AVE. OVER I-57

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	196
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
ILLINOIS FED. AID PROJECT				

DESIGN SPEED GREATER THAN 45 MPH (70 km/h) - 64' (19.5 m) MEDIAN





SECTION A-A
GRADING AND SHAPING DETAIL

GENERAL NOTES

1. ALL 10:1 (1:10) SLOPES SHOWN ON THIS DETAIL SHALL BE CONSTRUCTED 10:1 (1:10) OR FLATTER.
2. THE SLOPES AS SHOWN ON THIS DETAIL SHALL APPLY TO BOTH ENDS OF THE BRIDGE PIERS.
3. IN AREAS OF 10:1 (1:10) SLOPES PRECEDING THE ATTENUATOR IN THE MEDIAN INSTALLATION, FOUR OR MORE WOOD POSTS SHALL BE PLACED AT 5' (1.5 m) INTERVALS IN THE MEDIAN ℄. SEE SPECIAL PROVISIONS AND SCHEDULES.
4. SEE STANDARD 643001 FOR BASE DIMENSIONS AND SAND MODULE IMPACT ATTENUATOR ARRAY.

DESIGNER NOTE: SEE BDE PROCEDURE MEMORANDUM 34-06

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. Z0030150C

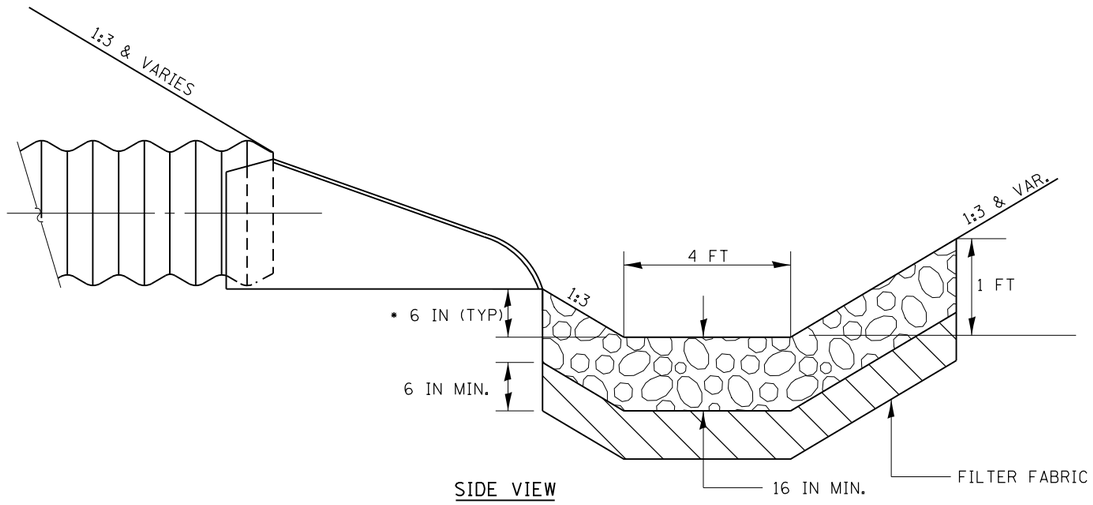
FILE NAME = ...\D570B38-sht-Details.dgn	USER NAME = bemery	DESIGNED -	REVISED - 12/08
		DRAWN -	REVISED - 05/11
	PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED - 07/16 JWS
Default	PLOT DATE = 5/9/2019 - 6:48:56 AM	DATE -	REVISED - 3/7/17 SWN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

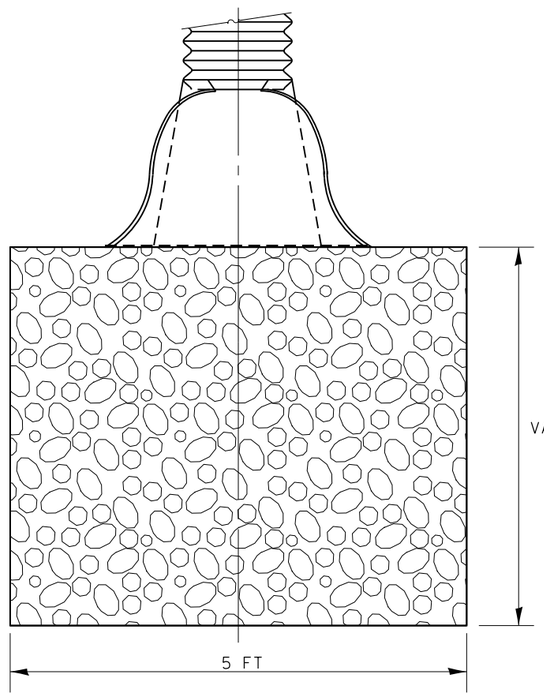
IMPACT ATTENUATORS (NON-REDIRECTIVE) TEST LEVEL 3

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	197
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
ILLINOIS	FED. AID PROJECT			



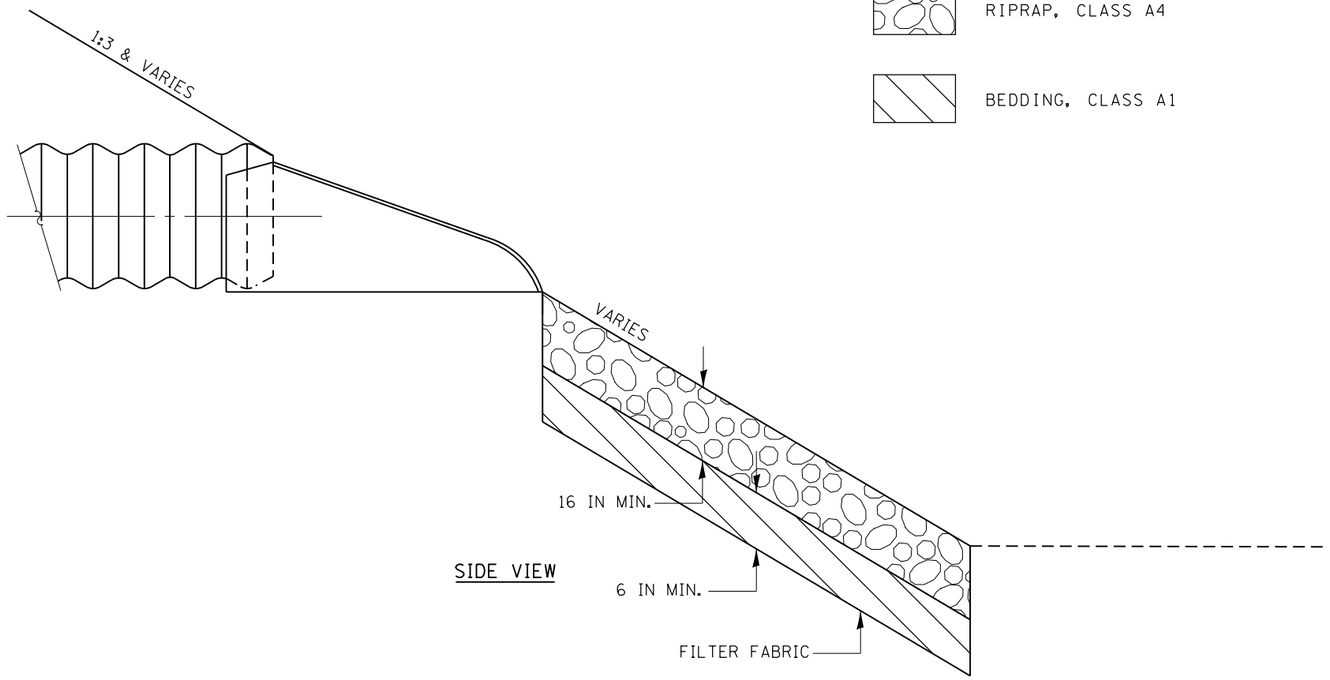
SIDE VIEW



PLAN VIEW

RIPRAP, CLASS A4

BEDDING, CLASS A1



SIDE VIEW

RIPRAP DETAIL

•SEE CROSS SECTIONS FOR EXACT ELEVATIONS.

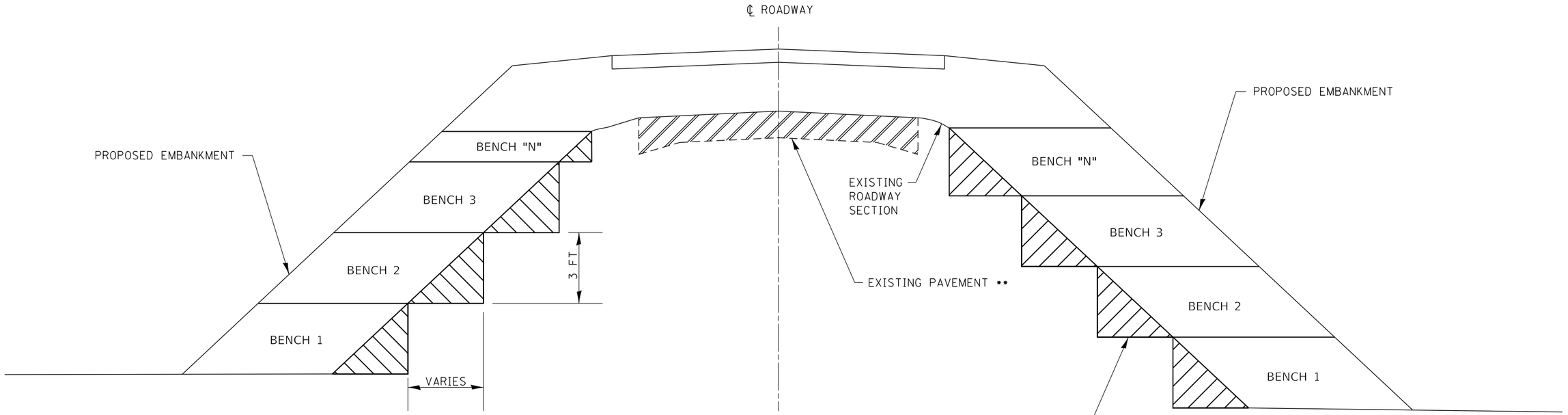
FILE NAME = D570B38-sht-Details.dgn	USER NAME = bemery	DESIGNED - BJE	REVISED -
		DRAWN - BJE	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MKK	REVISED -
Default	PLOT DATE = 5/9/2019 - 6:48:56 AM	DATE - 05/07/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIPRAP DETAIL

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	198
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
ILLINOIS FED. AID PROJECT				



EXISTING SLOPE BENCHING DETAIL

*BENCHES TO BE CUT PRIOR TO PLACEMENT OF EMBANKMENT LIFTS ON EACH BENCH.

NOTES:
* COST INCIDENTAL TO CONTRACT
** SEE REMOVAL PLANS FOR PAVEMENT REMOVAL LIMITS.

PAVEMENT REMOVAL

SEE REMOVAL PLANS FOR PAVEMENT REMOVAL LIMITS.

FILE NAME = D570B38-sht-Details.dgn Default	USER NAME = bemery	DESIGNED - BJE	REVISED -
		DRAWN - BJE	REVISED -
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	PLOT DATE = 5/9/2019 - 6:48:56 AM	DATE - 05/07/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPE BENCHING

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	199
• (10-34HB-3)BR&(10-5-1HB)BR-1		CONTRACT NO. 70B38		
	ILLINOIS	FED. AID PROJECT		

LOCATION #1
NW QUAD
MATTIS AVE. / U.S. 150

POINT #	STATIONING / OFFSET ALONG MATTIS AVE.			ELEVATION
1	13+34.70	LT	68.03	MEG (769.21)
2	13+36.75	LT	69.24	769.52
3	13+42.77	LT	72.81	769.31
4	13+37.75	LT	63.32	MEG (769.22)
5	13+39.70	LT	64.70	769.22
6	13+45.40	LT	68.76	769.33
7	13+42.84	LT	60.62	MEG (769.54)
8	13+48.22	LT	65.11	769.66
9	13+46.31	LT	56.80	MEG (769.58)
10	13+51.31	LT	61.70	769.69
11	13+56.61	LT	48.26	MEG (769.73)
12	13+60.51	LT	54.07	769.73
13	13+72.32	LT	40.58	MEG (770.05)
14	13+74.54	LT	47.22	770.01
15	13+74.54	LT	47.22	769.91

LOCATION #2
NE QUAD
MATTIS

POINT #	STATIONING / OFFSET			ELEVATION
1	13+45.83	RT	58.46	MEG (768.72)
2	13+47.48	RT	59.60	MEG (768.67)
3	13+47.96	RT	59.94	768.71
4	13+53.70	RT	63.93	768.82
5	13+49.29	RT	53.83	MEG
6	13+49.36	RT	53.90	768.89
7	13+50.88	RT	55.20	768.84
8	13+51.32	RT	55.58	768.79
9	13+52.84	RT	56.88	768.81
10	13+56.34	RT	60.14	768.89
11	13+57.87	RT	45.38	MEG
12	13+58.09	RT	45.66	769.29
13	13+59.30	RT	47.25	769.17
14	13+59.65	RT	47.72	769.67
15	13+60.56	RT	48.91	769.67
16	13+60.87	RT	49.31	769.51
17	13+63.90	RT	53.28	769.59
18	13+69.97	RT	37.86	MEG
19	13+70.27	RT	38.57	769.74
20	13+71.06	RT	40.41	769.62
21	13+71.29	RT	40.95	770.12
22	13+71.88	RT	42.33	770.12
23	13+72.07	RT	42.78	769.77
24	13+74.03	RT	47.38	769.77
25	13+88.03	RT	32.74	MEG
26	13+88.15	RT	34.18	770.30
27	13+88.30	RT	36.17	770.18
28	13+88.35	RT	36.75	770.68
29	13+88.51	RT	38.75	770.64
30	13+88.90	RT	43.73	770.54

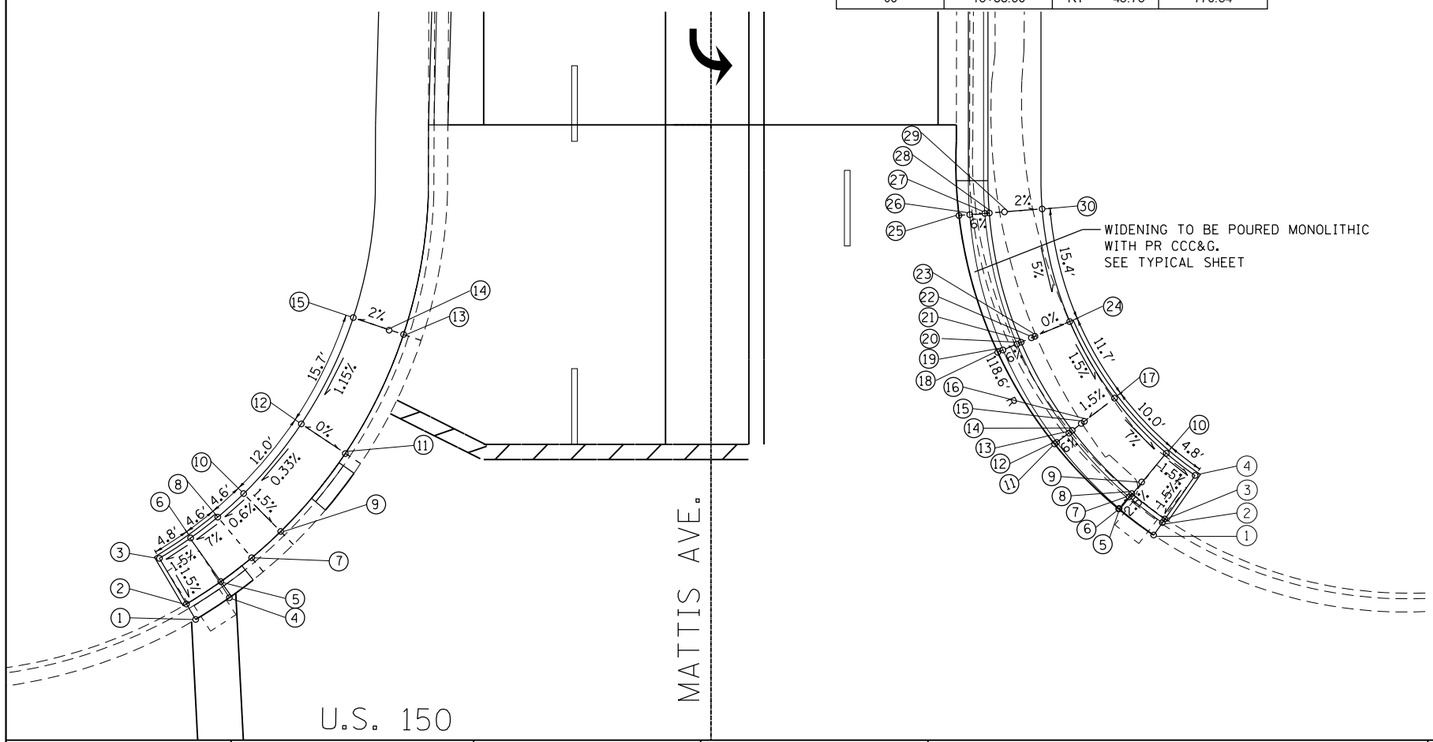
NOTES:

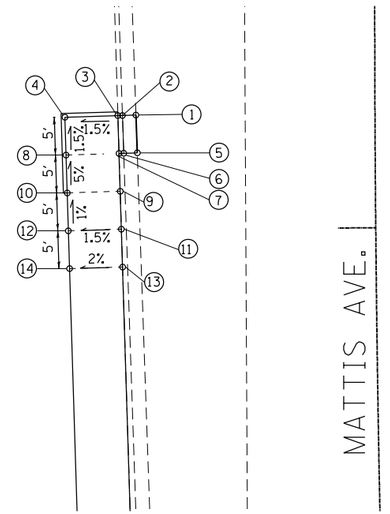
1) M.E.G. = MATCH EXISTING GRADE.
2) EXISTING CONDITIONS MAY VARY SLIGHTLY IN THE FIELD. THE ENGINEER CAN ADJUST GRADES AND TIE IN LOCATIONS AS NECESSARY TO CONSTRUCT RAMP. ANY ADJUSTMENTS MADE BY THE ENGINEER SHALL MEET ADA REQUIREMENTS FOR CURB RAMPS.
3) MAX. ALLOWABLE RUNNING SLOPE OF RAMP = 1:12 (8.3%), SLOPE < 7% PREFERRED.
4) MAX. ALLOWABLE RUNNING SLOPE OF TURNING SPACE = 1:50 (2%), SLOPE < 1.5% PREFERRED.
5) MIN. ALLOWABLE WIDTH OF RAMP = 4'.
6) MAX. ALLOWABLE CROSS SLOPE OF SIDEWALK OF LANDING = 1:50 (2%), SLOPE < 1.5% PREFERRED.

N

LOCATION #3
SW QUAD
MATTIS AVE. / ANTHONY DRIVE

POINT #	STATIONING / OFFSET ALONG MATTIS AVE.			ELEVATION
1	27+15.02	LT	31.56	MEG (760.80)
2	27+14.97	LT	33.34	760.76
3	27+14.96	LT	33.95	760.80
4	27+14.77	LT	40.94	760.69
5	27+10.07	LT	31.41	MEG (760.84)
6	27+10.02	LT	33.19	760.80
7	27+10.01	LT	33.82	760.81
8	27+09.83	LT	40.82	760.73
9	27+05.06	LT	33.70	MEG (761.09)
10	27+04.90	LT	40.69	760.98
11	27+00.11	LT	33.58	MEG (761.14)
12	26+99.96	LT	40.58	761.03
13	26+95.16	LT	33.47	MEG (761.20)
14	26+95.02	LT	40.47	761.10





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	PLOT DATE = 5/9/2019 - 6:48:56 AM	DATE - 05/07/2019	REVISED -

STATE OF ILLINOIS
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ADA RAMP DETAILS:
LOCATION #1 & LOCATION #2

SCALE: N.T.S. | SHEET OF SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57&74	•	CHAMPAIGN	264	200
	• (10-34HB-3)BR&(10-5-1HB)BR-1	CONTRACT NO. 70B38		
	ILLINOIS FED. AID PROJECT			