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8401 Laguna Palms Way
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Modification or Addition to Improvement Standards and Details

Modification Number: **2014-01**

Effective Date: January 1, 2014


Modification:

1. Add Modified Type J Inlet language to Section 9-14 of the Improvement Standards. Add Standard Drawing No. SD-19.3 to Improvement Standards and Construction Specifications. Amendments are attached.

Effect of Modification:

1. Modified Type J Inlets allow adequate maintenance access when drain leads exceed 5' or deeper measured from gutter flowline.

Request for Modification Initiated By:


Construction Manager

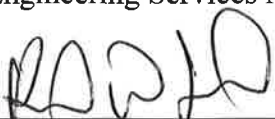
4/3/14
Date

Modification Reviewed for Conformity and Consistency to Standards:


Engineering Services Manager

4/3/14
Date

Modification to Improvement Standards Approved:


Public Works Director

4/4/14
Date

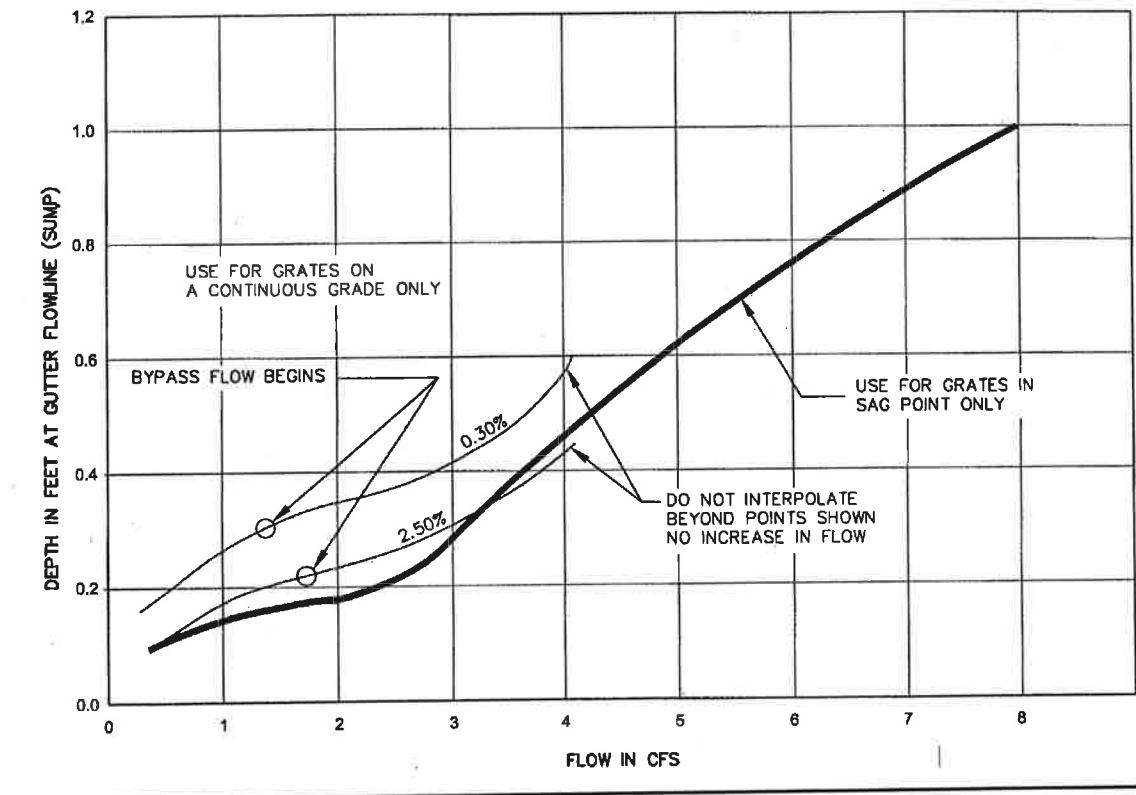
S. Junction boxes larger than ten feet (10') in any dimension shall have two manhole access points.

9-14 INLETS

- A. All inlet design curves in these Standards assume clean inlets. The Consulting Engineer shall assume a 50% clogging factor when determining the number and location of inlets.
- B. Additional inlets are required at sump locations per Section 9-11A of these Standards.
- C. Type B inlets are typically used for streets with concrete curbs and gutters. See Figure 9-3, for flow capacity.

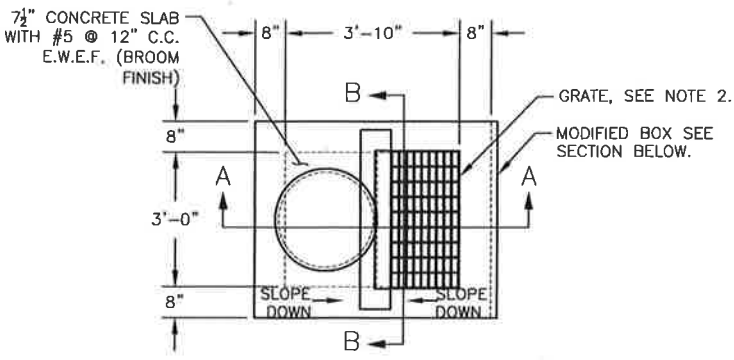
FIGURE 9-3

TYPE B INLET FLOWS

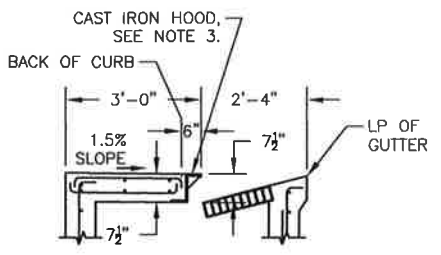


D. Type J Inlets are to be used when inlet invert exceeds 5' below gutter flow line.

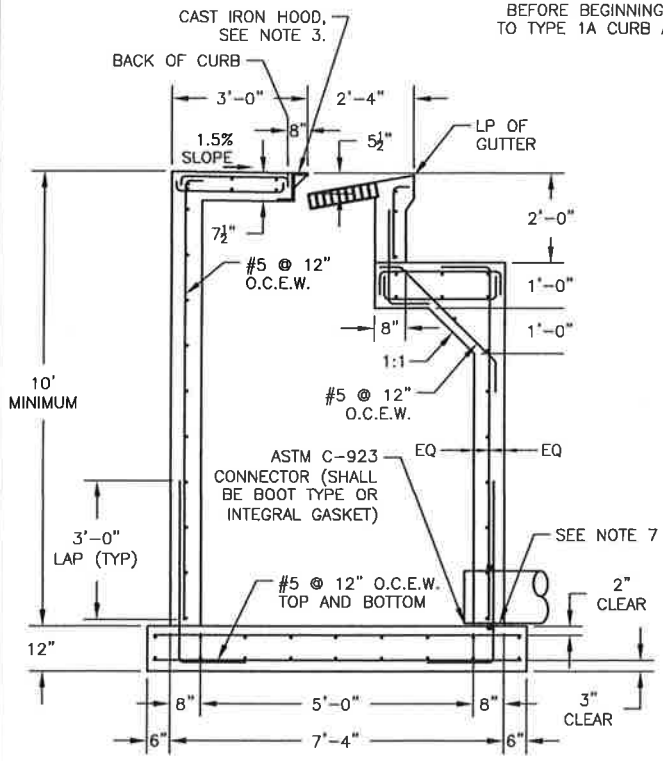
- E. Always use grated inlets when the longitudinal slope of the street exceeds 4% where due to the high velocities it is difficult to direct the flows into the curb opening.
- F. Type F inlets may be used in roadside ditches, swales, unimproved medians, and outside of the road right-of-way. Figure 9-1 provides design capacity for one two-foot wide window of a Type F inlet, clear of debris.
- G. Curb opening catch basins with grating(s) and debris skimmers (Drawings 300,301,308,309 in the Specifications) may be used in locations where additional inlet capacity, beyond a single Type B inlet, is needed, or as where directed by the Director. The inlet width may vary from seven feet (7') to twenty-eight feet (28'). The H dimension is the gutter depression depth and shall be a standard two inches (2"). When more than one grate is required, use Drawing SD-16 for support assembly. Assure that the lateral is sized to serve the increased inlet capacity. Flow capacity for the 300 and 301 inlets is calculated using the methods found in the Federal Highway Administration (FHWA) Urban Drainage Design Manual Hydraulic Engineering Circular No. 22.
- H. Inlets in Class "A" and "B" streets shall be placed at lot lines in residential subdivisions and at the curb return of intersections. Inlets shall be placed so that the length of flow does not exceed 500 feet, unless otherwise approved by the Director. Inlets at curb returns shall be constructed so that they are not in conflict with the Americans with Disabilities Act requirements for ramps. No face plates are allowed on inlets at the curb returns.
- I. Type F inlets shall be designed based on the following chart and Figure 9-4. The chart assumes clean openings, so some clogging shall be accounted for by adding a grated lid or increasing the window opening(s).



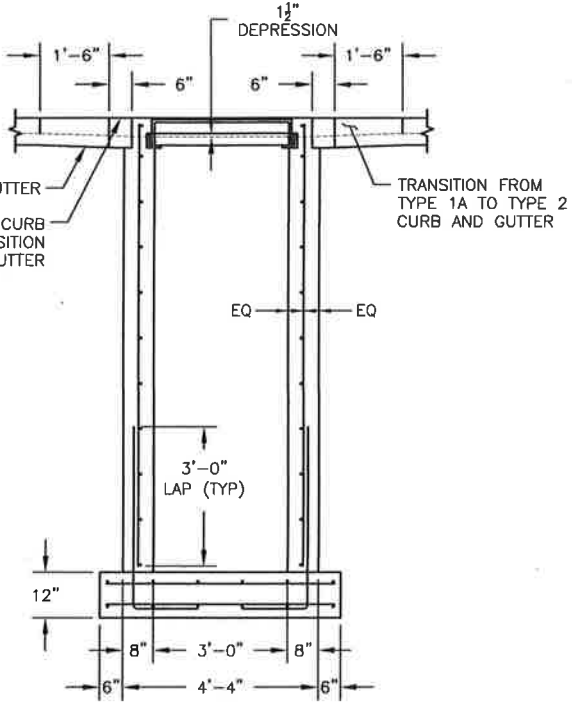
PLAN VIEW



SECTION A-A
TYPE 2 CURB AND GUTTER
(FOR INFORMATION NOT SHOWN OR NOTED REFER TO SECTION A-A TYPE 1A CURB AND GUTTER)



SECTION A-A
TYPE 1A CURB AND GUTTER



SECTION B-B

NOTES:

1. STANDARD DEPRESSION FOR INLET IS 1 1/2".
2. FRAME AND GRATE SHALL CONFORM TO STANDARD DRAWINGS SD-14 AND SD-15.
3. OPEN BACK CAST IRON HOOD SHALL BE H-20 RATED, 3/8" THICK AND CONFORM TO STANDARD DRAWING SD-12.
4. ALL EXPOSED EDGES SHALL HAVE A 1/8" RADIUS (MINIMUM).
5. AN EDGING TOOL SHALL BE USED ON ALL EDGES WHERE THE CONCRETE SIDEWALK AND CURB MEET THE TOP OF THE HOOD.
6. EXPOSED SURFACES OF THE GRATES, FRAMES, AND HOODS WITH THE PARTS ASSEMBLED DISASSEMBLED SHALL BE PAINTED WITH COMMERCIAL QUALITY ASPHALTUM PAINT AFTER TESTING AND ASSEMBLY.
7. THE MINIMUM PIPE SIZE IS 12" IF THE INLET DEPTH IS GREATER THAN 4', THE MINIMUM PIPE SIZE SHALL BE 15".
8. THE MANHOLE FRAME AND COVER SHALL BE PER STANDARD DRAWING SD-10.1 AND AD-10.2.

DATE: 12/17/2013		NOT TO SCALE	CITY OF ELK GROVE - PUBLIC WORKS	APPROVED BY: <i>[Signature]</i> 4/14/14 CITY ENGINEER
REVISION	BY	APPROVED		
MODIFIED TYPE J INLET			CITY OF ELK GROVE CALIFORNIA	DRAWING NUMBER SD - 19.3