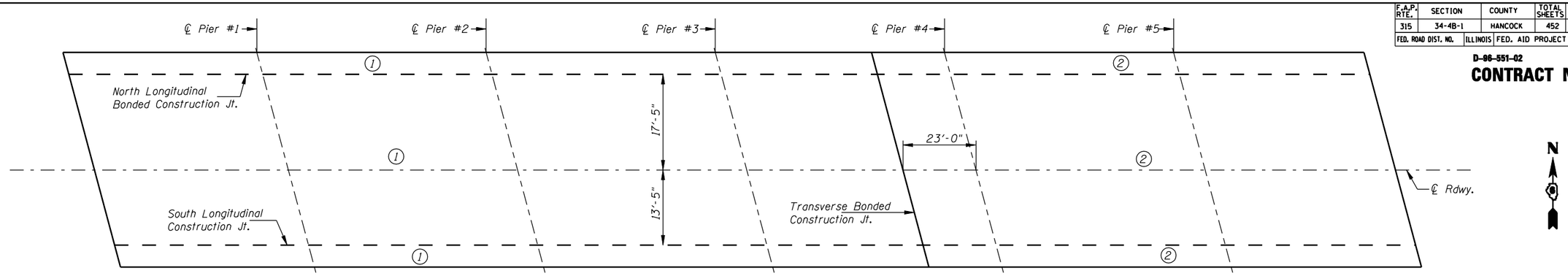
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	201
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

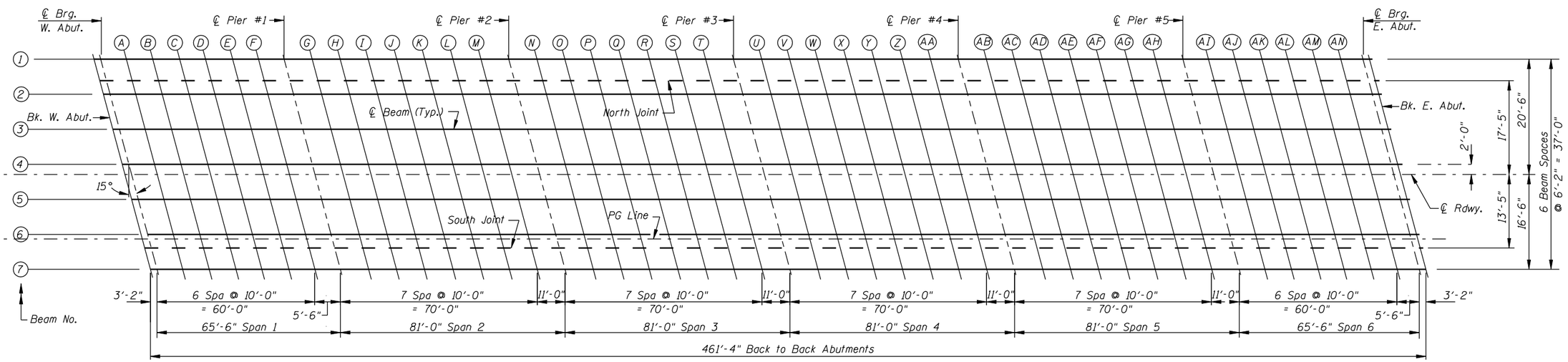


DECK POURING SEQUENCE

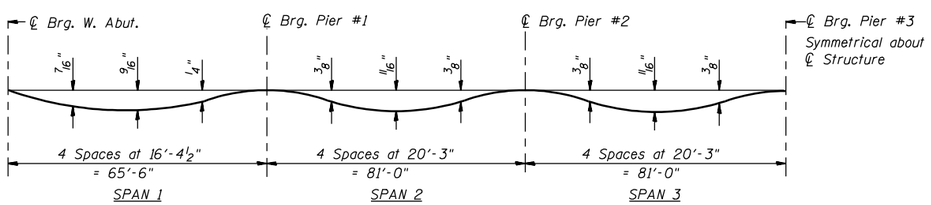
When the deck pour is stopped for the day at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met:

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

All construction joints shall be bonded.



PLAN (DECK ELEVATIONS)



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjused for dead load deflections as shown in the tables on sheets 4 thru 7 of 34.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "t" above top flanges of girders.

FILLET HEIGHTS

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

TOP OF SLAB ELEVATIONS & DECK POURING SEQUENCE
U.S. ROUTE 136 OVER LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: January 31, 2006

Lamoine/2173b203

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	*	HANCOCK	452	202
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

* 34-4B-1

SHEET NO. 4
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115068.352	-32.500	558.243	558.243
CL BRG WA	115071.512	-32.500	558.259	558.259
A	115081.512	-32.500	558.309	558.335
B	115091.512	-32.500	558.359	558.402
C	115101.512	-32.500	558.409	558.457
D	115111.512	-32.500	558.459	558.497
E	115121.512	-32.500	558.509	558.528
F	115131.512	-32.500	558.558	558.561
CL PIER 1	115137.012	-32.500	558.584	558.584
G	115147.012	-32.500	558.630	558.640
H	115157.012	-32.500	558.673	558.704
I	115167.012	-32.500	558.714	558.763
J	115177.012	-32.500	558.752	558.808
K	115187.012	-32.500	558.787	558.837
L	115197.012	-32.500	558.820	558.853
M	115207.012	-32.500	558.851	558.863
CL PIER 2	115218.012	-32.500	558.882	558.882
N	115228.012	-32.500	558.907	558.917
O	115238.012	-32.500	558.930	558.960
P	115248.012	-32.500	558.950	558.998
Q	115258.012	-32.500	558.968	559.023
R	115268.012	-32.500	558.983	559.032
S	115278.012	-32.500	558.996	559.028
T	115288.012	-32.500	559.006	559.018
CL PIER 3	115299.012	-32.500	559.015	559.015
U	115309.012	-32.500	559.020	559.030
V	115319.012	-32.500	559.023	559.052
W	115329.012	-32.500	559.023	559.070
X	115339.012	-32.500	559.020	559.075
Y	115349.012	-32.500	559.015	559.064
Z	115359.012	-32.500	559.008	559.040
AA	115369.012	-32.500	558.998	559.010
CL PIER 4	115380.012	-32.500	558.984	558.984
AB	115390.012	-32.500	558.969	558.979
AC	115400.012	-32.500	558.951	558.982
AD	115410.012	-32.500	558.931	558.980
AE	115420.012	-32.500	558.909	558.965
AF	115430.012	-32.500	558.883	558.934
AG	115440.012	-32.500	558.856	558.889
AH	115450.012	-32.500	558.825	558.838
CL PIER 5	115461.012	-32.500	558.789	558.789
AI	115471.012	-32.500	558.754	558.763
AJ	115481.012	-32.500	558.716	558.745
AK	115491.012	-32.500	558.676	558.720
AL	115501.012	-32.500	558.633	558.680
AM	115511.012	-32.500	558.587	558.624
AN	115521.012	-32.500	558.539	558.554
CL BRG EA	115526.512	-32.500	558.512	558.512
BK E. ABUT.	115529.682	-32.500	558.497	558.497

NORTH CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115069.178	-29.417	558.312	558.312
CL BRG WA	115072.338	-29.417	558.327	558.327
A	115082.338	-29.417	558.377	558.403
B	115092.338	-29.417	558.427	558.471
C	115102.338	-29.417	558.477	558.525
D	115112.338	-29.417	558.527	558.565
E	115122.338	-29.417	558.577	558.597
F	115132.338	-29.417	558.626	558.629
CL PIER 1	115137.838	-29.417	558.652	558.652
G	115147.838	-29.417	558.698	558.708
H	115157.838	-29.417	558.741	558.772
I	115167.838	-29.417	558.781	558.830
J	115177.838	-29.417	558.819	558.875
K	115187.838	-29.417	558.854	558.904
L	115197.838	-29.417	558.887	558.920
M	115207.838	-29.417	558.918	558.929
CL PIER 2	115218.838	-29.417	558.948	558.948
N	115228.838	-29.417	558.973	558.983
O	115238.838	-29.417	558.996	559.026
P	115248.838	-29.417	559.016	559.064
Q	115258.838	-29.417	559.034	559.089
R	115268.838	-29.417	559.049	559.098
S	115278.838	-29.417	559.061	559.093
T	115288.838	-29.417	559.071	559.083
CL PIER 3	115299.838	-29.417	559.080	559.080
U	115309.838	-29.417	559.085	559.094
V	115319.838	-29.417	559.087	559.117
W	115329.838	-29.417	559.087	559.134
X	115339.838	-29.417	559.084	559.139
Y	115349.838	-29.417	559.079	559.128
Z	115359.838	-29.417	559.071	559.103
AA	115369.838	-29.417	559.061	559.073
CL PIER 4	115380.838	-29.417	559.047	559.047
AB	115390.838	-29.417	559.032	559.042
AC	115400.838	-29.417	559.014	559.044
AD	115410.838	-29.417	558.994	559.042
AE	115420.838	-29.417	558.971	559.027
AF	115430.838	-29.417	558.945	558.996
AG	115440.838	-29.417	558.917	558.951
AH	115450.838	-29.417	558.887	558.899
CL PIER 5	115461.838	-29.417	558.851	558.851
AI	115471.838	-29.417	558.815	558.824
AJ	115481.838	-29.417	558.777	558.805
AK	115491.838	-29.417	558.736	558.780
AL	115501.838	-29.417	558.693	558.741
AM	115511.838	-29.417	558.648	558.685
AN	115521.838	-29.417	558.600	558.614
CL BRG EA	115527.338	-29.417	558.572	558.572
BK E. ABUT.	115530.508	-29.417	558.557	558.557

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115070.004	-26.333	558.380	558.380
CL BRG WA	115073.164	-26.333	558.396	558.396
A	115083.164	-26.333	558.446	558.471
B	115093.164	-26.333	558.496	558.539
C	115103.164	-26.333	558.546	558.593
D	115113.164	-26.333	558.596	558.634
E	115123.164	-26.333	558.646	558.665
F	115133.164	-26.333	558.695	558.697
CL PIER 1	115138.664	-26.333	558.720	558.720
G	115148.664	-26.333	558.766	558.776
H	115158.664	-26.333	558.808	558.839
I	115168.664	-26.333	558.848	558.897
J	115178.664	-26.333	558.886	558.942
K	115188.664	-26.333	558.921	558.971
L	115198.664	-26.333	558.954	558.987
M	115208.664	-26.333	558.984	558.996
CL PIER 2	115219.664	-26.333	559.014	559.014
N	115229.664	-26.333	559.039	559.049
O	115239.664	-26.333	559.062	559.092
P	115249.664	-26.333	559.082	559.129
Q	115259.664	-26.333	559.099	559.154
R	115269.664	-26.333	559.114	559.163
S	115279.664	-26.333	559.126	559.158
T	115289.664	-26.333	559.136	559.148
CL PIER 3	115300.664	-26.333	559.144	559.144
U	115310.664	-26.333	559.149	559.159
V	115320.664	-26.333	559.151	559.181
W	115330.664	-26.333	559.151	559.199
X	115340.664	-26.333	559.148	559.203
Y	115350.664	-26.333	559.143	559.192
Z	115360.664	-26.333	559.135	559.167
AA	115370.664	-26.333	559.125	559.136
CL PIER 4	115381.664	-26.333	559.110	559.110
AB	115391.664	-26.333	559.095	559.105
AC	115401.664	-26.333	559.077	559.107
AD	115411.664	-26.333	559.056	559.105
AE	115421.664	-26.333	559.033	559.089
AF	115431.664	-26.333	559.007	559.058
AG	115441.664	-26.333	558.979	559.012
AH	115451.664	-26.333	558.949	558.961
CL PIER 5	115462.664	-26.333	558.912	558.912
AI	115472.664	-26.333	558.876	558.886
AJ	115482.664	-26.333	558.838	558.866
AK	115492.664	-26.333	558.797	558.841
AL	115502.664	-26.333	558.754	558.802
AM	115512.664	-26.333	558.708	558.745
AN	115522.664	-26.333	558.660	558.674
CL BRG EA	115528.164	-26.333	558.632	558.632
BK E. ABUT.	115531.334	-26.333	558.617	558.617

TOP OF SLAB ELEVATIONS - W.B.L.
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev:

Date: January 31, 2006

2173b204

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	*	HANCOCK	452	203
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 5
34 SHEETS

* 34-4B-1

D-96-551-02

CONTRACT NO. 72680

BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115071.656	-20.167	558.497	558.497
CL BRG WA	115074.816	-20.167	558.512	558.512
A	115084.816	-20.167	558.562	558.588
B	115094.816	-20.167	558.612	558.656
C	115104.816	-20.167	558.662	558.710
D	115114.816	-20.167	558.712	558.750
E	115124.816	-20.167	558.762	558.782
F	115134.816	-20.167	558.811	558.814
CL PIER 1	115140.316	-20.167	558.837	558.837
G	115150.316	-20.167	558.881	558.892
H	115160.316	-20.167	558.924	558.955
I	115170.316	-20.167	558.963	559.012
J	115180.316	-20.167	559.001	559.057
K	115190.316	-20.167	559.035	559.085
L	115200.316	-20.167	559.068	559.100
M	115210.316	-20.167	559.097	559.109
CL PIER 2	115221.316	-20.167	559.127	559.127
N	115231.316	-20.167	559.152	559.161
O	115241.316	-20.167	559.174	559.204
P	115251.316	-20.167	559.193	559.241
Q	115261.316	-20.167	559.210	559.265
R	115271.316	-20.167	559.225	559.274
S	115281.316	-20.167	559.237	559.269
T	115291.316	-20.167	559.246	559.258
CL PIER 3	115302.316	-20.167	559.254	559.254
U	115312.316	-20.167	559.258	559.268
V	115322.316	-20.167	559.260	559.290
W	115332.316	-20.167	559.259	559.307
X	115342.316	-20.167	559.256	559.311
Y	115352.316	-20.167	559.250	559.299
Z	115362.316	-20.167	559.242	559.274
AA	115372.316	-20.167	559.231	559.243
CL PIER 4	115383.316	-20.167	559.216	559.216
AB	115393.316	-20.167	559.200	559.210
AC	115403.316	-20.167	559.182	559.212
AD	115413.316	-20.167	559.161	559.209
AE	115423.316	-20.167	559.137	559.194
AF	115433.316	-20.167	559.111	559.162
AG	115443.316	-20.167	559.083	559.116
AH	115453.316	-20.167	559.052	559.064
CL PIER 5	115464.316	-20.167	559.015	559.015
AI	115474.316	-20.167	558.979	558.988
AJ	115484.316	-20.167	558.940	558.968
AK	115494.316	-20.167	558.899	558.943
AL	115504.316	-20.167	558.855	558.903
AM	115514.316	-20.167	558.809	558.846
AN	115524.316	-20.167	558.760	558.775
CL BRG EA	115529.816	-20.167	558.732	558.732
BK E. ABUT.	115532.986	-20.167	558.717	558.717

BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115073.309	-14.000	558.602	558.602
CL BRG WA	115076.469	-14.000	558.617	558.617
A	115086.469	-14.000	558.667	558.693
B	115096.469	-14.000	558.717	558.760
C	115106.469	-14.000	558.767	558.815
D	115116.469	-14.000	558.817	558.855
E	115126.469	-14.000	558.867	558.886
F	115136.469	-14.000	558.915	558.918
CL PIER 1	115141.969	-14.000	558.941	558.941
G	115151.969	-14.000	558.985	558.995
H	115161.969	-14.000	559.027	559.058
I	115171.969	-14.000	559.066	559.115
J	115181.969	-14.000	559.103	559.159
K	115191.969	-14.000	559.137	559.187
L	115201.969	-14.000	559.169	559.202
M	115211.969	-14.000	559.198	559.210
CL PIER 2	115222.969	-14.000	559.228	559.228
N	115232.969	-14.000	559.252	559.262
O	115242.969	-14.000	559.274	559.303
P	115252.969	-14.000	559.293	559.340
Q	115262.969	-14.000	559.309	559.364
R	115272.969	-14.000	559.323	559.372
S	115282.969	-14.000	559.335	559.367
T	115292.969	-14.000	559.344	559.355
CL PIER 3	115303.969	-14.000	559.351	559.351
U	115313.969	-14.000	559.355	559.365
V	115323.969	-14.000	559.356	559.386
W	115333.969	-14.000	559.355	559.403
X	115343.969	-14.000	559.351	559.406
Y	115353.969	-14.000	559.345	559.394
Z	115363.969	-14.000	559.337	559.369
AA	115373.969	-14.000	559.325	559.337
CL PIER 4	115384.969	-14.000	559.310	559.310
AB	115394.969	-14.000	559.294	559.304
AC	115404.969	-14.000	559.275	559.305
AD	115414.969	-14.000	559.254	559.302
AE	115424.969	-14.000	559.230	559.286
AF	115434.969	-14.000	559.203	559.253
AG	115444.969	-14.000	559.174	559.207
AH	115454.969	-14.000	559.143	559.155
CL PIER 5	115465.969	-14.000	559.105	559.105
AI	115475.969	-14.000	559.069	559.078
AJ	115485.969	-14.000	559.030	559.058
AK	115495.969	-14.000	558.988	559.032
AL	115505.969	-14.000	558.944	558.992
AM	115515.969	-14.000	558.897	558.934
AN	115525.969	-14.000	558.848	558.863
CL BRG EA	115531.469	-14.000	558.821	558.821
BK E. ABUT.	115534.639	-14.000	558.805	558.805

℄ ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115073.845	-12.000	558.635	558.635
CL BRG WA	115077.005	-12.000	558.651	558.651
A	115087.005	-12.000	558.701	558.727
B	115097.005	-12.000	558.751	558.794
C	115107.005	-12.000	558.801	558.849
D	115117.005	-12.000	558.851	558.889
E	115127.005	-12.000	558.901	558.920
F	115137.005	-12.000	558.949	558.952
CL PIER 1	115142.505	-12.000	558.974	558.974
G	115152.505	-12.000	559.018	559.029
H	115162.505	-12.000	559.060	559.091
I	115172.505	-12.000	559.099	559.148
J	115182.505	-12.000	559.136	559.192
K	115192.505	-12.000	559.170	559.220
L	115202.505	-12.000	559.202	559.235
M	115212.505	-12.000	559.231	559.243
CL PIER 2	115223.505	-12.000	559.260	559.260
N	115233.505	-12.000	559.284	559.294
O	115243.505	-12.000	559.306	559.336
P	115253.505	-12.000	559.325	559.373
Q	115263.505	-12.000	559.341	559.396
R	115273.505	-12.000	559.355	559.404
S	115283.505	-12.000	559.367	559.399
T	115293.505	-12.000	559.376	559.387
CL PIER 3	115304.505	-12.000	559.383	559.383
U	115314.505	-12.000	559.386	559.396
V	115324.505	-12.000	559.387	559.417
W	115334.505	-12.000	559.386	559.434
X	115344.505	-12.000	559.382	559.437
Y	115354.505	-12.000	559.376	559.425
Z	115364.505	-12.000	559.367	559.399
AA	115374.505	-12.000	559.356	559.368
CL PIER 4	115385.505	-12.000	559.341	559.341
AB	115395.505	-12.000	559.324	559.334
AC	115405.505	-12.000	559.305	559.336
AD	115415.505	-12.000	559.284	559.332
AE	115425.505	-12.000	559.260	559.316
AF	115435.505	-12.000	559.233	559.283
AG	115445.505	-12.000	559.204	559.237
AH	115455.505	-12.000	559.172	559.185
CL PIER 5	115466.505	-12.000	559.135	559.135
AI	115476.505	-12.000	559.098	559.107
AJ	115486.505	-12.000	559.059	559.087
AK	115496.505	-12.000	559.017	559.061
AL	115506.505	-12.000	558.973	559.020
AM	115516.505	-12.000	558.926	558.963
AN	115526.505	-12.000	558.877	558.891
CL BRG EA	115532.005	-12.000	558.849	558.849
BK E. ABUT.	115535.175	-12.000	558.834	558.834

TOP OF SLAB ELEVATIONS - W.B.L.
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev:

Date: January 31, 2006

2173b204

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	*	HANCOCK	452	204
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

* 34-4B-1

SHEET NO. 6
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115074.961	-7.833	558.576	558.576
CL BRG WA	115078.121	-7.833	558.591	558.591
A	115088.121	-7.833	558.641	558.667
B	115098.121	-7.833	558.691	558.735
C	115108.121	-7.833	558.741	558.789
D	115118.121	-7.833	558.791	558.829
E	115128.121	-7.833	558.841	558.861
F	115138.121	-7.833	558.889	558.892
CL PIER 1	115143.621	-7.833	558.914	558.914
G	115153.621	-7.833	558.958	558.969
H	115163.621	-7.833	559.000	559.031
I	115173.621	-7.833	559.038	559.087
J	115183.621	-7.833	559.075	559.131
K	115193.621	-7.833	559.109	559.159
L	115203.621	-7.833	559.140	559.173
M	115213.621	-7.833	559.169	559.181
CL PIER 2	115224.621	-7.833	559.198	559.198
N	115234.621	-7.833	559.222	559.232
O	115244.621	-7.833	559.243	559.273
P	115254.621	-7.833	559.262	559.309
Q	115264.621	-7.833	559.278	559.333
R	115274.621	-7.833	559.292	559.340
S	115284.621	-7.833	559.303	559.335
T	115294.621	-7.833	559.311	559.323
CL PIER 3	115305.621	-7.833	559.318	559.318
U	115315.621	-7.833	559.321	559.331
V	115325.621	-7.833	559.322	559.352
W	115335.621	-7.833	559.321	559.368
X	115345.621	-7.833	559.317	559.372
Y	115355.621	-7.833	559.310	559.359
Z	115365.621	-7.833	559.301	559.333
AA	115375.621	-7.833	559.290	559.301
CL PIER 4	115386.621	-7.833	559.274	559.274
AB	115396.621	-7.833	559.257	559.267
AC	115406.621	-7.833	559.238	559.268
AD	115416.621	-7.833	559.216	559.265
AE	115426.621	-7.833	559.192	559.248
AF	115436.621	-7.833	559.165	559.215
AG	115446.621	-7.833	559.135	559.169
AH	115456.621	-7.833	559.104	559.116
CL PIER 5	115467.621	-7.833	559.066	559.066
AI	115477.621	-7.833	559.029	559.038
AJ	115487.621	-7.833	558.989	559.018
AK	115497.621	-7.833	558.947	558.991
AL	115507.621	-7.833	558.902	558.950
AM	115517.621	-7.833	558.855	558.892
AN	115527.621	-7.833	558.806	558.821
CL BRG EA	115533.121	-7.833	558.778	558.778
BK E. ABUT.	115536.291	-7.833	558.763	558.763

BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115076.613	-1.667	558.488	558.488
CL BRG WA	115079.773	-1.667	558.503	558.503
A	115089.773	-1.667	558.553	558.579
B	115099.773	-1.667	558.603	558.647
C	115109.773	-1.667	558.653	558.701
D	115119.773	-1.667	558.703	558.741
E	115129.773	-1.667	558.753	558.772
F	115139.773	-1.667	558.800	558.803
CL PIER 1	115145.273	-1.667	558.825	558.825
G	115155.273	-1.667	558.869	558.879
H	115165.273	-1.667	558.910	558.941
I	115175.273	-1.667	558.948	558.997
J	115185.273	-1.667	558.984	559.040
K	115195.273	-1.667	559.018	559.068
L	115205.273	-1.667	559.049	559.081
M	115215.273	-1.667	559.077	559.089
CL PIER 2	115226.273	-1.667	559.106	559.106
N	115236.273	-1.667	559.129	559.139
O	115246.273	-1.667	559.150	559.180
P	115256.273	-1.667	559.168	559.216
Q	115266.273	-1.667	559.184	559.239
R	115276.273	-1.667	559.197	559.246
S	115286.273	-1.667	559.208	559.240
T	115296.273	-1.667	559.216	559.228
CL PIER 3	115307.273	-1.667	559.222	559.222
U	115317.273	-1.667	559.225	559.235
V	115327.273	-1.667	559.226	559.256
W	115337.273	-1.667	559.224	559.272
X	115347.273	-1.667	559.219	559.274
Y	115357.273	-1.667	559.212	559.261
Z	115367.273	-1.667	559.203	559.235
AA	115377.273	-1.667	559.191	559.203
CL PIER 4	115388.273	-1.667	559.175	559.175
AB	115398.273	-1.667	559.158	559.168
AC	115408.273	-1.667	559.138	559.168
AD	115418.273	-1.667	559.116	559.164
AE	115428.273	-1.667	559.091	559.147
AF	115438.273	-1.667	559.064	559.114
AG	115448.273	-1.667	559.034	559.067
AH	115458.273	-1.667	559.002	559.014
CL PIER 5	115469.273	-1.667	558.963	558.963
AI	115479.273	-1.667	558.926	558.935
AJ	115489.273	-1.667	558.886	558.914
AK	115499.273	-1.667	558.843	558.887
AL	115509.273	-1.667	558.798	558.846
AM	115519.273	-1.667	558.751	558.788
AN	115529.273	-1.667	558.701	558.716
CL BRG EA	115534.773	-1.667	558.674	558.674
BK E. ABUT.	115537.943	-1.667	558.658	558.658

P.G. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115077.060	0.000	558.464	558.464
CL BRG WA	115080.220	0.000	558.479	558.479
A	115090.220	0.000	558.529	558.555
B	115100.220	0.000	558.579	558.623
C	115110.220	0.000	558.629	558.677
D	115120.220	0.000	558.679	558.717
E	115130.220	0.000	558.729	558.749
F	115140.220	0.000	558.776	558.779
CL PIER 1	115145.720	0.000	558.801	558.801
G	115155.720	0.000	558.845	558.855
H	115165.720	0.000	558.886	558.917
I	115175.720	0.000	558.924	558.973
J	115185.720	0.000	558.960	559.016
K	115195.720	0.000	558.993	559.043
L	115205.720	0.000	559.024	559.057
M	115215.720	0.000	559.053	559.064
CL PIER 2	115226.720	0.000	559.081	559.081
N	115236.720	0.000	559.104	559.114
O	115246.720	0.000	559.125	559.155
P	115256.720	0.000	559.143	559.191
Q	115266.720	0.000	559.159	559.213
R	115276.720	0.000	559.172	559.221
S	115286.720	0.000	559.182	559.214
T	115296.720	0.000	559.190	559.202
CL PIER 3	115307.720	0.000	559.197	559.197
U	115317.720	0.000	559.199	559.209
V	115327.720	0.000	559.200	559.230
W	115337.720	0.000	559.198	559.245
X	115347.720	0.000	559.193	559.248
Y	115357.720	0.000	559.186	559.235
Z	115367.720	0.000	559.176	559.209
AA	115377.720	0.000	559.164	559.176
CL PIER 4	115388.720	0.000	559.148	559.148
AB	115398.720	0.000	559.131	559.141
AC	115408.720	0.000	559.111	559.141
AD	115418.720	0.000	559.089	559.137
AE	115428.720	0.000	559.064	559.120
AF	115438.720	0.000	559.036	559.087
AG	115448.720	0.000	559.007	559.040
AH	115458.720	0.000	558.974	558.986
CL PIER 5	115469.720	0.000	558.936	558.936
AI	115479.720	0.000	558.898	558.907
AJ	115489.720	0.000	558.858	558.887
AK	115499.720	0.000	558.815	558.859
AL	115509.720	0.000	558.770	558.818
AM	115519.720	0.000	558.723	558.760
AN	115529.720	0.000	558.673	558.688
CL BRG EA	115535.220	0.000	558.646	558.646
BK E. ABUT.	115538.390	0.000	558.630	558.630

TOP OF SLAB ELEVATIONS - W.B.L.
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev:

Date: January 31, 2006

2173b204

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	*	HANCOCK	452	205
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 7
34 SHEETS

* 34-4B-1

D-96-551-02

CONTRACT NO. 72680

SOUTH CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115077.440	1.417	558.436	558.436
CL BRG WA	115080.600	1.417	558.452	558.452
A	115090.600	1.417	558.502	558.528
B	115100.600	1.417	558.552	558.595
C	115110.600	1.417	558.602	558.650
D	115120.600	1.417	558.652	558.690
E	115130.600	1.417	558.701	558.721
F	115140.600	1.417	558.749	558.751
CL PIER 1	115146.100	1.417	558.773	558.773
G	115156.100	1.417	558.817	558.827
H	115166.100	1.417	558.858	558.889
I	115176.100	1.417	558.896	558.945
J	115186.100	1.417	558.932	558.988
K	115196.100	1.417	558.965	559.015
L	115206.100	1.417	558.996	559.028
M	115216.100	1.417	559.024	559.036
CL PIER 2	115227.100	1.417	559.052	559.052
N	115237.100	1.417	559.075	559.085
O	115247.100	1.417	559.096	559.126
P	115257.100	1.417	559.114	559.162
Q	115267.100	1.417	559.130	559.185
R	115277.100	1.417	559.143	559.192
S	115287.100	1.417	559.153	559.185
T	115297.100	1.417	559.161	559.173
CL PIER 3	115308.100	1.417	559.167	559.167
U	115318.100	1.417	559.170	559.180
V	115328.100	1.417	559.170	559.200
W	115338.100	1.417	559.168	559.216
X	115348.100	1.417	559.163	559.218
Y	115358.100	1.417	559.156	559.205
Z	115368.100	1.417	559.147	559.179
AA	115378.100	1.417	559.134	559.146
CL PIER 4	115389.100	1.417	559.118	559.118
AB	115399.100	1.417	559.101	559.110
AC	115409.100	1.417	559.081	559.111
AD	115419.100	1.417	559.058	559.107
AE	115429.100	1.417	559.033	559.089
AF	115439.100	1.417	559.006	559.056
AG	115449.100	1.417	558.976	559.009
AH	115459.100	1.417	558.943	558.956
CL PIER 5	115470.100	1.417	558.905	558.905
AI	115480.100	1.417	558.867	558.876
AJ	115490.100	1.417	558.827	558.855
AK	115500.100	1.417	558.784	558.828
AL	115510.100	1.417	558.739	558.787
AM	115520.100	1.417	558.691	558.728
AN	115530.100	1.417	558.642	558.656
CL BRG EA	115535.600	1.417	558.614	558.614
BK E. ABUT.	115538.770	1.417	558.599	558.599

BEAM #7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK W. ABUT.	115078.266	4.500	558.376	558.376
CL BRG WA	115081.426	4.500	558.392	558.392
A	115091.426	4.500	558.442	558.467
B	115101.426	4.500	558.492	558.535
C	115111.426	4.500	558.542	558.589
D	115121.426	4.500	558.592	558.630
E	115131.426	4.500	558.641	558.661
F	115141.426	4.500	558.688	558.691
CL PIER 1	115146.926	4.500	558.713	558.713
G	115156.926	4.500	558.756	558.766
H	115166.926	4.500	558.797	558.828
I	115176.926	4.500	558.835	558.884
J	115186.926	4.500	558.870	558.926
K	115196.926	4.500	558.903	558.953
L	115206.926	4.500	558.934	558.967
M	115216.926	4.500	558.962	558.974
CL PIER 2	115227.926	4.500	558.990	558.990
N	115237.926	4.500	559.013	559.023
O	115247.926	4.500	559.033	559.063
P	115257.926	4.500	559.051	559.099
Q	115267.926	4.500	559.066	559.121
R	115277.926	4.500	559.079	559.128
S	115287.926	4.500	559.090	559.122
T	115297.926	4.500	559.098	559.109
CL PIER 3	115308.926	4.500	559.103	559.103
U	115318.926	4.500	559.106	559.116
V	115328.926	4.500	559.106	559.136
W	115338.926	4.500	559.104	559.151
X	115348.926	4.500	559.099	559.154
Y	115358.926	4.500	559.091	559.140
Z	115368.926	4.500	559.081	559.113
AA	115378.926	4.500	559.069	559.081
CL PIER 4	115389.926	4.500	559.052	559.052
AB	115399.926	4.500	559.035	559.045
AC	115409.926	4.500	559.015	559.045
AD	115419.926	4.500	558.992	559.041
AE	115429.926	4.500	558.967	559.023
AF	115439.926	4.500	558.939	558.989
AG	115449.926	4.500	558.909	558.942
AH	115459.926	4.500	558.876	558.889
CL PIER 5	115470.926	4.500	558.838	558.838
AI	115480.926	4.500	558.800	558.809
AJ	115490.926	4.500	558.759	558.788
AK	115500.926	4.500	558.716	558.760
AL	115510.926	4.500	558.671	558.719
AM	115520.926	4.500	558.623	558.660
AN	115530.926	4.500	558.573	558.588
CL BRG EA	115536.426	4.500	558.546	558.546
BK E. ABUT.	115539.596	4.500	558.530	558.530

TOP OF SLAB ELEVATIONS - W.B.L.
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Rev:

Date: January 31, 2006

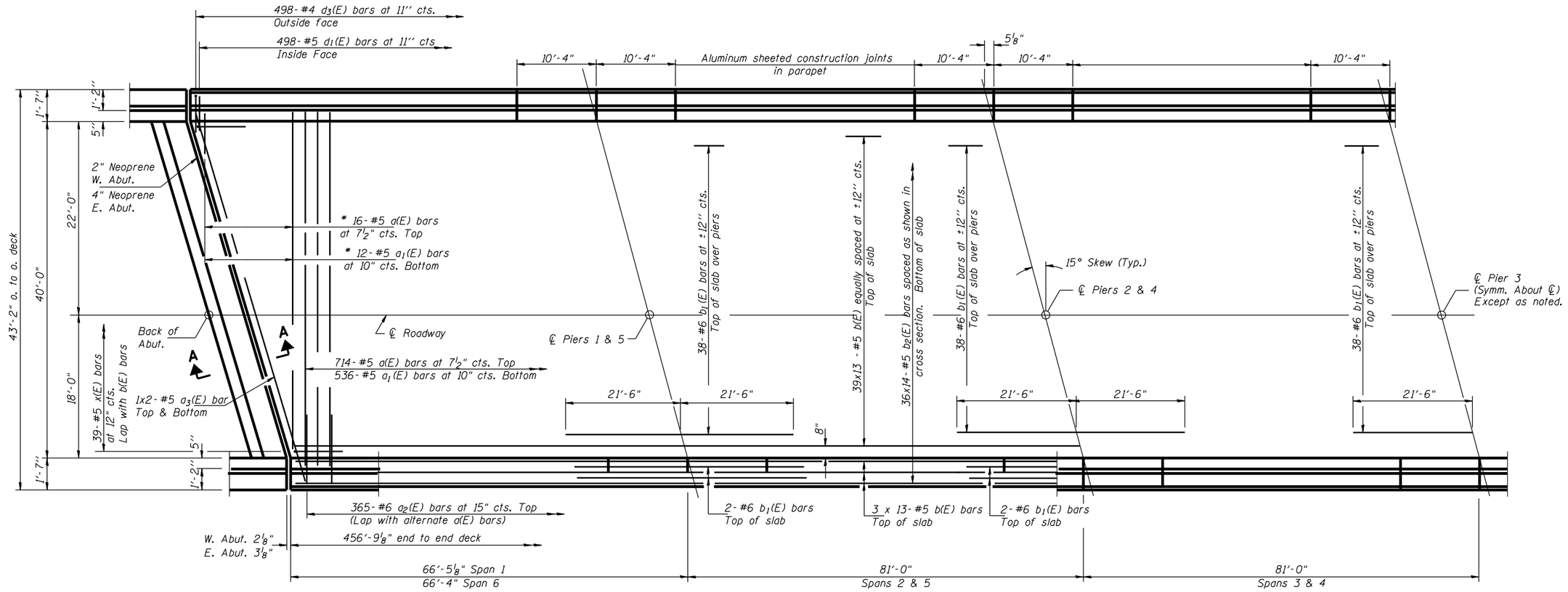
2173b204

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	206
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
34 SHEETS

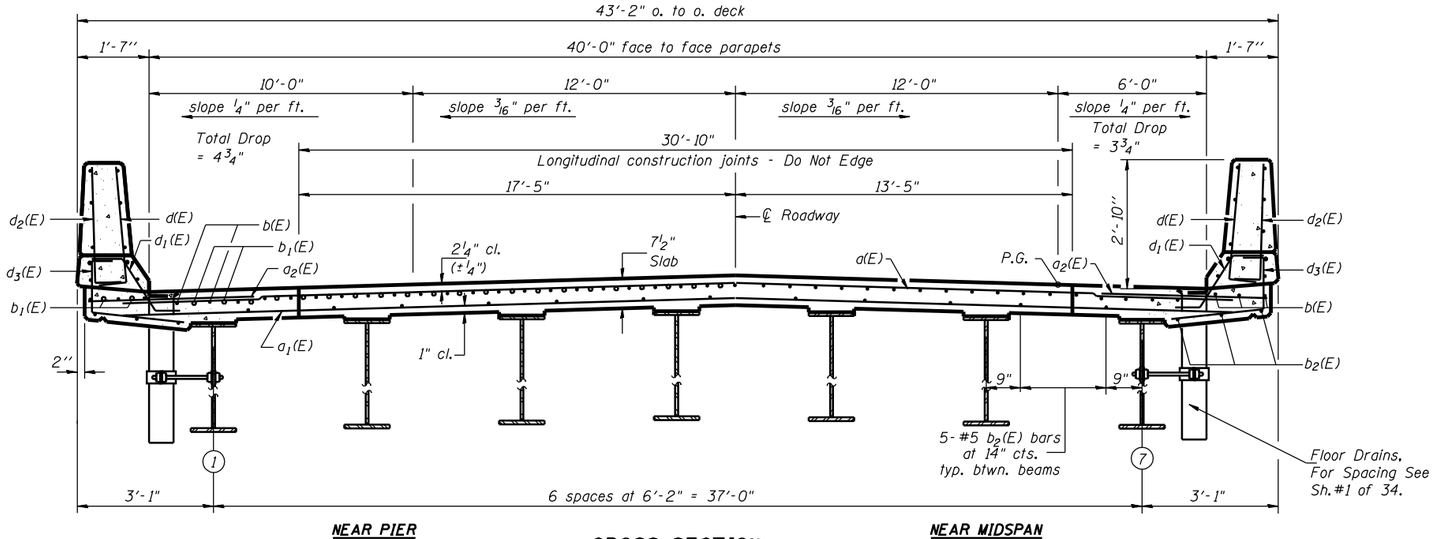
D-88-551-02

CONTRACT NO. 72680



HALF PLAN

* Order a(E) & a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



NEAR PIER NEAR MIDSPAN

CROSS SECTION

(Looking East)

MIN. BAR LAP

#5 = 2'-2"

Notes:
See Sheet 9 of 34 for superstructure details and Bill of Material.
See Sheet 9 of 34 for Section A-A.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 9 of 34 for parapet reinforcement.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

S-1-R(<15°) 10-31-02

Lamoine/2173b208

SUPERSTRUCTURE
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

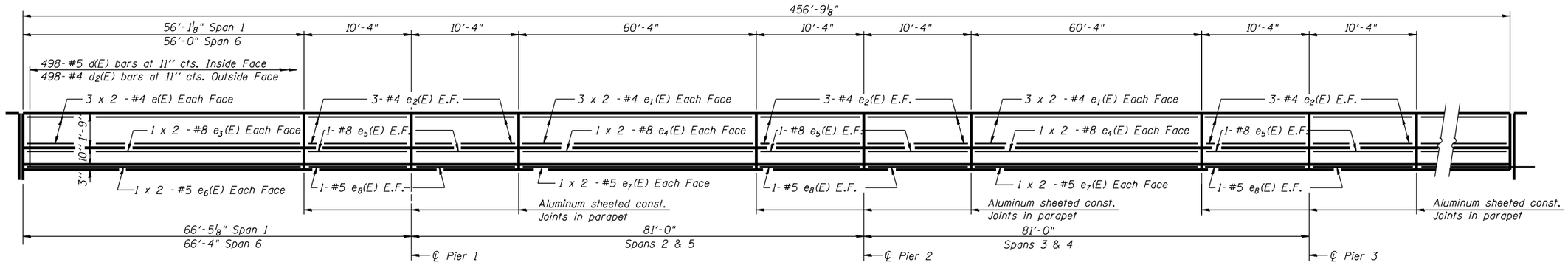
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	207
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
34 SHEETS

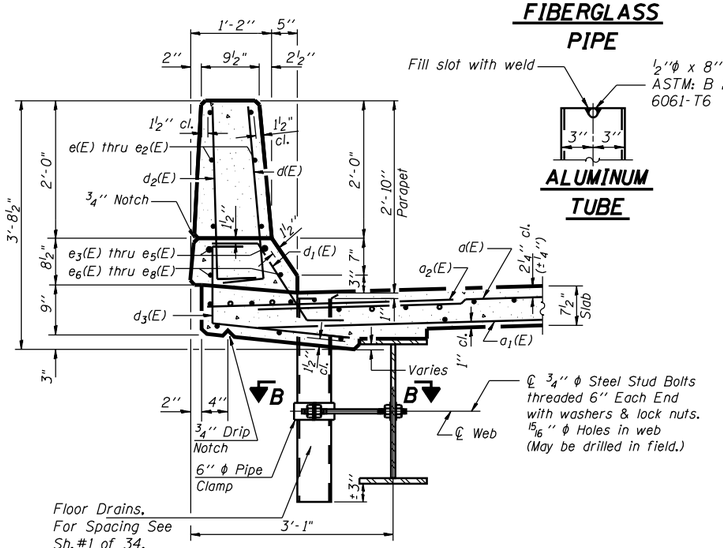
D-96-551-02

CONTRACT NO. 72680

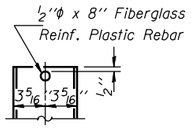


INSIDE ELEVATION OF PARAPET

(Looking North)

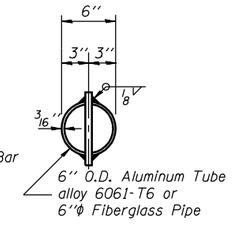


SECTION THRU PARAPET



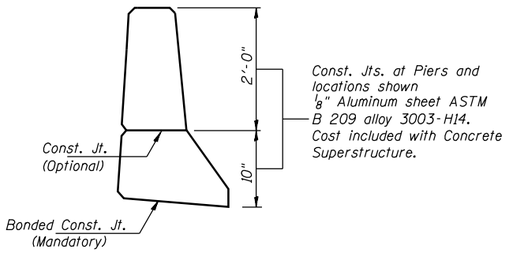
FIBERGLASS PIPE

ALUMINUM TUBE



TOP PLAN

(Showing Aluminum Tube)

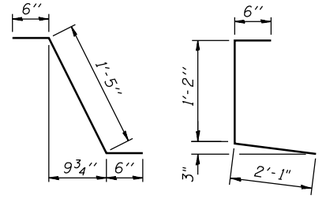


PARAPET JOINT DETAILS

Notes:

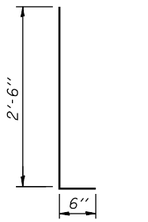
Floor drains need not be painted.

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

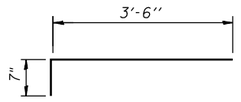


BAR $d_1(E)$

BAR $d_3(E)$



BARS d(E) & $d_2(E)$



BAR x(E)

MIN. BAR LAP

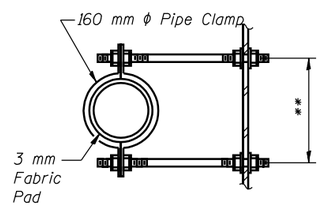
#4 = 1'-8"
#5 = 2'-2"
#8 = 4'-6"

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	730	#5	41'-0"	——
$d_1(E)$	548	#5	40'-8"	——
$d_2(E)$	730	#6	4'-6"	——
$d_3(E)$	8	#5	23'-0"	——
b(E)	585	#5	37'-2"	——
$b_1(E)$	210	#6	43'-0"	——
$b_2(E)$	504	#5	34'-8"	——
d(E)	996	#5	3'-0"	⌐
$d_1(E)$	996	#5	2'-5"	⌐
$d_2(E)$	996	#4	3'-0"	⌐
$d_3(E)$	996	#4	3'-9"	⌐
e(E)	48	#4	28'-10"	——
$e_1(E)$	96	#4	31'-0"	——
$e_2(E)$	120	#4	10'-0"	——
$e_3(E)$	16	#8	30'-2"	——
$e_4(E)$	32	#8	32'-3"	——
$e_5(E)$	40	#8	10'-0"	——
$e_6(E)$	16	#5	29'-0"	——
$e_7(E)$	32	#5	31'-1"	——
$e_8(E)$	40	#5	10'-0"	——
x(E)	78	#5	4'-1"	⌐
Reinforcement Bars, Epoxy Coated		Pound	135,270	
Concrete Superstructure		Cu. Yds.	596.4	

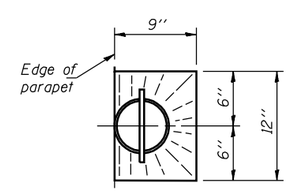
Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 1 x 2 -#5 etc. indicates 1 line of bars with 2 lengths per line.

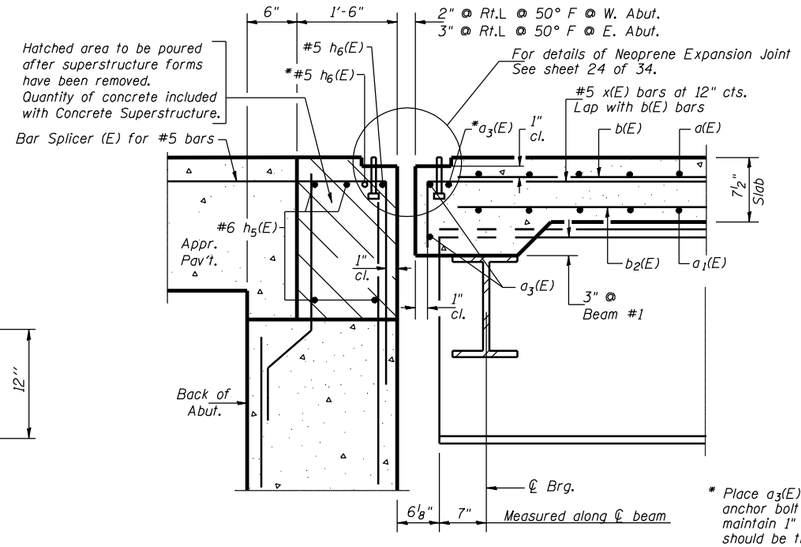


SECTION B-B

** Dimension as required by Pipe Clamp.



TOP PLAN



SECTION A-A

* Place $a_3(E)$ and $h_6(E)$ bars in back of anchor bolt as shown if required to maintain 1" cl. (+0-1/8"). Anchor Bolts should be tied to $a_3(E)$ and $h_6(E)$ bars.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

S-1-D 10-31-02

Lamoine/2173b209

SUPERSTRUCTURE DETAILS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

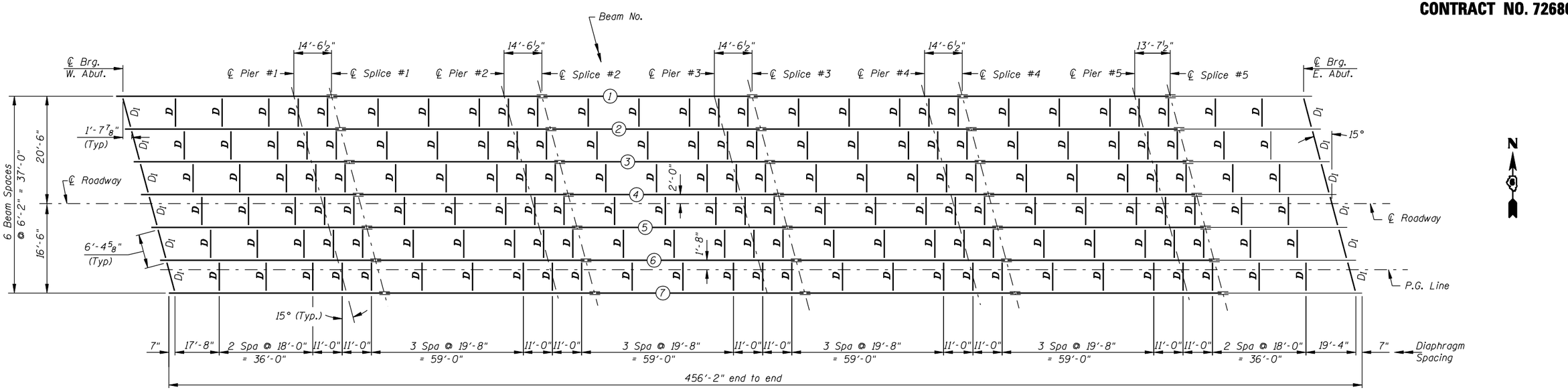
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	208
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
34 SHEETS

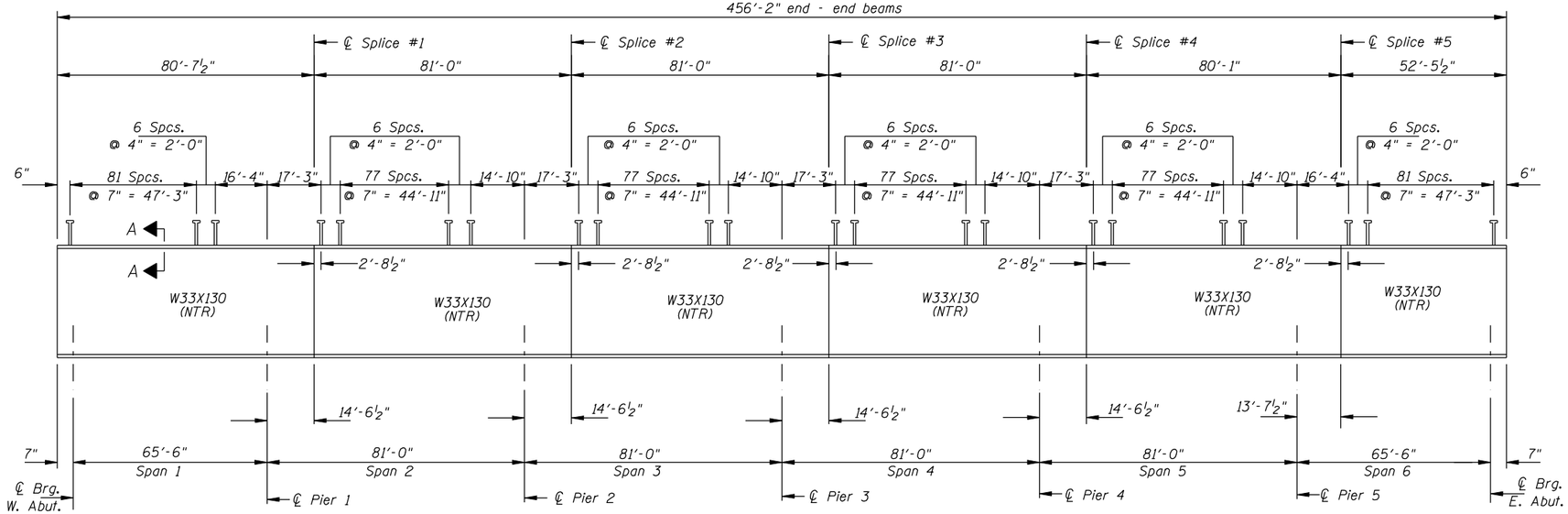
D-96-551-02

CONTRACT NO. 72680



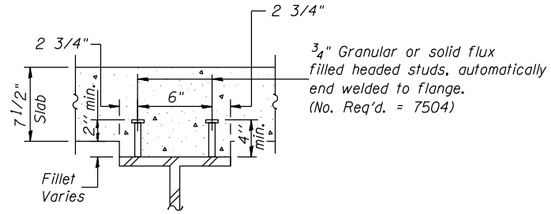
FRAMING PLAN

Interior Diaphragm - D (162 Req'd)
End Diaphragm - D_1 (12 Req'd)



BEAM ELEVATION

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



SECTION A-A

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

STRUCTURAL STEEL FRAMING PLAN
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: January 31, 2006

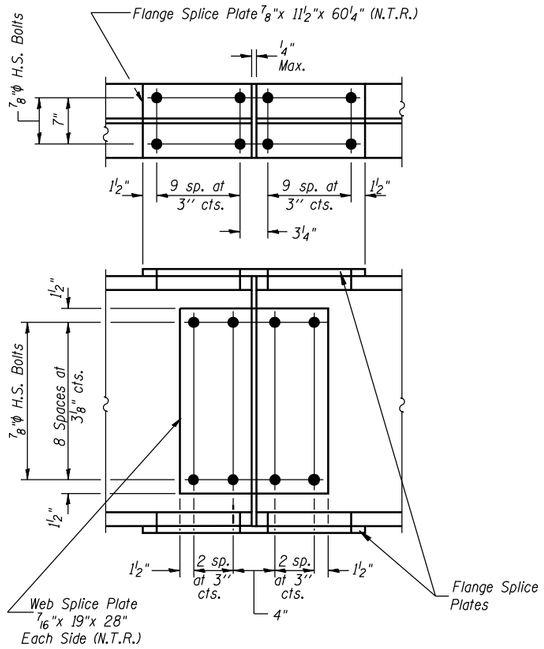
Lamoine/2173b210

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	209
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 11
34 SHEETS

D-98-551-02

CONTRACT NO. 72680



SPLICE DETAIL
35 Required

INTERIOR BEAM MOMENT TABLE							
Units		0.4 Span 1 & 0.6 Span 6	Piers 1 & 5	0.5 Span 2 & 5	Piers 2 & 4	0.5 Span 3 & 4	Pier 3
Is	(in^4)	6710	6710	6710	6710	6710	6710
Ic (n)	(in^4)	16730		16730		16730	
Ic (3n)	(in^4)	12316		12316		12316	
Ss	(in^3)	406	406	406	406	406	406
Sc (n)	(in^3)	576		576		576	
Sc (3n)	(in^3)	521		521		521	
D	(K/ft.)	0.75	1.187	0.75	1.187	0.75	1.187
M D	('K)	223.6	611.6	206.4	625.5	204.7	621.4
S D	(K/ft.)	0.437		0.437		0.437	
Ms D	('K)	142.9		148.6		145.3	
M L	('K)	435.5	278.8	479.2	305.8	478.6	307.1
M (Imp)	('K)	114.5	70.3	116.5	74.0	116.3	74.3
5/3(M L+I)	('K)	916.7	581.8	992.8	633.0	991.5	635.7
Ma	('K)	1668.2	1551.4	1752.1	1636.0	1744.0	1634.2
Mu	('K)	2800		2800		2800	
fs D non-comp	(k.s.i.)	6.61	18.07	6.10	18.49	6.05	18.36
fs D comp	(k.s.i.)	2.98		3.1		3.02	
fs 5/3 (L+I)	(k.s.i.)	19.09	17.20	20.68	18.71	20.66	18.79
fs (Overload)	(k.s.i.)	28.68	35.27	29.88	37.20	29.73	37.15
fs (Total)	(k.s.i.)		45.85		48.36		48.30
VR	(K)	50.0		49.5		49.5	

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).

M D = Moment due to dead loads on non-composite section.
Ms D = Moment due to dead loads on composite section.
M L = Moment due to live loads on non-composite or composite section.
I = Live load impact

Ma (Applied Moment)=1.3[M D + Ms D + 5/3(M L + I)].

Mu=Full plastic moment capacity for compact, braced section.

fs (Overload) is the sum of the stresses due to M D + Ms D + 5/3(M L + I).

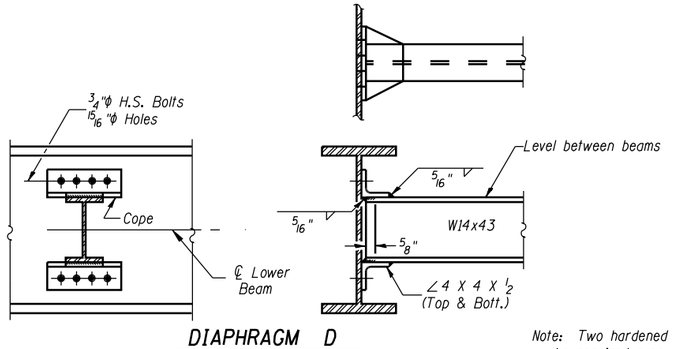
fs (Total) is the sum of the stresses due to 1.3[M D + Ms D + 5/3(M L + I)].

VR is the maximum Live Load + Impact shear range in span.

TOP OF BEAM ELEVATIONS												
Beam No.	℄ Brg. West Abut.	℄ Brg. Pier #1	℄ Splice #1	℄ Brg. Pier #2	℄ Splice #2	℄ Brg. Pier 3	℄ Splice #3	℄ Brg. Pier #4	℄ Splice #4	℄ Brg. Pier #5	℄ Splice #5	℄ Brg. East Abut.
1	557.571	557.832	557.889	558.109	558.157	558.242	558.261	558.212	558.201	558.018	557.980	557.825
2	557.708	557.967	558.025	558.242	558.289	558.372	558.390	558.338	558.326	558.140	558.102	557.945
3	557.825	558.083	558.140	558.355	558.402	558.481	558.499	558.444	558.432	558.243	558.205	558.045
4	557.929	558.187	558.244	558.455	558.502	558.579	558.595	558.538	558.525	558.334	558.295	558.133
5	557.904	558.160	558.217	558.426	558.471	558.546	558.562	558.501	558.488	558.294	558.254	558.091
6	557.816	558.071	558.127	558.333	558.378	558.450	558.466	558.402	558.389	558.192	558.151	557.986
7	557.704	557.958	558.014	558.218	558.262	558.331	558.346	558.280	558.266	558.066	558.025	557.858

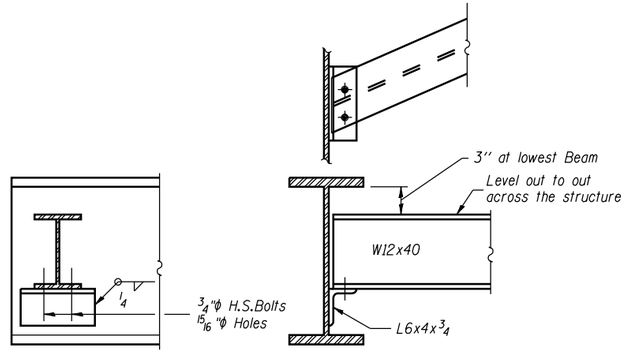
For Fabrication Only

INTERIOR BEAM REACTION TABLE					
Units		E. & W. Abuts.	Piers 1 & 5	Piers 2 & 4	Pier 3
R D	(K)	29.6	96.1	96.4	96.0
R L	(K)	37.9	45.1	46.9	47.1
Imp.	(K)	9.9	11.0	11.4	11.5
R (Total)	(K)	77.4	152.2	154.7	154.6



DIAPHRAGM D
186 Required

Note: Two hardened washers shall be required over all oversized holes for diaphragms.



END DIAPHRAGM D_1
12 Required

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

STRUCTURAL STEEL DETAILS
U.S. ROUTE 136 OVER LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1 HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

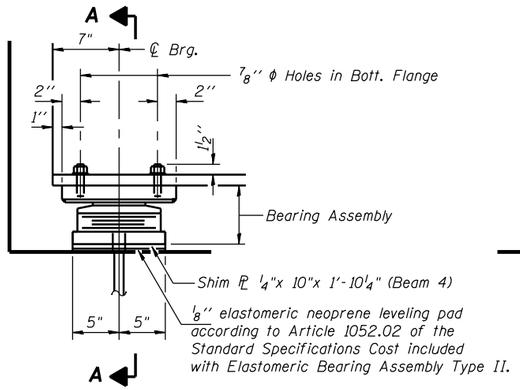
Lamoine/2173b211

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	210
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

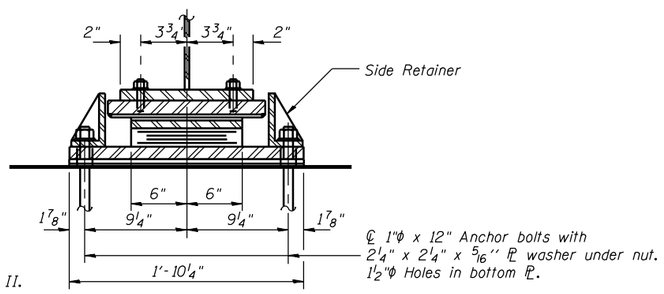
SHEET NO. 12
34 SHEETS

D-96-551-02

CONTRACT NO. 72680



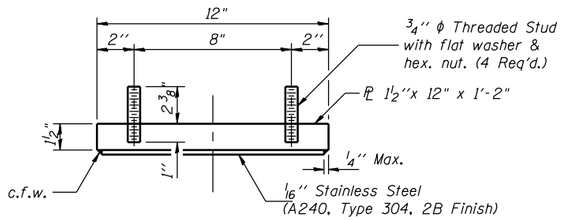
ELEVATION AT WEST ABUT.



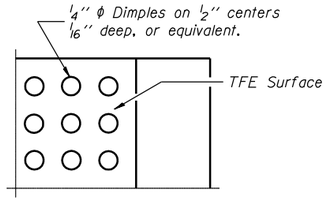
SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

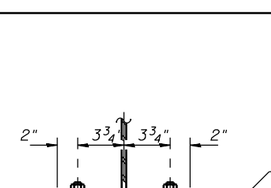
Notes: See sheet 26 of 34 for Anchor Bolt installation.



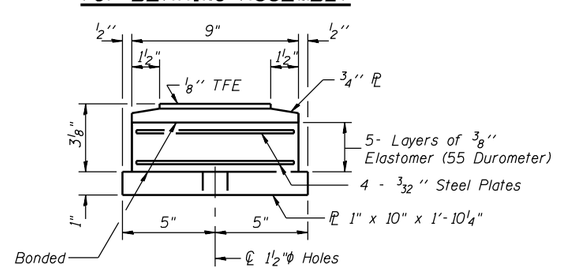
TOP BEARING ASSEMBLY



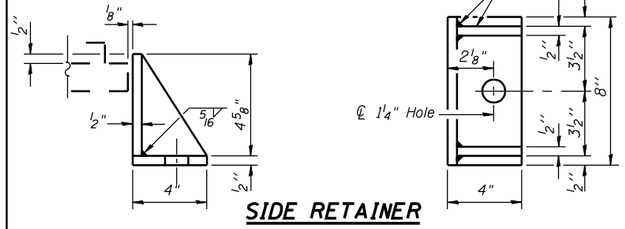
PLAN-TFE SURFACE



SECTION THRU TFE



BOTTOM BEARING ASSEMBLY

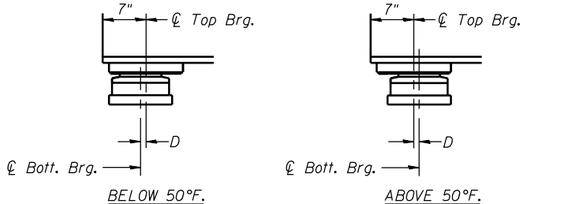


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



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
Elastomeric Bearing Assembly Type II	Each	7

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

BEARING DETAILS
WEST ABUTMENT
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

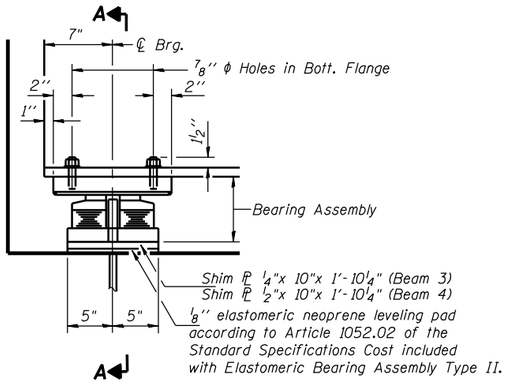
Lamoine/2173b212

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	211
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

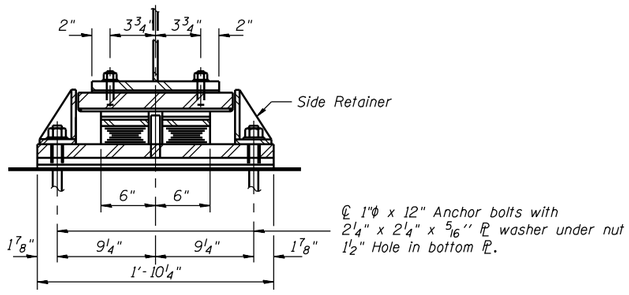
SHEET NO. 13
34 SHEETS

D-96-551-02

CONTRACT NO. 72680



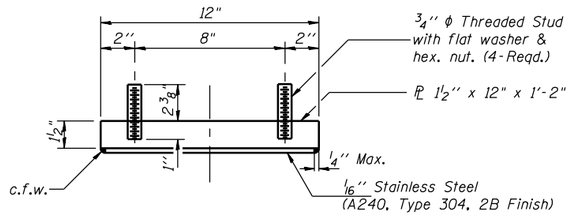
ELEVATION AT EAST ABUT.



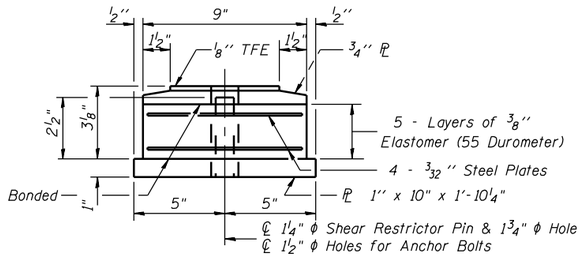
SECTION A-A

TYPE III ELASTOMERIC EXP. BRG.

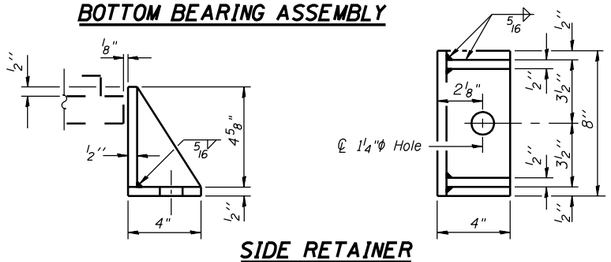
Notes: See sheet 26 of 34 for Anchor Bolt installation.



TOP BEARING ASSEMBLY

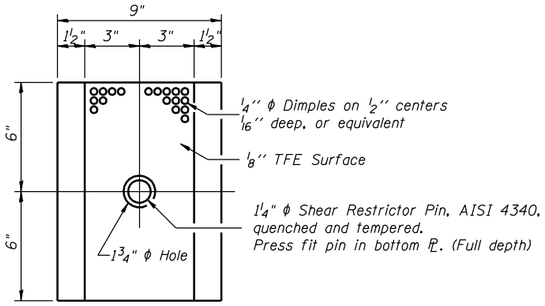


BOTTOM BEARING ASSEMBLY

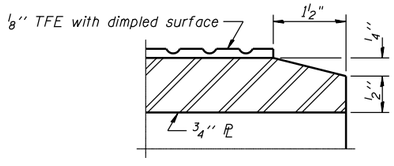


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



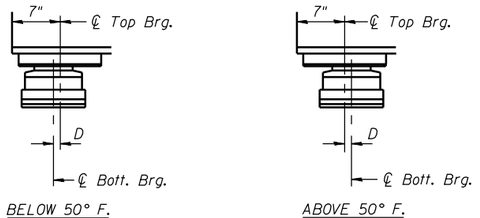
PLAN-TFE ELASTOMERIC BRG.



SECTION THRU TFE

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



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
Elastomeric Bearing Assembly Type III	Each	7

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

BEARING DETAILS EAST ABUTMENT
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

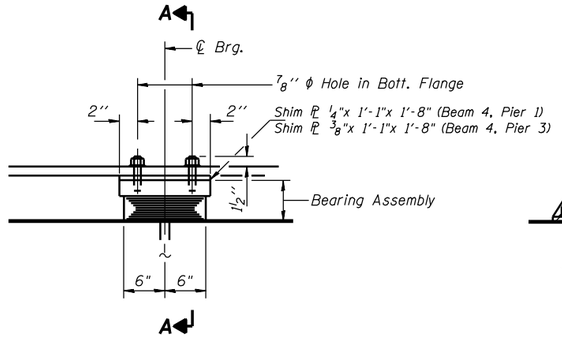
Lamoine/2173b213

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	212
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

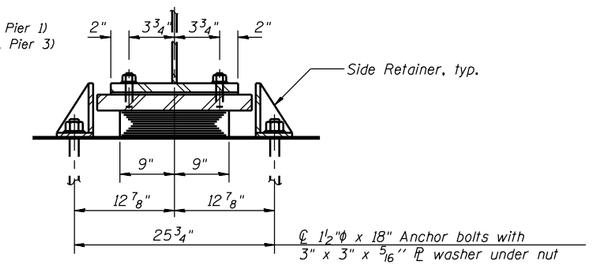
SHEET NO. 14
34 SHEETS

D-96-551-02

CONTRACT NO. 72680



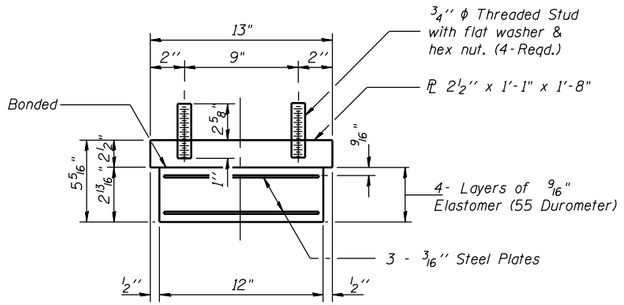
ELEVATION AT PIERS 1 & 3



SECTION A-A

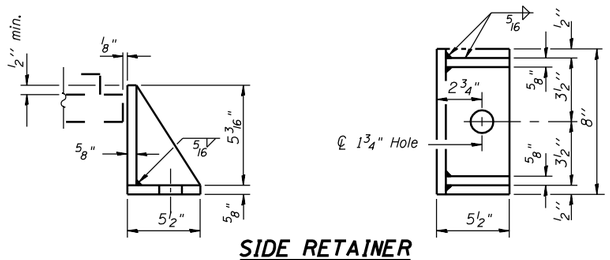
TYPE I ELASTOMERIC EXP. BRG.

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet 26 of 34 for Anchor Bolt installation.



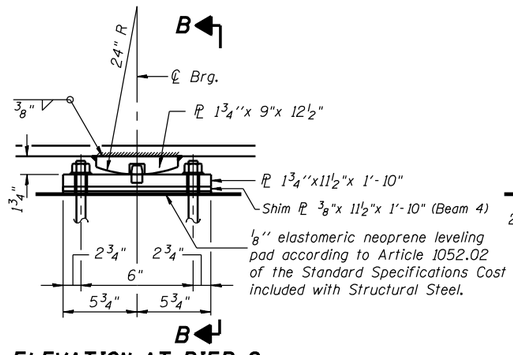
BEARING ASSEMBLY

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

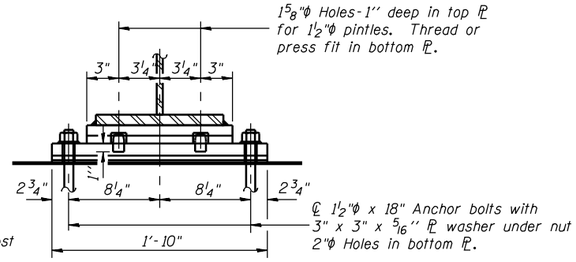


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



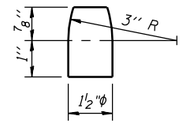
ELEVATION AT PIER 2



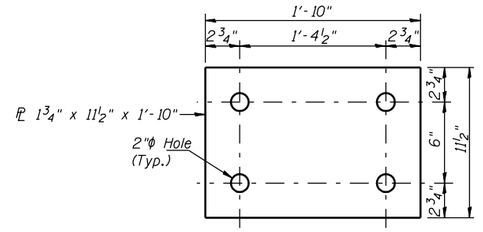
SECTION B-B

FIXED BEARING

(7 Required)



PINTLE



BOTTOM PLATE AT PIER 2

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

BEARING DETAILS
PIERS 1, 2 & 3
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

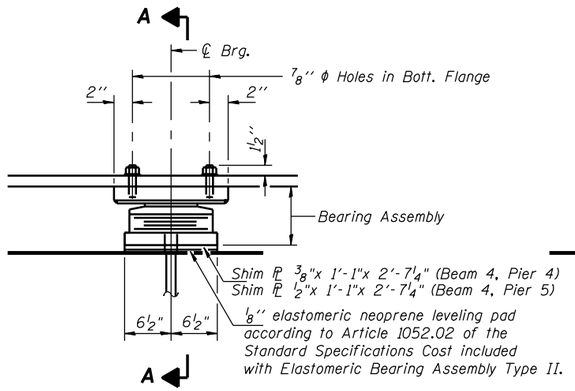
Lamoine/2173b214

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	213
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

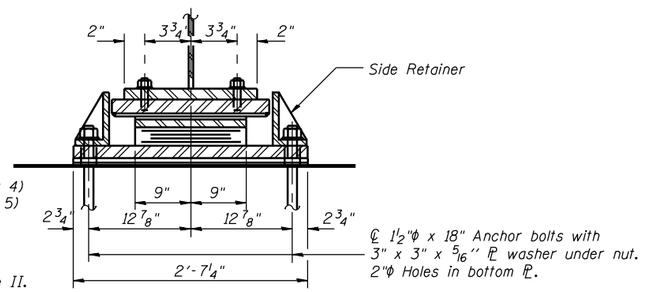
SHEET NO. 15
34 SHEETS

D-96-551-02

CONTRACT NO. 72680



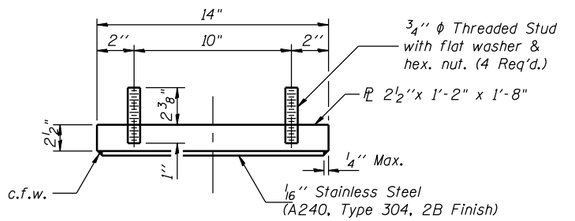
ELEVATION AT PIERS 4 & 5



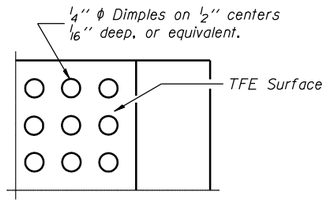
SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

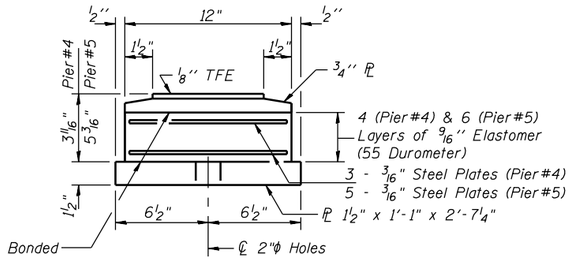
Notes: See sheet 26 of 34 for Anchor Bolt installation.



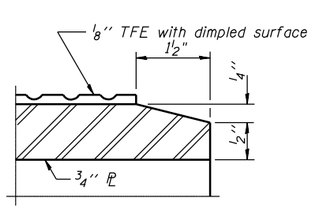
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



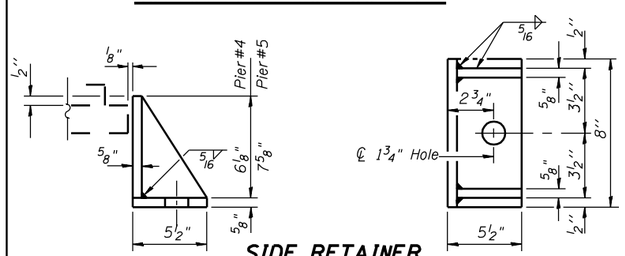
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

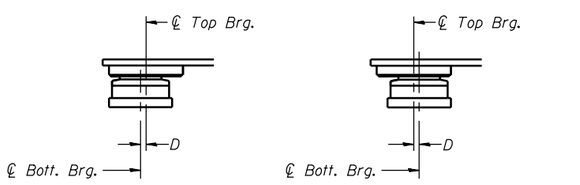
Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



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
Elastomeric Bearing Assembly Type II	Each	14

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

BEARING DETAILS
PIERS 4 & 5
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

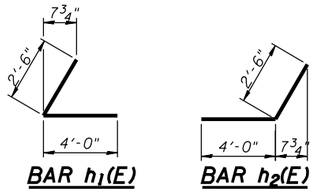
Lamoine/2173b215

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	214
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 16
34 SHEETS

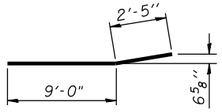
D-96-551-02

CONTRACT NO. 72680

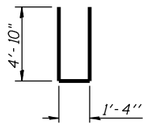


BAR $h_1(E)$

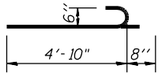
BAR $h_2(E)$



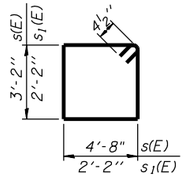
BAR $h_4(E)$



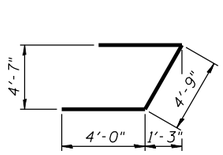
BAR n(E)



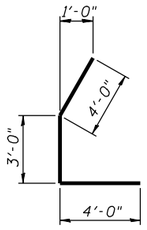
BAR $n_1(E)$



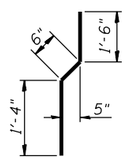
BARS s(E) & $s_1(E)$



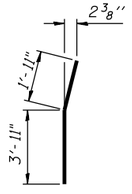
BAR u(E)



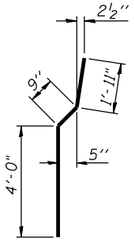
BAR $u_1(E)$



BAR $v_1(E)$

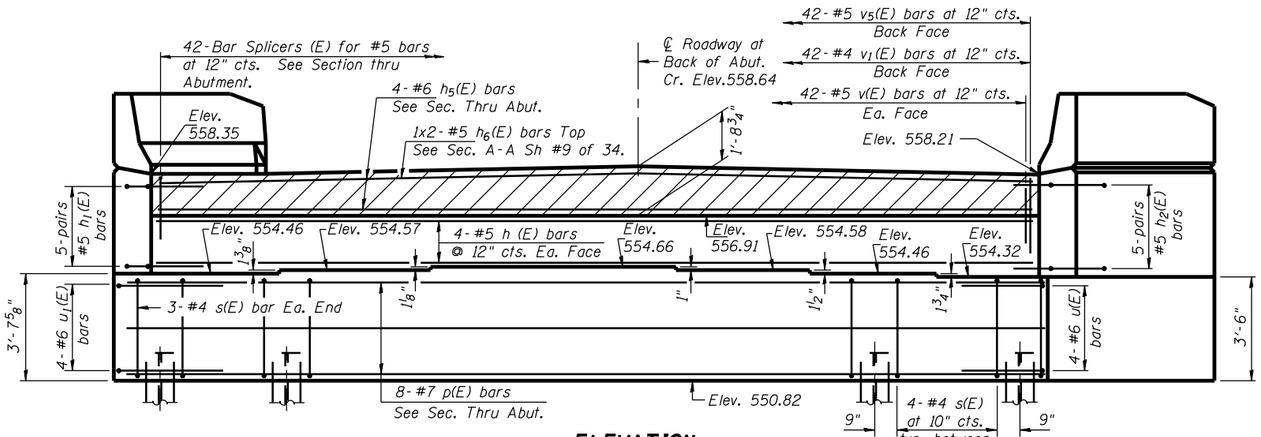


BAR $v_3(E)$

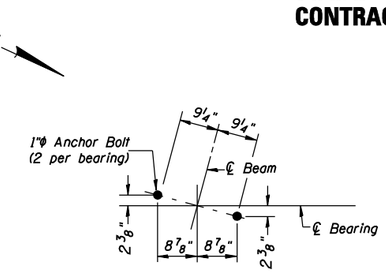


BAR $v_4(E)$

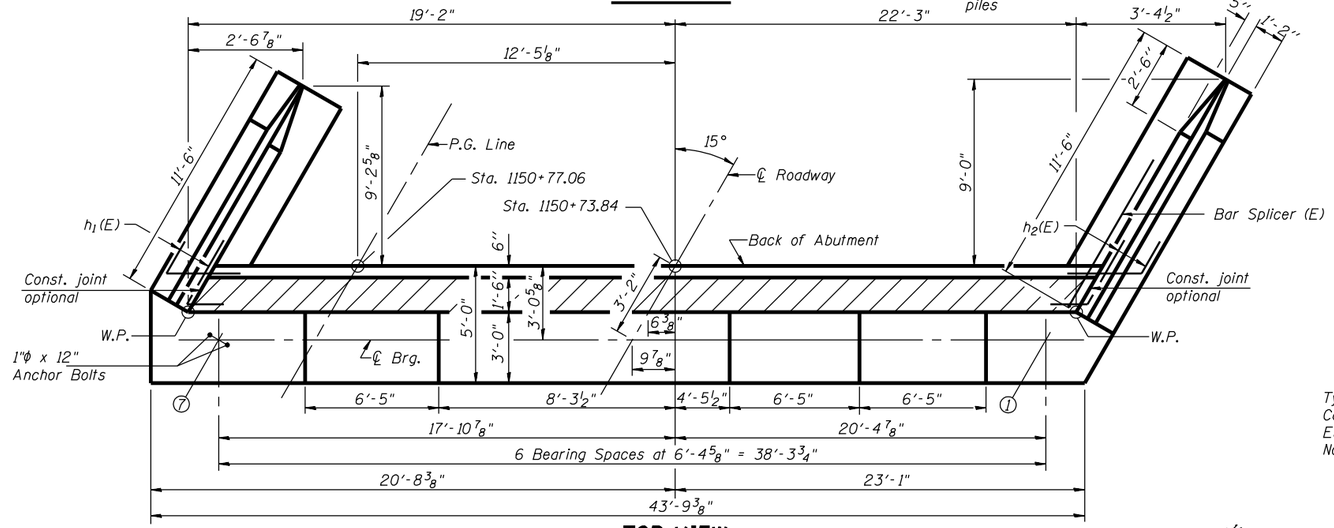
DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.



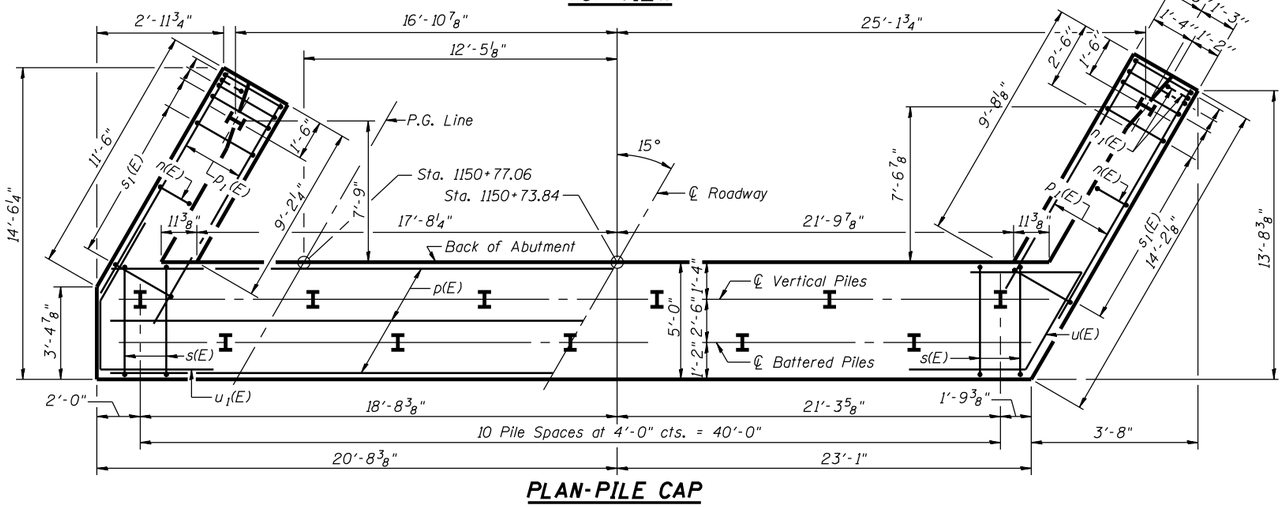
ELEVATION



ANCHOR BOLT LAYOUT



TOP VIEW



PLAN-PILE CAP

MIN BAR LAP

#5 = 2'-2"

PILE DATA

Type: Steel HP 12x53
Capacity: Drive to Refusal
Est. Length: 68'
No. Required: 13

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	8	#5	41'-0"	
$h_1(E)$	10	#5	6'-6"	
$h_2(E)$	10	#5	6'-6"	
$h_3(E)$	22	#4	11'-3"	
$h_4(E)$	14	#4	11'-5"	
$h_5(E)$	4	#6	41'-0"	
$h_6(E)$	2	#5	21'-9"	
n(E)	20	#6	11'-0"	
$n_1(E)$	12	#6	5'-6"	
p(E)	8	#7	43'-6"	
$p_1(E)$	12	#7	12'-0"	
s(E)	46	#4	16'-5"	
$s_1(E)$	26	#4	9'-5"	
u(E)	4	#6	12'-9"	
$u_1(E)$	4	#6	11'-0"	
v(E)	84	#5	5'-0"	
$v_1(E)$	42	#4	3'-4"	
$v_2(E)$	24	#6	6'-4"	
$v_3(E)$	6	#6	5'-11"	
$v_4(E)$	20	#6	6'-7"	
$v_5(E)$	42	#5	2'-6"	
Structure Excavation		Cu. Yd.	185	
Concrete Structures		Cu. Yd.	47.0	
Reinforcement Bars, Epoxy Coated		Pound	4,410	
Steel Piles HP 12x53		Foot	884	

Notes: Reinforcement bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 25 of 34.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All edges shall have standard 3/4" chamfers.

WEST ABUTMENT
U.S. ROUTE 136 OVER LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

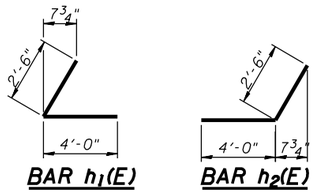
Date: January 31, 2006

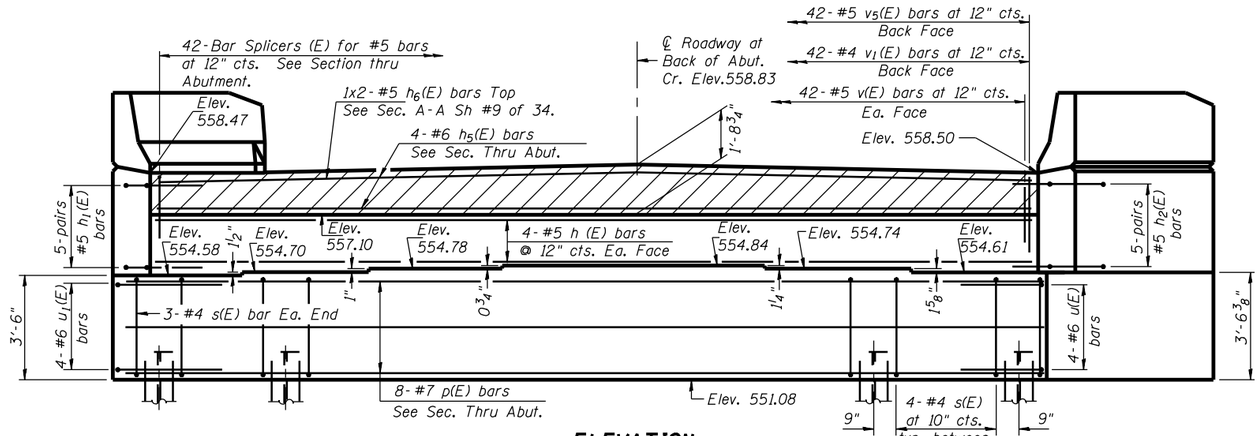
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	215
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 17
34 SHEETS

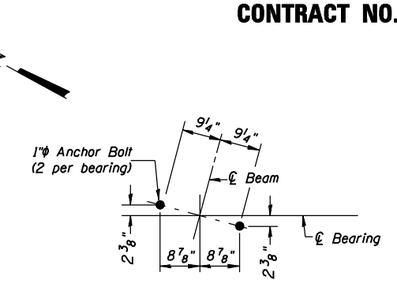
D-96-551-02

CONTRACT NO. 72680

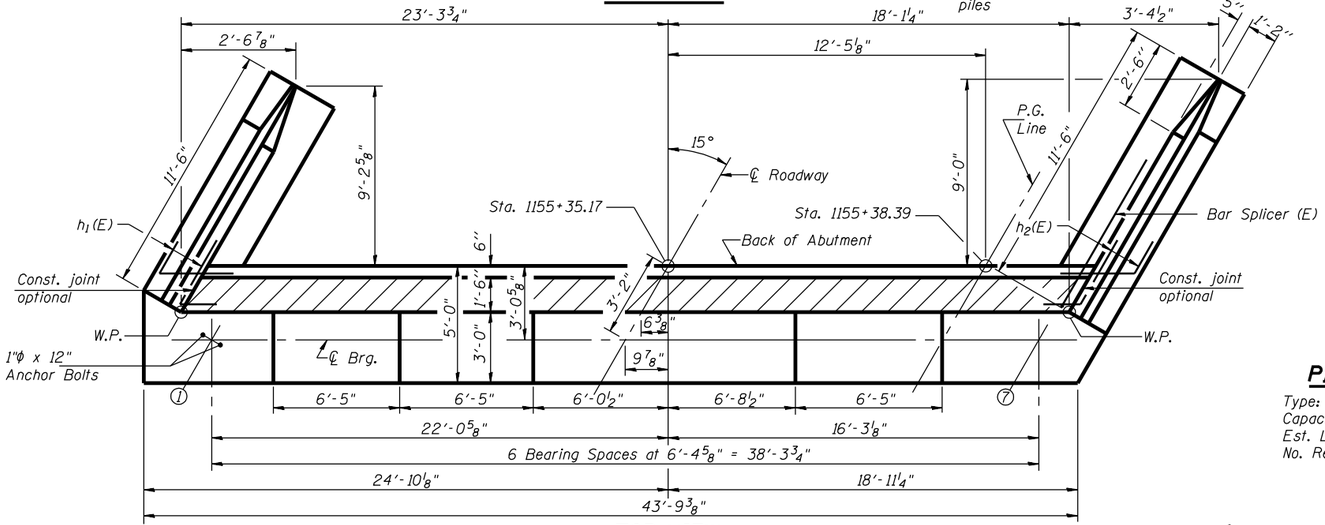




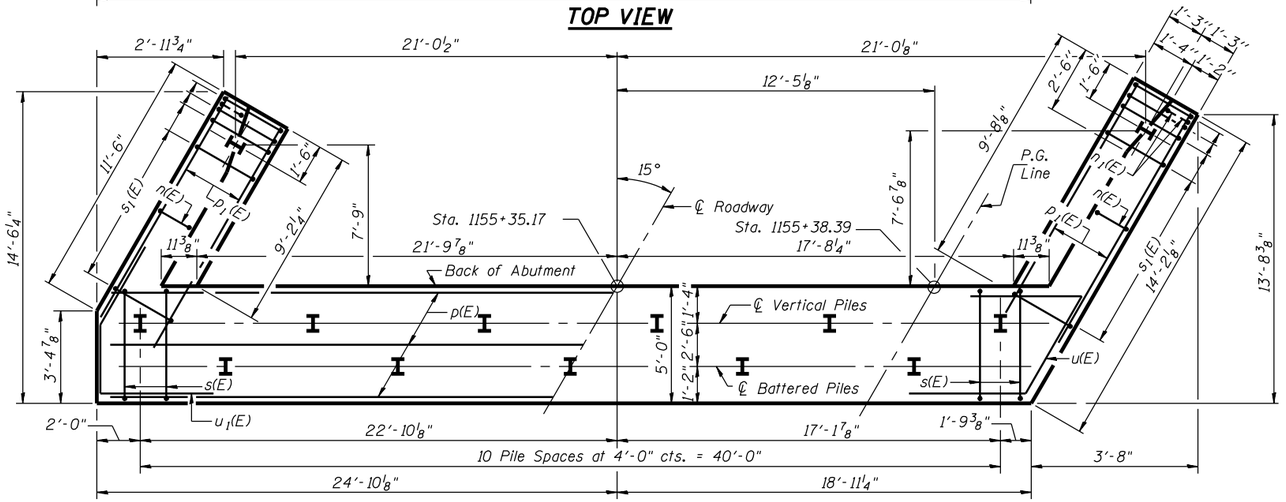
ELEVATION



ANCHOR BOLT LAYOUT



TOP VIEW



PLAN-PILE CAP

MIN BAR LAP

#5 = 2'-2"

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	8	#5	41'-0"	
h_1(E)	10	#5	6'-6"	
h_2(E)	10	#5	6'-6"	
h_3(E)	22	#4	11'-3"	
h_4(E)	14	#4	11'-5"	
h_5(E)	4	#6	41'-0"	
h_6(E)	2	#5	21'-9"	
n(E)	20	#6	11'-0"	
n_1(E)	12	#6	5'-6"	
p(E)	8	#7	43'-6"	
p_1(E)	12	#7	12'-0"	
s(E)	46	#4	16'-5"	
s_1(E)	26	#4	9'-5"	
u(E)	4	#6	12'-9"	
u_1(E)	4	#6	11'-0"	
v(E)	84	#5	5'-0"	
v_1(E)	42	#4	3'-4"	
v_2(E)	24	#6	6'-4"	
v_3(E)	6	#6	5'-11"	
v_4(E)	20	#6	6'-7"	
v_5(E)	42	#5	2'-6"	
Structure Excavation		Cu. Yd.	185	
Concrete Structures		Cu. Yd.	46.3	
Reinforcement Bars, Epoxy Coated		Pound	4,410	
Steel Piles HP 12x53		Foot	888	
Test Pile Steel HP12x53		Each	1	

PILE DATA

Type: Steel HP 12x53
Capacity: Drive to Refusal
Est. Length: 74'
No. Required: 12 plus 1 Test Pile

Notes: Reinforcement bars designated (E) shall be epoxy coated.
For details of Bar Splicers, see sheet 25 of 34.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All edges shall have standard 3/4" chamfers.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

EAST ABUTMENT
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

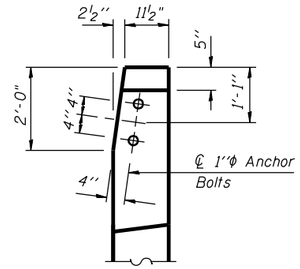
Lamoine/2173b217

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	216
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

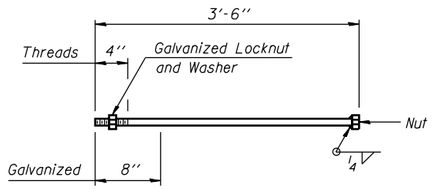
SHEET NO. 18
34 SHEETS

D-96-551-02

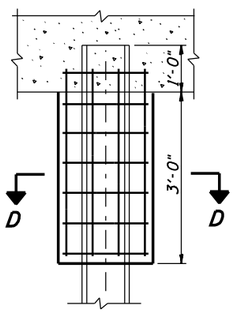
CONTRACT NO. 72680

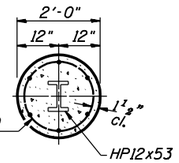


VIEW A-A



1" ϕ ANCHOR BOLT

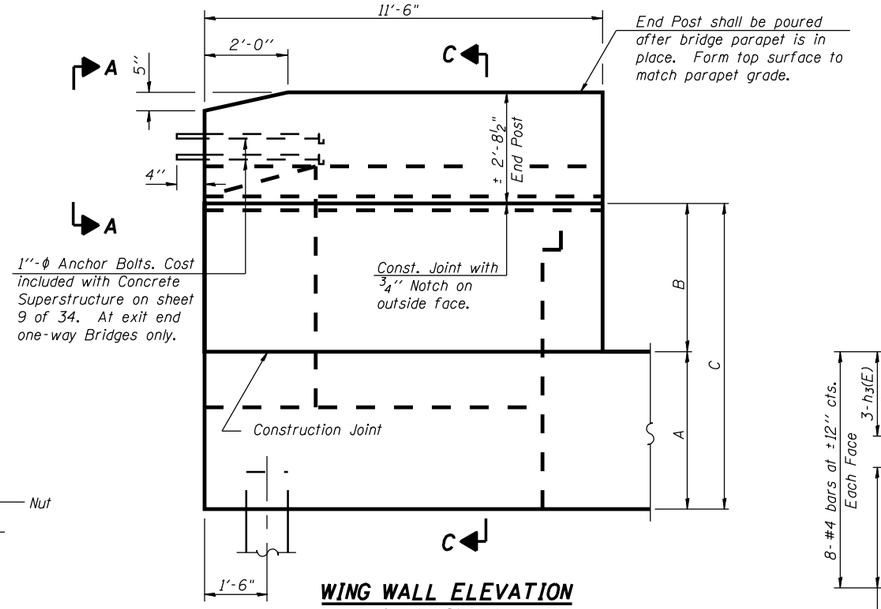




Welded wire fabric 6x6-W4.0xW4.0 weighing 58#/100 sq. ft.
The cost of Excavation, Concrete Encasement and Reinforcement is included with furnishing piles.
Forms for encasement may be omitted when soil conditions will permit.

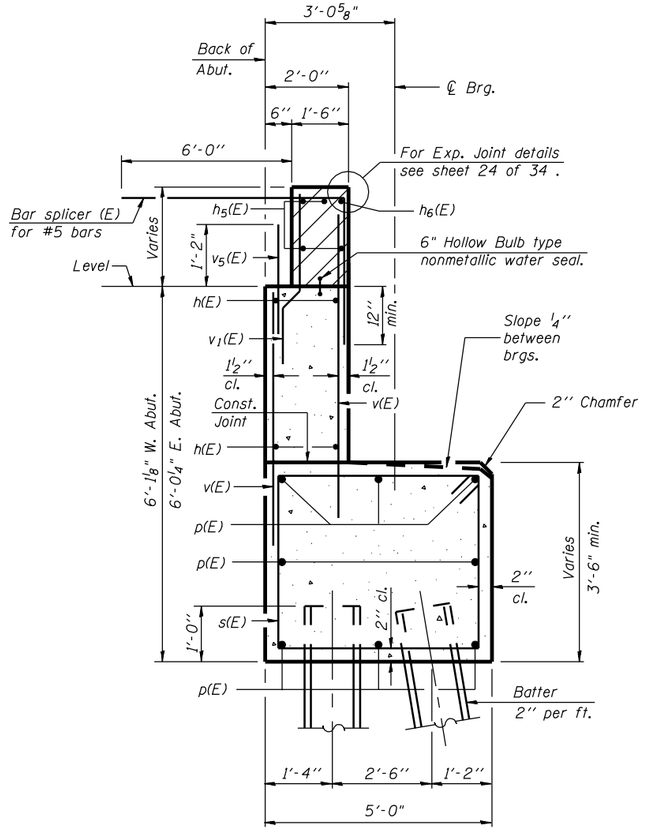
SEC. D-D

DETAIL OF HP PILE ENCASEMENT



WING WALL ELEVATION

Showing Dimensions

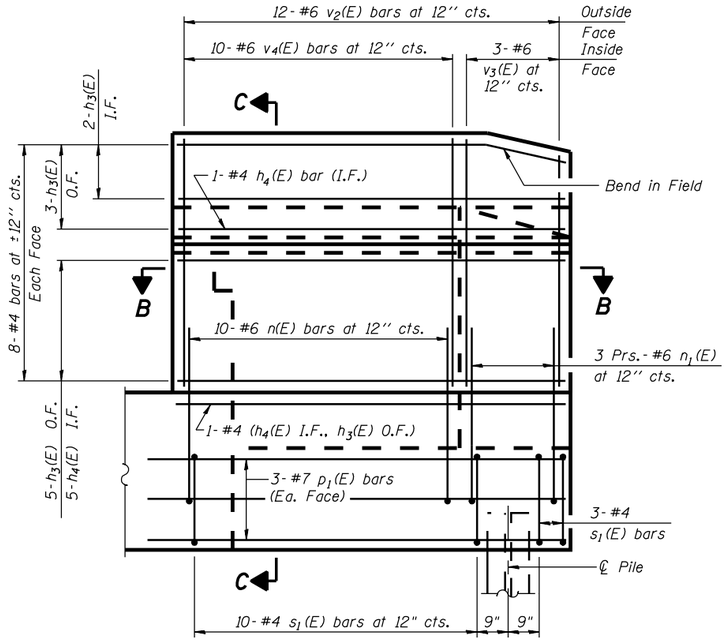


SEC. THRU ABUT.

(@ Rt. L's)

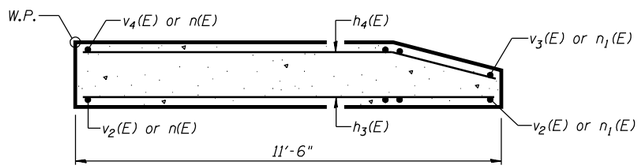
ABUTMENT DIMENSIONS

Location		A	B	C
West Abut.	N. Wing	3'-6"	3'-10¾"	7'-4¾"
	S. Wing	3'-7⅝"	3'-10¾"	7'-6⅝"
East Abut.	N. Wing	3'-6"	3'-10¾"	7'-4¾"
	S. Wing	3'-6⅜"	3'-10¾"	7'-5⅛"

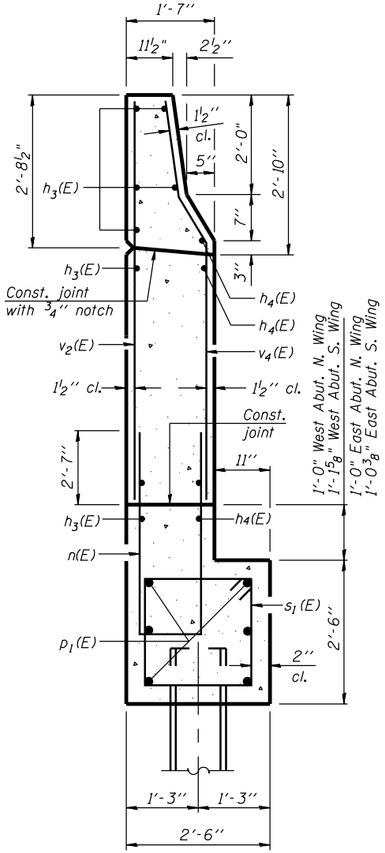


WING WALL ELEVATION

Showing Reinforcement



SEC. B-B



SEC. C-C

Notes: Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
Quantity of concrete in end post included with Concrete Superstructure on sheet 9 of 34.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

ABUTMENT DETAILS
U.S. ROUTE 136 OVER LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

Lamoine/2173b218

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	217
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 19
34 SHEETS

D-96-551-02

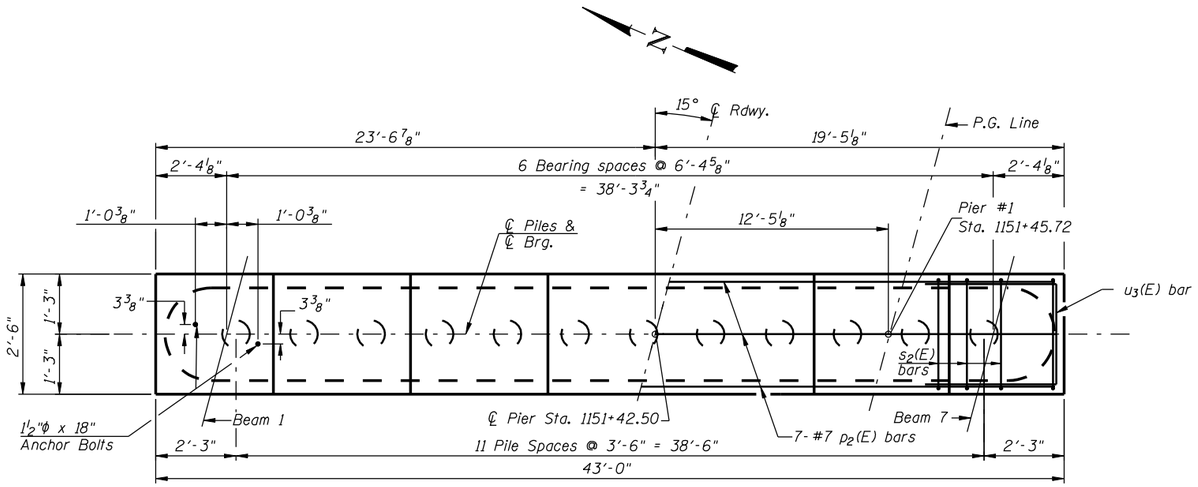
CONTRACT NO. 72680

PILE DATA

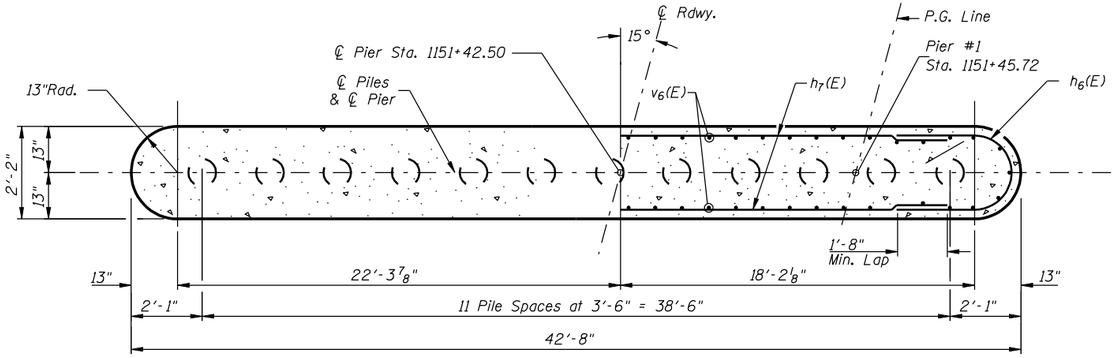
Type: Metal Pile Shells, 14"
Capacity: 55 Tons
Est. Length: 58 Ft.
No. Required: 12

NOTES

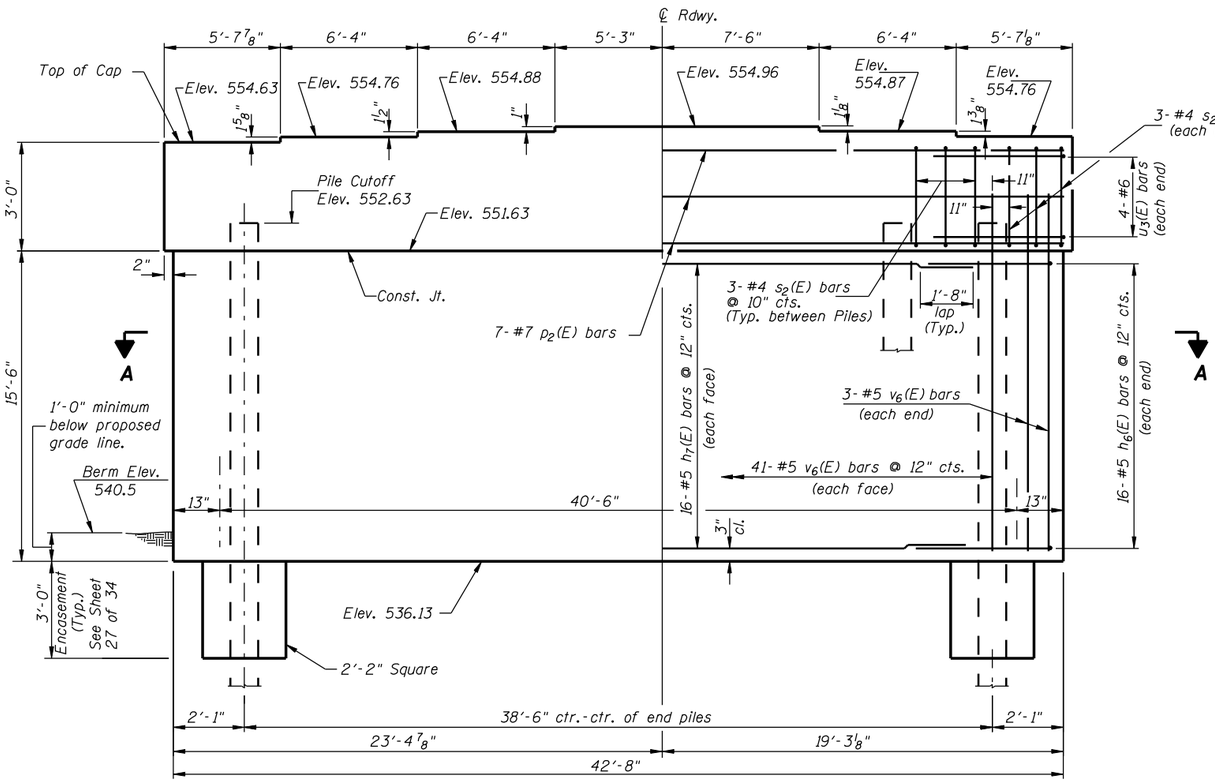
1. Space Reinforcement in cap to miss anchor bolts.
2. All edges shall have standard $\frac{3}{4}$" chamfers.
3. Pour steps monolithically with cap.



TOP PLAN

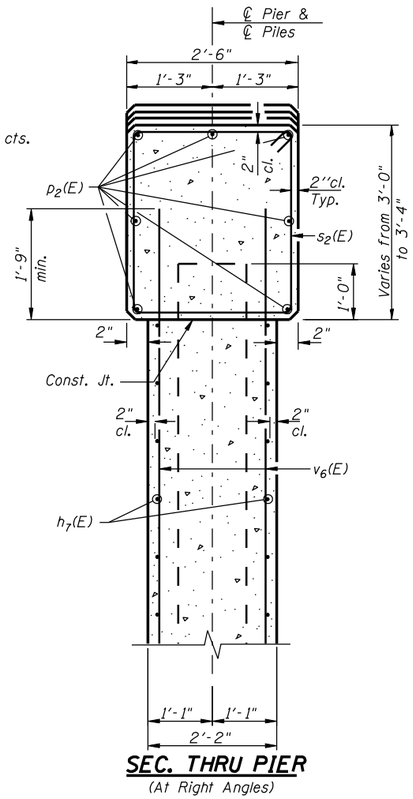


SECTION A-A



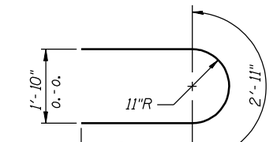
ELEVATION

(Looking East)

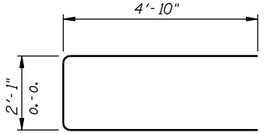


SEC. THRU PIER

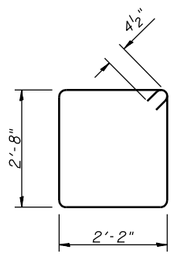
(At Right Angles)



BAR $h_6(E)$



BAR $u_3(E)$



BAR $s_2(E)$

BILL OF MATERIAL
BAR LIST FOR ONE PIER

Bar	No.	Size	Length	Shape
$h_6(E)$	32	#5	8'-11"	
$h_7(E)$	32	#5	38'-10"	
$p_2(E)$	7	#7	42'-8"	
$s_2(E)$	39	#4	10'-5"	
$u_3(E)$	8	#6	11'-9"	
$v_6(E)$	88	#5	17'-3"	
Concrete Structures			CU YD	57.5
Reinforcement Bars, Epoxy Coated			POUND	4,200
Metal Pile Shells, 14"			FOOT	696
Structure Excavation			CU YD	47
Concrete Encasement			CU YD	4.8

Reinforcement bars designated (E) shall be epoxy coated.

MIN. BAR LAP

#5 = 2'-2"

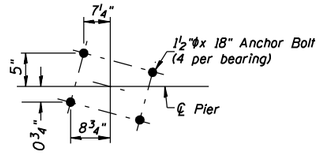
DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

PIER 1
U.S. ROUTE 136 OVER LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

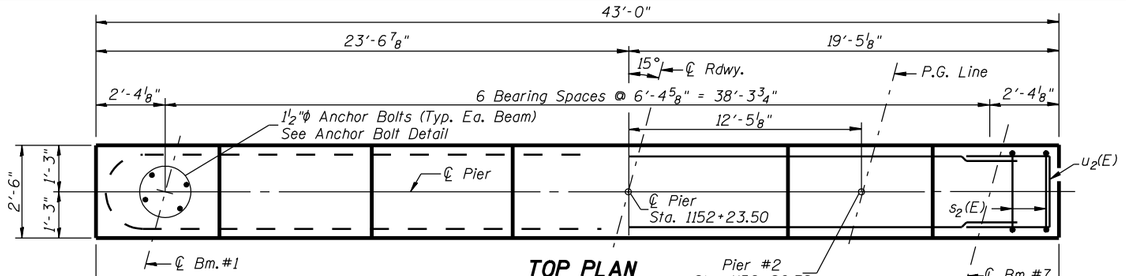
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

Lamoine/2173b219

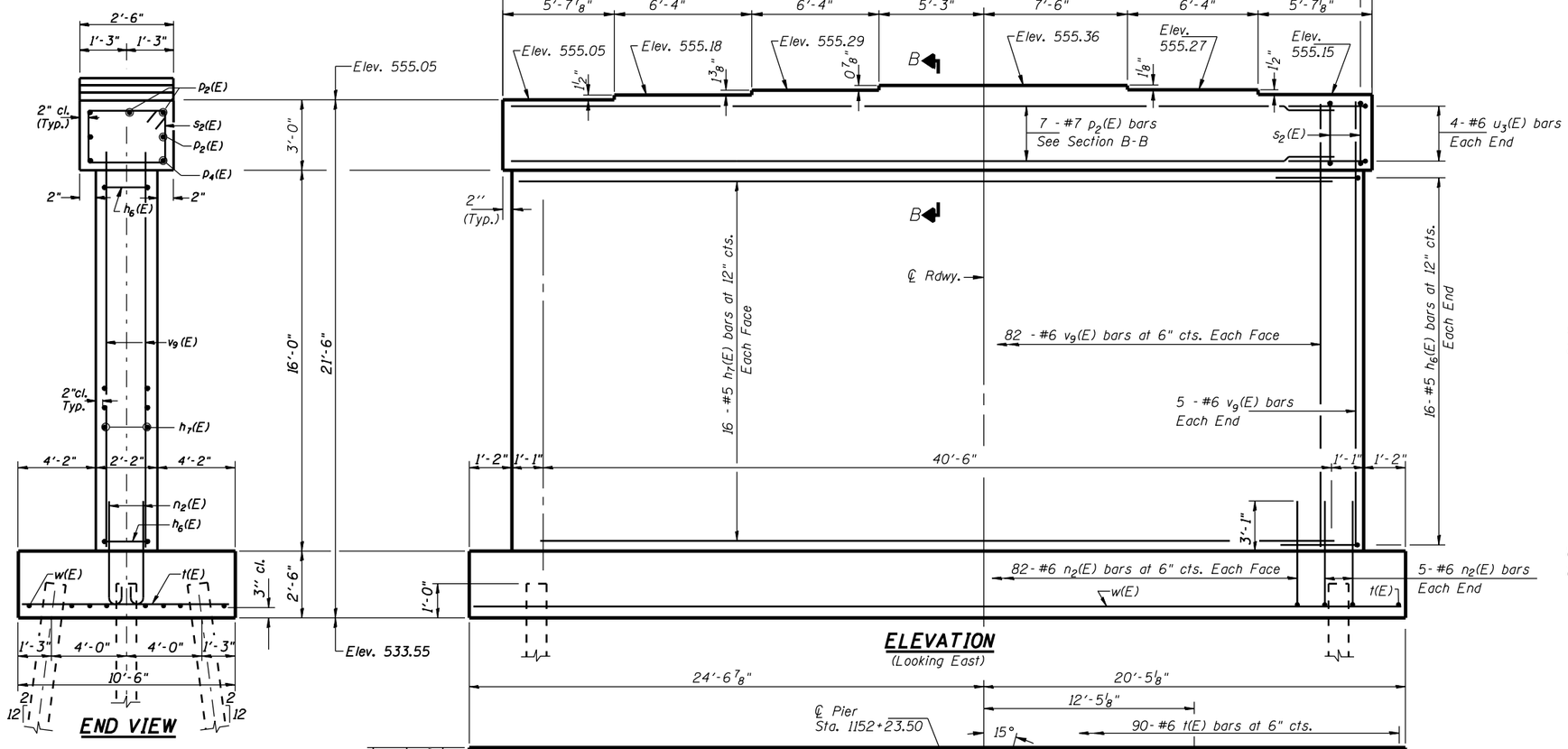
Notes: Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
All edges shall have standard $\frac{3}{4}$" chamfers.



ANCHOR BOLT LAYOUT

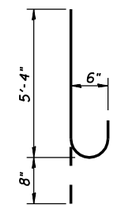


TOP PLAN

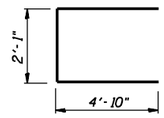


ELEVATION
(Looking East)

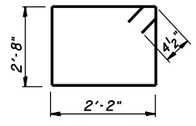
END VIEW



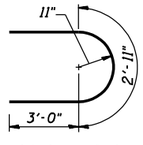
BAR n_2(E)



BAR u_3(E)



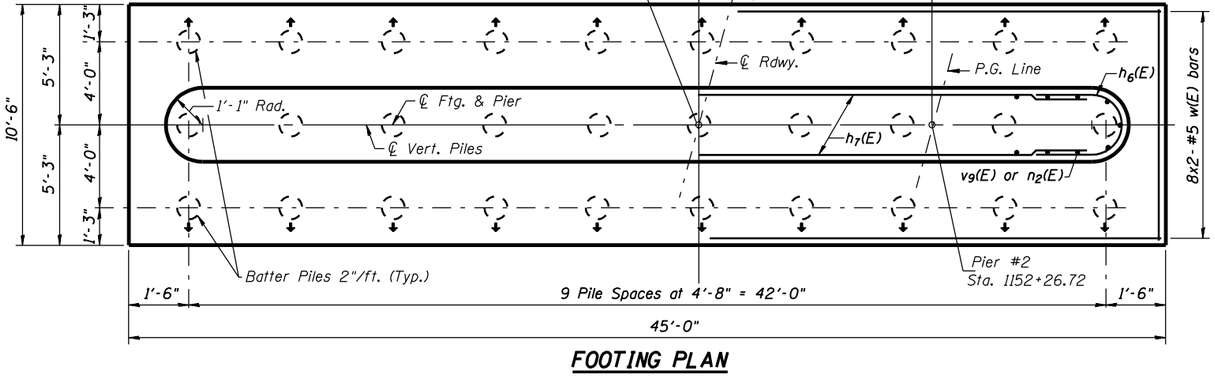
BAR s_2(E)



BAR h_6(E)

PILE DATA

Type: Metal Pile Shells, 14"
Capacity: 45 Tons
Est. Length: 41'
No. Req'd: 29 plus 1 Test Pile



FOOTING PLAN

MIN BAR LAP
#5 = 2'-2"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_6(E)	32	#5	8'-11"	⊂
h_7(E)	32	#5	38'-10"	—
n_2(E)	174	#6	6'-0"	⊃
p_2(E)	7	#7	42'-8"	—
s_2(E)	43	#4	10'-5"	□
t(E)	90	#6	10'-2"	—
u_3(E)	8	#6	11'-9"	⊃
v_9(E)	174	#6	18'-0"	—
w(E)	16	#5	23'-6"	—
Concrete Structures		CU YD	109.5	
Reinforcement Bars, Epoxy Coated		POUND	10,680	
Metal Shell Piles, 14"		FOOT	1,189	
Test Pile Metal Shells		EACH	1	
Structure Excavation		CU YD	182	

Reinforcement Bars designated (E) shall be epoxy coated.

Bars indicated thus 8x2-#5, etc. indicates 8 lines of bars with 2 lengths per line.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

D-96-551-02
CONTRACT NO. 72680

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	218
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 20
34 SHEETS

PIER 2
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

Lamoine/2173b220

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	219
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 21
34 SHEETS

D-96-551-02

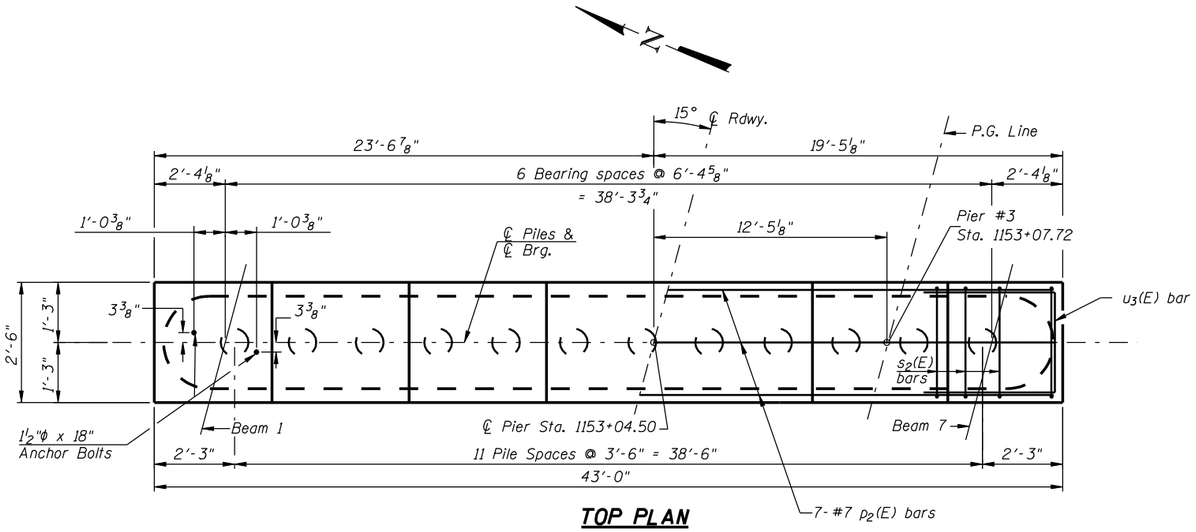
CONTRACT NO. 72680

PILE DATA

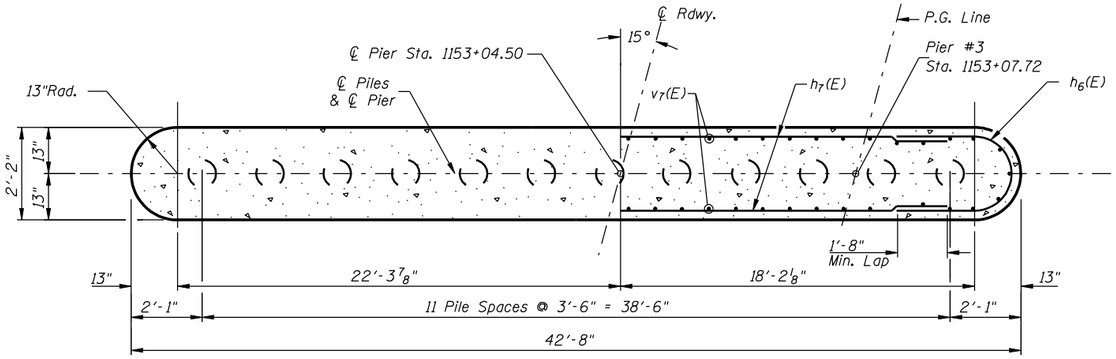
Type: Metal Pile Shells, 14"
Capacity: 55 Tons
Est. Length: 58 Ft.
No. Required: 12

NOTES

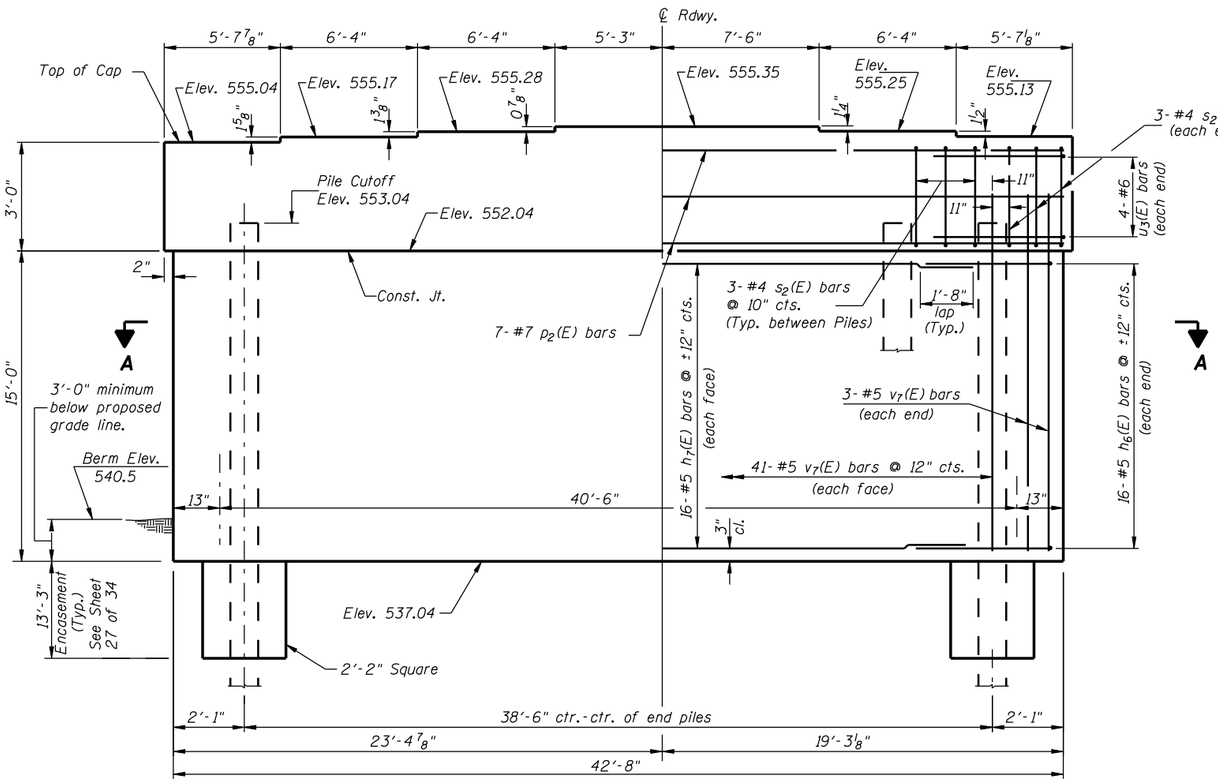
1. Space Reinforcement in cap to miss anchor bolts.
2. All edges shall have standard $\frac{3}{4}$" chamfers.
3. Pour steps monolithically with cap.



TOP PLAN

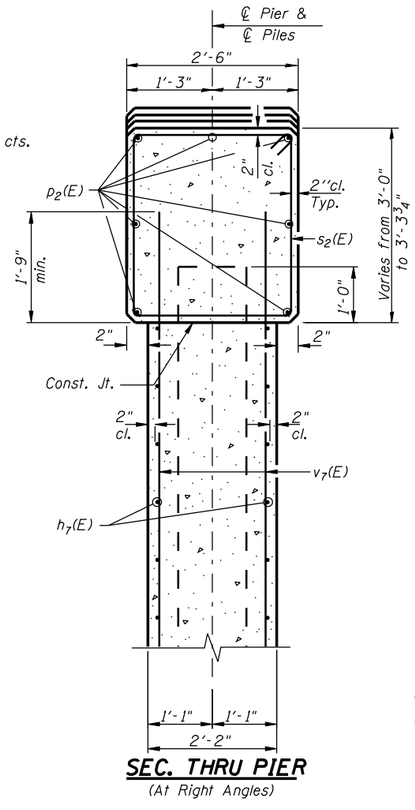


SECTION A-A



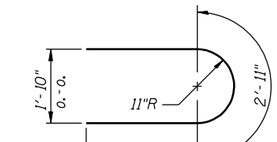
ELEVATION

(Looking East)

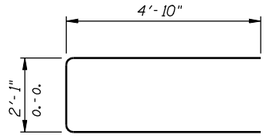


SEC. THRU PIER

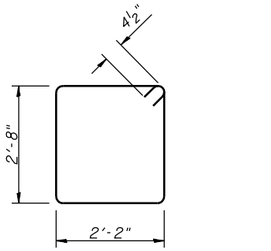
(At Right Angles)



BAR $h_6(E)$



BAR $u_3(E)$



BAR $s_2(E)$

BILL OF MATERIAL
BAR LIST FOR ONE PIER

Bar	No.	Size	Length	Shape
$h_6(E)$	32	#5	8'-11"	
$h_7(E)$	32	#5	38'-10"	
$p_2(E)$	7	#7	42'-8"	
$s_2(E)$	39	#4	10'-5"	
$u_3(E)$	8	#6	11'-9"	
$v_7(E)$	88	#5	16'-9"	
Concrete Structures			CU YD	55.9
Reinforcement Bars, Epoxy Coated			POUND	4,150
Metal Pile Shells, 14"			FOOT	696
Structure Excavation			CU YD	37
Underwater Excavation Protection, Location 1			EACH	1
Concrete Encasement			CU YD	21.3

Reinforcement bars designated (E) shall be epoxy coated.

MIN. BAR LAP

#5 = 2'-2"

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

Lamoine/2173b221

PIER 3
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	220
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 22
34 SHEETS

D-96-551-02

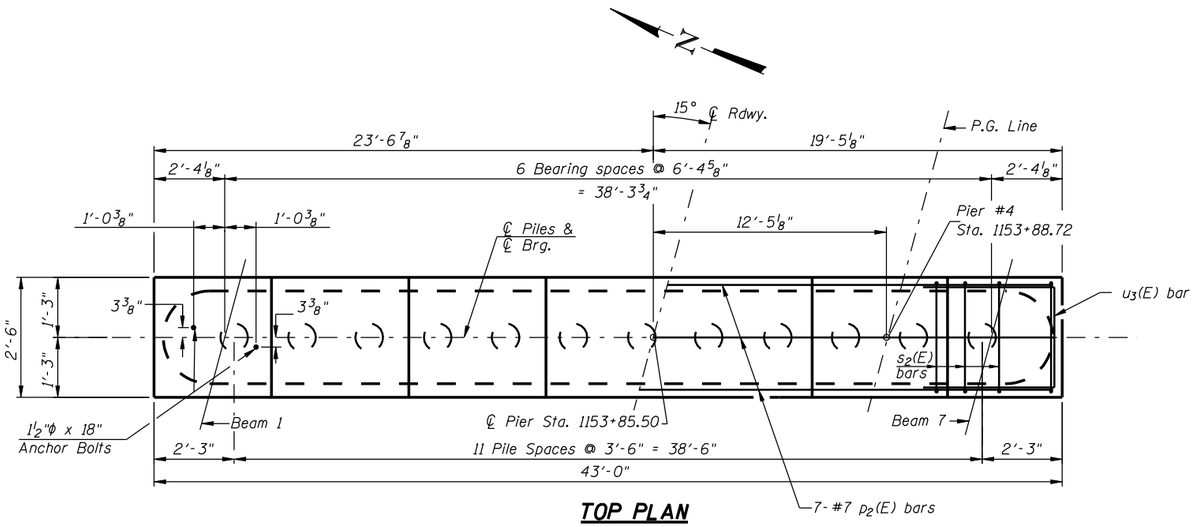
CONTRACT NO. 72680

PILE DATA

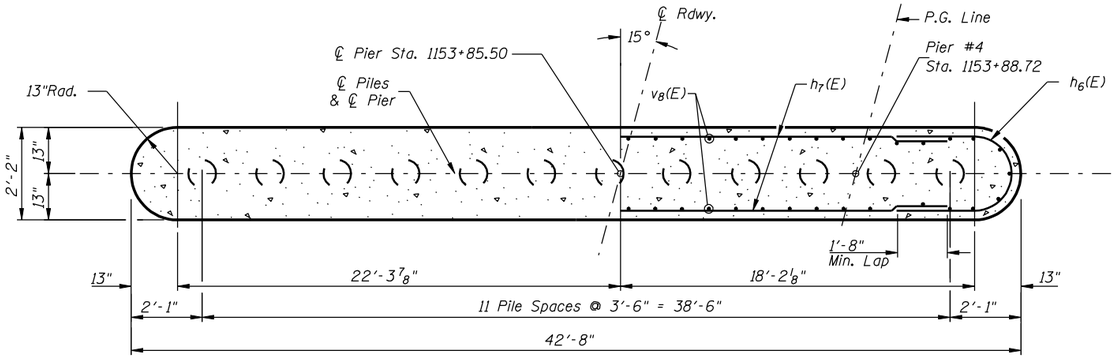
Type: Metal Pile Shells. 14"
Capacity: 55 Tons
Est. Length: 60 Ft.
No. Required: 11 plus 1 Test Pile

NOTES

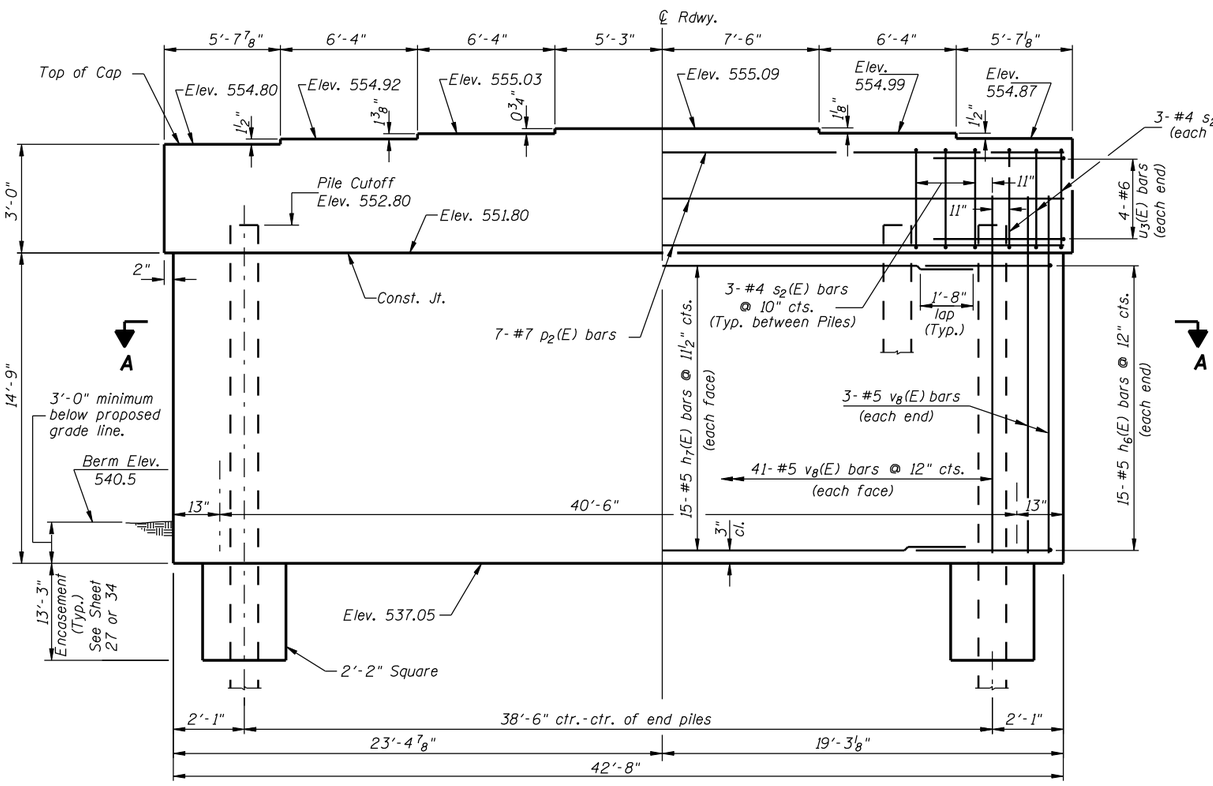
1. Space Reinforcement in cap to miss anchor bolts.
2. All edges shall have standard $\frac{3}{4}$" chamfers.
3. Pour steps monolithically with cap.



TOP PLAN

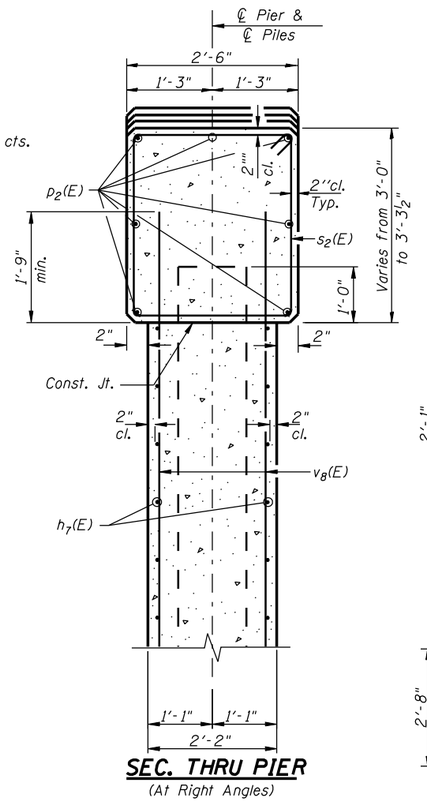


SECTION A-A



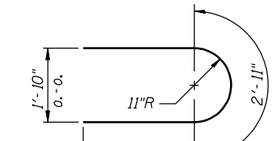
ELEVATION

(Looking East)

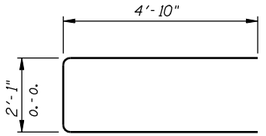


SEC. THRU PIER

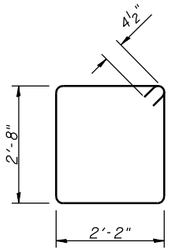
(At Right Angles)



BAR $h_6(E)$



BAR $u_3(E)$



BAR $s_2(E)$

BILL OF MATERIAL
BAR LIST FOR ONE PIER

Bar	No.	Size	Length	Shape
$h_6(E)$	30	#5	8'-11"	
$h_7(E)$	30	#5	38'-10"	
$p_2(E)$	7	#7	42'-8"	
$s_2(E)$	39	#4	10'-5"	
$u_3(E)$	8	#6	11'-9"	
$v_8(E)$	88	#5	16'-6"	
Concrete Structures		CU YD	55.1	
Reinforcement Bars, Epoxy Coated		POUND	4,030	
Metal Pile Shells, 14"		FOOT	660	
Test Pile Metal Shells		EACH	1	
Structure Excavation		CU YD	37	
Underwater Excavation Protection, Location 2		EACH	1	
Concrete Encasement		CU YD	21.3	

Reinforcement bars designated (E) shall be epoxy coated.

MIN. BAR LAP

#5 = 2'-2"

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

PIER 4
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

Lamoine/2173b222

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	221
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 23
34 SHEETS

D-96-551-02

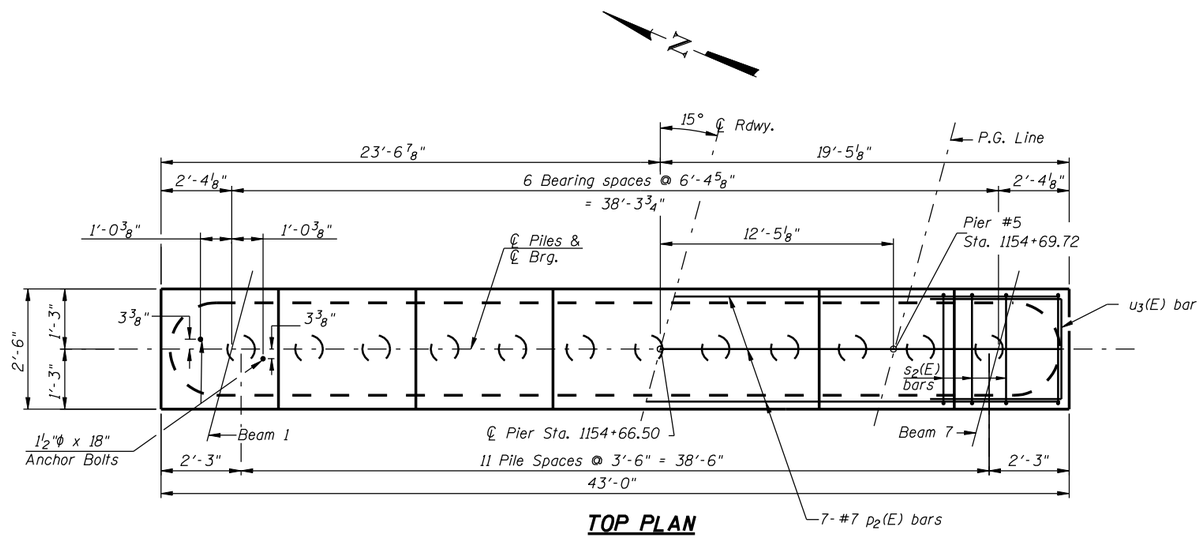
CONTRACT NO. 72680

PILE DATA

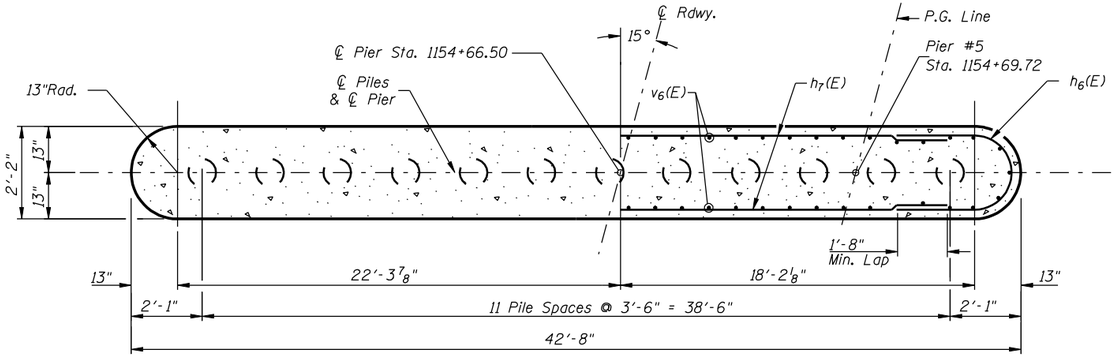
Type: Metal Pile Shells, 14"
Capacity: 55 Tons
Est. Length: 53 Ft.
No. Required: 12

NOTES

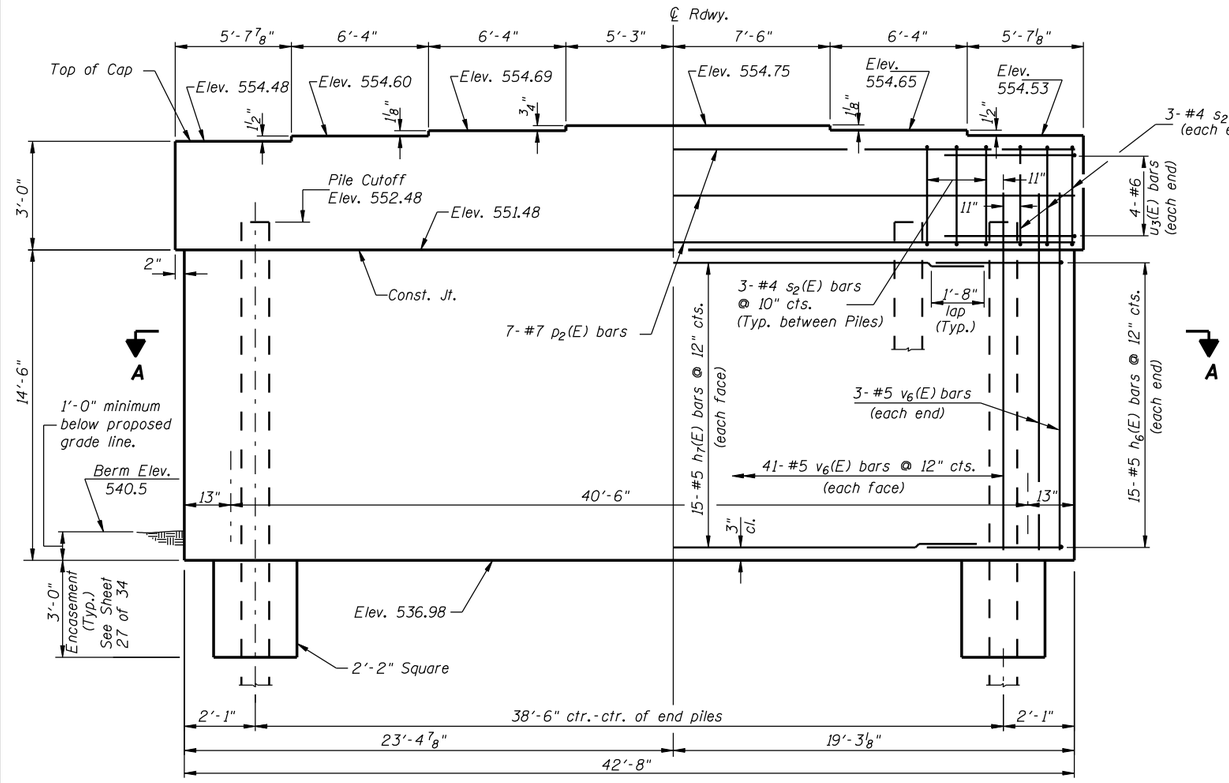
1. Space Reinforcement in cap to miss anchor bolts.
2. All edges shall have standard $\frac{3}{4}$" chamfers.
3. Pour steps monolithically with cap.



TOP PLAN

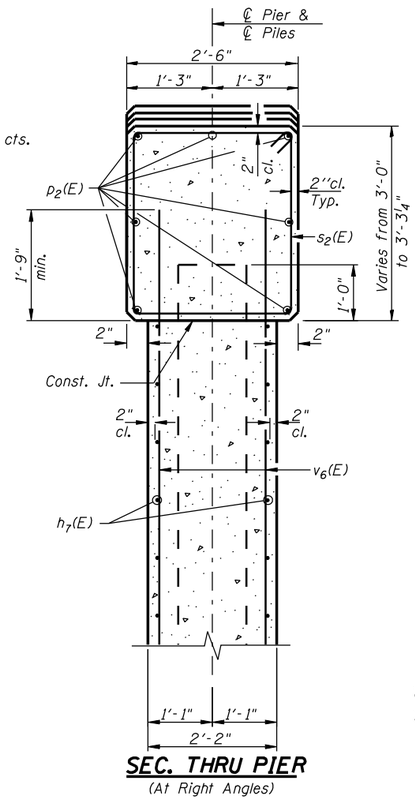


SECTION A-A



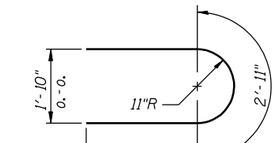
ELEVATION

(Looking East)

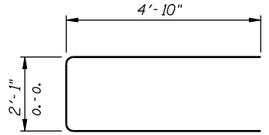


SEC. THRU PIER

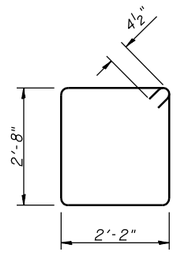
(At Right Angles)



BAR $h_6(E)$



BAR $u_3(E)$



BAR $s_2(E)$

MIN. BAR LAP

#5 = 2'-2"

BILL OF MATERIAL
BAR LIST FOR ONE PIER

Bar	No.	Size	Length	Shape
$h_6(E)$	30	#5	8'-11"	
$h_7(E)$	30	#5	38'-10"	
$p_2(E)$	7	#7	42'-8"	
$s_2(E)$	39	#4	10'-5"	
$u_3(E)$	8	#6	11'-9"	
$v_6(E)$	88	#5	16'-3"	
Concrete Structures			CU YD	54.3
Reinforcement Bars, Epoxy Coated			POUND	4,010
Metal Pile Shells, 14"			FOOT	638
Structure Excavation			CU YD	38
Concrete Encasement			CU YD	4.8

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

PIER 5
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: January 31, 2006

Lamoine/2173b223

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	222
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 24
34 SHEETS

~~D-96-551-02~~

CONTRACT NO. 72680

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1½" Min.
2½"	2½"	1¾" Min.
4"	3"	2½" Min.

INSTALLATION NOTES

(1) Install continuous seal in roadway, parapet, curb, and sidewalk.

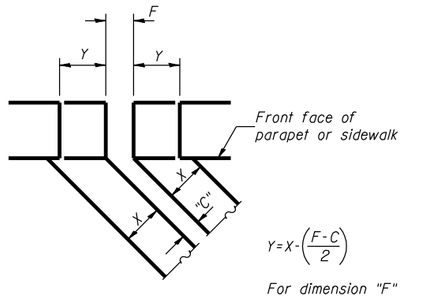
(2) Install anchor blocks as indicated.

NOTE A: Maximum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

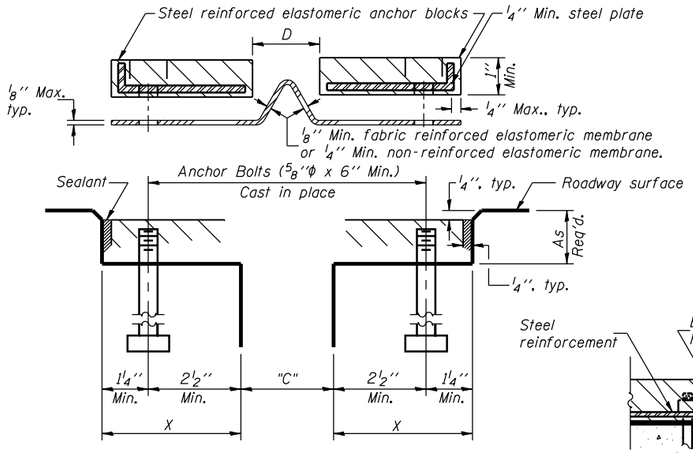
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



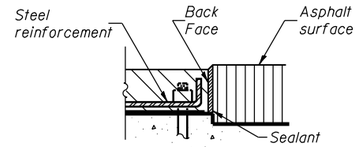
$Y = X - \left(\frac{F-C}{2}\right)$

For dimension "F" see sheet #8 of 34.

FORMING BLOCKOUT SKETCH



CROSS SECTION



ANCHOR BLOCK WITH ASPHALT SURFACE

GENERAL NOTES

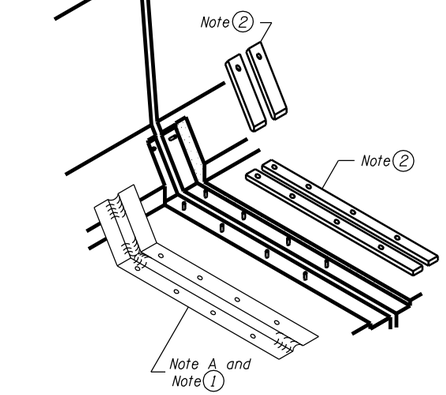
Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

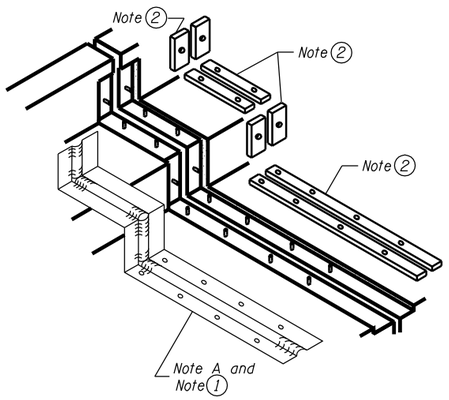
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

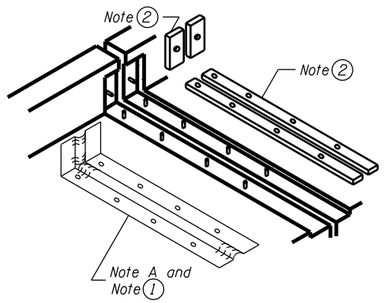
The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.



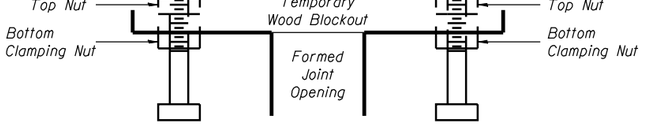
AT PARAPET



AT SIDEWALK OR MEDIAN



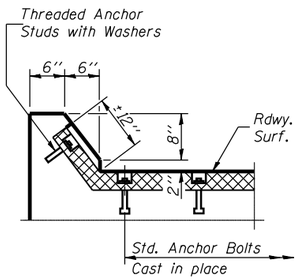
AT WALL



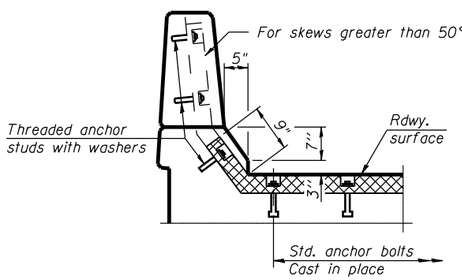
Note: Stud needs to be threaded lower to allow for use of clamping nut.

Anchor studs should be stainless

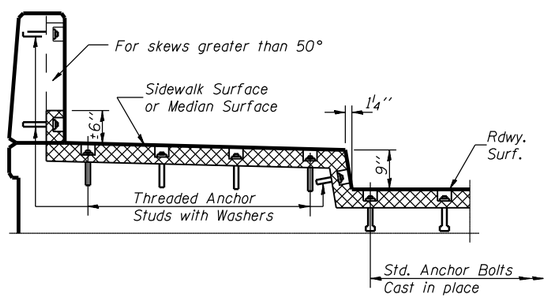
RECOMMENDED BLOCKOUT DETAIL



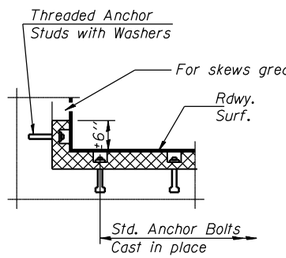
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN



AT WALL

TYPICAL END TREATMENTS

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

EJ-CS 9-01-03

Lamoine/2173b224

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS U.S. ROUTE 136 OVER LAMOINE RIVER F.A.P. RTE. 315 SECTION 34-4B-1 HANCOCK COUNTY STATION 1153+07.72 STR. NO. 034-0508 (WBL)

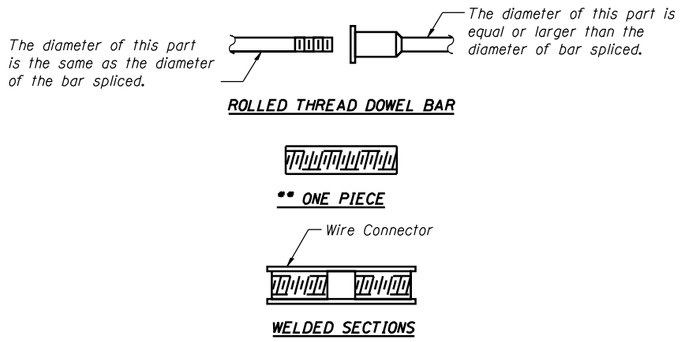
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	223
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 25
34 SHEETS

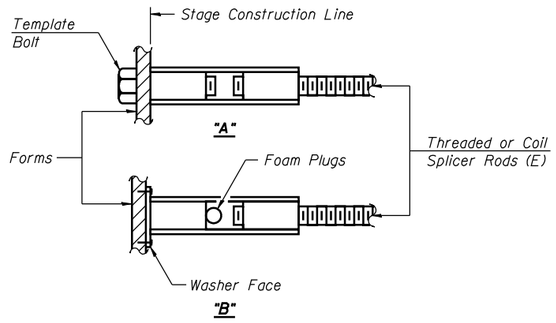
D-86-551-02

CONTRACT NO. 72680



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

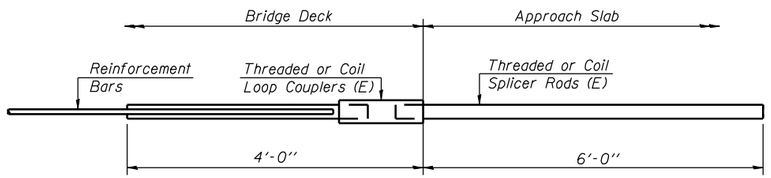
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

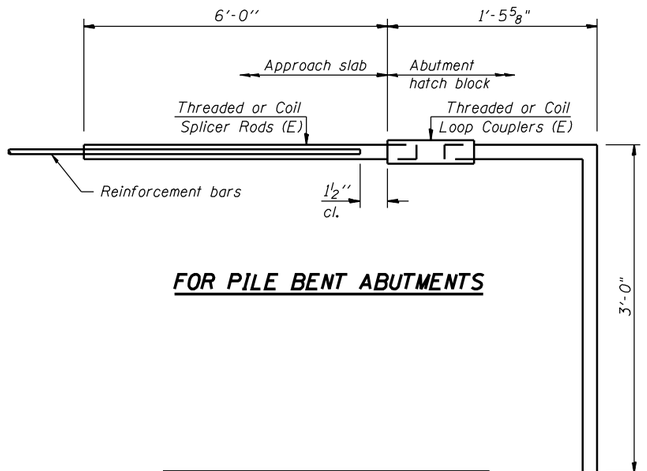
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



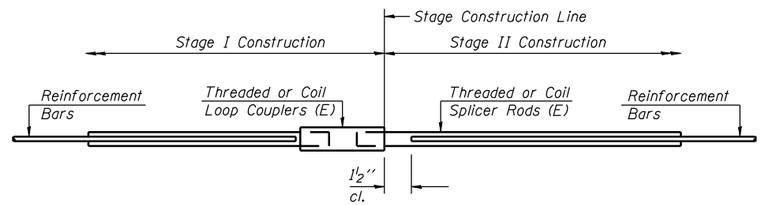
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 84



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

BSD-1 9-01-03

Lamoine/2173b225

BAR SPLICER ASSEMBLY DETAILS
U.S. ROUTE 136 OVER LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1 HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

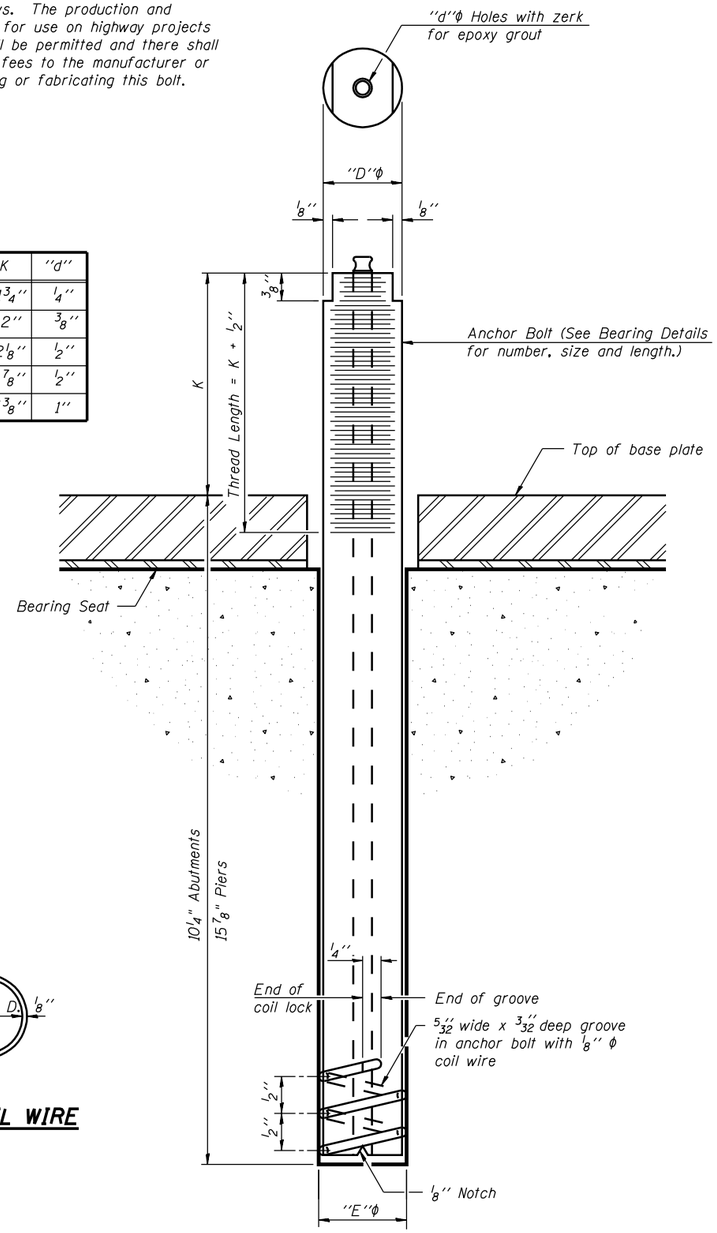
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	224
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 26
34 SHEETS

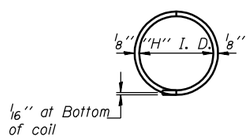
D-96-551-02

CONTRACT NO. 72680

D	E	H	K	"d"
1"	1 1/8"	13/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



ILLINOIS COIL-LOCK ANCHOR BOLT



PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
W. Abut.	A307
Pier 1	A307
Pier 2	A307
Pier 3	A307
Pier 4	A307
Pier 5	A307
E. Abut.	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.

ABB-1 4-30-99

Lamoine/2173b226

ANCHOR BOLT DETAILS FOR BEARINGS U.S. ROUTE 136 OVER LAMOINE RIVER F.A.P. RTE. 315 SECTION 34-4B-1 HANCOCK COUNTY STATION 1153+07.72 STR. NO. 034-0508 (WBL)

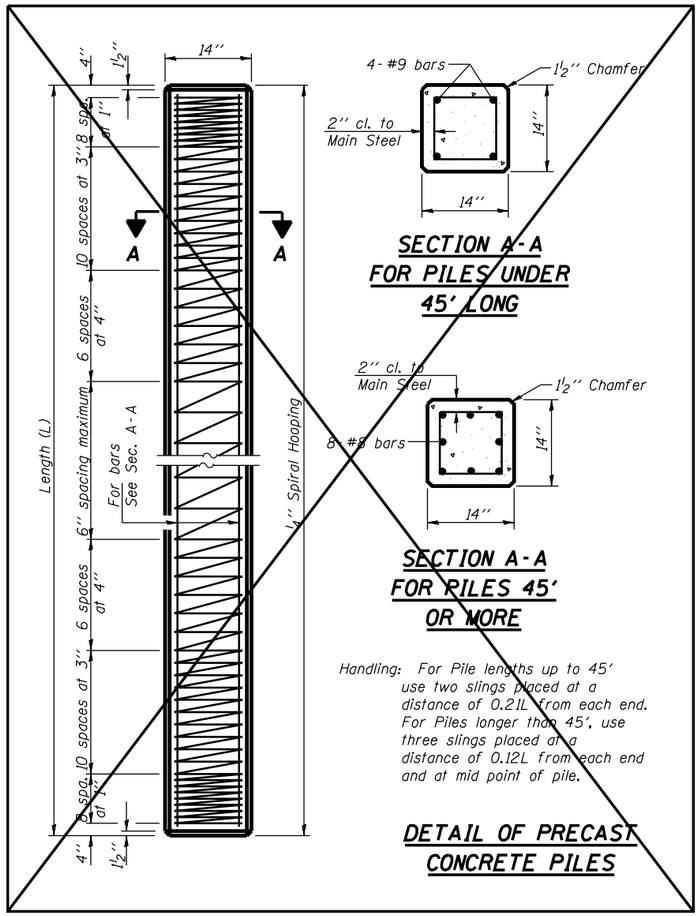
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

D-96-551-02

CONTRACT NO. 72680

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	225
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 27
34 SHEETS



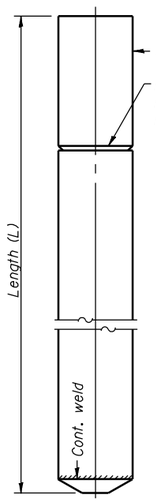
SECTION A-A FOR PILES UNDER 45' LONG

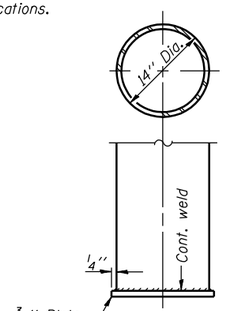
SECTION A-A FOR PILES 45' OR MORE

Handling: For Pile lengths up to 45' use two slings placed at a distance of 0.21L from each end. For Piles longer than 45', use three slings placed at a distance of 0.12L from each end and at mid point of pile.

DETAIL OF PRECAST CONCRETE PILES

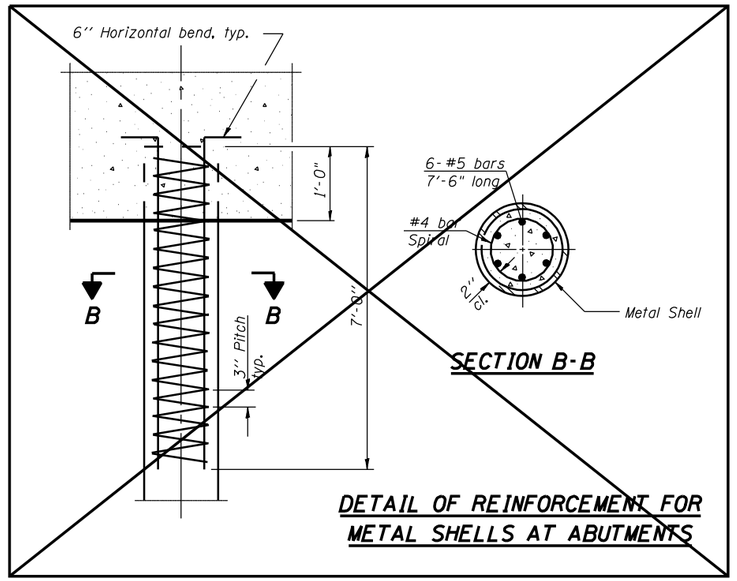
Notes: Driving and bearing ends of pipe shall be cut square. The thickness of the shell shall be 0.250 inches with a tolerance of 5 % . The shell shall be according to Article 1006.05(a) of the Standard Specifications.





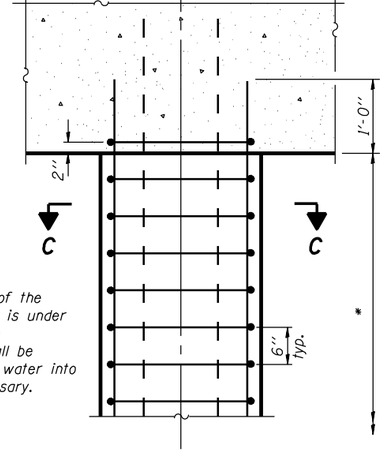
OPTIONAL FLAT END

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

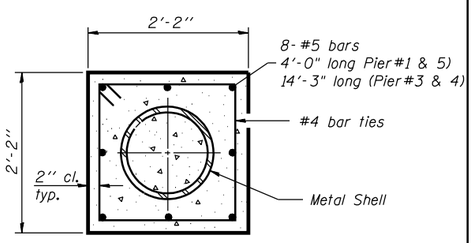


SECTION B-B

DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS



* If a portion of the pile encasement is under water. Concrete Encasement shall be tremmied under water into forms as necessary.



SECTION C-C

The cost of Reinforcement, concrete, and excavation for forms is included with Concrete Encasement.

DETAIL OF PROTECTION FOR METAL SHELLS AT PIERS

DESIGNED	J.O.H.
CHECKED	B.R.T.
DRAWN	T.A.C.
CHECKED	J.O.H.
X-PB	10-31-02

Lamoine/2173b227

CONCRETE PILE DETAILS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	226
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 28
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/13/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 14, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. B5 Abut
Station 1150+80
Offset 57.00ft Left
Ground Surface Elev. 535.5 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 526.5 ft
Upon Completion Washed ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown and Grey Moist SILTY CLAY LOAM			
	0		
	1	0.5	30
-5	2	B	
530.00			
Grey Wet LOAM			
	0		
	1	0.3	29
	1	B	
526.50			
	0		
SAND	1		
Grey Wet Medium Grained SAND	2		
-10 Free Water			
	0		
	0		
	0		
	0		
Medium to Coarse Grained	1		
Washed	2		
-15			
	0		
Dirty	1		
Washed	1		
	0		
Medium Grained	1		
Washed	3		
-20			
SAND (continued)			
	2		
Grey Medium Grained SANDY	4		
GRAVEL	7		
Washed			
512.50			
Brown and Grey Moist CLAY LOAM (Till)	5		
Washed	4	2.0	21
-35	4	B	
	3		
Grey	7	2.9	21
Washed	10	B	
-30			
502.50			
Grey Fine Grained SAND			
Washed	5		
	12		
	19		
-35			
	8		
Medium Grained	19		
Washed	25		
-40			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/13/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 14, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. B5 Abut
Station 1150+80
Offset 57.00ft Left
Ground Surface Elev. 535.5 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 526.5 ft
Upon Completion Washed ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Fine Grained SAND Washed (continued)			
	10		
Medium Grained	25		
Washed	30		
-45			
	12		
Medium to Coarse Grained SAND	22		
w/Broken Limestone GRAVEL at	37		
485.50 -50 Bottom			
Washed	75		
Grey Broken Crystalline	80		
LIMESTONE 484.00			
Auger Refusal at 50.5 - Boring	20/3"		
Completed			
-55			
-60			

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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/lamoine/2173b228

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	227
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 29
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/702

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 86 Pier
Station 1151+46
Offset 40.00ft Left
Ground Surface Elev. 537.1 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft
Groundwater Elev.:
First Encounter 528.1 ft
Upon Completion Washed ft
After 168 Hrs. 529.1 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Moist SILTY CLAY LOAM			
	0		
	1	0.6	30
-5	2	B	
531.60			
Grey Wet SILT LOAM			
	0		
	0	0.2	42
	0	B	
529.10			
Grey Wet SAND LOAM			
Free Water	0		
	0	0.3	25
-10	0	B	
526.60			
Grey Medium Grained SAND			
	0		
	1		
	2		
	0		
Washed	1		
-15	1		
	0		
Fine Grained	1		
Washed	1		
	2		
Medium Grained	2		
Washed	3		
-20			

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Medium Grained SAND (continued)			
	3		
Medium Grained SANDY GRAVEL Washed	5		
	17		
	15		
Washed	12		
512.10 -35	5		
Grey Moist CLAY LOAM (Till)			
	4		
Washed	4	2.1	18
-30	5	B	
Washed	5	2.7	18
-35	12	B	
	5		
498.10			
Grey Fine Grained SAND	14		
Washed	18		
-40			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/702

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 86 Pier
Station 1151+46
Offset 40.00ft Left
Ground Surface Elev. 537.1 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft
Groundwater Elev.:
First Encounter 528.1 ft
Upon Completion Washed ft
After 168 Hrs. 529.1 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Fine Grained SAND Washed (continued)			
	3		
Grey Fine Grained SAND Washed	7		
-45	14		
	14		
Medium to Coarse Grained SAND Washed	20		
-50	34		
484.10			
Grey V. Broken Well Indurated Crystalline LIMESTONE	42		
	88		
-55	12		
	/2"		
	100		
Washed	12		
	15		
	35		
Grey Broken Well Indurated Crystalline LIMESTONE 477.60	36		
-60	64		

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey Well Indurated Limestone – Boring Completed	/1"		
-65			
-70			
-75			
-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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/lamoine/2173b228

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	228
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 30
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/1/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 14, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 87 Pier
Station 1152+26
Offset 31.00ft Left
Ground Surface Elev. 537.8 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 528.8 ft
Upon Completion Washed ft
After 168 Hrs. 529.8 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Tan Fine Grained SAND			
	1		
	1		
-5	2		
532.30			
Grey Wet SILTY CLAY LOAM			
	1		
	1	0.2	36
	1	B	
529.80			
Grey Fine Grained SAND			
	0		
Free Water	0		
-10	1		
	0		
	0		
	1		
	0		
Grey Medium to Coarse Grained SAND	0		
-15	1		
	0		
Medium Grained Washed	1		
	1		
	0		
Medium to Coarse Grained Dirty Washed	1		
-20	2		

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Grey Fine Grained SAND (continued)			
	3		
Medium Grained SANDY GRAVEL Washed	13		
	20		
	22		
Washed	19		
-35	13		
512.30			
Grey Moist CLAY LOAM (Till)			
	2		
Washed	4	2.1	17
	5	B	
	2		
	4	2.2	18
-30	5	B	
	2		
	4	2.1	21
-35	5	B	
	0		
500.30			
Grey V. Moist SAND LOAM			
	0		
	1	0.2	20
-40	1	B	

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/1/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 14, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 87 Pier
Station 1152+26
Offset 31.00ft Left
Ground Surface Elev. 537.8 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 528.8 ft
Upon Completion Washed ft
After 168 Hrs. 529.8 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Grey V. Moist SAND LOAM (continued)			
496.80			
Grey Fine Grained SAND			
	4		
Washed	10		
-45	13		
	9		
	14		
-50	28		
	8		
Medium to Coarse Grained SAND Washed	8		
-55	10		
	26		
Grey Coarse Grained SANDY GRAVEL	39		
477.80 -60	49		

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Washed			
Boring Completed			
-65			
-70			
-75			
-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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/lamoine/2173b228

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	229
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 31
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/602

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 88 Pier
Station 1152+96
Offset 25.00ft Left
Ground Surface Elev. 540.0 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft
Groundwater Elev.:
First Encounter 526.0 ft
Upon Completion Washed ft
After 192 Hrs. 528.5 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)	DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Brown and Grey Moist SILTY CLAY LOAM				Grey V. Moist SILTY CLAY LOAM			
				Washed	0		
					1	0.3	16
					1	B	
				517.00			
	1			Grey Coarse Grained SANDY GRAVEL	4		
Disturbed Sample	3	2.8	21	Washed	18		
-5	6	S-12		-25	23		
	2				5		
	3	1.1	23	Washed	19		
	4	B			15		
				512.00			
	2			Grey Moist CLAY LOAM (Till)	3		
Dark Grey	2	0.5	34	Washed	6	2.8	16
-10	2	B		-30	8	B	
	0						
wLOAM Seams	0	0.3	32				
	0	B					
526.00	0				3		
Grey Fine Grained SAND	2			Washed	5	1.8	24
Free Water	2			-35	6	B	
-15							
	0						
Medium Grained	1						
	1						
522.00							
Grey V. Moist SILTY CLAY							
Washed	0				3		
	1	0.4	24	Grey to Grey and Olive Brown	6	4.5	18
-20	1	B		Moist CLAY LOAM (Till) -40	9	B	

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/602

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 88 Pier
Station 1152+96
Offset 25.00ft Left
Ground Surface Elev. 540.0 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft
Groundwater Elev.:
First Encounter 526.0 ft
Upon Completion Washed ft
After 192 Hrs. 528.5 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)	DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Grey Moist CLAY LOAM (Till) (continued)				Washed	16		
				479.50			
				Grey Fine Grained SAND (continued)			
				Boring Completed			
496.50							
Grey Fine Grained SAND	1						
	2						
-45	8			-65			
	3						
Washed	11						
-50	19			-70			
	6						
Medium Grained	23						
Washed	35						
-55				-75			
	9						
Medium Grained SANDY GRAVEL	20						
-60				-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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

2173/lamoine/2173b228

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	230
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 32
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/1302

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 14, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 89 Pier
Station 1153+89
Offset 25.00ft Left
Ground Surface Elev. 541.4 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 521.9 ft
Upon Completion Washed ft
After 24 Hrs. 534.4 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Description
				Brown and Grey Moist SILTY CLAY
	4			
-5	2	0.6	17	
	2	B		
535.40				
				Brown Moist SAND LOAM
	2			
	2	0.5	15	
	3	B		
532.90				
				Brown and Grey Wet LOAM
	0			
-10	1	0.2	25	
	1	B		
530.40				
				Brown and Grey Moist CLAY
	0			
	2	0.8	34	
	2	B		
527.90				
				Brown and Grey Moist SILTY CLAY
	0			
-15	2	0.5	31	
	2	B		
525.40				
				Grey V. Moist LOAM
	0			
	0	0.3	28	
	0	B		
522.90				
				Grey Medium Grained SAND
	0			
-20	0			Free Water

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Description
	1			Grey Medium Grained SAND (continued)
	1			
	2			Washed
	3			
	3			
-25	4			Medium to Coarse Grained
	7			Washed
513.40				
				Brown and Grey Moist CLAY LOAM (Till)
	7			
-30	5	2.3	23	Washed
	6	B		
	3			
-35	4	2.4	21	Washed
	7	B		
	3			
-40	3	2.0	19	Washed

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/1302

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 14, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 89 Pier
Station 1153+89
Offset 25.00ft Left
Ground Surface Elev. 541.4 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 521.9 ft
Upon Completion Washed ft
After 24 Hrs. 534.4 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Description
	4	B		Brown and Grey Moist CLAY LOAM (Till) (continued)
499.40				
				SAND
	18			
-45	35			Grey Medium Grained SAND
	36			Washed
	3			
-50	7			Fine Grained
	10			Washed
	8			
-55	9			Medium Grained SANDY GRAVEL
	8			Washed
	47			
-60	66			Coarse Grained SANDY GRAVEL

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Description
480.90	34 /1"			Washed
				SAND (continued)
				Boring Completed
-65				
-70				
-75				
-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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/lamoine/2173b228

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	231
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 33
34 SHEETS

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/14/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 90 Pier
Station 1154+60
Offset 40.00ft Left
Ground Surface Elev. 538.0 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 526.0 ft
Upon Completion Washed ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)	
				Grey and Brown Wet LOAM
	1			
-5	1	0.3	23	Washed
	1	B		
532.00				
				Grey and Brown Moist SILTY CLAY
	1			
	2	1.1	26	
	3	B		
	1			
-10	1	0.4	29	Washed
	2	B		
527.00				
				Grey Medium Grained SAND Free Water
	1			
	1			
	2			
	0			
-15	1			Washed
	1			
522.00				
				Grey V. Moist SILTY CLAY LOAM
	0			
	1	0.3	28	Washed
	1	B		
	1			
-20	3	0.6	27	Poor Recovery

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)	
	5	B		Washed
517.50				Grey V. Moist SILTY CLAY LOAM (continued)
	5			Grey Medium Grained SANDY GRAVEL
	19			Washed
	29			
	5			
-25	9			Washed
	10			
511.00				
				Grey and Olive Brown Moist CLAY LOAM (Till)
	2			
-30	5	1.9	20	Washed
	7	B		
	3			
-35	7	2.7	19	Washed
	10	B		
500.00				
				Grey Medium Grained SAND
	2			Washed
-40	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)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/14/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 90 Pier
Station 1154+60
Offset 40.00ft Left
Ground Surface Elev. 538.0 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 526.0 ft
Upon Completion Washed ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)	
	9			Grey Medium Grained SAND (continued)
	6			
-45	10			Medium to Coarse Grained Washed
	10			
	9			
-50	20			Medium Grained Washed
	26			
	10			
-55	20			Medium to Coarse Grained Washed
	22			
	54			
480.50	73			Coarse Grained SANDY GRAVEL Washed
	27			
	/1"			Boring Completed
-60				

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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

2173/lamoine/2173b228

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	232
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 34
34 SHEETS

~~D-96-551-02~~

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 2

Date 11/1402

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 91 Abut
Station 1155+38
Offset 47.00ft Left
Ground Surface Elev. 536.8 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 520.3 ft
Upon Completion Washed ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
	1		
	3	1.0	25
-5	2	B	
	1		
	2	0.9	26
	3	B	
	1		
	2	0.7	22
-10	2	B	
	0		
	2	0.8	25
	2	B	
	0		
	2	0.8	25
-15	3	B	
	0		
	0		
	1		
	1		
	2		
-20	4		

Grey and Brown Moist SILTY CLAY

521.80
Grey Fine Grained SAND

Free Water

Washed
516.80

Grey Medium Grained SANDY GRAVEL

Washed

509.30
Grey to Olive Brown and Grey Moist CLAY LOAM (Till)
Washed

504.30
Grey Medium Grained SAND

Washed

Medium to Coarse Grained
Washed

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
	5		
	12		
	19		
	7		
	15		
-25	16		
	2		
	5	2.0	21
-30	6	B	
	10		
	15		
-35	22		
	5		
	10		
-40	12		

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 2 of 2

Date 11/1402

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 over West Fork Lamoine River LOGGED BY M. Tappan

SECTION 34-4 LOCATION SE 1/4, SEC. 18, TWP. 5 N, RNG. 5 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-0508
Station 1153+08

BORING NO. 91 Abut
Station 1155+38
Offset 47.00ft Left
Ground Surface Elev. 536.8 ft

Surface Water Elev. 528.4 ft
Stream Bed Elev. 527.7 ft

Groundwater Elev.:
First Encounter 520.3 ft
Upon Completion Washed ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
	10		
	24		
-45	36		
	9		
	20		
-50	33		
	5		
	9		
-55	12		
-60			

Grey Medium Grained SAND (continued)

Washed

Washed

Coarse Grained
Washed
451.80
Boring Completed

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)

DESIGNED	JEH
CHECKED	BRT
DRAWN	TC
CHECKED	BRT

BORINGS
U.S. ROUTE 136 OVER
LAMOINE RIVER
F.A.P. RTE. 315 SECTION 34-4B-1
HANCOCK COUNTY
STATION 1153+07.72
STR. NO. 034-0508 (WBL)

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/lamoine/2173b228

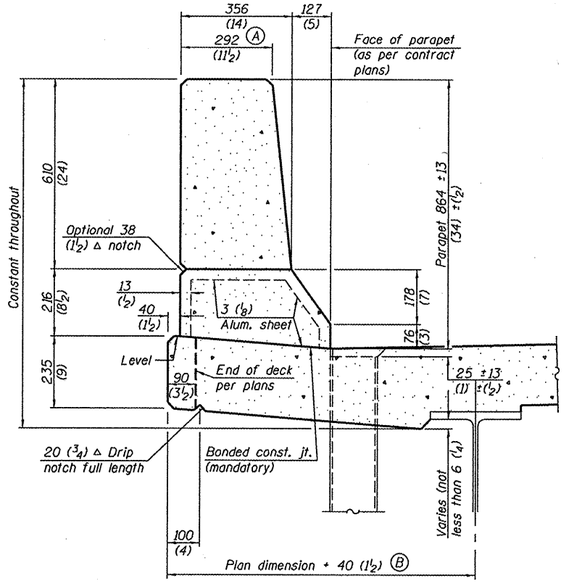
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	*	HANCOCK	452	232A
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

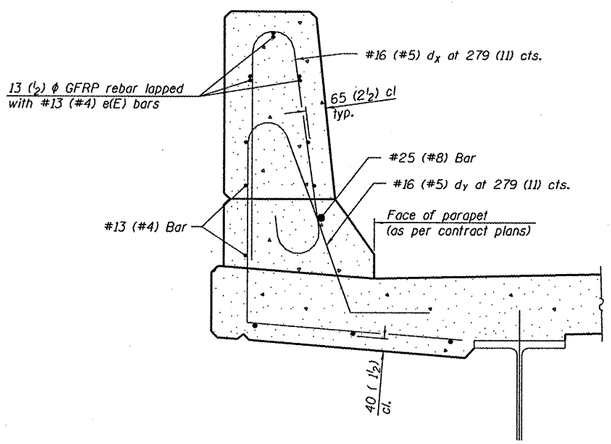
SHEET NO.
SHEETS

Contract # 72680

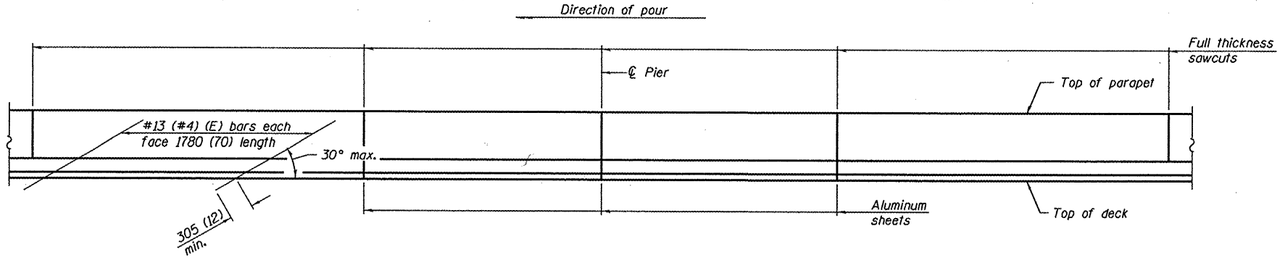
*34-4



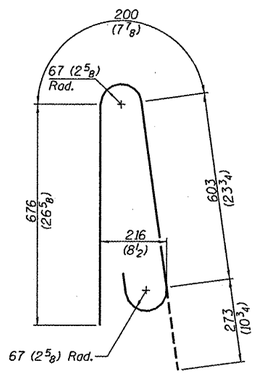
SECTION
(Showing dimensions)



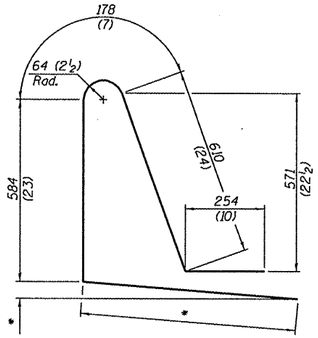
SECTION
(Showing required reinforcement)



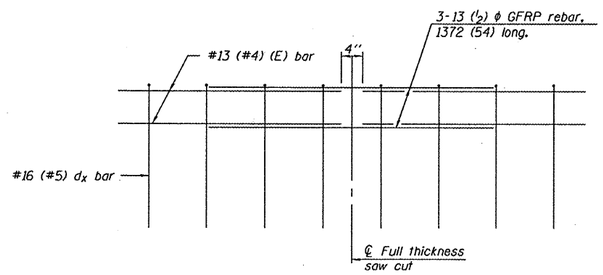
ELEVATION
(Showing parapet joints and typical stiffening reinforcement between joints)



BAR $d_x(e)$



BAR $d_y(e)$
* Per contract plans



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section)

GENERAL NOTES

All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B= 0.0422 m /m (.0165 cu. yds./ft.) of parapet.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.

CONCRETE PARAPET
SLIPFORMING OPTION

B.M. TA-218: 60d Spike Nail in Power Pole 0.25 miles East along US 136 from TR 2200 E. South of ℄ Exist. US 136 Elev. 606.88 (184.976 m)

EXISTING STRUCTURE: Built as S.B.I. Route 9, Section 26X, Station 246+32 in 1941. Single 14'x13' Reinforced Concrete Box Culvert 103'-3" Bk. to Bk. Headwalls. Existing Structure to be removed after FA 315 E.B.L is constructed. Two-way traffic shall be maintained on the existing structure during construction of FA 315 E.B.L No Salvage.

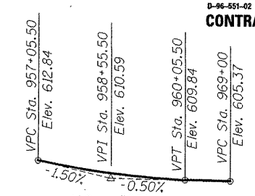
CONSTRUCTION SEQUENCE & MAINTENANCE OF TRAFFIC

1. Construct south portion of new culvert (Stage I) while maintaining two-way traffic on existing structure.
2. Move two-way traffic to newly constructed E.B.L.
3. Remove existing structure as required.
4. Construct north portion of new structure (Stage II).

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	34-4	HANCOCK	452	233
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 1 7-SHEETS

D-96-551-02
CONTRACT NO. 72680

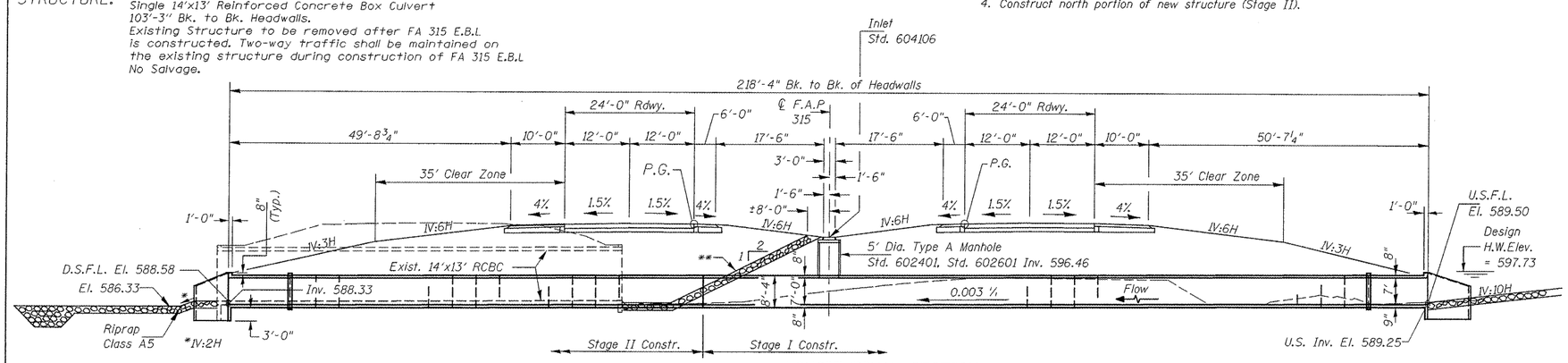


PROPOSED PROFILE GRADE
FA 315

STATION 960+46.00
BUILT BY
STATE OF ILLINOIS
F.A.P. ROUTE 315 SEC. 34-4
LOADING HS20
STR. NO. 034-2513

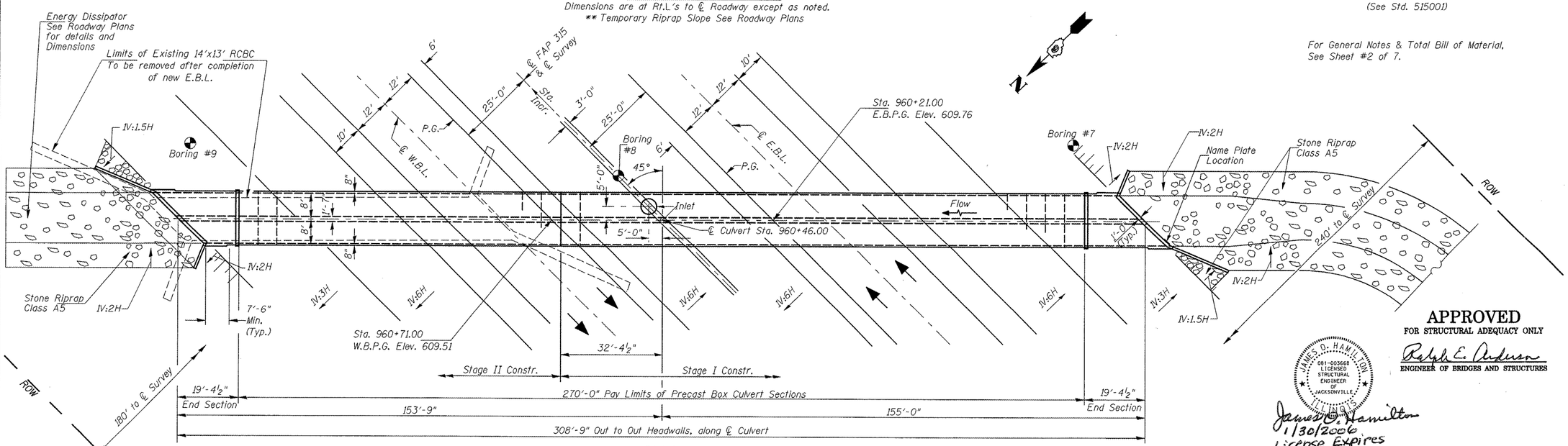
NAME PLATE
(See Std. 515001)

For General Notes & Total Bill of Material, See Sheet #2 of 7.



LONGITUDINAL SECTION

Dimensions are at Rt.L's to ℄ Roadway except as noted.
** Temporary Riprap Slope See Roadway Plans



PLAN

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC TD
CHECKED	JOH

WATERWAY INFORMATION

Drainage Area = 2.21 Mi² — Ex. Low Grade Elev. 603.67 ft. @ Sta. 974+25.00 — Pr. Low Grade Elev. 605.05 ft. @ Sta. 970+25.07

Flood	Frequency Year	Discharge (cfs)	Waterway Opening (ft²) Existing	Waterway Opening (ft²) Proposed	Natural H.W.E.	Head (ft.) Existing	Head (ft.) Proposed	Headwater Elev. Existing	Headwater Elev. Proposed
	10	624	—	—	—	—	—	—	—
Design	50	1014	129	112	***	0.9	1.7	598.95	599.43
Base	100	1186	143	112	***	1.9	2.7	599.95	600.39
Overtopping	—	—	—	—	—	—	—	—	—
Max. Calc.	500	1608	176	112	***	4.2	5.67	602.27	603.40

*** 598.04 Existing
597.73 Proposed

LOADING HS20-44

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

DESIGN SPECIFICATIONS

1996 AASHTO with 1997, 1998, 1999 ,2000 & 2002 Interims

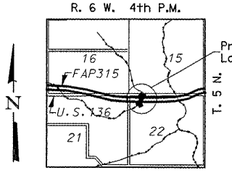
DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

JAMES O. HAMILTON
081-003688
LICENSED STRUCTURAL ENGINEER
OF JACKSONVILLE, ILLINOIS

James O. Hamilton
1/30/2006
License Expires
11/30/2006

GENERAL PLAN
U.S. ROUTE 136 OVER
TRIBUTARY PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4
HANCOCK COUNTY
STATION 960+46.00
STR. NO. 034-2513

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

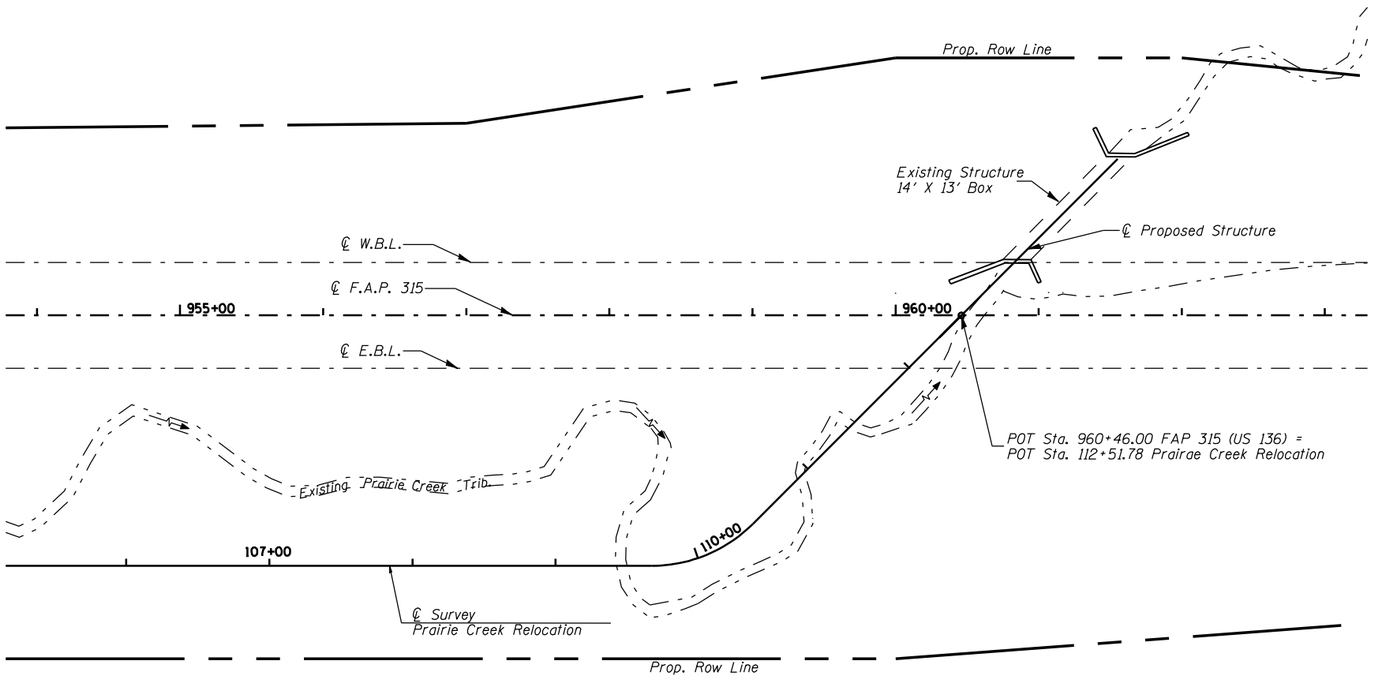
Date: January 31, 2006

2173/Culvert 960+46/2173c001

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	34-4	HANCOCK	452	234
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 2
7 SHEETS

D-06-551-02
CONTRACT NO. 72680





GENERAL NOTES

Reinforcement Bars shall conform to the requirements of AASHTO M31, M42, or M53 Grade 60.

Layout of Stone Riprap may be varied in the field to suit ground conditions as directed by the Engineer.

All exposed concrete edges shall have a $\frac{3}{4}$" chamfer unless otherwise noted.

For backfilling and embankment see Standard Specifications.

All construction joints shall be bonded.

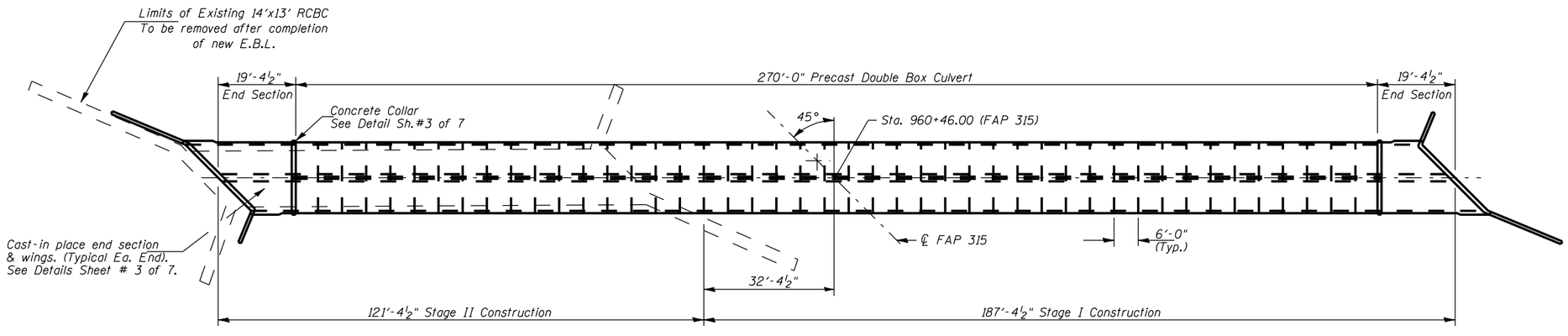
Precast End Sections will not be permitted.

TOTAL BILL OF MATERIAL

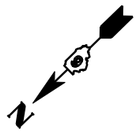
ITEM	UNIT	TOTAL
Removal of Existing Structures	EACH	1
Concrete Box Culverts	CU YD	98.8
Reinforcement Bars	POUND	15,580
Name Plates	EACH	1
* Precast Concrete Box Culvert 8'x 7'	FOOT	540

*See Special Provisions
For Riprap quantities see Roadway Plans.

CHANNEL RELOCATION SKETCH



STAGING DETAIL



CHANNEL CHANGE & STAGING DETAIL U.S. ROUTE 136 OVER TRIBUTARY PRAIRIE CREEK F.A.P. ROUTE 315 SECTION 34-4 HANCOCK COUNTY STATION 960+46.00 S.N. 034-2513

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: March 15, 2006

2173/Culvert 960+46/2173c002

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	34-4	HANCOCK	452	235
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 3
7 SHEETS

D-98-851-02
CONTRACT NO. 72680

(Back)
3-#6 h_3 bars at 12" cts. Short Wing
4-#9 h_7 bars at 11" cts. Long Wing

(Front)
7-#6 h_3 bars at 12" cts. Short Wing
8-#9 h_7 bars at 11" cts. Long Wing

Bend in Field (Typ.)

11'-4" | 3'-9" | 7'-7"

Long Wing | Short Wing

9-#9 h_6 bars at 11" cts. | 8-#6 h_8 bars at 12" cts.

(Back) (Back)

4-#4 v_1 bars
Ea. Wing
See Plan View

12" | s or s_1 | h_4 | h_2 | a | h | 8" | 3"

h_5

17-#5 v bars at 7½" cts. Short Wall
45-#5 v bars at 7½" cts. Long Wall
31-#5 v bars at 7½" cts. Center Wall

7-#6 h_9 bars at 12" cts. (Short Wall)
7-#6 h_{10} bars at 12" cts. (Center Wall)
7-#6 h_{11} bars at 12" cts. (Long Wall)

7'-0" | 1'-6" | 6"

3"ϕ Drains at ±8'-0" cts.
Constr. Jt.

h_5 | a | d | h_{13} | 2" cl. | 3'-0" | h_{14} | h_1 | a_2 | 9"

Elev. 588.33 DS
Elev. 589.25 US

4-#4 v_1 bars | 8"

Precast Concrete Box Culvert

Concrete Collar

MIN BAR LAP

#4 bars	1'-4"
#5 bars	1'-8"
#6 bars	2'-0"

LONGITUDINAL SECTION

Dimensions are at right angles to ℄ Roadway

Tilt hook of a bars if necessary for 1½" min. cl.

18'-11" min.

¼" wide x 1" deep sawed joint, full length

Symm. about ℄ Culvert

h or h_2 | 1½" cl. | 8" | 1½" cl.

v | h_9 | 8" min. | 8'-0" | 1'-7" | 8'-0" | 8" min.

Construction Joint

1½" cl. | 9½" | 9½" | h_{10} | 6" Typ. | 7'-0" | h_{11}

8'-5"

Construction Joint

2" cl. | h_9 | a | 9"

h_1 or h_{14} | a_2 | 2" cl. | ½" x 2" PJF Full Length of Slab

SECTION B-B

14'-9" | 28'-2" | 7'-6" | 20'-8"

Precast Concrete Box Culvert

15" | v_1 | 1½" cl. | 22°30' | h_6 & h_7 | 1-#5 v bar (Ea. Corner)

*30-#7 a bars at 7" cts. Bott. of Top Slab
*30-#7 a bars at 7" cts. Top of Bott. Slab

B | C | Concrete Collar

5'-7¼" | 1½" cl. | h_7 13'-7½" | h_6 or h_7

#6 h_6 below barrel cut to fit as needed | *a bars

2-#6 h_5 bars Top of Bottom Slab

6"x3" Formed Opening

3-#6 h_{13} bars in Cut-off wall Ea. End of Culvert

Cut h_4 bars in top of headwall at joints

17-#4 d bars at 12" cts. in Cut-off Wall Ea. End of Culvert

Cut-off Wall

℄ Culvert | ½" PJF in Headwall

24-#4 s bars at 12" cts. Uptream End
24-#4 s_1 bars at 12" cts. Downtream End

8'-9½"

2-#6 h_4 bars Top of Headwall Each End

2-#6 h_5 bars in Bottom of Headwall Ea. End of Culvert

#9 h_8 below barrel cut to fit as needed

3'-5¼" | 67°30' | h_3 | 1½" cl. | 8'-3⅝" | v_1 | 1½" cl. | 15"

**16-#5 h_{14} bars at 16" cts. Top & Bott. of Bott. Slab
**20-#6 h_2 bars at 12" cts. in Bottom of Top Slab
**2-#6 h_2 bars in Top of Top Slab spa. as shown in Section B-B

11-#4 a_2 bars at ±2'-0" cts. Bottom of Bottom Slab

¼"x 1" Sawed Jt. Top Slab

16-#5 h_1 bars at 16" cts. Top & Bott. of Bott. Slab
20-#6 h bars at 12" cts. in Bottom of Top Slab
2-#6 h bars in Top of Top Slab spa. as shown in Section B-B

8'-0" | 1'-7" | 9½" | 9½" | 8'-0" | 8'-0" | 8"

22-#7 a bars at 6" cts. Bottom of Top Slab

22-#7 a bars at 6" cts. Top of Bottom Slab

6-#4 a_2 bars at ±2'-0" cts. Bottom of Bottom Slab

h_2 or h_{14} | Back Face h_3 & h_8 | 5" (Typ.) | h or h_1

B | A | C

9'-0" | 7'-6" | 3'-1" | 10'-7"

Sta. Incr. | ℄ FA 315 & ℄ Survey | Flow | 45° | Station 960+46.00

* Order a bars full length. Cut to fit skew and use remainder of bars in opposite end.

** Cut h_2 & h_{14} bars to fit skew according to Field Cutting Diagram on Sh#4 of 7. Use remainder of bars in other barrel this end of culvert.

For Sections A-A See Sh.#4 of 7.

PLAN

(North end shown. South end similar by rotation thru 180°)

20'-3"

21-#4 x bars at 12" cts. (Top and Bottom)

2" cl. | D | x_1 | 8"

8" | 2" cl. | Precast Section | 3" | 2" cl. | 10-#4 x bars at 12" cts. (Typ.) | 9'-9"

x_1 | 8"

Concrete Coller Quantities included with Concrete Box Culverts & Reinforcement Bars

SECTION C-C

1'-4" | #4 x bars at 12" cts

8" | 3-#4 x_1 bars

Precast Section | Cast in Place Section

8"

SECTION D-D

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC TD
CHECKED	JOH

CULVERT END SECTION DETAILS
U.S. ROUTE 136 OVER TRIBUTARY PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4 HANCOCK COUNTY
STATION 960+46.00
S.N. 034-2513

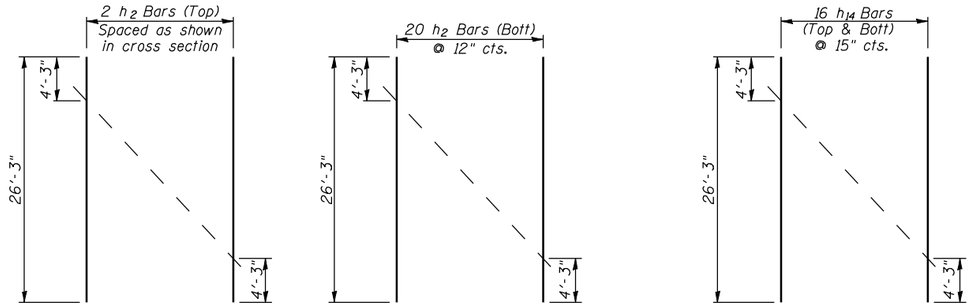
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/Culvert 960+46/2173c003

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 315	34-4	HANCOCK	452	236
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

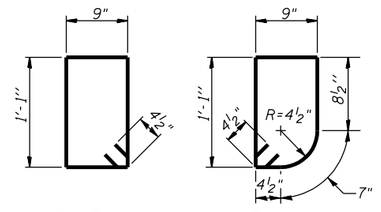
SHEET NO. 4
7 SHEETS

D-06-551-02
CONTRACT NO. 72680

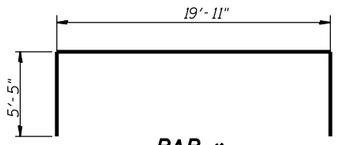


(Top of Top Slab) (Bott. of Top Slab) (Top & Bott. of Bott. Slab)

TOP SLAB **BOTTOM SLAB**



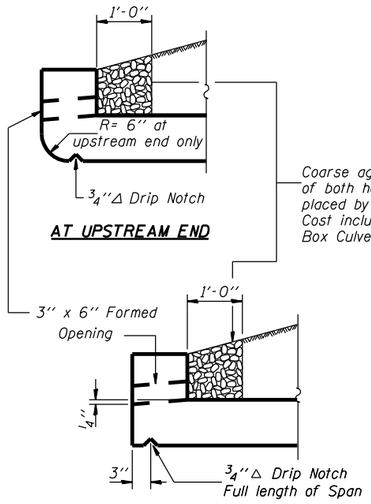
BAR s_1 **BAR s**



BAR x_1

FIELD CUTTING DIAGRAMS

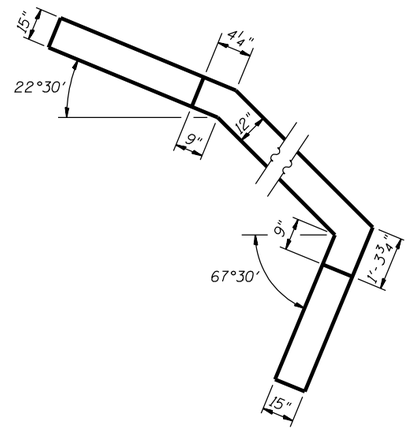
Order h_2 & h_{14} bars full length, cut to fit skew according to Field Cutting Diagrams shown above. Use remainder of bars in opposite end of culvert.



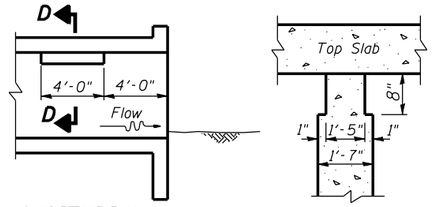
AT UPSTREAM END

AT DOWNSTREAM END

DRAIN DETAIL



WING CORNER DETAILS

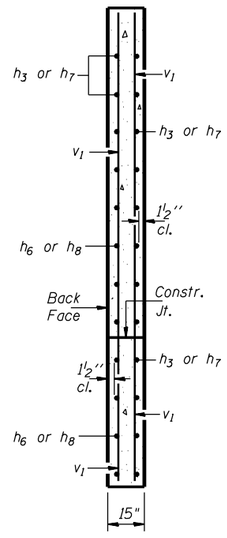


LONGITUDINAL SECTION
(Downstream End)

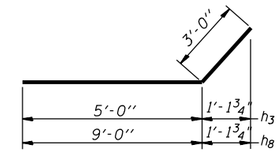
SECTION D-D
Interior Wall

Note: Notch by rough-finished board attached to and removed with formwork. (Do not chamfer)

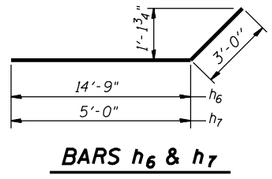
PHOEBE NESTING SITE DETAIL



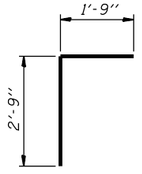
SECTION A-A



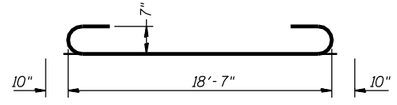
BARS h_3 & h_8



BARS h_6 & h_7



BAR d



BAR a

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	148	#7	20'-3"	
a_2	34	#4	9'-0"	
d	34	#4	4'-6"	
h	44	#6	8'-0"	
h_1	64	#5	8'-0"	
h_2	22	#6	26'-3"	
h_3	20	#6	8'-0"	
h_4	4	#6	25'-8"	
h_5	8	#6	26'-3"	
h_6	18	#9	17'-9"	
h_7	24	#9	8'-0"	
h_8	16	#6	12'-0"	
h_9	14	#6	10'-3"	
h_{10}	14	#6	19'-0"	
h_{11}	14	#6	27'-9"	
h_{13}	6	#6	24'-8"	
h_{14}	32	#5	26'-3"	
s	24	#4	4'-3"	
s_1	24	#4	4'-5"	
v	190	#5	8'-1"	
v_1	16	#4	11'-0"	
x	124	#4	1'-0"	
x_1	12	#4	30'-9"	
Concrete Box Culverts			CU YD	98.8
Reinforcement Bars			POUND	15,580

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC TD
CHECKED	JOH

2173/CULVERT 960+46/2173c004

CULVERT DETAILS
U.S. ROUTE 136 OVER TRIBUTARY PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4
HANCOCK COUNTY
STATION 960+46.00
S.N. 034-2513

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	34-4	HANCOCK	452	237
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 5
7 SHEETS

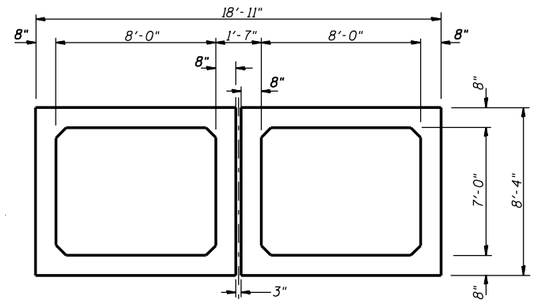
D-96-891-02
CONTRACT NO. 72680

GENERAL NOTES

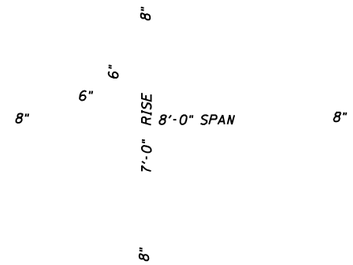
Precast Concrete Box Culvert sections shall conform to the requirements of Article 540.06 of the Standard Specifications and the applicable requirements of AASHTO M 259.

The minimum concrete strength shall be 5,000 psi.

Lifting holes shall be filled with concrete plugs and mastic after box sections are in place.



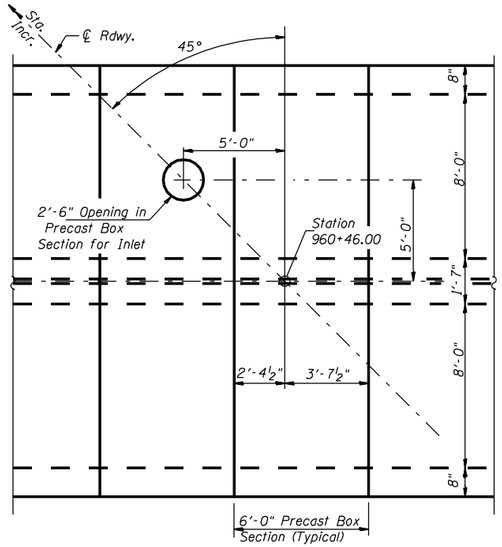
SECTION THRU PRECAST CULVERT



FILL = 13.5 ft. : TABLE 1

REQUIRED AASHTO STEEL AREAS ($in^2/ft.$)

A_{s1} 0.27
A_{s2} 0.46
A_{s3} 0.49
A_{s4} 0.19



PLAN AT ℄ CULVERT

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Precast Concrete Box Culvert 8' x 7'	FOOT	540

PRECAST CULVERT
U.S. ROUTE 136 OVER
TRIBUTARY PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4
HANCOCK COUNTY
STATION 960+46.00
S.N. 034-2513

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC TD
CHECKED	JOH

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/Culvert 960+46/2173c005

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	34-4	HANCOCK	452	238
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 6
7 SHEETS

D-06-551-02
CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 1

Date 11/19/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 LOGGED BY M. Tappan

SECTION 34-4 LOCATION SW 1/4, SEC. 15, TWP. 5 N, RNG. 6 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-2513
Station 960+46

BORING NO. 7
Station 959+70
Offset 110.00ft Right
Ground Surface Elev. 599.1 ft

Surface Water Elev. 589.5 ft
Stream Bed Elev. 589.5 ft

Groundwater Elev.:
First Encounter No Encounter ft
Upon Completion Dry ft
After 48 Hrs. 570.6 ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Tan Dry SILT LOAM				
		2		
		4	1.6	8
	-5	4	S-7	
593.60				
Grey and Reddish Brown Moist SANDY CLAY LOAM		1		
		3	1.5	11
		3	P	
591.10				
Brown Medium to Coarse Grained SAND		2		
		3		
	-10	2		
588.60				
Light Blue and Brown Moist CLAY (Till) w/Slickensides		2		
		5	2.9	20
		6	S-5	
586.10				
Grey Moist CLAY LOAM (Till)		2		
		3	1.7	23
	-15	5	B	
		2		
		5	3.3	14
		7	B	
		2		
		5	4.6	12
	-20	9	B	

	DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Grey Moist CLAY LOAM (Till) (continued)				
		2		
		5	6.4	13
		10	B	
		3		
		5	5.2	13
	-25	11	B	
		2		
		5	4.3	14
	-30	10	B	
		3		
		6	4.2	14
	-35	9	B	
		2		
		5	4.2	14
Boring Completed	-40	10	B	
559.10				

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Page 1 of 1

Date 11/19/02

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 LOGGED BY M. Tappan

SECTION 34-4 LOCATION SW 1/4, SEC. 15, TWP. 5 N, RNG. 6 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-2513
Station 960+46

BORING NO. 8
Station 960+66
Offset 0.00ft cL
Ground Surface Elev. 598.2 ft

Surface Water Elev. 589.5 ft
Stream Bed Elev. 589.5 ft

Groundwater Elev.:
First Encounter No Encounter ft
Upon Completion Dry ft
After 48 Hrs. 580.7 ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
Brown and Grey Moist SILTY CLAY				
		1		
		2	1.0	21
	-5	3	B	
592.20				
Grey Medium Grained Wet SAND		1		
		2		
590.70		1		
CLAY LOAM (Till)				
		2		
Olive Grey and Brown Moist CLAY LOAM (Till)		5	4.3	13
	-10	6	B	
		3		
Grey		6	4.4	12
		10	B	
		4		
		12	5.9	11
	-15	22	B	
		3		
		6	4.9	13
		11	B	
		3		
		6	5.0	13
	-20	10	B	

	DEPTH (ft)	BLOWS /6"	UCS Qu (taf)	MOIST (%)
CLAY LOAM (Till) (continued)				
Grey Moist CLAY LOAM (Till)		3		
		6	4.3	14
573.20	-25	11	B	
Boring Completed				
	-30			
	-35			
	-40			

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

BBS, from 137 (Rev. 8-99)

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC TD
CHECKED	JOH

BORINGS
U.S. ROUTE 136 OVER
TRIBUTARY PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4
HANCOCK COUNTY
STATION 960+46.00
S.N. 034-2513

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

2173/Culvert 960+46/2173c006

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 315	34-4	HANCOCK	452	239
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO.7
7 SHEETS

D-86-551-02
CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Date 11/2002

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 LOGGED BY M. Tappan

SECTION 34-4 LOCATION SW 14, SEC. 15, TWP. 5 N, RNG. 6 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-2513
Station 960+46

BORING NO. 9
Station 961+70
Offset 90.00ft Left
Ground Surface Elev. 609.1 ft

Surface Water Elev. 589.5 ft
Stream Bed Elev. 589.5 ft

Groundwater Elev.:
First Encounter 590.1 ft
Upon Completion 562.1 ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Soil Description
				Grey and Brown Moist CLAY LOAM (Fill)
	1			
	2	1.1	22	
-5	3	B		
	1			
	1	0.6	16	
	2	B		
	1			
	2	1.0	17	
-10	2	B		
	1			
	2	0.7	15	
	3	S-10		
	1			
	2	0.8	15	
-15	4	S-10		
593.10				
	0			Dark Grey Moist SILTY CLAY
	1	0.4	21	
	3	B		
591.10				
	1			Grey Coarse Grained Wet SAND Free Water
	3			
-20	2			
588.60				
	1			Brown and Grey Moist CLAY LOAM (Till)
	1	0.5	24	
	3	B		
	3			
	7	6.7	11	Dark Grey
-35	11	B		
	3			
	6	3.9	14	
-30	11	B		
	2			
	9	3.8	13	
-35	10	B		
571.10				
	9			Grey V. Fine Grained Moist SAND
	24			
-40	28			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT District 6

SOIL BORING LOG

Date 11/2002

ROUTE FAP 315 (IL 336) DESCRIPTION Proposed IL 336 LOGGED BY M. Tappan

SECTION 34-4 LOCATION SW 14, SEC. 15, TWP. 5 N, RNG. 6 W, 4 PM

COUNTY Hancock DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 034-2513
Station 960+46

BORING NO. 9
Station 961+70
Offset 90.00ft Left
Ground Surface Elev. 609.1 ft

Surface Water Elev. 589.5 ft
Stream Bed Elev. 589.5 ft

Groundwater Elev.:
First Encounter 590.1 ft
Upon Completion 562.1 ft
After ____ Hrs. Plugged ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)	Soil Description
568.60				Grey V. Fine Grained Moist SAND (continued)
				Dark Grey Moist CLAY LOAM (Till)
	3			
	6	4.0	14	
-45	11	B		
	4			
	10	4.6	17	
-50	15	B		
	4			
	9	4.1	13	
554.10 -55	14	B		
				Boring Completed
-60				

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)

DESIGNED	JOH
CHECKED	BRT
DRAWN	TC TD
CHECKED	JOH

2173/Culvert 960+46/2173c007

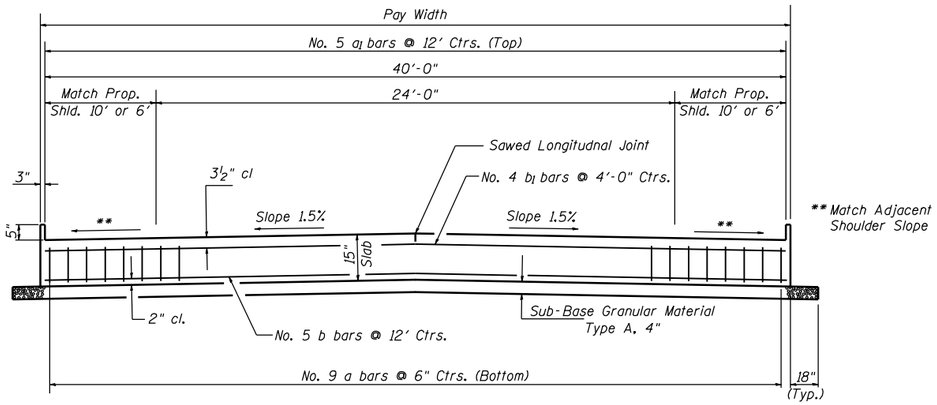
BORINGS
U.S. ROUTE 136 OVER
TRIBUTARY PRAIRIE CREEK
F.A.P. ROUTE 315 SECTION 34-4
HANCOCK COUNTY
STATION 960+46.00
S.N. 034-2513

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

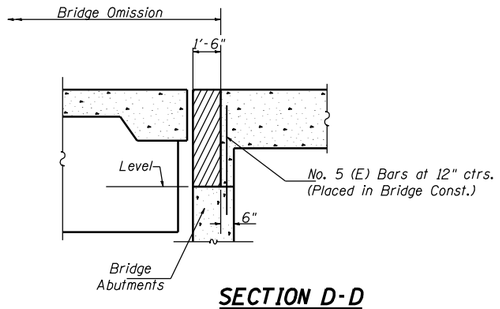
D-96-551-02

CONTRACT NO. 72680

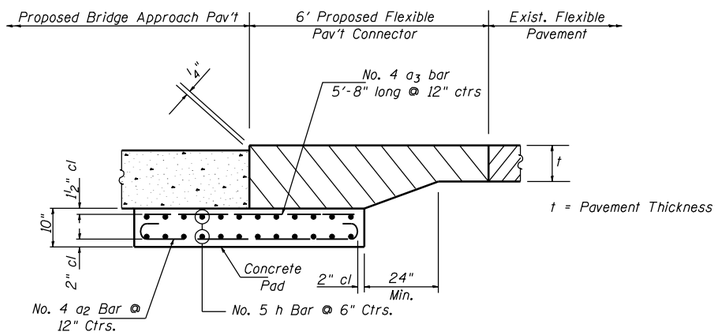
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4B-1	HANCOCK	452	240
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



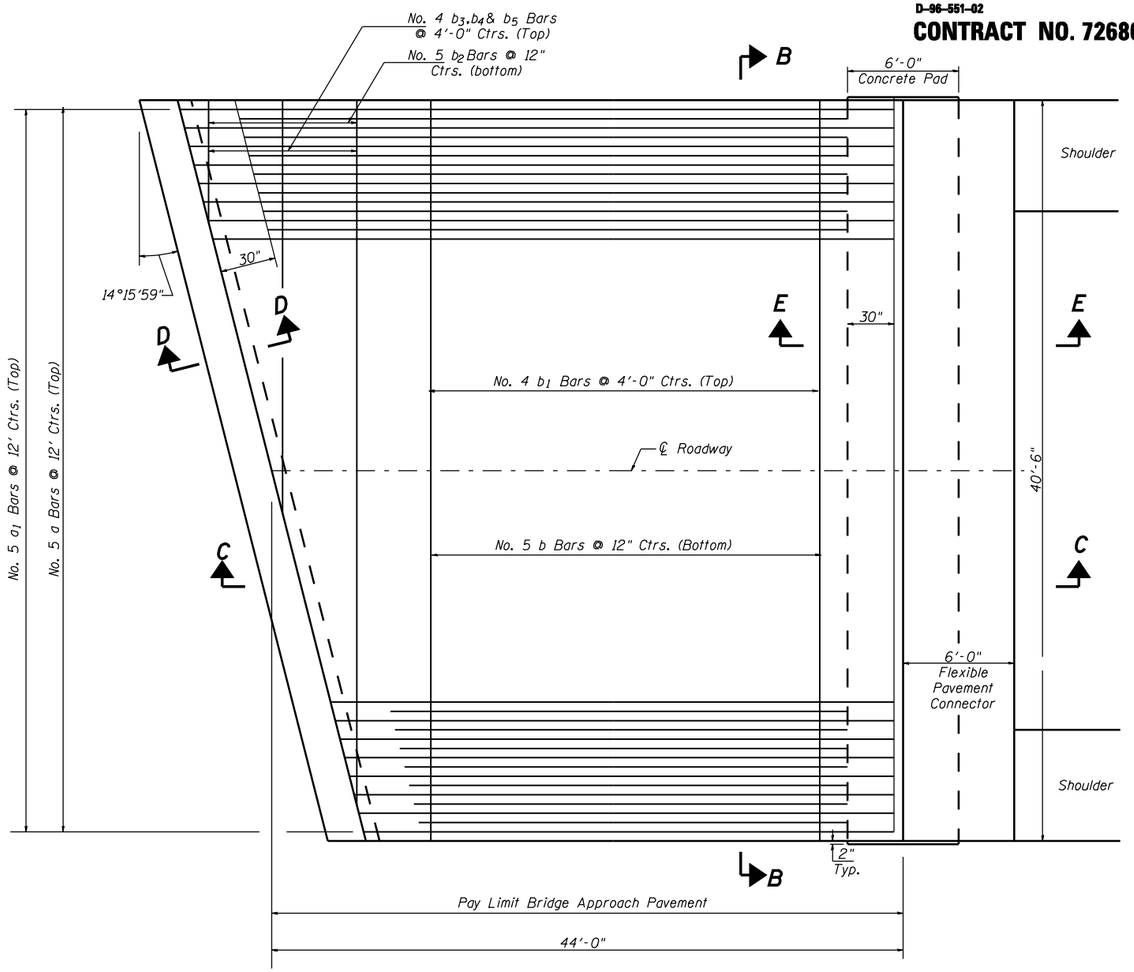
SECTION B-B



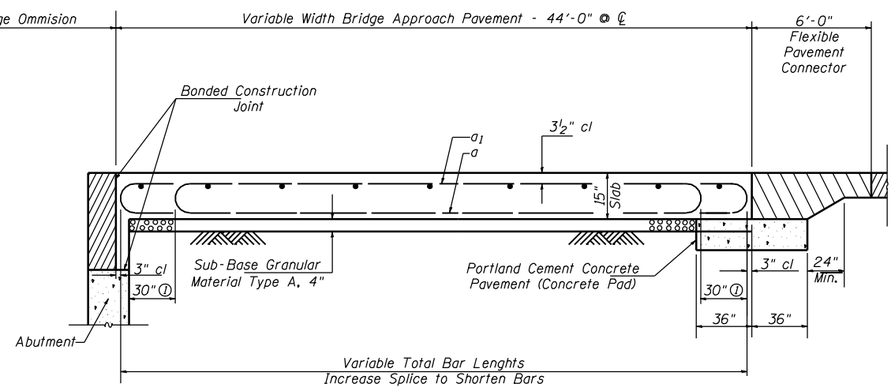
SECTION D-D



SECTION E-E

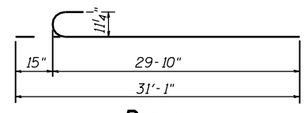


PLAN

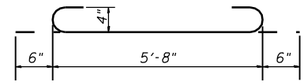


① Stagger No. 9 a Bars As Shown on Plan (Full Width)

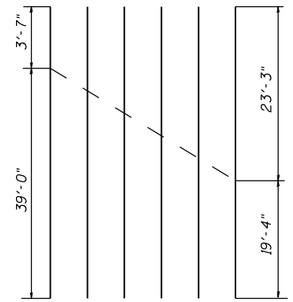
SECTION C-C



Bar a



Bar a_2



Bar b_2 Cutting Diagram

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	158	#9	31'-1"	⊂——⊃
a_1	78	#5	28'-9"	——
a_2	40	#4	6'-8"	⊂—⊃
a_3	40	#4	5'-8"	——
b	43	#5	39'-8"	——
b_1	11	#4	39'-8"	——
b_2	5	#5	42'-7"	——
b_3	1	#4	37'-0"	——
b_4	1	#4	21'-3"	——
b_5	1	#4	5'-6"	——
h	22	#5	40'-0"	——

DESIGNED	A.J.G.
CHECKED	J.R.B.
DRAWN	T.R.D.
CHECKED	A.J.G.

SPECIAL BRIDGE APPROACH PAVEMENT FOR E.B. LANE AT EXISTING LAMOINE RIVER BRIDGE FOR EAST & WEST APPROACH PAVEMENTS U.S. ROUTE 136 OVER LAMOINE RIVER F.A.P. RTE. 315 SECTION 34-4B HANCOCK COUNTY STATION 1153+07.72

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

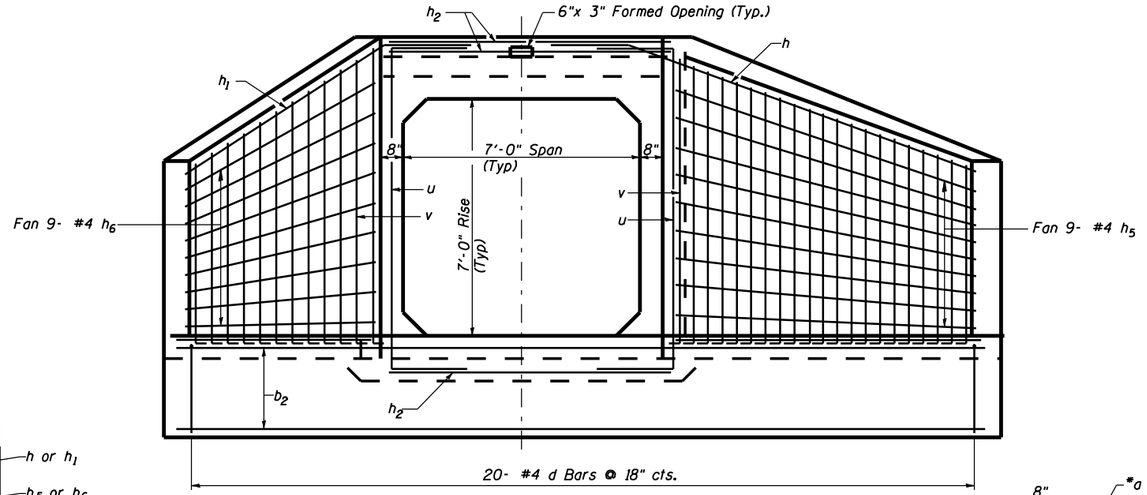
Date: January 31, 2006

Lamoine/2173b230

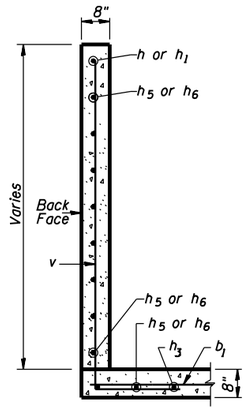
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	241
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

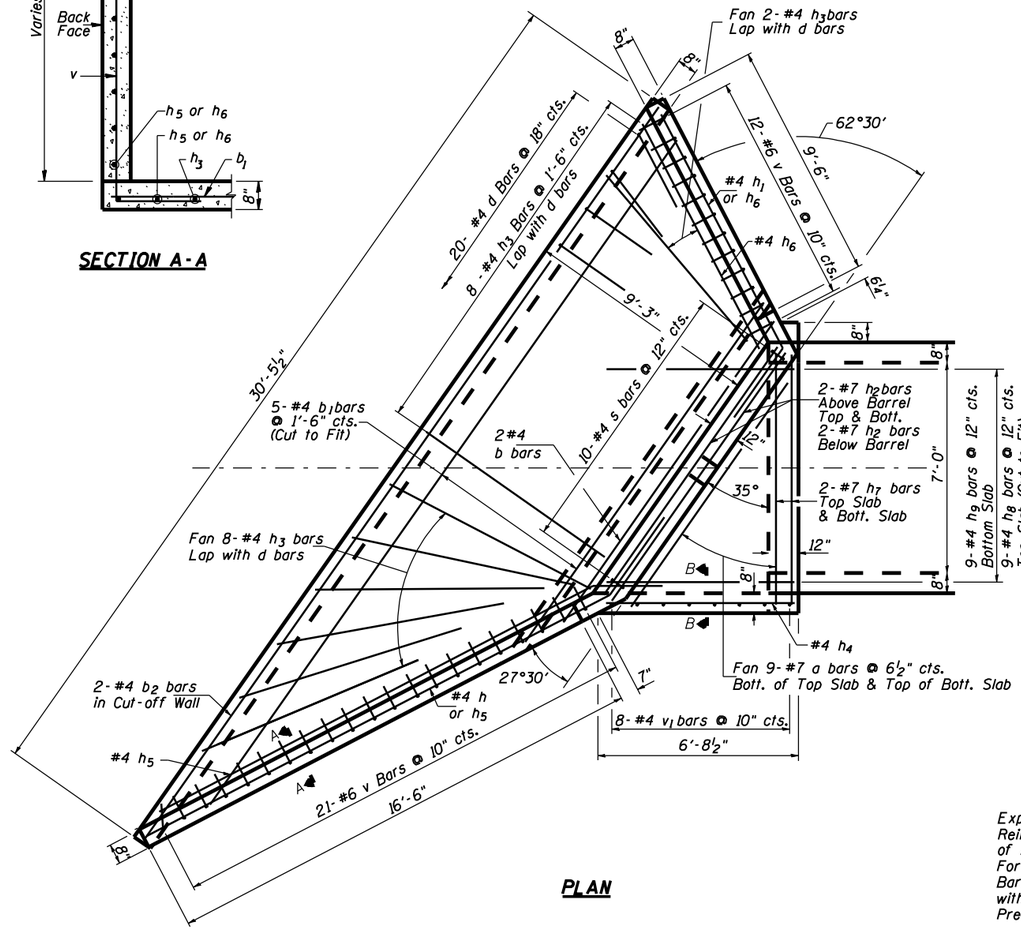
CONTRACT NO. 72680



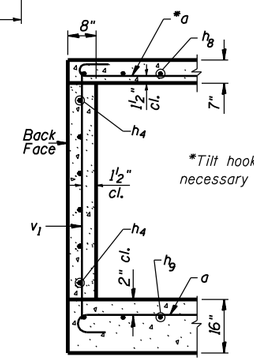
END ELEVATION



SECTION A-A

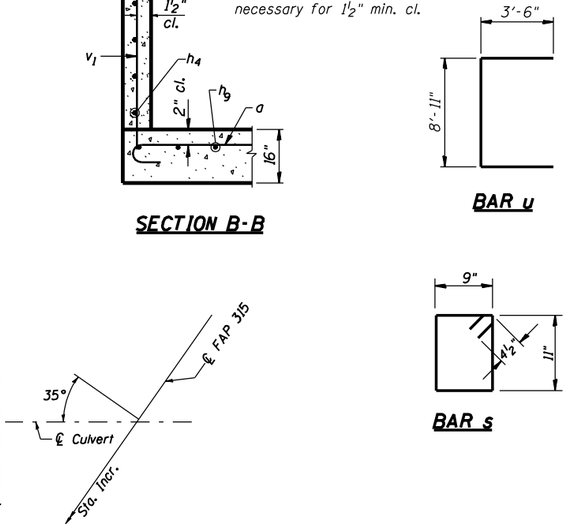


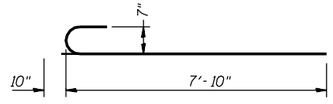
PLAN



SECTION B-B

*Tilt hook of a bars if necessary for 1½" min. cl.

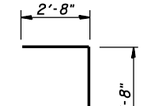




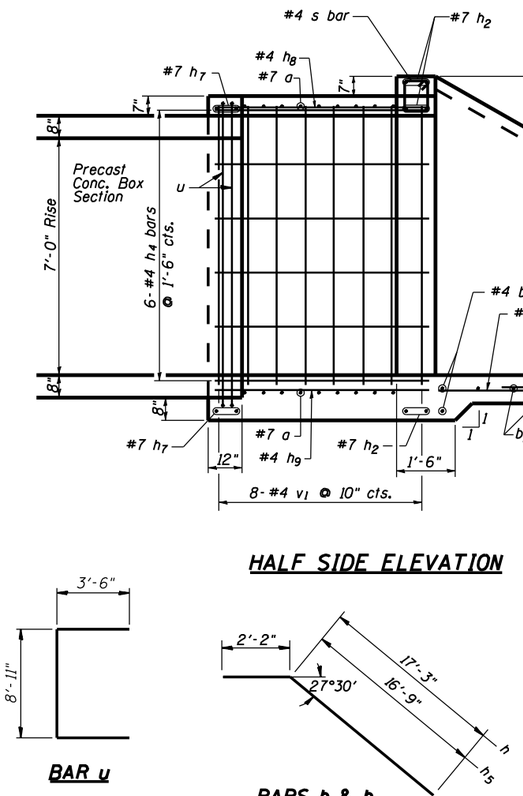
BAR a

BAR u

BAR s

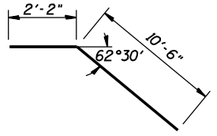


BAR d

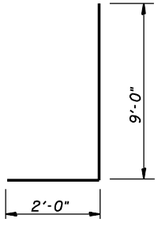


HALF SIDE ELEVATION

BARS h & h5
Bend to Fit



BARS h1
Bend to Fit



BARS v

BILL OF MATERIAL
ONE HEADWALL

BAR	NO.	SIZE	LENGTH	SHAPE
a	18	#7	8'-8"	⌐
b	2	#4	12'-3"	—
b1	5	#4	27'-3"	—
b2	2	#4	30'-0'	—
d	20	#4	5'-4"	L
h	1	#4	19'-5"	⌒
h1	1	#4	12'-8"	⌒
h2	6	#7	9'-10"	—
h3	18	#4	9'-0"	—
h4	6	#4	6'-5"	—
h5	10	#4	18'-11"	⌒
h6	10	#4	10'-2"	—
h7	4	#7	9'-4"	—
h8	9	#4	6'-5"	—
h9	9	#4	8'-0"	—
s	10	#4	4'-1"	□
u	4	#5	15'-11"	⊓
v	33	#6	11'-0"	⌐
v1	8	#4	9'-0"	—

Item	Unit	Quantity
Concrete Box Culverts	Cu. Yd.	14.1
Reinforcement Bars	Lbs.	1860
Box Culvert End Sections	Each	2

NOTES

Exposed edges shall be beveled ¾".
Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M322, Grade 60.
For backfilling and embankment, See Standard Specifications.
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
Precast substitution not allowed.

DESIGN STRESSES

fy = 60,000 psi
f'c = 3,500 psi

CAST-IN-PLACE END SECTION DETAILS FOR 7'X7' BOX CULVERT FAP RTE 315 STATION 949+35.60

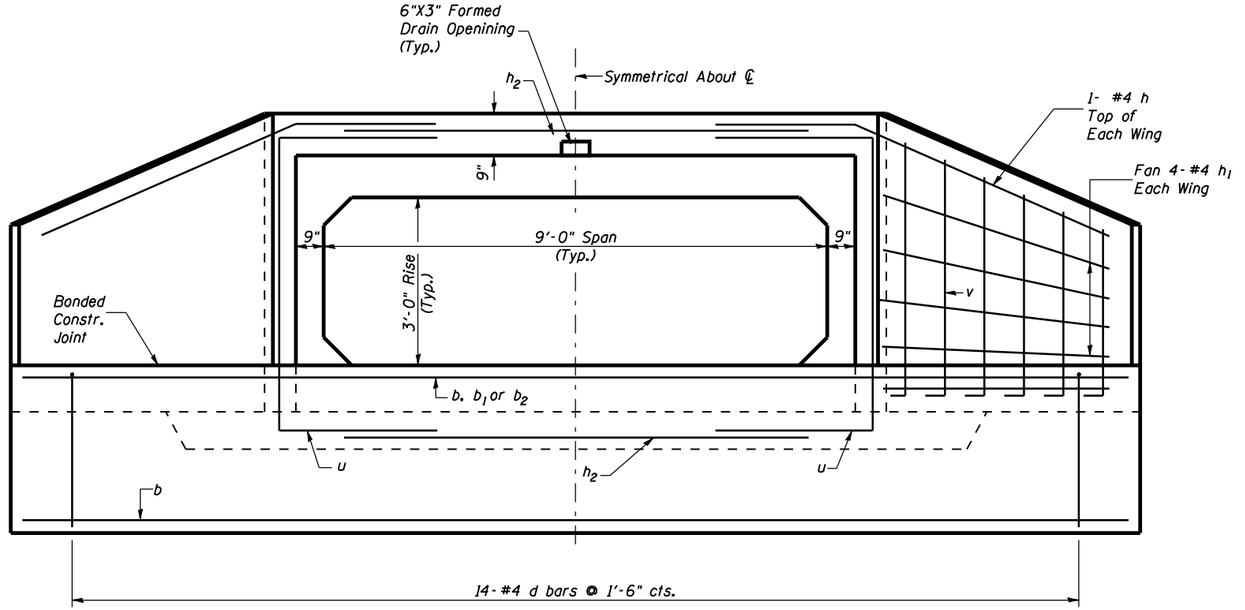
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: January 31, 2006

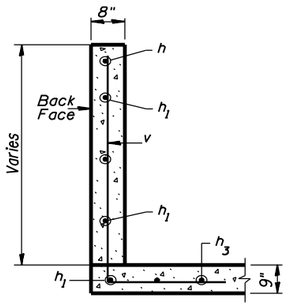
D-96-551-02

CONTRACT NO. 72680

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	242
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

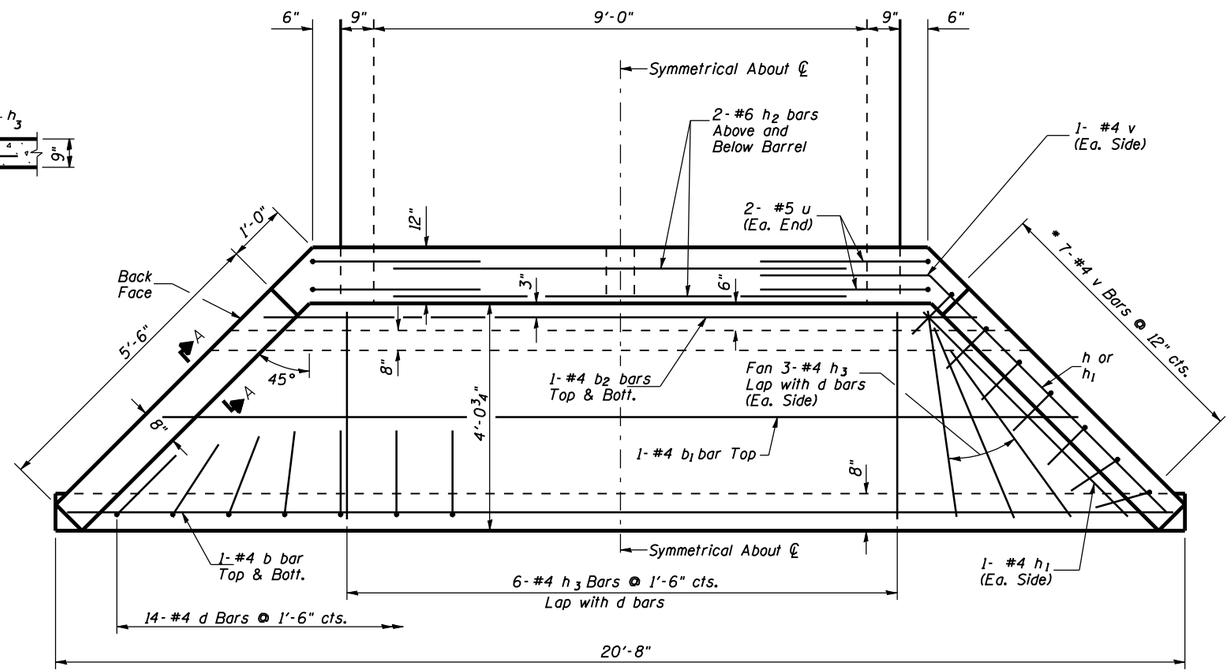


END ELEVATION



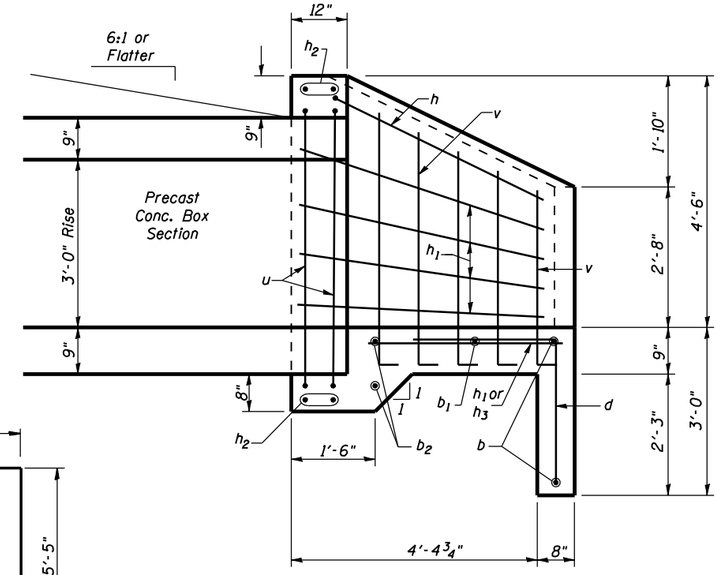
SECTION A-A

MIN BAR LAP
#5 = 1'-8"

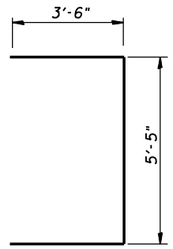


PLAN

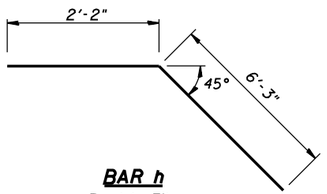
DESIGN STRESSES
fy = 60,000 psi
f'c = 3,500 psi



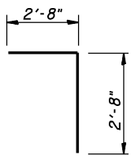
HALF SIDE ELEVATION
* Bend or Cut to Fit



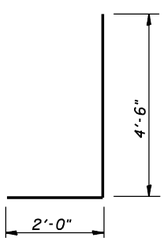
BAR u



BAR h
Bend to Fit



BAR d



BAR v

NOTES
Exposed edges shall be beveled $\frac{3}{4}$".
Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M322, Grade 60.
For backfilling and embankment, See Standard Specifications.
Bars indicated thus 12x4- #5 etc. indicates 12 lines of bars with 4 lengths per line.
Precast substitution not allowed.

BILL OF MATERIAL
ONE HEADWALL

BAR	NO.	SIZE	LENGTH	SHAPE
b	2	#4	20'-2"	
b_1	1	#4	16'-10"	
b_2	2	#4	13'-6"	
d	14	#4	5'-4"	
h	2	#4	8'-5"	
h_1	10	#4	6'-0"	
h_2	4	#6	8'-6"	
h_3	12	#4	3'-8"	
u	4	#5	12'-5"	
v	16	#4	6'-6"	

Item	Unit	Quantity
Concrete Box Culverts	Cu. Yd.	5.1
Reinforcement Bars	Lbs.	360
Box Culvert End Sections	Each	2

CAST-IN-PLACE END SECTION DETAILS FOR 9'X3' BOX CULVERT FAP RTE 315 LT STATION 1031+45

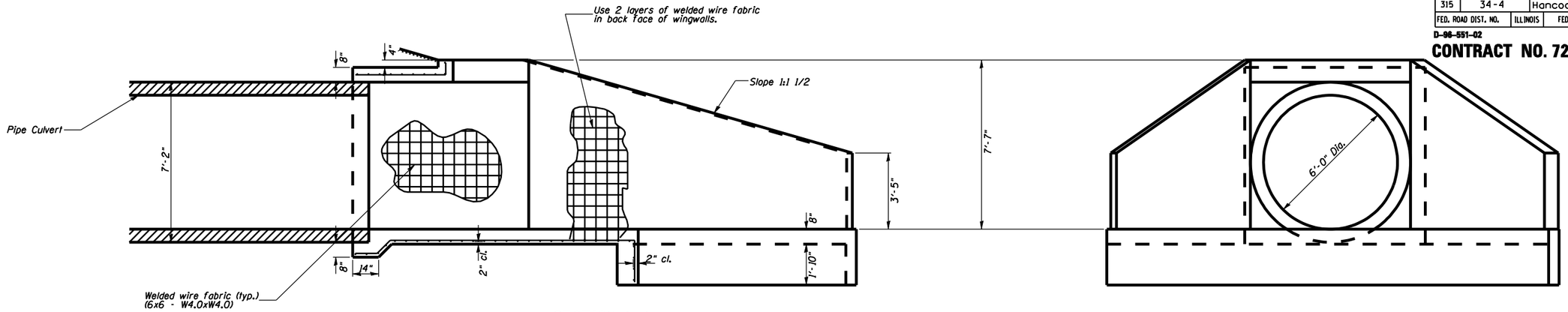
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: January 31, 2006

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	Hancock	452	243
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

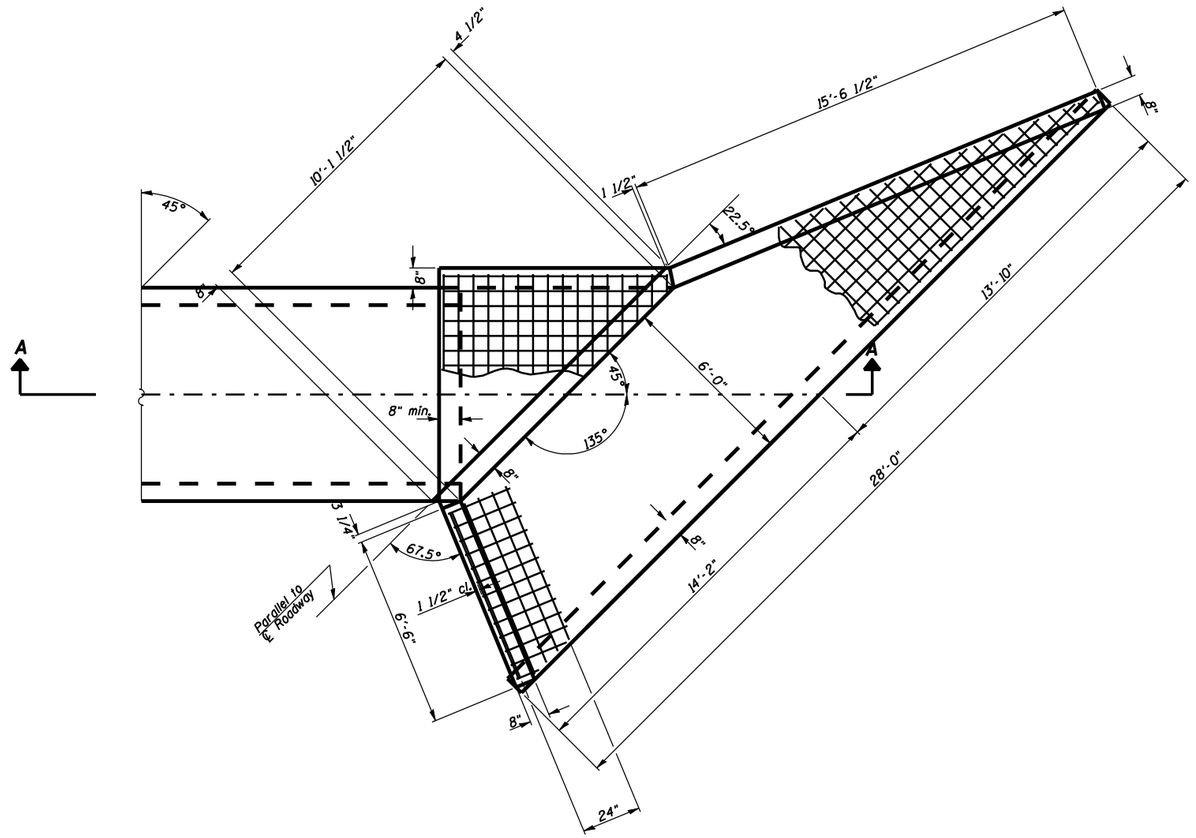
D-98-551-02

CONTRACT NO. 72680



SECTION A-A

END VIEW



PLAN VIEW

BILL OF MATERIAL FOR ONE HEADWALL

Wire Fabric	Sq Yd	65
Concrete Headwalls	Cu Yd	10.5

Item	Unit	Quantity
Cast-In-Place Reinforced Concrete End Sections 72"	Each	1

NOTES

Class SI Concrete shall be used throughout.
Exposed edges shall be beveled 3/4".
Build tops of headwalls parallel to grade line.
For backfilling and embankment, See Standard Specifications.
When lapping sheets of welded wire fabric, the overlap measured between the outermost cross wires of each fabric shall not be less than 8".
Precast substitution not allowed.

HEADWALL DETAILS
72" ϕ RCCP
FAP RTE 315
STATION 1097+60
45° SKEW - RT FWD

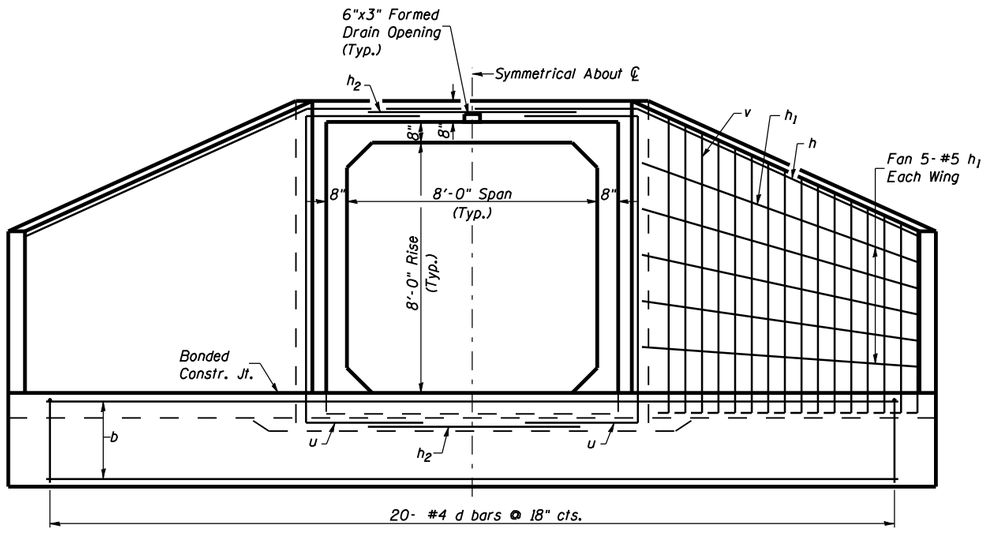
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS
Date: January 31, 2006

Bridge/2173-Hancock/culv 1097+60/109760c001

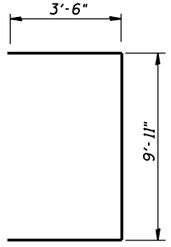
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	243A
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

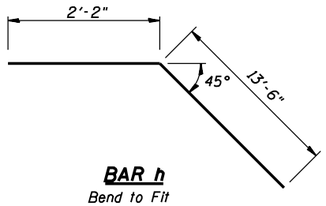
CONTRACT NO. 72680



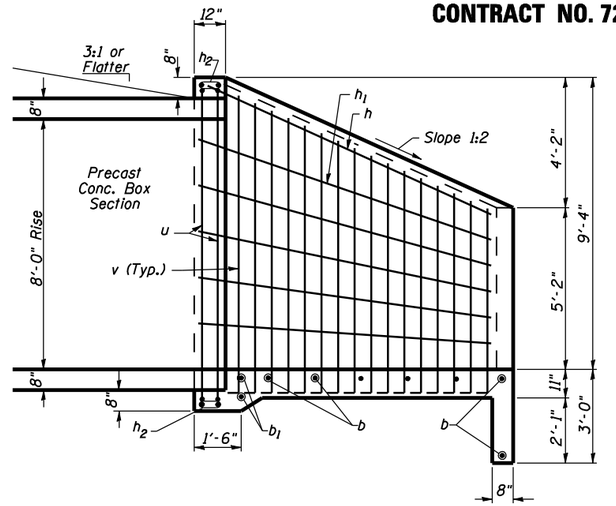
END ELEVATION



BAR u

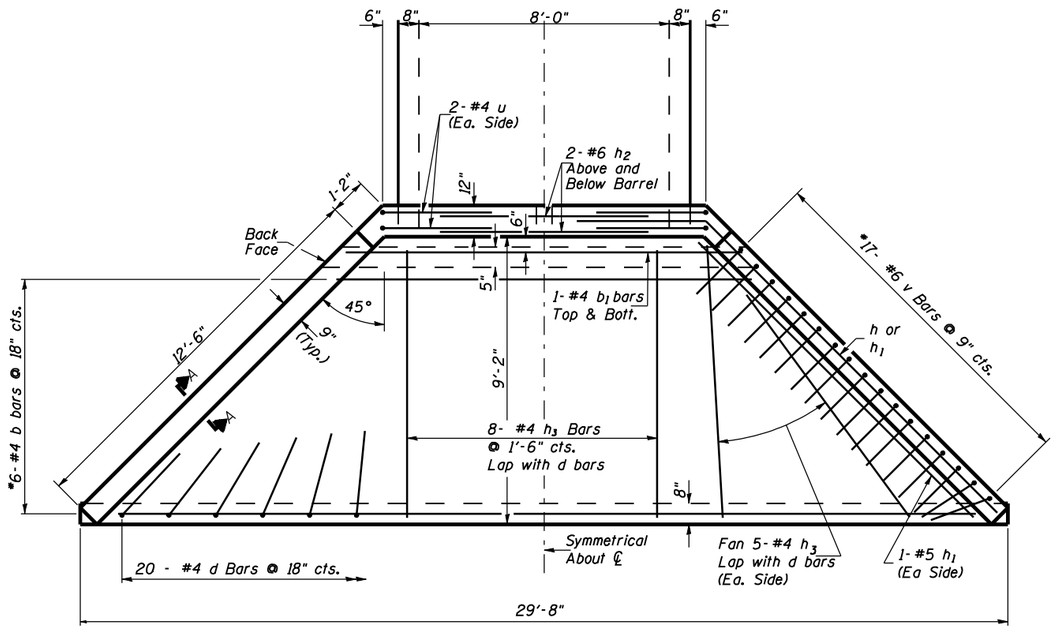


BAR h
Bend to Fit

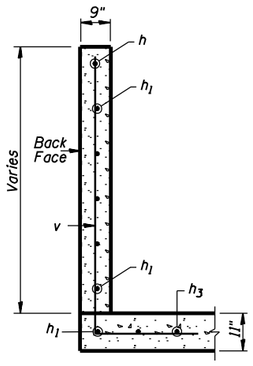


HALF SIDE ELEVATION

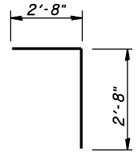
MIN BAR LAP
#4 = 1'-4"



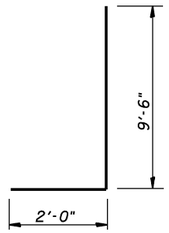
PLAN
*Bend or Cut to Fit



SECTION A-A



BAR d



BAR v

BILL OF MATERIAL
ONE HEADWALL

BAR	NO.	SIZE	LENGTH	SHAPE
b	7	#4	27'-3"	——
b_1	2	#4	12'-8"	——
d	20	#4	5'-4"	⌐
h	2	#5	15'-8"	⌒
h_1	12	#5	12'-6"	——
h_2	4	#6	7'-4"	——
h_3	18	#4	8'-8"	——
u	4	#5	16'-11"	⊓
v	34	#6	11'-6"	⌊

Item	Unit	Quantity
Concrete Box Culverts	Cu. Yd.	14.1
Reinforcement Bars	Lbs.	1190
Box Culvert End Sections	Each	2

DESIGN STRESSES
fy = 60,000 psi
f'c = 3,500 psi

NOTES
Exposed edges shall be beveled ¾".
Reinforcement Bars shall conform to the requirements of AASHTO M-31 or M322, Grade 60.
For backfilling and embankment, See Standard Specifications.
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
Precast substitution not allowed.

CAST-IN-PLACE END SECTION DETAILS FOR 8'X8' BOX CULVERT COUNTY HIGHWAY 28 STATION 55+88

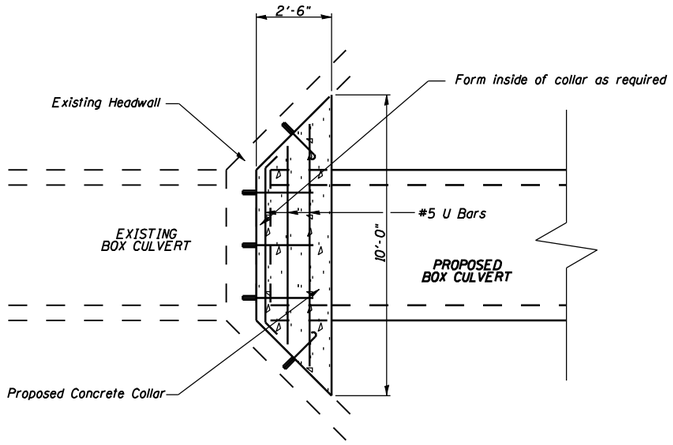
HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Bridge/2173-Hancock/CH 28 culv 55+88/5588c001

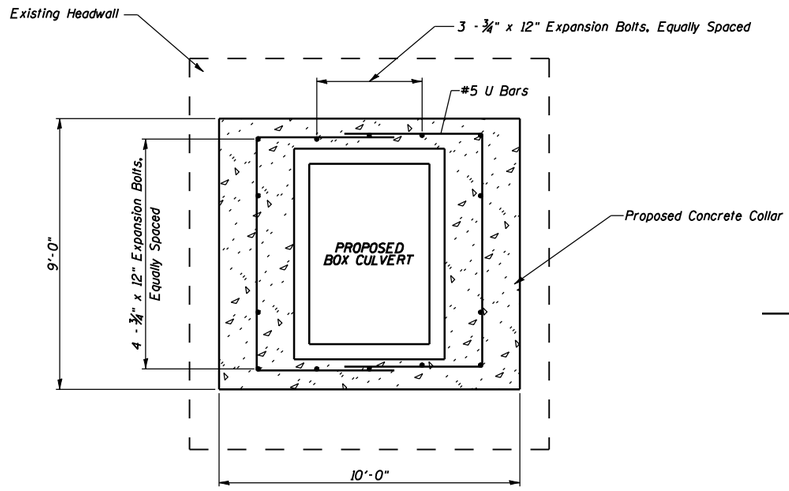
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	244
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

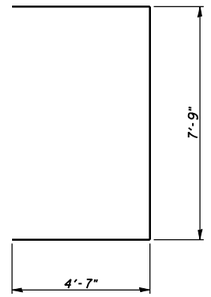
CONTRACT NO. 72680



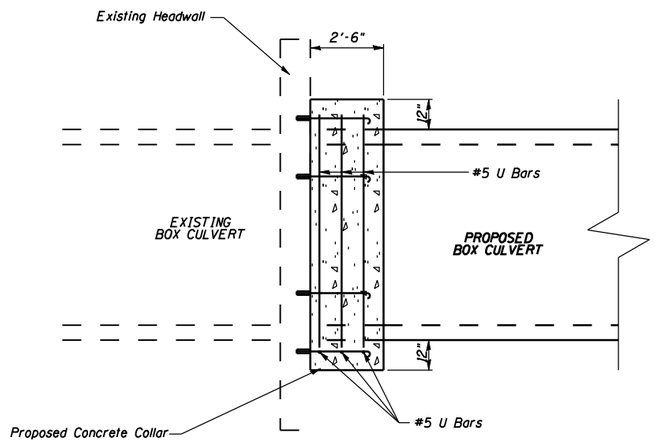
TOP VIEW



END VIEW



#5 U - BAR



SIDE VIEW

BILL OF MATERIAL
ONE COLLAR

Concrete Collar	Cu. Yd.	6.3
Reinforcement Bars	Lbs.	106
Expansion Bolts ¾" x 12"	Each	14

NOTES

Form inside of collar from existing end section to proposed box culvert extension as required.

Expansions bolts shall consist of self drilling expansion shields and ¾" dia. hooked bolts. Hooked bolts shall extend a minimum of 12" into new conrete. Bolts shall be drilled in the center of the existing box culvert barrel walls. Minimum certified proof = 4160 lbf.

It shall be the responsibility of the contractor to verify dimensions and details in the field and make necessary approved adjustments prior to construction and ordering of materials for the concrete collars and culvert extensions shown.

CONCRETE COLLAR DETAILS FOR 4' X 6' BOX CULVERT EXTENSION FAP RTE 315 STATION 1163+35

HUTCHISON ENGINEERING, INC.
JACKSONVILLE, ILLINOIS

Date: January 31, 2006

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	245
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY
A2C00505	TREE, ACER SACCHARINUM (SILVER MAPLE), CONTAINER GROWN, 5-GALLON	EACH	208
A2C02205	TREE, CARYA ILINOENSIS (NORTHERN MAPLE), CONTAINER GROWN, 5-GALLON	EACH	208
A2C03005	TREE, FAXINUS PENNSYLVANICA (GREEN ASH), CONTAINER GROWN, 5-GALLON	EACH	208
A2C04005	TREE, PLATANUS OCCIDENTALIS (SYCAMORE), CONTAINER GROWN, 5-GALLON	EACH	208
A2C05005	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), CONTAINER GROWN, 5-GALLON	EACH	208
A2C06005	TREE, QUERCUS PALUSTRIS (PIN OAK), CONTAINER GROWN, 5-GALLON	EACH	208
K0026700	TREE CARE	EACH	1
K0026720	TREE INTERMEDIATE AND SHRUB WATERING	UNIT	36
K1005884	TREE TRUNK PREDATOR PROTECTION	EACH	1248
X0322959	WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL (WETLANDS)	GALLON	20
X0323716	ACCESS GATE, DOUBLE, 30 FOOT	EACH	2
X2500400	INTERSEEDING, CLASS 2 (SPECIAL)	ACRE	10.4
X2500500	INTERSEEDING, CLASS 4 (SPECIAL)	ACRE	4.7
X2503000	MAINTENANCE MOWING	ACRE	83.2
Z0025500	FURNISHING AND INSTALLING PROPERTY MARKERS	EACH	7
25000400	NITROGEN FERTILIZER NUTRIENT	LBS	936
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	LBS	936
25000600	POTASSIUM FERTILIZER NUTRIENT	LBS	936
20200100	EARTH EXCAVATION	CU YD	24656
22101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	7407
25000700	AGRICULTURAL GROUND LIMESTONE	TON	20.8
25000750	MOWING	ACRE	15.1
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	10.4
25100115	MULCH, METHOD 2	ACRE	10.4
28000400	PERIMETER EROSION BARRIER	FOOT	6155
28001000	AGGREGATE (EROSION CONTROL)	TON	100
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	150
28200100	FILTER FABRIC FOR USE W/ RIPRAP	SQ YD	300
•	RESTORATION OF DESIGNATED HAUL ROUTE	SQ YD	3828

• FOR INFORMATION PURPOSES ONLY; SEE SPECIAL PROVISIONS

AGGREGATE DITCH CHECK SCHEDULE			
			28001000
LOCATION	OFFSET	LT. & RT.	AGGREGATE (EROSION CONTROL)
			TON
1135+18.00	302	LT.	25
1135+82.00	240	LT.	25
1136+44.00	172	LT.	25
1137+37.00	81	LT.	25
		TOTAL	100

METAL PIPE ACCESS GATES SCHEDULE			
			X0323716
LOCATION	OFFSET	LT. & RT.	METAL PIPE ACCESS GATES, DOUBLE, 30'
			EACH
1120+00	551.50	RT.	1
1132+64	549.00	RT.	1
		TOTAL	2

EARTHWORK SCHEDULE			
		22101505	20200100
LOCATION		TOPSOIL EXCAVATION AND PLACEMENT	EARTH EXCAVATION
		CU YD	CU YD
1122+00.00	TO 1132+97.00	7407	24656
	TOTAL	7407	24656

STONE DUMPED RIPRAP, CLASS A4 SCHEDULE				
			28100807	28200100
LOCATION	OFFSET	LT. & RT.	STONE DUMPED RIPRAP CLASS A4	FILTER FABRIC FOR USE W/ RIPRAP
			TON	SQ YD
1137+66.00	128	LT.	150	300
		TOTAL	150	300

WETLAND PROTECTION FENCE (SPECIAL) SCHEDULE				
				28000400
LOCATION			LT. & RT.	PERIMETER EROSION BARRIER
				FOOT
1122+00.00	TO	1132+97.00	RT.	2078.0
1122+00.00	TO	1139+00.00	LT.	4077.0
		TOTAL		6155.0

RESTORATION OF DESIGNATED HAUL ROUTE SCHEDULE				
LOCATION			LT. & RT.	RESTORATION OF DESIGNATED HAUL ROUTE
				SQ YD
1128+00.00	TO	1135+20.00	LT.	3828
		TOTAL		3828•

• HAUL ROUTE TO BE CHISEL PLOWED AND SEEDED WITH SEEDING, CLASS 2 (SPECIAL) WHEN ACTIVITIES ARE COMPLETE SEE SPECIAL PROVISIONS

LANDSCAPING SCHEDULE																				
				TREES (FORESTED WETLAND)							K1005884	X0322959	K0026720	25001000	X2500400	X2500500	25000400	25000500	25000600	25000700	25100115	25000750
LOCATION			LT. & RT.	A2C00505 TREE, ACER SACCHARINUM (SILVER MAPLE) CONTAINER GROWN, 5-GALLON	A2C02205 TREE, CARYA ILINOENSIS (NORTHERN PECAN) CONTAINER GROWN, 5-GALLON	A2C03005 TREE, FAXINUS PENNSYLVANICA (GREEN ASH) CONTAINER GROWN, 5-GALLON	A2C04005 TREE, PLATANUS OCCIDENTALIS (SYCAMORE) CONTAINER GROWN, 5-GALLON	A2C05005 TREE, QUERCUS BICOLOR (SWAMP WHITE OAK) CONTAINER GROWN, 5-GALLON	A2C06005 TREE, QUERCUS PALUSTRIS (PIN OAK) CONTAINER GROWN, 5-GALLON	TOTAL	TREE TRUNK PREDATOR PROTECTION	WEED CONTROL NON-SELECTIVE NON-RESIDUAL (WETLAND)	TREE INTERMEDIATE AND SHRUB WATERING	SEEDING, CLASS 2 (SPECIAL)	INTERSEEDING, CLASS 2 (SPECIAL)	INTERSEEDING, CLASS 4 (SPECIAL)	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2	MOWING
				ACRES	EACH	EACH	EACH	EACH	EACH	EACH	EACH	GALLON	UNIT	ACRES	ACRES	ACRES	LBS	LBS	LBS	TON	ACRE	ACRE
1119+45.77	TO	1122+00.00	LT.													1.4						1.4
1119+45.77	TO	1123+30.00	RT.													3.3						3.3
1122+00.00	TO	1139+00.00	LT.	14.2	142	142	142	142	142	142	852			5.3	8.9		477	477	477	10.6	5.3	8.9
1122+00.00	TO	1132+97.00	RT.	6.6	66	66	66	66	66	66	396			5.1	1.5		459	459	459	10.2	5.1	1.3
				20.8	208	208	208	208	208	208	1248	20	36	10.4	10.4	4.7	936	936	936	20.8	10.4	14.9

REVISIONS	
NAME	DATE

CHRISTOPHER B. BURKE ENGINEERING LTD.

ILLINOIS DEPARTMENT OF TRANSPORTATION

WETLAND MITIGATION SCHEDULES OF QUANTITIES

SCALE: N.T.S.

DATE: 3/18/2006

DRAWN BY: WFS

CHECKED BY: SDK

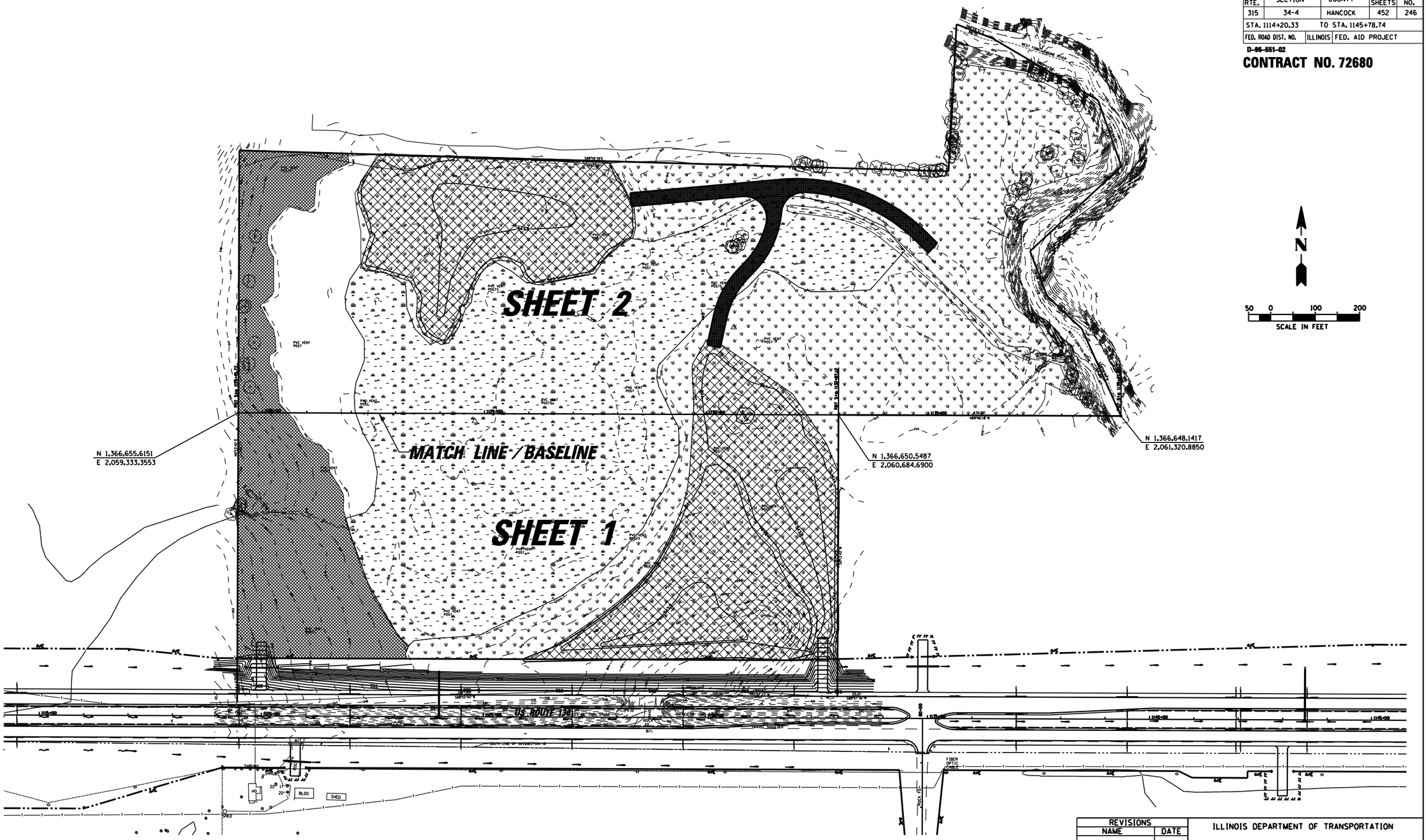
#FILE#

V:/2173/CHRISTOPHERBURKE/0001

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	246
STA. 1114+20.33		TO STA. 1145+78.74		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-86-551-02

CONTRACT NO. 72680



REVISIONS NAME	DATE

CHRISTOPHER B. BURKE ENGINEERING LTD.

ILLINOIS DEPARTMENT OF TRANSPORTATION

WETLAND SCHEMATIC DRAWING

SCALE: 1" = 100'
DATE: 3/18/2006

DRAWN BY: WFS
CHECKED BY: SDK

V:/2173/CHRISTOPHERBURKE/#001

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	247
STA. 1119+45.77		TO STA. 1139+33.31		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

POT Sta 1119+45.77

POT Sta 1132+97.12

POT Sta 1139+33.31

BASELINE / MATCHLINE

1120+00 1125+00 1130+00 1135+00

N01°34'42"E 1242.77'

N89°46'18"W

PROPERTY LINE

PVC VENT POST

WETLAND PROTECTION ** FENCE (SPECIAL)

•• WETLAND PROTECTION FENCE (SPECIAL)

GRADING LIMITS

SEE CROSS SECTIONS FOR EARTHWORK QUANTITIES

PROPERTY LINE

GRADING LIMITS

S01°13'42"W 1242.77'

PIPE CULVERT (SEE ROADWAY PLANS)

A/C

102.08' S88°10'00"W

US ROUTE 136

1125+00

1130+00

GRAVEL SHOULDER

ROCK FACE

BIT.

GRAVEL SHOULDER

200.67' N85°57'27"W

25.01' S88°57'16"W

80+00

1135+00

SOUTH LINE OF SW¼SECTION 18

SHRUBS

SHRUB

ROCK

HO

BLDG

SHED

FIBER OPTIC CABLE

CK FLD

LEGEND

PROPOSED EARTHWORK AREA

EXISTING CONTOUR

544 PROPOSED FINAL CONTOUR

N

30 0 60 120

SCALE IN FEET

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY HANCOCK
CITY-TOWNSHIP CITY OF CARTHAGE
SEC & 1/4 SEC NO.
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

ELEVATION BENCH MARKS
DATUM: USGS

NO.	DESCRIPTION	ELEV.
TA-233	FOUND CHISELED SQUARE CUT ON TOP OF CONC. HAND RAIL AT W. END SOUTHLY SIDE OF ROUTE 136, OVER W. BRANCH LA MOINE RIVER. (PROVIDED BM FROM IDOT)	561.05
BMTA231	FOUND 60 D NAIL IN S. FACE P.P. JUST WEST OF W'LY PROPERTY LINE OF PARCEL OPPOSITE HOUSE #2535 EAST US HIGHWAY #136.	557.19

•• NOTE: PAY FOR AS PERIMTER EROSION CONTROL

CHRISTOPHER B. BURKE ENGINEERING LTD.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GRADING AND EROSION CONTROL PLAN

SHEET 1 OF 2

SCALE: 1" = 60'

DATE: 3/18/2006

DRAWN BY: WFS

CHECKED BY: SDK

V:\2173\CHRISTOPHERBURKE\E001

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	248
STA. 1119+45.77		TO STA. 1139+33.31		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

N

30 0 60 120

SCALE IN FEET

LEGEND

PROPOSED EARTHWORK AREA

EXISTING CONTOUR

544 PROPOSED FINAL CONTOUR

SEE CROSS SECTIONS FOR EARTHWORK QUANTITIES

PROPERTY LINE

S88°18'39"E 1597.40'

PVC VENT POSTS

PROPERTY LINE

GRADING LIMITS

•• WETLAND PROTECTION FENCE (SPECIAL)

543.5

PVC VENT POST

GRADING LIMITS

WETLAND PROTECTION •• FENCE (SPECIAL)

•• WETLAND PROTECTION FENCE (SPECIAL)

WETLAND PROTECTION •• FENCE (SPECIAL)

PVC VENT POST

PVC VENT POSTS

PVC VENT POST

PVC VENT POSTS

PVC VENT POST

PVC VENT POST

30' HAUL ROUTE

30' HAUL ROUTE

30' HAUL ROUTE

• AGGREGATE DITCH CHECK OVERFLOW ELEV. = 543.0

WETLAND PROTECTION •• FENCE (SPECIAL)

• AGGREGATE DITCH CHECK OVERFLOW ELEV. = 543.0

WETLAND PROTECTION •• FENCE (SPECIAL)

PVC VENT POST

SEE CROSS SECTIONS FOR EARTHWORK QUANTITIES

• AGGREGATE DITCH CHECK OVERFLOW ELEV. = 543.0

GRADING LIMITS

GRADING LIMITS

STONE DUMPED RIPRAP, CLASS A4

• AGGREGATE DITCH CHECK OVERFLOW ELEV. = 543.0

S68°28'51"E 96.76'

WEST FORK LA MOINE RIVER

S86°33'58"E 391.51'

S53°05'56"E 57.85'

PROPERTY LINE

WEST FORK LA MOINE RIVER

POT Sta 1119+45.77

POT Sta 1132+97.12

POT Sta 1139+33.31

1120+00

1125+00

1130+00

1135+00

636.20'

BASELINE / MATCHLINE

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY HANCOCK
CITY-TOWNSHIP CITY OF CARTHAGE
SEC & 1/4 SEC NO.
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

ELEVATION BENCH MARKS
DATUM: USGS

NO.	DESCRIPTION	ELEV.
TA-233	FOUND CHISELED SQUARE CUT ON TOP OF CONC. HAND RAIL AT W. END SOUTHLY SIDE OF ROUTE 136, OVER W. BRANCH LA MOINE RIVER, (PROVIDED BM FROM IDOT)	561.05
BMTA231	FOUND 60 D NAIL IN S. FACE P.P. JUST WEST OF W/LY PROPERTY LINE OF PARCEL OPPOSITE HOUSE #2535 EAST US HIGHWAY #136.	557.19

• NOTE: PAY FOR AS AGGREGATE (EROSION CONTROL)

•• NOTE: PAY FOR AS FENCE (EROSION CONTROL)

CHRISTOPHER B. BURKE ENGINEERING LTD.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GRADING AND EROSION CONTROL PLAN

SHEET 2 OF 2

SCALE: 1" = 60'

DATE: 3/18/2006

DRAWN BY: WFS

CHECKED BY: SDK

FILES

V:/2173/CHRISTOPHERBURKE/E002

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	249
STA. 1119+45.77		TO STA. 1139+33.31		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

LEGEND

- NATURALIZED WET MEADOW AND EMERGENT WETLAND (NO SEEDING REQUIRED)
- FORESTED WETLAND MIXTURE & SEEDING/INTERSEEDING, CLASS 2 (SPECIAL)
- UPLAND BUFFER MIXTURE INTERSEEDING, CLASS 4 (SPECIAL)

N

30 0 60 120
SCALE IN FEET

POT Sta 1119+45.77
1120+00
1125+00
1130+00
POT Sta 1132+97.12
1135+00
POT Sta 1139+33.31
BASELINE / MATCHLINE
PROPERTY LINE
N89°46'18"W
N01°32'42"E 2680.0'
NO SEEDING REQUIRED IN THIS AREA AND WORKERS, EQUIPMENT OR MATERIAL ALLOWED IN THIS AREA
PVC VENT POST
634.44'
S01°13'42"W
PROPOSED ACCESS GATE, DOUBLE, 30 FOOT
FIELD ENTRANCE (SEE ROADWAY PLANS)
1027.00'
S88°10'00"W
300.67'
N85°57'27"W
25.01'
S88°57'16"W
A/C
PROPOSED US ROUTE 136
FES 28" CMP= 541.54
FES 28" CMP= 544.20
GRAVEL
GRAVEL SHOULDER
80+00
EXISTING US ROUTE 136
SOUTH LINE OF SW¼SECTION 18

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY HANCOCK
CITY-TOWNSHIP CITY OF CARTHAGE
SEC & 1/4 SEC NO.
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

ELEVATION BENCH MARKS
DATUM: USGS

NO.	DESCRIPTION	ELEV.
TA-233	FOUND CHISELED SQUARE CUT ON TOP OF CONC. HAND RAIL AT W. END SOUTHLY SIDE OF ROUTE 136, OVER W. BRANCH LA MOINE RIVER. (PROVIDED BM FROM IDOT)	561.05
BMTA231	FOUND 60 D NAIL IN S. FACE P.P. JUST WEST OF W'LY PROPERTY LINE OF PARCEL OPPOSITE HOUSE #2535 EAST US HIGHWAY #136.	557.19

CHRISTOPHER B. BURKE ENGINEERING LTD.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SITE AND LANDSCAPING PLAN

SHEET 1 OF 2

SCALE: 1" = 60'
DATE: 3/18/2006
DRAWN BY: WFS
CHECKED BY: SDK

V:/2173/CHRISTOPHERBURKE/S001

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	250
STA. 1119+45.77		TO STA. 1139+33.31		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

N

30 0 60 120

SCALE IN FEET

LEGEND

- NATURALIZED WET MEADOW AND EMERGENT WETLAND (NO SEEDING REQUIRED)
- FORESTED WETLAND MIXTURE SEEDING/INTERSEEDING, CLASS 2 (SPECIAL)
- UPLAND BUFFER MIXTURE INTERSEEDING, CLASS 4 (SPECIAL)
- PROPOSED HAUL ROUTE, SEEDING CLASS 2 (SPECIAL)*

PROPERTY LINE

S88°18'39"E 1597.79'

S68°28'51"E 86.75'

WEST FORK LEMOINE RIVER

S59°37'38"E 258.80'

N33°46'48"E 317.95'

S19°50'15"E 157.05'

S26°38'-E 260.88'

S47°12'05"W

PROPERTY LINE

SCOMBLATE 108.39'

S46°47'34"E 101.30'

WEST FORK LA MOINE RIVER

S24°09'40"E 636.20'

PVC VENT POST

NO SEEDING REQUIRED IN THIS AREA - NO WORKERS, EQUIPMENT, OR MATERIAL ALLOWED IN THIS AREA

POT Sta 1119+45.77

POT Sta 1132+97.12

POT Sta 1139+33.31

1120+00 1125+00 1130+00 1135+00

BASELINE / MATCHLINE

- HAUL ROUTE TO BE CHISEL PLOWED AND SEEDED WITH SEEDING, CLASS 2 (SPECIAL) WHEN ACTIVITIES ARE COMPLETE SEE SPECIAL PROVISIONS

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY HANCOCK
CITY-TOWNSHIP CITY OF CARTHAGE
SEC & 1/4 SEC NO.
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

ELEVATION BENCH MARKS
DATUM: USGS

NO.	DESCRIPTION	ELEV.
TA-233	FOUND CHISELED SQUARE CUT ON TOP OF CONC. HAND RAIL AT W. END SOUTHLY SIDE OF ROUTE 136, OVER W. BRANCH LA MOINE RIVER. (PROVIDED BM FROM IDOT)	561.05
BMTA231	FOUND 60 D NAIL IN S. FACE P.P. JUST WEST OF W'LY PROPERTY LINE OF PARCEL OPPOSITE HOUSE #2535 EAST US HIGHWAY #136.	557.19

REVISIONS NAME	DATE

CHRISTOPHER B. BURKE ENGINEERING LTD.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SITE AND LANDSCAPING PLAN

SHEET 2 OF 2

SCALE: 1" = 60'

DRAWN BY: WFS

DATE: 3/18/2006

CHECKED BY: SDK

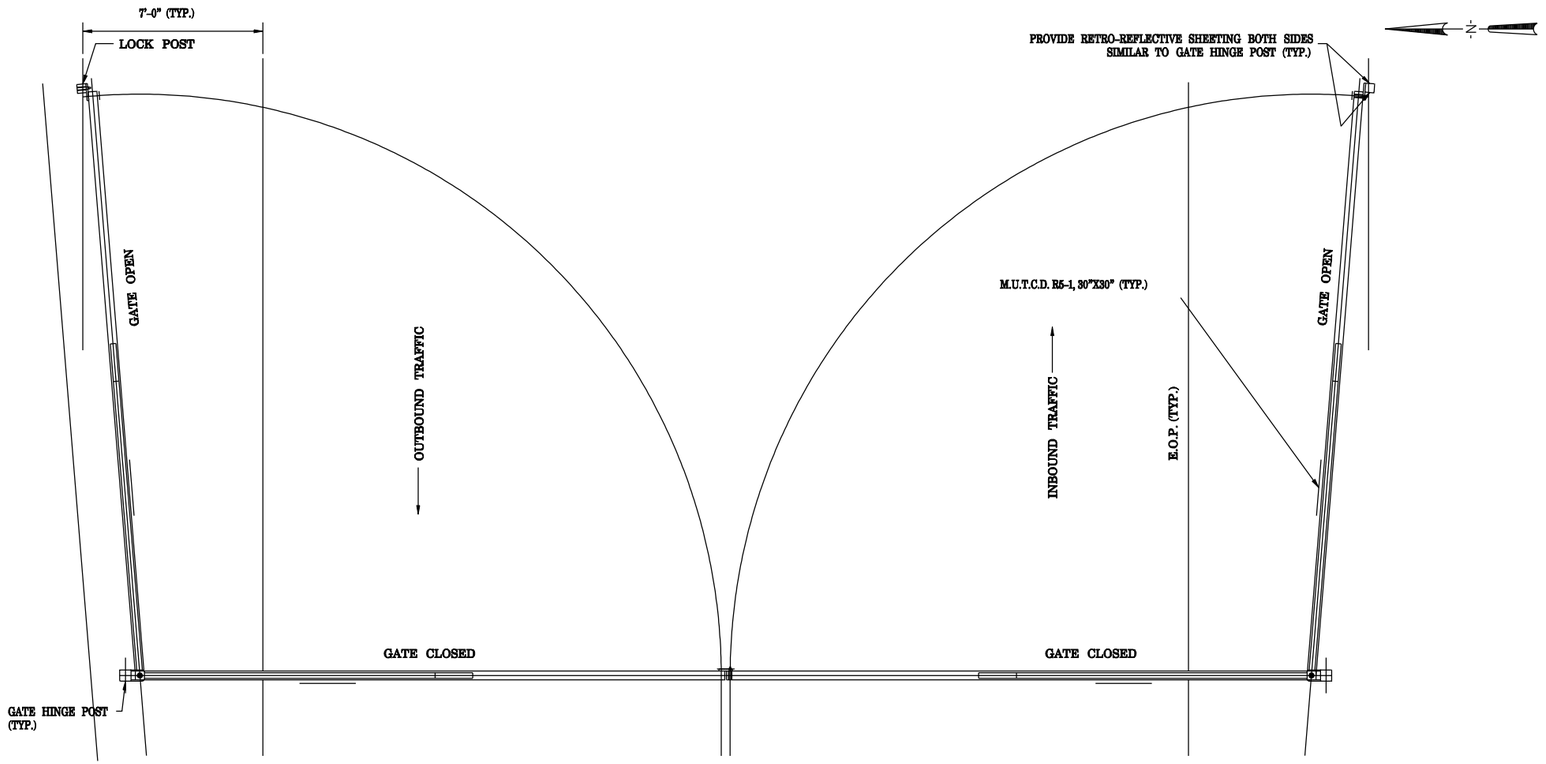
V:\2173\CHRISTOPHERBURKE\S002

$FILE$

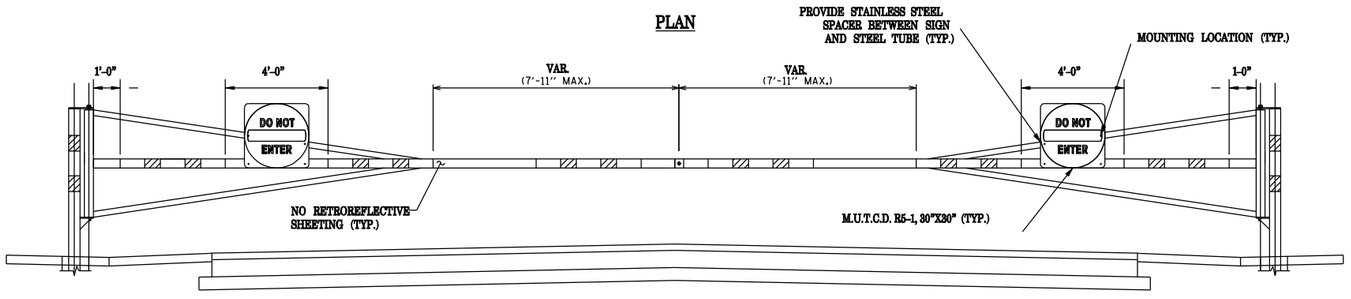
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	251
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

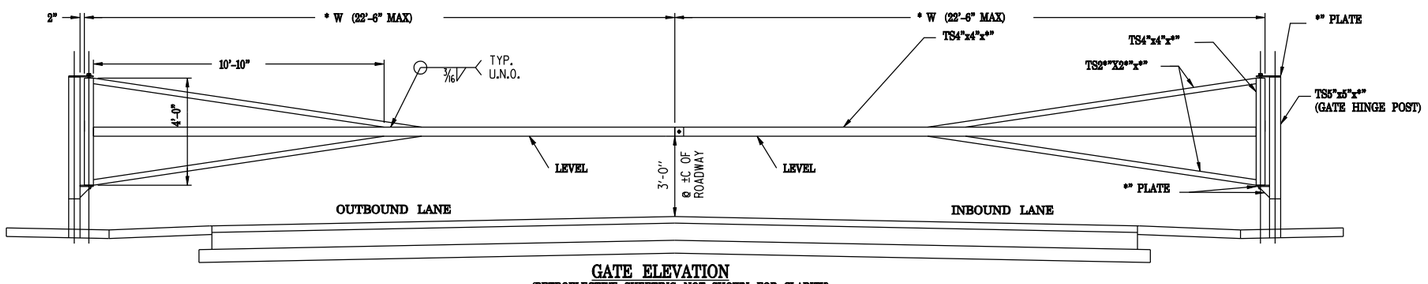
CONTRACT NO. 72680



PLAN



RETROREFLECTIVE SHEETING ELEVATION
(FRONT & REAR VIEW)



GATE ELEVATION
(RETROFLECTIVE SHEETING NOT SHOWN FOR CLARITY)

GENERAL NOTES

1. THE ENTRANCE GATE SHALL BE PAINTED WITH ONE PRIMER COAT AND TWO FINISH COATS. THE PRIMER SHALL BE AN ORGANIC, ZINC RICH, RUST INHIBITING PRIMER. THE FINISH COATS SHALL BE A MINERAL SPIRIT REDUCED FINISHED COAT INTENDED FOR EXTERIOR APPLICATIONS.
THE COLOR SHALL MATCH EXISTING FACILITIES. CONTRACTOR SHALL SUBMIT PAINT CHIPS OF FINAL COLOR FOR APPROVAL. ALL EDGES OF HOLES SHALL BE PRIMED AND PAINTED PRIOR TO INSTALLING THE BOLTS.

2. ALL TUBE MEMBERS (TS) SHALL BE COLD FORMED WELDED STRUCTURAL STEEL CONFORMING TO THE LATEST ASTM A500 GRADE B (46 KSI).

3. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST ASTM A36.

4. ALL WELDS SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70 ELECTRODES.

5. HOLES IN THE STRUCTURAL STEEL AND TUBE MEMBERS SHALL BE 1/16 IN. MAXIMUM LARGER THAN THE BOLT, UNLESS NOTED OTHERWISE.

6. HINGE PIN HOLES IN THE STRUCTURAL STEEL AND TUBE MEMBERS SHALL BE 1/32 IN. MAXUMUM LARGER THAN THE PIN, UNLESS NOTED OTHERWISE.

7. GATE LOCK POST SHALL BE ERECTED AFTER THE GATE IN ORDER TO ACCOUNT FOR THE DEAD LOAD DEFLECTION OF THE GATE AND TO CORRECTLY LOCATE THE HOLE AND PIN ALIGNMENT.

8. ALL HORIZONTAL AND DIAGONAL MEMBERS SHALL HAVE A 1/2" DIAMETER VENT HOLE DRILLED UNDERNEATH THE MEMBERS AT EACH END.

9. ALL EXPOSED CORNERS OF PLATES SHALL HAVE A 1/4" RADIUS UNLESS NOTED OTHERWISE.

10. ALL CONCRETE SHALL BE CLASS SI AND SHALL HAVE A MINIMUM 14-DAY COMPRESSIVE STRENGTH OF 3500 PSI. ALL FOUNDATIONS SHALL BE DRILLED,INSPECTED, AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE. THE SOIL WAS ASSUMED TO BE A BLACK SLAG OR A LOOSE SAND AND GRAVEL.

11. CONTRACTOR SHALL PROVIDE A 7-YEAR WARRANTY ON THE RETROREFLECTIVE SHEETING.

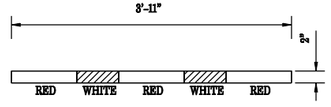
12. CONTRACTOR SHALL LAYOUT LOCK POSTS AND HINGE POSTS FOR LOCATION APPROVAL BY ENGINEER PRIOR TO FABRICATION.

13. ALL EXPOSED EDGES SHALL BE GROUND SMOOTH.

14. ALL STEEL SHALL BE BLAST CLEANED PER SSPC-SP6 COMMERCIAL BLAST CLEANING PRIOR TO APPLICATION OF PRIMER COAT.

15. SIGNS SHALL BE THRU-BOLTED TO THE GATE AT THE LOCATIONS INDICATED ON THE PLAN WITH STAINLESS STEEL BOLTS. THE HOLES FOR THE BOLTS SHALL BE DRILLED.

W=WIDTH OF DOUBLE GATE
1/2W = WIDTH OF SINGLE GATE
(NOTE: WITH SINGLE GATE AN ADDITIONAL LOCK POST WILL BE REQUIRED TO KEEP GATE CLOSED)



TYPICAL RETROREFLECTIVE SHEETING DETAIL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ACCESS GATE DETAILS

1 OF 2

SCALE: VERT.
HORIZ.
DATE: 1/31/06

DRAWN BY BDK
CHECKED BY

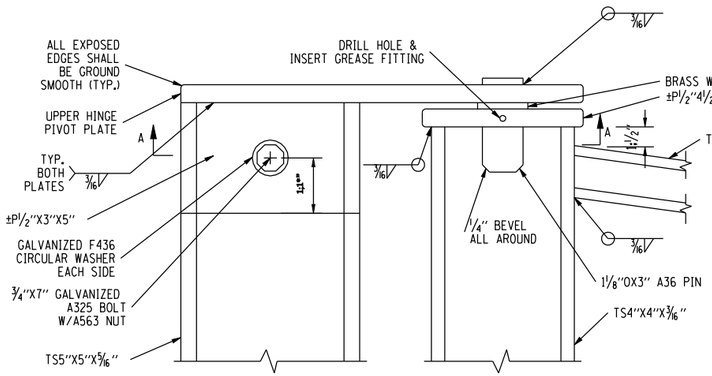
•DGN-SPEC•
•DATE-TIME•
•REF01

D6 PROJECT: ED50902 FILE: PIPEGATE .DGN

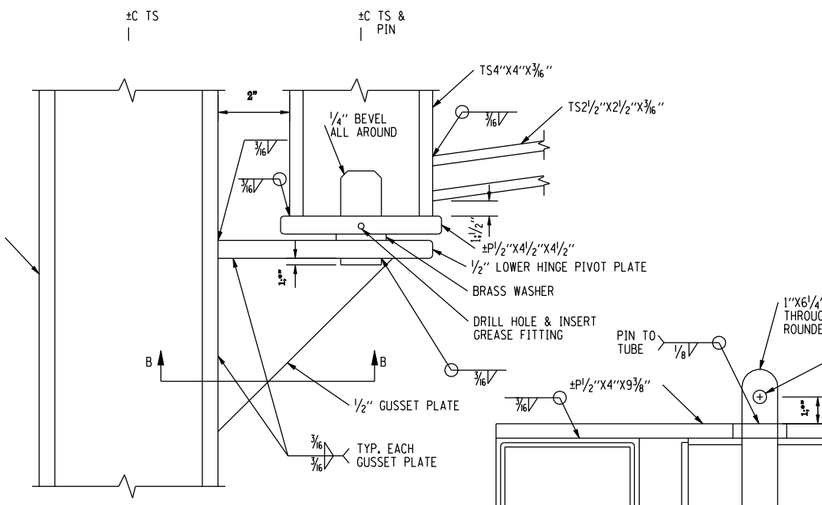
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	252
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

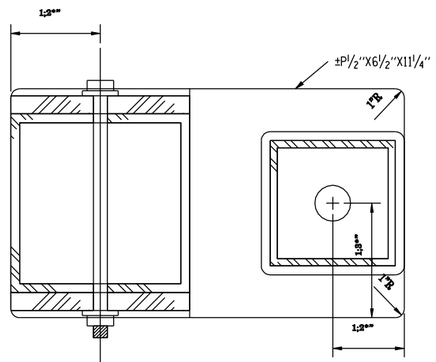
CONTRACT NO. 72680



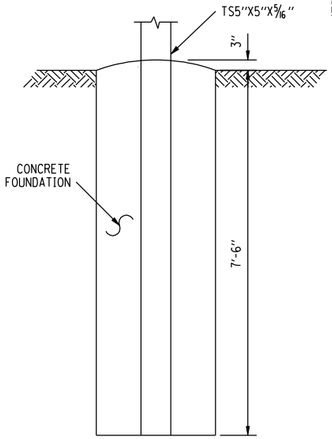
UPPER HINGE DETAIL
NTS



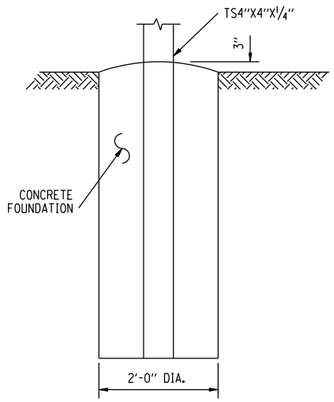
LOWER HINGE DETAIL
NTS



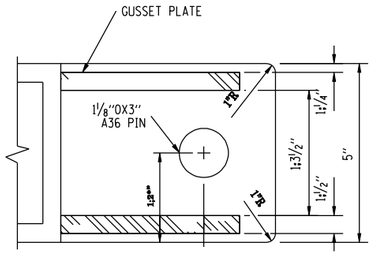
SECTION A-A
NTS



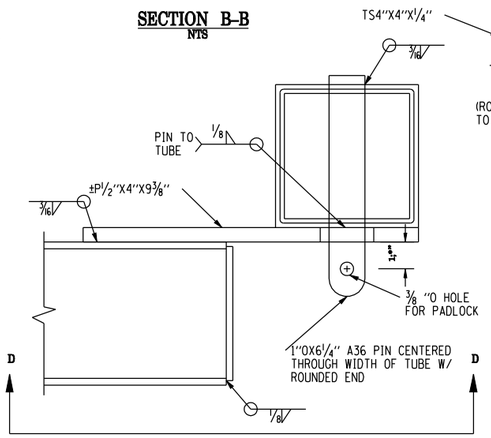
GATE POST FOUNDATION DETAIL
NTS



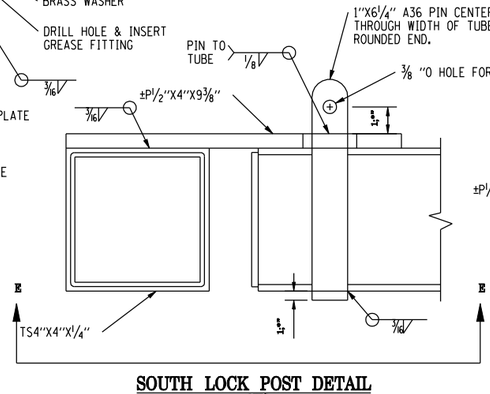
LOCK POST FOUNDATION DETAIL
NTS



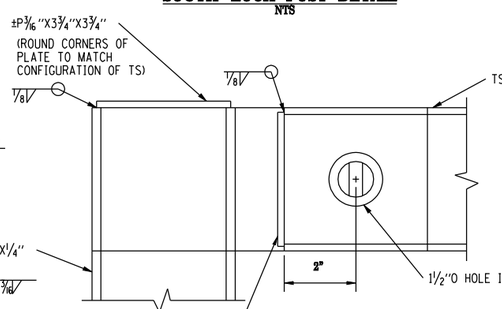
SECTION B-B
NTS



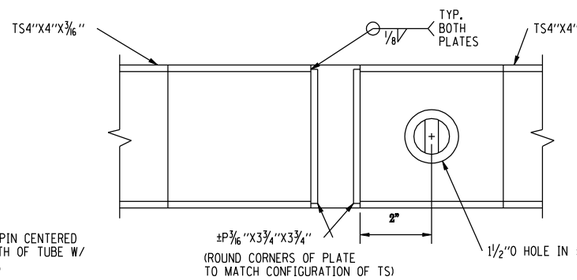
NORTH LOCK POST DETAIL
NTS



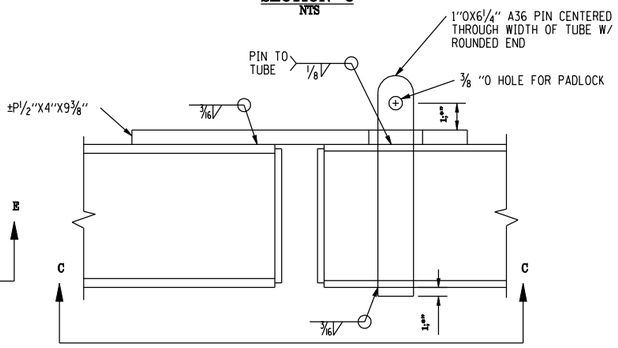
SOUTH LOCK POST DETAIL
NTS



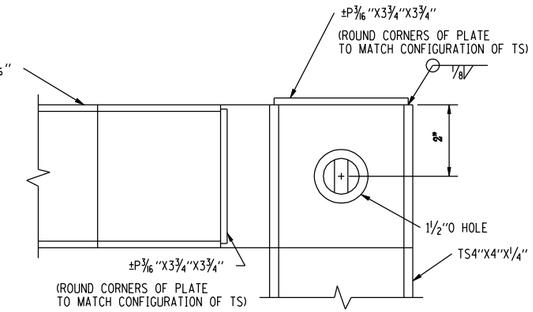
SECTION E-E
NTS



SECTION C
NTS



GATE-TO-GATE CONNECTION
NTS



SECTION D-D
NTS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ACCESS GATE DETAILS

2 OF 2

SCALE: VERT.
HORIZ.
DATE: 1/31/06

DRAWN BY BDK
CHECKED BY

•DGN-SPEC•
•DATE-TIME•
•REF01

D6 PROJECT:ED50902 FILE:PIPEGATE .DGN

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	253
STA. 1122+00.00	TO STA. 1123+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TYPED
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TYPED
AREAS
AREAS CHECKED

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

560 555 550 545 540 565

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 0 S.F.
CUT = 70.4 S.F.
FILL = 0.1 S.F.
TOPSOIL FILL = 0 S.F.

1123+00.00

AC. / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 0 S.F.
CUT = 35.6 S.F.
FILL = 0.3 S.F.
TOPSOIL FILL = 0 S.F.

1122+50.00

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

1122+00.00

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

560 555 550 545 540 565

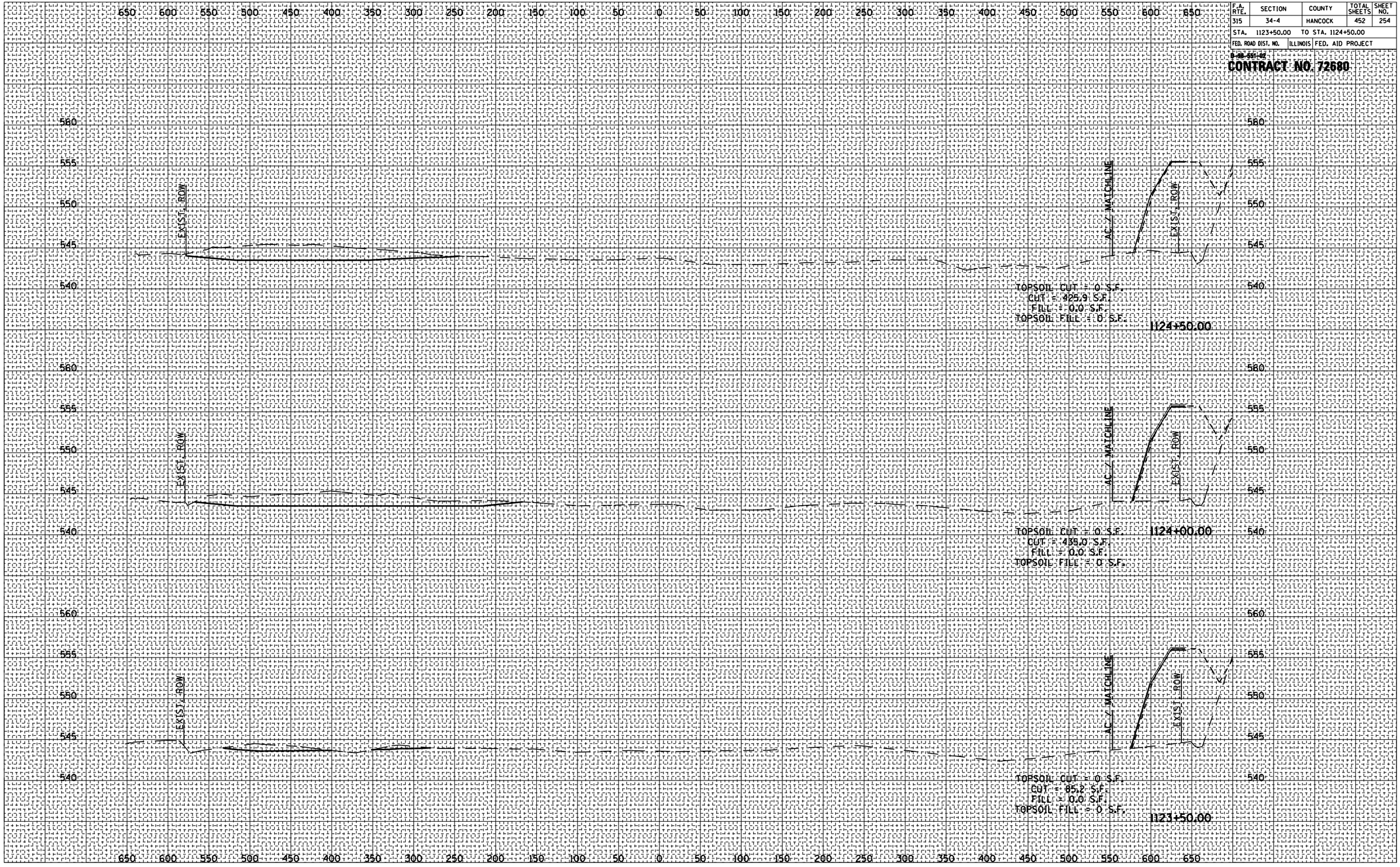
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	254
STA. 1123+50.00	TO STA. 1124+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		
NO.		



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	255
STA. 1125+00.00	TO STA. 1126+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		
NO.		

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

560 555 550 545 540

EXIST. ROW

AC / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 0 S.F.
CUT = 282.4 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 0 S.F.

1126+00.00

TOPSOIL CUT = 0 S.F.
CUT = 296.5 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 0 S.F.

1125+50.00

TOPSOIL CUT = 0 S.F.
CUT = 329.9 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 0 S.F.

1125+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	256
STA. 1126+50.00	TO STA. 1127+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TRANSFERRED
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TRANSFERRED
AREAS
AREAS CHECKED

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

560 555 550 545 540

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 82.0 S.F.
CUT = 355.7 S.F.
FILL = 0.1 S.F.
TOPSOIL FILL = 82.0 S.F.

1127+50.00

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 50.0 S.F.
CUT = 305.8 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 50.0 S.F.

1127+00.00

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 25.0 S.F.
CUT = 291.9 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 25.0 S.F.

1126+50.00

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

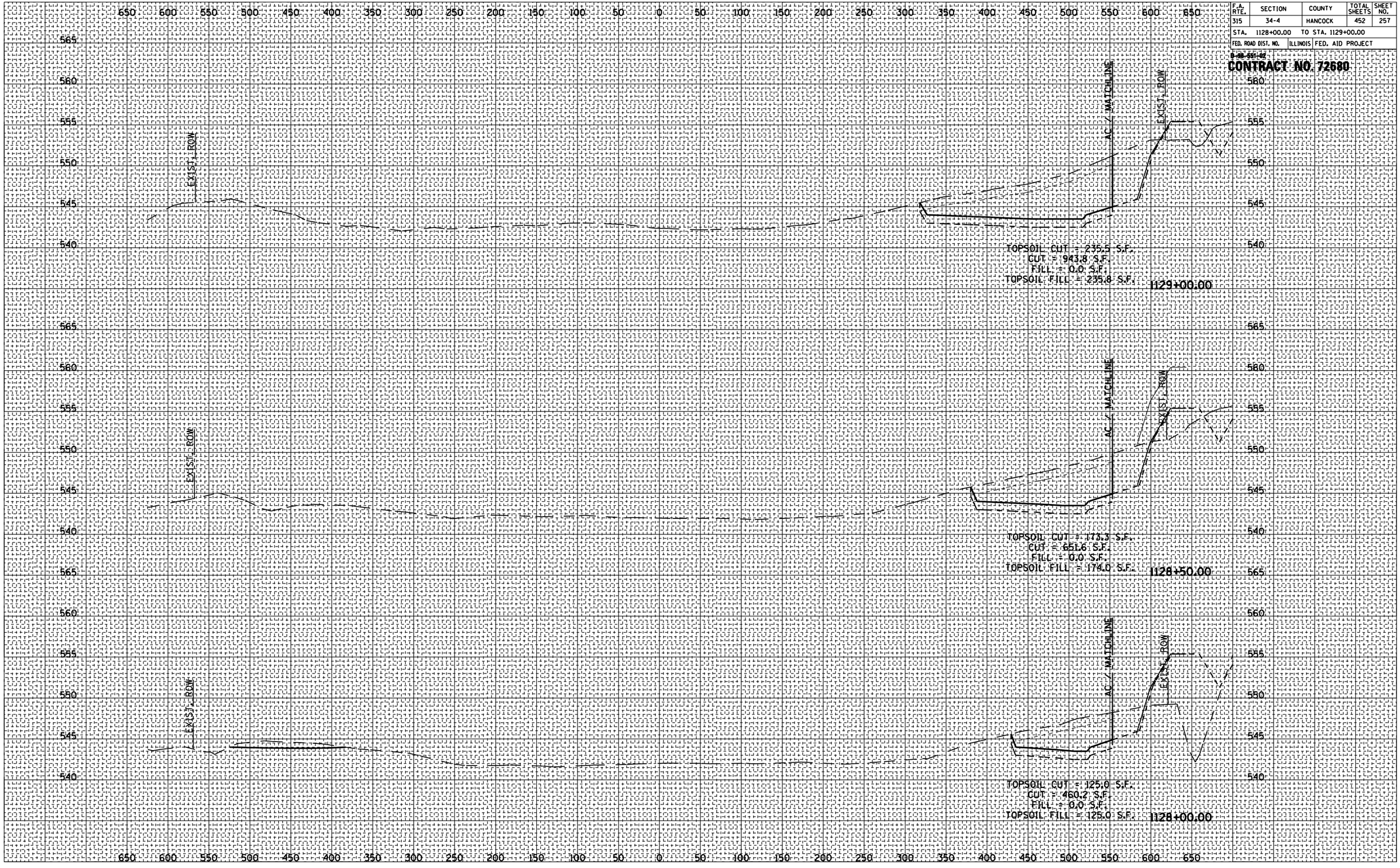
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	257
STA. 1128+00.00	TO STA. 1129+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	258
STA. 1129+50.00	TO STA. 1130+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		
NO.		

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

570 565 560 555 550 545 540

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

TOPSOIL CUT = 675.8 S.F.
CUT = 1597.3 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 676.5 S.F.

1130+00.00

TOPSOIL CUT = 335.2 S.F.
CUT = 1329.3 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 335.0 S.F.

1129+50.00

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

570 565 560 555 550 545 540

EXIST. ROW

AC. / MATCHLINE

EXIST. ROW

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	259
STA. 1130+50.00	TO STA. 1131+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		

600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

560 555 550 545 540 565 560 555 550 545 540 570 565 560 555 550 545 540

EXIST. ROW

AC / MATCHLINE

TOPSOIL CUT = 614.7 S.F.
CUT = 1445.5 S.F.
FILL = 2.3 S.F.
TOPSOIL FILL = 613.0 S.F. **1131+50.00**

TOPSOIL CUT = 638.7 S.F.
CUT = 1633.6 S.F.
FILL = 6.4 S.F.
TOPSOIL FILL = 637.8 S.F. **1131+00.00**

TOPSOIL CUT = 668.2 S.F.
CUT = 1744.9 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 667.6 S.F. **1130+50.00**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	260
STA. 1132+00.00	TO STA. 1132+97.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-98-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		

650 600 550 500 450 400 350 300 250 200 150 100 50 0 50 100 150 200 250 300 350 400 450 500 550 600 650

560 555 550 545 540

EXIST. ROW

AC / MATCHLINE

TOPSOIL CUT = 0.0 S.F.
CUT = 0.0 S.F.
FILL = 251.4 S.F.
TOPSOIL FILL = 194.3 S.F.
1132+97.00

TOPSOIL CUT = 0.0 S.F.
CUT = 0.0 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 0.0 S.F.
1132+50.00

TOPSOIL CUT = 376.5 S.F.
CUT = 593.4 S.F.
FILL = 0.0 S.F.
TOPSOIL FILL = 375.7 S.F.
1132+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	261
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT DISTRICT 6

SOIL BORING LOG

Page 1 of 1

Date 10/25/05

ROUTE FAP 315 (IL 336) **DESCRIPTION** IL 336 Culverts **LOGGED BY** M. Tappan

SECTION 34-4 **LOCATION** NW 1/4, **SEC.** 24, **TWP.** 5 N, **RNG.** 6 W, 4 **PM**

COUNTY Hancock **DRILLING METHOD** HSA **HAMMER TYPE** 140 # Auto

STRUCT. NO. N/A
Station 1072+93

BORING NO. 46A
Station 1073+00
Offset 15.0ft Rt
Ground Surface Elev. 602.7 ft

Surface Water Elev. Dry ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter No Encounter ft
Upon Completion Dry ft
After 24 **Hrs.** 591.2 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown and Grey Moist SILTY CLAY (Fill)			
	1		
	2	1.3	24
	3	B	
	1		
Grey	1	0.5	29
-5	1	B	
	0		
Brown and Light Grey	1	0.6	30
594.20	1	B	
Grey V. Moist SILTY CLAY LOAM w/ LOAM Seams	0		
-10	1	0.4	20
591.70	1	B	
Brown and Grey Moist CLAY (Till) ▼	0		
	1	1.2	25
	2	B	
	1		
-15	2	1.4	20
587.20	3	B	
Boring Completed			
Refer STA, Elevation to STA 1073+00 = 603.0'			
-20			

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

File Name S:\SOILS\GINT FILES\HANCOCK\IL 336 SECTION 4\D0655102.GPJ Data Template D6TEMPLT.GDT Date Printed 11/2/05
Latitude Longitude Datum Job Number

Illinois Department of Transportation
Division of Highways
IDOT DISTRICT 6

SOIL BORING LOG

Page 1 of 1

Date 12/2/02

ROUTE FAP 315 (IL 336) **DESCRIPTION** Proposed IL 336 **LOGGED BY** M. Tappan

SECTION 34-4 **LOCATION** , **SEC.** , **TWP.** , **RNG.** , **PM**

COUNTY Hancock **DRILLING METHOD** Push Split Spoon **HAMMER TYPE** N/A

STRUCT. NO. N/A
Station N/A

BORING NO. 48
Station 1077+10
Offset 40.0ft Left
Ground Surface Elev. 590.4 ft

Surface Water Elev. N/A ft
Stream Bed Elev. N/A ft

Groundwater Elev.:
First Encounter No Encounter ft
Upon Completion Dry ft
After 336 **Hrs.** 586.4 ft

DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Light Brownish Grey Dry SILT LOAM CLASSIFICATION 48-1		0.6	14
		S-10	
Brown and Grey V. Moist		0.5	28
		B	
Wet ▼			
-5		0.2	35
		B	
		0.1	31
582.40		B	
Grey and Brown Moist LOAM (Till) CLASSIFICATION 48-2		1.0	19
		B	
-10 Free Water			
		1.1	18
		B	
		2.0	18
		B	
Dark Grey			
575.40 -15		3.2	13
		B	
-20			

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

File Name S:\SOILS\GINT FILES\HANCOCK\IL 336 SECTION 4\D0655102.GPJ Data Template D6TEMPLT.GDT Date Printed 11/2/05
Latitude Longitude Datum Job Number

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315 (US 136)
SOIL BORING LOGS
TRENCHLESS PIPE INSTALLATIONS

DRAWN BY TJD
DATE 1/31/06 CHECKED BY AWM

2173B001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	262
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

Illinois Department of Transportation
Division of Highways
IDOT DISTRICT 6

SOIL BORING LOG

Page 1 of 1

Date 10/25/05

ROUTE FAP 315 (IL 336) **DESCRIPTION** IL 336 Culverts **LOGGED BY** M. Tappan

SECTION 34-4 **LOCATION** NE 1/4, **SEC.** 24, **TWP.** 5 N, **RNG.** 6 W, 4 **PM**

COUNTY Hancock **DRILLING METHOD** HSA **HAMMER TYPE** 140 # Auto

STRUCT. NO. N/A
Station 1077+06

BORING NO. 48A
Station 1077+40
Offset 52.0ft Rt
Ground Surface Elev. 594.2 ft

Surface Water Elev. Dry ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter No Encounter ft
Upon Completion Dry ft
After 24 **Hrs.** Dry ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Brown and Grey Moist CLAY LOAM (Till)		1		
		2 3	1.7 B	16
		1		
Brown	-5	2 4	1.7 B	17
		1		
		2 3	1.4 B	19
		1		
	-10	3 4	1.9 B	15
		1		
Brown and Grey Moist CLAY LOAM (Till)		4 6	2.6 B	14
		1		
579.20	-15	4 6	2.8 B	14
Boring Completed Moved Boring to East - Power Lines Refer STA, Elevation to STA 1077+00 = 595.0'	-20			

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

File Name S:\SOILSIGINT FILES\HANCOCK\IL 336 SECTION 410965102.GPJ Data Template D6TEMPLT.GDT Date Printed 11/2/05
Latitude Longitude Datum Job Number

Illinois Department of Transportation
Division of Highways
IDOT DISTRICT 6

SOIL BORING LOG

Page 1 of 1

Date 10/25/05

ROUTE FAP 315 (IL 336) **DESCRIPTION** IL 336 Culverts **LOGGED BY** M. Tappan

SECTION 34-4 **LOCATION** NE 1/4, **SEC.** 24, **TWP.** 5 N, **RNG.** 6 W, 4 **PM**

COUNTY Hancock **DRILLING METHOD** HSA **HAMMER TYPE** 140 # Auto

STRUCT. NO. N/A
Station 1083+20

BORING NO. 51A
Station 1083+20
Offset 15.0ft Rt
Ground Surface Elev. 594.5 ft

Surface Water Elev. Dry ft
Stream Bed Elev. ft

Groundwater Elev.:
First Encounter No Encounter ft
Upon Completion Dry ft
After 24 **Hrs.** 585.0 ft

	DEPTH (ft)	BLOWS /6"	UCS Qu (tsf)	MOIST (%)
Grey and Brown Moist SILTY CLAY (Fill)		1		
		1 3	1.1 B	23
		1		
Brown and Grey	-5	1 2	0.7 B	23
		1		
587.00		1 2	1.0 B	25
Grey and Brown Moist CLAY LOAM (Till)		1		
▼	-10	2 3	1.3 B	20
		1		
w/ Iron Oxide Nodules		2 3	1.5 B	19
		1		
	-15	1 2	0.7 B	21
		1		
Grey and Brown Moist CLAY LOAM (Till)		2 6	3.1 B	17
		1		
574.50	-20	2 4	1.6 B	19
Boring Completed Refer STA, Elevation to STA 1083+00 = 594.0'	-25			
	-30			
	-35			
	-40			

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

File Name S:\SOILSIGINT FILES\HANCOCK\IL 336 SECTION 410965102.GPJ Data Template D6TEMPLT.GDT Date Printed 11/2/05
Latitude Longitude Datum Job Number

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315 (US 136)
SOIL BORING LOGS
TRENCHLESS PIPE INSTALLATIONS

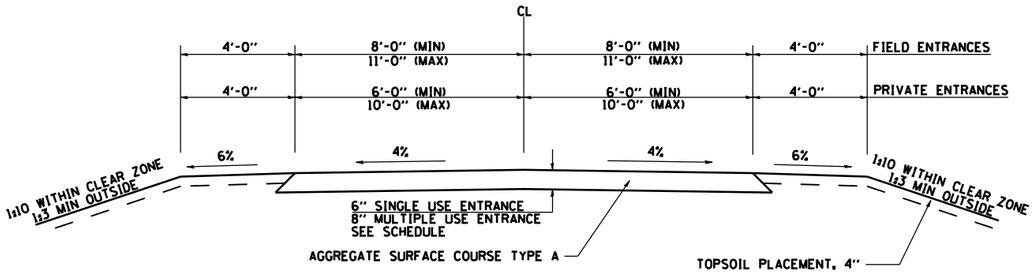
DRAWN BY TJD
DATE 1/31/06 CHECKED BY AWM

2173B001

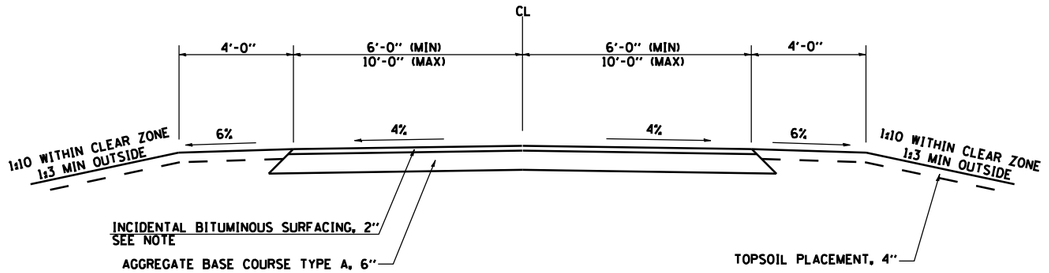
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	263
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680



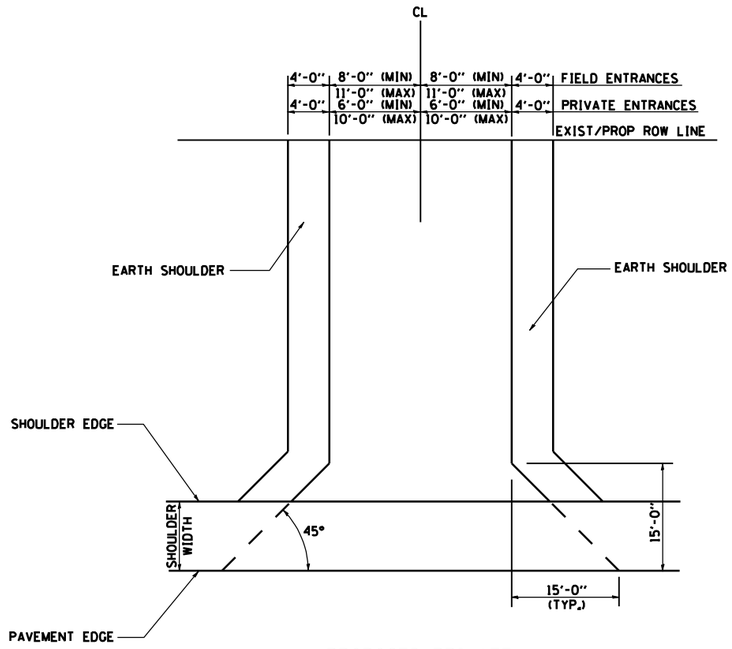
TYPICAL SECTION
PRIVATE AND FIELD ENTRANCES



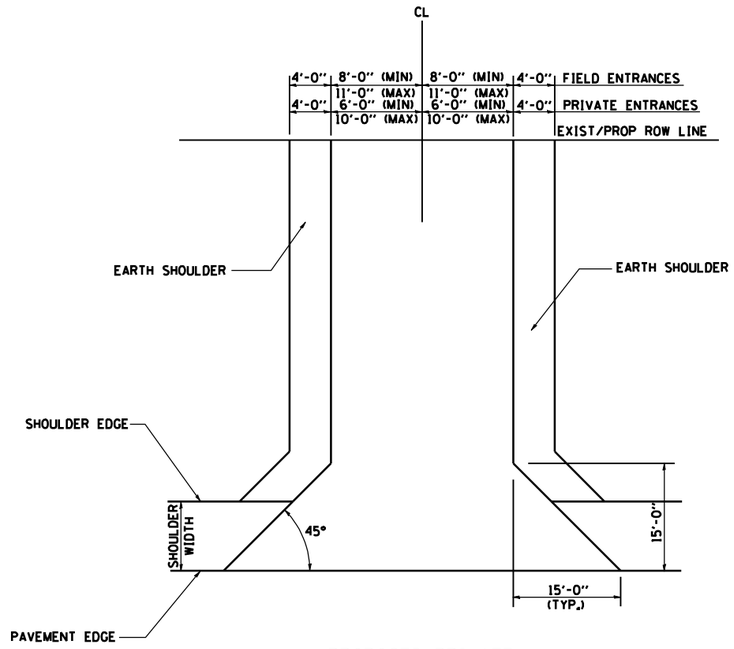
NOTE: THE ENTRANCE AT STA 16+20 RT (TR 222) SHALL HAVE 4" OF INCIDENTAL BITUMINOUS SURFACING RATHER THAN 2" .

TYPICAL SECTION
PRIVATE ENTRANCE

(PROPOSED BITUMINOUS SURFACE)



PROPOSED PRIVATE
AND
FIELD ENTRANCE DETAIL
ADJACENT TO SHOULDERS WITH
DIFFERENT MATERIAL AS ENTRANCE



PROPOSED PRIVATE
AND
FIELD ENTRANCE DETAIL
ADJACENT TO SHOULDERS WITH
SAME MATERIAL AS ENTRANCE

NOTE: MAILBOX TURNOUTS ALONG SIDEROADS TO BE CONSTRUCTED OF SAME MATERIAL AS ADJACENT ENTRANCE. SEE STANDARD BLR 24 FOR MAILBOX TURNOUT LAYOUT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
ENTRANCE DETAILS

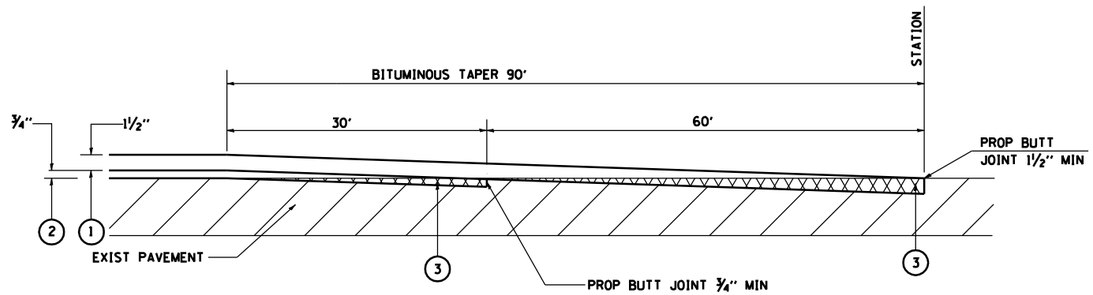
DRAWN BY JCG
DATE 1/31/06 CHECKED BY JRB

2173H002

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	264
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680



LEGEND

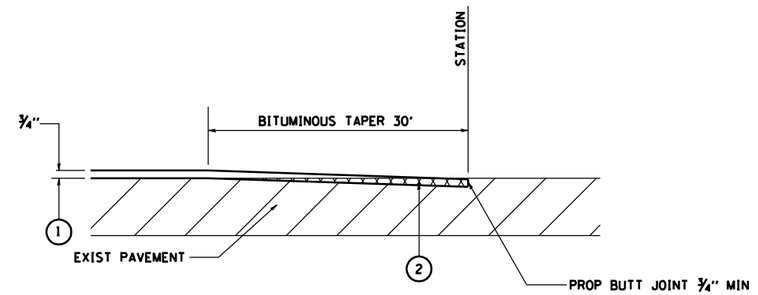
(1) PROPOSED BITUMINOUS SURFACE COURSE

(2) PROPOSED LEVELING BINDER COURSE

(3) PROPOSED BITUMINOUS SURFACE REMOVAL - BUTT JOINT

MAINLINE BUTT JOINT

STA 1150+43.87 EBL



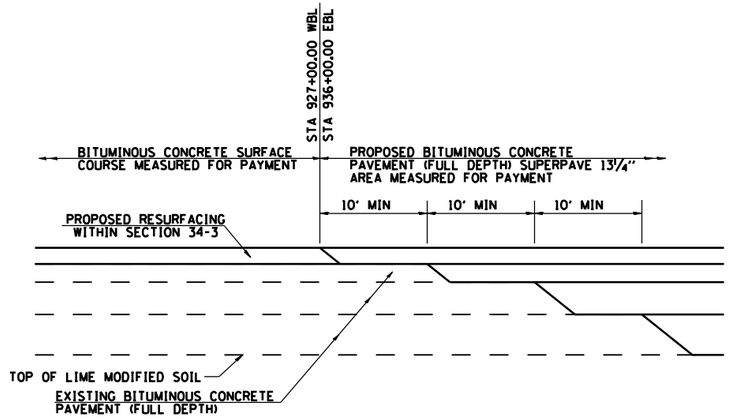
LEGEND

(1) PROPOSED LEVELING BINDER COURSE

(2) PROPOSED BITUMINOUS SURFACE REMOVAL - BUTT JOINT

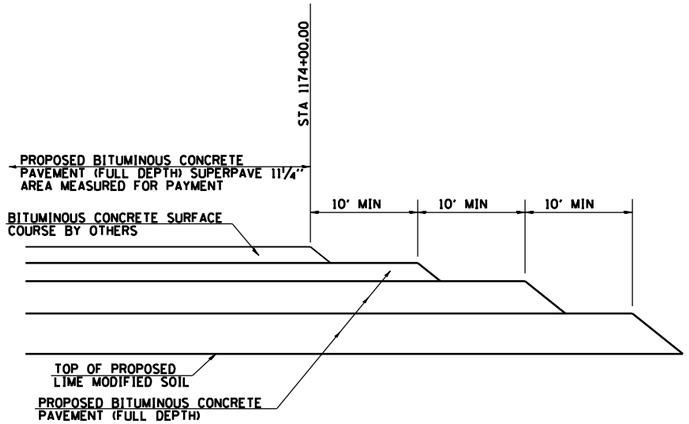
MAINLINE BUTT JOINT

STA 1156+00.54 EBL
STA 1174+00.00 EBL



1. THE EXISTING TERMINATION SHALL BE CLEANED AND PRIMED AS DIRECTED BY THE ENGINEER.
2. PRIOR TO PLACING A SURFACE OR BINDER COURSE AT A FULL DEPTH PAVEMENT TERMINATION, THE CONTRACTOR SHALL SAW THE EDGE OF THE EXISTING COURSE AND REMOVE EXCESS BITUMINOUS MATERIAL AS DIRECTED BY THE ENGINEER. THE COST OF SAWING AND REMOVING THIS MATERIAL SHALL BE INCLUDED IN THE COST OF THE BITUMINOUS CONCRETE PAVEMENT (FULL DEPTH) OF THE TYPE AND THICKNESS SPECIFIED.
3. THE COST OF CLEANING, PRIMING AND REMOVING MATERIAL AT THE EXISTING TERMINATION SHALL BE INCLUDED IN THE COST OF THE BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH) OF THE TYPE AND THICKNESS SPECIFIED.

DETAIL OF TERMINATION OF EXISTING FULL-DEPTH BITUMINOUS CONCRETE PAVEMENT AT WEST END



DETAIL OF TERMINATION OF PROPOSED FULL-DEPTH BITUMINOUS CONCRETE PAVEMENT AT EAST END

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
BITUMINOUS BUTT JOINT
PAVEMENT TERMINATION

DRAWN BY JCG

DATE 1/31/06

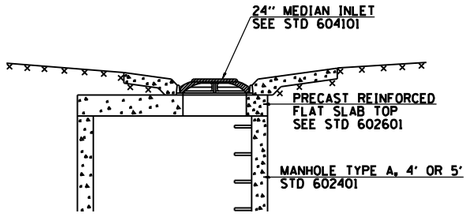
CHECKED BY JRB

2173H003

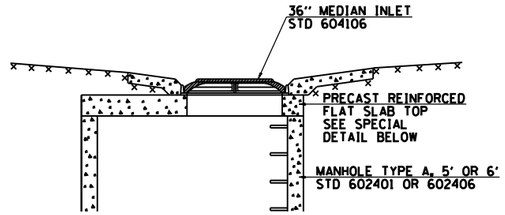
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	265
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

~~D-96-551-02~~

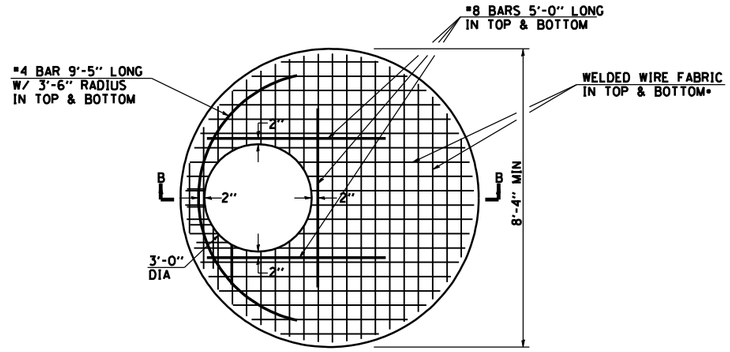
CONTRACT NO. 72680



DETAIL OF STANDARD 24" MEDIAN INLET
ON FLAT SLAB TOP

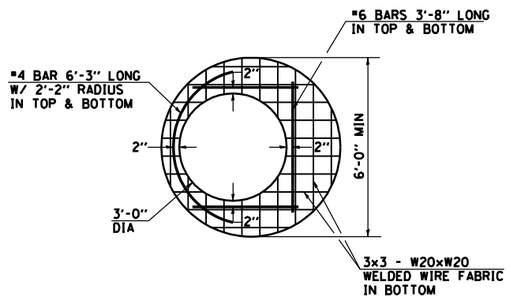


DETAIL OF STANDARD 36" MEDIAN INLET
ON FLAT SLAB TOP

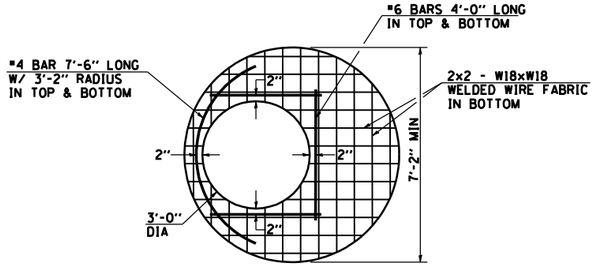


7' FLAT SLAB TOP DETAIL
WITH 36" OPENING

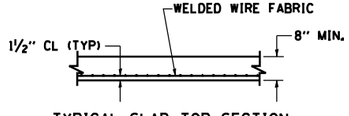
* 2x2 - W24xW24 IN BOTTOM
6x6 - W10xW10 IN TOP



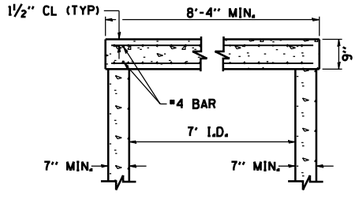
5' FLAT SLAB TOP DETAIL
WITH 36" OPENING



6' FLAT SLAB TOP DETAIL
WITH 36" OPENING



TYPICAL SLAB TOP SECTION
FOR 5' OR 6' MANHOLES



SECTION B-B

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
MANHOLE AND FLAT
SLAB TOP DETAILS

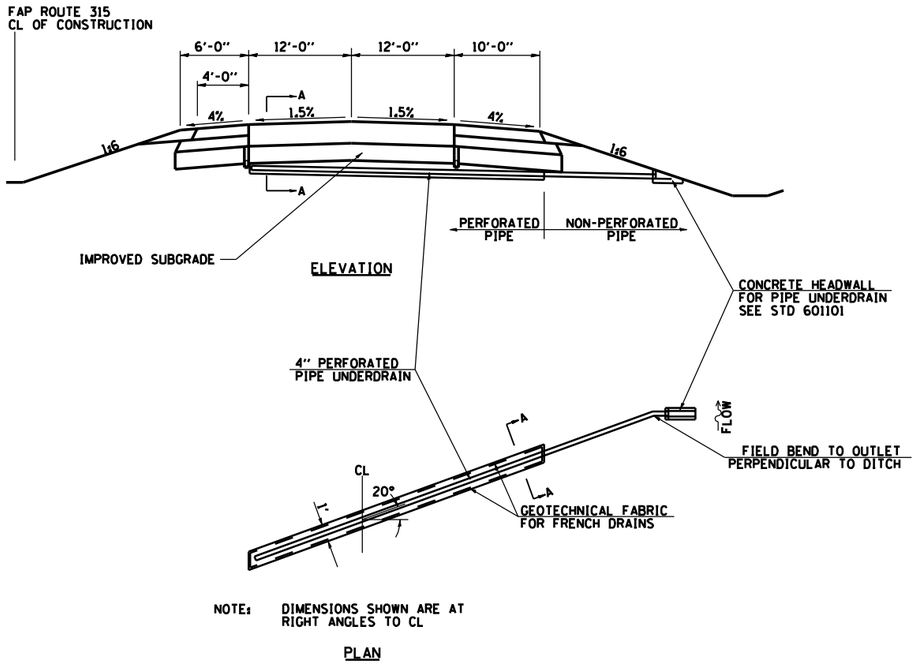
DRAWN BY JCG
DATE 1/31/06 CHECKED BY JRB

2173D010

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	266
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

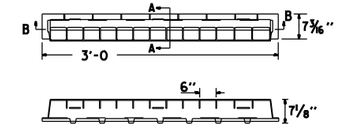
CONTRACT NO. 72680



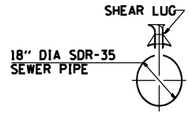
ELEVATION

NOTE: DIMENSIONS SHOWN ARE AT RIGHT ANGLES TO CL

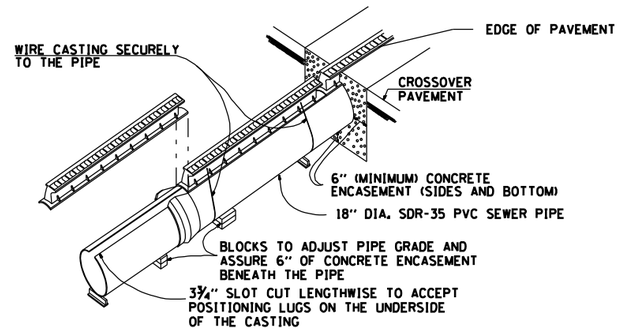
PLAN



SECTION B-B



SECTION A-A

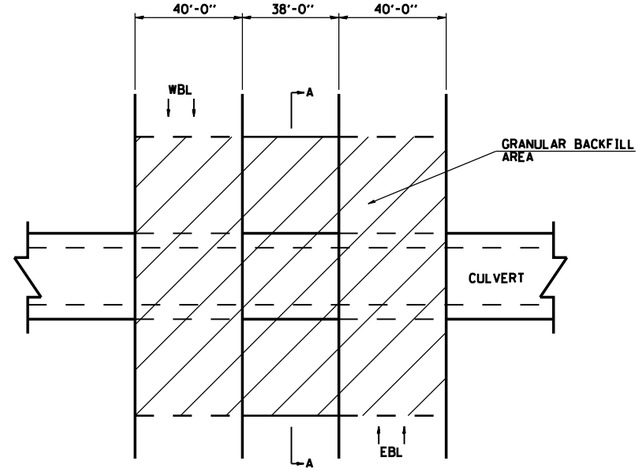


ELEVATION

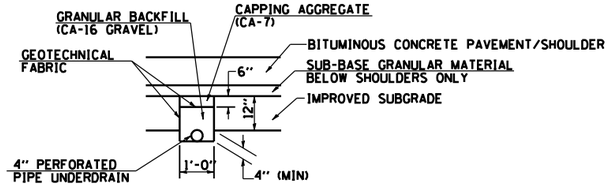
NOTES: THE GRATES SHALL BE NEENAH R-3599 OR EQUIVALENT
THIS WORK WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR VANE DRAIN, WHICH PRICE SHALL BE PAYMENT IN FULL FOR ALL LABOR AND MATERIAL NECESSARY FOR THE INSTALLATION OF THE VANE DRAIN. THE STORM SEWER SHALL BE PAID FOR SEPARATELY.

THE 18" DIAMETER SDR-35 PVC STORM SEWER PIPE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT AS STORM SEWER, CLASS B, TYPE 1, 18"

DETAIL OF VANE DRAIN

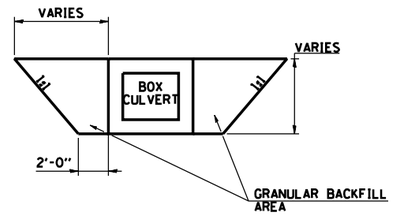


PLAN



SECTION A-A

TRANSVERSE DRAIN TANGENT PAVEMENT



SECTION A-A

GRANULAR CULVERT BACKFILL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

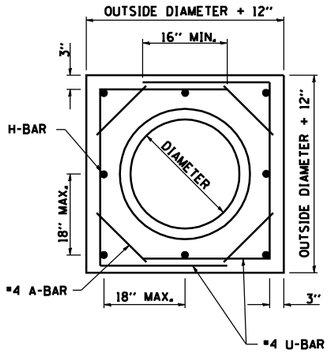
FAP ROUTE 315
SPECIAL DETAILS
TRANSVERSE DRAINS
VANE DRAIN
GRANULAR CULVERT BACKFILL

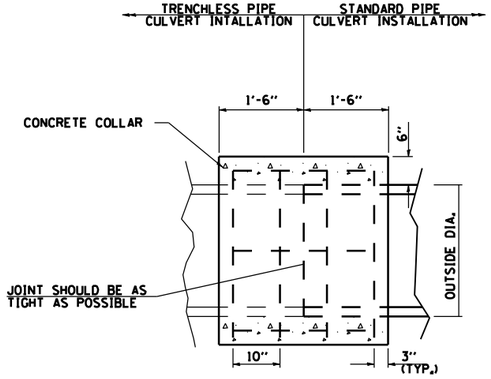
DRAWN BY JCG

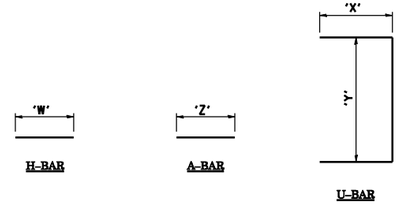
DATE 6/01/04

CHECKED BY JRB

21730002

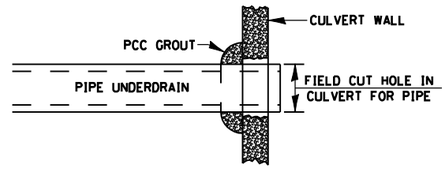






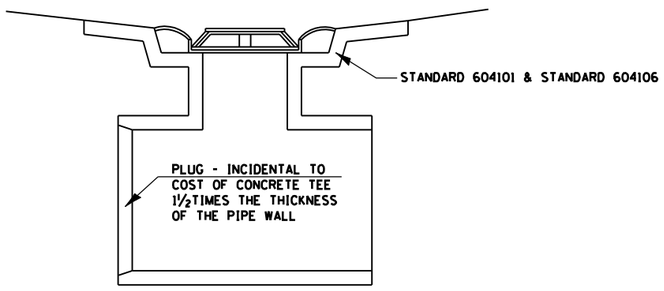
LOCATION	PIPE SIZE	COLLAR DIMENSIONS		A-BAR		U-BAR			H-BAR		CLASS "SI" CONCRETE	REINFORCEMENT BARS
		WIDTH	HEIGHT	NO.	'Z'	NO.	'X'	'Y'	NO.	'W'		
	DIA. IN.	IN.	IN.		IN.		IN.	IN.		IN	CU.YD.	POUND
FAP 315 (US 136) MAINLINE												
1072+93.00	42	63	63	16	26	8	37	57	10	30	1.48	116
1077+06.00	54	77	77	16	31	8	44	71	10	30	2.01	74
1083+20.00	36	56	56	16	22	8	33	50	8	30	1.24	85

CONCRETE COLLAR FOR CONNECTION TO
TRENCHLESS PIPE INSTALLATION



DETAIL FOR PLACING PIPE INTO CULVERT

USE ALSO FOR PLACING PIPE INTO PIPE OR PIPE TEE



DETAIL - CONCRETE PIPE TEE
STANDARD 542606

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	267
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
CONCRETE COLLAR &
DRAINAGE DETAILS

DRAWN BY

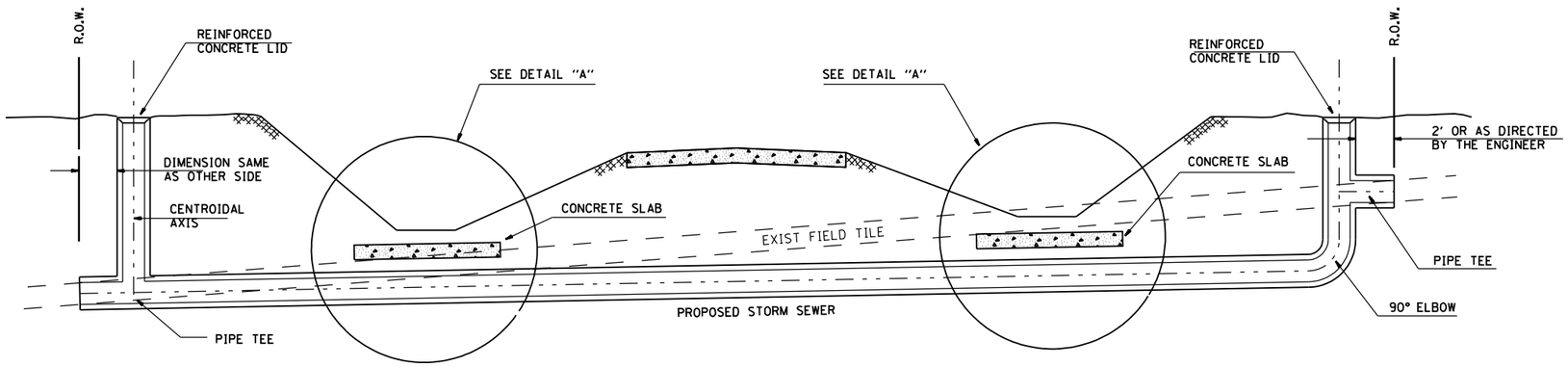
DATE 1/31/06 CHECKED BY

2173d014

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	268
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

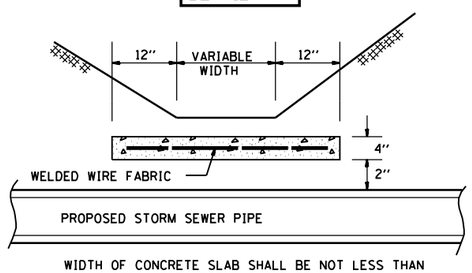
CONTRACT NO. 72680



GENERAL NOTES

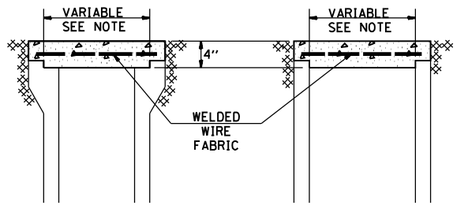
1. FIELD TILE SHALL BE REPLACED IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS. THE COST PER CONTRACT UNIT PRICE OF ITEMS INCLUDED IN THIS CONTRACT SHALL BE PAID FOR AS STATED IN SECTION 611 OF THE STANDARD SPECIFICATIONS. IF THE CONTRACT UNIT PRICE IS NOT INCLUDED IN THIS CONTRACT, PAYMENT FOR THIS WORK WILL BE IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
2. THE DIAMETER OF THE PROPOSED STORM SEWER SHALL BE EQUAL TO OR GREATER THAN THE EXISTING FIELD TILE.
3. ALL EXISTING FIELD TILE SHALL BE REPLACED WITH STORM SEWER OF THE TYPE REQUIRED FOR BY THE DEPTH OF COVER. THE LINEAL MEASUREMENT WILL BE ALONG THE CENTRODIAL AXIS AND INCLUDE ALL BENDS, ELBOWS, OR PIPE TEE'S WHICH ARE REQUIRED.
4. THE REINFORCED CONCRETE LID SHALL BE MISCELLANEOUS CONCRETE OR PRECAST REINFORCED CONCRETE AND THE COST WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PROPOSED STORM SEWER.
5. THE CONCRETE SLAB AND CONCRETE HEADWALL SHALL BE PAID AT THE CONCTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. THE COST OF FURNISHING AND PLACING THE WELDED WIRE FABRIC, GALVANIZED HARDWARE CLOTH, MACHINE BOLTS, WASHERS AND NUTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR MISCELLANEOUS CONCRETE.
6. EXISTING FIELD TILE SHALL BE LOCATED BOTH HORIZONTALLY AND VERTICALLY BY THE USE OF AN EXPLORATION TRENCH. THIS TRENCH SHALL NOT BE LESS THAN 52 INCHES IN DEPTH, MEASURED FROM THE EXISTING GROUND ELEVATION. THE WIDTH OF THE TRENCH SHALL BE SUFFICIENT TO ALLOW PROPER INVESTIGATION OF THE ENTIRE TRENCH.
7. THE EXISTING TILE DRAINAGE SYSTEM SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION BY IMMEDIATE CONSTRUCTION OF THE NEW STORM SEWER SYSTEM OR BY REPAIRING THE CUT TILE WITH THE SAME DIAMETER UNTIL SUCH TIME AS THE NEW SYSTEM IS COMPLETED.

DETAIL "A"



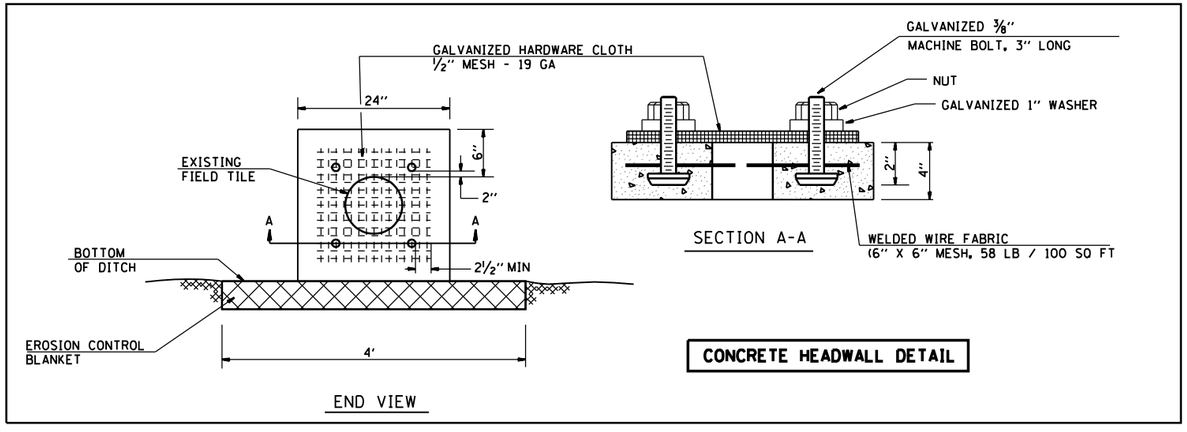
WIDTH OF CONCRETE SLAB SHALL BE NOT LESS THAN THE EXTERNAL DIAMETER OF THE PIPE PLUS 18 INCHES.

REINFORCED CONCRETE LID DETAIL

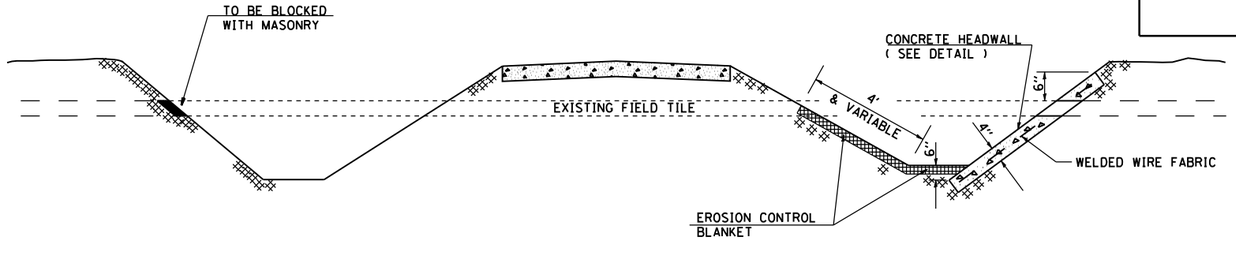


ALTERNATE A ALTERNATE B

NOTE : DIMENSIONS WILL VARY TO MATCH NOMINAL SIZE OF PROPOSED STORM SEWER



CONCRETE HEADWALL DETAIL



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
FIELD TILE REPLACEMENT

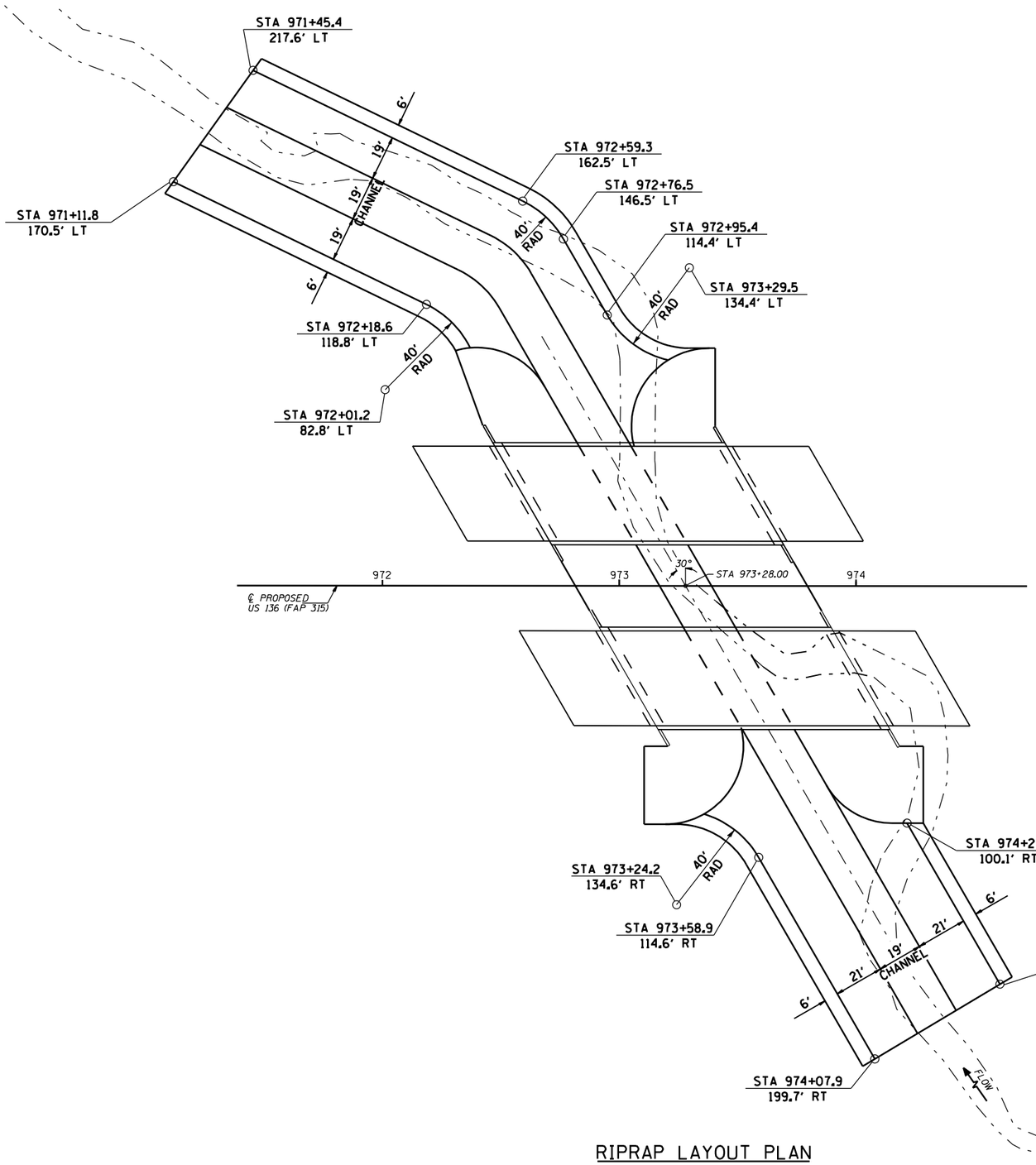
DRAWN BY JCG
CHECKED BY JRB
DATE 1/31/06

2173D009

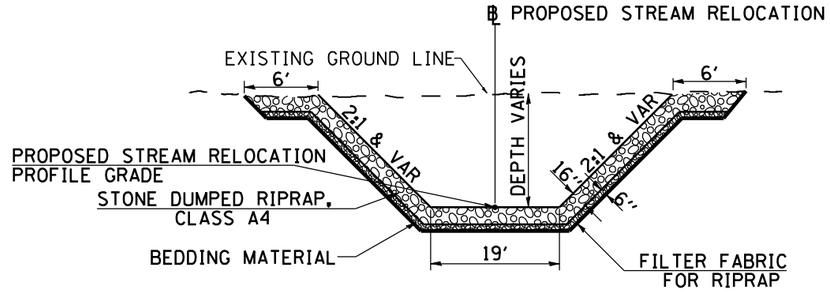
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	269
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680



RIPRAP LAYOUT PLAN



PROPOSED RELOCATED PRAIRIE CREEK TYPICAL SECTION

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
RIPRAP AT PRAIRIE CREEK

DRAWN BY JCG
DATE 1/31/06 CHECKED BY JRB

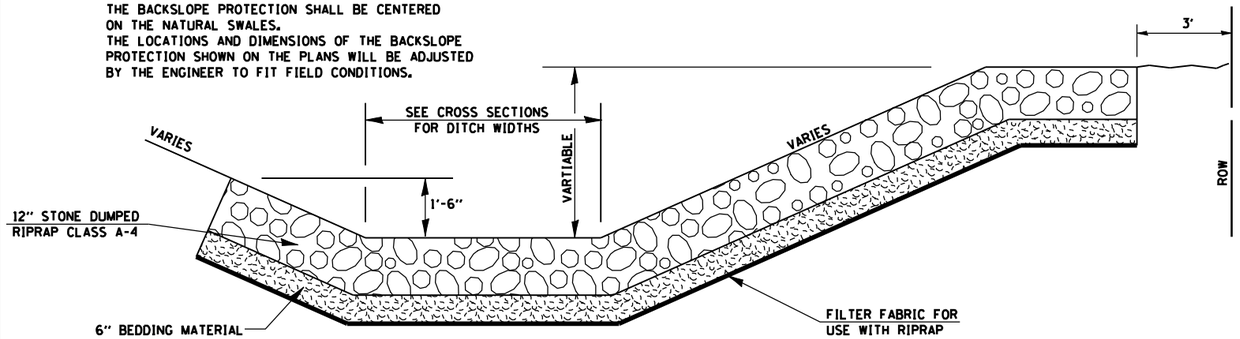
2173D013

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	270
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

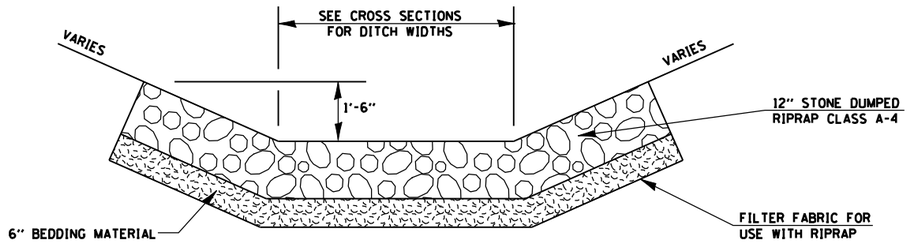
D-96-551-02

CONTRACT NO. 72680

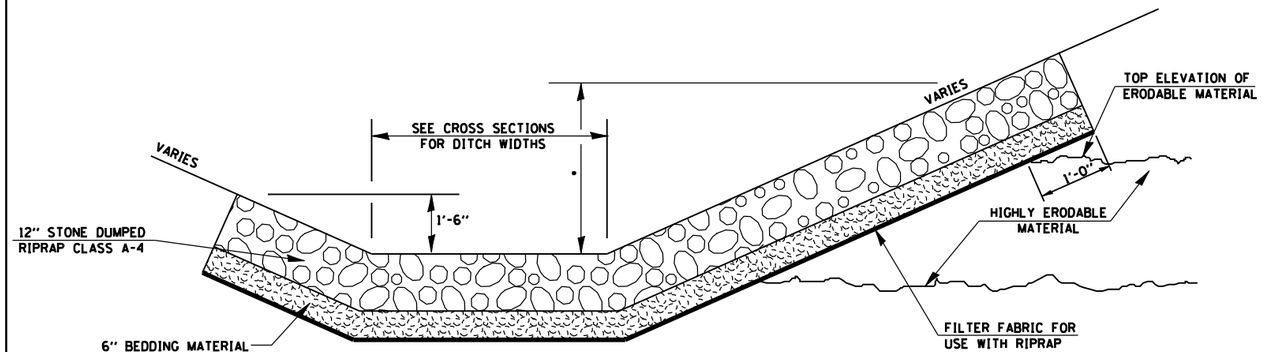
THE BACKSLOPE PROTECTION SHALL BE CENTERED ON THE NATURAL SWALES.
THE LOCATIONS AND DIMENSIONS OF THE BACKSLOPE PROTECTION SHOWN ON THE PLANS WILL BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.



BACK SLOPE PROTECTION

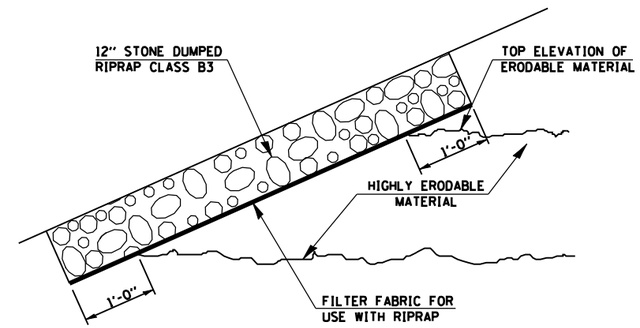


TYPICAL STONE RIPRAP - DITCH LINING



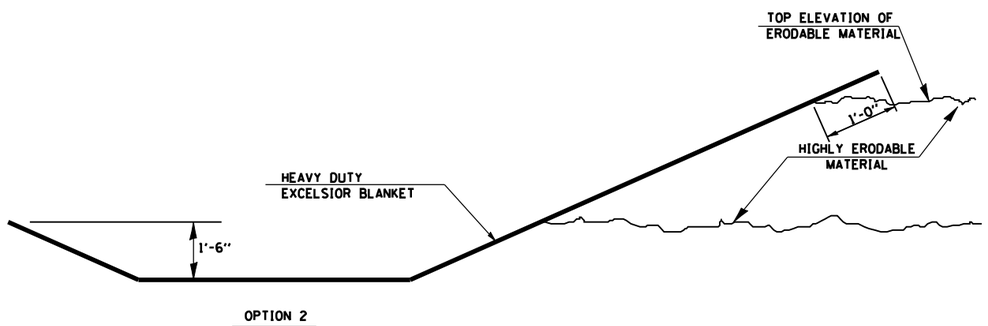
SPECIAL EROSION PROTECTION

OPTION 1



NOTE: RIPRAP CLASS B3 SHALL NOT BE USED IN DITCHES OR SWALES.

TYPICAL STONE RIPRAP - SLOPE PROTECTION



OPTION 2

SPECIAL EROSION PROTECTION

•THE LIMITS OF THE RIPRAP ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
BACKSLOPE DRAINS
AND EROSION PROTECTION

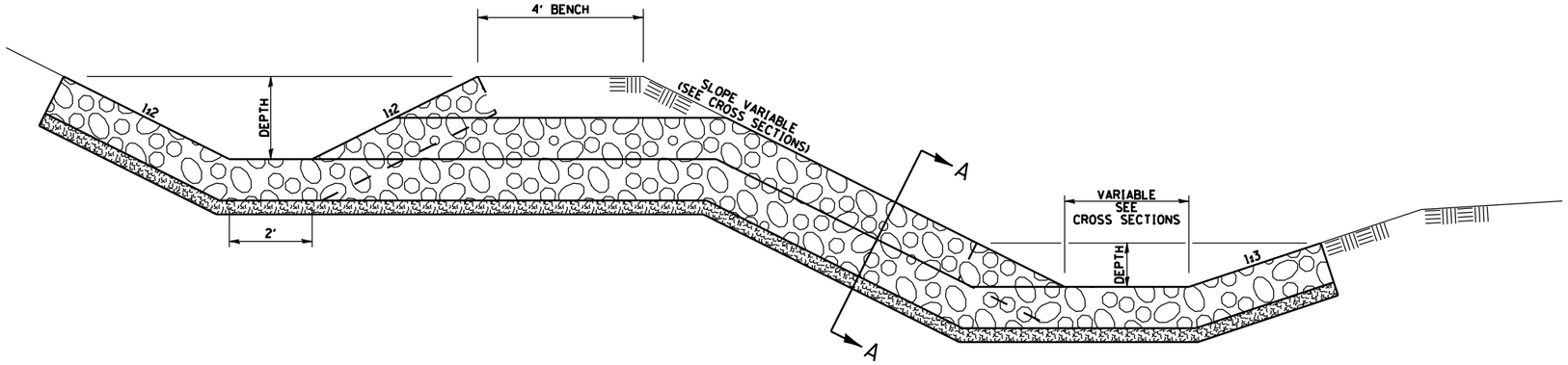
DRAWN BY JCG
CHECKED BY JRB
DATE 1/31/06

2173D003

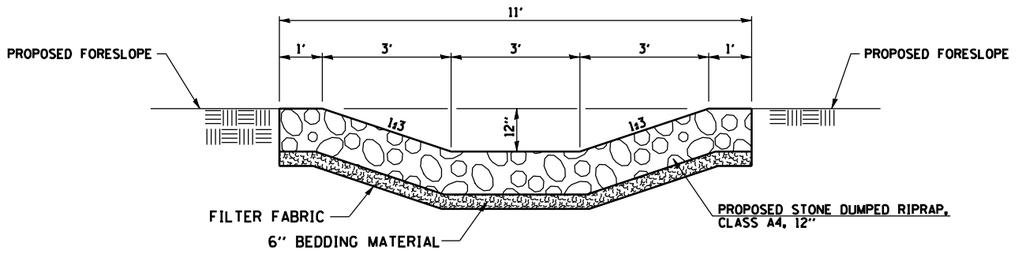
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
215	34-4	HANCOCK	452	271
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

~~D-96-551-02~~

CONTRACT NO. 72680



DETAIL OF BENCH OUTLET
AND RIPRAP OUTLET SLOPE



SECTION A-A

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
BENCH OUTLET AND
RIPRAP OUTLET SLOPE

DRAWN BY JCG

DATE 1/31/06

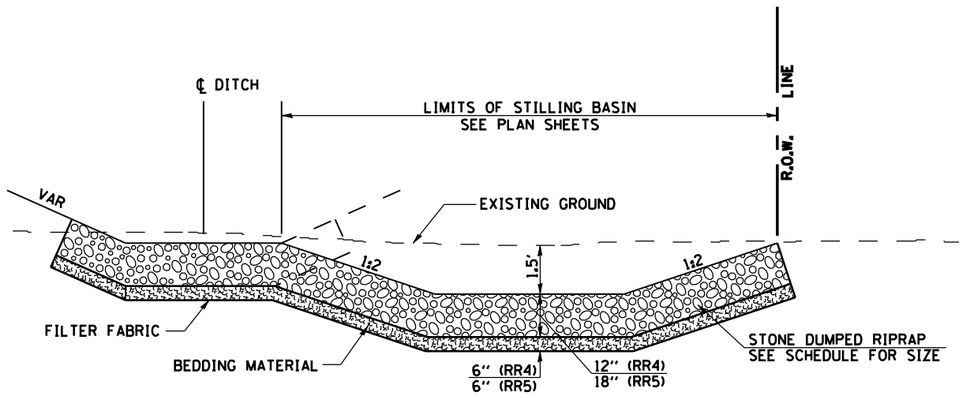
CHECKED BY JRB

21730004

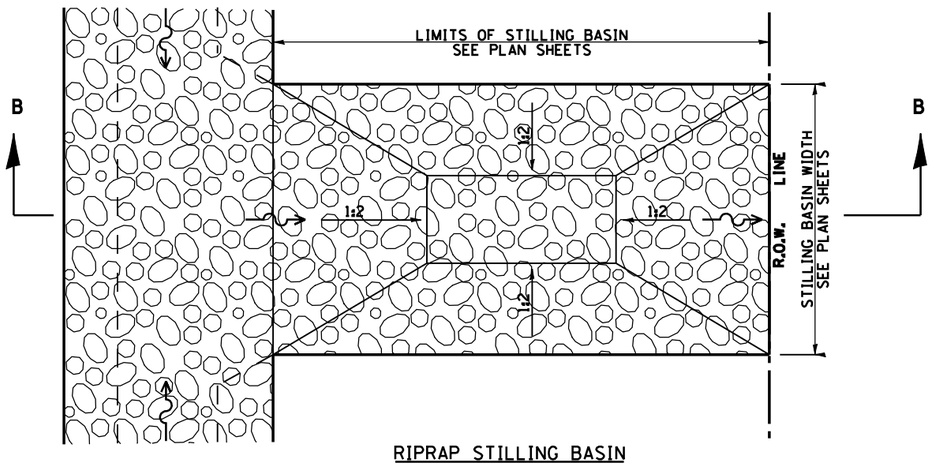
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	272
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

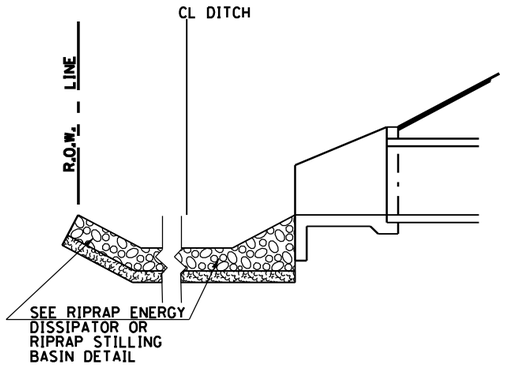
CONTRACT NO. 72680



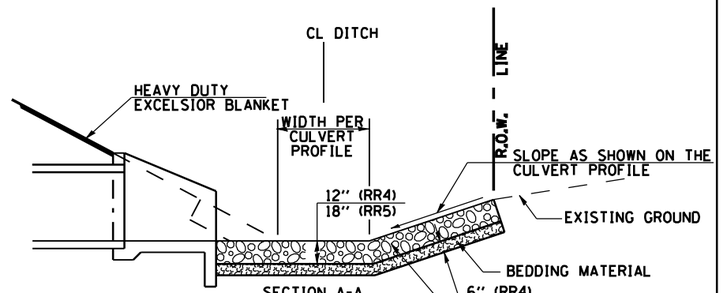
SECTION B-B



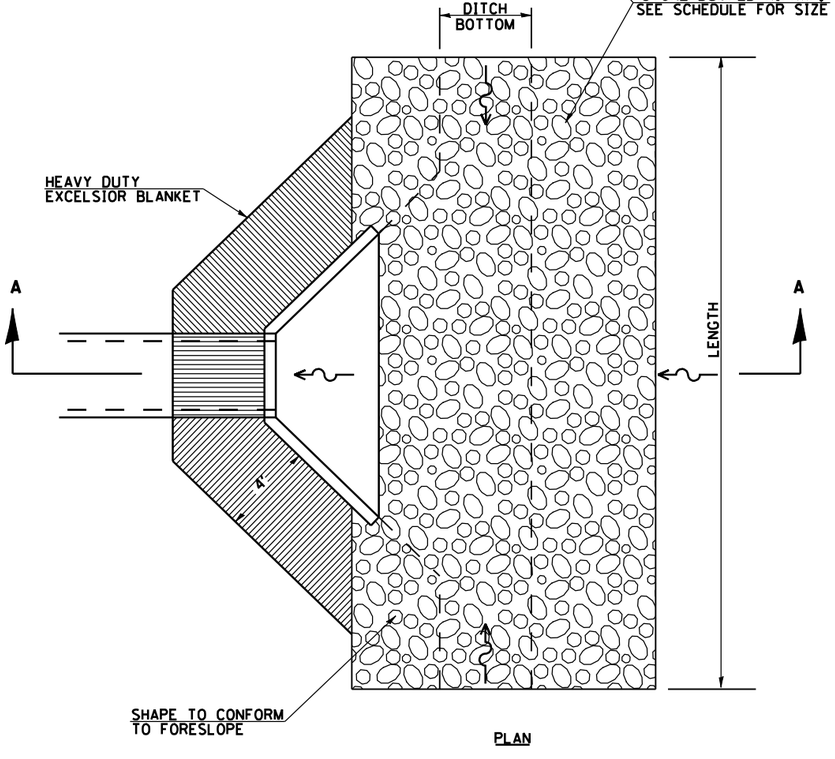
RIPRAP STILLING BASIN



SECTION A
FOR DOWNSTREAM END



SECTION A-A
FOR UPSTREAM END



PLAN

RIPRAP AT ENDS OF CULVERTS

NOTES:

STILLING BASINS SHALL BE CONSTRUCTED AT THE SAME TIME AS THE CULVERT OR DITCH.

ENERGY DISSIPATING BASINS ARE TO BE CONSTRUCTED AT LOCATIONS INDICATED WITH THE FOLLOWING SYMBOL SB

RIPRAP STILLING BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 281 OF THE STANDARD SPECIFICATIONS.

THE EXACT LENGTH, WIDTH, AND DEPTH FOR RIPRAP PLACEMENT WILL BE DETERMINED BY THE ENGINEER.

THE RIPRAP MATERIAL SHALL CONFORM TO CLASS A QUALITY.

FILTER FABRIC WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR FILTER FABRIC FOR USE WITH RIPRAP.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
RIPRAP AT ENDS OF CULVERT
RIPRAP STILLING BASIN

DRAWN BY JCG

DATE 1/31/06

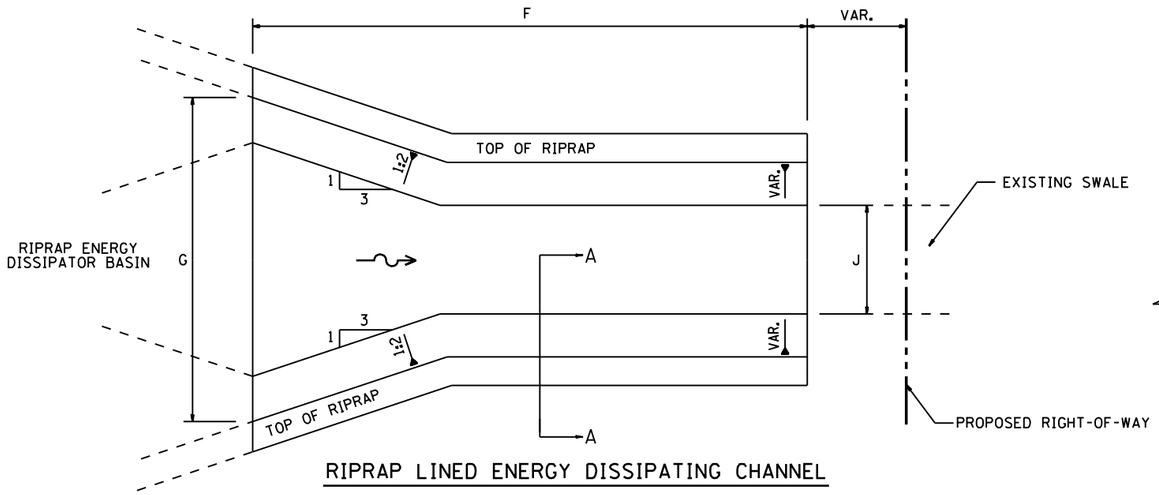
CHECKED BY JRB

2173D005

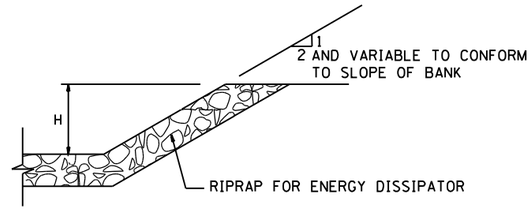
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	273
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680



RIPRAP LINED ENERGY DISSIPATING CHANNEL



SECTION A-A

LOCATION	STATION	F LENGTH	RIPRAP THICKNESS FEET	G BASIN WIDTH	H CHANNEL DEPTH	J CHANNEL WIDTH	AREA SQ YD	RIPRAP SIZE	RIPRAP TON
US 136	949+35.60	45	2.0	33.5	3	12	239	A5	280
US 136	1163+35	70	1.5	44	2	5	231	A4	203
CH 28	55+88	90	2.0	30	7.5	13	463	A5	540

•NOTE: QUANTITIES CONTAINED IN THIS SCHEDULE ALSO APPEAR IN THE RIPRAP SCHEDULE. THESE QUANTITIES ARE FOR REFERNCE FOR EACH CHANNEL ONLY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
RIPRAP LINED ENERGY DISSIPATING CHANNEL

DRAWN BY JCG

DATE 1/31/06

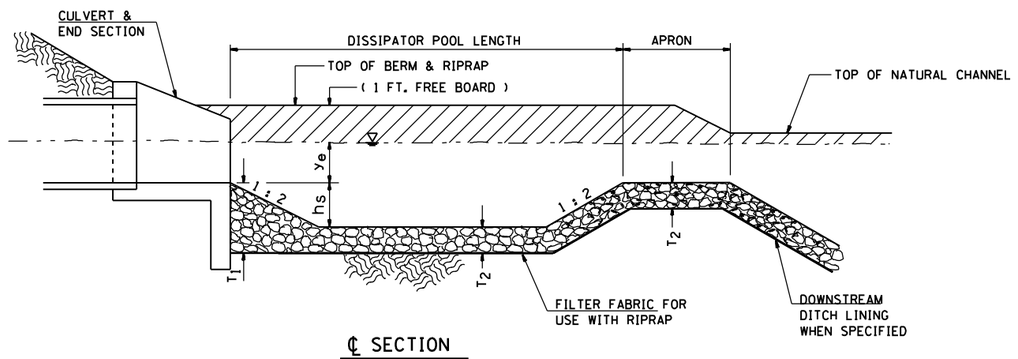
CHECKED BY JRB

2173D007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	274
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

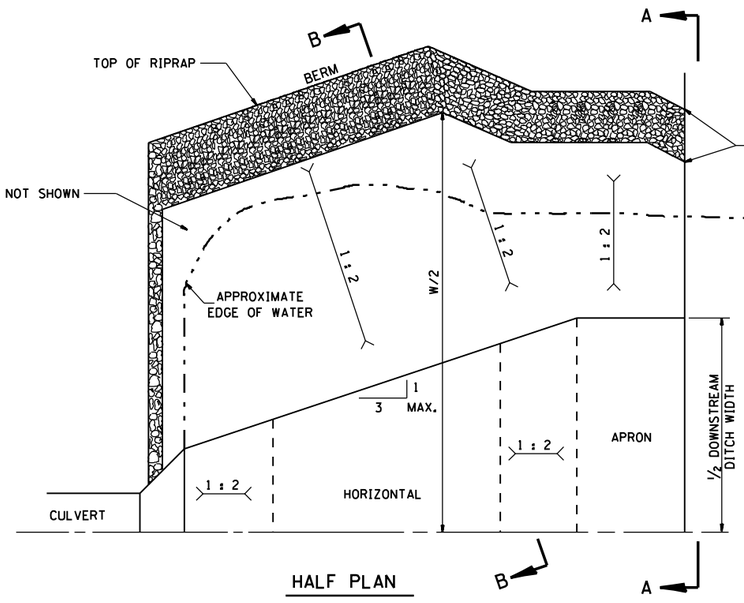
CONTRACT NO. 72680



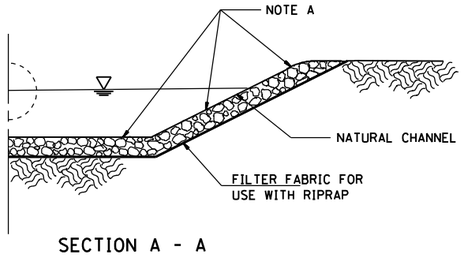
℄ SECTION

ROUTE	STATION	DISSIPATOR POOL LENGTH	APRON LENGTH	W WIDTH	h_s	TOP OF BERM $h_s + y_e + 1$ FT.	RIPRAP THICKNESS		RIPRAP CLASS	RIPRAP FOR STILLING BASIN	FILTER FABRIC FOR USE WITH RIPRAP
		FT	FT	FT	FT	FT	T_1	T_2		TON	SQ YD
US 136	950+30 (RT)	26.5	12.4	25	2	4.3	4.75	2.75	A6	423	259
US 136	961+75 (LT)	48	16	32	2	8.1	3.50	1.50	A4	780	745
US 136	982+75 (RT)	20	10	18.5	2	4.5	3.75	1.75	A5	193	163
US 136	989+20 (LT)	20	4	19	2	3	4.00	2.00	A4	177	146
US 136	1031+45 (RT)	27	5	27	2	3	4.00	2.00	A5	264	207
US 136	1055+70 (RT)	20	10	18	2	3	4.00	2.00	A5	196	138
US 136	1063+65 (RT)	20	10	17.5	2	3	4.00	2.00	A5	182	136
US 136	1073+75 (RT)	20	10	17.5	2	3	4.00	2.00	A5	182	136
US 136	1077+06 (RT)	20	10	18.5	2	3	4.00	2.00	A5	198	140
US 136	1083+20 (RT)	20	10	17	2	3	3.50	1.50	A4	138	134
US 136	1099+25 (RT)	20	10	20	2	3	3.50	1.50	A4	219	146
US 136	1171+86 (RT)	20	10	17.5	2	3	4.00	2.00	A5	182	136
TR 198	10+91.60 (RT)	20	10	17.5	2	3	4.00	2.00	A5	215	157
TR 222	18+94.29 (LT)	20	10	16	2	3	3.50	1.50	A4	120	130
TR 222	20+97.31 (LT)	20	10	16.5	2	3	3.50	1.50	A4	128	132
TR 232	49+02.61 (RT)	20	10	17	2	3.1	3.50	1.50	A4	117	136
CH 28	55+88 (LT)	24	8	24	2	9.3	4.00	2.00	A5	493	322
									TOTALS	4207	3363

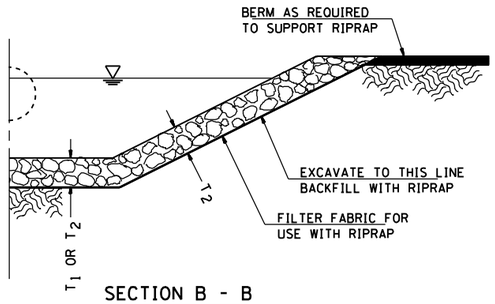
•NOTE: TOTALS PROVIDED IN THIS DETAIL ARE ALSO SHOWN IN THE RIPRAP SCHEDULE OF QUANTITIES. THESE QUANTITIES ARE FOR REFERNCE TO EACH ENERGY DISSIPATOR BASIN ONLY



HALF PLAN



SECTION A - A



SECTION B - B

NOTE A - TRANSITION BASIN TO CONFORM TO THE NATURAL STREAM CHANNEL. TOP OF RIPRAP IN THE FLOOR OF THE BASIN SHOULD BE AT THE SAME ELEVATION OR LOWER THAN THE NATURAL CHANNEL BOTTOM AT SECTION " ℄ SECTION ".

EARTH EXCAVATION FOR ENERGY DISSIPATING BASINS

THIS WORK INVOLVES THE EXCAVATION OF EARTH AS SHOWN IN THE DETAIL TO THE LENGTH, WIDTH, AND DEPTH DETERMINED BY THE ENGINEER. THE EARTH EXCAVATION WILL BE UTILIZED IN THE ROADWAY EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.

THE EARTHWORK WILL BE MEASURED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR " EARTH EXCAVATION FOR STILLING BASINS ".

ENERGY DISSIPATING BASINS SHALL BE CONSTRUCTED AT THE SAME TIME AS THE CULVERT OR DITCH.

ENERGY DISSIPATING BASINS ARE TO BE CONSTRUCTED AT LOCATIONS INDICATED WITH THE FOLLOWING SYMBOL EDB

RIPRAP FOR ENERGY DISSIPATING BASINS

RIPRAP FOR ENERGY DISSIPATING BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 601 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISION FOR STONE DUMPED RIPRAP.

THE LENGTH, WIDTH, AND DEPTH FOR RIPRAP PLACEMENT WILL BE DETERMINED BY THE ENGINEER.

THE RIPRAP MATERIAL SHALL CONFORM TO CLASS A QUALITY.

BEDDING MATERIAL WILL NOT BE REQUIRED.

FILTER FABRIC WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR FILTER FABRIC FOR USE WITH RIPRAP.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
ENERGY DISSIPATING BASIN

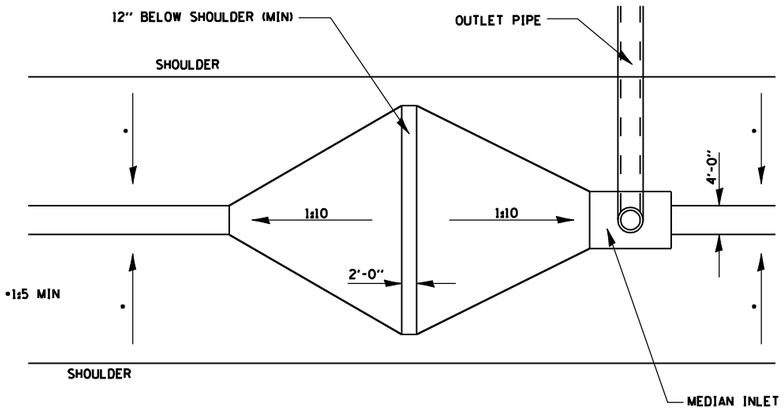
DRAWN BY JCG
DATE 1/31/06 CHECKED BY JRB

2086D006

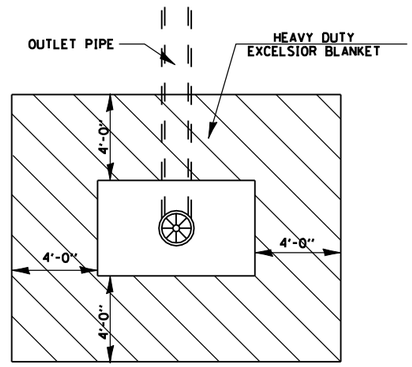
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	275
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

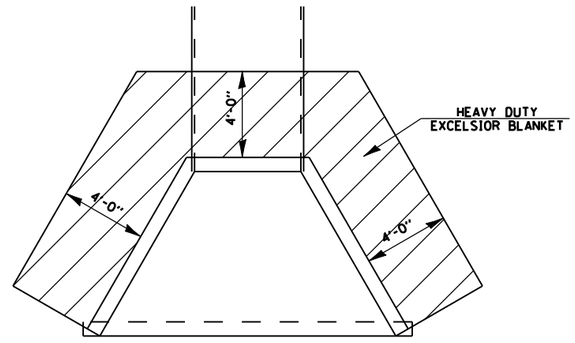
CONTRACT NO. 72680



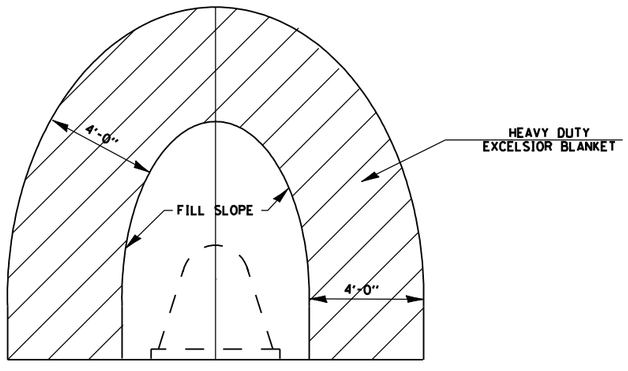
EARTH DITCH CHECK @ MEDIAN INLET



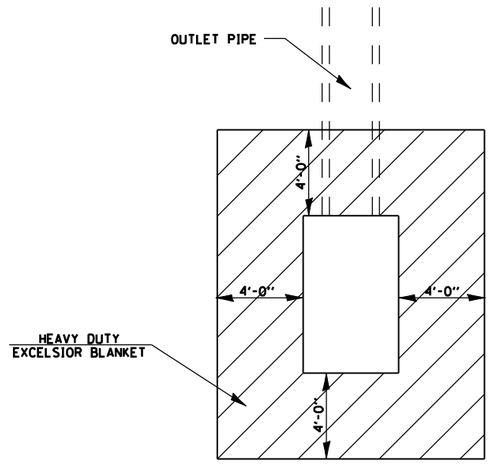
HEAVY DUTY EXCELSIOR BLANKET
AROUND MEDIAN INLETS
STD 604101 & STD 604106



HEAVY DUTY EXCELSIOR BLANKET AROUND
HEADWALLS & CULVERT WINGWALLS



HEAVY DUTY EXCELSIOR BLANKET
AROUND FLARED END SECTION
STD 542301



HEAY DUTY EXCELSIOR BLANKET AROUND
HEADWALL FOR PIPE UNDERDRAIN
STD 601101

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP ROUTE 315
SPECIAL DETAILS
EXCELSIOR BLANKET
EARTH DITCH CHECK

DRAWN BY JCG
DATE 1/31/06 CHECKED BY JRB

21730001

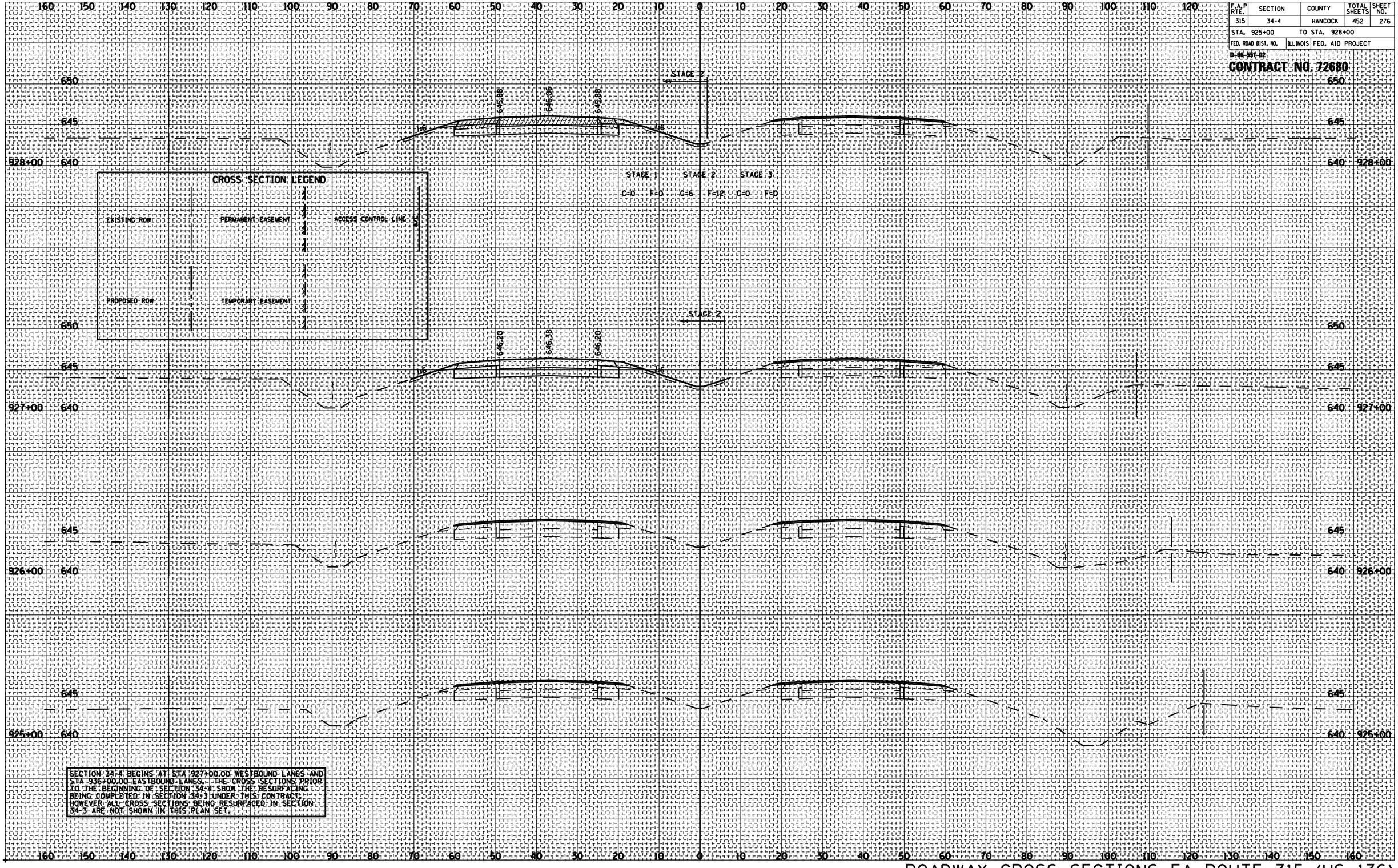
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	276
STA. 925+00		TO STA. 928+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		



SECTION 34-4 BEGINS AT STA 927+00.00 WESTBOUND LANES AND STA 936+00.00 EASTBOUND LANES. THE CROSS SECTIONS PRIOR TO THE BEGINNING OF SECTION 34-4 SHOW THE RESURFACING BEING COMPLETED IN SECTION 34-3 UNDER THIS CONTRACT; HOWEVER ALL CROSS SECTIONS BEING RESURFACED IN SECTION 34-3 ARE NOT SHOWN IN THIS PLAN SET.

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

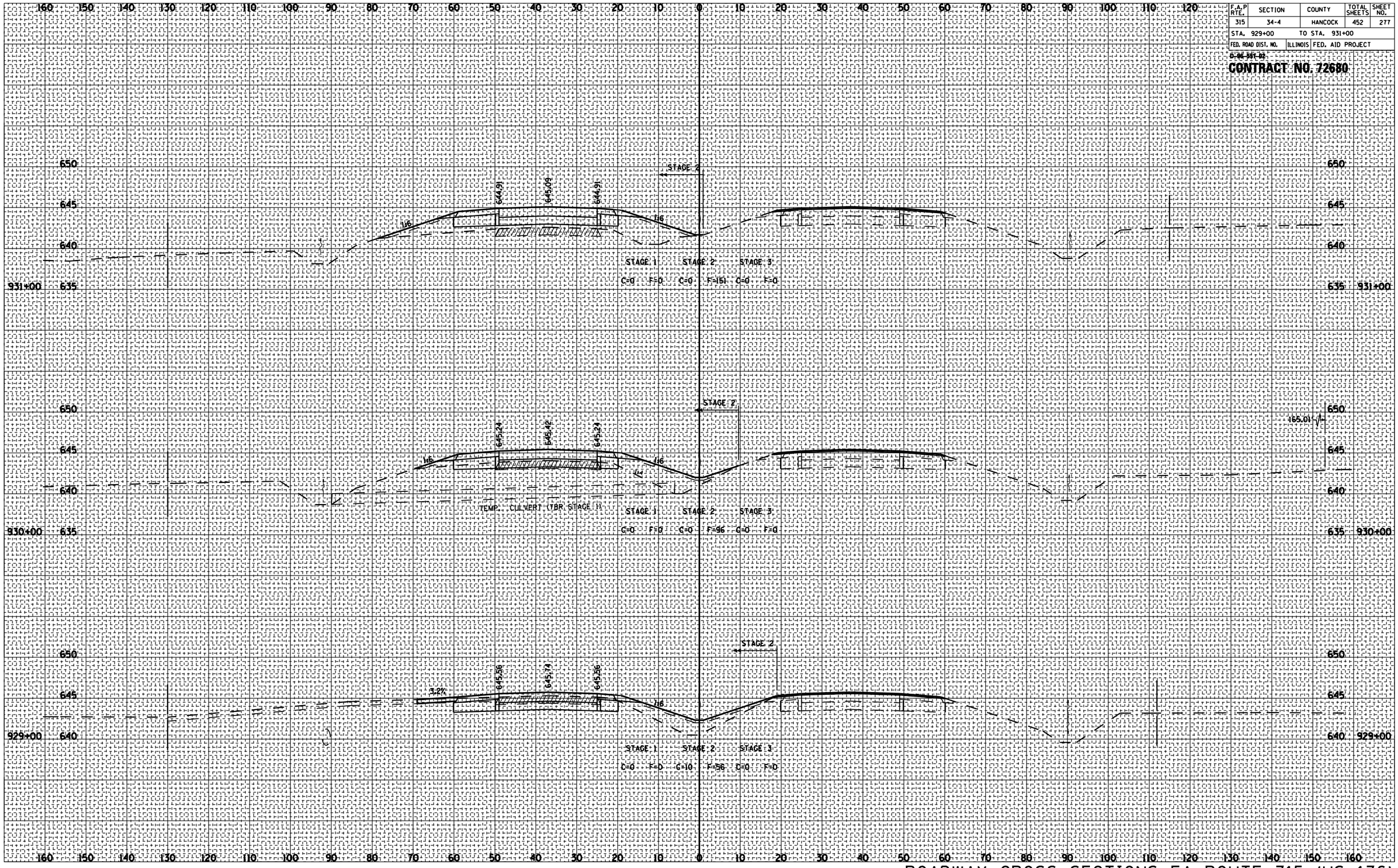
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	277
STA. 929+00		TO STA. 931+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

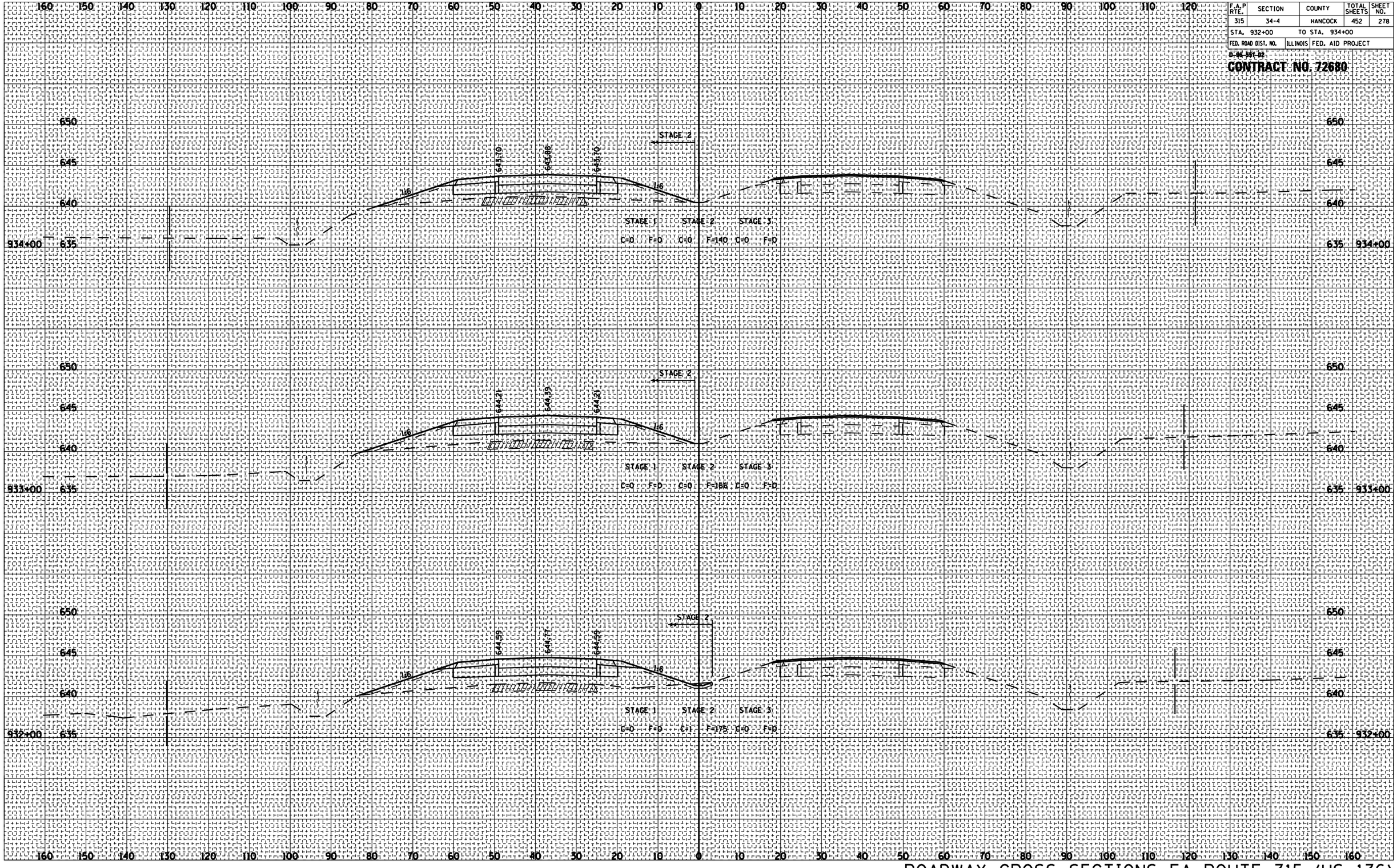
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	278
STA. 932+00		TO STA. 934+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TRIANGULATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TRIANGULATE	
	AREAS	
	AREAS CHECKED	



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

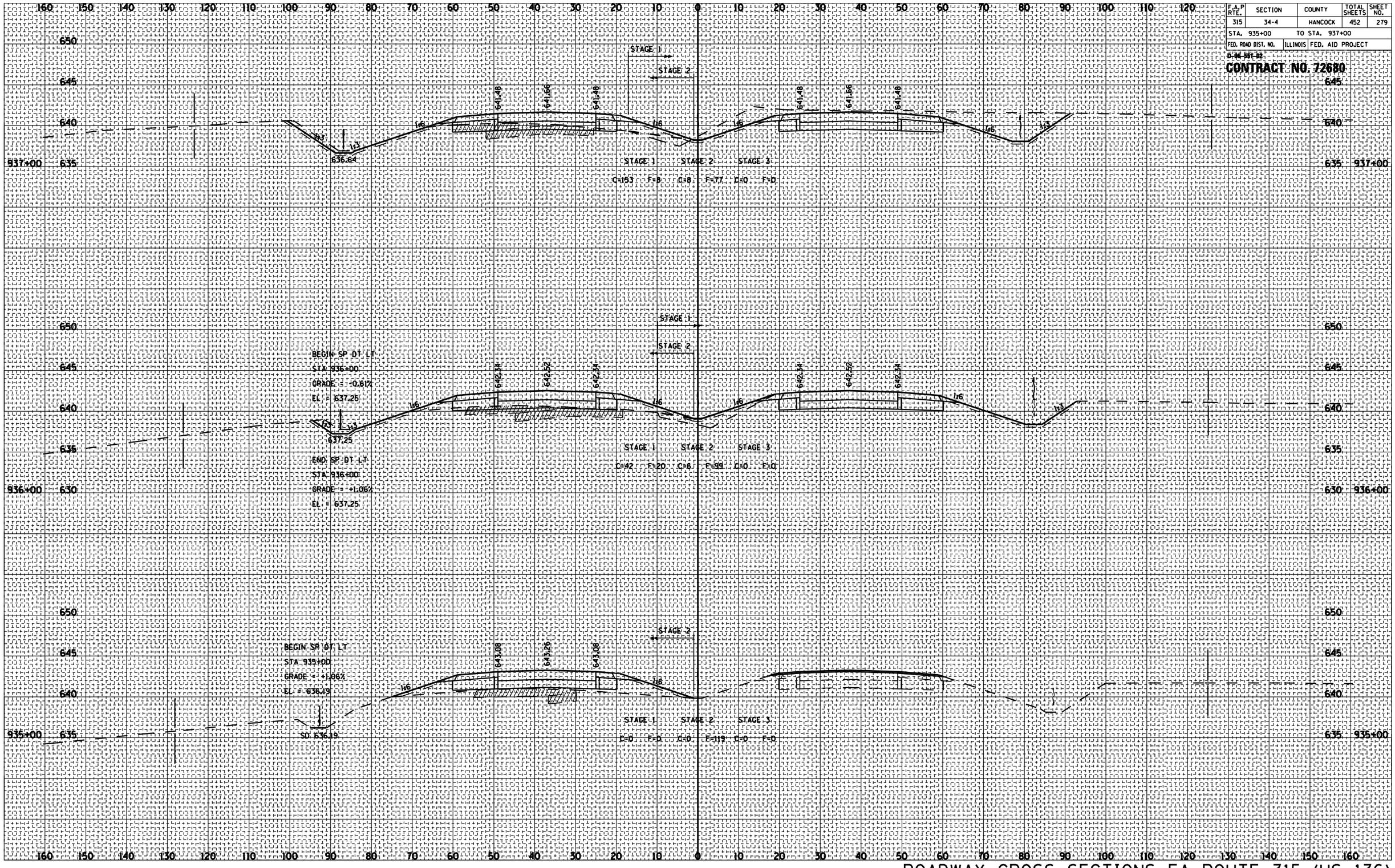
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	279
STA. 935+00		TO STA. 937+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

0.0E 551.02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TRIANGULATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TRIANGULATE	
	AREAS	
	AREAS CHECKED	



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

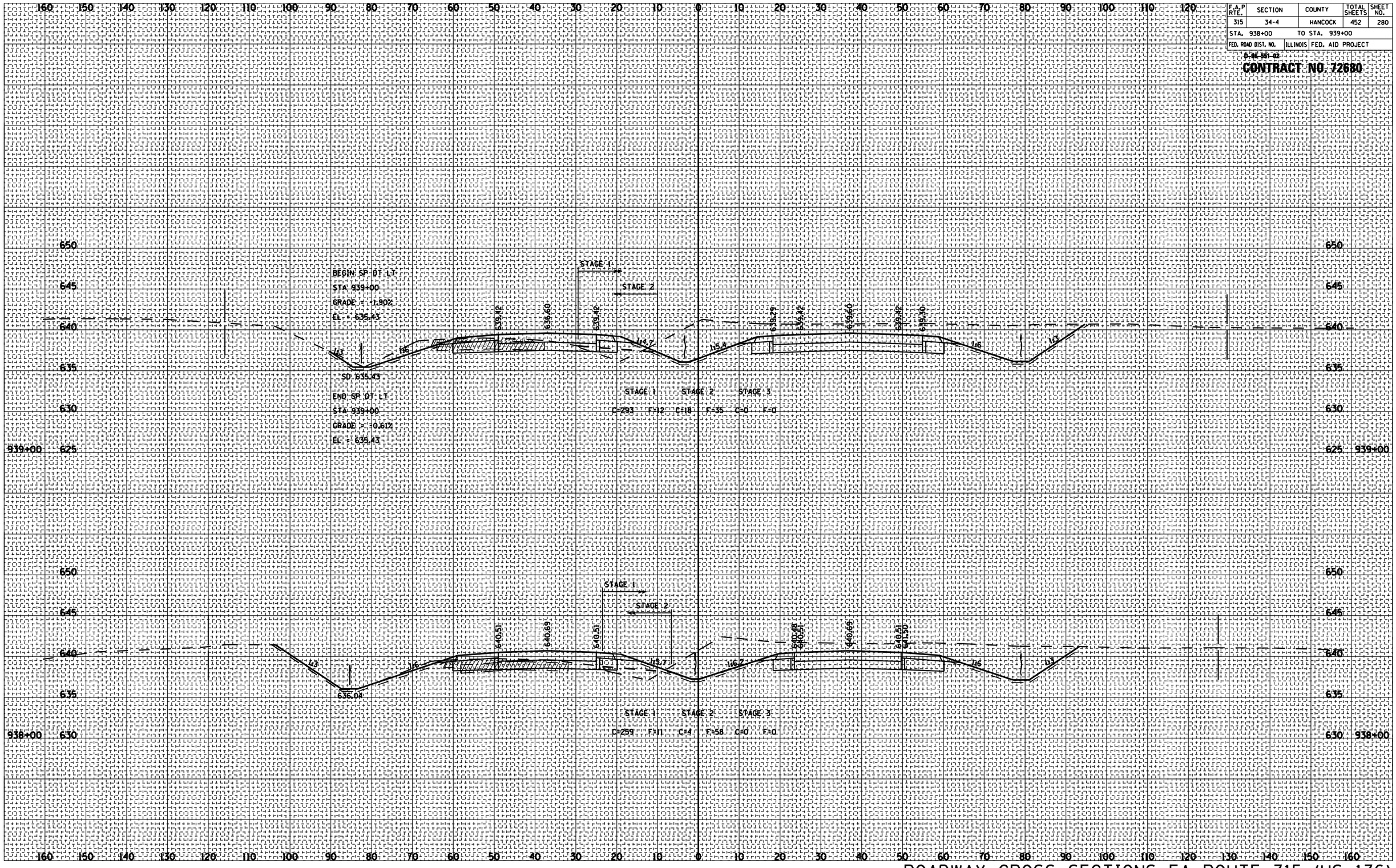
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	280
STA. 938+00		TO STA. 939+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICAL SHEET		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICAL SHEET		
AREAS		
AREAS CHECKED		
NO.		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

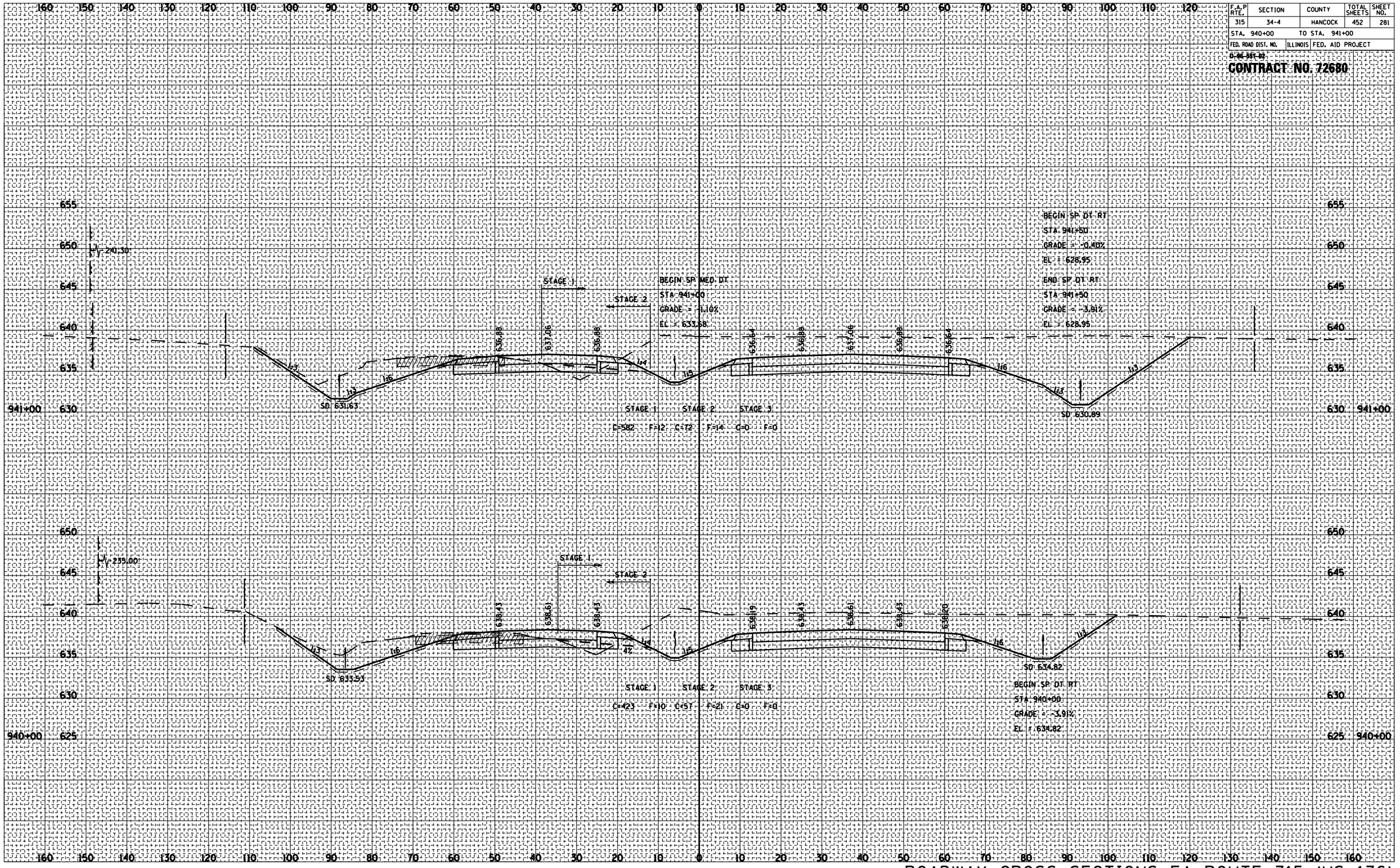
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	281
STA. 940+00		TO STA. 941+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

DATE	BY		
		SURVEYED	
		PLOTTED	
		TYPICALS	
		AREAS	
		AREAS CHECKED	

FINAL SURVEY NOTE BOOK NO.



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

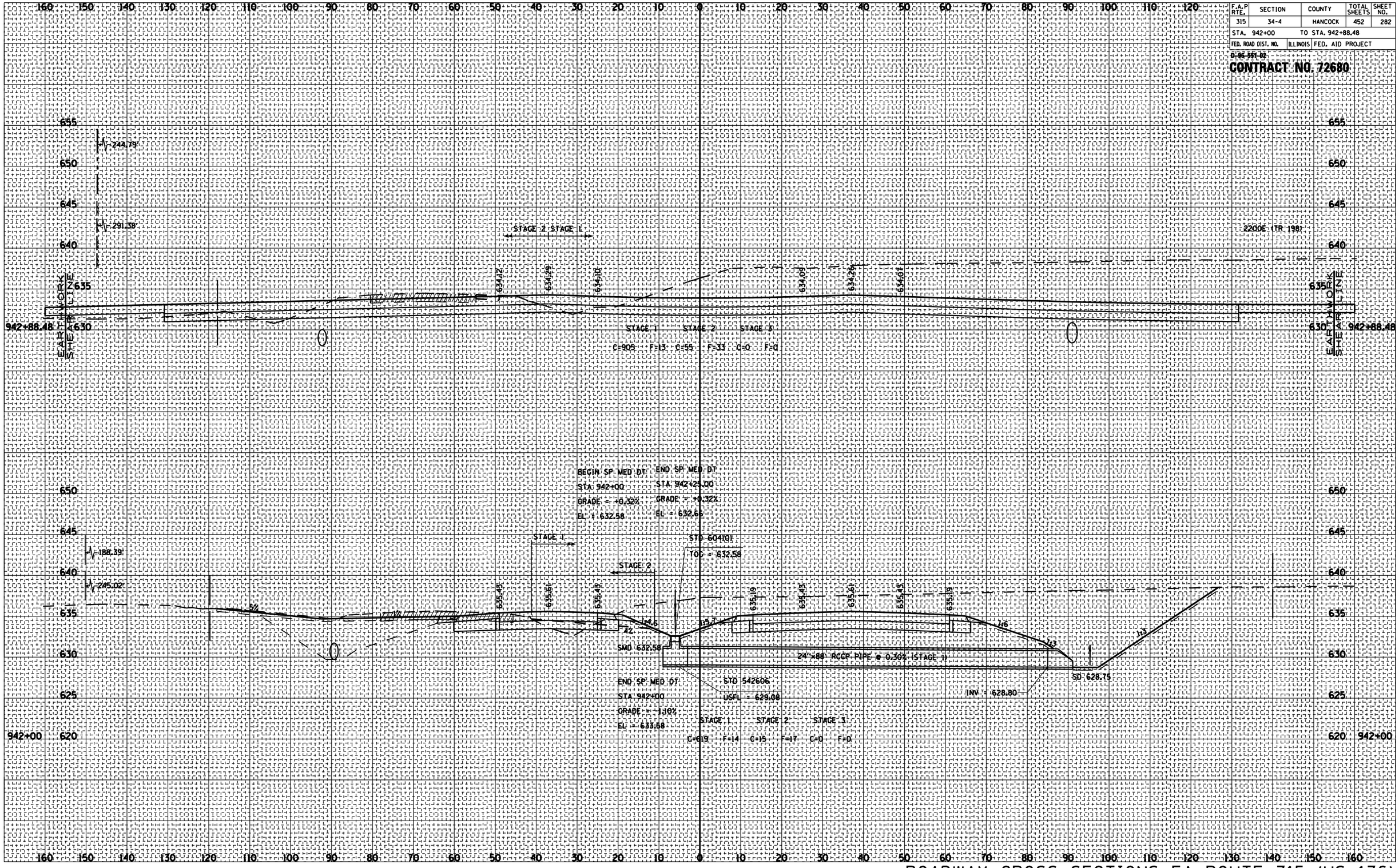
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	282
STA. 942+00	TO STA. 942+88.48			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY NOTE BOOK	BY	DATE
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY NOTE BOOK	BY	DATE
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

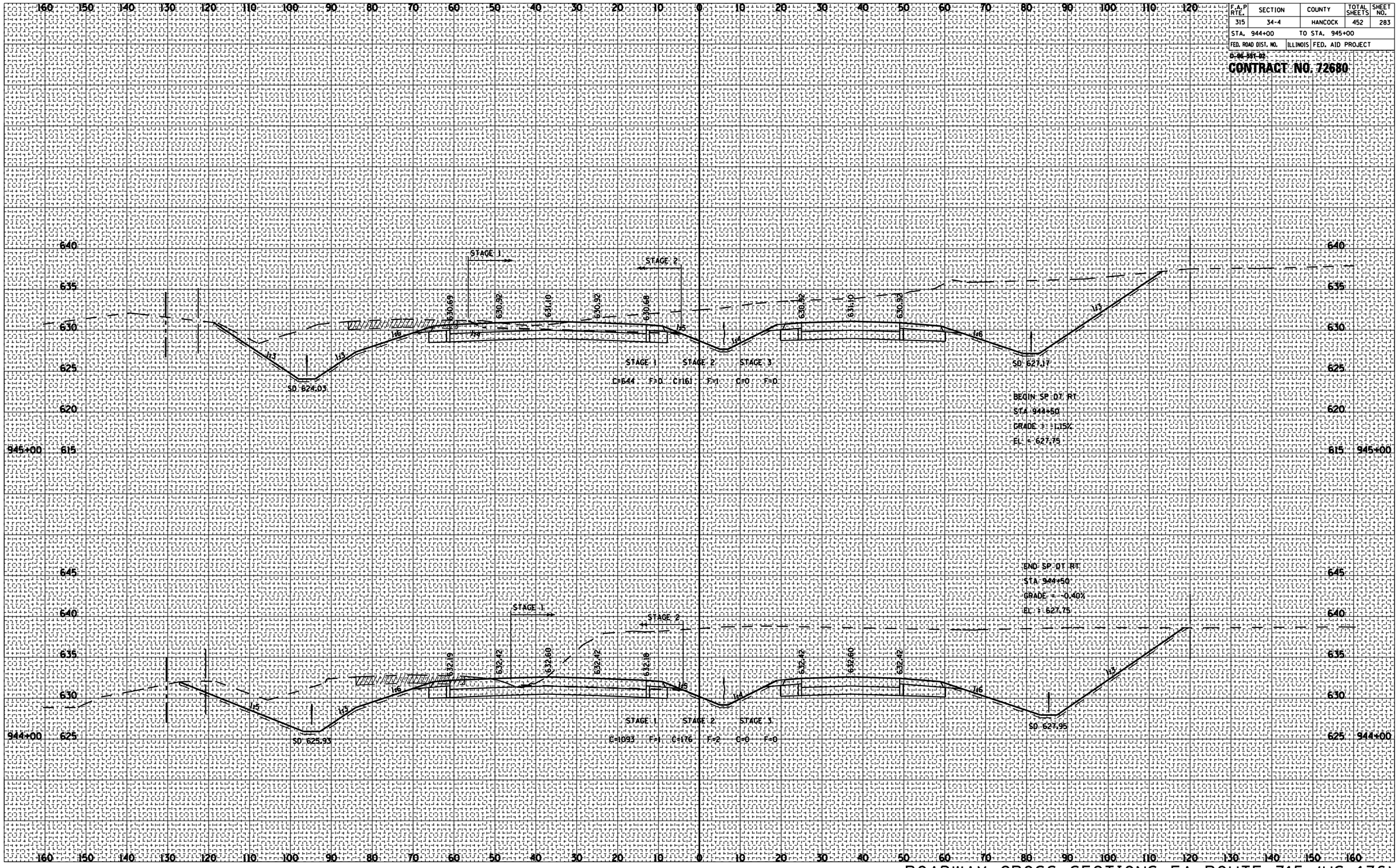
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	283
STA. 944+00	TO STA. 945+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	284
STA. 946+00		TO STA. 947+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

	BY	DATE
FINAL SURVEY NOTE BOOK NO.	SURVEYED PLOTTED TYPING AREAS AREAS CHECKED	

BEGIN SP DT RT
STA 947+50
GRADE = -8.02%
EL = 623.77

STAGE 1 STAGE 2 STAGE 3
C=486 F=78 C=321 F=2 C=0 F=0

162.35'

SD 614.14

BEGIN SP DT LT
STA 946+00
GRADE = -7.98%
EL = 622.13

STAGE 1 STAGE 2 STAGE 3
C=535 F=50 C=163 F=2 C=0 F=0

SD 622.13

END SP DT LT
STA 946+00
GRADE = -1.90%
EL = 622.13

SD 626.03

END SP DT RT
STA 946+00
GRADE = -1.15%
EL = 626.03

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

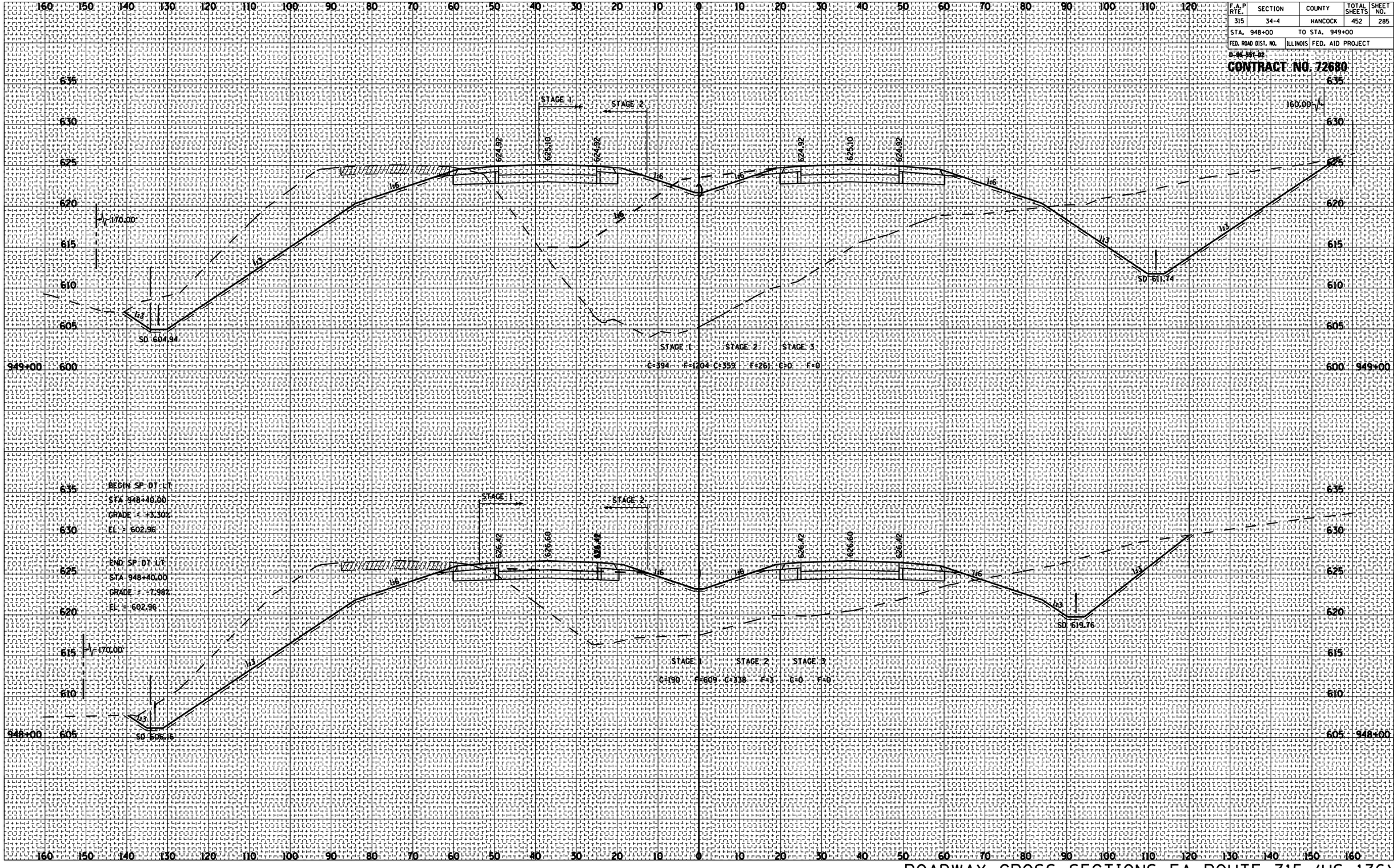
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	285
STA. 948+00		TO STA. 949+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-351-02

CONTRACT NO. 72680

FINAL SURVEY
NOTE BOOK
SURVEYED
PLOTTED
TYPICAL SEC.
AREAS
AREAS CHECKED
BY
DATE
NO.

ORIGINAL SURVEY
NOTE BOOK
SURVEYED
PLOTTED
TYPICAL SEC.
AREAS
AREAS CHECKED
BY
DATE
NO.



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

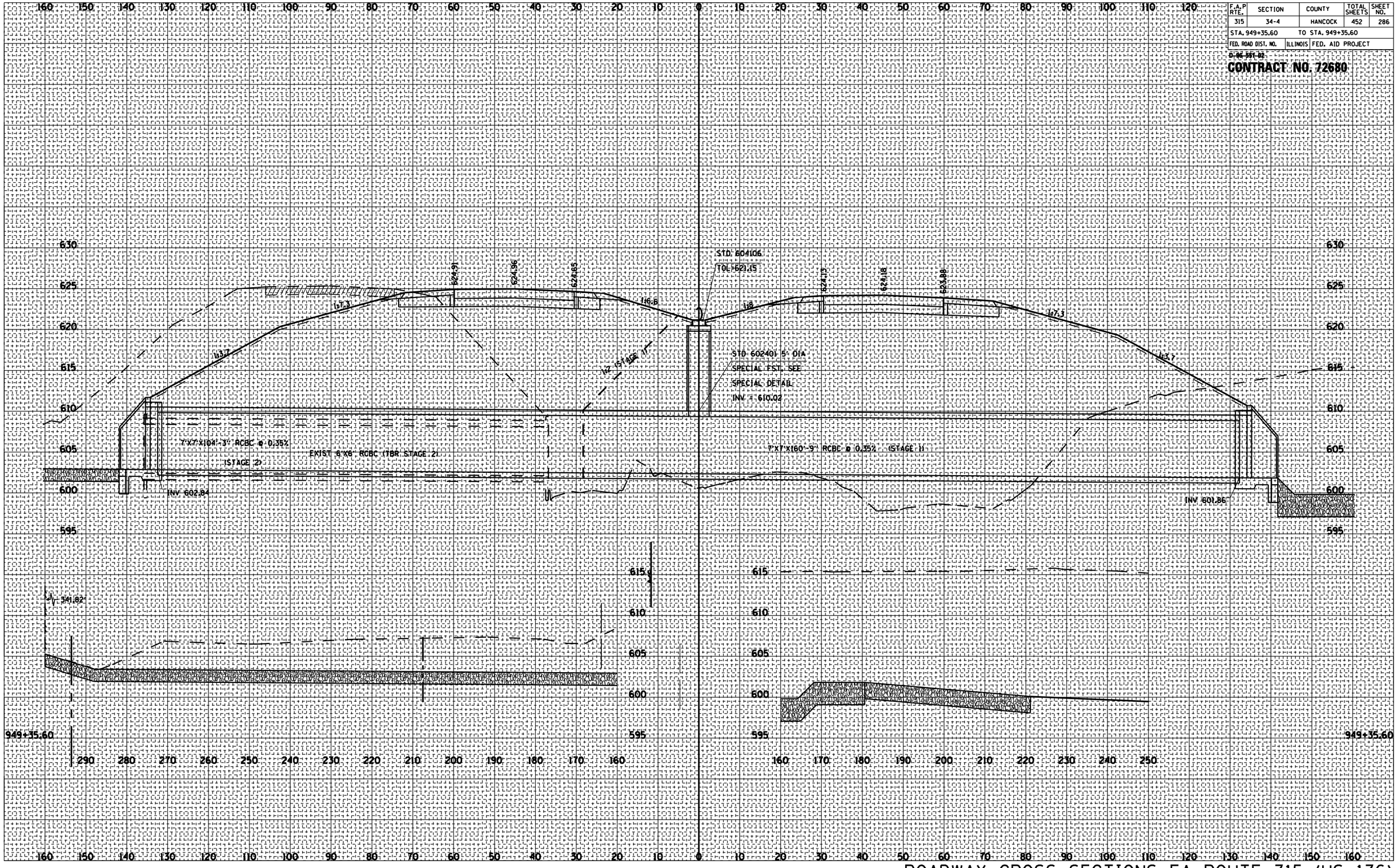
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	286
STA. 949+35.60		TO STA. 949+35.60		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-351-02

CONTRACT NO. 72680

FINAL SURVEY	DATE
NOTE BOOK	BY
SURVEYED	
PLOTTED	
TYPICAL SECT. AREAS	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
SURVEYED	
PLOTTED	
TYPICAL SECT. AREAS	
AREAS CHECKED	
NO.	



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	287
STA. 950+00	TO STA. 950+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

FINAL SURVEY	NOTE BOOK	NO.	BY	DATE
SURVEYED				
PLOTTED				
TRANSMITTAL				
AREAS				
AREAS CHECKED				

ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE
SURVEYED				
PLOTTED				
TRANSMITTAL				
AREAS				
AREAS CHECKED				

STAGE 1 →

← STAGE 2

170.00'

623.42 623.60 623.42 623.60 623.42

1:6 1:6 1:6 1:6 1:3

SD 608.24

END SP DT RT
STA 950+30.00
GRADE = -8.02%
EL = 601.31

SD. 603.72

	STAGE 1	STAGE 2	STAGE 3
	C=587 F=2287	C=371 F=5	C>0 F=0

630 625 620 615 610 605 600 595

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

950+00

160 170 180 190 200 210 220 230 240 250

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	288
STA. 951+00	TO STA. 951+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96 551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		

STAGE 1 STAGE 2

STAGE 1 STAGE 2 STAGE 3

C=375 F=2357 C=277 F=3 C=0 F=0

621.92 622.10 621.92 621.92 622.10 621.92

SD 611.55

CHANNEL RELOCATION 599.60

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	289
STA. 952+00	TO STA. 952+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

FINAL SURVEY	NOTE BOOK	NO.	BY	DATE
SURVEYED				
PLOTTED				
TYPICAL SHT.				
AREAS				
AREAS CHECKED				

ORIGINAL SURVEY	NOTE BOOK	NO.	BY	DATE
SURVEYED				
PLOTTED				
TYPICAL SHT.				
AREAS				
AREAS CHECKED				

BEGIN SP DT LT
STA 952+00
GRADE = +1.05%
EL = 614.85

STAGE 1
STAGE 2

620.42
620.60
620.42

SD 614.85

END SP DT LT
STA 952+00
GRADE = +3.30%
EL = 614.85

STAGE 1 STAGE 2 STAGE 3
C=34 F=1807 C=129 F=3 C=0 F=0

PROPOSED 12' BERM
ELEV=604.50

CHANNEL RELOCATION 597.50

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	290
STA. 953+00		TO STA. 953+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TYPICAL SHEET
AREAS
AREAS CHECKED

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		

SURVEYED
PLOTTED
TYPICAL SHEET
AREAS
AREAS CHECKED

BEGIN SP DT LT
STA 953+00
GRADE = +0.27%
EL = 615.90

END SP DT LT
STA 953+00
GRADE = +1.05%
EL = 615.90

SD 615.90

STAGE 1 — STAGE 2

618.92 | 619.10 | 618.92 | 618.92 | 619.10 | 618.92

16 | 16 | 16 | 16 | 13 | 20 | 11

PROPOSED 12' BERM
ELEV=602.40

WATERWAY FROM THE SOUTH AT STA 953+15

CHANNEL RELOCATION 595.40

	STAGE 1		STAGE 2		STAGE 3	
	C=107	F=634	C=58	F=3	C=0	F=0

630 625 620 615 610 605 600 595 590

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

953+00

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

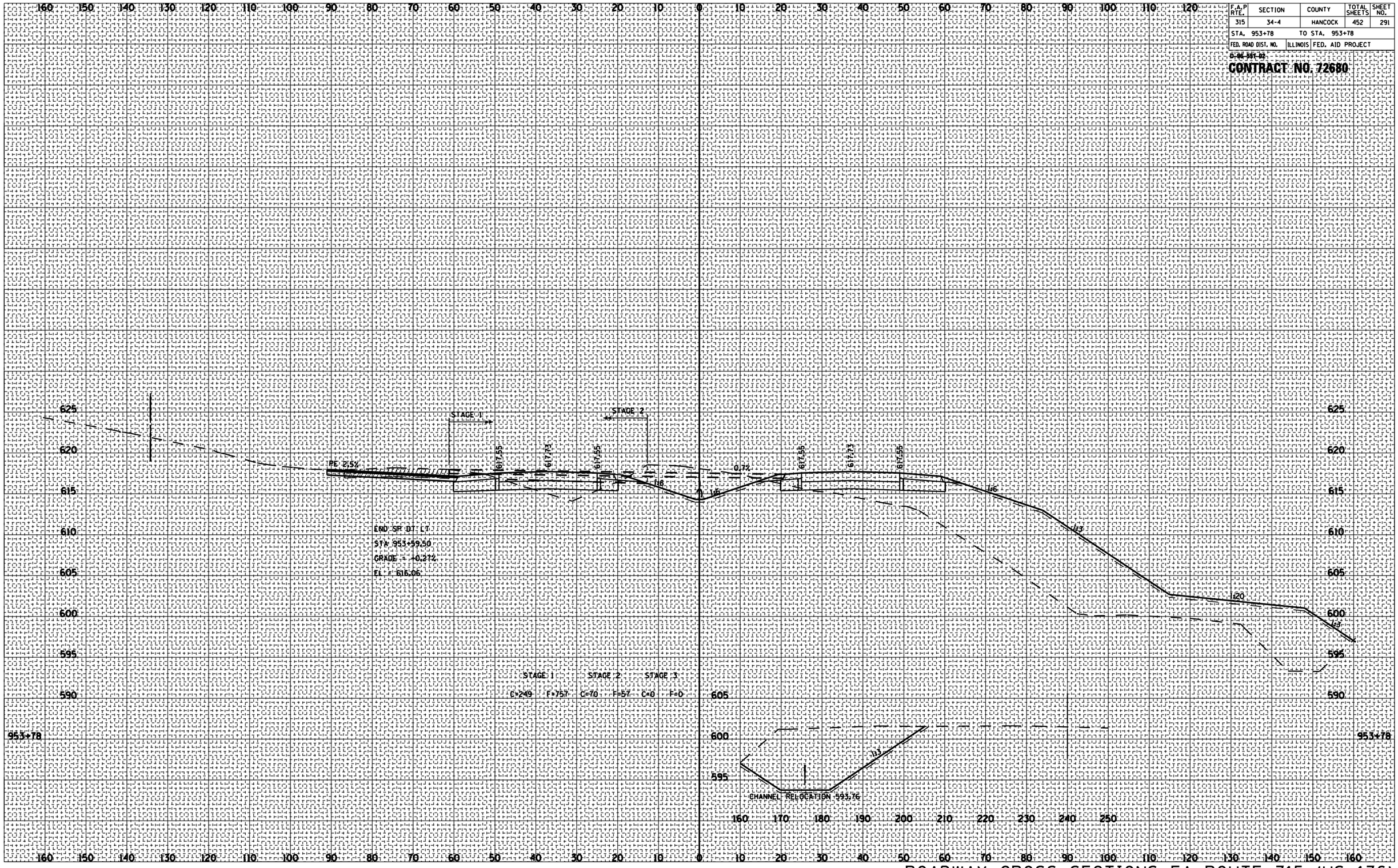
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	291
STA. 953+78	TO STA. 953+78			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06 551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRIANGULATE		
AREAS		
AREAS CHECKED		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

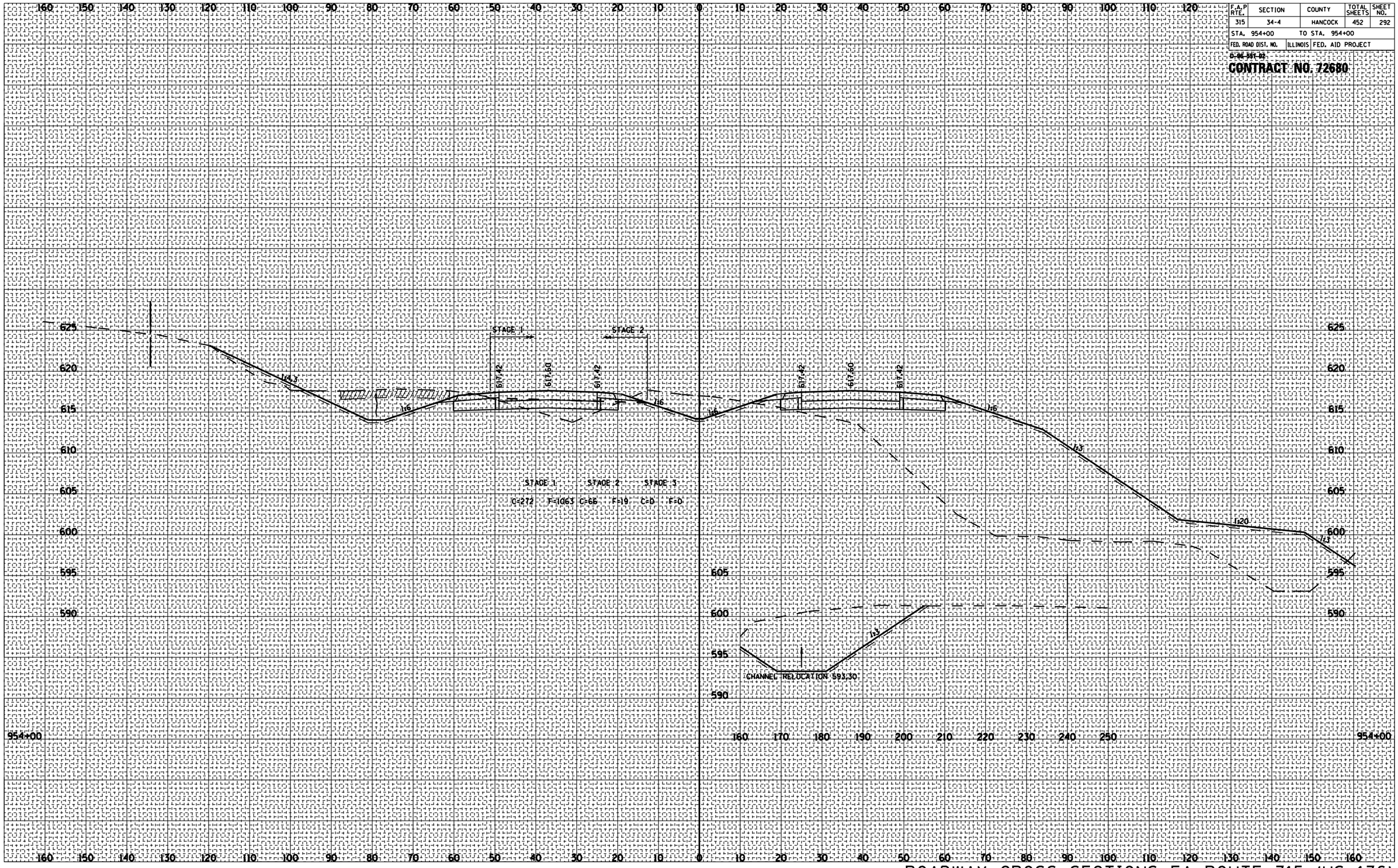
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	292
STA. 954+00		TO STA. 954+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06 551-02

CONTRACT NO. 72680

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	BY
	PLOTTED	
	TRANSFERRED	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	BY
	PLOTTED	
	TRANSFERRED	
	AREAS	
	AREAS CHECKED	



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

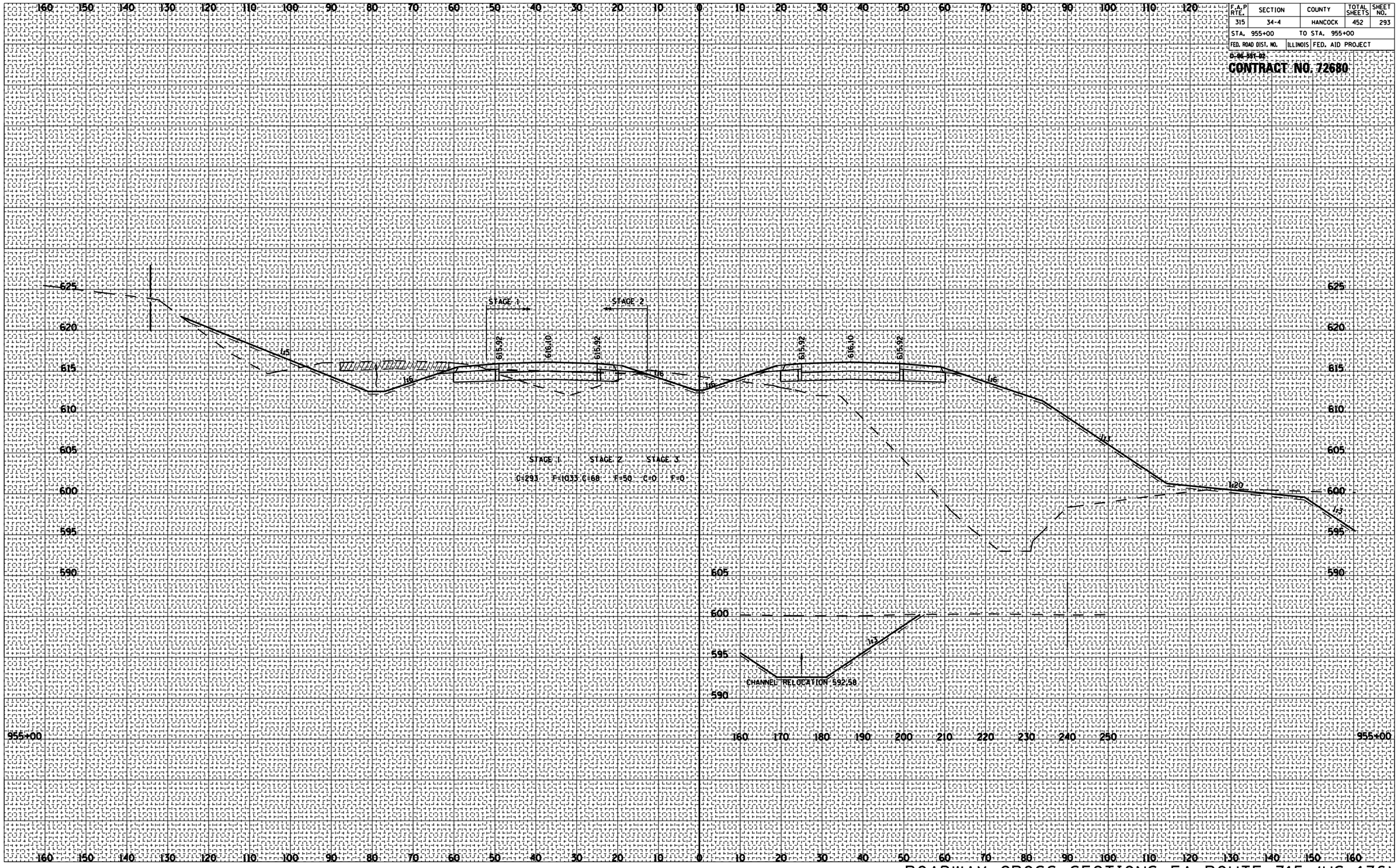
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	293
STA. 955+00		TO STA. 955+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-351-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYMAN-AVE		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYMAN-AVE		
AREAS		
AREAS CHECKED		
NO.		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

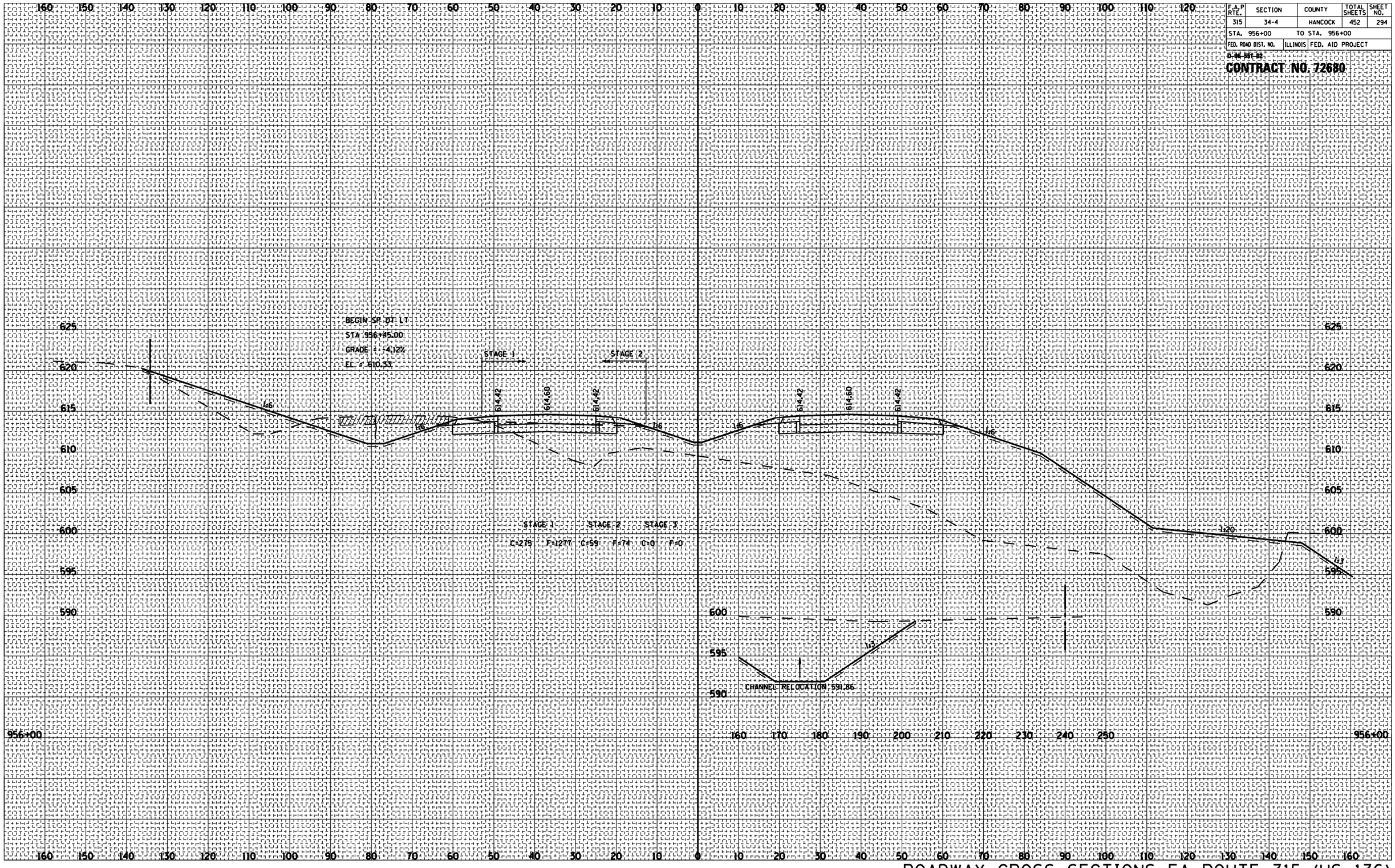
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	294
STA. 956+00	TO STA. 956+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

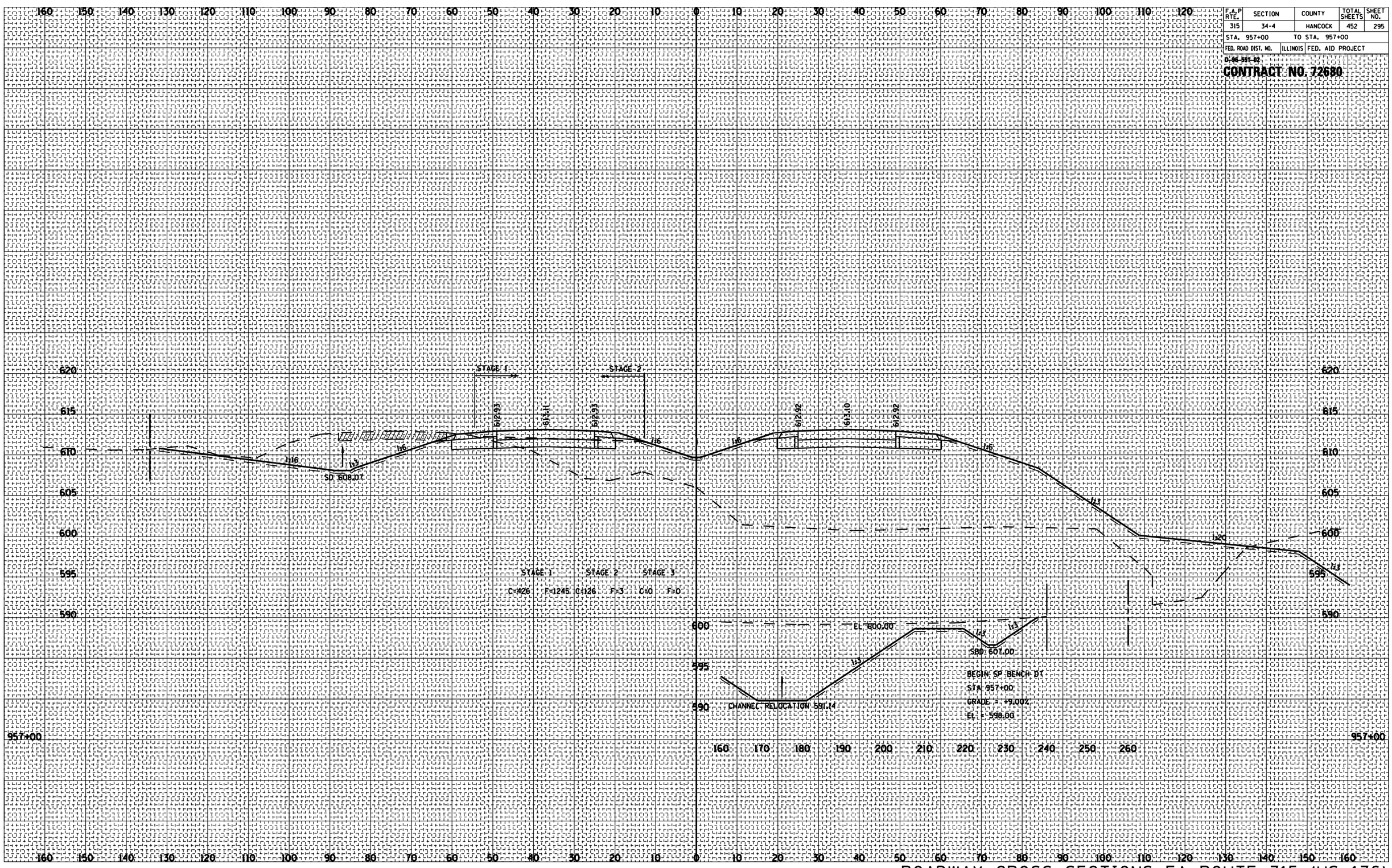
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	295
STA. 957+00		TO STA. 957+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TRANSFERRED		
AREAS		
AREAS CHECKED		
NO.		



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	296
STA. 958+00	TO STA. 958+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
NOTE BOOK		
SURVEYED		
PLOTTED		
TYPICALS		
AREAS		
AREAS CHECKED		
NO.		

STAGE 1 **

STAGE 2

611.57

611.75

611.57

611.75

611.57

611.57

611.75

611.57

I-6

I-5

SD 603.95

I-3

I-20

I-3

EL 609.00

I-3

I-5

SBD 607.00

I-5

CHANNEL RELOCATION 590.42

STAGE 1		STAGE 2		STAGE 3	
C=198	F=1640	C=178	F=3	C=0	F=0

620 615 610 605 600 595 590

958+00

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

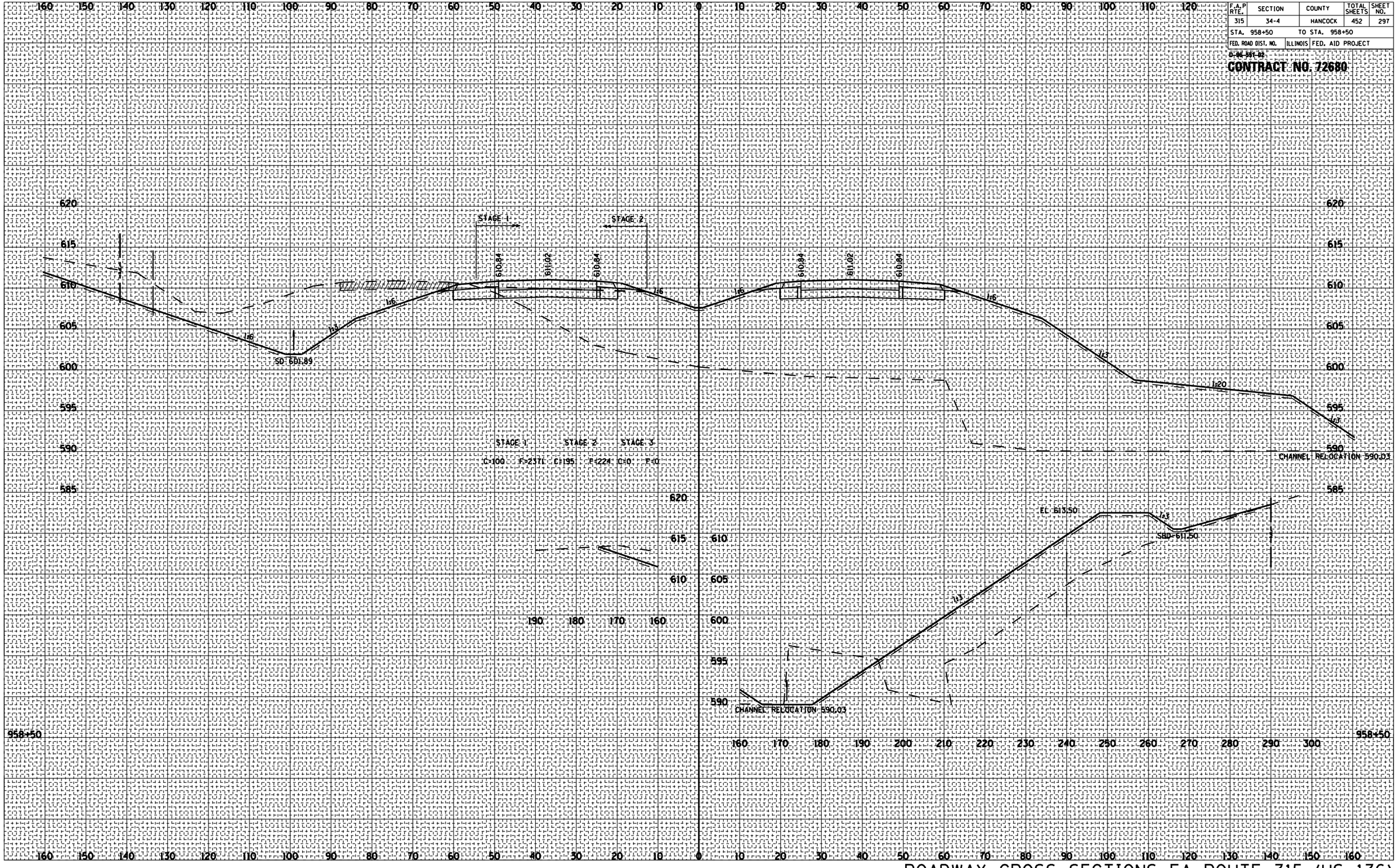
ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	297
STA. 958+50		TO STA. 958+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

FINAL SURVEY	NOTE BOOK	NO.	SURVEYED	PLOTTED	TYPICALS	AREAS	AREAS CHECKED	BY	DATE
ORIGINAL SURVEY	NOTE BOOK	NO.	SURVEYED	PLOTTED	TYPICALS	AREAS	AREAS CHECKED	BY	DATE



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	298
STA. 959+00	TO STA. 959+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-96-551-02

CONTRACT NO. 72680

STAGE 1

STAGE 2

610.56

610.74

610.56

610.56

610.74

610.56

I/6

I/3

SD 599.83

300.00 ℄

BEGIN SP DT RT
STA 959+13.00
GRADE = +4.42%
EL = 589.48

CHANNEL RELOCATION 589.64

END SP BENCH DT
STA 959+00
GRADE = +9.00%
EL = 616.00

EL 618.00

SBD 616.00

STAGE 1 STAGE 2 STAGE 3

C=200 F=2308 C=257 F=4 C=0 F=0

DATE	BY		FINAL SURVEY
		SURVEYED	NOTE BOOK
		PLOTTED	NO.
		TRANSFERRED	
		AREAS	
		AREAS CHECKED	

DATE	BY		ORIGINAL SURVEY
		SURVEYED	NOTE BOOK
		PLOTTED	NO.
		TRANSFERRED	
		AREAS	
		AREAS CHECKED	

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

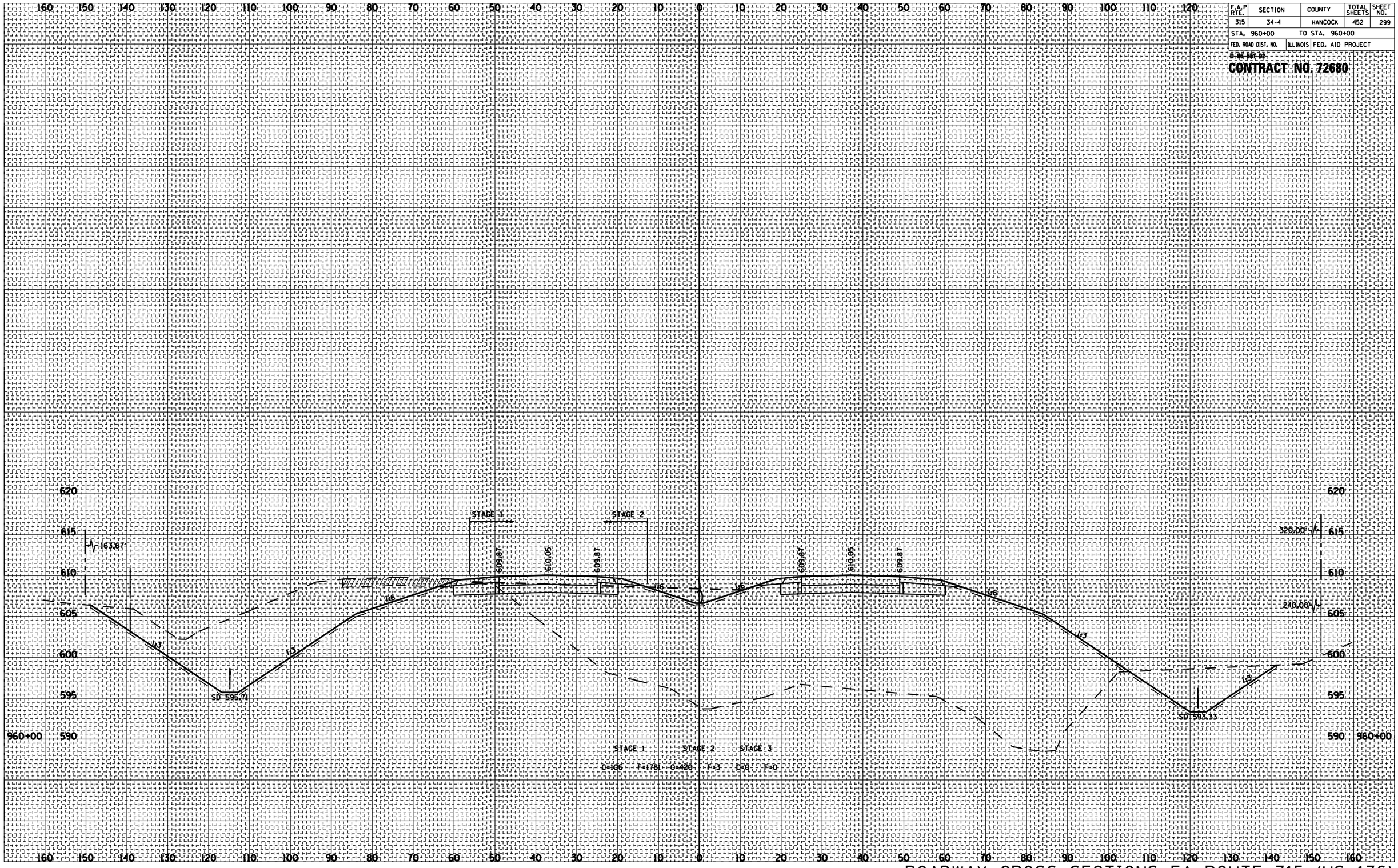
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	299
STA. 960+00		TO STA. 960+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	DATE
NOTE BOOK	BY
NO.	
SURVEYED	
PLOTTED	
TYMAN-RATE AREAS	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	
SURVEYED	
PLOTTED	
TYMAN-RATE AREAS	
AREAS CHECKED	



STAGE 1	STAGE 2	STAGE 3
C=106 F=178	C=420 F=3	C=0 F=0

ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)

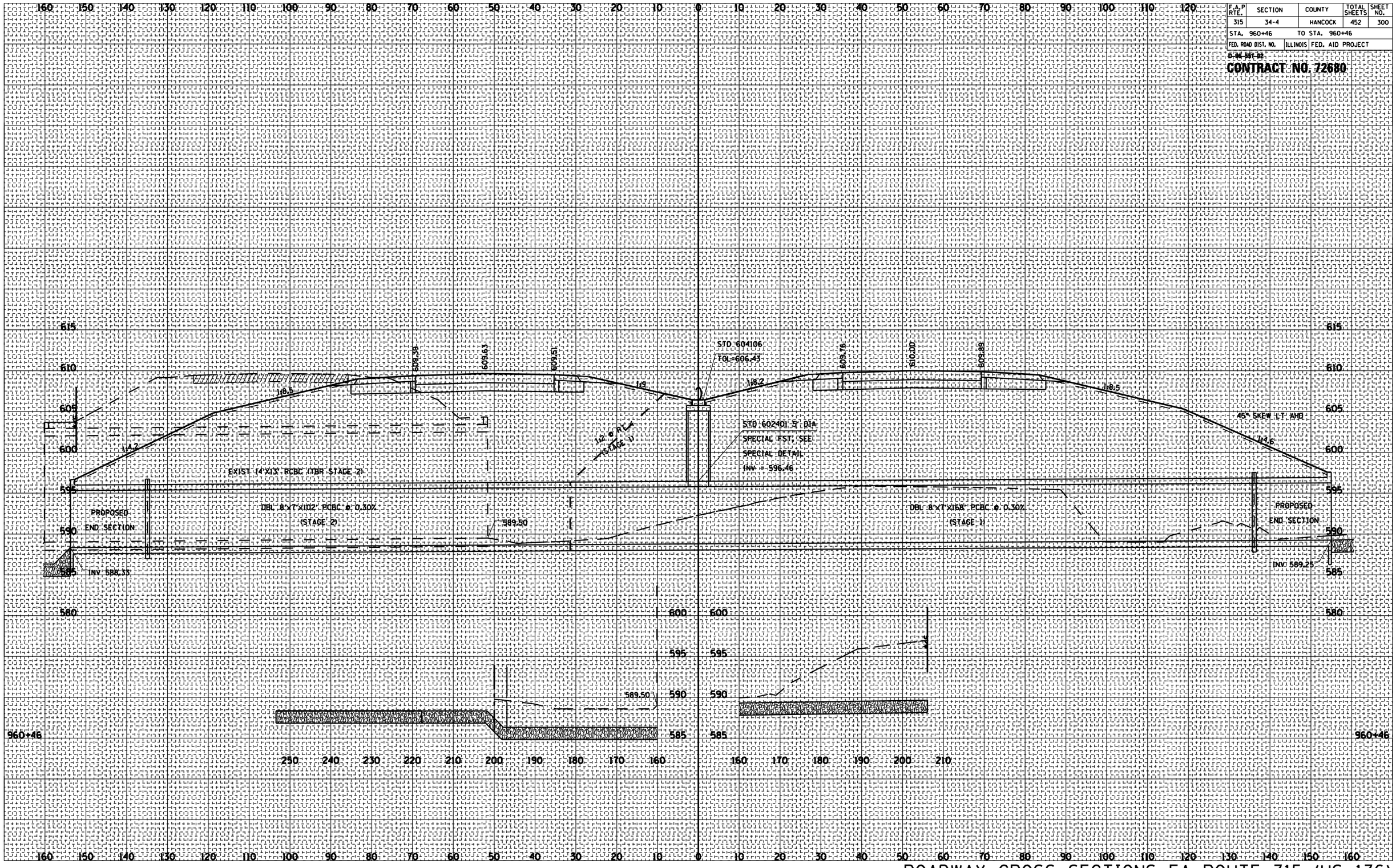
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	34-4	HANCOCK	452	300
STA. 960+46		TO STA. 960+46		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-06-551-02

CONTRACT NO. 72680

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TRANSMITTAL	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TRANSMITTAL	
	AREAS	
	AREAS CHECKED	



ROADWAY CROSS SECTIONS FA ROUTE 315 (US 136)