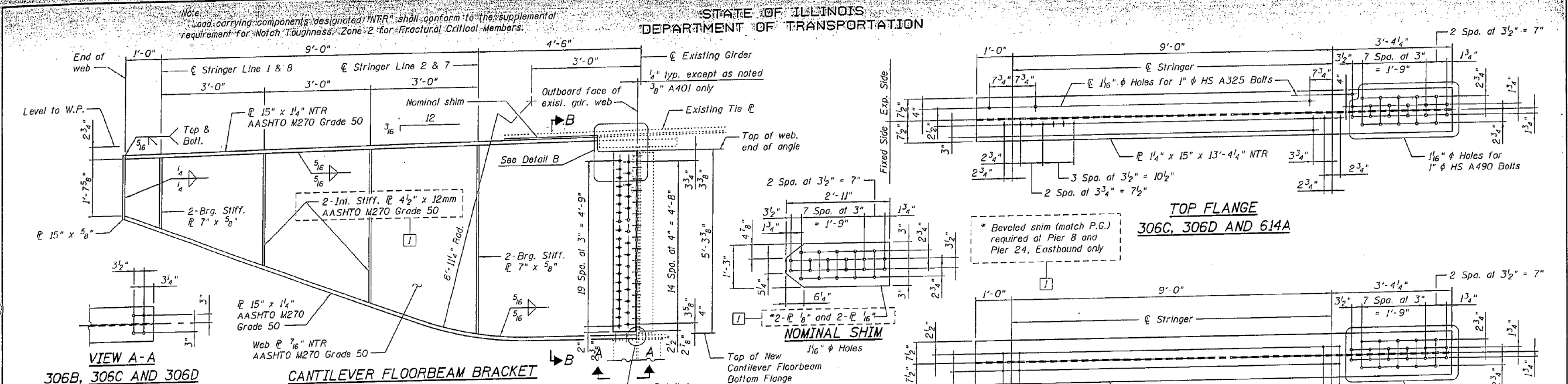
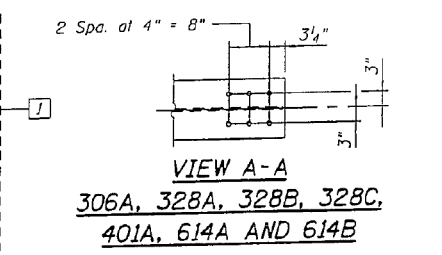


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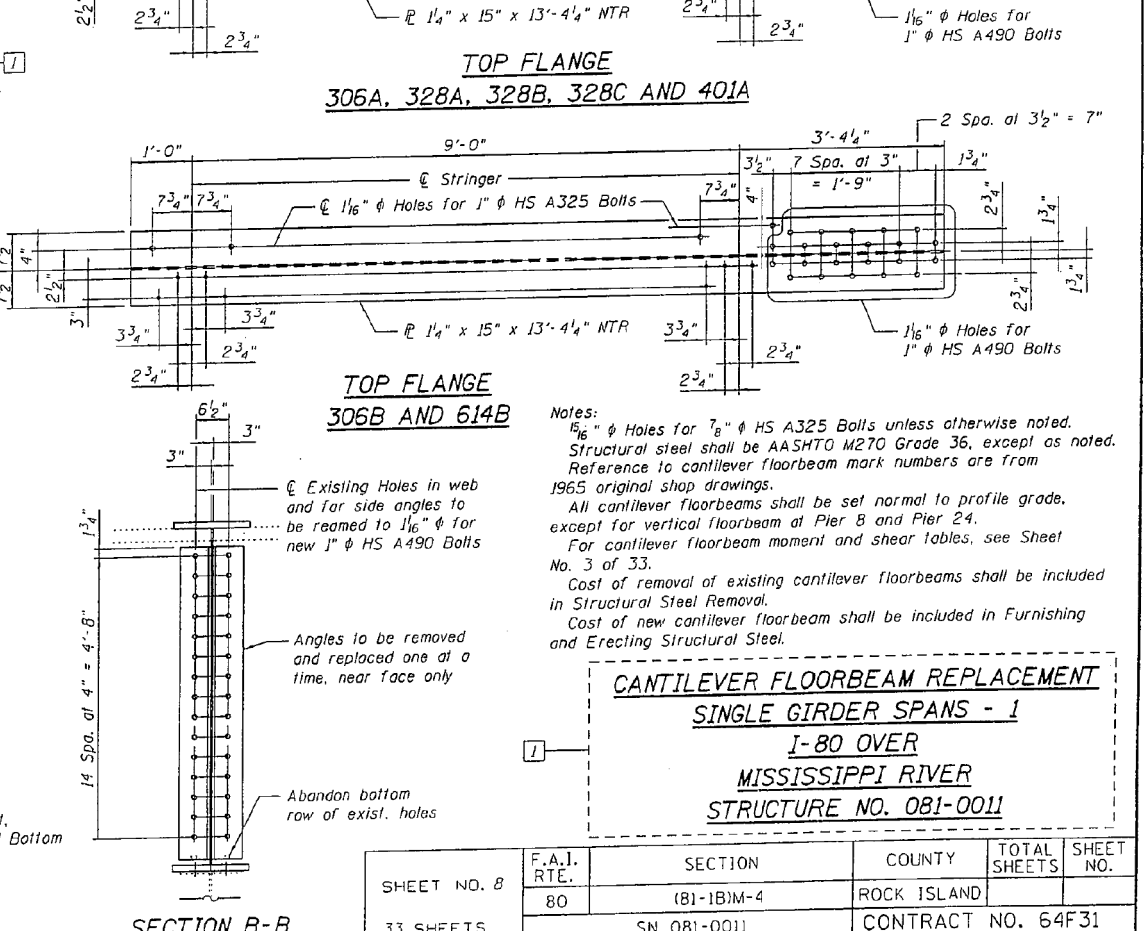
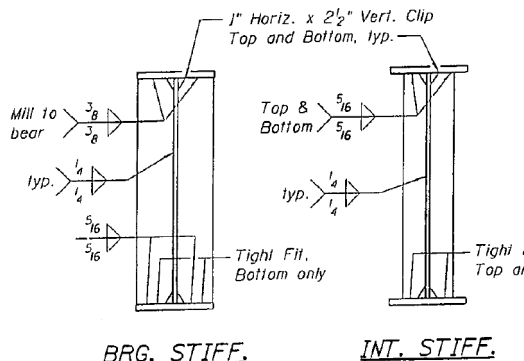
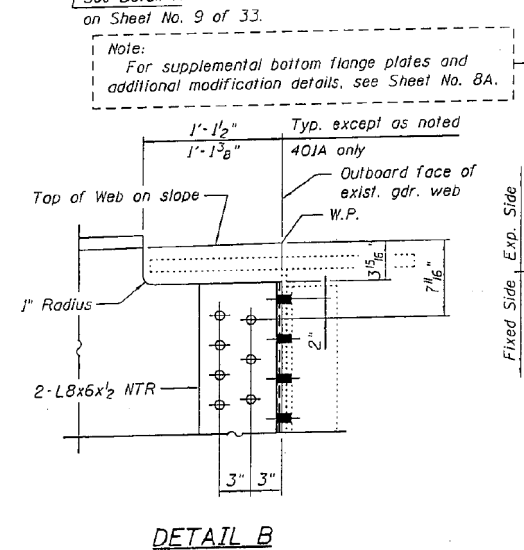


- Cantilever Floorbeam Replacement Procedure at Single Girder Spans**
- 1) Remove existing cantilever floorbeam bracket by removing fasteners in the outstanding leg of the web connection angles and the top and bottom flanges. The existing tie plate may remain connected to the interior floorbeam.
  - 2) Remove the existing girder web fasteners in connection angle, one at a time, and switch orientation ensuring that the shank of fastener is an outboard side of girder, replace nuts finger tight.
  - 3) Remove the existing nuts and outboard connection angle on one side only and replace the nuts finger tight.
  - 4) Clean and paint existing steel in area of removed connection angle. Protect the threaded ends of the existing fasteners to prevent damage and or painting of the fastener threads.
  - 5) Remove existing girder web fasteners from cleaned and painted area one at a time, ream existing hole in girder and inboard connection angle to 1 1/8" diameter, and install a new 1" diameter H.S. A490 bolt with the shank on the outboard side of the girder and with the nut finger tight. At four locations along connection angle use 1" diameter barrel pins instead, spaced equally at approximately every fourth bolt.
  - 6) Install new connection angle and fully tighten nuts for girder web connection. Replace barrel pins with new 1" diameter H.S. A490 bolts.
  - 7) Repeat Steps 2, 3, 4 and 5 for the second connection angle.
  - 8) Install new cantilever floorbeam and finger tighten nuts for top and bottom flange connections. Maintain support of the new cantilever floorbeam until the entire connection has been completed.
  - 9) Install second new connection angle and finger tighten nuts for girder web connection.
  - 10) Install bolts in cantilever floorbeam web connection with finger tightened nuts.
  - 11) Ensure mill to bear condition for cantilever floorbeam bottom flange to girder web, then fully tighten all newly installed bolts.



**TABLE OF FLOORBEAMS**

MARK NO.	SPAN	FLRBM NO.	QUANTITY**
306A	20	FB1	2
		FB2	2
		FB3	2
		FB4	2
306B	17	FB5	2
		FB6	2
		FB7	2
		FB8	2
306C	19	FB9	2
		FB10	2
306D	22	FB11	2
		FB12	2
328A	9	FB13	2
		FB14	2
328B	19	FB15	2
		FB16	2
328C	24	FB17	2
		FB18	2
401A	16	FB19	2
		FB20	2
614A	22	FB21	2
		FB22	2
614B	21	FB23	2
		FB24	2



DESIGNED YSS  
CHECKED ACK  
DRAWN PRC  
CHECKED YSS  
09/17/09



\*\*Includes one on Eastbound and one on Westbound side of bridge.  
For FLRBM NO., see Sheet Nos. 6 and 7 of 33.

SHEET NO. 8 33 SHEETS	F.A.I. RTE. 80	SECTION (81-1B)M-4	COUNTY ROCK ISLAND	TOTAL SHEETS 46	SHEET NO. 27
	SN 081-0011			CONTRACT NO. 64F31	
	FED. ROAD DIST. NO. 7   ILLINOIS FED. AID PROJECT				

**CANTILEVER FLOORBEAM REPLACEMENT  
SINGLE GIRDER SPANS - 1  
I-80 OVER  
MISSISSIPPI RIVER  
STRUCTURE NO. 081-0011**

**Notes:**  
1 1/8"  $\phi$  Holes for 7/8"  $\phi$  HS A325 Bolts unless otherwise noted.  
Structural steel shall be AASHTO M270 Grade 36, except as noted.  
Reference to cantilever floorbeam mark numbers are from 1965 original shop drawings.  
All cantilever floorbeams shall be set normal to profile grade, except for vertical floorbeam at Pier 8 and Pier 24.  
For cantilever floorbeam moment and shear tables, see Sheet No. 3 of 33.  
Cost of removal of existing cantilever floorbeams shall be included in Structural Steel Removal.  
Cost of new cantilever floorbeam shall be included in Furnishing and Erecting Structural Steel.

Construction Change 02/17/11 P.R.C.

DESIGNED VHV	EXAMINED	DATE	OCTOBER 12, 2012
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES		
DRAWN baliva	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES	
CHECKED VHV DAB			

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SN 081-0011

SHEET 23 OF 42 SHEETS

F.A.I. RTE. 80	SECTION D2 BRIDGE PAINTING 2012-2	COUNTY ROCK ISLAND	TOTAL SHEETS 46	SHEET NO. 27
CONTRACT NO. 64H81			ILLINOIS FED. AID PROJECT	