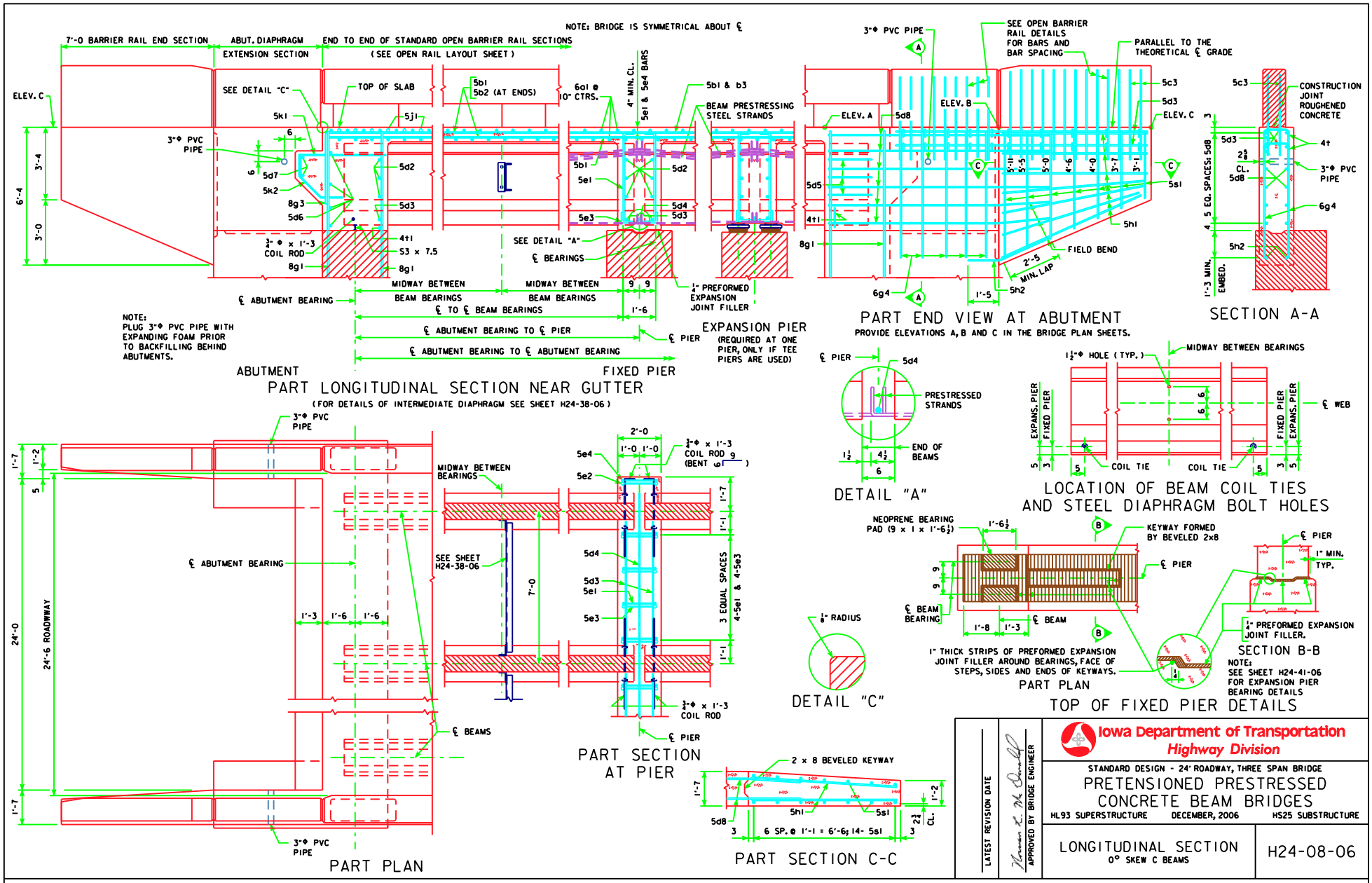
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
7'-0 BARRIER RAIL END SECTION
ABUT. DIAPHRAGM EXTENSION SECTION
END TO END OF STANDARD OPEN BARRIER RAIL SECTIONS (SEE OPEN RAIL LAYOUT SHEET)
ELEV. C
SEE DETAIL "C"
TOP OF SLAB
5b1 5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. CL.
5e1 & 5e4 BARS
5b1 & b3
BEAM PRESTRESSING STEEL STRANDS
3"Φ PVC PIPE
5k1
5j1
5d7
5k2
8g3
5d6
5d2
5d3
4t1
S3 x 7.5
8g1
3/4" Φ x 1'-3 COIL ROD
SEE DETAIL "A"
℄ BEARINGS
5e3
5d4
1/4" PREFORMED EXPANSION JOINT FILLER
℄ ABUTMENT BEARING
MIDWAY BETWEEN BEAM BEARINGS
℄ TO ℄ BEAM BEARINGS
℄ ABUTMENT BEARING TO ℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
℄ PIER
NOTE: PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.
ABUTMENT
FIXED PIER
PART LONGITUDINAL SECTION NEAR GUTTER
(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE SHEET H24-38-06)
EXPANSION PIER
(REQUIRED AT ONE PIER, ONLY IF TEE PIERS ARE USED)
3"Φ PVC PIPE
SEE OPEN BARRIER RAIL DETAILS FOR BARS AND BAR SPACING
PARALLEL TO THE THEORETICAL ℄ GRADE
ELEV. A
ELEV. B
ELEV. C
5c3
5d3
5s1
5h1
5h2
FIELD BEND
2'-5 MIN. LAP
6g4
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A, B AND C IN THE BRIDGE PLAN SHEETS.
CONSTRUCTION JOINT ROUGHENED CONCRETE
4t
3"Φ PVC PIPE
6g4
5 EQ. SPACES; 5d8
1'-3 MIN. EMBED.
SECTION A-A
℄ PIER
5d4
PRESTRESSED STRANDS
END OF BEAMS
DETAIL "A"
1 1/2"Φ HOLE (TYP.)
MIDWAY BETWEEN BEARINGS
EXPANS. PIER
FIXED PIER
℄ WEB
COIL TIE
LOCATION OF BEAM COIL TIES AND STEEL DIAPHRAGM BOLT HOLES
NEOPRENE BEARING PAD (9 x 1 x 1'-6 1/2)
KEYWAY FORMED BY BEVELED 2x8
℄ PIER
℄ BEAM BEARING
℄ BEAM
1" THICK STRIPS OF PREFORMED EXPANSION JOINT FILLER AROUND BEARINGS, FACE OF STEPS, SIDES AND ENDS OF KEYWAYS.
PART PLAN
1" MIN. TYP.
1/4" PREFORMED EXPANSION JOINT FILLER.
SECTION B-B
NOTE: SEE SHEET H24-41-06 FOR EXPANSION PIER BEARING DETAILS
TOP OF FIXED PIER DETAILS
1/8" RADIUS
DETAIL "C"
3"Φ PVC PIPE
℄ ABUTMENT BEARING
24'-0
24'-6 ROADWAY
℄ BEAMS
PART PLAN
MIDWAY BEWEEN BEARINGS
SEE SHEET H24-38-06
7'-0
3/4"Φ x 1'-3 COIL ROD (BENT 9)
5e4
5e2
5d4
5d3
5e1
5e3
3 EQUAL SPACES
4-5e1 & 4-5e3
3/4"Φ x 1'-3 COIL ROD
℄ PIER
PART SECTION AT PIER
2 x 8 BEVELED KEYWAY
5d8
5h1
5s1
6 SP. @ 1'-1 = 6'-6; 14- 5s1
PART SECTION C-C
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
Iowa Department of Transportation
Highway Division
STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
HL93 SUPERSTRUCTURE
DECEMBER, 2006
HS25 SUBSTRUCTURE
LONGITUDINAL SECTION
0° SKEW C BEAMS
H24-08-06