STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	3603.3.10, Etc.	1	

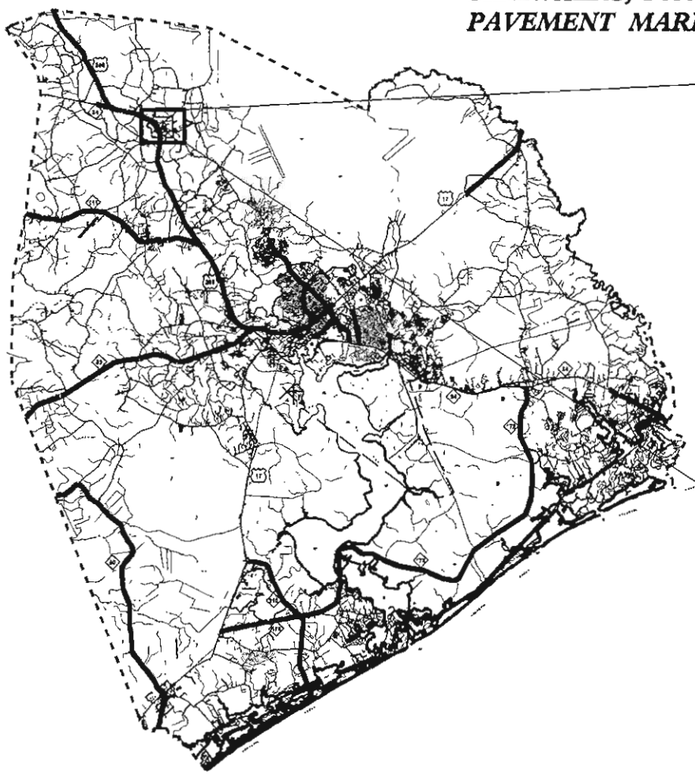
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

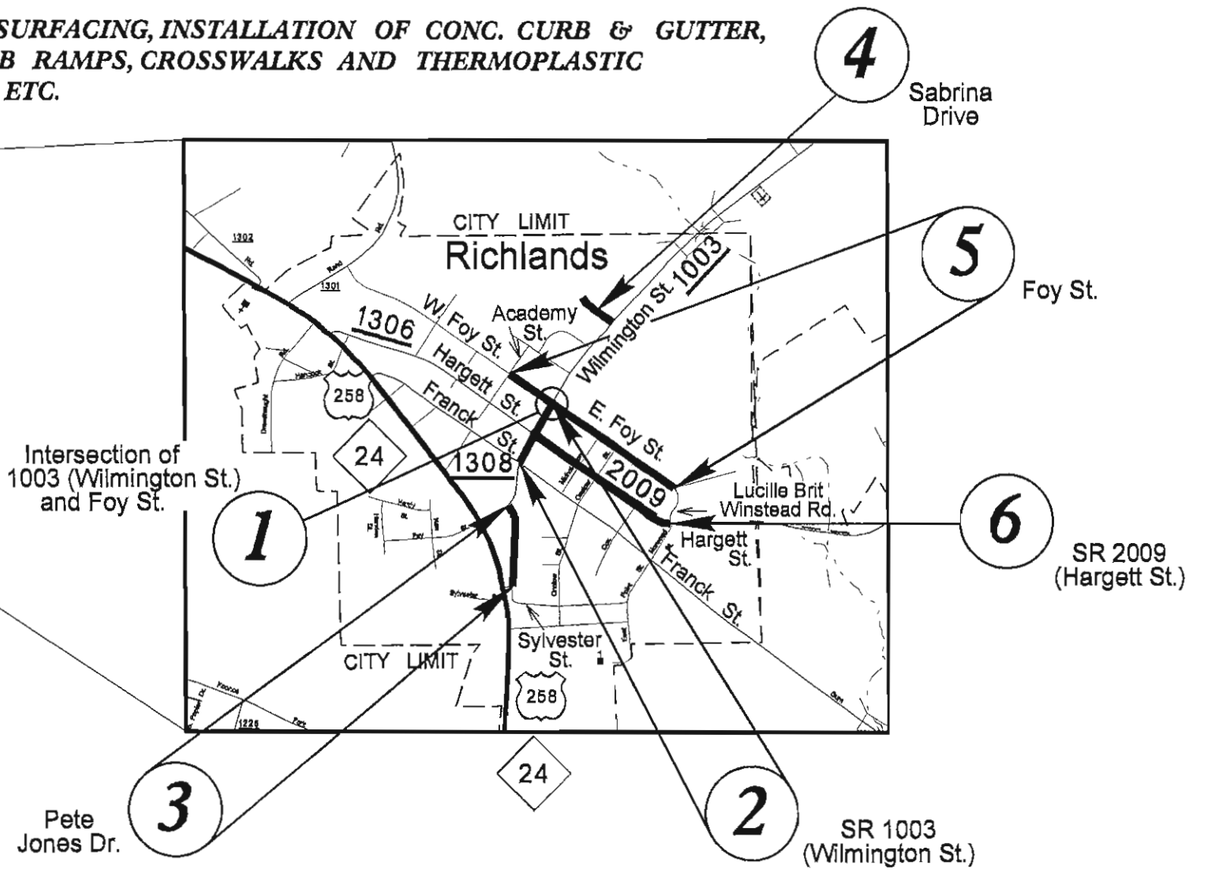
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ONSLOW COUNTY

LOCATION: *INTERSECTION OF SR 1003 (WILMINGTON ST.) & SR 1306 /SR 2009 (HARGETT ST.); SR 1003 (WILMINGTON ST.) FROM SR 1308 (FRANCK ST) TO FOY ST., PETE JONES DR.; SABRINA DRIVE; FOY ST. FROM ACADEMY ST. TO LUCILLE B. WINSTEAD RD. AND SR 2009 (HARGETT ST.) FROM SR 1003 (WILMINGTON ST.) TO LUCILLE B. WINSTEAD RD. IN THE TOWN OF RICHLANDS*

TYPE OF WORK: *GRADING, MILLING, RESURFACING, INSTALLATION OF CONC. CURB & GUTTER, SIDEWALKS, CONC. CURB RAMPS, CROSSWALKS AND THERMOPLASTIC PAVEMENT MARKINGS, ETC.*





NOT TO SCALE

CONTRACT: ***PROJECT: 3603.3.10, 36249.3139 & 42129***

PROJECT LENGTH

WBS 3603.3.10
MAP NO. 1 = 0.01 MI.

WBS 36249.3139
MAP NO. 3 = 0.24 MI.
MAP NO. 4 = 0.10 MI.
MAP NO. 5 = 0.49 MI.
MAP NO. 6 = 0.40 MI.

WBS 42129
MAP NO. 2 = 0.27 MI. *TOTAL = 1.23 MI.*

TOTAL PROJECT = 1.48 MI.

Prepared In the Office of:
DIVISION OF HIGHWAYS
5501 Barbados Blvd., Castle Hayne, NC 28429

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
MAY 17, 2012

SCOTT E. COOKE, PE
PROJECT ENGINEER

MPK
PROJECT DESIGN TECHNICIAN

DNL
PROJECT DESIGN TECHNICIAN

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

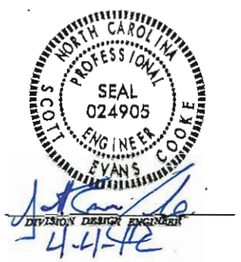
DIVISION DESIGN ENGINEER

16-APR-2012 16:15
R:\ROY\DONE\ONSLOW\Richlands_42129_CurbExt_SR1003\ROADWAY\Proj\42129_Rdy_tsh.dgn
mkimmel AT DSE4025766

09/08/99

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
3603.3J0, Etc.	1-A



GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

CURB RAMPS:

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.

UTILITIES:

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
846.01	Concrete Curb, Gutter and Curb & Gutter
848.05	Curb Ramp - Proposed Curb & Gutter
848.06	Curb Ramp - Existing Curb & Gutter
1205.01	Pavement Markings - Line Types and Offsets
1205.08	Pavement Markings - Symbols and Word Messages
1205.10	Pavement Markings - School Areas
1250.01	Raised Pavement Markers - Installation Spacing
1251.01	Pavement Markings - Permanent and Temporary

INDEX OF SHEETS

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
3603.3J0, Etc.	1-B

Note: Not to Scale

**S.U.E. = Subsurface Utility Engineering*

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — IP
- Property Corner
- Property Monument — CM
- Parcel/Sequence Number — 23
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite Marker
- Existing Control of Access — A
- Proposed Control of Access — A
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Droinage Easement — PDE
- Proposed Permanent Drainage / Utility Eosement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hond Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — TV
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter — G
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole — SS
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — TS
- Utility Unknown U/G Line — PUTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

CONTROL AND ALIGNMENT DESCRIPTIONS

WBS 3603.3.10 Foy St. Curb Ramps

Beginning chain L1A description

Point 2000 N 421,996.9062 E 2,436,033.0238 Sta 10+00.00

Course from 2000 to 2001 N 30° 07' 20.11" E Dist 270.9987

Point 2001 N 422,231.3083 E 2,436,169.0236 Sta 12+71.00

Ending chain L1A description

Beginning chain Y1A description

Point 2002 N 422,047.8045 E 2,436,139.8071 Sta 10+00.00

Course from 2002 to 2003 N 55° 54' 47.99" W Dist 66.9800

Point 2003 N 422,085.3432 E 2,436,084.3348 Sta 10+66.98

Ending chain Y1A description

Beginning chain Y2A description

Point 2003 N 422,085.3432 E 2,436,084.3348 Sta 10+00.00

Course from 2003 to 2004 N 54° 26' 24.96" W Dist 80.1043

Point 2004 N 422,131.9280 E 2,436,019.1692 Sta 10+80.10

Ending chain Y2A description

CONTROL POINTS

Point	North	Easting	Elevation	Feature
10	421,644.1370	2,435,859.5310	63.1100	4017
20	421,943.3910	2,435,968.0890	61.1700	4017
30	422,085.8830	2,436,115.2690	59.2250	4017
40	422,114.9050	2,436,066.9760	59.3630	4017

WBS 42129 Richlands Curb Extensions

Beginning chain L1 description

Point 1000 N 421,339.5996 E 2,435,676.8177 Sta 10+00.00

Course from 1000 to PC L1CURV N 19° 03' 54.06" E Dist 12.0125

Curve Data

Curve L1CURV

P.I. Station 10+98.39 N 421,432.5882 E 2,435,708.9543

Delta = 10° 49' 13.19" (RT)
Degree = 6° 16' 56.76"
Tangent = 86.3726
Length = 172.2316
Radius = 912.0000
External = 4.0809
Long Chord = 171.9757
Mid. Ord. = 4.0627

P.C. Station 10+12.01 N 421,350.9532 E 2,435,680.7415

P.T. Station 11+84.24 N 421,507.4753 E 2,435,751.9909

C.C. N 421,053.0567 E 2,436,542.7170

Back = N 19° 03' 54.06" E
Ahead = N 29° 53' 07.25" E
Chord Bear = N 24° 28' 30.65" E

Course from PT L1CURV to 1002 N 29° 53' 07.25" E Dist 550.7828

Point 1002 N 421,985.0174 E 2,436,026.4273 Sta 17+35.03

Course from 1002 to 1007 N 29° 53' 07.25" E Dist 195.6499

Point 1007 N 422,154.6506 E 2,436,123.9130 Sta 19+30.68

Ending chain L1 description

Beginning chain Y1 description

Point 1003 N 421,611.0104 E 2,435,957.3448 Sta 10+00.00

Course from 1003 to 1004 N 55° 20' 54.82" W Dist 126.8976

Point 1004 N 421,683.1621 E 2,435,852.9555 Sta 11+26.90

Ending chain Y1 description

Beginning chain Y2 description

Point 1005 N 421,695.0854 E 2,435,859.8076 Sta 10+00.00

Course from 1005 to 1006 N 54° 56' 20.19" W Dist 84.4181

Point 1006 N 421,743.5793 E 2,435,790.7080 Sta 10+84.42

Ending chain Y2 description

CONTROL POINTS

Point	North	Easting	Elevation	Feature
10	421,644.1370	2,435,859.5310	63.1100	4017
20	421,943.3910	2,435,968.0890	61.1700	4017

REVISIONS

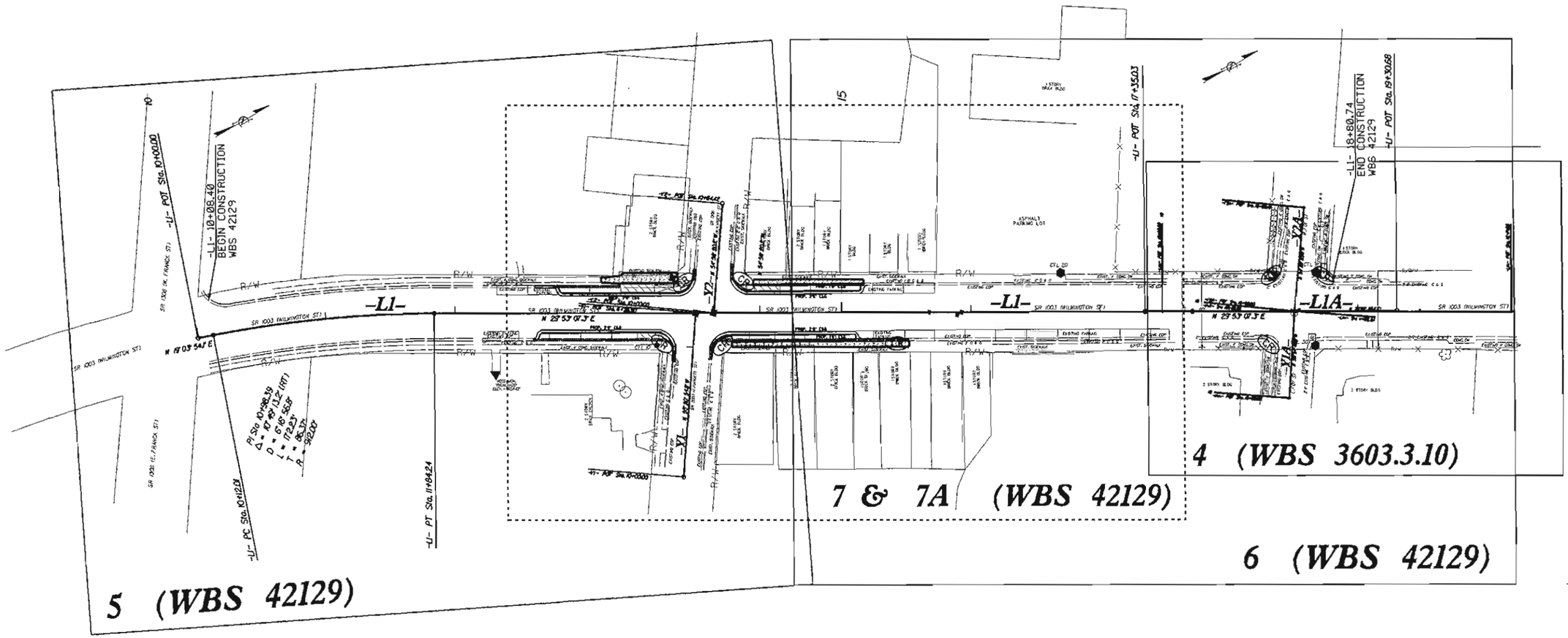
PROJECT REFERENCE NO.	SHEET NO.
3603.3J0, Etc.	1-D

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT COOKE EVANS

DIVISION DESIGN ENGINEER

4-4-12

ALIGNMENTS AND SHEET LAYOUT



NOT TO SCALE

REVISIONS

8/17/99

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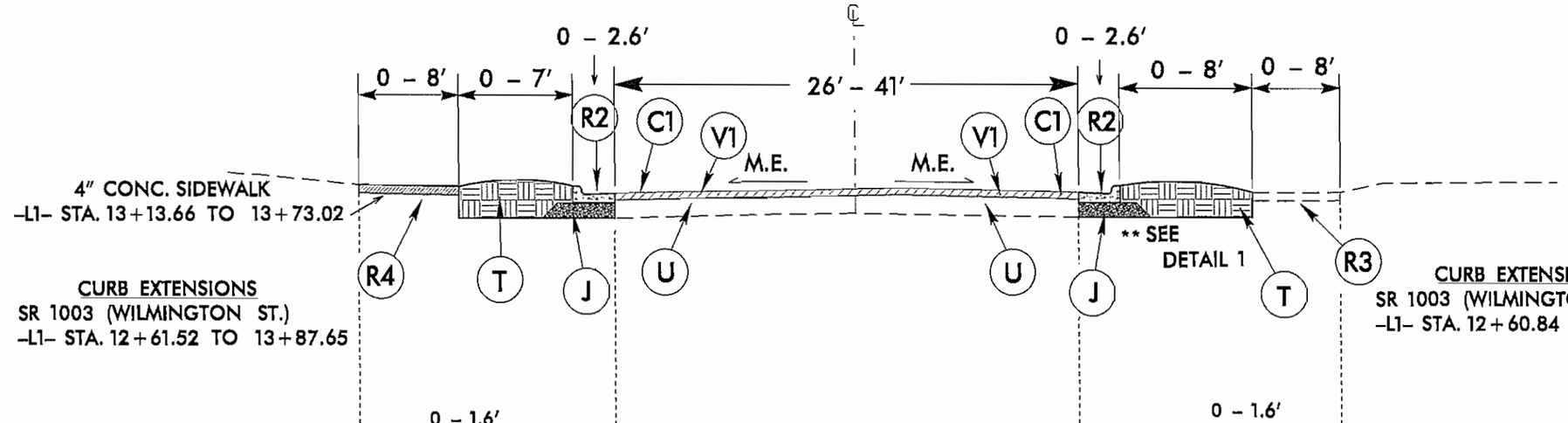
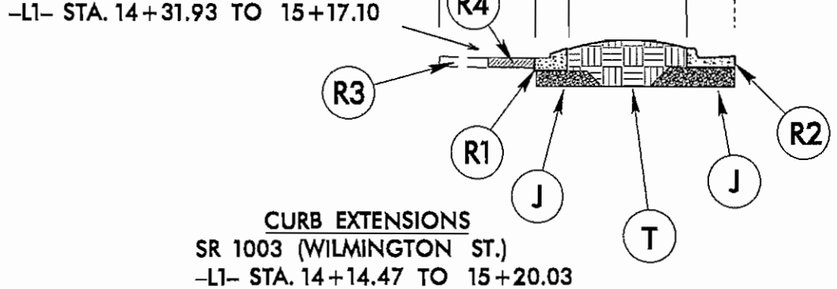
PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	2

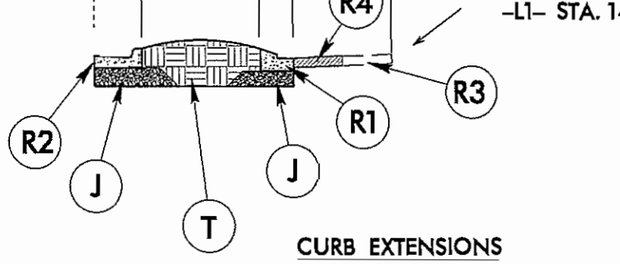
WBS 42129
RICHLANDS - CURB EXTENSIONS

TYPICAL SECTION NO. 1

MAP 2







NOTE: M.E. = MATCH EXISTING

PAVEMENT SCHEDULE			
C	PROP. APPROX. 1½″ DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 9.5B, AT AN AVERAGE RATE OF 188 LBS. PER SQ. YD.	R3	EXISTING CONCRETE SIDEWALK
C1	PROP. APPROX. 2″ DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	R4	PROP. 4″ CONCRETE SIDEWALK
J	PROP. 3″ DEPTH AGGREGATE BASE COURSE	T	PROPOSED EARTH MATERIAL (BORROW EXCAVATION)
R	EXISTING CONCRETE CURB & GUTTER	U	EXISTING PAVEMENT
R1	PROP. 1′-6″ CONCRETE CURB & GUTTER	V	MILLING 1½″ DEPTH.
R2	PROP. 2′-6″ CONCRETE CURB & GUTTER	V1	MILLING 2½″ DEPTH.

REVISIONS

8/17/99

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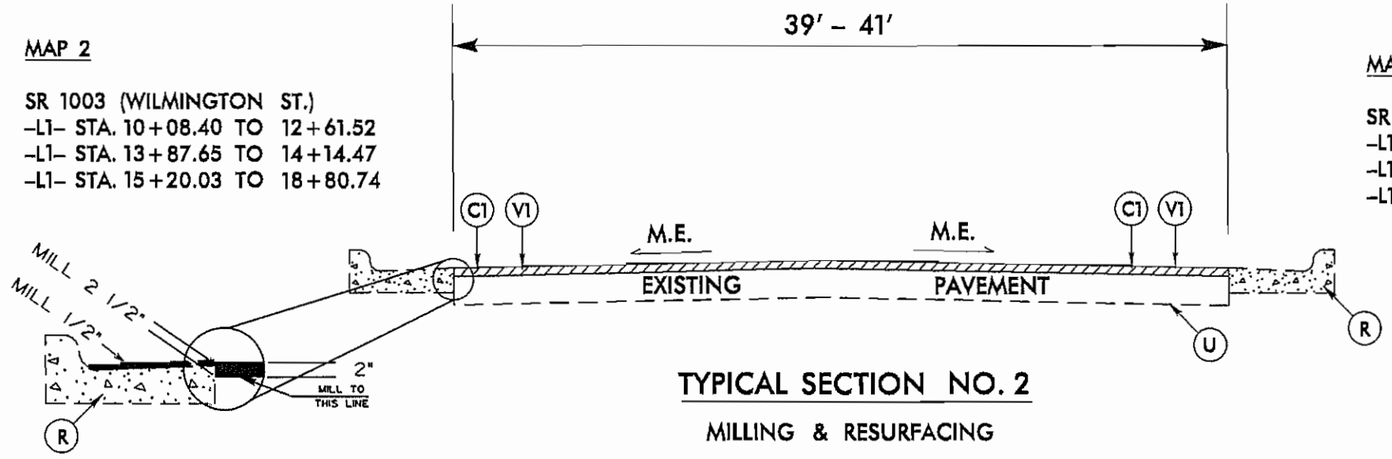
PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	2-A

MAP 2

SR 1003 (WILMINGTON ST.)
-L1- STA. 10+08.40 TO 12+61.52
-L1- STA. 13+87.65 TO 14+14.47
-L1- STA. 15+20.03 TO 18+80.74

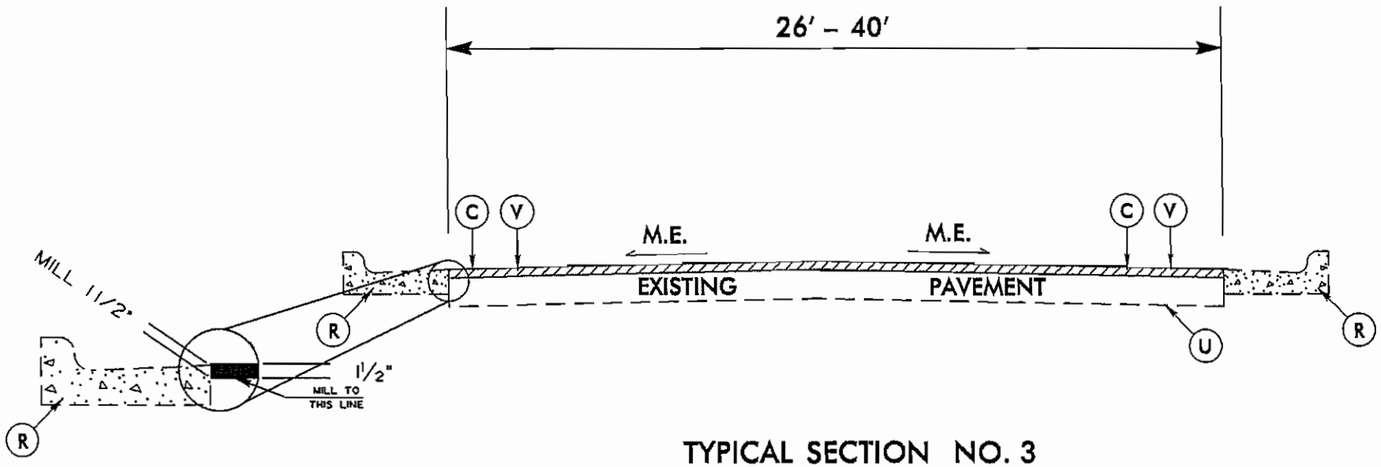


TYPICAL SECTION NO. 2

MILLING & RESURFACING

MAP 2

SR 1003 (WILMINGTON ST.)
-L1- STA. 10+08.40 TO 12+60.84
-L1- STA. 13+68.13 TO 13+96.78
-L1- STA. 15+51.77 TO 18+80.74



TYPICAL SECTION NO. 3

MILLING & RESURFACING

MAP 2

SR 2009 (E. HARGETT ST.)
-Y1- STA. 10+54.77 TO 10+96.62

SR 1306 (W. HARGETT ST.)
-Y2- STA. 10+25.65 TO 10+52.91

MAP 3

PETE JONES DRIVE
STA. 0+00.00 TO 12+45.00
[FROM SR 1003 (WILMINGTON ST.)
TO SYLVESTER ST.]

PAVEMENT SCHEDULE			
C	PROP. APPROX. 1½" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	R3	EXISTING CONCRETE SIDEWALK
C1	PROP. APPROX. 2" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	R4	PROP. 4" CONCRETE SIDEWALK
J	PROP. 3" DEPTH AGGREGATE BASE COURSE	T	PROPOSED EARTH MATERIAL (BORROW EXCAVATION)
R	EXISTING CONCRETE CURB & GUTTER	U	EXISTING PAVEMENT
R1	PROP. 1'-6" CONCRETE CURB & GUTTER	V	MILLING 1½" DEPTH.
R2	PROP. 2'-6" CONCRETE CURB & GUTTER	V1	MILLING 2½" DEPTH.

NOTE: M.E. = MATCH EXISTING

REVISIONS

8/17/99

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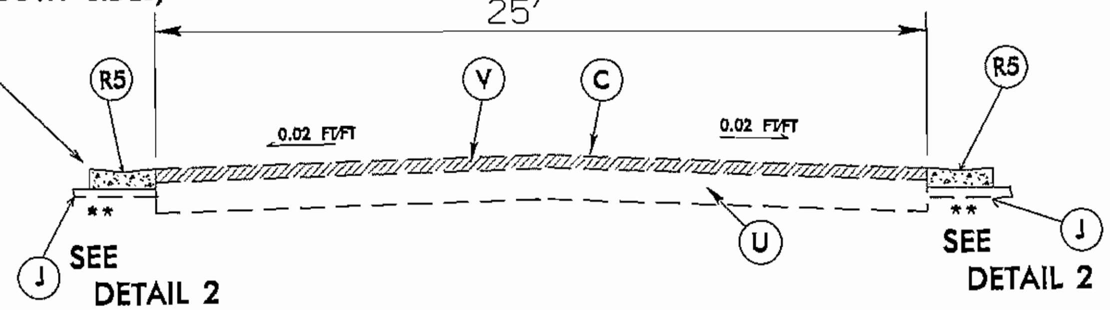
PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	2-B

TYPICAL SECTION NO. 4

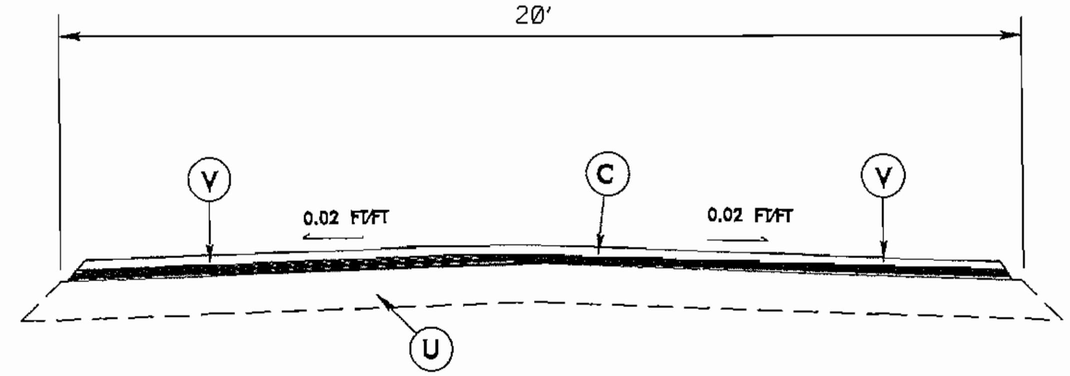


MILLING & RESURFACING

MAP 4

SABRINA DRIVE
STA. 0+00.00 TO 5+31.00
[FROM SR 1003 (WILMINGTON ST.)
TO BROOKHAVEN DR.]

TYPICAL SECTION NO. 5



MILLING & RESURFACING

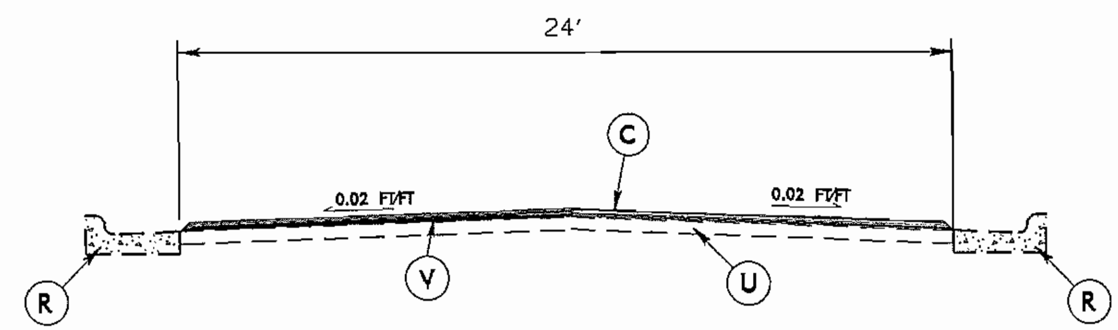
MAP 5

FOY STREET
STA. 0+00.00 TO 8+98.00
(FROM LUCILLE BRIT WINSTEAD ST.
TO ONSLOW ST.)

PAVEMENT SCHEDULE

C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YO.
J	PROP. 3" DEPTH AGGREGATE BASE COURSE
R	EXISTING CONCRETE CURB & GUTTER
R5	MOUNTABLE CONCRETE CURB & GUTTER
U	EXISTING PAVEMENT
V	MILL 1 1/2" EXISTING ASPHALT

TYPICAL SECTION NO. 6



MILLING & RESURFACING

MAP 5

FOY STREET
STA. 8+98.00 TO 25+88.00
(FROM ONSLOW ST. TO ACADEMY ST.)

MAP 6

SR 2009 (HARGETT ST.)
STA. 0+00.00 TO 21+06.00
[FROM SR 1003 (WILMINGTON ST.) TO
LUCILLE B. WINSTEAD RD.]

REVISIONS

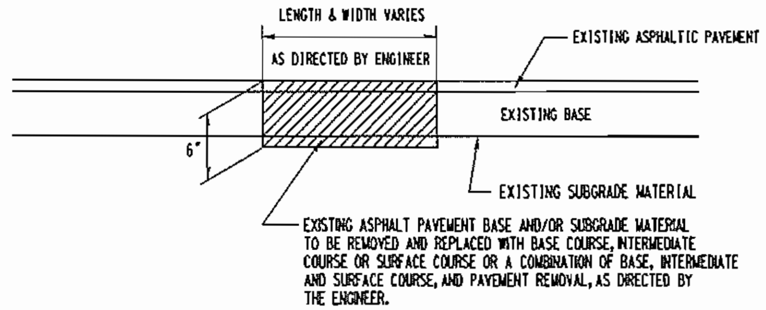
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
3603.3JO, Etc.	2-C

8/17/99

REVISIONS

DETAILS OF REPAIRING EXISTING PAVEMENT PRIOR TO RESURFACING FOR FULL DEPTH AND MILLING



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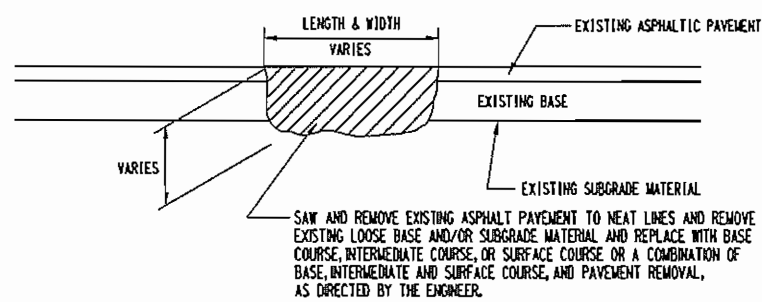

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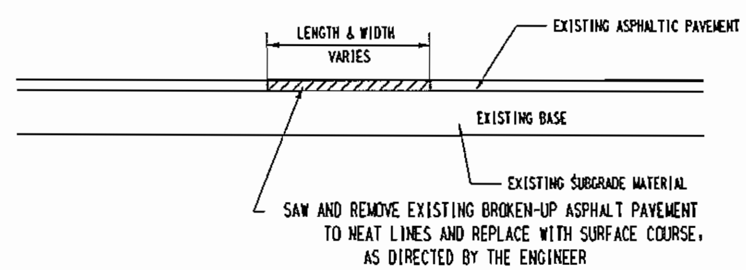

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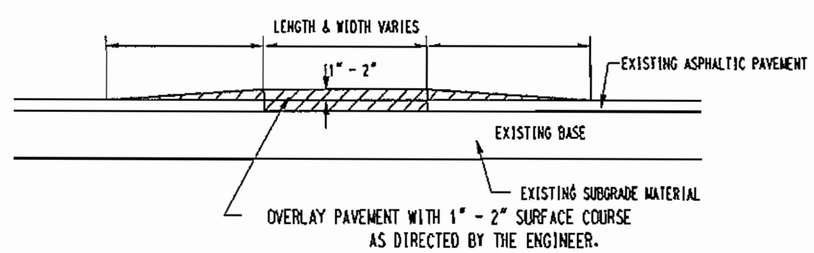

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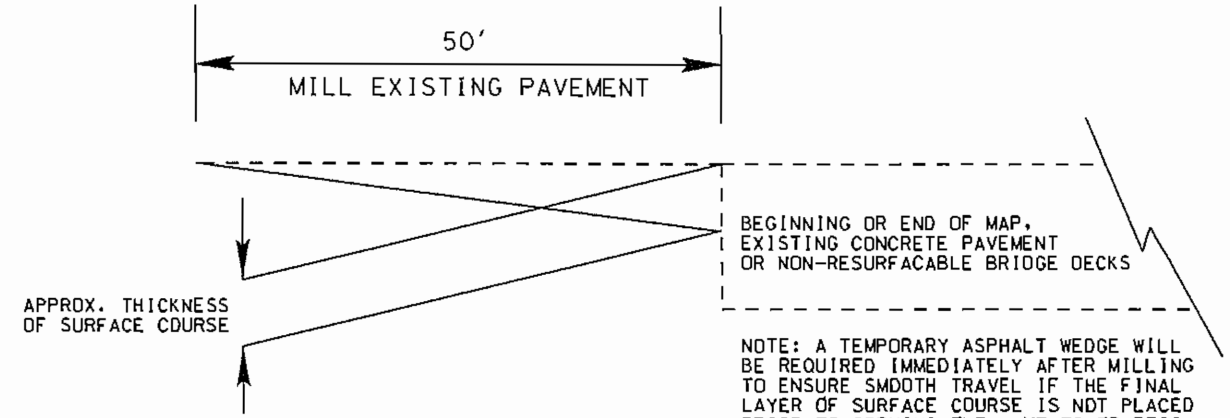
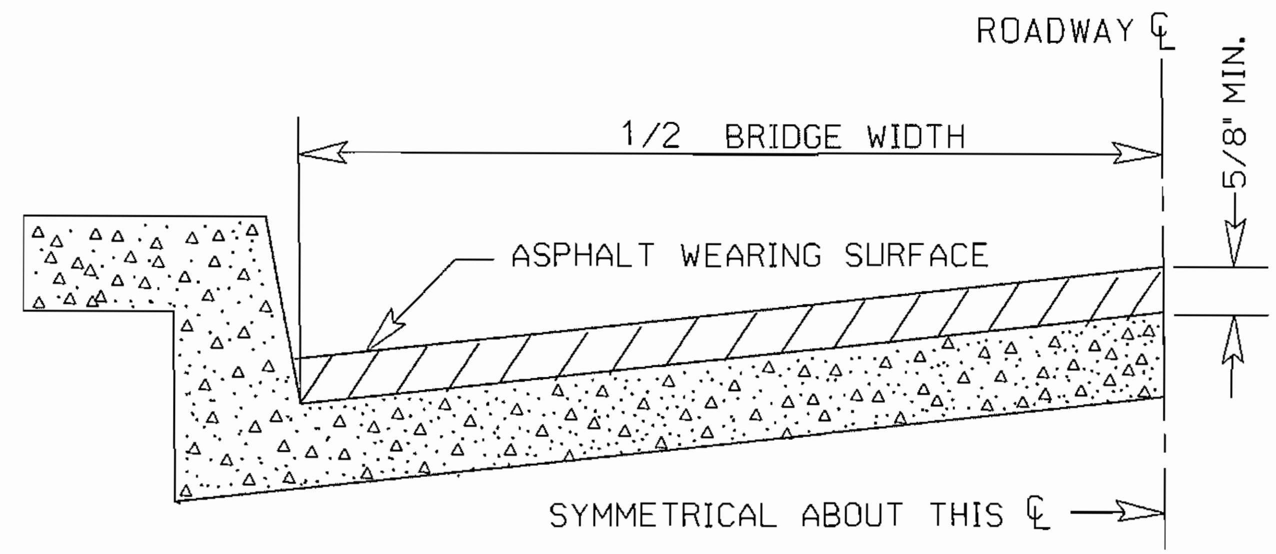


NOTE: A TEMPORARY ASPHALT WEDGE WILL BE REQUIRED IMMEDIATELY AFTER MILLING TO ENSURE SMOOTH TRAVEL IF THE FINAL LAYER OF SURFACE COURSE IS NOT PLACED PRIOR TO OPENING THE LANE TO TRAFFIC.



BRIDGE HALF TYPICAL SECTION

FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	2-D

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

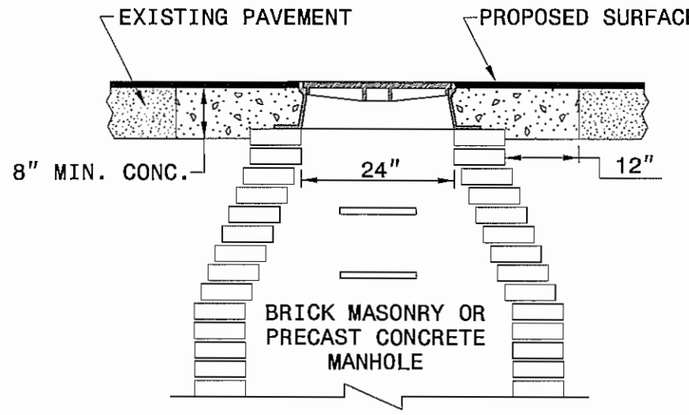
MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1

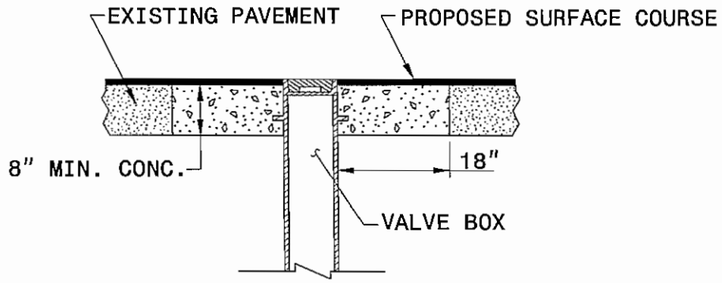
840D55

GENERAL NOTES:

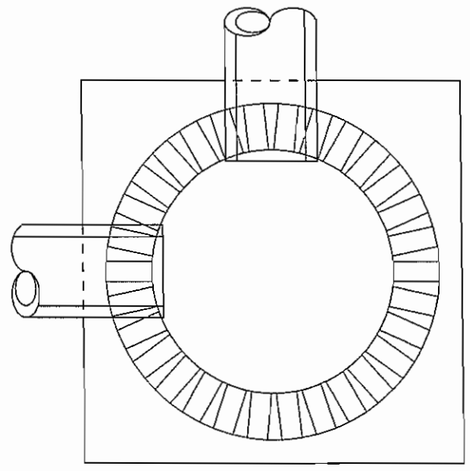
1. USE RAPID SET GROUT, MORTAR, OR CONCRETE WITH A MINIMUM COMPRESSIVE STRENGHT OF 4000 PSI.
2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
3. SHEER CUT EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES.
4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
5. MIX MORTAR TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS ½" +/- ⅛"



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1

840D55

PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: E.E. WARD DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: /usr/details/stand/840d55.dgn

07-DEC-2005 14:25
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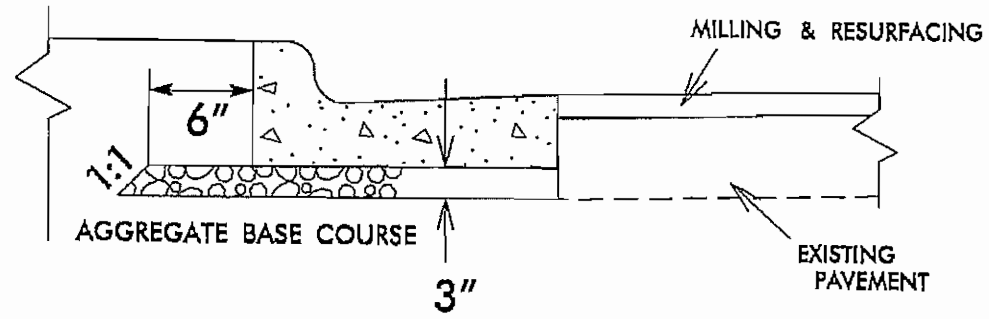
erieward AT PS222293

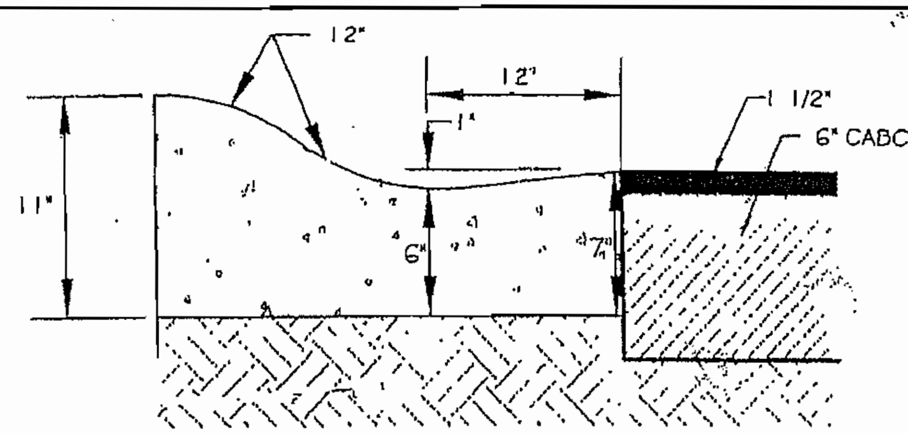
PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	2-E

DETAILS



CURB & GUTTER DETAIL
(FOR CURB EXTENSIONS)

DETAIL 1

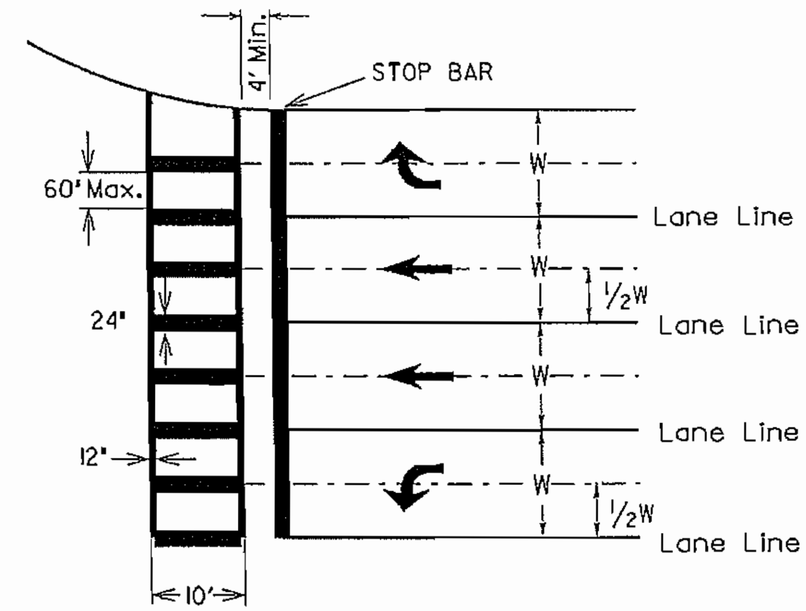


MOUNTABLE CURB & GUTTER AND PAVING SECTION

Not to scale

DETAIL 2

SPECIAL EMPHASIS HI-VISIBILITY CROSSWALK MARKING DETAIL

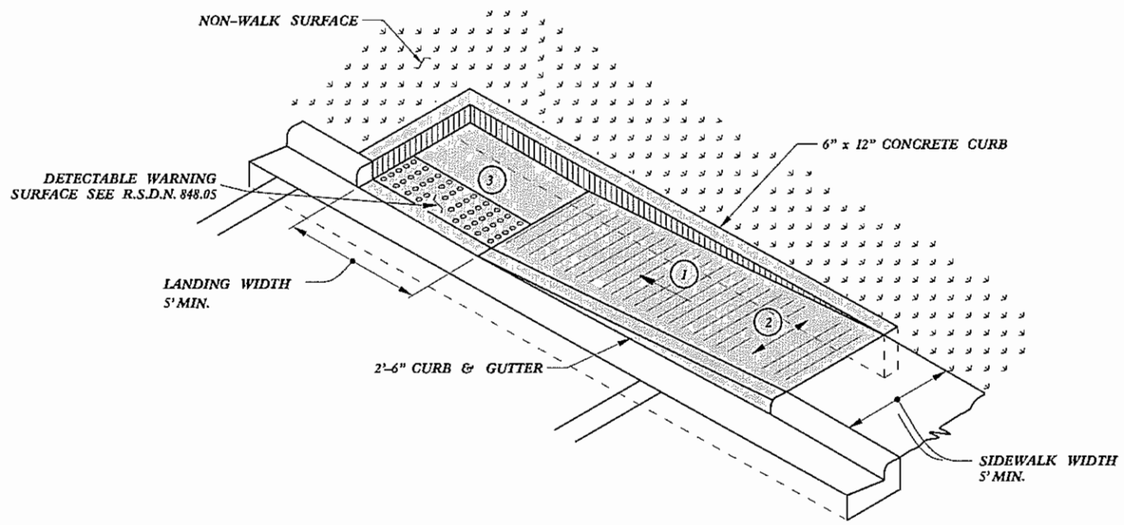


NOTES: SPACING OF CROSSWALK LINES POSITIONED TO AVOID WHEELPATHS

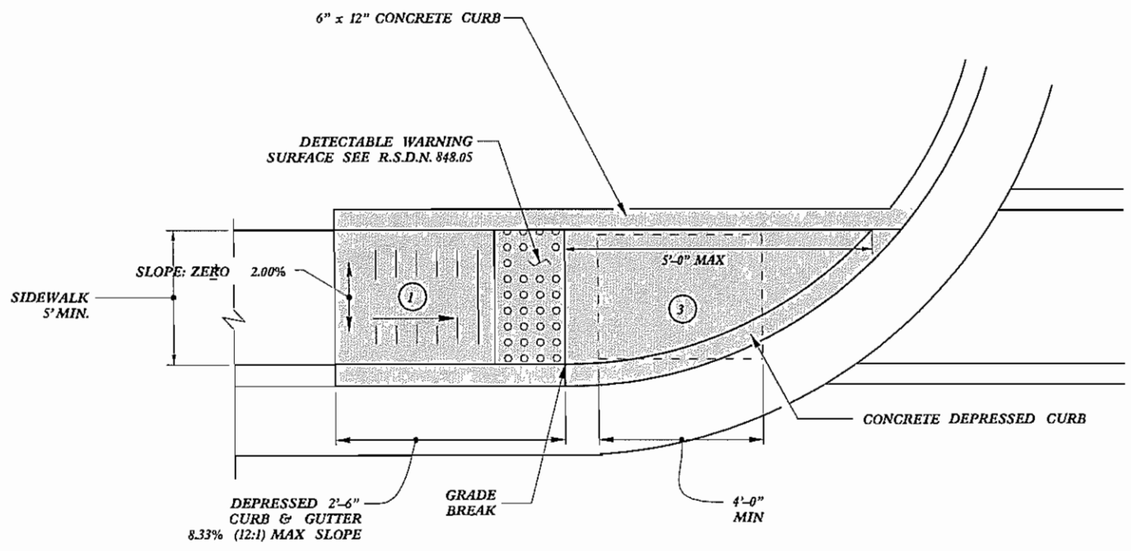
DETAIL 3

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10	2-E

PAY LIMITS FOR CURB RAMP



TYPE 1A



TYPE 1

(1) 8.33% (12:1) MAX RAMP SLOPE

(2) CROSS SLOPE: 2.00%

(3) CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

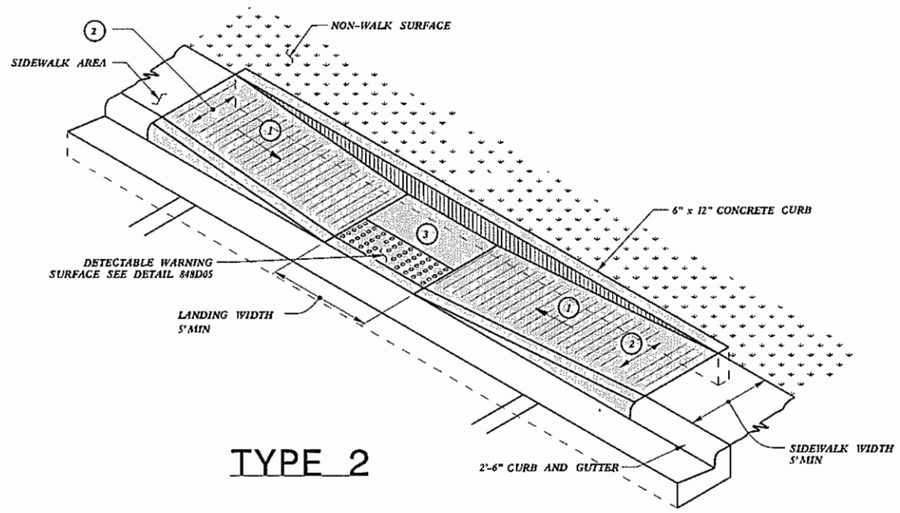
CURB RAMPS

Directional Ramps

ORIGINAL BY:	J.S. HOWERTON	DATE:	7/7/11
MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	

FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10	2-G



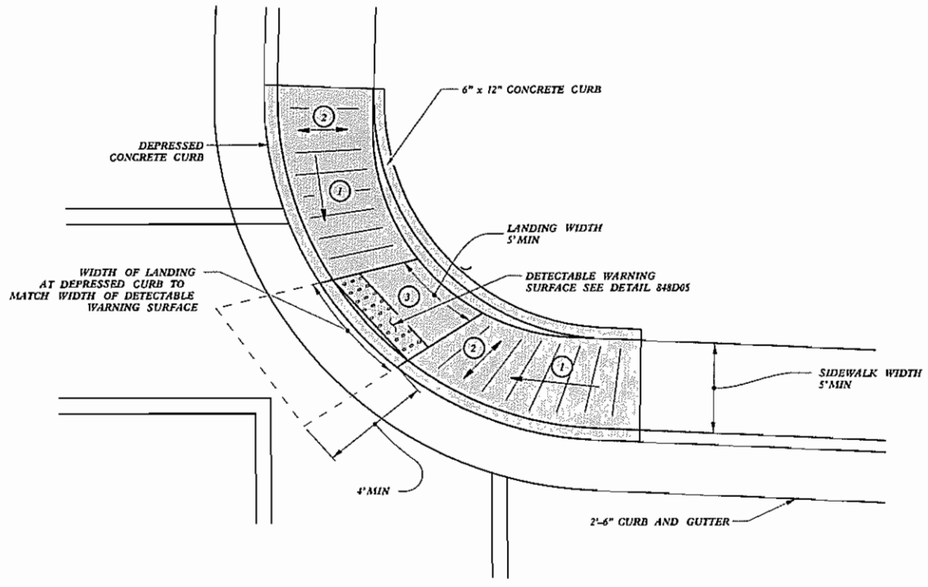
TYPE 2

PAY LIMITS FOR CURB RAMP

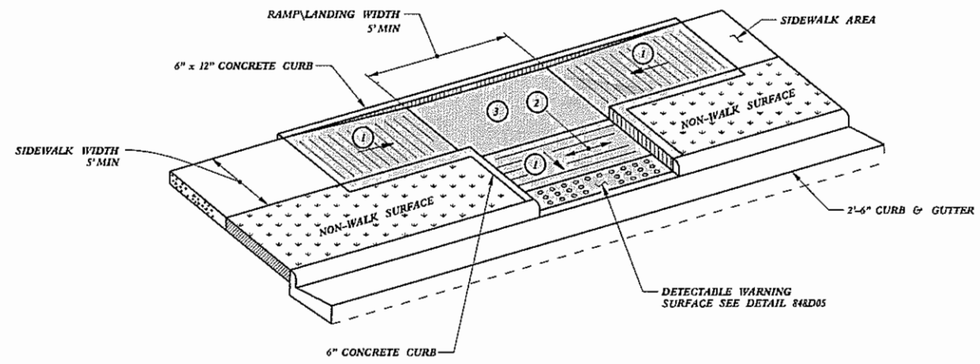
(1) *8.33% (12:1) MAX RAMP SLOPE*

(2) *CROSS SLOPE: 2.00%*

(3) *CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.*



TYPE 2A



TYPE 3

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

Parallel Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99

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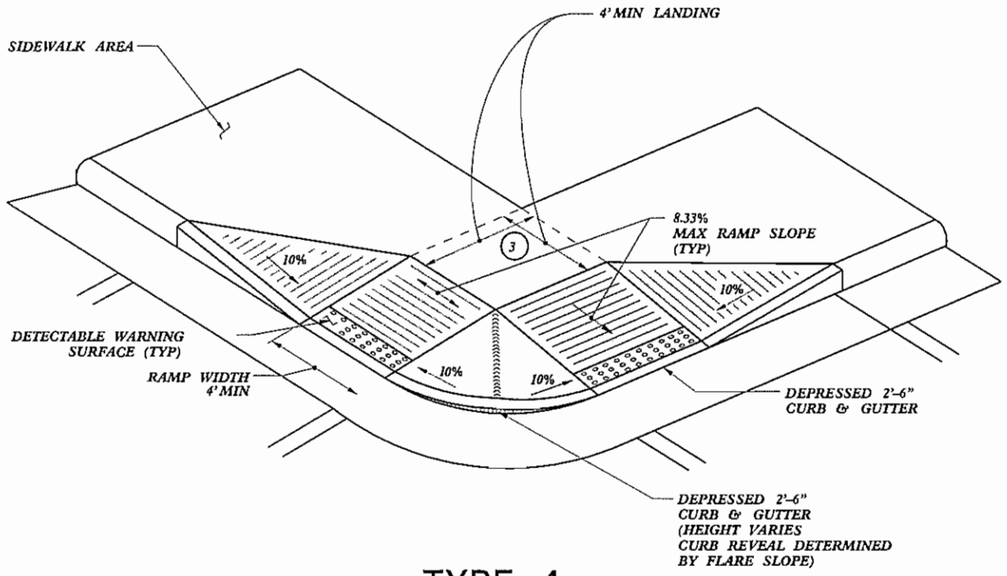
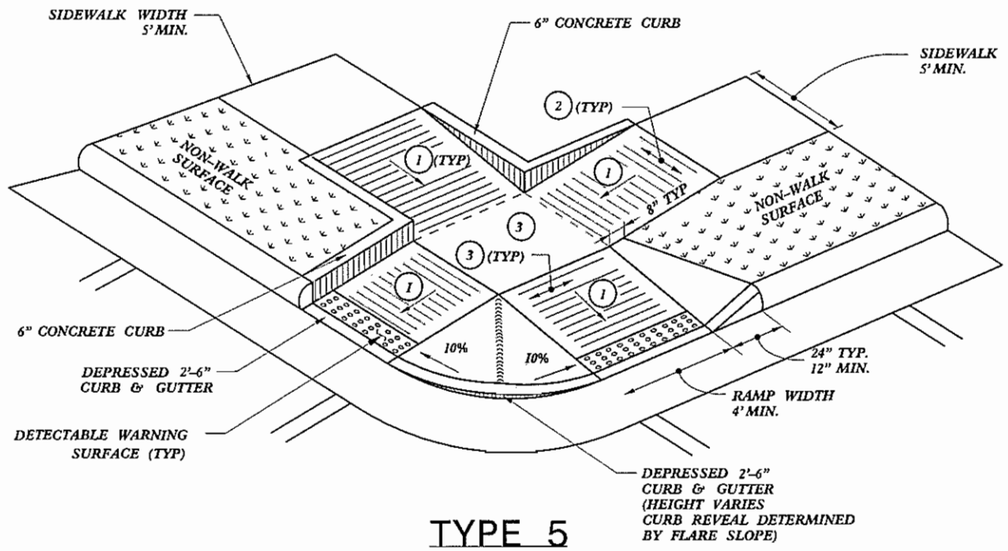
jhowerton AT CSD237501

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10	2-H

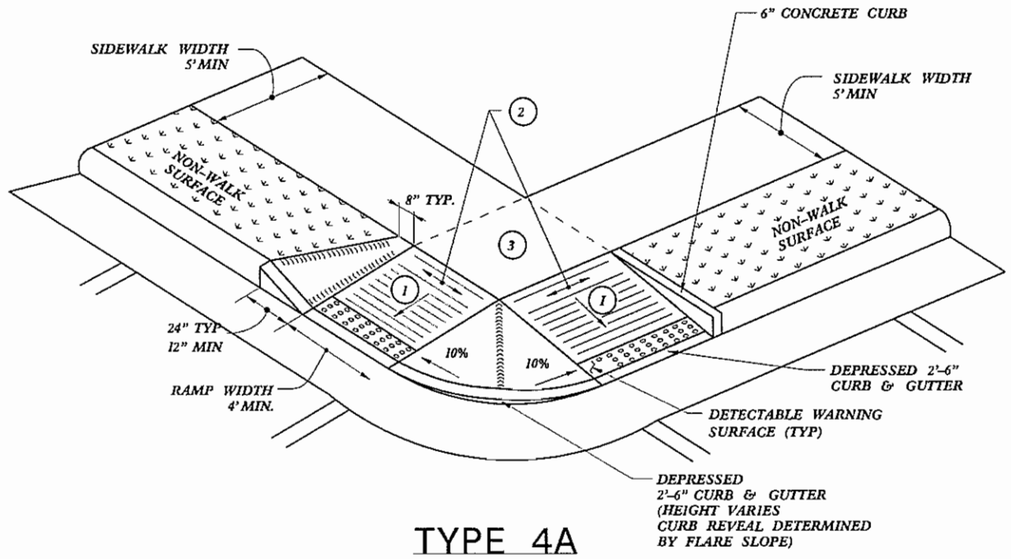


TYPE 4

PAY LIMITS FOR CURB RAMP



TYPE 5



TYPE 4A

(1) 8.33% (12:1) MAX RAMP SLOPE

(2) CROSS SLOPE: 2.00%

(3) CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

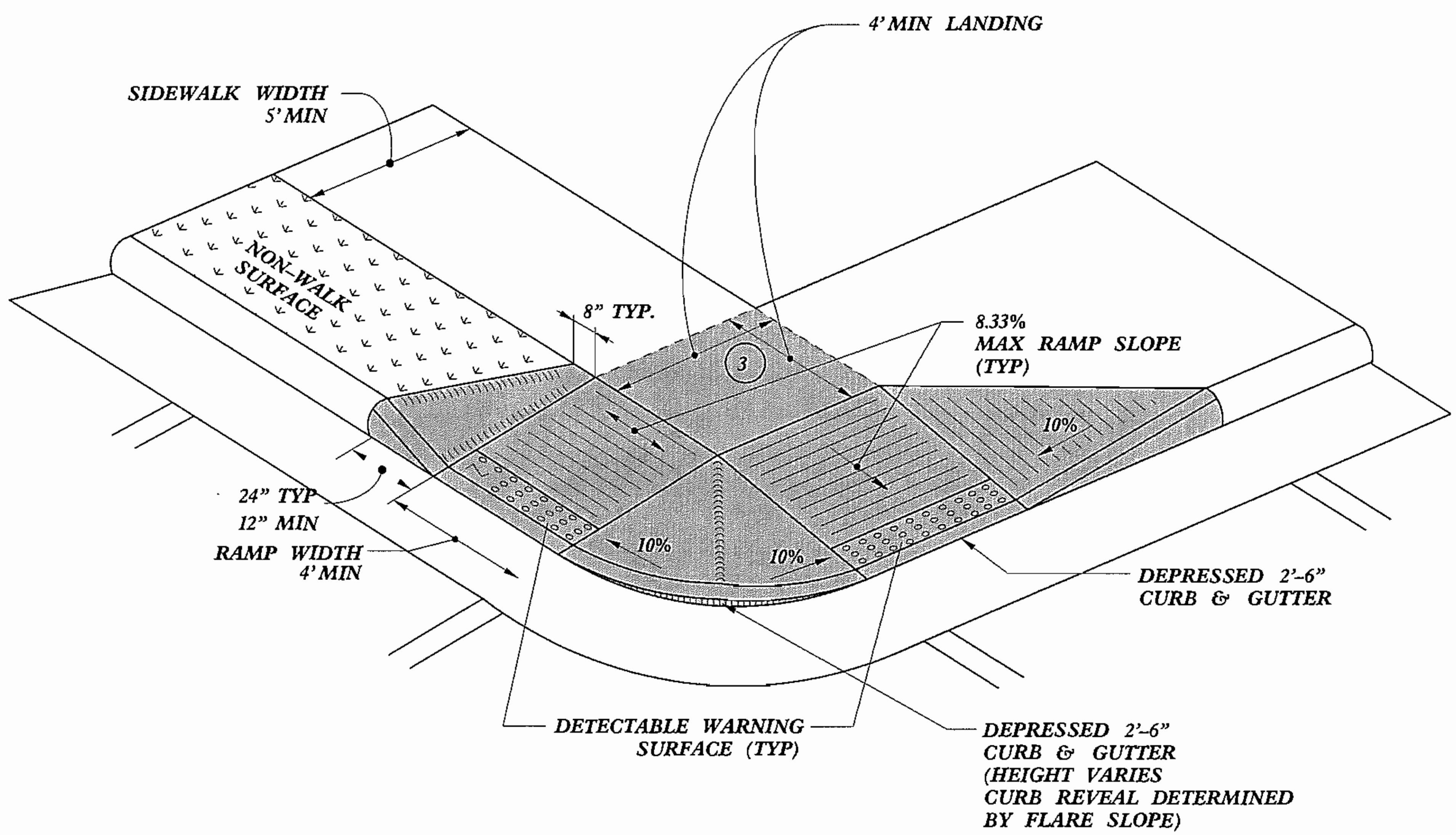
CURB RAMPS

Shared Landing

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10	2-I

PAY LIMITS FOR CURB RAMP



TYPE 6

1. 8.33% (12:1) MAX RAMP SLOPE
2. CROSS SLOPE: 2.00%
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

Shared Landing

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99

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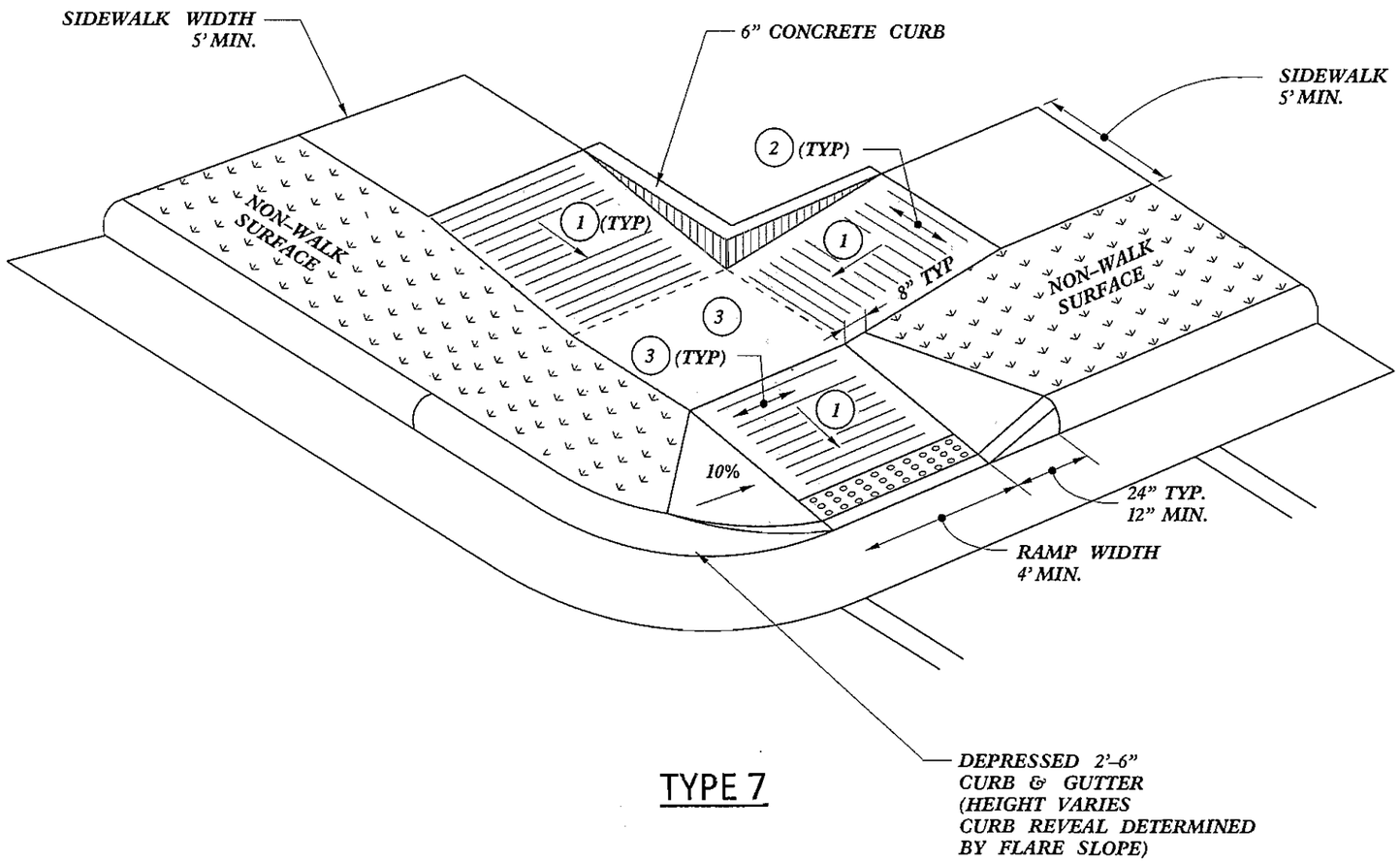
jhowerton AT CSD23761

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10	2-J

PAY LIMITS FOR CURB RAMP



TYPE 7

(1) 8.33% (12:1) MAX RAMP SLOPE

(2) CROSS SLOPE: 2.00%

(3) CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

Shared Landing

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn

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Jhowerton
AT CSD237501

5/14/99

PROJECT NO.	SHEET NO.	TOTAL NO.
3603.3.10, ETC.	3	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH FT	WIDTH FT	GRADING LS	BORROW EXC. CY	AGGREGATE BASE COURSE TONS	2 1/2" MILLING SY	1 1/2" MILLING SY	INC. MILLING SY	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIK TON	AC PLANT MIX (REPAIR) TONS	PATCHING EXISTING PAVEMENT (MILL) TON	1'-6" CONCRETE CURB & GUTTER LF	2'-6" CONCRETE CURB & GUTTER LF	4" CONCRETE SIDEWALK SY	CONCRETE CURB RAMP EA	6" CONCRETE DRIVEWAY SY	MOUNTABLE CONCRETE CURB & GUTTER LF	REMOVE AND REPLACE CONC. CURB RAMP EA	ADJ. OF CATCH BASIN EA	ADJ. OF DROP INLET EA
3603.3.10	Onslow	1	INTERSECTION OF SR 1003 (WILMINGTON ST.) & FOY ST.	INSTALL SPEC. CURB RAMPS		NO	0.01																		3	1	1
TOTAL FOR MAP NO. 1							0.01																		3	1	1
TOTAL FOR PROJ NO. 3603.3.10							0.01																		3	1	1
42129	Onslow	2	SR 1003 (WILMINGTON ST.)	SR 1003 -L1- STA 10+08 TO 18+80	2	NO	0.17		1	123		3,723			480	29.00											1
		"	SR 2009 (HARGETT ST.)	MILL & RESURFACING Y1- STA 10+55 TO 10+96	3	NO	0.01	28					127		12	1.00											
		"	SR 1306 (HARGETT ST.)	MILL & RESURFACING SR 1306 - Y2 - STA.10+25 TO 10+52	3	NO	0.01	26					84		10	1.00											
		"	NW CORNER - SR 1003 @ SR 1306	CUR6, PLANTER & SIDEWALK IMPROVEMENTS	1	NO	0.02	11.5			11								92	126	30				1		
		"	NE CORNER - SR 1003 @ SR 2009	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	1	NO	0.02	12.5			12								98	135	63	1			1		
		"	SE CORNER - SR 1003 @ SR 2009	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	1	NO	0.02	10.5			12									198					1		
		"	SW CORNER - SR 1003 @ SR 1306	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	1	NO	0.02	17			7									125	55				1		
TOTAL FOR MAP NO. 2							0.27		1	123	42	3,723	211		502	31.00			190	584	148	1			4		1
TOTAL FOR PROJ NO. 42129							0.27		1	123	42	3,723	211		502	31.00			190	584	148	1			4		1
36249.3139	Onslow	3	PETE JONES DR. (FROM SR 1003 TO SYLVESTER ST.)	MILL & RESURFACE	3	NO	0.2	40			100		5,556		480	29.00									4		
TOTAL FOR MAP NO. 3							0.2				100		5,556		480	29.00									4		
36249.3139	Onslow	4	SABRINA DR (SR 1003 TO BROOKHAVEN DR.)	MILL PATCH & RESURACE	4	NO	0.11	25			32			140	135	8.00		20					50	946			
TOTAL FOR MAP NO. 4							0.11				32			140	135	8.00		20					50	946			
36249.3139	Onslow	5	FOY ST. (ACADEMY ST. TO LUCILLE B. WINSTEAD RD.)	MILLING & RESURFACING	5 & 6	NO	0.49	20-24					1,667		585	35.00	18	20				2			3		1
TOTAL FOR MAP NO. 5							0.49						1,667		585	35.00	18	20				2			3		1
36249.3139	Onslow	6	SR 2009 (HARGETT ST.) (SR 1003 TO LUCILLE B. WINSTEAO RD.	MILLING & RESURFACING	6	NO	0.4	24					5,890		500	30.00						1			12		
TOTAL FOR MAP NO. 6							0.4						5,890		500	30.00						1			12		
TOTAL FOR PROJ NO. 36249.3139							1.2				132		13,113	140	1,700	102.00	18	40				3	50	946	19		1
GRAND TOTAL							1.48		1	123	174	3,723	13,324	140	2,202	133.00	18	40	190	584	148	4	50	946	26	1	3

PROJECT NO.	SHEET NO.	TOTAL NO.
3603.3.10, Etc.	3-A	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	OESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH FT	WIDTH FT	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	TEMP. SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP LF
3603.3.10	Onslow	1	INTERSECTION OF SR 1003 (WILMINGTON ST.) & FOY ST.	INSTALL SPEC. CURB RAMPS		NO	0.01				50	30		
TOTAL FOR MAP NO. 1							0.01				50	30		
TOTAL FOR PROJ NO. 3603.3.10							0.01				50	30		
42129	Onslow	2	SR 1003 (WILMINGTON ST.)	SR 1003 -L1- STA 10+08 TO 18+80	2	NO	0.17		2	9			0.10	200
		"	SR 2009 (HARGETT ST.)	MILL & RESURFACING Y1- STA 10+55 TO 10+96	3	NO	0.01	28				20		
		"	SR 1306 (HARGETT ST.)	MILL & RESURFACING SR 1306 - Y2 - STA.10+25 TO 10+52	3	NO	0.01	26						
		"	NW CORNER - SR 1003 @ SR 1306	CURB, PLANTER & SIDEWALK IMPROVEMENTS	1	NO	0.02	11.5						
		"	NE CORNER - SR 1003 @ SR 2009	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	1	NO	0.02	12.5						
		"	SE CORNER - SR 1003 @ SR 2009	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	1	NO	0.02	10.5						
		"	SW CORNER - SR 1003 @ SR 1306	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	1	NO	0.02	17						
TOTAL FOR MAP NO. 2							0.27		2	9		20	0.10	200
TOTAL FOR PROJ NO. 42129							0.27		2	9		20	0.10	200
36249.3139	Onslow	3	PETE JONES DR. (FROM SR 1003 TO SYLVESTER ST.)	MILL & RESURFACE	3	NO	0.2	40	6	5				
TOTAL FOR MAP NO. 3							0.2		6	5				
36249.3139	Onslow	4	SABRINA DR (SR 1003 TO BROOKHAVEN DR.)	MILL PATCH & RESURACE	4	NO	0.11	25		2				
TOTAL FOR MAP NO. 4							0.11			2				
36249.3139	Onslow	5	FOY ST. (ACADEMY ST. TO LUCILLE B. WINSTEAD RD.)	MILLING & RESURFACING	5 & 6	NO	0.49	20-24	6	10				
TOTAL FOR MAP NO. 5							0.49		6	10				
36249.3139	Onslow	6	SR 2009 (HARGETT ST.) (SR 1003 TO LUCILLE B. WINSTEAD RD.	MILLING & RESURFACING	6	NO	0.4	24						
TOTAL FOR MAP NO. 6							0.4							
TOTAL FOR PROJ NO. 36249.3139							1.2		12	17				
GRAND TOTAL							1.48		14	26	50	50	0.10	200

PROJECT NO.	SHEET NO.	TOTAL NO.
3603.3.10, Etc.	3-B	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	LENGTH	WIDTH	4399000000-N TEMPORARY TRAFFIC CONTROL LS	4685000000-E 4" X 90 M WHITE THERMO LF	4686000000-E 4" X 120 M YELLOW THERMO LF	4686000000-E 4" X 120 M WHITE THERMO LF	4702000000-E 12" X 120 M WHITE THERMO LF	4710000000-E 24" X 120 M WHITE THERMO LF	4721000000-E THERMO MSG SCHOOL 120 M EA	4725000000-E HANDICAP SYMBOL (90 MILS) EA	4725000000-E THERMO LT ARROW 90 M EA	4725000000-E THERMO RT ARROW 90 M EA	4810000000-E 4" YELLOW PAINT LF	4810000000-E 4" WHITE PAINT LF	4825000000-E 12" WHITE PAINT LF	4835000000-E 24" WHITE PAINT LF	4840000000-N PAINT MSG SCHOOL EA	4845000000-N PAINT LT ARROW EA	4845000000-N PAINT RT ARROW EA	4900000000-N YELLOW & YELLOW MARKERS EA
3603.3.10	Onslow	1	INTERSECTION OF SR 1003 (WILMINGTON ST.) & FOY ST.	INSTALL SPEC. CURB RAMPS	0.01		0.10																	
TOTAL FOR MAP NO. 1					0.01		0.10																	
TOTAL FOR PROJ NO. 3603.3.10					0.01		0.10																	
42129	Onslow	2	SR 1003 (WILMINGTON ST.)	SR 1003 -L1- STA 10+08 TO 18+80	0.17		0.40	961	1,512	620	127	100		1			1,512	961	127	100				11
		"	"	MILL & RESURFACING Y1- STA 10+55 TO 10+96	0.01	28			69		55	64					69		55	64				
		"	"	MILL & RESURFACING SR 1306 - Y2 - STA.10+25 TO 10+52	0.01	26			35		57	57					35		57	57				
		"	"	CURB, PLANTER & SIDEWALK IMPROVEMENTS	0.02	11.5																		
		"	"	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	0.02	12.5																		
		"	"	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	0.02	10.5																		
		"	"	CURB, PLANTER, & SIDEWALK IMPROVEMENTS	0.02	17																		
TOTAL FOR MAP NO. 2					0.27		0.40	961	1,616	620	239	221		1			1,616	961	239	221				11
TOTAL FOR PROJ NO. 42129					0.27		0.40	961	1,616	620	239	221		1			1,616	961	239	221				11
									2,236					1			2,577							
36249.3139	Onslow	3	PETE JONES DR. (FROM SR 1003 TO SYLVESTER ST.)	MILL & RESURFACE	0.2	24	0.12		5,220	35					2	2	5,220	35				2	2	
TOTAL FOR MAP NO. 3					0.2		0.12		5,220	35					2	2	5,220	35				2	2	
36249.3139	Onslow	4	SABRINA DR (SR 1003 TO BROOKHAVEN DR.)	MILL PATCH & RESURACE	0.11	24	0.10																	
TOTAL FOR MAP NO. 4					0.11		0.10																	
36249.3139	Onslow	5	FOY ST. (ACADEMY ST. TO LUCILLE B. WINSTEAD RD.)	MILLING & RESURFACING	0.49	24	0.16				125	210	12						125	210	12			
TOTAL FOR MAP NO. 5					0.49		0.16				125	210	12						125	210	12			
36249.3139	Onslow	6	SR 2009 (HARGETT ST.) (SR 1003 TO LUCILLE B. WINSTEAD RD.	MILLING & RESURFACING	0.4	24	0.12		4,124								4,124							27
TOTAL FOR MAP NO. 6					0.4		0		4,124								4,124							27
TOTAL FOR PROJ NO. 36249.3139					1.2		1		9,344	35	125	210	12		2	2	9,344	35	125	210	12	2	2	27
									9,379						4		9,379					4		
GRAND TOTAL					1.48		1	961	10,960	655	364	431	12	1	2	2	10,960	996	364	431	12	2	2	38
									11,615						5		11,956					4		

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	4

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

4/4/12

8/17/99

REVISIONS

-Y2A- POT Sta. 10+80.10

EXISTING 4' CONC. SW

EXISTING EOP

W. FOY ST

N 54° 26' 25.0" W

EXISTING EOP

EXISTING 4' CONC. SW

CONC. DW

I STORY BRICK BLDG

-L1A- POT Sta. 10+00.00

10

R/W

INSTALL ALTERNATIVE CONC. CURB RAMP (SEE DETAIL PG 2-D, TYPE 5)

EXIST. 4' CONC. SW

EXISTING EOP

CR

CB

CTL 40

INSTALL ALTERNATIVE CONC. CURB RAMP (SEE DETAIL PG 2-C, TYPE 3)

EXISTING 3' CONC. SW

CONC. DW

EXISTING EOP

R/W

-L1A- POT Sta. 12+71.00

W. FOY ST

EXISTING CONC. SIDEWALK

R/W

2.59

4.0'

7.78'

7.75'

1 STORY BRICK BLDG

5.86'

R/W

2.33'

5.0'

AREA NEEDED 19.01 SF

2.85'

EXISTING CONC. SIDEWALK

6" Curb

4.0'

4.88'

SR 1003 (WILMINGTON ST)

10

-Y2A- POT Sta. 10+00.00

-Y1A- Sta 10+66.98

60'

N 30° 07' 20.1" E

60'

SR 1003 (WILMINGTON ST)

-L1A- Sta 11+02.24

EXISTING EOP

EXIST. 4' CONC. SW

R/W

INSTALL ALTERNATIVE CONC. CURB RAMP (SEE DETAIL PG 2-F, TYPE 7)

CR

CB

EXIST. 4' CONC. SW

EXISTING EOP

E. FOY ST

N 55° 54' 48.0" W

30

DI

EXISTING EOP

EXISTING EOP

CONC. DW

EXISTING 4' CONC. SW

R/W

2 STORY BLDG

10

-Y1A- POT Sta. 10+00.00

2 STORY BLDG

Scale 1" = 20'

20' 0 20' 40'

WBS 3603.3.10
RICHLANDS - FOY ST. CURB RAMPS
MAP NO. 1

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PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	5

WBS 42129
RICHLANDS
CURB EXTENSIONS
MAP NO. 2

SEAL 024905 ENGINEER SCOTT EVANS COOKE
NORTH CAROLINA PROFESSIONAL
DIVISION DESIGN ENGINEER
4.9.12

-L1- 10+08.40
BEGIN CONSTRUCTION
BEGIN RESURFACING

-L1- POT Sta. 10+00.00

SR 1308 (W. FRANCK ST)

SR 1003 (WILMINGTON ST)

N 19° 03' 54.1" E

R/W

-L1- 10+00.00 Ext. -100.00

SR 1003 (WILMINGTON ST)

SR 1308 (E. FRANCK ST)

PI Sta 10+98.39
Δ = 10° 49' 13.2" (RT)
D = 6° 16' 56.8"
L = 172.23'
T = 86.37'
R = 912.00'

-L1- PC Sta. 10+12.01

-L1- PT Sta. 11+84.24

-Y2- POT Sta. 10+84.42

-Y2- POT Sta. 10+00.00

-Y1- POT Sta. 11+26.90

SR 1003 (WILMINGTON ST)
N 29° 53' 07.3" E

-L1- 14+62

EXIST. 4' CONC. SIDEWALK
EXISTING C & G
EXISTING EOP
EXISTING PARKING
EXISTING IRON PIN
PROP. 2'6" C&G
EXIST. SIDEWALK
EXISTING C&G
EXISTING EOP
SR 1308
N 54° 56' 20.2" W
W. HARGETT ST
2 STORY BRICK BLDG
EXISTING EOP
EXISTING 2'6" C & G
EXIST. SIDEWALK
EXISTING PARKING
EXISTING EOP
PROP. 2'6" C&G
EXISTING C & G
EXIST. 4' CONC. SIDEWALK
CTL 10
EXISTING EOP
NCGS MON "RICHLANDS" ELEV. = 62.843'
2 STORY BRICK CHURCH
N 55° 20' 54.8" W
SR 2009 (E. HARGETT ST)
EXISTING EOP
EXIST. SIDEWALK
EXISTING C & G
2 STORY BRICK BLDG

Scale 1" = 40'
40' 0 40' 80'

REVISIONS

8/17/99

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Microstation V8 DGN

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	6

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER LLOYD EVANS COOKE

DIVISION DESIGN ENGINEER

4-11-12

8/17/99

REVISIONS

-L1- POT Sta. 17+35.03

-L1- POT Sta. 19+30.68

-L1-14+62

-L1-19+31 Ext. 91.10

15

1 STORY BRICK BLDG

2 STORY BRICK BLDG

1 STORY BRICK BLDG

1 STORY BLDG

1 STORY BLDG

1 STORY BRICK BLDG

ASPHALT PARKING LOT

CTL 20

R/W

SIDEWALK

EXIST. SIDEWALK

EXISTING 1'6" C & G

PROP. 1'6" C&G

EXISTING PARKING

EXISTING EOP

EXISTING 2' C & G

EXIST. 4' CONC. SW

2' EXISTING C & G

EXISTING 4' CONC. SW

2-6 EXISTING C & G

W. FOY ST

EXISTING 3' CONC. SW

CONC. GW

2-6 EXISTING C & G

SR 1003 (WILMINGTON ST)

(WILMINGTON ST)

N 29° 53' 07.3" E

PROP. 2'6" C&G

PROP. 1'6" C&G

EXISTING PARKING

EXISTING 2' C & G

2 EXISTING C & G

EXIST. 4' CONC. SW

2-2 EXISTING C & G

E. FOY ST

2-6 EXISTING C & G

2-0 EXISTING C & G

CONC. GW

EXISTING 4' CONC

-L1- 18+80.74
END RESURFACING
END CONSTRUCTION

SEE SHEET NO. 7 & 7A

Scale 1" = 40'

40' 0 40' 80'

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WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

-L1- PT Sta. 11+84.24

-L1-11+80

-L1- 12+60.84
BEG. REMOVAL EXISTING 2' C&G
BEG. PROP. 2' 6" CONC. C&G
MATCH EXISTING

-L1- 12+76.66
BEGIN REMOVAL EXIST. 2' 0" C&G
BEGIN PROP. 2' 6" CONC. C&G
MATCH EXISTING

-L1- 13+13.67
BEGIN PROP. CONC. SIDEWALK
MATCH EXISTING

-L1- 13+28.61
END REMOVAL EXIST. C&G

-L1- 13+73.03
END PROP. CONC. SIDEWALK

-L1- 13+68.13
END REMOVAL EXIST. 2' C&G
END PROP. 2' 6" CONC. C&G
MATCH EXISTING

-L1- 13+87.65
END PROP. 2'6" CONC. C&G
MATCH EXISTING

-L1- 13+96.78
BEG. REMOVAL EXIST. 2'6" C&G
BEG. PROP. 2' 6" CONC. C&G
MATCH EXISTING

-L1- 14+14.65
BEG. PROP. 1' 6" CONC. C&G
BEG. PROP. CONC. SIDEWALK

-L1- 14+14.47
BEG. REMOVAL EXIST. 2'6" C&G
BEG. PROP. 2'6" CONC. C&G
MATCH EXISTING

-L1- 14+31.93
BEG. PROP. 1' 6" CONC. C&G
BEG. PROP. CONC. SIDEWALK

-L1- 15+08.85
END PROP. 1'6" CONC. C&G

-L1- 15+15.77
END PROP. 2'6" C&G
BEGIN PROP. 2' C&G

-L1- 15+17.10
END REMOVAL EXIST. C&G
END PROP. 1'6" CONC. C&G
END PROP. CONC. SIDEWALK

-L1- 15+20.03
END PROP. 2' 6" CONC. C&G

-L1- 15+51.77
END REMOVAL EXIST. C&G
END PROP. 2' CONC. C&G
END PROP. CONC. SIDEWALK

15 15

-L1-17+28

SR 1003 (WILMINGTON ST)
N 29° 53' 07.3" E
N 55° 20' 54.8" W
SR 2009 (E. HARGETT ST)
N 54° 56' 20.2" W
SR 1306 (W. HARGETT ST)
-Y2- POT Sta. 10+00.00
PROP. 2'6" C&G
EXIST. 4' CONC. SIDEWALK
EXISTING C & G
EXISTING EOP
EXISTING 2'6" C & G
EXIST. SIDEWALK
EXISTING PARKING
EXISTING BRICK BLDG
2 STORY BRICK BLDG
2 STORY BRICK CHURCH
1 STORY BRICK BLDG
ASPHALT PARKING LOT
CROSS MON "RICHLANDS" ELEV = 628.43
EXISTING IRON PIN
CTL 10
CTL 20
R/W

Scale 1" = 40'
0 40' 80'

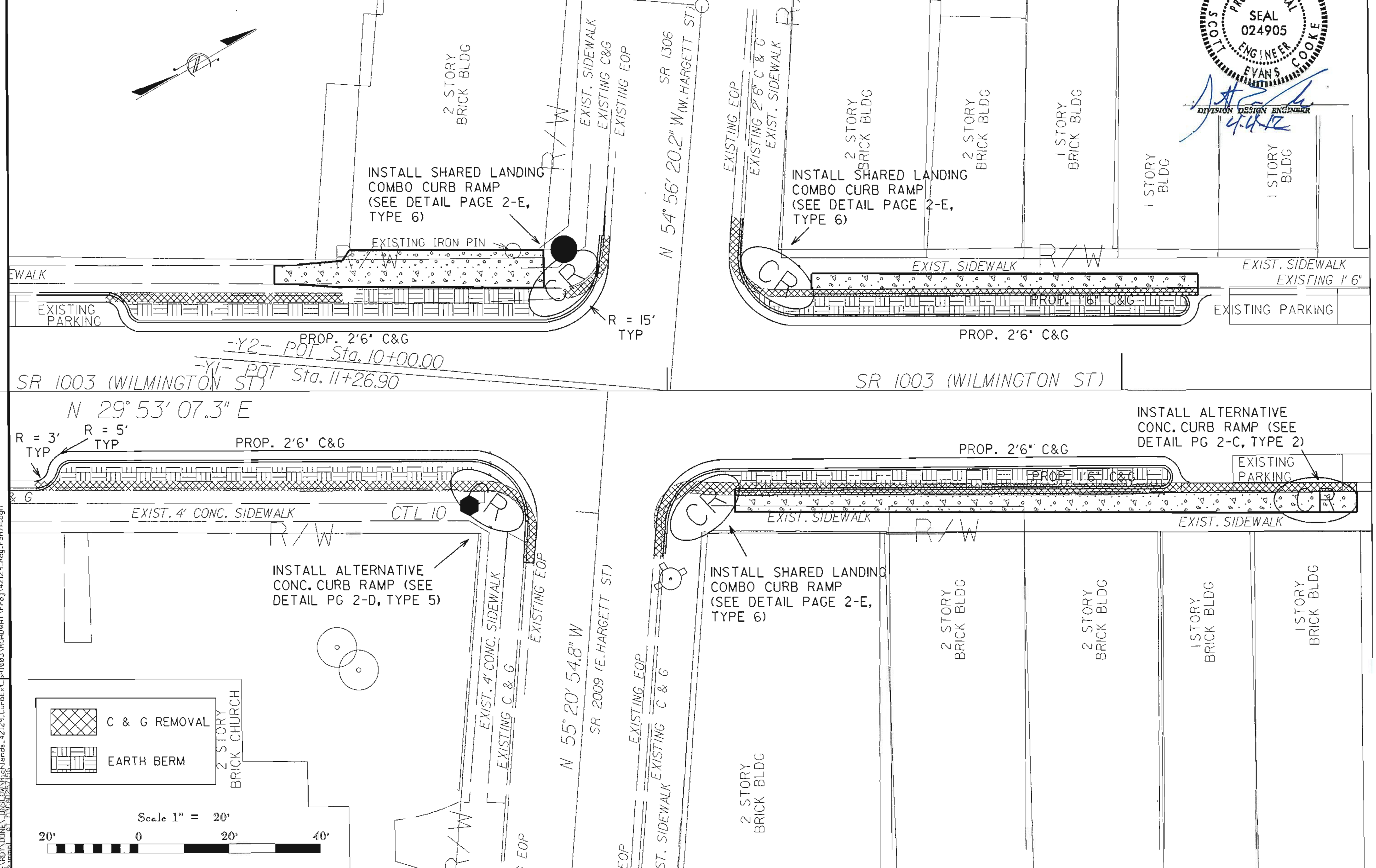
PROJECT REFERENCE NO. 3603.3.10, Etc.
SHEET NO. 7

SEAL 024905 NORTH CAROLINA PROFESSIONAL ENGINEER SCOTT EVANS COOKE

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	7A

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE
DIVISION DESIGN ENGINEER
4-4-12



-Y2- POT Sta. 10+84.42
2 STORY BRICK BLDG
R/W
EXIST. SIDEWALK
EXISTING C&G
EXISTING EOP
SR 1306
N 54° 56' 20.2" W (W. HARGETT ST)
EXISTING EOP
EXISTING 2'6" C & G
EXIST. SIDEWALK
2 STORY BRICK BLDG
2 STORY BRICK BLDG
1 STORY BRICK BLDG
1 STORY BLDG
1 STORY BLDG
INSTALL SHARED LANDING COMBO CURB RAMP (SEE DETAIL PAGE 2-E, TYPE 6)
EXISTING IRON PIN
INSTALL SHARED LANDING COMBO CURB RAMP (SEE DETAIL PAGE 2-E, TYPE 6)
EXIST. SIDEWALK
EXIST. SIDEWALK
EXISTING 1' 6"
EWALK
EXISTING PARKING
CR
R = 15' TYP
PROP. 1'6" C&G
EXISTING PARKING
PROP. 2'6" C&G
PROP. 2'6" C&G
-Y2- POT Sta. 10+00.00
-Y1- POT Sta. 11+26.90
SR 1003 (WILMINGTON ST)
SR 1003 (WILMINGTON ST)
N 29° 53' 07.3" E
R = 3' TYP
R = 5' TYP
PROP. 2'6" C&G
PROP. 2'6" C&G
INSTALL ALTERNATIVE CONC. CURB RAMP (SEE DETAIL PG 2-C, TYPE 2)
EXISTING PARKING
PROP. 1'6" C&G
& G
EXIST. 4' CONC. SIDEWALK
CTL 10
EXIST. SIDEWALK
EXIST. SIDEWALK
R/W
INSTALL ALTERNATIVE CONC. CURB RAMP (SEE DETAIL PG 2-D, TYPE 5)
EXIST. 4' CONC. SIDEWALK
EXISTING C & G
EXISTING EOP
N 55° 20' 54.8" W
SR 2009 (E. HARGETT ST)
EXISTING EOP
EXISTING C & G
EXIST. SIDEWALK
INSTALL SHARED LANDING COMBO CURB RAMP (SEE DETAIL PAGE 2-E, TYPE 6)
2 STORY BRICK BLDG
2 STORY BRICK BLDG
1 STORY BRICK BLDG
1 STORY BRICK BLDG
2 STORY BRICK BLDG
2 STORY BRICK CHURCH
C & G REMOVAL
EARTH BERM
Scale 1" = 20'
20' 0 20' 40'

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	7B

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

-L1- 10+08.40
BEGIN CONSTRUCTION
BEGIN RESURFACING

-L1-10+00

-L1-17+01

-Y2- POT Sta. 10+84.42

-Y2- POT Sta. 10+00.00

-Y1- POT Sta. 11+26.90

-Y1- POT Sta. 10+00.00

N 29° 53' 07.3" E

N 54° 56' 20.2" W

N 55° 20' 54.8" W

PI Sta 10+98.39
Δ = 10° 49' 13.2" (RT)
D = 6° 16' 56.8"
L = 172.23'
T = 86.37'
R = 912.00'

4.24

NCGS MON. "RICHLANDS" ELEV. = 62.845'

CTL 10

CTL 20

R/W

EXISTING ℄ C & G

EXISTING PARKING

PROP. 2'6" C&G

EXISTING IRON PIN

2 STORY BRICK BLDG

1 STORY BRICK BLDG

CR

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

14.6.96

REVISIONS

8/17/95

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10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	TCP-1

REVISIONS

GENERAL NOTES

(1) THE FOLLOWING OPTIONS MAY BE USED AS ADVANCE WARNING SIGNS:

A. TRUCK MOUNTED ADVANCE WARNING SIGNS
B. MOVING CHANGEABLE MESSAGE SIGN (CMS)
C. GROUND MOUNTED ADVANCE WARNING BIGNS (MUST USE 'NEXT 10 MILES' AND MAKE CIRCLE TO PICK UP SIGNS)
D. STATIONARY CHANGEABLE MESSAGE SIGN (CMS) (MUST USE 'NEXT 10 MILES' AND MAKE CIRCLE TO PICK UP CMS)

(2) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL - TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES. HOWEVER, THE FIRST VEHICLE MOTORISTS SEE SHOULD HAVE A TMIA.

(3) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED TEN (10) MILES IN LENGTH.

(4) DISTANCE BETWEEN APPLICATION VEHICLE AND PROTECTION VEHICLE WILL VARY AS DRYING TIMES VARY, HOWEVER, THE CRITICAL FACTOR IS PASSING MOTORISTS. IF THE GAP BETWEEN VEHICLES IS TOO GREAT, MOTORISTS WILL ATTEMPT TO PASS AND ULTIMATELY APPEAR IN THE MIDDLE OF THE OPERATION.

(5) MOUNTING HEIGHT DIMENSIONS FROM ROADWAY TO SIGN SHOULD BE A MINIMUM OF FIVE (5) FEET FOR INTERSTATES, OTHER HIGH VOLUME ROADWAYS, OR RDADWAYS THAT MAY REQUIRE A MOUNTING HEIGHT OF FIVE (5) FEET FOR INCREASED VISIBILITY AND A MINIMUM OF ONE (1) FOOT FOR ALL OTHER RDADWAYS.

(6) SIGN SPACING SHOULD BE ADJUSTED FOR HDRIZONTAL ANO VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.

(7) SIGN W26-1BSP OR R4-7A SHOULD BE PLACED ON FRONT OF APPLICATION VEHICLE AND SIGN W26-1BSP OR INFORMATIONAL SIGN ON BACK OF PRDTECTION VEHICLE IN TWO-LANE, TWO-WAY TRAFFIC SO VEHICLES APPROACHING FROM FRONT AND REAR ARE NOTIFIED OF OPERATION.

(8) RADIO COMMUNICATION BETWEEN VEHICLES IS RECOMMENDED.

(9) USE OF A LIGHT BAR ON THE ADVANCE WARNING VEHICLE IS PREFERRED, 6UT A ROTATING BEACON MAY BE USED INSTEAD.

(10) USE OF A CMS WITH ADVANCED WARNING VEHICLES IS OPTIONAL.

(11) IF WORK IS PERFORMED AT NIGHT, THE FOLLOWING PROVISIONS MUST BE MADE:
A. GROUND MOUNTED SIGNS MUST HAVE TYPE B FLASHING LIGHTS ATTACHED (TRUCK MOUNTED SIGNS DO NOT REQUIRE TYPE B FLASHING LIGHTS)
B. OPERATION MUST INCLUDE A CHANGEABLE MESSAGE SIGN (CMS)
C. WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.

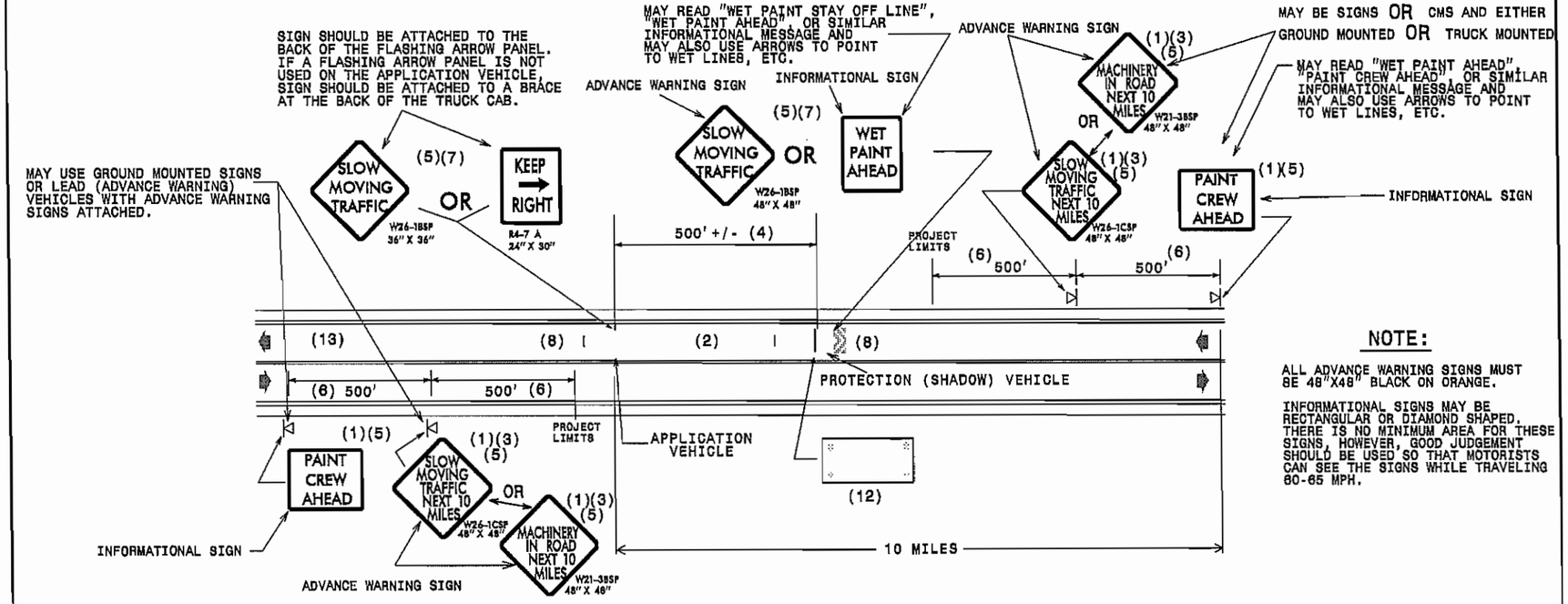
(12) USE A TYPE "B" FLASHING ARROW PANEL.

PANEL TYPE	MIN. SIZE
B	60"X30"

(13) IF A LEAD VEHICLE IS ADDED TO OPERATION, IT SHOULD HAVE THE SAME ADVANCE WARNING SIGNS AS THE APPLICATION VEHICLE SHOWN BELOW.

LEGEND

- PORTABLE SIGN
- DIRECTION OF TRAFFIC FLOW
- APPLICATION VEHICLE WITH ROTATING BEACON
- PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND ROTATING BEACON (SEE ROADWAY STANDARD NO. 1165.01
- FLASHING ARROW PANEL, TYPE "B" "CAUTION MODE"



NOTE:

ALL ADVANCE WARNING SIGNS MUST BE 48"X48" BLACK ON ORANGE.

INFORMATIONAL SIGNS MAY BE RECTANGULAR OR DIAMOND SHAPED. THERE IS NO MINIMUM AREA FOR THESE SIGNS, HOWEVER, GOOD JUDGEMENT SHOULD BE USED SO THAT MOTORISTS CAN SEE THE SIGNS WHILE TRAVELING 60-65 MPH.

MOVING OPERATION CARAVAN

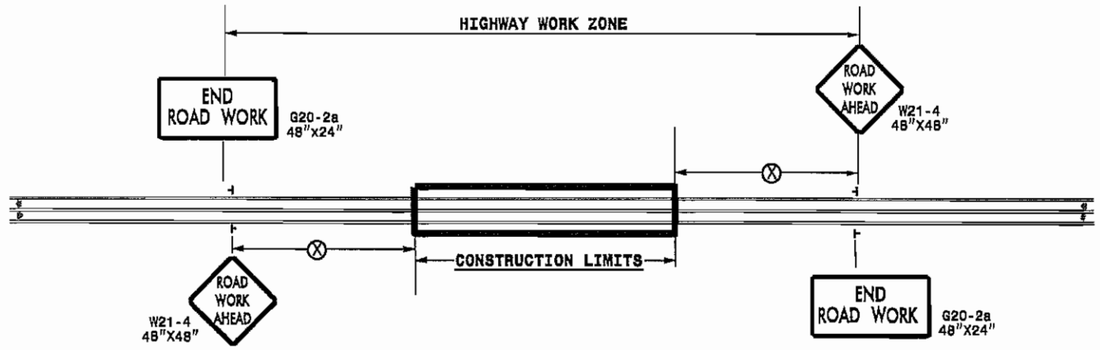
(OPERATIONS TRAVELING 3 MPH OR FASTER)

PLACING MARKING OR MARKERS ON TWO-LANE TWO-WAY ROADWAYS

DRAWING NUMBER 6
IMPLEMENTATION DATE: 07/01/97

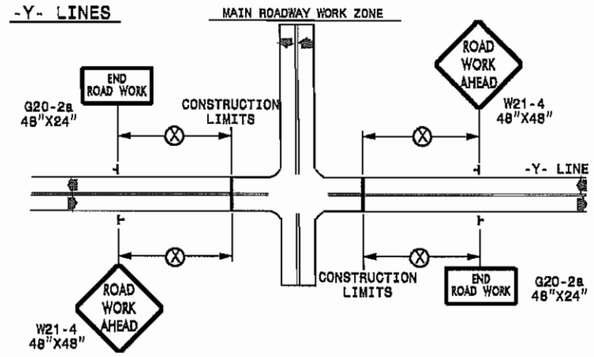
PROJ. REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	TCP-2

TWO-WAY UNDIVIDED ** (L-LINES)



POSTED SPEED LIMIT (M.P.H.)	RECOMMENDED MINIMUM SIGN SPACING ⊗
≤ 50	500'
≥ 55	1000'

ROADWAYS INTERSECTING ALONG 2 WAY UNDIVIDED WORK ZONE (Y-LINES)



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1084-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.
- ** TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

LEGEND

⊢ STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

DETAIL DRAWING FOR TWO-WAY UNDIVIDED WORK ZONE WARNING SIGNS

SHEET 1 OF 1

APPROVED: _____ DATE: _____

SEAL

DETAIL DRAWING FOR TWO-WAY UNDIVIDED AND URBAN FREEWAYS ADVANCED WORK ZONE WARNING SIGNS

SCALE: NONE	REVISIONS	
DATE:	7-98	10/01
DWG. BY:	10-98	03/04
DESIGN BY:	01/01	11/04
REVIEWED BY:	CADD FILE	

14-MAR-2012 14:01
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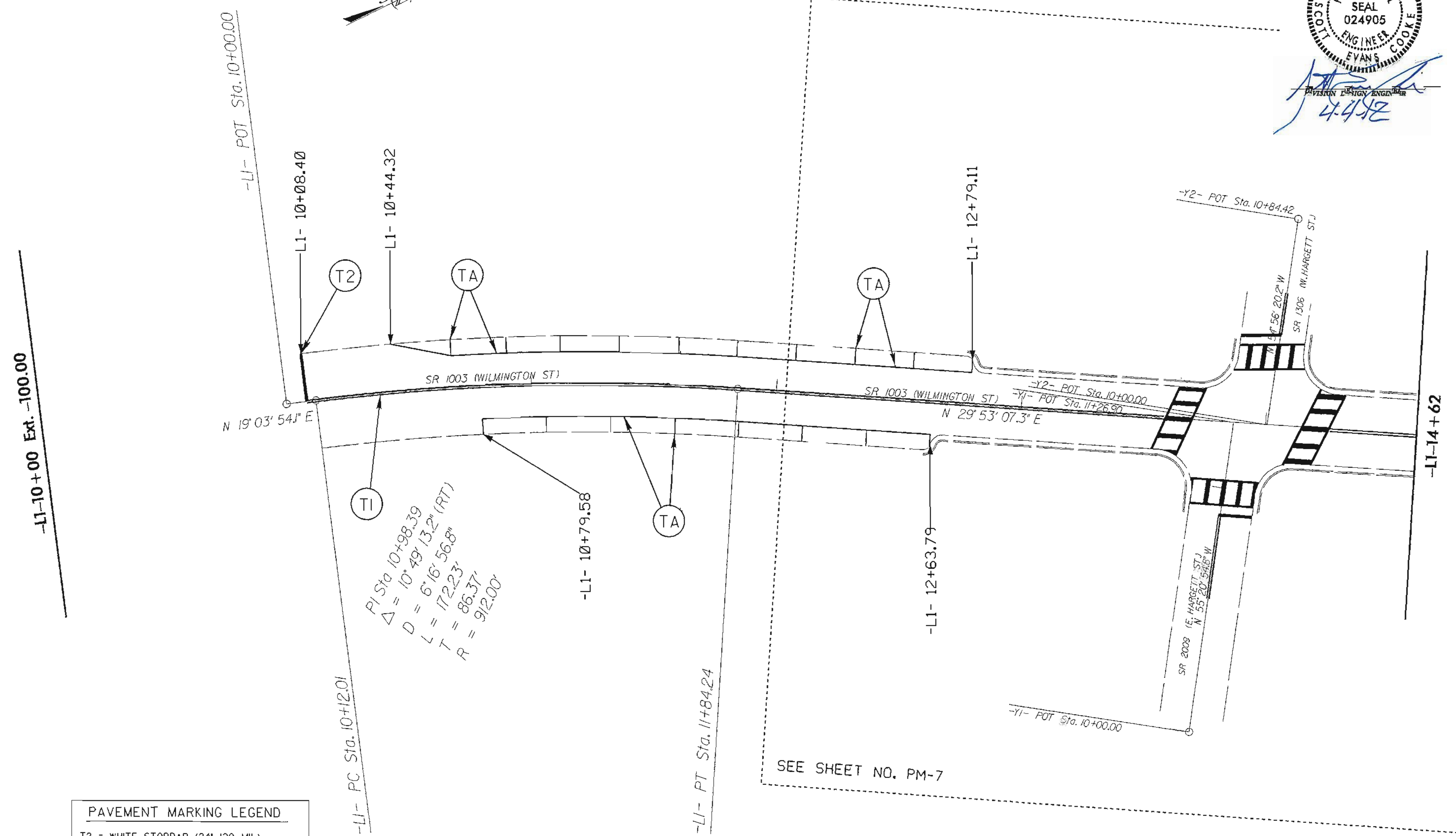
PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	PM-5

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2



PAVEMENT MARKING LEGEND

T2 = WHITE STOPBAR (24", 120 MIL)
T3 = WHITE CROSSWALK LINE (12", 120 MIL)
T4 = WHITE CROSSWALK LINE (24", 120 MIL)
TA = WHITE EDGELINE (4", 90 MIL)
TI = YELLOW DOUBLE CENTER (4", 120 MIL)

Scale 1" = 40'

40' 0 40' 80'

REVISIONS

04-APR-2012 09:59
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PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	PM-6

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

15

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

1.4.02

8/17/99

REVISIONS

-L1- POT Sta. 17+35.03

-L1- POT Sta. 19+30.68

-L1- 15+17.34

-L1- 15+69.37

-L1- 18+31.36

W. FOY ST

TI

TA

TI

SR 1003 (WILMINGTON ST)

N 29° 53' 07.3" E

SR 1003 (WILMINGTON ST)

-L1-14+62

-L1-19+31 Ext. 91.10

-L1- 15+15.77

TA

-L1- 17+53.77

E. FOY ST

PAVEMENT MARKING LEGEND

T2 = WHITE STOPBAR (24", 120 MIL)
T3 = WHITE CROSSWALK LINE (12", 120 MIL)
T4 = WHITE CROSSWALK LINE (24", 120 MIL)
TA = WHITE EDGELINE (4", 90 MIL)
TI = YELLOW DOUBLE CENTER (4", 120 MIL)

Scale 1" = 40'

40' 0 40' 80'

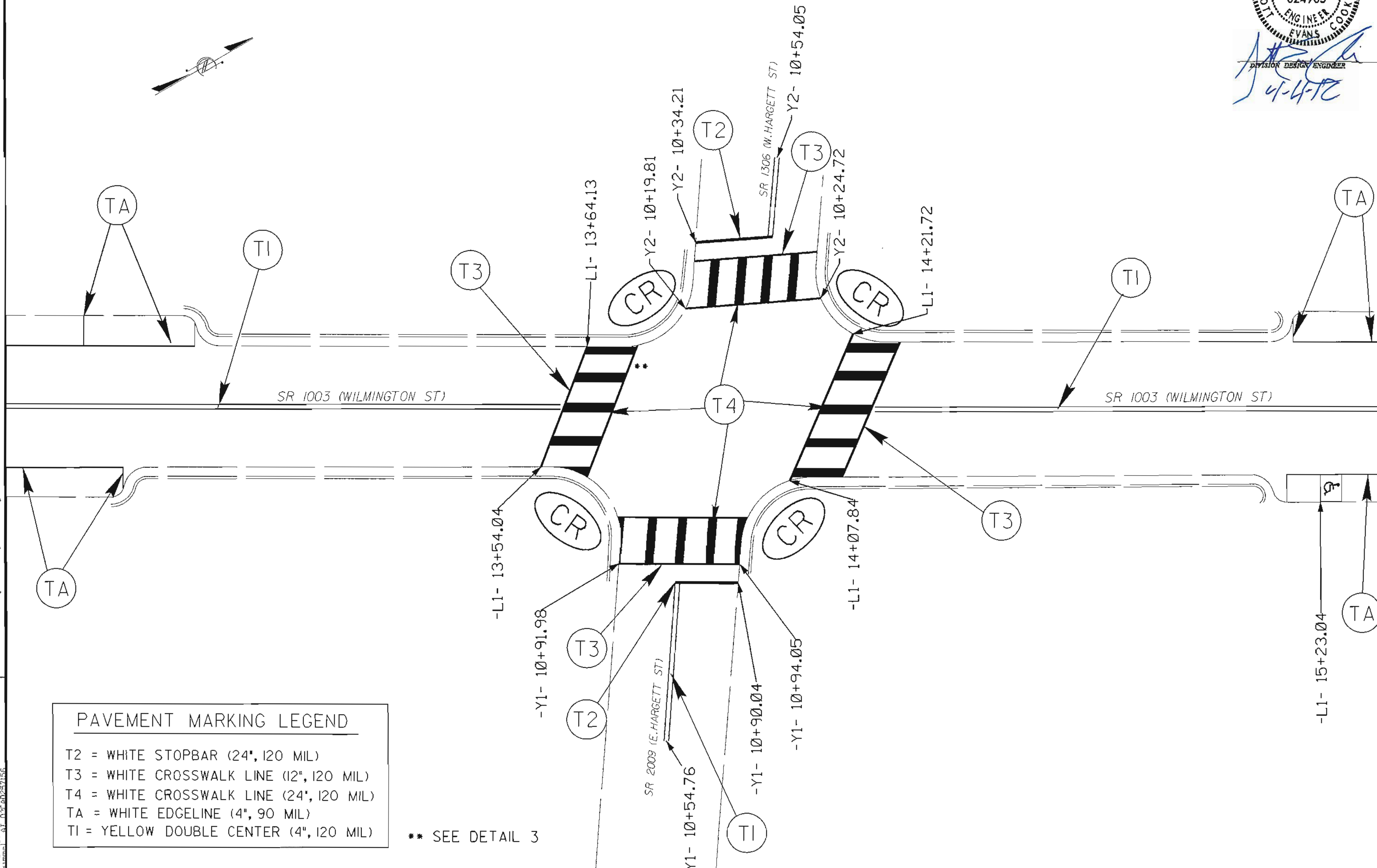
04-APR-2002 10:01
R:\RDY_DGNS\YELLOW\Richlands_42129_CurbExt_PR1003\ROADWAY\Proj\42129_Rdy_TC_PM-6.dgn
R. RDY DGNS (YELLOW)

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	PM-7

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER S. SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER
4-4-12



PAVEMENT MARKING LEGEND

T2 = WHITE STOPBAR (24", 120 MIL)
T3 = WHITE CROSSWALK LINE (12", 120 MIL)
T4 = WHITE CROSSWALK LINE (24", 120 MIL)
TA = WHITE EDGELINE (4", 90 MIL)
TI = YELLOW DOUBLE CENTER (4", 120 MIL)

** SEE DETAIL 3

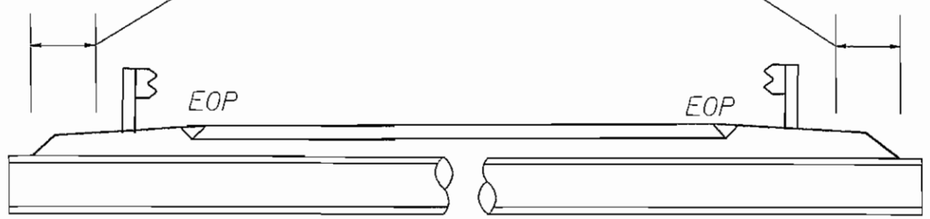
PROJECT REFERENCE NO.	SHEET NO.
3603.330, Etc.	EC-1
BW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTES: Less than 5' – 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

EROSION CONTROL DETAIL

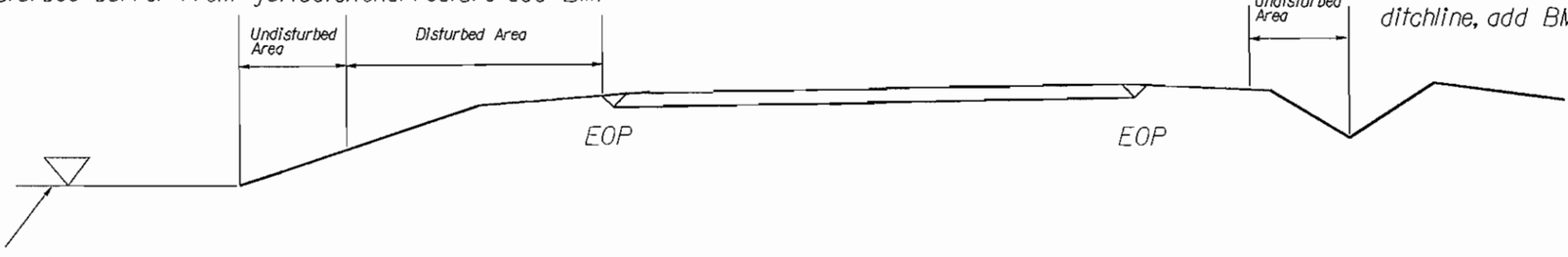
< 5' – 10' Undisturbed buffer add BMP



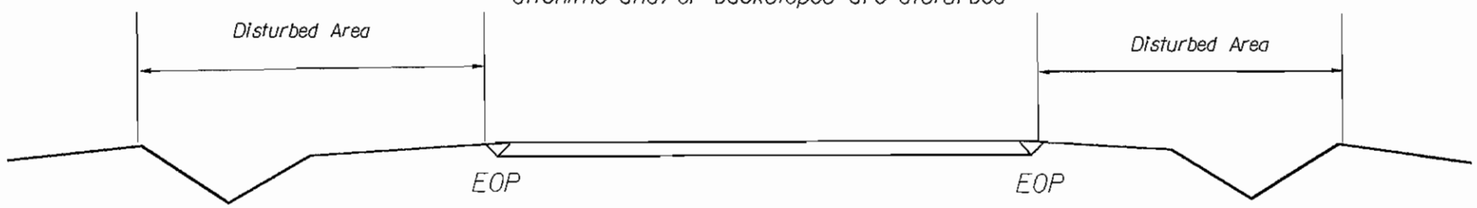
Pipe/Culvert

< 5' – 10' Undisturbed buffer from jurisdictional feature add BMP

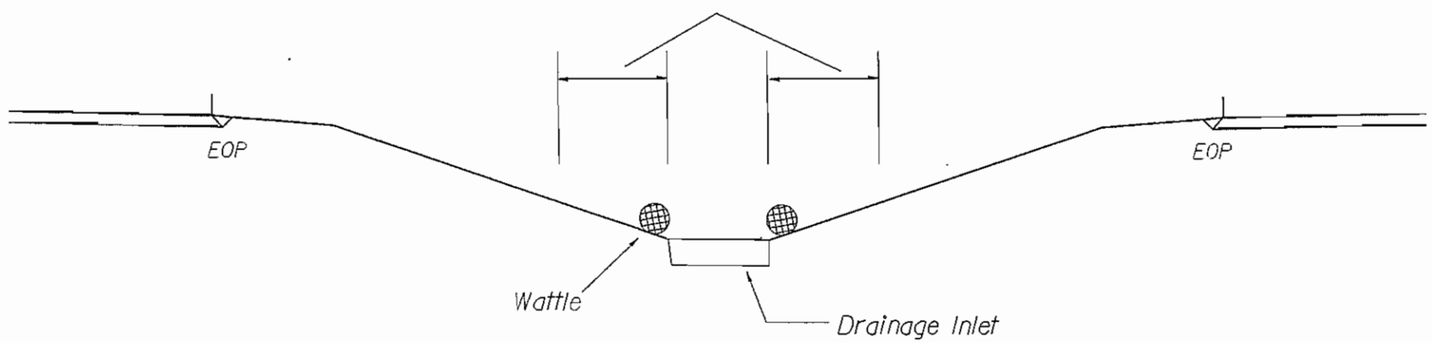
< 5' – 10' Undisturbed buffer from ditchline, add BMP



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed



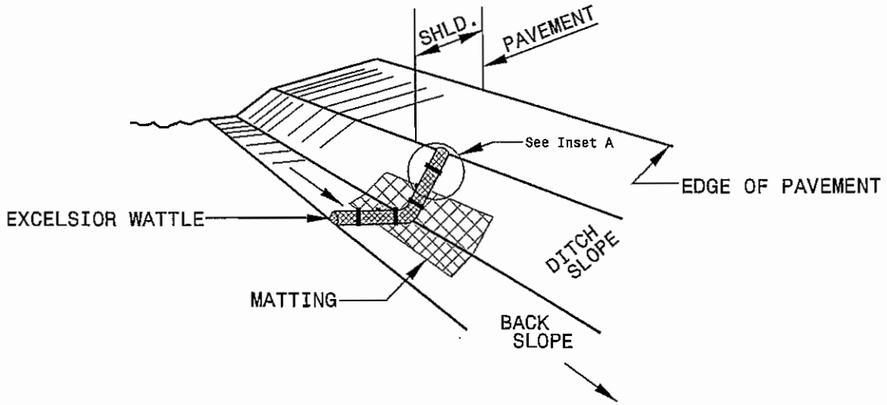
< 5' – 10' Undisturbed buffer from inlet, add wattle



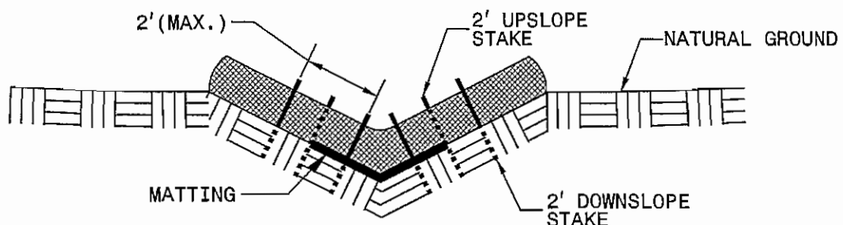
NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

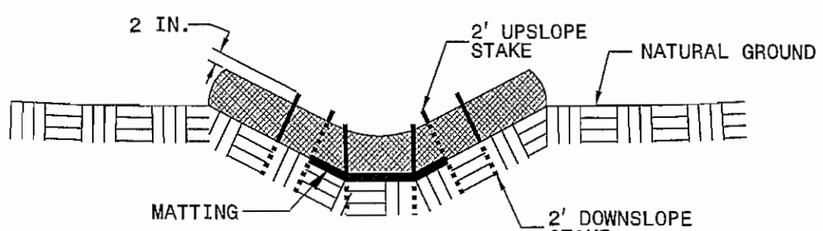
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

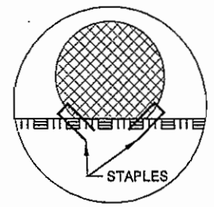
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

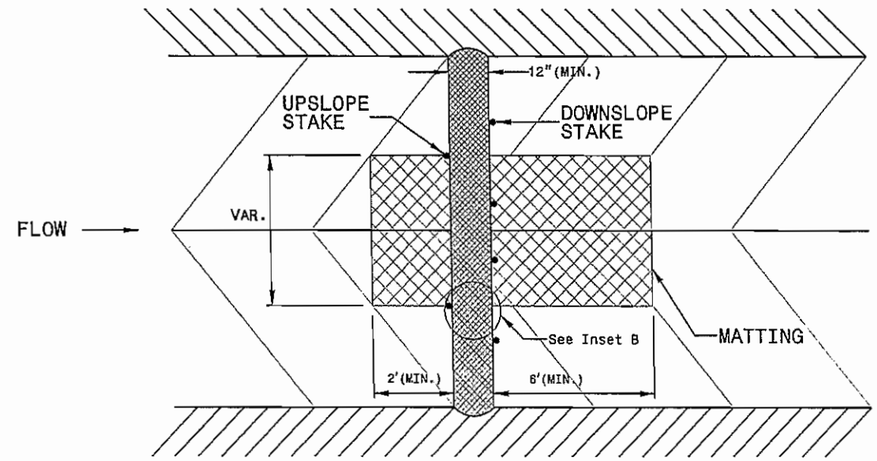
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

INSET A



INSET B



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	UTL – 5

WBS 42129
RICHLANDS
CURB EXTENSIONS
MAP NO. 2

NORTH CAROLINA PROFESSIONAL SEAL 024905 ENGINEER SCOTT EVANS COOKE

DIVISION DESIGN ENGINEER

4-4-12

-L1- 10+08.40
BEGIN CONSTRUCTION
BEGIN RESURFACING

-L1- POT Sta. 10+00.00

SR 1308 (W. FRANCK ST)

SR 1003 (WILMINGTON ST)

N 19° 03' 54.1" E

-L1- 10+00 Ext. -100.00

ADJUST 3 WATER METERS

-Y2- POT Sta. 10+84.42

SR 1308 (W. HARGETT ST)

N 54° 56' 20.2" W

-Y2- POT Sta. 10+00.00

-Y1- POT Sta. 11+26.90

SR 1003 (WILMINGTON ST)

N 29° 53' 07.3" E

-L1-14+62

PI Sta 10+98.39
Δ = 10° 49' 13.2" (RT)
D = 6° 16' 56.8"
L = 172.23'
T = 86.37'
R = 912.00'

-L1- PC Sta. 10+12.01

-L1- PT Sta. 11+84.24

N 55° 20' 54.6" W

-Y1- POT Sta. 10+00.00

Scale 1" = 40'

40' 0 40' 80'

REVISIONS

8/17/99

04-APR-2012 10:08
R:\ROADWAY\ONSLOW\Richlands_42129_CurbExt_SR1003\ROADWAY\Proj\42129_Rdy_UTL_PSH5.dgn
mkammel

WBS 42129
RICHLANDS - CURB EXTENSIONS
MAP NO. 2

PROJECT REFERENCE NO.	SHEET NO.
3603.3.10, Etc.	UTL - 6