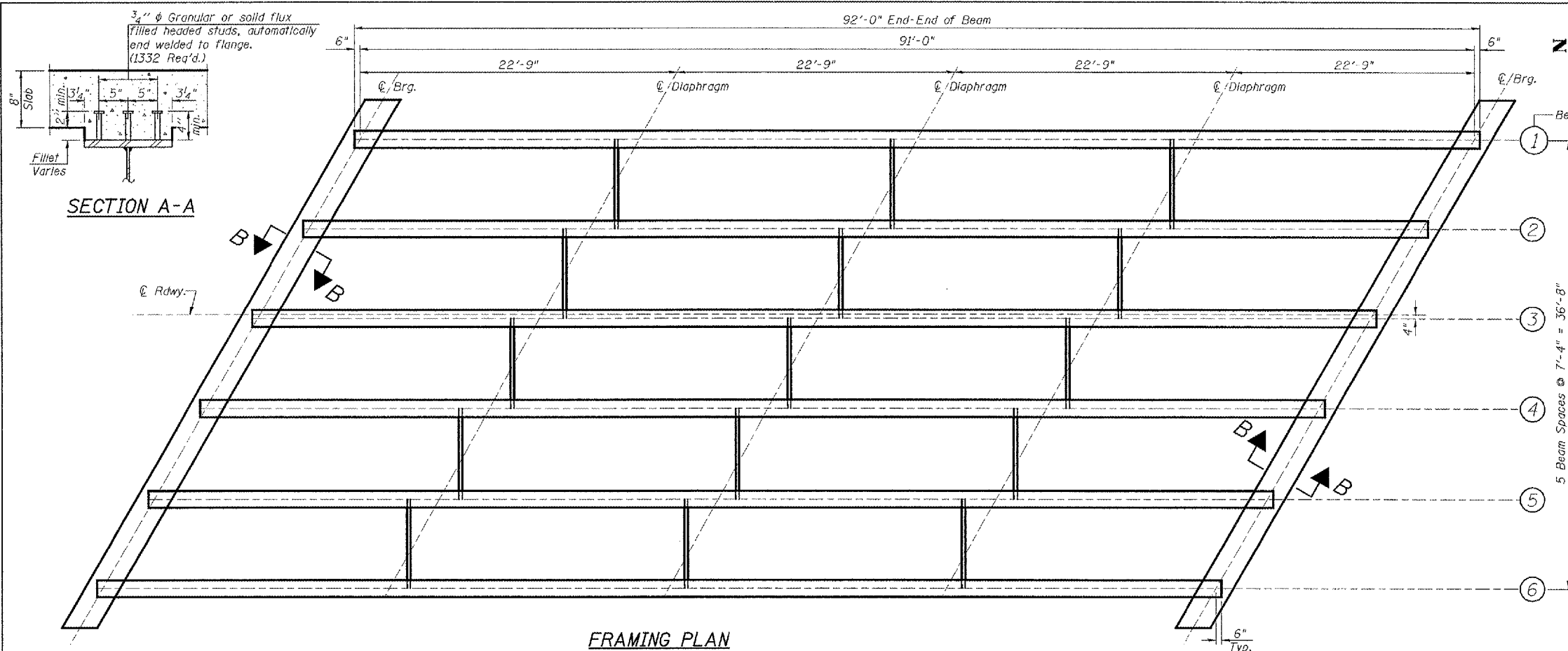
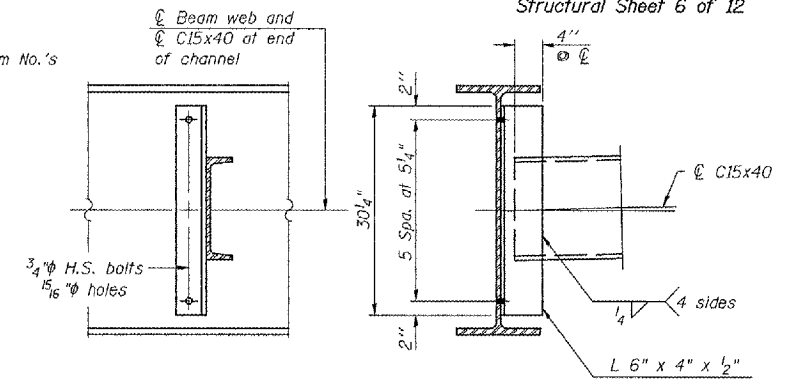


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1195	(112B) BR-3	KNOX	76	26
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

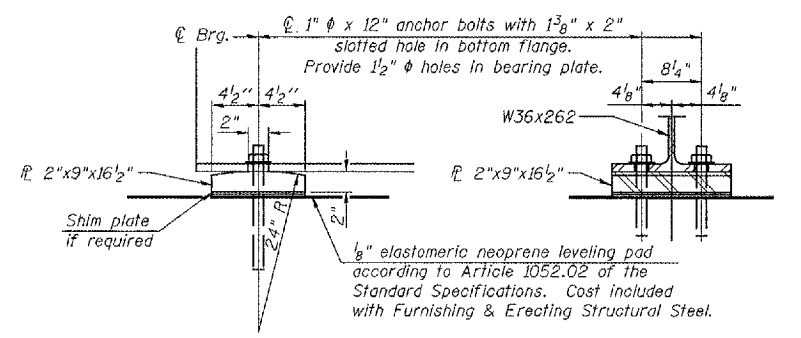


FRAMING PLAN

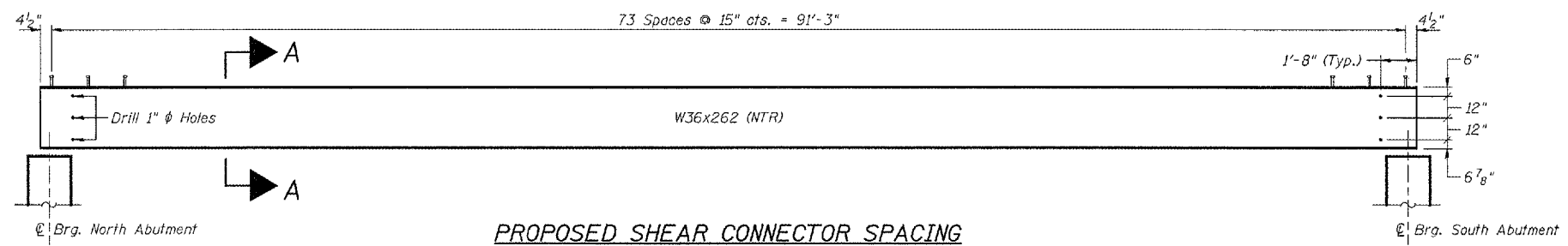


INTERIOR DIAPHRAGM

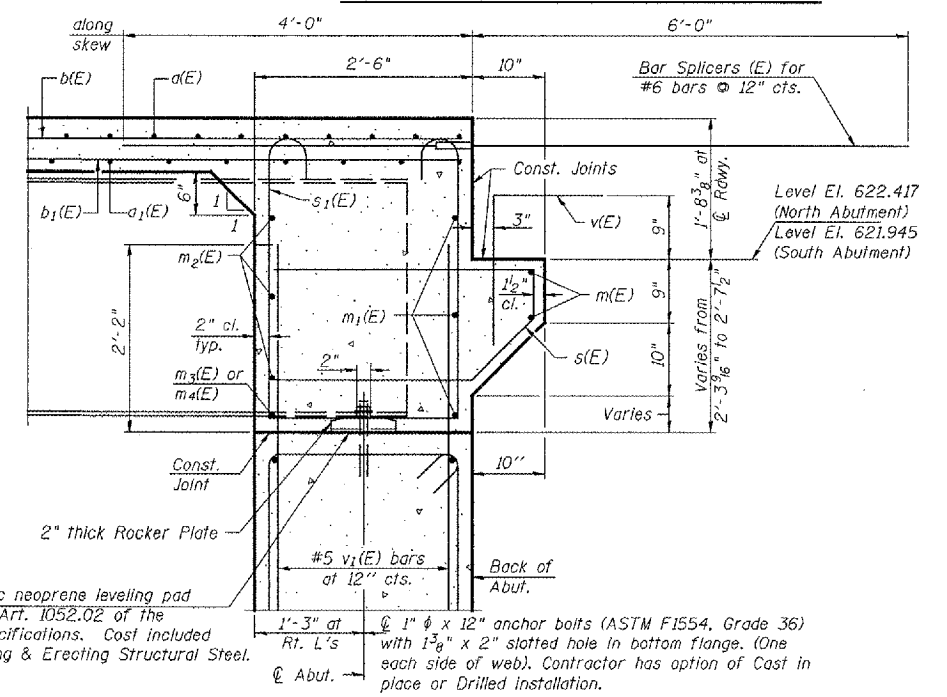
Note: Two hardened washers required for each set of oversized holes.



INTEGRAL ABUTMENT BEARING DETAIL

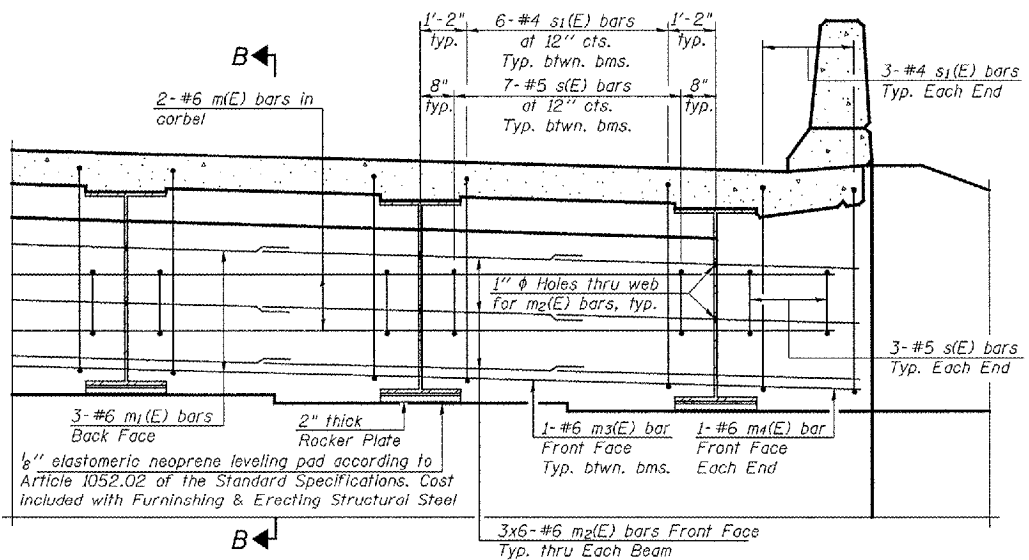


PROPOSED SHEAR CONNECTOR SPACING



SECTION B-B

Dimensions at right angles to abutment, except as shown.



DIAPHRAGM ELEVATION AT ABUTMENT

Is	(in ⁴)	17,900
Ic (n)	(in ⁴)	37,871
Ic (3n)	(in ⁴)	27,855
Ss	(in ³)	972
Sc(n)	(in ³)	1,273
Sc(3n)	(in ³)	1,155
DC1	(k/')	1.082
Mdc1	(k)	1.120
DC2	(k/')	0.15
Mdc2	(k)	155
DW	(k/')	0.33
Mdw	(k)	342
Mt+Imp	(k)	1,492
Mu(Strength I)	(k)	4,717
PrM	(k)	6,035
Fs DC1	(ksi)	13.83
Fs DC2	(ksi)	1.61
Fs DW	(ksi)	3.55
Fs 1.3(I+I)	(ksi)	18.28
Fs (Service II)	(ksi)	37.27
Fs (Total)(Strength I)	(ksi)	49.23
Vr	(k)	246.1

Beam No.	North Abutment (k)	South Abutment (k)
1	623.095	622.640
2	623.243	622.788
3	623.368	622.914
4	623.275	622.820
5	623.166	622.711
6	623.034	622.579

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5	623.166	622.711
6	623.034	622.579

Notes:
 Reinforcement bars in diaphragm are billed with Superstructure on sheet 7 of 12. Concrete in diaphragm is included with Concrete Superstructure on sheet 7 of 12. For details of bars s(E) & s1(E) see sheet 7 of 12.
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36 ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

FRAMING & DIAPHRAGM DETAILS
 ILLINOIS ROUTE 180 OVER
 BRANCH OF BRANDYWINE CREEK
 F.A.S. ROUTE 1195 - SECTION (112B)BR-3
 KNOX COUNTY
 STA. 586+75 (S.N. 048-0089)
 WHA # 1189D06

MIN. BAR LAP
 #6 bar = 2'-9"