



ADDENDUM 2 for Project #2017-004
Brushy Creek Road Sidewalk Project
Request for Bids Issued February 5, 2017
Date: February 14, 2017

Referencing **General Terms and Conditions**, please see the following additions to bid package:

1. See attached SCDOT encroachment permit for your use in clarifying their requirements. This was not attached to Addendum 1.

Referencing **Section D. OFFERORS**

1. Clarification on the joint between the proposed curb and the existing sidewalk. See the DOT approved permit package for any specifics. The DOT permit package includes a copy of the drawings and specs attached at the end. Owner (City) could locate any specific language pertaining to this "joint" other than near the end of the package (drawing C-5) where a detail is located. If bidders locate a DOT specification in the package other than what is shown on C-5. The DOT spec will rule.

**SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
Encroachment Permit**

Permit No : 199330

Permit Decision Date :
1/12/2017

Expiration Date : 1/12/2018

Type

Permit : MUNICIPALITY /
LOCAL FUNDED
PROJECT

Location:

| <u>District</u> | <u>Work County</u> | <u>Type</u> | <u>Route</u> | <u>Aux</u> | <u>Begin MP</u> | <u>End MP</u> |
|-----------------|--------------------|-------------|--------------|------------|---------------------|---------------|
| 3 | Greenville, SC | S- | 166 | None | 0.544 | 1.165 |

Contact Information

Applicant: CityofGreerSouthCarolina

Phone:

Contact: Steve Grant

Address: 301 Poinsett Street,

City: Greer

State: SC

Zip: 29651

Comments

from Hwy. 14 west to Century Park parking lot

Special Provisions:

0004 - SCDOT SHALL BE NOTIFIED WHEN WORK DEFINED IN THE PERMIT STARTS AS WELL AS WHEN THE WORK IS COMPLETED. REFERENCE SHALL BE MADE BY PERMIT NUMBER.

0113 - FIRE HYDRANTS SHALL BE PLACED A MINIMUM OF TEN (10) FEET FROM THE EDGE OF THE PAVEMENT AND/OR BEHIND DITCH LINES.

0123 - ALL WORK PERFORMED IN CONNECTION WITH THIS PERMIT SHALL CONFORM TO THE SCDOT "A POLICY FOR ACCOMODATING UTILITIES ON HIGHWAY RIGHT-OF-WAY" MOST CURRENT EDITION.

0125 - ALL CROSSLINE PIPES ARE TO BE LOCATED AND FLAGGED PRIOR TO BEGINNING OPERATION.

0203 - ENTIRE WIDTH OF SIDEWALK TO BE REMOVED AND DISPOSED OF OFF RIGHT-OF-WAY. SIDEWALK TO BE REPLACED USING CLASS 2500 CONCRETE, 4" THICK, AND FINISHED TO SCDOT SPECIFICAIONS.

0209 - DISTURBED VEGETATION SHALL BE RESEEDED ACCORDING TO THE SPECIFICAION FOR HIGHWAY CONSTRUCTION.

0210 - ALL SIDEWALKS TO INCLUDE AT DRIVEWAY RADIUS SHALL MEET (ADAAG) AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.

0301 - THE DITCHES AND/OR SHOULDERS DISTURBED DURING THE INSTALLATION SHALL BE RE-ESTABLISHED TO PROPER GRADE, ORIGINAL

CROSS SECTION, STABILIZED, AND ALL DRAIN PIPES CLEARED.

0306 - TRAFFIC CONTROL, LIGHTS, SIGNS AND FLAG-MEN WILL BE FURNISHED BY APPLICANT AND WILL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

0308 - WORK SHALL NOT BE PERFORMED DURING THE HOURS OF 7-9 AM OR 4-6 PM.

0310 - FIELD CHANGES, IF NECESSARY, MUST BE APPROVED IN WRITING BEFORE ACTUAL CONSTRUCTION OF PROPOSED CHANGES.

0311 - SEDIMENT AND EROSION CONTROL DEVICES SHALL BE USED TO MINIMIZE THE MOVEMENT OF SEDIMENT.

0318 - THE APPLICANT SHALL BE RESPONSIBLE FOR IMMEDIATE REMOVAL OF SUCH TRAFFIC HAZARDS AS MUD, DEBRIS, LOOSE STONE, AND TRASH AS MAY BE WASHED OR SPILLED ON THE TRAVELED ROADWAY AS A RESULT OF THE PROPOSED WORK.

0312 - THE PERMITTEE SHALL HOLD THE DEPARTMENT HARMLESS FOR DAMAGES TO BOTH UPSTREAM AND DOWNSTREAM PROPERTIES.

0316 - ALL NON-PERMITTED OBJECTS ON THE RIGHT-OF-WAY, WHICH MUST BE REMOVED, SHALL NOT BE REPLACED ON THE RIGHT-OF-WAY WITHOUT WRITTEN PERMISSION OF THE DEPARTMENT.

0320 - ALL DEBRIS TO BE CLEARED FROM THE RIGHTS-OF-WAY WITHIN TEN (10) DAYS.

Application for Encroachment Permit

S.C. Department of Transportation
Form 637 (Rev. 09/2015)

Contact Information

Applicant: City of Greer, South Carolina
 Street: 301 Poinsett Street

 City: Greer
 State: Zip Code: 29651
 Phone: (864)848-2150 Fax:
 Email: sgrant@cityofgreer.org
 Contact: Steve Grant

Project Location

Primary County:

| County | Road Name |
|------------|-----------------|
| Greenville | Brushy Creek Rd |

1. Type of Encroachment: MUNICIPALITY / LOCAL FUNDED PROJECT

Existing sidewalk replacement and extension of new sidewalk

2. Description of Location:

from SC Hwy. 14 west to Century Park parking lot

(Attach sketch indicating roadway features such as: pavement width, shoulder width, sidewalk and curb and gutter location, significant drainage structure, north arrow, right of way width, and location of the proposed encroachment with respect to the roadway centerline and the nearest intersecting road on the State system.)

Customer Agreement

3. The undersigned applicant hereby requests the SCDOT to permit encroachment on the SCDOT right of way as described herein. It is expressly understood that the encroachment, if and when constructed, shall be installed in accordance with the sketch attached hereto and made a part hereof. The applicant agrees to comply with and be bound by the SCDOT's "A Policy for Accommodating Utilities on Highways Rights of way", "Standard Specifications for Highway Construction", the "General Provisions" and "Special Provisions", attached hereto or made a part hereof by reference, during the installation, operation and maintenance of said encroachment within the SCDOT's Right of Way. **DISCHARGES OF STORM WATER AND NON-STORM WATER:** Work within State Highway right-of-way shall be conducted in compliance with all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit(s) issued to the Department of Transportation (Department), to govern the discharge of storm water and non-storm water from its properties. Work shall also be in compliance with all other applicable Federal, State and Local laws and regulations, and with the Department's Encroachment Permits Manual and encroachment permit. The encroachment permit will not be issued until the applicant has received an NPDES construction permit from SC Department of Health and Environmental Control.

The applicant agrees to comply with all current SCDOT Standards Specifications for Highway Construction including all Supplemental Technical Specifications. The

applicant hereby further agrees, and binds his/her/its heirs, personal representatives, successors, assigns, to assume any and all liability for accidents or injuries to persons, or damage to property, including the highway, that may be caused by the construction, maintenance, use, moving or removing of the physical appurtenances contemplated herein, and the applicant agrees to indemnify and hold SCDOT harmless from and against any and all claims for personal injury and/or property damage which may be sustained by reason of the construction, maintenance or existence of said encroachment on the SCDOT's right of way.

Applicant's Name: Steve Crunt
(Please print or type)

Date: 7-6-16

Applicant's Sig: 

Title: CITY ENGINEER

For Office Use Only

In accordance with your request and subject to all the provisions, terms, conditions, and restrictions stated in the application and the general and special provisions attached hereto, the SCDOT hereby approves your application for an encroachment permit. This permit shall become null and void unless the work contemplated herein shall have been completed prior to:

NPDES Permit
Nbr:

(Date received by res. Maint. Engr)

(SCDOT Approval)

Mike (Date)
Holden

Digitally signed by Mike Holden
DN: cn=Mike Holden, o=SCDOT, ou=District 3 Office - Maintenance, email=holdenmc@scdot.org, c=US
Date: 2017.01.12 11:46:28 -05'00'

EncPermits/ layouts/

Application for Encroachment Permit General Provisions

1. **DEFINITIONS:** The word "Permittee" used herein shall mean the name of the person, firm, or corporation to whom this permit is addressed, his, her, its, heirs, personal representatives, successors and assigns. The word "DEPARTMENT" shall mean the South Carolina Department of Transportation.
2. **NOTICE PRIOR TO STARTING WORK:** Before starting the work contemplated herein within the limits of the highway right of way, the Department's Resident Maintenance Engineer in the county in which the proposed work is located shall be notified 24 hours in advance so that he may be present while the work is under way.
3. **PERMIT SUBJECT TO INSPECTION:** This permit shall be kept at the site of the work at all times while said work is under way and must be shown to any representative of the Department or law enforcement officer on demand.
4. **PROTECTION OF HIGHWAY TRAFFIC:** The applicant shall be responsible for the protection of the highway traffic at all times during the construction, maintenance, removing or moving of the encroachment permitted herein. Detours, barricades, warning signs and flagmen, as necessary, shall be provided by and at the expense of the Permittee and shall be in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD). The work shall be planned and carried out so that there will be the least possible inconvenience to the motoring public. The Permittee agrees to observe all rules and regulations of the Department while carrying on the work contemplated herein and take all other precautions that circumstances warrant.
5. **STANDARDS OF CONSTRUCTION:** All work shall conform to the Department's standards of construction and shall be performed in a workman-like manner. The applicant shall make adequate provisions for maintaining the proper drainage of the highway as it may be affected by the encroachment permitted herein. All work shall be subject to the supervision and satisfaction of the Department.
6. **FUTURE MOVING OF PHYSICAL APPURTENANCES:** If, in the opinion of the State Highway Engineer, it should ever become necessary to move or remove the physical appurtenances, or any part thereof contemplated herein, on account of change in location of the highway, widening of the highway, or for any other sufficient reason, such moving shall be done on demand of the Department at the expense of the Permittee.
7. **RESTORATION OF HIGHWAY FACILITIES UPON MOVING OR REMOVING OF PHYSICAL APPURTENANCES:** If, and when, the physical appurtenances contemplated herein shall be moved or removed, either on the demand of the Department or at the option of the Permittee, the highway and facilities shall immediately be restored to their original condition at the expense of the Permittee.
8. **COSTS:** All work in connection with the construction, maintenance, moving or removing of the physical appurtenances contemplated herein shall be done by and at the expense of the Permittee.
9. **ADDITIONAL PERMISSIONS:**
 - (a) It is distinctly understood that this permit does not in any way grant or release any rights lawfully possessed by the abutting property owners. The Permittee shall secure any such rights, as necessary, from said abutting property owners.
 - (b) The Permittee shall be responsible for obtaining all other approvals or permits necessary for installation of the encroachment from other government entities.

(c) There shall be no excavation of soil nearer than two feet to any public utility line or appurtenant facility except with the consent of the owner thereof, or except upon special permission of this Department after an opportunity to be heard is given the owner of such line or appurtenant facility.

10. **ADDITIONAL WORK PERFORMANCE:**

(a) All crossings over the highway shall be constructed in accordance with "Specifications for Overhead Crossings of Light and Power Transmission Lines and Telegraph Lines over each other and over Highway Rights of Way in South Carolina," as approved by the Public Service Commission of South Carolina and effective as of date of this permit.

(b) All tunneling, boring, or jacking shall be done in such a way as not to disturb the highway surfacing.

(c) No pavement shall be cut unless specifically authorized herein.

(d) No excavation shall be nearer than three feet to the edge of pavement unless specifically authorized herein.

(e) Underground facilities will be located at minimum depths as defined in the "Utility Accommodations Manual" for the transmittant, generally as follows: 4 feet minimum for hazardous or dangerous transmittant, 3 feet minimum for other lines. The Department may approve shallower depths if adequate protection is provided. Such approval must be obtained in writing.

(f) Service and other small diameter pipes shall be jacked, driven, or otherwise forced underneath the pavements on any surfaced road without disturbing the pavement. The section under the highway pavement and within a distance of three (3) feet on either side shall be continuous without joints.

11. **ACCESS:**

(a) Permittee is responsible for maintaining reasonable access to private driveways during construction.

(b) It is expressly provided that, with respect to any limited access highway, the Permittee shall not have or gain access from the main traveled way of the highway, or the on or off ramps to such facility, except upon approval by the Department.

12. **DRIVEWAYS:**

(a) The existing crown of the highway shall be continued to the outside shoulder line of the highway.

(b) If the driveway or approach is concrete pavement, the pavement shall be constructed at least 6 inches thick and with a minimum of class 2500 concrete. There shall be a bituminous expansion joint, not less than 3/4 inches in thickness, placed between the highway paving and the paving of the approach for the full width of the approach.

13. **BEAUTIFICATION:**

(a) All trees, plants, flowers, etc. shall be placed in accordance with the provisions specifically stipulated herein.

(b) All trees, plants, flowers, etc. shall be maintained by, and at the expense of, the Permittee and the provisions of this permit shall become null and void, if and when said Permittee ceases to maintain aid trees, plants, flowers, etc.

14. **AS-BUILT PLANS:**

(a) The applicant shall provide the Department with survey-quality as-built plans in accordance with the requirements set forth in the Department's "A Policy for Accommodating Utilities on Highway Rights of Way".

D H E C



PROMOTE PROTECT PROSPER
South Carolina Department of Health
and Environmental Control

**Notification Form for Sites Disturbing
Less Than 1-Acre
(Not Part of a Larger Common Plan,
North Coastal County)**

Received by DHEC Stormwater Permitting
By: S. S. Sanders Date: 5/18/2016 Notification #: 23-16-001-0808 (For Official Use Only)

Note: This form is for use on projects located outside of the eight coastal counties (Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry, and Jasper) and that are NOT part of a larger common plan for development or sale.

Date: May 10, 2016
Project/ Site Name: Brushy Creek Road Sidewalk Project County: Greenville

I. Project Information

- A. Is any portion of this Project's property located within an Urbanized Area or MS4? Yes No
If yes, list the MS4 Operator or Urbanized Area Name: City of Greer
- B. Project Owner/ Operator (Company or person): City of Greer
Company EIN: 57-6001042 Phone: 1(864)848-2150 Fax: _____
Mailing Address: 301 E. Poinsett Street City: Greer State: SC Zip: 29651
Email address: sgrant@cityofgreer.org
- C. Permit Contact (If Owner Is Company): Steve Grant
Phone: (Day) 1(864)848-2150 Email Address: sgrant@cityofgreer.org

II. Property Information

- A. Site Location (Street Address, Nearest Intersection, Etc.): Brushy Creek Road west of U.S. Hwy. 14, Main St.
Is the Property located Within City Limits? Yes No Nearest City/Town: Greer
Latitude: 32° 92' 94" N Longitude: -82° 14' 15" W Tax Map # (List All): SCDOT R/W
Tax Map # (Continued): _____
- B. Property Owner (If Different From Section I B Above): SCDOT
Mailing Address: 13 Saluda Dam Road City: Greenville State: SC Zip: 29611
Phone: (Day) 1(864)241-1224 Email Address: collinsca@scdot.org

III. Site Information

- D. Disturbed Area (To the Nearest Tenth of an Acre): 0.5 Total Area (To the Nearest Tenth of an Acre): 2.4
- E. Start Date (MM/DD/YYYY): 7/1/2016 Completion Date (MM/DD/YYYY): 9/1/2016
- F. Are there any Flooding Problems Downstream or Adjacent to this Site? Yes No
- G. Has S.C. DHEC issued a Notice to Comply, Notice of Violation, or a Warning Notice for this site? Yes No
- H. Type of Activity (Check All That Apply):
 Residential: Single-family Residential: Multi-family Linear Other: (List Below) _____
 Multi-use (Commercial & Residential) Site Preparation (No new Impervious) _____

IV. Water Body Information

- A. Nearest Receiving Water Body(s) (RWB): Maple Creek Distance to Nearest RWB (feet): 0
- B. 1. Are there any Waters of the United States/ Waters of the State, Jurisdictional or Non-Jurisdictional Wetlands, or any Other Waters Located on Site? Yes No
2. Are there any Impacts to any of the On-Site Waters of the U.S./State, Jurisdictional or Non-Jurisdictional Wetlands, or any other Waters? Yes No
- C. If checked Yes for Impacts in item B.2, Describe Each Impact and Activity, and List All Permits (e.g., USACOE Nationwide Permit, DHEC General Permit) and Certifications that have been Applied for or Obtained for Each Impact.

V. Signatures and Certifications

A. Per my signature below, I hereby certify that this project is not part of a Larger Common Plan (LCP) for Development or Sale. I understand that additional construction activities at this site may require permit coverage and I am responsible for obtaining any federal, state, or local permits that may be required for this project.

In the case that the site associated with this project is located within an Urbanized Area (UA) or MS4, I certify that the respective UA or MS4 has been informed about the scope of all land-disturbing construction and associated activity pertaining to this site, and that all additional requirements mandated by the UA or MS4 has been addressed.

I certify that all land-disturbing construction and associated activity pertaining to this site shall be accomplished pursuant to and in keeping with the terms and conditions of all relevant regulations, including the Storm Water Management and Sediment Reduction Act of 1991 and the Federal Clean Water Act. Failure to do so may result in penalties. I hereby grant authorization to the Department of Health and Environmental Control and/or the local implementing agency the right of access to the site at all times for the purpose of on site inspections during the course of construction and to perform maintenance inspections following the completion of the land-disturbing activity. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

C. STEVEN GRANT [Signature] 5-17-16
Printed name of Project Owner/Operator Signature of Project Owner/ Operator Date

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

RELATED DRAWINGS & NETWORKS

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.



Amy Williams
SIGNATURE
10/30/2015
DATE

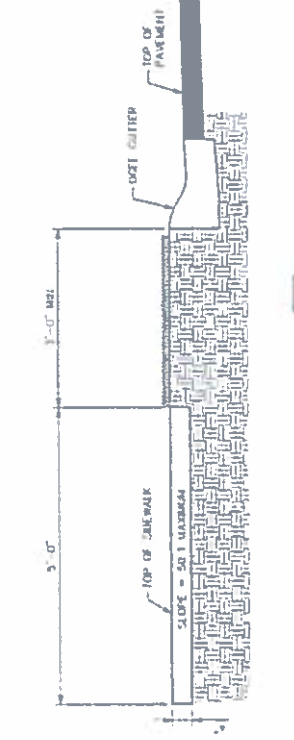
| NO. | DATE | BY | DESCRIPTION |
|-----|------------|-----|-------------------------|
| 1 | 10/30/2015 | AMW | ISSUED FOR CONSTRUCTION |
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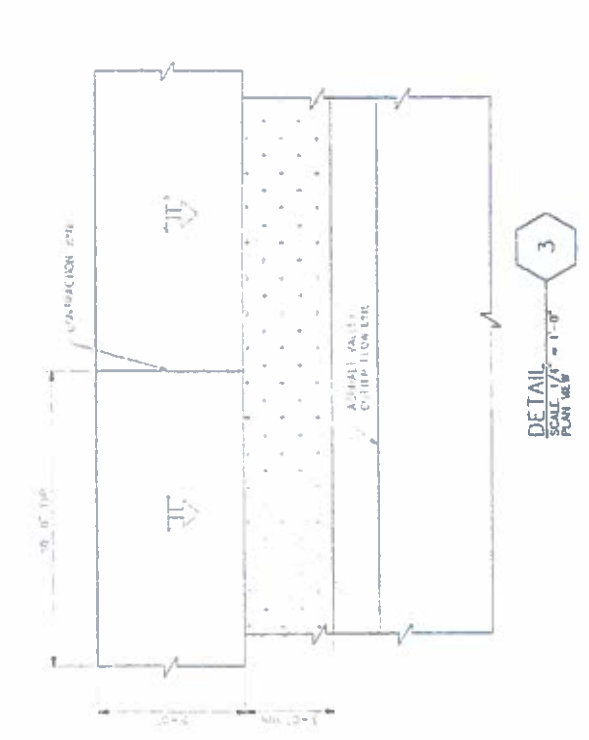
STANDARD DRAWING
SIDEWALK WITH GRASS STRIP ADJACENT TO GUTTER OR VALLEY

720-160-00
PROJECT NO.

- NOTES:**
1. DRAWING 720-160-01 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 CURBS IN THE SIDEWALK, AND IN LONG CONTINUOUS RUNS OF SIDEWALK AS DIRECTED IN THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 4. PLACE EXPANSION JOINTS BETWEEN THE SIDEWALK LODGE AND ANY ADJACENT STRUCTURE (RETAINING WALLS, BUILDINGS, ETC.).
 5. PLACE CONTRACTION JOINTS AT REGULAR INTERVALS BETWEEN EXPANSION JOINTS NOT TO EXCEED STANDARD SPECIFICATION SPACING.
 6. MEASURE SIDEWALK IN SQUARE YARDS BY THE ACTUAL PLACED AREA OF CONCRETE UP TO THE ADJACENT PAVEMENT LIMITS (CURBS, PEDESTRIAN RAMPS, DRIVEWAYS, ETC.)



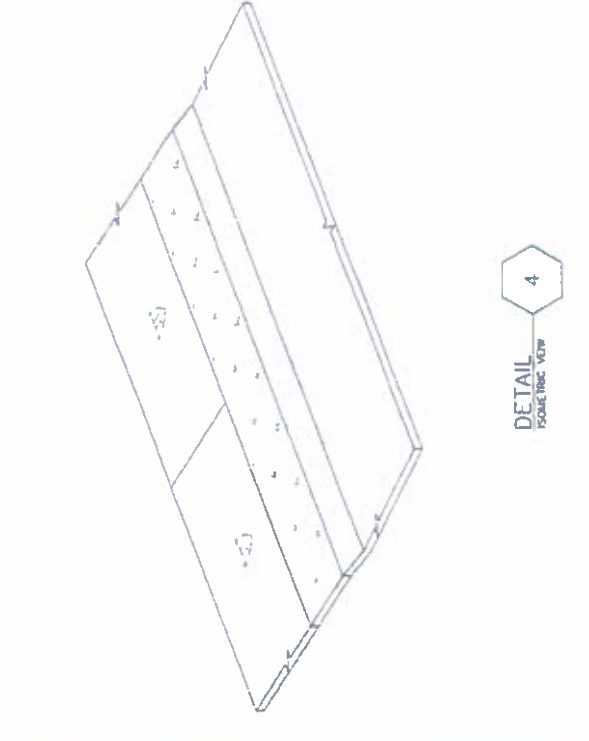
DETAIL 2
SCALE: 1/2" = 1'-0"
SIDE ELEVATION



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



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



DETAIL 4
ISOMETRIC VIEW

REFERENCES

- NATIONAL DOCUMENTS
- SCDOT TRAFFIC CURBING'S FOR ROADWAYS - MAY 1998
- SCDOT DOCUMENTS
- SCDOT TRANSPORTATION PLAN

UP, L1
 RELATED DRAWINGS & KEYWORDS
 675-305-00

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



James W. Kennedy
 SEAL/TIME
 12/10/2014

| # | DATE | CHK | DESCRIPTION |
|---|-------|------|--------------------|
| 1 | 11/19 | 0507 | CHANGE UNPUBLISHED |
| 2 | 07/12 | 0509 | REV DRAWING |

SCDOT
 SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DESIGN STANDARDS OFFICE
 605 PARK STREET
 COLUMBIA, SC 29201

STANDARD DRAWING
 PEDESTRIAN RAMPS
 GENERAL NOTES
 &
 DEFINITIONS

720-901-01
 (ISSUE, LISTING DATE) (REVISE, DATE)

1.00 GENERAL

- 1.01 CONSTRUCT PEDESTRIAN RAMPS CONFORMING TO THESE STANDARD DRAWINGS, SUBMIT RAMP DESIGN DRAWINGS TO THE ENGINEER FOR REVIEW WITHIN 90 DAY STANDARD RAMP'S ARE USED.
- 1.02 USE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION), SCDOT QUALIFIED PRODUCT LIST #1 AND DETECTABLE WARNING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 1.03 CONSTRUCT A SLOPE-BREAKING FROM ENGLISH OR CONCRETE WITHIN THE DESIGNATED PEDESTRIAN ACCESS ROUTE. CONSTRUCT DESIGNATED PEDESTRIAN ACCESS ROUTES LOCATED ON ASPHALT PAVEMENTS AS LEVEL AS PRACTICAL AND REMOVE LOGS OR UNCOMPACTED ASPHALT THROUGH THE ENTIRE ACCESS ROUTE.
- 1.04 COORDINATE THE RAMP AND THE PEDESTRIAN CROSSWALK WARNINGS SO THAT DETECTABLE WARNINGS FOR RAMPS AND REFUGE ISLANDS ARE ENTIRELY WITHIN PEDESTRIAN CROSSWALK WARNINGS.
- 1.05 SEE STANDARD DRAWING 675-305-00 FOR CROSSWALK MARKING STYLES.

- 1.06 CONSTRUCT SIDEWALK, PARALLEL RAMP, AND LANDING CROSS SLOPES AT 100:1 V (NO SKEWER THAN 90:1 V) TOWARD THE ROADWAY. CONSTRUCT CROSS SLOPE OF PERPENDICULAR RAMPS TO MATCH ROADWAY GRADE.
- 1.07 CONSTRUCT RAMPING SLOPE OF NEW CURB RAMPS AT A 12% IV OR FLATTER WHEN MEASURED ALONG THE DIRECTION OF PEDESTRIAN TRAVEL UP THE RAMP AND RELATIVE TO A LEVEL GRADE UNLESS FIELD CONDITIONS REQUIRE A RAMP GREATER THAN 15' LONG.

- 1.08 USE AT LEAST 18" CURB RAMPS AT ALL EDGES OF NEW CONCRETE ISLANDS AND AT LEAST 6" CURB RAMPS AT ALL CURB RETURNS. DO NOT SAW CUT EDGES THROUGH ISLANDS OR AT RAMPS FOR NEW CONSTRUCTION.
- 1.09 DO NOT CONSTRUCT STANDARD RAMP PARTITIONS OR CURB RETURNS TALLER THAN 32" IN LOCATIONS WHERE GRADE SEPARATION BETWEEN SIDEWALK AND ADJACENT PROPERTY EXCEEDS 12". SLOPE ADJACENT GRADE AS DIRECTED BY THE ENGINEER ON PROPERTY OWNERS' (E) OR PLANNING AND CONSTRUCTION CONTRACT DOCUMENTS. PROVIDE A RETURNING WALL AS SHOWN IN THE PLANS, SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER.

- 1.10 REMOVE AND DISPOSE OF ALL WASTE AND EXCESS MATERIAL FROM COMPLETED RAMP.
- 1.11 IN LOCATIONS WHERE ARCHITECTURAL TREATMENTS IMPROVED ASPHALT ARCHITECTURAL PAVEMENTS, STAMPED CONCRETE, ETC. ARE INCLUDED IN THE PLANS, DO NOT PLACE THE ARCHITECTURAL TREATMENTS WITHIN THE PEDESTRIAN RAMP OR LANDING, UNLESS INDICATED OR STAMPED CONCRETE MAY BE USED IN THESE AREAS AS INDICATED IN THE PLANS OR SPECIAL PROVISIONS.

- 1.12 WHERE PRACTICAL, LOCATE ARCHITECTURAL TREATMENTS ALONG THE BOUNDARY OF THE PEDESTRIAN ACCESS ROUTE HAVING EQUAL DIRECTION WITH THE PEDESTRIAN ACCESS ROUTE.

- 1.13 REFUGE ISLANDS/RAISED MEDIANS
- 1.01 IN REFUGE ISLANDS, PROVIDE A MINIMUM OF 2'-0" SEPARATION BETWEEN DETECTABLE WARNINGS ON EITHER SIDE OF THE REFUGE TO DELINEATE WHERE ISLAND BEGINS AND ENDS.
- 1.02 USE DETECTABLE WARNINGS IN PAVED ISLANDS 6'-0" WIDE OR WIDER IN GENERAL DIRECTION OF PEDESTRIAN TRAVEL THROUGH THE RAMP.
- 1.03 USE ISLAND STRAIGHT CROSSING ADJACENT TO INTERSECTIONS THROUGH ANY ISLAND LESS THAN 12' WIDE.
- 1.04 WHEN A MID-BLOCK CROSSING IS REQUIRED, CONSIDER MID-BLOCK STAGGERED CROSSING (770-105-41) TO ENHANCE EYE CONTACT BETWEEN THE PEDESTRIAN AND THE ONCOMING TRAFFIC. ALWAYS ANGLE THE STAGGER SO THE PEDESTRIAN TRAVELS THROUGH THE REFUGE PARALLEL TO THE ONCOMING TRAFFIC.

- 1.00 DRAINAGE
- 1.01 WHERE PRACTICAL, LOCATE DRAINAGE STRUCTURES OUTSIDE AND UPHILL OF DESIGNATED PEDESTRIAN ACCESS ROUTES.
- 1.02 WHEN DRAINAGE STRUCTURE MUST BE LOCATED INSIDE OF A PEDESTRIAN ACCESS ROUTE, USE ONLY ADA COMPLIANT DRAINAGE STRUCTURES THAT DO NOT PRESENT A TRIP HAZARD. PROVIDE DRAINAGE STRUCTURES WITHIN THE PEDESTRIAN ACCESS ROUTES, RAMPS, LANDINGS, CROSSWALKS, AND ISLANDS. SEE STANDARD DRAWINGS FOR CATCH BASINS (719-100-20), DRAIN VALVES (719-101-20), AND TROUGH DRAINS (719-201-10) FOR AVAILABLE OPTIONS.

- 1.03 DO NOT ILLUMINATE DRAINAGE STRUCTURE WITHOUT THE CONSENT OF THE HYDRAULIC ENGINEER.
- 1.04 PROVIDE RAMP PARTITIONS AS NEEDED TO CONTAIN ROADWAY DRAINAGE OR IF NEEDED TO MAINTAIN GRADING ON ADJACENT PROPERTY. WHEN RAMP PARTITION IS USED, GRADE ADJACENT SIDE WITHIN 12" OF THE TOP OF THE RAMP PARTITION AND FLAT FOR AT LEAST 1' BEHIND THE RAMP PARTITION

- 2.00 DETECTABLE WARNINGS
- 2.01 FOR STANDARD INSTALLATIONS, USE AT LEAST A 2'-0" X 5'-0" DETECTABLE WARNING AT ALL INTERSECTIONS BETWEEN PEDESTRIAN ACCESS ROUTE OR REFUGE ISLAND AND ADJACENT TRAFFIC. ALWAYS SUPPLY ENOUGH DETECTABLE WARNING MATERIAL TO COVER LANDING OR REFUGE BOUNDARY AS SPECIFIED IN THESE STANDARD DRAWINGS. RETROFIT WARNINGS THAT DO NOT HAVE SUFFICIENT ROOM TO ACCOMMODATE STANDARD RAMPS MAY USE SMALLER DETECTABLE WARNINGS IF SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS.
- 2.02 UNLESS SPECIFIED OTHERWISE IN THE PLANS OR SPECIAL PROVISIONS, INSTALL SAFETY YELLOW FEDERAL NUMBER 3330 DETECTABLE WARNINGS. SEE QUALIFIED PRODUCT LIST #1 FOR AVAILABLE COLORS AND USE ONLY COLORS THAT PROVIDE CONTRAST BETWEEN THE ADJACENT MATERIALS.
- 2.03 FOLLOW DETECTABLE WARNING MANUFACTURER'S INSTALLATION PROCEDURES AND USE ONLY MATERIALS (PATTERN, GRADE, COLOR, ETC.) THAT ARE COMPATIBLE WITH THE DETECTABLE WARNING MANUFACTURER'S SPECIFICATIONS AND USE ONLY MATERIALS SPECIFIED BY THE DETECTABLE WARNING MANUFACTURER AS COMPATIBLE WITH THE SELECTED WARNING PRODUCT.

2.04 SELECT DETECTABLE WARNING PRODUCT BASED ON THE FOLLOWING CONDITIONS:

- a. NET INSET WITH PATTERNS OR REPLACEMENT ANY NEW LOCATION WITH NEW CONCRETE
- b. NET INSET WITHOUT PATTERNS ANY NEW LOCATION WITH NEW CONCRETE
- c. NEW PATTERNS OR REPLACEMENTS ON SPECIAL PROVISIONS ONLY ON ASPHALT SURFACES
- d. ASPHALT APPLIED
- e. DRY BOND

- 2.05 FOR RAMPS INSTALLATIONS, FIELD CUT DETECTABLE WARNING MATERIAL TO FIT BACK OF CURB RAMPS AS SHOWN ON ORDER DETAIL (FURNISHED PIECES TO MATCH CURB RAMPS). EDGE OF DETECTABLE WARNING MUST BE WITHIN 3" OF BACK OF CURB AT ANY MEASURED LOCATION FOR CURVED INSTALLATIONS. COVER EXISTING BACK OF CURB RAMPS BOUNDARY TO WITHIN 2 INCHES OF BOTH SIDES OF THE LOWER LANDING. WHERE PRACTICAL, INCREASE THE NUMBER OF FIELD CUT PIECES IN RAMPS INSTALLATIONS.

- 2.06 DO NOT INSTALL DETECTABLE WARNINGS IN AT-GRADE MEDIANS OR IN MEDIAN LOCATIONS WHERE A RAMPED SIDEWALK OR A CROSSWALK IS REQUIRED FOR A PEDESTRIAN TO CROSS THE ROADWAY. IN THESE CASES, SO LONG AS THE DETECTABLE WARNING IS PLACED WITHIN THE PEDESTRIAN CROSSWALK SPECIAL SHOULD BE TAKEN TO ALLOW THE PEDESTRIAN TO CROSS TO THE NEXT AVAILABLE REFUGE LOCATION.

- 2.07 PLACE ALL STYLE DETECTABLE WARNING MATERIALS FLUSH WITH TOP OF SIDEWALK (FLUSH +/- 1/8")
- 2.08 LOCATE EXISTING WARNINGS BEHIND CURB LIKE TO MAKE VEHICLES BEHIND CURB BEHIND LOCATE THE EDGE OF DETECTABLE WARNING WITHIN 3 INCHES OF THE FACE OF CURB ON MEDIAN ISLANDS AND 0 TO 2 INCHES BEHIND BACK OF CURB AND CUTTING
- 2.09 ALSO TRUNCATED DOME PATTERN IN LINE WITH DIRECTION OF PEDESTRIAN TRAVEL ACROSS THE DETECTABLE WARNING.

- 2.10 REMOVE A 6" X 6" SPOT IN THE CONCRETE FOR NET INSET AROUND THE PERIMETER OF THE DETECTABLE WARNING MATERIAL FOR ALL NET INSET AND GROUTED PATTERN STUDS.
- 2.11 APPLY SEALANT AROUND THE PERIMETER AND ALL EDGES OF THE DETECTABLE WARNING FOR ALL GROUTED PATTERN ASPHALT APPLIED AND GROUTED SURFACE APPLIED STYLE DETECTABLE WARNINGS.

- 2.00 RETROFIT INSTALLATIONS
- 2.01 WHEN RETROFITTING PEDESTRIAN RAMPS ON SIDEWALKS, RETROFIT EXISTING CONCRETE ISLANDS AT THE SAME TIME.
- 2.02 FOR RETROFIT RAMPS, REGARDLESS OF EXISTING SIDEWALK WIDTH, CONSTRUCT 18" WIDE RAMPS AS SHOWN IN THESE STANDARD DRAWINGS, UNLESS RIGHT OF WAY LIMITS DO NOT ACCOMMODATE STANDARD RAMPS OR SHOWN OTHERWISE IN THE PLANS OR SPECIAL PROVISIONS.
- 2.03 USE DRY BOND SURFACE APPLIED DETECTABLE WARNINGS ONLY IN LOCATIONS WHERE EXISTING CEQUARTY CONDITIONS TO REQUIREMENTS FOR A RETROFIT RAMP AND NO NEW CONCRETE WILL BE PLACED IN THE RAMP OR LANDING. PROVIDE A COPY OF THE LATEST VERSION OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS TO THE RESIDENT ENGINEER BEFORE INSTALLATION OF SURFACE-APPLIED DETECTABLE WARNINGS.
- 2.04 FOR RETROFIT RAMPS, IF NEW CONCRETE IS PLACED IN THE RAMP, USE ONLY NET INSET OR PATTERN STYLE DETECTABLE WARNING SYSTEMS.
- 2.05 FOR ISLANDS WHERE THE SAW CUT EDGES ARE ACCEPTABLE ON ALL GRADE PAVEMENTS, IF RAMPS ARE CONSTRUCTED TO BEHIND PEDESTRIANS TO THE TOP OF THE PAVED ISLAND, PROVIDE DETECTABLE WARNING PLATE EDGES ON THE RAMP TO MINIMIZE TRIP HAZARD. DO NOT USE SAW CUT ON VERTICAL EDGES OF RETROFIT RAMPS IN SIDEWALK.
- 2.06 PLACE FACTORY EDGES OF THE DRY BOND SURFACE APPLIED DETECTABLE WARNING TRANSVERSE TO THE DIRECTION OF PEDESTRIAN TRAVEL ACROSS THE DETECTABLE WARNING. FIELD CUT EDGES MAY ONLY BE PLACED AGAINST CURBS, RAMP EDGES, AND ADJACENT DETECTABLE WARNINGS. SEAL PERIMETER AND ALL EDGES OF DRY BOND SURFACE APPLIED DETECTABLE WARNINGS.

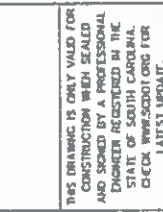
REFERENCES

NATIONAL DOCUMENTS
REVISED DRAFT SPECIFICATIONS FOR
CONCRETE PAVEMENTS
MAY 1993

SCDOT DOCUMENTS
SCDOT TRANSITION PLAN
OPI 01

RELATED DRAWINGS & NETWORKS

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



DATE: 12/10/2014
DRAWN BY: Amal K. Kulkarni

| NO. | DATE | DESCRIPTION |
|-----|-------|--------------------|
| 1 | 11/14 | ISSUED FOR PERMITS |
| 2 | 1/13 | ISSUED FOR PERMITS |
| 3 | 1/13 | ISSUED FOR PERMITS |
| 4 | 1/13 | ISSUED FOR PERMITS |
| 5 | 1/13 | ISSUED FOR PERMITS |
| 6 | 1/13 | ISSUED FOR PERMITS |
| 7 | 1/13 | ISSUED FOR PERMITS |
| 8 | 1/13 | ISSUED FOR PERMITS |

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

STANDARD DRAWING
PEDESTRIAN RAMPS
GENERAL NOTES
&
DEFINITIONS

720-901-03
ISSUE (EITHER DATE) (UNLESS NOTED)

SOLID DEFINITIONS

CHANNELIZING ISLAND - RAISED CONCRETE OR PLANTED ISLAND USED TO SEPARATE THROUGH TRAVEL LANES AT AN INTERSECTION FROM THE UNSIGNALIZED CHANNELIZED HIGH TURN.

CURB - STANDARD 6" HIGH CONCRETE ELEMENT THAT SEPARATES SIDEWALK FROM CUTTER.

CURB BARRIERS - CIRCULAR PATH OF A CURB AROUND A CORNER. CURB RADII IS MEASURED FROM THE FACE OF THE CURB TO THE CENTER OF THE CURB.

CURB RAMP - SET IN PEDESTRIAN RAMP.

CURB RETURN - A PORTION OF CURB SHAPED ADJACENT TO A RAMP OR LANDING TO ACCOUNT FOR GRADE DIFFERENCES. CONSTRUCT CURB RETURNS ADJACENT TO GRASS OR PLANTED AREAS. ALTERNATE TO FLARE.

DETECTABLE WARNING - A SURFACE FEATURE OF TRUNCATED DOME MATERIAL BUILT IN OR APPLIED TO THE WALKING SURFACE TO ADVISE OF AN UPCOMING CHANGE FROM PEDESTRIAN TO VEHICULAR WAY.

DRIVEWAY - A PORTION OF SIDEWALK THAT PROVIDES VEHICLE ACCESS ONTO ADJACENT PROPERTY. DRIVEWAY APPROACH MUST BE AT LEAST A 5' WIDE DRIVEWAY PEDESTRIAN PATH. DRIVEWAY APPROACH OUTSIDE OF THE DRIVEWAY PEDESTRIAN PATH MAY BE CONSTRUCTED AS NEEDED TO FIT SITE CONDITIONS AND TO ACCOMMODATE THE VEHICLE TYPE USING THE DRIVEWAY, AND THEREFORE, MAY NOT CONFORM TO RULES FOR PEDESTRIAN ACCESSIBILITY.

DRIVEWAY PEDESTRIAN PATH - THE PORTION OF A DRIVEWAY APPROACH THAT PROVIDES A PEDESTRIAN ACCESS ROUTE.

LEVELING COMPLIANT RAMP - A RAMP THAT MEETS THE GEOMETRY REQUIREMENTS FOR NEW RAMP CONSTRUCTION. ONLY BONDED DETECTABLE WARNING MAY BE APPLIED TO EXISTING COMPLIANT RAMP WHERE NEEDED TO PROVIDE DELINEATION BETWEEN PEDESTRIAN PATH AND VEHICULAR PATH.

FLARE - A VARIABLE TRANSITION SLOPE (NOT TO EXCEED 10:1V) THAT ACCOUNTS FOR GRADE DIFFERENCES BETWEEN A RAMP AND ADJACENT SURFACES. ALTERNATE TO CURB RETURNS.

CUTTER - A CONCRETE EDGE TREATMENT ON THE SIDE OF A ROADWAY TO CONVEY WATER.

LANDSCAPE - A HORIZONTAL INCLINATION OF THE GROUND SURFACE, EITHER NATURAL OR MANMADE.

LANE - AN AREA BETWEEN TWO ROADWAYS OF A DIVIDED HIGHWAY MEASURED FROM EDGE OF TRAVELLED WAY TO EDGE OF TRAVELLED WAY. THE MEDIAN EXCLUDES TURN LANES. THE MEDIAN WIDTH MIGHT BE DIFFERENT BETWEEN INTERSECTIONS, INTERCHANGES, AND AT OPPOSITE APPROACHES OF THE SAME INTERSECTION.

PARALLEL RAMP - A RAMP THAT EXTENDS IN THE SAME DIRECTION AS THE FLOW OF PEDESTRIAN TRAVEL ALONG THE LENGTH OF SIDEWALK.

PEDESTRIAN - A PERSON ON FOOT, IN A WHEELCHAIR, ON SKATES, OR ON A SKATEBOARD.

PEDESTRIAN ACCESS ROUTE - A CONTINUOUS AND UNOBSTRUCTED PATHWAY WITHIN A PEDESTRIAN CIRCULATION PATH THAT PROVIDES ACCESSIBILITY.

PEDESTRIAN BYPASS - PORTION OF SIDEWALK AVAILABLE FOR NAVIGATION AROUND A PERPENDICULAR RAMP. CONSTRUCT PEDESTRIAN BYPASS AT LEAST 5' WIDE.

PEDESTRIAN CIRCULATION PATH - A PREPARED EXTERIOR OR INTERIOR WAY OF PASSAGE PROVIDED FOR PEDESTRIAN TRAVEL.

PEDESTRIAN CURB - A BOUNDARY STRUCTURE OF SPECIFIED GEOMETRY AND STRENGTH THAT IS LOCATED BETWEEN THE PEDESTRIAN ACCESS ROUTE AND A ROAD OR DRIVE.

PEDESTRIAN PASS THROUGH - PATH WITHIN A RAISED MEDIAN THAT IS AT GRADE WITH ADJACENT ROADWAY. CONSTRUCT PEDESTRIAN PASS THROUGH AT LEAST 5' WIDE.

PEDESTRIAN RAMP - A COLLECTION OF SURFACES THAT INCLUDE CURB RAMP AND RAMPED TERRAIN AS PERMITTED BY THE USE ACCESS BOARD. AND IS BELIEVED TO BE ALL GRASSES, PAVES, AND OTHER SURFACES THAT ARE USED TO PROVIDE PEDESTRIAN ACCESS TO A BUILDING OR OTHER STRUCTURE. PEDESTRIAN RAMP SHALL BE CONSTRUCTED WITH A MINIMUM 1:12 VERTICAL SLOPE AND SHALL BE AT LEAST 4' WIDE. A RAMP WITH A SLOPE STEEPER THAN 1:12 V AND A LENGTH OF MORE THAN 12' V AND A SLOPE STEEPER THAN 1:12 V SHALL BE CONSIDERED AS A LONG RAMP. ON SLOPE GRADE SECTIONS, THE RAMP SHOULD BE CONSTRUCTED TO MAINTAIN THE 1:12 V OR FLATTER RUNNING SLOPE. THE RAMP SLOPE MAY EXCEED 1:12 V ONLY IF THE RAMP LENGTH IS 15' OR LONGER. CONSTRUCT JOINTS AT 15' OR LONGER.

PERPENDICULAR RAMP - A RAMP THAT EXTENDS FROM THE FLOW OF PEDESTRIAN TRAVEL ALONG THE LENGTH OF SIDEWALK.

PROTRUDING - RECESSED DRAFT CORNERS FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY NOVEMBER 2005

STORAGE - PUBLIC RIGHTS-OF-WAY ACCESS ADVISORY COMMITTEE

RAILROAD CONSTRUCTION ZONE - PORTION OF ROADWAY AND SIDEWALK THAT ARE CONSTRUCTED BY RAILROAD CONTRACTORS. USE MATERIALS AND METHODS SPECIFIED BY THE PROPERTY OWNER.

RAILROAD FLANGE WAY CLEARANCE - PRE-APPLICATED PRODUCT USED TO MINIMIZE PHYSICAL GAPS AROUND RAILS. ANY RAILROAD FLANGE WAY CLEARANCE MUST ALSO BE APPROVED BY THE OWNER OF THE RAILROAD OR RAILROAD CONTRACTOR.

RAILROAD SIDEWALK CONSTRUCTION ZONE - SIDEWALK INTERFACE BETWEEN TYPICAL SIDEWALK OR RAMP AND THE RAILROAD CONSTRUCTION ZONE. THIS INTERFACE IS GENERALLY CONSTRUCTED AFTER WORK ON THE RAILROAD CONSTRUCTION ZONE IS COMPLETE. USE MATERIALS AND METHODS SPECIFIED BY THE PROPERTY OWNER.

RAMP PARTITION - A PORTION OF CURB BEHIND THE SIDEWALK THAT SEPARATES LANDING FROM ADJACENT PROPERTY. CONSTRUCT RAMP PARTITION AT ALL LOCATIONS WHERE ROADWAY DRAINAGE COULD POSSIBLY FLOW INTO ADJACENT PROPERTY. CONSTRUCT RAMP PARTITION IF NEEDED TO RETAIN EXISTING GROUND ELEVATION ON ADJACENT PROPERTY.

RAISED ISLAND - A RAISED CONCRETE MEDIAN OR RAISED PLANTED MEDIAN THAT IS AT LEAST 6'-0" WIDE. RAISED MEDIAN ISLANDS MUST BE PRESENT ON BOTH SIDES OF THE PEDESTRIAN PATH TO BE CONSIDERED A RAISED ISLAND.

RECONSTRUCT - RECONSTRUCTION OF A PORTION OF EXISTING SIDEWALK TO PROVIDE MOST ACCESSIBLE PATH PRACTICAL WITHOUT IMPACTING ADJACENT PROPERTY. WHERE PRACTICAL, RECONSTRUCT RETIRED RAMP SLOPES TO MEET CURRENT CONSTRUCTION STANDARDS.

ROUNDABOUT - A CIRCULAR INTERSECTION WITH YIELD CONTROL ENTRY, WHICH PERMITS A VEHICLE ON THE ORBITAL ROADWAY TO PROCEED AND WITH DEFLECTION OF THE APPROACHING VEHICLE COUNTER-CLOCKWISE AROUND A CENTER ISLAND.

RAISED SLOPE - THE GRADE THAT IS PARALLEL TO THE DIRECTION OF TRAVEL, EXPRESSED AS A RATIO OF RISE TO RUN OR AS A PERCENT.

SIDEWALK - THAT PORTION OF A STREET BETWEEN THE CURB LINE, OR THE LATERAL LINE OF A ROADWAY, AND THE ADJACENT PROPERTY LINE OR ON EASEMENTS OF PRIVATE PROPERTY THAT IS PAVED OR IMPROVED AND INTENDED FOR USE BY PEDESTRIANS. CONSTRUCT SIDEWALK WITH A NOMINAL 1:12 V CROSS SLOPE (NOT TO EXCEED 5:1 V) TOWARDS THE ROADWAY WHEN CONNECTED TO THE ROADWAY BY CURB AND CUTTER. SIDEWALK SHOULD FOLLOW ROADWAY GRADE UNLESS NOTED OTHERWISE IN THE PLANS OR SPECIAL PROVISIONS.

SPLITTER ISLAND - RAISED CONCRETE OR PLANTED ISLAND AT THE APPROACHES TO ROUNDABOUTS USED TO SEPARATE TRAFFIC ENTERING THE ROUNDABOUT FROM TRAFFIC EXITING THE ROUNDABOUT.

TAPERED CURB - A PORTION OF CURB THAT TRANSITION FROM A STANDARD 6" HIGH CURB TO CUTTER ELEVATION.

TRAILWAY - THE CONTINUOUS PORTION OF THE PEDESTRIAN ACCESS ROUTE THAT IS CONNECTED TO STREET CROSSINGS BY CURB RAMPS OR BLENDED TRANSITIONS.

| RAMP SYMBOL | USGAC | |
|-------------|---|---|
| | INDICIAL SLOPE | HANDRAIL SLOPE |
| → | ROAD GRADE (5:1) (SLOPE FLAT) | ROAD GRADE (5:1) (SLOPE FLAT) |
| ⇄ | CROSS SLOPE 100:1 (1%) (OR FLATTER) | CROSS SLOPE 50:1 (2%) (OR FLATTER) |
| ⇄ | RAMP 14:1 (7.1%) | RAMP 12:1 (6.3%) (OR FLATTER) |
| ⇄ | FLARE 11:1 (9.1%) (ADDITIONAL HEIGHT USE) | FLARE 10:1 (10%) (OR FLATTER) (ADDITIONAL RETURN USE) |
| ⇄ | PARALLEL RAMP (RAMP & CROSS SLOPE) | PARALLEL RAMP (RAMP & CROSS SLOPE) |
| ⇄ | LANDING/SIDEWALK (DIFFERENT SLOPE & ROAD GRADE) | LANDING/SIDEWALK (DIFFERENT SLOPE & ROAD GRADE) |
| ⇄ | PERPENDICULAR RAMP (RAMP & ROAD GRADE) | PERPENDICULAR RAMP (RAMP & ROAD GRADE) |

- 1 RAMP SYMBOLS SHOWN IN TABLE 720-901A INDICATE THE NOMINAL SLOPE AND HANDRAIL ALLOWABLE SLOPE FOR PEDESTRIAN RAMP COMPONENTS. DO NOT EXCEED UNLESS INDICATED BY THE ENGINEER.
- 2 SET GRADEING NEW GRADING ON EACH STANDARD RAMP DETAIL FOR LOCATIONS OF RAMP SYMBOLS.
- 3 DETECTION ARROWS INDICATE VERTICAL ELEVATION CHANGE FROM A POINT OF HIGH ELEVATION (14:1) TO A POINT OF LOW ELEVATION (16:1).
- 4 FOR LONG RAMP, RAMP SLOPE SHALL BE EXCEEDED IF CALCULATED CURB RAMP LENGTH IS > 15'

REFERENCES
 NATIONAL DOCUMENTS
 REVISED DRAIN GUIDELINES FOR
 ACCESSIBLE PUBLIC
 RIGHTS-OF-WAY NOVEMBER 2010
 JUTJCD 2009

SCDOT DOCUMENTS
 SCDOT TRANSITION PLAN
 OPL 61

RELATED DRAWINGS & NETWORKS

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.



James W. Kershall
 SIGNATURE
 10/30/2015
 DATE

| NO. | DATE | CHK | DESCRIPTION |
|-----|------|------|-------------|
| 1 | 1/16 | D/SO | NEW DRAWING |

SCDOT
 SOUTH CAROLINA
 DESIGN STANDARDS OFFICE
 935 RIVERSIDE DRIVE
 COLUMBIA, SC 29201

STANDARD DRAWING
 PEDESTRIAN RAMP
 AT INTERSECTING
 STREET WITH
 SHOULDER SECTION
 (PARALLEL RAMP)

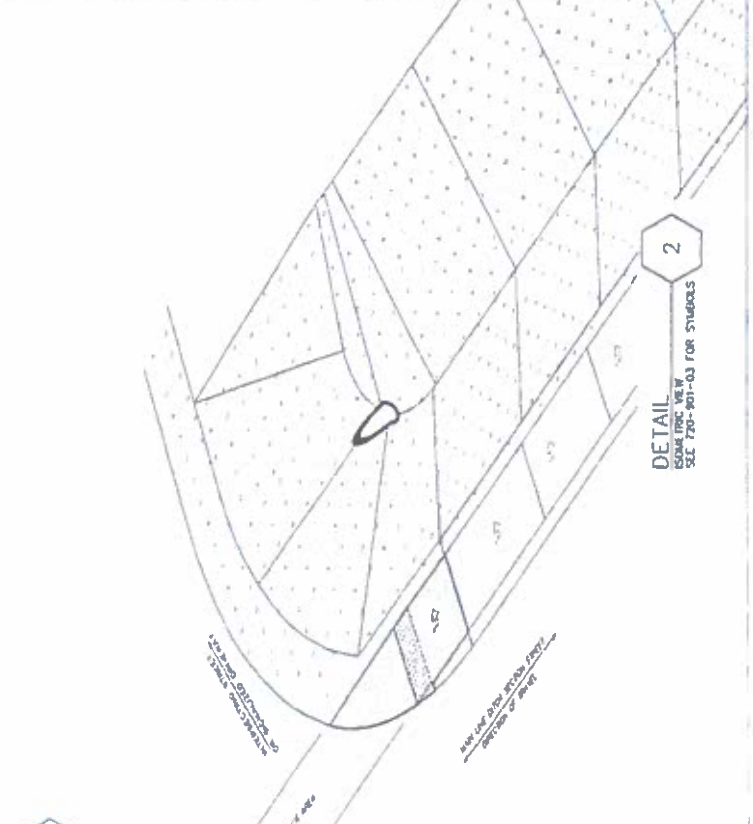
720-969-11
 SHEET NUMBER
 SHEET TOTAL

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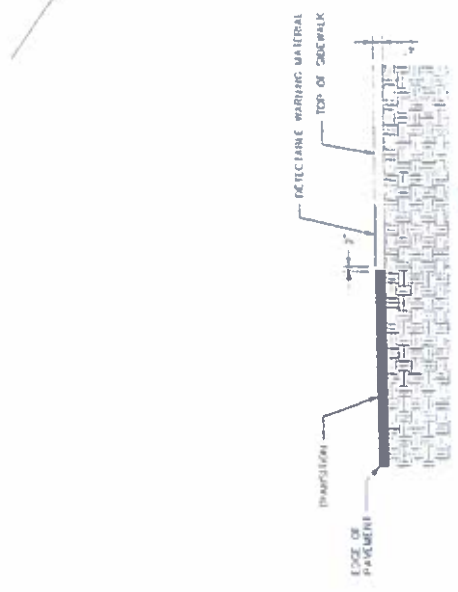
- SEE STANDARD DRAWINGS 720-901-2X FOR GENERAL NOTES AND 720-901-03 FOR STUDBOLTS AND 720-901-04 FOR STAIRS AND 720-901-05 FOR PROCEDURES FOR DETECTABLE WARNING MATERIALS.
- SEE STANDARD DRAWINGS 720-929-3X FOR VARIANTS TO THIS STANDARD.
- MINIMIZE THE USE OF RAMP PARTITION SINCE WATER SHOULD FLOW TOWARD BRUSH.



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



DETAIL 2
 ISOMETRIC VIEW
 SCALE: 1/4" = 1'-0"
 SEE 720-901-03 FOR STUDBOLTS



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



CITY OF GREER
 1000 W. MAIN STREET
 GREER, SOUTH CAROLINA 29615
 (803) 881-1000

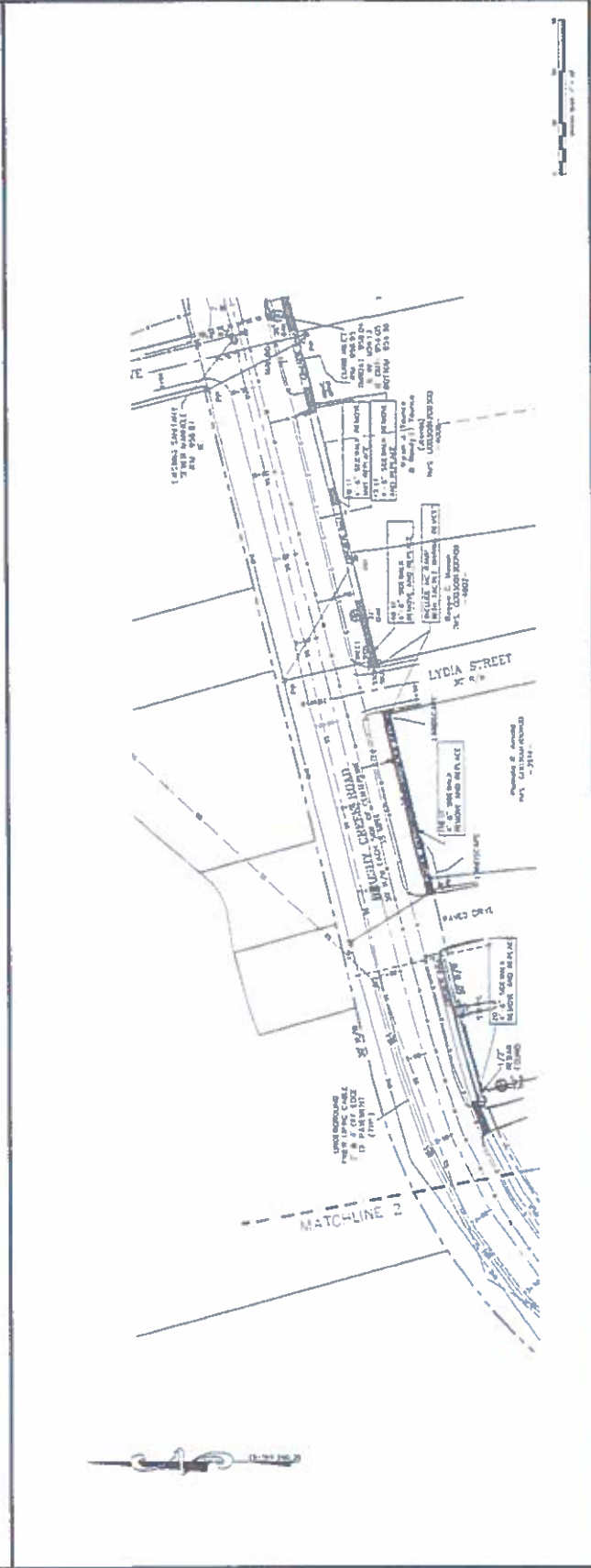
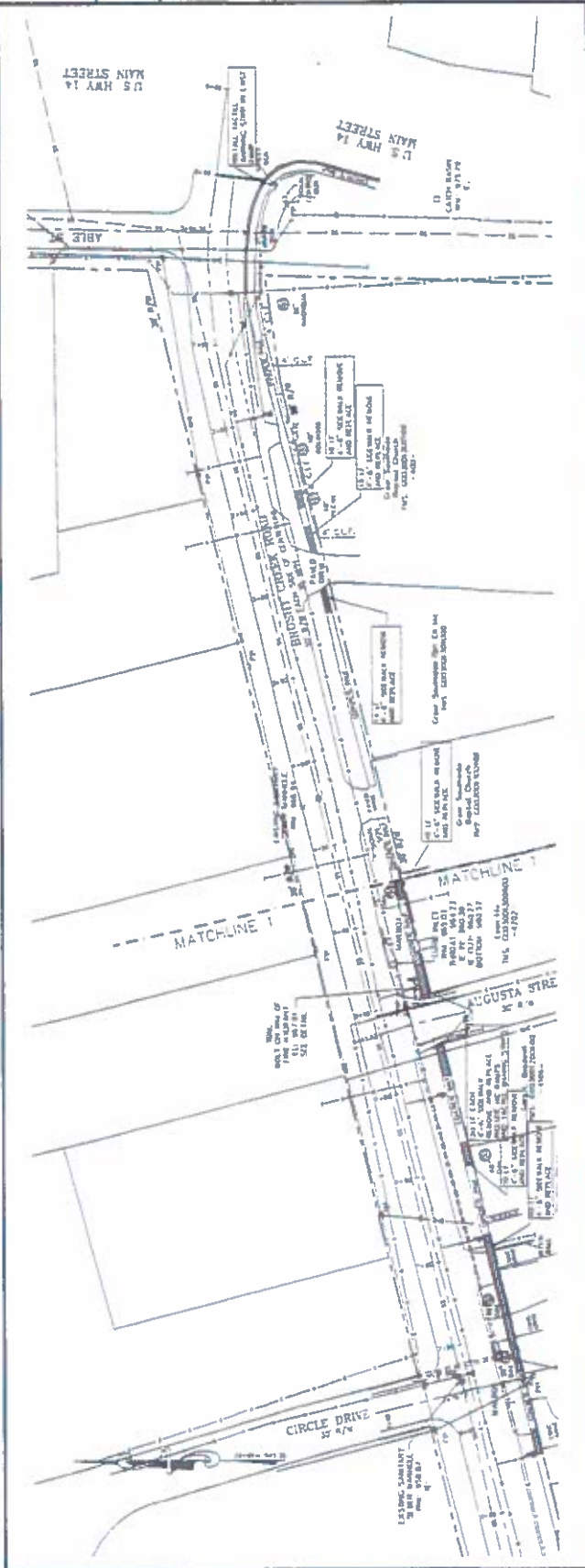


CITY OF GREER BRUSHY CREEK ROAD SIDEWALK PROJECT

| | | | |
|-----|----------|----|--------------------|
| NO. | DATE | BY | DESCRIPTION |
| 1 | 10/20/06 | DL | ISSUED FOR PERMITS |
| 2 | 11/17/06 | DL | ISSUED FOR PERMITS |
| 3 | 12/14/06 | DL | ISSUED FOR PERMITS |
| 4 | 1/10/07 | DL | ISSUED FOR PERMITS |
| 5 | 1/10/07 | DL | ISSUED FOR PERMITS |
| 6 | 1/10/07 | DL | ISSUED FOR PERMITS |
| 7 | 1/10/07 | DL | ISSUED FOR PERMITS |
| 8 | 1/10/07 | DL | ISSUED FOR PERMITS |
| 9 | 1/10/07 | DL | ISSUED FOR PERMITS |
| 10 | 1/10/07 | DL | ISSUED FOR PERMITS |

PLAN SHEET 1

**BRUSHY CREEK ROAD
 SIDEWALK PROJECT DRAWINGS**
 GREENVILLE COUNTY,
 SOUTH CAROLINA
 DATE: 01/10/07 APPROVED BY: DL
 DRAWN BY: DL
 PROJECT NO: 2061
 SHEET NO: C-2





THE CITY OF GREER, SOUTH CAROLINA, HAS REVIEWED AND APPROVED THIS PLAN SHEET FOR THE PROJECT DESCRIBED HEREIN. THE CITY ENGINEER'S OFFICE IS NOT RESPONSIBLE FOR THE DESIGN OR CONSTRUCTION OF THE PROJECT DESCRIBED HEREIN.



CITY OF GREER BRUSHY CREEK ROAD SIDEWALK PROJECT

| | | | |
|----|---------------|----------|----|
| 1 | DATE OF SHEET | 11-10-01 | DL |
| 2 | DATE OF SHEET | 8-12-03 | DL |
| 3 | DATE OF SHEET | 8-12-03 | DL |
| 4 | DATE OF SHEET | 8-12-03 | DL |
| 5 | DATE OF SHEET | 8-12-03 | DL |
| 6 | DATE OF SHEET | 8-12-03 | DL |
| 7 | DATE OF SHEET | 8-12-03 | DL |
| 8 | DATE OF SHEET | 8-12-03 | DL |
| 9 | DATE OF SHEET | 8-12-03 | DL |
| 10 | DATE OF SHEET | 8-12-03 | DL |

PLAN SHEET 2

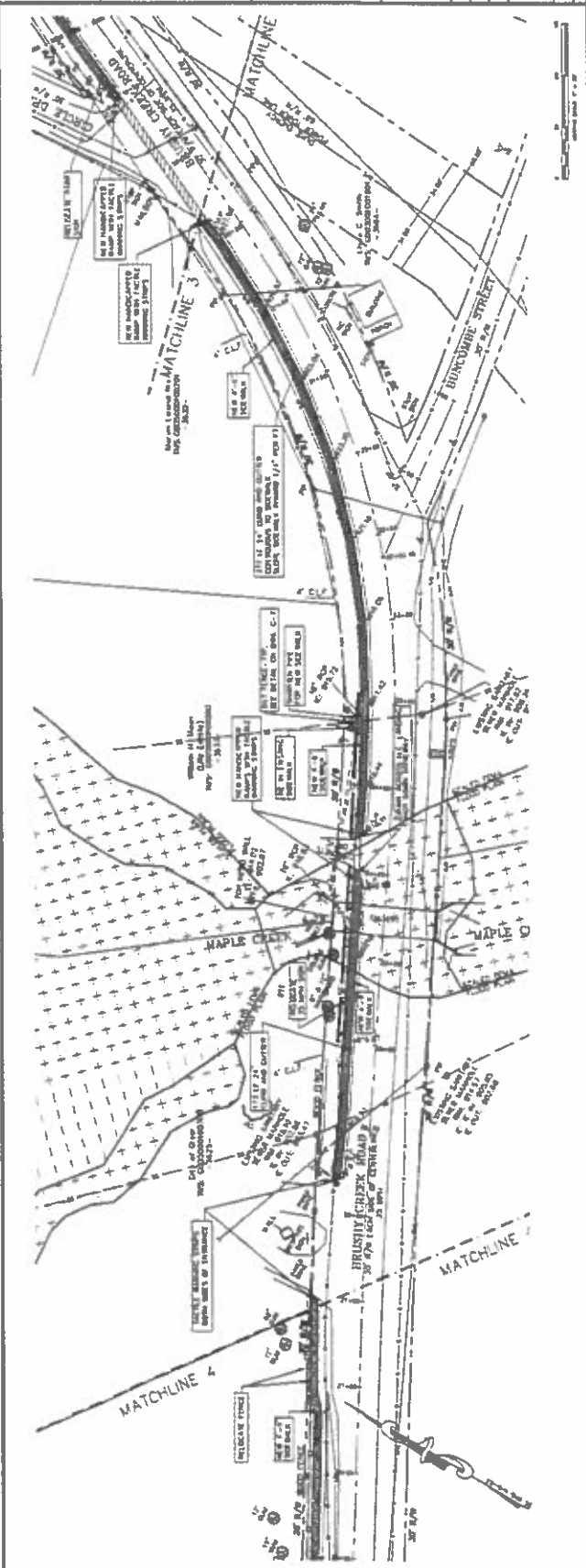
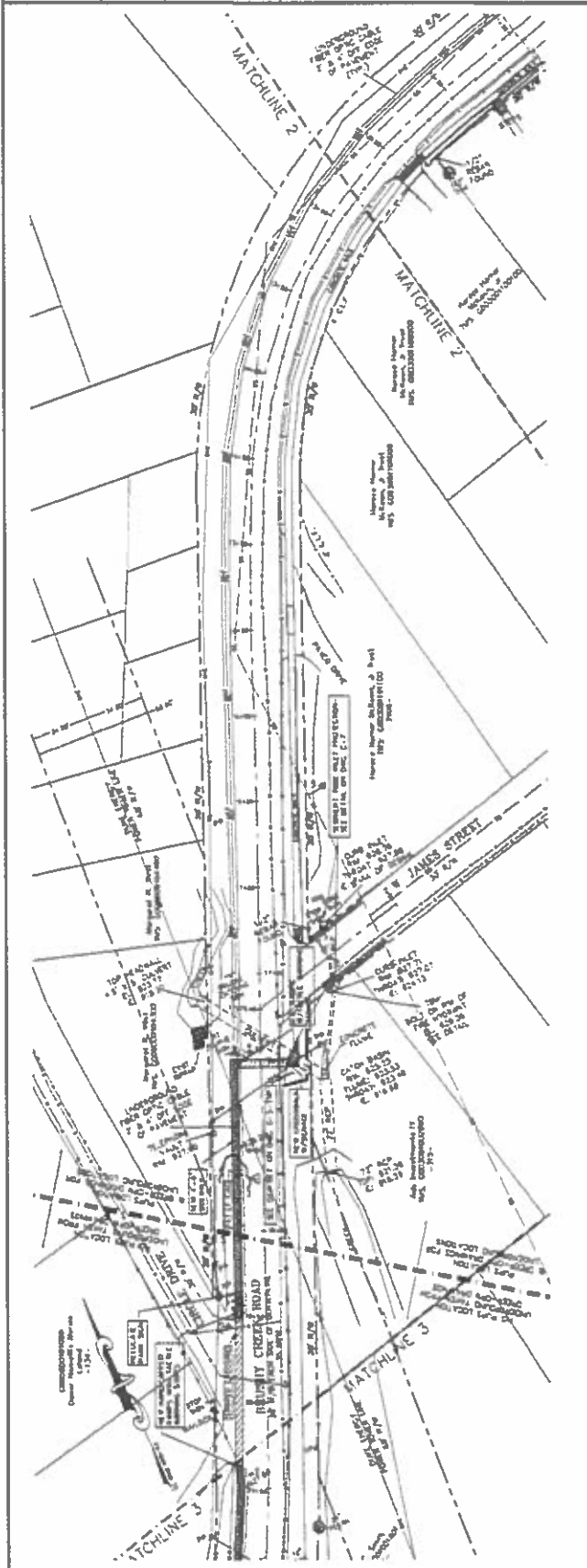
BRUSHY CREEK ROAD
SIDEWALK PROJECT DRAWINGS

GEORGE COUNTY,
SOUTH CAROLINA

DATE: 08/17/03 APPROVED BY: GJS
DRAWN BY: JAS CHECKED BY: WTS
PROJECT NO: 7301

C-3

SCALE: 1" = 40'





CITY OF GREER BRUSHY CREEK ROAD SIDEWALK PROJECT

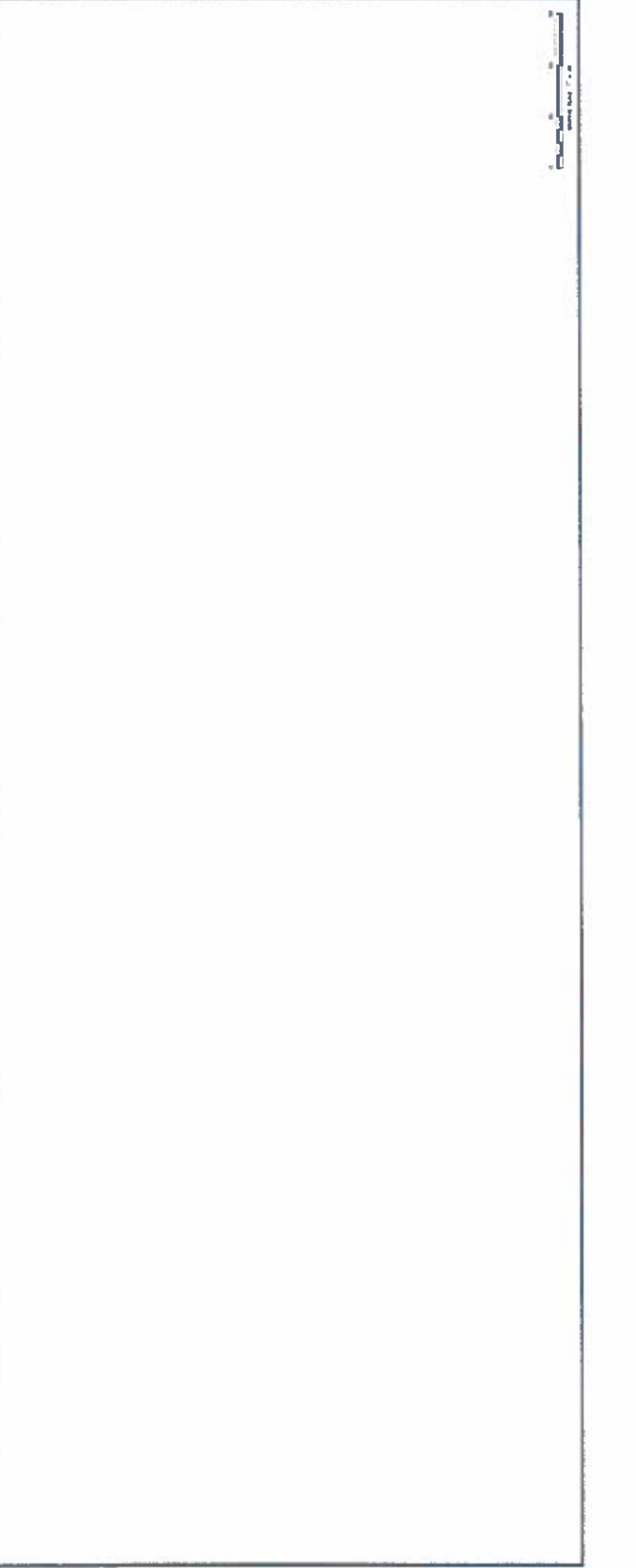
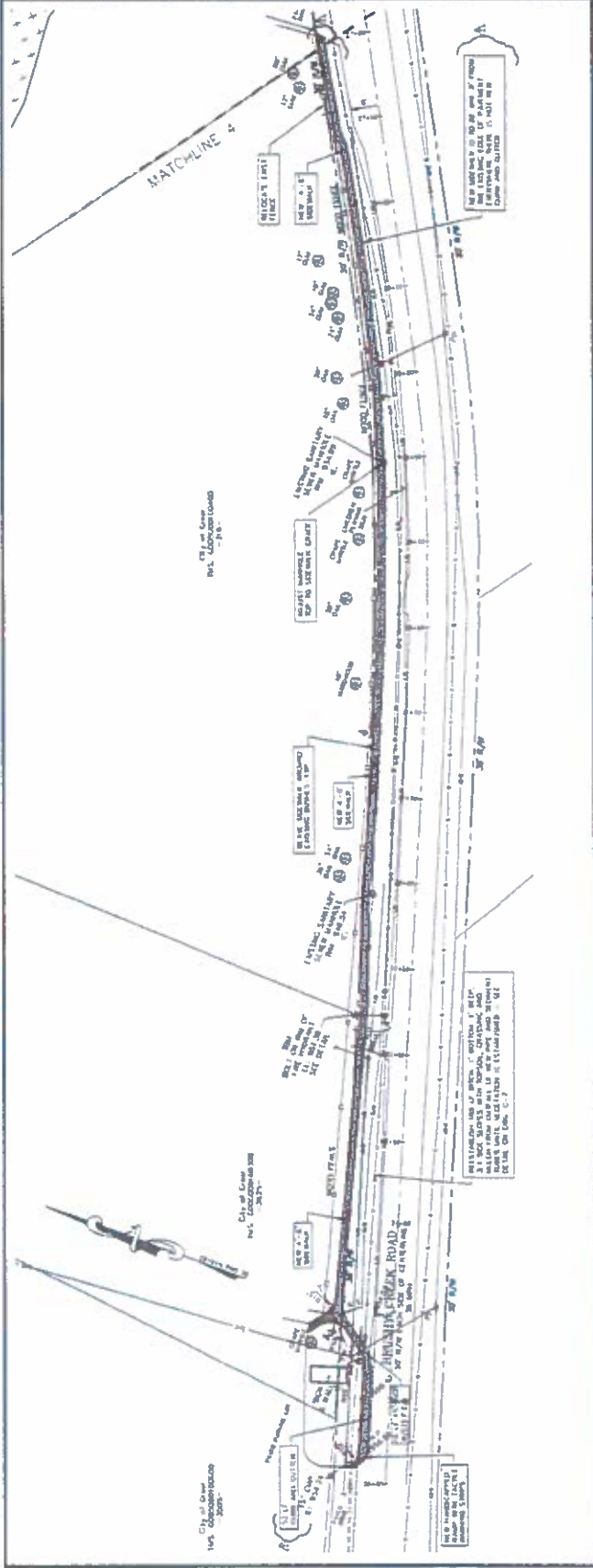
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| NO. | REVISION | DATE | BY |
| 1 | ISSUE FOR PERMITS | 8-2-11 | ELC |
| 2 | ISSUE FOR CONSTRUCTION | 9-21-11 | ELC |
| 3 | FOR RECORD | 10-11 | ELC |
| 4 | AS SHOWN | 11-11 | ELC |

PLAN SHEET 3

BRUSHY CREEK ROAD
SIDEWALK PROJECT DRAWINGS
GREENVILLE COUNTY,
SOUTH CAROLINA

DATE: 8/21/11
DRAWN BY: JMS
PROJECT NO: 2141

C-4





City of Greer
 1000 West Main Street
 Greer, South Carolina 29615
 Phone: 864.634.2200
 Fax: 864.634.2201
 Website: www.cityofgreer.com



CITY OF GREER BRUSHY CREEK ROAD SIDEWALK PROJECT

| | | |
|------------|--------------------|----|
| DATE | DESCRIPTION | BY |
| 01/17/2018 | ISSUED FOR PERMITS | DL |
| 01/17/2018 | ISSUED BY PERMITS | DL |
| 01/17/2018 | ISSUED BY PERMITS | DL |
| 01/17/2018 | ISSUED BY PERMITS | DL |

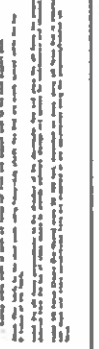
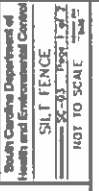
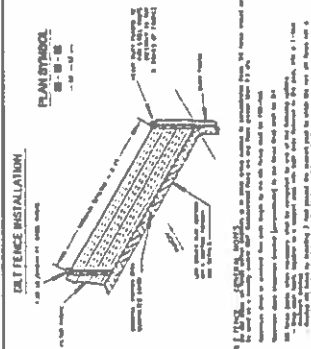
SEDIMENT AND EROSION CONTROL DETAILS

BRUSHY CREEK ROAD
 SIDEWALK PROJECT DRAWINGS
 GREENVILLE COUNTY,
 SOUTH CAROLINA

DATE: 01/17/2018 APPROVED BY: [Signature]
 DRAWN BY: [Signature] CHECKED BY: [Signature]
 PROJECT NO: 7381

C-7

PLAN - 100% FOR PERMITS/CONSTRUCTION
 © 2018, [Signature] & Associates, Inc.



FLAT-BOTTOM TRENCH DETAIL
 10'-0" x 10'-0" (MIN.)

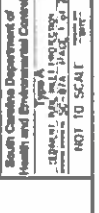
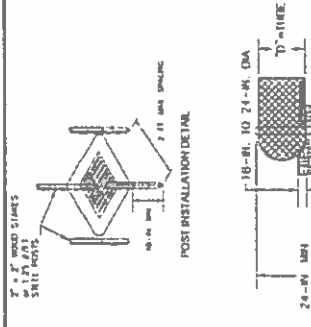
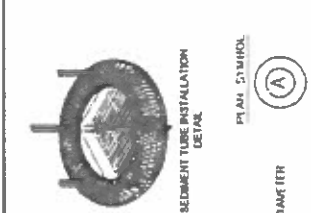
V-SHAPED TRENCH DETAIL
 10'-0" x 10'-0" (MIN.)

South Carolina Department of Health and Environmental Control
SILT FENCE
 NOT TO SCALE

South Carolina Department of Health and Environmental Control
SILT FENCE
 NOT TO SCALE

South Carolina Department of Health and Environmental Control
SILT FENCE
 NOT TO SCALE

South Carolina Department of Health and Environmental Control
SILT FENCE
 NOT TO SCALE

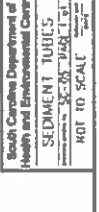
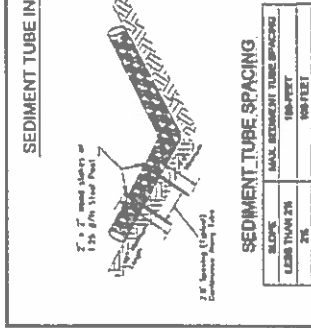
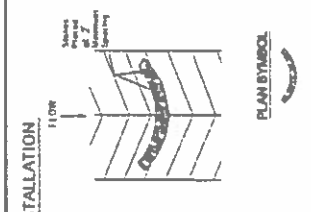


SILT FENCE - INSTALLATION
 1. The silt fence shall be installed in a trench 10' wide and 10' deep.
 2. The silt fence shall be installed in a trench 10' wide and 10' deep.
 3. The silt fence shall be installed in a trench 10' wide and 10' deep.
 4. The silt fence shall be installed in a trench 10' wide and 10' deep.
 5. The silt fence shall be installed in a trench 10' wide and 10' deep.

SILT FENCE - MAINTENANCE
 1. The silt fence shall be inspected weekly.
 2. The silt fence shall be inspected weekly.
 3. The silt fence shall be inspected weekly.
 4. The silt fence shall be inspected weekly.
 5. The silt fence shall be inspected weekly.

South Carolina Department of Health and Environmental Control
SILT FENCE
 NOT TO SCALE

South Carolina Department of Health and Environmental Control
SILT FENCE
 NOT TO SCALE



SEDIMENT TUBES - GENERAL NOTES
 1. Sediment tubes shall be installed in a trench 10' wide and 10' deep.
 2. Sediment tubes shall be installed in a trench 10' wide and 10' deep.
 3. Sediment tubes shall be installed in a trench 10' wide and 10' deep.
 4. Sediment tubes shall be installed in a trench 10' wide and 10' deep.
 5. Sediment tubes shall be installed in a trench 10' wide and 10' deep.

SEDIMENT TUBES - SPACING
 1. Sediment tubes shall be spaced 10' apart.
 2. Sediment tubes shall be spaced 10' apart.
 3. Sediment tubes shall be spaced 10' apart.
 4. Sediment tubes shall be spaced 10' apart.
 5. Sediment tubes shall be spaced 10' apart.

South Carolina Department of Health and Environmental Control
SEDIMENT TUBES
 NOT TO SCALE

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SEDIMENT TUBES
 NOT TO SCALE



South Carolina Department of Health and Environmental Control
SLOPE PROTECTION
 NOT TO SCALE

| Item | Description | Quantity | Unit |
|------|--------------------------------------|----------|---------|
| 1 | 10' x 10' Flat Bottom Trench | 1 | Sq. Yd. |
| 2 | 10' x 10' V-Shaped Trench | 1 | Sq. Yd. |
| 3 | 10' x 10' Silt Fence Installation | 1 | Sq. Yd. |
| 4 | 10' x 10' Silt Fence Maintenance | 1 | Sq. Yd. |
| 5 | 10' x 10' Sediment Tube Installation | 1 | Sq. Yd. |
| 6 | 10' x 10' Sediment Tube Spacing | 1 | Sq. Yd. |
| 7 | 10' x 10' Slope Protection | 1 | Sq. Yd. |

GENERAL NOTES
 1. All work shall be in accordance with the City of Greer Specifications.
 2. All work shall be in accordance with the City of Greer Specifications.
 3. All work shall be in accordance with the City of Greer Specifications.
 4. All work shall be in accordance with the City of Greer Specifications.
 5. All work shall be in accordance with the City of Greer Specifications.

