

F.A.P. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
711	115(BY)-1BR	VERMILION	93	56
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
SHEETS 20

CONTRACT NO. 90843

	0.4 Sp. #1	Pier 1 or 2	0.5 Sp. #2
I	(in ⁴) 90956		90956
I'	(in ⁴) 281414		281414
S _b	(in ³) 5153		5153
S _b '	(in ³) 8834		8834
S _t	(in ³) 3736		3736
S _t '	(in ³) 27739		27739
Q	(k/')	1.136	1.136
M _Q	(k')	470	716
s _Q	(k/')	0.450	0.450
M _{sQ}	(k)	105	187
M _L	(k)	368	371
M (Imp)	(k)	100	94

	Abutments	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
R _Q	(k)	32.7	40.3
R _{sQ}	(k)	16.1	16.1
R _L	(k)	22.3	22.3
Imp.	(k)	4.4	4.4
R (Total)	(k)	75.5	83.1

I and I' are the moment of inertia and composite moment of inertia of the beam section.
S_b and S_b' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.
S_t and S_t' are the non-composite and composite section modulus for the top fiber of the prestressed beam.

M_Q is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.

M_{sQ} is the moment due to dead loads on the composite section.

M_L is the moment due to live load on the composite section.

M (Imp) is the moment due to live load impact on the composite section.

NOTES:

After beams have been erected holes at expansion bearings, fixed piers and anchor bolts grouted in place.

See sheet 17 of 20 for anchor bolt installation.

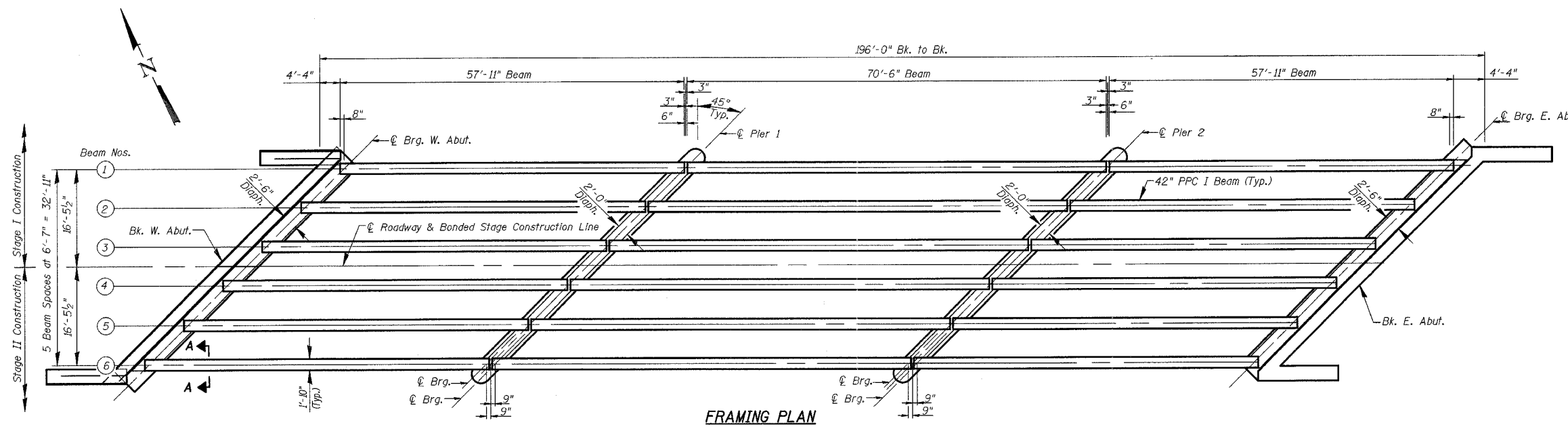
See sheet 15 of 20 for v₁(E) bar Bill of Material.

The cost of P.J.F. and Fabric Bearing Pad included in Concrete Superstructure.

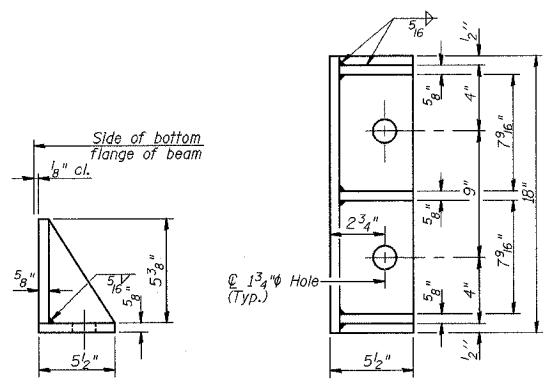
Structural Steel for side retainers shall be in accordance with Section 505 of the Standard Specifications.

The side retainers shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM 385.

The cost of Side Retainers and anchor bolts shall be included in the unit bid price for Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"

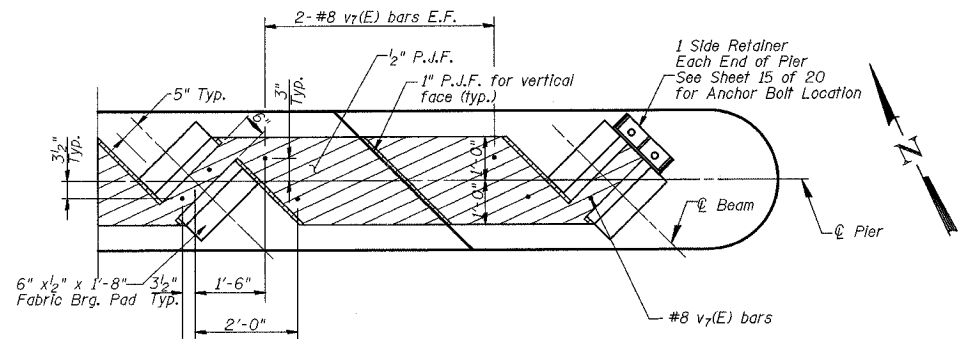


FRAMING PLAN



SIDE RETAINER AT FIXED PIERS

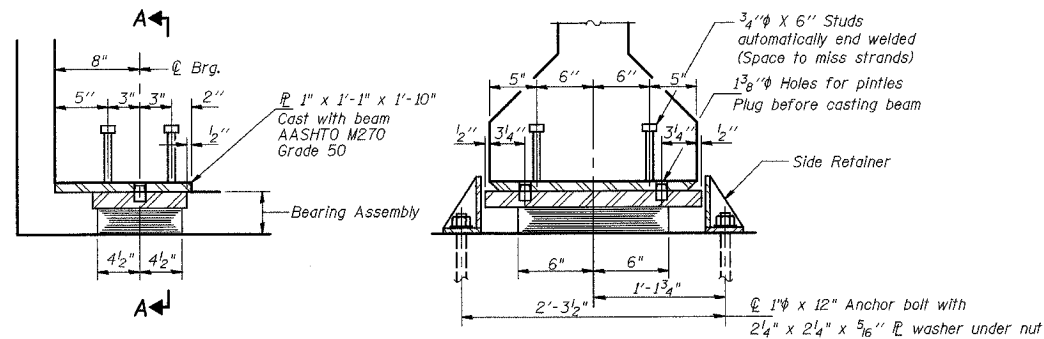
Note: Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



FIXED PIER SEAT DETAIL

BILL OF MATERIAL

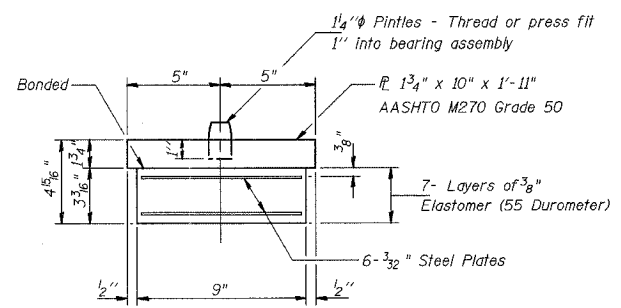
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12



SECTION AT ABUT.

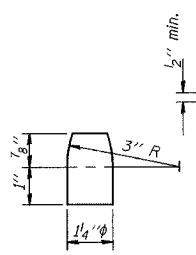
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENT

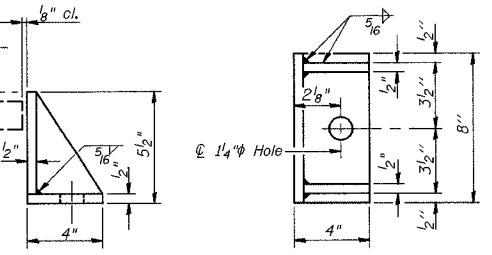


BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.



PINTLE



SIDE RETAINER AT ABUTMENT

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

ILLINOIS DEPARTMENT OF TRANSPORTATION
FRAMING PLAN & BEARING DETAILS
 U.S. ROUTE 136 OVER
 BEAN CREEK
 F.A.P. ROUTE 711
 SECTION 115(BY)-1BR
 VERMILION COUNTY
 STA. 286+77.00
 STRUCTURE NUMBER 092-0201
 DATE: OCT. 2003
 DRAWN BY: MLO/NJV
 CHECKED BY: PBB/SJK