DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	1	65

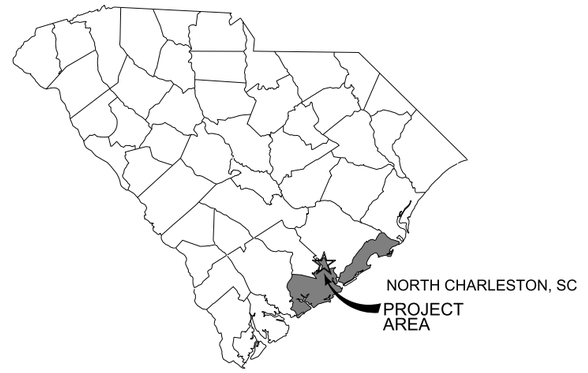
SEE SHEET IL1 FOR INDEX OF SHEETS

City of NORTH CHARLESTON

DISTRICT 3 SIDEWALK IMPROVEMENTS

CITY OF NORTH CHARLESTON, SC

FROM: DEERWOOD DRIVE (STA. 10+15.02) TO: DEERWOOD DRIVE (STA. 20+31.07)
FROM: LAKE MOULTRIE DRIVE (STA. 20+13.55) TO: LAKE MOULTRIE DRIVE (STA. 25+91.55)
FROM: HAYDEN GLENN DRIVE (STA. 29+59.84) TO: EMMIE STREET (STA. 34+85.51)
FROM: RD. S-544 DEERWOOD DRIVE (STA. 41+01.50) TO: RD. S-544 DEERWOOD DRIVE (STA. 52+35.97)



MAP SHOWING LOCATION OF CHARLESTON COUNTY IN SOUTH CAROLINA

SURVEY STA. 41+01.50
BEGIN CONSTRUCTION
RD. S-544 (DEERWOOD DRIVE)
SEE SHEET 10

SURVEY STA. 52+35.97
END CONSTRUCTION
RD. S-544 (DEERWOOD DRIVE)
SEE SHEET 11

SURVEY STA. 29+59.84
BEGIN CONSTRUCTION
HAYDEN GLENN DRIVE
SEE SHEET 9

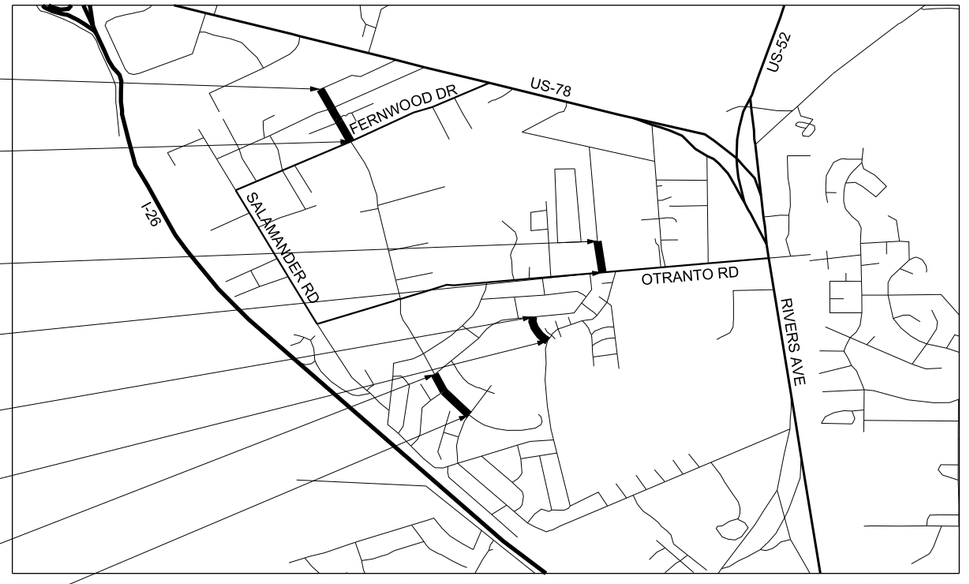
SURVEY STA. 34+85.51
END CONSTRUCTION
EMMIE STREET
SEE SHEET 9

SURVEY STA. 20+13.55
BEGIN CONSTRUCTION
LAKE MOULTRIE DRIVE
SEE SHEET 8

SURVEY STA. 25+91.55
END CONSTRUCTION
LAKE MOULTRIE DRIVE
SEE SHEET 8

SURVEY STA. 10+15.02
BEGIN CONSTRUCTION
DEERWOOD DRIVE
SEE SHEET 6

SURVEY STA. 20+31.07
END CONSTRUCTION
DEERWOOD DRIVE
SEE SHEET 7



CHARLESTON COUNTY PROJECT LOCATION MAP NORTH CHARLESTON, SC

N.T.S.

	DEERWOOD DRIVE	LAKE MOULTRIE DRIVE	EMMIE STREET	RD. S-544 DEERWOOD DR.	PROJECT TOTAL
NET LENGTH OF ROADWAY	0.192	0.109	0.100	0.215	0.616 MILES
NET LENGTH OF BRIDGES	0.000	0.000	0.000	0.000	0.000 MILES
NET LENGTH OF PROJECT	0.192	0.109	0.100	0.215	0.616 MILES
LENGTH OF EXCEPTIONS	0.000	0.000	0.000	0.000	0.000 MILES
GROSS LENGTH OF PROJECT	0.192	0.109	0.100	0.215	0.616 MILES

RD. S-544 (Deerwood Drive)
Approximate Location of Roadway is

Begin
Latitude 32°58'26.78"
Longitude 80°04'05.02"

End
Latitude 32°58'16.79"
Longitude 80°03'59.08"

Deerwood Drive
Approximate Location of Roadway is

Begin
Latitude 32°57'34.82"
Longitude 80°03'44.11"

End
Latitude 32°57'26.32"
Longitude 80°03'38.08"

Lake Moultrie Drive
Approximate Location of Roadway is

Begin
Latitude 32°57'43.62"
Longitude 80°03'26.96"

End
Latitude 32°57'38.70"
Longitude 80°03'24.31"

Design Reference for these plans is the:

2011

AASHTO "A Policy of Geometric Design of Highways and Streets"

Hydraulic Design Reference for these plans is the:

2009

Edition of the SCDOT's "Requirements for Hydraulic Design Studies"

NPDES PERMIT INFORMATION

Disturbed Area = 1.021 Acre(s)
Permitted Area = 2.213 Acre(s)

Emmie Street
Approximate Location of Roadway is

Begin
Latitude 32°57'56.93"
Longitude 80°03'11.60"

End
Latitude 32°57'51.89"
Longitude 80°03'11.42"

TRAFFIC DATA

N/A ADT N/A
N/A ADT N/A
TRUCKS N/A %

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA

CALL 811

PALMETTO UTILITY PROTECTION SERVICES, INC. (PUPS)
ALL UTILITIES MAY NOT BE A MEMBER OF PUPS.

RAILROAD INVOLVEMENT?
YES (NO)

NOTE: EXCEPT AS MAY OTHERWISE BE SPECIFIED ON THE PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP ON THIS PROJECT SHALL CONFORM TO THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION) AND THE STANDARD DRAWINGS FOR ROAD CONSTRUCTION IN EFFECT AT THE TIME OF LETTING.

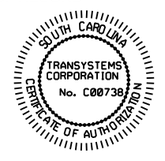
CONSTRUCTION PLANS

CONSULTING ENGINEERING FIRM

TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

ENGINEER OF RECORD

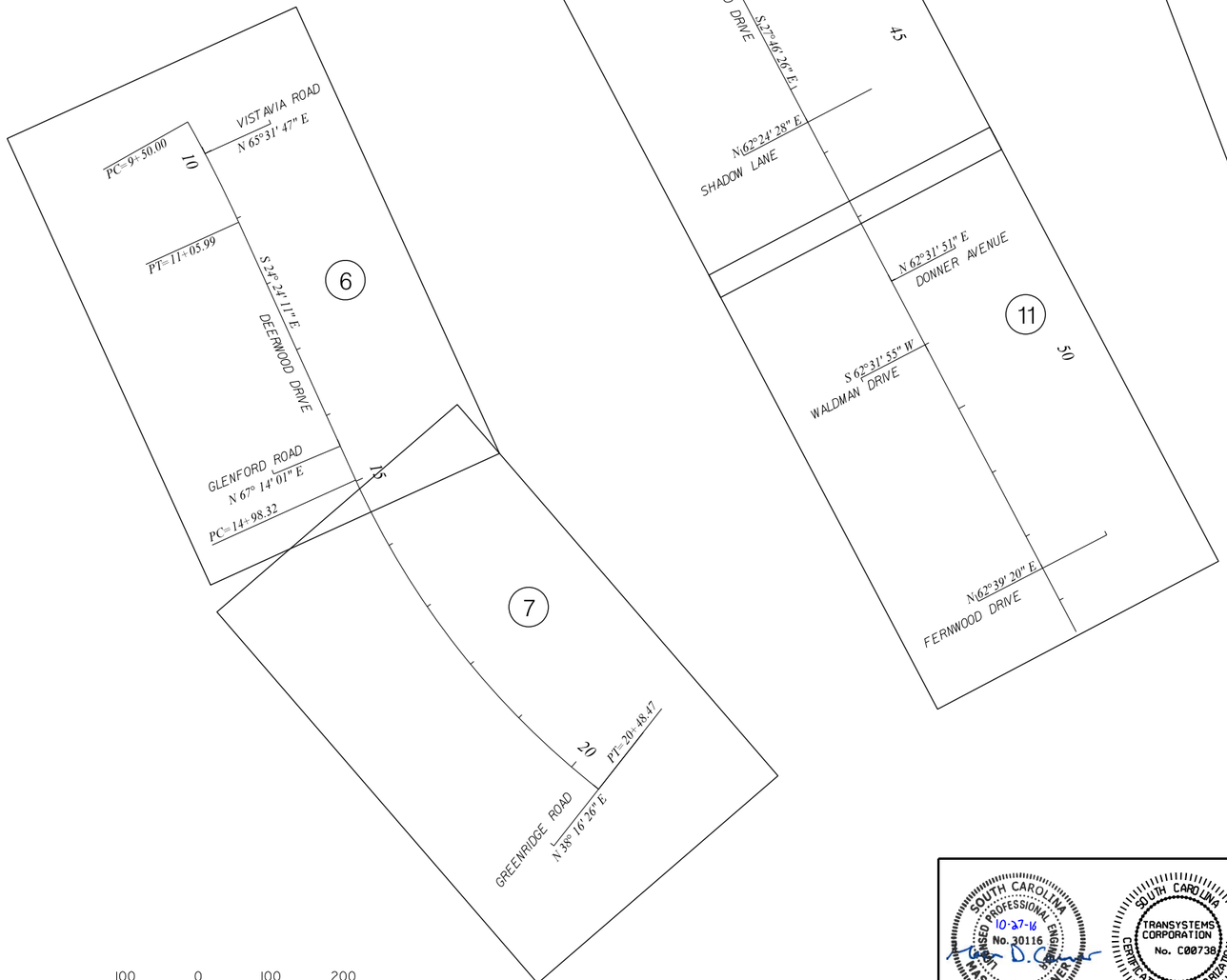
10-27-16



FOR CONSTRUCTION : _____ DATE

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL ROADS	IL1	65



N

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	SHEET SUBTOTALS
1	TITLE SHEET	1
IL1	INDEX / LAYOUT SHEET	1
2	SUMMARY OF ESTIMATED QUANTITIES SHEET	OMIT
3-3C	TYPICAL SECTION SHEETS	4
4	RIGHT OF WAY DATA SHEET	1
4A-4D	PROPERTY STRIP MAP SHEETS	4
5	GENERAL CONSTRUCTION NOTES SHEET	1
5A	REFERENCE DATA SHEET	1
6-11	PLAN AND PROFILE SHEETS	6
EC01-EC04	EROSION CONTROL DETAIL SHEETS	4
DT01-DT17	DETAIL SHEETS	17
X1-X7	CROSS SECTION SHEETS (DEERWOOD DRIVE)	7
X8-X10	CROSS SECTION SHEETS (LAKE MOULTRIE DRIVE)	3
X11-X13	CROSS SECTION SHEETS (EMMIE STREET)	3
X14-X25	CROSS SECTION SHEETS RD.S-544 (DEERWOOD DRIVE)	12
		65

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
WILLIAM D. CONNER
No. 30116

SOUTH CAROLINA TRANSYSTEMS CORPORATION CERTIFICATE OF AUTHORIZATION No. C00738

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

INDEX LAYOUT SHEET

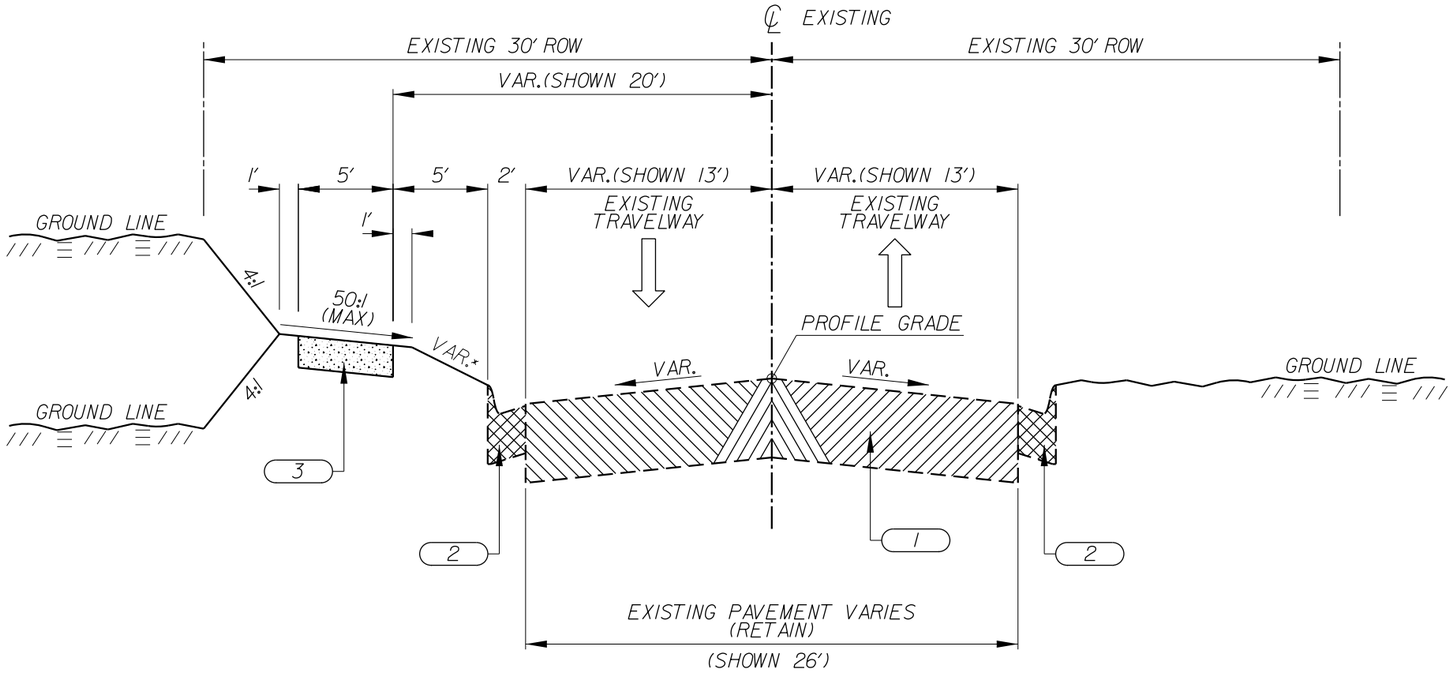
RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	DEERWOOD	3	65

TYPICAL SECTION OF IMPROVEMENT
CITY OF NORTH CHARLESTON
DEERWOOD DRIVE

(1)



USE THIS SECTION ON:
DEERWOOD DRIVE FROM STA. 10+15.02 TO STA. 20+31.07
N.T.S.

SECTION NOTES:

* VARIABLE SLOPE SHOWN 10:1 (MAX 3:1). SEE CROSS SECTION SHEETS FOR RECOMMENDED SLOPES.

LEGEND	
1	EXISTING PAVEMENT (TO BE RETAINED)
2	EXISTING 2' ROLLED CURB
3	4" UNIFORM CONCRETE SIDEWALK

SOUTH CAROLINA PROFESSIONAL ENGINEER SEAL — No. 30116 — MASON D. CONNER — 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

FUNCTIONAL CLASS	DESIGN SPEED		
	MPH	FROM STA.	TO STA.
URBAN LOCAL	N/A	10+15.02	20+31.07

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

TYPICAL SECTION

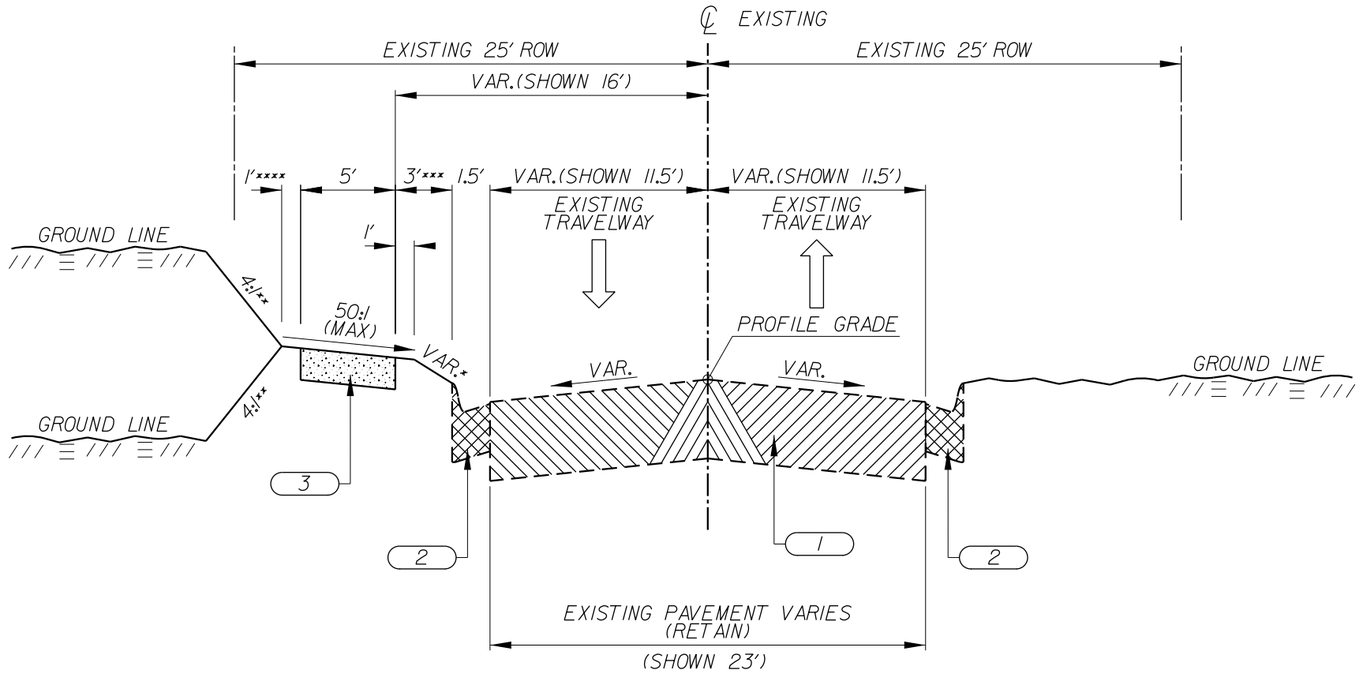
RTE./RD. DEERWOOD DRIVE

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	LAKE MOULTRIE	3A	65

TYPICAL SECTION OF IMPROVEMENT
CITY OF NORTH CHARLESTON
LAKE MOULTRIE DRIVE

(2)



SECTION NOTES:

* VARIABLE SLOPE (SHOWN 8:1). SEE CROSS SECTION SHEETS FOR RECOMMENDED SLOPES.

** 4:1 DESIRED - (2:1 MAX). SEE CROSS SECTION SHEETS FOR RECOMMENDED SLOPES.

*** 2' SIDEWALK BUFFER AREA FROM STA. 20+30.86 TO STA. 22+18.12

**** 0.5' FROM STA. 20+30.86 TO STA. 22+18.12

USE THIS SECTION ON:
LAKE MOULTRIE DRIVE FROM STA. 20+13.55 TO STA. 25+91.55
N.T.S.

LEGEND

1 EXISTING PAVEMENT (TO BE RETAINED)
2 EXISTING 1.5' ROLLED CURB
3 4" UNIFORM CONCRETE SIDEWALK

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
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FUNCTIONAL CLASS	DESIGN SPEED		
	MPH	FROM STA.	TO STA.
URBAN LOCAL	N/A	20+13.55	25+91.55

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

TYPICAL SECTION

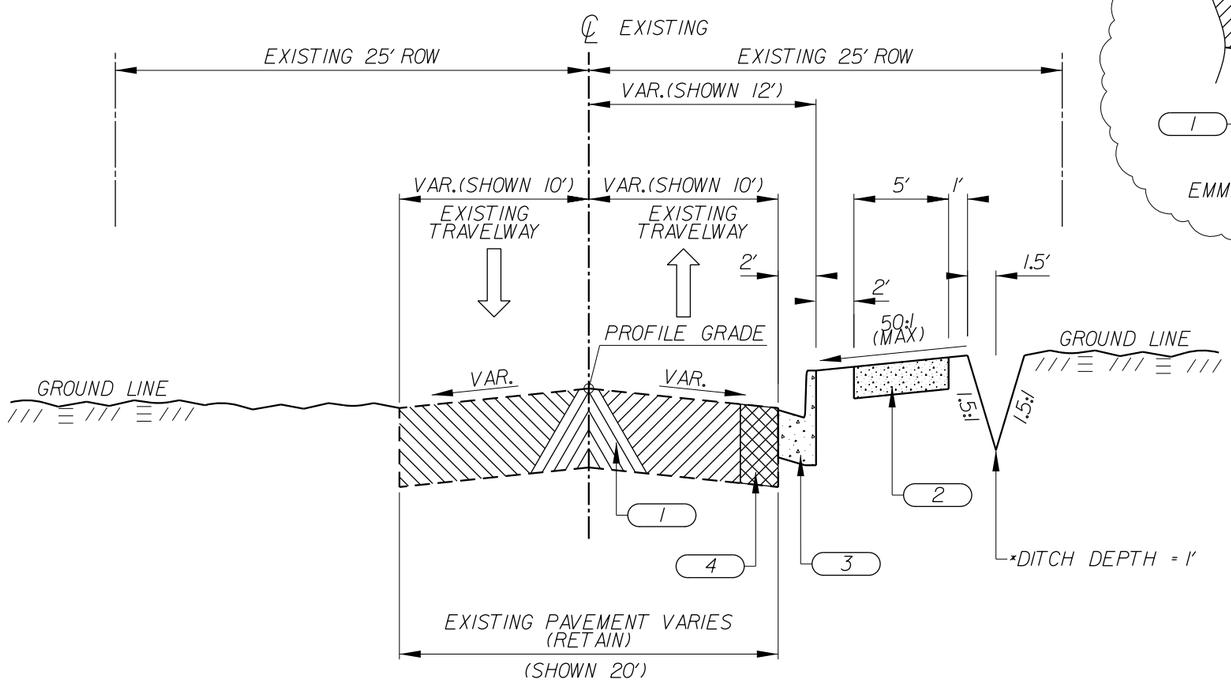
RTE./RD. LAKE MOULTRIE DRIVE

DESIGN BY: TranSystems

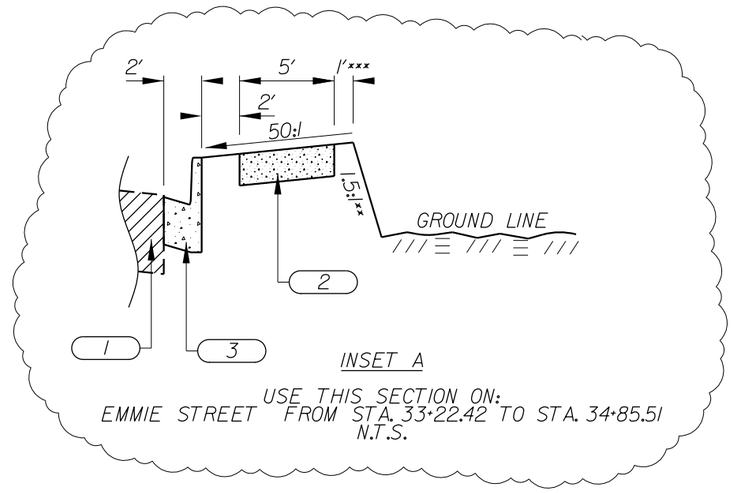
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	EMMIE	3B	65

TYPICAL SECTION OF IMPROVEMENT
CITY OF NORTH CHARLESTON
EMMIE STREET

(3)



USE THIS SECTION ON:
EMMIE STREET FROM STA. 30+18.17 TO STA. 33+22.42
N.T.S.



INSET A

USE THIS SECTION ON:
EMMIE STREET FROM STA. 33+22.42 TO STA. 34+85.51
N.T.S.

SECTION NOTES:

* SEE INSET A FOR TYPICAL PIPE SECTION.

** VARIABLE SLOPE FOR DITCH DRAINAGE.(MAX SLOPE 1.5:1). SEE CROSS SECTION SHEETS FOR RECOMMENDED SLOPES.

*** 0.5' AT BACK OF PROPOSED TYPE-16 CATCH BASINS.

NOTES:

1) SEE SHEET DT05 FOR DETAIL OF CONCRETE CURB AND GUTTER WITH VERTICAL FACE (2'-0").

LEGEND

1	EXISTING PAVEMENT (TO BE RETAINED)
2	4" UNIFORM CONCRETE SIDEWALK
3	CONCRETE CURB AND GUTTER WITH VERTICAL FACE (2'-0")
4	2' FULL DEPTH PAVEMENT PATCH

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

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NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
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FUNCTIONAL CLASS	DESIGN SPEED		
	MPH	FROM STA.	TO STA.
URBAN LOCAL	N/A	30+18.17	34+85.51

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

TYPICAL SECTION

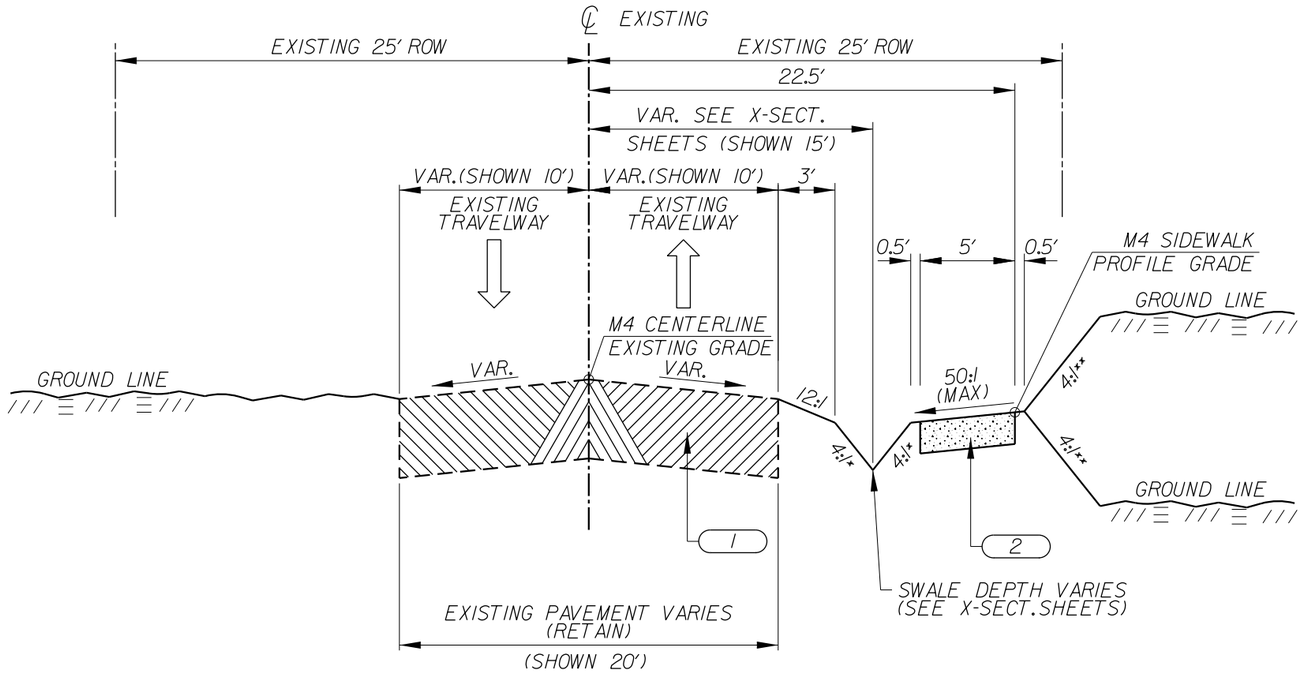
RTE./RD. EMMIE STREET

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	S-544	3C	65

TYPICAL SECTION OF IMPROVEMENT
CITY OF NORTH CHARLESTON
RD. S-544 (DEERWOOD DRIVE)

(4)



USE THIS SECTION ON:
RD. S-544 (DEERWOOD DRIVE) FROM STA. 40+01.50 TO STA. 52+35.97
N.T.S.

SECTION NOTES:

* VARIABLE SLOPE AND LENGTH (MAX 2:1). SEE CROSS SECTION SHEETS FOR RECOMMENDED SLOPES AND LENGTHS.

** 4:1 DESIRED - 2:1 MAX. SEE CROSS SECTION SHEETS FOR RECOMMENDED SLOPES.

LEGEND

(1) EXISTING PAVEMENT (TO BE RETAINED)

(2) 4" UNIFORM CONCRETE SIDEWALK

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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FUNCTIONAL CLASS	DESIGN SPEED		
	MPH	FROM STA.	TO STA.
URBAN LOCAL	N/A	40+01.50	52+35.97

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

TYPICAL SECTION

RTE./RD. S-544 (DEERWOOD DRIVE)

DESIGN BY:

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	4	65

CITY OF NORTH CHARLESTON
RIGHT-OF-WAY DATA SHEET

TRACT NO.	PROPERTY OWNER	TAX MAP REFERENCE	TOTAL TRACT ACRES	OBTAIN [A]				REMAINDER LEFT [B]	REMAINDER RIGHT [B]	DATE ACQUIRED	TYPE OF INSTRUMENT	OUTFALL DITCH PERMISSION (YES)	SLOPE PERMISSION (YES)	DRAINAGE STRUCTURE PERMISSION (YES)	EROSION CONTROL PERMISSION (YES)	ENTRANCE CONSTRUCTION PERMISSION (YES)	COMMENTS
				OUTFALL DITCH ACRES	LEFT	RIGHT	TOTAL	ACRES	ACRES								
1	SINGLETON DEE S. & SINGLETON JUDY D.	485-03-00-054	0.36												YES		SILT FENCE (SEE SHEET 8)
2	HAZEL YVONNE & JOSEPH	485-03-00-301	0.19												YES		SILT FENCE (SEE SHEET 8)
3	REINKE JASON LEE	485-03-00-300	0.14												YES		SILT FENCE (SEE SHEET 8)
4	WEAVER ANDREA K	485-03-00-299	0.16												YES		SILT FENCE (SEE SHEET 8)
5	RICHARDSON TORSHA R	485-03-00-298	0.15														
6	BRISBON ERNEST & CONNIE	485-03-00-297	0.13														
7	JAMES E. MARTIN & SUSAN M. MARTIN	485-02-00-094	0.59														
8	HERNANDEZ MIGUEL A	485-02-00-141	0.32														
9	MARIAN YVONNE MILLS & CANDICE MILLES FORTNER	485-02-00-140	0.31														
10	ROBERTY J & MARGUERITE M. KING	485-02-00-139	0.33														
11	FREDERICK A. & SUSAN C. YOHE	485-02-00-138	0.30														
12	CORA BRAY	485-02-00-137	0.29														
13	RONALD C & KATHRYN E. SMOAK	485-02-00-136	0.29														
14	BARBARA S. WIEDENHOEFT	485-02-00-135	0.29														
15	MARJORIE V. WILLIAMS, LIFE ESTATE	485-02-00-134	0.31														
16	MENDEZ ANA L. GARCIA & AIDA L. MARTINEZ	486-05-00-065	0.26														
17	OCHOA PEDRO & JALDIN CARINA B	486-15-00-066	1.20												YES		SILT FENCE (SEE SHEET 9)
18	GREEN STACY L	486-15-00-238	0.17										YES		YES		PED RAMP CONSTRUCTION (SEE SHEET 9)
19	TANIMOTO JAMES T	486-15-00-229	0.14														
20	ELLIS CHRISTOPHER CARL	486-15-00-237	0.16														
21	HENRY R EDWARDS, JR	486-05-00-120	0.39														
22	STUART D LANGSTON	486-05-00-119	0.29														
23	HARVEY AUSTIN JR & TRISHA L AUSTIN	486-05-00-104	0.28												YES		SILT FENCE (SEE SHEET 11)
24	MEREDITH A. THOMAS	486-05-00-103	0.35														
25	EULA LEE SCOTT	486-05-00-001	10.50												YES		SILT FENCE (SEE SHEET 10)
26	ROBERT W JAMESON	486-09-00-097	0.74														

NOTES:

A TOTAL OBTAIN INCLUDES HIGHLAND, MARSH AND OUTFALL DITCHES. OBTAINS WILL BE SHOWN IN SQUARE FEET AND ACRES. ACRES WILL BE SHOWN IN PARENTHESES UNDER SQUARE FEET. IN RURAL AREAS OBTAINS MAY BE SHOWN IN ACRES ONLY. OUTFALL DITCHES WILL BE SHOWN IN ACRES ONLY.

B SHOW REMAINDER IN SQUARE FEET WHEN LESS THAN 0.25 ACRE.

LICENSED PROFESSIONAL ENGINEER — SOUTH CAROLINA — No. 30116 — MASON D. CONNER — 10-27-16

CONSULTING ENGINEERING FIRM

TranSystems

4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REVISIONS

DATE	TRACT NO.	REMARKS	DATE	TRACT NO.	REMARKS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	DEERWOOD	4A	65

NOTES:

1) SEE SHEET 4 FOR RIGHT-OF-WAY DATA.
2) SEE SHEET 5A FOR ALIGNMENT CONTROL DATA.

HORIZONTAL 1"=50' 50 0 50 100

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____ SQUAD ____ - _____
R/W _____ DATE _____

D3 SIDEWALK IMPROVEMTNS
CHARLESTON COUNTY, S.C.

PROPERTY STRIP MAP

RTE./RD. DEERWOOD DRIVE

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	LAKE MOULTRIE	4B	65

NOTES:
1) SEE SHEET 4 FOR RIGHT-OF-WAY DATA.
2) SEE SHEET 5A FOR ALIGNMENT CONTROL DATA.

HORIZONTAL 1"=50' 50 0 50 100

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER MASON D. CONNER No. 30116 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

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NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMTNS
CHARLESTON COUNTY, S.C.

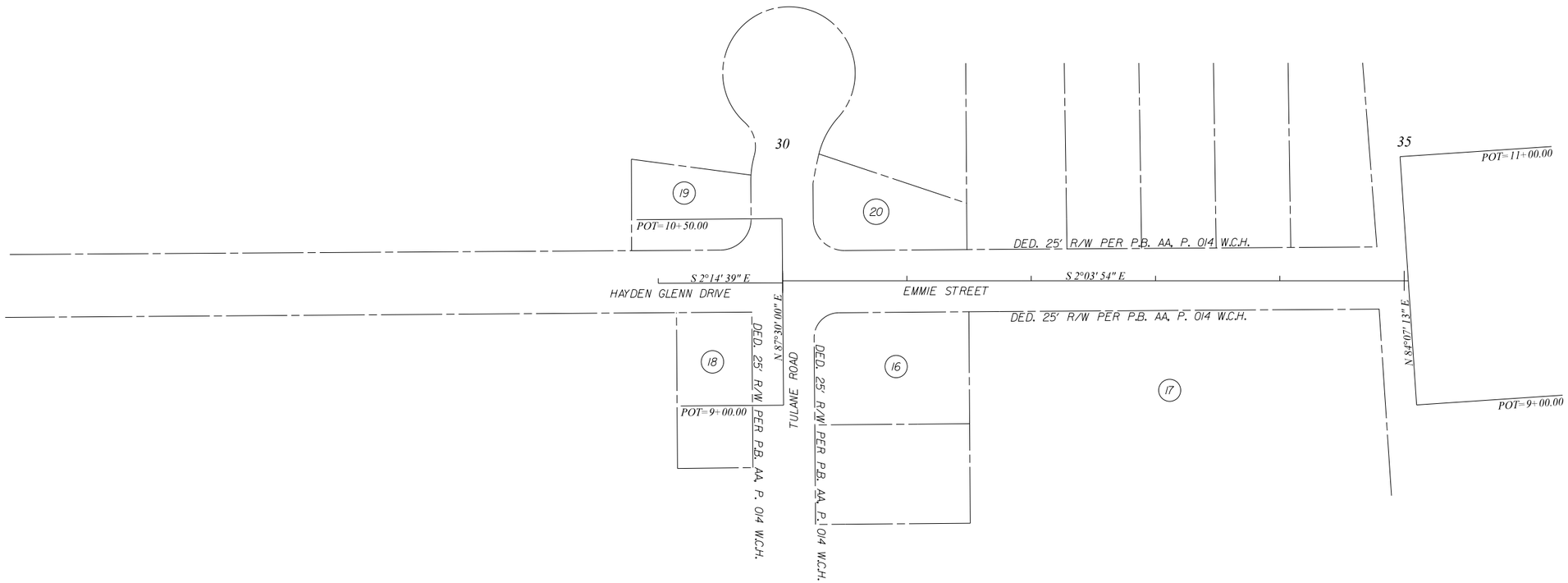
PROPERTY STRIP MAP

RTE./RD. LAKE MOULTRIE DRIVE

DESIGN BY:

TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	EMMIE	4C	65



NOTES:

1) SEE SHEET 4 FOR RIGHT-OF-WAY DATA.
2) SEE SHEET 5A FOR ALIGNMENT CONTROL DATA.

HORIZONTAL 1"=50' 50 0 50 100

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 30116
10-27-16
JASON D. CONNER

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMTNS
CHARLESTON COUNTY, S.C.

PROPERTY STRIP MAP

RTE./RD. EMMIE STREET

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	S-544	40	65

N

PRES.25' R/W 10.558 W.C.H.

PRES.25' R/W 10.558 W.C.H.

RD.S-1427 (DANTZLER DRIVE)

S 60°55' 56" W

40

45

POT=12+00.00

PC=40+88.62

RD.S-1226 (SHADOW LANE)

N 62°24' 28" E

POT=11+00.00

DONNER AVENUE

N 62°31' 51" E

50

RD.S-541(FERNWOOD DRIVE)

N 62°39' 20" E

POT=12+00.00

S 27°46' 26" E

RD.S-544 (DEERWOOD DRIVE)

PRES.25' R/W 10.558 W.C.H.

PRES.25' R/W 10.532 W.C.H.

POT=10+00.00

N 62°24' 28" E

PT=41+27.33

PRES.25' R/W 10.532 W.C.H.

24

PRES.25' R/W 10.558 W.C.H.

23

DED.25' R/W PER P.B.Y. P.41 W.C.H.

S 62°31' 55" W

WALDMAN DRIVE

DED.25' R/W PER P.B.Y. P.41 W.C.H.

22

POT=11+00.00

PRES.25' R/W 10.558 W.C.H.

21

PRES.25' R/W 10.558 W.C.H.

N 62°39' 20" E

PRES.25' R/W 10.408 W.C.H.

PRES.25' R/W 10.408 W.C.H.

POT=10+00.00

26

RD.S-541(FERNWOOD DRIVE)

25

NOTES:

1) SEE SHEET 4 FOR RIGHT-OF-WAY DATA.
2) SEE SHEET 5A FOR ALIGNMENT CONTROL DATA.

HORIZONTAL 1"=50' 50 0 50 100

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMTNS
CHARLESTON COUNTY, S.C.

PROPERTY STRIP MAP

RTE./RD. S-544 (DEERWOOD DRIVE)

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	5	65

GENERAL NOTES

1. IN PERFORMING THE WORK UNDER THIS PROJECT, THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH ALL FEDERAL, STATE AND LOCAL STATUTES, ORDINANCES AND DIRECTIVES WITH RESPECT TO THE ELIMINATION OF EXCESSIVE NOISE AND POLLUTION OF AIR AND WATER DUE TO THEIR CONSTRUCTION EQUIPMENT AND OTHER OPERATIONS. ATTENTION SHALL BE GIVEN TO REDUCE THE NOISE OF HEAVY CONSTRUCTION EQUIPMENT AND TO THE CONTROL OF DUST, SMOKE AND FUMES FROM CONSTRUCTION EQUIPMENT AND OTHER OPERATIONS ON THE WORK SITE, AND THE DIRT AND NOISE CREATED BY HEAVY TRUCK OPERATION AREAS AND ADJACENT EXISTING PAVED AREAS. THESE AREAS SHALL BE KEPT FREE FROM DEBRIS AT ALL TIMES. THE DISCHARGE OF OILY, GREASY OR CHEMICAL WASTES INTO WATERWAYS AND TRIBUTARY SEWERS WILL NOT BE PERMITTED.
2. THIS AGREEMENT IS MADE UP OF SEVERAL PARTS. THE AGREEMENT WITH THE CONTRACTOR WILL HOLD OVER ALL OTHER PARTS OF THE CONSTRUCTION DOCUMENTS, NOT WITHSTANDING PERMITTING REQUIREMENTS AND GOVERNMENTAL AGENCY REGULATIONS. THE PLAN NOTES AND DETAILS WILL HOLD OVER PLAN DRAWING INFORMATION AND THE PLANS WILL HOLD OVER THE PROJECT SPECIFICATIONS AND THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (2007 EDITION). OTHER FEDERAL, STATE AND LOCAL REGULATIONS AND REQUIREMENTS ARE TO BE INCORPORATED IN THE CONSTRUCTION, WHEN IN CONFLICT WITH THE PLANS OR SPECIFICATIONS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN.
3. THE OWNER REQUIRES THAT ALL CONTRACTORS BE QUALIFIED FOR THE WORK THEY ARE PERFORMING. IT IS PRESUMED THAT CONTRACTORS PERFORMING WORK ARE EXPERIENCED AND KNOWLEDGEABLE ABOUT THE WORK (INCLUDING GOVERNMENTAL REGULATIONS), AND THAT QUALITY PRODUCTS, APPROPRIATE FOR THE APPLICATION, WILL BE USED AND THAT ALL WORK WILL BE INSTALLED IN A PROFESSIONAL WORKMANLIKE MANNER. THE PLANS SHOW LOCATIONS, RELATIONSHIPS, MAGNITUDE AND GENERAL SPECIFICATIONS OF THE WORK REQUIRED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL COMPONENTS INSTALLED FUNCTION PROPERLY AND THAT ALL HARDWARE, FITTINGS, CABLING, CONNECTIONS, SUPPLY LINES, ETC. ARE SUPPLIED AND PROPERLY FITTED, WHETHER DETAILED ON THE PLANS OR NOT. THE CONTRACTOR SHALL ASSURE THAT ALL COMPONENTS AND WORK ARE INSTALLED, COMPLETE IN PLACE, AND OPERATIONAL TO THE SATISFACTION OF THE CITY OF NORTH CHARLESTON.
4. ALL WORKERS AND VISITORS TO THE SITE SHALL BE REQUIRED TO BE SAFETY TRAINED IN ACCORDANCE WITH OSHA REGULATIONS. THE ONLY EXCEPTIONS SHALL BE MATERIAL DELIVERY, TRUCK DRIVERS, BUT ONLY WHEN THEY ARE DIRECTED IN AND OUT OF THE SITE BY A TRAINED WORKER.
5. THE CONTRACTOR SHALL PROVIDE FULL TIME SUPERVISION OF ITS WORK WITH EXPERIENCED PERSONNEL. EACH CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS AND SAFETY OF ITS CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL SWEEP AND WASH DOWN ALL HAUL ROUTES OVER CITY/STATE/COUNTY ROADS TO/FROM THE CONSTRUCTION AREA, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY PERMITS REQUIRED FOR THE WORK. THE CONTRACTOR SHALL PROVIDE WHATEVER MEANS NECESSARY TO ALLEVIATE OR PREVENT DUST NUISANCE AT ALL TIMES. A SWEEPER SHALL BE PROVIDED AS NECESSARY TO KEEP STREETS CLEAN. THE COST OF THIS ITEM IS INCIDENTAL TO THE PROJECT.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
8. THE CONTRACTOR SHALL INSPECT THE SITE OF THE PROJECT AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS, TRAFFIC, OTHER ITEMS THAT AFFECT THE CONTRACT AND THE DETAILED REQUIREMENTS OF CONSTRUCTION.
9. ALL CATCH BASINS, MANHOLES, POLLUTION CONTROL BASINS, AND SIMILAR STRUCTURES NEWLY CONSTRUCTED, ADJUSTED OR RECONSTRUCTED UNDER THE CONTRACT SHALL BE CLEANED OF ANY ACCUMULATION OF SILT, DEBRIS OR ANY FOREIGN MATTER OF ANY KIND AND SHALL BE FREE OF SUCH ACCUMULATION AT THE TIME OF FINAL INSPECTION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THIS CONTRACT.
10. LOCATION OF CONSTRUCTION STAGING AREA IS THE REPONSIBILITY OF THE CONTRACTOR.
11. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT WORK AREAS FROM A LOCATION DESIGNATED BY THE OWNER OR AS SHOWN ON THE PLANS.
12. "CONTRACTOR" SHALL MEAN THE CONTRACTOR BIDDING SPECIFIC TRADE WORK.
13. "OWNER" SHALL MEAN THE CITY OF NORTH CHARLESTON.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, COMPLIANCE WITH OSHA REQUIREMENTS, REQUIREMENTS OF THE LOCAL MUNICIPALITY, AND ALL NECESSARY PERMITS.

GEOMETRIC CONTROL AND EXISTING CONDITIONS

1. EXISTING CONDITIONS WERE TAKEN FROM GROUND AND/OR AERIAL SURVEYS. INFORMATION SHOWN CONCERNING FEATURES AND UTILITIES ARE NOT GUARANTEED ALL INCLUSIVE OR CORRECT. THE LOCATION, MATERIAL AND DIMENSIONS OF EXISTING FACILITIES AND OBSTRUCTIONS ARE BASED UPON AVAILABLE RECORDS AND ARE SHOWN ON THE PLANS STRICTLY AS AN AID TO THE CONTRACTOR, BUT MUST NOT BE CONSTRUED AS BEING ACCURATE, CORRECT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH AND FAMILIARIZE THEMSELVES WITH ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT.

SITE ACCESS AND MAINTENANCE OF EXISTING ROADWAYS

1. THE CONTRACTOR MUST SUBMIT TO THE OWNER AND THE APPROPRIATE LOCAL AGENCIES A PLAN THAT SHOWS THE PROPOSED HAUL ROUTES FOR THE CONSTRUCTION OF THE ROADWAY, AND OBTAIN ANY NECESSARY APPROVALS OR PERMITS FROM THE LOCAL ENTITY WITH JURISDICTION OVER THE ROADS PROPOSED TO BE USED. AT ALL TIMES THE CONTRACTOR SHALL RESPECT POSTED LOAD LIMITS AND SPEED LIMITS OF ALL PUBLIC ROADWAYS.

PROOF ROLL NOTE FOR PLANS

1. THE CONTRACTOR SHALL NOTIFY THE CITY OF NORTH CHARLESTON PUBLIC WORKS DEPARTMENT (843-460-1558) PRIOR TO CONSTRUCTION FOR REQUIRED INSPECTION OF ROADWAY, CURB AND GUTTER, AND STORM DRAINAGE. SUBGRADE AND BASE COURSE SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM DUMP TRUCK IN THE PRESENCE OF PUBLIC WORKS ENGINEERING INSPECTORS. ALL AREAS DETERMINED TO BE UNSUITABLE FOLLOWING INSPECTION SHALL BE EXCAVATED AND RE-COMPACTED WITH SUITABLE MATERIAL TO THE DESIGN ELEVATIONS SHOWN ON THE APPROVED PLANS. INSTALLATION OF THE APPROVED DRAINAGE SYSTEM SHALL BE INSPECTED BY PUBLIC WORKS PERSONNEL. A FINAL INSPECTION SHALL OCCUR PRIOR TO ACCEPTANCE OF THE ROADWAY BY THE CITY.

AS-BUILT NOTE FOR PLANS: NO POND

1. THE ENGINEER/OWNER SHALL PROVIDE THE CITY OF NORTH CHARLESTON WITH AN AS-BUILT SURVEY OF THE PROJECT AREA (TIED TO THE STATE PLANE COORDINATE SYSTEM), TO INCLUDE ALL STORM DRAINAGE LINES, BOTH EXISTING AND NEWLY INSTALLED. SURVEY SHALL ALSO INCLUDE THE PIPE SIZE, MATERIAL, AND INVERT ELEVATIONS, IN COMPLIANCE WITH THE CITY OF NORTH CHARLESTON STORMWATER DESIGN MANUAL AND NPDES PERMIT.

GENERAL UTILITIES AND STORM DRAINAGE NOTES

1. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL GIVE A 3-WORKING DAYS NOTICE TO PALMETTO UTILITIES PROTECTION SERVICE (PUPS) BY CALLING 811. 3-WORKING DAYS NOTICE SHALL ALSO BE GIVEN TO THE OWNERS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE.
3. ALL UNSUITABLE MATERIALS RESULTING FROM DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE SITE IN A PROPER MANNER. STOCKPILING OF THESE MATERIALS MAY BE ALLOWED ON THE PROPERTY OR WITHIN THE PROJECT AREA. IN THE EVENT THAT UNEXPECTED REGULATED SUBSTANCES ARE ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL STATUTES, ORDINANCES AND DIRECTIVES WITH RESPECT TO HANDLING AND DISPOSAL OF SUCH SUBSTANCES.
4. ALL EXISTING UTILITIES SHALL REMAIN IN CONTINUOUS OPERATION DURING THE EXECUTION OF THE WORK, UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT THE OWNERS OF ALL UTILITIES PRIOR TO THE START OF THE WORK SO THAT THE OWNERS MAY LOCATE AND STAKE THEIR UTILITIES. THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER'S REPRESENTATIVE, IN WRITING, 48 HOURS PRIOR TO UTILITY OWNER LOCATING THE UTILITY.
5. ALL UTILITIES TO BE ABANDONED SHALL BE APPROVED BY THE UTILITY OWNER'S REPRESENTATIVE PRIOR TO ABANDONING. ALL OPENINGS ON ABANDONED PIPE OR CONDUIT ARE TO BE SEALED WITH A GROUT PLUG, MINIMUM 1 FOOT THICK, UNLESS UNDER FUTURE ROADWAY. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.
6. ALL EXCAVATION NEAR EXISTING CABLES OR OTHER EXISTING UTILITY LINES SHALL BE PERFORMED BY HAND. ANY CABLE OR OTHER EXISTING UTILITY LINE THAT IS DAMAGED DURING THE PERFORMANCE OF THIS CONTRACT SHALL BE REPAIRED IMMEDIATELY, UNDER THE UTILITY OWNER'S DIRECTION AND AT THE CONTRACTOR'S EXPENSE. DURING THE PERIOD OF TIME THAT THE ABOVE TYPES OF CABLES OR UTILITIES ARE OUT OF SERVICE, DUE TO THE CONTRACTOR'S OPERATIONS, ALL CONTRACT WORK SHALL BE SUSPENDED UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR WILL NOT BE ALLOWED TO MAKE CLAIMS FOR EXTRA COSTS OR TIME EXTENSIONS DUE TO SUCH STOPPAGES OF WORK.
7. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP AND CONSTRUCTION DRAWINGS, CERTIFIED BY AN ENGINEER LICENSED BY THE STATE OF SOUTH CAROLINA, TO THE OWNER WHICH CLEARLY AND ACCURATELY DEPICT THE METHODS AND MEANS BY WHICH THE CONTRACTOR INTENDS TO PROTECT, SHORE, SUPPORT, BRACE, ETC., EXISTING UTILITIES WHEN THE WORK AFFECTS A CABLE, STORM SEWER OR OTHER UTILITY WITHIN THE CONTRACT LIMIT LINES. THIS PROCESS IS ALSO APPLICABLE FOR THE INSTALLATION OF NEW STORM SEWERS AND UTILITIES WITHIN THE CONTRACT LIMIT LINES THAT REQUIRE SHORING AND BRACING.
8. EXISTING CONDITIONS WERE TAKEN FROM AVAILABLE MAPPING/DRAWING. INFORMATION SHOWN CONCERNING FEATURES AND UTILITIES IS NOT GUARANTEED, ALL INCLUSIVE OR CORRECT. THE CONTRACTOR SHALL VERIFY THE FEATURES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE AT ALL TIMES, UNLESS NOTED OTHERWISE ON THE PLANS. THE LOCATION, MATERIAL AND DIMENSIONS OF EXISTING FACILITIES AND OBSTRUCTIONS ARE BASED UPON AVAILABLE RECORDS AND ARE SHOWN ON THE PLANS STRICTLY AS AN AID TO THE CONTRACTOR, BUT MUST NOT BE CONSTRUED AS BEING ACCURATE, CORRECT OR COMPLETE. ALL STRUCTURES ABOVE OR BELOW GROUND THAT ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROPERLY SUPPORTED AND MAINTAINED. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH THE UTILTY OWNER'S REPRESENTATIVE FOR THE PROTECTION, RELOCATION, RECONSTRUCTION OR ADJUSTMENT OF SUCH STRUCTURES AS REQUIRED IN FIELD. IF DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL MAKE REPAIRS OR PAY FOR REPAIRS TO THE STRUCTURE TO THE SATISFACTION OF THE UTILITY OWNER AND AT THE EXPENSE OF THE CONTRACTOR.
9. MOVING UTILITIES SHALL BE THE RESPONSIBILITY OF THE UTILITY OWNERS UNLESS OTHERWISE NOTED ON THE PLANS, IN THE GENERAL NOTES AND IN THE SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE UTILITY OWNER SUFFICIENTLY IN ADVANCE OF THE SCHEDULE FOR SUCH REMOVALS AND RELOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREMIUM COSTS WHICH BECOME NECESSARY AS A RESULT OF THE CONTRACTOR'S FAILURE TO NOTIFY THE UTILITY OWNER. ALL OTHER UTILITIES NOTED ON THE PLANS TO BE RELOCATED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. ALL ITEMS PROPOSED FOR ABANDONMENT, RELOCATION OR DEMOLITION SHALL BE MARKED BY THE CONTRACTOR FOR REVIEW BY THE UTILITY OWNER'S AND THE OWNER'S REPRESENTATIVE. NO ITEM SHALL BE ABANDONED, RELOCATED OR DEMOLISHED UNTIL APPROVED BY THE UTILITY OWNER'S REPRESENTATIVE.
11. THE CONTRACTOR SHALL NOT START ANY WORK WHICH MAY AFFECT EXISTING WATER, STEAM, SEWER, COMPRESSED AIR, COMMUNICATIONS, POWER, GAS, OR OTHER UTILITY CABLES, PIPELINES OR SEWERS UNTIL THE UTILITY OWNER HAS REVIEWED AND APPROVED THE SHOP DRAWINGS AND PROCEDURES FOR PROTECTION OF THE UTILITY.
12. REMOVAL AND REPLACEMENT OF ALL UTILITY STRUCTURES, PIPES, CONDUITS, POWER POLES, LIGHT POLES, FENCES, GATES, GUARDRAIL, VAULTS, JUNCTION BOXES, TREES, SHRUBS AND OR ANY OTHER OBSTRUCTION REQUIRED TO INSTALL THE PROPOSED STORM SEWERS AND/OR UTILITIES AS SHOWN ON THE PLANS SHALL BE INCIDENTAL TO THE CONTRACT UNLESS OTHERWISE STATED IN THE CONTRACT DOCUMENTS.
13. IN THE EVENT OF THE CONTRACTOR ENCOUNTERING EXISTING SUBSURFACE DRAINAGE AND/OR SANITARY SEWER SYSTEMS THAT WERE NOT SHOWN ON PLANS, THE CONTRACTOR SHALL MAINTAIN AND PRESERVE THESE SUBSURFACE SYSTEMS OR CONNECT THE SYSTEMS TO THE NEAREST SYSTEMS, AS DIRECTED BY THE ENGINEER.
14. WHEREVER ANY ABANDONED CONDUITS OR PIPES ARE CUT OR BROKEN BY STORM SEWER CONSTRUCTION, SUITABLE BULKHEADS, AS DETERMINED BY THE OWNER, SHALL BE INSTALLED SO THAT NO LOSS OF BACKFILL MATERIAL SHALL OCCUR. ALL COSTS TO PERFORM SUCH WORK SHALL BE INCIDENTAL TO THE CONTRACT.
15. THE CONTRACTOR MUST CONNECT ALL EXISTING LIVE DRAINS TO STORM SEWERS WHETHER SHOWN ON THE PLANS OR NOT.
16. THE CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION PROVIDE AND MAINTAIN AMPLE MEANS AND DEVICES FOR THE TEMPORARY DIVERSION OF FLOW IN EXISTING SEWERS AND DRAINS AND THE PROMPT REMOVAL AND PROPER DISPOSAL OF ALL WATER OR SEWAGE ENTERING THE TRENCHES OR OTHER PARTS OF THE WORK, AND SHALL KEEP SAID EXCAVATIONS AS DRY AS PRACTICABLE UNTIL THE STRUCTURES TO BE BUILT THEREIN ARE COMPLETED. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.
17. THE LOCATIONS AND ELEVATIONS OF EXISTING STORM SEWERS AND STRUCTURES SHOWN ON THE PLANS AND PROFILES HAVE BEEN OBTAINED FROM AERIAL/GROUND SURVEY AND THE INFORMATION IS NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING AND PROTECTING ALL STORM SEWERS AND STRUCTURES.
18. IN LOCATIONS WHERE EXISTING STORM DRAINAGE FACILITIES ARE TO REMAIN AND ARE DISTURBED OR DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO RESTORE AND REPLACE THE DAMAGED FACILITIES AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER. FLOW MUST BE MAINTAINED AT ALL TIMES.

NEW STORM PIPE NOTES

1. ALL NEW STORM PIPES, BEDDING, TRENCHING, STORM BOXES, ETC. IN CITY RIGHTS-OF-WAY AND/OR CITY OWNED AND MAINTAINED DRAINAGE EASEMENTS SHALL BE INSTALLED PER CURRENT SCDOT SPECIFICATIONS, LOCATED ON THE INTERNET AT HTTP://WWW.SCDOT.ORG/DOING/ROAD_SUPTECHSPEC.ASPX SCDOT STANDARD DETAIL DRAWINGS CAN BE LOCATED AT THE FOLLOWING WEBSITE, HTTP://WWW.SCDOT.ORG/DOING/SD_DISCLAIMER.ASPX
2. ALL REINFORCED CONCRETE PIPE SHALL, AT A MINIMUM, BE SMOOTH-WALLED, MEETING ASTM C76, CLASS III.
3. REINFORCED CONCRETE PIPE INSTALLED UNDER PAVEMENT AND/OR PARALLEL TO THE EDGE OF PAVEMENT IN PUBLIC RIGHTS-OF-WAYS SHALL HAVE O-RING JOINTS IN ACCORDANCE TO ASTM C 443 AND/OR AASHTO M315. THE JOINTS SHALL BE SECURELY WRAPPED WITH FILTER FABRIC 18" IN WIDTH.
4. SUBMERGED DRAINAGE SYSTEMS WITH PIPING IN THE PUBLIC RIGHTS-OF-WAY SHALL HAVE O-RING JOINTS IN ACCORDANCE TO ASTM C 443 AND/OR AASHTO M315. THE JOINTS SHALL BE SECURELY WRAPPED WITH FILTER FABRIC 18" IN WIDTH.
5. WHERE TONGUE & GROOVE STORM PIPE IS ALLOWED, REINFORCED CONCRETE PIPE SHALL BE PER ASTM C 76, CLASS III. JOINTS SHALL BE SEALED WITH RAMNECK OR EQUIVALENT PER AASHTO M198. THE JOINTS SHALL BE SECURELY WRAPPED WITH FILTER FABRIC 18" IN WIDTH.
6. ALL NEW STORM DRAINAGE LINES SHALL BE LAID UPGRADE AFTER CONFIRMATION OF EXISTING INVERT ELEVATION.

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL SUBMIT, PRIOR TO CONSTRUCTION ACTIVITIES, TO THE CITY OF NORTH CHARLESTON PUBLIC WORKS DEPARTMENT A WRITTEN PLAN SHOWING, AT A MINIMUM, THE PROPOSED METHOD OF SIGNING, BARRICADING FOR TRAFFIC CONTROL, AND SAFETY FOR STREET DETOURS AND PROPOSED TEMPORARY LANE CLOSURES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE TRAFFIC AT ALL TIMES DURING THE CONSTRUCTION OF THE PROJECT.
3. BARRICADES, WARNING SIGNS, FLAGMEN, AND DETOURS, AS NECESSARY, SHALL BE PROVIDED BY AND AT THE EXPENSE OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. THE WORK SHALL BE PLANNED AND IMPLIMENTED, SO THAT THERE WILL BE THE LEAST POSSIBLE INCONVENIENCE TO THE MOTERING PUBLIC.

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

GENERAL CONSTRUCTION NOTES

RTE./RD. ALL ROADS

EXISTING MAINLINE HORIZONTAL ALIGNMENTS

BEGINNING CHAIN M1 DESCRIPTION

DESCRIPTION: EXISTING DEERWOOD DRIVE ALIGNMENT

P.C.	STA. 9+50.00	N 411,175.03	E 2,287,575.69
P.I.	STA. 10+28.00	N 411,107.09	E 2,287,614.09
P.T.	STA. 11+06.00	N 411,036.02	E 2,287,646.34
P.C.	STA. 14+98.00	N 410,678.74	E 2,287,808.43
P.I.	STA. 17+79.00	N 410,423.31	E 2,287,924.31
P.T.	STA. 20+48.00	N 410,250.28	E 2,288,145.07

ENDING CHAIN M1 DESCRIPTION

BEGINNING CHAIN M2 DESCRIPTION

DESCRIPTION: EXISTING LAKE MOULTRIE DRIVE ALIGNMENT

P.O.T.	STA. 20+00.00	N 412,037.28	E 2,289,057.74
P.C.	STA. 21+87.00	N 411,851.81	E 2,289,079.48
P.I.	STA. 23+33.00	N 411,706.87	E 2,289,096.47
P.T.	STA. 24+67.00	N 411,606.92	E 2,289,202.80
P.O.T.	STA. 26+09.00	N 411,509.48	E 2,289,306.46

ENDING CHAIN M2 DESCRIPTION

BEGINNING CHAIN M3 DESCRIPTION

DESCRIPTION: EXISTING EMMIE STREET ALIGNMENT

P.O.T.	STA. 29+00.00	N 413,452.13	E 2,290,353.48
P.O.T.	STA. 30+00.00	N 413,352.20	E 2,290,357.40
P.O.T.	STA. 30+00.00	N 413,352.28	E 2,290,359.11
P.O.T.	STA. 35+03.00	N 412,849.25	E 2,290,377.25

ENDING CHAIN M3 DESCRIPTION

BEGINNING CHAIN M4 DESCRIPTION

DESCRIPTION: EXISTING RD. S-544 (DEERWOOD DRIVE) ALIGNMENT

BEGIN: RD. S-1427 (DANTZLER DRIVE)

END: RD. S-541 (FERNWOOD DRIVE)

P.O.T.	STA. 40+00.00	N 416,403.78	E 2,285,864.94
P.C.	STA. 40+88.62	N 416,360.73	E 2,285,787.48
P.I.	STA. 41+13.07	N 416,348.85	E 2,285,766.11
P.T.	STA. 41+27.33	N 416,327.23	E 2,285,777.50
P.O.T.	STA. 53+49.61	N 415,245.76	E 2,286,347.06

ENDING CHAIN M4 DESCRIPTION

EXISTING CURVE DATA

EXISTING CURVE DATA - M1 (DEERWOOD DRIVE)

M1-1

PI = 10+28.00
Δ = 5°04' 30" (RT)
D = 3°15' 12"
T = 78.05'
L = 155.99'
E = 1.73'
R = 1,761.10'
D.S. = N.A.
e(MAX.) = N.A.
e = N.A.

M1-2

PI = 17+79.00
Δ = 27°30' 26" (LT)
D = 5°00' 00"
T = 280.49'
L = 550.16'
E = 33.83'
R = 1,145.94'
D.S. = N.A.
e(MAX.) = N.A.
e = N.A.

EXISTING CURVE DATA - M2 (LAKE MOULTRIE DRIVE)

M2-1

PI = 23+33.00
Δ = 40°05' 13" (LT)
D = 14°19' 26"
T = 145.93'
L = 279.86'
E = 25.79'
R = 400.00'
D.S. = N.A.
e(MAX.) = N.A.
e = N.A.

EXISTING CURVE DATA - M4 RD. S-544 (DEERWOOD DRIVE)

M4-1

P.I. = 41+13.07
Δ = 88°42' 22" (LT)
D = 229°10' 59"
T = 24.44'
L = 38.71'
E = 9.96'
R = 25.00'
D.S. = N.A.
eMAX = N.A.
e = N.A.

DESIGN BY:

TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	5A	65

SURVEY DATA

SURVEY 1 - ROADWAYS M1, M2, & M3

PROJECT SURVEY CONTROL AND DATUM INFORMATION PROVIDED BY

CHE SURVEYING, PLLC
3251 LANDMARK DRIVE, SUITE 142
NORTH CHARLESTON, SC 29418
843-576-2520
WWW.CH-ENGR.COM

RICHARD L. WOOTEN, JR., PLS
SURVEY MANAGER

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE NAD83 (2011) SOUTH CAROLINA STATE PLANE COORDINATE FOR THE PRIMARY SURVEY CONTROL POINT NUMBER 1 WITH A NORTHING OF 410,543.940 AND AN EASTING OF 2,288,497.120. THE COMBINED SCALE FACTOR (GRID TO GROUND) IS 0.9998737659. ELEVATIONS FOR THIS PROJECT ARE BASED ON NAVD88 VALUES FOR PROJECT BENCH MARK NUMBER 1 (USGS NORTHWOODS OR PID DM3296) WITH AN ELEVATION OF 31.516'.

SURVEY 2 - ROADWAY M4

PROJECT SURVEY CONTROL AND DATUM INFORMATION PROVIDED BY

CHE SURVEYING, PLLC
3251 LANDMARK DRIVE, SUITE 142
NORTH CHARLESTON, SC 29418
843-576-2520
WWW.CH-ENGR.COM

RICHARD L. WOOTEN, JR., PLS
SURVEY MANAGER

UTILITY OWNER INFORMATION

UTILITIES	OWNERS	FIELD CONTACTS	PHONE NO.	DAMAGE CONTACTS	PHONE NO.
ELECTRIC	SCE&G	KRISTIE VETTER	843.576.8231	SCE&G EMERGENCY	888.333.4465
WATER	CHARLESTON WATER SYSTEM	DAVID FICKENS	843.308.8251	CWS DISPATCH	843.727.6800
SEWER	N CHARLESTON SEWER DISTRICT	CAPITAL PROJECTS	843.764.3072	CAPTIAL PROJECTS	843.764.3072
GAS	SCE&G	ELWOOD STITH	843.576.8023	SCE&G EMERGENCY	800.815.0083
COMMUNICATIONS	AT&T	KAYE JEFFERSON	843.722.7977	AT&T DAMAGE	877.737.2478
COMMUNICATIONS	COMCAST	RICK HOCHREITER	843.266.3156	RICK HOCHREITER	843.266.3156
COMMUNICATIONS	TIME WARNER	ANGELA HUYCK	843.536.7203	DOUG JONES	843.251.5094
COMMUNICATIONS	WIDE OPEN WEST (W.O.W.)	DARRYL CALDWELL	843.225.3892	DARRYL CALDWELL	843.225.3892

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 30116
10-27-16
JASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM

TranSystems

4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

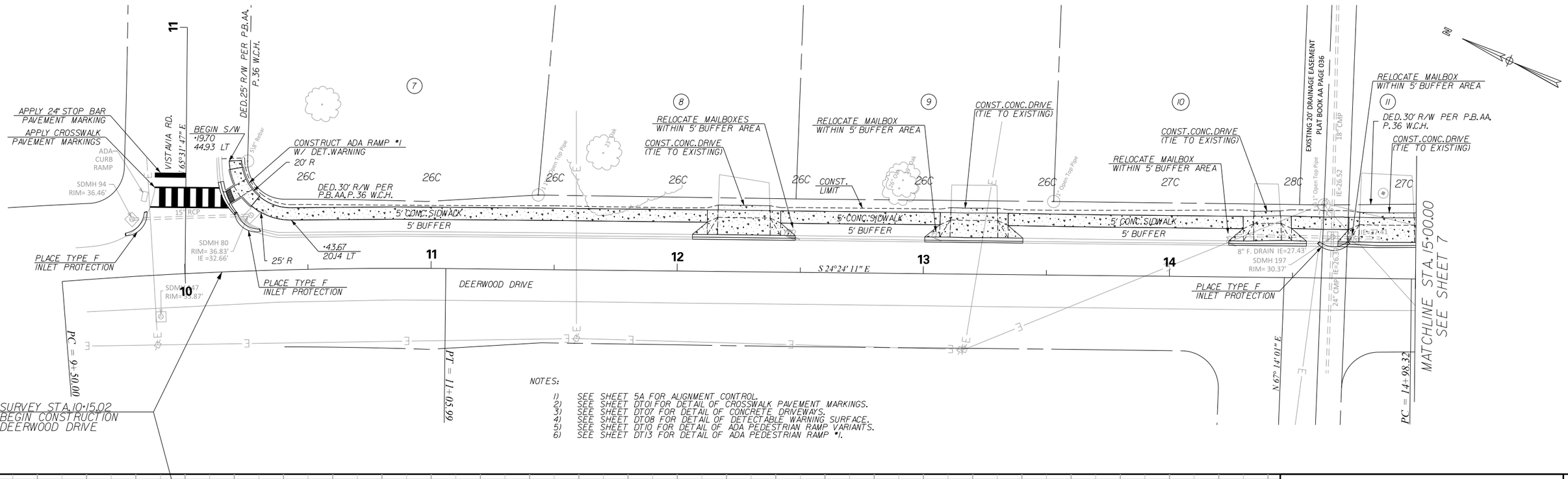
D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

REFERENCE DATA SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	DEERWOOD	6	65



LEGEND

TCE = TEMPORARY CONSTRUCTION EASEMENT	CB = CATCH BASIN
FOC = FACE OF CURB	JB = JUNCTION BOX
C&G = CURB AND GUTTER	DI = DROP INLET
55F = OFFSET OF CUT/FILL SLOPE	S/W = SIDEWALK
---- = DENOTES CONSTRUCTION LIMIT	R/W = RIGHT-OF-WAY

TYPE F (WEIGHTED) INLET PROTECTION (SEE SHEET EC04 FOR DETAILS)

TYPE A INLET PROTECTION (SEE SHEET EC03 FOR DETAILS)

SILT FENCE (NPDES) (SEE SHEET EC02 FOR DETAILS)

TEMPORARY SEDIMENT TUBE (SEE SHEET EC04 FOR DETAILS)

— — — NPDES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 10-27-16 JASON D. CONNER

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

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4			
3			
2			
1			

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DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

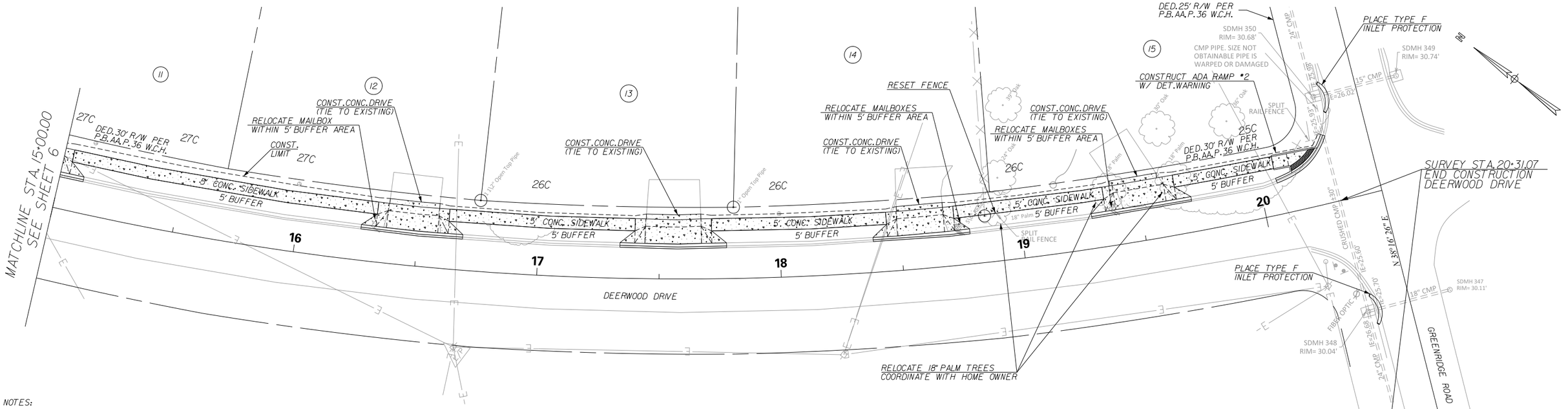
D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

PLAN & PROFILE SHEET
(STA. 10+15.02 – STA. 15+00.00)

RTE./RD. DEERWOOD DRIVE

DESIGN BY: TranSystems

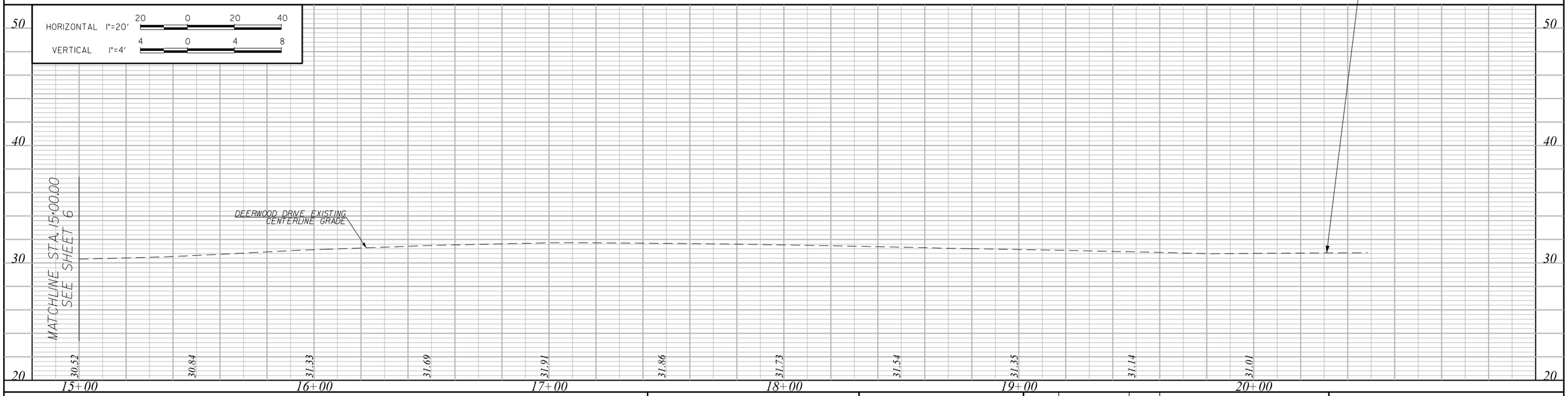
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	DEERWOOD	7	65



NOTES:

1) SEE SHEET 5A FOR ALIGNMENT CONTROL.
2) SEE SHEET DT01 FOR DETAIL OF CROSSWALK PAVEMENT MARKINGS.
3) SEE SHEET DT07 FOR DETAIL OF CONCRETE DRIVEWAYS.
4) SEE SHEET DT08 FOR DETAIL OF DETECTABLE WARNING SURFACE.
5) SEE SHEET DT10 FOR DETAIL OF ADA PEDESTRIAN RAMP VARIANTS.
6) SEE SHEET DT11 FOR DETAIL OF ADA PEDESTRIAN RAMP #2.

HORIZONTAL 1"=20' (20 0 20 40)
VERTICAL 1"=4' (4 0 4 8)



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FOC = FACE OF CURB
C&G = CURB AND GUTTER
55F = OFFSET OF CUT/FILL SLOPE
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CB = CATCH BASIN
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DI = DROP INLET
S/W = SIDEWALK
R/W = RIGHT-OF-WAY

TYPE F (WEIGHTED) INLET PROTECTION (SEE SHEET EC04 FOR DETAILS)
TYPE A INLET PROTECTION (SEE SHEET EC03 FOR DETAILS)
SILT FENCE (NPDES) (SEE SHEET EC02 FOR DETAILS)
TEMPORARY SEDIMENT TUBE (SEE SHEET EC04 FOR DETAILS)

— — — NPDES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 10-27-16 JASON D. CONNER

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CONSULTING ENGINEERING FIRM
TranSystems
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FAX (843) 529-9616
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
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TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

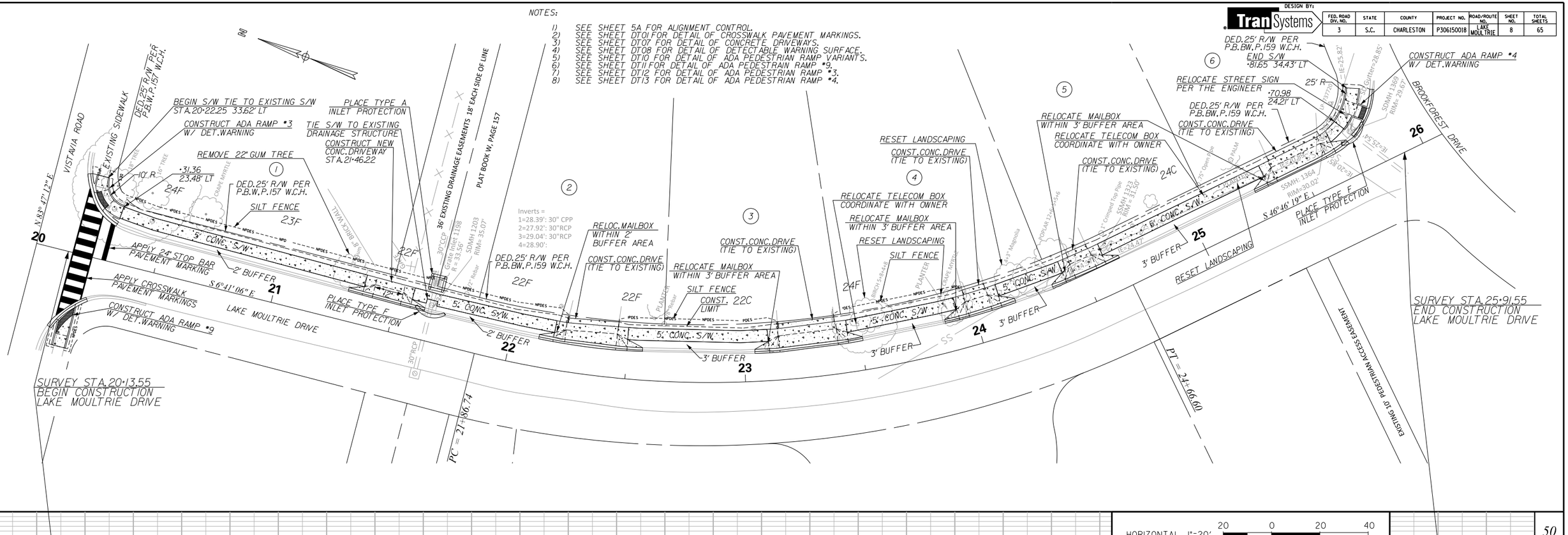
PLAN & PROFILE SHEET
(STA. 15+00.00 – STA. 20+31.07)

RTE./RD. DEERWOOD DRIVE

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	LAKE MOULTRIE	8	65

NOTES:
1) SEE SHEET 5A FOR ALIGNMENT CONTROL.
2) SEE SHEET DT01 FOR DETAIL OF CROSSWALK PAVEMENT MARKINGS.
3) SEE SHEET DT07 FOR DETAIL OF CONCRETE DRIVEWAYS.
4) SEE SHEET DT08 FOR DETAIL OF DETECTABLE WARNING SURFACE.
5) SEE SHEET DT10 FOR DETAIL OF ADA PEDESTRIAN RAMP VARIANTS.
6) SEE SHEET DT11 FOR DETAIL OF ADA PEDESTRAIN RAMP *9.
7) SEE SHEET DT12 FOR DETAIL OF ADA PEDESTRIAN RAMP *3.
8) SEE SHEET DT13 FOR DETAIL OF ADA PEDESTRIAN RAMP *4.



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TYPE F (WEIGHTED) INLET PROTECTION (SEE SHEET EC04 FOR DETAILS)
TYPE A INLET PROTECTION (SEE SHEET EC03 FOR DETAILS)
SILT FENCE (NPDES) (SEE SHEET EC02 FOR DETAILS)
TEMPORARY SEDIMENT TUBE (SEE SHEET EC04 FOR DETAILS)
— — — NPDES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 10-27-16 JASON D. CONNER

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DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

PLAN & PROFILE SHEET

RTE./RD. LAKE MOULTRIE DRIVE

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	EMMIE	9	65

APPLY 24" STOP BAR PAVEMENT MARKING
SILT FENCE
CONST. ADA RAMP #6 W/ DET. WARNING (TIE TO EXISTING S/W) STA. 29+75.15 24.99' LT
RELOCATE SIGN
CONST. LIMIT
EXISTING S/W
HAYDEN GLENN DRIVE
BEGIN C&G STA. 29+64.87 (TIE TO EXISTING)
EXISTING S/W
BEGIN S/W (TIE TO EXISTING) STA. 29+59.84
+64.92 21.74' RT
CONST. ADA RAMP #5 W/ DET. WARNING RELOC. POWER POLE COORD. WITH OWNER
END S/W STA. 29+79.13 36.23' RT
SILT FENCE
END C&G 3' TRANS. STA. 29+90.04 38.98' RT (SEE SHEET DT06)
SURVEY STA. 29+59.84 BEGIN CONSTRUCTION HAYDEN GLENN DRIVE
S 2°14' 39" E
SSMH: 1397 RIM = 30.32'
25' R
14' R
100' R
TULANE ROAD
N 2°08' 38" W
DED. 25' R/W PER P.B. AA, P. 014 W.C.H.
REMOVE EXISTING C&G
SAWCUT & REMOVE EXISTING ASPHALT
APPLY FULL DEPTH PAVEMENT PATCH
ESTABLISH POSTIVE DRAINAGE
BEGIN S/W (TIE TO EXISTING) STA. 30+20.32 39.93' LT
+21.29 35.02' LT
CONSTRUCT ADA RAMP #7 W/ DETECTABLE WARNING
14' R
SILT FENCE
RELOCATE POWER POLE COORDINATE WITH OWNER
CONST. LIMIT
END S/W STA. 30+35.39 20.94' LT
END C&G 3' TRANS. STA. 30+38.46 9.96' LT (SEE SHEET DT06)
EXISTING S/W
TULANE ROAD
25' R
DED. 25' R/W PER P.B. AA, P. 014 W.C.H.
APPLY 24" STOP BAR PAVEMENT MARKING
BEGIN C&G STA. 30+18.17
+45.80 19.10' RT
25C
DED. 25' R/W PER P.B. AA, P. 014 W.C.H.
CONSTRUCT ADA RAMP #8 W/ DETECTABLE WARNING
2' BUFFER
6' CONC. S/W
100' R
+56.40 18.12' RT
IE=27.77' 15" RCP
22C
SAWCUT EXISTING ASPHALT FORM C&G AND APPLY FULL DEPTH PAVEMENT PATCH (MATCH EXISTING GRADE)
EMMIE STREET
S 2°03' 54" E
PLACE SEDIMENT TUBE STA. 32+00.00
IE=27.69' 15" RCP
22C
CONST. LIMIT
REMOVE 21 LF EXISTING 15" RCP
CONST. CONC. DRIVE (TIE TO EXISTING)
23C
2' BUFFER
5' CONC. S/W
OPEN CHANNEL FLOW
24C
PLACE TYPE F INLET PROTECTION
+07.44 14.05' RT
+17.44 12.07' RT
PLACE 4 LF 15" RCP PIPE
24C
SILT FENCE
PLACE TYPE A INLET PROTECTION
PLACE CB TYPE-16 STA. 33+22.44 (SEE SHEET DT03 FOR DETAILS) RIM. ELEV. 27.74 INV. ELEV. 25.56
RELOCATE TELECOM BOX COORDINATE WITH OWNER
+27.44 12.08' RT
+37.44 14.10' RT
21F
PLACE 143 LF 15" RCP PIPE
HIGH POINT OF SWALE STA. 34+00.00 22.66' RT ELEVATION 27.92 (SEE SHEET XI3)
PLACE DI (24"x24") (SEE SHEET DT04 FOR DETAILS) STA. 33+22.43 20.53' RT RIM. ELEV. 27.54 INV. ELEV. 25.54
17
DED. 25' R/W PER P.B. AA, P. 014 W.C.H.
PLACE CB TYPE-16 STA. 34+68.01 (SEE SHEET DT03 FOR DETAILS) RIM. ELEV. 26.63 INV. ELEV. 24.87
+62.99 12.41' RT
2' BUFFER
+52.74 14.02' RT
23F
PLACE 4 LF 15" RCP PIPE
22F
CHAINLINK FENCE
PLACE DI (24"x24") (SEE SHEET DT04 FOR DETAILS) STA. 34+67.61 20.64' RT RIM. ELEV. 26.85 INV. ELEV. 24.85
IE=24.66' 15" RCP
END S/W AND C&G STA. 34+85.51 (TIE TO EXISTING)
DED. 25' R/W PER P.B. AA, P. 014 W.C.H.
CONSTRUCT ADA RAMP W/ DET. WARNING & 5'x5' LANDING AREA
APPLY CROSSWALK PAVEMENT MARKINGS
CONSTRUCT ADA RAMP W/ DET. WARNING RETROFIT
RELOCATE SIGNS
APPLY 24" STOP BAR PAVEMENT MARKING
PLACE 13 LF 15" RCP PIPE (TIE TO EXISTING CB) INV. OUT ELEV. 24.72
PLACE TYPE F INLET PROTECTION
OTRANTO ROAD
N 83°07' 13" E
CB RIM=26.84 IE=24.64
SURVEY STA. 34+85.51 END CONSTRUCTION EMMIE STREET
N

NOTES:
1) SEE SHEET 5A FOR ALIGNMENT CONTROL.
2) SEE SHEET DT01 FOR DETAIL OF CROSSWALK PAVEMENT MARKINGS.
3) SEE SHEET DT02 FOR DETAIL OF PIPE TRENCH.
4) SEE SHEET DT05 FOR DETAIL OF 2'-0" VERTICAL FACE CURB AND GUTTER.
5) SEE SHEET DT07 FOR DETAIL OF CONCRETE DRIVEWAYS.
6) SEE SHEET DT08 FOR DETAIL OF DETECTABLE WARNING SURFACE.
7) SEE SHEET DT09 FOR DETAIL OF DETECTABLE WARNING SURFACE RETROFIT.
8) SEE SHEET DT10 FOR DETAIL OF ADA PEDESTRIAN RAMP VARIANTS.
9) SEE SHEET DT11 FOR DETAIL OF ADA PEDESTRIAN RAMP #8.
10) SEE SHEET DT13 FOR DETAIL OF ADA PEDESTRIAN RAMP #5 & #7.
11) SEE SHEET DT14 FOR DETAIL OF ADA PEDESTRIAN RAMP #6.

HORIZONTAL 1"=20' 20 0 20 40
VERTICAL 1"=4' 4 0 4 8

EMMIE STREET EXISTING CENTERLINE GRADE

40 30 20

29.94 30.00 29.81 29.52 29.05 28.71 28.38 27.96 27.49 27.01 26.99

30+00 31+00 32+00 33+00 34+00 35+00

LEGEND

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S/W = SIDEWALK
R/W = RIGHT-OF-WAY

TYPE F (WEIGHTED) INLET PROTECTION (SEE SHEET EC04 FOR DETAILS)
TYPE A INLET PROTECTION (SEE SHEET EC03 FOR DETAILS)
SILT FENCE (NPDES) (SEE SHEET EC02 FOR DETAILS)
TEMPORARY SEDIMENT TUBE (SEE SHEET EC04 FOR DETAILS)
— — — NPDES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER MASON D. CONNER No. 30116 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

PLAN & PROFILE SHEET

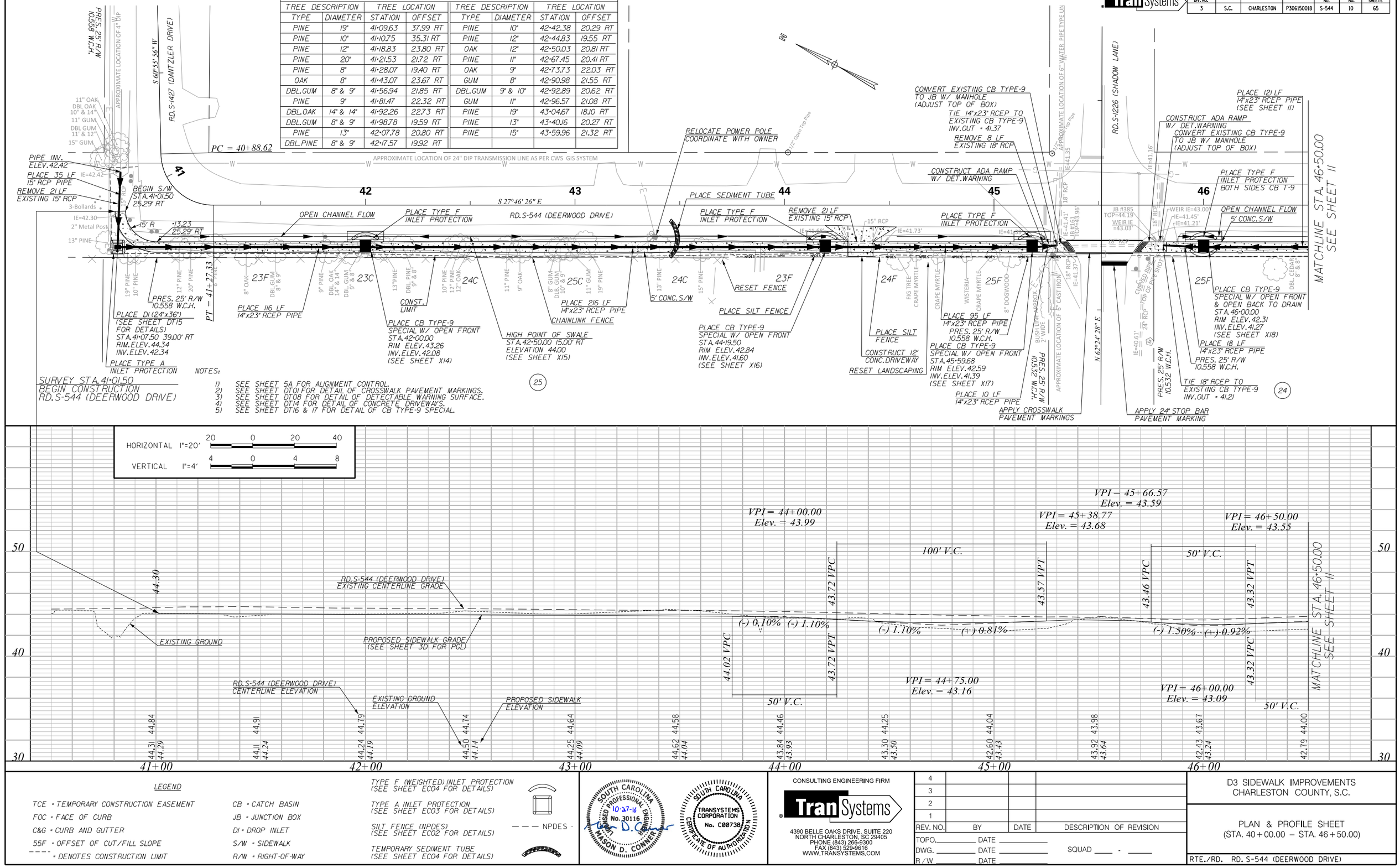
RTE./RD. EMMIE STREET

DESIGN BY:

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	S-544	10	65

TREE REMOVAL CHART

TREE DESCRIPTION		TREE LOCATION		TREE DESCRIPTION		TREE LOCATION	
TYPE	DIAMETER	STATION	OFFSET	TYPE	DIAMETER	STATION	OFFSET
PINE	19"	41+09.63	37.99 RT	PINE	10"	42+42.38	20.29 RT
PINE	10"	41+10.75	35.31 RT	PINE	12"	42+44.83	19.55 RT
PINE	12"	41+18.83	23.80 RT	OAK	12"	42+50.03	20.81 RT
PINE	20"	41+21.53	21.72 RT	PINE	11"	42+67.45	20.41 RT
PINE	8"	41+28.07	19.40 RT	OAK	9"	42+73.73	22.03 RT
OAK	8"	41+43.07	23.67 RT	GUM	8"	42+90.98	21.55 RT
DBL.GUM	8" & 9"	41+56.94	21.85 RT	DBL.GUM	9" & 10"	42+92.89	20.62 RT
PINE	9"	41+81.47	22.32 RT	GUM	11"	42+96.57	21.08 RT
DBL.OAK	14" & 14"	41+92.26	22.73 RT	PINE	19"	43+04.67	18.10 RT
DBL.GUM	8" & 9"	41+98.78	19.59 RT	PINE	13"	43+40.16	20.27 RT
PINE	13"	42+07.78	20.80 RT	PINE	15"	43+59.96	21.32 RT
DBL.PINE	8" & 9"	42+17.57	19.92 RT				



NOTES:

1) SEE SHEET 5A FOR ALIGNMENT CONTROL.
2) SEE SHEET DT01 FOR DETAIL OF CROSSWALK PAVEMENT MARKINGS.
3) SEE SHEET DT08 FOR DETAIL OF DETECTABLE WARNING SURFACE.
4) SEE SHEET DT14 FOR DETAIL OF CONCRETE DRIVEWAYS.
5) SEE SHEET DT16 & 17 FOR DETAIL OF CB TYPE-9 SPECIAL.

LEGEND

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TYPE F (WEIGHTED) INLET PROTECTION (SEE SHEET EC04 FOR DETAILS)

TYPE A INLET PROTECTION (SEE SHEET EC03 FOR DETAILS)

SILT FENCE (NPDES) (SEE SHEET EC02 FOR DETAILS)

TEMPORARY SEDIMENT TUBE (SEE SHEET EC04 FOR DETAILS)

— — — NPDES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 10-27-16 JASON D. CONNER

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TOPO. _____ DATE _____
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R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

PLAN & PROFILE SHEET
(STA. 40+00.00 – STA. 46+50.00)

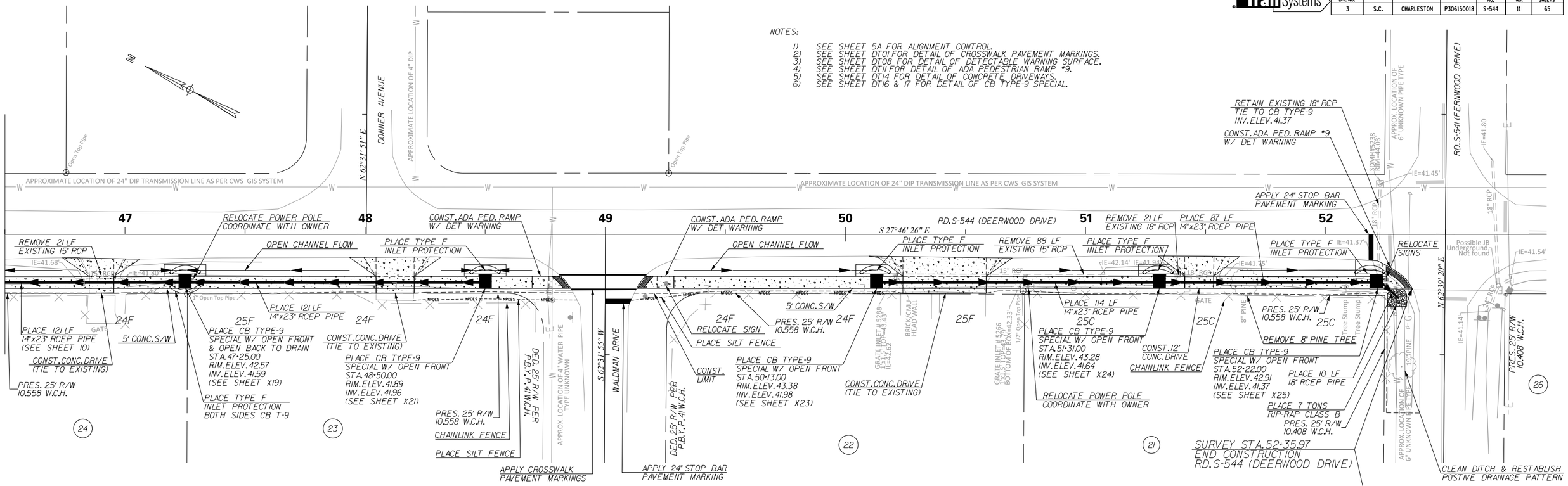
RTE./RD. RD. S-544 (DEERWOOD DRIVE)

DESIGN BY: TranSystems

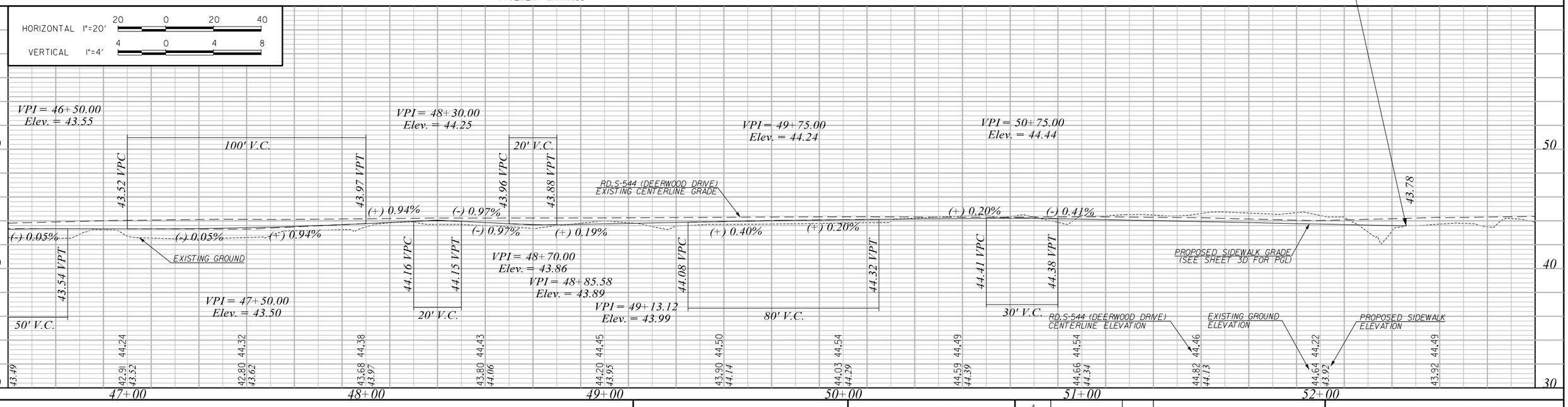
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	S-544	11	65

NOTES:

1) SEE SHEET 5A FOR ALIGNMENT CONTROL.
2) SEE SHEET DT01 FOR DETAIL OF CROSSWALK PAVEMENT MARKINGS.
3) SEE SHEET DT08 FOR DETAIL OF DETECTABLE WARNING SURFACE.
4) SEE SHEET DT11 FOR DETAIL OF ADA PEDESTRIAN RAMP *9.
5) SEE SHEET DT14 FOR DETAIL OF CONCRETE DRIVEWAYS.
6) SEE SHEET DT16 & 17 FOR DETAIL OF CB TYPE-9 SPECIAL.



HORIZONTAL 1"=20' (20 0 20 40)
VERTICAL 1"=4' (4 0 4 8)



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S/W = SIDEWALK
R/W = RIGHT-OF-WAY

TYPE F (WEIGHTED) INLET PROTECTION (SEE SHEET EC04 FOR DETAILS)
TYPE A INLET PROTECTION (SEE SHEET EC03 FOR DETAILS)
SILT FENCE (NPDES) (SEE SHEET EC02 FOR DETAILS)
TEMPORARY SEDIMENT TUBE (SEE SHEET EC04 FOR DETAILS)
— — — NPDES

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER MASON D. CONNER No. 30116 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

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D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

PLAN & PROFILE SHEET
(STA. 46+00.00 – STA. 52+39.97)

RTE./RD. RD. S-544 (DEERWOOD DRIVE)

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	EC01	65

EROSION CONTROL NOTES:

1. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDRO SEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.

2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
   - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
   - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.

3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INSTALLED INAPPROPRIATELY INCORRECTLY OR HAS FAILED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.

4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.

5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL REMOVE MUD/SOIL DAILY FROM PAVEMENT, AS MAY BE REQUIRED.

7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C REG. 72-300 ET SEQ. AND SCR100000.

8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.

9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.

10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.

11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.

12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.

13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.

14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE;

15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).

16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
   - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
   - WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
   - FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
   - SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.

17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.

18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

GRASSING NOTES:

1. GRASSING, BY HYDROSEEDING, SHALL BEGIN AS SOON AS FINE GRADING IS FINISHED.

2. GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES (IMPLEMENTING AND MAINTENANCE). GRADING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.

3. ALL AREAS WILL BE GRASSED EXCEPT FOR AREAS THAT RECEIVE STRUCTURES, PAVING OR STONE. GRASSING SHALL INCLUDE FINE GRADING, PREPARING THE SOIL WITH GROUND LIMESTONE AND FERTILIZER, SEEDING, MULCHING, WATERING, AND MAINTAINING, UNTIL ACCEPTANCE.

4. UNLESS A SOIL TEST INDICATES DIFFERENT REQUIREMENTS, LIME AND FERTILIZER WILL BE APPLIED AT RATES EQUAL OR EXCEED THOSE LISTED BELOW WHEN PLANTING GRASSES AND LEGUMES.

5. AGRICULTURAL LIMESTONE SHOULD BE SPREAD AT A RATE OF 1.5 TONS PER ACRE (70 LBS PER 1,000 SQ. FT.) OR THE EQUIVALENT.

6. FERTILIZERS (10-10-10 OR EQUIVALENT) SHOULD BE INCORPORATED (BY DISCING AND HARROWING) PRIOR TO PLANTING AND SHOULD BE SPREAD AT A RATE OF 1,000 LBS PER ACRE (23 LBS PER 1,000 SQ. FT.).

7. WHEN FEASIBLE WITHIN THE CONSTRUCTION PHASE, TOPSOIL WILL BE PLACED IN AREAS TO BE VEGETATED. THE GRASS SEED MIXTURE (RATES NOTED BELOW) WILL BE SPREAD ONTO THE TOPSOIL (WHICH CONTAINS THE APPROPRIATE AMOUNT OF LIME AND FERTILIZER) THAT HAS BEEN RAKED AND CONTOURED TO FINAL GRADE. IF THE TOPSOIL HAS BEEN PLACED AND CRUSTED BEFORE SEEDING CAN TAKE PLACE, THE TOP SOIL MUST BE TILLED. AFTER SPREADING THE GRASS SEED MIXTURE, THE AREAS SHOULD BE COVERED WITH STRAW (OR OTHER SUITABLE MATERIAL) AND WATERED.

8. LIME, FERTILIZERS, SEEDS AND APPROPRIATE MULCH MATERIALS MAY BE APPLIED SIMULTANEOUSLY IN A MIXTURE OF THESE MATERIALS AND WATER BY A HYDROSEEDER. THE WATER AND MATERIALS MIXTURE (SLURRY) WILL BE KEPT THOROUGHLY AGITATED DURING BLENDING AND SPRAYING AND WILL BE UNIFORMLY APPLIED AT A RATE THAT DOES NOT CAUSE EROSION.

SEEDING MIXTURE	PLANTING RATE (LBS/ACRE)		PLANTING DATES
ALONE MIXED	40	20	AUG. - OCT.
FESCUE, TALL	40	10	MAR. - APRIL
LESPEDEZA, ANNUAL	40	40	APRIL - JUNE
LESPEDEZA , SERICEA (SCARIFIED)	60	60	OCT. - APRIL
(UNSCARIFIED)	60	10	AUG. - NOV. & FEB., MAR.
RYE GRASS, (TEMP)			

SHEET NOTES

1. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE SOUTH CAROLINA STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR LAND DISTURBING ACTIVITIES. ALTERNATIVE TYPE OF DEVICES MAY BE SUBSTITUTED BY THE CONTRACTOR ONLY AFTER APPROVAL BY THE CITY OF NORTH CHARLESTON PUBLIC WORKS.

SEDIMENT CONTROL - SEQUENCE OF CONSTRUCTION:

1. FOR THE SITE, PERFORM OPERATIONS IN THE FOLLOWING SEQUENCE:
2. CONTACT THE CITY OF NORTH CHARLESTON BUILDING DEPARTMENT (TREE PROTECTION INSPECTIONS) AND PUBLIC WORKS DEPARTMENT (SILT FENCE INSPECTIONS) 48 HOURS PRIOR TO START OF CONSTRUCTION.
3. CLEAR AND GRUB AS REQUIRED FOR INSTALLATION OF EROSION CONTROLS.
4. INSTALL SILT FENCE, INLET PROTECTION, AND TREE PROTECTION.
5. CLEAR AND GRUB REMAINING AREA(S).
6. GRADE PROJECT SITE.
7. INSTALL UTILITIES; UTILIZE NEW STORM DRAINS AS THEY BECOME OPERABLE; INSTALL AND MAINTAIN INLET AND OUTLET PROTECTION THROUGHOUT CONSTRUCTION.
8. GRADE PROJECT AREA TO FINAL ELEVATION(S), INSTALL LANDSCAPING AND HYDROSEEDING.
9. CONTACT THE CITY OF NORTH CHARLESTON PUBLIC WORKS DEPARTMENT FOR FINAL INSPECTION AND CLOSE OUT OF THE PROJECT.
10. REMOVE SEDIMENT AND EROSION CONTROLS.

PROJECT CLOSEOUT NOTE

1. UPON COMPLETION OF CONSTRUCTION FOR THIS PHASE OF DEVELOPMENT, THE CONTRACTOR SHALL PROVIDE THE CITY OF NORTH CHARLESTON WITH PROJECT CLOSEOUT APPLICATION FORM, IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2.2.2 OF THE CITY OF NORTH CHARLESTON STORMWATER DESIGN MANUAL. THE CONTRACTOR SHALL PROVIDE A CERTIFICATION ON THE PROJECT CLOSEOUT APPLICATION FORM.

DRAINAGE NOTE

1. THE CONTRACTOR SHALL COMPLETE THE STORM DRAINAGE SYSTEM IN ACCORDANCE WITH THE APPROVED PLANS. IN THE EVENT THAT THE DEVELOPMENT CANNOT BE COMPLETED, DUE TO CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL, THE CONTRACTOR SHALL ENSURE THAT THE COMPLETED STORM DRAINAGE SYSTEM WILL ACCOMMODATE THE STORMWATER RUNOFF GENERATED FROM THE PROJECT AND ADJOINING PHASES OF DEVELOPMENT AND IS COLLECTED AND DISCHARGED IN A PROPER MANNER. IN THIS CASE, THE CONTRACTOR SHALL SUBMIT A PLAN TO PUBLIC WORKS FOR REVIEW/APPROVAL OF THE TEMPORARY DRAINAGE PLAN.

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 30116
10-27-16
JASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____ SQUAD ____ - ____
R / W _____ DATE _____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

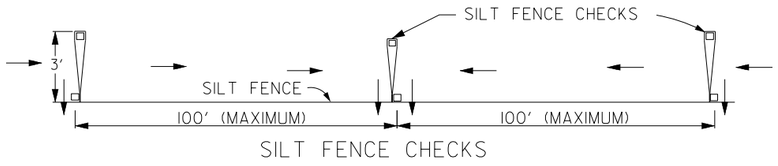
EROSION CONTROL DETAIL SHEET

RTE./RD. ALL ROADS

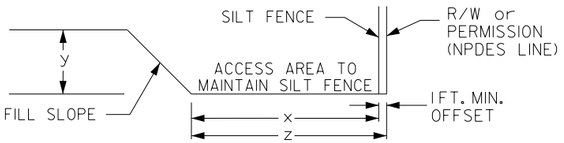
DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	EC02	65

SILT FENCE
(SHOWN IS A STANDARD SILT FENCE APPLICATION)



SILT FENCE CHECKS



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.

NOTES:

1. SILT FENCE CHECKS MUST BE LOCATED EVERY 100 FT. 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 THE FABRIC. POST SPACING WILL BE A MAXIMUM OF 6 FEET ON CENTER.

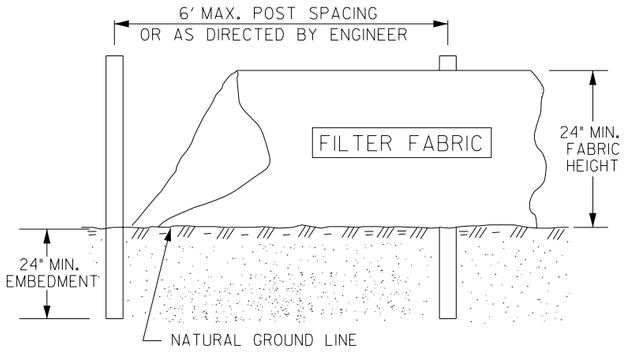
3. POSTS SHALL HAVE PROJECTIONS FOR FASTENING THE FABRIC TO THE POST. POSTS SHALL ALSO HAVE A SOIL PLATE NEAR THE BOTTOM OF THE POST, EXCEPT WHEN HEAVY CLAY SOILS ARE PREENT ON-SITE.

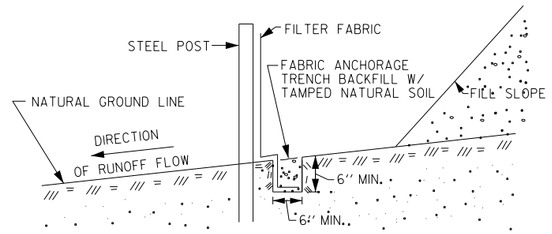
4. ATTACH FABRIC TO POSTS USING HEAVY-DUTY PLASTIC TIES THAT ARE EVENLY SPACED AND PLACED IN A MANNER TO PREVENT SAGGING OR TEARING OF THE FABRIC. IN ALL CASES, TIES SHOULD BE AFFIXED IN NO LESS THAN 4 PLACES.

5. SILT SHALL BE REMOVED AND DISPOSED OF WHEN SILT ACCUMULATES TO 1/3 THE HEIGHT OF THE FENCE. MAINTENANCE OF SILT FENCE WILL BE MEASURED AND PAID FOR BY THE ITEM OF SILT BASIN.

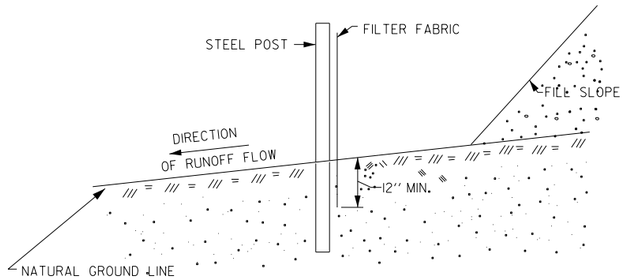
6. TYPICAL SILT FENCE APPLICATIONS REQUIRE 24 INCHES OF THE FABRIC TO BE ABOVE GROUND. WHEN NEEDED, THE HEIGHT OF SILT FENCE FABRIC ABOVE THE GROUND MAY BE GREATER THAN 24". SEE PLANS FOR APPLICATION OF HIGHER SILT FENCE, PAY ITEMS AND INSTALLATION METHODS.

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





TRENCH METHOD



PNEUMATIC METHOD

NOTE:

1. 12 INCHES OF THE FABRIC SHALL BE BURIED REGARDLESS, IF PLACED PNEUMATICALLY OR BY HAND WITH A TRENCHER. BOTH METHODS SHOWN HERE ON.

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
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2			
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TOPO. _____ DATE _____
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R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

EROSION CONTROL DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	EC03	65

INSTALLATION:

1. FILTER FABRIC IS USED FOR INLET PROTECTION WHEN STORM WATER 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%. USE IN AREAS RECIEVING CONCENTRATED FLOW IS NOT ACCEPTABLE. THIS PRACTICE CANNOT BE USEO 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 SCOOT 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 (3 %). 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 3 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 EXCEPT WHEN HEAVY CLAY SOILS ARE PRESENT ON-SITE. STEEL POSTS SHALL HAVE A METAL PLATE SECURELY A~TACHED SUCH THAT WHEN THE POST IS DRIVEN TO THE PROPER DEPTH. THE PLATE WILL BE BELOW GROUND LEVEL FOR ADDITIONAL STABILITY.

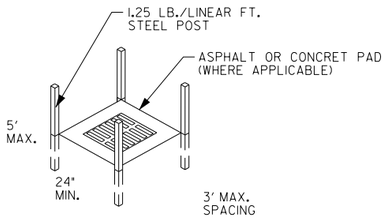
INSPECTION AND MAINTENANCE:

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

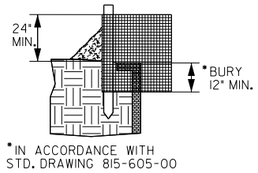
2. IF THE FABRIC BECOMES CLOGGED. IT SHOULD BE REPLACED.

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. SEDIMENT REMOVAL WILL BE PAID FOR AS SILT BASINS.

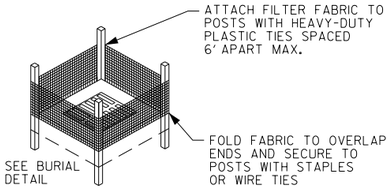
4. STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREAS ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL ANO SEDIMENT, ANO DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO THE ELEVATION OF THE INLET STRUCTURE CREST. USE APPROPRIATE PERMANENT STABILIZATION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



POST INSTALLATION DETAIL

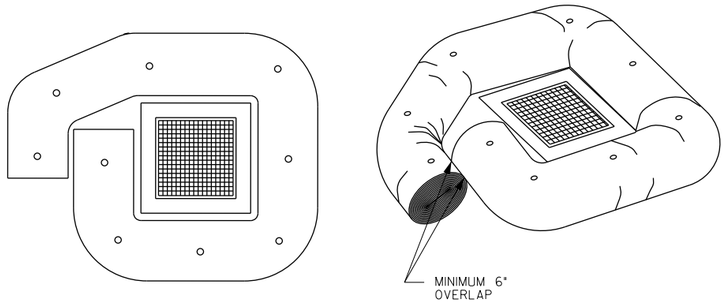


FILTER FIBER BURIAL DETAIL



FILTER FABRIC INSTALLATION DETAIL

TYPE A
LOW FLOW INLET FILTERS
(FILTER FABRIC INLET PROTECTION)
N.T.S.



TYPE A
LOW FLOW INLET FILTERS
(SEDIMENT TUBE INLET PROTECTION)
N.T.S.

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 ONTOP 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 (1INCH X 1INCH) OR STEEL POSTS (STANDARD "U" OR "T" SECTIONS WITH A MINIMUM WEIGHT OF 1.25 POUNDS PER FOOT) A MINIMUM OF 4 FEET IN LENGTH PLACED ON 2 FOOT CENTERS. INTERTWINE THE STAKES WITH THE OUTER MESH ON THE DOWNSTREAM SIDE, AND DRIVE THE STAKES INTO THE GROUND TO A MINIMUM DEPTH OF 2.0 FEET LEAVING LESS THAN 1FOOT OF STAKE ABOVE THE EXPOSED SEDIMENT TUBE.

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. SEDIMENT TUBES SHALL ALSO BE INSPECTED EVERY 7 DAYS.

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

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

4. DISPOSE OF SEDIMENT TUBES IN REGULAR MEANS AS NON-HAZARDOUS INERT MATERIAL.

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
No. 30116
10-27-16
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

EROSION CONTROL DETAIL SHEET

RTE./RD. ALL ROADS

NOTES:

1. DRAWING SHOWS TYPE I6 CATCH BASIN.

2. NON-WEIGHTED TUBES SHALL BE INSTALLED IMMEDIATELY AFTER GRADING AND CONSTRUCTION OF CATCH BASIN BOX. SEDIMENT TUBE 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 1ACRE.

3. INLET TUBES MAY BE TEMPORARILY MOVED DURING CONSTRUCTION AS NEEDED.

4. NON WEIGHTED SEDIMENT TUBES SHALL BE STAKED DOWN WITH 1INCH X 1INCH WOODEN STAKES OR 1.25 LBS/ LINEAR FOOT STEEL POSTS A MINIMUM OF 3 FEET IN LENGTH PLACED ON 2 FOOT CENTERS. THE STAKES SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 1.0 FOOT LEAVING LESS THAN 1FOOT OF STAKE EXPOSED ABOVE THE NON-WEIGHTED TUBE. INSTALL NON-WEIGHTED INLET TUBES SO THE TOP OF THE TUBE IS BELOW THE TOP OF THE INSTALLED CURB LINE TO INSURE THAT ALL OVERFLOW OR OVERTOPPING WATER HAS THE ABILITY TO ENTER THE INLET UNOBSTRUCTED.

5. THE STAKES SHALL BE INTERTWINED WITH THE OUTER MESH ONLY AND SHALL BE PLACED ON THE DOWNSTREAM SIDE OF THE TUBE. REFER TO MANUFACTURER S RECOMMENDATIONS FOR OTHER STAKING DETAILS.

6. 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.

7. INSTALL WEIGHTED INLET TUBES LYING FLAT ON THE GROUND WITH NO GAPS BETWEEN THE UNDERLYING SURFACE AND THE TUBE.

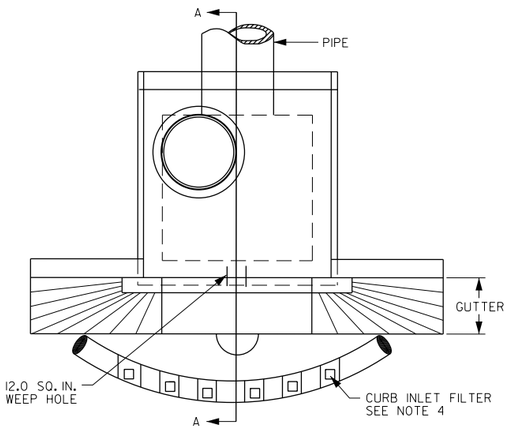
8. DO NOT COMPLETELY BLOCK INLETS WITH INLET TUBES. INSTALL WEIGHTED INLET TUBES IN SUCH A MANNER THAT ALL OVERFLOW CAN ENTER THE INLET UNOBSTRUCTED. TO AVOID POSSIBLE FLOODING, 2 OR 3 CONCRETE CINDER BLOCKS MAY BE PLACEDBETWEEN THE WEIGHTED INLET TUBE AND THE INLET.

9. FOR WEEP HOLE APPLCATIONS. BOTH WEIGHTED AND NON-WEIGHTED INLET TUBES ARE APPLICABLE.

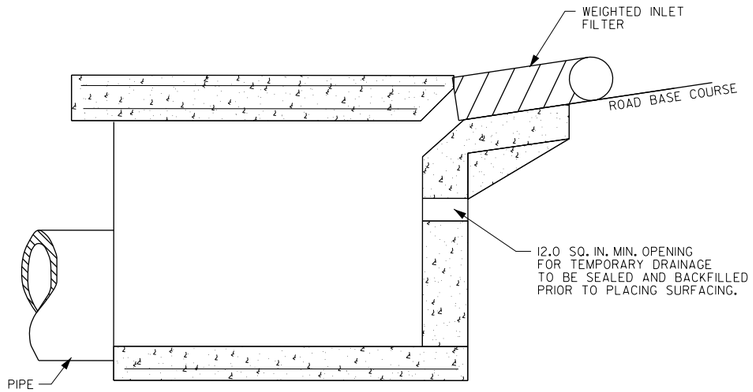
10. ALL WEIGHTED TYPE F INLET STRUCTURE FILTERS ARE APPLICABLE AS TYPE E INLET STRUCTURE FILTERS.

11. REPLACE INLET TUBES DURING INSTALLATIDN AS DIRECTED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.

12. ALL TYPE F INLET FILTERS SHALL BE INSPECTED EVERY 7 CALENDAR DAYS.

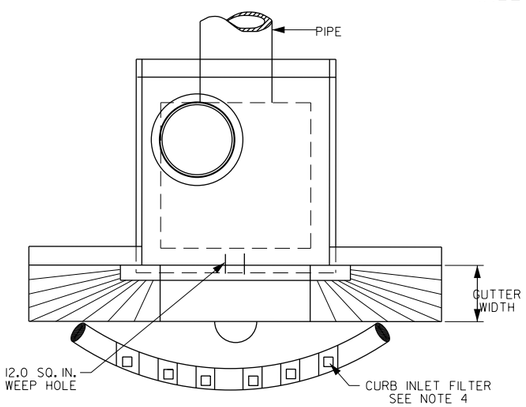


TOP VIEW

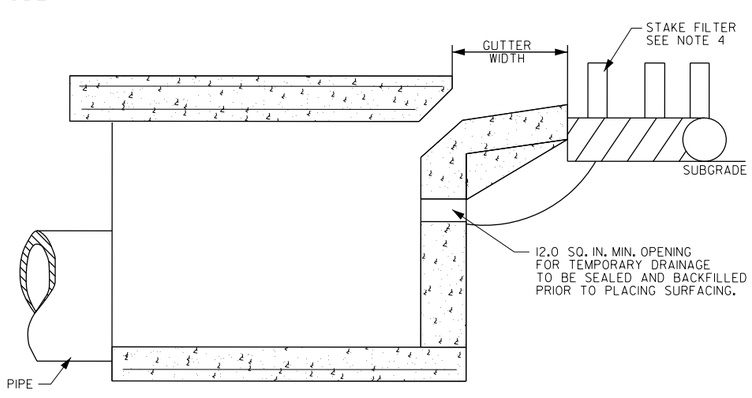


SECTION A-A

TYPE F
WEIGHTED
INLET TUBE

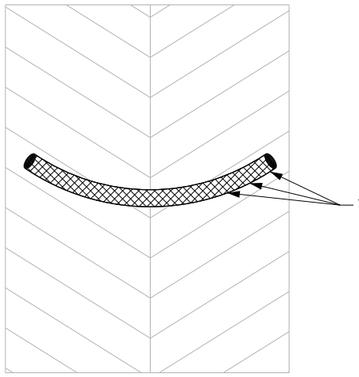


TOP VIEW

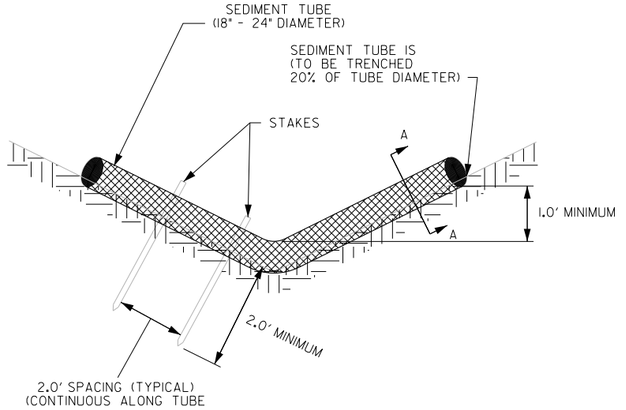


SECTION A-A

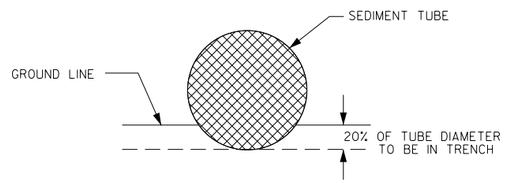
TYPE F
NON-WEIGHTED
INLET TUBE



TOP VIEW
OF DITCH



END VIEW
OF DITCH



SECTION A-A

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	EC04	65

NOTES:

1. SEDIMENT TUBE SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 815 OF THE SCDOT STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION (LATEST EDITION), AND MUST BE LISTED ON SCDOT QUALIFIED PRODUCT LIST NUMBER 57. SEDIMENT TUBES MUST MEET THE CRITERIA OUTLINED IN THE SUPPLEMENTAL SPECIFICATIONS BEFORE BEING LISTED ON QPL. AND BE FREE FROM DEFECTS OR TRANSPORTATION DAMAGE.

2. PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE SEDIMENT TUBES ARE IN COMPLETE CONTACT WITH UNDERLYING SOIL. SEDIMENT TUBES ARE TO BE 18-24 INCHES IN DIAMETER AND ARE TO BE TRENCHED TO A DEPTH OF 20' OF TUBE DIAMETER. LAY THE SEDIMENT TUBE FLAT IN THE U-SHAPED TRENCH AND COMPACT THE UPSTREAM SEDIEMNT TUBE SOIL INTERFACE. PLACE AND ANCHOR THE SEDIMENT TUBE ENDS SO THEY ARE POSITIONED UPSTREAM OF THE SEDIMENT TUBE CENTER POINT. SEDIMENT TUBES FOR DITCH CHECKS WEIGHING MORE THAN 18 POUNDS PER FOOT DO NOT REQUIRE TRENCHING.

3. SEDIMENT TUBE SHALL BE INSTALLED IMMEDIATELY AFTER GRADING AND CONSTRUCTION. SEDIMENT TUBE SHALL BE MAINTAINED DURING SUBGRADE AND BASE PREPARATION UNTIL BASE COURSE IS COMPLETE. SEDIMENT TUBES MAY BE TEMPORARILY MOVED DURING CONSTRUCTION.

4. SEDIMENT TUBES ARE TO BE INSTALLED PERPENDICULAR TO WATER FLOW AND EXTEND UP SIDE SLOPES A MINIMUM OF 1FOOT ABOVE DESIGN FLOW DEPTH. SPACE TUBES ACCORDING TO THE FOLLOWING TABLE:

SEDIMENT TUBE_____LF

SLOPE	MAXIMUM SEDIMENT TUBE SPACING
LESS THAN 2%	150 FEET
2 %	100 FEET
3 %	75 FEET
4 %	50 FEET
5 %	40 FEET
6 %	30 FEET
GREATER THAN 6%	25 FEET

5. STAKE THE SEDIMENT TUBES FOR DITCH CHECKS USING STAKES WITH A MINIMUM MEASURED DIMENSION OF 3/4" x 3/4" AND MAXIMUM MEASURED DIMENSION OF 2" x 2", STEEL POSTS WITHOUT A KICK PLATE AND PAINTING IS NOT REQUIRED. SPACE POSTS OR STAKES ON 2' CENTERS AND DRIVE THEM INTO THE GROUND TO A DEPTH OF 2' OR TO THE MAXIMUM EXTENT PRACTIBLE. INSTALL THE STAKES ON THE DOWNSTREAM THIRD OF THE SEDIMENT TUBE. SEDIMENT TUBES FOR DITCH CHECKS WEIGHING MORE THAN 18 POUNDS PER FOOT DO NOT REQUIRE STAKING.

6. SELECT PROPER LENGTH OF TUBE TO MINIMIZE THE NUMBER NEEDED TO SPAN THE TOP VIEW WIDTH OF DRAINAGE AREA. ONE CONTINUOUS LENGTH IS PREFERRED COMPARED TO TWO OVERLAPPING TUBES. IF NECESSARY. SEDIMENT TUBES CAN BE OVERLAPPED A MINIMUM OF 6 INCHES TO PREVENT PASSAGE OF FLOW AND SEDIMENT THROUGH FIELD JOINT.

7. INSTALL SEDIMENT TUBES FOR DITCH CHECKS OVER BARE SOIL, MULCHED AREAS, OR EROSION CONTROL BLANKETS. KEEP SEDIMENT TUBES FOR DITCH CHECKS IN PLACE UNTIL FULLY ESTABLISHED VEGETATION AND ROOT SYSTEMS HAVE COMPLETELY DEVELOPED AND CAN SURVIVE ON THEIR OWN.

8. INSPECT SEDIMENT TUBES AFTER INSTALLATION FOR GAPS UNDER THE SEDIMENT TUBES AND FOR GAPS BETWEEN THE JOINTS OF ADJACENT ENDS OF SEDIMENT TUBES. INSPECT SEDIMENT TUBES EVERY 7 DAYS. REPAIR ALL RILLS, GULLIES, AND UNDERCUTTING NEAR SEDIMENT TUBES. REMOVE ALL SEDIMENT DEPOSITS THAT IMPAIR THE FILTRATION CAPABILITY OF SEDIMENT TUBES WHEN THE SEDIMENT REACHES 1/3 THE HEIGHT OF THE EXPOSED SEDIMENT TUBE.

9. REMOVE AND/OR REPLACE INSTALLED SEDIMENT TUBES AS REQUIRED TO ADAPT TO CHANGING CONSTRUCTION SITE CONDITIONS. REMOVE SEDIMENT TUBES WHEN THE FUNCTIONAL LONGEVITY IS EXCEEDED AS DETERMINED BY THE ENGINEER, INSPECTOR, OR MANUFACTURER'S REPRESENTATIVE. GATHER SEDIMENT TUBES AND DISPOSE OF THEM IN REGULAR MEANS AS NON-HAZARDOUS INERT MATERIAL.

10. PRIOR TO FINAL STABILIZATION, BACKFILL ALL TRENCHES. DEPRESSIONS. AND OTHER GROUND DISTURBANCES CAUSED BY THE REMOVAL OF SEDIMENT TUBES.

11. CLEAN OUT OF TUBES WILL BE PAID FOR AS SILT BASIN IN C.Y.

12. PAYMENT SHALL INCLUDE ALL MATERIALS. LABOR. TOOLS, EQUIPMENT, MAINTENANCE, AND INCIDENTALS NECESSARY TO COMPLETE WORK.

13. PAY ITEM SHALL BE:
SEDIMENT TUBE_____LF

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO._____ DATE _____
DWG. _____ DATE _____ SQUAD ____ - ____
R/W _____ DATE _____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

EROSION CONTROL DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT01	65

REFERENCES

SIGNING AND MARKING ENGINEER

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 23845 MARK H. ANTHONY

SIGNATURE

1-20-09
DATE

#	DATE	CHK	DESCRIPTION
6			
5			
4			
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1			
0			

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

STANDARD DRAWING

STANDARD MARKINGS FOR INTERSECTIONS

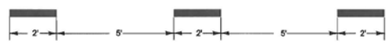
625-305-00

EFFECTIVE LETTING DATE | MAY 2009

PAVEMENT MARKING TYPICAL
STANDARD MARKINGS FOR INTERSECTIONS

ADDITIONAL GUIDANCE THROUGH INTERSECTIONS

- THE PATTERN ILLUSTRATED BELOW IS TO BE USED TO EXTEND MARKINGS THROUGH LARGE INTERSECTIONS WHERE ADDITIONAL GUIDANCE IS NEEDED.



- THE ABOVE MARKINGS SHOULD ALWAYS BE USED TO GUIDE AND SEPARATE TRAFFIC WHERE COMPOUND TURNING MANEUVERS OCCUR. SUCH MARKINGS WILL BE SHOWN ON THE PLANS WHERE NEEDED.
- THE BROKEN LINES ARE TO BE THE SAME COLOR AS THE LINE THEY EXTEND.

STOPLINES

- ALL STOPLINES ARE TO BE MARKED WITH 24" SOLID WHITE LINES.
- WHERE CROSSWALK MARKINGS EXIST, STOPLINES SHOULD BE PLACED IN ADVANCE OF, AND PARALLEL TO, THE NEAREST CROSSWALK LINE. A MINIMUM DISTANCE OF 4' SHOULD EXIST BETWEEN THE CROSSWALK AND STOPBAR.
- IN THE ABSENCE OF A MARKED CROSSWALK, THE STOPLINE SHOULD BE PLACED AT A DISTANCE OF NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE PAVEMENT EDGE OF THE INTERSECTING ROUTE.

APPLICATION OF MARKINGS AT INTERSECTIONS

1. STOP LINES ARE TO BE APPLIED AT ALL SIGNALIZED INTERSECTIONS.
2. AT NON-SIGNALIZED INTERSECTIONS, THE ROADWAYS WHICH MUST STOP ARE TO HAVE STOPLINES IF CENTERLINES ARE PRESENT.
3. WHERE STOPLINES ARE USED, LANE LINES AND CENTER LINES WILL TERMINATE AT THE STOPLINE. THEY DO NOT EXTEND ACROSS STOPLINES NOR DO THEY TERMINATE PRIOR TO STOPLINES. LOCATION OF STOPLINES SHOULD BE DETERMINED PRIOR TO MARKING LONGITUDINAL LINES.
4. LANE LINES TERMINATING AT A STOPLINE SHOULD NOT BE LESS THAN 10 FEET IN LENGTH, HOWEVER THEY MAY BE LONGER. THE LAST LANE LINE WILL BE 10-40 FEET LONG.

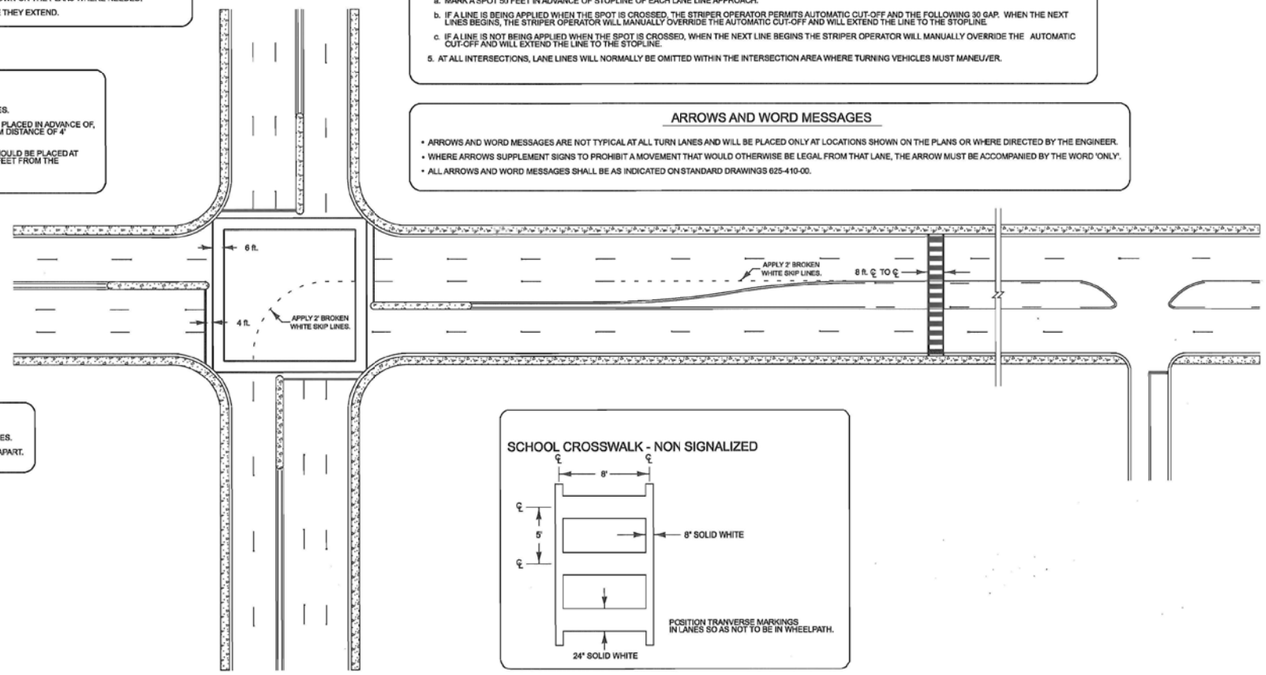
*** THE FOLLOWING PROCEDURE WILL AID IN THIS DETERMINATION:***

a. MARK A SPOT 50 FEET IN ADVANCE OF STOPLINE OF EACH LANE LINE APPROACH.
b. IF A LINE IS BEING APPLIED WHEN THE SPOT IS CROSSED, THE STRIPER OPERATOR PERMITS AUTOMATIC CUT-OFF AND THE FOLLOWING 30 GAP. WHEN THE NEXT LINES BEGINS, THE STRIPER OPERATOR WILL MANUALLY OVERRIDE THE AUTOMATIC CUT-OFF AND WILL EXTEND THE LINE TO THE STOPLINE.
c. IF A LINE IS NOT BEING APPLIED WHEN THE SPOT IS CROSSED, WHEN THE NEXT LINE BEGINS THE STRIPER OPERATOR WILL MANUALLY OVERRIDE THE AUTOMATIC CUT-OFF AND WILL EXTEND THE LINE TO THE STOPLINE.

5. AT ALL INTERSECTIONS, LANE LINES WILL NORMALLY BE OMITTED WITHIN THE INTERSECTION AREA WHERE TURNING VEHICLES MUST MANEUVER.

ARROWS AND WORD MESSAGES

- ARROWS AND WORD MESSAGES ARE NOT TYPICAL AT ALL TURN LANES AND WILL BE PLACED ONLY AT LOCATIONS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER.
- WHERE ARROWS SUPPLEMENT SIGNS TO PROHIBIT A MOVEMENT THAT WOULD OTHERWISE BE LEGAL FROM THAT LANE, THE ARROW MUST BE ACCOMPANIED BY THE WORD 'ONLY'.
- ALL ARROWS AND WORD MESSAGES SHALL BE AS INDICATED ON STANDARD DRAWINGS 625-410-00.



CROSSWALKS

- ALL CROSSWALKS ARE TO BE MARKED WITH 8" SOLID WHITE LINES.
- CROSSWALK LINES ARE TO BE SPACED NOT LESS THAN 6 FEET APART.

SCHOOL CROSSWALK - NON SIGNALIZED

THIS DRAWING IS NOT TO SCALE

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 JASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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NORTH CHARLESTON, SC 29405
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WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R / W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT02	65

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

SCDOT SUPPLEMENTAL TECHNICAL SPECIFICATION SC-M-714
ENGINEERING DIRECTIVE MEMORANDUM 24
INSTRUCTIONAL BULLETIN 2010-01

RELATED DRAWINGS & KEYWORDS

714-105-00
714-110-00
714-505-00
714-010-00

PRECONSTRUCTION SUPPORT ENGINEER

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

SIGNATURE

APRIL 30, 2010
DATE

6			
5			
4			
3	3/2010	JBH	DET3 OD
2	3/2009	HJC	DET4 COMPACTION NOTES
1	7/2008	HJC	GENERAL REVISIONS
0	3/2008	DSO	NEW STANDARD
#	DATE	CHK	DESCRIPTION

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

STANDARD DRAWING

PIPE CULVERTS (PIPE TRENCH TYPICAL PREPARATION)

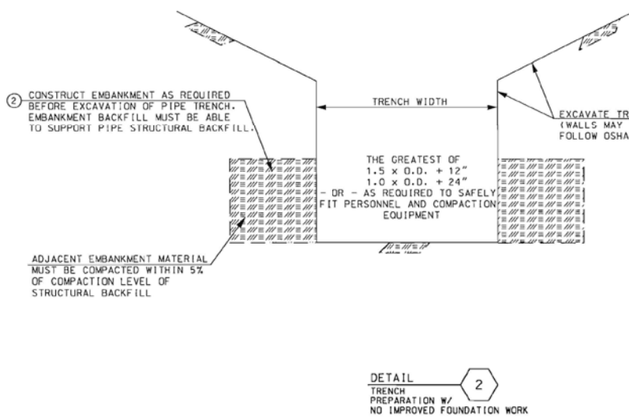
714-005-00

EFFECTIVE LETTING DATE: JANUARY 2011

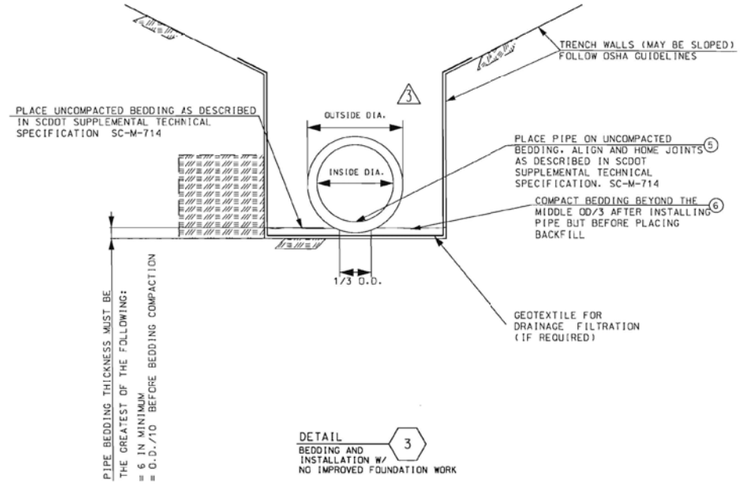
THIS DRAWING IS NOT TO SCALE

(1) ALL PIPE REQUIRE GOOD FOUNDATION MATERIAL. WHEN SITE SOILS REQUIRE THE INSTALLATION OF AN IMPROVED PIPE FOUNDATION, FOLLOW SCDOT STANDARD DRAWING 714-020-00.

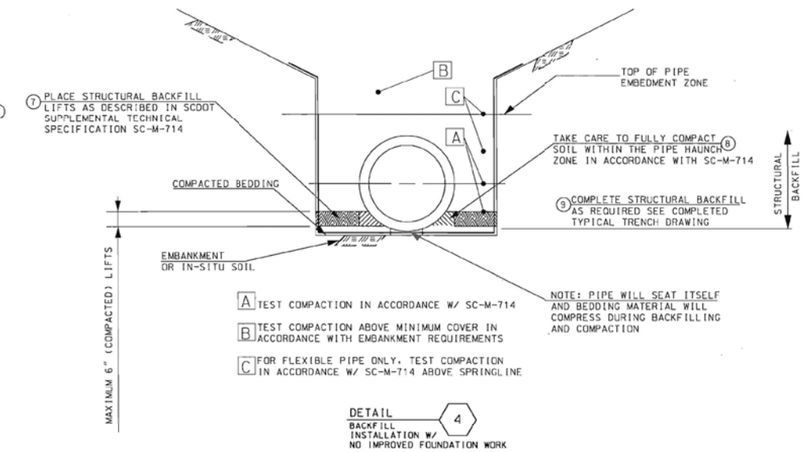
DETAIL 1 FOUNDATION REQUIREMENTS



DETAIL 2 TRENCH PREPARATION W/ NO IMPROVED FOUNDATION WORK



DETAIL 3 BEDDING AND INSTALLATION W/ NO IMPROVED FOUNDATION WORK



DETAIL 4 BACKFILL INSTALLATION W/ NO IMPROVED FOUNDATION WORK

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
JASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM

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PHONE (843) 266-9300
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT03	65

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, II

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

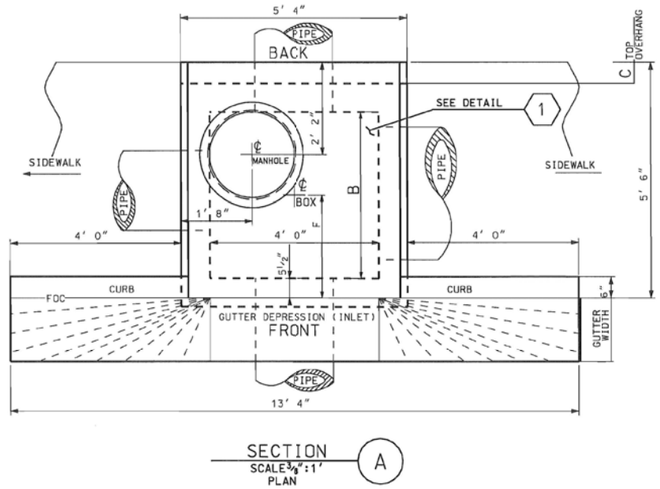
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

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'-10 1/2"	4'-0"
C	6"	6 1/2"
D	1'-0"	1'-1 1/2"
E	3/4"	SEE 4x4 PC BOX
F	2'-4 3/4"	2'-5 1/2"

SEE SHEET 719-016-02 FOR DETAILS AND NOTES

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

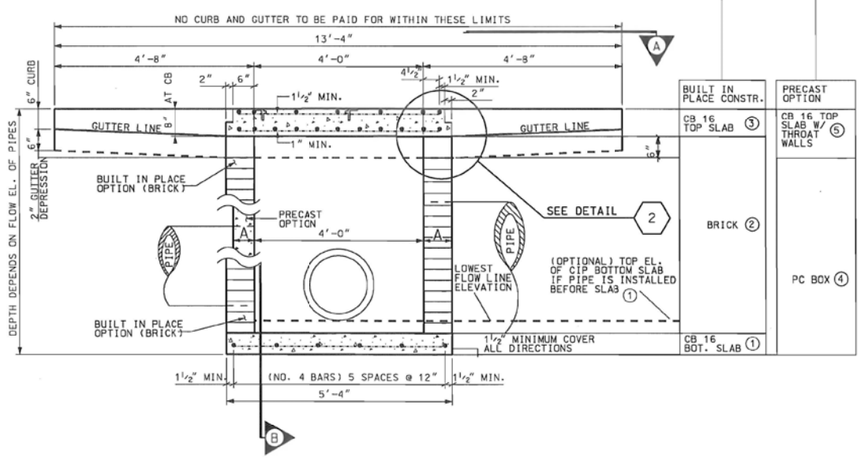
USE WITH SIDEWALK/CURB & GUTTER

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

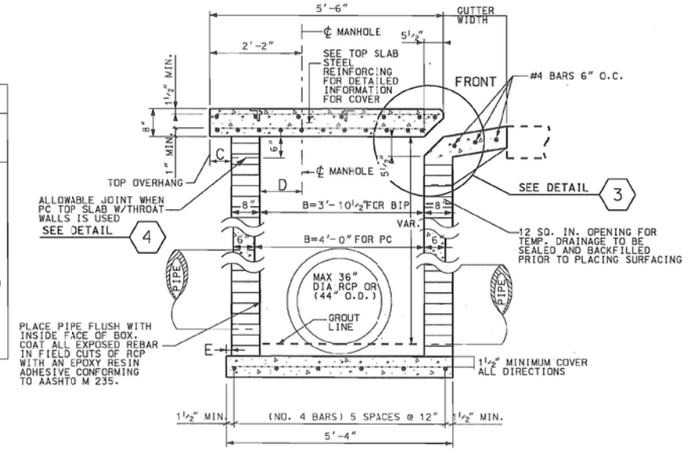
SEE QUALIFIED PRODUCT LIST 14 FOR MANUFACTURERS OF PRECAST ITEMS.

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")



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



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

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT04	65

REFERENCES

NATIONAL DOCUMENTS

ASTM C55, ASTM A706, AASHTO M105, AASHTO M306

SCDOT DOCUMENTS

QUALIFIED PRODUCT LIST 13,
QUALIFIED PRODUCT LIST 14,
QUALIFIED PRODUCT LIST 45

RELATED DRAWINGS & KEYWORDS

719-105-01 TO 719-105-02, 719-110-01, 719-550-00, 719-420-00, 719-425-00, 719-305-00, 719-310-00,

PRECONSTRUCTION SUPPORT ENGINEER

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

E S Eagle
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

DROP INLET (24"X24") DETAILS

719-105-01

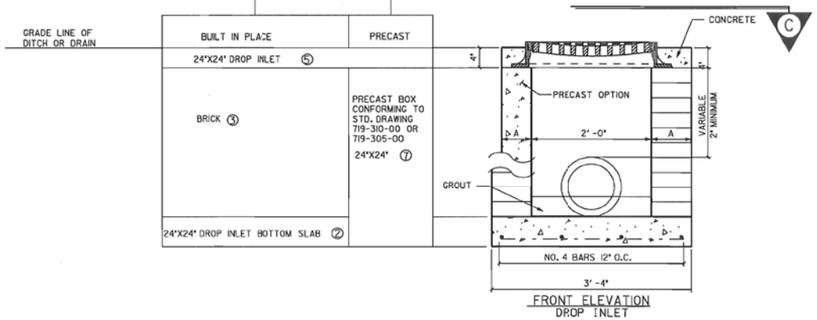
EFFECTIVE LETTING DATE: MAY 2008

CONTRACTOR MAY USE PRECAST OR BUILT IN PLACE CONSTRUCTION AS NOTED OR COMBINE OPTIONS AS DESIRED. SEE QUALIFIED PRODUCT LIST 14 FOR MANUFACTURERS OF PRECAST ITEMS.

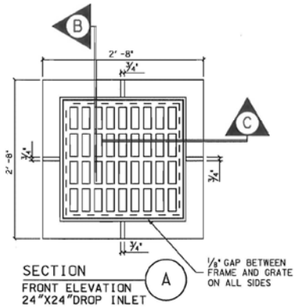
24"X24" DROP INLET

BUILT IN PLACE:
② 24"X24" DROP INLET BOTTOM SLAB (PC OR CIP 40"X40"X6")
AND
③ BRICK WALLS (8")
AND
⑤ 24"X24" DROP INLET FRAME AND GRATE

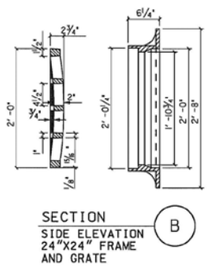
PRECAST:
⑦ PRECAST BOX CONFORMING TO STD DRAWING 719-310-00 OR 719-305-00 (2'X2'XH)
AND
⑤ 24"X24" DROP INLET FRAME AND GRATE



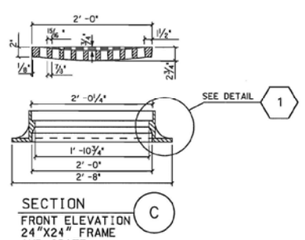
FRONT ELEVATION
DROP INLET



SECTION
FRONT ELEVATION
24"X24" DROP INLET
A



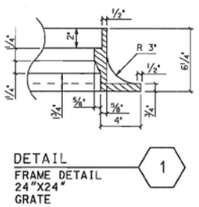
SECTION
SIDE ELEVATION
24"X24" FRAME AND GRATE
B



SECTION
FRONT ELEVATION
24"X24" FRAME AND GRATE
C

TABLE 719-105B
STANDARD PC ITEMS FOR DROP INLET
(24"X24") DROP INLET BOTTOM SLAB (PC OR CIP 40"X40"X6") SEE ALSO STD. DRAWING 719-310-00 OR 719-305-00

TABLE 719-105A		
24"X24" DROP INLET		
DIMENSION	BUILT IN PLACE OPTION	PRECAST
A	8"	6"
B	24"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X2'XH) PRECAST BOX
C	3'-4"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X2'XH) PRECAST BOX



DETAIL
FRAME DETAIL
24"X24" GRATE
1

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

NOTES:
1. SEE 719-110-01 FOR DROP INLET (24"X 36"). FOR BUILT IN PLACE CONSTRUCTION OF THE CATCH BASIN WALLS, EITHER BRICK MASONRY (WALLS ONLY) OR CIP CLASS 3000 CONCRETE MAY BE USED. FOR PRECAST CONSTRUCTION, A MINIMUM OF CLASS 4000P CONCRETE SHALL BE USED.

2. CONCRETE WALLS ARE TO BE 6" THICK WITH A MINIMUM REINFORCING STEEL AREA 0.20 SQUARE INCHES PER FOOT UNLESS NOTED. FOR BRICK, THE WALLS ARE TO BE 8" THICK CONCRETE BRICK AND SIMILAR SOLID UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 55, GRADE S-11. THE INTERIOR DIMENSIONS ARE TO REMAIN AS SHOWN FOR EITHER TYPE OF CONSTRUCTION.

3. THE BOTTOM SLAB OF THE BOX SHALL BE A MINIMUM OF 6" THICK REINFORCED CONCRETE (CLASS 3000 OR 4000P) WITH A REINFORCING STEEL AREA OF 0.20 SQUARE INCHES PER FOOT. WIRE MESH BE USED IN LIEU OF STEEL BARS PROVIDED A MINIMUM OF 0.20 SQUARE INCHES PER FOOT I S MET.

4. MORTAR SHALL BE TYPE S OR M.

5. REINFORCING STEEL SHALL BE ASTM A-706. LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 60. WIRE MESH SHALL CONFORM TO AASHTO M 55 AND M

6. SEE STANDARD DRAWING 719-550-00 FOR STEPS, WHICH ARE REQUIRED WHEN STRUCTURE DEPTH EXCEEDS 4'-6".

7. SEE STANDARD DRAWINGS 719-420-00 AND 719-425-00 FOR DEPTHS GREATER THAN 12'. PRECAST CONCRETE CIRCULAR DRAINAGE STRUCTURES ARE REQUIRED WHEN THE DEPTH FROM THE TOP OF THE DRAINAGE BOX BOTTOM SLAB TO THE TOP OF THE GROUND EXCEEDS 12'-0".

8. LOCATION AND SIZE OF PIPES ARE SITE SPECIFIC, (SEE DRAINAGE PLANS). THE BOTTOM OF THE CATCH BASIN IS TO BE GROUTED TO THE LOWEST FLOW LINE ELEVATION OF ALL PIPES. BOTTOM SLAB IS CAST IN PLACE WITH PIPES INSTALLED. BOTTOM SLAB THICKNESS MUST BE ACHIEVED BEYOND PIPE OUTSIDE DIAMETER.

9. THE FLOOR OF THE BASIN MUST SLOPE IN THE DIRECTION OF THE OUTLET PIPE AS SHOWN AND THE INSIDE OF OUTLET PIPE SHALL BE FLUSH WITH FLOOR OF BASIN.

10. SEE STANDARD DRAWING 719-305-00 OR 719-310-00 FOR MAXIMUM PIPE DIAMETERS. THE PIPE SIZES SHOWN ARE MAXIMUM FOR BRICK AND PRECAST BOXES WHEN PIPE ENTERS PERPENDICULAR AND AT THE CENTER OF THE BOX WALL. CONTRACTOR SHOULD CONFIRM THAT PIPE USED FITS APPROPRIATELY INTO BOX.

FRAME AND GRATE NOTES:
11. ALL CASTINGS SHALL CONFORM TO AASHTO M 105, CLASS 35B AND THE SPECIFICATIONS OF AASHTO M 306

12. (a) STEEL GRATES AND FRAME MAY BE USED IN LIEU OF CAST IRON AS LONG AS THE LOADING (NOTE 12d) AND HYDRAULIC REQUIREMENTS ARE MET, AND ARE ON THE DEPARTMENT'S LIST OF APPROVED SUPPLIERS. (QUALIFIED PRODUCT LIST 45)
(b) STEEL GRATES SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
(c) STEEL GRATES AND FRAMES SHALL BE DIMENSIONED TO BE INTERCHANGEABLE WITH EACH PIECE OF THE CAST IRON GRATE AND FRAME SHOWN. STEEL GRATES MUST HAVE POSITIVE MEANS TO BE RETAINED IN THE FRAME.
(d) STRENGTH REQUIREMENTS OF STEEL GRATES AND FRAMES MUST MEET AASHTO M 306
(e) MANUFACTURERS DESIRING TO BE PLACED ON THE DEPARTMENT'S QUALIFIED PRODUCT LIST SHOULD CONTACT THE MATERIALS AND RESEARCH ENGINEER FOR PROCEDURES.

13. THE LONGEST DIMENSIONS OF THE OPENING IN THE IRON GRATE SHOULD BE ORIENTED IN THE DIRECTION OF FLOW, IF PRACTICABLE. THIS GRATE IS NOT SUITABLE FOR PEDESTRIAN TRAFFIC BECAUSE GRATE OPENINGS EXCEED 1/2".

14. AS SHOWN BY THIS DRAWING, THE FRAME IS SET LEVEL, BUT THE ENGINEER MAY SET SAME ON SLOPE AS REQUIRED BY LOCAL DRAINAGE CONDITIONS.

15. AFTER THE FRAME IS SET IN ITS FINAL POSITION, IT IS TO BE ENCASED WITH CONCRETE AS SHOWN BY DRAWING.

16. ALL MANUFACTURING PROCESSES FOR THE FRAME AND GRATE MUST OCCUR IN THE UNITED STATES.

PRECAST NOTES:
17. THE USE OF PRECAST UNITS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING SATISFACTORY INSTALLATIONS. SEE STANDARD DRAWINGS FOR PRECAST CONCRETE DRAINAGE BOX OR STRUCTURE FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

18. LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSRY . ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION. ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.

19. THE CONTRACTOR SHALL USE A SINGLE SOURCE MANUFACTURER CHOSEN FROM THE LIST ON QUALIFIED PRODUCT LIST 14 FOR PRECAST ITEMS ON THIS DRAWING.

20. FOLLOW QUALIFIED PRODUCT POLICY 14 IN ORDER TO BE LISTED ON QUALIFIED PRODUCT LIST 14.

21. CONTRACTOR MAY SUBMIT DESIGN DRAWINGS AND CALCULATIONS FOR MODIFICATIONS TO THIS ITEM ON A PROJECT BY PROJECT BASIS. MODIFICATIONS TO THESE ITEMS WILL NOT BE LISTED ON ANY QUALIFIED PRODUCT LIST. SUBMIT ALL PROPOSALS FOR PROJECT SPECIFIC MODIFICATIONS TO THE RESIDENT ENGINEER FOR REVIEW BY THE ENGINEER OF RECORD.

22. JOINTS BETWEEN INSTALLED PIECES AND PRECAST ITEMS TO BE PLACED SHALL BE SEALED WITH A 1/2" GROUT LIFT OR AN APPROPRIATE PLASTIC PREFORMED GASKET (QUALIFIED PRODUCT LIST 13.)

PRECAST INSTALLATION NOTES:
23. BED SHALL BE PREPARED AND COMPACTED FOR PRECAST DRAINAGE STRUCTURE AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS FOR PRECAST ITEMS. ELEVATION OF BEDDING MATERIAL SHALL BE APPROPRIATE TO ACCOMMODATE ELEVATIONS OF ALL PIPES AND REQUIRED BOX TOP ELEVATION.

24. PLACE AND LEVEL PRECAST BOX OR SLAB.

25. PIPES SHALL BE INSTALLED AND GROUTED IN PLACE.

26. PIPES AND BOX SHALL BE BACKFILLED AND COMPACTED AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS.

27. ANY LOCATION WHERE THE ABOVE REQUIREMENTS CANNOT BE MET SHALL BE COMPLETED USING CAST IN PLACE MATERIALS MEETING THE REQUIREMENTS OF THIS STANDARD DRAWING. ANY ADDITIONAL MATERIALS OR COSTS ASSOCIATED WITH THE USE OF PRECAST SHALL BE PAID FOR BY THE CONTRACTOR AND MAY NOT BE CHARGED TO SCDOT.

28. THE CONTRACT UNIT PRICE FOR DROP INLETS SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS, (BUILT IN PLACE OR PRECAST), AND WORK INCIDENTAL TO THE CONSTRUCTION OF THE STRUCTURE COMPLETE IN PLACE AS SHOWN, INCLUDING THE CURB AND GUTTER, IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

29. PRECAST CONCRETE CIRCULAR STRUCTURES ARE REQUIRED FOR THE FOLLOWING APPLICATIONS UNLESS PROHIBITED BY THE PLANS OR SPECIAL PROVISIONS.

(a) ON DRAINAGE STRUCTURES WITH A DEPTH EQUAL TO OR GREATER THAN 12 FEET.

(b) ON DRAINAGE STRUCTURES WHERE THE FLOW LINE ELEVATION OF THE INLET PIPE IS EQUAL TO OR HIGHER THAN THE INSIDE TOP (SOFFIT) OF THE OUTLET PIPE.

(c) AS REQUIRED BY THE PROJECT PLANS.

30. THE PAY ITEM SHALL BE:
DROP INLET (24"X24")_____EA

SOUTH CAROLINA PROFESSIONAL ENGINEER MASON D. CONNER No. 30116
10-27-16
Mason D. Conner

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO._____ DATE _____
DWG._____ DATE _____ SQUAD ____ - ____
R/W _____ DATE _____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT05	65

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

RELATED DRAWINGS & KEYWORDS

150-205-00, 720-905-02

PRECONSTRUCTION SUPPORT ENGINEER

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

James W. Kendall

SIGNATURE

AUGUST 23, 2012
DATE

#	DATE	CHK	DESCRIPTION
6			
5			
4			
3			
2			
1	8/2012	DSO	REMOVED DETAIL 5
0	3/2009	DSO	GENERAL REVISIONS

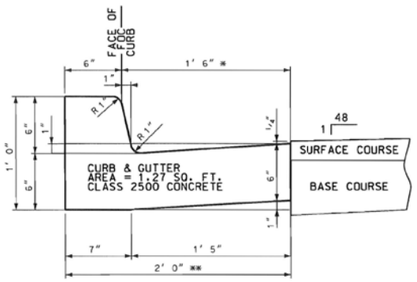
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

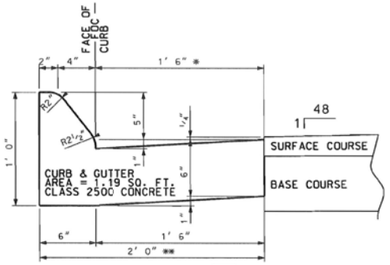
CURB & GUTTER
(CONCRETE)

720-105-01

EFFECTIVE LETTING DATE JAN. 2013

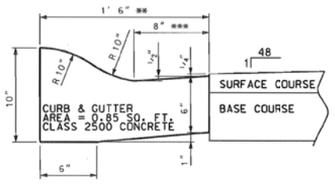


DETAIL 1
SCALE 1":1'
VERTICAL FACE
*1'-0" FOR ** 1'-6" CURB&GUTTER
*1'-6" FOR ** 2'-0" CURB&GUTTER (SHOWN)
*2'-0" FOR ** 2'-6" CURB&GUTTER
*2'-6" FOR ** 3'-0" CURB&GUTTER

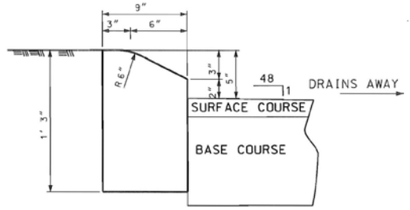


DETAIL 2
SCALE 1":1'
SLOPING FACE

(A.K.A. MOUNTABLE CURB)
(SELECT APPROPRIATE DRAINAGE STRUCTURES WHEN USING THIS CURB SYSTEM)
PREFERRED AT MAILBOXES
*1'-0" FOR ** 1'-6" CURB&GUTTER
*1'-6" FOR ** 2'-0" CURB&GUTTER (SHOWN)
*2'-0" FOR ** 2'-6" CURB&GUTTER
*2'-6" FOR ** 3'-0" CURB&GUTTER



DETAIL 3
SCALE 1":1'
OGEE
(USE ONLY WHERE CATCH BASIN STYLE DRAINAGE STRUCTURES ARE NOT PRESENT)
PREFERRED AT MAILBOXES
***0'-8" FOR ** 1'-6" CURB&GUTTER (SHOWN)
***1'-2" FOR ** 2'-0" CURB&GUTTER
***1'-8" FOR ** 2'-6" CURB&GUTTER
***2'-2" FOR ** 3'-0" CURB&GUTTER



DETAIL 4
SCALE 1":1'
9" X 15" CONCRETE
CURB (USE ONLY IN MEDIAN APPLICATIONS WHERE ROADWAY CROWN DRAINS AWAY FROM MEDIAN WHEN ADJACENT TO GRASS PLOT OR CONCRETE ISLAND)

NOTES:
1. USE CONCRETE CURB AND GUTTER WITH VERTICAL FACE UNLESS OTHERWISE NOTED.

2. USE MINIMUM CLASS 2500 CONCRETE.

3. USE 3' TRANSITION AT END OF RADII ON INTERSECTING STREETS AND WHERE CURB IS 6 FEET OR GREATER FROM MAINLINE TRAVEL LANE.

4. USE 10' TRANSITION WHERE CURB IS LESS THAN 6 FEET FROM MAINLINE TRAVEL LANE.

5. INCLUDE COST OF WORK TO CONSTRUCT TRANSITIONS IN THE COST PER LF OF CURB AND GUTTER.

6. DEVELOP GUTTER SLOPE ON HIGH SIDE OF SUPERELEVATION AS SHOWN ON STANDARD DRAWING 150-205-00, EXCEPT ON OGEE CURB & GUTTER.

7. USE DETECTABLE WARNINGS AS REQUIRED ON STANDARD DRAWINGS 720-905-XX.

8. WHEN MAILBOXES ARE PRESENT, USE APPROPRIATE CURB TYPE. INSTALL MAILBOXES BEHIND CURB OR SIDEWALK AS SHOWN ON STANDARD DRAWING 203-905-00.

9. PAY ITEMS (MAY NOT BE COMPLETE LIST OF PAY ITEMS):

FOR CURB & GUTTER

7203110	CONCRETE CURB AND GUTTER (1'-6") VERTICAL FACE	------LF
7203210	CONCRETE CURB AND GUTTER (2'-0") VERTICAL FACE	------LF
7203240	CONCRETE CURB AND GUTTER (2'-6") VERTICAL FACE	------LF
7203310	CONCRETE CURB AND GUTTER (3'-0") VERTICAL FACE	------LF
7203120	CONCRETE CURB AND GUTTER (1'-6") SLOPING FACE	------LF
7203220	CONCRETE CURB AND GUTTER (2'-0") SLOPING FACE	------LF
7203245	CONCRETE CURB AND GUTTER (2'-6") SLOPING FACE	------LF
7203320	CONCRETE CURB AND GUTTER (3'-0") SLOPING FACE	------LF
7203130	CONCRETE CURB AND GUTTER (1'-6") OGEE	------LF
7203230	CONCRETE CURB AND GUTTER (2'-0") OGEE	------LF
7203265	CONCRETE CURB AND GUTTER (2'-6") OGEE	------LF
7203330	CONCRETE CURB AND GUTTER (3'-0") OGEE	------LF

FOR CURB ONLY

7201000	CONCRETE CURB (9"x 15")	----LF

FOR CONCRETE MEDIAN

7206000	CONCRETE MEDIAN	------SY
7206100	CONCRETE MEDIAN OVERLAY	------SY

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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PHONE (843) 266-9300
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REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

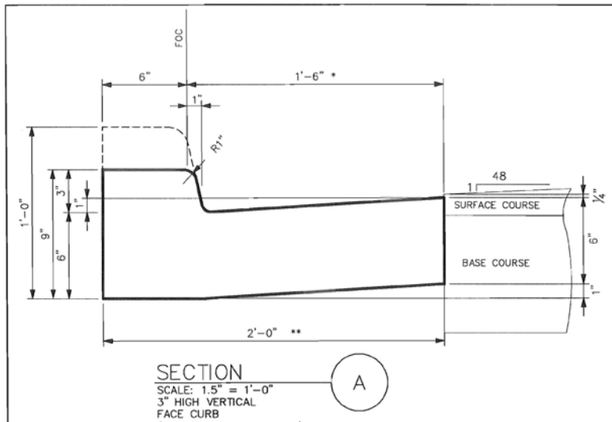
D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

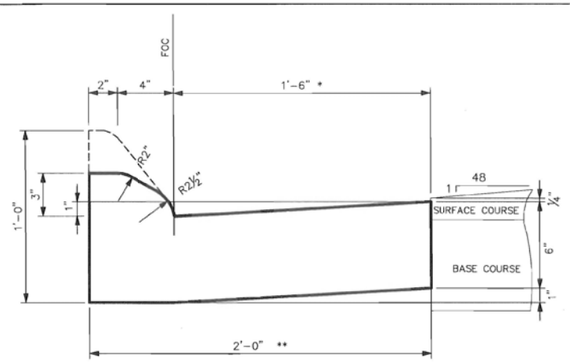
DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT06	65



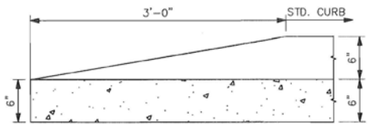
SECTION A
SCALE: 1.5" = 1'-0"
3" HIGH VERTICAL FACE CURB
(MIDPOINT OF TRANSITION)

* 1'-0" FOR ** 1'-6" CURB & GUTTER
* 1'-6" FOR ** 2'-0" CURB & GUTTER (SHOWN)
* 2'-0" FOR ** 2'-6" CURB & GUTTER
* 2'-6" FOR ** 3'-0" CURB & GUTTER

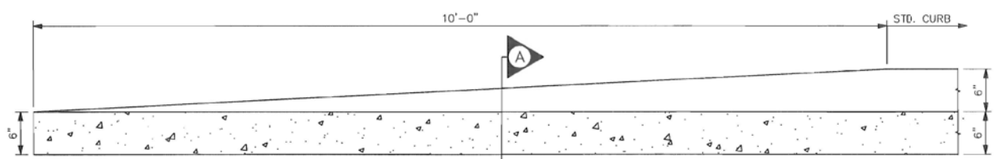


SECTION A
SCALE: 1.5" = 1'-0"
3" HIGH SLOPING FACE CURB
(MIDPOINT OF TRANSITION)

* 1'-0" FOR ** 1'-6" CURB & GUTTER
* 1'-6" FOR ** 2'-0" CURB & GUTTER (SHOWN)
* 2'-0" FOR ** 2'-6" CURB & GUTTER
* 2'-6" FOR ** 3'-0" CURB & GUTTER



DETAIL 6
SCALE: 3/4" = 1'-0"
3' TRANSITION CURB



DETAIL 7
SCALE: 3/4" = 1'-0"
10' TRANSITION CURB

NOTES:

1. SEE SHEET 720-105-01 FOR NOTES.

2. USE 3" CURBS AND GUTTER ONLY BETWEEN DUAL PEDESTRIAN RAMPS AT AN INTERSECTION WHEN NO DRAINAGE STRUCTURE IS REQUIRED AND 3" CURB IS SHOWN ON THE PEDESTRIAN RAMP STANDARD.

3. USE TRANSITION CURBS AT END OF CURB AND GUTTER SECTIONS AND WHERE DROPPED CURBS ARE REQUIRED.

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

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.
SIGNATURE
9-26-12
DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
4	---	---	---
3	---	---	---
2	---	---	---
1	---	---	---
0	8/2012	DSO	NEW DRAWING

SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 4C5
COLUMBIA, SC 29201

STANDARD DRAWING
CURB & GUTTER (CONCRETE) TRANSITION CURBS AND 3" CURB AND GUTTER

720-105-02
EFFECTIVE LETTING DATE JAN., 2013

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
MASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT07	65

REFERENCES

NATIONAL DOCUMENTS

REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY (NOVEMBER 23, 2005)

SCDOT DOCUMENTS

RELATED DRAWINGS & KEYWORDS

720-105-00

PRECONSTRUCTION SUPPORT ENGINEER

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 8858 LINDA SYLVESTER EAGLE, II

SIGNATURE

JULY 30, 2009
DATE

6			
5			
4			
3			
2			
1	7/2009	JBH	GENERAL REVISIONS
0	3/2009	DSD	GENERAL REVISIONS
#	DATE	CHK	DESCRIPTION

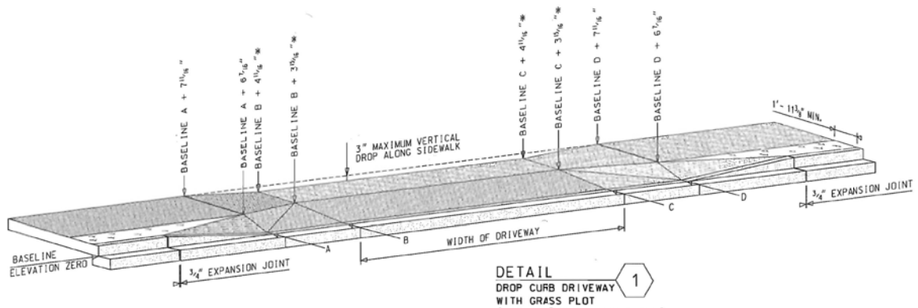
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

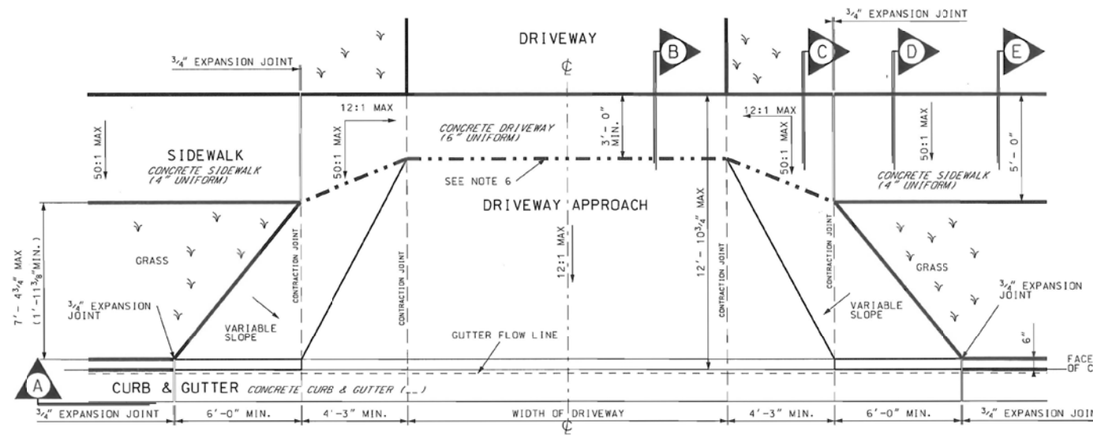
DRIVEWAY WITH SEPARATED SIDEWALK WITHIN 7'-4 3/4" OF CURB

720-410-00

EFFECTIVE LETTING DATE | SEPTEMBER 2009

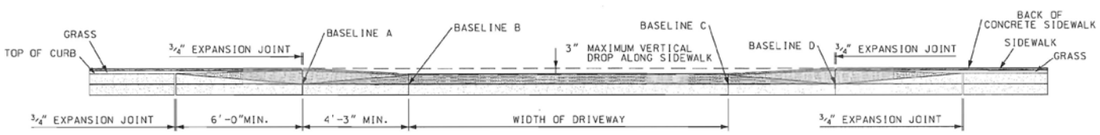


DETAIL 1
DROP CURB DRIVEWAY WITH GRASS PLOT
[*1'-11 3/8" MINIMUM SHOWN]



6' MINIMUM ONLY IF CURB LINE IS ON 0% GRADE. THIS FIGURE WILL VARY WITH GRADE AND SHOULD BE DETERMINED BY SLOPE OF ROADWAY. MAXIMUM CROSS SLOPE OF 50:1 UNLESS NOTED.

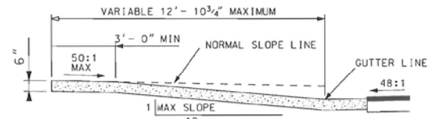
DETAIL 2
SCALE 3/16"=1'
DRIVEWAY PLAN



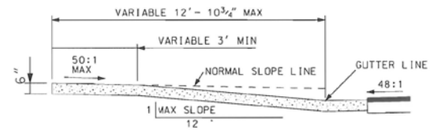
6' MINIMUM ONLY IF CURB LINE IS ON 0% GRADE. THIS FIGURE WILL VARY WITH GRADE AND SHOULD BE DETERMINED BY SLOPE OF ROADWAY

SECTION A
SCALE 3/16"=1'
DRIVEWAY ELEVATION

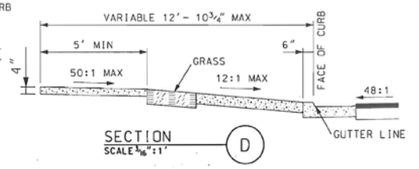
NOTES:
1. PROVIDE ADDITIONAL CONTRACTION JOINTS WITHIN DRIVEWAY WIDTH AS SPECIFIED IN SCDOT STANDARD SPECIFICATIONS, SECTION 720.
2. DRIVEWAYS TO BE CONSTRUCTED WHERE DESIGNATED BY THE RESIDENT CONSTRUCTION ENGINEER.
3. CONCRETE CURB THROUGH DRIVEWAY TO BE MEASURED AND PAID FOR AS CURB & GUTTER EVEN WHEN CURB IS DROPPED.
4. SIDEWALKS ARE TO BE CONSTRUCTED ON A 50:1 MAX. CROSS SLOPE. THE SIDE SLOPES OF THE RAMP ARE NOT TO EXCEED 12:1 AT ANY LOCATION WHERE PEDESTRIAN TRAFFIC CROSSES THE RAMP.
5. SIDEWALK SHALL BE BUILT IN ACCORDANCE WITH THE REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY (NOVEMBER 23, 2005). FOR INTEGRAL CURB SEE STANDARD DRAWING NO. 720-105-00.
6. METAL KEYWAY STYLE JOINTS WAY BE INSTALLED BETWEEN DRIVEWAY APPROACH AND SIDEWALK TO ACHIEVE LINE AND GRADE. KEEP METAL JOINT MATERIAL FLUSH WITH OR BELOW ELEVATION OF CONCRETE.
7. FOR INTEGRAL CURB SEE STANDARD DRAWING NO. 720-105-00.
8. THE FLARED SLOPE IN THE SIDEWALK ON EITHER SIDE OF THE DRIVEWAY MAY REQUIRE MODIFICATION DUE TO ELEVATION DIFFERENCES BETWEEN THE CURB AND THE SIDEWALK. THE SLOPE SHALL BE NO STEEPER THAN 12:1.
9. PAY ITEMS:
7205000 CONCRETE DRIVEWAY (6"UNIFORM) _____SY
7203XXX CONCRETE CURB & GUTTER (__)_____LF
7204100 CONCRETE SIDEWALK (4"UNIFORM)_____SY



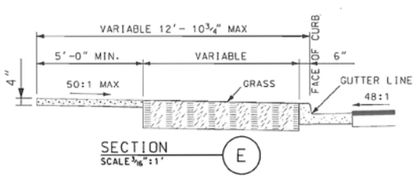
SECTION B
SCALE 3/16"=1'



SECTION C
SCALE 3/16"=1'



SECTION D
SCALE 3/16"=1'



SECTION E
SCALE 3/16"=1'

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 JASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

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4			
3			
2			
1			

TOPO._____ DATE _____
DWG._____ DATE _____ SQUAD ____ - _____
R/W _____ DATE _____

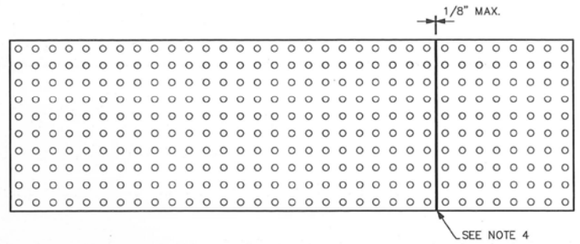
D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

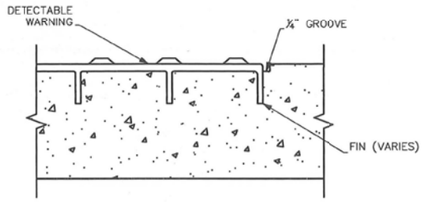
DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT08	65



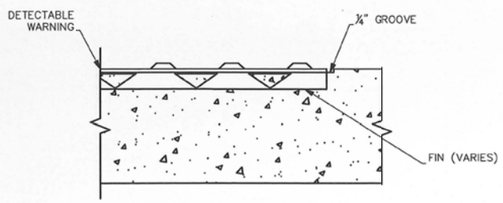
DETAIL 1

DETECTABLE WARNING PATTERN



DETAIL 2

WET INSET WITH EMBEDDED FINS



DETAIL 3

WET INSET WITH EMBEDDED FINS

NOTES:

1. SEE SHEETS 720-901-XX FOR GENERAL NOTES. USE WET INSET STYLE DETECTABLE WARNINGS LISTED ON SCDOT QUALIFIED PRODUCT LIST 61 ONLY IN LOCATIONS WHERE NEW CONCRETE IS BEING POURED FOR RAMPS. DETAILS SHOWN MAY INCLUDE PROPRIETARY COMPONENTS, HOWEVER, ANY SYSTEM LISTED ON QPL 61 AS WET INSET IS ACCEPTABLE FOR USE IN THESE CONDITIONS.
2. FOLLOW DETECTABLE WARNING MATERIAL INSTALLATION INSTRUCTIONS AND THESE STANDARD DRAWINGS. WHERE CONFLICTS EXIST BETWEEN INSTALLATION PROCEDURES, PROVIDE A CERTIFICATION LETTER FROM THE MANUFACTURER STATING THE APPROPRIATE PROCEDURE(S) AND JUSTIFICATION THAT THE PROPOSED PROCEDURE WILL IMPROVE LONG TERM PERFORMANCE. NOTE TO RCE: SUBMIT A COPY OF THE CERTIFICATION LETTER TO THE DESIGN STANDARDS OFFICE SO THAT FUTURE DRAWINGS CAN MINIMIZE CONFLICTS.
3. HAVE ALL MATERIALS NEEDED TO COMPLETE INSTALLATION AVAILABLE BEFORE PLACING CONCRETE.
4. MINIMIZE THE USE OF FIELD CUT PIECES. UNLESS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS, INSTALL ALL FIELD CUT EDGES IN THE INTERIOR OF THE WARNING PATTERN. CUT WARNING SURFACE TO MEET THE REQUIRED GEOMETRY OF THE RAMP WHILE MINIMIZING THE CUTTING OF DOMES.
5. CONSTRUCT LANDING AS SHOWN ON STANDARD DRAWING FOR THE RAMP STYLE SELECTED.
6. WORK PANELS DOWNWARD AS NECESSARY INTO THE LOCATION SHOWN ON THE STANDARD DRAWING.
7. TAP DETECTABLE WARNING MATERIAL WITH A RUBBER MALLET UNTIL AIR POCKETS ARE REMOVED. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS TO REMOVE AIR POCKETS AROUND THE FINS AND UNDER WARNING MATERIAL. FINISHED PRODUCT SHOULD HAVE NO BUBBLES OR POCKETS THAT MOVE WHEN STEPPED ON.
8. EVENLY PRESS THE ASSEMBLED WARNING MATERIAL INTO THE CONCRETE UNTIL THE TILE IS FLUSHED WITH THE CONCRETE SURFACE.
9. SCORE A ¼" DEEP AND WIDE GROOVE AROUND THE DETECTABLE WARNING.
10. CLEAN THE ENTIRE SURFACE OF DEBRIS.
11. APPLY WEIGHTS IF NECESSARY TO KEEP WARNING IN PLACE DURING CURING PROCESS.
12. REMOVE WEIGHTS (IF USED) AND PROTECTIVE COVERING WITHIN 1 WEEK.

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

QPL 61

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

12/10/2014
DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
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3	---	---	---
2	---	---	---
1	12/2014	JMG	MODIFIED NOTES
0	8/2012	DSO	NEW DRAWING

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

STANDARD DRAWING

DETECTABLE WARNING MATERIAL WET INSET (EMBEDDED FINS)

720-910-02

EFFECTIVE LETTING DATE: FEBRUARY, 2015

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
10-27-16
JASON D. CONNER

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
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4390 BELLE OAKS DRIVE, SUITE 220
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4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____ SQUAD ____ - ____
R/W _____ DATE _____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT09	65

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

QPL 61

RELATED DRAWINGS & KEYWORDS

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

James W. Kendall Jr.
SIGNATURE

9-27-2012
DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
4	---	---	---
3	---	---	---
2	---	---	---
1	---	---	---
0	8/2012	DSO	NEW DRAWING

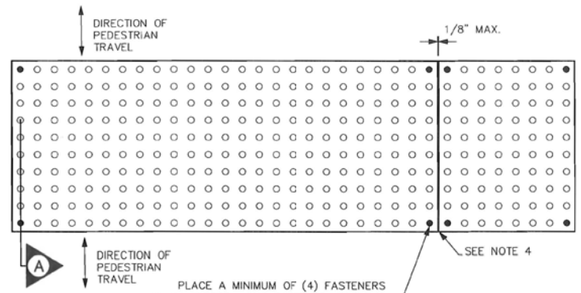
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

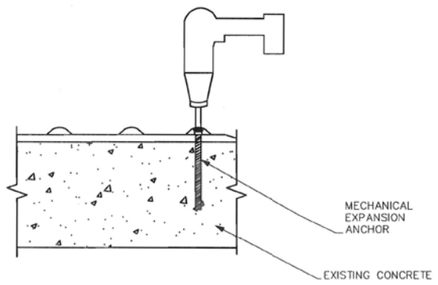
DETECTABLE WARNING SURFACE DRY BONDED W/ADHESIVE AND MECHANICAL EXPANSION ANCHORS RETROFIT ONLY

720-919-01

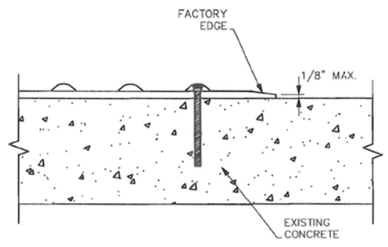
EFFECTIVE LETTING DATE JAN., 2013



DETAIL 1
PLAN VIEW
DETECTABLE WARNING



DETAIL 2
DRILL AT DOME LOCATION



SECTION A
FINISHED DETECTABLE WARNING WITH ADHESIVE AND MECHANICAL EXPANSION ANCHORS

NOTES:

1. SEE SHEETS 720-901-XX FOR GENERAL NOTES. NOT FOR NEW CONSTRUCTION. USE DRY BONDED STYLE DETECTABLE WARNINGS LISTED ON SCDOT QUALIFIED PRODUCT LIST 61 ONLY IN LOCATIONS WHERE EXISTING CONCRETE RAMPS WILL BE RETAINED. IF NEW CONCRETE IS TO BE PLACED IN THE RAMP, USE ONE OF THE OTHER STANDARD DETECTABLE WARNING SURFACE MATERIALS.
2. FOLLOW DETECTABLE WARNING SURFACE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THESE STANDARD DRAWINGS. WHERE CONFLICTS EXIST BETWEEN INSTALLATION PROCEDURES, PROVIDE A CERTIFICATION LETTER FROM THE MANUFACTURER STATING THE APPROPRIATE PROCEDURE(S) AND JUSTIFICATION THAT THE PROPOSED PROCEDURE WILL IMPROVE LONG TERM PERFORMANCE. NOTE TO RCE: SUBMIT A COPY OF THE CERTIFICATION LETTER TO THE DESIGN STANDARDS OFFICE SO THAT FUTURE DRAWINGS CAN MINIMIZE CONFLICTS.
3. LOCATE WHERE THE DETECTABLE WARNING IS TO BE BONDED WITH THE EXISTING CONCRETE.
4. MINIMIZE THE USE OF FIELD CUT PIECES. UNLESS SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS, INSTALL ALL FIELD CUT EDGES IN THE INTERIOR OF THE WARNING PATTERN. CUT WARNING SURFACE TO MEET THE REQUIRED GEOMETRY OF THE RAMP WHILE MINIMIZING THE CUTTING OF DOMES.
5. PREPARE SIDEWALK SURFACE BY SCOURING CONTACT AREA. REMOVING ALL DEBRIS, AND CLEANING ALL SURFACES AS DIRECTED BY THE MANUFACTURE.
6. APPLY PRIMER (IF SPECIFIED BY THE DETECTABLE WARNING MANUFACTURER OVER THE ENTIRE CONTACT AREA.
7. ALIGN FACTORY EDGES SO THAT WHEELS ROLLING ACROSS WARNING TO OR FROM THE LANDING/RAMP CROSS THE FACTORY EDGE PERPENDICULAR OR AS CLOSE TO PERPENDICULAR AS PRACTICAL.
8. APPLY OR EXPOSE ADHESIVE. SET THE DETECTABLE WARNING IN PLACE AND PRESS DOWN FIRMLY.
9. DRILL HOLES AT DOME LOCATIONS AS SPECIFIED IN THE MANUFACTURER'S INSTRUCTIONS. USE ADDITIONAL ANCHORS AS NEEDED TO KEEP WARNING IN CONTACT WITH CONCRETE SURFACE.
10. INSTALL A MINIMUM OF FOUR ¼" X 3" LONG LOW PROFILE STAINLESS STEEL MECHANICAL EXPANSION ANCHORS INTO EACH PIECE OF WARNING SURFACE.
11. COUNTERSINK ANCHORS INTO DOME LOCATION BY AT LEAST ⅛". APPLY SEALANT AROUND PERIMETER OF DETECTABLE WARNING, AND BETWEEN ALL FIELD CUT AND FACTORY PIECES OF WARNING MATERIAL AT A LANDING.
12. CLEAN EXCESS ADHESIVE IMMEDIATELY.

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
10-27-16
MASON D. CONNER

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

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4			
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TOPO. _____ DATE _____
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R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

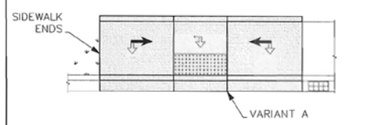
RTE./RD. ALL ROADS

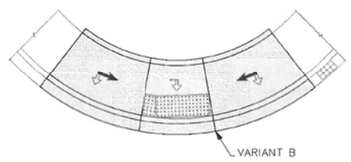
DESIGN BY: TranSystems

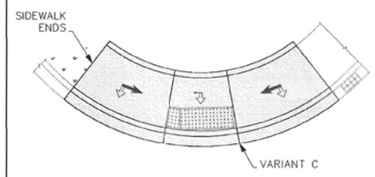
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT10	65

PARALLEL RAMP VARIANTS WITH 5'–0" SIDEWALK

SEE 720–951–11

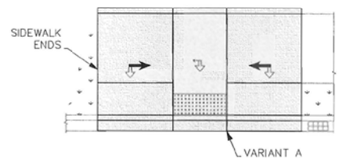


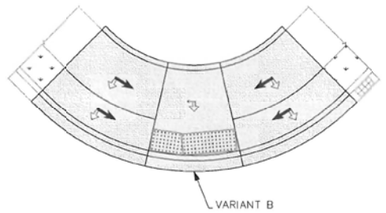


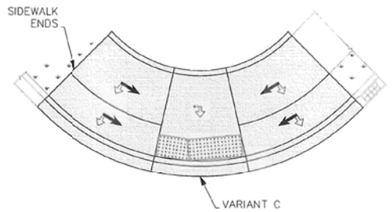


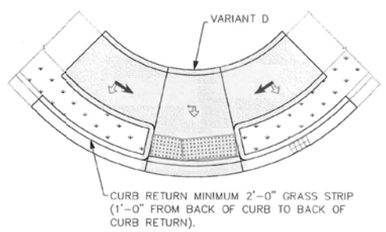
DETAIL 1
SCALE: 3/32" = 1'–0"
STANDARD DRAWNG 720–951–11
PARALLEL RAMP VARIANTS
NO GRASS STRIP
SEE 720–901–03 FOR SYMBOLS

SEE 720–961–11





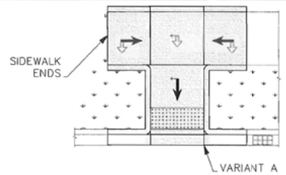


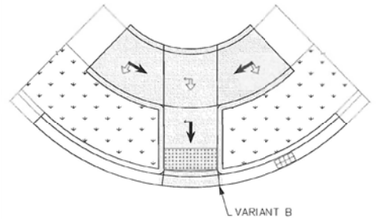


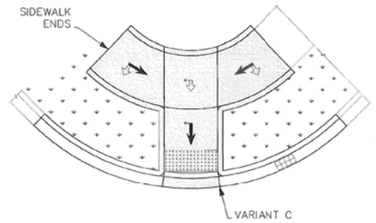
DETAIL 2
SCALE: 3/32" = 1'–0"
STANDARD DRAWING 720–961–11
PARALLEL RAMP VARIANTS
WITH 3'–0" MAXIMUM GRASS STRIP
SEE 720–901–03 FOR SYMBOLS

COMBINED RAMP VARIANTS WITH 5'–0" SIDEWALK

SEE 720–971–24



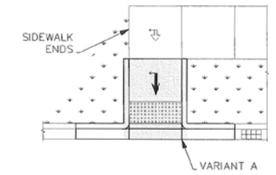


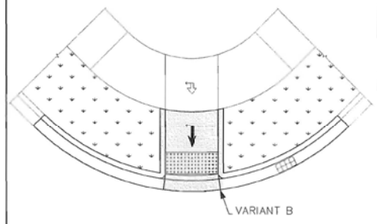


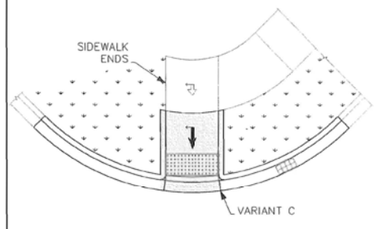
DETAIL 3
SCALE: 3/32" = 1'–0"
STANDARD DRAWING 720–971–24
COMBINED RAMP VARIANTS
WITH 3'–0" TO 6'–0" MAXIMUM GRASS STRIP
SEE 720–901–03 FOR SYMBOLS

PERPENDICULAR RAMP VARIANTS WITH 5'–0" SIDEWALK

SEE 720–981–36







DETAIL 4
SCALE: 3/32" = 1'–0"
STANDARD DRAWING 720–981–36
PERPENDICULAR RAMP VARIANTS
WITH 6'–0" OR LARGER GRASS STRIP
SEE 720–901–03 FOR SYMBOLS

REFERENCES

NATIONAL DOCUMENTS

REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS–OF–WAY NOVEMBER, 2005

MUTCD 2009

SCDOT DOCUMENTS

SCDOT TRANSITION PLAN

QPL 61

RELATED DRAWINGS & KEYWORDS

720–929–01

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.

SIGNATURE

9-27-2012
DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
4	---	---	---
3	---	---	---
2	---	---	---
1	---	---	---
0	1/13	DSO	NEW DRAWING

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

STANDARD DRAWING
PEDESTRIAN RAMP STANDARD VARIANTS

720–929–02

EFFECTIVE LETTING DATE: JANUARY, 2013

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
MASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT11	65

REFERENCES

NATIONAL DOCUMENTS

REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY NOVEMBER, 2005.

MUTCD 2009

SCDOT DOCUMENTS

SCDOT TRANSITION PLAN

QPL 61

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

10/30/2015
DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
4	---	---	---
3	1/16	HJC	REM DET 2, GENERAL
2	1/15	JMG	BLEND NOTES
1	10/14	JMG	REMOVED PAY ITEMS
0	1/13	DSO	NEW DRAWING

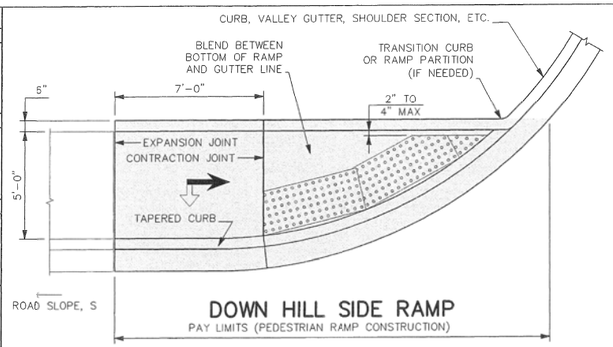
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

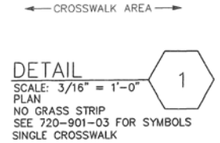
STANDARD DRAWING

PEDESTRIAN RAMP
CONDENSED
TERMINAL
(PARALLEL RAMP)

720-952-11

EFFECTIVE LETTING DATE: JANUARY 2016





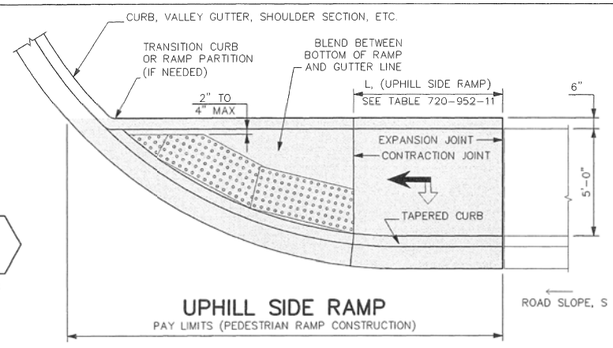
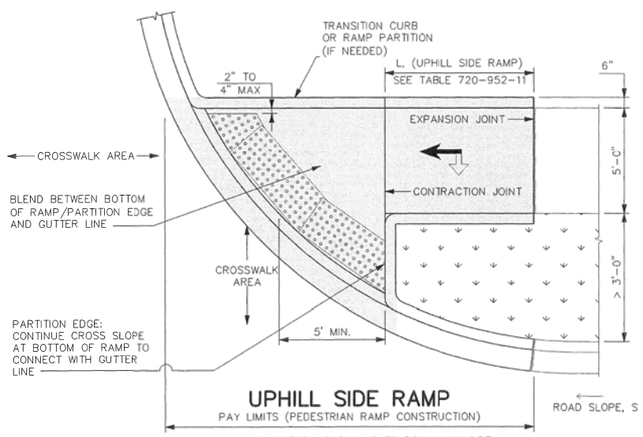


TABLE: 720-952-11 (SEE 720-929-01, X=10')	
ROAD SLOPE, S (%)	L, (UPHILL SIDE RAMP), [FT]
S ≤ 1%	7'-0"
1% > S ≤ 3%	10'-0"
S > 3%	15'-0"

NOTES:

1. SEE STANDARD DRAWINGS 720-901-XX FOR GENERAL NOTES AND 720-901-03 FOR SYMBOLS.
2. SEE STANDARD DRAWINGS 720-91X-XX FOR INSTALLATION PROCEDURES FOR DETECTABLE WARNING SURFACE MATERIALS.
3. SEE STANDARD DRAWINGS 720-929-XX FOR VARIANTS TO THIS STANDARD.
4. QUANTITIES IN TABLE 720-952-11 ASSUME THAT DOWN HILL SIDE RAMP IS ALWAYS AT LEAST 7'-0" LONG.
5. CONSTRUCT RAMP PARTITION AT ALL LOCATIONS WHERE ROADWAY DRAINAGE COULD DISCHARGE ONTO ADJACENT PROPERTY. CONSTRUCT RAMP PARTITION IF NEEDED TO RETAIN EXISTING GROUND ELEVATION ON ADJACENT PROPERTY.



DETAIL
SCALE: 3/16" = 1'-0"
PLAN
> 3'-0" GRASS STRIP
SEE 720-901-03 FOR SYMBOLS
CONSIDER USING PERPENDICULAR RAMP TO CROSS MAIN LINE
DUAL CROSSWALK
2

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
10-27-16
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT12	65

REFERENCES

NATIONAL DOCUMENTS

REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY NOVEMBER, 2005.

MUTCD 2009

SCDOT DOCUMENTS

SCDOT TRANSITION PLAN

QPL 61

RELATED DRAWINGS & KEYWORDS

720-929-02

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

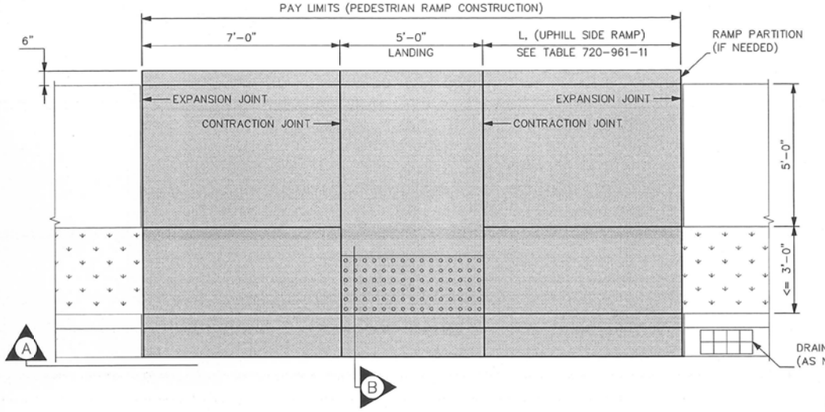
12/8/2014
DATE

#	DATE	CHK	DESCRIPTION
6	---	---	---
5	---	---	---
4	---	---	---
3	---	---	---
2	---	---	---
1	10/14	JMG	REMOVED PAY ITEMS
0	1/13	DSO	NEW DRAWING

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

STANDARD DRAWING
PEDESTRIAN RAMP 3'-0" MAXIMUM GRASS STRIP (PARALLEL RAMP)

720-961-11
EFFECTIVE LETTING DATE: FEBRUARY, 2015

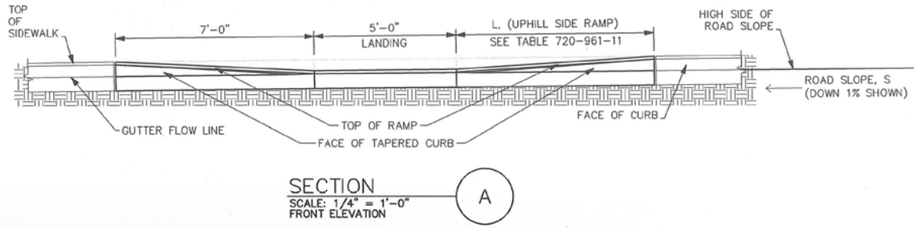


DETAIL 1
SCALE: 1/4" = 1'-0"
PLAN

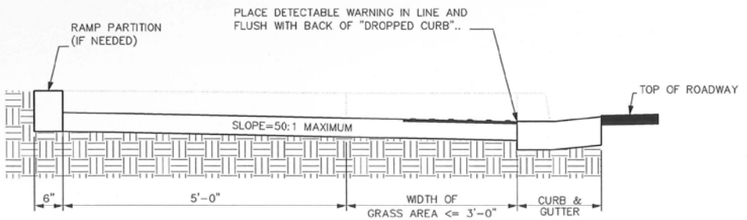
NOTES:

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

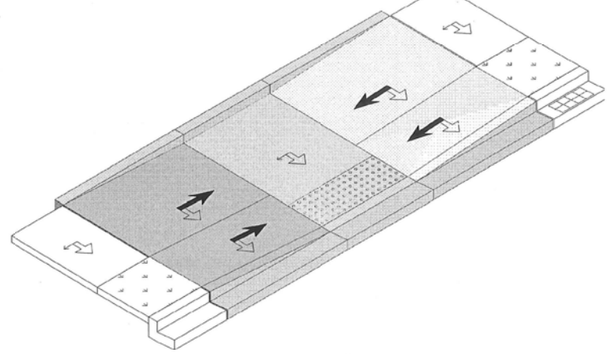
TABLE: 720-961-11 (SEE 720-929-01, X=10')		
ROAD SLOPE, S (%)	ELEVATION, [IN]	L, (UPHILL SIDE RAMP), [FT]
S ≤ 1%	[B-A] ≤ 7⅛"	7'-0"
1% > S ≤ 3%	[B-A] ≤ 9⅜"	10'-0"
S > 3%	[B-A] > 9⅜"	15'-0"



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



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



DETAIL 2
ISOMETRIC VIEW
SEE 720-901-03 FOR SYMBOLS

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 30116
10-27-16
MASON D. CONNER

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R / W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT13	65

REFERENCES

NATIONAL DOCUMENTS

REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY NOVEMBER, 2005

MUTCD 2009

SCDOT DOCUMENTS

SCDOT TRANSITION PLAN

QPL 61

RELATED DRAWINGS & KEYWORDS

720-929-02

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.

SIGNATURE

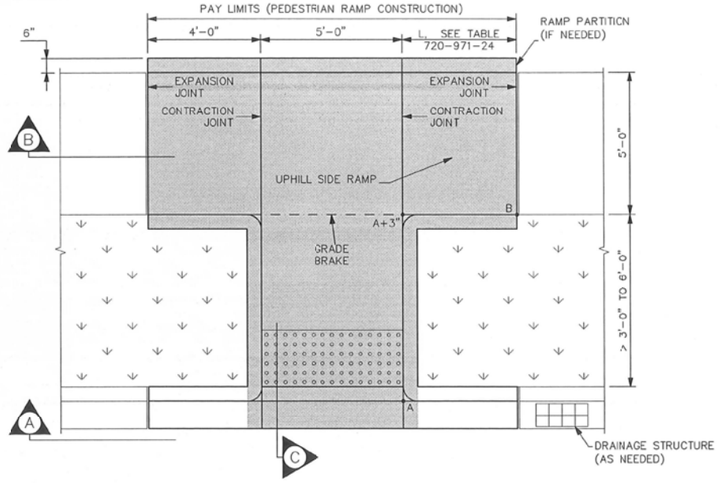
12/8/2014 DATE

#	DATE	CHK	DESCRIPTION
5	---	---	---
4	---	---	---
3	---	---	---
2	---	---	---
1	10/14	JMG	ELEV. TO DETAIL 1 REMOVED PAY ITEMS
0	1/13	DSO	NEW DRAWING

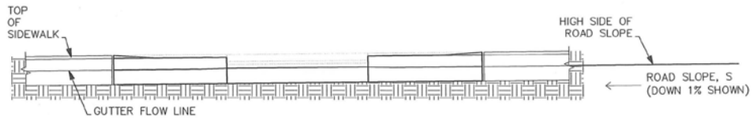
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING
PEDESTRIAN RAMP
3'-0" TO 6'-0"
GRASS STRIP
(COMBINED RAMP)

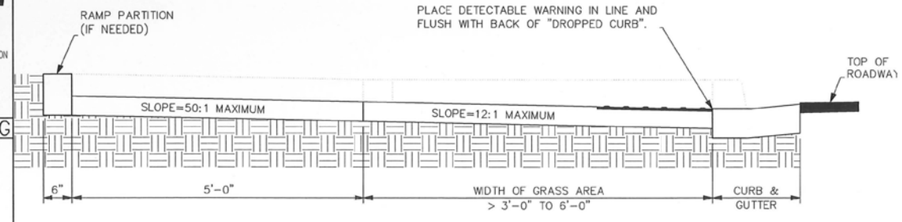
720-971-24
EFFECTIVE LETTING DATE FEBRUARY, 2015



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



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

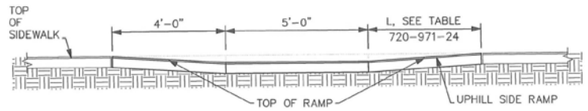


SECTION C
SCALE: 1/2" = 1'-0"
SIDE ELEVATION

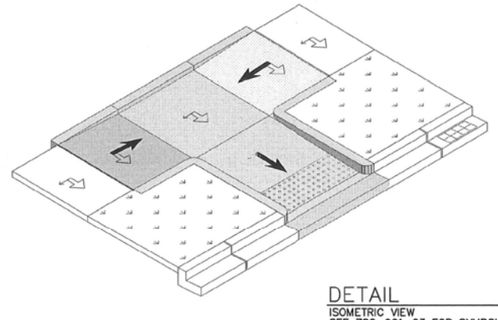
NOTES:

1. SEE STANDARD DRAWINGS 720-901-XX FOR GENERAL NOTES.
2. SEE STANDARD DRAWINGS 720-91X-XX FOR INSTALLATION PROCEDURES FOR DETECTABLE WARNING SURFACE MATERIALS.
3. SEE STANDARD DRAWINGS 720-929-XX FOR VARIANTS TO THIS STANDARD.
4. THE VALUES LISTED IN TABLE 720-971-24 ARE BASED ON A RAMP WITH A 3" DROP DUE TO THE USE OF A COMBINED RAMP.
5. CONSTRUCT RAMP PARTITION AT ALL LOCATIONS WHERE ROADWAY DRAINAGE COULD DISCHARGE ONTO ADJACENT PROPERTY. CONSTRUCT RAMP PARTITION IF NEEDED TO RETAIN EXISTING GROUND ELEVATION ON ADJACENT PROPERTY.

TABLE: 720-971-24 (SEE 720-929-01, X=5')		
ROAD SLOPE, S (%)	ELEVATION, [IN]	L, [FT]
S ≤ 3%	[B-A] ≤ 7¾"	5'-0"
3% < S ≤ 5%	[B-A] ≤ 12"	10'-0"
S > 5%	[B-A] > 15"	15'-0"



SECTION B
SCALE: 1/4" = 1'-0"
SIDEWALK CROSS SECTION



DETAIL 2
ISOMETRIC VIEW
SEE 720-901-03 FOR SYMBOLS

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

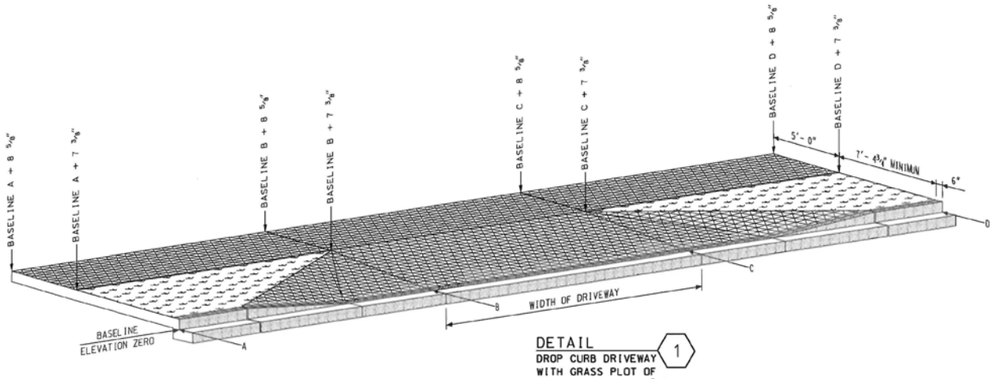
D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

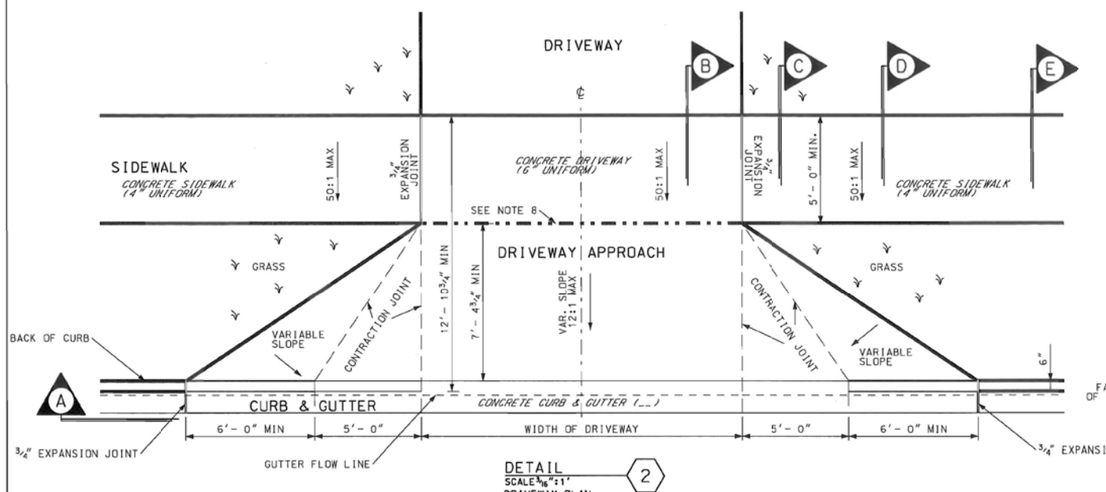
DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT14	65

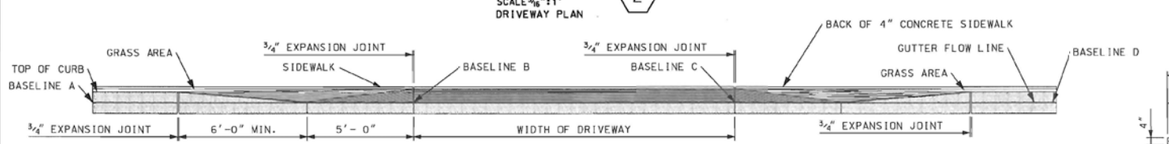


DETAIL 1
DROP CURB DRIVEWAY WITH GRASS PLOT OF GREATER THAN 7'-4 3/4" (7'-5" SHOWN)

NOTES:
1. PROVIDE ADDITIONAL CONTRACTION JOINTS WITHIN DRIVEWAY WIDTH AS SPECIFIED IN SCDOT STANDARD SPECIFICATIONS SECTION 720.
2. DRIVEWAYS TO BE CONSTRUCTED WHERE DESIGNATED BY THE RESIDENT CONSTRUCTION ENGINEER.
3. CONCRETE CURB THRU DRIVEWAY TO BE MEASURED AND PAID FOR AS CURB & GUTTER EVEN WHEN CURB IS DROPPED.
4. SIDEWALKS ARE TO BE CONSTRUCTED ON A 50:1 MAX. CROSS SLOPE. THE SIDE SLOPES OF THE RAMP ARE NOT TO EXCEED 12:1 AT ANY LOCATION WHERE PEDESTRIAN TRAFFIC CROSSES THE RAMP.
5. SIDEWALK SHALL BE BUILT IN ACCORDANCE WITH THE REVISED DRAFT GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY (NOVEMBER 23, 2005).
6. FOR INTEGRAL CURB SEE STANDARD DRAWING 720-105-00.
7. THE SIDEWALK, IF PRESENT, MAY BE REQUIRED TO HAVE 6" CONCRETE AND/OR A SLOPE ON EITHER SIDE OF THE DRIVEWAY DUE TO ELEVATION DIFFERENCES BETWEEN THE CURB AND THE SIDEWALK. SUCH SLOPE SHALL BE NO STEEPER THAN 12:1.
8. METAL KEYWAY STYLE JOINTS MAY BE INSTALLED BETWEEN DRIVEWAY APPROACH AND SIDEWALK TO ACHIEVE LINE AND GRADE. KEEP METAL JOINT MATERIAL FLUSH WITH OR BELOW ELEVATION OF CONCRETE.
9. THE PAY ITEMS SHALL BE:
7205000 CONCRETE DRIVEWAY (6"UNIFORM) _____SY
7203XXX CONCRETE CURB & GUTTER ( )_____LF
7204100 CONCRETE SIDEWALK (4"UNIFORM)_____SY

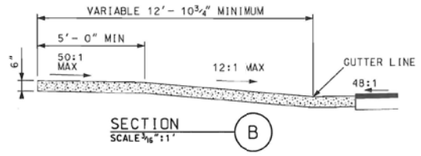


DETAIL 2
SCALE 3/16":1'
DRIVEWAY PLAN

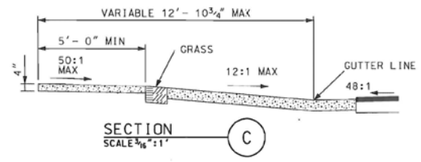


6' MINIMUM ONLY IF CURB LINE IS ON 0% GRADE. THIS FIGURE WILL VARY WITH GRADE AND SHOULD BE DETERMINED BY SLOPE OF ROADWAY.
CONTRACTION JOINTS AT A MAXIMUM OF 15' ON CENTER.

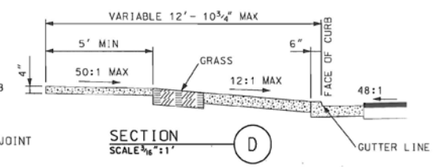
SECTION A
SCALE 3/16":1'
DRIVEWAY ELEVATION



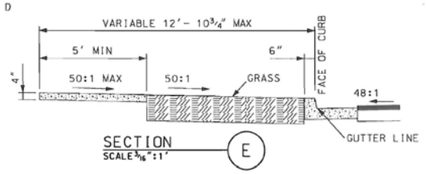
SECTION B
SCALE 3/16":1'



SECTION C
SCALE 3/16":1'



SECTION D
SCALE 3/16":1'



SECTION E
SCALE 3/16":1'

REFERENCES

NATIONAL DOCUMENTS
REVISED DRAFT - GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY (NOVEMBER 23, 2005)

SCDOT DOCUMENTS

RELATED DRAWINGS & KEYWORDS
720-105-00

PRECONSTRUCTION SUPPORT ENGINEER

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

SIGNATURE

JULY 30, 2009
DATE

#	DATE	CHK	DESCRIPTION
6			
5			
4			
3			
2			
1	7/2009	JBH	GENERAL REVISIONS
0	3/2009	JSO	GENERAL REVISIONS

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

STANDARD DRAWING

DRIVEWAY WITH SEPARATED SIDEWALK BEYOND 7'-4 3/4" FROM CURB

720-415-00

EFFECTIVE LETTING DATE | SEPTEMBER 2009

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER
10-27-16

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT15	65

REFERENCES

NATIONAL DOCUMENTS

ASTM C55, ASTM A706, AASHTO M55, AASHTO M105, AASHTO M306, AASHTO M111

SCDOT DOCUMENTS

QUALIFIED PRODUCT LIST 14, QUALIFIED PRODUCT LIST 13

RELATED DRAWINGS & KEYWORDS

719-110-01 TO 719-11-02, 719-105-01, 719-550-00, 719-420-00, 719-425-00, 719-305-00, 719-310-00

PRECONSTRUCTION SUPPORT ENGINEER

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

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

DROP INLET (24"X36") DETAILS

719-110-01

EFFECTIVE LETTING DATE: MAY 2008

THIS DRAWING IS NOT TO SCALE

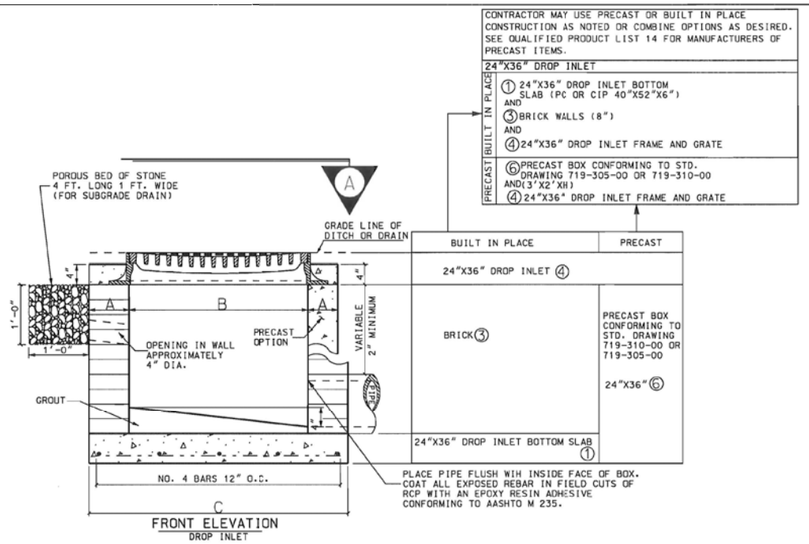


TABLE 719-110B			
DESCRIPTION	ADA	NON ADA BICYCLE	VEHICLE
(24"X36") DROP INLET	NO	YES	YES

USE ANYWHERE OUTSIDE OF DESIGNATED PEDESTRIAN PATHS. (OUTSIDE OF SIDEWALKS & CROSSWALKS)

TABLE 719-110A STANDARD PC ITEMS FOR DROP INLET
(24"X35") DROP INLET BOTTON SLAB (PC OR CIP 40"X52"X6") SEE ALSO STD. DRAWING 719-310-00 OR 719-305-00

24"X36" DROP INLET		
DIMENSION	BUILT IN PLACE OPTION	PRECAST
A	8"	6"
B	36"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X3'XH) PRECAST BOX
C	4'-4"	SEE STD. DRAWING 719-305-00 AND 719-310-00 (2'X3'XH) PRECAST BOX

NOTES:

1. SEE 719-105-01 FOR DROP INLET (24X24). FOR BUILT IN PLACE CONSTRUCTION OF THE CATCH BASIN WALLS, EITHER BRICK MASONRY (WALLS ONLY) OR CIP CLASS 3000 CONCRETE MAY BE USED. FOR PRECAST CONSTRUCTION, A MINIMUM OF CLASS 4000P CONCRETE SHALL BE USED.

2. CONCRETE WALLS ARE TO BE 6" THICK WITH A MINIMUM REINFORCING STEEL AREA 0.20 SQUARE INCHES PER FOOT UNLESS NOTED. FOR BRICK, THE WALLS ARE TO BE 8" THICK CONCRETE BRICK AND SIMILAR SOLID UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 55, GRADE S-11. THE INTERIOR DIMENSIONS ARE TO REMAIN AS SHOWN FOR EITHER TYPE OF CONSTRUCTION.

3. THE BOTTOM SLAB OF THE BOX SHALL BE A MINIMUM OF 6" THICK REINFORCED CONCRETE (CLASS 3000 OR 4000P) WITH A REINFORCING STEEL AREA OF 0.20 SQUARE INCHES PER FOOT. WIRE MESH BE USED IN LIEU OF STEEL BARS PROVIDED A MINIMUM OF 0.20 SQUARE INCHES PER FOOT I S MET.

4. MORTAR SHALL BE TYPE S OR M.

5. REINFORCING STEEL SHALL BE ASTM A-706, LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 60. WIRE MESH SHALL CONFORM TO AASHTO M 55 AND M.

6. SEE STANDARD DRAWING 719-550-00 FOR STEPS, WHICH ARE REQUIRED WHEN STRUCTURE DEPTH EXCEEDS 4'-6".

7. SEE STANDARD DRAWINGS 719-420-00 AND 719-425-00 FOR DEPTHS GREATER THAN 12', PRECAST CONCRETE CIRCULAR DRAINAGE STRUCTURES ARE REQUIRED WHEN THE DEPTH FROM THE TOP OF TH E DRAINAGE BOX BOTTOM SLAB TO THE TOP OF THE GROUND EXCEEDS 12'-0".

8. LOCATION AND SIZE OF PIPES ARE SITE SPECIFIC, (SEE DRAINAGE PLANS). THE BOTTOM OF THE CATCH BASIN IS TO BE GROUTED TO THE LOWEST FLOW LINE ELEVATION OF ALL PIPES. BOTTOM SLAB IS CAST IN PLACE WITH PIPES INSTALLED, BOTTOM SLAB THICKNESS MUST BE ACHIEVED BEYOND PIPE OUTSIDE DIAMETER.

9. THE FLOOR OF THE BASIN MUST SLOPE IN THE DIRECTION OF THE OUTLET PIPE AS SHOWN AND THE INSIDE OF OUTLET PIPE SHALL BE FLUSH WITH FLOOR OF BASIN.

10. SEE STANDARD DRAWING 719-305-00 OR 719-310-00 FOR MAXIMUM PIPE DIAMETERS. THE PIPE SIZES SHOWN ARE MAXIMUM FOR BRICK AND PRECAST BOXES WHEN PIPE ENTERS PERPENDICULAR AND AT THE CENTER OF THE BOX WALL. CONTRACTOR SHOULD CONFIRM THAT PIPE USED FITS APPROPRIATELY INTO BOX.

FRAME AND GRATE NOTES:

11. ALL CASTINGS SHALL CONFORM TO AASHTO M 105, CLASS 35B AND THE SPECIFICATIONS OF AASHTO M 306

12. (a) STEEL GRATES AND FRAME MAY BE USED IN LIEU OF CAST IRON AS LONG AS THE LOADING (NOTE 12d) AND HYDRAULIC REQUIREMENTS ARE MET, AND ARE ON THE DEPARTMENT'S LIST OF APPROVED SUPPLIERS. (QUALIFIED PRODUCT LIST 45)
(b) STEEL GRATES SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH AASHTO M 111.
(c) STEEL GRATES AND FRAMES SHALL BE DIMENSIONED TO BE INTERCHANGEABLE WITH EACH PIECE OF THE CAST IRON GRATE AND FRAME SHOWN. STEEL GRATES MUST HAVE POSITIVE MEANS TO BE RETAINED IN THE FRAME.
(d) STRENGTH REQUIREMENTS OF STEEL GRATES AND FRAMES MUST MEET AASHTO M 306
(e) MANUFACTURERS DESIRING TO BE PLACED ON THE DEPARTMENT'S QUALIFIED PRODUCT LIST SHOULD CONTACT THE MATERIALS AND RESEARCH ENGINEER FOR PROCEDURES.

13. THE LONGEST DIMENSIONS OF THE OPENING IN THE IRON GRATE SHOULD BE ORIENTED IN THE DIRECTION OF FLOW. IF PRACTICABLE. THIS GRATE IS NOT SUITABLE FOR PEDESTRIAN TRAFFIC BECAUSE GRATE OPENINGS EXCEED 1/2".

14. AS SHOWN BY THIS DRAWING, THE FRAME IS SET LEVEL, BUT THE RESIDENT CONSTRUCTION ENGINEER MAY SET SAME ON SLOPE AS REQUIRED BY LOCAL DRAINAGE CONDITIONS.

15. AFTER THE FRAME IS SET IN ITS FINAL POSITION, IT IS TO BE ENCASED WITH CONCRETE AS SHOWN BY DRAWING.

16. ALL MANUFACTURING PROCESSES FOR THE FRAME AND GRATE MUST OCCUR IN THE UNITED STATES.

PRECAST NOTES:

17. THE USE OF PRECAST UNITS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING SATISFACTORY INSTALLATIONS. SEE STANDARD DRAWINGS FOR PRECAST CONCRETE DRAINAGE BOX OR STRUCTURE FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

18. LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSARY. ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION. ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.

19. THE CONTRACTOR SHALL USE A SINGLE SOURCE MANUFACTURER CHOSEN FROM THE LIST ON QUALIFIED PRODUCT LIST 14 FOR PRECAST ITEMS ON THIS DRAWING.

20. FOLLOW QUALIFIED PRODUCT POLICY 14 IN ORDER TO BE LISTED ON QUALIFIED PRODUCT LIST 14.

21. CONTRACTOR MAY SUBMIT DESIGN DRAWINGS AND CALCULATIONS FOR MODIFICATIONS TO THIS ITEM ON A PROJECT BY PROJECT BASIS. MODIFICATIONS TO THESE ITEMS WILL NOT BE LISTED ON ANY QUALIFIED PRODUCT LISTS. SUBMIT ALL PROPOSALS FOR PROJECT SPECIFIC MODIFICATIONS TO THE RESIDENT ENGINEER FOR REVIEW BY THE ENGINEER OF RECORD.

22. JOINTS BETWEEN INSTALLED PIECES AND PRECAST ITEMS TO BE PLACED SHALL BE SEALED WITH A 1/2" GROUT LIFT OR AN APPROPRIATE PLASTIC PREFORMED GASKET (FROM QUALIFIED PRODUCT LIST 13.)

PRECAST INSTALLATION NOTES:

23. BED SHALL BE PREPARED AND COMPACTED FOR PRECAST DRAINAGE STRUCTURE AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS FOR PRECAST ITEMS. ELEVATION OF BEDDING MATERIAL SHALL BE APPROPRIATE TO ACCOMMODATE ELEVATION OF ALL PIPES AND REQUIRED BOX TOP ELEVATION.

24. PLACE AND LEVEL PRECAST BOX OR SLAB.

25. PIPES SHALL BE INSTALLED AND GROUTED IN PLACE.

26. PIPES AND BOX SHALL BE BACKFILLED AND COMPACTED AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS.

27. ANY LOCATION WHERE THE ABOVE REQUIREMENTS CANNOT BE MET SHALL BE COMPLETED USING CAST IN PLACE MATERIALS MEETING THE REQUIREMENTS OF THIS STANDARD DRAWING. ANY ADDITIONAL MATERIALS OR COSTS ASSOCIATED WITH THE USE OF PRECAST SHALL BE PAID FOR BY THE CONTRACTOR AND MAY NOT BE CHARGED TO SCDOT.

28. THE CONTRACT UNIT PRICE FOR DROP INLETS SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS, (BUILT IN PLACE OR PRECAST), AND WORK INCIDENTAL TO THE CONSTRUCTION OF THE STRUCTURE COMPLETE IN PLACE AS SHOWN, INCLUDING THE CURB AND GUTTER, IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

29. PRECAST CONCRETE CIRCULAR STRUCTURES (AS SHOWN ON 719-420-00) ARE REQUIRED FOR THE FOLLOWING APPLICATIONS UNLESS PROHIBITED BY THE PLANS OR SPECIAL PROVISIONS.

(a) ON DRAINAGE STRUCTURES WITHA A DEPTH EQUAL TO OR GREATER THAN 12 FEET.

(b) ON DRAINAGE STRUCTURES WHERE THE FLOW LINE ELEVATION OF THE INLET PIPE IS EQUAL TO OR HIGHER THAN THE INSIDE TOP (SOFFIT) OF THE OUTLET PIPE.

(c) AS REQUIRED BY THE PROJECT PLANS.

30. THE PAY ITEM SHALL BE:
DROP INLET (24"X36")_____EA

USE SHEETS 719-110-01 THROUGH 719-110-02 FOR THIS ITEM.

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

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4			
3			
2			
1			

TOPO._____ DATE _____
DWG. _____ DATE _____ SQUAD ____ - ____
R/W _____ DATE _____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

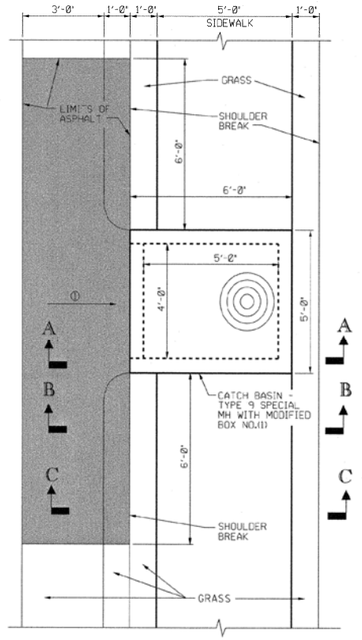
RTE./RD. ALL ROADS

DESIGN BY: TranSystems

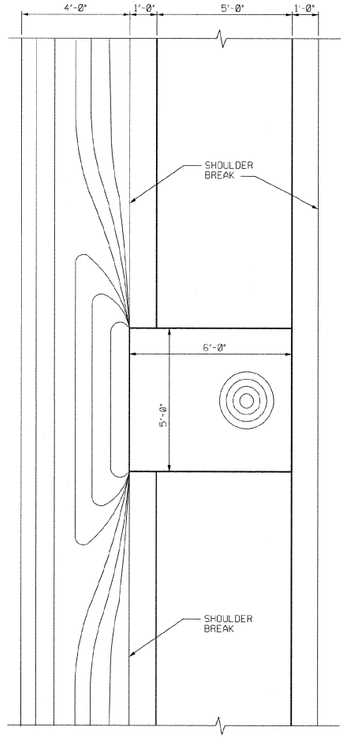
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT16	65

PIN 40764

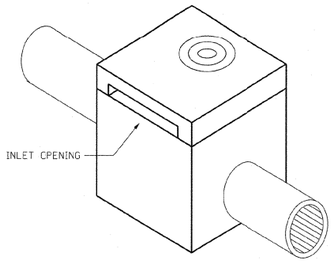
SHEET NO. S1



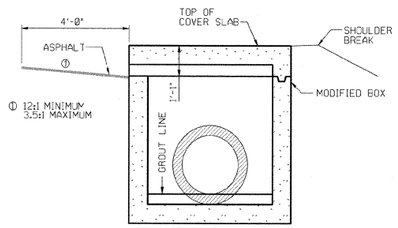
PLAN
(SEE SHEET D1 & D2)



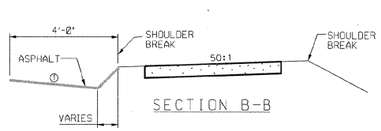
PAVED INLET WITH CONTOURS



ISOMETRIC VIEW
CATCH BASIN - TYPE 9 SPECIAL MH WITH MODIFIED BOX NO.(1) (ONE OPENING)



SECTION A-A



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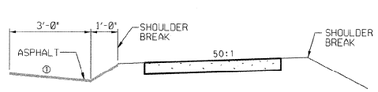

SECTION C-C

PRECAST INSTALLATION NOTES:

BED SHALL BE PREPARED AND COMPACTED FOR PRECAST DRAINAGE STRUCTURE AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS FOR PRECAST ITEMS. ELEVATION OF BEDDING MATERIAL SHALL BE APPROPRIATE TO ACCOMMODATE ELEVATION OF ALL PIPES AND REQUIRED BOX TOP ELEVATION.

PLACE AND LEVEL PRECAST BOX.

PIPES SHALL BE INSTALLED AND GROUTED IN PLACE.

PIPES AND BOX SHALL BE BACKFILLED AND COMPACTED AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS.

ANY LOCATION WHERE THE ABOVE REQUIREMENTS CANNOT BE MET SHALL BE COMPLETED USING CAST IN PLACE MATERIALS MEETING THE REQUIREMENTS OF THIS DRAWING. ANY ADDITIONAL MATERIALS OR COSTS ASSOCIATED WITH THE USE OF PRECAST SHALL BE PAID FOR BY THE CONTRACTOR AND MAY NOT BE CHARGED TO SCDOT.

GENERAL NOTES:
REINFORCING STEEL SHALL BE ASTM A-706, GRADE 60, LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT.

SEE STANDARD DRAWING 719-550-00 FOR METAL STEPS, WHICH ARE REQUIRED WHEN STRUCTURE DEPTH EXCEEDS 4'-6".

SEE STANDARD DRAWING 719-510-00 FOR DETAIL OF MANHOLE CASTING AND COVER. MANHOLE SHALL BE LINED UP WITH THE INTERIOR OF THE BOX AS SHOWN ON THE STANDARD DRAWING.

DESIGN DATA:
LOAD AND RESISTANCE FACTOR DESIGN (LRFD)
CONCRETE: CLASS 4000P, $f'c$ = 4 ksi
REINFORCING STEEL: ASTM A706, f_y = 60 ksi

LOCATIONS AND SIZES OF PIPES ARE SITE SPECIFIC (SEE DRAINAGE PLANS). THE BOTTOM SLAB THICKNESS MUST BE ACHIEVED BEYOND PIPE OUTSIDE DIAMETER. IF PRECAST UNITS ARE USED, THE BOTTOM OF THE MODIFIED BOX IS TO BE GROUTED TO THE LOWEST FLOW LINE ELEVATION OF ALL PIPES.

THE CONTRACT UNIT PRICE FOR CATCH BASIN SHALL INCLUDE THE COST OF FURNISHING ALL MATERIALS AND WORK INCIDENTAL TO CONSTRUCTION OF THE STRUCTURE COMPLETE IN PLACE AS SHOWN AND IN ACCORDANCE WITH THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION)

PRECAST NOTES:

AT NO ADDITIONAL EXPENSE TO THE DEPARTMENT AND SUBJECT TO THE APPROVAL OF THE RESIDENT CONSTRUCTION ENGINEER, PRECAST REINFORCED CONCRETE DRAINAGE STRUCTURES MAY BE SUBSTITUTED FOR CONSTRUCTED-IN-PLACE STRUCTURES SHOWN ON PLANS. IF PERMISSION IS GIVEN TO SUBSTITUTE PRECAST ALTERNATES, ENSURE THAT THEY CONFORM TO DETAILS SHOWN ON PLANS AND THE APPLICABLE PROVISIONS OF THE STANDARD SPECIFICATIONS. USE CLASS 4000P PORTLAND CEMENT CONCRETE CONFORMING TO THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 701. USE REINFORCING STEEL THAT CONFORMS TO ASTM A-706, GRADE 60, AND IS FROM A SOURCE LISTED ON THE MOST RECENT EDITION OF SCDOT QUALIFIED PRODUCT LIST 60. USE WIRE MESH THAT CONFORMS TO THE REQUIREMENTS OF AASHTO M 55 AND AASHTO M 221. SEVEN (7) SETS OF SHOP DRAWINGS (22"X36" OR 11"X17") AND DESIGN CALCULATIONS SHALL BE SUBMITTED BY THE CONTRACTOR INDICATING THE PROJECT FILE NUMBER, PROJECT CONTROL NUMBER, DESIGN CRITERIA , ADEQUATE DIMENSIONING, REINFORCING STEEL SCHEDULE, SUMMARY OF ESTIMATED QUANTITIES, AND MATERIAL SPECIFICATIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BEAR THE SEAL AND SIGNATURE OF A SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED TO THE FOLLOWING ADDRESS, WITH A COPY OF TRANSMITTAL LETTER TO THE RESIDENT CONSTRUCTION ENGINEER:

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
PRECONSTRUCTION SUPPORT ENGINEER
955 PARK STREET ROOM 409
COLUMBIA, SC
ATTENTION: LOGISTIC COORDINATOR

DURING THE REVIEW PROCESS SHOP DRAWINGS AND DESIGN CALCULATIONS, ALL SUBSEQUENT SETS OF SUBMITTALS SHALL BE SENT TO THE PRECONSTRUCTION SUPPORT ENGINEER AT THE ADDRESS ABOVE. FAXES OR ELECTRONIC TRANSMITTAL WILL BE ACCEPTED DURING THE REVIEW PROCESS.

THE USE OF PRECAST UNITS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF OBTAINING SATISFACTORY INSTALLATIONS. SEE STANDARD DRAWING 719-305-00 FOR PRECAST CONCRETE DRAINAGE BOX OR STRUCTURE FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSARY. ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION. ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.

THE CONTRACTOR SHALL USE MANUFACTURERS LISTED ON QUALIFIED PRODUCT LIST 14 FOR PRECAST ITEMS ON THIS DRAWING. FOLLOW QUALIFIED PRODUCT POLICY 14 TO BE LISTED ON THE QUALIFIED PRODUCT LIST.

JOINTS BETWEEN INSTALLED PIECES AND PRECAST ITEMS TO BE PLACED SHALL BE SEALED WITH A ½" GROUT LIFT OR AN APPROPRIATE PLASTIC PREFORMED GASKET (FROM APPROVAL SHEET 69.)

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	PAY ITEM	QUANTITY	PAY UNIT
7191280	CATCH BASIN - TYPE 9 SPECIAL MH WITH MODIFIED BOX NO.(1)	9	EA

REV.				
REV.				
REV.				
REVIEWED				
QUAN.				
DR.	WU	VNDC	Ø3-12	
DES.	WU	VNDC	Ø3-12	
	BY	CHK.	DATE	

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

CATCH BASIN - TYPE 9 SPECIAL MH WITH MODIFIED BOX NO.(1)

FILE NO.	ROUTE	COUNTY	DRAWING NO.
10.040764	SC 162	CHARLESTON	

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 22926 WILLIAM B. MCKNIGHT 9/2/2016

W:\ML C:\Structural\Sad\40764\Final\40764 CB 9 SP-1.DGN 26-JUL-2012

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 30116 MASON D. CONNER 10-27-16

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4			
3			
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1			

TOPO. _____ DATE _____
DWG. _____ DATE _____
R/W _____ DATE _____
SQUAD ____ - ____

D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

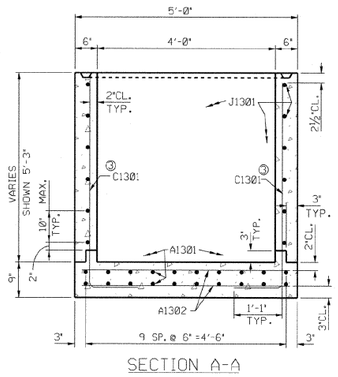
RTE./RD. ALL ROADS

DESIGN BY: TranSystems

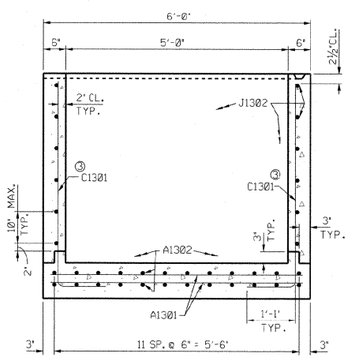
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	ROAD/ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	P306150018	ALL	DT17	65

PIN 40764

SHEET NO. 52



SECTION A-A



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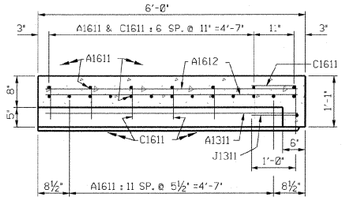

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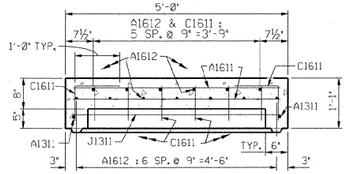

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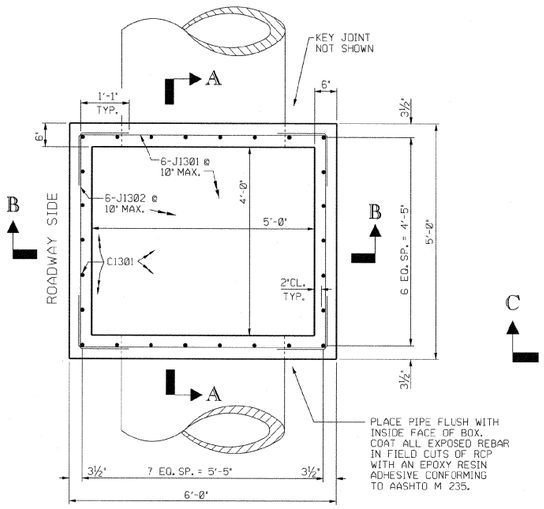
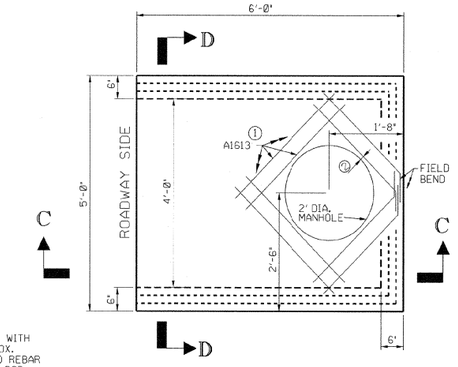
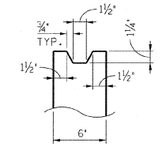


4'x5' MODIFIED BOX PLAN VIEW

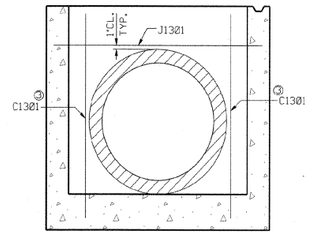


5'x6' COVER SLAB PLAN VIEW

① SPACE 4' O.C. BOTH TOP & BOTTOM MAT. FIELD BEND IF NECESSARY TO MAINTAIN 2' CLEAR FROM CONCRETE SURFACE.
② MAINTAIN 1' CL. FROM MANHOLE (TYP.)
③ FIELD CUT IF NECESSARY TO MAINTAIN 2½" CLEAR.



KEY JOINT DETAIL



ADDITIONAL REBARS FOR PIPE CONNECTION

REINFORCING STEEL SCHEDULE

Location	Mark	No Req'd	Dimension "a"	"b"	"c"	"d"	Length
MODIFIED BOX	A1301	20	5'-8"				5'-8"
	A1302	24	4'-8"				4'-8"
	C1301	26	5'-6½"	1'-1"			6'-8"
	J1301	12	5'-8"	1'-1"			7'-10"
	J1302	12	4'-8"	1'-1"			6'-10"
COVER SLAB	A1311	2	5'-8"				5'-8"
	A1611	20	4'-8"				4'-8"
	A1612	13	5'-8"				5'-8"
	A1613	16	4'-10"				4'-10"
	C1611	20	0'-9"	1'-0"			1'-9"
	J1311	1	4'-8"	1'-0"			6'-8"

QUANTITIES

ITEM	UNIT	QUANTITY COVER	QUANTITY BOX
CONC. FOR STR-CLASS 4000(RDWY)	C.Y.	0.8	2.8
REINF STEEL FOR STRUCT (RDWAY)	Lbs.	303	383
MANHOLE	EA	1	

NOTE:
THE ESTIMATED QUANTITIES FOR CONCRETE AND REINFORCING STEEL ARE BASED ON THE NET WALL HEIGHT OF 5.25 FEET. THE QUANTITIES OF THE OTHER MODIFIED BOXES SHALL BE ADJUSTED ACCORDING TO THE PIPE ELEVATION.

W.J.ML
C:\Structural\Sad\40764\Final\40764 CB 9 SP Details.DGN
26-JUL-2012

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 22926 8/29/2012 WILLIAM B. MCKINNEY

REV.				
REV.				
REV.				
REVIEWED				
QUAN.	WJ	VNDC	03-12	
DR.	WJ	VNDC	03-12	
DES.	WJ	VNDC	03-12	
	BY	CHK.	DATE	

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

CATCH BASIN - TYPE 9 SPECIAL MH WITH MODIFIED BOX NO.(1) DETAILS

FILE NO.	ROUTE	COUNTY	DRAWING NO.
12.040764	SC 162	CHARLESTON	

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 30116 10-27-16 MASON D. CONNER

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

CONSULTING ENGINEERING FIRM
TranSystems
4390 BELLE OAKS DRIVE, SUITE 220
NORTH CHARLESTON, SC 29405
PHONE (843) 266-9300
FAX (843) 529-9616
WWW.TRANSYSTEMS.COM

REV. NO.	BY	DATE	DESCRIPTION OF REVISION
4			
3			
2			
1			

TOPO. _____ DATE _____
DWG. _____ DATE _____ SQUAD ____ - ____
R/W _____ DATE _____

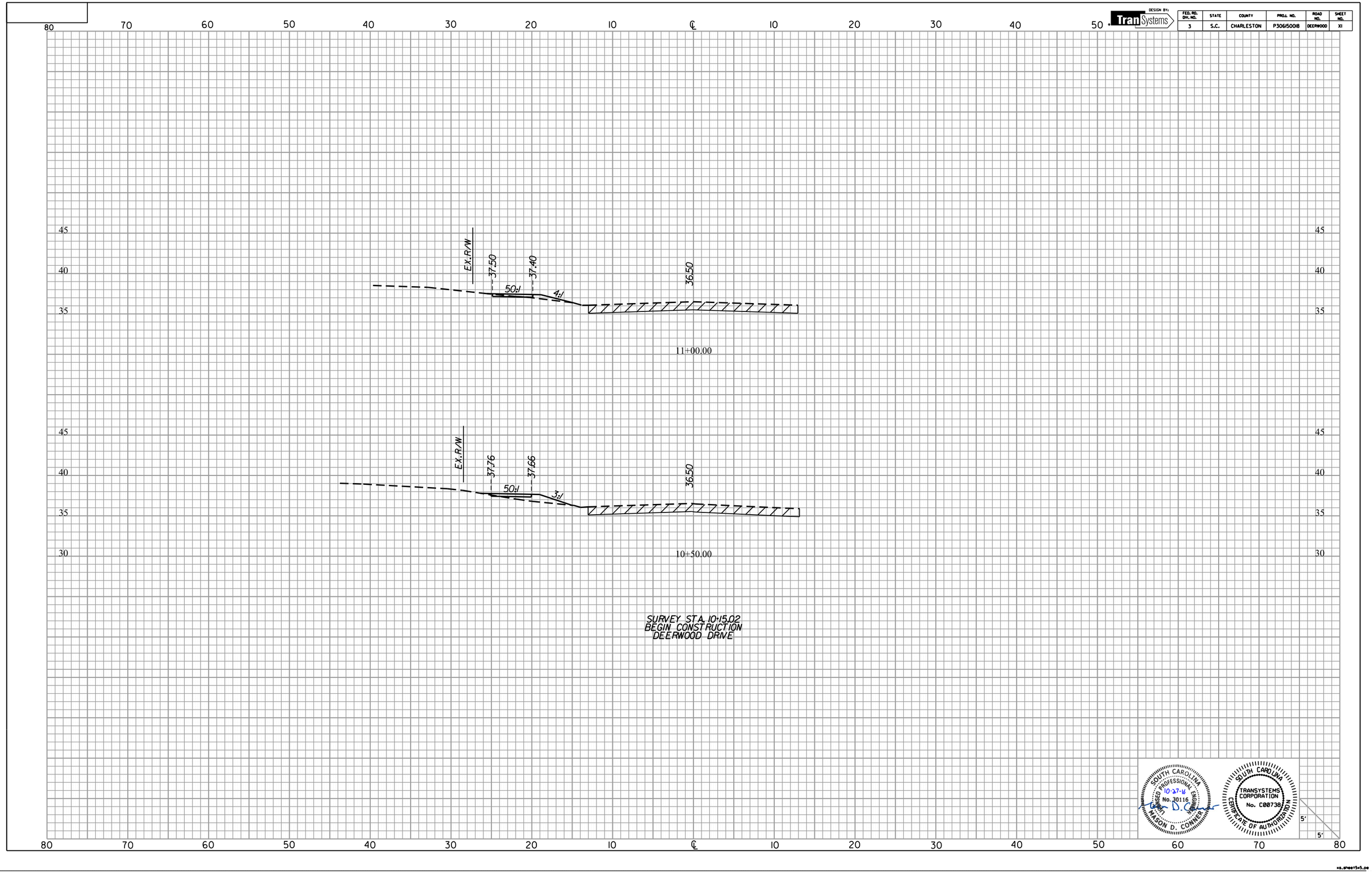
D3 SIDEWALK IMPROVEMENTS
CHARLESTON COUNTY, S.C.

DETAIL SHEET

RTE./RD. ALL ROADS

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	DEERWOOD	XI



SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

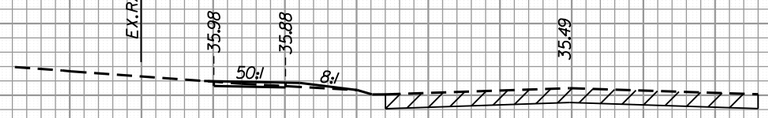
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs.sheet5x5.dgn

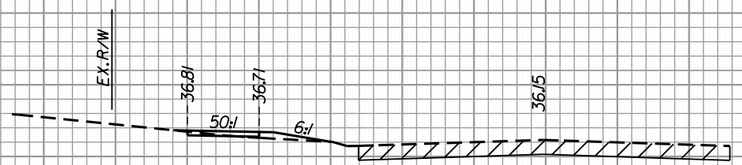
DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/50018	DEERWOOD	X2

12+50.00



12+00.00



11+50.00

SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

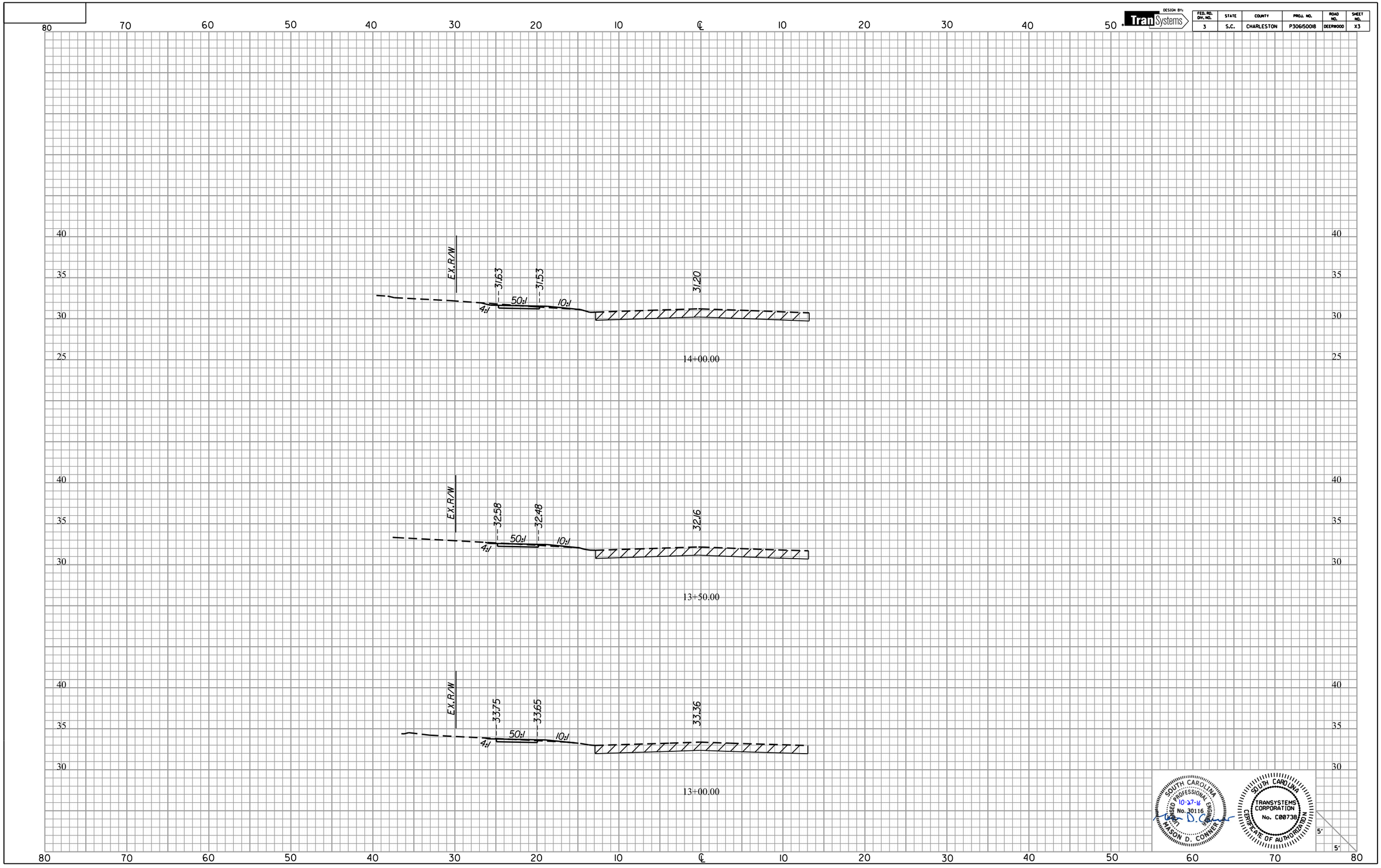
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	DEERWOOD	X3



SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

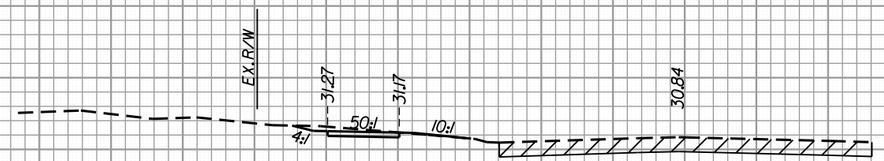
xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	DEERWOOD	X4

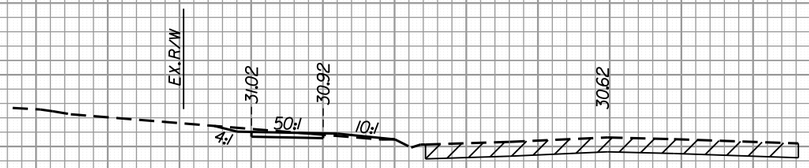
80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

35 30 25



15+50.00

15+00.00



14+50.00

SOUTH CAROLINA PROFESSIONAL ENGINEER MASON D. CONNER No. 30116 10-27-16

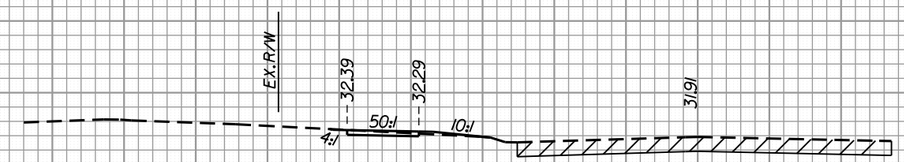
SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

5' 5'

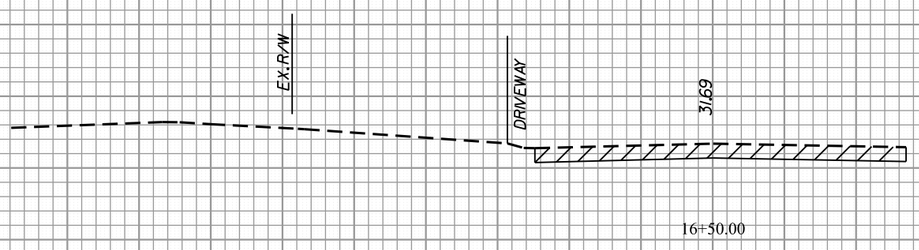
xs_sheet5x5.dgn

DESIGN BY: TranSystems

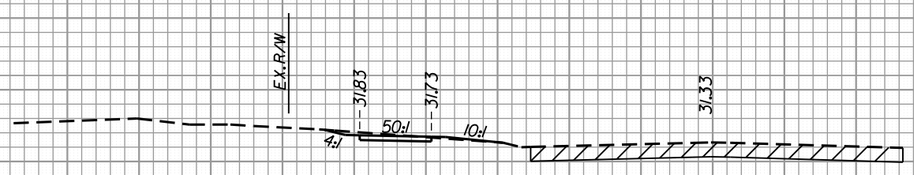
FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	DEERWOOD	X5



17+00.00



16+50.00



16+00.00

SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

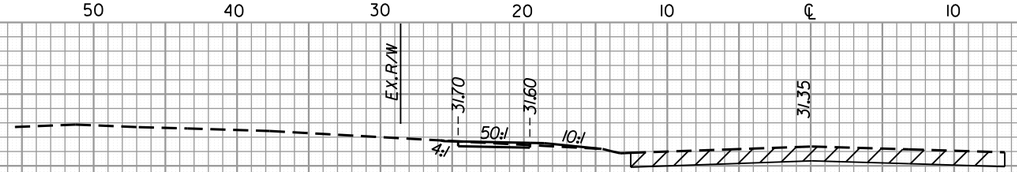
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.pe

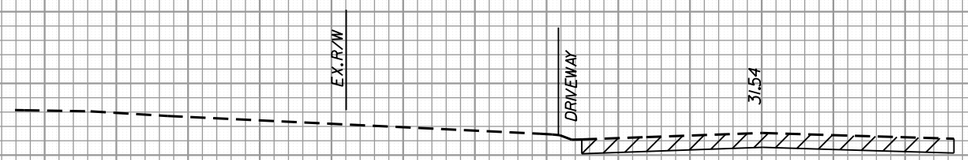
DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	DEERWOOD	X6

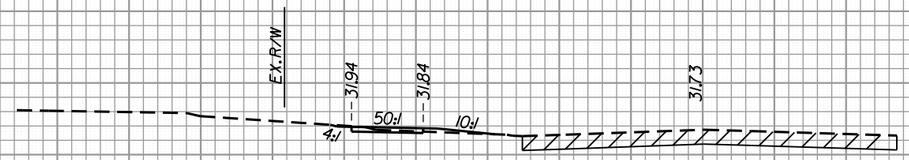
80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80



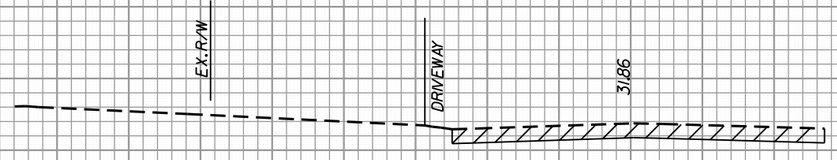
19+00.00



18+50.00



18+00.00



17+50.00

SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

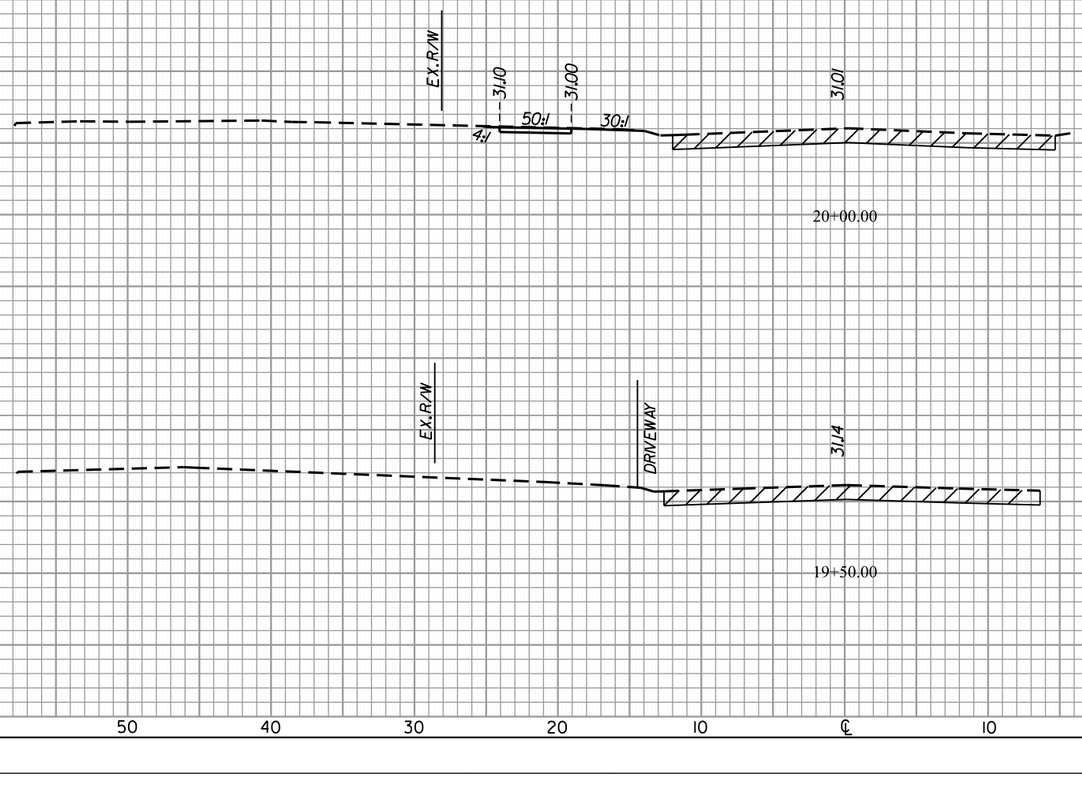
5' 5'

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	DEERWOOD	X7

SURVEY STA. 20+31.07
END CONSTRUCTION
DEERWOOD DRIVE



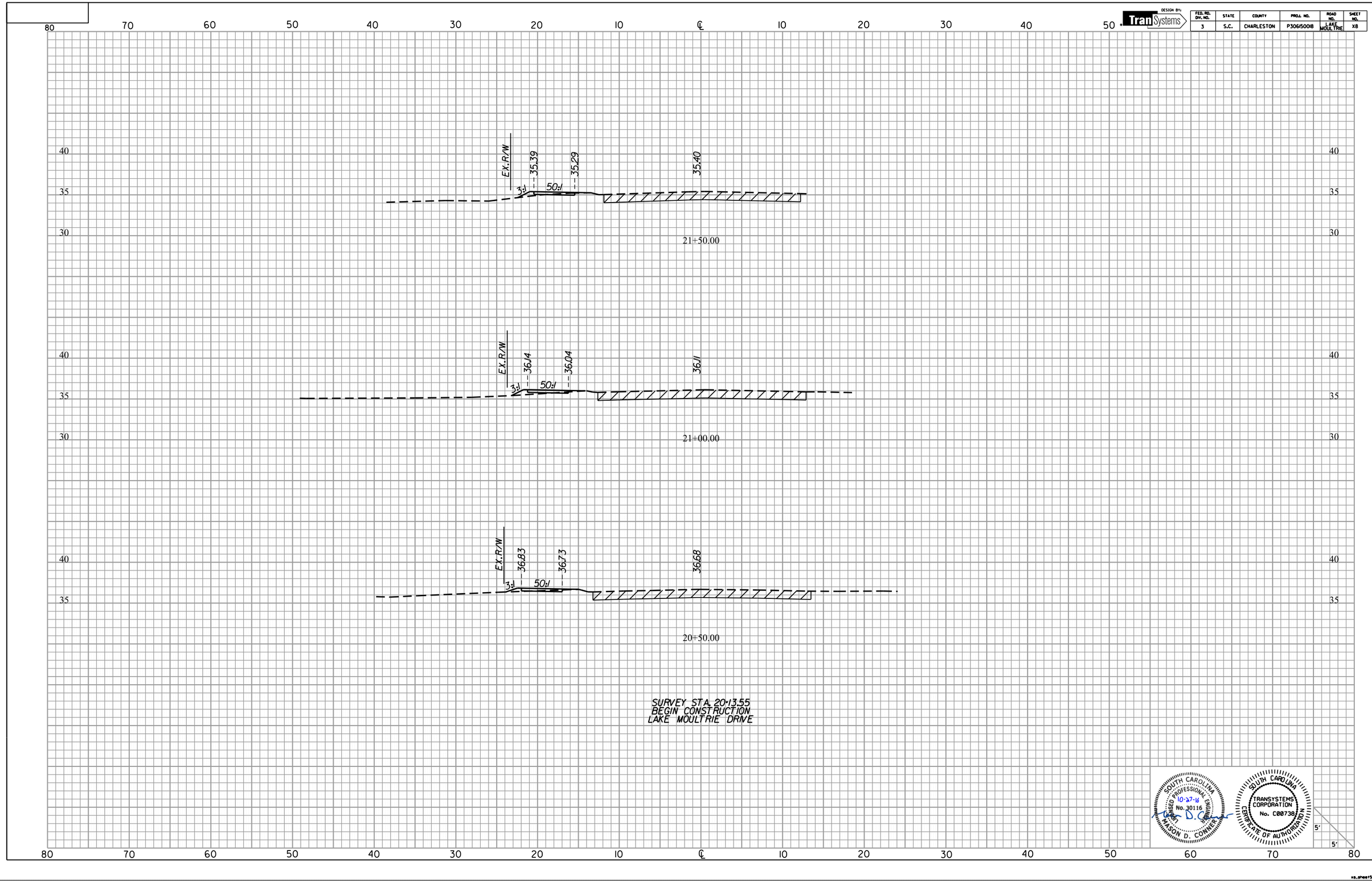
SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

TRANSYSTEMS CORPORATION
SOUTH CAROLINA
No. C00738
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	LAKE MOULTRIE	X8



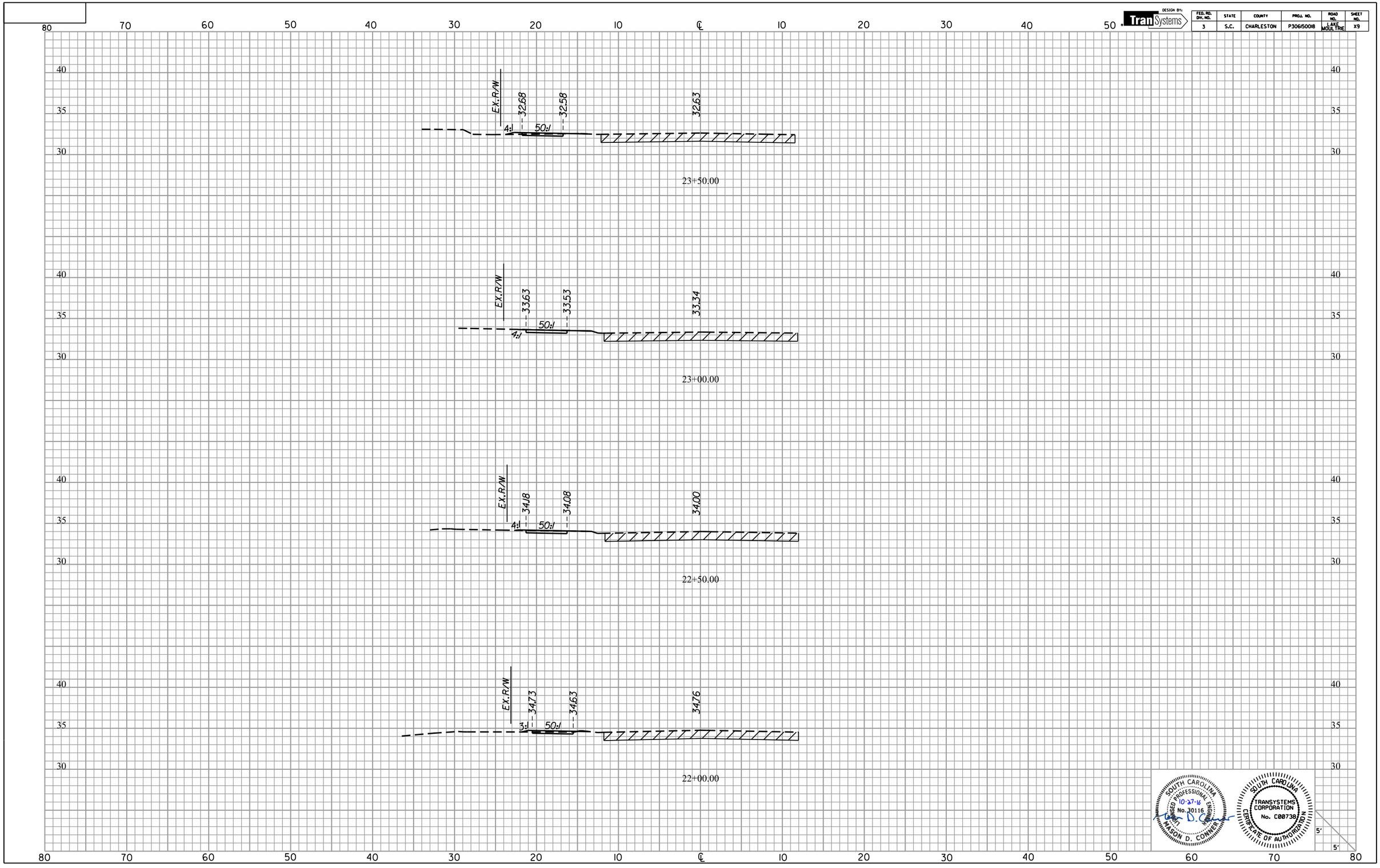
SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.dgn

DESIGN BY: TranSystems	FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
	3	S.C.	CHARLESTON	P306/500118	LAKE MOULTRIE	X9



SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs.sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	LAKE MOULTRIE	X10

SURVEY STA. 25+91.55
END CONSTRUCTION
LAKE MOULTRIE DRIVE

EX. R/W
DRIVEWAY
29.97
25+50.00

EX. R/W
30.96
30.86
50:1
8:1
4:1
30.66
25+00.00

EX. R/W
DRIVEWAY
31.31
24+50.00

EX. R/W
DRIVEWAY
31.95
24+00.00

SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

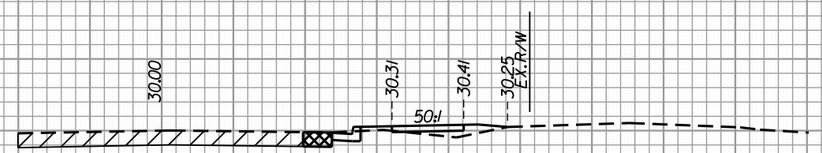
xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	EMMIE	XII

31+50.00

31+00.00



30+50.00

SURVEY STA. 29+59.84
BEGIN CONSTRUCTION
HAYDEN GLENN DRIVE

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

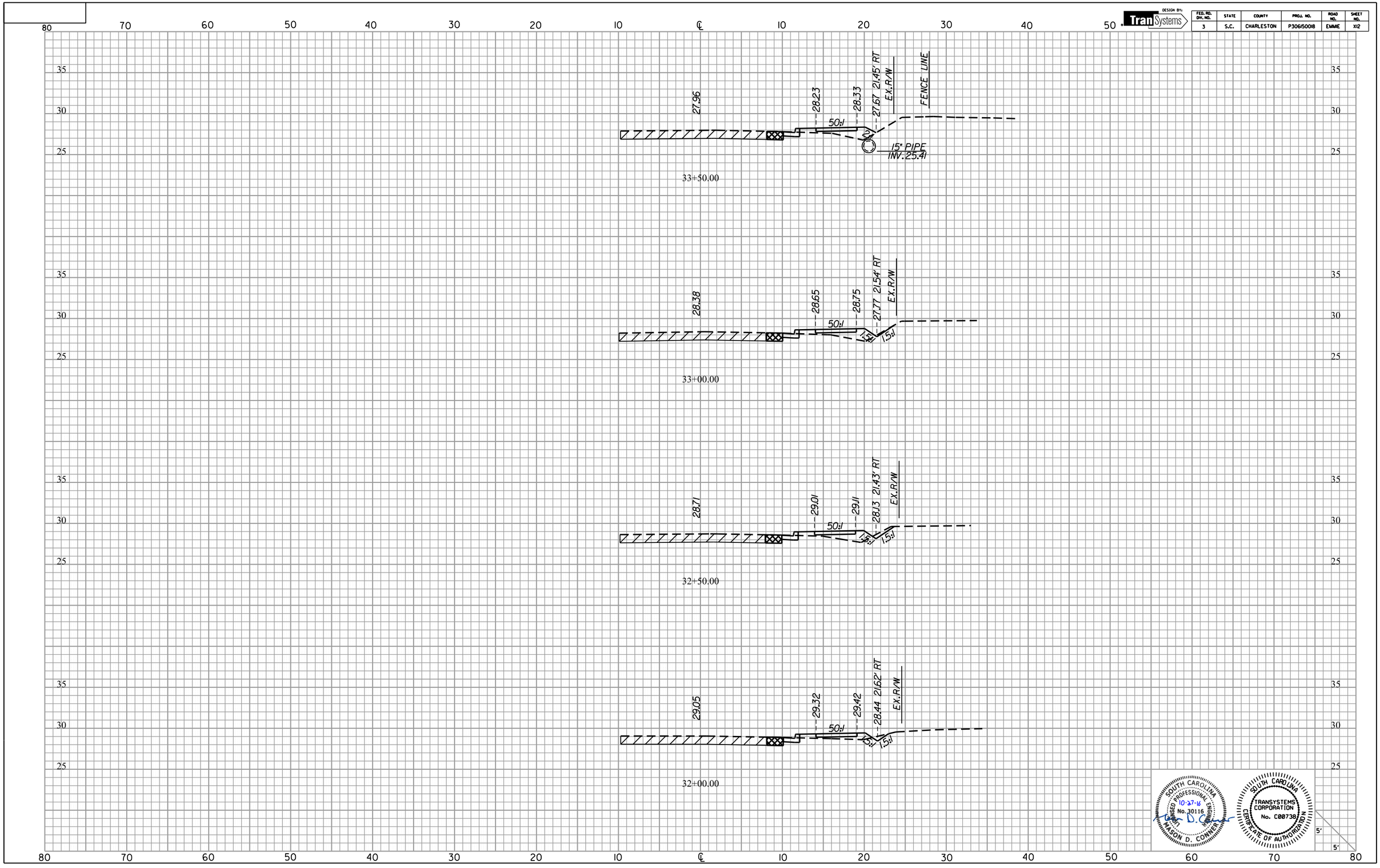
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/50018	EMMIE	X12



SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

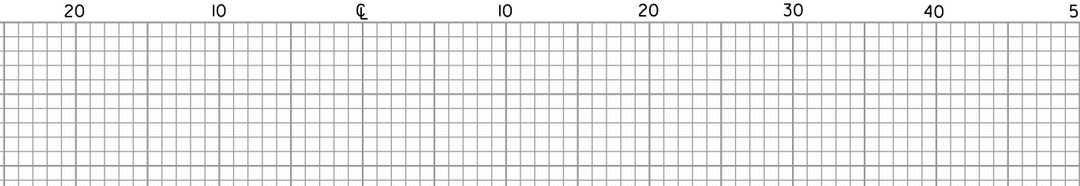
5'
5'

xs_sheet5x5.dgn

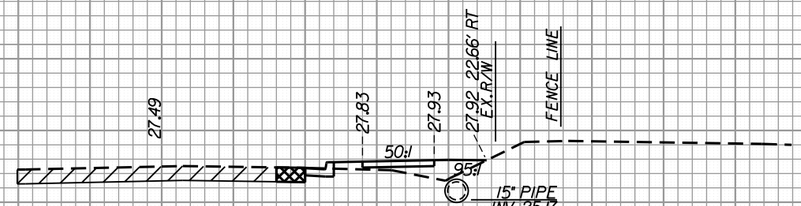
DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/50018	EMMIE	X13

SURVEY STA 34+85.51
END CONSTRUCTION
EMMIE STREET



34+50.00



34+00.00

SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

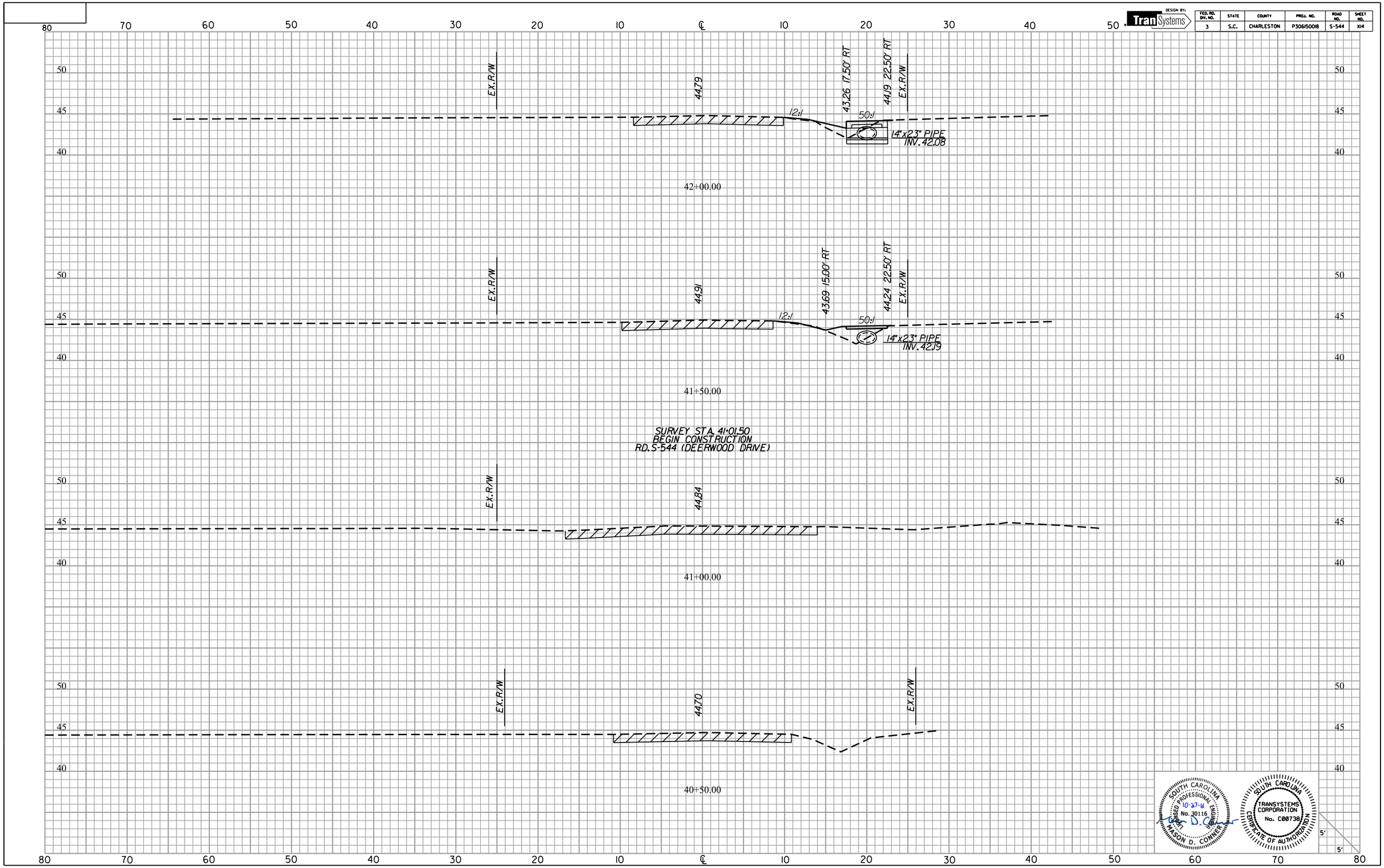
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.pe

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/50018	S-544	X14



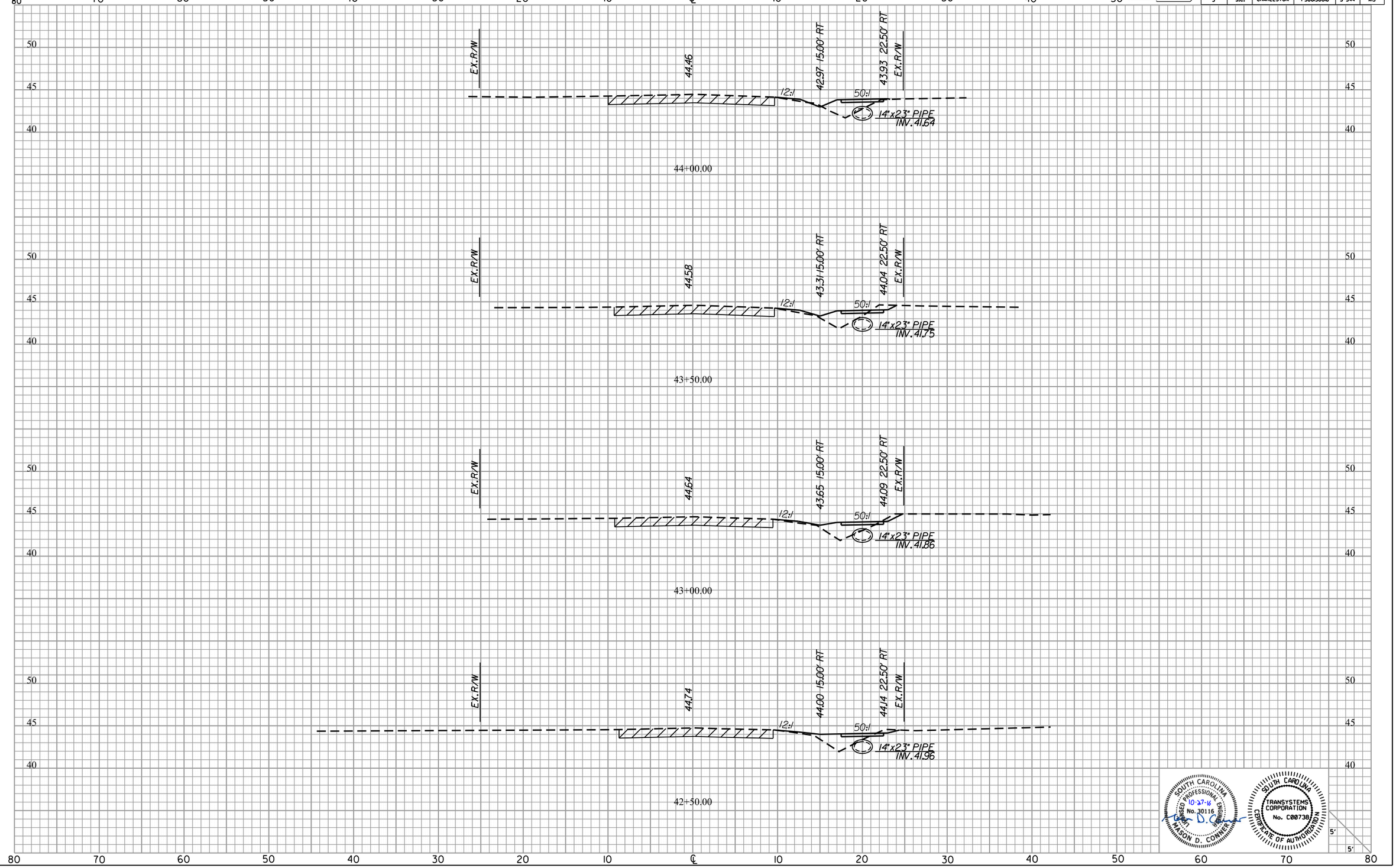
SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 30116
10-27-16
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.pe

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X15



SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

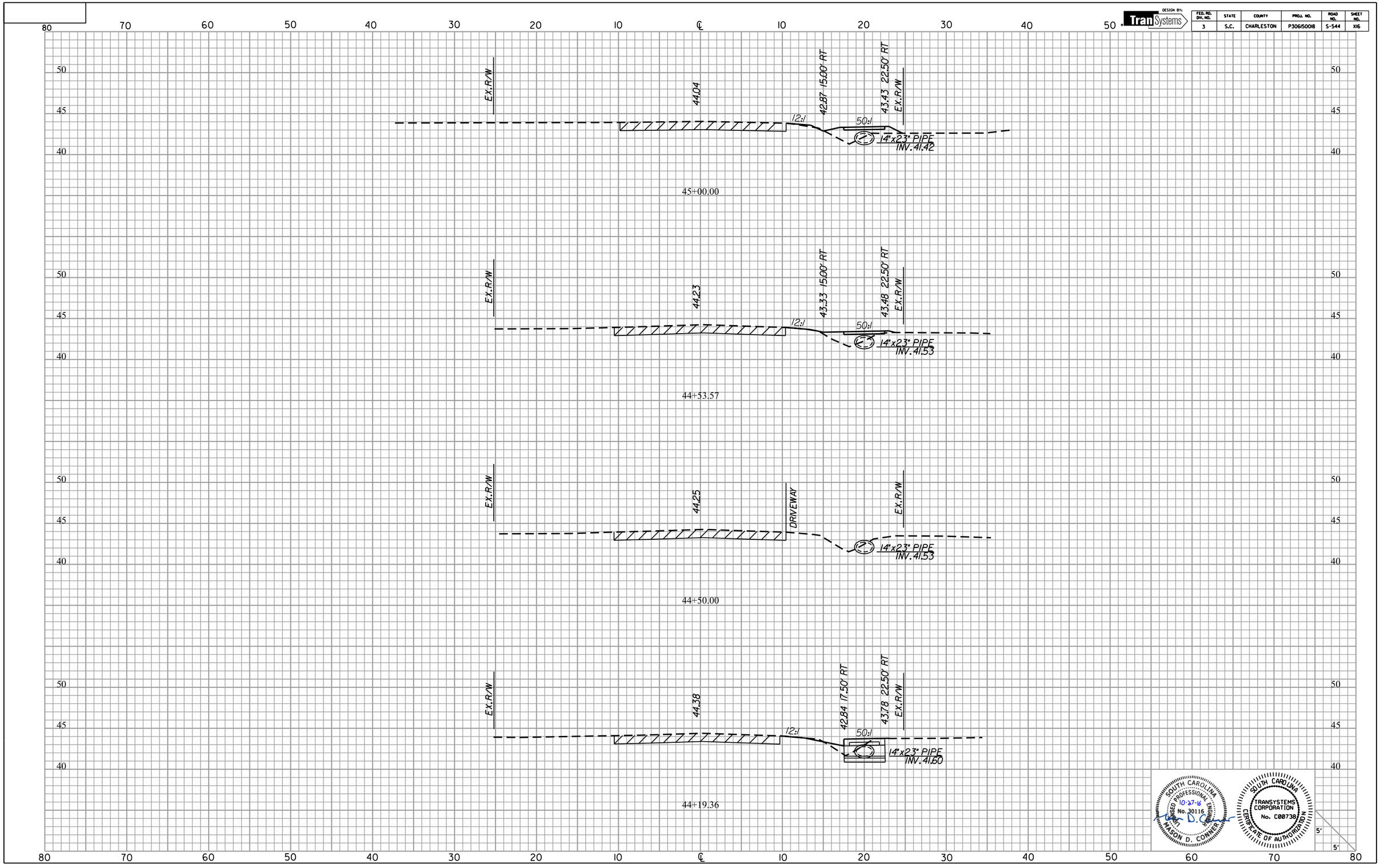
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.pe

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X16



SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

TRANSYSTEMS CORPORATION
No. C00738
SOUTH CAROLINA
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X17

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50

EX. R/W
43.73
43.07 15.00' RT
43.37 22.50' RT
EX. R/W
12:1
50:1
14"x23" PIPE
INV. 41.22

45+82.37

43.99

45+50.00

EX. R/W
43.96
43.02 15.00' RT
43.56 22.50' RT
EX. R/W
12:1
50:1
14"x23" PIPE
INV. 41.37

45+23.21

EX. R/W
43.98
42.59 17.50' RT
43.52 22.50' RT
EX. R/W
12:1
50:1
14"x23" PIPE
INV. 41.38

45+18.21

50 45 40 35

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
WILLIAM D. CONNER

TRANSYSTEMS CORPORATION
SOUTH CAROLINA
No. C00738
CERTIFICATE OF AUTHORIZATION

5' 5'

xs.sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X18

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

50 45 40 35

EX.R/W

44.00

43.06 15.00' RT

43.49 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.40

46+50.00

EX.R/W

43.67

42.31 17.50' RT

43.24 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.27

46+00.00

EX.R/W

43.70

42.85 15.00' RT

43.32 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.23

45+87.37

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
NELSON D. CONNER

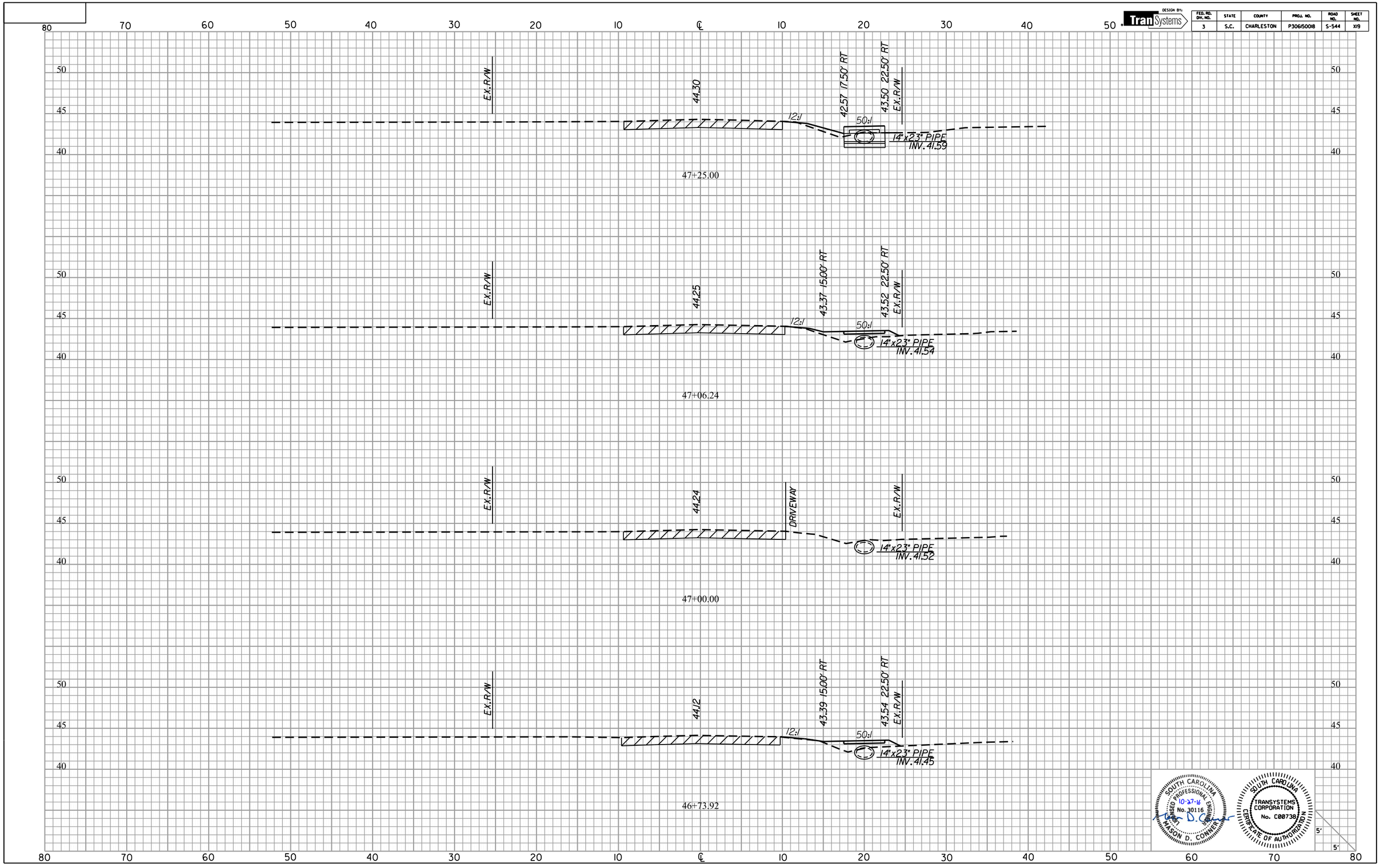
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.pe

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	XI9



SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X20

44.38

DRIVEWAY

EX.R/W

14"x23" PIPE
INV. 41.78

48+00.00

44.36

43.65 15.00' RT

43.91 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.76

47+93.48

EX.R/W

44.32

43.00 15.00' RT

43.62 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.65

47+50.00

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

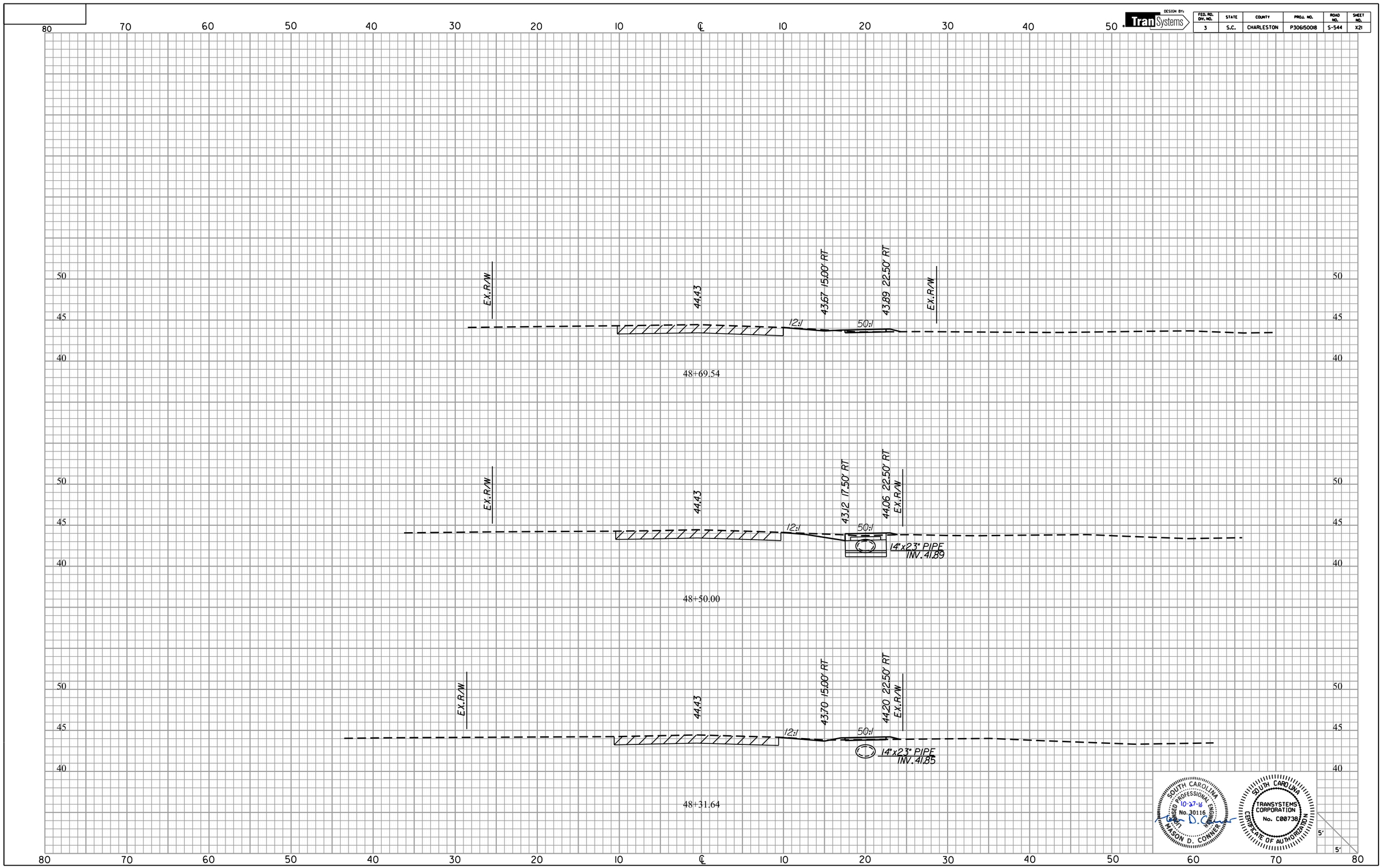
SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

5'
5'

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X21



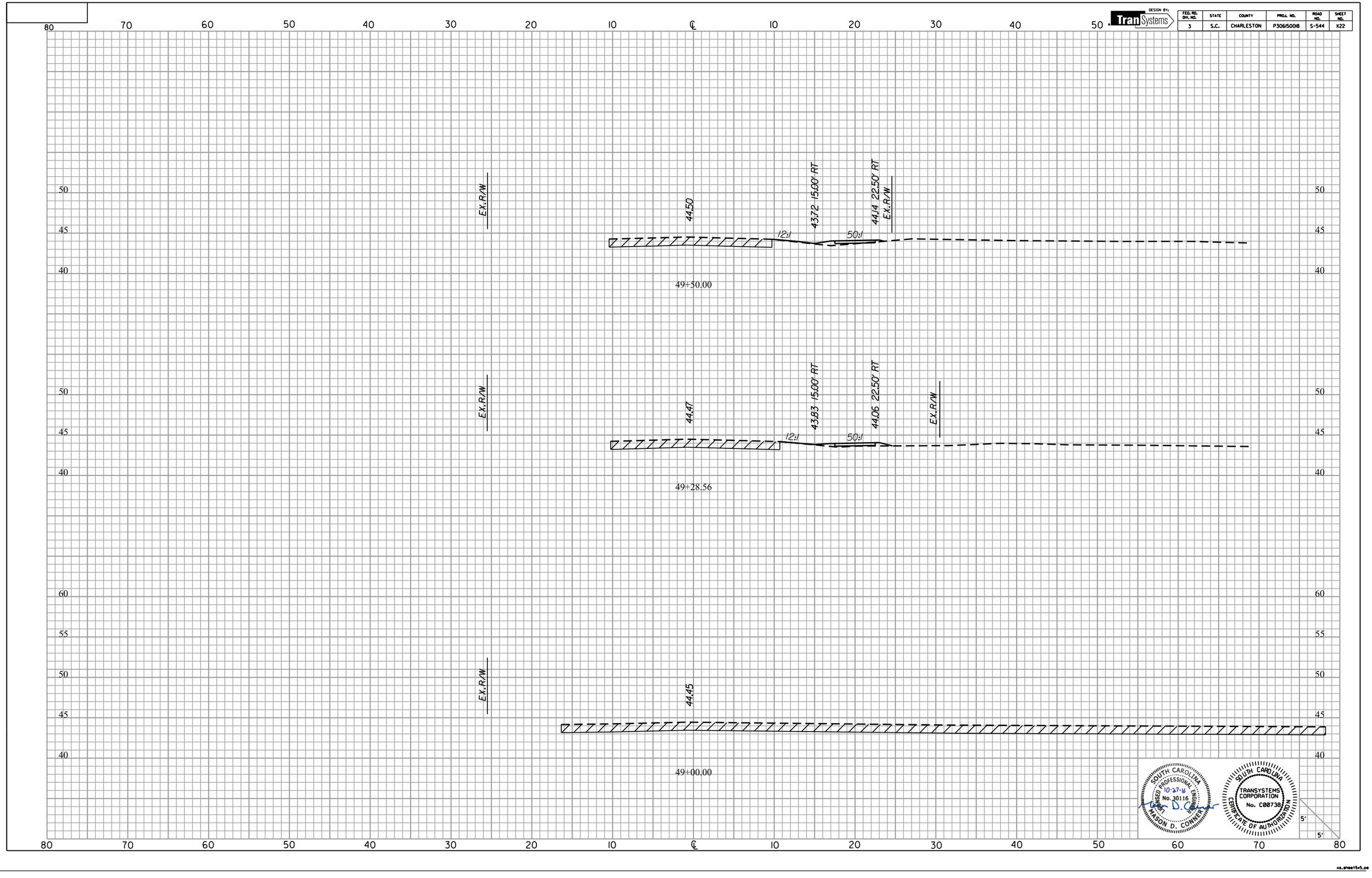
SOUTH CAROLINA PROFESSIONAL ENGINEER
10-27-16
No. 30116
MASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.pe

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X22



SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER
10-27-16
No. 30116
JASON D. CONNER

SOUTH CAROLINA
TRANSYSTEMS CORPORATION
No. C00738
CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.pe

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X23

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

50+69.48

EX.R/W 44.51 12:1 43.87 15.00' RT 50:1 44.42 22.50' RT EX.R/W

14"x23" PIPE INV. 41.82

50+50.00

EX.R/W 44.49 DRIVEWAY EX.R/W

14"x23" PIPE INV. 41.87

50+13.03

EX.R/W 44.54 12:1 43.38 17.50' RT 50:1 44.32 22.50' RT EX.R/W

14"x23" PIPE INV. 41.98

50+00.00

EX.R/W 44.54 12:1 43.45 15.00' RT 50:1 44.29 22.50' RT EX.R/W

45 50 40

5' 5'

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER 10-27-16 No. 30116 JASON D. CONNER

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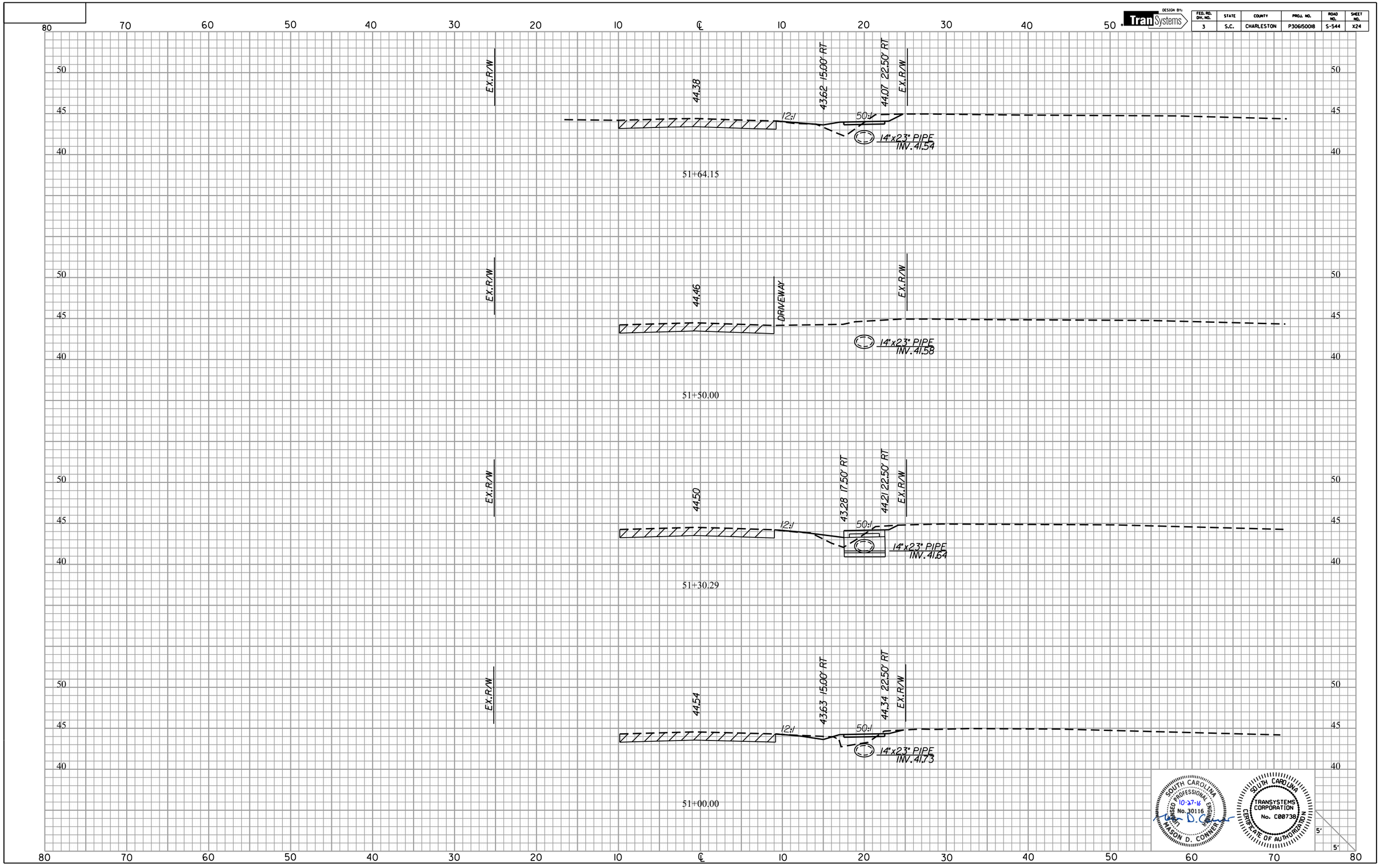
xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/50018	S-544	X24



SOUTH CAROLINA PROFESSIONAL ENGINEER MASON D. CONNER 10-27-16 No. 30116

SOUTH CAROLINA TRANSYSTEMS CORPORATION No. C00738 CERTIFICATE OF AUTHORIZATION

xs_sheet5x5.dgn

DESIGN BY: TranSystems

FED. RD. DIV. NO.	STATE	COUNTY	PROJ. NO.	ROAD NO.	SHEET NO.
3	S.C.	CHARLESTON	P306/500118	S-544	X25

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

EX.R/W

44.61

EX.R/W

50 45 40

53+00.00

44.49

45 40

52+50.00

SURVEY STA. 52+35.97
END CONSTRUCTION
RD. S-544 (DEERWOOD DRIVE)

EX.R/W

44.33

42.91 17.50' RT

43.84 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.37

50 45 40

52+20.14

EX.R/W

44.22

43.16 15.00' RT

43.92 22.50' RT

EX.R/W

12:1

50:1

14"x23" PIPE
INV. 41.43

50 45 40

52+00.00

80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 80

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5'
5'

xs_sheet5x5.pe