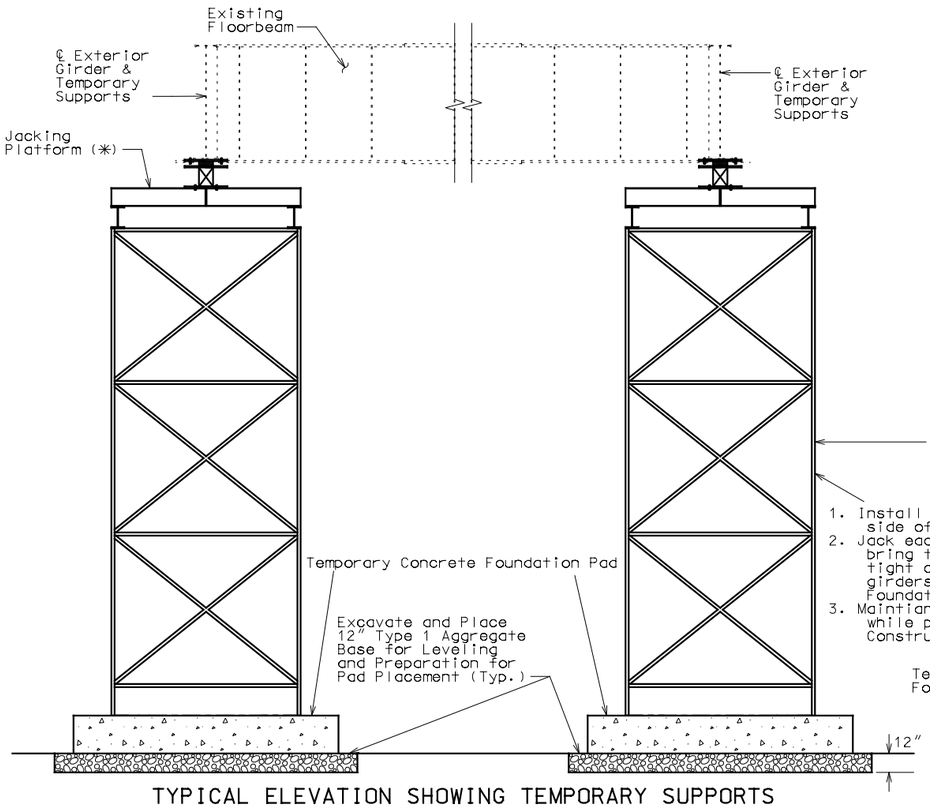
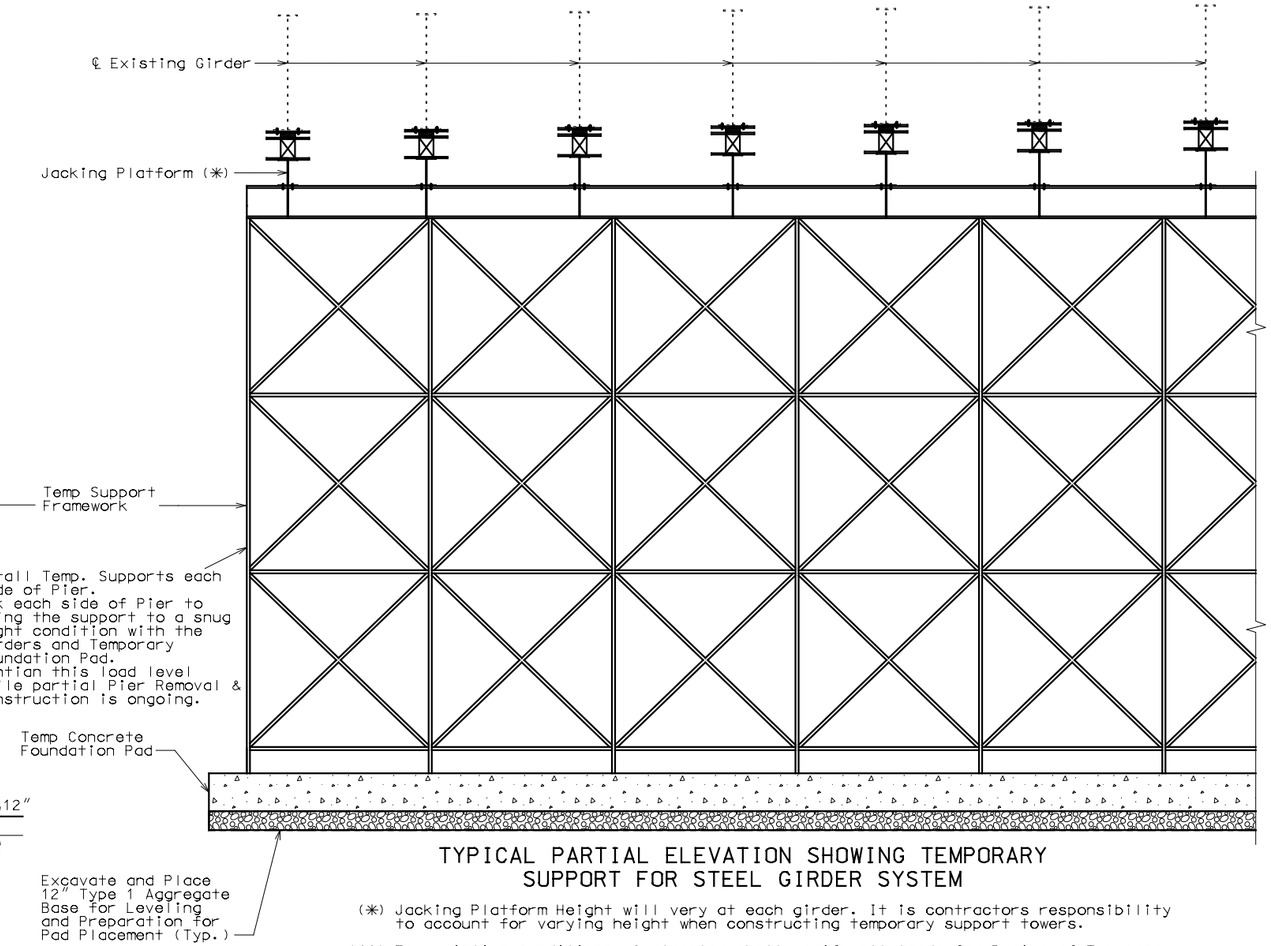


TYPICAL ELEVATION SHOWING TEMPORARY SUPPORTS FOR A STEEL GIRDER FLOORBEAM SYSTEM



TYPICAL PARTIAL ELEVATION SHOWING TEMPORARY SUPPORT FOR STEEL GIRDER SYSTEM

(✳) Jacking Platform Height will very at each girder. It is contractors responsibility to account for varying height when constructing temporary support towers.

(✳✳) For existing conditions. Contractor shall verify all loads for Design of Temporary Supports.

Notes:
The contractor is responsible for maintaining the stability of the structure at all times and shall take all necessary precautions to maintain the stability and safety of the existing bridge at the contractor's cost.

The contractor shall be responsible for the design of the Falsework and Temorary Foundations necessary to replace Piers No. 5 Westbound, 5 Eastbound, A1, BC1, and D1.

The contractor shall submit drawings and calculations signed and sealed by a Structural Engineer in the state of Illinois to the engineer for review a minimum of 4 weeks prior to installation of any temporary support.

The temporary supports shall be designed and constructed to be capable of supporting the weight of the entire structure and all traffic lanes without consideration of reduced weights and loads.

The weights provided are based on the as-built drawings for the existing bridge and shall be verified by the contractor in the design of the falsework.

Temporary Concrete Foundation Pads shall be designed for a maximum bearing stress 2000 psf.

The contractor shall provide the means to prevent sliding of all superstructure units.

The cost of all materials, equipment and labor necessary to design, construct, maintain, and remove the temporary supports shall be included in the contract lump sum price for "Temporary Shoring Pier Replacement".

✳✳ ESTIMATED SERVICE LOAD REACTIONS

Pier 5 Westbound	West Support	Dead Load	65,000	lbs
		Live Load (HL-93, Impact 20%)	116,000	lbs
	East Support	Dead Load	70,000	lbs
		Live Load (HL-93, Impact 20%)	110,000	lbs
Pier 5 Eastbound	West Support	Dead Load	65,000	lbs
		Live Load (HL-93, Impact 20%)	116,000	lbs
	East Support	Dead Load	69,000	lbs
		Live Load (HL-93, Impact 20%)	109,000	lbs
Pier A1	West Support	Dead Load	220,000	lbs
		Live Load (HL-93, Impact 20%)	194,000	lbs
	East Support	Dead Load	115,000	lbs
		Live Load (HL-93, Impact 20%)	177,000	lbs
Pier BC1	West Support	Dead Load	144,000	lbs
		Live Load (HL-93, Impact 20%)	142,000	lbs
	East Support	Dead Load	41,000	lbs
		Live Load (HL-93, Impact 20%)	100,000	lbs
Pier D1	West Support	Dead Load	124,000	lbs
		Live Load (HL-93, Impact 20%)	144,000	lbs
	East Support	Dead Load	70,000	lbs
		Live Load (HL-93, Impact 20%)	125,000	lbs

TEMPORARY SUPPORTS

Detailed Oct 2015
Checked Oct 2015

Note: This drawing is not to scale. Follow dimensions.

STATE OF ILLINOIS
MICHAEL B. QUIRIN
081-006070
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

DATE PREPARED	11/23/2015
ROUTE	I-64
STATE	IL
DISTRICT	STL
SHEET NO.	3
COUNTY	ST. CLAIR
JOB NO.	J6I2377C/J6I2377D
CONTRACT ID.	—
PROJECT NO.	—
BRIDGE NO.	082-0005

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

HDR Engineering, Inc.
401 S. 18th Street
Suite 300
St. Louis, MO 63103-2267
314-425-8300
Certificate of Authority: 000856