4-27-07 Letting, Item 126

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	149 / 148	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR STATE STANDARDS, SEE SHEET NO. 2

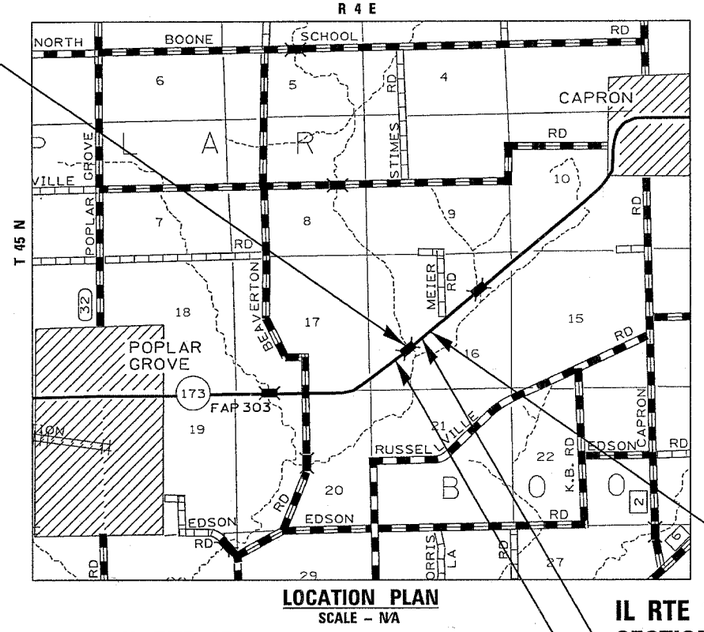
DESIGN DESIGNATION
0680(28) ARTERIAL 3.81(FD–20)

FAP ROUTE 303 (IL RTE 173)
SECTION 130BR–4
PROJECT ACBRF-0303(034)
BOONE COUNTY
BRIDGE REPLACEMENT

C–92–035–07

IL RTE 173 BRIDGE OVER BEAVER CREEK
EXISTING SN–004–0009
PROPOSED SN–004–0020
STA 439+22.96 – STA 440+53.04

BEAVER CREEK CHANNEL REALIGNMENT
STA 999+50 – STA 1002+25



LOCATION PLAN
SCALE – N/A

IL RTE 173
IMPROVEMENT BEGINS STA 429+00
SECTION BEGINS STA 432+96

IL RTE 173
SECTION ENDS
STA 446+96

IL RTE 173
IMPROVEMENT ENDS
STA 450+00

SCALES

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123

BOONE TOWNSHIP
SECTION 16
CONTRACT NO. 64800

GROSS LENGTH OF PROJECT = 1400 LIN. FT = 0.265 MI.
NET LENGTH = 1400 LIN. FT. = 0.265 MI.

D–92–030–02

LOCATION OF SECTION INDICATED THUS:– ■–

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 15 20 06
Joseph S. Corn
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 23, 20 07
Eric E. Harm (P.E.)
Interim ENGINEER OF DESIGN AND ENVIRONMENT
March 23, 20 07
Milton R. Sees (P.E.)
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REGION 2, DISTRICT 2
DIXON

PROJECT ENGINEER: MASOOD AHMAD
SQUAD LEADER: PAUL DREZEN (815)284–5519

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INDEX OF SHEETS, STATE STANDARDS

INDEX OF SHEETS

STATE HIGHWAY STANDARDS

280001-03	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
420401-05	BRIDGE APPROACH PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
542401	METAL END SECTION FOR PIPE CULVERTS
601101	CONCRETE HEADWALL FOR PIPE DRAIN
602301-01	INLET, TYPE A
609006-03	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-07	STEEL PLATE BEAM GUARDRAIL
630201-04	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
666001	RIGHT-OF-WAY MARKERS
667101	PERMANENT SURVEY MARKERS
701001-01	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24') FROM PAVEMENT EDGE
701011-01	OFF-ROAD MOVING OPERATIONS
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS, DAY ONLY, FOR SPEEDS > 45 MPH
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >45 MPH
701331-02	LANE CLOSURE, 2L, 2W, WITH RUNAROUND, FOR SPEEDS >45 MPH
702001-06	TRAFFIC CONTROL DEVICES
720011	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
780001-01	TYPICAL PAVEMENT MARKINGS
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 303 (IL 173)	130BR-4	Boone	147	3
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64800				

See cross sections for special ditches and backslopes.

The removal of Bituminous Surfacing not on a rigid type base removed in conjunction with the base shall be removed as EARTH EXCAVATION. The removal of Bituminous Surfacing on a rigid type base removed in conjunction with the base shall be included in the contract unit price for PAVEMENT REMOVAL of the type specified.

The final top 100 mm (four inches) of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

It is estimated that 2,588 cubic yards of earth will be hauled to the job from outside the project limits. A shrinkage factor of 25% has been used.

Program #5 (Arch. Size) Enlarge 200% Enlarge 107%

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches. Class 2 (Modified) shall be used only on the slopes of the channel realignment.

All areas specified for Class 4 seed mix shall have Class 5 seed mix applied in addition to the Class 4 seed mix and will not be mowed.

After completion of the roadway project, the entire runaround shall be removed to include the supporting fill. The area within the temporary easement shall be deep plowed with a single bottom plow, backfilled with the original topsoil, and reconstructed to match the existing field contours present prior to construction.

Tree replacement layout shall be performed by the District Landscape Architect. Mulch shall be hardwood chips, 5 foot width, 4 inch thick with weed barrier fabric. IDOT District 2 Landscape Architect shall coordinate with Boone County Conservation District (815/547-7935) prior to tree replacement in order to coordinate planting locations.

Mulch on temporary seeding shall be MULCH METHOD 2.

Mowing shall be confined to front slopes and ditch bottoms only.

Previously pugmilled stockpiles of "Type A" older than 1 month will not be approved for use until a moisture check is run to verify moisture content. Material shipped to projects without being tested will not be accepted.

Placement and compaction of the backfill for AR culverts shall conform to Section 502.10 of the Standard Specifications, except that the material shall conform to Article 208.02 of the Standard Specifications, and shall be compacted to a minimum of 95% of the standard laboratory density. Any material conforming to the requirements of Article 1003.04 or 1004.05 which has been excavated from the trenches shall be used for backfilling the trenches. The entire excavation, within 2 feet outside of each shoulder, shall be backfilled with trench backfill material to the bottom of the proposed subgrade. This trench backfill material will not be measured for payment, but shall be included in the contract unit price for the class of concrete involved or other unit price item of the work for which it is required.

The cost for the removal of all pipe culverts installed under the temporary runaround shall be included in the cost of EARTH EXCAVATION.

The subgrade on this project, exclusive of rock cut areas is scheduled to be improved to a 300 mm (12") depth according to Mechanistic Pavement Design. The areas scheduled to be improved to a depth greater than 300 mm (12") are estimated based on the original geotechnical investigation. The subgrade shall be processed in accordance with Article 301.03 of the Standard Specifications before the engineer shall determine the limits and the additional thickness of improvement required, if any. Any additional undercutting required after this evaluation shall be paid for as EARTH EXCAVATION.

Except for the top 75 mm (3"), all aggregate bases and subbases 300 mm (12") in thickness shall be constructed of aggregate gradation CA-2. If the specified thickness exceeds 300 mm (12"), the bases or subbases shall be constructed of topsize 150 mm (6") breaker-run crushed stone with 70% to 90% by weight, passing the 4" sieve and 15% to 40% by weight, passing the 50 mm (2") size sieve, except for the top 75 mm (3"). The breaker-run crushed stone shall be reasonably uniformly graded from coarse to fine and be taken from a quarry ledge capable of producing Class "D" quality aggregate. The top 75 mm (3") shall be gradation CA-6 or CA-10 regardless of thickness. The water necessary to achieve compaction in all but the top 75 mm (3") layer may be added after the subbase or base course is placed on the grade.

All embankment constructed of cohesive soil shall be constructed with not more than 110% of optimum moisture content, determined by the standard proctor test. Cohesive soil shall be defined as any soil which contains greater than 10% particles by weight passing the 75 µm (#200 sieve). The 110% of optimum moisture limit may be waived in free-draining granular material when approved by the Engineer.

The following Mixture Requirements are applicable for this project:

IL 173					
Mixture Uses(s):	SURFACE	FULL DEPTH TOP BINDER (2-1/4")	FULL DEPTH LOWER BINDER	TOP SHOULDER	BOTTOM SHOULDER
PG:	SBS PG 64-28	SBS PG 64-28	PG 64-22	PG 58-22	PG 58-22
Design Air Voids	4.2 @ N50	4.2 @ N50	4.2 @ N50	3 @ N50	2 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or IL 12.5	IL 19.0	IL 19.0	IL 9.5 or IL 12.5	BAM
Friction Aggregate	D	N/A	N/A	C	N/A
20 Year ESAL	1.8				N/A

TEMPORARY RUNAROUND		
Mixture Uses(s):	SURFACE	BINDER
PG:	PG 64-22	PG 64-22
Design Air Voids	4.2 @ N50	4.2 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or IL 12.5	IL 19.0
Friction Aggregate	D	N/A
20 Year ESAL		

The Contractor will be required to furnish 140 mm (5 1/2") high brass stencils as approved by the Engineer and install stationing at 250' intervals. Stationing shall be placed on both lanes of 2-lane highways and on the outside lanes in both directions on 4-lane highways. The stations shall be placed 150 mm (6") inside the pavement marking edge so they can be read from the shoulder. This work will be included in the cost of the final pavement surface.

A Nationwide 404 Permit has been issued for this project and the conditions of that permit must be adhered to.

The new number for this structure will be 004-0020.

GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 303 (IL 173)	130BR-4	Boone	147	4
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64800				

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Dave Lippert, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

District 2 District Engineer (1)
Fabricator (1)
Contractor (2)
Resident Engineer (2)
District 2 Bureau of Materials (2)

The curb is required on the bridge approach pavement as shown on Standard 420401.

Program #5 (Arch. Size) Enlarge 200% Enlarge 107%

Reflector Markers Type B shall be installed on the top of bridge parapet walls. The markers shall be according to Standard 635011 and the color and spacing according to Standard 635006, except the minimum is 2 per side.

The boring logs for this structure indicate that groundwater levels may encroach on the construction limits of this structure. It shall be the responsibility of the contractor to control the ground water and divert the stream flow during construction in order to keep the construction area free of water. The method of controlling the water shall be subject to approval of the Engineer and the cost shall be included in the contract unit price for Precast Concrete Box Culverts.

Culvert & bridge flows must be maintained throughout the project. Normal flow shall be allowed to pass at the rate it enters the jobsite. High flows shall be allowed to pass without causing damage to upstream properties.

Where field tile is encountered, storm sewer or pipe drain will be used in accordance with Section 611. The minimum size for replacement will be 150 mm (6") for Pipe Drains and 200 mm (8") for Storm Sewer, but the size must be at least 50 mm (2") larger than the adjoining tile. A Field Tile Junction Vault will be constructed at the right of way to connect the tile and storm sewer.

These items have been included in this contract as contingency items for locating and replacing existing farm tile systems crossing within the proposed right-of-way:

EXPLORATION TRENCH (48")
FIELD TILE JUNCTION VAULT – 6 EACH
STORM SEWER SPECIAL 8"
STORM SEWER SPECIAL 10"/12"
STORM SEWER PROTECTED 8"
STORM SEWER PROTECTED 10"/12"

Embankment quantities for the construction of the Traffic Barrier Terminals as shown in the plans are included in quantities for Furnished Excavation.

The Contractor shall supply the Resident Engineer with the manufacturer's installation requirements for the type of Steel Plate Beam Guardrail Terminal Type 1 Special (Tangent).

One 16d galvanized nail shall be used to toe nail the wood block out to the wood post on all Traffic Barrier Terminal Type I Specials.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180° and only metal-backed delineators shall be permitted.

Delineators shall be placed at the ends of approach guardrail terminal sections, and at each headwall or end section of AR Culverts. This work will be paid for at the contract unit price each for DELINEATORS.

Pavement Marking shall be done according to Standard 780001, except as follows:

1. All words, such as ONLY, shall be 2.4 m (8 feet) high.
2. All non-freeway arrows shall be the large size.
3. The distance between yellow no-passing lines shall be 200 mm (8"), not 180 mm (7") as shown in the detail of Typical Lane and Edge Lines.

PERMANENT SURVEY MARKERS, TYPE II, shall be set as directed by the Engineer. Bridge or culvert projects shall have one survey marker placed near the structure. Estimated: 2 Each.

Permanent Survey Markers, Type II shall be cast-in-place as shown on District Standard 66.2.

The Resident Engineer shall determine the location of each Permanent Survey Marker Type II based on the project plans and modify locations as necessary. The Resident Engineer shall submit proposed locations to the Department's Chief of Surveys a minimum of two weeks prior to Contractor installation for review and approval by the Department.

Right-of-way markers will be erected with the back face of the marker on the right-of-way line unless the new right-of-way line has been surveyed and pinned, in which instance the right-of-way markers will be erected 300 mm (12 inches) inside the new right-of-way line.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

Mediacom
Verizon
Nicor Gas Co.
Commonwealth Edison Co.
AT&T

The applicable portions of Article 105.07 of the Standard Specification shall apply except for the following: The Contractor shall be responsible to locate the vertical depths of the underground utilities which may interfere with construction operations. This work will not be measured or paid for separately, but shall be considered as included in the unit bid price for the item of construction involved.

Per SB 699 (90 day utility relocation law), once right-of-way is clear to award the project, a notice will be sent to the utility companies instructing them to have their facilities relocated within 90 days. Estimated date relocation complete = Letting Date + 135 days.

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

COMMITMENTS

1. No project work, including equipment and material storage, driving vehicles and equipment shall take place beyond the construction limits, which will be shown on the contract plans. This will avoid further wetland impacts.
2. The wetland boundaries will be shown on the Contract Plans.
3. A total of 0.01 acre of wetlands will be impacted by construction activities. This impact will be mitigated by purchasing 0.015 acre of wetland bank credits at the Kilbuck Creek Wetland Bank Site, Winnebago County.

CONTRACT NO. 64800

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 303 (IL 173)	130BR-4	Boone	147	5
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64800				

GENERAL NOTES

Commitments (Con't)

4. The proposed right of way, easements, and construction limits shall remain as shown in the project plans of the Design Report to avoid further wetland impacts and to avoid impacts to the bike path.

5. No fill will be placed in or along the stream between the IL 173 roadway and the bike path (old railroad bed) to avoid additional wetland impacts.

6. The Phase II Special Provisions shall specify the following for the temporary runaround area.

   a) Before the temporary runaround is installed, the top 12 inches of top soil shall be removed and stockpiled.
   b) After completion of the roadway project, the entire temporary runaround and supporting fill shall be removed.
   c) The area shall be deep-plowed with a single bottom plow.
   d) The area shall be filled back with the original topsoil.
   e) The area shall be reconstructed to match the existing field contours.

Program #5 (Arch. Size) Enlarge 200% Enlarge 107%

7. The realigned stream bank will be protected with Turf Reinforcement Mat (TRM). It will be seeded with Seeding Class 2 (Modified). Seeding Class 2 (Modified) will include the grass species listed in the Standard Specifications for Road and Bridge Construction (Jan. 1, 2007) and add 1.0 lb./acre of Rice Cut Grass (*Leersia Oryzoides*).

8. Prior to the beginning of construction, the IDOT Resident Engineer shall coordinate with the Bureau of Program Development, Land Acquisition Unit to ensure that a Temporary Use Permit has been obtained from the Boone County Conservation District (BCCD) for any necessary earthwork conducted on Conservation District property located on the south side of IL 173.

9. Prior to the beginning of construction, the IDOT Resident Engineer shall contact the Boone County Conservation District at 815/547-7935 to arrange a coordination meeting to discuss the project and to photo document the pre-construction conditions on the Conservation District.

10. At the request of the Boone County Conservation District, special signage shall be provided on the Long Prairie Recreational Trail located south of and parallel to IL 173. Two signs, viewable from both travel directions on the Long Prairie Trail, shall be provided in advance of the Temporary Use Permit area. The signs shall indicate "Caution! Construction adjacent to trail in progress" or similar wording as approved by the Conservation District.

11. The Boone County Conservation District has specified Burr Oak, White Oak or Hickory for preferred replacement trees on their property. The IDOT Resident Engineer and/or the District 2 Landscape Architect should complete any necessary coordination with the Boone County Conservation District prior to tree replacement, especially if there are availability problems or size limitations with the preferred species listed above.

12. All areas specified for Class 4 seed mix shall have Class 5 seed mix applied in addition to the Class 4 mix.

13. The contractor shall notify property owner, Donald J Meier, at 815-999-2597 to discuss the possibility of disposing of any clean fill generated by the project on Mr. Meier's property. Mr. Meier has expressed an interest in obtaining clean fill if it is available.

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NUMBER	ITEM	UNITS	TOTAL	80%-FED 20%-STATE 1000 ROADWAY	80%-FED 20%-STATE X081-2A BRIDGE
	20100110	TREE REMOVAL (6 TO 15 UNITS)	UNIT	73	73	
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	42	42	
	[illegible]	[illegible]				
	[illegible]	[illegible]				
	[illegible]	[illegible]				
	20200100	EARTH EXCAVATION	CU. YD	13,852	13,852	
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	139	139	
	20300100	CHANNEL EXCAVATION	CU YD	2382	2382	
	20400800	FURNISHED EXCAVATION	CU YD	2,588	2,588	
	20600310	QUARRY RUN GRANULAR EMBANKMENT	CU YD	3550	3550	
	20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	164		164
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	11142	11142	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	11960	11960	
	21301048	EXPLORATION TRENCH 48" DEPTH	FOOT	500	500	
*	25000210	SEEDING, CLASS 2A	ACRE	2.35	2.35	
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	404	404	
*	25000310	SEEDING, CLASS 4	ACRE	1.91	1.91	
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	404	404	
*	25000320	SEEDING, CLASS 5	ACRE	1.91	1.91	
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	404	404	
*	25000750	MOWING	ACRE	2.35	2.35	
*	25001010	SEEDING, CLASS 2 (MODIFIED)	ACRE	0.22	0.22	
*	25100115	MULCH, METHOD 2	ACRE	5.1	5.1	
	25100630	EROSION CONTROL BLANKET	SQ YD	9430	9430	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	2128	2128	
	28000300	TEMPORARY DITCH CHECKS	EACH	57	57	
	28000400	PERIMETER EROSION BARRIER	FOOT	1005	1005	
	28000500	INLET AND PIPE PROTECTION	EACH	3	3	
	28100107	STONE RIPRAP, CLASS A4	SQ YD	64	51	13
	28100109	STONE RIPRAP, CLASS A5	SQ YD	765		765
	28200200	FILTER FABRIC	SQ YD	842	64	778
	31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	290	290	
	31100910	SUB-BASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	3932	3932	
	31100935	SUB-BASE GRANULAR MATERIAL, TYPE A 18"	SQ YD	6409	6409	
	31100965	SUB-BASE GRANULAR MATERIAL, TYPE A 24"	SQ YD	534	534	
	40600895	CONSTRUCTING TEST STRIP	EACH	2	2	
	40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	253	253	
	40701851	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 8½"	SQ YD	4404	4404	
	40701921	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12"	SQ YD	3489	3489	
	42001165	BRIDGE APPROACH PAVEMENT	SQ YD	270		270

* SPECIALTY ITEM

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

SUMMARY OF QUANTITIES

PLOT DATE = Fri Dec 15 08:46:22 2006
FILE NAME = c:\projects\p203002\d03002cvr.dgn
PLOT SCALE = 50.0000 ' / IN.
USER NAME = ditzlerso

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNITS	TOTAL	80%-FED 20%-STATE NHS I000 ROADWAY	80%-FED 20%-STATE BR X081-2A BRIDGE
42001300	PROTECTIVE COAT	SQ YD	687		687
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	55.3		55.3
44000100	PAVEMENT REMOVAL	SQ YD	8110	8110	
44002400	CURB REMOVAL (SPECIAL)	FOOT	858	858	
44004300	PAVEMENT BREAKING	SQ YD	626	626	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	671	671	
48101300	AGGREGATE SHOULDERS, TYPE B (SPECIAL)	TON	253	253	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	2256	2256	
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	417.2		417.2
50300225	CONCRETE STRUCTURES	CU YD	73.7		73.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	203		203
50300260	BRIDGE DECK GROOVING	SQ YD	549		549
50300280	CONCRETE ENCASEMENT	CU YD	10		10
50400905	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN.	FOOT	771.5		771.5
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	54870		54870
51201105	FURNISH METAL SHELL PILES 14"	FOOT	992		992
51203200	TEST PILE METAL SHELLS	EACH	3		3
51500100	NAME PLATES	EACH	1		1
54210513	PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM, EQUIVALENT ROUND- SIZE 18"	FOOT	40	40	
54213447	END SECTIONS 12"	EACH	4	4	
54213453	END SECTIONS 18"	EACH	2	2	
54214293	END SECTIONS, EQUIVALENT ROUND- SIZE 18"	EACH	1	1	
5422D018	PIPE CULVERTS, CLASS D, TYPE 2 18" (TEMPORARY)	FOOT	43	43	
5423D060	PIPE CULVERTS, CLASS D, TYPE 3 60" (TEMPORARY)	FOOT	336	336	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	82		82
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4		4
60100945	PIPE DRAINS 12"	FOOT	122	122	
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	206	53	153
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	1	1	
60500060	REMOVING INLETS	EACH	1	1	
60900315	TYPE D INLET BOX, STANDARD 609006	EACH	4	4	
60900515	CONCRETE THRUST BLOCKS	EACH	4	4	
61101009	STORM SEWERS PROTECTED, CLASS A, 8"	FOOT	100	100	
61101011	STORM SEWERS PROTECTED, CLASS A, 10"	FOOT	100	100	
61101013	STORM SEWERS PROTECTED, CLASS A, 12"	FOOT	100	100	

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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SUMMARY OF QUANTITIES

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CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	8
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NUMBER	ITEM	UNITS	TOTAL	80%-FED 20%-STATE I000 ROADWAY	80%-FED 20%-STATE X081-2A BRIDGE
	61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	6	6	
	61140000	STORM SEWERS, SPECIAL 8"	FOOT	100	100	
	61140100	STORM SEWERS, SPECIAL 10"	FOOT	100	100	
	61140200	STORM SEWERS, SPECIAL 12"	FOOT	100	100	
*	63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	1700	1700	
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
*	63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	8	8	
	63200310	GUARD RAIL REMOVAL	FOOT	547	547	
	63500105	DELINEATORS	EACH	12	12	
	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	4	4	
	66700305	PERMANENT SURVEY MARKERS, TYPE 2	EACH	2	2	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	9	
	67100100	MOBILIZATION	L SUM	1	1	
	70100200	TRAFFIC CONTROL AND PROTECTION, STANDARD 701331	EACH	1	1	
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
	70100460	TRAFFIC CONTROL & PROTECTION, STANDARD 701306	L SUM	1	1	
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	30	30	
	70300220	TEMPORARY PAVEMENT MARKING LINE 4"	FOOT	14,410	14,410	
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2,131	2,131	
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	19,966	19,966	
	78200410	GUARDRAIL MARKERS, TYPE A	EACH	31	31	
	78200520	BARRIER WALL MARKERS, TYPE B	EACH	6		6
	78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	8	8	
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1073	1073	
*	A2006714	TREE, QUERCUS MACROCARPA (BUR OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	9	9	
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	52		52
	50800515	BAR SPLICERS	EACH	80		80
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	XX004900	TURF REINFORCEMENT MAT	SQ YD	1500	1500	
	52100540	ANCHOR BOLTS, 1½"	EACH	4		4
	51202305	DRIVING PILES	FOOT	992		992
	X0325519	DRAIN FOR AGGREGATE BASE COURSE	SQ YD	7	7	
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
	X6320100	GUARD RAIL REMOVAL (SPECIAL)	FOOT	1000	1000	
++	Z0076600	TRAINEES	HOUR	500	500	

• SPECIALTY ITEMS ++ Y080

REVISIONS NAME	DATE

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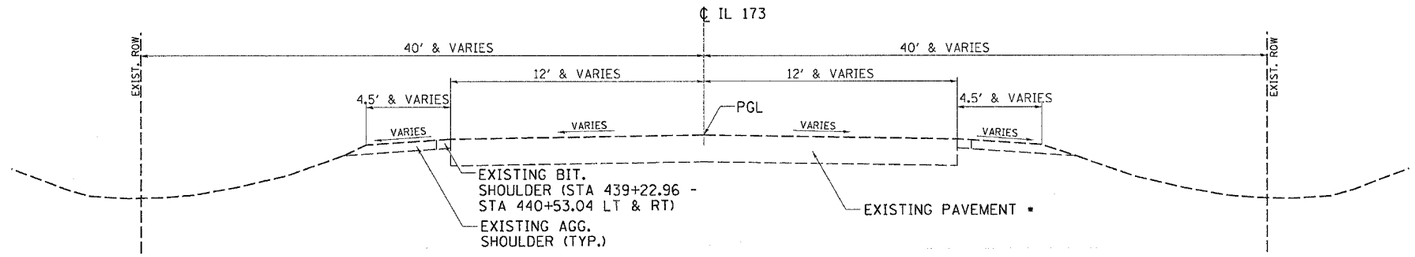
CONTRACT NO. 64800

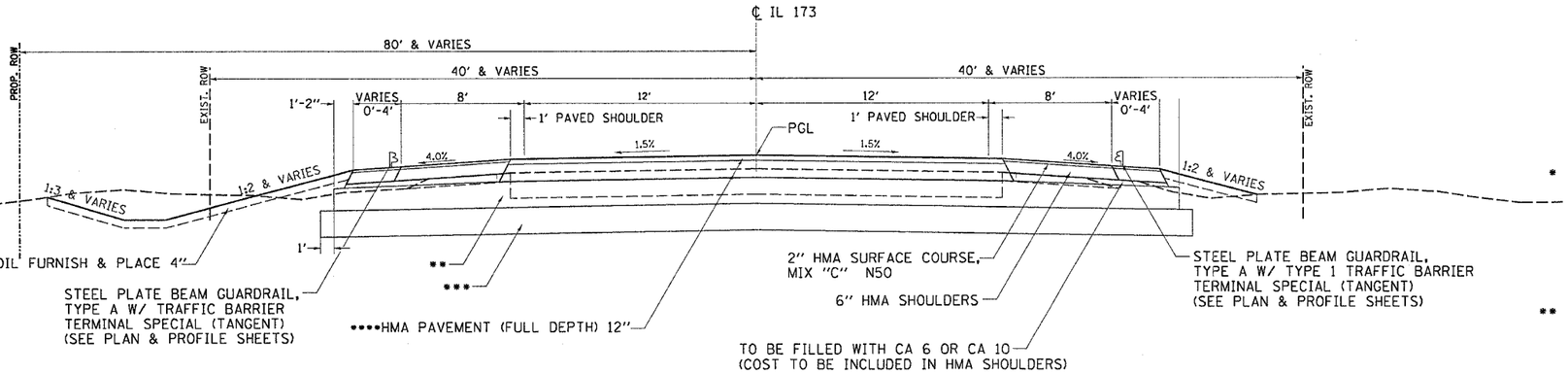
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL SECTIONS



EXISTING TYPICAL SECTION

STA. 432+96 TO STA. 446+96



PROPOSED TYPICAL SECTION

STA. 432+96 TO STA. 438+92.96 & STA. 440+83.04 TO STA. 446+96

* PAVEMENT REMOVAL LIMITS
STA. 432+96 TO STA. 437+50
STA. 438+85 - STA. 439+51.88
STA. 442+00 TO STA. 446+96

PAVEMENT BREAKING LIMITS
STA. 437+50 TO STA. 438+85
STA. 441+18.50 TO STA. 442+00

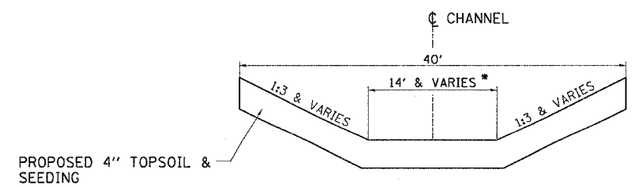
** STA. 432+96 TO STA. 437+50 &
STA. 442+00 TO STA. 446+96
18" GRANULAR SUBBASE MTL TY A WITH GEOTECHNICAL FABRIC FOR GROUND STABILIZATION

STA. 437+50 TO STA. 438+92.96 &
STA. 440+83.04 TO STA. 442+00
12" GRANULAR SUBBASE MTL TY A

*** STA. 440+25 TO STA. 440+83.04
36" QUARRY RUN GRANULAR EMBANKMENT WITH GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (SEE BITUMINOUS SCHEDULE & SCHEDULE OF QUANTITIES)

**** 2" POLYMER HMA SURFACE COURSE, MIX "D" N50 (112 LBS/SQ YD/IN)
2¼" POLYMER BINDER COURSE, IL-19 N50
7¾" HMA BINDER COURSE, IL-19 N50

STRUCTURAL DESIGN INFORMATION - FLEXIBLE PAVEMENT					
STRUCTURAL DESIGN TRAFFIC:		YEAR	2018		
PV =	5520	SU =	205	MU =	275
ROAD/STREET CLASSIFICATION:		Class	II		
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:					
P =	50	S =	50	M =	50
TRAFFIC FACTOR:	Actual TF =	1.3		Minimum TF =	3.81
AC Type =	20		AC Mixture Temp. =	76°F	
AC Mixture Modulus =	650		Design Strain =	69	
AC GRADE:	Binder:			Surface =	SBS PG 64-28
	2-1/4"	SBS PG 64-28			
	7-3/4"	PG 64-22			
Flexible Pavement Thickness =	12"	Surface =	2"	Binder =	10"
SUBGRADE SUPPORT RATING:					
SSR =	Poor	(Sta.	432+96	to	446+96)



* PROPOSED STREAM CHANNEL SECTION

PROPOSED BEAVER CREEK CHANNEL SECTION

STA. 999+50 TO STA. 1002+25

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION

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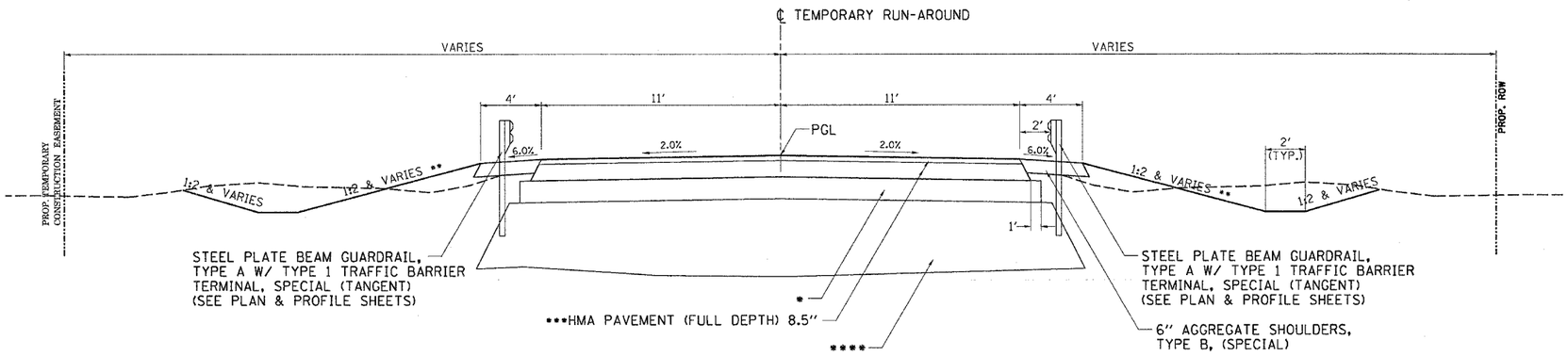
IL 173 TYPICAL SECTIONS

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	10
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL SECTIONS



PROPOSED RUNAROUND TYPICAL SECTION

STA. 100+00 TO STA. 122+38

STRUCTURAL DESIGN INFORMATION - FLEXIBLE PAVEMENT					
STRUCTURAL DESIGN TRAFFIC:		YEAR	2018		
PV =	5520	SU =	205	MU =	275
ROAD/STREET CLASSIFICATION:		Class	II		
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:					
P =	50	S =	50	M =	50
TRAFFIC FACTOR:	Actual TF =	1.3		Minimum TF =	3.81
AC Type =	20		AC Mixture Temp. =	76°F	
AC Mixture Modulus =	650		Design Strain =	69	
AC GRADE:	Binder =	PG 64-22		Surface =	PG 64-22
Flexible Pavement Thickness =	8.5"	Surface =	2"	Binder =	6.5"
SUBGRADE SUPPORT RATING:					
SSR =	Poor	(Sta.	432+96	to	446+96)

* 18" SUB-BASE GRANULAR MATERIAL TYPE A W/ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
STA 100+85 - STA 104+50 &
STA 116+00 - STA 120+50

24" SUB-BASE GRANULAR MATERIAL TYPE A W/ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
STA 104+50 - STA 105+50 &
STA 115+00 - STA 116+00

** 1:2 FORESLOPES FROM STA 110+50 LT - STA 114+00 LT & STA 107+75 RT - STA 115+25 RT

*** 2" HMA SURFACE COURSE, MIX "D" N50 (112 LBS/SQ YD/ IN)
6.5" HMA BINDER COURSE, IL-19 N50

**** QUARRY RUN GRANULAR EMBANKMENT
VARIABLE DEPTH (24" - 42")
STA 105+50 - STA 116+00
(SEE BITUMINOUS SCHEDULE FOR QUARRY RUN THICKNESSES)

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION

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RUNAROUND TYPICAL SECTION

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BITUMINOUS SCHEDULE

PAY CODES:

STATIONING	REMARKS	LENGTH	AVG. WIDTH	MAINLINE AREA	SHOULDER AREA	31100300 SUBBASE GRANULAR MTL TYPE A 4"	31100910 SUBBASE GRANULAR MTL TYPE A 12"	31100935 SUBBASE GRANULAR MTL TYPE A 18"	31100965 SUBBASE GRANULAR MTL TYPE A 24"	21001000 ** GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	20600310 ** QUARRY RUN GRANULAR EMBANKMENT VARIABLE THICKNESS 24" - 42"		42001165 BRIDGE APPROACH PAVEMENT	40701851 HMA PAVEMENT	40701921 HMA PAVEMENT	40603310 HMA SURFACE COURSE	48203021 HMA SHOULDERS	48101300 AGG. SHLDERS TYPE B	48101200 AGG. SHLDERS
		FEET	FEET	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.	THICKNESS (In.)	CU. YD.	SQ. YD.	SQ. YD.	SQ. YD.	TON	SQ. YDS	TON	TON
IL RTE 173																			
429 + 0 to 432 + 96	IL 173 - LT	396	26.00	1144.00	253.00										0.00			140	
432 + 96.00 to 436 + 86.24	IL 173 LT	390.24	13.00	563.68	303.52			917.80		917.80					563.68	34.0	304		
436 + 86.24 to 437 + 50	IL 173 LT	63.76	13.00	93.89	63.76			173.67		173.70					93.89	8.3	74		
437 + 50.00 to 438 + 92.96	IL 173 LT	142.96	13.00	206.50	174.73		393.69								206.37	18.2	163		
432 + 96.00 to 435 + 16.68	IL 173 RT	220.68	13.00	318.76	171.64			519.30		519.30					317.18	19.2	172		
435 + 16.68 to 437 + 50	IL 173 RT	233.32	13.00	337.02	233.32			625.80		625.80					332.92	29.2	261		
437 + 50.00 to 438 + 92.96	IL 173 RT	142.96	13.00	206.50	174.73		380.00								203.73	17.5	156		
438 + 92.96 to 439 + 22.96	W. APPROACH PAVEMENT - LT & RT	30	40.50	135.00		145.0				145.00			135.00		0.00				
439 + 22.96 to 440 + 53.04	PROPOSED BRIDGE	130.08								149.55	36	149.55							
440 + 53.04 to 440 + 83.04	E. APPROACH PAVEMENT - LT & RT	30	40.50	135.00		145.0				295.00	36	150.00	135.00		0.00				
440 + 83.04 to 442 + 0	IL 173 LT	116.96	13.00	168.94	259.91		303.70								167.98	14.2	127		
442 + 0.00 to 443 + 71.81	IL 173 LT	171.81	13.00	248.17	190.90			463.00		463.00					249.18	21.6	192		
443 + 71.81 to 446 + 96.00	IL 173 LT	324.19	13.00	468.27				762.56		762.60					468.27	28.2	252		
446 + 96.00 to 450 + 0.00		304																113	
440 + 83.04 to 442 + 0.00	IL 173 RT	116.96	13.00	168.94			319.91								169.91	15.0	134		
442 + 0.00 to 443 + 2.27	IL 173 RT	102.27	13.00	147.72				275.63		275.60					147.12	12.9	115		
443 + 2.27 to 446 + 96.00	IL 173 RT	393.73	13.00	568.72				925.93		925.90					568.74	34.3	306		
TEMPORARY RUNAROUND																			0
100 + 85 to 104 + 50		365	-	568.35				623.72		623.80				568.35					125
104 + 50 to 105 + 50		100		244.40					267.52	267.50				244.40					34
105 + 50 to 106 + 50		100		244.50			261.93			277.80	24	210.40		244.50					34
106 + 50 to 107 + 0		50		122.25			137.47			183.50	30	127.35		122.25					17
107 + 0 to 107 + 50		50		122.25			133.38			190.60	42	178.25		122.25					17
107 + 50 to 108 + 0		50		122.25			135.72			190.60	42	176.15		122.25					17
108 + 0 to 110 + 50		250		611.15			666.67			931.10	36	931.15		611.15					85
110 + 50 to 111 + 0		50		122.25			133.33			186.30	36	186.20		122.25					17
111 + 0 to 112 + 0		100		244.50			266.67			447.80	30	360.75		244.50					34
112 + 0 to 114 + 0		200		489.00			533.33			843.30	36-42	810.35		489.00					68
114 + 0 to 114 + 50		50		122.25			133.33			183.30	30	152.75		122.25					17
114 + 50 to 115 + 0		50		122.25			133.33			175.00	24	116.65		122.25					17
115 + 0 to 116 + 0		100		244.50					266.56	266.60				244.50					34
116 + 0 to 120 + 50		450		1024.10				1121.57		1121.60				1024.10					154
GRAND TOTAL				4404		290	3932	8409	534	11142		3550	270	4404	3489	253	2256	253	671

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BITUMINOUS SCHEDULE

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTH WORK SCHEDULE

CONTRACT NO: 64800

EARTH WORK SCHEDULE

PAY CODE: 20200100 EARTH EXCAVATION
20300100 CHANNEL EXCAVATION
20400800 FURNISHED EXCAVATION

LOCATION	EARTH EXC (CUT)	EARTH EXC ADJ SHRINK 25%	EMBANK (FILL)	EARTH WORK BALANCE WASTE (+) SHORTAGE (-)
TEMPORARY RUNAROUND STAGE I	CU YD	CU YD	CU YD	CU YD
100+50 - 109+00	978	734	784	-51
109+00 - 120+50	1783	1337	1332	5
IL 173 & RUNAROUND STAGE II				
428+50 - 437+00	1041	781	844	-63
437+00 - 447+50	1947	1460	3939	-2479
RUNAROUND REMOVAL STAGE III				
428+50 - 437+00	2468	1851	445	1406
437+00 - 450+00	5635	4226	653	3573
CREEK CHANNEL REALIGNMENT STAGE I				
999+50 - 1002+25	1938	1454	502	952
CREEK CHANNEL REALIGNMENT STAGE II				
999+50 - 1002+25	378	284	174	110
CREEK CHANNEL REALIGNMENT STAGE III				
999+50 - 1002+25	66	50	313	-264
TOTAL	16234	12176	8986	3190

EARTHWORK STAGING SEQUENCE NOTES

Stage I
Sta. 100+50 - Sta. 109+00
Haul in 51 Cu. Yds. as Furnished Excavation from outside source.

Sta. 109+00 - Sta. 120+50
Haul 5 Cu. Yds. To Mainline Construction Area Sta. 432+50 - Sta. 437+00 (Stage II).

Beaver Creek Channel Realignment
Haul 58 Cu. Yds. To Mainline Construction Area Sta. 432+50 - Sta. 437+00 (Stage II).
from Channel Realignment Stage I to IL 173 Mainline Construction Sta. 432+96 - Sta. 437+00 ONLY if soil is approved for use by a representative of the Districts Geotechnical Unit.
Waste 894 Cu. Yds. From Stage I Beaver Creek Channel Realignment UNLESS approved for use by a representative of the Districts Geotechnical Engineer.

Stage II
IL 173 Mainline Construction Sta. 432+96 - 437+00
Haul in 58 Cu. Yds. as Furnished Excavation from outside source UNLESS existing soil taken from Stage I Beaver Creek Channel Realignment excavation is approved for use by a representative of the Districts Geotechnical Unit.
Haul 5 Cu. Yds. from Stage I Runaround Construction Sta. 109+00 - Sta. 120+50.

IL 173 Mainline Construction Sta. 437+00 - Sta. 447+50
Haul in 2479 Cu. Yds. as Furnished Excavation from outside source UNLESS soil taken from the Beaver Creek Channel realignment has been approved for use by a representative of the the Districts Geotechnical Unit.

Beaver Creek Channel Realignment
Waste 110 Cu. Yds. From Stage II Beaver Creek Channel Realignment unless approved for use by a representative of the Districts Geotechnical Unit.

Stage III
Temporary Runaround Removal Sta. 428+00 - Sta. 437+00
Haul 264 Cu. Yds. To Beaver Creek Channel Realignment Stage III Sta. 999+50 - Sta. 1002+25
Waste 1,142 Cu. Yds.

Temporary Runaround Removal Sta. 437+00 - Sta. 450+00
Waste 3,573 Cu. Yds.

Excavated material from Beaver Creek Channel Realignment must be approved by a representative of the Districts Geotechnical Unit prior to use

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EARTH WORK SCHEDULE

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CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	13
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

20100110 TREE REMOVAL (6 TO 15 UNITS IN DIAMETER)

UNIT	LOCATION	OFFSET (FT)	
8	STA. 440+41	160	LT
11	STA. 440+43	182	LT
13	STA. 440+47	144	LT
10	STA. 440+50	61.7	RT
8	STA. 440+52	62.2	RT
8	STA. 440+56	58.8	RT
7	STA. 440+64	45.5	RT
8	STA. 440+74	45.25	RT
73	TOTAL		

20100210 TREE REMOVAL (OVER 15 UNITS IN DIAMETER)

UNIT	LOCATION	OFFSET (FT)	
42	STA. 440+32	52.87	LT
42	TOTAL		

20201200 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

CU. YD.	LOCATION			
70	STA. 111+60	TO	112+21	STAGE I - 11'-44' LT (24") EXISTING CHANNEL
41	STA. 112+15	TO	112+50	STAGE I - RT (24") EXISTING CHANNEL
28	STA. 440+22	TO	440+64	STAGE II - 34' RT (24") - EXISTING CHANNEL
139	TOTAL			

21101615 TOPSOIL FURNISH AND PLACE 4"

SQ. YD.	LOCATION			
7505	STA. 428+00	TO	450+00	STAGE III - LT
4455	STA. 428+00	TO	450+00	STAGE II - RT
11960	TOTAL			

21301048 EXPLORATION TRENCH 48" DEPTH

FOOT	LOCATION			
300	STA. 500+00	TO	504+55.65	LT & RT (BEAVER CREEK)
200	STA. 432+96	TO	446+96	LT & RT (CONTINGENCY)
500	TOTAL			

25000210 SEEDING, CLASS 2A

ACRE	LOCATION			
1.60	STA. 428+00	TO	450+00	STAGE III - LT
0.75	STA. 428+00	TO	446+96	STAGE II - RT
2.35	TOTAL			

25000310 SEEDING, CLASS 4

ACRE	LOCATION			
1.60	STA. 428+00	TO	450+00	STAGE III - LT
0.25	STA. 428+00	TO	446+96	STAGE II - RT
0.06	STA. 999+50	TO	1002+25	STAGE III - LT & RT - 5' ALONG BOTH SIDES OF THE TOP OF CHANNEL
1.91	TOTAL			

25000320 SEEDING, CLASS 5

ACRE	LOCATION			
1.60	STA. 428+00	TO	450+00	STAGE III - LT
0.25	STA. 428+00	TO	446+96	STAGE II - RT
0.06	STA. 999+50	TO	1002+25	STAGE III - LT & RT
1.91	TOTAL			

25000400 NITROGEN FERTILIZER NUTRIENT

POUND	LOCATION			
288	STA. 428+00	TO	450+00	STAGE III - LT
90	STA. 428+00	TO	446+96	STAGE II - RT
6	STA. 999+50	TO	1002+25	STAGE III - LT & RT - 5' ALONG BOTH SIDES OF THE TOP OF CHANNEL
20	STA. 999+50	TO	1002+25	FORESLOPES
404	TOTAL			

25000500 PHOSPHOROUS FERTILIZER NUTRIENT

POUND	LOCATION			
288	STA. 428+00	TO	450+00	STAGE III - LT
90	STA. 428+00	TO	446+96	STAGE II - RT
6	STA. 999+50	TO	1002+25	STAGE III - LT & RT - 5' ALONG BOTH SIDES OF THE TOP OF CHANNEL
20	STA. 999+50	TO	1002+25	FORESLOPES
404	TOTAL			

25000600 POTASSIUM FERTILIZER NUTRIENT

POUND	LOCATION			
288	STA. 428+00	TO	450+00	STAGE III - LT
90	STA. 428+00	TO	446+96	STAGE II - RT
6	STA. 999+50	TO	1002+25	STAGE III - LT & RT - 5' ALONG BOTH SIDES OF THE TOP OF CHANNEL
20	STA. 999+50	TO	1002+25	FORESLOPES
404	TOTAL			

25000750 MOWING

ACRE	LOCATION			
1.60	STA. 428+00	TO	450+00	LT
0.75	STA. 428+00	TO	450+00	RT
2.35	TOTAL			

25001010 SEEDING, CLASS 2 (MODIFIED)

ACRE	LOCATION			
0.22	STA. 999+50	TO	1002+25	STAGE III - LT & RT
0.22	TOTAL			

25100115 MULCH, METHOD 2

ACRE	LOCATION			
0.90	STA. 100+00	TO	121+00	STAGE I - LT - RUNAROUND
3.20	STA. 428+00	TO	450+00	STAGE III - LT
1.00	STA. 428+00	TO	450+00	STAGE II - RT
5.10	TOTAL			

25100630 EROSION CONTROL BLANKET

SQ. YD	LOCATION			
2673	STA. 100+00	TO	121+00	LT (RUNAROUND)
1087	STA. 100+00	TO	121+00	RT (RUNAROUND)
2147	STA. 428+00	TO	447+00	LT - STAGE II
2273	STA. 428+00	TO	447+50	RT - STAGE II
1250	STA. 429+00	TO	450+00	LT - STAGE III
9430	TOTAL			

REVISIONS NAME	DATE

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PLOT DATE = Fri Feb 23 09:46:16 2007
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CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	14
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

28000250 TEMPORARY EROSION CONTROL SEEDING

POUND	LOCATION			
1135	STA. 100+00	TO	121+00	STAGE I - LT & RT (RUNAROUND)
993	STA. 428+00	TO	450+00	STAGE II - LT - IL 173
2128	TOTAL			

28000300 TEMPORARY DITCH CHECKS

EACH	LOCATION		
1	STA. 101+00	20' LT	
1	STA. 102+50	22.75' LT	STAGE I - TEMP RUNAROUND
1	STA. 104+00	27' LT	STAGE I - TEMP RUNAROUND
1	STA. 105+50	31.4' LT	STAGE I - TEMP RUNAROUND
1	STA. 107+00	35.6' LT	STAGE I - TEMP RUNAROUND
1	STA. 108+50	38' LT	STAGE I - TEMP RUNAROUND
1	STA. 110+00	42' LT	STAGE I - TEMP RUNAROUND
1	STA. 111+50	28' LT	STAGE I - TEMP RUNAROUND
1	STA. 112+25	35' LT	STAGE I - TEMP RUNAROUND
1	STA. 113+00	29' LT	STAGE I - TEMP RUNAROUND
1	STA. 113+75	26' LT	STAGE I - TEMP RUNAROUND
1	STA. 114+60	28' LT	STAGE I - TEMP RUNAROUND
1	STA. 116+00	29' LT	STAGE I - TEMP RUNAROUND
1	STA. 117+50	27' LT	STAGE I - TEMP RUNAROUND
1	STA. 119+00	25' LT	STAGE I - TEMP RUNAROUND
1	STA. 120+50	24' LT	STAGE I - TEMP RUNAROUND
1	STA. 108+00	27' RT	STAGE I - TEMP RUNAROUND
1	STA. 109+50	27' RT	STAGE I - TEMP RUNAROUND
1	STA. 111+00	28' RT	STAGE I - TEMP RUNAROUND
1	STA. 112+50	30' RT	STAGE I - TEMP RUNAROUND
1	STA. 114+00	30' RT	STAGE I - TEMP RUNAROUND
1	STA. 433+00	23' LT	STAGE II - IL 173
1	STA. 433+00	31' RT	STAGE II - IL 173
2	STA. 434+50	36' LT&RT	STAGE II - IL 173
1	STA. 436+00	42' LT	STAGE II - IL 173
1	STA. 436+00	39' RT	STAGE II - IL 173
2	STA. 437+50	44' LT&RT	STAGE II - IL 173
1	STA. 439+00	44' LT	STAGE II - IL 173
1	STA. 439+00	47' RT	STAGE II - IL 173
1	STA. 440+25	55' RT	STAGE II - IL 173
1	STA. 440+50	40' LT	STAGE II - IL 173
1	STA. 440+50	53' RT	STAGE II - IL 173
1	STA. 441+25	49' RT	STAGE II - IL 173
1	STA. 442+00	47' LT	STAGE II - IL 173
1	STA. 442+00	45' RT	STAGE II - IL 173
1	STA. 442+75	48' RT	STAGE II - IL 173
1	STA. 443+50	43' LT	STAGE II - IL 173
1	STA. 443+50	41' RT	STAGE II - IL 173
1	STA. 445+00	35' LT	STAGE II - IL 173
1	STA. 445+00	39' RT	STAGE II - IL 173
1	STA. 446+50	22' LT	STAGE II - IL 173
1	STA. 446+50	32' RT	STAGE II - IL 173
1	STA. 432+00	27' LT	STAGE III - IL 173
1	STA. 433+50	30' LT	STAGE III - IL 173
1	STA. 436+50	55' LT	STAGE III - IL 173
1	STA. 438+00	69' LT	STAGE III - IL 173
1	STA. 438+75	69' LT	STAGE III - IL 173
1	STA. 439+50	51' LT	STAGE III - IL 173
1	STA. 440+50	44' LT	STAGE III - IL 173
1	STA. 442+00	59' LT	STAGE III - IL 173
1	STA. 443+50	52' LT	STAGE III - IL 173
1	STA. 445+00	41' LT	STAGE III - IL 173
1	STA. 446+50	35' LT	STAGE III - IL 173
1	STA. 448+00	30' LT	STAGE III - IL 173
1	STA. 449+50	28' LT	STAGE III - IL 173
57	TOTAL		

28000400 PERIMETER EROSION BARRIER

FOOT	LOCATION			
100	STA. 107+00	TO	108+00	LT STAGE I - RUNAROUND
100	STA. 114+00	TO	115+00	LT STAGE I - RUNAROUND
251	STA. 433+50	TO	436+00	RT STAGE II - IL 173
103	STA. 439+50	TO	440+50	RT STAGE II - IL 173
251	STA. 433+50	TO	436+00	LT STAGE III - IL 173
200	STA. 443+00	TO	445+00	LT STAGE III - IL 173
1005	TOTAL			

28000500 INLET & PIPE PROTECTION

EACH	LOCATION		
1	STA. 107+50	17' RT	STAGE II - RUNAROUND
1	STA. 111+85	38' LT	STAGE I - RUNAROUND
1	STA. 114+50	19' RT	STAGE II - RUNAROUND
3	TOTAL		

28100107 STONE RIPRAP, CLASS A4

SQ. YD.	LOCATION		
3.3	STA. 107+50	5' x 6'	STAGE I - RUNAROUND
44.4	STA. 111+78	10' x 40'	STAGE I - RUNAROUND
3.3	STA. 114+50	5' x 6'	STAGE I - RUNAROUND
3.1	STA. 439+05	3.5' x 8'	STAGE II - RT
3.1	STA. 439+12.27	3.5' x 8'	STAGE III - LT
3.1	STA. 440+63.73	3.5' x 8'	STAGE II - RT
3.1	STA. 440+70.78	3.5' x 8'	STAGE III - LT
64	TOTAL		

28200200 FILTER FABRIC

SQ. YD.	LOCATION		
3.3	STA. 107+50	5' x 6'	STAGE I - RUNAROUND
44.4	STA. 111+78	10' x 40'	STAGE I - RUNAROUND
3.3	STA. 114+50	5' x 6'	STAGE I - RUNAROUND
3.1	STA. 439+05	3.5' x 8'	STAGE II - RT
3.1	STA. 439+12.27	3.5' x 8'	STAGE III - LT
3.1	STA. 440+63.73	3.5' x 8'	STAGE II - RT
3.1	STA. 440+70.78	3.5' x 8'	STAGE III - LT
64	TOTAL		

42001430 BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

SQ. YD.	LOCATION		
27.65	STA. 438+92.96	CENTERED	6' x 41.47'
27.65	STA. 440+83.04	CENTERED	6' x 41.47'
55.3	TOTAL		

44000100 PAVEMENT REMOVAL

SQ. YD.	LOCATION			
5172.69	STA. 100+35.6	TO	121+51.7	
1311.56	STA. 432+96	TO	437+50	
193.21	STA. 438+85	TO	439+51.88	
1432.89	STA. 442+00	TO	446+96	
8110	TOTAL			

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
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CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	15
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

44002400 CURB REMOVAL (SPECIAL)

FOOT	LOCATION		
503	STA. 437+35	TO 442+38	LT
355	STA. 437+88	TO 441+43	RT
858 TOTAL			

44004300 PAVEMENT BREAKING

SQ. YD.	LOCATION	
390	STA. 437+50	TO 438+85
236	STA. 441+18.5	TO 442+00
626 TOTAL		

50100300 REMOVAL OF EXISTING STRUCTURES NO. 1

EACH	LOCATION	
1	STA. 440+34.95	IL 173 BRIDGE
1 TOTAL		

54210513 PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM EQUIVALENT ROUND - SIZE 18"

FOOT	LOCATION	
40	STA. 114+50	AR CULVERT
40 TOTAL		

54213447 END SECTIONS 12"

EACH	LOCATION	
1	STA. 439+12.27	BRIDGE DRAIN LT
1	STA. 439+05.22	BRIDGE DRAIN RT
1	STA. 440+70.78	BRIDGE DRAIN LT
1	STA. 440+63.73	BRIDGE DRAIN RT
4 TOTAL		

54213453 END SECTIONS 18"

EACH	LOCATION	
2	STA. 107+50	AR CULVERT
2 TOTAL		

54214293 END SECTIONS, EQUIVALENT ROUND - SIZE 18"

EACH	LOCATION	
1	STA. 114+50	AR CULVERT
1 TOTAL		

5422D018 PIPE CULVERTS, CLASS D, TYPE 2 18" (TEMPORARY)

FOOT	LOCATION	
43	STA. 107+50	AR CULVERT
43 TOTAL		

5423D060 PIPE CULVERTS, CLASS D, TYPE 3 60" (TEMPORARY)

FOOT	LOCATION	
336	STA. 111+80	AR CULVERT (6 EA. @ 56')
336 TOTAL		

60100060 CONCRETE HEADWALL FOR PIPE DRAIN

EACH	LOCATION	
1	STA. 439+24.77	WEST ABUTMENT LT
1	STA. 439+19.15	WEST ABUTMENT RT
1	STA. 440+56.85	EAST ABUTMENT LT
1	STA. 440+49.23	EAST ABUTMENT RT
4 TOTAL		

60100945 PIPE DRAINS 12"

FOOT	LOCATION	
32	STA. 439+12.27	BRIDGE DRAIN LT
25.5	STA. 439+05.22	BRIDGE DRAIN RT
33.5	STA. 440+70.78	BRIDGE DRAIN LT
31	STA. 440+63.73	BRIDGE DRAIN RT
122 TOTAL		

60109580 PIPE UNDERDRAINS FOR STRUCTURES 4"

FOOT	LOCATION	
13.25	STA. 439+24.77	WEST ABUTMENT LT
13.25	STA. 439+19.15	WEST ABUTMENT RT
13.25	STA. 440+56.85	EAST ABUTMENT LT
13.25	STA. 440+49.23	EAST ABUTMENT RT
53 TOTAL		

60236200 INLETS, TYPE A, TYPE 8 GRATE

EACH	LOCATION	
1	STA. 114+50	STAGE I
1 TOTAL		

60500060 REMOVING INLETS

EACH	LOCATION	
1	STA. 114+50	STAGE III
1 TOTAL		

60900315 TYPE D INLET BOX, STANDARD 609006

EACH	LOCATION	
1	STA. 439+12.27	BRIDGE DRAIN LT
1	STA. 439+05.22	BRIDGE DRAIN RT
1	STA. 440+70.78	BRIDGE DRAIN LT
1	STA. 440+63.73	BRIDGE DRAIN RT
4 TOTAL		

60900515 CONCRETE THRUST BLOCKS

EACH	LOCATION	
1	STA. 439+12.27	BRIDGE LT
1	STA. 439+05.22	BRIDGE RT
1	STA. 440+70.78	BRIDGE LT
1	STA. 440+63.73	BRIDGE RT
4 TOTAL		

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CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

61101009 STORM SEWERS PROTECTED, CLASS A 8"

FOOT	LOCATION				
50	STA. 429+00	TO	450+00	LT & RT	
50	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
100	TOTAL				

61101011 STORM SEWERS PROTECTED, CLASS A 10"

FOOT	LOCATION				
50	STA. 429+00	TO	450+00	LT & RT	
50	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
100	TOTAL				

61101013 STORM SEWERS PROTECTED, CLASS A 12"

FOOT	LOCATION				
50	STA. 429+00	TO	450+00	LT & RT	
50	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
100	TOTAL				

61133100 FIELD TILE JUNCTION VAULTS, 2' DIA.

EACH	LOCATION				
4	STA. 429+00	TO	450+00	LT & RT	
2	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
6	TOTAL				

61140000 STORM SEWERS, SPECIAL 8"

FOOT	LOCATION				
50	STA. 429+00	TO	450+00	LT & RT	
50	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
100	TOTAL				

61140100 STORM SEWERS, SPECIAL 10"

FOOT	LOCATION				
50	STA. 429+00	TO	450+00	LT & RT	
50	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
100	TOTAL				

61140200 STORM SEWERS, SPECIAL 12"

FOOT	LOCATION				
50	STA. 429+00	TO	450+00	LT & RT	
50	STA. 500+00	TO	502+75	CHANNEL REALIGNMENT LT & RT	
100	TOTAL				

63000000 STEEL PLATE BEAM GUARD RAIL, TYPE A

FOOT	LOCATION				
325	STA. 110+56.50	TO	113+81.50	LT-RUNAROUND	
675	STA. 108+18.00	TO	114+93.00	RT-RUNAROUND	
112.5	STA. 437+70.24	TO	438+82.74	LT - IL 173	
275	STA. 436+00.68	TO	438+75.68	RT - IL 173	
187.5	STA. 441+00.32	TO	442+87.82	LT - IL 173	
125	STA. 440+93.26	TO	442+18.26	RT - IL 173	
1700	TOTAL				

63100085 TRAFFIC BARRIER TERMINAL, TYPE 6

EACH	LOCATION			
1	STA. 438+82.74	TO	439+26.49	LT
1	STA. 438+75.68	TO	439+19.43	RT
1	STA. 440+56.57	TO	441+00.32	LT
1	STA. 440+49.51	TO	440+93.26	RT
4	TOTAL			

63100167 TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

EACH	LOCATION			
1	STA. 110+06.50	TO	110+56.50	LT - RUNAROUND
1	STA. 107+68.00	TO	108+18.00	RT - RUNAROUND
1	STA. 113+81.50	TO	114+31.50	LT - RUNAROUND
1	STA. 114+93.00	TO	115+43.00	RT - RUNAROUND
1	STA. 437+20.24	TO	437+70.24	LT - IL 173
1	STA. 435+50.68	TO	436+00.68	RT - IL 173
1	STA. 442+87.82	TO	443+37.82	LT
1	STA. 442+18.26	TO	442+68.26	RT
8	TOTAL			

63200310 GUARDRAIL REMOVAL

FOOT	LOCATION			
127	STA. 438+00	TO	439+27	LT
120	STA. 438+00	TO	439+20	RT
150	STA. 440+50	TO	442+00	LT
150	STA. 440+50	TO	442+00	RT
547	TOTAL			

63500105 DELINEATORS

EACH	LOCATION		
2	STA. 107+50	LT & RT	AR CULVERT
1	STA. 107+68	RT	TY 1 -TRAFFIC BARRIER TERMINAL
1	STA. 110+06.50	LT	TY 1 -TRAFFIC BARRIER TERMINAL
1	STA. 114+31.50	LT	TY 1 -TRAFFIC BARRIER TERMINAL
2	STA. 114+50.00	LT & RT	AR CULVERT
1	STA. 115+43	RT	TY 1 -TRAFFIC BARRIER TERMINAL
1	STA. 437+23.01	LT	TY 1 -TRAFFIC BARRIER TERMINAL
1	STA. 435+52.90	RT	TY 1 -TRAFFIC BARRIER TERMINAL
1	STA. 443+35.31	LT	TY 1 -TRAFFIC BARRIER TERMINAL
1	STA. 442+65.48	RT	TY 1 -TRAFFIC BARRIER TERMINAL
12	TOTAL		

66600105 FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS

EACH	LOCATION	
1	STA. 431+00	40' LT
1	STA. 437+00	90' LT
1	STA. 442+00	90' LT
1	STA. 448+00	40' LT
4	TOTAL	

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

70300220 TEMPORARY PAVEMENT MARKING - LINE 4"

FOOT	LOCATION				
447	STA. 429+00	TO	102+30	CL	DOUBLE SOLID YELLOW- RUNAROUND
303	STA. 429+00	TO	103+00	RTEOP	SOLID WHITE-RUNAROUND
514	STA. 120+00	TO	450+00	CL	DOUBLE SOLID YELLOW- RUNAROUND
92	STA. 120+60	TO	450+00	LTEOP	SOLID WHITE-RUNAROUND
279	STA. 119+30	TO	450+00	RTEOP	SOLID WHITE-RUNAROUND
325	STA. 429+00	TO	435+50	CL	YELLOW - SKIP DASH (DOUBLE COAT)
3800	STA. 435+50	TO	445+00	CL	SOLID DOUBLE YELLOW (DOUBLE COAT)
250	STA. 445+00	TO	450+00	CL	YELLOW - SKIP DASH (DOUBLE COAT)
4200	STA. 429+00	TO	450+00	RTEOP	SOLID WHITE (DOUBLE COAT)
4200	STA. 429+00	TO	450+00	LTEOP	SOLID WHITE (DOUBLE COAT)
14410 TOTAL					

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

SQ. FT.	LOCATION				
55	STA. 429+00	TO	435+50	CL	YELLOW - SKIP DASH (DOUBLE COAT)
634	STA. 435+50	TO	445+00	CL	SOLID DOUBLE YELLOW (DOUBLE COAT)
42	STA. 445+00	TO	450+00	CL	YELLOW - SKIP DASH (DOUBLE COAT)
700	STA. 429+00	TO	450+00	RTEOP	SOLID WHITE (DOUBLE COAT)
700	STA. 429+00	TO	450+00	LTEOP	SOLID WHITE (DOUBLE COAT)
2131 TOTAL					

78001110 PAINT PAVEMENT MARKING - LINE 4"

FOOT	LOCATION				
3600	STA. 102+30	TO	120+00	CL	SOLID YELLOW- RUNAROUND
1985	STA. 100+85	TO	120+60	LTEOP	SOLID WHITE-RUNAROUND
1606	STA. 103+00	TO	119+30	RTEOP	SOLID WHITE-RUNAROUND
325	STA. 429+00	TO	435+50	CL	YELLOW - SKIP DASH (DOUBLE COAT)
3800	STA. 435+50	TO	445+00	CL	SOLID DOUBLE YELLOW (DOUBLE COAT)
250	STA. 445+00	TO	450+00	CL	YELLOW - SKIP DASH (DOUBLE COAT)
4200	STA. 429+00	TO	450+00	RTEOP	SOLID WHITE (DOUBLE COAT)
4200	STA. 429+00	TO	450+00	LTEOP	SOLID WHITE (DOUBLE COAT)
19966 TOTAL					

78200410 GUARDRAIL MARKERS, TYPE A

EACH	LOCATION		
1	STA. 108+20	RT	MONODIRECTIONAL SILVER
1	STA. 109+00	RT	MONODIRECTIONAL SILVER
1	STA. 109+80	RT	MONODIRECTIONAL SILVER
2	STA. 110+60	LT & RT	MONODIRECTIONAL SILVER
2	STA. 111+40	LT & RT	MONODIRECTIONAL SILVER
2	STA. 112+20	LT & RT	MONODIRECTIONAL SILVER
2	STA. 113+00	LT & RT	MONODIRECTIONAL SILVER
2	STA. 113+80	LT & RT	MONODIRECTIONAL SILVER
1	STA. 114+60	RT	MONODIRECTIONAL SILVER
1	STA. 436+25	RT	MONODIRECTIONAL SILVER
1	STA. 436+75	RT	MONODIRECTIONAL SILVER
1	STA. 437+25	RT	MONODIRECTIONAL SILVER
2	STA. 437+75	LT & RT	MONODIRECTIONAL SILVER
2	STA. 438+25	LT & RT	MONODIRECTIONAL SILVER
2	STA. 438+75	LT & RT	MONODIRECTIONAL SILVER
2	STA. 440+75	LT & RT	MONODIRECTIONAL SILVER
2	STA. 441+25	LT & RT	MONODIRECTIONAL SILVER
2	STA. 441+75	LT & RT	MONODIRECTIONAL SILVER
1	STA. 442+25	LT	MONODIRECTIONAL SILVER
1	STA. 442+75	LT	MONODIRECTIONAL SILVER
31 TOTAL			

78200520 BARRIER WALL MARKERS, TYPE B

EACH	LOCATION		
2	STA. 439+25	LT & RT	MONODIRECTIONAL SILVER
2	STA. 439+75	LT & RT	MONODIRECTIONAL SILVER
2	STA. 440+25	LT & RT	MONODIRECTIONAL SILVER
6 TOTAL			

78201000 TERMINAL MARKER-DIRECT APPLIED

EACH	LOCATION	
1	STA. 110+06.50	LT
1	STA. 107+68	RT
1	STA. 114+31.50	LT
1	STA. 115+43	RT
1	STA. 437+23.01	LT
1	STA. 435+52.90	RT
1	STA. 443+35.31	LT
1	STA. 442+65.48	RT
8 TOTAL		

78300100 PAVEMENT MARKING REMOVAL

SQ. FT.	LOCATION				
149	STA. 429+00	TO	102+30	CL	DOUBLE SOLID YELLOW- RUNAROUND
101	STA. 429+00	TO	103+00	RTEOP	SOLID WHITE-RUNAROUND
172	STA. 120+00	TO	450+00	CL	DOUBLE SOLID YELLOW- RUNAROUND
31	STA. 120+60	TO	450+00	LTEOP	SOLID WHITE-RUNAROUND
93	STA. 119+30	TO	450+00	RTEOP	SOLID WHITE-RUNAROUND
132	STA. 429+00	TO	432+96	LTEOP	SOLID WHITE - IL 173
33	STA. 429+00	TO	432+96	CL	SKIP DASH - IL 173
132	STA. 429+00	TO	432+96	RTEOP	SOLID WHITE - IL 173
102	STA. 446+96	TO	450+00	LTEOP	SOLID WHITE - IL 173
26	STA. 446+96	TO	450+00	CL	SKIP DASH - IL 173
102	STA. 446+96	TO	450+00	RTEOP	SOLID WHITE - IL 173
1073 TOTAL					

XX004900 TURF REINFORCEMENT MAT

SQ. YD.	LOCATION			
1500	STA. 999+50	TO	1002+25	LT & RT
1500 TOTAL				

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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USER NAME = dtolfsrsa

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	18
STA. _____	TO STA. _____			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

X0325519 DRAIN FOR AGGREGATE BASE COURSE

SQ. YD.	LOCATION		
1.20	STA. 433+00	1.8' x 3'	IL 173 LT & RT
0.60	STA. 435+50	1.8' x 3'	IL 173 LT
0.17	STA. 435+50	0.50' x 3'	IL 173 RT
0.85	STA. 438+00	2.5' x 3'	IL 173 LT
0.43	STA. 438+00	1.30' x 3'	IL 173 RT
0.60	STA. 441+50	2.5' x 3'	IL 173 LT
0.43	STA. 441+50	1.30' x 3'	IL 173 RT
1.20	STA. 444+00	1.8' x 3'	IL 173 LT & RT
1.20	STA. 446+50	1.8' x 3'	IL 173 LT & RT
7 TOTAL			

X6320100 GUARDRAIL REMOVAL (SPECIAL)

FOOT	LOCATION			
325	STA. 110+56.50	TO	113+81.50	STAGE III LT-RUNAROUND
675	STA. 108+18	TO	114+93	STAGE III RT-RUNAROUND
1000 TOTAL				

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REVISIONS NAME	DATE

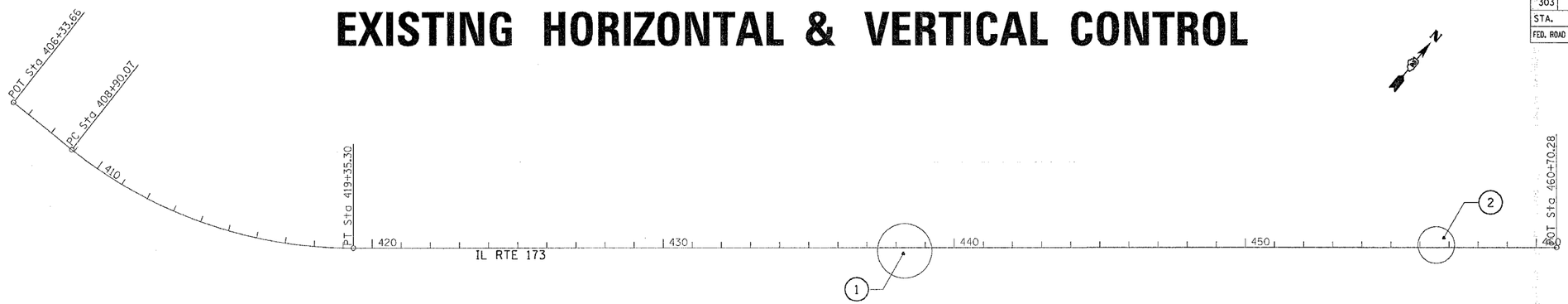
ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	19
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXISTING HORIZONTAL & VERTICAL CONTROL



Chain IL173 contains:
20 CUR 200 21

Beginning chain IL173 description
==========

Point 20 N 2,080,849.6855 E 2,668,684.9815 Sta 406+33.6565

COURSE FROM 20 TO PC 200 89° 24' 59.9135" DIST 256.4105'

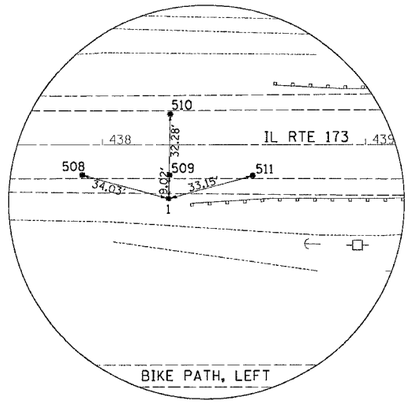
Curve Data
•----------•

Curve 200
P.I. Station 414+33.5352 N 2,080,857.8293 E 2,669,484.8188
DELTA = 38° 43' 38.4783" (LT)
DEGREE = 3° 42' 18.4726"
Tangent = 543.4682'
Length = 1,045.2357'
Radius = 1,546.3900'
External = 92.7194'
Long Chord = 1,025.4518'
Mid. Ord. = 87.4746'
P.C. Station 408+90.0670 N 2,080,852.2961 E 2,668,941.3787
P.T. Station 419+35.3027 N 2,081,202.1303 E 2,669,905.3120
C.C. N 2,082,398.6059 E 2,668,925.6344

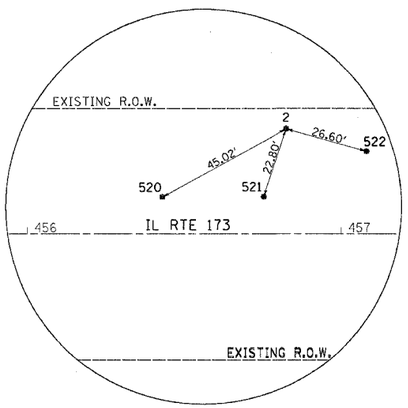
COURSE FROM PT 200 TO 21 50° 41' 21.4410" DIST 4.134.9729'

Point 21 N 2,083,821.7412 E 2,673,104.6306 Sta 460+70.2756

==========
Ending chain IL173 description



HORIZONTAL CONTROL
POINT No. 1



HORIZONTAL CONTROL
POINT No. 2

SURVEY WORK POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
100	2083041.5400	2672117.1700	856.4100	IL173	448+11.9784	21.9228' LT	TRAVERSE STATION
101	2082078.2800	2670937.9400	855.9500	IL173	432+89.3327	23.6999' LT	TRAVERSE STATION
102	2081885.4700	2670705.6400	856.8550	IL173	429+87.4471	21.6866' LT	TRAVERSE STATION
103	2081891.7900	2670880.8900	860.8200	IL173	431+27.0457	84.4489' RT	TRAVERSE STATION
104	2082543.7600	2671469.1600	853.5500	IL173	439+95.2426	47.3105' LT	TRAVERSE STATION
105	2082372.5500	2671466.8000	860.1100	IL173	438+84.9508	83.6633' RT	TRAVERSE STATION
106	2081286.5200	2671366.4000	859.1000	IL173	431+19.2414	860.3424' RT	TRAVERSE STATION
107	2081315.2300	2671600.3800	851.9900	IL173	433+18.4653	986.3612' RT	TRAVERSE STATION
108	2082181.9500	2671233.8400	860.2550	IL173	435+83.9546	83.5486' RT	TRAVERSE STATION
109	2081981.3000	2670989.3600	860.6100	IL173	432+67.6782	83.9116' RT	TRAVERSE STATION
110	2081769.7700	2670731.7900	861.2300	IL173	429+34.3810	84.3998' RT	TRAVERSE STATION

REFERENCE TIES

POINT	CHAIN	STATION	OFFSET	DESCRIPTION
500	IL173	433+18.9862	11.6965' LT	PK NAIL
501	IL173	432+89.1851	11.7143' LT	PK NAIL
502	IL173	432+58.6558	11.7739' LT	PK NAIL
503	IL173	430+21.6236	11.6303' LT	PK NAIL
504	IL173	429+87.9273	11.6232' LT	PK NAIL
505	IL173	429+86.9956	11.6497' RT	PK NAIL
506	IL173	429+54.5731	11.6138' LT	PK NAIL
507	IL173	432+89.0924	11.6213' RT	PK NAIL
508	IL173	437+92.3779	11.5583' RT	PK NAIL
509	IL173	438+25.5314	11.5810' RT	PK NAIL
510	IL173	438+25.8614	11.6766' LT	PK NAIL
511	IL173	438+57.1485	11.8023' RT	PK NAIL
516	IL173	448+43.6259	11.7674' LT	PK NAIL
517	IL173	448+11.9140	11.8208' LT	PK NAIL
518	IL173	448+11.7976	11.7190' RT	PK NAIL
519	IL173	447+77.3241	12.6448' LT	PK NAIL
520	IL173	456+42.9622	11.7184' LT	PK NAIL
521	IL173	456+75.2948	11.8107' LT	PK NAIL
522	IL173	457+08.0066	26.3860' LT	PK NAIL

CURVE POINT NUMBERS

CURVE	PI	CC	PC	PT
200	200	201	202	203

HORIZONTAL & VERTICAL CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
1	2082383.4850	2671380.6050	857.4150	IL173	438+25.1874	20.5959' RT	TRAVERSE STATION
2	2083601.9050	2672783.2850	855.8850	IL173	456+82.3717	33.4886' LT	TRAVERSE STATION

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

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EXISTING HORIZONTAL & VERTICAL CONTROL

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	20
STA. 422+00		TO STA. 437+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN — DATE / BY / SURVEYED / PLOTTED / AREA CHECKED / R/W NOTED / STRUCTURE NOTATNG SHWD / NOTE BOOK / NO.

PROFILE — DATE / BY / SURVEYED / PLOTTED / AREA CHECKED / R/W NOTED / STRUCTURE NOTATNG SHWD / NOTE BOOK / NO.

04-16-300-008
The Old Second National Bank of Aurora, as Trustee

6" AGGREGATE SHOULDERS, TYPE B (SPECIAL)
LT STA 429+00 - LT STA 432+96

7' HMA SHOULDERS

TEMPORARY EASEMENT

CONSTRUCTION LIMITS

RECONSTRUCTION BEGINS
STA 432+96

IMPROVEMENT BEGINS
STA 429+00

PROPOSED R.O.W.

STA 436+86.24
20.00' LT

EXISTING R.O.W.

425+00

26'

430+00

IL 173

13'
13'

435+00

MATCH LINE STA 437+00

CONSTRUCTION LIMITS

EXISTING R.O.W.

STA 435+16.68
20.00' RT

STA 435+85.35
23.00' RT

04-16-300-010
Boone County Conservation District

STA 435+40.68
24.00' RT

STA 435+75.68
24.00' RT

TRAFFIC BARRIER TERMINAL
TYPE 1 SPECIAL (TANGENT)
RT STA 435+50.68 - RT STA 436+00.68

EXISTING BIKEPATH

FIELD ENTRANCE REMOVAL

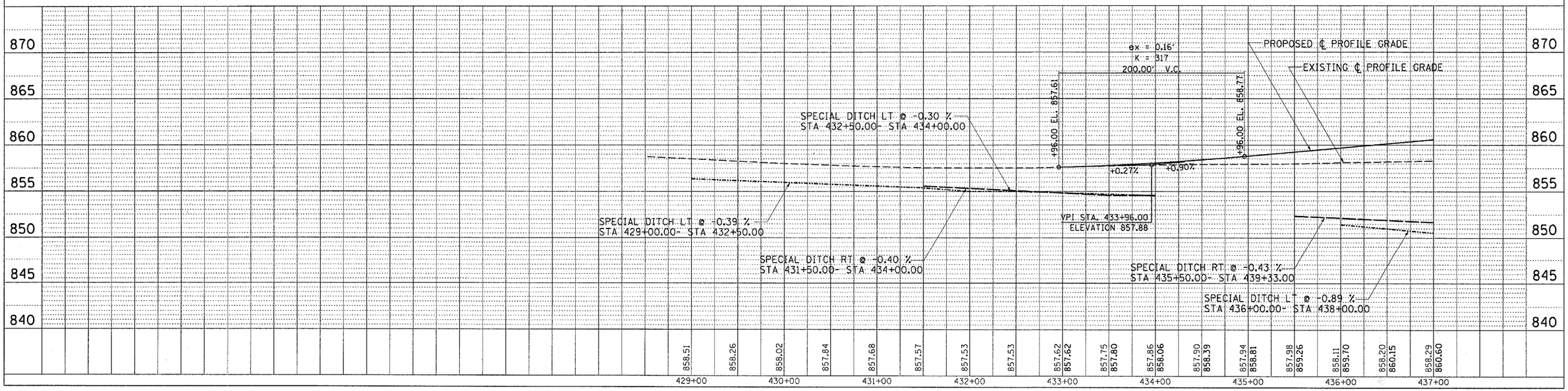
TEMPORARY LAND
USE PERMIT AREA

STEEL PLATE BEAM GUARDRAIL
TYPE A
RT STA 436+00.68 - RT STA 438+75.68

X = TREE REMOVAL

0 50' 100'

04-16-300-007
Robert H. Balzer & Joyce M Balzer



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PLAN & PROFILE IL 173
STA 422+00 – STA 437+00

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	21
STA. 437+00	TO STA. 452+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

04-16-300-008
The Old Second National Bank of Aurora, as Trustee

40-16-300-009
Donald G. Meier as Trustee

40-16-300-003
Donald G. Meier as Trustee

TEMPORARY EASEMENT

PROPOSED ℄ OF BEAVER CREEK
SEE SHEETS 28-31 & SHEET 35
ALSO SHEETS 135-147

TRAFFIC BARRIER TERMINAL
TYPE 6
LT STA 438+82.74 LT STA 439+26.49

STEEL PLATE BEAM GUARDRAIL
TYPE A
LT STA 437+70.24 - LT STA 438+82.74

TRAFFIC BARRIER TERMINAL
TYPE 6
LT STA 440+56.57 - LT STA 441+00.32

PROPOSED BRIDGE APPROACH PAVEMENT
W/ 8' CONCRETE SHOULDERS ON BRIDGE APPROACH
STA 440+53.04 - STA 440+83.04

STEEL PLATE BEAM GUARDRAIL
TYPE A
LT STA 441+00.32 - LT STA 442+87.82

TRAFFIC BARRIER TERMINAL
TYPE 1 SPECIAL (TANGENT)
LT STA 437+20.24- LT STA 437+70.24

TRAFFIC BARRIER TERMINAL
TYPE 1 SPECIAL (TANGENT)
LT STA 442+87.82 - LT STA 443+37.82

STA 437+10.24
24.00' LT

STA 437+45.24
24.00' LT

STA 437+51.24
23.00' LT

STA 443+12.82
24.00' LT

STA 443+06.82
23.00' LT

STA 443+47.82
24.00' LT

STA 443+71.82
20.00' LT

TEMPORARY EASEMENT

CONSTRUCTION LIMITS

PROPOSED R.O.W.

EXISTING R.O.W.

GUARDRAIL REMOVAL

RECONSTRUCTION ENDS
STA 446+96

6" AGGREGATE SHOULDERS, TYPE B (SPECIAL)
LT STA 446+96 - LT STA 450+00

IMPROVEMENT ENDS
STA 450+00

MATCH LINE STA 437+00

13' 13'

440+00

445+00

IL 173

450+00

26'

CURB REMOVAL
(SPECIAL)

GUARDRAIL REMOVAL

STA 443+02.26
20.00' RT

CONSTRUCTION LIMITS

EXISTING R.O.W.

EXISTING BIKEPATH

STA 442+37.26
23.00' RT

STA 442+78.26
24.00' RT

STA 442+43.26
24.00' RT

TRAFFIC BARRIER TERMINAL
TYPE 1 SPECIAL (TANGENT)
RT STA 442+18.26 - RT STA 442+68.26

7' HMA SHOULDERS

04-16-300-010
Boone County Conservation District

PROPOSED BRIDGE APPROACH PAVEMENT
W/ 8' CONCRETE SHOULDERS ON BRIDGE APPROACH
STA 438+92.96 - STA 439+22.96

TRAFFIC BARRIER TERMINAL
TYPE 6
RT STA 440+49.51 - RT STA 440+93.26

REMOVE EXISTING STRUCTURE NO. 1

STEEL PLATE BEAM GUARDRAIL
TYPE A
RT STA 440+93.26 - RT STA 442+18.26

TEMPORARY LAND
USE PERMIT AREA

TRAFFIC BARRIER TERMINAL
TYPE 6
RT STA 438+75.68 - RT STA 439+19.43

PROPOSED TWO-SPAN CONCRETE
PCC I-BEAM BRIDGE 10° SKEW
SN 004-0020, STA 439+88

04-16-300-004
Donald G. Meier as Trustee

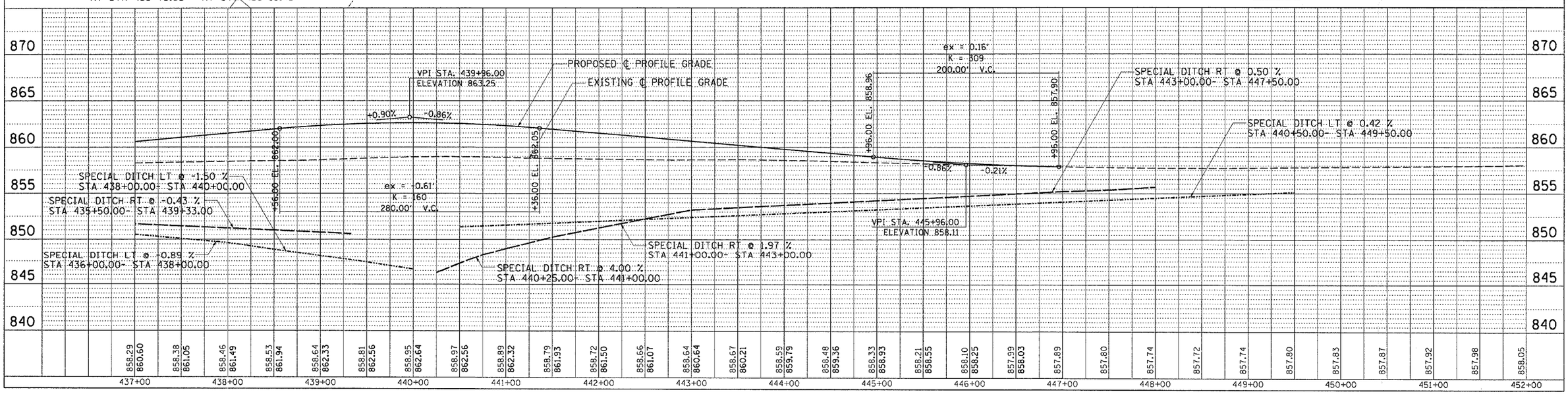
X = TREE REMOVAL

= WETLAND AREA

0 50' 100'

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE
CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHKD



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PLAN & PROFILE IL 173
STA 437+00 – STA 452+00

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	22
STA. 422+00		TO STA. 437+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING DETAILS
STAGE I

PLAN — SURVEYED / PLOTTED / DRAWN / CHECKED / QUANTITIES / STRUCTURE NOTATIONS OMD — BY / DATE — NOTE BOOK NO. ____ — ALIGN. OK'D / DATE OF TAX CHECKED / CADD FILE NAME

04-16-300-008
The Old Second National Bank
of Aurora, as Trustee

4' AGGREGATE SHOULDERS

CURVE PRTEMP-2
PI STA. =105+58.77
DELTA =9° 27' 47.68" (RT)
R =1,900.00
T =157.26
L =313.81
E =6.50
PC STA. 104+01.51
PT STA. 107+15.32

STA 107+46.00
15.00' RT

STA 107+58.00
17.00' RT

STA 107+93.00
17.00' RT

STA 108+05.00
15.00' RT

CURVE PRTEMP-1
PI STA. =101+64.15
DELTA =9° 27' 47.64" (LT)
R =1,900.00
T =157.26
L =313.81
E =6.50
PC STA. 100+06.88
PT STA. 103+20.70

RUNAROUND CONSTRUCTION BEGINS
STA 429+35.60 (STA 100+85.30)

TEMPORARY EASEMENT
CONSTRUCTION LIMITS

PROPOSED R.O.W.

MATCH LINE STA 109+00

EXISTING R.O.W.

CONSTRUCTION LIMITS

EXISTING R.O.W.

425+00 | 430+00 | 435+00

04-16-300-010
Boone County Conservation District

TRAFFIC BARRIER TERMINAL,
TYPE 1, SPECIAL (TANGENT)
STA 107+68.00 RT - STA 108+18.00 RT

TEMPORARY LAND USE
AREA PERMIT

STEEL PLATE BEAM GUARDRAIL,
TYPE A
STA 108+18.00 - STA 114+93.00

04-16-300-007
Robert H. Balzer & Joyce M Balzer

0 50' 100'

PROFILE — SURVEYED / PLOTTED / DRAWN / CHECKED / QUANTITIES / STRUCTURE NOTATIONS OMD — BY / DATE — NOTE BOOK NO. ____

870 / 865 / 860 / 855 / 850 / 845 / 840 / 830

STA 100+50 TO STA 109+00
EARTH EX 978 CU YDS
EMBANKMENT 784 CU YDS
FURNISHED EX 51 CU YDS

PROPOSED RUNAROUND ℄ PROFILE GRADE
EXISTING GROUND PROFILE

857.58

-0.00%

SPECIAL DITCH RT @ -0.40 %
STA 108+00.00 - STA 111+00.00

SPECIAL DITCH LT @ -0.72 %
STA 101+00.00 - STA 107+50.00

SPECIAL DITCH LT @ -0.30 %
STA 107+50.00 - STA 111+50.00

101+00	102+00	103+00	104+00	105+00	106+00	107+00	108+00	109+00
857.21 / 857.58	856.02 / 857.58	855.50 / 857.58	857.19 / 857.57	856.50 / 857.57	855.68 / 857.57	854.85 / 857.57	854.19 / 857.57	853.58 / 857.57
853.05 / 857.56	852.10 / 857.56	851.97 / 857.56	853.04 / 857.56	853.12 / 857.56				

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TEMPORARY RUNAROUND & IL 173
STAGING DETAILS STAGE I

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	23
STA. 437+00	TO STA. 452+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING DETAILS STAGE I

04-16-300-008
The Old Second National Bank of Aurora, as Trustee

40-16-300-009
Donald G. Meier as Trustee

40-16-300-003
Donald G. Meier as Trustee

PROPOSED ℄ OF BEAVER CREEK CHANNEL REALIGNMENT
SEE SHEETS 28-31 & SHEET 35
ALSO SHEETS 135-147

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
STA 110+06.50 - STA 110+56.50

STEEL PLATE BEAM GUARDRAIL, TYPE A
STA 110+56.50 - STA 113+81.50

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
STA 113+81.50 - STA 114+31.50

CURVE PRTEMP-3
PI STA. =116+77.68
DELTA =9° 27' 49.27" (RT)
R =1,900.00
T =157.27
L =313.83
E =6.50
PC STA. 115+20.41
PT STA. 118+34.24

CURVE PRTEMP-4
PI STA. =120+72.29
DELTA =9° 27' 49.30" (LT)
R =1,900.00
T =157.27
L =313.83
E =6.50
PC STA. 119+15.02
PT STA. 122+28.84

STA 109+96.50 17.00' LT
STA 109+84.50 15.00' LT
STA 110+31.50 17.00' LT
STA 110+43.50 15.00' LT
STA 113+94.50 15.00' LT
STA 114+06.50 17.00' LT
STA 114+41.50 17.00' LT
STA 114+53.50 15.00' LT

MATCH LINE STA 109+00

PROPOSED R.O.W.
TEMPORARY EASEMENT
CONSTRUCTION LIMITS
4' AGGREGATE SHOULDERS
RUNAROUND CONSTRUCTION ENDS STA 449+95.28 (STA 121+51.67)
EXISTING R.O.W.

PC STA. 115+20.41
PT STA. 118+34
STA 119+15
PC STA. 122+29
PT STA. 122+38

110+00 115+00 120+00 440+00 445+00 450+00

STA 115+07.11 15.00' RT
STA 115+65.13 15.00' RT
STA 115+17.96 17.00' RT
STA 115+53.26 17.00' RT

EXPOSED UNDERGROUND GAS LINE THROUGH EXISTING CREEK CHANNEL

TEMPORARY LAND USE AREA PERMIT

STEEL PLATE BEAM GUARDRAIL, TYPE A
STA 108+18.00 - STA 114+93.00

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
STA 114+93.00- STA 115+43.00

04-16-300-010
Boone County Conservation District

04-16-300-004
Donald G. Meier as Trustee

WETLAND AREA

0 50' 100'

STA 109+00 TO STA 120+50
EARTH EX 1783 CU YDS
EMBANKMENT 1332 CU YDS
WASTE 5 CU YDS
HAUL 5 CU YDS TO STA 432+50
TO STA 437+00 STAGE II

PROPOSED RUNAROUND ℄ PROFILE GRADE
EXISTING GROUND PROFILE

857.52
-0.00%

SPECIAL DITCH RT @ -0.40 %
STA 108+00.00 - STA 111+00.00

SPECIAL DITCH LT @ -0.30 %
STA 107+50.00 - STA 111+50.00

SPECIAL DITCH LT @ 2.46%
STA 112+10.00 - STA 114+50.00

SPECIAL DITCH LT @ 0.31 %
STA 114+50.00 - STA 121+00.00

	108+00	109+00	110+00	111+00	112+00	113+00	114+00	115+00	116+00	117+00	118+00	119+00	120+00
EXISTING		853.12	852.90	852.83	852.75	852.81	853.74	849.62	852.80	852.48	852.54	852.53	853.13
PROPOSED		857.56	857.56	857.55	857.55	857.55	857.55	857.55	857.54	857.54	857.54	857.54	857.54
EXISTING	854.52	855.08	855.65	856.34	856.54	856.62	856.78	856.49	855.07	856.48	857.37		
PROPOSED	857.54	857.53	857.53	857.53	857.53	857.53	857.53	857.52	857.52	857.52	857.52		

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TEMPORARY RUNAROUND & IL 173
STAGING DETAILS STAGE I

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-9	BOONE	147	29
STA. 422+00		TO STA. 437+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING DETAILS
STAGE II

04-16-300-008
The Old Second National Bank of Aurora, as Trustee

04-16-300-010
Boone County Conservation District

04-16-300-007
Robert H. Balzer & Joyce M Balzer

EXISTING R.O.W.
EXISTING R.O.W.
425+00
IL 173
100+00
26'
430+00
105+00
435+00
13'
13'
RECONSTRUCTION BEGINS STA 432+96
7' HMA SHOULDERS
TEMPORARY EASEMENT
CONSTRUCTION LIMITS
PROPOSED R.O.W.
CONSTRUCTION LIMITS
STA 436+86.24 20.00' LT
MATCH LINE STA 437+00
IMPROVEMENT BEGINS STA 429+00
STA 435+16.68 20.00' RT
STA 435+85.35 23.00' RT
STA 435+40.68 24.00' RT
STA 435+75.68 24.00' RT
EXISTING BIKEPATH
FIELD ENTRANCE REMOVAL
TEMPORARY LAND USE PERMIT AREA
TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT) RT STA 435+50.68 - RT STA 436+00.68
STEEL PLATE BEAM GUARDRAIL TYPE A RT STA 436+00.68 - RT STA 438+75.68

0 50' 100'

STA 428+50 TO STA 437+00
EARTH EX 1041 CU YDS
EMBANKMENT 844 CU YDS
FURNISHED EX 58 CU YDS
HAUL 5 CU YDS FROM STAGE I
STA 109+00 TO STA 120+50

PROPOSED IL 173 ℄ PROFILE GRADE
EXISTING IL 173 ℄ PROFILE GRADE
SPECIAL DITCH LT @ -0.40 % STA 433+00.00- STA 436+00.00
SPECIAL DITCH LT @ 0.50 % STA 436+00.00- STA 439+00.00
SPECIAL DITCH RT @ -0.40 % STA 431+50.00- STA 434+00.00
SPECIAL DITCH RT @ -0.43 % STA 435+50.00- STA 439+33.00
ex = 0.16'
K = 317
200.00' V.C.
+96.00 ELI. 857.61
+96.00 ELI. 858.17
-0.27%
+0.90%
VPI STA. 433+96.00
ELEVATION 857.88

875 870 865 860 855 850 845

858.51 858.26 858.02 857.84 857.68 857.57 857.53 857.53 857.62 857.62 857.75 857.80 857.86 858.06 857.90 858.39 857.94 858.81 857.98 859.26 858.11 859.70 858.20 860.15 858.29 860.60

429+00 430+00 431+00 432+00 433+00 434+00 435+00 436+00 437+00

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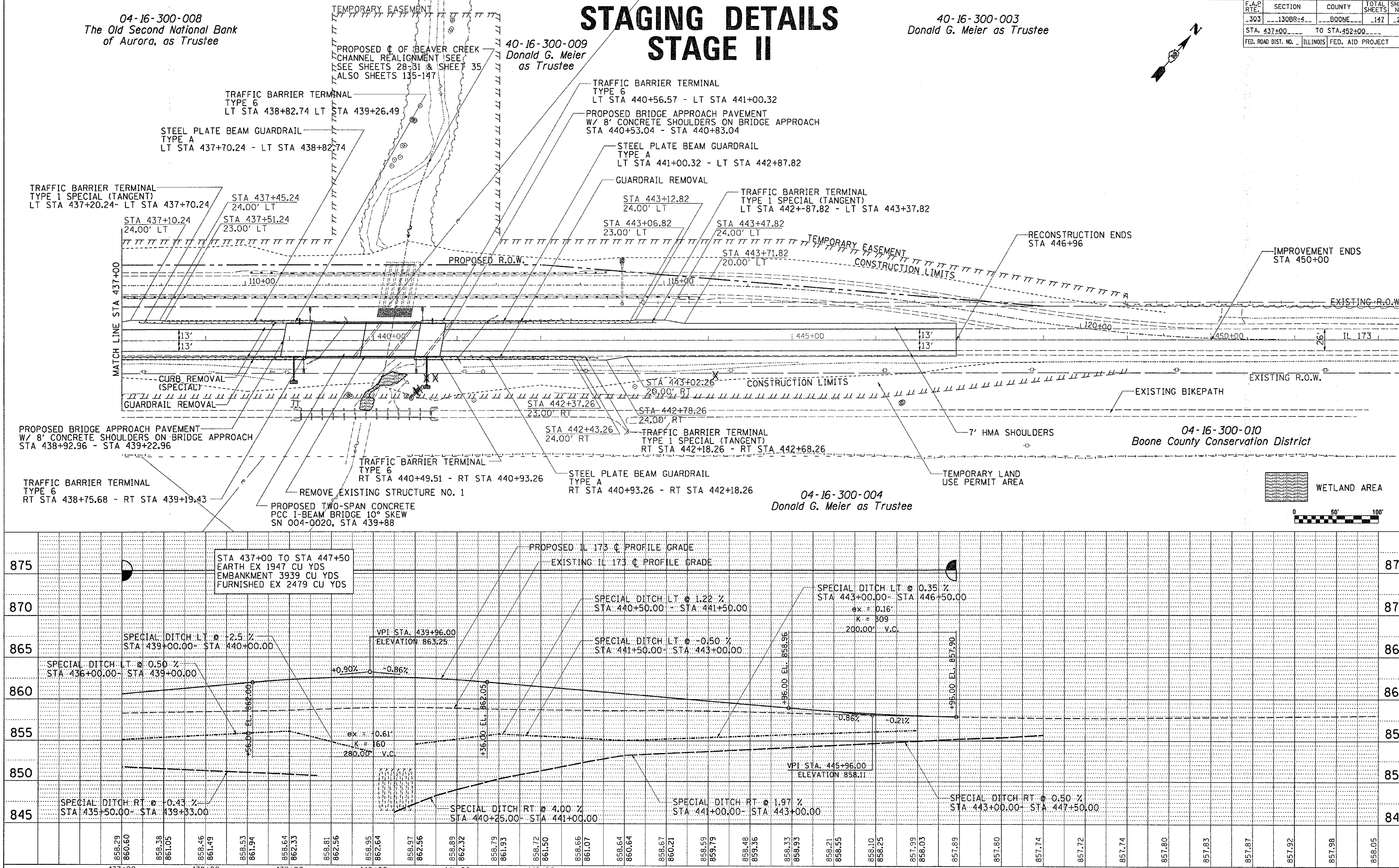
TEMPORARY RUNAROUND & IL 173
STAGING DETAILS STAGE II

STAGING DETAILS STAGE II

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	25
STA. 437+00	TO STA.452+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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TEMPORARY RUNAROUND & IL 173
STAGING DETAILS STAGE II

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	26
STA. 422+00		TO STA. 437+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING DETAILS
STAGE III

04-16-300-008
The Old Second National Bank
of Aurora, as Trustee

GUARDRAIL REMOVAL (SPECIAL)

IL 173 RECONSTRUCTION BEGINS
STA 432+96.00

CONSTRUCT 6" AGGREGETE SHOULDER, TYPE B (SPECIAL)
LT STA 429+00.00 - LT STA 432+96

TEMPORARY EASEMENT

IL 173 IMPROVEMENT BEGINS
STA 429+00.00

PROPOSED R.O.W.

EXISTING R.O.W.

425+00 IL 173 100+00 430+00 435+00

26'

MATCH LINE STA 437+00

EXISTING R.O.W.

04-16-300-010
Boone County Conservation District

PAVEMENT REMOVAL

04-16-300-007
Robert H. Balzer & Joyce M Balzer

0 50' 100'

STA 429+00 TO STA 437+00
EARTH EX 2468 CU YDS
EMBANKMENT 445 CU YDS
WASTE 1142 CU YDS
HAUL 264 CU YDS TO
STAGE III BEAVER CREEK
CHANNEL REALIGNMENT

PROPOSED IL 173 ℄ PROFILE GRADE

EXISTING IL 173 ℄ PROFILE GRADE

ex = 0.16'
K = 317
200.00' V.C.

+96.00 EL. 857.61

+96.00 EL. 858.77

+0.27%

+0.90%

SPECIAL DITCH LT @ -0.30 %
STA 432+50.00- STA 434+00.00

SPECIAL DITCH LT @ -0.39 %
STA 429+00.00- STA 432+50.00

VPI STA. 433+96.00
ELEVATION 857.88

SPECIAL DITCH LT @ -0.89 %
STA 436+00.00- STA 438+00.00

875 870 865 860 855 850 845

429+00	430+00	431+00	432+00	433+00	434+00	435+00	436+00	437+00
858.51	858.26	858.02	857.84	857.68	857.57	857.53	857.53	857.62 / 857.62
857.75 / 857.80	857.86 / 858.06	857.90 / 858.39	857.94 / 858.81	857.98 / 859.26	858.11 / 859.70	858.20 / 860.15	858.29 / 860.60	

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TEMPORARY RUNAROUND & IL 173
STAGING DETAILS STAGE III

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.303	13088-4	BOONE	147	27
STA. 437+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING DETAILS
STAGE III

04-16-300-008
The Old Second National Bank
of Aurora, as Trustee

40-16-300-009
Donald G. Meier
as Trustee

40-16-300-003
Donald G. Meier as Trustee

PROPOSED ℄ OF BEAVER CREEK
CHANNEL REALIGNMENT
SEE SHEETS 28-31 & SHEET 35
ALSO SHEETS 135-147

GUARDRAIL REMOVAL (SPECIAL)

PROPOSED R.O.W.

INLET REMOVAL

TEMPORARY EASEMENT

IL 173 RECONSTRUCTION ENDS
STA 446+96.00

CONSTRUCT 6" AGGREGATE
SHOULDER, TYPE B (SPECIAL)
LT STA 446+96 - LT STA 450+00

IL 173 IMPROVEMENT ENDS
STA 450+00.00

EXISTING R.O.W.

MATCH LINE STA 437+00

110+00 115+00 440+00 445+00 450+00

IL 173

26' 26'

EXISTING R.O.W.

04-16-300-010
Boone County Conservation District

WETLAND AREA

PAVEMENT REMOVAL

04-16-300-004
Donald G. Meier as Trustee

0 50' 100'

STA 437+00 TO STA 450+00
EARTH EX 5635 CU YDS
EMBANKMENT 653 CU YDS
WASTE 3573 CU YDS

VPI STA. 439+96.00
ELEVATION 863.25

PROPOSED IL 173 ℄ PROFILE GRADE

EXISTING IL 173 ℄ PROFILE GRADE

+0.90% -0.86%

+56.00 EL. 862.00

+36.00 EL. 862.05

+86.00 EL. 858.96

+95.00 EL. 857.90

ex = 0.16'
K = 309
200.00' v.c.

-0.86% -0.21%

SPECIAL DITCH LT @ -1.50 %
STA 438+00.00- STA 440+00.00

ex = 0.61'
K = 160
280.00' v.c.

VPI STA. 445+96.00
ELEVATION 858.11

SPECIAL DITCH LT @ 0.42 %
STA 440+50.00- STA 449+50.00

SPECIAL DITCH LT @ -0.89 %
STA 436+00.00- STA 438+00.00

	437+00	438+00	439+00	440+00	441+00	442+00	443+00	444+00	445+00	446+00	447+00	448+00	449+00	450+00	451+00	452+00
EX	858.29	858.38	858.46	858.53	858.64	858.81	858.95	858.97	858.89	858.79	858.72	858.66	858.64	858.67	858.59	858.48
PROP	860.60	861.05	861.49	861.94	862.33	862.56	862.64	862.56	862.32	861.93	861.50	861.07	860.64	860.21	859.79	859.36
EX	858.33	858.21	858.10	857.99	857.89	857.80	857.74	857.72	857.74	857.80	857.83	857.87	857.92	857.98	858.05	
PROP	858.93	858.55	858.25	858.03												

875 870 865 860 855 850 845

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TEMPORARY RUNAROUND & IL 173
STAGING DETAILS STAGE III

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	28
STA. 998+50		TO STA. 1003+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Chain PBEAVER contains:
D12067 60001 60200 60220 60210 D12004 60002 D12005

Beginning chain PBEAVER description

Point D12067 N 2,082,449.2750 E 2,671,545.0540 Sta 999+20.4731

COURSE FROM D12067 TO 60001 351° 04' 29.6019" DIST 29.5269'

Point 60001 N 2,082,478.4444 E 2,671,540.4731 Sta 999+50.0000

COURSE FROM 60001 TO 60200 351° 04' 29.6019" DIST 6.8440'

Point 60200 N 2,082,485.2055 E 2,671,539.4113 Sta 999+56.8440

COURSE FROM 60200 TO 60220 330° 41' 21.4647" DIST 43.1561'

Point 60220 N 2,082,522.8366 E 2,671,518.2845 Sta 1000+00.0000

COURSE FROM 60220 TO 60210 330° 41' 21.4647" DIST 170.0374'

Point 60210 N 2,082,671.1054 E 2,671,435.0434 Sta 1001+70.0374

COURSE FROM 60210 TO D12004 341° 16' 08.5169" DIST 46.7496'

Point D12004 N 2,082,715.3790 E 2,671,420.0310 Sta 1002+16.7870

COURSE FROM D12004 TO 60002 341° 16' 08.5171" DIST 8.2130'

Point 60002 N 2,082,723.1570 E 2,671,417.3936 Sta 1002+25.0000

COURSE FROM 60002 TO D12005 341° 16' 08.5171" DIST 45.5885'

Point D12005 N 2,082,766.3310 E 2,671,402.7540 Sta 1002+70.5885

Ending chain PBEAVER description

STA. 440+20
IL RTE 173
STA. 1000+00
PROPOSED BEAVER CREEK

PROPOSED ℄ OF BEAVER CREEK
STA 999+50 TO STA 1002+25
SEE STAGING DETAIL
SEE SHEETS 29-31 & SHEET 35
ALSO SHEETS 135-147

TEMPORARY EASEMENT

POT STA 999+50.00

POT STA 1002+25.00

1000+00

1001

1002

04-16-300-008
The Old Second National Bank
of Aurora, as Trustee

40-16-300-009
Donald G. Meier
as Trustee

EXISTING WETLAND AREA
DO NOT FILL
MINIMIZE DISTURBANCE

TEMPORARY LAND
USE PERMIT AREA

EXPOSED UNDERGROUND GAS LINE
THROUGH EXISTING CREEK CHANNEL

PROPOSED R.O.W.

EXISTING R.O.W.

04-16-300-004
Donald G. Meier as Trustee

40-16-300-003
Donald G. Meier as Trustee

= WETLAND AREA

= TREE REMOVAL

0 50' 100'

865
860
855
850
845
840
835

846.84 860.15 847.10 846.83 858.97 846.28 853.82 846.54 848.66 847.07 852.46 847.60 848.56 848.13 848.32 848.89

846.65

-2.20%

+0.00%

+1.06%

846.39

VPI STA. 999+75.00
ELEVATION 846.28

VPI STA. 1000+25.00
ELEVATION 846.28

999+00 1000+00 1001+00 1002+00 1003+00

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DRAWN
CHECKED
QUANTITY CHECKED
RT. OF WAY CHECKED
ROAD FILE NAME
BY
DATE

PROFILE
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
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BM. NOTED
STRUCTURE NOTATNS. CHKD
BY
DATE

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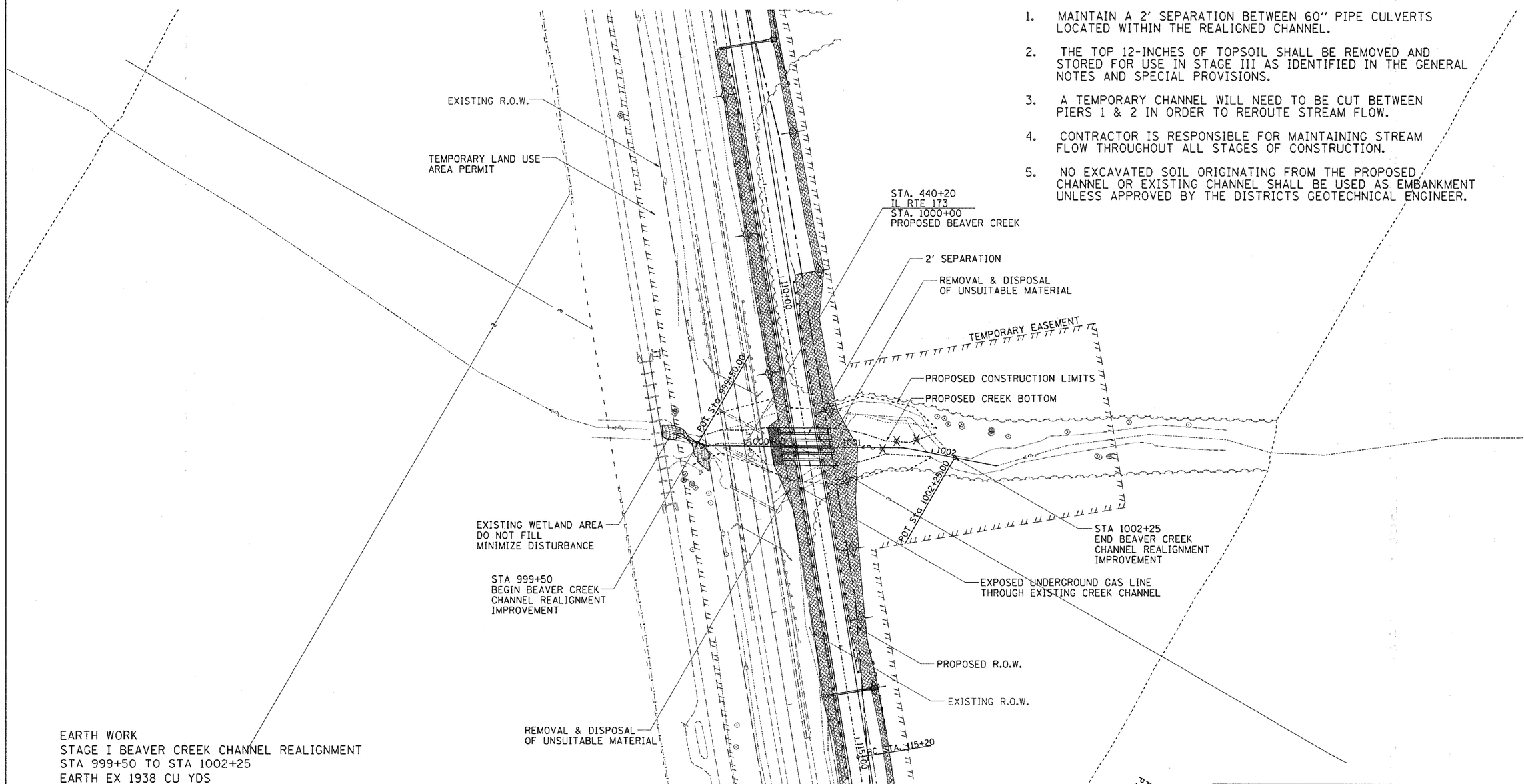
PLAN & PROFILE BEAVER CREEK
STA 998+50 – STA 1003+50

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	29
STA. 422+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROPOSED BEAVER CREEK
STAGE I



STAGE I NOTES

1. MAINTAIN A 2' SEPARATION BETWEEN 60" PIPE CULVERTS LOCATED WITHIN THE REALIGNED CHANNEL.
2. THE TOP 12-INCHES OF TOPSOIL SHALL BE REMOVED AND STORED FOR USE IN STAGE III AS IDENTIFIED IN THE GENERAL NOTES AND SPECIAL PROVISIONS.
3. A TEMPORARY CHANNEL WILL NEED TO BE CUT BETWEEN PIERS 1 & 2 IN ORDER TO REROUTE STREAM FLOW.
4. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STREAM FLOW THROUGHOUT ALL STAGES OF CONSTRUCTION.
5. NO EXCAVATED SOIL ORIGINATING FROM THE PROPOSED CHANNEL OR EXISTING CHANNEL SHALL BE USED AS EMBANKMENT UNLESS APPROVED BY THE DISTRICTS GEOTECHNICAL ENGINEER.

EARTH WORK
STAGE I BEAVER CREEK CHANNEL REALIGNMENT
STA 999+50 TO STA 1002+25
EARTH EX 1938 CU YDS
EMBANKMENT 502 CU YDS
HAUL 58 CU YDS TO STAGE I
STA 100+50 TO STA 109+00
ONLY IF MATERIAL HAS BEEN APPROVED FOR USE BY THE GEOTECHNICAL ENGINEER
WASTE 843 CU YDS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

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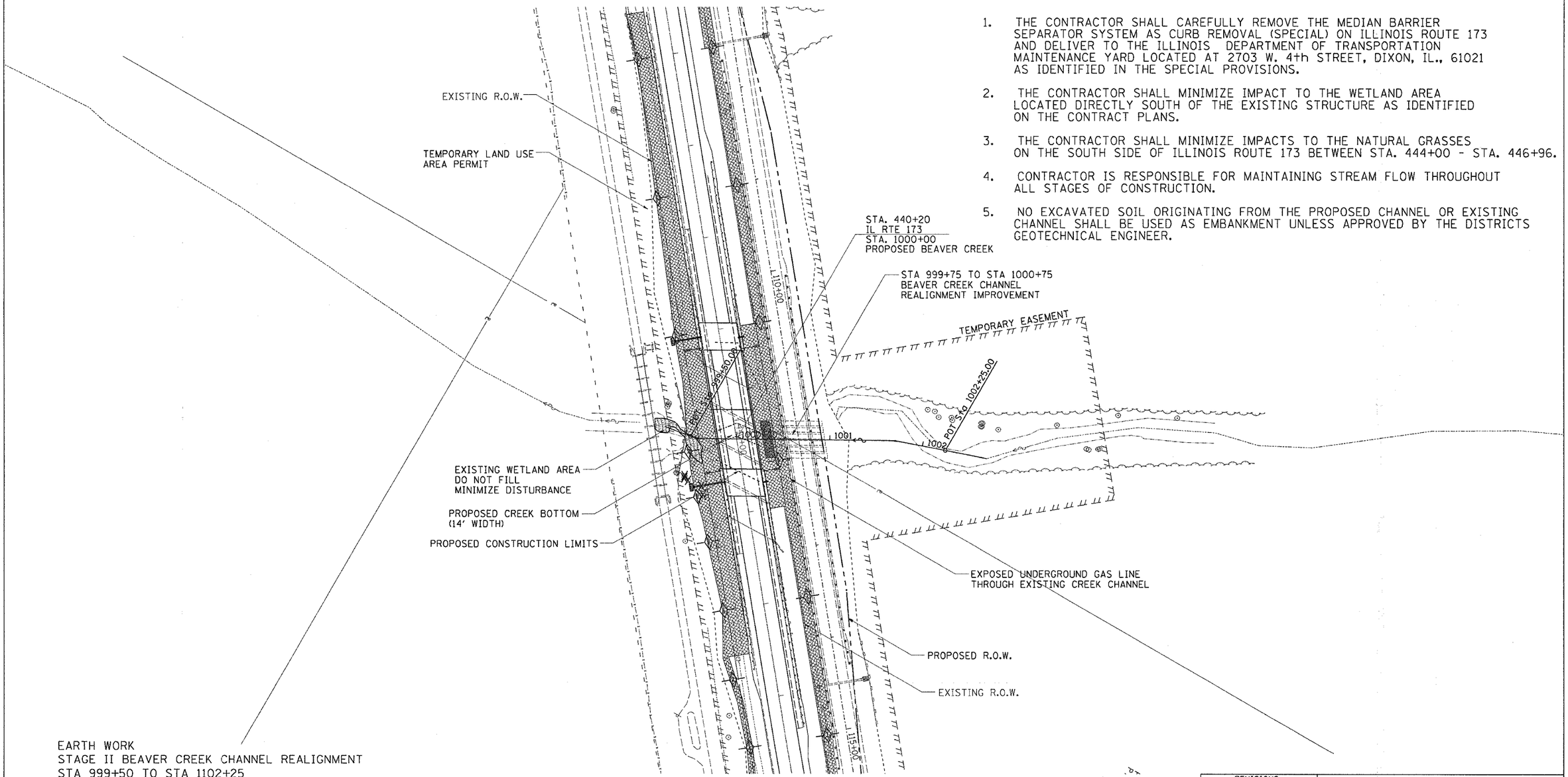
PROPOSED BEAVER CREEK
STAGE I

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	30
STA. 422+00	TO STA. 452+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROPOSED BEAVER CREEK
STAGE II



STAGE II NOTES

1. THE CONTRACTOR SHALL CAREFULLY REMOVE THE MEDIAN BARRIER SEPARATOR SYSTEM AS CURB REMOVAL (SPECIAL) ON ILLINOIS ROUTE 173 AND DELIVER TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION MAINTENANCE YARD LOCATED AT 2703 W. 4th STREET, DIXON, IL., 61021 AS IDENTIFIED IN THE SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL MINIMIZE IMPACT TO THE WETLAND AREA LOCATED DIRECTLY SOUTH OF THE EXISTING STRUCTURE AS IDENTIFIED ON THE CONTRACT PLANS.
3. THE CONTRACTOR SHALL MINIMIZE IMPACTS TO THE NATURAL GRASSES ON THE SOUTH SIDE OF ILLINOIS ROUTE 173 BETWEEN STA. 444+00 - STA. 446+96.
4. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STREAM FLOW THROUGHOUT ALL STAGES OF CONSTRUCTION.
5. NO EXCAVATED SOIL ORIGINATING FROM THE PROPOSED CHANNEL OR EXISTING CHANNEL SHALL BE USED AS EMBANKMENT UNLESS APPROVED BY THE DISTRICTS GEOTECHNICAL ENGINEER.

EARTH WORK
STAGE II BEAVER CREEK CHANNEL REALIGNMENT
STA 999+50 TO STA 1102+25
EARTH EX 378 CU YDS
EMBANKMENT 174 CU YDS
WASTE 110 CU YDS

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

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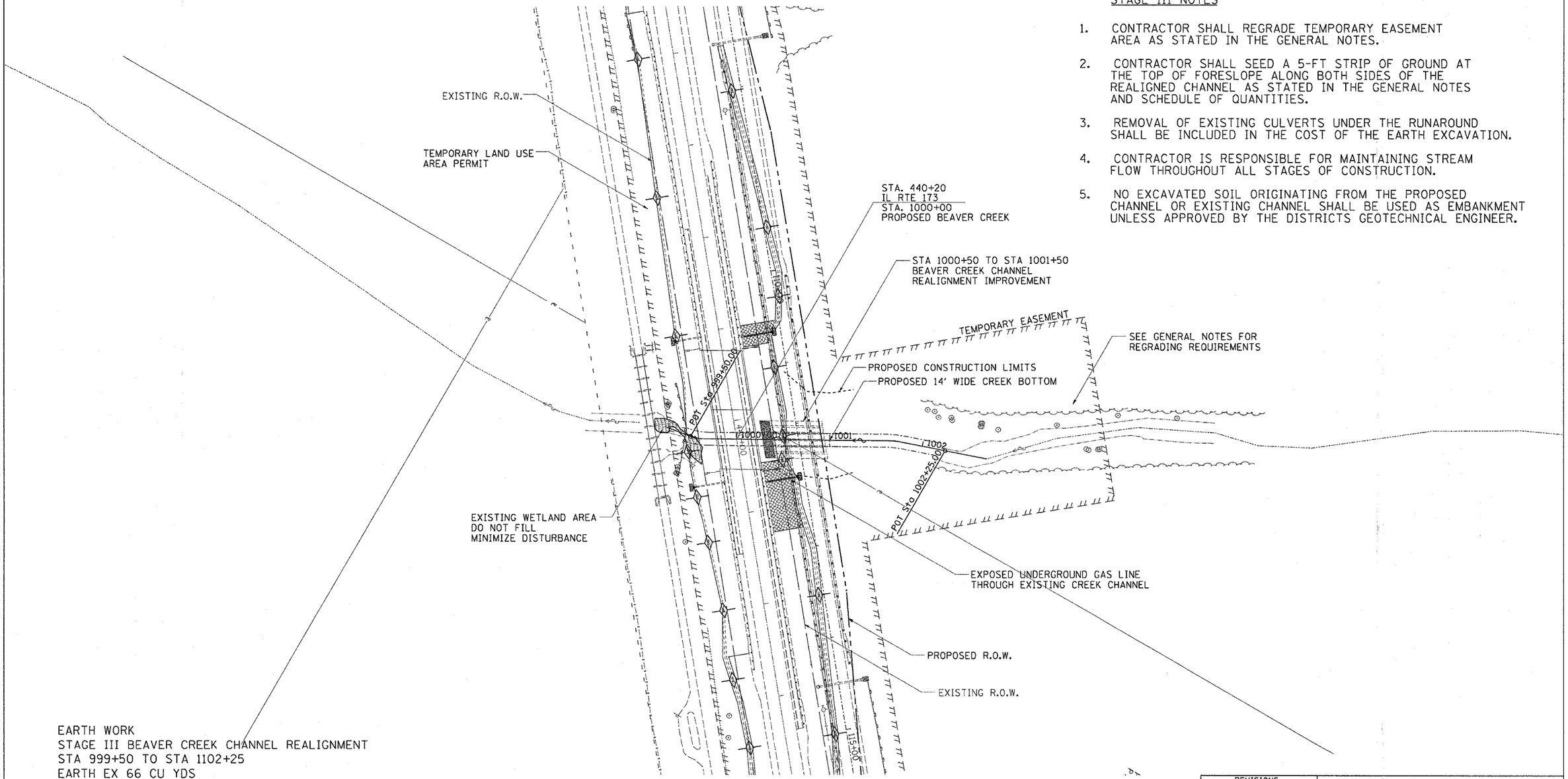
PROPOSED BEAVER CREEK
STAGE II

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	31
STA. 422+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROPOSED BEAVER CREEK
STAGE III



EARTH WORK
STAGE III BEAVER CREEK CHANNEL REALIGNMENT
STA 999+50 TO STA 1102+25
EARTH EX 66 CU YDS
EMBANKMENT 313 CU YDS
HAUL 264 CU YDS FROM
STA 429+00 TO STA 437+00 STAGE III

STAGE III NOTES

1. CONTRACTOR SHALL REGRADE TEMPORARY EASEMENT AREA AS STATED IN THE GENERAL NOTES.
2. CONTRACTOR SHALL SEED A 5-FT STRIP OF GROUND AT THE TOP OF FORESLOPE ALONG BOTH SIDES OF THE REALIGNED CHANNEL AS STATED IN THE GENERAL NOTES AND SCHEDULE OF QUANTITIES.
3. REMOVAL OF EXISTING CULVERTS UNDER THE RUNAROUND SHALL BE INCLUDED IN THE COST OF THE EARTH EXCAVATION.
4. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STREAM FLOW THROUGHOUT ALL STAGES OF CONSTRUCTION.
5. NO EXCAVATED SOIL ORIGINATING FROM THE PROPOSED CHANNEL OR EXISTING CHANNEL SHALL BE USED AS EMBANKMENT UNLESS APPROVED BY THE DISTRICTS GEOTECHNICAL ENGINEER.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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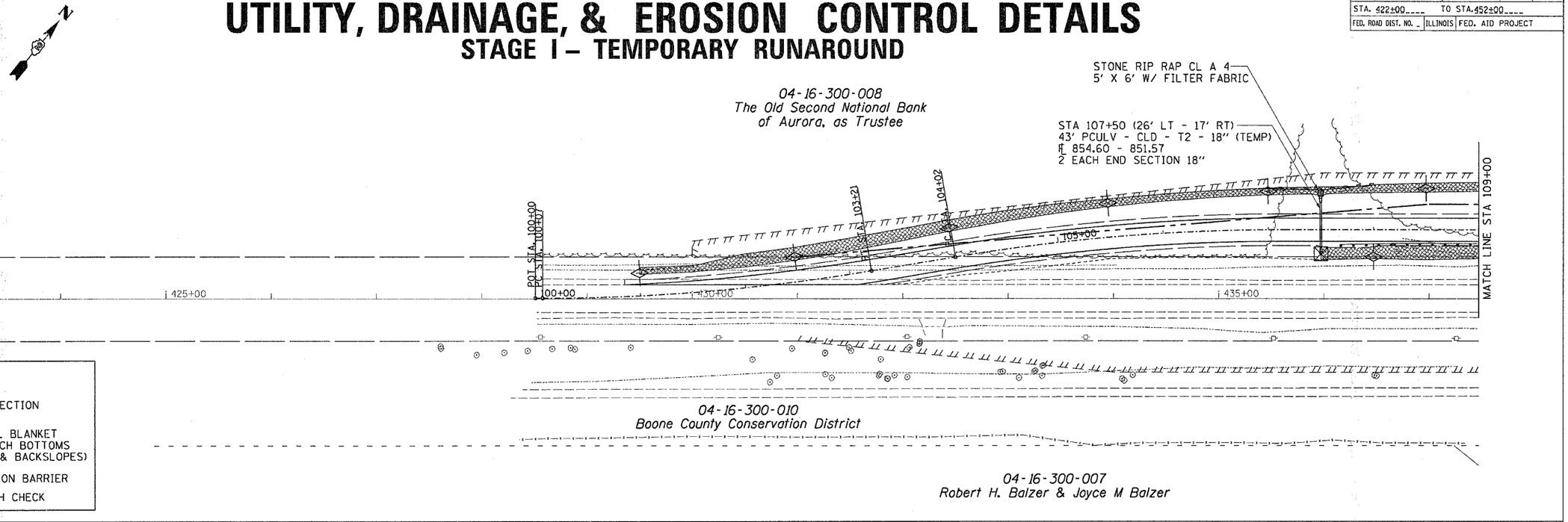
PROPOSED BEAVER CREEK
STAGE III

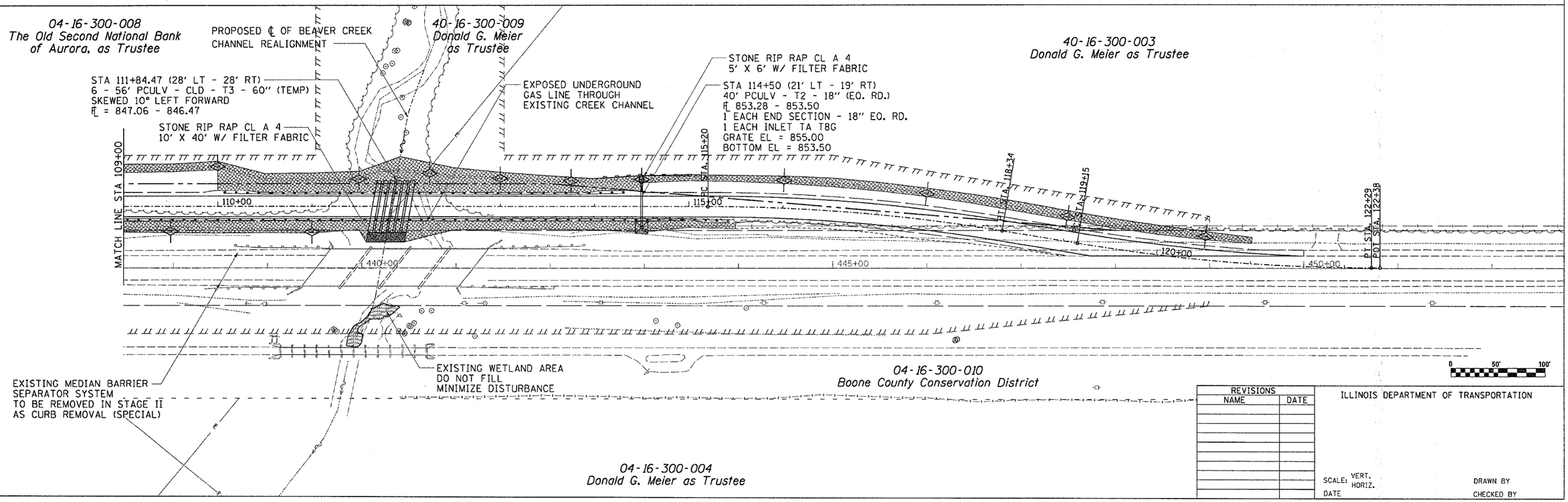
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	32
STA. 422+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UTILITY, DRAINAGE, & EROSION CONTROL DETAILS

STAGE I – TEMPORARY RUNAROUND





REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DRAWN BY

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CHECKED BY

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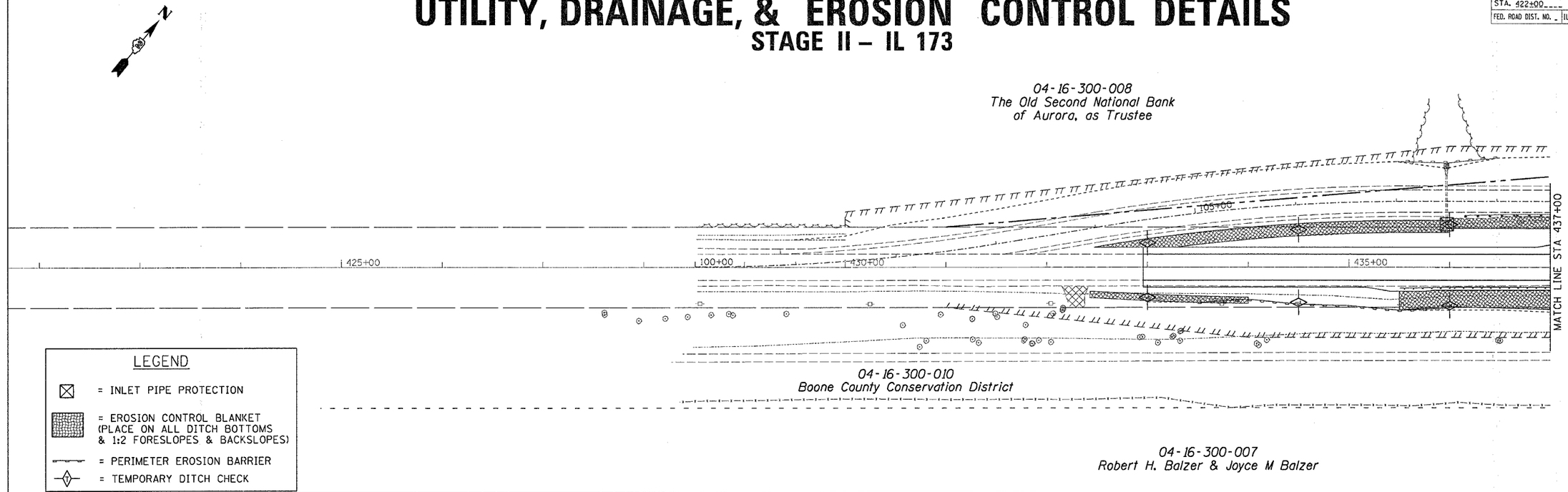
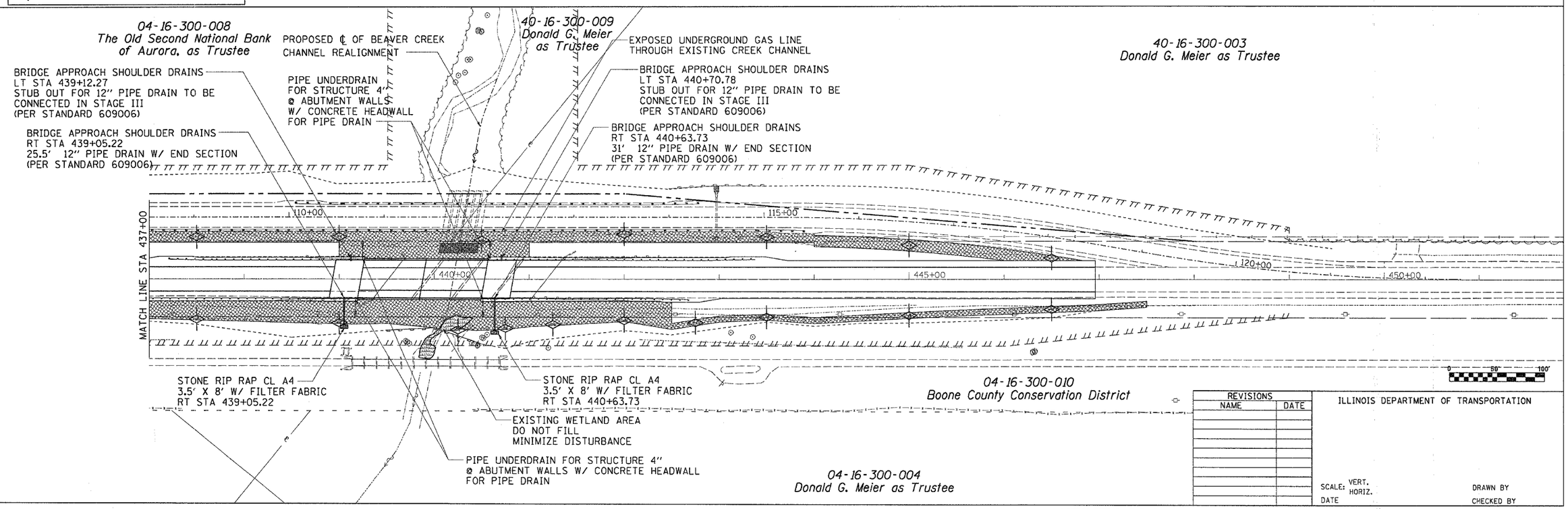
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	33
STA. 422+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UTILITY, DRAINAGE, & EROSION CONTROL DETAILS
STAGE II – IL 173





REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

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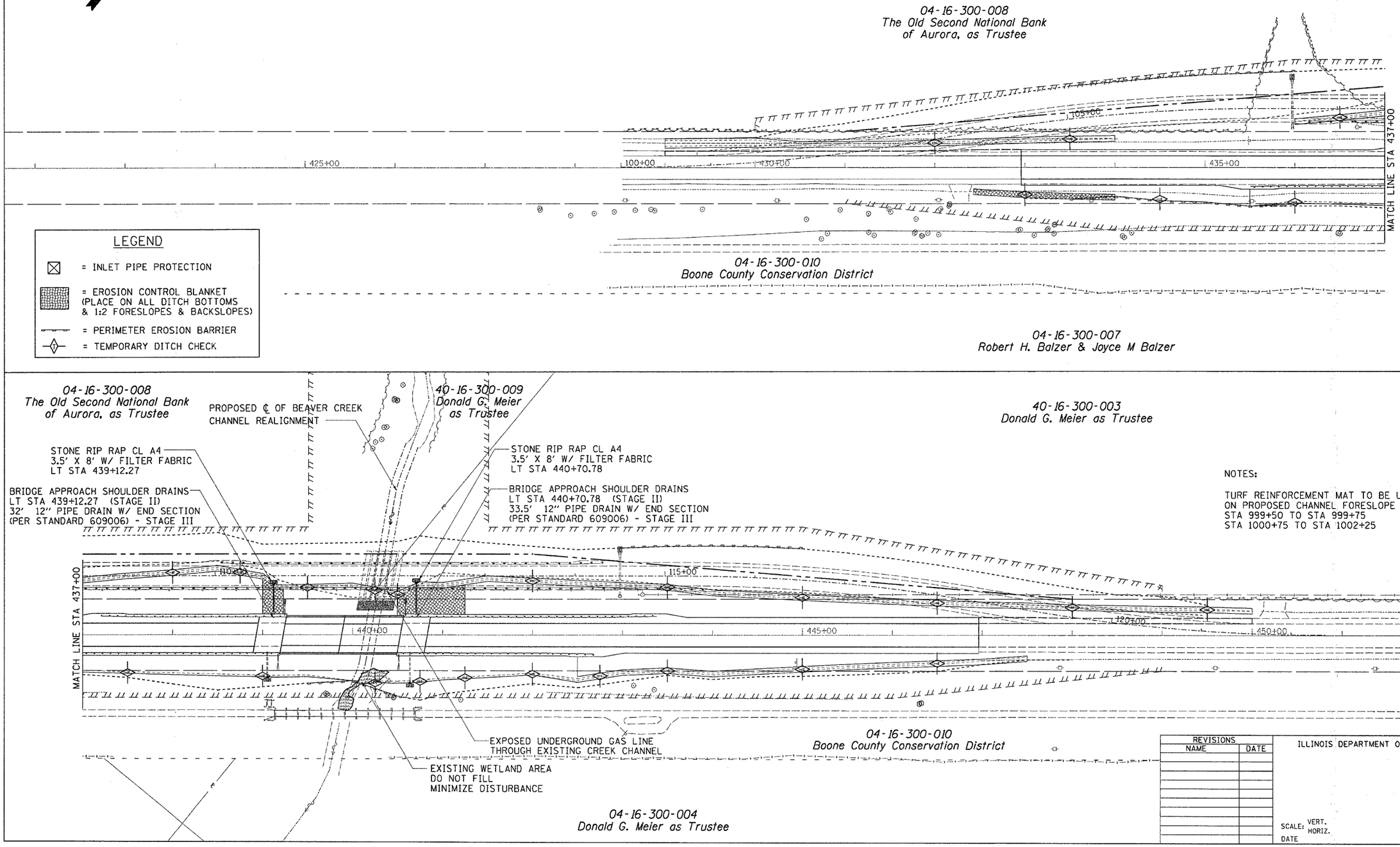
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13088-4	BOONE	147	34
STA. 422+00	TO STA. 452+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UTILITY, DRAINAGE, & EROSION CONTROL DETAILS
STAGE III – RUNAROUND REMOVAL



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DRAWN BY

DATE

CHECKED BY

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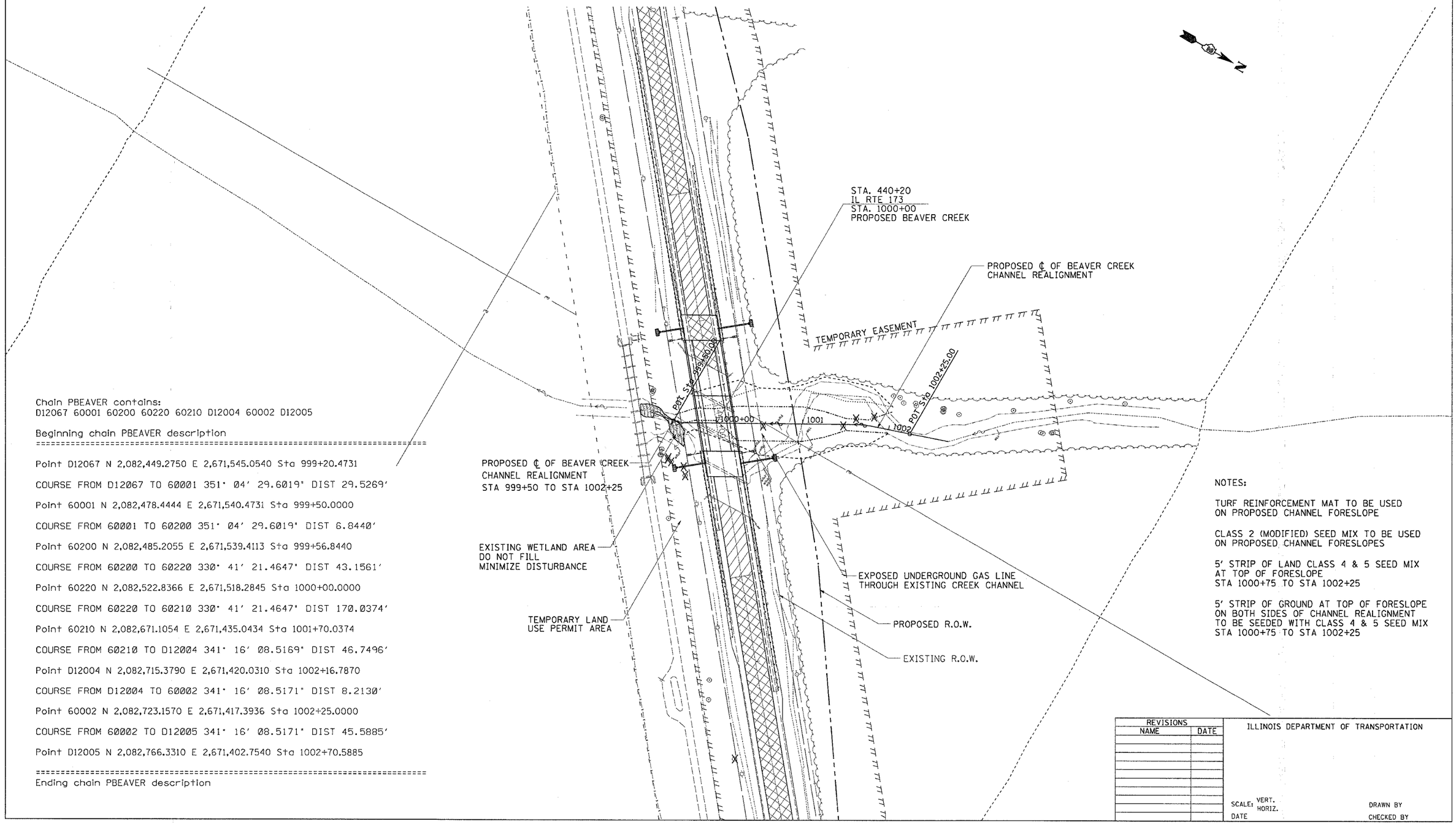
UTILITY, DRAINAGE, & EROSION CONTROL DETAILS STAGE III

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
.303	13088-4	BOONE	147	35
STA. 422+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

UTILITY, DRAINAGE, & EROSION CONTROL DETAILS
PROPOSED BEAVER CREEK



Chain PBEAVER contains:
D12067 60001 60200 60220 60210 D12004 60002 D12005

Beginning chain PBEAVER description

==========

Point D12067 N 2,082,449.2750 E 2,671,545.0540 Sta 999+20.4731

COURSE FROM D12067 TO 60001 351° 04′ 29.6019" DIST 29.5269′

Point 60001 N 2,082,478.4444 E 2,671,540.4731 Sta 999+50.0000

COURSE FROM 60001 TO 60200 351° 04′ 29.6019" DIST 6.8440′

Point 60200 N 2,082,485.2055 E 2,671,539.4113 Sta 999+56.8440

COURSE FROM 60200 TO 60220 330° 41′ 21.4647" DIST 43.1561′

Point 60220 N 2,082,522.8366 E 2,671,518.2845 Sta 1000+00.0000

COURSE FROM 60220 TO 60210 330° 41′ 21.4647" DIST 170.0374′

Point 60210 N 2,082,671.1054 E 2,671,435.0434 Sta 1001+70.0374

COURSE FROM 60210 TO D12004 341° 16′ 08.5169" DIST 46.7496′

Point D12004 N 2,082,715.3790 E 2,671,420.0310 Sta 1002+16.7870

COURSE FROM D12004 TO 60002 341° 16′ 08.5171" DIST 8.2130′

Point 60002 N 2,082,723.1570 E 2,671,417.3936 Sta 1002+25.0000

COURSE FROM 60002 TO D12005 341° 16′ 08.5171" DIST 45.5885′

Point D12005 N 2,082,766.3310 E 2,671,402.7540 Sta 1002+70.5885

==========

Ending chain PBEAVER description

NOTES:

TURF REINFORCEMENT MAT TO BE USED ON PROPOSED CHANNEL FORESLOPE

CLASS 2 (MODIFIED) SEED MIX TO BE USED ON PROPOSED CHANNEL FORESLOPES

5′ STRIP OF LAND CLASS 4 & 5 SEED MIX AT TOP OF FORESLOPE STA 1000+75 TO STA 1002+25

5′ STRIP OF GROUND AT TOP OF FORESLOPE ON BOTH SIDES OF CHANNEL REALIGNMENT TO BE SEEDED WITH CLASS 4 & 5 SEED MIX STA 1000+75 TO STA 1002+25

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

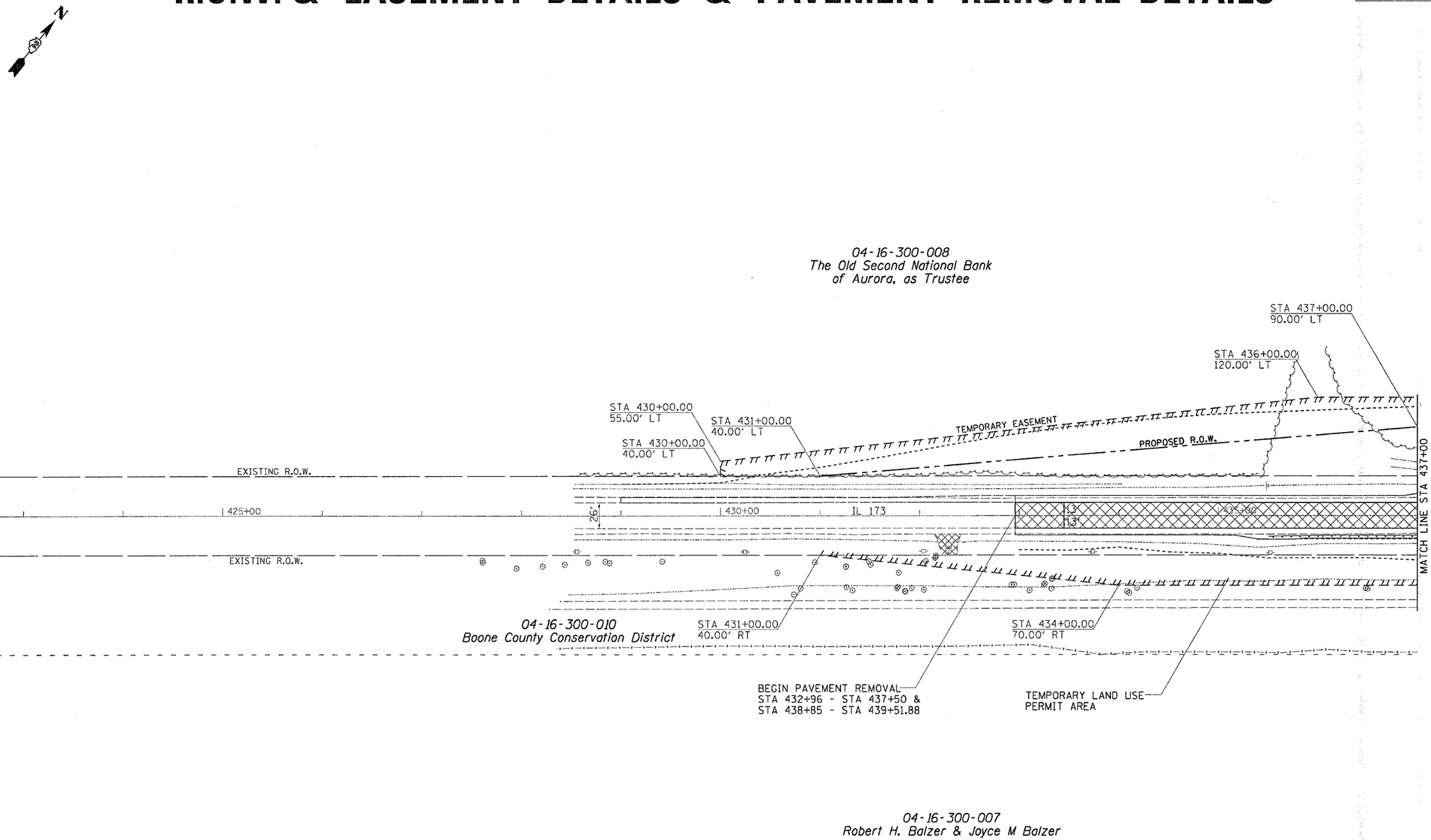
CHECKED BY

PLOT DATE = Fri Feb 23 09:50:59 2007
FILE NAME = c:\projects\view\s283002\d83002er.dgn
PLOT SCALE = 50.8000 '/ IN.
USER NAME = dtizlerea

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	36
STA. 422+00	TO STA.437+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

R.O.W. & EASEMENT DETAILS & PAVEMENT REMOVAL DETAILS



= PAVEMENT REMOVAL

= PAVEMENT BREAKING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = Fri Dec 15 08:46:57 2006
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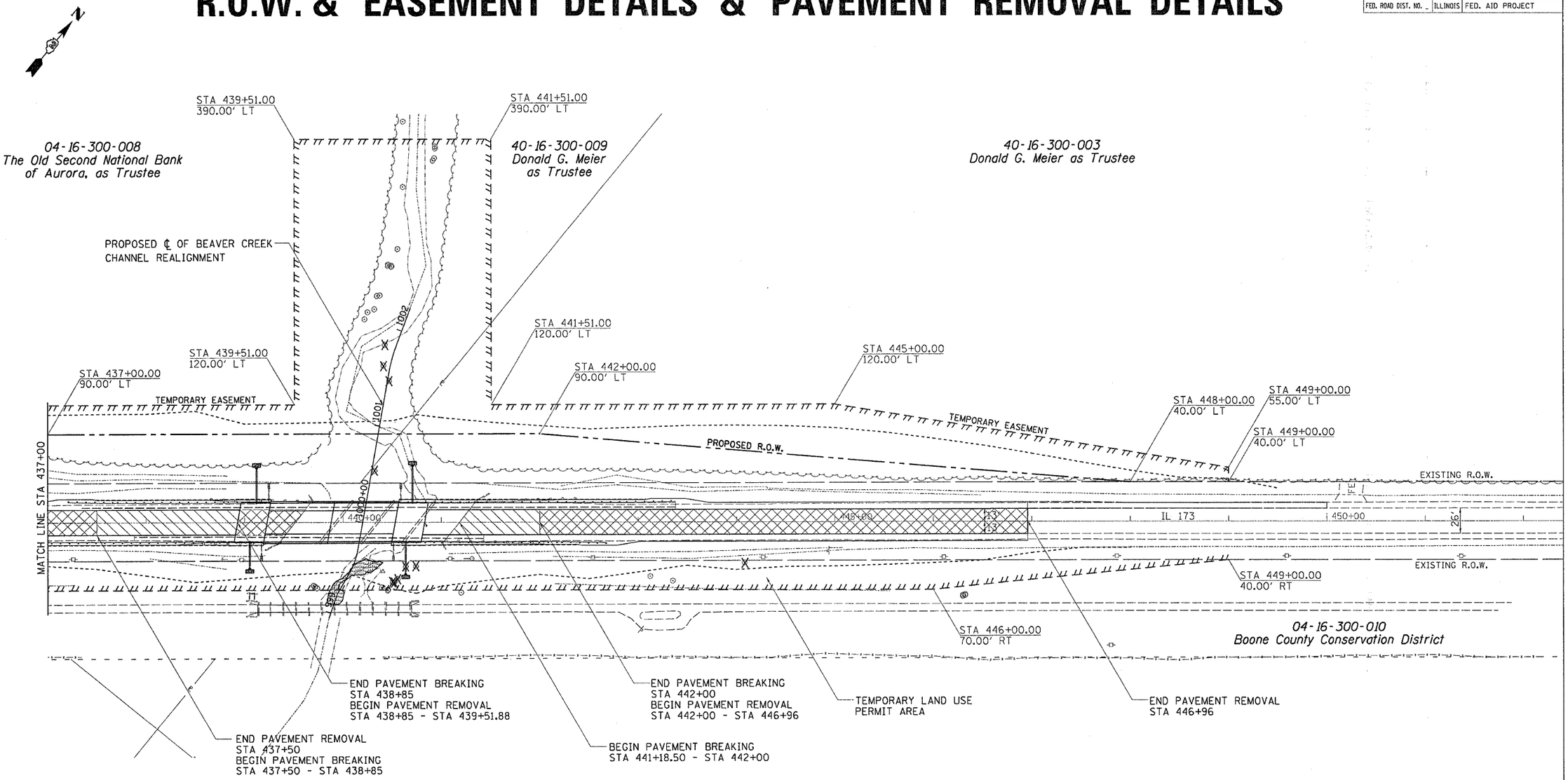
USER NAME = dtzler-so

R.O.W. & EASEMENT DETAILS & PAVEMENT REMOVAL DETAILS

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	13BR-4	BOONE	147	37
STA. 437+00		TO STA. 452+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

R.O.W. & EASEMENT DETAILS & PAVEMENT REMOVAL DETAILS



REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = Fri Dec 15 10:28:23 2006
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PLOT SCALE = 50.0000 ' / IN.
USER NAME = ditzlerss

R.O.W. & EASEMENT DETAILS & PAVEMENT REMOVAL DETAILS

Benchmark: Cut square on Southwest Wingwall S.N. 004-0009, Elev. 858.27

Existing Structure: S.N. 004-0009 was originally built in 1928 and reconstructed in 1976 under F.A. Route 202, Section 130B-1R. The existing superstructure consists of a four span precast, prestressed concrete deck beams supporting a bituminous concrete wearing surface. The existing substructure consists of closed abutments and solid wall piers supported on pilings. The back to back of abutment length is 167'-6" and the out-to-out width of the deck is 41'-0".

No Salvage

During construction traffic will be detoured to a temporary roadway north of the structure.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
18 SHEETS

Contract #64800

INDEX OF SHEETS

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

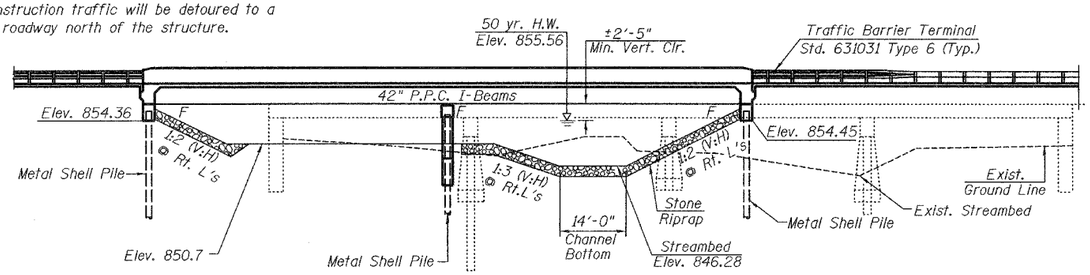
Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

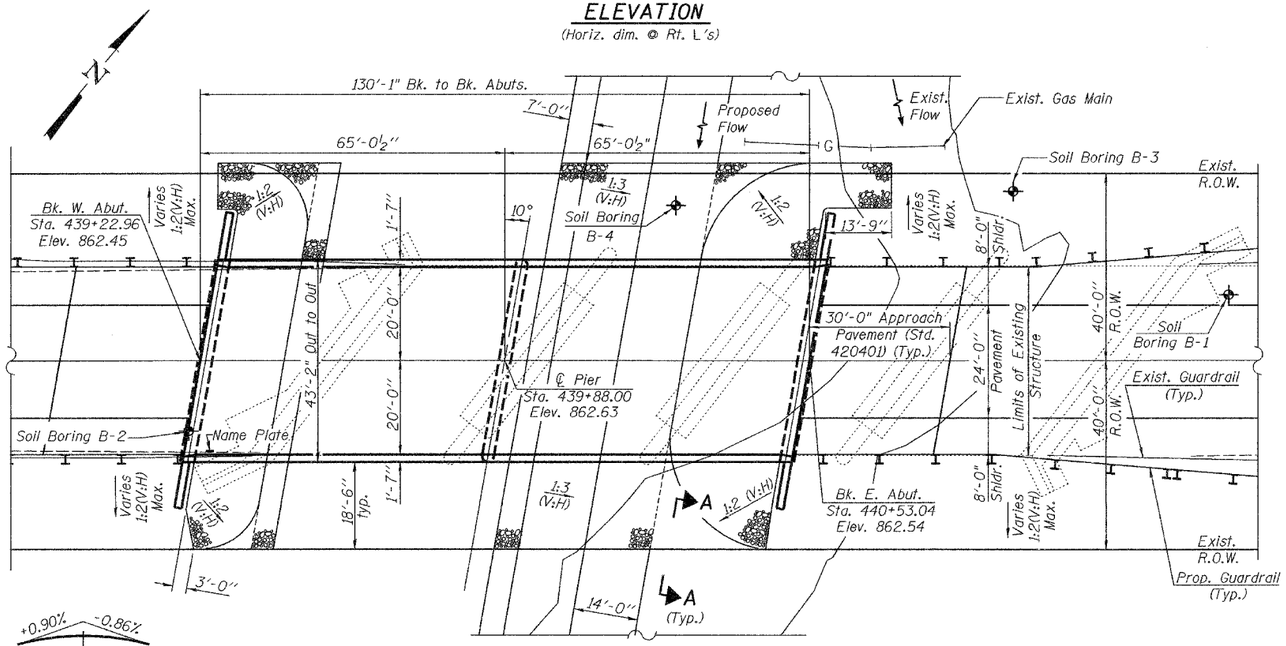
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

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

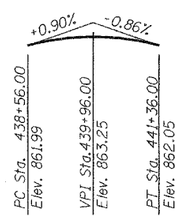


ELEVATION
(Horiz. dim. @ Rt. L's)



PLAN

Note: For Section A-A see sheet 2 of 18.



LVC = 280'

PROFILE GRADE
(along ℄ roadway)

STATION 439+88.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 303 SECTION 130BR-4
LOADING HS-20
STR. NO. 004-0020

NAME PLATE
See Std. 515001

Note: Contractor shall wait 7 days after completion of West Embankment placement before driving piles.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each			1
Structure Excavation	Cu. Yd.		417.2	417.2
Concrete Structures	Cu. Yd.		73.7	73.7
Concrete Superstructure	Cu. Yd.	203.0		203.0
Bridge Deck Grooving	Sq. Yd.	549		549
Protective Coat	Sq. Yd.	687		687
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Foot	771.5		771.5
Reinforcement Bars, Epoxy Coated	Pound	45440	9430	54870
Name Plates	Each	1		1
Bar Splicers	Each	80		80
Anchor Bolts, 1½"	Each		4	4
Underwater Structure Excavation Protection-Location 1	Each		1	1
Stone Riprap, Class A5	Sq. Yd.		765	765
Filter Fabric	Sq. Yd.		765	765
Pipe Underdrains for Structures 4"	Foot		153	153
Geocomposite Wall Drain	Sq. Yd.		82	82
Furnishing Metal Shell Piles, 14"	Foot		992	992
Test Pile Metal Shells	Each		3	3
Driving Piles	Foot		992	992
Concrete Encasement	Cu. Yd.		10.0	10.0
Porous Granular Embankment (Special)	Cu. Yd.		164	164
Asbestos Bearing Pad Removal	Each	52		52

LOADING HS-20-44

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

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 36,000 psi (Structural Steel AASHTO M270, GR. 36)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_s = 270,000 psi (½" ϕ low lax. strands)
f_{si} = 201,960 psi (½" ϕ low lax. strands)

SEISMIC DATA

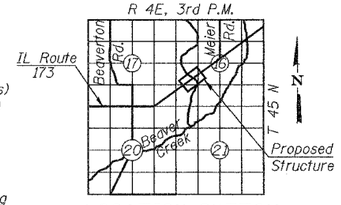
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

Design Scour Elevation (ft)	W. Abutment	Pier	E. Abutment
	854.47	839.70	854.57

WATERWAY INFORMATION

Drainage Area = 28.68 Sq. Mi. (18,355 ac) Low Grade Elev. 857.54 @ Sta. 432+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1744	341	555	854.81	0.47	0.19	855.28	855.00
Design	50	2532	403	642	855.56	1.26	0.29	856.82	855.85
Base	100	2848	426	675	855.84	1.10	0.33	856.94	856.17
Overtopping									
Max. Calc.	500	3574	472	747	856.44	0.45	0.44	856.89	856.88



LOCATION SKETCH

DESIGNED Fosselman Trapkelvinand
CHECKED Stephen Ryan
DRAWN R. Sommer
CHECKED FT/SMR

EXAMINED Thomas Domyslski
ENGINEER OF BRIDGE DESIGN
PASSED Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
REGISTERED STRUCTURAL ENGINEER

EXPIRES 11-30-2008

March 9 2007

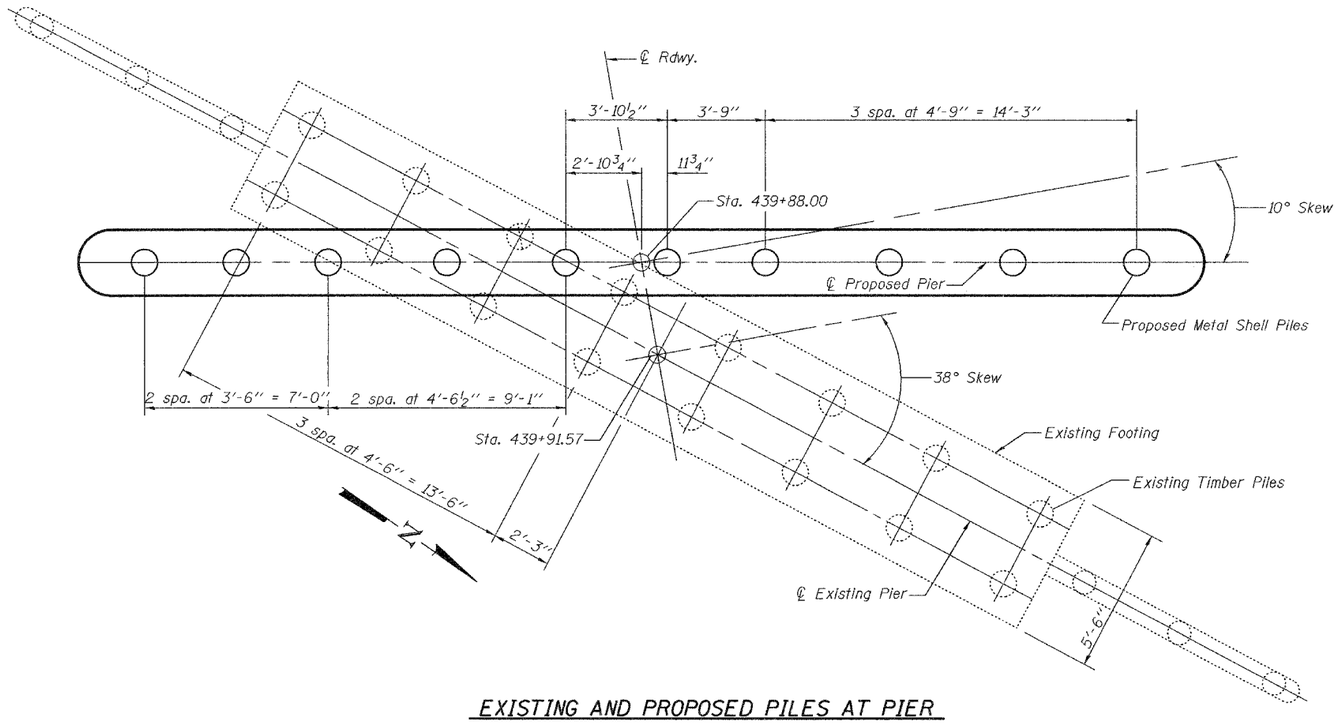
GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 173 OVER BEAVER CREEK
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

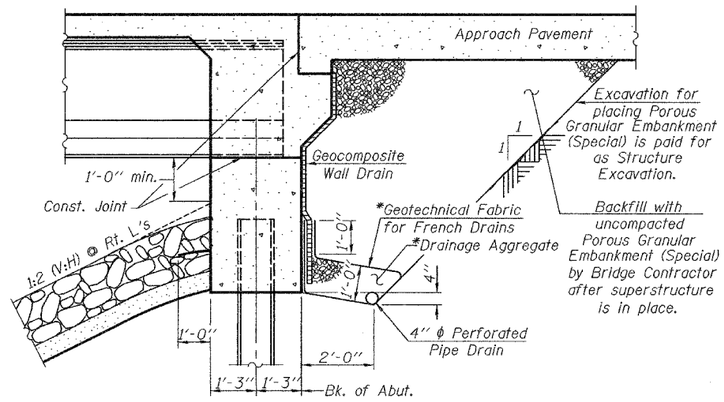
SHEET NO. 2
18 SHEETS

Contract #64800



EXISTING AND PROPOSED PILES AT PIER

Information shown regarding existing pier and piles is from existing plans. There may be variations in the existing field conditions.

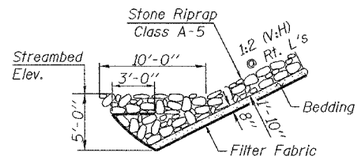


*Included in the cost of Pipe Underdrains for Structures, 4".

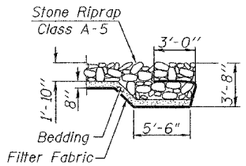
SECTION THRU INTEGRAL ABUTMENT

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

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



STONE RIPRAP ANCHOR DETAIL



SECTION A-A

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

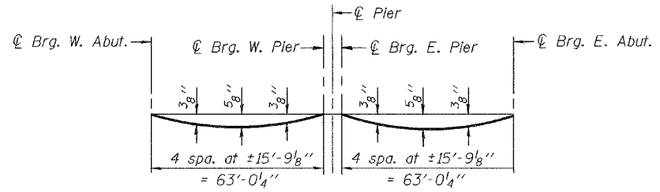
GENERAL DATA
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
18 SHEETS

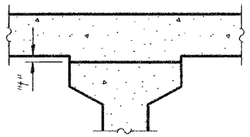
Contract #64800



DEAD LOAD DEFLECTION DIAGRAM

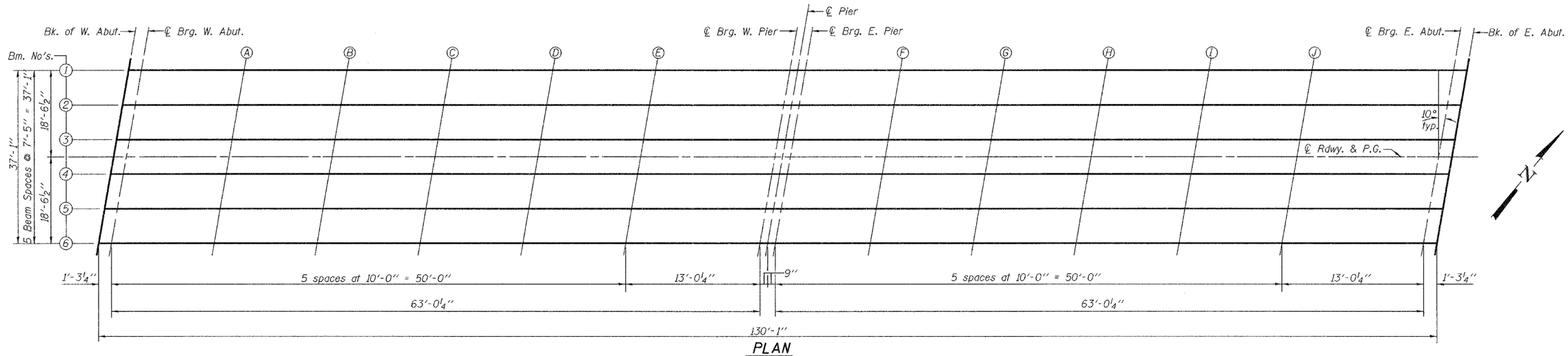
(Includes weight of concrete excluding beams)

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 below and on sheet 4 of 18.



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

FILLET HEIGHTS



PLAN

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43926.23	-18.54	862.14	862.14
℄ Brg. W. Abut.	43927.50	-18.54	862.15	862.15
A	43937.50	-18.54	862.19	862.21
B	43947.50	-18.54	862.23	862.27
C	43957.50	-18.54	862.26	862.31
D	43967.50	-18.54	862.28	862.32
E	43977.50	-18.54	862.30	862.32
℄ Brg. W. Pier	43990.52	-18.54	862.31	862.31
℄ Pier	43991.27	-18.54	862.31	862.31
℄ Brg. E. Pier	43992.02	-18.54	862.31	862.31
F	44002.02	-18.54	862.31	862.33
G	44012.02	-18.54	862.31	862.34
H	44022.02	-18.54	862.29	862.34
I	44032.02	-18.54	862.28	862.32
J	44042.02	-18.54	862.25	862.28
℄ Brg. E. Abut.	44055.04	-18.54	862.21	862.21
Bk. of E. Abut.	44056.31	-18.54	862.21	862.21

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
18 SHEETS

Contract #64800

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43924.92	-11.13	862.29	862.29
℄ Brg. W. Abut.	43926.19	-11.13	862.29	862.29
A	43936.19	-11.13	862.34	862.36
B	43946.19	-11.13	862.37	862.41
C	43956.19	-11.13	862.40	862.45
D	43966.19	-11.13	862.43	862.47
E	43976.19	-11.13	862.44	862.47
℄ Brg. W. Pier	43989.21	-11.13	862.46	862.46
℄ Pier	43989.96	-11.13	862.46	862.46
℄ Brg. E. Pier	43990.71	-11.13	862.46	862.46
F	44000.71	-11.13	862.46	862.48
G	44010.71	-11.13	862.46	862.50
H	44020.71	-11.13	862.45	862.50
I	44030.71	-11.13	862.43	862.47
J	44040.71	-11.13	862.41	862.44
℄ Brg. E. Abut.	44053.73	-11.13	862.37	862.37
Bk. of E. Abut.	44055.00	-11.13	862.36	862.36

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43923.61	-3.71	862.40	862.40
℄ Brg. W. Abut.	43924.88	-3.71	862.40	862.40
A	43934.88	-3.71	862.45	862.47
B	43944.88	-3.71	862.48	862.52
C	43954.88	-3.71	862.51	862.56
D	43964.88	-3.71	862.54	862.58
E	43974.88	-3.71	862.56	862.59
℄ Brg. W. Pier	43987.90	-3.71	862.57	862.57
℄ Pier	43988.65	-3.71	862.57	862.57
℄ Brg. E. Pier	43989.40	-3.71	862.57	862.57
F	43999.40	-3.71	862.58	862.60
G	44009.40	-3.71	862.57	862.61
H	44019.40	-3.71	862.56	862.61
I	44029.40	-3.71	862.55	862.59
J	44039.40	-3.71	862.53	862.55
℄ Brg. E. Abut.	44052.42	-3.71	862.49	862.49
Bk. of E. Abut.	44053.69	-3.71	862.48	862.48

℄ RDWY. & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43922.96	0.00	862.45	862.45
℄ Brg. W. Abut.	43924.23	0.00	862.46	862.46
A	43934.23	0.00	862.50	862.52
B	43944.23	0.00	862.54	862.58
C	43954.23	0.00	862.57	862.62
D	43964.23	0.00	862.60	862.64
E	43974.23	0.00	862.61	862.64
℄ Brg. W. Pier	43987.25	0.00	862.63	862.63
℄ Pier	43988.00	0.00	862.63	862.63
℄ Brg. E. Pier	43988.75	0.00	862.63	862.63
F	43998.75	0.00	862.63	862.66
G	44008.75	0.00	862.63	862.67
H	44018.75	0.00	862.62	862.67
I	44028.75	0.00	862.61	862.65
J	44038.75	0.00	862.59	862.61
℄ Brg. E. Abut.	44051.77	0.00	862.55	862.55
Bk. of E. Abut.	44053.04	0.00	862.54	862.54

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43922.30	3.71	862.39	862.39
℄ Brg. W. Abut.	43923.57	3.71	862.40	862.40
A	43933.57	3.71	862.44	862.46
B	43943.57	3.71	862.48	862.52
C	43953.57	3.71	862.51	862.56
D	43963.57	3.71	862.54	862.58
E	43973.57	3.71	862.56	862.58
℄ Brg. W. Pier	43986.59	3.71	862.57	862.57
℄ Pier	43987.34	3.71	862.57	862.57
℄ Brg. E. Pier	43988.09	3.71	862.57	862.57
F	43998.09	3.71	862.58	862.60
G	44008.09	3.71	862.57	862.61
H	44018.09	3.71	862.57	862.61
I	44028.09	3.71	862.55	862.59
J	44038.09	3.71	862.53	862.56
℄ Brg. E. Abut.	44051.12	3.71	862.49	862.49
Bk. of E. Abut.	44052.38	3.71	862.49	862.49

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43921.00	11.13	862.27	862.27
℄ Brg. W. Abut.	43922.27	11.13	862.27	862.27
A	43932.27	11.13	862.32	862.34
B	43942.27	11.13	862.36	862.40
C	43952.27	11.13	862.39	862.44
D	43962.27	11.13	862.42	862.46
E	43972.27	11.13	862.44	862.47
℄ Brg. W. Pier	43985.29	11.13	862.45	862.45
℄ Pier	43986.04	11.13	862.46	862.46
℄ Brg. E. Pier	43986.79	11.13	862.46	862.46
F	43996.79	11.13	862.46	862.48
G	44006.79	11.13	862.46	862.50
H	44016.79	11.13	862.45	862.50
I	44026.79	11.13	862.44	862.48
J	44036.79	11.13	862.42	862.44
℄ Brg. E. Abut.	44049.81	11.13	862.38	862.38
Bk. of E. Abut.	44051.08	11.13	862.38	862.38

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	43919.69	18.54	862.11	862.11
℄ Brg. W. Abut.	43920.96	18.54	862.12	862.12
A	43930.96	18.54	862.16	862.19
B	43940.96	18.54	862.20	862.24
C	43950.96	18.54	862.24	862.29
D	43960.96	18.54	862.26	862.31
E	43970.96	18.54	862.29	862.31
℄ Brg. W. Pier	43983.98	18.54	862.30	862.30
℄ Pier	43984.73	18.54	862.30	862.30
℄ Brg. E. Pier	43985.48	18.54	862.30	862.30
F	43995.48	18.54	862.31	862.33
G	44005.48	18.54	862.31	862.35
H	44015.48	18.54	862.30	862.35
I	44025.48	18.54	862.29	862.33
J	44035.48	18.54	862.27	862.30
℄ Brg. E. Abut.	44048.50	18.54	862.23	862.23
Bk. of E. Abut.	44049.77	18.54	862.23	862.23

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007

EXAMINED Thomas J. Domagalski
ENGINEER BRIDGE SECTION

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

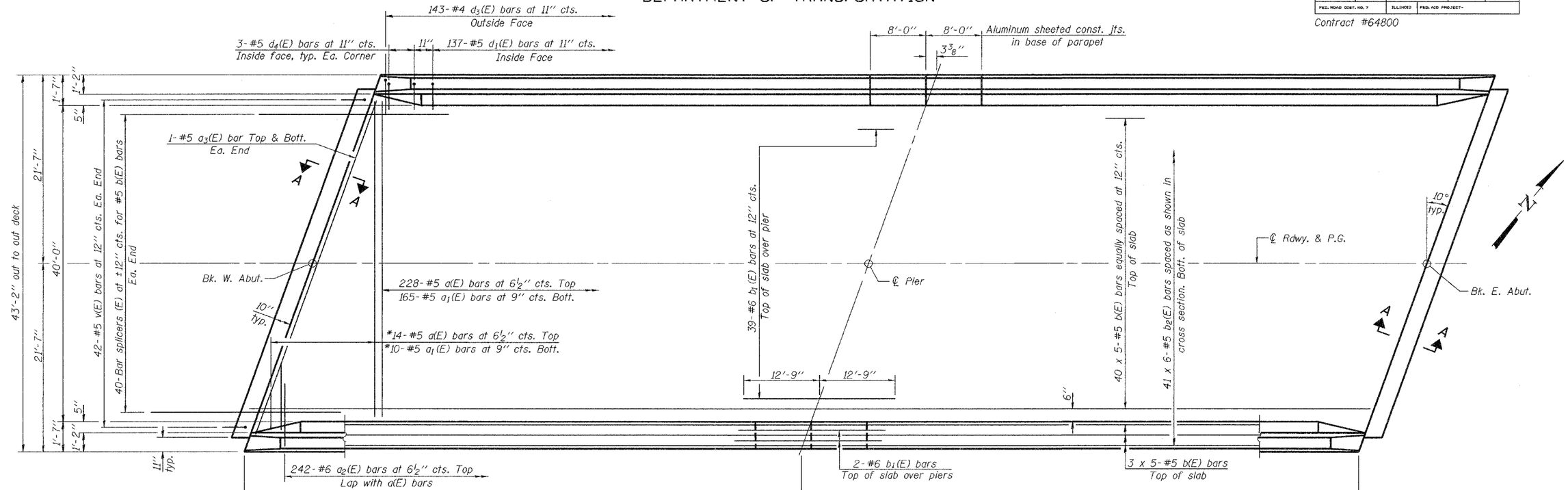
TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
18 SHEETS

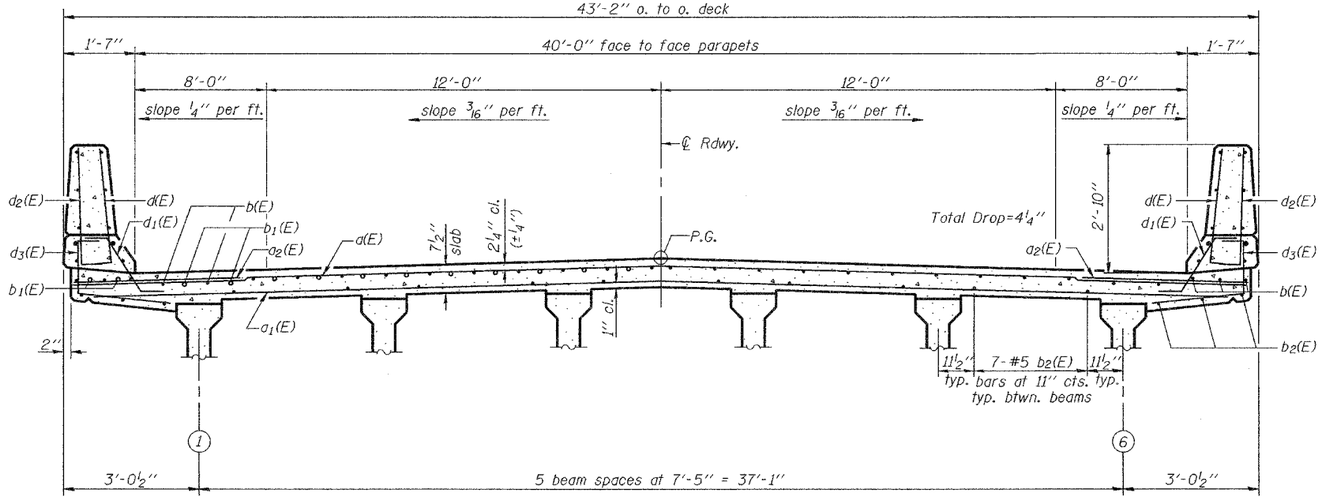
Contract #64800



*Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN

Notes:
See sheet 6 of 18 for superstructure details and Bill of Material.
For Section A-A See sheet 7 of 18.
Bars indicated thus 40 x 5-#5 etc. indicates 40 lines of bars with 5 lengths per line.
See sheet 6 of 18 for parapet reinforcement.



NEAR PIER — NEAR MIDSPAN

CROSS SECTION
(Looking East)

MIN. BAR LAPS
#5 bar = 1'-8"
#6 bar = 2'-7"

DESIGNED	Fesseha Teklehaimanot
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CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGES DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

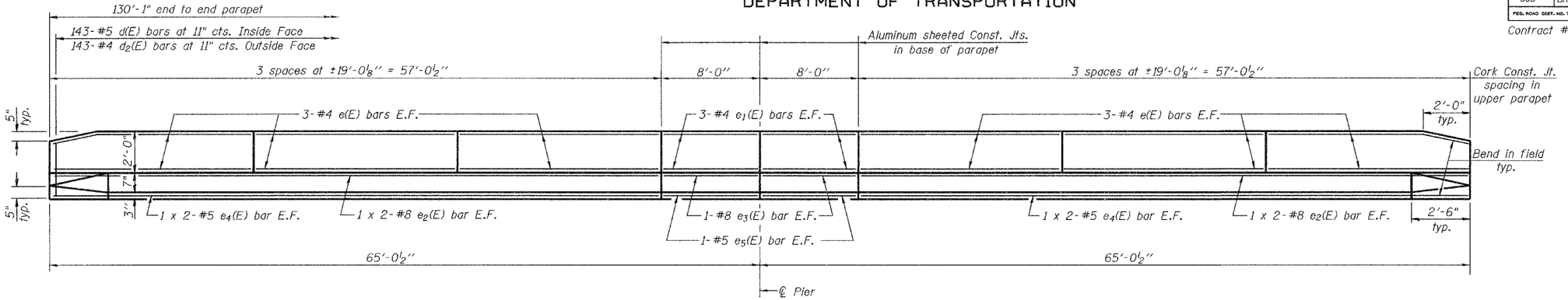
SUPERSTRUCTURE
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
18 SHEETS

Contract #64800

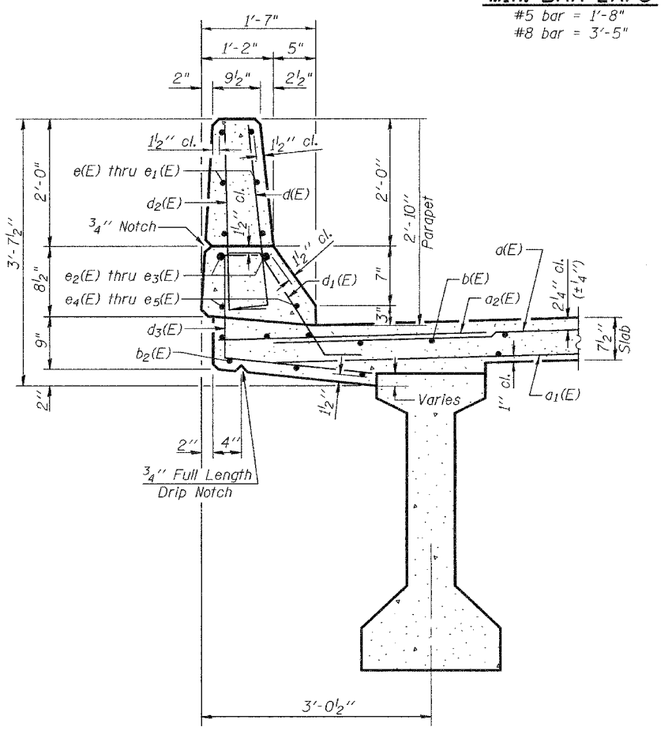
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



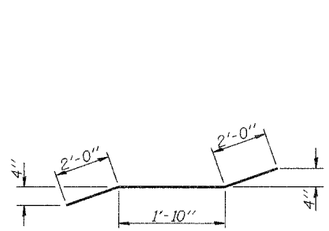
INSIDE ELEVATION OF PARAPET

MIN. BAR LAPS

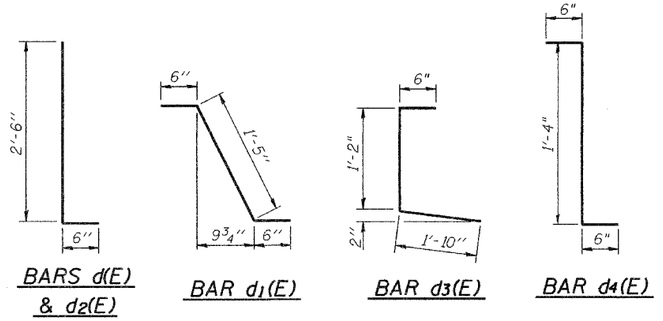
#5 bar = 1'-8"
#8 bar = 3'-5"



SECTION THRU PARAPET



BAR m5(E)

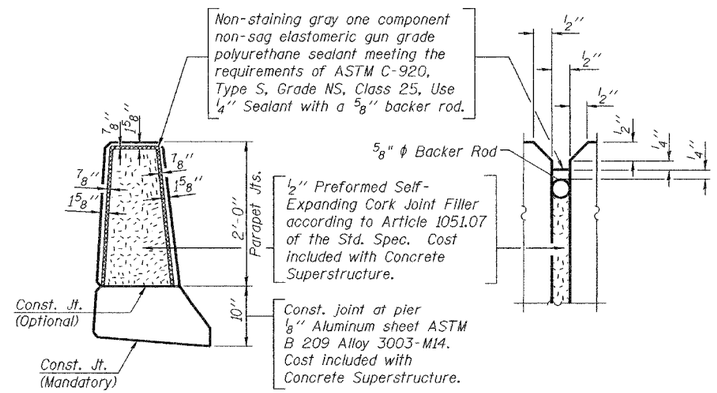


BARS d(E) & d2(E)

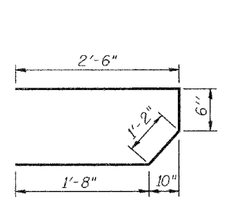
BAR d1(E)

BAR d3(E)

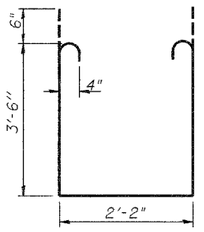
BAR d4(E)



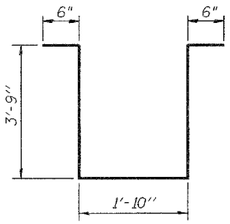
PARAPET JOINT DETAILS



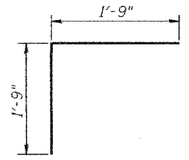
BAR s(E)



BAR s1(E)



BAR s2(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	242	#5	41'-5"	
a_1(E)	175	#5	40'-10"	
a_2(E)	484	#6	6'-0"	
a_3(E)	4	#5	43'-1"	
b(E)	230	#5	27'-6"	
b_1(E)	43	#6	25'-6"	
b_2(E)	246	#5	22'-11"	
d(E)	286	#5	3'-0"	
d_1(E)	274	#5	2'-5"	
d_2(E)	286	#4	3'-0"	
d_3(E)	286	#4	3'-6"	
d_4(E)	12	#5	2'-4"	
e(E)	72	#4	18'-9"	
e_1(E)	24	#4	7'-9"	
e_2(E)	16	#8	30'-1"	
e_3(E)	8	#8	7'-9"	
e_4(E)	16	#5	29'-3"	
e_5(E)	8	#5	7'-9"	
m(E)	4	#6	41'-7"	
m_1(E)	6	#6	43'-6"	
m_2(E)	24	#6	10'-3"	
m_3(E)	20	#6	5'-4"	
m_4(E)	4	#6	1'-10"	
m_5(E)	6	#8	5'-10"	
m_6(E)	20	#6	6'-8"	
s(E)	82	#5	5'-10"	
s_1(E)	72	#4	10'-2"	
s_2(E)	30	#4	10'-4"	
v(E)	84	#5	3'-6"	
Reinforcement Bars, Epoxy Coated		Lbs.	45440	
Concrete Superstructure		Cu. Yds.	203.0	

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

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

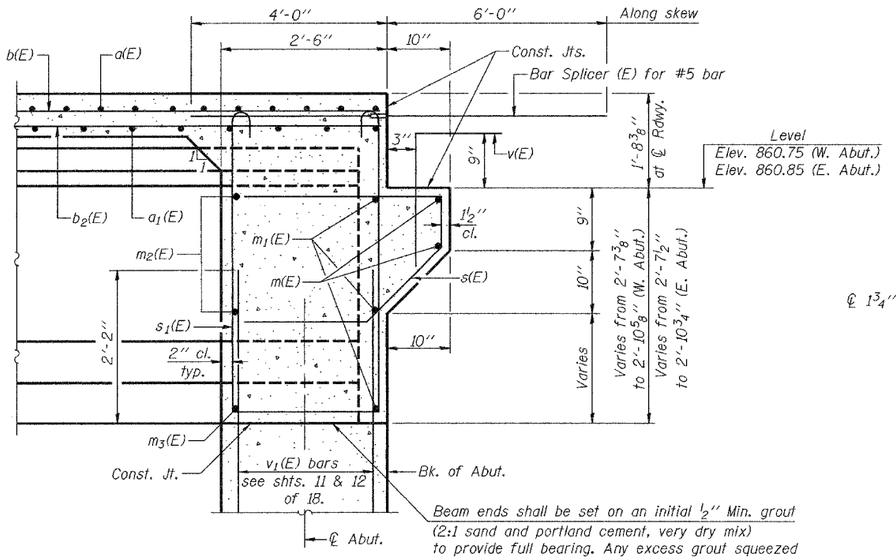
SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		144
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
18 SHEETS

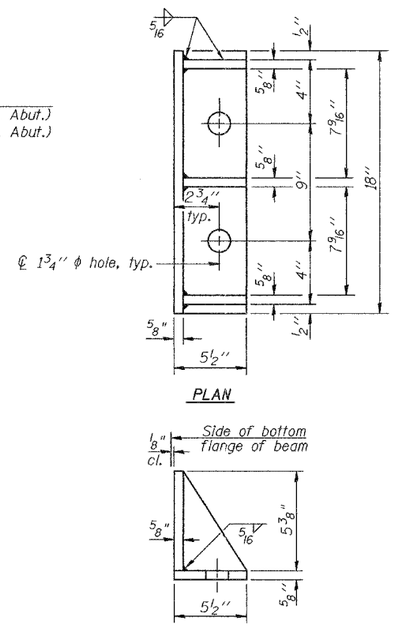
Contract #64800



Beam ends shall be set on an initial 1/2" Min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

Dimensions at Rt. L's to abutments, except as shown.

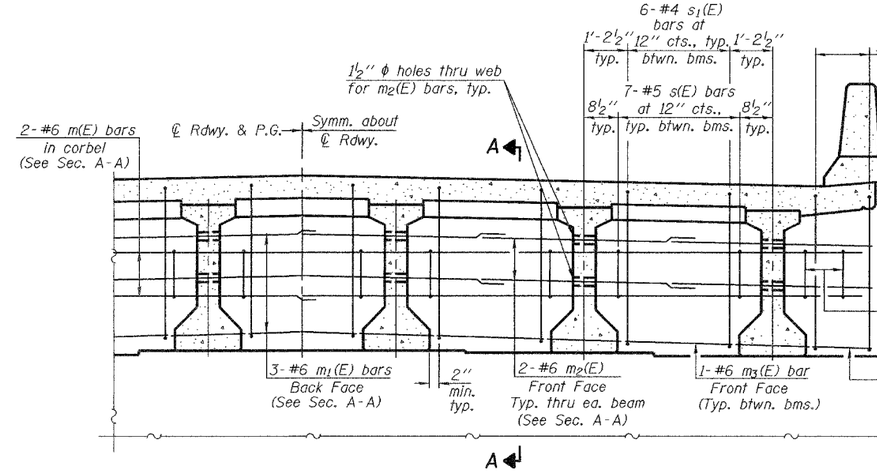


PLAN

ELEVATION

SIDE RETAINER

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



DIAPHRAGM ELEVATION AT ABUTMENT

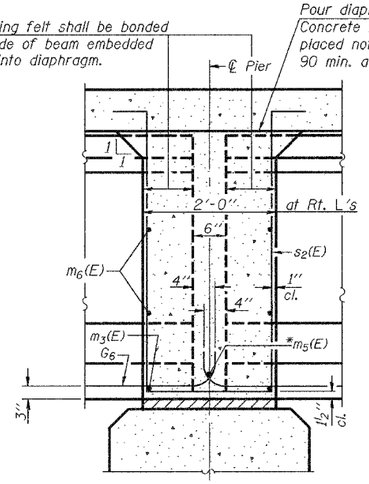
(Looking West at West Abut. - East Abut. similar)

MIN. BAR LAP

#6 bars = 2'-9"

Roofing felt shall be bonded to side of beam embedded into diaphragm.

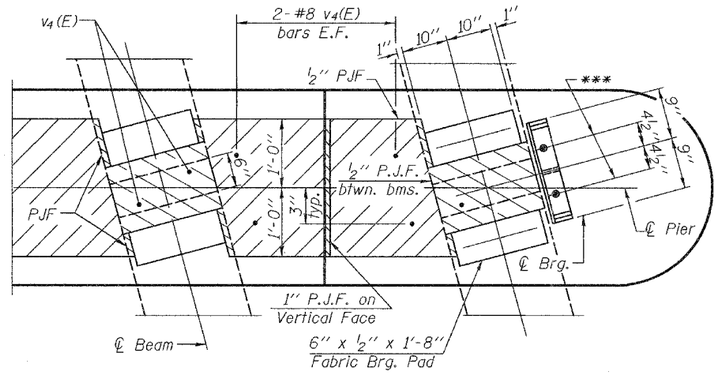
Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.



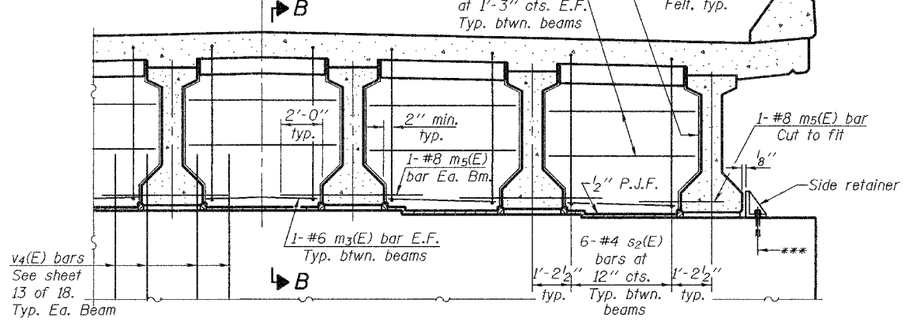
*Tightly fasten the #8 bars together with No. 9 wire ties.

SECTION B-B

(At Pier, Dimensions along ℄ beam, except as shown).



FIXED PIER DETAIL



DIAPHRAGM ELEVATION AT PIER

(Looking West)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 6 of 18.

Concrete in diaphragm is included with Concrete Superstructure on sheet 6 of 18.

For details of bars s(E), s_1(E) & s_2(E) see sheet 6 of 18.

The s(E), s_1(E) & s_2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

Cost of 90 Lb. roofing felt is included with Concrete Superstructure.

The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer shall be included with Concrete Structures.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M134 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

***℄ 1 1/2" ϕ x 18" Anchor bolts (ASTM F1554 Grade 36) with 3" x 3" x 5/16" ℄ washer under nut.

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007

EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DIAPHRAGM DETAILS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

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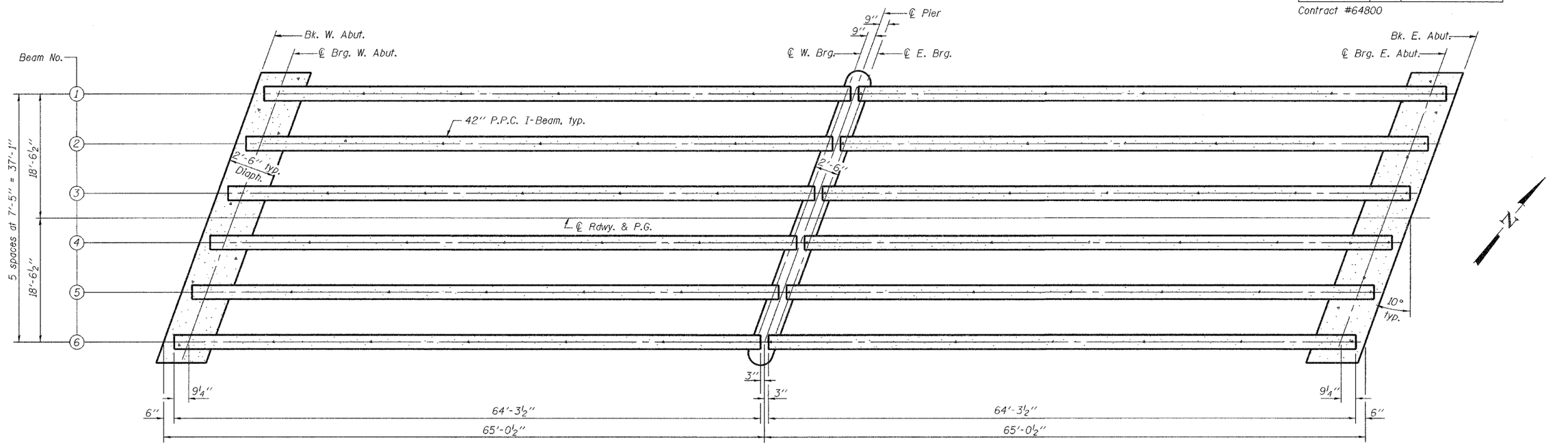
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
18 SHEETS

Contract #64800

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

INTERIOR BEAM MOMENT TABLE			
		0.4 Sp. 1 0.6 Sp. 2	Pier
I	(in^4)	90956	———
I'	(in^4)	284798	———
S_b	(in^3)	5153	———
S_b'	(in^3)	8812	———
S_t	(in^3)	3736	———
S_t'	(in^3)	29421	———
ℓ	(k/')	1.197	1.197
$M\ell$	('k)	608	———
$s\ell$	(k/')	0.521	0.521
$Ms\ell$	('k)	148	265
$M\ell$	('k)	474	369
$M\,Imp$	('k)	123	96

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_b': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_t: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
S_t': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
ℓ: Un-factored non-composite dead load (kips/ft.).
$M\ell$: Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
$s\ell$: Un-factored long-term composite (superimposed) dead load (kips/ft.)
$Ms\ell$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
M_L: Un-factored live load moment on the composite section (kip-ft.).
M_{Imp}: Un-factored moment due to impact on the composite section (kip-ft.).

INTERIOR BEAM REACTION TABLE			
		Abutments	Pier Span 1 Pier Span 2
$R\ell$	(k)	38.2	38.2
$Rs\ell$	(k)	12.5	20.8
R_L	(k)	39.8	26.0
Imp	(k)	10.3	6.8
R (Total)	(k)	100.8	91.8

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007

EXAMINED Thomas J. Domagalski
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PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

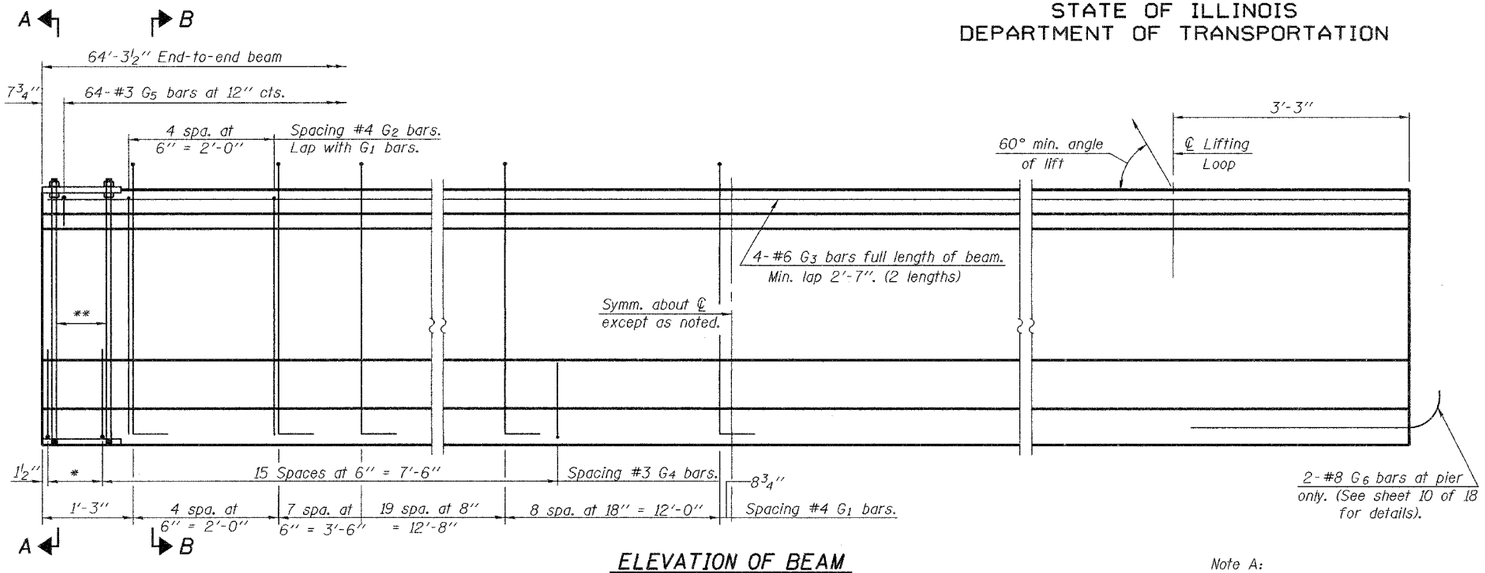
FRAMING PLAN
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
18 SHEETS

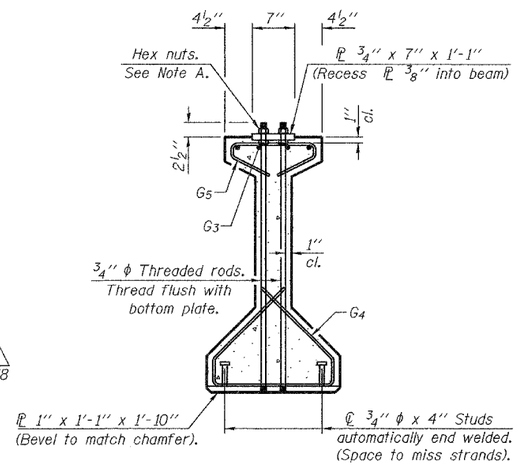
Contract #64800



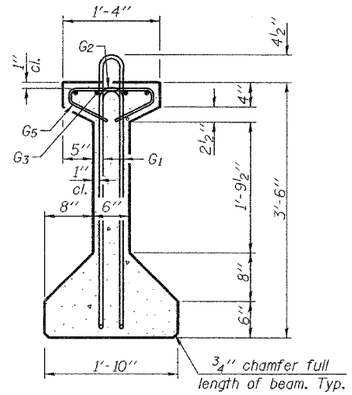
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

*3 spaces at 3" = 9".
**4-¾" ϕ threaded dowel rods at 3" cts., each face.

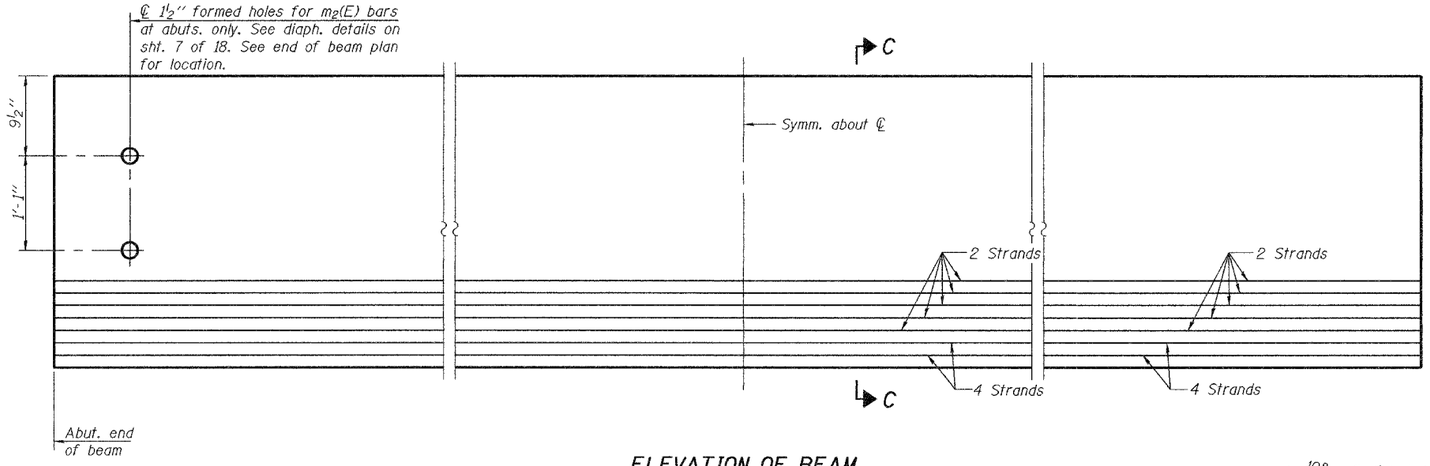
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



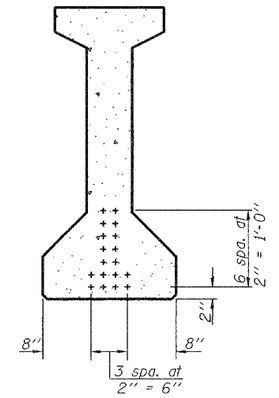
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



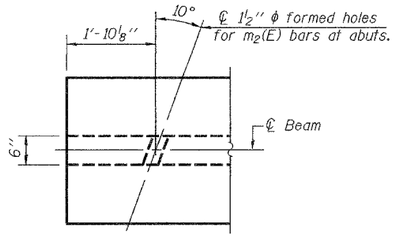
SECTION C-C

***BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	78	#4	8'-5"	
G_2	10	#4	6'-8"	
G_3	8	#6	33'-4"	
G_4	38	#3	4'-11"	
G_5	64	#3	2'-6"	
G_6	2	#8	3'-9"	

***For information only.

Notes: See sheet 10 of 18 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5000 psi.



END OF BEAM-PLAN

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGES DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

42" PPC I-BEAM (SPANS 1 & 2)
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

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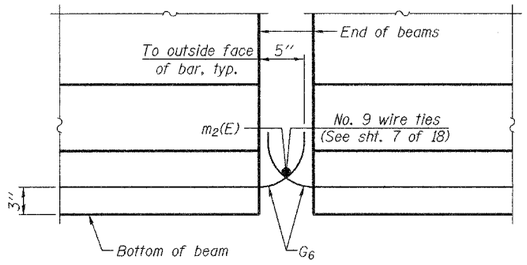
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

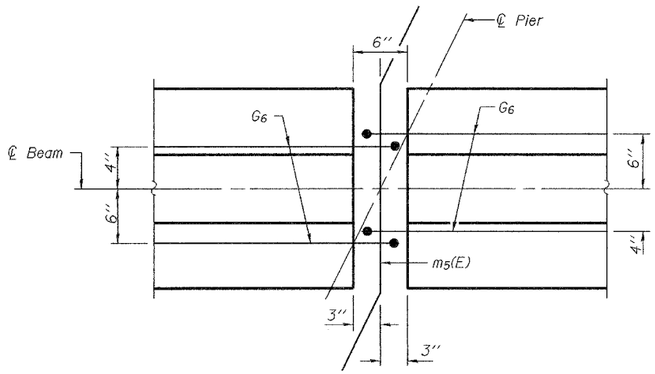
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
18 SHEETS

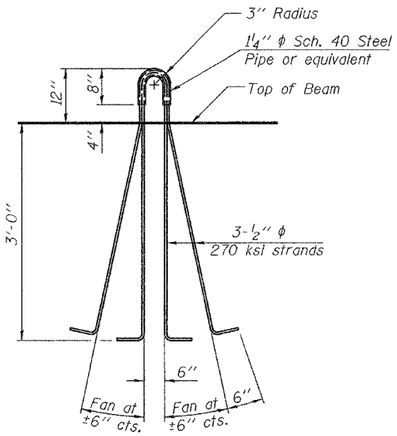
Contract #64800



ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER



LIFTING LOOP DETAIL

NOTES

Inserts for ¾" ϕ threaded dowel rods, when specified, are to be two strut, coil type for interior beams and single coil, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

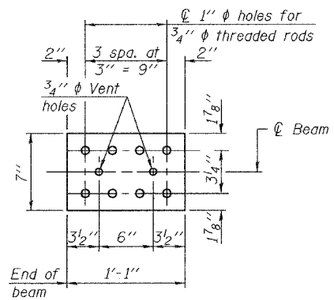
A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

Cut G_6 bars when necessary to maintain 1½" clearance.

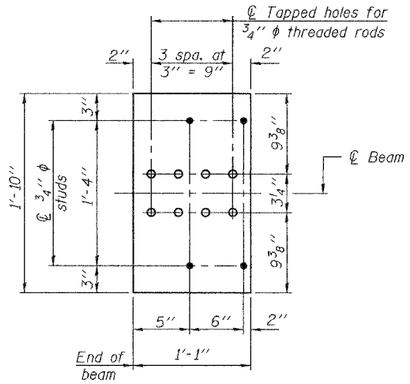
The bottom plates and studs shall be galvanized according to AASHTO M111.

Threaded rods shall be ASTM F 1554 Grade 55.

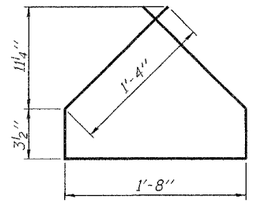
The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 42 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.



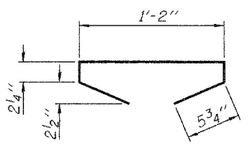
TOP PLATE



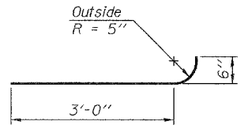
BOTTOM PLATE



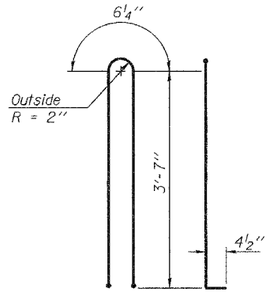
BAR G_4



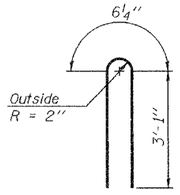
BAR G_5



BAR G_6



BAR G_1



BAR G_2

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Ft.	771.5

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PI-4-42D 12-21-06

42" PPCI-BEAM DETAILS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

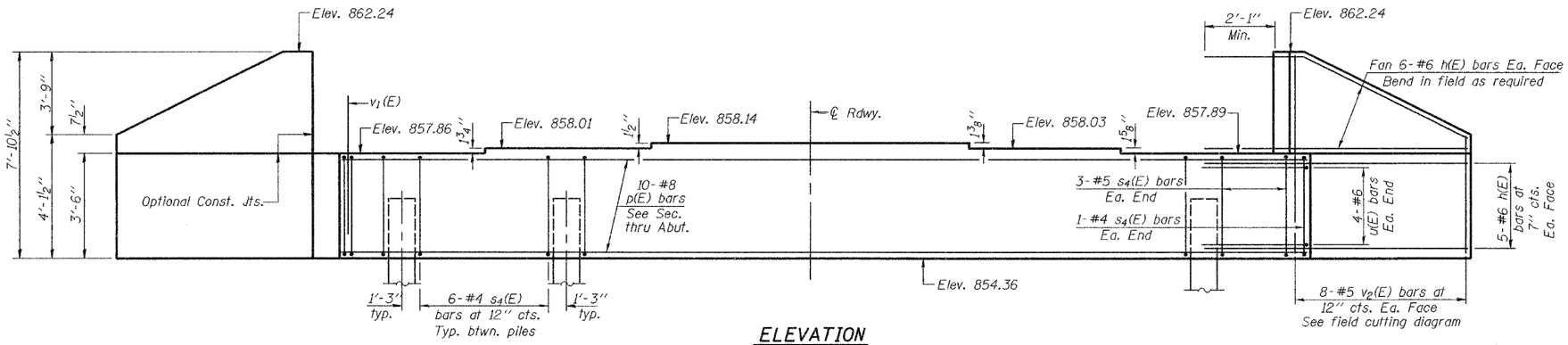
Notes: Pour steps monolithically with cap.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

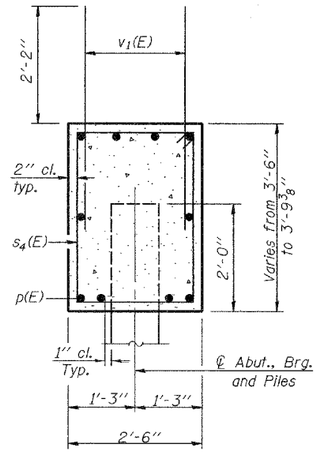
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
18 SHEETS

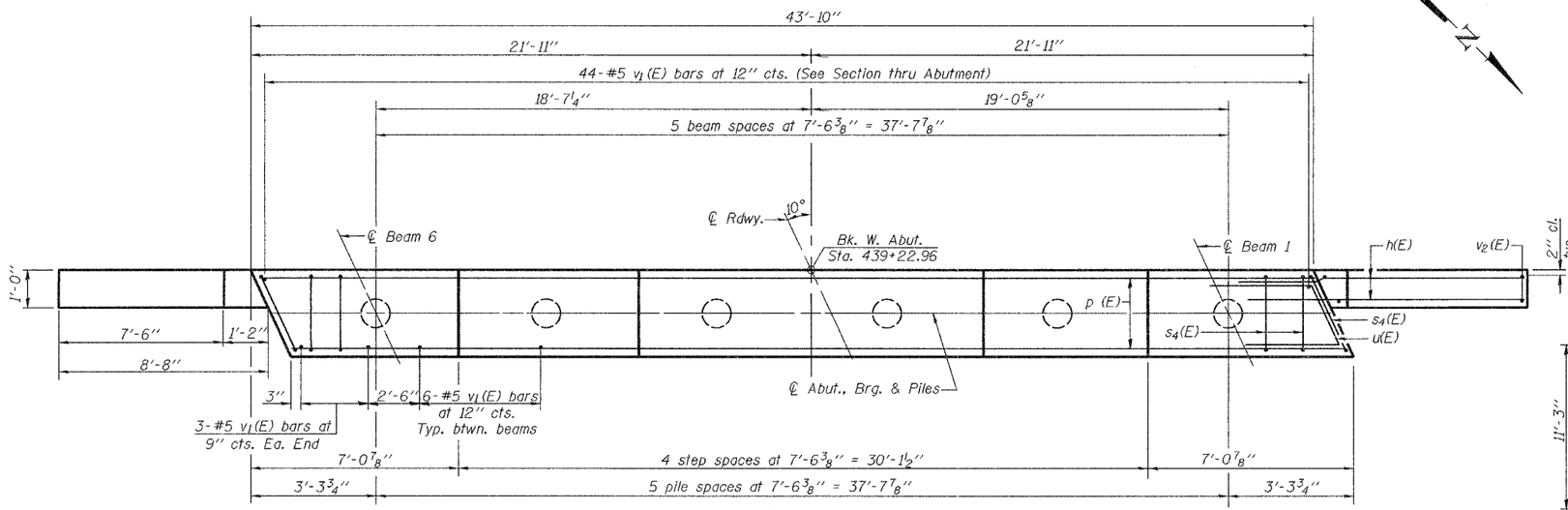
Contract #64800



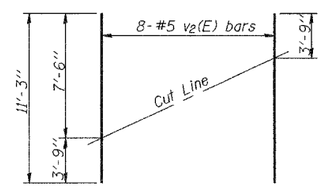
ELEVATION
(Looking West)



SEC. THRU ABUT.



PLAN



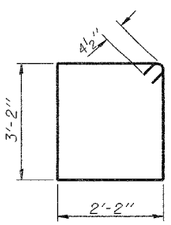
FIELD CUTTING DIAGRAM

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

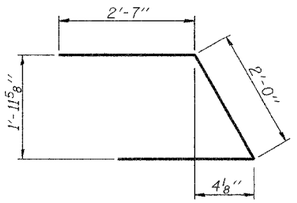
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	44	#6	11'-5"	
p(E)	10	#8	43'-6"	
s4(E)	38	#4	11'-5"	
u(E)	8	#6	7'-2"	
v1(E)	80	#5	4'-4"	
v2(E)	16	#5	11'-3"	
Concrete Structures			Cu. Yd.	18.4
Reinforcement Bars, Epoxy Coated			Pound	2840
Structure Excavation			Cu. Yd.	193.1
Driving Piles			Foot	280
Test Pile Metal Shells			Each	1
Furnishing Metal Shell Piles, 14"			Foot	280

For details of piles and Metal Shell Reinforcement at Abutments see sheet 14 of 18.



BARS s4(E)



BAR u(E)

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PILE DATA

Pile type & size: Metal Shell 14" dia. x ¼" in wall
Nominal Required Bearing: 416 kips
Allowable Resistance Available: 139 kips
Estimated Pile Length: 56'
No. of Production Piles: 5
No. of Test Piles: 1

WEST ABUTMENT
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

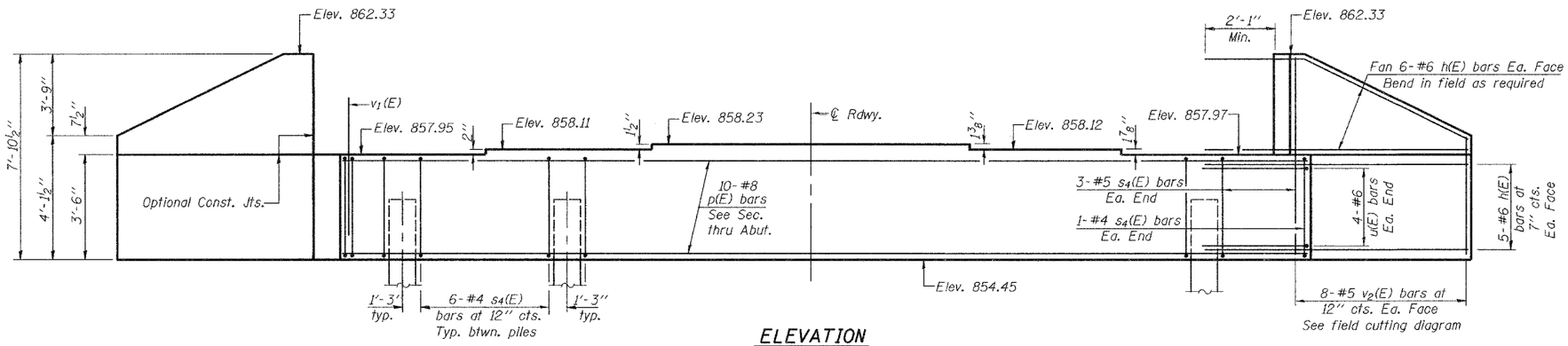
Notes: Pour steps monolithically with cap.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

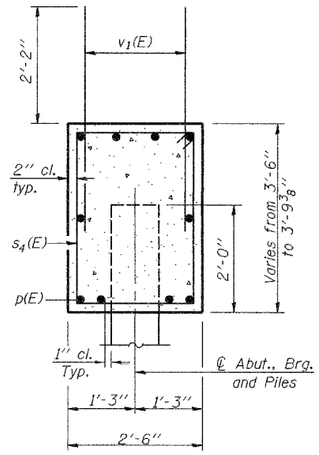
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		49
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 12
18 SHEETS

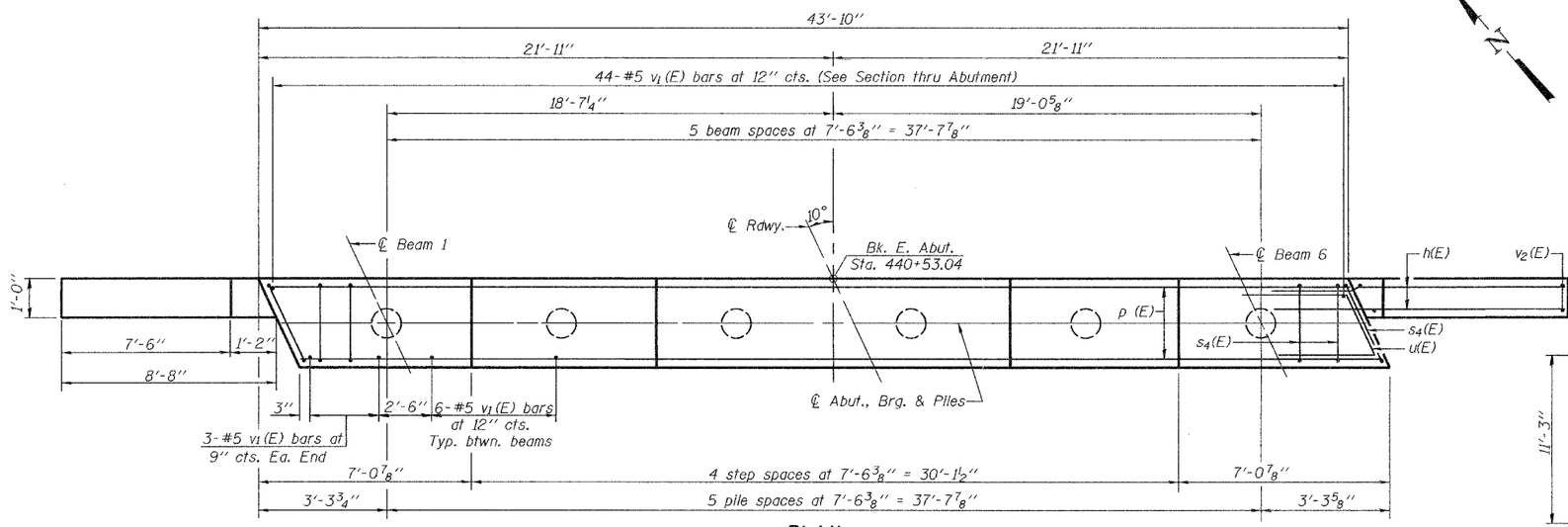
Contract #64800



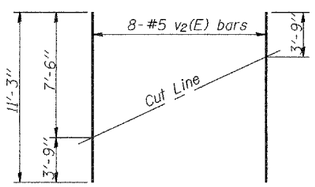
ELEVATION
(Looking East)



SEC. THRU ABUT.



PLAN



FIELD CUTTING DIAGRAM

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

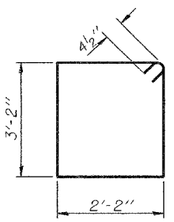
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	44	#6	11'-5"	——
p(E)	10	#8	43'-6"	——
s4(E)	38	#4	11'-5"	□
u(E)	8	#6	7'-2"	⌐
v1(E)	80	#5	4'-4"	——
v2(E)	16	#5	11'-3"	——
Concrete Structures			Cu. Yd.	18.4
Reinforcement Bars, Epoxy Coated			Pound	2840
Structure Excavation			Cu. Yd.	193.1
Driving Piles			Foot	235
Test Pile Metal Shells			Each	1
Furnishing Metal Shell Piles, 14"			Foot	235

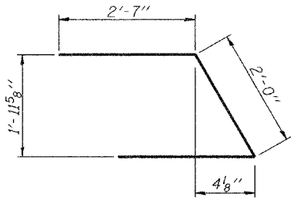
For details of piles and Metal Shell Reinforcement at Abutments see sheet 14 of 18.

PILE DATA

Pile type & size: Metal Shell 14" dia. x ¼" in wall
Nominal Required Bearing: 416 kips
Allowable Resistance Available: 139 kips
Estimated Pile Length: 47'
No. of Production Piles: 5
No. of Test Piles: 1



BARS s4(E)



BAR u(E)

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

EAST ABUTMENT
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

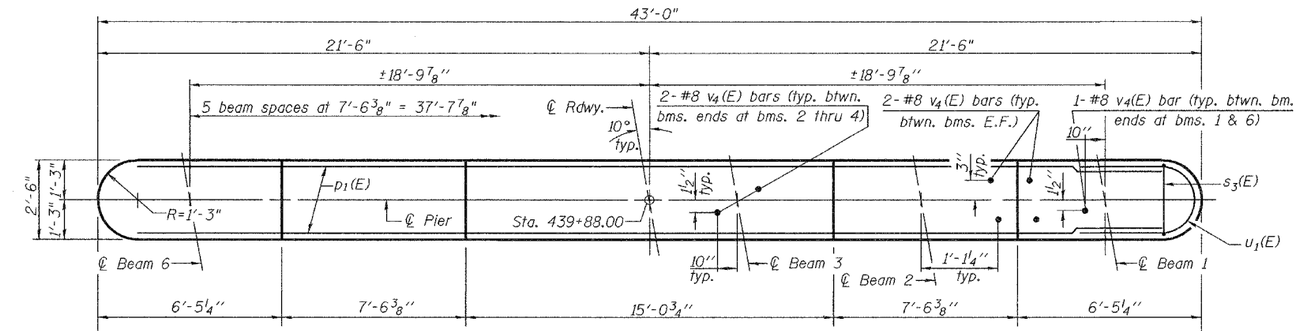
Notes: Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.
For Plan view of existing and proposed piles.
See sheet 2 of 18.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

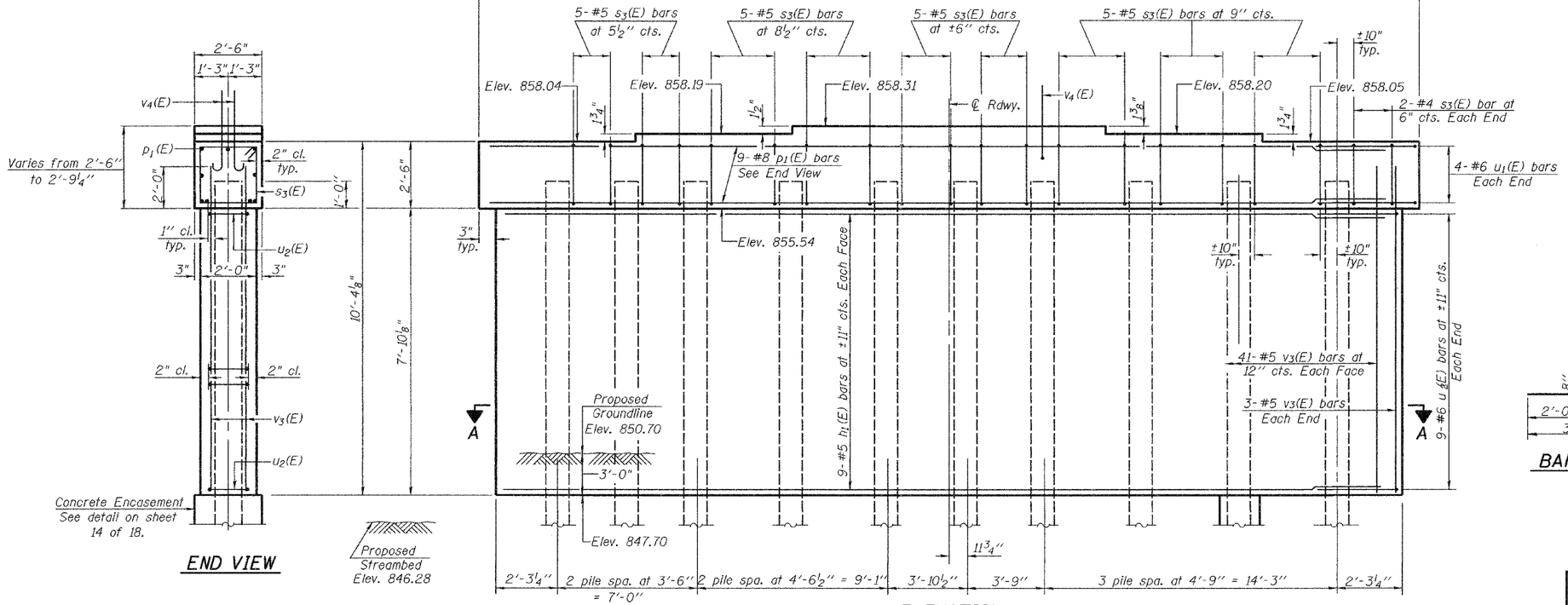
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
18 SHEETS

Contract #64800

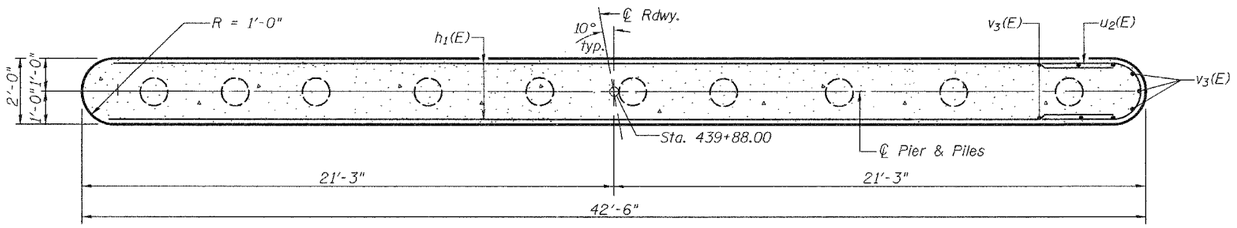


TOP PLAN

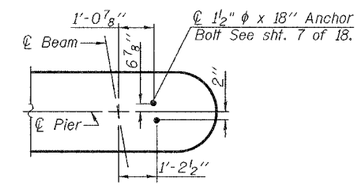


END VIEW

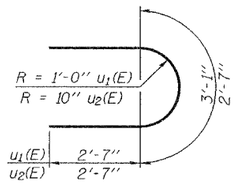
ELEVATION
(Looking West)



SECTION A-A



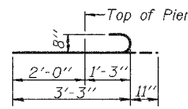
ANCHOR BOLT LAYOUT
Beam 1 shown, Beam 6 similar.



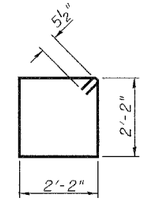
BARS u1(E) & u2(E)

PILE DATA

Pile Type & Size: Metal Shell 14" ϕ x 5/16" Wall
Nominal Required Bearing: = 510 kips
Allowable Resistance Available: = 159 kips
Est. Length: 53'
No. of Production Piles: 9
No. of Test Piles: 1



BAR v4(E)



BAR s3(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	18	#5	40'-6"	
p1(E)	9	#8	40'-6"	
s3(E)	49	#5	9'-7"	
u1(E)	8	#6	8'-3"	
u2(E)	18	#6	7-9"	
v3(E)	88	#5	9'-8"	
v4(E)	30	#8	4'-2"	
Concrete Structures			Cu. Yd.	36.9
Reinforcement Bars, Epoxy Coated			Pound	3750
Furnishing Metal Shell Piles, 14"			Foot	477
Structure Excavation			Cu. Yd.	31
Test Pile Metal Shells			Each	1
Driving Piles			Foot	477
Underwater Structure Excavation Protection -Location 1			Each	1
Concrete Encasement			Cu. Yd.	10.0

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGES DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

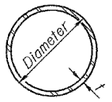
PIER
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

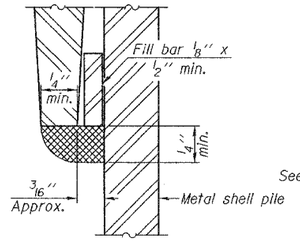
SHEET NO. 14
18 SHEETS

Contract #64800

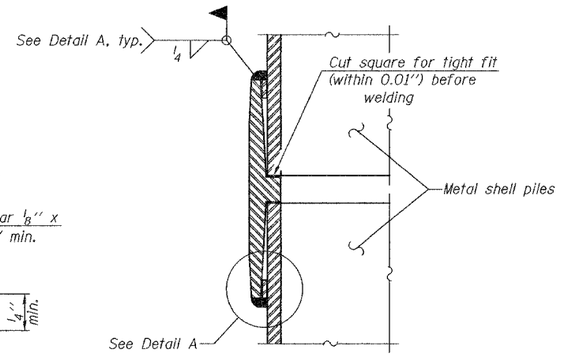


METAL SHELL PILE TABLE

Designation	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume ($yd.^3$/ft.)	Encasement diameter A
PP12	0.179"	22.60	0.0274	30"
PP12	0.250"	31.37	0.0267	30"
PP14	0.250"	36.71	0.0368	30"
PP14	0.312"	45.61	0.0361	30"

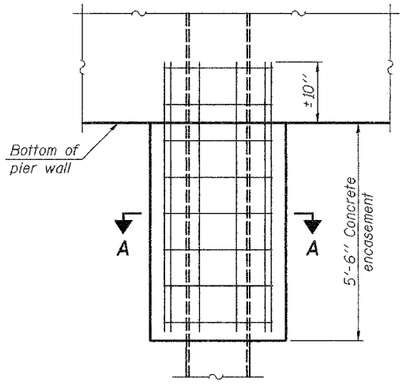


DETAIL A

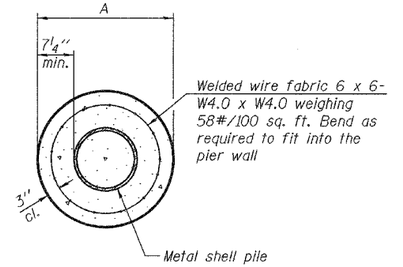


Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



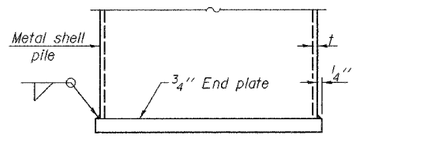
ELEVATION



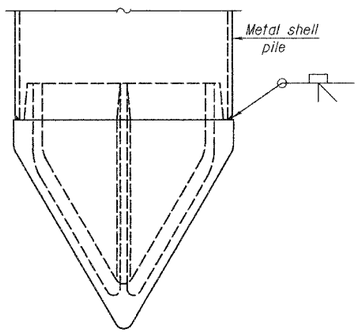
SECTION A-A

Notes:
See Metal Shell Pile Table for dimension "A".
Forms for encasement may be omitted when soil conditions permit.

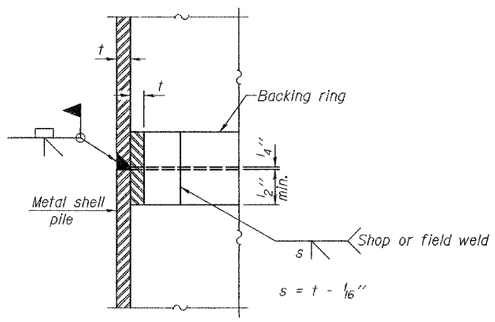
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

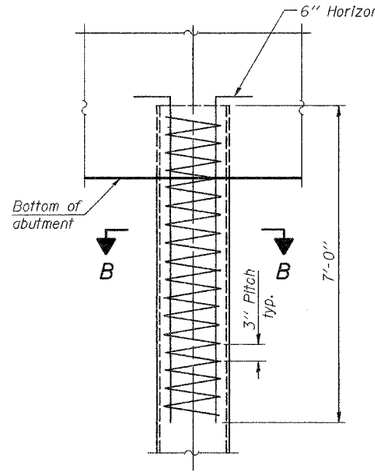


METAL SHELL PILE SHOE ATTACHMENT

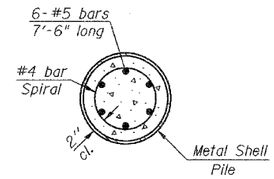


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION A-A

METAL SHELL REINFORCEMENT AT ABUTMENTS

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGES DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

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

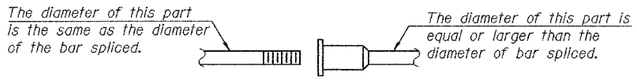
METAL SHELL PILE
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		52
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

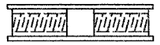
SHEET NO. 15
18 SHEETS

Contract #64800



ROLLED THREAD DOWEL BAR

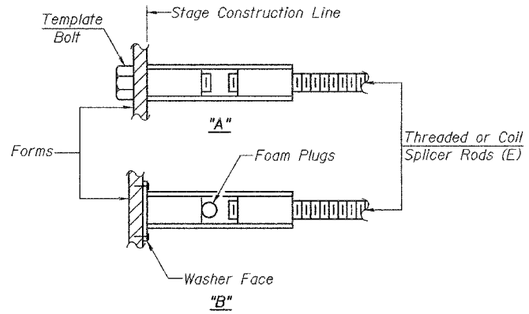
**ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

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

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

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

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

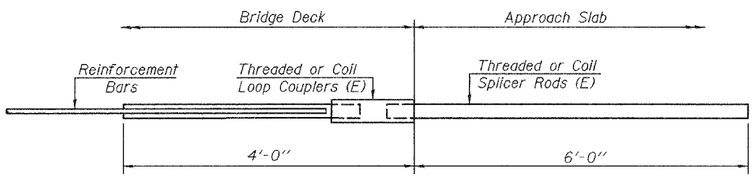
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

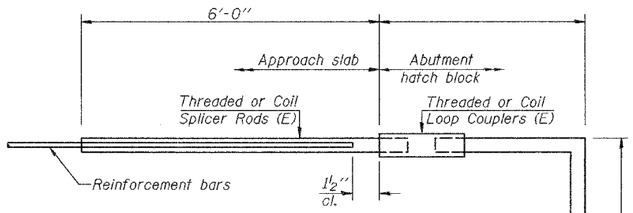
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



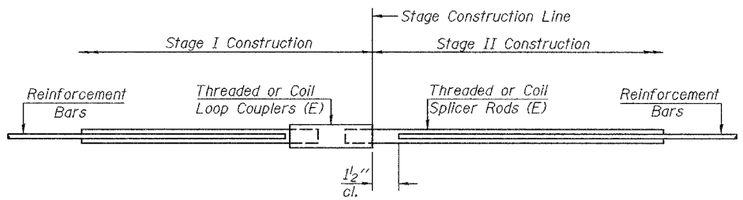
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 80



FOR PILE BENT ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED	Fesseha Teklehaimanot
CHECKED	Stephen Ryan
DRAWN	R. Sommer
CHECKED	FT/SMR

March 9 2007
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 11-1-06

BAR SPLICER ASSEMBLY DETAILS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 16
18 SHEETS

Contract #64800

*

Illinois Department of Transportation
Division of Highways
Region 2, District 2

SOIL BORING LOG

Page 1 of 2

Date 2/5/02

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. 004-0020
Station 310 + 00

BORING NO. B-1
Station 311+ 08
Offset 14.00ft Lt CL
Ground Surface Elev. 858.6 ft

Surface Water Elev. 850.3 ft
Stream Bed Elev. 845.3 ft

Groundwater Elev.:
First Encounter 845.6 ft
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Road Rock				Wash			15
VERY SOFT black/tan SANDY CLAY LOAM		0.2 P	25	MEDIUM tan SAND & GRAVEL with large coarse AGGREGATE			12
856.10				837.10			
MEDIUM tan SILTY CLAY LOAM	2			MEDIUM tan medium SAND & GRAVEL			9
	2	0.6	29				8
854.60	4	B		834.60			10
-5				-25			
STIFF gray SILTY CLAY LOAM	3			MEDIUM tan fine SAND & GRAVEL			8
	5	1.2	24				10
852.10	5	B		832.10			15
STIFF gray SILTY CLAY LOAM with ORGANICS	2			Wash			6
	3	1.4	23	MEDIUM tan medium SAND & GRAVEL			10
849.60	6	B		829.60			14
-10				-30			
SOFT black SILTY CLAY LOAM	1			Wash			8
	2	0.4	32	MEDIUM tan medium SAND & GRAVEL with COBBLES			9
847.10	4	B		827.10			11
SOFT gray SILTY CLAY LOAM, 11% ORGANICS	1			Wash			2
	1	0.4	40	MEDIUM tan fine SAND			5
844.10	4	B		824.60			9
-15				-35			
MEDIUM tan SAND & GRAVEL	1			Wash			5
	6			MEDIUM tan SAND & GRAVEL with COBBLES			7
842.10	11			822.10			8
MEDIUM tan coarse SAND & GRAVEL with LIMESTONE fragments	23			Wash			7
	14			MEDIUM tan fine SAND			10
839.60	6			819.60			10
-20				-40			

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

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Illinois Department of Transportation
Division of Highways
Region 2, District 2

SOIL BORING LOG

Page 2 of 2

Date 2/5/02

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. 004-0020
Station 310 + 00

BORING NO. B-1
Station 311+ 08
Offset 14.00ft Lt CL
Ground Surface Elev. 858.6 ft

Surface Water Elev. 850.3 ft
Stream Bed Elev. 845.3 ft

Groundwater Elev.:
First Encounter 845.6 ft
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Wash	8			VERY DENSE tan fine SAND	34		
MEDIUM tan fine SAND	7			797.10	33		
817.10	8				28		
				Extended boring on 8/2/06	10		
814.60				VERY DENSE light gray clean medium coarse SAND	33		
-45				794.10	61		
Wash	6			-65			
MEDIUM tan fine SAND	7			Wash	30		
812.10	9			VERY DENSE light gray clean medium coarse SAND with GRAVEL	40		
				791.60	38		
809.60							
-50	10			-70			
Wash	8						
MEDIUM tan fine SAND	15						
807.10							
804.60							
-55	9			-75			
Wash	11						
MEDIUM tan fine SAND	12						
802.10							
799.60							
-60				-80			

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

*To get proposed Stations for Boring Logs add 130+33.44 to the Stations shown above.

Illinois Department of Transportation
Division of Highways
Region 2, District 2

SHELBY TUBE TEST RESULTS

Page 1 of 2

Date 8/06

ROUTE FAP 303 DESCRIPTION P92-030-02 Bridge on IL 173 over Beaver Creek, .5 m. W. of Meier Road DRILLED BY ____

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone STRUCT. NO. 004-0020
Station E. Abut.

BORING NO. B-1 ST
Station 441+50
Offset 19.00ft Lt CL
Ground Surface Elev. 858.6 ft Tube Length ____ in
Begin Sampling Depth –0 ft Tube Diameter ____ in

SOIL TYPE, DESCRIPTION AND OBSERVATIONS	DEPTH (ft)	SPECIMEN (no)	UNIT WEIGHT (pcf)	STRENGTH (tsf)	MOISTURE (%)	TRIAXIAL DATA COHESION (psf)	TRIAXIAL DATA PHI ANG. (deg)	TRIAXIAL DATA TEST TYPE
Not Sampled								
Not Sampled								
Gray Sa, to brown SiC, to gray Sa w/gravel		1-1			11.6			
Brownish-green SiC w/oxidized SiL pockets		1-2	119.8	0.57	28.0			
Greenish-gray SiC w/Si pockets & oxidized areas	-5	1-3	125.5		23.9			CONS
No Recovery		1-4						
Greenish-gray SiC w/large Sa pocket		2-1	118.1		18.5	480	12	UU Tx
Greenish-gray SiCL w/Sa pockets, to black SiC		2-2	111.9	0.71	27.9			
No Recovery		2-3						
No Recovery		2-4						
Black SiCL w/Sa lenses		3-1	116.2	0.2	28.5			
Black Clayey SiL w/Sa lenses & seams		3-2	111.1		37.1	540	0	UU Tx
Black, organic SiL w/Sa pockets	-10	3-3	107.3		44.8			CONS
No Recovery		3-4						
Black, organic Clayey SiL w/oxidized SaL pockets		4-1			37.1			
Black, organic Clayey SiL w/oxidized SaL pockets, top 1/3, to gray CL w/Sa pockets & stones		4-2	113.6		31.6	120	2	UU Tx
Gray, organic SiL w/L & SaL seams – organics & shells		4-3	118.0		34.9			CONS
No Recovery		4-4						

The "Unit Weight" column indicates the "wet" or 'moist" unit weight of the sample
The "Strength" column represents the "unconfined compressive" strength of the sample (AASHTO T 208)
The "Test Type" indicates if Unconsolidated Undrained (UU), Consolidated Undrained (CU) or (CONS) Consolidation test procedures (AASHTO T 296, T 297 or T 216) were used

Illinois Department of Transportation
Division of Highways
Region 2, District 2

SHELBY TUBE TEST RESULTS

Page 2 of 2

Date 8/06

ROUTE FAP 303 DESCRIPTION P92-030-02 Bridge on IL 173 over Beaver Creek, .5 m. W. of Meier Road DRILLED BY ____

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone STRUCT. NO. 004-0020
Station E. Abut.

BORING NO. B-1 ST
Station 441+50
Offset 19.00ft Lt CL
Ground Surface Elev. 858.6 ft Tube Length ____ in
Begin Sampling Depth –0 ft Tube Diameter ____ in

SOIL TYPE, DESCRIPTION AND OBSERVATIONS	DEPTH (ft)	SPECIMEN (no)	UNIT WEIGHT (pcf)	STRENGTH (tsf)	MOISTURE (%)	TRIAXIAL DATA COHESION (psf)	TRIAXIAL DATA PHI ANG. (deg)	TRIAXIAL DATA TEST TYPE
Sa & gravel, top 1/4, to dark gray SIL w/Sa & gravel		5-1	122.4	0.05	25.6			
Dark gray SaL w/gravel & SIL pockets		5-2	133.3		15.7	600	18	UU Tx
No Recovery	-15	5-3						
No Recovery		5-4						
	-20							
	-25							

The "Unit Weight" column indicates the "wet" or 'moist" unit weight of the sample
The "Strength" column represents the "unconfined compressive" strength of the sample (AASHTO T 208)
The "Test Type" indicates if Unconsolidated Undrained (UU), Consolidated Undrained (CU) or (CONS) Consolidation test procedures (AASHTO T 296, T 297 or T 216) were used

SOIL BORING LOGS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
18 SHEETS

Contract #64800

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Illinois Department of Transportation
Division of Highways
Region 2, District 2

SOIL BORING LOG

Page 1 of 2

Date 2802

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. 004-0020
Station 310 + 00

BORING NO. B-2
Station 308 + 86
Offset 15.00ft Rt CL
Ground Surface Elev. 858.8 ft

Surface Water Elev. 850.8 ft
Stream Bed Elev. 845.8 ft

Groundwater Elev.:
First Encounter 843.3 ft
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
Road Rock			
MEDIUM dark brown CLAY LOAM		1.0	22
		P	
856.30			
STIFF tan CLAY LOAM	1		
	3	1.2	24
854.80	4	B	
-5			
MEDIUM tan mottled SILTY CLAY LOAM	2		
	4	0.6	27
852.30	4	B	
SOFT gray SILTY CLAY with ORGANICS	1		
	2	0.5	30
849.80	2	B	
-10			
SOFT gray SANDY CLAY with ORGANICS	1		
	1	0.3	36
847.30	2	P	
SOFT gray SANDY CLAY with medium size GRAVEL lens	0		
	5	0.3	32
844.30	5	P	
-15			
MEDIUM dirty SAND & GRAVEL	3		
	11		
842.30	13		
MEDIUM dirty SAND & GRAVEL	19		
	15		
839.80	10		
-20			

DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
LOOSE dirty SAND & GRAVEL	2		
	3		
836.80	6		
SOFT gray SANDY LOAM with 25% ORGANICS	1		
	2	0.3	55
834.80	6	P	
-25			
MEDIUM gray SANDY LOAM with dirty SAND & GRAVEL in top 6" with 21% ORGANICS	1		
	3	0.5	53
832.30	5	P	
VERY SOFT gray SILTY LOAM with 22% ORGANICS	0		
	1	0.1	43
829.80	2	P	
-30			
VERY SOFT gray SILTY LOAM with 19% ORGANICS	1		
	1	0.1	42
827.30	4	P	
STIFF gray LOAM	3		
	10	1.5	19
824.30	15	P	
-35			
VERY LOOSE dirty SAND & GRAVEL with COBBLES	0		
	0		
822.30	2		
Wash	15		
DENSE tan SAND & GRAVEL with COBBLES	17		
819.80	19		
-40			

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

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Illinois Department of Transportation
Division of Highways
Region 2, District 2

SOIL BORING LOG

Page 2 of 2

Date 2802

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. 004-0020
Station 310 + 00

BORING NO. B-2
Station 308 + 86
Offset 15.00ft Rt CL
Ground Surface Elev. 858.8 ft

Surface Water Elev. 850.8 ft
Stream Bed Elev. 845.8 ft

Groundwater Elev.:
First Encounter 843.3 ft
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
Wash	9		
MEDIUM tan SAND & GRAVEL	10		
817.30	12		
Wash	5		
MEDIUM tan SAND & GRAVEL	8		
812.30	8		
Wash	9		
DENSE gray SAND & GRAVEL	15		
807.30	16		
-55			
Wash	7		
MEDIUM tan SAND & GRAVEL	12		
802.30	10		
799.80			
-60			

DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
Wash	14		
DENSE tan SAND & GRAVEL	22		
797.30	20		
Extended on 8406			
LOOSE medium gray fine SAND	5		
	4		
794.30	7		
-65			
Wash	3		
STIFF gray LOAM TILL	3	1.0	10
791.80	3	P	
Wash	5		
No Recovery	8		
(Presume Sand)	8		
789.80	9		
-70			
MEDIUM gray clean medium coarse SAND with GRAVEL	7		
	11		
787.30	15		
784.80			
-75			
Wash	5		
DENSE gray clean medium coarse SAND	15		
782.30	20		
-80			

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

*To get proposed Stations for Boring Logs add 130+33.44 to the Stations shown above.

Illinois Department of Transportation
Division of Highways
Region 2, District 2

SHELBY TUBE TEST RESULTS

Page 1 of 2

Date 8406

ROUTE FAP 303 DESCRIPTION P92-030-02 Bridge on IL 173 over Beaver Creek, .5 m. W. of Meier Road DRILLED BY ____

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone STRUCT. NO. 004-0020
Station W. Abut.

BORING NO. B-2 ST
Station 439+20 Ground Surface Elev. 858.8 ft Tube Length ____ in
Offset 11.50ft Rt CL Begin Sampling Depth -0 ft Tube Diameter ____ in

SOIL TYPE, DESCRIPTION AND OBSERVATIONS	DEPTH (ft)	SPECIMEN (no)	UNIT WEIGHT (pcf)	STRENGTH (tsf)	MOISTURE (%)	TRIAXIAL DATA COHESION (psf)	PHI ANG. (deg)	TEST TYPE
Not Sampled								
Not Sampled								
Brown SIC w/SIL pockets – isolated large stones	1-1				24.8			
Brown SIC w/isolated small stones	1-2		122.8		26.3	1160	1	UU Tx
No Recovery	-5 1-3							
No Recovery	1-4							
Brown SIC w/small stones	2-1				18.0			
Brown SIC w/SIL pockets & small stones	2-2		124.7		28.3			CONS
Gray SaL, to dark gray L – shale seam separating the tube	2-3		133.5	0.87	13.6			
No Recovery	2-4							
Brown SIC, top 1/2, to black SIL w/SaL pockets	3-1		108.9		21.5			
No Recovery	3-2							
No Recovery	3-3							
No Recovery	-10 3-4							
Gray organic SaL w/SICL pockets & lenses – organic pockets	4-1		123.3		23.5			CONS
Alt. layers of gray SIL & SaL	4-2		126.7		23.1	600	6	UU Tx
No Recovery	4-3							
No Recovery	4-4							

The "Unit Weight" column indicates the "wet" or 'moist" unit weight of the sample
The "Strength" column represents the "unconfined compressive" strength of the sample (AASHTO T 208)
The "Test Type" indicates if Unconsolidated Undrained (UU), Consolidated Undrained (CU) or (CONS) Consolidation test procedures (AASHTO T 296, T 297 or T 216) were used

Illinois Department of Transportation
Division of Highways
Region 2, District 2

SHELBY TUBE TEST RESULTS

Page 2 of 2

Date 8406

ROUTE FAP 303 DESCRIPTION P92-030-02 Bridge on IL 173 over Beaver Creek, .5 m. W. of Meier Road DRILLED BY ____

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone STRUCT. NO. 004-0020
Station W. Abut.

BORING NO. B-2 ST
Station 439+20 Ground Surface Elev. 858.8 ft Tube Length ____ in
Offset 11.50ft Rt CL Begin Sampling Depth -0 ft Tube Diameter ____ in

SOIL TYPE, DESCRIPTION AND OBSERVATIONS	DEPTH (ft)	SPECIMEN (no)	UNIT WEIGHT (pcf)	STRENGTH (tsf)	MOISTURE (%)	TRIAXIAL DATA COHESION (psf)	PHI ANG. (deg)	TEST TYPE
Gray Clayey SIL w/SaL pockets & lenses	5-1		114.9		36.0	300	0	UU Tx
Gray Clayey SIL w/SaL pockets & lenses, top 1/4, to gray coarse SaL w/SIL pockets & gravel	5-2				14.1			CONS
No Recovery	5-3							
No Recovery	-15 5-4							
	-20							
	-25							

The "Unit Weight" column indicates the "wet" or 'moist" unit weight of the sample
The "Strength" column represents the "unconfined compressive" strength of the sample (AASHTO T 208)
The "Test Type" indicates if Unconsolidated Undrained (UU), Consolidated Undrained (CU) or (CONS) Consolidation test procedures (AASHTO T 296, T 297 or T 216) were used

SOIL BORING LOGS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 303	130 BR-4	BOONE		55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 18
18 SHEETS

Contract #64800

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, Region 2, District 2 — Page 1 of 2 — Date 2/1/02

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. — Station 310 + 00 — BORING NO. B-3 — Station 310 + 82 — Offset 36.00ft Lt CL — Ground Surface Elev. 93.6 ft

Surface Water Elev. 91.5 ft — Stream Bed Elev. 86.5 ft — Groundwater Elev.: First Encounter 85.5 ft — Upon Completion ft — After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
		0.0 P	41	VERY SOFT black SILTY CLAY LOAM
90.50	1			SOFT black SILTY CLAY LOAM
	1	0.4 S	36	
89.00	1			
-5				
	2			VERY SOFT black SILTY CLAY with dirty SAND lens
	2	0.0 P	37	
86.00	1			
	4			LOOSE dirty SAND & GRAVEL
	4			
84.00	6			
-10				
	12			MEDIUM dirty SAND & GRAVEL with COBBLES
	9			
81.50	8			
	14			MEDIUM dirty SAND & GRAVEL
	11			
79.00	16			
-15				
	5			Wash LOOSE tan SAND & GRAVEL
	5			
76.50	4			
	1			LOOSE tan fine SAND
	2			
74.00	3			
-20				
				LOOSE tan SAND & GRAVEL
71.50	2			
	2			
	4			Wash MEDIUM tan SAND & GRAVEL
	5			
69.00	6			
-25				
	4			Wash MEDIUM tan SAND & GRAVEL
	5			
66.50	5			
	6			Wash MEDIUM tan SAND & GRAVEL
	6			
64.00	6			
-30				
	6			Wash MEDIUM tan SAND & GRAVEL
	6			
61.50	6			
	12			Wash MEDIUM tan SAND & GRAVEL
	12			
59.00	9			
-35				
	12			Wash MEDIUM tan SAND & GRAVEL
	12			
56.50	9			
54.00				
-40				

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

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, Region 2, District 2 — Page 2 of 2 — Date 2/1/02

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. — Station 310 + 00 — BORING NO. B-3 — Station 310 + 82 — Offset 36.00ft Lt CL — Ground Surface Elev. 93.6 ft

Surface Water Elev. 91.5 ft — Stream Bed Elev. 86.5 ft — Groundwater Elev.: First Encounter 85.5 ft — Upon Completion ft — After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
	12			Wash MEDIUM tan SAND & GRAVEL with COBBLES
51.50	10			
	11			
	14			Wash MEDIUM tan SAND & GRAVEL
	15			
46.50	14			
-50				
	5			Wash MEDIUM tan SAND & GRAVEL
	8			
41.50	13			
-55				
	100/6"			Wash VERY DENSE tan SAND & GRAVEL
36.50	PEN			
-60				

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

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, Region 2, District 2 — Page 1 of 2 — Date 2/13/02

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. — Station 310 + 00 — BORING NO. B-4 — Station 309 + 90 — Offset 33.00ft Lt CL — Ground Surface Elev. 93.7 ft

Surface Water Elev. 91.5 ft — Stream Bed Elev. 86.5 ft — Groundwater Elev.: First Encounter 83.2 ft — Upon Completion ft — After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
		0.3 P		SOFT black SILTY CLAY LOAM with ORGANICS
90.70	1			
	1	0.3 P	39	SOFT black SILTY CLAY LOAM with 7% ORGANICS
89.20	3			
-5				
	0			VERY SOFT black SILTY CLAY LOAM with 10% ORGANICS
	1	0.0 P	47	
86.20	1			
	8			MEDIUM dirty SAND & GRAVEL with SILTY CLAY LOAM in top 4"
	10			
84.20	12			
-10				
	7			MEDIUM tan fine SAND
	9			
81.70	9			
	5			MEDIUM tan SAND & GRAVEL
	8			
79.20	7			
-15				
	15			MEDIUM tan SAND & GRAVEL with COBBLES
	9			
76.70	13			
	13			MEDIUM tan SAND & GRAVEL
	12			
74.20	12			
-20				
				Wash MEDIUM tan SAND & GRAVEL
71.70	10			
	13			
	14			
				Wash LOOSE tan SAND & GRAVEL
	2			
69.20	3			
-25				
	0			Wash VERY LOOSE tan SAND & GRAVEL
	1			
66.70	2			
	7			Wash MEDIUM tan SAND & GRAVEL
	7			
64.20	6			
-30				
	5			Wash MEDIUM tan SAND & GRAVEL with COBBLES
	8			
61.70	7			
	15			
	9			
59.20	13			
-35				
	5			
	7			
56.70	8			
-40				

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

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, Region 2, District 2 — Page 2 of 2 — Date 2/13/02

ROUTE FAP 303 DESCRIPTION P-92-030-02 IL 173 over Beaver Creek, 2 1/4 m. E. of Poplar Grove LOGGED BY T. Wendel

SECTION 130 BR-4 LOCATION Boone Twp. – SW, SEC. 16, TWP. 45N, RNG. 4E, PM

COUNTY Boone DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. — Station 310 + 00 — BORING NO. B-4 — Station 309 + 90 — Offset 33.00ft Lt CL — Ground Surface Elev. 93.7 ft

Surface Water Elev. 91.5 ft — Stream Bed Elev. 86.5 ft — Groundwater Elev.: First Encounter 83.2 ft — Upon Completion ft — After Hrs. ft

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)	Description
	7			Wash MEDIUM tan SAND & GRAVEL with COBBLES
	8			
51.70	11			
				Wash MEDIUM tan SAND & GRAVEL
49.20				
-45				
	10			Wash MEDIUM tan SAND & GRAVEL
	11			
46.70	18			
-50				
	6			Wash MEDIUM tan SAND & GRAVEL
	9			
41.70	13			
-55				
	100/7"			Wash VERY DENSE tan SAND & GRAVEL
36.70	PEN			
-60				

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

*To get proposed Stations for Boring Logs add 130+33.44 to the Stations shown above.

SOIL BORING LOGS
F.A.P. ROUTE 303 - SECTION 130BR-4
BOONE COUNTY
STATION 439+88.00
STRUCTURE NO. 004-0020

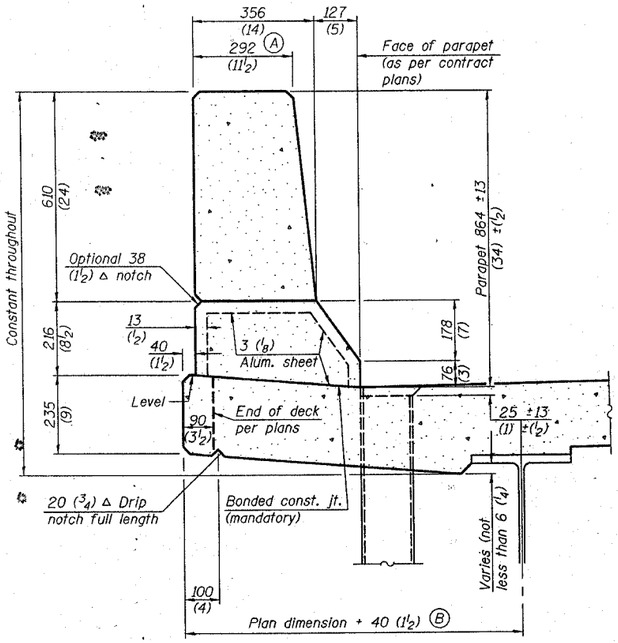
...\projects\rp100005\007GC20.dgn 3/9/2007 11:40:02 AM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

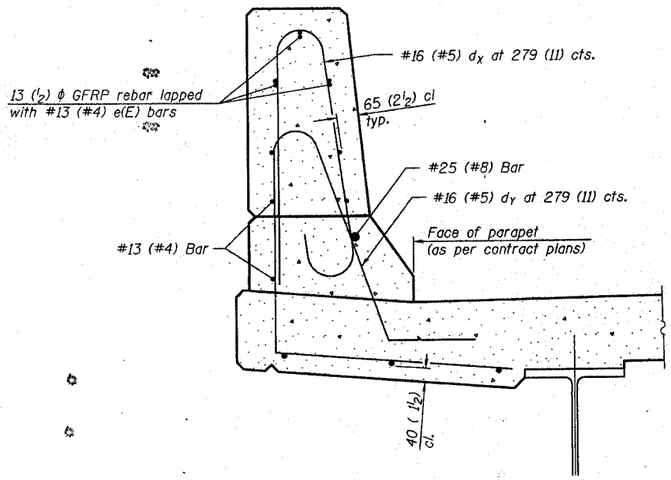
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. RTE. 3034	130BR	BOONE	147	55A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO.
SHEETS

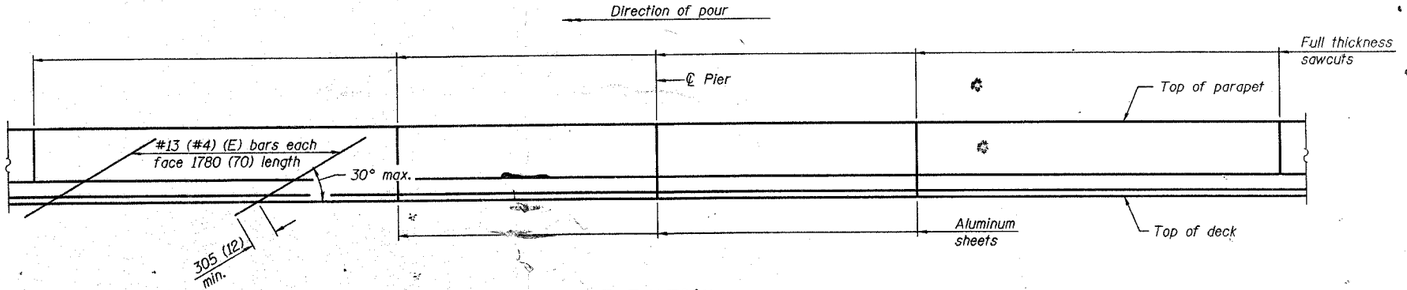
Contract #64800



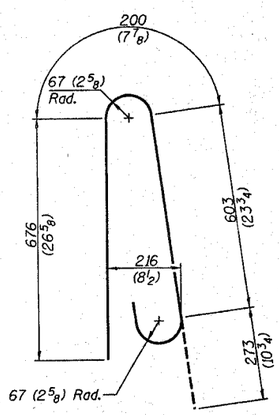
SECTION
(Showing dimensions)



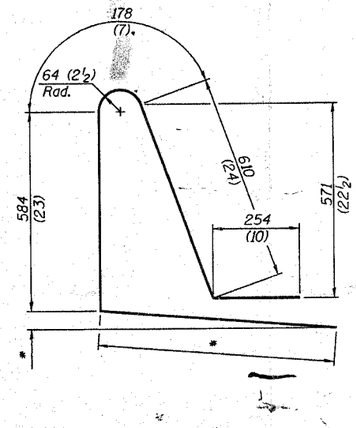
SECTION
(Showing required reinforcement)



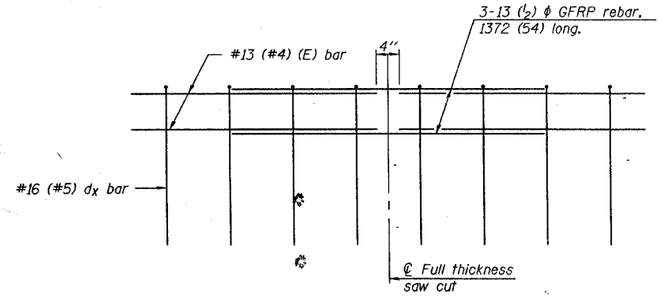
ELEVATION
(Showing parapet joints and typical stiffening reinforcement between joints)



BAR d_X(e)



BAR d_Y(e)
* Per contract plans



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

GENERAL NOTES

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

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

CONCRETE PARAPET SLIPFORMING OPTION

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	56
STA. 429+00.0000	TO STA. 450+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

173 BOONE

INDEX TO SHEETS

SUMMARY OF QUANTITIES

SECTION 130

69098	CU. YDS.	CLASS A EXCAVATION	361.2	CU.YDS	CLASS A CONCRETE
337	CU. YDS.	BORROW	29090	LBS.	REINFORCING STEEL
88918	SQ. YDS.	PAVEMENT	2173	SQ.FT.	CONCRETE SIDE-WALK, REMOVAL
540	LIN. FT.	VITRIFIED TILE - 15 IN. - (STD.)	550	SQ.FT.	5" CONCRETE SIDE-WALK
2	EACH	CATCH BASINS	222	EACH	SETTING RIGHT OF WAY MARKERS
108166	SQ. YDS.	EARTH SHOULDERS			

SECTION 130-B

613.1	Cu. Yds.	Class A Concrete	1360	Lin. Ft.	Untr. Piles. (15T)
1340	Cu. Yds.	Class B Concrete	4060	Lbs.	Rockers & Plates
34.7	Cu. Yds.	Class X Concrete	2080	Lbs.	Structural Steel (Exp)
103200	Lbs.	Reinforcing Steel	4	Each	Name Plates
960	Lin. Ft.	Untr. Piles. (10T)			
960	Lin. Ft.	Untr. Piles. (12T)			

SUMMARY OF CONCRETE

SECTION 130

				CLASS A
25	STANDARD CULVERT DESIGN NO.		828-1-1	54.0 CU. YDS
"	" " " "		828-1-5	1.3 " "
"	" " " "		828-3-4	6.7 " "
"	" " " "		828-5-1	8.5 " "
	SPECIAL	STA.	5+34	9.3 " "
	"	"	13+84	10.7 " "
	"	"	22+64	5.6 " "
	"	"	29+44	8.6 " "
	"	"	35+53	10.2 " "
	"	"	41+69	8.6 " "
	"	"	53+38	11.6 " "
	"	"	66+36	14.2 " "
	"	"	93+43	12.6 " "
	"	"	101+10	11.3 " "
	"	"	121+11	46.0 " "
	"	"	135+86	17.6 " "
	"	"	157+36	26.1 " "
	"	"	184+04	9.5 " "
	"	"	202+42	20.7 " "
	"	"	265+34	3.6 " "
	"	"	277+16	10.9 " "
	"	"	321+52	7.9 " "
	"	"	358+00	13.2 " "
	"	"	377+00	15.0 " "
	STANDARD HEADWALL	NO.	828-3	0.2 " "
5	FT. - 10 IN. TILE ENCASEMENT		69+10	3.5 " "
40	FT. - 15 IN. TILE	"	191+82	3.3 " "

TOTAL 361.2 CU. YDS.

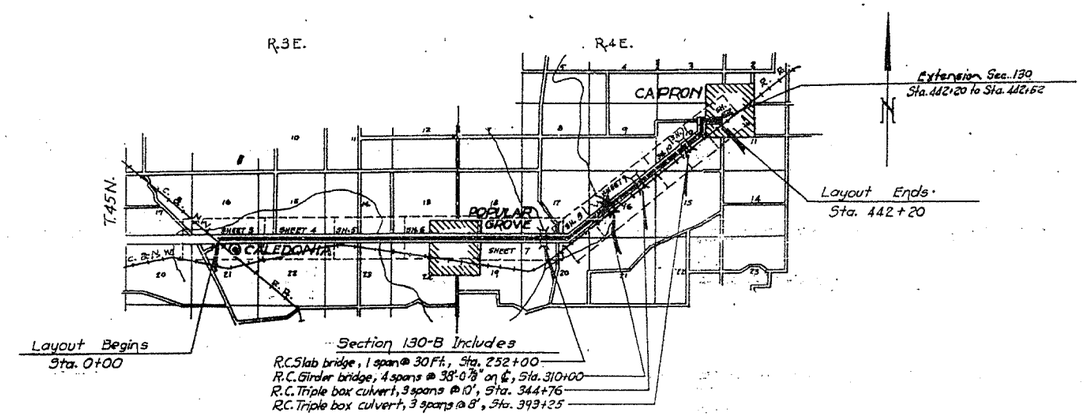
	SECTION 130-B	Class A	Class B	Class X
Spec. Bridge Design	Sta. 252+00	186.7 Cu. Yds.		4.9 Cu. Yds.
" " "	310+00	273.9 " "	134.0 Cu. Yds.	24.7 " "
" " "	344+76	71.7 " "		5.1 " "
" " "	393+25	81.4 " "		

TOTAL SEC. 130-B 613.1 Cu. Yds. 134.0 Cu. Yds. 34.7 Cu. Yds.

Contract No.
Sheet No. 130 - 3413
Sheet No. 130B - 3414

ROUTE 173, SECTIONS 130 and 130-B, BOONE CO.

From a point near the S.E. corner of the S.W. ¼ of section 16, T.45N., R3E. of the 3rd P.M.
To a point near the S.E. cor. of the N.E. ¼ of the N.E. ¼ of section 10, T.45N., R.4E., of the 3rd. P.M.



LAYOUT
Approximate Scale : 1 Inch = 1 Mile
Net length of Layout : 44215.7 Ft. = 8.374 Miles

SUMMARY

STATION TO STATION		WIDTH OF PAVEMENT	GROSS LENGTH ALONG TRANSIT LINE	CORRECTION FOR CURVES		CORRECTIONS FOR RELOCATIONS			NET LENGTH OF LANES ALONG FINAL CENTER LINE	OMISSIONS			NET LENGTH TO BE IMPROVED IN FEET		PAVEMENT OVER BRIDGES		SQ. YDS. OF PAVEMENT		
		FT.	FT.	STA. P.I.	FT.	STATION	STATION	FEET	FT.	STA. TO STA		FT.		18 FT	TOTAL	STATION	FT	Widen's	18 FT	TOTAL
0+00	300+00	18	30000			268+39.7	289+42.6	4.9	29995.7					29995.7	29995.7	252+00	32	314.0	59991.4	60305.4
300+00	330+00	18	3000						3000.0					3000.0	3000.0	310+00	167.5	*55.8	6000.0	6055.8
330+00	350+00	18	2000						2000.0					2000.0	2000.0	344+76	33	*11.0	4000.0	4011.0
350+00	442+20	18	9220						9220.0					9220.0	9220.0	393+25	27		18440.0	18440.0
TOTALS			44220					4.9	44215.7					44213.7	44215.7		259.5	580.8	88431.4	88812.2

*WIDENING OVER BRIDGE

Extension Authorized 10-2-28

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

Submitted Mar. 2, 1928
G.N. Lamb
Engineer of Maintenance

Recommended March 15, 1928
Engineer of Bridges

Approved March 15, 1928
Director

No. existing structure.
B.M. #23 - 2 R.R. spikes in north end of cap of first bent east end of R.R. bridge, right of Sta. 309+50.
Elev. 858.28

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

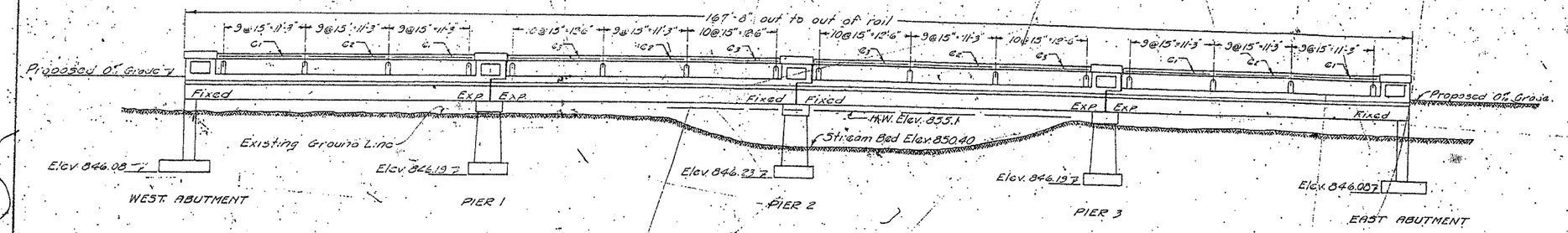
ROUTE	SEC. NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
173		Boone	130B	56	50

SHEET NO. 4 SHEETS

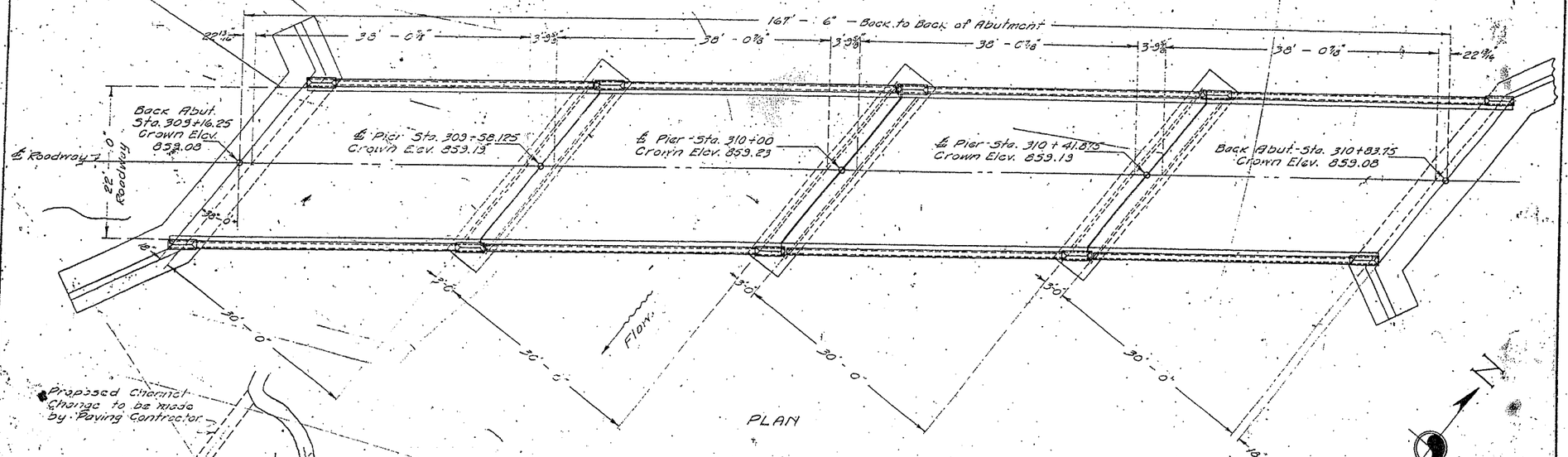
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	57

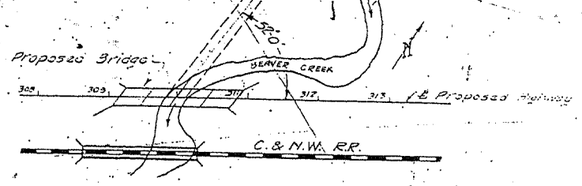
STA. 429+00.0000 TO STA. 450+00.0000
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT



GENERAL ELEVATION



PLAN



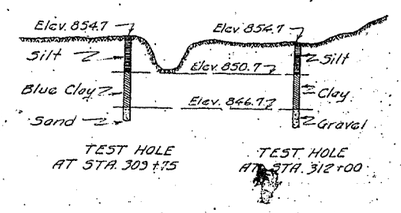
LOCATION SKETCH

STANDARD	COMPUTED	W.M. Cominsky
	CHECKED	R.B. Murphy
	DRAWN	W.M.C.
	CHECKED	R.B.M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED March 2-7, 1962
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

TOTAL BILL OF MATERIAL

ITEMS	SUPER.	PIERS	ABUTS.	TOTAL
Class A Concrete - Cu.Yds.	181.6		91.7	273.3
Class B Concrete - Cu.Yds.		134.0		134.0
Class X Concrete - Cu.Yds.	24.7			24.7
Reinforcing Steel - Lbs.	54730		4430	59160
Structural Steel - Lbs. (Exp)	2080			2080
Rockers & Plates - Lbs.	4060			4060
Name Plate	1			1
10 Ton Untreated Piling - Lin. Ft.			600	600
15 Ton Untreated Piling - Lin. Ft.		960	400	1360



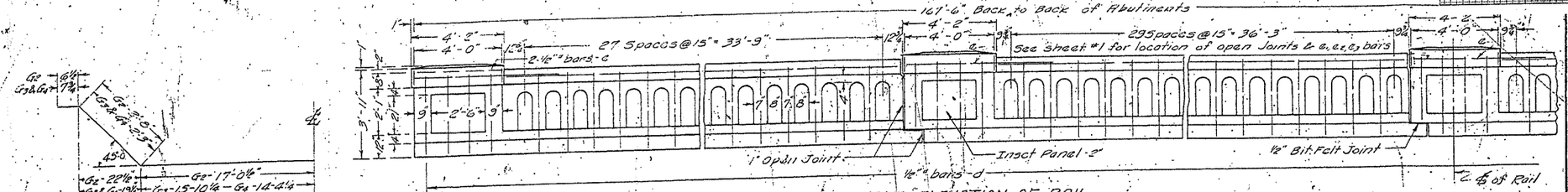
BEAVER CREEK
S.B.I. - ROUTE 173 - SECTION 130B
BOONE COUNTY
STATION 310+00

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

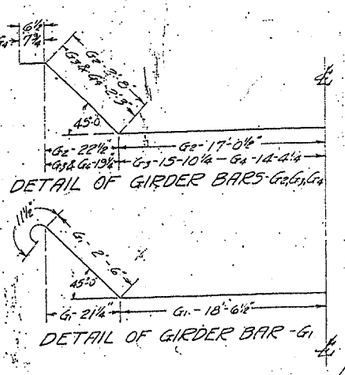
BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
173	Boone	130-B	56	51

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	74	58
STA. 429+00.0000	TO STA. 430+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



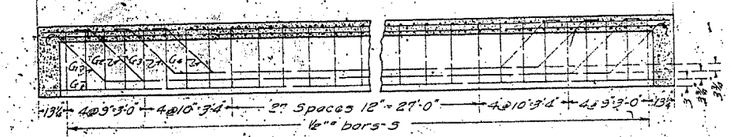
HALF ELEVATION OF RAIL



DETAIL OF GIRDER BARS-G1,G2,G3,G4

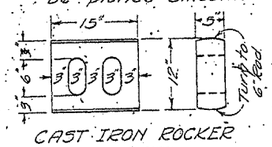
DETAIL OF GIRDER BAR-G1

PART PLAN

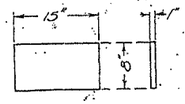


ELEVATION OF GIRDER

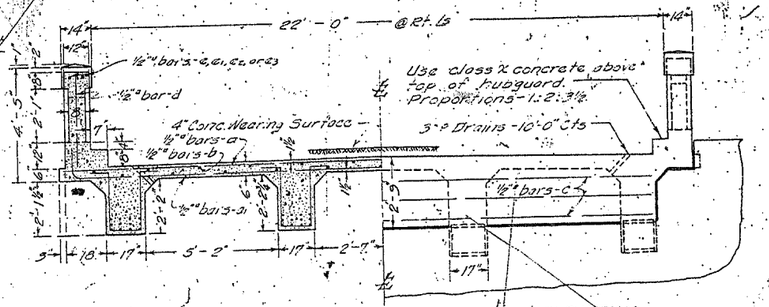
Rockers and plates shall be given two coats of sublimad blue lead paint. Surface of plate adjacent to rockers to be planed smooth.



CAST IRON ROCKER
16 REQUIRED



STEEL PLATE
32 REQUIRED



HALF CROSS SECTION

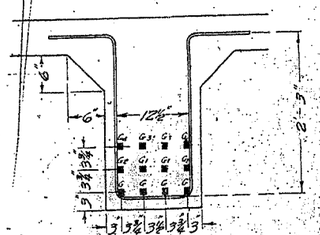
HALF END ELEVATION

Use class X concrete above top of rubguard. Proportions - 1:2:3½

Class A concrete to be used below top of rubguard. Proportions - 1:2½:4.

BILL OF MATERIAL — 4 SPANS

Bar	No.	Size	Length	Bar	No.	Size	Length
a	264	½" ø	30'-6"	G	64	1⅛" ø	41'-6"
a1	264	½" ø	31'-6"	G1	32	1⅛" ø	44'-0"
				G2	32	1⅛" ø	40'-6"
b	184	½" ø	21'-6"	G3	32	1" ø	37'-6"
c	24	½" ø	26'-6"	G4	32	1" ø	34'-6"
d	264	½" ø	3'-6"				
				s	704	½" ø	7'-9"
e	120	½" ø	6'-0"				
e1	16	½" ø	12'-0"				
e2	16	½" ø	11'-0"				
e3	16	½" ø	13'-0"				
Class A Concrete - Cu Yds.							181.6
Class X Concrete - Cu Yds.							24.7
Reinforcing Steel - Lbs.							54730
16 C.I. Rockers - Lbs.							2980
32 Steel Plates - Lbs.							1080
Name Plate							1



STIRRUP BARS-S

STANDARD	COMPUTED	W. H. Ramme	EXAMINED March 27, 1928
	CHECKED	R. R. Murphy	J. T. Rourke BRIDGE ENGINEER
	DRAWN	W.H.R.	PASSED J. T. Rourke ENGINEER OF DESIGN
SPECIAL	CHECKED	R.R.M.	APPROVED Frank T. Sheets CHIEF HIGHWAY ENGINEER
	ASSEMBLED		
	CHECKED		

BEAVER CREEK
S.B.I. ROUTE 173 - SECTION 130-B
BOONE COUNTY
STATION 310+00

B.M. #23 - 2 R.R. spikes in north end of cap of first bent, east end of R.R. bridge right of Sta. 309+50. Elev. 858.28

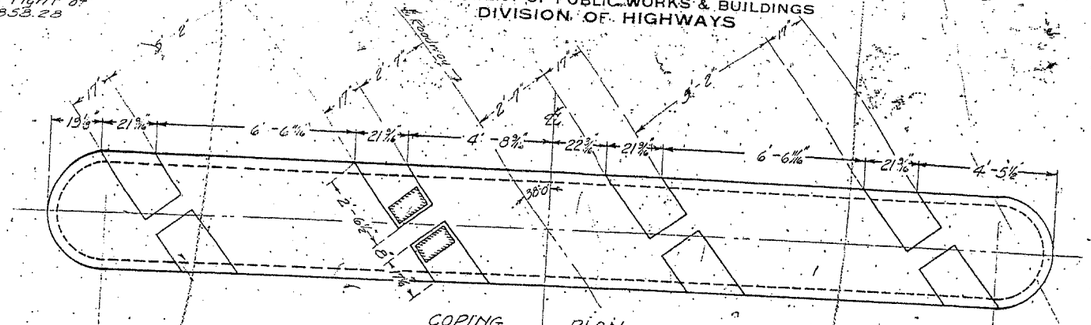
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE	SECT. NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
173		Boone	130-B	56	52

SHEET NO. 3
4 SHEETS

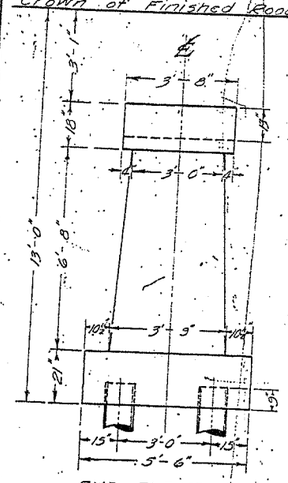
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	141	59
STA. 429+00.0000	TO STA. 431+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

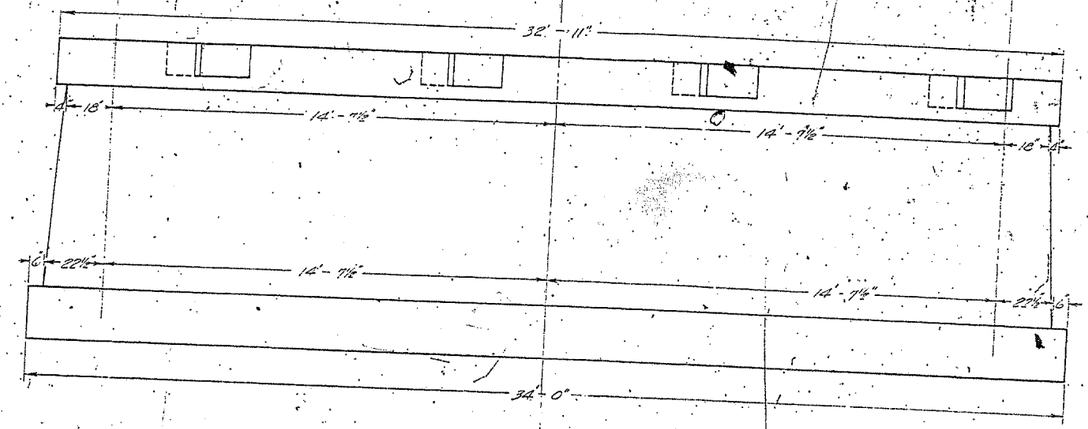


COPING PLAN

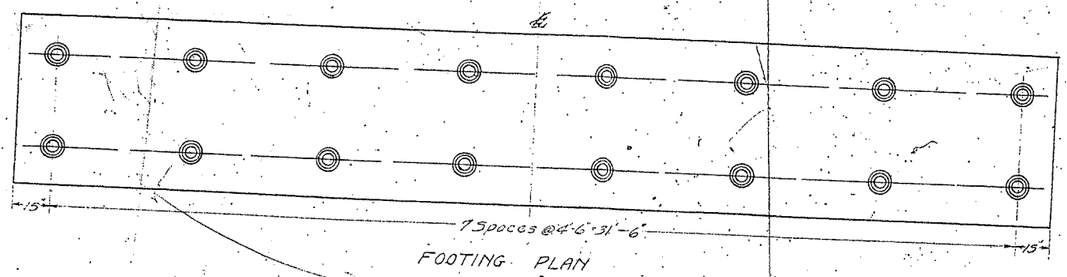
Crown El. 859.23 at Pier 2
El. 859.19 at Piers 1 & 3



END ELEVATION



FRONT ELEVATION



FOOTING PLAN

3 PIERS
BILL OF MATERIAL

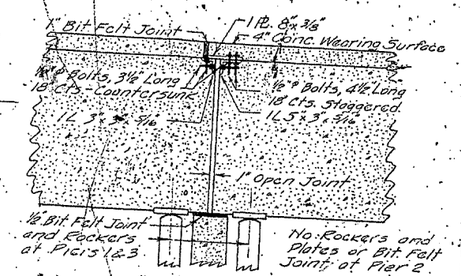
Class B Concrete - Cu Yds.	1340
15 Ton Untr. Piling - Lin. Ft.	960

Note:
Omit pockets in pier 2.
Use class B concrete throughout.
Proportions - 1:3:5.

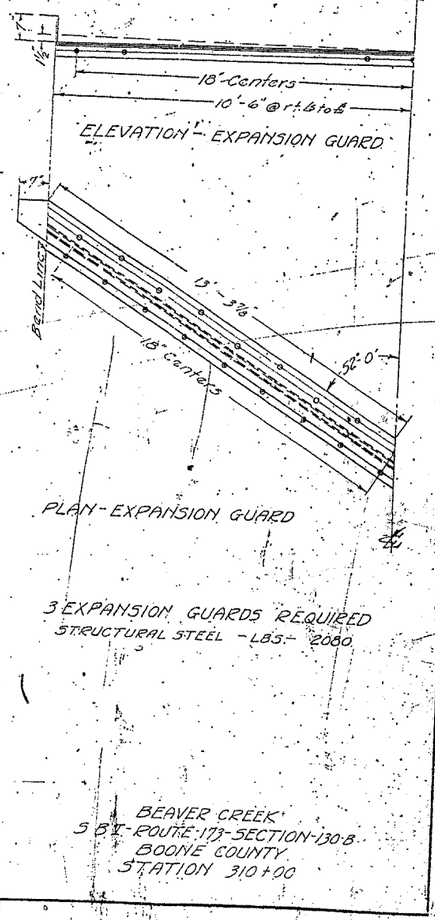
15 Ton Untreated Piling.
12 Butt, 10" Tip, 48 Req'd.
Est. Length 960 Lin. Ft.

STANDARD	COMPUTED	O.M.K. Romine
	CHECKED	R.A. Murphy
	DRAWN	O.M.K.
SPECIAL	CHECKED	R.A.M.
	ASSEMBLED	
	CHECKED	

EXAMINED March 27, 1928
A. J. Bruder BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER



DETAILS OF EXPANSION GUARD
3 REQUIRED



ELEVATION - EXPANSION GUARD

PLAN - EXPANSION GUARD

3 EXPANSION GUARDS REQUIRED
STRUCTURAL STEEL - LBS. - 2080

BEAVER CREEK
S.B.I. ROUTE 173 - SECTION 130-B
BOONE COUNTY
STATION 310+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	14/	60
STA. 429+00.0000	TO STA. 450+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BOND ISSUE ROUTE NO.	COUNTY	SEC.	TOTAL SHEETS	SHEET NO.
173	Boone	308	56	53

SHEET NO. 4
4 SHEETS

1

No existing structure.

B.M. #23 - 2 RR spikes in north end of cap of first bent; east end of RR bridge, right Sta. 309+60. Elev. 858.28

Crown of Finished Roadway - Elev. 859.08

SECTION OF ABUTMENT

SHOWING OUTLINES

ELEVATION

SHOWING REINFORCEMENT

END OF WING

PLAN

Class A concrete shall be used throughout. Proportions - 1:2½:4. All reinforcing steel shall be wired securely in place before concrete is poured.

Bars in each short wing - 6 V2, 3 V3, 10 H1, 9 L1, 8 B2, 4 W1.
Bars in each long wing - 11 V2, 6 V3, 8 H2, 2 H3, 18 L1, 7 T2, 4 W2

13 Ton Untreated Piling.
12" Butt, 10" Tip, 20 Required
Estimated Length 400 Lin. Ft.
10 Ton Untreated Piling.
10" Butt, 8" Tip, 40 Required.
Estimated Length 600 Lin Ft.

BILL OF MATERIAL

Bar	No.	Size	Length
V	54	⅛" ø	8'-0"
V1	8	⅛" ø	10'-0"
V2	34	⅛" ø	9'-6"
V3	18	⅛" ø	8'-0"
T1	32	⅛" ø	16'-6"
T1	20	⅛" ø	9'-0"
T2	16	⅛" ø	18'-0"
T3	4	⅛" ø	11'-0"
H	184	½" ø	4'-3"
H1	104	⅝" ø	5'-3"
L	68	¾" ø	6'-0"
L1	54	⅛" ø	6'-0"
B	64	⅛" ø	6'-0"
B1	30	⅛" ø	6'-0"
W	16	½" ø	17'-6"
W1	8	½" ø	9'-0"
W2	8	½" ø	17'-0"
Reinforcing Steel Lbs. - 4430			
Concrete - Cu Yds. - 91.7			

STANDARD	COMPUTED	
	CHECKED	R.R.Murphy
	DRAWN	R.R.M.
SPECIAL	CHECKED	R.R.M.
	ASSEMBLED	
	CHECKED	

EXAMINED March 27 1923
BRIDGE ENGINEER
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

BEAVER CREEK
S.B.I. - ROUTE 173 - SECTION 130-B
BOONE COUNTY
STATION 310+00

CONTRACT NO. 64800				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	18/	61
STA. 429+00.0000	TO STA. 430+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

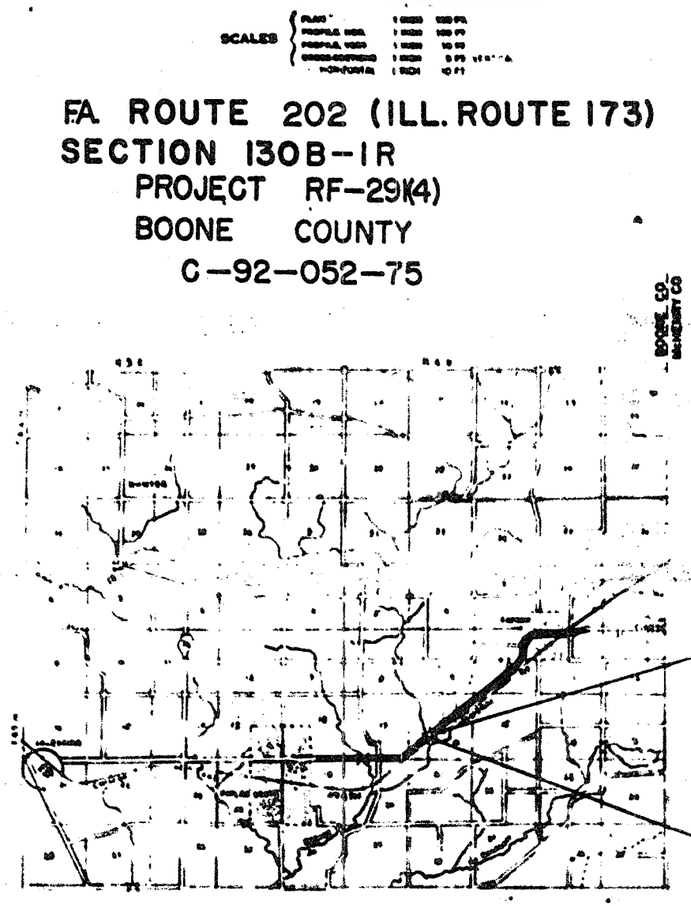
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALES { PLAN 1 INCH = 100 FT.; PROFILE HOR. 1 INCH = 100 FT.; PROFILE VERT. 1 INCH = 10 FT.; CROSS-SECTIONS 1 INCH = 5 FT. VERTICAL; HORIZONTAL 1 INCH = 10 FT. }

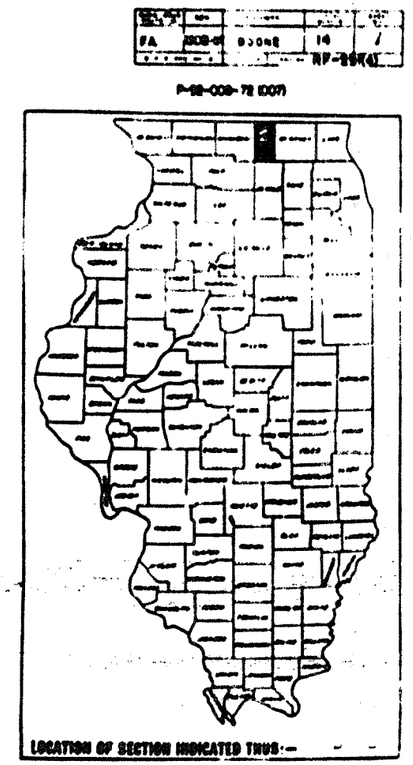
FA ROUTE 202 (ILL. ROUTE 173)
SECTION 130B-1R
PROJECT RF-29(4)
BOONE COUNTY
C-92-052-75

INDEX OF SHEETS



PROJECT RF-29(4)
SECTION 130 B-1R
BEGINS STA. 309+16.25
Section 130 B-1R includes the removal of the existing superstructure and replacement with precast prestressed 21" deck beams and other related work necessary to complete this section

PROJECT RF-29(4)
SECTION 130 B-1R
ENDS STA. 310+83.75



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
Mark 24, 75
D.C.S.
April 24, 75
Gayle
Thomas Marsh
April 24, 75

GROSS LENGTH OF IMPROVEMENT: 1675 FT. = 0.032 MILES
NET LENGTH OF IMPROVEMENT: 1675 FT. = 0.032 MILES
NET LENGTH OF PROJECT 1675 FT. = 0.032 MILES

REVISED SET
6-25-75
Rev. Set 6-5-75

CONTRACT NO. 30613

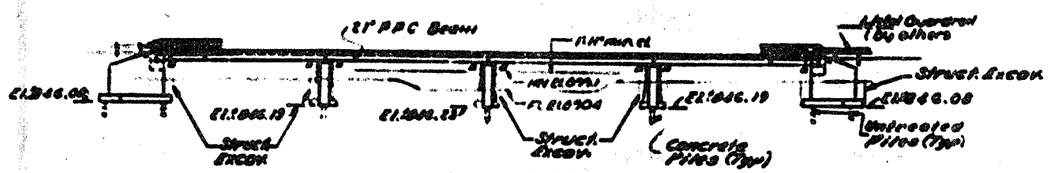
CONTRACT NO. 64800				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	39	32
STA. 429+00.0000 TO STA. 434+00.0000				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Old - A "U" type wingwall on top of SW wingwall of Bridge No. 81 at Sta 309+07 removed 81 837.00
Bent Structure - Built 1900 on 301 Built 1919 or 1900
Sta 310.00 Superstructure - Concrete Girder
Substructure - Mixed RC Abut, Solid RC Piers
Superstructure to be removed and structure retained
Utilizing Stage Construction. No Salvage

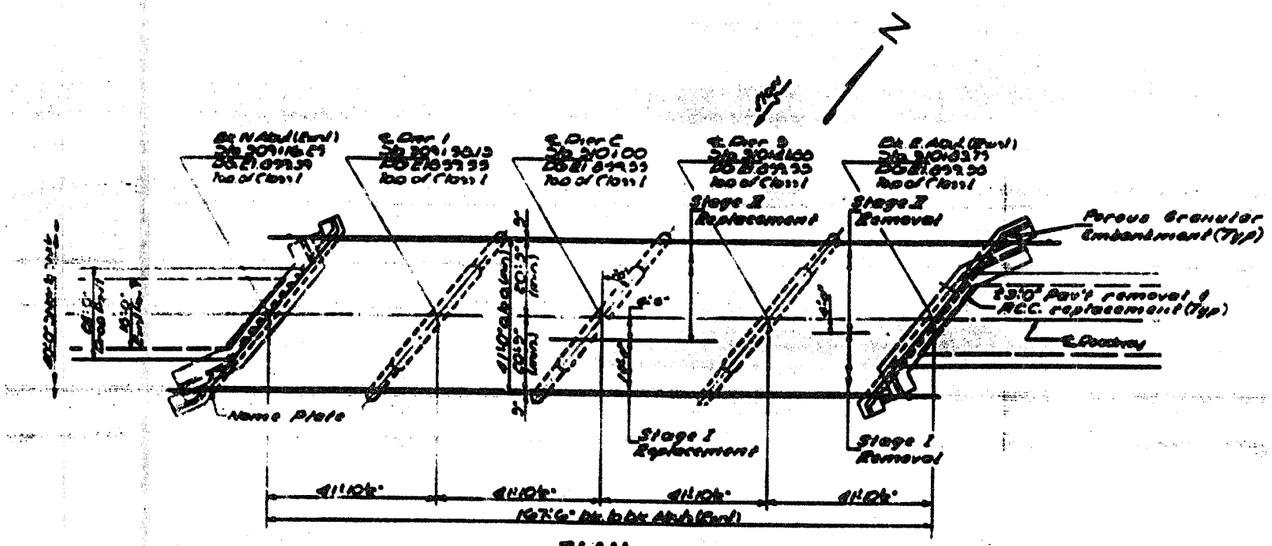
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 1 OF 39 SHEETS
DIST. 08	MAS-18	BOONE	N	3	

ELEVATION



PLAN



GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

Expansion bolts shall consist of self drilling expansion anchors and ¾" Ø x 12" headed bolts.

Shoulder transition to wingwall shall be stepped with broken concrete cost incidental.

The following surfaces of the abutments shall be waterproofed: the back of the new abutments walls and wingwalls from the top of the footing to 12" below the top of wall.

The basic lead silica chromate paint system shall be used for shop painting of structural steel.

The Contractor shall drive 2 timber test piles in permanent locations, one at ea. Abut & one concrete test pile at Pier 2 as directed by the Engineer before ordering the remainder of the piles.

Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Water Sealer shall be 6" from the top of wall to the top of footing.

The top surface of the beams shall be finished in accordance with Article 504.08 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners.

TOTAL BILL OF MATERIAL

ITEM	Unit	Super	Sub	Total
Concrete Piles	Lin. Ft.		418	418
Test Piles (Concrete)	Each		1	1
Portland Cement Mortar Paving Course	Lin. Ft.	1963		1963
Bituminous Concrete Surface Course Class I	Tons	96		96
Concrete Removal	Cu. Yds.		88.8	88.8
Expansion Bolts (¾"Ø)	Each		144	144
Class X Concrete	Cu. Yds.	15	180	195
Precast Prestressed Concrete Deck Beams (21")	Sq. Ft.	6843		6843
Steel Railing Type 7	Lin. Ft.	330		330
Reinforcement Bars	Lbs.	1130	13820	14950
Removal of Existing Superstructure	Each	1		1
Waterproofing Membrane System	Sq. Yds.	788		788
Name Plate	Each			1
Reinforcement (Miscellaneous)	Lbs.	1115		1115
Temporary Sheet Piling	Sq. Ft.	1134		1134
Protective Coat	Sq. Yds.	15		15
Rock Removal (Mechanical)	Cu. Yds.	17		17
Precast Concrete Coping	Lin. Ft.	330		330
Concrete Class (Footing)	Cu. Yds.		170	170
Fill (Miscellaneous)	Cu. Yds.		30	30
Steel Piles, Steel	Lbs.	2070		2070
Structural Steel	Lbs.		780	780

* See Special Provisions

WATERWAY INFORMATION

Drainage Area — 4.1750 Acres
Design Flood — Frequency — 50 Years
Design Discharge — 1400 C.F.S.
Flood of Record — 1400 C.F.S.
Clear Span — 130'-6"

DESIGNED	THRU TRAFFIC
CHECKED	Roland S (2)
DRAWN	J. KRAMER
CHECKED	PSL ST

APPROVED — DIRECTOR OF HIGHWAYS

STATION 310+00
LOADING H 20-S 16

NAME PLATE
(See Sht. 2113)

DESIGN STRESSES

DEAD WEIGHT
Concrete 150 Lbs. per Cu. Ft.
Asphalt 150 Lbs. per Cu. Ft.
Steel 490 Lbs. per Cu. Ft.

PRES. PRESTR. UNITS
Fc = 5000 psi.
Fc = 4000 psi.
Fs = 270,000 psi. Tot. 270 Strands
Fs = 180,700 psi. Tot. 180 Strands
Allow 5% Overstress in Fs

LOCATION SKETCH

GENERAL PLAN & ELEVATION
OF PROPOSED
FAP RTE 303 (IL 76) OVER KISHWAUKEE
FA. RTE 303 — SECTION 130BR-4
BOONE COUNTY
STATION 429+00.0000

LOADING H 20-44 (Alternate)

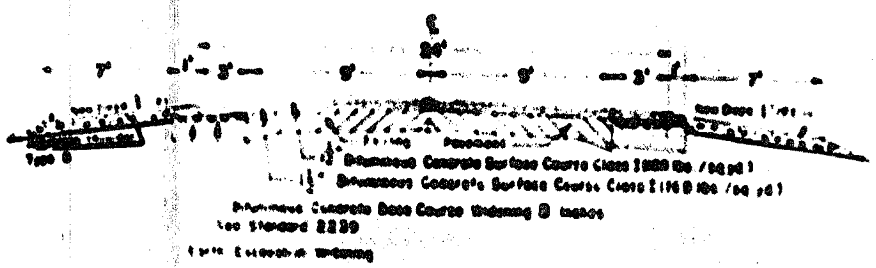
CONTRACT NO. 64800				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	63
STA. 429+00.0000 TO STA. 450+00.0000				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FA 202 (130BR) BOONE 14 8

TYPICAL SECTIONS

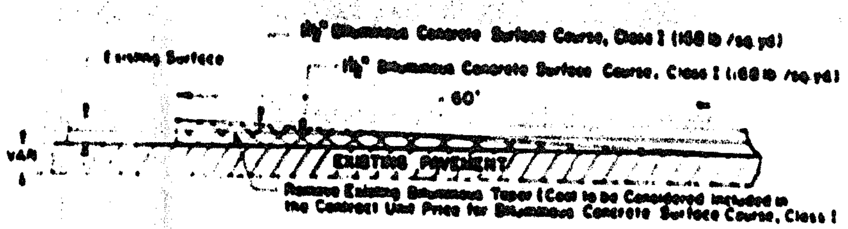
NO SCALE

MAIN LINE



NOTE: The thickness of Bituminous Mixture shown on the plans is the nominal thickness. Deviations from the nominal thickness will be permitted when such deviations occur due to irregularities in the existing base or surface on which the Bituminous Mixture is placed.

BUTT JOINT



GENERAL NOTES

ENTIRE SECTION INSPECTED AND APPROVED AS TO POLICY
DATE March 1975
DISTRICT ENGINEER [signature]

THE CONTRACTOR SHALL ERECT (2) BARRICADES CONFORMING TO STANDARDS 2298 & 2299

AT THE LOCATIONS WHERE EXCAVATION QUANTITIES ON THE PLANS ARE INDICATED AS HAVING BEEN ESTIMATED, THE ENGINEER WILL OBTAIN ORIGINAL AND FINAL CROSS SECTIONS TO DETERMINE PAY QUANTITIES.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. [illegible]

[illegible] ARE NOT [illegible] OF BY THE CONTRACTOR [illegible] BE STORED [illegible] PERTY OF [illegible]

INCIDENTAL BITUMINOUS SURFACE 6" THICK, 6.0 TON/QUADRANT

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
300404	PORTLAND CEMENT MORTAR FAIRING COURSE	LIN FT	1009
[illegible]	POROUS GRANULAR EMBANKMENT	CU YD	40
[illegible] #	TRAINEES	HOUR	1000
[illegible] #	BITUMINOUS CONCRETE BASE COURSE WIDENING, 8 INCHES	SQ YD	144
[illegible]	AGGREGATE SHOULDERS, TYPE B	TON	80
[illegible] #	BITUMINOUS CONCRETE SURFACE COURSE, CLASS I	TON	195
407004	INCIDENTAL BITUMINOUS SURFACING	TON	24
408004	PROTECTIVE COAT	SQ YD	56
501025 #	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
501022	CONCRETE REMOVAL	CU YD	22.3
501026	EXPANSION BOLTS 3/4 INCH	EACH	227
504033	CLASS X CONCRETE	CU YD	170.0
505015 #	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	8045
507001	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	10380
X80802	STEEL RAILING, TYPE T	LIN FT	348
512001	REINFORCEMENT BARS	POUND	16070
513001	FURNISHING UNTREATED PILES UP TO 30 FEET	LIN FT	900
[illegible]	FURNISHING CONCRETE PILES	LIN FT	419
[illegible]	DRIVING TIMBER PILES	LIN FT	900
[illegible]	DRIVING CONCRETE PILES	LIN FT	419
[illegible]	TEST PILE TIMBER	EACH	2
[illegible]	TEST PILE CONCRETE	EACH	1
514001	NAME PLATES	EACH	1
620006	PAVEMENT REMOVAL AND PORTLAND CEMENT CONCRETE REPLACEMENT, TYPE 2, 10 INCH	SQ YD	15
630001	STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL	LIN FT	300
630019 #	TEMPORARY GUARD RAIL	LIN FT	175
646001	ENGINEER'S FIELD OFFICE, TYPE A	EACH	1
X84042 #	WATERPROOFING MEMBRANE SYSTEM	SQ YD	725
X63001	TERMINAL SECTION, SINGLE RAIL	EACH	4
XZ1814 #	TRAFFIC CONTROL AND PROTECTION STD 2309	EACH	1
XZ1126 #	PREFORMED JOINT SEALER 2 1/2	LIN FT	156
X80001	STRUCTURE EXCAVATION	CU YD	890

SEE SPECIAL PROVISIONS

SCHEDULE OF QUANTITIES

CODE NO.	ITEM		UNIT / QUANTITY
306007	BITUMINOUS CONCRETE BASE COURSE WIDENING, 8 INCH		SQ YD
	Location		
	L&R Station 308+16.25-309+16.25		72.2
	L&R Station 310+68.75-311+68.75		72.2
		Total	144.4
406038	BITUMINOUS CONCRETE SURFACE COURSE, CLASS I		TON
	Location		
	Station 308+16.25-309+16.25		48.5
	Structure		98
	Station 310+68.75-311+68.75		48.5
		Total	195
407004	INCIDENTAL BITUMINOUS SURFACING		TON
	Location		
	Entire Section		24
[illegible]	STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL		LIN FT
	Location		
	Structure [illegible]		300
646001	ENGINEER'S FIELD OFFICE, TYPE A		EACH
	Entire Section		1
[illegible]	TERMINAL SECTION, SINGLE RAIL		EACH
	Entire Section		[illegible]
XZ1814	TRAFFIC CONTROL AND PROTECTION, STD 2309		EACH
	Entire Section		1

DISTRICT NO. 2 DIXON
DRAWN R P SMITH DATE 3-25-71
CHECKED SCALE

Rev. 5-5-75, [illegible]

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	64
STA. 422+00.0000 TO STA. 428+00.0000				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FABRIC BEARING PAD

STAINLESS ABSORBER BEARING PAD

U BAR

Q BAR

U BAR

TYPICAL TRANSVERSE TIE ASSEMBLY
(Interior Beams)

TYPICAL SECTION

END OF BEAM (EXP. END)
(Dimensions are at right angles)

PLAN
(Interior Beams)

HALF CROSS SECTION
(Looking West)

LIFTING LOOP DETAIL

DRAIN DETAIL
(Cast at Contractor's option)

GENERAL NOTES

BILL OF MATERIAL

Bar	No.	Size	Length	Remarks
Precast Prestressed Concrete Deck Beam				

INTERIOR BEAM
SUPERSTRUCTURE
FA. RTE. 303 SECTION 130BR-4
BOONE COUNTY
STATION 421+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	65
STA. 429+00.0000	TO STA. 458+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

303	130BR-4	Boone	14	6

SHEET NO 6 OF 12 SHEETS

FABRIC BEARING PAD

U1 BAR

U BAR

D BAR

GRAPHITED ASBESTOS BEARING PAD

Exterior Beam

Interior Beam

TYPICAL TRANSVERSE TIE ASSEMBLY

Outside Beam

3/4"x3"x1'-1" Plate Washers 36 - Required

Rail Bracket Shoe 3' long 48 Required

1"ø Rod 36 Required

1"ø Opening

1"ø x 3'-11" Rods Threaded each end 4 Required (for Outside Beams only)

Outside Beam

"S" Bars at 12" c/s.

4 #8 Bars full length of beam

#4 Bars, 2" length of beam each end

3/4"ø-12'-0" Strands full length of beam

Straight end Pattern

1/2 Chamfer

Note: Place strands symmetrically about X beam. Place strands to miss dowel holes.

TYPICAL SECTION

18-1/2" ø Strands, Each Strand Stressed to 31,700 lbs.
16 Strands 48' up 2 Strands 36" up

END OF BEAM (EXP. END)

(Dimensions are at right angles)

Inside Beam

Exterior Beam

PLAN
(Outside Beam)

PROFILE
(Inside Beam)

LIFTING LOOP DETAIL

D BAR

Construct parallel to grade

Rail Post Anchor device See Sheet No 6

4"x6"x1/2" galvanized Angle Blocks at 10'-0" c/c Spaces to miss rail posts & D bars.

#4 Bars

#8 Bars at 12" c/s.

Slope Class 1 2:1 at drains (extend slope water proofing 2' inside drain)

For Drain Detail see sheet No 3

End of Apron Units

END OF CURB

SEC. THRU CURB

Curbs shall be poured in the field. Class X Concrete & #6 bars for curbs are billed on sheet No 6

GENERAL NOTES:

BILL OF MATERIAL

Bar	No.	Size	Length	Type
S	72	#8	39'-6"	
U	72	#4	3'-6"	
Concrete Slab Grout			Cu. Yds.	2.0
Class X Concrete			Cu. Yds.	43
Reinforcement Bars			Lbs.	870

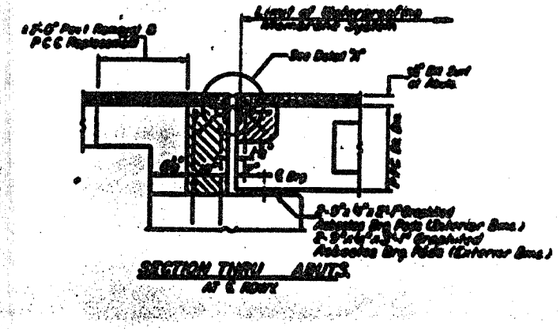
EXTERIOR BEAMS
SUPERSTRUCTURE
F.A. RTE. 303 SEC. 130A-1R
BOONE COUNTY
STA. 429+00.00

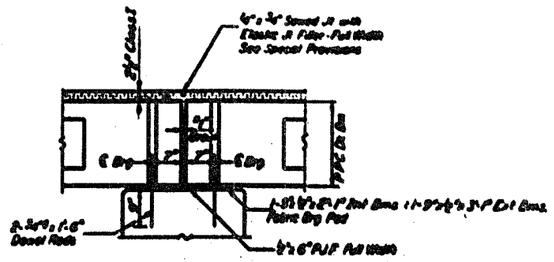
CONTRACT NO. 64800

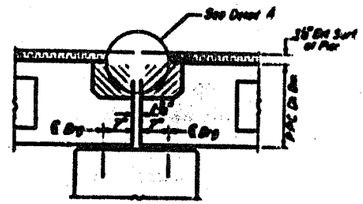
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	66
STA. 429+00.0000	TO STA. 434+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

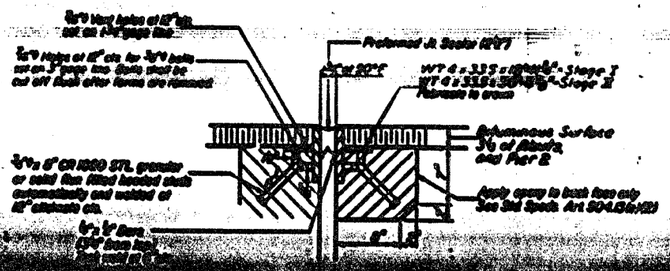
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

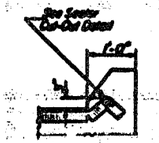
2nd	121	Boone	14	7	SHEET NO. 5 OF 12 SHEETS

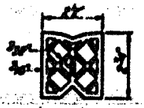












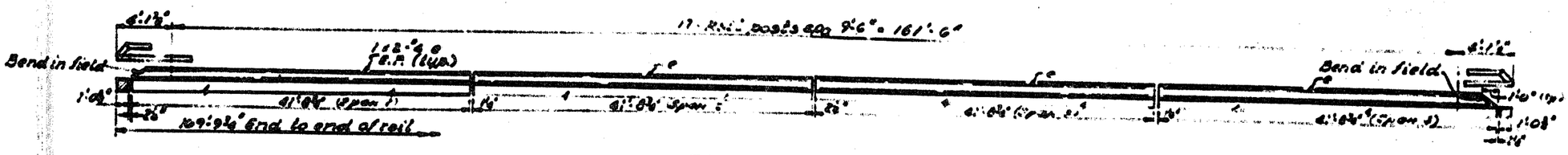
DESIGNED	
DRAWN	
CHECKED	
PLANS	
APPROVED	

SUPERSTRUCTURE DETAILS
F.A. RTE. 303-SEC. 130BR-4
BOONE COUNTY
STA. 310+00

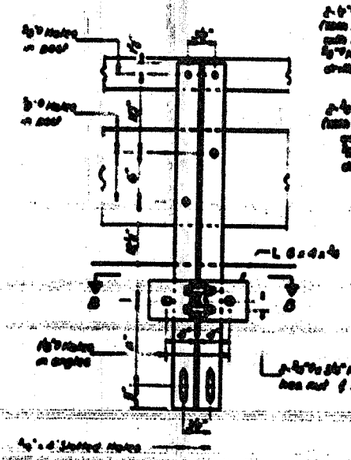
CONTRACT NO. 64800

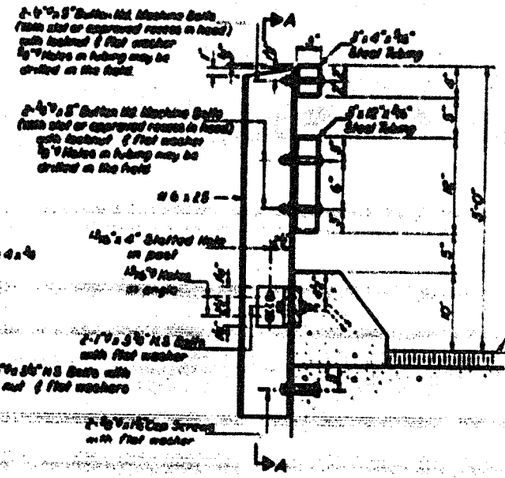
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	67
STA. 429+00.0000	TO STA. 450+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

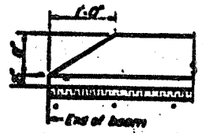
STATE OF ILLINOIS



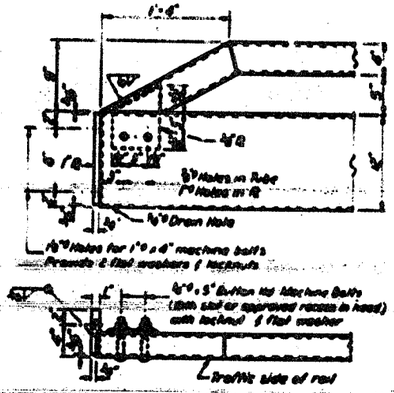
ELEVATION
(Looking North)







END OF CURB
(All Above Curb)



END OF RAIL DETAILS

NOTES

Native Structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHO designation M183 except posts shall conform to AASHO M183.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHO designation M164.

All bolts, nuts, cap screws, washers and high washers shall be galvanized in accordance with AASHO designation M232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHO M111 and ASTM A-386. Galvanized nut shall not be painted.

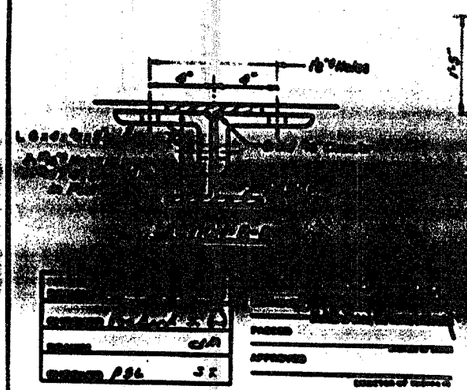
Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE T.

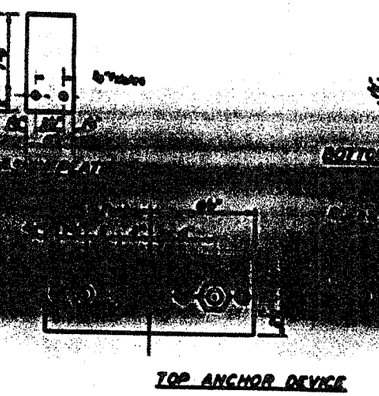
All field drilled holes shall be coated with an approved zinc rich paint before erection.

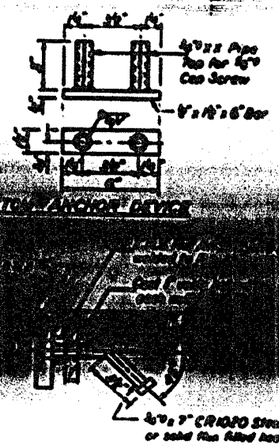
The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place ½" fabric bearing pad between the post and concrete.

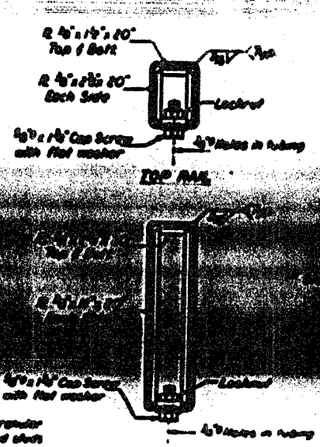
The ¾"Ø high strength bolts used to connect the 6 x 6 x ½ angles to the post shall be tightened in accordance with Article 7108 of the Standard Specifications. The 1"Ø high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional ½ turn.

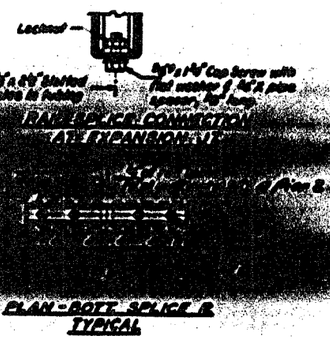
For multi-span bridges, sufficient 4"x 6"x 1'-0" galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to Steel Railing.











CURB & RAIL
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	32	#4	11'-2"	
Reinforcement Bars			1 Lbs.	0 Lbs.
Class A Concrete			0 Cu. Yds.	0 C.Y.
Steel Railing, Type T			171	0 Lbs.

TYPE T
STEEL RAILING
FAP 303 SECTION 130BR-4
BOONE COUNTY
STATION 440+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	66
STA. 429+00.0000	TO STA. 450+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

		Boone	14	10

SHEET NO. 3
15 SHEETS

Hatched area to be poured after forms for the superstructure have been removed

Const #1

Const #2

Existing Abutment

Existing Abutment Footing

Note
For reinforcement in front face see sheet #7

Reinforcement Back Face (unless is shown)

ELEVATION

SEC. C-C

BARS V1 & V3

BARS V1 & V2

BARS V1 & V2

BARS V1 & V3

BARS V1, V2, V3, V4 & V5

FOOTING LAYOUT

PILE DATA

SEC. D-D

BARS A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
A	6	#7	13'-0"	
B	6	#7	13'-0"	
B1	3	#7	13'-0"	
B2	3	#7	13'-0"	
B3	3	#7	13'-0"	
B4	11	#7	13'-0"	
B5	3	#7	13'-0"	
B6	3	#7	13'-0"	
B7	3	#7	13'-0"	
B8	3	#7	13'-0"	
B9	11	#7	13'-0"	
B10	6	#7	13'-0"	
B11	6	#7	13'-0"	
B12	6	#7	13'-0"	
C	4	#7	11'-0"	
D	14	#7	11'-0"	
D1	8	#7	11'-0"	
D2	11	#7	11'-0"	
E	11	#7	6'-0"	
F	11	#7	6'-0"	
G	11	#7	6'-0"	
H	11	#7	6'-0"	
I	8	#7	11'-0"	
J	8	#7	11'-0"	
K	8	#7	11'-0"	
L	8	#7	11'-0"	
M	8	#7	11'-0"	
M1	8	#7	11'-0"	
M2	8	#7	11'-0"	
Concrete Superstructure			CY	47.0
Bar Reinforcement Epoxy Coated			Each	1170
Expansion Joint (Type A)			Each	2
Concrete Removal			CY	8.5
Bridge Deck Grooving			Sq. Yd.	305
Pile Furnished & Driven			Each	1170
Pile Test			Each	2

WEST ABUTMENT
FA RT 303 SEC 130BR-4
BOONE COUNTY
STATION 429+00

CONTRACT NO. 64800				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	69
STA. 429+00.0000	TO STA. 450+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOB NO.			SHEET NO.	
JOB	NO.	COUNTY	NO.	NO. OF SHEETS
JOB	NO.	Boone	14	9

ELEVATION
(Looking West)

Existing Abutment

Reinforcement Front Face (Unless otherwise shown)

Note: For reinforcement back face see sheet #8

PLAN

DETAIL 'A'

DETAIL 'B'

SEC 'A-A'

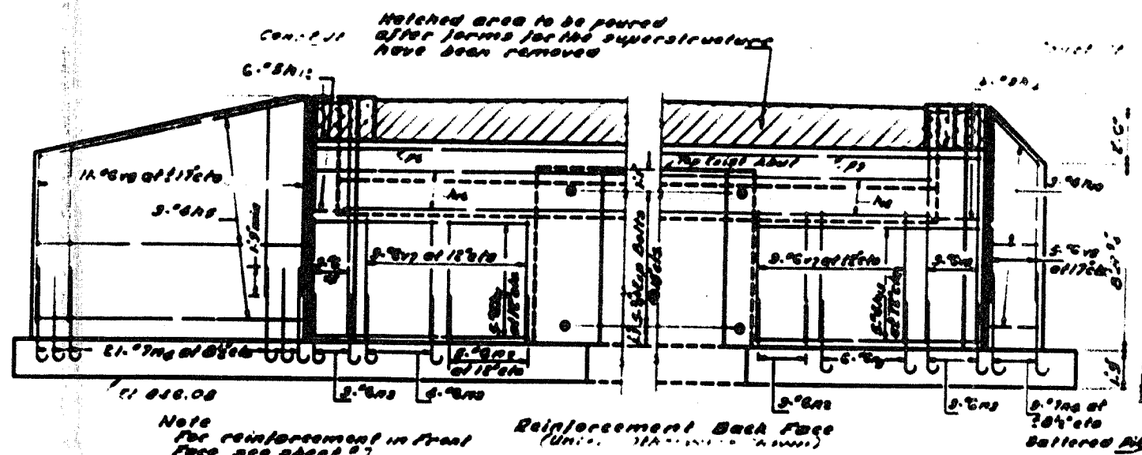
SEC 'B-B'

WEST ABUTMENT
FARYFOR ROAD BRIDGE
BOONE COUNTY
STATION 3+10.00

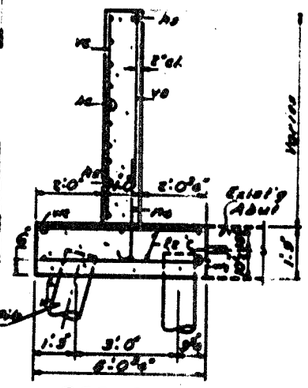
CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	70
STA. 429+00.0000	TO STA. 450+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

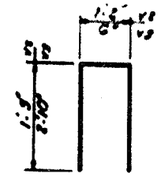
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



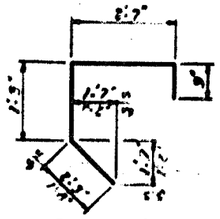
ELEVATION
Looking East



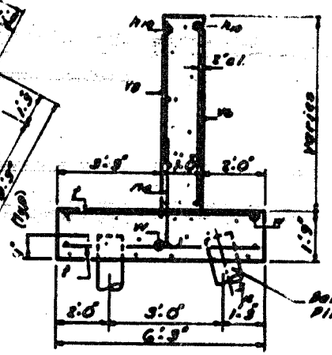
SEC. C-C



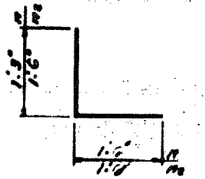
BARS V2 & V3



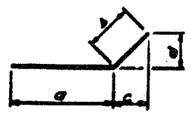
BAR V1 & V4



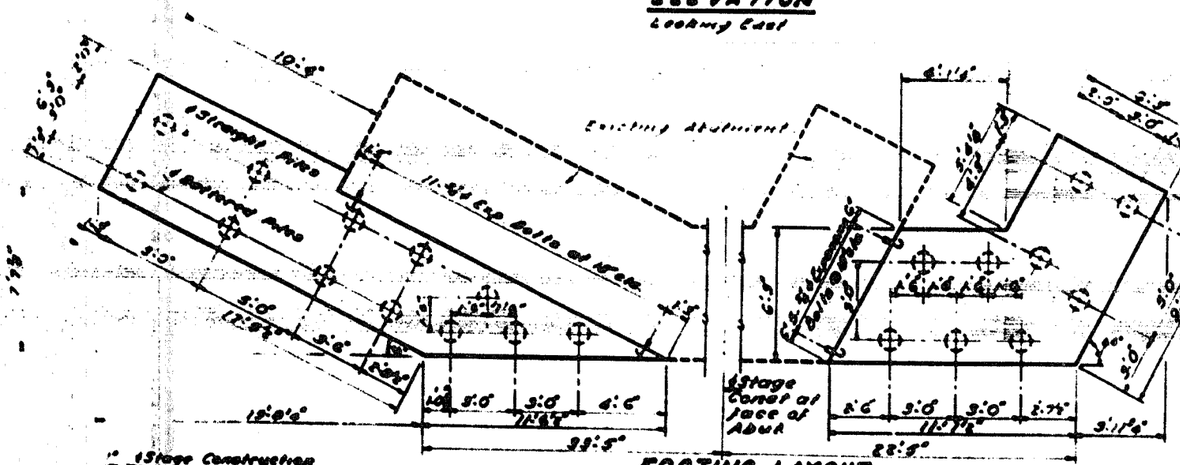
SEC. D-D



BARS V5 & V6

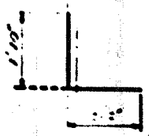


BAR V7

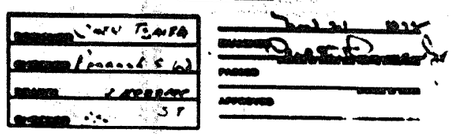


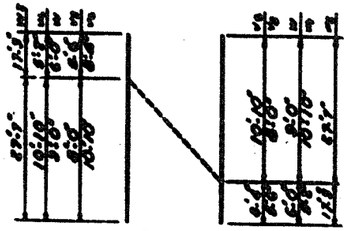
FOOTING LAYOUT

4 Stage Construction



BAR R





BARS V8, V9, V10, V11 & V12

PILE DATA
Type: Untreated
Capacity: 50 Tons
Est. Cyds. 26'
Min. Req'd. 20 + 1 Test Pile

* Order V8, V9, V10, V11 & V12 bars full length out to fit as shown and use remainder of bar V8 & V9 in other wing and remainder of bars in single lap of same footing

Bar	a	b
R1	6'-3"	9"
R2	6'-3"	9"
R3	6'-3"	10"
R4	6'-3"	10"

BARS R1, R2, R3 & R4

Bar	a	b	c	d
A1	11'-6"	1'-10"	11'-6"	1'-10"
A2	11'-6"	1'-10"	11'-6"	1'-10"
A3	11'-6"	1'-10"	11'-6"	1'-10"
A4	6'-0"	1'-10"	11'-6"	1'-10"
A5	11'-6"	1'-10"	6'-0"	1'-10"
A6	6'-0"	1'-10"	6'-0"	1'-10"
A7	11'-6"	1'-10"	6'-0"	1'-10"
A8	11'-6"	1'-10"	6'-0"	1'-10"
A9	11'-6"	1'-10"	6'-0"	1'-10"
A10	11'-6"	1'-10"	6'-0"	1'-10"
A11	11'-6"	1'-10"	6'-0"	1'-10"
A12	11'-6"	1'-10"	6'-0"	1'-10"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
A	13	#6	31'-0"	
A1	2	#7	11'-6"	
A2	2	#7	8'-11"	
A3	13	#6	14'-6"	
A4	2	#7	13'-10"	
A5	2	#7	5'-4"	
A6	14	#6	31'-6"	
A7	2	#7	18'-7"	
A8	0	#6	1'-5"	
A9	2	#7	18'-11"	
A10	2	#7	6'-10"	
A11	2	#7	7'-5"	
A12	2	#7	7'-5"	
A13	2	#6	11'-0"	
A14	2	#6	11'-9"	
R	8	#7	11'-0"	
R1	14	#7	7'-5"	
R2	8	#6	9'-0"	
R3	12	#7	9'-10"	
R4	20	#7	9'-5"	
V	2	#7	11'-0"	
V1	1	#7	11'-6"	
V2	1	#7	13'-0"	
V3	2	#7	10'-1"	
V4	1	#7	11'-0"	
V5	12	#7	2'-0"	
V6	11	#6	5'-0"	
V7	12	#6	5'-0"	
V8	6	#7	31'-0"	
V9	13	#7	8'-10"	
V10	9	#7	8'-10"	
V11	13	#7	8'-10"	
V12	9	#7	9'-0"	
V13	13	#7	12'-10"	
V14	6	#7	13'-11"	
V15	18	#6	8'-11"	
V16	6	#6	13'-0"	
V17	17	#7	8'-11"	
W	3	#6	12'-0"	
W1	3	#6	18'-0"	
W2	3	#6	23'-0"	
W3	2	#6	11'-9"	

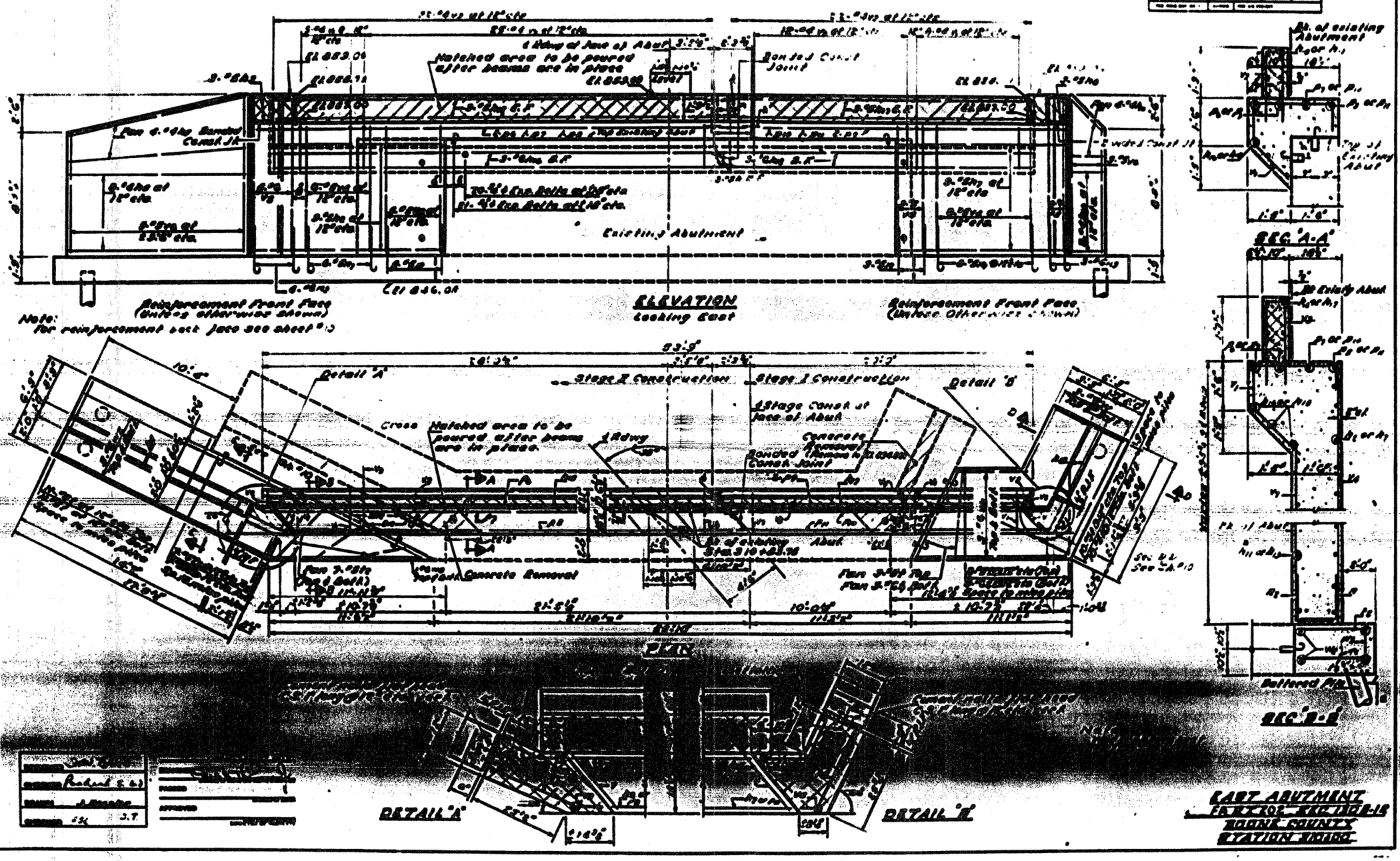
Class X Concrete	Cu. Yds.	47.6
Reinforcement Bars	Lbs.	8870
Structural Steel (HP10x42)	Each	42
Concrete Removal	Cu. Yds.	4.2
Untreated Timber Piles	Lin. Ft.	900
Test Piles Required	Each	1
Pervious Granular Backfill	Cu. Yds.	23

EAST ABUTMENT
FAP ROUTE 130BR-4
BOONE COUNTY
STATION 448+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	71
STA. 429+00.0000 TO STA. 450+00.0000				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	72
STA. 429+00.0000	TO STA. 438+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

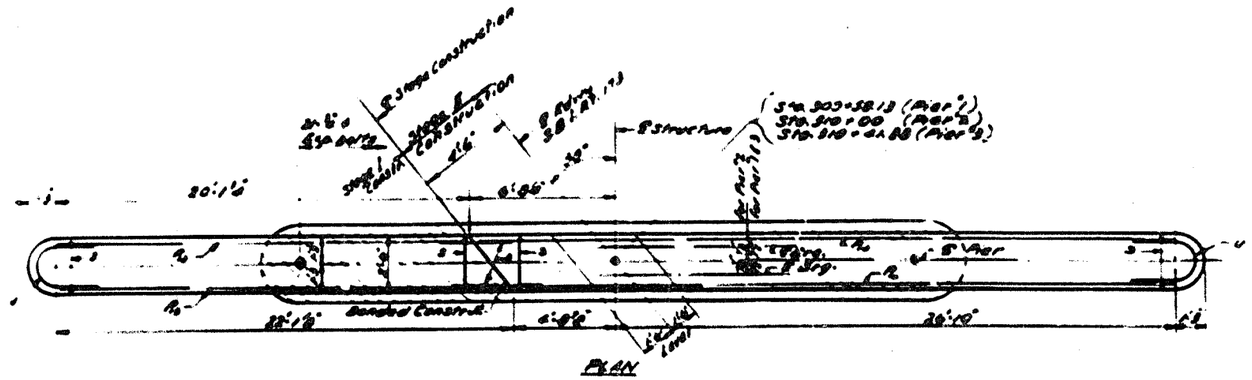
804	130B-4R	Boone	16	15

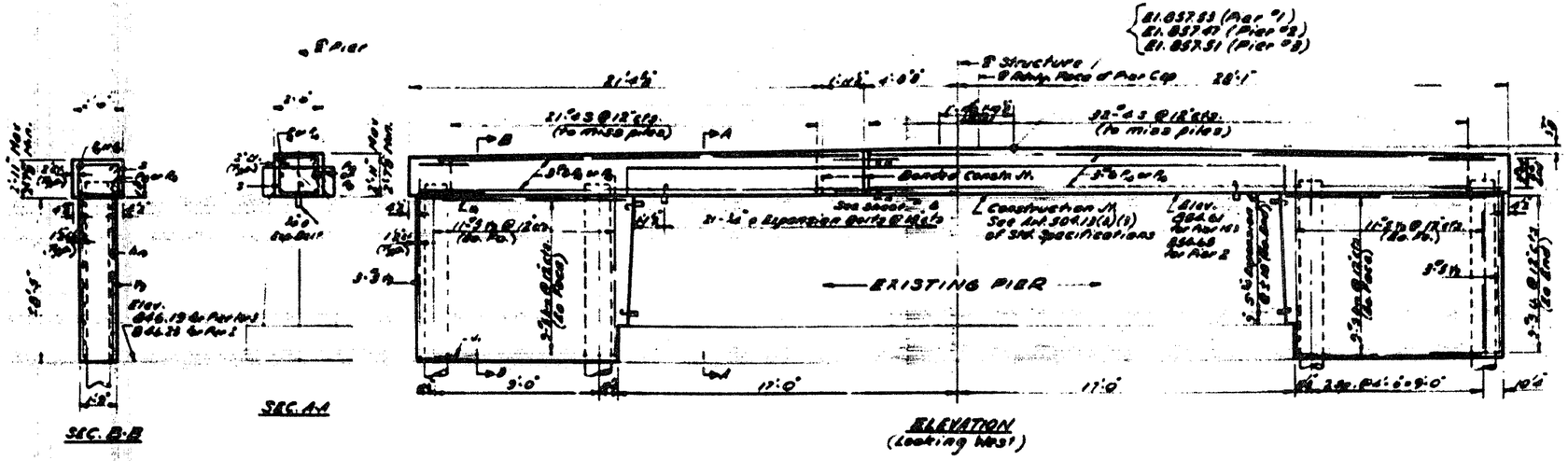
SHEET NO. 11
12 SHEETS

PILE DATA:
Type: Concrete X
Capacity: 80 Tons
Length: - - - - 19'@ Pier 1
22'@ Pier 2
20'@ Pier 3

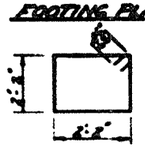
No. Req'd: 17 Piles at Test pile @ Pier 2
Note: Do not overdrive piles

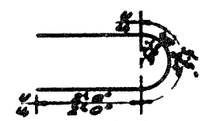
X Metal shell option not permitted.





NOTE:
Hatched area indicates Concrete Removal. Reinforcement extending into removed area shall be cleaned and incorporated into the new Construction. Expansion bolts shall be anchored in Sound Concrete.
All edges shall have standard ¾" chamfers except as noted.





THREE PIERS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
A	18	#5	4'-0"	L
A2	108	#5	10'-5"	—
P1	9	#6	20'-0"	—
P2	9	#6	22'-0"	—
P3	9	#6	19'-5"	—
P4	9	#6	21'-5"	—
S	153	#4	9'-5"	□
U	18	#6	7'-5"	U
U1	54	#6	6'-4"	U
V	150	#5	9'-0"	—
Class X Concrete Co Yds.				696
Reinforcement Bars		Lbs.		58100
Concrete Piles		Lin. Ft.		419
Test Pile Extension		Each		1
Expansion Bolts (1")		Each		93
Concrete Removal		Cu. Yds.		16.9

DESIGNED	Jerry Tejada
CHECKED	Richard S. Ali
DRAWN	Leonard Hincher
CHECKED	P.E. S.E.

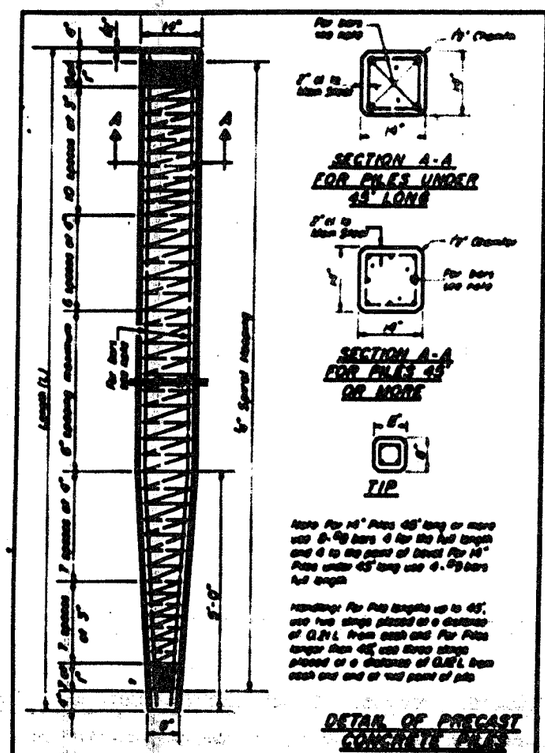
Dec 31 1975
DRAWING
PASSED
APPROVED

PIERS "1 2 & 3
S.B.I. RT. 173 SEC. 130B-1R
BOONE COUNTY
STA. 310+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	73
STA. 428+00.0000	TO STA. 438+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

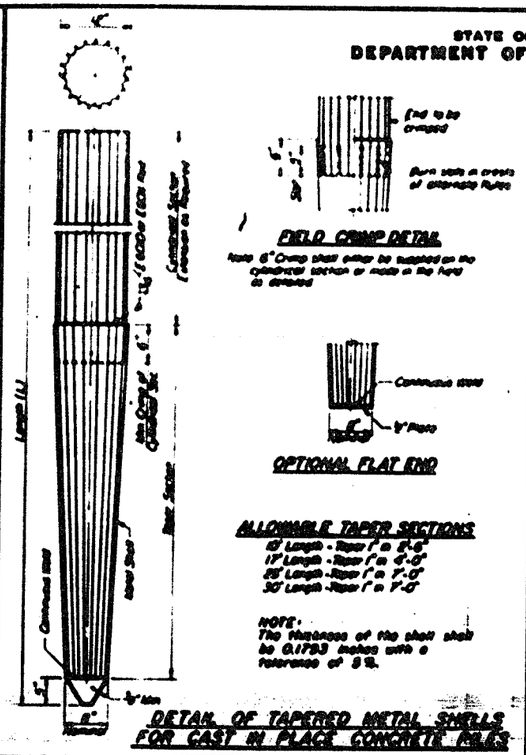
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Note: For 14" Piles 45' long or more use 8-#9 bars, 4 for the full length and 4 to the point of Spiral. For 14" Piles under 45' long use 4-#9 bars full length.

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

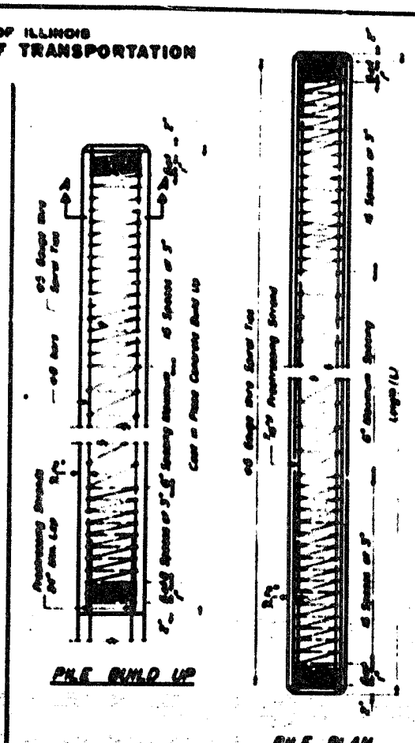
DETAIL OF PRECAST CONCRETE PILES

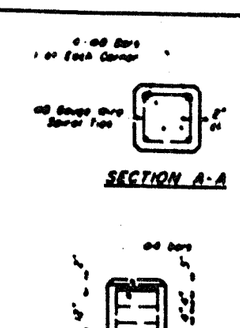


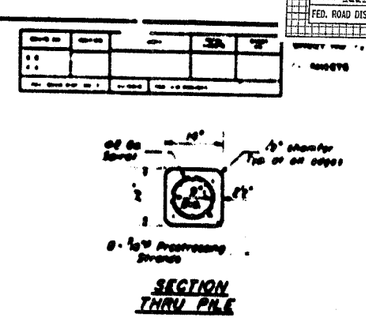
ALLOWABLE TAPER SECTIONS
10' Length - Taper 1" in 5'-0"
15' Length - Taper 1" in 7'-0"
25' Length - Taper 1" in 9'-0"
30' Length - Taper 1" in 9'-0"

NOTE:
The thickness of the shell shall be 0.1793 inches with a tolerance of 5%.

DETAIL OF TAPERED METAL SHELLS FOR CAST IN PLACE CONCRETE PILES





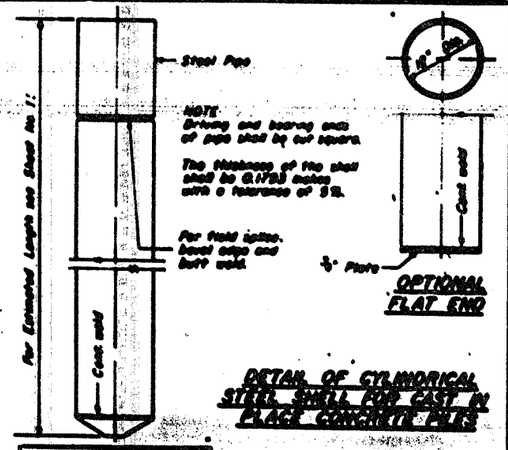


DESIGN STRESSES
f'_c = 5,000 psi
f_{ci} = 4,000 psi
f_s = 168,000 psi (24,000 lbs.)
f_{si} = 168,000 psi (28,700 lbs.)

NOTES
Prestressing steel shall be non-galvanized extra high strength stress-relieved 7-wire strand. The nominal diameter shall be 1/2" and the minimum nominal cross-sectional area shall be 0.1150 square inch.

For Pile lengths up to 65', use two slings placed at a distance of 0.21 L ± from each end. For Piles longer than 65', use three slings placed at a distance of 0.12 L ± from each end and at mid point of pile. ± L ± Over all length of pile to be handled

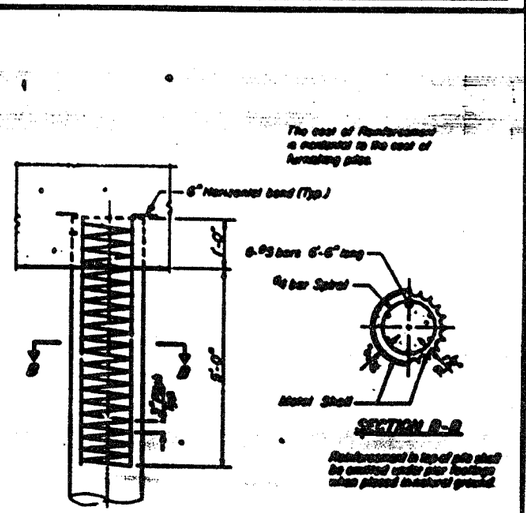
PRECAST PRESTRESSED CONCRETE PILE



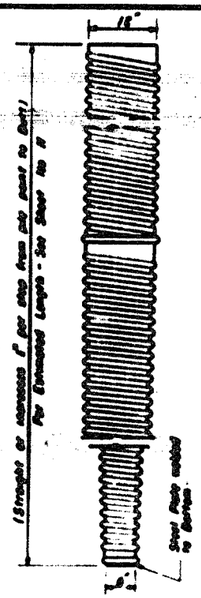
DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

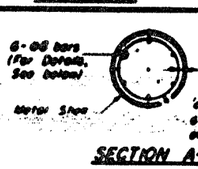
DESIGNED	
CHECKED	DRAWN
DRAWN Leslie Mercer	PLANS
CHECKED	APPROVED

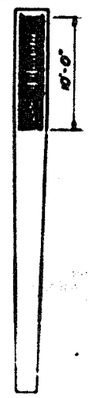
X-3 4-15-70



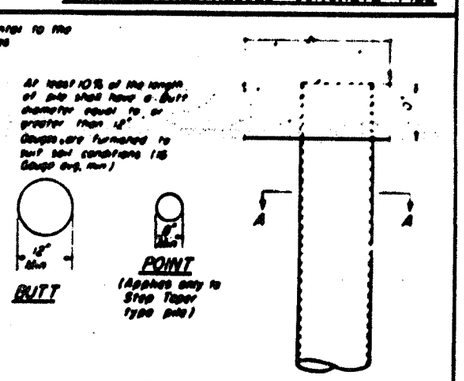
DETAIL OF REINFORCEMENT FOR METAL SHELLS







At least 10% of the length of pile shall have a Butt diameter equal to or greater than 12" Gauges are furnished to suit soil conditions (16 Gauge avg. min.)



DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

PILE DETAILS
F.A. RTE 303 SEC. 130B-1R
BOONE COUNTY
STA. 310+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-A	BOONE	147	74
STA. 429+00.0000	TO STA. 454+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS

BORING 1

BORING 2

-Standard Penetration Resistance per foot in sizes 2" O.D. with 140 hammer falling 30".

Qu-Unconfined Compressive Strength-tsf

w-Water Content-percentage of oven dry weight-%

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

DESIGNED John Tipsord
CHECKED Richard S Wu
DRAWN JM
CHECKED SF

DATE 9-1977

DRAWING
PASSED
APPROVED

BORINGS
FA RTE 303 SECTION 130BR
BOONE COUNTY
STATION 429+00

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	75
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STORM WATER POLLUTION PREVENTION PLAN
EROSION CONTROL PLAN

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME: THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE SIZE OF THE PROPOSED DITCH CHECKS, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY: REMOVAL AND REPLACEMENT OF EXISTING STRUCTURE, THIS PROJECT CONSISTS OF
RECONSTRUCTION OF 870 LF OF PAVEMENT W/ BITUMINOUS SHOULDERS AND 275 LF OF CREEK CHANNEL REALIGNMENT

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:
THE SEQUENCE OF EVENTS ARE AS FOLLOW: CLEARING, EMBANKMENT, EXCAVATION, GRADING AND PAVING. THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 6.20 ACRES
PROPOSED R.O.W (TOTAL PARCEL AREA) 1:26 ACRES
DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 5.36 ACRES

SUPPORTING REPORTS AND PLANS
THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

SOIL PROFILE SHEETS, SOILS REPORTS, BORING LOGS
USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE
BEAVER CREEK

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES
STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:
PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:
AS EARTH EXCAVATION AND EMBANKMENT ARE BEING COMPLETED THE CONTRACTOR SHALL PLACE DITCH CHECKS, INLET AND PIPE PROTECTION, EROSION CONTROL BLANKET, AND SEEDING AS STAGES OF THE PROJECT ARE COMPLETED. PERIMETER EROSION BARRIER WILL BE INSTALLED AT ADDITIONAL LOCATIONS AS THE PROJECT PROGRESSES. SEEDING SHALL BE COMPLETED AS SPECIFIED IN THE EROSION CONTROL/ SEEDING MOBILIZATION AND TEMPORARY SEEDING SPECIAL PROVISION.

MAINTENANCE AFTER FINAL GRADING
TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEEDED.

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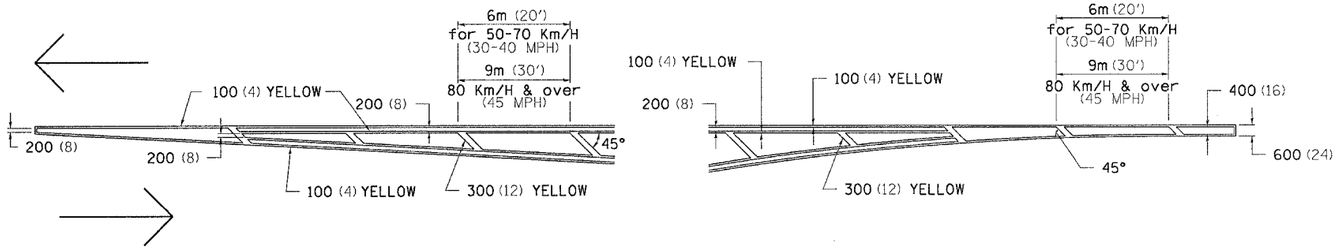
CONTRACT NO. 64800

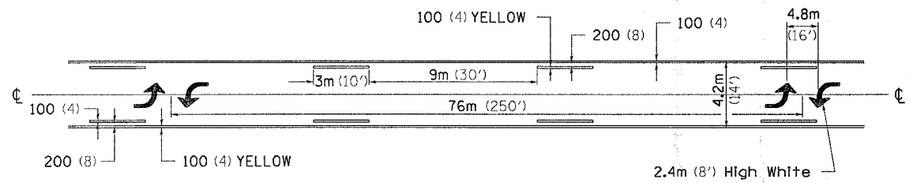
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	76
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

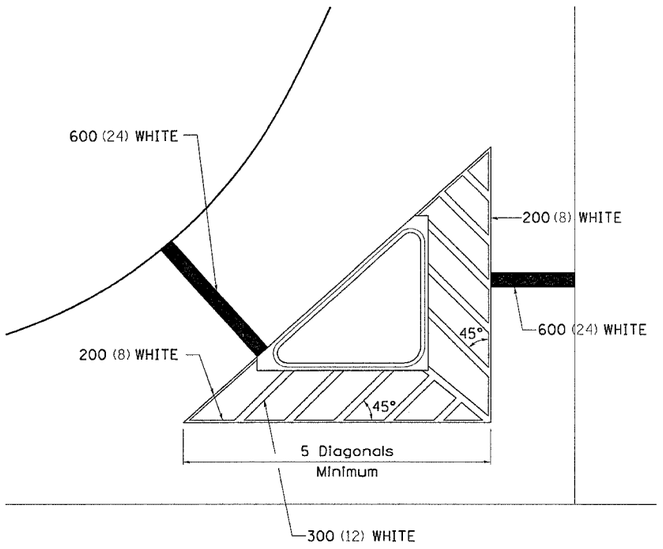
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE



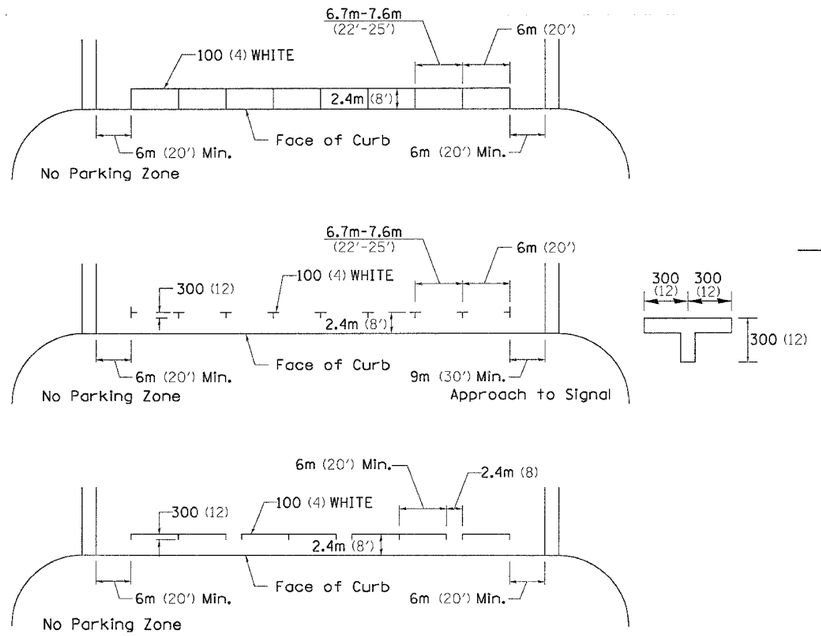
MEDIAN PAVEMENT MARKING



TYPICAL ISLAND OFFSET SHOULDER WIDTH

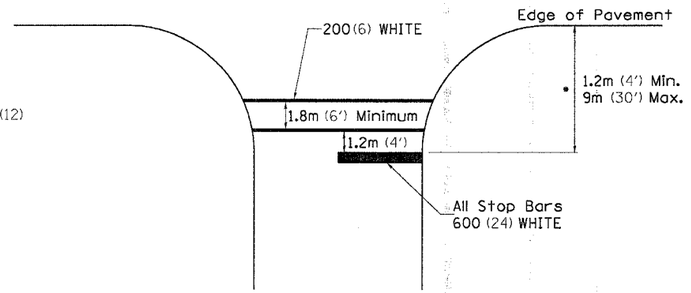


TYPICAL PARKING SPACING



STANDARD CROSSWALK MARKING

See Schedules for Locations



• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

** ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

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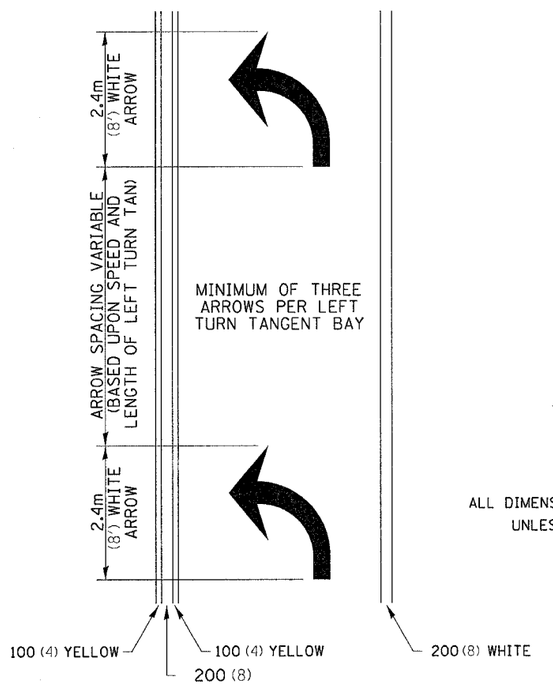
REVISED 7-20-06

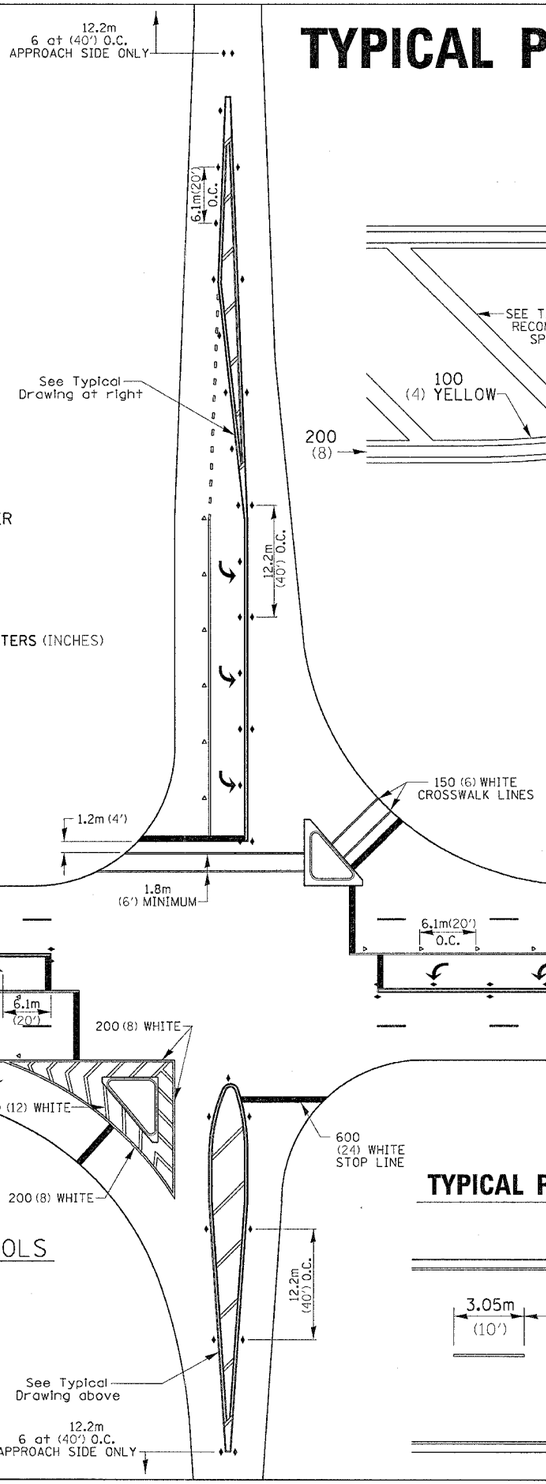
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	77
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

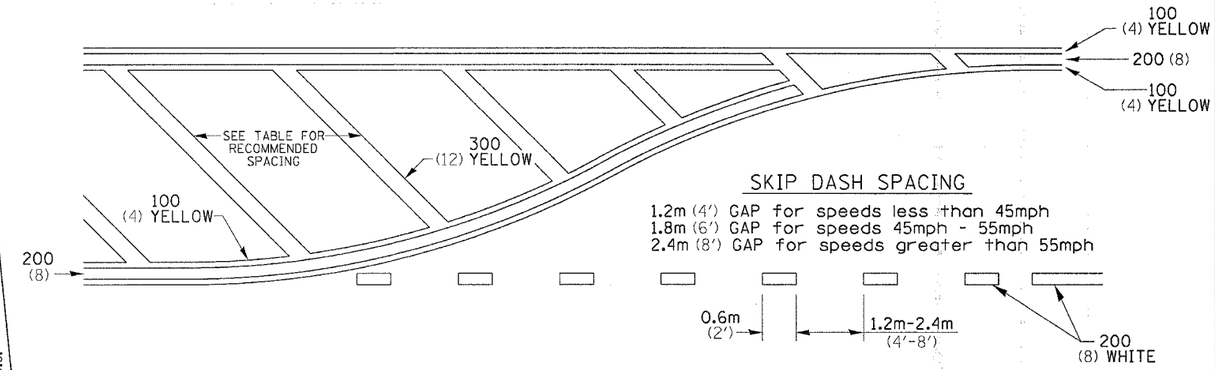
TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT





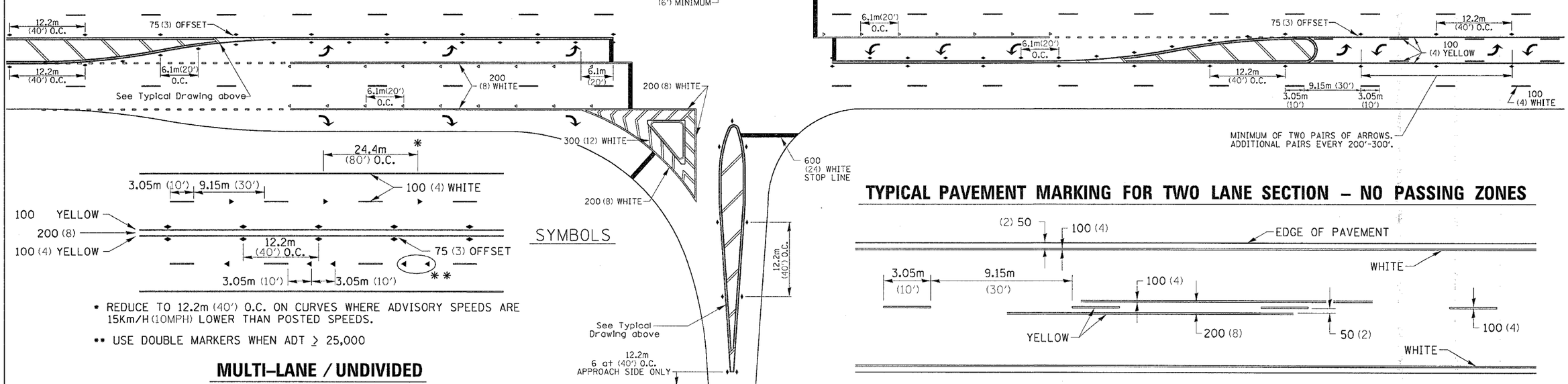
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 50Km/H (30MPH)	15.3m (50')	4.53m (15')	3.05m (10')
50-60Km/H (30-40MPH)	22.9m (75')	6.1m (20')	4.53m (15')
70Km/H (45MPH) & over	22.9m (75')	9.05m (30')	6.1m (20')

NOTE: if the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



SYMBOLS

- * REDUCE TO 12.2m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15Km/H (10MPH) LOWER THAN POSTED SPEEDS.
- ** USE DOUBLE MARKERS WHEN ADT ≥ 25,000

MULTI-LANE / UNDIVIDED

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES

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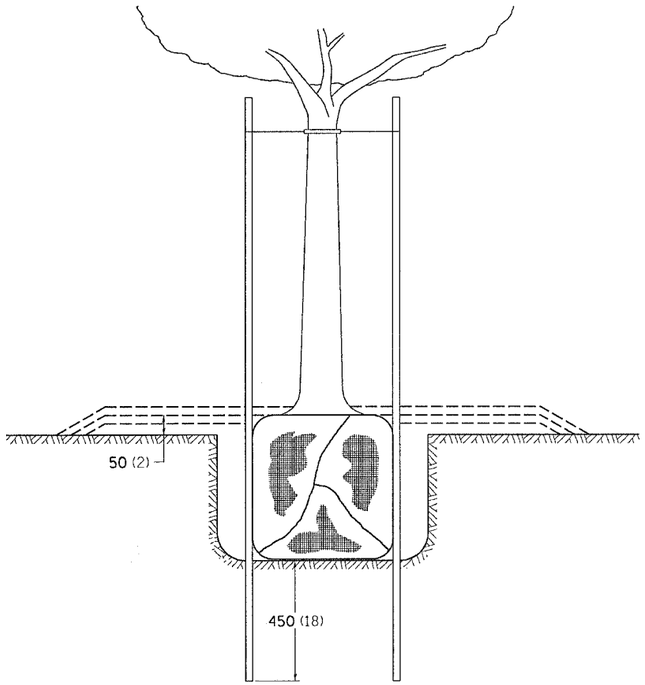
REVISED 7-20-06

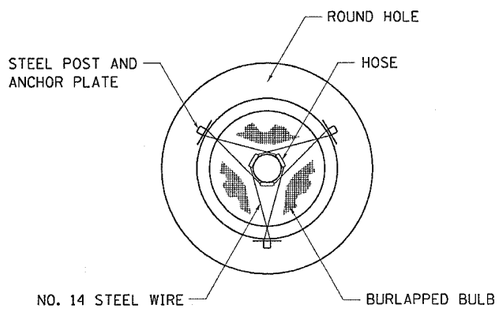
CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	78
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAILS OF PLANTING AND BRACING TREES

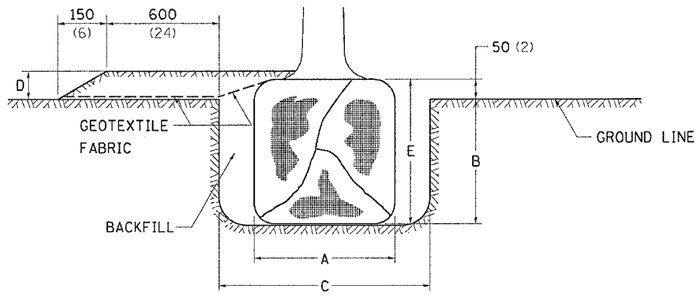


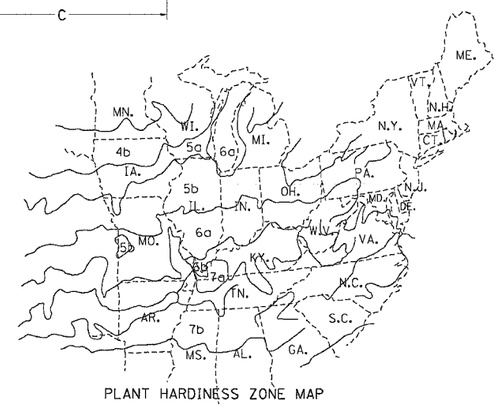
TREES SMALLER THAN 115 (4½) IN DIAMETER



SMALL TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
1.5-1.8m (5'-6')	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.5-1.8m (5'-6') BB	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.8-2.0m (6'-7') BB	450 (18)	300 (12)	750 (30)	100 (4)	350 (14)	0.41 (0.54)
2.0-2.4m (7'-8') BB	500 (20)	275 (11)	750 (30)	100 (4)	325 (13)	0.41 (0.54)
2.4-3.0m (8'-10') BB	600 (24)	350 (14)	900 (36)	100 (4)	400 (16)	0.47 (0.61)
3.0-3.6m (10'-12') BB	650 (26)	375 (15)	900 (36)	100 (4)	425 (17)	0.47 (0.61)

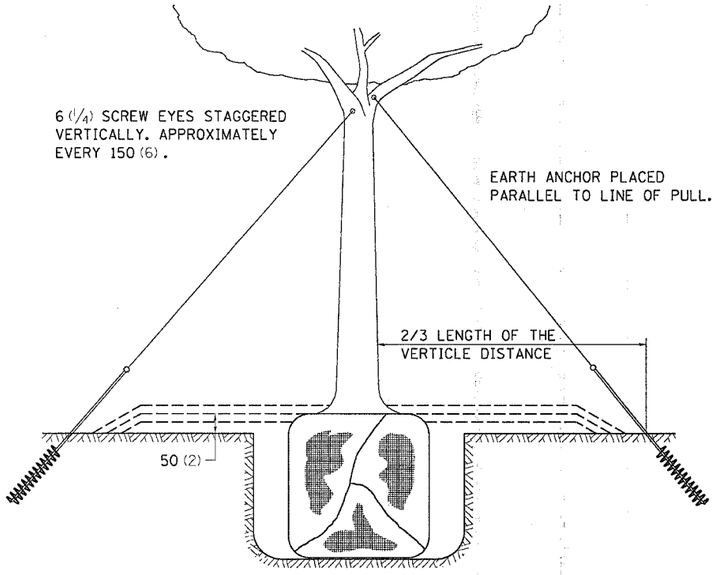
LARGE TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 (2-2½)BB	600 (24)	350 (14)	1200 (48)	100 (4)	400 (16)	0.60 (0.78)
65-75 (2½-3)BB	700 (28)	425 (17)	1200 (48)	100 (4)	475 (19)	0.60 (0.78)
75-90 (3-3½) BB	800 (32)	425 (17)	1500 (60)	100 (4)	475 (19)	0.73 (0.96)
90-100 (3½-4) BB	900 (36)	500 (20)	1500 (60)	100 (4)	550 (22)	0.73 (0.96)
100-115 (4-4½) BB	1000 (40)	550 (22)	1800 (72)	100 (4)	600 (24)	0.89 (1.16)
115-125 (4½-5) BB	1100 (44)	600 (24)	1800 (72)	100 (4)	650 (26)	0.89 (1.16)
125-140 (5-5½) BB	1200 (48)	675 (27)	2100 (84)	100 (4)	725 (29)	1.06 (1.38)



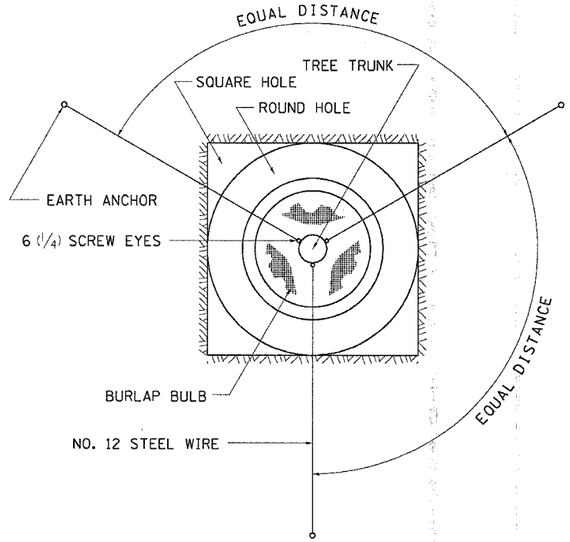


PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PUBLICATION NO. 814



TREES OVER 115 (4½) IN DIAMETER



ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

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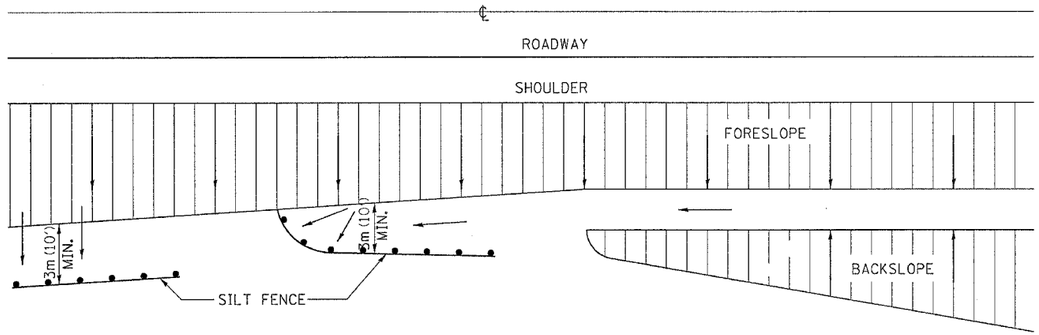
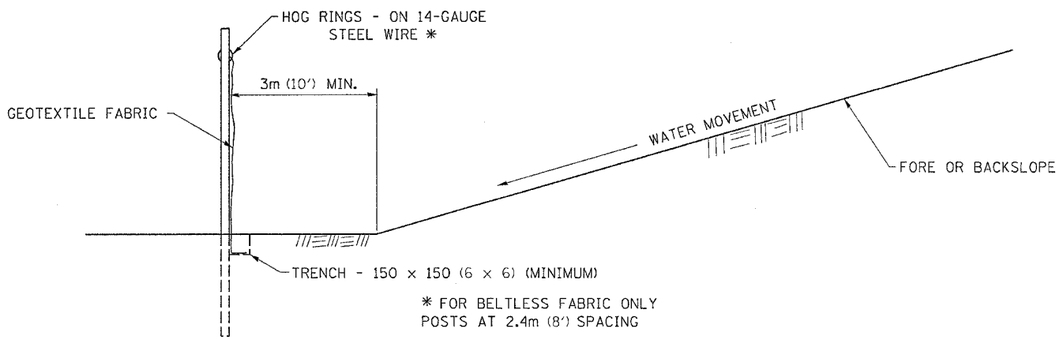
DETAILS OF PLANTING AND BRACING TREES **92.1**

REVISED 10-15-04

EROSION CONTROL DETAILS FOR SILT FENCE





DETAILS OF SILT FENCE

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

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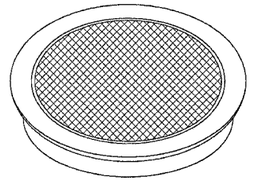
REFERENCE = REF

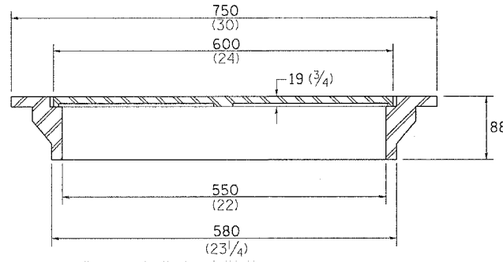
FIELD TILE JUNCTION VAULTS 600 (24) AND 900 (36) DIA.

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	79
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

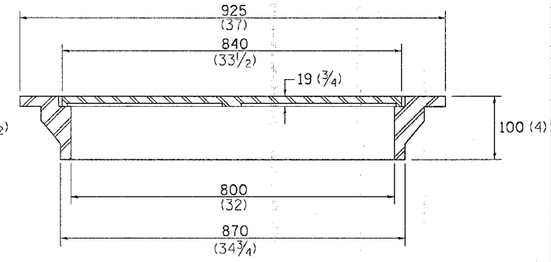


FRAME & LID FOR 600 (24) VAULT

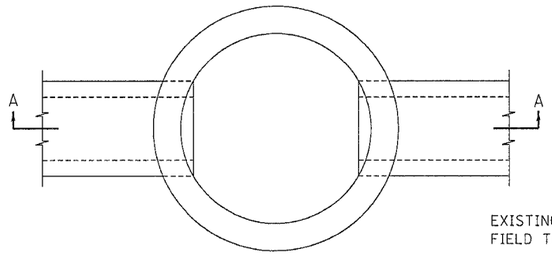


TOTAL WEIGHT: 66 Kg (146 lbs)

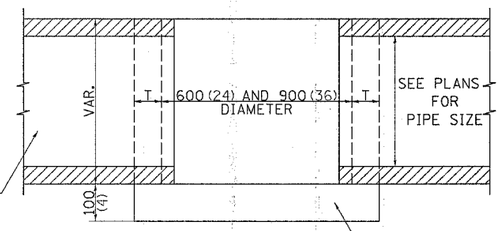
FRAME & LID FOR 900 (36) VAULT



TOTAL WEIGHT: 127 Kg (280 lbs)



PLAN

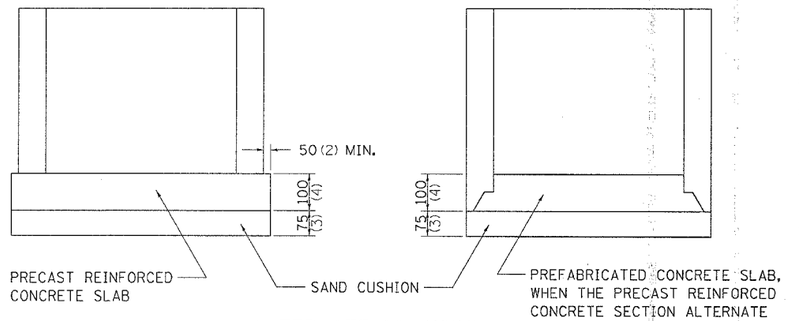


SECTION A-A

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	200 (8)
CAST-IN-PLACE CONCRETE	150 (6)
CONCRETE MASONRY UNIT	125 (5)
PRECAST REINFORCED CONCRETE SECTION	75 (3)

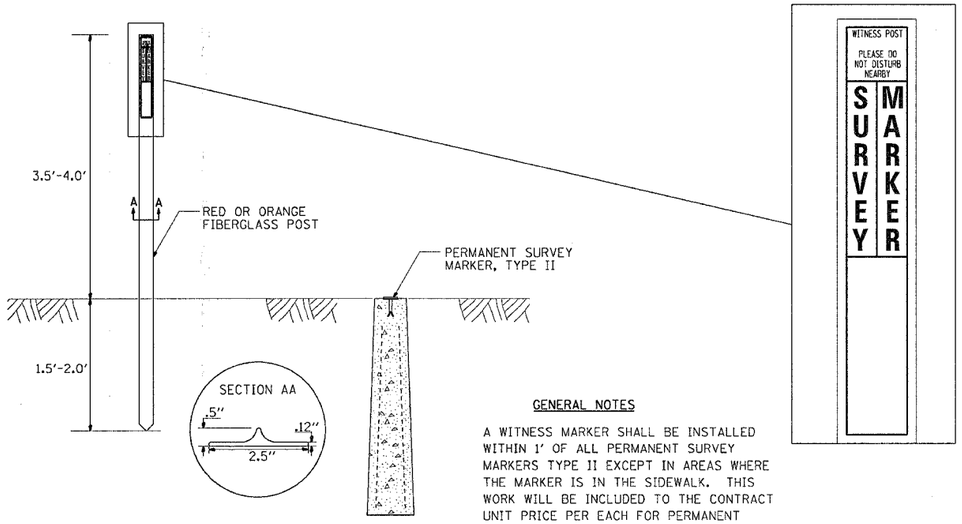
NOTE: THE FRAME AND LID IS REQUIRED ON ALL JUNCTION VAULTS.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



ALTERNATE METHODS

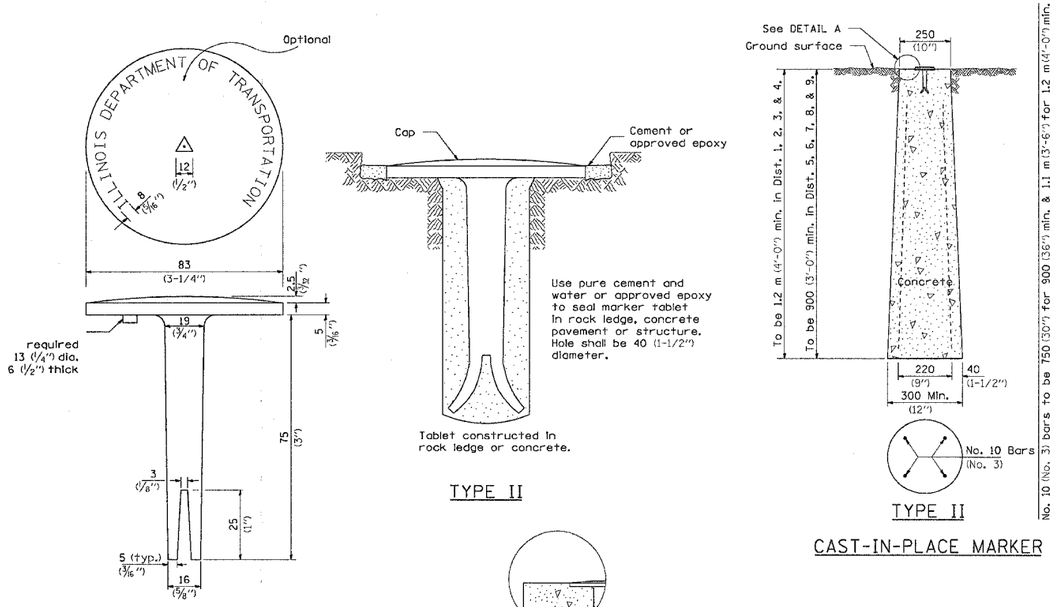
WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



GENERAL NOTES

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

PERMANENT SURVEY MARKERS, TYPE II



BRASS OR ALUMINUM TABLET

TYPE II

CAST-IN-PLACE MARKER

DETAIL A

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

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REFERENCE = sheets

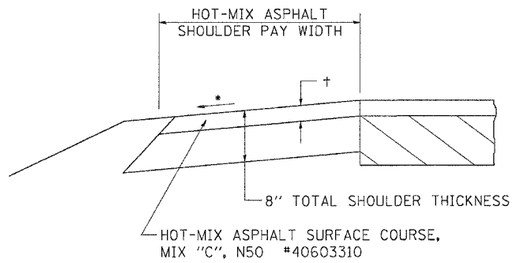
WITNESS MARKER & PERMANENT SURVEY MARKERS, TYPE II 66.2

REVISED 6-26-06

HOT-MIX ASPHALT SHOULDER

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	80
STA. _____	TO STA. _____			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



† = SEE TYPICAL SECTIONS FOR THICKNESS

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310.

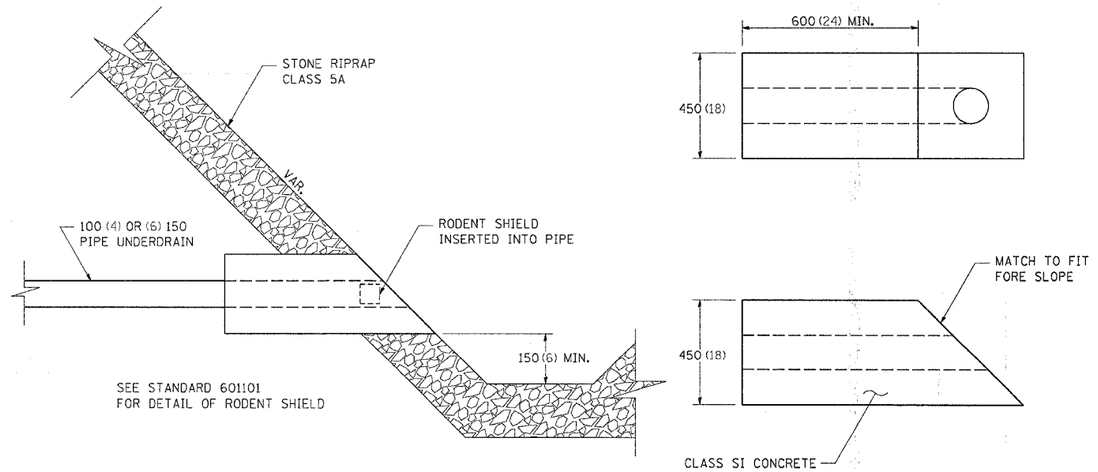
REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

HOT-MIX ASPHALT SHOULDER 23.4a

REVISED 10-06-06

CONCRETE HEADWALLS FOR PIPE DRAINS

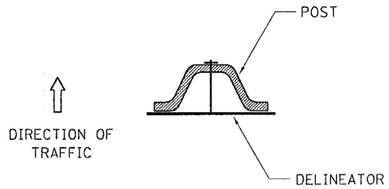


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

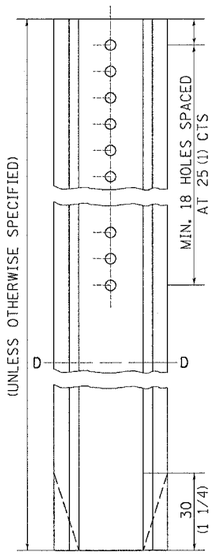
CONCRETE HEADWALLS FOR PIPE DRAINS 27.4

REVISED 10-15-04

DELINEATOR AND POST ORIENTATION



SECTION D-D



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180° . THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

DELINEATOR AND POST ORIENTATION **37.4**

REVISED 1-31-00

TREE REPLACEMENT SCHEDULE

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	81
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

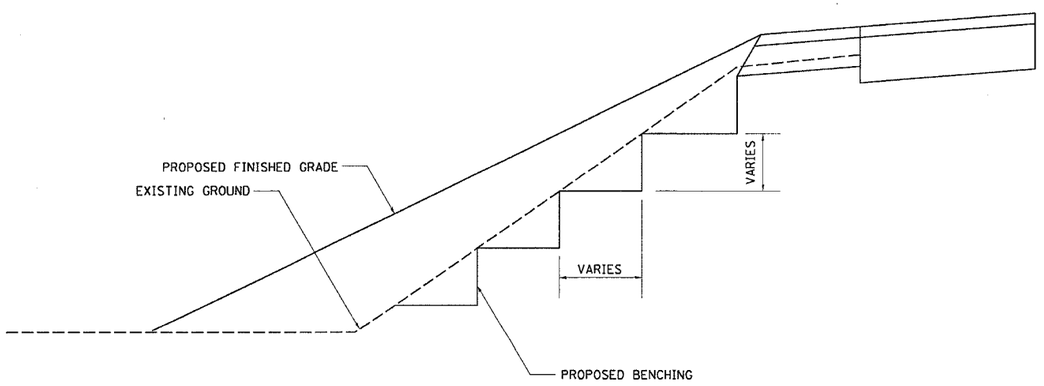
CODE NUMBER	SCIENTIFIC NAME	COMMON NAME	SIZE	UNIT	QUANTITY
A2006714	QUERCUS MACROCARPA	BUR OAK	1 3/4"		9

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TREE REPLACEMENT SCHEDULE **90.4**

REVISED 8-10-05

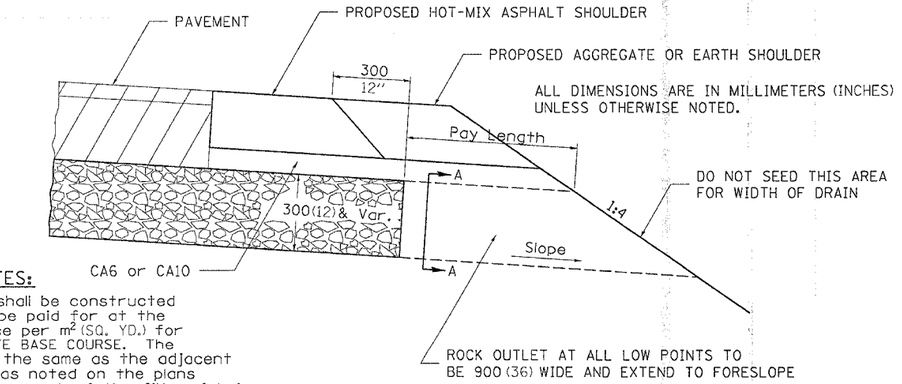
TYPICAL BENCHING ON EXISTING EMBANKMENT



TYPICAL BENCHING ON EXISTING EMBANKMENT **50.4**

REVISED 2-22-06

DRAIN FOR AGGREGATE BASE COURSE



SECTION A-A

NOTES:

The rock outlets shall be constructed using CA7 and will be paid for at the contract unit price per m^2 (SQ. YD.) for DRAIN FOR AGGREGATE BASE COURSE. The thickness shall be the same as the adjacent sub-base material as noted on the plans and shall include the cost of the filter fabric. The Rock outlets will be measured in m^2 (SQ. YD.), the width being 900(36) by the length shown above. The cost of the CA6 or CA10 under the shoulder shall be included in the contract unit price per m^2 (SQ. YD.) for SUB-BASE GRANULAR MATERIAL, TYPE A of the thickness specified. The filter fabric to be used shall conform to the filter fabric used for Riprap.

NOTE: Slope same as shoulder with 2% min.

X0325519

DRAIN FOR AGGREGATE BASE COURSE **96.4**

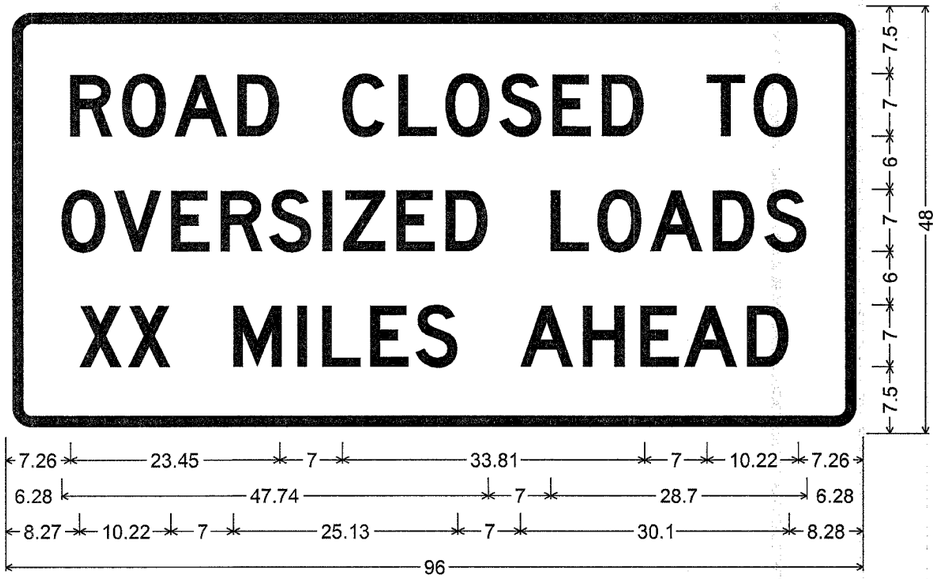
REVISED 10-10-06

CONTRACT NO. 64800

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	82
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Bike Trail Construction Sign;
1.50" Radius, 0.75" Border, 0.50" Indent, Black on Yellow;
"CAUTION" D 2K;
2.25" Radius, 0.75" Border, 0.50" Indent, Black on White;
"CONSTRUCTION" C 2K 90% spacing; "ADJACENT TO" C 2K; "TRAIL IN" C 2K;
"PROGRESS" C 2K;
Table of letter and object lefts.

C 7.25	A 10.50	U 14.50	R 17.75	I 20.88	G 22.38	N 26.13	
— 1.25							
C 2.25	O 5.13	N 8.25	S 11.00	I 13.63	B 16.13	U 19.00	C 22.00	I 24.63	I 27.13	O 28.50	N 31.50
A 2.50	D 5.63	J 8.38	A 11.00	C 14.00	E 17.00	N 19.75	I 22.50	I 25.63	O 31.13		
I 8.25	S 10.88	A 13.50	I 16.63	L 18.00	I 24.00	N 25.50					
P 6.75	E 9.88	O 12.63	C 15.75	E 18.75	E 21.75	S 24.25	S 27.00				



3.00" Radius, 1.25" Border, 0.75" Indent, Black on White;
[ROAD CLOSED TO] D 2K; [OVERSIZED LOADS] D 2K; [XX MILES AHEAD] D 2K;
Table of letter and object lefts.

R 7.26	O 13.07	A 18.95	D 25.95	C 37.71	L 44.01	O 49.26	S 55.28	E 61.23	D 66.76	T 78.52	O 83.77
O 6.28	V 12.16	E 18.53	R 24.06	S 29.52	I 35.47	Z 37.78	E 43.73	D 49.26			
	L 61.02	O 66.27	A 72.15	D 79.15	S 84.96						
X 8.27	X 13.73	M 25.49	I 32.63	L 35.43	E 40.82	S 45.86	A 57.62	H 64.62	E 71.06	A 75.96	D 82.96

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CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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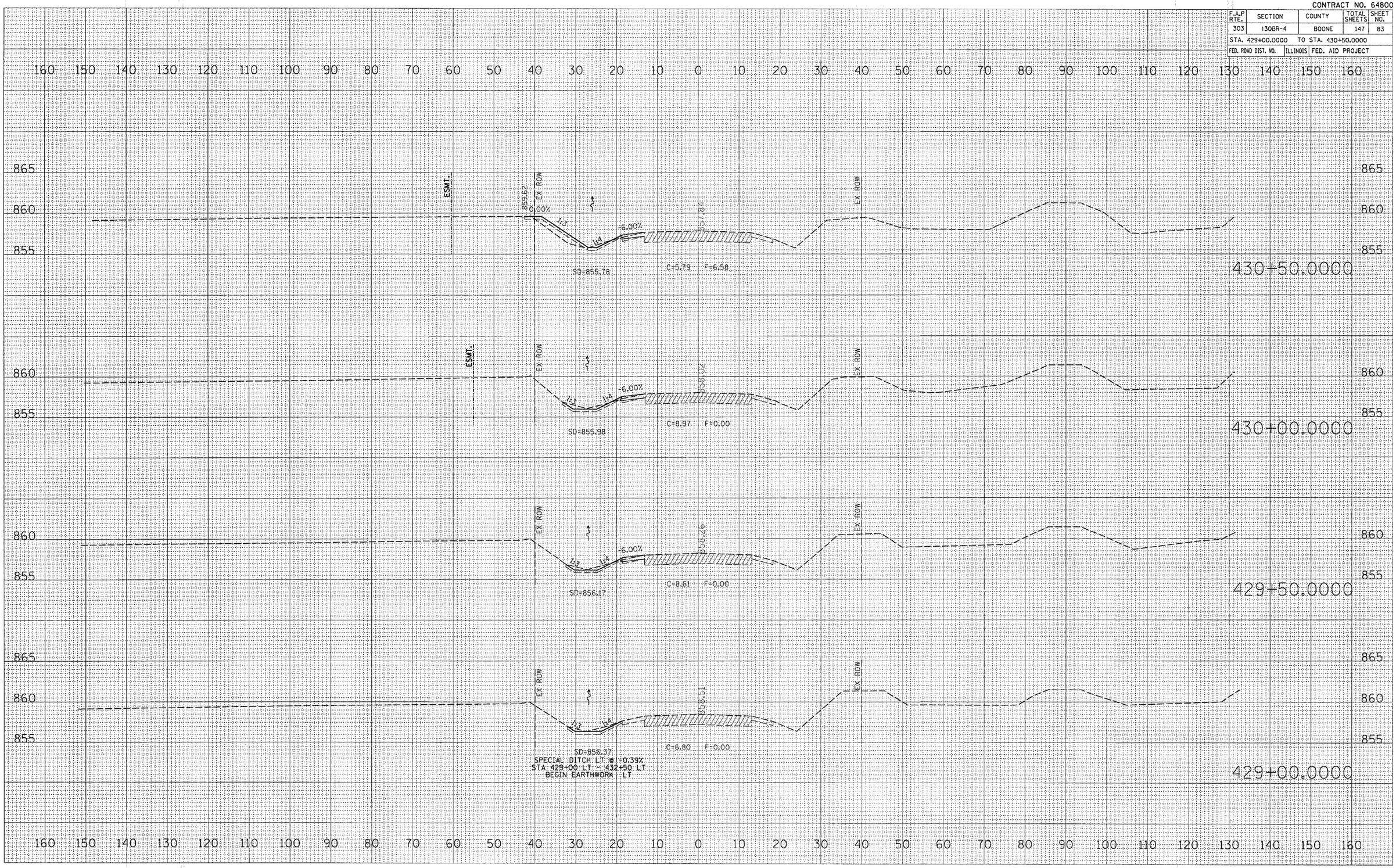
STA. 429+00.0000	TO STA. 430+50.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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PROPOSED IL 173

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	84
STA. 431+00.0000	TO STA. 432+29.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

860
855

ESMT. 857.55 PR. ROW 0.00% EX. ROW 1:3 1:4 -6.00% 857.63 1:4 1:3 856.63 EX. ROW ESMT.

SD=855.09 C=28.35 F=2.86 855.26

432+29.0000

ESMT. ESMT. 857.93 PR. ROW 0.00% EX. ROW 1:3 1:4 -6.00% 857.63 1:4 1:3 857.31 EX. ROW ESMT.

SD=855.20 C=19.05 F=4.14 855.38

432+00.0000

ESMT. 858.62 PR. ROW 0.00% EX. ROW 1:3 1:4 -6.00% 857.63 855.58 EX. ROW ESMT.

SD=855.39 C=10.39 F=6.45

SPECIAL DITCH RT @ -0.40%
STA 431+50 RT. - 434+00 RT
BEGIN EARTHWORK RT.

431+50.0000

ESMT. 859.15 0.00% EX. ROW 1:3 1:4 -6.00% 857.63 1:4 1:3 EX. ROW

SD=855.59 C=7.85 F=6.79

431+00.0000

PROPOSED IL 173

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

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

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CONTRACT NO. 64800

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303	130BR-4	BOONE	147	85
STA. 432+50.0000	TO STA. 434+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

860 855 850

ESMT. 854.45 PR. ROW EX. ROW 0.16% 1:4 -4.00% 857.86 -1.50 % 858.06 -1.50 % 857.86 -4.00% 1:4 854.58 EX. ROW ESMT.

SD=854.55 C=128.78 F=10.29

434+00.0000

ESMT. 855.59 PR. ROW EX. ROW 0.00% 1:3 1:4 -4.00% 857.61 -1.50 % 857.80 -1.50 % 857.61 -4.00% 1:3 1:4 855.20 EX. ROW ESMT.

SD=854.70 C=124.95 F=5.43 SD=854.78

433+50.0000

ESMT. 856.45 PR. ROW EX. ROW 0.00% 1:3 1:4 -4.00% 857.43 -1.50 % 857.62 -1.50 % 857.43 -4.00% 1:3 1:4 855.90 EX. ROW ESMT.

SD=854.85 C=123.31 F=3.83 SD=854.98

433+00.0000

ESMT. 857.26 PR. ROW EX. ROW 0.00% 1:3 1:4 -6.00% 857.53 1:4 1:3 855.83 EX. ROW ESMT.

SD=855.00 C=23.33 F=1.96 855.18

SPECIAL DITCH LT @ -0.30%
STA 432+50 LT - 434+00 LT

432+50.0000

PROPOSED IL 173

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

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	PLOTTED	
NOTE BOOK	ITEMS ADDED	DATE
	AREAS CHECKED	
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CONTRACT NO. 64800

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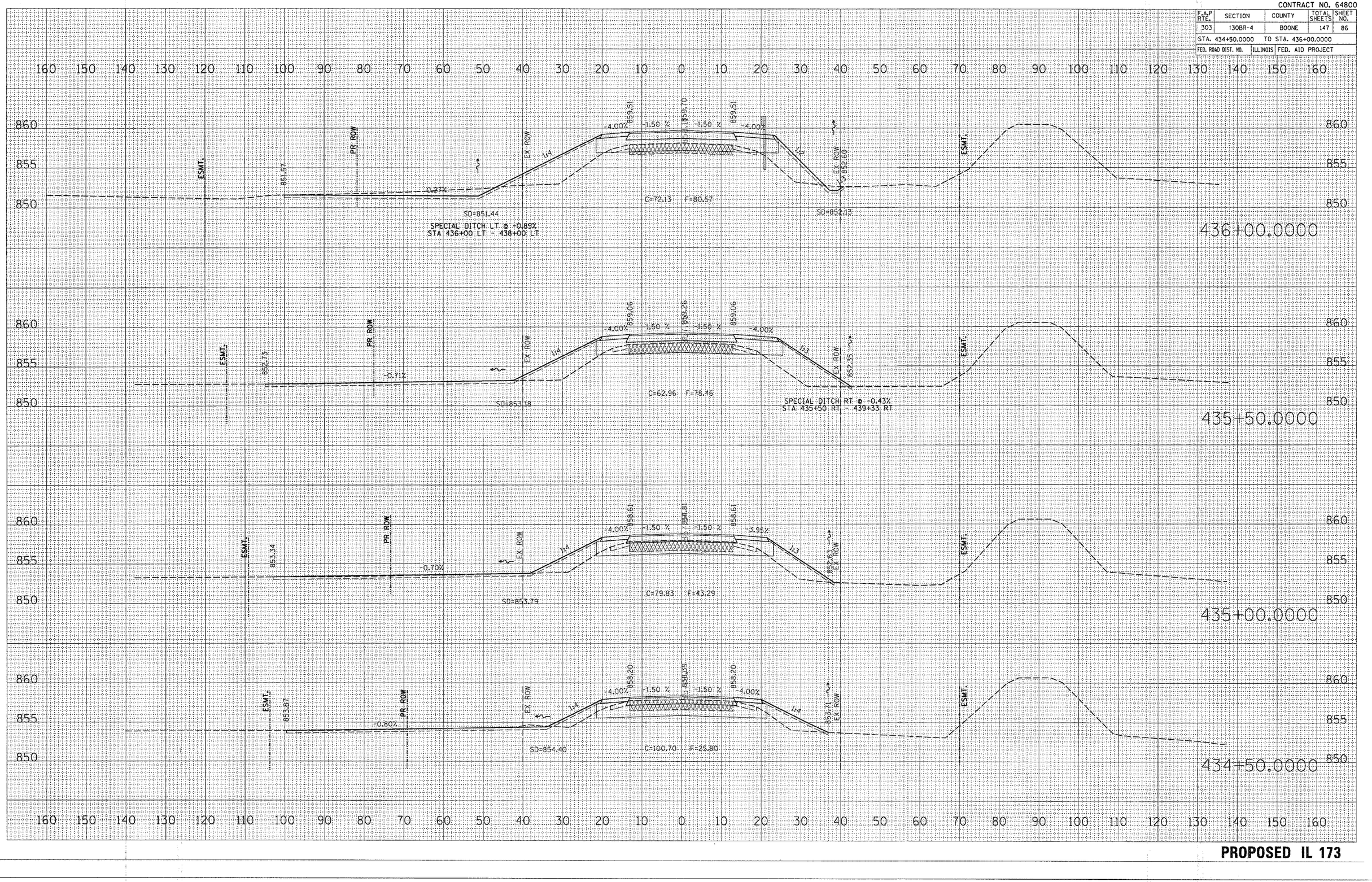

PROPOSED IL 173

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PLOTTED
TABULATE
AREAS
AREAS CHECKED

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SURVEYED — BY — DATE
PLOTTED
TABULATE
AREAS
AREAS CHECKED

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CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	87
STA. 436+50.0000		TO STA. 437+50.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

860
855
850

ESMT.
853.32
PR ROW
1.00%
1:3
SD=850.10
EX ROW
1:4
3.95%
860.85
1.50 %
861.05
1.50 %
860.85
-4.00%
1:3
EX ROW
852.99
ESMT.
C=69.29 F=182.40
SD=851.49

437+50.0000

ESMT.
853.45
PR ROW
1.00%
1:3
SD=850.55
EX ROW
1:4.06
3.95%
860.40
1.50 %
860.60
1.50 %
860.40
-4.00%
1:3
EX ROW
852.59
ESMT.
C=48.90 F=142.48
SD=851.70

437+00.0000

ESMT.
853.05
PR ROW
0.00%
1:3
SD=851.00
EX ROW
1:4
-4.00%
859.96
1.50 %
860.15
1.50 %
859.96
-4.00%
1:3
EX ROW
852.53
ESMT.
C=46.06 F=98.26
SD=851.92

436+50.0000

PROPOSED IL 173

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CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	88
STA. 438+00.0000	TO STA. 439+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

865 860 855 850

Approach Pavement

ESMT. | 853.31 | PR ROW | 2.00% | 1:3 | SD=848.16 | 1:3 | EX ROW | 861.94 | -4.00% | -1.50 % | -1.50 % | -4.00% | C=127.58 | F=236.68 | 1:3 | EX ROW | 1:3 | SD=850.54 | 854.36 | ESMT.

439+00.0000

865 860 855 850

ESMT. | 853.14 | PR ROW | 1.00% | 1:3 | SD=848.91 | 1:4 | EX ROW | 861.75 | 861.94 | 861.75 | -4.00% | -1.50 % | -1.50 % | -4.00% | C=120.64 | F=261.93 | 1:3 | EX ROW | 1:3 | SD=851.06 | 856.14 | ESMT.

438+50.0000

865 860 855 850

ESMT. | 852.89 | PR ROW | 1.00% | 1:3 | SD=849.66 | 1:4 | EX ROW | 861.30 | 861.48 | 861.30 | -4.00% | -1.50 % | -1.50 % | -4.00% | C=90.06 | F=241.11 | 1:3 | EX ROW | 1:3 | SD=851.27 | 854.63 | ESMT.

SPECIAL DITCH LT @ -1.50%
STA 438+00 LT - 440+00 LT

438+00.0000

845

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

PROPOSED IL 173

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

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

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USER NAME = dizlerka

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	89
STA. 439+15.0000		TO STA. 439+50.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

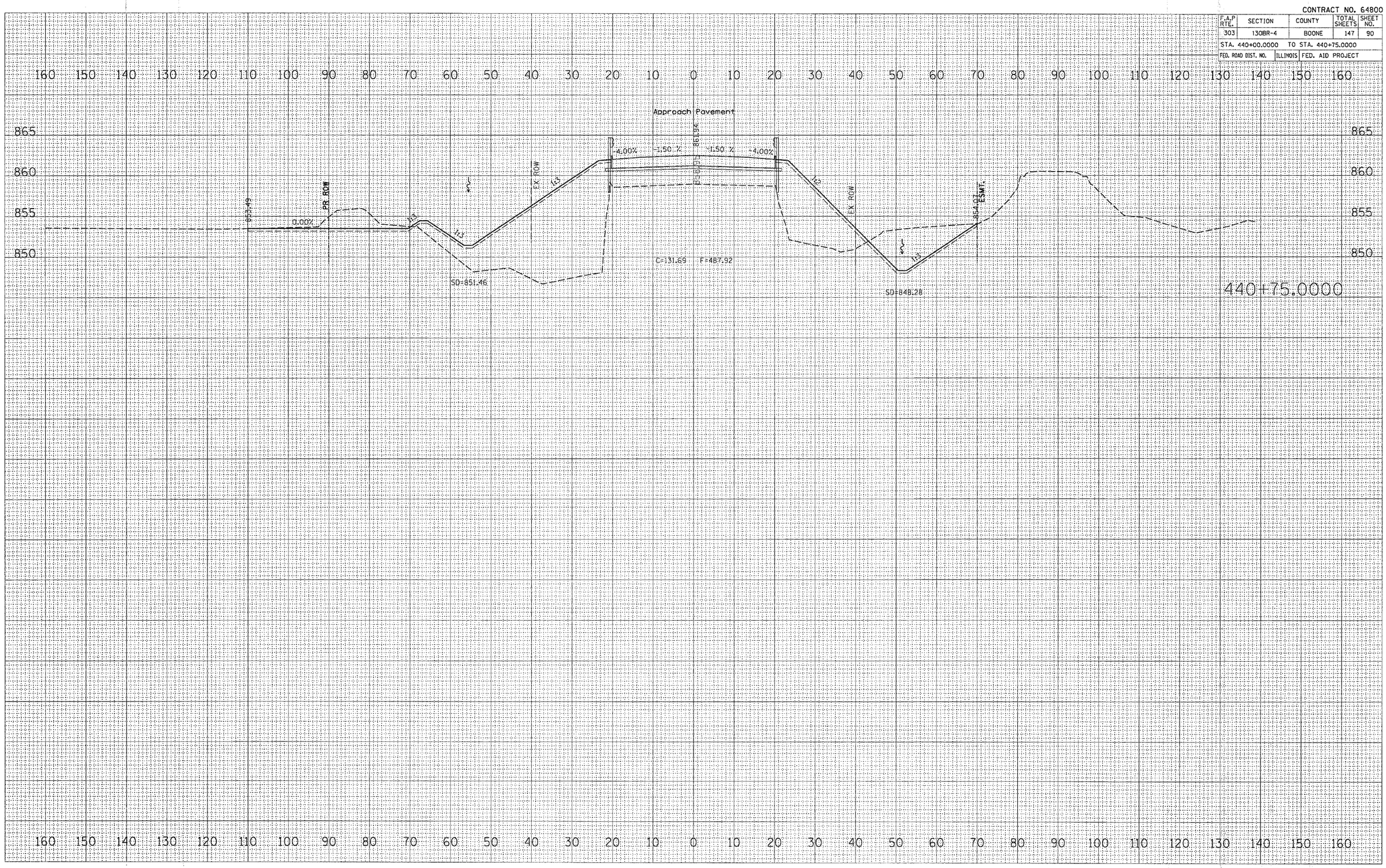
PLOT DATE = Fri Feb 23 09:58:58 2007
FILE NAME = c:\projects\rsw\v2003092\d03802\mwgroom
PLOT SCALE = 10.0000 ' / IN.
USER NAME = ditzlerea

Approach Pavement
861.94
858.94
-4.00%
-1.50 %
-1.50 %
4.00%
853.33
2.00%
1:3
1:2
ESMT.
PR ROW
EX ROW
C=115.56
F=196.99
SD=847.94
SD=850.78
854.11
439+15.0000

PROPOSED IL 173

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	90
STA. 440+00.0000	TO STA. 440+75.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY NOTE BOOK

NO.	BY	DATE
	SURVEYED	
	PLOTTED	
	TYPED	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY NOTE BOOK

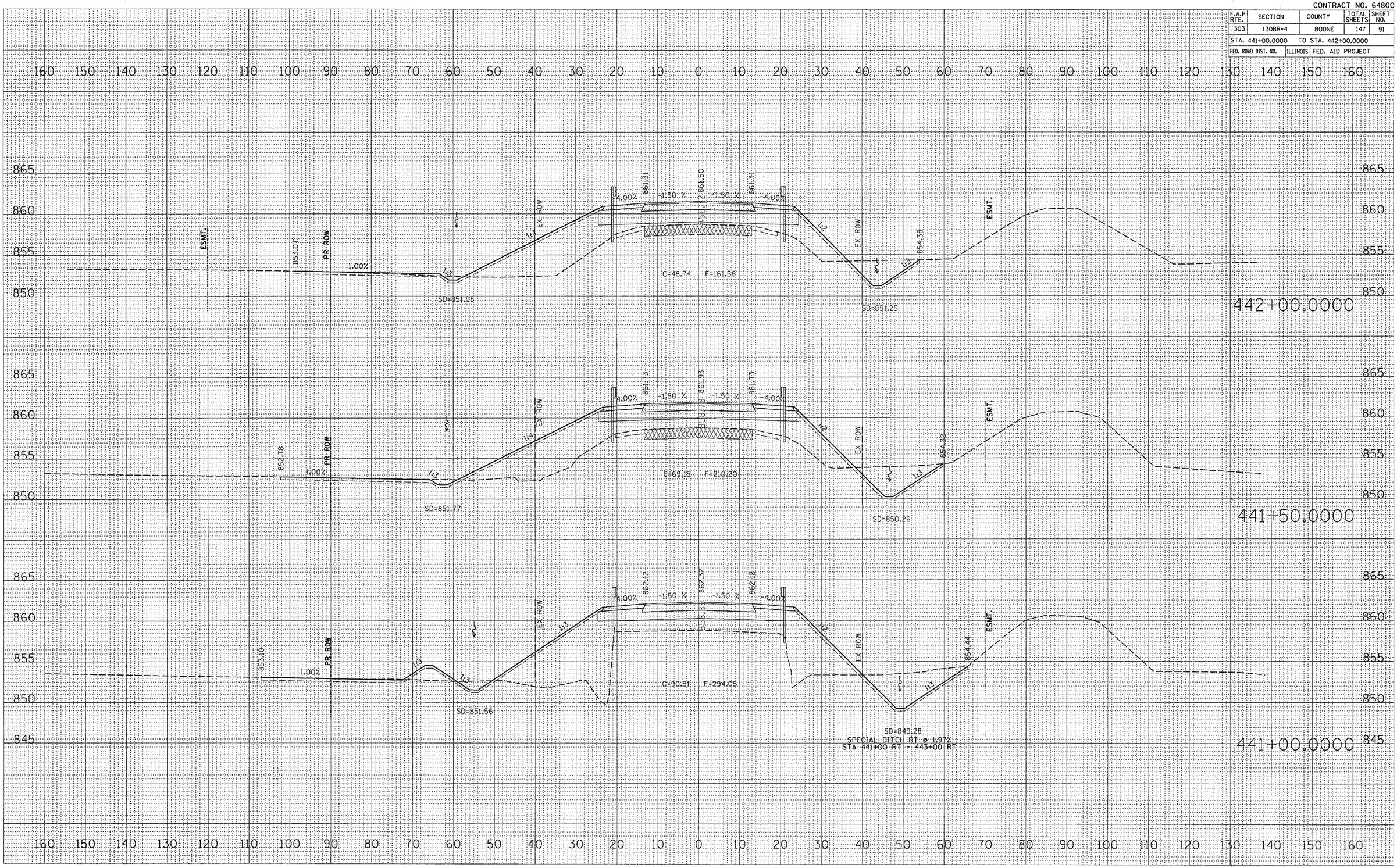
NO.	BY	DATE
	SURVEYED	
	PLOTTED	
	TYPED	
	AREAS	
	AREAS CHECKED	

PLOT DATE = Fri Feb 23 09:58:59 2007
FILE NAME = c:\projects\work\020002\d03802\ROHP1.DGN
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dtzierso

PROPOSED IL 173

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	91
STA. 441+00.0000	TO STA. 442+00.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROPOSED IL 173

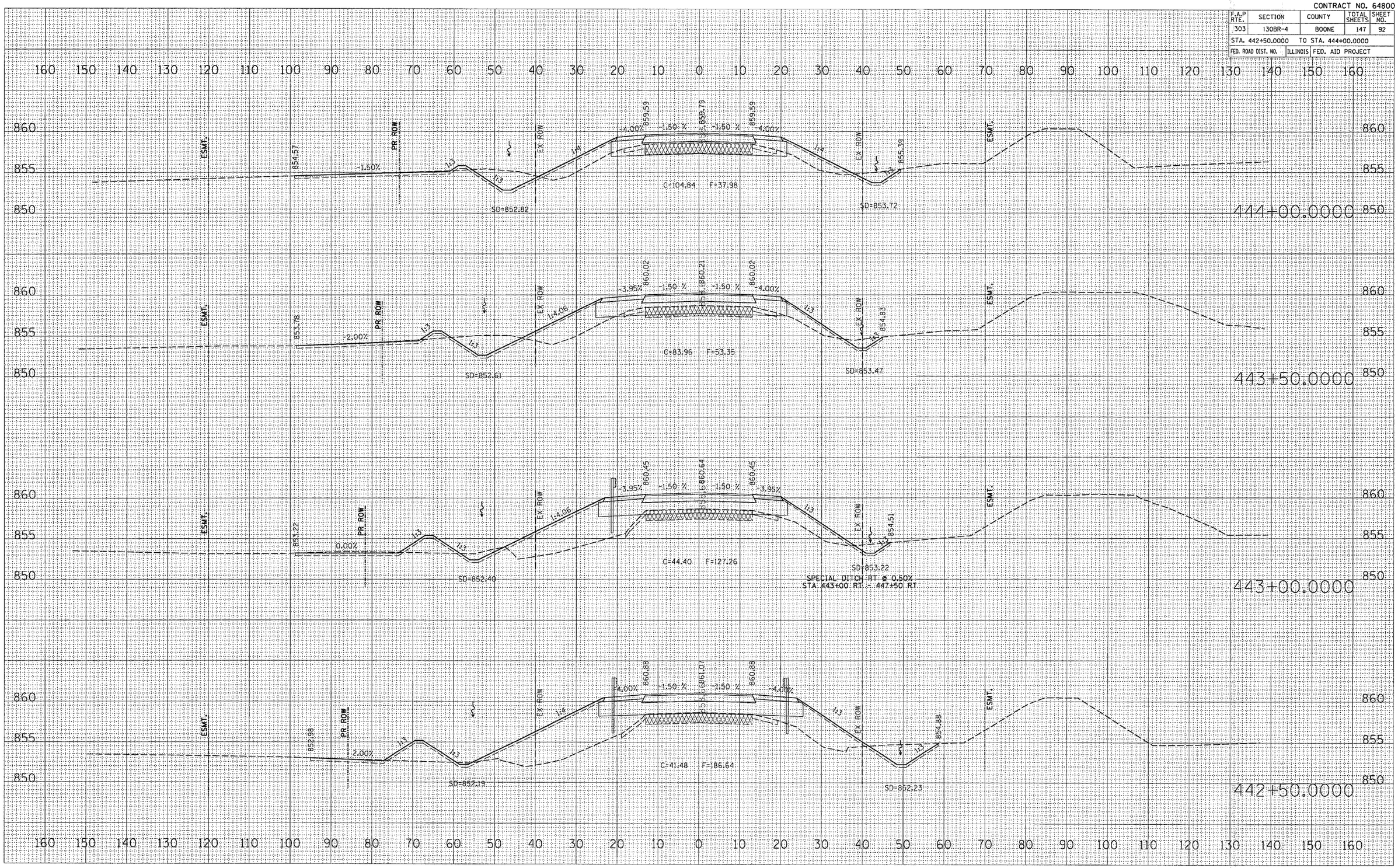
		BY	DATE
FINAL SURVEY	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	AREAS CHECKED		

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

PLOT DATE = Fri Dec 15 07:35:02 2006
FILE NAME = c:\Projects\p203802\d0380201.dgn
PW DOSSIER = MOORE / TN.
USER NAME = dotler-sa

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	92
STA. 442+50.0000		TO STA. 444+00.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = Fri Dec 15 07:35:02 2006
FILE NAME = c:\Projects\p203202\sd03202ro1.dgn
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dot1lrsa

PROPOSED IL 173

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	93
STA. 444+50.0000		TO STA. 446+00.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = Fri Dec 15 07:35:03 2006
FILE NAME = c:\Projects\p203802\d03802xml.dgn
PLOT SCALE = 10.0000 ' IN.
PLOT STYLE = dtilorso
USER NAME = dtilorso

446+00.0000

ESMT. 856.49 0.00% PR ROW EX ROW 1:3 1:4 -4.00% 858.06 -1.50 % 858.25 -1.50 % 858.05 -4.00% 1:4 1:3 EX ROW 857.48 ESMT.
SD=853.66 C=157.37 F=2.58 SD=854.72

ESMT. 856.41 0.00% PR ROW EX ROW 1:3 1:4 -4.00% 858.35 -1.50 % 858.55 -1.50 % 858.35 -4.00% 1:4 1:3 EX ROW 857.13 ESMT.
SD=853.45 C=157.69 F=6.64 SD=854.47

445+50.0000

ESMT. 856.23 0.00% PR ROW EX ROW 1:3 1:4 -4.00% 858.73 -1.50 % 858.93 -1.50 % 858.73 -4.00% 1:4 1:3 EX ROW 856.02 ESMT.
SD=853.24 C=149.74 F=14.12 SD=854.22

445+00.0000

ESMT. 855.43 -0.50% PR ROW EX ROW 1:3 1:4 -4.00% 859.16 -1.50 % 858.36 -1.50 % 859.16 -4.00% 1:4 1:3 EX ROW 855.52 ESMT.
SD=853.03 C=121.99 F=24.56 SD=853.97

444+50.0000

PROPOSED IL 173

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	94
STA. 446+50.0000		TO STA. 448+00.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

860 855

ESMT. 857.52 1.00% EX ROW 1:2 1:4 -6.00% 857.74 EX ROW ESMT.

SD=854.50 C=18.96 F=0.07

448+00.0000

860 855

ESMT. 857.35 1.00% PR ROW EX ROW 1:2 1:4 -6.00% 857.80 1:4 EX ROW ESMT.

SD=854.29 C=32.76 F=0.00 SD=855.47 END EARTHWORK RT

447+50.0000

860 855

ESMT. 857.19 1.00% PR ROW EX ROW 1:2 1:4 -6.00% 857.89 1:4 855.22 EX ROW ESMT.

SD=854.08 C=43.17 F=0.00 SD=855.22

447+00.0000

860 855 850

ESMT. 856.91 0.00% PR ROW EX ROW 1:2 1:4 -4.00% 857.83 -1.50 % -1.50 % 857.83 -4.00% 1:4 1:3 EX ROW ESMT.

SD=853.87 C=150.38 F=1.15 SD=854.97

446+50.0000

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

PROPOSED IL 173

NO.	DESCRIPTION	BY	DATE
	ORIGINAL SURVEY		
	FINAL SURVEY		
	SURVEYED		
	PLOTTED		
	TOPOGRAPHY		
	AREAS		
	AREAS CHECKED		

PLOT DATE = Fri Feb 23 09:58:52 2007
FILE NAME = c:\projects\130br4\dgn\130br4-sht.dgn
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dtsiers

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	95
STA. 448+50.0000		TO STA. 450+00.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

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

860
855

EX ROW
857.83
C=0.00 F=0.00
450+00.0000

EX ROW
856.48
1:3
1:4
-6.00%
857.80
SD=855.13
END EARTHWORK LT
C=7.18 F=0.03
449+50.0000

ESMT.
EX ROW
857.62
1.00%
1:3
1:4
-6.00%
857.14
SD=854.92
C=10.41 F=0.06
449+00.0000

ESMT.
EX ROW
857.53
1.00%
1:3
1:4
-6.00%
857.12
SD=854.71
C=13.26 F=0.02
448+50.0000

PROPOSED IL 173

PLOT DATE = Fri Feb 23 095852 2007
FILE NAME = c:\projects\roe\s203202\s203202-roe95.dgn
PLOT SCALE = 10.2000 ' / IN.
USER NAME = dizlerea

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	96
STA. 450+50.0000	TO STA. 450+50.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = Fri Dec 15 07:56:04 2006
FILE NAME = c:\Projects\p203002\d03002xmldgn\NOTE BOOK
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dlatterso

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

860
855

EX ROW
EX ROW

450+50.0000

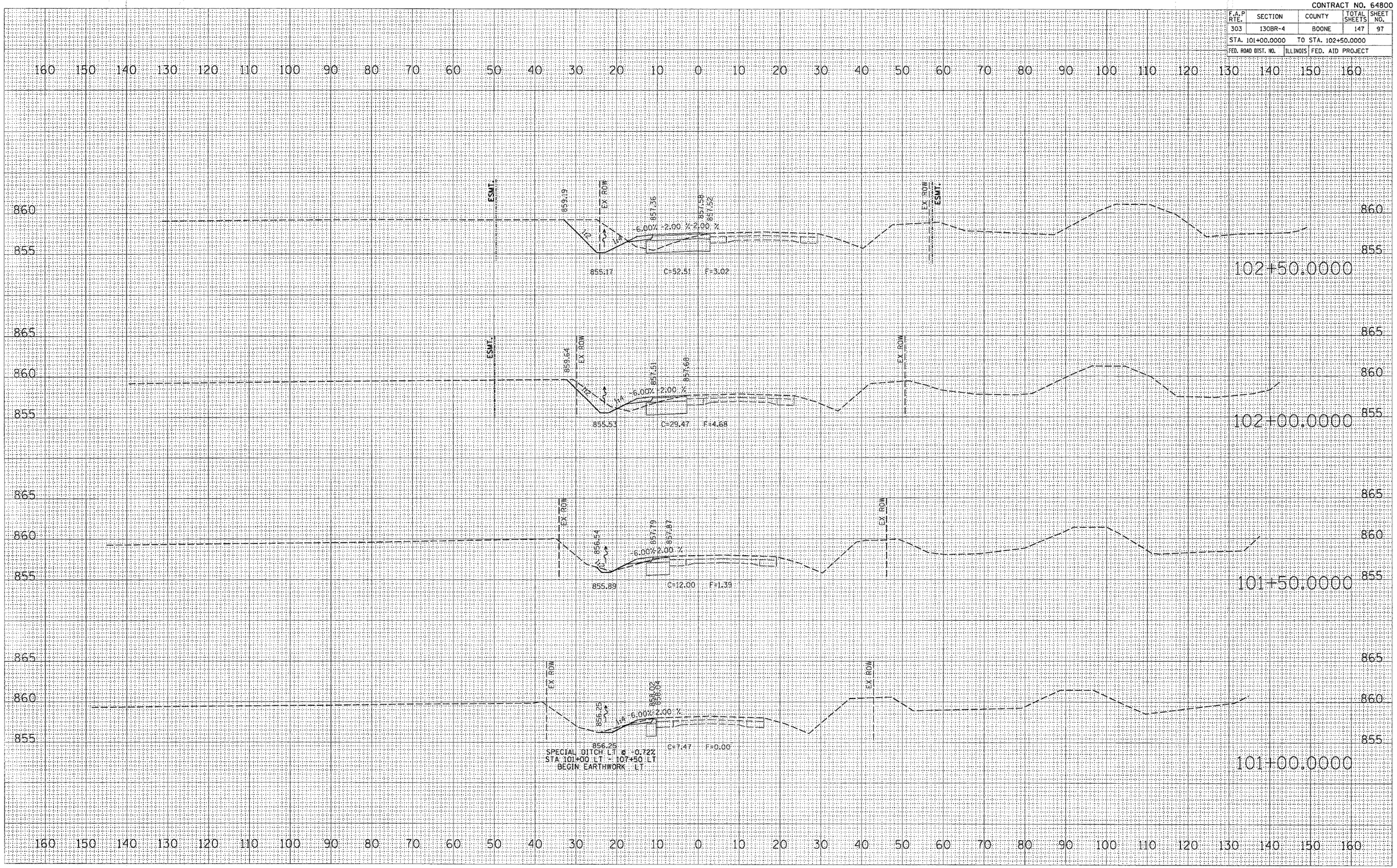
860
855

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

PROPOSED IL 173

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	97
STA. 101+00.0000		TO STA. 102+50.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROPOSED RUNAROUND STAGE I

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

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

PLOT DATE = Fri Feb 23 09:58:59 2007
FILE NAME = c:\projects\vue\pc203802\sb3802sksgnsprock
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dtitlers

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	98
STA. 103+00.0000		TO STA. 104+50.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = Fri Dec 15 07:25:11 2006
FILE NAME = c:\Projects\p2130802\d83802xstg1.dgn
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dlatorre

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

860
855

ESMT. 856.57 1:2 1:4 853.73 PR ROW 857.35 6.00% 2.00 % EX ROW 857.57 2.00 % 857.35 6.00% 1:2 856.14 EX ROW ESMT.
C=59.59 F=9.84
104+50.0000

ESMT. 857.36 1:2 1:4 854.09 PR ROW 857.35 6.00% 2.00 % EX ROW 857.57 2.00 % 857.35 6.00% 1:2 856.16 EX ROW ESMT.
C=74.18 F=6.22
104+00.0000

ESMT. 856.01 1:2 1:4 854.45 PR ROW 857.36 6.00% 2.00 % EX ROW 857.38 2.00 % 857.36 6.00% EX ROW ESMT.
C=76.20 F=0.95
103+50.0000

ESMT. 856.69 1:2 1:4 854.81 PR ROW EX ROW 857.36 6.00% 2.00 % 857.38 2.00 % 857.38 EX ROW ESMT.
C=72.00 F=0.04
103+00.0000

PROPOSED RUNAROUND STAGE I

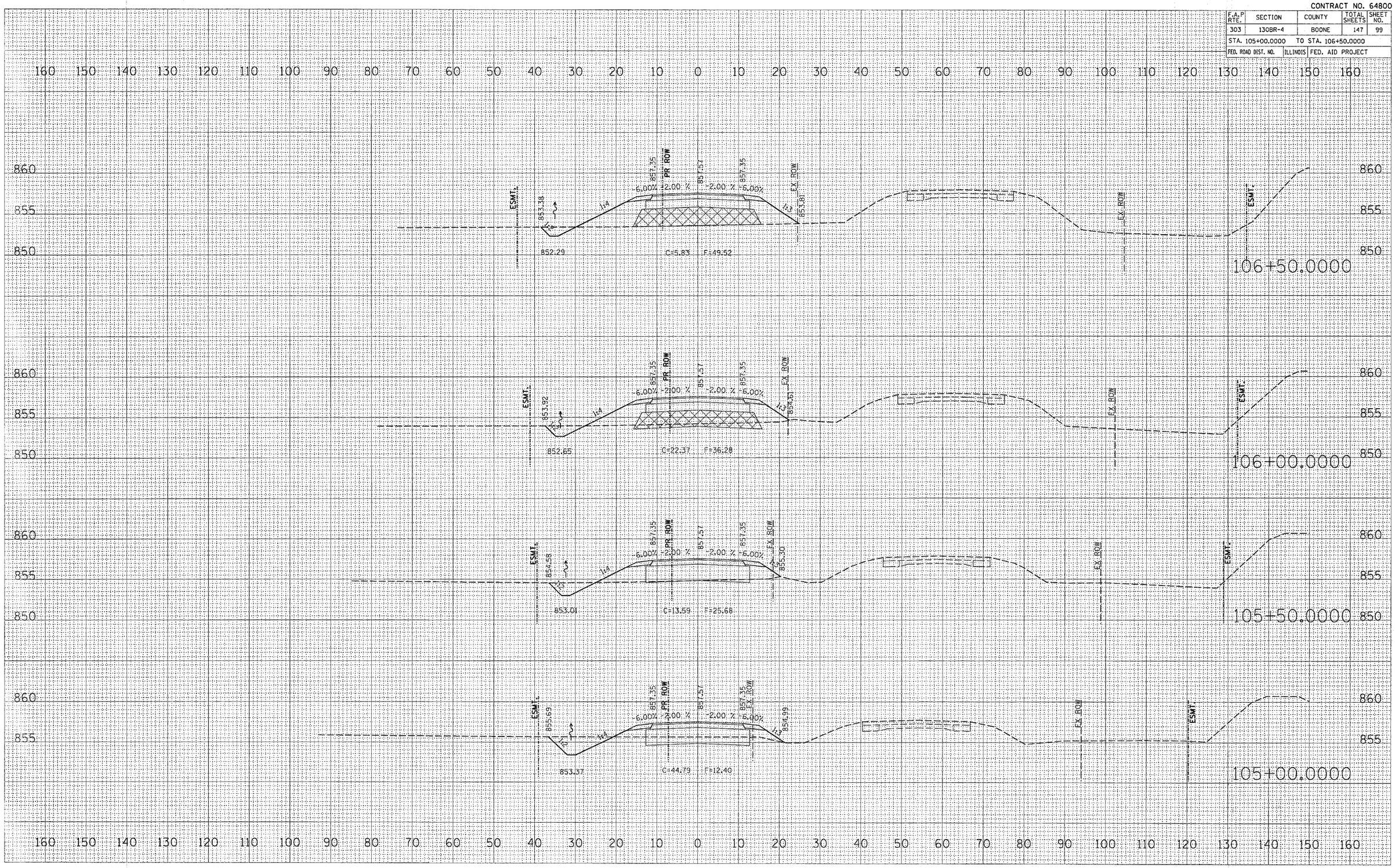
CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	99
STA. 105+00.0000		TO STA. 106+50.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

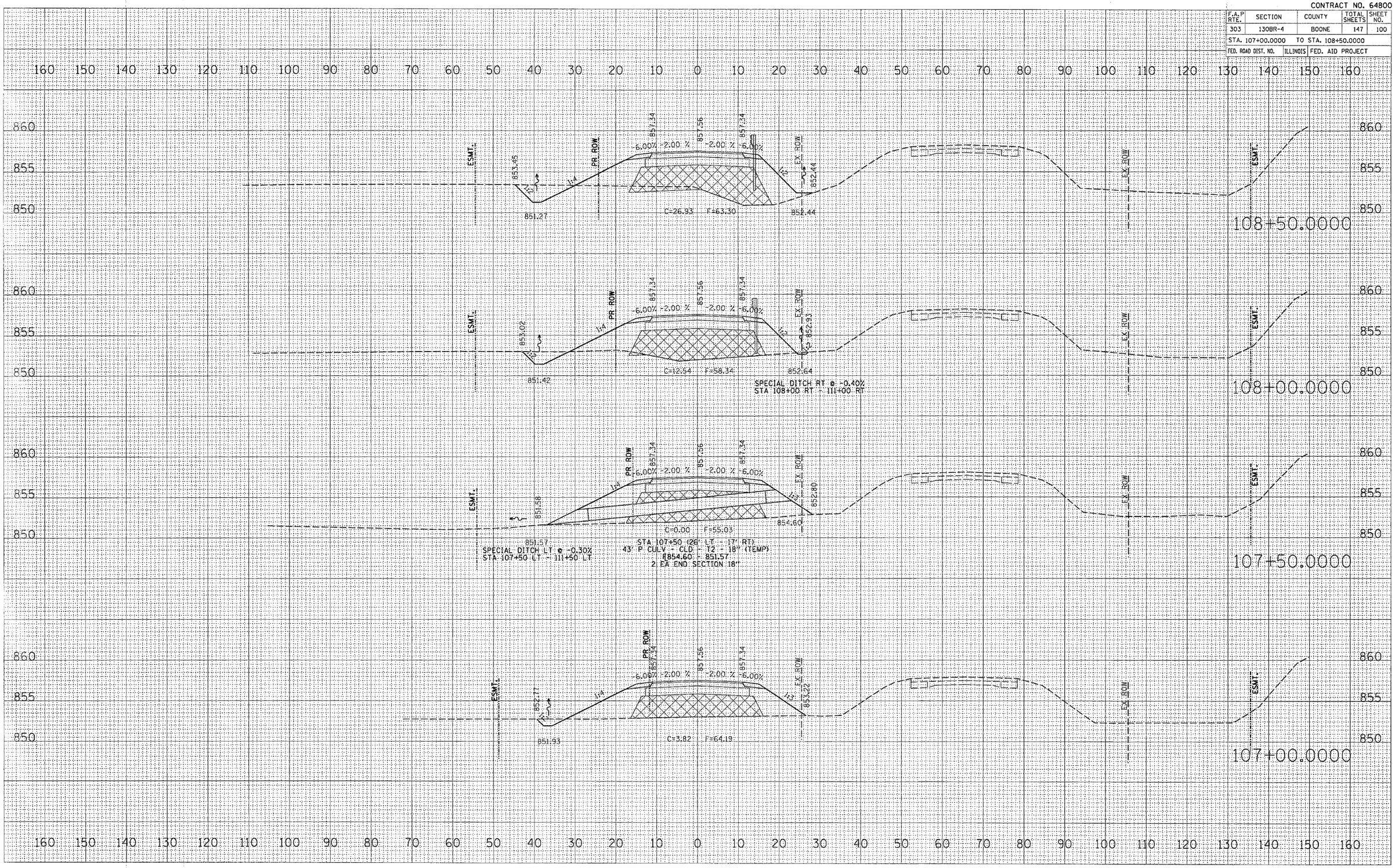
PLOT DATE = Fri Feb 23 09:59:08 2007
FILE NAME = c:\projects\var\pd03082\d03082sht90ck
PLOT SCALE = 10.0000 / IN.
USER NAME = dtilerso



PROPOSED RUNAROUND STAGE I

CONTRACT NO. 64800

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	130BR-4	BOONE	147	100
STA. 107+00.0000	TO STA. 108+50.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROPOSED RUNAROUND STAGE I

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

ORIGINAL SURVEY — SURVEYED — PLOTTED — TYPED — AREAS — AREAS CHECKED — BY — DATE

PLOT DATE = Fri Feb 23 09:59:08 2007
FILE NAME = c:\projects\rsm\p2030821-s8300\xsects\xs8300.dgn
PLOT SCALE = 10.0000 ' / IN.
USER NAME = dietlers