SIMPSONVILLE PUBLIC WORKS

REQUEST FOR PROPOSALS

(RFP SPW 2026-01)

Jonesville Road Sidewalk and Drainage Improvements

110 Woodside Park Drive, Simpsonville SC

SIMPSONVILLE PUBLIC WORKS
REQUEST FOR PROPOSALS
(RFP SPW 2026-01)

Simpsonville Public Works is soliciting sealed proposals from qualified vendors to provide Construction of approximately 1,088 linear feet of new concrete curb and gutter, approximately 604 square yard of 5-foot wide concrete sidewalk, placement of approximately 622 linear feet of 18-inch Smooth Wall HDPE pipe, construction of 6 Type-16 Catch Basins, Installation of Erosion Control features, Clearing and Grubbing within Roadway Right-of-way and associated construction activities along Jonesville Road in Simpsonville, SC.

Responses are due no later than 12:00 p.m. on the 20th of April, 2026. Two (2) copies of the sealed proposal(s) should be hand carried or delivered by traceable means (i.e. FedEx) to the Attention of City Engineer Terry A. Bragg for the City of Simpsonville, at Simpsonville City Hall, 425 E. Curtis St, Simpsonville, SC 29681. Ensure that proposals are labeled on the outside of the envelope or package with the following: "**RFP SPW 2026-01 for Jonesville Road Sidewalk and Drainage Improvements.** Proposals will be opened at Simpsonville City Hall Council Chambers on the same day. Only the name of the vendor will be made public at that time.

Inquiries for drawings and bid specification regarding this solicitation should be directed to City Engineer Terry A. Bragg at tbragg@simpsonville.com.

This solicitation does not commit Simpsonville Public Works to award a contract or to pay for any costs incurred in the preparation or submission of a proposal.

Simpsonville Public Works reserves the right to negotiate with all qualified vendors and to cancel, in part or in its entirety, this request if it is in the best interest of Simpsonville Public Works to do so.

The proposal must be firm for a period of at least 120 days from the due date of the proposal. The proposal must be signed by an official of your company authorized to commit to and enter into a formal contract for goods or services.

Simpsonville Public Works does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or in the provision of goods and services.

Simpsonville Public Works reserves the right to refuse any and all responses and to waive any technicalities and formalities.

Warranty, Service, and Training

GENERAL WARRANTY

Simpsonville Public Works desires a comprehensive and complete warranty for all workmanship for a minimum of 1 year from acceptance. Please respond to this request in the form of Executive Summary regarding the specific warranty period, its inclusions, exclusions and any requirements to maintain the warranty.

Proposal Format:

Simpsonville Public Works desires to have a detailed but focused response to this RFP. The RFP should include a brief executive summary of your firm and your firm's experience providing this type of equipment. You may also include any product literature pertaining to the proposed product.

Insurance:

The Contractor is required to maintain appropriate levels of insurance for both workers compensation coverage and for auto liability. The contractor is required to maintain One Million Dollars in general liability insurance.

Business License:

The Contractor will be required to obtain a Simpsonville City Business License. For information regarding the procedures and cost the contractor should contact the Simpsonville Business License Office at (864) 967-9526.

FED. RD. DIV. NO.	STATE	COUNTY	ROAD NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	GREENVILLE	S-545	1	12

SIMPSONVILE PUBLIC WORKS
CONSTRUCTION PLANS FOR ROADWAY IMPROVEMENTS

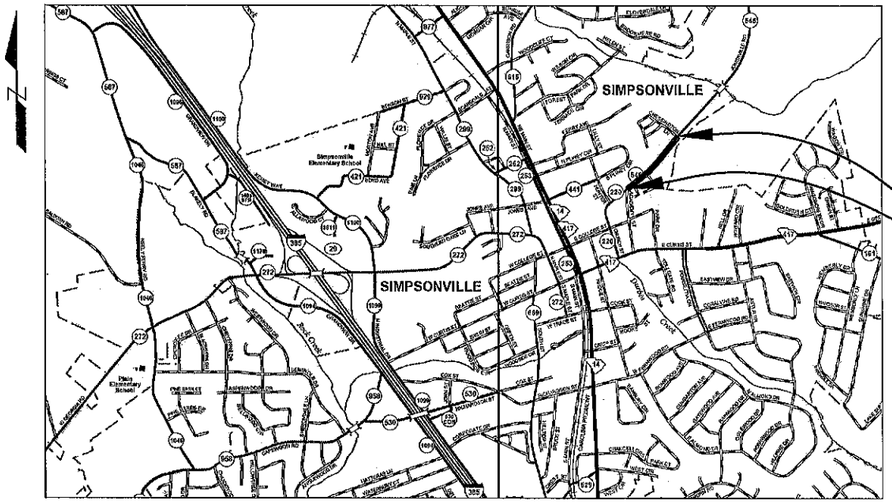
GREENVILLE COUNTY
CITY OF SIMPSONVILLE
JONESVILLE ROAD SIDEWALKS AND DRAINAGE
FROM ACADEMY ST. TO CHESSINGTON LN.

INDEX OF SHEETS

Design Reference for these plans is the
2021
SCDOT Roadway Design Manual

Hydraulic Design Reference for these plans is the:
2009
Edition of SCDOT's "Requirements for Hydraulic Design Studies"

RAILROAD INVOLVEMENT?
NO



LAYOUT
SCALE: 1 INCH = 1/4 MILE

GREENVILLE COUNTY
SCDOT MAP

	JONESVILLE RD. S-545			TOTAL MILES
NET LENGTH OF ROADWAY	0.226			0.226
NET LENGTH OF BRIDGE				
NET LENGTH OF PROJECT	0.226			0.226
NET LENGTH OF EXCEPTIONS				
GROSS LENGTH OF PROJECT	0.226			0.226

REV. #	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1	TAB	10/13/25	SHEETS ADDED, INDEX REVISED

CAUTION

811 Know what's below. Call before you dig.

CALL 3 DAYS BEFORE DIGGING.

ANY UTILITIES SHOWN ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

NPDES PERMIT INFORMATION

NPDES Disturbed
Area = 0.5 Acres

Approximate Location of Roadway is:
Longitude 82° 15' 00" W
Latitude 34° 44' 30" N

Simpsonville
SIMPLY HOME.

CITY OF SIMPSONVILLE
PUBLIC WORKS
425 EAST CURTIS STREET
SIMPSONVILLE, SC 29681

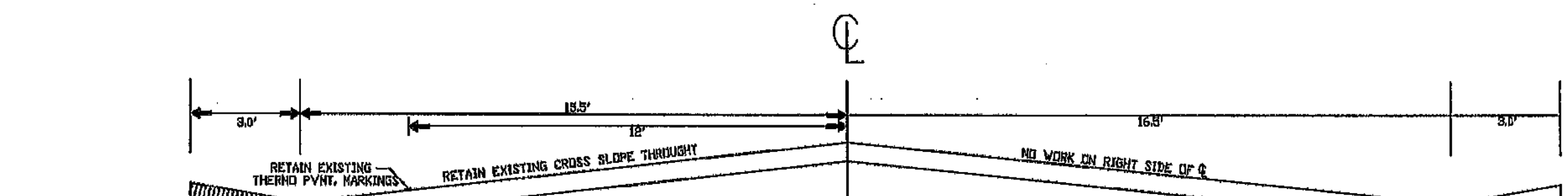
ENGINEER'S CERTIFICATION STATEMENT

"I have placed my signature and seal on the design documents submitted signifying that I accept responsibility for the design of the system. Further, I certify to the best of my knowledge and belief that the design is consistent with the requirements of Title 48, Chapter 14 of the Code of Laws of South Carolina, 1976 as amended, pursuant to Regulation 72-300 et seq. (if applicable), and in accordance with the terms and conditions of SCR100000."

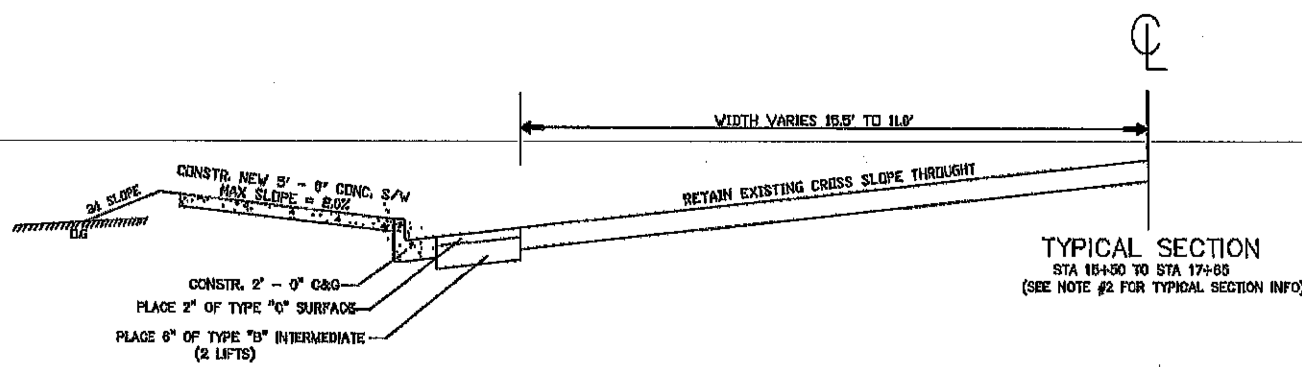
SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 8823 TERRY A. BROOKS 10/13/25

NOTE: ALL WORKMANSHIP AND MATERIALS ON THIS PROJECT TO CONFORM WITH SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION), AND BOOK OF STANDARD DRAWINGS FOR ROAD CONSTRUCTION (LATEST PUBLISHED ENGLISH VERSION).

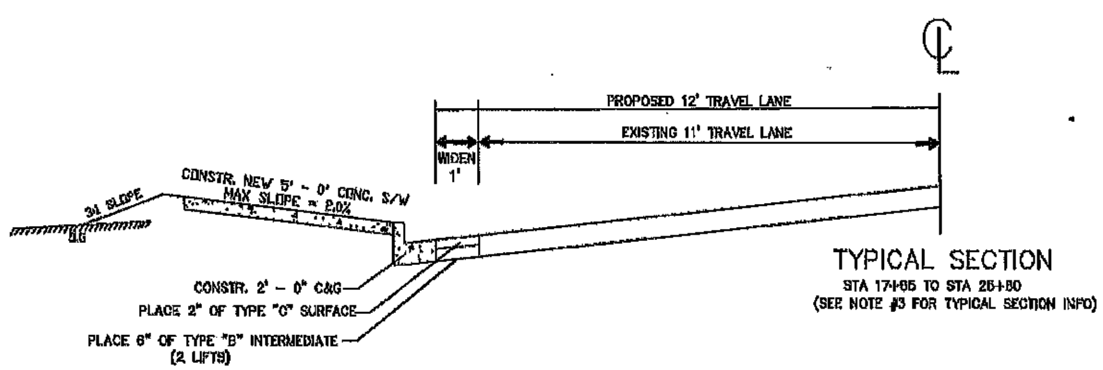
JONESVILLE ROAD TYPICAL SECTION



EXISTING ROADWAY SECTION
(SEE NOTE #1 FOR TYPICAL SECTION INFO)



TYPICAL SECTION
STA 15+50 TO STA 17+65
(SEE NOTE #2 FOR TYPICAL SECTION INFO)



TYPICAL SECTION
STA 17+65 TO STA 25+80
(SEE NOTE #3 FOR TYPICAL SECTION INFO)

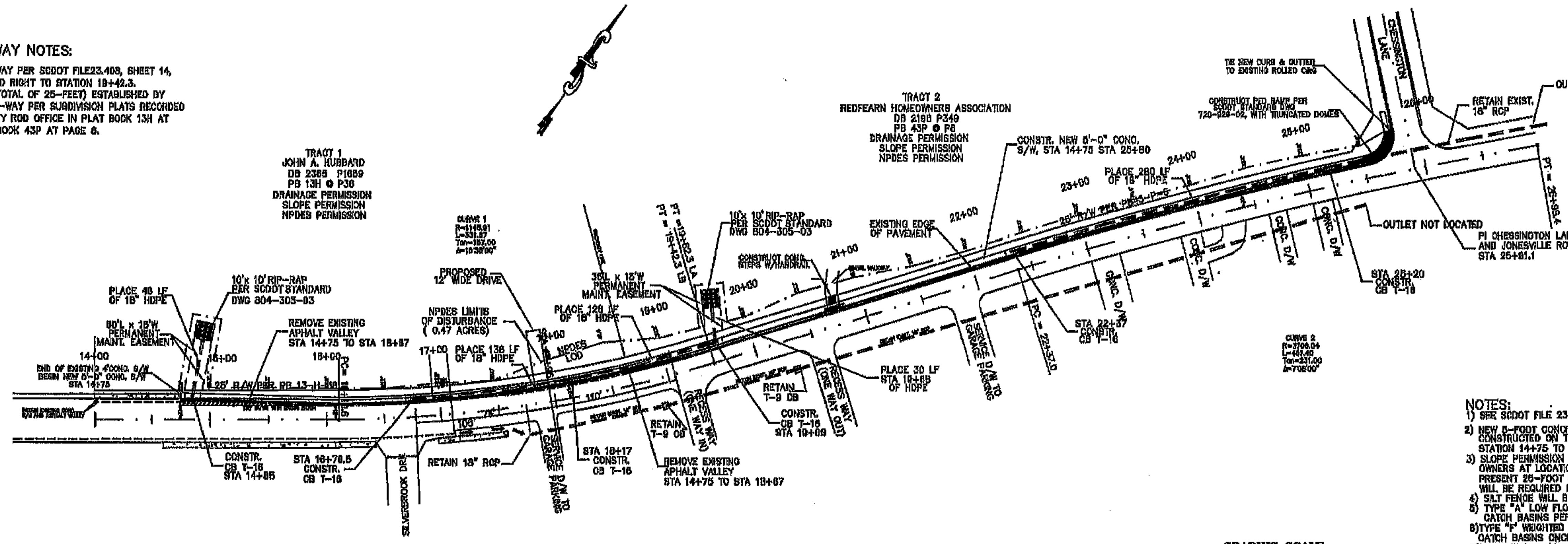
TYPICAL SECTION NOTES:

1) EXISTING ROADWAY SECTION STA 14+75 TO STA 15+50
2) ROADWAY WIDTH TAPERS FROM 15.5' AT STA 15+50 TO 11.0' AT STA 17+65, WITH A 3' VALLEY GUTTER.
3) THE 3' BACK SLOPE END AT STA 18+67 AND THE 11' LANE WIDTH CONTINUES TO THE END OF THE PROJECT AT STA 25+80.

DRAWING IS NOT TO SCALE

RIGHT-OF-WAY NOTES:

1) EXISTING RIGHT-OF-WAY PER SCDOT FILE23.408, SHEET 14, IS 20-FOOT LEFT AND RIGHT TO STATION 19+42.3.
2) ADDITIONAL5-FOOT (TOTAL OF 25-FEET) ESTABLISHED BY DEDICATED RIGHT-OF-WAY PER SUBDIVISION PLATS RECORDED IN GREENVILLE COUNTY ROD OFFICE IN PLAT BOOK 13H AT PAGE 38 AND PLAT BOOK 43P AT PAGE 8.



JONESVILLE ROAD (S-23-545) PLAN and PROFILE

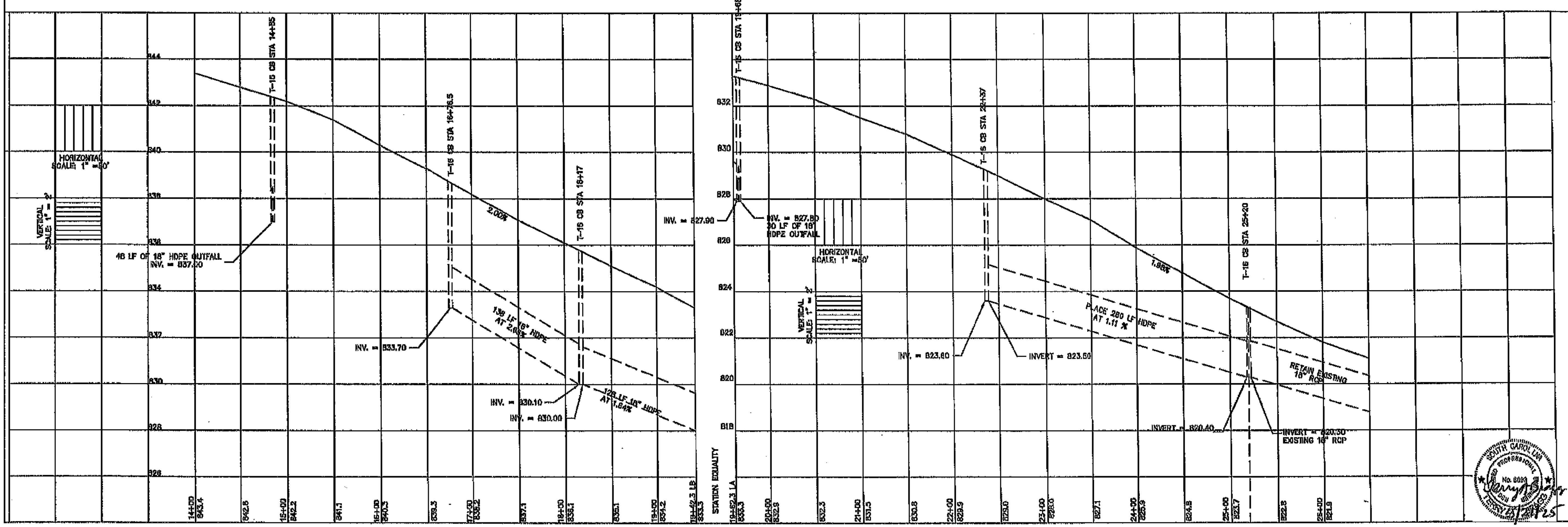
"NO WORK TO BE PERFORMED ON RIGHT SIDE OF JONESVILLE ROAD"

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

NOTES:

1) SEE SCDOT FILE 23.408 FOR CURVE DATA AND RIGHT-OF-WAY.
2) NEW 5-FOOT CONCRETE SIDEWALK AND 2-FOOT C&G TO BE CONSTRUCTED ON THE LEFT SIDE OF JONESVILLE ROAD FROM STATION 14+75 TO STATION 25+65.
3) SLOPE PERMISSION WILL BE OBTAINED FROM INDIVIDUAL PROPERTY OWNERS AT LOCATIONS WHERE CONSTRUCTION SLOPES EXCEED THE PRESENT 25-FOOT RIGHT-OF-WAY. NO ADDITIONAL RIGHT-OF-WAY WILL BE REQUIRED DUE TO CONSTRUCTION.
4) SILT FENCE WILL BE INSTALL PER SCDOT STANDARD DRAWING 815-805-00.
5) TYPE "A" LOW FLOW INLET FILTERS INSTALL AT ALL T-16 CATCH BASINS PER SCDOT STANDARD DRAWING 815-001-01.
6) TYPE "F" WEIGHTED INLET TUBE TO BE INSTALLED AL ALL T-16 CATCH BASINS ONCE CATCH BASIN THROATS ARE POURED.
7) NO DRAINAGE HEADWALL SHALL BE PLACED IN THE SCDOT ROW.
8) PAVEMENT EDGE DROP-OFFS GREATER THAN 2-INCHES SHALL BE CORRECTED PRIOR TO REMOVAL OF TRAFFIC CONTROL DEVISES.
9) NO LANE CLOSURES ARE PERMITTED BETWEEN 7 TO 9 A.M. AND BETWEEN 4 AND 6 P.M.



CUT AT 11-FOOT WIDTH

VERTICAL SCALE 1" = 2'

HORIZONTAL SCALE 1" = 5'

NPDES

SSEW

EXISTING 25' R/W

17+50
837.1

17+00
838.2

16+50
839.3

16+00
840.3

15+50
841.4

15+00
842.2

14+50
842.8

14+00
843.4

CUT AT 11-FOOT WIDTH

22+00
829.9

21+50
830.8

21+00
831.5

20+50
832.3

20+00
932.9

STATION EQUALITY
19+42.3 LB = STA 19+62.3 LA

19+00
834.2

18+50
835.1

18+00
836.1

CUT AT 11-FOOT WIDTH

25+50
822.8

25+00
823.7

24+50
824.8

24+00
825.9

23+50
827.1

23+00
828.0

22+50
829.0

30 25 20 15 10 5 0

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 8623 JERRY A. BRIDGES

5/21/25

REFERENCES

WORK ZONE TRAFFIC CONTROL ENGINEER

SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 24242
WILLIE E. McCONNELL, JR.

SIGNATURE

6/1/2018
DATE

#	DATE	CHK	DESCRIPTION
5			
4			
3			
2			
1	4-27-18	WEM	REVISED FLAGGING OPERATIONS NOTE 1
0	1-14-15	JCS	NEW DRAWING

SCDOT

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

FLAGGING OPERATIONS TWO-LANE TWO-WAY PRIMARY & SECONDARY ROUTES

610-005-00

EFFECTIVE LETTING DATE | JAN 2019

FLAGGING OPERATIONS
GENERAL NOTES

(ALL NOTES, SPECIFICATIONS AND REQUIREMENTS ON THIS STANDARD DRAWING APPLY TO ALL SUBSEQUENT STANDARD DRAWINGS REGARDING FLAGGING OPERATIONS UNLESS OTHERWISE NOTED)

FLAGGING OPERATIONS -

1. KEY FEATURES RELEVANT TO FLAGGING OPERATIONS:

   APPROACH TAPER - THIS IS A ONE-LANE TWO-WAY TAPER PLACED IN THE TRAVEL LANE WHERE THE WORK ACTIVITY TAKES PLACE. THIS TAPER PRECEDES THE BUFFER SPACE AND THE WORK ACTIVITY AREA. THE LENGTH OF THIS TAPER MAY VARY FROM 50 FEET TO 100 FEET. INSTALL AND MAINTAIN NO LESS THAN FIVE (5) TRAFFIC CONTROL DEVICES EQUALLY SPACED AT 10' TO 25' INTERVALS AS NECESSARY TO CORRESPOND WITH THE LENGTH OF THE TAPER.

   DOWNSTREAM TAPER - THIS TAPER, PLACED IN THE TRAVEL LANE WHERE THE WORK ACTIVITY TAKES PLACE, FOLLOWS THE WORK ACTIVITY AREA AND SERVES AS THE TERMINATION AREA FOR THE CLOSURE OF THE TRAVEL LANE. THE LENGTH OF THIS TAPER MAY VARY FROM 50 FEET TO 100 FEET. INSTALL AND MAINTAIN NO LESS THAN FIVE (5) TRAFFIC CONTROL DEVICES IN THIS TAPER.

   FLAGGER STATION - THIS IS THE SPECIFIC LOCATION OF THE FLAGGER.

   CLOSED LANE FLAGGER - THIS FLAGGER IS STATIONED ADJACENT TO THE FIRST TRAFFIC CONTROL DEVICE IN THE APPROACH TAPER WHO CONTROLS THE TRAFFIC THAT REQUIRES RELOCATION FROM THE TRAVEL LANE BEING CLOSED TO TRAFFIC.

   OPEN LANE FLAGGER - THIS FLAGGER IS STATIONED 100 FEET BEYOND THE LAST TRAFFIC CONTROL DEVICE IN THE DOWNSTREAM TAPER WHO CONTROLS THE TRAFFIC OPERATING IN THE TRAVEL LANE REMAINING OPEN TO TRAFFIC.

   SIDE ROAD FLAGGER - THIS FLAGGER IS STATIONED ON AN INTERSECTING SIDE ROAD AND CONTROLS THE SIDE ROAD TRAFFIC ENTERING INTO THE ROADWAY WHERE THE WORK ACTIVITY AREA IS LOCATED.

   BUFFER SPACE - THIS AREA IS LOCATED BETWEEN THE DOWNSTREAM END OF THE APPROACH TAPER AND THE NEAREST LIMITS OF THE WORK ACTIVITY AREA AND MAY PROVIDE SOME RECOVERY SPACE FOR AN ERRANT VEHICLE. THE PRESENCE OF PERSONNEL, TOOLS, MATERIALS, EQUIPMENT, WORK VEHICLES, ETC. WITHIN THE LIMITS OF THE BUFFER SPACE IS PROHIBITED. HOWEVER, WHEN THE MINIMUM DISTANCE REQUIREMENTS FOR THE BUFFER SPACE ARE UNAVAILABLE, A TRUCK MOUNTED ATTENUATOR MAY TEMPORARILY ENCROACH UPON THE BUFFER SPACE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE SECTION BELOW ENTITLED, "BUFFER SPACE", WHEN APPROVED BY THE ENGINEER.

   WORK ACTIVITY AREA - PERSONNEL, MATERIALS, EQUIPMENT, WORK VEHICLES, ETC. ARE PRESENT WITHIN THIS AREA TO CONDUCT THE WORK.

   LIMITS of the WORK ACTIVITY AREA - THIS IS THE BOUNDARY OF THE WORK ACTIVITY AREA FIRST ENCOUNTERED, FROM EITHER DIRECTION, BY MOTORISTS PASSING BY THE WORK ACTIVITY AREA IN THE ADJACENT TRAVEL LANE OPEN TO TRAFFIC AND CONTROLLED BY THE FLAGGERS.

   APPROACH LANE - TRAFFIC APPROACHES AN INTERSECTION OR A SPECIFIC LOCATION IN THIS TRAVEL LANE.

   DEPARTURE LANE - TRAFFIC DEPARTS FROM AN INTERSECTION OR A SPECIFIC LOCATION IN THIS TRAVEL LANE.

   MAINLINE APPROACH - THIS IS AN APPROACH TO THE WORK ACTIVITY AREA ON THE ROADWAY WHERE THE WORK ACTIVITY AREA IS LOCATED.

   SIDE ROADS - THESE ROADS INTERSECT THE ROADWAY ON WHICH THE WORK ACTIVITY AREA IS LOCATED.

   LIMITS of the INTERSECTION - THE LIMITS OF OR THE PHYSICAL AREA WITHIN AN INTERSECTION IS DEFINED BY THE LOCATION OF STOP BARS WHEN PRESENT, WHEN STOP BARS ARE ABSENT, THE LIMITS OF OR THE PHYSICAL AREA WITHIN AN INTERSECTION IS DEFINED BY THE LOCATION POINTS WHERE THE CORNER RADII BETWEEN ADJACENT ROADWAY APPROACHES TIE TO THE EDGE OF PAVEMENT OR THE EDGE OF TRAVEL LANE ADJACENT TO THE EDGE OF PAVEMENT OF EACH ROADWAY.

2. INSTALL, CONDUCT AND MAINTAIN FLAGGING OPERATIONS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, THE STANDARD DRAWINGS, THE MUTCD AND THE "SOUTH CAROLINA FLAGGER'S HANDBOOK" UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. INSTALL ALL SIGNS RELATIVE TO A FLAGGING OPERATION PRIOR TO INITIATION OF THE OPERATION AND REMOVE OR COVER ALL SIGNS IMMEDIATELY UPON TERMINATION OF THE OPERATION. EQUIP EACH FLAGGER WITH A 24" x 24" STOP/SLOW PADDLE MOUNTED ON A RIGID HANDLE WITH A MINIMUM LENGTH OF 7 FEET. THE DEPARTMENT PROHIBITS THE USE OF FLAGS EXCEPT DURING EMERGENCY SITUATIONS.
3. LANE CLOSURES FOR FLAGGING OPERATIONS ARE RESTRICTED TO A MAXIMUM DISTANCE OF 2 MILES UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE WORK LIMITS WILL COMPLY WITH THE CONTRACT AND SHALL REQUIRE THE ENGINEER'S APPROVAL PRIOR TO BEGINNING THE WORK.
4. INSTALL AND MAINTAIN THE PROPER ARRAY OF ADVANCE WARNING SIGNS FOR EACH "MAINLINE APPROACH" WHEN A FLAGGING OPERATION IS IN PLACE AND ACTIVE. WHEN NECESSARY TO RELOCATE THE "FLAGGER STATION" WHILE ACTIVELY MAINTAINING THE FLAGGING OPERATION, INSTALL AN ADDITIONAL ARRAY OF ADVANCE WARNING SIGNS AT THE LOCATION RELATIVE TO THE NEW "FLAGGER STATION" AND REMOVE THE ORIGINAL ARRAY OF ADVANCE WARNING SIGNS IMMEDIATELY UPON COMPLETION OF THE RELOCATION OF THE FLAGGER TO THE NEW "FLAGGER STATION".
5. INSTALL ALL ADVANCE WARNING SIGNS IMMEDIATELY PRIOR TO INITIATING A FLAGGING OPERATION AND REMOVE OR COVER ALL SIGNS IMMEDIATELY UPON TERMINATION OF THE OPERATION.
6. MAINTAIN TWO-WAY RADIO COMMUNICATIONS BETWEEN ALL FLAGGERS.

NIGHTTIME FLAGGING OPERATIONS -

1. EACH FLAGGER SHALL WEAR SAFETY APPAREL IN COMPLIANCE WITH THE REQUIREMENTS OF ANSI / ISEA 107 STANDARD PERFORMANCE FOR CLASS 3 RISK EXPOSURE, LATEST REVISION, WHEN CONDUCTING NIGHTTIME FLAGGING OPERATIONS.
2. ILLUMINATE EACH "FLAGGER STATION" WITH ANY COMBINATION OF PORTABLE LIGHTS, STANDARD ELECTRIC LIGHTS, EXISTING STREET LIGHTS, ETC. THAT WILL PROVIDE A MINIMUM ILLUMINATION LEVEL OF 108 Lx OR 10 fc WHEN CONDUCTING NIGHTTIME FLAGGING OPERATIONS.
3. SUPPLEMENT EACH ARRAY OF ADVANCE WARNING SIGNS ON EACH "MAINLINE APPROACH" WITH A TRAILER MOUNTED CHANGEABLE MESSAGE SIGN. THESE CHANGEABLE MESSAGE SIGNS ARE NOT REQUIRED ON THE "SIDE ROADS" INTERSECTING THE ROADWAY WHERE THE "WORK ACTIVITY AREA" IS LOCATED. ALSO, THESE CHANGEABLE MESSAGE SIGNS ARE NOT REQUIRED DURING DAYTIME FLAGGING OPERATIONS UNLESS OTHERWISE DIRECTED BY THE STANDARD DRAWINGS. INSTALL THE CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE ADVANCE WARNING SIGN ARRAYS. THE MESSAGES SHOULD BE "PREPARE TO STOP", "FLAGGER AHEAD". A TRUCK MOUNTED CHANGEABLE MESSAGE SIGN IS NOT AN ACCEPTABLE ALTERNATIVE TO A TRAILER MOUNTED CHANGEABLE MESSAGE SIGN DURING NIGHTTIME FLAGGING OPERATIONS.
4. UTILIZE PORTABLE PLASTIC DRUMS OR 42" OVERSIZED TRAFFIC CONES IN PLACE OF 36" STANDARD TRAFFIC CONES DURING NIGHTTIME FLAGGING OPERATIONS.

BUFFER SPACE -

1. THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" ARE BASED UPON THE LEGAL POSTED REGULATORY SPEED LIMIT OF THE ROADWAY PRIOR TO BEGINNING THE WORK.

SPEED LIMIT	DISTANCES
LOW SPEED ≤ 35 MPH	200 FEET
INTERMEDIATE SPEED 40 - 50 MPH	300 FEET
HIGH SPEED 55 MPH	400 FEET

2. THE PRESENCE OF PERSONNEL, TOOLS, MATERIALS, EQUIPMENT, WORK VEHICLES, ETC. WITHIN THE LIMITS OF THE "BUFFER SPACE" IS PROHIBITED. A TRUCK MOUNTED ATTENUATOR IS THE ONLY WORK VEHICLE THAT MAY TEMPORARILY ENCROACH UPON THE "BUFFER SPACE" IN ACCORDANCE WITH THE CONDITIONS SPECIFIED IN THE FOLLOWING NOTE WHEN APPROVED BY THE ENGINEER. SEE NOTE NO. 3.
3. WHEN THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" ARE UNAVAILABLE DUE TO FIELD CONDITIONS, IT MAY BE NECESSARY FOR A TRUCK MOUNTED ATTENUATOR TO TEMPORARILY ENCROACH UPON THE "BUFFER SPACE" WHEN APPROVED BY THE ENGINEER. A TRUCK MOUNTED ATTENUATOR IS THE ONLY VEHICLE PERMITTED TO TEMPORARILY ENCROACH UPON THE "BUFFER SPACE" AND THIS ENCROACHMENT IS ONLY PERMITTED WHEN ALL REASONABLE OPTIONS TO AVOID DOING SO HAVE BEEN EXHAUSTED. WHEN ENCROACHMENT UPON THE "BUFFER SPACE" IS APPROVED BY THE ENGINEER, MINIMIZE THE TIME DURATION OF THE ENCROACHMENT BY REMOVAL OF THE TRUCK MOUNTED ATTENUATOR FROM THE "BUFFER SPACE" AT THE FIRST OPPORTUNITY THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" BECOME AVAILABLE.

SIGNS AND TRAFFIC CONTROL DEVICES -

1. MEASURE THE ADVANCE WARNING SIGN LOCATIONS FOR EACH APPROACH FROM THE "FLAGGER STATION" LOCATED ON THAT APPROACH.
2. INSTALL THE ADVANCE WARNING SIGNS AS SPACING INTERVALS BASED UPON THE POSTED REGULATORY SPEED LIMIT OF THE ROADWAY PRIOR TO BEGINNING ANY WORK. THE ADVANCE WARNING SIGN SPACING INTERVALS INDICATED ARE FOR NORMAL CONDITIONS. ADJUSTMENTS TO THESE DISTANCES MAY BE NECESSARY DUE TO EXISTING SIGNS, INTERSECTING ROADWAYS, HORIZONTAL AND/OR VERTICAL ALIGNMENTS OR OTHER SIGHT DISTANCE RESTRICTIONS. SEE TABLE A.
3. INSTALL ADVANCE WARNING SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS NO LESS THAN 4 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH EARTH SHOULDERS AND NO LESS THAN 6 FEET FROM THE NEAR EDGE OF THE SIGN TO THE NEAR EDGE OF AN ADJACENT TRAVEL LANE ON ROADWAYS WITH PAVED SHOULDERS. WHEN CURB & GUTTER IS PRESENT, INSTALL THE SIGN NO LESS THAN 2 FEET FROM THE NEAR EDGE OF THE SIGN TO THE FACE OF THE CURB.
4. ALL SIGNS MOUNTED ON PORTABLE SIGN SUPPORTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 5 FEET FROM THE GROUND TO THE BOTTOM OF THE SIGN. ALL SIGNS MOUNTED ON GROUND MOUNTED U-CHANNEL OR SQUARE STEEL TUBE POSTS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 7 FEET FROM THE GRADE ELEVATION OF THE NEAR EDGE OF THE ADJACENT TRAVEL LANE TO THE BOTTOM OF THE SIGN UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. MOUNT ALL SIGNS STRAIGHT AND LEVEL AND WITH THE FACE OF THE SIGNS PERPENDICULAR TO THE SURFACE OF THE ROADWAY.
5. REFLECTORIZE ORANGE ADVANCE WARNING SIGNS AND ANY ORANGE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A FLUORESCENT ORANGE COLORED PRISMATIC RETROREFLECTIVE SHEETING. REFLECTORIZE WHITE REGULATORY SIGNS AND ANY WHITE AREAS OF A MULTI-COLORED ADVANCE WARNING SIGN WITH A WHITE COLORED PRISMATIC RETROREFLECTIVE SHEETING.
6. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE REQUIREMENTS OF NCHRP REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE (MASH) AND SHALL REQUIRE APPROVAL BY THE DEPARTMENT. ONLY THOSE TRAFFIC CONTROL DEVICES INCLUDED ON THE "APPROVED PRODUCTS LIST FOR TRAFFIC CONTROL DEVICES IN WORK ZONES" ARE CONSIDERED ACCEPTABLE FOR USE. THIS LIST MAY BE ACCESSED ON THE DEPARTMENT'S WEB SITE AT: www.scdot.org .
7. REFLECTORIZATION OF 36" TRAFFIC CONES USED DURING DAYLIGHT HOURS IS NOT REQUIRED IN THE EVENT A DAYTIME FLAGGING OPERATION EXTENDS INTO THE NIGHTTIME HOURS, REPLACE ALL 36" TRAFFIC CONES WITH EITHER PORTABLE PLASTIC DRUMS OR 42" OVERSIZED TRAFFIC CONES. REFLECTORIZE ALL PORTABLE PLASTIC DRUMS AND 42" OVERSIZED TRAFFIC CONES WITH TYPE III OR GREATER FLEXIBLE MICROPRISMATIC RETROREFLECTIVE SHEETING UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
8. DELINEATE THE TANGENT AREA OF THE LANE CLOSURE WITH THE NECESSARY TRAFFIC CONTROL DEVICES TO MINIMIZE ENCROACHMENT BY MOTORISTS INTO THE CLOSED TRAVEL LANE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ON ROADWAYS WITH POSTED REGULATORY SPEED LIMITS OF 35 MPH OR LESS, INSTALL THE TRAFFIC CONTROL DEVICES AT SPACING INTERVALS OF 25 FEET. ON ROADWAYS WITH POSTED REGULATORY SPEED LIMITS OF 40 MPH OR GREATER, INSTALL THE TRAFFIC CONTROL DEVICES AT SPACING INTERVALS OF 50 FEET. SEE TABLE B.

ADVANCE WARNING ARROW PANEL -

1. DURING FLAGGING OPERATIONS, AN ADVANCE WARNING ARROW PANEL SHALL OPERATE IN THE "FOUR CORNERS" CAUTION MODE WHEN LOCATED WITHIN OR IN BETWEEN THE LIMITS OF THE ADVANCE WARNING SIGN ARRAYS SPECIFIC TO A FLAGGING OPERATION. OPERATION OF AN ADVANCE WARNING ARROW PANEL IN AN ARROW, CHEVRON OR ANY OTHER TYPE OF CAUTION MODE OTHER THAN THE "FOUR CORNERS" CAUTION MODE WHEN LOCATED WITHIN OR IN BETWEEN THE LIMITS OF THE ADVANCE WARNING SIGN ARRAYS AS SPECIFIED HEREINBEFORE IS PROHIBITED.
2. ALL ADVANCE WARNING ARROW PANELS SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION. THE SPECIFIC LOCATION OF AN ADVANCE WARNING ARROW PANEL MAY REQUIRE ADJUSTMENTS DUE TO HORIZONTAL AND/OR VERTICAL ALIGNMENT OR OTHER SIGHT DISTANCE RESTRICTIONS.

TRUCK MOUNTED ATTENUATOR -

1. A TRUCK MOUNTED ATTENUATOR IS OPTIONAL. UTILIZATION OF A TRUCK MOUNTED ATTENUATOR SHOULD BE CONSIDERED WHEN THE MINIMUM DISTANCE REQUIREMENTS FOR THE "BUFFER SPACE" ARE UNAVAILABLE DUE TO FIELD CONDITIONS. HOWEVER, A TRAILER MOUNTED ADVANCE WARNING ARROW PANEL MAY BE UTILIZED IN PLACE OF A TRUCK MOUNTED ATTENUATOR DURING TRAFFIC CONTROL SETUPS FOR WORK ACTIVITIES SUCH AS ASPHALT CONCRETE PLACEMENT OPERATIONS WHEN APPROVED BY THE ENGINEER.
2. WHEN UTILIZING A TRUCK MOUNTED ATTENUATOR, ENSURE THE TRUCK HAS THE CORRECT GROSS VEHICULAR WEIGHT (GVW) REQUIRED FOR THE TYPE OF TRUCK MOUNTED ATTENUATOR BEING UTILIZED. A DIRECT TRUCK MOUNTED TRUCK MOUNTED ATTENUATOR, A UNIT MOUNTED AND ATTACHED TO BRACKETS OR SIMILAR DEVICES CONNECTED TO THE FRAME OF THE TRUCK, REQUIRES A TRUCK WITH A MINIMUM GVM OF 15,000 POUNDS (ACTUAL WEIGHT) UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. A TRAILER TOWED TRUCK MOUNTED ATTENUATOR, A TRAILER TYPE UNIT TOWED FROM BEHIND AND ATTACHED TO THE FRAME OF THE TRUCK VIA A PINTLE HOOK / HITCH, REQUIRES A TRUCK WITH A MINIMUM GVM OF 10,000 POUNDS (ACTUAL WEIGHT) UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT. IF THE ADDITION OF SUPPLEMENTAL WEIGHT TO THE VEHICLE AS BALLAST IS NECESSARY, CONTAIN THE MATERIAL WITHIN A STRUCTURE CONSTRUCTED OF STEEL. CONSTRUCT THIS STEEL STRUCTURE TO HAVE A MINIMUM OF FOUR (4) SIDES AND A BOTTOM. A TOP IS OPTIONAL. BOLT THIS STRUCTURE TO THE FRAME OF THE TRUCK. UTILIZE A SUFFICIENT NUMBER OF FASTENERS FOR ATTACHMENT OF THE STEEL STRUCTURE TO THE FRAME OF THE TRUCK TO ENSURE THE STRUCTURE WILL NOT SEPARATE FROM THE FRAME OF THE TRUCK DURING AN IMPACT UPON THE TRUCK MOUNTED ATTENUATOR. UTILIZE EITHER DRY LOOSE SAND OR STEEL REINFORCED CONCRETE FOR BALLAST MATERIAL WITHIN THE STEEL STRUCTURE TO ACHIEVE THE NECESSARY WEIGHT. THE BALLAST MATERIAL SHALL REMAIN CONTAINED WITHIN THE CONFINES OF THE STEEL STRUCTURE IN ITS ENTIRETY AND SHALL NOT PROTRUDE FROM THE STEEL STRUCTURE IN ANY MANNER.
3. LOCATE THE TRUCK MOUNTED ATTENUATOR APPROXIMATELY 100 FEET IN ADVANCE OF THE "WORK ACTIVITY AREA" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. PROVIDE, INSTALL AND MAINTAIN THE TRUCK MOUNTED ATTENUATOR AS SPECIFIED BY THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.

GENERAL -

1. CONDUCT THE WORK IN SUCH A MANNER SO AS NOT TO ENCROACH ONTO THE ADJACENT TRAVEL LANE OPEN TO TRAFFIC. INSTALL, MAINTAIN AND ADJUST THE TRAFFIC CONTROL DEVICES AS NECESSARY TO ENSURE PROPER DELINEATION OF THE WORK AREA.
2. IF WORK IS BEING CONDUCTED AT TWO DIFFERENT LOCATIONS AT THE SAME TIME, SEPARATE THE TWO LOCATIONS BY NO LESS THAN 2 MILES FROM THE LAST TRAFFIC CONTROL DEVICE IN THE "DOWNSTREAM TAPER" OF THE FIRST LANE CLOSURE TO THE FIRST TRAFFIC CONTROL DEVICE IN THE "APPROACH TAPER" OF THE SECOND LANE CLOSURE ENCOUNTERED BY A MOTORIST UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. THE DEPARTMENT RESERVES THE RIGHT TO RESTRICT WORK OPERATIONS AND/OR WITHHOLD THE MONTHLY ESTIMATE IF THE TRAFFIC CONTROL IS NOT PROPERLY INSTALLED AND MAINTAINED AS DIRECTED BY THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, THE STANDARD DRAWINGS, THE PLANS AND/OR THE ENGINEER.

TABLE A

SIGN PLACEMENT INTERVALS	
SPEED LIMIT	*
# ≤ 35 MPH LOW SPEED	200
# 40 - 50 MPH INTERMEDIATE SPEED	350
# 55 MPH HIGH SPEED	500

REGULATORY POSTED SPEED LIMIT PRIOR TO BEGINNING WORK

TABLE B

TRAFFIC CONTROL DEVICE SPACING INTERVALS WORK ACTIVITY / BUFFER SPACE AREAS	
SPEED LIMIT	SPACING INTERVALS
≤ 35 MPH	25 FEET
40 - 55 MPH	50 FEET

THIS DRAWING IS NOT TO SCALE

REFERENCES

WORK ZONE TRAFFIC CONTROL ENGINEER

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER NO. 24242 WILLIE E. McCONNELL, JR

SIGNATURE

6/1/2018

DATE

#	DATE	CHK	DESCRIPTION
6			
5			
4			
3			
2			
1	4-27-18	WEM	UPDATED TITLE BLOCK
0	8-12-14	JCS	NEW DRAWING

SCDOT

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

FLAGGING OPERATIONS WORK ZONES BEGINNING @ INTERSECTIONS with TWO-LANE TWO-WAY ROADWAYS DEPARTURE LANE

610-005-60

EFFECTIVE LETTING DATE | JAN 2019

THIS DRAWING IS NOT TO SCALE

DRAWING 610-005-60 NOTES

1. SEE STANDARD DRAWING NO. 610-005-00 FOR ALL GENERAL NOTES AND REQUIREMENTS. THE FOLLOWING NOTES ARE SPECIFIC REQUIREMENTS FOR THIS STANDARD DRAWING.
2. INSTALL, MAINTAIN AND CONDUCT FLAGGING OPERATIONS FOR A WORK ZONE THAT BEGINS AT AN INTERSECTION AND IS PRESENT WITHIN THE TRAVEL LANE OF A TWO-LANE TWO-WAY ROADWAY DEPARTING FROM AN INTERSECTION AS ILLUSTRATED BY THIS STANDARD DRAWING. INSTALL AND MAINTAIN ALL ADVANCE WARNING SIGNS AND TRAFFIC CONTROL DEVICES AS ILLUSTRATED.
3. CONVERT THIS TRAFFIC CONTROL SETUP TO A STANDARD FLAGGING OPERATION SETUP IN COMPLIANCE WITH THE REQUIREMENTS OF STANDARD DRAWING NO. 610-005-10 FOR A "WORK ACTIVITY AREA" LOCATED IN THE "DEPARTURE LANE" OF A TWO-LANE TWO-WAY ROAD INTERSECTING AN ADJACENT TWO-LANE TWO-WAY ROAD WHEN THE "LIMITS of the WORK ACTIVITY AREA" NEAREST THE INTERSECTION PROGRESS BEYOND A MINIMUM DISTANCE INTERVAL AWAY FROM THE INTERSECTION AS SPECIFIED IN *TABLE C* UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE "LIMITS of the WORK ACTIVITY AREA" NEAREST THE INTERSECTION MUST BE LOCATED AT A SPECIFIC LOCATION POINT NO LESS THAN THE CUMULATIVE DISTANCE FROM THE INTERSECTION AS SPECIFIED BY THE "TOTAL DISTANCE REQUIRED for CONVERSION" IN *TABLE C*. THE DISTANCE FIGURES SPECIFIED IN THE "TOTAL DISTANCE REQUIREMENTS for CONVERSION" ARE CALCULATED BASED UPON THE POSTED REGULATORY SPEED LIMIT OF THE ROAD PRIOR TO BEGINNING THE WORK.
4. SUFFICIENT "BUFFER SPACE" MAY BE UNAVAILABLE WHEN CONDUCTING WORK ACTIVITIES IMMEDIATELY CONTIGUOUS TO THE INTERSECTION. INSTALL THE "BUFFER SPACE" AND INCREASE AS NECESSARY AS THE "LIMITS of the WORK ACTIVITY AREA" NEAREST THE INTERSECTION MOVE AWAY FROM THE INTERSECTION UNTIL SUFFICIENT SPACE IS AVAILABLE TO INSTALL AND MAINTAIN THE LENGTH OF "BUFFER SPACE" REQUIRED BASED UPON THE LEGAL POSTED REGULATORY SPEED LIMIT OF THE ROADWAY PRIOR TO BEGINNING THE WORK.
5. FLAGGING OPERATIONS CONDUCTED IN ACCORDANCE WITH THIS TRAFFIC CONTROL SETUP AT NIGHT SHALL REQUIRE SUPPLEMENTATION OF EACH ADVANCE WARNING SIGN ARRAY ON EACH APPROACH TO THE INTERSECTION WITH A TRAILER MOUNTED CHANGEABLE MESSAGE SIGN. DURING A NIGHTTIME FLAGGING OPERATION SCENARIO WHERE THE "WORK ACTIVITY AREA" BEGINS AT AN INTERSECTION AS ILLUSTRATED BY THIS STANDARD DRAWING, UTILIZATION OF TRAILER MOUNTED CHANGEABLE MESSAGE SIGNS TO SUPPLEMENT EACH ARRAY OF ADVANCE WARNING SIGNS ON EACH LEG OF THE INTERSECTION IS REQUIRED. INSTALL, OPERATE AND MAINTAIN THESE TRAILER MOUNTED CHANGEABLE MESSAGE SIGNS AS ILLUSTRATED.

TABLE C. THE "TOTAL DISTANCE REQUIRED for CONVERSION" FIGURES ARE THE MINIMUM DISTANCE INTERVALS FROM THE INTERSECTION TO THE "LIMITS of the WORK ACTIVITY AREA" NEAREST THE INTERSECTION TO INDICATE WHEN IT BECOMES ACCEPTABLE TO CONVERT FROM THIS TRAFFIC CONTROL SETUP FOR A FLAGGING OPERATION INSTALLED AND CONDUCTED IN A "DEPARTURE LANE" TO A STANDARD FLAGGING OPERATION INSTALLED AND CONDUCTED PER STANDARD DRAWING NO. 610-005-10

		LOW SPEED (35 MPH	INTERMEDIATE SPEED 40 - 50 MPH	HIGH SPEED 55 MPH
DAYTIME	Space for Stopped Traffic to Queue	100 feet Minimum	100 feet Minimum	100 feet Minimum
	Advance Warning Sign Placement Intervals (Interval / Total)	200 feet / 600 feet	350 feet / 1050 feet	500 feet / 1500 feet
	Approach Taper	100 feet	100 feet	100 feet
	Buffer Space	200 feet	300 feet	400 feet
	Total Distance Required for Conversion	1000 feet	1550 feet	2100 feet
NIGHTTIME	Changeable Message Sign Placement Interval	200 feet	350 feet	500 feet
	Total Distance Required for Conversion	1200 feet	1900 feet	2600 feet

NOTE: THE DISTANCE INTERVALS REQUIRED FOR A TRUCK MOUNTED ATTENUATOR, INCLUDING THE LENGTH OF THE VEHICLE AND THE ASSOCIATED 100-FOOT ROLL-AHEAD DISTANCE, IS NOT INCLUDED IN THESE CALCULATIONS SINCE THIS DEVICE IS OPTIONAL. HOWEVER, WHEN A TRUCK MOUNTED ATTENUATOR IS UTILIZED, ADD AN ADDITIONAL 125 FEET TO THE TOTAL DISTANCE REQUIRED FOR CONVERSION TO COMPENSATE FOR THE 100-FOOT ROLL-AHEAD DISTANCE AND THE APPROXIMATE LENGTH OF THE VEHICLE AND THE ATTENUATOR.

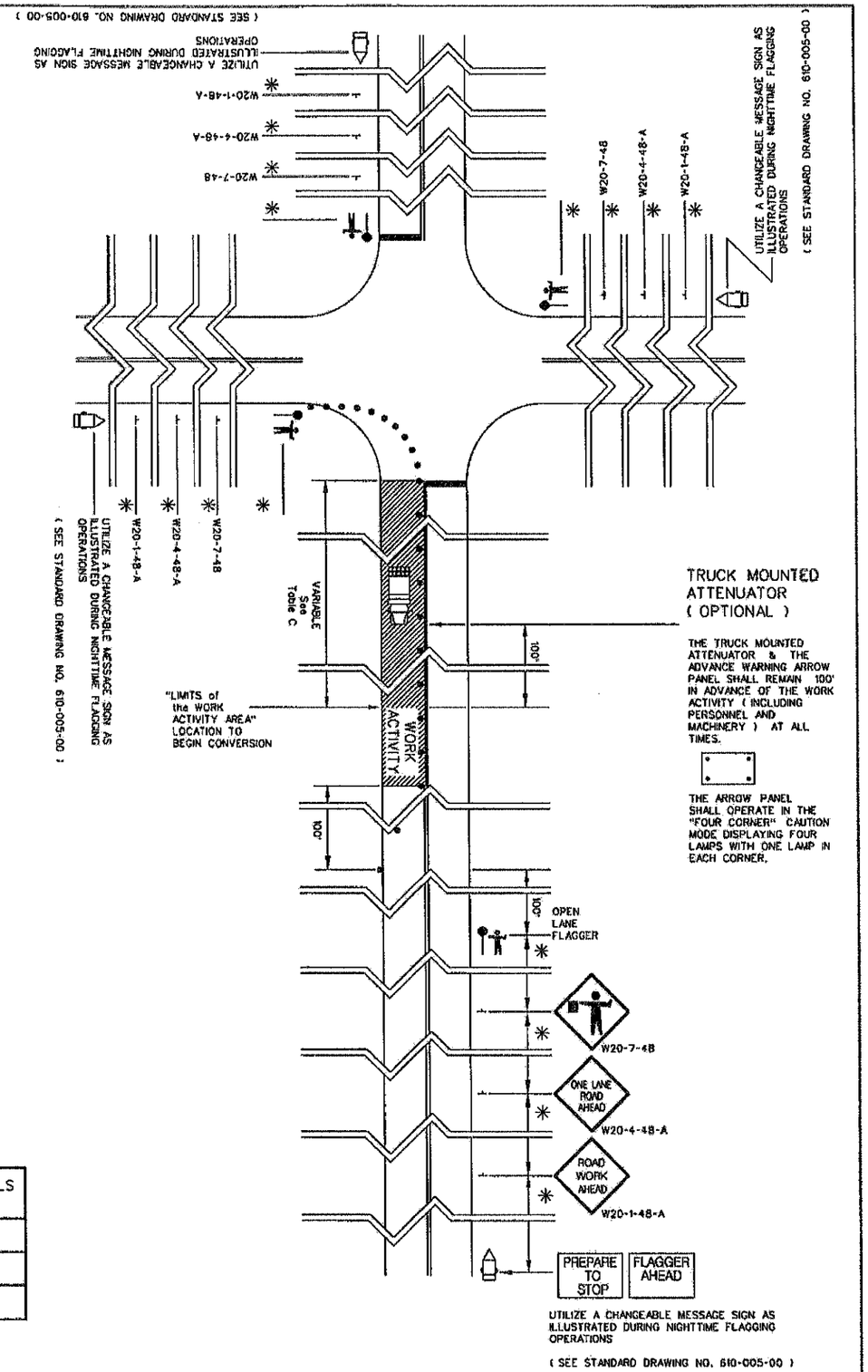
TABLE A

SIGN PLACEMENT INTERVALS	
SPEED LIMIT	*
* ≤ 35 MPH LOW SPEED	200
* 40 - 50 MPH INTERMEDIATE SPEED	350
* 55 MPH HIGH SPEED	500

* REGULATORY POSTED SPEED LIMIT PRIOR TO BEGINNING WORK

TABLE B

TRAFFIC CONTROL DEVICE SPACING INTERVALS WORK ACTIVITY / BUFFER SPACE AREAS	
SPEED LIMIT	SPACING INTERVALS
≤ 35 MPH	25 FEET
40 - 55 MPH	50 FEET



REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

RELATED DRAWINGS & KEYWORDS

716-105-00

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 8858 EDWIN SYLVESTER EARGLE, III

SIGNATURE

MARCH 3, 2008

DATE

#	DATE	CHK	DESCRIPTION
6			
5			
4			
3			
2			
1			
0	3/2008	DSO	GENERAL REVISIONS

SCDOT

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

CONCRETE STEPS

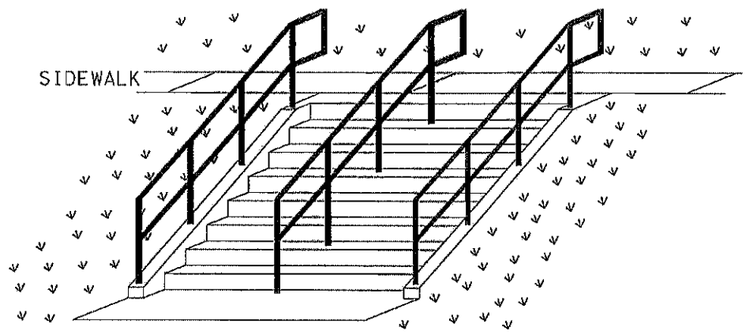
702-105-00

EFFECTIVE LETTING DATE: MAY 2008

THIS DRAWING IS NOT TO SCALE

FORMULAS FOR FIGURING CUBIC YARDS OF CONCRETE IN STEPS WITH 18" APRON AT BOTTOM

1. 4'-0" STEPS, (NUMBER OF RISERS x 0.16)+ 0.152 = C.Y.
2. 5'-0" STEPS, (NUMBER OF RISERS x 0.17)+ 0.184 = C.Y.
3. 6'-0" STEPS, (NUMBER OF RISERS x 0.20)+ 0.214 = C.Y.



ISOMETRIC VIEW

CONCRETE TABLE		
NO. RISERS	WIDTH	CONC. (CUBIC YDS.)
2	4'-0"	0.390
	5'-0"	0.460
	6'-0"	0.530
3	4'-0"	0.509
	5'-0"	0.598
	6'-0"	0.688
4	4'-0"	0.628
	5'-0"	0.736
	6'-0"	0.846
5	4'-0"	0.747
	5'-0"	0.874
	6'-0"	1.004
6	4'-0"	0.866
	5'-0"	1.012
	6'-0"	1.162
7	4'-0"	0.985
	5'-0"	1.150
	6'-0"	1.320
8	4'-0"	1.104
	5'-0"	1.286
	6'-0"	1.478

NOTES:

1. FOR COMMERCIAL APPLICATIONS, HANDRAIL IS REQUIRED ON STAIRWAYS CONTAINING MORE THAN ONE STEP. FOR RESIDENTIAL APPLICATIONS, HANDRAIL IS REQUIRED ON STAIRWAYS WITH MORE THAN THREE STEPS.

2. STAIRWAYS SHALL BE A MINIMUM WIDTH OF 36 INCHES AT ALL PARTS ABOVE HANDRAIL HEIGHT AND 27 INCHES AT AND BELOW HANDRAIL HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4.5 INCHES ON EITHER SIDE OF THE STAIRWAY (RESIDENTIAL).

3. HANDRAIL HEIGHT SHALL BE A MINIMUM OF 34 INCHES AND A MAXIMUM OF 38 INCHES, MEASURED VERTICALLY FROM THE NOSE OF EACH RISER. HANDRAIL SHALL BE CONTINUOUS AND UNIFORM ALONG THE FULL LENGTH OF THE HANDRAIL (COMMERCIAL & RESIDENTIAL).

4. ALL PORTIONS OF THE STAIRWAY SHALL BE WITHIN 30 INCHES OF A HANDRAIL, OTHERWISE, AN INTERMEDIATE HANDRAIL ALONG THE CENTER OF THE STAIRWAY SHALL BE USED.

5. HANDRAILS WITH CIRCULAR CROSS SECTIONS SHALL HAVE A MINIMUM OUTSIDE DIAMETER OF 1.25 INCHES AND A MAXIMUM OUTSIDE DIAMETER OF 2.0 INCHES. FOR NON-CIRCULAR CROSS SECTIONS, THE PERIMETER SHALL BE A MINIMUM OF 4 INCHES AND A MAXIMUM OF 6.25 INCHES.

6. HANDRAILS SHALL EXTEND HORIZONTALLY AT LEAST 12 INCHES BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF 12 INCHES BEYOND BOTTOM RISER.

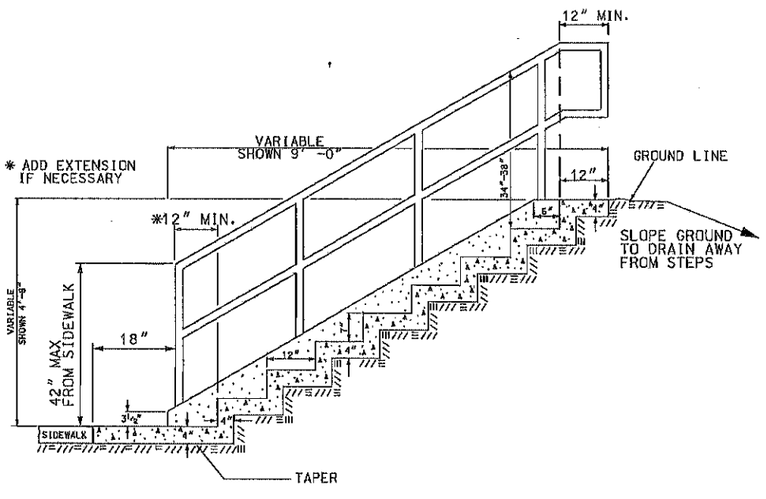
7. THE MINIMUM CLEARANCE BETWEEN A HANDRAIL AND A WALL OR OTHER SURFACE SHALL BE 1.5 INCHES.

8. HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED TO RESIST A LOAD OF 50 LBS. PER LINEAR FOOT APPLIED IN ANY DIRECTION AT THE TOP. HANDRAIL ASSEMBLIES AND GUARDS SHALL ALSO BE DESIGNED TO WITHSTAND A SINGLE CONCENTRATED LOAD OF 200 LBS. APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP.

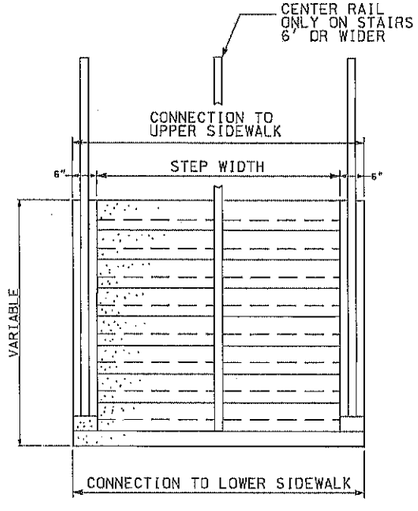
9. ALL HARDWARE FOR HANDRAIL SHOULD BE INCLUDED IN THE COST OF HANDRAIL.

10. THE PAY ITEMS SHALL BE:

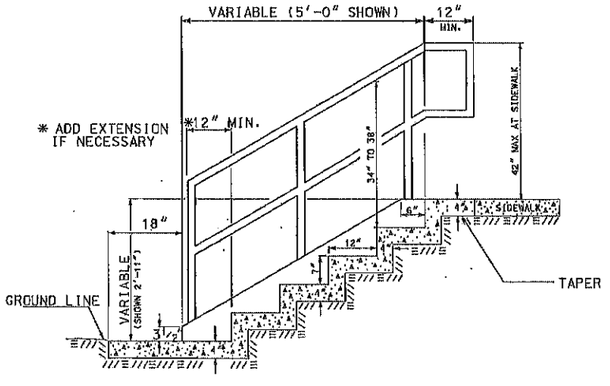
CONCRETE FOR STRUCTURES-CLASS 3000(ROADWAY)_____CY
HANDRAIL OPTIONS (WHEN CONTAINMENT IS NOT REQUIRED):
IRON PIPE HANDRAIL OPTIONS_____LF
STEEL HANDRAIL_____LF
ALUMINUM HANDRAILING_____LF
47" PLASTIC COMPOSITE HANDRAIL (BLACK)_____LF
FENCE OPTION (WHEN CONTAINMENT IS DESIRED):
ORNAMENTAL STEEL PICKET FENCE_____LF



SIDE ELEVATION
SIDEWALK/ROAD AT BOTTOM
OF STAIR



FRONT ELEVATION



SIDE ELEVATION
SIDEWALK/ROAD AT TOP
OF STAIR

REFERENCES

NATIONAL DOCUMENTS

AASHTO M235

SCDOT DOCUMENTS

QUALIFIED PRODUCT LIST 14

RELATED DRAWINGS & KEYWORD

719-305-00, 719-310-00, 719-016-02

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 8858 EDWIN SYLVESTER EAGLE, III

SIGNATURE

MARCH 2, 2009

DATE

#	DATE	CHK	DESCRIPTION
6			
5			
4			
3			
2			
1	3/2009	SDM	TEMP OPENING NOTE
0	3/2008	DSO	GENERAL REVISIONS

SCDOT

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

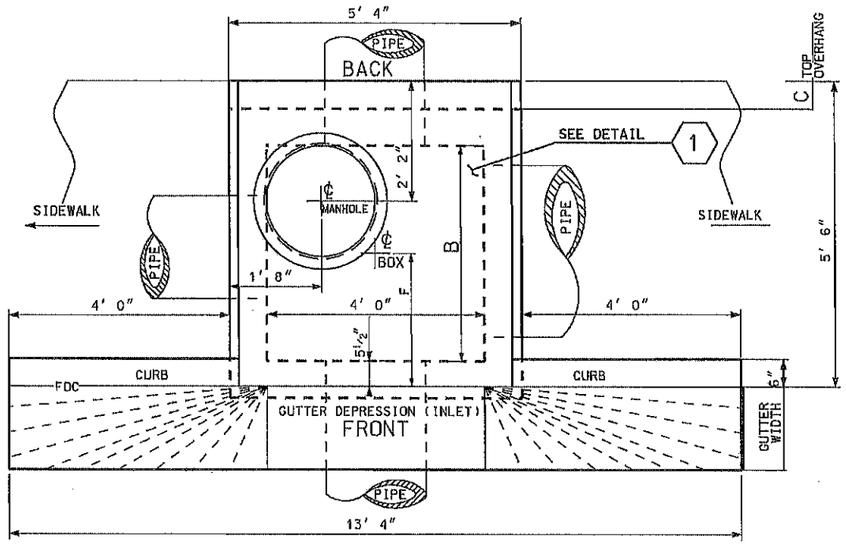
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

CATCH BASIN TYPE 16

719-016-01

EFFECTIVE LETTING DATE | MARCH, 2009



SECTION A
SCALE 3/8":1'
PLAN

TABLE 719-016A

DIMENSION LABEL	BUILT IN PLACE CONSTRUCTION	PRECAST CONSTRUCTION
A	8"	6"
B	3'-10½"	4'-0"
C	6"	6½"
D	1'-0"	1'-1½"
E	¾"	SEE 4x4 PC BOX
F	2'-4¾"	2'-5½"

SEE SHEET 719-016-02 FOR DETAILS AND NOTES

DESCRIPTION	ADA	NON ADA BICYCLE	VEHICLE
CB TYPE 16	YES	YES	YES-GUTTER LINE

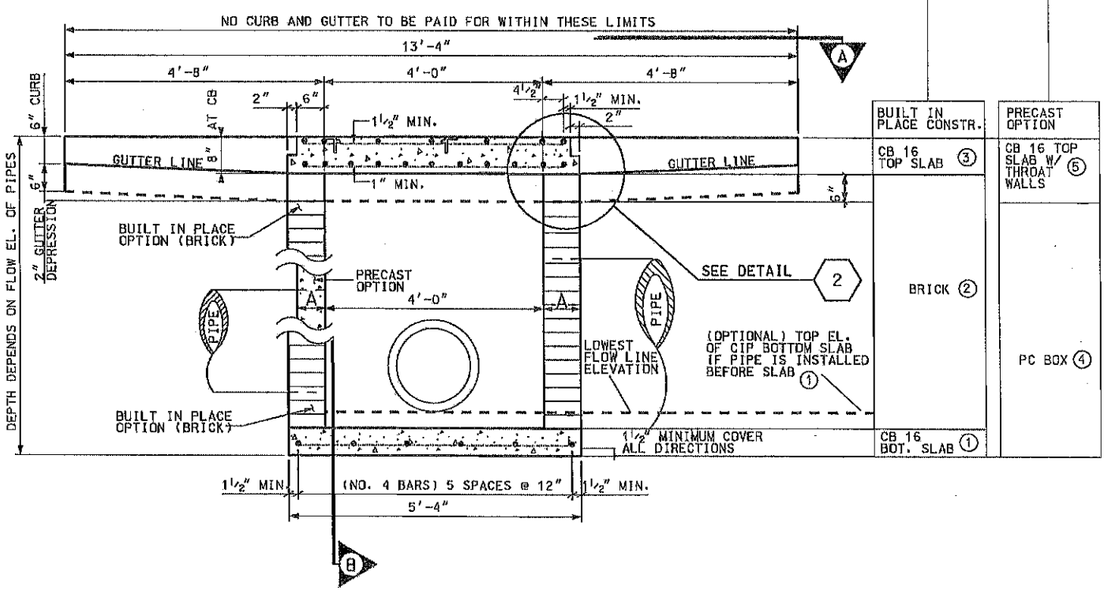
USE WITH SIDEWALK/CURB & GUTTER

CONTRACTOR MAY USE A COMBINATION OF BUILT IN PLACE AND PRECAST COMPONENTS AS APPROVED BY THE RESIDENT

SEE QUALIFIED PRODUCT LIST 14 FOR MANUFACTURERS OF PRECAST ITEMS.

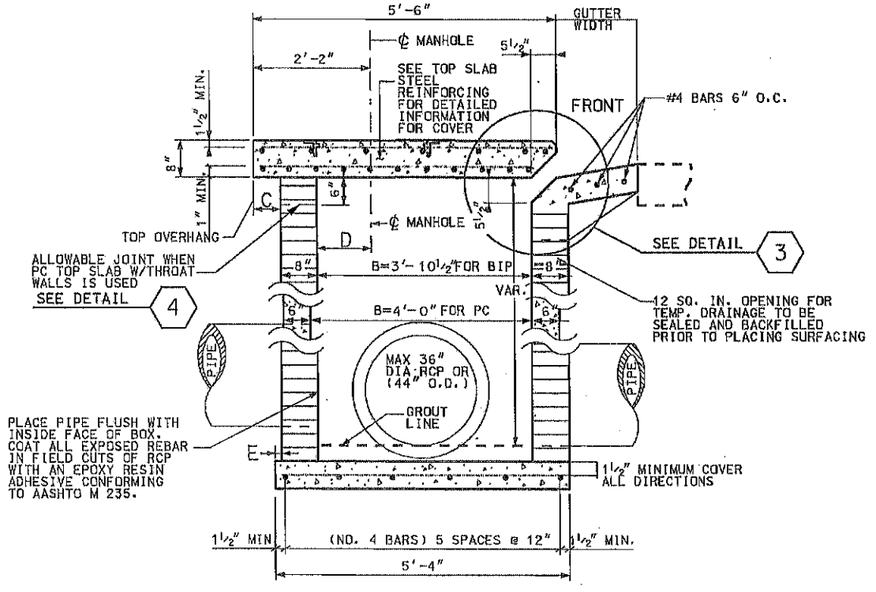
BUILT IN PLACE:
① CB 16 BOTTOM SLAB (PC OR CIP CONCRETE 64"X64"X6")
AND
② BRICK WALLS (8") (MAXIMUM 12' DEPTH)
AND
③ PC CB 16 TOP SLAB (66"X64"X8")

PRECAST:
④ PC DRAINAGE BOX CONFORMING TO 719-305-00 OR 719-310-00 (4'X4'X__) (MAX 12' DEPTH)
AND
⑤ CB 16 TOP SLAB WITH THROAT WALLS (66"X64"X14")

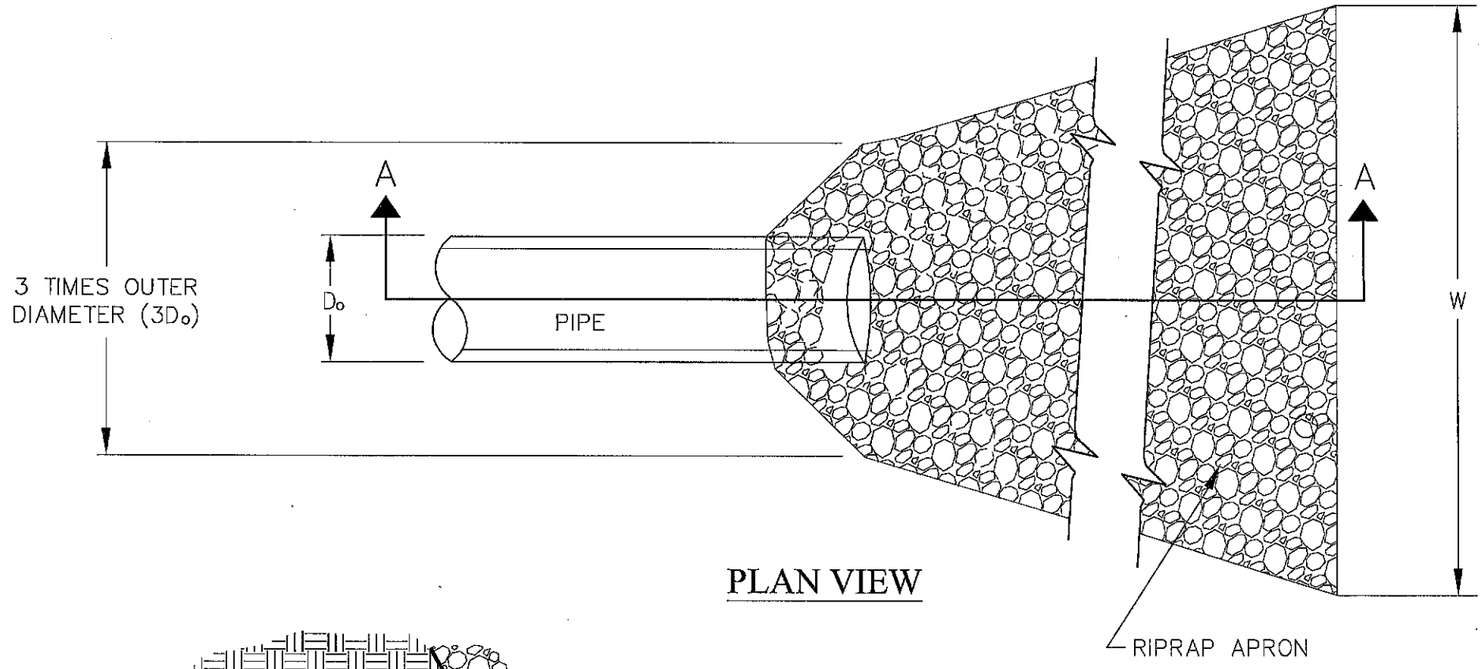


	BUILT IN PLACE CONSTR.	PRECAST OPTION
	CB 16 TOP SLAB ③	CB 16 TOP SLAB W/ THROAT WALLS ⑤
	BRICK ②	
	PC BOX ④	
	CB 16 BOT. SLAB ①	

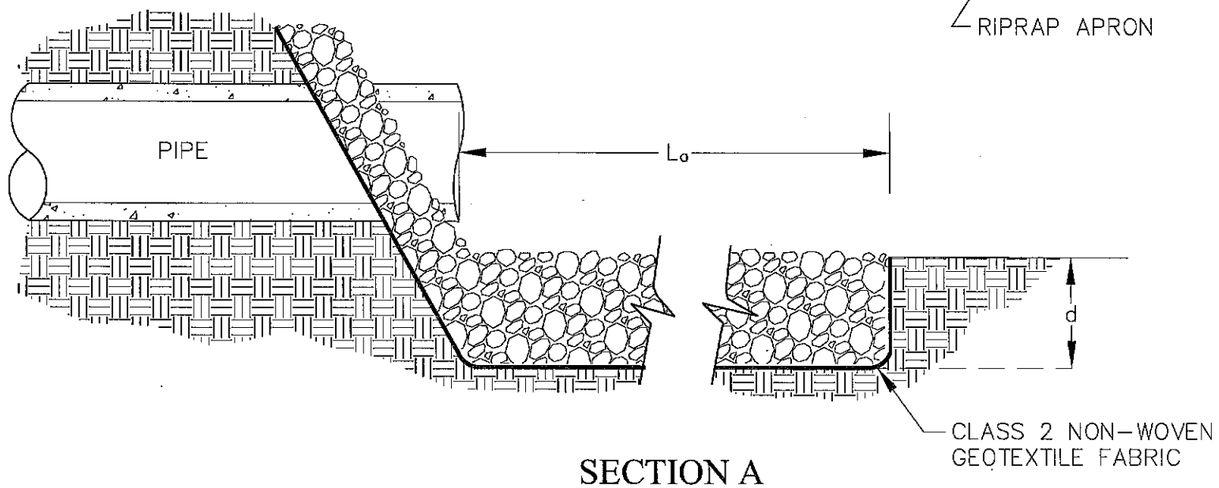
SECTION B
SCALE 3/8":1'
FRONT ELEVATION
CATCH BASIN TYPE 17



SECTION C
SCALE 3/8":1'
SIDE ELEV.



PLAN VIEW



SECTION A

NOTES:

1) L_a = THE LENGTH OF THE RIPRAP APRON.

2) W = WIDTH OF OUTLET PROTECTION AT END OF RIPRAP APRON.

3) D_o = OUTER DIAMETER OF OUTLET PIPE.

4) $3D_o$ = WIDTH OF OUTLET PROTECTION AT TOE OF SLOPE AT PIPE OUTLET.

5) SEE DRAWING # 804-305-03 OR PLANS FOR DIMENSIONS L_a, W, AND $3D_o$.

6) d = DEPTH OF RIPRAP = 2.0 TIMES THE MAXIMUM RIPRAP DIAMETER.

7) SEE DRAWING # 804-305-01 FOR RIPRAP SLOPE STABILIZATION AROUND PIPE.

THIS DRAWING IS NOT TO SCALE

REFERENCES

NATIONAL DOCUMENTS

USDA NRCS ENGINEERING FIELD MANUAL

SCDOT DOCUMENTS

WQM

RELATED DRAWINGS & KEYWORDS

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL, JR.

James W. Kendall, Jr.

SIGNATURE

11/18/2016
DATE

#	DATE	CHK	DESCRIPTION
6			
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3			
2			
1			
0			

SCDOT

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

OUTLET PROTECTION WITH NO DEFINED CHANNEL

804-305-02

EFFECTIVE LETTING DATE | JULY 2017

REFERENCES

NATIONAL DOCUMENTS

USDA NRCS ENGINEERING FIELD MANUAL

SCDOT DOCUMENTS

WQM

RELATED DRAWINGS & KEYWORDS

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL JR.

James W. Kendall, Jr.

SIGNATURE

11/18/2016
DATE

#	DATE	CHK	DESCRIPTION
6			
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4			
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SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

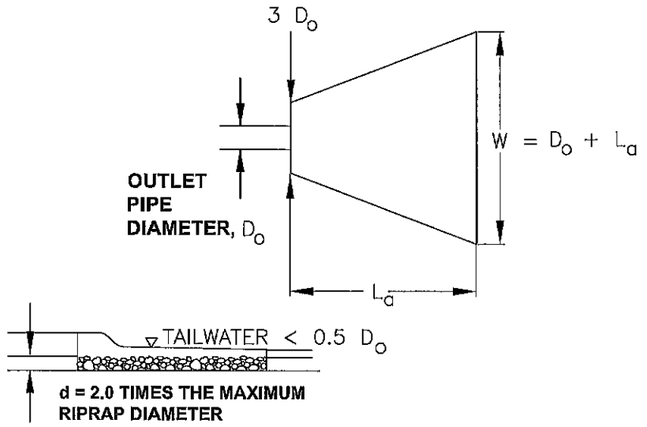
STANDARD DRAWING

OUTLET PROTECTION WITH NO DEFINED CHANNEL

804-305-03

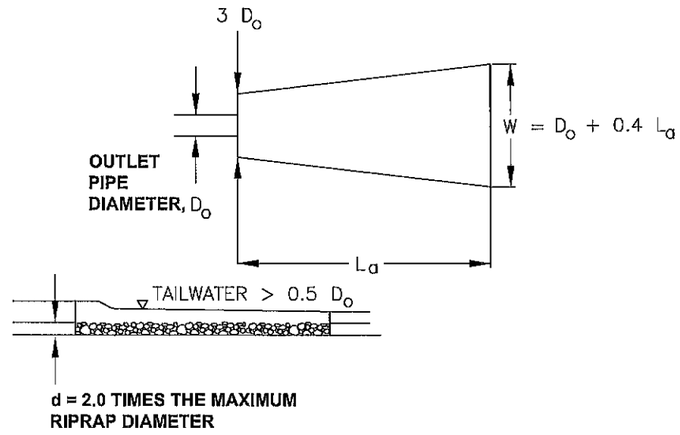
EFFECTIVE LETTING DATE | JULY 2017

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL MINIMUM TAILWATER CONDITION:



PIPE INSIDE DIAMETER (D_i) (FT)	MAX PIPE SLOPE	OUTLET PROTECTION DIMENSIONS			MIN RIPRAP CLASS	RIPRAP DEPTH (d) (FT)
		$3D_o$ (FT)	L_a (FT)	W (FT)		
1.5	≤ 1%	6	10	12	A	1.5
1.5	2%	6	14	16	A	1.5
1.5	5%	6	19	21	B	2.7
2.0	≤ 1%	8	14	17	A	1.5
2.0	2%	8	19	22	B	2.7
2.0	5%	8	26	29	B	2.7
2.5	≤ 1%	10	18	21	A	1.5
2.5	2%	10	25	28	B	2.7
2.5	5%	10	34	37	C	3.6
3.0	≤ 1%	12	24	28	B	2.7
3.0	2%	12	32	36	B	2.7
3.0	5%	12	42	46	C	3.6
3.5	≤ 1%	14	28	33	B	2.7
3.5	2%	14	37	42	C	3.6
3.5	5%	14	48	53	C	3.6
4.0	≤ 1%	16	33	38	B	2.7
4.0	2%	16	43	48	C	3.6

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL MAXIMUM TAILWATER CONDITON:



PIPE INSIDE DIAMETER (D_i) (FT)	MAX PIPE SLOPE	OUTLET PROTECTION DIMENSIONS			MIN RIPRAP CLASS	RIPRAP DEPTH (d) (FT)
		$3D_o$ (FT)	L_a (FT)	W (FT)		
1.5	≤ 1%	6	8	6	A	1.5
1.5	2%	6	23	11	A	1.5
1.5	5%	6	40	18	A	1.5
2.0	≤ 1%	8	14	8	A	1.5
2.0	2%	8	30	15	A	1.5
2.0	5%	8	55	25	B	2.7
2.5	≤ 1%	10	20	11	A	1.5
2.5	2%	10	39	19	A	1.5
2.5	5%	10	66	30	B	2.7
3.0	≤ 1%	12	27	15	A	1.5
3.0	2%	12	55	26	A	1.5
3.0	5%	12	91	40	C	3.6
3.5	≤ 1%	14	33	18	A	1.5
3.5	2%	14	66	31	B	2.7
3.5	5%	14	106	47	C	3.6
4.0	≤ 1%	16	42	22	A	1.5
4.0	2%	16	78	37	B	2.7

NOTES:

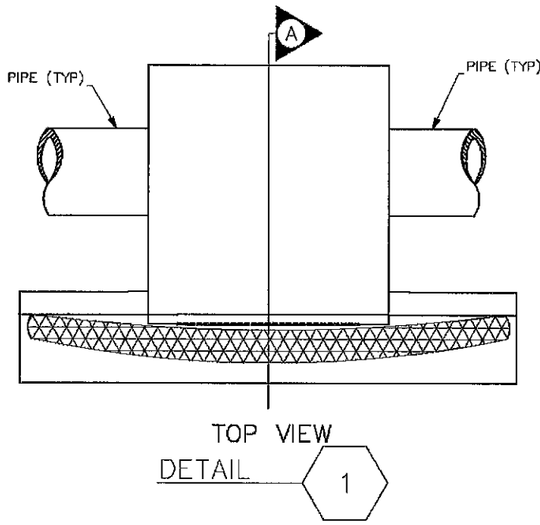
1) THESE TABLES ARE ONLY APPLICABLE FOR THE PIPE SIZES AND MAXIMUM PIPE SLOPES LISTED.

2) LARGER PIPES OR GREATER SLOPES REQUIRE ALTERNATIVE OUTLET PROTECTION DESIGN.

3) WHEN PLANS SPECIFY LARGER OR DIFFERENT OUTLET PROTECTION THAN SHOWN IN TABLES, INSTALL OUTLET PROTECTION PER THE PLANS.

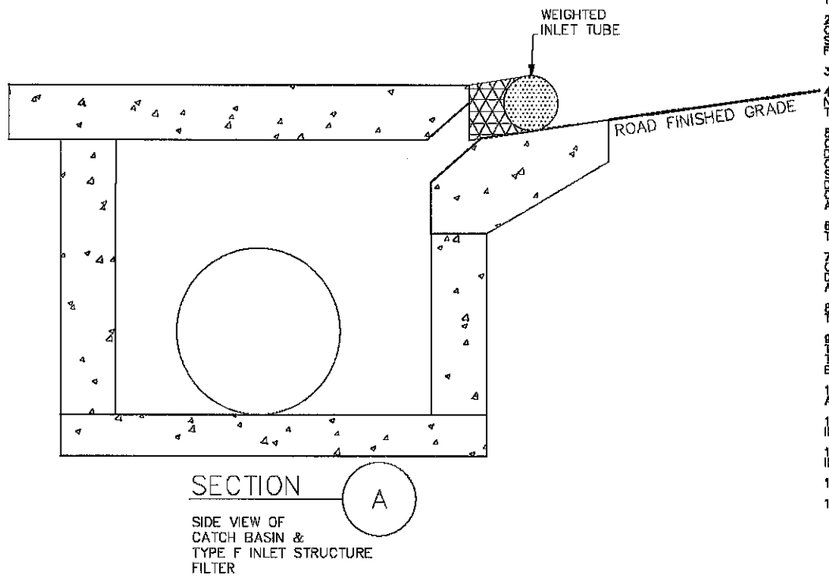
4) SEE DRAWING # 804-305-02 FOR MORE INFORMATION ON OUTLET PROTECTION DIMENSIONS.

THIS DRAWING IS NOT TO SCALE



TOP VIEW

DETAIL 1



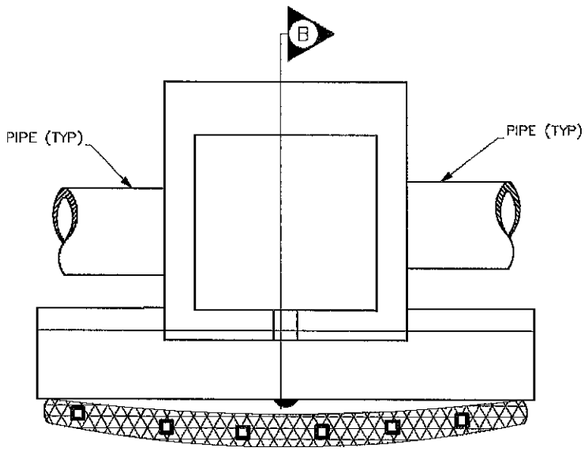
SECTION A

SIDE VIEW OF
CATCH BASIN &
TYPE F INLET STRUCTURE
FILTER

WEIGHTED INLET TUBE

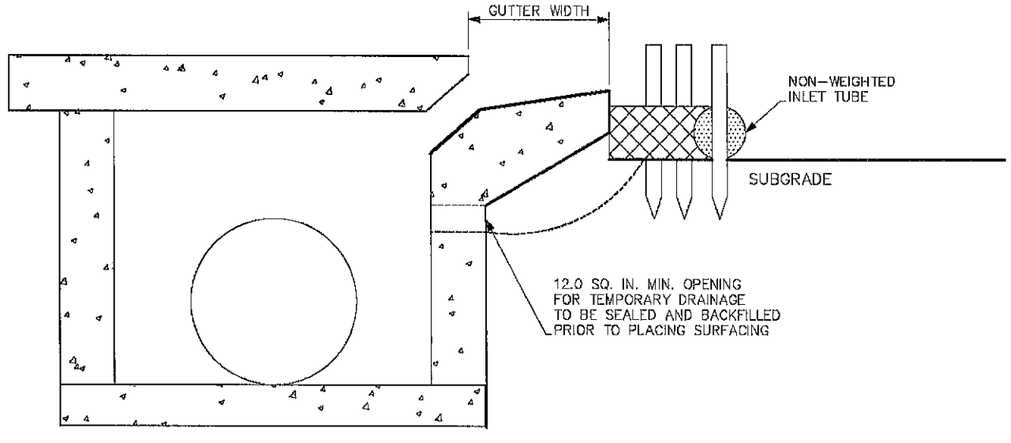
NOTES:

1. DRAWING SHOWS TYPE 16 CATCH BASIN.
2. NON-WEIGHTED TUBES SHALL BE INSTALLED IMMEDIATELY AFTER GRADING AND CONSTRUCTION OF CATCH BASIN BOX. NON-WEIGHTED TUBES SHALL BE MAINTAINED DURING SUBGRADE AND BASE PREPARATION UNTIL BASE COURSE IS PLACED. THEY ARE APPLICABLE FOR CATCH BASIN TYPES 1, 16, 17, AND 18 WITH DRAINAGE AREAS LESS THAN 1 ACRE.
3. INLET TUBES MAY BE TEMPORARILY MOVED DURING CONSTRUCTION AS NEEDED.
4. CONSTRUCT A SMALL U-SHAPED TRENCH TO A DEPTH THAT IS 20% OF THE NON-WEIGHTED INLET TUBE DIAMETER. LAY THE INLET TUBE FLAT IN THE U-SHAPED TRENCH AND COMPACT THE UPSTREAM INLET TUBE SOIL INTERFACE.
5. INSTALL NON-WEIGHTED INLET TUBES USING WOODEN STAKES WITH A MINIMUM LENGTH OF 3 FEET AND A MINIMUM MEASURED DIMENSION OF 3/4" X 3/4" AND A MAXIMUM MEASURED DIMENSION 2" X 2". OR 1.25 POUNDS PER FOOT STEEL POSTS WITH A MINIMUM LENGTH OF 3 FEET. USE STEEL POSTS WITHOUT A SOIL PLATE AND PAINTING IS NOT REQUIRED. SPACE POSTS OR STAKES ON 2 FOOT CENTERS AND DRIVE THEM INTO THE GROUND TO A MINIMUM DEPTH OF 2 FEET. INSTALL NON-WEIGHTED INLET TUBES SO THAT THE TOP IS BELOW THE TOP OF THE INSTALLED CURB LINE TO ENSURE THAT ALL OVERFLOW OR OVERTOPPING WATER HAS THE ABILITY TO ENTER THE INLET UNOBSTRUCTED.
6. PLACE STAKES ON THE DOWNSTREAM SIDE OF THE NON-WEIGHTED INLET TUBE. REFER TO MANUFACTURER'S RECOMMENDATION FOR OTHER STAKING DETAILS.
7. AFTER ROAD BASE COURSE IS PLACED, WEIGHTED INLET TUBES SHALL BE PLACED FOR CATCH BASIN TYPES 1, 9, 12, 14, 15, 16, 17, & 18, DI 24 INCHES X 24 INCHES, DI 24 INCHES X 36 INCHES, MANHOLES, AND TRENCH DRAINS. WEIGHTED INLET TUBES ARE APPLICABLE WHERE CONSTRUCTION TRAFFIC MAY OCCUR AROUND THE INLET.
8. INSTALL WEIGHTED INLET TUBES LYING FLAT ON THE GROUND WITH NO GAPS BETWEEN THE UNDERLYING SURFACE AND THE TUBE.
9. DO NOT COMPLETELY BLOCK INLETS WITH INLET TUBES. INSTALL WEIGHTED INLET TUBES IN SUCH A MANNER THAT ALL OVERFLOW CAN ENTER THE INLET UNOBSTRUCTED. TO AVOID POSSIBLE FLOODING, 2 OR 3 CONCRETE CINDER BLOCKS MAY BE PLACED BETWEEN THE WEIGHTED INLET TUBE AND THE INLET.
10. FOR WEEP HOLE APPLICATIONS, BOTH WEIGHTED AND NON-WEIGHTED INLET TUBES ARE APPLICABLE.
11. ALL WEIGHTED TYPE F INLET STRUCTURE FILTERS ARE APPLICABLE AS TYPE E INLET STRUCTURE FILTERS.
12. REPLACE INLET TUBES DURING INSTALLATION AS DIRECTED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
13. ALL TYPE F INLET FILTERS SHALL BE INSPECTED EVERY 7 CALENDAR DAYS.
14. THE PAY ITEMS SHALL BE:
    - 8152004 INLET STRUCTURE FILTER TYPE F (WEIGHTED)_____LF
    - 8152008 INLET STRUCTURE FILTER TYPE F (NON-WEIGHTED)_____LF
    - 8154155 CLEANING INLET STRUCTURE FILTERS_____EA



TOP VIEW

DETAIL 2



SECTION B

SIDE VIEW OF
CATCH BASIN &
TYPE F INLET STRUCTURE
FILTER

NON-WEIGHTED INLET TUBE

THIS DRAWING IS NOT TO SCALE

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

SC-M-815-8
QPL 58

RELATED DRAWINGS & KEYWORDS

THIS DRAWING IS ONLY VALID FOR CONSTRUCTION WHEN SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF SOUTH CAROLINA. CHECK WWW.SCDOT.ORG FOR LATEST UPDATE.

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL, JR.

James W. Kendall, Jr.

SIGNATURE

11/18/2016

DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
4	---	---	---
3	---	---	---
2	---	---	---
1	8/2016	DSO	TYPOS; PAY #
0	8/2013	DSO	UPDATED DRAWING

SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

TYPE F
INLET STRUCTURE
FILTERS

815-006-00

EFFECTIVE LETTING DATE: JUL 2017

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

SC-M-815-8
OPL 57

RELATED DRAWINGS & KEYWORDS

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 21242 JAMES W. KENDALL, JR.

James W. Kendall, Jr.

SIGNATURE

11/18/2016

DATE

5			
4			
3			
2	8/2016	DSO	GENERAL REVISIONS
1	8/2012	DSO	UPDATED DIMENSIONS AND NOTES
0	3/2008	DSO	GENERAL REVISIONS
#	DATE	CHK	DESCRIPTION

SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

TYPE A
INLET STRUCTURE
FILTERS

815-001-01

EFFECTIVE LETTING DATE | JUL 2017

THIS DRAWING IS NOT TO SCALE

INSTALLATION:

1. FILTER FABRIC IS USED FOR INLET PROTECTION WHEN STORMWATER FLOWS ARE RELATIVELY SMALL (1.0 CFS OR LESS) WITH LOW VELOCITIES, WHERE THE INLET DRAINS AREA HAS GRADES NO GREATER THAN 5% AND THE IMMEDIATE DRAINAGE AREA AROUND THE INLET (5 FOOT RADIUS) HAS GRADES LESS THAN 1%. DO NOT USE IN AREAS RECEIVING CONCENTRATED FLOW OR WHERE DITCHES ARE PAVED. A TRENCH SHALL BE EXCAVATED 6 INCHES WIDE AND 6 INCHES DEEP AROUND THE OUTER PERIMETER OF THE STAKES UNLESS FABRIC IS PNEUMATICALLY INSTALLED.

2. FILTER FABRIC SHALL CONFORM TO SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION). FILTER FABRIC SHALL EXTEND A MINIMUM OF 12 INCHES INTO THE TRENCH. THE TRENCH SHALL BE BACKFILLED WITH SOIL OR CRUSHED STONE AND COMPACTED OVER THE FILTER FABRIC UNLESS FABRIC IS PNEUMATICALLY INSTALLED.

3. USE STEEL POSTS WITH A MINIMUM POST LENGTH OF 5 FEET CONSISTING OF STANDARD "T" SECTIONS WITH A WEIGHT OF 1.25 POUNDS PER FOOT (±8%). THE HEIGHT OF THE FILTER BARRIER ABOVE GROUND SHALL BE A MINIMUM OF 24 INCHES. POSTS SHALL BE SPACED AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 2 FEET APART AND DRIVEN INTO THE GROUND A MINIMUM OF 24 INCHES. ATTACH FABRIC TO POSTS USING ONLY HEAVY DUTY PLASTIC TIES. ATTACH AT LEAST 4 EVENLY SPACED TIES IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC.

4. FILTER FABRIC SHOULD BE IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE PROTECTED AREA TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER FABRIC SHOULD BE WRAPPED TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST WITH A MINIMUM 6 INCH OVERLAP.

5. PROVIDE A FILTER FABRIC CAPABLE OF REDUCING EFFLUENT SEDIMENT CONCENTRATIONS BY NOT LESS THAN 80% UNDER TYPICAL SEDIMENT MIGRATION CONDITIONS.

INSPECTION AND MAINTENANCE:

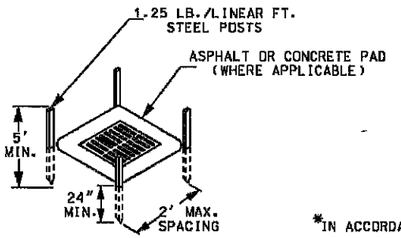
1. INSPECTIONS SHOULD BE MADE EVERY SEVEN (7) CALENDAR DAYS. ANY NEEDED REPAIRS SHOULD BE HANDLED IMMEDIATELY.

2. IF THE FABRIC BECOMES CLOGGED, IT SHOULD BE REPLACED.

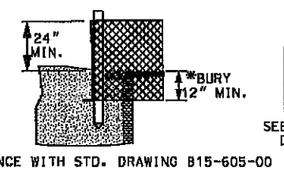
3. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 THE HEIGHT OF THE FILTER FABRIC. IF A SUMP IS USED, SEDIMENT SHOULD BE REMOVED WHEN IT FILLS APPROXIMATELY 1/3 THE DEPTH OF THE HOLE. MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM. TAKE CARE NOT TO DAMAGE OR UNDERCUT FABRIC WHEN REMOVING SEDIMENT. CLEANING INLET STRUCTURE FILTERS IS PAID FOR EACH (EA) FILTER CLEANED OF DEPOSITED SEDIMENT FROM THE AREA ADJACENT TO EACH INLET STRUCTURE FILTER.

4. STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO DRAIN. USE APPROPRIATE PERMANENT STABILIZATION METHODS TO STABILIZE BARE AREAS AROUND THE INLET.

5. THE PAY ITEMS SHALL BE:
   8156219 INLET STRUCTURE FILTER TYPE A_____LF
   8154155 CLEANING INLET STRUCTURE FILTERS_____EA

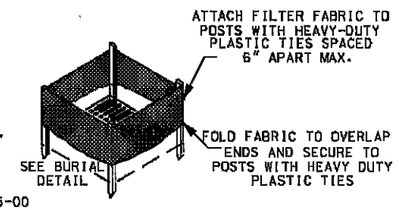


POST INSTALLATION DETAIL



*IN ACCORDANCE WITH STD. DRAWING B15-605-00

FILTER FABRIC BURIAL DETAIL



FILTER FABRIC INSTALLATION DETAIL

TYPE A
LOW FLOW INLET FILTERS
(FILTER FABRIC INLET PROTECTION)

INSTALLATION:

1. INSTALL SEDIMENT TUBES BY LAYING THEM FLAT ON THE GROUND. CONSTRUCT A SMALL TRENCH TO A DEPTH THAT IS 20% OF THE SEDIMENT TUBE DIAMETER. LAY THE SEDIMENT TUBE IN THE TRENCH AND COMPACT THE UPSTREAM SEDIMENT TUBE/SOIL INTERFACE. INSTALL ALL SEDIMENT TUBES SO NO GAPS EXIST BETWEEN THE SOIL AND THE BOTTOM OF THE SEDIMENT TUBE. LAP THE ENDS OF ADJACENT SEDIMENT TUBES A MINIMUM OF 6 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. NEVER STACK SEDIMENT TUBES ON TOP OF ONE ANOTHER.

2. SHOULD SEDIMENT TUBE BECOME DAMAGED DURING INSTALLATION, PLACE A STAKE ON BOTH SIDES OF THE DAMAGED AREA TERMINATING THE TUBE SEGMENT AND INSTALL A NEW TUBE SEGMENT.

3. INSTALL SEDIMENT TUBES USING WOODEN STAKES WITH A MINIMUM POST LENGTH OF 4 FEET AND A MINIMUM MEASURED DIMENSION OF ¾" X ¾" AND A MAXIMUM MEASURED DIMENSION OF 2" X 2", OR USING STEEL POSTS (1.25lbs./linear foot). USE STEEL POSTS WITHOUT A SOIL PLATE AND PAINTING IS NOT REQUIRED. SPACE POSTS OR STAKES ON 2-FOOT CENTERS AND DRIVE THEM INTO THE GROUND TO A MINIMUM DEPTH OF 2 FEET. INSTALL THE STAKES ON THE DOWNSTREAM (1/3) OF THE SEDIMENT TUBE. ENSURE THE AREAS FOR STAKE INSTALLATION ARE COMPACTED SO THE POSTS ARE PROPERLY INSTALLED.

INSPECTION AND MAINTENANCE:

1. INSPECT SEDIMENT TUBES AFTER INSTALLATION FOR GAPS UNDER THE SEDIMENT TUBES AND FOR GAPS BETWEEN THE JOINTS OF ADJACENT ENDS OF SEDIMENT TUBES. REPAIR RILLS, GULLIES, AND ALL UNDERCUTTING NEAR SEDIMENT TUBES. INSPECT SEDIMENT TUBES EVERY 7 DAYS.

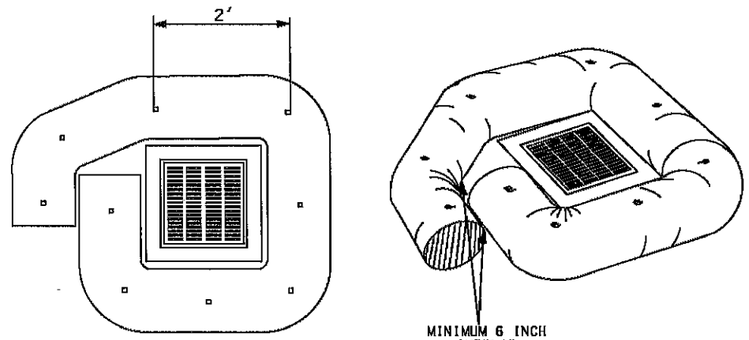
2. REMOVE SEDIMENT WHEN IT REACHES APPROXIMATELY ½ HEIGHT OF THE INLET STRUCTURE FILTER. IF A SUMP IS USED, REMOVE SEDIMENT WHEN IT FILLS APPROXIMATELY ½ THE DEPTH OF THE HOLE. MAINTAIN THE POOL AREA, ALWAYS PROVIDING ADEQUATE SEDIMENT STORAGE VOLUME FOR THE NEXT STORM EVENT. CLEANING INLET STRUCTURE FILTER IS PAID FOR EACH (EA) FILER CLEANED OF DEPOSITED SEDIMENT FROM THE AREA ADJACENT TO EACH INLET STRUCTURE FILTER.

3. REMOVE AND/OR REPLACE INSTALLED SEDIMENT TUBES AS REQUIRED TO ADAPT TO CHANGING CONSTRUCTION SITE CONDITIONS.

4. REMOVE ALL SEDIMENT TUBES FROM THE SITE WHEN THE FUNCTIONAL LONGEVITY IS EXCEEDED AS DETERMINED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE.

5. DISPOSE OF SEDIMENT TUBES BY REGULAR MEANS AS NON-HAZARDOUS, INERT MATERIAL.

6. THE PAY ITEMS SHALL BE:
   8156219 INLET STRUCTURE FILTER TYPE A_____LF
   8154155 CLEANING INLET STRUCTURE FILTERS_____EA

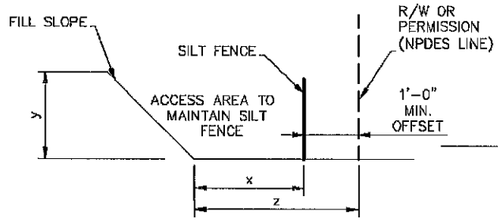


TYPE A
LOW FLOW INLET FILTERS
(SEDIMENT TUBE INLET PROTECTION)

TABLE 815-605A				
HEIGHT OF FILL (y) IN FEET	FILL SLOPE	MINIMUM SILT FENCE OFFSET FROM TOE OF SLOPE (x) IN FEET	MINIMUM RIGHT OF WAY OFFSET FROM TOE OF SLOPE (NPDES LINE) (z) IN FEET	CHECK LENGTH IN FEET**
<6	2:1 4:1 6:1	2	3	2
6-10	2:1	12*	13*	5
	4:1 6:1	3	4	3
>10	2:1	12*	13*	5
	4:1 6:1	4	5	4

*THESE MINIMUM OFFSETS MAY BE REDUCED WHEN CURB AND GUTTER OR SOME OTHER FEATURE REDUCES THE FLOW OF WATER DOWN THE SLOPE. THE SMALL OFFSETS OF EACH GROUP OF HEIGHT OF FILL CANNOT BE REDUCED.

**SILT FENCE CHECKS WILL HAVE A MAXIMUM LENGTH OF FIVE (5) FEET OR UNTIL THEY TIE BACK INTO THE SLOPE.

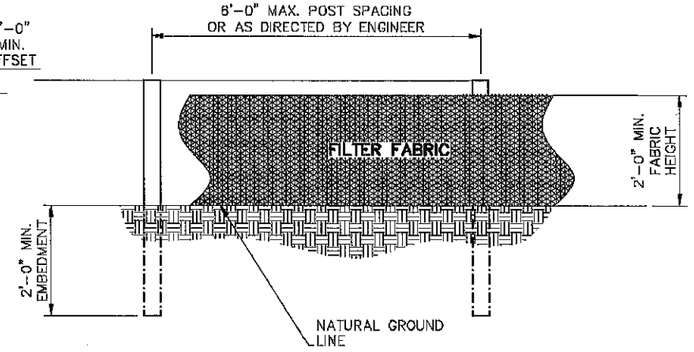


DETAIL 3
ACCESS AREA TABLE 815-605A

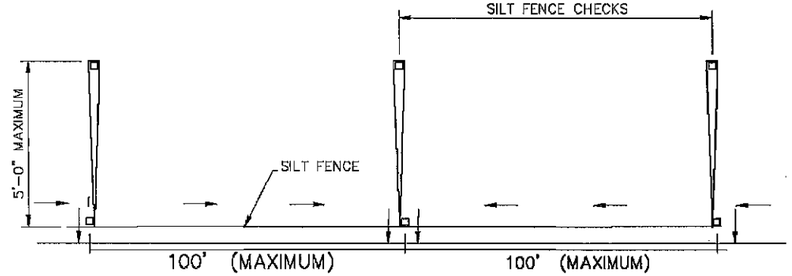
SEE 815-605-10 FOR TEMPORARY DIVERSION DIKE

SEE 815-605-20 FOR TEMPORARY SILT DITCH

SEE 815-605-30 FOR ROLLED EROSION CONTROL PRODUCT



DETAIL 1
TYPICAL POST SPACING



DETAIL 2
SILT FENCE CHECKS

NOTES:
1. SILT FENCE CHECKS MUST BE LOCATED EVERY 100 FEET MAXIMUM AND AT LOW POINTS. FILTER FABRICS SHALL CONFORM TO SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

2. USE POSTS CONFORMING TO SCDOT STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. POSTS SHALL BE A MINIMUM OF 5 FEET LONG AND INSTALLED TO A MINIMUM DEPTH OF 24 INCHES WITH NO MORE THAN 3 FEET OF THE POST ABOVE GROUND. AT LEAST 1 TO 2 INCHES OF THE POSTS SHALL EXTEND ABOVE THE TOP OF THE FABRIC. POST SPACING WILL BE A MAXIMUM OF 6 FEET ON CENTER .

3. POSTS SHALL HAVE PROJECTIONS FOR FASTENING THE FABRIC TO THE POST. POSTS SHALL ALSO HAVE A SOIL PLATE NEAR THE BOTTOM OF THE POST, EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON-SITE.

4. ATTACH FABRIC TO POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES.

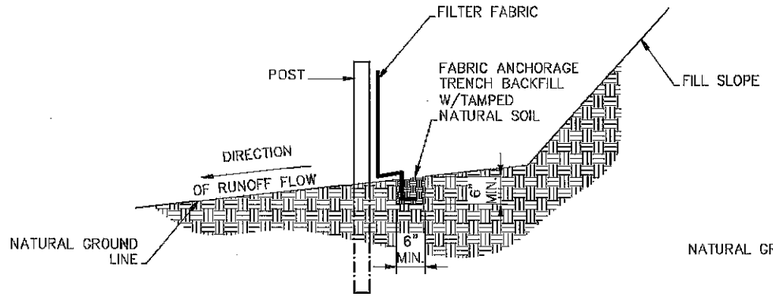
5. SILT SHALL BE REMOVED AND DISPOSED OF WHEN SILT ACCUMULATES TO ⅓ THE HEIGHT OF THE FENCE. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON-SITE. MAINTENANCE OF SILT FENCE WILL BE MEASURED AND PAID FOR BY THE ITEM OF REMOVAL OF SILT RETAINED BY SILT FENCE.

6. TYPICAL SILT FENCE APPLICATIONS REQUIRE 24 INCHES OF THE FABRIC TO BE ABOVE GROUND. WHEN NEEDED, THE HEIGHT OF SILT FENCE FABRIC ABOVE THE GROUND MAY BE GREATER THAN 24". SEE PLANS FOR APPLICATION OF HIGHER SILT FENCE, PAY ITEMS, AND INSTALLATION METHODS.

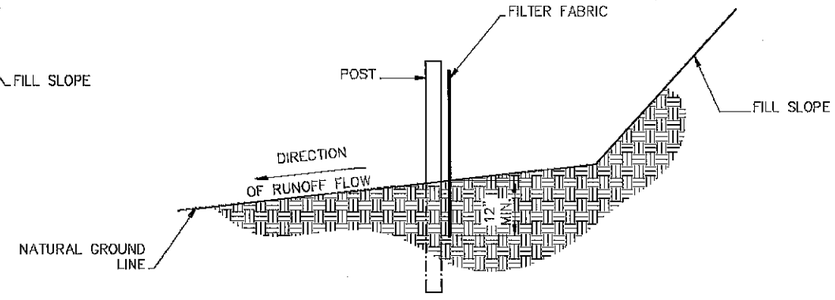
7. IN TIDAL AREAS, EXTRA SILT FENCE MAY BE REQUIRED. THE LENGTH OF POST WILL BE TWICE THE EXPOSED POST HEIGHT. POST SPACING WILL REMAIN AS SHOWN HEREON. EXTRA HEIGHT FABRIC WILL BE 4, 5, OR 6 FEET TOTAL WIDTH.

8. PAY ITEMS:
8153000 SILT FENCE _____ LF
8153005 SILT FENCE EXTRA HEIGHT _____ LF
8153090 REPLACE/REPAIR SILT FENCE _____ LF
8154050 REMOVAL OF SILT RETAINED BY SILT FENCE _____ LF

12 INCHES OF THE FABRIC SHALL BE BURIED REGARDLESS, IF PLACED PNEUMATICALLY OR WITH A TRENCHER. BOTH METHODS SHOWN BELOW.



DETAIL 4
TRENCH METHOD



DETAIL 5
PNEUMATIC METHOD

NOT TO SCALE

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS
SC-M-815-2, QPL 34

RELATED DRAWINGS & KEYWORDS

THIS DRAWING IS ONLY VALID FOR CONSTRUCTION WHEN SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF SOUTH CAROLINA. CHECK WWW.SCDOT.ORG FOR LATEST UPDATE.

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL, JR.

James W. Kendall, Jr.
SIGNATURE

11/10/2016
DATE

#	DATE	CHK	DESCRIPTION
5			
4			
3	11/2016	DSO	GENERAL REVISIONS
2	8/2016	DSO	GENERAL REVISIONS
1	8/2012	KNB	ADDED SCDOT DOCUMENTS, REMOVED STEEL, CHANGED NOTES
0	3/2008	DSO	GENERAL REVISIONS

SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

TEMPORARY SILT FENCE

815-605-00

EFFECTIVE LETTING DATE: JULY, 2017

BUDGET COST ESTIMATE - JONESVILLE ROAD SIDEWALK & DRAINAGE PROJECT

PURCHASE ORDER #: XXXXXXXXXXXXX

LETTING DATE: XX/XX/XXXX

CONTRACTORS NAME:_____

ITEM CODE REFERS TO SECTION OF SPECIFICATIONS

LINE #	BAMS #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT BID PRICE	EXTENDED PRICE
10	1031000	MOBILIZATION	LS	1	$1.00	$1.00
20	1050800	CONSTRUCTION STAKES, LINES & GRADES	EA	1	$1.00	$1.00
30	1061000	QUALITY CONTROL BY CONTRACTOR	LS	1	$1.00	$1.00
40	2012000	CLEAR.& GRUB. WITHIN RDWY.	LS	1	$1.00	$1.00
10	2025000	REMOVAL & DISPOSAL OF EXISTING ASPHALT PAVEMENT	SY	165	$1.00	$165.00
50	2031200	SITE GRADING	LS	1	$1.00	$1.00
20	4012060	FULL DEPTH ASPH. PAV. PATCHING 6" UNIF.	SY	75	$1.00	$75.00
60	3059900	MAINTENANCE STONE	TON	20	$1.00	$20.00
70	6051120	PERMANENT CONSTRUCTION SIGNS	SF	280	$1.00	$280.00
80	6011000	TRAFFIC CONTROL	LS	1	$1.00	$1.00
30	6271007	6" WH SLD LNE PVT EL TH-90 ML	LF	135	$1.00	$135.00
40	7011100	CONC. FOR STRUCTURES - CLASS 3000(ROADWAY)	CY	5	$1.00	$5.00
90	7143612	18" SMOOTH WALL PIPE - HDPE	LF	622	$1.00	$622.00
100	7191615	CATCH BASIN - TYPE 16 - SPEC. (BOX w/LID ON TOP))	EA	6	$1.00	$6.00
50	7203210	CONCRETE CURB AND GUTTER(2'-0") VERTICAL FACE	LF	1088	$1.00	$1,088.00
60	7204100	CONCRETE SIDEWALK(4" UNIFORM) - 5' WIDE	SY	604	$1.00	$604.00
70	7204900	TRUNCATED DOMES	SF	10	$1.00	$10.00
80	7209000	PEDESTRIAN RAMP CONSTRUCTION	SY	40	$1.00	$40.00
90	8041020	RIP RAP CLASS "B"	TON	20	$1.00	$20.00
100	80448105	GEOTEX/EROS.CONT(CLASS1)TYPE B	SY	250	$1.00	$250.00
110	8100100	PERMANENT COVER	AC	0.5	$1.00	$0.50
130	8153000	SILT FENCE	LF	1500	$1.00	$1,500.00
140	8154155	INLET FILTER CLEANING	EA	12	$1.00	$12.00
150	8156219	INLET STRUCTURE FILTER - TYPE A	LF	150	$1.00	$150.00
110		ALUMINUM HANDRAIL	LF	50	$1.00	$50.00
					GRAND TOTAL	**$5,038.50**