

REV. NO.	DESCRIPTION	REVISIONS	DATE

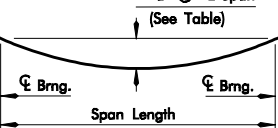
DESIGN DATA

LOADING: MS 18+1 kPa Future Wearing Surface
CONCRETE: (10.0m, 12.0m, and 14.0m Spans)
f_c = 41 MPa
f_{ci} = 31 MPa

CONCRETE: (16.0m Span)
f_c = 55 MPa
f_{ci} = 41 MPa

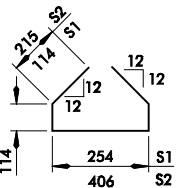
FABRICATOR SHALL PROVIDE
REQUIRED DESIGN STRENGTH

"d" @ ϕ Span
(See Table)

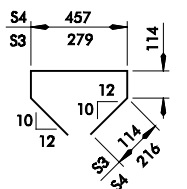


DEAD LOAD DEFLECTION DIAGRAM

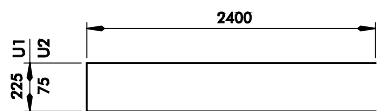
SPAN (M)	DEAD LOAD DEFLECTION "d"	OPERATING RATING
10	2	HS 46
12	5	HS 40
14	9	HS 37
16	14	HS 37



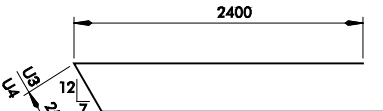
S1 BARS #13 x 710
S2 BARS #13 x 1066



S3 BARS #13 x 735
S4 BARS #13 x 1117



U1 BARS #13 x 5025
U2 BARS #13 x 4875



U3 BARS #13 x 5050
U4 BARS #13 x 4885

L1 BARS #13 x 1060

APPROVED BY BRIDGE ENGINEER

DATE

OKLAHOMA DEPT. OF TRANSPORTATION
COUNTY BRIDGE STANDARD (METRIC)

P.C. BEAM ELEVATIONS AND SECTIONS
TYPE II - 10.2 m RDY.

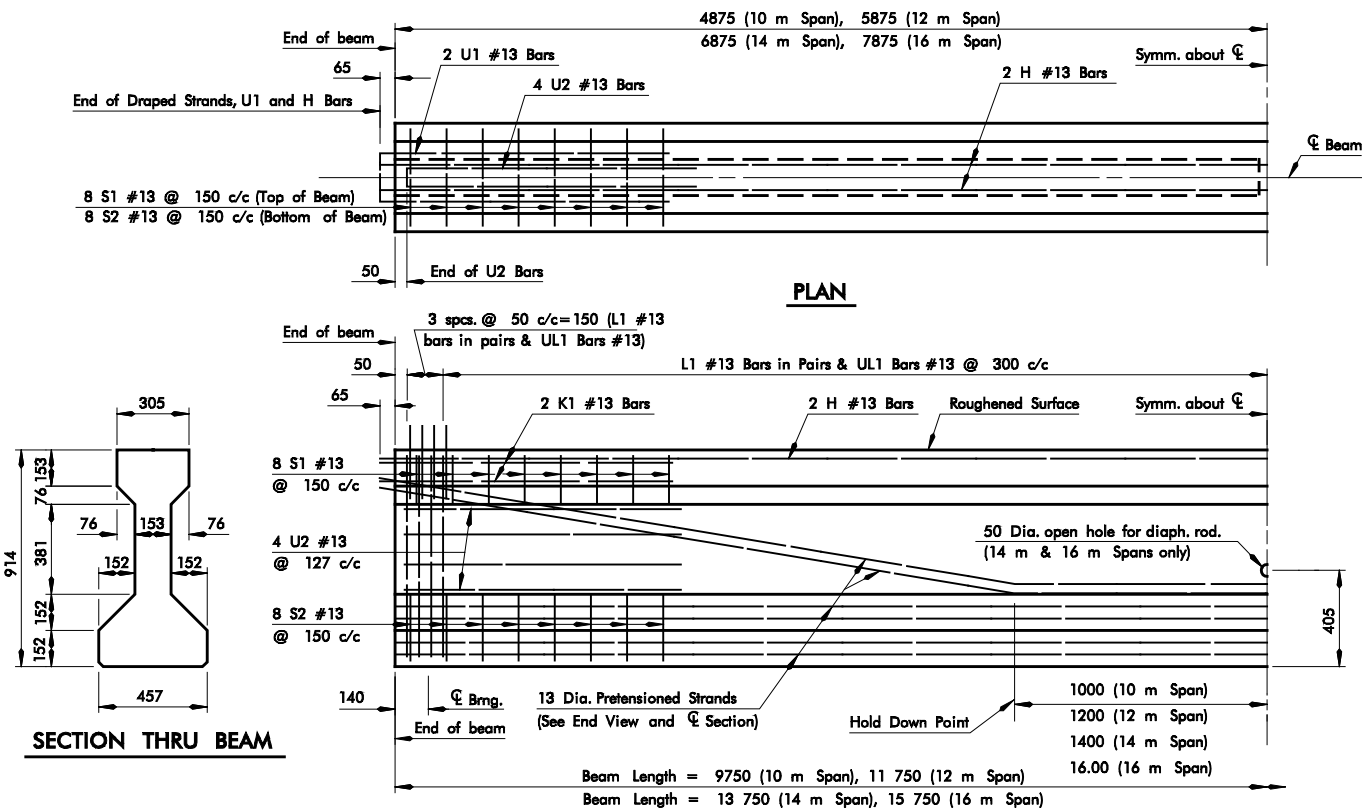
1999 SPECIFICATIONS

PCB4-1

01M

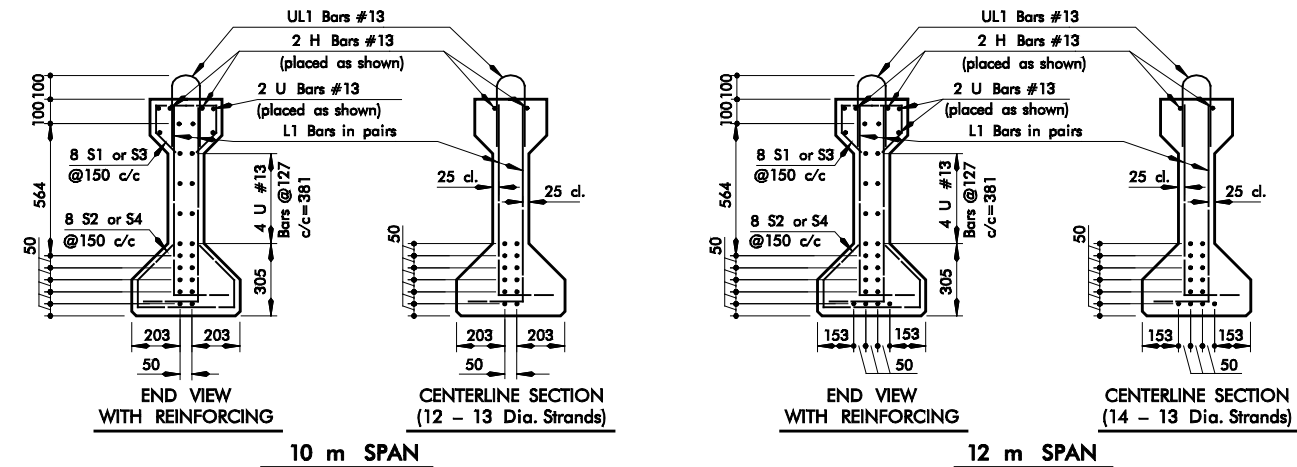
ALL DIMENSIONS ON THIS SHEET IN MILLIMETERS UNLESS OTHERWISE NOTED.

CB-33M



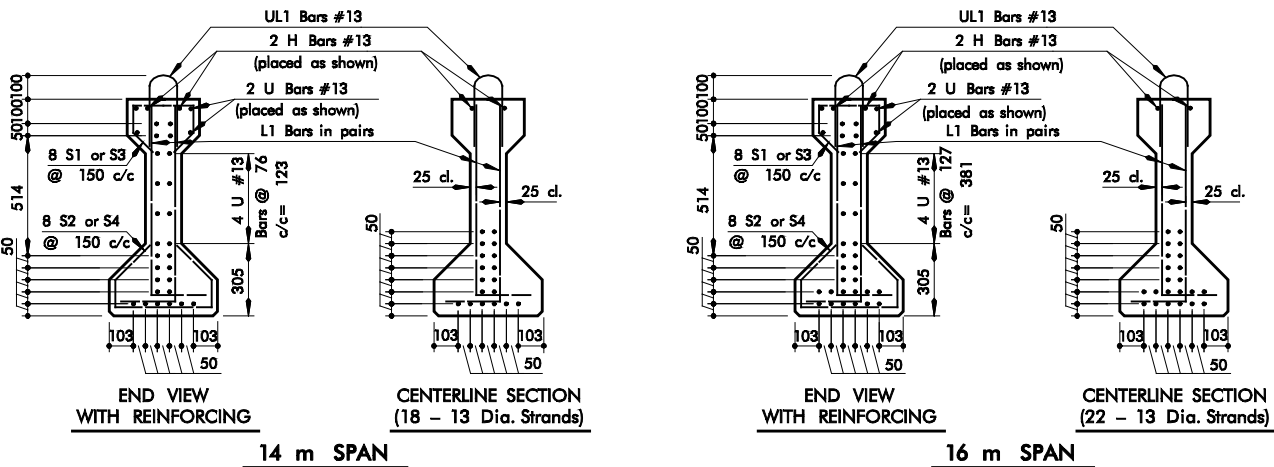
SECTION THRU BEAM

ELEVATION - 0° SKEW



NOTE: Draped strands, U1, U3, and H bars shall extend 65mm beyond ends of beam. Straight strands shall be cut flush with ends of beam. U2 and U4 bars shall be set 50 clear from ends of beam.

ELEVATION - 30° SKEW



GENERAL NOTES

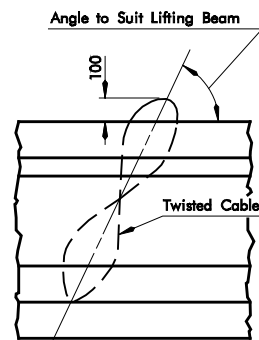
PRESTRESSED CONCRETE BEAMS:

CHAMFER REQUIREMENT: Chamfer all exposed edges of P.C. Beams 19mm unless otherwise noted.
FORMS & PALLETS: All beams shall be cast in concrete floored pallets and metal forms.
FINISH: Top of beams to be rough floated. At approximately the time of initial set, entire top of beam shall be scrubbed transversely with coarse wire brush to remove all laitance and to produce a roughened surface for bonding slab.
CEMENT: Type I or III Portland Cement may be used for the Prestressed Concrete Beams.
HANDLING: In the handling of the beams, they must be maintained in an upright position at all times and must be picked up from the lifting eye provided at the beam ends. Disregard of this requirement may lead to collapse of the member.
SPECIFICATIONS FOR STEEL STRANDS: Grade 270, 7-wire, uncoated, low relaxation steel strand shall conform to the requirements of AASHTO M203 (ASTM A-416) and Supplement I.
STRAND: All strands shall be the size and type as shown on the Plans. Initial load per strand shall be 75% of the breaking strength of the strand for low relaxation strand.

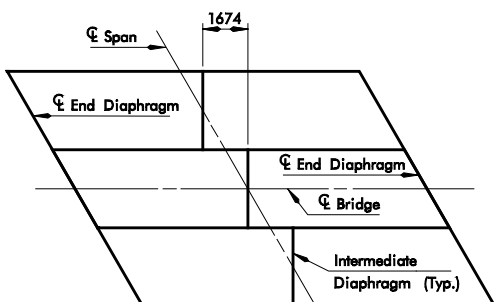
TREATMENT OF CUT STRANDS: All cut off strands that will be exposed are to be coated with two coats of an approved zinc rich paint (minimum 80 μ m). Painting to be done by fabricator.
SHOP DRAWINGS: The Contractor shall have his Prestressed Concrete Beam Fabricator furnish the Bridge Engineer, for his approval, two sets of checked shop drawings. Shop drawings shall show the casting length center to center of bearings, and the calculated prestress shortening. One copy shall be returned to the fabricator with any desired corrections indicated. The fabricator shall then furnish the Bridge Engineer with as many, generally seven, corrected copies of the shop drawings as may be required for approval and distribution. The approval of the shop drawings in no way relieves the Contractor or his fabricator of the responsibility for mistakes on the shop drawings.

The Prestressed Concrete Beams may be redesigned to use "Debonded" and or 15 mm strands rather than the "Draped" strands shown. The New Design and Structural Calculations for "Debonded" and or 15 mm strands must be prepared by and sealed by a Professional Engineer registered in the State of Oklahoma and submitted to the Bridge Engineer for approval.

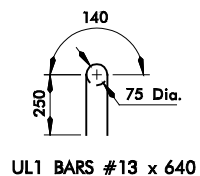
If "Debonded" Strands are used the "U" bars shall extend an additional 1200 mm, toward the middle of the span, just past the point of debonding.



DETAIL OF LIFTING EYE



TYPICAL DIAPHRAGM SPACING - 30° SKEW (14 m AND 16 m SPANS ONLY)



L1 BARS #13 x 1060