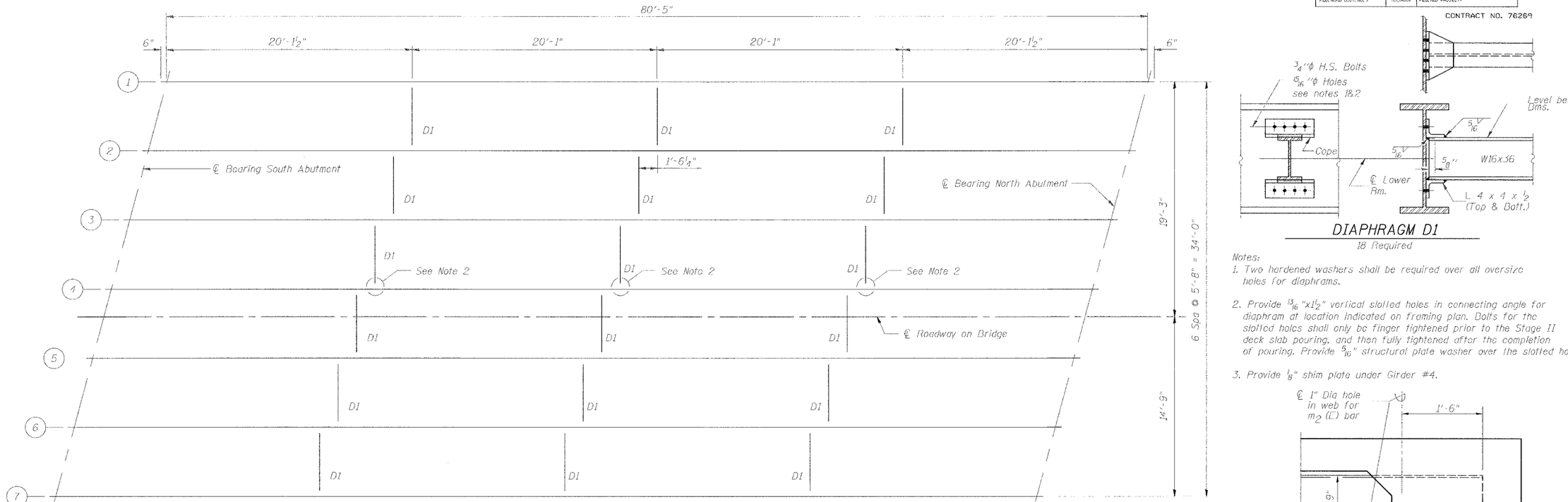
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 754	4RS-2, 4BR	CALHOUN	87	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12
20 SHEETS

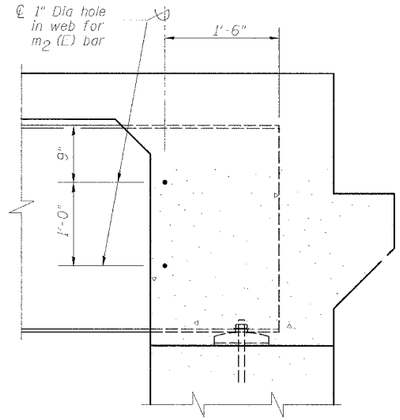
CONTRACT NO. 76269



FRAMING PLAN

DIAPHRAGM D1
18 Required

Notes:
1. Two hardened washers shall be required over all oversize holes for diaphrams.
2. Provide 13/16"x1½" vertical slotted holes in connecting angle for diaphram at location indicated on framing plan. Bolts for the slotted holes shall only be finger tightened prior to the Stage II deck slab pouring, and then fully tightened after the completion of pouring. Provide 5/16" structural plate washer over the slotted holes.
3. Provide ⅛" shim plate under Girder #4.



BEAM END DETAIL

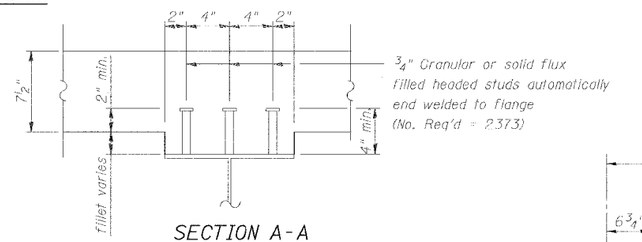
Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Overload).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.
VR is the maximum Live Load + Impact shear range in span.
Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
Ma (Applied Moment)=1.3[M℄ + Ms℄ + ⅝(M℄ + M(Imp))].
Mu is the Plastic Moment capacity.
fs (Overload) is the sum of the stresses due to M℄ + Ms℄ + ⅝(M℄ + M(Imp)).
M℄ - Moment due to dead loads on non-composite section.
Ms℄ - Moment due to dead loads on composite section.
M℄ - Moment due to live load on non-composite or composite section.
M (Imp) - Moment due to live load impact on non-composite or composite section.

DESIGNED	- L.E.L.
CHECKED	- REC
DRAWN	- M.T.L.
CHECKED	- L.E.L.

INTERIOR GIRDER REACTION TABLE		
		Abut.
R℄	(k)	47.4
R℄	(k)	37.0
Imp.	(k)	9.3
R (Total)	(k)	93.1

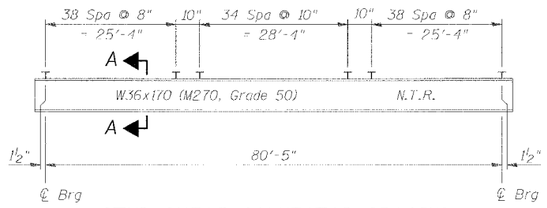
INTERIOR BEAM MOMENT TABLE		0.5 Sp. 1
Is	(in⁴)	10500
Ic (n)	(in⁴)	23417
Ic (3n)	(in⁴)	17131
Ss	(in³)	580
Sc (n)	(in³)	790
Sc (3n)	(in³)	712
Z	(in³)	———
W℄	(k/ft.)	0.75
M℄	('k)	606.3
s℄	(k/ft.)	0.43
Ms℄	('k)	347.6
M℄	('k)	602.6
M (Imp)	('k)	150.7
⅝[M℄+M(Imp)]	('k)	1256
Ma	('k)	2876
Mu	('k)	3752
fs℄ non comp	(k.s.i.)	12.5
fs℄ (comp)	(k.s.i.)	5.9
fs⅝(℄+Imp)	(k.s.i.)	19.1
fs (Overload)	(k.s.i.)	37.5
VR	(k)	40.8

*Compact, Braced section.



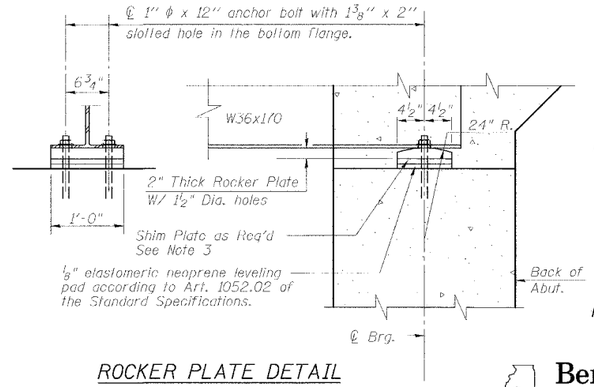
¾" Granular or solid flux filled headed studs automatically end welded to flange (No. Req'd = 2373)

SECTION A-A



STUD SHEAR CONNECTOR SPACING

N.T.R
All W36X170 beams shall conform to the Supplemental requirements for notch toughness, Zone 2.



ROCKER PLATE DETAIL

FRAMING PLAN & DETAILS
PARK STREET OVER
AN UNNAMED CREEK
F.A.S. ROUTE 754
SECTION 4RS-2, 4BR
CALHOUN COUNTY
ROADWAY STATION 6+08.50
STRUCTURE NO. 007-0026

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IL Design Firm Registration No. 184-000852