CONSTRUCTION PROJECT NO. 06127 LETTING DATE 4-28-06

DATE: 2/17/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_title.dgn

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

1-23 As-Builts
24-46 Design

AWARD
APR 28 2006
PLANS

BOYD COUNTY
INTERSTATE 64 (EASTBOUND)
OVER KY 180
Station 201+92.13

ESTIMATE OF QUANTITIES

BID ITEM	CONCRETE CLASS A Line Item # 1450 H50	CONCRETE CLASS AA Line Item # 1460	STEEL REINFORCEMENT Line Item # 1520 H30	STEEL REINFORCEMENT EPOXY COATED Line Item # 1520 H30	PPC I-BEAM 66" / TYPE 6 Line Item # 1500	FOUNDATION PREPARATION Line Item # 1400	STRUCTURE EXCAVATION SOLID ROCK Line Item # 1310	CRUSHED AGGREGATE SLOPE PROTECTION Line Item # 1230	ARMORED EDGE Line Item # 1360	STRUCTURE GRANULAR BACKFILL Line Item # 1360	STEEL PILES HP 14x89 Line Item # 1435	PILE POINTS 14 INCH Line Item # 1445	TEST PILE Line Item # 1420	MASONRY COATING Line Item # 1370	ELECTRICAL CONDUIT Line Item # 1490	Remove Structure Line Item # 2030
UNIT	C.Y.	C.Y.	LBS.	LBS.	L.F.	L.S.	C.Y.	TON	L.F.	C.Y.	L.F.	EA.	L.F.	S.Y.	L.S.	
Substructure: Integral End Bent 1	33.3			5776				126	45	262	227	8	35	59		
Substructure: Pier 1	115.0		17556	120			76							145		
Substructure: Semi-Integral Abutment 2	39.4			6105			46		45	265				49		
Substructure: Crash Cushion Foundation																
Substructure:																
Substructure:																
Substructure:																
Substructure:																
Substructure:																
Substructure:																
Substructure:				(1) 08771										1115.14		
Superstructure		458.1		107440	1504.0									1100		
BRIDGE TOTALS	187.7	458.1	17556	11944T 120772	1504.0	1	122 155.3	126 136.82	90	527 210.	227 163.76	8	35 37.15	1353 1362.5	(2) 1	(3) 1

(1) see change order #10

(2) This conduit moved to the W.B Bridge over Ky 180. On 7/31/07 J Dean eliminated it & it fell off 2008 it was added to the W.B bridge by S.Dean & PJ. It will be paid on this bridge section.

(3) Added by C.O.#6 but paid for under the Ramp A Bridge over East Fork

BRIDGE #2

INDEX OF SHEETS

Sheet No.	Description
1	Title Sheet
2	General Notes
3	Bar Bending Details
4	Layout
5-6	Subsurface Data Sheet
7	Foundation Layout
8	Staking Layout
9-10	Integral End Bent 1
11-12	Pier 1
13-14	Semi-Integral Abutment 2
15	Framing Plan
16	PPC I-Beam, 66", Details
17	Steel Diaphragms
18-19	Superstructure
20	Curve Offsets
21-22	Construction Elevations
23	Electrical Details

SPECIAL NOTES

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS

BGX-006-08	Stencils for Structures
BGX-012-02	Geotechnical Legend
BGX-011-04	Barrier Transition End Drainage
BBP-002-04	Bearing Details
BBP-001-11	Elastomeric Bearing Pads for Prestressed Beams
BJE-001-11	Neoprene Expansion Dams and Armored Edges
BPS-011-03	HP 14x89 Steel Pile
RBC-001-08	Guardrail Connector to Bridge End

SPECIFICATIONS

2004 Standard Specifications for Road and Bridge Construction

2002 AASHTO Standard Specifications for Highway Bridges

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

COMMONWEALTH OF KENTUCKY JOHN T. FAULKNER 7626 PROFESSIONAL ENGINEER 2/17/2006

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: XZ I-64 EASTBOUND OVER KY 180

TITLE SHEET

ITEM NUMBER 9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S1
DRAWING NO. 25253

GENERAL NOTES

SPECIFICATIONS:

ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE CURRENT EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WITH CURRENT SUPPLEMENTAL SPECIFICATIONS.

ALL REFERENCES TO AASHTO SPECIFICATIONS ARE TO THE 2002 EDITION AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

DESIGN LOAD AND METHOD:

THIS BRIDGE IS DESIGNED FOR HS25 LIVE LOAD OR ALTERNATE MILITARY LOADING, WHICHEVER PRODUCES THE GREATER STRESS. THE HS25 LIVE LOAD IS ARRIVED AT BY INCREASING THE STANDARD HS20-44 TRUCK AND LANE LOADS AS SPECIFIED IN THE AASHTO SPECIFICATIONS BY 25%. ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

WIND LOAD:

THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 100 MPH.

MATERIALS DESIGN SPECIFICATION:

FOR CLASS "A" REINFORCED CONCRETE	F'C = 3500 PSI
FOR CLASS "AA" REINFORCED" CONCRETE	F'C = 4000 PSI
FOR STEEL REINFORCEMENT	FY = 60000 PSI

REINFORCEMENT:

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE IS 2", UNLESS OTHERWISE NOTED. EPOXY COAT BARS DESIGNATED BY SUFFIX (e) IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS. USE STIRRUP BEND DIAMETERS FOR BARS DESIGNATED BY SUFFIX (s) IN A BILL OF REINFORCEMENT.

BEVELED EDGES:

ALL EXPOSED EDGES SHALL BE BEVELED ⅞" UNLESS OTHERWISE SHOWN.

SHOP DRAWINGS:

SUBMIT SHOP DRAWINGS THAT ARE REQUIRED BY THE PLANS AND SPECIFICATIONS DIRECTLY TO THE BRIDGE CONSULTANT. IF ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY A FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE BRIDGE CONSULTANT THROUGH THE CONTRACTOR. THE BRIDGE CONSULTANT SHALL PROVIDE THE DIVISION OF BRIDGE DESIGN A COPY OF THE FINAL APPROVED SHOP PLANS.

INCIDENTAL MATERIALS:

THE STRUCTURE IS TO BE COMPLETED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL OR LABOR, NOT OTHERWISE SPECIFIED, ARE TO BE CONSIDERED INCIDENTAL TO THE CONTRACT.

DIMENSIONS:

DIMENSIONS ARE FOR A NORMAL TEMPERATURE AT 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

CONCRETE:

CLASS "AA" CONCRETE IS TO BE USED IN THE SUPERSTRUCTURE DECK, PARAPETS, AND DIAPHRAGMS. CLASS "A" CONCRETE IS TO BE USED IN THE SUBSTRUCTURE. PRESTRESSED GIRDER CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

PAYMENT FOR PRESTRESSED PRECAST CONCRETE BEAMS:

THE BASIS OF PAYMENT FOR THE PRESTRESSED CONCRETE BEAMS SHALL BE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF BEAM, IN ACCORDANCE WITH THE SPECIFICATIONS.

FOUNDATION PRESSURE:

SPREAD FOOTING FOUNDATIONS ARE DESIGNED FOR PRESSURES AS SHOWN IN THE SPREAD FOOTING RECORD ON THE FOUNDATION LAYOUT SHEET. END BENT PILES ARE DESIGNED FOR THE MAXIMUM AXIAL LOAD AS SHOWN IN PILE RECORD ON THE FOUNDATION LAYOUT SHEET.

ELECTRICAL CONDUIT:

THE LUMP SUM BID FOR THIS ITEM SHALL INCLUDE FURNISHING ALL CONDUIT, CONCRETE MARKERS AND OTHER MATERIALS AND LABOR FOR PLACING THESE MATERIALS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

PILING:

PILING SHALL BE DRIVEN TO REFUSAL. TEST PILES SHALL BE DRIVEN WHERE DESIGNATED ON THE PLANS TO DETERMINE THE LENGTH OF PILE REQUIRED. ALL TEST PILES SHALL BE ACCURATELY LOCATED SO THEY MAY BE USED IN THE FINISHED STRUCTURE.

PILE POINTS:

PILE POINTS ARE REQUIRED FOR ALL PILES. THE POINTS SHALL BE THE TYPE FOR KEYING INTO A SLOPING ROCK SURFACE. PILE POINTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILE HAMMER:

ANY COMMONLY UTILIZED HAMMER ALLOWED BY THE DIVISION OF CONSTRUCTION WILL BE ADEQUATE TO DRIVE THE PILES TO BEDROCK WITHOUT ENCOUNTERING EXCESSIVE BLOW COUNTS AND OVER-STRESSING THE PILES. THE CONTRACTOR SHALL SUBMIT HIS PILE DRIVING SYSTEM TO THE DEPARTMENT FOR APPROVAL PRIOR TO THE INSTALLATION OF THE FIRST PILE. APPROVAL OF THE PILE DRIVING SYSTEM BY THE ENGINEER WILL BE SUBJECT TO SATISFACTORY FIELD PERFORMANCE OF THE PILE DRIVING PROCEDURES.

POURING SEQUENCE:

THE POURING SEQUENCE OF THE SLAB MAY BE CHANGED WITH THE WRITTEN APPROVAL OF THE DESIGNER.

SLOPE PROTECTION:

SLOPE PROTECTION SHALL BE CRUSHED AGGREGATE SLOPE PROTECTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. GEOTEXTILE FABRIC IS TO BE CONSIDERED INCIDENTAL TO CRUSHED AGGREGATE SLOPE PROTECTION.

EXISTING ALUMINUM HANDRAIL:

THE EXISTING ALUMINUM HANDRAIL SHALL BE CAREFULLY REMOVED AND DELIVERED, WITHOUT DAMAGE, TO THE STATE MAINTENANCE YARD IN FRANKFORT. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO REMOVE EXISTING STRUCTURE, LUMP SUM.

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS MAY HAVE BEEN USED IN PREPARATION OF THESE PLANS:

bet.	BETWEEN	MPH	MILES PER HOUR
b.f.	BACK FACE	n.s.	NEAR SIDE
BOF	BOTTOM OF FOOTING	O.D.	OUTSIDE DIAMETER
bot.	BOTTOM	Opp.	OPPOSITE
Brg.	BEARING	PC	POINT OF CURVE
C to C	CENTER TO CENTER	Perp.	PERPENDICULAR
c.e.	CURRENT EDITION	PI	POINT OF INTERSECTION
C.Y.	CUBIC YARD	PPC	PRECAST PRESTRESSED CONCRETE
Chd.	CHORD	PPCDU	PRECAST PRESTRESSED CONCRETE DECK UNIT
CL	CENTER LINE	PSI	POUNDS PER SQUARE INCH
Cl.	CLEAR	PT	POINT OF TANGENT
Conc.	CONCRETE	R	RADIUS
Cu.	CUBIC	Rt.	RIGHT
Dwg.	DRAWING	RCBC	REINFORCED CONCRETE BOX CULVERT
e.f.	EACH FACE	RCDG	REINFORCED CONCRETE DECK GIRDER
El.	ELEVATION	Req'd.	REQUIRED
eq.	EQUAL	RR	RAILROAD
Est.	ESTIMATE	Shld.	SHOULDER
Ext.	EXTERIOR	spa.	SPACES
F to F	FACE TO FACE	Sta.	STATION
f.f.	FRONT FACE	Std.	STANDARD
f.s.	FAR FACE	Str.	STRAIGHT
fr.	FRONT	Tan	TANGENT
ft.	FEET	Thru	THROUGH
I.D.	INSIDE DIAMETER	TOF	TOP OF FOOTING
in.	INCH	Tot.	TOTAL
Int.	INTERIOR	Typ.	TYPICAL
Lt.	LEFT	Vert.	VERTICAL
LBS	LOW BRIDGE SEAT	W.P.	WORKING POINT
LBS.	POUNDS	Yd.	YARD
M	METER		

REVISION	DATE

DATE:	07-05	CHECKED BY
DESIGNED BY:	W.R. ABBOTT	J.T. FAULKNER
DETAILED BY:	W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

GENERAL NOTES

PREPARED BY:
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

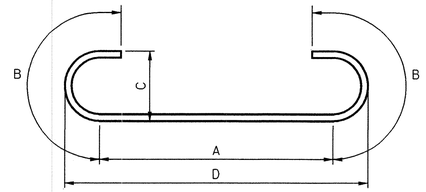
SHEET NO. S2

DRAWING NO. 25253

ITEM NUMBER
9-60.00

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_notes.dgn



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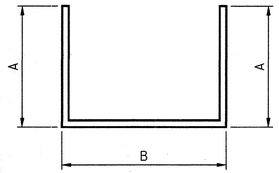

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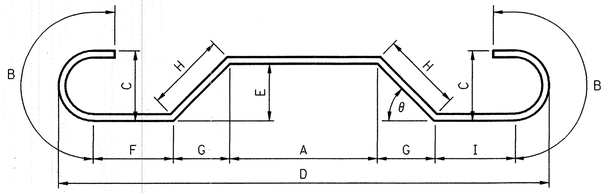

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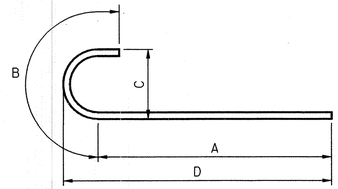

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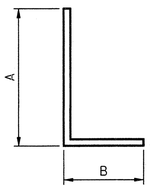

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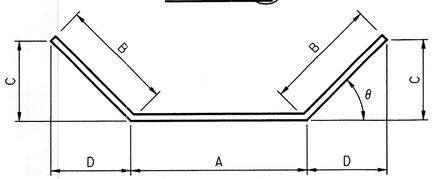

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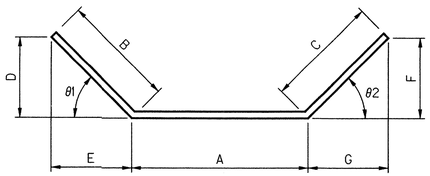

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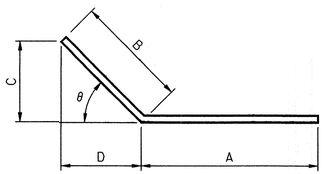

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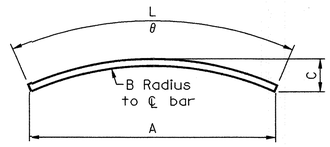

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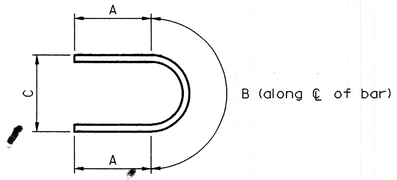

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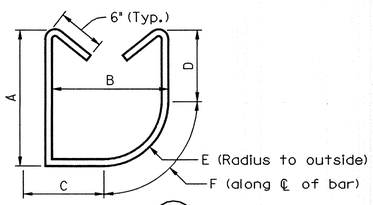

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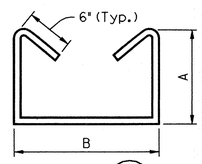

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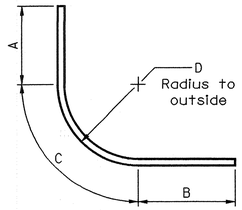

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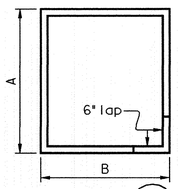

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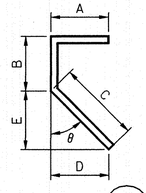

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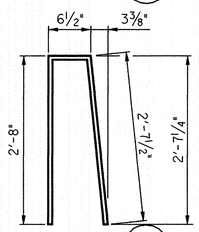

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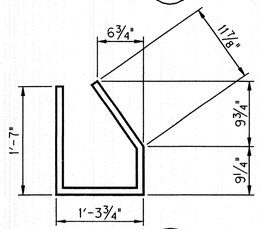

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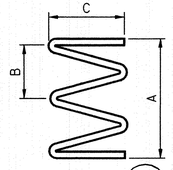

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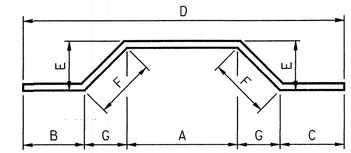

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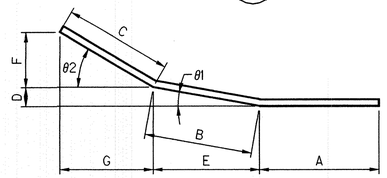

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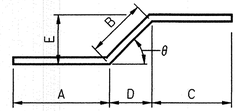

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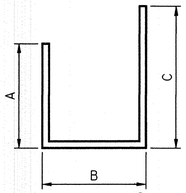

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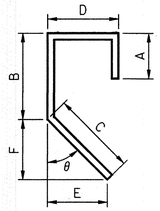

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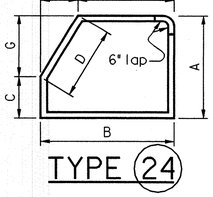

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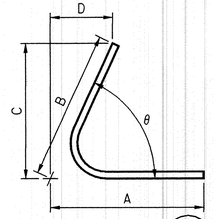

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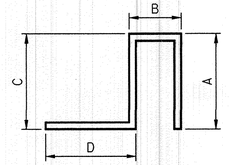

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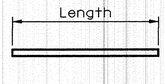


TYPE (0)

	REVISION	DATE
DATE: 07-05	CHECKED BY	
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER	
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

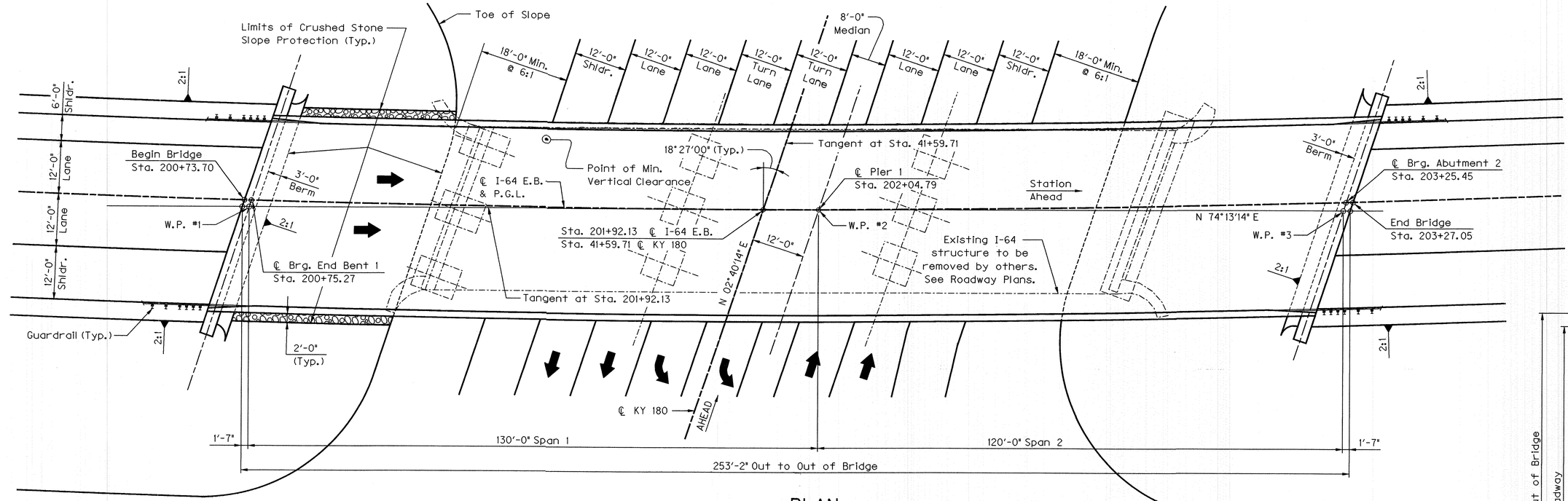
ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

BAR BENDING DETAILS

ITEM NUMBER	PREPARED BY	SHEET NO.
9-60.00	LOCHNER H.W. LOCHNER, INC. CONSULTING ENGINEERS AND PLANNERS	S3
		DRAWING NO. 25253

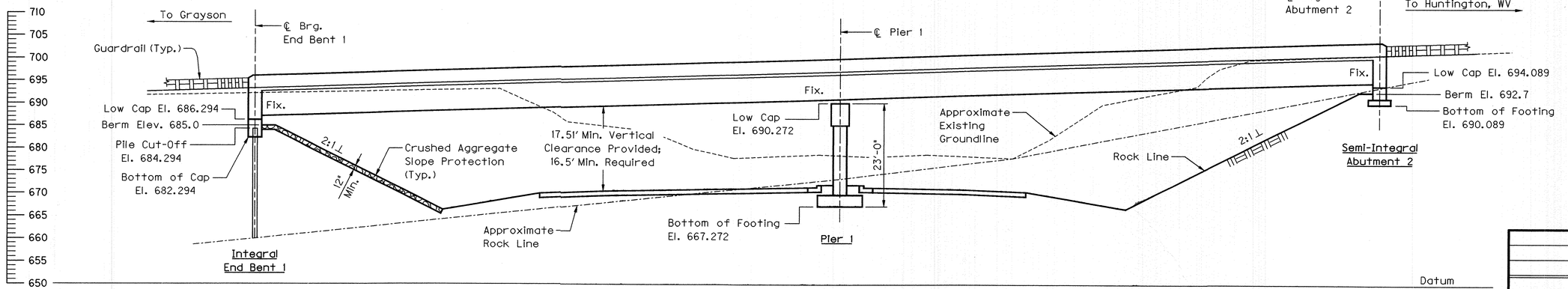
DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_barbend.dgn

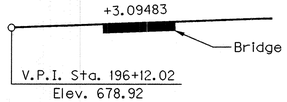


PLAN

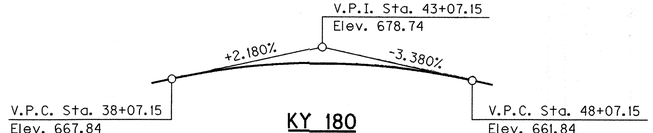
130'-0"-120'-0" ~ KY Type 6 PCIB ~ Continuous for Live Load
HS 25 Live Load ~ 42'-0" Roadway ~ 18°27'00" Skew Rt.
50'-0" Shoulders @ Bridge ~ 2:1 Fill Slopes



ELEVATION



INTERSTATE 64 E.B. VERTICAL CURVE DATA



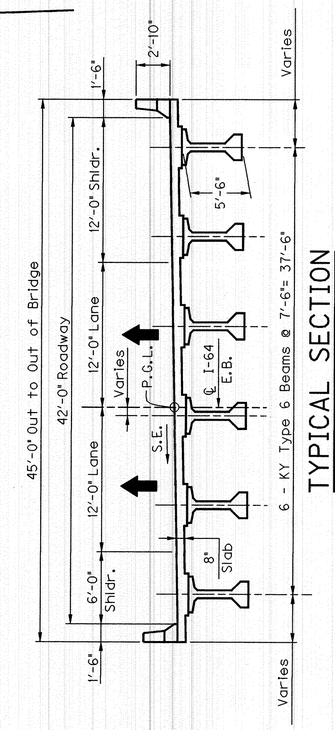
KY 180 VERTICAL CURVE DATA

I-64 CURVE DATA

P.I. 207+12.32
△= 17°59'09" LT.
T= 725.39'
L= 1432.96'
R= 4583.66'
E= 56.34'
e= 0.044'/'
RUNOFF = 133'
RUNOUT = 60'

KY 180 CURVE DATA

P.I. 49+45.41
△= 55°32'11" LT.
Ts= 853.25'
Ls= 430'
R = 1206.23'
Lc= 739.19'
Os= 10°12'45"
LT= 287.15'
ST= 143.77'
Es= 164.20'
e= 0.077'/'
RUNOFF = 430'
RUNOUT = 112'



TYPICAL SECTION
(Looking Ahead)

REVISION	DATE
DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

LAYOUT

ITEM NUMBER: 9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

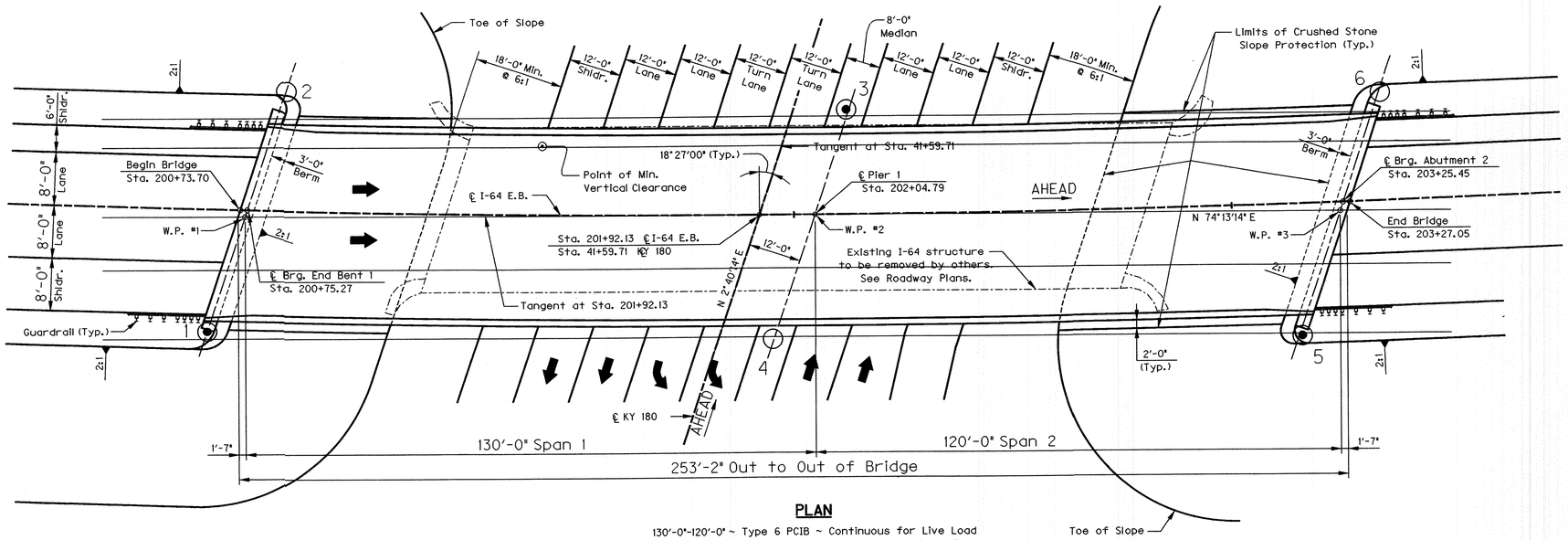
SHEET NO. S4

DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_layout.dgn

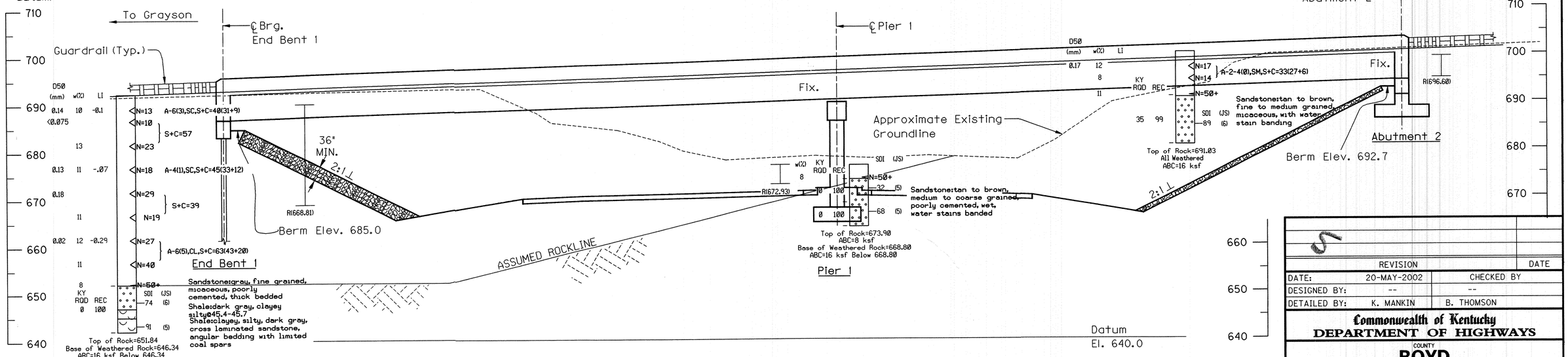
SCALE : 1" = 30'



PLAN

130'-0"-120'-0" ~ Type 6 PCIB ~ Continuous for Live Load
HS 25 Live Load ~ 42'-0" Roadway ~ 18°27'00" Skew Rt.
50'-0" Shoulders @ Bridge ~ 2:1 Fill Slopes

Hole No.	1	2	4	3	5	6
Station	200+66	200+84	201+95	202+12	203+16	203+34
Offset	28' Rt.	27' Lt.	31' Rt.	22' Lt.	38' Rt.	25' Lt.
Elevation (Sea level datum)	692.04	690.11	676.93	676.90	700.53	699.40



ELEVATION

PROFILE VIEW

SCALE : 1" = 10'V
HORIZONTAL NOT TO SCALE

ITEM NUMBER
9-60.00

REVISION	DATE
DATE: 20-MAY-2002	CHECKED BY
DESIGNED BY: --	--
DETAILED BY: K. MANKIN	B. THOMSON

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY **BOYD**

ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

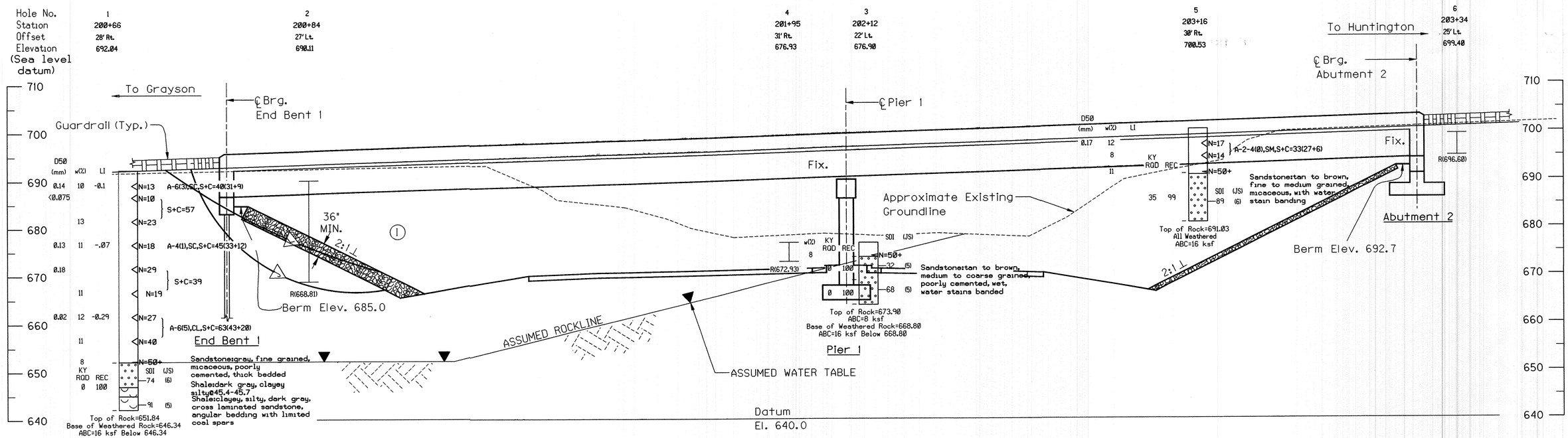
SUBSURFACE DATA SHEET

PREPARED BY
H.C. NUTTING COMPANY
CORPORATE OFFICE - 611 LUNKEN PARK DRIVE
CINCINNATI, OHIO 45226
(513) 321-5816
EMPLOYEE OWNED
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

SHEET NO. S5
DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_soundings2.dgn



ELEVATION

FACTORS OF SAFETY		
J	INTERMEDIATE TERM	1.8
K	LONG TERM	1.4

ASSUMED SOIL STRENGTH PARAMETERS	
SOIL	I I
INTERMEDIATE TERM	γ = 120 PCF $\bar{c}$ = 200 PSF $\bar{\phi}$ = 28°
LONG TERM	γ = 120 PCF $\bar{c}$ = 40 PSF $\bar{\phi}$ = 28°

PROFILE VIEW
SCALE : 1" = 10'V
HORIZONTAL NOT TO SCALE

ITEM NUMBER
9-60.00

6		
REVISION		DATE
DATE:	20-MAY-2002	CHECKED BY
DESIGNED BY:	--	--
DETAILED BY:	K. MANKIN	B. THOMSON

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

CUT STABILITY SHEET

PREPARED BY
H.C. NUTTING COMPANY
CORPORATE OFFICE - 611 LUNKEN PARK DRIVE
CINCINNATI, OHIO 45226
(513) 321-5816
EMPLOYEE OWNED
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

SHEET NO. S6
DRAWING NO. 25253

DATE: 2/8/2006
FILE NAME: S:\DGN-STN\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_soundingsl.dgn

PILE RECORD FOR POINT BEARING PILES-END BENT 1

Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)	Required Field Bearing (Tons)	Calculated Field Bearing (Tons)
1	684.294	17.71	666.58	113	180	208
2	684.294	18.89	665.40	113	180	223
3	684.294	21.93	662.41	113	180	189
4	684.294	22.85	661.44	113	180	201
5	684.294	25.01	659.28	113	180	189
6	684.294	27.77	656.52	113	180	196
7	684.294	29.63	654.64	113	180	210
ST	684.294	37.13	647.16			180

NOTE:
Reinforced Pile Points shall be the type for keying into a sloping rock surface.

Definitions of Terms

PILE CUT-OFF ELEVATION: Elevation of the top of pile in the finished structure.

PILE LENGTH IN PLACE: Actual pile length below the Pile Cut-Off Elevation in the finished structure.

POINT OF PILE ELEVATION AS DRIVEN: Actual point of pile elvevation in the finished structure.

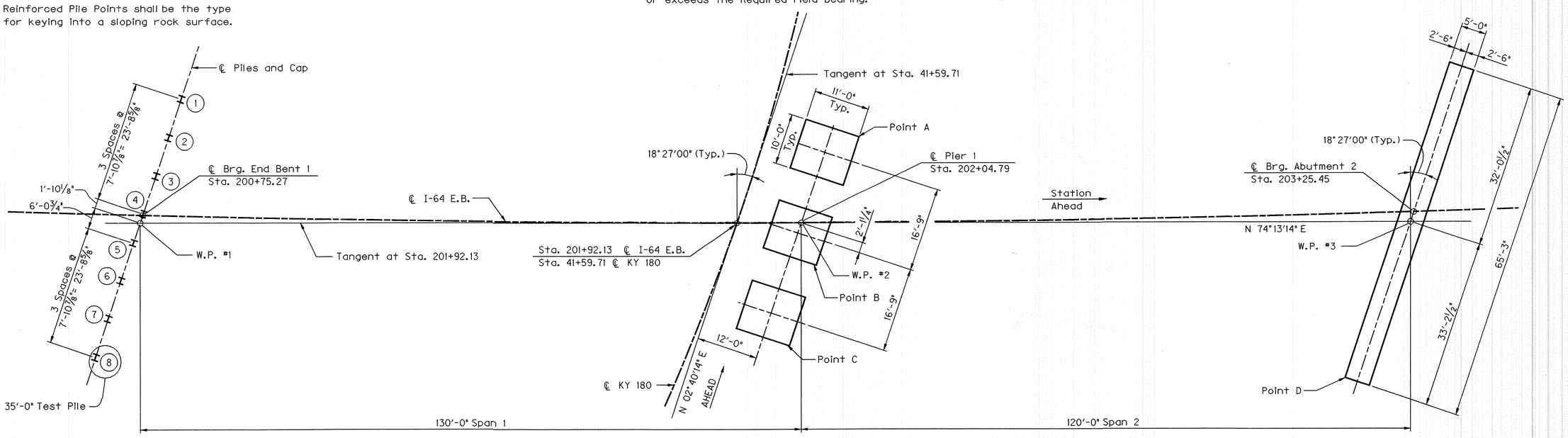
DESIGN AXIAL LOAD: Service load carried by each pile as estimated from structural design calculations.

REQUIRED FIELD BEARING: Pile bearing value required to achieve "refusal" for the size of pile used. According to the Division of Construction Guidance Manual, this value is taken as 150 Tons for 12-inch steel H-Piles and 180 Tons for 14 inch steel H-Piles.

CALCULATED FIELD BEARING: Pile bearing value in place calculated using the appropriate pile driving formula in Section 604.03.07(B) of the Standard Specifications.

Driving Criteria

DRIVING CRITERIA: Drive point bearing piles to refusal and verify that the Calculated Field Bearing equals or exceeds the Required Field Bearing.



FOUNDATION PLAN

NOTE: After all foundations have been placed, the Project Resident Engineer shall record the bottom of footing elevation "As Built" and shall submit one copy of this sheet with this data to:
Kentucky Transportation Cabinet
Director, Division of Bridge Design
Station E3-16-01
200 Mero Street
Frankfort, Ky 40622

NOTE: Contrary to the Specifications, bottom of footing elevations shall not be raised.

NOTE: If the spread footing foundation is stepped due to unsuitable material found at the given elevation, the location and elevation of the step shall be shown on this sheet and submitted along with the "As-Built" elevations.

SPREAD FOOTING RECORD PIER 1

Point	Plan Footing Elevation	As-Built Footing Elevation
A	667.272	667.27
B	667.272	667.27
C	667.272	667.27

Footing is designed for a maximum pressure of 15,512 psf.
The allowable bearing capacity is 16,000 psf.

SPREAD FOOTING RECORD ABUTMENT 2

Point	Plan Footing Elevation	As-Built Footing Elevation
D	690.089	688.95

Footing is designed for a maximum pressure of 9,020 psf.
The allowable bearing capacity is 16,000 psf.

Field Data

For each pile, the Project Engineer shall record the following on this sheet: Pile Length in Place, Point of Pile Elevation as Driven, and the Calculated Field Bearing. Submit this record to:

Kentucky Transportation Cabinet
Director, Division of Bridge Design
Station E3-16-01
200 Mero Street
Frankfort, Ky 40622

This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 14x89 in accordance with BPS-011. c.e.

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

FOUNDATION LAYOUT

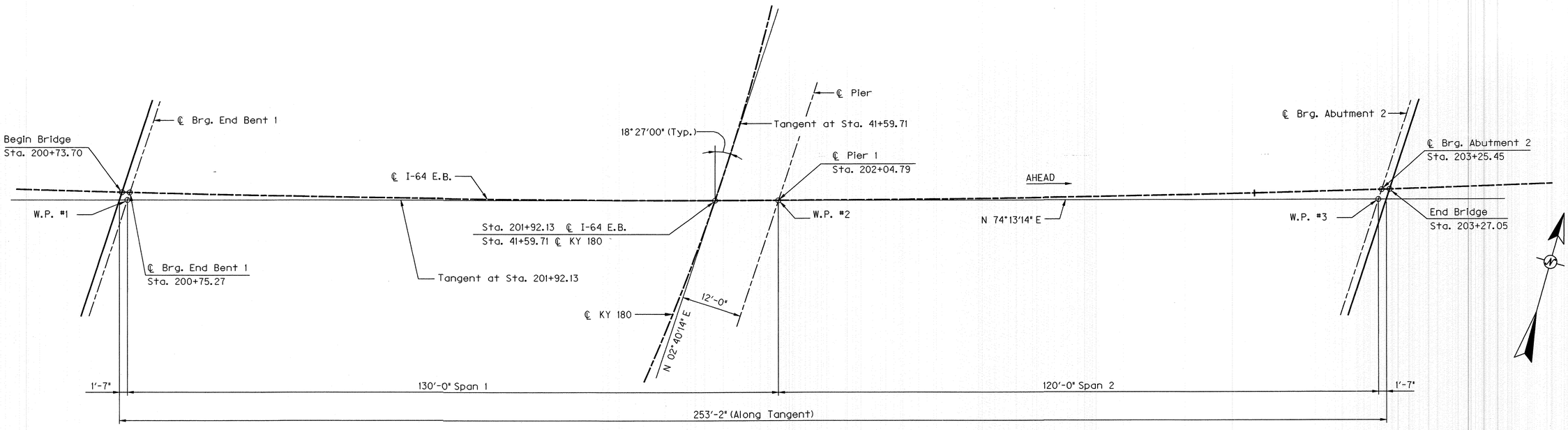
ITEM NUMBER: 9-60.00

PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S7
DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_foundation.dgn



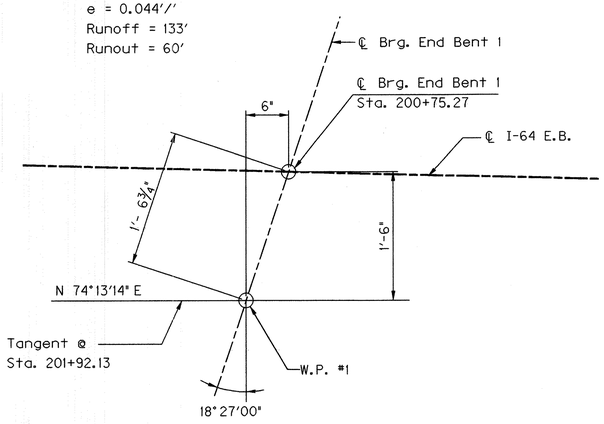
PLAN

I-64 E.B. Curve Data

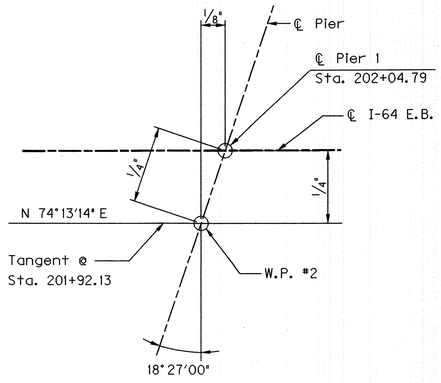
PI 207+13.32
△ = 17°59'09" Lt.
T = 725.39'
L = 1432.96'
R = 4583.66'
E = 56.34'
e = 0.044'/'
Runoff = 133'
Runout = 60'

KY 180 Curve Data

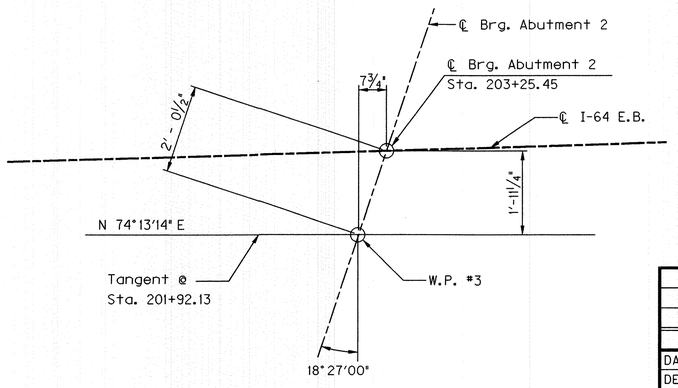
PI 49+45.41
△ = 55°32'11" Lt.
Ts = 853.25'
Ls = 430.00'
Lc = 739.18'
Θs = 10°12'45"
L.T. = 287.15'
S.T. = 143.77'
R = 1206.23'
Es = 164.20'
e = 0.077'/'
Runoff = 430'
Runout = 112'



WORKING POINT #1



WORKING POINT #2



WORKING POINT #3

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: J.L. WILKERSON	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
~~I-64~~

CROSSING
~~I-64~~ **EASTBOUND OVER KY 180**

STAKING LAYOUT

ITEM NUMBER
9-60.00

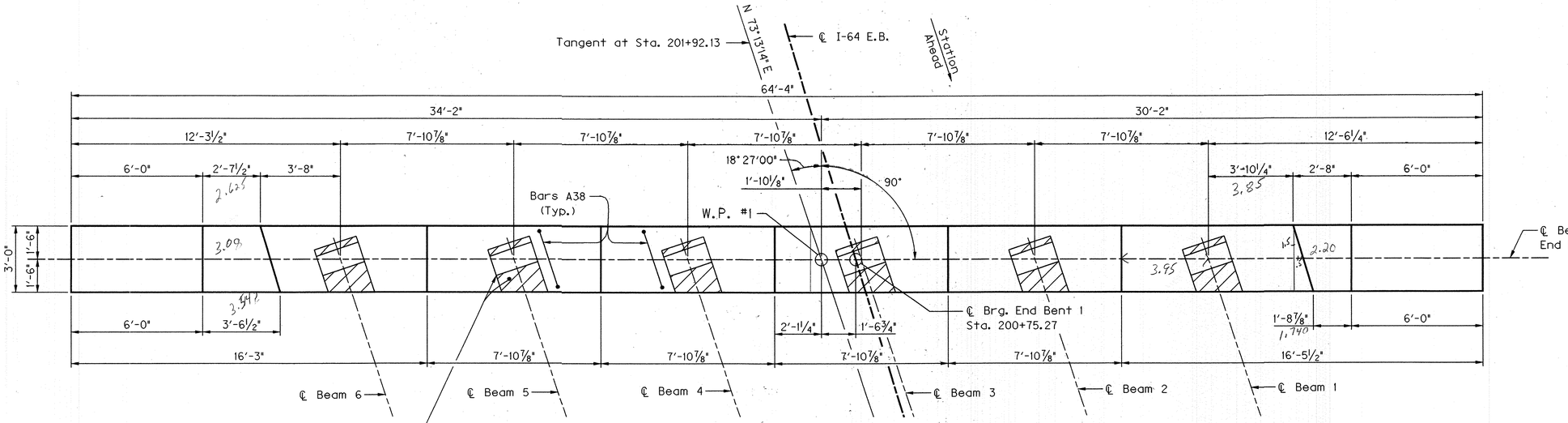
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO.
S8

DRAWING NO.
25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_stklayout.dgn



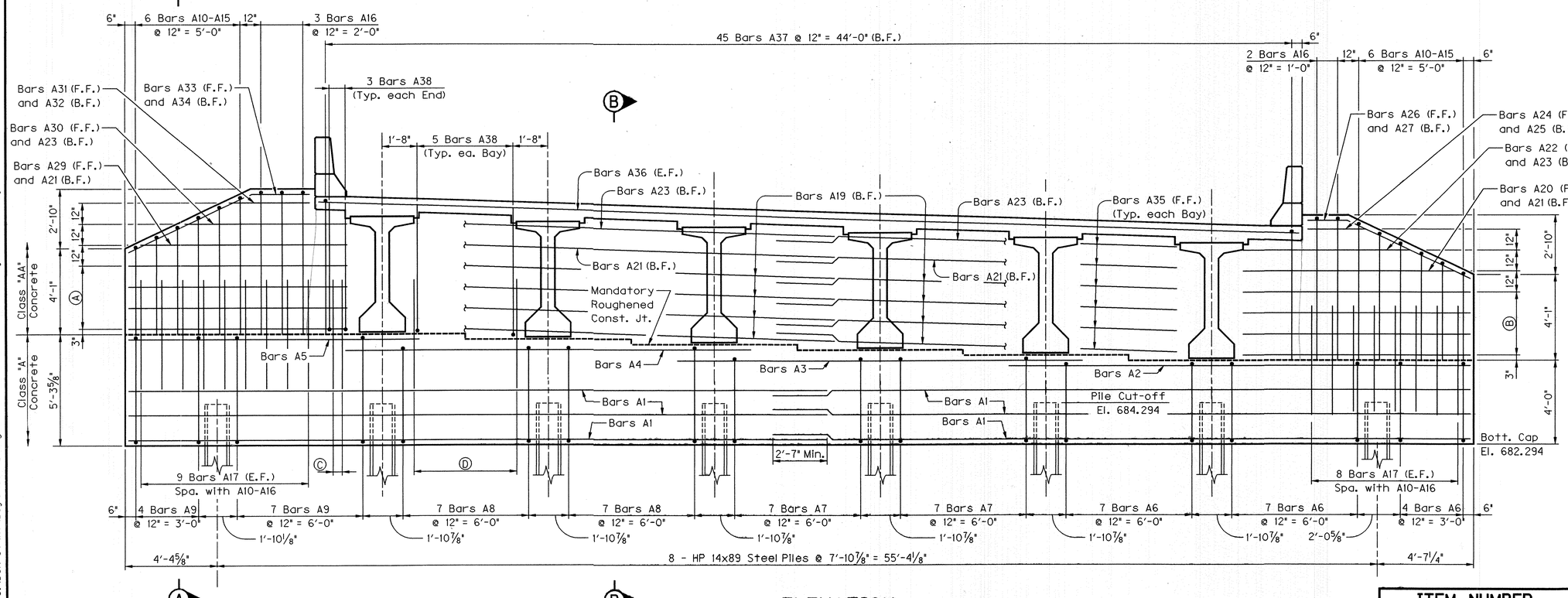
PLAN

LOCATION	TOP OF CAP ELEVATION
℄ Beam 1	686.294
℄ Beam 2	686.554
℄ Beam 3	686.815
℄ Beam 4	687.077
℄ Beam 5	687.338
℄ Beam 6	687.600

NOTES:

1.) (B.F.) = Back Face
(F.F.) = Front Face
(E.S.) = Equally Spaced

2.) Top of Cap Elevations given in the Table are at the ℄ Bearing. The top of cap should be sloped at +3.12% in the Station Ahead direction to match the profile grade.



ELEVATION

(A) 4 Bars A28 (F.F.), A19 (B.F.) @ 12" = 3'-0"

(B) 4 Bars A18 (F.F.), A19 (B.F.) @ 12" = 3'-0"

(C) 3 Bars A17 (E.F.), Spaced with A38 (Typ. each End)

(D) 5 Bars A17 (E.F.), Spaced with A38 (Typ. each Bay)

REVISION	DATE

DATE:	6-05	CHECKED BY
DESIGNED BY:	J.T. FAULKNER	J.L. WILKERSON
DETAILED BY:	C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

INTEGRAL END BENT 1

ITEM NUMBER: 9-60.00

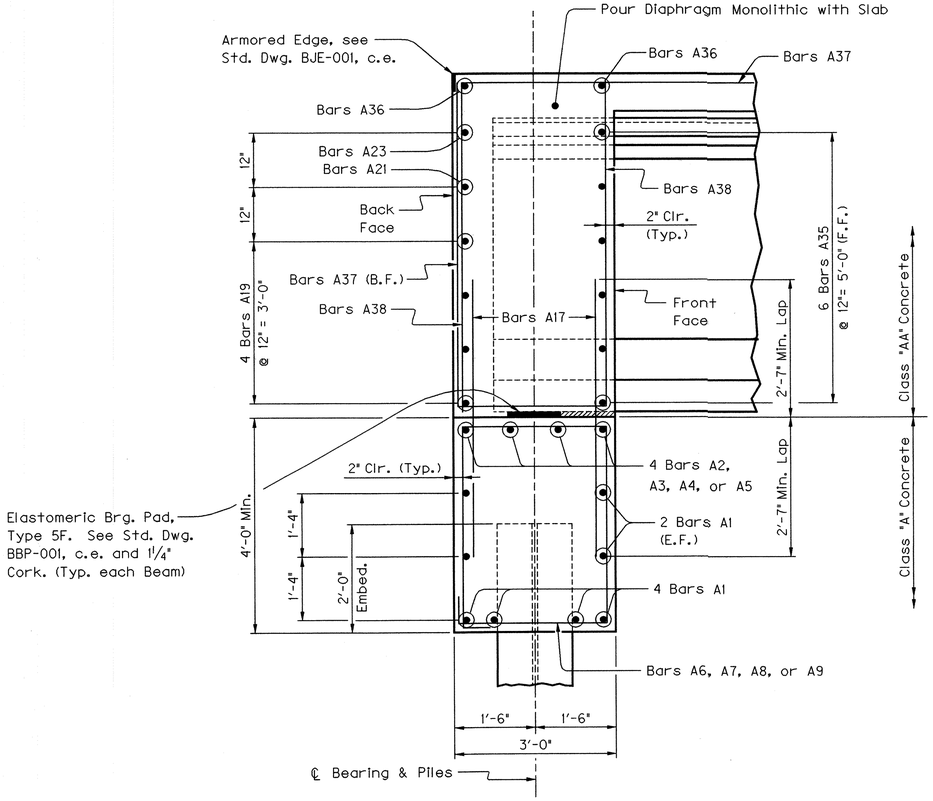
PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S9

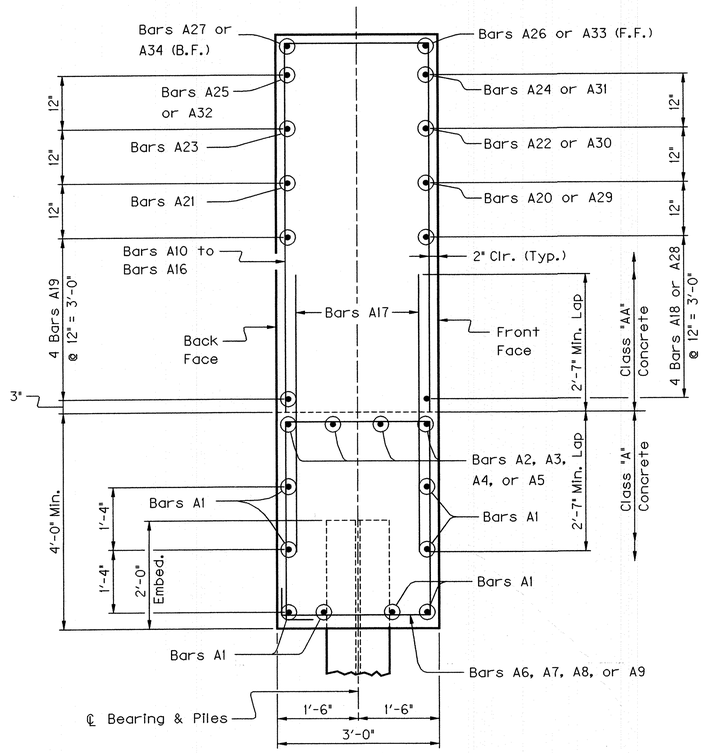
DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_ebIA.dgn



SECTION B-B



SECTION A-A

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
A1e	Str	5	16	33	4	Cap								
A2e	Str	5	4	22	6	Cap								
A3e	Str	5	4	21	0	Cap								
A4e	Str	5	4	21	0	Cap								
A5e	Str	5	4	14	0	Cap								
A6es	14	5	18	13	3	Cap	3	7	2	8				
A7es	14	5	14	13	9	Cap	3	10	2	8				
A8es	14	5	14	14	9	Cap	4	4	2	8				
A9es	14	5	11	15	9	Cap	4	10	2	8				
A10es	2	5	2	10	8	Wing	4	0 1/2	2	8				
A11es	2	5	2	11	8	Wing	4	6 1/2	2	8				
A12es	2	5	2	12	7	Wing	5	0	2	8				
A13es	2	5	2	13	6	Wing	5	5 1/2	2	8				
A14es	2	5	2	14	6	Wing	5	11 1/2	2	8				
A15es	2	5	2	15	5	Wing	6	5	2	8				
A16es	2	5	5	15	11	Wing	6	8	2	8				
A17e	Str	5	96	5	6	Wing/Cap								
A18e	Str	5	4	10	1	Wing								
A19e	Str	5	8	33	4	Wing								
A20e	Str	5	1	9	5	Wing								
A21e	Str	5	2	32	9	Wing								
A22e	Str	5	1	7	3	Wing								
A23e	Str	5	2	30	7	Wing								
A24e	Str	5	1	2	9	Wing								
A25e	Str	5	1	3	5	Wing								
A26e	8	5	1	8	0	Wing	6	6	1	6	0	7 5/8	1	4 1/4
A27e	8	5	1	8	11	Wing	6	6	2	5	1	0 3/8	2	2 1/4
A28e	Str	5	4	11	3	Wing								
A29e	Str	5	1	10	8	Wing								
A30e	Str	5	1	8	6	Wing								
A31e	Str	5	1	4	4	Wing								
A32e	Str	5	1	3	6	Wing								
A33e	8	5	1	9	9	Wing	6	6	3	3	1	4 5/8	2	11 1/4
A34e	8	5	1	8	11	Wing	6	6	2	5	1	0 3/8	2	2 1/4
A35e	Str	5	30	5	3	Diaphragm								
A36e	Str	5	2	46	9	Slab								
A37e	5	8	45	16	0	Diaphragm	10	0	6	0				
A38es	2	5	31	14	9	Diaphragm	6	0	2	10				

NOTES:

1.) Reinforcing Bars designated by suffix (s) shall be considered a stirrup for purposes of bend diameters.

2.) All Class "AA" Concrete is included in Superstructure Quantities.

REVISION	DATE

DATE: 06-05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

16

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

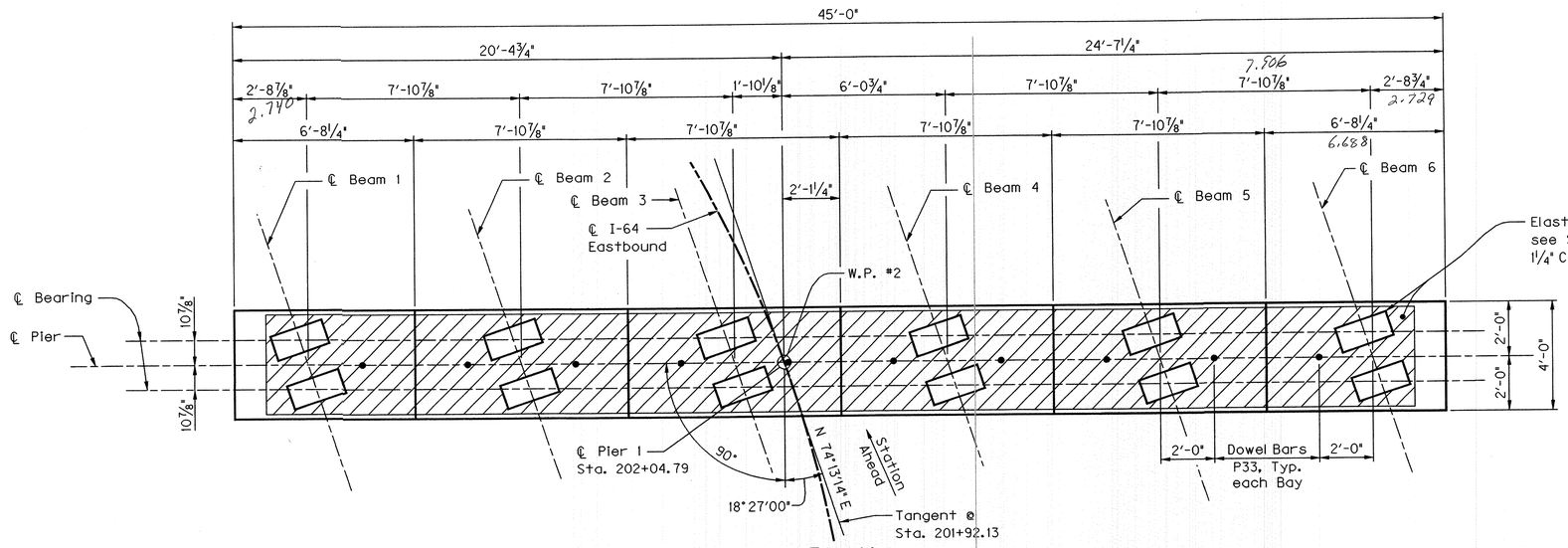
ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

INTEGRAL END BENT 1

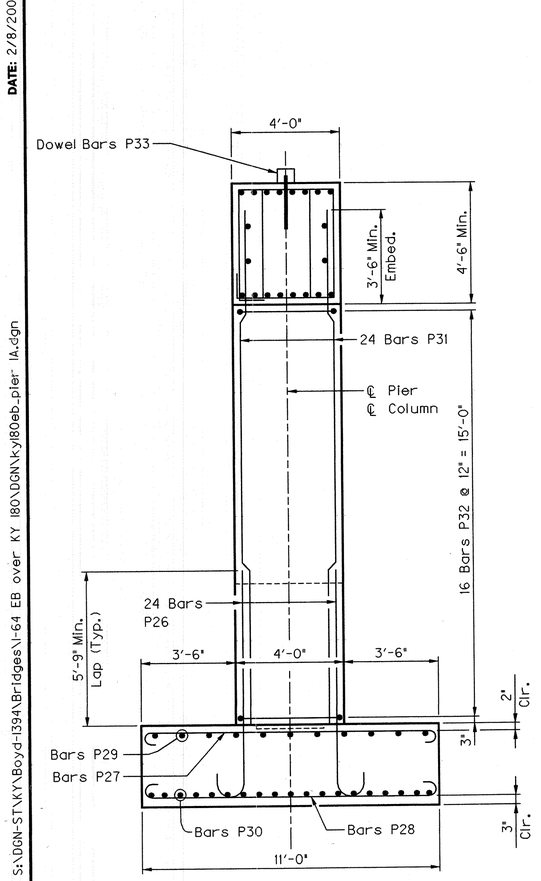
ITEM NUMBER	PREPARED BY	SHEET NO.
9-60.00	**LOCHNER** H.W. LOCHNER, INC. CONSULTING ENGINEERS AND PLANNERS	S10 DRAWING NO. 25253

DATE: 2/8/2006

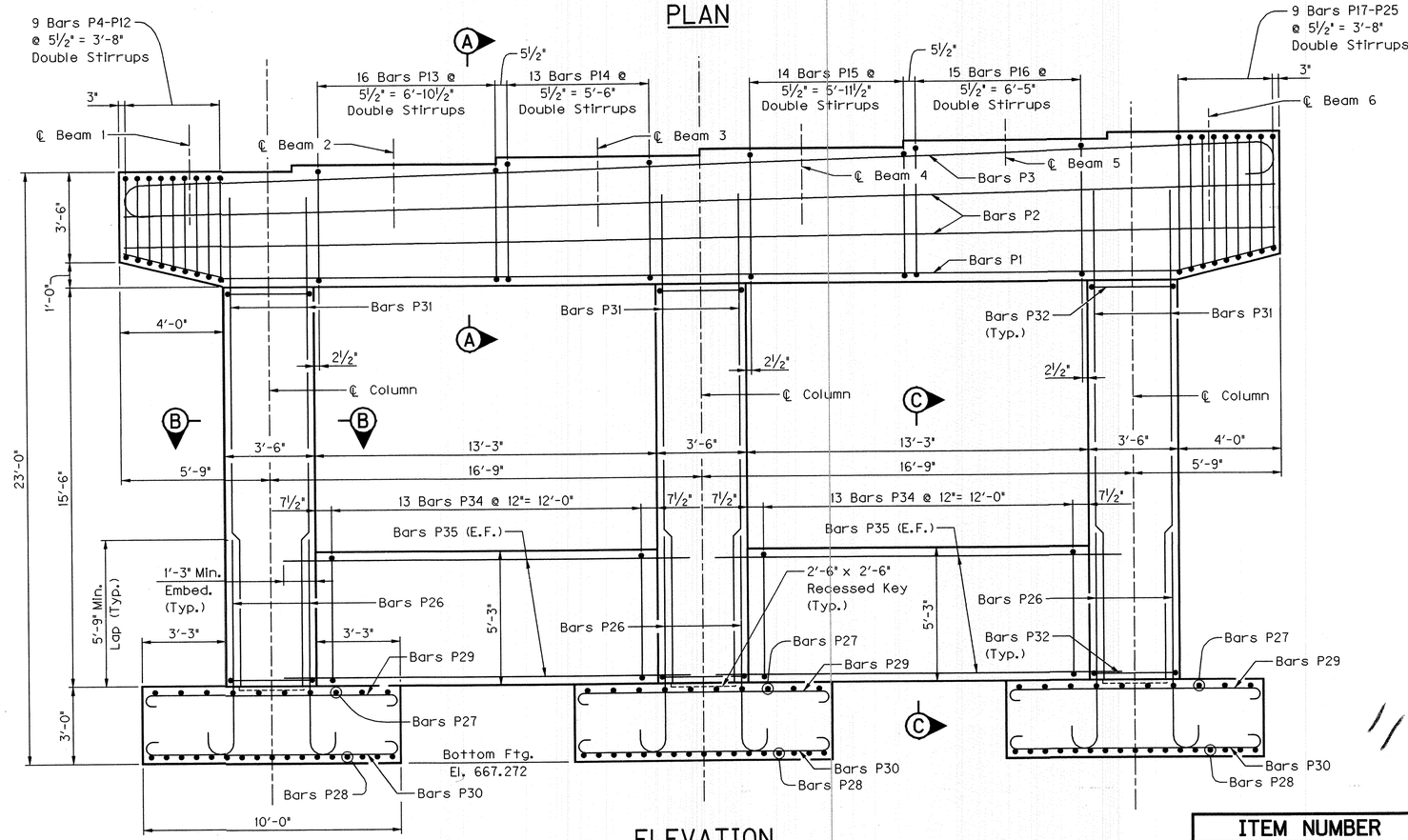
FILE NAME: S:\DGN-STYKY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_ebIB.dgn



PLAN



END ELEVATION



ELEVATION

LOCATION	TOP OF CAP ELEVATION
℄ Beam 1	El. 690.272
℄ Beam 2	El. 690.523
℄ Beam 3	El. 690.775
℄ Beam 4	El. 691.027
℄ Beam 5	El. 691.279
℄ Beam 6	El. 691.531

NOTES:

1.) (E.F.) = Each Face
(E.S.) = Equally Spaced

2.) Top of Cap Elevations given in the Table are at the ℄ Pier. The top of cap should be sloped at +3.12% in the Station Ahead direction to match the profile grade.

REVISION	DATE
DATE: 6/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

PIER 1

ITEM NUMBER: 9-60.00

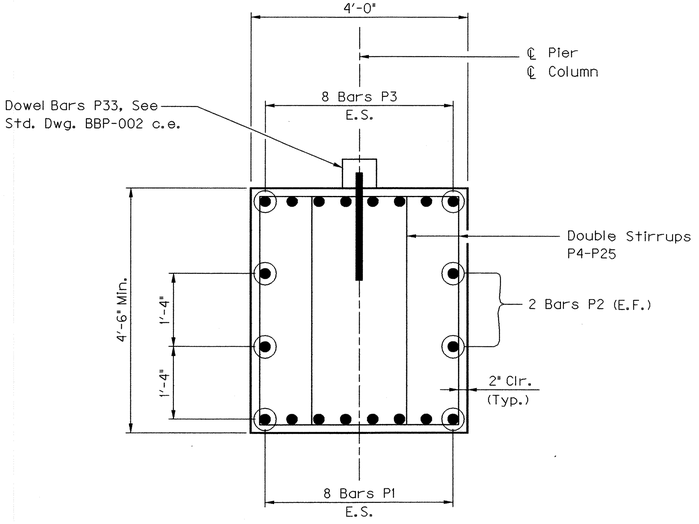
PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S11

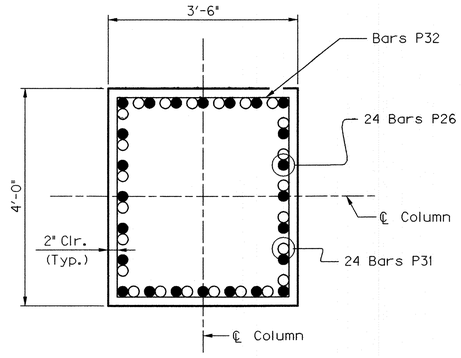
DRAWING NO. 25253

DATE: 2/8/2006

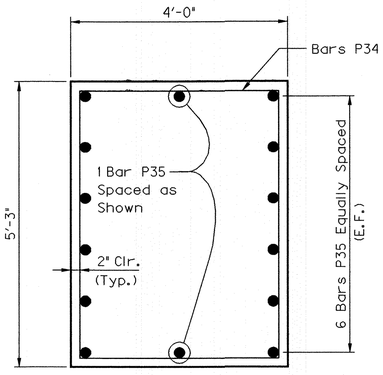
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_pier 1A.dgn



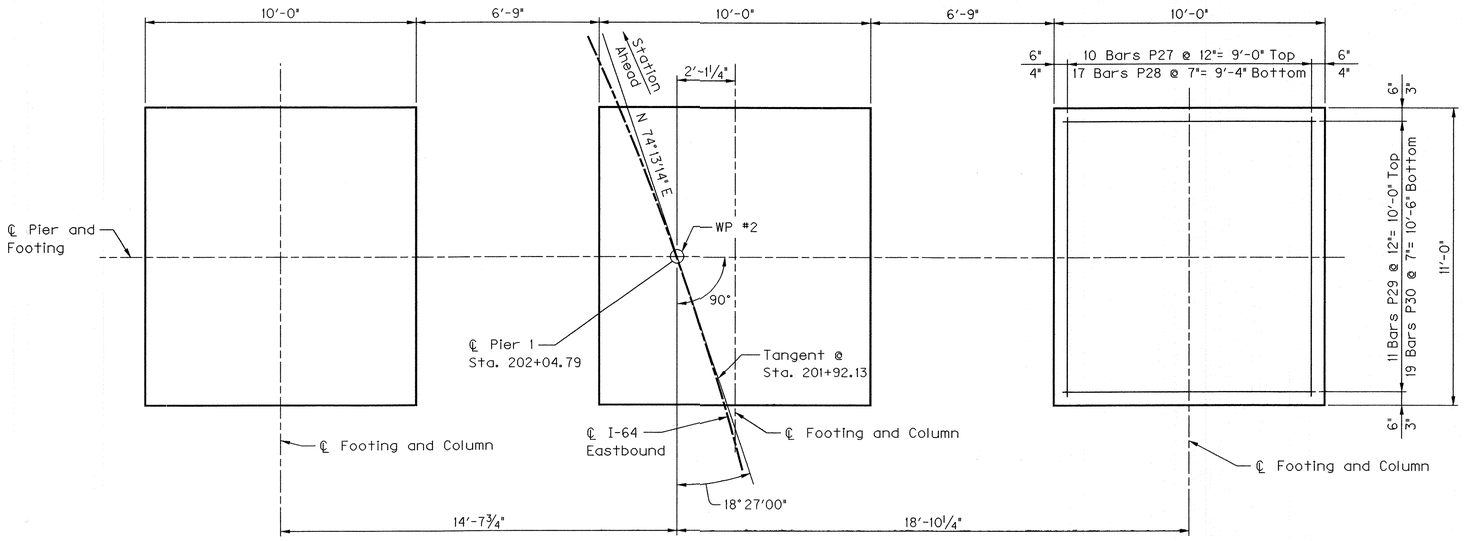
SECTION A-A



SECTION B-B



SECTION C-C



FOOTING PLAN

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
P1	6	9	8	44	9	Cap	36	11	3	11	0	11 3/8	3	9 5/8
P2	Str	5	4	44	8	Cap								
P3	1	11	8	48	3	Cap	43	5	2	5	1	2 3/4	44	7 3/4
P4s	14	5	2	12	8	Cap	3	2 1/2	2	9				
P5s	14	5	2	12	11	Cap	3	4	2	9				
P6s	14	5	2	13	2	Cap	3	5 1/2	2	9				
P7s	14	5	2	13	5	Cap	3	7	2	9				
P8s	14	5	2	13	7	Cap	3	8	2	9				
P9s	14	5	2	13	10	Cap	3	9 1/2	2	9				
P10s	14	5	2	14	1	Cap	3	11	2	9				
P11s	14	5	2	14	4	Cap	4	0 1/2	2	9				
P12s	14	5	2	14	7	Cap	4	2	2	9				
P13s	14	5	32	15	1	Cap	4	5	2	9				
P14s	14	5	26	15	7	Cap	4	8	2	9				
P15s	14	5	28	16	1	Cap	4	11	2	9				
P16s	14	5	30	16	7	Cap	5	2	2	9				
P17s	14	5	2	17	1	Cap	5	5	2	9				
P18s	14	5	2	16	10	Cap	5	3 1/2	2	9				
P19s	14	5	2	16	7	Cap	5	2	2	9				
P20s	14	5	2	16	4	Cap	5	0 1/2	2	9				
P21s	14	5	2	16	2	Cap	4	11 1/2	2	9				
P22s	14	5	2	15	11	Cap	4	10	2	9				
P23s	14	5	2	15	8	Cap	4	8 1/2	2	9				
P24s	14	5	2	15	5	Cap	4	7	2	9				
P25s	14	5	2	15	3	Cap	4	6	2	9				
P26	4	9	72	10	11	Column/Ftg.	9	0	1	11	0	11 3/4	9	5 7/8
P27	1	5	30	11	11	Footing	10	3	0	10	0	5	10	8
P28	1	6	51	12	2	Footing	10	2	1	0	0	6	10	8
P29	1	5	33	10	11	Footing	9	3	0	10	0	5	9	8
P30	1	6	57	11	2	Footing	9	2	1	0	0	6	9	8
P31	Str	9	72	19	0	Column								
P32s	14	5	48	14	5	Column	3	8	3	2				
P33e	Str	*	10	2	0	Cap								
P34s	14	5	26	17	11	Crashwall	4	11	3	8				
P35	Str	5	28	15	9	Crashwall								

* 1½"Ø Smooth Round Bar, may be commercial grade steel.

NOTES:
1) Reinforcing bars designated by suffix (s) shall be considered a stirrup for purposes of bend diameter.

2) Reinforcing bars designated by suffix (e) shall be epoxy coated.

REVISION	DATE
DATE: 6/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
I-64

CROSSING
I-64 EASTBOUND OVER KY 180

PIER 1

ITEM NUMBER
9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

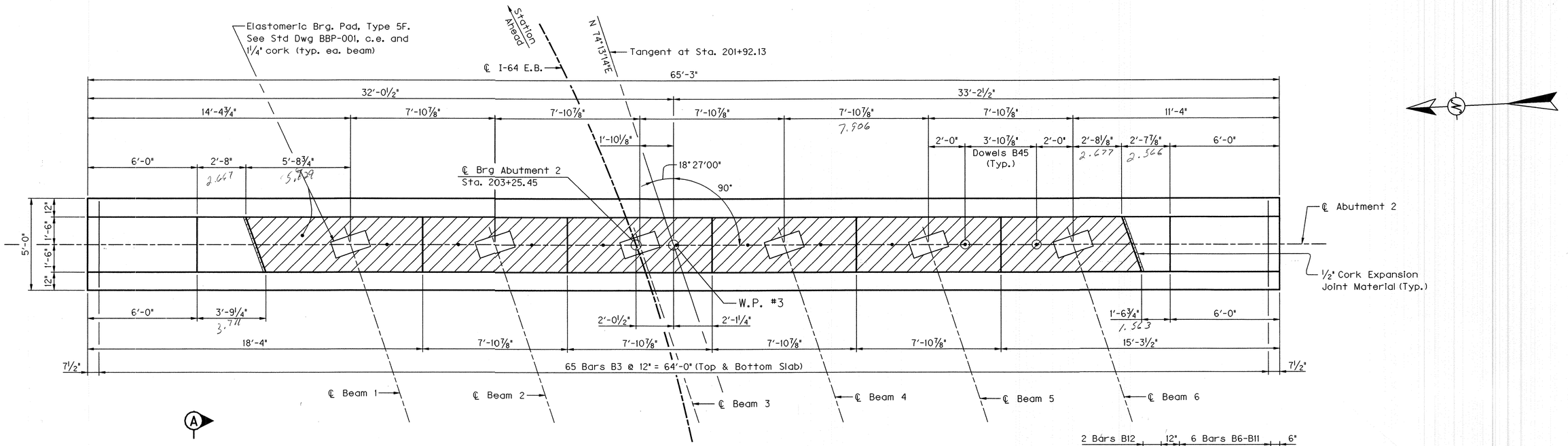
SHEET NO.
S12

DRAWING NO.
25253

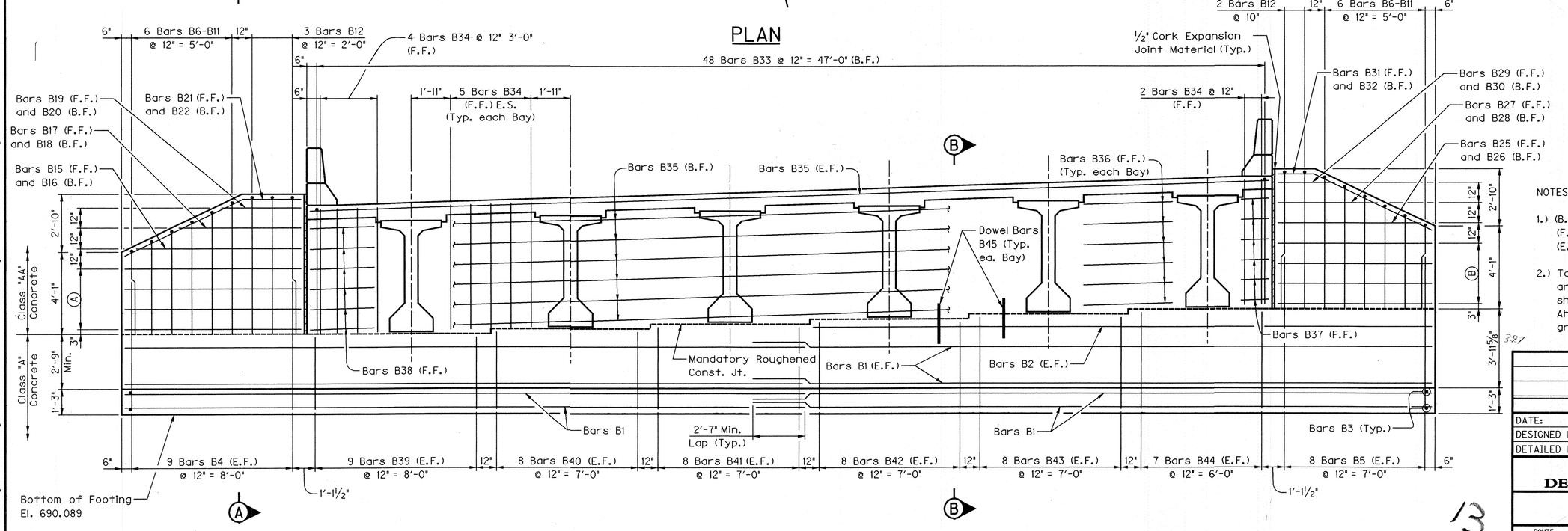
12

DATE: 2/14/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_pier 18.dgn



PLAN



ELEVATION

Ⓐ 4 Bars B13 (F.F.) & B14 (B.F.) @ 12" = 3'-0"

Ⓑ 4 Bars B23 (F.F.) & B24 (B.F.) @ 12" = 3'-0"

LOCATION	TOP OF CAP ELEVATION
℄ Beam 1	694.089
℄ Beam 2	694.331
℄ Beam 3	694.573
℄ Beam 4	694.816
℄ Beam 5	695.059
℄ Beam 6	695.302

NOTES:

1.) (B.F.) = Back Face
(F.F.) = Front Face
(E.S.) = Equally Spaced

2.) Top of Cap Elevations given in the Table are at the ℄ Bearing. The top of cap should be sloped at +3.12% in the Station Ahead direction to match the profile grade.

REVISION	DATE

DATE:	06-05	CHECKED BY	
DESIGNED BY:	J.L. WILKERSON		J.T. FAULKNER
DETAILED BY:	C.Z. WILDER		J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

SEMI-INTEGRAL ABUTMENT 2

ITEM NUMBER: 9-60.00

PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

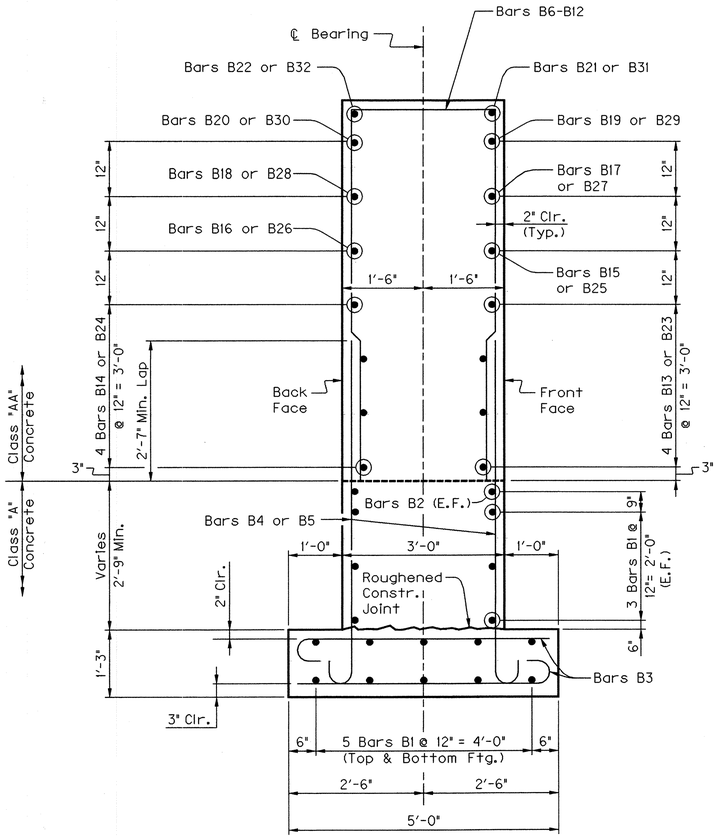
SHEET NO. S13

DRAWING NO. 25253

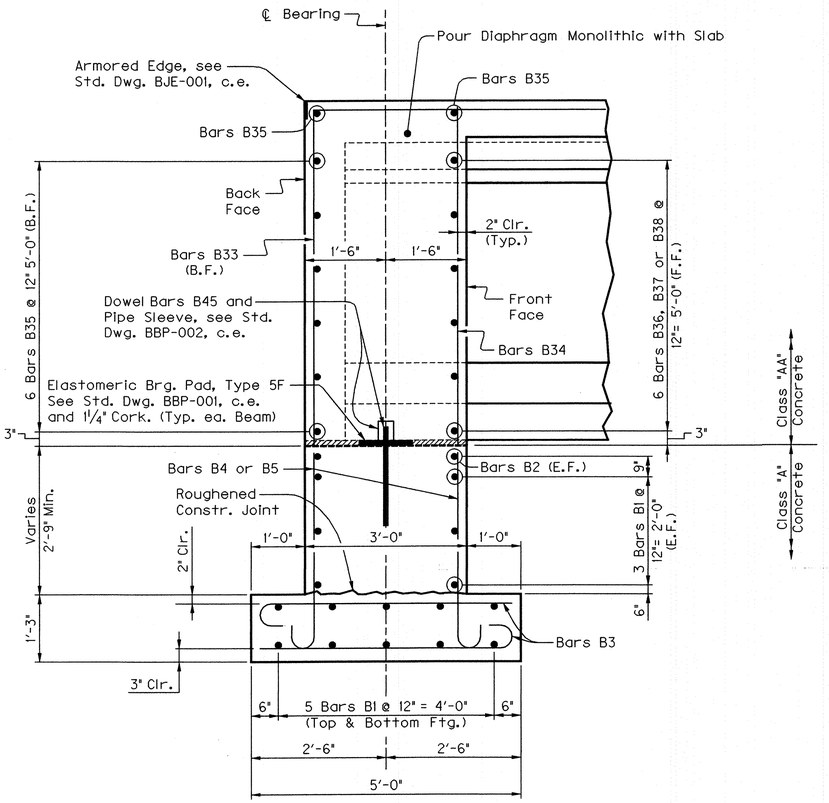
13

DATE: 2/8/2006

FILE NAME: S:\DGN-STKY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_abutment 2A.dgn



SECTION A-A



SECTION B-B

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
B1e	Str	5	32	33	9	Cap/Footing								
B2e	Str	5	2	30	6	Cap								
B3e	4	5	130	5	3	Footing	4	5	0	10	0	5	4	7½
B4e	4	5	18	7	2	Cap/Footing	6	4	0	10	0	5	6	6½
B5e	4	5	16	8	5	Cap/Footing	7	7	0	10	0	5	7	9½
B6es	2	5	2	10	8	Wing	4	0½	2	8				
B7es	2	5	2	11	8	Wing	4	6½	2	8				
B8es	2	5	2	12	7	Wing	5	0	2	8				
B9es	2	5	2	13	6	Wing	5	5½	2	8				
B10es	2	5	2	14	6	Wing	5	11½	2	8				
B11es	2	5	2	15	5	Wing	6	5	2	8				
B12es	2	5	5	15	11	Wing	6	8	2	8				
B13e	Str	5	4	9	4	Wing								
B14e	Str	5	4	8	4	Wing								
B15e	Str	5	1	8	8	Wing								
B16e	Str	5	1	7	8	Wing								
B17e	Str	5	1	6	6	Wing								
B18e	Str	5	1	5	6	Wing								
B19e	Str	5	1	4	5	Wing								
B20e	Str	5	1	3	5	Wing								
B21e	8	5	1	9	11	Wing	6	6	3	5	1	5⅜	3	1⅛
B22e	8	5	1	8	11	Wing	6	6	2	5	1	0⅞	2	2¼
B23e	Str	5	4	7	2	Wing								
B24e	Str	5	4	8	3	Wing								
B25e	Str	5	1	6	7	Wing								
B26e	Str	5	1	7	8	Wing								
B27e	Str	5	1	4	5	Wing								
B28e	Str	5	1	5	6	Wing								
B29e	Str	5	1	2	4	Wing								
B30e	Str	5	1	3	5	Wing								
B31e	8	5	1	7	10	Wing	6	6	1	4	0	6¾	1	2½
B32e	8	5	1	8	11	Wing	6	6	2	5	1	0⅜	2	2¼
B33e	5	8	48	16	0	Diaphragm	10	0	6	0				
B34e	Str	5	31	6	0	Diaphragm								
B35e	Str	5	8	47	7	Diaphragm								
B36e	Str	5	30	5	3	Diaphragm								
B37e	Str	5	6	1	9	Diaphragm								
B38e	Str	5	6	3	8	Diaphragm								
B39e	4	5	18	4	2	Cap/Footing	3	4	0	10	0	5	3	6½
B40e	4	5	16	4	5	Cap/Footing	3	7	0	10	0	5	3	9½
B41e	4	5	16	4	8	Cap/Footing	3	10	0	10	0	5	4	0½
B42e	4	5	16	4	11	Cap/Footing	4	1	0	10	0	5	4	3½
B43e	4	5	16	5	2	Cap/Footing	4	4	0	10	0	5	4	6½
B44e	4	5	14	5	5	Cap/Footing	4	7	0	10	0	5	4	9½
B45e	Str	*	10	2	0	Cap/Diaphragm								

* 1½" Diameter Smooth Round Bar, may be Commercial Grade Steel

NOTES:

1.) Reinforcing Bars designated by suffix (s) shall be considered a stirup for purposes of bend diameters.

2.) All Class "AA" Concrete is included in Superstructure Quantities.

REVISION	DATE

DATE:	06-05	CHECKED BY	
DESIGNED BY:	J.L. WILKERSON	J.T. FAULKNER	
DETAILED BY:	C.Z. WILDER	J.T. FAULKNER	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
I-64

CROSSING
I-64 EASTBOUND OVER KY 180

SEMI-INTEGRAL ABUTMENT 2

ITEM NUMBER
9-60.00

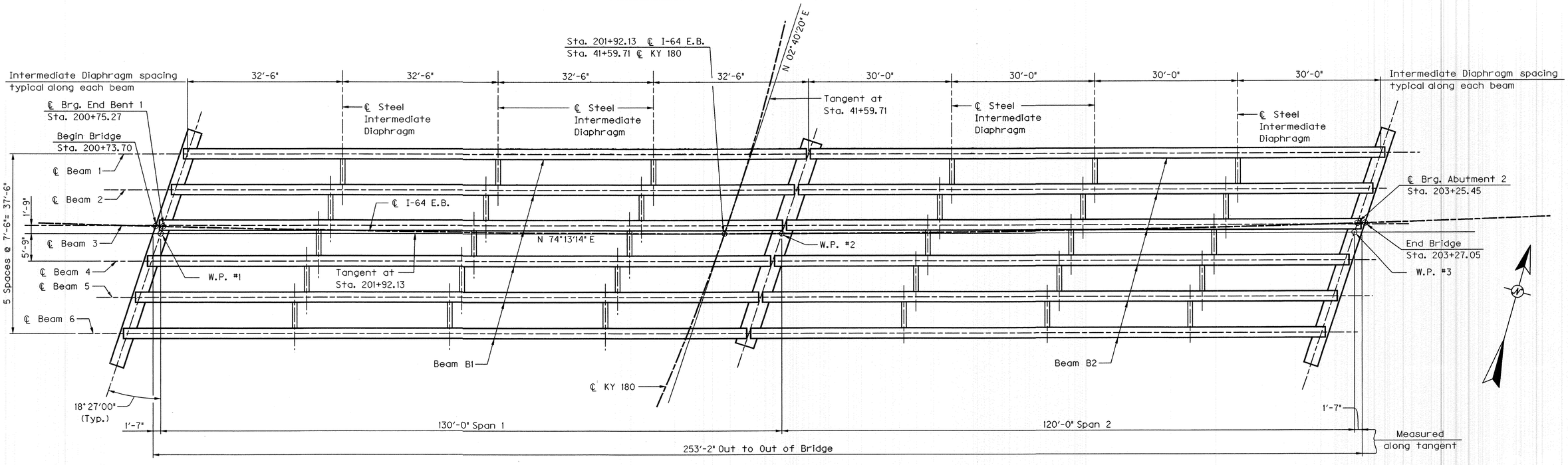
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO.
S14

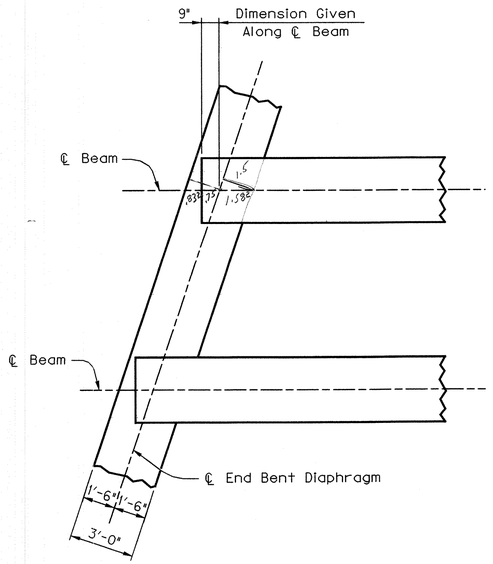
DRAWING NO.
25253

DATE: 2/8/2006

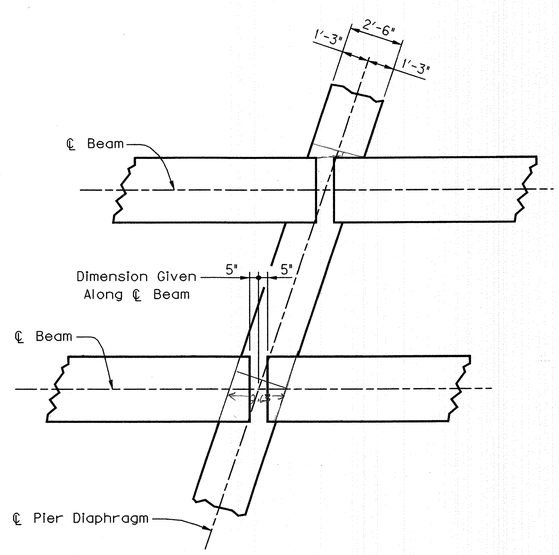
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_abutment 2B.dgn



FRAMING PLAN



ENDBENT - ABUTMENT DIAPHRAGM DETAIL



PIER DIAPHRAGM DETAIL

NOTES:

1. See Sheet S17 for Steel Intermediate Diaphragm Details.

REVISION	DATE

DATE:	07-05	CHECKED BY	
DESIGNED BY:	W.R. ABBOTT	J.T. FAULKNER	
DETAILED BY:	W.R. ABBOTT	J.T. FAULKNER	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

FRAMING PLAN

ITEM NUMBER: 9-60.00

PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

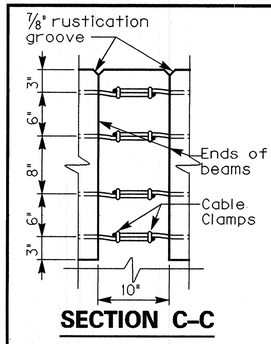
SHEET NO. S15

DRAWING NO. 25253

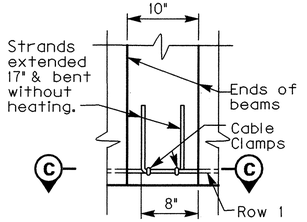
15

DATE: 2/8/2006

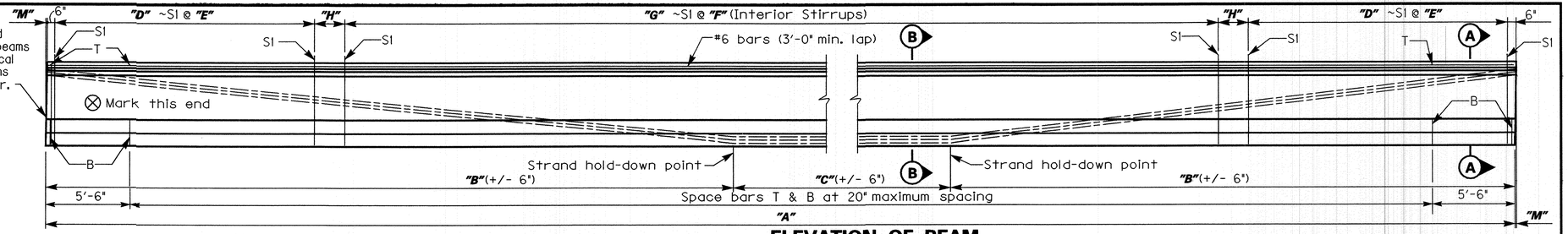
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_framing_plan.dgn



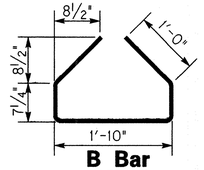
SECTION C–C



STRAND SPLICE DETAIL

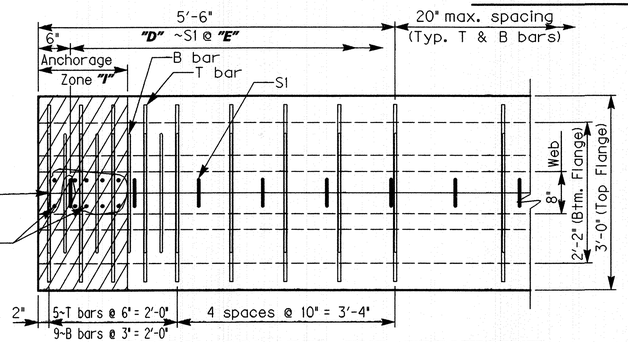


ELEVATION OF BEAM

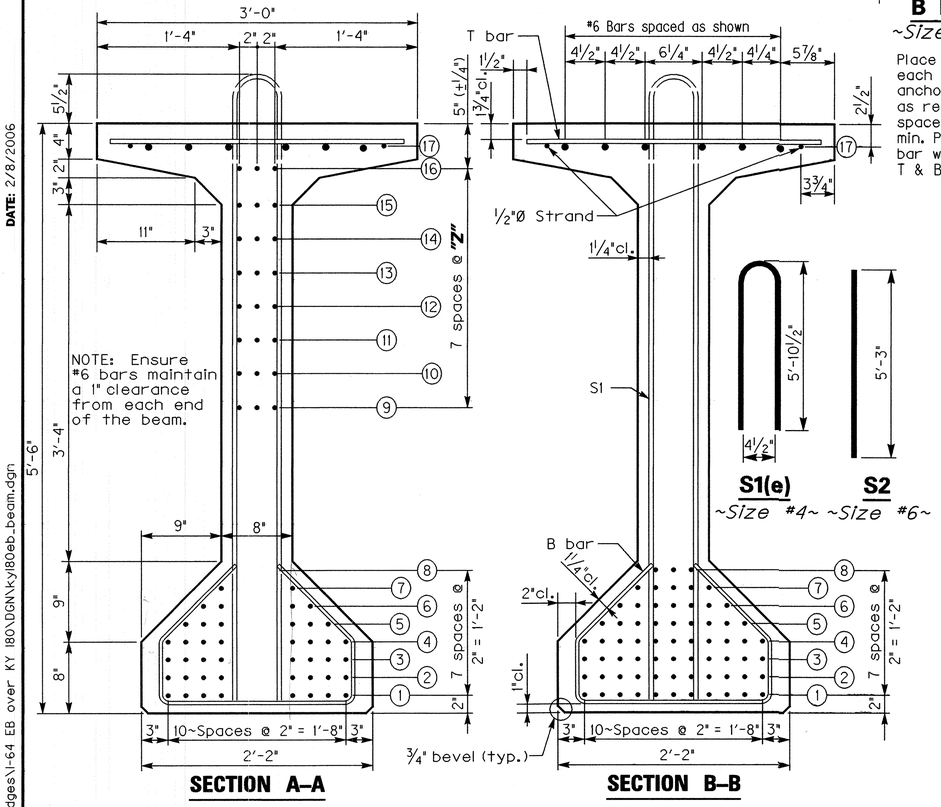


T Bar
~Size #4~

B Bar
~Size #3~



TYPICAL SQUARED END TREATMENT



SECTION A–A

SECTION B–B

S1(e) ~Size #4~ **S2** ~Size #6~

General Notes

CONCRETE: Ensure prestressed girder concrete is in accordance with these plans and the specifications.

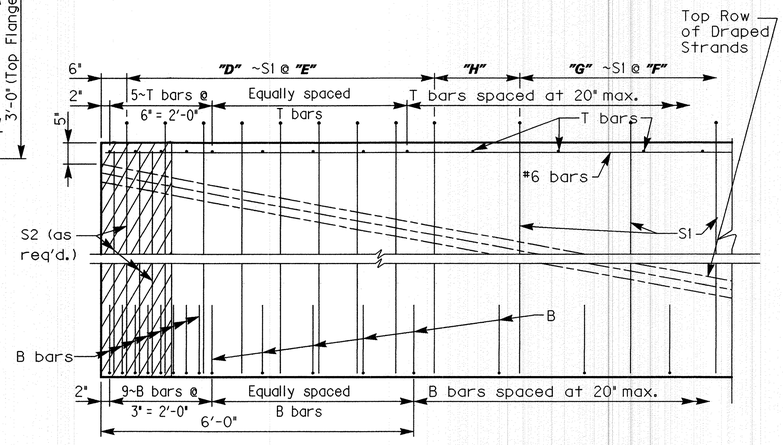
MATERIALS DESIGN SPECIFICATIONS: For prestressed beams: FY = 60,000 psi F'S = 270,000 psi

PRESTRESSING REINFORCEMENT: Ensure that strands are ½" (nominal diameter, 0.153 sq. in.), uncoated seven-wire stress relieved, low-relaxation conforming to AASHTO M 203, Grade 270. Billing of the cost for redesign of beam and subsequent plan modifications will be made for any request of alternate strand type or arrangement. The designer of the original plans is responsible for the billing and work.

CONSTRUCTION METHOD: Pretension all beams. Ensure concrete has attained f'ci (shown in the table) in standard test cylinders that are made and cured identically with the beams without bond stresses being transferred to the concrete or releasing the end anchors. Attain f'c (shown in the table) at or prior to 28 days. Apply an initial force of 31,003 lbs. per low-relaxation strand to develop a stress of 202,500 psi. No beam will be accepted that is honeycombed to the extent that strength of the beam or resistance to deterioration has been affected. An allowance of 0.0005L is made for shortening of beams due to shrinkage and elastic change. Show a detensioning plan by sequential numbering of the strand pattern on the shop plans.

LIFTING DEVICES: Detail lifting devices on the shop plans. Loads are to be distributed equally to each device.

BEARING DEVICES: Include the price for lead plates and/or bearing pads in the bid for precast beams.



PARTIAL SECTION ON CENTERLINE

Strand Data with number indicated in rows

Mark	Midspan (SECTION B–B) ①	②	③	④	⑤	⑥	⑦	⑧	⑰	End (SECTION A–A) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	Total No.
B1	11	11	11	11	9	3			2	11	11	8	8	6								3	3	3	3	2	58
B2	11	11	11	11					2	11	8	8	8										3	3	3	2	46

Mark	Concrete Stress (psi) f'ci	f'c	No. of S Bars S1	S2	Hold-Down Capacity lbs.
B1	6000	8000	157	20	29031
B2	6000	8000	146	20	25480

Beam Data (measured along centerline)

Total No.	Dimensions A	B	C	D	E	F	G	H	I	Z	M	Approximate Weight	Maximum Allowable Camber
6	130'-4"	52'-2"	26'-0"	28	6"	12"	102	8"	17"		0"	123,274 lbs	3½"
6	120'-4"	48'-2"	24'-0"	26	6"	12"	94	8"	17"		0"	113,815 lbs	2½"

16

REVISION	DATE
DATE: 7/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.M. JOHNSON
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** CROSSING: **I-64 EASTBOUND OVER KY 180**

PPC I-BEAM, 66", DETAILS

ITEM NUMBER **9-60.00**

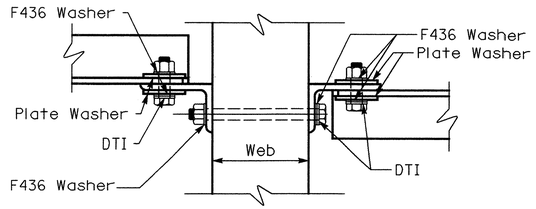
PREPARED BY: Division of Bridge Design

SHEET NO. S16

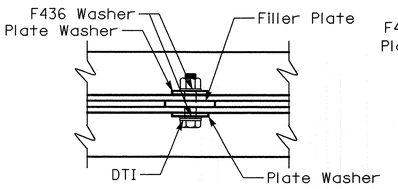
DRAWING NO. 25253

DATE: 2/8/2006

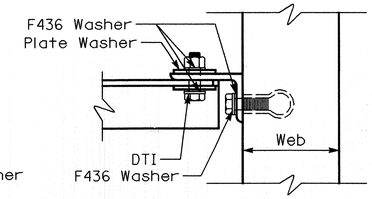
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_beam.dgn



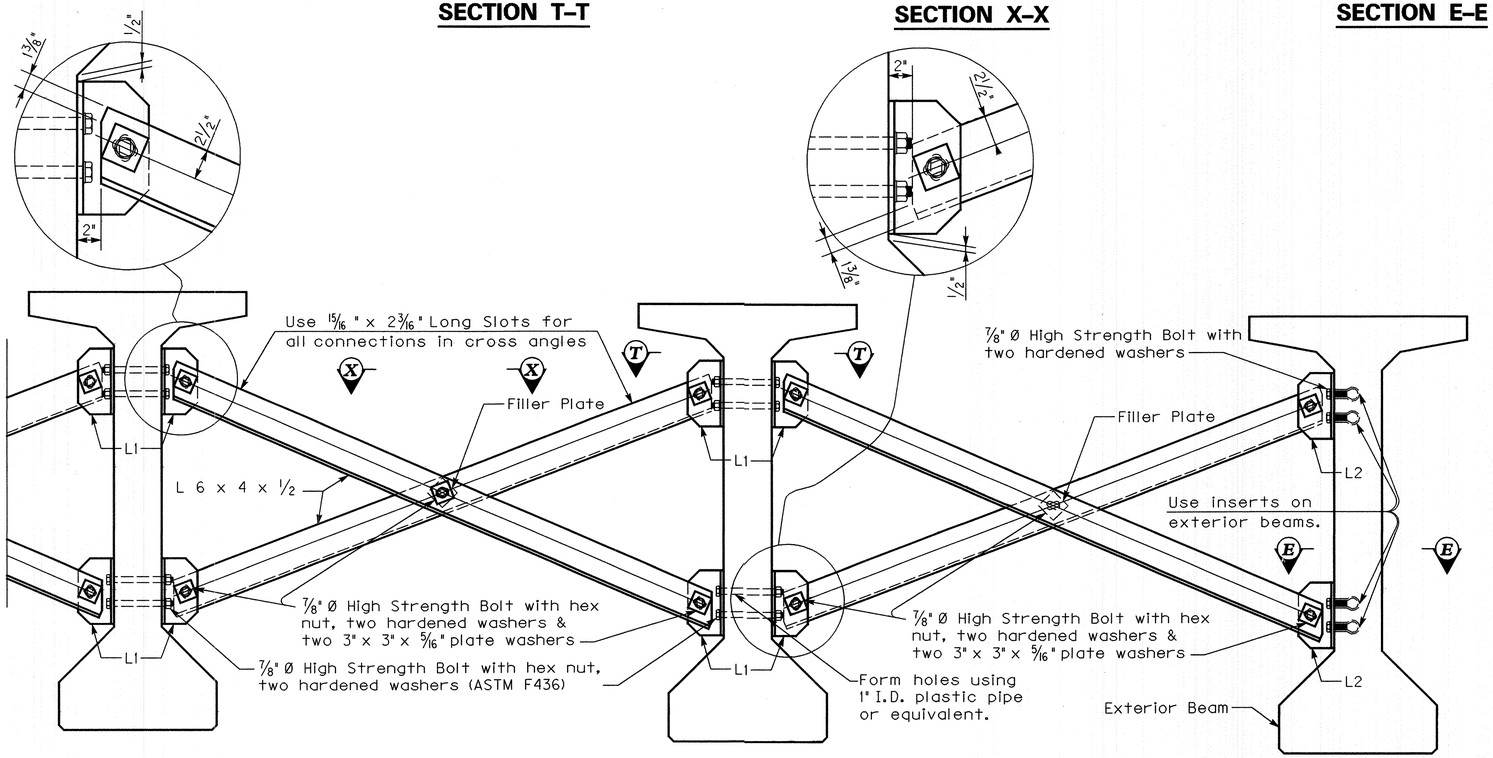
SECTION T–T



SECTION X–X



SECTION E–E



INTERMEDIATE DIAPHRAGM DETAILS

~Typical for 0° Skew Bridges~

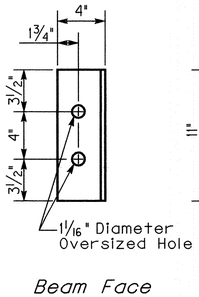
Diaphragm Notes

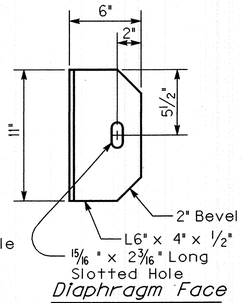
CONNECTIONS: Ensure all bolted connections are ASTM A325, 7/8 inch diameter high strength bolts, nuts, and washers, mechanically zinc coated in accordance with AASHTO M298, for Class 50. Install all high strength bolted field connections using "direct tension indicators" (DTI's) in accordance with the Standard Specifications and ASTM F959. Ensure all DTI's are mechanically zinc coated. Show installation details of the DTI's on the shop plans. Place DTI's under the bolt head.

STRUCTURAL STEEL: Ensure plates and angles conform to AASHTO M 183 and galvanized after fabrication.

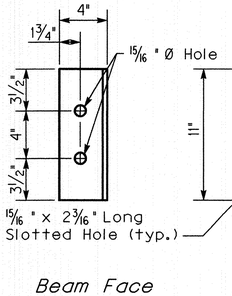
SHOP DRAWINGS: Show the location of all inserts and holes on the precast beam shop drawings. Submit shop drawings for the steel diaphragms to the Division of Bridge Design for approval.

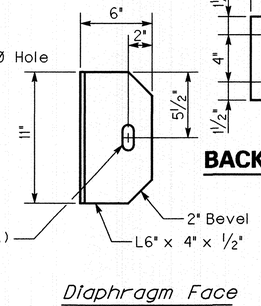
DIAPHRAGMS: Erect the diaphragms the same day that the precast beams are placed on the substructure. Include the cost of all materials and labor required to fabricate and erect the diaphragms in the bid for Precast Beams.



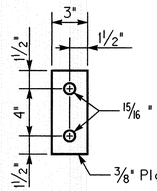


CLIP ANGLE – L1





CLIP ANGLE – L2



BACKING PLATE

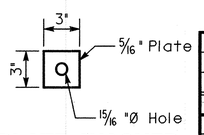
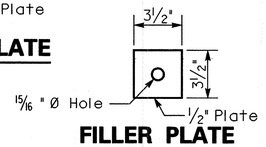


PLATE WASHER



FILLER PLATE

17

REVISION		DATE
DATE: 9/05	CHECKED BY	
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER	
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** | CROSSING: **I-64 EASTBOUND OVER KY 180**

STEEL DIAPHRAGMS

ITEM NUMBER: **9-60.00**

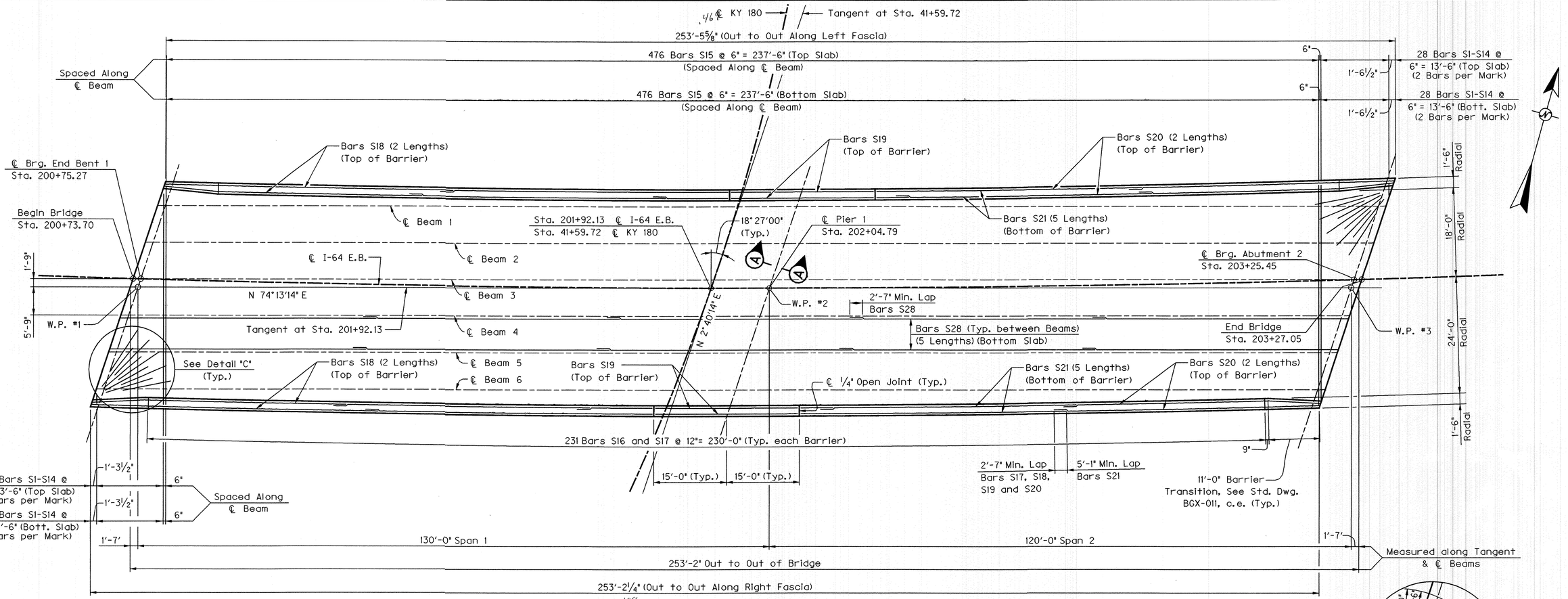
PREPARED BY: **Division of Bridge Design**

SHEET NO.: **S17**

DRAWING NO.: **25253**

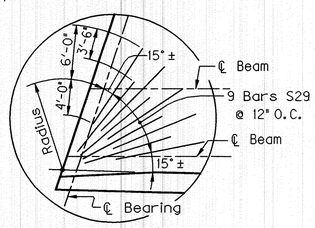
DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\kyl80eb_steel_diaphragm.dgn

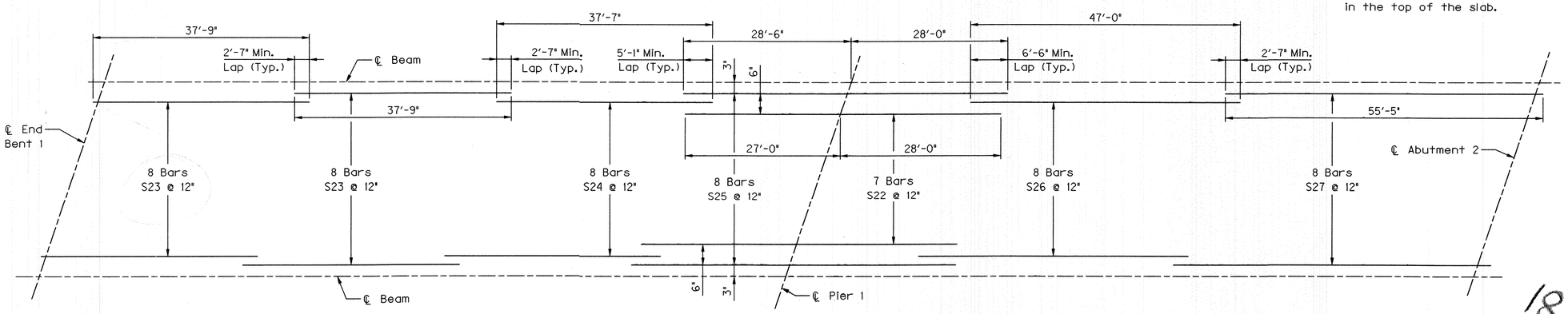


PLAN

NOTE:
Place the corner reinforcement beneath the longitudinal and transverse reinforcement in the top of the slab.



DETAIL "C"



TOP SLAB REINFORCING PLAN

(Typ. Between Beams)

REVISION	DATE
DATE: 06-05	CHECKED BY
DESIGNED BY: J.M. JOHNSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

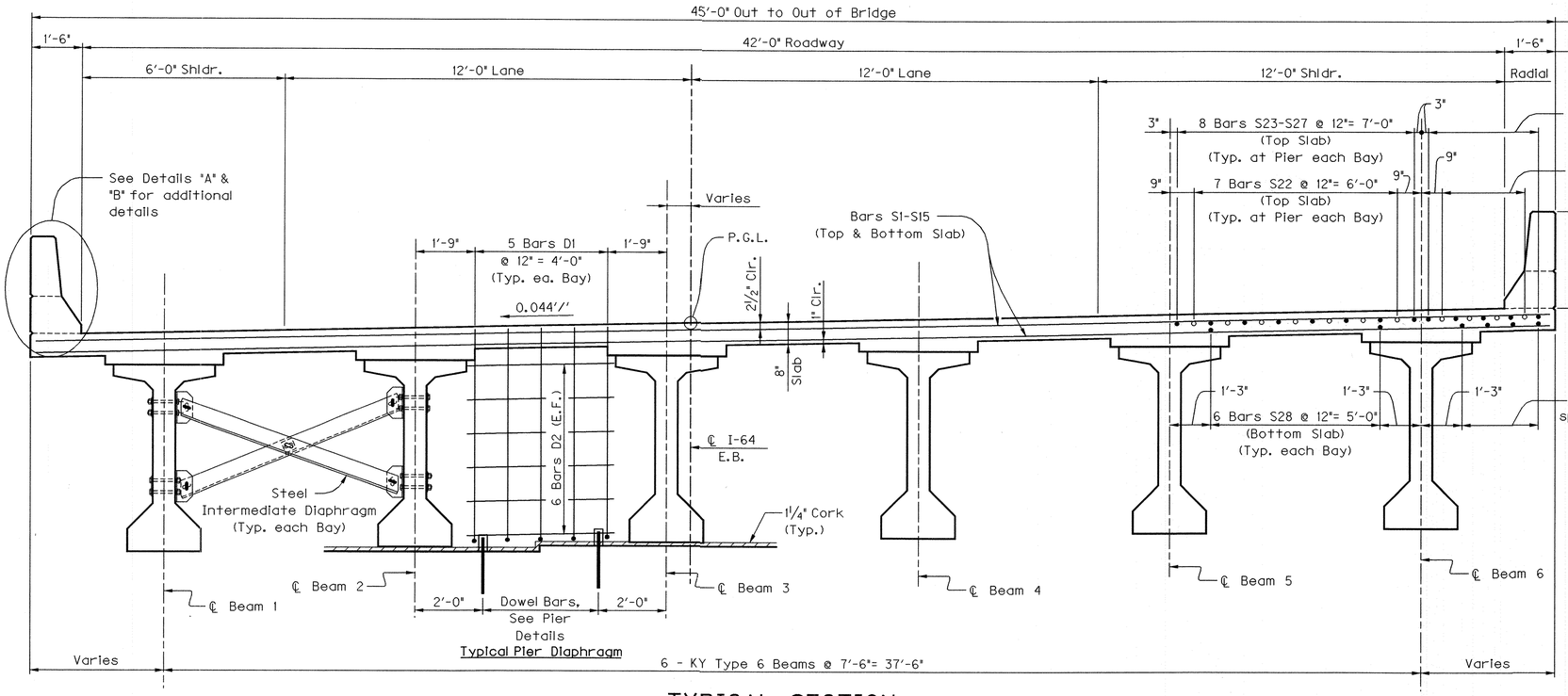
SUPERSTRUCTURE

ITEM NUMBER: 9-60.00

PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S18
DRAWING NO. 25253

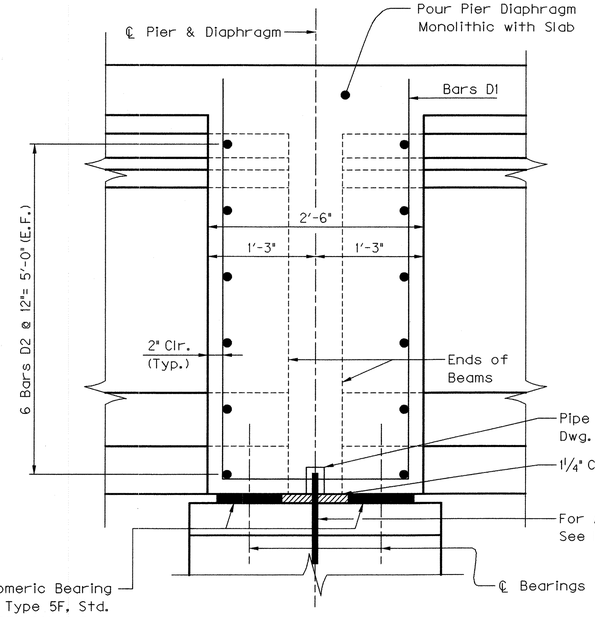
DATE: 2/8/2006
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\xyl80eb_superstructure1.dgn



Typical Pier Diaphragm

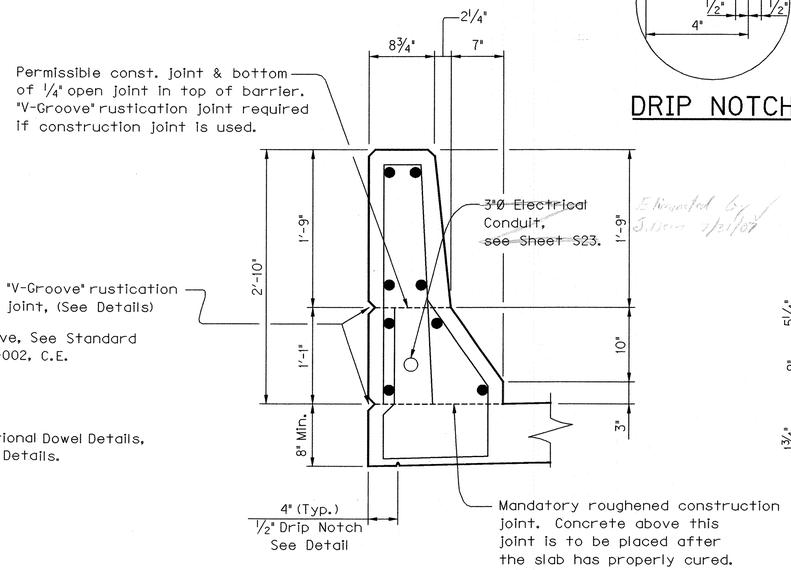
TYPICAL SECTION

(Looking Station Ahead)

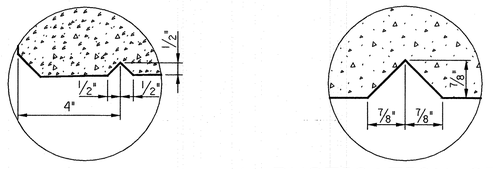


SECTION A-A

Taken Perpendicular to ℄ Pier

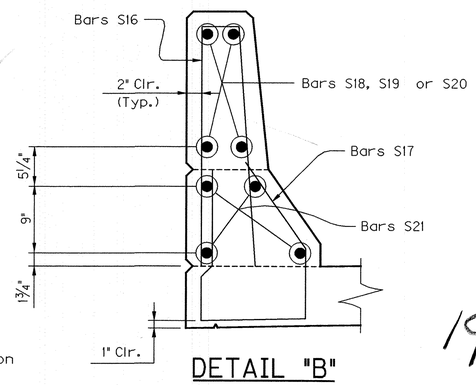


DETAIL "A"



DRIP NOTCH

V-RUSTICATION GROOVE



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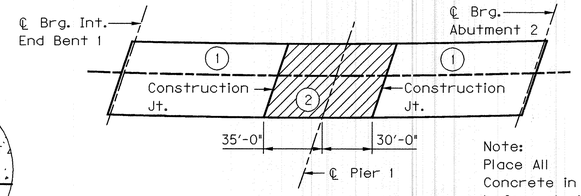


SLAB POURING SEQUENCE

The slab pouring sequence may be changed with the approval of the Engineer.

Note: Place All Concrete in (1) before placing concrete in (2).

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
S1e	Str	5	4	3	2	Slab								
S2e	Str	5	4	6	3	Slab								
S3e	Str	5	4	9	3	Slab								
S4e	Str	5	4	12	3	Slab								
S5e	Str	5	4	15	3	Slab								
S6e	Str	5	4	18	3	Slab								
S7e	Str	5	4	21	3	Slab								
S8e	Str	5	4	24	3	Slab								
S9e	Str	5	4	27	4	Slab								
S10e	Str	5	4	30	4	Slab								
S11e	Str	5	4	33	4	Slab								
S12e	Str	5	4	36	4	Slab								
S13e	Str	5	4	39	4	Slab								
S14e	Str	5	4	42	4	Slab								
S15e	Str	5	952	44	8	Slab								
S16e	16	5	462	5	7	Barrier								
S17e	17	5	462	4	5	Barrier								
S18e	Str	5	16	60	0	Barrier								
S19e	Str	5	8	29	8	Barrier								
S20e	Str	5	16	54	9	Barrier								
S21e	Str	8	40	55	8	Barrier								
S22e	Str	9	43	55	0	Slab								
S23e	Str	5	100	37	9	Slab								
S24e	Str	8	50	37	7	Slab								
S25e	Str	9	50	56	6	Slab								
S26e	Str	9	50	47	0	Slab								
S27e	Str	5	50	55	5	Slab								
S28e	Str	5	190	52	8	Slab								
S29e	Str	6	18	10	0	Slab								
D1e	2	5	25	14	1	Diaphragm	6	0	2	2				
D2e	Str	5	60	4	5	Diaphragm								

NOTES:

1. For New Jersey Barrier Transition reinforcement and details, see Std. Drawing BGX-011, c.e.
2. ~~Place 3"Ø conduit in bottom portion of barrier below permissible construction joint.~~

REVISION	DATE

DATE:	06-05	CHECKED BY	
DESIGNED BY:	J.M. JOHNSON	J.T. FAULKNER	
DETAILED BY:	W.R. ABBOTT	J.T. FAULKNER	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

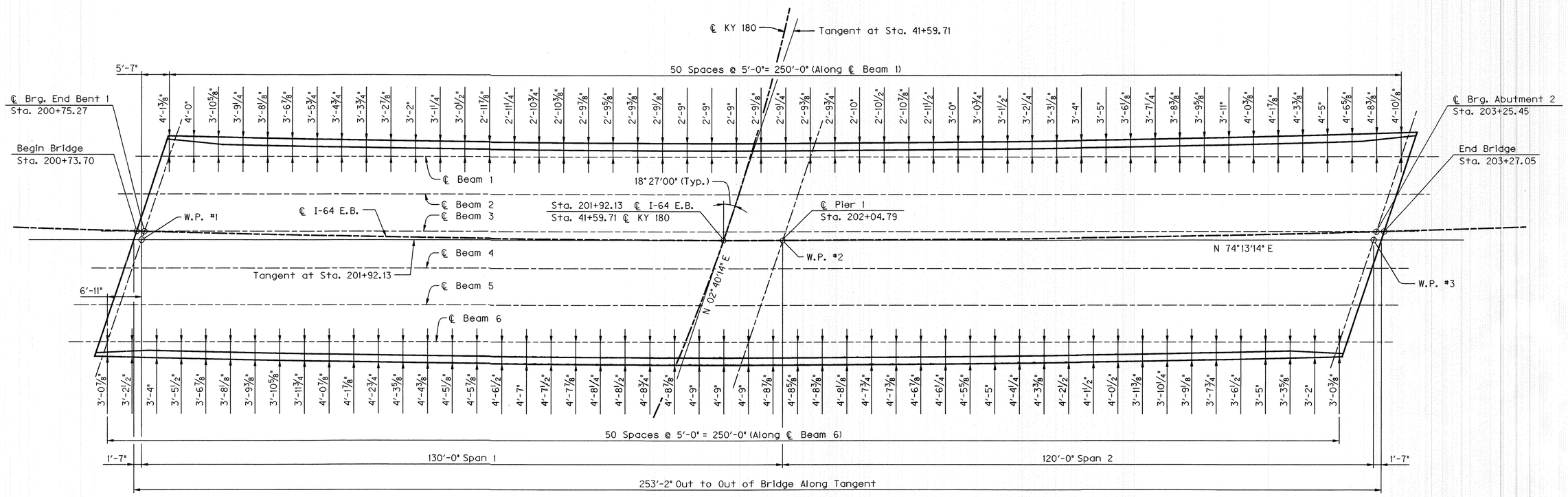
SUPERSTRUCTURE

ITEM NUMBER	PREPARED BY	SHEET NO.
9-60.00	LOCHNER H.W. LOCHNER, INC. CONSULTING ENGINEERS AND PLANNERS	S19
		DRAWING NO. 25253

19

DATE: 2/17/2006

FILE NAME: S:\DGN-STNKY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_superstructure2.dgn



PLAN

REVISION	DATE

DATE: 7/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
I-64

CROSSING
I-64 EASTBOUND OVER KY 180

CURVE OFFSETS

20

ITEM NUMBER
9-60.00

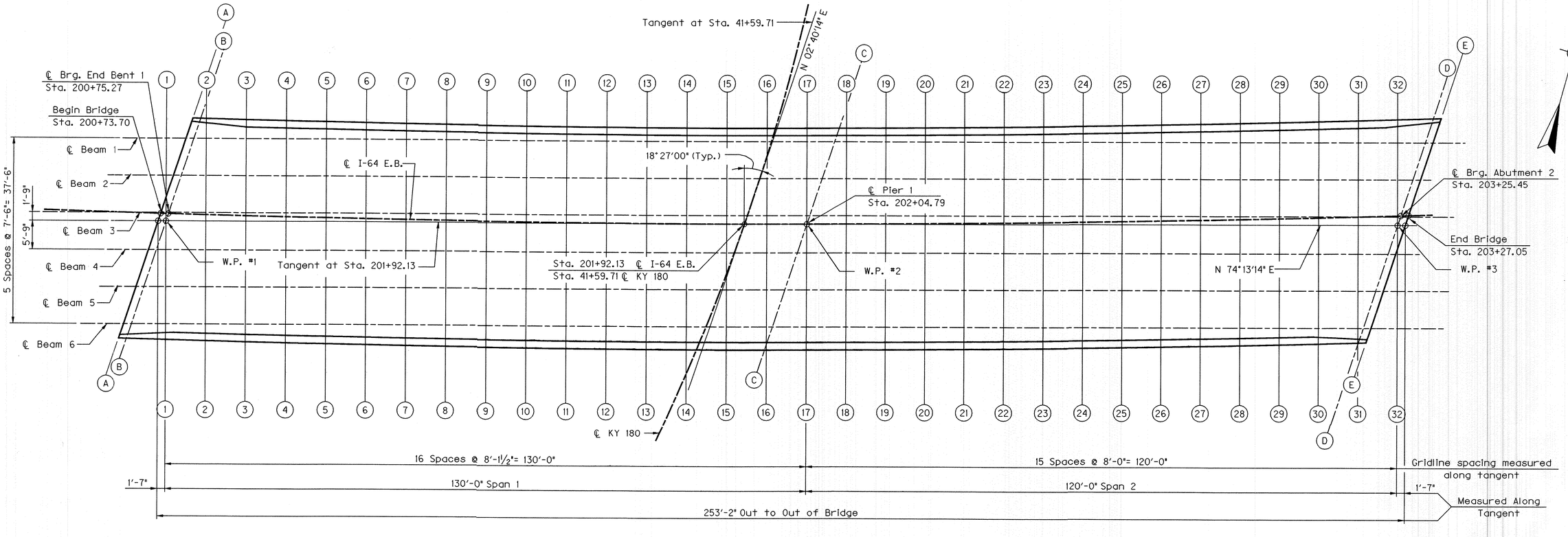
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO.
S20

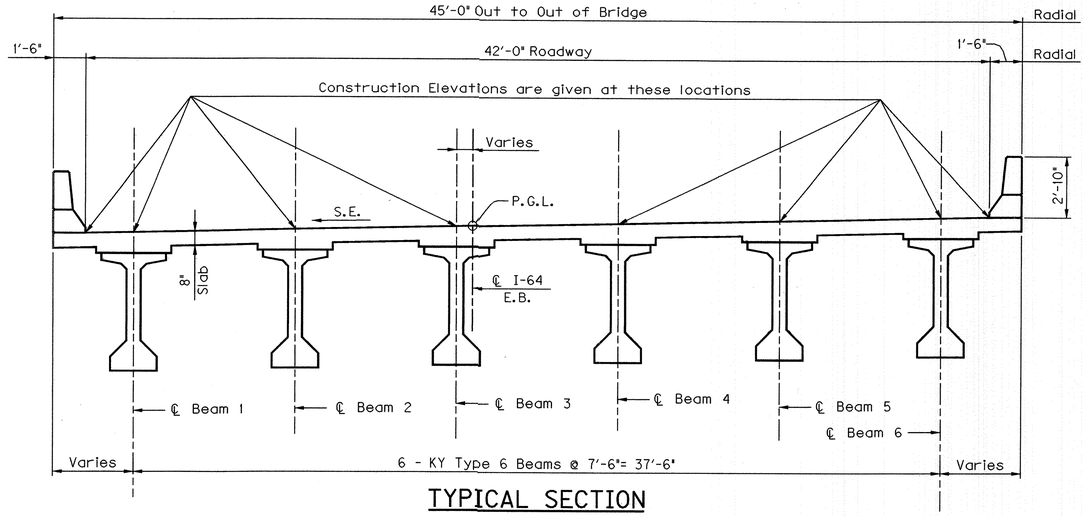
DRAWING NO.
25253

DATE: 2/8/2006

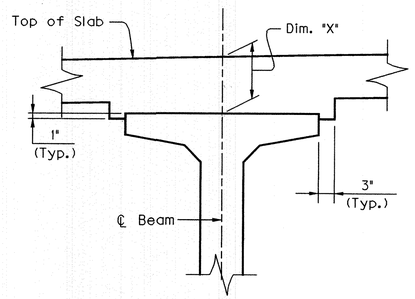
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_curve offsets.dgn



PLAN



TYPICAL SECTION



FILLET DETAIL

21

REVISION	DATE

DATE: 7/05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

CONSTRUCTION ELEVATIONS

ITEM NUMBER	PREPARED BY	SHEET NO.
9-60.00	**LOCHNER** H.W. LOCHNER, INC. CONSULTING ENGINEERS AND PLANNERS	S21
		DRAWING NO. **25253**

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_const_elevsi.dgn

CONSTRUCTION ELEVATIONS

GRID LINE	LEFT GUTTER	℄ BEAM 1			℄ BEAM 2			℄ BEAM 3			℄ BEAM 4			℄ BEAM 5			℄ BEAM 6			RIGHT GUTTER	GRID LINE
		CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"		
A	692.588	692.679			692.940				693.201		693.463			693.724			693.986			694.040	A
B	692.636	692.727	691.93	0.80	692.987	692.16	0.83	692.43	693.248	0.82	693.510	692.71	.80	693.771	692.85	.82	694.033	693.20	.83	694.088	B
C	696.662	696.705	695.88	0.83	696.956	696.08	0.88	696.30	697.208	0.91	697.460	696.58	.88	697.712	696.86	.85	697.964	697.13	.83	698.073	C
D	700.413	700.522	699.71	0.81	700.764	699.95	0.81	700.18	701.006	0.83	701.249	700.43	.82	701.492	700.68	.81	701.735	700.92	.82	701.786	D
E	700.463	700.573			700.815				701.057		701.300			701.543			701.786			701.835	E
1	--	--			--				--		693.546	692.76	.79	693.925	693.11	.82	694.273	693.48	.82	694.354	1
2	692.696	692.816	692.00	0.82	693.163	692.38	0.78	692.72	693.501	.78	693.828	693.09	.74	694.206	693.41	.80	694.554	693.76	.89	694.643	2
3	692.990	693.100	692.30	0.80	693.447	692.67	.78	693.05	693.783	.73	694.109	693.35	.76	694.486	693.71	.78	694.832	694.05	.78	694.929	3
4	693.280	693.382	692.60	0.78	693.728	692.97	.76	693.34	694.063	.72	694.387	693.66	.73	694.763	693.89	.77	695.106	694.31	.80	695.211	4
5	693.568	693.662	692.88	0.78	694.006	693.25	.76	693.60	694.339	.74	694.662	693.83	.73	695.036	694.27	.77	695.377	694.57	.81	695.487	5
6	693.849	693.938	693.15	0.79	694.280	693.53	.75	693.88	694.610	.73	694.931	694.19	.74	695.302	694.53	.77	695.640	694.84	.80	695.756	6
7	694.126	694.207	693.43	0.78	694.548	693.80	.75	694.12	694.876	.76	695.194	694.46	.73	695.561	694.78	.78	695.897	695.10	.80	696.018	7
8	694.395	694.472	693.69	0.78	694.809	694.04	.77	694.38	695.135	.76	695.449	694.68	.77	695.815	695.03	.79	696.148	695.37	.78	696.273	8
9	694.658	694.728	693.94	0.79	695.063	694.30	.76	694.64	695.386	.75	695.697	694.94	.76	696.060	695.28	.78	696.391	695.59	.80	696.520	9
10	694.912	694.978	694.19	0.79	695.310	694.54	.77	694.90	695.630	.73	695.940	695.18	.76	696.299	695.50	.80	696.626	695.82	.81	696.760	10
11	695.160	695.221	694.45	0.77	695.550	694.79	.76	695.12	695.868	.75	696.174	695.42	.75	696.531	695.73	.80	696.856	696.06	.80	696.992	11
12	695.399	695.457	694.66	0.80	695.783	694.99	.79	695.34	696.099	.76	696.402	695.63	.77	696.758	695.86	.80	697.079	696.28	.80	697.217	12
13	695.631	695.688	694.92	0.77	696.012	695.20	.81	695.54	696.324	.78	696.624	695.86	.76	696.977	696.17	.81	697.298	696.50	.80	697.437	13
14	695.858	695.911	695.12	0.79	696.231	695.43	.80	695.76	696.542	.78	696.841	696.09	.75	697.192	696.38	.81	697.512	696.70	.81	697.652	14
15	696.078	696.129	695.34	0.79	696.450	695.63	.82	695.95	696.758	.81	697.056	696.27	.79	697.405	696.58	.83	697.722	696.90	.82	697.863	15
16	696.295	696.346	695.54	0.81	696.664	695.83	.83	696.12	696.970	.85	697.267	696.49	.78	697.616	696.79	.83	697.933	697.14	.79	698.073	16
17	696.507	696.559	695.77	0.79	696.876	696.02	.86	696.31	697.183	.87	697.496	696.66	.84	697.866	697.03	.84	698.206	697.39	.82	698.351	17
18	696.732	696.791	695.93	0.82	697.129	696.30	.83	696.63	697.458	.83	697.776	696.97	.81	698.145	697.34	.81	698.483	697.70	.78	698.627	18
19	697.011	697.072	695.25	0.82	697.410	696.59	.82	696.90	697.737	.84	698.054	697.28	.77	698.422	697.62	.80	698.759	697.99	.77	698.900	19
20	697.289	697.352	696.53	0.78	697.688	696.89	.80	697.20	698.014	.81	698.329	697.56	.77	698.697	697.90	.80	699.032	698.26	.77	699.170	20
21	697.564	697.630	696.83	0.80	697.964	697.16	.80	697.50	698.289	.79	698.603	697.84	.76	698.968	698.17	.80	699.300	698.54	.76	699.434	21
22	697.834	697.904	697.10	0.80	698.237	697.44	.80	697.77	698.560	.79	698.871	698.10	.77	699.233	698.44	.79	699.564	698.78	.78	699.692	22
23	698.100	698.173	697.37	0.80	698.505	697.71	.80	698.01	698.825	.82	699.133	698.37	.76	699.493	698.69	.80	699.821	699.05	.77	699.946	23
24	698.359	698.437	697.62	0.82	698.767	697.97	.80	698.27	699.084	.81	699.391	698.62	.77	699.748	698.94	.81	700.074	699.30	.77	700.192	24
25	698.612	698.695	697.88	0.82	699.022	698.21	.81	698.53	699.337	.81	699.641	698.88	.76	699.997	699.19	.81	700.320	699.55	.77	700.431	25
26	698.859	698.948	698.12	0.83	699.272	698.46	.81	698.78	699.585	.81	699.887	699.12	.77	700.240	699.45	.79	700.561	699.78	.78	700.666	26
27	699.100	699.195	698.38	0.82	699.517	698.72	.80	699.03	699.828	.80	700.128	699.36	.77	700.478	699.68	.80	700.796	700.03	.77	700.894	27
28	699.335	699.437	698.61	0.83	699.757	698.95	.81	699.26	700.065	.81	700.362	699.61	.75	700.710	699.92	.79	701.027	700.23	.80	701.117	28
29	699.564	699.673	698.88	0.79	699.991	699.18	.81	699.50	700.297	.80	700.593	699.84	.75	700.940	700.16	.78	701.255	700.47	.79	701.337	29
30	699.789	699.906	699.10	0.81	700.221	699.41	.81	699.74	700.526	.79	700.820			701.166	700.38	.79	701.480	700.68	.80	701.553	30
31	700.010	700.136	699.31	0.83	700.450	699.63	.82	699.93	700.753	.83	701.047			701.391	700.57	.82	701.705	700.88	.83	701.768	31
32	700.228	700.363	699.53	0.83	700.676	699.86	.82	700.16	700.979	.82	--			--			--			--	32

NOTES:

1.) Take elevations on top of beam at points indicated after diaphragms are in place and after forms for concrete slabs have been in place. Read elevations to three decimals using a target rod and enter reading in table under Top of Beam Elevations.

2.) Compute dimension "X" as follows: Construction Elevation minus Top of Beam Elevation equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, barrier, and future surfacing. Measuring of Dimension "X" gives the final check on beam tolerances for camber, beam damage and errors in erection that produce reverse camber, sags, and unsightly fascia beams.

3.) For setting templates, measure dimension "X" above top of beam for top of template. Do not set template by elevation.

4.) Construct barrier to roadway grade. Do not add camber to barrier.

5.) Note To Resident: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab.

REVISION	DATE

DATE: 11/05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE: I-64
CROSSING: I-64 EASTBOUND OVER KY 180

CONSTRUCTION ELEVATIONS

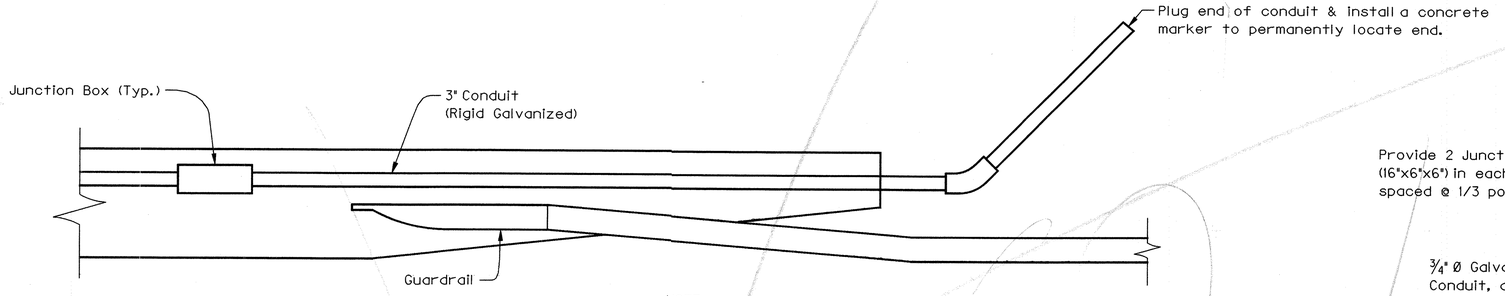
ITEM NUMBER
9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S22
DRAWING NO. 25253

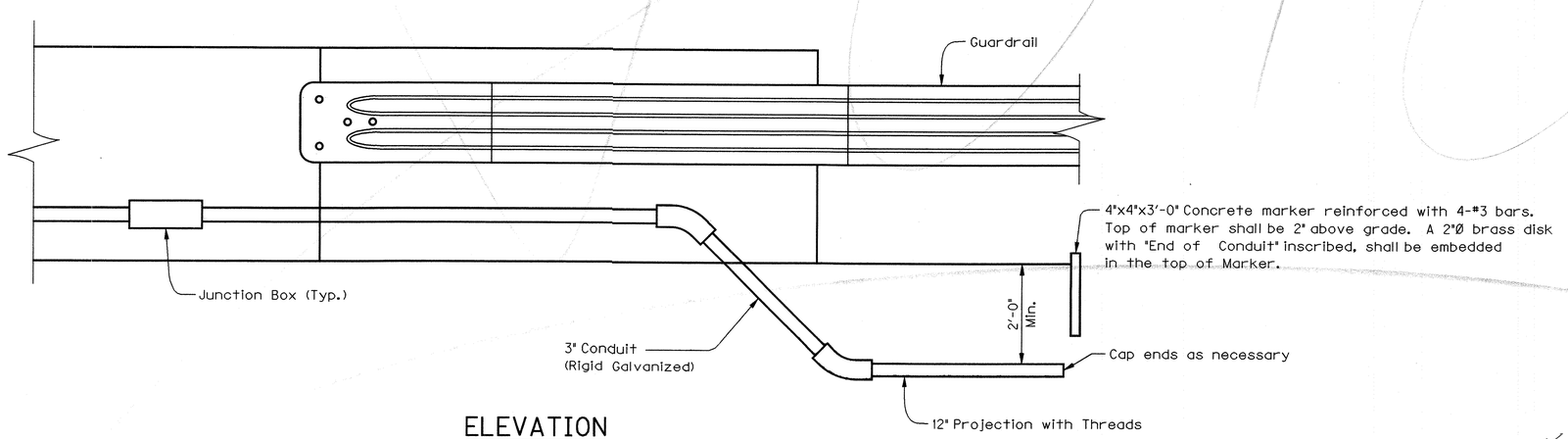
DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_const_elevs2.dgn



NOTE:
Guardrail post spacing varies. Transition conduit to avoid conflict with posts.

PLAN AT END OF BRIDGE

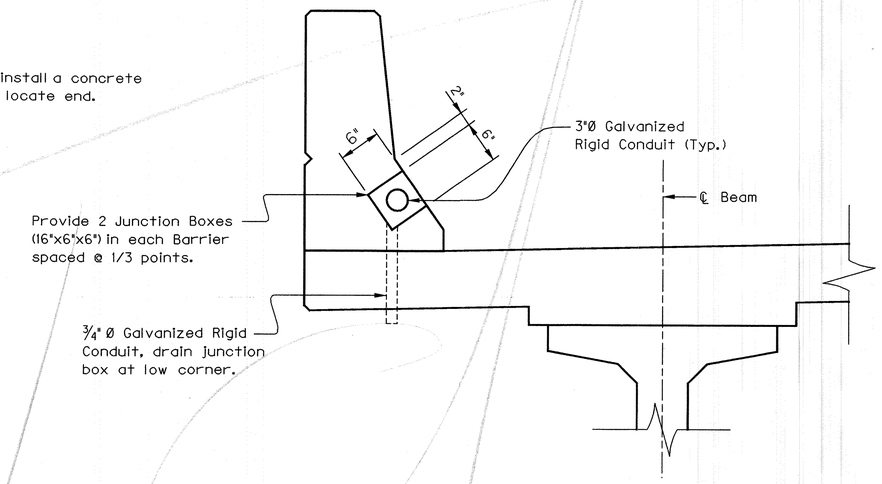


ELEVATION

NOTE:
All Conduit to rigid galvanized. Junction boxes and conduit shall be placed so as to interfere with a minimum amount of reinforcement. Bend reinforcement as necessary for placement.

Junction boxes may be any of the following or approved equal:

OZ Electric Co	- Type YU or Type YR
Spring City Electric Co.	- Type IR or Type ER
Hope Electric Co.	- Type H6200 or Type H7000



TYPICAL BARRIER SECTION

This conduit was placed on the W.B bridge over Ky 180

REVISION	DATE
23	
DATE: 7/05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

ELECTRICAL DETAILS

ITEM NUMBER: 9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S23

DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\kyl80eb_electrical.dgn

CONSTRUCTION PROJECT NO. [illegible]

LETTING DATE 4-28-06

DATE: 2/17/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_title.dgn

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

BOYD COUNTY
INTERSTATE 64 (EASTBOUND)
OVER KY 180
Station 201+92.13

ESTIMATE OF QUANTITIES

	BID ITEM	CONCRETE CLASS A	CONCRETE CLASS AA	STEEL REINFORCEMENT	STEEL REINFORCEMENT EPOXY COATED	PPC I-BEAM 66" / TYPE 6	FOUNDATION PREPARATION	STRUCTURE EXCAVATION SOLID ROCK	CRUSHED AGGREGATE SLOPE PROTECTION	ARMORED EDGE	STRUCTURE GRANULAR BACKFILL	STEEL PILES HP 14x89	PILE POINTS 14 INCH	TEST PILE	MASONRY COATING	ELECTRICAL CONDUIT
	UNIT	C.Y.	C.Y.	LBS.	LBS.	L.F.	L.S.	C.Y.	TON	L.F.	C.Y.	L.F.	EA.	L.F.	S.Y.	L.S.
Substructure	Integral End Bent 1	33.3			5776				126	45	262	227	8	35	59	
Substructure	Pier 1	115.0		17556	120			76							145	
Substructure	Semi-Integral Abutment 2	39.4			6105			46		45	265				49	
	Superstructure		458.1		107440	1504.0									1100	
	BRIDGE TOTALS	187.7	458.1	17556	119441	1504.0	1	122	126	90	527	227	8	35	1353	1

INDEX OF SHEETS

Sheet No.	Description
1	Title Sheet
2	General Notes
3	Bar Bending Details
4	Layout
5-6	Subsurface Data Sheet
7	Foundation Layout
8	Staking Layout
9-10	Integral End Bent 1
11-12	Pier 1
13-14	Semi-Integral Abutment 2
15	Framing Plan
16	PPC I-Beam, 66", Details
17	Steel Diaphragms
18-19	Superstructure
20	Curve Offsets
21-22	Construction Elevations
23	Electrical Details

SPECIAL NOTES

SPECIAL PROVISIONS

69 Embankment at Bridge End Bent Structures

STANDARD DRAWINGS

BGX-006-08	Stencils for Structures
BGX-012-02	Geotechnical Legend
BGX-011-04	Barrier Transition End Drainage
BBP-002-04	Bearing Details
BBP-001-11	Elastomeric Bearing Pads for Prestressed Beams
BJE-001-11	Neoprene Expansion Dams and Armored Edges
BPS-011-03	HP 14x89 Steel Pile
RBC-001-08	Guardrail Connector to Bridge End

SPECIFICATIONS

2004 Standard Specifications for Road and Bridge Construction

2002 AASHTO Standard Specifications for Highway Bridges

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE	CROSSING
I-64	I-64 EASTBOUND OVER KY 180

TITLE SHEET

ITEM NUMBER
9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S1

DRAWING NO. 25253

GENERAL NOTES

SPECIFICATIONS:

ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE CURRENT EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WITH CURRENT SUPPLEMENTAL SPECIFICATIONS.

ALL REFERENCES TO AASHTO SPECIFICATIONS ARE TO THE 2002 EDITION AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

DESIGN LOAD AND METHOD:

THIS BRIDGE IS DESIGNED FOR HS25 LIVE LOAD OR ALTERNATE MILITARY LOADING, WHICHEVER PRODUCES THE GREATER STRESS. THE HS25 LIVE LOAD IS ARRIVED AT BY INCREASING THE STANDARD HS20-44 TRUCK AND LANE LOADS AS SPECIFIED IN THE AASHTO SPECIFICATIONS BY 25%. ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

WIND LOAD:

THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 100 MPH.

MATERIALS DESIGN SPECIFICATION:

FOR CLASS "A" REINFORCED CONCRETE	F'C = 3500 PSI
FOR CLASS "AA" REINFORCED" CONCRETE	F'C = 4000 PSI
FOR STEEL REINFORCEMENT	FY = 60000 PSI

REINFORCEMENT:

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS. CLEAR DISTANCE TO FACE OF CONCRETE IS 2", UNLESS OTHERWISE NOTED. EPOXY COAT BARS DESIGNATED BY SUFFIX (e) IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS. USE STIRRUP BEND DIAMETERS FOR BARS DESIGNATED BY SUFFIX (s) IN A BILL OF REINFORCEMENT.

BEVELED EDGES:

ALL EXPOSED EDGES SHALL BE BEVELED 7/8" UNLESS OTHERWISE SHOWN.

SHOP DRAWINGS:

SUBMIT SHOP DRAWINGS THAT ARE REQUIRED BY THE PLANS AND SPECIFICATIONS DIRECTLY TO THE BRIDGE CONSULTANT. IF ANY CHANGES IN THE DESIGN PLANS ARE PROPOSED BY A FABRICATOR OR SUPPLIER, SUBMIT THOSE CHANGES TO THE BRIDGE CONSULTANT THROUGH THE CONTRACTOR. THE BRIDGE CONSULTANT SHALL PROVIDE THE DIVISION OF BRIDGE DESIGN A COPY OF THE FINAL APPROVED SHOP PLANS.

INCIDENTAL MATERIALS:

THE STRUCTURE IS TO BE COMPLETED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. MATERIAL OR LABOR, NOT OTHERWISE SPECIFIED, ARE TO BE CONSIDERED INCIDENTAL TO THE CONTRACT.

DIMENSIONS:

DIMENSIONS ARE FOR A NORMAL TEMPERATURE AT 60 DEGREES FAHRENHEIT. LAYOUT DIMENSIONS ARE HORIZONTAL MEASUREMENTS.

CONCRETE:

CLASS "AA" CONCRETE IS TO BE USED IN THE SUPERSTRUCTURE DECK, PARAPETS, AND DIAPHRAGMS. CLASS "A" CONCRETE IS TO BE USED IN THE SUBSTRUCTURE. PRESTRESSED GIRDER CONCRETE SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

PAYMENT FOR PRESTRESSED PRECAST CONCRETE BEAMS:

THE BASIS OF PAYMENT FOR THE PRESTRESSED CONCRETE BEAMS SHALL BE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF BEAM, IN ACCORDANCE WITH THE SPECIFICATIONS.

FOUNDATION PRESSURE:

SPREAD FOOTING FOUNDATIONS ARE DESIGNED FOR PRESSURES AS SHOWN IN THE SPREAD FOOTING RECORD ON THE FOUNDATION LAYOUT SHEET. END BENT PILES ARE DESIGNED FOR THE MAXIMUM AXIAL LOAD AS SHOWN IN PILE RECORD ON THE FOUNDATION LAYOUT SHEET.

ELECTRICAL CONDUIT:

THE LUMP SUM BID FOR THIS ITEM SHALL INCLUDE FURNISHING ALL CONDUIT, CONCRETE MARKERS AND OTHER MATERIALS AND LABOR FOR PLACING THESE MATERIALS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

PILING:

PILING SHALL BE DRIVEN TO REFUSAL. TEST PILES SHALL BE DRIVEN WHERE DESIGNATED ON THE PLANS TO DETERMINE THE LENGTH OF PILE REQUIRED. ALL TEST PILES SHALL BE ACCURATELY LOCATED SO THEY MAY BE USED IN THE FINISHED STRUCTURE.

PILE POINTS:

PILE POINTS ARE REQUIRED FOR ALL PILES. THE POINTS SHALL BE THE TYPE FOR KEYING INTO A SLOPING ROCK SURFACE. PILE POINTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILE HAMMER:

ANY COMMONLY UTILIZED HAMMER ALLOWED BY THE DIVISION OF CONSTRUCTION WILL BE ADEQUATE TO DRIVE THE PILES TO BEDROCK WITHOUT ENCOUNTERING EXCESSIVE BLOW COUNTS AND OVER-STRESSING THE PILES. THE CONTRACTOR SHALL SUBMIT HIS PILE DRIVING SYSTEM TO THE DEPARTMENT FOR APPROVAL PRIOR TO THE INSTALLATION OF THE FIRST PILE. APPROVAL OF THE PILE DRIVING SYSTEM BY THE ENGINEER WILL BE SUBJECT TO SATISFACTORY FIELD PERFORMANCE OF THE PILE DRIVING PROCEDURES.

POURING SEQUENCE:

THE POURING SEQUENCE OF THE SLAB MAY BE CHANGED WITH THE WRITTEN APPROVAL OF THE DESIGNER.

SLOPE PROTECTION:

SLOPE PROTECTION SHALL BE CRUSHED AGGREGATE SLOPE PROTECTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. GEOTEXTILE FABRIC IS TO BE CONSIDERED INCIDENTAL TO CRUSHED AGGREGATE SLOPE PROTECTION.

EXISTING ALUMINUM HANDRAIL:

THE EXISTING ALUMINUM HANDRAIL SHALL BE CAREFULLY REMOVED AND DELIVERED, WITHOUT DAMAGE, TO THE STATE MAINTENANCE YARD IN FRANKFORT. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO REMOVE EXISTING STRUCTURE, LUMP SUM.

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS MAY HAVE BEEN USED IN PREPARATION OF THESE PLANS:

bet.	BETWEEN	MPH	MILES PER HOUR
b.f.	BACK FACE	n.s.	NEAR SIDE
BOF	BOTTOM OF FOOTING	O.D.	OUTSIDE DIAMETER
bot.	BOTTOM	Opp.	OPPOSITE
Brg.	BEARING	PC	POINT OF CURVE
C to C	CENTER TO CENTER	Perp.	PERPENDICULAR
c.e.	CURRENT EDITION	PI	POINT OF INTERSECTION
C.Y.	CUBIC YARD	PPC	PRECAST PRESTRESSED CONCRETE
Chd.	CHORD	PPCDU	PRECAST PRESTRESSED CONCRETE DECK UNIT
CL	CENTER LINE	PSI	POUNDS PER SQUARE INCH
Cl.	CLEAR	PT	POINT OF TANGENT
Conc.	CONCRETE	R	RADIUS
Cu.	CUBIC	Rt.	RIGHT
Dwg.	DRAWING	RCBC	REINFORCED CONCRETE BOX CULVERT
e.f.	EACH FACE	RCDG	REINFORCED CONCRETE DECK GIRDER
El.	ELEVATION	Req'd.	REQUIRED
eq.	EQUAL	RR	RAILROAD
Est.	ESTIMATE	Shld.	SHOULDER
Ext.	EXTERIOR	spa.	SPACES
F to F	FACE TO FACE	Sta.	STATION
f.f.	FRONT FACE	Std.	STANDARD
f.s.	FAR FACE	Str.	STRAIGHT
fr.	FRONT	Tan	TANGENT
ft.	FEET	Thru	THROUGH
I.D.	INSIDE DIAMETER	TOF	TOP OF FOOTING
in.	INCH	Tot.	TOTAL
Int.	INTERIOR	Typ.	TYPICAL
Lt.	LEFT	Vert.	VERTICAL
LBS	LOW BRIDGE SEAT	W.P.	WORKING POINT
LBS.	POUNDS	Yd.	YARD
M	METER		

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

GENERAL NOTES

ITEM NUMBER: 9-60.00

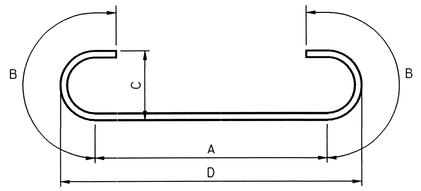
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S2

DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_notes.dgn



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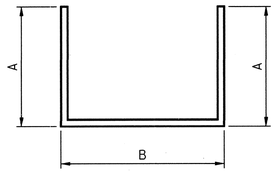

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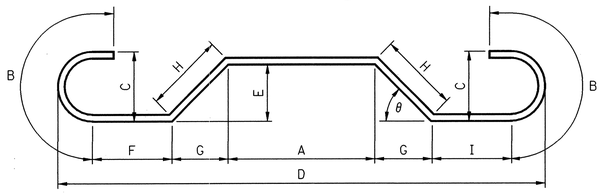

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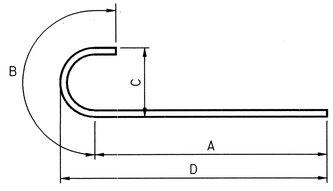

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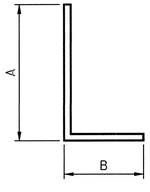

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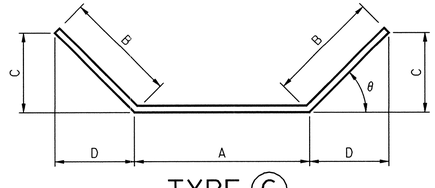

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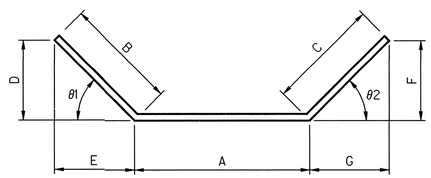

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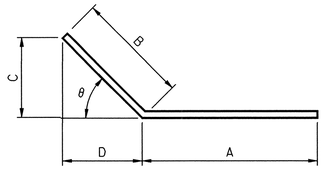

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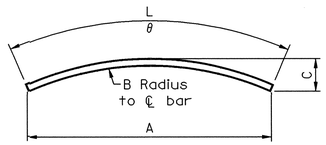

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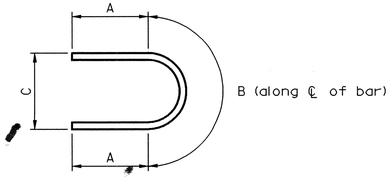

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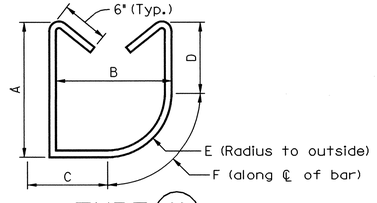

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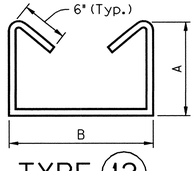

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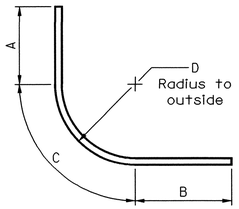

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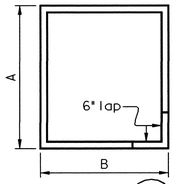

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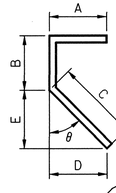

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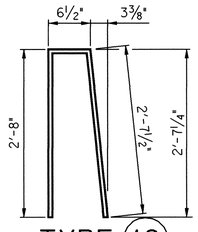

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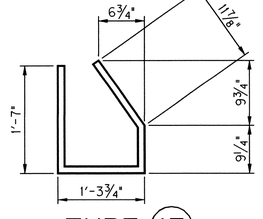

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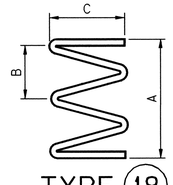

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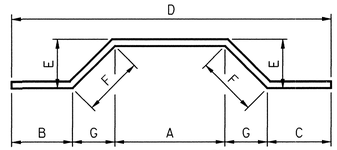

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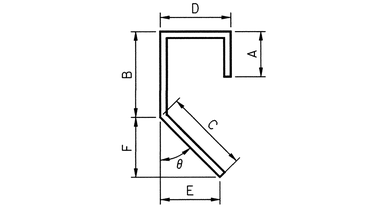

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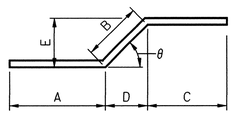

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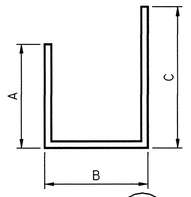

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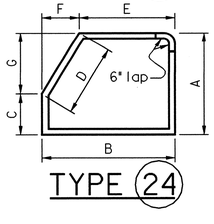

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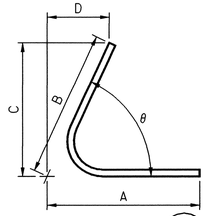

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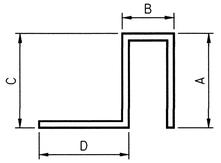

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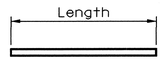


TYPE (0)

REVISION	DATE
DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
I-64

CROSSING
I-64 EASTBOUND OVER KY 180

BAR BENDING DETAILS

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

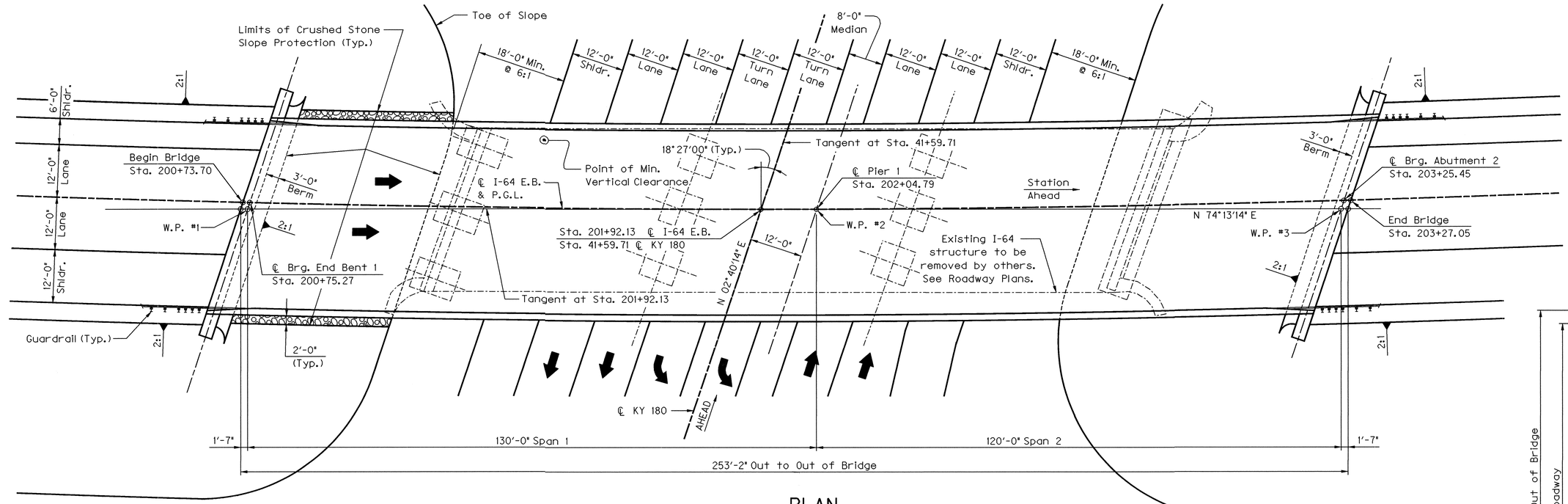
SHEET NO.
S3

DRAWING NO.
25253

ITEM NUMBER
9-60.00

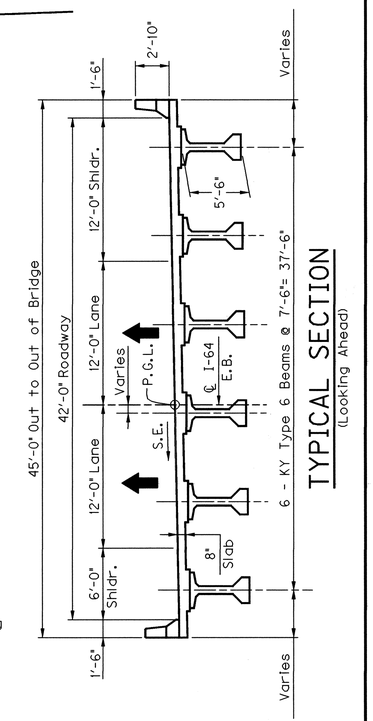
DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_barbend.dgn

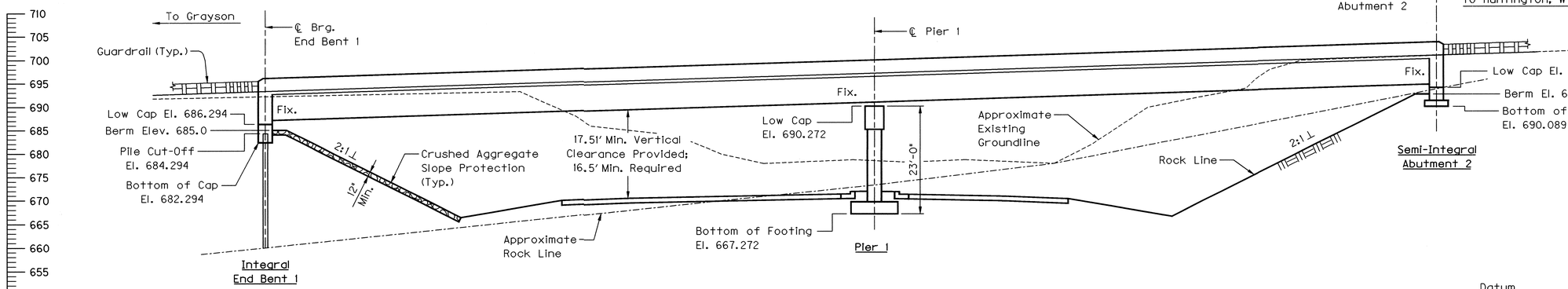


PLAN

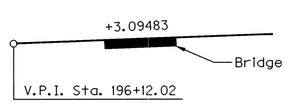
130'-0"-120'-0" ~ KY Type 6 PCIB ~ Continuous for Live Load
HS 25 Live Load ~ 42'-0" Roadway ~ 18°27'00" Skew Rt.
50'-0" Shoulders @ Bridge ~ 2:1 Fill Slopes



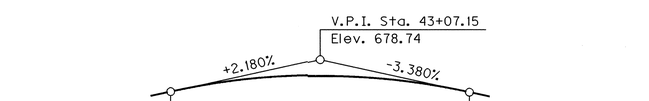
TYPICAL SECTION
(Looking Ahead)



ELEVATION



INTERSTATE 64 E.B. VERTICAL CURVE DATA



KY 180 VERTICAL CURVE DATA

I-64 CURVE DATA

P.I. 207+12.32
△= 17°59'09" LT.
T= 725.39'
L= 1432.96'
R= 4583.66'
E= 56.34'
e= 0.044'/'
RUNOFF = 133'
RUNOUT = 60'

KY 180 CURVE DATA

P.I. 49+45.41
△= 55°32'11" LT.
Ts= 853.25'
Ls= 430'
R = 1206.23'
Lc= 739.19'
Os= 10°12'45"
LT= 287.15'
ST= 143.77'
Es= 164.20'
e= 0.077'/'
RUNOFF = 430'
RUNOUT = 112'

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

LAYOUT

ITEM NUMBER: 9-60.00

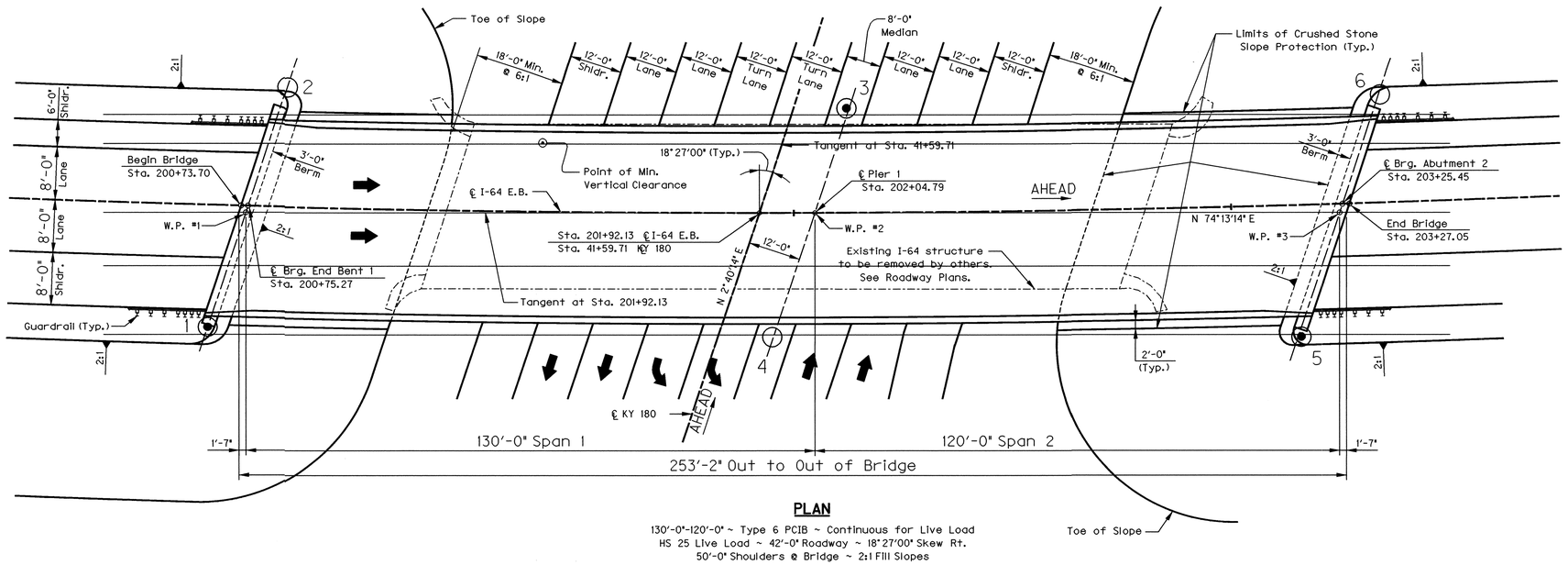
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S4

DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-STK\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_layout.dgn

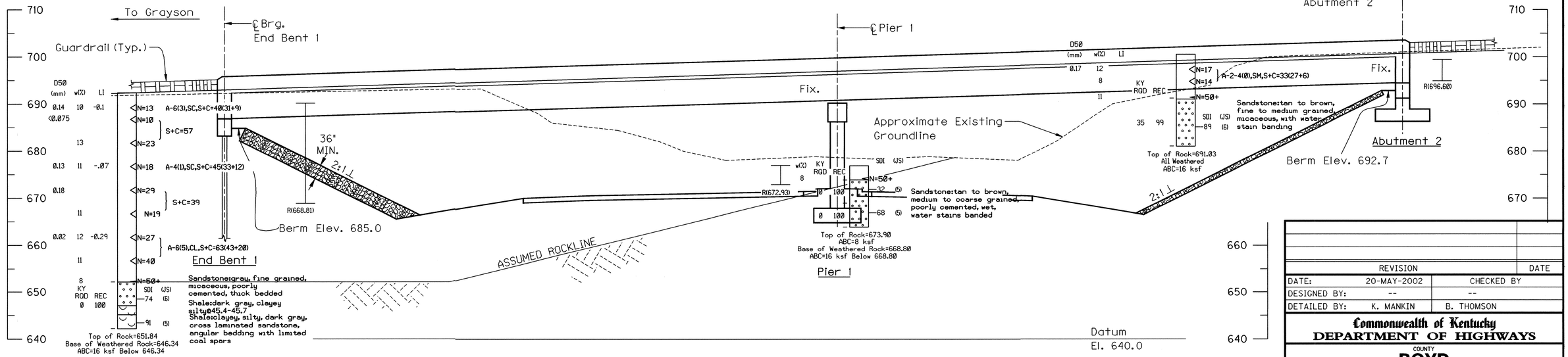


PLAN

130'-0"-120'-0" ~ Type 6 PCIB ~ Continuous for Live Load
HS 25 Live Load ~ 42'-0" Roadway ~ 18°27'00" Skew Rt.
50'-0" Shoulders @ Bridge ~ 2:1 Fill Slopes

SCALE : 1" = 30'

Hole No.	1	2	4	3	5	6
Station	200+66	200+84	201+95	202+12	203+16	203+34
Offset	28' Rt.	27' Lt.	31' Rt.	22' Lt.	38' Rt.	25' Lt.
Elevation (Sea level datum)	692.04	690.11	676.93	676.90	700.53	699.40



ELEVATION

PROFILE VIEW
SCALE : 1" = 10'V
HORIZONTAL NOT TO SCALE

ITEM NUMBER
9-60.00

REVISION	DATE

DATE:	20-MAY-2002	CHECKED BY
DESIGNED BY:	--	--
DETAILED BY:	K. MANKIN	B. THOMSON

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** | CROSSING: **I-64 EASTBOUND OVER KY 180**

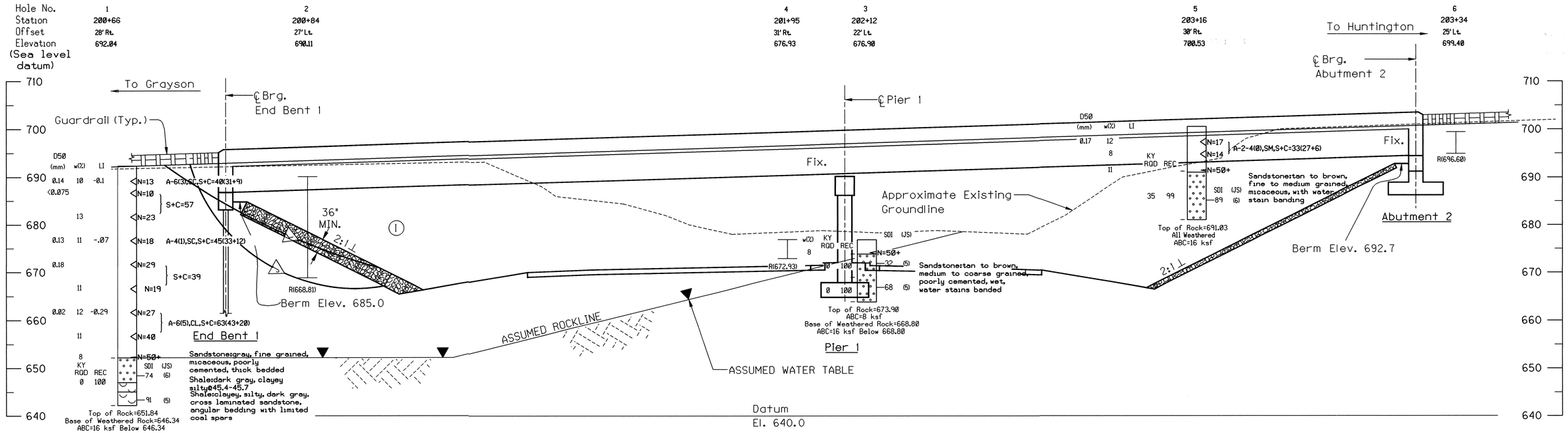
SUBSURFACE DATA SHEET

PREPARED BY
H.C. NUTTING COMPANY
CORPORATE OFFICE - 611 LUNKEN PARK DRIVE
CINCINNATI, OHIO 45226
(513) 321-5816
EMPLOYEE OWNED
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

SHEET NO. **S5**
DRAWING NO. **25253**

DATE: 2/8/2006
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_soundings2.dgn

Hole No.	1	2	4	3	5	6
Station	200+66	200+84	201+95	202+12	203+16	203+34
Offset	28' Rt.	27' Lt.	31' Rt.	22' Lt.	38' Rt.	25' Lt.
Elevation (Sea level datum)	692.04	690.11	676.93	676.90	700.53	699.40



ELEVATION

FACTORS OF SAFETY		
J	INTERMEDIATE TERM	1.8
K	LONG TERM	1.4

ASSUMED SOIL STRENGTH PARAMETERS	
SOIL	I I
INTERMEDIATE TERM	$\bar{g}$ = 120 PCF $\bar{c}$ = 200 PSF $\bar{f}$ = 28°
LONG TERM	$\bar{g}$ = 120 PCF $\bar{c}$ = 40 PSF $\bar{f}$ = 28°

PROFILE VIEW
SCALE : 1" = 10'V
HORIZONTAL NOT TO SCALE

REVISION	DATE

DATE:	20-MAY-2002	CHECKED BY	
DESIGNED BY:	--	--	
DETAILED BY:	K. MANKIN	B. THOMSON	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

CUT STABILITY SHEET

ITEM NUMBER
9-60.00

PREPARED BY
H.C. NUTTING COMPANY
CORPORATE OFFICE - 611 LUNKEN PARK DRIVE
CINCINNATI, OHIO 45226
(513) 321-5816
CHI-OTTE OWNED
GEOTECHNICAL, ENVIRONMENTAL AND TESTING ENGINEERS

SHEET NO. S6
DRAWING NO. 25253

DATE: 2/8/2006
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\kyl80eb_soundingsl.dgn

PILE RECORD FOR POINT BEARING PILES-END BENT 1

Pile No.	Pile Cut-off Elevation (Feet)	Pile Length in Place (Feet)	Point of Pile Elevation as Driven (Feet)	Design Axial Load (Tons)	Required Field Bearing (Tons)	Calculated Field Bearing (Tons)
1	684.294			113	180	
2	684.294			113	180	
3	684.294			113	180	
4	684.294			113	180	
5	684.294			113	180	
6	684.294			113	180	
7	684.294			113	180	

NOTE:
Reinforced Pile Points shall be the type for keying into a sloping rock surface.

Definitions of Terms

PILE CUT-OFF ELEVATION: Elevation of the top of pile in the finished structure.

PILE LENGTH IN PLACE: Actual pile length below the Pile Cut-Off Elevation in the finished structure.

POINT OF PILE ELEVATION AS DRIVEN: Actual point of pile elvevation in the finished structure.

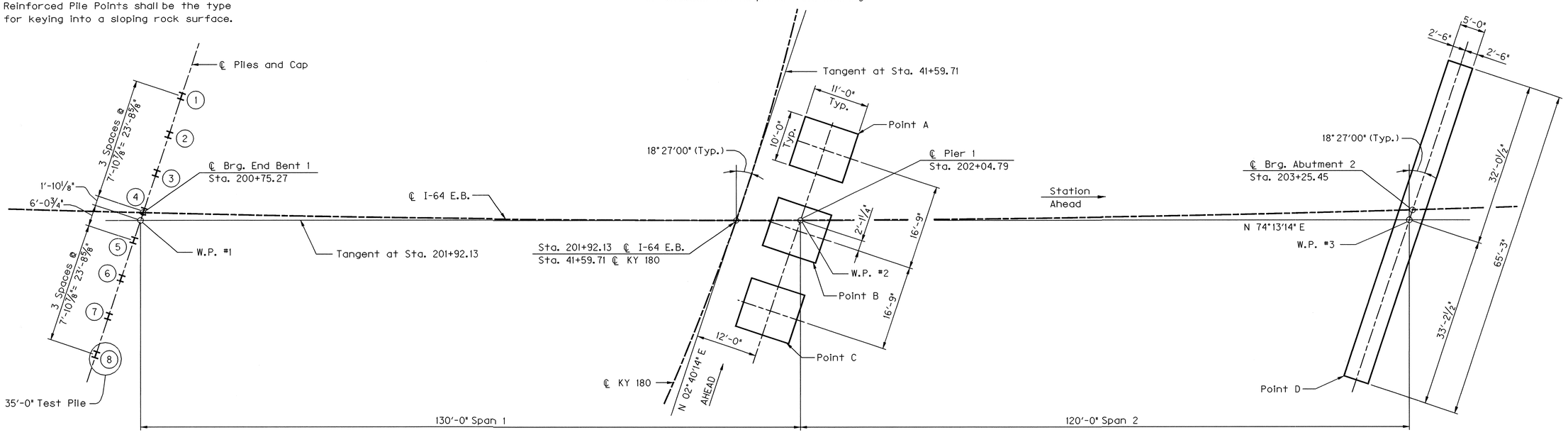
DESIGN AXIAL LOAD: Service load carried by each pile as estimated from structural design calculations.

REQUIRED FIELD BEARING: Pile bearing value required to achieve "refusal" for the size of pile used. According to the Division of Construction Guidance Manual, this value is taken as 150 Tons for 12-inch steel H-Piles and 180 Tons for 14 inch steel H-Piles.

CALCULATED FIELD BEARING: Pile bearing value in place calculated using the appropriate pile driving formula in Section 604.03.07(B) of the Standard Specifications.

Driving Criteria

DRIVING CRITERIA: Drive point bearing piles to refusal and verify that the Calculated Field Bearing equals or exceeds the Required Field Bearing.



FOUNDATION PLAN

NOTE: After all foundations have been placed, the Project Resident Engineer shall record the bottom of footing elevation "As Built" and shall submit one copy of this sheet with this data to:
Kentucky Transportation Cabinet
Director, Division of Bridge Design
Station E3-16-01
200 Mero Street
Frankfort, Ky 40622

NOTE: Contrary to the Specifications, bottom of footing elevations shall not be raised.

NOTE: If the spread footing foundation is stepped due to unsuitable material found at the given elevation, the location and elevation of the step shall be shown on this sheet and submitted along with the "As-Built" elevations.

SPREAD FOOTING RECORD PIER 1

Point	Plan Footing Elevation	As-Built Footing Elevation
A	667.272	
B	667.272	
C	667.272	

Footing is designed for a maximum pressure of 15,512 psf.
The allowable bearing capacity is 16,000 psf.

SPREAD FOOTING RECORD ABUTMENT 2

Point	Plan Footing Elevation	As-Built Footing Elevation
D	690.089	

Footing is designed for a maximum pressure of 9,020 psf.
The allowable bearing capacity is 16,000 psf.

Field Data

For each pile, the Project Engineer shall record the following on this sheet: Pile Length in Place, Point of Pile Elevation as Driven, and the Calculated Field Bearing. Submit this record to:

Kentucky Transportation Cabinet
Director, Division of Bridge Design
Station E3-16-01
200 Mero Street
Frankfort, Ky 40622

This pile record does not replace other pile records the Project Engineer is required to keep and submit.

Use HP 14x89 in accordance with BPS-011. c.e.

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

FOUNDATION LAYOUT

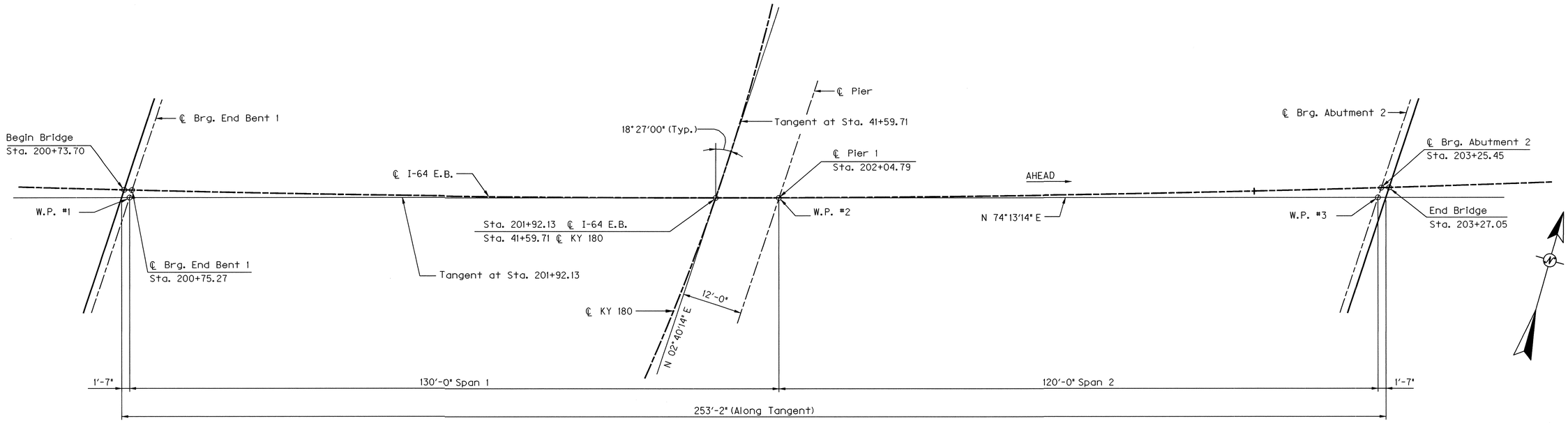
ITEM NUMBER: 9-60.00

PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S7
DRAWING NO. 25253

DATE: 2/8/2006

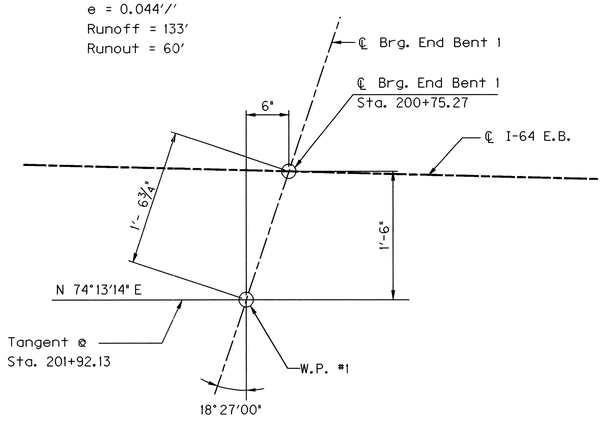
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_foundation.dgn



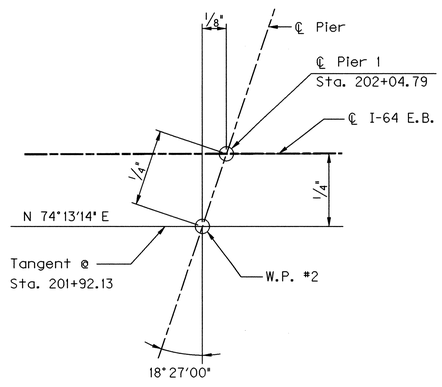
PLAN

I-64 E.B. Curve Data

PI 207+13.32
△ = 17°59'09" Lt.
T = 725.39'
L = 1432.96'
R = 4583.66'
E = 56.34'
e = 0.044'/'
Runoff = 133'
Runout = 60'



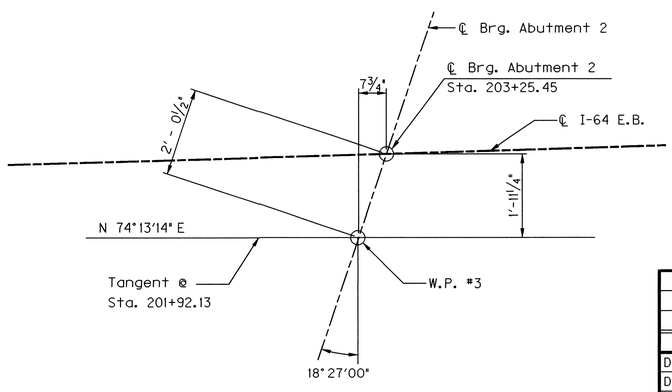
WORKING POINT #1



WORKING POINT #2

KY 180 Curve Data

PI 49+45.41
△ = 55°32'11" Lt.
Ts = 853.25'
Ls = 430.00'
Lc = 739.18'
Θs = 10°12'45"
L.T. = 287.15'
S.T. = 143.77'
R = 1206.23'
Es = 164.20'
e = 0.077'/'
Runoff = 430'
Runout = 112'



WORKING POINT #3

REVISION	DATE

DATE: 07-05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: J.L. WILKERSON	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE	CROSSING
I-64	I-64 EASTBOUND OVER KY 180

STAKING LAYOUT

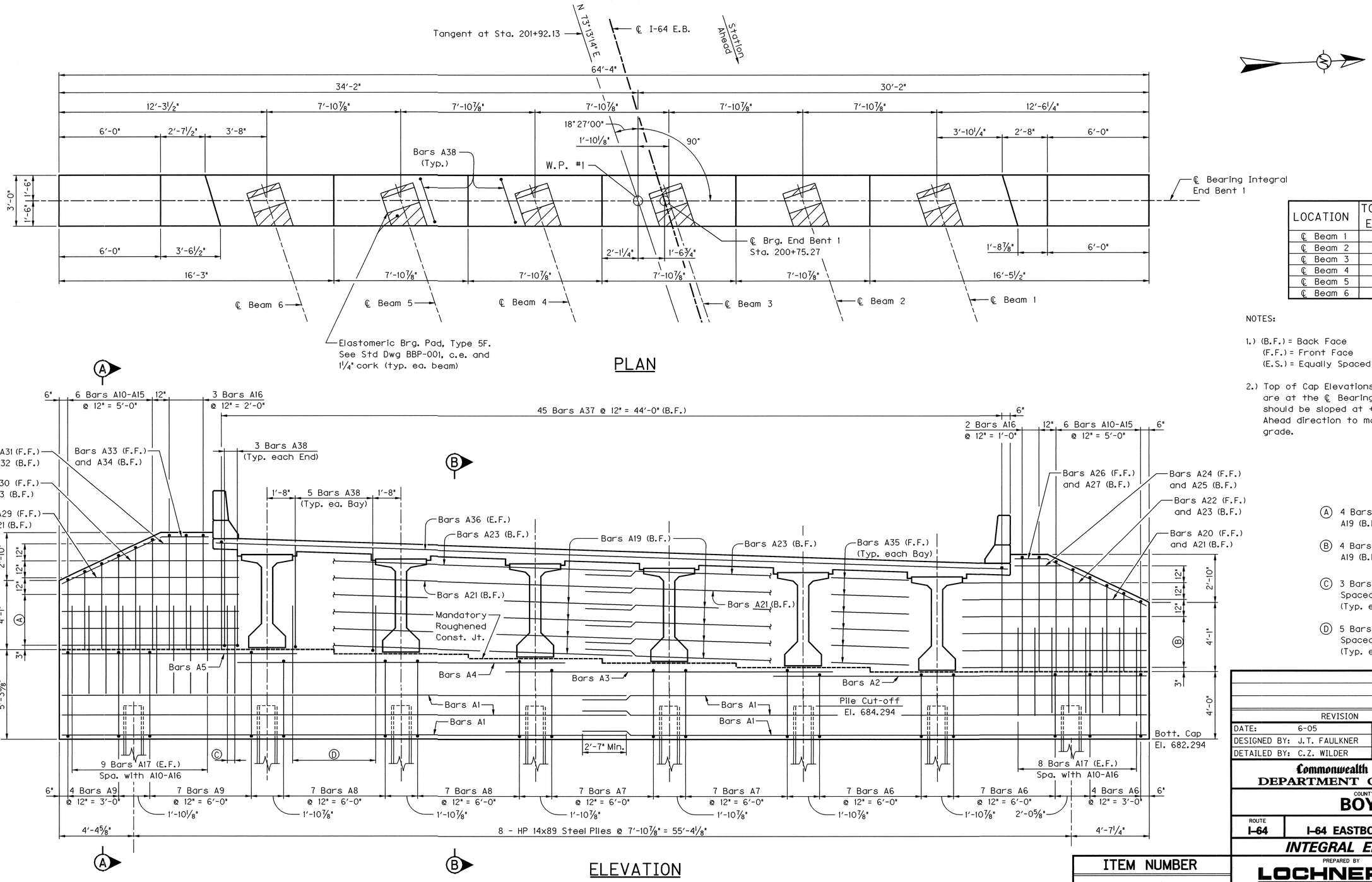
ITEM NUMBER
9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S8
DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_stklayout.dgn



PLAN

LOCATION	TOP OF CAP ELEVATION
℄ Beam 1	686.294
℄ Beam 2	686.554
℄ Beam 3	686.815
℄ Beam 4	687.077
℄ Beam 5	687.338
℄ Beam 6	687.600

NOTES:

1.) (B.F.) = Back Face
(F.F.) = Front Face
(E.S.) = Equally Spaced

2.) Top of Cap Elevations given in the Table are at the ℄ Bearing. The top of cap should be sloped at +3.12% in the Station Ahead direction to match the profile grade.

ELEVATION

Ⓐ 4 Bars A28 (F.F.), A19 (B.F.) @ 12" = 3'-0"

Ⓑ 4 Bars A18 (F.F.), A19 (B.F.) @ 12" = 3'-0"

Ⓒ 3 Bars A17 (E.F.), Spaced with A38 (Typ. each End)

Ⓓ 5 Bars A17 (E.F.), Spaced with A38 (Typ. each Bay)

REVISION	DATE

DATE: 6-05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64**

CROSSING
I-64 EASTBOUND OVER KY 180

INTEGRAL END BENT 1

ITEM NUMBER
9-60.00

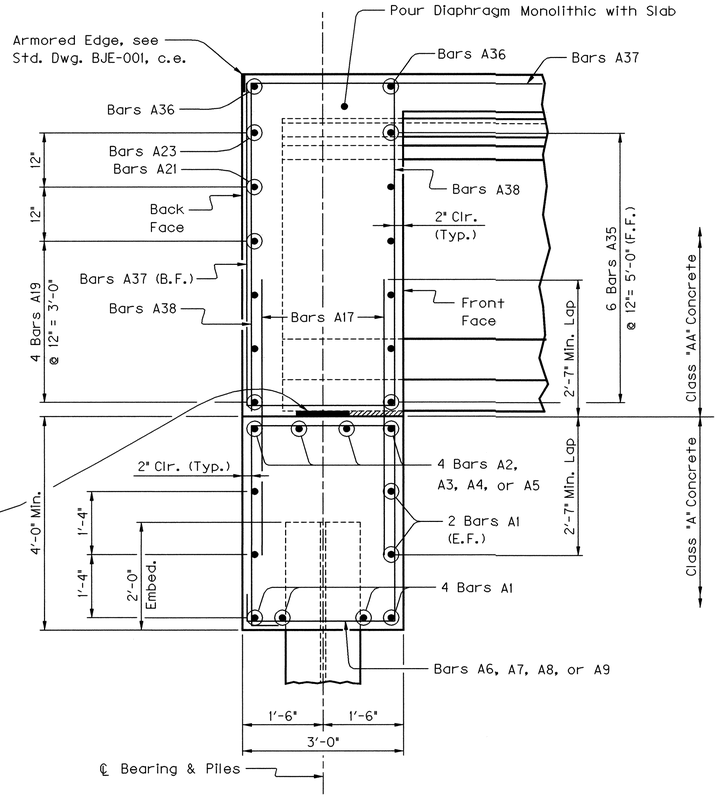
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S9

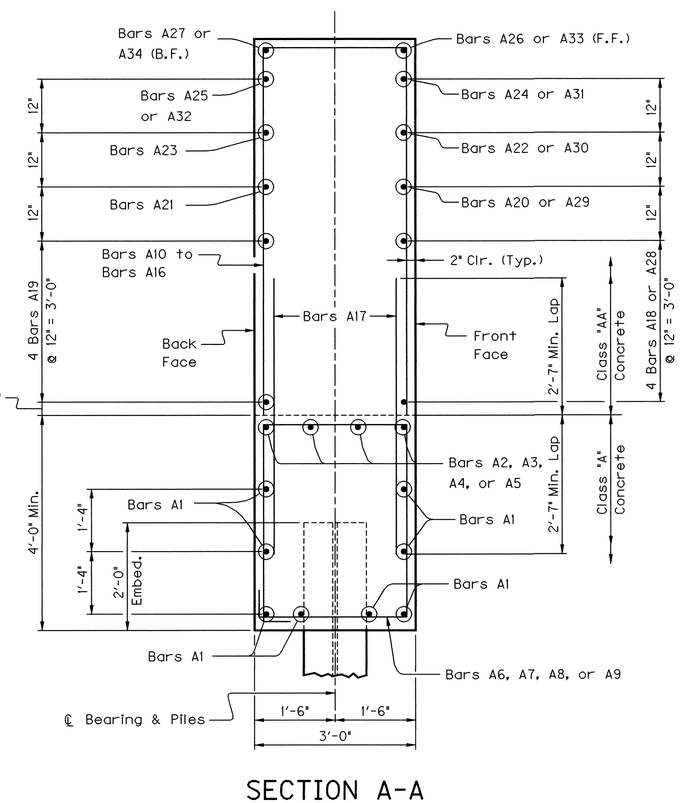
DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_ebIA.dgn



SECTION B-B



SECTION A-A

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
A1e	Str	5	16	33	4	Cap								
A2e	Str	5	4	22	6	Cap								
A3e	Str	5	4	21	0	Cap								
A4e	Str	5	4	21	0	Cap								
A5e	Str	5	4	14	0	Cap								
A6es	14	5	18	13	3	Cap	3	7	2	8				
A7es	14	5	14	13	9	Cap	3	10	2	8				
A8es	14	5	14	14	9	Cap	4	4	2	8				
A9es	14	5	11	15	9	Cap	4	10	2	8				
A10es	2	5	2	10	8	Wing	4	0½	2	8				
A11es	2	5	2	11	8	Wing	4	6½	2	8				
A12es	2	5	2	12	7	Wing	5	0	2	8				
A13es	2	5	2	13	6	Wing	5	5½	2	8				
A14es	2	5	2	14	6	Wing	5	11½	2	8				
A15es	2	5	2	15	5	Wing	6	5	2	8				
A16es	2	5	5	15	11	Wing	6	8	2	8				
A17e	Str	5	96	5	6	Wing/Cap								
A18e	Str	5	4	10	1	Wing								
A19e	Str	5	8	33	4	Wing								
A20e	Str	5	1	9	5	Wing								
A21e	Str	5	2	32	9	Wing								
A22e	Str	5	1	7	3	Wing								
A23e	Str	5	2	30	7	Wing								
A24e	Str	5	1	2	9	Wing								
A25e	Str	5	1	3	5	Wing								
A26e	8	5	1	8	0	Wing	6	6	1	6	0	7⅝	1	4¼
A27e	8	5	1	8	11	Wing	6	6	2	5	1	0⅜	2	2¼
A28e	Str	5	4	11	3	Wing								
A29e	Str	5	1	10	8	Wing								
A30e	Str	5	1	8	6	Wing								
A31e	Str	5	1	4	4	Wing								
A32e	Str	5	1	3	6	Wing								
A33e	8	5	1	9	9	Wing	6	6	3	3	1	4⅝	2	11¼
A34e	8	5	1	8	11	Wing	6	6	2	5	1	0⅜	2	2¼
A35e	Str	5	30	5	3	Diaphragm								
A36e	Str	5	2	46	9	Slab								
A37e	5	8	45	16	0	Diaphragm	10	0	6	0				
A38es	2	5	31	14	9	Diaphragm	6	0	2	10				

NOTES:

1.) Reinforcing Bars designated by suffix (s) shall be considered a stirup for purposes of bend diameters.

2.) All Class "AA" Concrete is included in Superstructure Quantities.

REVISION	DATE

DATE: 06-05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

INTEGRAL END BENT 1

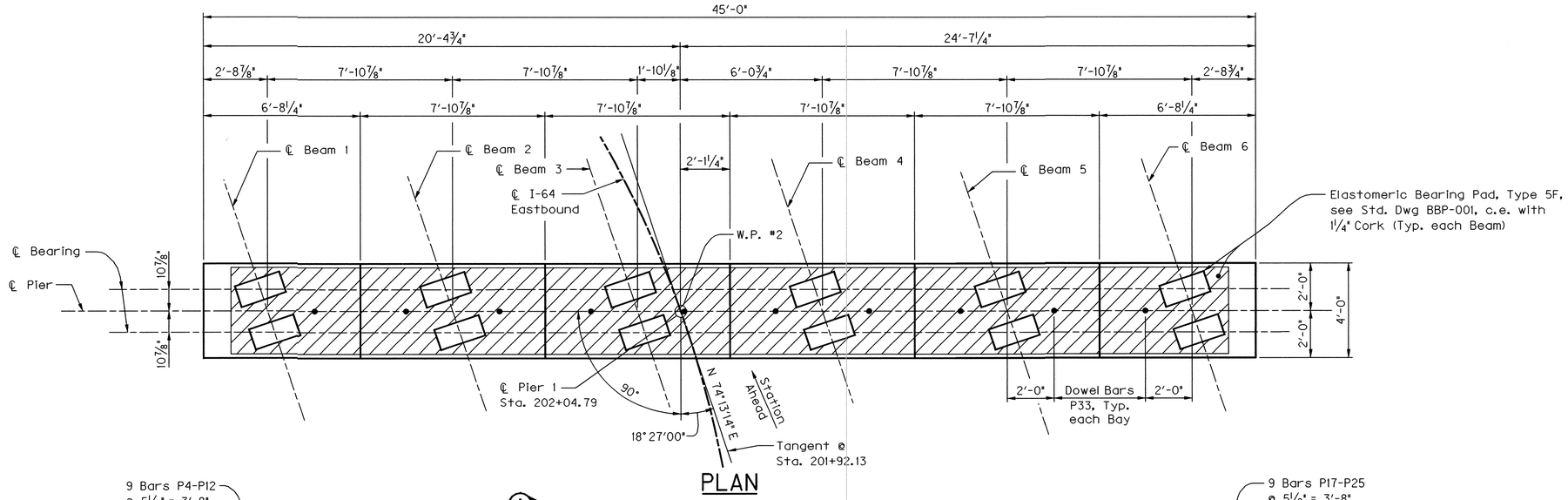
ITEM NUMBER
9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

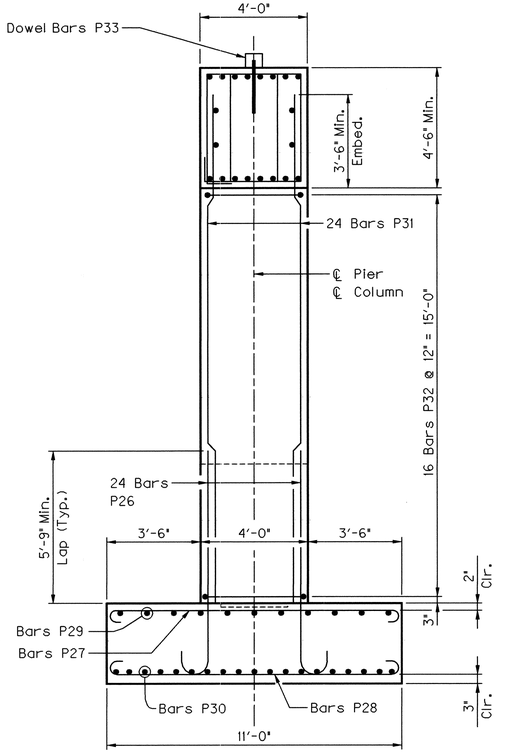
SHEET NO. S10
DRAWING NO. 25253

DATE: 2/8/2006

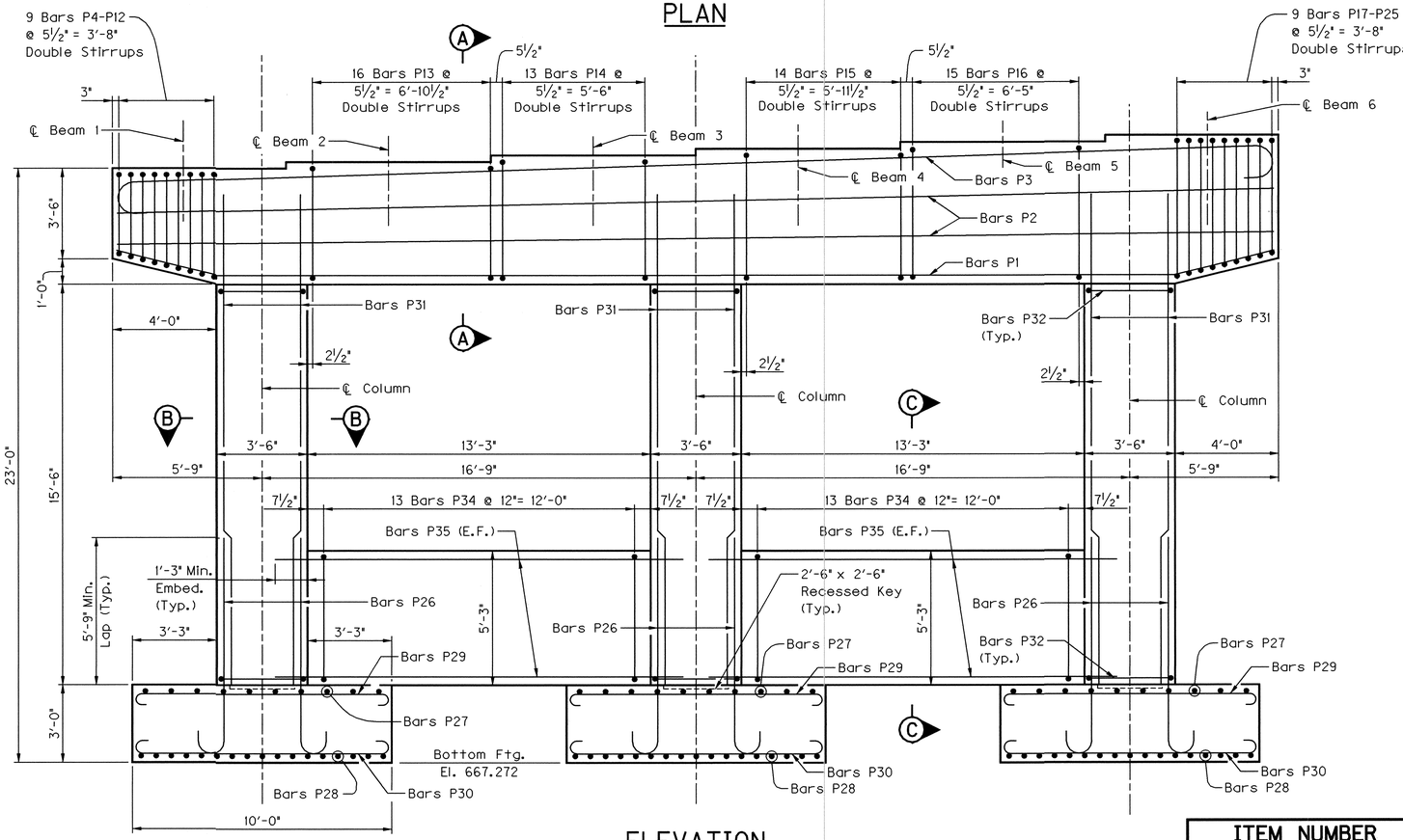
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\kyi180eb_ebIB.dgn



PLAN



END ELEVATION



ELEVATION

LOCATION	TOP OF CAP ELEVATION
℄ Beam 1	El. 690.272
℄ Beam 2	El. 690.523
℄ Beam 3	El. 690.775
℄ Beam 4	El. 691.027
℄ Beam 5	El. 691.279
℄ Beam 6	El. 691.531

NOTES:

1.) (E.F.) = Each Face
(E.S.) = Equally Spaced

2.) Top of Cap Elevations given in the Table are at the ℄ Pier. The top of cap should be sloped at +3.12% in the Station Ahead direction to match the profile grade.

REVISION	DATE

DATE: 6/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64**

CROSSING
I-64 EASTBOUND OVER KY 180

PIER 1

ITEM NUMBER
9-60.00

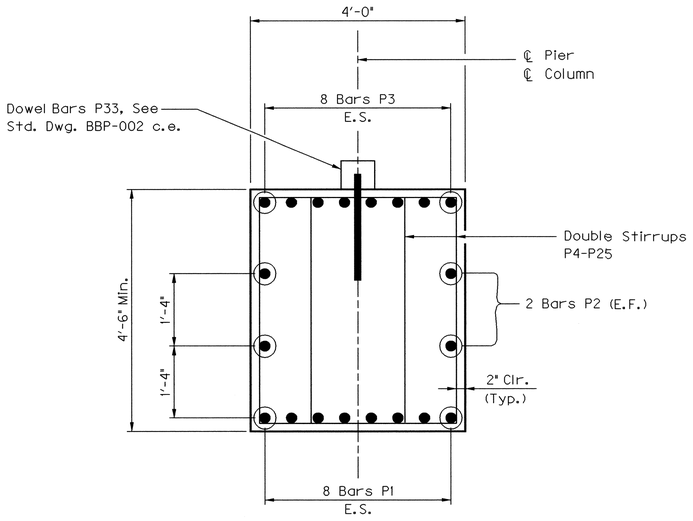
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S11

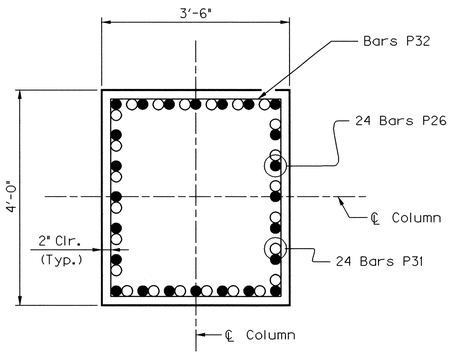
DRAWING NO. 25253

DATE: 2/8/2006

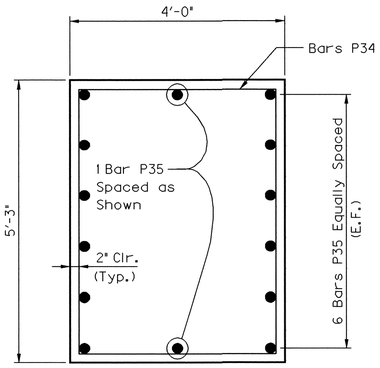
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_pier 1A.dgn



SECTION A-A



SECTION B-B

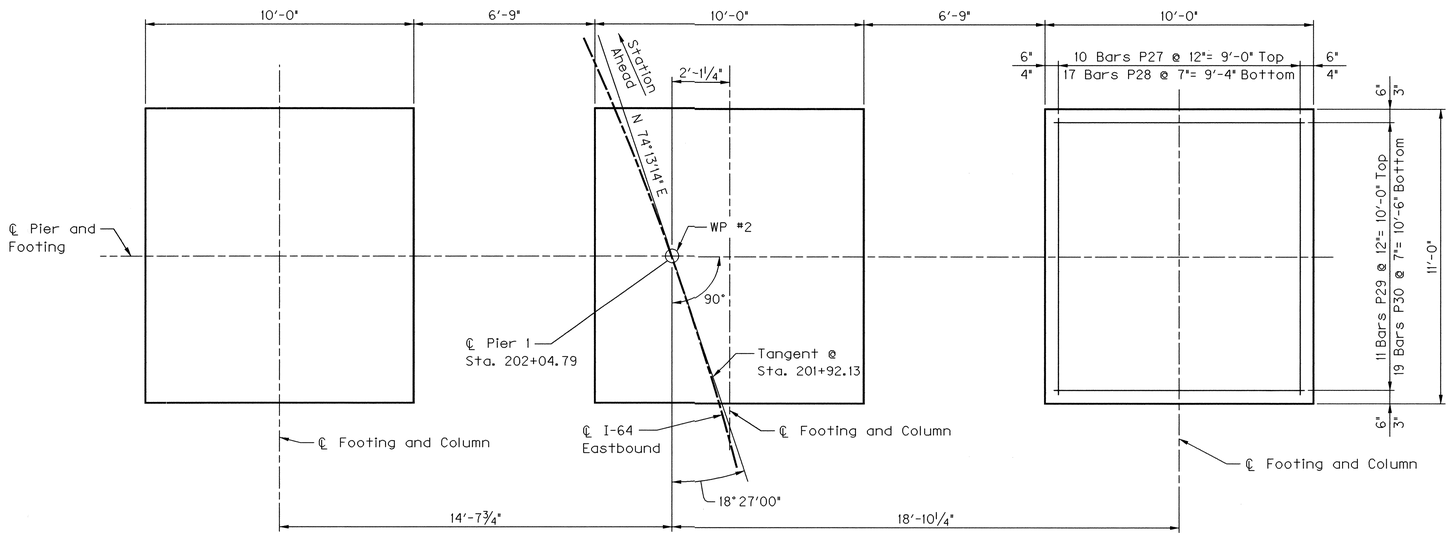


SECTION C-C

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
P1	6	9	8	44	9	Cap	36	11	3	11	0	11 3/8	3	9 5/8
P2	Str	5	4	44	8	Cap								
P3	1	11	8	48	3	Cap	43	5	2	5	1	2 3/4	44	7 3/4
P4s	14	5	2	12	8	Cap	3	2 1/2	2	9				
P5s	14	5	2	12	11	Cap	3	4	2	9				
P6s	14	5	2	13	2	Cap	3	5 1/2	2	9				
P7s	14	5	2	13	5	Cap	3	7	2	9				
P8s	14	5	2	13	7	Cap	3	8	2	9				
P9s	14	5	2	13	10	Cap	3	9 1/2	2	9				
P10s	14	5	2	14	1	Cap	3	11	2	9				
P11s	14	5	2	14	4	Cap	4	0 1/2	2	9				
P12s	14	5	2	14	7	Cap	4	2	2	9				
P13s	14	5	32	15	1	Cap	4	5	2	9				
P14s	14	5	26	15	7	Cap	4	8	2	9				
P15s	14	5	28	16	1	Cap	4	11	2	9				
P16s	14	5	30	16	7	Cap	5	2	2	9				
P17s	14	5	2	17	1	Cap	5	5	2	9				
P18s	14	5	2	16	10	Cap	5	3 1/2	2	9				
P19s	14	5	2	16	7	Cap	5	2	2	9				
P20s	14	5	2	16	4	Cap	5	0 1/2	2	9				
P21s	14	5	2	16	2	Cap	4	11 1/2	2	9				
P22s	14	5	2	15	11	Cap	4	10	2	9				
P23s	14	5	2	15	8	Cap	4	8 1/2	2	9				
P24s	14	5	2	15	5	Cap	4	7	2	9				
P25s	14	5	2	15	3	Cap	4	6	2	9				
P26	4	9	72	10	11	Column/Ftg.	9	0	1	11	0	11 3/4	9	5 7/8
P27	1	5	30	11	11	Footing	10	3	0	10	0	5	10	8
P28	1	6	51	12	2	Footing	10	2	1	0	0	6	10	8
P29	1	5	33	10	11	Footing	9	3	0	10	0	5	9	8
P30	1	6	57	11	2	Footing	9	2	1	0	0	6	9	8
P31	Str	9	72	19	0	Column								
P32s	14	5	48	14	5	Column	3	8	3	2				
P33e	Str	*	10	2	0	Cap								
P34s	14	5	26	17	11	Crashwall	4	11	3	8				
P35	Str	5	28	15	9	Crashwall								

* 1½"Ø Smooth Round Bar, may be commercial grade steel.



FOOTING PLAN

NOTES:
1) Reinforcing bars designated by suffix (s) shall be considered a stirrup for purposes of bend diameter.

2) Reinforcing bars designated by suffix (e) shall be epoxy coated.

REVISION	DATE

DATE: 6/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
I-64

CROSSING
I-64 EASTBOUND OVER KY 180

PIER 1

ITEM NUMBER
9-60.00

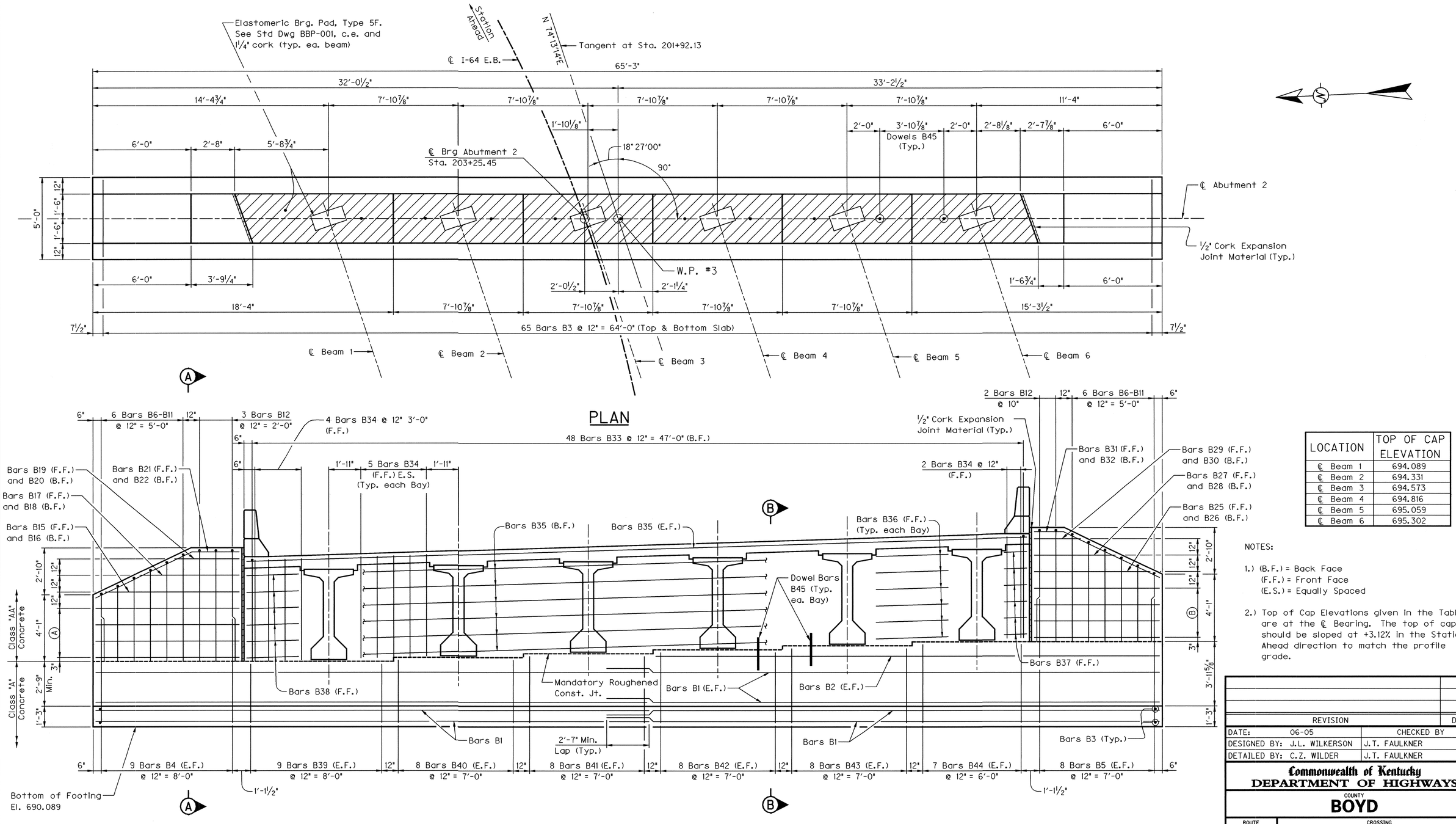
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO.
S12

DRAWING NO.
25253

DATE: 2/14/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_pier 18.dgn



LOCATION	TOP OF CAP ELEVATION
℄ Beam 1	694.089
℄ Beam 2	694.331
℄ Beam 3	694.573
℄ Beam 4	694.816
℄ Beam 5	695.059
℄ Beam 6	695.302

NOTES:

1.) (B.F.) = Back Face
(F.F.) = Front Face
(E.S.) = Equally Spaced

2.) Top of Cap Elevations given in the Table are at the ℄ Bearing. The top of cap should be sloped at +3.12% in the Station Ahead direction to match the profile grade.

REVISION	DATE

DATE: 06-05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** | CROSSING: **I-64 EASTBOUND OVER KY 180**

SEMI-INTEGRAL ABUTMENT 2

ITEM NUMBER: **9-60.00**

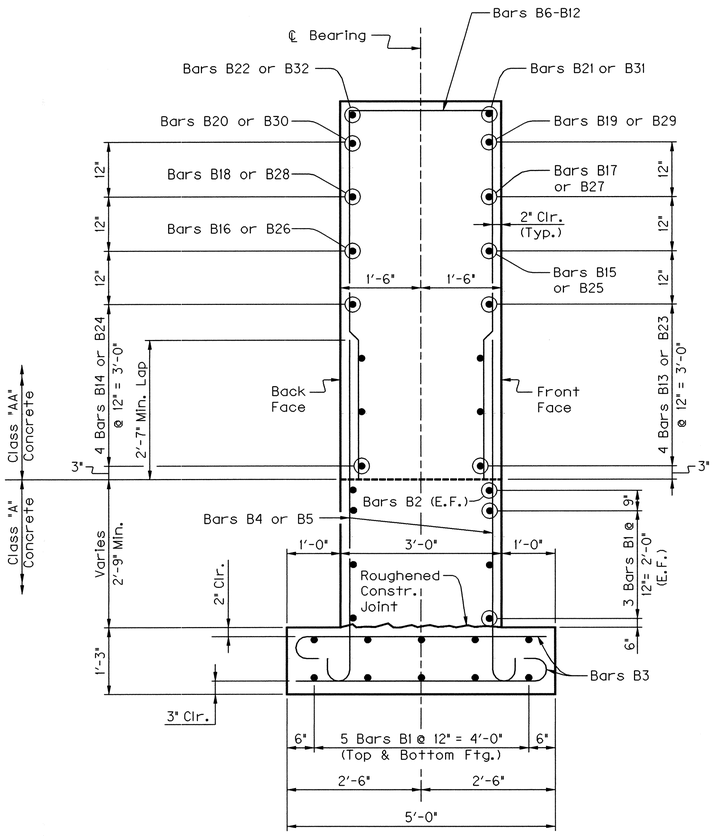
PREPARED BY: **LOCHNER**
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S13

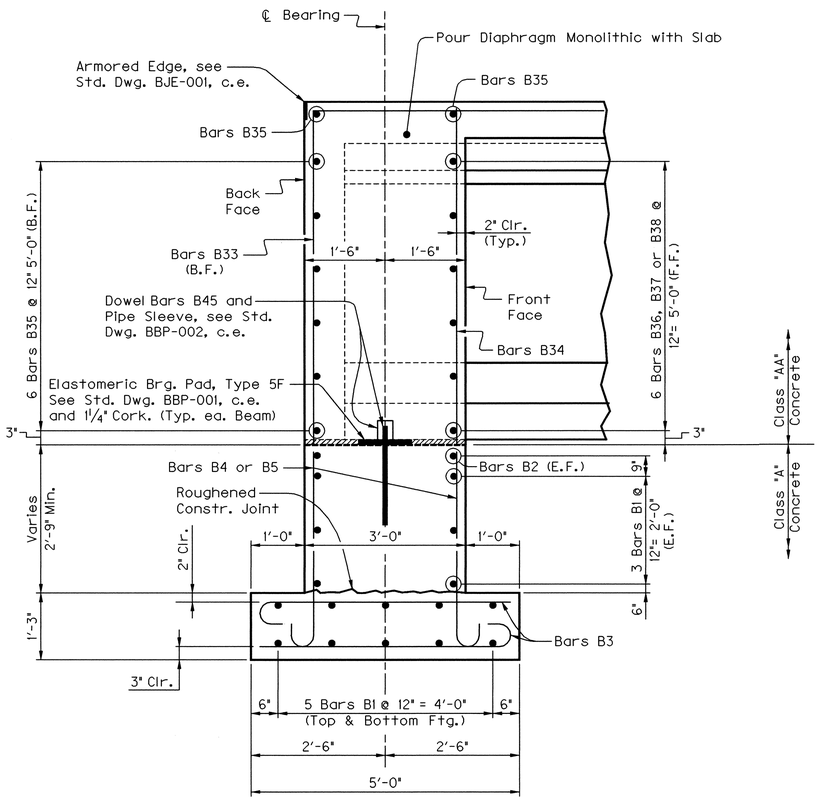
DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-STKY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_abutment 2A.dgn



SECTION A-A



SECTION B-B

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
B1e	Str	5	32	33	9	Cap/Footing								
B2e	Str	5	2	30	6	Cap								
B3e	4	5	130	5	3	Footing	4	5	0	10	0	5	4	7½
B4e	4	5	18	7	2	Cap/Footing	6	4	0	10	0	5	6	6½
B5e	4	5	16	8	5	Cap/Footing	7	7	0	10	0	5	7	9½
B6es	2	5	2	10	8	Wing	4	0½	2	8				
B7es	2	5	2	11	8	Wing	4	6½	2	8				
B8es	2	5	2	12	7	Wing	5	0	2	8				
B9es	2	5	2	13	6	Wing	5	5½	2	8				
B10es	2	5	2	14	6	Wing	5	11½	2	8				
B11es	2	5	2	15	5	Wing	6	5	2	8				
B12es	2	5	5	15	11	Wing	6	8	2	8				
B13e	Str	5	4	9	4	Wing								
B14e	Str	5	4	8	4	Wing								
B15e	Str	5	1	8	8	Wing								
B16e	Str	5	1	7	8	Wing								
B17e	Str	5	1	6	6	Wing								
B18e	Str	5	1	5	6	Wing								
B19e	Str	5	1	4	5	Wing								
B20e	Str	5	1	3	5	Wing								
B21e	8	5	1	9	11	Wing	6	6	3	5	1	5⅜	3	1⅛
B22e	8	5	1	8	11	Wing	6	6	2	5	1	0⅜	2	2¼
B23e	Str	5	4	7	2	Wing								
B24e	Str	5	4	8	3	Wing								
B25e	Str	5	1	6	7	Wing								
B26e	Str	5	1	7	8	Wing								
B27e	Str	5	1	4	5	Wing								
B28e	Str	5	1	5	6	Wing								
B29e	Str	5	1	2	4	Wing								
B30e	Str	5	1	3	5	Wing								
B31e	8	5	1	7	10	Wing	6	6	1	4	0	6¾	1	2½
B32e	8	5	1	8	11	Wing	6	6	2	5	1	0⅜	2	2¼
B33e	5	8	48	16	0	Diaphragm	10	0	6	0				
B34e	Str	5	31	6	0	Diaphragm								
B35e	Str	5	8	47	7	Diaphragm								
B36e	Str	5	30	5	3	Diaphragm								
B37e	Str	5	6	1	9	Diaphragm								
B38e	Str	5	6	3	8	Diaphragm								
B39e	4	5	18	4	2	Cap/Footing	3	4	0	10	0	5	3	6½
B40e	4	5	16	4	5	Cap/Footing	3	7	0	10	0	5	3	9½
B41e	4	5	16	4	8	Cap/Footing	3	10	0	10	0	5	4	0½
B42e	4	5	16	4	11	Cap/Footing	4	1	0	10	0	5	4	3½
B43e	4	5	16	5	2	Cap/Footing	4	4	0	10	0	5	4	6½
B44e	4	5	14	5	5	Cap/Footing	4	7	0	10	0	5	4	9½
B45e	Str	*	10	2	0	Cap/Diaphragm								

* 1½" Diameter Smooth Round Bar, may be Commercial Grade Steel

NOTES:

1.) Reinforcing Bars designated by suffix (s) shall be considered a stirup for purposes of bend diameters.

2.) All Class "AA" Concrete is included in Superstructure Quantities.

REVISION	DATE

DATE: 06-05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: C.Z. WILDER	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE **I-64** | CROSSING **I-64 EASTBOUND OVER KY 180**

SEMI-INTEGRAL ABUTMENT 2

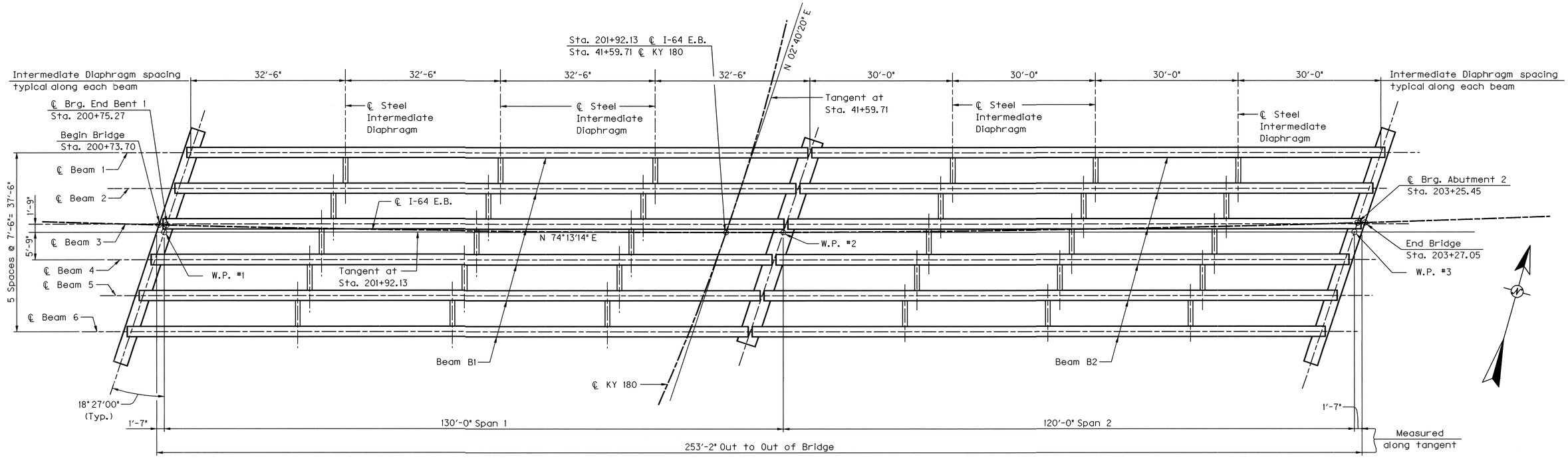
ITEM NUMBER
9-60.00

PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

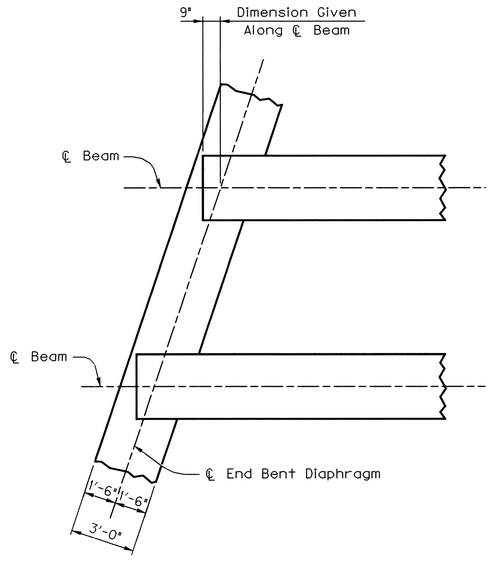
SHEET NO. S14
DRAWING NO. 25253

DATE: 2/8/2006

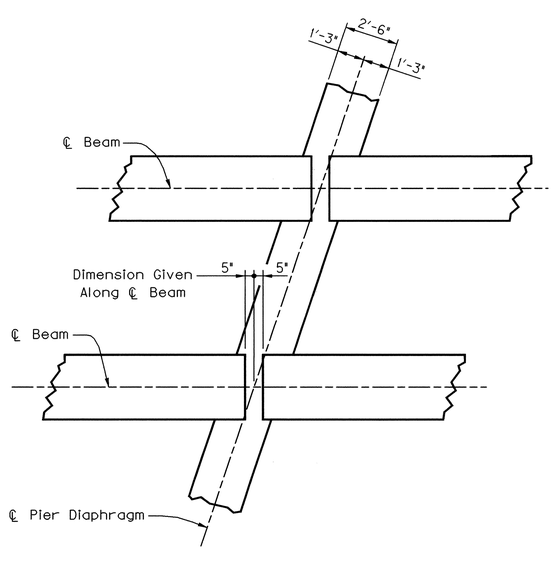
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_abutment 2B.dgn



FRAMING PLAN



ENDBENT - ABUTMENT DIAPHRAGM DETAIL



PIER DIAPHRAGM DETAIL

NOTES:

1. See Sheet S17 for Steel Intermediate Diaphragm Details.

REVISION	DATE
DATE: 07-05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64 | CROSSING: I-64 EASTBOUND OVER KY 180

FRAMING PLAN

ITEM NUMBER: 9-60.00

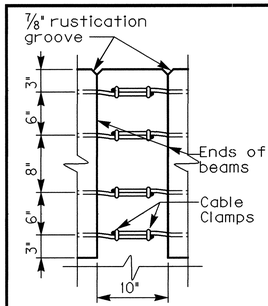
PREPARED BY: LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S15

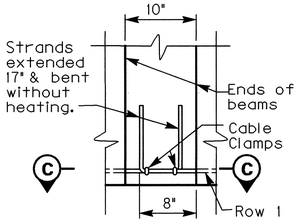
DRAWING NO. 25253

DATE: 2/8/2006

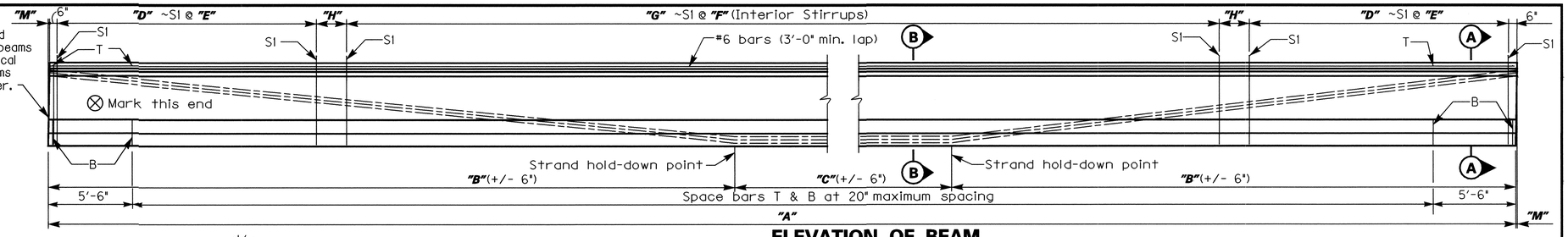
FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_framing_plan.dgn



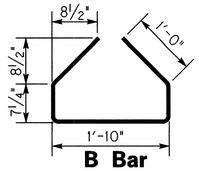
SECTION C–C



STRAND SPLICE DETAIL



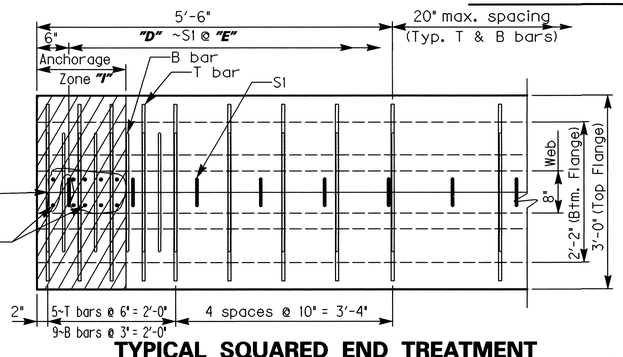
ELEVATION OF BEAM



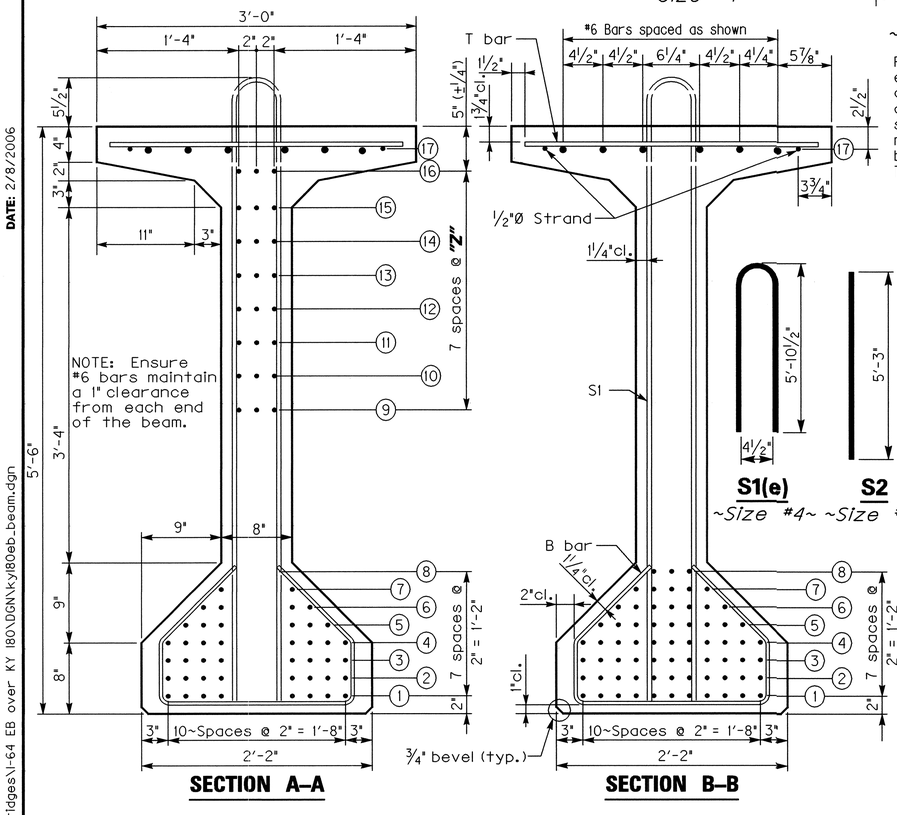
B Bar
~Size #3~

2'-9"

T Bar
~Size #4~



TYPICAL SQUARED END TREATMENT

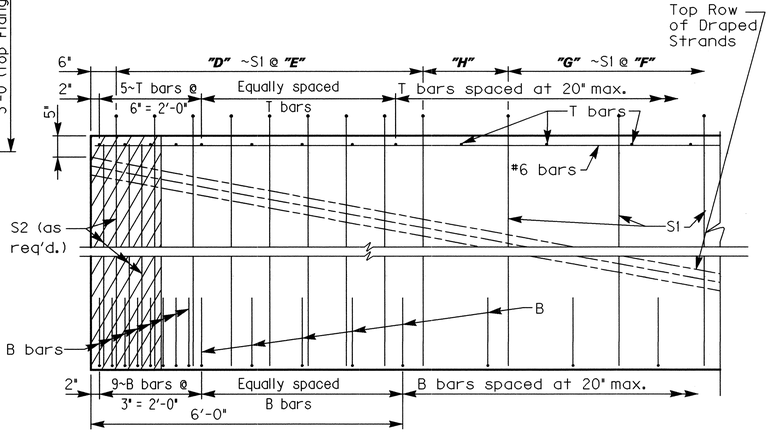


SECTION A–A

SECTION B–B

S1(e) ~Size #4~ **S2** ~Size #6~

Place S2 bars in each face in anchorage zone as required, spaced at 3" min. Place first bar with first T & B bars.



PARTIAL SECTION ON CENTERLINE

General Notes

CONCRETE: Ensure prestressed girder concrete is in accordance with these plans and the specifications.

MATERIALS DESIGN SPECIFICATIONS: For prestressed beams:
FY = 60,000 psi F'S = 270,000 psi

PRESTRESSING REINFORCEMENT: Ensure that strands are ½" (nominal diameter, 0.153 sq. in.), uncoated seven-wire stress relieved, low-relaxation conforming to AASHTO M 203, Grade 270. Billing of the cost for redesign of beam and subsequent plan modifications will be made for any request of alternate strand type or arrangement. The designer of the original plans is responsible for the billing and work.

CONSTRUCTION METHOD: Pretension all beams. Ensure concrete has attained f'ci (shown in the table) in standard test cylinders that are made and cured identically with the beams without bond stresses being transferred to the concrete or releasing the end anchors. Attain f'c (shown in the table) at or prior to 28 days. Apply an initial force of 31,003 lbs. per low-relaxation strand to develop a stress of 202,500 psi. No beam will be accepted that is honeycombed to the extent that strength of the beam or resistance to deterioration has been affected. An allowance of 0.0005L is made for shortening of beams due to shrinkage and elastic change. Show a detensioning plan by sequential numbering of the strand pattern on the shop plans.

LIFTING DEVICES: Detail lifting devices on the shop plans. Loads are to be distributed equally to each device.

BEARING DEVICES: Include the price for lead plates and/or bearing pads in the bid for precast beams.

Strand Data with number indicated in rows

Mark	Midspan (SECTION B–B) (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(17)	End (SECTION A–A) (1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	Total No.	Concrete Stress (psi) f'ci	f'c	No. of S Bars S1	S2	Hold-Down Capacity lbs.
B1	11	11	11	11	9	3			2	11	11	8	8	6								3	3	3	3	2	58	6000	8000	157	20	29031
B2	11	11	11	11					2	11	8	8	8										3	3	3	2	46	6000	8000	146	20	25480

Beam Data (measured along centerline)

Total No.	Dimensions A	B	C	D	E	F	G	H	I	Z	M	Approximate Weight	Maximum Allowable Camber
6	130'-4"	52'-2"	26'-0"	28	6"	12"	102	8"	17"		0"	123,274 lbs	3½"
6	120'-4"	48'-2"	24'-0"	26	6"	12"	94	8"	17"		0"	113,815 lbs	2½"

REVISION	DATE

DATE:	7/05	CHECKED BY	
DESIGNED BY:	J.T. FAULKNER	J.M. JOHNSON	
DETAILED BY:	W.R. ABBOTT	J.T. FAULKNER	

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** CROSSING: **I-64 EASTBOUND OVER KY 180**

PPC I-BEAM, 66", DETAILS

ITEM NUMBER: **9-60.00**

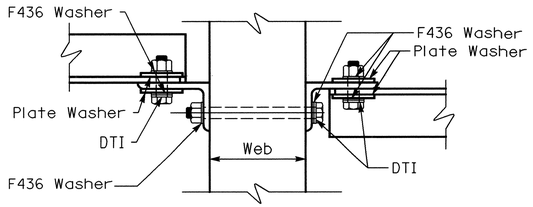
PREPARED BY: **Division of Bridge Design**

SHEET NO. S16

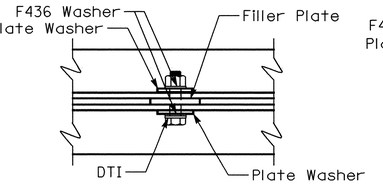
DRAWING NO. 25253

DATE: 2/8/2006

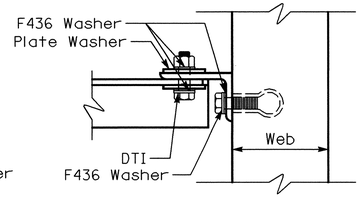
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_beam.dgn



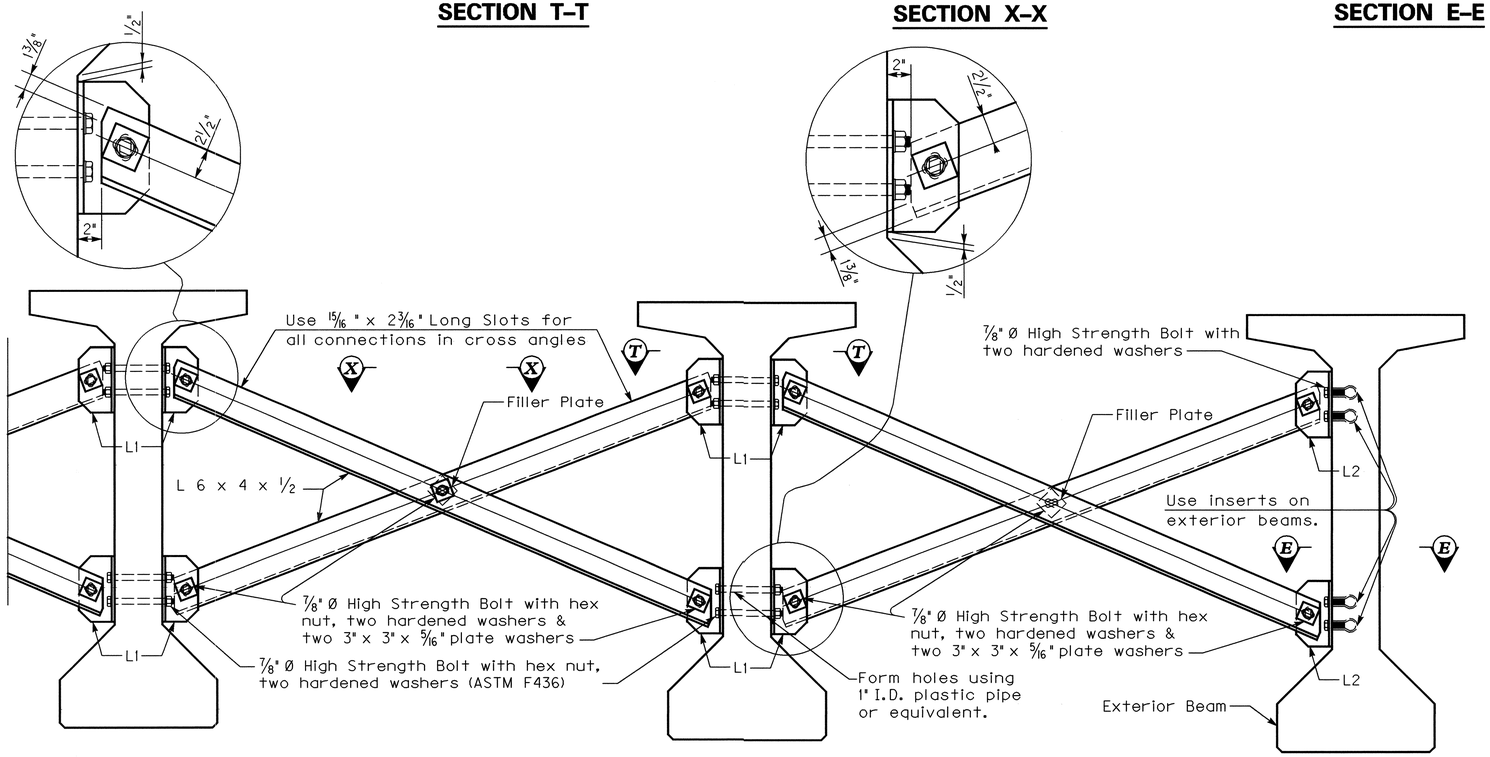
SECTION T–T



SECTION X–X



SECTION E–E



INTERMEDIATE DIAPHRAGM DETAILS

~Typical for 0° Skew Bridges~

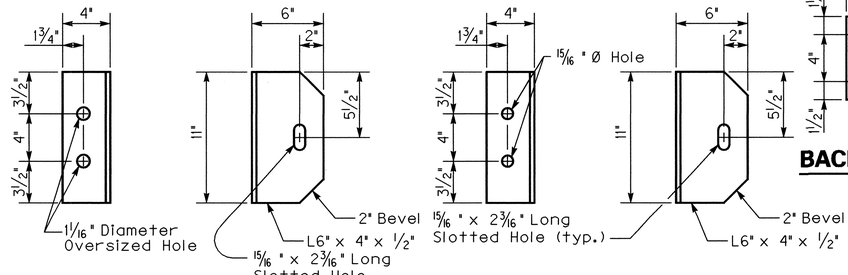
Diaphragm Notes

CONNECTIONS: Ensure all bolted connections are ASTM A325, 7/8 inch diameter high strength bolts, nuts, and washers, mechanically zinc coated in accordance with AASHTO M298, for Class 50. Install all high strength bolted field connections using 'direct tension indicators' (DTI's) in accordance with the Standard Specifications and ASTM F959. Ensure all DTI's are mechanically zinc coated. Show installation details of the DTI's on the shop plans. Place DTI's under the bolt head.

STRUCTURAL STEEL: Ensure plates and angles conform to AASHTO M 183 and galvanized after fabrication.

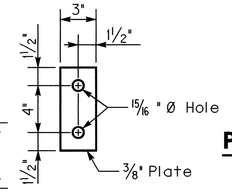
SHOP DRAWINGS: Show the location of all inserts and holes on the precast beam shop drawings. Submit shop drawings for the steel diaphragms to the Division of Bridge Design for approval.

DIAPHRAGMS: Erect the diaphragms the same day that the precast beams are placed on the substructure. Include the cost of all materials and labor required to fabricate and erect the diaphragms in the bid for Precast Beams.



CLIP ANGLE – L1

CLIP ANGLE – L2



BACKING PLATE

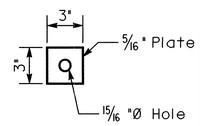
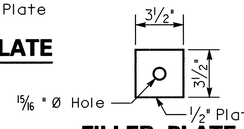


PLATE WASHER



FILLER PLATE

REVISION	DATE

DATE:	9/05	CHECKED BY
DESIGNED BY:	W.R. ABBOTT	J.T. FAULKNER
DETAILED BY:	W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64**

CROSSING: **I-64 EASTBOUND OVER KY 180**

STEEL DIAPHRAGMS

ITEM NUMBER: **9-60.00**

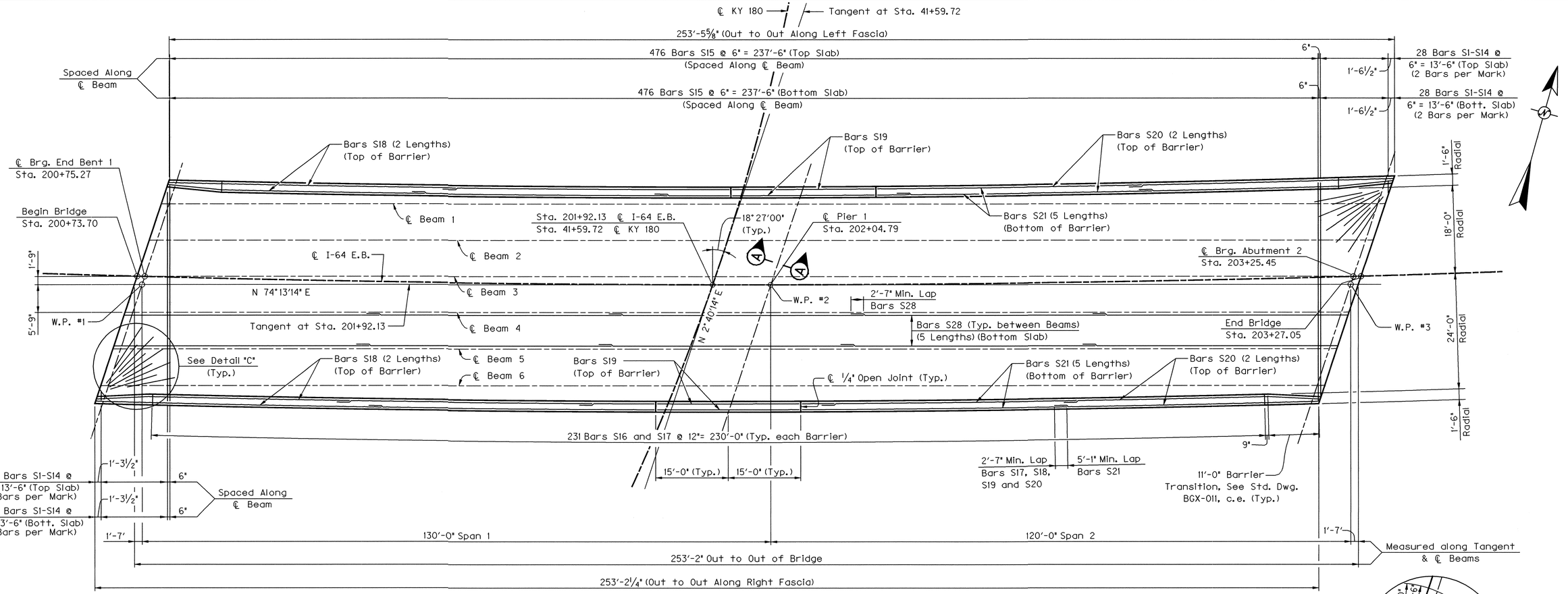
PREPARED BY: **Division of Bridge Design**

SHEET NO.: S17

DRAWING NO.: 25253

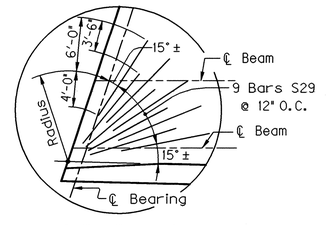
DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_steel_diaphragm.dgn

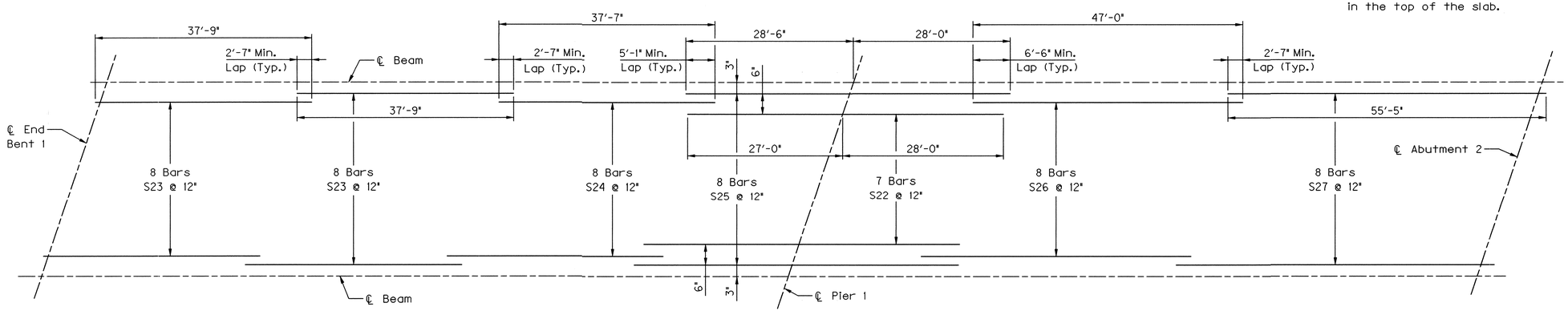


PLAN

NOTE:
Place the corner reinforcement beneath the longitudinal and transverse reinforcement in the top of the slab.



DETAIL "C"



TOP SLAB REINFORCING PLAN

(Typ. Between Beams)

REVISION	DATE

DATE: 06-05	CHECKED BY
DESIGNED BY: J.M. JOHNSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: BOYD

ROUTE: I-64

CROSSING: I-64 EASTBOUND OVER KY 180

SUPERSTRUCTURE

ITEM NUMBER: 9-60.00

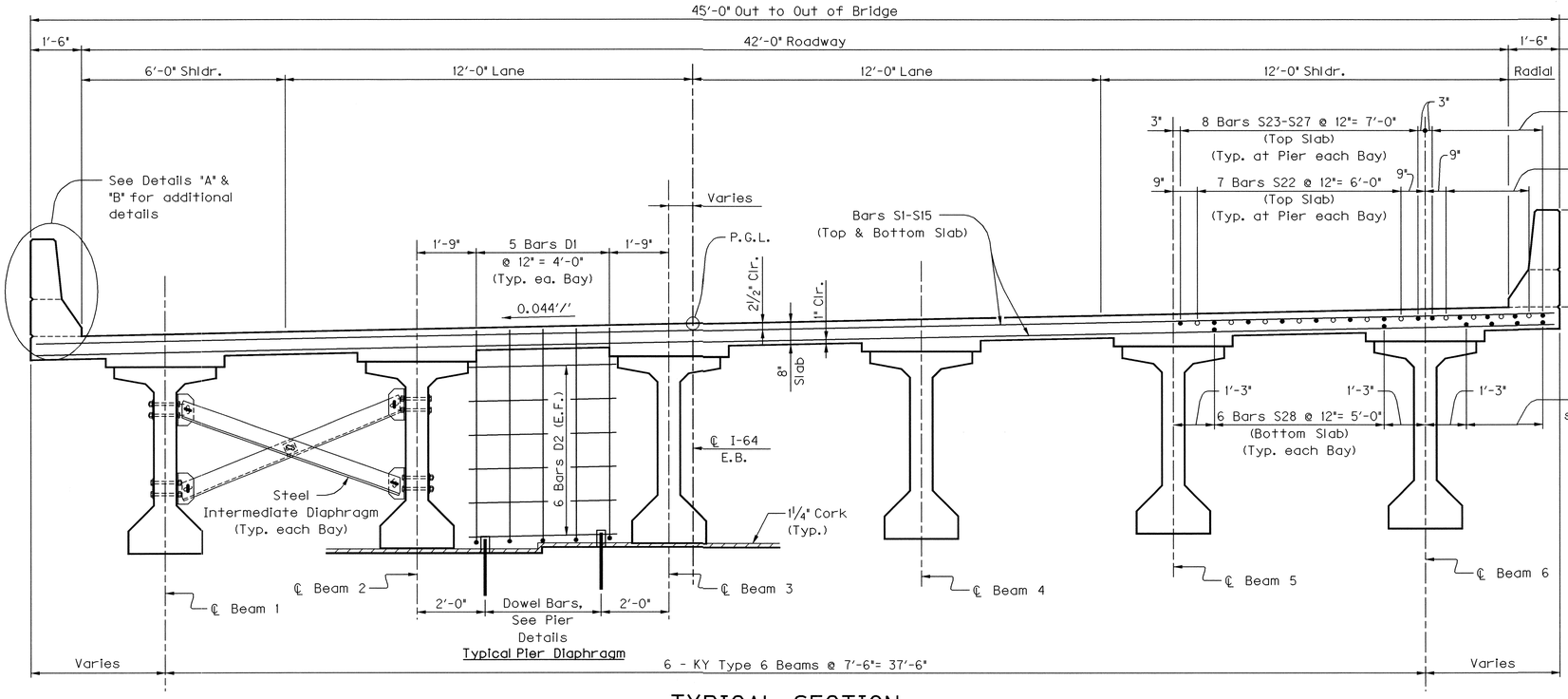
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S18

DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\kyi80eb_superstructurel.dgn

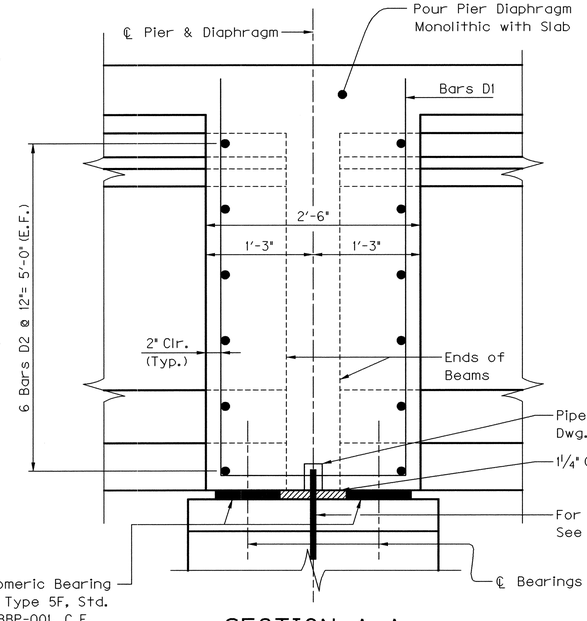


TYPICAL SECTION

(Looking Station Ahead)

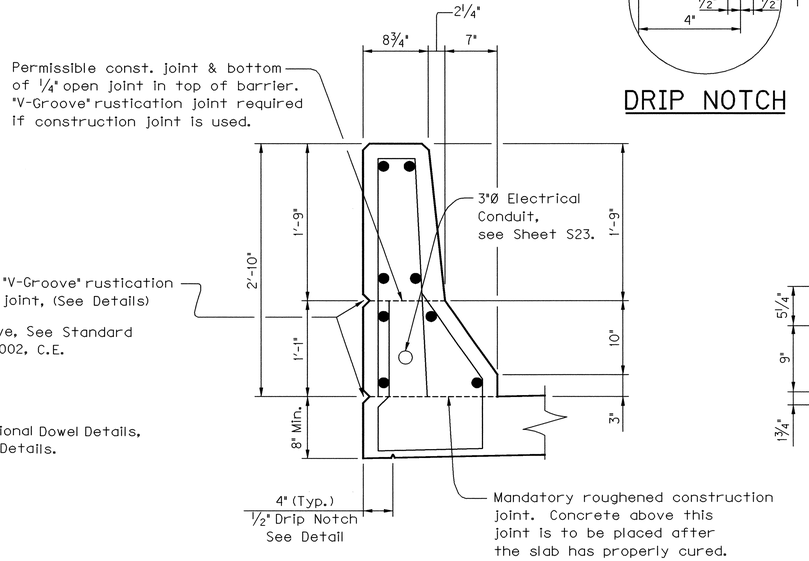
BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
S1e	Str	5	4	3	2	Slab								
S2e	Str	5	4	6	3	Slab								
S3e	Str	5	4	9	3	Slab								
S4e	Str	5	4	12	3	Slab								
S5e	Str	5	4	15	3	Slab								
S6e	Str	5	4	18	3	Slab								
S7e	Str	5	4	21	3	Slab								
S8e	Str	5	4	24	3	Slab								
S9e	Str	5	4	27	4	Slab								
S10e	Str	5	4	30	4	Slab								
S11e	Str	5	4	33	4	Slab								
S12e	Str	5	4	36	4	Slab								
S13e	Str	5	4	39	4	Slab								
S14e	Str	5	4	42	4	Slab								
S15e	Str	5	952	44	8	Slab								
S16e	16	5	462	5	7	Barrier								
S17e	17	5	462	4	5	Barrier								
S18e	Str	5	16	60	0	Barrier								
S19e	Str	5	8	29	8	Barrier								
S20e	Str	5	16	54	9	Barrier								
S21e	Str	8	40	55	8	Barrier								
S22e	Str	9	43	55	0	Slab								
S23e	Str	5	100	37	9	Slab								
S24e	Str	8	50	37	7	Slab								
S25e	Str	9	50	56	6	Slab								
S26e	Str	9	50	47	0	Slab								
S27e	Str	5	50	55	5	Slab								
S28e	Str	5	190	52	8	Slab								
S29e	Str	6	18	10	0	Slab								
D1e	2	5	25	14	1	Diaphragm	6	0	2	2				
D2e	Str	5	60	4	5	Diaphragm								

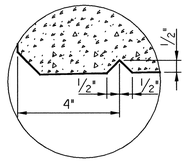


SECTION A-A

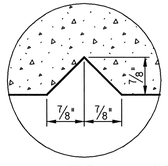
Taken Perpendicular to ℄ Pier



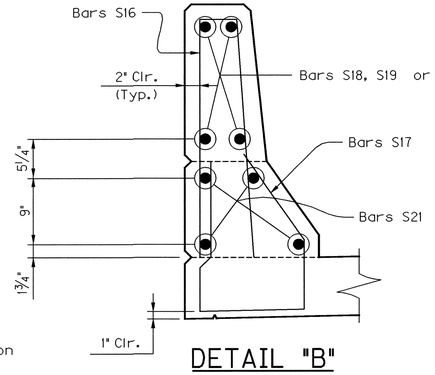
DETAIL "A"



DRIP NOTCH



V-RUSTICATION GROOVE



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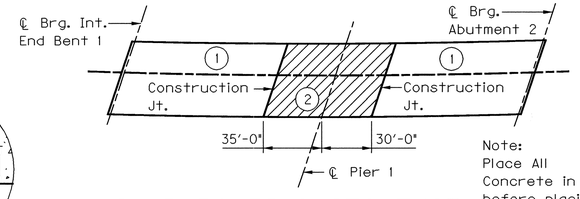


SLAB POURING SEQUENCE

The slab pouring sequence may be changed with the approval of the Engineer.

Note: Place All Concrete in (1) before placing concrete in (2).

NOTES:

1. For New Jersey Barrier Transition reinforcement and details, see Std. Drawing BGX-011, c.e.
2. Place 3"Ø conduit in bottom portion of barrier below permissible construction joint.

REVISION	DATE
DATE: 06-05	CHECKED BY
DESIGNED BY: J.M. JOHNSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** | CROSSING: **I-64 EASTBOUND OVER KY 180**

SUPERSTRUCTURE

ITEM NUMBER: **9-60.00**

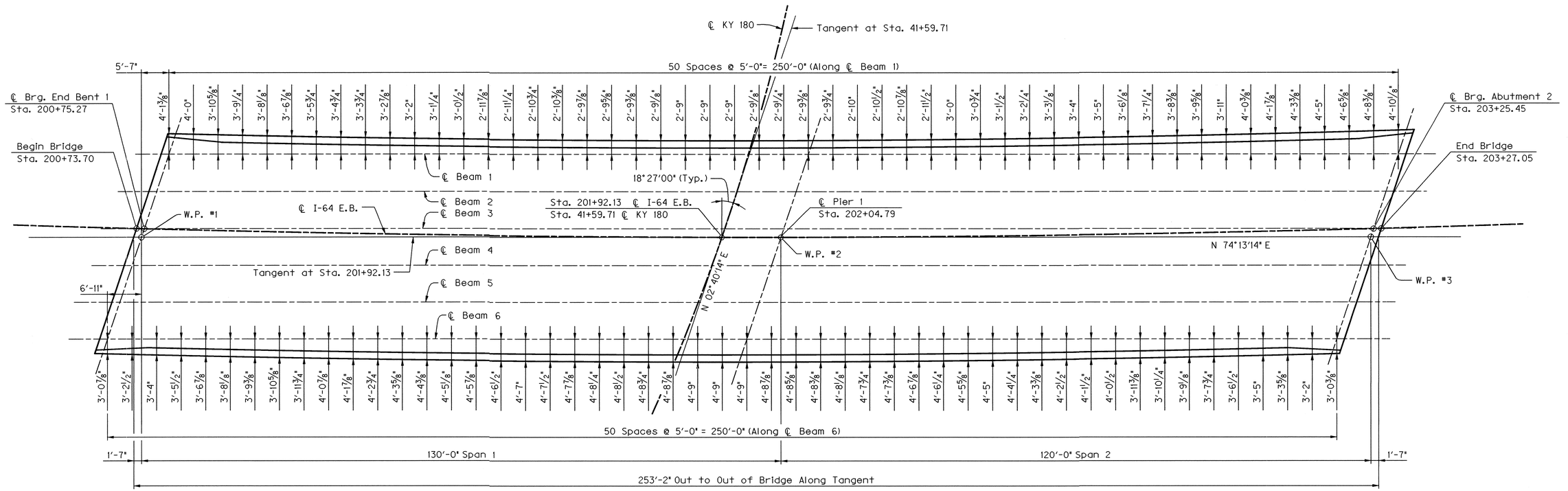
PREPARED BY: **LOCHNER**
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S19

DRAWING NO. 25253

DATE: 2/17/2006

FILE NAME: S:\DGN-STVK\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\ky180eb_superstructure2.dgn



PLAN

REVISION	DATE

DATE: 7/05	CHECKED BY
DESIGNED BY: J.T. FAULKNER	J.L. WILKERSON
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

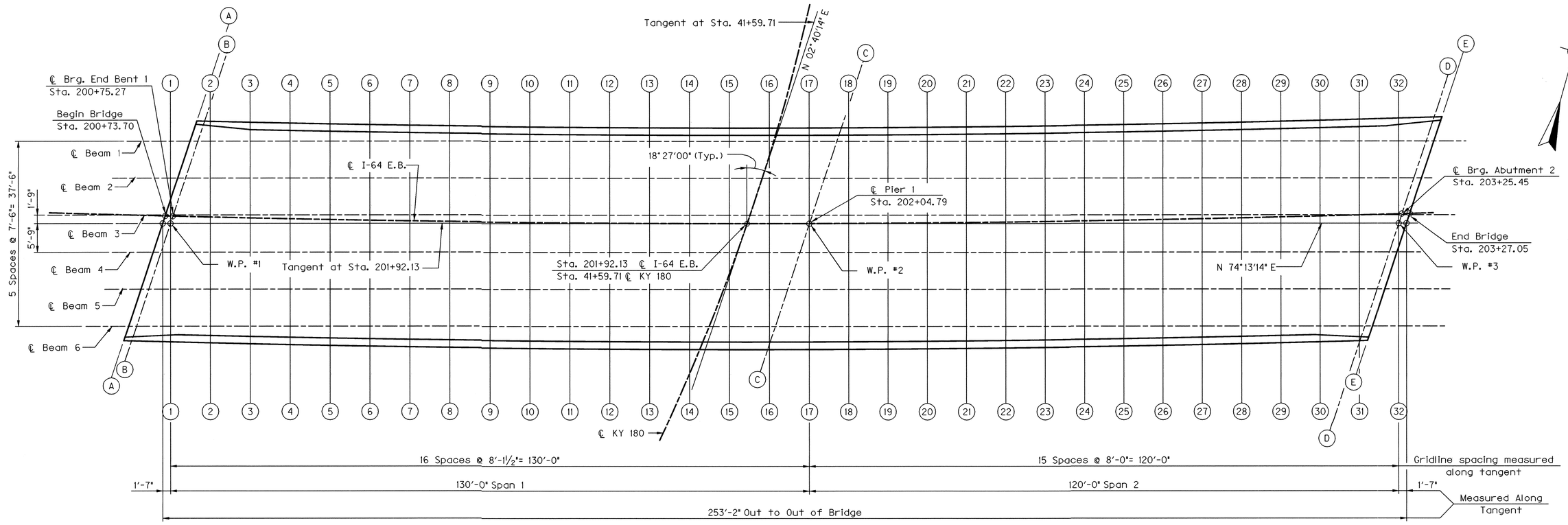
ROUTE	CROSSING
I-64	I-64 EASTBOUND OVER KY 180

CURVE OFFSETS

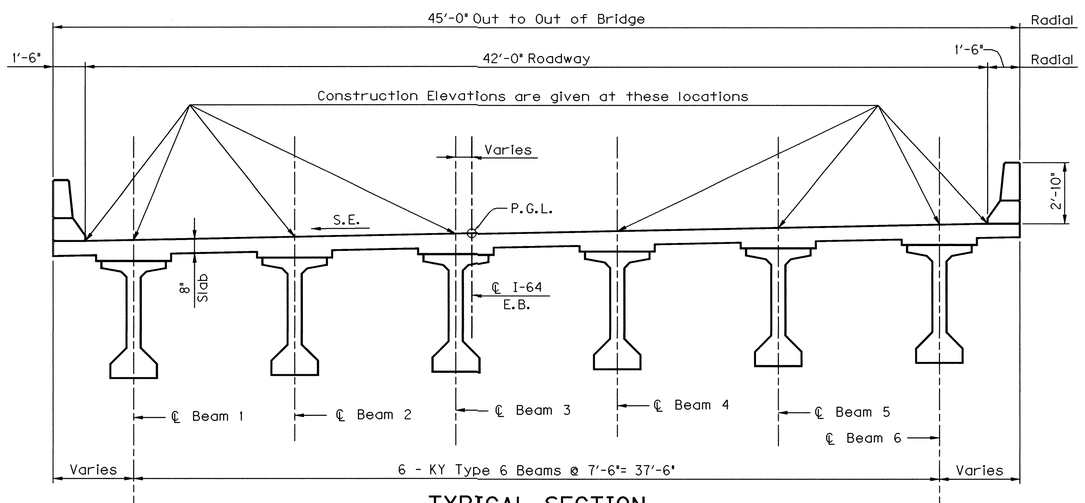
ITEM NUMBER	PREPARED BY	SHEET NO.
9-60.00	LOCHNER H.W. LOCHNER, INC. CONSULTING ENGINEERS AND PLANNERS	S20
		DRAWING NO. 25253

DATE: 2/8/2006

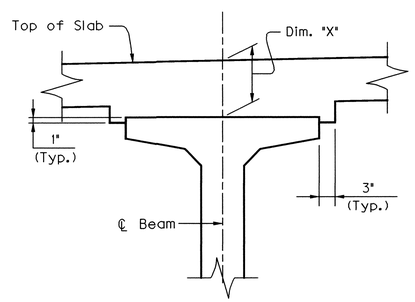
FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\kyl80eb_curve offsets.dgn



PLAN



TYPICAL SECTION



FILLET DETAIL

REVISION	DATE

DATE: 7/05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **BOYD**

ROUTE: **I-64** | CROSSING: **I-64 EASTBOUND OVER KY 180**

CONSTRUCTION ELEVATIONS

ITEM NUMBER: **9-60.00**

PREPARED BY: **LOCHNER**
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO. S21

DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-STKY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_const_elevs1.dgn

CONSTRUCTION ELEVATIONS

GRID LINE	LEFT GUTTER	℄ BEAM 1			℄ BEAM 2			℄ BEAM 3			℄ BEAM 4			℄ BEAM 5			℄ BEAM 6			RIGHT GUTTER	GRID LINE
		CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"	CONST. ELEV.	TOP OF BEAM	DIM. "X"		
A	692.588	692.679			692.940				693.201		693.463			693.724			693.986			694.040	A
B	692.636	692.727			692.987				693.248		693.510			693.771			694.033			694.088	B
C	696.662	696.705			696.956				697.208		697.460			697.712			697.964			698.073	C
D	700.413	700.522			700.764				701.006		701.249			701.492			701.735			701.786	D
E	700.463	700.573			700.815				701.057		701.300			701.543			701.786			701.835	E
1	--	--			--				--		693.546			693.925			694.273			694.354	1
2	692.696	692.816			693.163				693.501		693.828			694.206			694.554			694.643	2
3	692.990	693.100			693.447				693.783		694.109			694.486			694.832			694.929	3
4	693.280	693.382			693.728				694.063		694.387			694.763			695.106			695.211	4
5	693.568	693.662			694.006				694.339		694.662			695.036			695.377			695.487	5
6	693.849	693.938			694.280				694.610		694.931			695.302			695.640			695.756	6
7	694.126	694.207			694.548				694.876		695.194			695.561			695.897			696.018	7
8	694.395	694.472			694.809				695.135		695.449			695.815			696.148			696.273	8
9	694.658	694.728			695.063				695.386		695.697			696.060			696.391			696.520	9
10	694.912	694.978			695.310				695.630		695.940			696.299			696.626			696.760	10
11	695.160	695.221			695.550				695.868		696.174			696.531			696.856			696.992	11
12	695.399	695.457			695.783				696.099		696.402			696.758			697.079			697.217	12
13	695.631	695.688			696.012				696.324		696.624			696.977			697.298			697.437	13
14	695.858	695.911			696.231				696.542		696.841			697.192			697.512			697.652	14
15	696.078	696.129			696.450				696.758		697.056			697.405			697.722			697.863	15
16	696.295	696.346			696.664				696.970		697.267			697.616			697.933			698.073	16
17	696.507	696.559			696.876				697.183		697.496			697.866			698.206			698.351	17
18	696.732	696.791			697.129				697.458		697.776			698.145			698.483			698.627	18
19	697.011	697.072			697.410				697.737		698.054			698.422			698.759			698.900	19
20	697.289	697.352			697.688				698.014		698.329			698.697			699.032			699.170	20
21	697.564	697.630			697.964				698.289		698.603			698.968			699.300			699.434	21
22	697.834	697.904			698.237				698.560		698.871			699.233			699.564			699.692	22
23	698.100	698.173			698.505				698.825		699.133			699.493			699.821			699.946	23
24	698.359	698.437			698.767				699.084		699.391			699.748			700.074			700.192	24
25	698.612	698.695			699.022				699.337		699.641			699.997			700.320			700.431	25
26	698.859	698.948			699.272				699.585		699.887			700.240			700.561			700.666	26
27	699.100	699.195			699.517				699.828		700.128			700.478			700.796			700.894	27
28	699.335	699.437			699.757				700.065		700.362			700.710			701.027			701.117	28
29	699.564	699.673			699.991				700.297		700.593			700.940			701.255			701.337	29
30	699.789	699.906			700.221				700.526		700.820			701.166			701.480			701.553	30
31	700.010	700.136			700.450				700.753		701.047			701.391			701.705			701.768	31
32	700.228	700.363			700.676				700.979		--			--			--			--	32

NOTES:

1.) Take elevations on top of beam at points indicated after diaphragms are in place and after forms for concrete slabs have been in place. Read elevations to three decimals using a target rod and enter reading in table under Top of Beam Elevations.

2.) Compute dimension "X" as follows: Construction Elevation minus Top of Beam Elevation equals Dimension "X". Construction Elevations include camber due to weight of concrete slab, barrier, and future surfacing. Measuring of Dimension "X" gives the final check on beam tolerances for camber, beam damage and errors in erection that produce reverse camber, sags, and unsightly fascia beams.

3.) For setting templates, measure dimension "X" above top of beam for top of template. Do not set template by elevation.

4.) Construct barrier to roadway grade. Do not add camber to barrier.

5.) Note To Resident: The "Maximum Allowable Camber" shown on the beam sheet is the amount of camber, measured prior to casting the deck, above which the beam will begin to encroach into the slab.

REVISION	DATE

DATE: 11/05	CHECKED BY
DESIGNED BY: J.L. WILKERSON	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE
I-64

CROSSING
I-64 EASTBOUND OVER KY 180

CONSTRUCTION ELEVATIONS

ITEM NUMBER
9-60.00

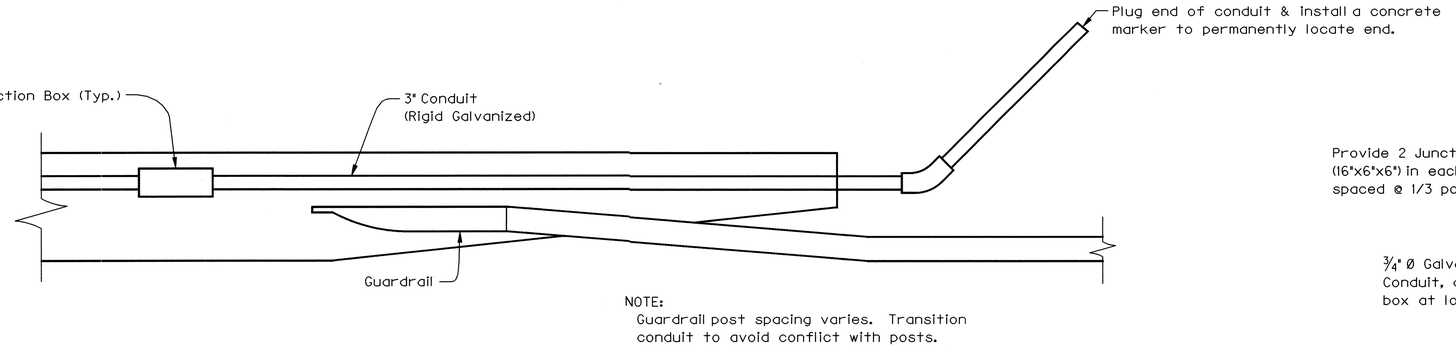
PREPARED BY
LOCHNER
H.W. LOCHNER, INC.
CONSULTING ENGINEERS AND PLANNERS

SHEET NO.
S22

DRAWING NO.
25253

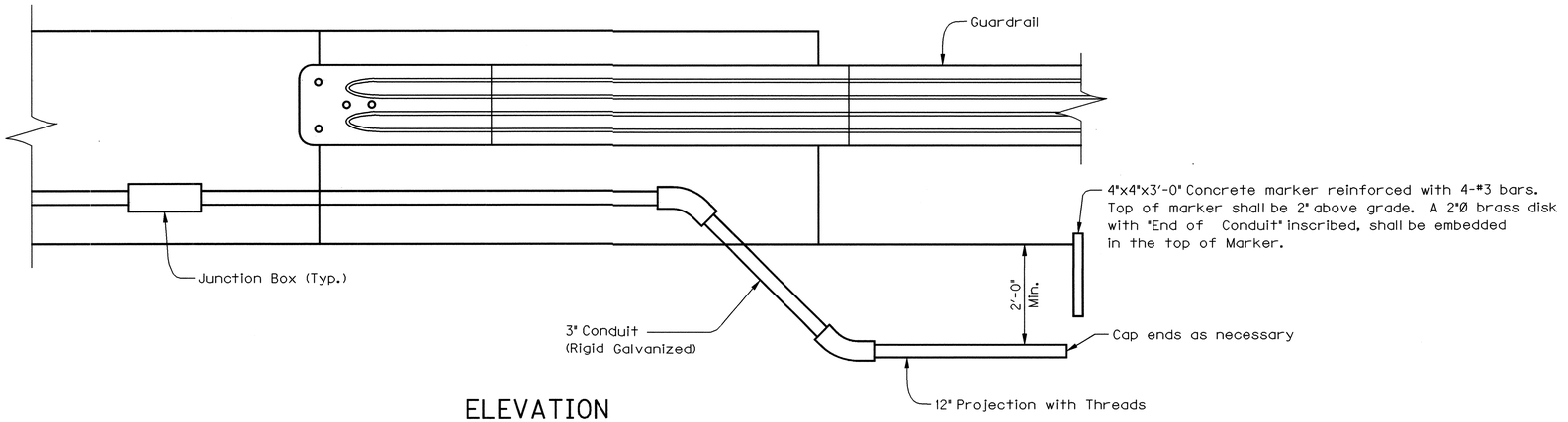
DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-1394\Bridges\I-64 EB over KY 180\DGN\ky180eb_const_elevs2.dgn



NOTE:
Guardrail post spacing varies. Transition conduit to avoid conflict with posts.

PLAN AT END OF BRIDGE

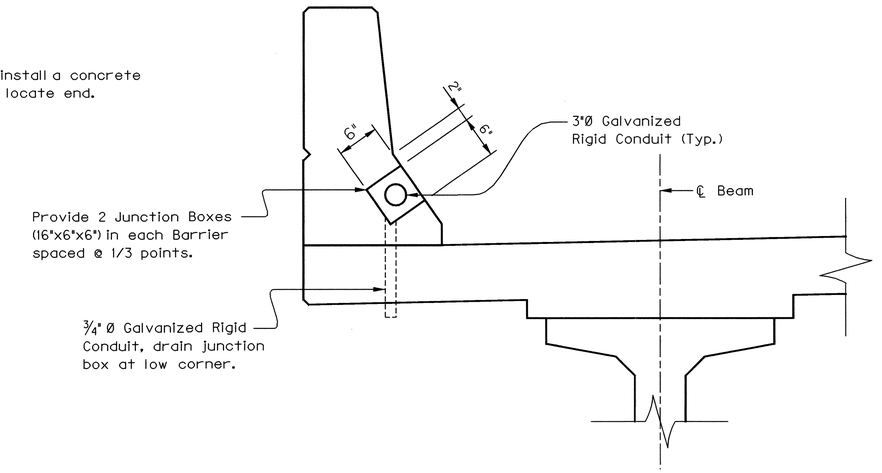


ELEVATION

NOTE:
All Conduit to rigid galvanized. Junction boxes and conduit shall be placed so as to interfere with a minimum amount of reinforcement. Bend reinforcement as necessary for placement.

Junction boxes may be any of the following or approved equal:

OZ Electric Co	- Type YU or Type YR
Spring City Electric Co.	- Type IR or Type ER
Hope Electric Co.	- Type H6200 or Type H7000



TYPICAL BARRIER SECTION

REVISION	DATE

DATE: 7/05	CHECKED BY
DESIGNED BY: W.R. ABBOTT	J.T. FAULKNER
DETAILED BY: W.R. ABBOTT	J.T. FAULKNER

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
BOYD

ROUTE	CROSSING
I-64	I-64 EASTBOUND OVER KY 180

ELECTRICAL DETAILS

ITEM NUMBER	PREPARED BY	SHEET NO.
9-60.00	LOCHNER H.W. LOCHNER, INC. CONSULTING ENGINEERS AND PLANNERS	S23
		DRAWING NO. 25253

DATE: 2/8/2006

FILE NAME: S:\DGN-ST\KY\Boyd-I394\Bridges\I-64 EB over KY 180\DGN\kyi80eb_electrical.dgn