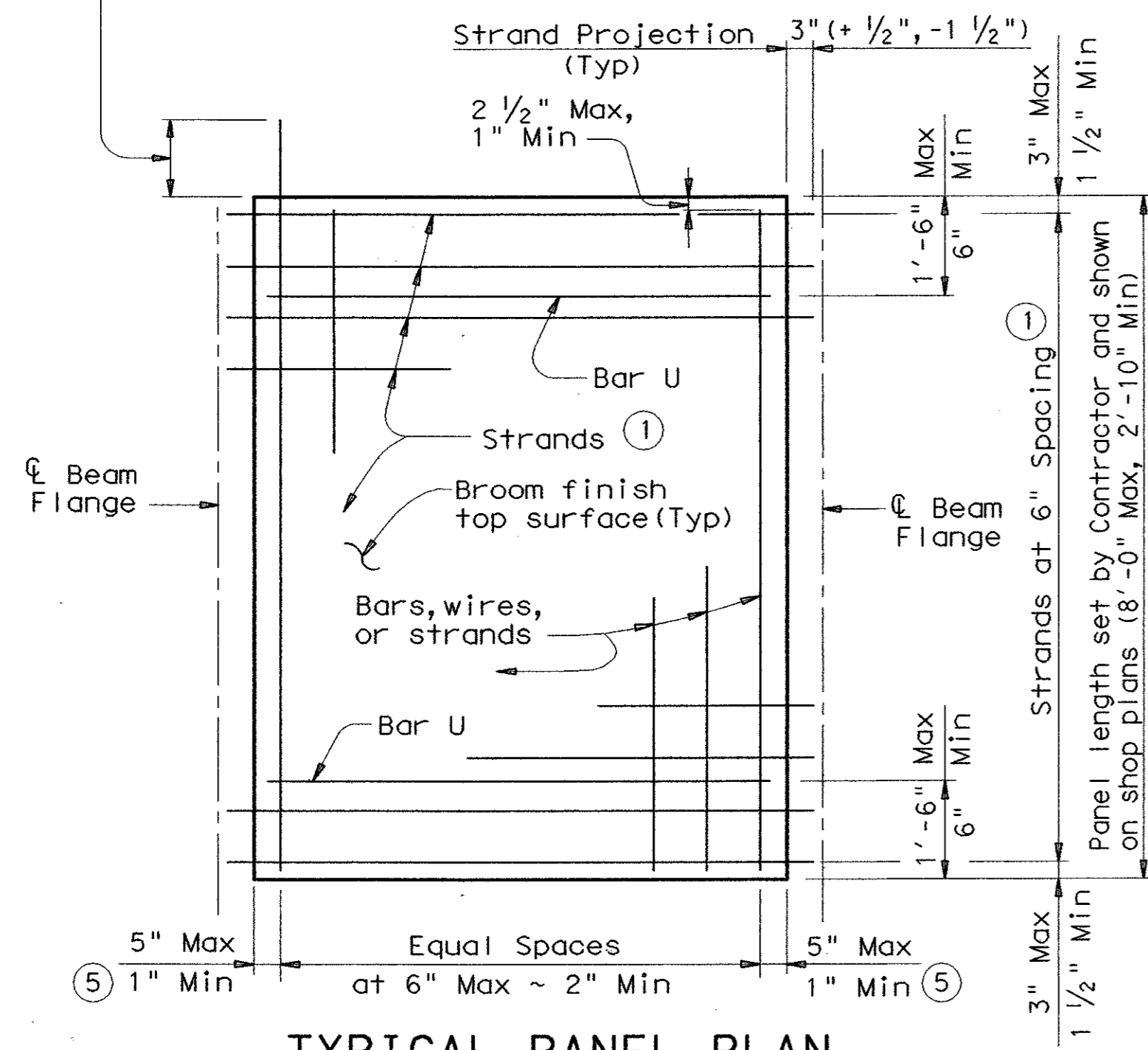


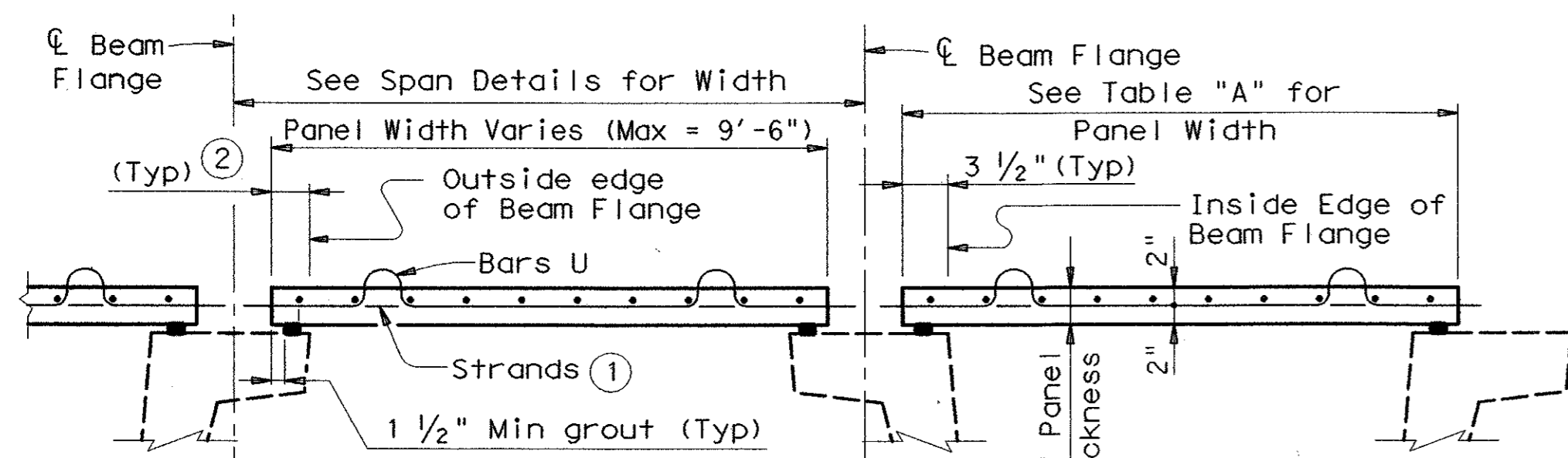
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LEVELS DISPLAYED: ACC: (L)1,2 for English: 63

At connection with cast-in-place slab, extend reinforcing steel 1'-0" past end of panel or provide #3 x 2'-0" dowels at 6" spacing extending 1'-0" past end of panel. If welded wire fabric is used for panel reinforcing perpendicular to strands, the #3 dowels will be required.



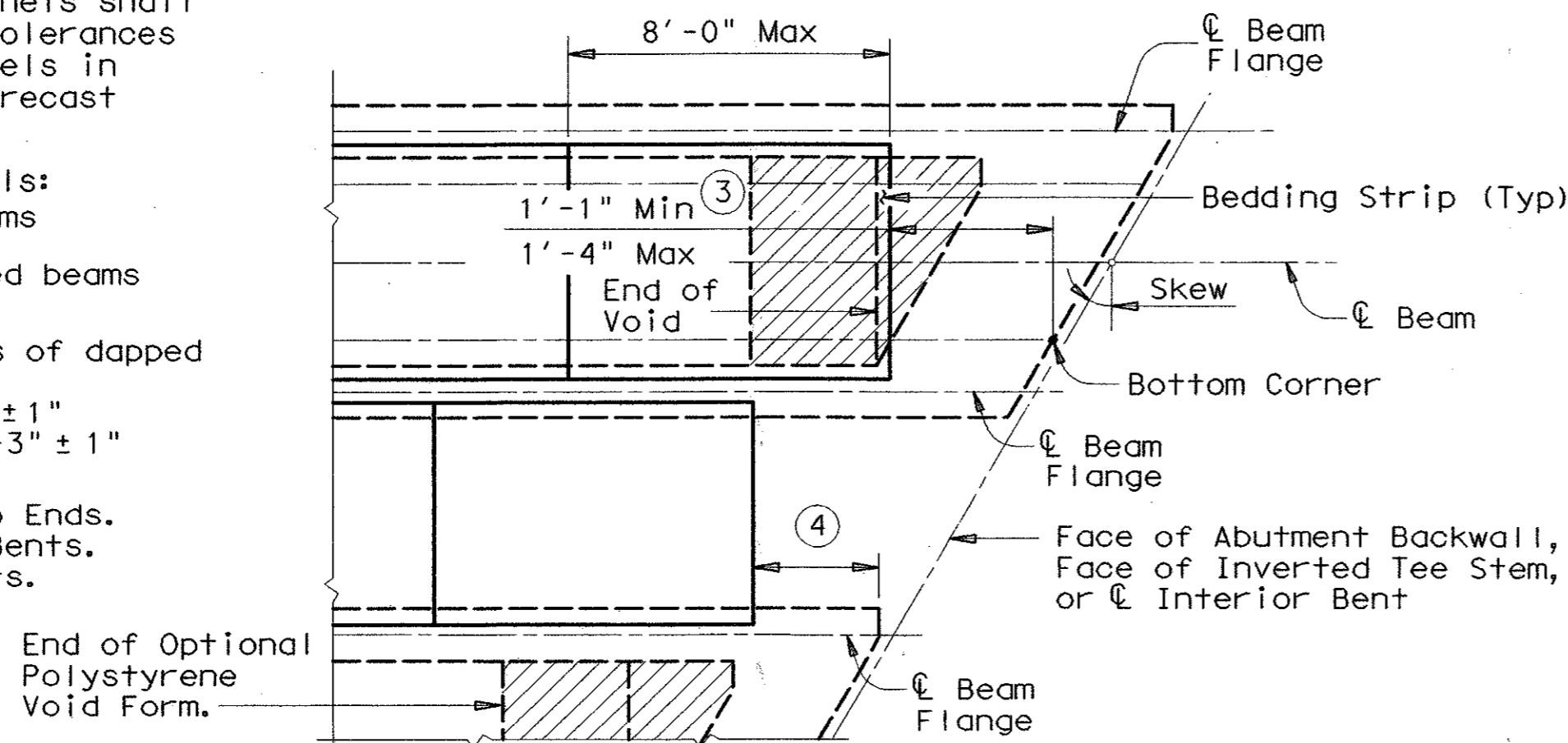
TYPICAL PANEL PLAN



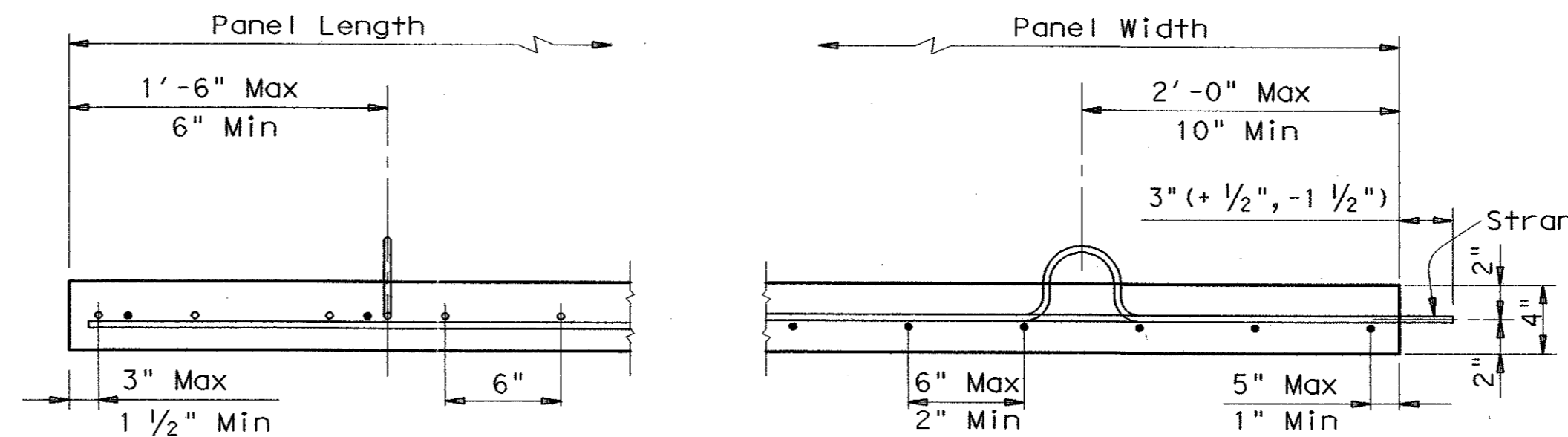
TYPICAL SECTION

TABLE "A"	
Beam Type	Panel Width
U40	5'-4 1/2"
U54	5'-11 1/2"

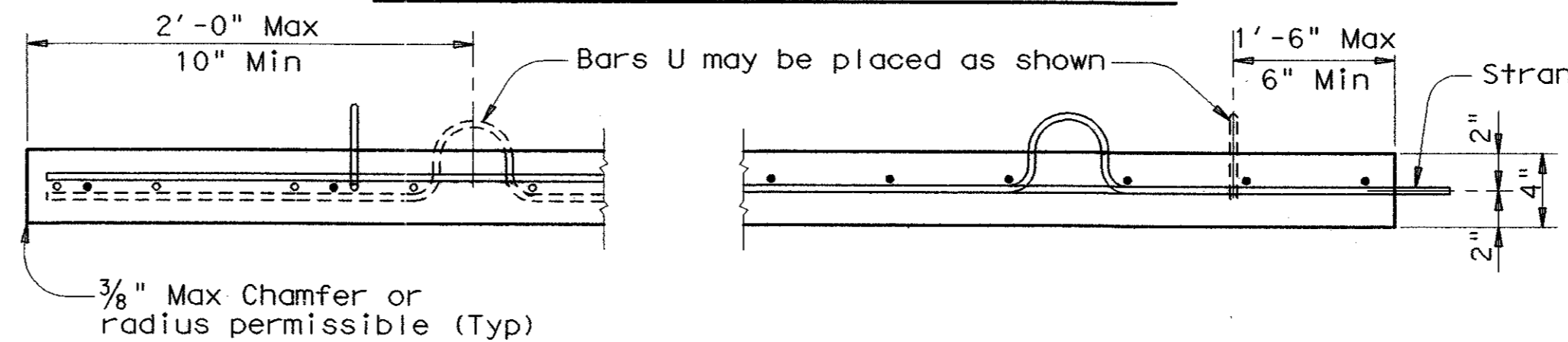
- Reinforcing steel #4 (Gr 60) at 6" spacing may be substituted for strands in panels 5'-0" in width or less and shall be required in panels 3'-6" in width or less. Non-prestressed concrete panels shall have the same dimensional tolerances as prestressed concrete panels in accordance with the Item "Precast Concrete Structures".
- Typical dimensions for panels:
 - 5" - between parallel beams
 - 4 1/2" Min - between flared beams
 - 6 1/2" Max
- For panel placement at ends of dapped end beams, Skews under 30°, use 2'-9" ± 1" Skews 30° thru 45°, use 3'-3" ± 1"
- 2'-2" Min at Thickened Slab Ends. 1'-6" Min at Conventional Bents. 3" Min at Inverted Tee Bents.
- May be reduced to 0" with welded wire fabric or welded bar mats.



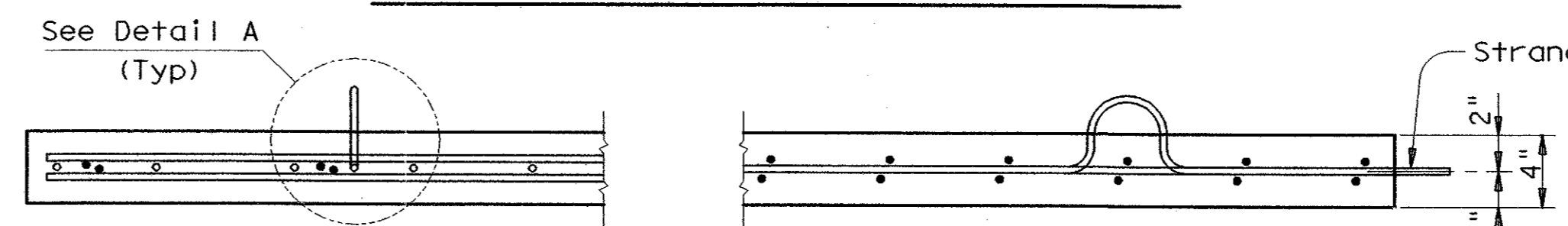
PARTIAL PLAN PANEL PLACEMENT DETAIL



REINFORCING BELOW STRANDS

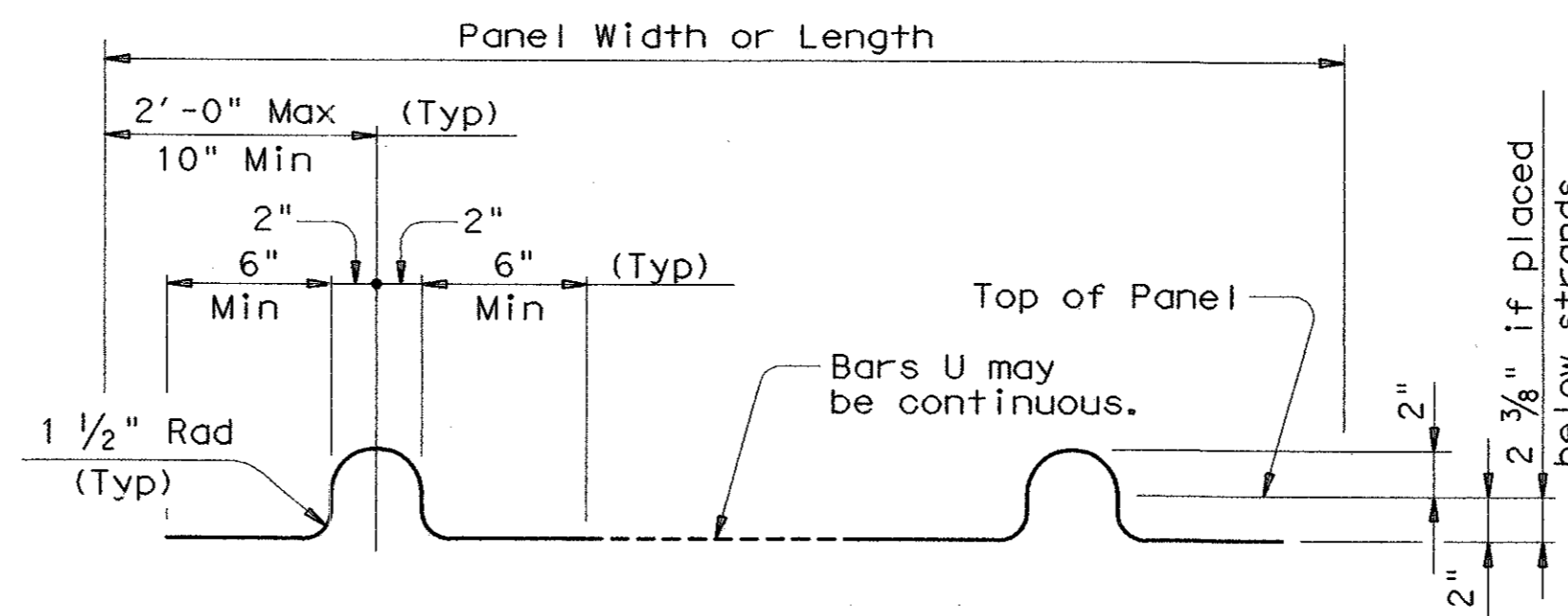


REINFORCING ABOVE STRANDS



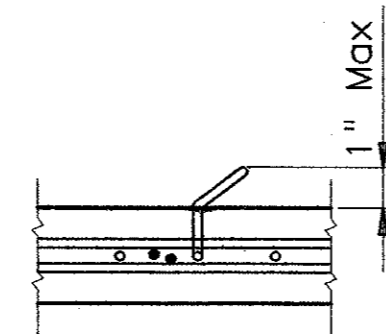
REINFORCING ABOVE & BELOW STRANDS

Reinforcing steel may be deformed reinforcing bars, welded wire fabric or welded deformed bar mats. Minimum area of reinforcing perpendicular to strands shall be 0.22 sq inches per foot. Prestressing strands may also be used, spaced at 6" for 1/2" strands and 4 1/2" for 3/8" strands. Individual bars or wires shall be no larger than #3. Reinforcing parallel to strands shall be as required to ensure proper handling of the fabric or bar mat. A reasonable amount of form oil will be permitted on welded fabric or bar mats.



BARS U (#3)

Note: Four loops required per panel.



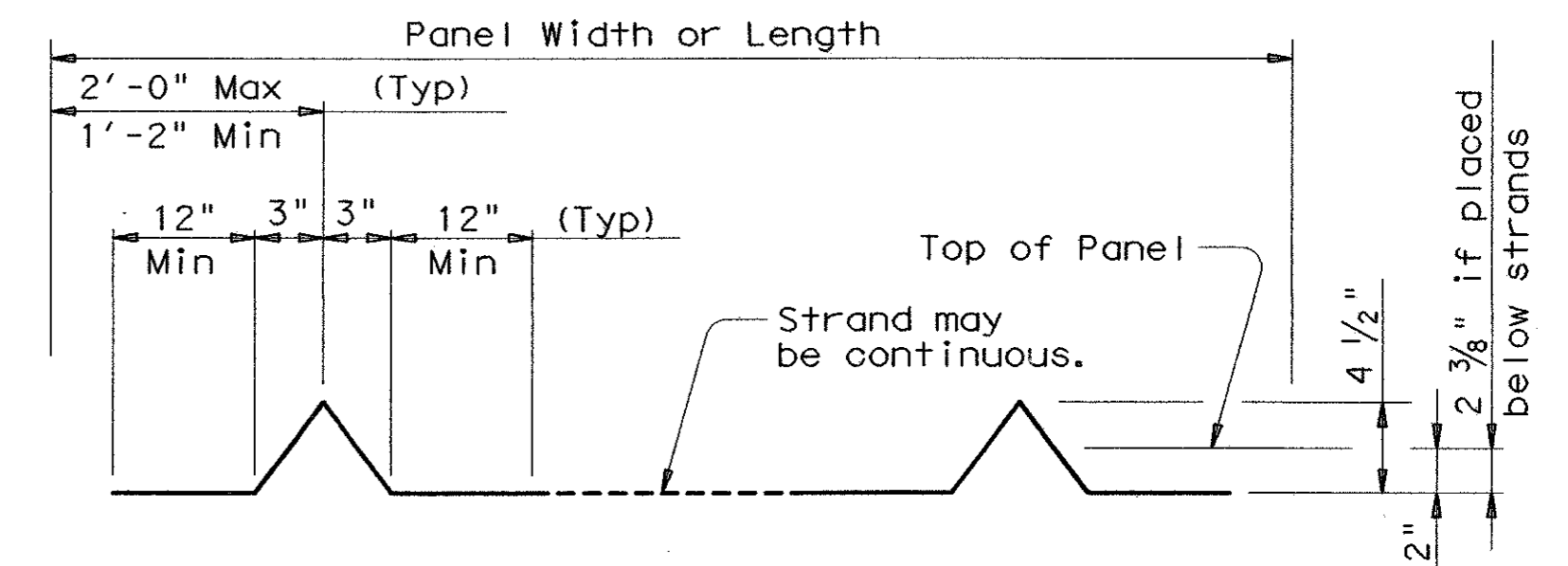
DETAIL A

For panels used with epoxy coated slab reinforcing, the loops of Bars U shall be field bent as shown. Bars U may be field bent to clear slab reinforcing.

GENERAL NOTES:

Designed in accordance with current AASHTO Standard and Interim Specifications.
 See Span Details for possible restrictions on the use of Prestressed Concrete Panels.
 All concrete for panels is to be Class H. Release strength f'_{ci} = 4000 psi. Minimum 28 day strength f'_{c} = 5000 psi.
 Prestressing strands to be 3/8" Dia (270k) with an initial tension of 16.1 kips per strand. Larger strands may be used with the same spacing and initial tension.
 Suitable holes or anchorage devices for lifting panels may be cast in the panels provided they are shown on the shop plans and approved by the Engineer.
 Erected panels shall bear uniformly on bedding strips of fiberboard or extruded polystyrene placed along the top flange edges of each beam. A 1/4" gap shall be left at 4'-0" intervals to permit escape of trapped air in the cast-in-place concrete. If additional blocking is needed, special grading details for supporting the panels and extra reinforcing between beam and slab will be required. The cost of this additional blocking will be considered subsidiary to deck construction.
 Care must be taken to ensure proper cleaning of construction debris and consolidation of concrete mortar under the edges of the panels. It is also important that the bedding strips be placed at the edges of flanges so that adequate space is provided for the mortar to flow a minimum of 1 1/2" under the panels as the slab concrete is placed. A minimum opening of 1/4" between the bottom of the panel and the top of the beam flange shall be maintained to ensure proper flow of mortar.
 All reinforcing steel in the cast-in-place slab shall be Grade 60. See Table on Sheet 2 of 3 for size and spacing of reinforcement. See Plan views on sheet 3 of 3 for orientation of bottom reinforcing steel in slab with panels. Reinforcing steel not shown in span sheet quantities shall be subsidiary to the Item "Reinforced Concrete Slab".
 See Span Details for slab reinforcing steel to be epoxy coated.
 For clear span between beams less than or equal to 18", see Permissible Slab Forming Detail on Miscellaneous Slab Details sheets, UBMS.

Bar laps, where required, shall be as follows:
 Uncoated ~ #4 = 1'-5"
 ~ #5 = 1'-9"
 Epoxy Coated ~ #4 = 2'-1"
 ~ #5 = 2'-7"
 Contractor Note: Details as shown on the PCP(U) Standard sheets are to be used in conjunction with the Span Details and applicable Standard sheets.



OPTIONAL STRAND FOR BARS U

Note: Four loops required per panel. 3/8" or 1/2" strands may be used.

Texas Department of Transportation Design Division (Bridge)

PRESTRESSED CONCRETE PANEL DETAILS (FOR PRESTR CONC U-BEAMS)

PCP (U)

FILE: lbstd008.dgn	DN:TxDOT	CK:TxDOT	DW:TxDOT	CK: TGA	STD: B546
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