

Extension unit may be used on either or both sides of intake. Details are similar when extension unit is on the opposite side. For joint details, refer to PV-101.

- ① Match gutter slope. Drain to well.
- ② Other lengths of opening may be constructed by varying the length of the extension and the rebar.
- ③ Includes 2 inches for 'E'D' Joints.
- ④ 12 inch minimum wall height above all pipes.

MAXIMUM PIPE DIAMETERS	
Precast Structure	Cast-in-place Structure
30"	36"

ISOMETRIC INTAKE WELL, WALLS AND TOP

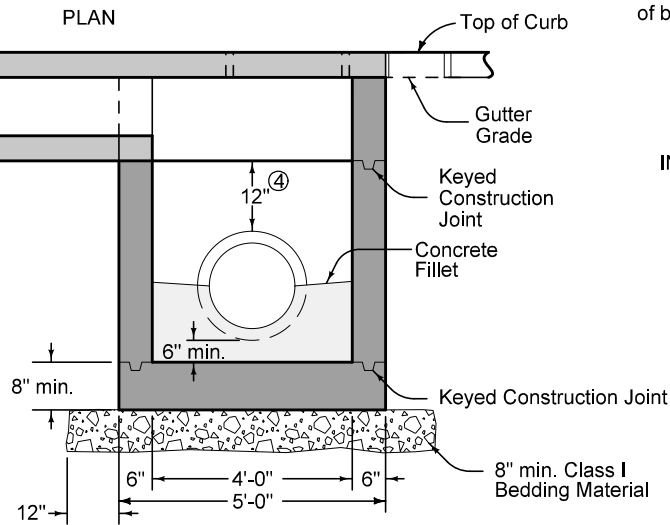
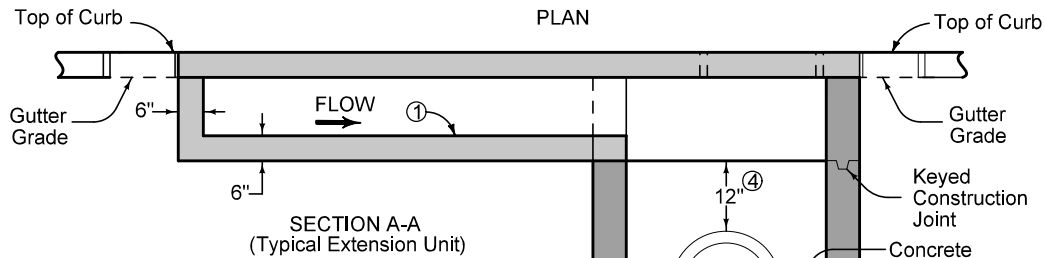
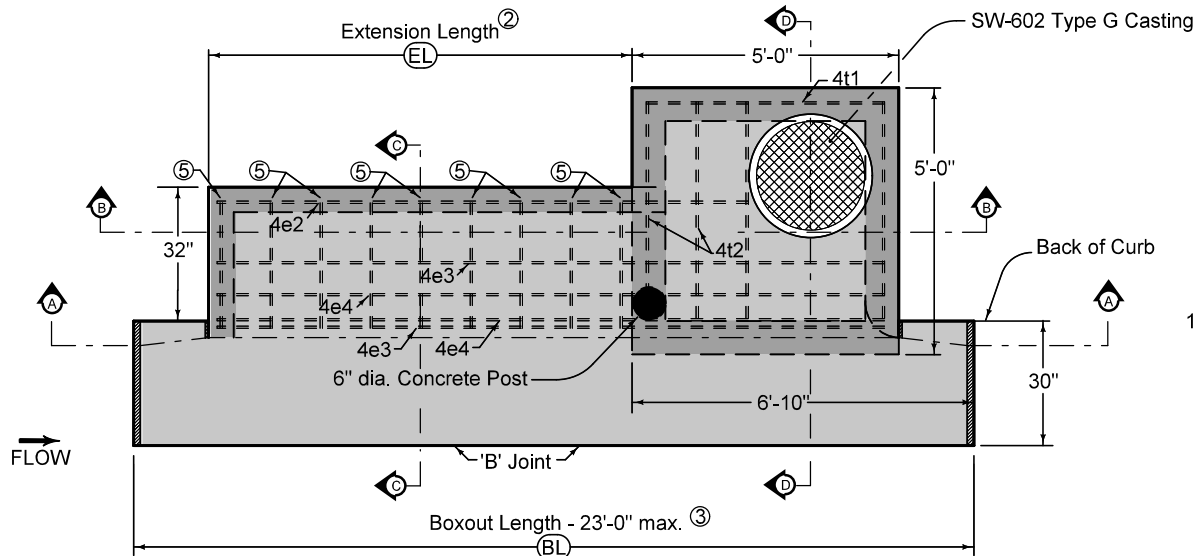
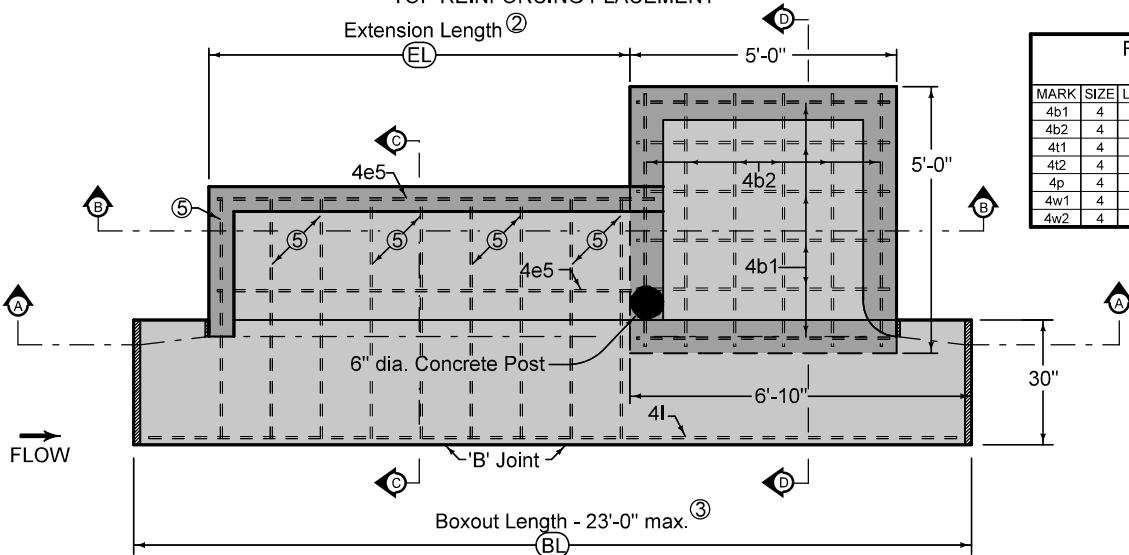


TABLE OF DIMENSIONS					
LO	Length of Curb Opening	12'-0"	14'-0"	16'-0"	18'-0"
EL	Extension Length	7'-10"	9'-10"	11'-10"	13'-10"
BL	Minimum Boxout Length	16'-0"	18'-0"	20'-0"	22'-0"

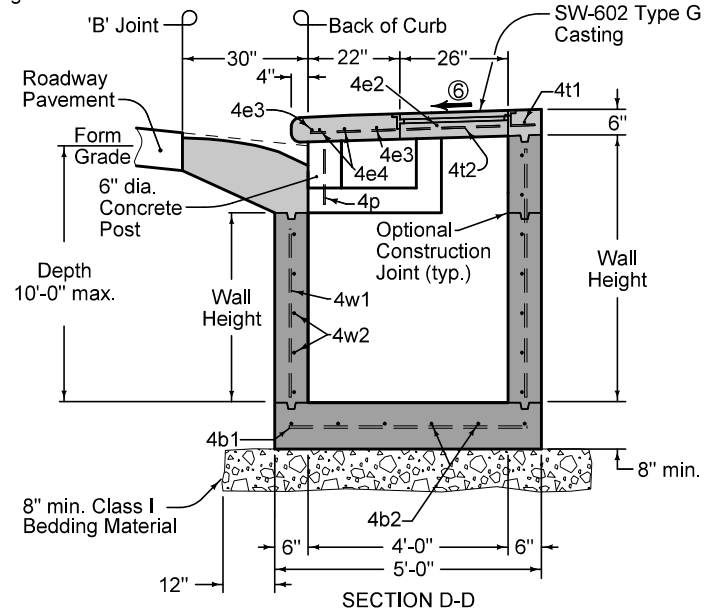
SUDAS	IOWADOT	REVISION
		5 04-21-20
FIGURE 6010.545	STANDARD ROAD PLAN	<b>SW-545</b> SHEET 1 of 4
REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6, Modified SECTION C-C on Sheets 3 and 4.		
Paul D. Weigand SUDAS DIRECTOR		Shawn Miller DESIGN METHODS ENGINEER
<b>SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING</b>		



PLAN  
TOP REINFORCING PLACEMENT



PLAN  
BOTTOM REINFORCING PLACEMENT



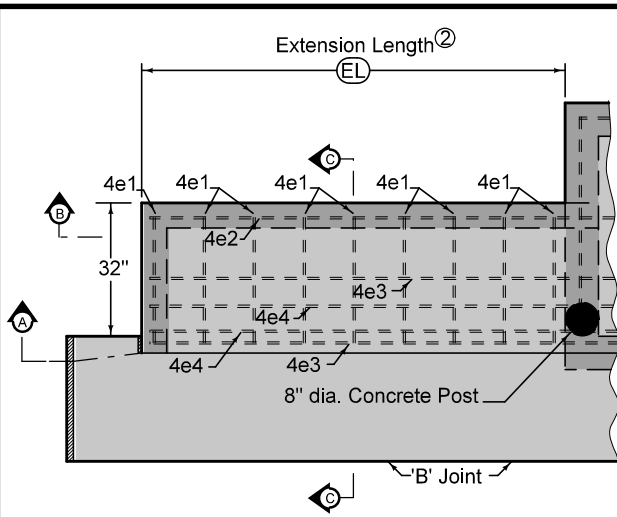
SECTION D-D

REINFORCING BAR LIST Intake Well					
MARK	SIZE	LOCATION	NO.	LENGTH	SPACING
4b1	4	Base	6	4'-6"	11"
4b2	4	Base	6	4'-6"	11"
4t1	4	Top	1	4'-8"	12"
4t2	4	Top	4	4'-3"	See Detail
4p	4	Post	1	13"	
4w1	4	Walls	16	Wall Height minus 4"	14"
4w2	4	Walls	Varies	4'-8"	12"

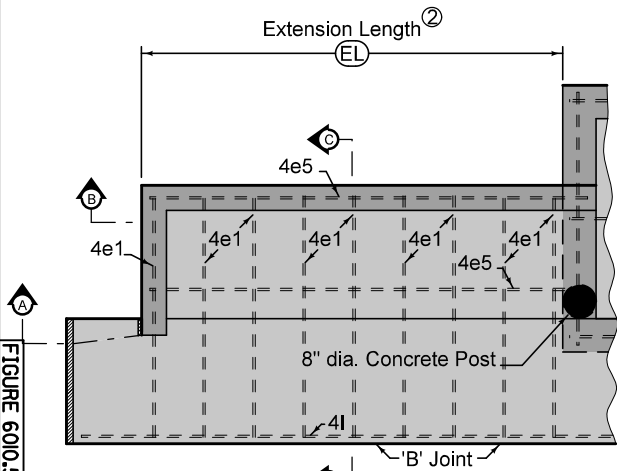
- ② Other lengths of opening may be constructed by varying the length of the extension and the rebar.
- ③ Includes 2 inches for 'ED' Joints.
- ⑤ 4e1 or 4e6. See Sheets 3 and 4.
- ⑥ Slope of 1.5% or as specified in the contract documents.

FIGURE 6010.545 SHEET 2 OF 4

		REVISION
		5 04-21-20
FIGURE 6010.545	STANDARD ROAD PLAN	<b>SW-545</b>
		SHEET 2 of 4
<small>REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4.</small>		
 SUDAS DIRECTOR		 DESIGN METHODS ENGINEER
<b>SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING</b>		

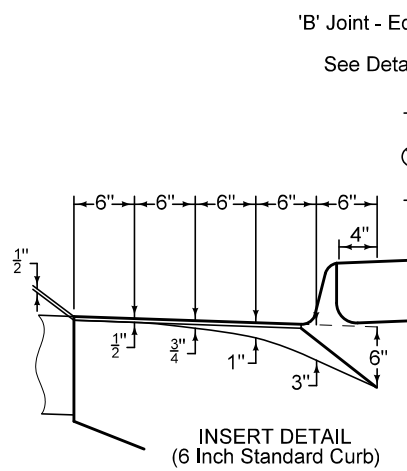


PLAN  
TOP OF EXTENSION REINFORCING PLACEMENT



PLAN  
BOTTOM OF EXTENSION REINFORCING PLACEMENT

FIGURE 6010.545 SHEET 3 OF 4



REINFORCING BAR LIST (LO = 12'-0")

MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	9	9'-5 $\frac{1}{2}$ "	56.9	12"
4e2	4	Top	1	10'-0"	6.7	
4e3	4	Top	2	12'-9"	17.0	15 $\frac{1}{2}$ "
4e4	4	Top	2	12'-9"	17.0	6"
4e5	4	Base	2	8'-2"	10.9	22"
4l*	4	Insert	1	15'-10"	10.6	
* With 16'-6" Boxout.				Total	119.1 lbs.	

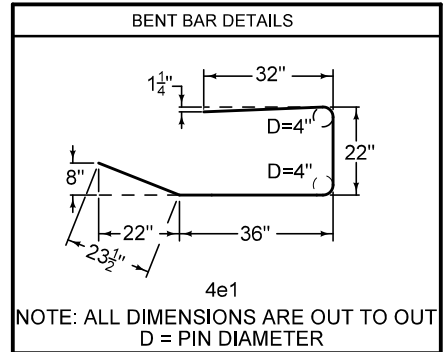
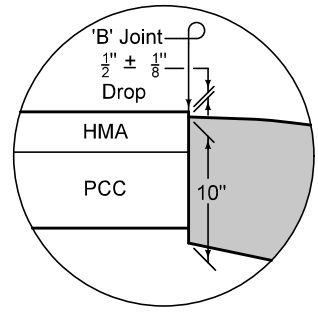
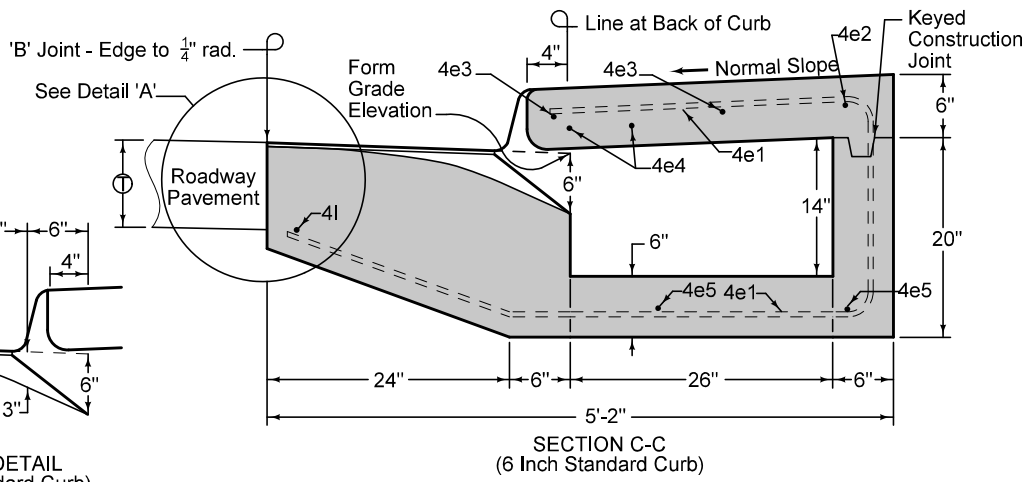
REINFORCING BAR LIST (LO = 14'-0")

MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	11	9'-5 $\frac{1}{2}$ "	69.5	12"
4e2	4	Top	1	12'-0"	8.0	
4e3	4	Top	2	14'-9"	19.7	15 $\frac{1}{2}$ "
4e4	4	Top	2	14'-9"	19.7	6"
4e5	4	Base	2	10'-2"	13.6	22"
4l*	4	Insert	1	17'-10"	11.9	
* With 18'-6" Boxout.				Total	142.4 lbs.	

REINFORCING BAR LIST (LO = 16'-0")

MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	13	9'-5 $\frac{1}{2}$ "	82.1	12"
4e2	4	Top	1	14'-0"	9.3	
4e3	4	Top	2	16'-9"	22.4	15 $\frac{1}{2}$ "
4e4	4	Top	2	16'-9"	22.4	6"
4e5	4	Base	2	12'-2"	16.2	22"
4l*	4	Insert	1	19'-10"	13.2	
* With 20'-6" Boxout.				Total	165.6 lbs.	

6 INCH STANDARD CURB

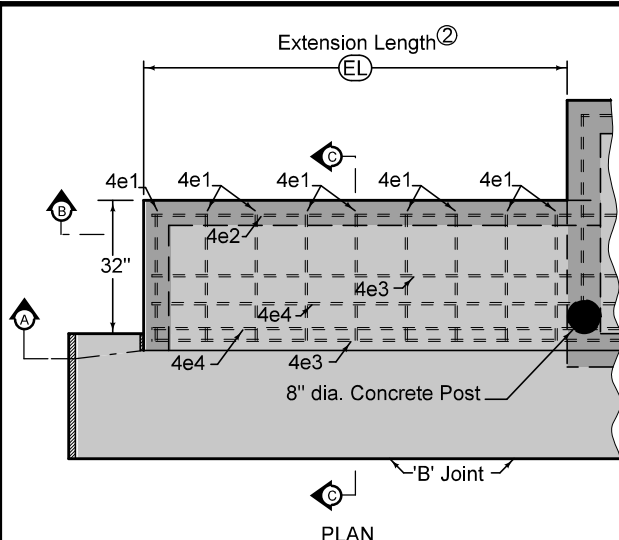


② Other lengths of opening may be constructed by varying the length of the extension and the rebar.

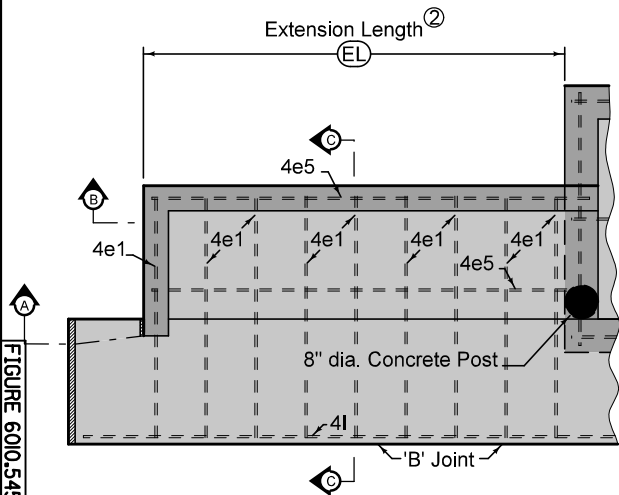
REINFORCING BAR LIST (LO = 18'-0")

MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	15	9'-5 $\frac{1}{2}$ "	94.8	12"
4e2	4	Top	1	16'-0"	10.7	
4e3	4	Top	2	18'-9"	25	15 $\frac{1}{2}$ "
4e4	4	Top	2	18'-9"	25	6"
4e5	4	Base	2	14'-2"	18.9	22"
4l*	4	Insert	1	21'-10"	14.6	
* With 22'-6" Boxout.				Total	189.0 lbs.	

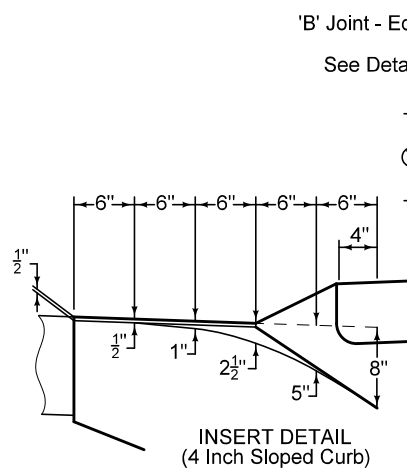
SUDAS IOWADOT <b>FIGURE 6010.545</b> STANDARD ROAD PLAN	REVISION 5 04-21-20
	<b>SW-545</b> SHEET 3 of 4
REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4.	
Paul D. Wigand SUDAS DIRECTOR	
Stuart Miller DESIGN METHODS ENGINEER	
<b>SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING</b>	



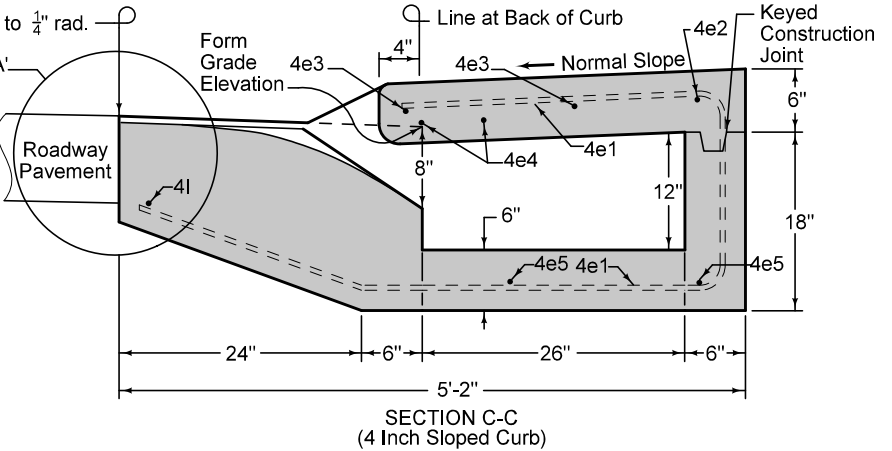
PLAN  
TOP OF EXTENSION REINFORCING PLACEMENT



PLAN  
BOTTOM OF EXTENSION REINFORCING PLACEMENT



INSERT DETAIL  
(4 Inch Sloped Curb)



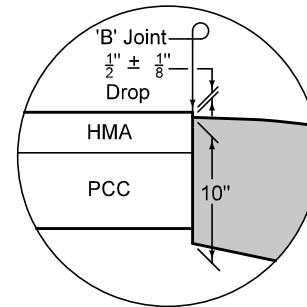
SECTION C-C  
(4 Inch Sloped Curb)

REINFORCING BAR LIST (L) = 12'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e2	4	Top	1	10'-0"	6.7	
4e3	4	Top	2	12'-9"	17.0	15 1/2"
4e4	4	Top	2	12'-9"	17.0	6"
4e5	4	Base	2	8'-2"	10.9	22"
4e6	4	Top/Base	9	9'-3 3/4"	56.9	12"
4I*	4	Insert	1	15'-10"	10.6	
				* With 16'-6" Boxout.	Total	119.0 lbs.

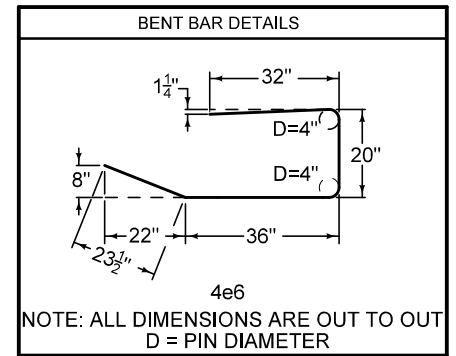
REINFORCING BAR LIST (L) = 14'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e2	4	Top	1	12'-0"	8.0	
4e3	4	Top	2	14'-9"	19.7	15 1/2"
4e4	4	Top	2	14'-9"	19.7	6"
4e5	4	Base	2	10'-2"	13.6	22"
4e6	4	Top/Base	11	9'-3 3/4"	69.5	12"
4I*	4	Insert	1	17'-10"	11.9	
				* With 18'-6" Boxout.	Total	142.3 lbs.

REINFORCING BAR LIST (L) = 16'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e2	4	Top	1	14'-0"	9.3	
4e3	4	Top	2	16'-9"	22.4	15 1/2"
4e4	4	Top	2	16'-9"	22.4	6"
4e5	4	Base	2	12'-2"	16.2	22"
4e6	4	Top/Base	13	9'-3 3/4"	82.1	12"
4I*	4	Insert	1	19'-10"	13.2	
				* With 20'-6" Boxout.	Total	165.5 lbs.

REINFORCING BAR LIST (L) = 18'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e2	4	Top	1	16'-0"	10.7	
4e3	4	Top	2	18'-9"	25	15 1/2"
4e4	4	Top	2	18'-9"	25	6"
4e5	4	Base	2	14'-2"	18.9	22"
4e6	4	Top/Base	15	9'-3 3/4"	94.8	12"
4I*	4	Insert	1	21'-10"	14.6	
				* With 22'-6" Boxout.	Total	188.9 lbs.



DETAIL 'A'  
Use when adjacent pavement  
is HMA or composite.



NOTE: ALL DIMENSIONS ARE OUT TO OUT  
D = PIN DIAMETER

② Other lengths of opening may be constructed by varying the length of the extension and the rebar.

FIGURE 6010.545 SHEET 4 OF 4

4 INCH SLOPED CURB

SUDAS	IOWADOT	REVISION
		5 04-21-20
FIGURE 6010.545	STANDARD ROAD PLAN	SW-545
		SHEET 4 of 4
REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4.		
<i>Paul D. Wigand</i> SUDAS DIRECTOR		<i>Stuart Nadeau</i> DESIGN METHODS ENGINEER
<b>SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING</b>		