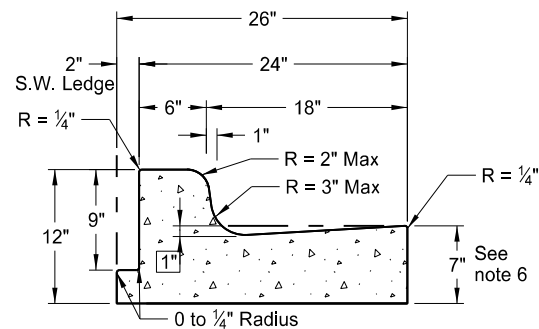
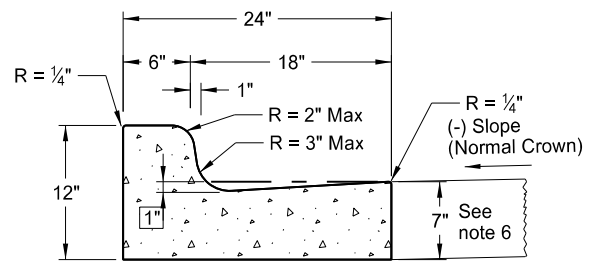


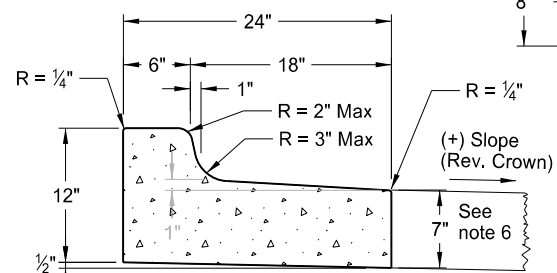
Curb & Gutter and Valley Gutter



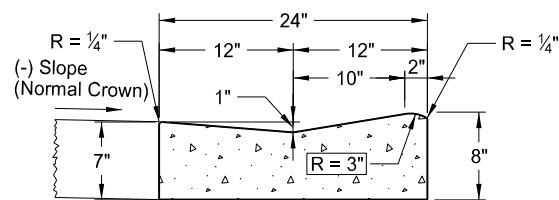
**Curb & Gutter Type 1 (Sec. A & B)**  
Adjacent to Concrete Sidewalk,  
Median, or Parking Lot.  
(Sec. A shown. See Sec B for  
additional details.)



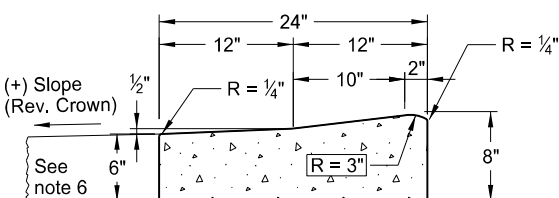
**Curb & Gutter Type 1 (Sec. A)**



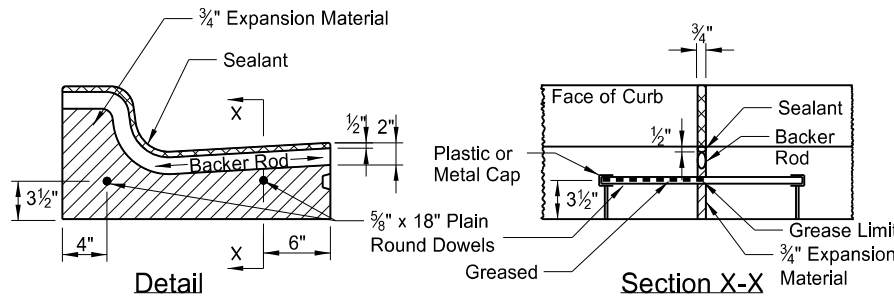
**Curb & Gutter Type 1 (Sec. B)**



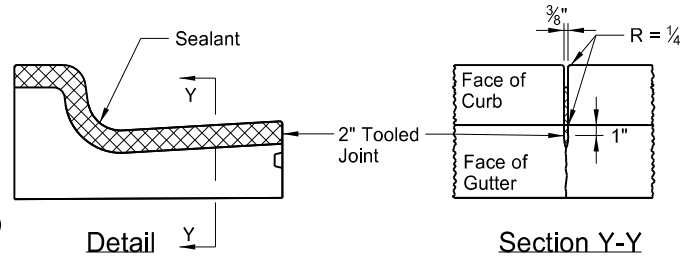
**Mountable Curb & Gutter Type 1 (Sec. A)**



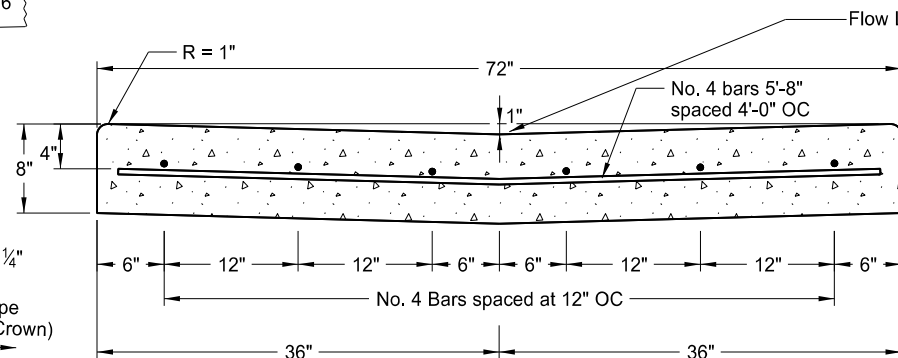
**Mountable Curb & Gutter Type 1 (Sec. B)**



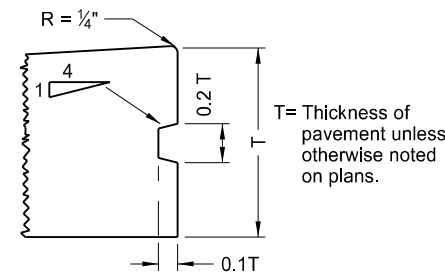
**Isolation Joint**



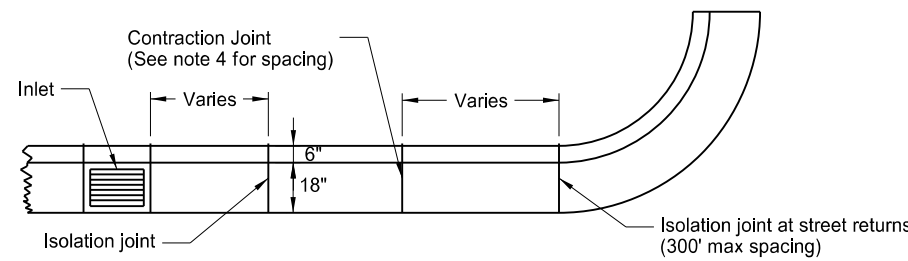
**Contraction Joint**  
(10' Max Spacing)



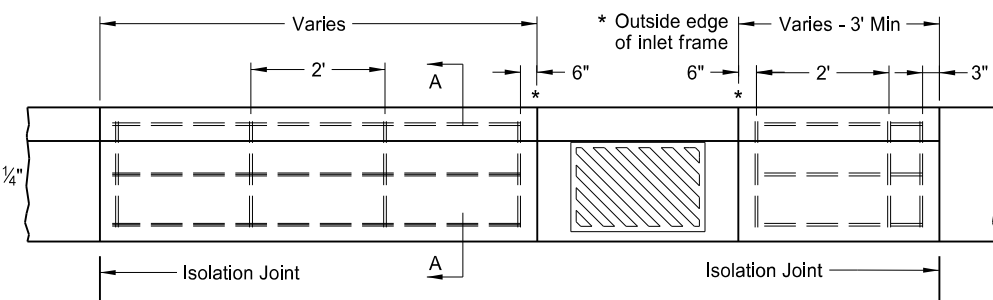
**72" Concrete Valley Gutter Detail**



**Keyway Detail for Curb & Gutter**  
(To be used with PCC Pavement and Drives)

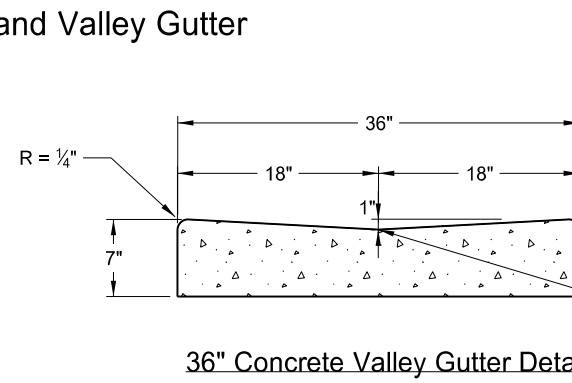


**Joint Location Detail**

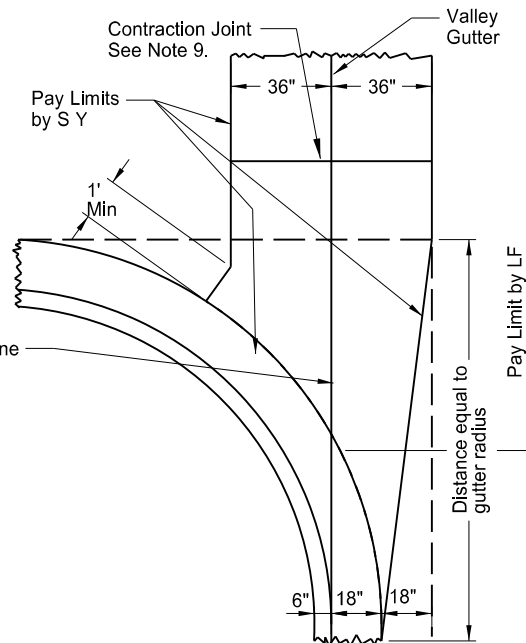


**Curb & Gutter Reinforcing at Inlets**

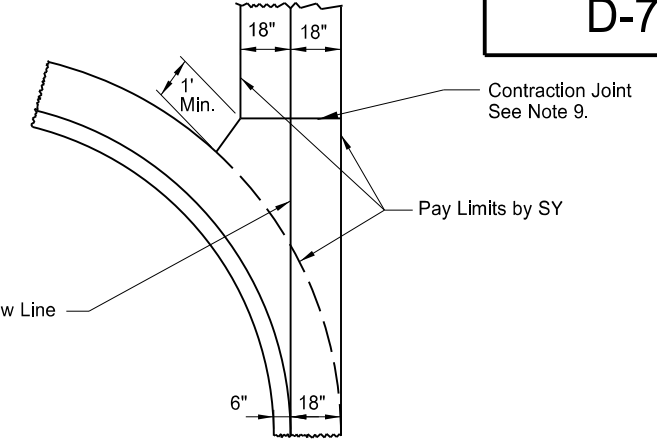
NOTE: Use #4 deformed reinforcing bars without splices. Include all costs for reinforcing bars at inlet locations (even inlets located on radii) in the price bid for "Curb and Gutter - Type 1." Extend reinforcement to the second joint (rebar placed through the first joint) in cases where the 3' min. panel length cannot be obtained.



**36" Concrete Valley Gutter Detail**



**72" Concrete Valley Gutter Plan**



**36" Concrete Valley Gutter Plan**

NOTES:

1. Use Curb and Gutter Type 1 (Sec. A & B). Use section "A" with (-) pavement slopes and section "B" with (+) pavement slopes.
2. Contraction Joints: Tool the Curb & Gutter 2" as shown on the contraction joint details.
3. Isolation Joints: Use 3/4" expansion joint filler for isolation joint material. Form the backer rod and joint sealant opening with a pre-cut piece of wood or other material approved by the engineer. Dowel supports are not required on the second pour at a cold joint. Install plastic or metal caps and greased dowels in the cold joint for the second pour.
4. Joint Spacing: For hot bituminous pavements use a 10' max joint spacing for the curb and gutter with panels on each side of the inlets. For concrete pavements match the joint spacing for the curb and gutter to the pavement joint on PCC Pavements (approximately 15' spacing.)
5. Joint sealing: Seal contraction and isolation joints as shown in the details. Use joint sealant for contraction joints that conforms to section 826.02B. Use sealant for expansion joints specified in note 3 above. Tool and install sealant in accordance with the manufacturer's recommendations.
6. Face of Gutter Depth: For hot bituminous pavement use 7" gutter depth as shown. For PCC pavements, match the gutter depth to the depth of adjacent PCC pavement or to construct a 7" depth as shown.
7. Tie curb and gutter to abutting PCC pavement with No. 3 bars, 1'-6" in length, spaced at 4' centers.
8. On street returns and other locations where new curb and gutter ends and does not abut existing curb and gutter, taper the last two (2) feet of the curb from 6" in height to 0". Install a 1/2" premolded full depth isolation joint, the same shape as the curb and gutter just ahead of the taper. Install an 18" tie bar across the joint.
9. Valley Gutter Joints: Form, saw, or score 1/8" min. to 3/8" max. width contraction joints (a minimum 2" depth) at approx 10' intervals. Seal the joints with hot poured elastic type joint sealer (Section 826.02A.2 of the Standard Specifications.) Include all costs for the joint and sealant in the price bid for Valley Gutter.

|  |                           |
|--|---------------------------|
| NORTH DAKOTA<br>DEPARTMENT OF TRANSPORTATION |                           |
| 8-7-2013                                     |                           |
| REVISIONS                                    |                           |
| DATE   | CHANGE                    |
| 10-17-17                                     | Updated to active voice.  |
| 08-27-19                                     | New Design Engr PE Stamp. |

This document was originally issued and sealed by  
Kirk J Hoff,  
Registration Number  
PE-4683,  
on 8-27-19 and the original document is stored at the North Dakota Department of Transportation