

GENERAL NOTES

Live Loading:

HS 20-44 [MS 18]

Reinforcement (Grade 40):

$F_y = 40,000$ psi [275.8 MPa]

$F_s = 20,000$ psi [137.9 MPa]

Concrete (Class B):

$F'_c = 3250$ psi [22.4 MPa]

$F_c = 1300$ psi [9.0 MPa]

Structural Steel (A-36):

$F_y = 36,000$ psi [248.2 MPa]

$F_s = 20,000$ psi [137.9 MPa]

Curb Openings:

Provide a curb opening when specified.

Inlet Grates:

Fabricated grate and frame weight is approximately 340 pounds [154 kg]. Cast grate and frame weight is approximately 660 pounds [300 kg].

Inlet Types:

Type A: Cast in place or precast concrete box. Weight of the box excluding the lid and including 1 CY [0.8 m³]± of concrete and 80 pounds [36 kg]± of reinforcing steel is approximately 4000 pounds, [1800 kg].

Type B: A vertical pipe riser with a precast T-section connecting trunk or feeder line.

Type C: Vertical pipe section riser with a precast, cast in place or integrally cast base. Weight of the circular cast in place inlet, excluding the lid, and including 110 pounds [50kg]± reinforcing steel is approximately 3500 pounds [1600 kg].

Type D: Shallow depth inlet box with a T-section inlet feeder pipe connected to the bottom of the inlet box with the trunk line directly under the inlet.

Type E: Shallow depth inlet box with the feeder connected to the bottom of the inlet and the trunk line offset from the inlet.

Anchor Hooks:

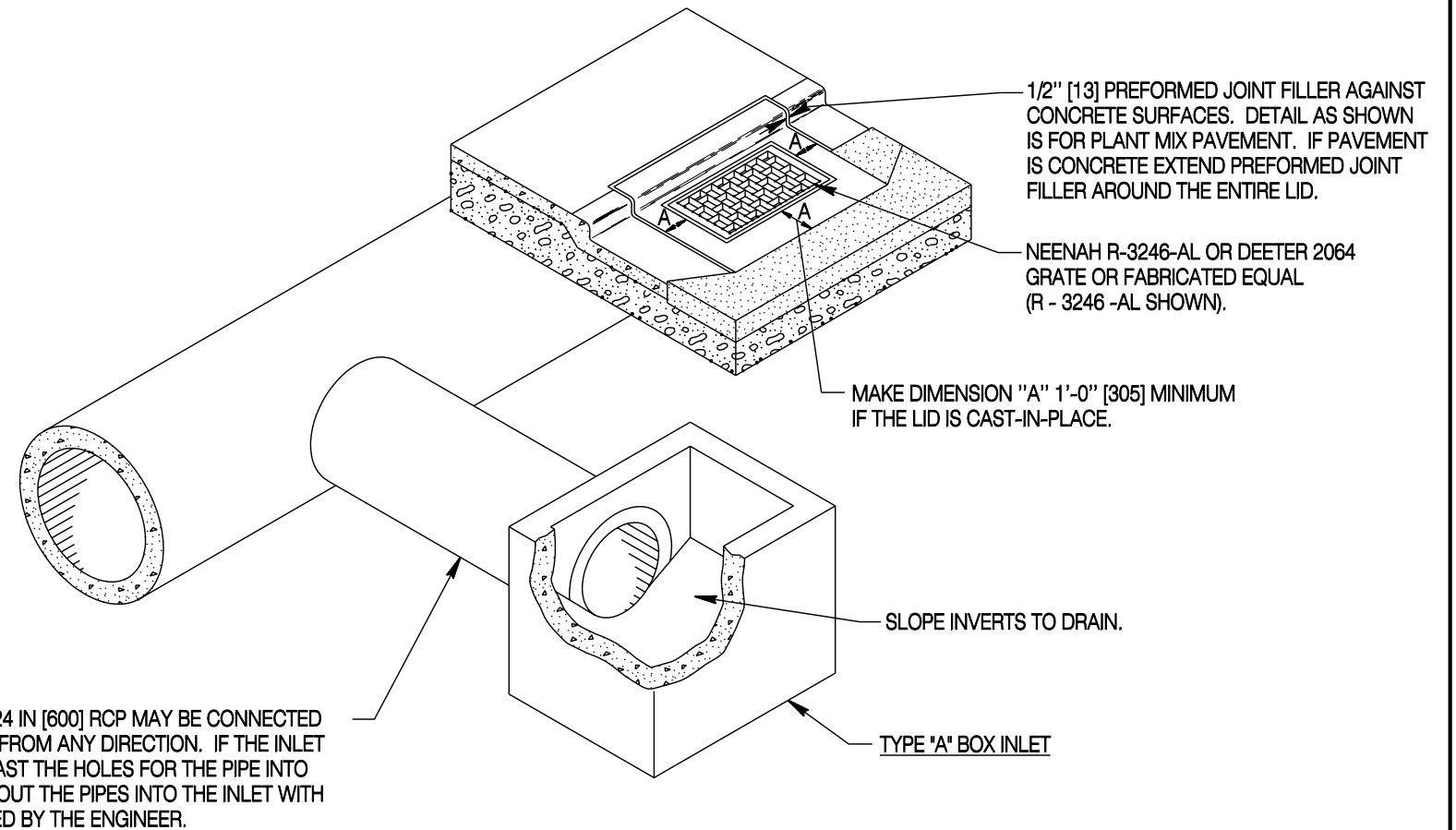
Standard, square, round or equivalent headed anchors may be substituted for the right angle hooks shown. Full penetration butt welds may be substituted for fillet welds on anchors. Anchor bolts may be deleted if the curb section is cast in place.

Reinforcing:

Use #4 [#13] reinforcing bars equally spaced.

Metric Dimensions:

Metric pipe dimensions are based on 1 in = 25 mm. Industry standards at the time of this contract may dictate the exact conversion of 1 in = 25.4 mm. Adjust metric dimensions shown herein accordingly.



A MAXIMUM OF A 24 IN [600] RCP MAY BE CONNECTED TO THE INLET BOX FROM ANY DIRECTION. IF THE INLET IS PRECAST, PRECAST THE HOLES FOR THE PIPE INTO THE INLET AND GROUT THE PIPES INTO THE INLET WITH A GROUT APPROVED BY THE ENGINEER.

INDEX

GENERAL LAYOUTS	— — — — —	SHEETS 1-2
TYPE "A", "D", & "E" INLET DETAILS	— —	SHEET 3
TYPE "B" CIRCULAR INLET DETAILS	—	SHEETS 4-5
TYPE "C" CIRCULAR INLET DETAILS	—	SHEETS 4-6
GRATE DETAILS	— — — — —	SHEET 7

Designed by:	CRR
Drawn by:	GLD
Checked by:	RRC
Previous Des. No.	625-02A

GENERAL LAYOUTS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



STORM SEWER CURB INLETS

STANDARD PLAN

STANDARD PLAN NUMBER

625-2

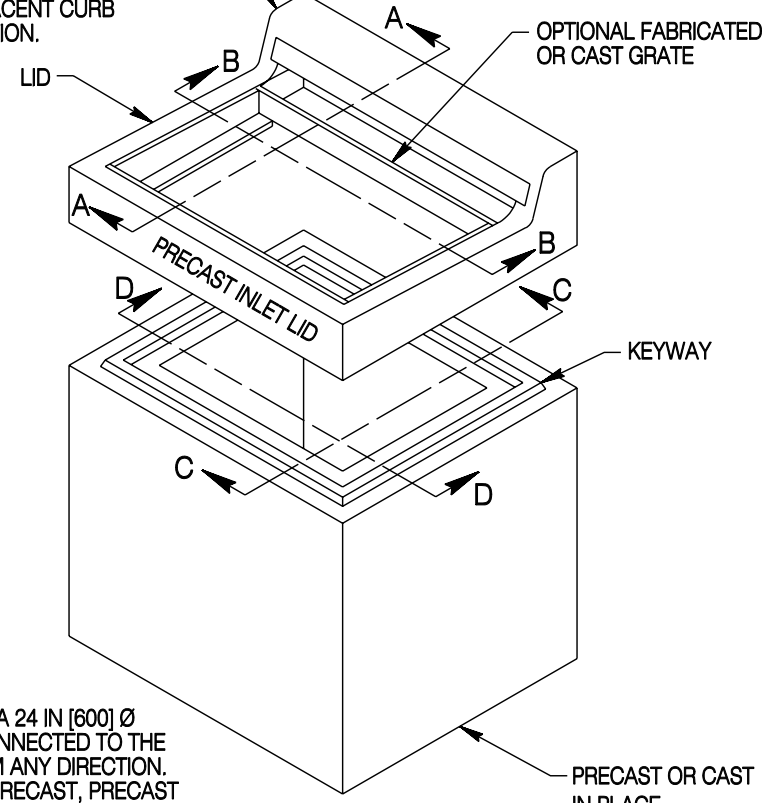
SHEET 1 of 7

Issued by: ENGINEERING SERVICES

Date Issued: NOVEMBER, 2004

FILE: j:\StanDual_Std_WK6252_01.dgn

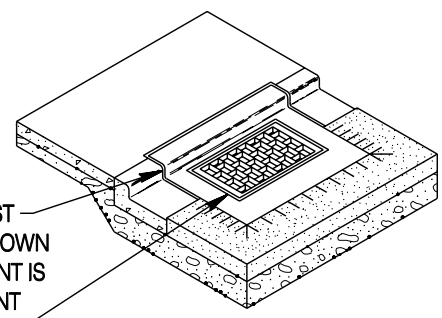
ENSURE CURB DIMENSIONS ARE THE SAME AS THE ADJACENT CURB SECTION.



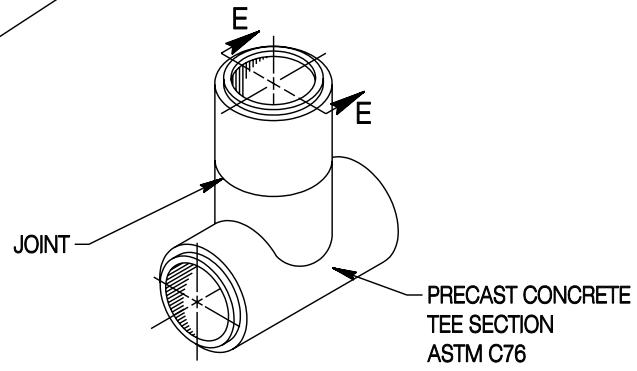
TYPE 'A' INLET

NOTE: A MAXIMUM OF A 24 IN [600] Ø RCP MAY BE CONNECTED TO THE INLET BOX FROM ANY DIRECTION. IF THE INLET IS PRECAST, PRECAST THE HOLES FOR THE PIPE INTO THE INLET AND GROUT THE PIPES INTO THE INLET WITH A GROUT APPROVED BY THE ENGINEER.

1/2" [13] PREFORMED JOINT FILLER AGAINST ALL CONCRETE SURFACES. DETAIL AS SHOWN IS FOR PLANT MIX PAVEMENT. IF PAVEMENT IS CONCRETE, EXTEND THE PREFORMED JOINT FILLER AROUND THE ENTIRE LID.

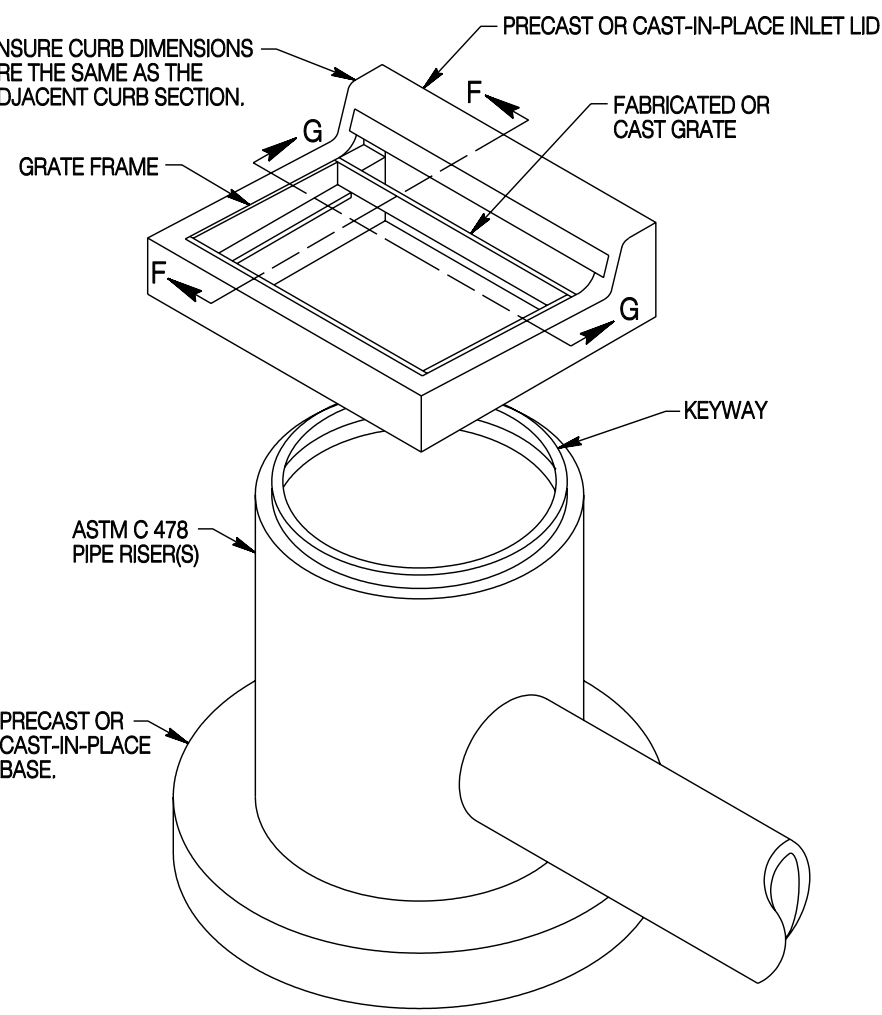


CAST GRATE SHOWN



TYPE 'B' INLET

ENSURE CURB DIMENSIONS ARE THE SAME AS THE ADJACENT CURB SECTION.



TYPE 'C' INLET

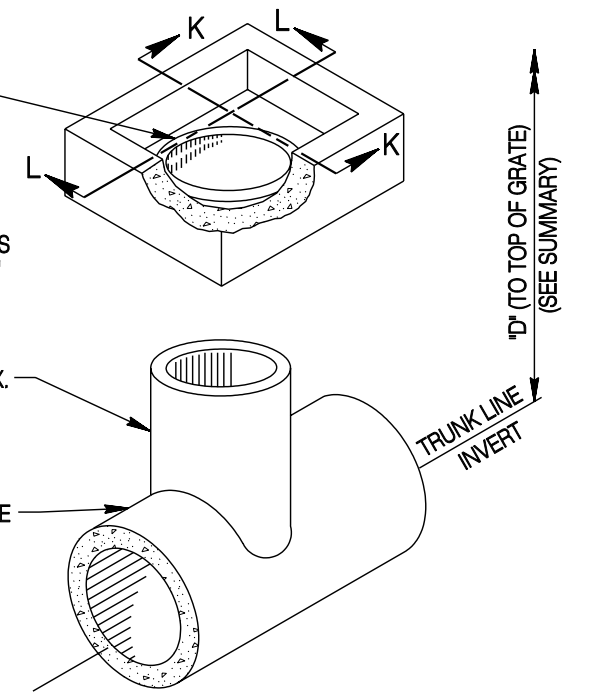
NOTE: A MAXIMUM OF A 24 IN [600] Ø RCP MAY BE CONNECTED TO THE INLET BARREL FROM ANY DIRECTION. IF THE INLET IS PRECAST, PRECAST THE HOLES FOR THE PIPE INTO THE INLET AND GROUT THE PIPES INTO THE INLET WITH A GROUT APPROVED BY THE ENGINEER.

SLOPE INVERTS TO FACILITATE THE MOVEMENT OF WATER TOWARD THE OUTLET PIPE.

LID, FRAME AND GRATE DETAILS ARE THE SAME AS FOR TYPE 'A' INLETS.

18" [450] MIN.- 24" [600] MAX. RCP INLET RISER

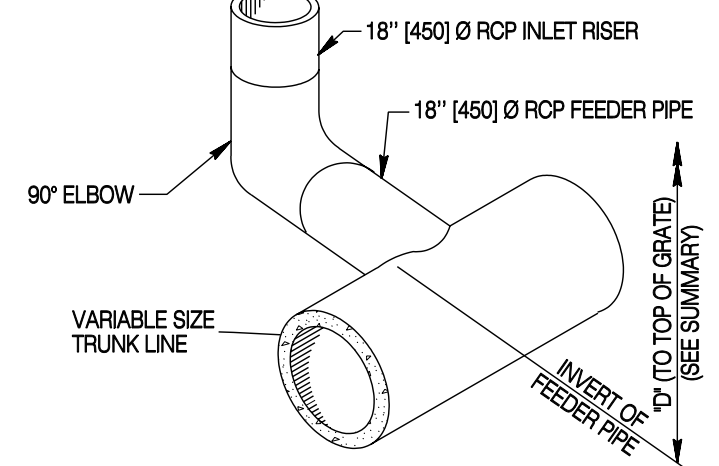
VARIABLE SIZE TRUNK LINE



TYPE 'D' INLET

LID, FRAME AND GRATE DETAILS ARE THE SAME AS FOR TYPE 'A' INLETS.

SLOPE INVERTS TO FACILITATE THE MOVEMENT OF WATER TOWARD THE OUTLET PIPE.



TYPE 'E' INLET

Designed by: CRR
 Drawn by: GLD
 Checked by: RRC
 Previous Dep. No. 625-02A

GENERAL LAYOUTS

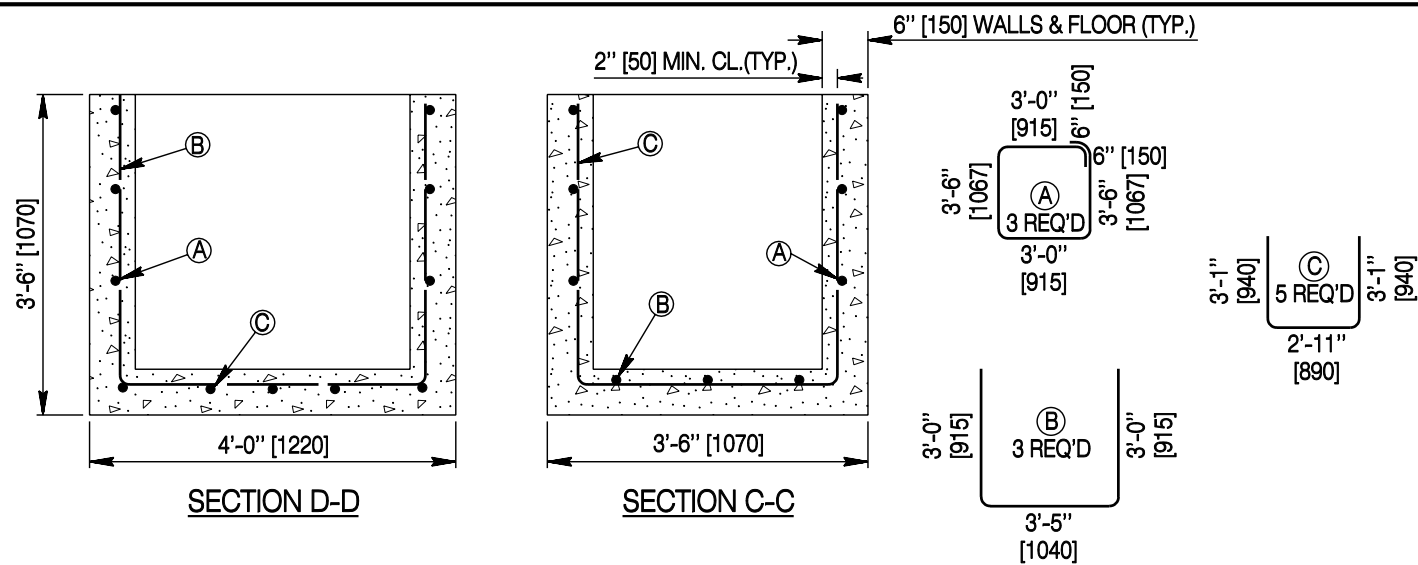
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



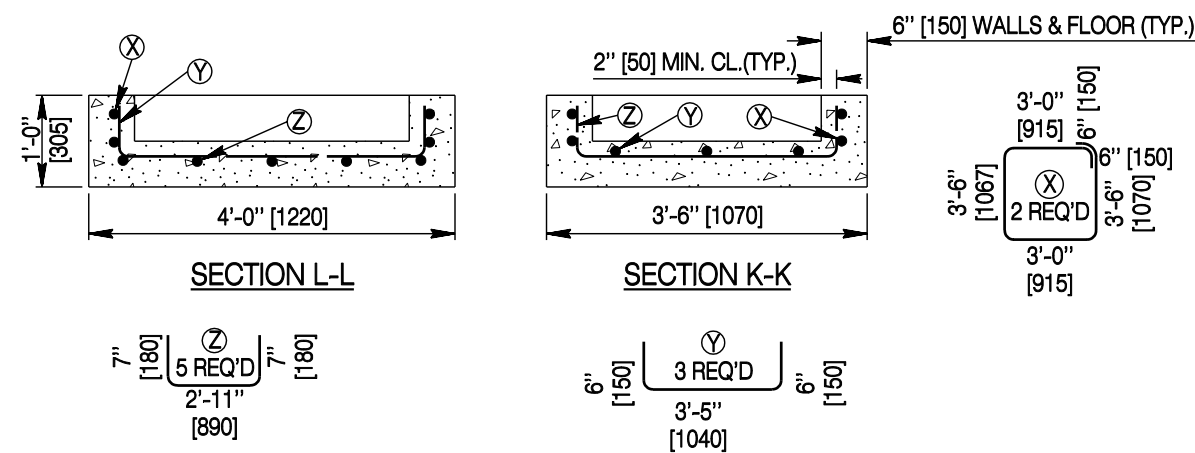
STORM SEWER CURB INLETS

STANDARD PLAN

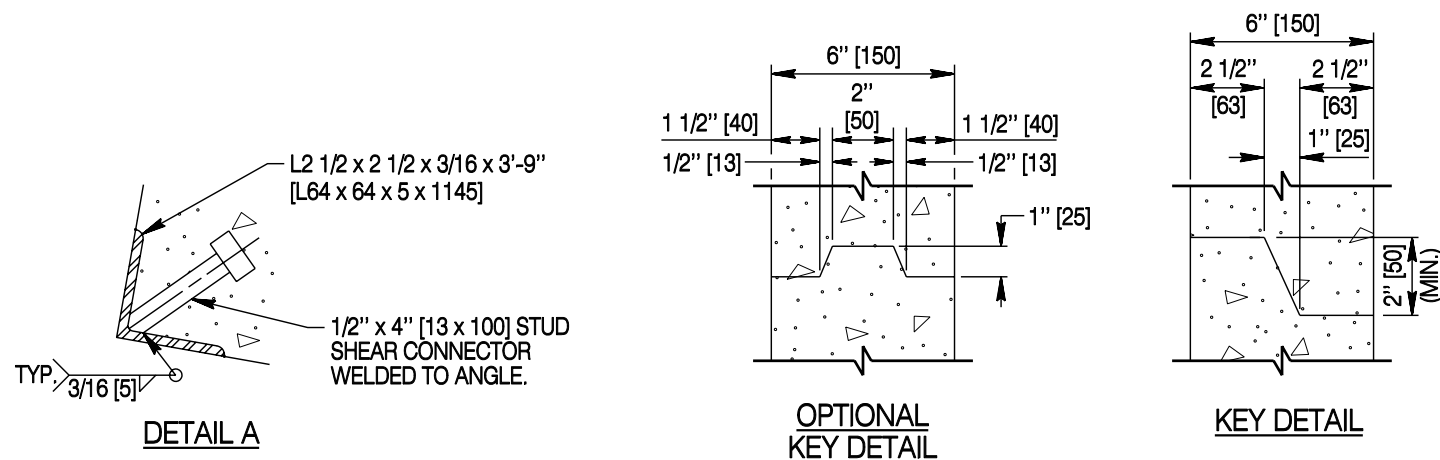
STANDARD PLAN NUMBER
625-2
 SHEET 2 of 7
 Issued by: ENGINEERING SERVICES
 Date Issued: NOVEMBER, 2004
 FILE: J:\StanDual_Std_Wrk\6252_02.dgn



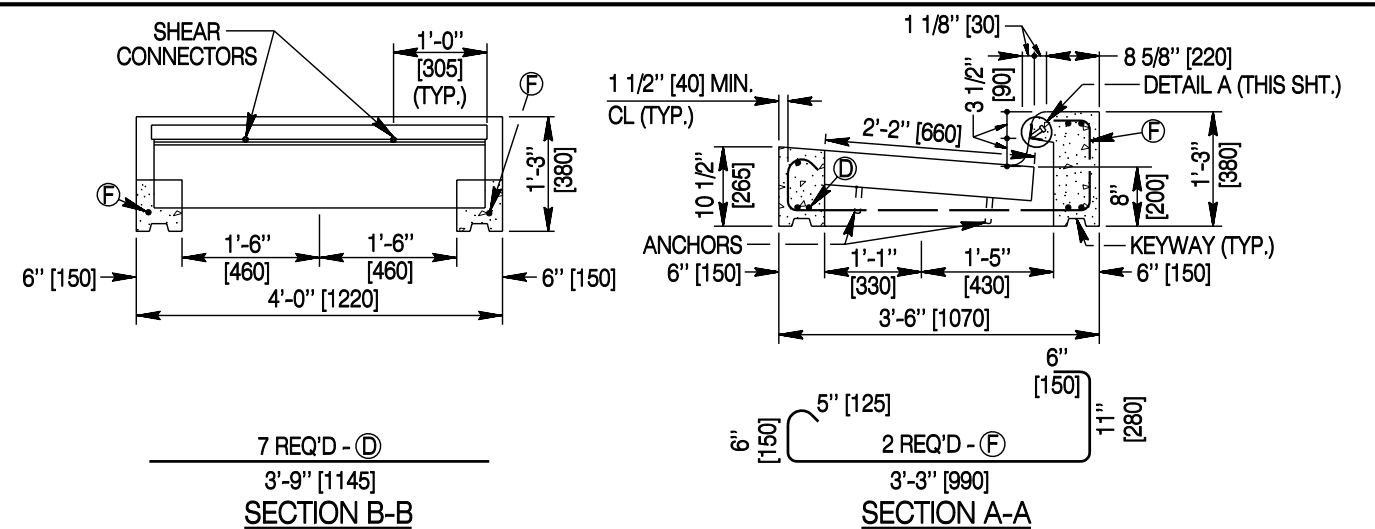
TYPE "A" INLET WITH CAST OR FABRICATED GRATE WITHOUT CURB OPENING OR CAST GRATE WITH CURB OPENING



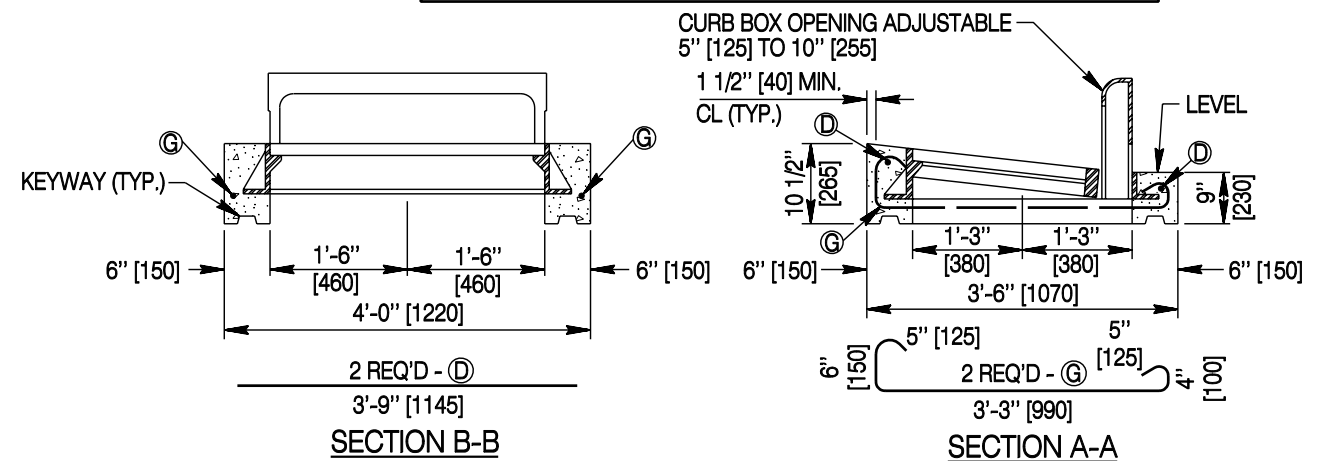
TYPE "D" AND "E" INLET BOX



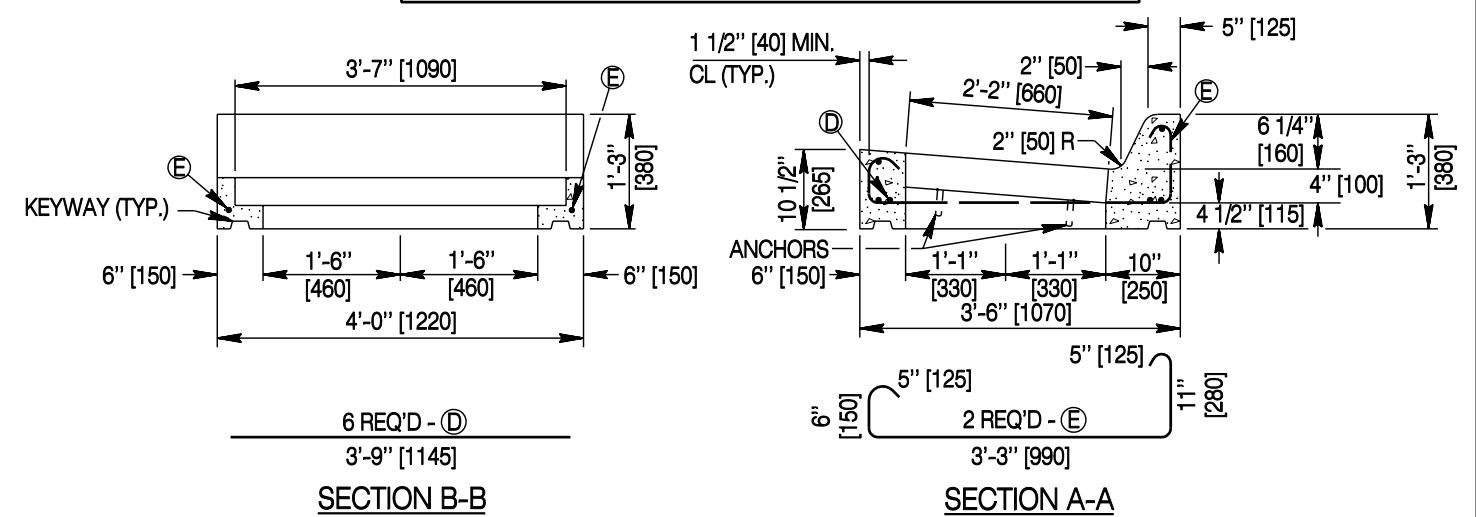
FOR TYPE "A", "D" & "E" BOX INLETS



PRECAST INLET LID WITH FABRICATED GRATE AND CURB OPENING FOR TYPE "A", "D" & "E" INLET



PRECAST INLET LID WITH CAST GRATE WITH CURB OPENING FOR TYPE "A", "D" & "E" INLET



PRECAST INLET LID WITH FABRICATED GRATE WITHOUT CURB OPENING FOR TYPE "A", "D" & "E" INLET

Designed by: CRR
 Drawn by: GLD
 Checked by: RRC
 Previous Des. No. 625-02A

TYPE "A", "D" & "E" INLET DETAILS

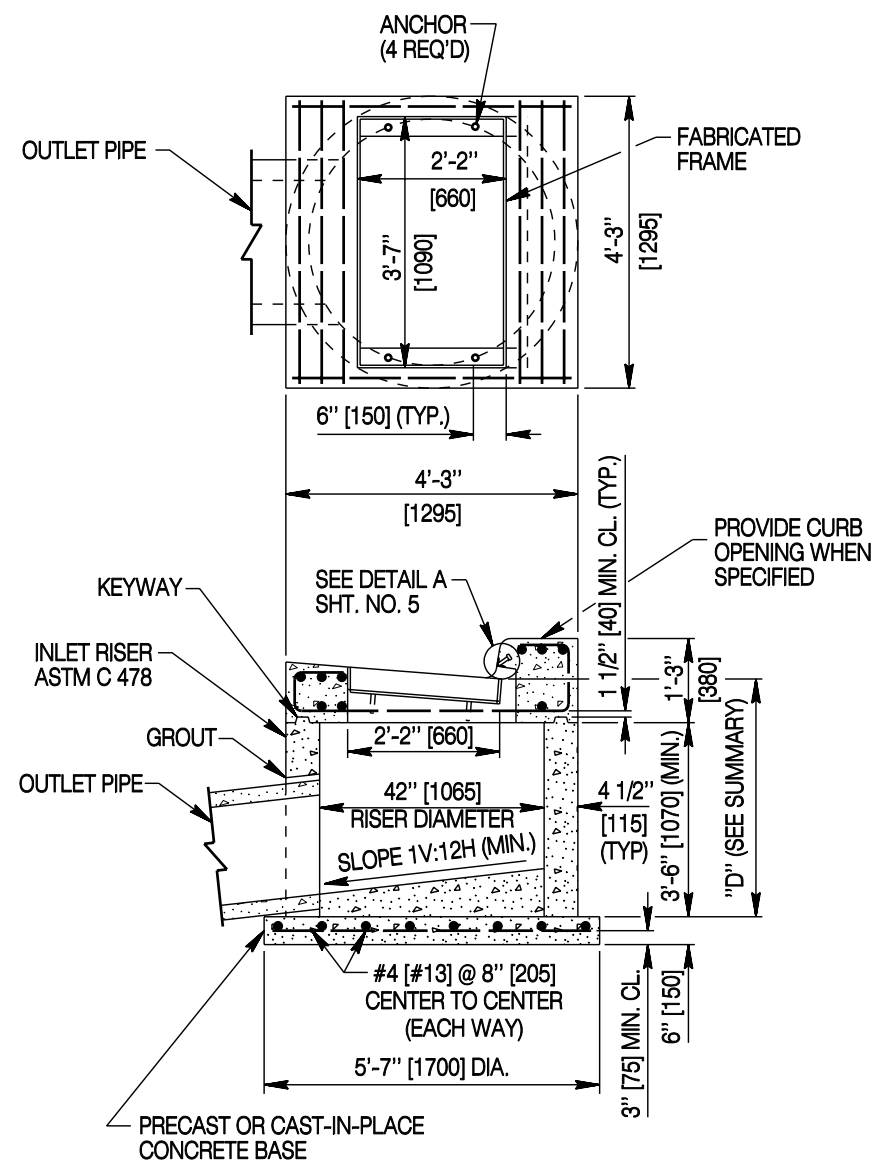
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



STORM SEWER CURB INLETS

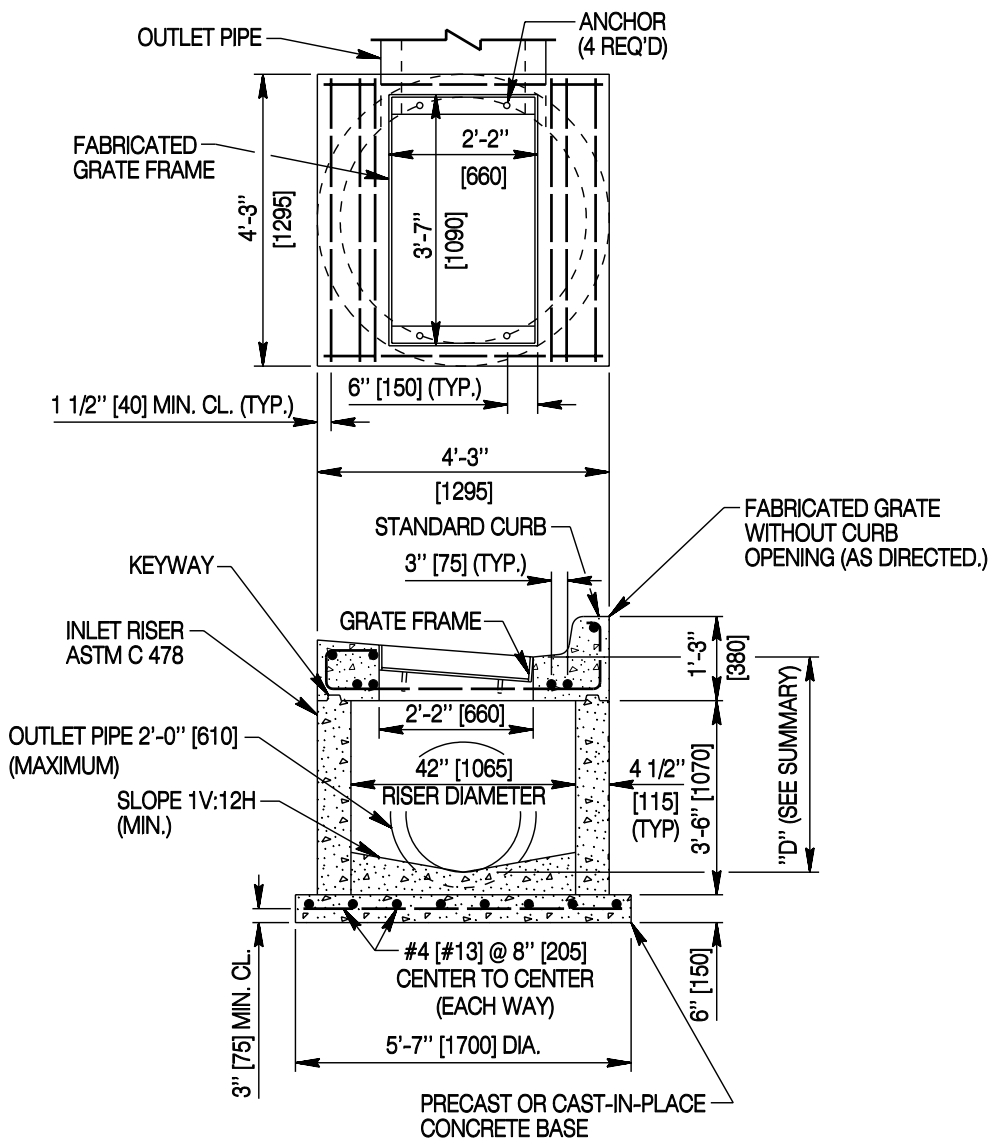
STANDARD PLAN

STANDARD PLAN NUMBER
625-2
 SHEET 3 of 7
 Issued by: ENGINEERING SERVICES
 Date Issued: NOVEMBER, 2004
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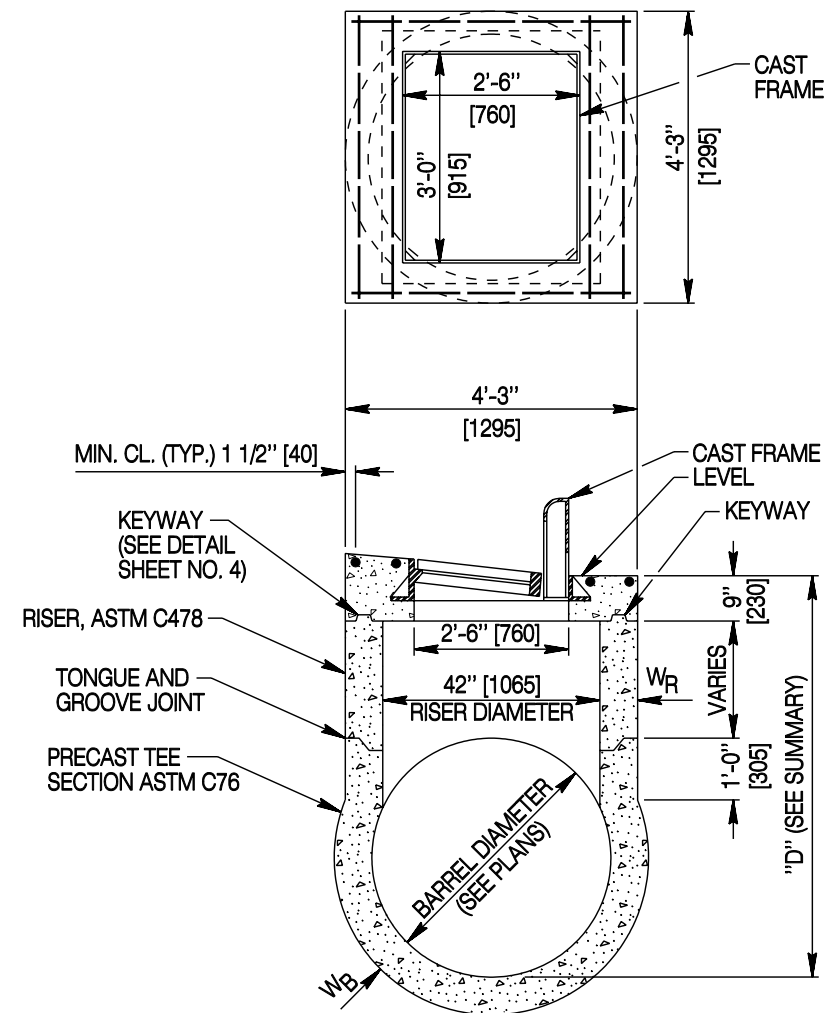
SECTION G-G

TYPE "C" INLET WITH FABRICATED GRATE AND CURB OPENING



SECTION G-G

TYPE "C" INLET WITH FABRICATED GRATE WITHOUT CURB OPENING



SECTION E-E

TYPE "B" INLET WITH CAST GRATE

TABLE A					
DIAMETER OF BARREL		W _B		W _R	
IN	mm	IN	mm	IN	mm
42	1050	4 1/2	115	4 1/2	115
48	1200	5	125	4 1/2	115
60	1500	6	150	4 1/2	115

Notes

- Anchor Bolts:** Anchor bolts may be deleted if lid is cast-in-place or slip formed.
- Curb Opening:** When directed by the engineer, provide a curb opening in the cast grate or the optional fabricated grate.
- Lid Details:** Lid details shown on sheet 5.

Designed by: CRR
 Drawn by: GLD
 Checked by: RRC
 Previous Dwg. No. 625-02A

TYPE "B" & "C" CIRCULAR INLET DETAILS

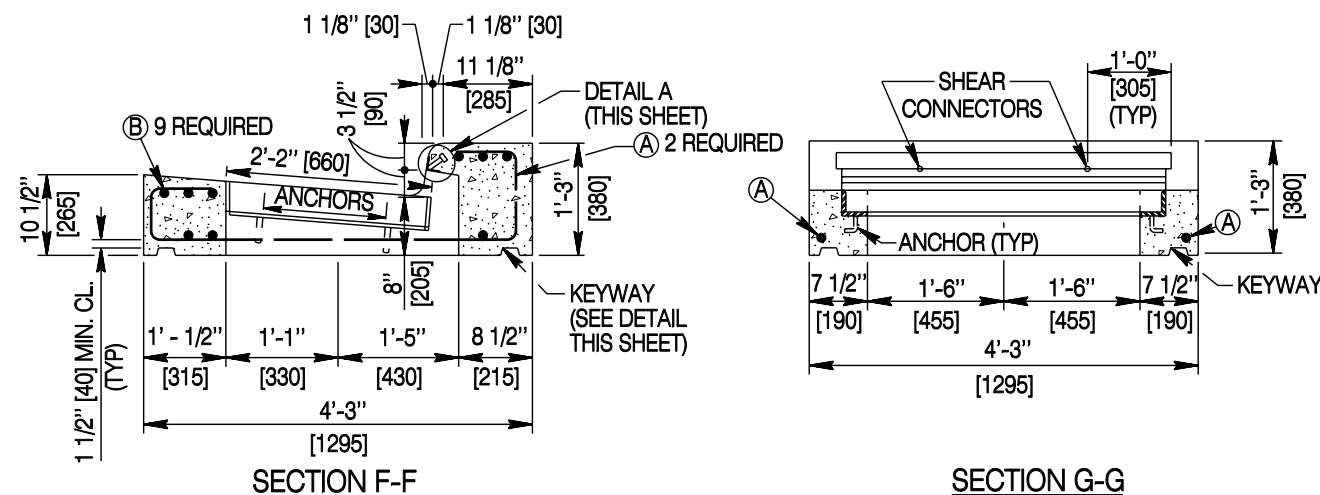
Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



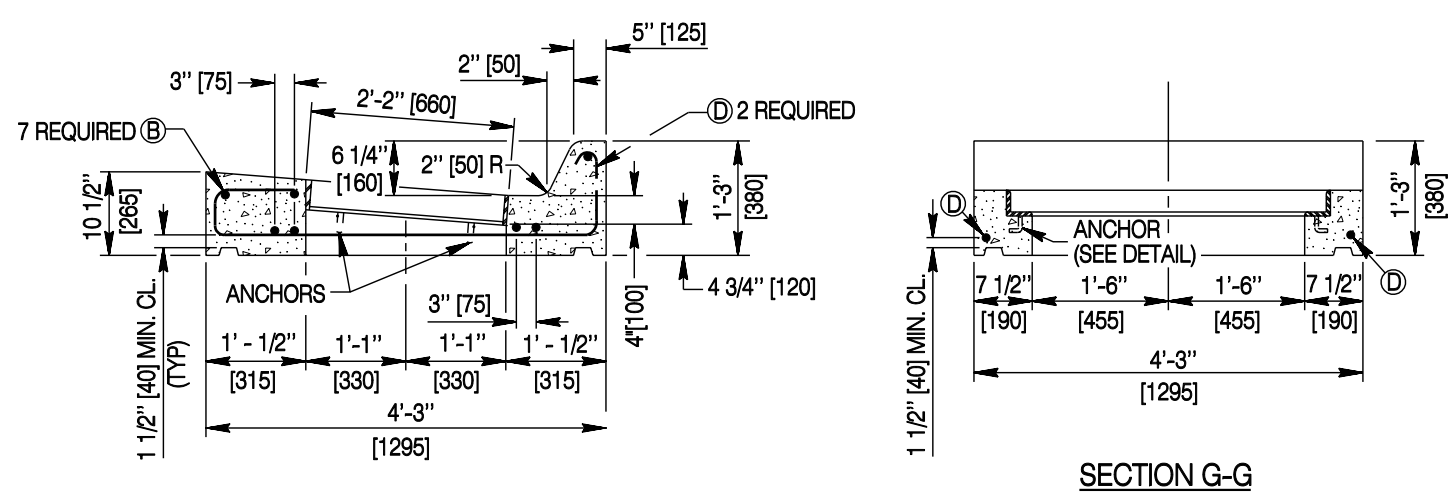
STORM SEWER CURB INLETS

STANDARD PLAN

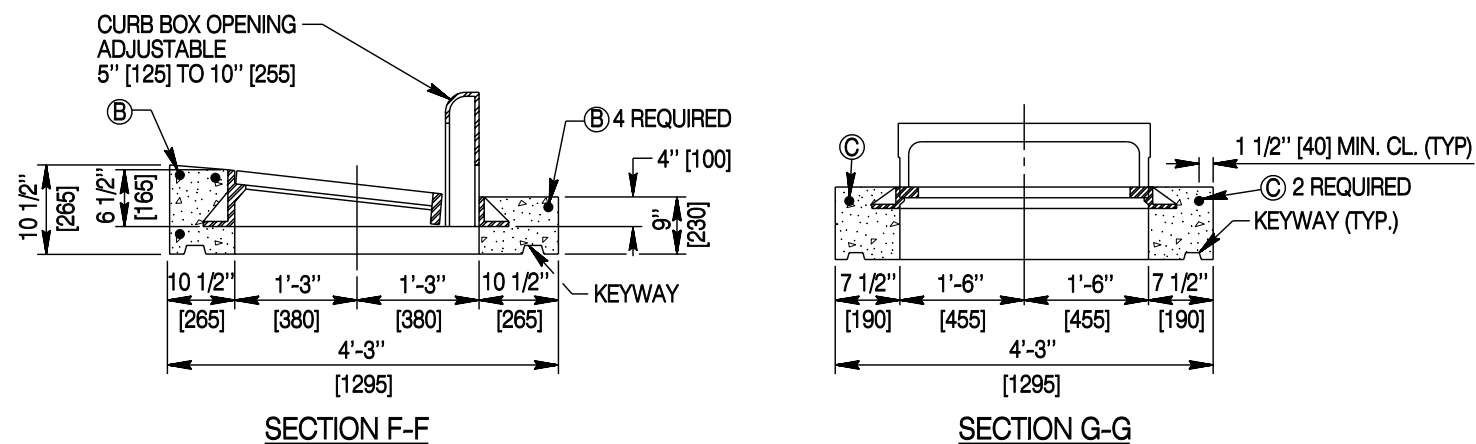
STANDARD PLAN NUMBER
625-2
 SHEET 4 of 7
 Issued by: ENGINEERING SERVICES
 Date Issued: NOVEMBER, 2004
 FILE: j:\StanDual_Std_Wrk\6252_04.dgn



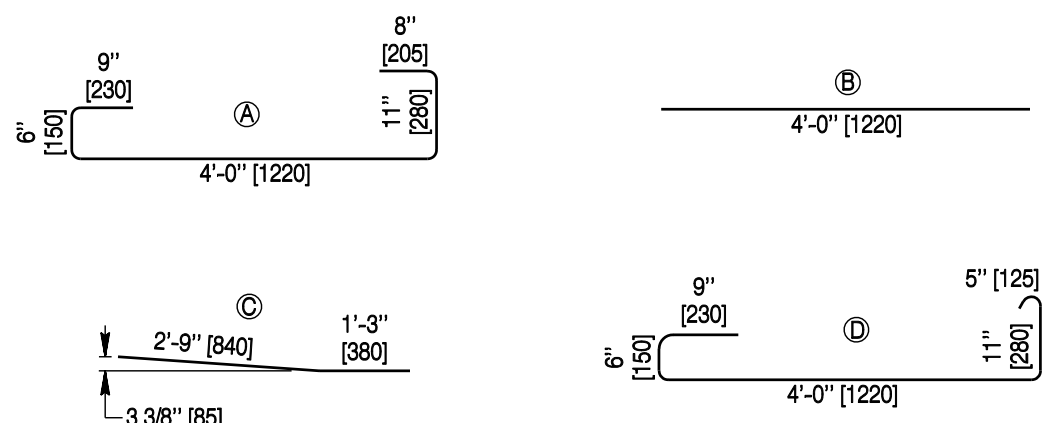
PRECAST INLET LID WITH FABRICATED GRATE AND CURB OPENING FOR TYPE 'B' OR TYPE 'C' INLET



PRECAST INLET LID WITH FABRICATED GRATE WITHOUT CURB OPENING FOR TYPE 'B' OR TYPE 'C' INLET



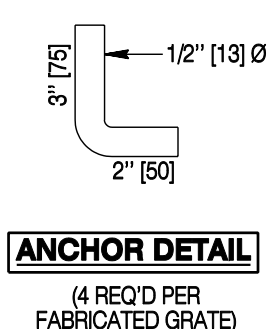
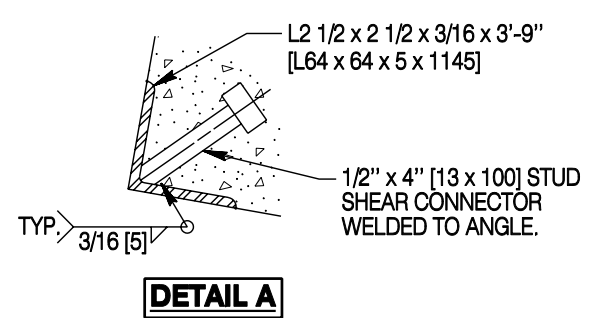
PRECAST INLET LID WITH CAST GRATE WITH CURB OPENING FOR TYPE 'B' OR TYPE 'C' INLET



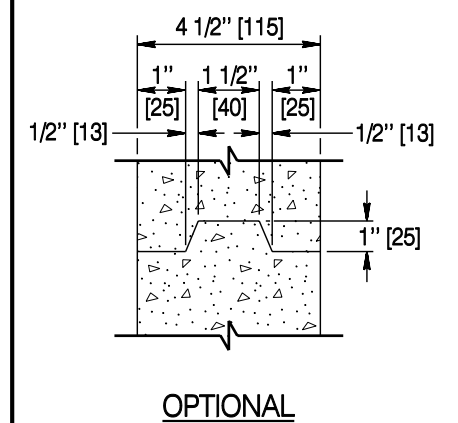
REINFORCING STEEL DETAILS

PRECAST CURB SECTIONS

NOTE: WARP CURB SECTIONS AND ROAD SURFACES TO MATCH ELEVATIONS OF PRECAST INLET LIDS.



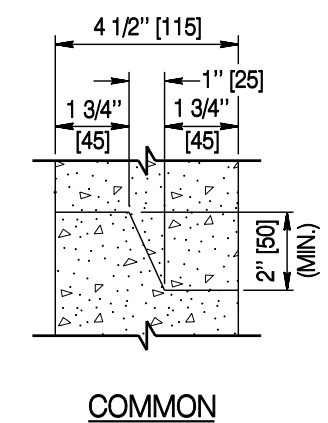
ANCHOR DETAIL
(4 REQ'D PER FABRICATED GRATE)



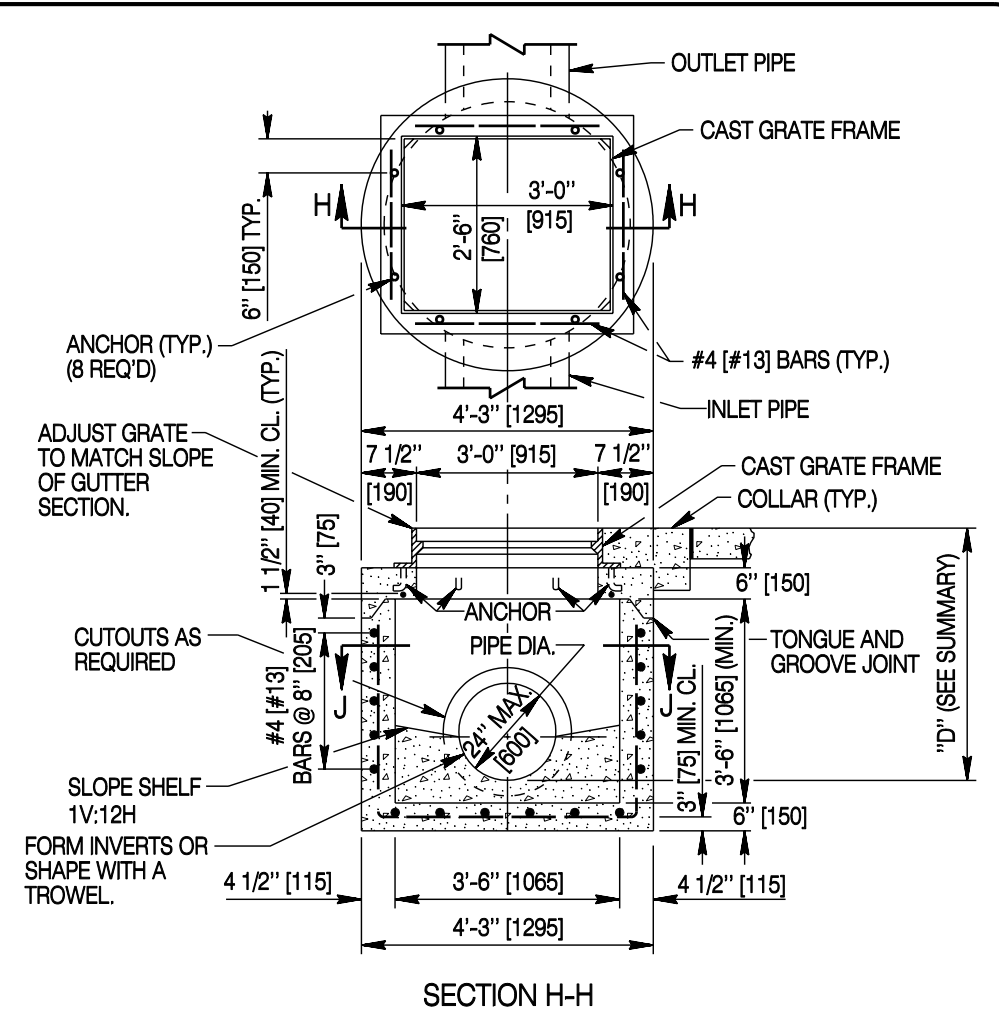
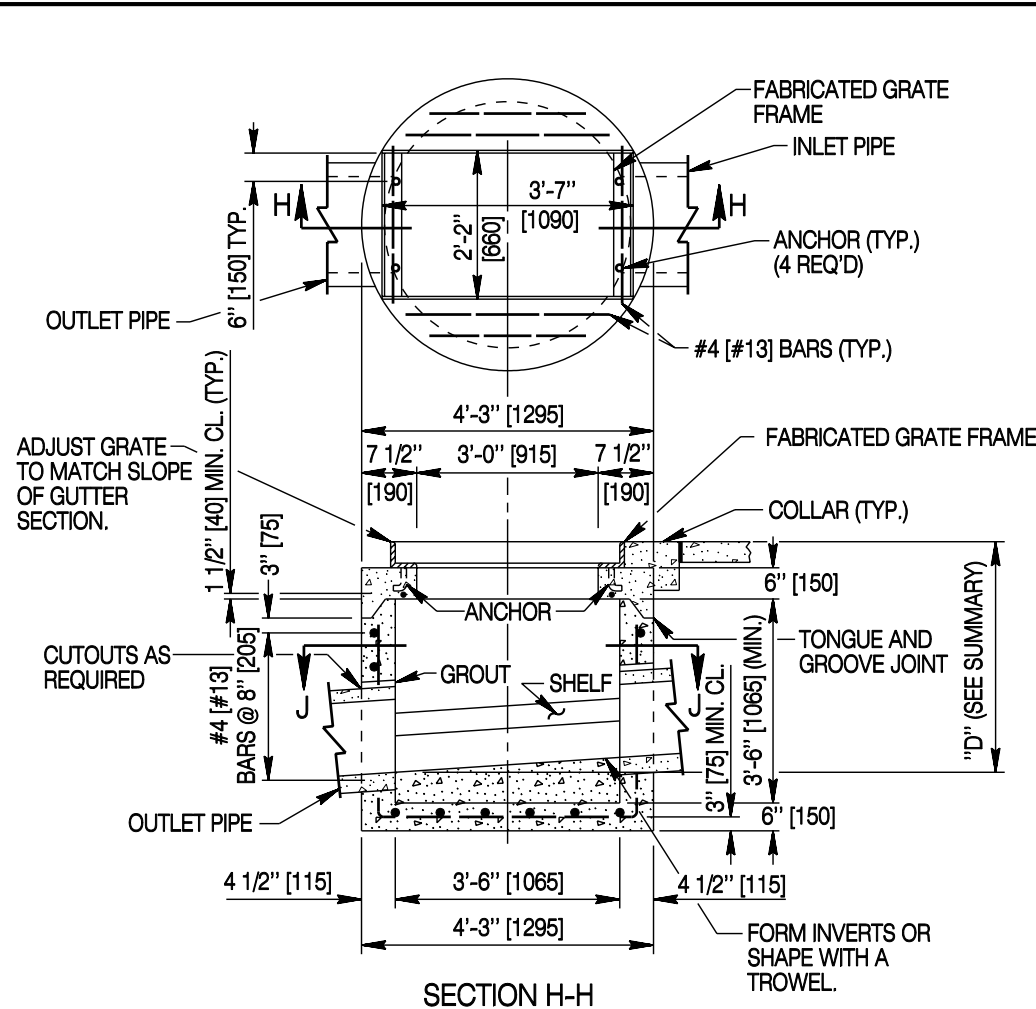
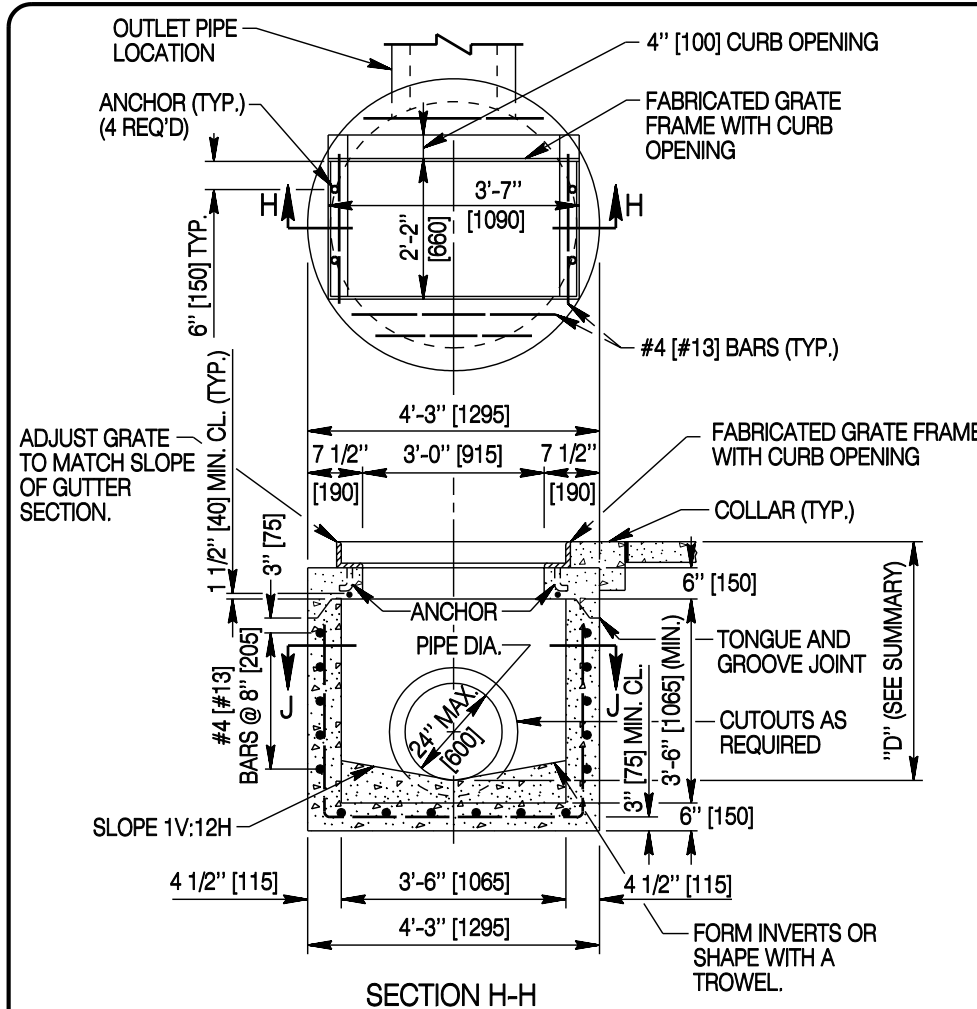
OPTIONAL

KEYWAY DETAILS FOR TYPE 'B' & 'C' CIRCULAR INLETS

THE KEY JOINT MAY BE DELETED, BUT ENSURE PROPER PLACEMENT AND PROPER BEARING OF THE LID ON THE INLET.



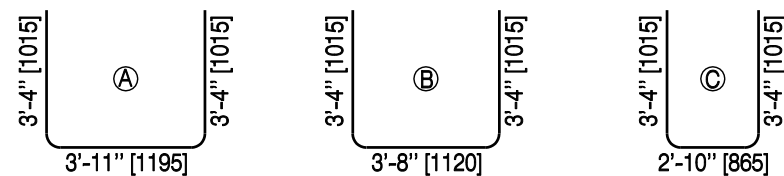
COMMON



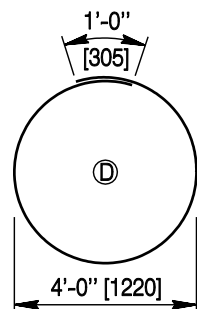
**TYPE 'C' INLET WITH FABRICATED GRATE WITH CURB OPENING
(WITH INTEGRAL BASE AND CAST-IN-PLACE CURB SECTION LID)**

**TYPE 'C' INLET WITH FABRICATED GRATE WITHOUT CURB OPENING
(WITH INTEGRAL BASE AND CAST-IN-PLACE CURB SECTION LID)**

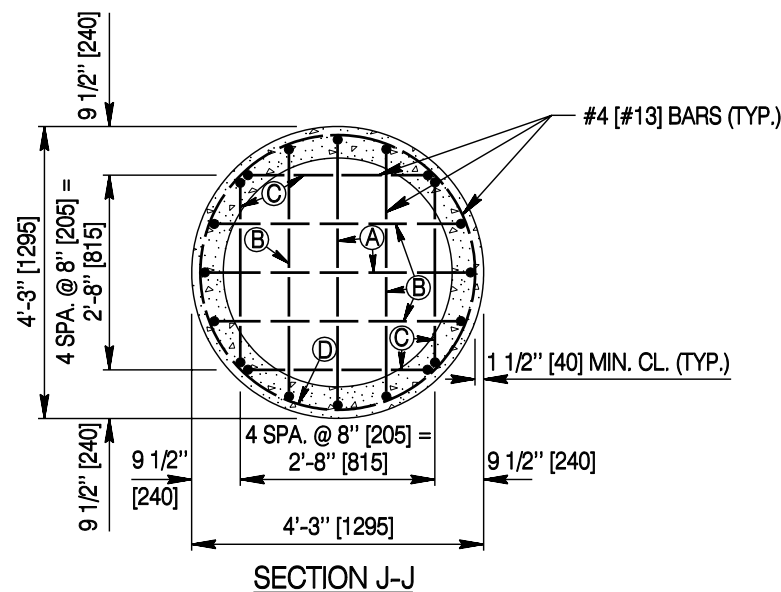
**TYPE 'C' INLET WITH CAST GRATE WITH OR WITHOUT CURB OPENING
(WITH INTEGRAL BASE AND CAST-IN-PLACE CURB SECTION LID)**



NOTE: ALL DIMENSIONS ARE OUT TO OUT.
ALL BARS SHALL BE #4 [#13].



BENDING DIAGRAMS



INTEGRAL BASE

Notes:

- 1) Risers meeting the requirements of ASTM C478 (or C79 Class II) with exposed reinforcing steel may be cast separately.
- 2) The tongue and groove joint between the riser and lid and the anchor bolts may be omitted; ensure that proper placement and complete bearing of lid is provided.
- 3) Measure the "D" dimension from invert elevation to top of grate.
- 4) Lid details are shown on Sheet 5.

Designed by: CRR
Drawn by: GLD
Checked by: RRC
Previous Des. No. 625-02A

TYPE "C" CIRCULAR INLET DETAILS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



STORM SEWER CURB INLETS

STANDARD PLAN

STANDARD PLAN NUMBER

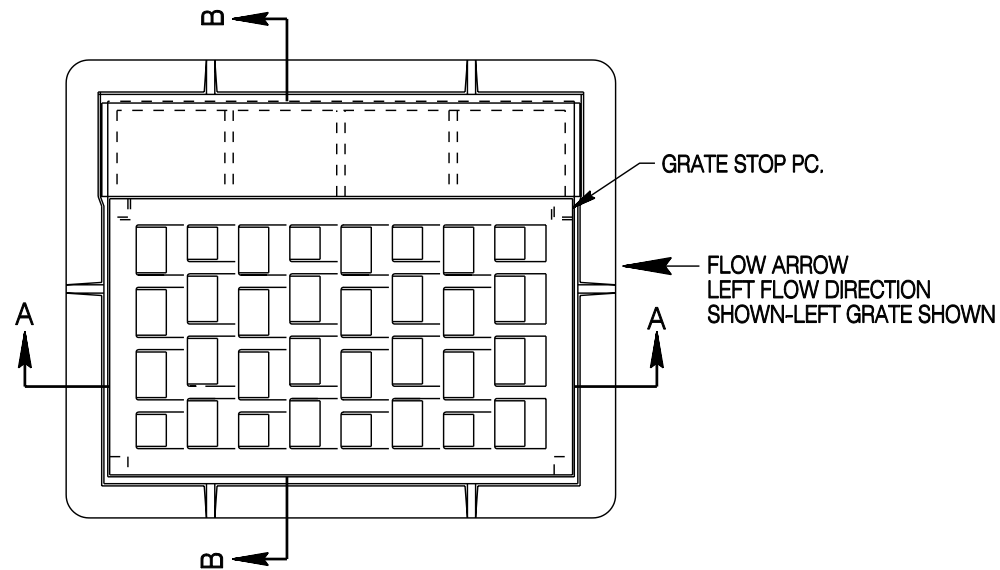
625-2

SHEET 6 of 7

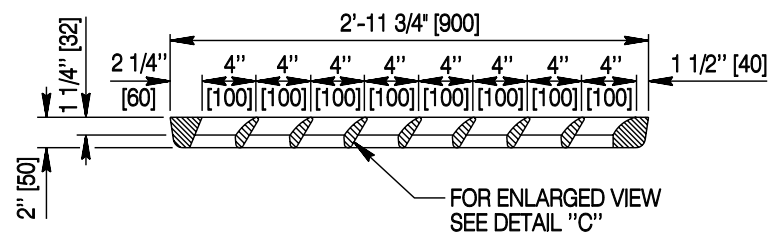
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Date Issued: NOVEMBER, 2004

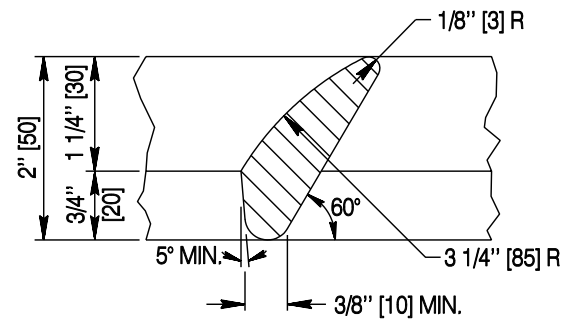
FILE: j:\StanDual_Std_Vwk6252_06.dgn



TOP VIEW



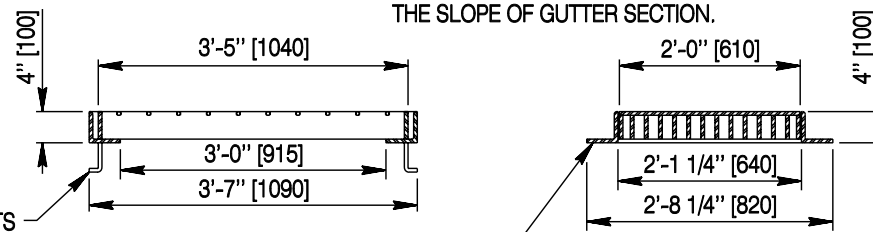
GRATE DETAIL



DETAIL "C"

NOTE: INCLUDE A REMARK ON THE INLET SUMMARY DESIGNATING WHETHER THE GRATE IS RIGHT, R, OR LEFT, L. A RIGHT, R, INLET DESIGNATES FLOW TO THE RIGHT WHEN LOOKING AT THE CURB AND A LEFT, L, INLET INDICATES FLOW TO THE LEFT WHEN LOOKING AT THE CURB.

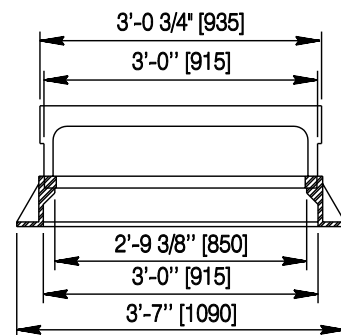
NOTE: SET THE SLOPE OF THE GRATE TO MATCH THE SLOPE OF GUTTER SECTION.



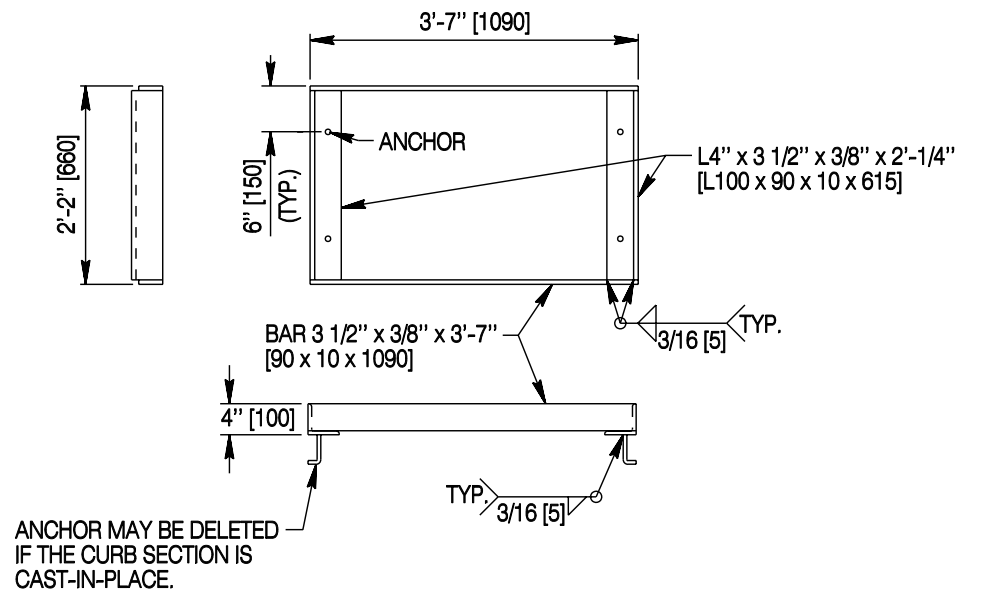
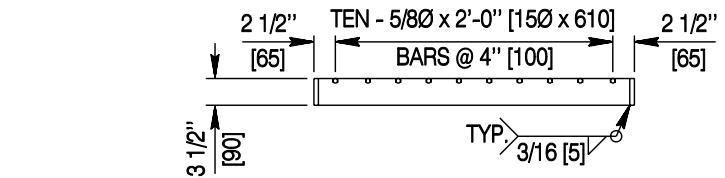
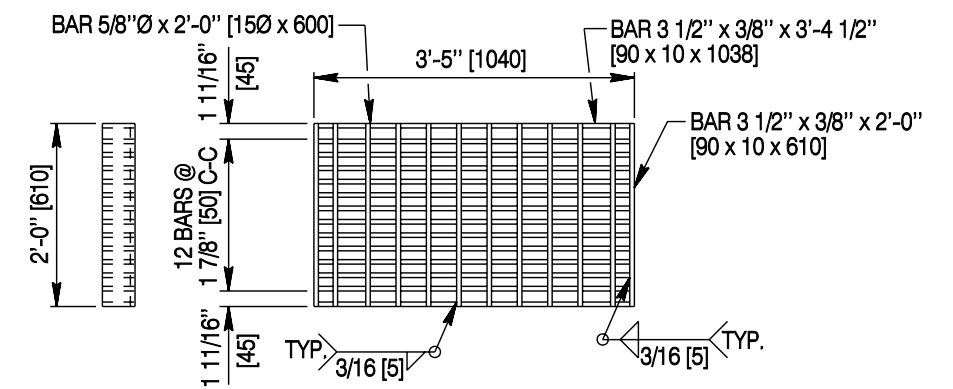
ANCHOR BOLTS MAY BE OMITTED IF CURB SECTION IS CAST-IN-PLACE.

L4" x 3 1/2" x 3/8" x 3'-7" [L100 x 90 x 10 x 1090] REPLACES THE 3 1/2" x 3/8" x 3'-7" [90 x 10 x 1090] BAR WHEN CURB IS CAST-IN-PLACE

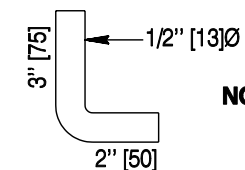
FABRICATED GRATE



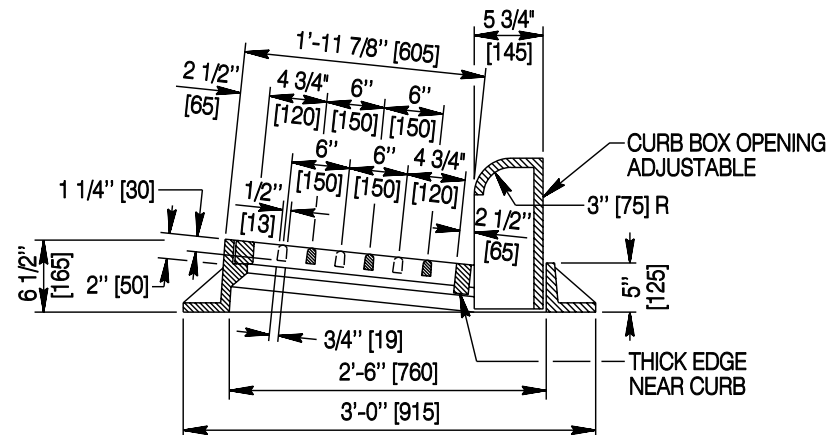
NEENAH #R-3246-AL FRAME OR EQUIVALENT WITH CURB OPENING



FABRICATED GRATE



ANCHOR DETAIL
(4 REQ'D PER FABRICATED GRATE)



SECTION B-B

NEENAH R-3246-AL OR DEETER 2064 INLET GRATE

(OR EQUIVALENT)
FOR HS20 [MS 18] LOADING

Designed by: CRR
Drawn by: GLD
Checked by: RRC
Previous Des. No. 625-02A

GRATE DETAILS

Note: Units shown in brackets [] are metric and are in millimeters (mm) unless other units are shown.



STORM SEWER CURB INLETS

STANDARD PLAN

STANDARD PLAN NUMBER

625-2

SHEET 7 of 7

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