

## MECHANICAL REHABILITATION SCOPE ITEMS

- INSTALL A SPAN MOUNTED AUXILIARY TYPE GEAR MOTOR DRIVE SYSTEM AND BRAKE TO REPLACE THE DIESEL ENGINE AND COMPLEX NETWORK OF OPEN GEARS/SHAFTS SYSTEM. THIS WILL ALSO INCLUDE A NEW REDUCER, NEW PINION WITH SUPPORTING BEARINGS, AND NEW MACHINERY SUPPORT FOR THIS NEW SYSTEM.
- REMOVE DRIVELINE MADE OBSOLETE BY CHANGEOVER FROM DIESEL TO ELECTRIC MOTORS. THIS INCLUDES CLUTCH AND COVER ASSEMBLY, SHAFTS, BEARING ASSEMBLIES AND COUPLINGS INDICATED ON REMOVALS SHEET.
- REMOVE THE AIR BUFFERS TO REDUCE COUNTERWEIGHT. MAINTAIN BALANCE THROUGHOUT CONSTRUCTION AND RE-BALANCE.
- BRIDGE SEATING INSTALL SHOCK ABSORBERS, REPLACE FULLY SEATED LIMIT SWITCHES, REPLACE AND OR SHIM GIRDER SHOES TO PROVIDE UNIFORM SEATING CONTACT.
- TOE AND HEEL LOCKS SYSTEM REPLACE ELECTRIC MOTORS, LOCAL DISCONNECT SWITCHES, LIMIT SWITCHES AND TRIPPING MECHANISMS TO IMPROVE RELIABILIT
- PROVIDE NEW DEBRIS SHIELDS FOR VARIOUS SPAN DRIVE GEARS, TOE LOCK MACHINERY AND HEEL LOCK MACHINERY.
- 7 REPLACE CORRODED CUSTOM TURNED FASTENERS THROUGHOUT THE SPAN DRIVE MACHINERY.
- CLEAN AND PAINT MACHINERY INCLUDING CLEANING AND APPLICATION OF PROTECTIVE COATING TO THE WORN TRACK AND CURVED TREAD SEGMENT
- (9) REPLACE FULLY SEATED LIMIT SWITCHES.
- (10) PROVIDE MOTORIZED ARTICULATION OF DROP-DOWN WALKWAY WITH SAFETY INTERLOCK.
- 11 REMOVE EXISTING DIESEL FUEL TANK.
- REPLACEMENT OF LUBRICATION PIPING AT BEARINGS B1, B2, AND B3 AT THE SOUTH SIDE OF THE SOUTH SPAN
- (13) ADDITION OF MANUALLY OPERATED PEDESTRIAN GATES WITH PAD LOCK

## **LEGEND:**

( ) = WORK ITEMS TO BE PERFORMED BY CONTRACTOR.

## SEMI FINAL DESIGN REVIEW

STV INCORPORATED 280 TRUMBULL STREET, 14TH FLOOR HARTFORD, CT 06103 (203) 375-0521 STATE OF CONNECTICUT **WESTPORT** LWN/HWC THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. 0301-0177 BRIDGE NO. 08032R SAGA BRIDGE NEW HAVEN **MEC-02 MAIN LINE M.P. 44.32** DRAWING TITLE: **DEPARTMENT OF TRANSPORTATION** LOCHNER GP&E / **OVER SAUGATUCK RIVER** SCALE AS NOTED H. W. LOCHNER, INC. 55 HARTLAND STREET, SUITE 401 EAST HARTFORD, CT 0610 SCOPE OF WORK SHEET NO. Plotted Date: 2/23/2024 REVISION DESCRIPTION Filename: ...\PIM-MEC-02 GP&E Scope of Work.dgn REV. DATE

## PROPOSED ELECTRICAL REHABILITATION POWER DISTRIBUTION: - CONVERT EXISTING SPAN DRIVE TO ELECTRIC DRIVE. - UPDATE ELECTRICAL SERVICE TO ACCOMODATE ELECTRIC MOTORS. - REPLACE THE EXISTING MOTOR CONTROL CENTER (MCC) MANUAL TRANSFER SWITCH: - FURNISH AND INSTALL A MANUAL TRANSFER SWITCH AND RECEPTACLE FOR A PORTABLE GENERATOR. SWITCH LOCATION TO BE COORDINATED WITH MNR. CONTROL DESK: - FURNISH AND INSTALL A NEW CONTROL DESK. ├<del>-</del> Ç PIER 5 + $\bigcirc$ PIER 2 ├─ Ç CHANNEL ← Ç PIER 3 ← Ç PIER 4 - FURNISH AND INSTALL NEW PLC BASED CONTROL SYSTEM. \_ - \_ - \_ - \_ - \_ -- FURNISH AND INSTALL NEW MOTORS, BRAKES, RELATED EQUIPMENT AND FIELD WIRING. · C TRACK 3 - FURNISH AND INSTALL NEW MOTORS, BRAKES, RELATED EQUIPMENT AND FIELD WIRING. FAR SIDE - FURNISH AND INSTALL NEW SPRING SET, ELECTRO-HYDRAULICALLY RELEASED BRAKES. PROVIDE NEW POWER ┦┏╫╓┇ AND CONTROL WIRING ALONG WITH A CONTROL PANEL IN THE OPERATOR'S HOUSE. ∵ Ç TRACK 1 LIMIT SWITCHES: - FURNISH AND INSTALL NEW FULLY SEATED LIMIT SWITCHES. Ç TRÂCK 2 - FURNISH AND INSTALL NEW GROUNDING AND BONDING SYSTEM FOR THE BRIDGE. NEAR SIDE CONDUITS AND JUNCTION BOXES: © TRACK 4 - FURNISH AND INSTALL NEW TERMINAL BOXES BETWEEN THE TRACK GIRDERS OF THE NORTH AND SOUTH SPANS WITH NEMA 6P (SUBMERSIBLE DUTY) RATED TERMINAL BOXES. - REPLACE ALL EXTERIOR CONDUITS WITH PVC COATED GALVANIZED STEEL CONDUITS. - REPLACE ALL EXTERIOR JUNCTION BOXES WITH NEMA 3R/4X RATED ENCLOSURES. - FURNISH AND INSTALL NEW CONDUIT AND WIRING AS INDICATED IN THE DRAWINGS. OPERATOR'S WALKWAY: - REMOVE MANUAL LEVER CONTROLS FOR DROP DOWN WALKWAY, FURNISH AND INSTALL NEW MOTORIZED ARTICULATION OF THE WALKWAY WITH A HOUSE SAFETY INTERLOCK. **PLAN** $SCALE: \frac{1}{16}$ " = 1'-0" 5 7 $\left(2\right)\left(6\right)\left(9\right)$ **ELEVATION** SCALE: $\frac{1}{16}$ " = 1'-0" SEMI FINAL DESIGN REVIEW SIGNATURE, BLOCK:

E.I. THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED. J.L. SCALE AS NOTED SHEET NO. Plotted Date: 2/23/2024

REVISION DESCRIPTION

REV. DATE

STATE OF CONNECTICUT **DEPARTMENT OF TRANSPORTATION** 

Filename: ...\PIM-ELE-03 Scope of Work.dgn

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HARTFORD, CT 06103
(203) 375-0521 LOCHNER H. W. LOCHNER, INC. 55 HARTLAND STREET, SUITE 401 EAST HARTFORD, CT 0610

BRIDGE NO. 08032R SAGA BRIDGE NEW HAVEN MAIN LINE M.P. 44.32 OVER SAUGATUCK RIVER

**WESTPORT** 

0301-0177 DRAWING NO. ELE-03

**SCOPE OF WORK**