

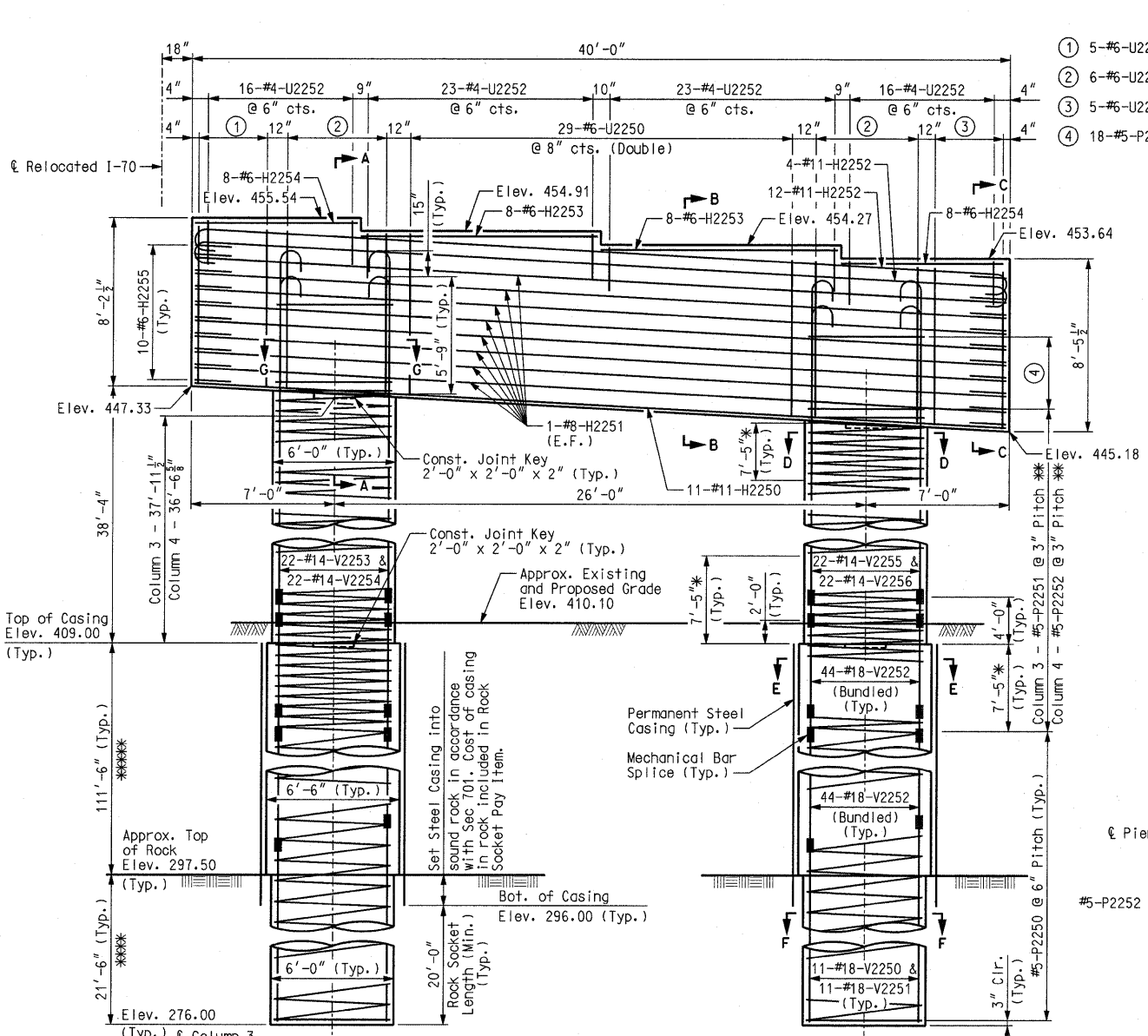
CONTRACT NO. 76061	
F.A. ROUTE	SECTION
999	82-1B-2
FED. AID PROJECT	ILLINOIS
COUNTY	ST. CLAIR
USER NAME = jcolliff	
PLOT SCALE = #SCALE#	
PLOT DATE = 4/14/2010	
DESIGNED -	HNTB
CHECKED -	CMT
DRAWN -	CMT / HNTB
REVISED -	
REVISED -	
REVISED -	
REVISED -	

ILLINOIS APPROACH STRUCTURE FOR NEW I-70 MISSISSIPPI RIVER BRIDGE

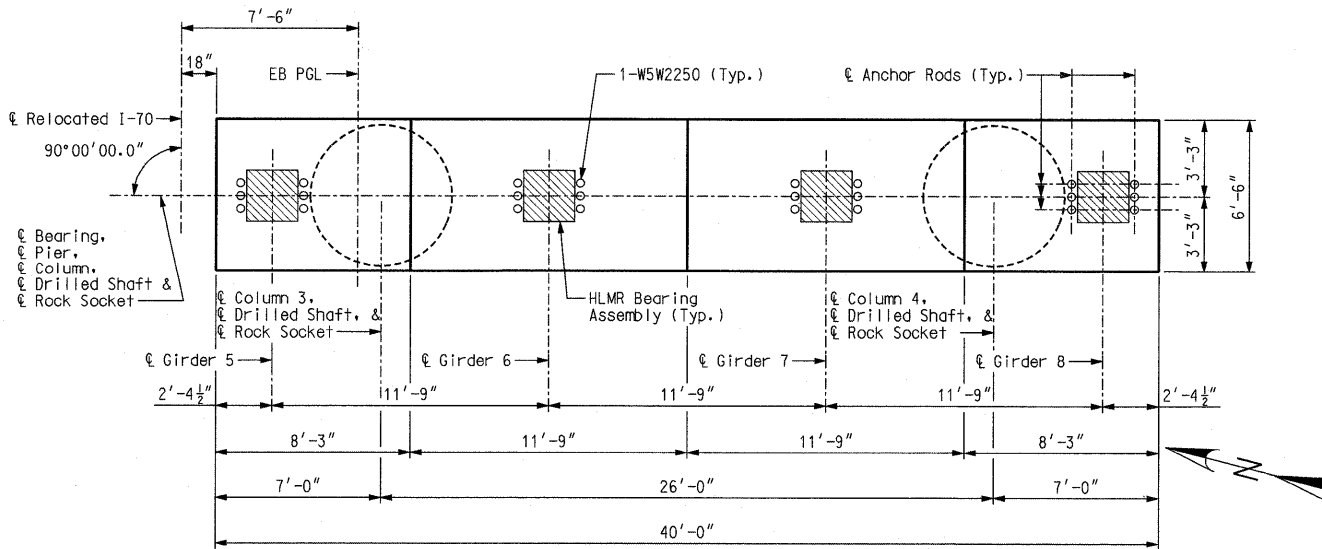
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
MISSOURI HIGHWAYS  
AND TRANSPORTATION COMMISSION

**HNTB**  
715 KIRK DRIVE  
KANSAS CITY, MO 64105  
TELEPHONE (816) 472-1201  
CERTIFICATE OF AUTHORITY  
NO. 001270

**CMT**  
CRAWFORD, MURPHY & TILLY, INC.  
2750 WEST WASHINGTON STREET  
SPRINGFIELD, IL 62702  
TELEPHONE (217) 787-8050  
ENGINEERING CORPORATION - 000631



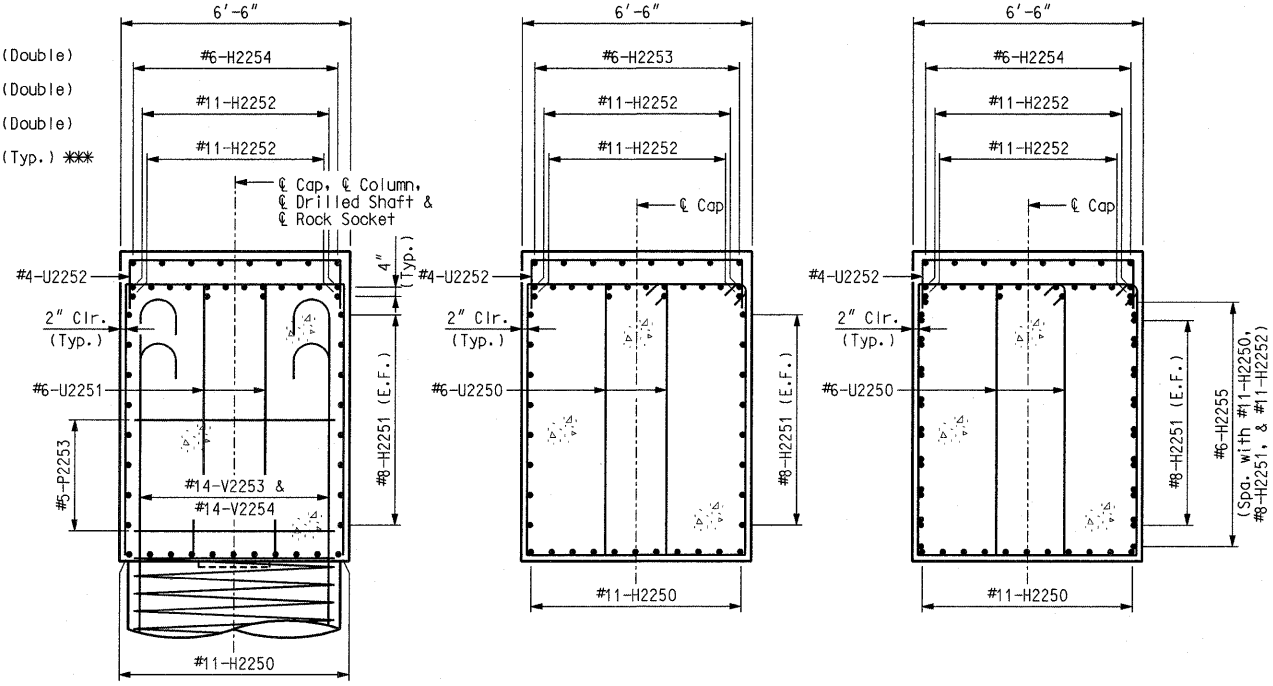
**ELEVATION**



**PLAN**

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

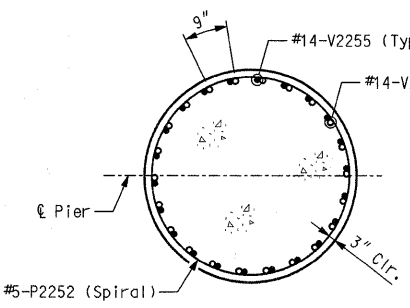
- ① 5-#6-U2250 @ 10" cts. (Double)
- ② 6-#6-U2251 @ 12" cts. (Double)
- ③ 5-#6-U2250 @ 10" cts. (Double)
- ④ 18-#5-P2253 @ 3" cts. (Typ.) \*\*\*



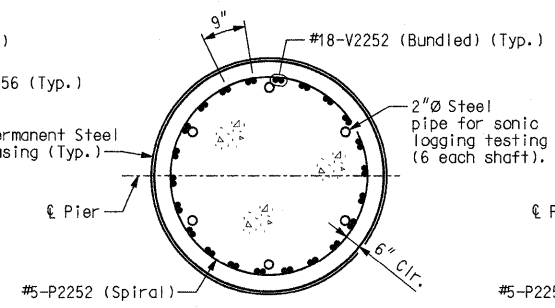
**SECTION A-A**

**SECTION B-B**

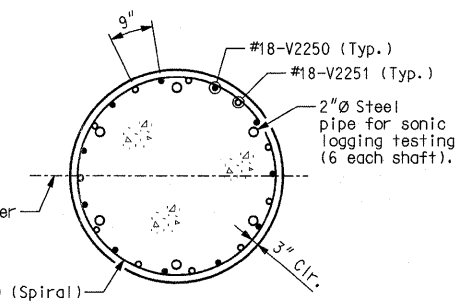
**SECTION C-C**



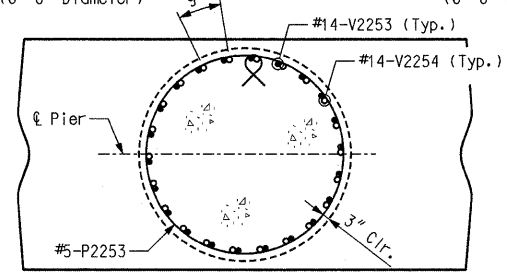
**SECTION D-D**  
(6'-0" Diameter)



**SECTION E-E**  
(6'-6" Diameter)



**SECTION F-F**  
(6'-0" Diameter)



**SECTION G-G**  
(Beam Cap reinforcement not shown)

SUBSTRUCTURE QUANTITY TABLE FOR PIER 22 EB		
Item	Quantity	
Drilled Shafts (6 ft. 6 in. Dia.)	linear foot	223.0
Rock Sockets (6 ft. 0 in. Dia.)	linear foot	43.0
Supplementary Television Camera Inspection	each	1
Foundation Inspection Holes	linear foot	63.0
Sonic Logging Testing	each	2
Class B Concrete (Substructure)	cu. yard	158.3
Reinforcing Steel (Bridges)	pound	207,420
Mechanical Bar Splice	each	220
Non-Special Waste Disposal	cu. yard	26.2

Note: These quantities are included in the estimated quantities table on Sheet No. 7.

Sheet No. 37 of 152

Notes:  
 An additional 4 feet has been added to #5-P2250, #18-V2250 and #18-V2251 lengths for possible change in drilled shaft or rock socket depth. This excess length shall be cut off or included in the reinforcement lap if not required.  
 Sonic logging testing shall be performed on all drilled shafts and rock sockets.  
 All reinforcing bars in the tops of substructure beams or caps shall be spaced to clear anchor rod wells for bearings by at least 1/2".  
 The hooks of V-Bars embedded in the beam cap shall be oriented inward. Bending the hook outward, away from the column core, is not allowed.  
 The thickness of steel casing shall meet all the requirements of Sec 701 with minimum thickness being 3/8 inch. Thicker casing may be required for installation.  
 For details of HLMR Bearing Assembly, see Sheet No. 43.  
 For Anchor Rod Well Details and Anchor Rod Setting Plan, see Sheet No. 47.  
 For details of seismic stirrup bars, see Sheet No. 7.  
 \* Lapping of spiral reinforcement in this region not permitted.  
 \*\* Continue spiral bars to the bottom of the beam cap stirrup reinforcing bar.  
 \*\*\* Splice locations shall be staggered.  
 Anchorage of spiral reinforcement shall be provided by 1-1/2 extra turns of spiral bar at each end of spiral unit.  
 \*\*\*\* Pay Items Rock Socket (6 ft. 0 in. Dia.).  
 \*\*\*\*\* Pay Items Drilled Shaft (6 ft. 6 in. Dia.).

**PIER 22 EB**

Detailed JUL 2009  
Checked JUL 2009