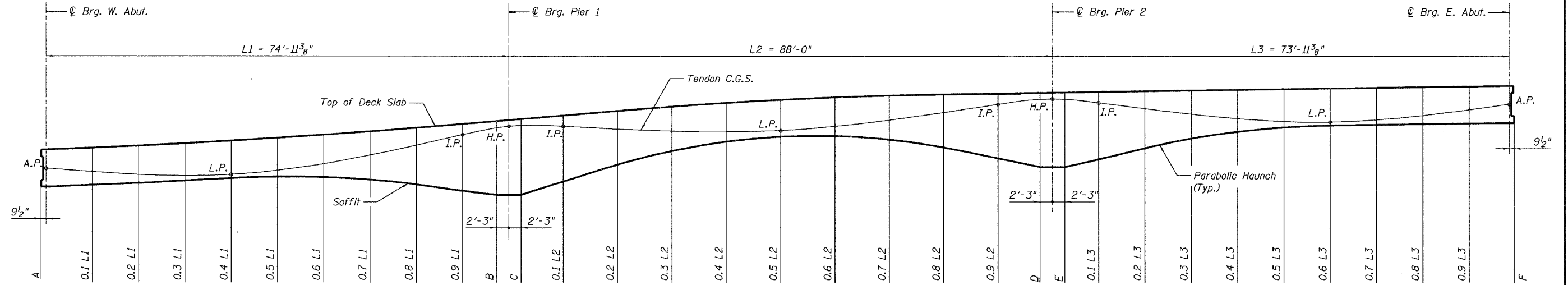


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TESTING SHEETS	SHEET NO.	SHEET NO. S16
FAU 141	00-00059-00-BR	KANE	154	87	of 552 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

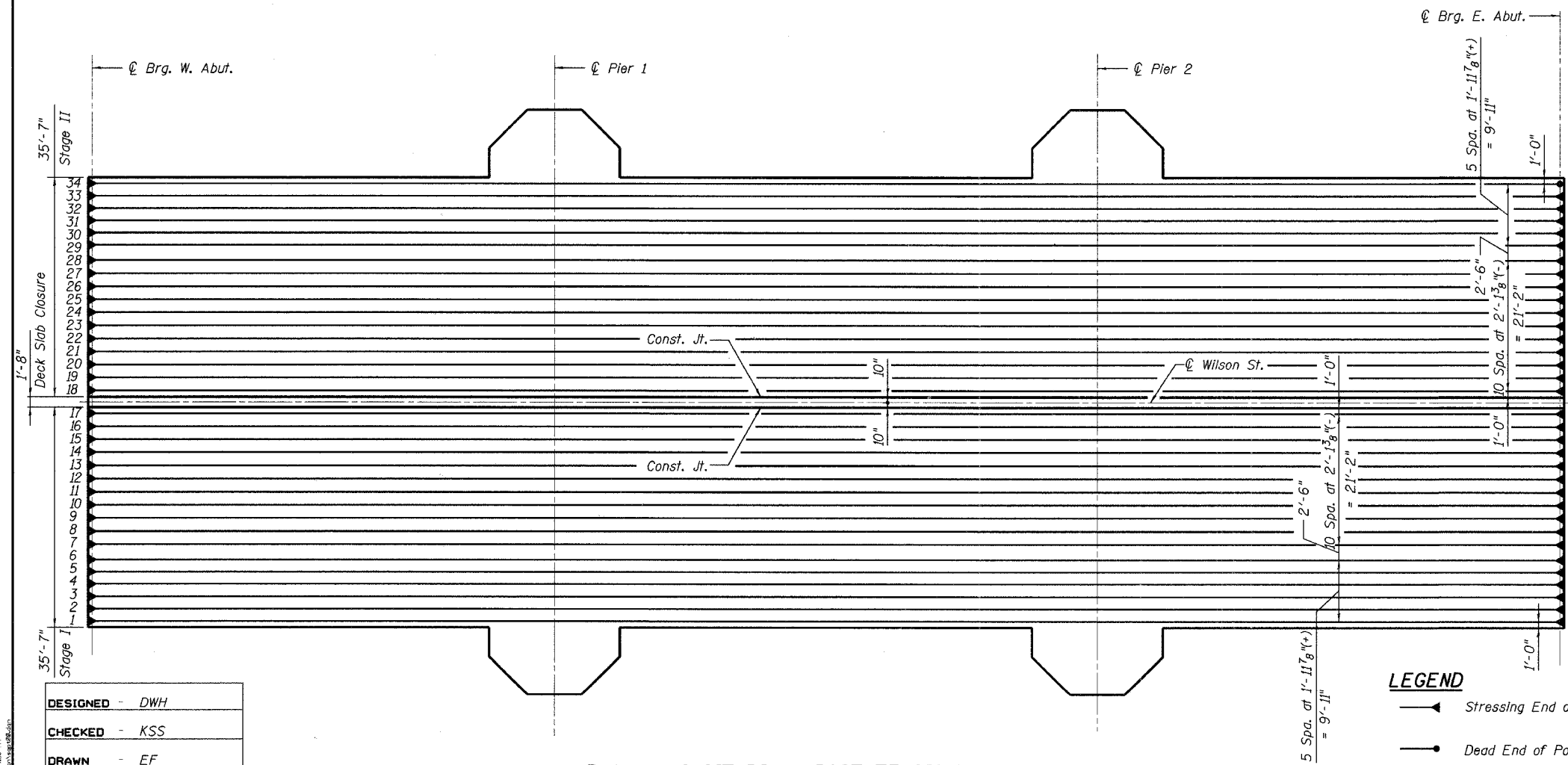
Contract # 83869



VERTICAL SCHEMATIC - SLAB GEOMETRY & LONGITUDINAL TENDON LAYOUT

NOTES

- C.G.S. indicates dimension from top of slab to center of prestressing steel.
- All tendons are to be stressed as indicated in the stressing sequence table. All strands shall be 0.6" diameter.
- Tendons shall be placed to achieve the profile for C.G.S. shown on the schematic elevation where
A.P. = Anchor Point
L.P. = Low Point
I.P. = Inflection Point
H.P. = High Point
- Longitudinal tendons shall be Parabolically Curved between Control Points (A.P., L.P., I.P., and H.P.)
- Anchorage locations shown are based upon the use of proprietary multi-strand anchors. The Contractor is responsible for determining the proper anchor breakout size so that a minimum 2" clearance is achieved from the concrete edge to the end of the P-T strand extension.
- Local bursting and confining steel shall be supplied by the contractor for his furnished P-T system at all anchorages. Cost of steel shall be included with the post-tensioning.
- SUPERSTRUCTURE ERECTION SEQUENCE
a. - Form and pour slab on temporary falsework.
b. - Stress longitudinal tendons according to the stressing sequence table after the deck has cured to a minimum compressive strength of 4,000 psi and is at least 3 days old.
c. - Grout post-tensioning ducts.
d. - Remove temporary falsework and slab forms after the P-T duct grout has cured to a minimum compressive strength of 5,000 psi.
- The contractor shall submit detailed plans and calculations for falsework and forms to the engineer for approval.
- The post-tensioning jacking force in the stressing sequence can accommodate an increase of 5% to compensate for excessive friction or wobble losses during stressing. This force increase, if necessary, shall be accomplished by stressing the tendons to a higher value while still satisfying allowable stress requirements.
- AASHTO M203, Grade 270 Low relaxation strands (0.6" dia.) shall be used.
- Tendon Design Properties
a. Friction coefficient = 0.25
b. Wobble coefficient = 0.0002/ft
c. Max. Jacking Stress = 0.8 f's
d. Max. Stress at Anchor after seating = 0.7 f's
e. Assumed Anchor Set = 3/8"
- For slab depth, tendon profiles and stressing sequence see sheet No. 87
- For purposes of computing long-term losses relative humidity (RH) is 70%.



PLAN - LONGITUDINAL POST-TENSIONING LAYOUT

LEGEND

- Stressing End of Post-Tensioning Cable
- Dead End of Post-Tensioning Cable

LOCHNER
H.W. LOCHNER, INC., CHICAGO, ILLINOIS

SLAB GEOMETRY & POST-TENSIONING I
WILSON ST OVER FOX RIVER
SECTION 00-00059-00-BR
KANE COUNTY
STRUCTURE NO. 045-6051

DESIGNED	DWH
CHECKED	KSS
DRAWN	EF
CHECKED	KSS

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