

- NOTES:
1. SEE STANDARD DRAWINGS 720-901-XX FOR GENERAL NOTES.
  2. SEE STANDARD DRAWINGS 720-91X-XX FOR INSTALLATION PROCEDURES FOR DETECTABLE WARNING SURFACE MATERIALS.
  3. SEE STANDARD DRAWINGS 720-929-XX FOR VARIANTS TO THIS STANDARD.
  4. CONSTRUCT RAMP PARTITION AT ALL LOCATIONS WHERE ROADWAY DRAINAGE COULD DISCHARGE ONTO ADJACENT PROPERTY. CONSTRUCT RAMP PARTITION IF NEEDED TO RETAIN EXISTING GROUND ELEVATION ON ADJACENT PROPERTY.

DETAIL  
SCALE: 1/4" = 1'-0"  
PLAN

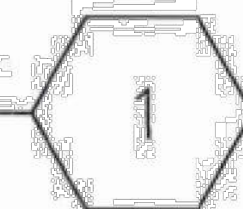
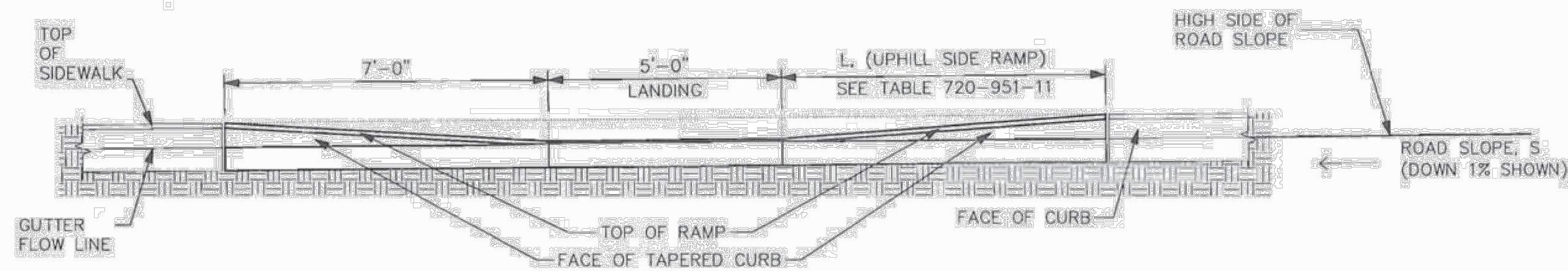
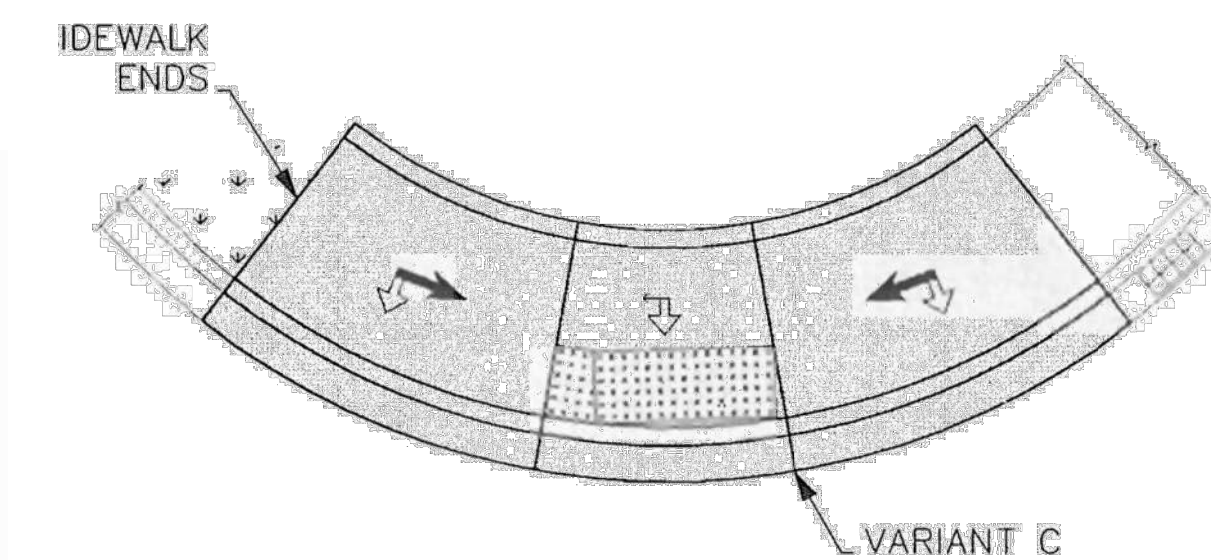
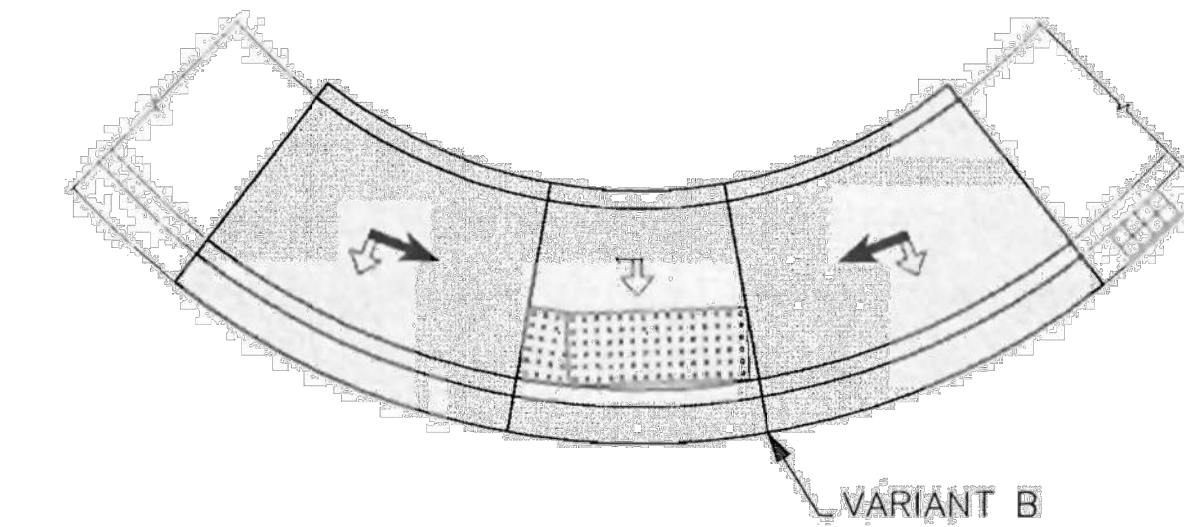
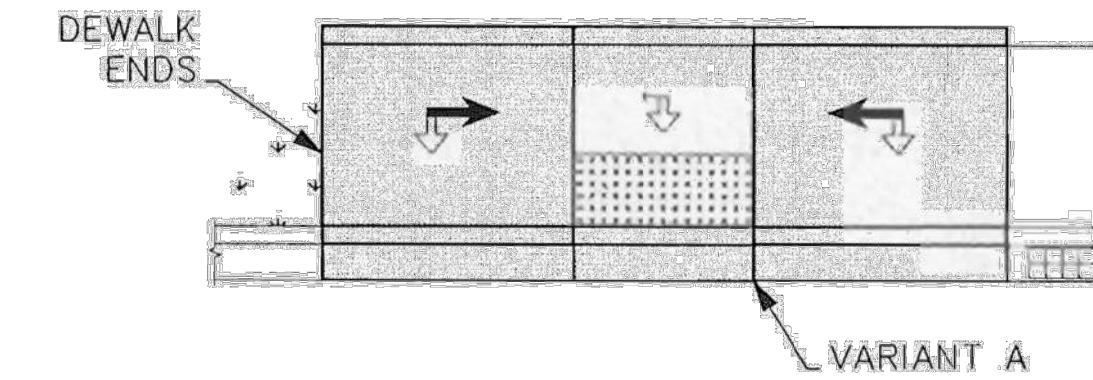
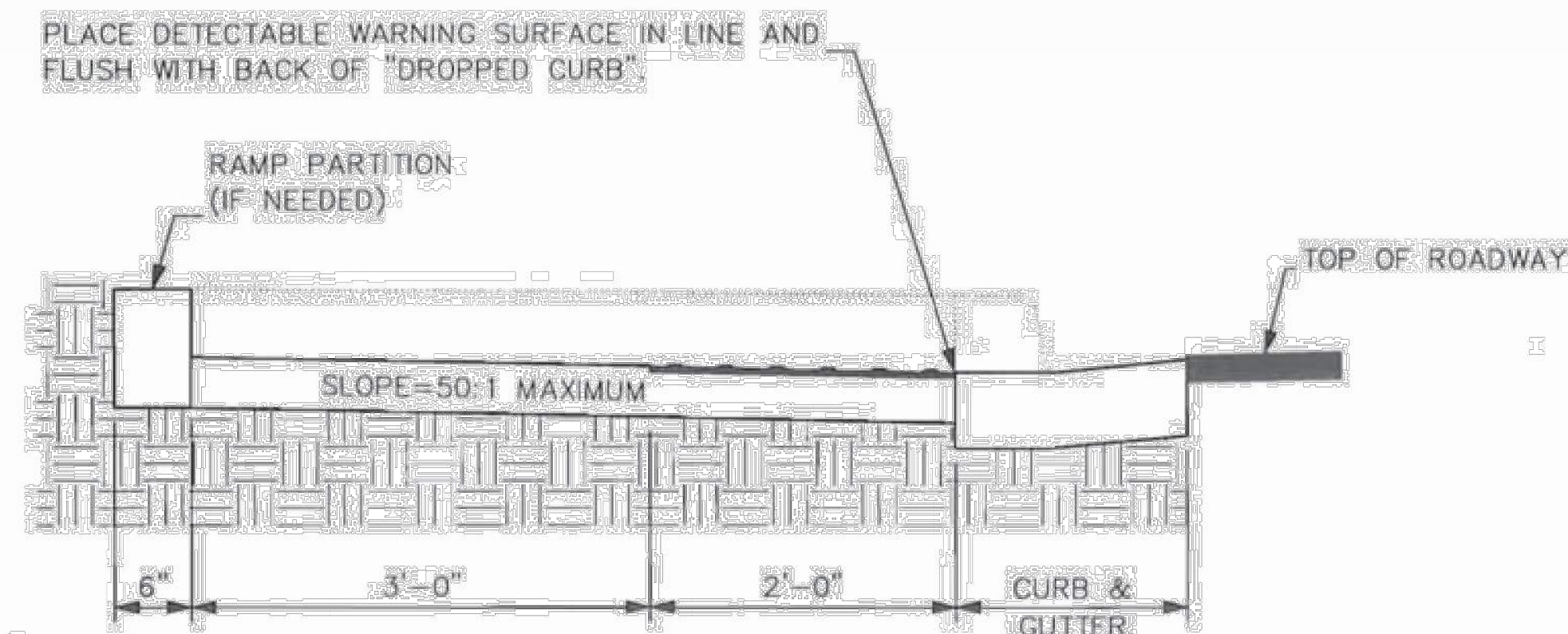
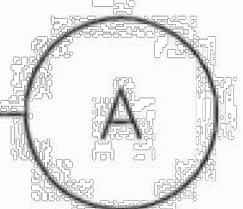


TABLE: 720-951-11 (SEE 720-929-01, X=10')

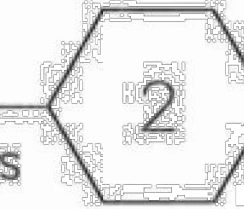
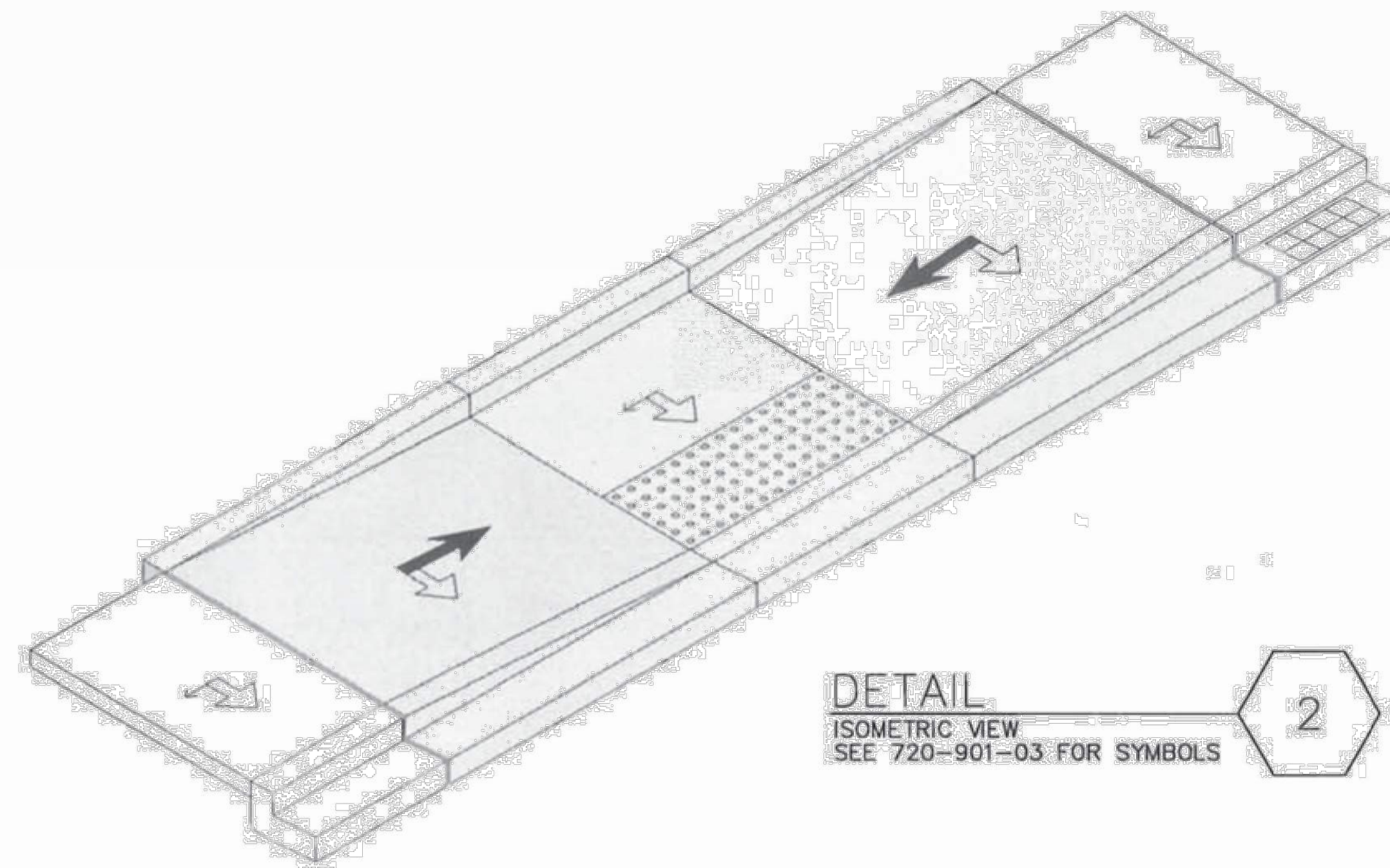
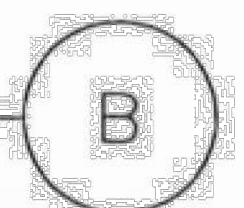
ROAD SLOPE, S (%)	ELEVATION, [IN]	L. (UPHILL SIDE RAMP), [FT]	QTY, 7209000 [SQ.YD]
$S \leq 1\%$	$[B-A] \leq 7\frac{1}{8}"$	7'-0"	15
$1\% > S \leq 3\%$	$[B-A] \leq 9\frac{3}{8}"$	10'-0"	17
$S > 3\%$	$[B-A] > 9\frac{3}{8}"$	15'-0"	21



SECTION  
SCALE: 1/4" = 1'-0"  
FRONT ELEVATION



SECTION  
SCALE: 1/2" = 1'-0"  
SIDE ELEVATION

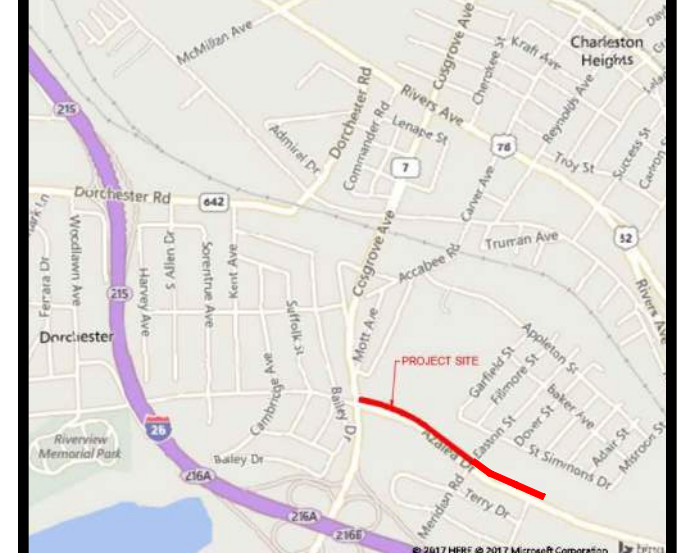


PROJECT OWNER:  
CHARLESTON COUNTY  
PUBLIC WORKS

PROJECT TITLE:  
**AZALEA  
DRIVE  
SIDEWALK**

PROJECT LOCATION:  
NORTH CHARLESTON, SC

PROJECT NUMBER:  
**0200102.05**



**FOR  
CONSTRUCTION**

ORIGINAL SUBMISSION: 03/16/2018

REVISIONS:

NO.	DATE	DESCRIPTION
1	05/17/2018	SCDOT COMMENTS
2	11/05/2019	SCDOT COMMENTS
3	03/12/2020	SCDOT COUNTY REVIEW
4	03/06/2020	SCDOT COUNTY REVIEW
5	05/20/2020	SCDOT COMMENTS
6	07/14/2020	SLOPE PERMISSIONS REVISION
7	08/13/2020	RIGHT-OF-WAY REVISIONS
8	10/19/2020	MS4 REVISIONS
9	02/02/2021	SCDOT & QUANTITY REVISIONS
10		

DRAWN BY:  
MRS/JSM

APPROVED BY:  
PAF

DATE:  
02/02/2021

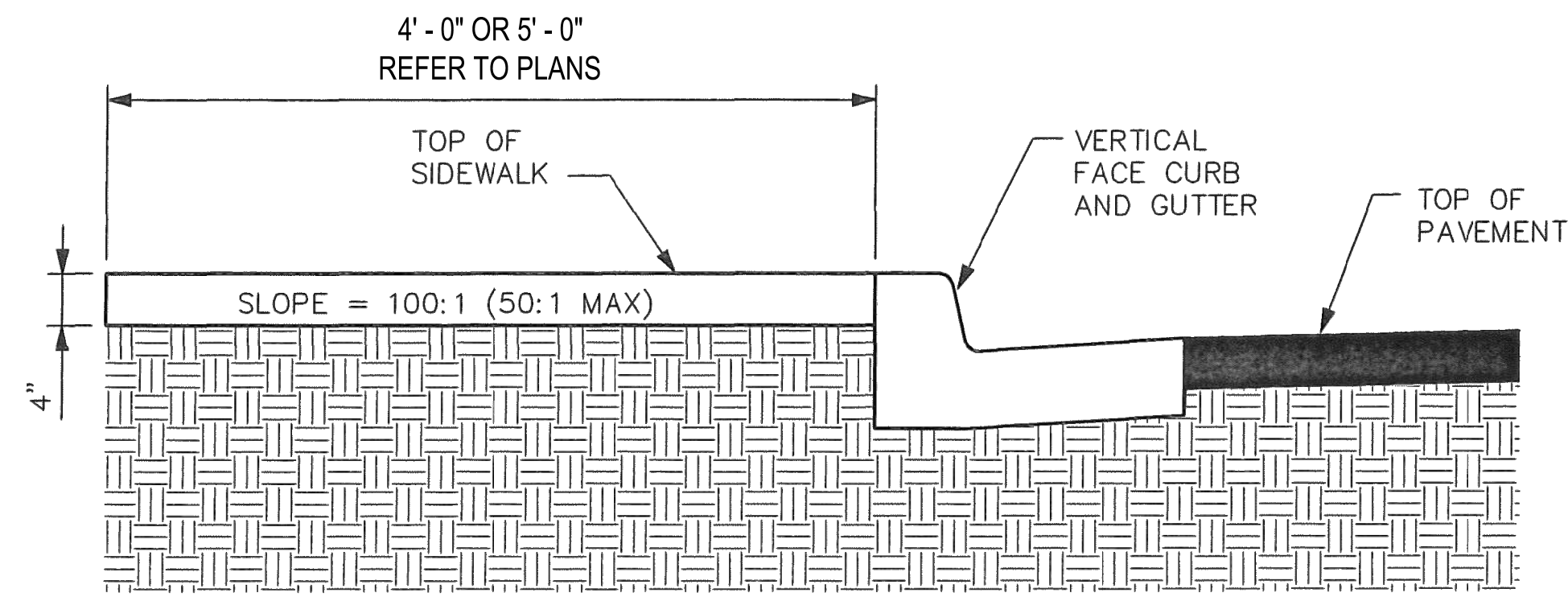
SCDOT DETAILS

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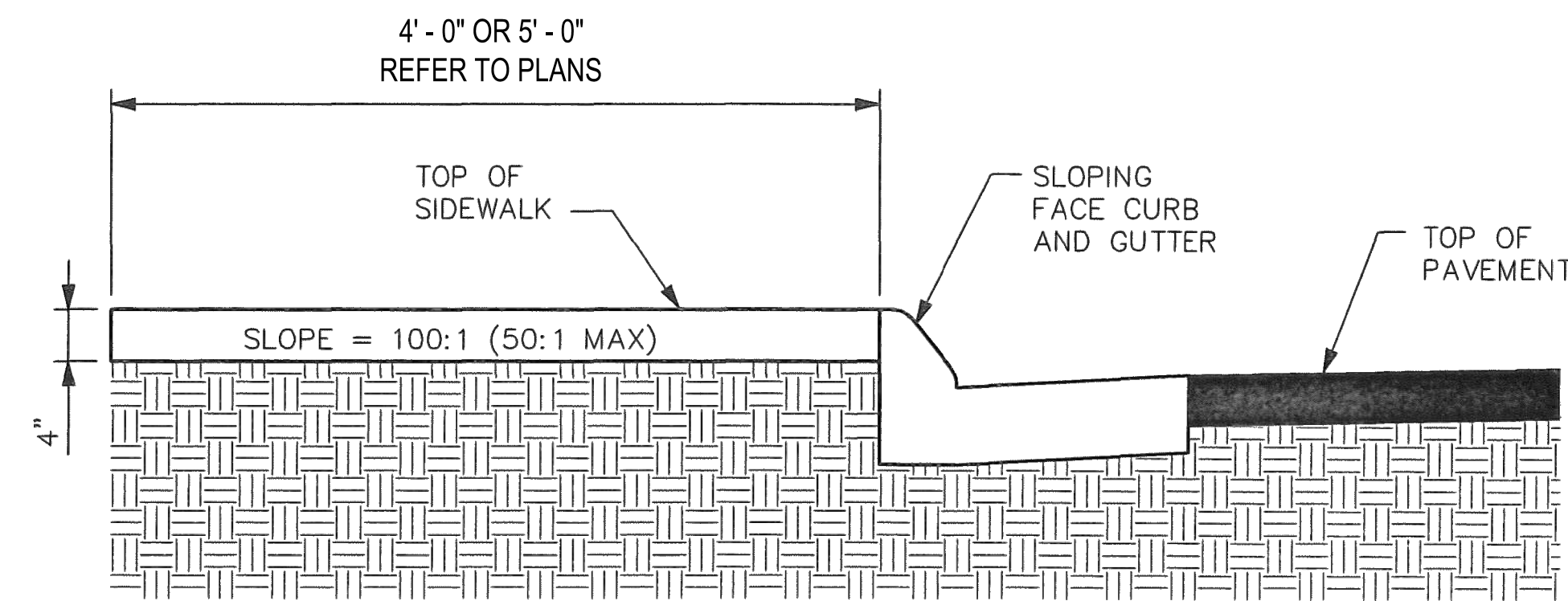
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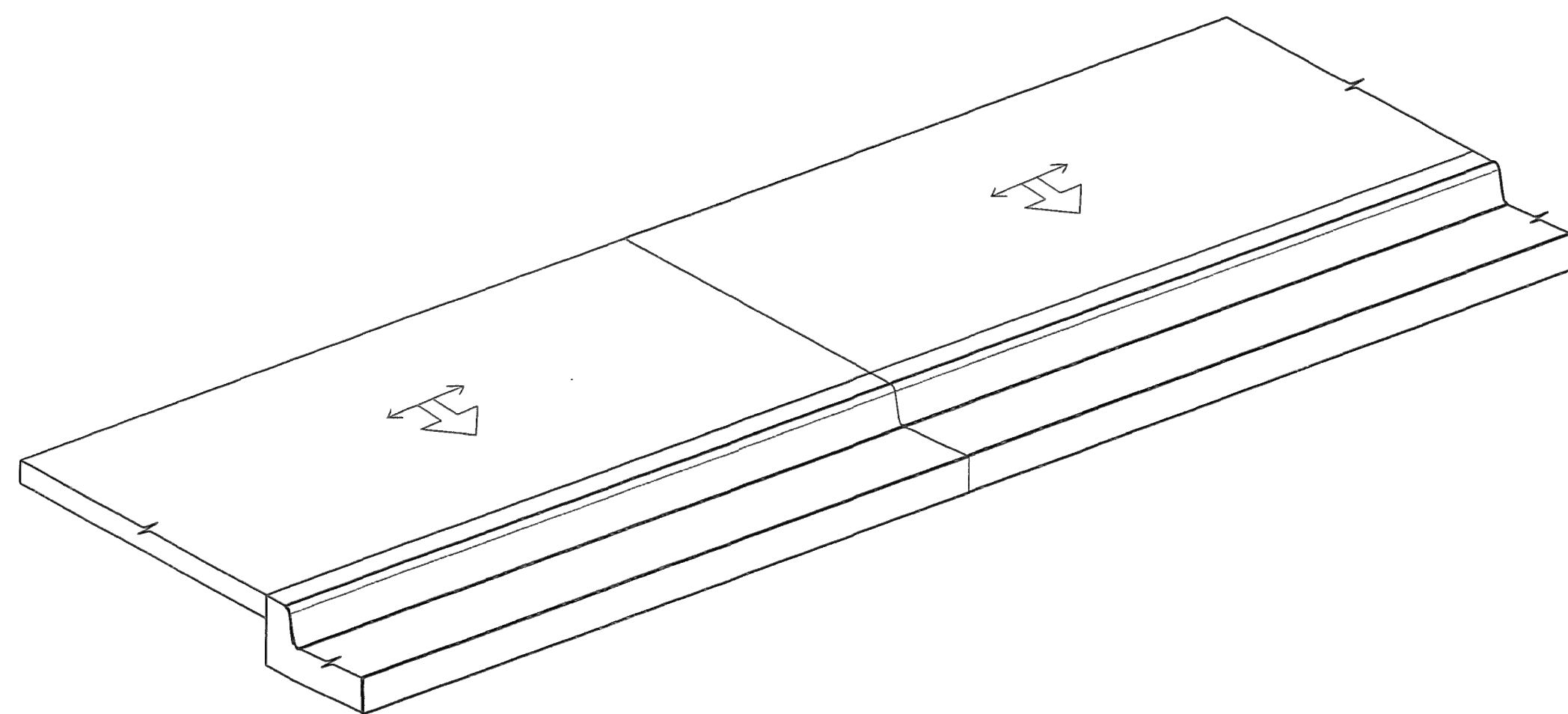
- 1 SEE DRAWING 720-105-01 FOR STANDARD CURB AND GUTTER DETAILS.
- 2 SEE DRAWING 720-901-03 FOR SYMBOLS AND CONSTRUCTION TOLERANCE.
- 3 PLACE TRANSVERSE EXPANSION JOINTS (FULL DEPTH ACROSS THE ENTIRE SIDEWALK WIDTH) WHEN NEAR TURNS IN THE SIDEWALK, AND IN LONG CONTINUOUS RUNS OF SIDEWALK AS DIRECTED IN THE STANDARD SPECIFICATIONS.
- 4 PLACE EXPANSION JOINTS BETWEEN THE SIDEWALK EDGE AND THE BACK OF CURB WHEN ALONG A RADIUS LESS THAN 100'.
- 5 PLACE EXPANSION JOINTS BETWEEN THE SIDEWALK EDGE AND ANY ADJACENT STRUCTURE (RETAINING WALLS, BUILDINGS, ETC.)
- 6 PLACE CONTRACTION JOINTS AT REGULAR INTERVALS BETWEEN EXPANSION JOINTS NOT TO EXCEED STANDARD SPECIFICATION SPACING.
- 7 MEASURE SIDEWALK IN SQUARE YARDS BY THE ACTUAL PLACED AREA OF CONCRETE UP TO THE ADJACENT PAY ITEM LIMITS (CURBS, PEDESTRIAN RAMPS, DRIVEWAYS, ETC.).



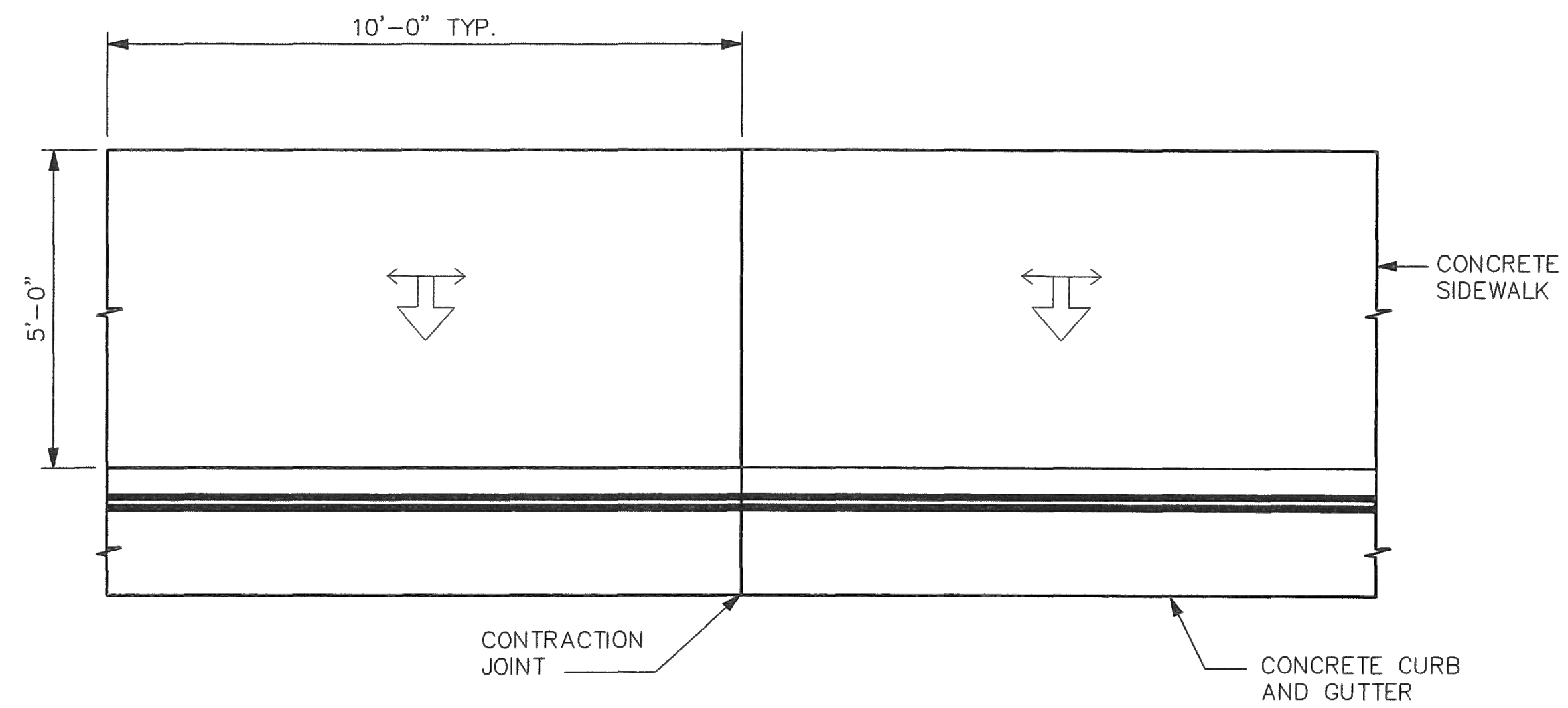
DETAIL 1  
1/2" = 1'-0"  
SIDE ELEVATIONS



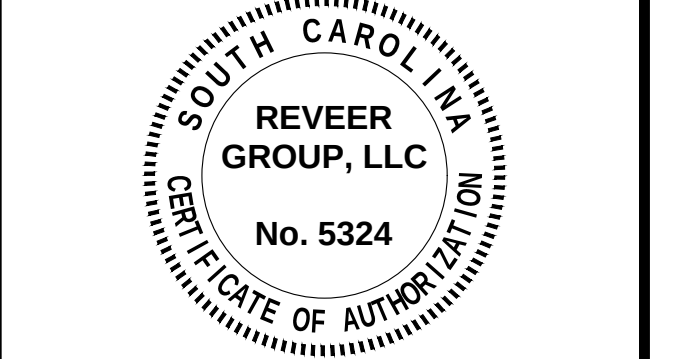
DETAIL 2  
1/2" = 1'-0"  
SIDE ELEVATIONS



DETAIL 4  
ISOMETRIC VIEW



DETAIL 3  
SCALE: 1/4" = 1'-0"  
PLAN VIEW

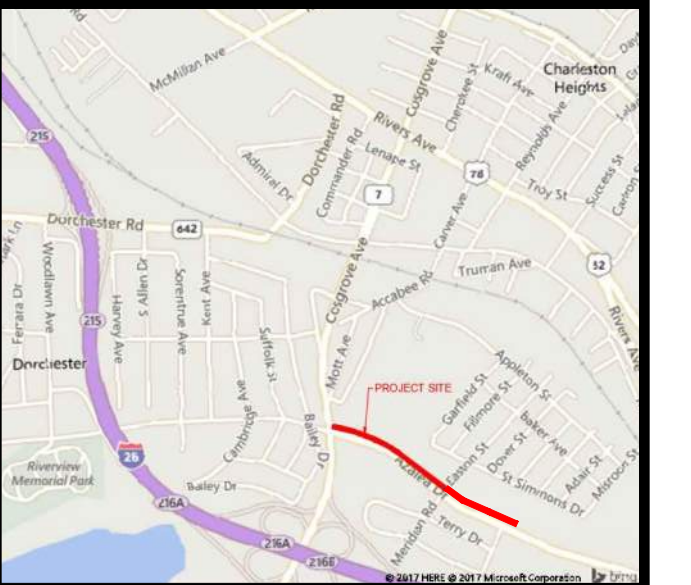


PROJECT OWNER:  
**CHARLESTON COUNTY  
PUBLIC WORKS**

PROJECT TITLE:  
**AZALEA  
DRIVE  
SIDEWALK**

PROJECT LOCATION:  
**NORTH CHARLESTON, SC**

PROJECT NUMBER:  
**0200102.05**



**FOR  
CONSTRUCTION**

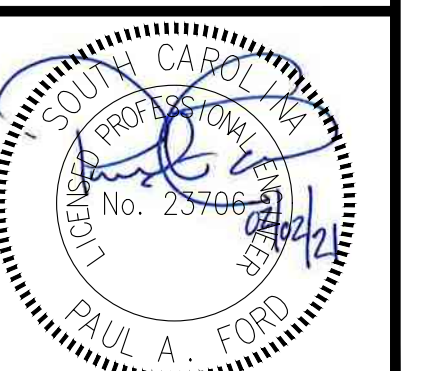
ORIGINAL SUBMISSION: 03/16/2018

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10		

DRAWN BY:  
**MRS/JSM**

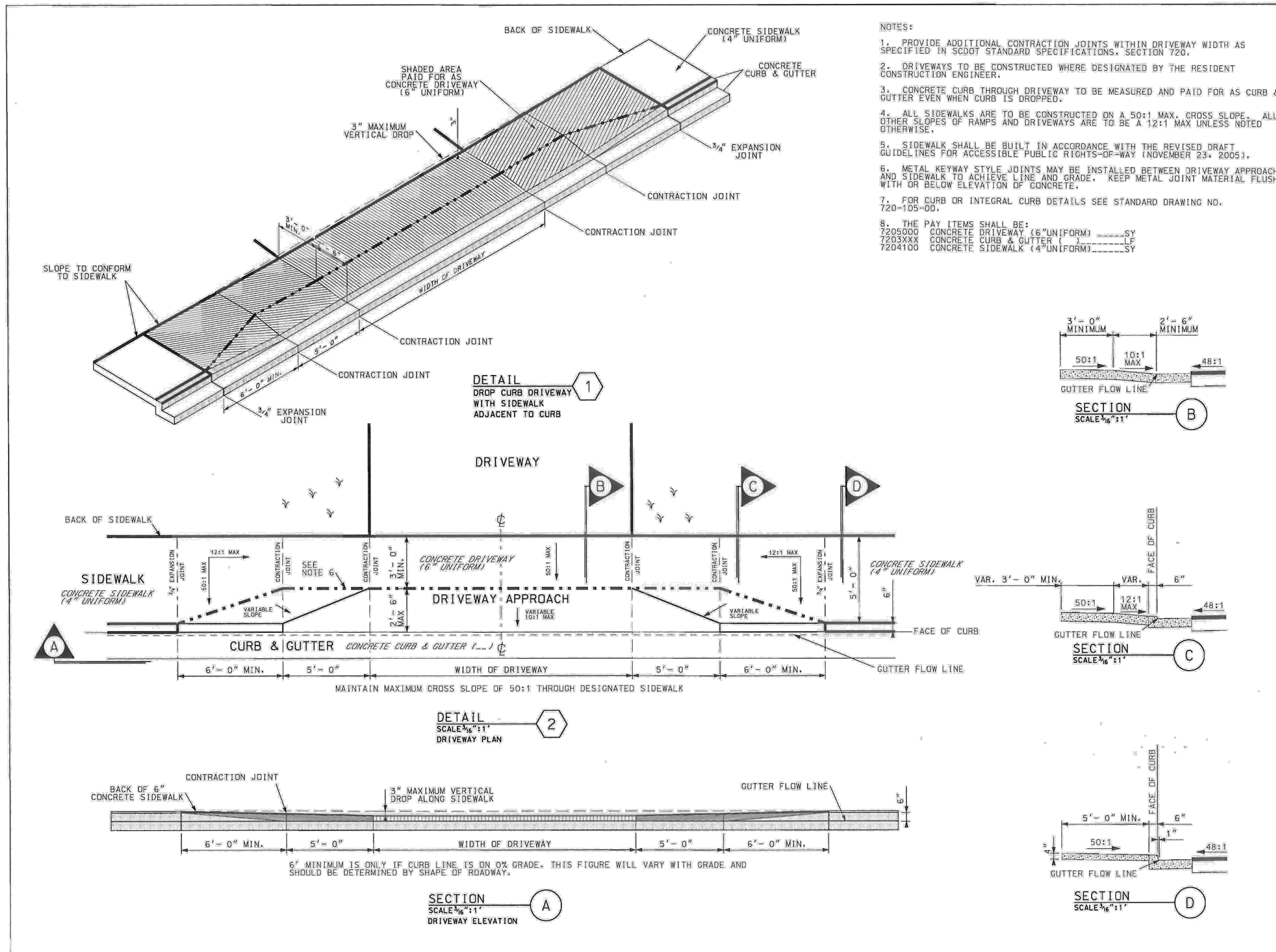
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**PAF**

DATE:  
**02/02/2021**

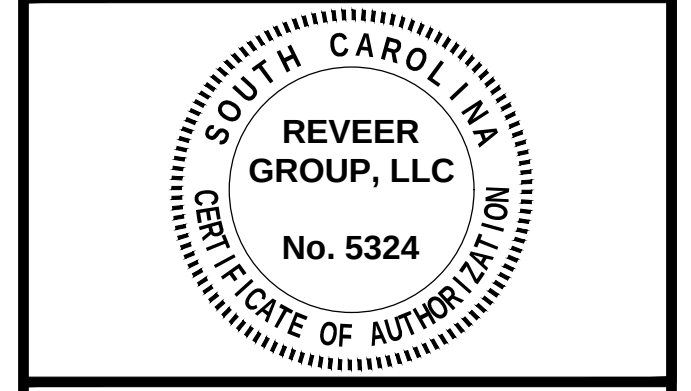


**SCDOT DETAILS**

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- NOTES:
1. PROVIDE ADDITIONAL CONTRACTION JOINTS WITHIN DRIVEWAY WIDTH AS SPECIFIED IN SCDOT STANDARD SPECIFICATIONS, SECTION 720.
  2. DRIVEWAYS TO BE CONSTRUCTED WHERE DESIGNATED BY THE RESIDENT CONSTRUCTION ENGINEER.
  3. CONCRETE CURB THROUGH DRIVEWAY TO BE MEASURED AND PAID FOR AS CURB & GUTTER EVEN WHEN CURB IS DROPPED.
  4. ALL SIDEWALKS ARE TO BE CONSTRUCTED ON A 50:1 MAX. CROSS SLOPE. ALL OTHER SLOPES OF RAMPS AND DRIVEWAYS ARE TO BE A 12:1 MAX UNLESS NOTED OTHERWISE.
  5. SIDEWALK SHALL BE BUILT IN ACCORDANCE WITH THE REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY (NOVEMBER 23, 2005).
  6. METAL KEYWAY STYLE JOINTS MAY BE INSTALLED BETWEEN DRIVEWAY APPROACH AND SIDEWALK TO ACHIEVE LINE AND GRADE. KEEP METAL JOINT MATERIAL FLUSH WITH OR BELOW ELEVATION OF CONCRETE.
  7. FOR CURB OR INTEGRAL CURB DETAILS SEE STANDARD DRAWING NO. 720-105-00.
  8. THE PAY ITEMS SHALL BE:  
 7205000 CONCRETE DRIVEWAY (6" UNIFORM) -----SY  
 7203XXX CONCRETE CURB & GUTTER ( ) -----LF  
 7204100 CONCRETE SIDEWALK (4" UNIFORM) -----SY

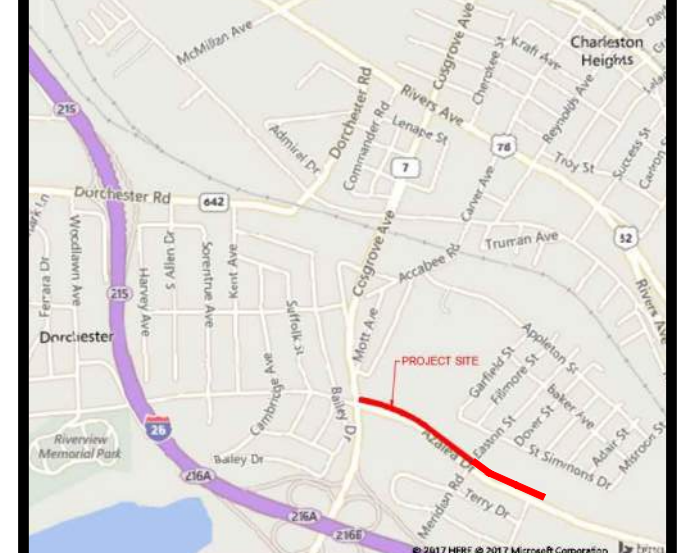


PROJECT OWNER:  
**CHARLESTON COUNTY PUBLIC WORKS**

PROJECT TITLE:  
**AZALEA DRIVE SIDEWALK**

PROJECT LOCATION:  
**NORTH CHARLESTON, SC**

PROJECT NUMBER:  
**0200102.05**



**FOR CONSTRUCTION**

ORIGINAL SUBMISSION: 03/16/2018

REVISIONS:

NO.	DATE	DESCRIPTION
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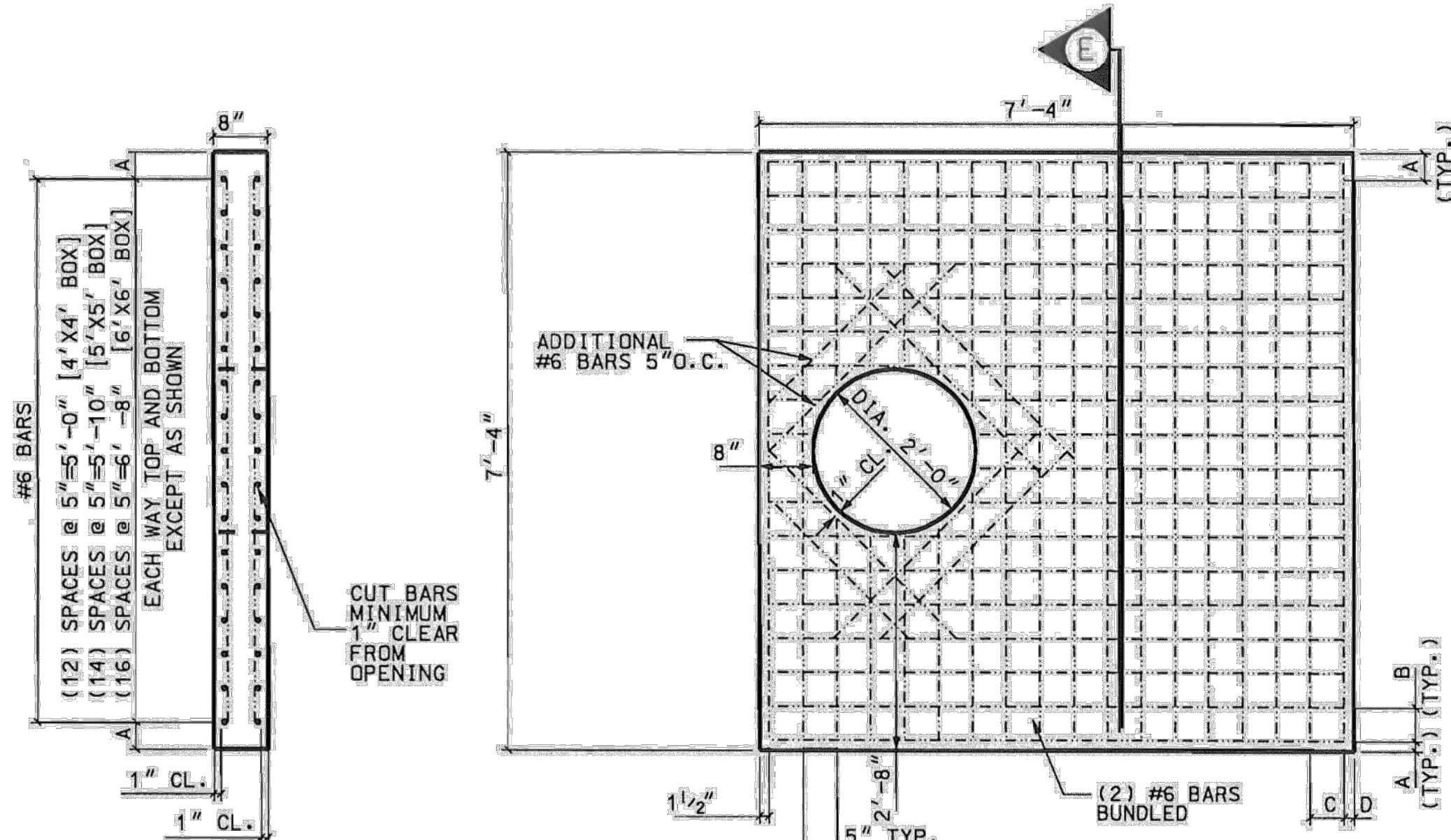
DRAWN BY:  
**MRS/JSM**

APPROVED BY:  
**PAF**

DATE:  
**02/02/2021**

**SCDOT DETAILS**

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SECTION  
SIDE ELEVATION  
MANHOLE INLET  
ADAPTOR (E)

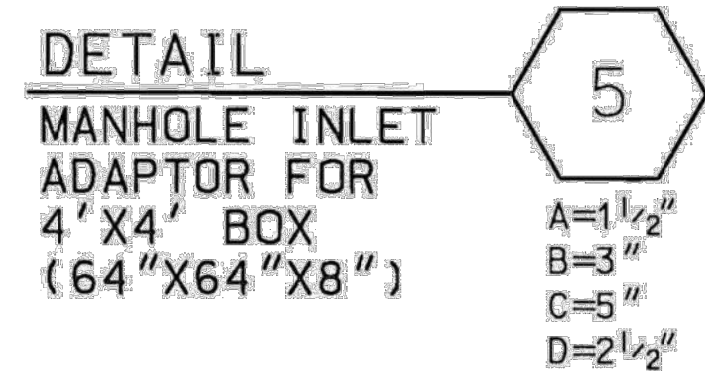
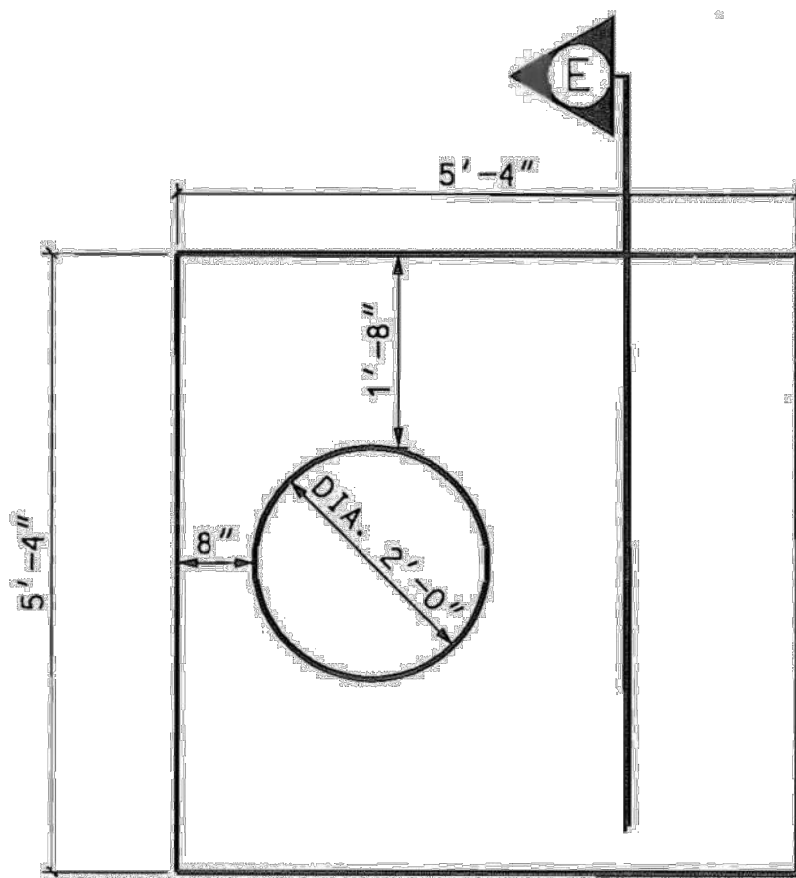
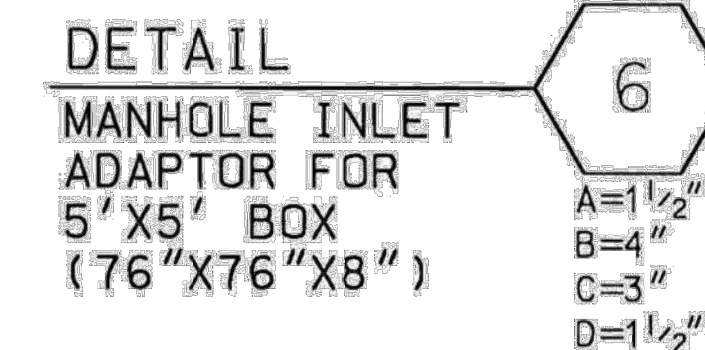
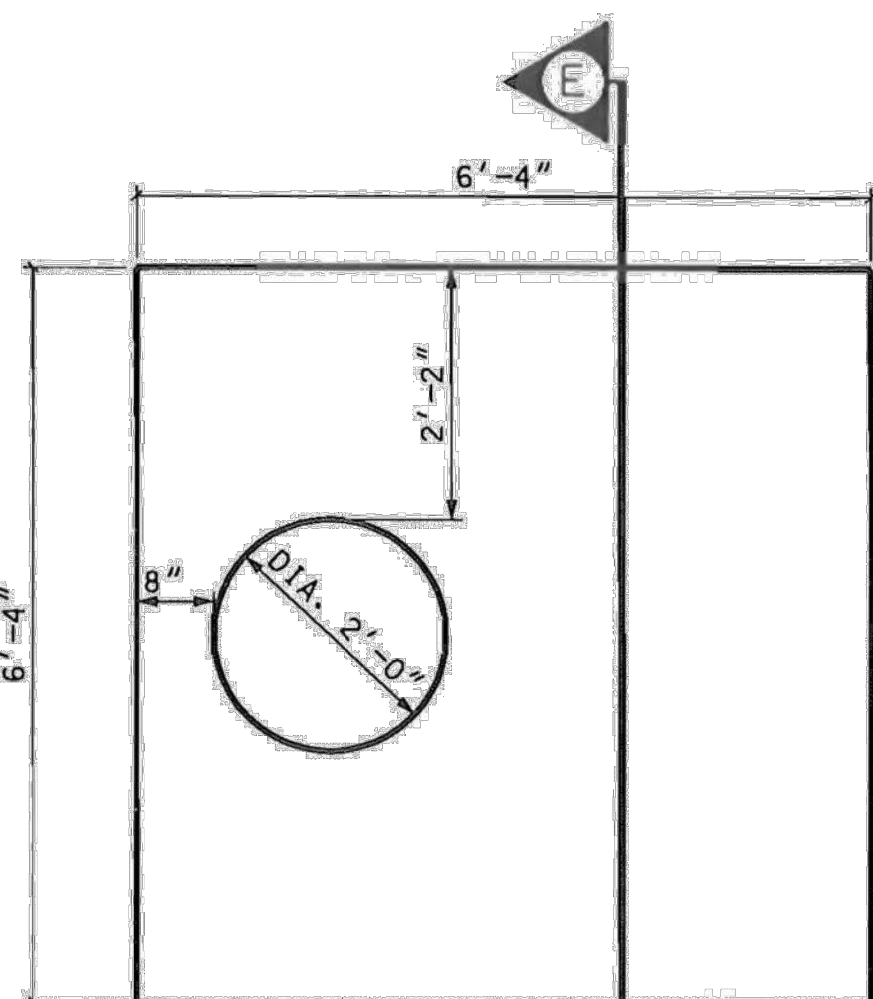
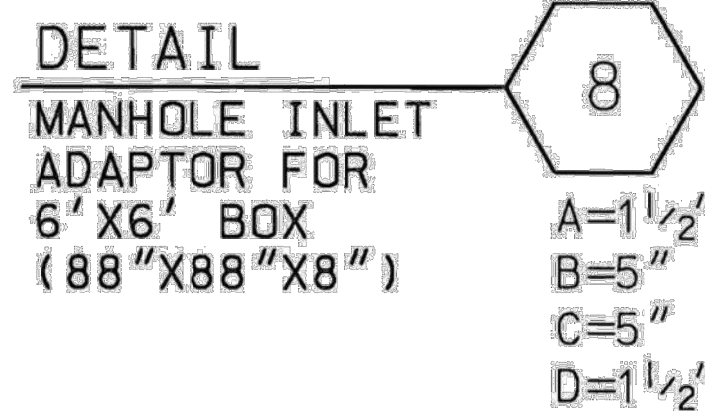
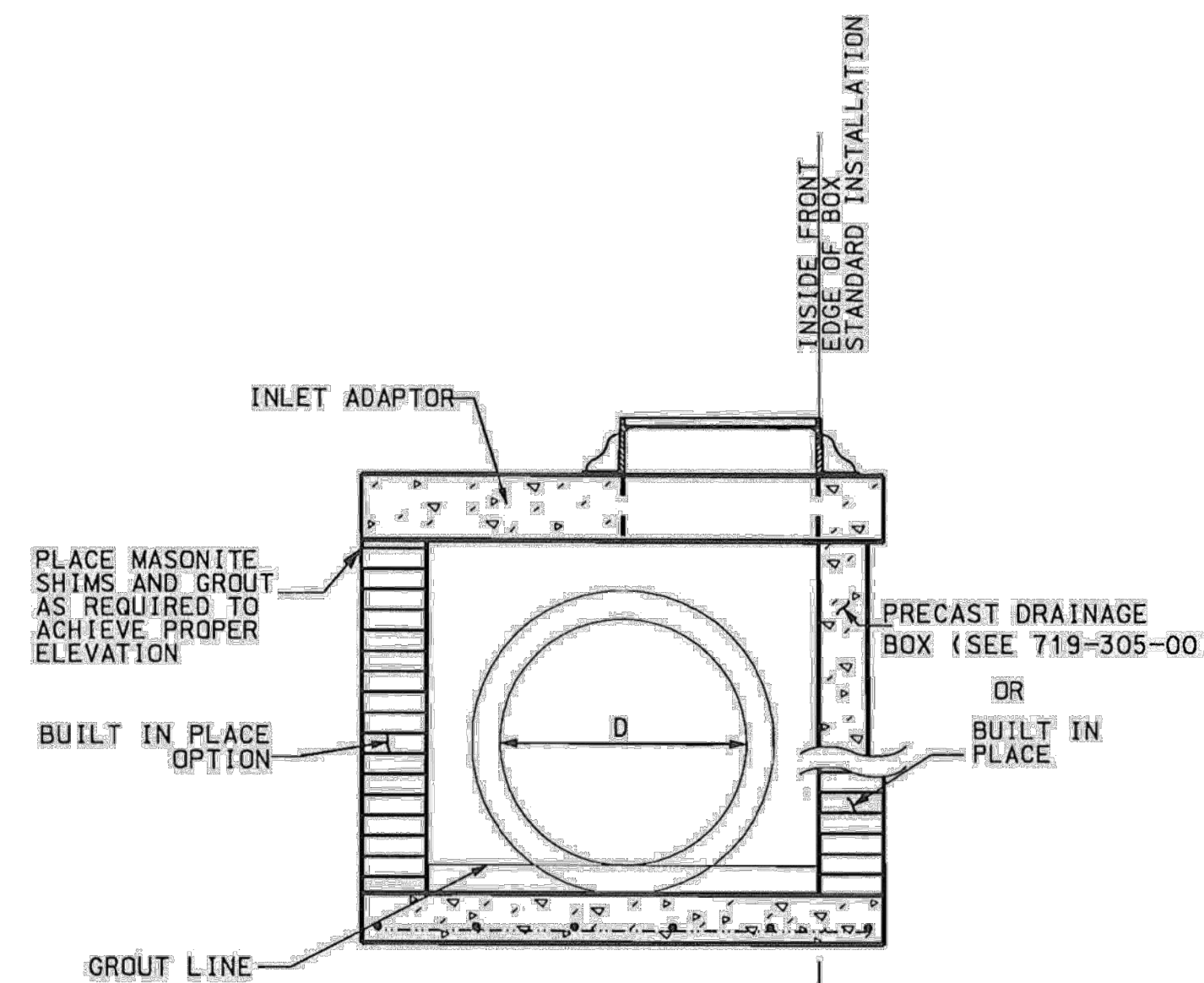


TABLE 719-505D

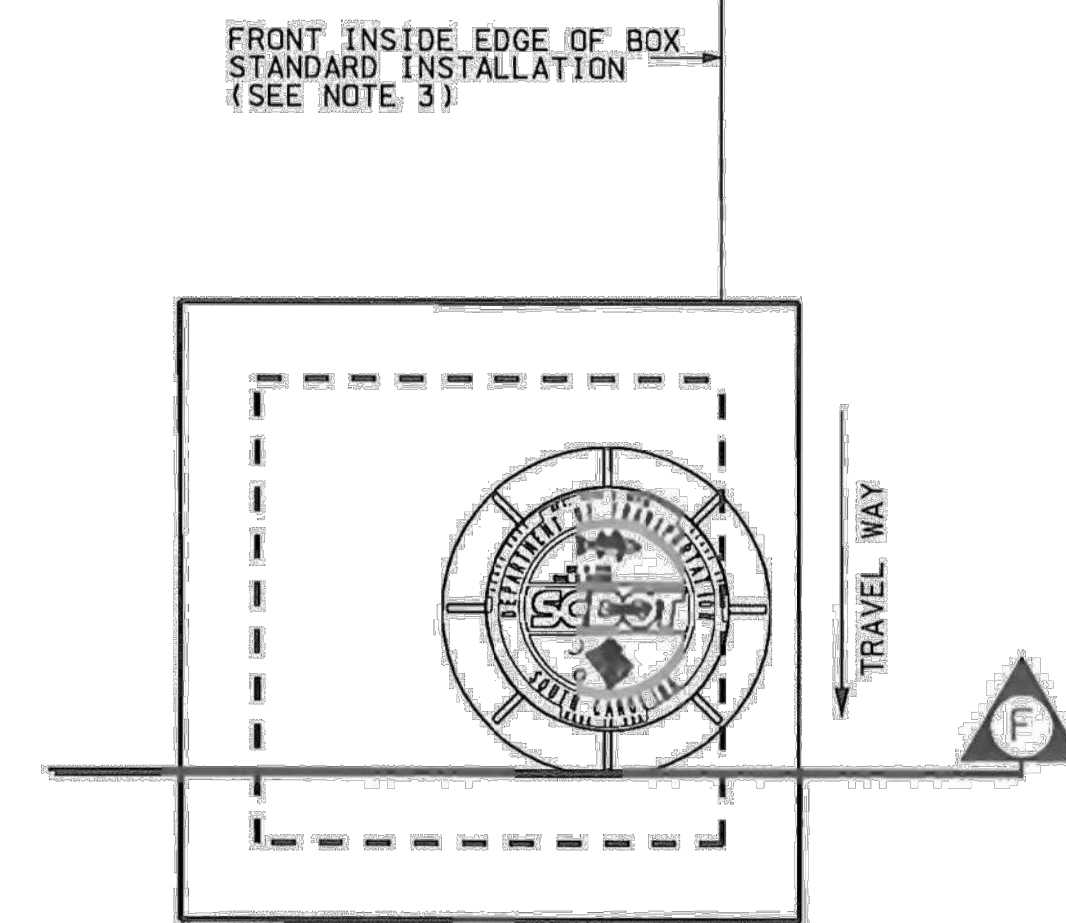
STD. DRAWINGS OF INLET ADAPTORS THAT HAVE SIMILAR STRUCTURAL DESIGN	
CB TYPE 1	719-001-04
CB TYPE 9	719-009-04
DI 24"X24"	719-105-02
DI 24"X36"	719-105-03
MANHOLE	719-505-03
JB SHALLOW	719-330-02

TABLE 719-505C PRECAST ITEMS

MANHOLE INLET ADAPTOR FOR 4X4 BOX (64"X64"X8")
MANHOLE INLET ADAPTOR FOR 5X5 BOX (76"X76"X8")
MANHOLE INLET ADAPTOR FOR 6X6 BOX (88"X88"X8")
SEE ALSO STD. DRAWING 719-505-01 & 719-505-02



SECTION  
SIDE ELEVATION  
MANHOLE INLET  
ADAPTOR INSTALLED (F)

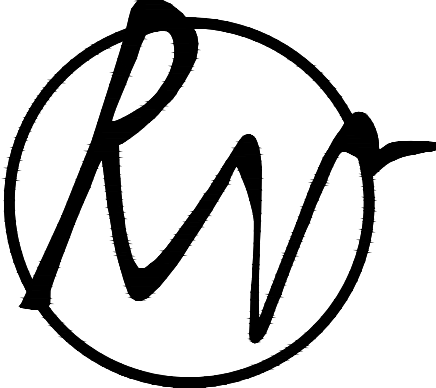


DETAIL  
INSTALLED  
MANHOLE INLET  
ADAPTOR (7)


NOTES:

- ALL MATERIALS, DESIGN, MANUFACTURE, TESTING AND PRODUCT PERFORMANCE FOR PRECAST CONCRETE COMPONENTS AND ACCESSORIES SHALL BE IN ACCORDANCE WITH AASHTO M 199 AND SECTION 719 OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).
- FOR PRECAST CONSTRUCTION A MINIMUM OF CLASS 4000P CONCRETE SHALL BE USED.
- MANHOLE INLET ADAPTORS ARE DESIGNED TO BE REVERSIBLE AND CAN BE ROTATED UP TO 180 DEGREES TO SATISFY FIELD CONDITIONS. ENGINEER SHALL NOTE BOX POSITION ON FINAL PLANS WHEN DIFFERENT FROM STANDARD.
- ALL MANHOLE INLET ADAPTOR SLABS ARE TO BE A MINIMUM OF 8 INCHES THICK WITH THE REINFORCING STEEL PLACED RELATIVE TO THE CATCH BASIN OPENING.
- REINFORCING STEEL SHALL BE ASTM A-706, LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 60.
- USE OF INLET ADAPTOR SLABS ON EXISTING BOXES MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
- FOR USE ON NEW BUILT IN PLACE BRICK BOXES THE MAXIMUM OUTSIDE DIMENSIONS OF THE BOX SHALL NOT EXCEED THE OUTSIDE DIMENSIONS OF THE ADAPTOR SLAB.
- THE ADAPTOR SLAB AS SHOWN IS DESIGNED FOR HS 25 LIVE LOAD.
- CHAIRS ARE TO BE USED TO POSITION THE STEEL MATS IN THE ADAPTOR SLAB.
- RISERS MUST BE PLACED BETWEEN BOX AND INLET ADAPTOR AND MAY NOT BE PLACED BETWEEN INLET ADAPTOR AND MANHOLE FRAME.
- SEE DRAWINGS IN SECTION 719-305-01 AND 719-505-02 OF THE STANDARD DRAWINGS FOR DETAILS ON MANHOLES.
- SEE SCDOT STANDARD DRAWINGS 719-305-00 AND 719-310-00 FOR APPROPRIATE BOX SIZE BASED ON PIPE DIAMETERS REQUIRED.
- SUPPLY PRECAST CONCRETE COMPONENTS FOR DRAINAGE ITEMS AT EACH LOCATION FROM A SINGLE SOURCE PRECAST MANUFACTURER THAT HAS BEEN INSPECTED AND APPROVED BY THE MATERIALS AND RESEARCH ENGINEER. SUPPLY ALL INTERCHANGEABLE PRECAST PARTS ON ENTIRE PROJECT FROM A SINGLE SOURCE MANUFACTURER LISTED ON QUALIFIED PRODUCT LIST 14 UNLESS APPROVED BY RCE. ITEMS FROM MULTIPLE MANUFACTURERS SHOULD NOT BE INSTALLED IN INDIVIDUAL LOCATIONS.
- THE USE OF PRECAST UNITS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING SATISFACTORY INSTALLATIONS. SEE STANDARD DRAWINGS FOR PRECAST CONCRETE DRAINAGE BOX OR STRUCTURE FOR ADDITIONAL DETAILS AND SPECIFICATIONS.
- LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSARY. ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION. ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.
- THE CONTRACTOR SHALL USE MANUFACTURERS LISTED ON QUALIFIED PRODUCT LIST 14 FOR PRECAST ITEMS ON THIS DRAWING. PRECAST MANUFACTURER SHALL FOLLOW QUALIFIED PRODUCT POLICY 14 BEFORE SUPPLYING THIS ITEM ON SCDOT PROJECTS.
- PRECAST ITEMS MODIFIED FROM THIS STANDARD SHALL NOT BE LISTED ON QUALIFIED PRODUCT LIST 14. HOWEVER, CONTRACTOR MAY SUBMIT DESIGN DRAWINGS AND CALCULATIONS TO THE ENGINEER OF RECORD FOR REVIEW.
- JOINTS BETWEEN INSTALLED PIECES AND PRECAST ITEMS TO BE PLACED SHALL BE SEALED WITH A 1/2" GROUT LIFT OR AN APPROPRIATE PLASTIC PREFORMED GASKET (FROM QUALIFIED PRODUCT LIST 13.)
- THE CONTRACT UNIT PRICE FOR MANHOLE WITH STANDARD BOX SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS AND WORK INCIDENTAL TO THE CONSTRUCTION OF THE STRUCTURE COMPLETE IN PLACE AS SHOWN INCLUDING INLET ADAPTOR, MANHOLE SYSTEM, AND SPECIFIED DRAINAGE BOX IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION) AND THIS STANDARD DRAWING.
- PRECAST CONCRETE CIRCULAR STRUCTURES (AS SHOWN ON 719-420-00) ARE REQUIRED FOR THE FOLLOWING APPLICATIONS UNLESS PROHIBITED BY THE PLANS OR SPECIAL PROVISIONS.
  - (a) ON DRAINAGE STRUCTURES WITH A DEPTH EQUAL TO OR GREATER THAN 12 FEET.
  - (b) ON DRAINAGE STRUCTURES WHERE THE FLOW LINE ELEVATION OF THE INLET PIPE IS EQUAL TO OR HIGHER THAN THE INSIDE TOP (SOFFIT) OF THE OUTLET PIPE.
  - (c) AS REQUIRED BY THE PROJECT PLANS.
- THE PAY ITEM SHALL BE:
 

MANHOLE WITH STANDARD 4'X4' BOX	EA.
MANHOLE WITH STANDARD 5'X5' BOX	EA.
MANHOLE WITH STANDARD 6'X6' BOX	EA.
MANHOLE WITH MODIFIED BOX NO. ( )	EA.



REVEER GROUP

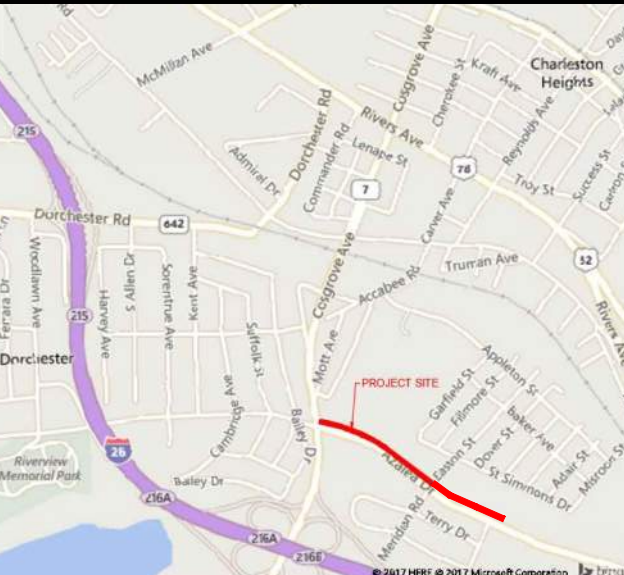


PROJECT OWNER:  
**CHARLESTON COUNTY PUBLIC WORKS**

PROJECT TITLE:  
**AZALEA DRIVE SIDEWALK**

PROJECT LOCATION:  
**NORTH CHARLESTON, SC**

PROJECT NUMBER:  
**0200102.05**



**FOR CONSTRUCTION**


ORIGINAL SUBMISSION: 03/16/2018  
REVISIONS:

NO.	DATE	DESCRIPTION
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2	11/05/2019	SCDOT COMMENTS
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7	08/13/2020	RIGHT-OF-WAY REVISIONS
8	10/19/2020	MS4 REVISIONS
9	02/02/2021	SCDOT & QUANTITY REVISIONS
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DRAWN BY:  
MRS/JSM

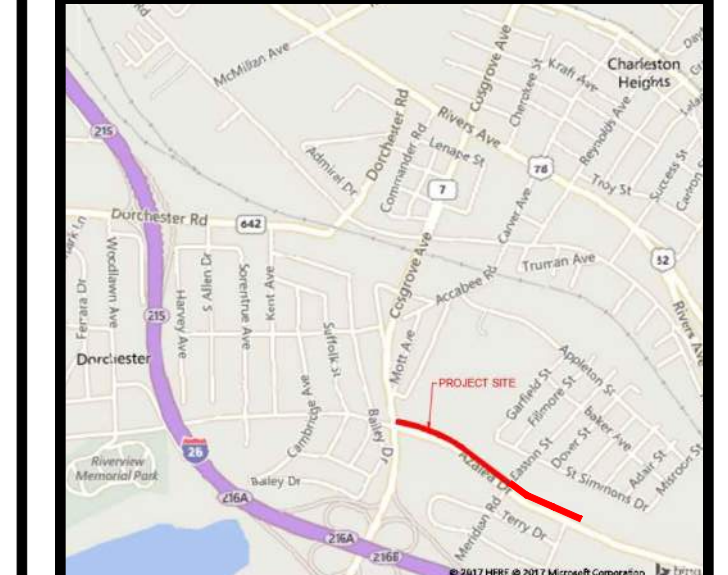
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DATE:  
02/02/2021



**SCDOT DETAILS**

**22**



ORIGINAL SUBMISSION: 03/16/2018

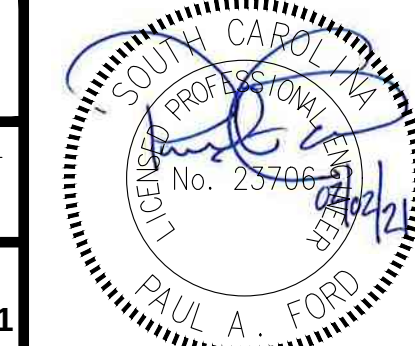
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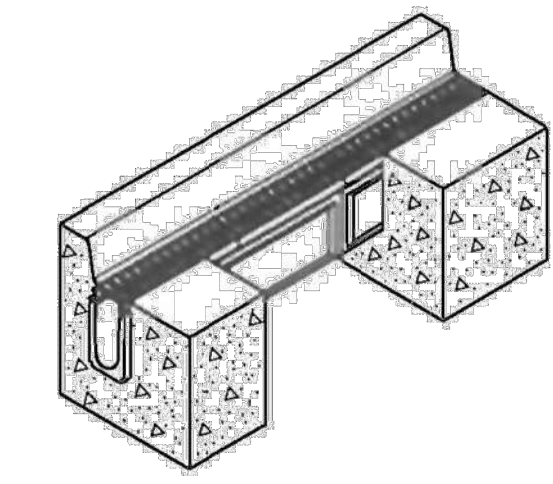
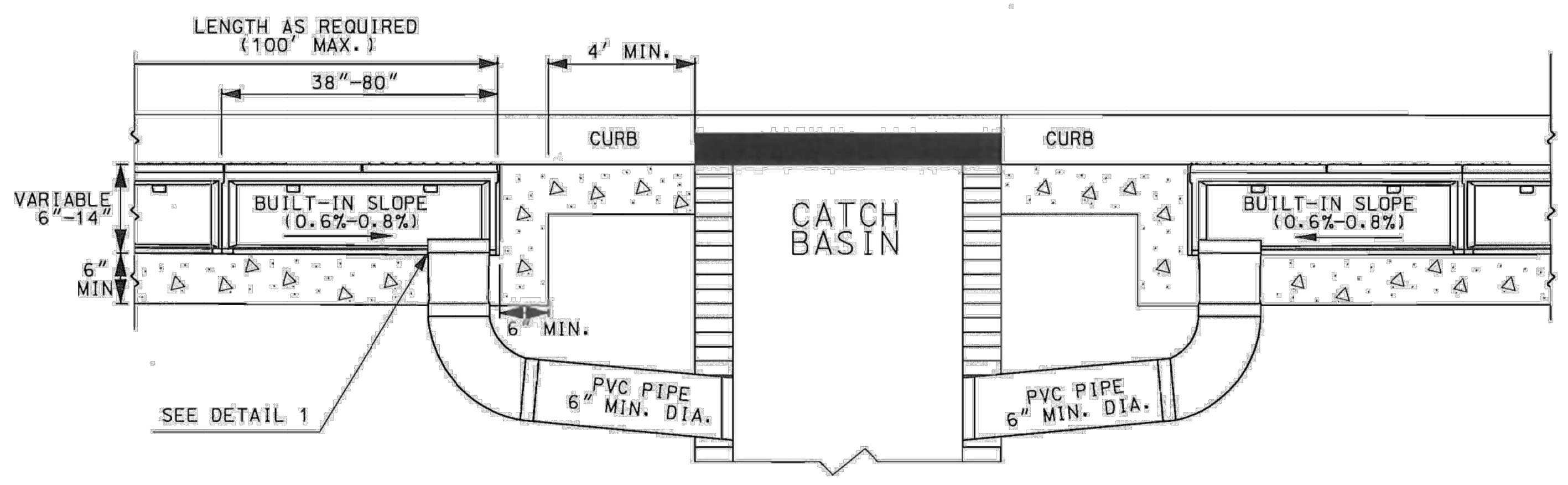
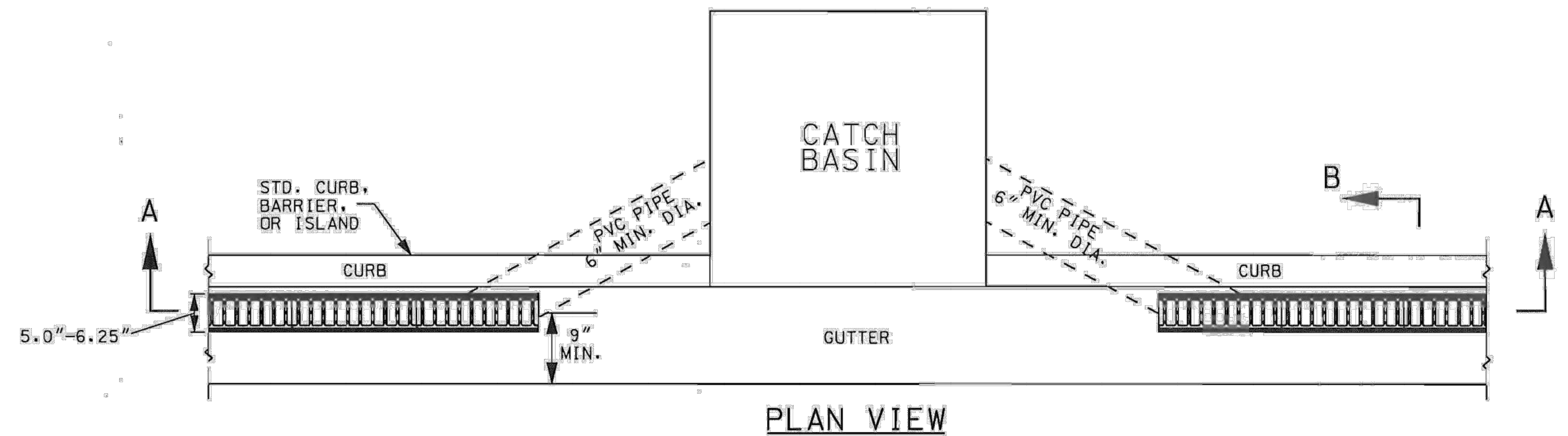
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02/02/2021



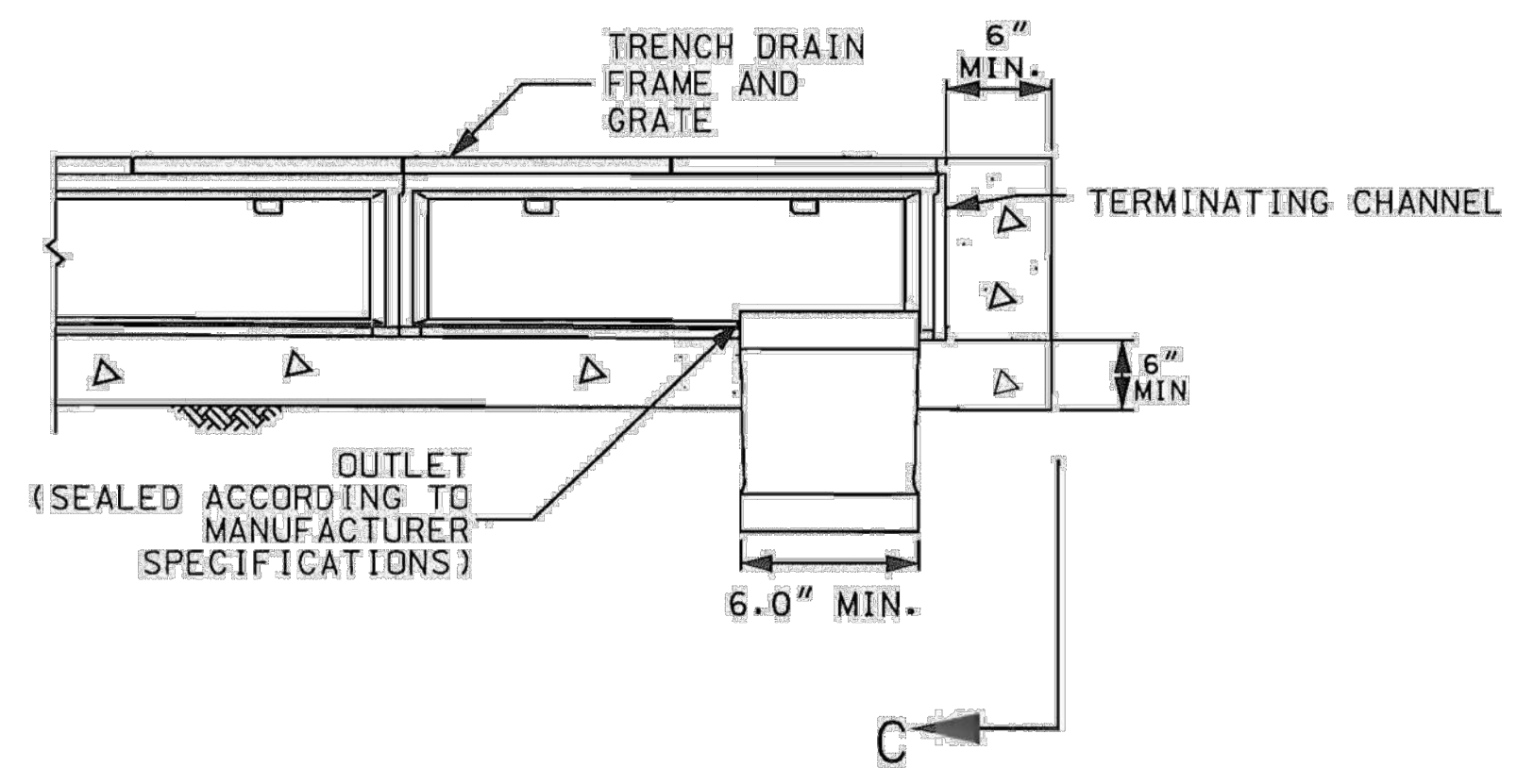
NOTES:

- TRENCH DRAINS SHALL BE USED TO ASSIST DRAINAGE WHERE GUTTER GRADES ARE LESS THAN 0.10% OR SURFACE WATER ON THE ROADWAY INTERFERES WITH TRAFFIC, AND CATCH BASIN SPACING DOES NOT PROVIDE ADEQUATE DRAINAGE. TRENCH DRAINS MAY BE PLACED WITH GRADES OPPOSING THE GUTTER GRADE NO GREATER THAN 0.20%. FLOW LINES OF THE TRENCH DRAIN ARE NORMALLY FIXED AT BETWEEN 0.60% - 0.80%, BUT VARY ACCORDING TO THE GRADE OF THE GUTTER. ACTUAL ELEVATIONS ON PROFILE MUST BE CHECKED TO DETERMINE PERCENT GRADE IN VERTICAL CURVES. SECTIONS WITH A NEUTRAL SLOPE SHALL NOT BE USED.
- SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.
- FOR TRENCH DRAIN APPLICATION TYPES, SEE STANDARD 719-205-02.
- TOP OF GRATE MUST BE INSTALLED FLUSH TO 0.125 INCHES BELOW FINISHED GRADE. BEVEL CONCRETE TO TOP OF GRATE IF BELOW FLUSH. GRATE INFLOW AREA SHALL BE A MINIMUM OF 0.25 SQUARE FEET PER LINEAR FOOT. THE GRATE BARS SHALL BE TRANSVERSE TO THE ROADWAY AND ALL GRATES SHALL BE BICYCLE SAFE. IN AREAS OF PEDESTRIAN TRAFFIC, GRATES SHALL HAVE OPENINGS NO GREATER THAN 1/2 INCH WIDE.
- PERIODIC VISUAL ON-SITE INSPECTIONS SHOULD BE MADE TO INSURE PROPER OPERATION OF THE TRENCH DRAIN AND TO PREVENT DEBRIS OBSTRUCTION.
- WHEN TRENCH DRAIN IS USED THROUGH A DRIVEWAY AND IS NOT IN THE CURB & GUTTER, IT IS PAID FOR AS TRENCH DRAIN (DRIVEWAY APPLICATION). QUANTITIES FOR CURB & GUTTER AND TRENCH DRAINS WILL NOT OVERLAP, BUT WILL BE PAID FOR AS SHOWN BELOW. PAYMENT AS SHOWN BELOW INCLUDES ALL INCIDENTALS AS SHOWN HERE AND ALSO SHOWN ON THE PLANS. PAYMENT OF TRENCH DRAIN SHALL INCLUDE THE 6" OF MINIMUM CONCRETE EXTENDING BEYOND THE END OF THE TRENCH DRAIN.
- THE PAY ITEMS ARE:

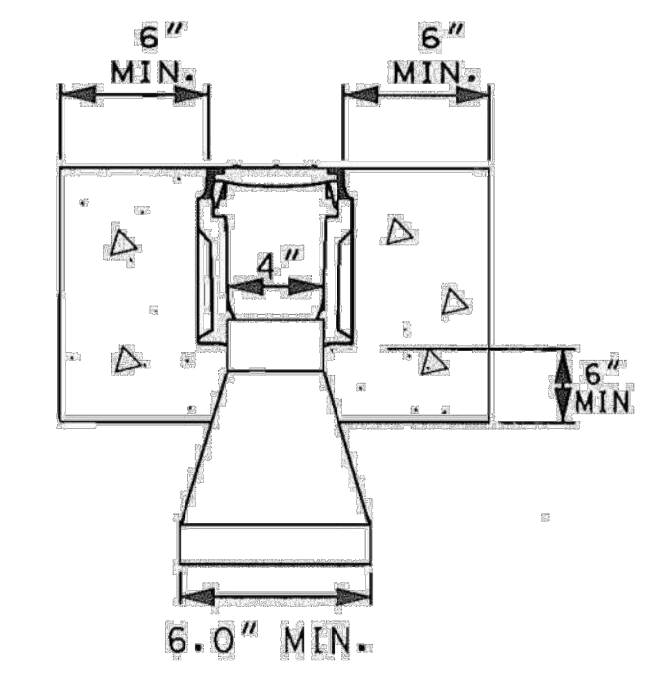
TRENCH DRAIN-4" INTERIOR DIMENSION WITH 1.5 FT. CURB & GUTTER	.....	L	.....
TRENCH DRAIN-4" INTERIOR DIMENSION WITH 2.0 FT. CURB & GUTTER	.....	L	.....
TRENCH DRAIN-4" INTERIOR DIMENSION WITH 2.5 FT. CURB & GUTTER	.....	L	.....
TRENCH DRAIN-4" INTERIOR DIMENSION (DRIVEWAY APPLICATION)	.....	L	.....
CONCRETE GUTTER	.....	L	.....



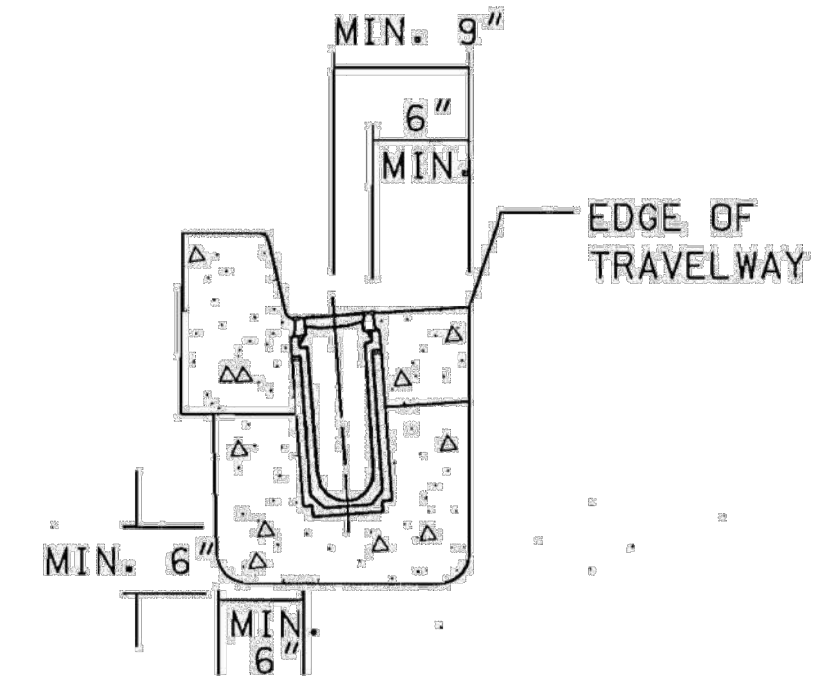
ISOMETRIC VIEW  
CURB AND GUTTER  
WITH TRENCH DRAIN



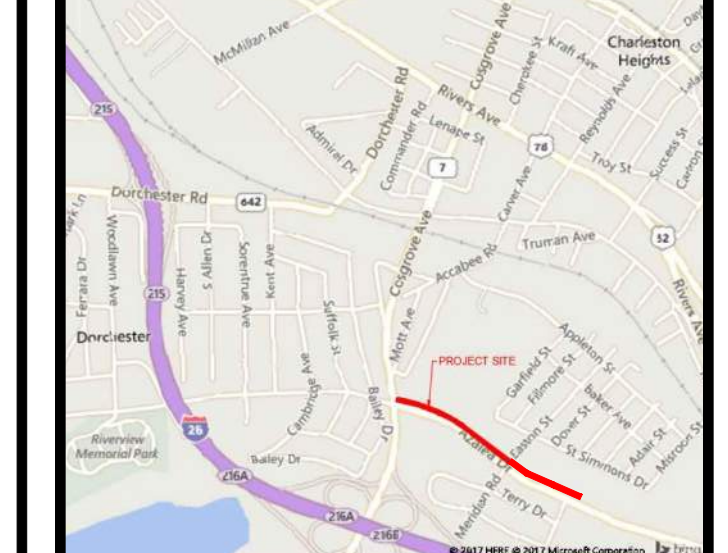
DETAIL 1  
SIDE ELEVATION VIEW  
6" DRAIN OUTLET



SECTION C  
END ELEVATION VIEW  
6" DRAIN OUTLET



SECTION B  
CURB AND GUTTER  
WITH TRENCH DRAIN  
TYPICAL SECTION



ORIGINAL SUBMISSION: 03/16/2018

REVISIONS:

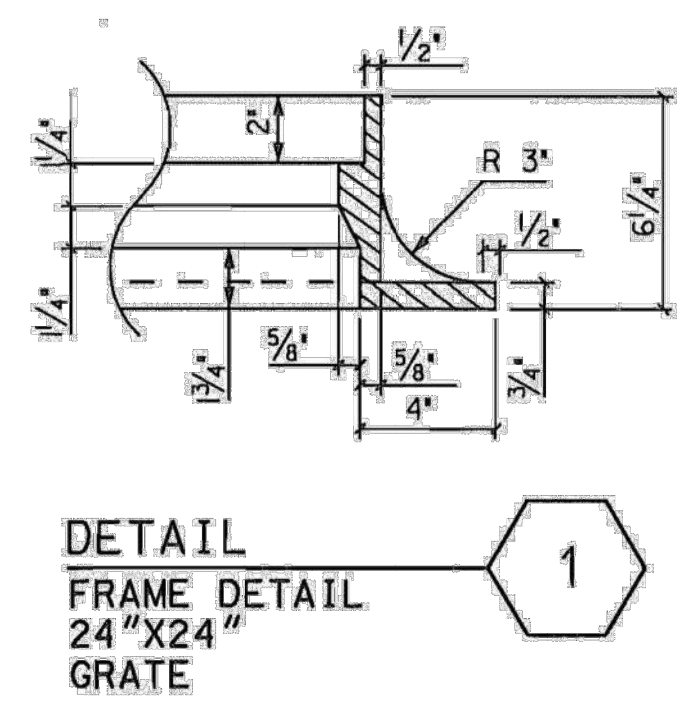
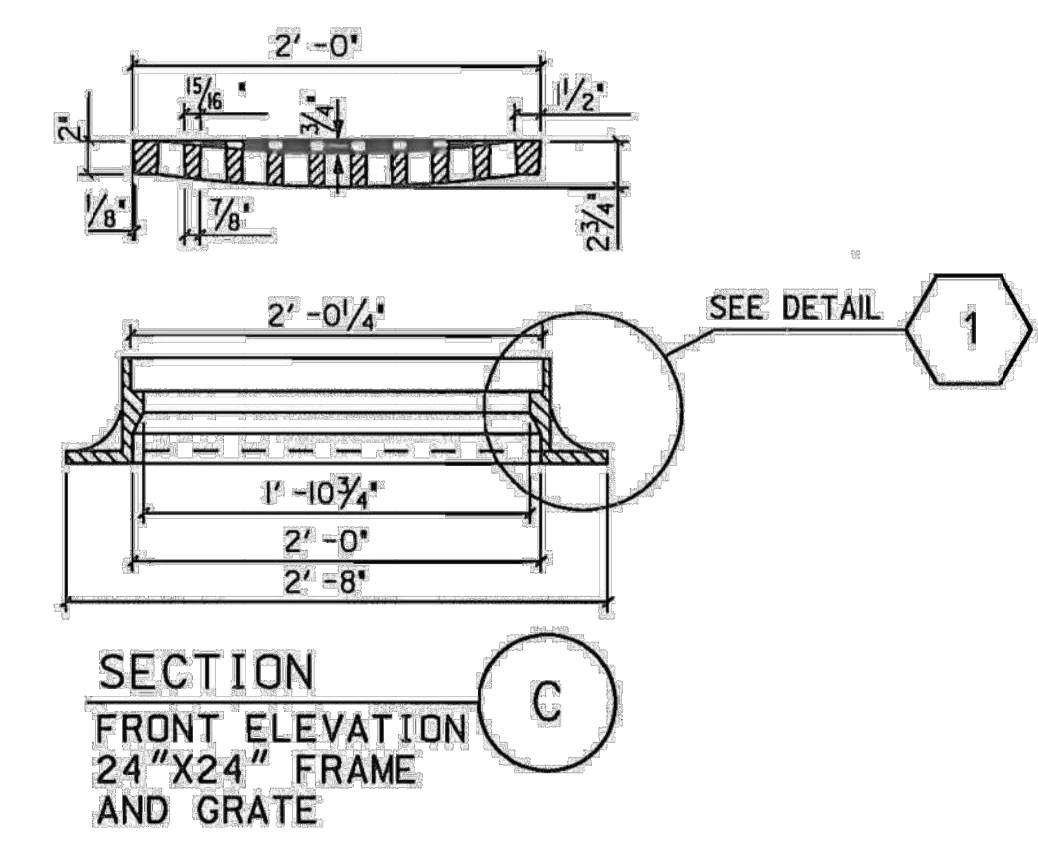
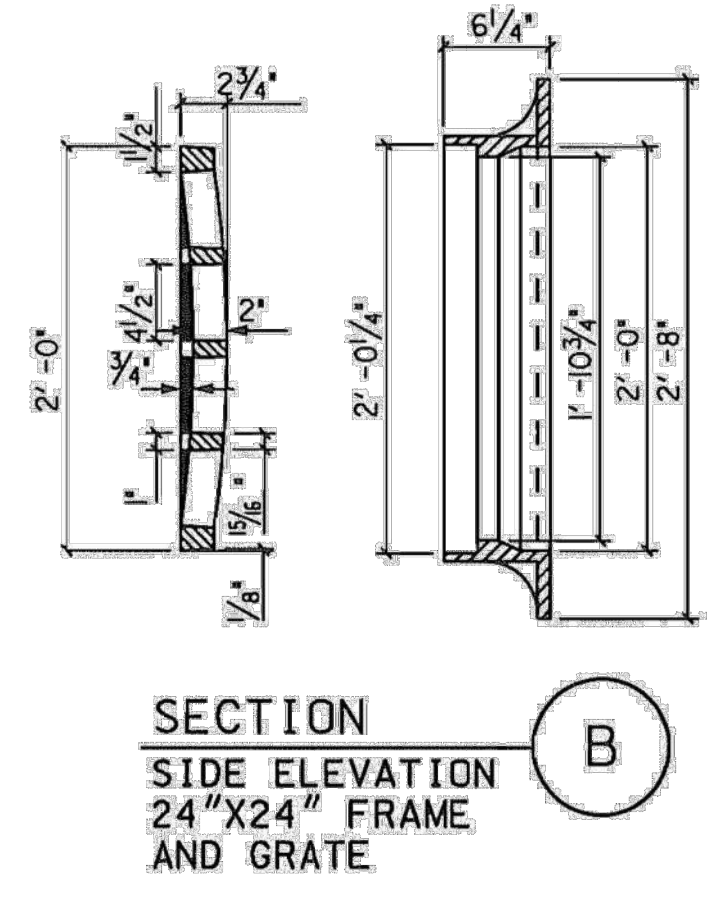
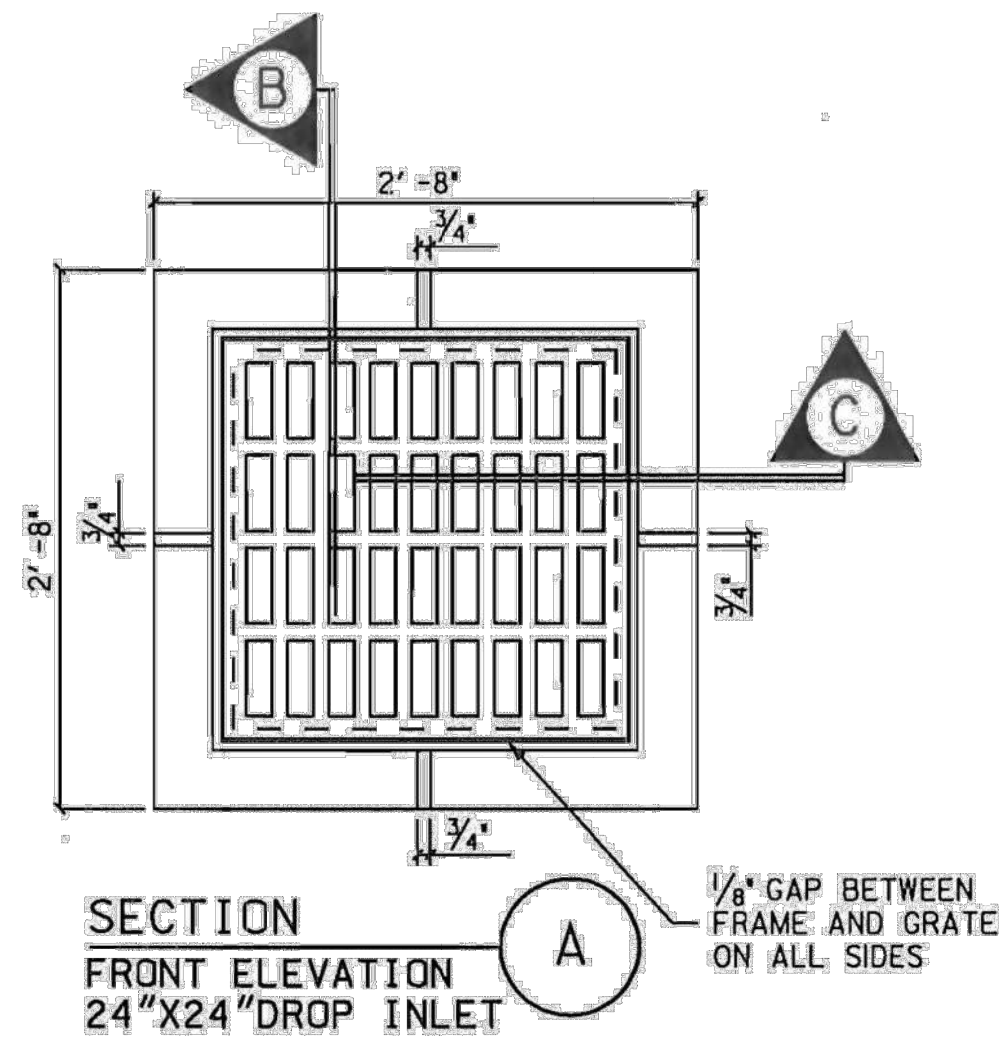
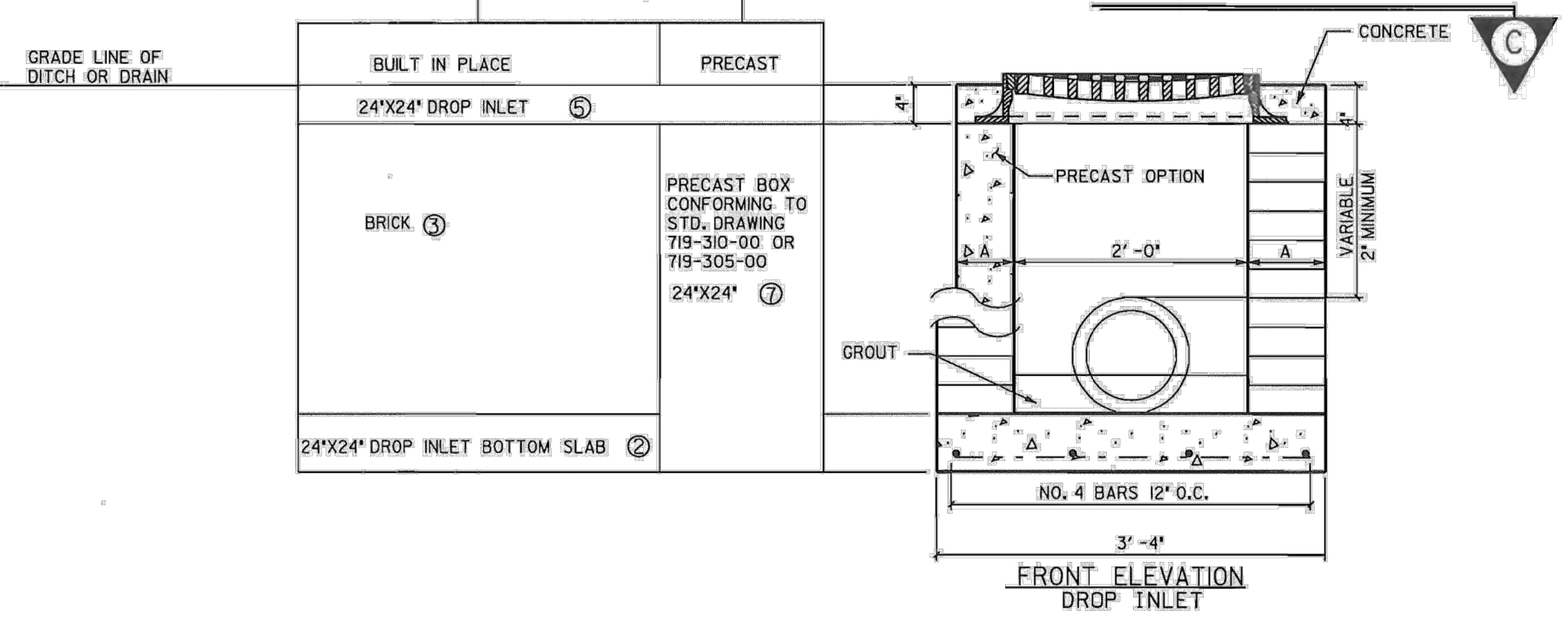
NO.	DATE	DESCRIPTION
1	05/17/2018	SCDOT COMMENTS
2	11/05/2019	SCDOT COMMENTS
3	01/22/2020	SCDOT COUNTY REVIEW
4	03/06/2020	SCDOT COUNTY REVIEW
5	05/20/2020	SCDOT COMMENTS
6	07/14/2020	SLOPE PERMISSIONS REVISION
7	08/13/2020	RIGHT-OF-WAY REVISIONS
8	10/19/2020	MS4 REVISIONS
9	02/02/2021	SCDOT & QUANTITY REVISIONS
10		

DRAWN BY:  
MRS/JSM

APPROVED BY:  
PAF

DATE:  
02/02/2021

- CONTRACTOR MAY USE PRECAST OR BUILT IN PLACE CONSTRUCTION AS NOTED OR COMBINE OPTIONS AS DESIRED. SEE QUALIFIED PRODUCT LIST 14 FOR MANUFACTURERS OF PRECAST ITEMS.
- 24"X24" DROP INLET**
- BUILT IN PLACE**
- ② 24"X24" DROP INLET BOTTOM SLAB (PC OR CIP 40"X40"X6") AND
  - ③ BRICK WALLS (8") AND
  - ⑤ 24"X24" DROP INLET FRAME AND GRATE
- PRECAST**
- ⑦ PRECAST BOX CONFORMING TO STD. DRAWING 719-310-00 OR 719-305-00 (2'X2'XH) AND
  - ⑤ 24"X24" DROP INLET FRAME AND GRATE



**TABLE 719-105B**

STANDARD PC ITEMS FOR DROP INLET

ITEM	DESCRIPTION
②	(24"X24") DROP INLET BOTTOM SLAB (PC OR CIP 40"X40"X6")

SEE ALSO STD. DRAWING 719-310-00 OR 719-305-00

**TABLE 719-105A**

24"X24" DROP INLET

DIMENSION	BUILT IN PLACE OPTION	PRECAST
A	8"	6"
B	24"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X2'XH) PRECAST BOX
C	3'-4"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X2'XH) PRECAST BOX

USE SHEETS 719-105-01 THROUGH 719-105-02 FOR THIS ITEM.  
THIS DRAWING IS NOT TO SCALE

- NOTES:**
- SEE 719-110-01 FOR DROP INLET (24"X 36"). FOR BUILT IN PLACE CONSTRUCTION OF THE CATCH BASIN WALLS, EITHER BRICK MASONRY (WALLS ONLY) OR CIP CLASS 3000 CONCRETE MAY BE USED. FOR PRECAST CONSTRUCTION, A MINIMUM OF CLASS 4000P CONCRETE SHALL BE USED.
  - CONCRETE WALLS ARE TO BE 6" THICK WITH A MINIMUM REINFORCING STEEL AREA 0.20 SQUARE INCHES PER FOOT UNLESS NOTED. FOR BRICK, THE WALLS ARE TO BE 8" THICK CONCRETE BRICK AND SIMILAR SOLID UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 55, GRADE S-11. THE INTERIOR DIMENSIONS ARE TO REMAIN AS SHOWN FOR EITHER TYPE OF CONSTRUCTION.
  - THE BOTTOM SLAB OF THE BOX SHALL BE A MINIMUM OF 6" THICK REINFORCED CONCRETE (CLASS 3000 OR 4000P) WITH A REINFORCING STEEL AREA OF 0.20 SQUARE INCHES PER FOOT. WIRE MESH BE USED IN LIEU OF STEEL BARS PROVIDED A MINIMUM OF 0.20 SQUARE INCHES PER FOOT IS MET.
  - MORTAR SHALL BE TYPE S OR M.
  - REINFORCING STEEL SHALL BE ASTM A-706, LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 60. WIRE MESH SHALL CONFORM TO AASHTO M 55 AND M 60.
  - SEE STANDARD DRAWING 719-550-00 FOR STEPS, WHICH ARE REQUIRED WHEN STRUCTURE DEPTH EXCEEDS 4'-6".
  - SEE STANDARD DRAWINGS 719-420-00 AND 719-425-00 FOR DEPTHS GREATER THAN 12'. PRECAST CONCRETE CIRCULAR DRAINAGE STRUCTURES ARE REQUIRED WHEN THE DEPTH FROM THE TOP OF THE DRAINAGE BOX BOTTOM SLAB TO THE TOP OF THE GROUND EXCEEDS 12'-0".
  - LOCATION AND SIZE OF PIPES ARE SITE SPECIFIC. (SEE DRAINAGE PLANS). THE BOTTOM OF THE CATCH BASIN IS TO BE GROUTED TO THE LOWEST FLOW LINE ELEVATION OF ALL PIPES. BOTTOM SLAB IS CAST IN PLACE WITH PIPES INSTALLED; BOTTOM SLAB THICKNESS MUST BE ACHIEVED BEYOND PIPE OUTSIDE DIAMETER.
  - THE FLOOR OF THE BASIN MUST SLOPE IN THE DIRECTION OF THE OUTLET PIPE AS SHOWN AND THE INSIDE OF OUTLET PIPE SHALL BE FLUSH WITH FLOOR OF BASIN.
  - SEE STANDARD DRAWING 719-305-00 OR 719-310-00 FOR MAXIMUM PIPE DIAMETERS. THE PIPE SIZES SHOWN ARE MAXIMUM FOR BRICK AND PRECAST BOXES WHEN PIPE ENTERS PERPENDICULAR AND AT THE CENTER OF THE BOX WALL. CONTRACTOR SHOULD CONFIRM THAT PIPE USED FITS APPROPRIATELY INTO BOX.
- FRAME AND GRATE NOTES:**
- ALL CASTINGS SHALL CONFORM TO AASHTO M 105, CLASS 35B AND THE SPECIFICATIONS OF AASHTO M 306
  - (a) STEEL GRATES AND FRAME MAY BE USED IN LIEU OF CAST IRON AS LONG AS THE LOADING (NOTE 12d) AND HYDRAULIC REQUIREMENTS ARE MET, AND ARE ON THE DEPARTMENT'S LIST OF APPROVED SUPPLIERS. (QUALIFIED PRODUCT LIST 45)
  - (b) STEEL GRATES SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
  - (c) STEEL GRATES AND FRAMES SHALL BE DIMENSIONED TO BE INTERCHANGEABLE WITH EACH PIECE OF THE CAST IRON GRATE AND FRAME SHOWN. STEEL GRATES MUST HAVE POSITIVE MEANS TO BE RETAINED IN THE FRAME.
  - (d) STRENGTH REQUIREMENTS OF STEEL GRATES AND FRAMES MUST MEET AASHTO M 306
  - (e) MANUFACTURERS DESIRING TO BE PLACED ON THE DEPARTMENT'S QUALIFIED PRODUCT LIST SHOULD CONTACT THE MATERIALS AND RESEARCH ENGINEER FOR PROCEDURES.
  - THE LONGEST DIMENSIONS OF THE OPENING IN THE IRON GRATE SHOULD BE ORIENTED IN THE DIRECTION OF FLOW. IF PRACTICABLE, THIS GRATE IS NOT SUITABLE FOR PEDESTRIAN TRAFFIC BECAUSE GRATE OPENINGS EXCEED 1/2".
  - AS SHOWN BY THIS DRAWING, THE FRAME IS SET LEVEL, BUT THE ENGINEER MAY SET SAME ON SLOPE AS REQUIRED BY LOCAL DRAINAGE CONDITIONS.
  - AFTER THE FRAME IS SET IN ITS FINAL POSITION, IT IS TO BE ENCASED WITH CONCRETE AS SHOWN BY DRAWING.
  - ALL MANUFACTURING PROCESSES FOR THE FRAME AND GRATE MUST OCCUR IN THE UNITED STATES.
- PRECAST NOTES:**
- THE USE OF PRECAST UNITS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING SATISFACTORY INSTALLATIONS. SEE STANDARD DRAWINGS FOR PRECAST CONCRETE DRAINAGE BOX OR STRUCTURE FOR ADDITIONAL DETAILS AND SPECIFICATIONS.
  - LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSARY. ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION. ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.
  - THE CONTRACTOR SHALL USE A SINGLE SOURCE MANUFACTURER CHOSEN FROM THE LIST ON QUALIFIED PRODUCT LIST 14 FOR PRECAST ITEMS ON THIS DRAWING.
  - FOLLOW QUALIFIED PRODUCT POLICY 14 IN ORDER TO BE LISTED ON QUALIFIED PRODUCT LIST 14.
  - CONTRACTOR MAY SUBMIT DESIGN DRAWINGS AND CALCULATIONS FOR MODIFICATIONS TO THIS ITEM ON A PROJECT BY PROJECT BASIS. MODIFICATIONS TO THESE ITEMS WILL NOT BE LISTED ON ANY QUALIFIED PRODUCT LIST. SUBMIT ALL PROPOSALS FOR PROJECT SPECIFIC MODIFICATIONS TO THE RESIDENT ENGINEER FOR REVIEW BY THE ENGINEER OF RECORD.
  - JOINTS BETWEEN INSTALLED PIECES AND PRECAST ITEMS TO BE PLACED SHALL BE SEALED WITH A 1/2" GROUT LIFT OR AN APPROPRIATE PLASTIC PREFORMED GASKET (QUALIFIED PRODUCT LIST 13.)
- PRECAST INSTALLATION NOTES:**
- BED SHALL BE PREPARED AND COMPACTED FOR PRECAST DRAINAGE STRUCTURE AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS FOR PRECAST ITEMS. ELEVATION OF BEDDING MATERIAL SHALL BE APPROPRIATE TO ACCOMMODATE ELEVATIONS OF ALL PIPES AND REQUIRED BOX TOP ELEVATION.
  - PLACE AND LEVEL PRECAST BOX OR SLAB.
  - PIPES SHALL BE INSTALLED AND GROUTED IN PLACE.
  - PIPES AND BOX SHALL BE BACKFILLED AND COMPACTED AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS.
  - ANY LOCATION WHERE THE ABOVE REQUIREMENTS CANNOT BE MET SHALL BE COMPLETED USING CAST IN PLACE MATERIALS MEETING THE REQUIREMENTS OF THIS STANDARD DRAWING. ANY ADDITIONAL MATERIALS OR COSTS ASSOCIATED WITH THE USE OF PRECAST SHALL BE PAID FOR BY THE CONTRACTOR AND MAY NOT BE CHARGED TO SCDOT.
  - THE CONTRACT UNIT PRICE FOR DROP INLETS SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS (BUILT IN PLACE OR PRECAST), AND WORK INCIDENTAL TO THE CONSTRUCTION OF THE STRUCTURE COMPLETE IN PLACE AS SHOWN, INCLUDING THE CURB AND GUTTER, IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).
  - PRECAST CONCRETE CIRCULAR STRUCTURES ARE REQUIRED FOR THE FOLLOWING APPLICATIONS UNLESS PROHIBITED BY THE PLANS OR SPECIAL PROVISIONS.
    - ON DRAINAGE STRUCTURES WITH A DEPTH EQUAL TO OR GREATER THAN 12 FEET.
    - ON DRAINAGE STRUCTURES WHERE THE FLOW LINE ELEVATION OF THE INLET PIPE IS EQUAL TO OR HIGHER THAN THE INSIDE TOP (SOFFIT) OF THE OUTLET PIPE.
    - AS REQUIRED BY THE PROJECT PLANS.
  - THE PAY ITEM SHALL BE:  
DROP INLET (24"X24").....EA