

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.731	*	GREENE	30	1

FEDERAL AID PROJECT

* 01-00071-00-BR
CONTRACT NO. 97289

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

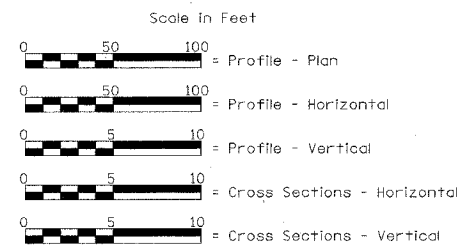
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
PROJECT NO. BRS-731(109)
F.A.S. ROUTE 731 (C.H. 2) OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY
JOB NO. C-98-386-06

INDEX OF SHEETS

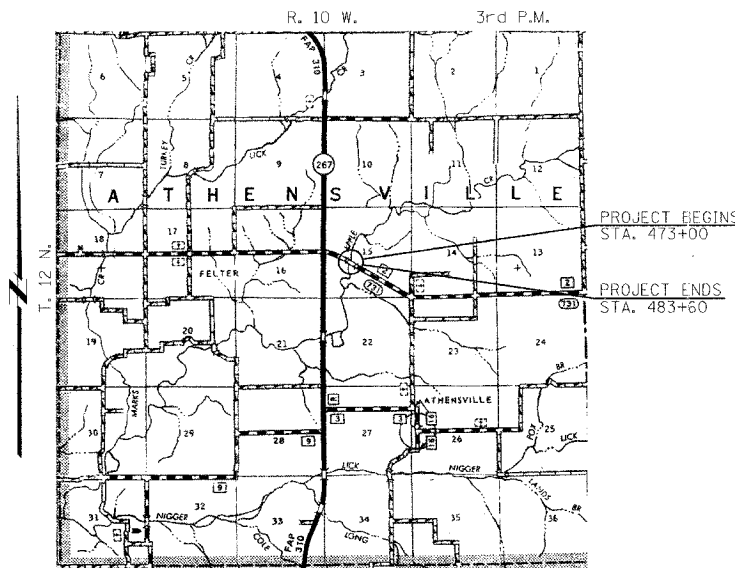
- 1 - TITLE SHEET
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- 3 - DETAILS & SCHEDULES
- 4 - PLAN & PROFILE
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- STANDARD 280001-03
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- STANDARD 635006-02
- STANDARD 702001-06
- STANDARD 780001-01
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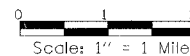


Land Section - 15
Land Quarter Section - S.W.
Design Class : Major Collector (Non-Urban)
A.D.T. = 650 (2002)
A.D.T. = 900 (2026)
50 M.P.H. Design Speed



LOCATION PLAN

Length of Section - 1060.00 Feet = 0.201 Miles



EXISTING STRUCTURE: SIX SPAN REINFORCED CONCRETE DECK ON STEEL STRINGERS, OPEN CONCRETE ABUTMENTS AND CONCRETE PILE BENT PIERS WITH CONCRETE CURB AND RAILING, ±468'-8" BK.-BK. ABUTMENTS, ±24'-0" CLEAR DECK WIDTH, 0° SKEW. EXISTING STRUCTURE NO. 031-3002

PROPOSED STRUCTURE: FIVE SPAN REINFORCED CONCRETE DECK ON STEEL I BEAMS, CONCRETE INTEGRAL ABUTMENTS AND SOLID REINFORCED CONCRETE PIERS, 496'-0" BK.-BK. ABUTMENTS, 30'-0" CLEAR DECK WIDTH WITH TYPE SM RAILING, 0° SKEW. PROPOSED STRUCTURE NO. 031-3144



Christopher P. Kollus 10/20/06
Expiration: 11/30/07

ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	<i>October 17, 2006</i> <i>Christopher P. Kollus</i> GREENE COUNTY ENGINEER
PASSED	<i>Nov 9, 2006</i> <i>Christopher P. Kollus</i> DISTRICT EIGHT ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID PROVED ON LIMITED REVIEW	<i>11-9-2006</i> <i>Mary C. Linn</i> DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER

TOLL FREE
"JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS"
TOLL FREE TELEPHONE NUMBER
1-800-892-0123

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 731	*	GREENE	30	2
FEDERAL AID PROJECT				

* 01-00071-00-BR
 CONTRACT NO. 97289

SUMMARY OF QUANTITIES

Item	Unit	Quantity
20100500	Tree Removal, Acres	0.2
20200100	Earth Excavation	Cu. Yd. 1294
20300100	Channel Excavation	Cu. Yd. 821
25001000	Seeding Class 2 (Special)	Acres 1.6
28000250	Temporary Erosion Control Seeding	Pound 160
28000300	Temporary Ditch Checks	Each 6
28000400	Perimeter Erosion Barrier	Foot 1700
28100809	Stone Dumped Riprap, Class A5	Ton 1166
28200200	Filter Fabric	Sq. Yd. 890
40300300	Bituminous Materials (Cover and Seal Coats)	Gallon 7480
40300600	Seal Coat Aggregate	Ton 312
40600100	Bituminous Materials (Prime Coat)	Gallon 139
40701961	Hot Mix Asphalt Pavement (Full Depth) 14"	Sq. Yd. 1442
48203029	Hot Mix Asphalt Shoulders, 8"	Sq. Yd. 484
50100100	Removal of Existing Structures	Each 1
50200100	Structure Excavation	Cu. Yd. 427
50200300	Cofferdam Excavation	Cu. Yd. 607
50200700	Cofferdam (Pier 2)	Each 1
50200800	Cofferdam (Pier 3)	Each 1
50300225	Concrete Structures	Cu. Yd. 298.6
50300255	Concrete Superstructure	Cu. Yd. 409.7
50300260	Bridge Deck Grooving	Sq. Yd. 1639
50300265	Seal Coat Concrete	Cu. Yd. 82.6
50300300	Protective Coat	Sq. Yd. 1639
50500105	Furnishing and Erecting Structural Steel	L. Sum 1
50500505	Stud Shear Connectors	Each 4935
50800205	Reinforcement Bars (Epoxy Coated)	Pound 141130
50900500	Steel Baling T.Y. Sm	Foot 992
51201400	Furnishing Steel Piles HP10x42	Foot 810
51201600	Furnishing Steel Piles HP12x53	Foot 1880
51202305	Driving Piles	Foot 2690
51203400	Test Pile, Steel HP10x42	Each 2
51203600	Test Pile, Steel HP12x53	Each 4
51500100	Name Plates	Each 1
52000110	Preformed Joint Strip Seal	Foot 60
52100020	Elastomeric Bearing Assembly, Type II	Each 10
52100030	Elastomeric Bearing Assembly, Type III	Each 10
58700300	Concrete Sealer	Sq. Ft. 195
* 63000000	Steel Plate Beam Guardrail, Type A	Foot 400
* 63100087	Traffic Barrier Terminal, Type 6A	Each 3
* 63100167	Traffic Barrier Terminal, Type 1 Special (Tangent)	Each 1
63200310	Guardrail Removal	Foot 530
67100100	Mobilization	L. Sum 1
70101700	Traffic Control And Protection	L. Sum 1
* 78008210	Polyurea Pavement Marking Type 1 - Line 4"	Foot 2430
* 78201000	Terminal Marker - Direct Applied	Each 1
X5020501	Underwater Structure Excavation Protection Location 1	Each 1
X5020502	Underwater Structure Excavation Protection Location 2	Each 1
Z0013798	Construction Layout	L. Sum 1

* Specialty Items

Construction Type Code: X071-2A

GENERAL NOTES

Where section or subsection stones are encountered, the Engineer shall be notified before such stones are removed. The contractor shall protect and preserve all properly markers and monuments until the owner, authorized surveyor, or agent has witnessed or referenced their location.

Areas to be seeded shall consist of all disturbed earth surfaces within the right-of-way as directed by the Engineer.

The Contractor shall be responsible for maintaining the detour route, including bituminous patching, and any other work as directed by the Engineer. This work will be paid for in accordance with Section 109.04 of the Standard Specifications.

The following rates of application have been used to calculate the plan quantities:

Bituminous Materials (Cover and Seal Coats)	0.3 Gal/Sq. Yd. (On Exist. Pavement)
Bituminous Materials (Prime Coat)	0.1 Gal/Sq. Yd. (On Bituminous)
Hot Mix Asphalt Surface	0.056 Ton/Sq. Yd. Per 1"
Aggregate Material	2.05 Ton/Cu. Yd.
Riprap	1.35 Ton/Sq. Yd.
Mulch Method 2	2.0 Ton/Acre
Agricultural Ground Limestone	2.0 Ton/Acre
Nitrogen Fertilizer Nutrient	90 Lbs./Acre
Phosphorus Fertilizer Nutrient	90 Lbs./Acre
Potassium Fertilizer Nutrient	90 Lbs./Acre
Seal Coat Aggregate	0.0125 Ton/Sq. Yd.

HOT MIX ASPHALT MIXTURE REQUIREMENTS

Mixture Use	Full Depth Pav't.	H. M. A. Shoulder
AC/PG	PC64-22	* PG64-22
RAP % (MAX.)	15	15
Design Air Voids (Gradation Mixture)	4% @ Ndes = 50	4% @ Ndes = 50
Friction Agg.	Mixture C	IL-19.0
	Mixture C	N/A

* (PG 58-22) Required when greater than 20% RAP is utilized.

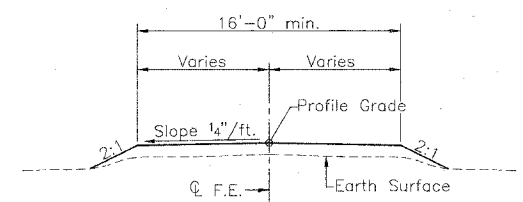
PAVEMENT DESIGN

Structural Design Traffic (S.D.T.): 806 (2017); P.V.=686, S.U.=60, M.U.=60
 Class III Road

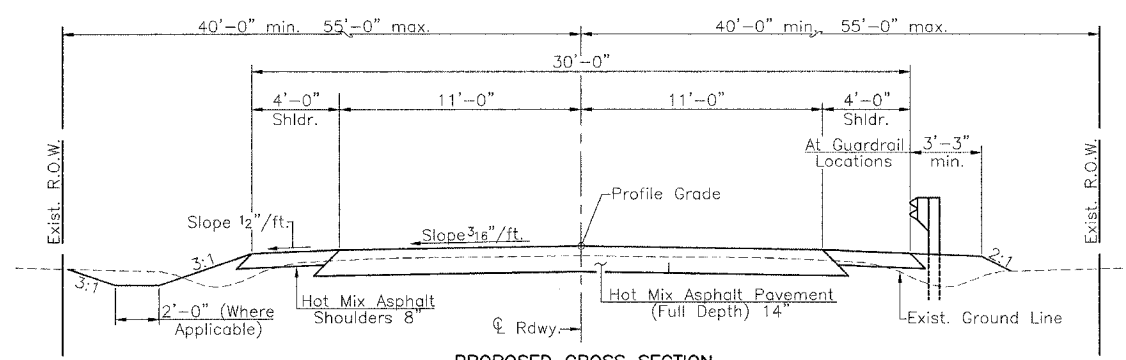
Minimum Soil Support: I.B.R. = 3.0

Percent of S.D.T. in Design Lane: P=50% S=50% M=50%
 T.F. = 0.24

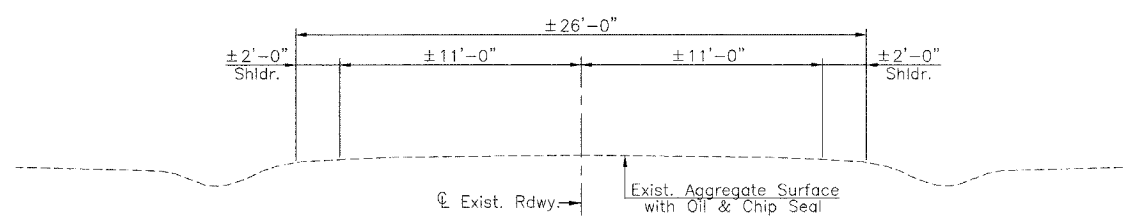
Pavement Structural Material:
 Typical Proposed Roadway Cross Section:
 Proposed Hot Mix Asphalt Pavement (Full Depth) (Min. M.S. 1500) — 14"



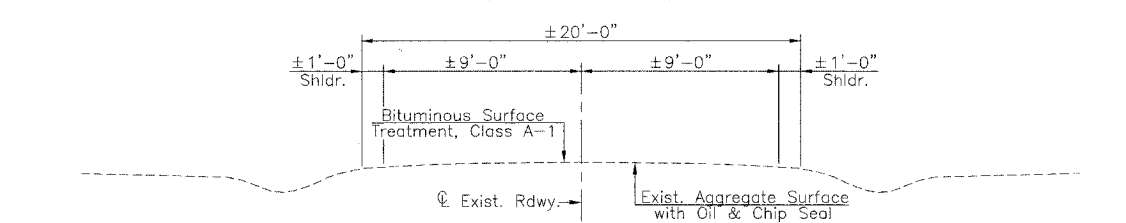
TYPICAL FIELD ENTRANCE
 (F.E. Sta. 475+84 Lt.)



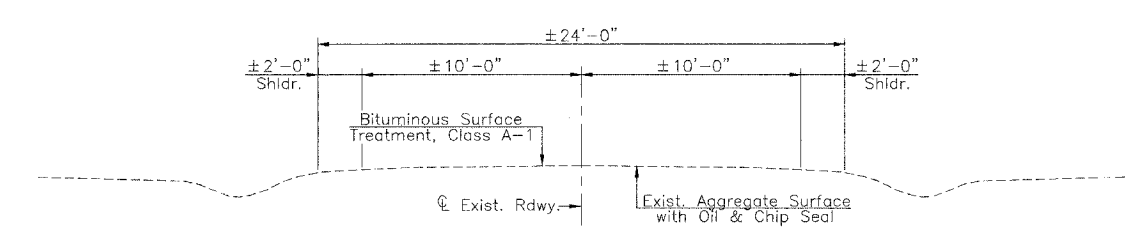
PROPOSED CROSS SECTION



EXISTING CROSS SECTION
 (F.A.S. 731 - C.H. 2)

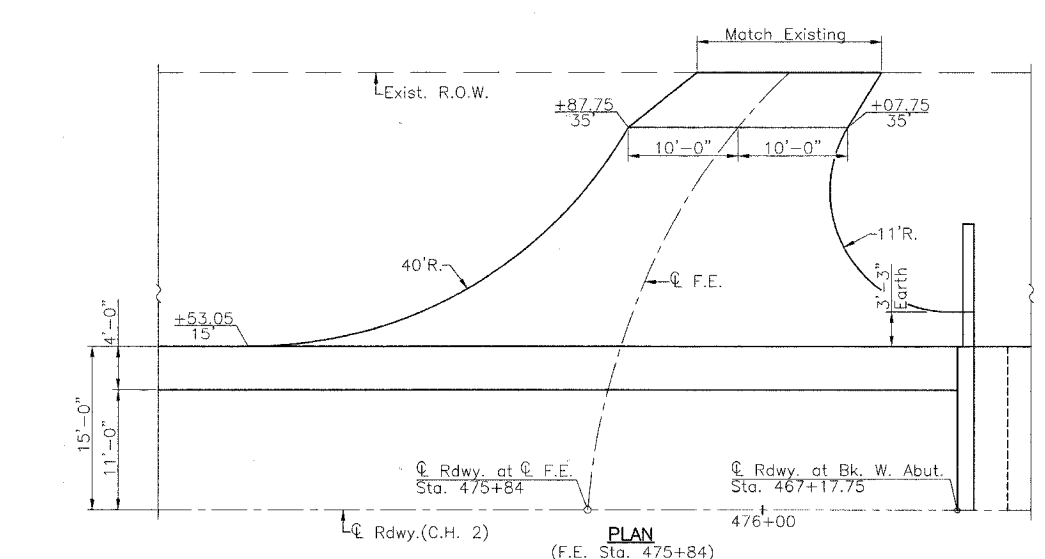


EXISTING CROSS SECTION (DETOUR ROAD)
 (C.R. 16)



EXISTING CROSS SECTION (DETOUR ROAD)
 (Athensville Blacktop)

When the project is complete, the detour road (1.25 miles C.R. 16 & 1.0 miles Athensville Blacktop) shall have a Bituminous Surface Treatment Class A-1 applied to it. Estimated quantities for this application are shown in the Summary of Quantities as Seal Coat Aggregate and Bituminous Materials (Cover and Seal Coats.)



PLAN
 (F.E. Sta. 475+84)

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 731	*	GREENE	30	3

FEDERAL AID PROJECT
 * 01-00071-00-BR
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GUARDRAIL SCHEDULE

Location	Traffic Barrier Terminal Type 1 Special (Tangent) (Each)	Traffic Barrier Terminal Type 6A (Each)	Steel Plate Beam Guardrail Type A (Foot)	Guardrail Removal (Foot)
Sta. 475+54.50 to Sta. 476+04.50 Rt.	1			
Sta. 476+04.50 to Sta. 476+17.75 Rt.		1		
Sta. 481+13.75 to Sta. 481+27.00 Rt.		1		
Sta. 481+27.00 to Sta. 483+27.00 Rt.			200	
Sta. 481+13.75 to Sta. 481+45.00 Lt.		1		
Sta. 481+27.00 to Sta. 483+45.00 Lt.			200	
Sta. 475+91.20 to Sta. 476+31.20 Rt.				40
Sta. 481+00 to Sta. 483+45.00 Rt.				245
Sta. 481+00 to Sta. 483+45.00 Lt.				245
Total	1	3	400	530

SCHEDULE TREE REMOVAL, ACRES

Location	Quantity (Acres)
Sta. 474+00 to Sta. 476+60 Rt.	0.13
Sta. 475+55 to Sta. 475+90 Lt.	0.02
Total	0.15

Say 0.2 Acre

SCHEDULE PERIMETER EROSION BARRIER

Location	Quantity (Foot)
Sta. 473+00 to Sta. 475+75 Lt.	275
Sta. 476+25 to Sta. 477+00 Lt.	75
Sta. 478+85 to Sta. 483+60 Lt. & Rt.	950
Sta. 473+00 to Sta. 477+00 Rt.	400
Total	1700

SCHEDULE TEMPORARY DITCH CHECKS

Location	Quantity (Each)
Sta. 476+00, 26' Lt. & Rt.	2
Sta. 478+00, 31' Lt.	1
Sta. 480+00, 40' Lt.	1
Sta. 482+00, 43' Lt. & Rt.	2
Total	6

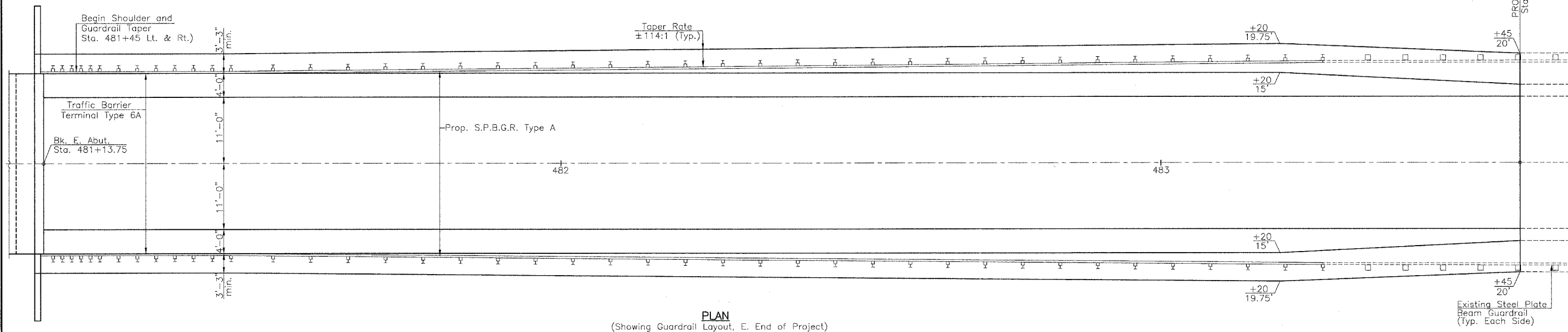
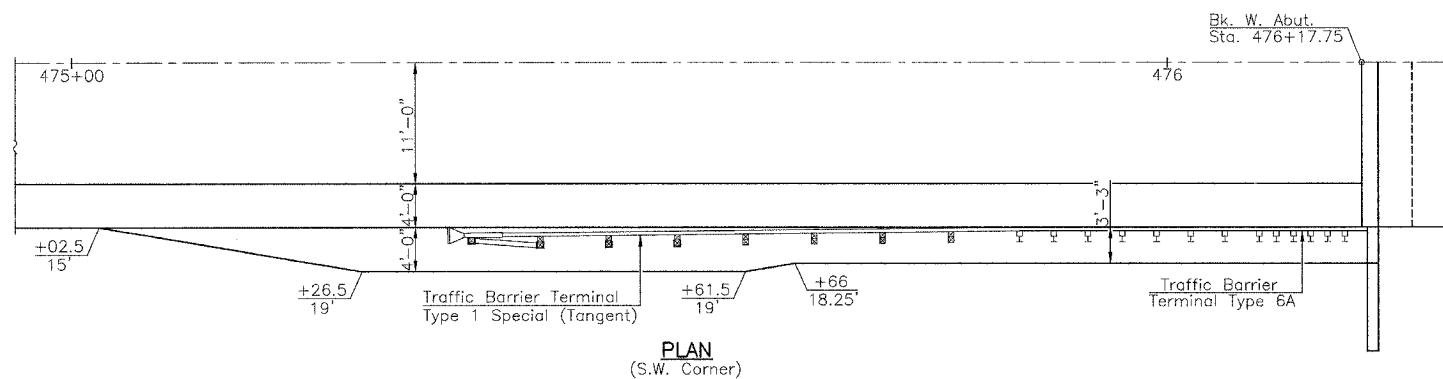
SCHEDULE PAINT PAVEMENT MARKING-LINE 4"

Location	Yellow Skip - Dash (10') (Foot)	White Edgeline (Foot)	Total (Foot)
Sta. 473+00 to Sta. 483+60	270	2160	2430

EARTHWORK SCHEDULE

Location	Earth Excavation	Earth Excavation Adjusted For Shrinkage	Embankment	Earthwork Balance Waste (+) or Shortage (-)
Sta. 473+00 to Sta. 474+00	46	35	4	31
Sta. 474+00 to Sta. 475+00	96	72	6	66
Sta. 475+00 to Sta. 476+00	102	76	9	67
Sta. 476+00 to Sta. 476+17.75	18	14	3	11
Omission - Sta. 476+17.75 to Sta. 477+82				
Sta. 477+82 to Sta. 478+00	79	59	47	12
Sta. 478+00 to Sta. 479+00	361	271	191	80
Sta. 479+00 to Sta. 480+00	226	169	126	43
Sta. 480+00 to Sta. 480+80	136	102	107	-5
Omission - Sta. 480+80 to Sta. 481+00				
Sta. 481+00 to Sta. 481+13.75	7	5	10	-5
Sta. 481+13.75 to Sta. 482+00	83	62	131	-69
Sta. 482+00 to Sta. 483+00	106	80	115	-35
Sta. 483+00 to Sta. 483+60	34	25	23	2
Total	1294	970	772	*198

* Since there is an excess of Earth Excavation there will not be any Furnished Excavation on this project. Cost to remove the Excess Earth Excavation will be included in the contract unit price for Earth Excavation.



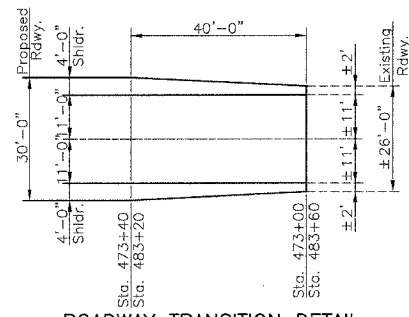
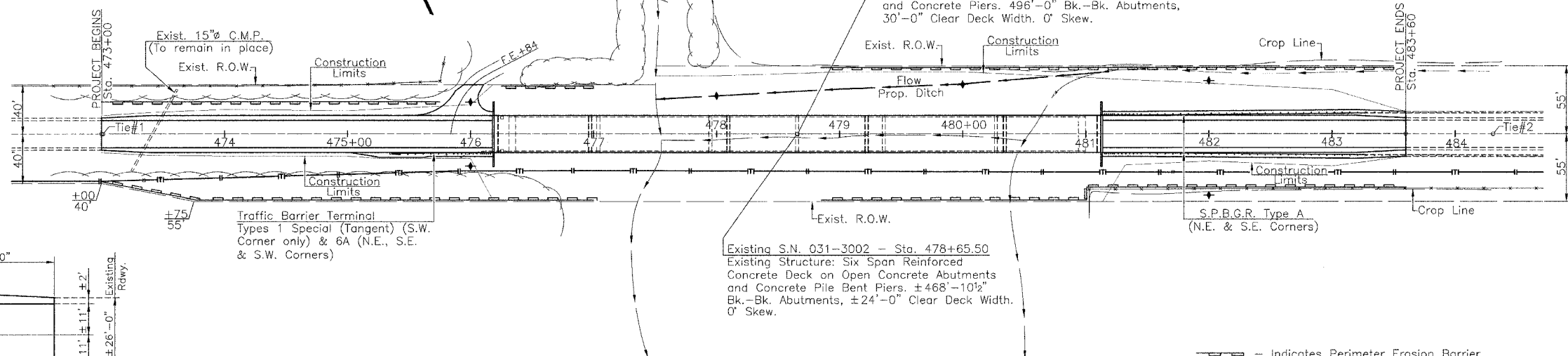
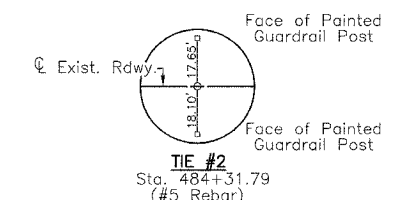
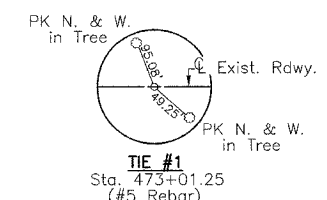
DETAILS & SCHEDULES
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

FILE NAME: 027105.DWG (REV. 10/12/05)

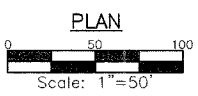
Section 15 T. 12 N., R. 10 W., 3rd P.M.

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 731	*	GREENE	30	4

FEDERAL AID PROJECT
 * 01-00071-00-BR
 CONTRACT NO. 97289

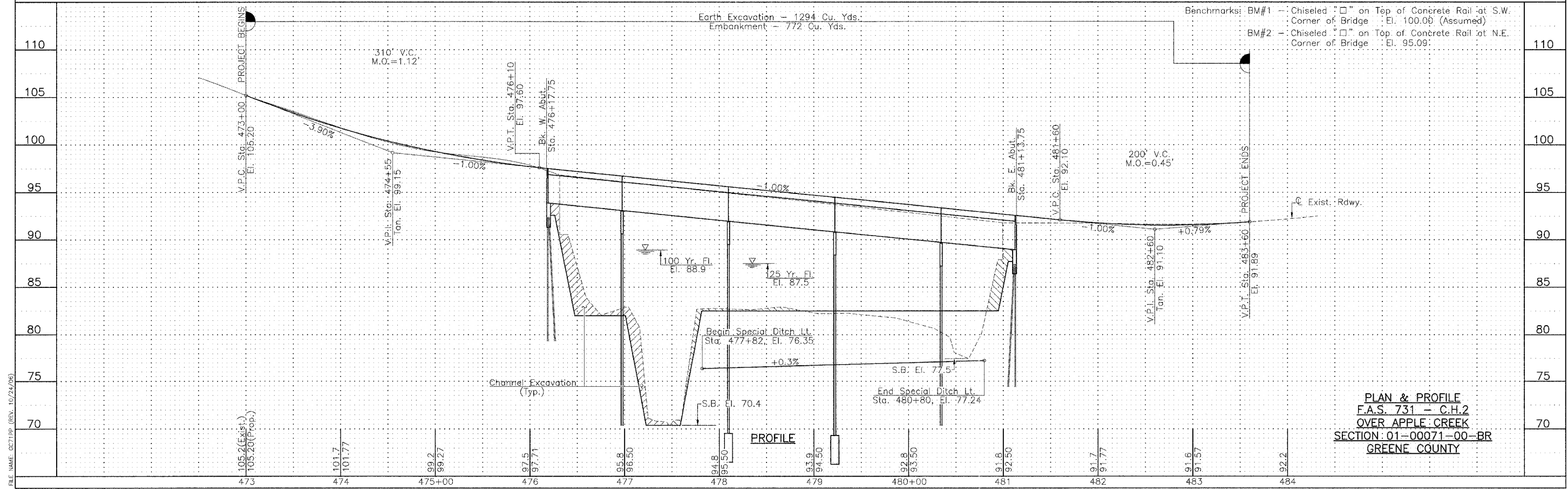


Rance Hopper
 c/o Marion Hopper



— — — — — Indicates Perimeter Erosion Barrier
 + — — — — — Indicates Temporary Ditch Check
 Seeding Class 2 Special - Sta. 473+00 to Sta. 483+60
 R.O.W. to R.O.W. - 1.6 Acre

UTILITIES
 Verizon
 1-800-892-0123



PLAN & PROFILE
 F.A.S. 731 - C.H.2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

FILE NAME: 0271DP (REV. 10/24/06)

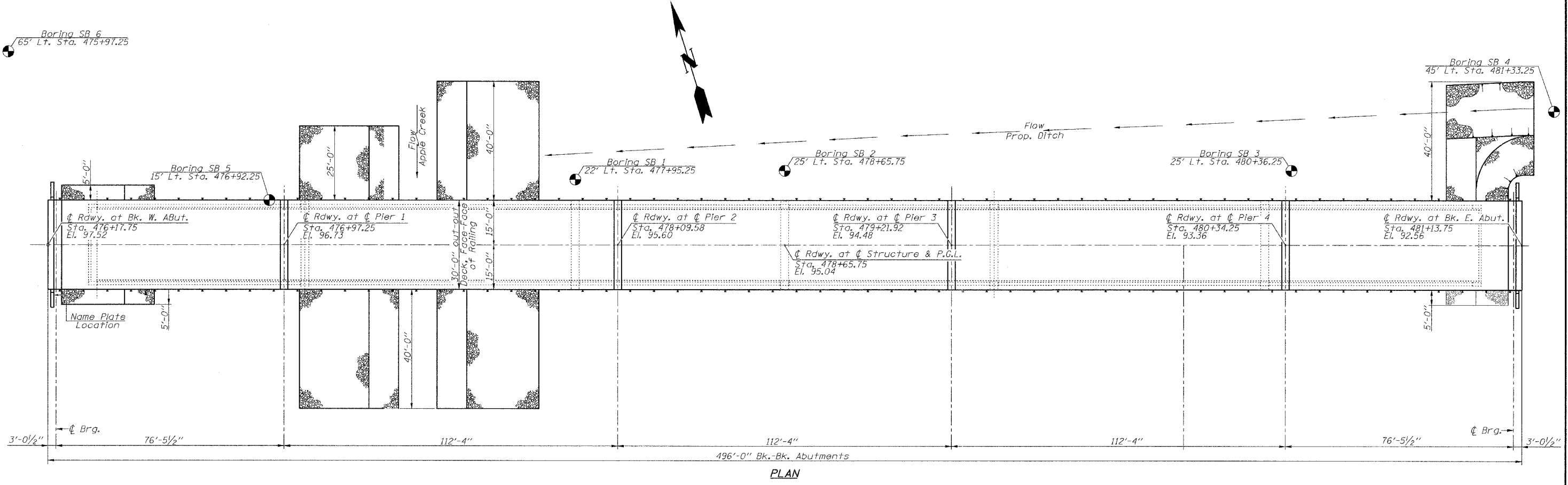
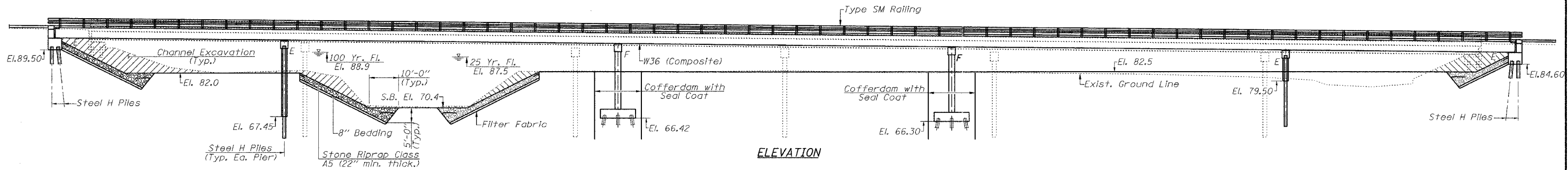
Benchmarks: BM#1 - Chiseled "□" on Top of Concrete Rail at S.W. Corner of Bridge El. 100.00 (Assumed)
 BM#2 - Chiseled "□" on Top of Concrete Rail at N.E. Corner of Bridge El. 95.09

Existing Structure: Six Span Reinforced Concrete Deck on Steel Stringers, Open Concrete Abutments and Concrete Pile Bent Piers with Concrete Curb and Railing, ±468'-8" Bk.-Bk. Abuts. ±24'-0" Clear Deck Width, 0° Skew. Existing Structure No. 031-3002

Proposed Improvements: Existing Structure to be removed and replaced by Five Span Continuous 36" Wide Flange Beams with Composite R.C. Deck supported on R.C. Spill Through Abutments and Pile Bent Piers. Salvage to County.

Estimated Existing Quantities: Concrete Superstructure - 358.3 cu. yds.
 Concrete Substructure - 84.5 cu. yds.
 Structural Steel - 349,475 lbs.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	5
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				
01-00071-00-BR				
CONTRACT NO. 97289				Sheet No. 1
				of 23 Sheets



Designed: GBR
 Checked: MAH
 Drawn: JRP
 Checked: GBR

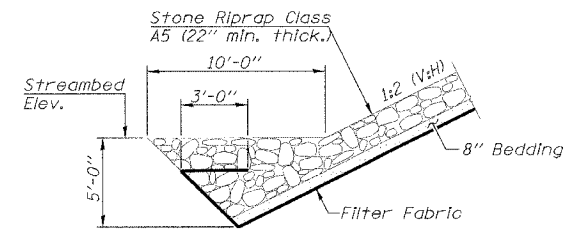
GENERAL PLAN & ELEVATION
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	6
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

* 01-00071-00-BR
 CONTRACT NO. 97289 Sheet No. 2 of 23 Sheets

GENERAL NOTES

Fasteners shall be high strength bolts A.A.S.H.T.O. M 164, Type 3 in unpainted areas and mechanically galvanized A.A.S.H.T.O. M 164, Type 1 or 2 in painted areas. Bolts 1/4"Ø, open holes 5/16"Ø, unless otherwise noted. Calculated weight of structural steel = 501,980 Pounds (M 270 Grade 50W). All structural steel shall be A.A.S.H.T.O. M 270 Grade 50W except expansion joint plates and attached bars which shall be A.A.S.H.T.O. M 270 Grade 50. Field welding of construction accessories will not be permitted to beams. Anchor bolts shall be set before bolting diaphragms over supports. The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of A.A.S.H.T.O. M 270, Grade 50W. The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates. Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M31 or M322, Grade 60. Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the engineer. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. The Contractor shall drive one test pile in a permanent location at each substructure unit as directed by the Engineer before ordering the remainder of piles.



STONE RIPRAP ANCHOR DETAIL

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.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 All construction joints shall be bonded.
 The contractor shall obtain a construction permit from the Illinois Department of Natural Resources (I.D.N.R.), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the I.D.N.R. permit number D52004161 which was issued for the permanent construction.

Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
 Concrete Sealer shall be applied to the seat area of the abutments. A.A.S.H.T.O. M 270 Grade 50W structural steel shall only be painted, for a distance of three times the depth of the beams (but not exceeding 10 feet) each way from the deck joints. All structural steel shall be cleaned as specified in the special provision for "Surface Preparation and Painting Requirements for Weathering Steel".

TOTAL BILL OF MATERIAL

Item	Super	Sub	Total	
Channel Excavation	Cu. Yd.		821	
Stone Riprap, Class A5	Ton	1166	1166	
Filter Fabric	Sq. Yd.	890	890	
Removal of Existing Structures	Each		1	
Structure Excavation	Cu. Yd.	427	427	
Preformed Joint Strip Seal	Foot	60	60	
Concrete Structures	Cu. Yd.	298.6	298.6	
Concrete Superstructure	Cu. Yd.	409.7	409.7	
Bridge Deck Grooving	Sq. Yd.	1639	1639	
Protective Coat	Sq. Yd.	1639	1639	
Elastomeric Bearing Assembly, Type II	Each	10	10	
Elastomeric Bearing Assembly, Type III	Each	10	10	
Furnishing and Erecting Structural Steel	L. Sum	1	1	
Stud Shear Connectors	Each	4935	4935	
Reinforcement Bars (Epoxy Coated)	Pound	101230	39900	141130
Steel Rolling Type SM	Foot	992	992	
Furnishing Steel Piles HP10x42	Foot		810	
Furnishing Steel Piles HP12x53	Foot		1880	1880
Driving Piles	Foot		2690	2690
Test Pile, Steel HP10x42	Each		2	2
Test Pile, Steel HP12x53	Each		4	4
Name Plates	Each		1	1
Concrete Sealer	Sq. Ft.		195	195
Underwater Structure Excavation Protection - Location 1 (Pier 1)	Each		1	1
Underwater Structure Excavation Protection - Location 2 (Pier 4)	Each		1	1
Cofferdam (Pier No. 2)	Each		1	1
Cofferdam (Pier No. 3)	Each		1	1
Cofferdam Excavation	Cu. Yd.		607	607
Seal Coat Concrete	Cu. Yd.		82.6	82.6

WATERWAY INFORMATION

Drainage Area = 146.5 Sq. Miles		Low Grade Elev. = 91.55		@ Sta. 482+60					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.	
Design	25	14,158	2,983	2,991	87.5	0.3	0.3	87.8	87.8
Base	100	18,936	3,603	3,653	88.9	0.5	0.4	89.4	89.3
Exist. Overtop Greater than 500 Years									
Prop. Overtop Greater than 500 Years									
Max. Calc.	500	24,622	4,114	4,221	90.4	0.8	0.8	91.2	91.2

**DESIGN STRESSES
FIELD UNITS**

f'c = 3500 psi
 fy = 60,000 psi (Reinf.)
 Fy = 50,000 psi (Structural Steel) (M270 Grade 50W)

**DESIGN SPECIFICATIONS
2002 A.A.S.H.T.O. Specifications.**

LOADING HS 20-44

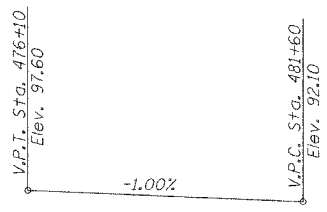
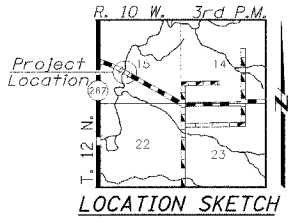
Allow 50#/sq. ft. for future wearing surface.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "A.A.S.H.T.O. Standard Specifications for Highway Bridges".

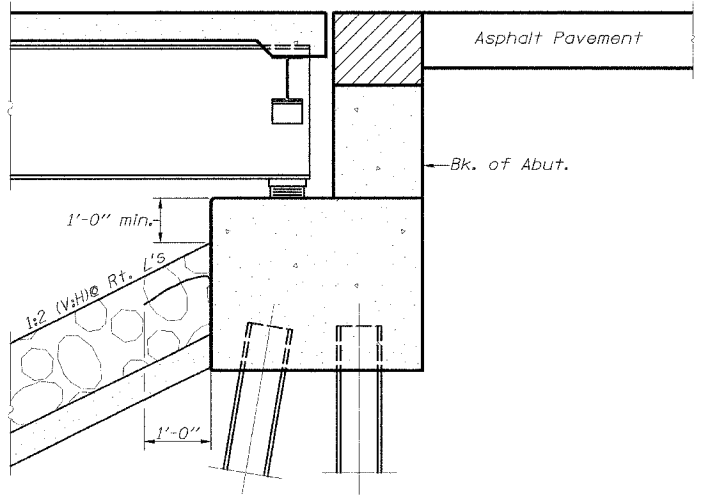
Gerald B. Rotherham
 Expiration date 11/30/2006

APPLE CREEK
 BUILT 200 BY
 ATHENSVILLE TOWNSHIP
 GREENE COUNTY
 SECTION 01-00071-00-BR
 STA. 478+65.75
 STR. NO. 031-3144 LOADING HS20

NAME PLATE
 (Standard 515001)



PROFILE GRADE



SECTION THRU PILE BENT ABUTMENT
 (Horiz. dim. @ Rt. L's)

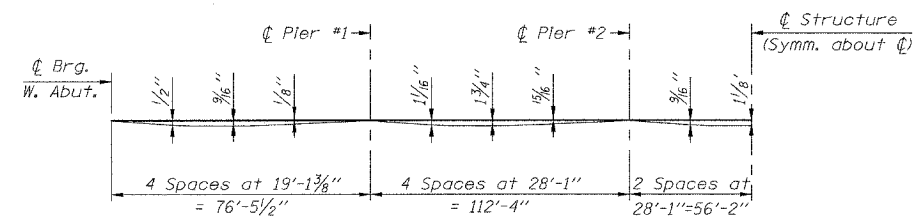
Designed: *ABR*
 Checked: *MAN*
 Drawn: *JRP*
 Checked: *ABR*



GENERAL PLAN & ELEVATION
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

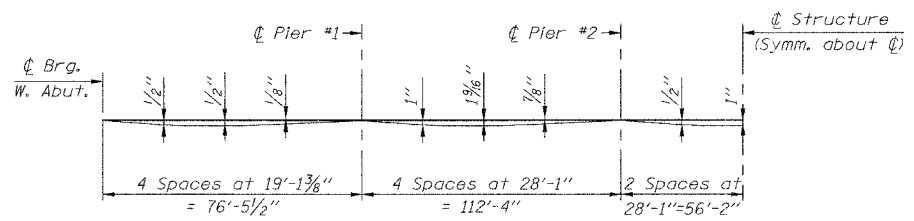
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	7
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

01-00071-00-BR
CONTRACT NO. 97289
 Sheet No. 3 of 23 Sheets



EXTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM
 (Includes weight of concrete only).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 4 & 5 of 23.



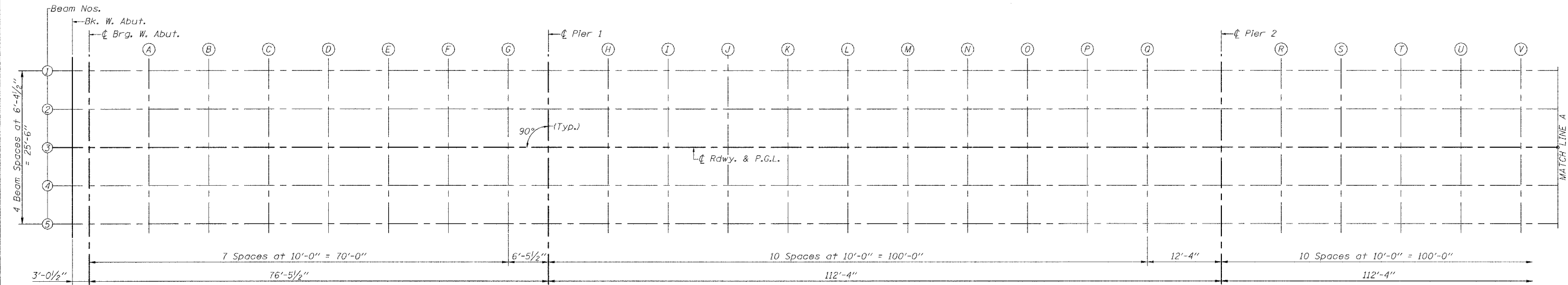
INTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM
 (Includes weight of concrete only).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 4 & 5 of 23.

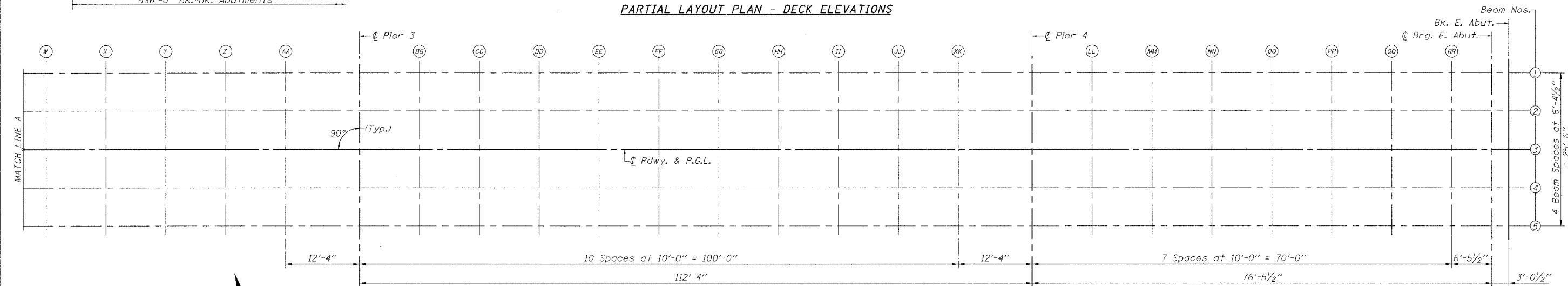


FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on Sheets 4 & 5 of 23. These elevations subtracted from the 'Theoretical Grade Elevations Adjusted for Dead Load Deflections' minus slab thickness, equals the fillet heights "t" above top flange of beams.



PARTIAL LAYOUT PLAN - DECK ELEVATIONS



PARTIAL LAYOUT PLAN - DECK ELEVATIONS



TOP OF SLAB ELEVATIONS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

FILE NAME: STRUCTURE PLANS (REV. 10/12/06)

BEAM 1

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted For Dead Load Deflection
Bk. W. Abut.	476+17.75	-12.750	97.324	97.324
W. Brg.	476+20.79	-12.750	97.293	97.293
A	476+30.79	-12.750	97.193	97.558
B	476+40.79	-12.750	97.093	97.624
C	476+50.79	-12.750	96.993	97.599
D	476+60.79	-12.750	96.893	97.431
E	476+70.79	-12.750	96.793	97.106
F	476+80.79	-12.750	96.693	96.764
G	476+90.79	-12.750	96.593	96.570
Pier 1	476+97.25	-12.750	96.529	96.529
H	477+07.25	-12.750	96.429	96.740
I	477+17.25	-12.750	96.329	97.133
J	477+27.25	-12.750	96.229	97.294
K	477+37.25	-12.750	96.129	97.636
L	477+47.25	-12.750	96.029	97.770
M	477+57.25	-12.750	95.929	97.635
N	477+67.25	-12.750	95.829	97.417
O	477+77.25	-12.750	95.729	96.921
P	477+87.25	-12.750	95.629	96.322
Q	477+97.25	-12.750	95.529	95.775
Pier 2	478+09.58	-12.750	95.405	95.405
R	478+19.58	-12.750	95.305	95.384
S	478+29.58	-12.750	95.205	95.571
T	478+39.58	-12.750	95.105	95.647
U	478+49.58	-12.750	95.005	95.886
V	478+59.58	-12.750	94.905	95.991
W	478+69.58	-12.750	94.805	95.891
X	478+79.58	-12.750	94.705	95.711
Y	478+89.58	-12.750	94.605	95.326
Z	478+99.58	-12.750	94.505	94.871
AA	479+09.58	-12.750	94.405	94.484
Pier 3	479+21.92	-12.750	94.282	94.282
BB	479+31.92	-12.750	94.182	94.428
CC	479+41.92	-12.750	94.082	94.776
DD	479+51.92	-12.750	93.982	94.928
EE	479+61.92	-12.750	93.882	95.295
FF	479+71.92	-12.750	93.782	95.488
GG	479+81.92	-12.750	93.682	95.424
HH	479+91.92	-12.750	93.582	95.238
II	480+01.92	-12.750	93.482	94.788
JJ	480+11.92	-12.750	93.382	94.186
KK	480+21.92	-12.750	93.282	93.593
Pier 4	480+34.25	-12.750	93.159	93.159
LL	480+44.25	-12.750	93.059	93.072
MM	480+54.25	-12.750	92.959	93.102
NN	480+64.25	-12.750	92.859	93.256
OO	480+74.25	-12.750	92.759	93.296
PP	480+84.25	-12.750	92.659	93.264
QQ	480+94.25	-12.750	92.559	93.017
RR	481+04.25	-12.750	92.459	92.712
E. Brg.	481+10.71	-12.750	92.394	92.394
Bk. E. Abut.	481+13.75	-12.750	92.364	92.364

BEAM 2

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted For Dead Load Deflection
Bk. W. Abut.	476+17.75	-6.375	97.423	97.423
W. Brg.	476+20.79	-6.375	97.394	97.393
A	476+30.79	-6.375	97.294	97.622
B	476+40.79	-6.375	97.194	97.672
C	476+50.79	-6.375	97.094	97.639
D	476+60.79	-6.375	96.994	97.478
E	476+70.79	-6.375	96.894	97.175
F	476+80.79	-6.375	96.794	96.857
G	476+90.79	-6.375	96.694	96.672
Pier 1	476+97.25	-6.375	96.628	96.628
H	477+07.25	-6.375	96.528	96.810
I	477+17.25	-6.375	96.428	97.155
J	477+27.25	-6.375	96.328	97.290
K	477+37.25	-6.375	96.228	97.590
L	477+47.25	-6.375	96.128	97.701
M	477+57.25	-6.375	96.028	97.569
N	477+67.25	-6.375	95.928	97.362
O	477+77.25	-6.375	95.828	96.906
P	477+87.25	-6.375	95.728	96.355
Q	477+97.25	-6.375	95.628	95.850
Pier 2	478+09.58	-6.375	95.505	95.505
R	478+19.58	-6.375	95.405	95.476
S	478+29.58	-6.375	95.305	95.636
T	478+39.58	-6.375	95.205	95.695
U	478+49.58	-6.375	95.105	95.900
V	478+59.58	-6.375	95.005	95.986
W	478+69.58	-6.375	94.905	95.886
X	478+79.58	-6.375	94.805	95.714
Y	478+89.58	-6.375	94.705	95.356
Z	478+99.58	-6.375	94.605	94.936
AA	479+09.58	-6.375	94.505	94.576
Pier 3	479+21.92	-6.375	94.382	94.382
BB	479+31.92	-6.375	94.282	94.504
CC	479+41.92	-6.375	94.182	94.808
DD	479+51.92	-6.375	94.082	94.936
EE	479+61.92	-6.375	93.982	95.258
FF	479+71.92	-6.375	93.882	95.422
GG	479+81.92	-6.375	93.782	95.355
HH	479+91.92	-6.375	93.682	95.177
II	480+01.92	-6.375	93.582	94.761
JJ	480+11.92	-6.375	93.482	94.208
KK	480+21.92	-6.375	93.382	93.663
Pier 4	480+34.25	-6.375	93.258	93.258
LL	480+44.25	-6.375	93.158	93.170
MM	480+54.25	-6.375	93.058	93.188
NN	480+64.25	-6.375	92.958	93.317
OO	480+74.25	-6.375	92.858	93.343
PP	480+84.25	-6.375	92.758	93.304
QQ	480+94.25	-6.375	92.658	93.072
RR	481+04.25	-6.375	92.558	92.787
E. Brg.	481+10.71	-6.375	92.493	92.494
Bk. E. Abut.	481+13.75	-6.375	92.463	92.463

BEAM 3 & P.G.L.

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted For Dead Load Deflection
Bk. W. Abut.	476+17.75	0.000	97.523	97.523
W. Brg.	476+20.79	0.000	97.493	97.493
A	476+30.79	0.000	97.393	97.721
B	476+40.79	0.000	97.293	97.771
C	476+50.79	0.000	97.193	97.739
D	476+60.79	0.000	97.093	97.578
E	476+70.79	0.000	96.993	97.275
F	476+80.79	0.000	96.893	96.957
G	476+90.79	0.000	96.793	96.771
Pier 1	476+97.25	0.000	96.728	96.728
H	477+07.25	0.000	96.628	96.909
I	477+17.25	0.000	96.528	97.255
J	477+27.25	0.000	96.428	97.390
K	477+37.25	0.000	96.328	97.689
L	477+47.25	0.000	96.228	97.801
M	477+57.25	0.000	96.128	97.669
N	477+67.25	0.000	96.028	97.462
O	477+77.25	0.000	95.928	97.005
P	477+87.25	0.000	95.828	96.454
Q	477+97.25	0.000	95.728	95.950
Pier 2	478+09.58	0.000	95.605	95.605
R	478+19.58	0.000	95.505	95.576
S	478+29.58	0.000	95.405	95.735
T	478+39.58	0.000	95.305	95.795
U	478+49.58	0.000	95.205	96.000
V	478+59.58	0.000	95.105	96.085
W	478+69.58	0.000	95.005	95.985
X	478+79.58	0.000	94.905	95.813
Y	478+89.58	0.000	94.805	95.456
Z	478+99.58	0.000	94.705	95.035
AA	479+09.58	0.000	94.605	94.676
Pier 3	479+21.92	0.000	94.481	94.481
BB	479+31.92	0.000	94.381	94.603
CC	479+41.92	0.000	94.281	94.908
DD	479+51.92	0.000	94.181	95.036
EE	479+61.92	0.000	94.081	95.357
FF	479+71.92	0.000	93.981	95.522
GG	479+81.92	0.000	93.881	95.454
HH	479+91.92	0.000	93.781	95.277
II	480+01.92	0.000	93.681	94.860
JJ	480+11.92	0.000	93.581	94.308
KK	480+21.92	0.000	93.481	93.763
Pier 4	480+34.25	0.000	93.358	93.358
LL	480+44.25	0.000	93.258	93.270
MM	480+54.25	0.000	93.158	93.288
NN	480+64.25	0.000	93.058	93.417
OO	480+74.25	0.000	92.958	93.443
PP	480+84.25	0.000	92.858	93.404
QQ	480+94.25	0.000	92.758	93.171
RR	481+04.25	0.000	92.658	92.887
E. Brg.	481+10.71	0.000	92.593	92.593
Bk. E. Abut.	481+13.75	0.000	92.563	92.563

TOP OF SLAB ELEVATIONS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

FILE NAME: STRUCTURE PLANS (REV. 02/22/08)

BEAM 4

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted For Dead Load Deflection
Bk. W. Abut.	476+17.75	6.375	97.423	97.423
☉ W. Brg.	476+20.79	6.375	97.394	97.393
A	476+30.79	6.375	97.294	97.622
B	476+40.79	6.375	97.194	97.672
C	476+50.79	6.375	97.094	97.639
D	476+60.79	6.375	96.994	97.478
E	476+70.79	6.375	96.894	97.175
F	476+80.79	6.375	96.794	96.857
G	476+90.79	6.375	96.694	96.672
☉ Pier 1	476+97.25	6.375	96.628	96.628
H	477+07.25	6.375	96.528	96.810
I	477+17.25	6.375	96.428	97.155
J	477+27.25	6.375	96.328	97.290
K	477+37.25	6.375	96.228	97.590
L	477+47.25	6.375	96.128	97.701
M	477+57.25	6.375	96.028	97.569
N	477+67.25	6.375	95.928	97.362
O	477+77.25	6.375	95.828	96.906
P	477+87.25	6.375	95.728	96.355
Q	477+97.25	6.375	95.628	95.850
☉ Pier 2	478+09.58	6.375	95.505	95.505
R	478+19.58	6.375	95.405	95.476
S	478+29.58	6.375	95.305	95.636
T	478+39.58	6.375	95.205	95.695
U	478+49.58	6.375	95.105	95.900
V	478+59.58	6.375	95.005	95.986
W	478+69.58	6.375	94.905	95.886
X	478+79.58	6.375	94.805	95.714
Y	478+89.58	6.375	94.705	95.356
Z	478+99.58	6.375	94.605	94.936
AA	479+09.58	6.375	94.505	94.576
☉ Pier 3	479+21.92	6.375	94.382	94.382
BB	479+31.92	6.375	94.282	94.504
CC	479+41.92	6.375	94.182	94.808
DD	479+51.92	6.375	94.082	94.936
EE	479+61.92	6.375	93.982	95.258
FF	479+71.92	6.375	93.882	95.422
GG	479+81.92	6.375	93.782	95.355
HH	479+91.92	6.375	93.682	95.177
II	480+01.92	6.375	93.582	94.761
JJ	480+11.92	6.375	93.482	94.208
KK	480+21.92	6.375	93.382	93.663
			0.000	
☉ Pier 4	480+34.25	6.375	93.258	93.258
LL	480+44.25	6.375	93.158	93.170
MM	480+54.25	6.375	93.058	93.188
NN	480+64.25	6.375	92.958	93.317
OO	480+74.25	6.375	92.858	93.343
PP	480+84.25	6.375	92.758	93.304
QQ	480+94.25	6.375	92.658	93.072
RR	481+04.25	6.375	92.558	92.787
☉ E. Brg.	481+10.71	6.375	92.493	92.494
Bk. E. Abut.	481+13.75	6.375	92.463	92.463

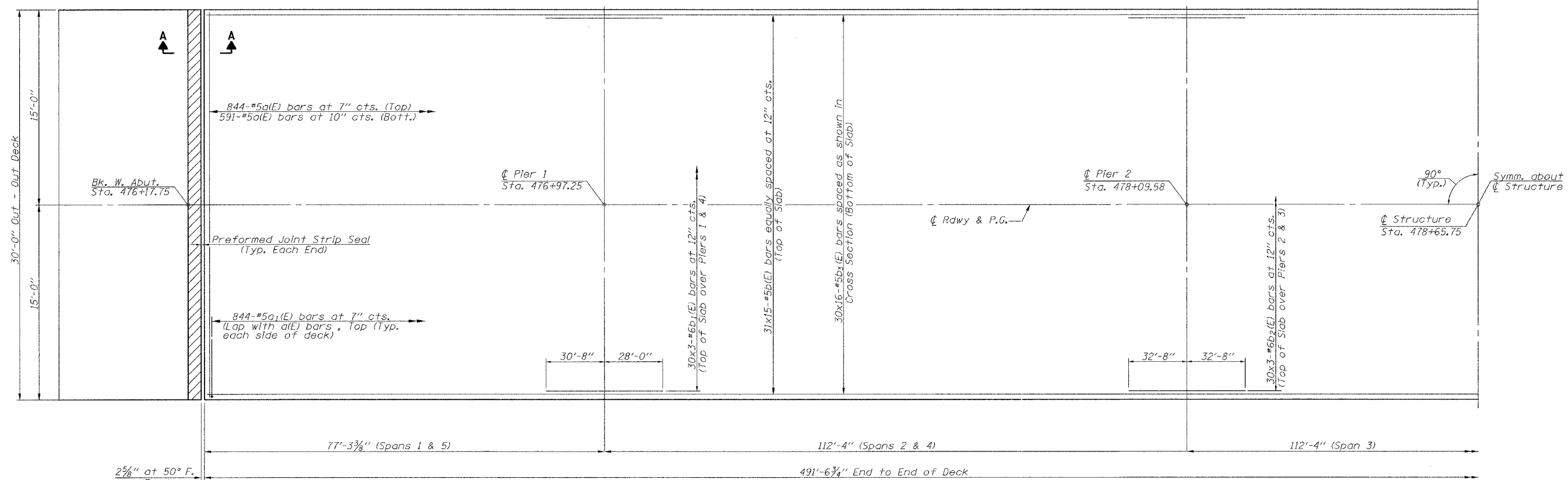
BEAM 5

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevation Adjusted For Dead Load Deflection
Bk. W. Abut.	476+17.75	12.750	97.324	97.324
☉ W. Brg.	476+20.79	12.750	97.293	97.293
A	476+30.79	12.750	97.193	97.558
B	476+40.79	12.750	97.093	97.624
C	476+50.79	12.750	96.993	97.599
D	476+60.79	12.750	96.893	97.431
E	476+70.79	12.750	96.793	97.106
F	476+80.79	12.750	96.693	96.764
G	476+90.79	12.750	96.593	96.570
☉ Pier 1	476+97.25	12.750	96.529	96.529
H	477+07.25	12.750	96.429	96.740
I	477+17.25	12.750	96.329	97.133
J	477+27.25	12.750	96.229	97.294
K	477+37.25	12.750	96.129	97.636
L	477+47.25	12.750	96.029	97.770
M	477+57.25	12.750	95.929	97.635
N	477+67.25	12.750	95.829	97.417
O	477+77.25	12.750	95.729	96.921
P	477+87.25	12.750	95.629	96.322
Q	477+97.25	12.750	95.529	95.775
☉ Pier 2	478+09.58	12.750	95.405	95.405
R	478+19.58	12.750	95.305	95.384
S	478+29.58	12.750	95.205	95.571
T	478+39.58	12.750	95.105	95.647
U	478+49.58	12.750	95.005	95.886
V	478+59.58	12.750	94.905	95.991
W	478+69.58	12.750	94.805	95.891
X	478+79.58	12.750	94.705	95.711
Y	478+89.58	12.750	94.605	95.326
Z	478+99.58	12.750	94.505	94.871
AA	479+09.58	12.750	94.405	94.484
☉ Pier 3	479+21.92	12.750	94.282	94.282
BB	479+31.92	12.750	94.182	94.428
CC	479+41.92	12.750	94.082	94.776
DD	479+51.92	12.750	93.982	94.928
EE	479+61.92	12.750	93.882	95.295
FF	479+71.92	12.750	93.782	95.488
GG	479+81.92	12.750	93.682	95.424
HH	479+91.92	12.750	93.582	95.238
II	480+01.92	12.750	93.482	94.788
JJ	480+11.92	12.750	93.382	94.186
KK	480+21.92	12.750	93.282	93.593
☉ Pier 4	480+34.25	12.750	93.159	93.159
LL	480+44.25	12.750	93.059	93.072
MM	480+54.25	12.750	92.959	93.102
NN	480+64.25	12.750	92.859	93.256
OO	480+74.25	12.750	92.759	93.296
PP	480+84.25	12.750	92.659	93.264
QQ	480+94.25	12.750	92.559	93.017
RR	481+04.25	12.750	92.459	92.712
☉ E. Brg.	481+10.71	12.750	92.394	92.394
Bk. E. Abut.	481+13.75	12.750	92.364	92.364

TOP OF SLAB ELEVATIONS
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

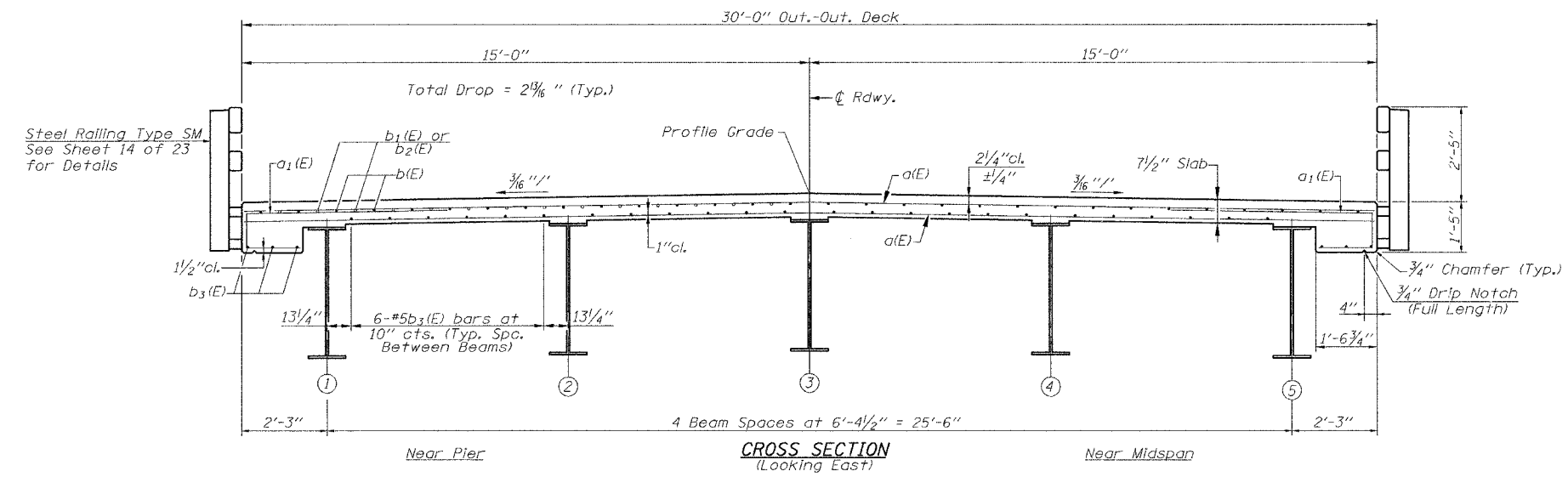
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	10
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 6 of 23 Sheets



MIN. BAR LAPS
 #5 bars = 1'-8"
 #6 bars = 2'-0"

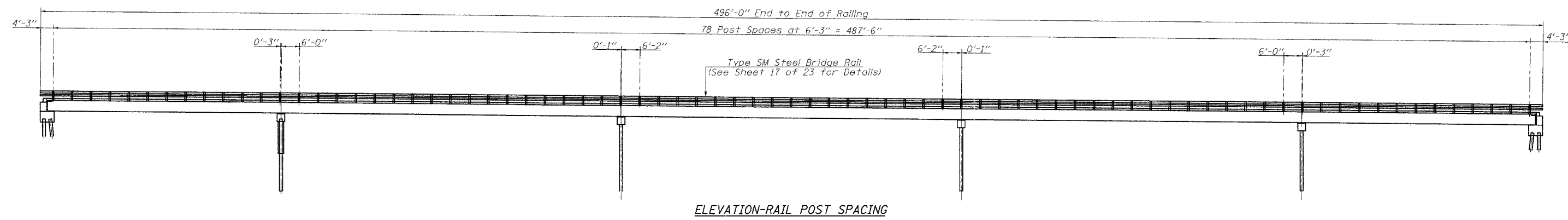
Notes:
 See Sheet 7 of 23 for Section A-A, Rail Post Spacing, Deck Pouring Sequence & Bill of Material.
 Bars indicated thus 31x5-5 etc. indicates 31 lines of bars with 5 lengths per line.
 Reinforcement in the top of the deck may be placed with a 1/2" min. clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.
 Reinforcement bars designated (E) shall be epoxy coated.



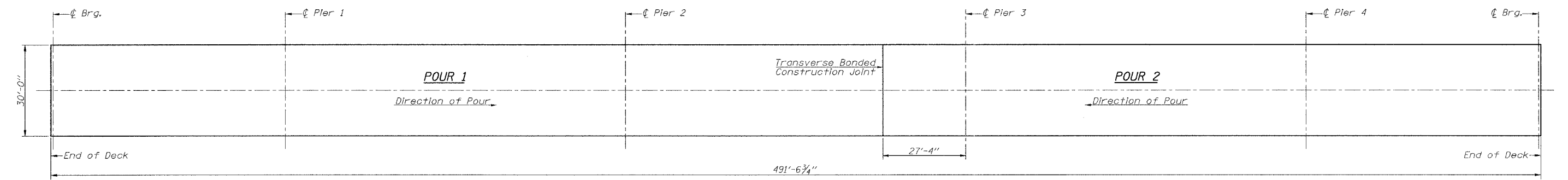
SUPERSTRUCTURE
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	11
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

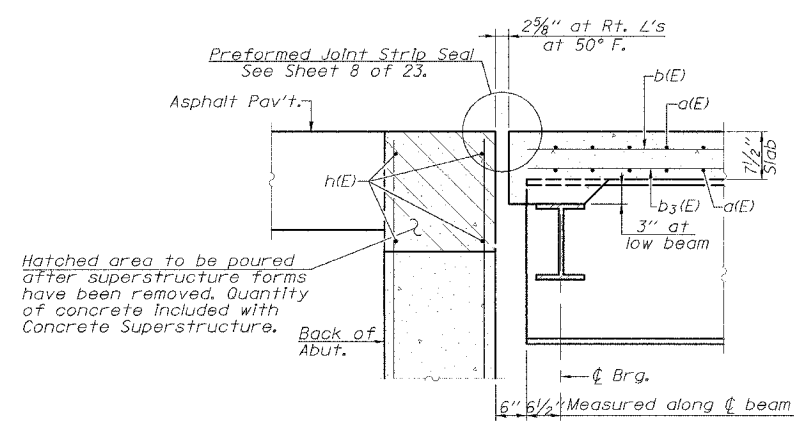
* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 7 of 23 Sheets



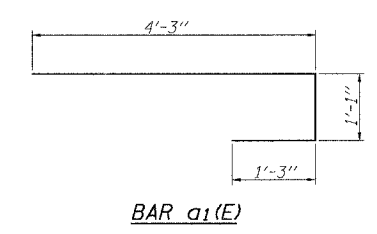
ELEVATION-RAIL POST SPACING



DECK POURING SEQUENCE
 The Contractor may alter the pouring sequence with the approval of the Engineer.



SECTION A-A



BAR a1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	1435	#5	29'-8"	—
a1(E)	1688	#5	6'-7"	□
b(E)	465	#5	34'-6"	—
b1(E)	180	#6	21'-7"	—
b2(E)	180	#6	23'-10"	—
b3(E)	480	#5	32'-5"	—
			Reinforcement Bars, Epoxy Coated	Lbs. 101230
			Concrete Superstructure	Cu. Yds. 409.7

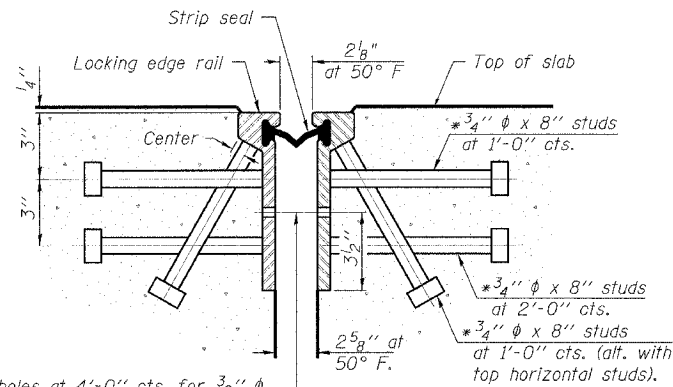
SUPERSTRUCTURE DETAILS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

FILE NAME: STRUCTURE PLANS (REV. 10/18/03)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	12
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

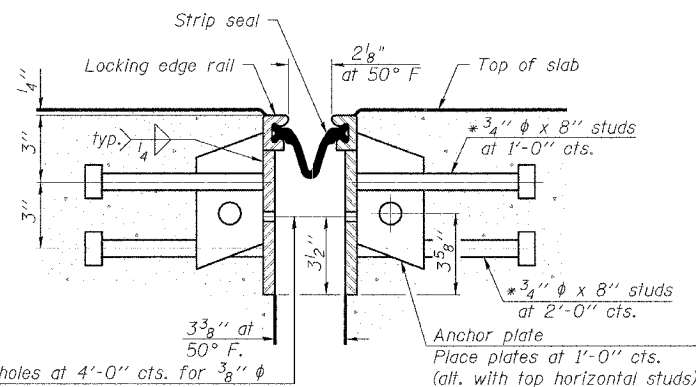
* 01-00071-00-BR Sheet No. 8 of 23 Sheets
CONTRACT NO. 97289

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



7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT



7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

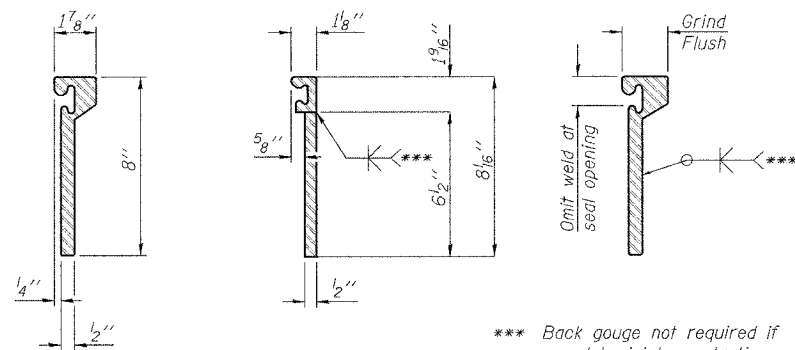
Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

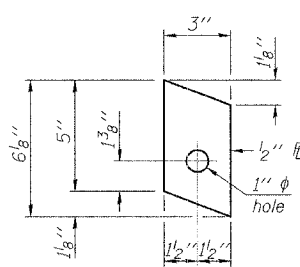
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications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



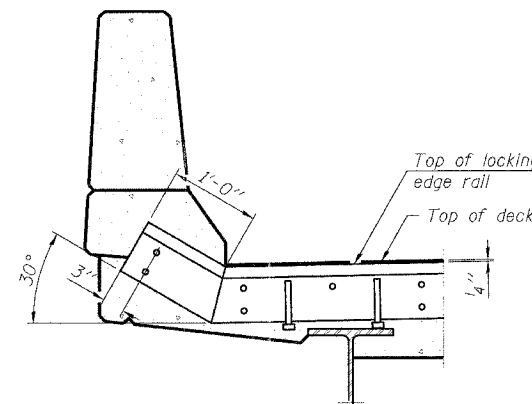
*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

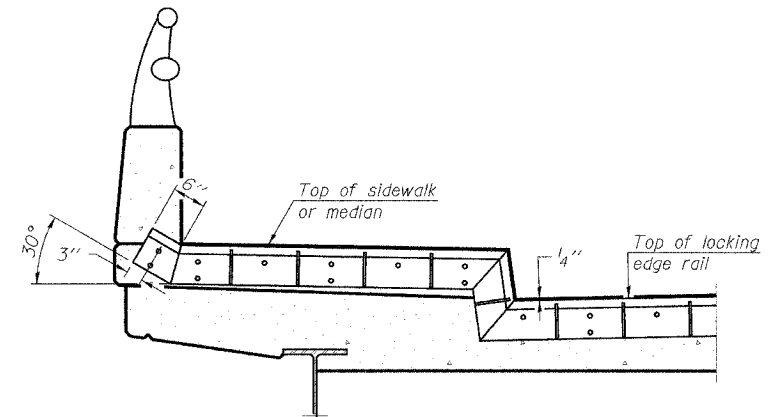
The inside of the locking edge rail groove shall be free of weld residue.



ANCHOR PLATE (for welded rail)



AT PARAPET

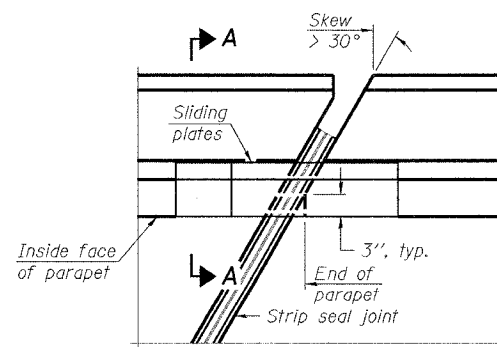


AT SIDEWALK OR MEDIAN

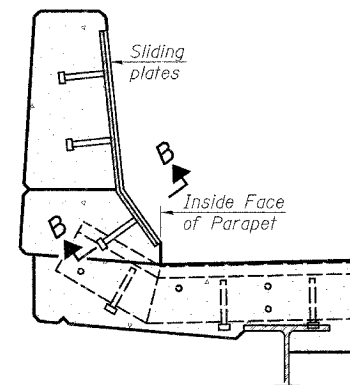
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

ROLLED (EXTRUDED) RAIL WELDED RAIL

TYPICAL END TREATMENTS

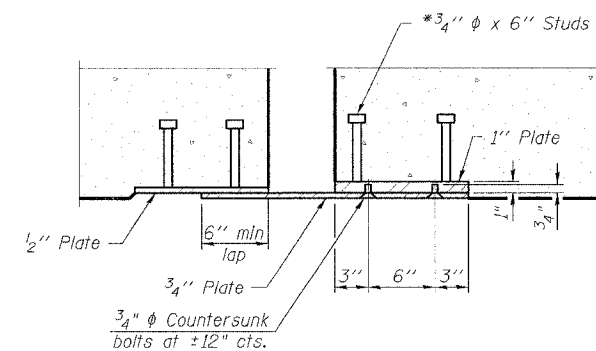


PLAN



SECTION A-A

POINT BLOCK DETAILS (for skews > 30°)



SECTION B-B

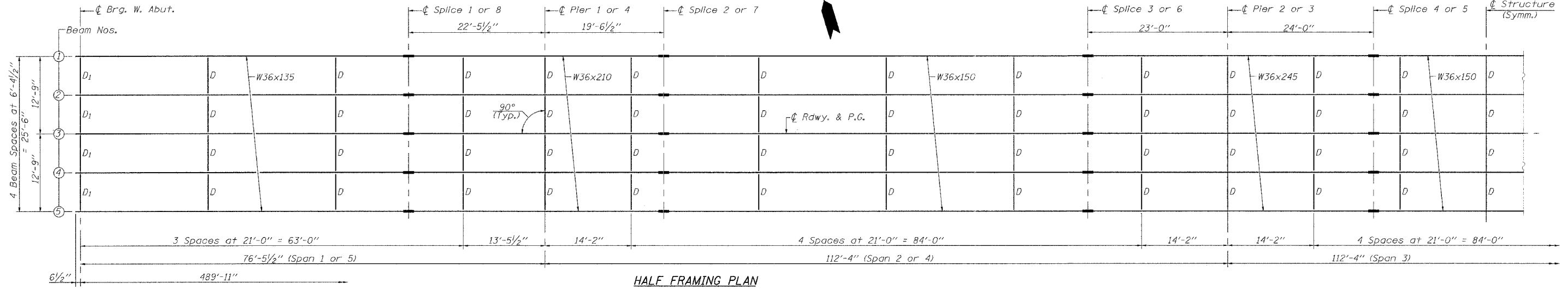
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	60

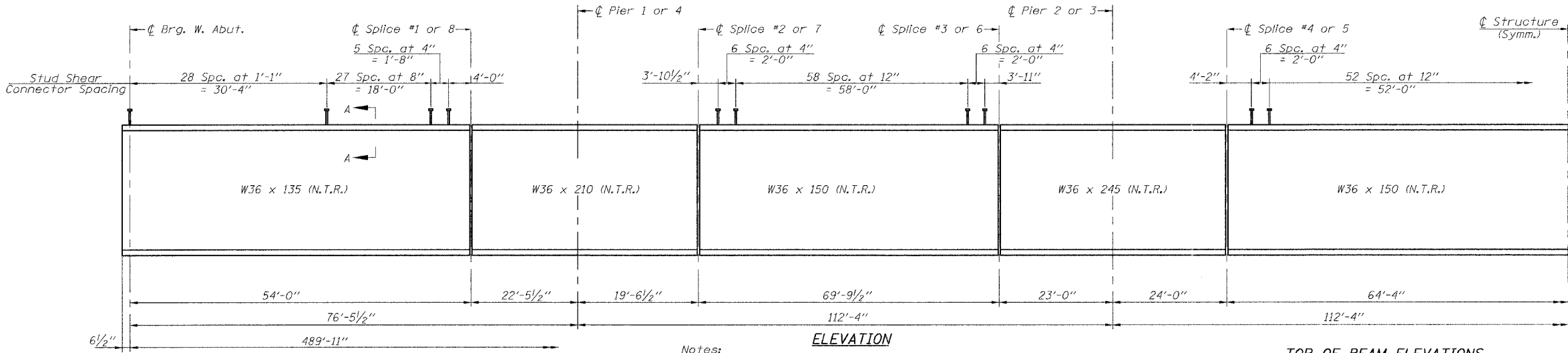
EXPANSION JOINTS (PREFORMED JOINT STRIP SEAL)
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	13
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 9 of 23 Sheets



HALF FRAMING PLAN



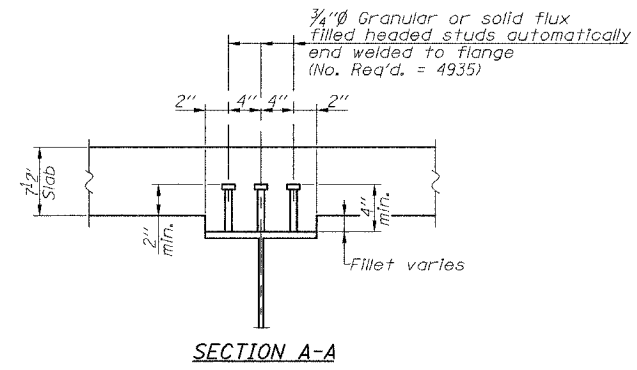
ELEVATION

Notes:
 N.T.R. denotes beams to which Notch Toughness requirements are applicable.
 All structural steel shall be A.A.S.H.T.O. M 270, Grade 50W.

TOP OF BEAM ELEVATIONS

LOCATION	Beam #1	Beam #2	Beam #3	Beam #4	Beam #5
W. Abut. Brg.	96.626	96.726	96.826	96.726	96.626
Splice #1 (W)	95.965	96.065	96.165	96.065	95.965
Splice #1 (E)	96.013	96.113	96.213	96.113	96.013
Pier #1	95.783	95.883	95.983	95.883	95.783
Splice #2 (W)	95.583	95.683	95.783	95.683	95.583
Splice #2 (E)	95.548	95.648	95.748	95.648	95.548
Splice #3 (W)	94.875	94.975	95.075	94.975	94.875
Splice #3 (E)	94.885	94.985	95.085	94.985	94.855
Pier #2	94.655	94.755	94.855	94.755	94.655
Splice #4 (W)	94.415	94.515	94.615	94.515	94.415
Splice #4 (E)	94.405	94.505	94.605	94.505	94.405
Splice #5 (W)	93.762	93.862	93.961	93.862	93.762
Splice #5 (E)	93.772	93.872	93.971	93.872	93.772
Pier #3	93.532	93.632	93.731	93.632	93.532
Splice #6 (W)	93.302	93.402	93.501	93.402	93.302
Splice #6 (E)	93.292	93.392	93.491	93.392	93.292
Splice #7 (W)	92.569	92.669	92.769	92.669	92.569
Splice #7 (E)	92.604	92.704	92.804	92.704	92.604
Pier #4	92.413	92.513	92.613	92.513	92.413
Splice #8 (W)	92.194	92.294	92.394	92.294	92.194
Splice #8 (E)	92.146	92.246	92.346	92.246	92.146
E. Abut. Brg.	91.727	91.827	91.926	91.827	91.727

Notes:
 Top of beam elevations are for fabrication only and do not include dead load deflections.



SECTION A-A

STRUCTURAL STEEL DETAILS
 E.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

INTERIOR BEAM MOMENT TABLE

		0.4 Span 1 or 0.6 Span 5	Pier #1 or Pier #4	0.5 Span 2 or 0.5 Span 4	Pier #2 or Pier #3	0.5 Span 3
Is	(in ⁴)	7800	13200	9040	16100	9040
Ic (n)	(in ⁴)	18590	-	20523	-	20523
Ic (3n)	(in ⁴)	13811	-	15259	-	15259
Ss	(in ³)	439	720	504	892	504
Sc (n)	(in ³)	610	-	682	-	682
Sc (3n)	(in ³)	554	-	621	-	621
Q	(K/ft)	0.77	1.18	0.79	1.22	0.79
M @	(ft-k)	237.5	1092.4	399.5	1358.2	322.7
S @	(K/ft)	0.32	-	0.32	-	0.32
Ms @	(ft-k)	113.4	-	190.4	-	154.5
M L	(ft-k)	530.4	522.4	680.4	660.6	674.6
M (Imp)	(ft-k)	131.6	119.6	143.6	139.4	142.4
5/8[M L + M (Imp)]	(ft-k)	1103.3	1070.0	1373.3	1333.3	1361.7
Ma	(ft-k)	1890.5	2811.1	2552.2	3499.0	2390.6
Fs @ non-comp k.s.i.		6.49	18.21	9.50	18.26	7.68
Fs @ (comp) k.s.i.		2.46	-	3.68	-	2.99
Fs 5/8(L + Imp) k.s.i.		21.73	17.83	24.17	17.93	23.97
Fs (Overload) k.s.i.		30.68	36.04	37.35	36.19	34.64
Fs (Total) k.s.i.		39.88	46.85	48.56	47.05	45.03
VR	(k)	56	-	58	-	57

EXTERIOR BEAM MOMENT TABLE

		0.4 Span 1 or 0.6 Span 5	Pier #1 or Pier #4	0.5 Span 2 or 0.5 Span 4	Pier #2 or Pier #3	0.5 Span 3
Is	(in ⁴)	7800	13200	9040	16100	9040
Ic (n)	(in ⁴)	17885	-	19728	-	19728
Ic (3n)	(in ⁴)	13191	-	14595	-	14595
Ss	(in ³)	439	720	504	892	504
Sc (n)	(in ³)	602	-	674	-	674
Sc (3n)	(in ³)	545	-	611	-	611
Q	(K/ft)	0.86	1.273	0.88	1.32	0.88
M @	(ft-k)	265.1	1185.2	443.1	1469.2	357.2
S @	(K/ft)	0.32	-	0.32	-	0.32
Ms @	(ft-k)	112.2	-	187.5	-	151.7
M L	(ft-k)	520.4	531.3	664.7	672.2	659.8
M (Imp)	(ft-k)	129.6	121.7	140.3	141.8	139.2
5/8[M L + M (Imp)]	(ft-k)	1083.3	1088.3	1341.7	1356.7	1331.7
Ma	(ft-k)	1898.8	2955.6	2564.0	3673.7	2392.8
Fs @ non-comp k.s.i.		7.25	19.72	10.54	19.76	8.50
Fs @ (comp) k.s.i.		2.47	-	3.68	-	2.98
Fs 5/8(L + Imp) k.s.i.		21.58	18.15	23.88	18.23	23.70
Fs (Overload) k.s.i.		31.30	37.87	38.10	37.99	35.20
Fs (Total) k.s.i.		40.69	49.23	49.50	49.40	45.76
VR	(k)	49	-	51	-	51

INTERIOR BEAM REACTION TABLE

		Abuts.	Piers 1 & 4	Piers 2 & 3
R @	(k)	28.7	119.5	132.4
R L	(k)	40.0	56.8	62.3
Imp.	(k)	10.0	13.0	13.1
R (Total)	(k)	78.7	189.3	207.8

Note: Reactions are not factored

EXTERIOR BEAM REACTION TABLE

		Abuts.	Piers 1 & 4	Piers 2 & 3
R @	(k)	30.9	129.1	142.7
R L	(k)	35.1	57.3	62.8
Imp.	(k)	8.7	13.1	13.3
R (Total)	(k)	74.7	199.5	218.7

Note: Reactions are not factored

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

Ic(n) and Sc(n) are the moment of Inertia and section modulus of the composite section used in computing stresses due to Live Load.

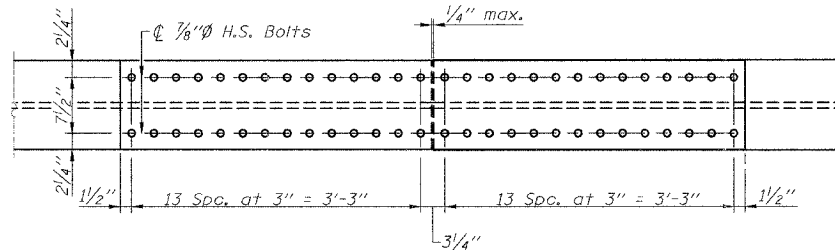
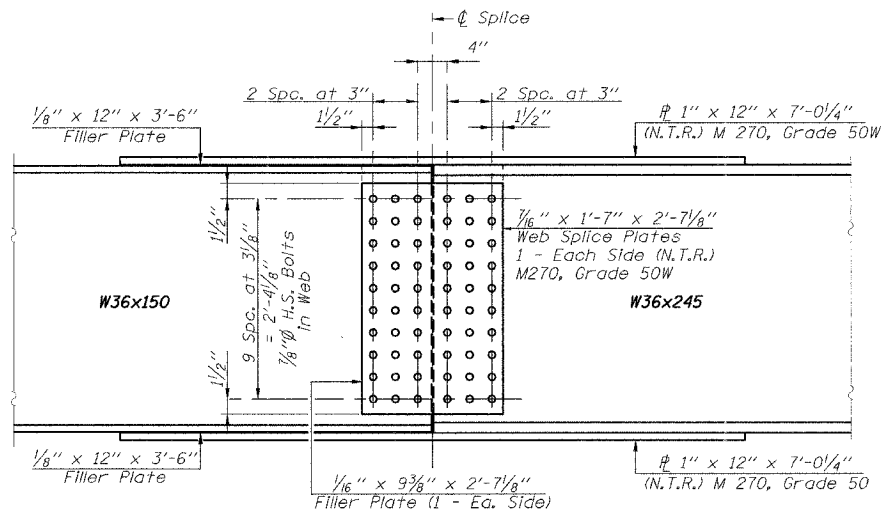
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (See AASHTO 10.38).

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

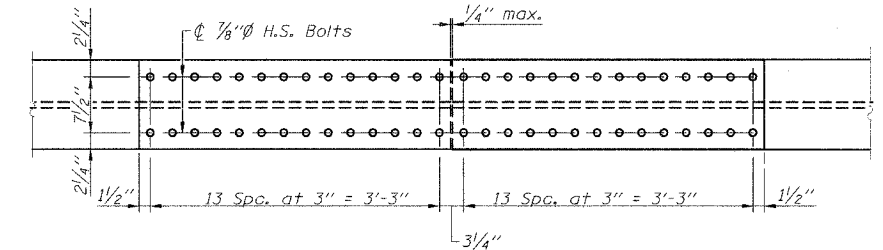
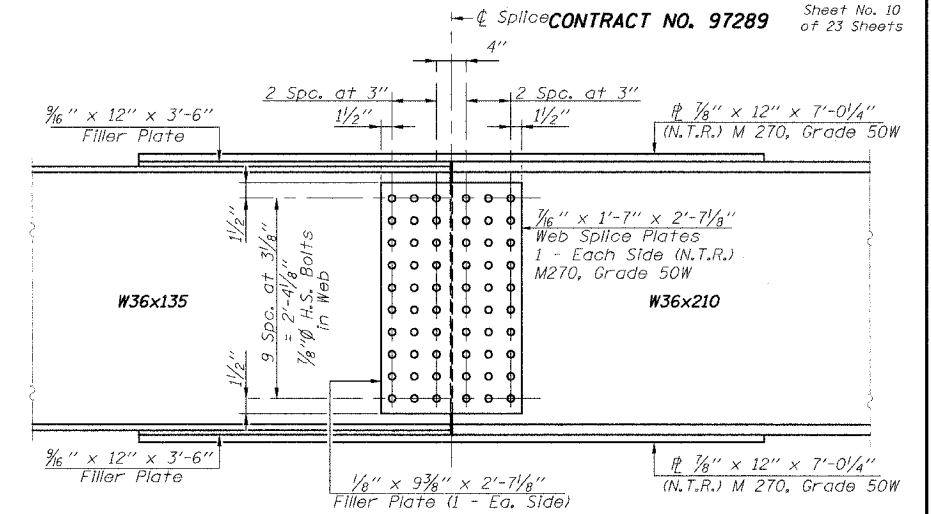
Ma (Applied Moment) = 1.3 [M @ + Ms @ + 5/8(M L + M Imp)]

Fs (Overload) is the sum of the stresses due to M @ + Ms @ + 5/8(M L + M Imp).

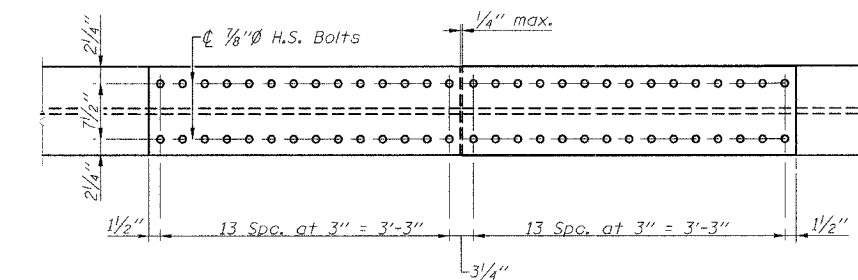
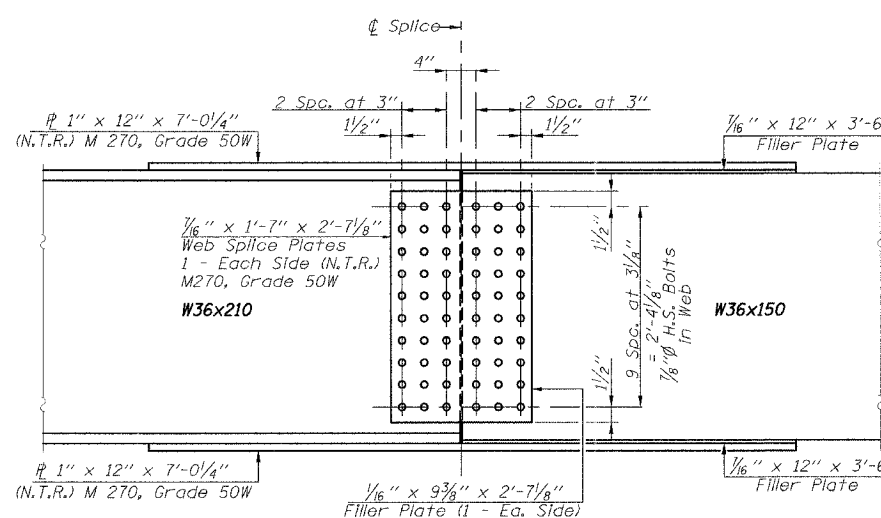
Fs(Total) (Non-compact section) is the sum of the stresses due to 1.3[M @ + Ms @ + 5/8(M L + M Imp)].



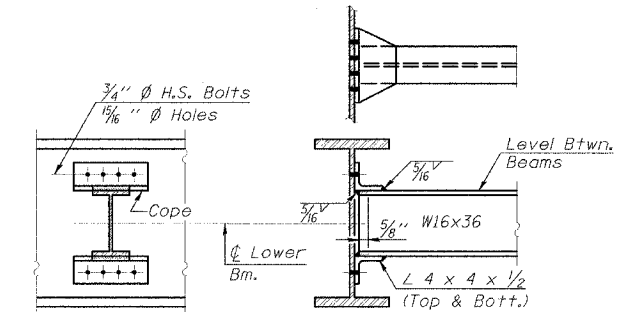
SPLICE NOS. 3, 4, 5 & 6



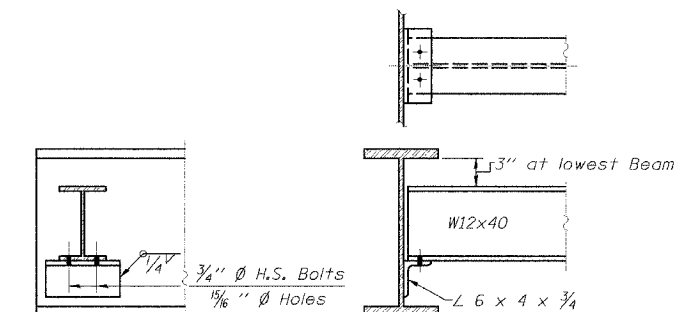
SPLICE NOS. 1 & 8



SPLICE NOS. 2 & 7



DIAPHRAGM D
(100 Required)

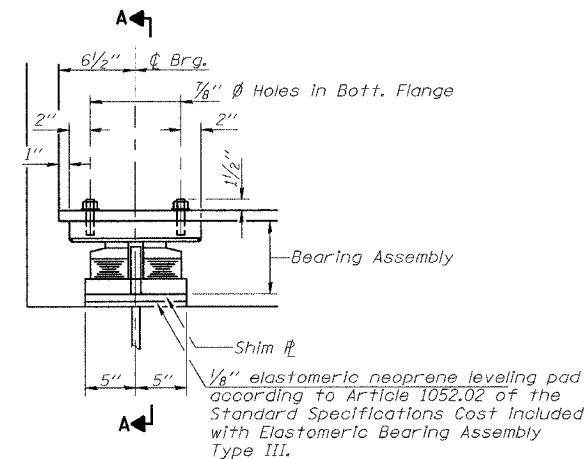


DIAPHRAGM D1
(8 Required)

STRUCTURAL STEEL DETAILS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

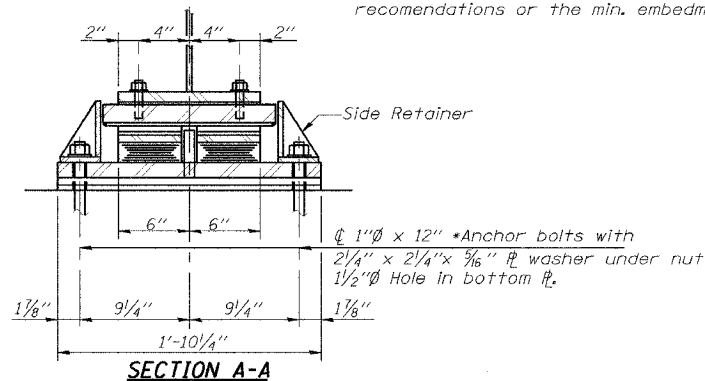
* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 11 of 23 Sheets



ELEVATION AT ABUT.

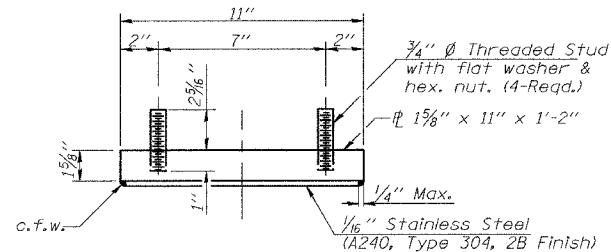
TYPE III ELASTOMERIC EXP. BRG.
 (10 Required)

* Length shown is the required total length for the Illinois Coil Anchor Bolt. The required total length for the sealed capsule alternate anchor bolts shall be the greater of the manufacturer's recommendations or the min. embedments provided.

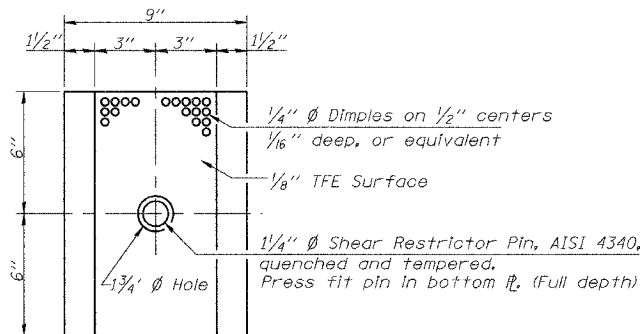


SECTION A-A

Notes:
 See sheet 13 of 23 for Anchor Bolt Installation.
 All bearing plates & shim plates shall be AASHTO M 270, Grade 50W.

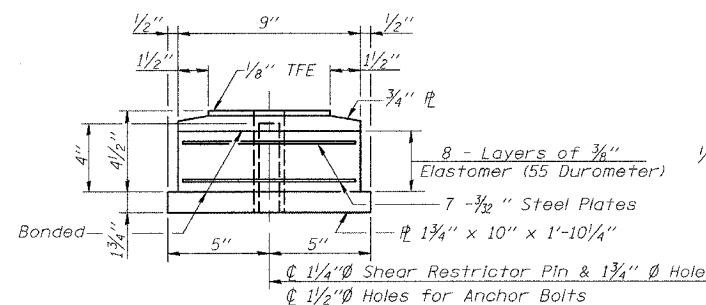


TOP BEARING ASSEMBLY

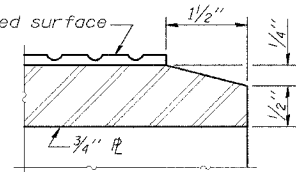


PLAN-TFE ELASTOMERIC BRG.

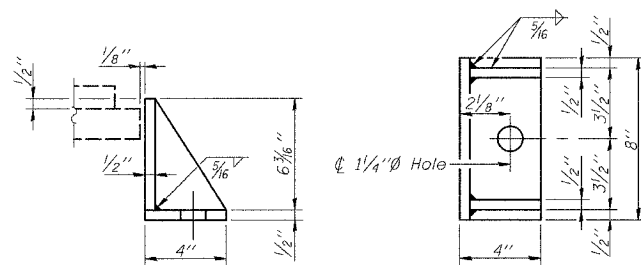
Notes:
 The 1/8 inch TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. Bonding of 1/8 inch TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



BOTTOM BEARING ASSEMBLY

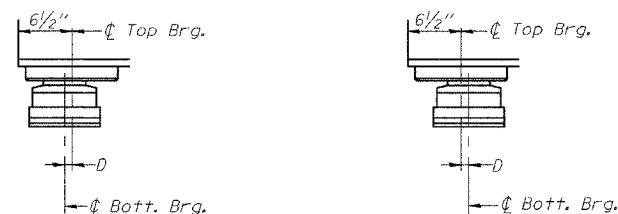


SECTION THRU TFE



SIDE RETAINER

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



BELOW 50° F. (Move bott. brg. away from fixed brg.)
 ABOVE 50° F. (Move bott. brg. toward fixed brg.)
SETTING ANCHOR BOLTS AT EXP. BRG.

MIN. ANCHOR BOLT EMBEDMENT REQUIREMENTS

- 1"Ø - Set 10" min. into concrete
- 1 1/4"Ø - Set 12" min. into concrete
- 1 1/2"Ø - Set 15" min. into concrete

BILL OF MATERIAL

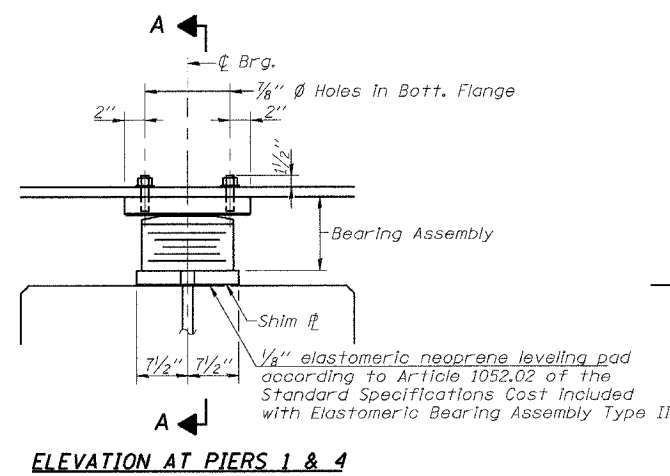
Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	10

BEARING DETAILS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

I-2-E3

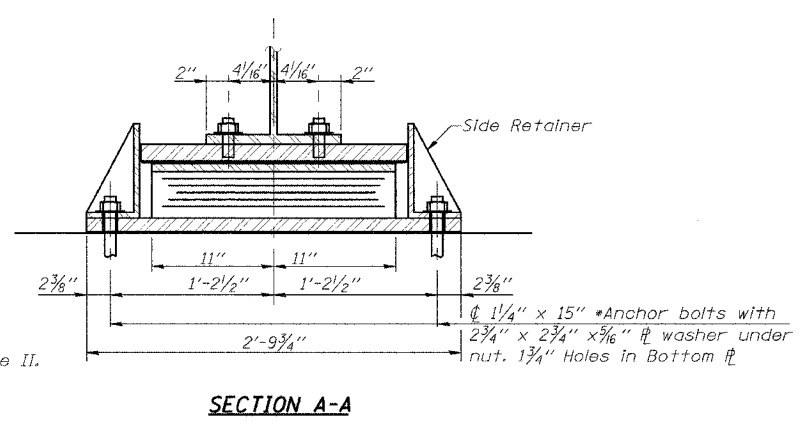
10-22-04

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

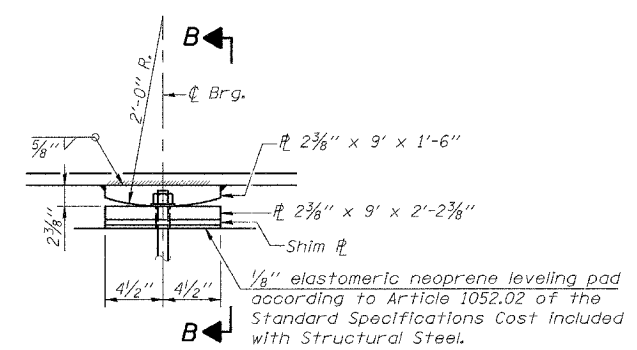


ELEVATION AT PIERS 1 & 4

TYPE II ELASTOMERIC EXP. BRG.
(10 Required)

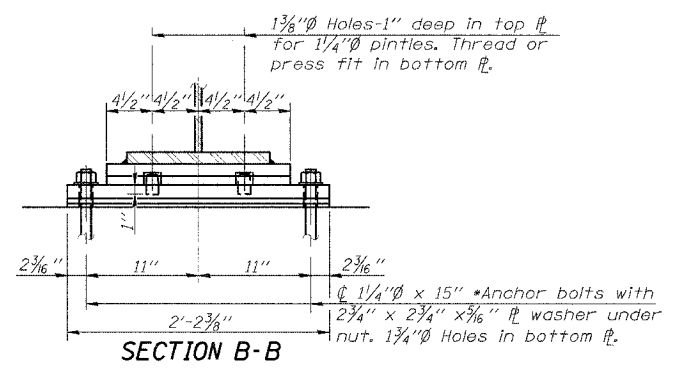


SECTION A-A



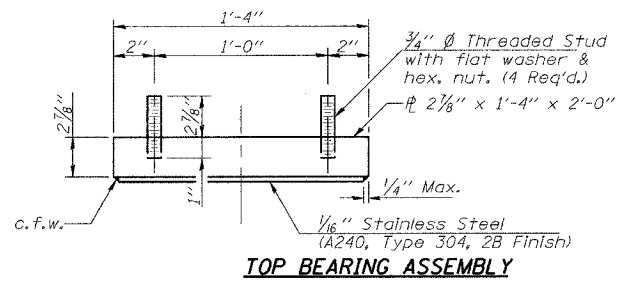
ELEVATION AT PIERS 2 & 3

FIXED BEARING

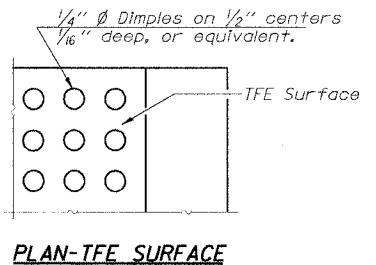


SECTION B-B

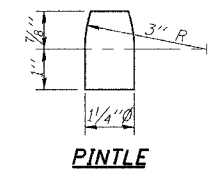
Notes:
 Anchor bolts at fixed bearings may be built into the masonry.
 See sheet 13 of 23 for Anchor Bolt Installation.
 All bearing plates, pintles & shim plates shall be AASHTO M 270, Grade 50W.



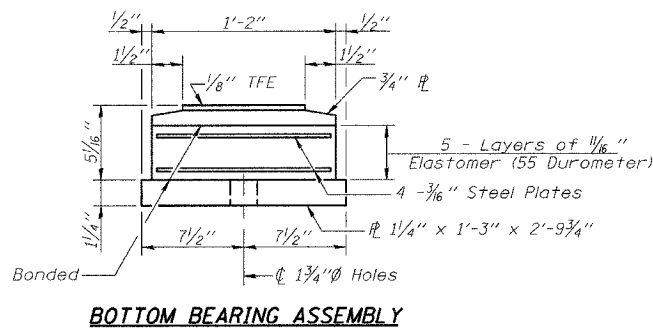
TOP BEARING ASSEMBLY



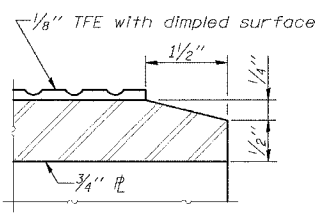
PLAN-TFE SURFACE



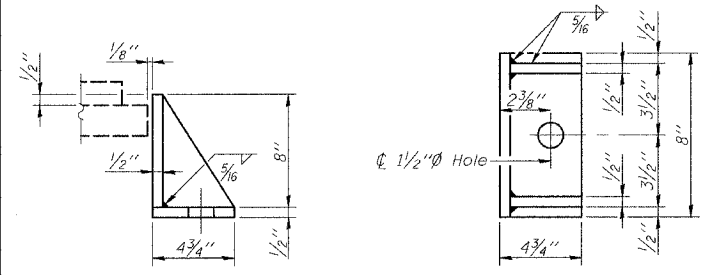
PINTE



BOTTOM BEARING ASSEMBLY



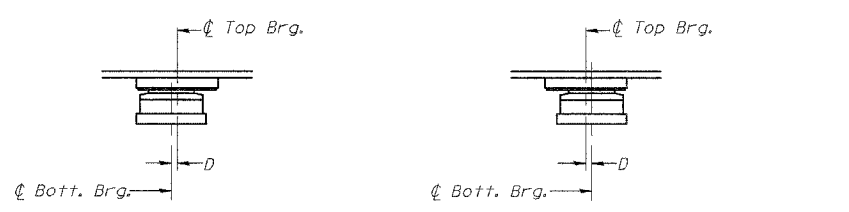
SECTION THRU TFE



SIDE RETAINER

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

Notes:
 The $\frac{1}{8}$ " 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 $\frac{1}{8}$ " 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= $\frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

MIN. ANCHOR BOLT EMBEDMENT REQUIREMENTS

- 1" ϕ - Set 10" min. into concrete
- 1 1/4" ϕ - Set 12" min. into concrete
- 1 1/2" ϕ - Set 15" min. into concrete

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	10

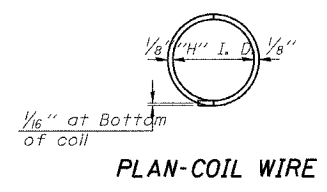
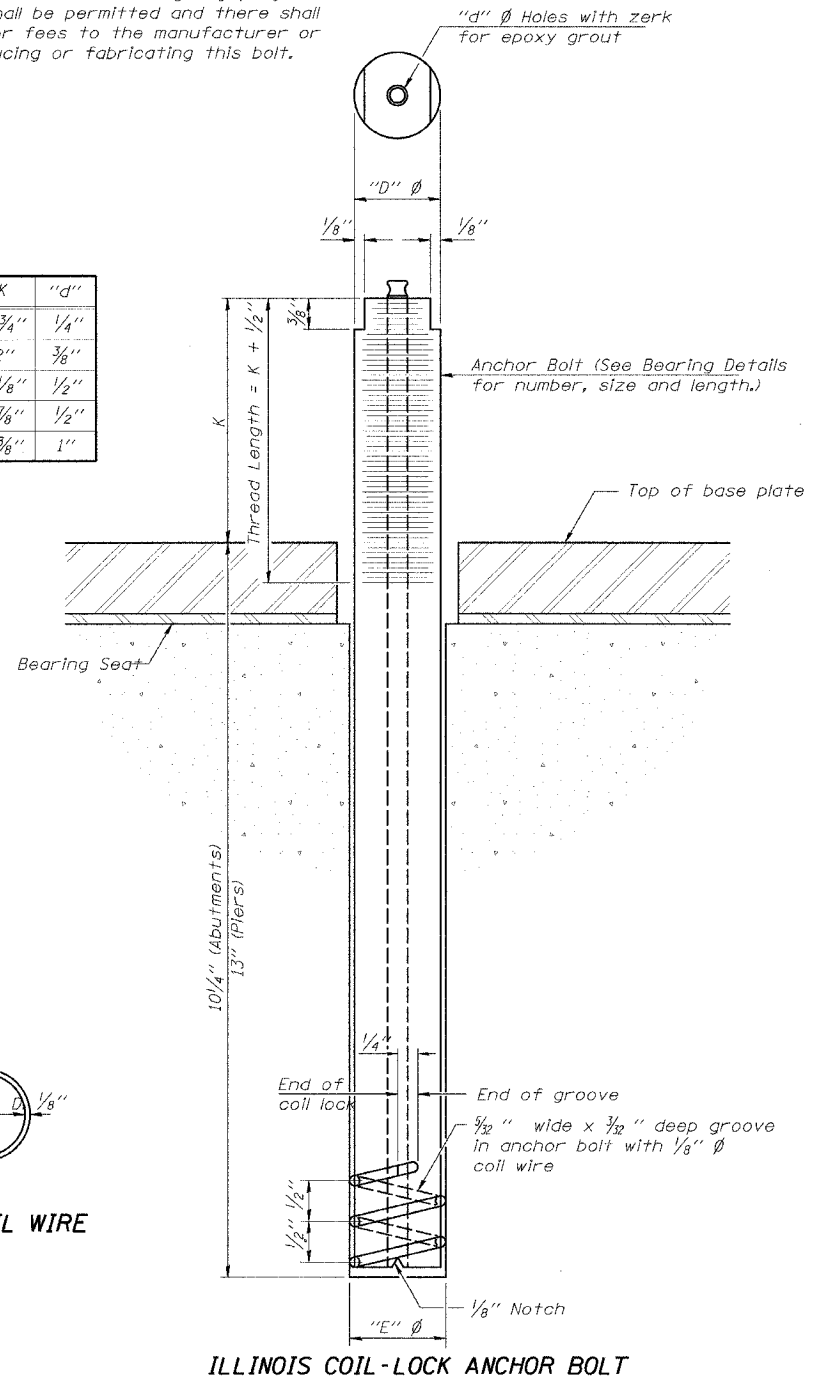
BEARING DETAILS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	17
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 13 of 23 Sheets

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.

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



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 I 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
Abutments	A 307
Piers	A 325

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.

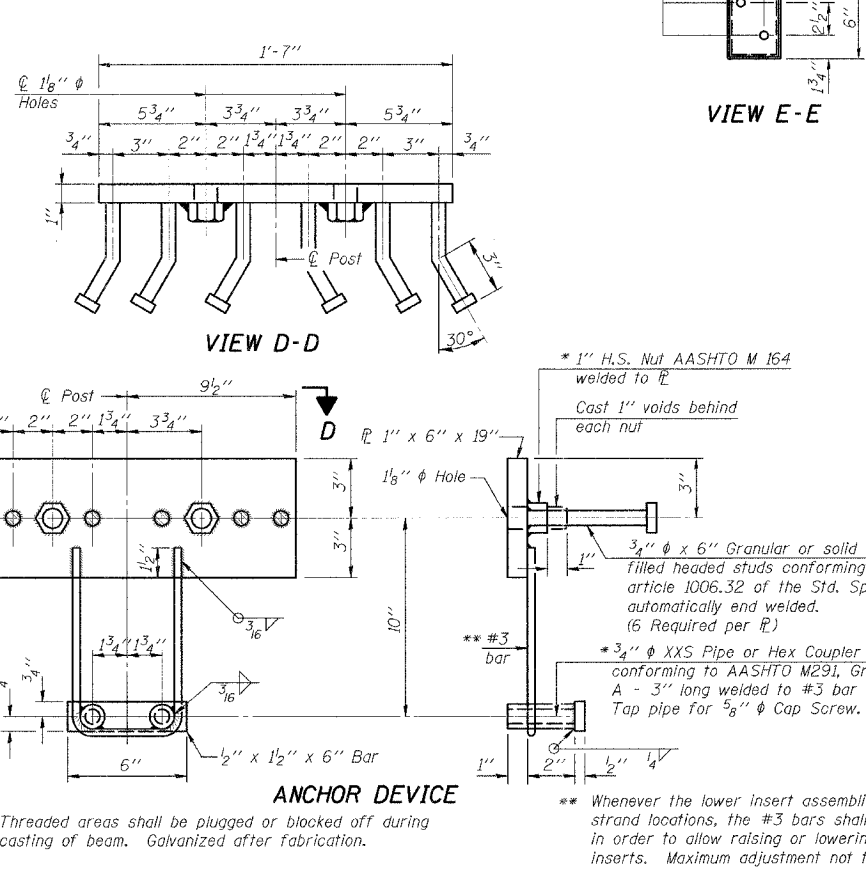
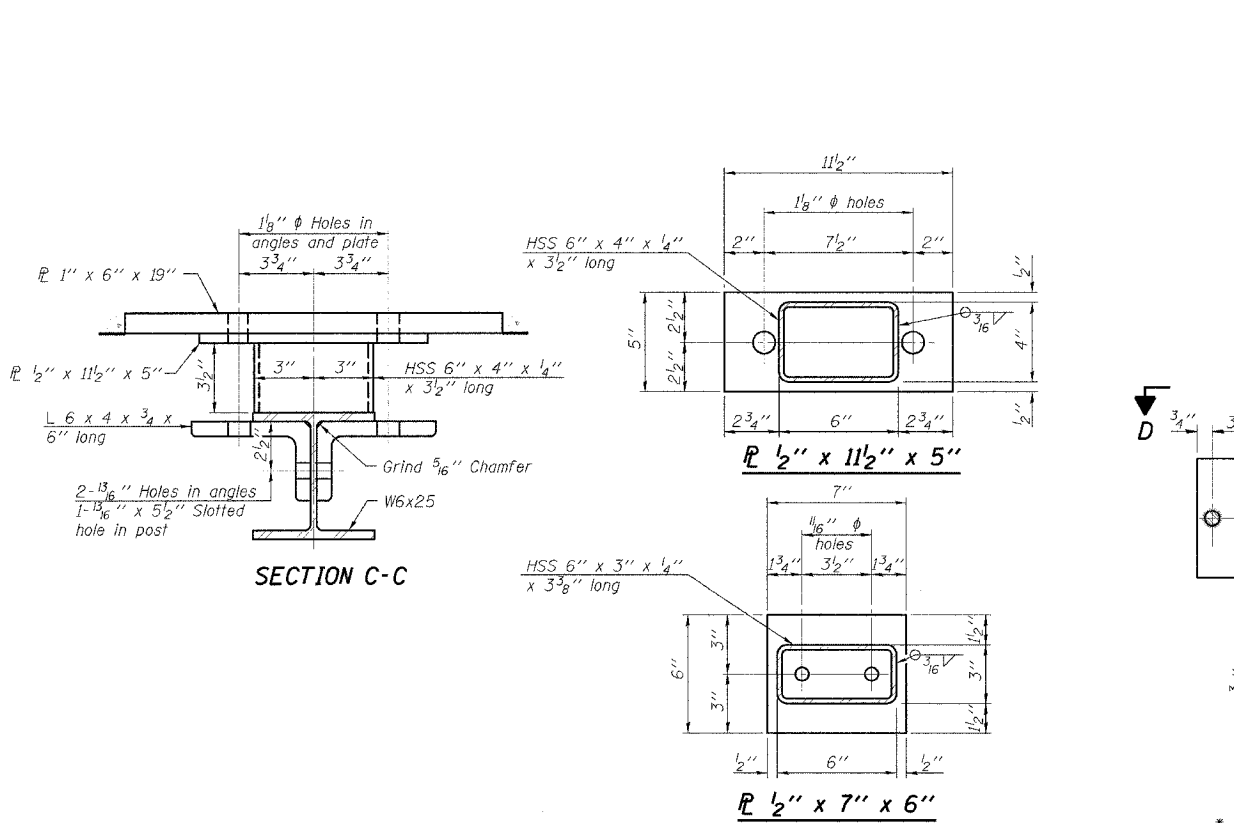
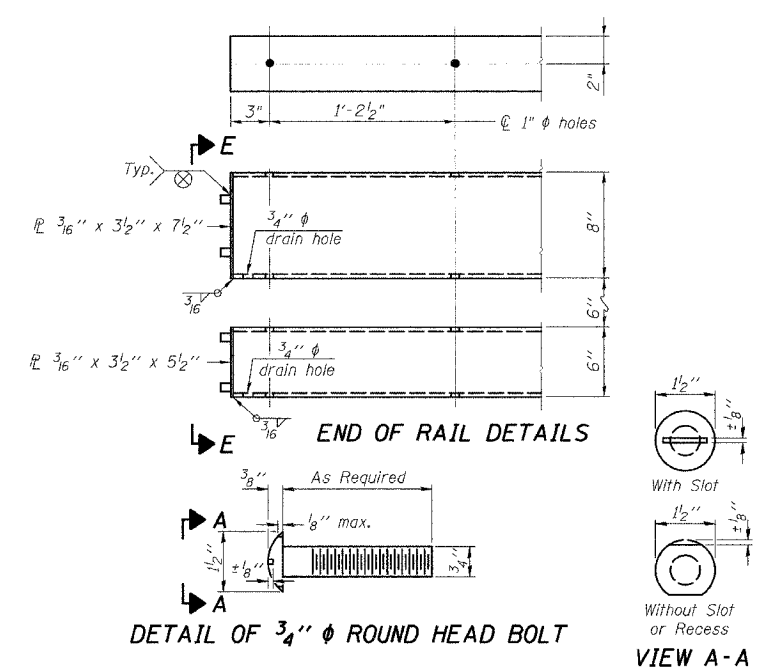
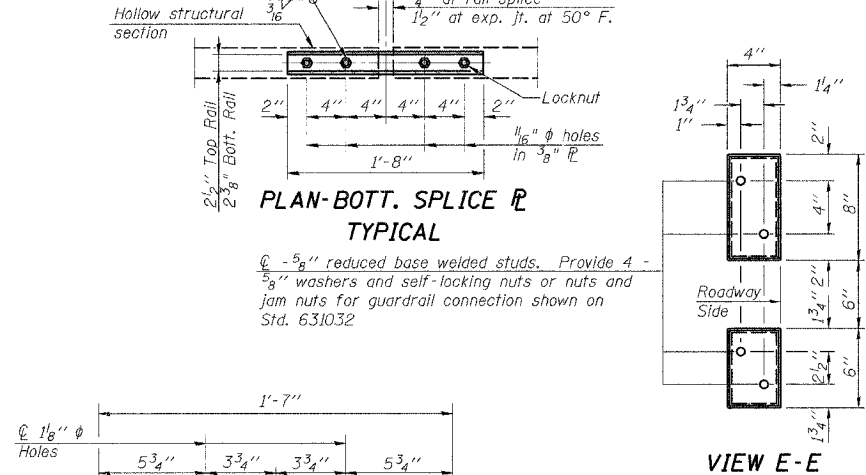
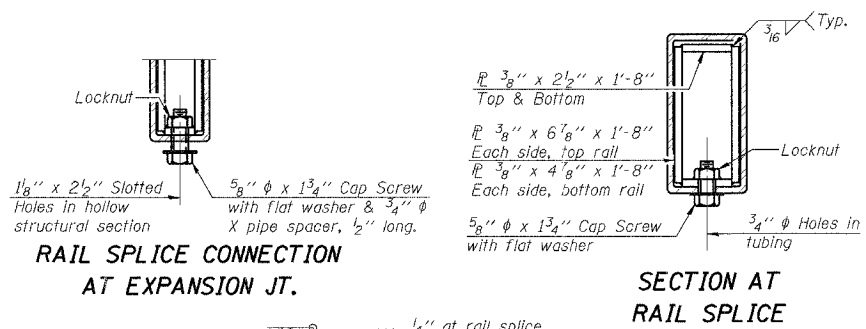
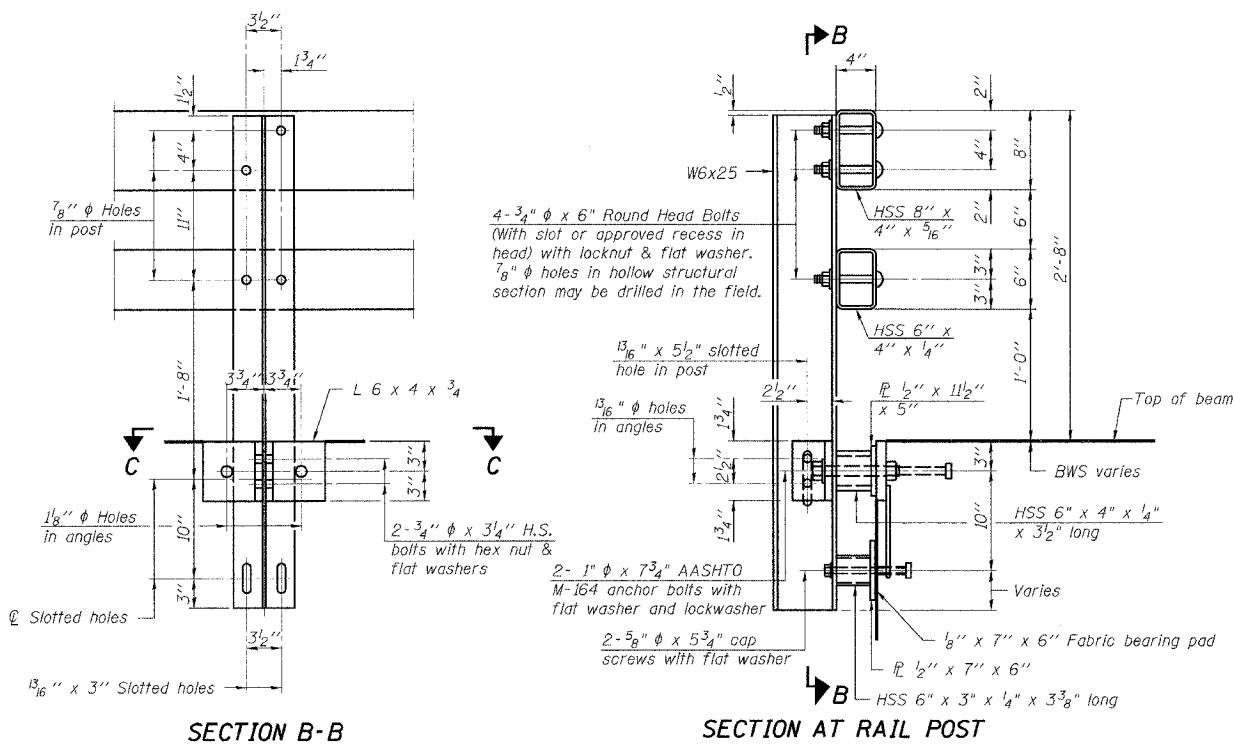
ANCHOR BOLT DETAILS FOR BEARINGS
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

FILE NAME: STRUCTURE PLANS (REV. 10/12/06)

ABB-1 10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	18
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 14 of 23 Sheets



NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.

The 3/4" φ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" φ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" φ cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

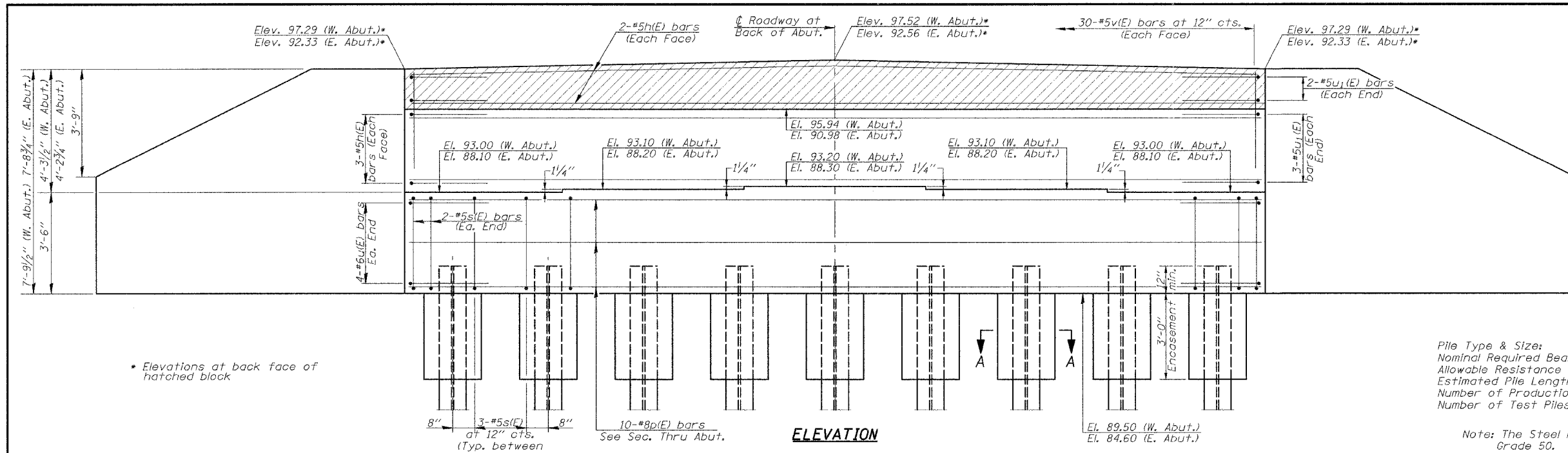
Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	992

**TYPE SM
 STEEL BRIDGE RAIL SIDE MOUNTED
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY**

FILE NAME: STRUCTURE PLANS BR.V. 10/12/06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

01-00071-00-BR
CONTRACT NO. 97289
 Sheet No. 15 of 23 Sheets



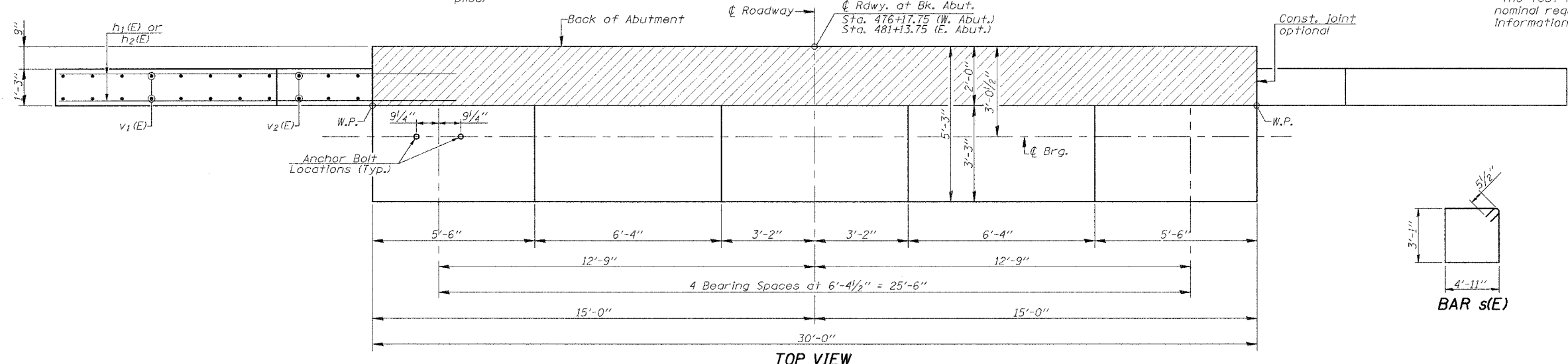
* Elevations at back face of hatched block

ELEVATION

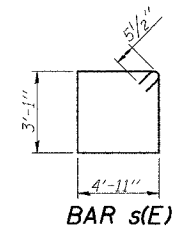
PILE DATA

	W. Abut.	E. Abut.
Pile Type & Size:	Steel HP 12x53	Steel HP 12x53
Nominal Required Bearing:	418.5 kips	418.5 kips
Allowable Resistance Available: Driven to refusal	70'	55'
Estimated Pile Length:	8	1
Number of Production:	1	1
Number of Test Piles:		

Note: The Steel H-piles shall be according to AASHTO M 270, Grade 50.
 The Test Piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data information.



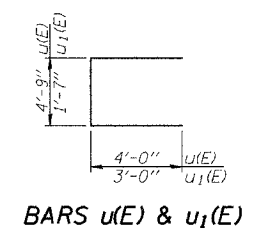
TOP VIEW



TWO ABUTMENTS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	29'-8"	-----
h ₁ (E)	56	#6	13'-1"	=====
h ₂ (E)	16	#5	11'-0"	=====
p(E)	20	#8	29'-8"	-----
s(E)	56	#5	16'-11"	□
u(E)	16	#6	12'-9"	=====
u ₁ (E)	20	#5	7'-7"	=====
v(E)	120	#5	6'-1"	-----
v ₁ (E)	32	#4	11'-0"	=====
v ₂ (E)	24	#4	7'-4"	=====
Structure Excavation		Cu. Yd.	301	
Concrete Structures		Cu. Yd.	67.3	
Reinforcement Bars, Epoxy Coated		Pound	6055	
Furnishing Steel Piles HP 12x53		Foot	1000	
Driving Steel Piles		Foot	1000	
Test Pile, Steel HP 12x53		Each	2	

Reinforcement bars designated (E) shall be epoxy coated.
 Work this with Sheet 16 of 23.



BARS u(E) & u₁(E)

ABUTMENTS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

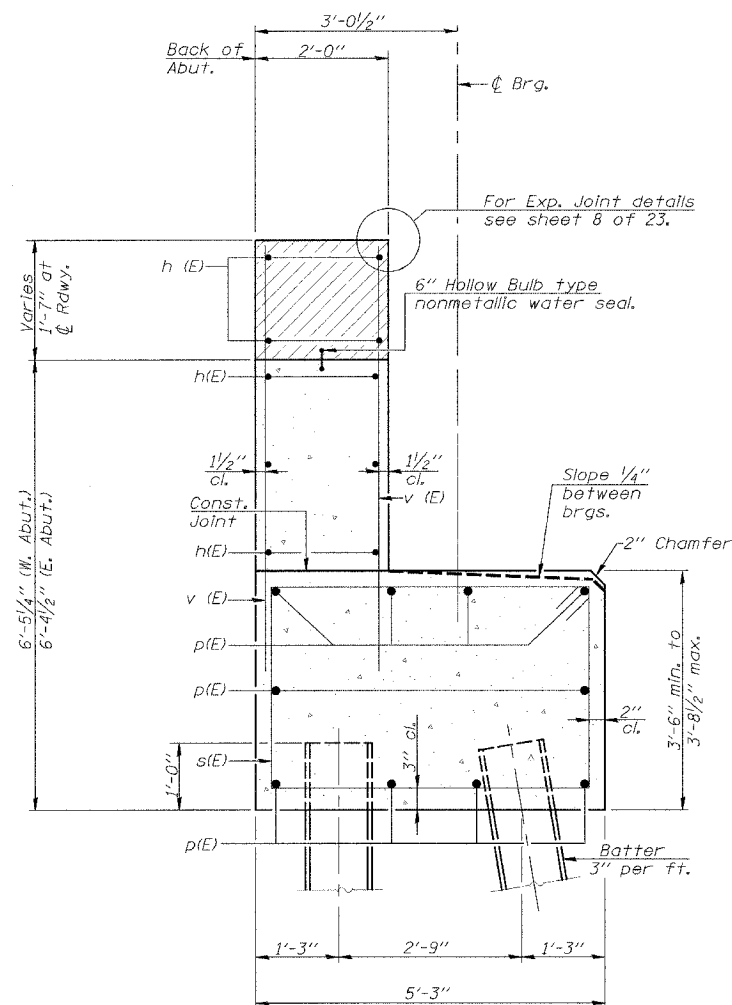
FILE NAME: STRUCTURE PLANS (REV. 10/18/06)

A-1 10-22-04

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	20
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

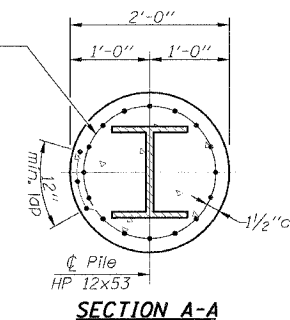
* 01-00071-00-BR

CONTRACT NO. 97289 Sheet No. 16 of 23 Sheets

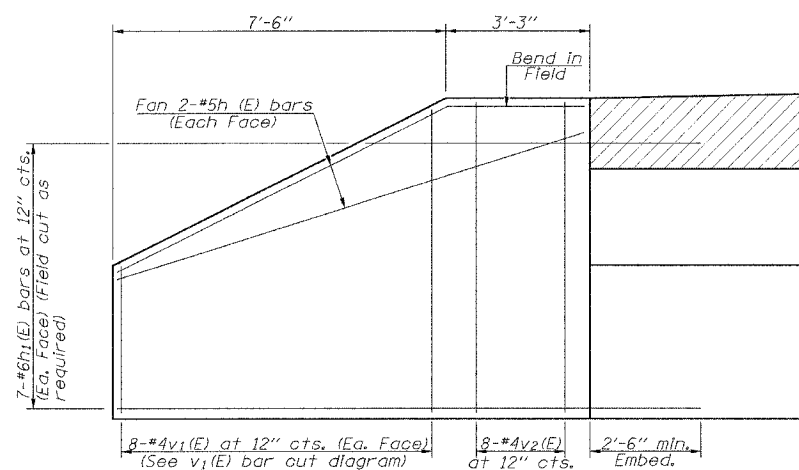


SEC. THRU ABUT.

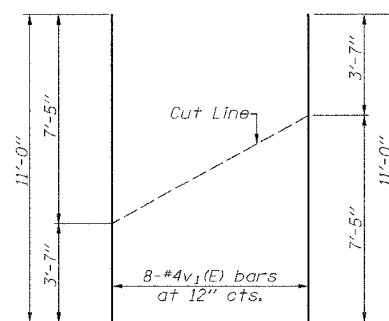
Welded Wire Fabric 6x6-W4.0-W4.0 weighing 58#/100 sq.ft. The cost of Excavating, Concrete Encasement and Reinforcement is included with furnishing piles. Forms for Encasement may be omitted when soil conditions permit.



SECTION A-A



WINGWALL ELEVATION



v1(E) BAR CUT DIAGRAM

Order v1(E) bars full length; Layout in field according to diagram. Cut v1(E) bars along cut line. Use remainder of each bar in opposite face.

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 7 of 23. Work this sheet with Sheet 15 of 23.

ABUTMENTS
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

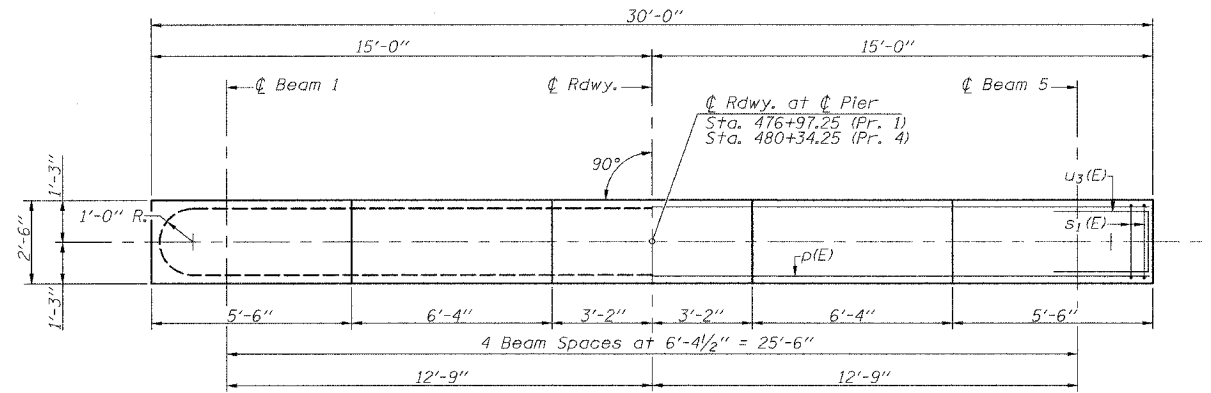
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	21
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 17 of 23 Sheets

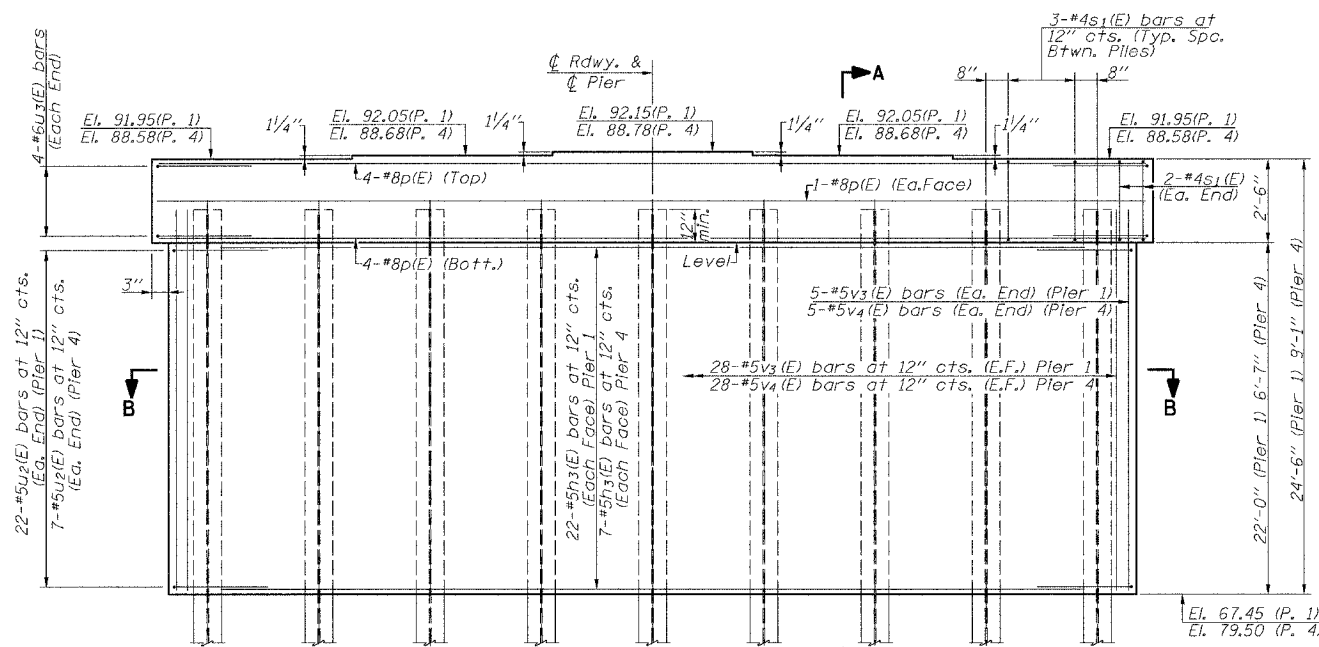
PILE DATA

Pier No. 1	Pier No. 4
Steel HP 12x53	Steel HP 12x53
Nominal Required Bearing: 418.5 kips	418.5 kips
Allowable Resistance Available: Driven to refusal	Driven to refusal
Estimated Pile Length: 60'	50'
Number of Production: 8	8
Number of Test Piles: 1	1

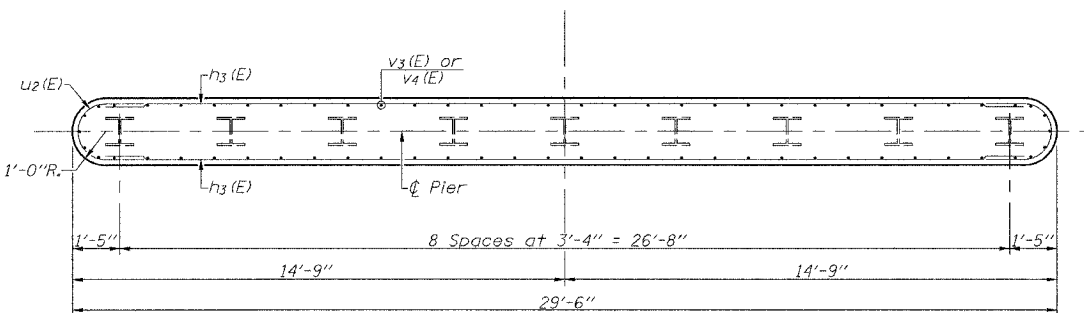
Note: The Steel H-piles shall be according to AASHTO M 270, Grade 50.
The Test Piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data information.



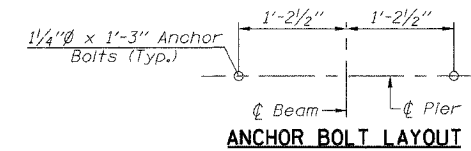
TOP PLAN



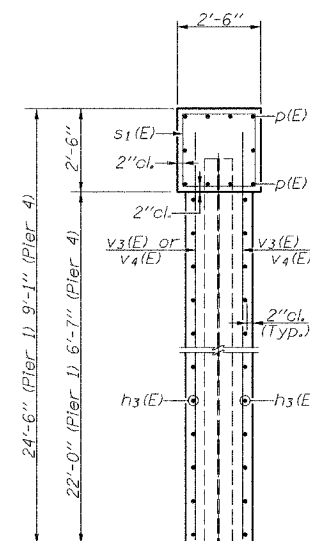
ELEVATION



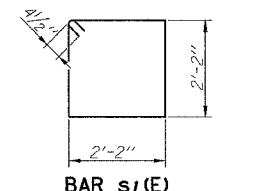
SECTION B-B



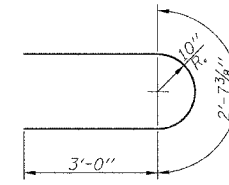
ANCHOR BOLT LAYOUT



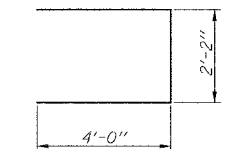
SECTION A-A



BAR s1(E)



BAR u2(E)



BAR u3(E)

TWO PIERS BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h3(E)	58	#5	27'-6"	—
p(E)	20	#8	29'-8"	—
s1(E)	56	#4	9'-5"	□
u2(E)	58	#5	8'-8"	⊂
u3(E)	16	#6	10'-2"	⊂
v3(E)	66	#5	23'-2"	—
v4(E)	66	#5	7'-9"	—
Concrete Structures		Cu. Yd.	76.0	
Reinforcement Bars, Epoxy Coated		Pound	6500	
Furnishing Steel Piles HP 12x53		Foot	880	
Driving Piles		Foot	880	
Test Pile, Steel HP 12x53		Each	2	
Structure Excavation		Cu. Yd.	126	
Underwater Structure Excavation Protection - Location 1 (Pier 1) Each			1	
Underwater Structure Excavation Protection - Location 2 (Pier 4) Each			1	

Notes:
Pour steps monolithically with pier.
All edges shall have standard 3/4" chamfers except as noted.
Reinforcement bars designated (E) shall be epoxy coated.

PIERS 1 & 4
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

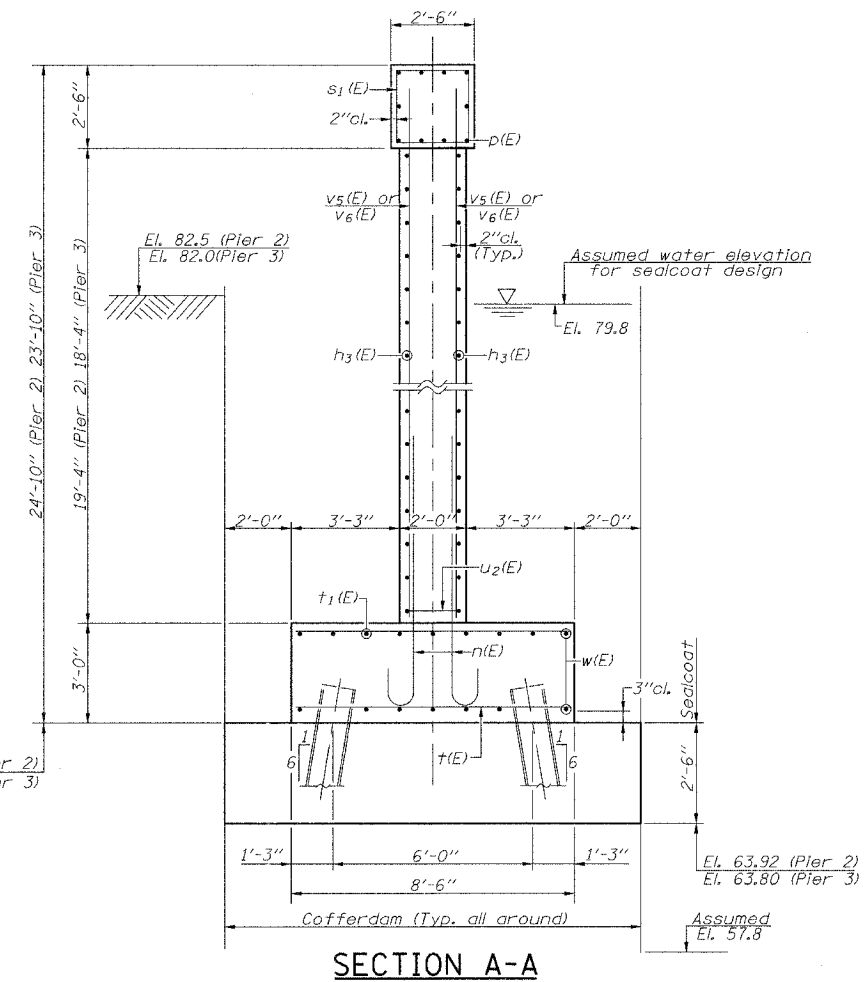
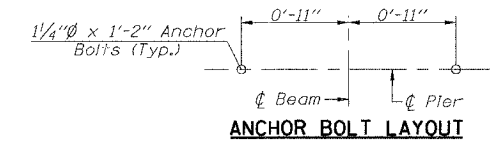
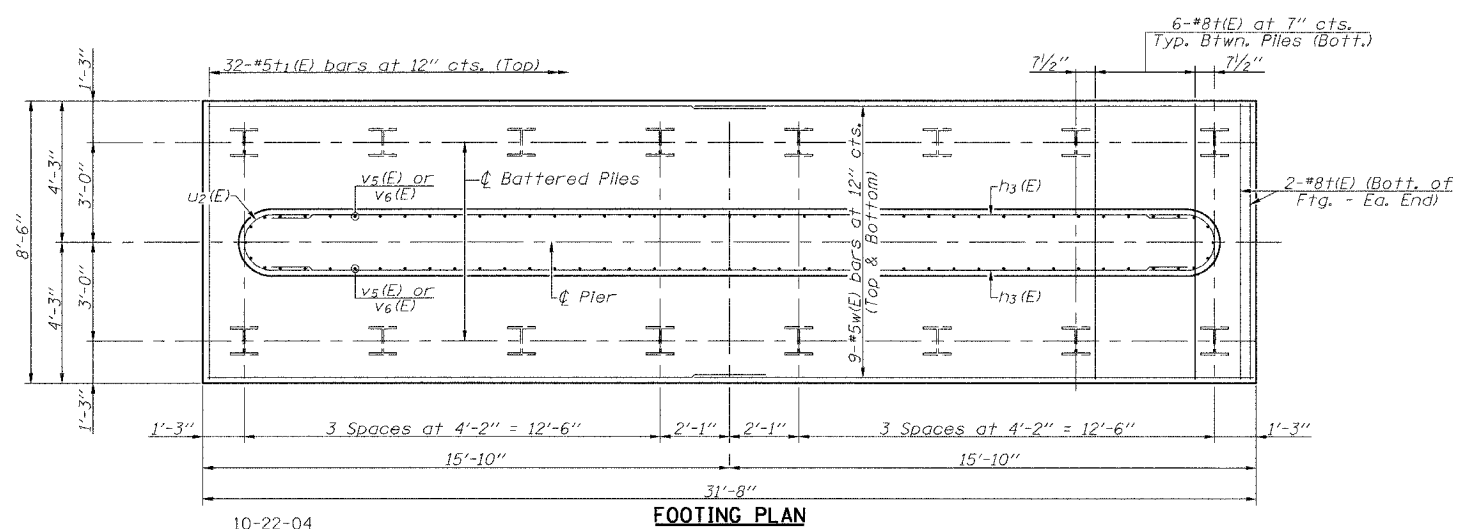
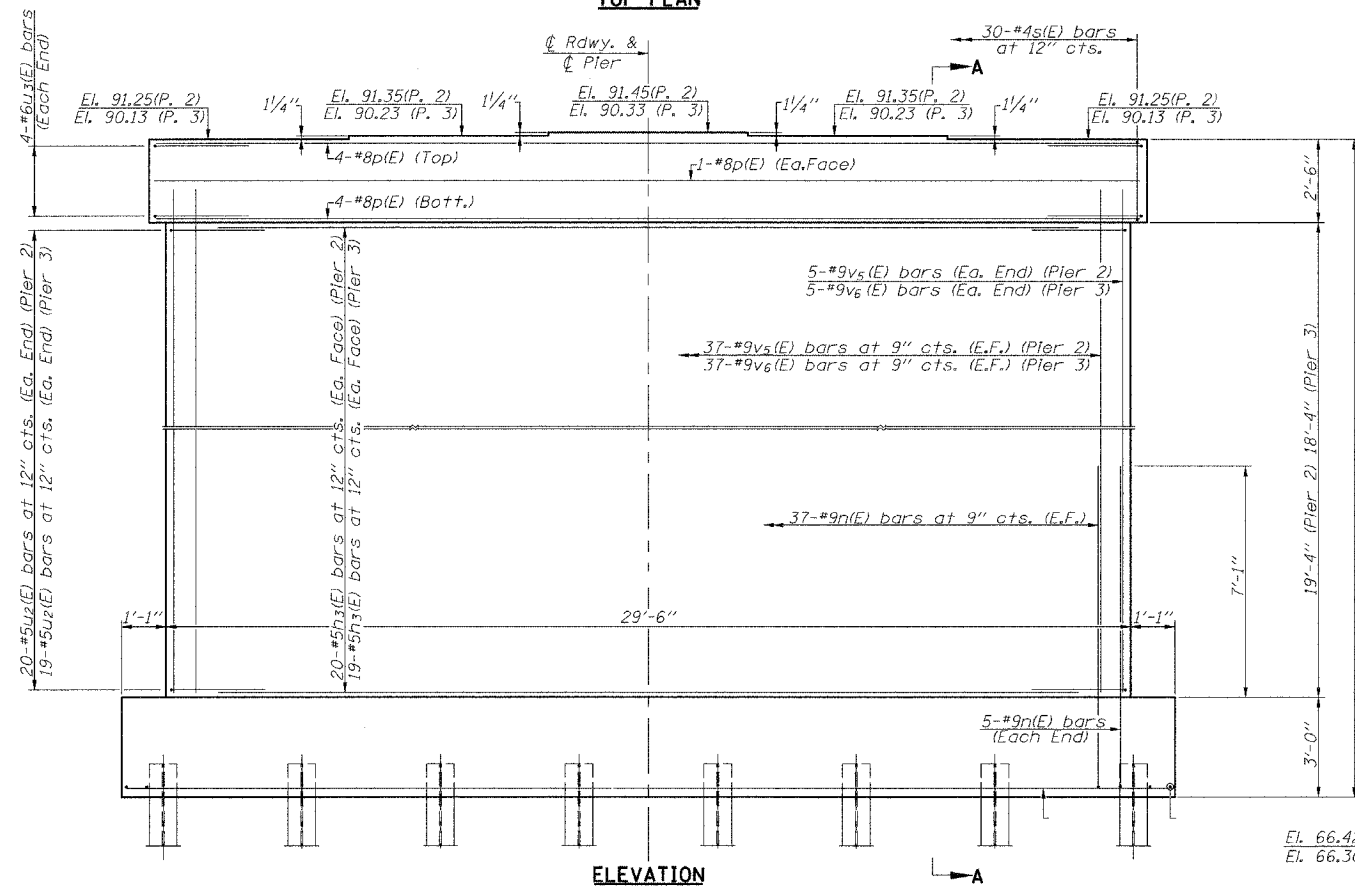
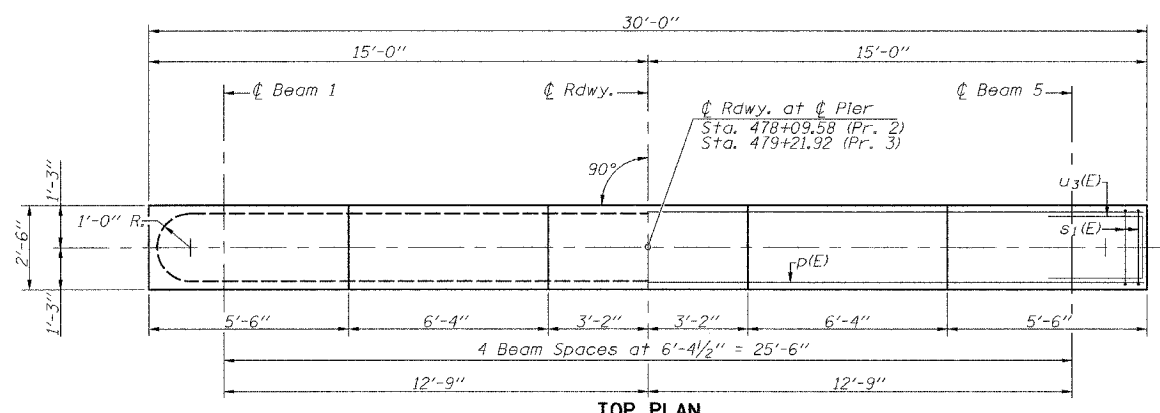
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	22
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
FEDERAL AID PROJECT				

01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 18 of 23 Sheets

PILE DATA

Pier No. 2 Pier No. 3
 Pile Type & Size: Steel HP 10x42 Steel HP 10x42
 Nominal Required Bearing: 335 kips 335 kips
 Allowable Resistance Available: Driven to refusal Driven to refusal
 Estimated Pile Length: 28' 26'
 Number of Production: 15 15
 Number of Test Piles: 1 1

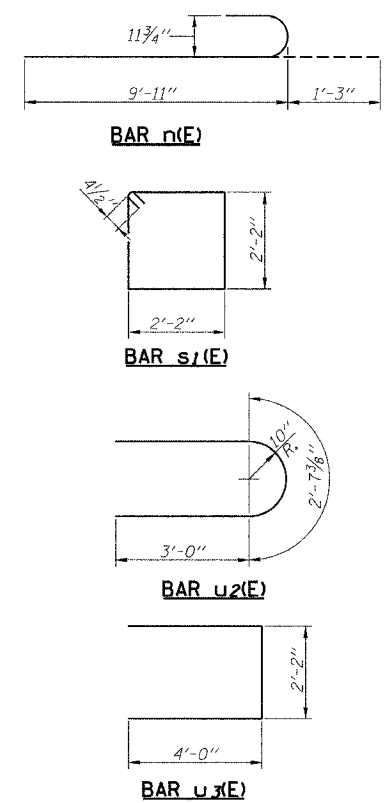
Note: The Steel H-piles shall be according to AASHTO M 270, Grade 50.
 The Test Piles shall be driven to 110 percent of the nominal required bearing indicated in the pile data information.



MIN. BAR LAPS

- #5 Bars = 2'-2"
- #6 Bars = 2'-6"
- #9 Bars = 6'-11"

Notes:
 Pour steps monolithically with pier.
 All edges shall have standard 3/4" chamfers except as noted.
 Reinforcement bars designated (E) shall be epoxy coated.



TWO PIERS BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h3(E)	78	#5	27'-6"	—
n(E)	168	#9	11'-2"	⌋
p(E)	20	#8	29'-8"	—
s1(E)	60	#4	9'-5"	□
t(E)	92	#8	8'-2"	—
t1(E)	64	#5	8'-2"	—
u2(E)	156	#5	8'-8"	⌋
u3(E)	16	#6	10'-2"	⌋
v5(E)	84	#9	21'-0"	—
v6(E)	84	#9	20'-0"	—
w(E)	36	#5	31'-4"	—
Concrete Structures			Cu. Yd.	155.3
Reinforcement Bars, Epoxy Coated			Pound	27345
Furnishing Steel Piles HP 10x42 Foot				810
Driving Piles			Foot	810
Test Pile, Steel HP 10x42			Each	2
Cofferdam Excavation			Cu. Yd.	607
Cofferdam (Pier No. 2)			Each	1
Cofferdam (Pier No. 3)			Each	1
Seal Coat Concrete			Cu. Yd.	82.6

PIERS 2 & 3
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	23
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 19
of 23 Sheets

Illinois Department of Transportation
SOIL BORING LOG Page 1 of 3
Date 4/13/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schreder
SECTION 01-00071-00-BR LOCATION W 1/2, SEC. 15, TWP. 12N, R1G. 10W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. <u>031-3002</u>	D E P T H	B U L G E	S S Q U T	M O I S T U R E	Surface Water Elev. _____ ft	D E L T A	B U L G E	M O I S T U R E
Station _____	H S				Stream Bed Elev. _____ ft	P T W S		
BORING NO. <u>SB 1 Pier 2</u>					Groundwater Elev. _____ ft	H S		
Station <u>4+94</u>					First Encounter _____ ft			
Offset <u>22.00# Left</u>					Upon Completion _____ ft			
Ground Surface Elev. <u>87.94</u> ft	(ft)	(%)	(%)	(%)	After _____ ft	(ft)	(%)	(%)

Brown Silty CLAY	0				0	3	NC	23
	2				85.9			
	3	1.4	28			1	1.0	24
	3	S/20				1	S/20	
	1				83.4	2		
	2	1.2	28			4		23
	3	S/20				5	NC	
	0				80.9	6		
Brown Silty LOAM	0	0.2	27			10	4.5	22
	0	B				13	S/20	
	0					4		
	0	0.2	28			6	4.1	18
	0	B				7	S/20	
	0					0		
	1	0.8	23			11	4.0	2
	1	S/20				15	S/20	
	0					0		
	0	0.4	24					
	0	S/20						
Brown Loamy SAND	0				69.4			
	0					11		

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

Illinois Department of Transportation
SOIL BORING LOG Page 2 of 3
Date 4/13/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schreder
SECTION 01-00071-00-BR LOCATION W 1/2, SEC. 15, TWP. 12N, R1G. 10W, 3 PM

COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. <u>031-3002</u>	D E P T H	B U L G E	S S Q U T	M O I S T U R E	Surface Water Elev. _____ ft	D E L T A	B U L G E	M O I S T U R E
Station _____	H S				Stream Bed Elev. _____ ft	P T W S		
BORING NO. <u>SB 1 Pier 2</u>					Groundwater Elev. _____ ft	H S		
Station <u>4+94</u>					First Encounter _____ ft			
Offset <u>22.00# Left</u>					Upon Completion _____ ft			
Ground Surface Elev. <u>87.94</u> ft	(ft)	(%)	(%)	(%)	After _____ ft	(ft)	(%)	(%)

Gray Silty Clay LOAM (continued)	25	4.5	14		0	3	NC	23
	43	S/10						
	20							
Gray SHALE	48	2.9	11					
	50.3	S/5						
	43.4							
	20							
	48	2.9	11					
	50.3	S/5						
	33							
	50.3	8.5	12					
	50.5	S/5						
	50.5							
	2.7	12						
	15	S/20						
	50.5							
	50.5							

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)

STA. 0+00 (BORINGS) = STA. 473+01.25 (PLANS)

Illinois Department of Transportation
ROCK CORE LOG Page 3 of 3
Date 4/13/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schreder
SECTION 01-00071-00-BR LOCATION W 1/2, SEC. 15, TWP. 12N, R1G. 10W, 3 PM

COUNTY Greene CORING METHOD _____

STRUCT. NO. <u>031-3002</u>	D E P T H	R E C O R D	C O R E	S T R E T H	Core Diameter _____ in	R E C O R D	C O R E	S T R E T H
Station _____	H S				Top of Rock Elev. _____ ft	P T W S		
BORING NO. <u>SB 1 Pier 2</u>					Begin Core Elev. _____ ft	H S		
Station <u>4+94</u>								
Offset <u>22.00# Left</u>								
Ground Surface Elev. <u>87.94</u> ft	(ft)	(%)	(%)	(%)		(ft)	(%)	(%)

Gray LIMESTONE	19.44	1	98	84	8			
	19.44	1	98	84	5	1557.79		
	19.44	1	98	84	4			
	19.44	1	98	84	2			
	19.44	1	98	84	2			
	19.44	1	98	84	9			
	19.44	1	98	84	8			
	19.44	1	98	84	3			
	19.44	1	98	84	2	1696.87		
	19.44	1	98	84	3			
End of Boring and Rock Core								

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

BORINGS
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

FILE NAME: STRUCTURE PLANS REV. 10/12/03

Illinois Department of Transportation
SOIL BORING LOG Page 1 of 2
 Date: 4/15/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schradler
 SECTION 01-00071-00-BR LOCATION W 1/2, SEC. 18, TWP. 12N, R1G. 10W, 3 PM
 COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-3002
 Station
 BORING NO. SB 2 Par 3 (EX)
 Station 5-64.5
 Offset 25.00ft Left
 Ground Surface Elev. 84.64 ft

DEPTH (ft)	SOIL DESCRIPTION	UNCONSOLIDATED SOILS	MOISTURE (%)	SHRINKAGE (%)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	FAILURE MODE
0	Surface Water Elev. _____							
0	Stream Bed Elev. _____							
0	Groundwater Elev.: _____							
0	First Encounter Upon Completion _____							
0	After _____ Hrs.							
0	Gray Silty LOAM (continued)							
2								
4	Gray SAND							
5	See Gradation @ 22.5 ft							
8								
10	Brown Silty LOAM							
11								
13	Gray SAND							
14	See Gradation @ 25 ft							
16								
18	Gray Silty LOAM							
20								
22	Gray Silty LOAM							
24								
26	Gray Loamy SAND							
28								
30	Gray SHALE							
32								
34	Gray SAND							
35	See Gradation @ 17.5 ft							
36	Gray Silty LOAM							

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

Illinois Department of Transportation
SOIL BORING LOG Page 2 of 2
 Date: 4/15/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schradler
 SECTION 01-00071-00-BR LOCATION W 1/2, SEC. 18, TWP. 12N, R1G. 10W, 3 PM
 COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-3002
 Station
 BORING NO. SB 2 Par 3 (EX)
 Station 5-64.5
 Offset 25.00ft Left
 Ground Surface Elev. 84.64 ft

DEPTH (ft)	SOIL DESCRIPTION	UNCONSOLIDATED SOILS	MOISTURE (%)	SHRINKAGE (%)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	FAILURE MODE
0	Surface Water Elev. _____							
0	Stream Bed Elev. _____							
0	Groundwater Elev.: _____							
0	First Encounter Upon Completion _____							
0	After _____ Hrs.							
0	Gray SHALE (continued)							
12								
15								
18								
21								
24								
27								
30								
33								
36	End of Boring							

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

Illinois Department of Transportation
SOIL BORING LOG Page 1 of 2
 Date: 4/16/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schradler
 SECTION 01-00071-00-BR LOCATION W 1/2, SEC. 15, TWP. 12N, R1G. 10W, 3 PM
 COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-3002
 Station
 BORING NO. SB 3
 Station 458+19
 Offset 25.00ft Left
 Ground Surface Elev. 495.32 ft

DEPTH (ft)	SOIL DESCRIPTION	UNCONSOLIDATED SOILS	MOISTURE (%)	SHRINKAGE (%)	WATER CONTENT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX	FAILURE MODE
0	Surface Water Elev. _____							
0	Stream Bed Elev. _____							
0	Groundwater Elev.: _____							
0	First Encounter Upon Completion _____							
0	After _____ Hrs.							
0	Gray Silty LOAM (continued)							
2								
3								
5								
8								
10	Gray Silty LOAM							
11								
13								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
64								
66								
68								
70								
72								
74								
76								
78								
80								
82								
84								
86								
88								
90								
92								
94								
96								
98								
100								

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)

STA. 0+00 (BORINGS) = STA. 473+01.25 (PLANS)

BORINGS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

E.T.E. NAME, STRUCTURE PLANS (REV. 10/12/03)

Illinois Department of Transportation SOIL BORING LOG Page 2 of 2
 Date 4/16/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schraeder
 SECTION 01-00071-00-BR LOCATION W 1/2 SEC. 15, TWP. 12N, R9G. 10W, 3 PM
 COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-3002
 Station _____
 BORING NO. SB 3 Pier 4
 Station 7+35
 Offset 25.00 ft Left
 Ground Surface Elev. 83.18 ft

DEPTH (ft)	SOIL DESCRIPTION	UCS (psi)	SPT (blows)	Failure Mode
0 - 35	Gray SAND See Gradation @ 35 ft (continued)	NS		
39.7	Gray SHALE	4.0 P	13	
50.4		2.0 S/H	12	
57.2	End of Boring			

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

Illinois Department of Transportation SOIL BORING LOG Page 1 of 2
 Date 4/19/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schraeder
 SECTION 01-00071-00-BR LOCATION W 1/2 SEC. 15, TWP. 12N, R9G. 10W, 3 PM
 COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-3002
 Station _____
 BORING NO. SB 4 E Abut
 Station 8+32
 Offset 45.00 ft Left
 Ground Surface Elev. 84.02 ft

DEPTH (ft)	SOIL DESCRIPTION	UCS (psi)	SPT (blows)	Failure Mode
0 - 15	Gray SAND See Gradation @ 15 ft (continued)			
3	Brown Silty CLAY	2.3 S/20	17	
4		0.3 B	25	
1	Gray Silty LOAM	0.1 B	27	
0		0.1 B	25	
0	Gray Loamy SAND See Gradation @ 35 ft			
0		0.6 S/20	27	
1	Gray SAND See Gradation @ 15 ft			
2		NC	23	
2		NC	29	
1		NC	29	
3	Gray Silty CLAY			

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

Illinois Department of Transportation SOIL BORING LOG Page 2 of 2
 Date 4/19/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schraeder
 SECTION 01-00071-00-BR LOCATION W 1/2 SEC. 15, TWP. 12N, R9G. 10W, 3 PM
 COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 031-3002
 Station _____
 BORING NO. SB 4 E Abut
 Station 8+32
 Offset 45.00 ft Left
 Ground Surface Elev. 84.02 ft

DEPTH (ft)	SOIL DESCRIPTION	UCS (psi)	SPT (blows)	Failure Mode
0 - 15	Gray SAND See Gradation @ 15 ft (continued)			
7	Gray Silty CLAY (continued)	3.8 S/20	22	
14		3.3 S/20	20	
4	Gray SHALE	3.5 P	12	
50.4		1.5 S/S	12	
58.0	End of Boring			

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

STA. 0+00 (BORINGS) = STA. 473+01.25 (PLANS)

BORINGS
 F.A.S. 731 - C.H. 2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY

FILE NAME: STRUCTURE PLANS REV. 10/12/03

Illinois Department of Transportation
SOIL BORING LOG Page 1 of 2
Date 4/21/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schradler
SECTION 01-00071-00-BR LOCATION W 1/2 SEC. 15, TWP. 12N, RNG. 10W, 3 PM
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. Station	D E P T H H	B L O W S C O U N T	U N C L O S E D	M O D E	Surface Water Elev. Stream Bed Elev.	D E P T H H	B L O W S C O U N T	U N C L O S E D	M O D E
031-3002 SB 5 Pier 1 3-21 15,000 Lbs 79.44					23 7.7 8				
					27 S/10				
					10				
					2 1.0 27				
					3 S/20				
					1 0.6 33				
					1 S/20				
					0 1.2 32				
					1 S/20				
					0 0.5 33				
					0 S/20				
					0 0.8 32				
				0 S/20					
				0 0.8 32					
				1 S/20					
				1 1.8 23					
				2 S/20					
				59.3					
				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 T208)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG Page 2 of 2
Date 4/21/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schradler
SECTION 01-00071-00-BR LOCATION W 1/2 SEC. 15, TWP. 12N, RNG. 10W, 3 PM
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. Station	D E P T H H	B L O W S C O U N T	U N C L O S E D	M O D E	Surface Water Elev. Stream Bed Elev.	D E P T H H	B L O W S C O U N T	U N C L O S E D	M O D E
031-3002 SB 5 Pier 1 3-21 15,000 Lbs 79.44					23 7.7 8				
					27 S/10				
					10				
					2 1.0 27				
					3 S/20				
					1 0.6 33				
					1 S/20				
					0 1.2 32				
					1 S/20				
					0 0.5 33				
					0 S/20				
					0 0.8 32				
				0 S/20					
				0 0.8 32					
				1 S/20					
				1 1.8 23					
				2 S/20					
				59.3					
				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 T208)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
SOIL BORING LOG Page 1 of 2
Date 4/22/04

ROUTE FAS 731 DESCRIPTION CH 2 over Apple Creek LOGGED BY Mark Schradler
SECTION 01-00071-00-BR LOCATION W 1/2 SEC. 15, TWP. 12N, RNG. 10W, 3 PM
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. Station	D E P T H H	B L O W S C O U N T	U N C L O S E D	M O D E	Surface Water Elev. Stream Bed Elev.	D E P T H H	B L O W S C O U N T	U N C L O S E D	M O D E
031-3002 SB 6 W. Abut 2-28 15,000 Lbs 79.74					71.7				
					10 4.4 16				
					14 S/20				
					5				
					2 1.2 29				
					3 S/20				
					0 0.8 30				
					2 S/20				
					0 0.5 31				
					0 S/20				
					0 0.5 31				
					0 S/20				
				0 0.8 30					
				4 NC					
				0 0.3 30					
				0 B					
				3					
				4 4.0 19					
				8 S/20					
				4					

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 T208)
BBS, from 137 (Rev. 8-99)

STA. 0+00 (BORINGS) = STA. 473+01.25 (PLANS)

BORINGS
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

FILE NAME: STRUCTURE PLANS REV. 10/12/06

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 731	*	GREENE	30	27
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
FEDERAL AID PROJECT				

* 01-00071-00-BR
CONTRACT NO. 97289 Sheet No. 23
of 23 Sheets

Illinois Department of Transportation
Division of Highways
SOIL BORING LOG Page 2 of 2
Date 4/22/04

ROUTE FAS 731 DESCRIPTION C.H. 2 over Apple Creek LOGGED BY Mark Schreder
SECTION 01-00071-00-BR LOCATION W. 1/2, SEC. 15, TWP. 12N, RNG. 10W, 3 E
COUNTY Greene DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO.	STATION	DEPTH (ft)	SOIL	UNCONSOLIDATED COMPRESSION STRENGTH (UCS) (psi)	WATER CONTENT (%)	LIQUIDITY INDEX (LI)	PLASTICITY INDEX (PI)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter Upon Completion (ft)	After (ft)
031-3002	2+38	0								71.7		
		7	Brown Silty Clay LOAM (continued)	2.2	30							
		36.2										
		37	Gray SHALE	2.6	20							
		41										
		43		4.8	13							
		50.6		2.0	15							
		53.7	End of Boring	9/5								

The Unconfined Compressive Strength (UCS) Failure Mode is Indicated by (B-Swage, 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)

STA. 0+00 (BORINGS) = STA. 473+01.25 (PLANS)

BORINGS
F.A.S. 731 - C.H. 2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

FILE NAME: STRUC-TABLE-PLANS-BR-01-00071-00-BR

FILE NAME: 927105 (REV. 10/12/20)

Blk. W. Abut. - Sta. 476+17.75

476+00

95

Exist. R.O.W.

90

97.32

C - 28

P - 1/4

3:1

Exist. R.O.W. 55'

475+84

95

90

97.91

12%

Embankment - 0 Cu. Yds.

Install Traffic Barrier Terminal Type 1 Special (Tangent)
Sta. 475+36.50 Rt.

Begin Shoulder Widening Transition - Sta. 475+02.50 Rt.

475+00

100

95

99.27

C - 27

P - 1/4

3:1

Exist. R.O.W. 55'

474+00

100

95

101.77

C - 25

P - 1/2

3:1

Exist. R.O.W. 55'

473+00

105

100

Exist. R.O.W.

0. Exist. 13" x 76' C.M.P.
Sta. 473+42 Ahead (to
remain in place)

PROJECT BEGINS - Sta. 473+00

CROSS SECTIONS
F.A.S. 731 - C.H.2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 731	*	GREENE	30	28
FEDERAL AID PROJECT				
* 01-00071-00-BR				
CONTRACT NO. 97289				

50 40 30 20 10 0 10 20 30 40 50

FILE NAME: SC0135 (REV. 10/17/20)

482
+
00

90

85

80

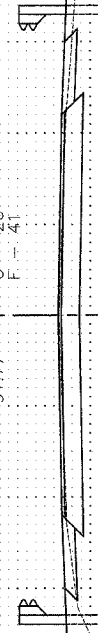
3:1

3:1

91.77

C - 26

F - 41



Exist. R.O.W. 55'

Begin Shoulder Taper and Guardrail Taper - Sta. 481+27 Lt. & Rt.

Install Bridge Approach Pavement - Sta. 481+13.75 to Sta. 481+43.75

Bk. E. Abut. - Sta. 481+13.75

481
+
00

90

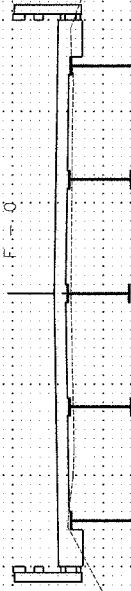
85

80

92.70

C - 0

F - 0



Fold Line

End Special Ditch - Sta. 480+80 Lt.

480
+
00

90

85

80

3:1

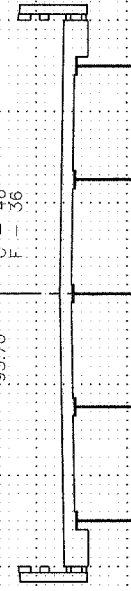
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EI: 77.0

93.70

C - 46

F - 36



Fold Line

479
+
00

90

85

80

3:1

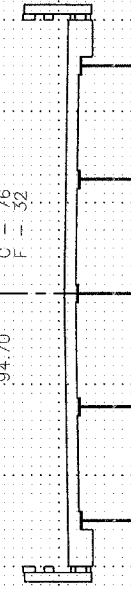
3:1

EI: 76.7

94.70

C - 76

F - 32



Fold Line

478
+
00

90

85

80

3:1

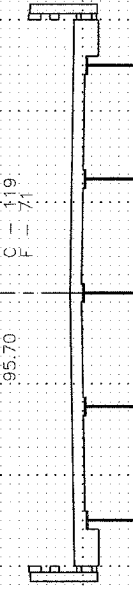
3:1

EI: 76.4

95.70

C - 119

F - 71



Fold Line

Begin Special Ditch - Sta. 477+82 Lt.

CROSS SECTIONS
F.A.S. 731 - C.H.2
OVER APPLE CREEK
SECTION 01-00071-00-BR
GREENE COUNTY

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 731	*	GREENE	30	29

FEDERAL AID PROJECT
* 01-00071-00-BR
CONTRACT NO. 97289

Fold Line

Fold Line

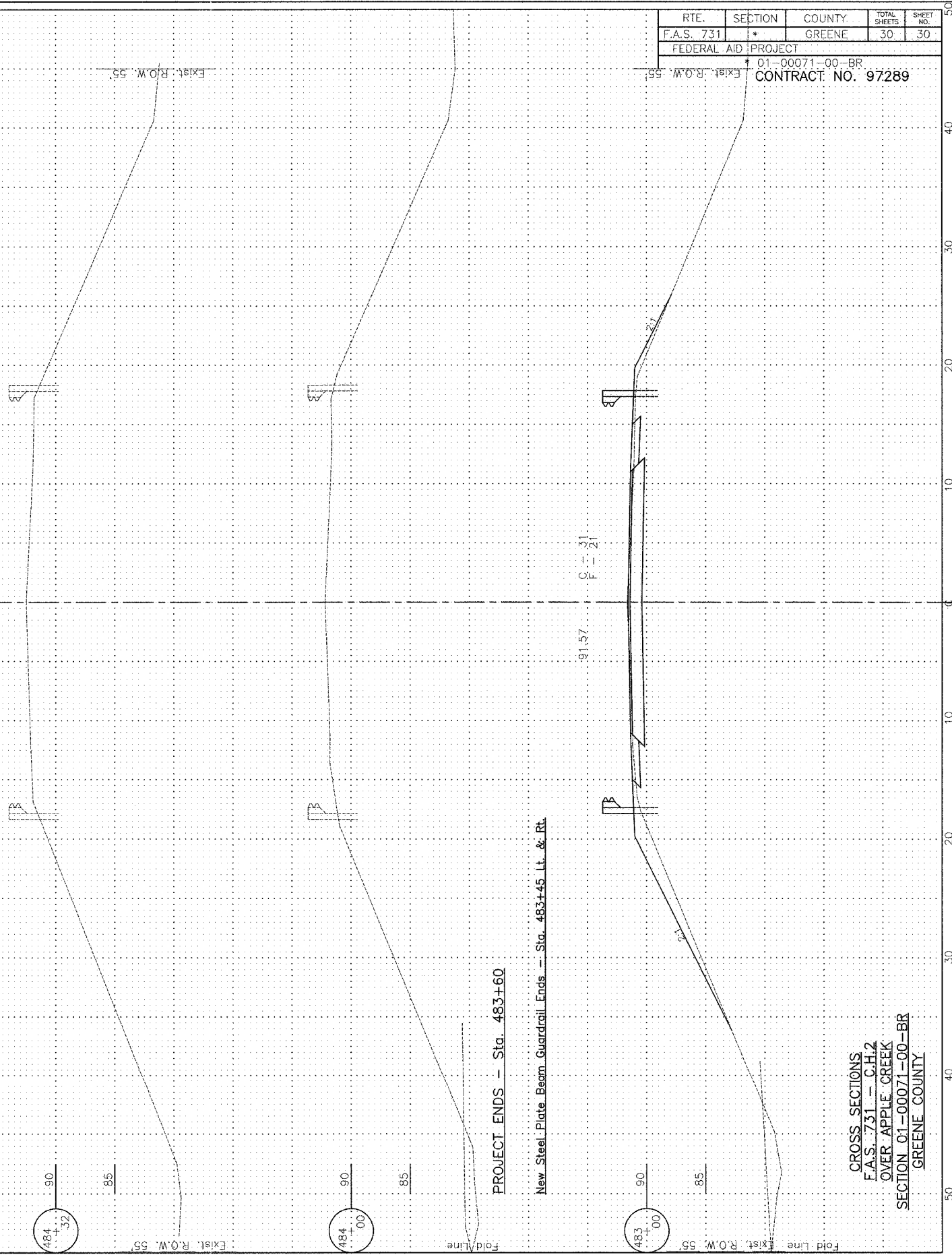
Fold Line

Fold Line

50
40
30
20
10
0
10
20
30
40
50

FILE NAME: 027103 (REV. 10/27/00)

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 731	*	GREENE	30	30
FEDERAL AID PROJECT				
01-00071-00-BR				
CONTRACT NO. 97289				



CROSS SECTIONS
 F.A.S. 731 - C.H.2
 OVER APPLE CREEK
 SECTION 01-00071-00-BR
 GREENE COUNTY