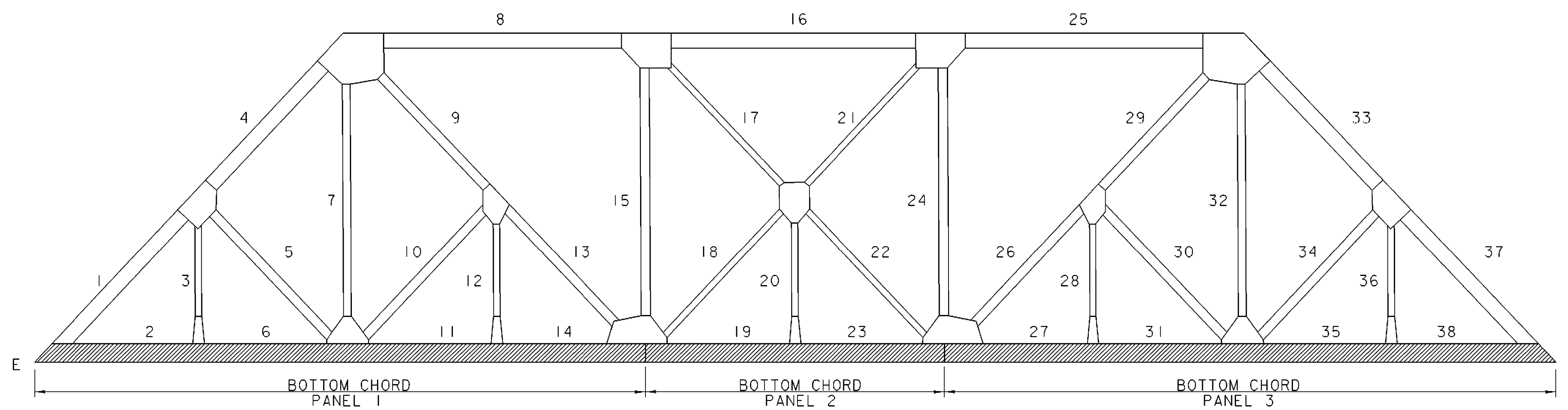


STATIONING →

UPSTREAM FASCIA
(LIGHT TRUSS)
(LOOKING FROM ϕ ROADWAY)

LEGEND
[Hatched Box] REPLACE MEMBER

* MEMBERS 17 AND 22 ARE ONE CONTINUOUS PIECE AND SHALL BE REPLACED AS ONE PIECE.



← STATIONING

DOWNSTREAM FASCIA
(HEAVY TRUSS)
(LOOKING FROM ϕ ROADWAY)

UPSTREAM TRUSS REPAIRS

- BOTTOM CHORD PANEL 1: REPLACE 2 (OF 2) 4" X 4" X 3/8" ANGLES
REPLACE 2 (OF 2) 20" X 5/16" PLATES
REPLACE SINGLE LACING 2 1/2" X 3/8"
- BOTTOM CHORD PANEL 2: REPLACE 2 (OF 2) 4" X 4" X 1/16" ANGLES
REPLACE 2 (OF 2) 20" X 3/4" PLATES
REPLACE SINGLE LACING 2 1/2" X 3/8"
- BOTTOM CHORD PANEL 3: REPLACE 2 (OF 2) 4" X 4" X 3/8" ANGLES
REPLACE 2 (OF 2) 20" X 5/16" PLATES
REPLACE SINGLE LACING 2 1/2" X 3/8"
- MEMBER 3: REPLACE 4 (OF 4) 4" X 4" X 5/16" ANGLES
REPLACE SINGLE LACING 2 1/2" X 5/16"
- MEMBER 5: ~~REPLACE~~ 1 (OF 2) 10" X 20 LB/FT CHANNEL **RETAINED**
REPLACE DOUBLE LACING 2 1/4" X 5/16"
- MEMBER 7: REPLACE 12" CB X 55 LB/FT
- MEMBER 10: ~~REPLACE~~ 1 (OF 2) 10" X 20 LB/FT CHANNEL **RETAINED**
REPLACE DOUBLE LACING 2 1/4" X 5/16"
- MEMBER 15: REPLACE 1 (OF 2) 10" X 20 LB/FT CHANNEL
REPLACE DOUBLE LACING 2 1/4" X 5/16"
- * MEMBER 17: REPLACE EXISTING 12" CB X 34 LB/FT
- MEMBER 18: REPLACE EXISTING 12" CB X 34 LB/FT
- MEMBER 21: REPLACE EXISTING 12" CB X 34 LB/FT
- * MEMBER 22: REPLACE EXISTING 12" CB X 34 LB/FT
- MEMBER 30: ~~REPLACE~~ 1 (OF 2) 10" X 20 LB/FT CHANNEL **RETAINED**
REPLACE DOUBLE LACING 2 1/4" X 5/16"
- MEMBER 32: REPLACE 12" CB X 55 LB/FT
- MEMBER 34: ~~REPLACE~~ 1 (OF 2) 10" X 20 LB/FT CHANNEL **RETAINED**
REPLACE DOUBLE LACING 2 1/4" X 5/16"
- MEMBER 36: REPLACE 4 (OF 4) 4" X 4" X 5/16" ANGLES
REPLACE SINGLE LACING 2 1/2" X 5/16"

DOWNSTREAM TRUSS REPAIRS

- BOTTOM CHORD PANEL 1: REPLACE 2 (OF 2) 6" X 6" X 5/8" ANGLES
REPLACE 2 (OF 2) 24" X 5/8" PLATES
REPLACE SINGLE LACING 2 1/2" X 3/8"
- BOTTOM CHORD PANEL 2: REPLACE 2 (OF 2) 6" X 6" X 3/4" ANGLES
REPLACE 2 (OF 2) 24" X 3/4" PLATES
REPLACE SINGLE LACING 2 1/2" X 3/8"
- BOTTOM CHORD PANEL 3: REPLACE 2 (OF 2) 6" X 6" X 5/8" ANGLES
REPLACE 2 (OF 2) 24" X 5/8" PLATES
REPLACE SINGLE LACING 2 1/2" X 3/8"

EXISTING TRUSS MEMBER PROPERTIES

EXISTING 12" CB X 34 LB/FT	EXISTING 12" CB X 55 LB/FT
AREA = 9.99 in. ²	AREA = 16.17 in. ²
DEPTH = 12.022 in.	DEPTH = 12 in.
FLANGE WIDTH = 6.635 in.	FLANGE WIDTH = 9 in.
FLANGE THICKNESS = 0.431 in.	FLANGE THICKNESS = 0.665 in.
WEB THICKNESS = 0.375 in.	WEB THICKNESS = 0.375 in.
I _x = 238.1 in. ⁴	I _x = 428.4 in. ⁴
S _x = 39.6 in. ³	S _x = 71.4 in. ³
r _x = 4.88 in.	r _x = 5.15 in.
I _y = 21 in. ⁴	I _y = 80.9 in. ⁴
S _y = 6.3 in. ³	S _y = 18 in. ³
r _y = 1.45 in.	r _y = 2.24 in.

CB = CARNEGIE BEAM

- REHABILITATION OF TRUSS BRIDGE**
- A. REPLACE ALL FLOOR BEAMS WITH NEW BEAMS.
 - B. REPLACE ALL STRINGERS WITH NEW STRINGERS WITH SHEAR CONNECTORS.
 - C. REPLACE BOTTOM LATERAL BRACING WITH NEW ANGLES AND PLATES.
 - D. REPLACE ALL CONNECTIONS BETWEEN STRINGERS AND FLOOR BEAMS AND FLOOR BEAM TO TRUSS MEMBERS.
 - E. REPLACE TRUSS MEMBERS AS SHOWN.
 - F. REPLACE BEARINGS.
 - G. FACE ABUTMENTS AND WINGWALLS, CAP WINGWALLS, REPAIR BRIDGE SEATS AND REPLACE BACKWALLS AS DETAILED ON SHEETS 39 THROUGH 46.
 - H. REPLACE BRIDGE RAILING AS DETAILED ON SHEET 37B - 37D.
 - I. REPLACE THE CONCRETE DECK WITH HIGH PERFORMANCE CONCRETE, ADD MEMBRANE AND PAVEMENT.
 - J. CLEAN AND PAINT EXISTING TRUSSES.

THE MEMBERS SHOWN ABOVE FOR REPLACEMENT ARE A MINIMUM REQUIREMENT. FIELD INSPECTION MAY REQUIRE ADDITIONAL MEMBER REPLACEMENT. ALL REPLACEMENT MEMBERS SHALL BE OF EQUAL GEOMETRY AND SECTION PROPERTIES AS THOSE BEING REPLACED. THOSE PROPERTIES ARE SHOWN ON THIS SHEET AND THE REFERENCE SHEETS ATTACHED TO THESE PLANS.

TRUSS REPAIRS

PROJECT NAME: SPRINGFIELD	PLOT DATE: 27-DEC-2007
PROJECT NUMBER: BHO 1442(30)	DRAWN BY: J. PERRIGO
FILE NAME: 96j348/str/s96j348sup.dgn	CHECKED BY: C. CARLSON
PROJECT MANAGER: R. R. WHITCOMB	SHEET 23 OF 85
DESIGNED BY: J. PERRIGO	
s96j348trr.l	