Notes: Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
All dimensions are in millimeters (mm) except as noted.

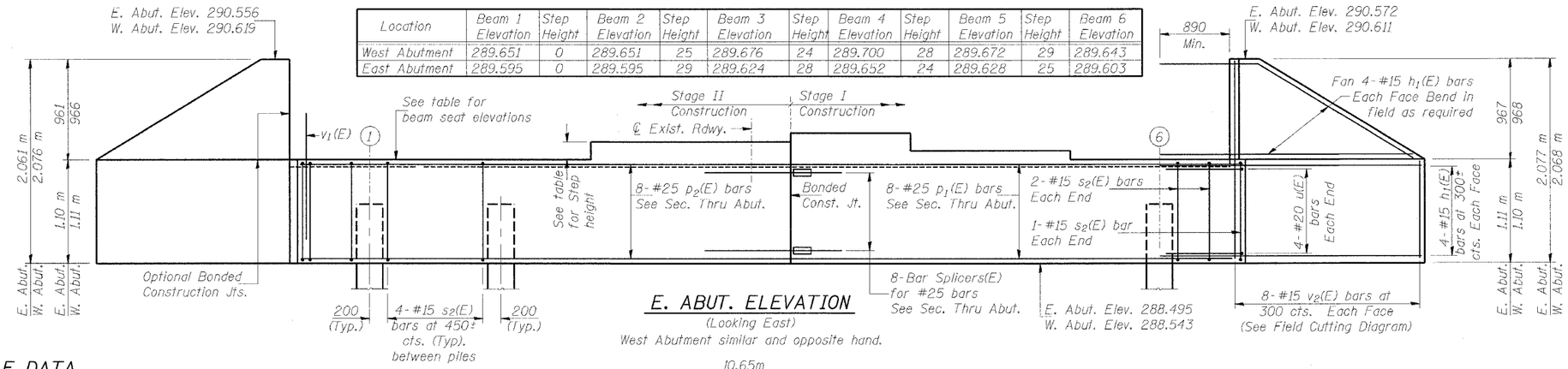
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. Rt. 305	28R-2-RS-1	McHenry	53	33
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NUMBER: 60756

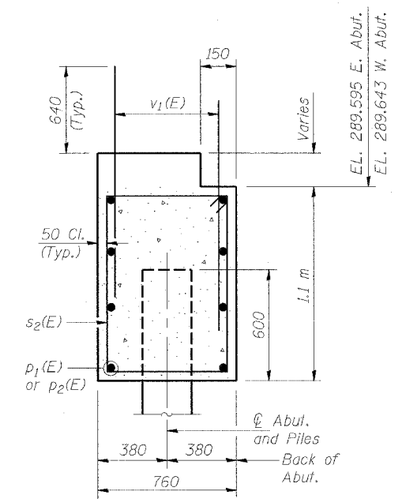
BEAM SEAT ELEVATIONS

Location	Beam 1 Elevation	Step Height	Beam 2 Elevation	Step Height	Beam 3 Elevation	Step Height	Beam 4 Elevation	Step Height	Beam 5 Elevation	Step Height	Beam 6 Elevation
West Abutment	289.651	0	289.651	25	289.676	24	289.700	28	289.672	29	289.643
East Abutment	289.595	0	289.595	29	289.624	28	289.652	24	289.628	25	289.603



E. ABUT. ELEVATION

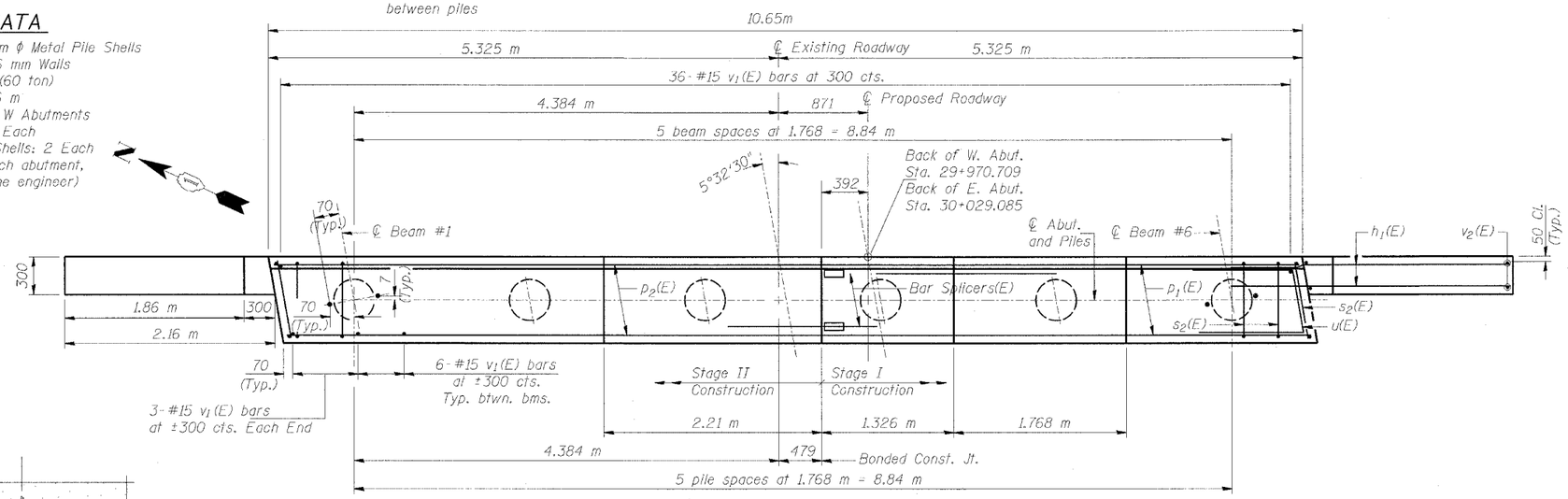
(Looking East)
West Abutment similar and opposite hand.



SEC. THRU ABUT.

PILE DATA

Pile type: 356 mm ϕ Metal Pile Shells w/ 6 mm Walls
Capacity: 534kN (60 ton)
Est. length.: 12.6 m
E & W Abutments
No. Required: 10 Each
Test Pile Metal Shells: 2 Each
(One test pile each abutment, as directed by the engineer)

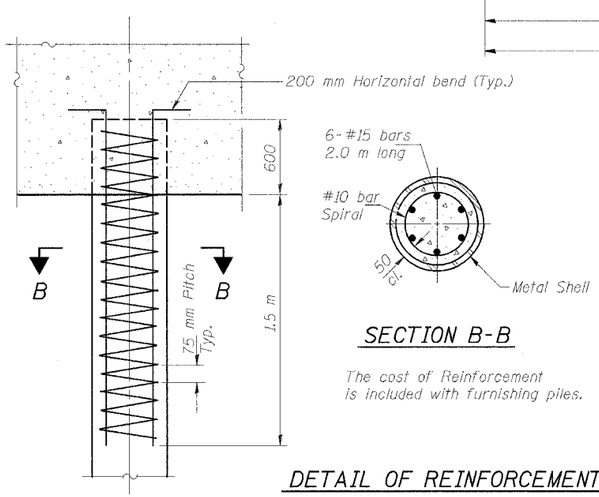


E. ABUT. PLAN

West Abutment similar and opposite hand.

BILL OF MATERIAL (TWO ABUTMENTS)

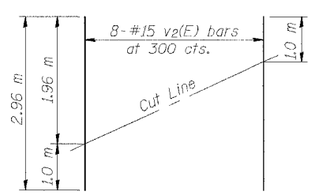
Bar	No.	Size	Length (m)	Shape
h_1(E)	64	#15	3.3	
p_1(E)	16	#25	4.80	
p_2(E)	16	#25	5.68	
s_2(E)	52	#15	3.58	
u(E)	16	#20	2.85	
v_1(E)	144	#15	1.28	
v_2(E)	64	#15	2.96	
Concrete Structures			m^3	22.4
Reinforcement Bars, Epoxy Coated			kg	1,980
Structure Excavation			m^3	119
Bar Splicers			Each	16
Furnishing Metal Shell Piles 356 mm			Meter	151
Driving & Filling Shells			Meter	151
Test Pile Metal Shells			Each	2



SECTION B-B

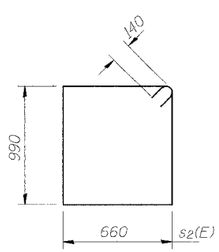
The cost of Reinforcement is included with furnishing piles.

DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS

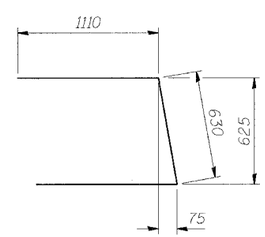


FIELD CUTTING DIAGRAM

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



BAR s_2(E)



BAR u(E)

EAST & WEST ABUTMENTS

Date	Designed MR	SOUTH ST. OVER US 14 FAP ROUTE NO. 305 SECTION 28R-2-RS-1 STATION 29+999.897 COUNTY McHENRY STRUCTURE NO. 056-3015	Sheet No. 20 of 31
Revisions	Drawn MR/RV		
	Checked KSM		
	Approved KSM		

HOH HARRY O. HEFTER-ASSOCIATES, INC. DESIGN AND CONSULTING ENGINEERS 55 East Jackson Blvd. Chicago, Illinois 60604 312/346-8151 | File Name: 1962S20.DGN | Job No. 1962

01/18/2005 02:19:09 PM

g:\PROJECTS\1962\BRIDGE\Plans\FinalPlans\1962S20.DGN