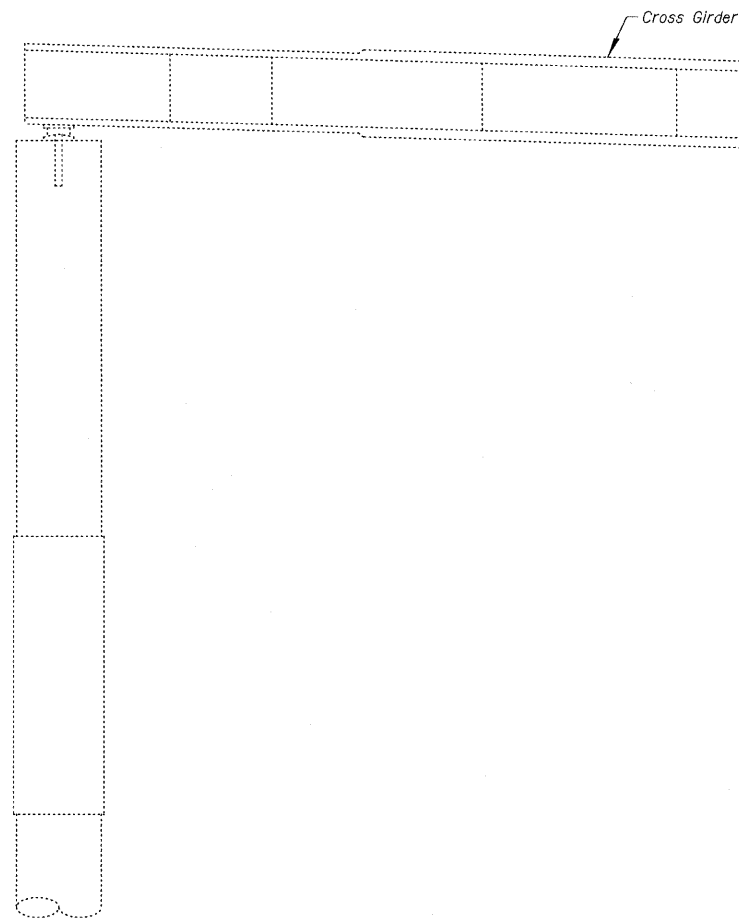
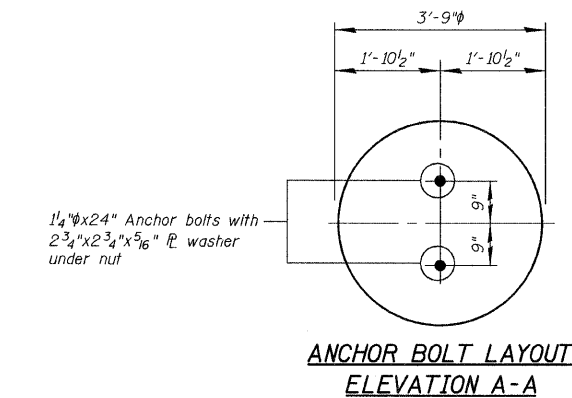


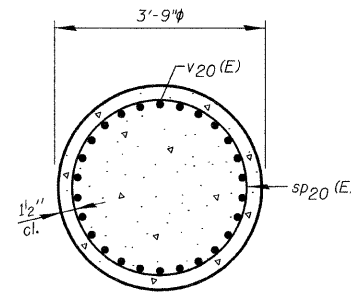
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ELEVATION - PIER ES7
(Looking South)



ANCHOR BOLT LAYOUT
ELEVATION A-A



SECTION B-B

CROSS GIRDER REACTION TABLE		
R _l	(k)	186.6
R _s	(k)	68.1
R _t	(k)	191.3
R _l	(k)	44.3
R _{total}	(k)	490.3
Minimum Jack Capacity		370 tons

Note:
Temporary Shoring & Cribbing at this location must be designed to carry all the column loads, which includes portions of reactions from all eight (8) girders supported by the cross girder (shown) plus longitudinal and transverse loads (not shown). The Temporary Shoring & Cribbing will be in place under traffic for an extended period of time.

Note "A"
Bearings are both bolted and welded to bottom flange of beams. However, when reinstalling bearings, the bearings must only be bolted to the beams. No field welding is allowed.

Remove & reinstall existing bearings. See Note "A".
(Cost included with Temporary Shoring and Cribbing)

26- #11v20 (E) bars.
Lap with exist. bars
at bott. of column

Entire 3'-9" x 15'-6" column
to be removed and replaced as
shown

Temporary Shoring & Cribbing

Exist. 26- #11
reinforcement bars
to remain. Do not cut

#4sp20 (E) spiral. Provide 1/2 extra turns top &
bott. Provide min. 4- #4 spacers or equivalent. Lap
spiral top & bottom with existing spiral.
Minimum lap = 1 1/2 turns.

Provide min. 4- #4 spacers
or equivalent

Provide 1/2 extra
turns top & bott.

SPIRAL DETAIL

Note "B"
No spacers in this area to allow for compression of spiral for
placement and lapping existing vertical bars as shown. After
installation of vertical bars, spiral is to be expanded and
lapped with the existing spiral maintaining the proper pitch.

Notes:
Plan dimensions and details relative to existing plans are subject to nominal construction variations.
The Contractor shall field verify existing dimensions and details affecting new construction and make
necessary approved adjustments prior to construction or ordering of materials. Such variations shall not
be cause for additional compensation for a change in scope of the work, however, the Contractor will be
paid for the quantity actually furnished at the unit price bid for the work.

It shall be the Contractor's responsibility to verify all dimensions between the bottom of the bridge beams
and the top of the bearing seats, in the field, prior to construction or ordering of materials.
The Contractor shall supply additional shim plates, if required, to bring devices to grade. Cost included
with Concrete Structures.

Anchor bolts must be installed in holes drilled after the supported member is in place. Drilled and set
anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Anchor bolts
shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter
specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy-36ksi).
The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and
incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal
shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
The Contractor must submit a procedure for installation of the spiral and vertical bars for approval
prior to any installation of the reinforcement.

Temporary shoring and cribbing, as described in the Special Provisions, is to be installed prior to any
concrete removal.

If existing vertical reinforcement bars or spiral extending into removal area to be reused are found to
have a cross sectional area lost greater than 10% the Contractor shall notify the Bureau of Bridges and
structures for further disposition before installation of the new reinforcement.

If the analysis submitted to the Contractor for the jacking/temporary support system to be used shows
temporary stiffeners are required to prevent web crippling or buckling, the stiffeners shall be steel and
bolted to the web. If stiffeners are not required, hardwood timbers shall be installed tightly between the
top and bottom flange to prevent flange rotation.

Reinforcement bars shall conform to the requirements of ASTM A706, Gr. 60, see Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.

BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
** SP20 (E)	1	#4	15'-6"	
v20 (E)	26	#11	15'-2 5/8"	—
Concrete Removal			Cu. Yd.	6.4
Concrete Structures			Cu. Yd.	6.4
*** Reinforcement Bars, Epoxy Coated			Pound	2,510
Anchor Bolts, 1 1/4"			Each	2
Temporary Shoring and Cribbing			Each	1

**Length is height of spiral
***Includes weight of spiral & spacers