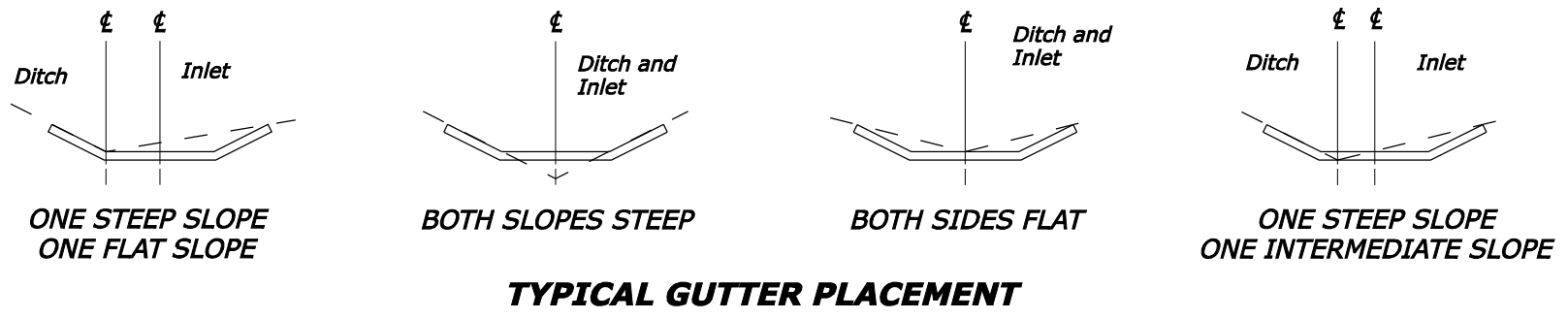
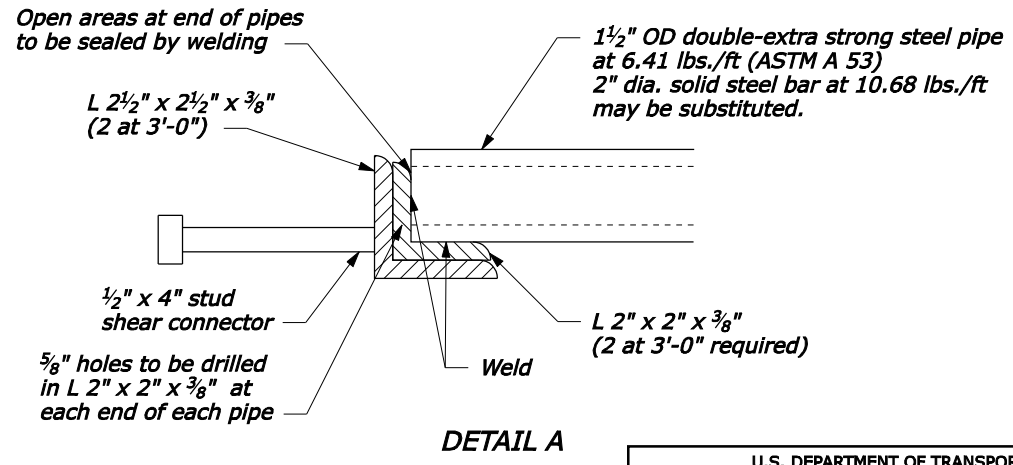
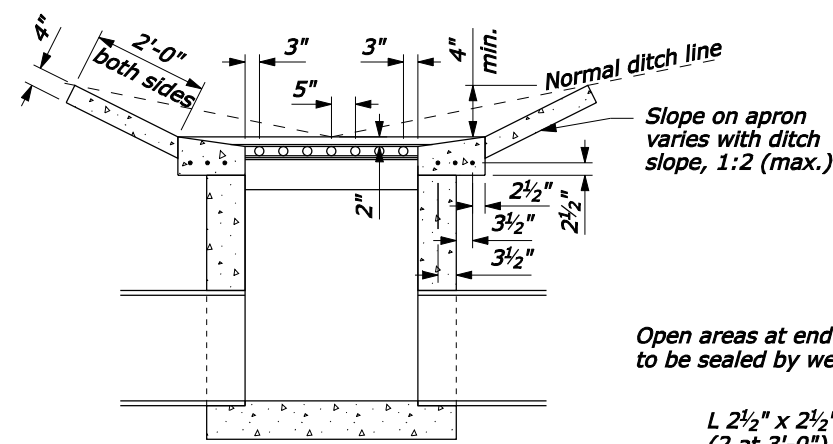
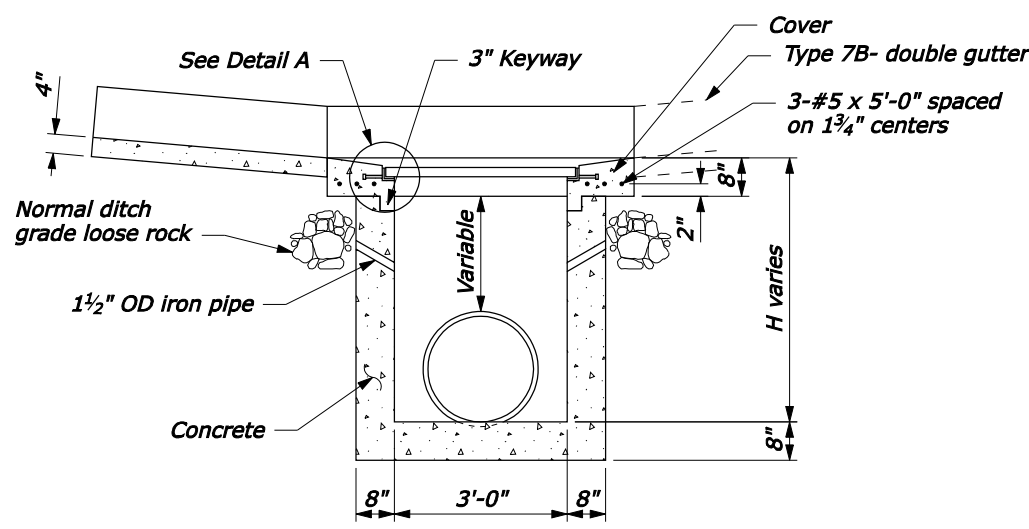


- NOTE:**
- Type 7A has a single gutter when inlet is on a grade.
 - Type 7B has a double gutter when inlet is in a sag between two grades.
 - Ditch to be warped to tie smoothly into inlet gutter.
 - Outside dimensions of grate to be 3'-4" x 2'-11³/₄".
 - Maximum depth (H) is 12'-8".
 - All reinforcing bars are #5 placed a minimum 1¹/₂ inch clear from face of concrete. In floors, place bars on 6 inch centers each way. In walls, place horizontal bars on 6 inch centers and vertical bars on 12 inch centers.
 - Galvanize grate after fabrication in accordance with AASHTO M 111.
 - Alternate methods of anchoring angle iron will be acceptable if approved by the CO.

APPROXIMATE QUANTITIES						
Pipe size	12"	15"	18"	24"	30"	36"
Minimum Depth (H)	2'-0"	2'-3 ¹ / ₄ "	2'-6 ¹ / ₂ "	3'-1"	3'-7 ¹ / ₂ "	4'-2"
Inlet concrete for minimum depth, CUYD	0.947	1.045	1.143	1.339	1.535	1.731
Additional inlet concrete	0.362 cuyd for each additional foot of depth (H)					
Gutter concrete	Type 7A: 0.724 cuyd Type 7B: 1.185 cuyd					
Cover concrete (not included above)	0.413 cuyd					
Cover reinforcing steel	63 lb					



U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 FEDERAL LANDS HIGHWAY

U.S. CUSTOMARY STANDARD

INLET
TYPE 7A AND 7B
FOR 12" TO 36" CULVERT

STANDARD APPROVED FOR USE 6/2005
 REVISED: 6/2007

STANDARD
 604-8

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