ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 72	74-70HBR	PIATT	41	27
FED. ROAD DIST. NO. 5	ILLINOIS	PROJECT		

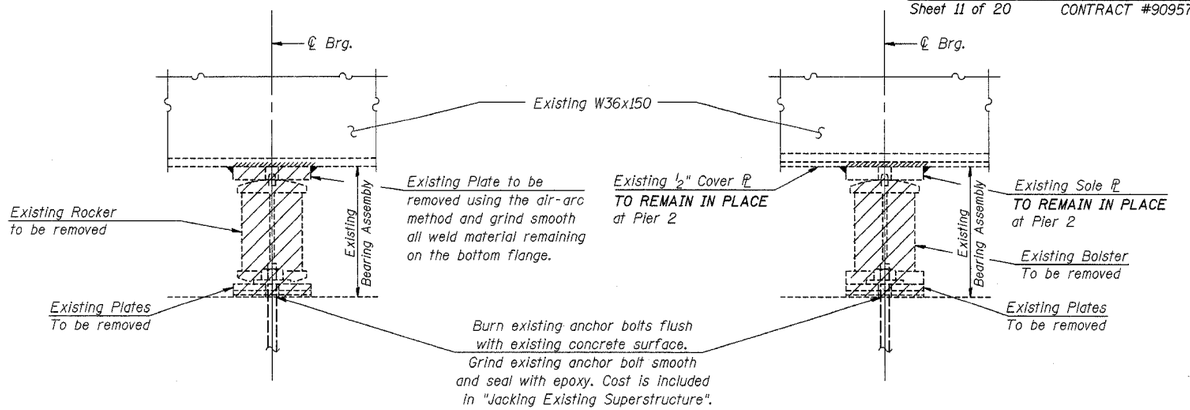
Sheet 11 of 20 CONTRACT #90957

JACKING EXISTING SUPERSTRUCTURE

1. The Contractor shall submit plans for Jacking and Cribbing, to the Engineer for approval, prior to commencing any work at the bearings in accordance with the Special Provision entitled "Jacking Existing Superstructure."
2. Prior to ordering any material or commencing any work at the bearings, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
3. Jacking and removing existing bearings shall be done after existing deck removal is completed and before the new deck is poured.
4. All beams at all supports shall be lifted simultaneously such that the relative elevation between adjacent beams does not vary by more than $\frac{1}{4}$" from their original elevations, and such that the relative elevations between adjacent substructure units does not vary more than $\frac{3}{4}$" during or after the jacking operations.
5. The maximum dead load reaction with deck removed (per bearing) at each Abutment is 4 Kips and 20 Kips at Piers.
6. The Jack capacity shall be 4 Tons at Abutments and 20 Tons at Piers.
7. The new bearing seats and new bearings shall be in place at the piers and abutments, and the jacks shall be lowered before the new Concrete Deck is poured.
8. Jacking shall be from abutments or slopewalls at abutment bearings and from a temporary support system at piers.
9. Cost of removal of existing bearings is included with "Jacking Existing Superstructure".
10. Lifting shall be done by jacking. Measures shall be taken to prevent lateral or longitudinal displacement or distortion of beams during lifting operations. Any sway of the steel beams during raising operations shall be immediately corrected.
11. Jacking shall be limited to a maximum $13\frac{3}{4}$" lift to replace bearings and to rebuild concrete bearing seats.

SUGGESTED PROCEDURE

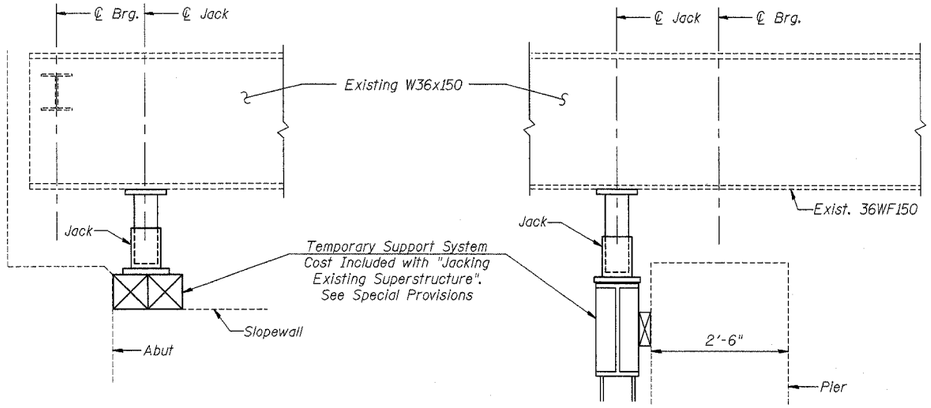
1. The existing concrete deck shall be removed.
2. The Temporary Support System shall be put in place and jacks, shims, and bearing plates shall be positioned to provide full contact against the bottom of the beams in the no load position.
3. Once each beam is raised to its final elevation or slightly above its final elevation to allow installation of the new bearings, it shall be blocked off and held firmly.
4. While beams are in the raised position and secured. The new pedestals and abutment bearing seats shall be poured and substructures brought up to the proper elevations.
5. After the new concrete has reached a minimum flexural strength of 650 psi, the beams shall be lowered uniformly onto the new bearings and to their final elevations.



REMOVAL AT ABUTMENTS AND PIERS 1 & 3

REMOVAL AT PIER 2

REMOVAL OF EXISTING BEARING DETAILS



SECTION AT ABUTMENT

SECTION AT PIERS

JACKING EXISTING SUPERSTRUCTURE DETAILS

DESIGNED	A.J.E. & T.S.H.
CHECKED	M.D.C.
DRAWN	A.J.E. & T.S.H.
CHECKED	M.D.C.

JACKING EXISTING SUPERSTRUCTURE

IL ROUTE 10 OVER I-72
F.A.I. ROUTE 72 SECTION 74-70HBR
PIATT COUNTY
STA. 1421+61.77
S.N. 074-0007

CUMMINS ENGINEERING CORPORATION

JOB #: 2088
FILE: 088JACKING
DATE: 6/30/04