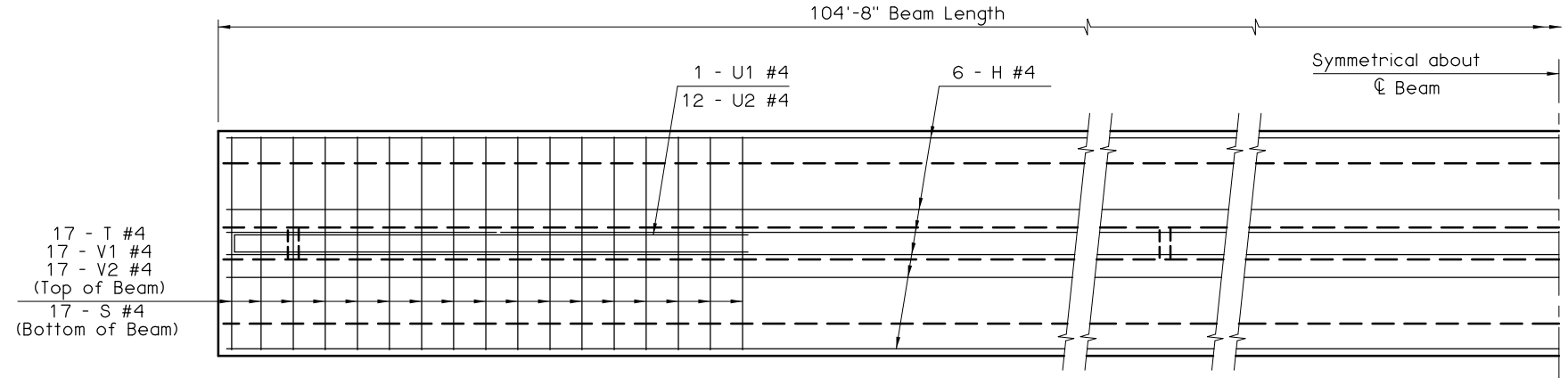
PRESTRESSED CONCRETE BEAM NOTES

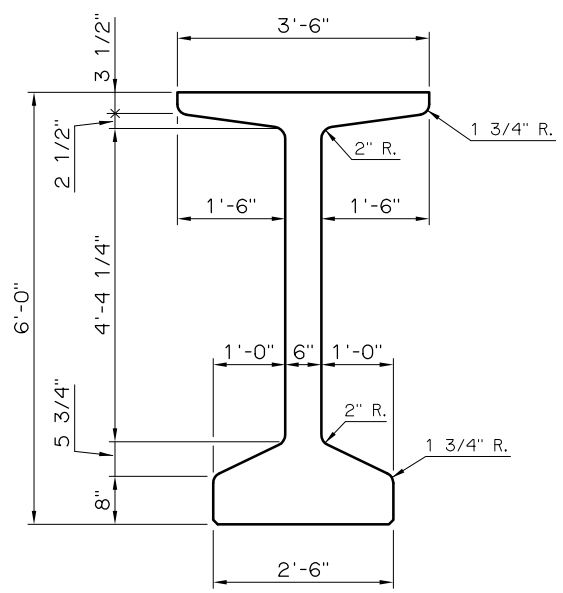
COMPRESSIVE STRENGTH
The required compressive strength of the concrete is 5,250 p.s.i. at transfer of prestress and 7,000 p.s.i. at 28 days.

STRAND TYPE
The required strand type is low-relaxation. Use strand having a nominal diameter of 0.6" with ultimate tensile strength of 270 k.s.i.

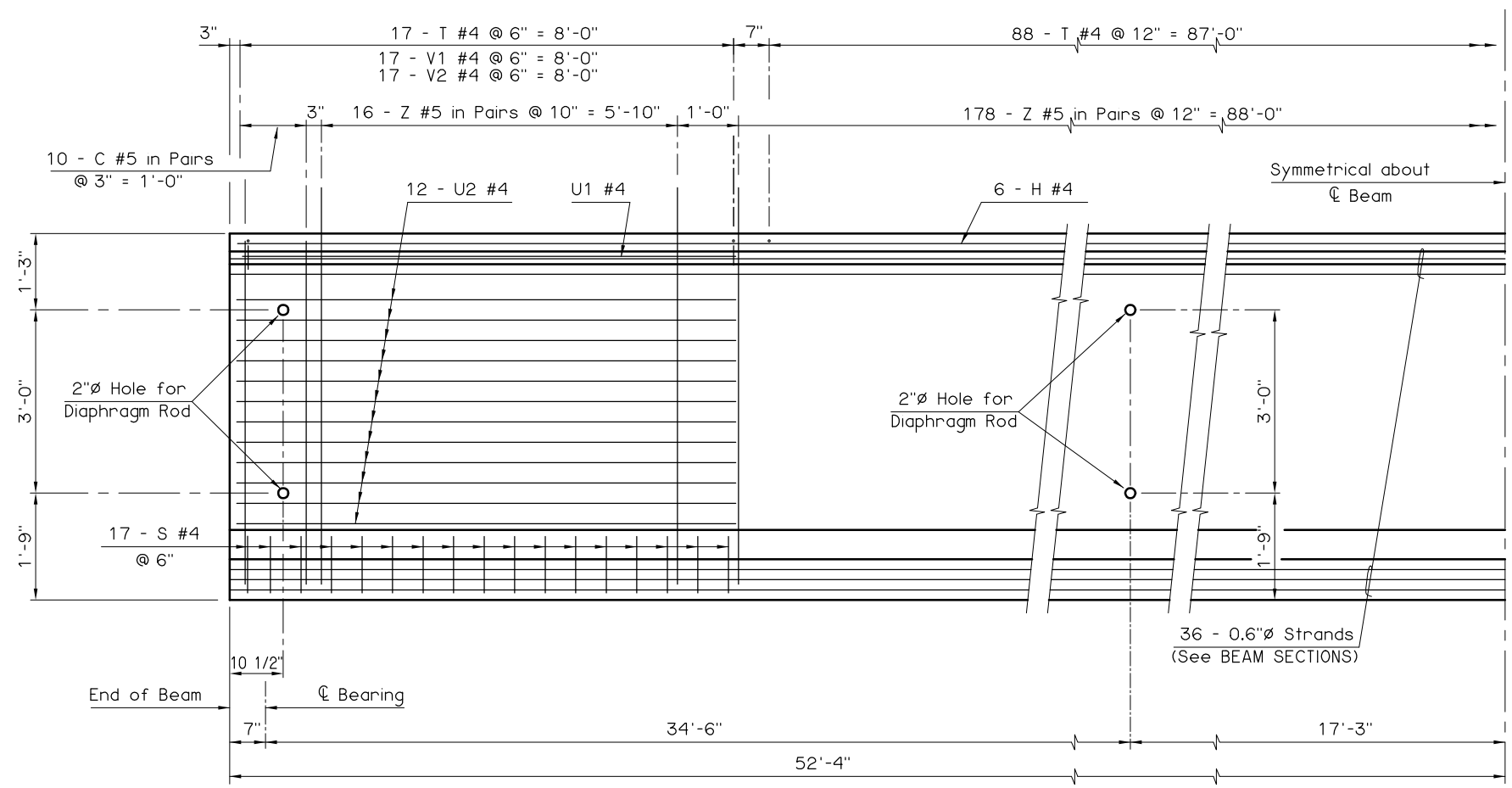
LFD OPERATING RATING - HS 45.0
The Operating Rating shown is based on a nominal strength using only strands that are bonded for the full length of the beam. All partially bonded strands are neglected in strength computations.



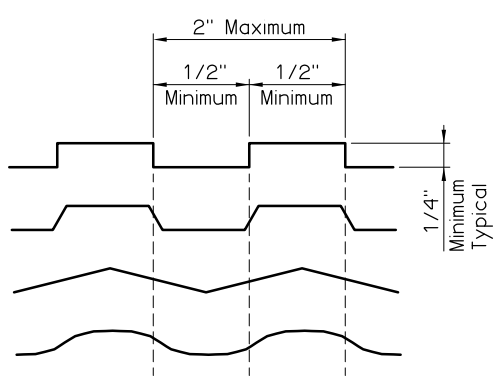
PLAN



END VIEW
(Type J P.C.B.)



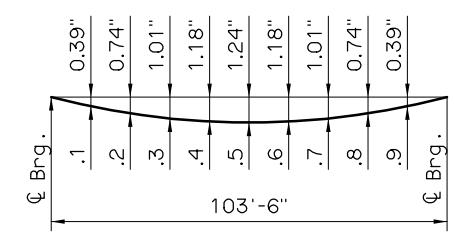
ELEVATION



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

Top surface of P.C. Beams shall be intentionally roughened to a minimum height of 1/4" over a maximum pitch of 2" measured longitudinally along the length of the beam. The crest and trough associated with the height shall not be less than 1/2" and shall extend the full width of the top flange. Roughened surface may be obtained by a special trowel as shown in the examples, by cleaning the concrete surface with a stiff wire brush (or blasting) to the extent that aggregate is exposed to a height of 1/4", or by another approved method. The method used shall be submitted for approval by the Engineer. Repair any damage to reinforcement epoxy coating before placement of deck concrete.

Information shown on this sheet is applicable only to the standard bridge cross-section with 40' Clear Roadway, 8" Deck Slab and 4 Beams at 11'-4" spacing. Stay-In-Place Deck Forms are permitted if the conditions listed in the STAY-IN-PLACE DECK FORM NOTES on LONGITUDINAL SECTION sheet are satisfied. Any modification will require a custom design with an appropriate Dead Load Deflection Diagram.



DEAD LOAD DEFLECTION DIAGRAM

NOTE:
The Dead Load Deflection shown above at the tenth points are the initial deflections due to Deck Slab + Diaphragms + 5 p.s.f. Deck Form Allowance + Concrete Traffic Rail. It does not include the Beam weight or Future Wearing Surface.

APPROVED BY BRIDGE ENGINEER [signature] DATE 8/29/03

OKLAHOMA DEPT. OF TRANSPORTATION
BRIDGE STANDARD (ENGLISH)

TYPE J P.C. BEAM DETAILS
105' SPAN
CONVENTIONAL (SHEET 1 OF 2)

1999 SPECIFICATIONS	B40-C-PCB-J-105-1	OOE

B-332E