

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	1192+02.00	43.12	477.51	477.51
CL. EXP. JT.	1192+05.77	43.12	477.62	477.62
CL. BRG. W. ABUT.	1192+07.25	43.12	477.67	477.67
A	1192+17.25	43.12	477.96	478.01
B	1192+27.25	43.12	478.26	478.36
C	1192+37.25	43.12	478.55	478.70
D	1192+47.25	43.12	478.85	479.04
E	1192+57.25	43.12	479.14	479.36
F	1192+67.25	43.12	479.43	479.68
G	1192+77.25	43.12	479.73	480.00
H	1192+87.25	43.12	480.02	480.30
I	1192+97.25	43.12	480.32	480.60
J	1193+07.25	43.12	480.61	480.89
K	1193+17.25	43.12	480.91	481.17
L	1193+27.25	43.12	481.20	481.44
M	1193+37.25	43.12	481.50	481.72
N	1193+47.25	43.12	481.79	481.98
O	1193+57.25	43.12	482.09	482.24
P	1193+67.25	43.12	482.38	482.49
Q	1193+77.25	43.12	482.68	482.75
R	1193+87.25	43.12	482.97	483.00
S	1193+97.25	43.12	483.27	483.27
T	1194+07.25	43.12	483.56	483.53
U	1194+17.25	43.12	483.86	483.82
V	1194+27.25	43.12	484.15	484.10
W	1194+37.25	43.12	484.45	484.41
X	1194+47.25	43.12	484.74	484.72
CL. BRG. PIER 1	1194+57.25	43.12	485.03	485.03
Y	1194+67.25	43.12	485.33	485.37
Z	1194+77.25	43.12	485.62	485.70
A1	1194+87.25	43.12	485.92	486.05
B1	1194+97.25	43.12	486.21	486.40
C1	1195+07.25	43.12	486.51	486.76
D1	1195+17.25	43.12	486.80	487.12
E1	1195+27.25	43.12	487.10	487.48
F1	1195+37.25	43.12	487.39	487.84
G1	1195+47.25	43.12	487.69	488.20
H1	1195+57.25	43.12	487.98	488.55
I1	1195+67.25	43.12	488.28	488.91
J1	1195+77.25	43.12	488.57	489.25
K1	1195+87.25	43.12	488.87	489.60
L1	1195+97.25	43.12	489.16	489.93
M1	1196+07.25	43.12	489.46	490.27
N1	1196+17.25	43.12	489.75	490.59
O1	1196+27.25	43.12	490.04	490.90
P1	1196+37.25	43.12	490.32	491.20
Q1	1196+47.25	43.12	490.60	491.49
R1	1196+57.25	43.12	490.87	491.76
S1	1196+67.25	43.12	491.14	492.03
T1	1196+77.25	43.12	491.40	492.28
U1	1196+87.25	43.12	491.66	492.52


GIRDER 10 CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
V1	1196+97.25	43.12	491.91	492.75
W1	1197+07.25	43.12	492.15	492.96
X1	1197+17.25	43.12	492.39	493.17
Y1	1197+27.25	43.12	492.62	493.36
Z1	1197+37.25	43.12	492.85	493.54
A2	1197+47.25	43.12	493.07	493.72
B2	1197+57.25	43.12	493.29	493.88
C2	1197+67.25	43.12	493.50	494.04
D2	1197+77.25	43.12	493.71	494.19
E2	1197+87.25	43.12	493.91	494.33
F2	1197+97.25	43.12	494.10	494.46
G2	1198+07.25	43.12	494.29	494.60
H2	1198+17.25	43.12	494.47	494.72
I2	1198+27.25	43.12	494.65	494.84
J2	1198+37.25	43.12	494.82	494.97
K2	1198+47.25	43.12	494.99	495.09
L2	1198+57.25	43.12	495.15	495.22
M2	1198+67.25	43.12	495.31	495.35
N2	1198+77.25	43.12	495.46	495.48
O2	1198+87.25	43.12	495.60	495.61
CL. BRG. PIER 2	1198+97.25	43.12	495.74	495.74
P2	1199+07.25	43.12	495.87	495.88
Q2	1199+17.25	43.12	496.00	496.02
R2	1199+27.25	43.12	496.13	496.17
S2	1199+37.25	43.12	496.24	496.31
T2	1199+47.25	43.12	496.35	496.46
U2	1199+57.25	43.12	496.46	496.61
V2	1199+67.25	43.12	496.56	496.76
W2	1199+77.25	43.12	496.65	496.90
X2	1199+87.25	43.12	496.74	497.05
Y2	1199+97.25	43.12	496.83	497.19
Z2	1200+07.25	43.12	496.90	497.32
A3	1200+17.25	43.12	496.98	497.46
B3	1200+27.25	43.12	497.04	497.58
C3	1200+37.25	43.12	497.10	497.69
D3	1200+47.25	43.12	497.16	497.80
E3	1200+57.25	43.12	497.21	497.90
F3	1200+67.25	43.12	497.25	497.99
G3	1200+77.25	43.12	497.29	498.07
H3	1200+87.25	43.12	497.33	498.14
I3	1200+97.25	43.12	497.35	498.19
J3	1201+07.25	43.12	497.38	498.25
K3	1201+17.25	43.12	497.39	498.28
L3	1201+27.25	43.12	497.40	498.30
M3	1201+37.25	43.12	497.41	498.32
N3	1201+47.25	43.12	497.41	498.32
O3	1201+57.25	43.12	497.40	498.31
P3	1201+67.25	43.12	497.39	498.29
Q3	1201+77.25	43.12	497.38	498.27
R3	1201+87.25	43.12	497.35	498.22
S3	1201+97.25	43.12	497.33	498.17
T3	1202+07.25	43.12	497.29	498.10
U3	1202+17.25	43.12	497.25	498.02
V3	1202+27.25	43.12	497.21	497.94

GIRDER 10 CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W3	1202+37.25	43.12	497.16	497.85
X3	1202+47.25	43.12	497.10	497.74
Y3	1202+57.25	43.12	497.04	497.63
Z3	1202+67.25	43.12	496.98	497.51
A4	1202+77.25	43.12	496.90	497.37
B4	1202+87.25	43.12	496.83	497.24
C4	1202+97.25	43.12	496.74	497.10
D4	1203+07.25	43.12	496.65	496.95
E4	1203+17.25	43.12	496.56	496.80
F4	1203+27.25	43.12	496.46	496.65
G4	1203+37.25	43.12	496.35	496.49
H4	1203+47.25	43.12	496.24	496.34
I4	1203+57.25	43.12	496.13	496.20
J4	1203+67.25	43.12	496.00	496.04
K4	1203+77.25	43.12	495.88	495.90
CL. BRG. PIER 3	1203+87.25	43.12	495.74	495.74
L4	1203+97.25	43.12	495.60	495.60
M4	1204+07.25	43.12	495.46	495.46
N4	1204+17.25	43.12	495.31	495.32
O4	1204+27.25	43.12	495.15	495.18
P4	1204+37.25	43.12	494.99	495.04
Q4	1204+47.25	43.12	494.83	494.91
R4	1204+57.25	43.12	494.65	494.77
S4	1204+67.25	43.12	494.48	494.64
T4	1204+77.25	43.12	494.29	494.49
U4	1204+87.25	43.12	494.10	494.35
V4	1204+97.25	43.12	493.91	494.20
W4	1205+07.25	43.12	493.71	494.05
X4	1205+17.25	43.12	493.50	493.88
Y4	1205+27.25	43.12	493.29	493.72
Z4	1205+37.25	43.12	493.08	493.55
A5	1205+47.25	43.12	492.85	493.35
B5	1205+57.25	43.12	492.63	493.16
C5	1205+67.25	43.12	492.39	492.95
D5	1205+77.25	43.12	492.15	492.73
E5	1205+87.25	43.12	491.91	492.51
F5	1205+97.25	43.12	491.66	492.27
G5	1206+07.25	43.12	491.40	492.02
H5	1206+17.25	43.12	491.14	491.76
I5	1206+27.25	43.12	490.88	491.50
J5	1206+37.25	43.12	490.60	491.21
K5	1206+47.25	43.12	490.33	490.93
L5	1206+57.25	43.12	490.04	490.62
M5	1206+67.25	43.12	489.75	490.30
N5	1206+77.25	43.12	489.46	489.98
O5	1206+87.25	43.12	489.16	489.65
P5	1206+97.25	43.12	488.85	489.30
Q5	1207+07.25	43.12	488.54	488.95
R5	1207+17.25	43.12	488.23	488.59
S5	1207+27.25	43.12	487.90	488.22
T5	1207+37.25	43.12	487.57	487.84
U5	1207+47.25	43.12	487.24	487.46
V5	1207+57.25	43.12	486.90	487.08
W5	1207+67.25	43.12	486.56	486.69

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 jmgus

 HDR ENGINEERING, INC.	USER NAME = jmgus	DESIGNED - BWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS STRUCTURE NO. 060-0345	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = 0600345-76A91-022-TSE.DGN	CHECKED - LGP	REVISED -			270	60-1B-1	MADISON	712	401
	PLOT SCALE = NONE	DRAWN - JM	REVISED -			CONTRACT NO. 76A91				
	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 22 OF 133 SHEETS										

GIRDER 10 CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
X5	1207+77.25	43.12	486.21	486.30
Y5	1207+87.25	43.12	485.85	485.91
Z5	1207+97.25	43.12	485.49	485.52
A6	1208+07.25	43.12	485.12	485.13
B6	1208+17.25	43.12	484.75	484.75
CL. BRG. PIER 4	1208+27.25	43.12	484.37	484.37
C6	1208+37.25	43.12	483.99	484.00
D6	1208+47.25	43.12	483.60	483.64
E6	1208+57.25	43.12	483.21	483.28
F6	1208+67.25	43.12	482.81	482.92
G6	1208+77.25	43.12	482.41	482.57
H6	1208+87.25	43.12	482.01	482.23
I6	1208+97.25	43.12	481.61	481.89
J6	1209+07.25	43.12	481.21	481.56
K6	1209+17.25	43.12	480.81	481.23
L6	1209+27.25	43.12	480.41	480.90
M6	1209+37.25	43.12	480.01	480.57
N6	1209+47.25	43.12	479.61	480.24
O6	1209+57.25	43.12	479.21	479.90
P6	1209+67.25	43.12	478.81	479.56
Q6	1209+77.25	43.12	478.41	479.21
R6	1209+87.25	43.12	478.01	478.85
S6	1209+97.25	43.12	477.61	478.48
T6	1210+07.25	43.12	477.21	478.11
U6	1210+17.25	43.12	476.81	477.73
V6	1210+27.25	43.12	476.41	477.35
W6	1210+37.25	43.12	476.01	476.95
X6	1210+47.25	43.12	475.61	476.54
Y6	1210+57.25	43.12	475.21	476.13
Z6	1210+67.25	43.12	474.81	475.70
A7	1210+77.25	43.12	474.41	475.26
B7	1210+87.25	43.12	474.01	474.81
C7	1210+97.25	43.12	473.61	474.36
D7	1211+07.25	43.12	473.21	473.89
E7	1211+17.25	43.12	472.81	473.41
F7	1211+27.25	43.12	472.41	472.93
G7	1211+37.25	43.12	472.01	472.43
H7	1211+47.25	43.12	471.61	471.93
I7	1211+57.25	43.12	471.21	471.43
J7	1211+67.25	43.12	470.81	470.92
CL. BRG. E. ABUT.	1211+77.25	43.12	470.41	470.41
CL. EXP. JT.	1211+78.73	43.12	470.35	470.35
BK. E. ABUT.	1211+82.50	43.12	470.20	470.20


PROP. WB PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	1192+02.00	-5.50	477.30	477.30
CL. EXP. JT.	1192+05.77	-5.50	477.41	477.41
CL. BRG. W. ABUT.	1192+07.25	-5.50	477.45	477.45
A	1192+17.25	-5.50	477.75	477.80
B	1192+27.25	-5.50	478.04	478.14
C	1192+37.25	-5.50	478.33	478.48
D	1192+47.25	-5.50	478.63	478.82
E	1192+57.25	-5.50	478.92	479.14
F	1192+67.25	-5.50	479.22	479.47
G	1192+77.25	-5.50	479.51	479.78
H	1192+87.25	-5.50	479.81	480.09
I	1192+97.25	-5.50	480.10	480.38
J	1193+07.25	-5.50	480.40	480.68
K	1193+17.25	-5.50	480.69	480.95
L	1193+27.25	-5.50	480.99	481.23
M	1193+37.25	-5.50	481.28	481.50
N	1193+47.25	-5.50	481.58	481.77
O	1193+57.25	-5.50	481.87	482.02
P	1193+67.25	-5.50	482.17	482.28
Q	1193+77.25	-5.50	482.46	482.53
R	1193+87.25	-5.50	482.76	482.79
S	1193+97.25	-5.50	483.05	483.05
T	1194+07.25	-5.50	483.34	483.31
U	1194+17.25	-5.50	483.64	483.60
V	1194+27.25	-5.50	483.93	483.88
W	1194+37.25	-5.50	484.23	484.19
X	1194+47.25	-5.50	484.52	484.50
CL. BRG. PIER 1	1194+57.25	-5.50	484.82	484.82
Y	1194+67.25	-5.50	485.11	485.15
Z	1194+77.25	-5.50	485.41	485.49
A1	1194+87.25	-5.50	485.70	485.83
B1	1194+97.25	-5.50	486.00	486.19
C1	1195+07.25	-5.50	486.29	486.54
D1	1195+17.25	-5.50	486.59	486.91
E1	1195+27.25	-5.50	486.88	487.26
F1	1195+37.25	-5.50	487.18	487.63
G1	1195+47.25	-5.50	487.47	487.98
H1	1195+57.25	-5.50	487.77	488.34
I1	1195+67.25	-5.50	488.06	488.69
J1	1195+77.25	-5.50	488.35	489.03
K1	1195+87.25	-5.50	488.65	489.38
L1	1195+97.25	-5.50	488.94	489.71
M1	1196+07.25	-5.50	489.24	490.05
N1	1196+17.25	-5.50	489.53	490.37
O1	1196+27.25	-5.50	489.82	490.68
P1	1196+37.25	-5.50	490.11	490.99
Q1	1196+47.25	-5.50	490.38	491.27
R1	1196+57.25	-5.50	490.66	491.55
S1	1196+67.25	-5.50	490.92	491.81
T1	1196+77.25	-5.50	491.18	492.06
U1	1196+87.25	-5.50	491.44	492.30

PROP. WB PGL CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
V1	1196+97.25	-5.50	491.69	492.53
W1	1197+07.25	-5.50	491.93	492.74
X1	1197+17.25	-5.50	492.17	492.95
Y1	1197+27.25	-5.50	492.41	493.15
Z1	1197+37.25	-5.50	492.63	493.32
A2	1197+47.25	-5.50	492.86	493.51
B2	1197+57.25	-5.50	493.07	493.66
C2	1197+67.25	-5.50	493.28	493.82
D2	1197+77.25	-5.50	493.49	493.97
E2	1197+87.25	-5.50	493.69	494.11
F2	1197+97.25	-5.50	493.89	494.25
G2	1198+07.25	-5.50	494.07	494.38
H2	1198+17.25	-5.50	494.26	494.51
I2	1198+27.25	-5.50	494.44	494.63
J2	1198+37.25	-5.50	494.61	494.76
K2	1198+47.25	-5.50	494.77	494.87
L2	1198+57.25	-5.50	494.94	495.01
M2	1198+67.25	-5.50	495.09	495.13
N2	1198+77.25	-5.50	495.24	495.26
O2	1198+87.25	-5.50	495.39	495.40
CL. BRG. PIER 2	1198+97.25	-5.50	495.53	495.53
P2	1199+07.25	-5.50	495.66	495.67
Q2	1199+17.25	-5.50	495.79	495.81
R2	1199+27.25	-5.50	495.91	495.95
S2	1199+37.25	-5.50	496.03	496.10
T2	1199+47.25	-5.50	496.14	496.25
U2	1199+57.25	-5.50	496.24	496.39
V2	1199+67.25	-5.50	496.34	496.54
W2	1199+77.25	-5.50	496.44	496.69
X2	1199+87.25	-5.50	496.53	496.84
Y2	1199+97.25	-5.50	496.61	496.97
Z2	1200+07.25	-5.50	496.69	497.11
A3	1200+17.25	-5.50	496.76	497.24
B3	1200+27.25	-5.50	496.83	497.37
C3	1200+37.25	-5.50	496.89	497.48
D3	1200+47.25	-5.50	496.94	497.58
E3	1200+57.25	-5.50	496.99	497.68
F3	1200+67.25	-5.50	497.04	497.78
G3	1200+77.25	-5.50	497.08	497.86
H3	1200+87.25	-5.50	497.11	497.92
I3	1200+97.25	-5.50	497.14	497.98
J3	1201+07.25	-5.50	497.16	498.03
K3	1201+17.25	-5.50	497.18	498.07
L3	1201+27.25	-5.50	497.19	498.09
M3	1201+37.25	-5.50	497.19	498.10
N3	1201+47.25	-5.50	497.19	498.10
O3	1201+57.25	-5.50	497.19	498.10
P3	1201+67.25	-5.50	497.18	498.08
Q3	1201+77.25	-5.50	497.16	498.05
R3	1201+87.25	-5.50	497.14	498.01
S3	1201+97.25	-5.50	497.11	497.95
T3	1202+07.25	-5.50	497.08	497.89
U3	1202+17.25	-5.50	497.04	497.81
V3	1202+27.25	-5.50	496.99	497.72

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 HDR ENGINEERING, INC.	USER NAME = jmgus	DESIGNED - BWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS STRUCTURE NO. 060-0345	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = 0600345-76A91-023-TSE.DGN	CHECKED - LGP	REVISED -			270	60-1B-1	MADISON	712	402
	PLOT SCALE = NONE	DRAWN - JM	REVISED -	BRIDGE SHEET NO. 23 OF 133 SHEETS						
	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -	CONTRACT NO. 76A91 ILLINOIS FED. AID PROJECT						

PROP. WB PGL CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W3	1202+37.25	-5.50	496.94	497.63
X3	1202+47.25	-5.50	496.89	497.53
Y3	1202+57.25	-5.50	496.83	497.42
Z3	1202+67.25	-5.50	496.76	497.29
A4	1202+77.25	-5.50	496.69	497.16
B4	1202+87.25	-5.50	496.61	497.02
C4	1202+97.25	-5.50	496.53	496.89
D4	1203+07.25	-5.50	496.44	496.74
E4	1203+17.25	-5.50	496.34	496.58
F4	1203+27.25	-5.50	496.24	496.43
G4	1203+37.25	-5.50	496.14	496.28
H4	1203+47.25	-5.50	496.03	496.13
I4	1203+57.25	-5.50	495.91	495.98
J4	1203+67.25	-5.50	495.79	495.83
K4	1203+77.25	-5.50	495.66	495.68
CL. BRG. PIER 3	1203+87.25	-5.50	495.53	495.53
L4	1203+97.25	-5.50	495.39	495.39
M4	1204+07.25	-5.50	495.24	495.24
N4	1204+17.25	-5.50	495.09	495.10
O4	1204+27.25	-5.50	494.94	494.97
P4	1204+37.25	-5.50	494.78	494.83
Q4	1204+47.25	-5.50	494.61	494.69
R4	1204+57.25	-5.50	494.44	494.56
S4	1204+67.25	-5.50	494.26	494.42
T4	1204+77.25	-5.50	494.08	494.28
U4	1204+87.25	-5.50	493.89	494.14
V4	1204+97.25	-5.50	493.69	493.98
W4	1205+07.25	-5.50	493.49	493.83
X4	1205+17.25	-5.50	493.29	493.67
Y4	1205+27.25	-5.50	493.08	493.51
Z4	1205+37.25	-5.50	492.86	493.33
A5	1205+47.25	-5.50	492.64	493.14
B5	1205+57.25	-5.50	492.41	492.94
C5	1205+67.25	-5.50	492.18	492.74
D5	1205+77.25	-5.50	491.94	492.52
E5	1205+87.25	-5.50	491.69	492.29
F5	1205+97.25	-5.50	491.44	492.05
G5	1206+07.25	-5.50	491.19	491.81
H5	1206+17.25	-5.50	490.93	491.55
I5	1206+27.25	-5.50	490.66	491.28
J5	1206+37.25	-5.50	490.39	491.00
K5	1206+47.25	-5.50	490.11	490.71
L5	1206+57.25	-5.50	489.83	490.41
M5	1206+67.25	-5.50	489.54	490.09
N5	1206+77.25	-5.50	489.24	489.76
O5	1206+87.25	-5.50	488.94	489.43
P5	1206+97.25	-5.50	488.64	489.09
Q5	1207+07.25	-5.50	488.33	488.74
R5	1207+17.25	-5.50	488.01	488.37
S5	1207+27.25	-5.50	487.69	488.01
T5	1207+37.25	-5.50	487.36	487.63
U5	1207+47.25	-5.50	487.03	487.25
V5	1207+57.25	-5.50	486.69	486.87
W5	1207+67.25	-5.50	486.34	486.47

PROP. WB PGL CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
X5	1207+77.25	-5.50	485.99	486.08
Y5	1207+87.25	-5.50	485.64	485.70
Z5	1207+97.25	-5.50	485.27	485.30
A6	1208+07.25	-5.50	484.91	484.92
B6	1208+17.25	-5.50	484.54	484.54
CL. BRG. PIER 4	1208+27.25	-5.50	484.16	484.16
C6	1208+37.25	-5.50	483.77	483.78
D6	1208+47.25	-5.50	483.39	483.43
E6	1208+57.25	-5.50	482.99	483.06
F6	1208+67.25	-5.50	482.59	482.70
G6	1208+77.25	-5.50	482.19	482.35
H6	1208+87.25	-5.50	481.79	482.01
I6	1208+97.25	-5.50	481.39	481.67
J6	1209+07.25	-5.50	480.99	481.34
K6	1209+17.25	-5.50	480.59	481.01
L6	1209+27.25	-5.50	480.19	480.68
M6	1209+37.25	-5.50	479.79	480.35
N6	1209+47.25	-5.50	479.39	480.02
O6	1209+57.25	-5.50	478.99	479.68
P6	1209+67.25	-5.50	478.59	479.34
Q6	1209+77.25	-5.50	478.19	478.99
R6	1209+87.25	-5.50	477.79	478.63
S6	1209+97.25	-5.50	477.39	478.26
T6	1210+07.25	-5.50	476.99	477.89
U6	1210+17.25	-5.50	476.59	477.51
V6	1210+27.25	-5.50	476.19	477.13
W6	1210+37.25	-5.50	475.79	476.73
X6	1210+47.25	-5.50	475.39	476.32
Y6	1210+57.25	-5.50	474.99	475.91
Z6	1210+67.25	-5.50	474.59	475.48
A7	1210+77.25	-5.50	474.19	475.04
B7	1210+87.25	-5.50	473.79	474.59
C7	1210+97.25	-5.50	473.39	474.14
D7	1211+07.25	-5.50	472.99	473.67
E7	1211+17.25	-5.50	472.59	473.19
F7	1211+27.25	-5.50	472.19	472.71
G7	1211+37.25	-5.50	471.79	472.21
H7	1211+47.25	-5.50	471.39	471.71
I7	1211+57.25	-5.50	470.99	471.21
J7	1211+67.25	-5.50	470.59	470.70
CL. BRG. E. ABUT.	1211+77.25	-5.50	470.19	470.19
CL. EXP. JT.	1211+78.73	-5.50	470.13	470.13
BK. E. ABUT.	1211+82.50	-5.50	469.98	469.98

PROP. EB PGL

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	1192+02.00	5.50	477.30	477.30
CL. EXP. JT.	1192+05.77	5.50	477.41	477.41
CL. BRG. W. ABUT.	1192+07.25	5.50	477.45	477.45
A	1192+17.25	5.50	477.75	477.80
B	1192+27.25	5.50	478.04	478.14
C	1192+37.25	5.50	478.33	478.48
D	1192+47.25	5.50	478.63	478.82
E	1192+57.25	5.50	478.92	479.14
F	1192+67.25	5.50	479.22	479.47
G	1192+77.25	5.50	479.51	479.78
H	1192+87.25	5.50	479.81	480.09
I	1192+97.25	5.50	480.10	480.38
J	1193+07.25	5.50	480.40	480.68
K	1193+17.25	5.50	480.69	480.95
L	1193+27.25	5.50	480.99	481.23
M	1193+37.25	5.50	481.28	481.50
N	1193+47.25	5.50	481.58	481.77
O	1193+57.25	5.50	481.87	482.02
P	1193+67.25	5.50	482.17	482.28
Q	1193+77.25	5.50	482.46	482.53
R	1193+87.25	5.50	482.76	482.79
S	1193+97.25	5.50	483.05	483.05
T	1194+07.25	5.50	483.34	483.31
U	1194+17.25	5.50	483.64	483.60
V	1194+27.25	5.50	483.93	483.88
W	1194+37.25	5.50	484.23	484.19
X	1194+47.25	5.50	484.52	484.50
CL. BRG. PIER 1	1194+57.25	5.50	484.82	484.82
Y	1194+67.25	5.50	485.11	485.15
Z	1194+77.25	5.50	485.41	485.49
A1	1194+87.25	5.50	485.70	485.83
B1	1194+97.25	5.50	486.00	486.19
C1	1195+07.25	5.50	486.29	486.54
D1	1195+17.25	5.50	486.59	486.91
E1	1195+27.25	5.50	486.88	487.26
F1	1195+37.25	5.50	487.18	487.63
G1	1195+47.25	5.50	487.47	487.98
H1	1195+57.25	5.50	487.77	488.34
I1	1195+67.25	5.50	488.06	488.69
J1	1195+77.25	5.50	488.35	489.03
K1	1195+87.25	5.50	488.65	489.38
L1	1195+97.25	5.50	488.94	489.71
M1	1196+07.25	5.50	489.24	490.05
N1	1196+17.25	5.50	489.53	490.37
O1	1196+27.25	5.50	489.82	490.68
P1	1196+37.25	5.50	490.11	490.99
Q1	1196+47.25	5.50	490.38	491.27
R1	1196+57.25	5.50	490.66	491.55
S1	1196+67.25	5.50	490.92	491.81
T1	1196+77.25	5.50	491.18	492.06
U1	1196+87.25	5.50	491.44	492.30

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USER NAME = Jmlqus	DESIGNED - BWC	REVISED -
FILE NAME = 0600345-76A91-024-TSE.DGN	CHECKED - LGP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 24 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	403
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				

PROP. EB PGL CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
V1	1196+97.25	5.50	491.69	492.53
W1	1197+07.25	5.50	491.93	492.74
X1	1197+17.25	5.50	492.17	492.95
Y1	1197+27.25	5.50	492.41	493.15
Z1	1197+37.25	5.50	492.63	493.32
A2	1197+47.25	5.50	492.86	493.51
B2	1197+57.25	5.50	493.07	493.66
C2	1197+67.25	5.50	493.28	493.82
D2	1197+77.25	5.50	493.49	493.97
E2	1197+87.25	5.50	493.69	494.11
F2	1197+97.25	5.50	493.89	494.25
G2	1198+07.25	5.50	494.07	494.38
H2	1198+17.25	5.50	494.26	494.51
I2	1198+27.25	5.50	494.44	494.63
J2	1198+37.25	5.50	494.61	494.76
K2	1198+47.25	5.50	494.77	494.87
L2	1198+57.25	5.50	494.94	495.01
M2	1198+67.25	5.50	495.09	495.13
N2	1198+77.25	5.50	495.24	495.26
O2	1198+87.25	5.50	495.39	495.40
CL. BRG. PIER 2	1198+97.25	5.50	495.53	495.53
P2	1199+07.25	5.50	495.66	495.67
Q2	1199+17.25	5.50	495.79	495.81
R2	1199+27.25	5.50	495.91	495.95
S2	1199+37.25	5.50	496.03	496.10
T2	1199+47.25	5.50	496.14	496.25
U2	1199+57.25	5.50	496.24	496.39
V2	1199+67.25	5.50	496.34	496.54
W2	1199+77.25	5.50	496.44	496.69
X2	1199+87.25	5.50	496.53	496.84
Y2	1199+97.25	5.50	496.61	496.97
Z2	1200+07.25	5.50	496.69	497.11
A3	1200+17.25	5.50	496.76	497.24
B3	1200+27.25	5.50	496.83	497.37
C3	1200+37.25	5.50	496.89	497.48
D3	1200+47.25	5.50	496.94	497.58
E3	1200+57.25	5.50	496.99	497.68
F3	1200+67.25	5.50	497.04	497.78
G3	1200+77.25	5.50	497.08	497.86
H3	1200+87.25	5.50	497.11	497.92
I3	1200+97.25	5.50	497.14	497.98
J3	1201+07.25	5.50	497.16	498.03
K3	1201+17.25	5.50	497.18	498.07
L3	1201+27.25	5.50	497.19	498.09
M3	1201+37.25	5.50	497.19	498.10
N3	1201+47.25	5.50	497.19	498.10
O3	1201+57.25	5.50	497.19	498.10
P3	1201+67.25	5.50	497.18	498.08
Q3	1201+77.25	5.50	497.16	498.05
R3	1201+87.25	5.50	497.14	498.01
S3	1201+97.25	5.50	497.11	497.95
T3	1202+07.25	5.50	497.08	497.89
U3	1202+17.25	5.50	497.04	497.81
V3	1202+27.25	5.50	496.99	497.72

PROP. EB PGL CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
W3	1202+37.25	5.50	496.94	497.63
X3	1202+47.25	5.50	496.89	497.53
Y3	1202+57.25	5.50	496.83	497.42
Z3	1202+67.25	5.50	496.76	497.29
A4	1202+77.25	5.50	496.69	497.16
B4	1202+87.25	5.50	496.61	497.02
C4	1202+97.25	5.50	496.53	496.89
D4	1203+07.25	5.50	496.44	496.74
E4	1203+17.25	5.50	496.34	496.58
F4	1203+27.25	5.50	496.24	496.43
G4	1203+37.25	5.50	496.14	496.28
H4	1203+47.25	5.50	496.03	496.13
I4	1203+57.25	5.50	495.91	495.98
J4	1203+67.25	5.50	495.79	495.83
K4	1203+77.25	5.50	495.66	495.68
CL. BRG. PIER 3	1203+87.25	5.50	495.53	495.53
L4	1203+97.25	5.50	495.39	495.39
M4	1204+07.25	5.50	495.24	495.24
N4	1204+17.25	5.50	495.09	495.10
O4	1204+27.25	5.50	494.94	494.97
P4	1204+37.25	5.50	494.78	494.83
Q4	1204+47.25	5.50	494.61	494.69
R4	1204+57.25	5.50	494.44	494.56
S4	1204+67.25	5.50	494.26	494.42
T4	1204+77.25	5.50	494.08	494.28
U4	1204+87.25	5.50	493.89	494.14
V4	1204+97.25	5.50	493.69	493.98
W4	1205+07.25	5.50	493.49	493.83
X4	1205+17.25	5.50	493.29	493.67
Y4	1205+27.25	5.50	493.08	493.51
Z4	1205+37.25	5.50	492.86	493.33
A5	1205+47.25	5.50	492.64	493.14
B5	1205+57.25	5.50	492.41	492.94
C5	1205+67.25	5.50	492.18	492.74
D5	1205+77.25	5.50	491.94	492.52
E5	1205+87.25	5.50	491.69	492.29
F5	1205+97.25	5.50	491.44	492.05
G5	1206+07.25	5.50	491.19	491.81
H5	1206+17.25	5.50	490.93	491.55
I5	1206+27.25	5.50	490.66	491.28
J5	1206+37.25	5.50	490.39	491.00
K5	1206+47.25	5.50	490.11	490.71
L5	1206+57.25	5.50	489.83	490.41
M5	1206+67.25	5.50	489.54	490.09
N5	1206+77.25	5.50	489.24	489.76
O5	1206+87.25	5.50	488.94	489.43
P5	1206+97.25	5.50	488.64	489.09
Q5	1207+07.25	5.50	488.33	488.74
R5	1207+17.25	5.50	488.01	488.37
S5	1207+27.25	5.50	487.69	488.01
T5	1207+37.25	5.50	487.36	487.63
U5	1207+47.25	5.50	487.03	487.25
V5	1207+57.25	5.50	486.69	486.87
W5	1207+67.25	5.50	486.34	486.47

PROP. EB PGL CONT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
X5	1207+77.25	5.50	485.99	486.08
Y5	1207+87.25	5.50	485.64	485.70
Z5	1207+97.25	5.50	485.27	485.30
A6	1208+07.25	5.50	484.91	484.92
B6	1208+17.25	5.50	484.54	484.54
CL. BRG. PIER 4	1208+27.25	5.50	484.16	484.16
C6	1208+37.25	5.50	483.77	483.78
D6	1208+47.25	5.50	483.39	483.43
E6	1208+57.25	5.50	482.99	483.06
F6	1208+67.25	5.50	482.59	482.70
G6	1208+77.25	5.50	482.19	482.35
H6	1208+87.25	5.50	481.79	482.01
I6	1208+97.25	5.50	481.39	481.67
J6	1209+07.25	5.50	480.99	481.34
K6	1209+17.25	5.50	480.59	481.01
L6	1209+27.25	5.50	480.19	480.68
M6	1209+37.25	5.50	479.79	480.35
N6	1209+47.25	5.50	479.39	480.02
O6	1209+57.25	5.50	478.99	479.68
P6	1209+67.25	5.50	478.59	479.34
Q6	1209+77.25	5.50	478.19	478.99
R6	1209+87.25	5.50	477.79	478.63
S6	1209+97.25	5.50	477.39	478.26
T6	1210+07.25	5.50	476.99	477.89
U6	1210+17.25	5.50	476.59	477.51
V6	1210+27.25	5.50	476.19	477.13
W6	1210+37.25	5.50	475.79	476.73
X6	1210+47.25	5.50	475.39	476.32
Y6	1210+57.25	5.50	474.99	475.91
Z6	1210+67.25	5.50	474.59	475.48
A7	1210+77.25	5.50	474.19	475.04
B7	1210+87.25	5.50	473.79	474.59
C7	1210+97.25	5.50	473.39	474.14
D7	1211+07.25	5.50	472.99	473.67
E7	1211+17.25	5.50	472.59	473.19
F7	1211+27.25	5.50	472.19	472.71
G7	1211+37.25	5.50	471.79	472.21
H7	1211+47.25	5.50	471.39	471.71
I7	1211+57.25	5.50	470.99	471.21
J7	1211+67.25	5.50	470.59	470.70
CL. BRG. E. ABUT.	1211+77.25	5.50	470.19	470.19
CL. EXP. JT.	1211+78.73	5.50	470.13	470.13
BK. E. ABUT.	1211+82.50	5.50	469.98	469.98

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USER NAME = jmqius
 FILE NAME = 0600345-76A91-025-TSE.DGN
 PLOT SCALE = NONE
 PLOT DATE = 3/18/2011

DESIGNED - BWC
 CHECKED - LGP
 DRAWN - JM
 CHECKED - BSK

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
 STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 25 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	404
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF WB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	-45.50	476.59
AA	1191+82.50	-45.50	476.89
AB	1191+92.50	-45.50	477.18
E. END W. APPR. PAV'T.	1192+02.50	-45.50	477.48

NORTH EDGE OF WB PAVEMENT

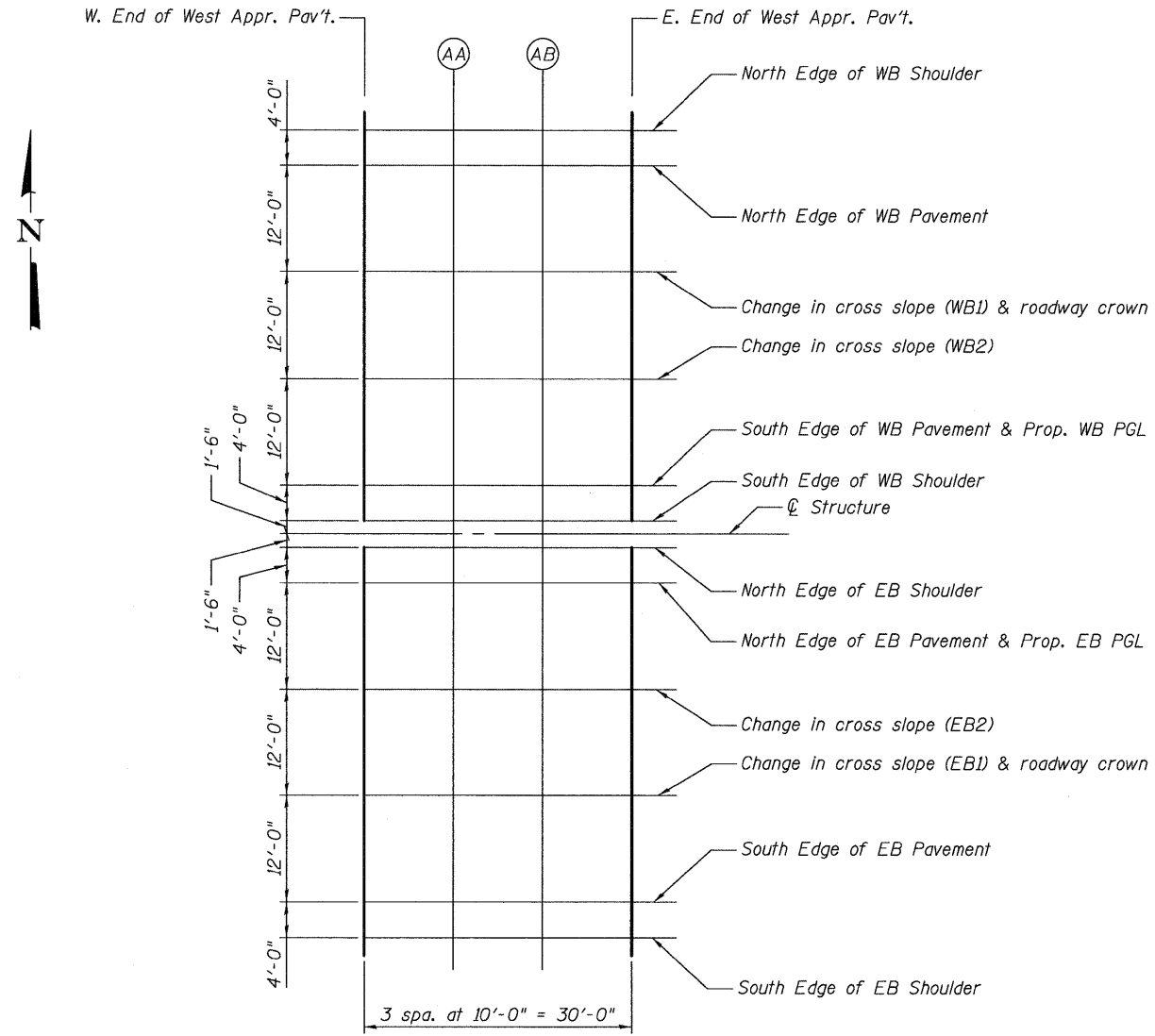
Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	-41.50	476.68
AA	1191+82.50	-41.50	476.97
AB	1191+92.50	-41.50	477.27
E. END W. APPR. PAV'T.	1192+02.50	-41.50	477.56

CHANGE IN CROSS SLOPE (WB1) & ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	-29.50	476.86
AA	1191+82.50	-29.50	477.16
AB	1191+92.50	-29.50	477.45
E. END W. APPR. PAV'T.	1192+02.50	-29.50	477.75

CHANGE IN CROSS SLOPE (WB2)

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	-17.50	476.68
AA	1191+82.50	-17.50	476.97
AB	1191+92.50	-17.50	477.27
E. END W. APPR. PAV'T.	1192+02.50	-17.50	477.56



PLAN

SOUTH EDGE OF WB PAVEMENT & PROP. WB PGL

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	-5.50	476.43
AA	1191+82.50	-5.50	476.72
AB	1191+92.50	-5.50	477.02
E. END W. APPR. PAV'T.	1192+02.50	-5.50	477.31

SOUTH EDGE OF WB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	-1.50	476.34
AA	1191+82.50	-1.50	476.64
AB	1191+92.50	-1.50	476.93
E. END W. APPR. PAV'T.	1192+02.50	-1.50	477.23

NORTH EDGE OF EB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	1.50	476.34
AA	1191+82.50	1.50	476.64
AB	1191+92.50	1.50	476.93
E. END W. APPR. PAV'T.	1192+02.50	1.50	477.23

NORTH EDGE OF EB PAVEMENT & PROP. EB PGL

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	5.50	476.43
AA	1191+82.50	5.50	476.72
AB	1191+92.50	5.50	477.02
E. END W. APPR. PAV'T.	1192+02.50	5.50	477.31

CHANGE IN CROSS SLOPE (EB2)

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	17.50	476.68
AA	1191+82.50	17.50	476.97
AB	1191+92.50	17.50	477.27
E. END W. APPR. PAV'T.	1192+02.50	17.50	477.56

CHANGE IN CROSS SLOPE (EB1) & ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	29.50	476.86
AA	1191+82.50	29.50	477.16
AB	1191+92.50	29.50	477.45
E. END W. APPR. PAV'T.	1192+02.50	29.50	477.75

SOUTH EDGE OF EB PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	41.50	476.68
AA	1191+82.50	41.50	476.97
AB	1191+92.50	41.50	477.27
E. END W. APPR. PAV'T.	1192+02.50	41.50	477.56

SOUTH EDGE OF EB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END W. APPR. PAV'T.	1191+72.50	45.50	476.59
AA	1191+82.50	45.50	476.89
AB	1191+92.50	45.50	477.18
E. END W. APPR. PAV'T.	1192+02.50	45.50	477.48

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 26 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	405
CONTRACT NO. 76A91				

ILLINOIS FED. AID PROJECT

NORTH EDGE OF WB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	-45.50	470.17
BA	1211+92.00	-45.50	469.77
BB	1212+02.00	-45.50	469.37
E. END E. APPR. PAV'T.	1212+12.00	-45.50	468.97

NORTH EDGE OF WB PAVEMENT

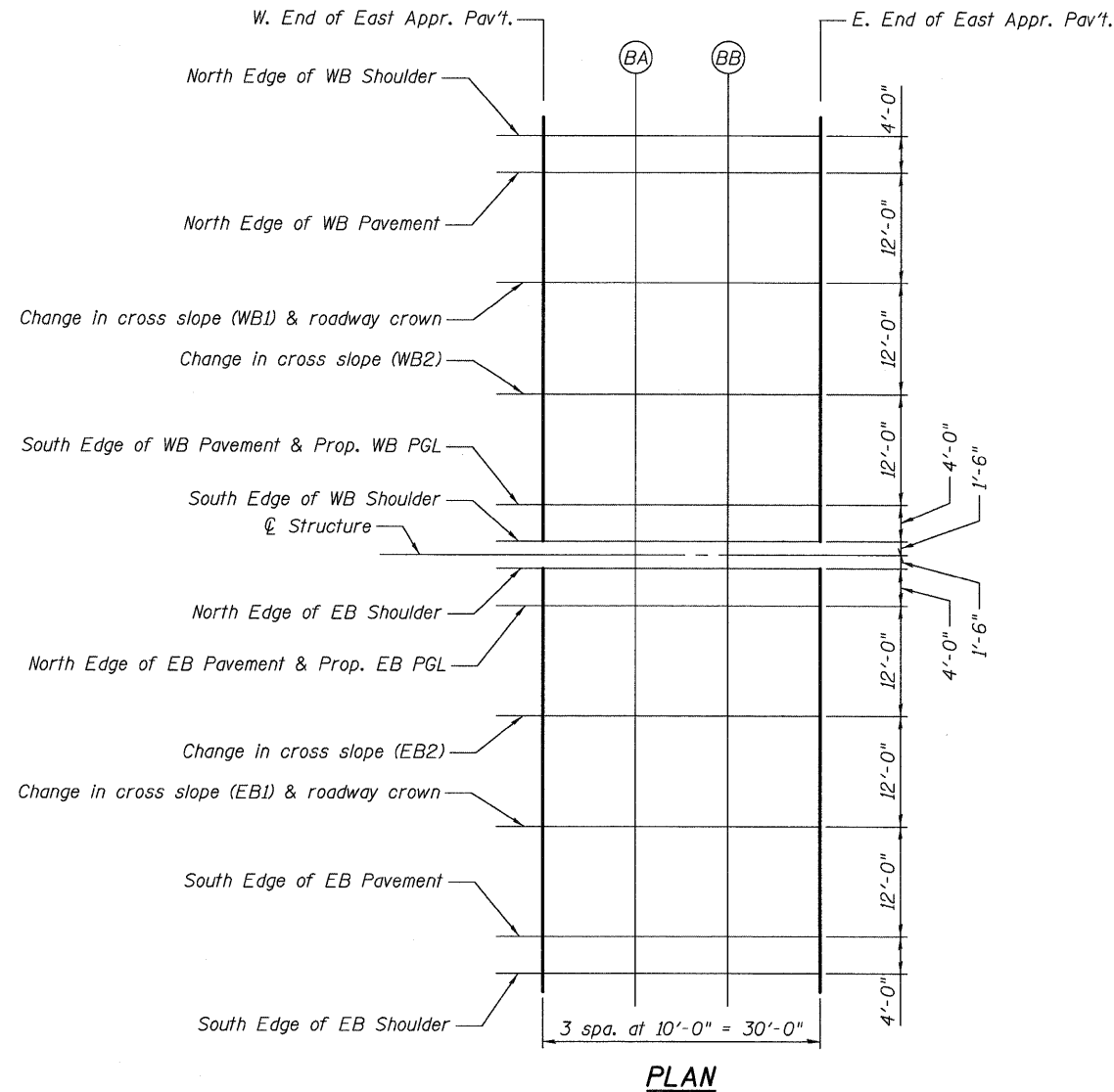
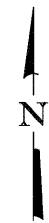
Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	-41.50	470.25
BA	1211+92.00	-41.50	469.85
BB	1212+02.00	-41.50	469.45
E. END E. APPR. PAV'T.	1212+12.00	-41.50	469.05

CHANGE IN CROSS SLOPE (WB1) & ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	-29.50	470.44
BA	1211+92.00	-29.50	470.04
BB	1212+02.00	-29.50	469.64
E. END E. APPR. PAV'T.	1212+12.00	-29.50	469.24

CHANGE IN CROSS SLOPE (WB2)

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	-17.50	470.25
BA	1211+92.00	-17.50	469.85
BB	1212+02.00	-17.50	469.45
E. END E. APPR. PAV'T.	1212+12.00	-17.50	469.05



PLAN

SOUTH EDGE OF WB PAVEMENT & PROP. WB PGL

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	-5.50	470.00
BA	1211+92.00	-5.50	469.60
BB	1212+02.00	-5.50	469.20
E. END E. APPR. PAV'T.	1212+12.00	-5.50	468.80

SOUTH EDGE OF WB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	-1.50	469.92
BA	1211+92.00	-1.50	469.52
BB	1212+02.00	-1.50	469.12
E. END E. APPR. PAV'T.	1212+12.00	-1.50	468.72

NORTH EDGE OF EB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	1.50	469.92
BA	1211+92.00	1.50	469.52
BB	1212+02.00	1.50	469.12
E. END E. APPR. PAV'T.	1212+12.00	1.50	468.72

NORTH EDGE OF EB PAVEMENT & PROP. EB PGL

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	5.50	470.00
BA	1211+92.00	5.50	469.60
BB	1212+02.00	5.50	469.20
E. END E. APPR. PAV'T.	1212+12.00	5.50	468.80

CHANGE IN CROSS SLOPE (EB2)

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	17.50	470.25
BA	1211+92.00	17.50	469.85
BB	1212+02.00	17.50	469.45
E. END E. APPR. PAV'T.	1212+12.00	17.50	469.05

CHANGE IN CROSS SLOPE (EB1) & ROADWAY CROWN

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	29.50	470.44
BA	1211+92.00	29.50	470.04
BB	1212+02.00	29.50	469.64
E. END E. APPR. PAV'T.	1212+12.00	29.50	469.24

SOUTH EDGE OF EB PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	41.50	470.25
BA	1211+92.00	41.50	469.85
BB	1212+02.00	41.50	469.45
E. END E. APPR. PAV'T.	1212+12.00	41.50	469.05

SOUTH EDGE OF EB SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. END E. APPR. PAV'T.	1211+82.00	45.50	470.17
BA	1211+92.00	45.50	469.77
BB	1212+02.00	45.50	469.37
E. END E. APPR. PAV'T.	1212+12.00	45.50	468.97

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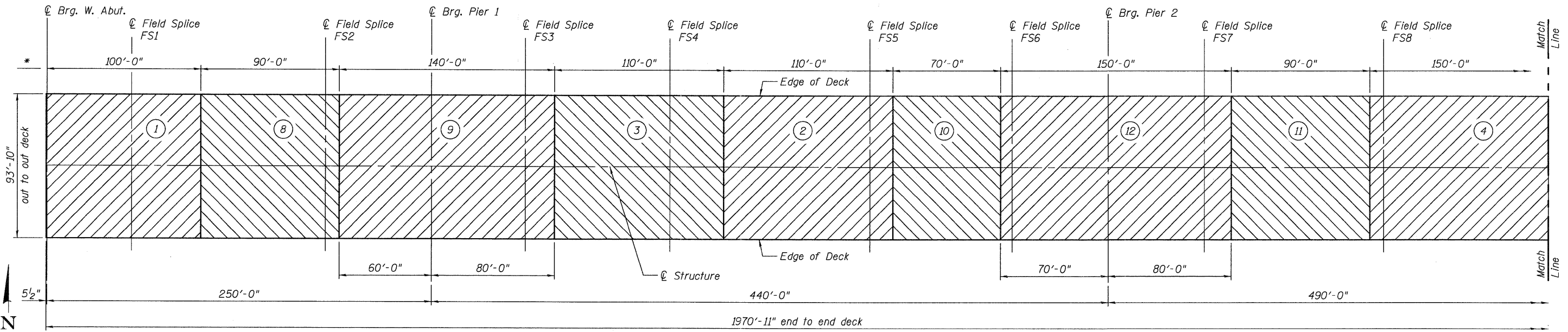
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

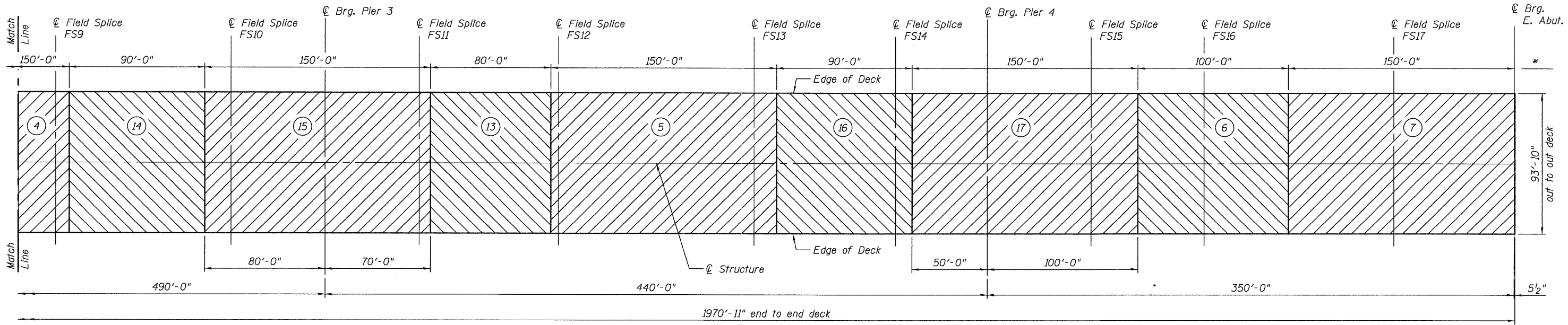
**TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 27 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	406
CONTRACT NO. 76A91				ILLINOIS FED. AID PROJECT



PARTIAL PLAN

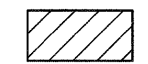


PARTIAL PLAN

NOTES:

- 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:
 - At least 72 hours shall have elapsed from the end of the previous pour.
 - The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
- Camber and dead load deflection values shown on the girder detail drawings were developed based on the deck pouring sequence shown here. Any deviation from this pouring sequence will result in changes to camber and elevations that reflect dead load deflections, except as noted in Note 3. If the Contractor wishes to change the sequence, then the proposed plan revisions and design calculations shall be submitted to the Engineer for review and approval. The plan and calculations shall be prepared and sealed by a Licensed Structural Engineer in Illinois.
- The Contractor may combine: deck pours 8 and 9 into a single pour; deck pours 11 and 12 into a single pour; deck pours 14 and 15 into a single pour, without changing camber or elevations that reflect dead load deflections. If the Contractor wishes to combine these pours, the proposed plan revisions shall be submitted to the Engineer for review and approval.
- For concrete deck placement see Special Provision for Concrete Superstructure.

Legend:



Pour Limits



Pour Sequence Number

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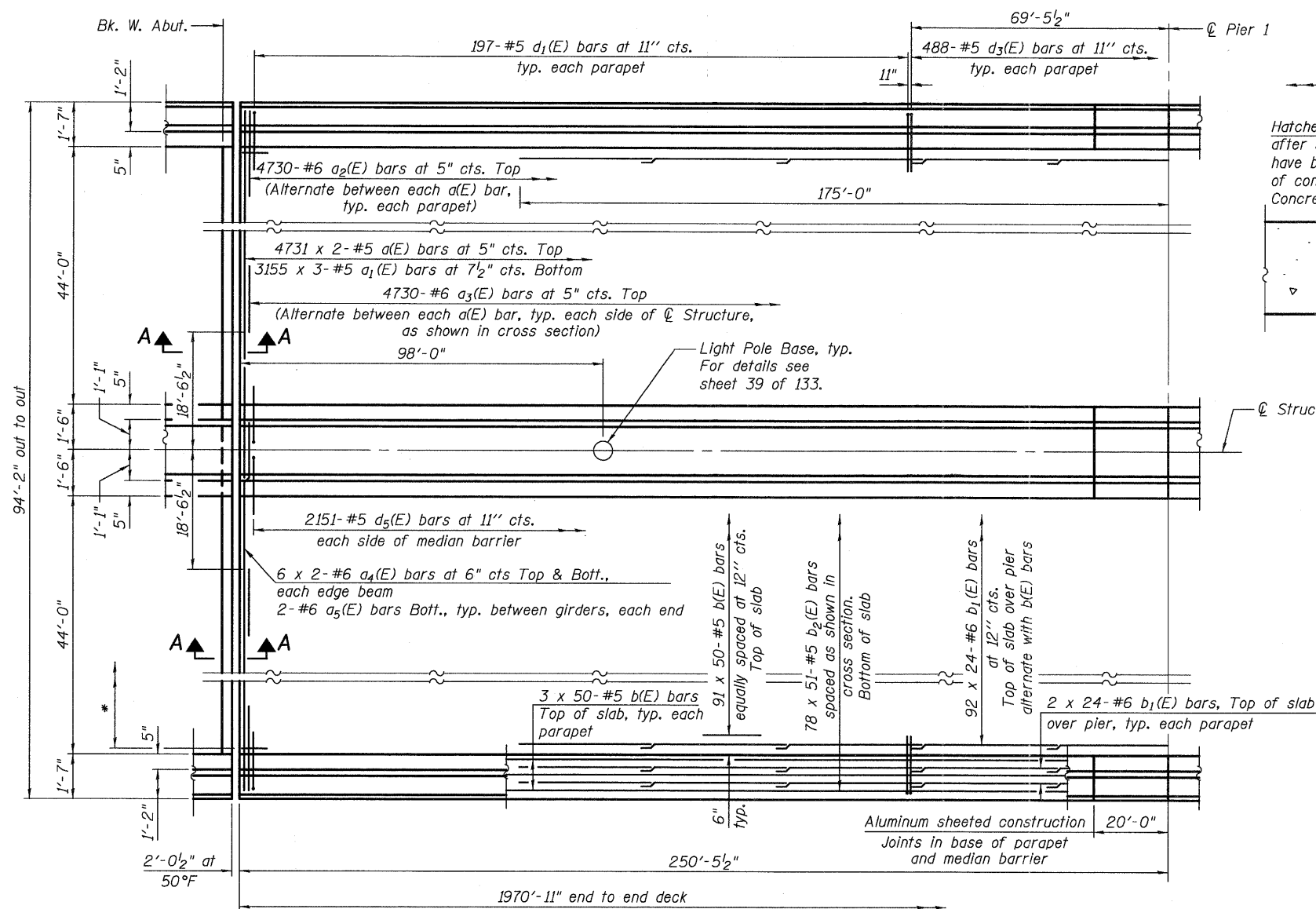
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK POURING SEQUENCE
STRUCTURE NO. 060-0345**

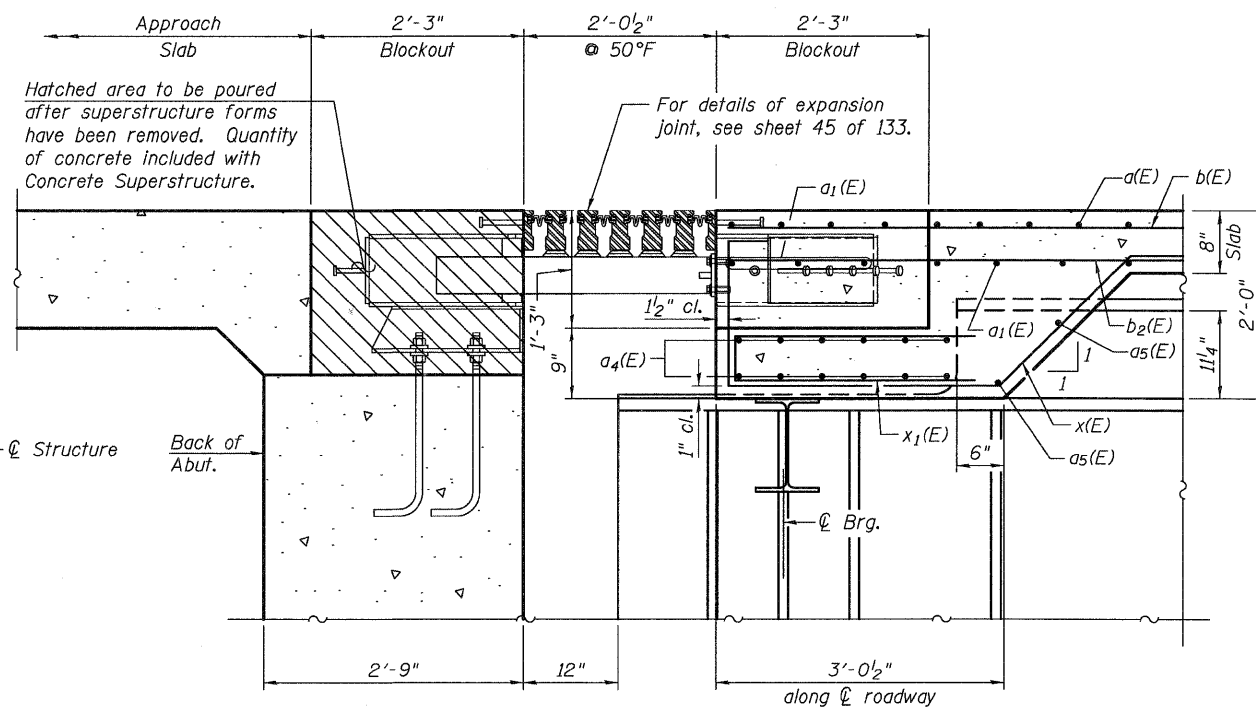
BRIDGE SHEET NO. 28 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	407
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



PARTIAL PLAN - SPAN 1

* 91-#5 x(E) bars at 12" cts. space with longitudinal slab reinf., Bott., each end
90-#4 x1(E) bars at 12" cts., alternate between each x(E) bar, each end



SECTION A-A

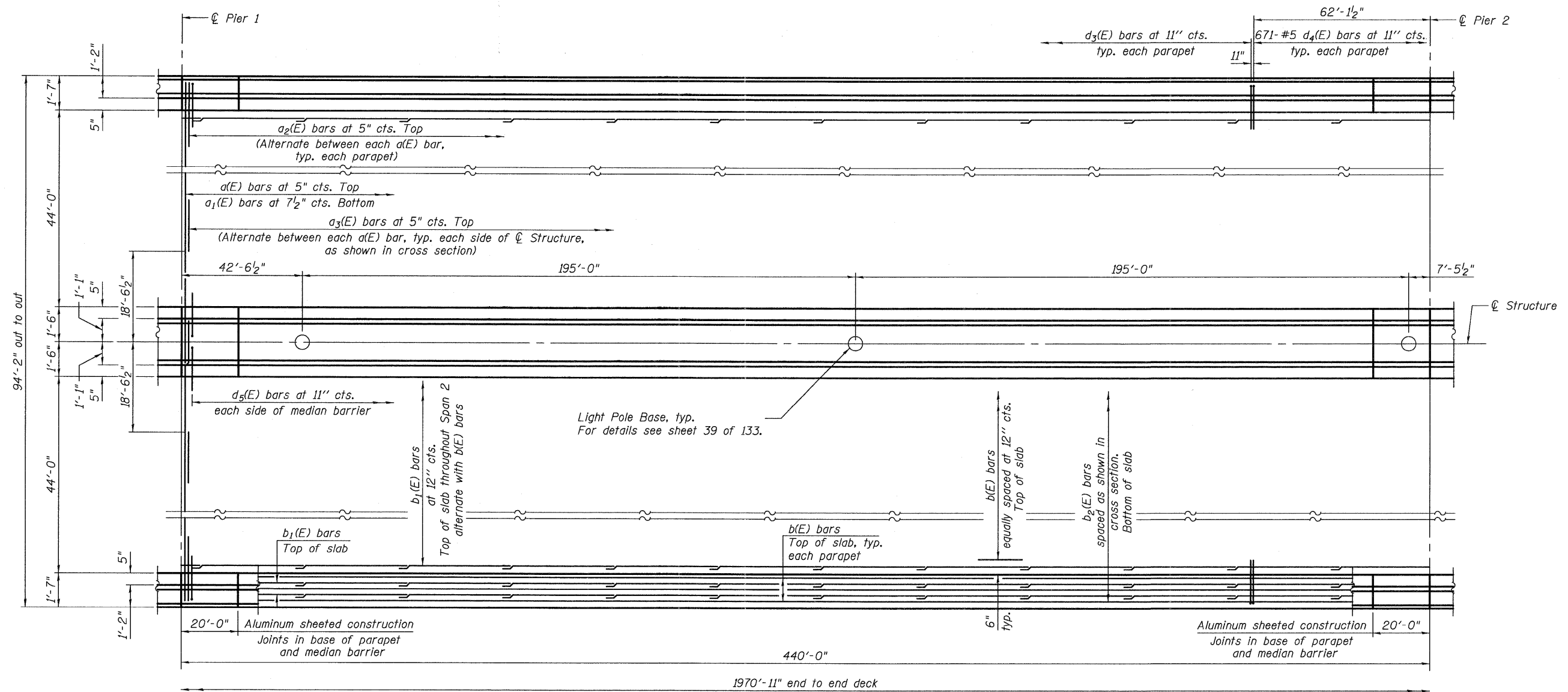
MINIMUM BAR LAP
(Slab)

Bar size	Transverse Bars	Longitudinal Bars
#4	2'-7"	2'-1"
#5	3'-3"	2'-7"
#6	3'-10"	3'-1"
#7	5'-2"	4'-2"

NOTES:

- See sheet 34 of 133, for superstructure cross section.
- Cut slab reinforcement as required to clear modular unit.

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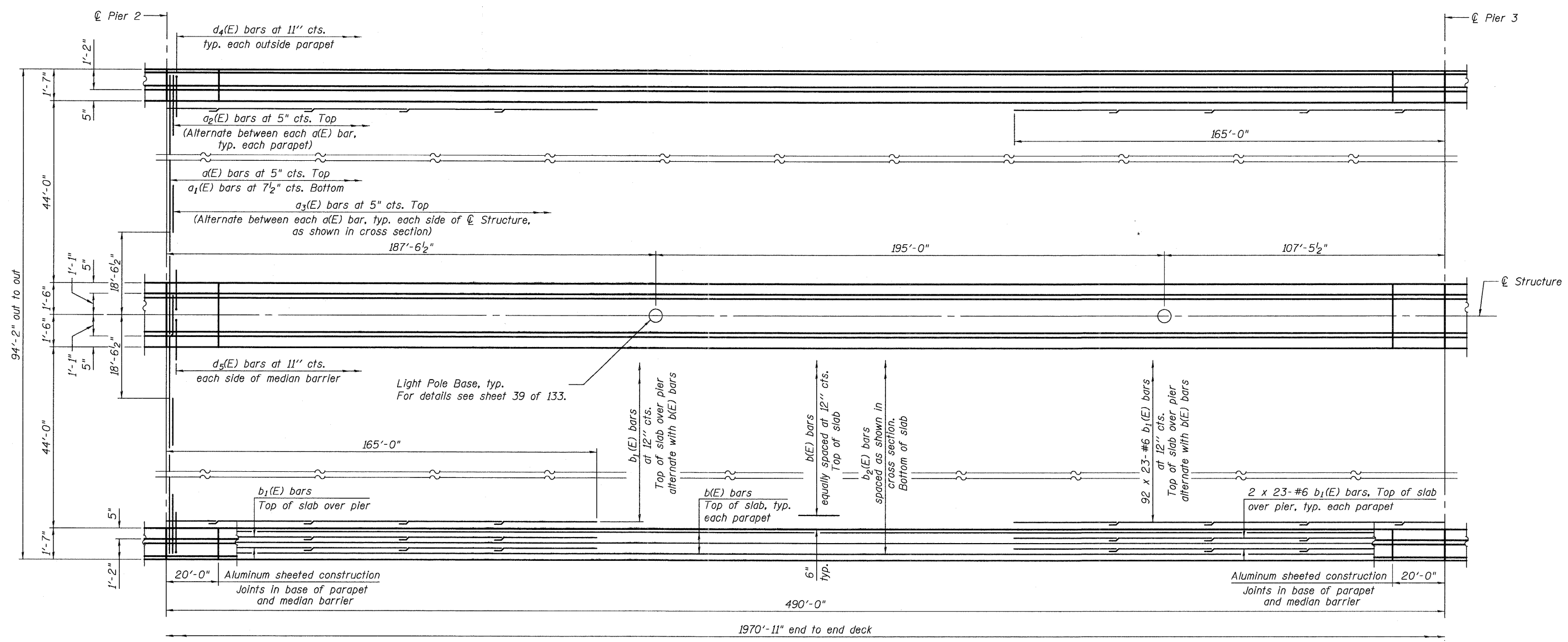
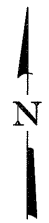


PARTIAL PLAN - SPAN 2

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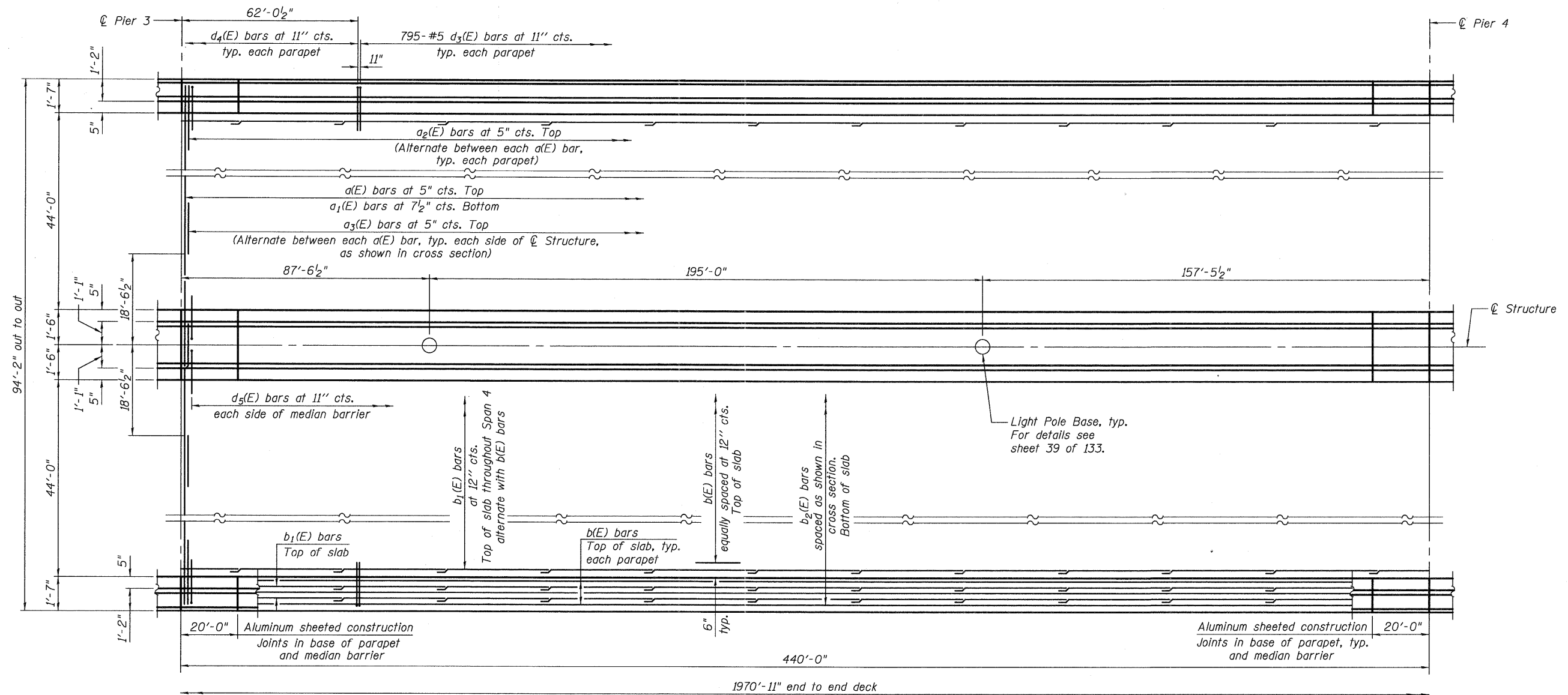
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						ILLINOIS FED. AID PROJECT				



PARTIAL PLAN - SPAN 3

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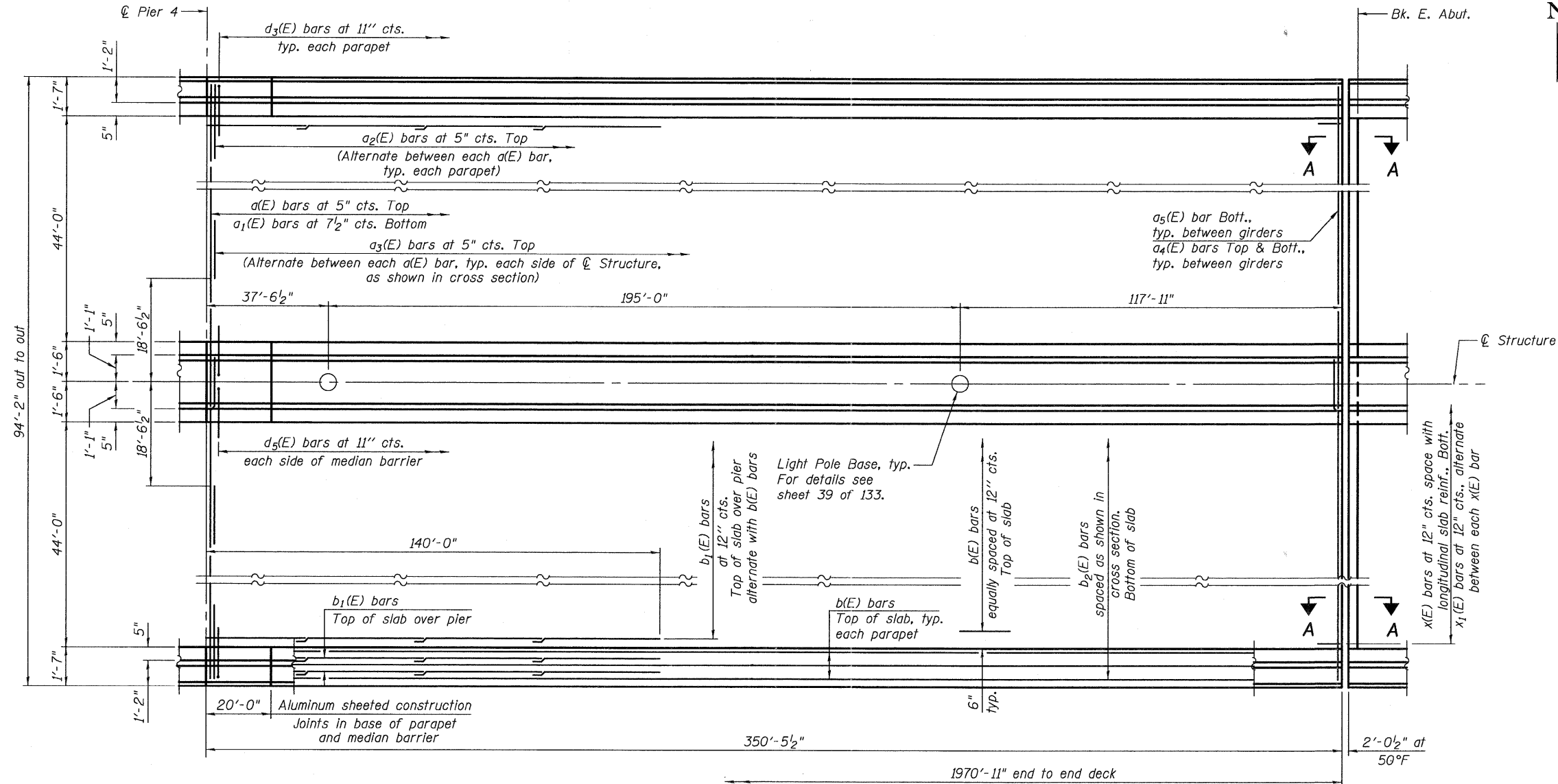
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BRIDGE SHEET NO. 31 OF 133 SHEETS										



PARTIAL PLAN - SPAN 4

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PLAN - SPAN 5

NOTES:

1. See sheet 39 of 133 for superstructure details.
2. See sheet 40 of 133 for Bill of Material.
3. Bars indicated thus 36 x 8-#5 etc. indicates 36 lines of bars with 8 lengths per line.
4. See sheets 35 & 36 of 133 for parapet reinforcement.
5. See sheets 37 & 38 of 133 for median barrier reinforcement.
6. Drainage scuppers are not shown for clarity. See sheets 101 thru 103 of 133 for type and locations and sheet 39 of 133 for additional reinforcement at scupper.

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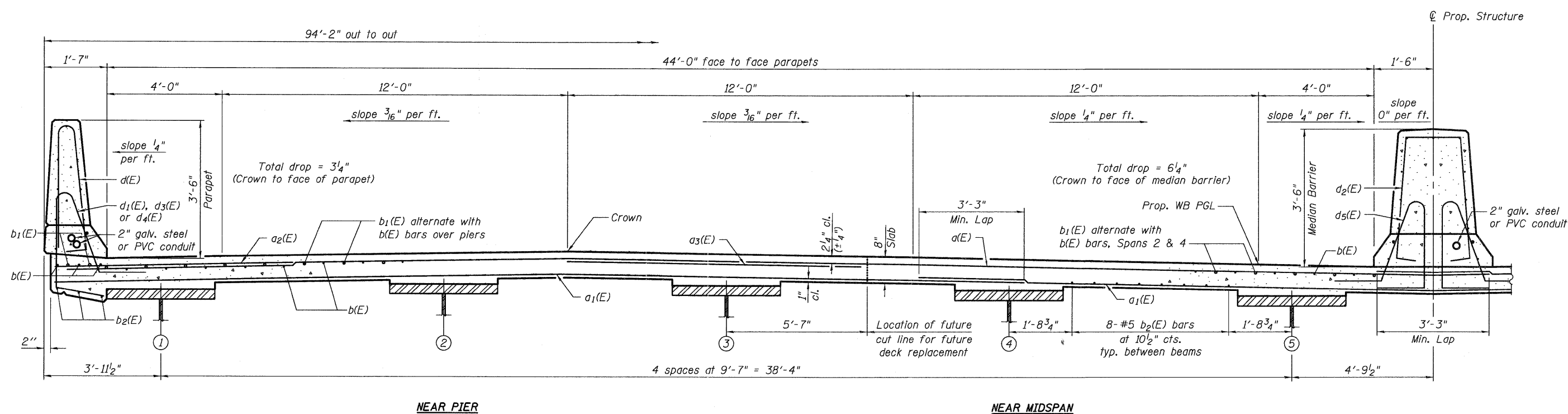
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

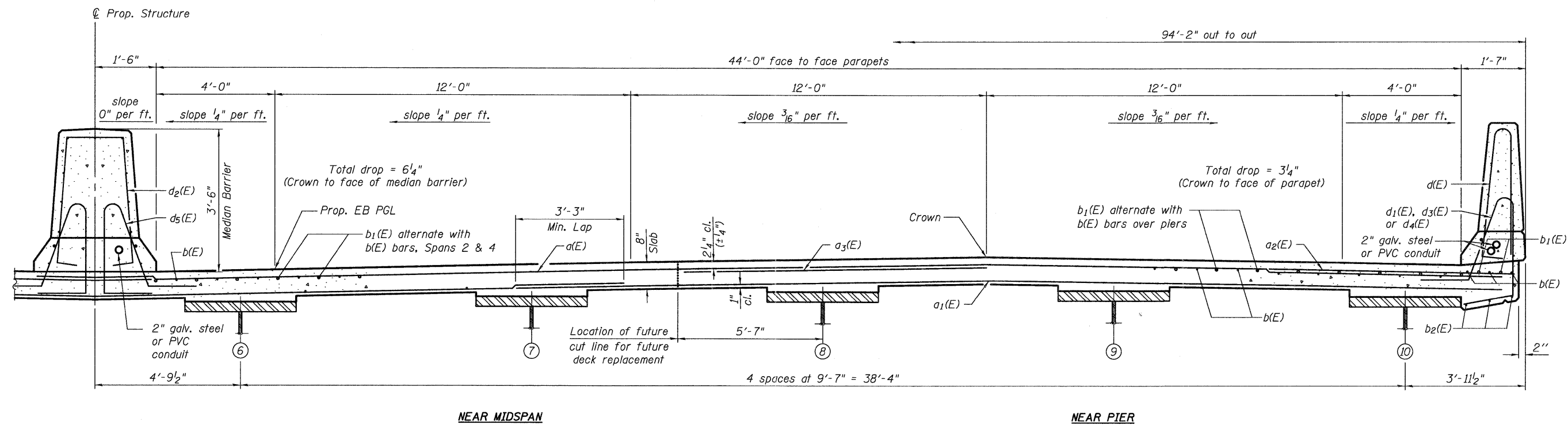
SUPERSTRUCTURE PLAN
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 33 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	412
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



CROSS SECTION
(Looking East)



CROSS SECTION
(Looking East)

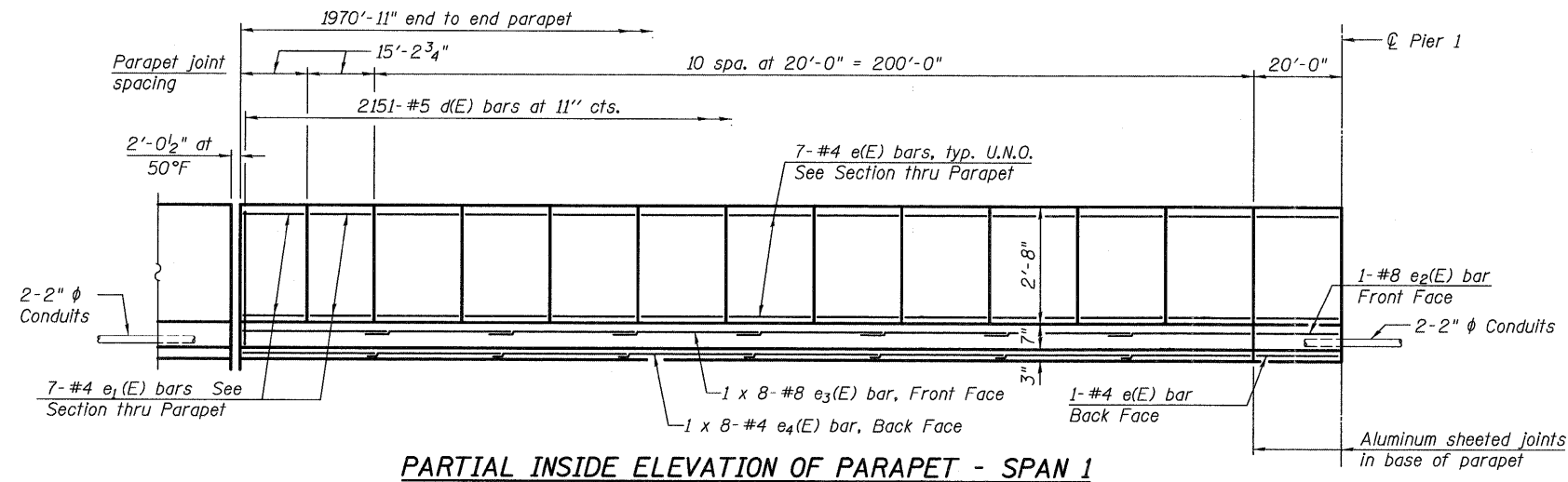
NOTE:

1. Cost of conduit is included with Concrete Superstructure.

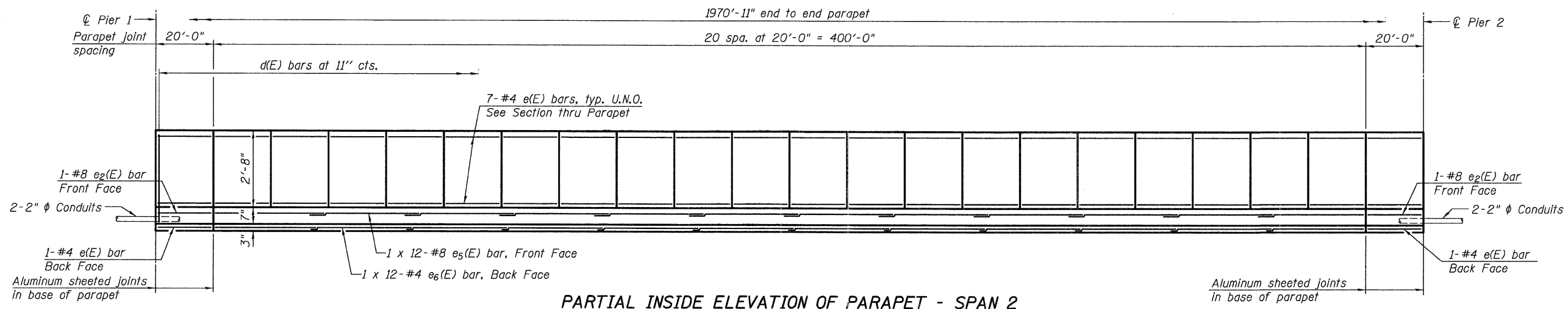
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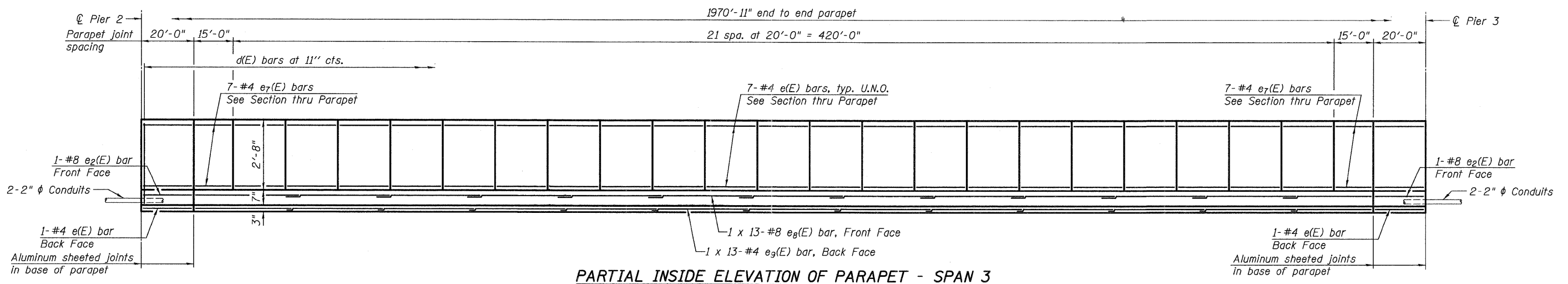
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PARTIAL INSIDE ELEVATION OF PARAPET - SPAN 1



PARTIAL INSIDE ELEVATION OF PARAPET - SPAN 2



PARTIAL INSIDE ELEVATION OF PARAPET - SPAN 3

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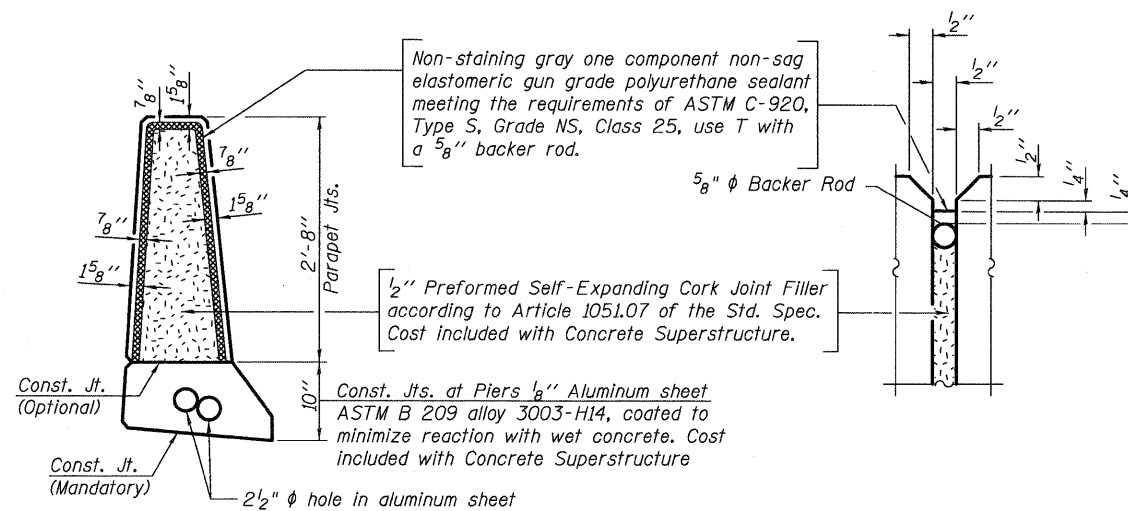
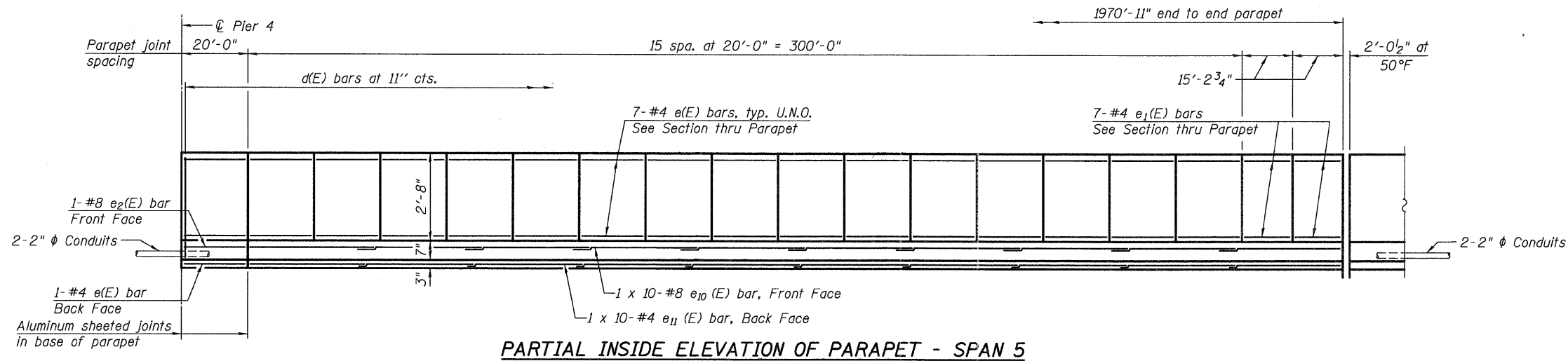
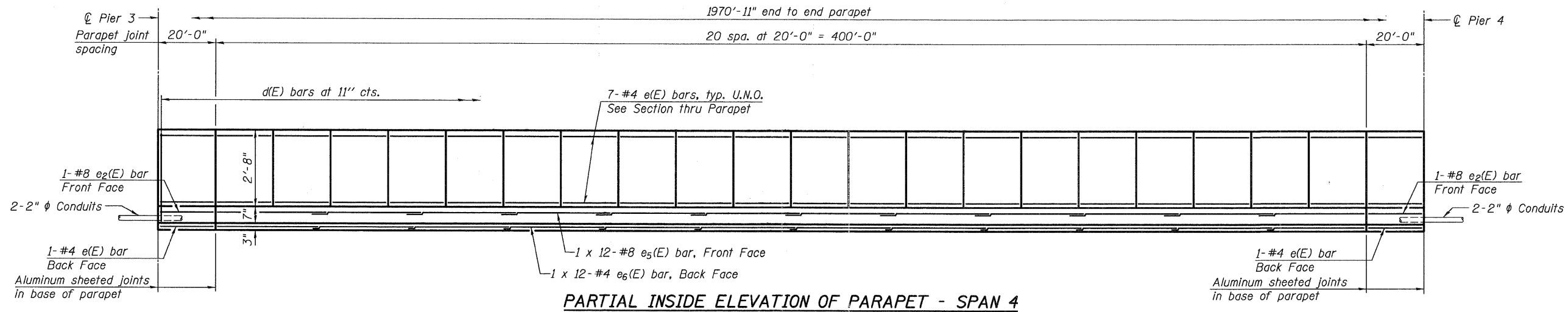
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS - PARAPET ELEVATION
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 35 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



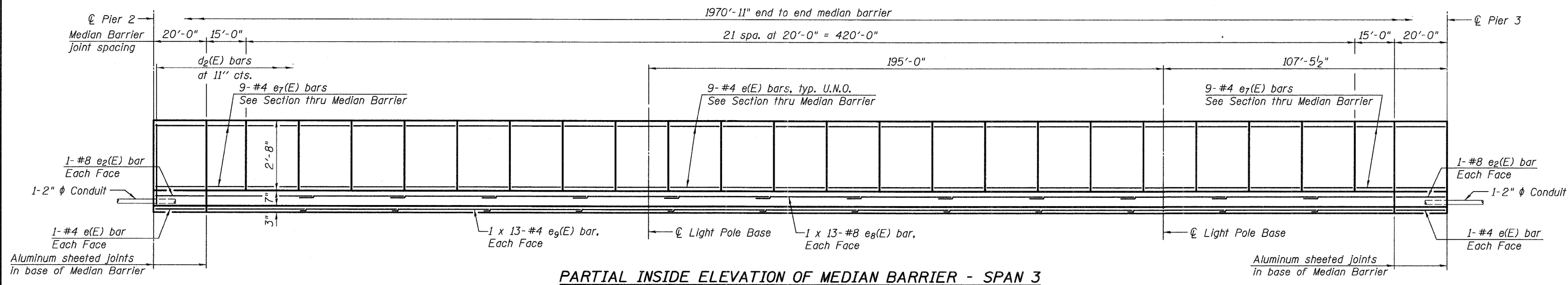
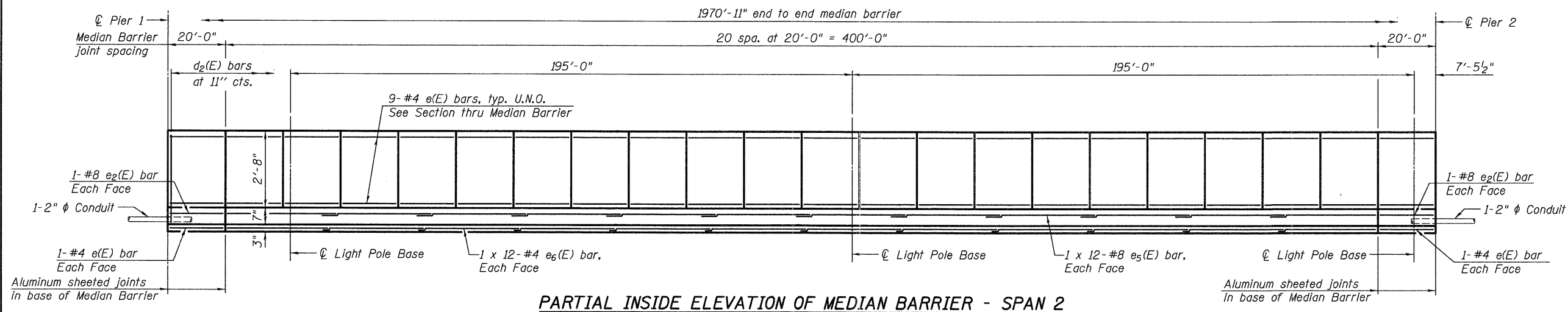
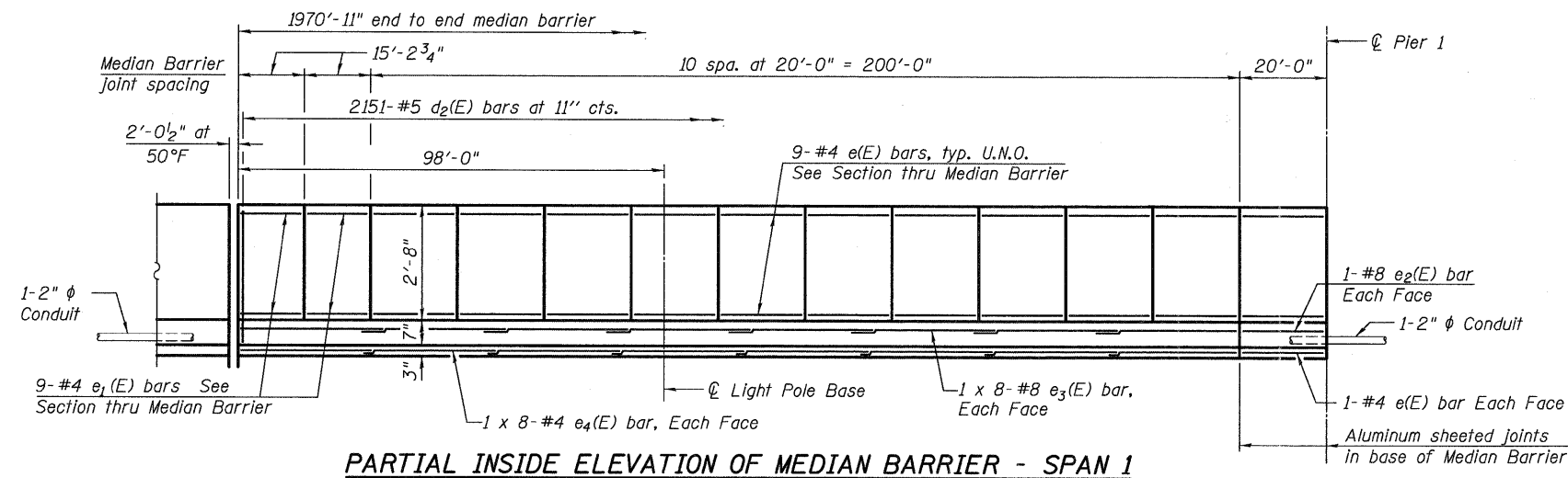
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

NOTES:

1. See sheet 39 of 133 for superstructure details.
2. See sheet 40 of 133 for Bill of Material.
3. Bars indicated thus 36 x 8-#5 etc. indicates 36 lines of bars with 8 lengths per line.
4. See sheet 46 of 133 for steel plates to be cast into parapets at each end to accommodate the steel slider plate assembly.

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BRIDGE SHEET NO. 36 OF 133 SHEETS										



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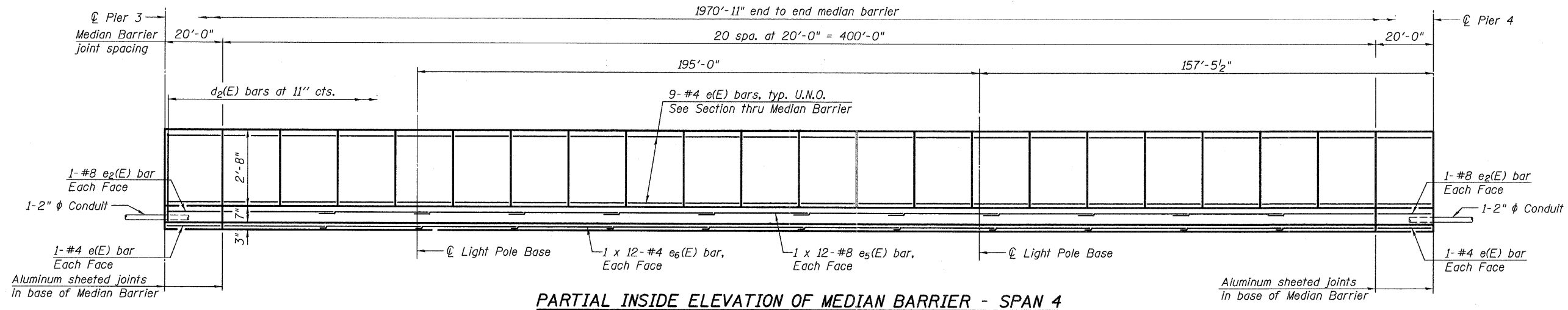
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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

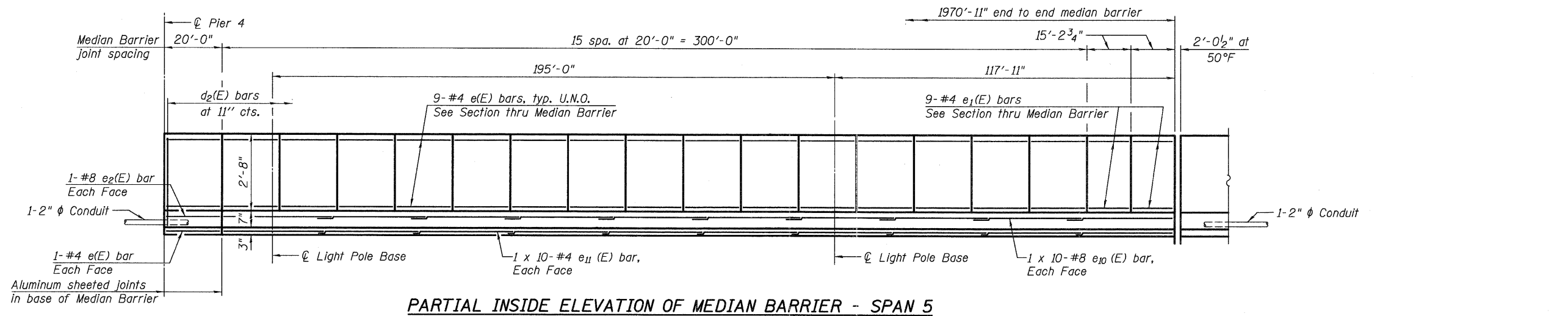
SUPERSTRUCTURE DETAILS - MEDIAN BARRIER ELEVATION
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 37 OF 133 SHEETS

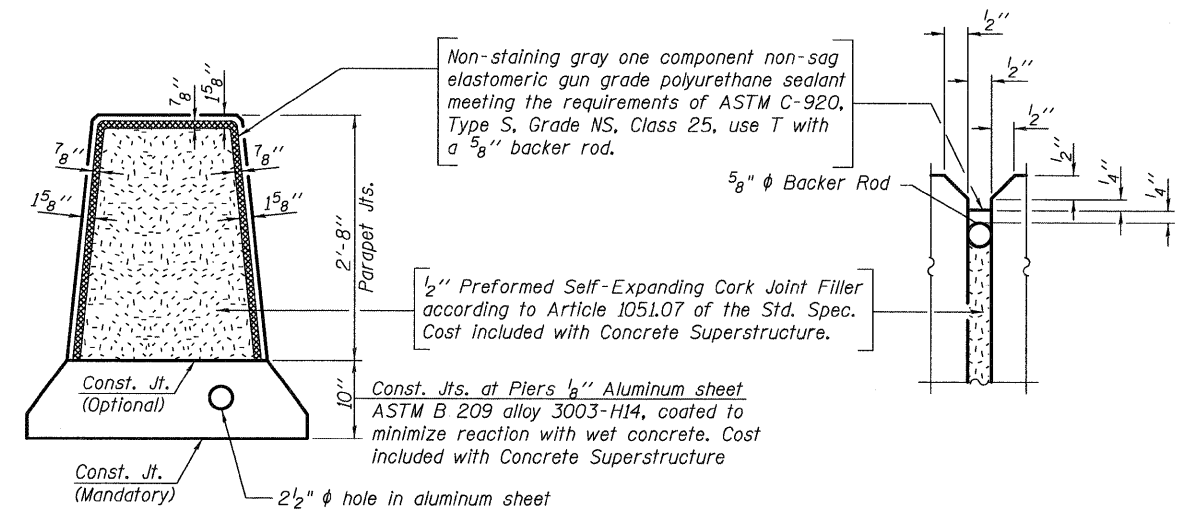
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	416
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



PARTIAL INSIDE ELEVATION OF MEDIAN BARRIER - SPAN 4



PARTIAL INSIDE ELEVATION OF MEDIAN BARRIER - SPAN 5



MEDIAN BARRIER JOINT DETAILS

MINIMUM BAR LAP
 (Median Barrier)
 #4 bar = 2'-0"
 #8 bar = 5'-2"

- NOTES:**
- See sheet 39 of 133 for superstructure details.
 - See sheet 40 of 133 for Bill of Material.
 - Bars indicated thus 36 x 8-#5 etc. indicates 36 lines of bars with 8 lengths per line.
 - The light poles to be at median barrier only.
 - See sheet 46 of 133 for steel plates to be cast into median barrier at each end to accommodate the steel slider plate assembly.

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 jmgus
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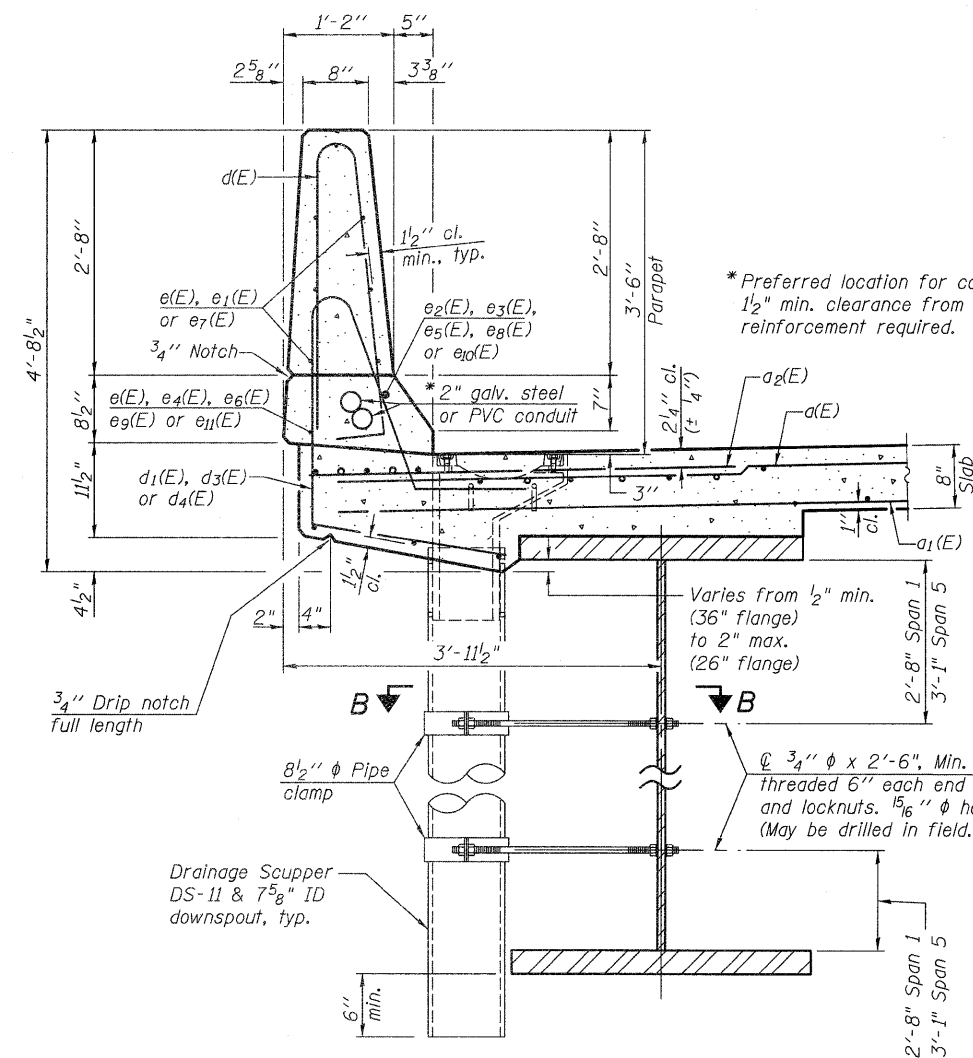
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

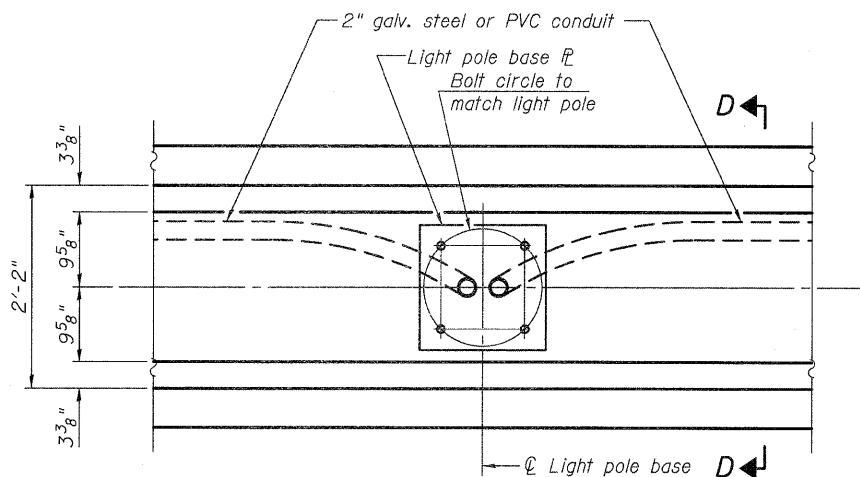
SUPERSTRUCTURE DETAILS - MEDIAN BARRIER ELEVATION
 STRUCTURE NO. 060-0345

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	417
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				

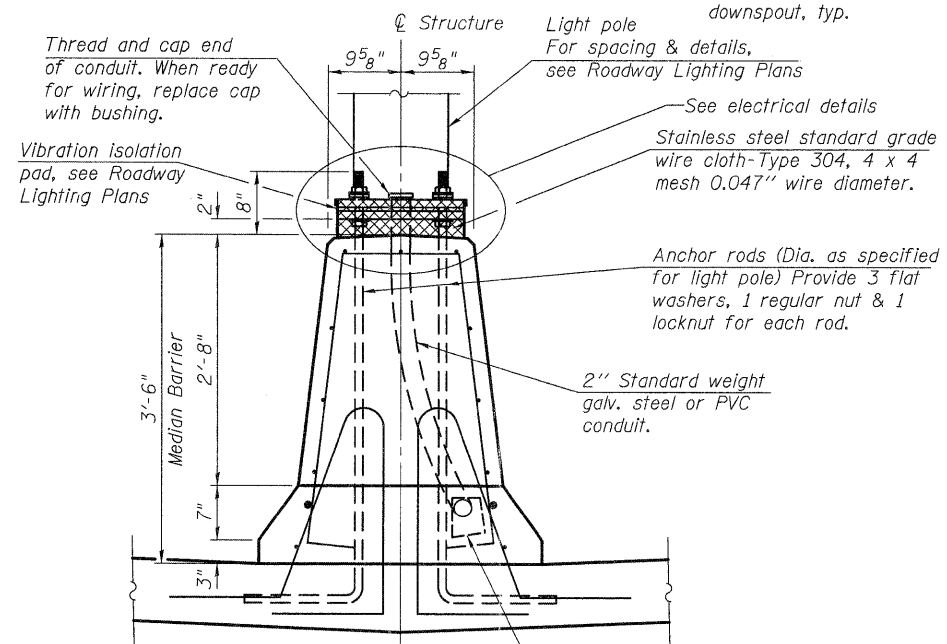
BRIDGE SHEET NO. 38 OF 133 SHEETS



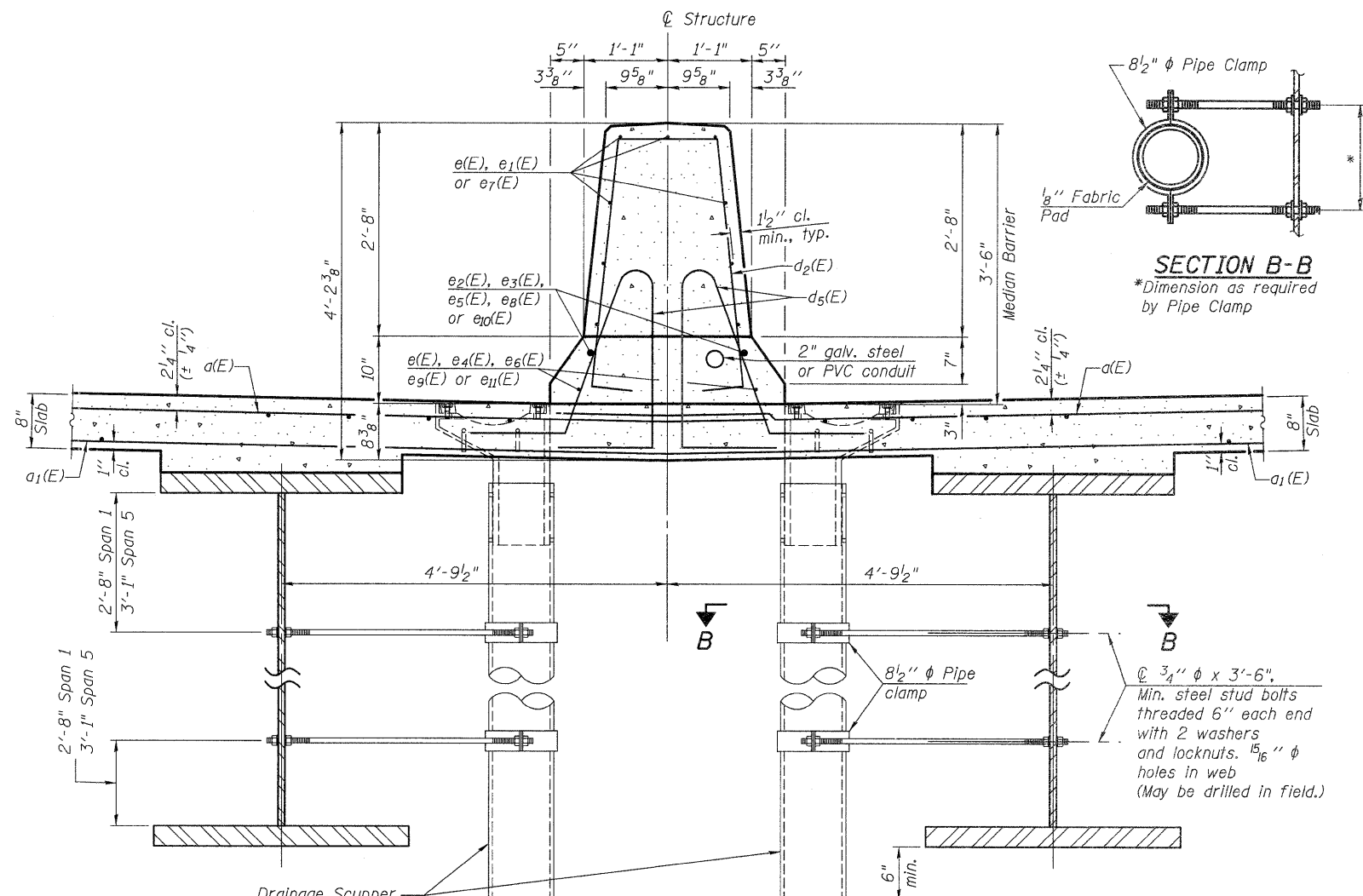
SECTION THRU PARAPET



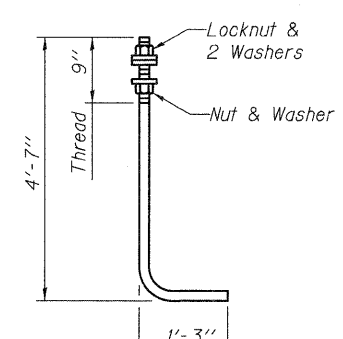
PLAN



SECTION D-D

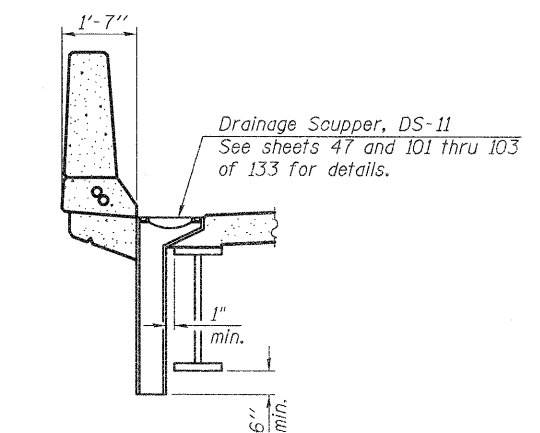


SECTION THRU MEDIAN BARRIER

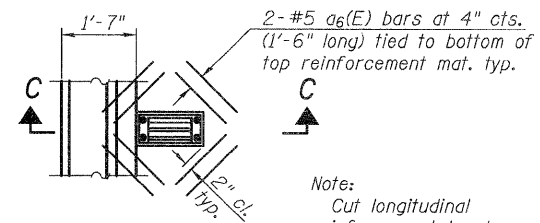


ANCHOR ROD

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



SECTION C-C



PLAN

Note: Cut longitudinal reinforcement to clear drainage scuppers.

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USER NAME = jmg	DESIGNED - BWC	REVISED - LGP 4/20/2011
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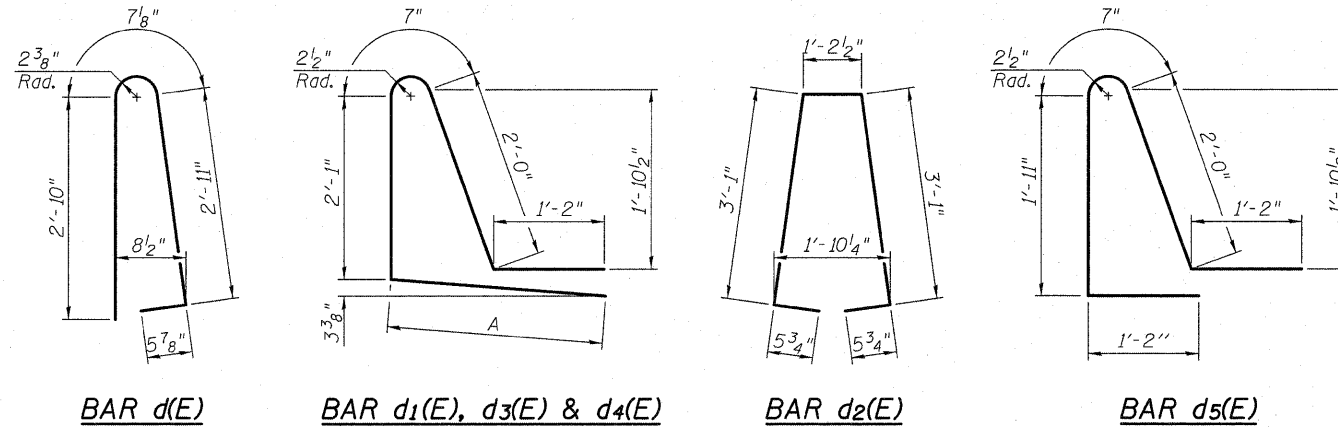
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 060-0345**

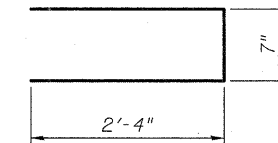
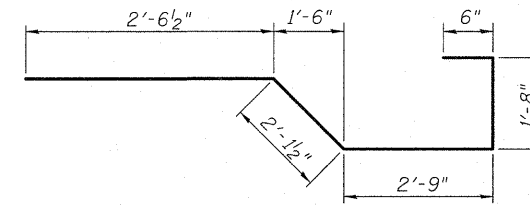
BRIDGE SHEET NO. 39 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	418
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				

**SUPERSTRUCTURE
BILL OF MATERIAL**



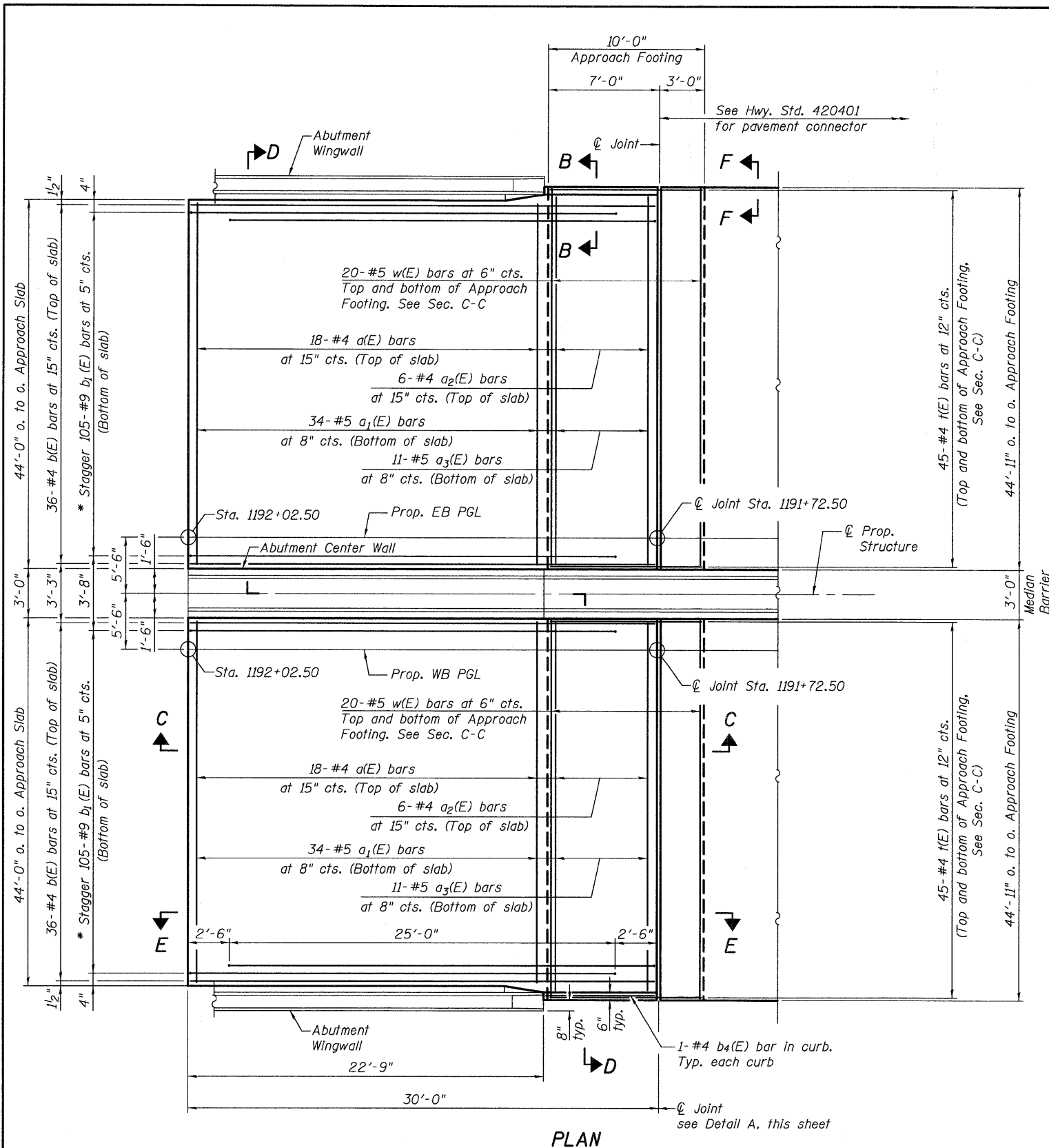
Bar	A
d1(E)	2'-5"
d3(E)	2'-2"
d4(E)	2'-0"



Bar	No.	Size	Length	Shape
d(E)	9,462	#5	48'-5"	U
d1(E)	9,465	#5	33'-4"	U
d2(E)	9,460	#6	6'-6"	T
d3(E)	9,460	#6	10'-0"	U
d4(E)	48	#6	48'-8"	U
d5(E)	36	#6	9'-4"	U
d6(E)	608	#5	1'-6"	U
b(E)	4,850	#5	42'-0"	—
b1(E)	4,512	#6	35'-6"	—
b2(E)	3,978	#5	41'-3"	—
d(E)	4,302	#5	6'-10"	L
d1(E)	394	#5	8'-3"	L
d2(E)	2,151	#5	8'-4"	L
d3(E)	2,566	#5	8'-0"	L
d4(E)	1,342	#5	7'-10"	L
d5(E)	4,302	#5	6'-10"	L
e(E)	2,194	#4	19'-8"	—
e1(E)	92	#4	14'-10"	—
e2(E)	32	#8	19'-8"	—
e3(E)	32	#8	33'-4"	—
e4(E)	32	#4	30'-7"	—
e5(E)	96	#8	38'-1"	—
e6(E)	96	#4	35'-2"	—
e7(E)	46	#4	14'-8"	—
e8(E)	52	#8	39'-5"	—
e9(E)	52	#4	36'-6"	—
e10(E)	40	#8	37'-9"	—
e11(E)	40	#4	34'-11"	—
x(E)	182	#5	9'-7"	L
x1(E)	180	#4	5'-3"	L
Reinforcement Bars, Epoxy Coated			Pound	1,847,820
Concrete Superstructure			Cu. Yd.	6,202.8

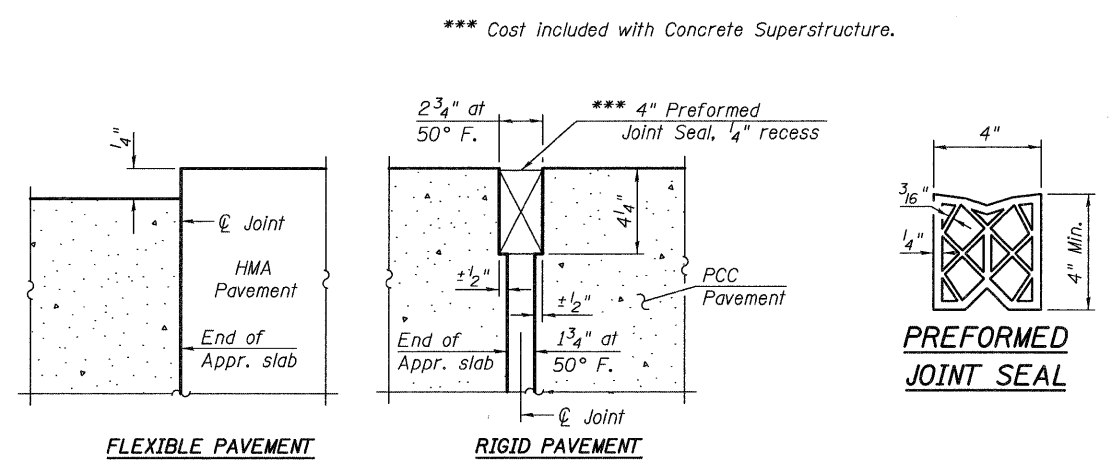
Bars indicated thus 1 x 4-#8 etc. indicates 1 line of bars with 4 lengths per line.

5/22/2011 9:25:18 AM c:\pwworking\oma\0549104\0600345-76A91-040-SDT.dgn jmgus

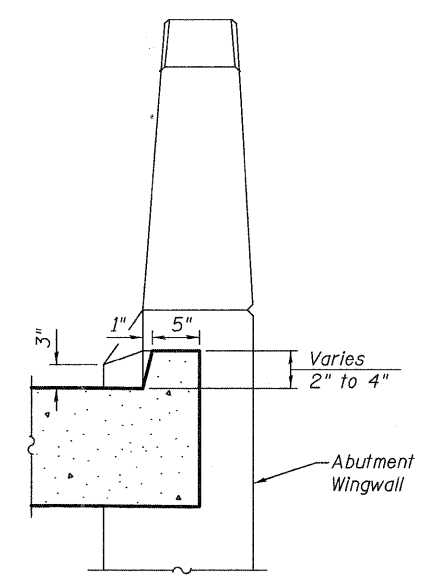


PLAN

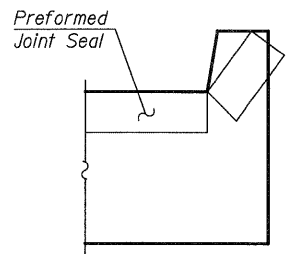
* Tilt #9 b₁(E) bars as required to maintain clearance.



DETAIL A



VIEW B-B



VIEW F-F

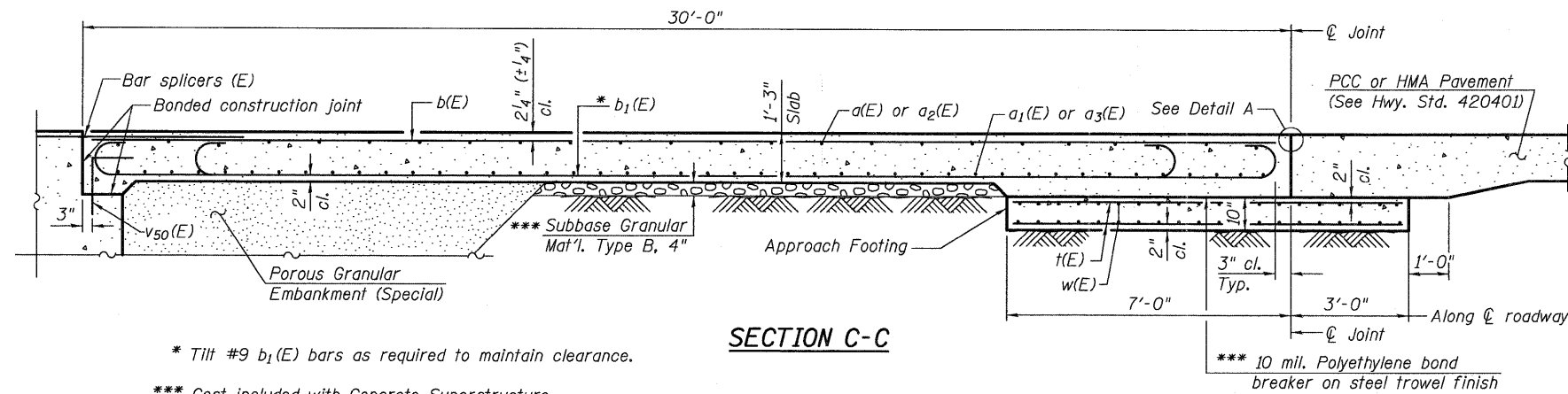
Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

NOTES:

1. See sheet 42 of 133 for Sections C-C & D-D and View E-E.
2. a(E) and a₁(E) bar spacings measured along \mathcal{C} Rdwy.

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	USER NAME = jmgus	DESIGNED - BWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WEST BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 060-0345	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME = 0600345-76A91-041-ASD.DGN	CHECKED - LGP	REVISED -			270	60-1B-1	MADISON	712	420
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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -		ILLINOIS FED. AID PROJECT						



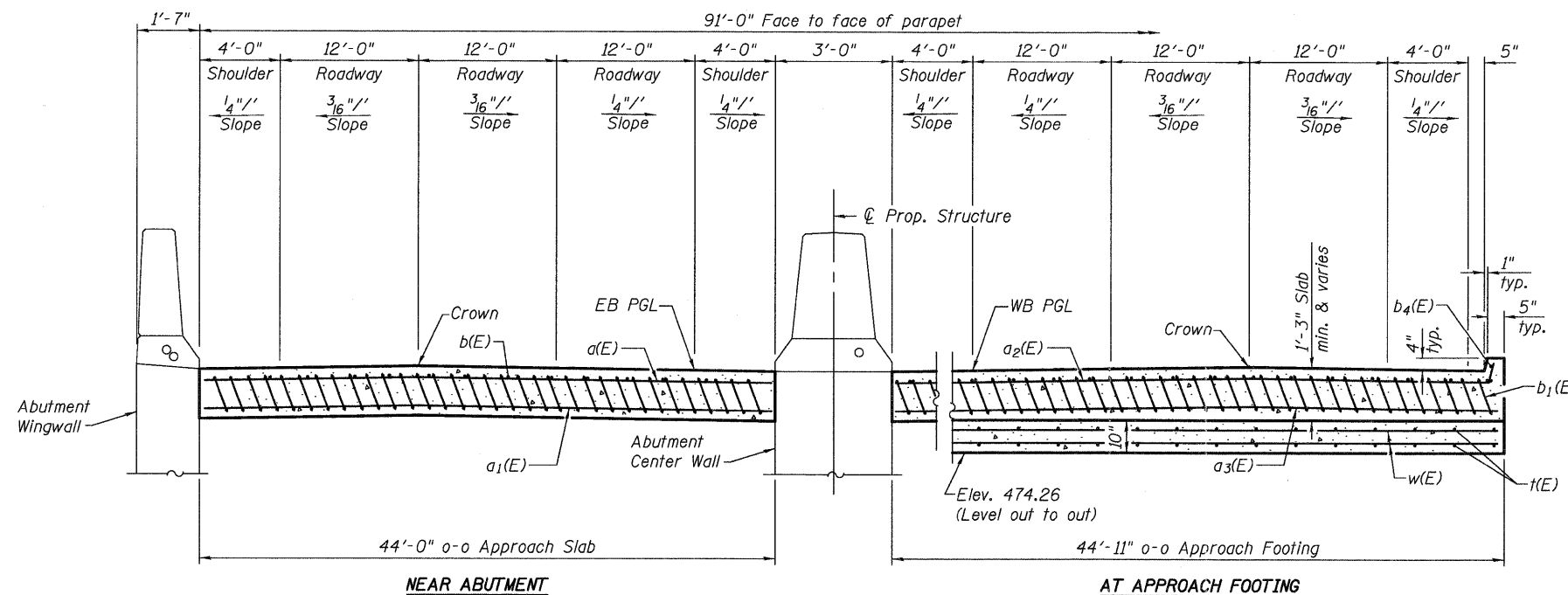
* Tilt #9 b₁(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

*** 10 mil. Polyethylene bond breaker on steel trowel finish

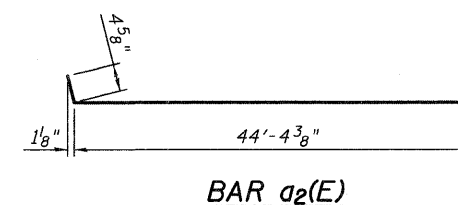
SECTION C-C

**WEST APPROACH
BILL OF MATERIAL**

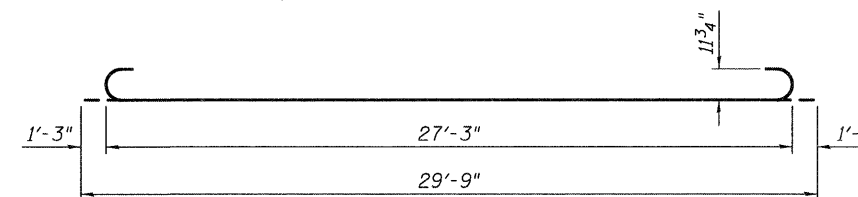
Bar	No.	Size	Length	Shape	
a(E)	36	#4	43'-6"	—	
a ₁ (E)	68	#5	43'-6"	—	
a ₂ (E)	12	#4	44'-9"	—	
a ₃ (E)	22	#5	44'-5"	—	
b(E)	72	#4	29'-8"	—	
b ₁ (E)	210	#9	29'-9"	—	
b ₄ (E)	2	#4	6'-11"	—	
t(E)	180	#4	9'-8"	—	
w(E)	80	#5	44'-7"	—	
Concrete Superstructure				Cu. Yd.	133.2
Concrete Structures				Cu. Yd.	27.8
Reinforcement Bars, Epoxy Coated				Pound	33,070



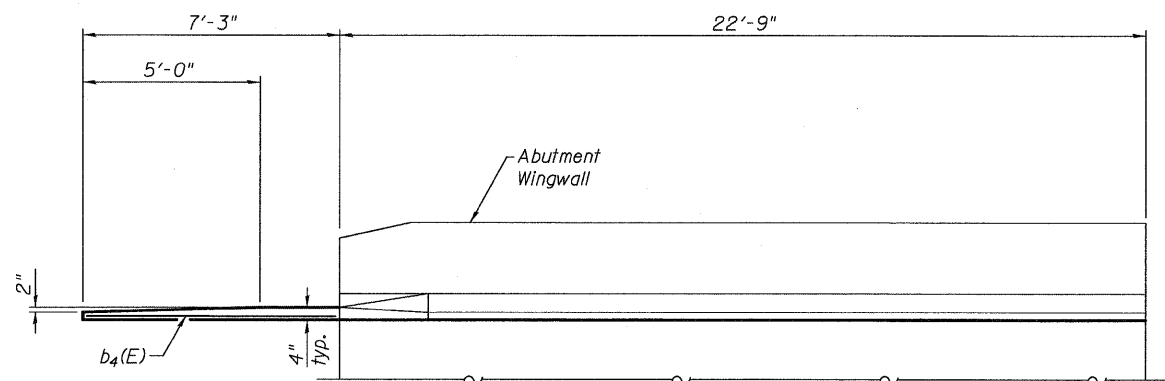
SECTION D-D
(See Plan for dimensions not shown)



BAR a₂(E)



BAR b₁(E)

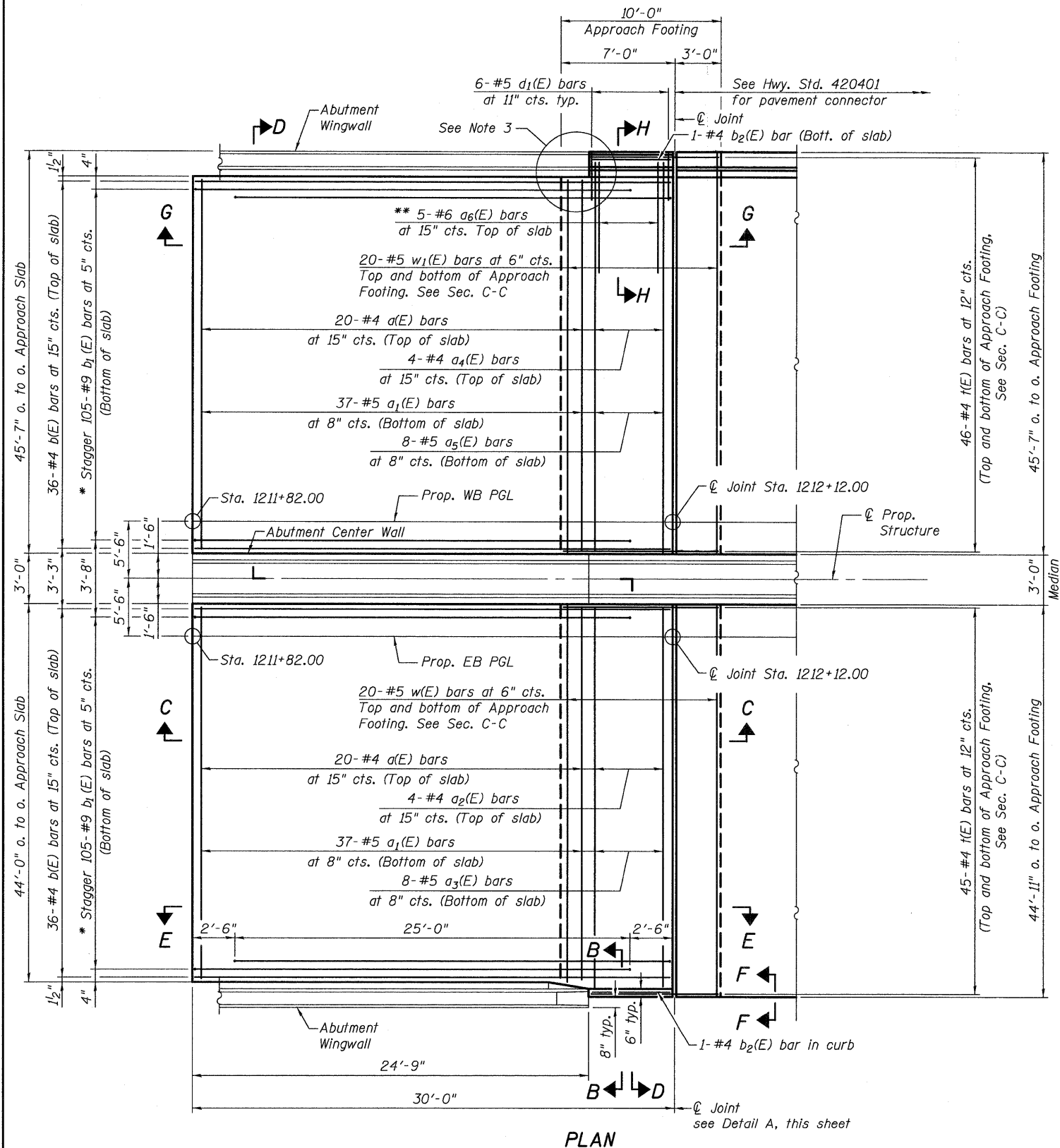


VIEW E-E

NOTES:

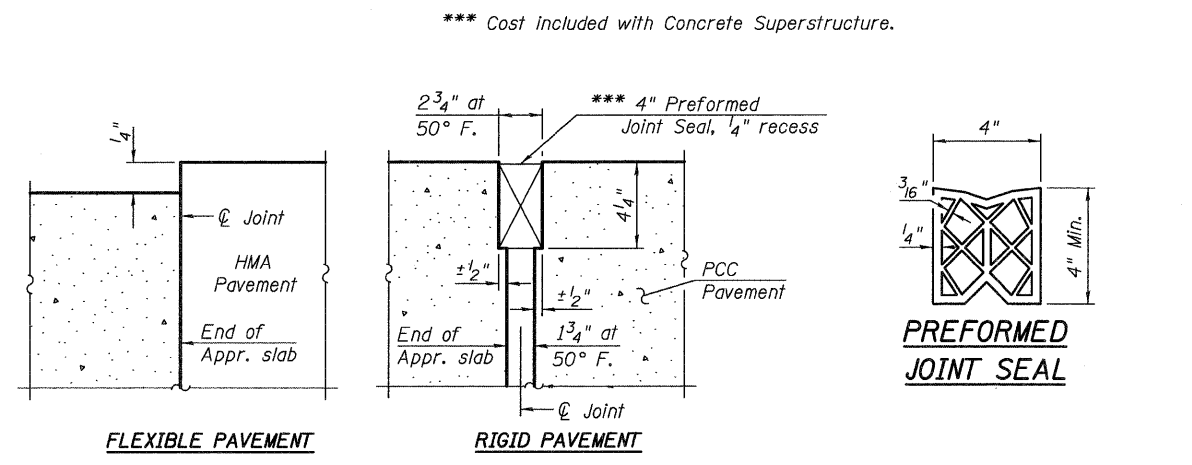
- See sheet 41 of 133 for Detail A and View B-B.
- Approach slab concrete shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- For v₅₀(E) bar details, see sheet 85 of 133.
- The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
- For bar splicer details, see sheet 104 of 133.
- Cost of excavation for approach footing included with Concrete Structures.
- For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 133.

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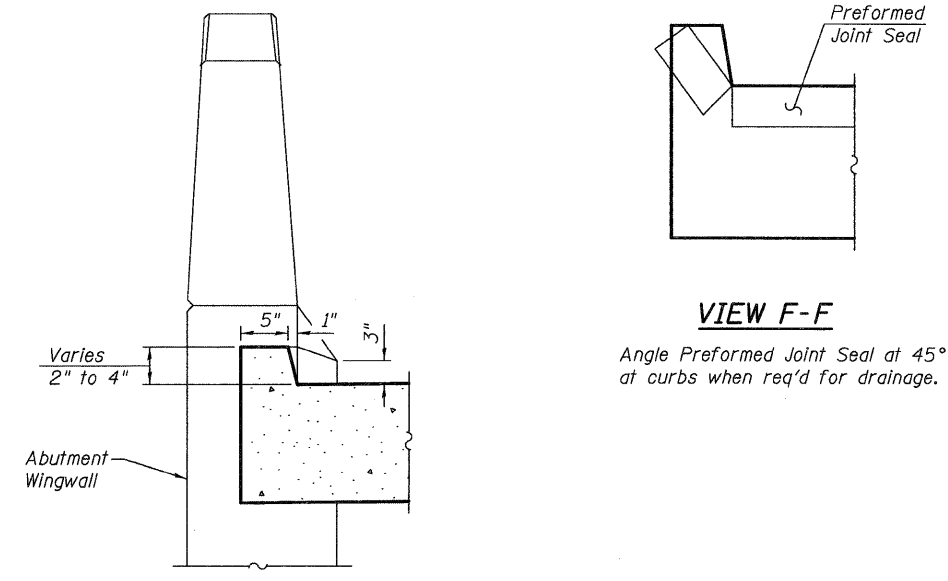


PLAN

* Tilt #9 b1(E) bars as required to maintain clearance.
 ** Space between a(E) bars, NE parapet only.



DETAIL A



VIEW B-B

NOTES:

1. See sheet 44 of 133 for Sections C-C, D-D & H-H and Views E-E & G-G.
2. a(E) and a1(E) bar spacings measured along \varnothing Rdwy.
3. Cut t(E) and w1(E) bars to fit at corner of approach footing.

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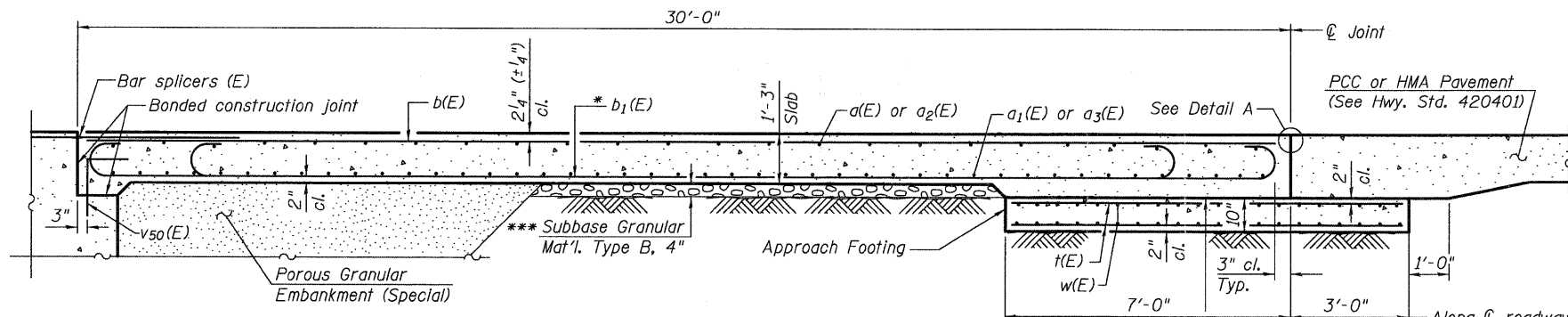
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EAST BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 43 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	422

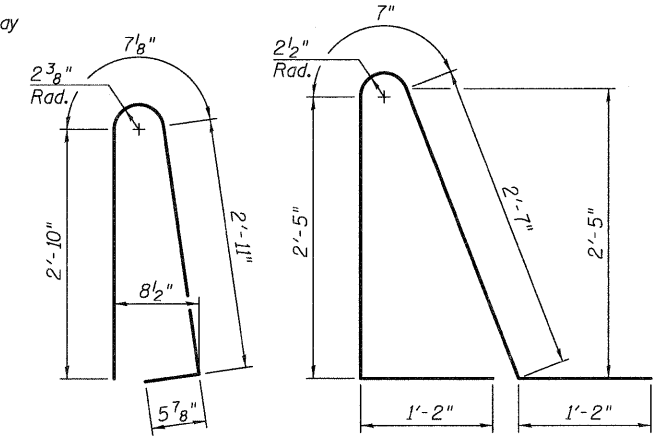
CONTRACT NO. 76A91
 ILLINOIS FED. AID PROJECT



* Tilt #9 b₁(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

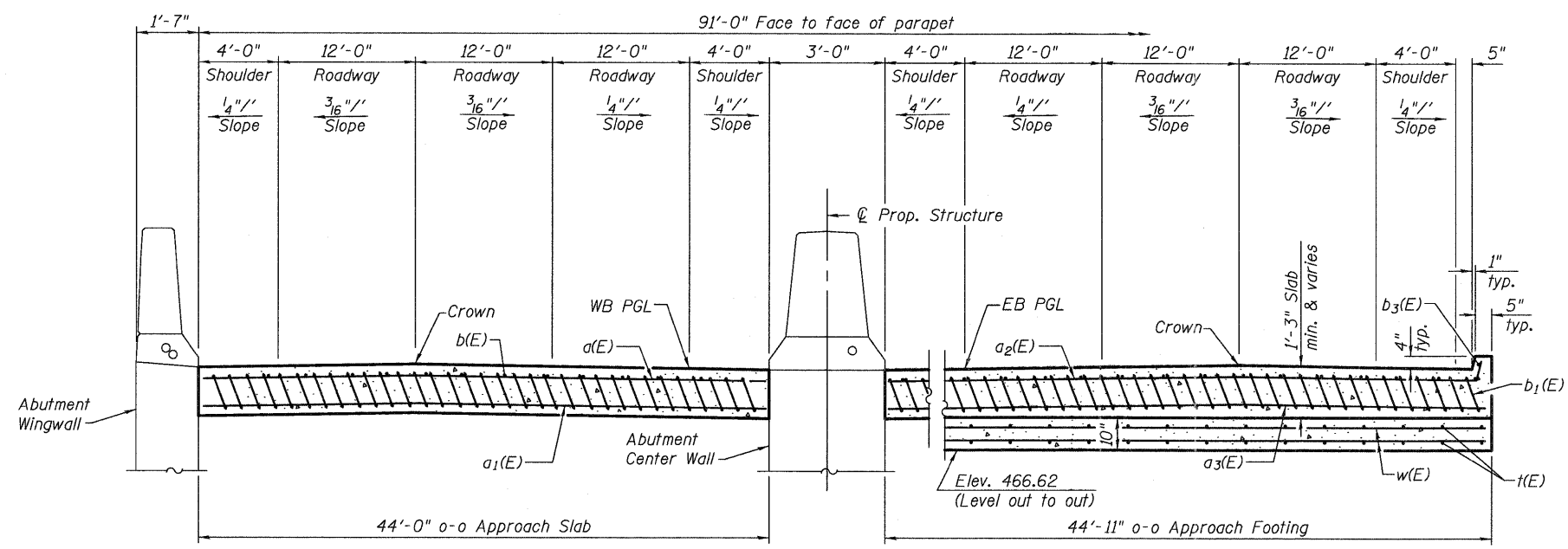
*** 10 mil. Polyethylene bond breaker on steel trowel finish

SECTION C-C



BAR d(E)

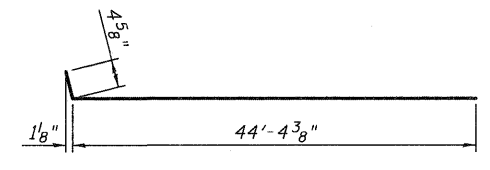
BAR d₁(E)



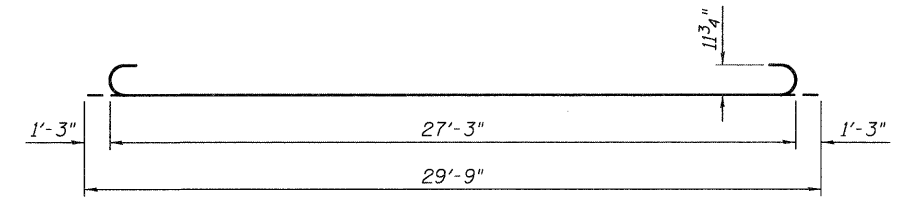
NEAR ABUTMENT

AT APPROACH FOOTING

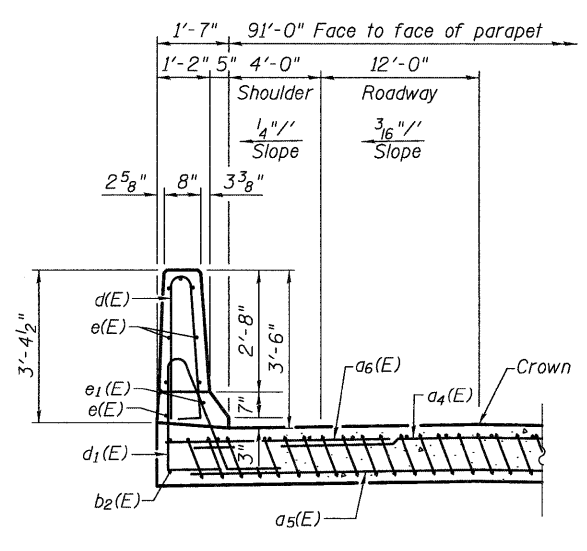
SECTION D-D



BAR a₂(E)

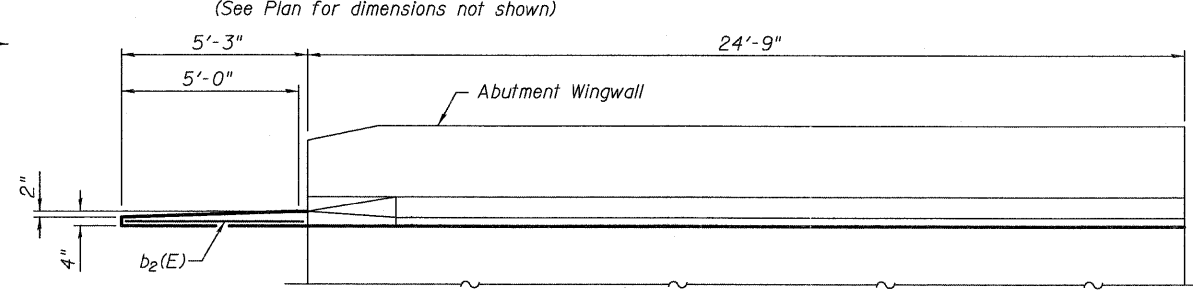


BAR b₁(E)

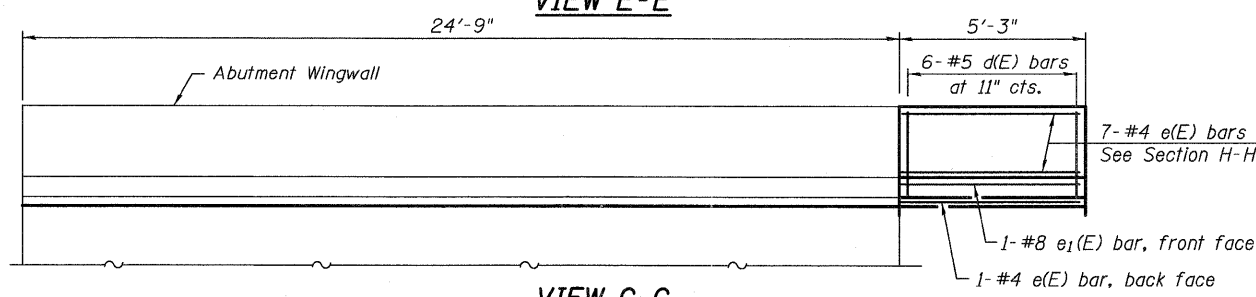


SECTION H-H

(Approach Footing not shown)



VIEW E-E



VIEW G-G

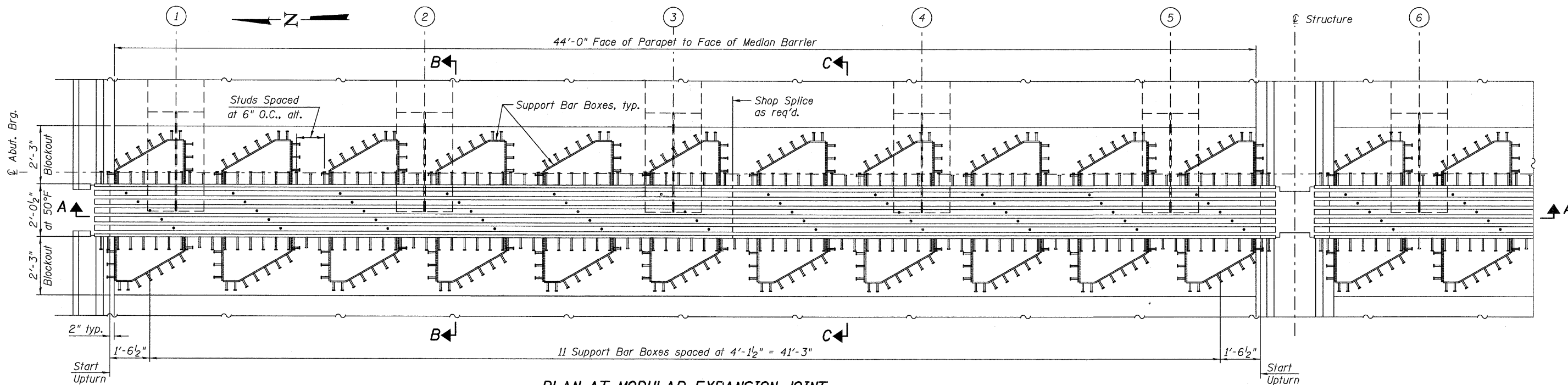
**EAST APPROACH
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	40	#4	43'-6"	—
a ₁ (E)	74	#5	43'-6"	—
a ₂ (E)	4	#4	44'-9"	—
a ₃ (E)	8	#5	44'-5"	—
a ₄ (E)	4	#4	45'-1"	—
a ₅ (E)	8	#5	45'-1"	—
a ₆ (E)	5	#6	6'-6"	—
b(E)	72	#4	29'-8"	—
b ₁ (E)	210	#9	29'-9"	—
b ₂ (E)	2	#4	4'-11"	—
d(E)	6	#5	6'-10"	—
d ₁ (E)	6	#5	7'-11"	—
e(E)	8	#4	4'-11"	—
e ₁ (E)	1	#8	4'-11"	—
t(E)	182	#4	9'-8"	—
w(E)	40	#5	44'-7"	—
w ₁ (E)	40	#5	45'-3"	—
Concrete Superstructure		Cu. Yd.	133.8	
Concrete Structures		Cu. Yd.	27.8	
Reinforcement Bars, Epoxy Coated		Pound	33,280	

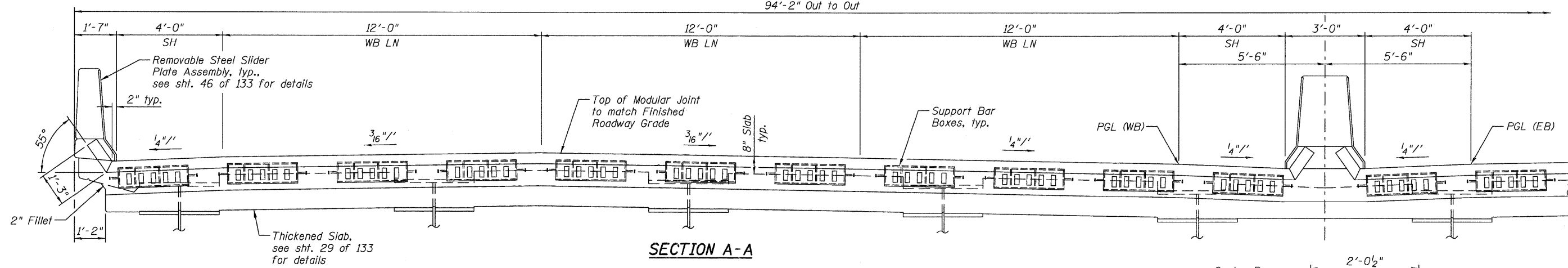
NOTES:

1. See sheet 43 of 133 for Detail A and View B-B.
2. Approach slab concrete shall be paid for as Concrete Superstructure.
3. Approach footing concrete shall be paid for as Concrete Structures.
4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
5. For v₅₀(E) bar details, see sheet 89 of 133.
6. The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
7. For bar splicer details, see sheet 104 of 133.
8. Cost of excavation for approach footing included with Concrete Structures.
9. For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 133.

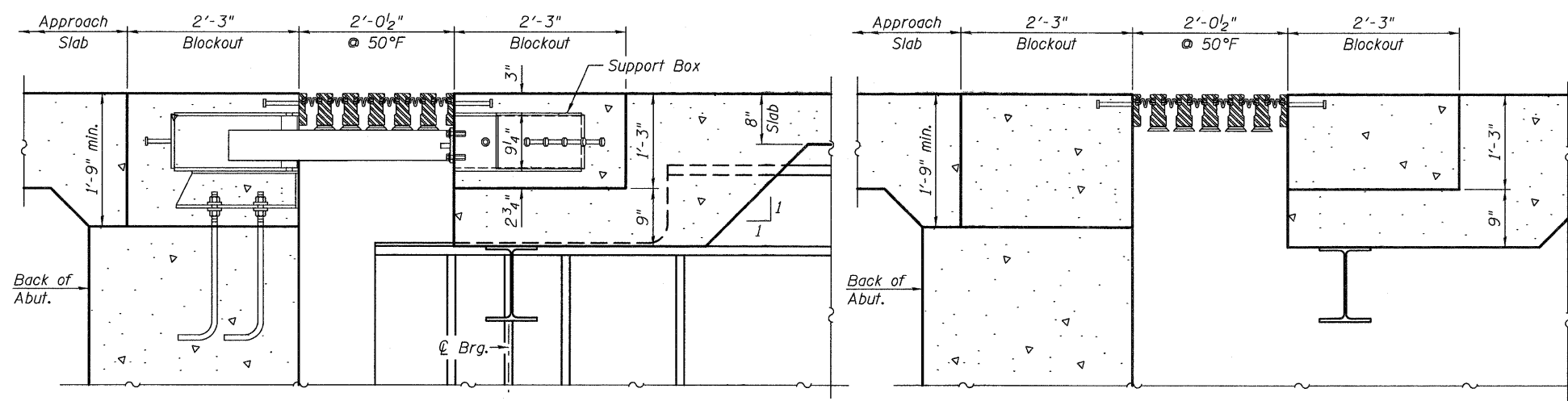
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PLAN AT MODULAR EXPANSION JOINT
W. Abutment shown, E. Abutment similar

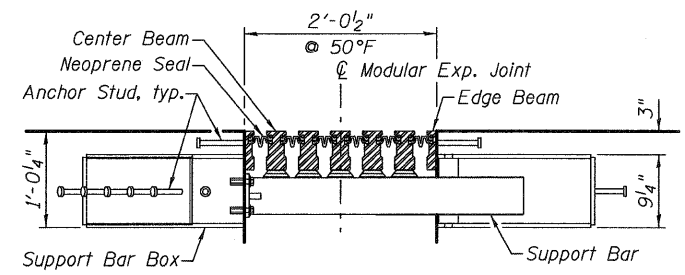


SECTION A-A



SECTION B-B

SECTION C-C



MODULAR EXP. JOINT DETAIL

NOTES:

1. The modular expansion joint system, including anchorages and support bar boxes shall be supplied by the approved chosen manufacturer.
2. The details shown are intended to be schematic. The actual components of the expansion joint system may vary from those shown. This includes, but is not limited to the number of cells, number of support bars, support bar spacing, and support bar box size. However, the total required range of expansion remains unchanged regardless of manufacturer chosen.
3. Structural steel for modular joints shall be galvanized.
4. The modular expansion joint system shall accommodate 18 3/4" total longitudinal movement.
5. Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

3/15/2011 2:15:29 PM c:\pwworking\homa\d0549104\0600345-76A91-045-EXP.dgn jmgus



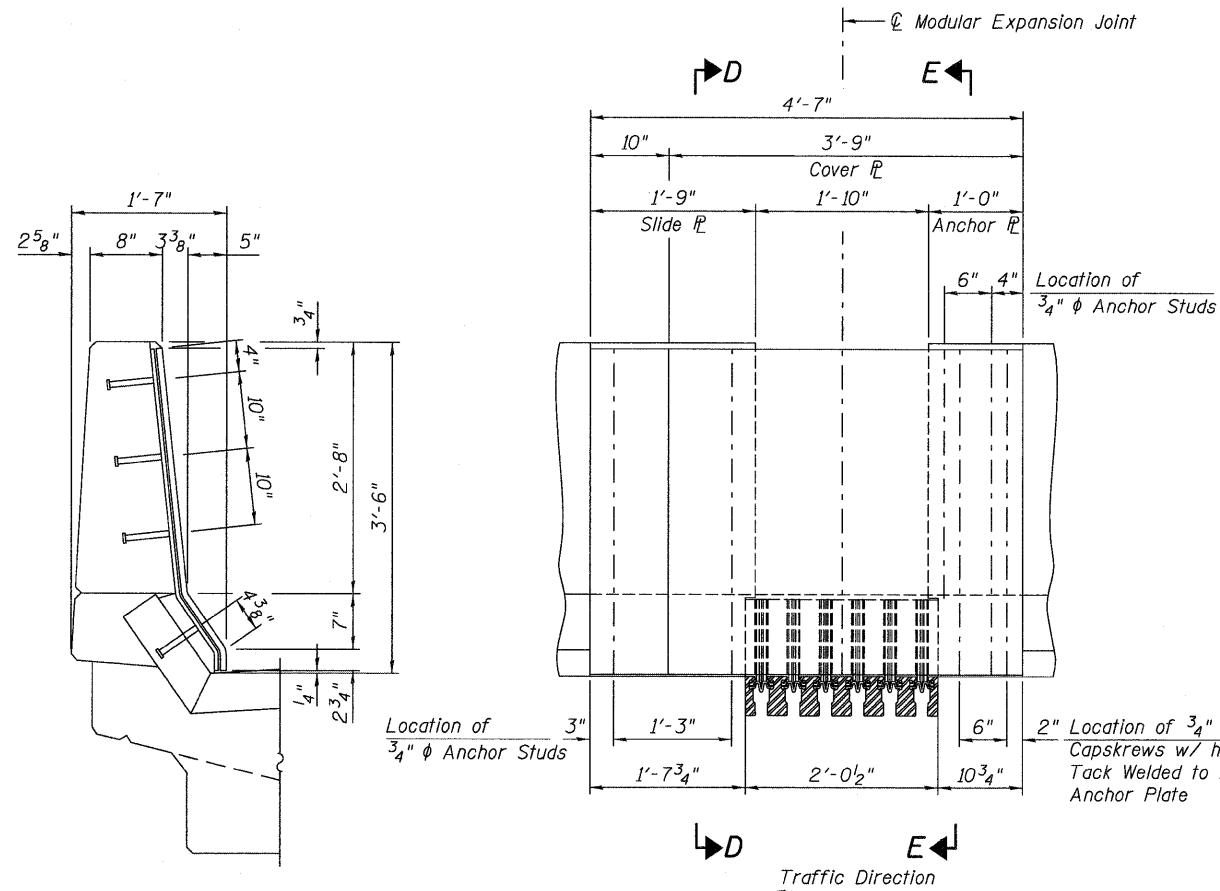
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MODULAR EXPANSION JOINT DETAILS
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 45 OF 133 SHEETS

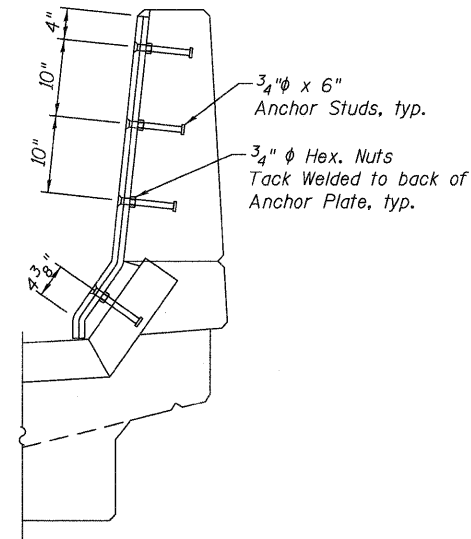
F.A.I. RTE. 270	SECTION 60-18-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 424
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76A91	



SECTION D-D

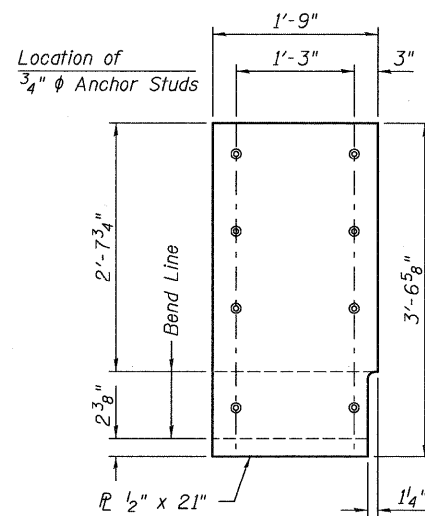
PARAPET ELEVATION AT MODULAR EXP. JOINT

All dimensions are at 50°F
(N. Parapet shown, S. Parapet & Median Barrier similar)

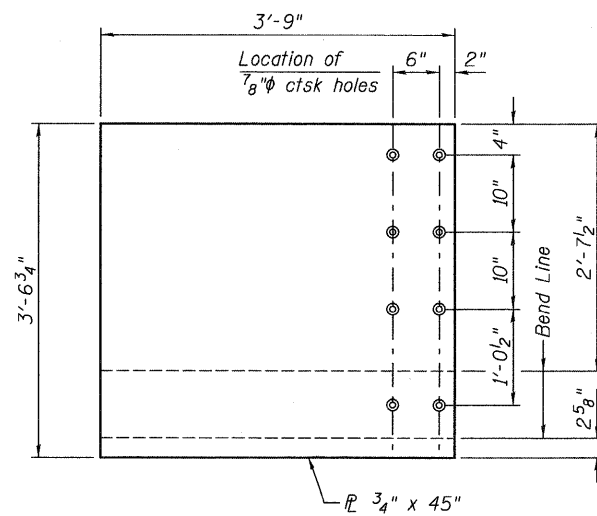


SECTION E-E

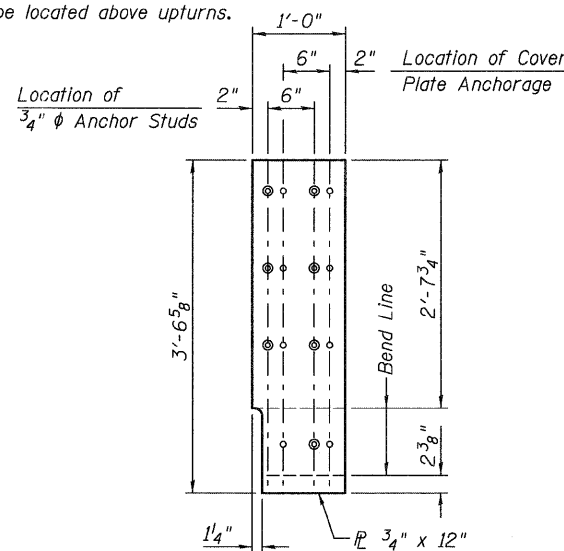
Note:
Conduit in Median Wall to be located above upturns.



SLIDE PLATE



COVER PLATE



ANCHOR PLATE

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint 21"	Foot	176.0

NOTES:

- All plates shall be ASTM-A36 steel and galvanized after fabrication in accordance with ASTM-A123.
- Cover plates shall be mounted towards oncoming traffic.
- Plastic caps shall be utilized on back of nuts to prevent concrete from entering threads.

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jmigus

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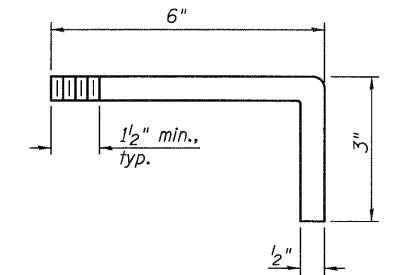
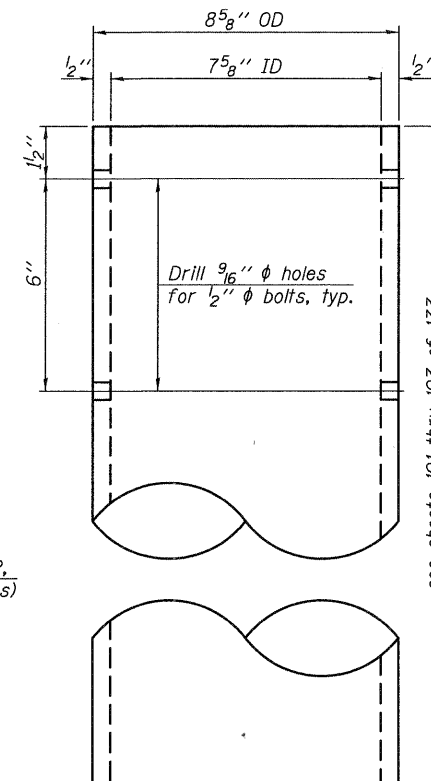
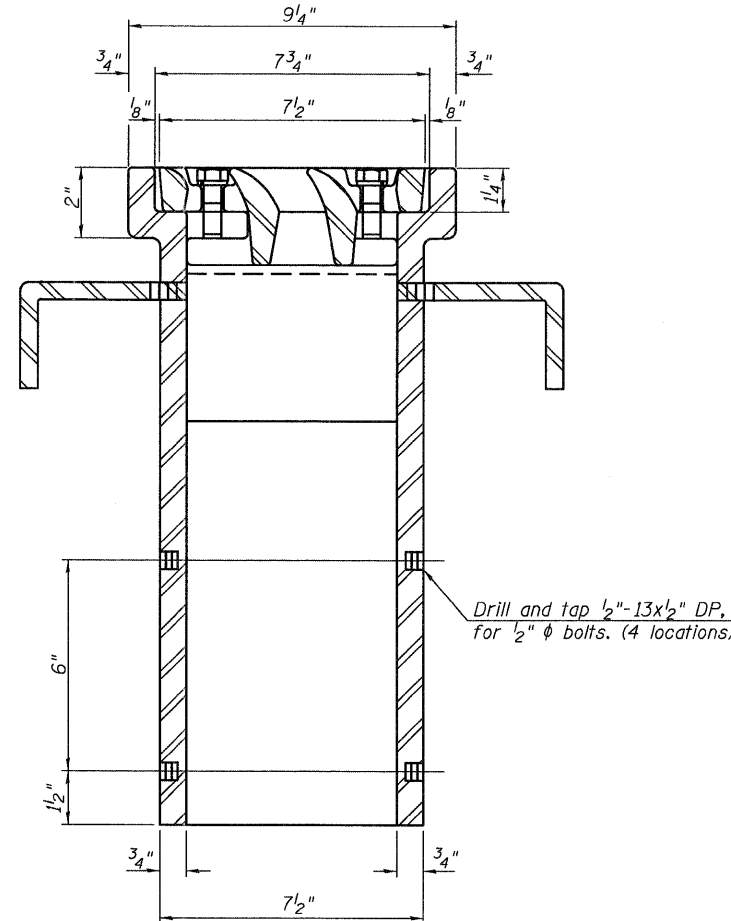
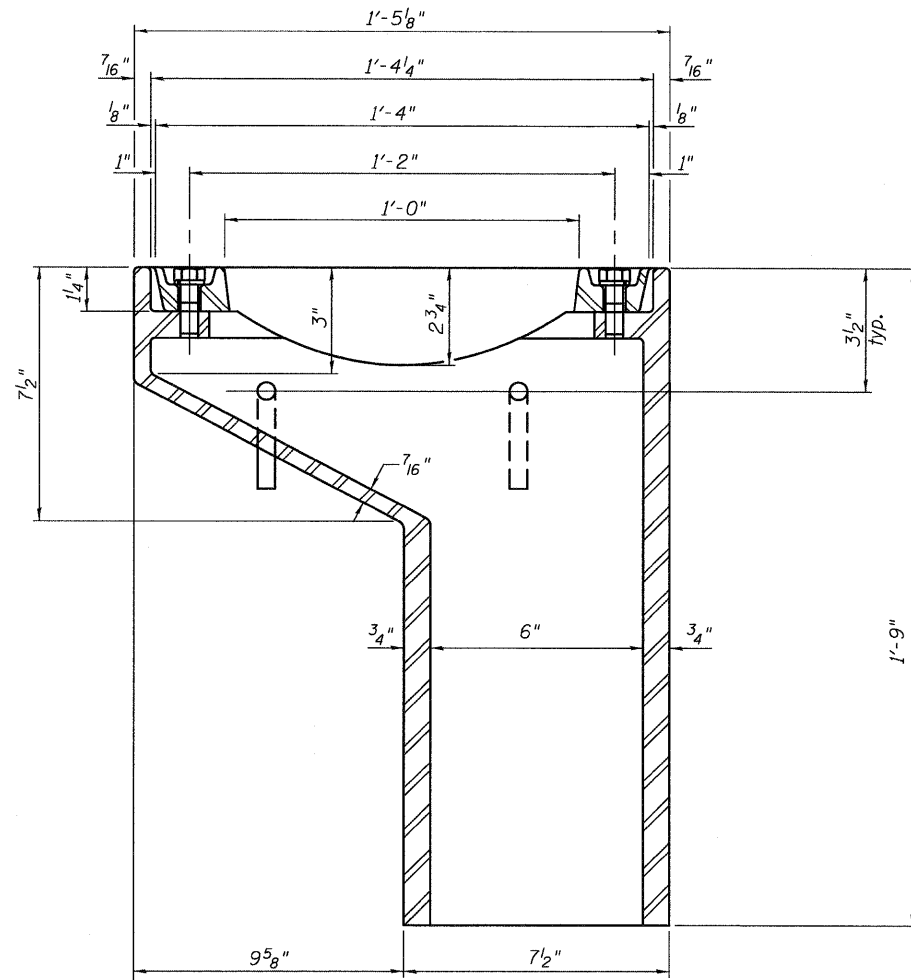
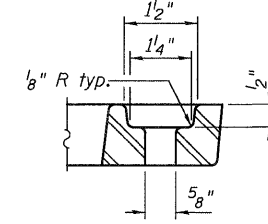
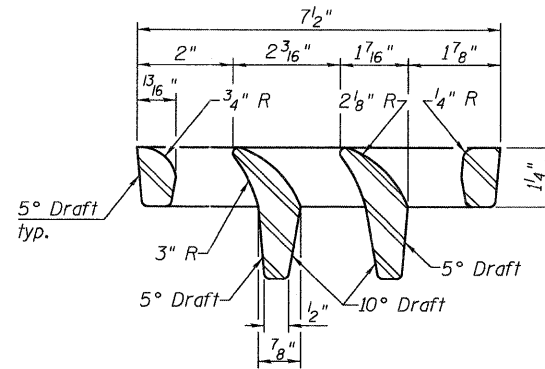
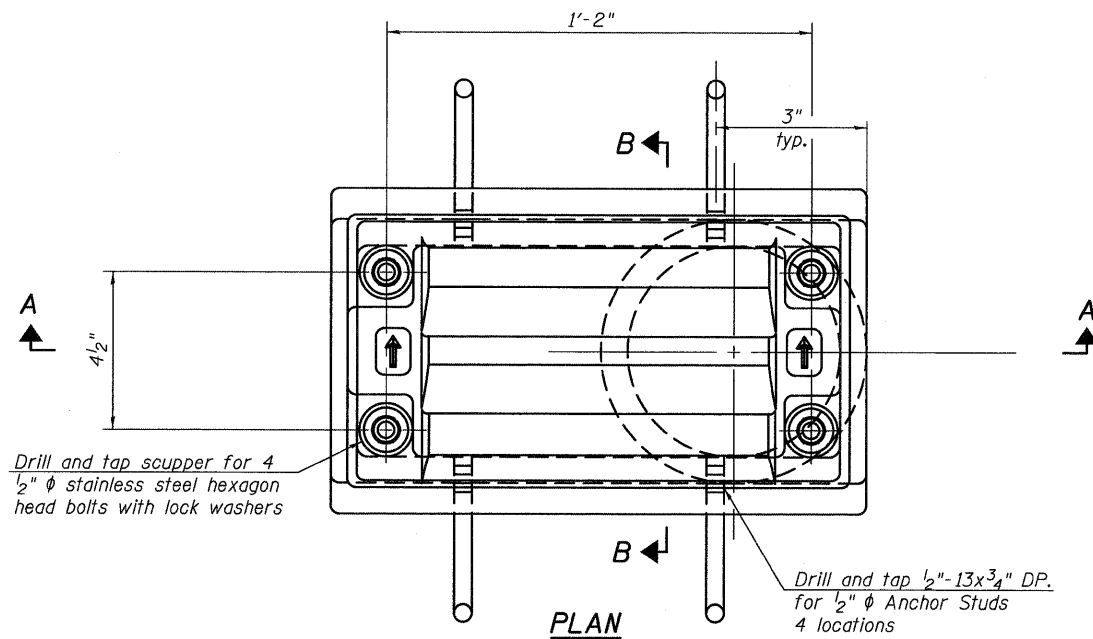
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT DETAILS
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 46 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	425
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



See sheet of for scupper location relative to parapet.

ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	76

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 M11.
- The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
- Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
- Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

DS-11

11-1-09



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

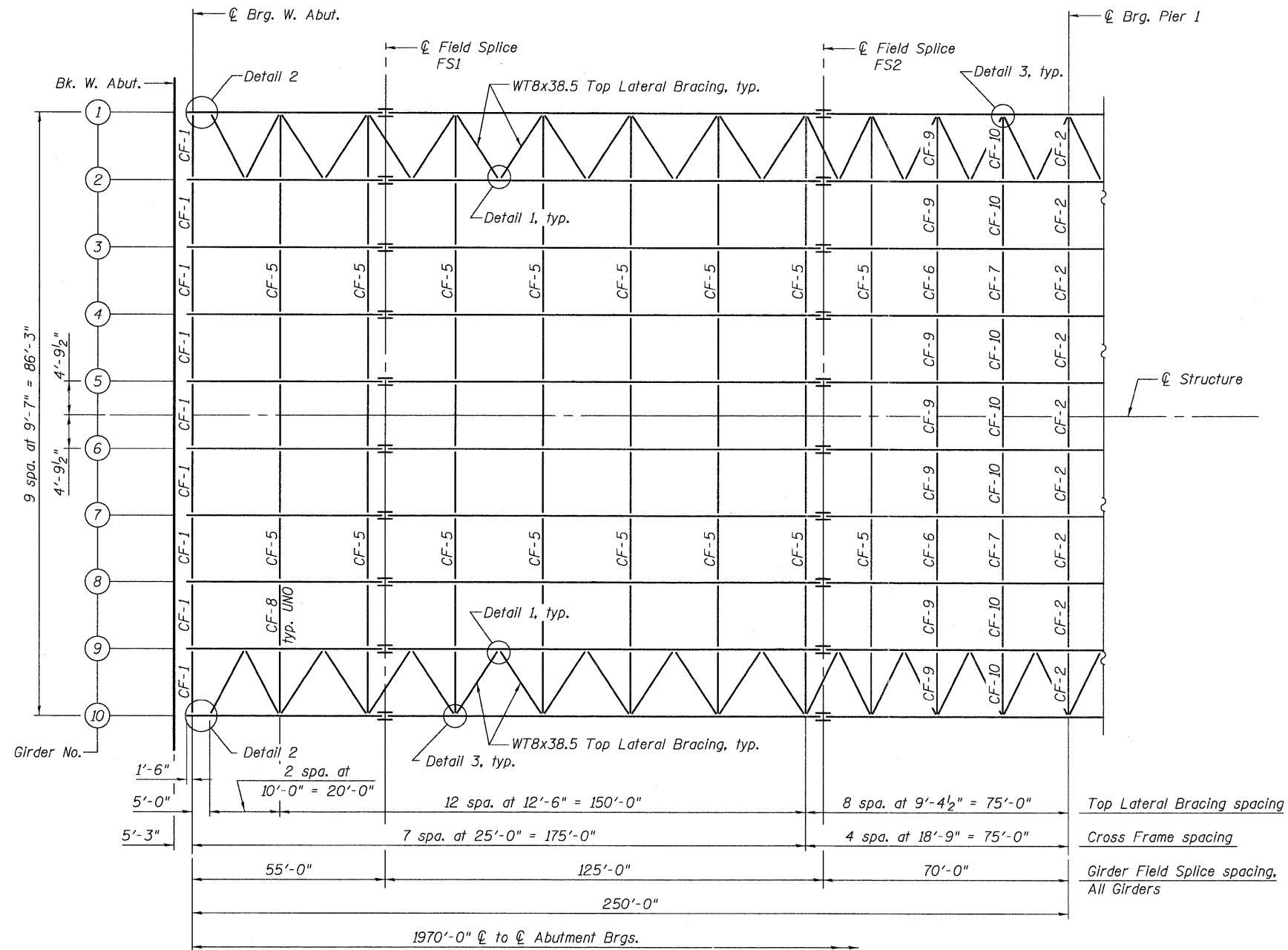
DRAINAGE SCUPPER DS-11
 STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 47 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	426

CONTRACT NO. 76A91
 ILLINOIS FED. AID PROJECT

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PARTIAL FRAMING PLAN - SPAN 1

NOTES:

1. For Details 1, 2, and 3, see sheet 59 of 133.
2. For General Notes, see sheet 3 of 133.
3. For Cross Frame Details, see sheets 60 & 61 of 133.
4. All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

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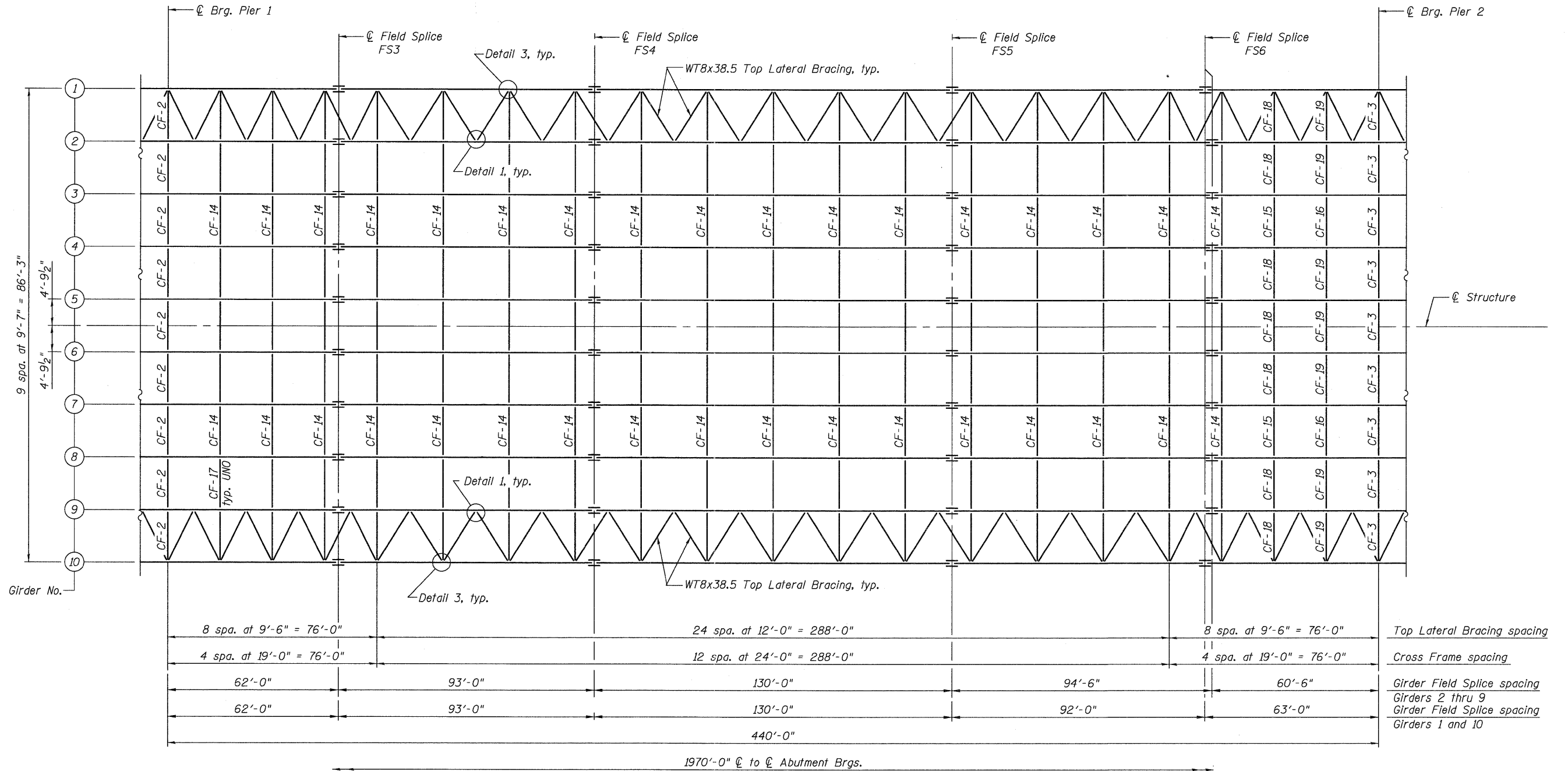
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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 48 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	427
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



PARTIAL FRAMING PLAN - SPAN 2

NOTES:

1. For Details 1, 2, and 3, see sheet 59 of 133.
2. For General Notes, see sheet 3 of 133.
3. For Cross Frame Details, see sheets 60 & 61 of 133.
4. Work this sheet with sheet 48 of 133.

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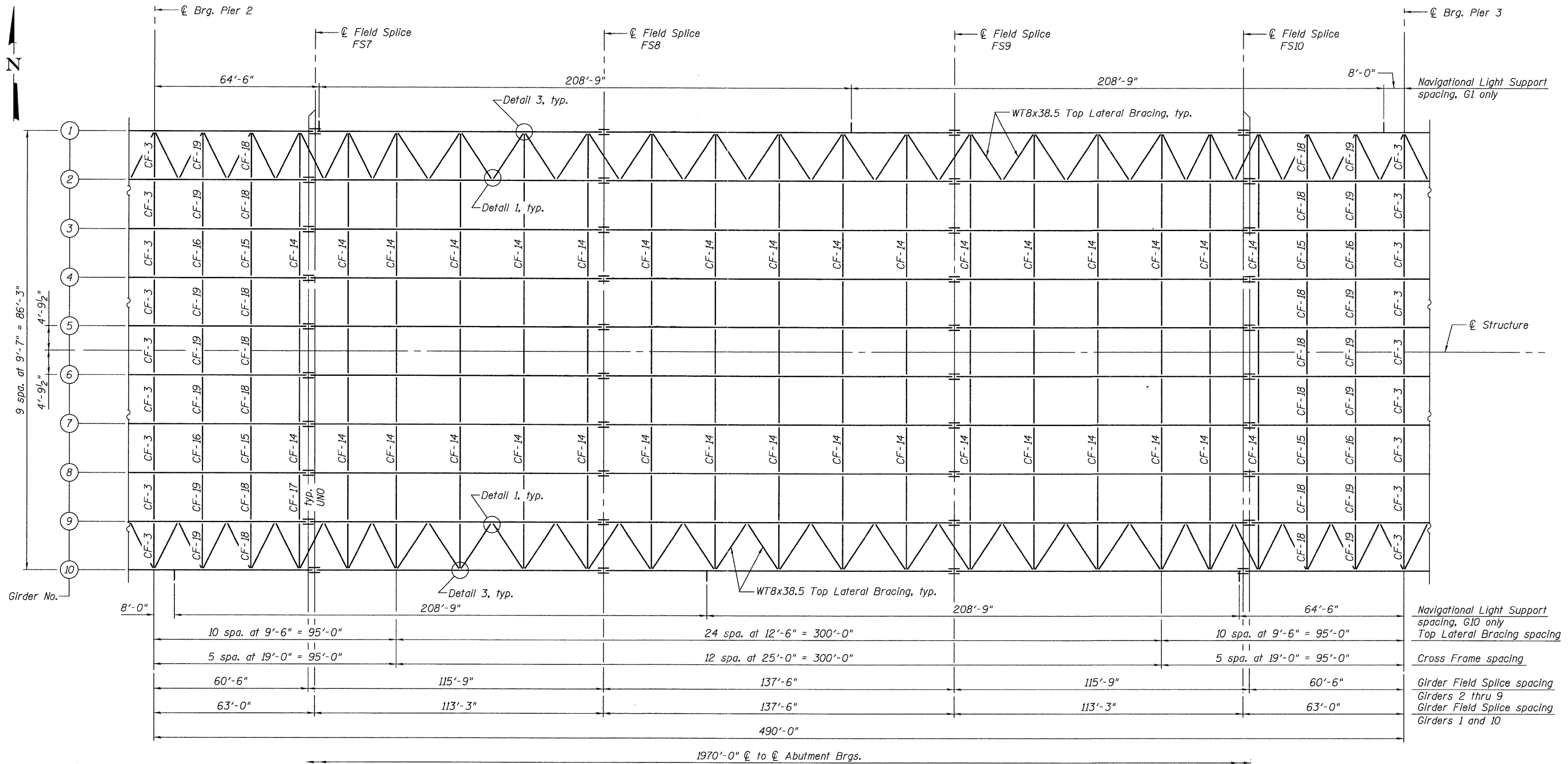
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 49 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-18-1	MADISON	712	428
CONTRACT NO. 76A91				
<small>ILLINOIS FED. AID PROJECT</small>				



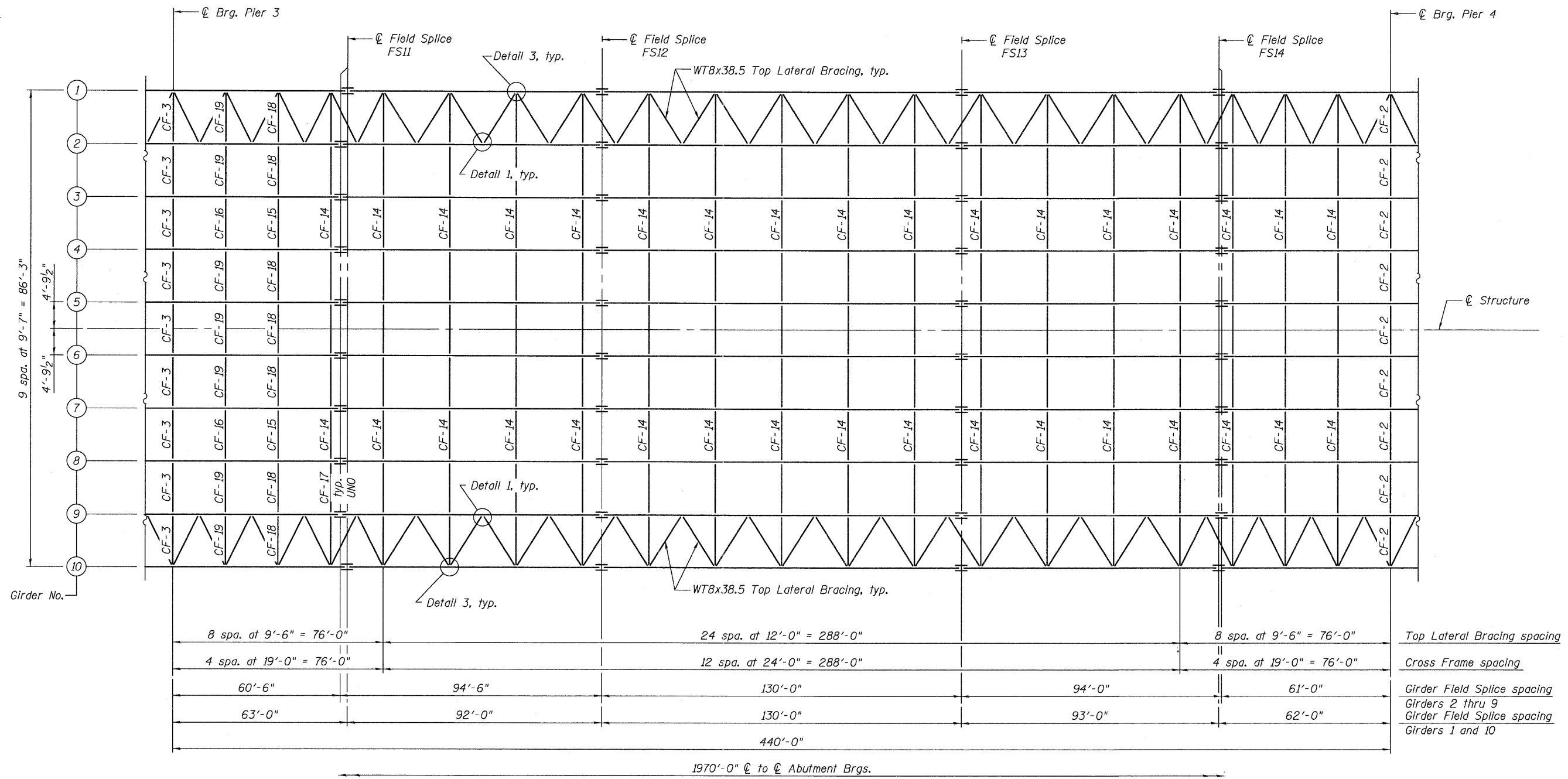
PARTIAL FRAMING PLAN - SPAN 3

NOTES:

1. For Details 1, 2, and 3, see sheet 59 of 133.
2. For General Notes, see sheet 3 of 133.
3. For Cross Frame Details, see sheets 60 & 61 of 133.
4. For Navigational Light Support Details, see sheet 64 of 133.
5. Work this sheet with sheet 48 of 133.

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 jmqus

 HDR ENGINEERING, INC.	USER NAME = jmqus	DESIGNED - BWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN STRUCTURE NO. 060-0345		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -		BRIDGE SHEET NO. 50 OF 133 SHEETS ILLINOIS FED. AID PROJECT						



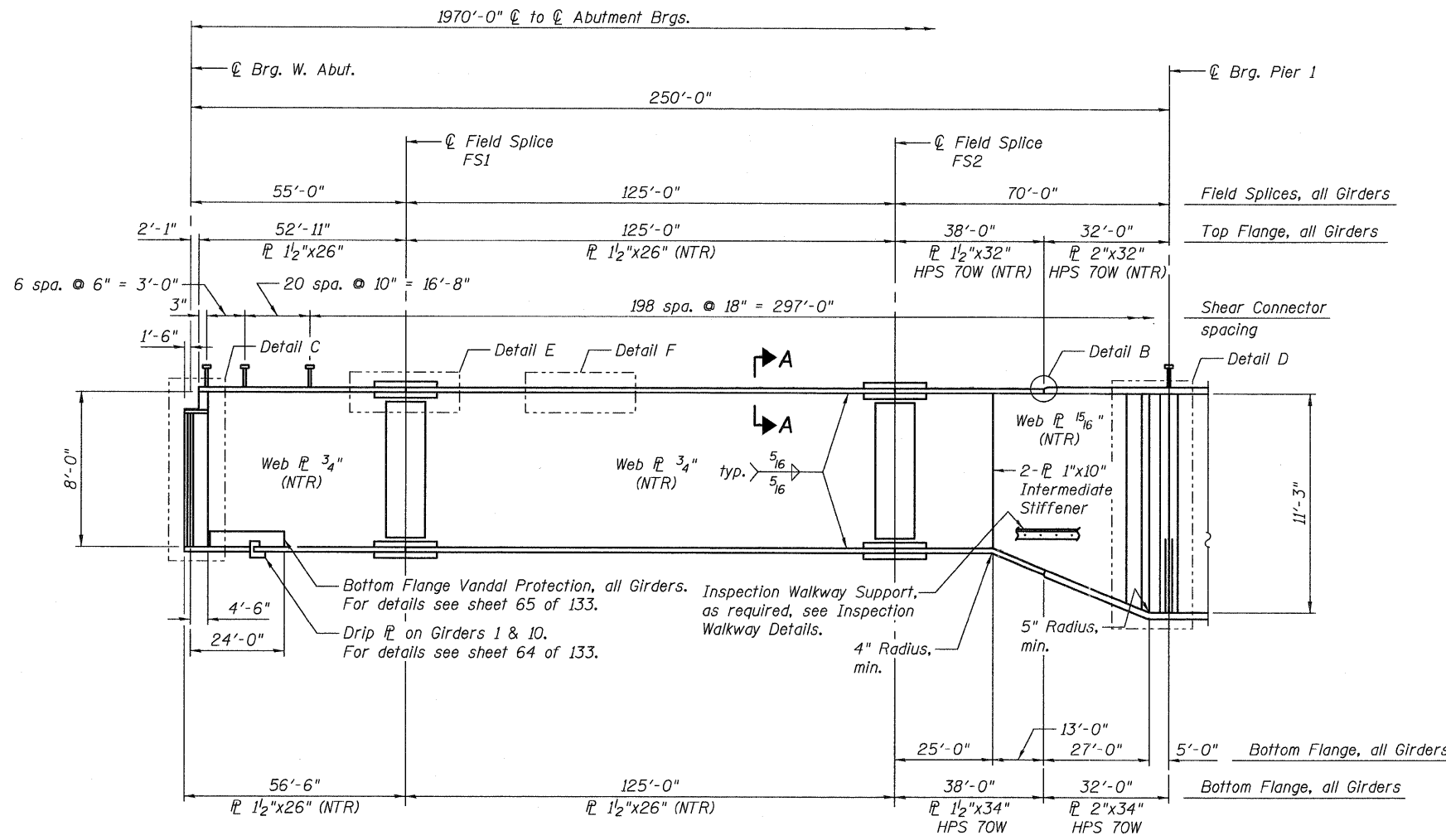
NOTES:

1. For Details 1, 2, and 3, see sheet 59 of 133.
2. For General Notes, see sheet 3 of 133.
3. For Cross Frame Details, see sheets 60 & 61 of 133.
4. Work this sheet with sheet 48 of 133.

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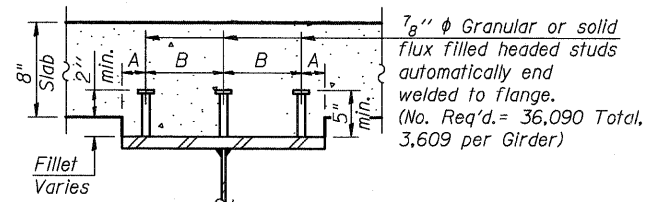
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 51 OF 133 SHEETS										



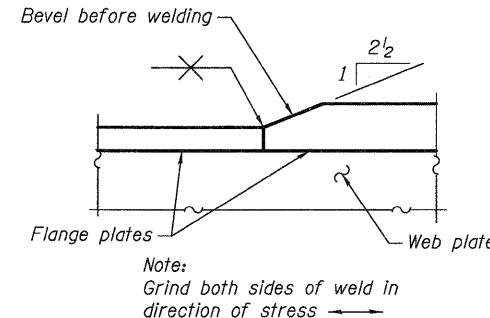
PARTIAL GIRDER ELEVATION - SPAN 1

"NTR" denotes plates to which notch toughness requirements are applicable.

Flange Width	Dim A	Dim B
26"	4"	9"
32"	4"	12"
36"	4"	14"

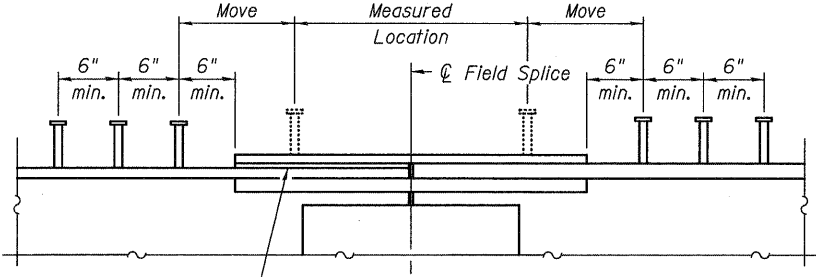


SECTION A-A



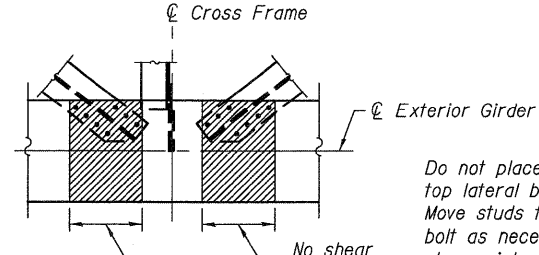
DETAIL B

(To be used at flange thickness transition)



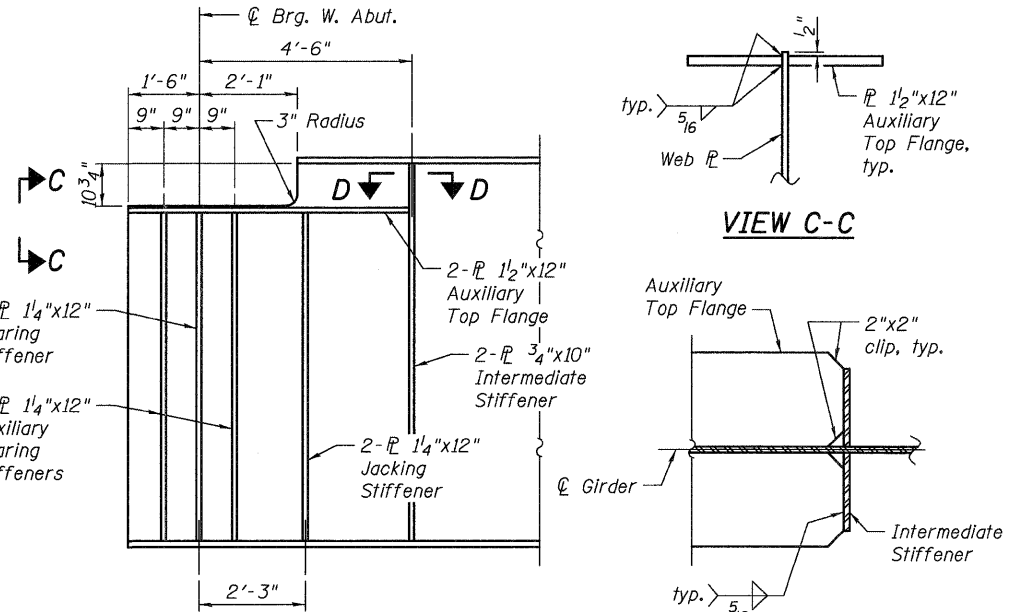
DETAIL E
(at Splices)

Do not place shear connectors on splice plates. Move studs to 6" beyond nearest edge of splice plate from measured location and space moved rows at 6" min.



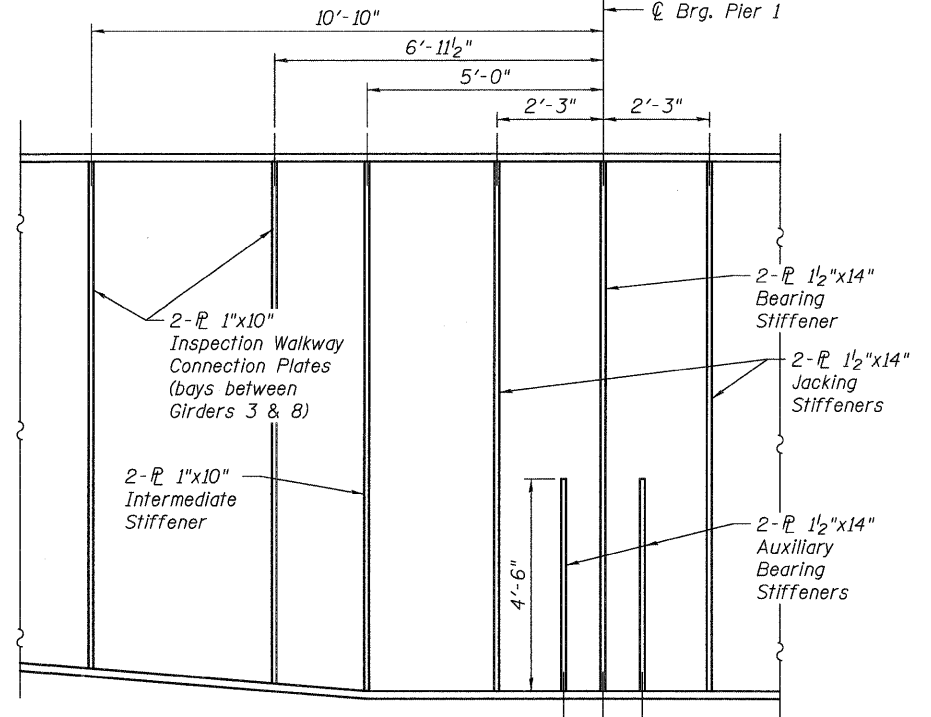
DETAIL F

(at Top Lateral Bracing connections)



DETAIL C

SECTION D-D



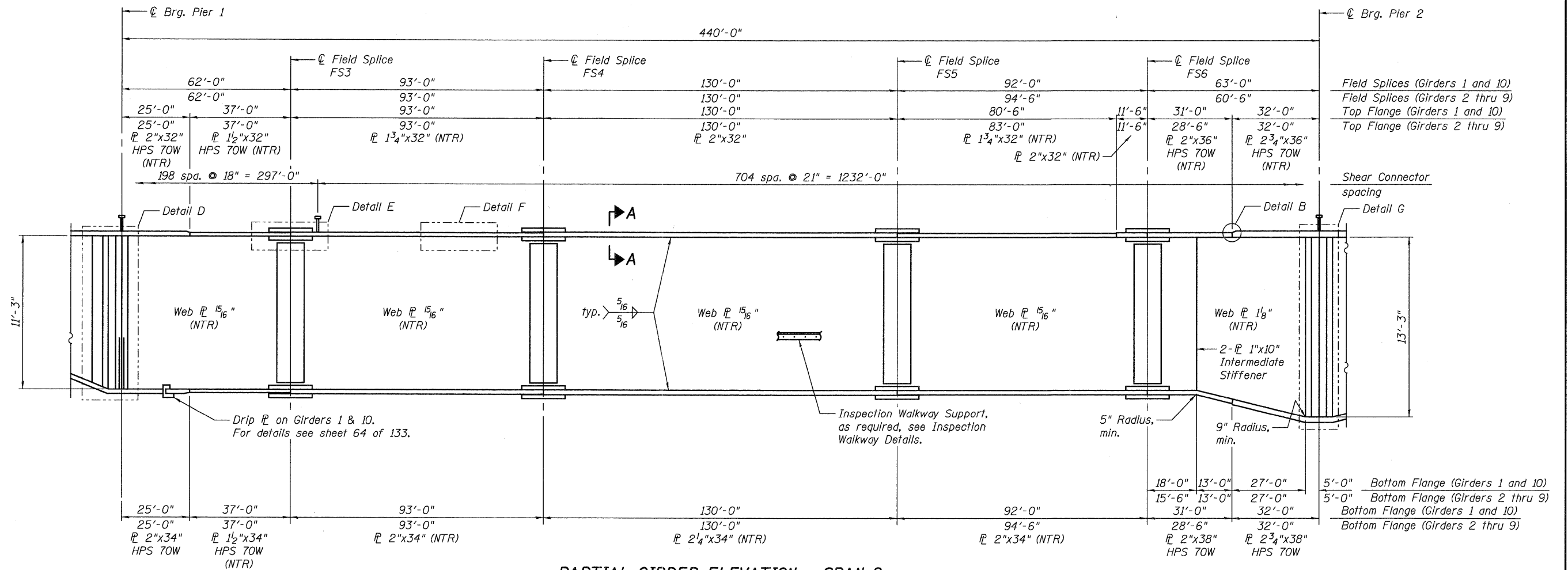
DETAIL D

NOTES:

- For Stiffener Details, see sheet 62 of 133.
- For General Notes, see sheet 3 of 133.
- For Field Splice Details, see sheet 63 of 133.
- For Inspection Walkway Details, see sheets 68 thru 71 of 133.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

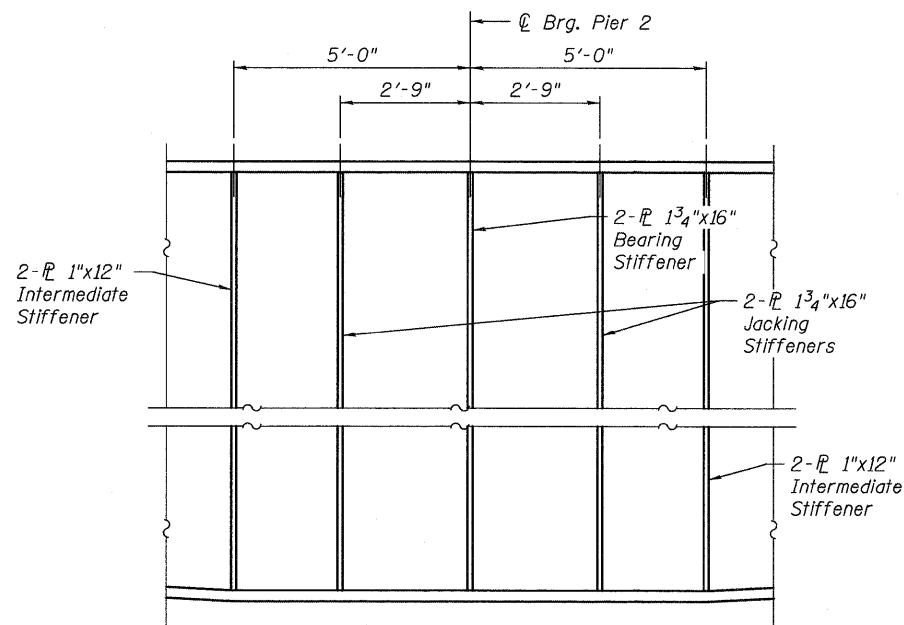
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1970'-0" ϕ to ϕ Abutment Brgs.



PARTIAL GIRDER ELEVATION - SPAN 2

"NTR" denotes plates to which notch toughness requirements are applicable.



DETAIL G

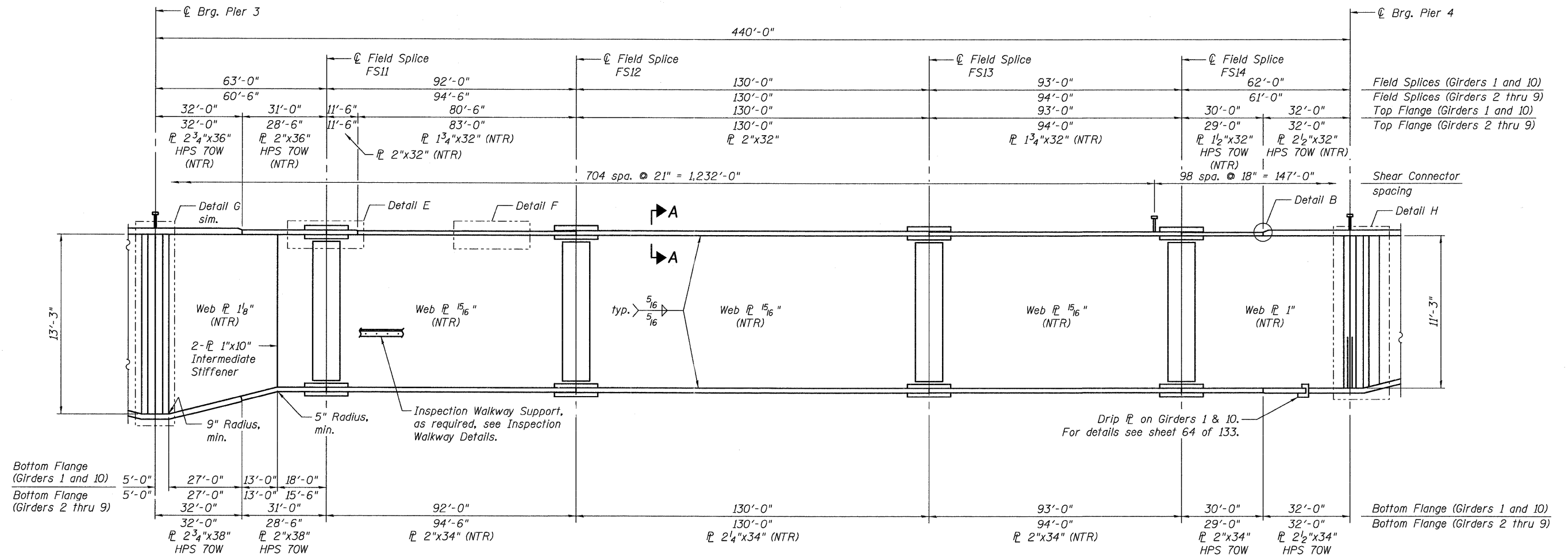
NOTES:

1. For Section A-A, see sheet 53 of 133.
2. For Details B, D, E, and F, see sheet 53 of 133.
3. For Stiffener Details, see sheet 62 of 133.
4. For General Notes, see sheet 3 of 133.
5. For Field Splice Details, see sheet 63 of 133.
6. For Inspection Walkway Details, see sheets 68 thru 71 of 133.
7. Work this sheet with sheet 53 of 133.

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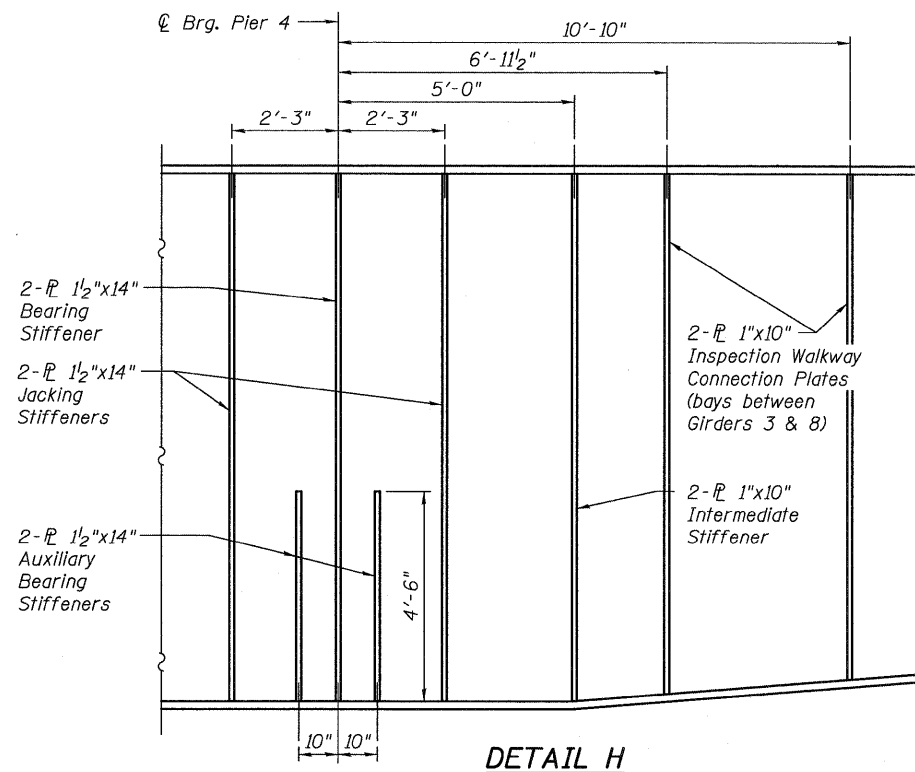
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -		ILLINOIS FED. AID PROJECT						
					BRIDGE SHEET NO. 54 OF 133 SHEETS						

1970'-0" ϕ to ϕ Abutment Brgs.



PARTIAL GIRDER ELEVATION - SPAN 4

"NTR" denotes plates to which notch toughness requirements are applicable.

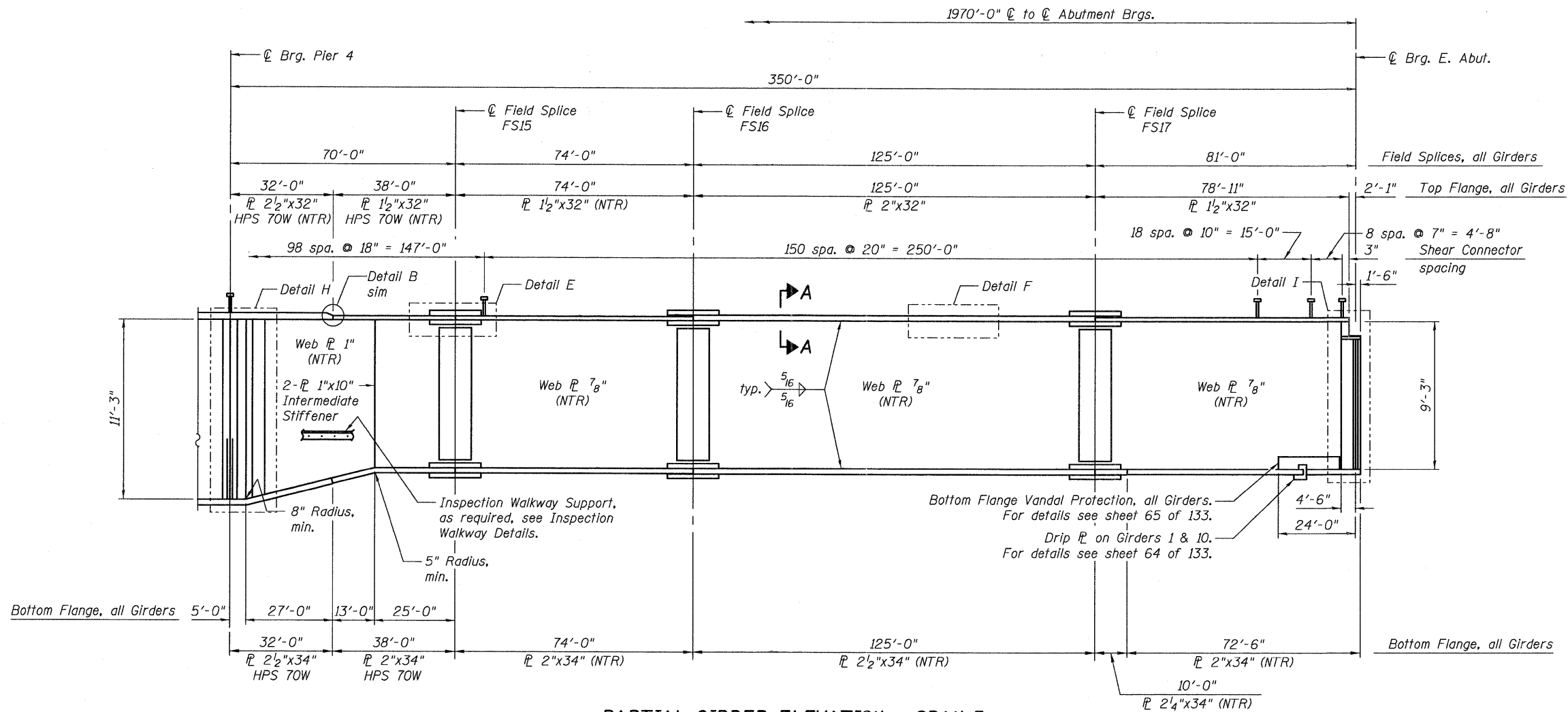


NOTES:

1. For Section A-A, see sheet 53 of 133.
2. For Details B, E, and F, see sheet 53 of 133.
3. For Detail G, see sheet 54 of 133.
4. For Stiffener Details, see sheet 62 of 133.
5. For General Notes, see sheet 3 of 133.
6. For Field Splice Details, see sheet 63 of 133.
7. For Inspection Walkway Details, see sheets 68 thru 71 of 133.
8. Work this sheet with sheet 53 of 133.

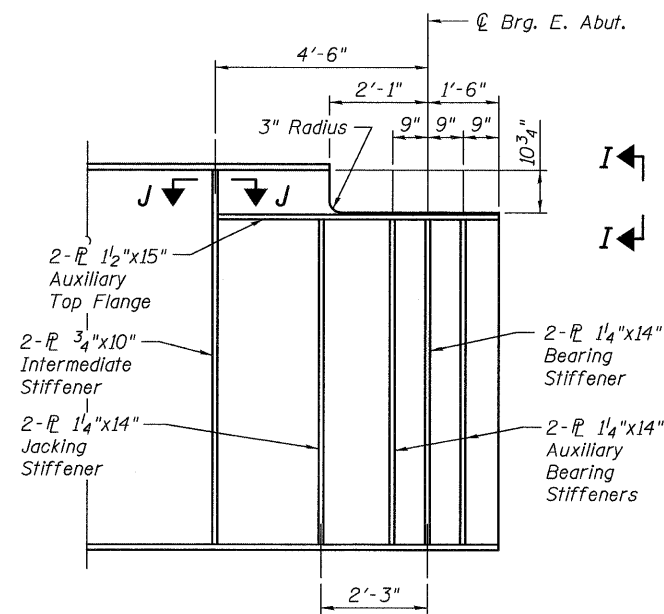
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 56 OF 133 SHEETS										

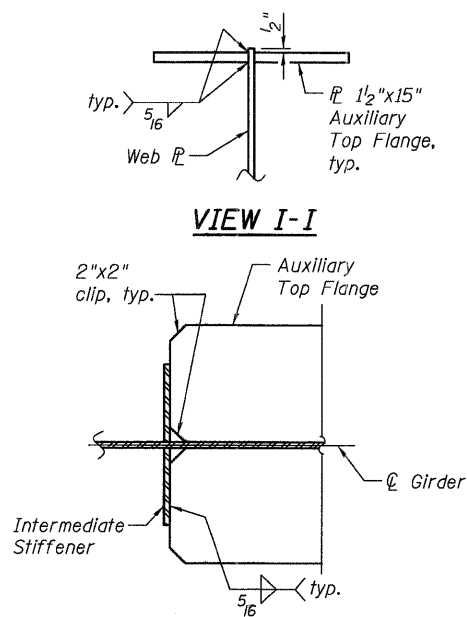


PARTIAL GIRDER ELEVATION - SPAN 5

"NTR" denotes plates to which notch toughness requirements are applicable.



DETAIL I



SECTION J-J

NOTES:

1. For Section A-A, see sheet 53 of 133.
2. For Details B, E, and F, see sheet 53 of 133.
3. For Detail H, see sheet 56 of 133.
4. For Stiffener Details, see sheet 62 of 133.
5. For General Notes, see sheet 3 of 133.
6. For Field Splice Details, see sheet 63 of 133.
7. For Inspection Walkway Details, see sheets 68 thru 71 of 133.
8. Work this sheet with sheet 53 of 133.

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 PLOT DATE = 3/18/2011

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GIRDER ELEVATION
 STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 57 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	436
CONTRACT NO. 76A91				
[ILLINOIS] FED. AID PROJECT				

INTERIOR GIRDER MOMENT TABLE										
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.5 Sp. 3	Pier 3	0.5 Sp. 4	Pier 4	0.6 Sp. 5	
I_s	(in ⁴)	240,683	811,347	850,036	1,707,502	1,110,267	1,707,502	850,036	984,606	571,914
$I_c(n)$	(in ⁴)	445,431	1,278,512	1,349,061	2,403,123	1,634,585	2,403,123	1,349,061	1,473,587	939,300
$I_c(3n)$	(in ⁴)	336,632	1,007,228	1,058,084	1,981,593	1,322,278	1,981,593	1,058,084	1,184,488	727,326
$I_c(cr)$	(in ⁴)	270,764	868,983	911,067	1,785,695	1,171,527	1,785,695	911,067	1,042,674	617,873
S_s	(in ³)	4,862	11,855	12,781	21,058	16,545	21,058	12,781	14,300	10,772
$S_c(n)$	(in ³)	6,036	13,896	14,955	23,656	18,608	23,656	14,955	16,356	12,545
$S_c(3n)$	(in ³)	5,528	12,860	13,851	22,224	17,515	22,224	13,851	15,276	11,672
$S_c(cr)$	(in ³)	5,102	12,180	13,127	21,415	16,851	21,415	13,127	14,609	11,070
DC1	(k/ft)	1.813	2.183	2.212	2.604	2.396	2.604	2.212	2.324	2.141
M _{DC1}	(k)	4,223	20,498	16,959	47,024	24,380	43,227	14,268	31,791	17,282
DC2	(k/ft)	0.213	0.213	0.213	0.213	0.213	0.213	0.213	0.213	0.213
M _{DC2}	(k)	600	2,288	1,716	4,343	2,173	4,014	1,465	3,256	1,811
DW	(k/ft)	0.479	0.479	0.479	0.479	0.479	0.479	0.479	0.479	0.479
M _{DW}	(k)	1,303	5,032	3,753	9,630	4,754	8,906	3,209	7,176	3,973
M _{ℓ + IM}	(k)	4,667	7,760	9,439	12,751	11,001	12,592	9,410	9,748	7,888
M _u (Strength I)	(k)	16,151	49,611	45,492	100,968	59,574	94,446	40,947	71,632	43,630
φ _r M _n	(k)	29,114	-	-	-	-	-	-	-	47,681
f _s DC1	(ksi)	10.42	20.75	15.92	26.80	17.68	24.63	13.40	26.68	19.25
f _s DC2	(ksi)	1.30	2.25	1.49	2.43	1.49	2.25	1.27	2.67	1.86
f _s DW	(ksi)	2.83	4.96	3.25	5.40	3.26	4.99	2.78	5.89	4.08
f _s (ℓ+IM)	(ksi)	9.28	7.65	7.57	7.15	7.09	7.06	7.55	8.01	7.55
f _s (Service II)	(ksi)	26.61	37.91	30.50	43.93	31.65	41.05	27.27	45.65	35.01
0.95R _h F _{yf}	(ksi)	47.50	64.72	47.50	64.85	47.50	64.85	47.50	64.93	47.50
f _s (Total)(Strength I)	(ksi)	-	49.58	39.89	57.15	41.26	53.44	35.72	59.54	-
φ _r F _n	(ksi)	-	62.96	50.00	65.21	50.00	65.23	50.00	64.69	-
V _r	(k)	27	47	42	56	36	56	42	53	32

INTERIOR GIRDER REACTION TABLE							
	W. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	E. Abut.	
R _{DC1}	(k)	135.9	775.8	1,184.0	1,131.7	959.8	265.6
R _{DC2}	(k)	17.0	79.0	104.6	100.3	92.4	27.8
R _{DW}	(k)	37.3	178.3	235.3	225.7	208.5	62.0
R _{ℓ + IM}	(k)	85.7	229.0	270.8	269.2	247.9	99.9
R _{Total}	(k)	275.9	1,262.1	1,794.7	1,726.9	1,508.6	455.3

INTERIOR GIRDER LIVE LOAD + IMPACT DISTRIBUTION FACTORS										
Span/Support	Positive Moment			Negative Moment			Shear		Reactions	
	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	Design
W. Abut.	-	-	-	-	-	-	0.37	0.52	0.41	0.52
Span 1	0.37	0.55	0.28	-	-	-	-	-	-	-
Pier 1	-	-	-	0.34	0.57	0.31	0.51	0.66	0.46	0.56
Span 2	0.37	0.56	0.28	-	-	-	-	-	-	-
Pier 2	-	-	-	0.35	0.59	0.29	0.52	0.67	0.54	0.56
Span 3	0.38	0.56	0.28	-	-	-	-	-	-	-
Pier 3	-	-	-	0.35	0.59	0.29	0.51	0.65	0.54	0.56
Span 4	0.38	0.56	0.28	-	-	-	-	-	-	-
Pier 4	-	-	-	0.34	0.57	0.28	0.49	0.61	0.52	0.56
Span 5	0.38	0.56	0.27	-	-	-	-	-	-	-
E. Abut.	-	-	-	-	-	-	0.40	0.52	0.44	0.52

EXTERIOR GIRDER LIVE LOAD + IMPACT DISTRIBUTION FACTORS										
Span/Support	Positive Moment			Negative Moment			Shear		Reactions	
	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	1 Lane	Design	Fatigue	Design
W. Abut.	-	-	-	-	-	-	0.52	0.63	0.29	0.63
Span 1	0.41	0.61	0.31	-	-	-	-	-	-	-
Pier 1	-	-	-	0.43	0.63	0.40	0.70	0.86	0.35	0.70
Span 2	0.42	0.63	0.32	-	-	-	-	-	-	-
Pier 2	-	-	-	0.41	0.65	0.35	0.66	0.83	0.42	0.69
Span 3	0.42	0.63	0.33	-	-	-	-	-	-	-
Pier 3	-	-	-	0.41	0.65	0.33	0.66	0.80	0.42	0.69
Span 4	0.43	0.64	0.32	-	-	-	-	-	-	-
Pier 4	-	-	-	0.42	0.64	0.35	0.63	0.77	0.39	0.70
Span 5	0.43	0.64	0.31	-	-	-	-	-	-	-
E. Abut.	-	-	-	-	-	-	0.53	0.66	0.32	0.66

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 (in⁴ and in³).

$I_c(n), S_c(n)$: 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 (in⁴ and in³).

$I_c(3n), S_c(3n)$: 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 (in⁴ and in³).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads (in⁴ and in³).

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}

φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

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

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

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

f_s (ℓ+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M_{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)

φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).

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

- NOTES:**
- Live load distribution for design was determined by a refined method of analysis.
 - The live load + impact distribution factors provided in the tables on this sheet were computed for HL-93 loading only, and are intended to be used to approximate HL-93 live load + impact demands.
 - The live load + impact distribution factors are in the form of a ratio of the girder live load demand obtained from the refined method of analysis caused by HL-93 loading, divided by the girder live load demand obtained from the application of a single lane of HL-93 loading acting on a single isolated girder.
 - Example calculation of interior girder live load design moment in Span 1 based on the distribution factors provided in the tables:

A. From a line girder analysis with a distribution factor of 1.0 lane, the live load moment at Span 1 is found to be:

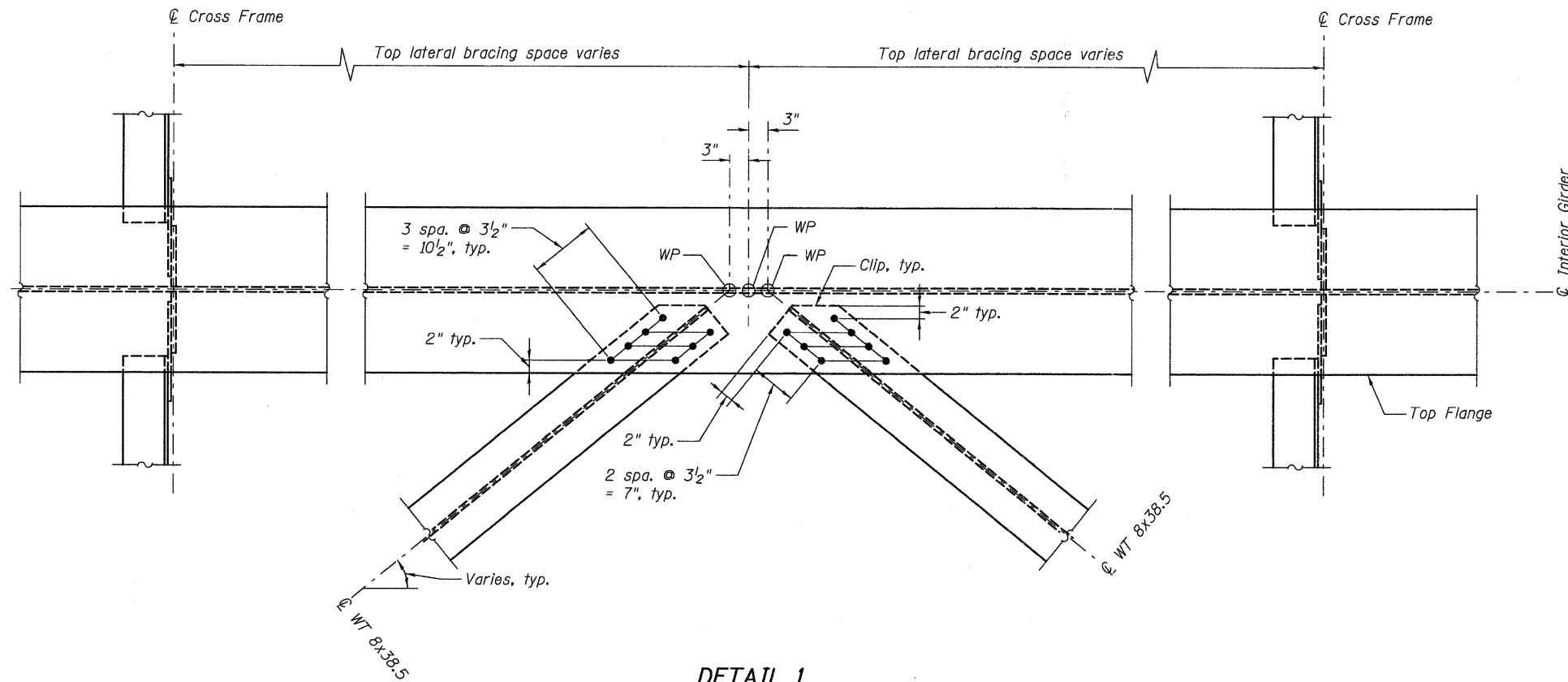
MLL+I = 8,424 k-ft per lane

B. From the Interior Girder Live Load + Impact Distribution Factor table shown on this sheet, the design distribution factor for positive moment in Span 1 is 0.55. Therefore, the live load + impact moment at Span 1 based on the refined method of analysis is:

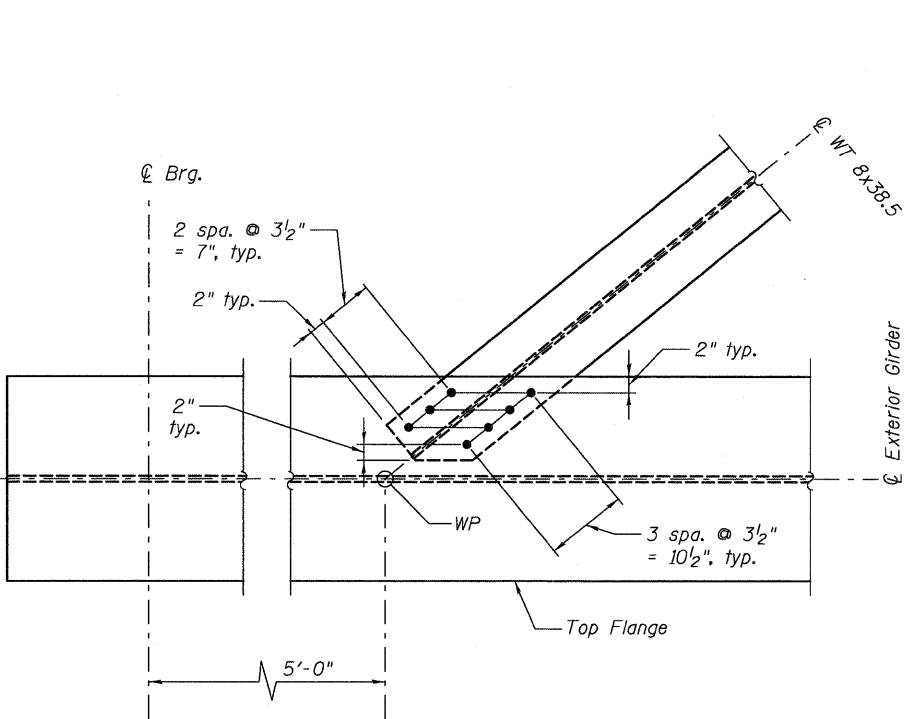
0.55 x 8,424 k-ft = 4,633 k-ft

ALL GIRDERS LIVE LOAD + IMPACT DISTRIBUTION FACTORS FOR DEFLECTION	
Span 1	0.54
Span 2	0.54
Span 3	0.54
Span 4	0.54
Span 5	0.54

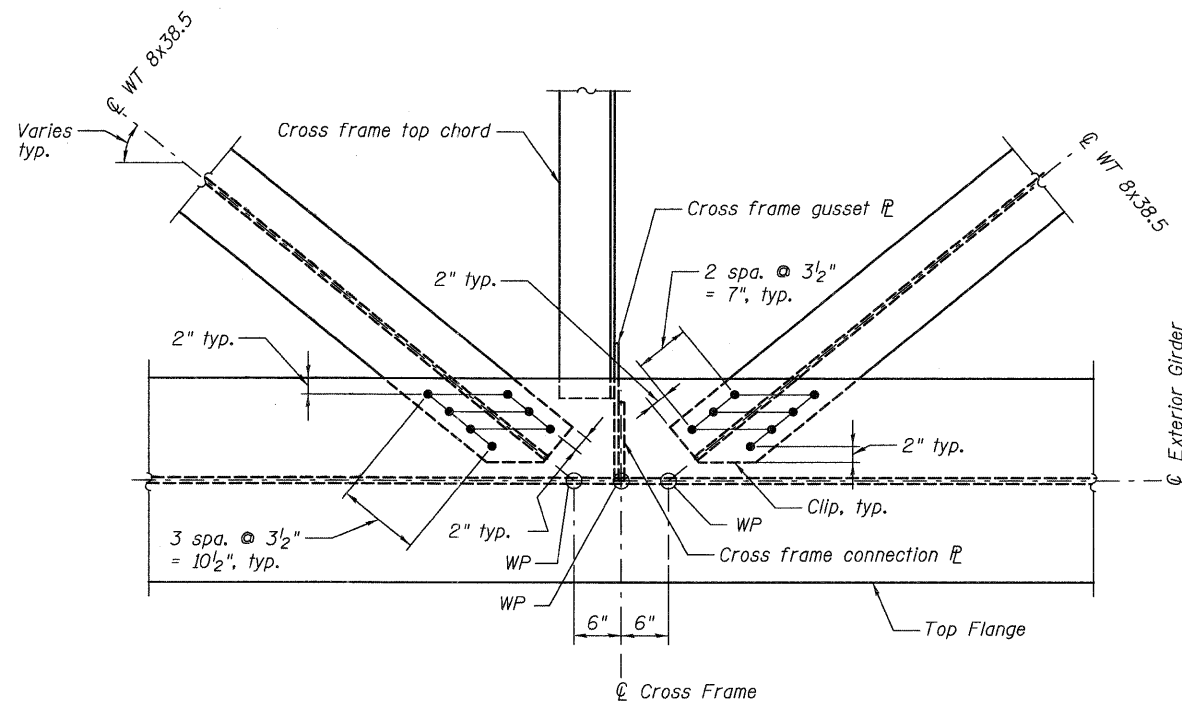
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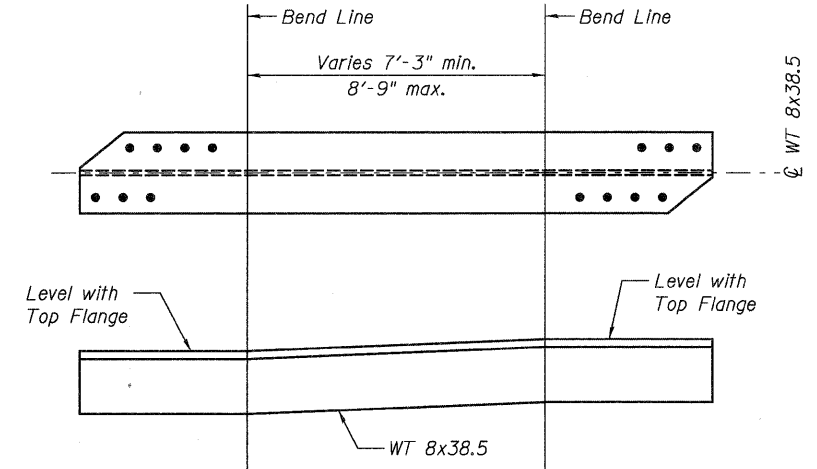
DETAIL 1
TOP LATERAL BRACING CONNECTION AT INTERIOR GIRDER



DETAIL 2
TOP LATERAL BRACING CONNECTION NEAR ABUTMENTS



DETAIL 3
TOP LATERAL BRACING CONNECTION AT EXTERIOR GIRDER



TOP LATERAL BRACING BEND DETAIL

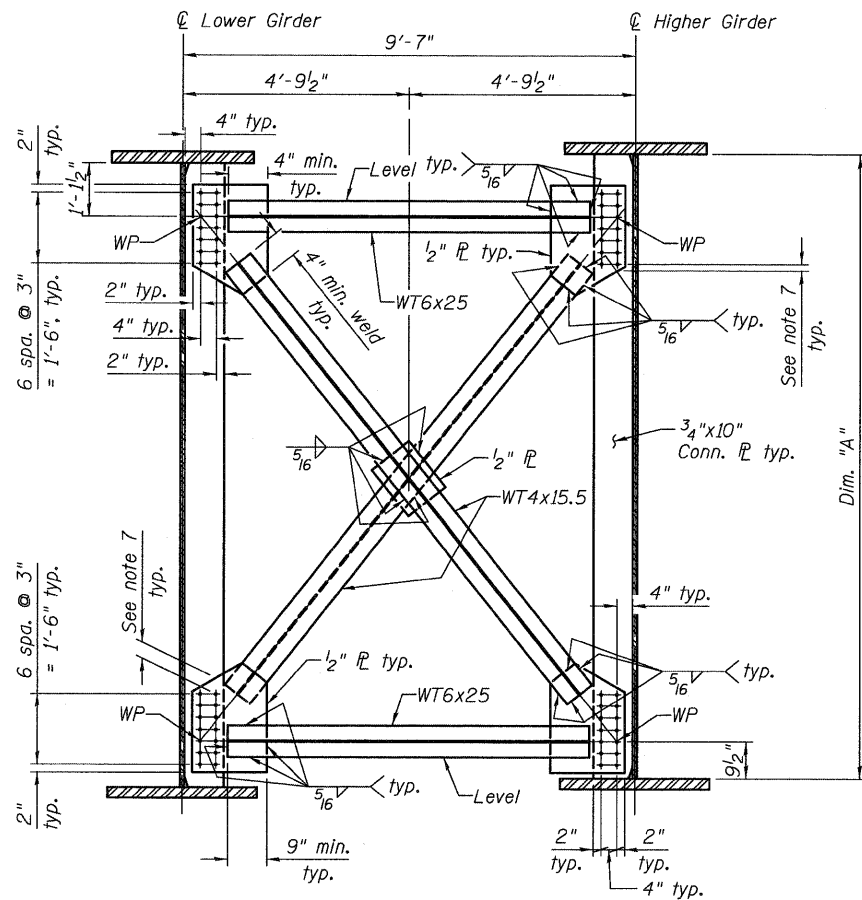
NOTES:

1. All bolted top lateral bracing connections shall be High Strength AASHTO M164 Type 3, 1" ϕ bolts in 1 1/4" ϕ holes, except in painted areas. In painted areas, top lateral bracing connections shall be High Strength AASHTO M164 Type 1, mechanically galvanized 1" ϕ bolts in 1 1/4" ϕ holes.
2. Class B contact surface, for slip resistance, shall be provided for all lateral bracing connections.
3. All bolts shall be sized to exclude threads from shear planes, see Bolt Detail on sheet 63 of 133.
4. Two hardened washers required for each set of oversized holes.
5. To compensate for cross slope and difference in adjacent girder elevations, bend top lateral bracing member, as shown in detail.

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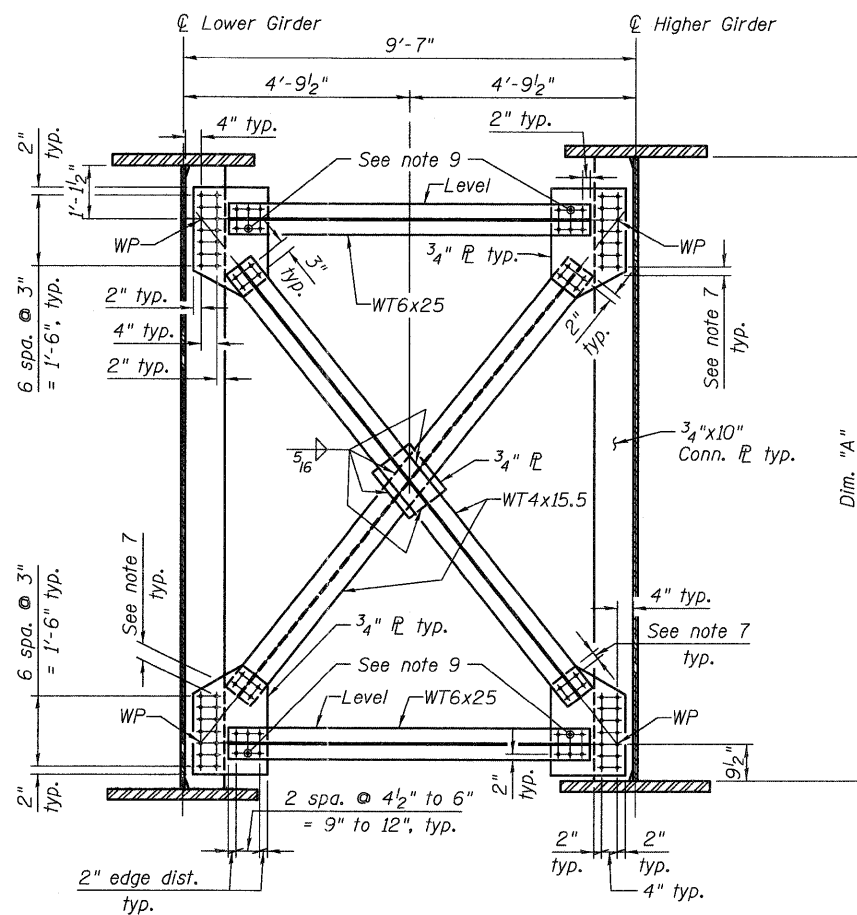
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 HDR ENGINEERING, INC.	USER NAME = jmgus FILE NAME = 0600345-16A91-059-FRD.DGN PLOT SCALE = NONE PLOT DATE = 3/18/2011	DESIGNED - BWC CHECKED - LGP DRAWN - HG CHECKED - BSK	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL DETAILS - LATERAL BRACING STRUCTURE NO. 060-0345 BRIDGE SHEET NO. 59 OF 133 SHEETS	F.A.I. RTE. = 270 SECTION = 60-1B-1	COUNTY = MADISON	TOTAL SHEETS = 712 SHEET NO. = 438	CONTRACT NO. 76A91 ILLINOIS FED. AID PROJECT



INTERMEDIATE CROSS FRAME - BAYS 1, 2, 4, 5, 6, 8 & 9

Cross Frame	Web Dim "A"	Number Required					
		Span 1	Span 2	Span 3	Span 4	Span 5	Total
CF-8	8'-0"	56	-	-	-	-	56
CF-9	8'-7 ⁵ / ₁₆ "	7	-	-	-	-	7
CF-10	10'-1 ⁹ / ₁₆ "	7	-	-	-	-	7
CF-17	11'-3"	-	119	119	119	-	357
CF-18	11'-7 ³ / ₁₆ "	-	7	14	7	-	28
CF-19	12'-6 ⁵ / ₈ "	-	7	14	7	-	28
CF-26	10'-6 ³ / ₄ "	-	-	-	-	7	7
CF-27	9'-7 ¹ / ₂ "	-	-	-	-	7	7
CF-28	9'-3"	-	-	-	-	84	84



INTERMEDIATE CROSS FRAME - BAYS 3 & 7

Cross Frame	Web Dim "A"	Number Required					
		Span 1	Span 2	Span 3	Span 4	Span 5	Total
CF-5	8'-0"	16	-	-	-	-	16
CF-6	8'-7 ⁵ / ₁₆ "	2	-	-	-	-	2
CF-7	10'-1 ⁹ / ₁₆ "	2	-	-	-	-	2
CF-14	11'-3"	-	34	34	34	-	102
CF-15	11'-7 ³ / ₁₆ "	-	2	4	2	-	8
CF-16	12'-6 ⁵ / ₈ "	-	2	4	2	-	8
CF-23	10'-6 ³ / ₄ "	-	-	-	-	2	2
CF-24	9'-7 ¹ / ₂ "	-	-	-	-	2	2
CF-25	9'-3"	-	-	-	-	24	24

NOTES:

- For General Notes, see sheet 3 of 133.
- All bolted cross frame connections shall be High Strength AASHTO M164 Type 3, 7/8" φ bolts in 1 5/16" φ holes, unless noted otherwise.
- Class B contact surface, for slip resistance, shall be provided for all cross frame connections.
- All bolts shall be sized to exclude threads from shear planes, see bolt detail on sheet 63 of 133.
- 1" maximum gap between cross frame member and connection plate.
- All bolt holes are to be subpunched and reamed to size or drilled to full size.
- 1 3/4" to 4" edge distance shall be provided.
- Bolted WT member connections of Intermediate Cross Frame - Bays 3 & 7 are provided for future deck replacement. These cross frames are to be completely assembled by the Fabricator.
- The four circled bolts shown in Intermediate Cross Frame - Bays 3 & 7 shall be high strength AASHTO M253 Type 3, 1 1/2" φ bolt in 1 9/16" φ hole, and shall be located as shown.
- All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

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 PLOT DATE = 3/18/2011

DESIGNED - BWC
 CHECKED - LGP
 DRAWN - JM
 CHECKED - BSK

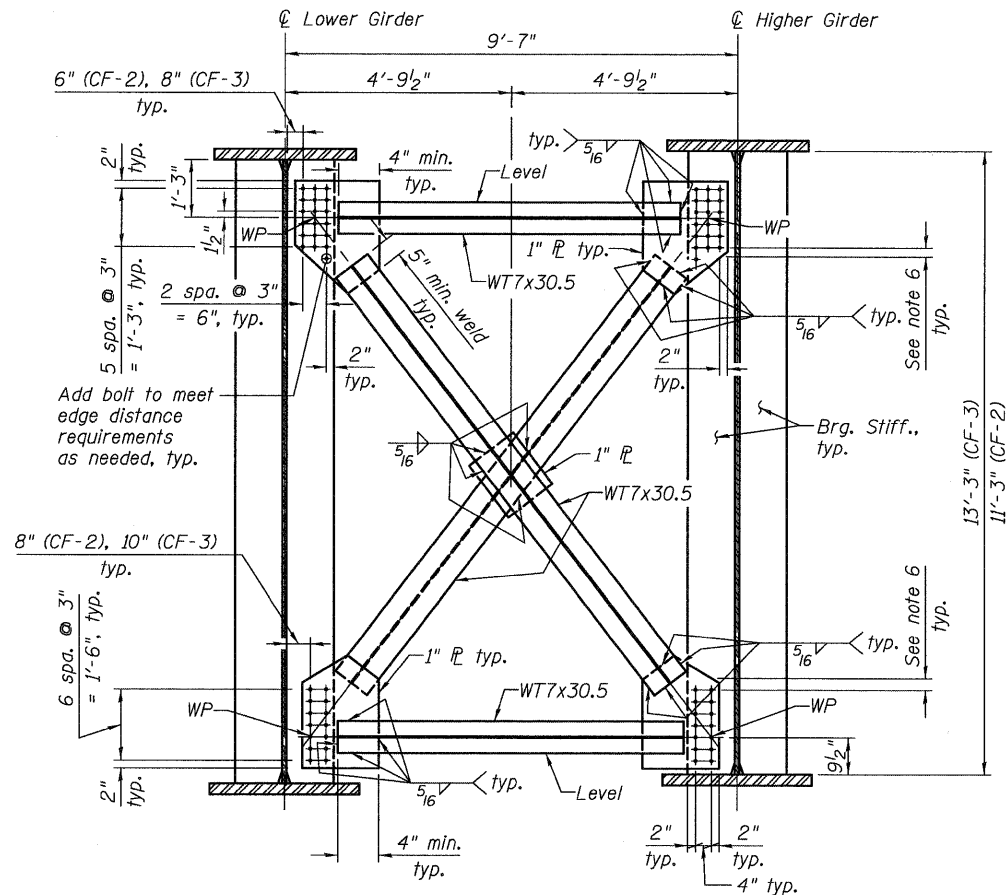
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STEEL DETAILS - CROSS FRAMES
 STRUCTURE NO. 060-0345

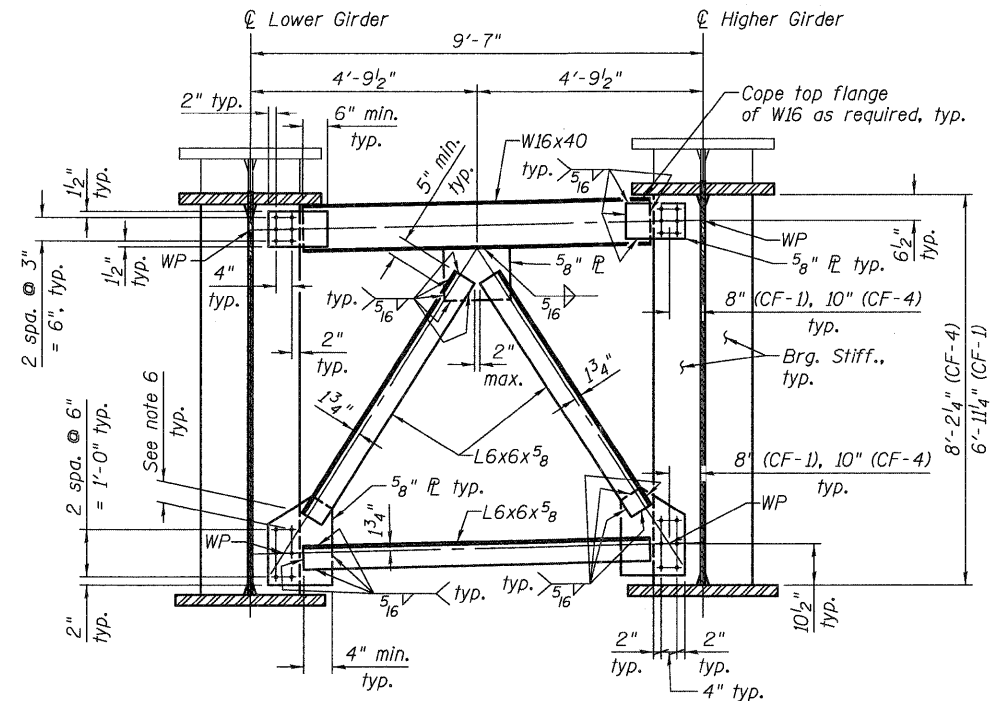
BRIDGE SHEET NO. 60 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	439
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



PIER CROSS FRAME

(CF-2 - 18 Req'd, CF-3 - 18 Req'd)



ABUTMENT CROSS FRAME

(CF-1 - 9 Req'd, CF-4 - 9 Req'd)

NOTES:

- All bolted cross frame connections shall be High Strength AASHTO M164 Type 3, T_a ϕ bolts in $15/16$ " ϕ holes, except in painted areas. In painted areas, bolted cross frame connections shall be high strength AASHTO M164 Type 1 mechanically galvanized T_a ϕ bolts in $15/16$ " ϕ holes.
- Class B contact surface, for slip resistance, shall be provided for all cross frame connections.
- All bolts shall be sized to exclude threads from shear planes, see bolt detail on sheet 63 of 133.
- 1" maximum gap between cross frame member and bearing stiffener.
- All bolt holes are to be subpunched and reamed to size or drilled to full size.
- $1\ 3/4$ " to 5" edge distance shall be provided.
- All cross frames or diaphragms between beams or girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

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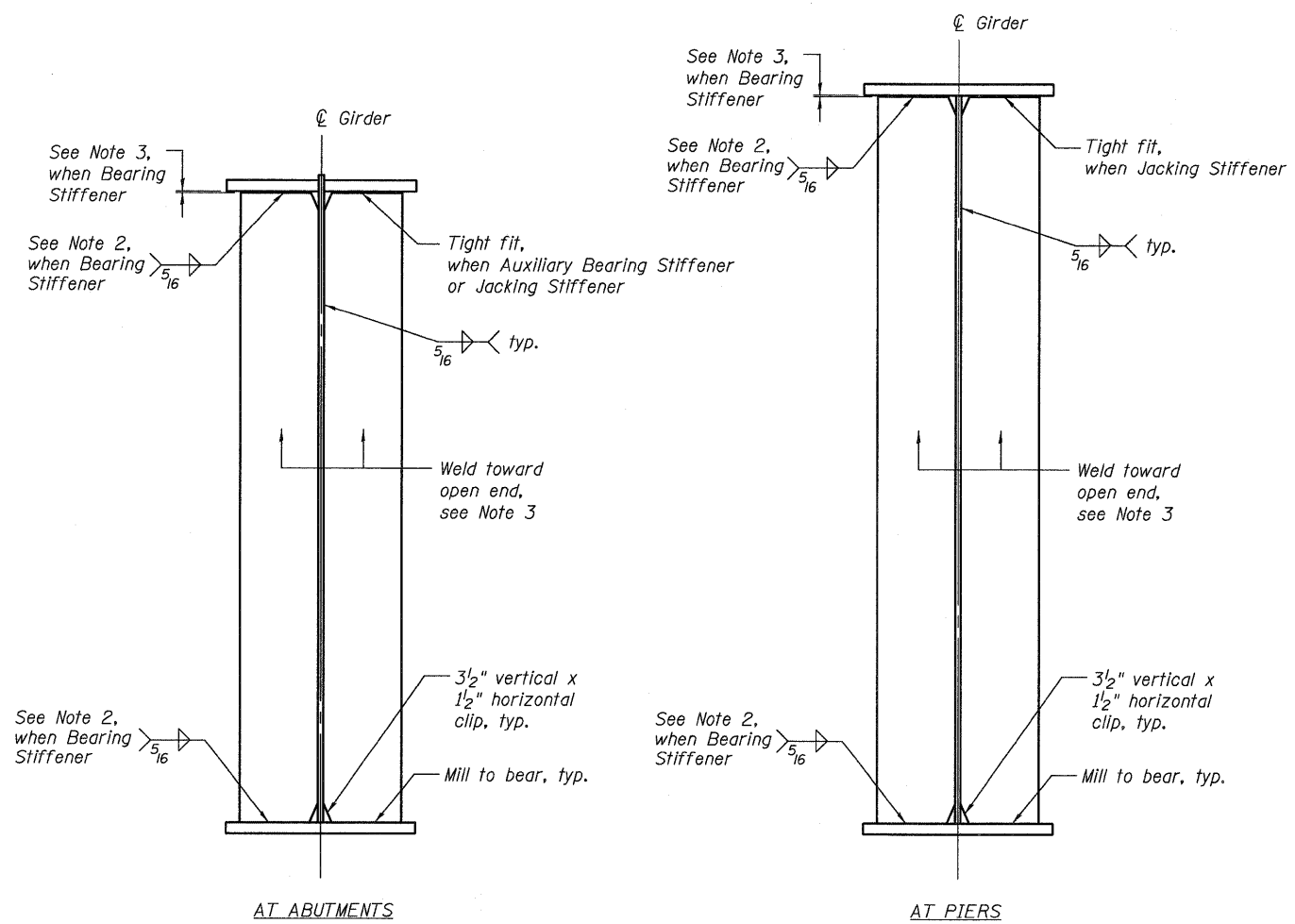
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL DETAILS - CROSS FRAMES
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 61 OF 133 SHEETS

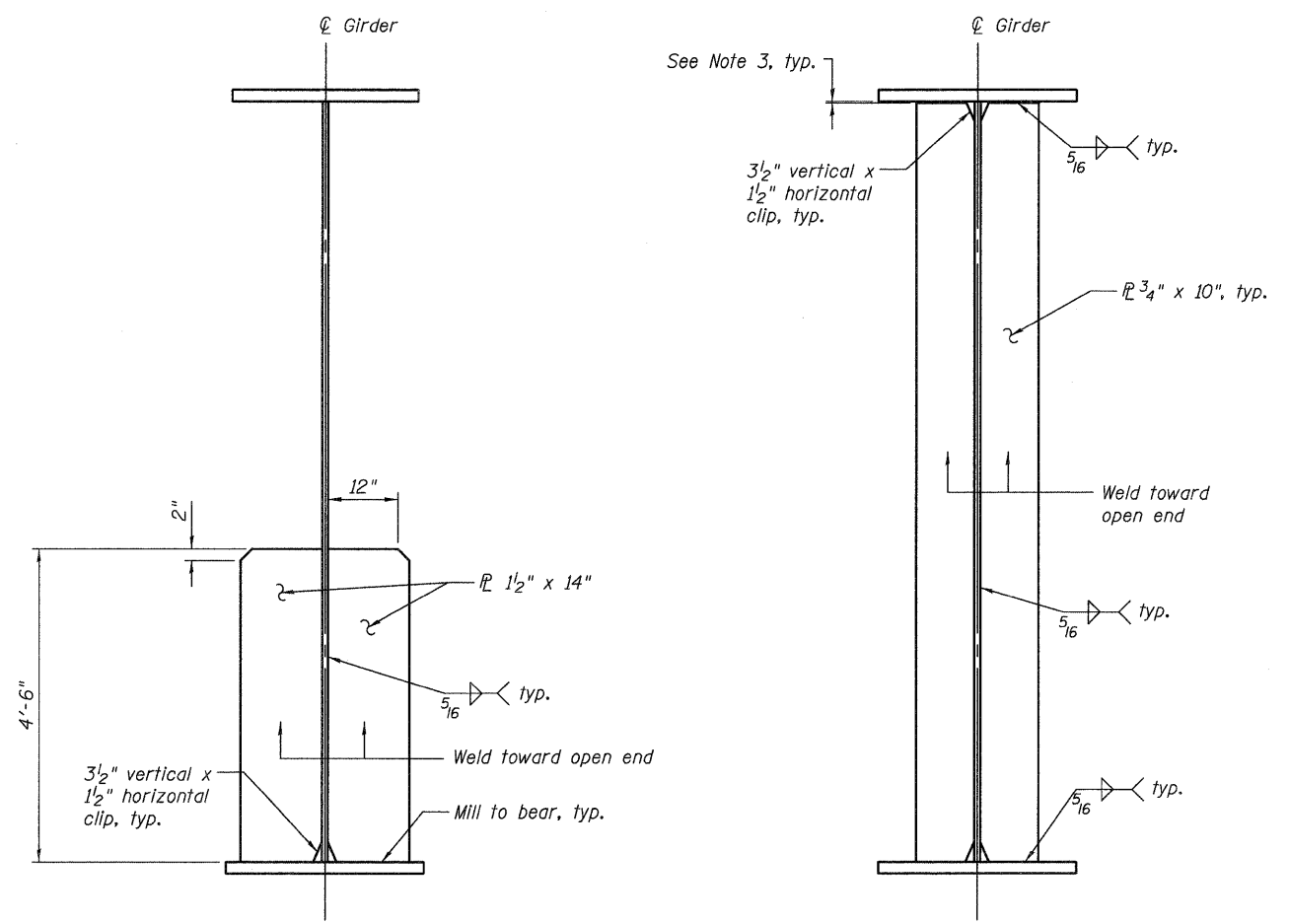
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	440
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



AT ABUTMENTS

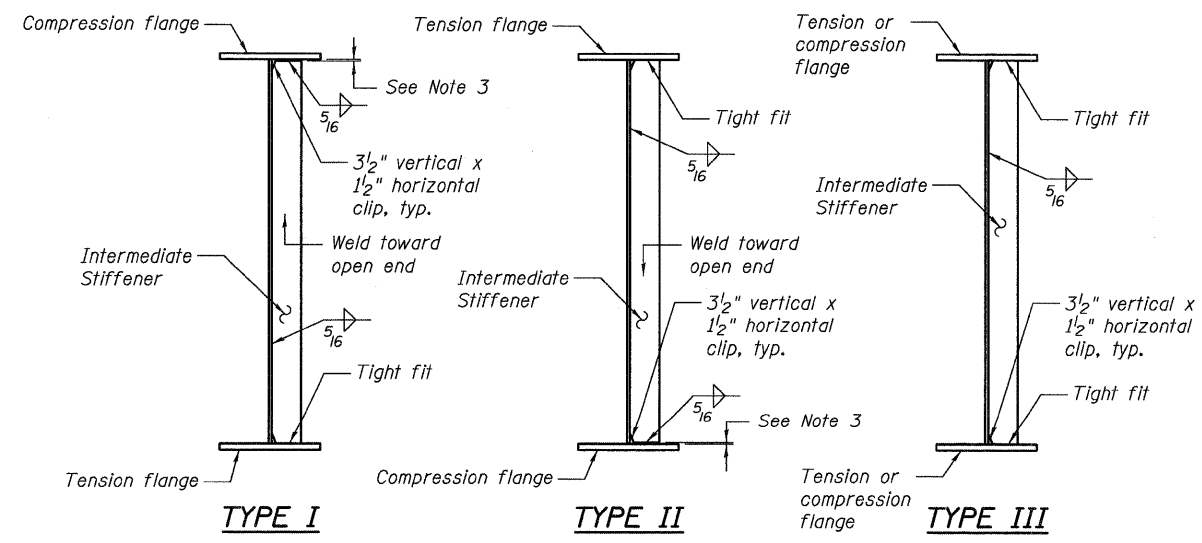
AT PIERS

BEARING AND JACKING STIFFENER DETAILS

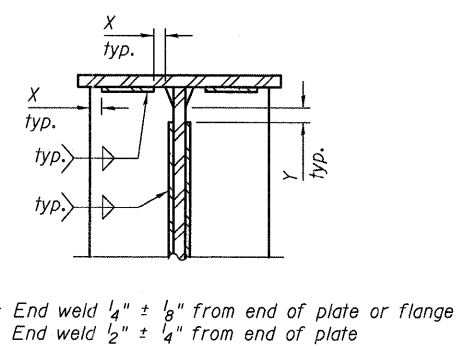


AUXILIARY BEARING STIFFENER DETAIL
(at Piers 1 & 4)

CROSS FRAME AND INSPECTION WALKWAY CONNECTION PLATE DETAIL
(Interior girder shown)



INTERMEDIATE STIFFENER DETAILS
(Exterior girders shown)



STIFFENER AND CONNECTION PLATE WELD TERMINATION DETAILS

- NOTES:**
- Bearing, auxiliary bearing, jacking stiffeners, and inspection walkway connection plate to be vertical under full dead load, unless noted otherwise.
 - Weld at top and bottom when bearing stiffener.
 - 1/8" maximum clearance before welding.
 - Connection plates required only on inside face of exterior girder.
 - Type I to be used when bottom flange denoted as NTR.
 - Type II to be used when top flange denoted as NTR.
 - Type III to be used when top and bottom flanges denoted as NTR.

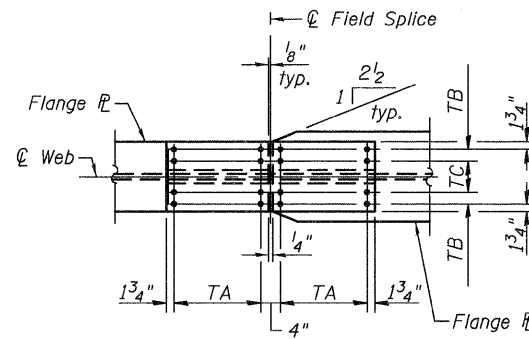
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	PLOT SCALE = NONE	DRAWN - HG	REVISED -			CONTRACT NO. 76A91				
	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 62 OF 133 SHEETS										

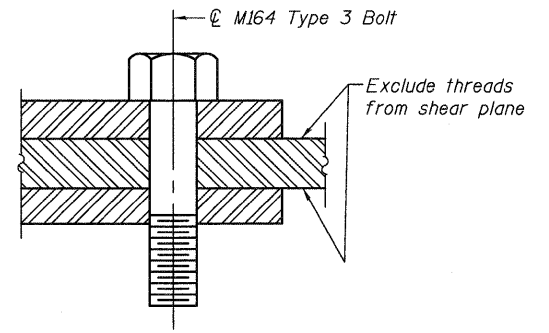
Field Splice	Top Flange					
	Splice ϕ		Filler ϕ	Bolt Spacing		
	T1	T2	T3	TA	TB	TC
FS1	1"x26"x2'-7 1/2"	1"x11 1/2"x2'-7 1/2"	-	4 spa. at 3" = 1'-0"	2 spa. at 4" = 8"	6 1/2"
FS2	1"x26"x3'-1 1/2"	1"x11 1/2"x3'-1 1/2"	-	5 spa. at 3" = 1'-3"	2 spa. at 4" = 8"	6 1/2"
FS3	1"x32"x4'-1 1/2"	1 1/4"x14 1/2"x4'-1 1/2"	1/4"x32"x2'-0 5/8"	7 spa. at 3" = 1'-9"	2 spa. at 5 1/2" = 11"	6 1/2"
FS4	1"x32"x4'-7 1/2"	1"x14 1/2"x4'-7 1/2"	1/4"x32"x2'-3 5/8"	8 spa. at 3" = 2'-0"	2 spa. at 5 1/2" = 11"	6 1/2"
FS5	1"x32"x4'-1 1/2"	1"x14 1/2"x4'-1 1/2"	1/4"x32"x2'-0 5/8"	7 spa. at 3" = 1'-9"	2 spa. at 5 1/2" = 11"	6 1/2"
FS6	1 1/4"x32"x5'-7 1/2"	1 1/2"x14 1/2"x5'-7 1/2"	-	10 spa. at 3" = 2'-6"	2 spa. at 5 1/2" = 11"	6 1/2"
FS7	1 1/4"x36"x6'-1 1/2"	1 1/2"x16 1/2"x6'-1 1/2"	1/4"x36"x3'-0 5/8"	11 spa. at 3" = 2'-9"	2 spa. at 6 1/2" = 1'-1"	6 1/2"
FS8	1 1/4"x36"x6'-1 1/2"	1 1/4"x16 1/2"x6'-1 1/2"	1/4"x36"x3'-0 5/8"	11 spa. at 3" = 2'-9"	2 spa. at 6 1/2" = 1'-1"	6 1/2"
FS9	1 1/4"x36"x6'-1 1/2"	1 1/4"x16 1/2"x6'-1 1/2"	1/4"x36"x3'-0 5/8"	11 spa. at 3" = 2'-9"	2 spa. at 6 1/2" = 1'-1"	6 1/2"
FS10	1 1/4"x36"x6'-1 1/2"	1 1/2"x16 1/2"x6'-1 1/2"	1/4"x36"x3'-0 5/8"	11 spa. at 3" = 2'-9"	2 spa. at 6 1/2" = 1'-1"	6 1/2"
FS11	1 1/4"x32"x5'-7 1/2"	1 1/2"x14 1/2"x5'-7 1/2"	-	10 spa. at 3" = 2'-6"	2 spa. at 5 1/2" = 11"	6 1/2"
FS12	1"x32"x4'-1 1/2"	1"x14 1/2"x4'-1 1/2"	1/4"x32"x2'-0 5/8"	7 spa. at 3" = 1'-9"	2 spa. at 5 1/2" = 11"	6 1/2"
FS13	1"x32"x4'-7 1/2"	1 1/4"x14 1/2"x4'-7 1/2"	1/4"x32"x2'-3 5/8"	8 spa. at 3" = 2'-0"	2 spa. at 5 1/2" = 11"	6 1/2"
FS14	1"x32"x4'-7 1/2"	1 1/4"x14 1/2"x4'-7 1/2"	1/4"x32"x2'-3 5/8"	8 spa. at 3" = 2'-0"	2 spa. at 5 1/2" = 11"	6 1/2"
FS15	1"x32"x3'-7 1/2"	1 1/4"x14 1/2"x3'-7 1/2"	-	6 spa. at 3" = 1'-6"	2 spa. at 5 1/2" = 11"	6 1/2"
FS16	1"x32"x4'-7 1/2"	1 1/4"x14 1/2"x4'-7 1/2"	1/2"x32"x2'-3 5/8"	8 spa. at 3" = 2'-0"	2 spa. at 5 1/2" = 11"	6 1/2"
FS17	1"x32"x5'-1 1/2"	1 1/4"x14 1/2"x5'-1 1/2"	1/2"x32"x2'-6 5/8"	9 spa. at 3" = 2'-3"	2 spa. at 5 1/2" = 11"	6 1/2"

Field Splice	Web			
	Splice ϕ	Filler ϕ	Bolt Spacing	
	W1	W2	WA	WB
FS1	1/2"x19 1/2"x7'-7 1/2"	-	2 spa. at 3" = 6"	22 spa. at 4" = 7'-4"
FS2	1/2"x19 1/2"x7'-7 1/2"	3/32"x9 5/8"x7'-7 1/2"	2 spa. at 3" = 6"	22 spa. at 4" = 7'-4"
FS3	1/2"x19 1/2"x10'-6"	-	2 spa. at 3" = 6"	35 spa. at 3 1/2" = 10'-2 1/2"
FS4	5/8"x25 1/2"x10'-6"	-	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS5	1/2"x19 1/2"x10'-6"	-	2 spa. at 3" = 6"	35 spa. at 3 1/2" = 10'-2 1/2"
FS6	5/8"x25 1/2"x10'-6"	3/32"x12 5/8"x10'-6"	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS7	5/8"x25 1/2"x10'-6"	3/32"x12 5/8"x10'-6"	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS8	5/8"x25 1/2"x10'-6"	-	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS9	5/8"x25 1/2"x10'-6"	-	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS10	5/8"x25 1/2"x10'-6"	3/32"x12 5/8"x10'-6"	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS11	5/8"x25 1/2"x10'-6"	3/32"x12 5/8"x10'-6"	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS12	1/2"x19 1/2"x10'-6"	-	2 spa. at 3" = 6"	35 spa. at 3 1/2" = 10'-2 1/2"
FS13	1/2"x19 1/2"x10'-6"	-	2 spa. at 3" = 6"	35 spa. at 3 1/2" = 10'-2 1/2"
FS14	5/8"x25 1/2"x10'-6"	-	3 spa. at 3" = 9"	35 spa. at 3 1/2" = 10'-2 1/2"
FS15	1/2"x25 1/2"x8'-7 1/2"	1/6"x12 5/8"x8'-7 1/2"	3 spa. at 3" = 9"	25 spa. at 4" = 8'-4"
FS16	5/8"x25 1/2"x8'-7 1/2"	-	3 spa. at 3" = 9"	25 spa. at 4" = 8'-4"
FS17	5/8"x25 1/2"x8'-7 1/2"	-	3 spa. at 3" = 9"	25 spa. at 4" = 8'-4"

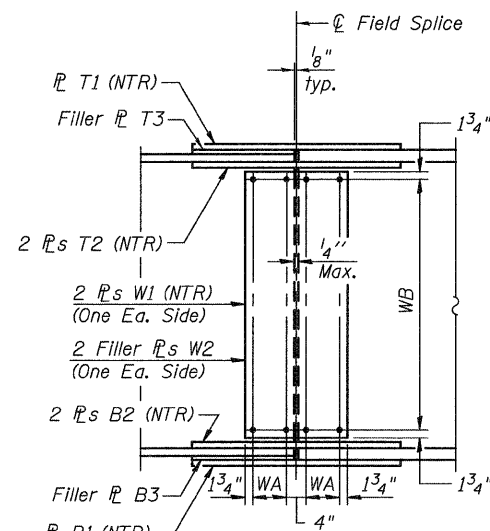
Field Splice	Bottom Flange					
	Splice ϕ		Filler ϕ	Bolt Spacing		
	B1	B2	B3	BA	BB	BC
FS1	1"x26"x3'-1 1/2"	1"x11 1/2"x3'-1 1/2"	-	5 spa. at 3" = 1'-3"	2 spa. at 4" = 8"	6 1/2"
FS2	1"x26"x3'-1 1/2"	1"x11 1/2"x3'-1 1/2"	-	5 spa. at 3" = 1'-3"	2 spa. at 4" = 8"	6 1/2"
FS3	1"x34"x5'-7 1/2"	1 1/4"x15 1/2"x5'-7 1/2"	1/2"x34"x2'-9 5/8"	10 spa. at 3" = 2'-6"	2 spa. at 6" = 1'-0"	6 1/2"
FS4	1 1/4"x34"x6'-1 1/2"	1 1/2"x15 1/2"x6'-1 1/2"	1/4"x34"x3'-0 5/8"	11 spa. at 3" = 2'-9"	2 spa. at 6" = 1'-0"	6 1/2"
FS5	1 1/4"x34"x5'-1 1/2"	1 1/4"x15 1/2"x5'-1 1/2"	1/4"x34"x2'-6 5/8"	9 spa. at 3" = 2'-3"	2 spa. at 6" = 1'-0"	6 1/2"
FS6	1 1/4"x34"x6'-1 1/2"	1 1/2"x15 1/2"x6'-1 1/2"	-	11 spa. at 3" = 2'-9"	2 spa. at 6" = 1'-0"	6 1/2"
FS7	1 1/4"x38"x5'-7 1/2"	1 1/2"x17 1/2"x5'-7 1/2"	1/2"x38"x2'-9 5/8"	10 spa. at 3" = 2'-6"	3 spa. at 4 5/8" = 1'-1 7/8"	6 3/4"
FS8	1 1/2"x38"x7'-1 1/2"	1 3/4"x17 1/2"x7'-1 1/2"	1/4"x38"x3'-6 5/8"	13 spa. at 3" = 3'-3"	2 spa. at 7" = 1'-2"	6 1/2"
FS9	1 1/2"x38"x7'-1 1/2"	1 3/4"x17 1/2"x7'-1 1/2"	1/4"x38"x3'-6 5/8"	13 spa. at 3" = 3'-3"	2 spa. at 7" = 1'-2"	6 1/2"
FS10	1 1/4"x38"x5'-7 1/2"	1 1/2"x17 1/2"x5'-7 1/2"	1/2"x38"x2'-9 5/8"	10 spa. at 3" = 2'-6"	3 spa. at 4 5/8" = 1'-1 7/8"	6 3/4"
FS11	1 1/4"x34"x6'-1 1/2"	1 1/2"x15 1/2"x6'-1 1/2"	-	11 spa. at 3" = 2'-9"	2 spa. at 6" = 1'-0"	6 1/2"
FS12	1 1/4"x34"x5'-1 1/2"	1 1/2"x15 1/2"x5'-1 1/2"	1/4"x34"x2'-6 5/8"	9 spa. at 3" = 2'-3"	2 spa. at 6" = 1'-0"	6 1/2"
FS13	1 1/4"x34"x5'-1 1/2"	1 1/2"x15 1/2"x5'-1 1/2"	1/4"x34"x2'-6 5/8"	9 spa. at 3" = 2'-3"	2 spa. at 6" = 1'-0"	6 1/2"
FS14	1"x34"x4'-7 1/2"	1 1/4"x15 1/2"x4'-7 1/2"	-	9 spa. at 3" = 2'-3"	2 spa. at 6" = 1'-0"	6 1/2"
FS15	1"x34"x4'-7 1/2"	1 1/4"x15 1/2"x4'-7 1/2"	-	8 spa. at 3" = 2'-0"	2 spa. at 6" = 1'-0"	6 1/2"
FS16	1 1/4"x34"x6'-1 1/2"	1 1/2"x15 1/2"x6'-1 1/2"	1/2"x34"x3'-0 5/8"	11 spa. at 3" = 2'-9"	2 spa. at 6" = 1'-0"	6 1/2"
FS17	1 1/2"x34"x6'-7 1/2"	1 3/4"x15 1/2"x6'-7 1/2"	1/4"x34"x3'-3 5/8"	12 spa. at 3" = 3'-0"	2 spa. at 6" = 1'-0"	6 1/2"



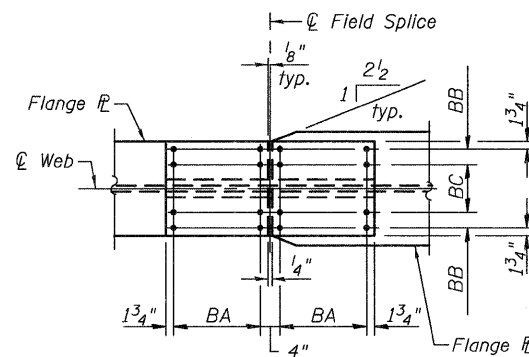
TOP FLANGE



BOLT DETAIL



ELEVATION



BOTTOM FLANGE

TYPICAL FIELD SPLICE DETAIL

NOTES:

- All bolted field splice connections shall be High Strength AASHTO M164 Type 3, 7/8" ϕ bolts in 1 5/16" ϕ holes.
- All web splice, flange splice, and fill plates shall be AASHTO M270 Grade 50W.
- Load carrying components designated "NTR" shall conform to the supplemental requirements for notch toughness, zone 2.
- Class B contact surface, for slip resistance, shall be provided for all web and flange bolted field splices.
- All bolts shall be sized to exclude threads from shear planes, see Bolt Detail.
- See Detail E on sheet 53 of 133 for Shear Connectors at Field Splice Plates.

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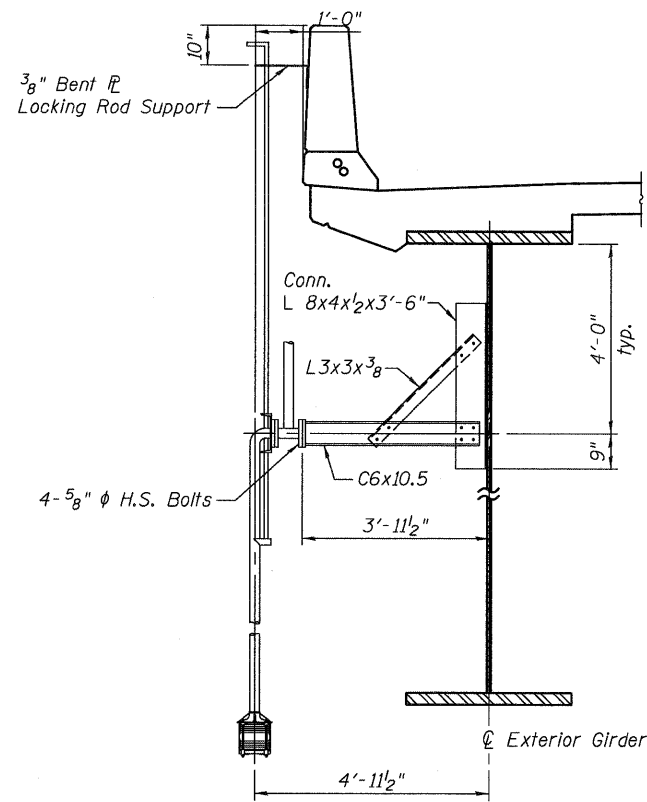
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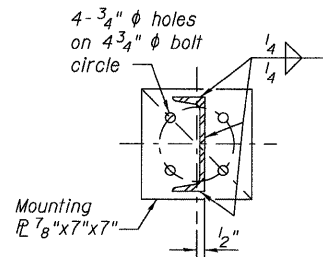
STEEL DETAILS - SPLICES
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 63 OF 133 SHEETS

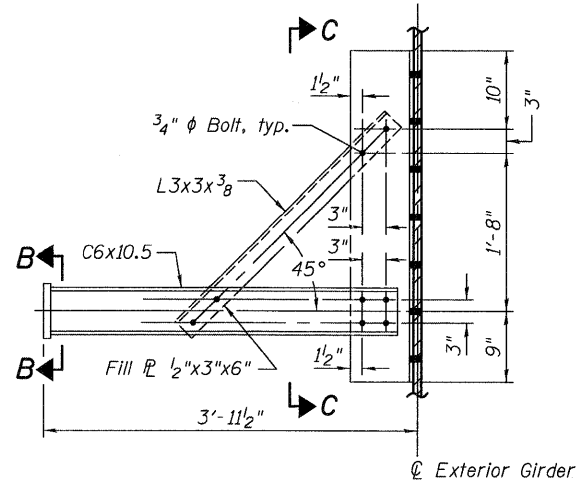
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				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



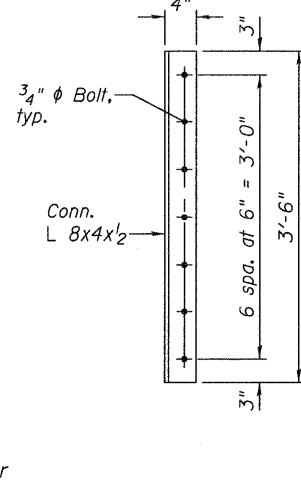
NAVIGATION LIGHT SUPPORT DETAIL



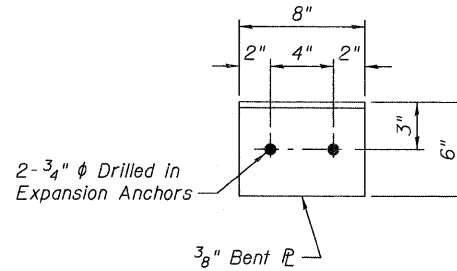
SECTION B-B



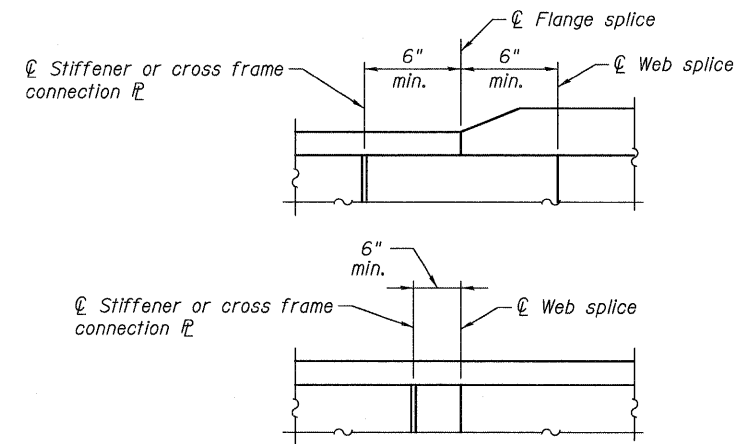
MOUNTING BRACKET DETAIL



VIEW C-C
Showing connection angle



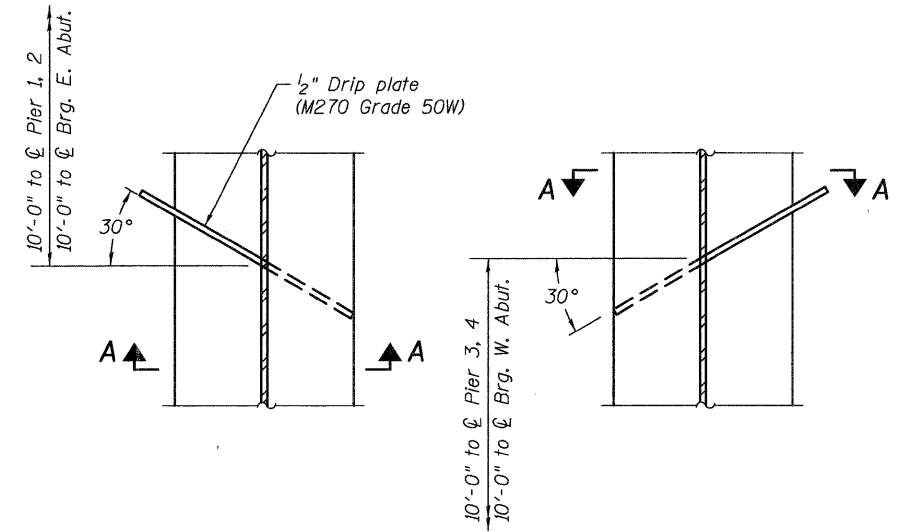
LOCKING ROD SUPPORT DETAIL



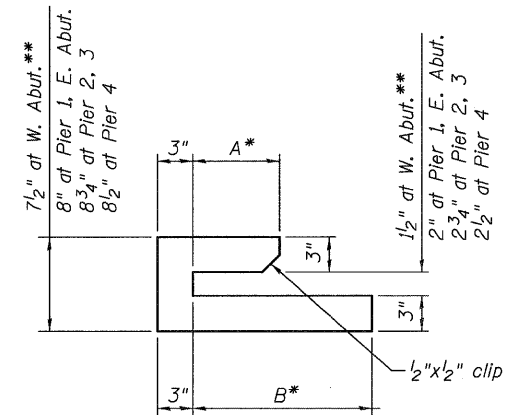
WELDED SHOP SPLICE CLEARANCE DETAILS

NOTES:

1. Cost of drip plates and adhesive included with Furnishing and Erecting Structural Steel, Lump Sum.
2. Drip plate shall be installed using a two component epoxy suitable for structural steel under prolonged exposure.
3. Cost of mounting bracket and locking rod support included with Furnishing and Erecting Structural Steel, Lump Sum.
4. All plates and shapes for mounting bracket and locking rod support shall be AASHTO M270 Grade 50W.
5. For navigational light details, see electrical plans.

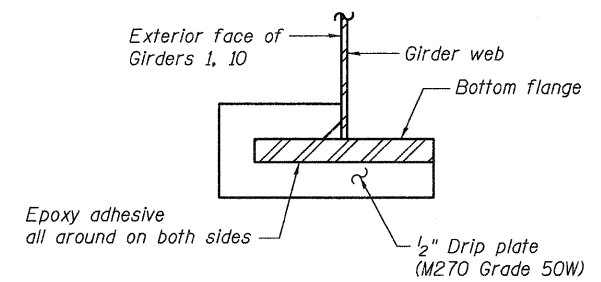


DRIP PLATE - PLAN



- * Adjust A and B to fit girder bottom flange.
- ** Adjust dimensions as required for thickness tolerance and fit-up.

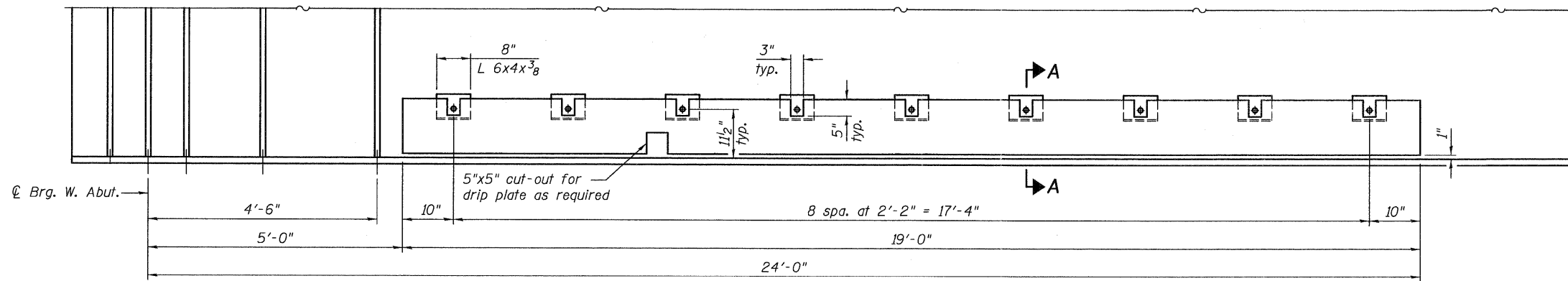
DRIP PLATE - ELEVATION



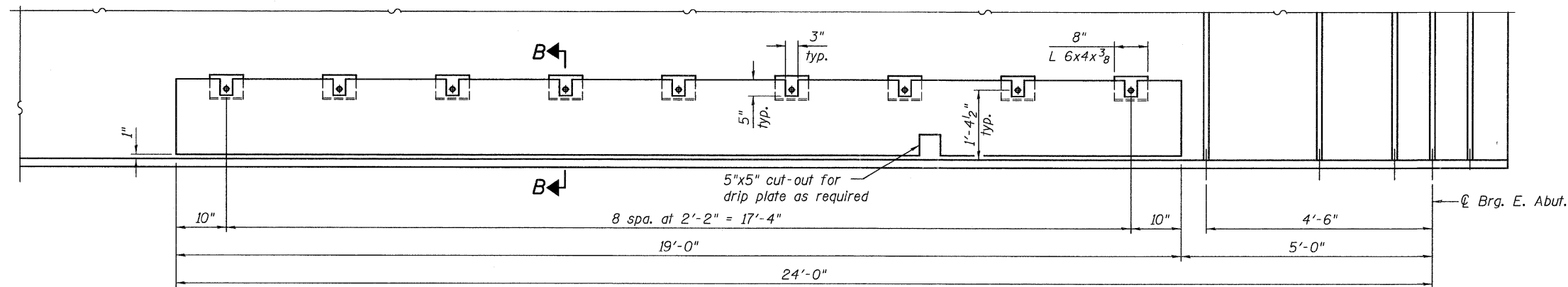
SECTION A-A

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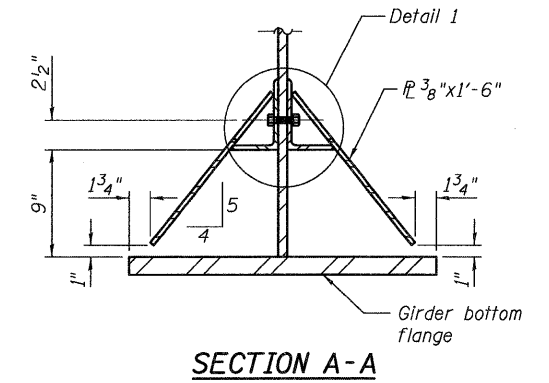
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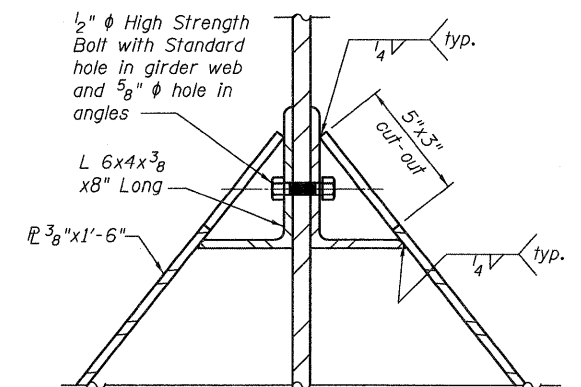
BOTTOM FLANGE VANDAL PROTECTION ELEVATION-SPAN 1



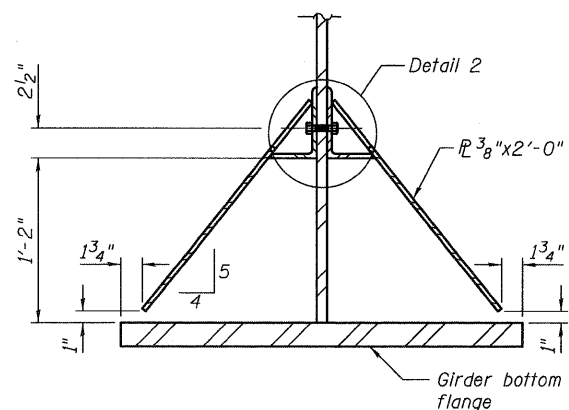
BOTTOM FLANGE VANDAL PROTECTION ELEVATION-SPAN 5



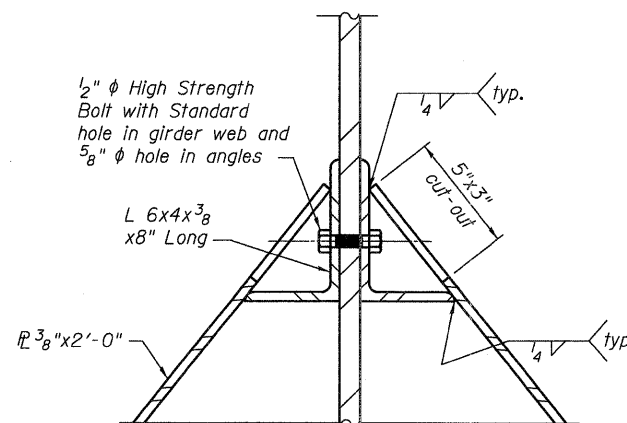
SECTION A-A



DETAIL 1



SECTION B-B



DETAIL 2

NOTES:

1. For General Notes see sheet 3 of 133.
2. Cost of bottom flange protection included with Furnishing and Erecting Structural Steel, Lump Sum.
3. All plates and shapes for bottom flange protection shall be AASHTO M 270 Grade 50W.

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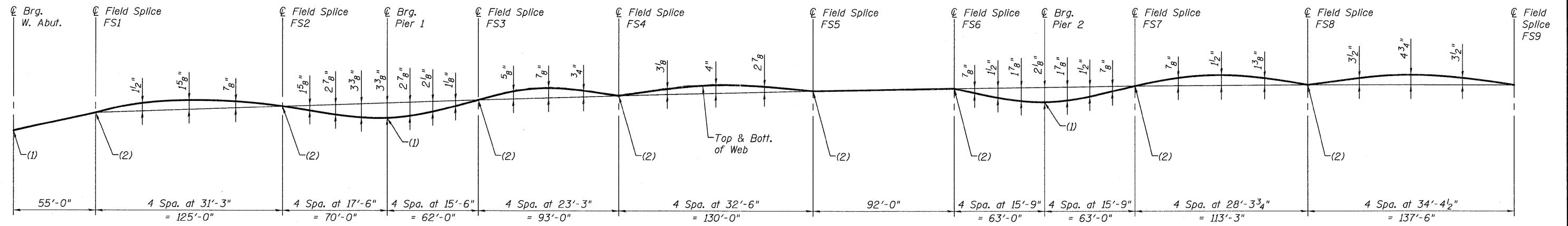
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**STEEL DETAILS - BOTTOM FLANGE PROTECTION
 STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 65 OF 133 SHEETS

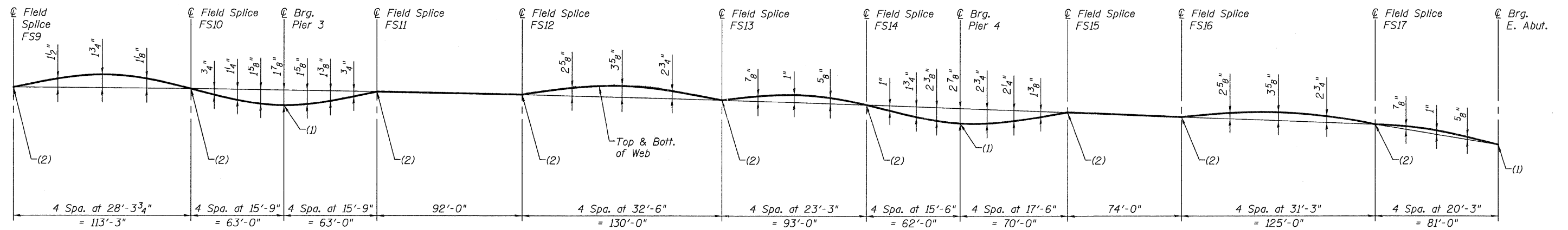
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270	60-1B-1	MADISON	712	444
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



PARTIAL CAMBER DIAGRAM

(Girders 1 and 10)

(1) Final top of web elevations
(2) Theoretical elevations before dead load deflection



PARTIAL CAMBER DIAGRAM

(Girders 1 and 10)

TOP OF WEB ELEVATIONS (For Fabrication Only)			
Location	Girder Numbers		
	G1	G10	
☉ Brg. W. Abut.	476.60	476.60	(1)
☉ Field Splice FS1	478.51	478.51	(2)
☉ Field Splice FS2	481.86	481.86	(2)
☉ Brg. Pier 1	483.97	483.97	(1)
☉ Field Splice FS3	486.38	486.38	(2)
☉ Field Splice FS4	489.94	489.94	(2)
☉ Field Splice FS5	492.97	492.97	(2)
☉ Field Splice FS6	493.91	493.91	(2)
☉ Brg. Pier 2	494.68	494.68	(1)
☉ Field Splice FS7	495.80	495.80	(2)
☉ Field Splice FS8	497.78	497.78	(2)
☉ Field Splice FS9	497.84	497.84	(2)

TOP OF WEB ELEVATIONS (For Fabrication Only)			
Location	Girder Numbers		
	G1	G10	
☉ Field Splice FS10	495.87	495.87	(2)
☉ Brg. Pier 3	494.68	494.68	(1)
☉ Field Splice FS11	493.79	493.79	(2)
☉ Field Splice FS12	492.62	492.62	(2)
☉ Field Splice FS13	489.39	489.39	(2)
☉ Field Splice FS14	485.78	485.78	(2)
☉ Brg. Pier 4	483.31	483.31	(1)
☉ Field Splice FS15	481.02	481.02	(2)
☉ Field Splice FS16	478.87	478.87	(2)
☉ Field Splice FS17	473.83	473.83	(2)
☉ Brg. E. Abut.	469.34	469.34	(1)

NOTES:

1. Camber values shown were developed based on Deck Pouring Sequence shown on sheet 28 of 133.
2. Any deviation from the pouring sequence will result in changes to camber. If the Contractor wants to change the sequence, then the proposed plan revisions and design calculations shall be submitted to the Engineer for review and approval. The plan and calculations shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

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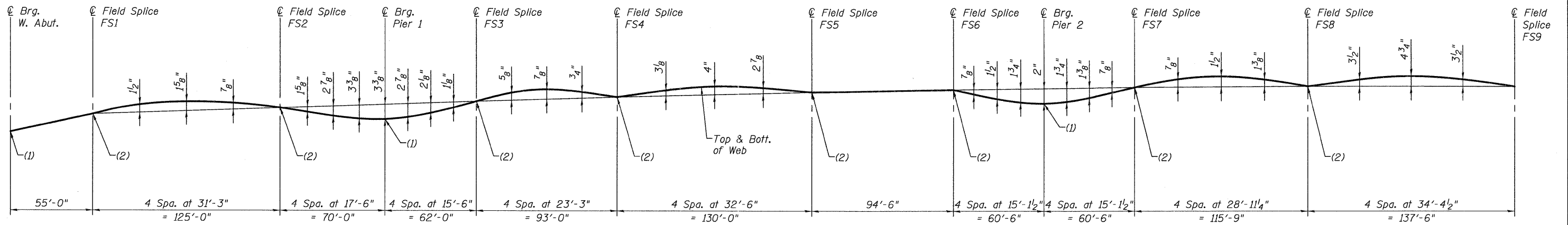
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL DETAILS - CAMBER DIAGRAMS & TOP OF WEB ELEVATION TABLE
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 66 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	445

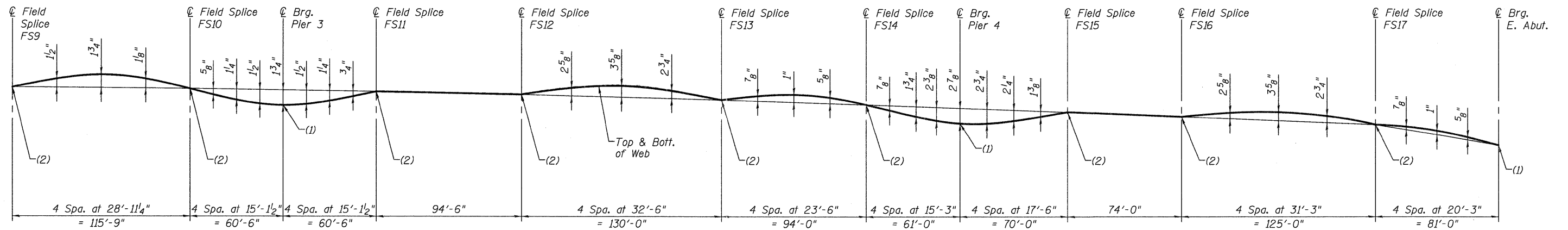
CONTRACT NO. 76A91
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PARTIAL CAMBER DIAGRAM

(Girders 2 thru 9)

(1) Final top of web elevations
(2) Theoretical elevations before dead load deflection



PARTIAL CAMBER DIAGRAM

(Girders 2 thru 9)

Location	TOP OF WEB ELEVATIONS (For Fabrication Only)								
	Girder Numbers								
	G2	G3	G4	G5	G6	G7	G8	G9	
⊕ Brg. W. Abut.	476.76	476.74	476.57	476.37	476.37	476.57	476.74	476.76	(1)
⊕ Field Splice FS1	478.67	478.65	478.48	478.28	478.28	478.48	478.65	478.67	(2)
⊕ Field Splice FS2	482.01	481.99	481.82	481.62	481.62	481.82	481.99	482.01	(2)
⊕ Brg. Pier 1	484.13	484.11	483.94	483.74	483.74	483.94	484.11	484.13	(1)
⊕ Field Splice FS3	486.54	486.52	486.35	486.15	486.15	486.35	486.52	486.54	(2)
⊕ Field Splice FS4	490.10	490.08	489.91	489.71	489.71	489.91	490.08	490.10	(2)
⊕ Field Splice FS5	493.13	493.10	492.94	492.74	492.74	492.94	493.10	493.13	(2)
⊕ Field Splice FS6	494.10	494.07	493.91	493.71	493.71	493.91	494.07	494.10	(2)
⊕ Brg. Pier 2	494.84	494.81	494.65	494.45	494.45	494.65	494.81	494.84	(1)
⊕ Field Splice FS7	495.91	495.89	495.72	495.52	495.52	495.72	495.89	495.91	(2)
⊕ Field Splice FS8	497.93	497.91	497.74	497.55	497.55	497.74	497.91	497.93	(2)
⊕ Field Splice FS9	498.00	497.97	497.81	497.61	497.61	497.81	497.97	498.00	(2)

Location	TOP OF WEB ELEVATIONS (For Fabrication Only)								
	Girder Numbers								
	G2	G3	G4	G5	G6	G7	G8	G9	
⊕ Field Splice FS10	495.98	495.96	495.79	495.59	495.59	495.79	495.96	495.98	(2)
⊕ Brg. Pier 3	494.84	494.81	494.65	494.45	494.45	494.65	494.81	494.84	(1)
⊕ Field Splice FS11	493.98	493.96	493.79	493.59	493.59	493.79	493.96	493.98	(2)
⊕ Field Splice FS12	492.77	492.75	492.59	492.39	492.39	492.59	492.75	492.77	(2)
⊕ Field Splice FS13	489.55	489.53	489.36	489.16	489.16	489.36	489.53	489.55	(2)
⊕ Field Splice FS14	485.90	485.88	485.71	485.51	485.51	485.71	485.88	485.90	(2)
⊕ Brg. Pier 4	483.47	483.44	483.28	483.08	483.08	483.28	483.44	483.47	(1)
⊕ Field Splice FS15	481.18	481.15	480.99	480.79	480.79	480.99	481.15	481.18	(2)
⊕ Field Splice FS16	479.03	479.00	478.84	478.64	478.64	478.84	479.00	479.03	(2)
⊕ Field Splice FS17	473.99	473.97	473.80	473.60	473.60	473.80	473.97	473.99	(2)
⊕ Brg. E. Abut.	469.50	469.48	469.31	469.11	469.11	469.31	469.48	469.50	(1)

NOTES:

- Camber values shown were developed based on Deck Pouring Sequence shown on sheet 28 of 133.
- Any deviation from the pouring sequence will result in changes to camber. If the Contractor wants to change the sequence, then the proposed plan revisions and design calculations shall be submitted to the Engineer for review and approval. The plan and calculations shall be prepared and sealed by a Licensed Structural Engineer in Illinois.

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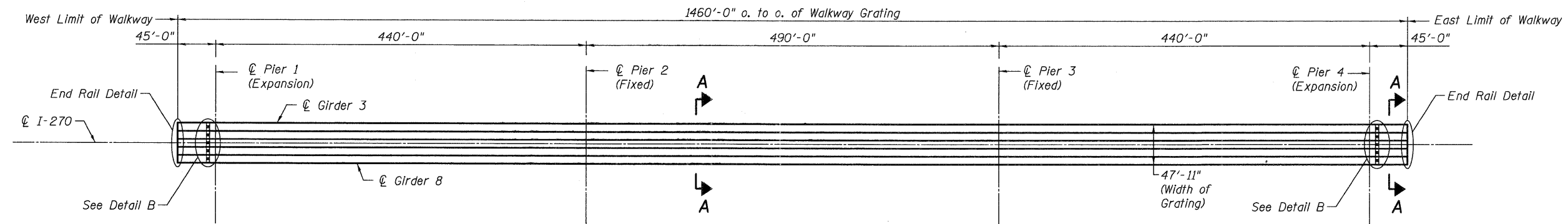
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DEPARTMENT OF TRANSPORTATION

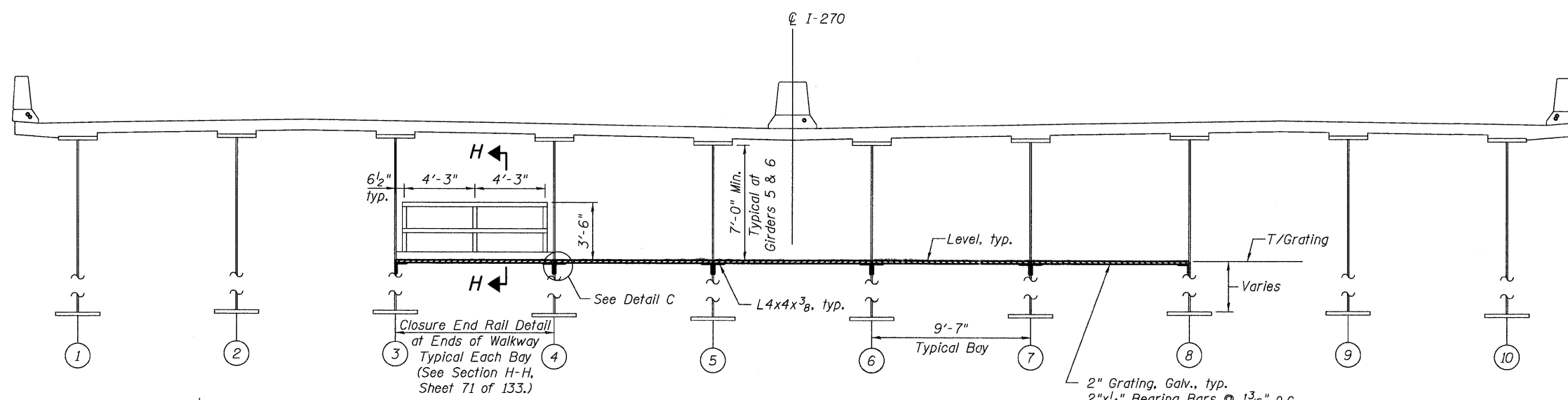
STEEL DETAILS - CAMBER DIAGRAMS & TOP OF WEB ELEVATION TABLE
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 67 OF 133 SHEETS

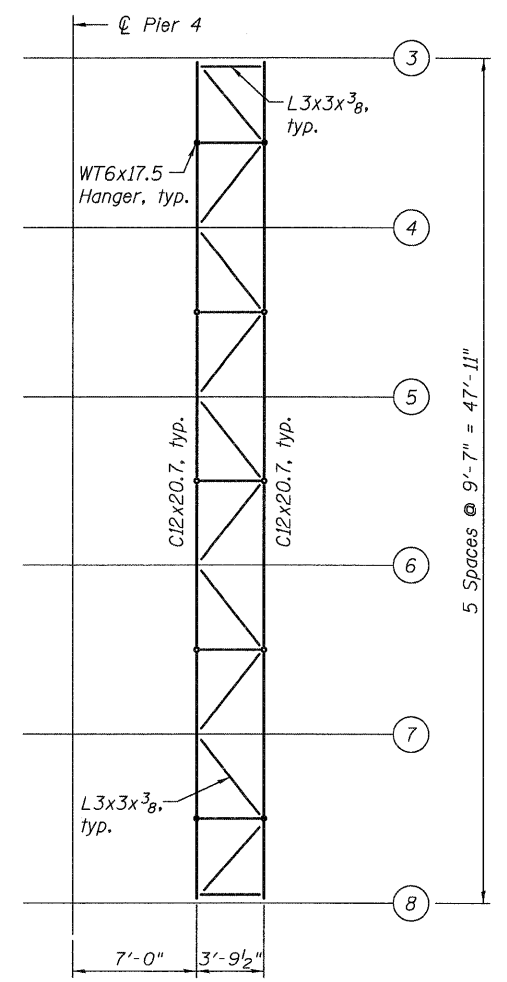
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CONTRACT NO. 76A91			ILLINOIS FED. AID PROJECT	



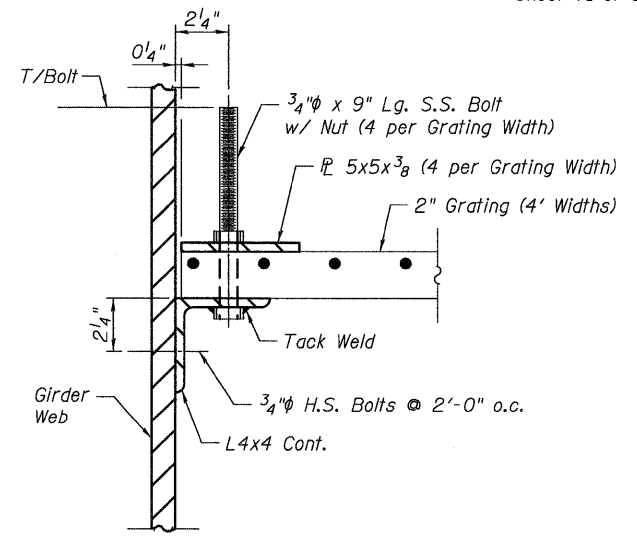
INSPECTION WALKWAY PLAN



SECTION A-A
Inspection Walkway Typical Section
(Looking East)



DETAIL B
Crossover Framing Plan Below Walkway
Crossover at Pier 4 shown, Pier 1 Similar

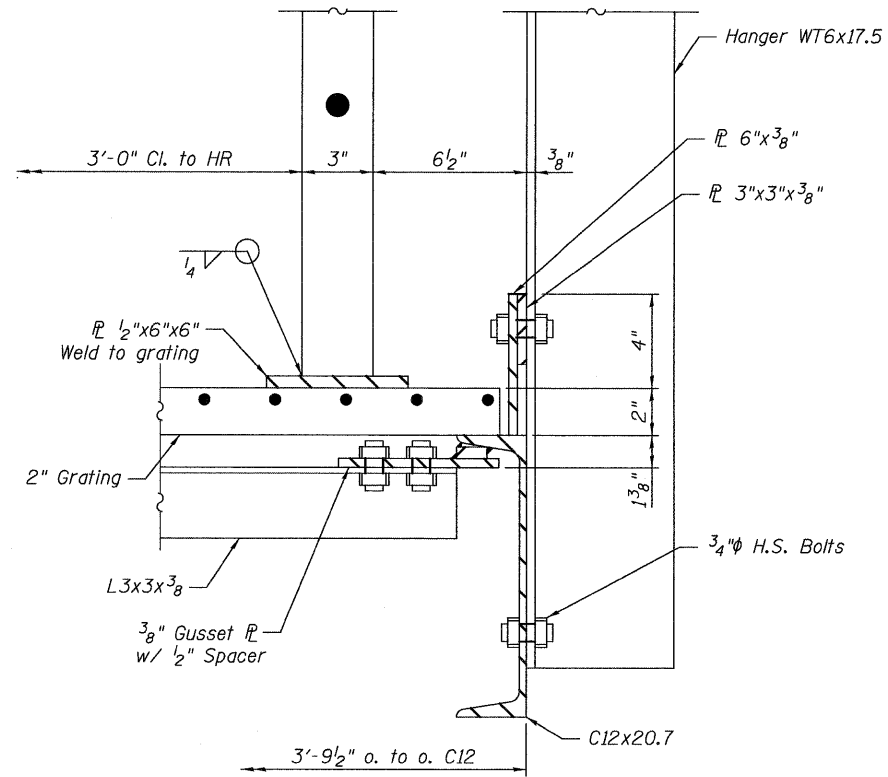
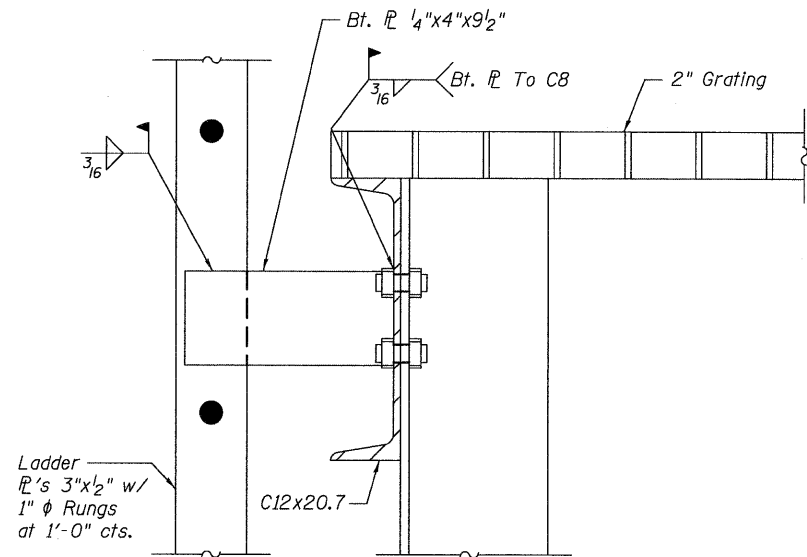


DETAIL C

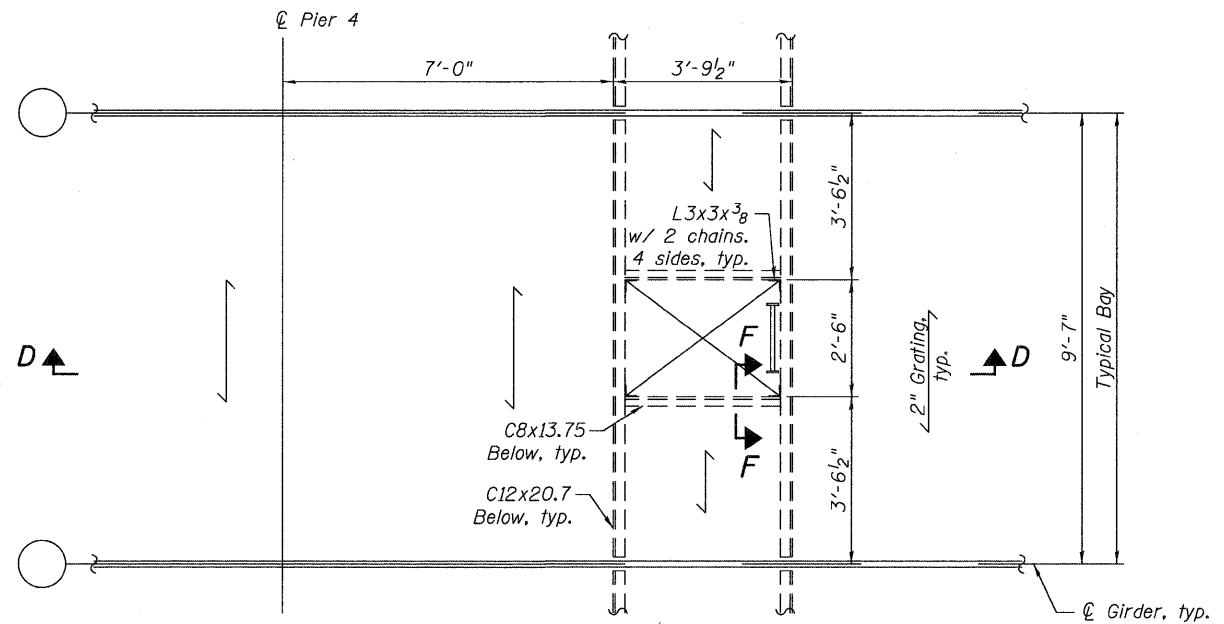
- Notes:**
- All structural steel for inspection walkway (except grating) shall be AASHTO M270 Grade 50W.
 - Bolts shall be 3/4 in. diameter, holes 13/16 in. diameter, unless otherwise noted.
 - Nuts for grating shall be installed at the T/Bolt until all concrete decking is in place. Nuts shall then be tightened down to the 5x5 fl.
 - Prior to future deck removal, the nuts securing the grating shall be loosened and raised to allow the grating to rotate.
 - L4x4 & grating shall be cut at stiffener, connection plate, cross frame and drainage pipe locations. See sheet 71 of 133 for typical details.
 - S.S. indicates stainless steel.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing and Erecting Structural Steel	Pound	195,000
Metal Grating	L. Sum	1

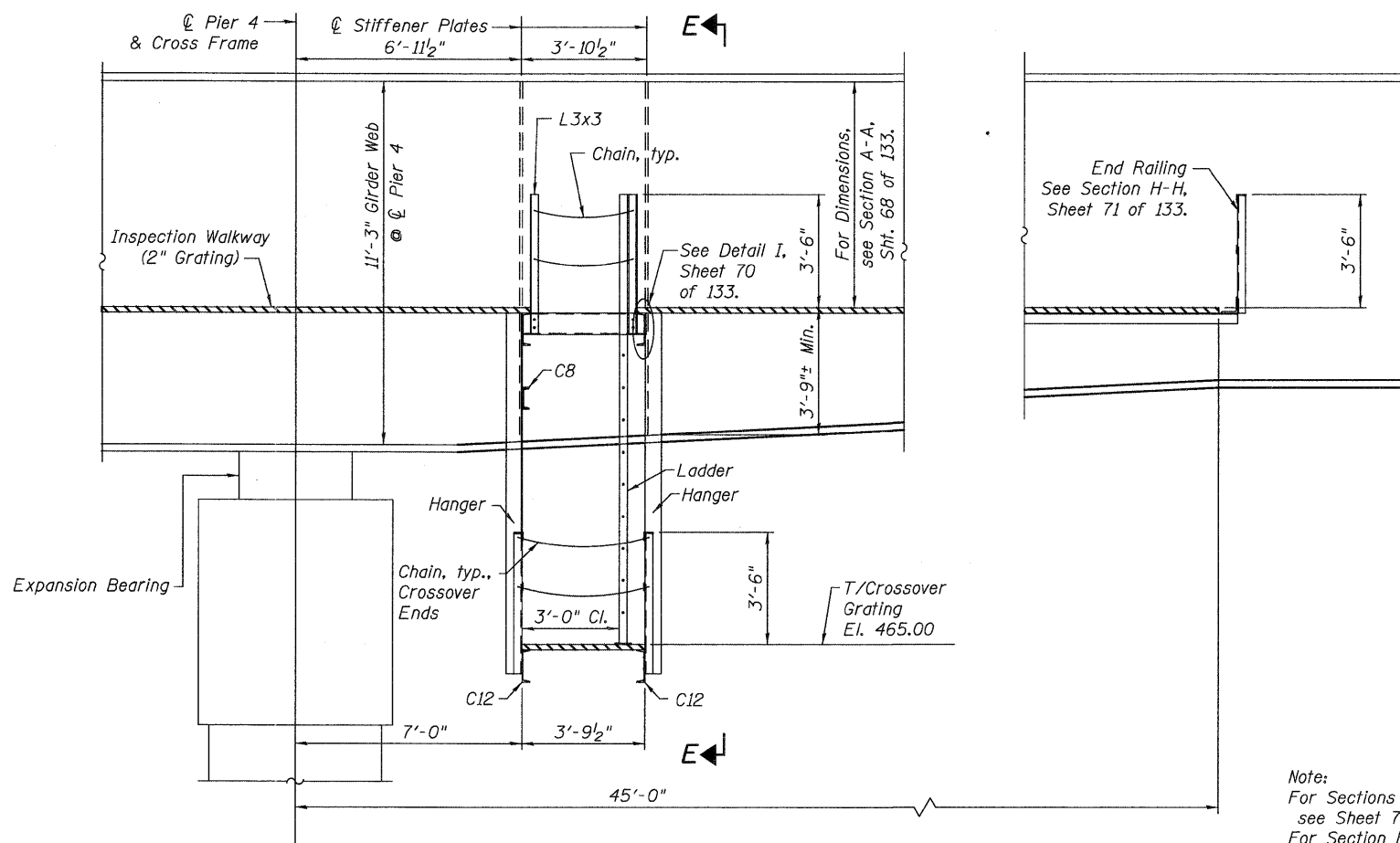


DETAIL AT LADDER



TYPICAL WALKWAY OPENING PLAN

Similar at West Side of Pier 1



SECTION D-D

(Looking North)

Pier 4 shown, Pier 1 similar

Note:
For Sections E-E & F-F and Detail I,
see Sheet 70 of 133.
For Section H-H, see Sheet 71 of 133.

FILE NAME = ...0600345-76491-069-FRD.dgn

USER NAME = #USER#

DESIGNED - RAR

REVISED -

CHECKED - GEK

REVISED -

PLOT SCALE = NONE

DRAWN - PMH

REVISED -

PLOT DATE = 3/18/11

CHECKED - RAR

REVISED -



McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street, Chicago, Illinois 60601

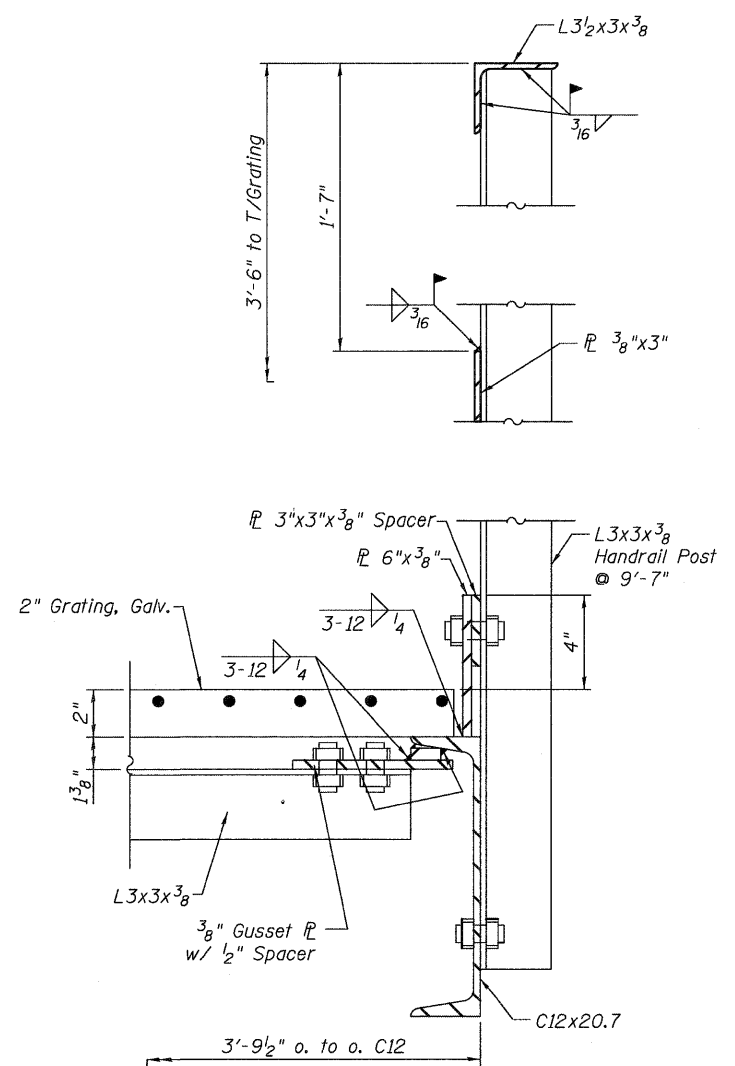
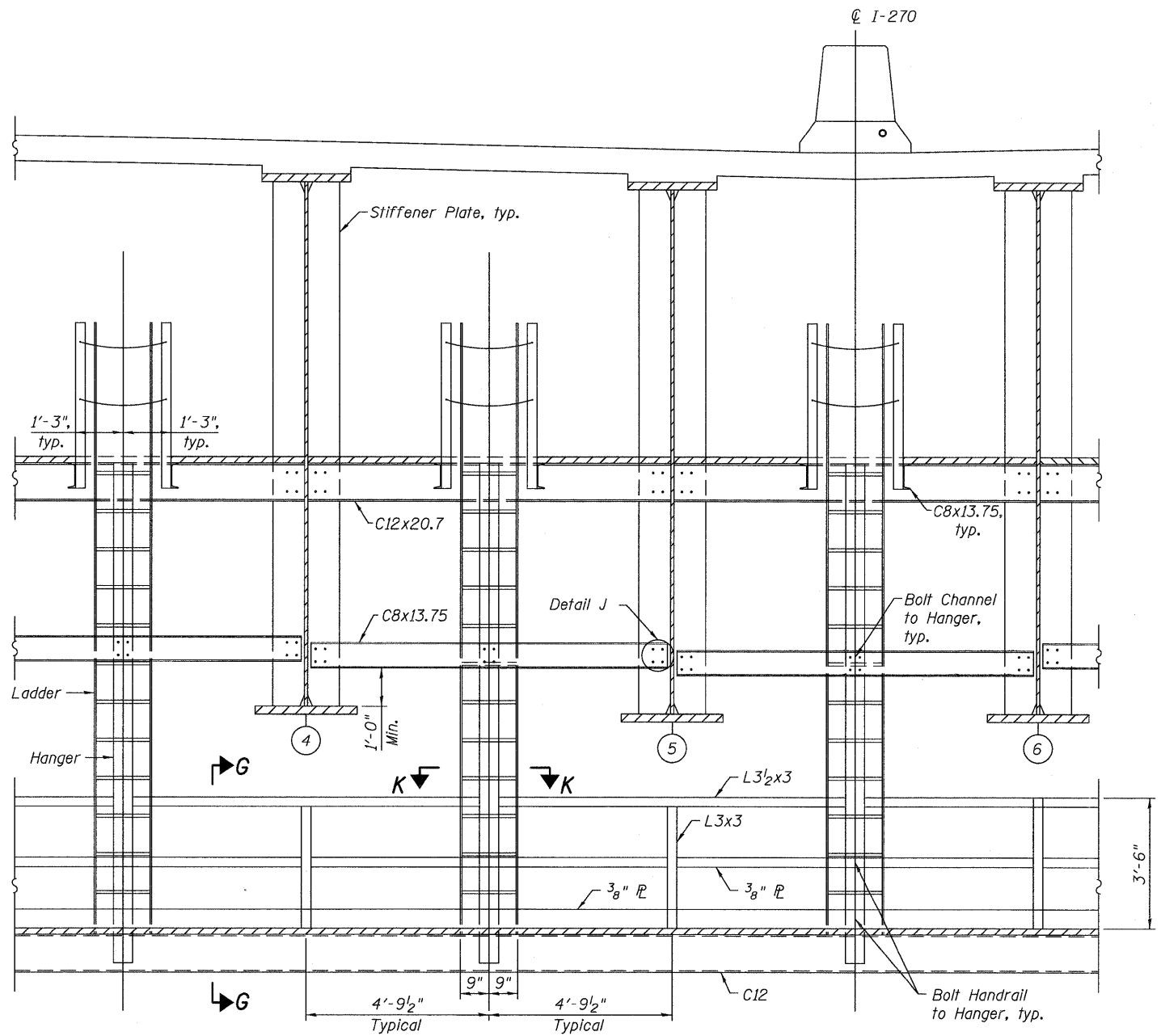
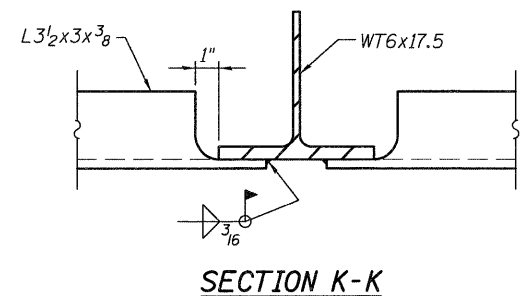
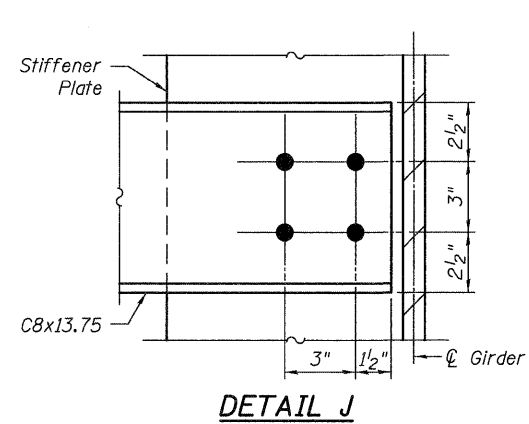
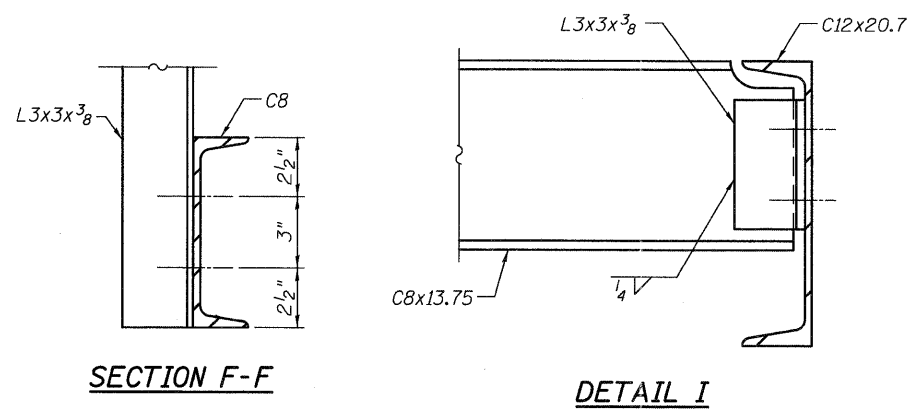
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL DETAILS - INSPECTION WALKWAY
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 69 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	448
				CONTRACT NO. 76A91

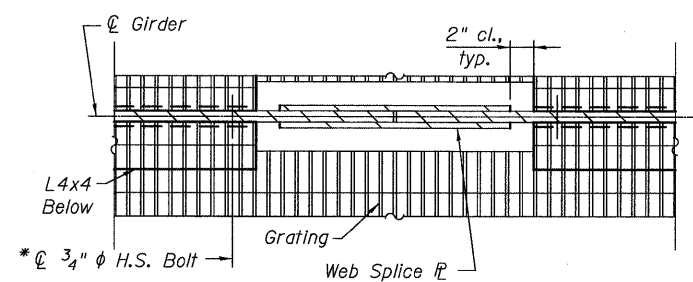
ILLINOIS FED. AID PROJECT



SECTION E-E
Pier 4 shown, Pier 1 similar

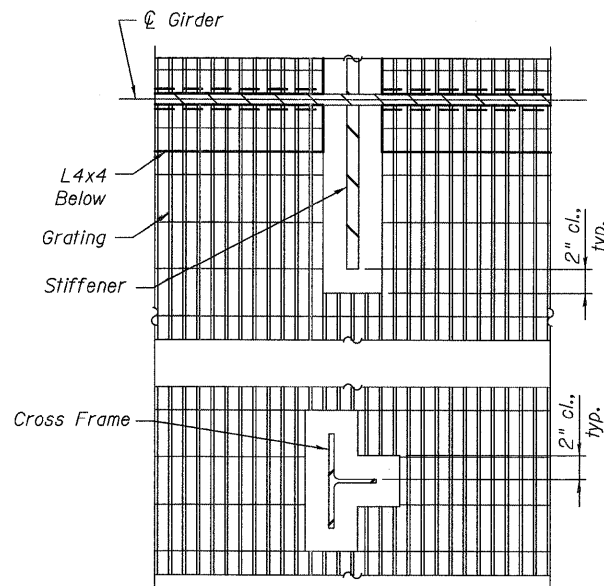
SECTION G-G
At Crossover Handrail

<p>McDonough Associates Inc. Engineers / Architects 130 East Randolph Street, Chicago, Illinois 60601</p>	FILE NAME = ...0600345-76491-070-FRD.dgn	DESIGNED - RAR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STEEL DETAILS - INSPECTION WALKWAY STRUCTURE NO. 060-0345	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 3/18/11	CHECKED - RAR	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 70 OF 133 SHEETS										

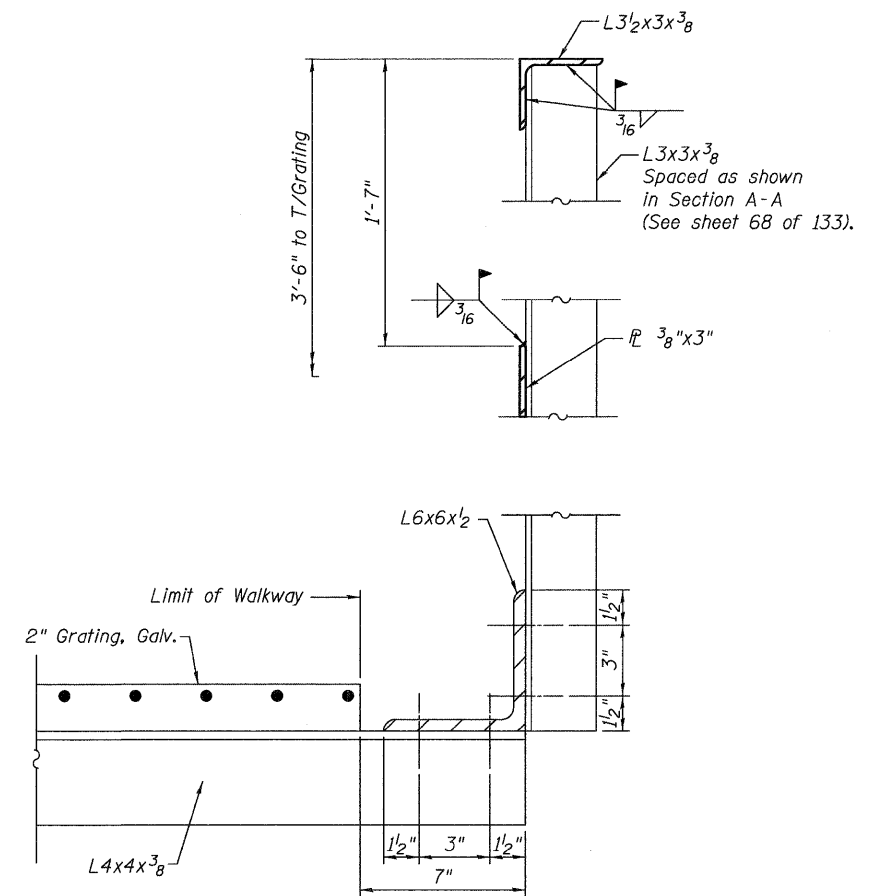


**TYPICAL DETAIL AT
WEB SPLICE PLATE**

* Provide one additional bolt on each side of web splice plate, typ. all splice locations.



**TYPICAL DETAIL AT
STIFFENER AND CROSS BRACE**



SECTION H-H

FILE NAME = ...0600345-76491-071-FRD.dgn

USER NAME = \$USER\$

DESIGNED - RAR

REVISED -

CHECKED - GEK

REVISED -

PLOT SCALE = NONE

DRAWN - PMH

REVISED -

PLOT DATE = 3/18/11

CHECKED - RAR

REVISED -

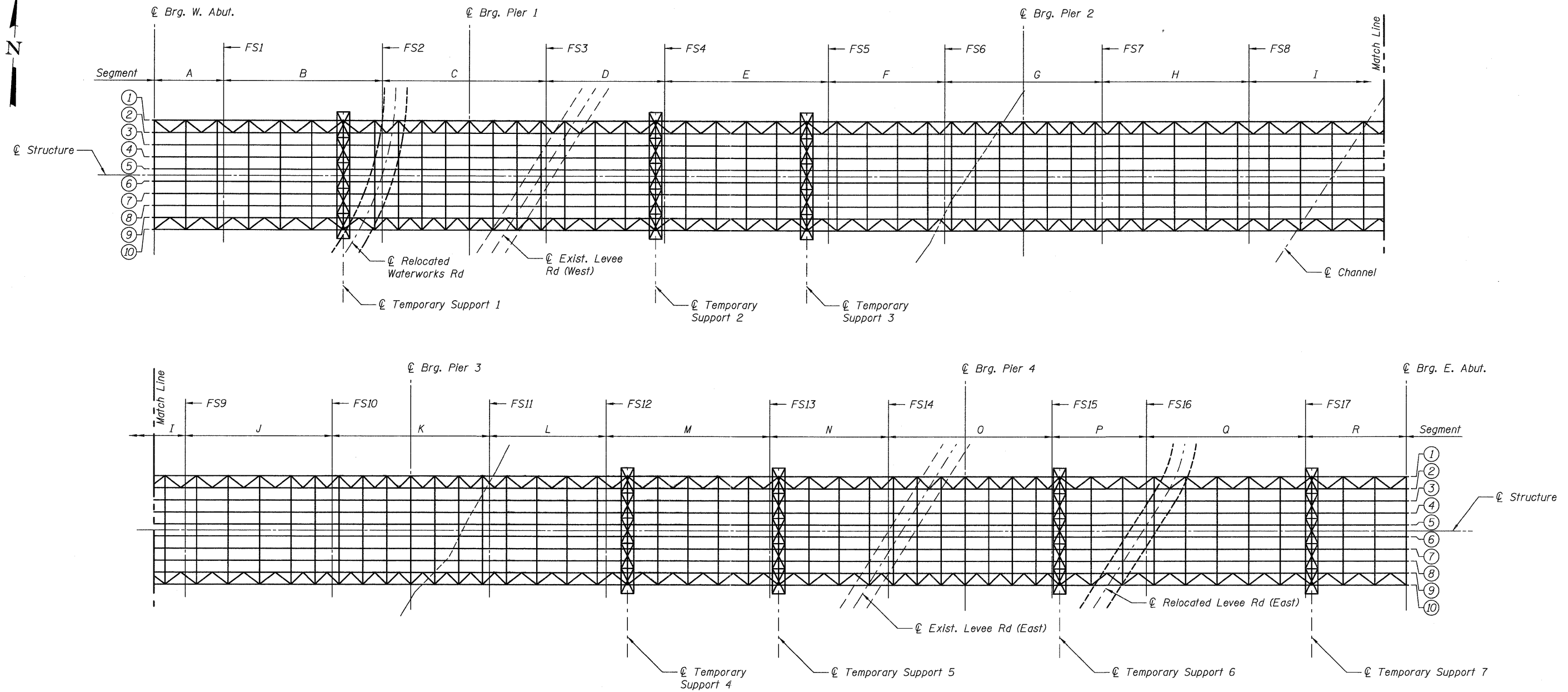
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STEEL DETAILS - INSPECTION WALKWAY
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 71 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	450
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601



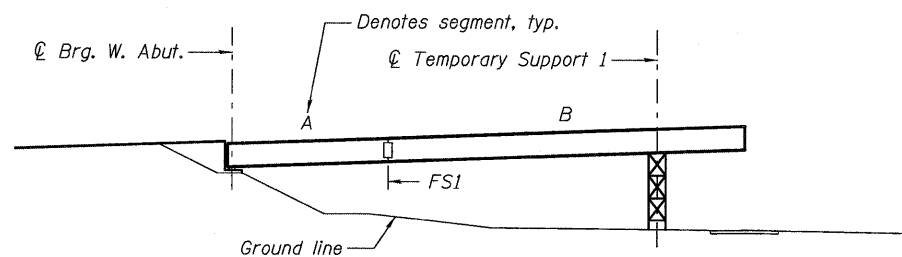
PLAN VIEW

NOTES:

- The erection stages shown on sheets 72 through 77 of 133 are presented only as a conceptual erection procedure. All intermediate stages of erection, temporary restraining devices, temporary supports, jacking devices, crane locations, etc. that may be necessary are not shown. The Contractor may submit for approval an alternate procedure, or modify the conceptual procedure provided. The conceptual erection sequence shown is provided for information only and is not all-inclusive, and does not relieve the Contractor of the requirement to submit a steel erection plan prepared and sealed by a Licensed Structural Engineer in Illinois.
- The Contractor must submit for approval a steel erection plan. The steel erection plan submitted by the Contractor shall detail the proposed methods and procedures for erection of the structural steel to the desired elevations and geometry indicated on the Contract Plans. The steel erection plan shall include detailed drawings and calculations. The steel erection plan shall be complete in detail for all phases of erection including procedures, structural stability, geometry controls, adjustment procedures, jacking devices, temporary shoring or bracing, temporary restraining devices, crane placements, and bolt installation and tightening procedures. The steel erection plan shall consider loads, including but not limited to dead load, live load, and wind loads during construction. The design specifications used for the design of the structure shall be used for calculations associated with the steel erection plan. The Contractor is responsible for the stability of the substructure and the partial and complete superstructure during the erection process. The steel erection plan shall be prepared and sealed by a Licensed Structural Engineer in Illinois.
- The steel erection plan shall be coordinated and approved in writing by the United States Coast Guard (USCG) and the United States Army Corps of Engineers (USACE). No additional compensation or time will be allowed for USCG or USACE restrictions.
- No excavation is permitted within the levee embankment or within 10 feet of the toe of the levee except for the construction of Pier 4. The surface of the levee shall be protected from damage due to construction activities and shall not be penetrated from temporary works or construction equipment.

c:\pwworking\hmc\0549104\0600345-76A91-072-FRD.dgn
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 3/16/2011 3:42:38 PM

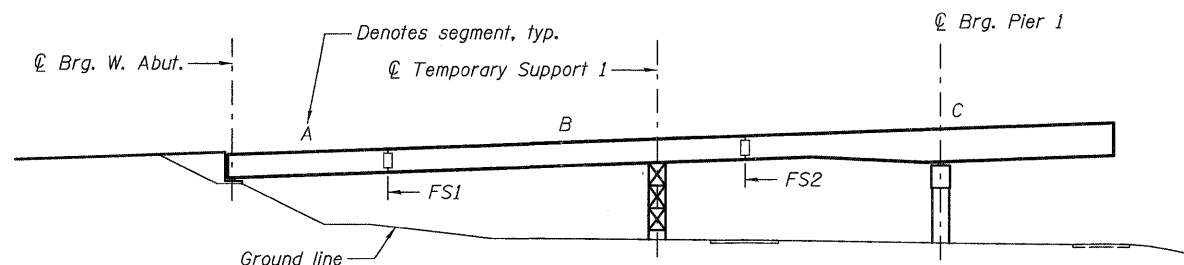
 HDR ENGINEERING, INC.	USER NAME = jmlgus	DESIGNED - BWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCEPTUAL STEEL ERECTION SEQUENCE STRUCTURE NO. 060-0345	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 72 OF 133 SHEETS										



STAGE 1

Stage 1 Notes:

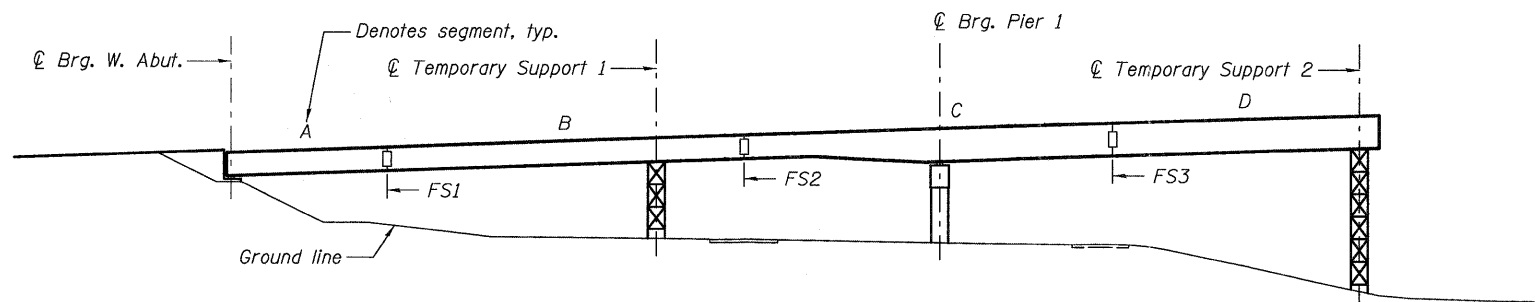
1. Erect Temporary Support 1, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segments A and B with FS1 completed, and with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment A and B girders, cross frames, and top lateral bracing.



STAGE 2

Stage 2 Notes:

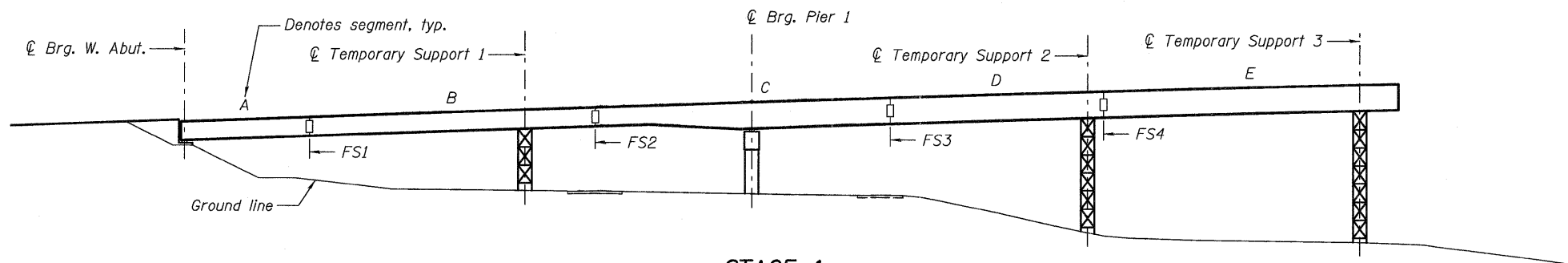
1. Assemble adjacent girders G9 and G10, segment C, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
2. Erect remaining segment C girders, cross frames, and top lateral bracing.



STAGE 3

Stage 3 Notes:

1. Erect Temporary Support 2, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segment D, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment D girders, cross frames, and top lateral bracing.



STAGE 4

Stage 4 Notes:

1. Erect Temporary Support 3, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segment E, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment E girders, cross frames, and top lateral bracing.

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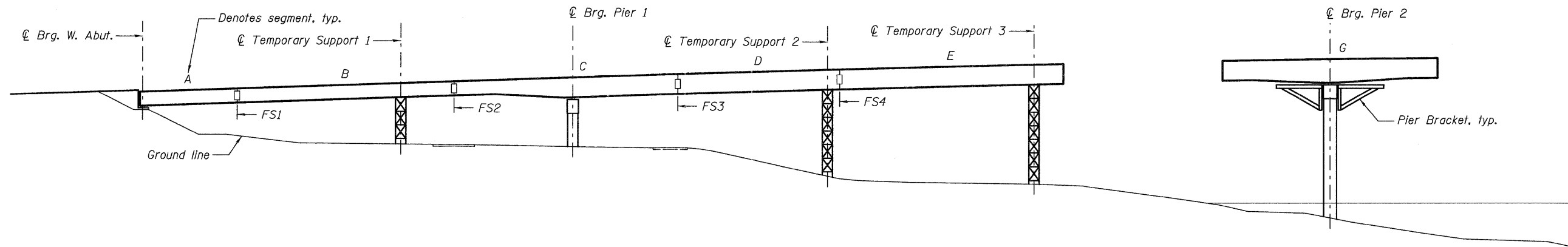
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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCEPTUAL STEEL ERECTION SEQUENCE
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 73 OF 133 SHEETS

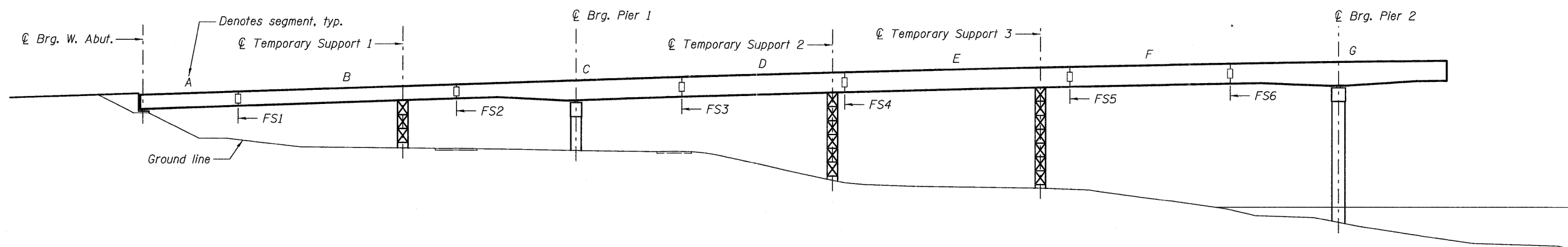
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	452
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



STAGE 5

Stage 5 Notes:

1. Erect Pier Brackets on Pier 2.
2. Assemble adjacent girders G9 and G10, segment G, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.



STAGE 6

Stage 6 Notes:

1. Assemble adjacent girders G9 and G10, segment F, with all cross frames and top lateral bracing. Erect assembled girder pair. Use jacking devices to adjust longitudinally and vertically as necessary, to complete FS5 and FS6. As necessary, provide means for ensuring the stability of the erected pair.
2. Erect remaining segment G and F girders, cross frames, and top lateral bracing. Segment G to be erected prior to segment F for each girder line.

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 jmgus



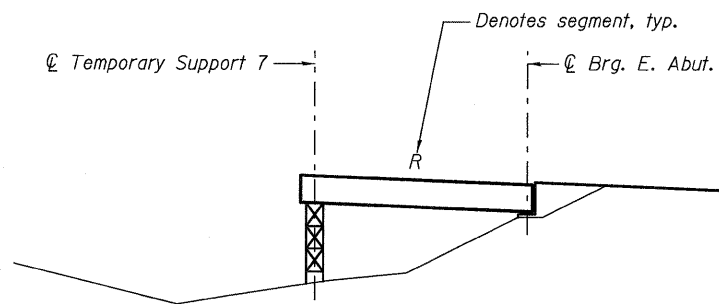
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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCEPTUAL STEEL ERECTION SEQUENCE
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 74 OF 133 SHEETS

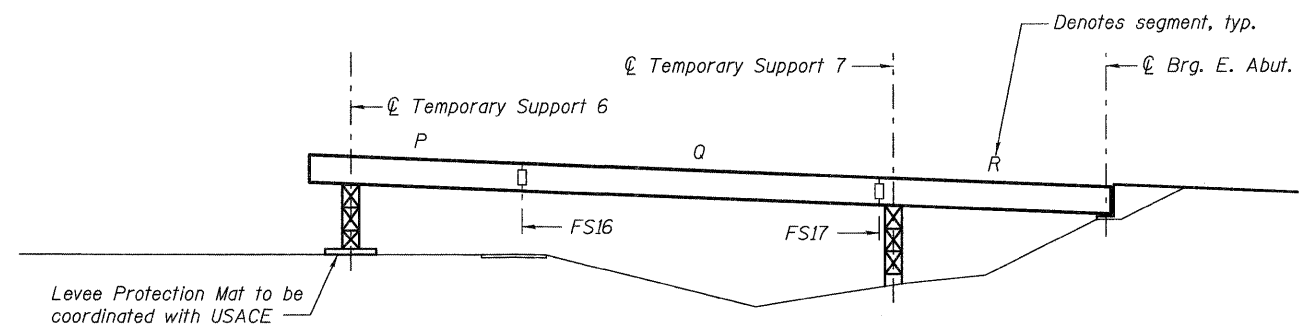
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	453
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



STAGE 7

Stage 7 Notes:

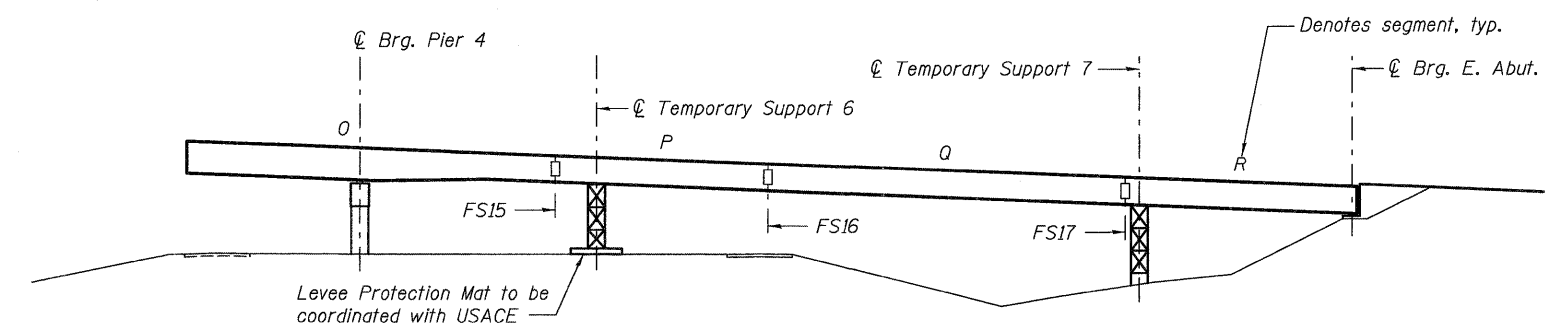
1. Erect Temporary Support 7, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segment R, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment R girders, cross frames, and top lateral bracing.



STAGE 8

Stage 8 Notes:

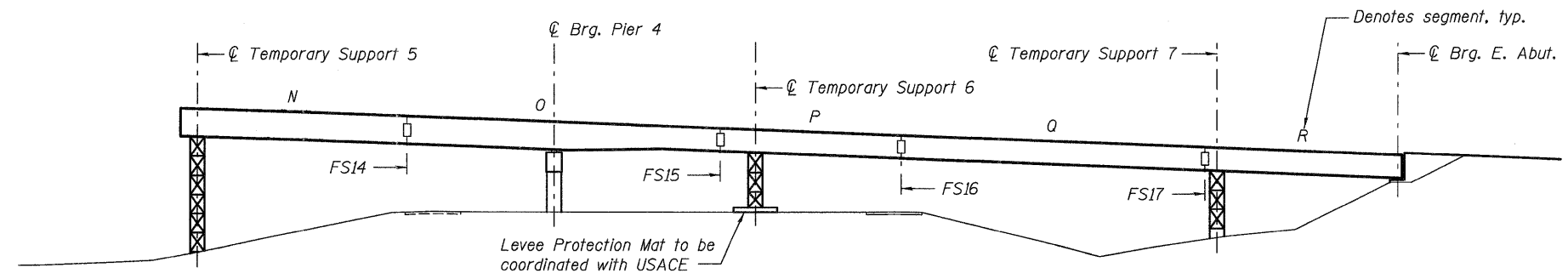
1. Erect Temporary Support 6, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segments P and Q with FS16 completed, and with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment P and Q girders, cross frames, and top lateral bracing.



STAGE 9

Stage 9 Notes:

1. Assemble adjacent girders G9 and G10, segment O, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
2. Erect remaining segment O girders, cross frames, and top lateral bracing.



STAGE 10

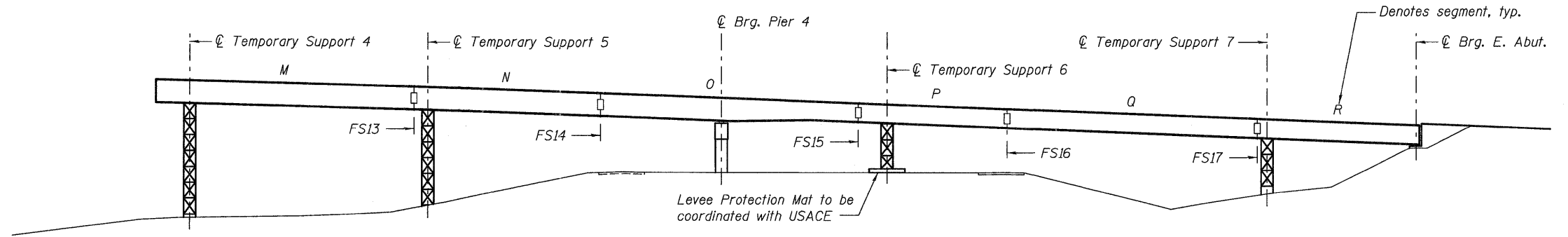
Stage 10 Notes:

1. Erect Temporary Support 5, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segment N, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment N girders, cross frames, and top lateral bracing.

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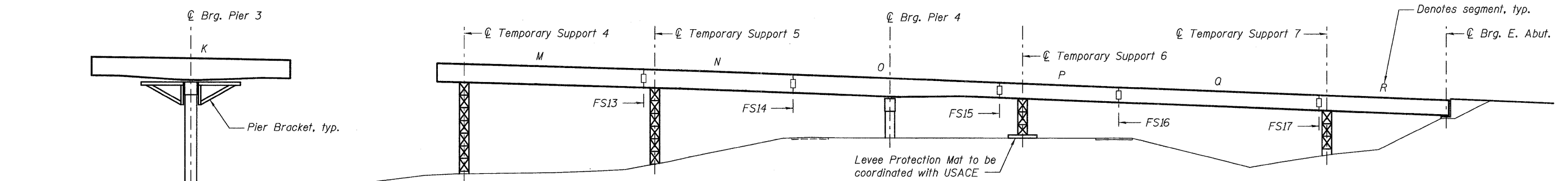
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 75 OF 133 SHEETS										



STAGE 11

Stage 11 Notes:

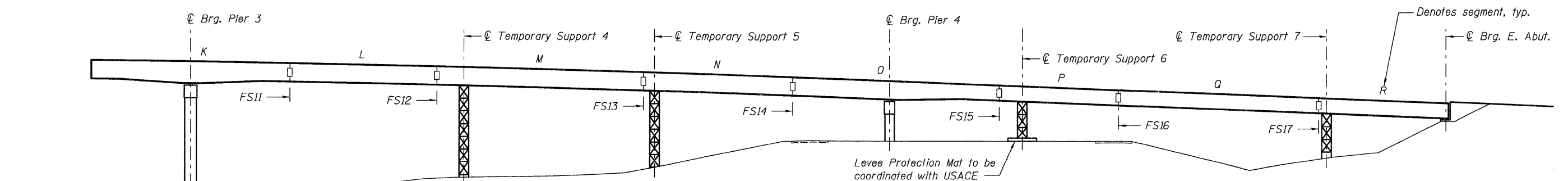
1. Erect Temporary Support 4, provide vertical jacking devices as required.
2. Assemble adjacent girders G9 and G10, segment M, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.
3. Erect remaining segment M girders, cross frames, and top lateral bracing.



STAGE 12

Stage 12 Notes:

1. Erect Pier Brackets on Pier 3.
2. Assemble adjacent girders G9 and G10, segment K, with all cross frames and top lateral bracing. Erect assembled girder pair. As necessary, provide means for ensuring the stability of the erected pair.



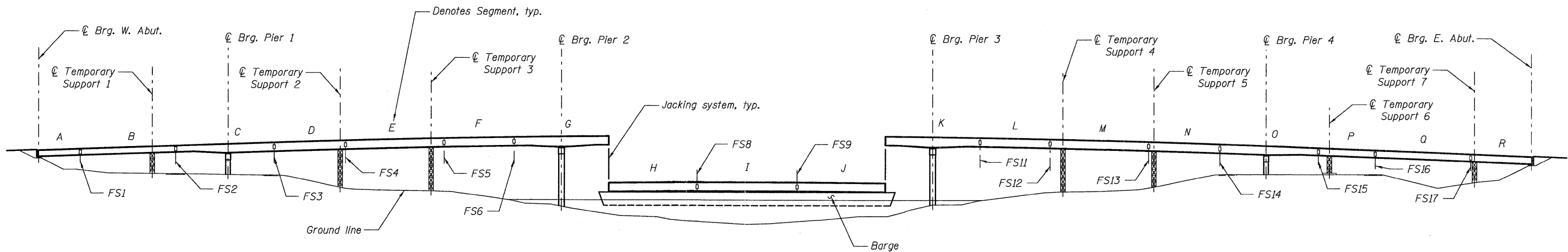
STAGE 13

Stage 13 Notes:

1. Assemble adjacent girders G9 and G10, segment L, with all cross frames and top lateral bracing. Erect assembled girder pair. Use jacking devices to adjust longitudinally and vertically as necessary, to complete FS11 and FS12. As necessary, provide means for ensuring the stability of the erected pair.
2. Erect remaining segment K and L girders, cross frames, and top lateral bracing. Segment K to be erected prior to segment L for each girder line.

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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			BRIDGE SHEET NO. 76 OF 133 SHEETS				
						ILLINOIS FED. AID PROJECT				



STAGE 14

Stage 14 Notes:

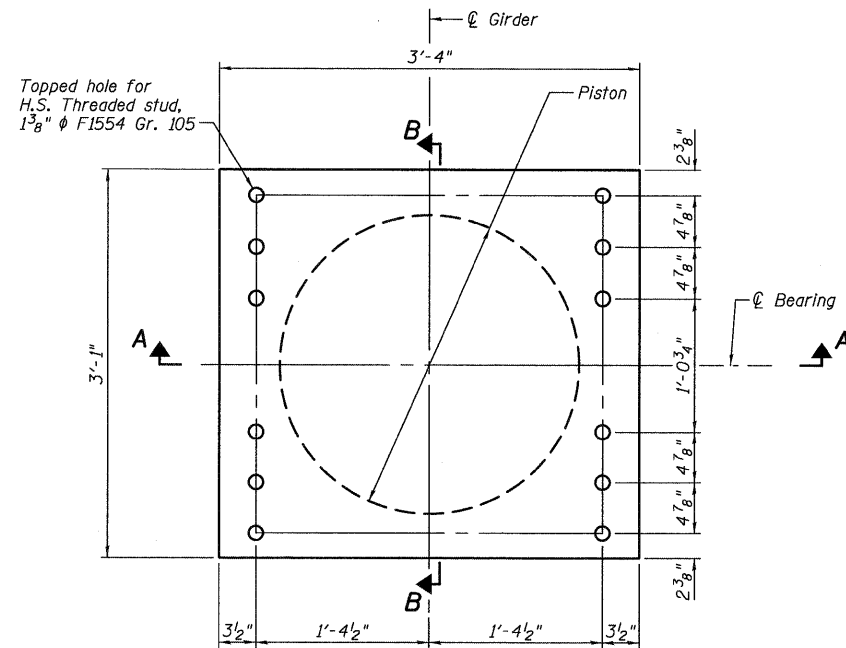
1. Using a single barge, or multiple barges connected together, construct a floating platform.
2. On the floating platform, assemble segments H, I, and J girders, cross frames, top lateral bracing, and complete FS8 and FS9. All connections should be made completely.
3. Lift the segment H, I, and J assembly into place with strand jack systems placed near the ends of the previously erected segments. Use jacking devices to adjust longitudinally and vertically as necessary, to complete FS7 and FS10. Fully complete FS7 and FS10 for all girder lines before releasing lifted segment from strand jack systems.
4. Remove all temporary support structures.

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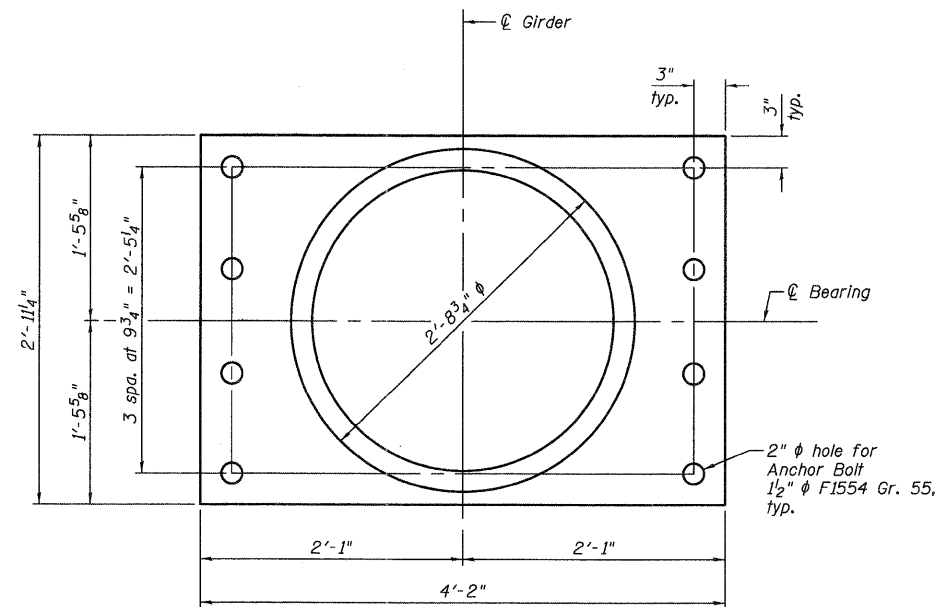
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 77 OF 133 SHEETS										

DESIGN DATA

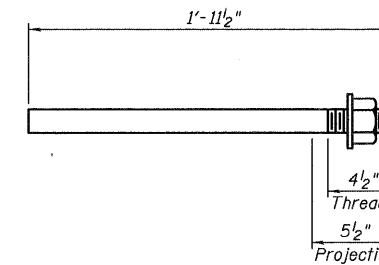
Service Vertical Design Load = 2,000k
 Factored Horizontal Design Load = 620k
 Factored Design Rotation = 0.02 rad



TOP BEARING PL AND BASE PISTON PLAN
 (Girder and bearing stiffeners not shown for clarity)



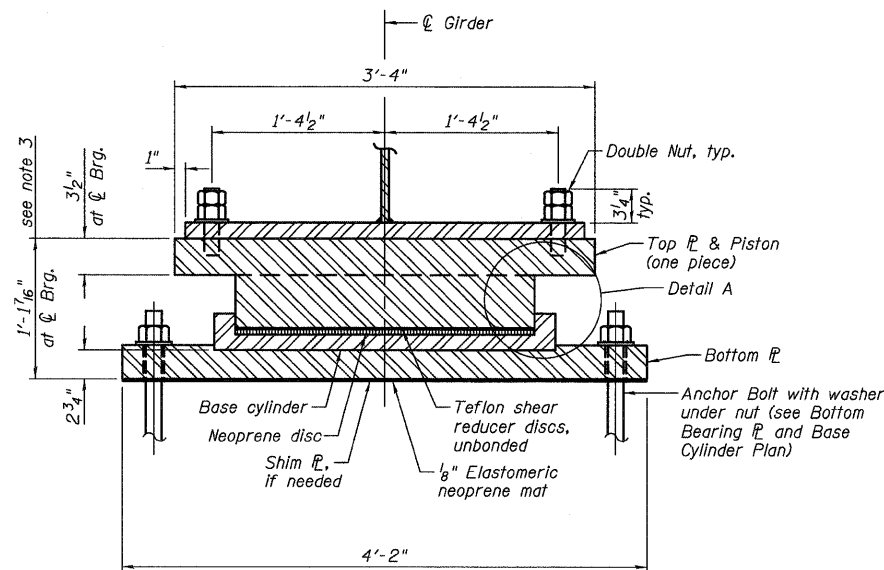
BOTTOM BEARING PL AND BASE CYLINDER PLAN



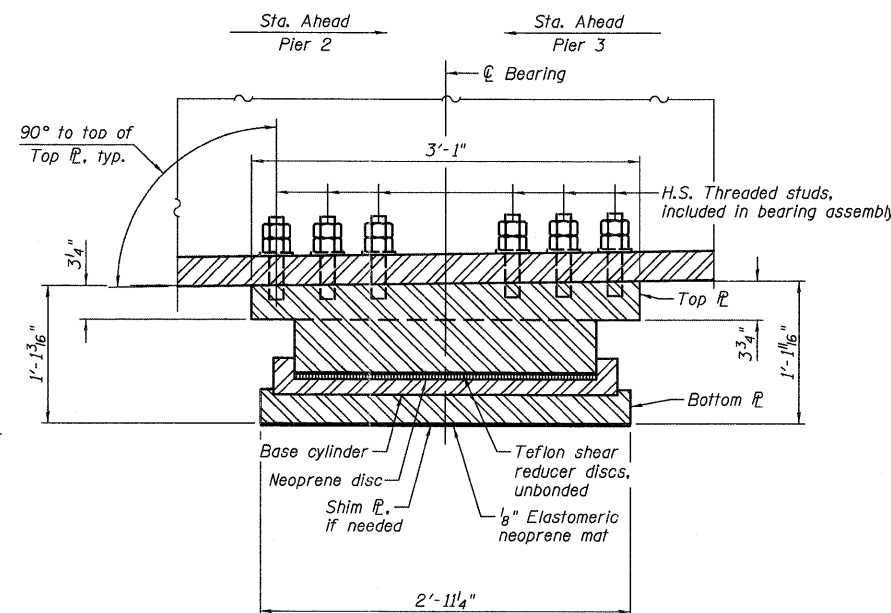
ANCHOR BOLT DETAIL

BILL OF MATERIAL

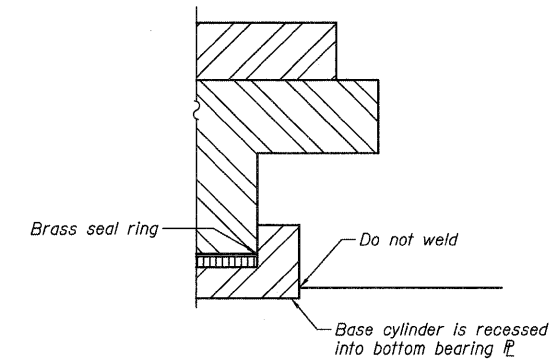
Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed, 2,000k	Each	20
Anchor Bolt 1 1/2" dia.	Each	160



SECTION A-A



SECTION B-B



DETAIL A

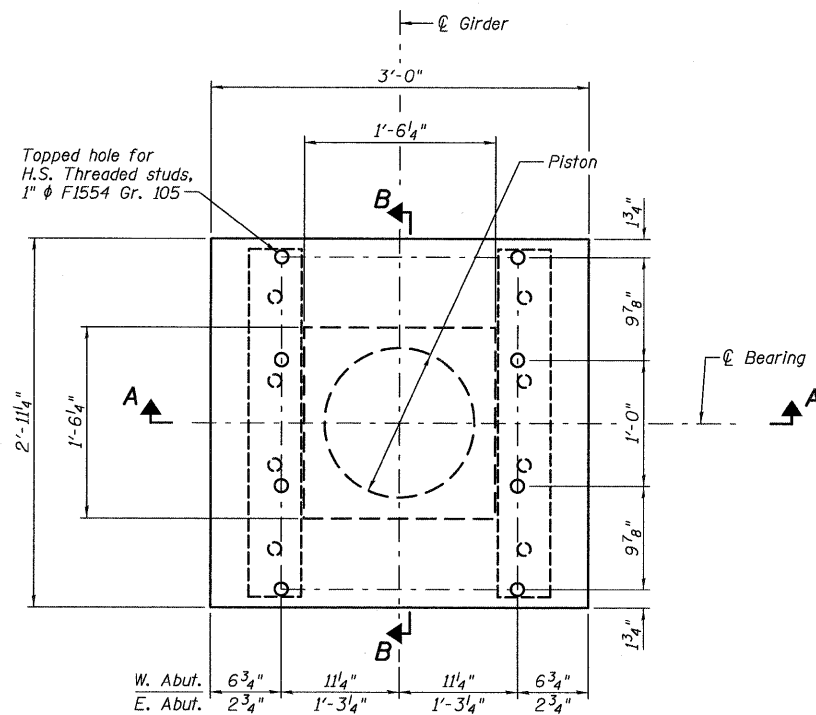
NOTES:

- For HLMR Bearing Notes, see sheet 81 of 133.
- Bearing height does not include neoprene mat or shims.

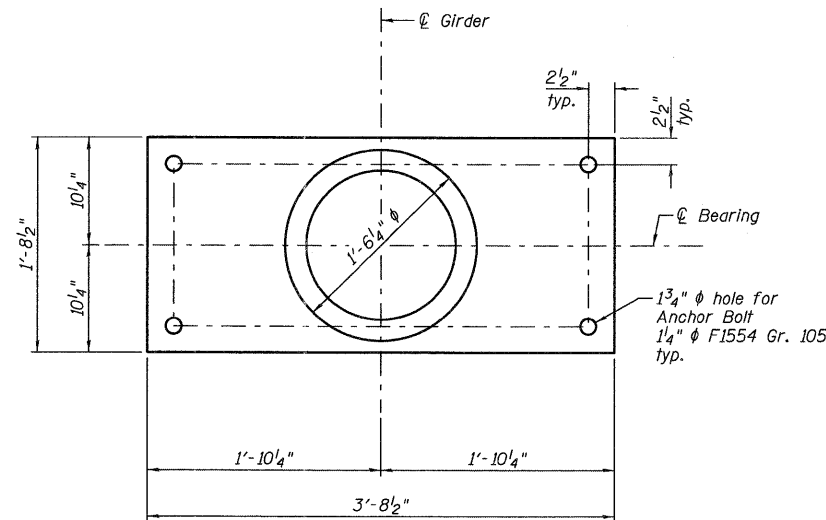
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DESIGN DATA

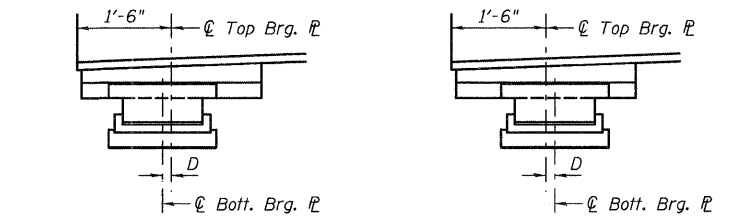
Service Vertical Design Load = 550k
 Factored Horizontal Design Load = 220k
 Factored Design Rotation = 0.03 rad
 Total Required Movement = 16 1/2"



TOP BEARING PL AND BASE PISTON PLAN
 (Girder and bearing stiffeners not shown for clarity)



BOTTOM BEARING PL AND BASE CYLINDER PLAN



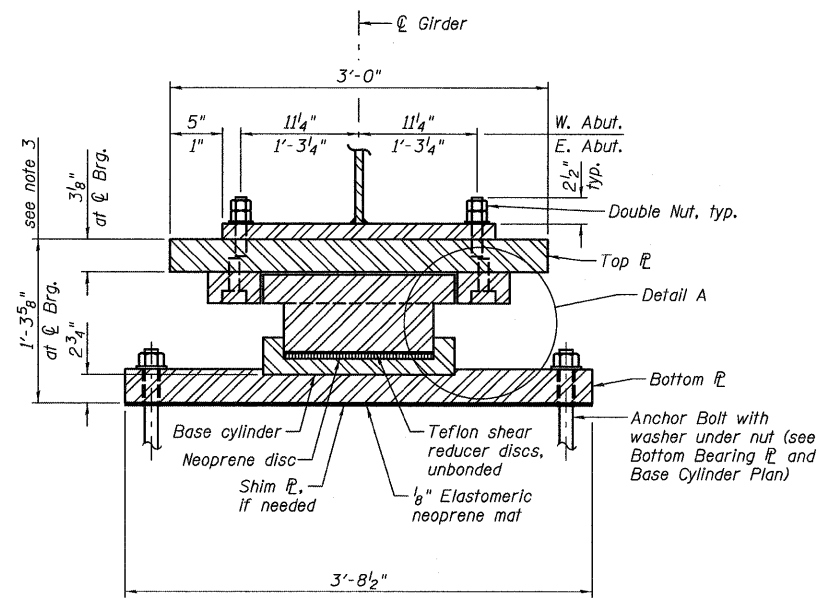
BELOW 50° F.
 (Move bottom brg. PL away from fixed brg.)

ABOVE 50° F.
 (Move bottom brg. PL toward fixed brg.)

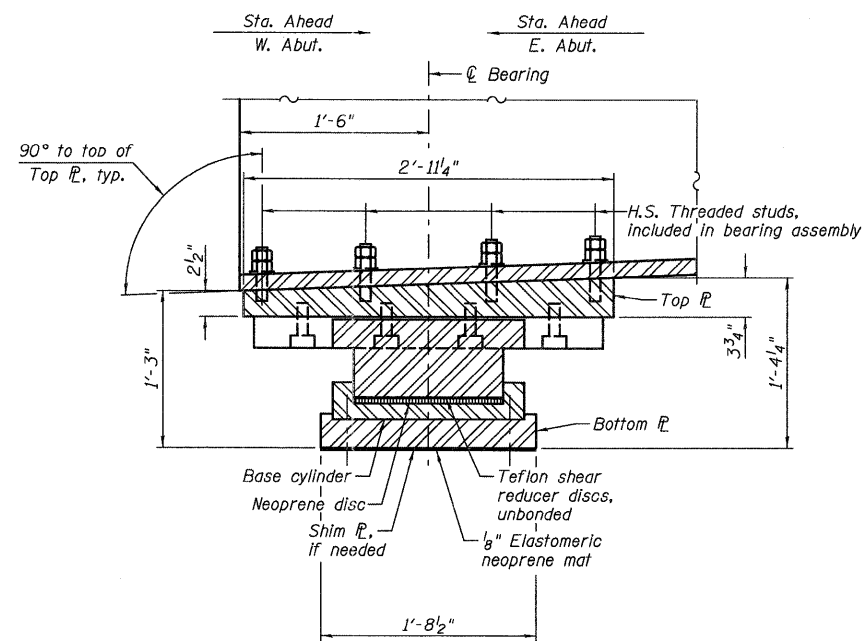
SETTING ANCHOR BOLTS AT EXP. BRG.
 D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

BILL OF MATERIAL

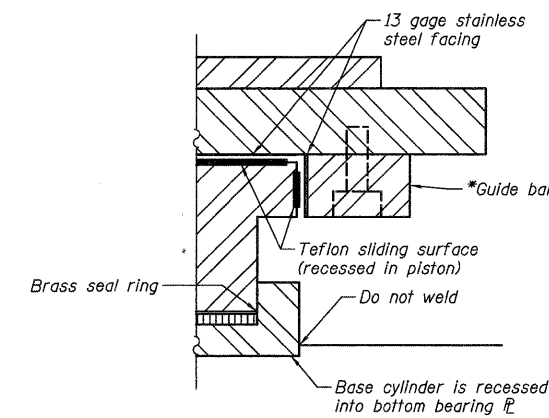
Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion, 550k	Each	20
Anchor Bolt 1 1/4" dia.	Each	80



SECTION A-A



SECTION B-B



DETAIL A

NOTES:

- For HLMR Bearing Notes, see sheet 81 of 133.
- Bearing height does not include neoprene mat or shims.
- For Anchor Bolt Detail, see sheet 78 of 133.

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USER NAME = jmgus	DESIGNED - BWC	REVISED -
FILE NAME = 0600345-76A91-079-BRG.DGN	CHECKED - LGP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HLMR BEARING DETAILS - GUIDED EXPANSION - E. & W. ABUTMENTS
 STRUCTURE NO. 060-0345

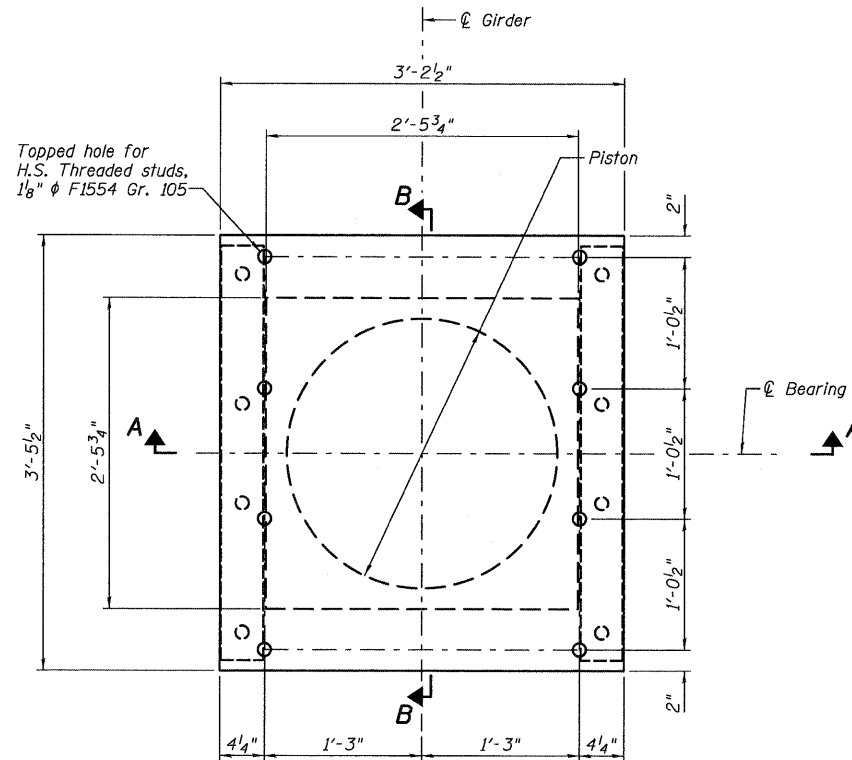
BRIDGE SHEET NO. 79 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	458
				CONTRACT NO. 76A91

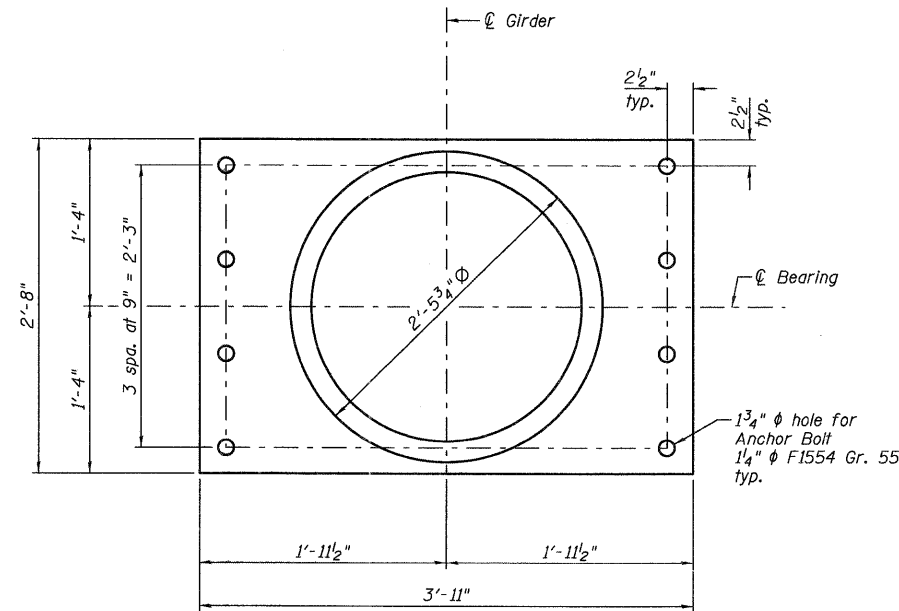
ILLINOIS FED. AID PROJECT

DESIGN DATA

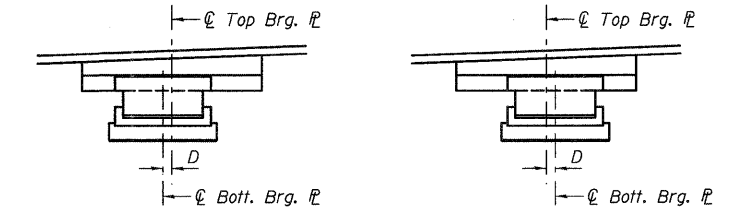
Service Vertical Design Load = 1,700k
 Factored Horizontal Design Load = 270k
 Factored Design Rotation = 0.03 rad
 Total Required Movement = 11 1/4"



TOP BEARING PL AND BASE PISTON PLAN
 (Girder and bearing stiffeners not shown for clarity)



BOTTOM BEARING PL AND BASE CYLINDER PLAN



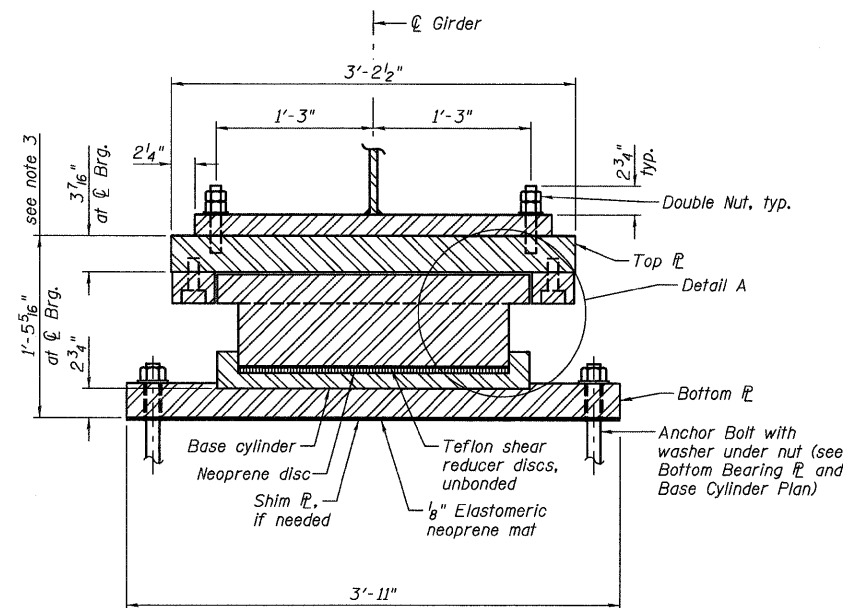
BELOW 50° F.
 (Move bottom brg. pl. away from fixed brg.)

ABOVE 50° F.
 (Move bottom brg. pl. toward fixed brg.)

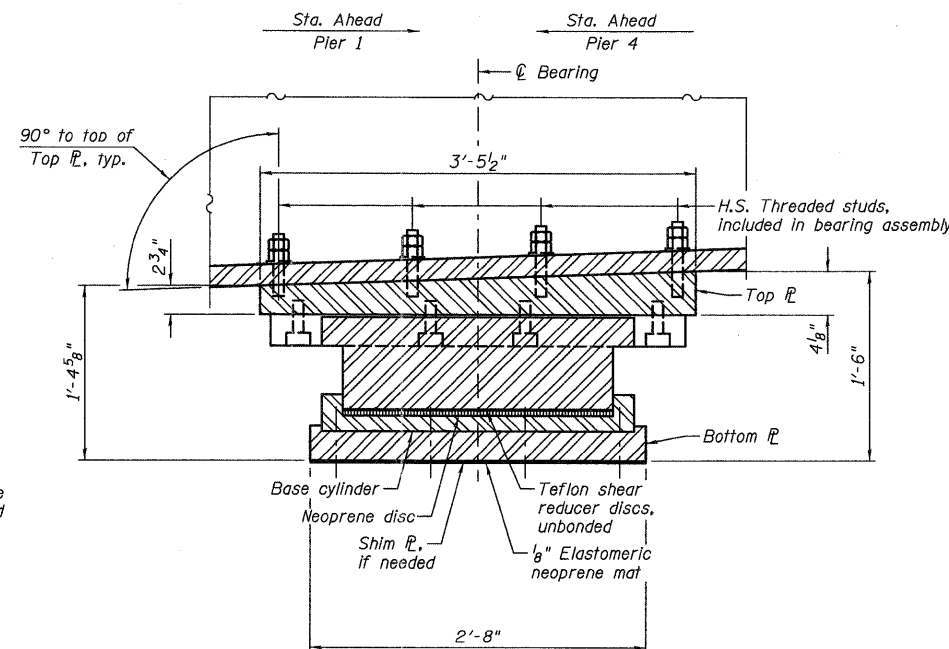
SETTING ANCHOR BOLTS AT EXP. BRG.
 D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

BILL OF MATERIAL

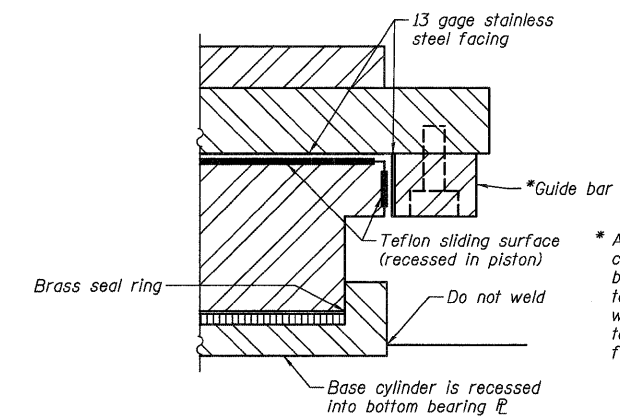
Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion, 1,700k	Each	20
Anchor Bolt 1 1/4" dia.	Each	160



SECTION A-A



SECTION B-B



DETAIL A

* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

NOTES:

- For HLMR Bearing Notes, see sheet 81 of 133.
- Bearing height does not include neoprene mat or shims.
- For Anchor Bolt Detail, see sheet 78 of 133.

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HLMR BEARING NOTES

General Notes:

1. Grind smooth all steel surfaces and edges and remove any sharp protrusions. Fabrication tolerances and the limitations on surface finish will be in accordance with Article 505.04(I) of the Standard Specifications.
2. Clean and paint all steel surfaces in accordance with Articles 506.03 and 506.04 of the Standard Specifications. Apply all coats in the fabrication shop only. Do not paint PTFE, stainless steel or the inside of the pot. Apply only prime coat to the contact area between beam bottom flange and top plate and to the bottom side of the bottom plate.
3. Round all PTFE corners to accommodate the machined recess in steel piston.
4. Etch PTFE on one side for bonding into the machined recess.
5. PTFE on the side of guide plate must be pigmented.
6. Prior to the application of adhesive clean all mating steel and PTFE surfaces by grit blasting and degreasing. Apply adhesive as per the manufacturer's recommendation.
7. Mark the thicker edge of the top plate for the purpose of field identification. Place mark on the edge of top plate so that it will be visible after bearing installation.
8. Mark centerline on the sides of top plate and bottom plate. The centerline identification marks will be useful to locate offset distances in the field. Use indelible ink to place all marks.
9. Mark each bearing with the name of the manufacturer and type or model number. Place the identification mark in a permanent manner and location so that it is visible after erection.
10. When the pot is recessed into the bottom plate, seal around the pot perimeter with an approved caulking compound in the shop after paint coating has dried.
11. Ensure all bearing surfaces including the concrete pedestal are level prior to installation of potbearings in accordance with Article 521.05 of the Standard Specifications.
12. Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details. One 1/8 inch elastomeric neoprene mat shall be provided for each bearing and placed as shown on bearing details. The cost of the shims and neoprene mat are incidental to the bearings.
13. The bearings shall be blocked during the erection of structural steel.
14. After final bearing placement, fill annular space between bottom plate and anchor bolts with epoxy grout with a minimum compressive strength of 8 ksi.


Materials:

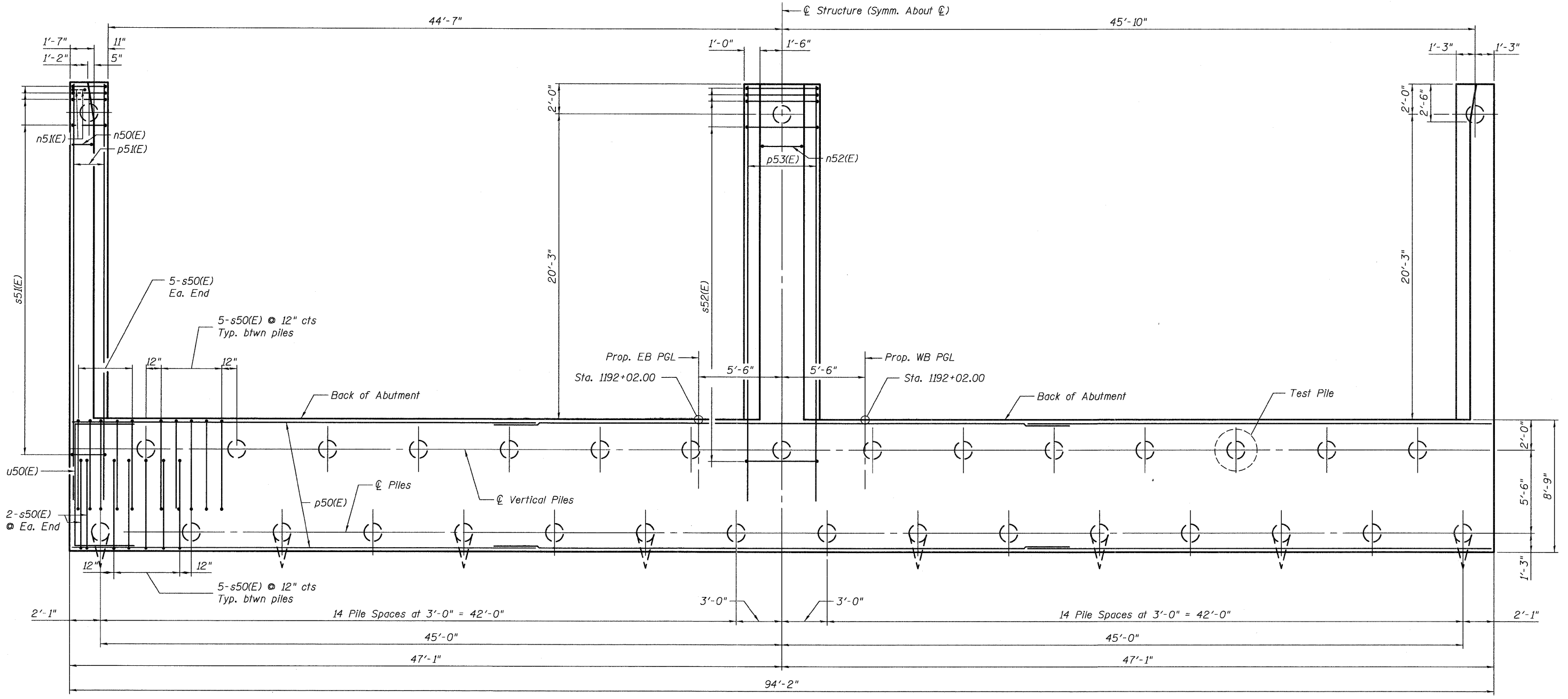
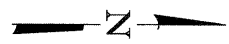
1. The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 (ASTM A709) Grade 50W, unless noted otherwise.
2. Threaded studs: ASTM F1554, Grade 105.
3. Anchor bolts: ASTM F1554, Grade 55 and 105 as indicated.
4. Nuts: ASTM A563, Grade DH.
5. Washers: ASTM F436, Type 1.
6. Galvanizing of anchor bolts, nuts and washers per Article 1006.08 of the Standard Specifications.
7. Stainless steel: ASTM A240, Grade 30, Type 304 with an ANSI 0.02 mil surface finish or less.
8. Neoprene disc per Article 1083.02(a) of the Standard Specifications.
9. PTFE sheet: (unfilled, dimpled and lubricated) made from virgin PTFE resin per ASTM D4894. Dimples must have a minimum edge distance of 0.5" and conform to 2010 AASHTO LRFD Bridge Design Specification section 14.7.2.
10. Neoprene mat per Article 1052.02 of the Standard Specifications.

Material Design Parameters:

1. Allowable pressure in elastomer and PTFE:
Maximum = 3500 psi elastomer and PTFE
Minimum = 700 psi elastomer
2. Coefficient of friction between PTFE and stainless steel: 0.04
3. Concrete compressive strength: $f'c = 3500$ psi

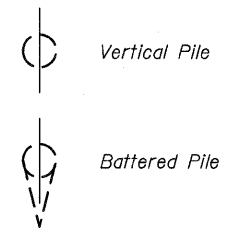
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	PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -			ILLINOIS FED. AID PROJECT				
BRIDGE SHEET NO. 81 OF 133 SHEETS										



PLAN - PILE CAP

LEGEND

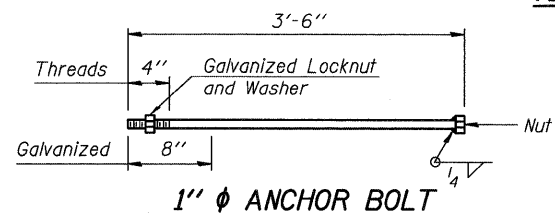
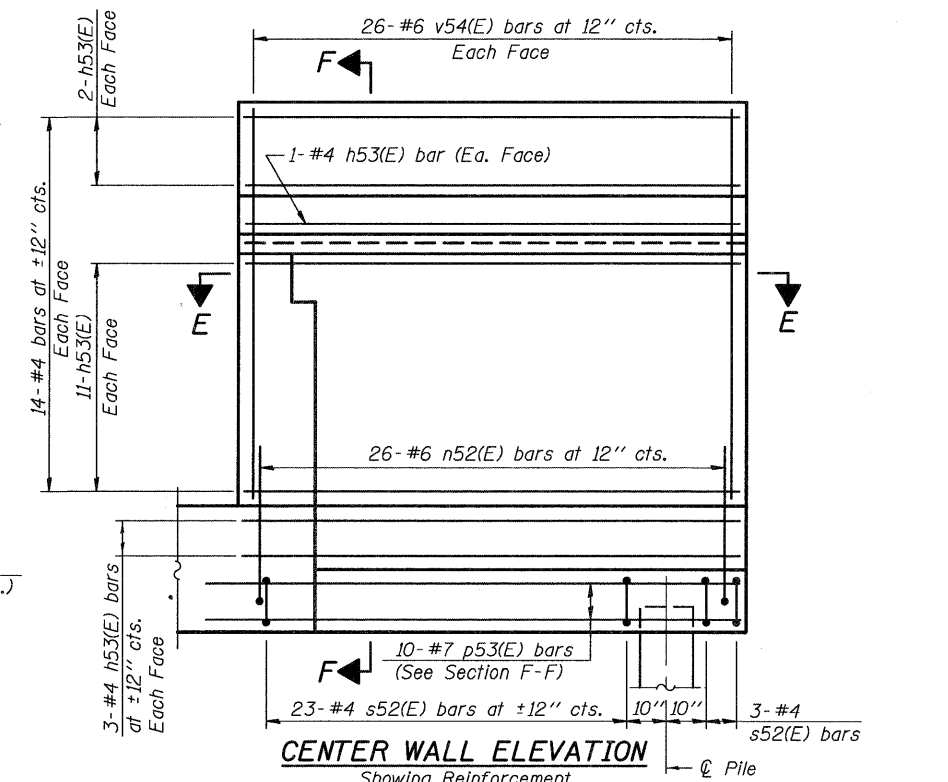
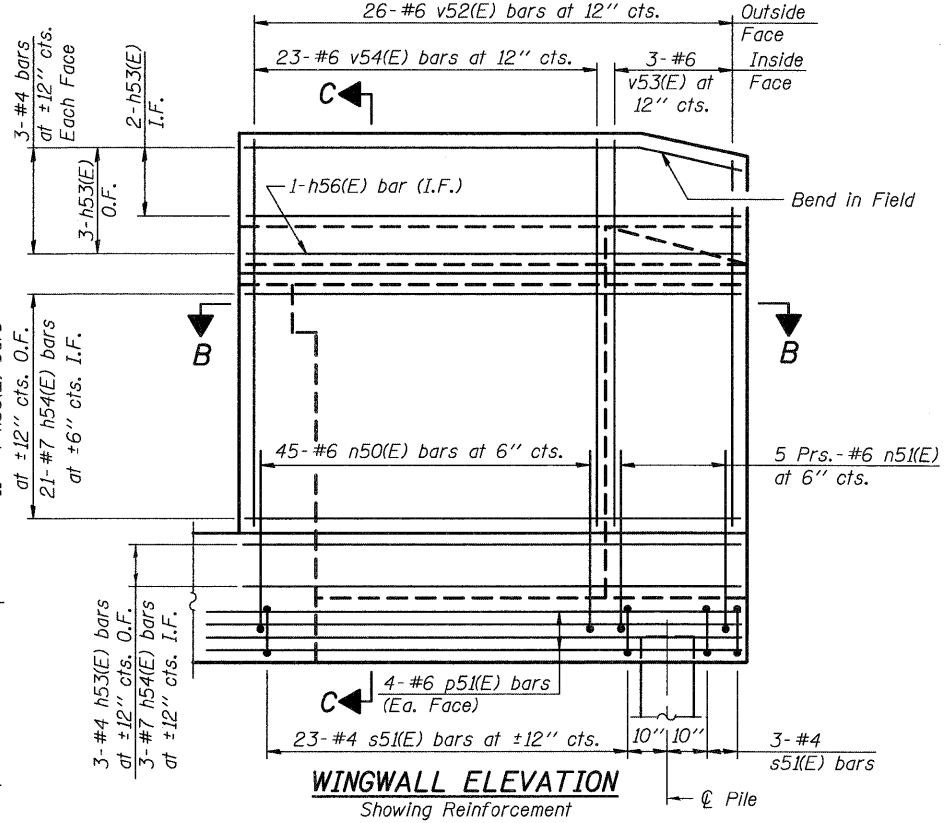
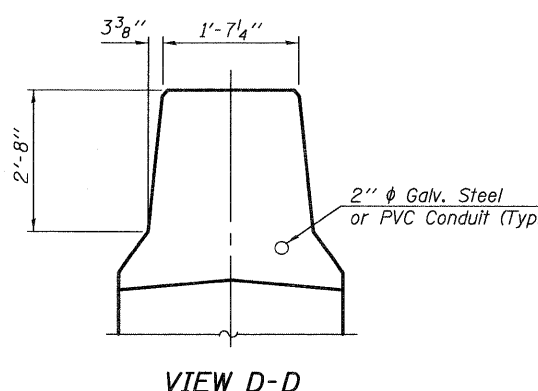
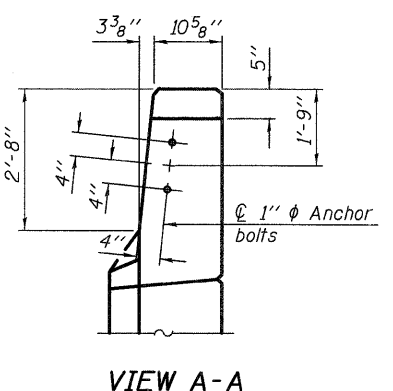
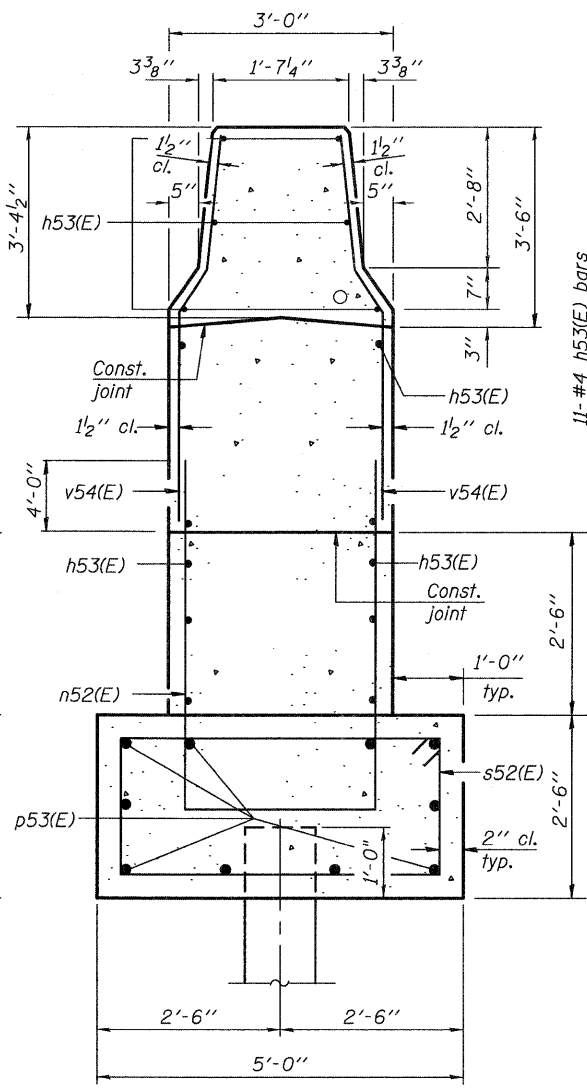
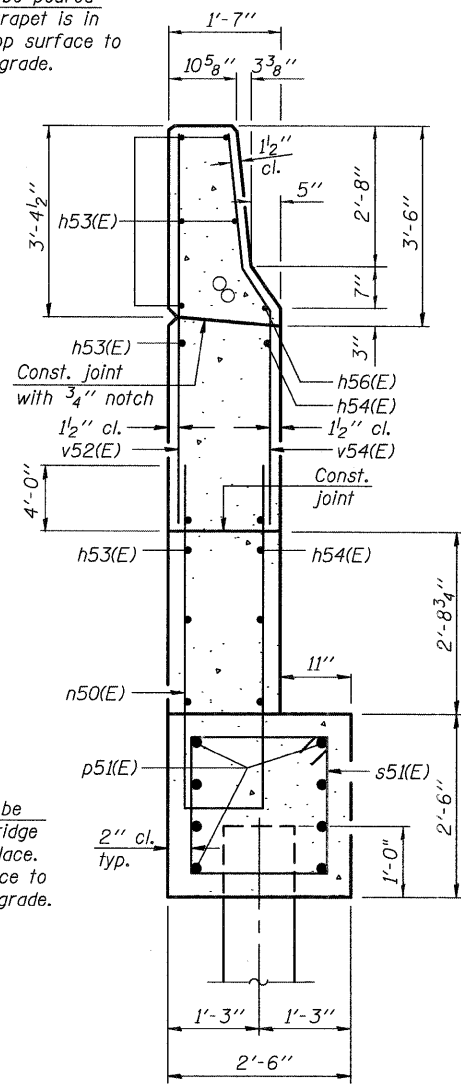
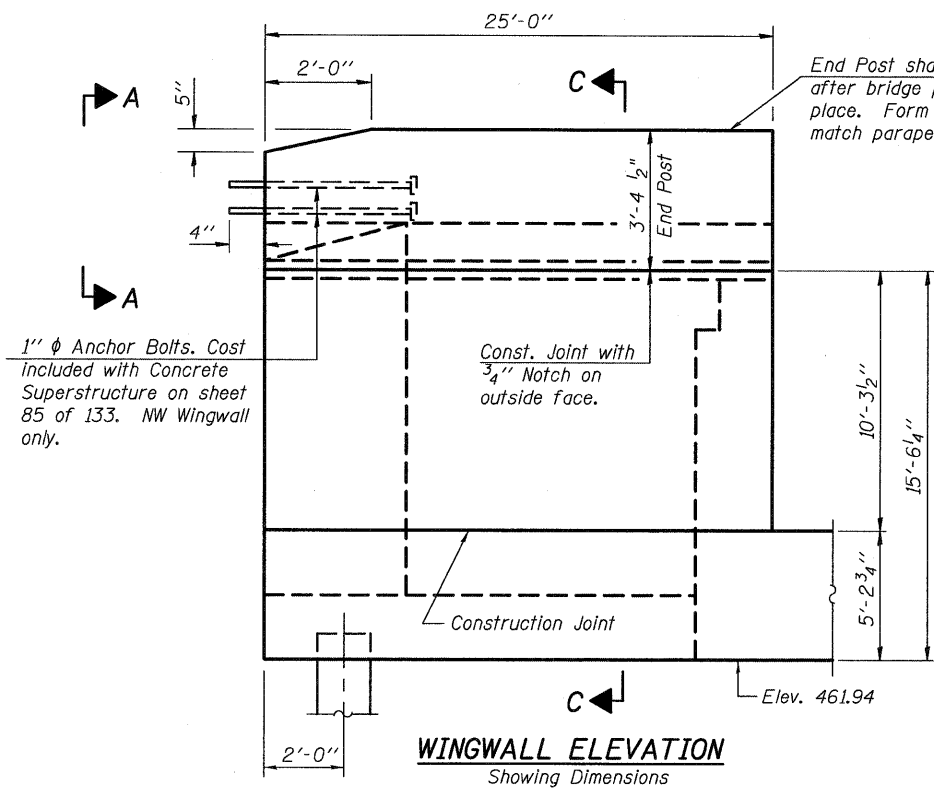


PILE DATA

Type: Metal Shell Piles 14" x 0.312"
 Nominal Required Bearing: 416 kips
 Factored Resistance Available: 229 kips
 Est. Length: 57'
 No. Production Piles: 33
 No. Test Piles: 1

The Contractor shall limit the pile hammer size selected considering the relatively high soil strengths indicated in the borings and avoid overdriving the piles beyond their nominal required bearing to prevent pile damage during driving.

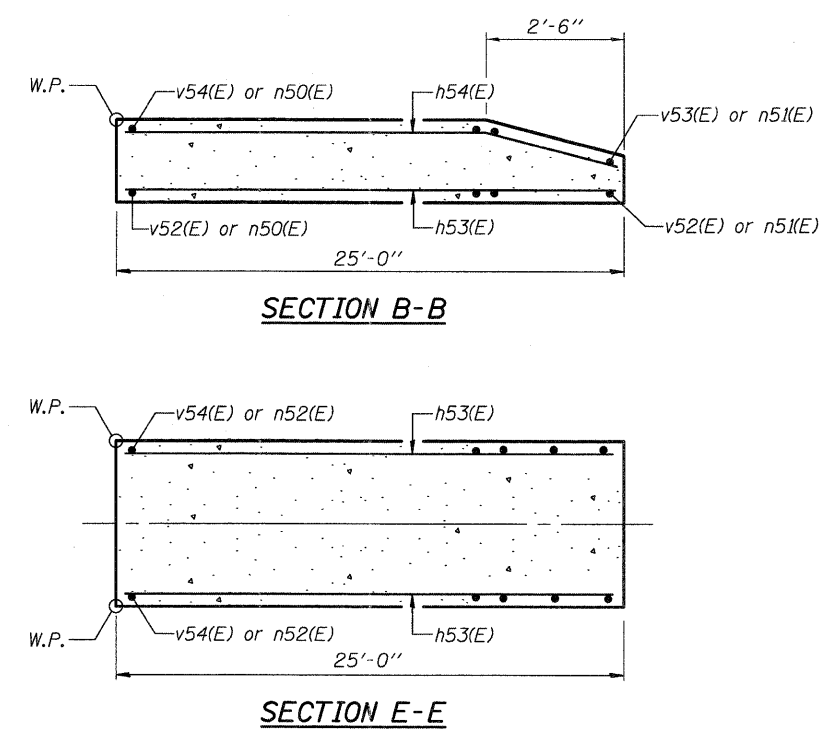
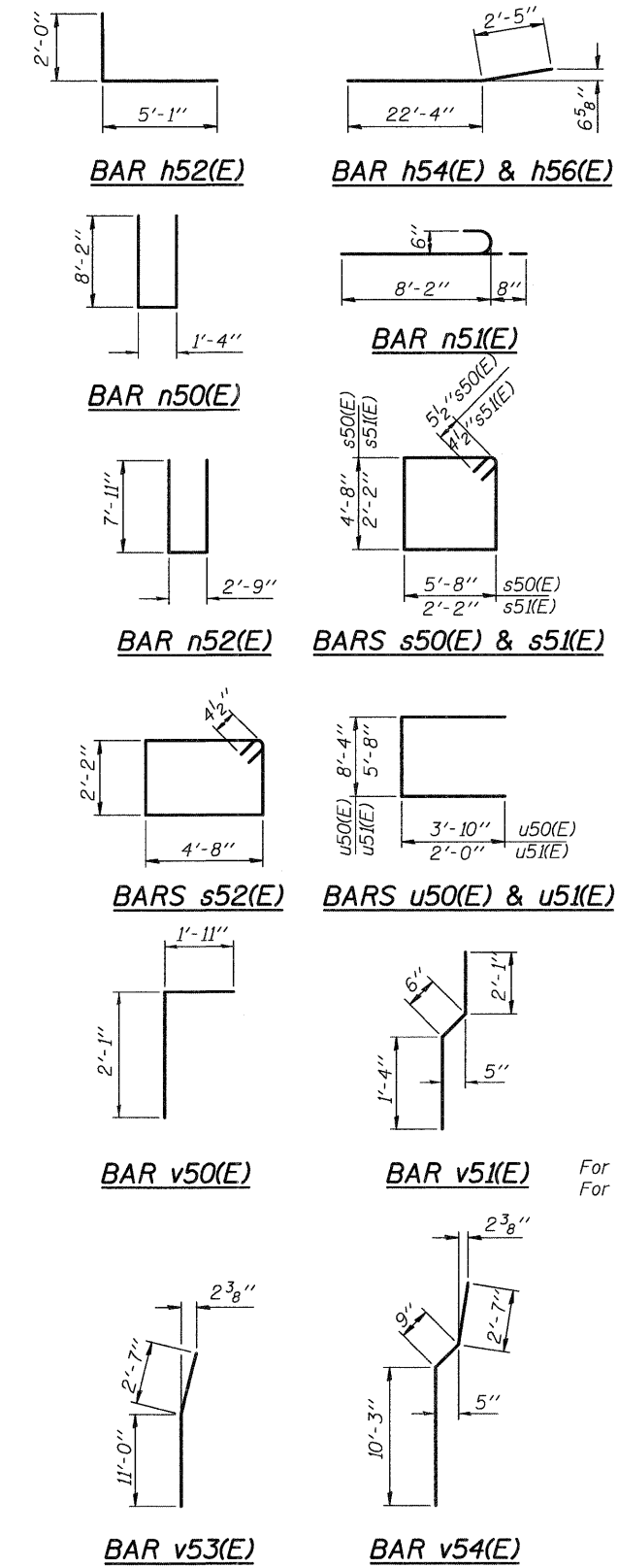
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Notes:
Quantity of concrete in end post included with Concrete Superstructure. See Deck Plans.
For sections B-B & E-E, see sheet 85 of 133.

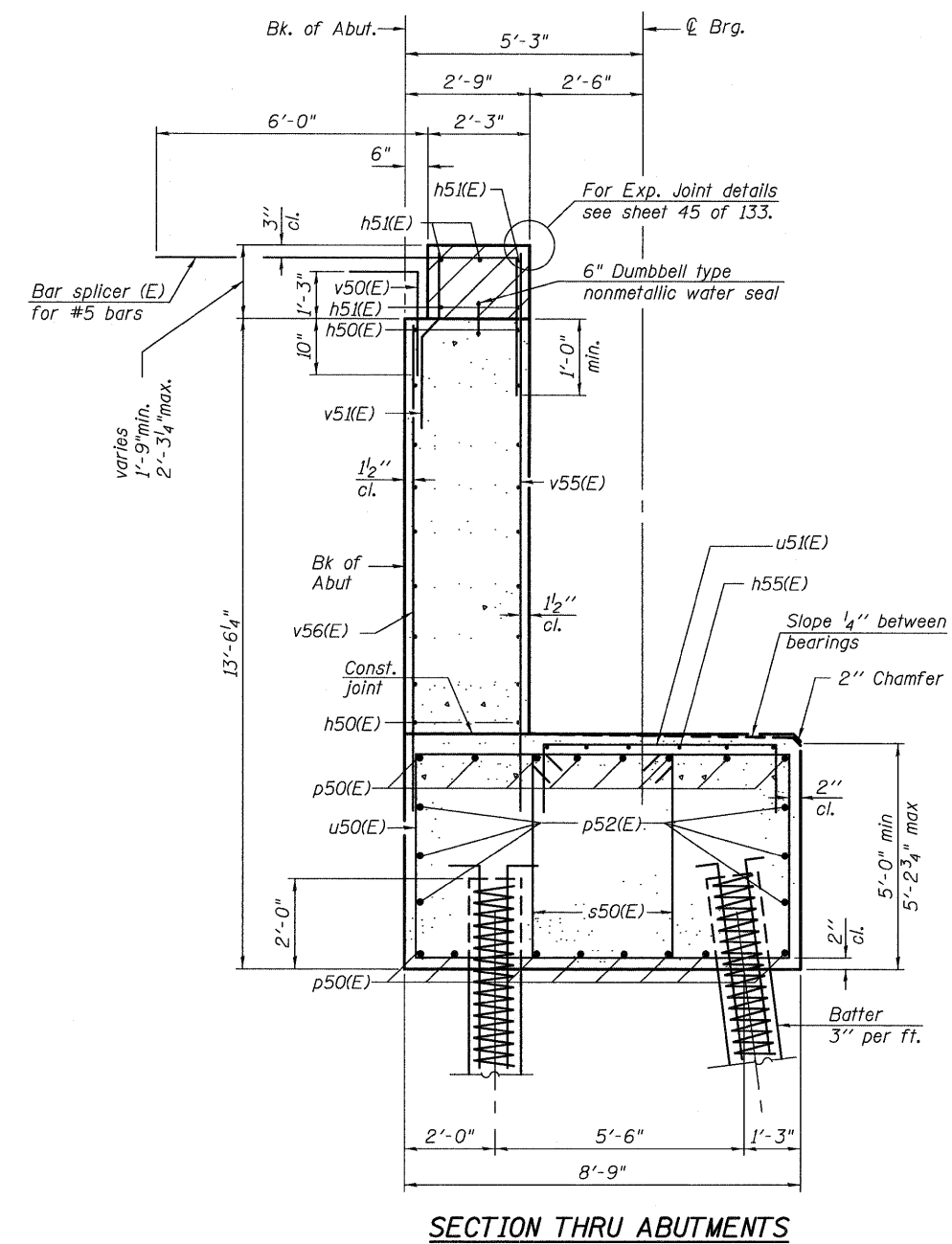
**WEST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h50(E)	72	#5	24'-6"	—
h51(E)	20	#6	24'-1"	—
h52(E)	88	#5	7'-1"	—
h53(E)	72	#4	24'-8"	—
h54(E)	48	#7	24'-9"	—
h55(E)	12	#5	18'-10"	—
h56(E)	2	#4	24'-9"	—
n50(E)	90	#6	17'-8"	—
n51(E)	20	#6	8'-10"	—
n52(E)	26	#6	18'-7"	—
p50(E)	48	#7	35'-6"	—
p51(E)	16	#6	28'-9"	—
p52(E)	18	#5	34'-7"	—
p53(E)	10	#7	28'-9"	—
s50(E)	159	#5	21'-7"	—
s51(E)	52	#4	9'-5"	—
s52(E)	26	#4	14'-5"	—
u50(E)	10	#6	16'-0"	—
u51(E)	38	#5	9'-8"	—
v50(E)	86	#5	4'-0"	—
v51(E)	86	#4	3'-11"	—
v52(E)	52	#6	13'-6"	—
v53(E)	6	#6	13'-7"	—
v54(E)	98	#6	13'-7"	—
v55(E)	86	#6	13'-0"	—
v56(E)	86	#6	11'-0"	—
Concrete Structures	Cu. Yd.		326.4	
Reinforcement Bars, Epoxy Coated	Pound		27,710	
Furnishing Metal Shell Piles 14" X 0.312"	Foot		1,895	
Driving Piles	Foot		1,895	
Test Pile Metal Shells	Each		1	
Concrete Sealer	Sq. Ft.		1,839	



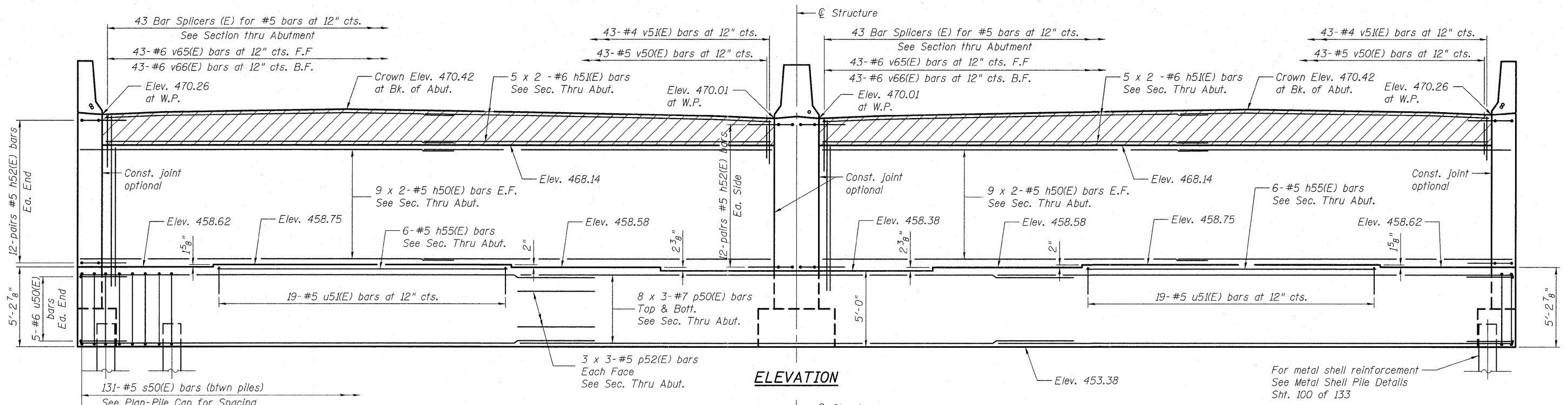
MINIMUM BAR LAP
(Abutment and Wingwalls)

Other bars	Top bars
#4 bar = 2'-7"	#5 bar = 3'-8"
#5 bar = 3'-3"	#7 bar = 5'-10"
#6 bar = 3'-10"	
#7 bar = 5'-2"	



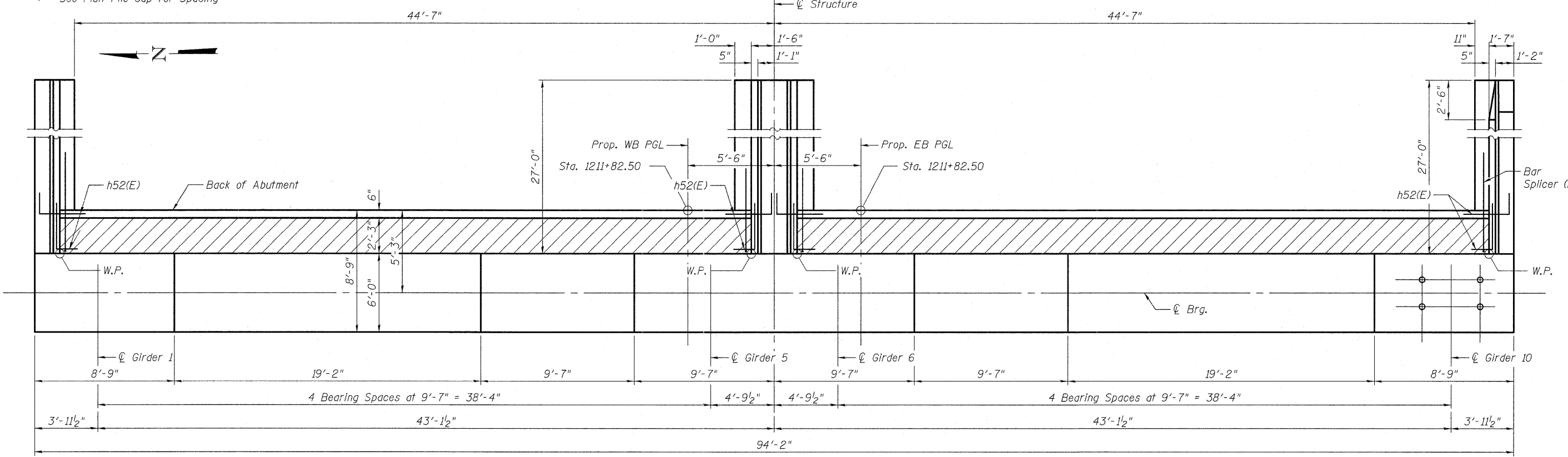
Note: Abutments shall have all exposed surfaces of backwalls, bridge seats, and front faces of pile caps treated with Concrete Sealer.

For details of Bar Splicers, see sheet 104 of 133.
For details of metal shell piles see sheet 100 of 133.

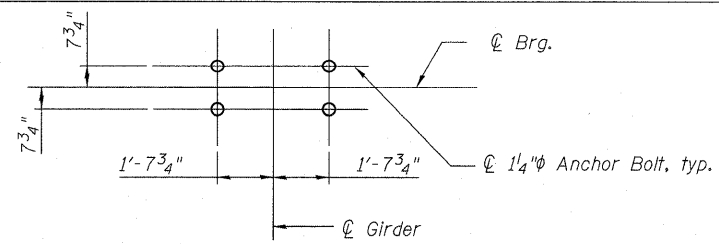


ELEVATION

For metal shell reinforcement
See Metal Shell Pile Details
Sht. 100 of 133



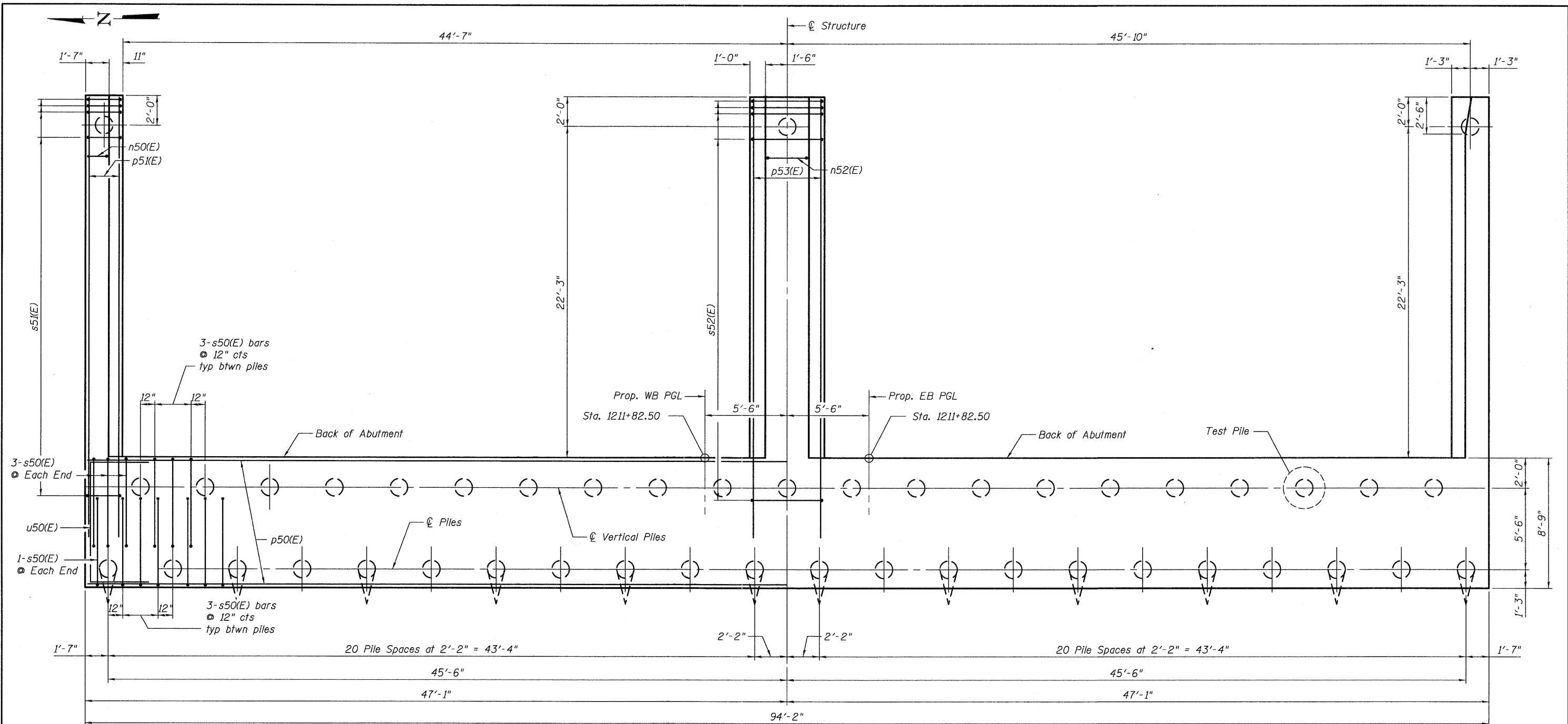
TOP VIEW



ANCHOR BOLT LAYOUT

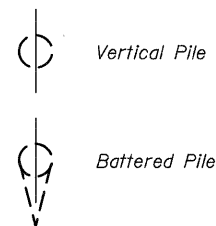
Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.

FILE NAME = ...R0600345-76A91-086-AB0.dgn McDonough Associates Inc. Engineers / Architects 130 East Randolph Street, Chicago, Illinois 60601	USER NAME = \$USER\$	DESIGNED - KJH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	E. ABUTMENT - PLAN & ELEVATION STRUCTURE NO. 060-0345	F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 465
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	PLOT DATE = 3/18/2011	CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT				



PLAN - PILE CAP

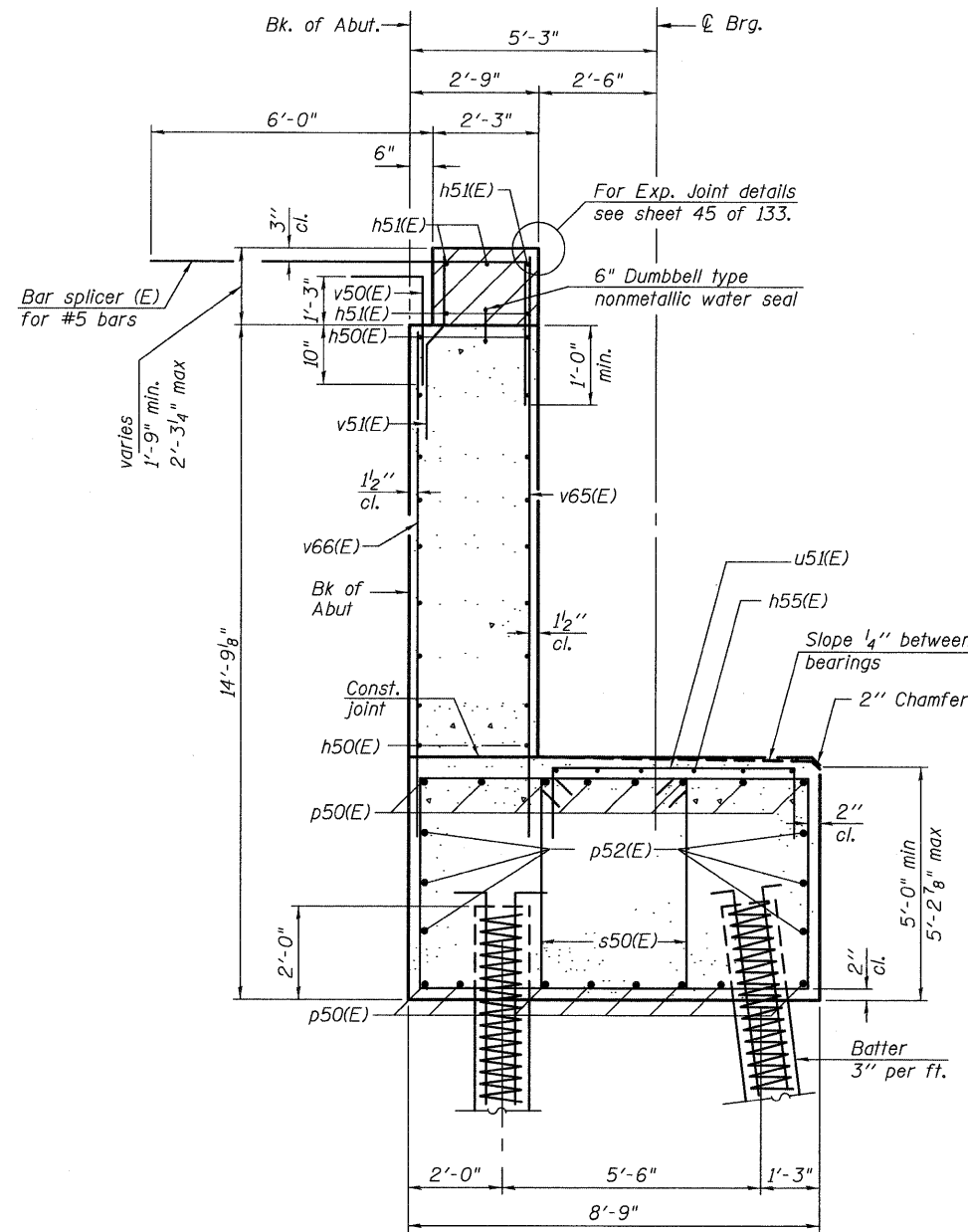
LEGEND



PILE DATA

Type: Metal Shell Piles 14" x 0.312"
 Nominal Required Bearing: 466 kips
 Factored Resistance Available: 256 kips
 Est. Length: 58'
 No. Production Piles: 45
 No. Test Piles: 1

The Contractor shall limit the pile hammer size selected considering the relatively high soil strengths indicated in the borings and avoid overdriving the piles beyond their nominal required bearing to prevent pile damage during driving.



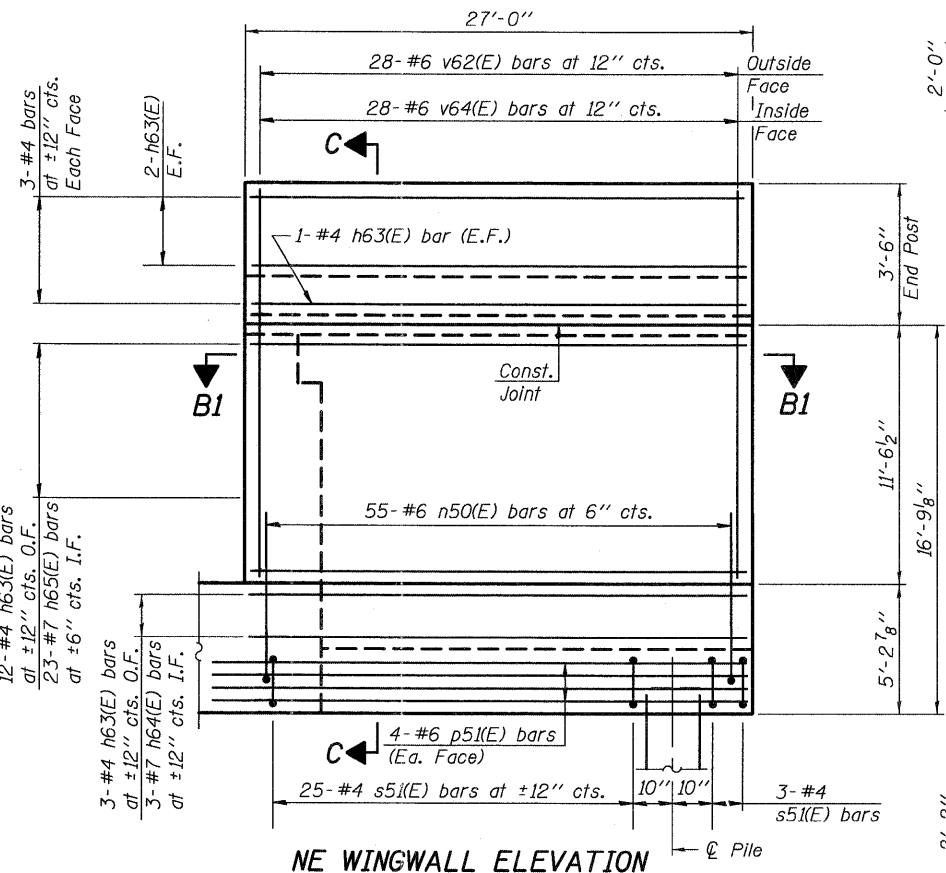
SECTION THRU ABUTMENTS

Note: Abutments shall have all exposed surfaces of backwalls, bridge seats, and front faces of pile caps treated with Concrete Sealer.

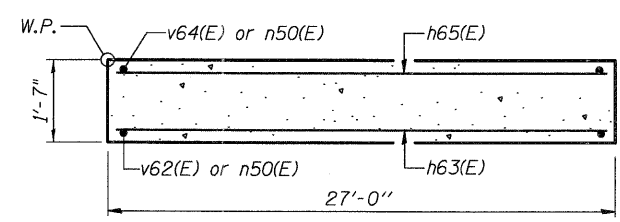
MINIMUM BAR LAP

(Abutment and Wingwalls)

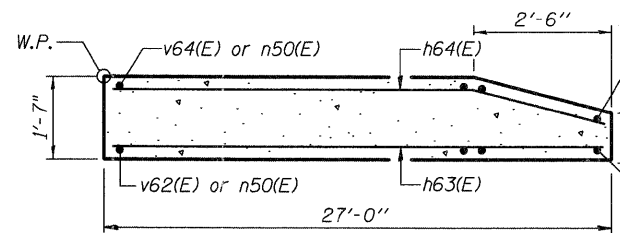
Other bars	Top bars
#4 bar = 2'-7"	#5 bar = 3'-8"
#5 bar = 3'-3"	#7 bar = 5'-10"
#6 bar = 3'-10"	
#7 bar = 5'-2"	



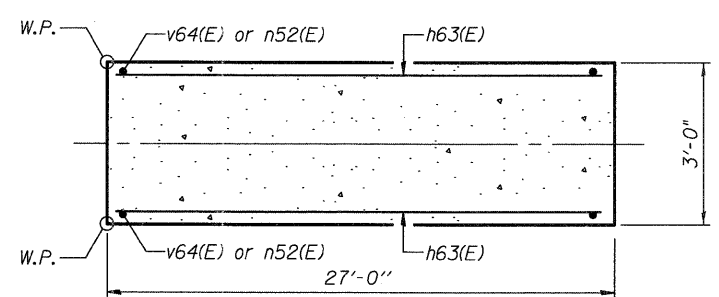
NE WINGWALL ELEVATION



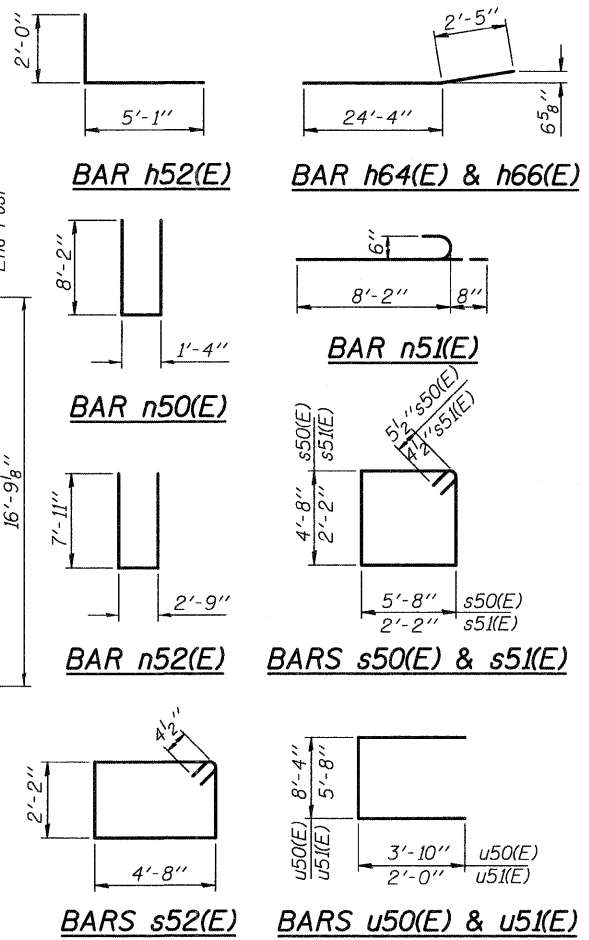
SECTION B1-B1



SECTION B-B



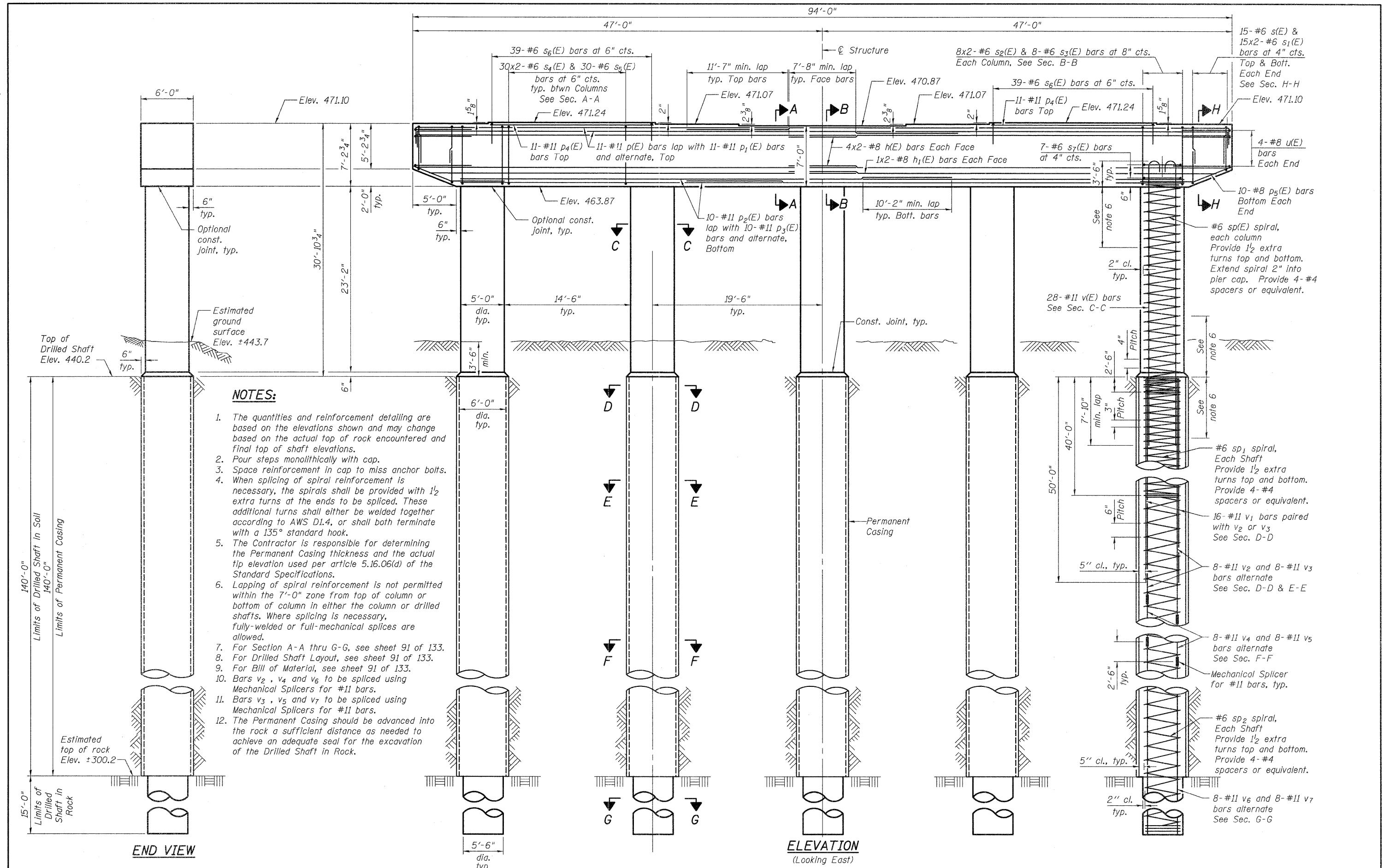
SECTION E-E



EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h50(E)	72	#5	24'-6"	—
h51(E)	20	#6	24'-1"	—
h52(E)	96	#5	7'-1"	—
h55(E)	12	#5	18'-10"	—
h63(E)	77	#4	26'-8"	—
h64(E)	26	#7	26'-9"	—
h65(E)	26	#7	26'-8"	—
h66(E)	1	#4	26'-9"	—
n50(E)	104	#6	17'-8"	—
n51(E)	10	#6	8'-10"	—
n52(E)	28	#6	18'-7"	—
p50(E)	48	#7	37'-3"	—
p51(E)	16	#6	28'-9"	—
p52(E)	18	#5	34'-7"	—
p53(E)	10	#7	28'-9"	—
s50(E)	131	#5	21'-7"	—
s51(E)	56	#4	9'-5"	—
s52(E)	28	#4	14'-5"	—
u50(E)	10	#6	16'-0"	—
u51(E)	38	#5	9'-8"	—
v50(E)	86	#5	4'-0"	—
v51(E)	86	#4	3'-11"	—
v62(E)	56	#6	14'-9"	—
v63(E)	3	#6	14'-10"	—
v64(E)	109	#6	14'-10"	—
v65(E)	86	#6	14'-3"	—
v66(E)	86	#6	12'-3"	—
Concrete Structures		Cu. Yd.	344.7	
Reinforcement Bars, Epoxy Coated		Pound	28,930	
Furnishing Metal Shell Piles 14" X 0.312"		Foot	2,632	
Driving Piles		Foot	2,632	
Test Pile Metal Shells		Each	1	
Concrete Sealer		Sq. Ft.	1,955	

For details of Bar Splicers, see sheet 104 of 133.
For details of metal shell piles see sheet 100 of 133.
For section B1-B1, see sheet 88 of 133.



- NOTES:**
- The quantities and reinforcement detailing are based on the elevations shown and may change based on the actual top of rock encountered and final top of shaft elevations.
 - Pour steps monolithically with cap.
 - Space reinforcement in cap to miss anchor bolts.
 - When splicing of spiral reinforcement is necessary, the spirals shall be provided with 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.
 - The Contractor is responsible for determining the Permanent Casing thickness and the actual tip elevation used per article 5.16.06(d) of the Standard Specifications.
 - Lapping of spiral reinforcement is not permitted within the 7'-0" zone from top of column or bottom of column in either the column or drilled shafts. Where splicing is necessary, fully-welded or full-mechanical splices are allowed.
 - For Section A-A thru G-G, see sheet 91 of 133.
 - For Drilled Shaft Layout, see sheet 91 of 133.
 - For Bill of Material, see sheet 91 of 133.
 - Bars v₂, v₄ and v₆ to be spliced using Mechanical Splicers for #11 bars.
 - Bars v₃, v₅ and v₇ to be spliced using Mechanical Splicers for #11 bars.
 - The Permanent Casing should be advanced into the rock a sufficient distance as needed to achieve an adequate seal for the excavation of the Drilled Shaft in Rock.

END VIEW

ELEVATION
(Looking East)

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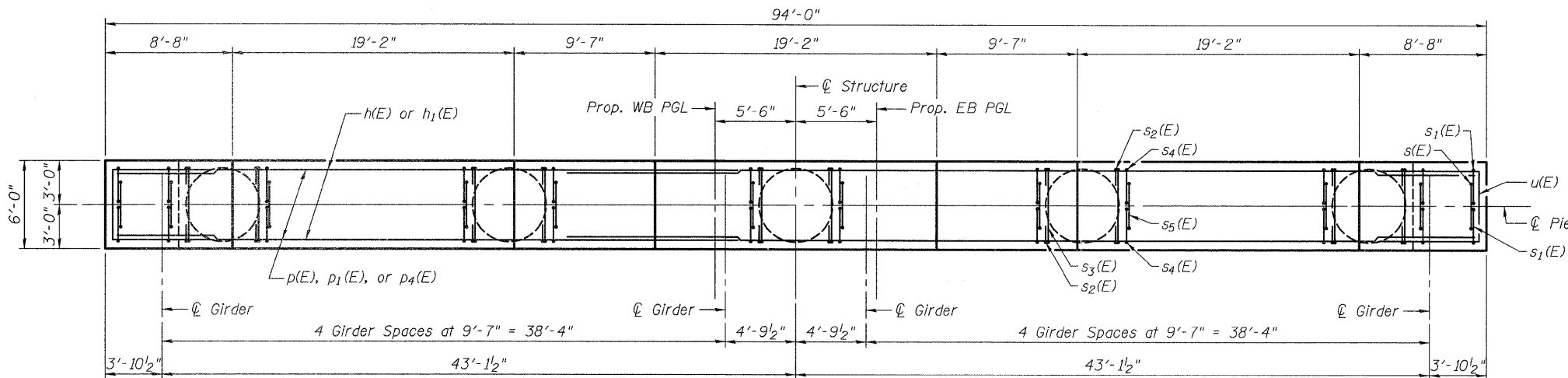


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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

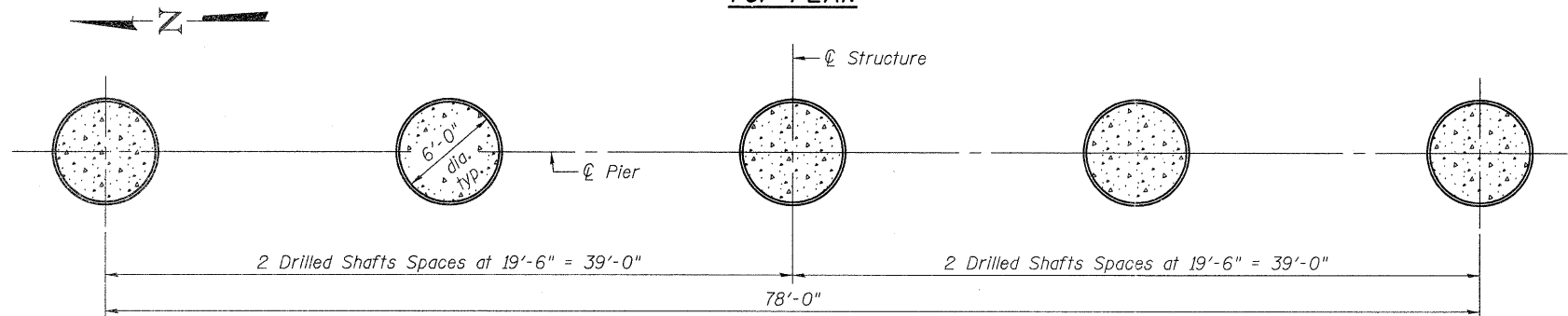
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 1 - PLAN & ELEVATION
STRUCTURE NO. 060-0345**
BRIDGE SHEET NO. 90 OF 133 SHEETS

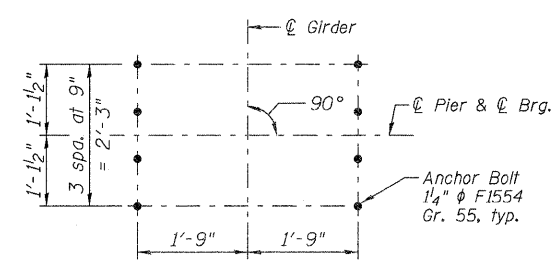
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CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



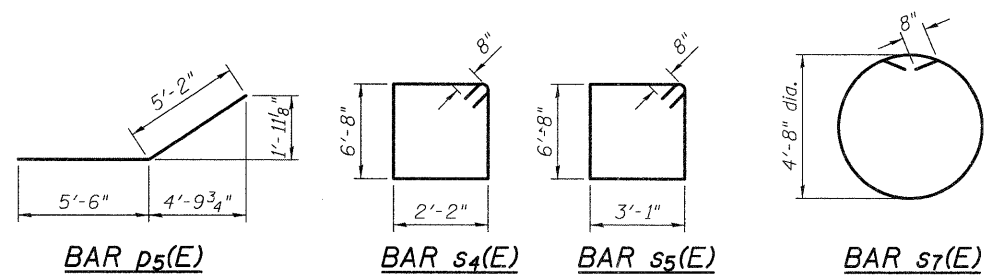
TOP PLAN



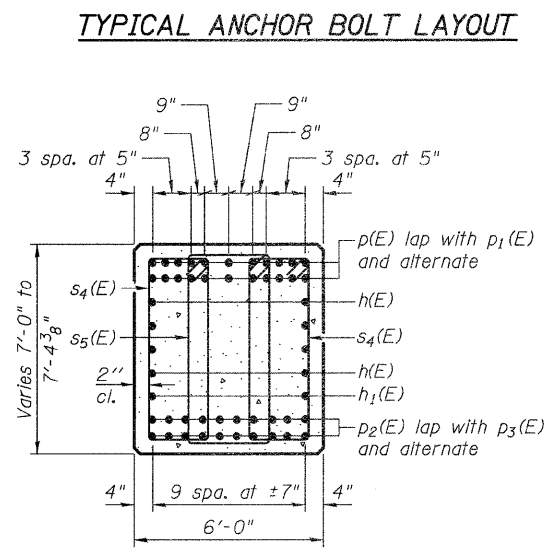
DRILLED SHAFT LAYOUT



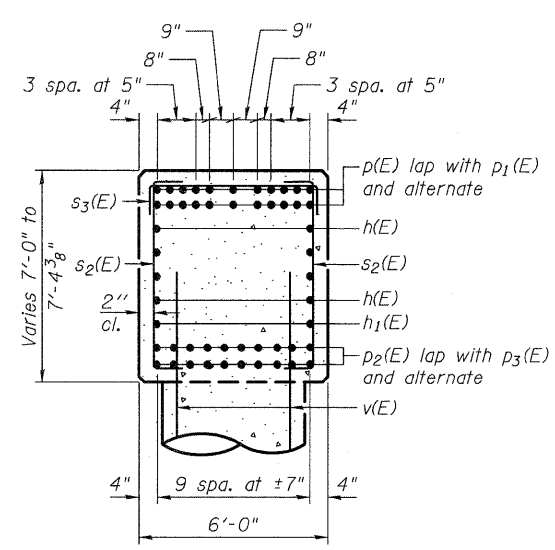
TYPICAL ANCHOR BOLT LAYOUT



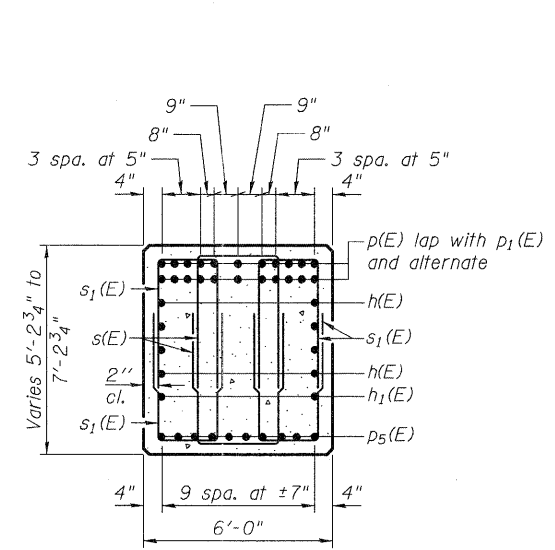
BAR p₅(E) BAR s₄(E) BAR s₅(E) BAR s₇(E)



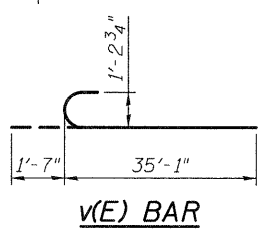
SECTION A-A



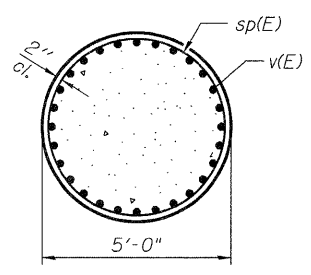
SECTION B-B



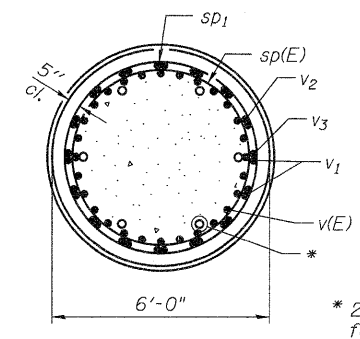
SECTION H-H



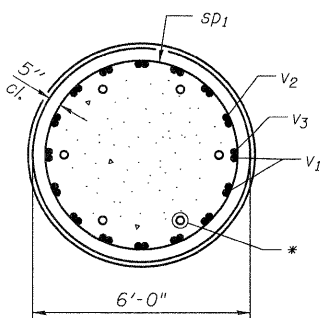
v(E) BAR



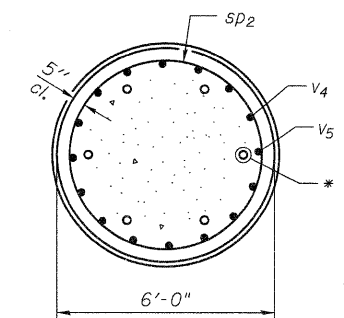
SECTION C-C



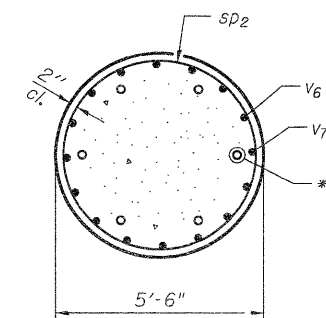
SECTION D-D



SECTION E-E



SECTION F-F

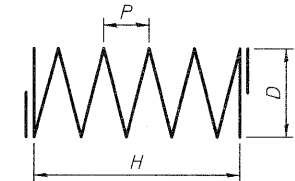


SECTION G-G

* Length calculated as continuous bar (ignoring splices).

Bar	H	D	P	L*
sp(E)	26'-5"	4'-8"	4"	1,206'
sp1	40'-0"	5'-2"	3"	2,646'
sp2	115'-0"	5'-2"	6"	3,782'

H, D & P DIMENSIONS



SPIRALS

BARS

A & B DIMENSIONS

Bar	A	B
s(E)	3'-1"	4'-11"
s1(E)	2'-2"	4'-11"
s2(E)	6'-8"	1'-0"
s3(E)	5'-8"	1'-0"
s6(E)	5'-8"	2'-6"
u(E)	5'-6"	8'-0"

A & B DIMENSIONS

Bar	A	B
p(E)	48'-3"	2'-0"
p1(E)	57'-0"	2'-0"

BARS

**PIER 1
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	#8	50'-8"	—
h1(E)	4	#8	48'-2"	—
p(E)	22	#11	50'-3"	—
p1(E)	22	#11	59'-0"	—
p2(E)	20	#11	36'-8"	—
p3(E)	20	#11	57'-6"	—
p4(E)	22	#11	18'-10"	—
p5(E)	20	#8	10'-8"	—
s(E)	60	#6	12'-11"	□
s1(E)	120	#6	12'-0"	□
s2(E)	80	#6	8'-8"	□
s3(E)	40	#6	7'-8"	□
s4(E)	240	#6	19'-0"	□
s5(E)	120	#6	20'-10"	□
s6(E)	78	#6	10'-8"	□
s7(E)	35	#6	18'-0"	○
sp(E)	5	#6	1206'-0"	—
sp1	5	#6	2646'-0"	—
sp2	5	#6	3782'-0"	—
u(E)	8	#8	21'-6"	—
v(E)	140	#11	36'-8"	—
v1	80	#11	50'-0"	—
v2	40	#11	55'-0"	—
v3	40	#11	57'-6"	—
v4	40	#11	51'-4"	—
v5	40	#11	51'-4"	—
v6	40	#11	48'-8"	—
v7	40	#11	46'-2"	—
Structure Excavation		Cu. Yd.	41.3	
Concrete Structures		Cu. Yd.	235.4	
Reinforcement Bars		Pound	135,410	
Reinforcement Bars, Epoxy Coated		Pound	82,650	
Permanent Casing		Foot	700.0	
Drilled Shaft in Soil		Cu. Yd.	733.1	
Drilled Shaft in Rock		Cu. Yd.	66.0	
Crosshole Sonic Logging		Each	5	
Mechanical Splicers		Each	160	

Bars indicated thus 1 x 4-#8 etc. indicates 1 line of bars with 4 lengths per line.

* 2" I.D. Steel Pipe for Crosshole Sonic Logging, typ. (6 each shaft)

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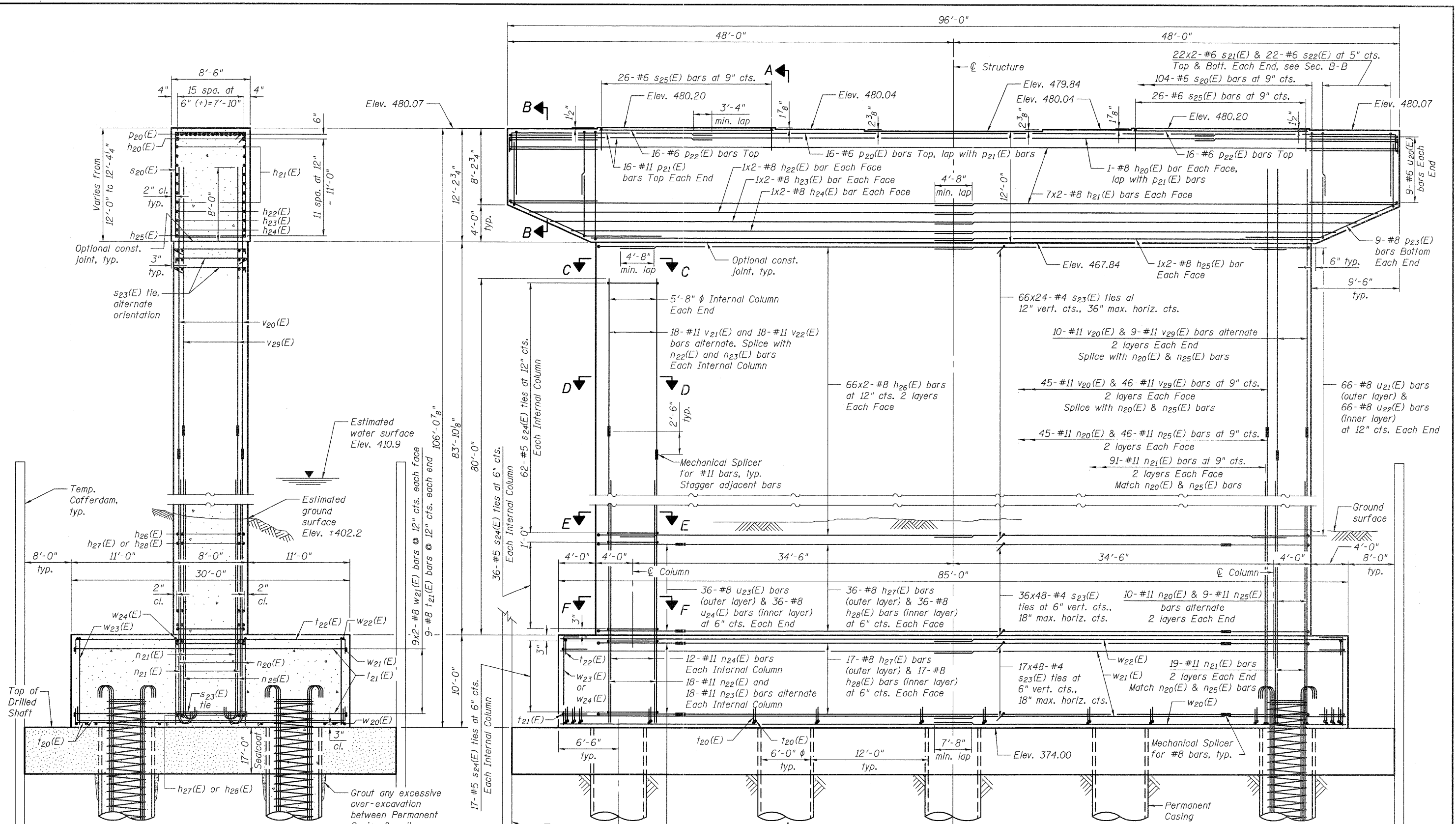
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 1 - PLANS & BILL OF MATERIAL
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 91 OF 133 SHEETS

F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 470
CONTRACT NO. 76A91			ILLINOIS FED. AID PROJECT	



SECTION A-A

Estimated Elev. 333.9
Sealcoat thickness and Cofferdam tip elevation are dependent on Contractor's Cofferdam design.

Notes:
Following bars to be spliced using mechanical splicer for #11 bars:
v₂₀(E) & n₂₀(E), v₂₁(E) & n₂₂(E), v₂₂(E) & n₂₃(E), v₂₉(E) & n₂₅(E)

Notes:
Following bars to be spliced using mechanical splicer for #8 bars:
h₂₇(E) & u₂₃(E), h₂₈(E) & u₂₄(E).

ELEVATION
(Looking East)

NOTES:

1. For General Notes, see sheet 3 of 133.
2. Space reinforcement in cap to miss anchor bolts.
3. Pour steps monolithically with cap.
4. For Top & Footing Plans, see sheet 93 of 133.
5. For Sections B-B thru F-F, see sheet 94 of 133.
6. For Bill of Material, see sheet 94 of 133.
7. For Drilled Shaft Detail, see sheet 93 of 133.

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 jmgigus



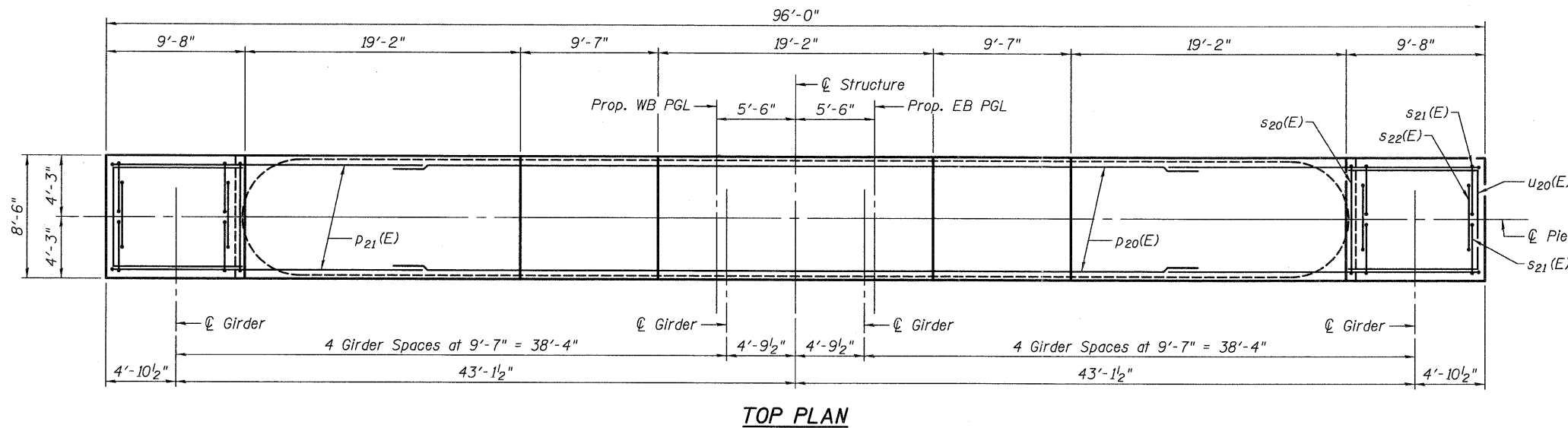
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

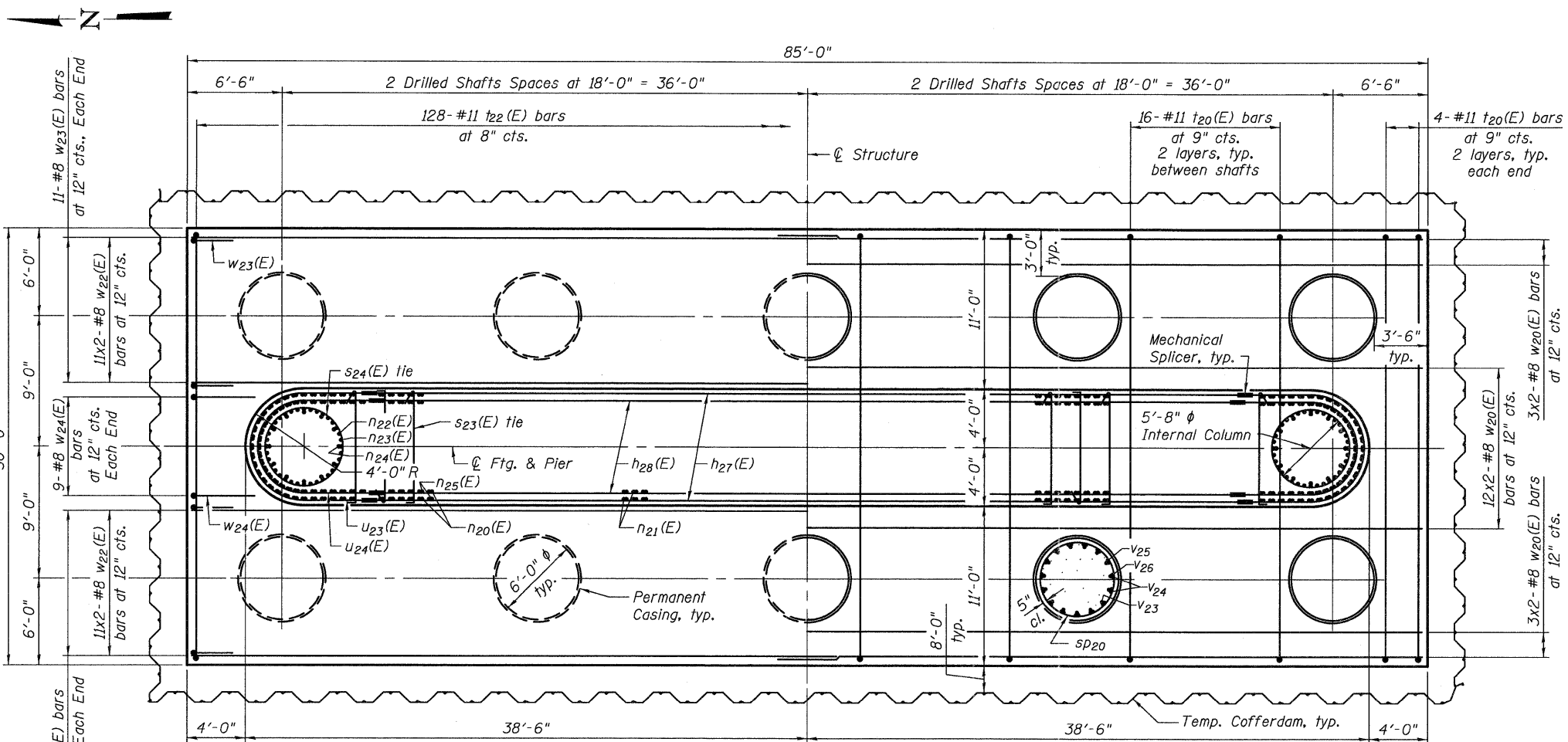
PIER 2 - ELEVATION
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 92 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-18-1	MADISON	712	471
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



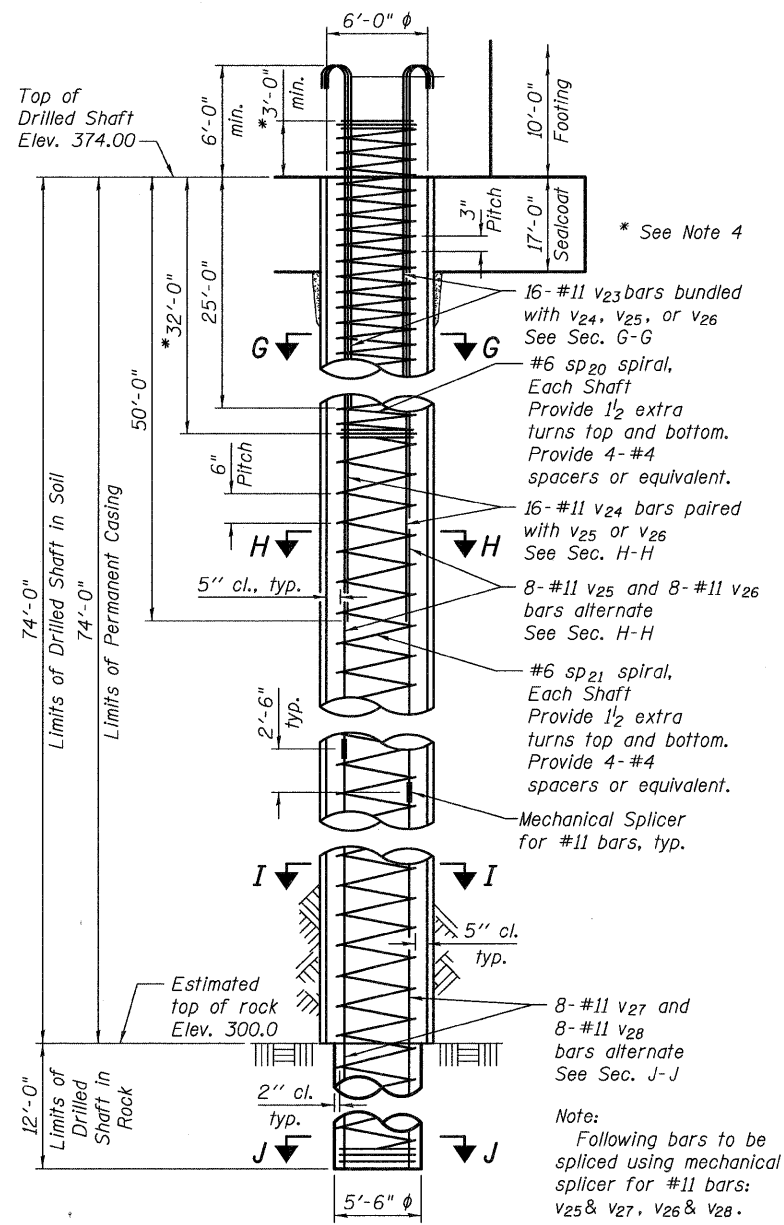
TOP PLAN



TOP BARS

FOOTING PLAN

BOTTOM BARS



DRILLED SHAFT DETAIL

NOTES:

1. The quantities and reinforcement detailing are based on the elevations shown and may change based on the actual top of rock encountered and final top of shaft elevations.
2. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 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.
3. The Contractor is responsible for determining the Permanent Casing thickness and the actual tip elevation used per article 5.16.06(d) of the Standard Specifications.
4. Lapping of spiral reinforcement is not permitted within this designated area. Where splicing is necessary, fully-welded or full-mechanical splices are allowed.
5. The Permanent Casing should be advanced into the rock a sufficient distance as needed to achieve an adequate seal for the excavation of the Drilled Shaft in Rock.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

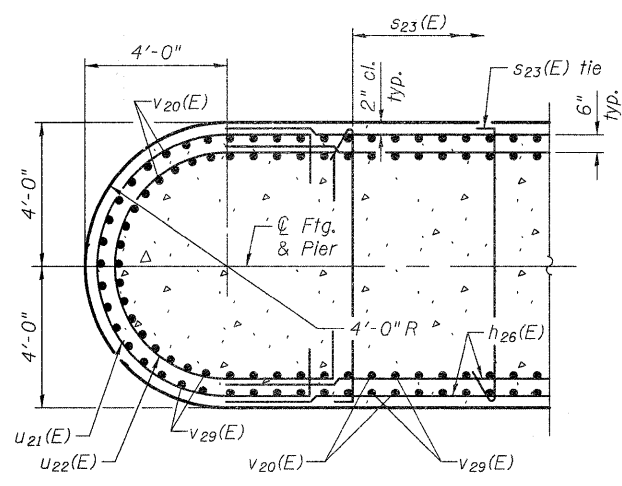
PIER 2 - PLANS
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 93 OF 133 SHEETS

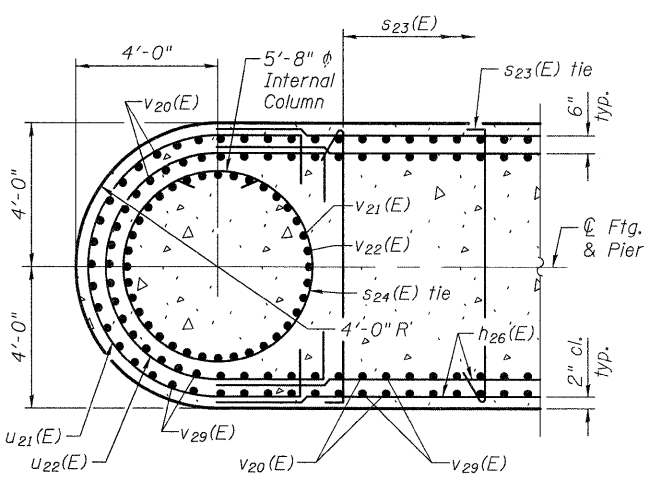
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270	60-18-1	MADISON	712	472
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				

**PIER 2
BILL OF MATERIAL**

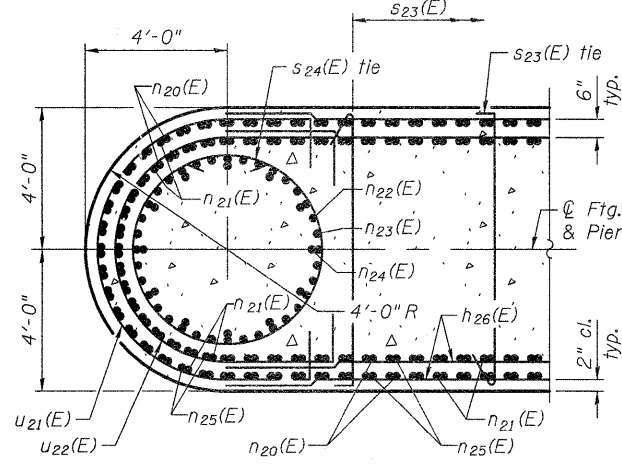
Bar	No.	Size	Length	Shape
h20(E)	2	#8	58'-8"	—
h21(E)	28	#8	50'-2"	—
h22(E)	4	#8	48'-2"	—
h23(E)	4	#8	45'-11"	—
h24(E)	4	#8	43'-8"	—
h25(E)	4	#8	41'-10"	—
h26(E)	528	#8	36'-10"	—
h27(E)	106	#8	60'-0"	—
h28(E)	106	#8	59'-0"	—
n20(E)	220	#11	56'-7"	—
n21(E)	440	#11	51'-4"	—
n22(E)	36	#11	55'-0"	—
n23(E)	36	#11	57'-6"	—
n24(E)	24	#11	55'-0"	—
n25(E)	220	#11	59'-1"	—
p20(E)	16	#6	58'-8"	—
p21(E)	64	#11	23'-10"	—
p22(E)	32	#6	18'-10"	—
p23(E)	18	#8	16'-3"	—
s20(E)	104	#6	41'-0"	□
s21(E)	176	#6	18'-10"	□
s22(E)	88	#6	19'-5"	□
s23(E)	4,128	#4	8'-5"	□
s24(E)	230	#5	21'-0"	□
s25(E)	52	#6	13'-2"	□
sp20	10	#6	2322'-0"	—
sp21	10	#6	1802'-0"	—
t20(E)	144	#11	33'-8"	—
t21(E)	18	#8	32'-4"	—
t22(E)	128	#11	33'-8"	—
u20(E)	18	#6	20'-1"	—
u21(E)	132	#8	24'-0"	—
u22(E)	132	#8	24'-0"	—
u23(E)	106	#8	21'-0"	—
u24(E)	106	#8	20'-6"	—
v20(E)	220	#11	46'-7"	—
v21(E)	36	#11	35'-0"	—
v22(E)	36	#11	32'-6"	—
v23	160	#11	32'-7"	—
v24	160	#11	57'-7"	—
v25	80	#11	57'-7"	—
v26	80	#11	55'-1"	—
v27	80	#11	36'-0"	—
v28	80	#11	38'-6"	—
v29(E)	220	#11	44'-1"	—
w20(E)	36	#8	44'-3"	—
w21(E)	36	#8	46'-2"	—
w22(E)	44	#8	46'-2"	—
w23(E)	44	#8	10'-11"	—
w24(E)	18	#8	13'-7"	—
Cofferdam Excavation	Cu. Yd.		8,111	
Cofferdam (Location-1)	Each		1	
Concrete Structures	Cu. Yd.		3,173.0	
Seal Coat Concrete	Cu. Yd.		3,050.6	
Reinforcement Bars	Pound		2,18,150	
Reinforcement Bars, Epoxy Coated	Pound		644,100	
Permanent Casing	Foaf		740.0	
Drilled Shaft in Soil	Cu. Yd.		775.0	
Drilled Shaft in Rock	Cu. Yd.		105.6	
Crosshole Sonic Logging	Each		10	
Mechanical Splicers	Each		1,096	



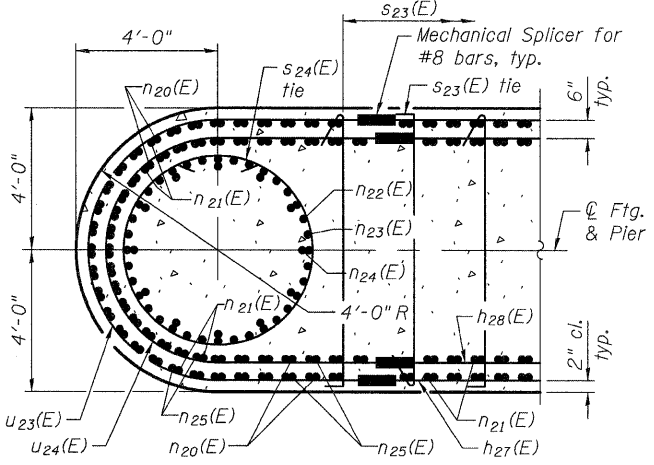
SECTION C-C



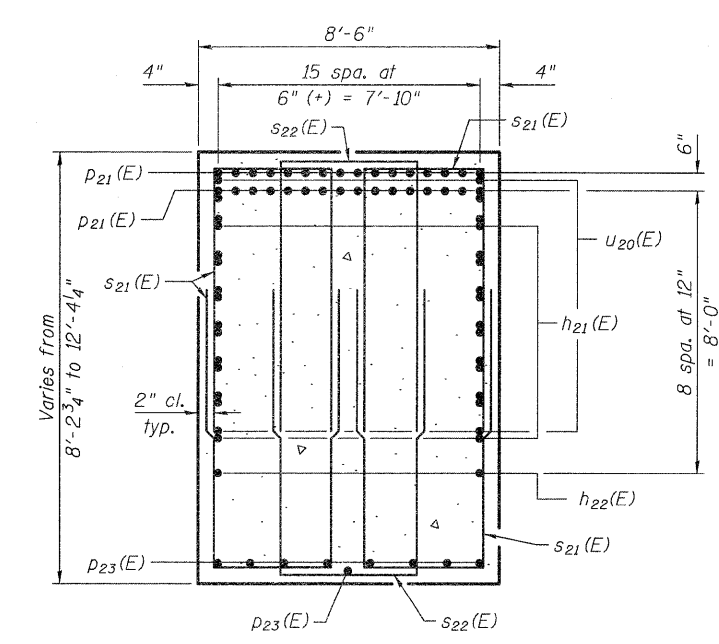
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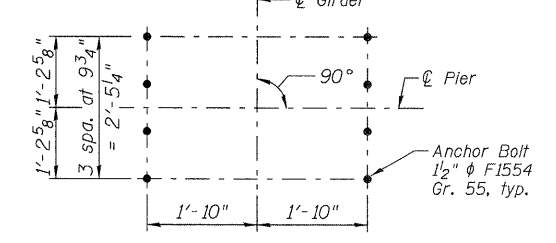
SECTION E-E



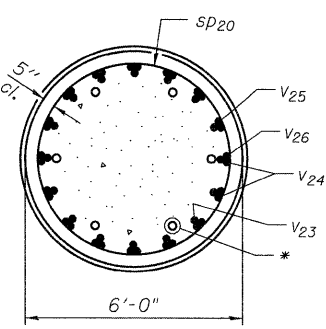
SECTION F-F



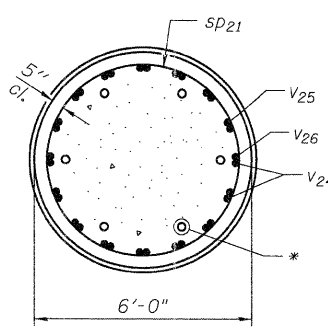
SECTION B-B



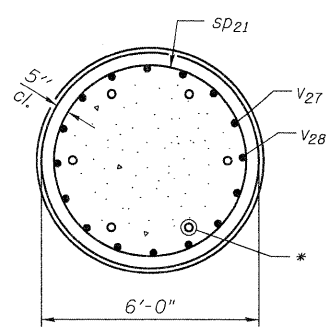
TYPICAL ANCHOR BOLT LAYOUT



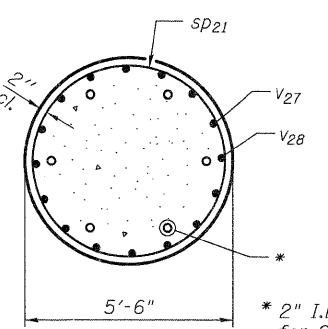
SECTION G-G



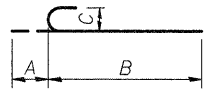
SECTION H-H



SECTION I-I

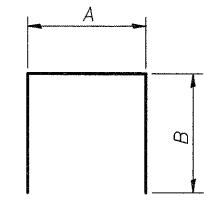


SECTION J-J



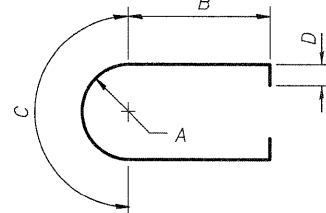
**BARS
A, B & C DIMENSIONS**

Bar	A	B	C
n20(E)	1'-7"	55'-0"	1'-2 3/4"
n21(E)	1'-7"	49'-9"	1'-2 3/4"
n25(E)	1'-7"	57'-6"	1'-2 3/4"
v23	1'-7"	31'-0"	1'-2 3/4"
v24	1'-7"	56'-0"	1'-2 3/4"
v25	1'-7"	56'-0"	1'-2 3/4"
v26	1'-7"	53'-6"	1'-2 3/4"



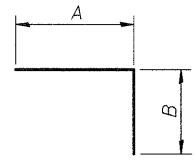
**BARS
A & B DIMENSIONS**

Bar	A	B
s21(E)	3'-6"	7'-8"
s22(E)	4'-1"	7'-8"
s25(E)	8'-2"	2'-6"
t20(E)	29'-8"	2'-0"
t21(E)	29'-8"	1'-4"
t22(E)	29'-8"	2'-0"
u20(E)	8'-1"	6'-0"



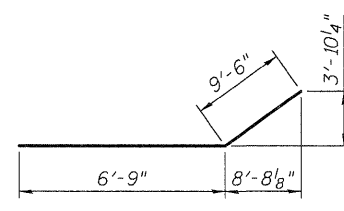
**BARS
A, B, C & D DIMENSIONS**

Bar	A	B	C	D
u21(E)	3'-10"	4'-8"	12'-0"	1'-4"
u22(E)	3'-4"	5'-5"	10'-6"	1'-4"
u23(E)	3'-10"	4'-6"	12'-0"	-
u24(E)	3'-4"	5'-0"	10'-6"	-

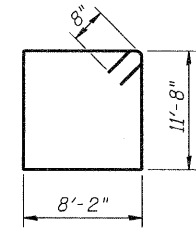


**BARS
A & B DIMENSIONS**

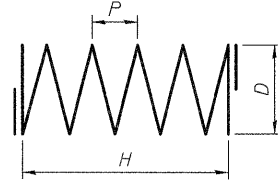
Bar	A	B
p21(E)	21'-10"	2'-0"
w23(E)	1'-4"	9'-7"
w24(E)	4'-0"	9'-7"



BAR p23(E)



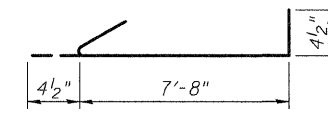
BAR s20(E)



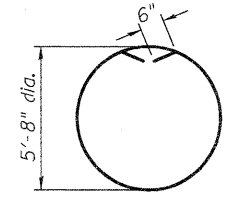
**SPIRALS
H, D & P DIMENSIONS**

Bar	H	D	P	L*
sp20	35'-0"	5'-2"	3"	2,322'
sp21	54'-0"	5'-2"	6"	1,802'

* Length calculated as continuous bar (ignoring splices).



BAR s23(E)



BAR s24(E)

Note:
Bars indicated thus 3 x 4-#8 etc. indicates 3 lines of bars with 4 lengths per line or 3 layers of bars with 4 bars per layer.

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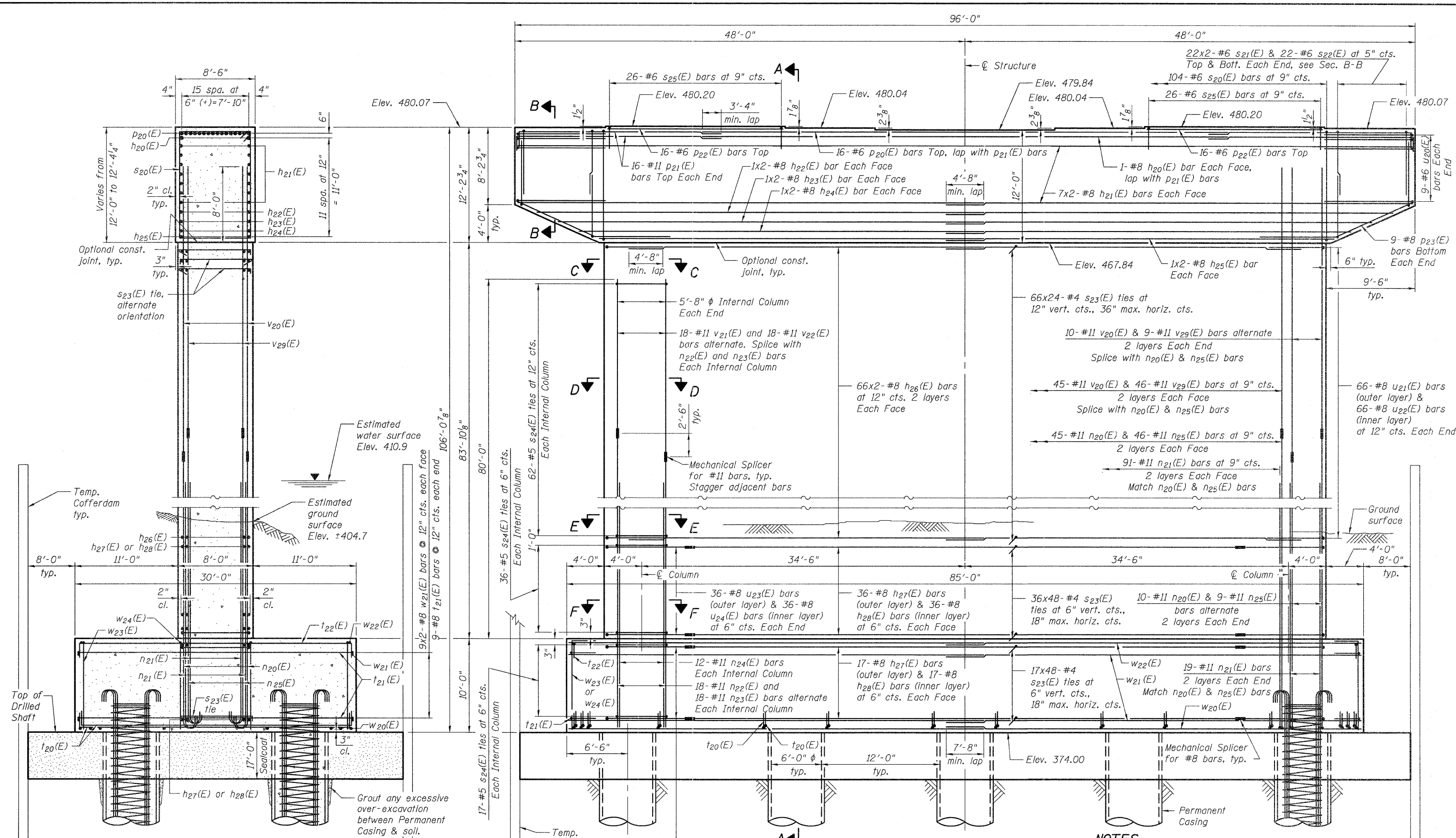
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PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 2 - SECTIONS & BILL OF MATERIAL
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 94 OF 133 SHEETS

F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 473
CONTRACT NO. 76A91				ILLINOIS FED. AID PROJECT



SECTION A-A
 Estimated Elev. 333.9
 Sealcoat thickness and Cofferdam tip elevation are dependent on Contractor's Cofferdam design.

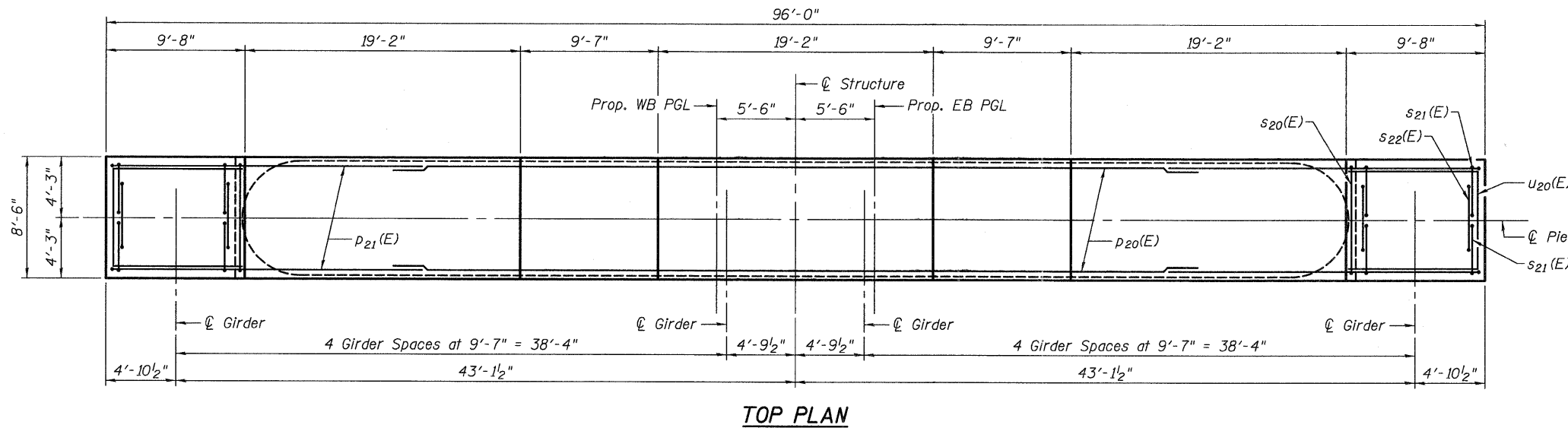
Notes:
 Following bars to be spliced using mechanical splicer for #11 bars: v20(E) & n20(E), v21(E) & n22(E), v22(E) & n23(E), v29(E) & n25(E)

Following bars to be spliced using mechanical splicer for #8 bars: h27(E) & u23(E), h28(E) & u24(E).

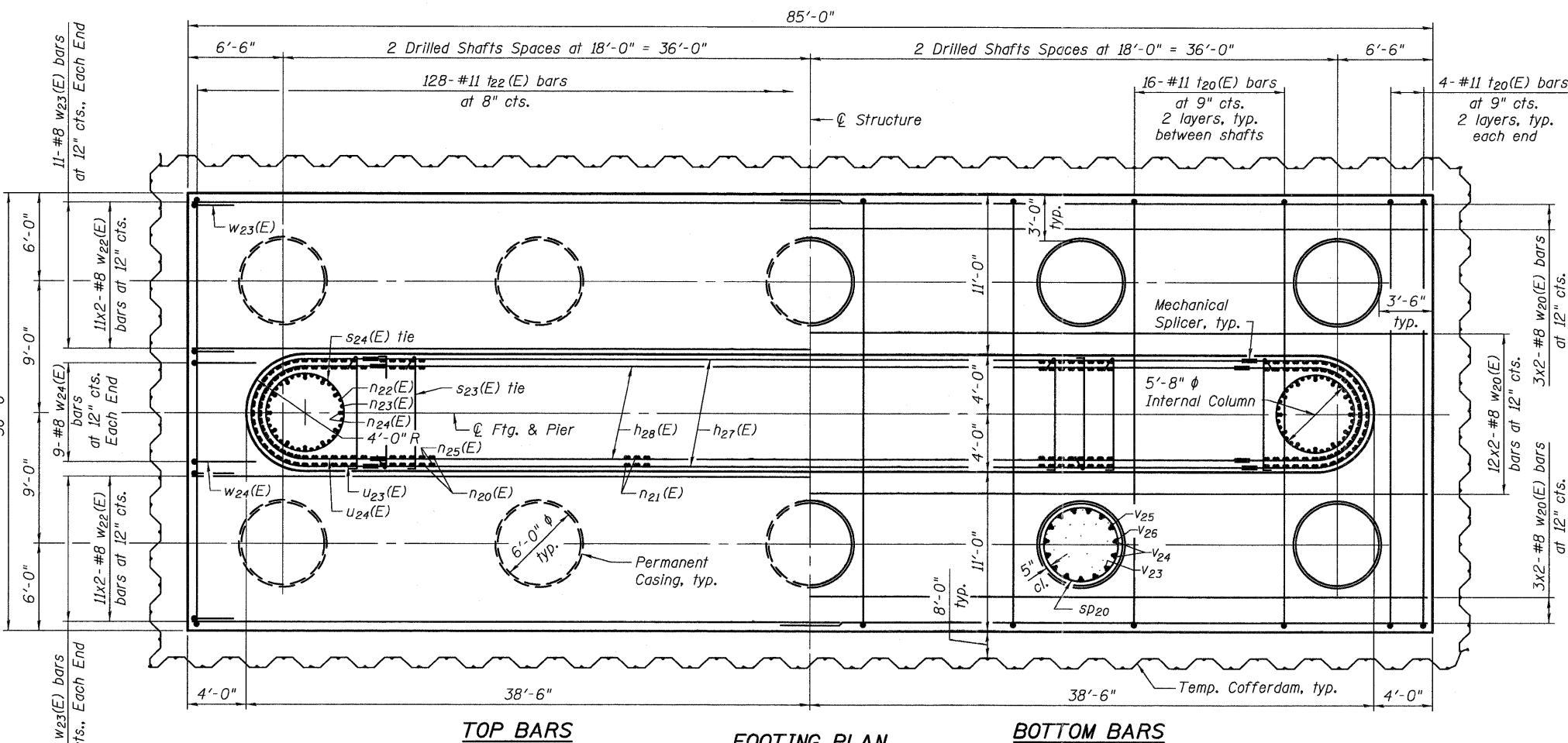
- NOTES:**
1. For General Notes, see sheet 3 of 133.
 2. Space reinforcement in cap to miss anchor bolts.
 3. Pour steps monolithically with cap.
 4. For Top & Footing Plans, see sheet 96 of 133.
 5. For Sections B-B thru F-F, see sheet 97 of 133.
 6. For Bill of Material, see sheet 97 of 133.
 7. For Drilled Shaft Detail, see sheet 96 of 133.

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 jmgigus

	USER NAME = jmgigus	DESIGNED - MG	REVISED - LGP 4/20/2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 3 - ELEVATION STRUCTURE NO. 060-0345	F.A.I. RTE. = 270	SECTION = 60-1B-1	COUNTY = MADISON	TOTAL SHEETS = 712	SHEET NO. = 474
	FILE NAME = 0600345-76A91-095-PRD.DGN	CHECKED - PJC	REVISED -			BRIDGE SHEET NO. 95 OF 133 SHEETS	ILLINOIS FED. AID PROJECT			
	PLOT SCALE = NONE	DRAWN - JM	REVISED -			CONTRACT NO. 76A91				
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -								



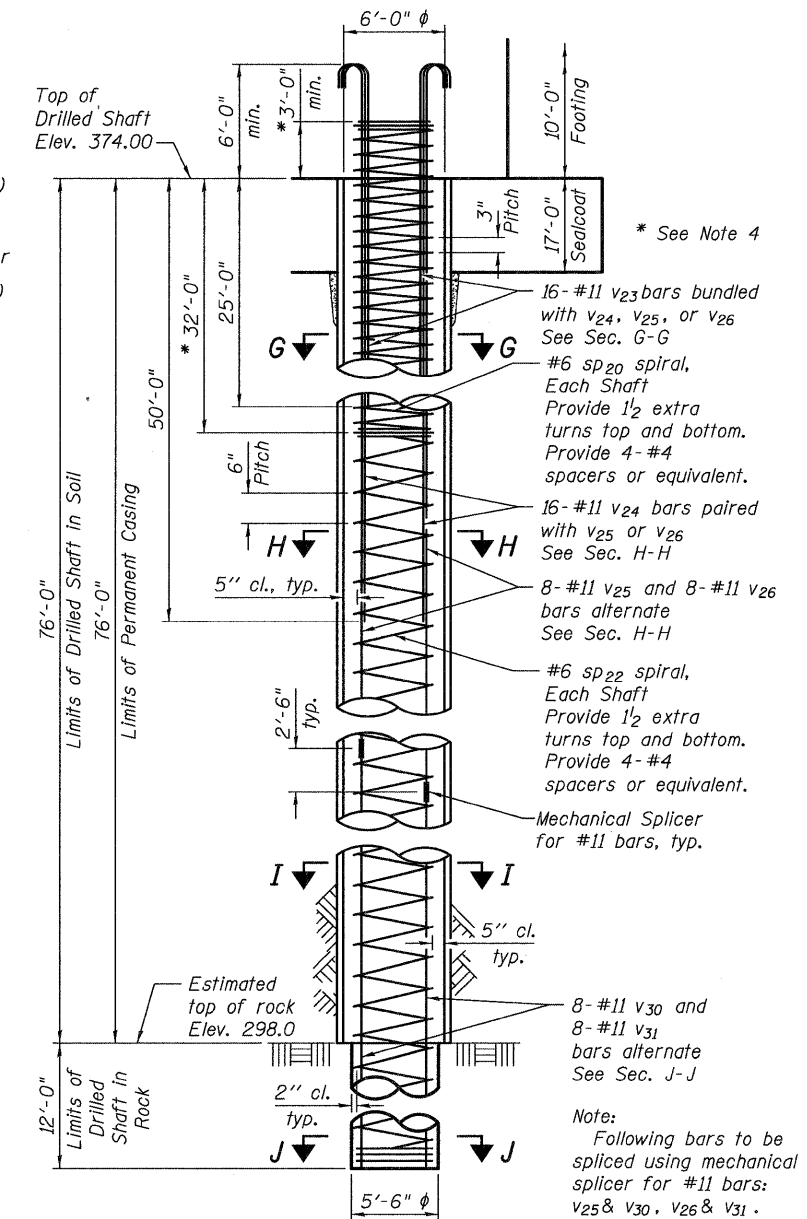
TOP PLAN



TOP BARS

FOOTING PLAN

BOTTOM BARS



DRILLED SHAFT DETAIL

NOTES:

1. The quantities and reinforcement detailing are based on the elevations shown and may change based on the actual top of rock encountered and final top of shaft elevations.
2. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 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.
3. The Contractor is responsible for determining the Permanent Casing thickness and the actual tip elevation used per article 5.16.06(d) of the Standard Specifications.
4. Lapping of spiral reinforcement is not permitted within this designated area. Where splicing is necessary, fully-welded or full-mechanical splices are allowed.
5. The Permanent Casing should be advanced into the rock a sufficient distance as needed to achieve an adequate seal for the excavation of the Drilled Shaft in Rock.

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jmgus

3/15/2011
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USER NAME = jmgus
FILE NAME = 0600345-76A91-096-PRD.DGN
PLOT SCALE = NONE
PLOT DATE = 3/18/2011

DESIGNED - MG
CHECKED - PJM
DRAWN - JM
CHECKED - BSK

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 - PLANS
STRUCTURE NO. 060-0345

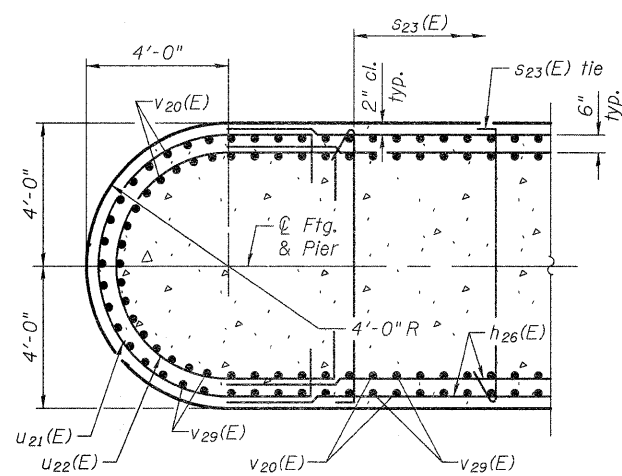
BRIDGE SHEET NO. 96 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	475
				CONTRACT NO. 76A91

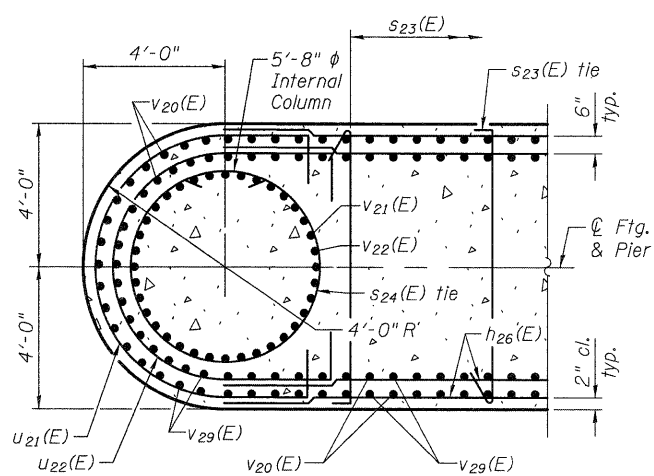
ILLINOIS FED. AID PROJECT

**PIER 3
BILL OF MATERIAL**

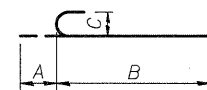
Bar	No.	Size	Length	Shape
h20(E)	2	#8	58'-8"	—
h21(E)	28	#8	50'-2"	—
h22(E)	4	#8	48'-2"	—
h23(E)	4	#8	45'-11"	—
h24(E)	4	#8	43'-6"	—
h25(E)	4	#8	41'-10"	—
h26(E)	528	#8	36'-10"	—
h27(E)	106	#8	60'-0"	—
h28(E)	106	#8	59'-0"	—
n20(E)	220	#11	56'-7"	—
n21(E)	440	#11	51'-4"	—
n22(E)	36	#11	55'-0"	—
n23(E)	36	#11	57'-6"	—
n24(E)	24	#11	55'-0"	—
n25(E)	220	#11	59'-1"	—
p20(E)	16	#6	58'-8"	—
p21(E)	64	#11	23'-10"	—
p22(E)	32	#6	18'-10"	—
p23(E)	18	#8	16'-3"	—
s20(E)	104	#6	41'-0"	□
s21(E)	176	#6	18'-10"	□
s22(E)	88	#6	19'-5"	□
s23(E)	4,128	#4	8'-5"	□
s24(E)	230	#5	21'-0"	□
s25(E)	52	#6	13'-2"	□
sp20	10	#6	2322'-0"	—
sp22	10	#6	1867'-0"	—
t20(E)	144	#11	33'-8"	—
t21(E)	18	#8	32'-4"	—
t22(E)	128	#11	33'-8"	—
u20(E)	18	#6	20'-1"	—
u21(E)	132	#8	24'-0"	—
u22(E)	132	#8	24'-0"	—
u23(E)	106	#8	21'-0"	—
u24(E)	106	#8	20'-6"	—
v20(E)	220	#11	46'-7"	—
v21(E)	36	#11	35'-0"	—
v22(E)	36	#11	32'-6"	—
v23	160	#11	32'-7"	—
v24	160	#11	57'-7"	—
v25	80	#11	57'-7"	—
v26	80	#11	55'-1"	—
v29(E)	220	#11	44'-1"	—
v30	80	#11	38'-0"	—
v31	80	#11	40'-6"	—
w20(E)	36	#8	44'-3"	—
w21(E)	36	#8	46'-2"	—
w22(E)	44	#8	46'-2"	—
w23(E)	44	#8	10'-11"	—
w24(E)	18	#8	13'-7"	—
Cofferdam Excavation		Cu. Yd.	8,560	
Cofferdam (Location-2)		Each	1	
Concrete Structures		Cu. Yd.	3,173.0	
Seal Coat Concrete		Cu. Yd.	3,050.6	
Reinforcement Bars		Pound	220,830	
Reinforcement Bars, Epoxy Coated		Pound	644,100	
Permanent Casing		Foot	760.0	
Drilled Shaft in Soil		Cu. Yd.	795.9	
Drilled Shaft in Rock		Cu. Yd.	105.6	
Crosshole Sonic Logging		Each	10	
Mechanical Splicers		Each	1,096	



SECTION C-C

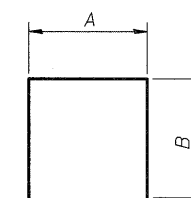


SECTION D-D



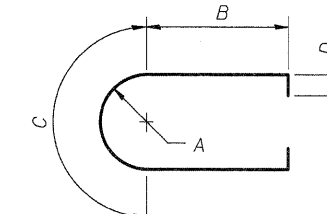
**BARS
A, B & C DIMENSIONS**

Bar	A	B	C
n20(E)	1'-7"	55'-0"	1'-2 3/4"
n21(E)	1'-7"	49'-9"	1'-2 3/4"
n25(E)	1'-7"	57'-6"	1'-2 3/4"
v23	1'-7"	31'-0"	1'-2 3/4"
v24	1'-7"	56'-0"	1'-2 3/4"
v25	1'-7"	56'-0"	1'-2 3/4"
v26	1'-7"	53'-6"	1'-2 3/4"



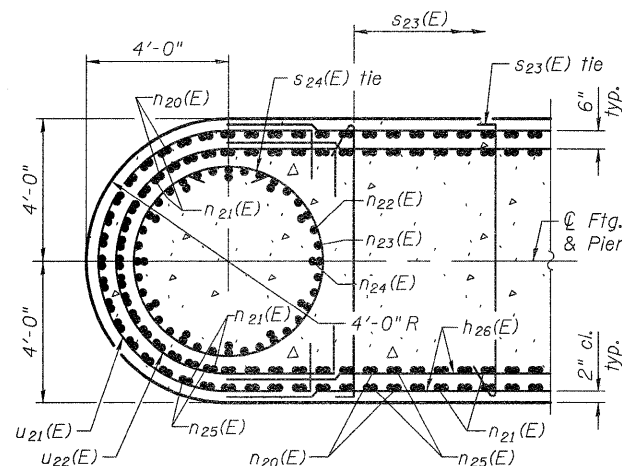
**BARS
A & B DIMENSIONS**

Bar	A	B
s21(E)	3'-6"	7'-8"
s22(E)	4'-1"	7'-8"
s25(E)	8'-2"	2'-6"
t20(E)	29'-8"	2'-0"
t21(E)	29'-8"	1'-4"
t22(E)	29'-8"	2'-0"
u20(E)	8'-1"	6'-0"

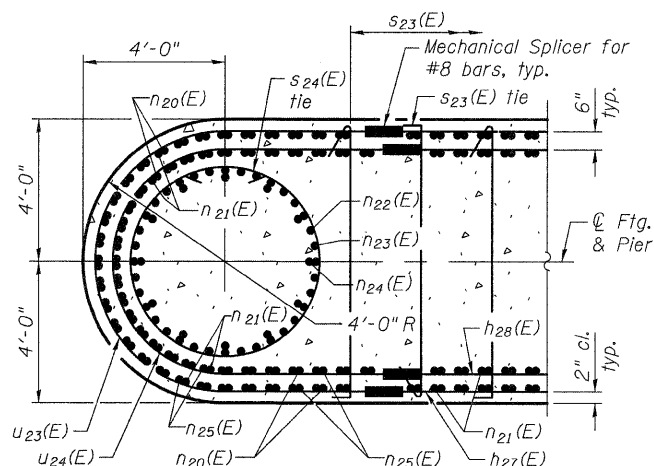


**BARS
A, B, C & D DIMENSIONS**

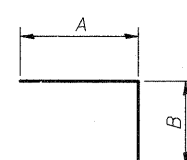
Bar	A	B	C	D
u21(E)	3'-10"	4'-8"	12'-0"	1'-4"
u22(E)	3'-4"	5'-5"	10'-6"	1'-4"
u23(E)	3'-10"	4'-6"	12'-0"	-
u24(E)	3'-4"	5'-0"	10'-6"	-



SECTION E-E

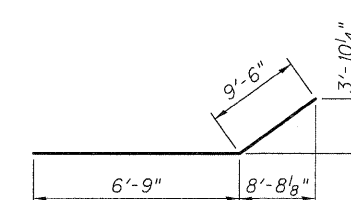


SECTION F-F

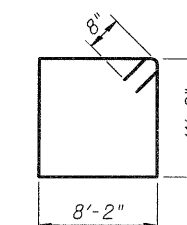


**BARS
A & B DIMENSIONS**

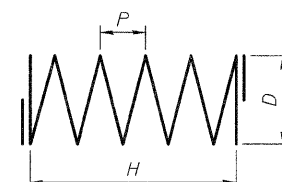
Bar	A	B
p21(E)	21'-10"	2'-0"
w23(E)	1'-4"	9'-7"
w24(E)	4'-0"	9'-7"



BAR p23(E)



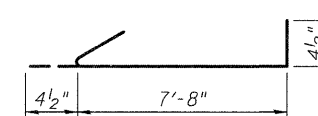
BAR s20(E)



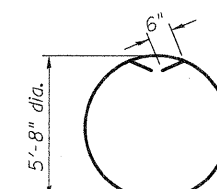
**SPIRALS
H, D & P DIMENSIONS**

Bar	H	D	P	L*
sp20	35'-0"	5'-2"	3"	2,322'
sp22	56'-0"	5'-2"	6"	1,867'

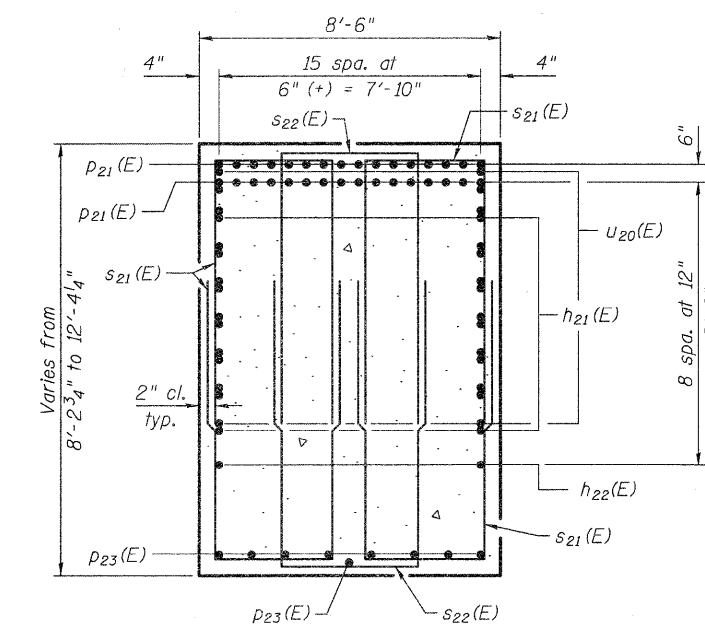
* Length calculated as continuous bar (ignoring splices).



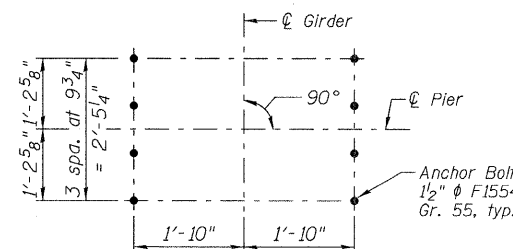
BAR s23(E)



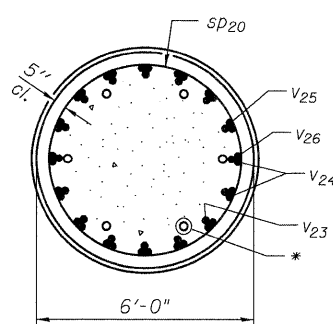
BAR s24(E)



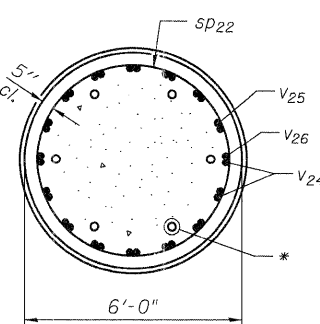
SECTION B-B



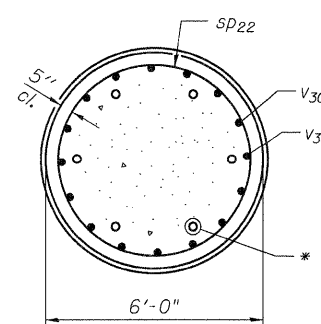
TYPICAL ANCHOR BOLT LAYOUT



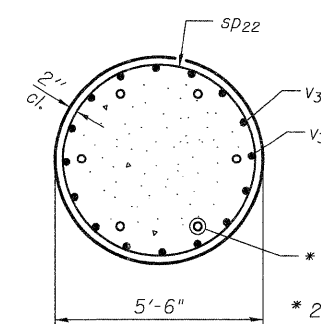
SECTION G-G



SECTION H-H



SECTION I-I



SECTION J-J

* 2" I.D. Steel Pipe for Crosshole Sonic Logging, typ. (6 each shaft)

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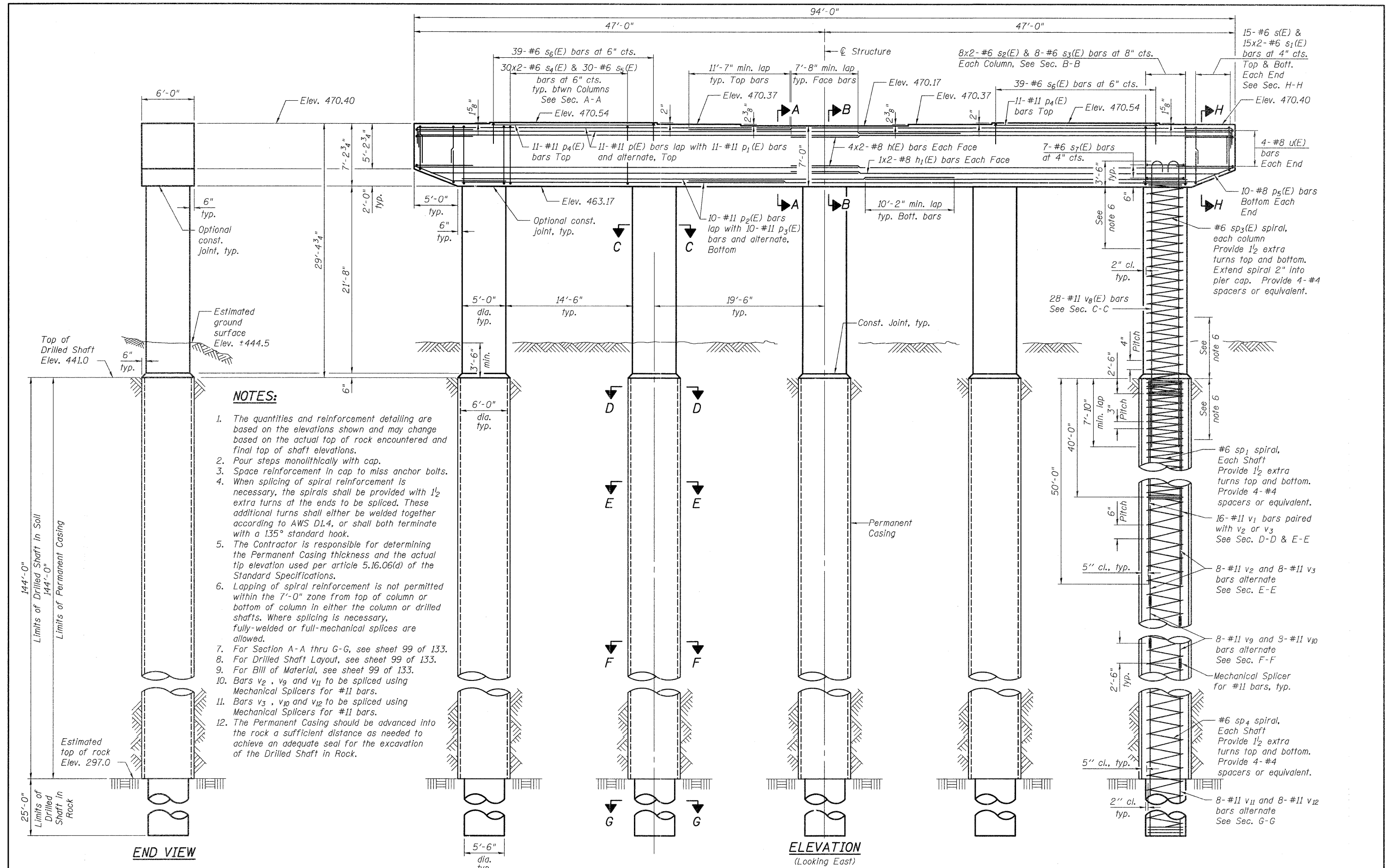
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 3 - SECTIONS & BILL OF MATERIAL
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 97 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	476
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



- NOTES:**
- The quantities and reinforcement detailing are based on the elevations shown and may change based on the actual top of rock encountered and final top of shaft elevations.
 - Four steps monolithically with cap.
 - Space reinforcement in cap to miss anchor bolts.
 - When splicing of spiral reinforcement is necessary, the spirals shall be provided with 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.
 - The Contractor is responsible for determining the Permanent Casing thickness and the actual tip elevation used per article 5.16.06(d) of the Standard Specifications.
 - Lapping of spiral reinforcement is not permitted within the 7'-0" zone from top of column or bottom of column in either the column or drilled shafts. Where splicing is necessary, fully-welded or full-mechanical splices are allowed.
 - For Section A-A thru G-G, see sheet 99 of 133.
 - For Drilled Shaft Layout, see sheet 99 of 133.
 - For Bill of Material, see sheet 99 of 133.
 - Bars v₂, v₉ and v₁₁ to be spliced using Mechanical Splicers for #11 bars.
 - Bars v₃, v₁₀ and v₁₂ to be spliced using Mechanical Splicers for #11 bars.
 - The Permanent Casing should be advanced into the rock a sufficient distance as needed to achieve an adequate seal for the excavation of the Drilled Shaft in Rock.

END VIEW

ELEVATION
(Looking East)

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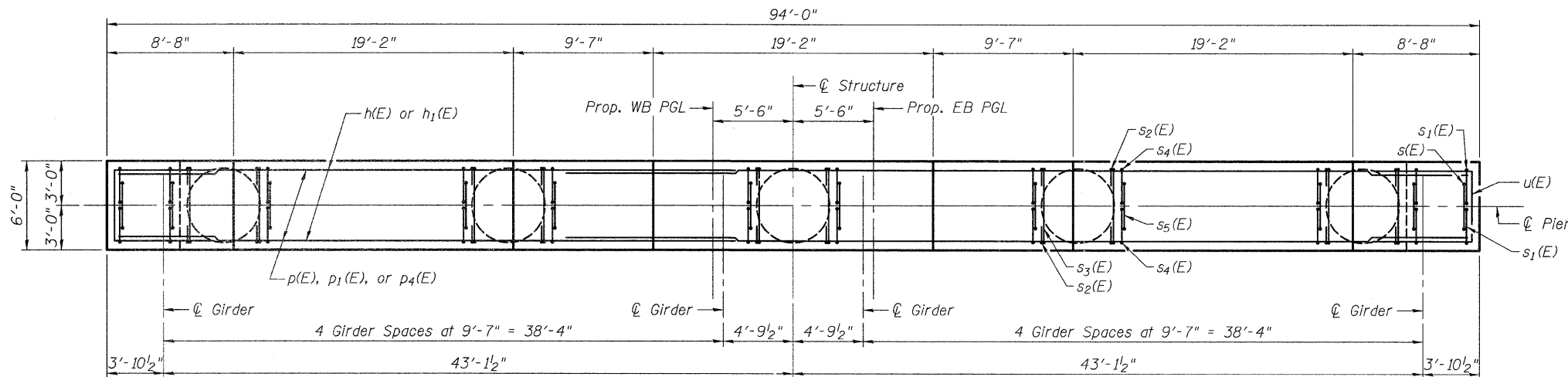
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

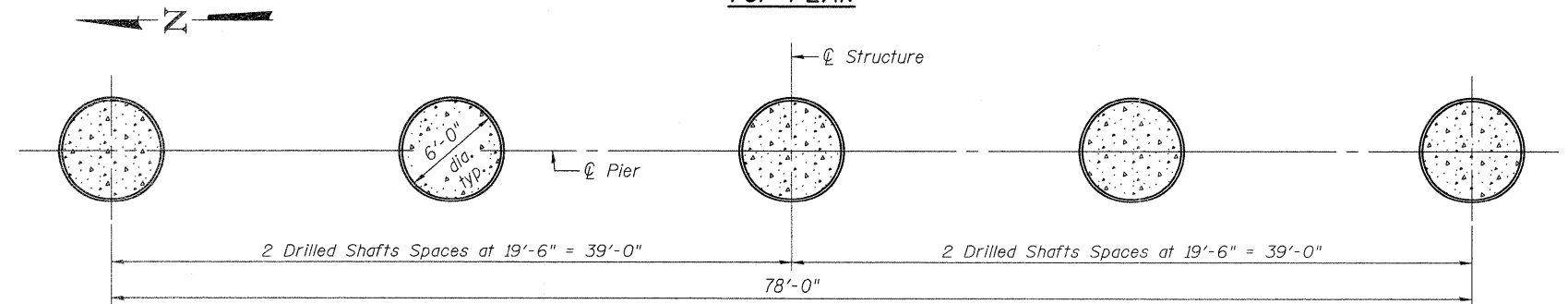
PIER 4 - PLAN & ELEVATION
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 98 OF 133 SHEETS

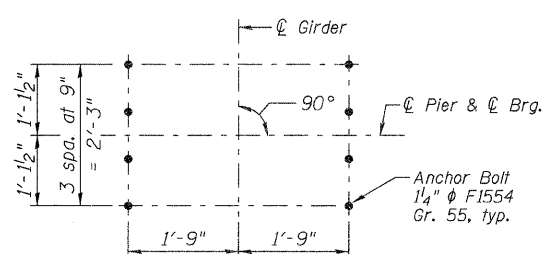
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	477
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



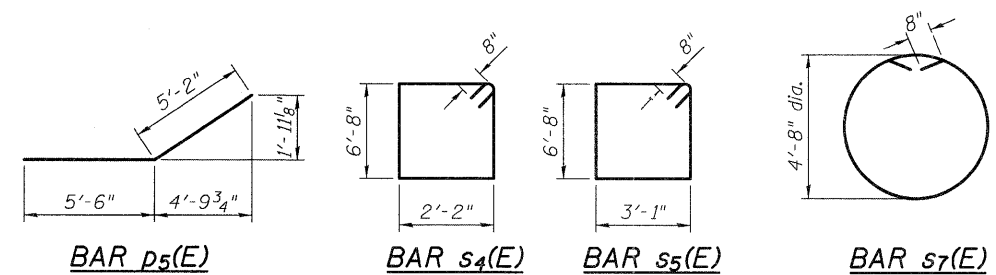
TOP PLAN



DRILLED SHAFT LAYOUT



TYPICAL ANCHOR BOLT LAYOUT



BAR p₅(E) BAR s₄(E) BAR s₅(E) BAR s₇(E)

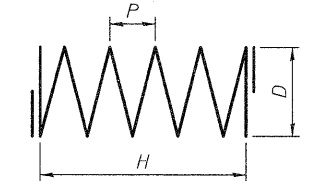
BARS

Bar	A	B
s(E)	3'-1"	4'-11"
s ₁ (E)	2'-2"	4'-11"
s ₂ (E)	6'-8"	1'-0"
s ₃ (E)	5'-8"	1'-0"
s ₆ (E)	5'-8"	2'-6"
u(E)	5'-6"	8'-0"

A & B DIMENSIONS

Bar	A	B
p(E)	48'-3"	2'-0"
p ₁ (E)	57'-0"	2'-0"

BARS



SPIRALS

H, D & P DIMENSIONS

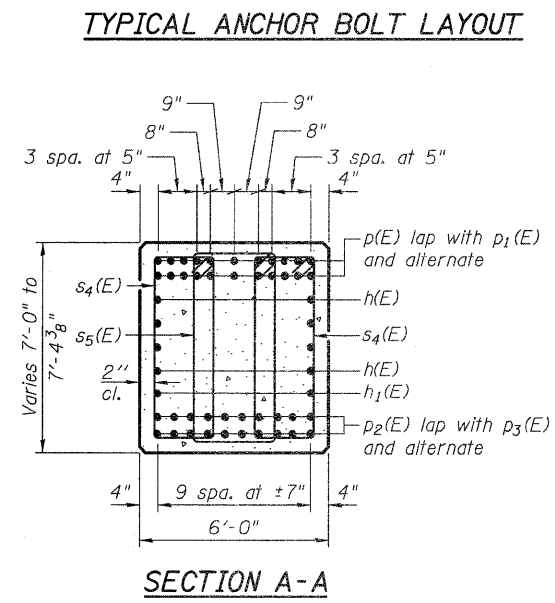
Bar	H	D	P	L*
sp ₁	40'-0"	5'-2"	3"	2,646'
sp ₃ (E)	24'-10"	4'-8"	4"	1,137'
sp ₄	129'-0"	5'-2"	6"	4,237'

* Length calculated as continuous bar (ignoring splices).

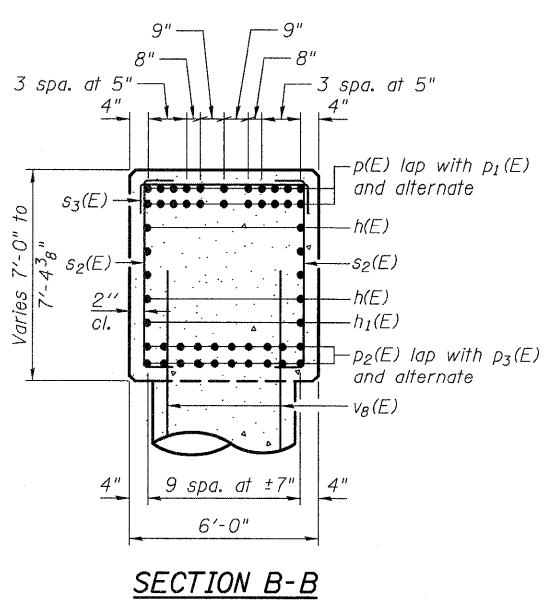
**PIER 4
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	#8	50'-8"	—
h ₁ (E)	4	#8	48'-2"	—
p(E)	22	#11	50'-3"	—
p ₁ (E)	22	#11	59'-0"	—
p ₂ (E)	20	#11	36'-8"	—
p ₃ (E)	20	#11	57'-6"	—
p ₄ (E)	22	#11	18'-10"	—
p ₅ (E)	20	#8	10'-8"	—
s(E)	60	#6	12'-11"	□
s ₁ (E)	120	#6	12'-0"	□
s ₂ (E)	80	#6	8'-8"	□
s ₃ (E)	40	#6	7'-8"	□
s ₄ (E)	240	#6	19'-0"	□
s ₅ (E)	120	#6	20'-10"	□
s ₆ (E)	78	#6	10'-8"	□
s ₇ (E)	35	#6	18'-0"	○
sp ₁	5	#6	2646'-0"	⋈
sp ₃ (E)	5	#6	1137'-0"	⋈
sp ₄	5	#6	4237'-0"	⋈
u(E)	8	#8	21'-6"	□
v ₁	80	#11	50'-0"	—
v ₂	40	#11	55'-0"	—
v ₃	40	#11	57'-6"	—
v ₈ (E)	140	#11	35'-2"	—
v ₉	40	#11	57'-4"	—
v ₁₀	40	#11	57'-4"	—
v ₁₁	40	#11	56'-8"	—
v ₁₂	40	#11	54'-2"	—
Structure Excavation		Cu. Yd.	41.3	
Concrete Structures		Cu. Yd.	229.9	
Reinforcement Bars		Pound	144,780	
Reinforcement Bars, Epoxy Coated		Pound	81,020	
Permanent Casing		Foot	720.0	
Drilled Shaft in Soil		Cu. Yd.	754.0	
Drilled Shaft in Rock		Cu. Yd.	110.0	
Crosshole Sonic Logging		Each	5	
Mechanical Splicers		Each	160	

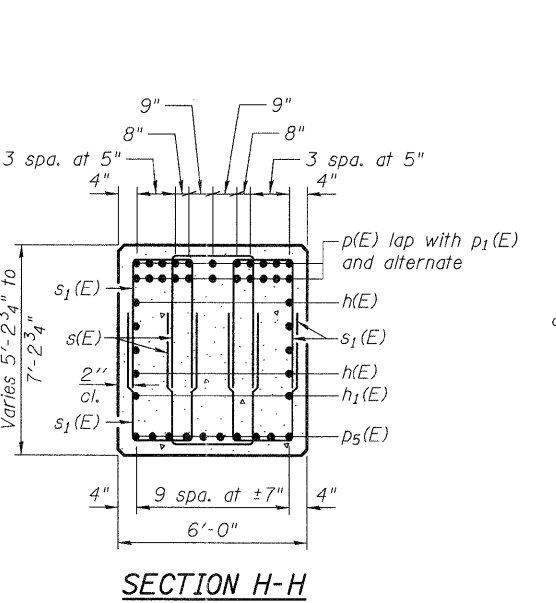
Bars indicated thus 1 x 4-#8 etc. indicates 1 line of bars with 4 lengths per line.



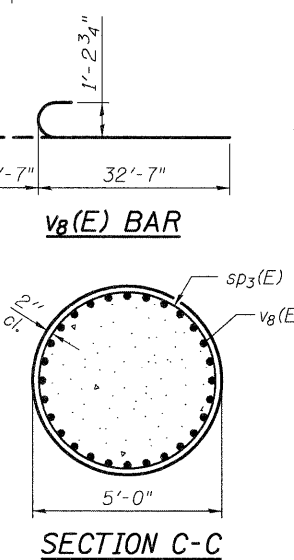
SECTION A-A



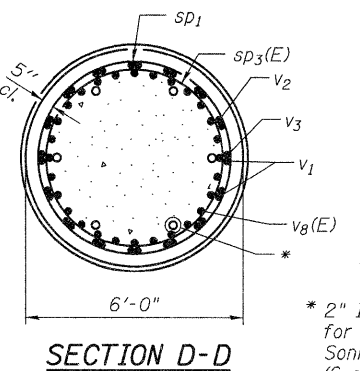
SECTION B-B



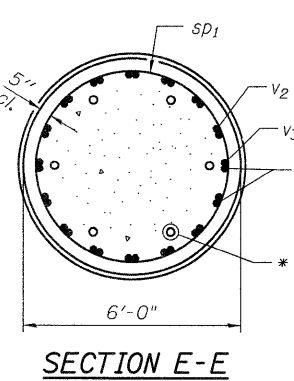
SECTION H-H



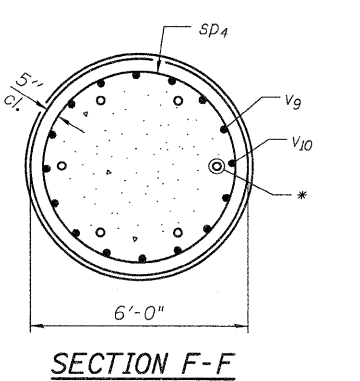
SECTION C-C



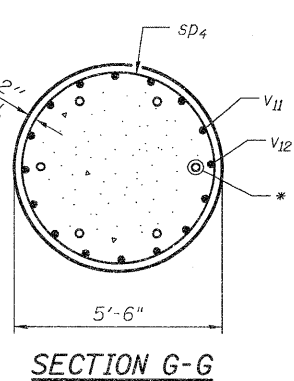
SECTION D-D



SECTION E-E



SECTION F-F



SECTION G-G

* 2" I.D. Steel Pipe for Crosshole Sonic Logging, typ. (6 each shaft)

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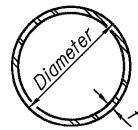
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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 4 - PLANS & BILL OF MATERIAL
STRUCTURE NO. 060-0345

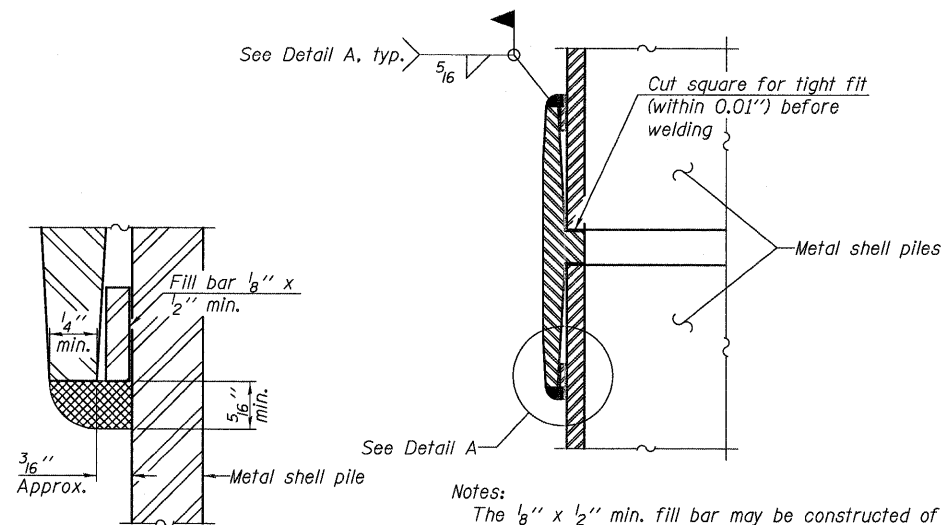
BRIDGE SHEET NO. 99 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	478
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



METAL SHELL PILE TABLE

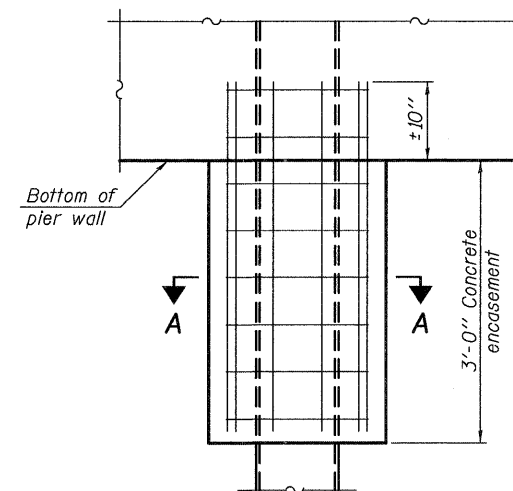
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



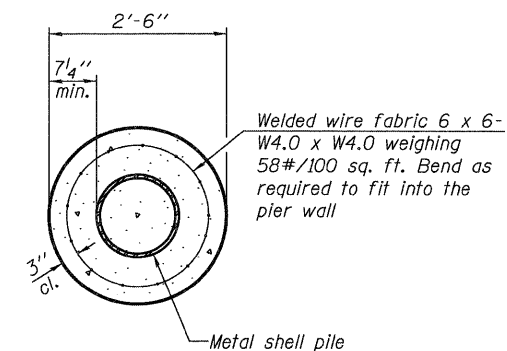
DETAIL A

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.

WELDED COMMERCIAL SPLICE



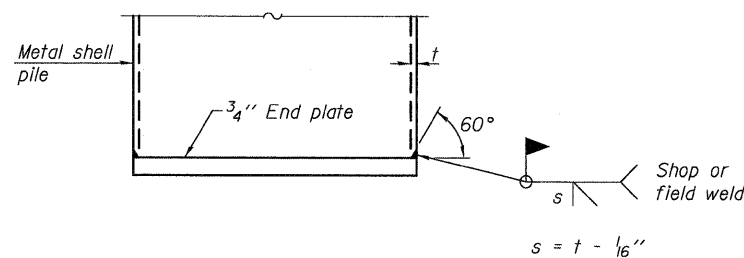
ELEVATION



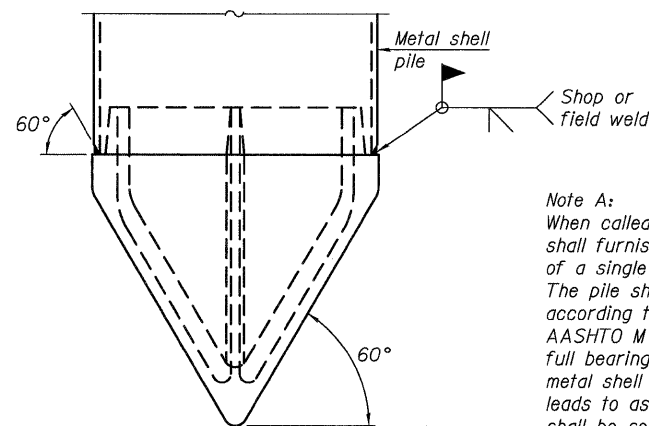
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



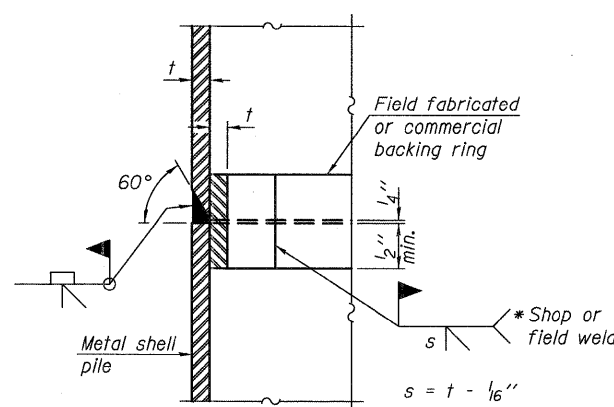
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

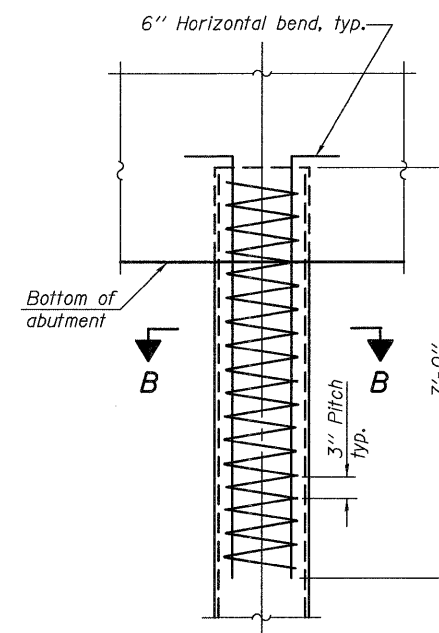
(See Note A)

Note A:
 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.

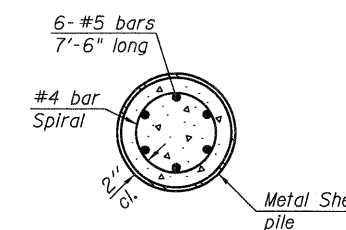


COMPLETE PENETRATION WELD SPLICE

* 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

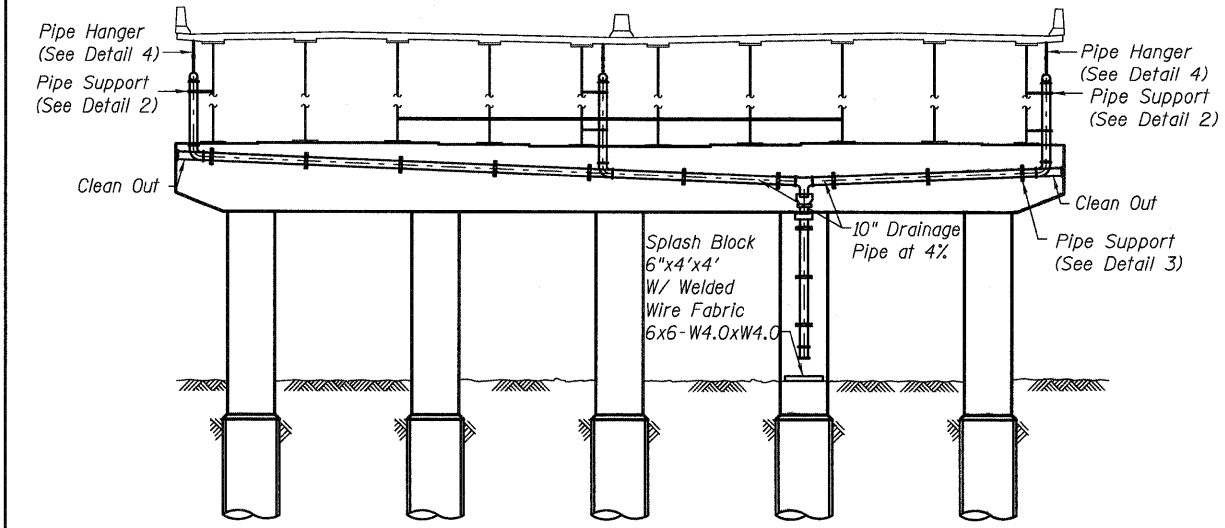
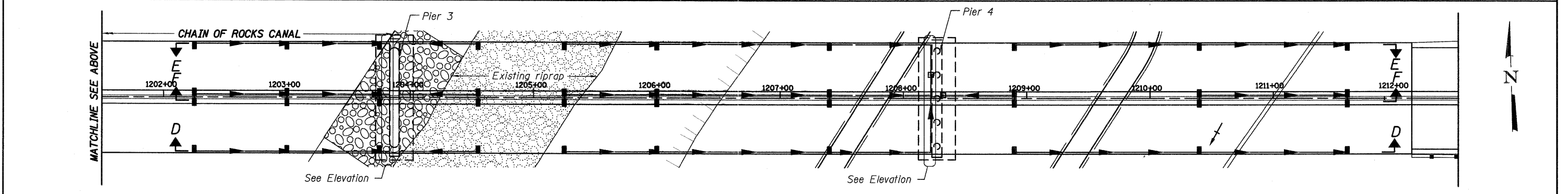
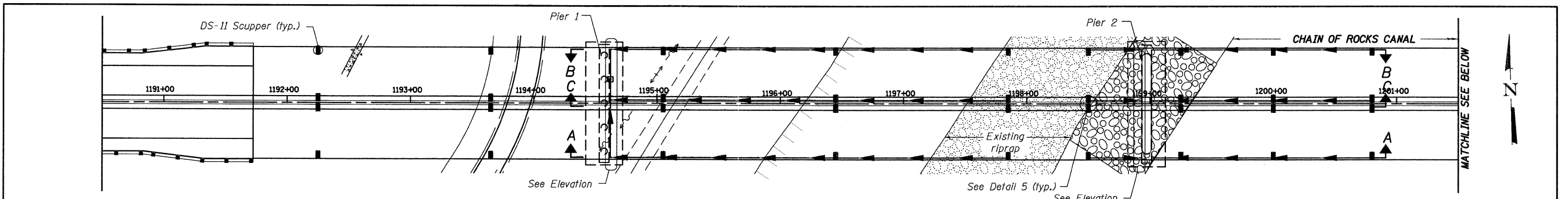
METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

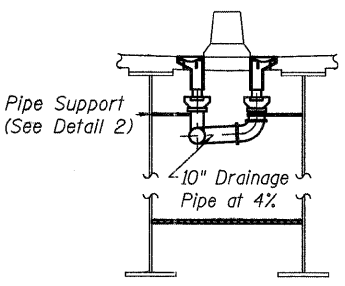
F-MS 7-1-10

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McDonough Associates Inc. Engineers / Architects 130 East Randolph Street, Chicago, Illinois 60601	PLOT SCALE = NONE	CHECKED - JCE	REVISED -			270	60-1B-1	MADISON	712	479
	PLOT DATE = 3/18/11	DRAWN - RJ	REVISED -			CONTRACT NO. 76A91				
		CHECKED - JCE	REVISED -			ILLINOIS FED. AID PROJECT				

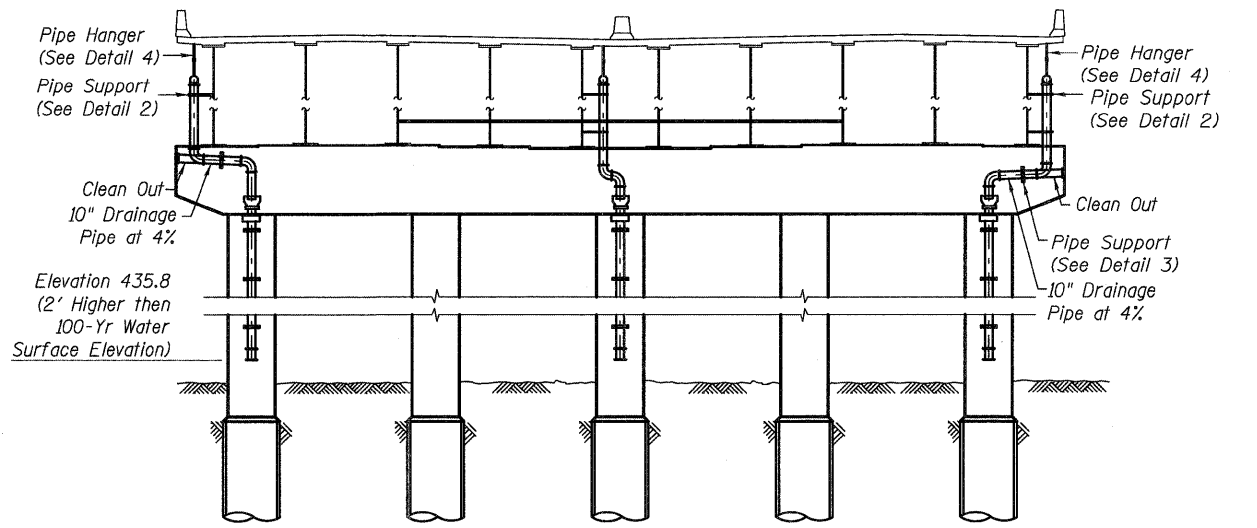
BRIDGE SHEET NO. 100 OF 133 SHEETS



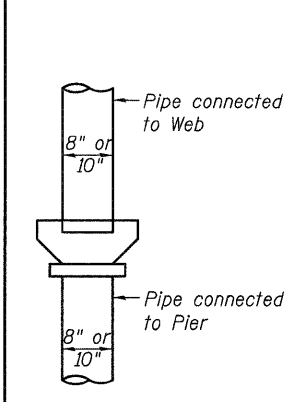
**ELEVATION
PIER 1 (LOOKING WEST)
PIER 4 (LOOKING EAST)**



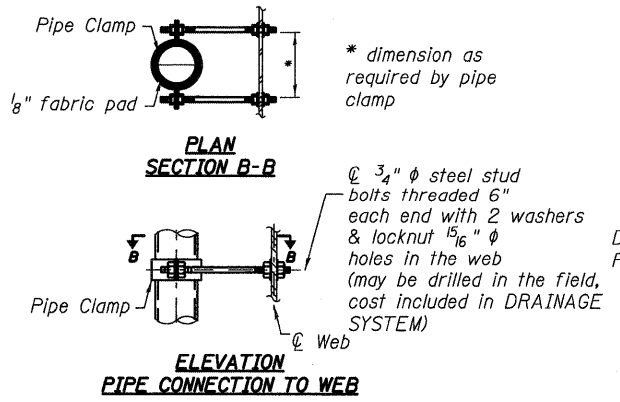
DETAIL 5



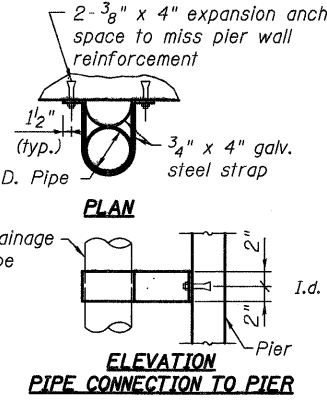
**ELEVATION
PIER 2 (LOOKING EAST)
PIER 3 (LOOKING EAST)**



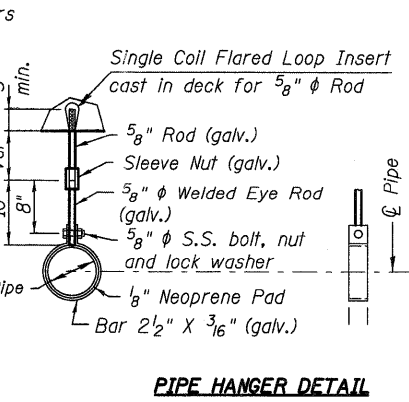
DETAIL 1



DETAIL 2



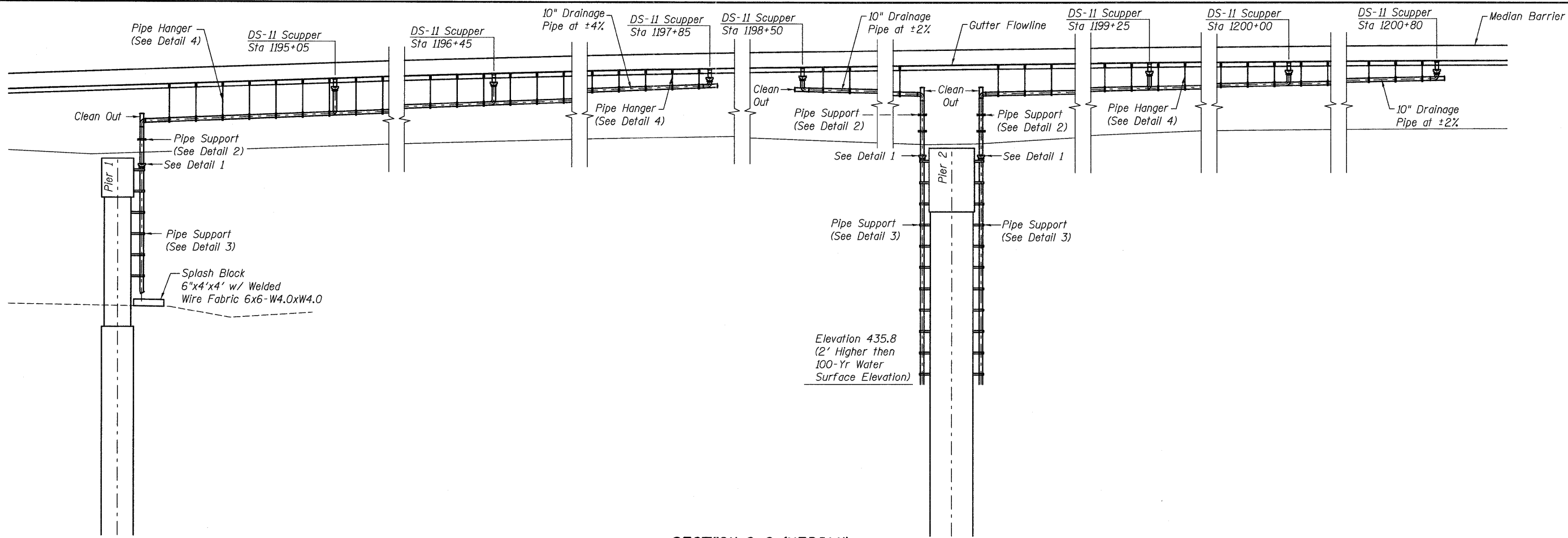
DETAIL 3



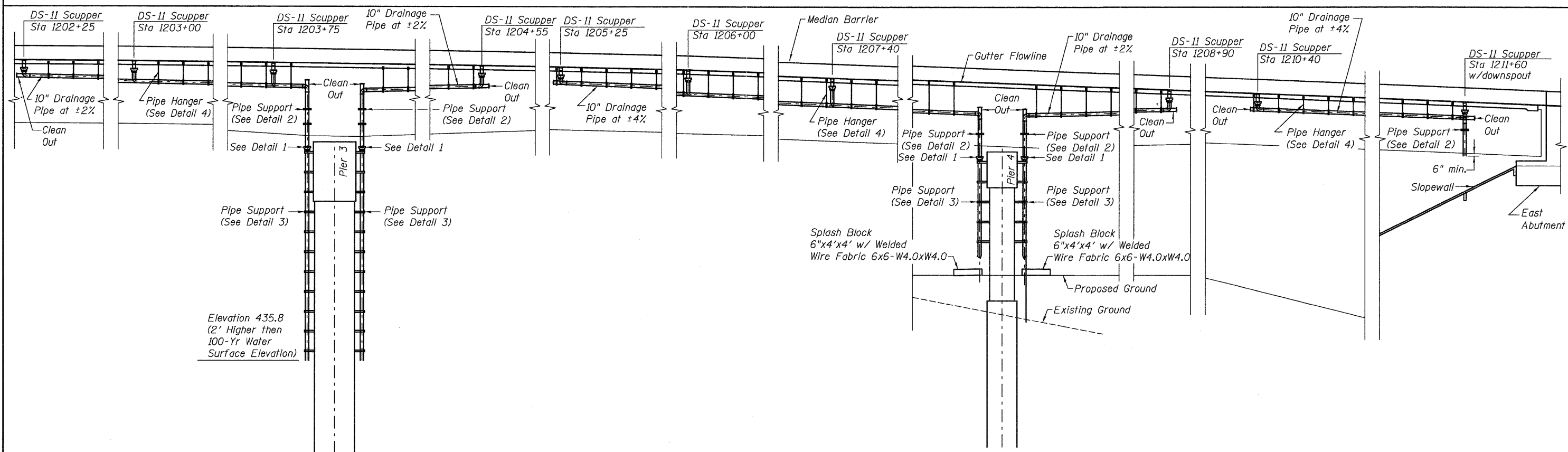
DETAIL 4

DRAINAGE SCUPPERS, DS-11

STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET
1192+25	1.1 LT	1197+85	1.1 RT	1202+25	1.1 LT	1205+25	1.1 RT	1211+60	1.1 LT
1192+25	45.5 LT	1197+85	45.5 RT	1202+25	45.5 LT	1205+25	45.5 RT	1211+60	45.5 LT
1192+25	1.1 RT	1198+50	1.1 LT	1202+25	1.1 RT	1206+00	1.1 LT	1211+60	1.1 RT
1192+25	45.5 RT	1198+50	45.5 LT	1202+25	45.5 RT	1206+00	45.5 LT	1211+60	45.5 RT
1193+65	1.1 LT	1198+50	1.1 RT	1203+00	1.1 LT	1206+00	1.1 RT		
1193+65	45.5 LT	1198+50	45.5 RT	1203+00	45.5 LT	1206+00	45.5 RT		
1193+65	1.1 RT	1199+25	1.1 LT	1203+00	1.1 RT	1207+40	1.1 LT		
1193+65	45.5 RT	1199+25	45.5 LT	1203+00	45.5 RT	1207+40	45.5 LT		
1195+05	1.1 LT	1199+25	1.1 RT	1203+75	1.1 LT	1207+40	1.1 RT		
1195+05	45.5 LT	1199+25	45.5 RT	1203+75	45.5 LT	1207+40	45.5 RT		
1195+05	1.1 RT	1200+00	1.1 LT	1203+75	1.1 RT	1208+90	1.1 LT		
1195+05	45.5 RT	1200+00	45.5 LT	1203+75	45.5 RT	1208+90	45.5 LT		
1196+45	1.1 LT	1200+00	1.1 RT	1204+55	1.1 LT	1208+90	1.1 RT		
1196+45	45.5 LT	1200+00	45.5 RT	1204+55	45.5 LT	1208+90	45.5 RT		
1196+45	1.1 RT	1200+80	1.1 LT	1204+55	1.1 RT	1210+40	1.1 LT		
1196+45	45.5 RT	1200+80	45.5 LT	1204+55	45.5 RT	1210+40	45.5 LT		
1197+85	1.1 LT	1200+80	1.1 RT	1205+25	1.1 LT	1210+40	1.1 RT		
1197+85	45.5 LT	1200+80	45.5 RT	1205+25	45.5 LT	1210+40	45.5 RT		

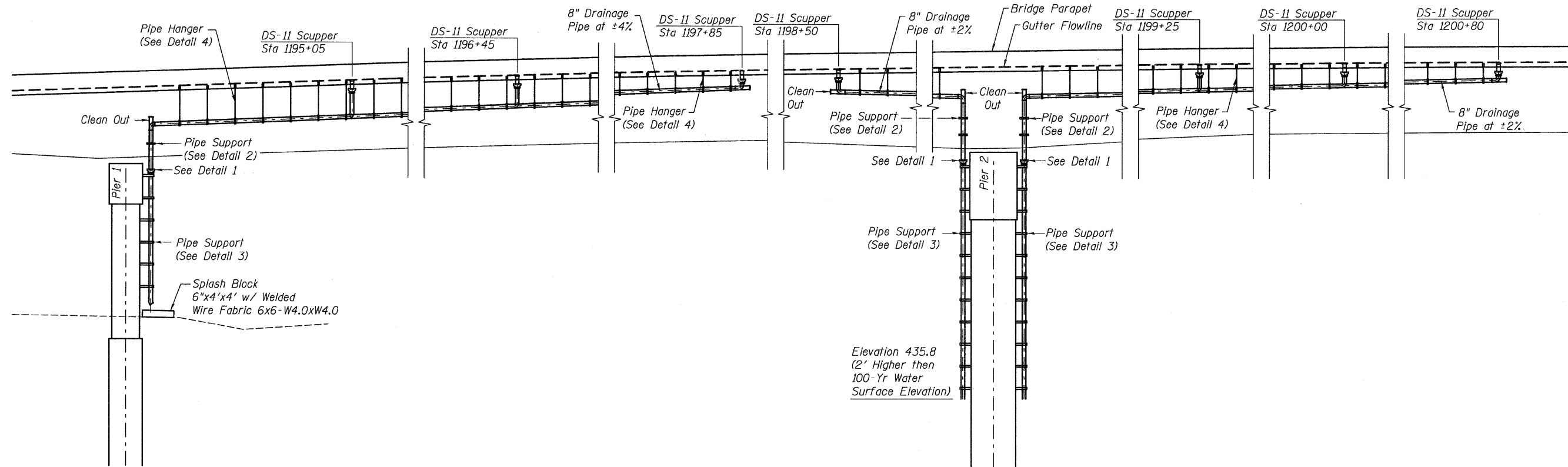


SECTION C-C (MEDIAN)

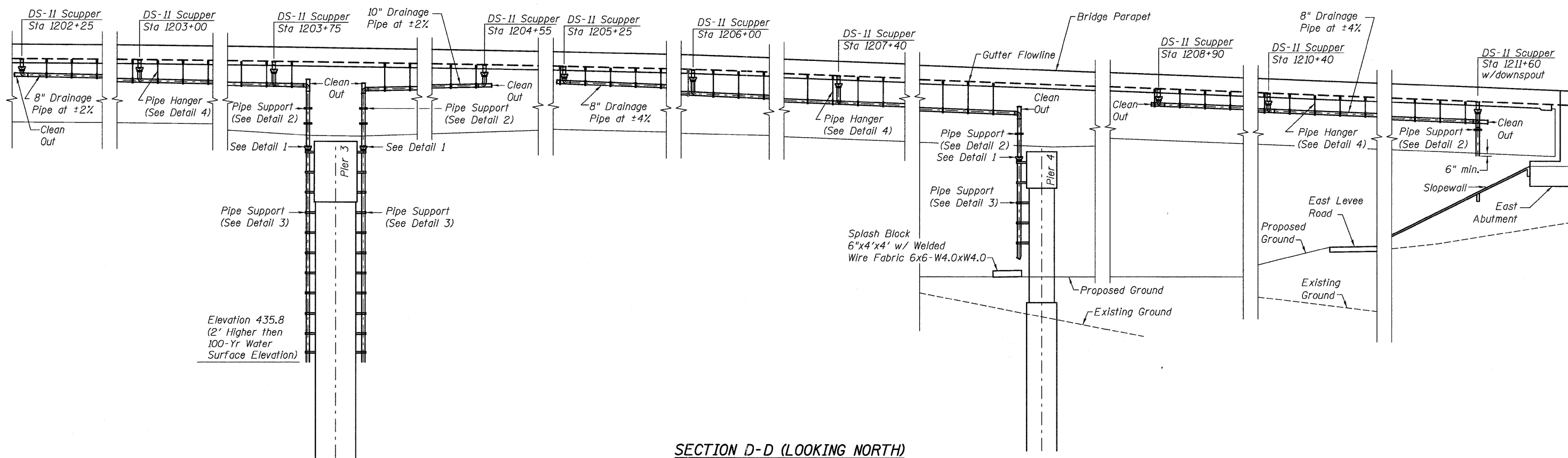


SECTION F-F (MEDIAN)

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED <i>JMK</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRAINAGE SYSTEM DETAILS STRUCTURE NO. 060-0345	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
McDonough Associates Inc. Engineers / Architects 180 East Randolph Street Chicago, Illinois 60601	PLOT SCALE = #SCALE#	CHECKED <i>JWM</i>	REVISED -			270	60-1B-1	MADISON	712	481	
	PLOT DATE = 3/15/2011	DRAWN <i>JMK</i>	REVISED -			CONTRACT NO. 76A91					
		CHECKED <i>JWM</i>	REVISED -			ILLINOIS FED. AID PROJECT					



SECTION A-A (LOOKING NORTH)
SECTION B-B (LOOKING SOUTH)



SECTION D-D (LOOKING NORTH)
SECTION E-E (LOOKING SOUTH)

FILE NAME = #FILE#

USER NAME = #USER#

DESIGNED -

REVISED -



PLOT SCALE = #SCALE#

CHECKED -

REVISED -

PLOT DATE = 3/15/2011

DRAWN -

REVISED -

CHECKED -

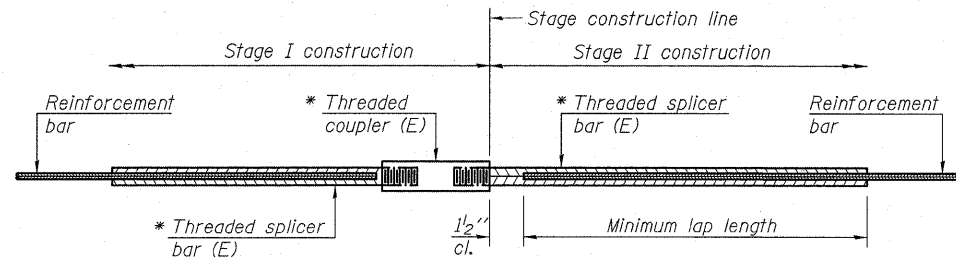
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM DETAILS
STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 103 OF 133 SHEETS

F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	482
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

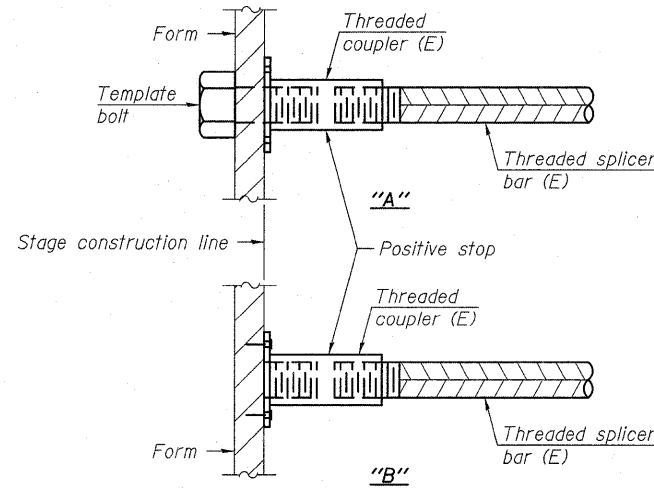
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

Threaded splicer bar length = min. lap length + 1/2" + thread length

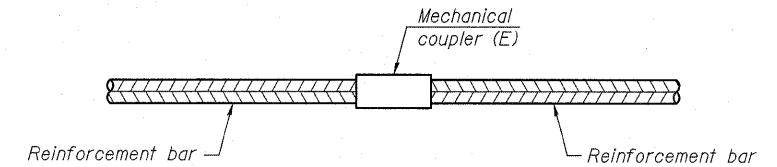
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

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



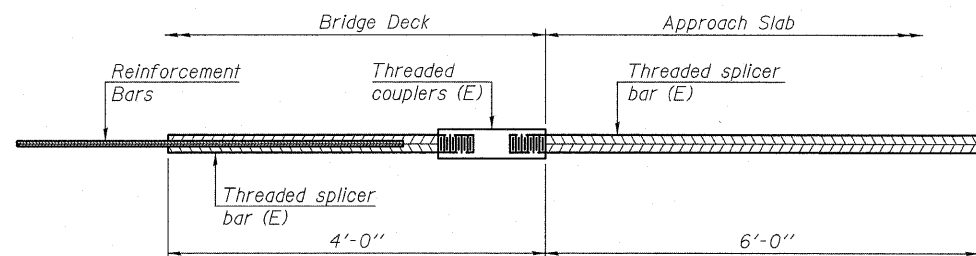
INSTALLATION AND SETTING METHODS

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



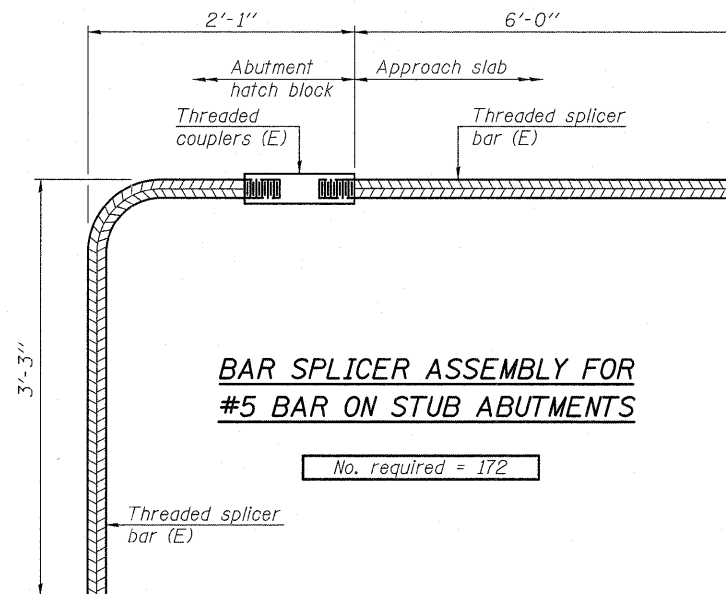
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1	#11	160
Pier 2	#8	424
Pier 2	#11	672
Pier 3	#8	424
Pier 3	#11	672
Pier 4	#11	160



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

No. required = N/A



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 172

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 special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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 jmtigus
 5/2/2011 9:30:39 AM

BSD-1

11-1-09



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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 104 OF 133 SHEETS

F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 483
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



ROCK CORE LOG

Page 1 of 2 Date 3/2/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline DEPTH (ft) CORE (#) R.Q. (%) R.D. (%) CORE TIME (min/ft) STRENGTH (tsf)

Table with columns for Depth, Core, R.Q., R.D., Core Time, and Strength. Includes entries for Limestone and Shale with RMR ratings.

Color pictures of the cores Yes Cores will be stored for examination until 2012 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Page 2 of 2 Date 3/2/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline DEPTH (ft) CORE (#) R.Q. (%) R.D. (%) CORE TIME (min/ft) STRENGTH (tsf)

Table with columns for Depth, Core, R.Q., R.D., Core Time, and Strength. Includes entries for Limestone and Shale with RMR ratings.

Color pictures of the cores Yes Cores will be stored for examination until 2012 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, form 138 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 3 Date 3/9/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 060-0345 DEPTH (ft) BULGE (in) U-TURN (ft) M-O-I-S Qu T Surface Water Elev. Stream Bed Elev. Groundwater Elev. First Encounter Upon Completion After Hrs.

Table with columns for Depth, Soil Description, and Strength. Includes entries for Brown Fine SAND, Trace Gravel and Gray Fine-Medium SAND.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-99)

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3/15/2011 5:05:25 PM



Table with columns for USER NAME, FILE NAME, PLOT SCALE, PLOT DATE, DESIGNED, CHECKED, DRAWN, and REVISED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 106 OF 133 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., and ILLINOIS FED. AID PROJECT.



SOIL BORING LOG

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	DEPTH TWS	BLOW COUNT Qu	UCS TEST	M O I S T U R E	Surface Water Elev. Stream Bed Elev.	DEPTH TWS	BLOW COUNT Qu	UCS TEST	M O I S T U R E
060-0345 B-2 (NW Canal) 1198+89.25 33.73R RT 395.4	7				403.0				
	3								
353.39									
348.39									
343.39									
323.39									
300.39									
-80									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	DEPTH TWS	BLOW COUNT Qu	UCS TEST	M O I S T U R E	Surface Water Elev. Stream Bed Elev.	DEPTH TWS	BLOW COUNT Qu	UCS TEST	M O I S T U R E
060-0345 B-2 (NW Canal) 1198+89.25 33.73R RT 395.4					403.0				
300.39									
-85									
-95									
-100									
-110									
-120									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



ROCK CORE LOG

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. Station	CORING BARREL TYPE & SIZE NX Wireline	DEPTH TWS	CORRECTION REMARKS	CORRECTION REMARKS	CORRECTION REMARKS	CORRECTION REMARKS	CORE TIME ELEV.	S T R E N G T H
060-0345 B-2 (NW Canal) 1198+89.25 33.73R RT 395.4	1.9 in	300.39						
1153.4	LIMESTONE: Gray, Hard very finely Crystalline, medium bedded, wavy sloping veins of calcite, throughout slightly jointed							
1127.5	SILTSTONE: Blue Gray, Interbedded, Trace wavy veins & Chert nodules							
1140.5	LIMESTONE: Gray, Finely Crystalline with interbedded Blue Gray SILTSTONE & banded chert @ top and bottom of the run							

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, from 138 (Rev. 8-99)

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 jmgus

3/15/2011 5:05:30 PM



USER NAME = jmgus	DESIGNED - BWC	REVISED -
FILE NAME = 0600345-76A91-107-SBL.DGN	CHECKED - LGP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
 STRUCTURE NO. 060-0345**
 BRIDGE SHEET NO. 107 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	486
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

ROCK CORE LOG

Page 2 of 2

Date 3/9/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
Station _____ Core Diameter 1.9 in
BORING NO. B-2 (NW Canal) Core Diameter 1.9 in
Station 1198+89.25 Top of Rock Elev. 300.39 ft
Offset 33.73ft RT Begin Core Elev. 300.39 ft
Ground Surface Elev. 395.4 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	QUANTITY (%)	TIME (min/ft)	STRENGTH (tsf)
-120	4	93	94	5	1048.3
-125					
-130					
-135					

LIMESTONE: Gray, Finely Crystalline, Trace SILTSTONE band, Trace chert nodules
Core Run 4 - RMR Rating 85 : I-Very Good Quality Rock Mass
Terminated @ 30.32 ft into Bedrock @ EL. 270.07

Color pictures of the cores Yes
Cores will be stored for examination until 2012
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Page 1 of 3

Date 3/16/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 060-0345
Station _____
BORING NO. B-3 (NE Canal)
Station 1203+80.97
Offset 15.08ft RT
Ground Surface Elev. 396.4 ft

DEPTH (ft)	BL (ft)	LC (ft)	UC (tsf)	MOISTURE (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter Upon Completion After Hrs.	DEPTH (ft)	BL (ft)	UC (tsf)	MOISTURE (%)
0					415.7				11			
4									5			
1									12			
1									13			
392.44												
-120	8								5			
-125	9								12			
-130	8								12			
390.94												
369.94									6			
368.44									10			
368.44									21			
387.44									5			
-125	4								6			
-130	7								7			
-135	5								7			
385.94												
382.44												
-130	3								9			
-135	3								16			
380.94									26			
359.94												
378.44												
-135	6								11			
	4								7			
	10								8			
	16								12			
	13								16			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
Kaskaskia Engineering Group

SOIL BORING LOG

Page 2 of 3

Date 3/16/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 060-0345
Station _____
BORING NO. B-3 (NE Canal)
Station 1203+80.97
Offset 15.08ft RT
Ground Surface Elev. 396.4 ft

DEPTH (ft)	BL (ft)	LC (ft)	UC (tsf)	MOISTURE (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter Upon Completion After Hrs.	DEPTH (ft)	BL (ft)	UC (tsf)	MOISTURE (%)
0					415.7				11			
4									5			
1									12			
1									13			
392.44												
-120	8								5			
-125	9								12			
-130	8								12			
390.94												
369.94									6			
368.44									10			
368.44									21			
387.44									5			
-125	4								6			
-130	7								7			
-135	5								7			
385.94												
382.44												
-130	3								9			
-135	3								16			
380.94									26			
359.94												
378.44												
-135	6								11			
	4								7			
	10								8			
	16								12			
	13								16			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

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USER NAME = jimigus	DESIGNED - BWC	REVISED -
FILE NAME = 0600345-76A91-108-SBL.DGN	CHECKED - LGP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 108 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	487
CONTRACT NO. 76A91				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Date 3/16/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 060-0345
 Station 1203+80.97
 BORING NO. B-3 (NE Canal)
 Station 1203+80.97
 Offset 15.08ft RT
 Ground Surface Elev. 396.4 ft

DEPTH (ft)	BLOWS (/6")	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0				Surface Water Elev. 415.7 ft Stream Bed Elev. _____ ft
				Groundwater Elev.: First Encounter N/A ft Upon Completion N/A ft After _____ Hrs. _____ ft
0 to 308.44				Brown Silty GRAVEL, With Sand
308.44	50/4"			Large Gravel and Cobbles
298.44				Borehole continued with rock coring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



ROCK CORE LOG

Date 3/16/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
 Station 1203+80.97
 BORING NO. B-3 (NE Canal)
 Station 1203+80.97
 Offset 15.08ft RT
 Ground Surface Elev. 396.4 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	Q-D (%)	CORE TIME (min/ft)	STRENGTH (tsf)	DESCRIPTION
298.44	1	62	42	5	752.4	GRANITE/LIMESTONE: Cobble pieces, Gravel Water clear @ first 1 ft Run. Core Run 1 - RMR Rating 70 : II - Good Quality Rock Mass
-100						
	2	99	96	3	1024.6	LIMESTONE: Light Gray, Hard, finely Crystalline with blue gray SHALEY CLAY seams with wavy calcite veins Core Run 2 - RMR Rating 85 : I - Very Good Quality Rock Mass
-105						
	3	100	100	5	694.1	LIMESTONE: Light Gray, Hard, finely Crystalline, medium bedded moderately jointed, trace Chert nodules, Trace Blue Gray SILTSTONE, Interbedded some vertical joints Core Run 3 - RMR Rating 80 : I - Very Good Quality Rock Mass
-110						
	4	97	97	3		LIMESTONE: Light Gray, with Chert, Trace SILTSTONE
-115						

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Date 3/16/09

ROUTE FAI-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION 60-1B-1 LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
 Station 1203+80.97
 BORING NO. B-3 (NE Canal)
 Station 1203+80.97
 Offset 15.08ft RT
 Ground Surface Elev. 396.4 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	Q-D (%)	CORE TIME (min/ft)	STRENGTH (tsf)	DESCRIPTION
-120						Core Run 4 - RMR Rating 80 : I - Very Good Quality Rock Mass
-125						
-130						Terminated @ 126.8 ft @ EL. 269.58
-135						

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)

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FILE NAME = 0600345-76A91-109-SBL.DGN	CHECKED - LGP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 109 OF 133 SHEETS

F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 488
			CONTRACT NO. 76A91	
ILLINOIS FED. AID PROJECT				



ROCK CORE LOG

Date 11/30/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY NEB
SECTION Bridge over Chain of Rocks Canal LOCATION SEC.29, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
Station _____ Core Diameter 1.9 in
BORING NO. B-5 Top of Rock Elev. 294.94 ft
Station 1211+85.82 Begin Core Elev. 294.94 ft
Offset 17.07R RT
Ground Surface Elev. 448.4 ft

DEPTH (ft)	RECOVERY (%)	Q-D (%)	CORE TIME (min/ft)	STRENGTH (tsf)
294.94	1	63	15	
-158				288.7
289.94	2	92	84	10
-180				
-165				719.3
280.34	3	96	67	6
-170				

Color pictures of the cores Yes
Cores will be stored for examination until 2012
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Date 11/30/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY NEB
SECTION Bridge over Chain of Rocks Canal LOCATION SEC.29, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
Station _____ Core Diameter 1.9 in
BORING NO. B-5 Top of Rock Elev. 294.94 ft
Station 1211+85.82 Begin Core Elev. 294.94 ft
Offset 17.07R RT
Ground Surface Elev. 448.4 ft

DEPTH (ft)	RECOVERY (%)	Q-D (%)	CORE TIME (min/ft)	STRENGTH (tsf)
272.34				939.6
271.64				
270.24	4	98	91	6
-180				
-165				899.3
260.44				
-190				

Color pictures of the cores Yes
Cores will be stored for examination until 2012
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



SOIL BORING LOG

Date 11/29/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
SECTION Bridge over Chain of Rocks Canal LOCATION SEC.29, TWP. 4N, RNG. 9W, PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 060-0345
Station _____
BORING NO. B-6
Station 1211+80.74
Offset 20.39R LT
Ground Surface Elev. 440.0 ft

DEPTH (ft)	BLOWS (6")	U.S. QUANTITY	MOISTURE (%)	SOIL DESCRIPTION	DEPTH (ft)	BLOWS (6")	U.S. QUANTITY	MOISTURE (%)
438.98				Brown Fine SAND, trace Silt (continued)	418.98			
3				Brown, Fine SAND, with Silt	6			
4	16			Brown-gray SILTY SAND Sand=66%, Silt/CL=34%, Gravel=0%	7			29
4					6			
436.48				Gray-brown Lean CLAY, trace Sand	416.48			
3					2			28
7	10				2			4
-5					-25			
433.98				Brown CLAYEY SAND	413.98			
2					1			
6	14			Brown SANDY SILT	2			29
7					4			
431.48				Brown Fine SAND, with Silt	411.48			
2					1			
6					1			31
-10					2			
428.98				Brown Fine SAND, trace Clay				
3								
9								
13								
426.48				Gray-brown Fine SAND, with Silt	406.48			
					3			
-15					1			31
5					2			
9								
423.98				Sand=89%, Silt/CL=11%, Gravel=0%				
5								
11								
13								
421.48				Brown Fine SAND, trace Silt	401.48			
5					8			
10					8			
-20					7			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Budge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 113 OF 133 SHEETS

F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	492
CONTRACT NO. 76A91			ILLINOIS FED. AID PROJECT	



ROCK CORE LOG

Date 11/29/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION Bridge over Chain of Rocks Canal LOCATION SEC.29, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
Station 060-0345
BORING NO. B-6 Core Diameter 1.9 in
Station 1211+80.74 Top of Rock Elev. 296.48 ft
Offset 20.39ft LT Begin Core Elev. 296.48 ft
Ground Surface Elev. 440.0 ft

Table with columns: DEPTH (ft), CORING METHOD, RECOVERY (%), RQD (%), CORE LENGTH (min/ft), STRENGTH (tsf). Rows include Limestone and Shale descriptions with corresponding depth and strength data.

Color pictures of the cores Yes
Cores will be stored for examination until 2012
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Date 11/29/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION Bridge over Chain of Rocks Canal LOCATION SEC.29, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
Station 060-0345
BORING NO. B-6 Core Diameter 1.9 in
Station 1211+80.74 Top of Rock Elev. 296.48 ft
Offset 20.39ft LT Begin Core Elev. 296.48 ft
Ground Surface Elev. 440.0 ft

Table with columns: DEPTH (ft), CORING METHOD, RECOVERY (%), RQD (%), CORE LENGTH (min/ft), STRENGTH (tsf). Rows include Limestone and Shale descriptions with corresponding depth and strength data.

Color pictures of the cores Yes
Cores will be stored for examination until 2012
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



SOIL BORING LOG

Date 10/2/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 060-0345
Station 060-0345
BORING NO. B-7
Station 1208+27.25
Offset 23.52ft LT
Ground Surface Elev. 440.4 ft

Table with columns: DEPTH (ft), BULGE, UCS, M-O-I-S-T, and various soil descriptions like Brown Silty Clay, Brown Fine Sand, etc.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, form 137 (Rev. 8-99)

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Table with columns: USER NAME, FILE NAME, PLOT SCALE, PLOT DATE, DESIGNED, CHECKED, DRAWN, CHECKED, REVISED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 060-0345

Table with columns: F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

BRIDGE SHEET NO. 115 OF 133 SHEETS

ILLINOIS FED. AID PROJECT



ROCK CORE LOG

Page 1 of 1

Date 10/2/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM

SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
 Station _____ Core Diameter 1.9 in
 BORING NO. B-7A Top of Rock Elev. 298.18 ft
 Station 1208+37.25 Begin Core Elev. 295.88 ft
 Offset 23.5 ft LT
 Ground Surface Elev. 437.7 ft

DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	QUALITY (%)	CORE TIME (min/ft)	STRENGTH (tsf)
1	100	80	3		418.3
LIMESTONE: Gray Finely Crystalline, Thick bedded, trace seams					
Boring terminated due to loss of core barrel					

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Page 1 of 2

Date 11/29/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY NEB

SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
 Station _____ Core Diameter 1.9 in
 BORING NO. B-7C Top of Rock Elev. 298.58 ft
 Station 1208+14.26 Begin Core Elev. 298.08 ft
 Offset 40.74 ft LT
 Ground Surface Elev. 445.1 ft

DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	QUALITY (%)	CORE TIME (min/ft)	STRENGTH (tsf)
297.58	1	60	15		
LIMESTONE: Light gray, Finely Crystalline, trace seams, Banded					
SHALEY LIMESTONE: Gray, Finely Crystalline, trace seams, Thin bedded					
295.86	2	100	71	8	496.8
LIMESTONE: Light gray, Finely Crystalline, trace seams, Massive bedded					
Core Run 2- RMR Rating 70 : II - Good Quality Rock Mass					
292.08					
291.83					
SHALEY LIMESTONE: Gray, Finely Crystalline, trace seams, Thin bedded					
LIMESTONE: Light gray, Finely Crystalline, trace seams, Thick bedded					
288.86	3	100	89	5	
SHALE: Gray, Soft, Thin bedded					
287.50					
284.91					781.2
LIMESTONE: Light gray, Finely Crystalline, trace seams, Massive bedded					
Core Run 3- RMR Rating 77 : II - Good Quality Rock Mass					
280.08	4	100	83	5	
LIMESTONE: Light gray, Finely Crystalline, trace seams, Massive bedded					
Core Run 4- RMR Rating 70 : II - Good Quality Rock Mass					

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Page 2 of 2

Date 11/29/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY NEB

SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM

COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO. 060-0345 CORING BARREL TYPE & SIZE NX Wireline
 Station _____ Core Diameter 1.9 in
 BORING NO. B-7C Top of Rock Elev. 298.58 ft
 Station 1208+14.26 Begin Core Elev. 298.08 ft
 Offset 40.74 ft LT
 Ground Surface Elev. 445.1 ft

DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	QUALITY (%)	CORE TIME (min/ft)	STRENGTH (tsf)
276.58	5	100	97	5	190.1
LIMESTONE: Light gray, Finely Crystalline, trace seams, Massive bedded (continued)					
LIMESTONE: Light gray, Finely Crystalline, trace seams, Massive bedded					
Core Run 5- RMR Rating 80 : II - Good Quality Rock Mass					
266.58					859.7

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)

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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 060-0345
 BRIDGE SHEET NO. 117 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	496
				CONTRACT NO. 76A91
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

Page 1 of 4

Date 9/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPT	BLOCS	MOST	Surface Water Elev.	DEPT	BLOCS	MOST
Station	H	S	T	ft	H	S	T
060-0345							
B-8							
1208+30.75				412.4			
42.65ft RT				N/A			
431.4				N/A			
TOPSOIL							
494.15							
Brown-gray Fine SAND, trace Silty Clay							
4							
4							
4							
3							
4							
4							
4							
5							
6							
422.40							
Brown-gray Fine SAND, with Silty Clay							
3							
7							
14							
419.90							
Brown Fine SAND, trace Silt							
6							
15							
16							
5							
11							
14							
397.40							
Gray Fine SAND							
6							
6							
9							
4							
7							
8							
392.40							
Brown Fine SAND, Trace Silt							
3							
6							
6							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 4

Date 9/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPT	BLOCS	MOST	Surface Water Elev.	DEPT	BLOCS	MOST
Station	H	S	T	ft	H	S	T
060-0345							
B-8							
1208+30.75				412.4			
42.65ft RT				N/A			
431.4				N/A			
Brown Fine SAND, Trace Silt and Gravel							
13							
13							
11							
9							
7							
387.40							
Brown Fine SAND							
11							
9							
7							
10							
13							
13							
352.40							
Brown Fine to Coarse SAND							
8							
9							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 3 of 4

Date 9/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPT	BLOCS	MOST	Surface Water Elev.	DEPT	BLOCS	MOST
Station	H	S	T	ft	H	S	T
060-0345							
B-8							
1208+30.75				412.4			
42.65ft RT				N/A			
431.4				N/A			
Brown Fine to Coarse SAND (continued)							
5							
13							
14							
15							
18							
20							
342.40							
Brown-Gray, Fine to Coarse SAND, trace Gravel							
7							
13							
20							
19							
23							
32							
-with Gravel and Cobbles							
312.40							
Gray Fine SAND							
50/5"							
9							
9							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

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PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 118 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	497
CONTRACT NO. 76A91			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

Date 9/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	BLU (in)	UCS (tsf)	MOS (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (Hrs)
060-0345		B-8	1208+30.75							412.4	N/A	N/A	
Gray Fine SAND (continued)													
- with Gravel and Cobbles													
302.40													
50/3"													
Gray-brown Fine Gravel													
- with Gravel and Cobbles													
298.67													
Highly weathered limestone													
Borehole continued with rock coring													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



ROCK CORE LOG

Date 9/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	CORING METHOD	RECOVERY (%)	Q (%)	D (%)	TIME (min/ft)	CORE LENGTH (tsf)
060-0345		B-8	1208+30.75		NX Wireline					
LIMESTONE: Gray Finely Crystalline, Thin bedded, Trace jointing										
Large piece of Cobble and some gravel										
293.80										
LIMESTONE: Gray Finely Crystalline, Thin bedded, Trace jointing										
LIMESTONE: Gray Finely Crystalline, Thin bedded, Trace jointing, Vuggy										
-140										
Core Run 2- RMR Rating 77 : II - Good Quality Rock Mass										
Becomes very Finely crystalline										
-145										
LIMESTONE: Gray Finely Crystalline, Thin bedded, Laminated blue-gray shale, vuggy										
283.80										
Core Run 3- RMR Rating 77 : II - Good Quality Rock Mass										
-150										

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Date 9/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	CORING METHOD	RECOVERY (%)	Q (%)	D (%)	TIME (min/ft)	CORE LENGTH (tsf)
060-0345		B-8	1208+30.75		NX Wireline					
LIMESTONE: Gray Finely Crystalline, Thin bedded, Laminated blue-gray shale, vuggy (continued)										
-155										
273.80										
LIMESTONE: Gray Finely Crystalline, Thin bedded, Interbedded siltstone, vuggy										
4 100 94 4										
-160										
Core Run 4- RMR Rating 77 : II - Good Quality Rock Mass										
266.50										
-165										
-170										

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)

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USER NAME = jmlgus	DESIGNED - BWC	REVISED -
FILE NAME = 0600345-76A91-119-SBL.DGN	CHECKED - LOP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
STRUCTURE NO. 060-0345**

BRIDGE SHEET NO. 119 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	498
CONTRACT NO. 76A91			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

Date 10/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	STATION	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	DESCRIPTION	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter Upon Completion (Hrs)	After (Hrs)
060-0345						Brown Medium SAND, trace Gravel (continued)					
		312.19	13			Brown Fine SAND					
		302.69	50/0"			Borehole continued with rock coring					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, form 137 (Rev. 8-99)



ROCK CORE LOG

Date 10/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	CORING METHOD	R.C.Q. (%)	R.Q.D. (%)	CORE DIAMETER (in)	STRENGTH (tsf)	DESCRIPTION
060-0345		B-9	1194+57.52		NX Wireline			1.9		LIMESTONE: Light gray, Finely Crystalline, Trace seams, Thick bedded (continued)
				288.92		100	87	302.69		Becomes vuggy
								302.19	447.8	Core Run 2- RMR Rating 77 : II - Good Quality Rock Mass
				291.92						SILTSTONE: Gray
				291.57						LIMESTONE: Light gray, Finely Crystalline, Trace seams, Thick bedded
				291.11						
				289.09		100	74		366.5	LIMESTONE: Light gray, Finely Crystalline, Trace seams and veins, Massive bedded
										Core Run 3- RMR Rating 74 : II - Good Quality Rock Mass

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Date 10/23/09

ROUTE I-270 DESCRIPTION Bridge over Chain of Rocks Canal LOGGED BY MDM
 SECTION Bridge over Chain of Rocks Canal LOCATION SEC.30, TWP. 4N, RNG. 9W, PM
 COUNTY Madison CORING METHOD Core Barrel

STRUCT. NO.	STATION	BORING NO.	STATION	DEPTH (ft)	CORING METHOD	R.C.Q. (%)	R.Q.D. (%)	CORE DIAMETER (in)	STRENGTH (tsf)	DESCRIPTION
060-0345		B-9	1194+57.52		NX Wireline			1.9		LIMESTONE: Light gray, Finely Crystalline, Trace seams and veins, Massive bedded (continued)
				276.99		100	88	302.69		
								302.19	359.3	Core Run 4- RMR Rating 82 : I - Very Good Quality Rock Mass
				272.24					1679.0	

Color pictures of the cores Yes
 Cores will be stored for examination until 2012
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)

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USER NAME = jmgus	DESIGNED - BWC	REVISED -
FILE NAME = 0600345-76A91-121-SBL.DGN	CHECKED - LGP	REVISED -
PLOT SCALE = NONE	DRAWN - JM	REVISED -
PLOT DATE = 3/18/2011	CHECKED - BSK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 060-0345

BRIDGE SHEET NO. 121 OF 133 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	500
CONTRACT NO. 76A91			ILLINOIS FED. AID PROJECT	