

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 26 34 SHEETS
F.A.P. 301 (US 20)	(2HB -1D)	WINNEBAGO	107	91	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #64B07

PILE DATA

Type : HP 12x53
Nominal Required Bearing : 418 kips
Allowable Resistance Available : 142 kips
Est. Length : 70'
No. Production Piles: 2
No. Test Piles: None
The Steel H-piles shall be according to AASHTO M270 Grade 50.

MIN. BAR LAPS

#5 (E) bars = 2'-2"

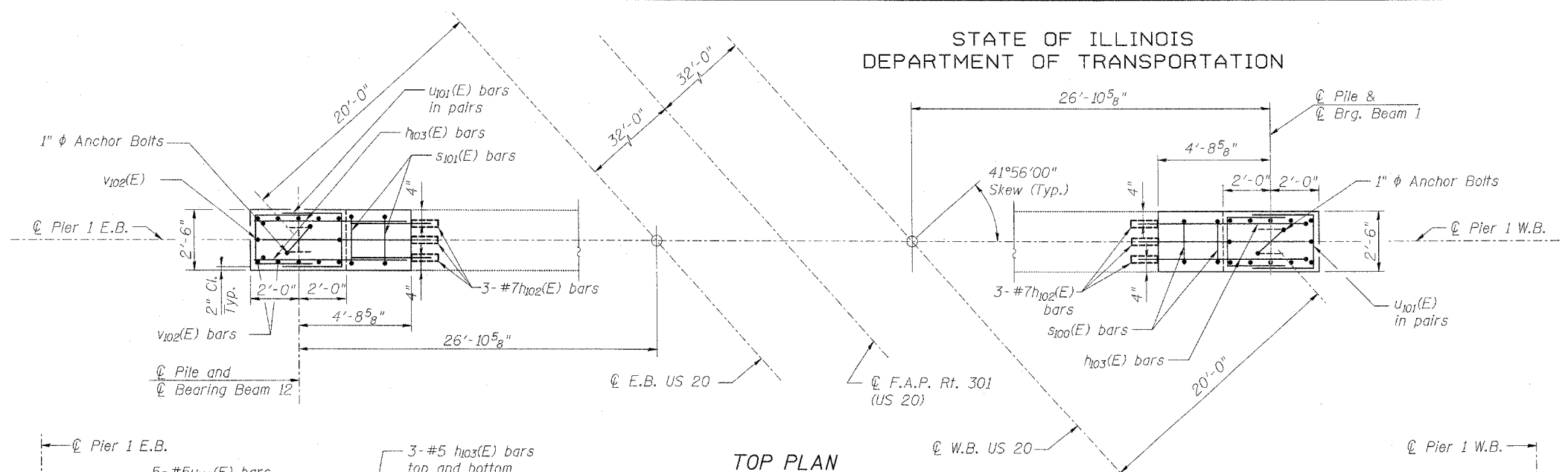
PIER DIMENSIONS

	A	B	C
Pier 1 W.B.	20'-3 ³ / ₈ "	6'-0"	14'-3 ³ / ₂ "
Pier 1 E.B.	18'-3 ¹ / ₂ "	5'-10"	12'-5 ¹ / ₂ "

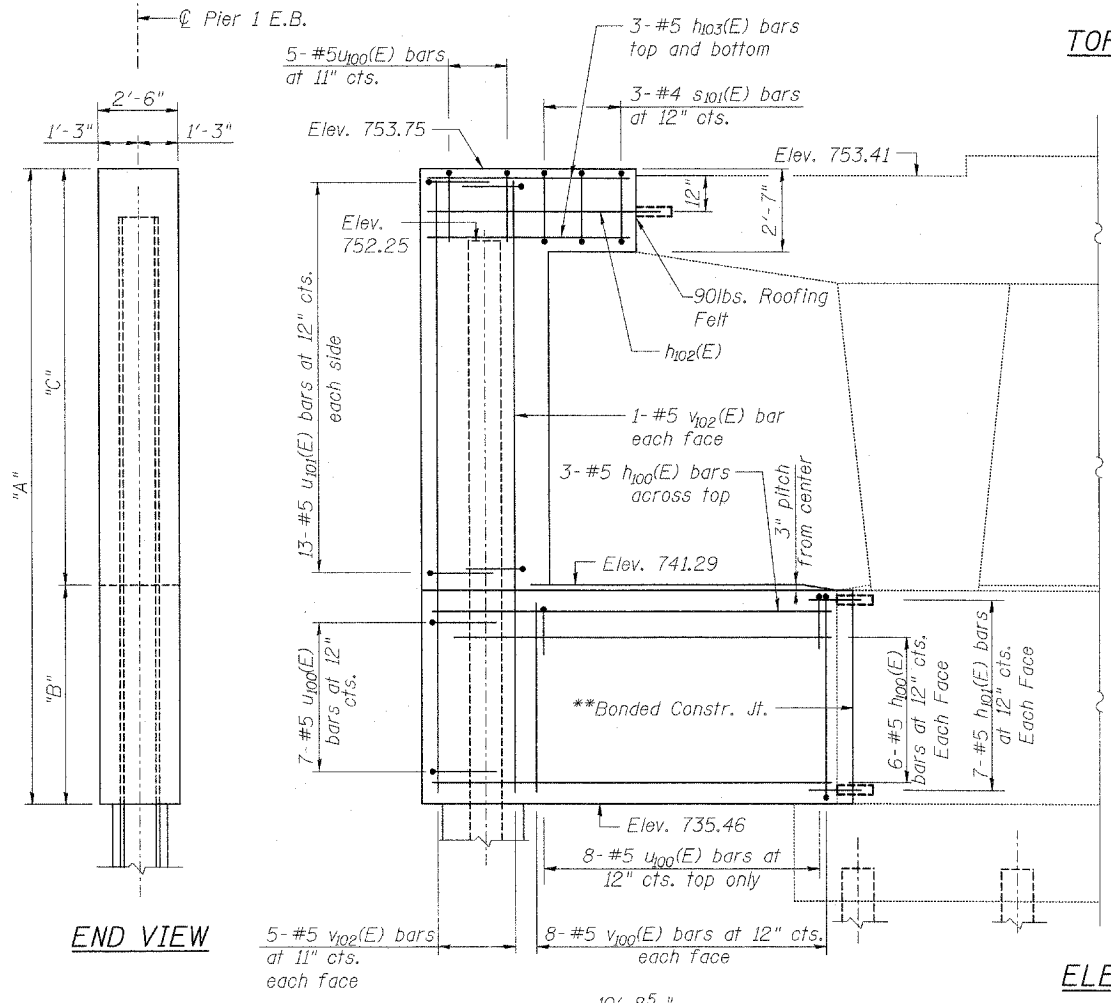
BILL OF MATERIAL FOR TWO PIERS

Bar	No.	Size	Length	Shape
h ₁₀₀ (E)	30	#5	10'-8"	
h ₁₀₁ (E)	28	#5	3'-4"	
h ₁₀₂ (E)	6	#7	7'-6"	
h ₁₀₃ (E)	12	#5	6'-6"	
*** s ₁₀₀ (E)	3	#4	8'-1"	
*** s ₁₀₁ (E)	3	#4	9'-7"	
u ₁₀₀ (E)	40	#5	7'-0"	
u ₁₀₁ (E)	56	#5	8'-6"	
*** v ₁₀₀ (E)	32	#5	5'-5"	
*** v ₁₀₁ (E)	12	#5	19'-11"	
*** v ₁₀₂ (E)	12	#5	18'-2"	

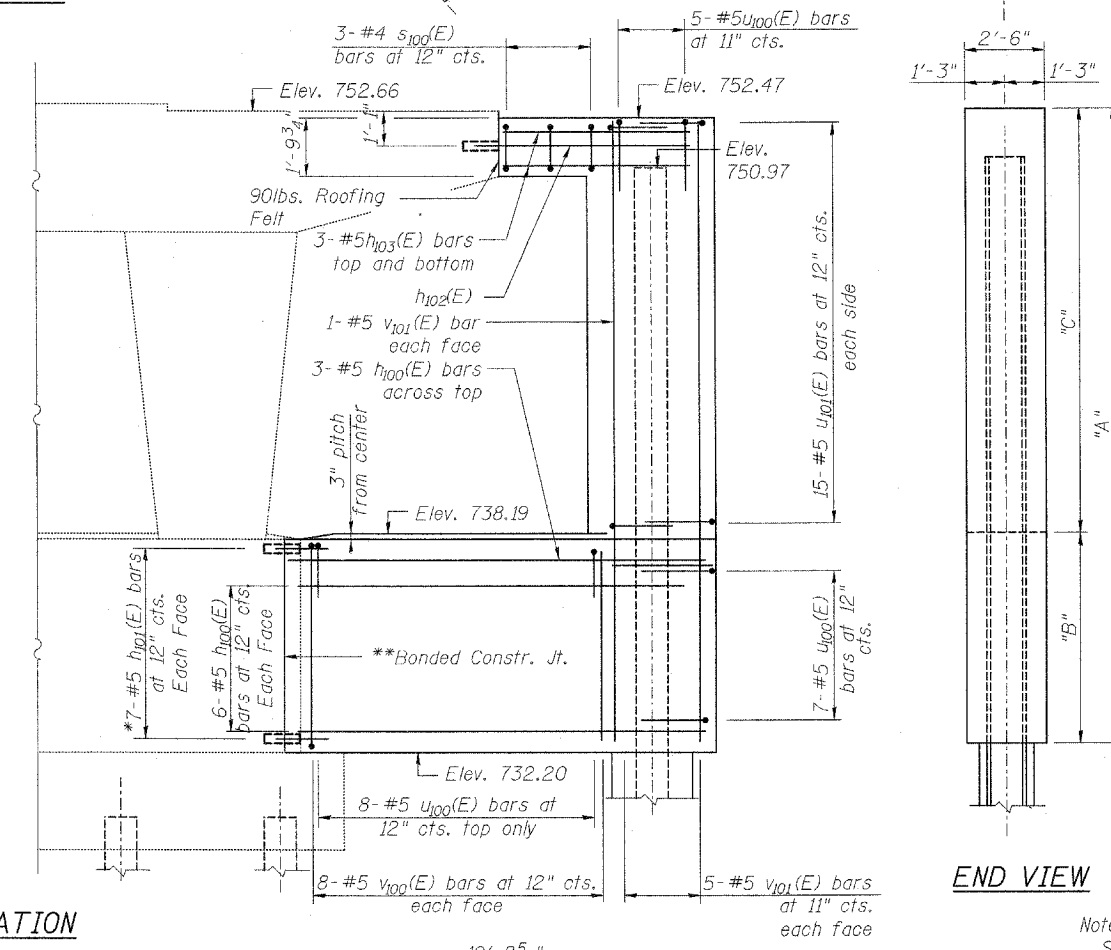
Item	Unit	Quantity
Structure Excavation	Cu. Yd.	25.5
Concrete Structures	Cu. Yd.	22.1
Reinforcement Bars, Epoxy Coated	Pound	2,090
Furnishing Steel Piles, HP12X53	Foot	140
Driving Piles	Foot	111
Concrete Encasement	Cu. Yd.	0.8
Concrete Sealer	Sq. Ft.	681



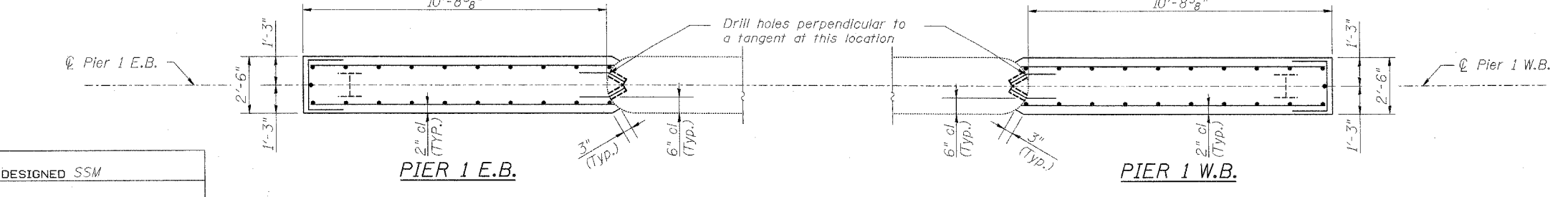
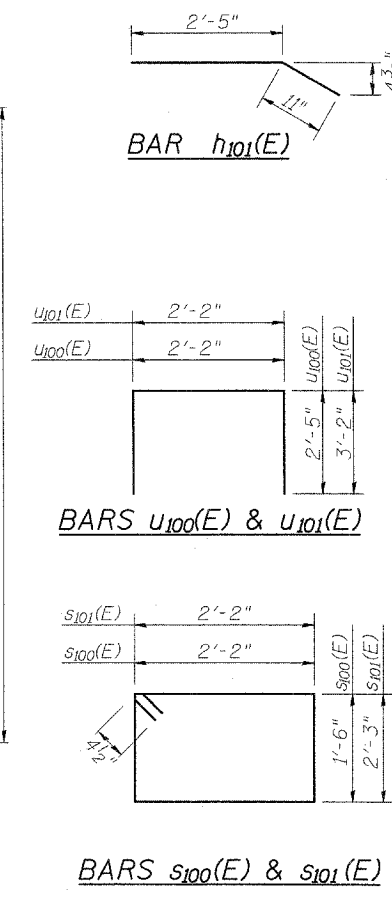
TOP PLAN



ELEVATION



END VIEW



PIER 1 E.B.

PIER 1 W.B.

Notes:
Space reinforcement in cap to miss anchor bolts.
* Drill 7/8" ϕ x 9" min. holes for h₁₀₁(E) bars and 1 1/8" ϕ x 12" holes for h₁₀₂(E) bars. Epoxy grout h₁₀₁(E) and h₁₀₂(E) bars.
Bars shall be drilled and epoxy grouted according to Article 584 of the Standard Specification.
** Bonded construction joint in accordance with Article 503.09(b) of The Standard Specifications.
*** Bar to be used at one pier only.
Concrete Sealer shall be applied to all permanently exposed portions of the crash walls, columns and pier caps, new concrete only.

PIER 1 - W.B. & E.B.
F.A.P. ROUTE 301 (US 20)
OVER SIMPSON ROAD
SECTION (2HB-1D)
WINNEBAGO COUNTY
STATION 849+27.97
STRUCTURE NO. 101-0053 (W.B.)
STRUCTURE NO. 101-0054 (E.B.)

DESIGNED	SSM
CHECKED	JLA
DRAWN	GYR
CHECKED	SSM
P-5	10-22-04