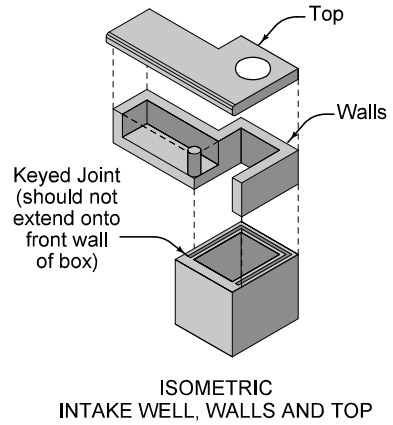
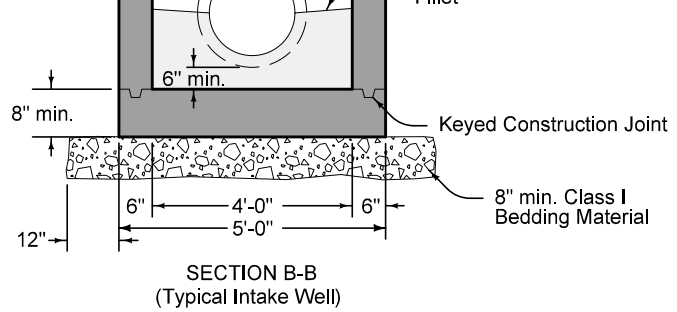


FIGURE 6010.545 SHEET 10F 4

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"

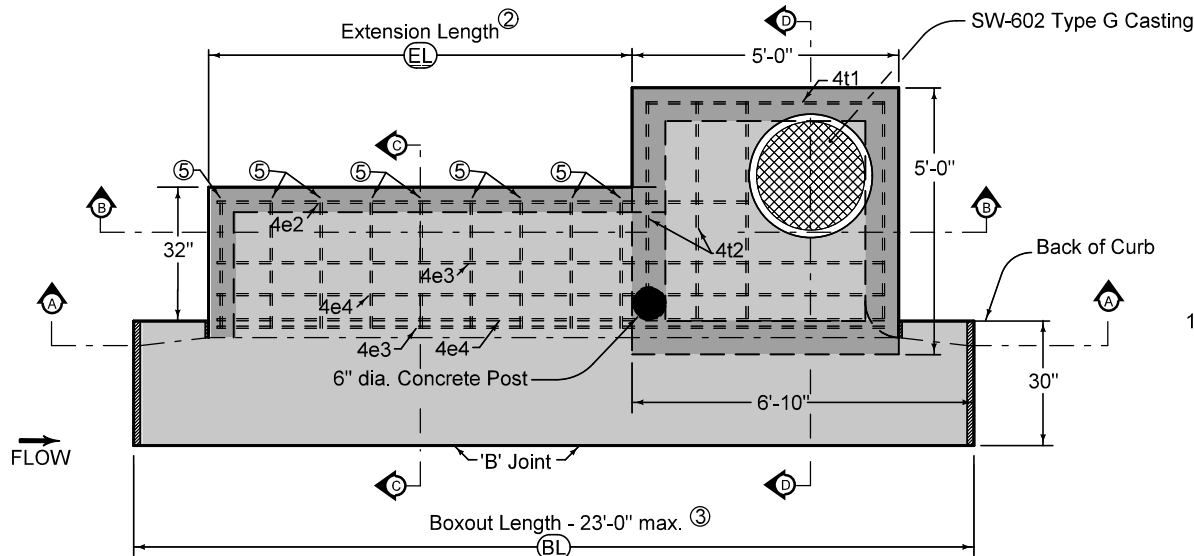


Extension unit may be used on either or both sides of intake. Details are similar when extension unit is on the opposite side. For joint details, refer to PV-101.

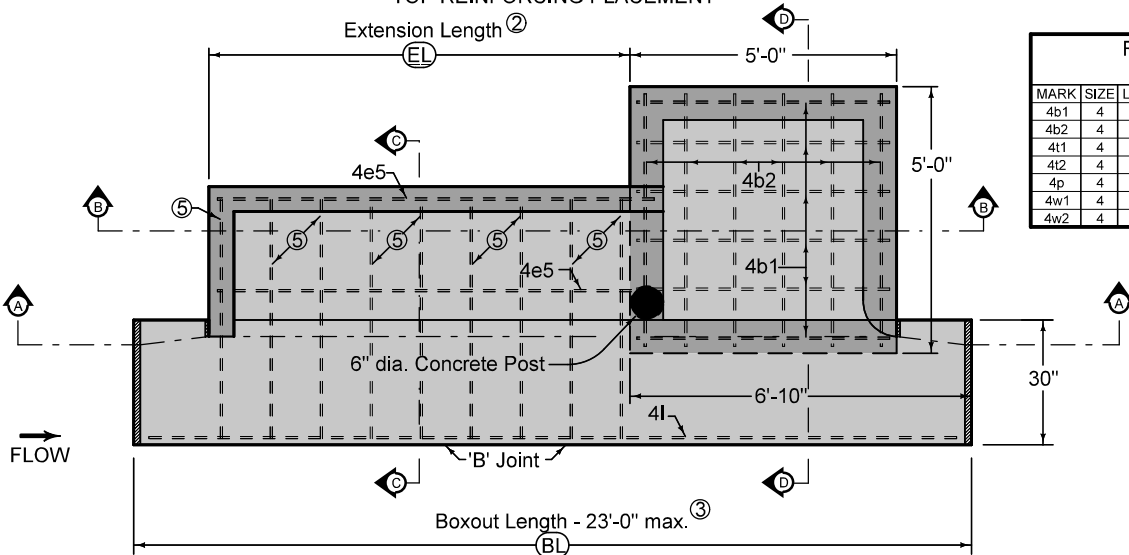
- ① Match gutter slope. Drain to well.
- ② Other lengths of opening may be constructed by varying the length of the extension and the rebar.
- ③ Includes 2 inches for 'ED' Joints.
- ④ 12 inch minimum wall height above all pipes.

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

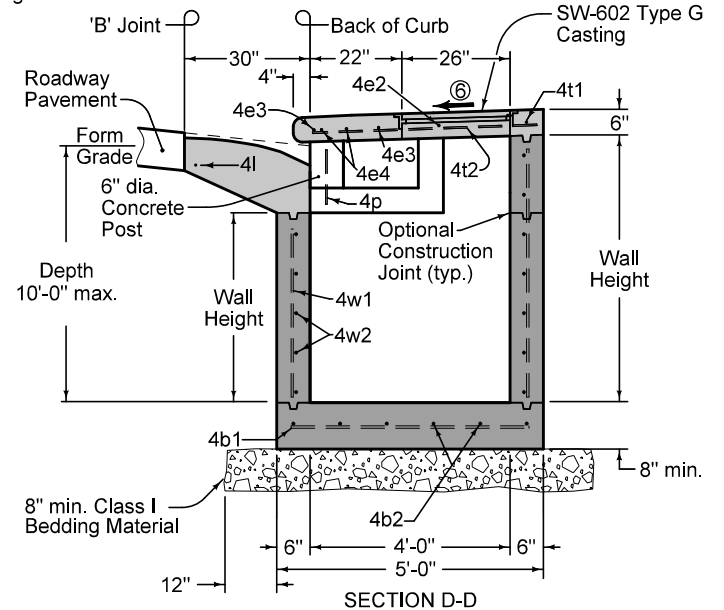
SUDAS	IOWADOT	REVISION
		6 04-19-22
FIGURE 6010.545	STANDARD ROAD PLAN	SW-545
REVISIONS: Clarified labeling of rebar.		SHEET 1 of 4
Paul D. Weigand SUDAS DIRECTOR		Stuart Miller DESIGN METHODS ENGINEER
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING		



PLAN
TOP REINFORCING PLACEMENT



PLAN
BOTTOM REINFORCING PLACEMENT



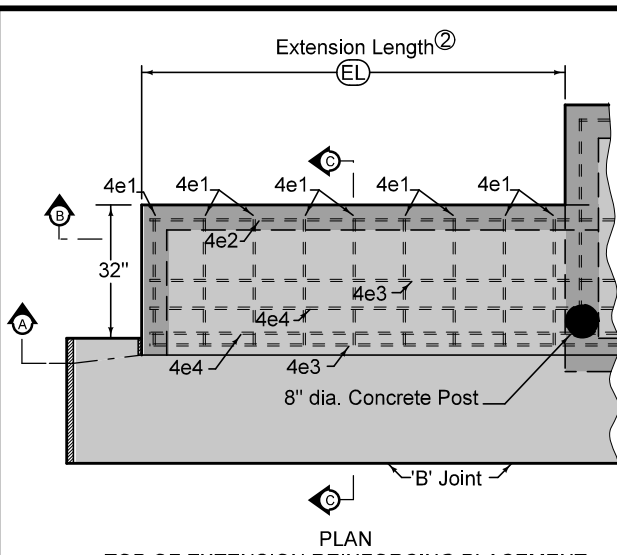
SECTION D-D

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"

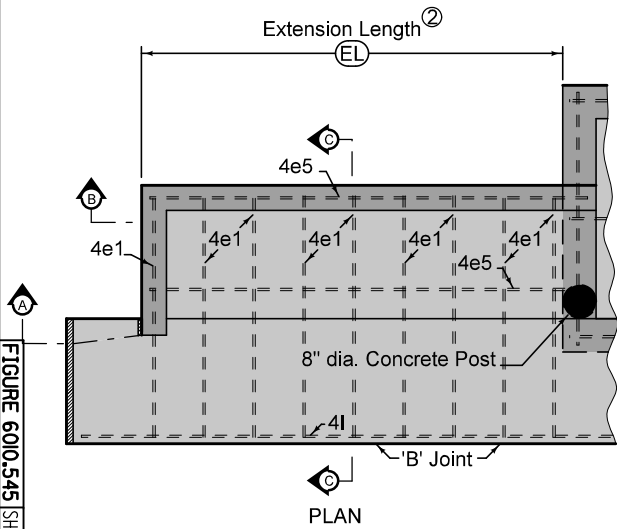
- ② Other lengths of opening may be constructed by varying the length of the extension and the rebar.
- ③ Includes 2 inches for 'ED' Joints.
- ⑤ 4e1 or 4e6. See Sheets 3 and 4.
- ⑥ Slope of 1.5% or as specified in the contract documents.

FIGURE 6010.545 SHEET 2 OF 4

SUDAS IOWADOT	REVISION 6 04-19-22
	SW-545 SHEET 2 of 4
REVISIONS: Clarified labeling of rebar.	
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Stuart Miller DESIGN METHODS ENGINEER	
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING	

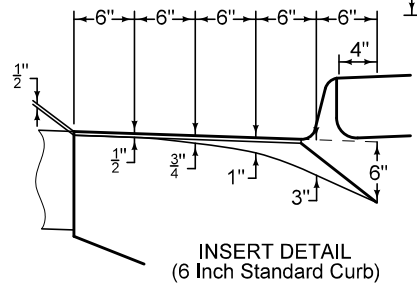


PLAN
TOP OF EXTENSION REINFORCING PLACEMENT

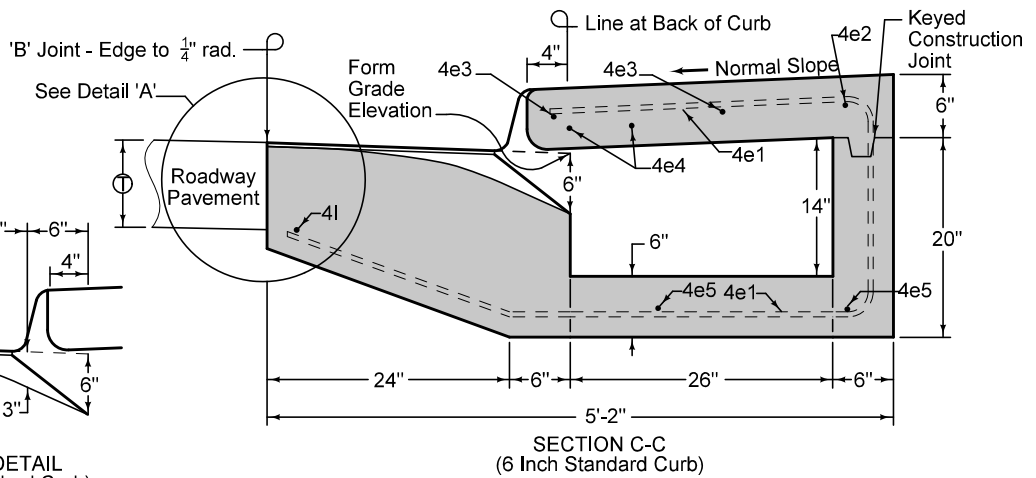


PLAN
BOTTOM OF EXTENSION REINFORCING PLACEMENT

FIGURE 6010.545 SHEET 3 OF 4



INSERT DETAIL
(6 Inch Standard Curb)



SECTION C-C
(6 Inch Standard Curb)

REINFORCING BAR LIST (LO = 12'-0")						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	9	9'-5 1/2"	56.9	12"
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"
4I*	4	Insert	1	15'-10"	10.6	
				Total	119.1 lbs.	

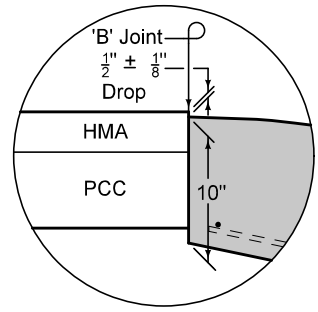
* With 16'-6" Boxout.

REINFORCING BAR LIST (LO = 14'-0")						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	11	9'-5 1/2"	69.5	12"
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"
4I*	4	Insert	1	17'-10"	11.9	
				Total	142.4 lbs.	

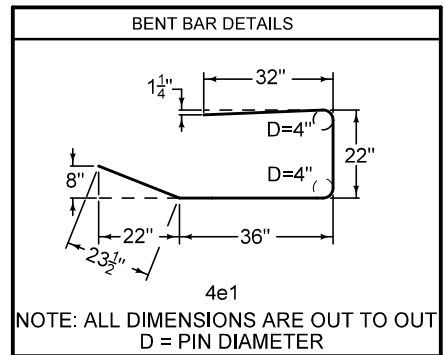
* With 18'-6" Boxout.

REINFORCING BAR LIST (LO = 16'-0")						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	13	9'-5 1/2"	82.1	12"
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"
4I*	4	Insert	1	19'-10"	13.2	
				Total	165.6 lbs.	

* With 20'-6" Boxout.



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



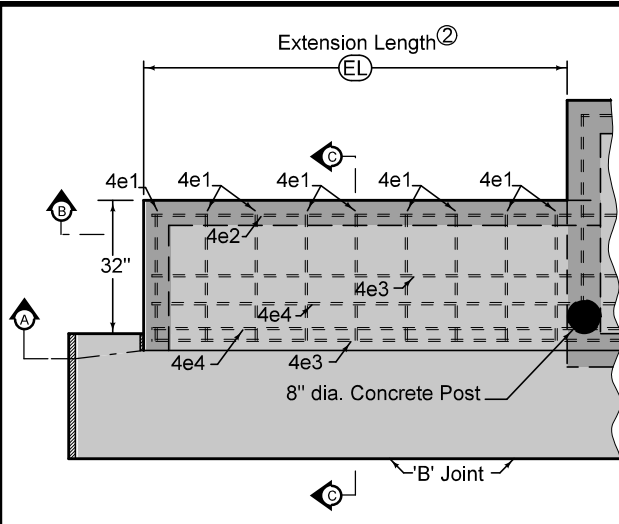
NOTE: ALL DIMENSIONS ARE OUT TO OUT
D = PIN DIAMETER

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

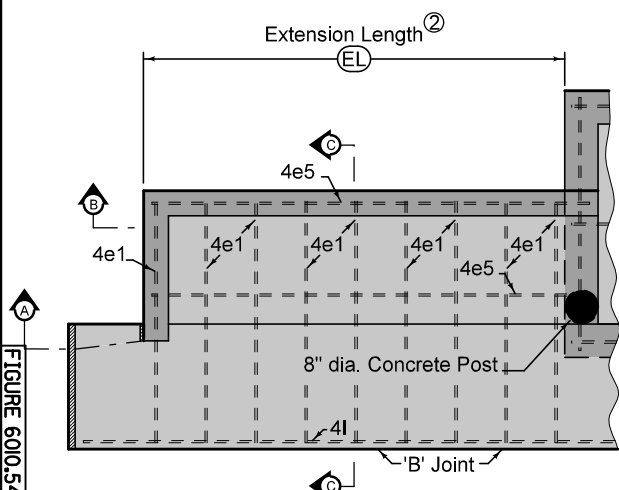
REINFORCING BAR LIST (LO = 18'-0")						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	15	9'-5 1/2"	94.8	12"
4e2	4	Top	1	16'-0"	10.7	
4e3	4	Top	2	18'-9"	25	15 1/2"
4e4	4	Top	2	18'-9"	25	6"
4e5	4	Base	2	14'-2"	18.9	22"
4I*	4	Insert	1	21'-10"	14.6	
				Total	189.0 lbs.	

* With 22'-6" Boxout.

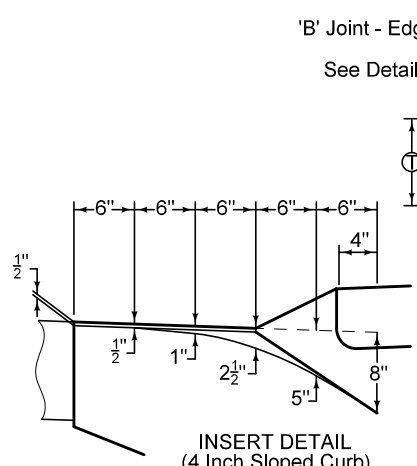
SUDAS IOWADOT FIGURE 6010.545 STANDARD ROAD PLAN	REVISION 6 04-19-22
	SW-545 SHEET 3 of 4
REVISIONS: Clarified labeling of rebar.	
Paul D. Wigand SUDAS DIRECTOR	
Stuart Miller DESIGN METHODS ENGINEER	
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING	



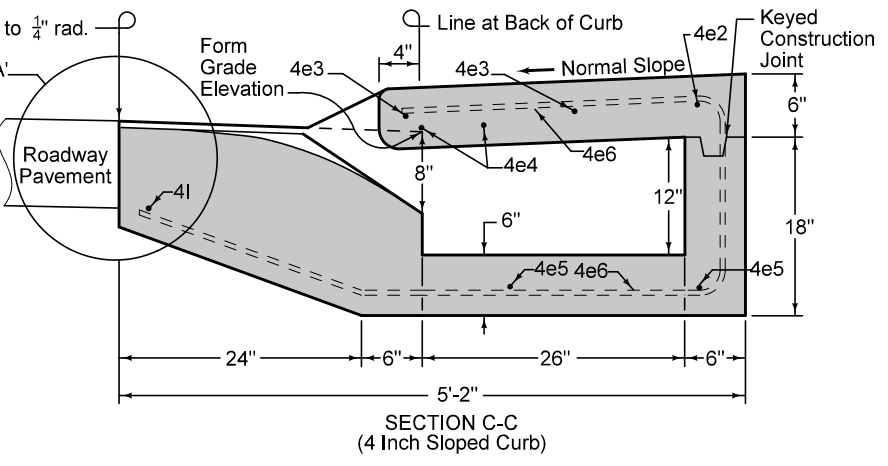
PLAN
TOP OF EXTENSION REINFORCING PLACEMENT



PLAN
BOTTOM OF EXTENSION REINFORCING PLACEMENT



INSERT DETAIL
(4 Inch Sloped Curb)



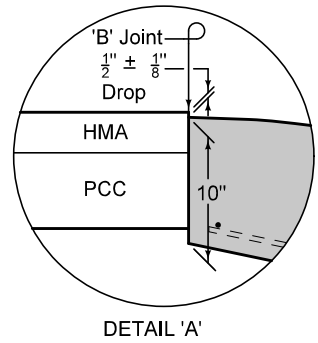
SECTION C-C
(4 Inch Sloped Curb)

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.

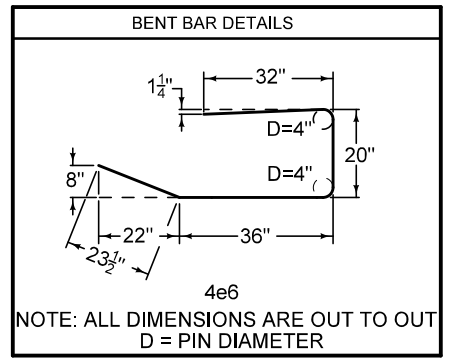
REINFORCING BAR LIST (L) = 14'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e2	4	Top	1	12'-0"	8.0	
4e3	4	Top	2	14'-9"	19.7	15 1/2"
4e4	4	Top	2	14'-9"	19.7	6"
4e5	4	Base	2	10'-2"	13.6	22"
4e6	4	Top/Base	11	9'-3 3/4"	69.5	12"
4I*	4	Insert	1	17'-10"	11.9	
				* With 18'-6" Boxout.	Total	142.3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



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 FIGURE 6010.545 STANDARD ROAD PLAN	REVISION 6 04-19-22
	SW-545 SHEET 4 of 4
REVISIONS: Clarified labelling of rebar.	
Paul D. Wigand SUDAS DIRECTOR	
Steve Miller DESIGN METHODS ENGINEER	
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING	