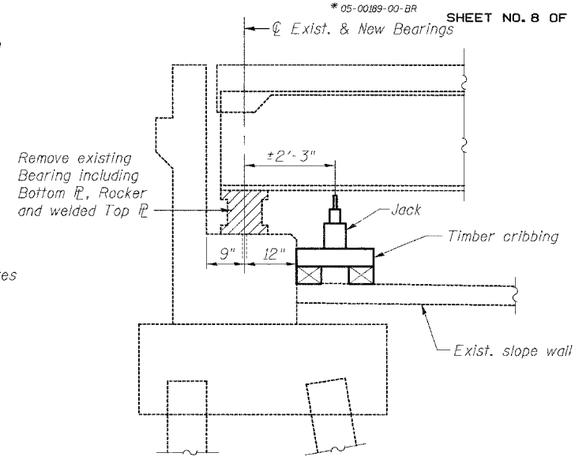
93405

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAS RTE 1588	*	ADAMS	38	15
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

Location #1 Structure No. 001-3027
* 05-00189-00-BR

JACK AND REMOVE EXISTING BEARINGS PROCEDURES

1. Jacking and Cribbing shall be done after existing deck removal is completed.
2. The Contractor shall submit for approval by the Engineer plans for jacking and cribbing, prior to commencing any work at the bearings. The maximum dead load reaction with the deck removed (per bearing) at the east and west abutments = 3 kips. The minimum jack capacity at each beam shall be 6 kips at the east and west abutments.
3. Top of beam elevations shall be measured prior to jacking and shall remain the same after bearings are in place.
4. There shall be at least one jack per bearing and the jack shall be placed close to the bearing. The steel shall be raised a maximum of ¼" and shall be blocked in position until after the completion of the installation of new bearings.
5. Burn the existing anchor bolts flush with the concrete surface, grind smooth, and seal with epoxy. The rockers and top and bottom plates shall be removed. The top plate shall be removed using the air-arc method. Grind smooth all weld material remaining on the bottom flange. Cost of removing anchor bolts, rockers, top plates, and bottom plates shall be included with "Jack and Remove Existing Bearings."
6. Anchor bolts shall be set before bolting diaphragms over supports.
7. The new concrete abutment seats, elastomeric bearings, and end diaphragms shall be in place and the jacks lowered before the new concrete deck is poured.



AT EAST AND WEST ABUTMENTS
(Dimensions at Rt L's)

EXISTING BEARING REMOVAL DETAIL

INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 & 0.6 Sp. 3	Piers 1 & 2	0.5 Sp. 2
Is	(in^4)	4461	4461	4461
Ic (n)	(in^4)	12156		12156
Ic (3n)	(in^4)	8857		8857
Ss	(in^3)	299	299	299
Sc (n)	(in^3)	448		448
Sc (3n)	(in^3)	403		403
ℙ	(k/')	0.68	0.96	0.68
Mℙ	('k)	104	230	77
sℙ	(k/')	0.28		0.28
Msℙ	('k)	47		43
M℔	('k)	242	129	248
M (Imp)	('k)	71	37	69
⅔[M℔+M(Imp)]	('k)	522	277	528
Ma	('k)	874	659	843
fsℙ non-comp	(ksi)	4.2	9.2	3.1
fsℙ (comp)	(ksi)	1.4		1.3
fs⅔(℔+Imp)	(ksi)	14.0	11.1	14.1
fs (Overload)	(ksi)	19.5	20.3	18.5
fs (Total)	(ksi)	25.4	26.4	24.1
VR	(kips)	40.0		42.6

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & 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. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment)=1.3[Mℙ + Msℙ + ⅔(M℔ + M_{Imp})].

fs (Overload) is the sum of the stresses due to Mℙ + Msℙ + ⅔(M℔ + M_{Imp}).

fs (Total) is the sum of the stresses due to 1.3[Mℙ + Msℙ + ⅔(M℔ + M_{Imp})].

Mℙ - Moment due to dead loads on non-composite section.

Msℙ - 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.

INTERIOR BEAM REACTION TABLE			
		W. & E. Abuts.	Piers 1 & 2
Rℙ	(kips)	17.1	53.0
R℔	(kips)	28.2	33.9
Imp.	(kips)	8.2	7.6
R (Total)	(kips)	53.5	94.5

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	12

REV. NO.	DRAWN	CHKD.	APPD.	DESCRIPTION	DATE
	EAW				12/05

F.A.S. RTE. 1588 OVER CURL CREEK
SECTION 05-00189-00-BR
Project RS-1588 (106)
ADAMS COUNTY

MOMENT & REACTION TABLES,
JACK AND REMOVE EXISTING BEARINGS
STRUCTURE NUMBER 001-3027
STATION 336+56