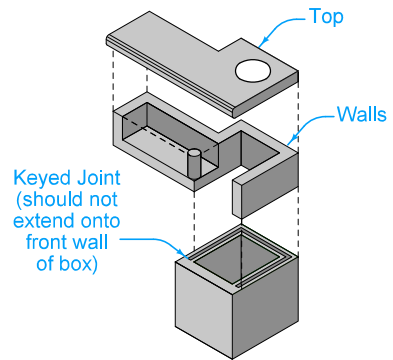


Extension unit may be used on either or both sides of intake. Details are similar when extension unit is on the opposite side. For joint details, refer to PV-101.

- 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' 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

Possible Contract Item:
Intake, SW-545

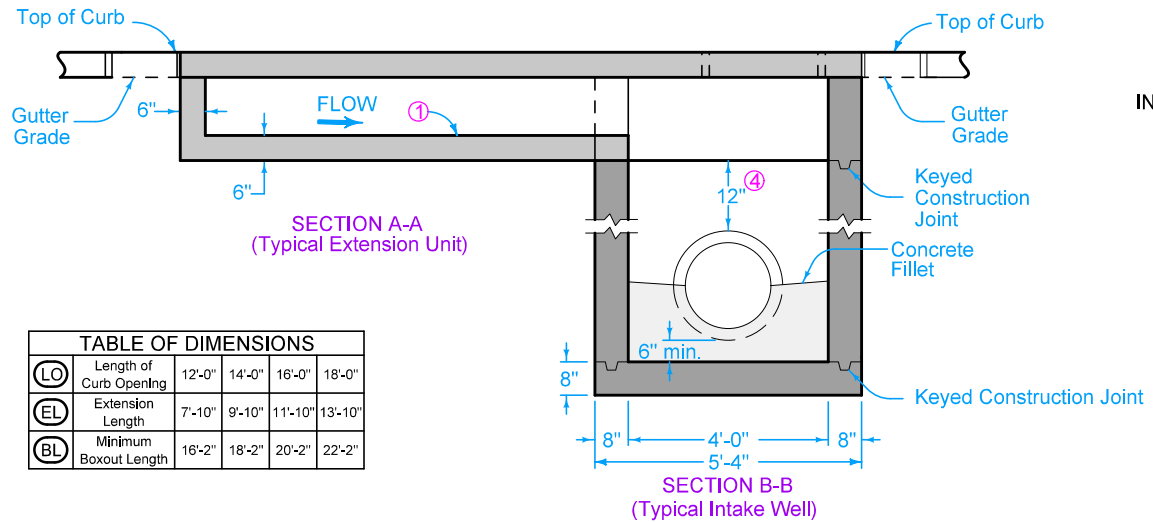
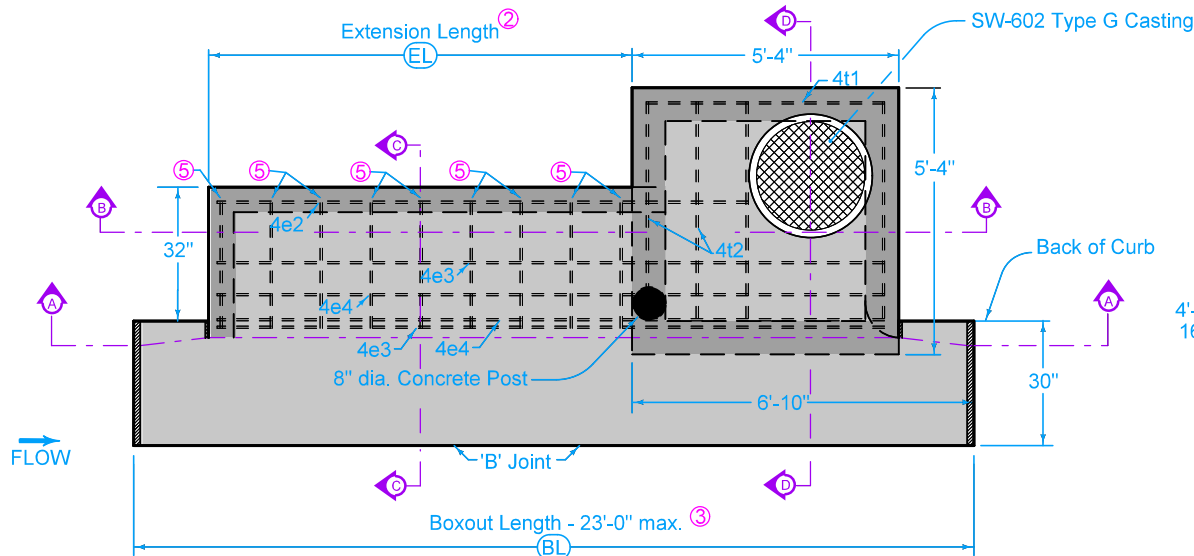
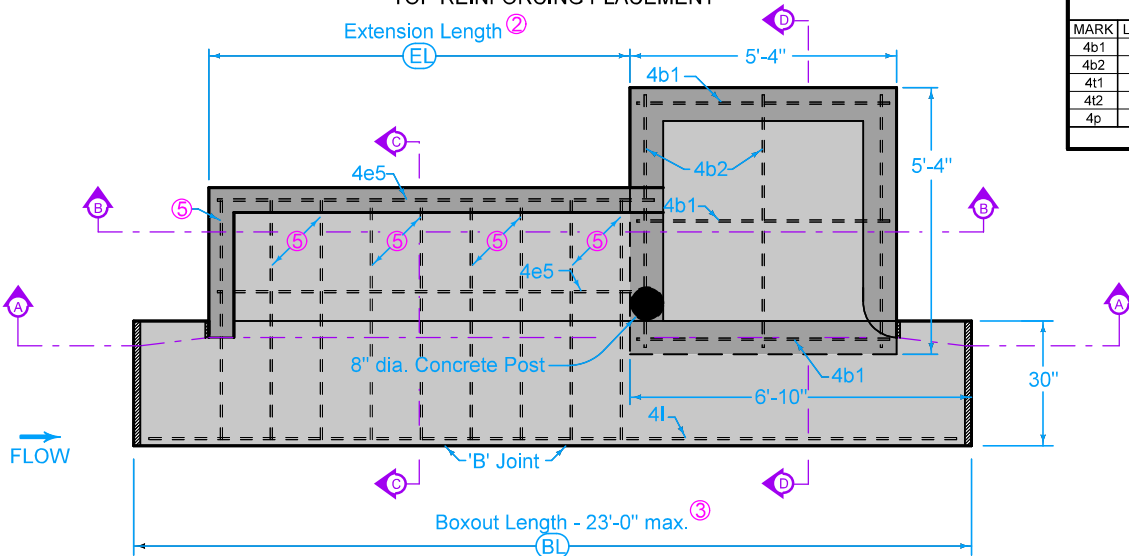


TABLE OF DIMENSIONS					
(LO)	Length of Curb Opening	12'-0"	14'-0"	16'-0"	18'-0"
(EL)	Extension Length	7'-10"	9'-10"	11'-10"	13'-10"
(BL)	Minimum Boxout Length	16'-2"	18'-2"	20'-2"	22'-2"

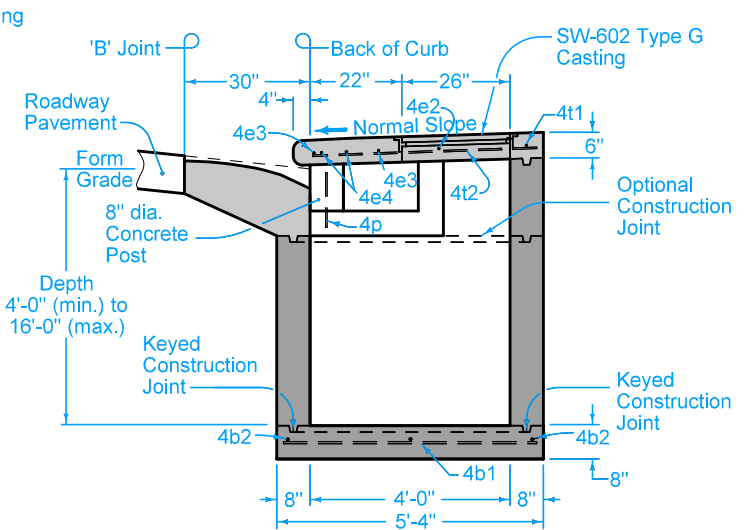
 STANDARD ROAD PLAN	REVISION	4	04-17-18
	SW-545		
	SHEET 1 of 4		
<small>REVISIONS: Modified circle notes. Updated line work and Iowa DOT logo. Added Sheet 4 for 4 inch sloped curb details. Added maximum pipe sizes.</small>			
<i>Brian Smith</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>			
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING			



PLAN
TOP REINFORCING PLACEMENT



PLAN
BOTTOM REINFORCING PLACEMENT

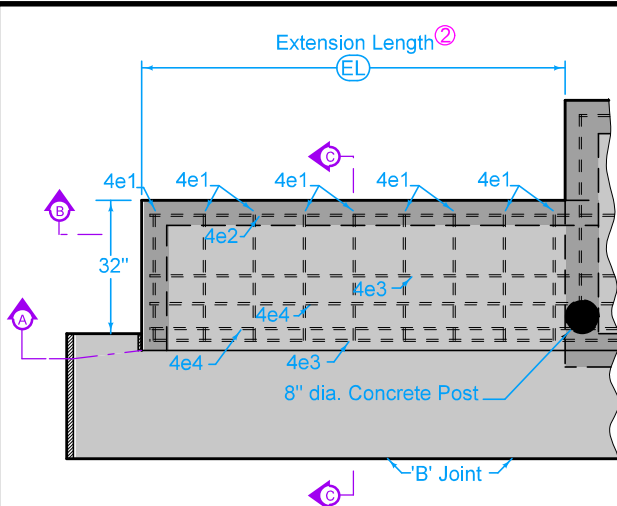


SECTION D-D

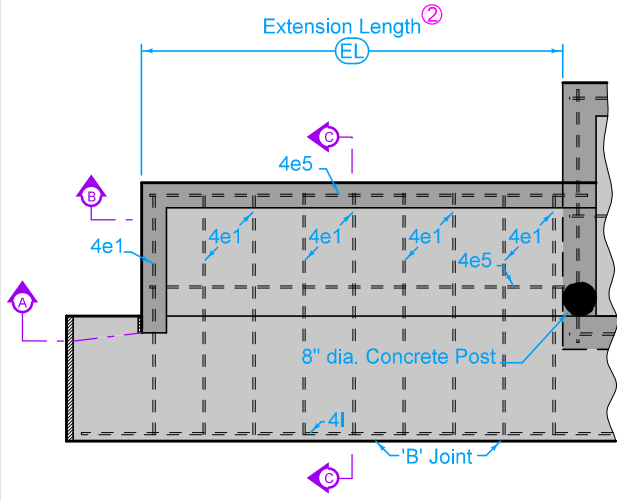
REINFORCING BAR LIST					
Intake Well					
MARK	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4b1	Base	3	5'-0"	10.0	2'-4"
4b2	Base	3	5'-0"	10.0	2'-4"
4t1	Top	1	5'-0"	3.3	12"
4t2	Top	4	4'-6"	12.0	See Detail
4p	Post	1	13'	0.7	
Total				36 lbs.	

- 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.

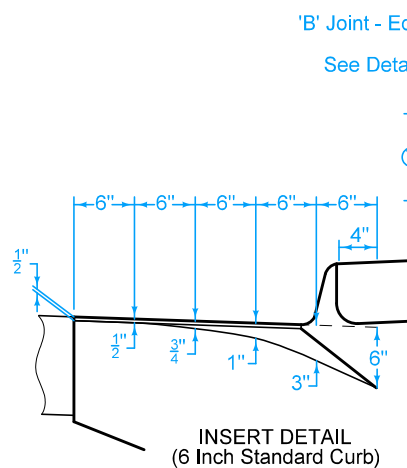
	REVISION	4	04-17-18
	STANDARD ROAD PLAN	SW-545	
	SHEET 2 of 4		
<small>REVISIONS: Modified circle notes. Updated line work and Iowa DOT logo. Added Sheet 4 for 4 inch sloped curb details. Added maximum pipe sizes.</small>			
<i>Brian Smith</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>			
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING			



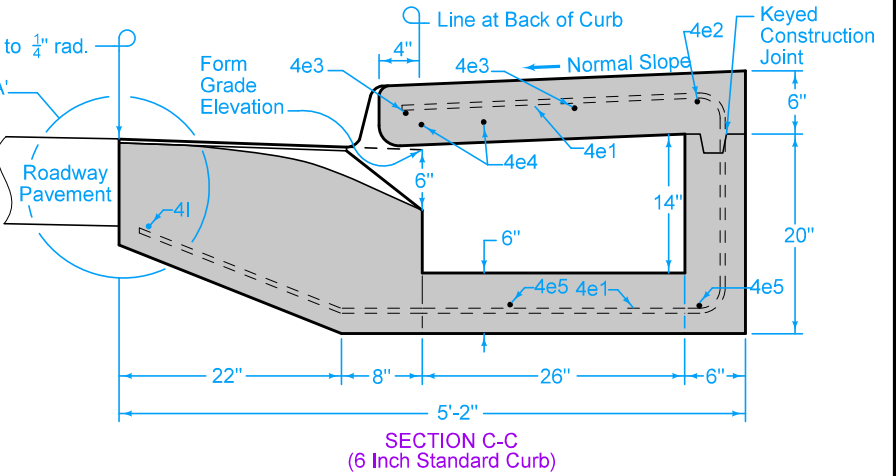
PLAN
TOP OF EXTENSION REINFORCING PLACEMENT



PLAN
BOTTOM OF EXTENSION REINFORCING PLACEMENT



INSERT DETAIL
(6 Inch Standard Curb)

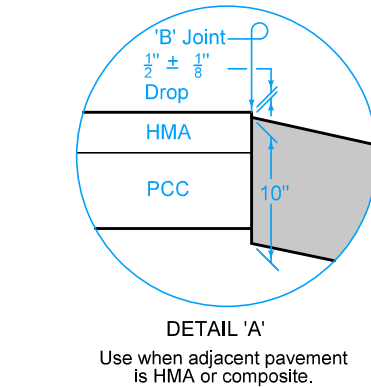


SECTION C-C
(6 Inch Standard Curb)

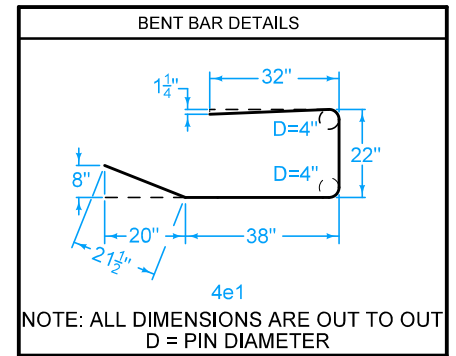
REINFORCING BAR LIST (O) = 12'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e1	4	Top/Base	9	9'-5 1/2"	56.9	12"
4e2	4	Top	1	10'-0"	6.7	
4e3	4	Top	2	12'-9"	17.0	15 1/2"
4e4	4	Top	2	12'-9"	17.0	6"
4e5	4	Base	2	8'-2"	10.9	22"
4i*	4	Insert	1	15'-10"	10.6	
* With 16'-6" Boxout.					Total	119.1 lbs.

REINFORCING BAR LIST (O) = 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	
* With 18'-6" Boxout.					Total	142.4 lbs.

REINFORCING BAR LIST (O) = 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	
* With 20'-6" Boxout.					Total	165.6 lbs.



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

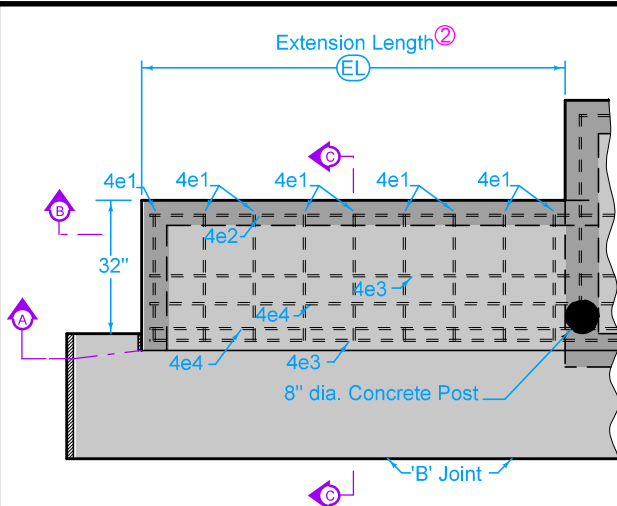


NOTE: ALL DIMENSIONS ARE OUT TO OUT
D = PIN DIAMETER

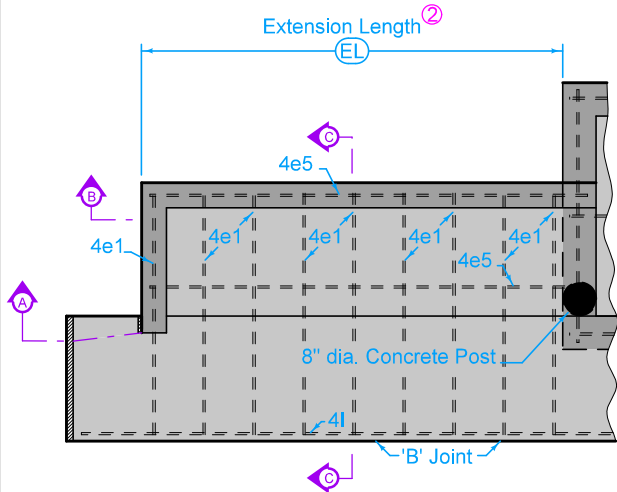
② Other lengths of opening may be constructed by varying the length of the extension and the rebar.

6 INCH STANDARD CURB

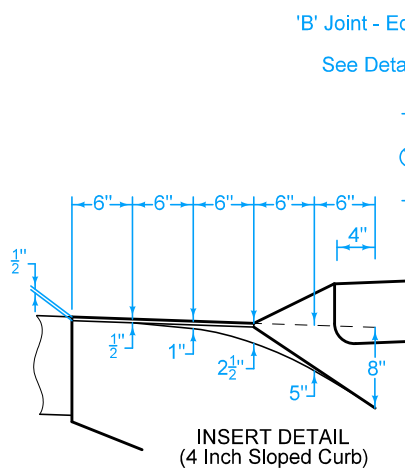
	REVISION
	4 04-17-18
<small>REVISIONS: Modified circle notes. Updated line work and Iowa DOT logo. Added Sheet 4 for 4 inch sloped curb details. Added maximum pipe sizes.</small>	
<small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<p>SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING</p>	



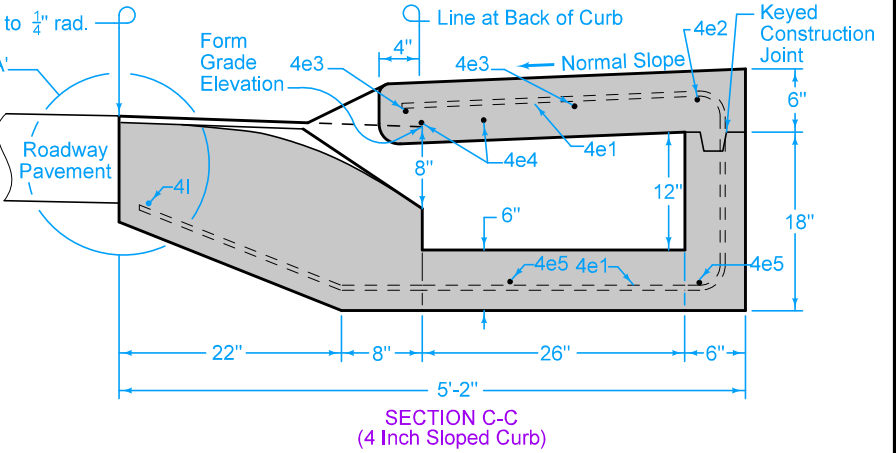
PLAN
TOP OF EXTENSION REINFORCING PLACEMENT



PLAN
BOTTOM OF EXTENSION REINFORCING PLACEMENT



INSERT DETAIL
(4 Inch Sloped Curb)

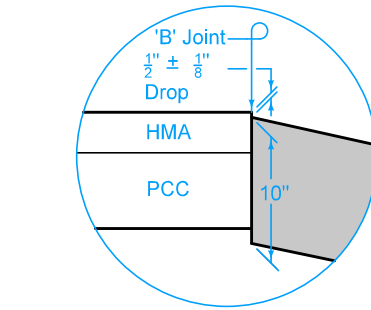


SECTION C-C
(4 Inch Sloped Curb)

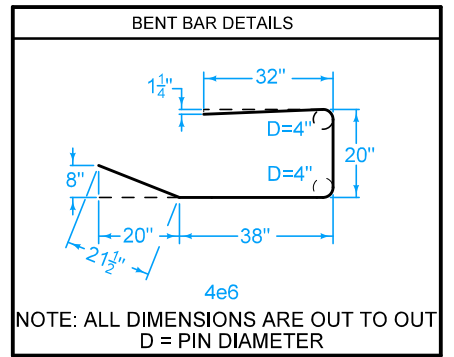
REINFORCING BAR LIST (O) = 12'-0"						
MARK	SIZE	LOCATION	NO.	LENGTH	WEIGHT	SPACING
4e2	4	Top	1	10'-0"	6.7	
4e3	4	Top	2	12'-9"	17.0	15 1/2"
4e4	4	Top	2	12'-9"	17.0	6"
4e5	4	Base	2	8'-2"	10.9	22"
4e6	4	Top/Base	9	9'-3 3/4"	56.9	12"
4I*	4	Insert	1	15'-10"	10.6	
* With 16'-6" Boxout.				Total	119.0 lbs.	

REINFORCING BAR LIST (O) = 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 (O) = 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.	



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.

4 INCH SLOPED CURB

	REVISION
	4 04-17-18
	SHEET 4 of 4
REVISIONS: Modified circle notes. Updated line work and Iowa DOT logo. Added Sheet 4 for 4 inch sloped curb details. Added maximum pipe sizes.	
Brian Smith APPROVED BY DESIGN METHODS ENGINEER	
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING	