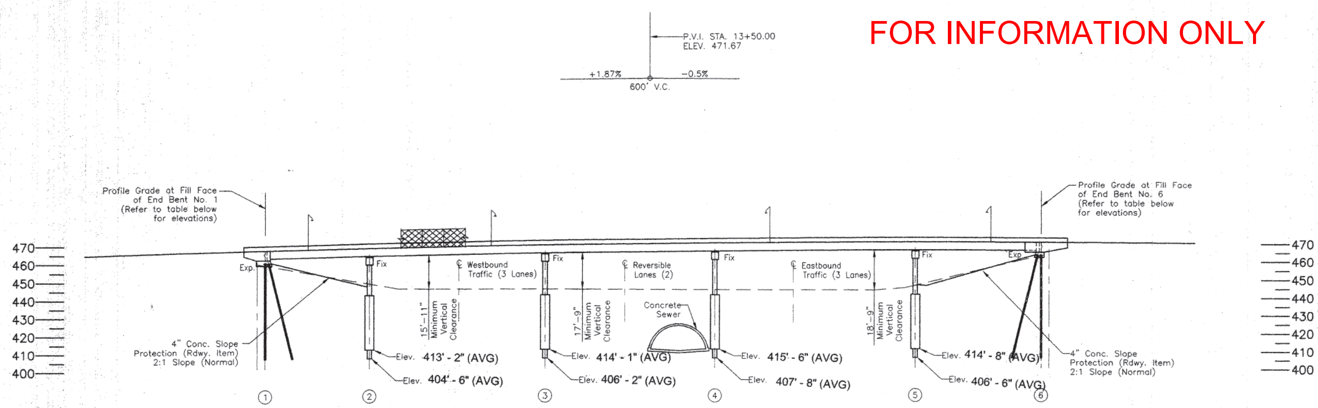
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

(58.22'–98'–89'–112'–70.22') Continuous Composite Plate Girder Spans

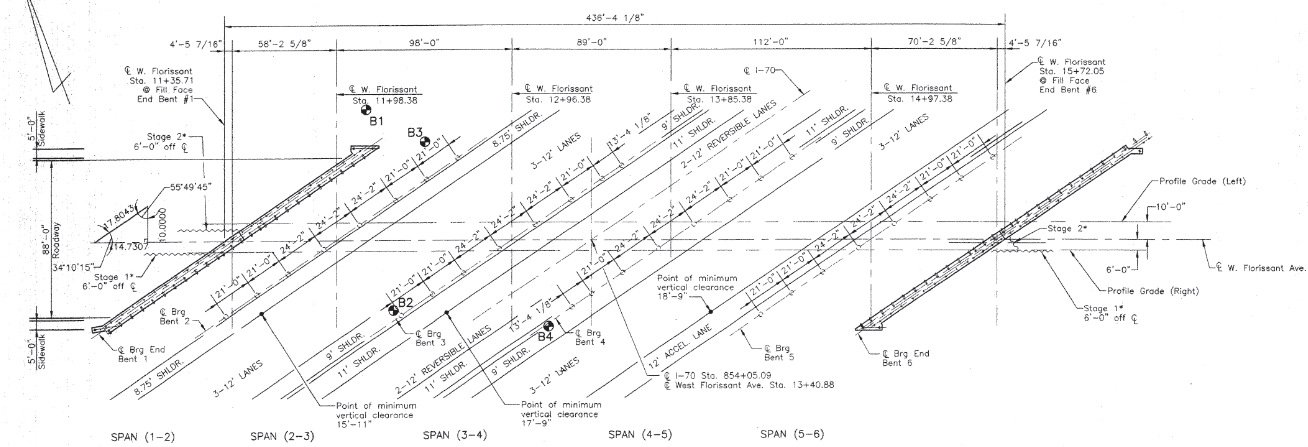
FOR INFORMATION ONLY

STATE	PROJ. NO. JGI1033	SHEET NO.
MO.	F.A.I.-70-5(273) 993319-609	B12

FINAL PLANS



ELEVATION



PLAN

* Temporary Shoring (Roadway Item)

NOTE:
Roadway fill shall be completed to the final roadway section and up to the limits of the elevation of the bottom of the concrete beam within the limts of the structure and for not less than 25' in back of the fill face of the end bents before piles are driven for end bents falling within the embankment section.
Stationing is along centerline West Florissant.
Elevations are given at the profile grade lines.

"⊕" indicates location of borings

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA

The locations of all subsurface boring for this structure are shown on the bridge plan sheet for this structure. Boring data for the numbered locations is shown on Sheet No. 4. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, is available from the district materials engineer upon written request as outlined in the project special provisions. No greater significance or weight should be given to the boring data depicted on the plan sheets than to subsurface date available from the district or elsewhere.

The commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing it's bid prices, time, or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the commission.

BENCHMARK:

BM #1 CHISELED '□' ON NW CORNER OF BRIDGE ON TOP OF TRAFFIC BARRIER WALL ELEV. = 468.55

BM #2 CHISELED '□' ON SE CORNER OF BRIDGE ON TOP TRAFFIC BARRIER WALL ELEV. = 472.23

NOTE:

Any portion of the existing bridge that interferes with the new construction shall be removed to clear new construction. Payment for any removal required to clear new construction shall be considered to be completely covered in the unit bid price for Removal of Bridge (A481).

STATIONS AND TOP OF SLAB ELEVATIONS @ SELECTED POINTS

Location		Fill Face End Bent 1	℄ Bearing Bent 2	℄ Bearing Bent 3	℄ Bearing Bent 4	℄ Bearing Bent 5	Fill Face End Bent 6
Profile Grade Left							
	Station	11+50.44	12+13.11	13+11.11	14+00.11	15+12.11	15+86.78
	Elevation	467.74	468.58	469.60	470.19	470.48	470.41
℄ West Florissant Ave.							
	Station	11+35.71	11+98.38	12+96.38	13+85.38	14+97.38	15+72.05
	Elevation	467.57	468.45	469.52	470.16	470.53	470.49
Profile Grade Right							
	Station	11+26.87	11+89.54	12+87.54	13+76.54	14+88.54	15+63.21
	Elevation	467.38	468.28	469.39	470.06	470.46	470.46

Final Plans
I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge. I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Signature 4/17/02 Date

12/28/98

BRIDGE: WEST FLORISSANT AVE. OVER I–70

STATE ROAD FROM TAYLOR AVE. TO EAST GRAND BLVD.

PROJECT NO.

JOB NO. J6I1033

STA. 854+05.09

RTE. I–70

CITY OF ST. LOUIS

STD. 706.35
STD. 611.60
STD. 609.00
A5984

Designed by: DLS Date: Dec. 1998
Drawn by: JDG Date: Dec. 1998
Checked by: JD Date: Dec. 1998

Horner & Shifrin, Inc.
Engineers/Architects/Planners
5200 Oakland Avenue
St. Louis, Missouri 63110

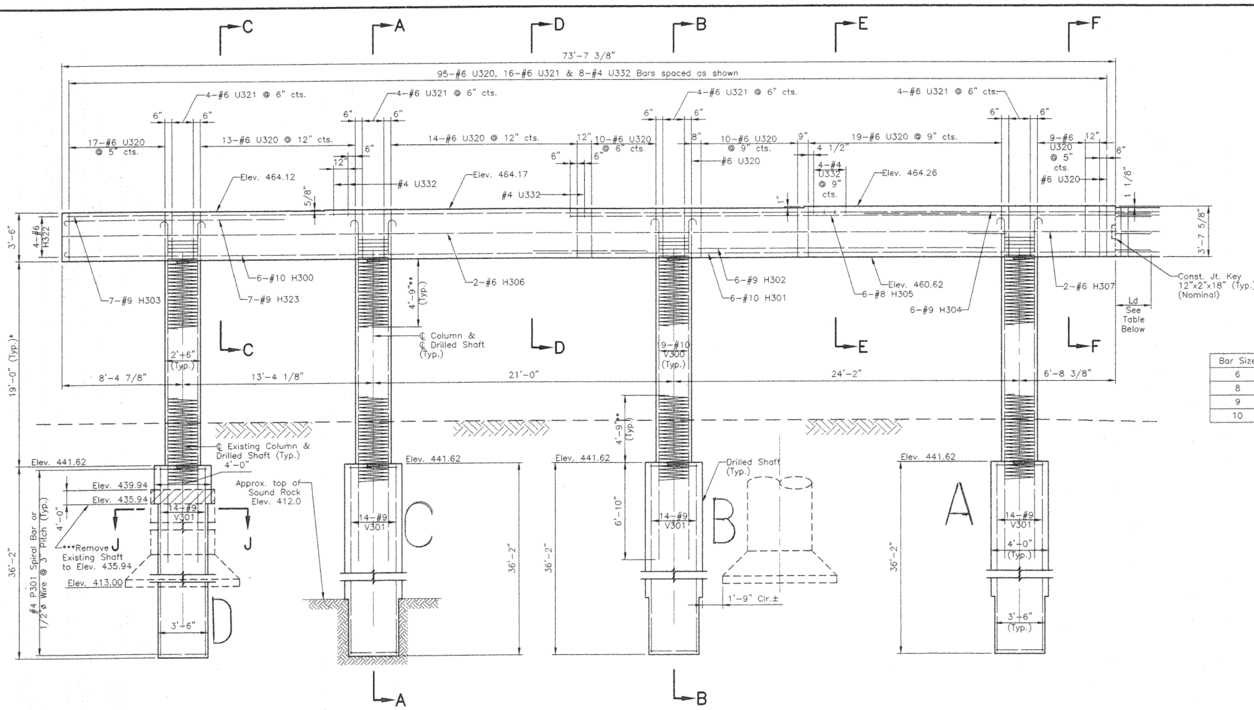
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS

SHEET NO. 1 OF 61

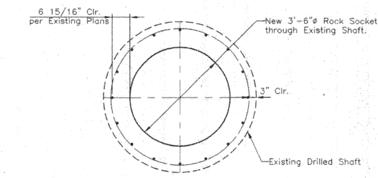
DATE: 12/29/98 DIMSCALE: 384

FINAL PLANS

STATE	PROJ. NO.	SHEET NO.
MO.	F.AJ-70-5(273)990319-609 J6I1033	224



STAGE I ELEVATION OF BENT NO. 3



SECTION J–J

Bar Size	Ld
6	35"
8	71"
9	91"
10	82"

Notes:

Details for footings are shown on Sheet No. 15.

For details of Laminated Bearing Pads, See Sheet No. 36.

All reinforcing bars in the top of substructure beam cap shall be spaced to clear anchor bolt wells for bearings by at least 3/4". For details of Anchor Bolt Wells, See Sheet No. 36.

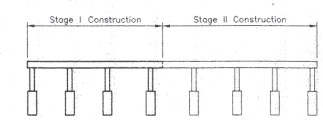
Cross section A–A, B–B, C–C, D–D, E–E and F–F are shown on Sheet No. 15.

* All concrete above top of drilled shafts shall be Class B1. f'c = 4,000 psi. concrete.

** Lapping of spiral reinforcement in this region is not permitted.

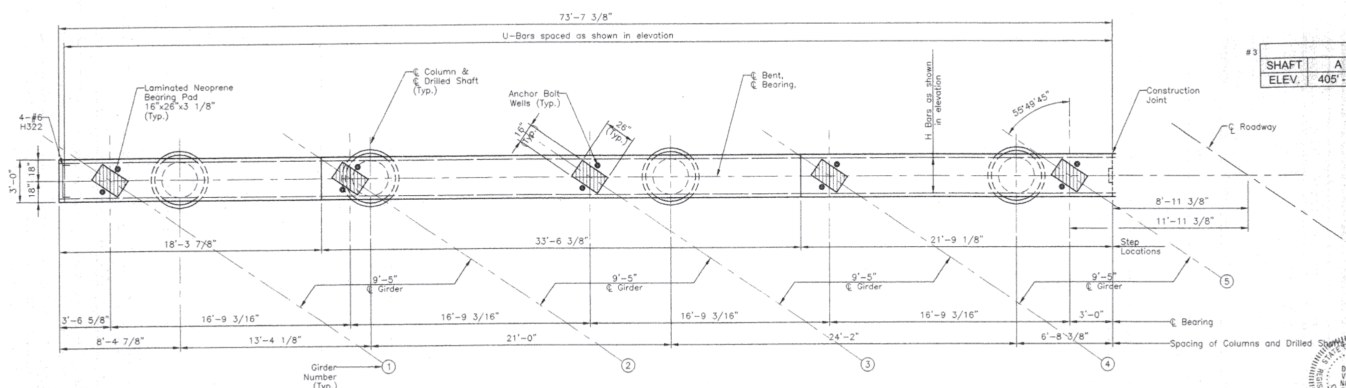
*** Removal of Existing Shaft to Elev. 435.94 shall be included in Removal of Existing Bridge (Lump Sum).

FOR INFORMATION ONLY



#3

B.O.H. ELEVATIONS								
SHAFT	A	B	C	D	E	F	G	H
ELEV.	405' - 1"	406' - 2"	405' - 2"	404' - 0"	405' - 8"	404' - 9"	408' - 9"	409' - 10"



STAGE I PLAN OF BENT NO. 3

Final Plans

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

Signature 6-17-02 Date

DEANNA VENKER NUMBER

STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER NUMBER E-15015 12/28/98

Designed by: EHW Date: Dec. 1998
Drawn by: JDG Date: Dec. 1998
Checked by: DLS Date: Dec. 1998

Horner & Shifrin, Inc.
Engineers/Architects/Planners
5200 Oakland Avenue
St. Louis, Missouri 63110

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS

SHEET NO. 13 OF 61

CITY OF ST. LOUIS

A5984

FINAL PLANS

STATE	PROJ. NO. J6I1033	SHEET NO.
MO.	F.A.I-70-5(273)9903(19-609)	825

Notes:

Details for footings are shown on Sheet No. 15.

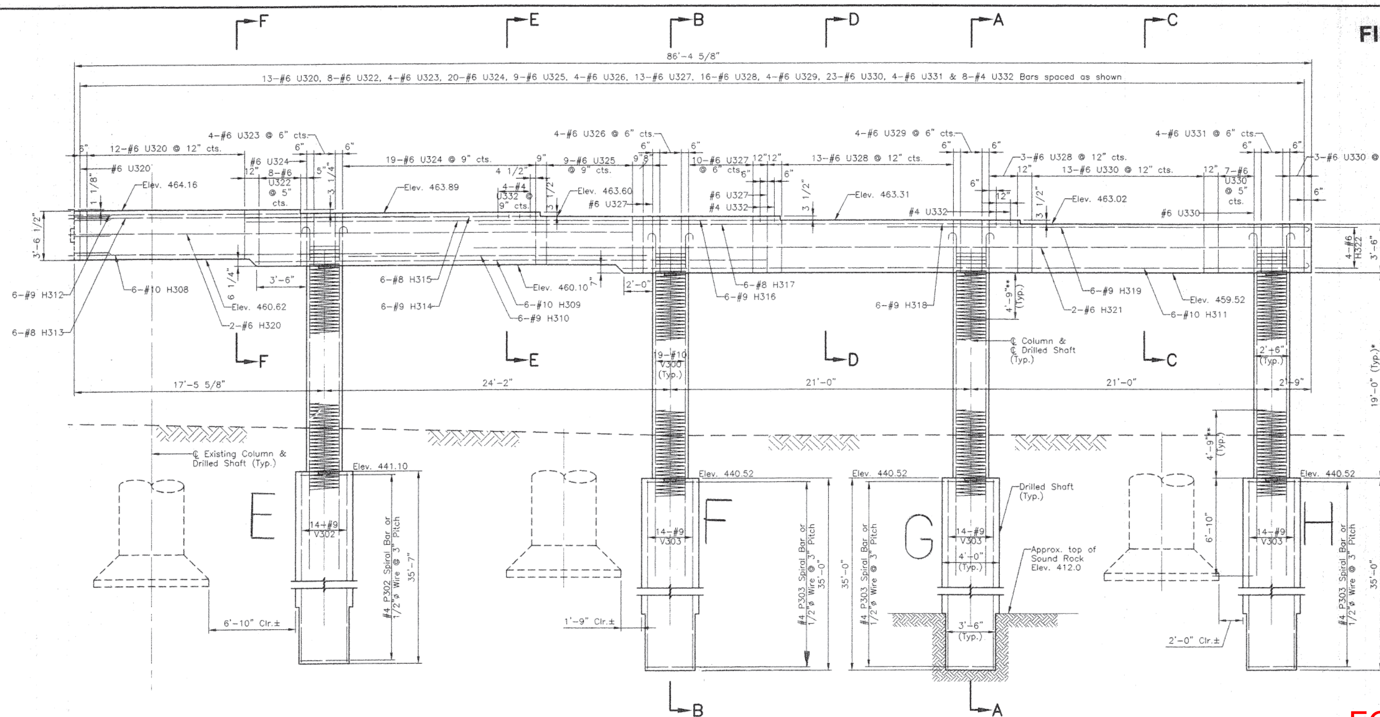
For details of Laminated Bearing Pads, See Sheet No. 36.

All reinforcing bars in the top of substructure beam cap shall be spaced to clear anchor bolt wells for bearings by at least 3/4". For details of Anchor Bolt Wells, See Sheet No. 36.

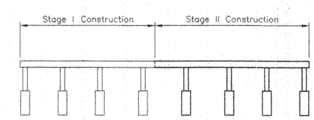
Cross section A-A, B-B, C-C, D-D, E-E and F-F are shown on Sheet No. 15.

* All concrete above top of drilled shafts shall be Class B1. f'c = 4,000 psi. concrete.

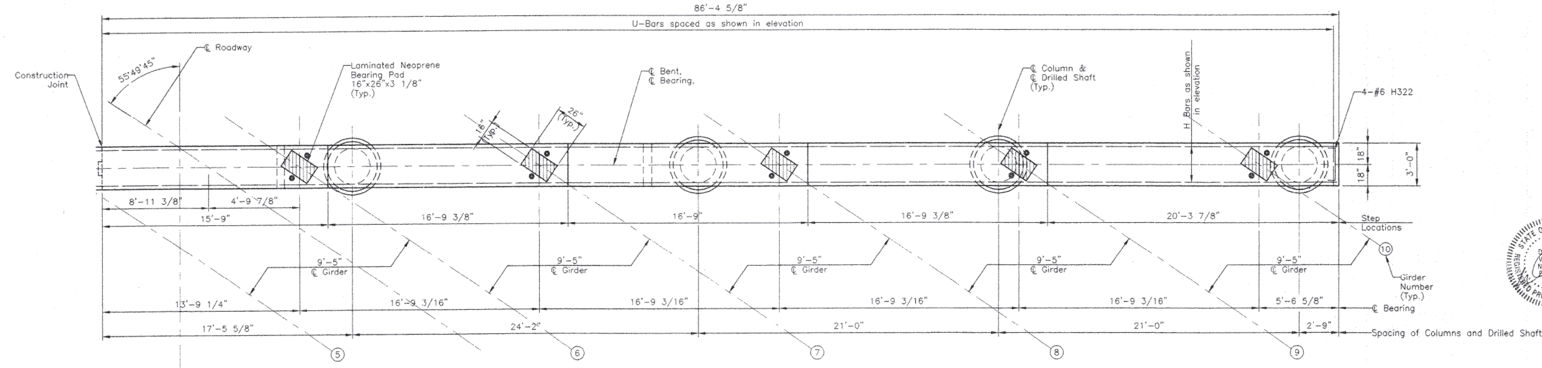
** Lapping of spiral reinforcement in this region is not permitted.



STAGE II ELEVATION OF BENT NO. 3



FOR INFORMATION ONLY



STAGE II PLAN OF BENT NO. 3

Final Plans

Designed by: EHW Date: Dec. 1998
Drawn by: JDG Date: Dec. 1998
Checked by: DLS Date: Dec. 1998

Horner & Shifrin, Inc.
Engineers/Architects/Planners
5200 Oakland Avenue
St. Louis, Missouri 63110

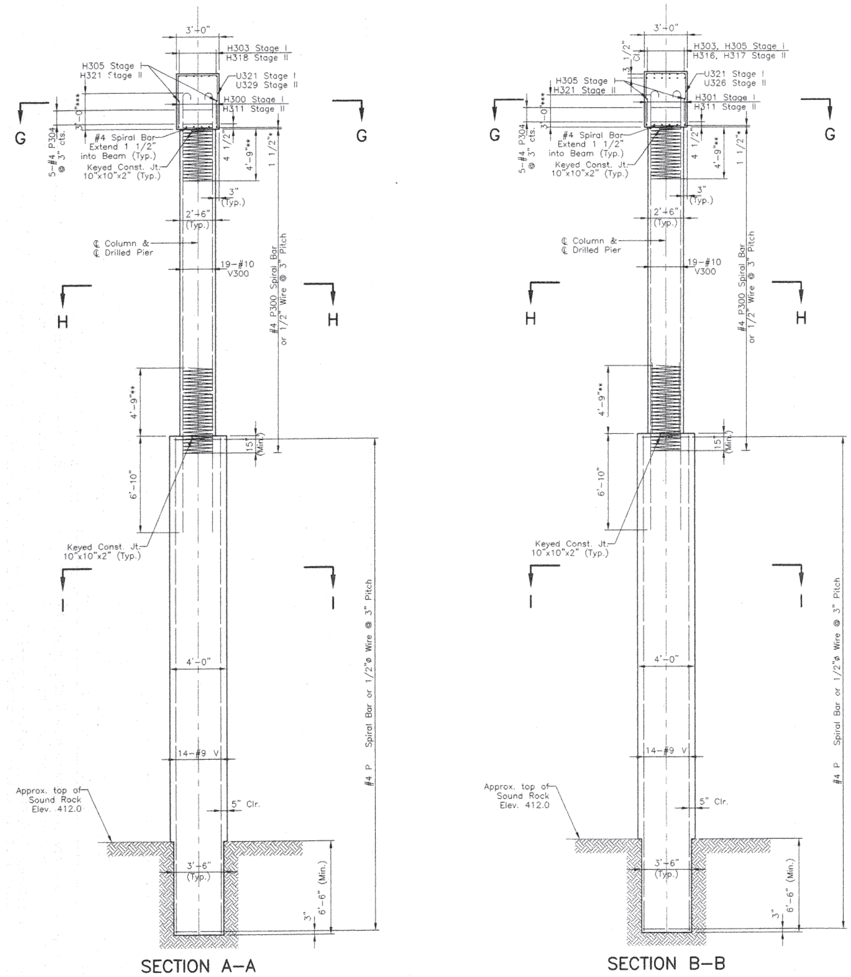
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS

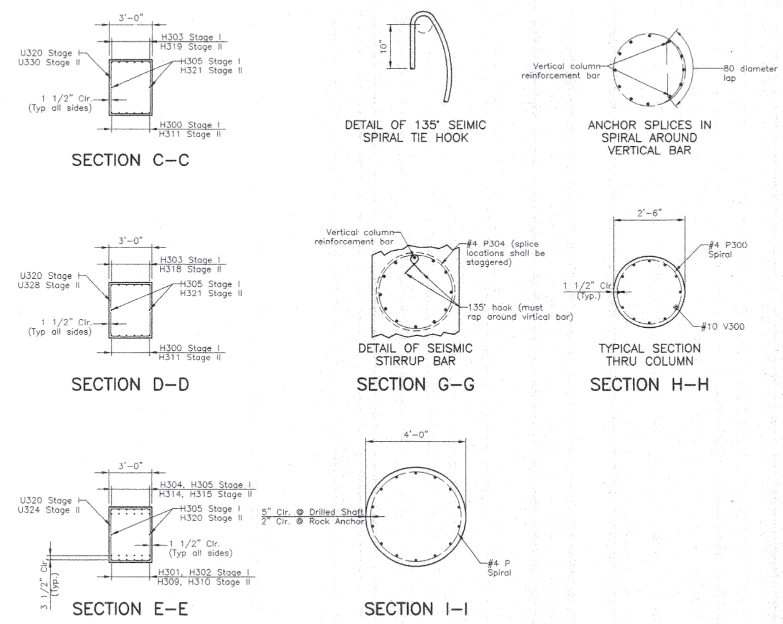
SHEET NO. 14 OF 61

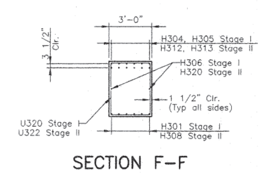
CITY OF ST. LOUIS

A5984

STATE	PROJ. NO. J6I1033	SHEET NO.
MO.	F-AI-70-5(273)990319-609	B26







FOR INFORMATION ONLY

Notes:

For Detail of Int. Bent No. 3 not shown, See Sheet No. 13 & 14.

For Locations of Sections A–A, B–B, C–C, D–D & E–E, See Sheet No. 13 & 14.

* The top of the spiral shall extend 1 1/2" above the highest bottom of beam for columns located at steps in the bottom of the beam.

** Lapping of spiral reinforcement in this region is not permitted.

*** The top of column V–bar hook shall extend 3'–0" above the highest bottom of beam for columns located at steps in the bottom of the beam. At contractors option, the hooks of V Bars embedded in the beam cap may be oriented inward or outward.

SUBSTRUCTURE QUANTITY TABLE FOR BENT NO. 3

ITEM		QUANTITY
Class 1 Excavation	Cu. Yd.	29 ✓
Drilled Shaft	Lin. Ft.	157 ✓
Concrete Coring	Lin. Ft.	28 ✓
Class B1 Concrete	Cu. Yd.	92.4 ✓
Reinforcing Steel	Lbs.	61910 ✓
Rock Socket	Lin. Ft.	63 ✓

Note: These quantities are included in the Estimated Quantities Table on Sheet No. 2.

STATE OF MISSOURI — JACQUES ... NUMBER E-15015 — REGISTERED PROFESSIONAL ENGINEER — 12/28/98

Final Plans

I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features, to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction, and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.

STATE OF MISSOURI — DEANNA VENKER — REGISTERED PROFESSIONAL ENGINEER

Signature 6-17-02 Date

BENT #3 DETAILS

CITY OF ST. LOUIS

A5984

Designed by: EHW Date: Dec. 1998
Drawn by: JDG Date: Dec. 1998
Checked by: DLS Date: Dec. 1998

Horner & Shifrin, Inc.
Engineers/Architects/Planners
5200 Oakland Avenue
St. Louis, Missouri 63110

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS

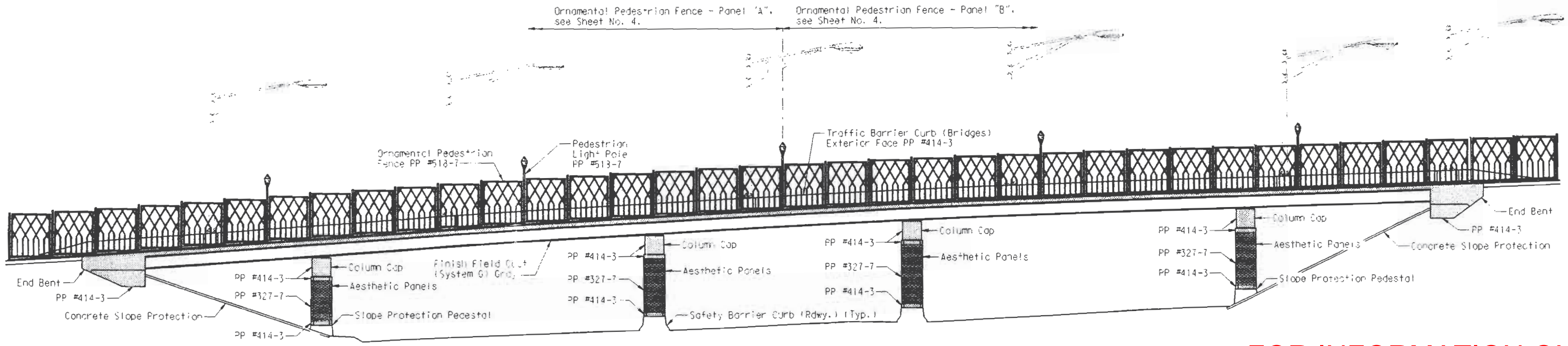
SHEET NO. 15 OF 61

DWG: S:\9874\F\9874FB3V DATE: 12/28/98 DIMSCALE: 48

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

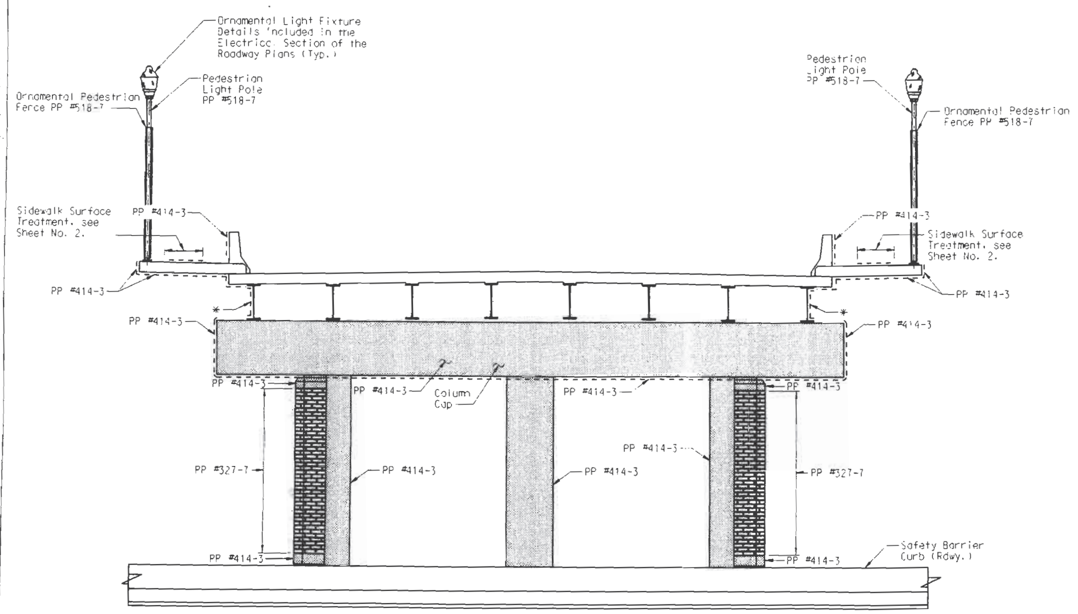
JIF (38.22' - 98' - 98' - 112' - 70.22) Continuous Composite Plate Girder Spans and Add Aesthetic Enhancements

State	Proj. No.	Sheet No.
MO		8GG
SEC. 34	TWP. 46N	RGE. 7E



ELEVATION

FOR INFORMATION ONLY



* Finish Field Coat (System G) Gray. Exterior Girders Only

TYPICAL SECTION THRU BRIDGE
(3 Column Bent Shown for Illustration Purposes Only)

Note:
See attached information only sheets for correct number of columns, stringers, etc.

ESTIMATED QUANTITIES

Item		Substr.	Superstr.	Total
Aesthetic Panels	sq. foot	600		600
Aesthetic Concrete Stain	sq. foot	22,010		22,010
Ornamental Pedestrian Fence	linear foot		932	932
Sidewalk Surface Treatment	sq. foot		1,980	1,980
Conduit System on Structure	lump sum		1	1
Finish Field Coat (System G) Gray	sq. foot		5,800	5,800
Graffiti Protection System	lump sum			1

AESTHETIC COLOR CHART

		Pittsburgh Paints Color #414-3 or Equal (Tan)	Finished Field Coat (System G) Gray	Pittsburgh Paints Color #327-7 or Equal (Buried Redwood)	Pittsburgh Paints Color #518-7 or Equal (Black Magic)
Bent System	Column Cap	x			
	Columns	x			
	End Bents	x			
Structural Elements	Exterior Beams		x		
Traffic Barrier Curb (Bridges)		x			
Aesthetic Panels	Top & Bottom Collars	x			
	Brick Pattern			x	
Ornamental Pedestrian Fence					x
Pedestrian Light Poles					x

BRIDGE WEST FLORISSANT AVENUE OVER I-70

STATE ROAD FROM KINGHSHIGHWAY BLVD TO EAST GRAND BLVD

PROJECT NO.
JOB. NO. J6I1581

STA. 854+05.09
RTE. I-70 (EBL & WBL)

CITY OF ST. LOUIS

8/30/02

DATE: 09/10/02

A59841

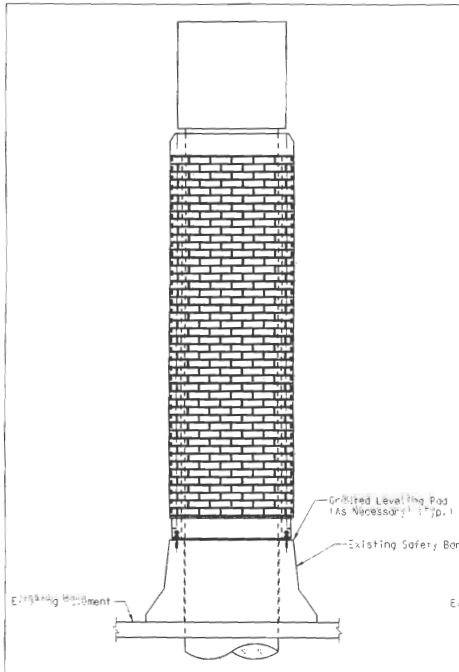
Detailed AUG 2002
Checked AUG 2002

HNTB

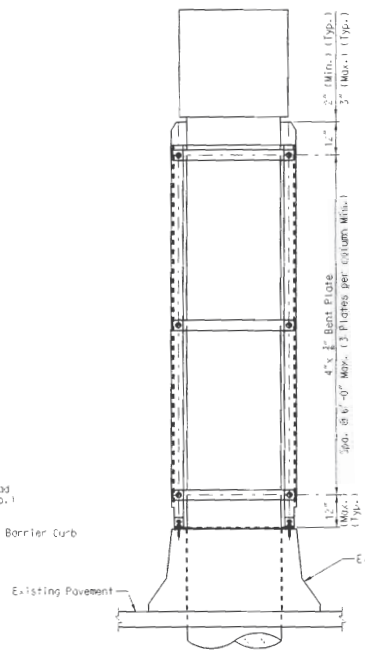
Note: This drawing is not to scale. follow dimensions.

Sheet No. of 8

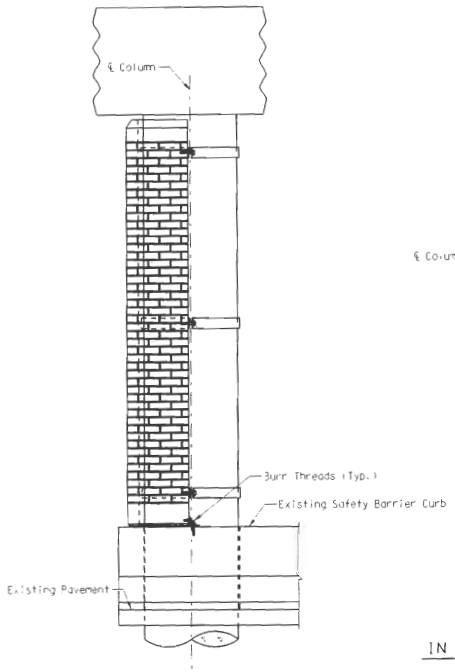
State	Proj. No.	Sheet No.
MO		870



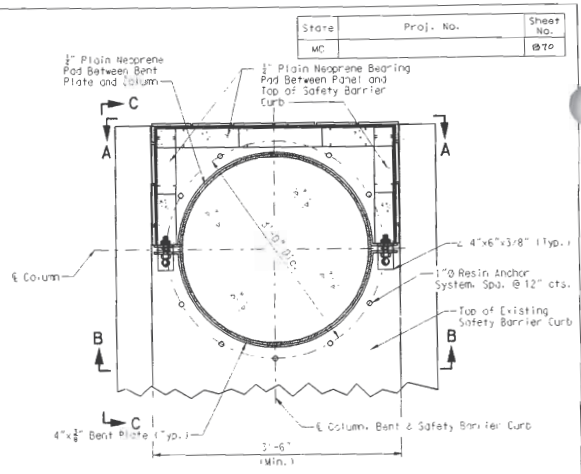
VIEW A-A



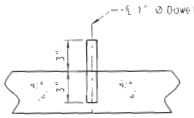
VIEW B-B



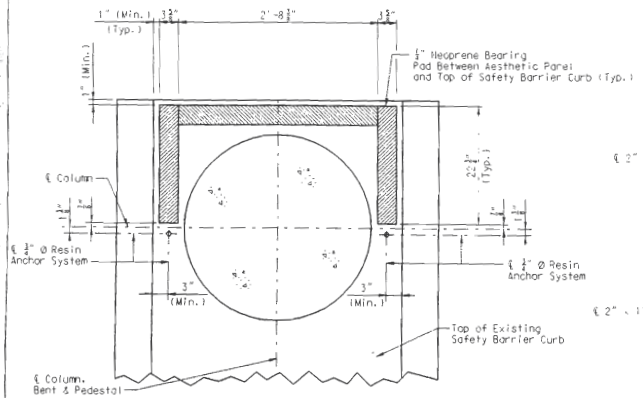
VIEW C-C



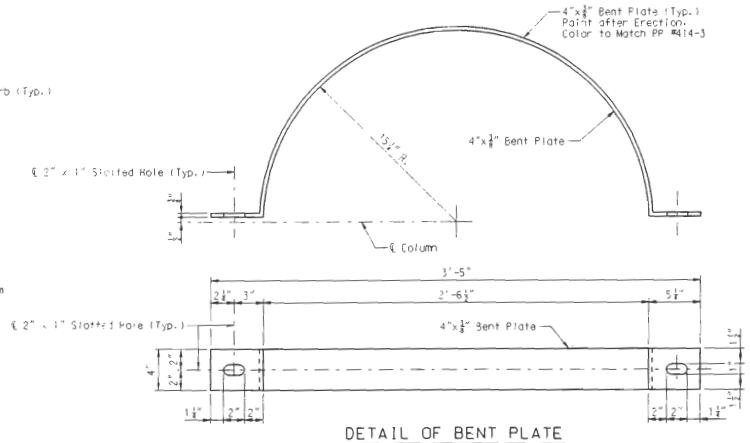
PLAN



DETAIL OF RESIN ANCHOR SYSTEM
IN EXISTING CONCRETE SLOPE PROTECTION



ANCHOR BOLT AND
NEOPRENE BEARING PAD LAYOUT



DETAIL OF BENT PLATE

Notes:

All concrete used in the pedestal on existing concrete slope protection shall be Class B.

All fabricated structural steel shall be ASTM A709 Grade 36 except as noted. The fabricated structural steel shall be galvanized in accordance with ASTM A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with ASTM A153.

Shop drawings will be required for the fabricated structural steel and aesthetic panels.

The material used for the 1" Ø resin anchor system shall meet the requirements of Section 1039.3 of the Missouri Standard Specifications.

The ¾" Ø resin anchor systems used in the top of the Pedestal shall consist of one of the approved systems listed in the special provisions. The ¾" Ø threaded rod used in the resin anchor systems shall be ASTM A36 and galvanized in accordance with ASTM A153.

Plain neoprene bearing pads shall be 60 durometer neoprene pads. The neoprene pad shall be bonded to the top of the Pedestal and to the 4"x⅜" bent plates with an epoxy adhesive as approved by the bearing manufacturer for bonding neoprene to concrete and galvanized steel.

Payment for furnishing and installing the pedestal on existing concrete slope protection, fabricated structural steel, steel framing, resin anchor systems, dowel bars and plain neoprene bearing pads shall be included in the contract unit price for Aesthetic Panels.

For details of Aesthetic Panels, see Sheet No. 7.

Aesthetic panels shall be fabricated and erected in accordance with the Special Provisions.

FOR INFORMATION ONLY

BRIAN E. [illegible] NUMBER E-24941 REGISTERED PROFESSIONAL ENGINEER STATE OF MISSOURI

8/30/02

AESTHETIC PANELS
ON CONCRETE SAFETY BARRIER CURB

CITY OF ST. LOUIS

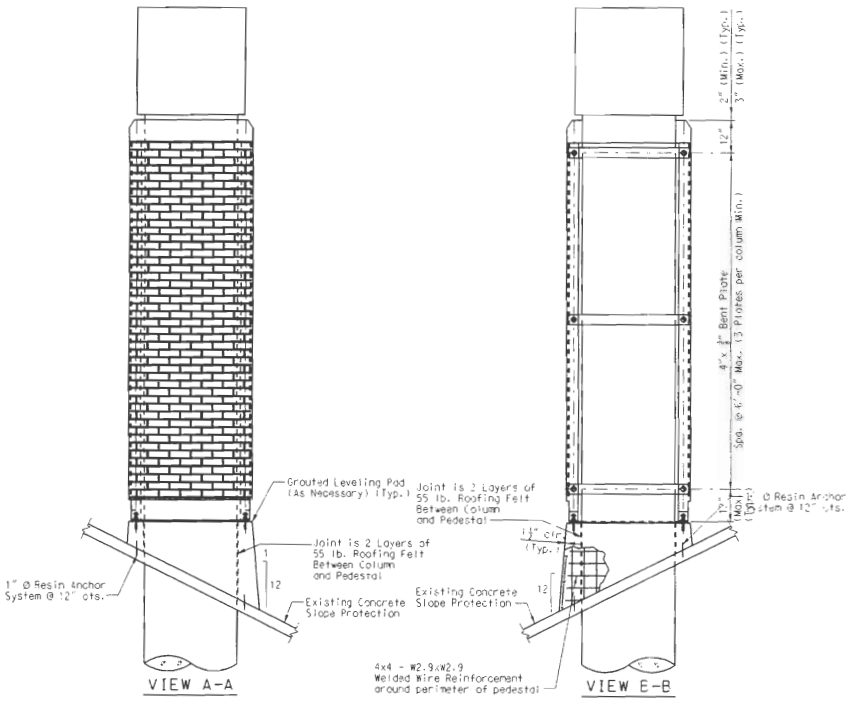
A59841

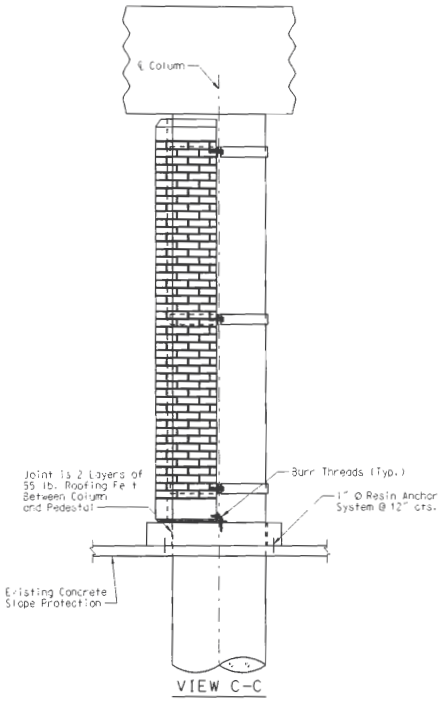
Detailed AUG 2002
Checked AUG 2002
HNTB

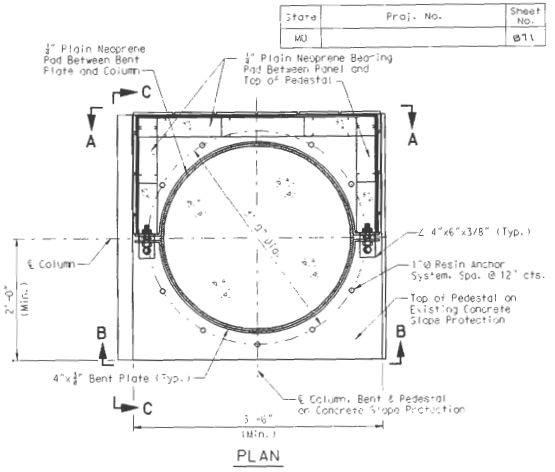
Note: This drawing is not to scale. follow dimensions.

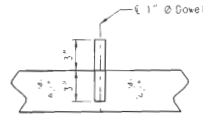
Sheet No. 5 of 8.

State	Proj. No.	Sheet No.
MO		071

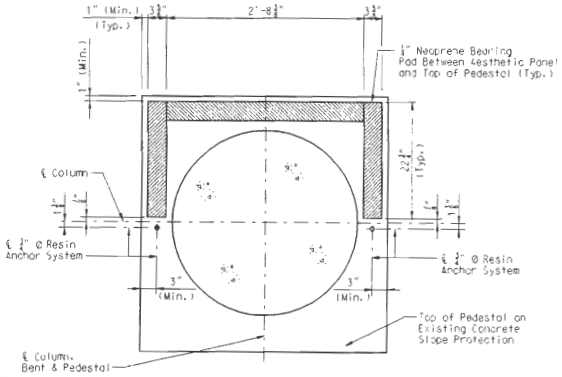




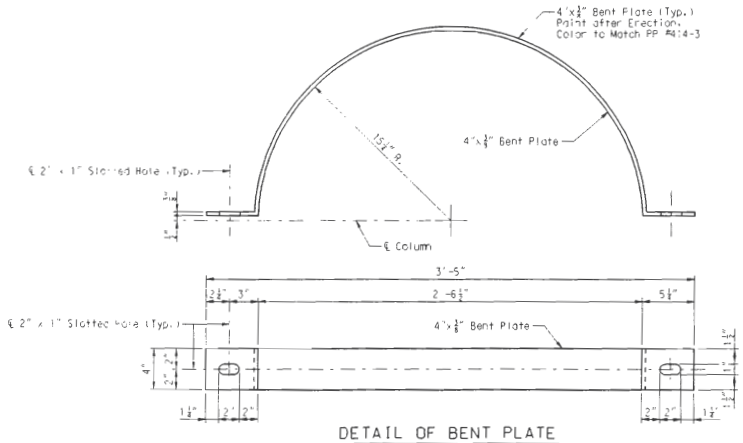




DETAIL OF RESIN ANCHOR SYSTEM
IN EXISTING CONCRETE SLOPE PROTECTION



ANCHOR BOLT AND
NEOPRENE BEARING PAD LAYOUT



DETAIL OF BENT PLATE

Notes:
#welded wire Reinforcement shall conform to ASTM A497.
All concrete used in the pedestal on existing concrete slope protection shall be Class B.
All fabricated structural steel shall be ASTM A709 Grade 36 except as noted. The fabricated structural steel shall be galvanized in accordance with ASTM A123.
All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with ASTM A153.
Shop drawings will be required for the fabricated structural steel and aesthetic panels.
The material used for the 1" Ø resin anchor system shall meet the requirements of Section 1039.3 of the Missouri Standard Specifications.
The ¾" Ø resin anchor systems used in the top of the Pedestal shall consist of one of the approved systems listed in the special provisions. The ¾" Ø threaded rod used in the resin anchor systems shall be ASTM A36 and galvanized in accordance with ASTM A153.
Plain neoprene bearing pads shall be 60 durometer neoprene pads. The neoprene pad shall be bonded to the top of the Pedestal and to the 4"x¾" bent plates with an epoxy adhesive as approved by the bearing manufacturer for bonding neoprene to concrete and galvanized steel.
Payment for furnishing and installing the pedestal on existing concrete slope protection, fabricated structural steel, steel framing, resin anchor systems, dowel bars and plain neoprene bearing pads shall be included in the contract unit price for Aesthetic Panels.
For details of Aesthetic Panels, see Sheet No. 7.
Aesthetic panels shall be fabricated and erected in accordance with the Special Provisions.

FOR INFORMATION ONLY

STATE OF MISSOURI
CHRISTIAN CARLSON
NUMBER E-24941
REGISTERED PROFESSIONAL ENGINEER
8/30/02

AESTHETIC PANELS
ON CONCRETE SLOPE PROTECTION

Detailed AUG 2002
Checked AUG 2002
HNTB

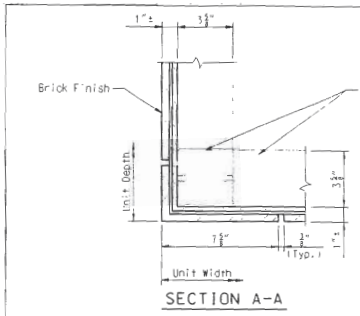
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 8.

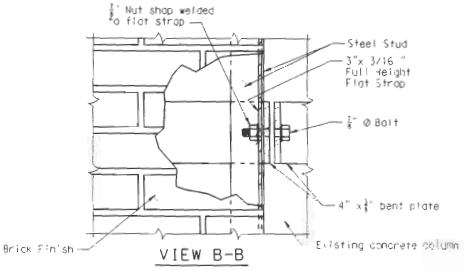
CITY OF ST. LOUIS

A59841

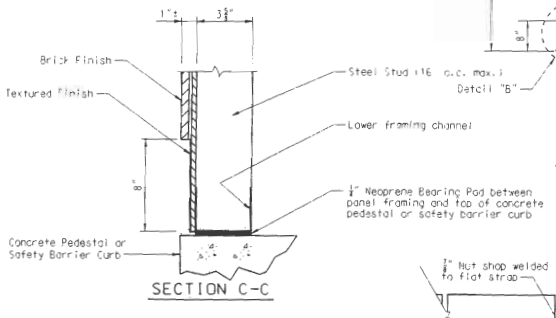
State	Proj. No.	Sheet No.
MO		8 72



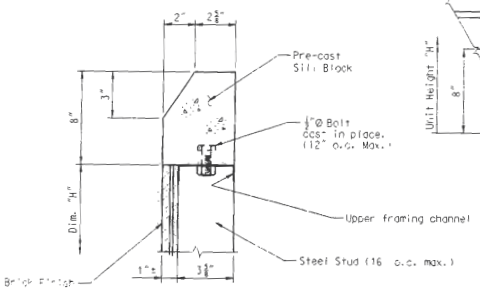
SECTION A-A



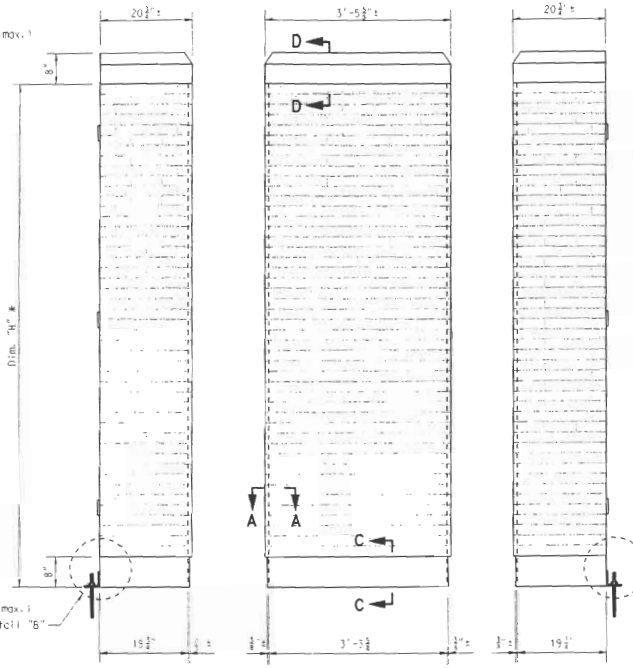
VIEW B-B



SECTION C-C

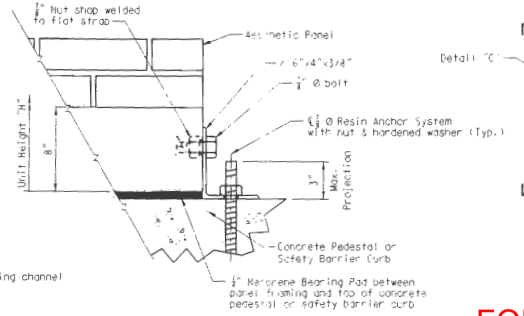


SECTION D-D

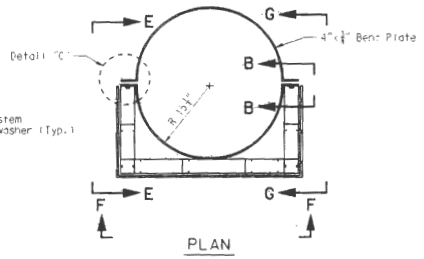


VIEW E-E VIEW F-F VIEW G-G

* Contractor must verify dimension "H" prior to fabricating Aesthetic Panels.



DETAIL "A"
Detail "B" opposite hand



PLAN

FOR INFORMATION ONLY

QUANTITY TABLE FOR PANELS AT BENT 2

Item	Quantity
Aesthetic Panels sq. foot	140

Note: These quantities are included in the Estimated Quantities table on Sheet No. 1.

QUANTITY TABLE FOR PANELS AT BENT 3

Item	Quantity
Aesthetic Panels sq. foot	135

Note: These quantities are included in the Estimated Quantities table on Sheet No. 1.

QUANTITY TABLE FOR PANELS AT BENT 4

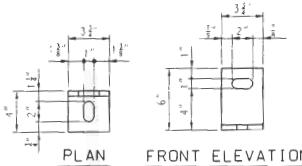
Item	Quantity
Aesthetic Panels sq. foot	150

Note: These quantities are included in the Estimated Quantities table on Sheet No. 1.

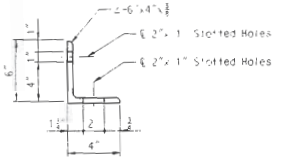
QUANTITY TABLE FOR PANELS AT BENT 5

Item	Quantity
Aesthetic Panels sq. foot	175

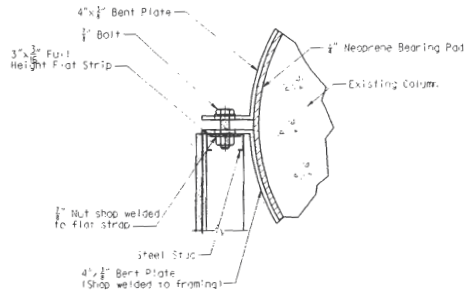
Note: These quantities are included in the Estimated Quantities table on Sheet No. 1.



PLAN FRONT ELEVATION



DETAIL OF CONNECTION ANGLES



DETAIL "C"

Note: Brick finish shall consist of 2¼"x2¾" running bond brick with ½" mortar joint.

AESTHETIC PANEL DETAILS

Detailed AUG 2002
Checked AUG 2002

HNTB

Note: This drawing is not to scale, follow dimensions.

Sheet No. 7 of 8 sheets

8/30/02

CITY OF ST. LOUIS

A59841