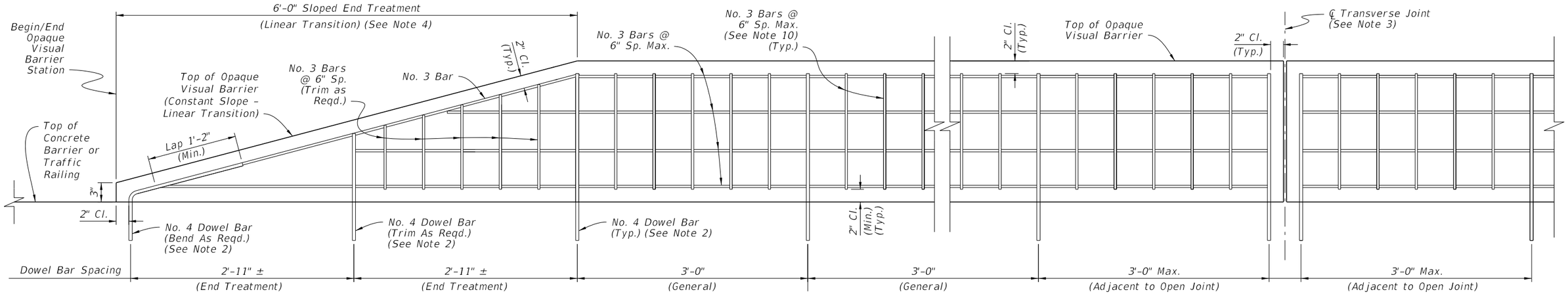


ELEVATION VIEW - OPAQUE VISUAL BARRIER

GENERAL NOTES:

1. GENERAL: Construct Opaque Visual Barrier (OVB) in accordance with Specification 521. Use either cast-in-place or precast panels with Class II Concrete and Class 3 Surface Finish. Do not cast OVB concrete monolithically with the Concrete Barrier or Traffic Railing; use an ASTM D6380, Class S, Type III Organic Felt bond breaker as needed.

2. DOWEL BAR CONNECTION: For the embedment in Concrete Barrier or Traffic Railing concrete, dowel bars must be either cast in place for new concrete or grouted in place for existing concrete. Embed the dowel bars to the corresponding depths shown, and use the bar lengths provided in the Dowel Bar Length Table.

   At cast in place embedment locations, longitudinally shift the dowel bars only as required to avoid reinforcing steel in the Concrete Barrier or Traffic Railing.

   At grouted embedment locations, drill ⅝" Ø holes to a depth of 6¼". Use only approved non-shrink grout on the APL. Drilling through existing reinforcing steel is permitted.

3. TRANSVERSE JOINTS: Place ½" Transverse Joints with a maximum spacing of 50'-0" and a minimum spacing of 20'-0". Use a consistent spacing where practical.

   Without violating the above spacing requirements, place Transverse Joints matching the location and width of open joints in the supporting Concrete Barrier or Traffic Railing.

4. SLOPED END TREATMENTS: Regardless of the traffic direction, place Sloped End Treatments on all exposed ends of OVB, excluding leave-outs for barrier-mounted signs and light poles. See Note 7 below.

5. BARRIER-MOUNTED SIGNS AND LIGHT POLES: Where signs and barrier-mounted light pole structures conflict with placement of OVB, end and restart the OVB with a transverse vertical face located a longitudinal distance of 2" (±½") from the base of the structure. Follow the same reinforcing scheme and concrete cover requirement for the Transverse Joint shown herein. See Note 7 below.

6. LARGE BARRIER-MOUNTED SIGN SUPPORTS: See Sheet 2 for details. See Note 7 below.

7. LEAVE-OUTS: OVB leave-outs are longitudinal gaps in OVB segments required to accommodate barrier-mounted signs and light pole placement. Leave-outs up to 15 feet in length are included in OVB length measurement.

8. ASYMMETRICAL CONCRETE BARRIER SECTIONS: When mounting on top of an asymmetrical Concrete Barrier section (not shown), align the centerline of the OVB with the centerline of the top face of the Concrete Barrier section.

9. SPLIT CONCRETE BARRIER SECTIONS: For split Concrete Barrier sections that run separately (for vertical structures, bridges, etc.), OVB is only required on top of one of the Concrete Barrier sections. Place OVB on top of the Concrete Barrier section with the highest elevation. For these segments, mount barrier delineators on only the OVB face nearest the roadway (barrier mount other side). Longitudinally overlapping OVB runs are permitted where called for in the Plans, as designated with overlapping Begin and End Station OVB callouts.

10. VERTICAL REINFORCING: Place vertical No. 3 bars with the spacing shown, except that No. 3 bars at the dowel bar locations may be shifted longitudinally to fit or they may be omitted at the contractor's option.

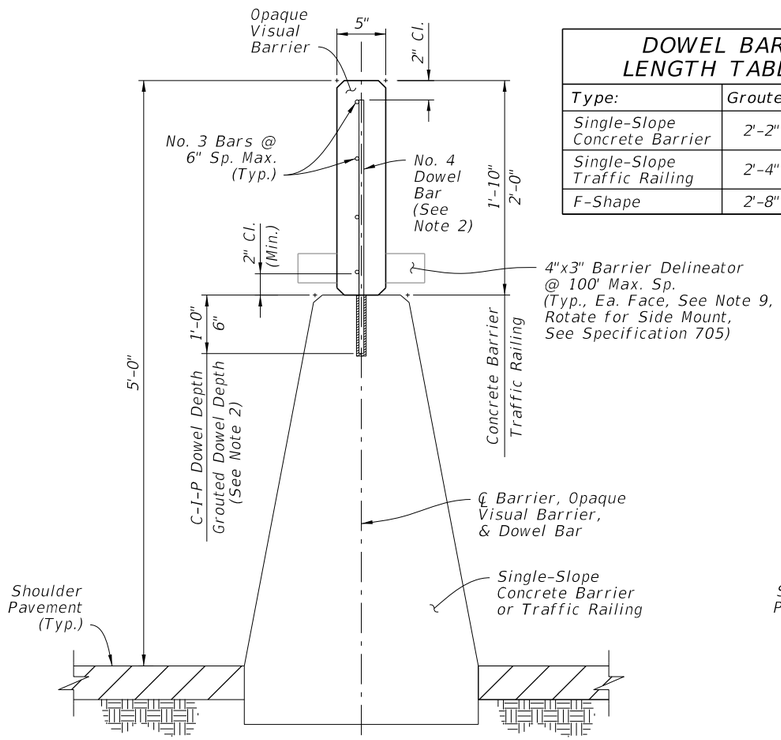
11. OPTIONAL WELDED WIRE REINFORCEMENT: With the approval of the Engineer, the No. 3 bars shown herein may be replaced with welded wire reinforcement in accordance with Specification 415. Use welded wire reinforcement of equal or greater strength than the bars being replaced; maintain the same cover requirements with equivalent or smaller spacing.

12. VARIABLE HEIGHT CONCRETE BARRIERS: See Sheet 2 for details.

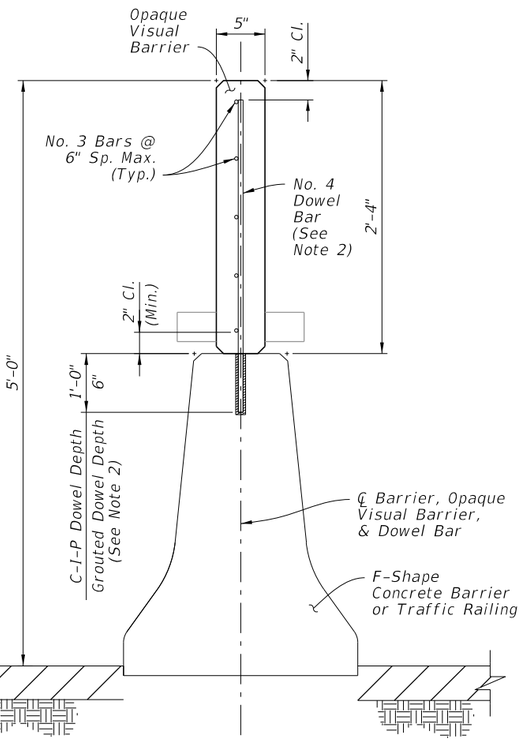
13. CONCRETE BARRIER AND TRAFFIC RAILING TRANSITIONS BETWEEN DIFFERING SECTIONS: Transition the OVB section using a method similar to the OVB Linear Bottom Transition shown in Elevation View 'B' on Sheet 2, except adjust the longitudinal length of the transition as required.

DOWEL BAR LENGTH TABLE

Type:	Grouted	C-I-P
Single-Slope Concrete Barrier	2'-2"	2'-8"
Single-Slope Traffic Railing	2'-4"	2'-10"
F-Shape	2'-8"	3'-2"



SECTION VIEW - OPAQUE VISUAL BARRIER FOR MEDIAN SINGLE-SLOPE CONCRETE BARRIER OR TRAFFIC RAILING



SECTION VIEW - OPAQUE VISUAL BARRIER FOR MEDIAN F-SHAPE CONCRETE BARRIER OR TRAFFIC RAILING

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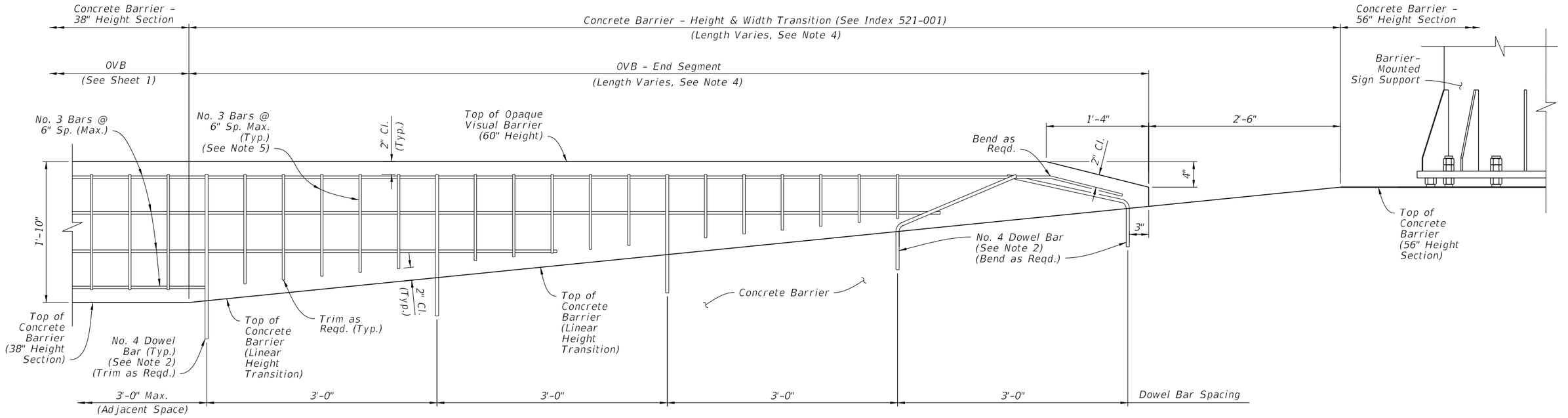
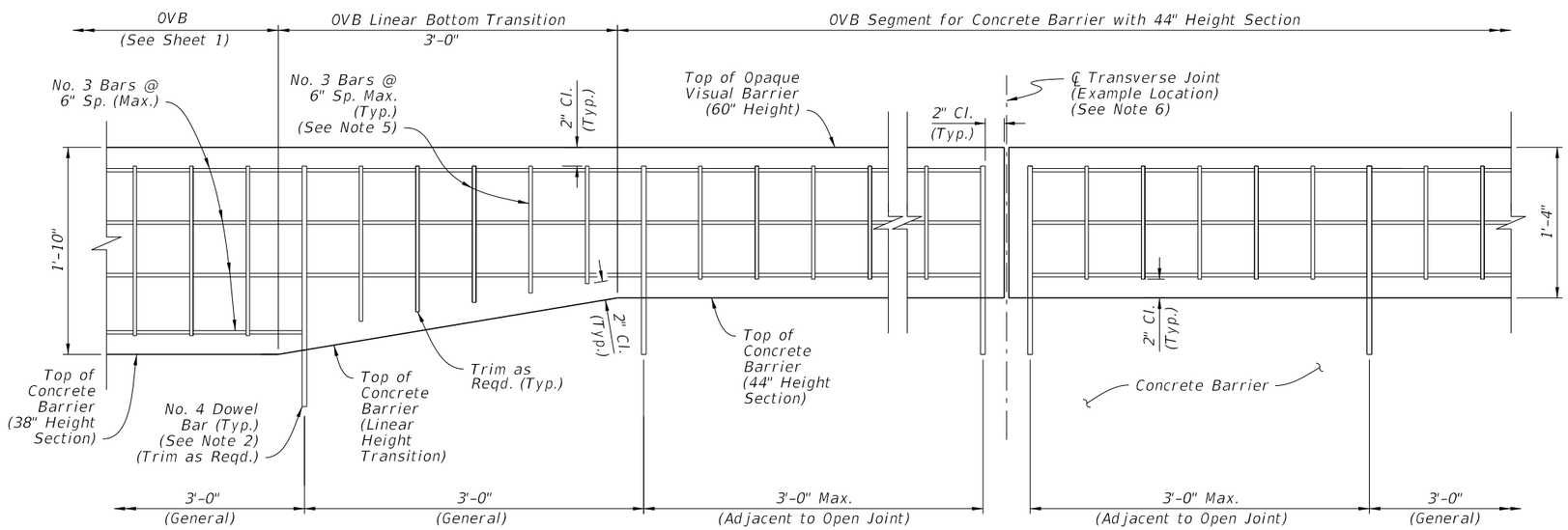


ELEVATION VIEW 'A' - OVB END SEGMENT AT CONCRETE BARRIER HEIGHT TRANSITION FROM 38" HEIGHT TO 56" HEIGHT SECTION (REVERSE DIRECTION SIMILAR BY OPPOSITE HAND)



ELEVATION VIEW 'B' - OVB SEGMENT FOR CONCRETE BARRIER WITH 44" HEIGHT SECTION (OVB LINEAR BOTTOM TRANSITION SHOWN, REVERSE DIRECTION SIMILAR BY OPPOSITE HAND)

NOTES:

1. *LATERAL DIMENSIONS: Maintain the OVB section width and lateral placement as defined on Sheet 1.*

2. *DOWEL BAR LENGTHS & CONNECTIONS: For the differing OVB section heights, trim or adjust the dowel bar lengths as required to meet the clearances shown while maintaining the dowel bar connection requirements of Sheet 1.*

   Elevation View 'A' – For the two dowel bars closest to the OVB end location, use full dowel bar lengths and bend as shown to maintain clearances. Overlapping dowel bars may deviate from the lateral centerline as required.

3. *DOWEL BAR SPACING:*

   Elevation View 'B' – The dowel locations shown in this detail are examples only, and may shift to maintain the spacing pattern that is governed by adjacent OVB. Maintain the dowel bar spacing scheme as defined on Sheet 1; place dowel bars within the OVB Linear Bottom Transition as required.

4. *SEGMENT LENGTHS:*

   Elevation View 'A' – The length of the OVB End Segment is governed by the length of linear width and height transition of the Concrete Barrier.

   Elevation View 'B' – The length of the reduced-section OVB segment is governed by the length of Concrete Barrier with 44" Height Section.

5. *VERTICAL REINFORCING: For the differing OVB section heights, trim or adjust the vertical No. 3 Bar lengths as required to meet the clearances shown.*

6. *TRANSVERSE JOINTS:*

   Follow the requirements of Sheet 1.

   Elevation View 'A' – Do not place Transverse Joints within the End Segment.

   Elevation View 'B' – Maintain the Transverse Joint spacing scheme as defined on Sheet 1; place dowel bars within the OVB Linear Bottom Transition as required.

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