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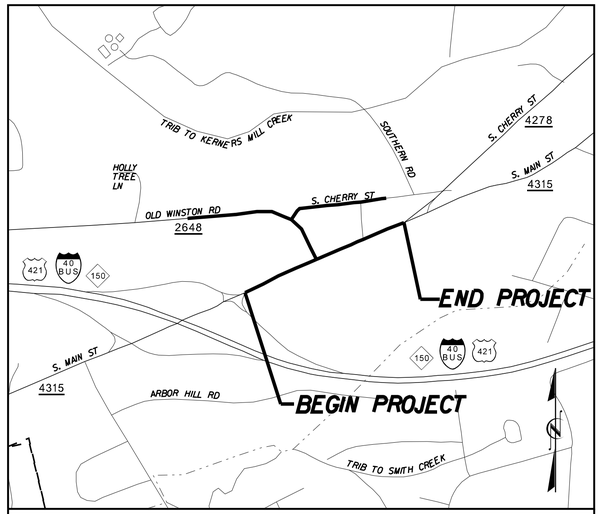
TIP PROJECT: W–5510

CONTRACT: C203899

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Plan Sheet Symbols



VICINITY MAP

TOWN OF KERNERSVILLE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

FORSYTH COUNTY

NC GRID NAD 83 – NAD 2011

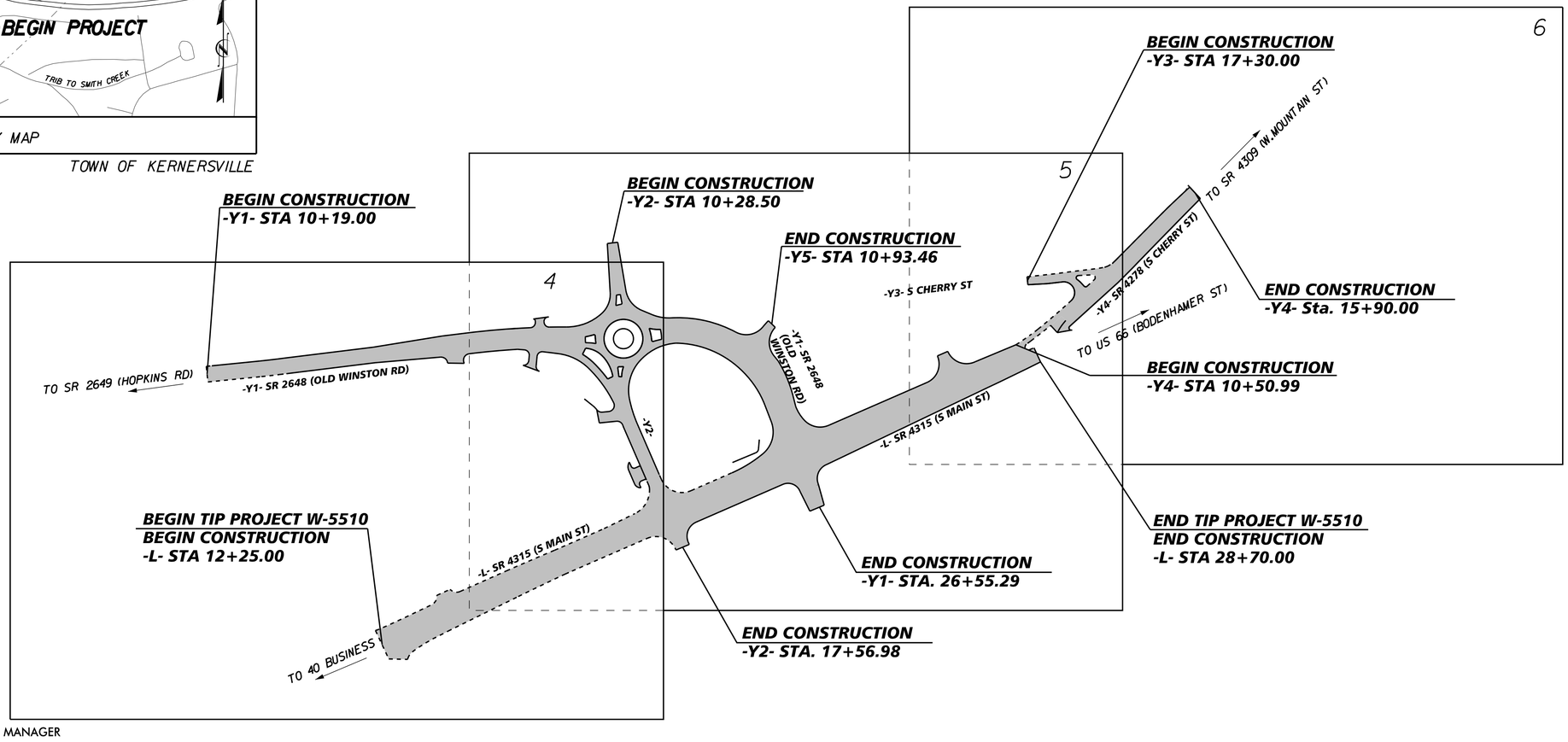
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W–5510	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50080.1.DI	HSIP–4315(2)	PE
50080.2.FDI	HSIP–4315(2)	RW / UTILITIES
50080.3.FDI	HSIP–4315(2)	CONST

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

LOCATION: SR 4315 (S MAIN STREET) FROM I–BUS–40 RAMP TO SR 4278 (S CHERRY STREET), AND SR 2648 (OLD WINSTON ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS AND RETAINING WALLS



NCDOT CONTACT: BRETT ABERNATHY
DIVISION 9, PROJECT MANAGER
(336) 747–7800

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2016 = 33,700 VPD
ADT 2036 = 43,400 VPD
DHV = 8%
D = 55%
T = 3% *
V = 40 mph
* (TTST 1% + DUAL 2%)
DESIGN EXCEPTION: N/A
FUNCTIONAL CLASSIFICATION: URBAN COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W–5510 = 0.312 MILES

TOTAL LENGTH TIP PROJECT W–5510 = 0.312 MILES

PLANS PREPARED FOR THE NCDOT BY: Kimley»Horn

Post Office Box 33068
Raleigh, North Carolina 27636
NC License #F-0102

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: *JULY 22, 2014*

LETTING DATE: *JULY 19, 2016*

MATTHEW WEST, PE
PROJECT ENGINEER

ERIN THOMPSON, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 026480 ENGINEER LARRY D. ROBINSON, JR.

DocuSigned by: 6/1/2016 P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: 6/1/2016 P.E.
SIGNATURE:

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION ·

K:\RAL_Roadway\0II036245 – KernersvilleRoadway\Proj\W5510_RDY_TSH.dgn

6/1/2016

PROJECT REFERENCE NO.	SHEET NO.
W-5510	1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D07968425... 3/7/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

GENERAL NOTES

GENERAL NOTES:2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 07/30/12

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.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD.NO.225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD.NO.560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD.848.02 USING 900 MM RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD.NO.848.04 USING THE RADII NOTED ON PLANS.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE

(A) POWER: DUKE ENERGY: LARRY ROBINSON 336-209-6631
(B) TELEPHONE: AT&T: JIM BROOKS 336-788-0150
(C) TELEPHONE: CENTURY LINK: BRIAN MCNIFF 336-996-5999
(D) WATER/SEWER: CITY OF WINSTON SALEM: JACK FITZGERALD 336-747-7309
(E) GAS: PIEDMONT: ANDY RUMLEY 336-222-7108
(F) CABLE: TWC: ERIC VIVOD 336-669-8824
(G) FIBERTECH: JOHN SMITH 585-743-1796

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.
CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.

LIST OF ROADWAY STANDARD DRAWINGS

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 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
848.06	Curb Ramp - Existing Curb & Gutter
852.01	Concrete Islands
852.06	Method for Placement of Drop Inlets in Concrete Islands
876.02	Guide for Rip Rap at Pipe Outlets

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3/4/2016

PROJECT REFERENCE NO.	SHEET NO.
W-5510	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- 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
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- 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 — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — 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
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*) — W
- U/G Water Line LOS C (S.U.E*) — W
- U/G Water Line LOS D (S.U.E*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

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

K:\RAL_Roadway\OII0362245 - KernersvilleRoadwayPro\NW5510_RDY_TSH.dgn

12/22/2015

SURVEY CONTROL SHEET W–5510

BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
5	BL-5	860991.9290	1677954.2880	955.13	10+46.77	44.56 LT
6	BL-6	861175.3330	1678544.6270	952.85	16+61.22	35.21 RT
1	MAIN-1	861294.0720	1678846.6670	962.81	19+85.74	47.34 RT
7	BL-7	861594.6700	1679311.3770	977.33	25+31.91	42.19 LT
3	MAIN-3	861788.3840	1679758.6820	984.89	30+20.17	36.74 LT
8	BL-8	861891.5880	1680164.2100	990.48	34+36.33	21.68 RT

BY3

POINT	DESC.	NORTH	EAST	ELEVATION	Y3 STATION	OFFSET
4	MAIN-4	862213.3840	1680144.2560	984.31	OUTSIDE PROJECT LIMITS	

BY2

POINT	DESC.	NORTH	EAST	ELEVATION	Y2 STATION	OFFSET
11	BY2-11	861839.8660	1679284.5270	982.58	11+21.27	592.46 LT
12	BY2-12	861741.5400	1678694.3450	973.47	12+34.69	4.99 LT

BY1

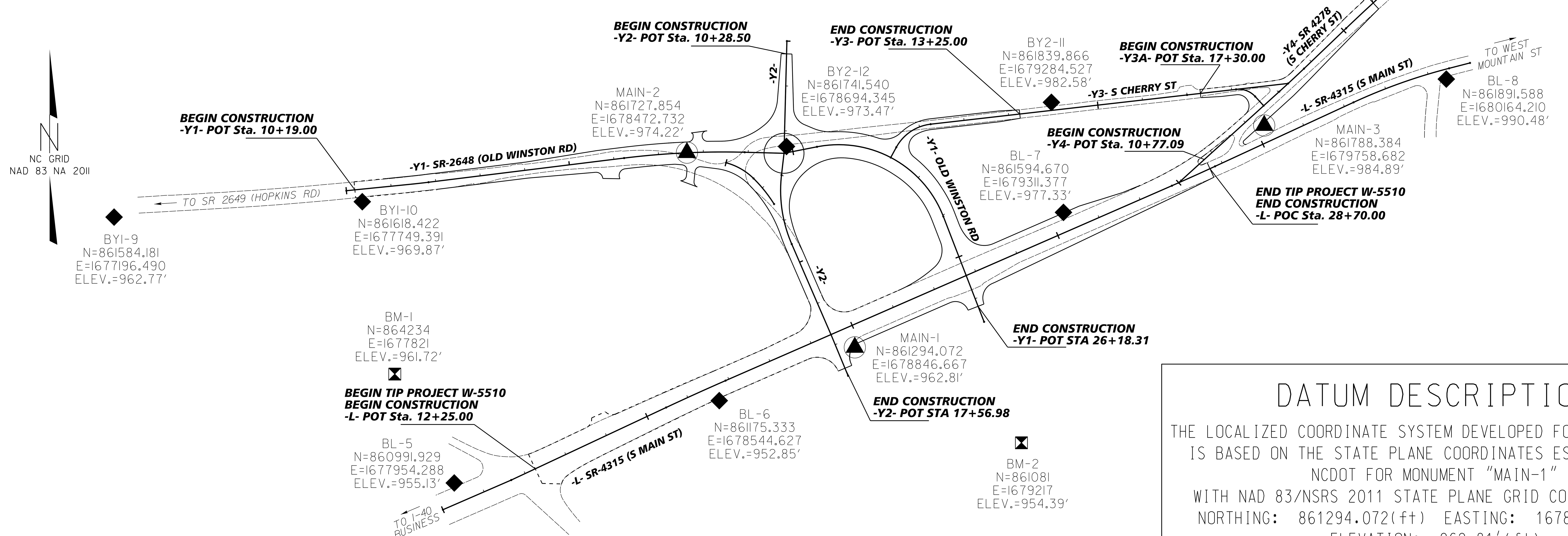
POINT	DESC.	NORTH	EAST	ELEVATION	Y1 STATION	OFFSET
9	BY1-9	861584.1810	1677196.4900	962.77	OUTSIDE PROJECT LIMITS	
10	BY1-10	861618.4420	1677749.3910	969.87	10+32.69	27.99 RT
2	MAIN-2	861727.8540	1678472.7320	974.22	17+63.50	0.35 LT

BENCHMARKS (NAVD 88)

BM1 ELEVATION = 961.72'
N 861235 E 1677822
L STATION 10+22 320' LEFT
CHISELED SQUARE IN CONCRETE CURB AT
RETENTION POND BEHIND J. PEPPERS

BM2 ELEVATION = 954.39'
N 861081 E 1679218
L STATION 22+41 391' RIGHT
CHISELED SQUARE IN CONCRETE CURB IN
FRONT OF GOODWILL & DOLLAR TREE

BM3 ELEVATION = 984.90'
N 862248 E 1680181
Y4 STATION 18+48 19' LEFT
CHISELED SQUARE IN SIDEWALK FOR CHERRY
STREET IN FRONT OF 606 CHERRY STREET



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "MAIN-1"
WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 861294.072(ft) EASTING: 1678846.667(ft)
ELEVATION: 962.81'(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999442018
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "MAIN-1" TO -L- STATION 10+00.00 IS
S 68°29'19.62" W 986.24'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTES:

▲ *INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.*

PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

NOTE: DRAWING NOT TO SCALE

6/24/14

PROJECT REFERENCE NO.	SHEET NO.
W-5510	1D-1
DDC	

CENTERLINE COORDINATE LIST

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	14+73.75	48.00	861085.6064	1678380.4524
L	16+24.98	39.92	861156.3323	1678513.6948
L	16+24.98	48.00	861148.9711	1678517.0165
L	18+40.00	-40.06	861315.8499	1678678.1321
L	18+77.00	-45.00	861335.1827	1678710.0641
L	21+50.00	-50.00	861449.0036	1678958.2509
L	21+50.00	-40.01	861439.8495	1678962.2478
L	22+00.00	-50.00	861469.0110	1679004.0734
L	22+24.00	-67.82	861494.9462	1679018.9416
L	23+65.00	-50.00	861535.0368	1679155.2913
L	23+80.00	49.00	861450.3104	1679208.6527
L	26+50.00	-35.79	861636.0603	1679422.1641
L	26+50.00	-50.00	861649.0789	1679416.4798
L	28+70.00	29.24	861665.5002	1679649.9526
L	28+70.00	32.00	861662.9917	1679651.1037

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	13+20.00	36.00	861642.8363	1678036.4833
Y1	13+20.00	29.75	861649.0383	1678035.7167
Y1	15+30.00	-35.00	861739.0608	1678236.1877
Y1	15+29.98	-31.93	861736.0117	1678236.5461
Y1	16+84.10	36.00	861686.3390	1678396.7307
Y1	18+40.00	-35.00	861764.3179	1678549.1374
Y1	20+60.00	70.00	861672.8380	1678779.7250
Y1	20+85.00	40.00	861704.9633	1678795.3983
Y1	20+87.87	-45.98	861790.9459	1678792.5348
Y1	22+70.00	-40.00	861723.3414	1678990.1206
Y1	24+53.80	40.00	861524.5005	1679024.6361
Y1	24+60.00	-40.00	861547.5768	1679101.4862

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+25.00	-30.00	861950.5161	1678724.7160
Y2	10+25.00	37.12	861952.2360	1678657.6204
Y2	10+28.79	64.75	861949.1553	1678629.9000
Y2	11+25.00	-30.00	861850.5490	1678722.1536
Y2	11+90.00	81.27	861788.4366	1678609.2430
Y2	13+35.00	-70.00	861642.1742	1678751.3880
Y2	13+60.00	-30.00	861619.4679	1678712.4595
Y2	14+96.23	-30.00	861499.1898	1678749.6927
Y2	16+05.70	30.00	861374.8815	1678738.2096

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+25.12	25.00	861766.3617	1679018.3915

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y4	14+71.59	30.00	861958.3531	1679935.9969
Y4	15+90.00	30.00	862039.1889	1680021.6607
Y4	15+90.04	25.40	862042.6062	1680018.5811

DATUM DESCRIPTION

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ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	860932.4353	1677929.1256
POT	11+65.94	860998.5023	1678081.3491
PC	15+46.93	861160.1177	1678426.3632
PT	16+92.12	861219.9636	1678558.6383
PC	27+77.22	861654.1624	1679553.0766
PT	28+82.52	861697.3102	1679649.1264
PC	32+22.35	861839.8213	1679957.6333
PT	34+48.70	861915.6716	1680170.5701
POT	34+96.76	861927.6383	1680217.1137

Y1

TYPE	STATION	NORTH	EAST
POT	10+00.00	861643.0303	1677714.0656
PC	11+42.70	861657.2852	1677856.0553
PT	11+83.96	861661.8766	1677897.0566
PC	16+22.96	861715.7287	1678332.7410
PT	18+92.18	861728.6872	1678601.3918
POT	19+79.78	861726.3588	1678688.9603
PC	20+54.63	861740.8142	1678762.4045
PT	24+03.64	861585.7073	1679043.8497
POT	26+55.29	861351.0050	1679134.6310

Y2

TYPE	STATION	NORTH	EAST
POT	10+00.00	861976.2767	1678695.3665
POT	12+50.00	861726.3588	1678688.9603
PC	12+98.68	861678.0011	1678683.3692
PT	14+55.99	861524.1674	1678706.1584
POT	16+75.75	861322.5567	1678793.6056
POT	17+75.00	861230.8886	1678831.6519

Y3

TYPE	STATION	NORTH	EAST
POT	10+03.41	861716.9748	1678926.6921
PC	10+29.30	861739.7078	1678939.0846
PT	11+25.12	861791.2008	1679015.5600
POT	19+26.85	861882.0058	1679812.1379

Y3A

TYPE	STATION	NORTH	EAST
POT	17+00.00	861856.3123	1679586.7443
PC	18+10.00	861868.7709	1679696.0365
PT	18+57.08	861852.9084	1679738.5301
POT	18+85.06	861832.2946	1679757.4565

Y4

TYPE	STATION	NORTH	EAST
POT	10+00.00	861660.7868	1679568.1804
PC	13+02.40	861863.8363	1679792.2661
PT	13+77.60	861915.0265	1679847.3558
PC	15+07.41	862004.7930	1679941.1249
PT	16+61.07	862108.8918	1680054.1327
POT	20+57.61	862371.9051	1680350.8958

NOTE: DRAWING NOT TO SCALE

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	13+96.26	156.00	860954.9336	1678356.0927
L	14+12.49	95.68	861016.4423	1678345.2025
L	16+72.00	59.00	861157.8946	1678564.0194
L	16+72.00	39.98	861175.2975	1678556.3449
L	16+99.00	-61.00	861278.6196	1678540.5335
L	16+99.00	-40.06	861259.4247	1678548.9145
L	17+09.00	-61.00	861282.6211	1678549.6980
L	17+09.00	-40.06	861263.4262	1678558.0790
L	18+73.00	67.00	861230.9396	1678751.2148
L	18+83.00	-70.00	861360.4948	1678705.5591
L	18+83.00	-48.62	861340.8980	1678714.1156
L	18+93.00	-70.00	861364.4963	1678714.7236
L	18+93.00	-54.64	861350.4236	1678720.8682
L	20+02.62	-45.51	861385.9148	1678824.9853
L	20+29.00	-55.00	861405.1696	1678845.3631
L	20+29.00	-40.01	861391.4276	1678851.3633
L	20+49.00	-55.00	861413.1725	1678863.6922
L	20+49.00	-40.01	861399.4305	1678869.6923
L	23+54.00	-58.20	861538.1512	1679141.9287
L	23+54.00	-71.00	861549.8807	1679136.8073
L	23+74.00	-71.00	861557.8836	1679155.1363
L	23+74.00	-50.00	861538.6382	1679163.5394
L	24+63.00	68.00	861466.1101	1679292.3209
L	25+66.00	-50.00	861615.4665	1679339.4980
L	25+66.00	-71.00	861634.7119	1679331.0949
L	25+86.00	-71.00	861642.7149	1679349.4239
L	25+86.00	-50.00	861623.4694	1679357.8270
L	26+15.00	68.00	861526.9325	1679431.6214
L	27+64.00	59.00	861594.8025	1679564.5713
L	28+90.00	50.00	861655.0574	1679676.8879
L	29+09.00	30.06	861681.1271	1679685.7745

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	10+60.00	-65.00	861713.6987	1677767.2725
Y1	10+60.00	-29.84	861678.7142	1677770.7847
Y1	10+80.00	-65.00	861715.6965	1677787.1725
Y1	10+80.00	-29.80	861680.6767	1677790.6883
Y1	12+84.00	-58.00	861731.7103	1677989.2242
Y1	12+84.00	-29.64	861703.5629	1677992.7034
Y1	15+00.00	-61.00	861761.1843	1678203.2249
Y1	17+60.00	-61.00	861788.2814	1678466.3957
Y1	18+75.00	-60.00	861789.0531	1678585.2425
Y1	18+99.38	-69.00	861797.4713	1678610.4274
Y1	20+70.00	-68.00	861810.7181	1678768.5608
Y1	20+92.00	-67.54	861812.7414	1678796.4460

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+65.00	-30.00	861910.5293	1678723.6910
Y2	10+65.00	-46.00	861910.1193	1678739.6858
Y2	10+95.00	-48.00	861880.0779	1678740.9164
Y2	11+24.00	-64.00	861850.6774	1678756.1680
Y2	14+00.00	-46.00	861587.4638	1678733.6523
Y2	14+00.00	-30.00	861583.9312	1678718.0471
Y2	14+75.00	-30.00	861518.6635	1678741.2461
Y2	14+75.00	-46.00	861525.0303	1678755.9248
Y2	16+05.00	-30.00	861399.3991	1678792.9762
Y2	16+05.00	-54.00	861408.9493	1678814.9942

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+43.00	-45.00	861837.9368	1679028.2317
Y3	13+43.00	-25.00	861840.7175	1679229.2100

NOTES:

▲ *INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.*

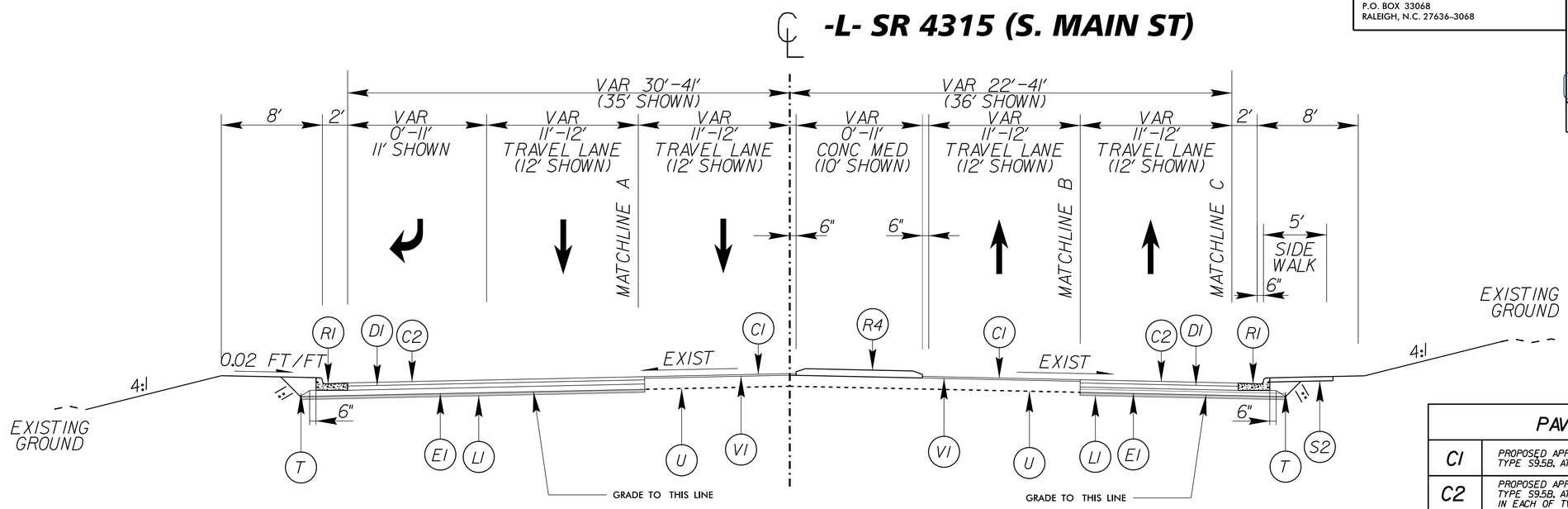
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-1

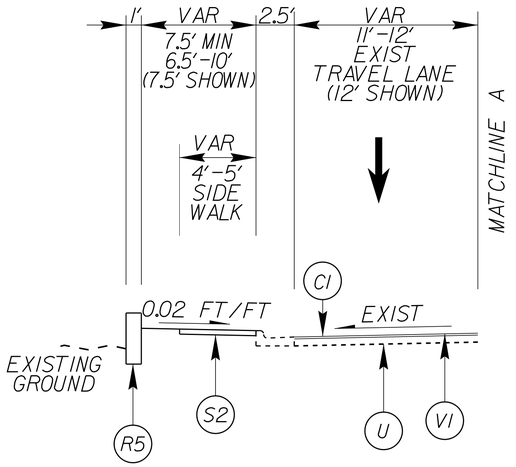
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST DocuSigned by: Matt West AC71A1D07968425... 1/4/2016	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



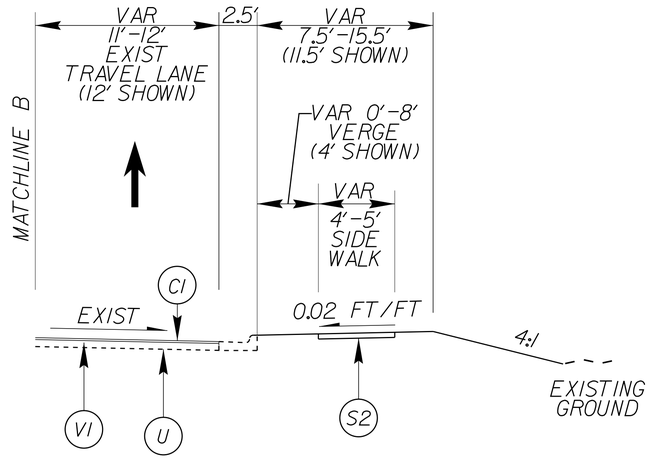
TYPICAL SECTION NO. 1

-L- STA 12+25.00 TO STA 28+70.00



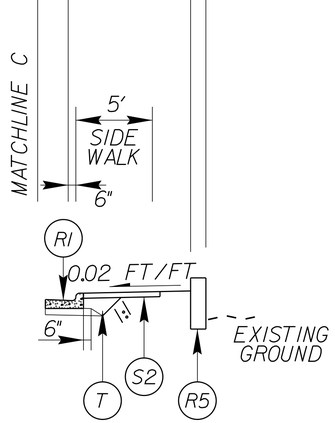
TYPICAL SECTION NO. 1A

-L- STA 14+47.00 TO STA 15+18.00 (LT)
-L- STA 15+35.00 TO STA 16+17.00 (RT)
-L- STA 16+01.00 TO STA 16+47.00 (LT)



TYPICAL SECTION NO. 1B

-L- STA 12+63.62 TO STA 15+35.00 (RT)
-L- STA 14+22.79 TO STA 14+47.00 (LT)
-L- STA 16+17.00 TO STA 19+23.67 (RT)
-L- STA 15+18.00 TO STA 16+01.00 (LT)
-L- STA 16+47.00 TO 21+25.00 (LT)



TYPICAL SECTION NO. 1C

-L- STA 20+40.00 TO STA 22+15.00 (RT)

NOTES:

1. **PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED**
2. **SEE PLANS FOR TAPER LOCATIONS**
3. **SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE**
4. **SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS**
5. **SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.**
6. **USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)**
7. **SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL**

PAVEMENT SCHEDULE

CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 119.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5' MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636–3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-2

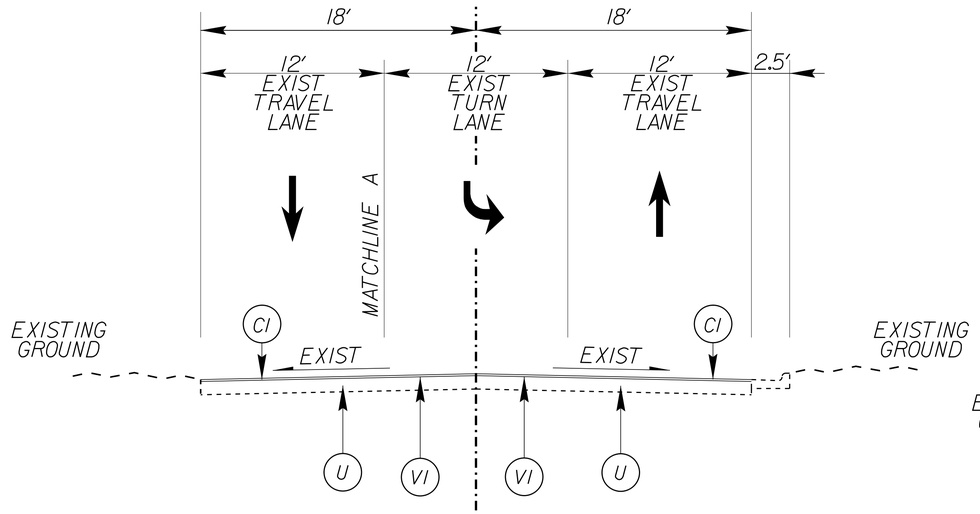
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016

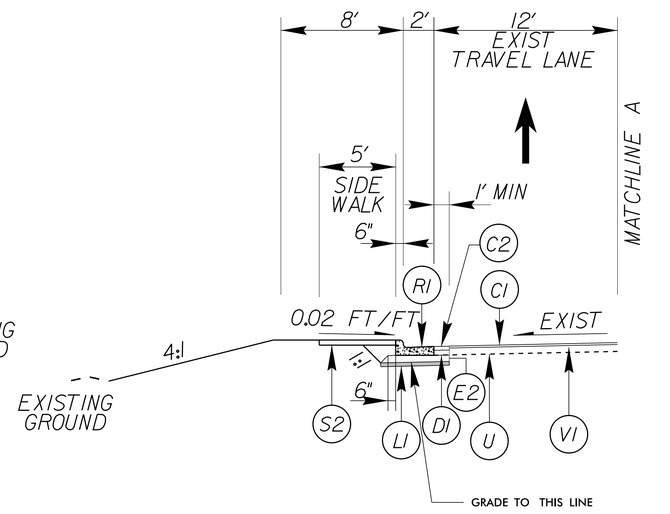
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y1- SR 2648 (OLD WINSTON RD)



TYPICAL SECTION NO. 2

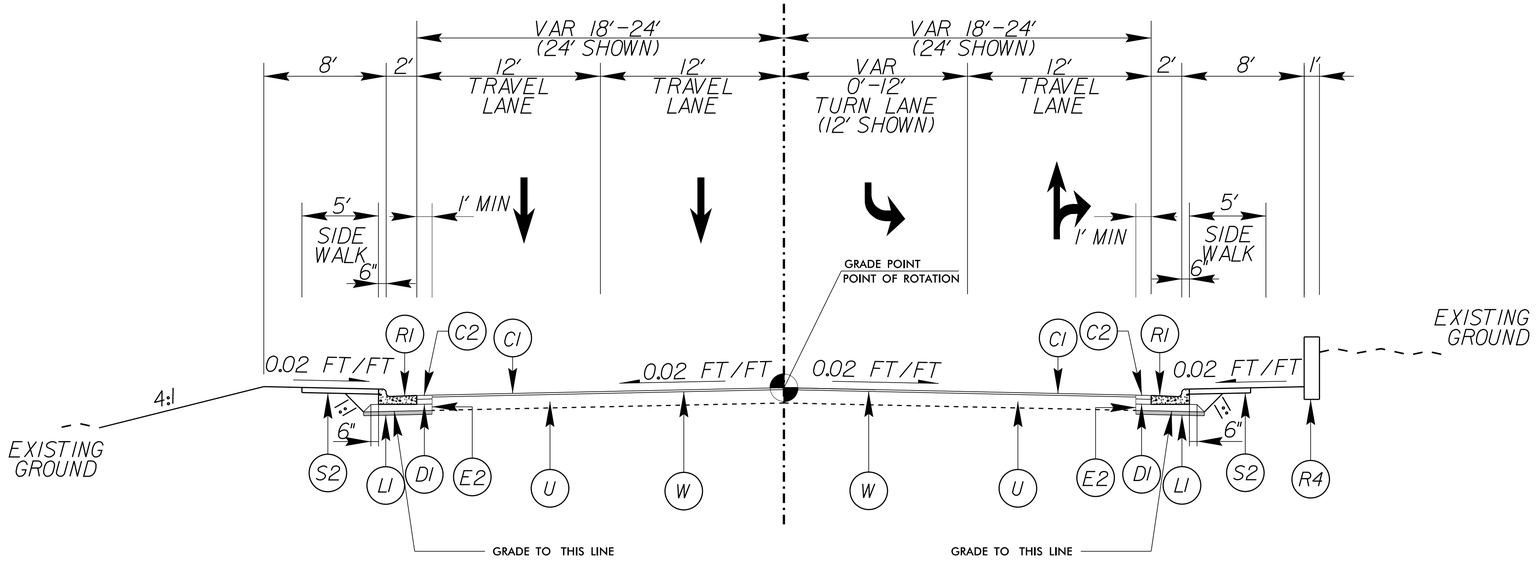
-Y1- STA 10+00.00 TO STA 12+00.00



TYPICAL SECTION NO. 2A

-Y1- STA 10+51.67 TO STA 12+00.00 (LT)

-Y1- SR 2648 (OLD WINSTON RD)



TYPICAL SECTION NO. 3

-Y1- STA 12+00.00 TO STA 16+50.00 (LT)
-Y1- STA 12+00.00 TO STA 15+25.00 (RT)

NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
2. SEE PLANS FOR TAPER LOCATIONS
3. SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE
4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

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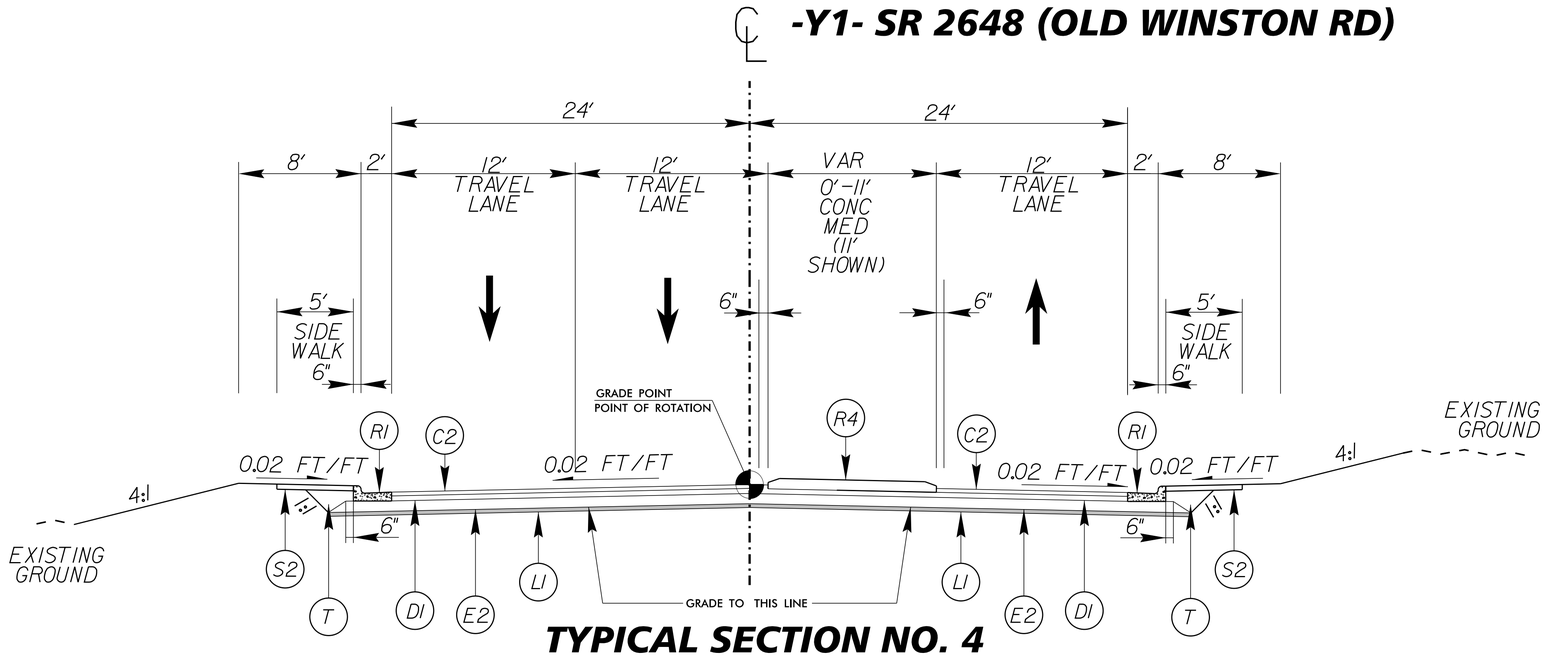
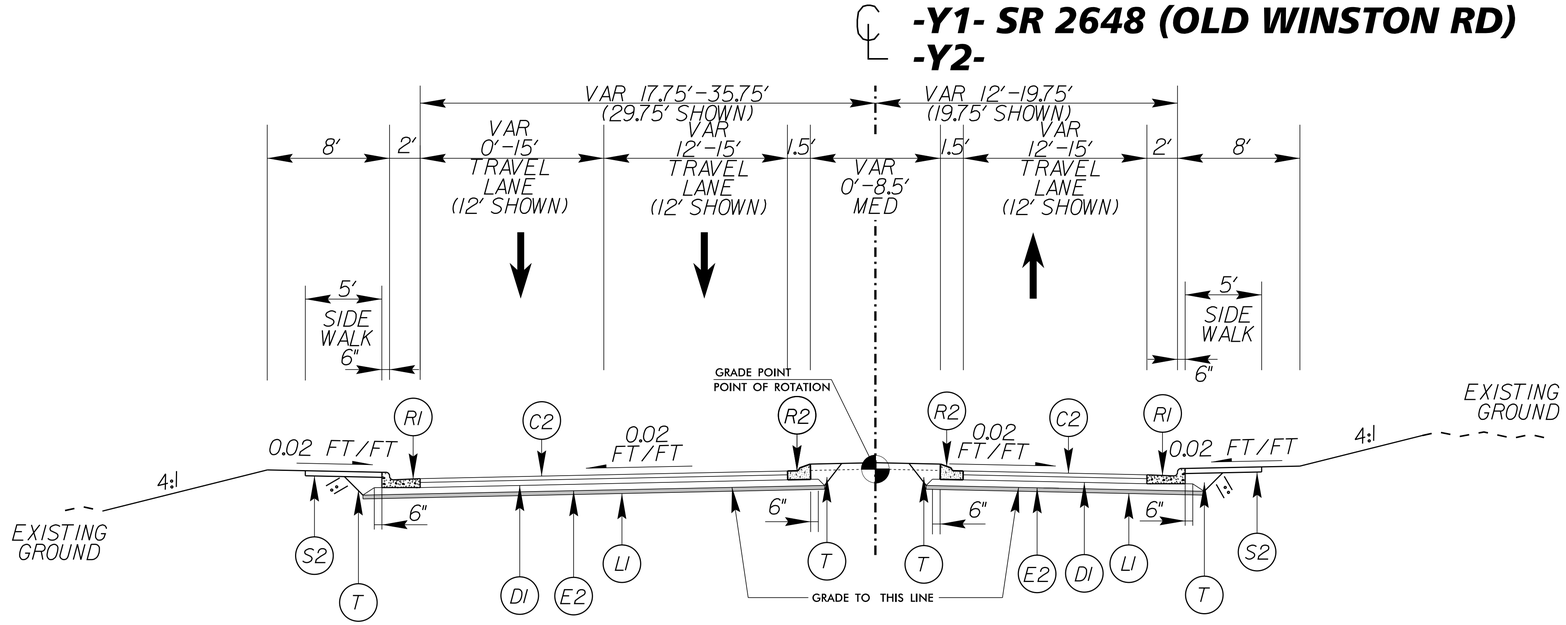
12/22/2015



TYPICAL SECTION NO. 4

-Y1- STA 15+25.00 TO STA 18+92.28 (RT)
-Y1- STA 16+50.00 TO STA 18+92.28 (LT)



TYPICAL SECTION NO. 5

-Y1- STA 18+92.28 TO STA 19+17.28
-Y1- STA 20+42.28 TO STA 20+67.28
-Y2- STA 11+48.50 TO STA 11+73.50
-Y2- STA 13+12.50 TO STA 13+37.57

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-3

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016

PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
2. SEE PLANS FOR TAPER LOCATIONS
3. SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE
4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

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12/22/2015

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-4

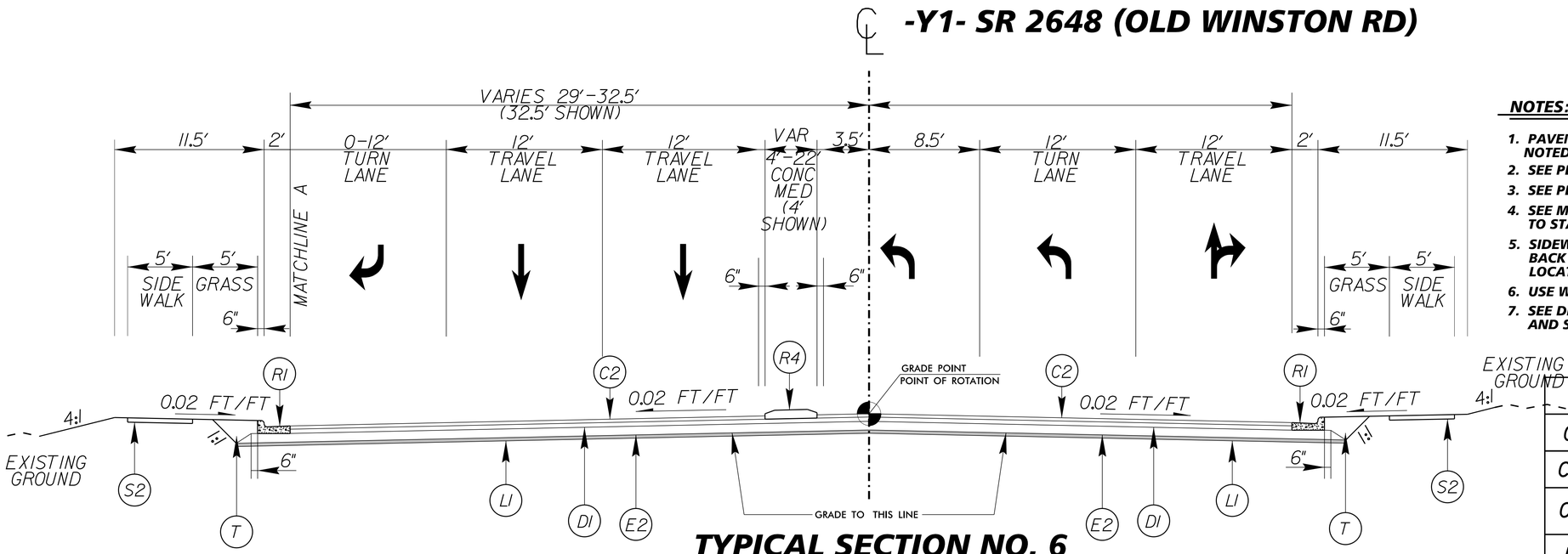
ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0709B435... 1/4/2016

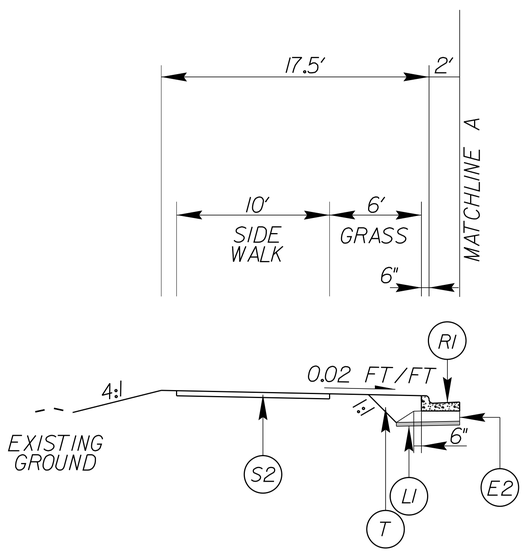
PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TYPICAL SECTION NO. 6

-Y1- STA 20+67.28 TO STA 25+12.00



TYPICAL SECTION NO. 6A

-Y1- STA 20+67.28 TO STA 22+75.00

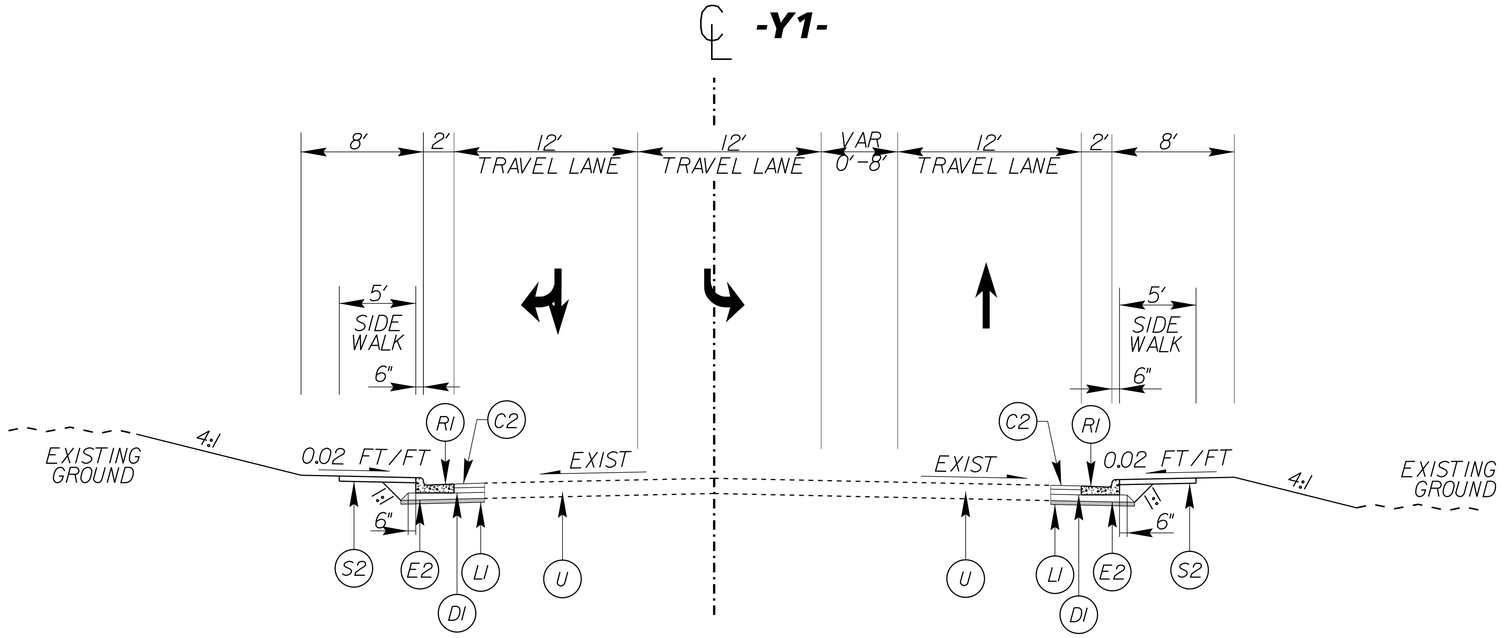
NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
2. SEE PLANS FOR TAPER LOCATIONS
3. SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE
4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

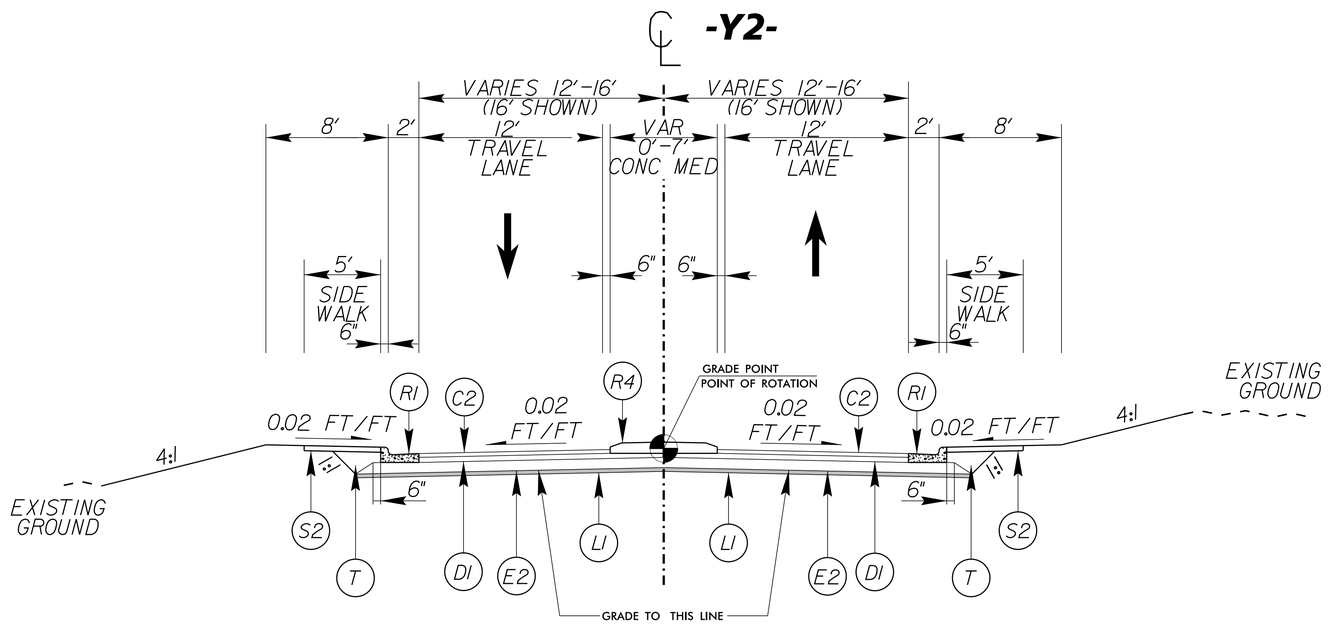
CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

K:\RAL_Roadway\DII0362245 - Kernersville\Roadway\Pro\NW5510_RDY_TYP.dgn
12/22/2015



TYPICAL SECTION NO. 7

-Y1- STA 25+88.00 TO STA 26+55.29



TYPICAL SECTION NO. 8

-Y2- STA 10+28.50 TO STA 11+48.50
-Y2- STA 13+37.57 TO STA 15+25.75

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-5

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

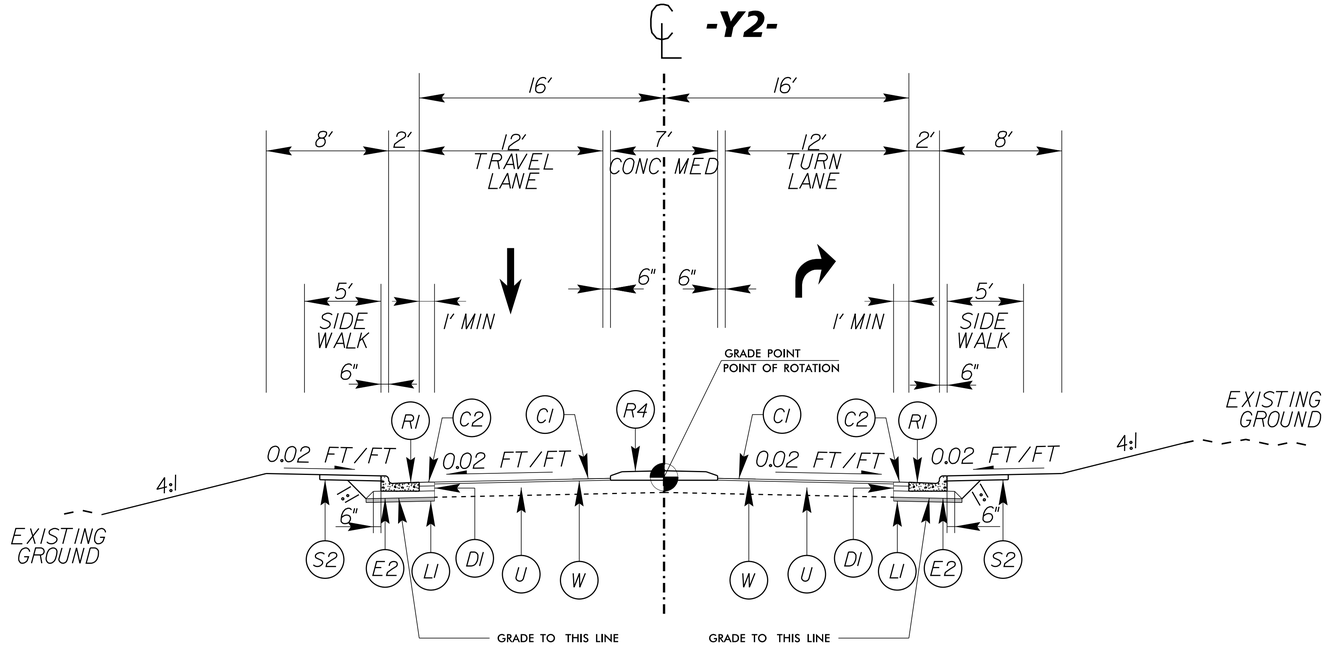
NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
2. SEE PLANS FOR TAPER LOCATIONS
3. SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE
4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

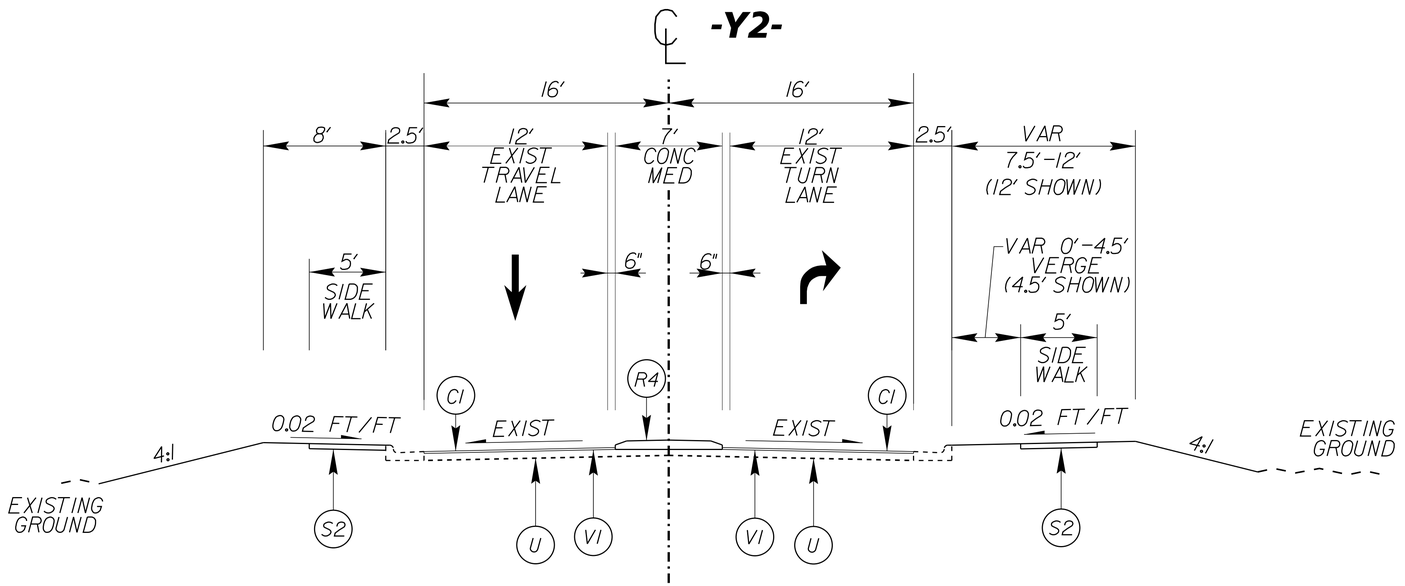
CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 119.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

K:\RAL_Roadway\DII0362245 - KernersvIle\Roadway\Pro\W5510_RDY_TYP.dgn
12/22/2015



TYPICAL SECTION NO. 9

-Y2- STA 15+25.75 TO STA 15+75.75



TYPICAL SECTION NO. 10

-Y2- STA 15+75.75 TO STA 16+45.75

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-6

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
2. SEE PLANS FOR TAPER LOCATIONS
3. SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE
4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

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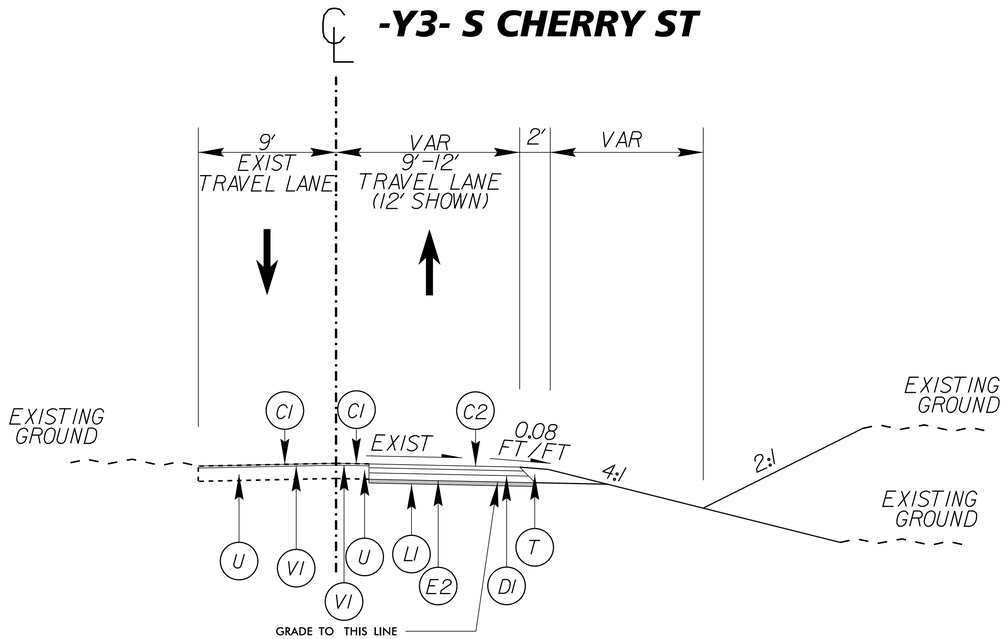
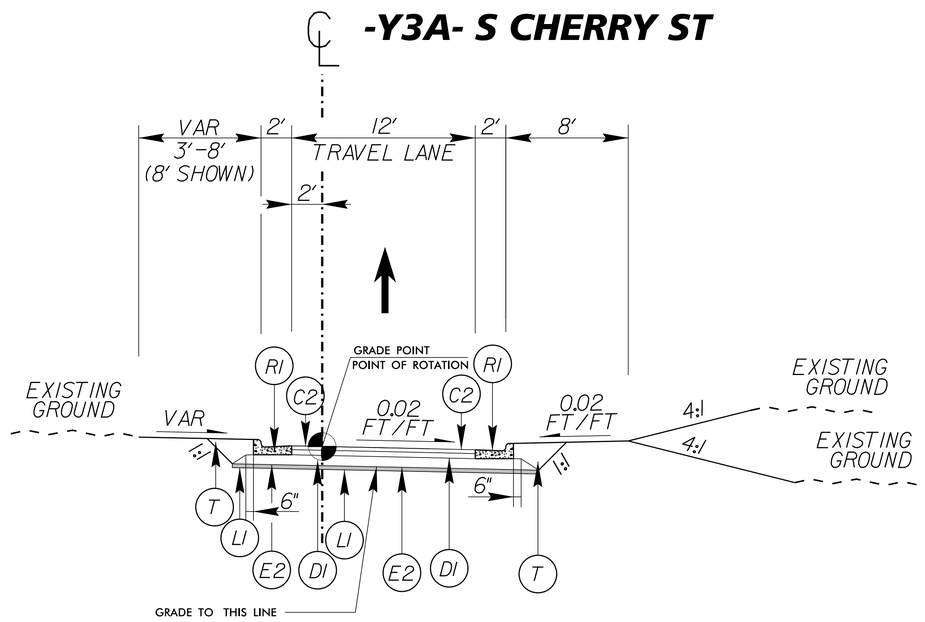
12/22/2015



TYPICAL SECTION NO. 11

-Y3- STA 17+30.00 TO STA 18+10.00



TYPICAL SECTION NO. 12

-Y3A- STA 18+10.00 TO 18+71.65

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-7

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST DocuSigned by: Matt West AC71A1D079684425 1/4/2016	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
2. SEE PLANS FOR TAPER LOCATIONS
3. SEE PLANS FOR SPECIFIC ISLAND LOCATIONS AND TYPE
4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

K:\RAL_Roadway\011036245 - Kernersville\Roadway\Pro\NW5510_RDY_TYP.dgn
12/22/2015

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-8

ROADWAY DESIGN ENGINEER

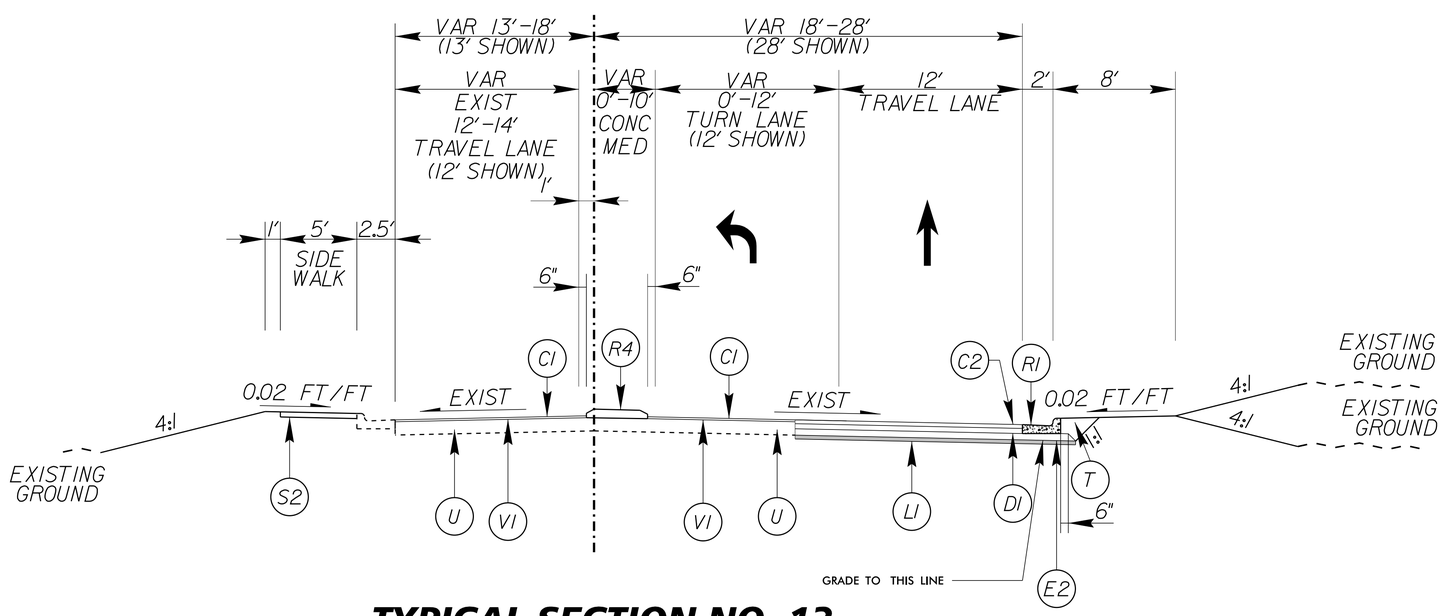
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by:
Matt West
AC71A1D07968425...
1/4/2016

PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

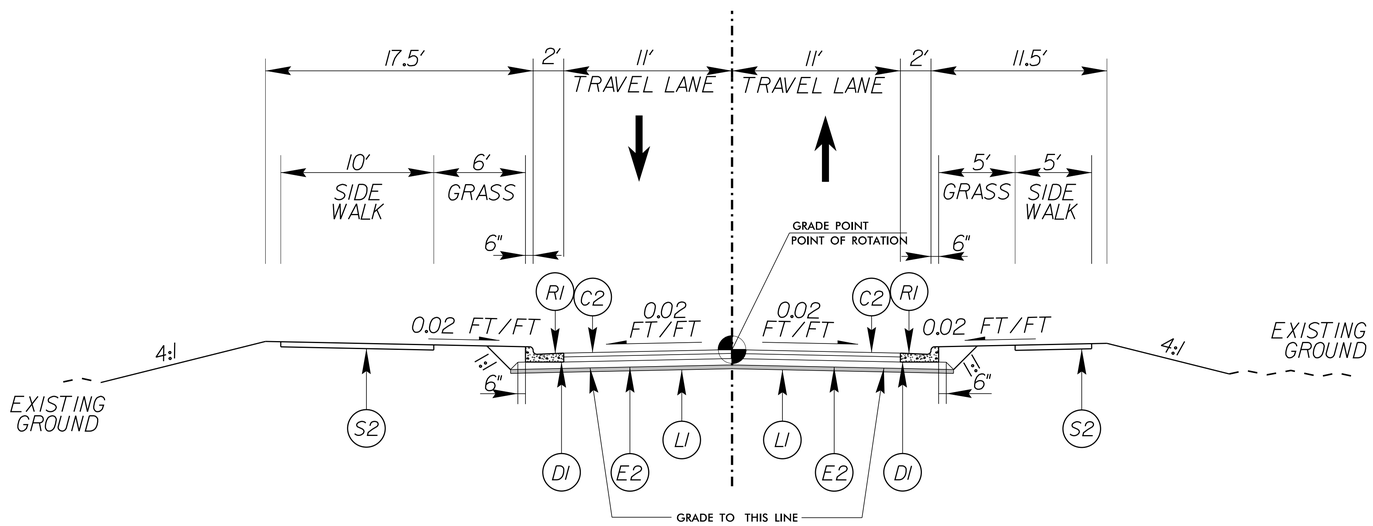
-Y4- SR 4278 (S CHERRY ST)



TYPICAL SECTION NO. 13

-Y4- STA 10+50.99 TO STA 15+90.00

-Y5-



TYPICAL SECTION NO. 14

-Y5- STA 10+32.07 TO STA 10+93.46

NOTES:

1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED
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4. SEE MATCH LINE SECTIONS FOR EXCEPTIONS TO STATION LIMITS
5. SIDEWALK LOCATIONS, WIDTH, AND OFFSETS FROM BACK OF CURB WILL VARY. SEE PLANS FOR SPECIFIC LOCATIONS AND DIMENSIONS.
6. USE WEDGING AS NECESSARY (SEE DETAIL W2, SHEET 2A-10)
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

PAVEMENT SCHEDULE

CI	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
DI	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
EI	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
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JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
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T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

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12/22/2015

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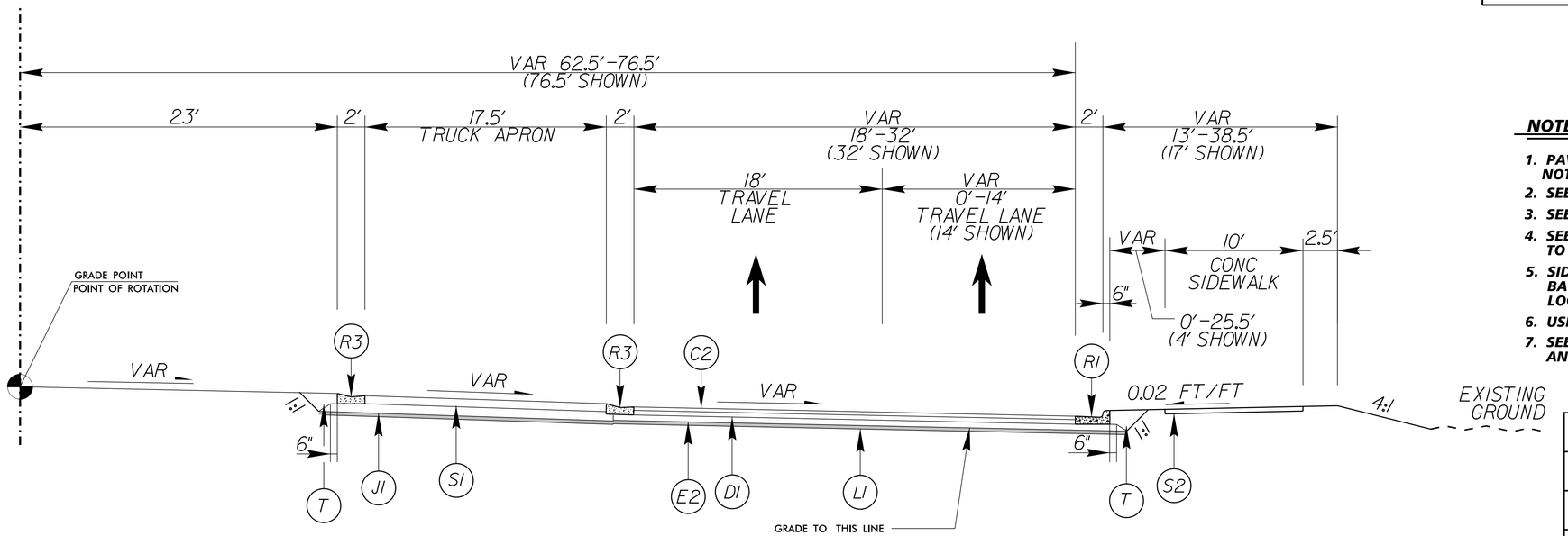
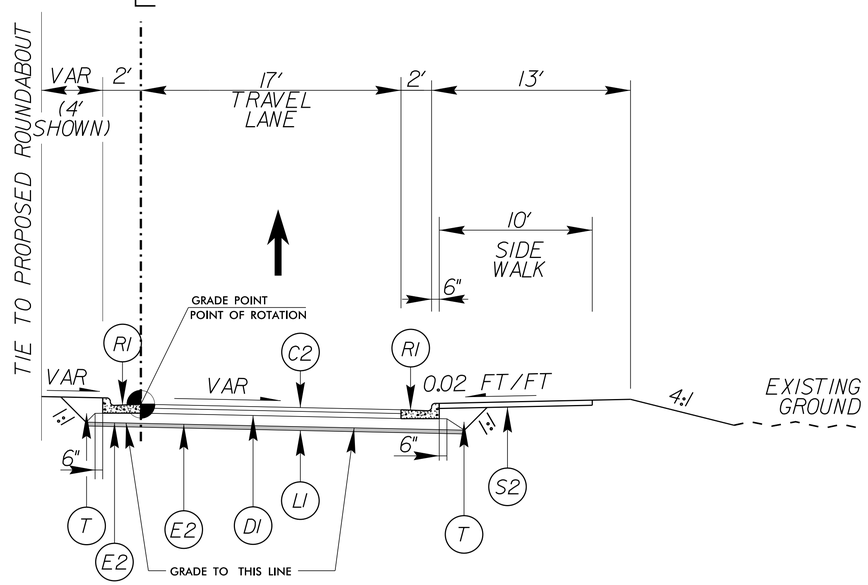


TYPICAL SECTION NO. 15

-Y1- STA 19+17.28 TO STA 20+42.28
-Y2- STA 11+73.50 TO STA 13+12.50

-R1- SLIP RAMP



TYPICAL SECTION NO. 16

-RI- STA 10+00.00 TO STA 11+44.62

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-9

ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016	

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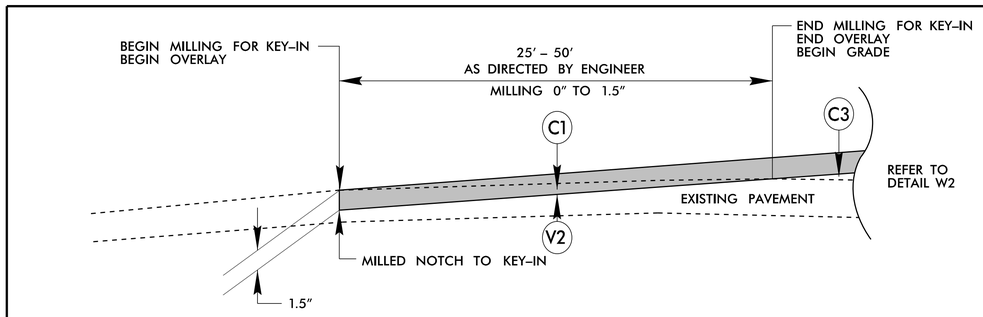
7. SEE DETAIL W4, SHEET 2A-10 FOR MINIMUM WIDENING AND SAWCUT DETAIL

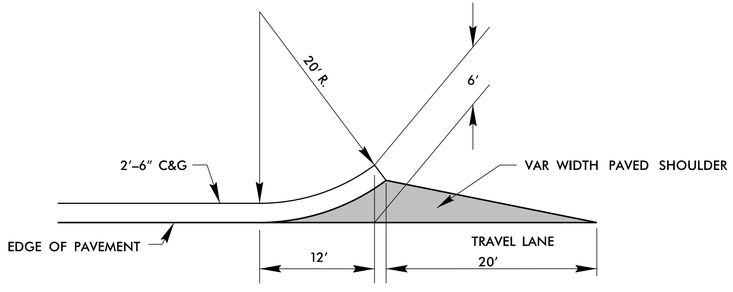
PAVEMENT SCHEDULE

C1	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE 119.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
E1	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
LI	PROPOSED 3" STABILIZER AGGREGATE TO BE APPLIED TO SUBGRADE TO ASSIST WITH SUBGRADE STABILITY
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" - 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

12/22/2015 K:\RAL_Roadway\011036245 - Kernersville\RoadwayPro\W5510_RDY_TYP.dgn

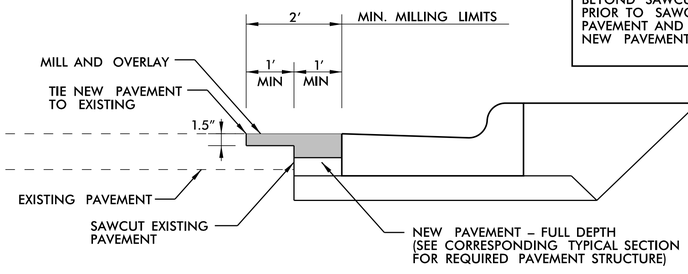


DETAIL W1 MILLING FOR KEY-IN AT PROJET TERMINI (INCIDENTAL MILLING)



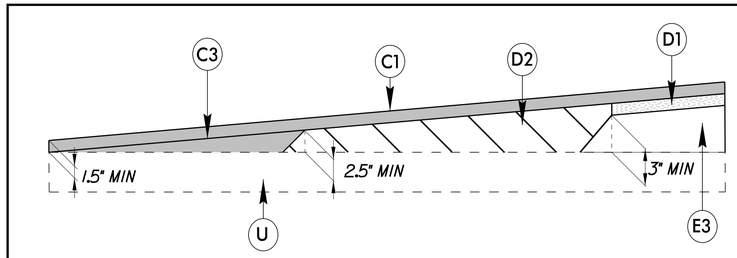
NOT TO SCALE

DETAIL W3 - STANDARD CURB & GUTTER FLARE



NOT TO SCALE

DETAIL W4 - MINIMUM WIDENING AND SAWCUT DIMENSIONS



DETAIL W2 METHOD OF WEDGING

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636–3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2A-10

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425...

1/4/2016

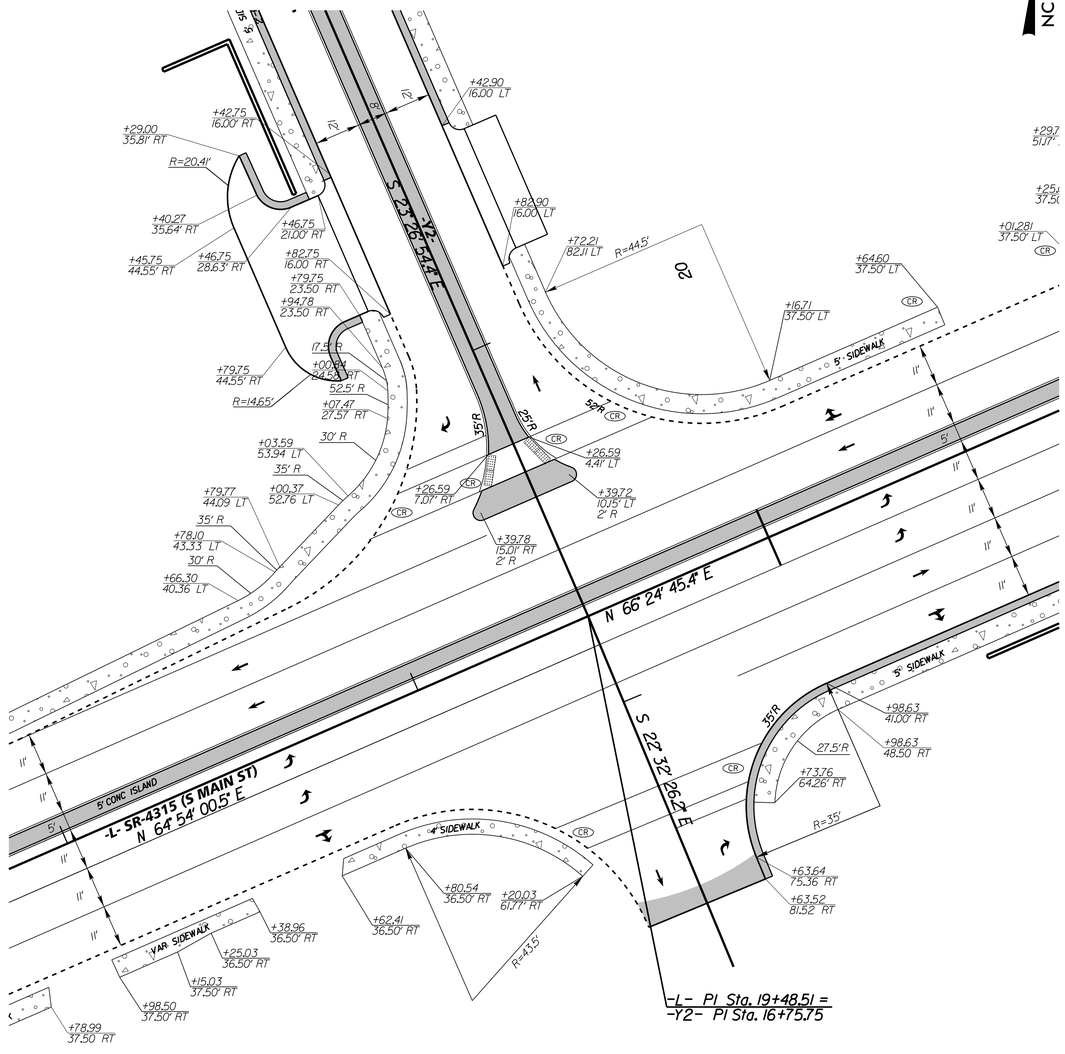
PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE

C1	PROPOSED APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROPOSED APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.
C3	PROPOSED VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ.YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROPOSED APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
D2	PROPOSED VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.
E1	PROPOSED APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
E2	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
E3	PROPOSED VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ.YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.
JI	PROPOSED 10" AGGREGATE BASE COURSE
RI	PROPOSED 2'-6" CONCRETE CURB & GUTTER
R2	PROPOSED 1'-6" CONCRETE CURB & GUTTER
R3	PROPOSED 2'-0" CONCRETE VALLEY GUTTER
R4	PROPOSED 5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)
R5	PROPOSED RETAINING WALL
SI	PROPOSED 8" REINFORCED CONCRETE PAVEMENT (TRUCK APRON)
S2	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
VI	MILLING ASPHALT PAVEMENT (1.5" DEPTH)
V2	MILLING ASPHALT PAVEMENT, VARIABLE DEPTH (0" – 1.5")
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL W2, SHEET 2A-10)

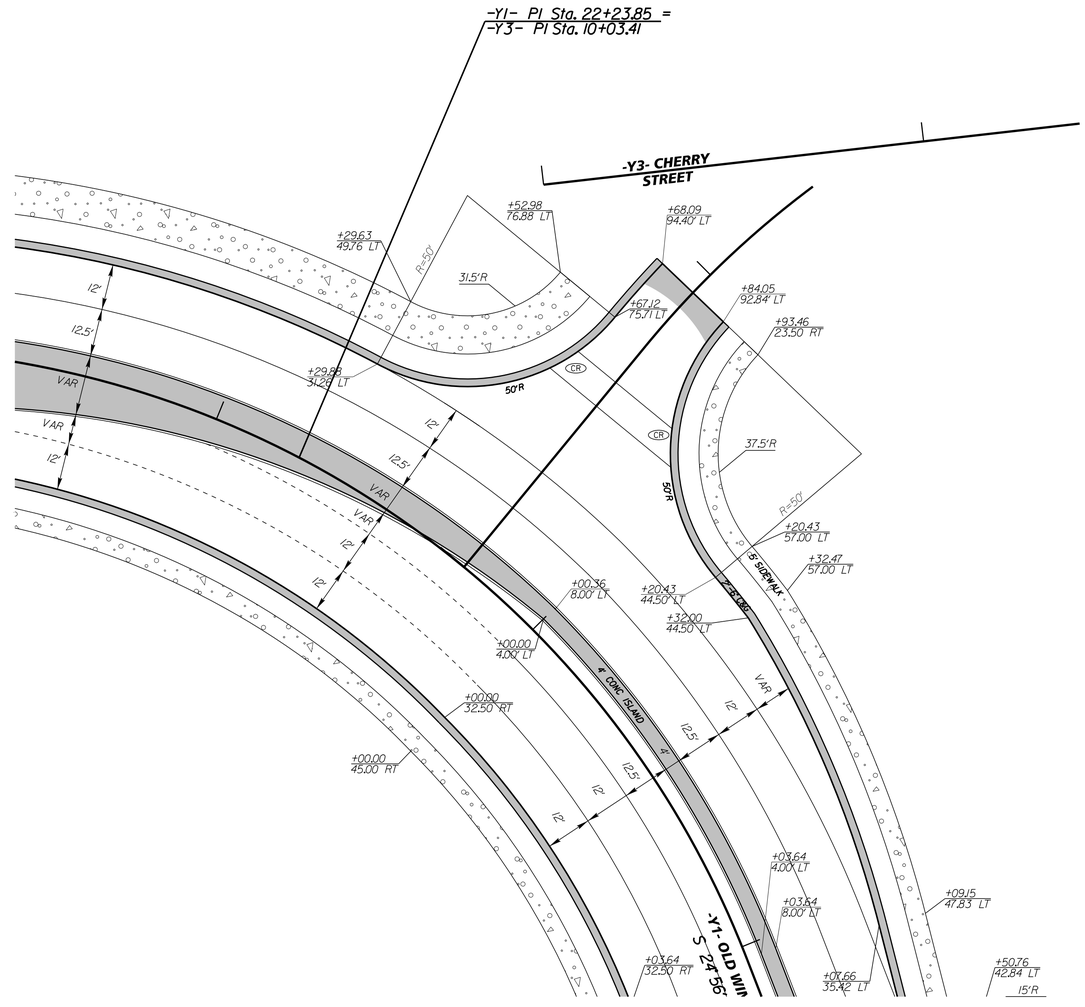
NC GRID NAD 83
– NAD 2011



-L-/-Y2-

(SEE SHEET NO.5 FOR PLAN)

NC GRID NAD 83
– NAD 2011



-Y1-/-Y3-

(SEE SHEET NO.5 FOR PLAN)

Kimley»Horn

P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A10D796B425...

1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INTERSECTION DETAILS

10 0 20

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2B-2
R/W SHEET NO.	

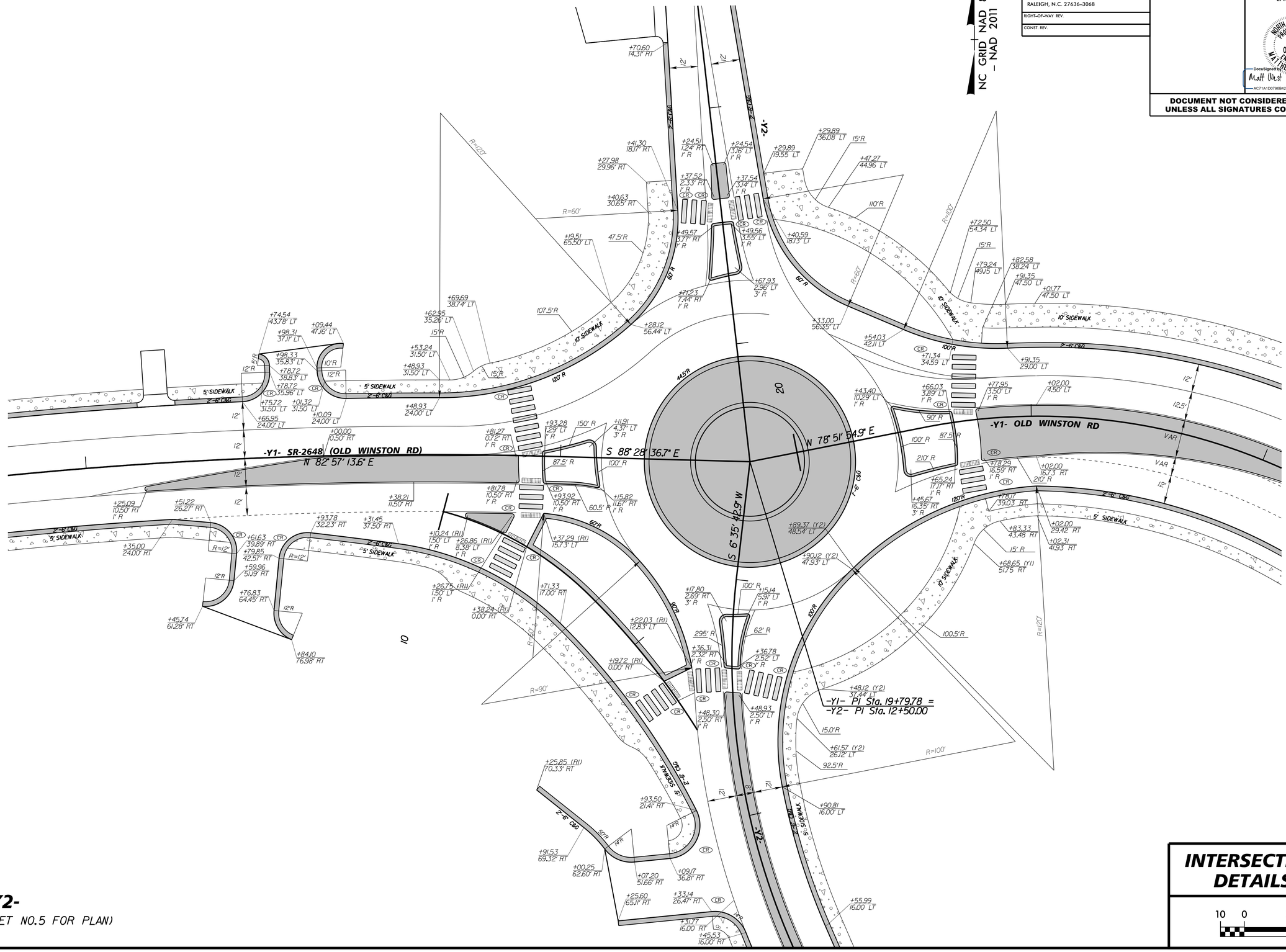
ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NC GRID NAD 83 – NAD 2011



-Y1-/-Y2-

(SEE SHEET NO.5 FOR PLAN)

INTERSECTION DETAILS

10 0 20

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2B-3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

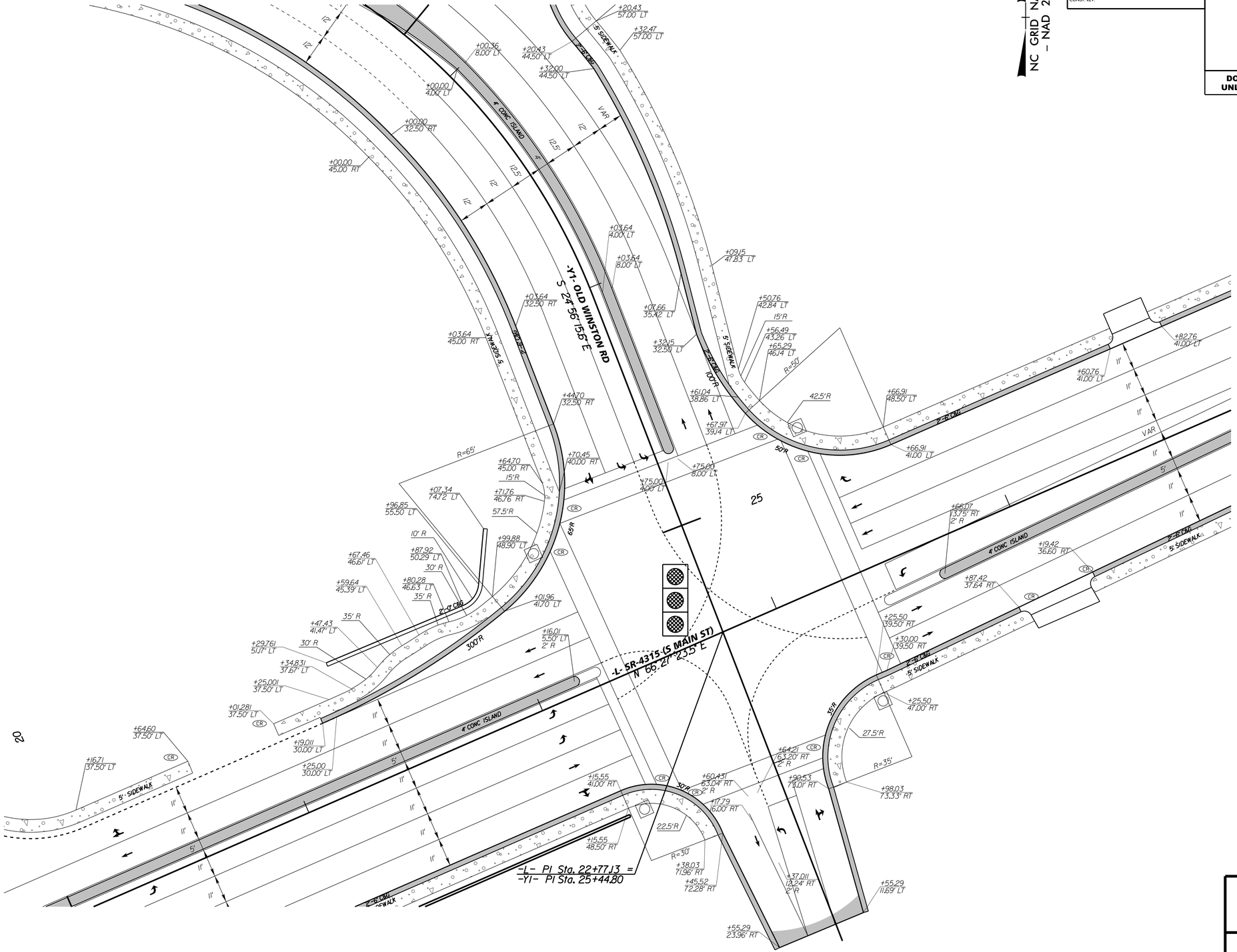
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425...

1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NC GRID NAD 83 – NAD 2011



-L-/-Y1-

(SEE SHEET NO.5 FOR PLAN)

INTERSECTION DETAILS

10 0 20

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2B-4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425...

1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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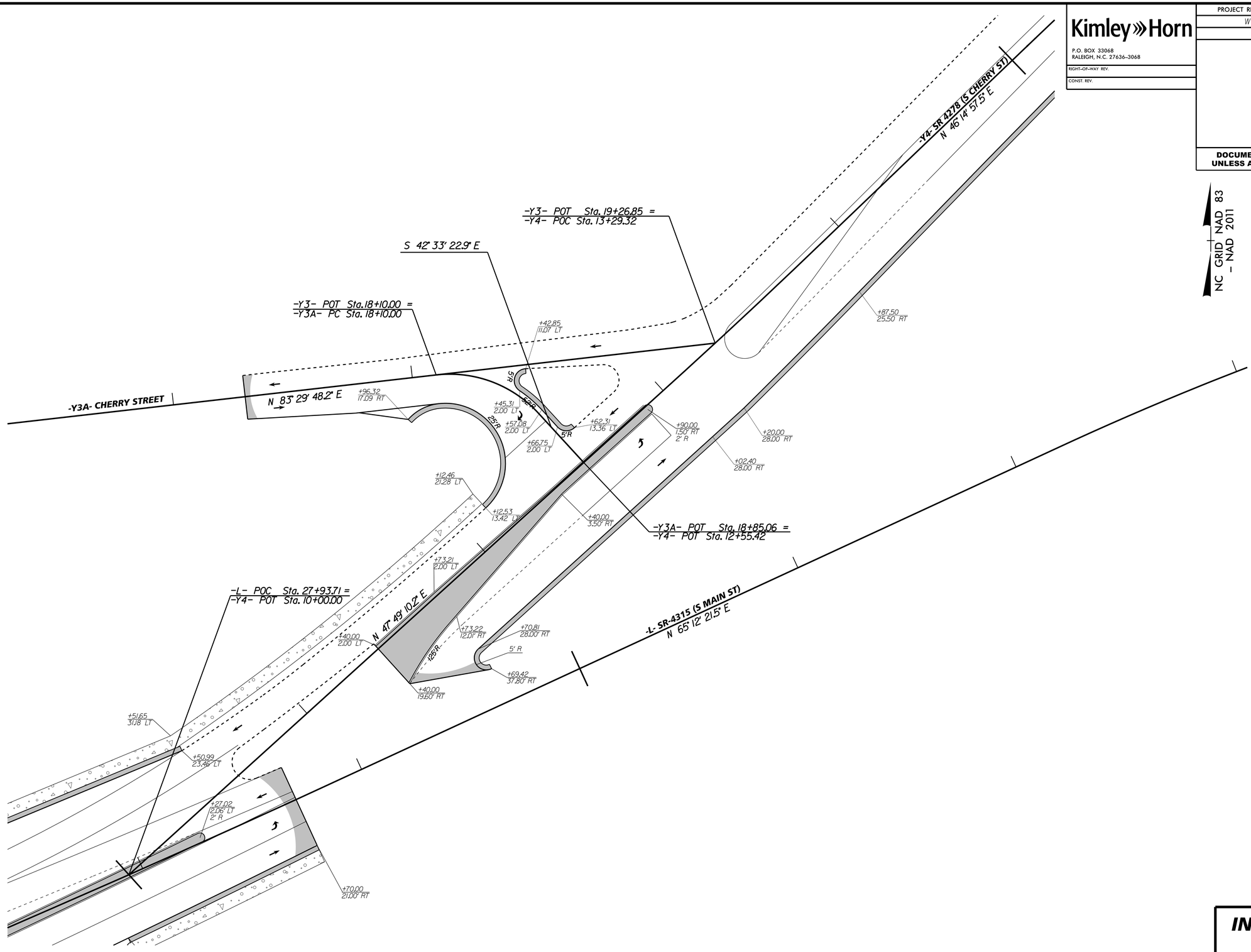


-L-/-Y4- AND -Y3-/-Y3A-/-Y4-

(SEE SHEET NO.6 FOR PLAN)

INTERSECTION DETAILS

10 0 20

K:\RAL_Roadway\011036245 - Kernersville\Roadway\Proj\W5510_RDY_PSH_2B-4.dgn

12/22/2015

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2B-5
R/W SHEET NO.	

RIGHT-OF-WAY REV.

CONST. REV.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West
AC71A1D0796B425...
1/4/2016

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 026480 ENGINEER LARRY D. ROBINSON, JR.

DocuSigned by: Larry D
CE17B2971D5643E...
1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NC GRID NAD 83 – NAD 2011

-T0C1-

PI Sta 10+45.48
△ = 42° 09' 20.8" (LT)
D = 48° 33' 20.7"
L = 86.82'
T = 45.48'
R = 118.00'

PI Sta 11+14.73
△ = 51° 23' 15.7" (LT)
D = 98° 47' 09.0"
L = 52.02'
T = 27.91'
R = 58.00'

-T0C2-

PI Sta 10+31.75
△ = 57° 23' 44.9" (LT)
D = 98° 47' 09.0"
L = 58.10'
T = 31.75'
R = 58.00'

PI Sta 11+05.84
△ = 25° 40' 58.1" (LT)
D = 58° 27' 54.3"
L = 43.93'
T = 22.34'
R = 98.00'

-T0C3-

PI Sta 10+25.07
△ = 46° 45' 35.8" (RT)
D = 98° 47' 09.0"
L = 47.33'
T = 25.07'
R = 58.00'

PI Sta 10+47.53
△ = 0° 21' 16.1" (LT)
D = 88° 49' 50.3"
L = 0.40'
T = 0.20'
R = 64.50'

PI Sta 10+79.22
△ = 39° 22' 28.3" (RT)
D = 65° 06' 31.8"
L = 60.47'
T = 31.49'
R = 88.00'

-T0C4-

PI Sta 10+53.79
△ = 57° 31' 34.2" (RT)
D = 58° 27' 54.3"
L = 98.39'
T = 53.79'
R = 98.00'

PI Sta 10+99.00
△ = 1° 05' 05.1" (LT)
D = 88° 49' 50.4"
L = 1.22'
T = 0.61'
R = 64.50'

PI Sta 11+52.34
△ = 48° 08' 59.5" (RT)
D = 48° 33' 20.7"
L = 99.16'
T = 52.72'
R = 118.00'

PI Sta 12+01.34
△ = 1° 20' 20.0" (RT)
D = 26° 09' 44.8"
L = 5.12'
T = 2.56'
R = 219.00'

-T0C5-

PI Sta 10+00.12
△ = 359° 41' 49.3" (LT)
D = 131° 42' 52.0"
L = 273.09'
T = 0.12'
R = 43.50'

-Y1- OLD WINSTON RD

-Y2-

10

-T0C1- STA 11+38.84 =
-Y2- STA 11+41.19 (20.17' RT)
ELEV = 976.23'

+04.46
975.90' (LP)

+71.97
975.99' (HP)

PCC Sta. 10+86.82

-T0C1-

-T0C1- STA 10+00.00 =
-Y1- STA 18+48.78 (26' LT)
ELEV = 975.78'

-T0C2- PC STA 10+00.00 =
-Y2- Sta. 11+40.48 (20.13' LT)
ELEV = 976.25'

+20.17
976.20' (LP)

+48.73
976.35'(HP)

PT Sta. 10+58.10

PC Sta. 10+83.50

+99.96
975.90' (LP)

-T0C2-

S 67° 02' 13.4" E

-T0C21- PT STA 11+27.43 =
-Y1- Sta. 20+91.35 (31' LT)
ELEV = 975.98'

+91.19
977.06' (HP)

12

PT Sta. 12+73.09

PC Sta. 10+00.00

10

-T0C5-

+63.14
974.52' (LP)

-T0C3- PC STA 10+00.00 =
-Y1- STA 18+90.54 (26' RT)
ELEV = 974.75'

-T0C3-

+39.33
974.79' (HP)

PRC Sta. 10+47.33

PRC Sta. 10+47.73

-T0C3- PT STA 11+08.21 =
-Y2- STA 13+47.61 (18' RT)
ELEV = 971.65'

+45.18
975.81' (HP)

-T0C4- PT STA 11+84.03 =
-Y1- STA 21+02.05 (31.42' RT)
ELEV = XXX.XX'

-T0C4-

PRC Sta. 10+99.62

PRC Sta. 10+98.39

-T0C4- STA 10+00.00 =
-Y2- STA 13+90.81 (18' LT)
ELEV = 969.63'

01

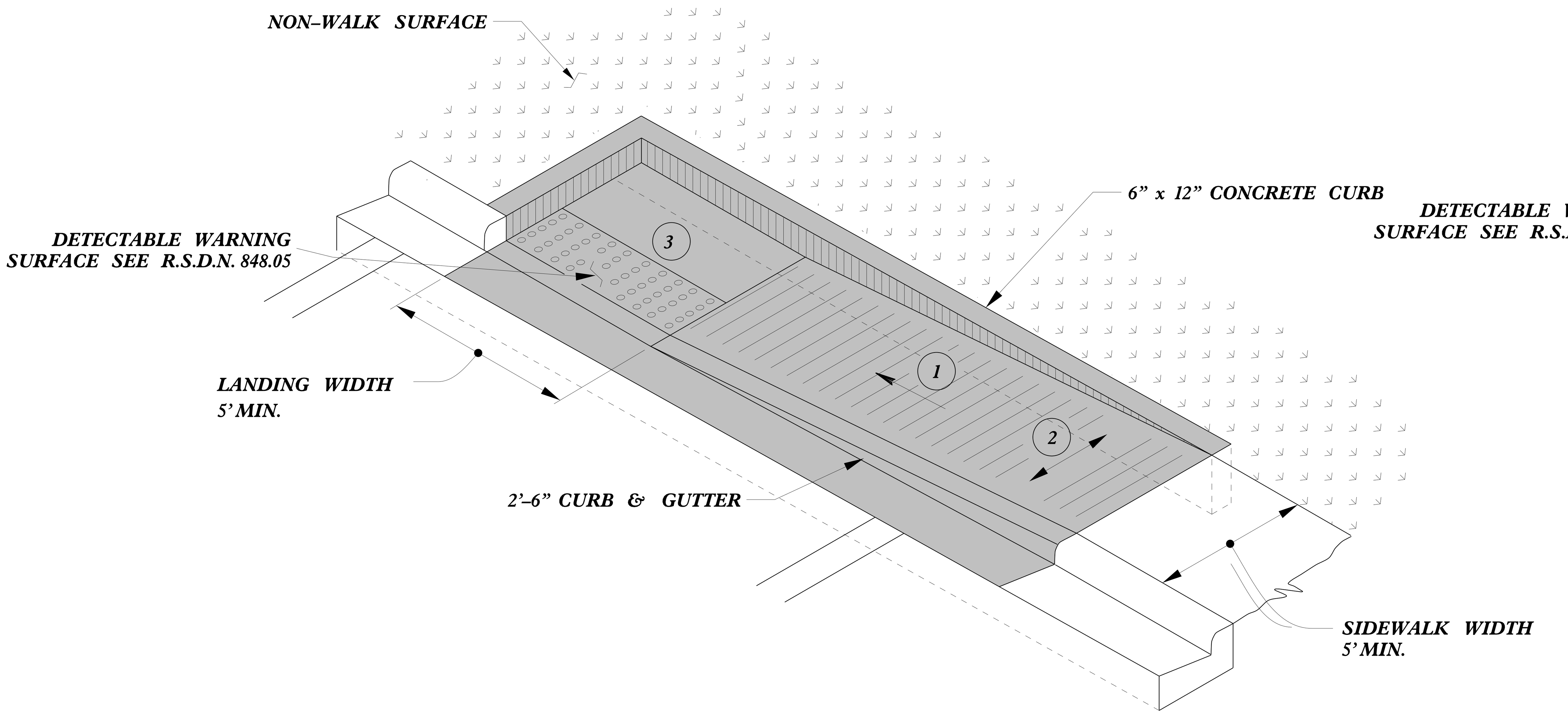
TOP OF CURB ALIGNMENTS

10 0 20

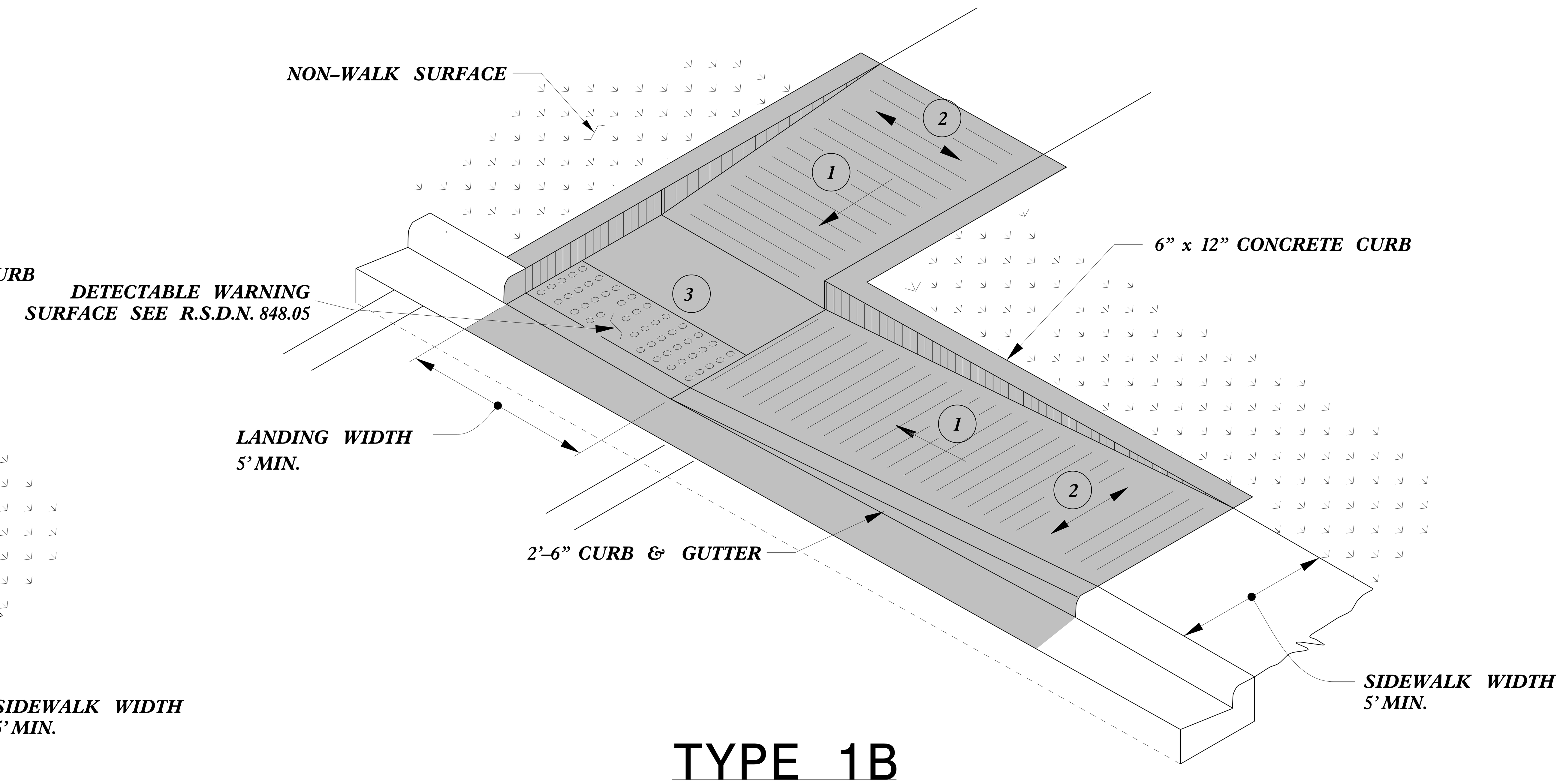
K:\RAL_Roadway\011036245 - Kernersville\Roadway\Pro\W5510_RDY_PSH_2B-5.dgn

12/22/2015

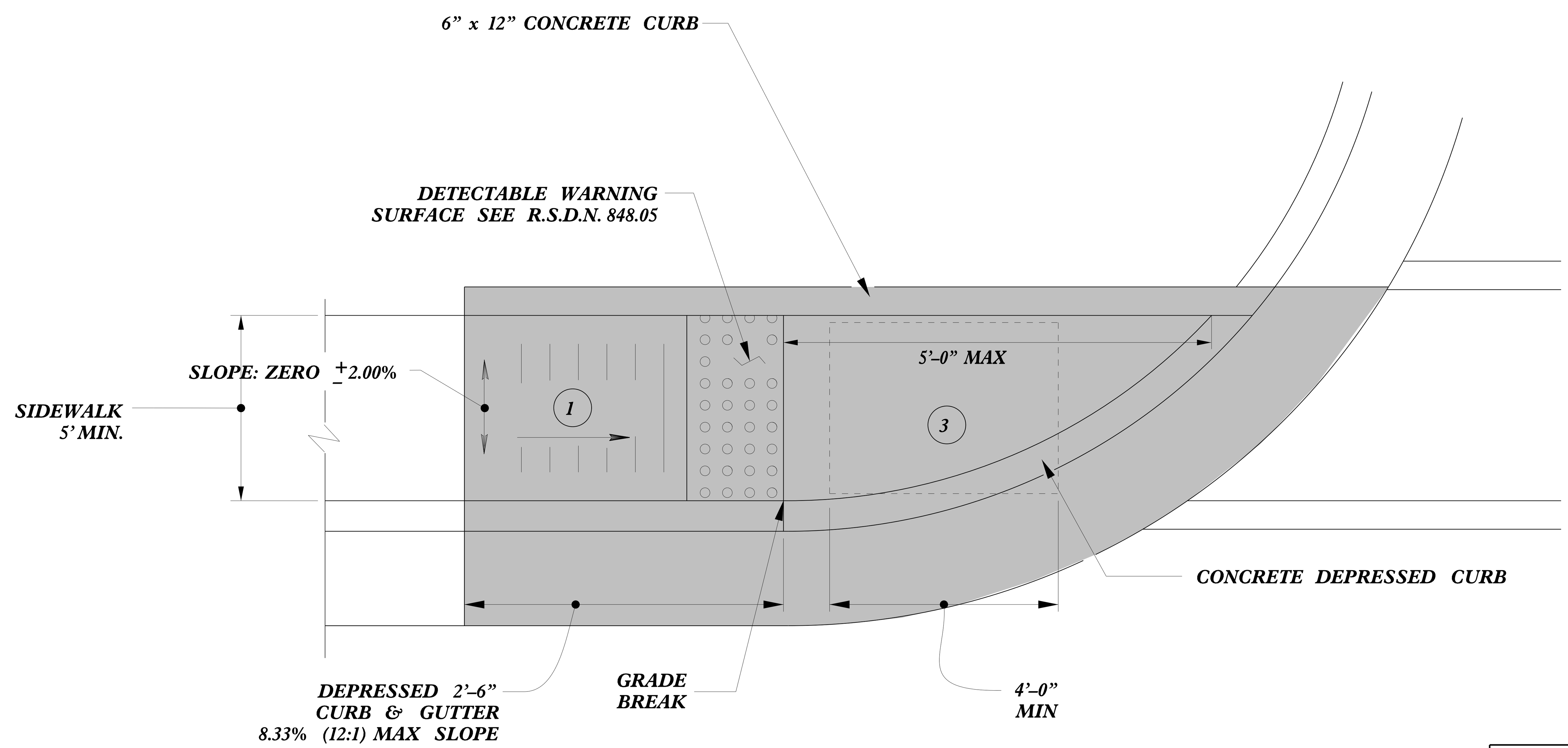
PROJECT REFERENCE NO.	SHEET NO.
W-5510	2C-1



TYPE 1A



TYPE 1B

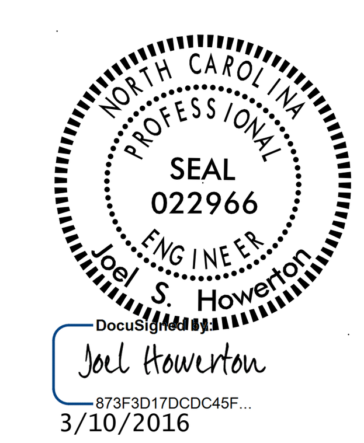


TYPE 1

PAY LIMITS FOR 1 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.

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



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

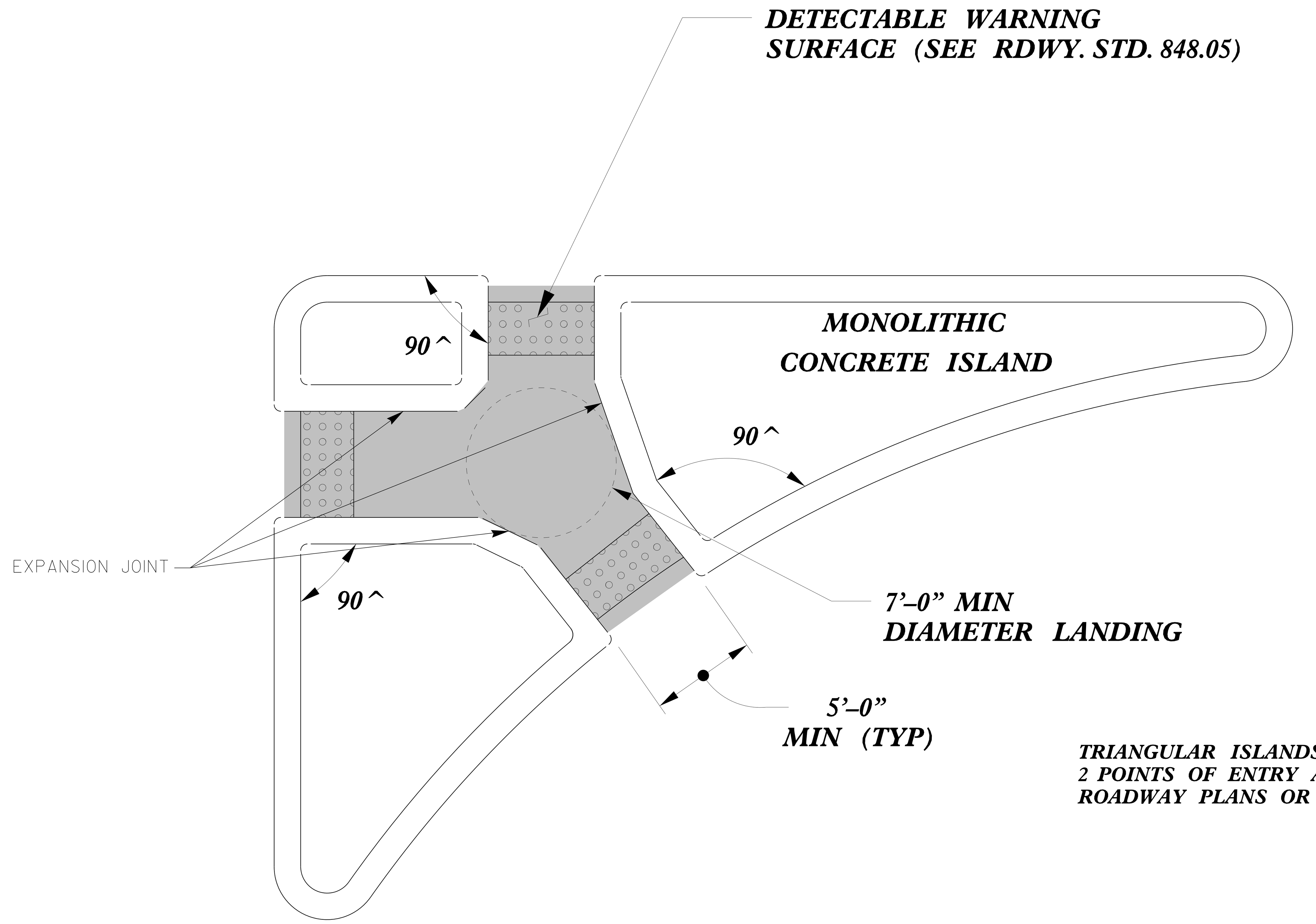
CURB RAMPS

Directional Ramps

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

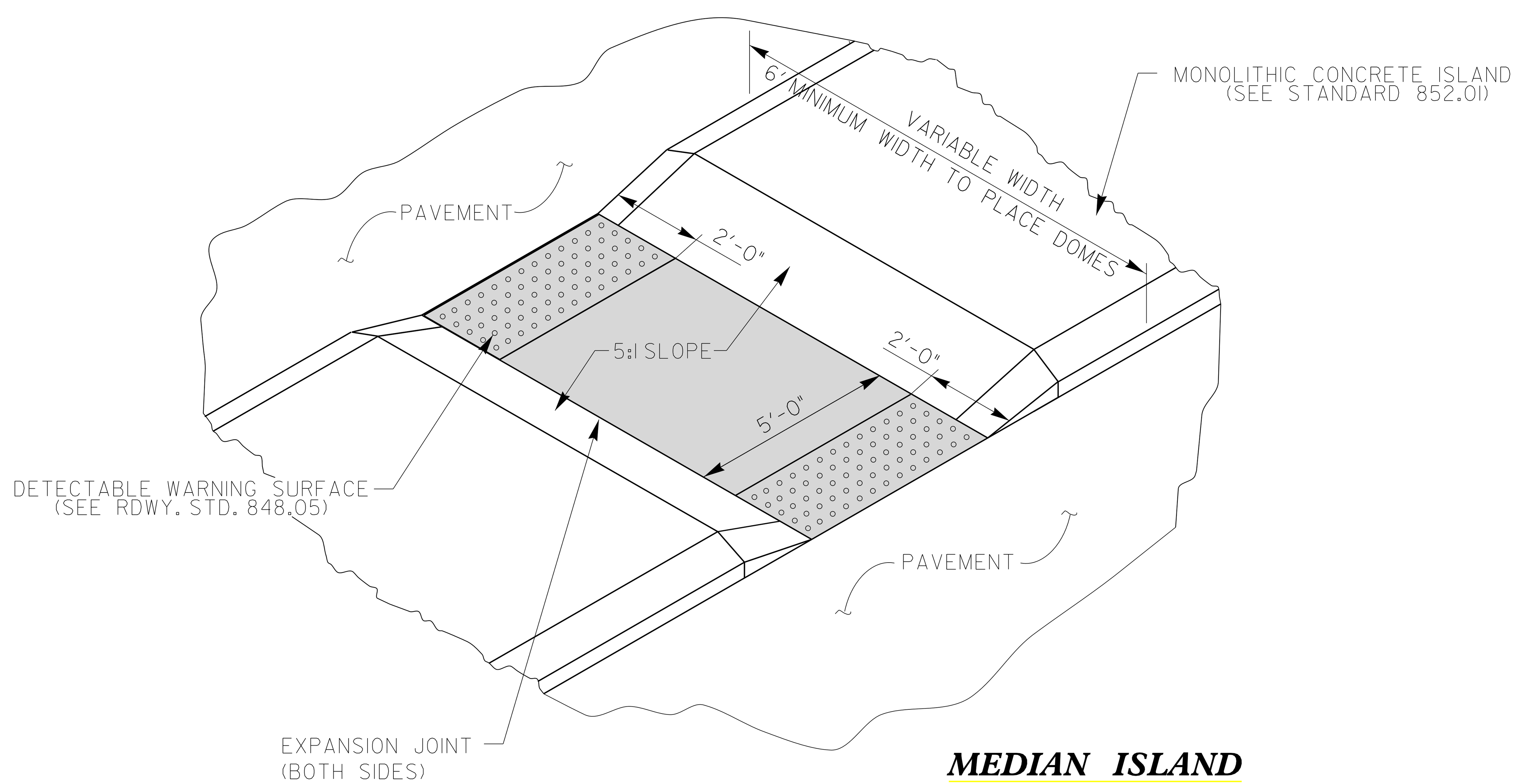
PROJECT REFERENCE NO.	SHEET NO.
W-5510	2C-2

PAY LIMITS FOR 2 OR 3 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF TRUNCATED DOMES)

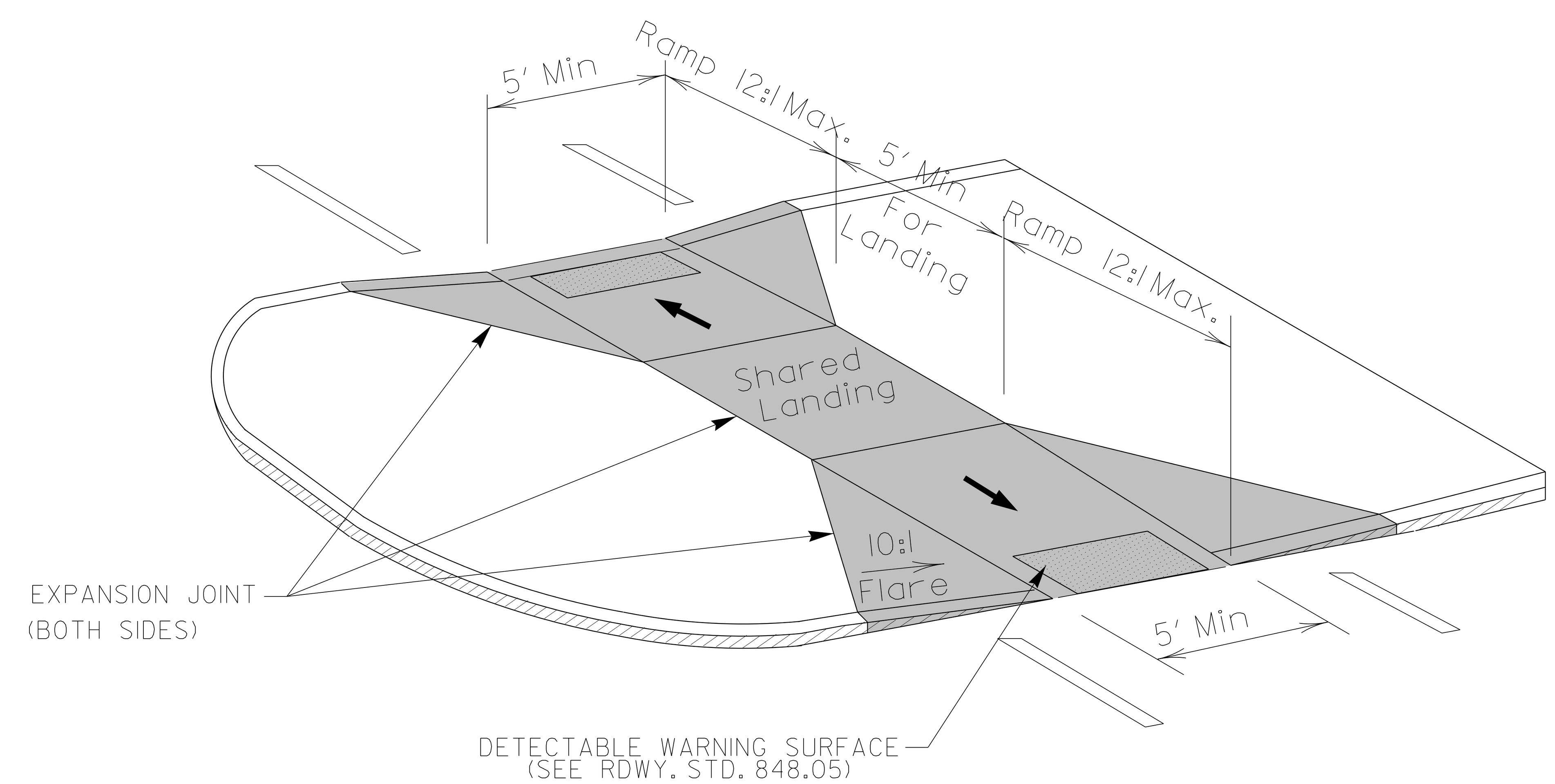


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH

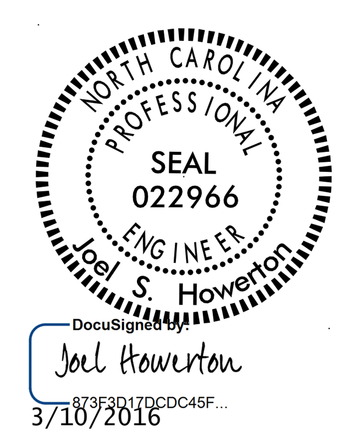


MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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

CURB RAMPS

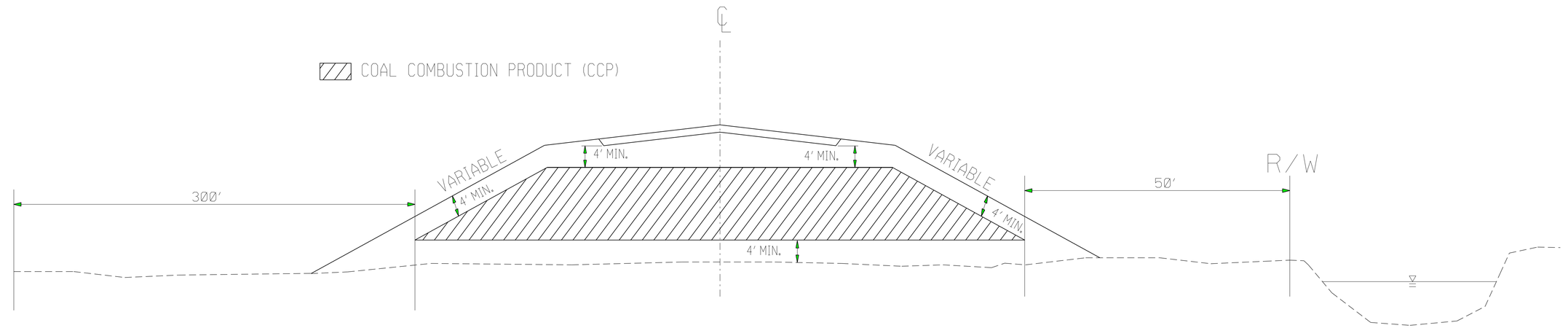
Median or Turn Lane Islands

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

$$$$SYSTIME$$$$ $$$$$$$$$$DGN$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2C-3

COAL COMBUSTION PRODUCT PLACEMENT



*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

PLACE CCP IN HATCHED AREA IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS

PLACE CCP A MINIMUM OF 5' ABOVE SEASONAL HIGH GROUND WATER

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

PLACE SOIL BORROW MATERIAL ON THE OUTSIDE OF CCP AS EACH LIFT OF CCP IS PLACED

$$$$SYSTIME$$$$
$$$$FILENAME$$$$
$$$$USERNAME$$$$

NORTH CAROLINA PROFESSIONAL SEAL 022966 ENGINEER Joel S. Howerton

DocuSigned by: Joel Howerton 873F3D17DCDC45F...
3/10/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

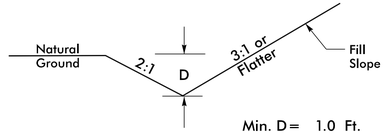
COAL COMBUSTION PRODUCT PLACEMENT DETAIL

ORIGINAL BY: J.S.H. DATE: 3/16/15
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: joel/coal combustion material detail.dgn

DETAIL 1

SPECIAL LATERAL 'V' DITCH

(Not to Scale)



FROM STA. 14+00 TO STA. 14+66 –Y2– (LT)

Kimley»Horn

P.O. BOX 33068
RALEIGH, N.C. 27636–3068

RIGHT–OF–WAY REV.

CONST. REV.

PROJECT REFERENCE NO.	SHEET NO.
W-5510	2D-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 026480 ENGINEER LARRY D. ROBINSON, JR.

DocuSigned by: Larry D CE17B297D56436E... 1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

12/22/2015 K:\RAL_Roadway\011036245 - Kernersville\Roadway\Pro\W5510_RDY_PSH_2D-1.dgn

PROJECT REFERENCE NO.	SHEET
W-5510	2H-1

GEOENVIRONMENTAL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 31499 ENGINEER CYRUS F. PARKER

DocuSigned by: Cyrus F. Parker 12/15/2015 C06492AF5E8240F...

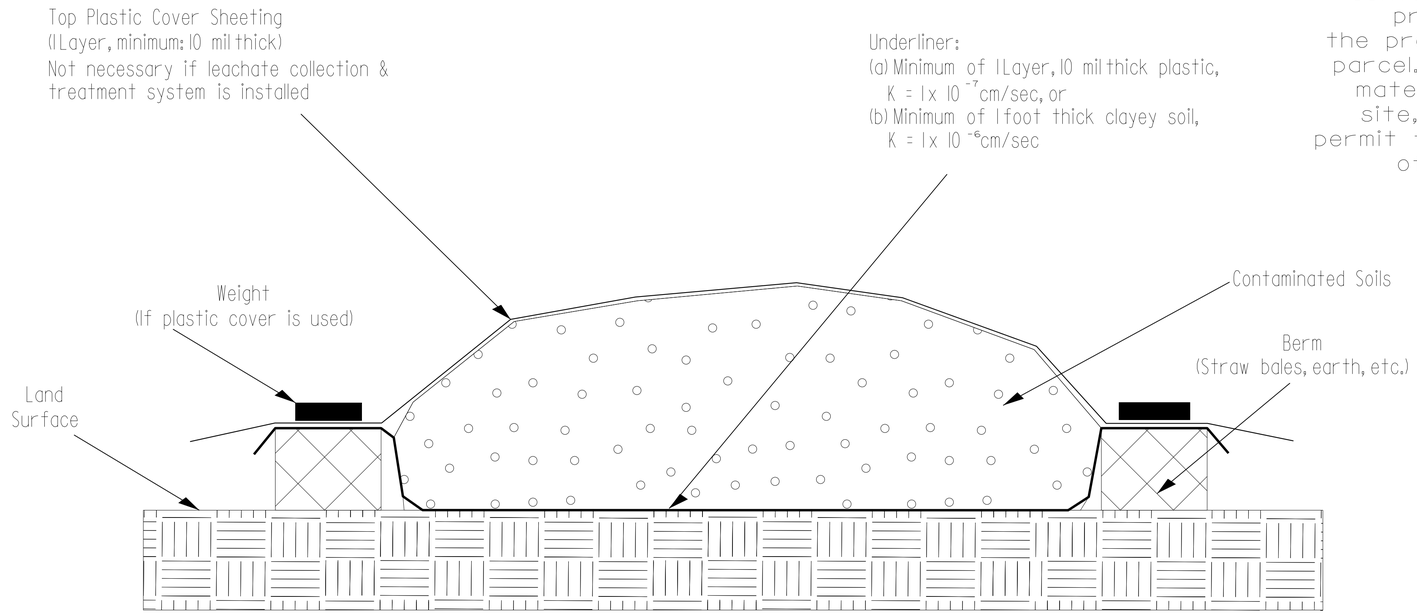
SIGNATURE DATE

ENGINEER

SIGNATURE DATE

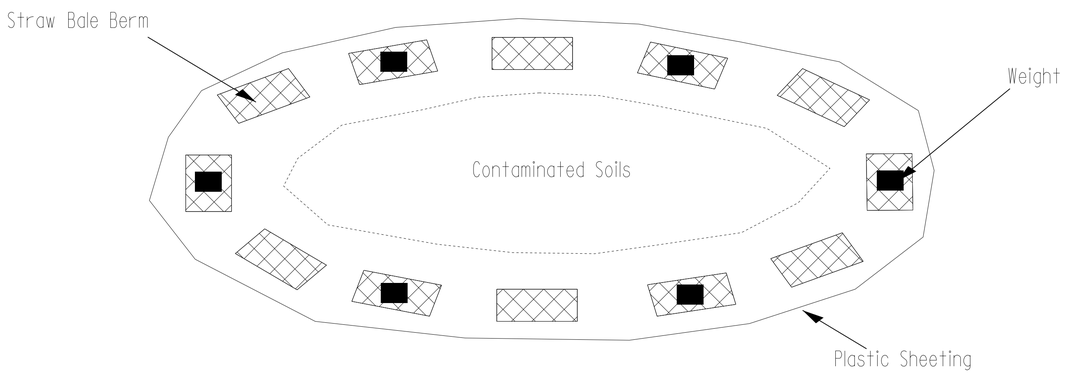
Detail for Temporary Containment of Contaminated Soil

Cross-Section View



NOTE:
The Contractor shall stockpile all contaminated soil excavated from a property in a location within the property boundaries of the source parcel. If the volume of contaminated material exceeds available space on site, the Contractor shall obtain a permit from the NCDENR UST Section for off-site temporary storage.

Map View



PREPARED BY:	DATE:
REVIEWED BY:	DATE:

GEOTECHNICAL ENGINEERING UNIT

☐ EASTERN REGIONAL OFFICE
☐ WESTERN REGIONAL OFFICE
☒ CONTRACT OFFICE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STOCKPILE CONTAINMENT DETAIL

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

PROJECT REFERENCE NO.	SHEET NO.
W-5510	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

EARTHWORK SUMMARY

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	EMBT +%	BORROW	WASTE
-L- STA 12+25 TO STA 28+50	1437.7	306	0	1131.7
-Y1- STA 10+91.67 TO STA 19+17	163.9	31.31	2967.1	0
-Y1- STA 20+42.28 TO STA 25+14.78	270.2	427	0	227.5
-Y1- STA 25+84.34 TO STA 26+55	61	45	0	16
-Y2- STA 10+28.50 TO STA 11+73.50	117.3	696	578.7	0
-Y2- STA 13+12.50 TO STA 16+45.75	125	1004	879	0
-Y3- STA 17+40 TO STA 18+10	31.5	5	0	26.5
-Y3A- STA 18+00 TO STA 18+85	63	3	0	60
-Y4- STA 10+50.99 TO STA 15+90	894.6	3	0	891.6
-Y5- STA 10+44.50 TO STA 10+93	235.8	0	0	235.8
ROUNDABOUT	0	1752	1752	0
SUB-TOTAL	5831.8	7372	6176.8	463.7
LOSS DUE TO CLEARING AND GRUBBING	-1674	0	1674	0
EARTH WASTE TO REPLACE BORROW	0	0	-463.7	-463.7
ESTIMATED SHOULDER MATERIAL	0	6	6	0
EST 5% FOR REPLACING TOPSOIL ON BORROW PITS			161	
TOTAL	4158		3381	0
SAY	4160		3390	
STABILIZER AGGREGATE = 3000 TONS				

PROJECT REFERENCE NO.	SHEET NO.
W-5510	3B-2

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF ASPHALT PAVEMENT REMOVAL

ALIGNMENT	LT/RT	STATION	STATION	AREA (SY)
–Y1–	LT/RT	15+25	22+41	2367
–Y2–	LT/RT	13+52	15+26	778
–Y2–	RT	13+75	14+00	49
–Y4–	LT/RT	11+40	11+47	33
			TOTAL	3227
			SAY	3250

SUMMARY OF REMOVAL OF EXISTING FENCE

REMOVAL OF EXISTING FENCE			
LINE	FENCE REMOVAL STATION TO STATION	LENGTH REMOVED	REMARKS
Y2	10+14 TO 11+77	360	
TOTAL		360	

12/22/2015 K:\RAL_Roadway\0110362245 - Kernersville\Roadway\Pro\W5510_RDY_PSH_SUM.dgn

COMPUTED BY:	BTV	DATE:	9-17-2014
CHECKED BY:	LDR	DATE:	9-17-2014

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
011036245 - Kernersville	3D-1

**Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

LINE & STATION / SIZE / THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C. S. PIPE 12 .064	15 .064	18 .064	24 .064	30 .079	36 .079	42 .109	48 .109	R. C. PIPE CLASS III 12	15	18	24	30	36	42	48	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	ADJUST C.B.	ADJUST M.H.	15" DRAINAGE PIPE ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	PREFORMED SCOUR HOLE (PER EACH)	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
Y1 10+70	20 LT	0401		969.0																																														1	0.9		1			1																														
		0401	0400		963.1	961.0			20							X																																																												2									
		0402	0401		965.9	964.6																															128																																																
Y1 12+00	20 LT	0402		968.9																																														1			1	1																																	
Y1 12+26	20 RT	0403		968.9																																																																							1										
Y1 14+02	20 RT	0406		970.7																																														1			1			1																														
		0406	0403		967.7	965.5																															176																																																
Y1 14+01	20 LT	0407		970.7																																														1			1		1																														
		0407	0402		967.7	965.9																															200																																																
Y1 14+01	34 LT	0408		970.5																																														1										1	1																								
		0408	0407		968.1	967.7			12																																																																														
Y1 16+24	26 RT	0409		973.4																																														1			1			1																														
		0409	0411		970.4	969.0																															120																																																	
Y1 17+13	46 LT	0410		973.7																																														1										1	1																								
		0410	0501		971.5	971.2			40																																																																															
R1 10+00	32 RT	0411		973.5																																														1			1			1																														
		0411	0505		969.0	965.7																									116																																																										
L 14+20	37 RT	0417		948.5																																														1			1	1																																	
		0417	0418																																	8																																																		
L 15+55	34 LT	0421		949.7																																														1			1		1																														
		0421	0430		945.2	944.8	2.1																															8																																																
		0423	0422		938.9	937.0	1.5																									80																																																						
		0441	0403		965.9	965.5																															24																																																
Y1 12+00	20 RT	0441		968.9																																														1			1	1																																	
Y1 17+51	8 RT	0500		974.2																																														1							1			1	1																								
		0500	0411		969.3	969.0																									20																																																											
Y1 17+51	45 LT	0501		973.4																																														1										1	1																								
		0501	0500		970.3	969.3																															52																																																
		0502	0504		969.5	969.4			28																																																																												
Y1 18+49	2 RT	0503		974.7																																														1	0.9						1			1	1																								
		0503	0505		968.8	967.8																									48																																																											
Y1 18+48	46 LT	0504		972.5																																														1										1	1																								
		0504	0503		969.2	969.0																															48																																																
R1 10+24	19 RT	0505		973.1																																														1	2.9		1		1																														
R1 11+10	48 RT	0506		968.6																																																																					1	1											
Y1 19+80	348 RT	0510		962.0																																														1																				1				1												
Y2 15+94	18 RT	0511		961.3																																														1			1		1																														
		0511	0510		957.1	956.7	0.6				12																																																																											
Y2 15+28	18 RT	0512		963.9																																														1			1		1																														
		0512	0511		959.7	957.1	0.6																																64																																														
Y2 14+74	18 RT	0513		966.3																																															0.7																									1										
		0513	0512		960.8	959.7	0.6																																52																																														
R1 11+12	2 LT	0514		972.1																																														1			1			1																														
		0514	0522		969.1	966.2																															28																																																
Y2 11+50	46 RT	0515		972.7																																														1										1	1																								
		0515	0516		970.3	970.0			28								X	X																																																																				
		0516	0524		970.0	969.4																									56																																																											
Y2 11+73	32 RT	0516		975.2																																														1	0.2		1	1																																	
Y2 15+94	2 LT	0517		962.6																																														1							1			1	1																								
		0517	0511		959.4	958.2																															20																																																
					SHEET TOTALS				128		12																		240			80				8	796	8	116													23	5.6		14	4	5	5	3			8	8								1				2	1	2		2									

ABBREVIATIONS

- **C.A.A.** CORRUGATED ALUMINIUM ALLOY
- **C.B.** CATCH BASIN
- **C.S.** CORRUGATED STEEL
- **D.I.** DROP INLET
- **G.D.I.** GRATED DROP INLET
- **H.D.P.E.** HIGH DENSITY POLYETHYLENE
- **J.B.** JUNCTION BOX
- **M.H.** MANHOLE
- **N.S.** NARROW SLOT
- **P.V.C.** POLYVINYL CHLORIDE
- **R.C.** REINFORCED CONCRETE
- **T.B.D.I.** TRAFFIC BEARING DROP INLET
- **T.B.J.B.** TRAFFIC BEARING JUNCTION BOX
- **W.S.** WIDE SLOT

DD83340

DD83340

COMPUTED BY:	BTV	DATE:	9-17-2014
CHECKED BY:	LDR	DATE:	9-17-2014

PROJECT NO.	SHEET NO.
011036245 - Kernersville	3D-2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

LINE & STATION	OFFSET		STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
Y2 15+28	18	LT	0518		964.4															
			0518	0512		961.4	960.9													
Y2 14+66	18	LT	0519		966.1															
			0519	0521		962.8	962.3													
Y2 14+23	2	RT	0520		968.5															
			0520	0521		965.3	962.3													
Y2 14+70	0	CL	0521		967.2															
			0521	0513		961.8	961.0													
Y2 13+31	2	RT	0522		971.7															
			0522	0520		966.0	965.0													
Y1 19+85	83	RT	0523		971.3															
			0523	0522		966.3	966.0													
			0524	0525		969.4	968.6													
Y2 11+60	25	LT	0524		975.5															
			0525	0527		968.6	967.8													
Y1 20+67	36	LT	0525		975.2															
			0527	0534		967.8	967.2													
Y1 20+91	32	RT	0527		975.1															
Y1 21+68	32	RT	0528		975.3															
			0528	0527		972.3	968.1													
Y1 21+68	4	LT	0529		976.3															
			0529	0528		973.1	972.3													
			0530	0519		963.4	962.8				20							X	X	
L 19+92	39	LT	0531		962.4															
L 20+25	43	RT	0532		963.3															
			0532	0533		959.9	959.4	0.7												
Y1 20+26	48	RT	0534		974.4															
			0534	0523		967.2	966.6													
			0535	0531		960.1	959.0			24										
L 19+90	60	LT	0535		963.1															
L 20+28	32	LT	0536		963.8															
			0536	0531		960.8	959.0													
			0537	0536		961.1	960.8			16										
L 20+39	43	LT	0537		964.1															
Y1 22+56	6	LT	0539		977.1															
			0539	0541		973.9	973.3													
Y1 23+50	7	LT	0541		976.5															
			0541	0543		973.3	969.3													
Y1 24+55	35	RT	0542		972.5															
			0542	0543		969.4	969.0													
Y1 24+65	7	LT	0543		973.4															
			0543	0546		969.0	968.1													
L 23+50	41	RT	0544		973.1															
			0544	0532		967.2	959.9	0.5												
L 23+70	13	RT	0545		973.9															
			0545	0544		967.5	967.2													
L 23+70	43	LT	0546		973.3															
			0546	0545		968.0	967.5													
L 25+73	34	RT	0552		977.8															
			0552	0544		973.1	967.9													
							SHEET TOTALS			40	20									

FROM	TO	C. S. PIPE 12 (.064)	15 (.064)	18 (.064)	24 (.064)	30 (.079)	36 (.079)	42 (.109)	48 (.109)	R. C. PIPE CLASS III 12	15	18	24	30	36	42	48	R. C. PIPE CLASS IV 12	15	18	24	30	36	42	48	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE
0518																												
0518	0512																		36									
0519																												
0519	0521																			16								
0520																												
0520	0521																			44								
0521																												
0521	0513																				16							
0522																												
0522	0520																			88								
0523																												
0523	0522											28																
0524	0525										76																	
0524																												
0525	0527										68																	
0525																												
0527	0534										60																	
0527																												
0528																												
0528	0527																		64									
0529																												
0529	0528																		36									
0530	0519																											
0531																												
0532																												
0532	0533																			20								
0534																												
0534	0523										52																	
0535	0531																											
0535																												
0536																												
0536	0531																		36									
0537	0536																											
0537																												
0539																												
0539	0541																		92									
0541																												
0541	0543																		112									
0542																												
0542	0543																		40									
0543																												
0543	0546																		84									
0544																												
0544	0532																			324								
0545																												
0545	0544											32																
0546																												
0546	0545																			56								
0552																												
0552	0544											220																
SHEET TOTALS											256	280							500	548	16							

FROM	TO	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	ADJUST C.B.	ADJUST M.H.	15" DRAINAGE PIPE ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	PREFORMED SCOUR HOLE (PER EACH)	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
0518					1			1			1																													
0518	0512																																							
0519					1			1			1																													
0519	0521																																							
0520					1							1			1	1																								
0520	0521																																							
0521					1	0.4																		1				1												
0521	0513																																							
0522					1	0.7						1			1	1																								
0522	0520																																							
0523					1	0.1		1			1																													
0523	0522																																							
0524	0525																																							
0524					1	1.1		1	1																															
0525	0527																																							
0525					1	1.6		1	1																															
0527	0534																																							
0527					1	2.5		1	1																															
0528					1			1			1																													
0528	0527																																							
0529					1							1			1	1																								
0529	0528																																							
0530	0519																																							
0531					1			1	1																															
0532					1			1			1																													
0532	0533																																							
0534					1	2.6		1			1																													
0534	0523																																							
0535	0531																																							
0535					1			1	1																															
0536					1			1		1																														
0536	0531																																							
0537	0536																																							
0537					1			1	1																															
0539					1							1			1	1																								
0539	0541																																							
0541					1							1			1	1																								
0541	0543																																							
0542					1			1		1																														
0542	0543																																							
0543					1							1			1	1																								
0543	0546																																							
0544					1	0.9		1			1																													
0544	0532																																							
0545					1	1.4						1			1	1																								
0545	0544																																							
0546					1	0.3		1		1																														
0546	0545																																							
0552					1			1			1																													
0552	0544																																							
SHEET TOTALS					25	11.6		17	6	3	8	7			7	7								1				1												

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT

DD83340

COMPUTED BY:	BTV	DATE:	9-17-2014
CHECKED BY:	LDR	DATE:	9-17-2014

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
011036245 - Kernersville	3D-3

**Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

ABBREVIATIONS
- C.A.A. CORRUGATED ALUMINIUM ALLOY
- C.B. CATCH BASIN
- C.S. CORRUGATED STEEL
- D.I. DROP INLET
- G.D.I. GRATED DROP INLET
- H.D.P.E. HIGH DENSITY POLYETHYLENE
- J.B. JUNCTION BOX
- M.H. MANHOLE
- N.S. NARROW SLOT
- P.V.C. POLYVINYL CHLORIDE
- R.C. REINFORCED CONCRETE
- T.B.D.I. TRAFFIC BEARING DROP INLET
- T.B.J.B. TRAFFIC BEARING JUNCTION BOX
- W.S. WIDE SLOT

LINE & STATION (SIZE / THICKNESS OR GAUGE)	OFFSET		STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %
L 25+72	22	RT	0553		978.3			
			0553	0552		973.3	973.1	
L 25+70	43	LT	0554		977.5			
			0554	0546		974.2	968.9	
L 27+35	42	LT	0555		979.4			
			0555	0554		976.4	974.2	
Y4 12+15	30	RT	0604		981.7			
			0604	0606		978.1	978.1	
Y4 12+14	15	RT	0606		981.9			
Y4 13+23	30	RT	0610		982.0			
			0610	0609		979.0	978.6	
			0615	0604		978.3	978.1	
Y4 12+50	30	RT	0615		981.3			
Y4 13+35	58	RT	0616		986.4			
			0616	0610		980.6	979.0	
Y1 18+30	23	LT						
Y1 18+06	6	RT						
L 24+50	30	LT						
R1 11+00	26	RT						
L 20+00	40	LT						
L 23+08	29	RT						
L 22+19	28	RT						
L 21+16	24	RT						
L 22+63	24	RT						
L 23+07	5	LT						
L 23+75	23	RT						
L 25+07	22	RT						

Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)

Row	12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
0616–0610			32									
SHEET TOTALS			32									
PROJECT TOTALS		168	52	12								

C. S. PIPE

Row	12 (.064)	15 (.064)	18 (.064)	24 (.064)	30 (.079)	36 (.079)	42 (.109)	48 (.109)
SHEET TOTALS								
PROJECT TOTALS								

R. C. PIPE CLASS III

Row	12	15	18	24	30	36	42	48
0553–0552		8						
SHEET TOTALS		8						
PROJECT TOTALS		504	280		80			

R. C. PIPE CLASS IV

Row	12	15	18	24	30	36	42	48
0554–0546		204						
0555–0554		164						
0604–0606		16						
0610–0609			24					
0615–0604		36						
SHEET TOTALS		420	24					
PROJECT TOTALS	8	1716	580	132				

Row	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A: 5' THRU 10' LIN. FT.	B: 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G
L 25+72 (0553)							1						
0553–0552													
L 25+70 (0554)							1			1		1	
0554–0546													
L 27+35 (0555)							1			1		1	
0555–0554													
Y4 12+15 (0604)							1			1			1
0604–0606													
Y4 12+14 (0606)							1						
Y4 13+23 (0610)							1			1			1
0610–0609													
0615–0604													
Y4 12+50 (0615)							1			1			1
Y4 13+35 (0616)							1	0.8					
0616–0610													
SHEET TOTALS							8	0.8		5		2	3
PROJECT TOTALS							56	18.0		36	10	10	16

Row	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	J.B. STD. 840.31 OR STD. 840.32	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54	CONVERT EXISTING C.B. TO J.B.	ADJUST C.B.	ADJUST M.H.
L 25+72 (0553)														1			1			
Y4 12+14 (0606)														1			1			
Y4 13+35 (0616)													1				1			
SHEET TOTALS													1	2			3			
PROJECT TOTALS	10			15	15								3	2			6	1	2	

Row	15" DRAINAGE PIPE ELBOW	18" C.S. ELBOW	24" C.S. ELBOW	PREFORMED SCOUR HOLE (PER EACH)	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
Y1 18+30								40	
Y1 18+06								30	
L 24+50								258	
R1 11+00								53	
L 20+00								11	
L 23+08								5	
L 22+19								5	
L 21+16					14				
L 22+63					6				
L 23+07					4				
L 23+75					6				
L 25+07					6				
SHEET TOTALS					36			402	
PROJECT TOTALS	2				36			402	

PROJECT REFERENCE NO.	SHEET NO.
W-5510	3G-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	STATION	STATION	AGGREGATE TYPE ASU/AST	AGGREGATE THICKNESS INCHES	SHALLOW UNDERCUT CY	CLASS IV SUBGRADE STABILIZATION TONS	GEOTEXTILE FOR SOILD STABILIZATION SY	STABILIZER AGGREGATE TONS	CLASS IV AGGREGATE STABILIZATION TONS
-L- (LT)	21+25	22+00	AST	3"				19	
-L- (LT)	23+65	28+52	AST	3"				171	
-L- (RT)	10+60	28+70	AST	3"				231	
-Y1-	10+25	18+90	AST	3"				533	
-Y1-	20+65	25+15	AST	3"				706	
-Y2-	10+28	11+50	AST	3"				85	
-Y2-	13+35	15+75	AST	3"				199	
-Y3A-	17+30	18+72	AST	3"				405	
-Y4-	11+56	15+90	AST	3"				42	
ROUND			AST	3"				105	
	CONTINGENCY							500	
	TOTAL				0	0	0	2,996	0
	SAY							3,000	

PROJECT REFERENCE NO.	SHEET NO.
W-5510	3P-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX

PARCEL NO.	SHEET NO.	PROPERTY OWNER NAME	DEED BOOK
1	4	ELIZABETH C. BURNS	DB 604 PG 143
2	4	PEAK ASSOCIATES, LLC	DB 2937 PG 3669
3	4	KENNETH D. & JENNIFER A. ALLEN	DB 2283 PG 1586
4	4	MARLENE S. DALTON	DB 2493 PG 1963
5	4	MARLENE S. DALTON	DB 2173 PG 4437
6	4	MALWINDER S. GHUMMAN & WIFE RANVIR K. GHUMMAN	DB 3094 PG 2499
7	4	GREENWOOD & CHARLES, INC	DB 1387 PG 479 DB 1364 PG 814
8	4,5	HELEN FLYNT SEARS & WILMA FLYNT PARRISH	DB 2026 PG 1852
9	4,5	SAVANNAS, LLC	DB 2953 PG 397
11	4	BEROTH OIL COMPANY	DB 1848 PG 1682
12	4	GREENWOOD & CHARLES, INC	DB 3109 PG 2373
13	4	GREENWOOD & CHARLES, INC	DB 1419 PG 851
14	4	TRIAD WENSTAR REALTY, LLC	DB 2170 PG 1591
15	4,5	EAC INVESTMENTS, LLC	DB 2805 PG 4006
17	5	DILLON & HASTINGS REAL ESTATE, INC.	DB 893 PG 184
18	5	J.C. FAW	DB 2323 PG 1682
19	5	SALLIE L. GREENFIELD	DB 1191 PG 1671
20	5	FRANCES F. SLADE	DB 1963 PG 3618 DB 1544 PG 894

PARCEL NO.	SHEET NO.	PROPERTY OWNER NAME	DEED BOOK
21	5	GJERGJI LLANAJ & MARILDI LLANAJ	DB 2802 PG 3284
22	5	SALLIE L. GREENFIELD	DB 1781 PG 2292
23	5	SALLIE L. GREENFIELD	DB 1781 PG 2292
24	5,6	SALLIE L. GREENFIELD	DB 1629 PG 447
25	5	RONNIE J. ROBERTS and wife BOBBIE S. ROBERTS	DB 1853 PG 2300
26	5	SALLIE L. GREENFIELD	DB 79 PG 1051
27	5	SALLIE L. GREENFIELD	DB 1191 PG 1671
28	5	SALLIE L. GREENFIELD	NONE LISTED
29	5	T. ELWOOD SEARS and wife HELEN FLYNT SEARS	DB 1674 PG 2924
30	5	T. ELWOOD SEARS and wife HELEN FLYNT SEARS	DB 1672 PG 2911
31	5	SALLIE L. GREENFIELD	DB 1781 PG 2292
32	6	PETER J. JUGIS. BISHOP OF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE, NORTH CAROLINA, AND HIS SUCCESSORS IN OFFICE	DB 2773 PG 1522
33	6	PETER J. JUGIS. BISHOP OF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE, NORTH CAROLINA, AND HIS SUCCESSORS IN OFFICE	DB 2512 PG 2045
34	6	PETER J. JUGIS. BISHOP OF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE, NORTH CAROLINA, AND HIS SUCCESSORS IN OFFICE	DB 1821 PG 2503
35	6	CHARLES RAY KING	DB 2260 PG 3179
36	6	ALMA KIRK NEUGENT	DB 2171 PG 1693

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	4

RW SHEET NO.
RIGHT-OF-WAY REV.
CONST. REV.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST — DocuSigned by: Matt West — AC71A1D0796B425... — 1/4/2016

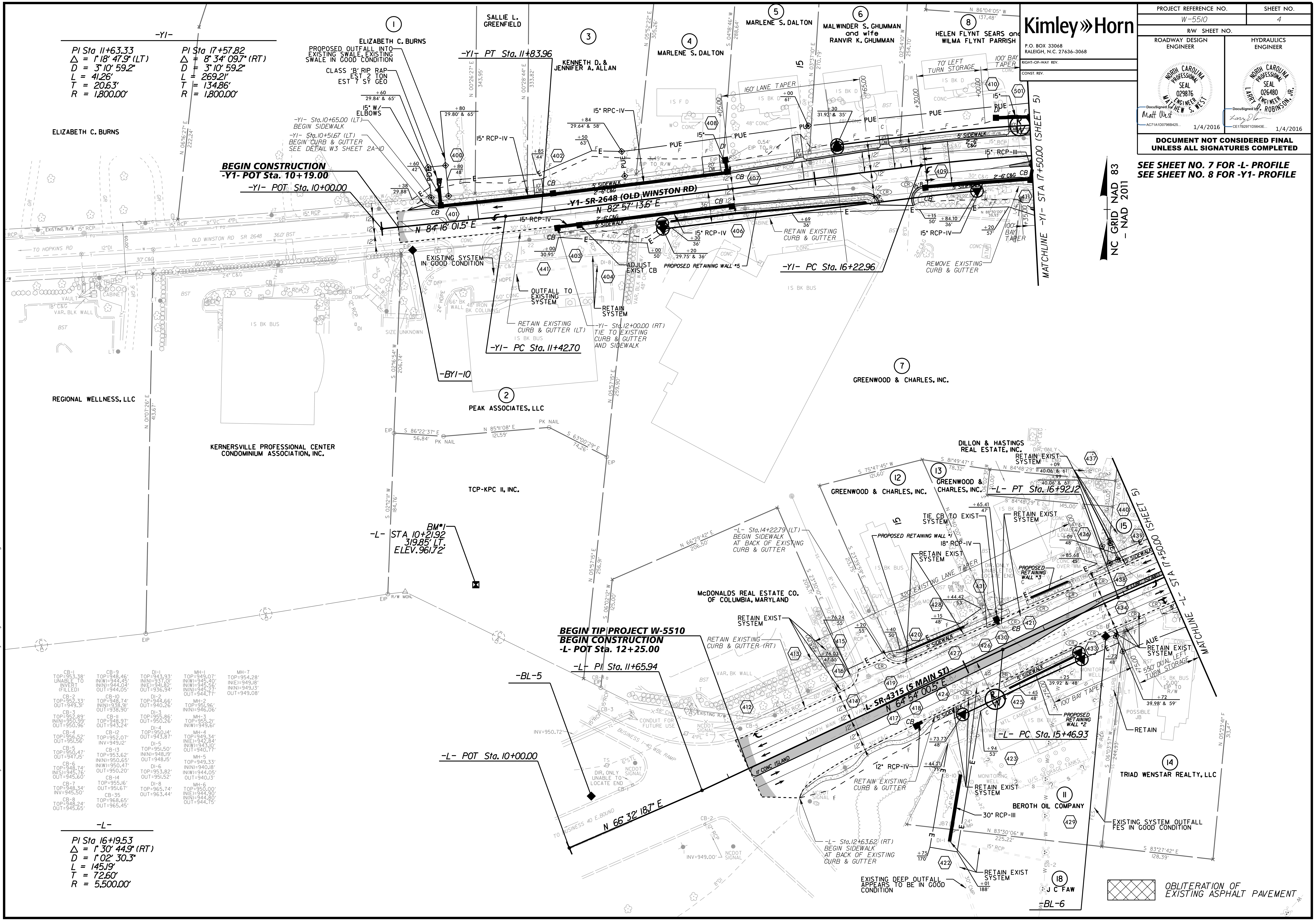
HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 026480 ENGINEER LARRY D. ROBINSON, JR. — DocuSigned by: CE17B297105643E... — 1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEE SHEET NO. 7 FOR -L- PROFILE
SEE SHEET NO. 8 FOR -Y1- PROFILE

-Y1-

PI Sta 11+63.33	PI Sta 17+57.82
Δ = 1° 18' 47.9" (LT)	Δ = 8° 34' 09.7" (RT)
D = 3° 10' 59.2"	D = 3° 10' 59.2"
L = 41.26'	L = 269.21'
T = 20.63'	T = 134.86'
R = 1,800.00'	R = 1,800.00'



CB-1 TOP=953.38' UNABLE TO INVERT (FILLED)	CB-9 TOP=948.46' IN(W)=944.45' IN(N)=944.04' OUT=944.05'	DI-1 TOP=943.93' IN(N)=937.01' IN(E)=941.82' OUT=936.94'	MH-1 TOP=949.07' IN(W)=945.40' IN(W)=945.56' IN(N)=945.27' OUT=944.77'	MH-7 TOP=954.28' IN(E)=949.18' IN(N)=949.13' OUT=949.08'
CB-2 TOP=952.33' OUT=949.31'	CB-10 TOP=948.74' IN(N)=938.91' OUT=938.90'	DI-2 TOP=944.66' OUT=940.26'	MH-2 TOP=951.96' IN(N)=946.06'	
CB-3 TOP=952.89' IN(N)=950.99' OUT=950.96'	CB-11 TOP=948.97' OUT=943.24'	DI-3 TOP=955.86' OUT=950.26'	MH-3 TOP=955.21' IN(W)=949.61'	
CB-4 TOP=956.52' OUT=951.56'	CB-12 TOP=952.07' INV=949.12'	DI-4 TOP=950.14' OUT=943.87'	MH-4 TOP=949.34' IN(E)=942.84' IN(W)=943.10' OUT=940.77'	
CB-5 TOP=950.47' OUT=947.15'	CB-13 TOP=953.62' IN(N)=950.65' IN(W)=950.47' OUT=950.20'	DI-5 TOP=951.50' IN(N)=948.19' OUT=948.15'	MH-5 TOP=949.33' IN(N)=940.18' IN(W)=944.05' OUT=940.13'	
CB-6 TOP=948.74' IN(S)=945.76' OUT=945.60'	CB-14 TOP=955.16' OUT=951.67'	DI-6 TOP=953.82' OUT=951.52'	MH-6 TOP=950.00' IN(E)=944.90' IN(N)=944.80' OUT=944.75'	
CB-7 TOP=948.34' INV=945.50'	CB-35 TOP=968.65' OUT=965.45'	DI-8 TOP=965.74' OUT=963.44'		
CB-8 TOP=948.24' OUT=945.65'				

-L-

PI Sta 16+19.53
Δ = 1° 30' 44.9" (RT)
D = 1° 02' 30.3"
L = 145.19'
T = 72.60'
R = 5,500.00'

OBLITERATION OF EXISTING ASPHALT PAVEMENT

K:\PAL_Roadway\011036245 - Kernersville\Roadway\Proj\W5510_RDY_PSH04.dgn

12/22/2015

PROJECT REFERENCE NO.	SHEET NO.
W-5510	5

R/W SHEET NO.

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

RIGHT-OF-WAY REV.
CONST. REV.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST	NORTH CAROLINA PROFESSIONAL SEAL 026480 ENGINEER LARRY D. ROBINSON, JR.
DocuSigned by: Matt West AC71A1D0796B425... 1/4/2016	DocuSigned by: CE17B2971D5643E... 1/4/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-R1-

PI Sta 10+36.49	PI Sta 11+08.14
△ = 29° 49' 57.8" (RT)	△ = 13° 14' 46.9" (RT)
D = 41° 49' 18.3"	D = 18° 04' 27.8"
L = 71.33'	L = 73.29'
T = 36.49'	T = 36.81'
R = 137.00'	R = 317.00'

-Y1-	-Y2-	-Y3-	-Y3B-
PI Sta 22+64.36	PI Sta 13+79.19	PI Sta 10+81.24	PI Sta 11+05.24
△ = 79° 59' 19.0" (RT)	△ = 30° 02' 37.4" (LT)	△ = 54° 54' 01.5" (RT)	△ = 13° 53' 14.6" (RT)
D = 22° 55' 05.9"	D = 19° 05' 54.9"	D = 57° 17' 44.8"	D = 22° 55' 05.9"
L = 349.02'	L = 157.31'	L = 95.82'	L = 60.60'
T = 209.73'	T = 80.51'	T = 51.95'	T = 30.45'
R = 250.00'	R = 300.00'	R = 100.00'	R = 250.00'

-L-

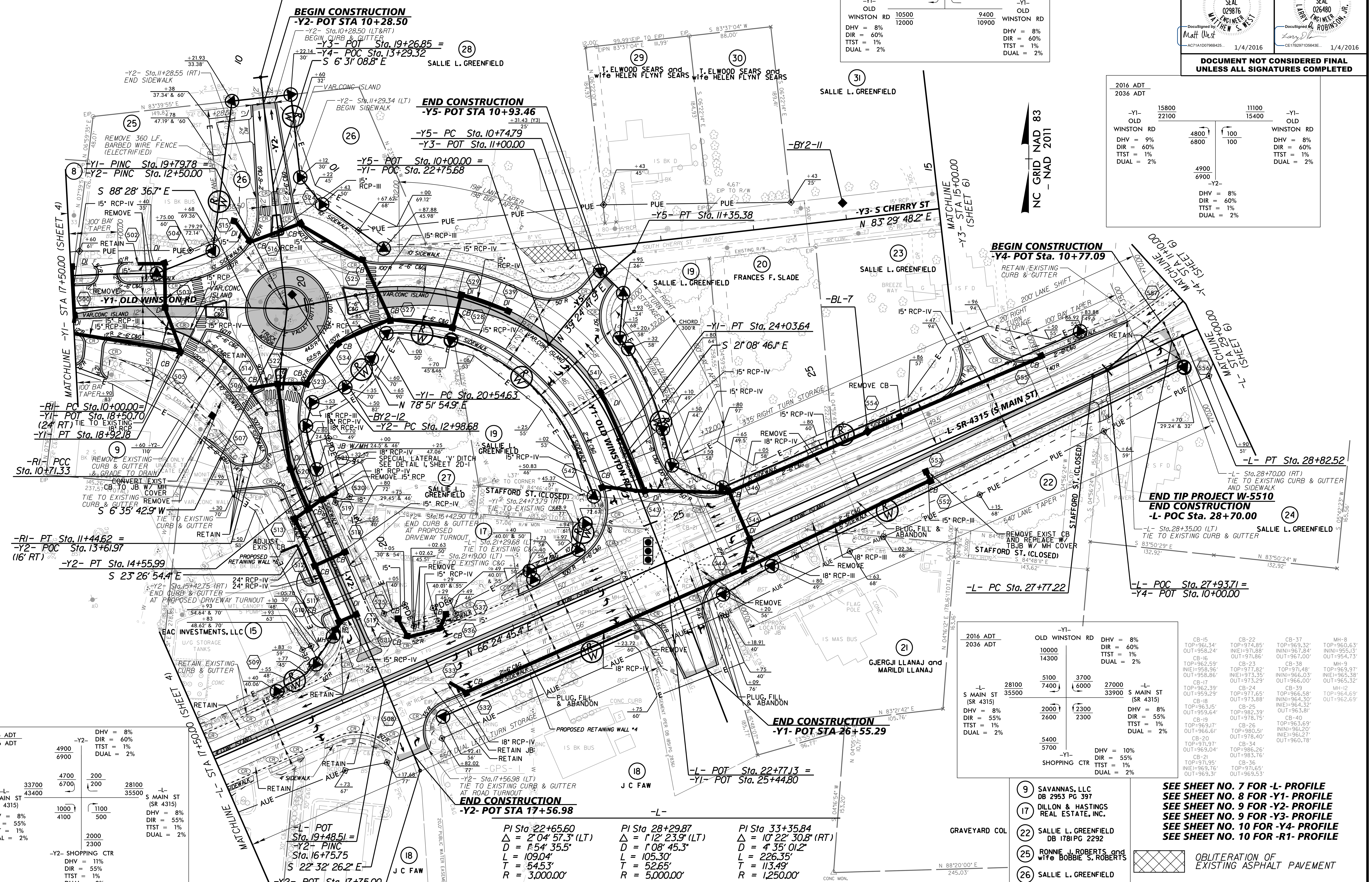
PI Sta 22+65.60	PI Sta 28+29.87	PI Sta 33+35.84
△ = 2° 04' 57.3" (LT)	△ = 1° 12' 23.9" (LT)	△ = 10° 22' 30.8" (RT)
D = 1° 54' 35.5"	D = 1° 08' 45.3"	D = 4° 35' 01.2"
L = 109.04'	L = 105.30'	L = 226.35'
T = 54.53'	T = 52.65'	T = 113.49'
R = 3,000.00'	R = 5,000.00'	R = 1,250.00'

2016 ADT / 2036 ADT
-Y5-: 1200/1800; DHV = 14%, DIR = 90%, TTST = 1%, DUAL = 2%
1100/1400; -100/100
-Y1- OLD WINSTON RD: 10500/12000; DHV = 8%, DIR = 60%, TTST = 1%, DUAL = 2%
-Y1- OLD WINSTON RD: 9400/10900; DHV = 8%, DIR = 60%, TTST = 1%, DUAL = 2%

2016 ADT / 2036 ADT
-Y1- OLD WINSTON RD: 15800/22100; DHV = 9%, DIR = 60%, TTST = 1%, DUAL = 2%
-Y1- OLD WINSTON RD: 11100/15400; DHV = 8%, DIR = 60%, TTST = 1%, DUAL = 2%
4800/6800; 100/100
-Y2-: 4900/6900; DHV = 8%, DIR = 60%, TTST = 1%, DUAL = 2%

2016 ADT / 2036 ADT
-Y2-: 4900/6900; DHV = 8%, DIR = 60%, TTST = 1%, DUAL = 2%
4700/6700; 200/200
-L- S MAIN ST (SR 4315): 33700/43400; DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 2%
-L- S MAIN ST (SR 4315): 28100/35500; DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 2%
1000/4100; 1100/500
-Y2- SHOPPING CTR: 2000/2300; DHV = 11%, DIR = 55%, TTST = 1%, DUAL = 2%

2016 ADT / 2036 ADT
-Y1- OLD WINSTON RD: 10000/14300; DHV = 8%, DIR = 60%, TTST = 1%, DUAL = 2%
5100/7400; 3700/6000
-L- S MAIN ST (SR 4315): 28100/35500; DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 2%
-L- S MAIN ST (SR 4315): 27000/33900; DHV = 8%, DIR = 55%, TTST = 1%, DUAL = 2%
2000/2600; 2300/2300
-Y1- SHOPPING CTR: 5400/5700; DHV = 10%, DIR = 55%, TTST = 1%, DUAL = 2%



CB-15 TOP=961.34' OUT=958.24'	CB-22 TOP=974.85' IN(E)=971.88' OUT=971.86'	CB-37 TOP=969.32' IN(N)=967.84' OUT=967.00'	MH-8 TOP=960.63' IN(N)=955.13' OUT=954.73'
CB-16 TOP=962.59' IN(E)=958.96' OUT=958.86'	CB-23 TOP=977.82' IN(E)=973.35' OUT=973.29'	CB-38 TOP=971.48' IN(N)=966.03' OUT=966.00'	MH-9 TOP=969.97' IN(E)=965.38' OUT=965.32'
CB-17 TOP=962.39' OUT=959.29'	CB-24 TOP=977.65' OUT=973.88'	CB-39 TOP=966.58' IN(N)=964.30' IN(E)=964.32' OUT=963.81'	MH-12 TOP=964.69' OUT=962.69'
CB-18 TOP=963.15' OUT=959.64'	CB-25 TOP=982.39' OUT=978.75'	CB-40 TOP=963.69' IN(N)=961.20' IN(E)=961.27' OUT=960.78'	
CB-19 TOP=969.17' OUT=966.61'	CB-26 TOP=980.51' OUT=978.40'		
CB-20 TOP=971.97' OUT=969.04'	CB-34 TOP=986.26' OUT=983.76'		
CB-21 TOP=971.95' IN(E)=969.76' OUT=969.31'	CB-36 TOP=971.65' OUT=969.53'		

9 SAVANNAS, LLC DB 2953 PG 397
17 DILLON & HASTINGS REAL ESTATE, INC.
22 SALLIE L. GREENFIELD DB 1781 PG 2292
25 RONNIE J. ROBERTS and wife BOBBIE S. ROBERTS
26 SALLIE L. GREENFIELD

SEE SHEET NO. 7 FOR -L- PROFILE
SEE SHEET NO. 8 FOR -Y1- PROFILE
SEE SHEET NO. 9 FOR -Y2- PROFILE
SEE SHEET NO. 9 FOR -Y3- PROFILE
SEE SHEET NO. 10 FOR -Y4- PROFILE
SEE SHEET NO. 10 FOR -R1- PROFILE

OBLITERATION OF EXISTING ASPHALT PAVEMENT

K:\RAL_Roadway\011036245 - Kernersville\Roadway\Proj\W5510_RDY_PSH05.dgn
12/22/2015

-Y3A-	-Y4-	
PI Sta 18+35.45	PI Sta 13+43.21	PI Sta 15+84.25
△ = 53° 56' 48.9" (RT)	△ = 1° 34' 12.7" (LT)	△ = 2° 12' 03.5" (RT)
D = 114° 35' 29.6"	D = 1° 55' 21.6"	D = 1° 25' 56.6"
L = 47.08'	L = 81.67'	L = 153.66'
T = 25.45'	T = 40.84'	T = 76.84'
R = 50.00'	R = 2,980.00'	R = 4,000.00'

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	6
RW SHEET NO.	

RIGHT-OF-WAY REV.

CONST. REV.

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST
DocuSigned by: Matt West
AC71A1D0796B425... 1/4/2016

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 026480 ENGINEER LARRY D. ROBINSON, JR.
DocuSigned by:
CE17B2971D5643E... 1/4/2016

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-Y4- POT Sta. 20+57.61

NC GRID – NAD 83 / NAD 2011

BM#3
N 862247.581
E 1680181.258
ELEV. 984.90'

-GPS- 4

N 48° 27' 01.9" E

-Y4- PT Sta. 16+61.07

END CONSTRUCTION
-Y4- POC Sta. 15+90.00

-Y4- PC Sta. 15+07.41

-Y4- PT Sta. 13+84.04

-Y3- POT Sta. 19+26.85 =
-Y4- POC Sta. 13+29.32

-Y4- Sta. 12+62.31 (LT)
TIE TO EXISTING
CURB & GUTTER

-Y3A- POT Sta. 18+85.06 =
-Y4- POT Sta. 12+55.42

S 42° 33' 22.9" E

N 65°04'20" E
35.16'

N 83°12'49" E
39.94'

-Y3- Sta. 18+42.85 (RT)
TIE TO EXISTING
CURB & GUTTER

-Y3A- PT Sta. 18+57.08

-Y3- POT Sta. 18+10.00
-Y3A- PC Sta. 18+10.00

-Y3- Sta. 17+96.32 (RT)
BEGIN CURB & GUTTER
SEE DETAIL W3 SHEET 2A-10

BEGIN CONSTRUCTION
-Y3A- POT Sta. 17+30.00

-Y3A- POT Sta. 17+00.00

MATCHLINE -Y3- STA 15+00.00 (SHEET 15)

MATCHLINE -Y4- STA 11+00.00 (SHEET 5)

MATCHLINE -L- STA 29+00.00 (SHEET 5)

-Y3- S CHERRY ST
N 83° 29' 48.2" E

-Y4- SR 4278 (S CHERRY ST)
N 46° 14' 57.5" E

-L- SR-4315 (S MAIN ST)
N 75° 34' 52.3" E

N 65° 12' 21.5" E

N 14° 49' 10.2" E

-L- POT Sta. 34+96.76

-L- PT Sta. 34+48.70

-L- PC Sta. 32+22.35

-Y4- PC Sta. 13+02.37

-L- Sta. 29+66.69 (LT)
TIE TO EXISTING
CURB & GUTTER

-Y4- Sta. 11+40.00 (LT&RT)
TIE TO EXISTING
CURB & GUTTER

-BL-8

RETAIN EXISTING CURB & GUTTER (LT)

RETAIN

REMOVE CB

RETAIN EXIST SYSTEM

GRADE TO DRAIN

RETAIN EXIST SYSTEM
-Y4- Sta. 12+12.53 (LT)
TIE TO EXISTING
CURB & GUTTER
END SIDEWALK

REMOVE EXIST CB AND REPLACE W/ TBJB W/ MH COVER

RETAIN EXIST SYSTEM

JB W/ MH COVER

RETAIN EXIST SYSTEM

RETAIN EXIST SYSTEM

RETAIN

SALLIE L. GREENFIELD

CONTRACTOR TO CLEAN OUT EXISTING DITCH TO ACHIEVE ENSURE POSITIVE DRAINAGE. OUTLET PIPE IN GOOD CONDITION.

SALLIE L. GREENFIELD

BISHOP OF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE, NORTH CAROLINA, AND HIS SUCCESSORS IN OFFICE

ALMA KIRK NEUGENT

LINDA GAIL WARREN

MONICA JAMES BROOKER

CHARLES RAY KING

COMMON AREA AS PER PB 31 PG 61

ROBERT SHOUSE

PHYLLIS LITTLE

NANCY PLASTER

STEVEN & TRUDY WESTPHAL

BARBARA TESH

STEWART C. HODGES, GEORGE C. PAGE, AND NEAL W. NELSON TRUSTEES OF KERNERSVILLE LODGE NO. 669, A.F. & A.M.

	-Y4- S CHERRY ST	-Y3A- S CHERRY ST	-Y4- S CHERRY ST
2016 ADT	13800	1200	
2036 ADT	18900	1800	
	DHV = 8%	DHV = 14%	DHV = 8%
	DIR = 60%	DIR = 90%	DIR = 60%
	TTST = 1%	TTST = 1%	TTST = 1%
	DUAL = 2%	DUAL = 2%	DUAL = 2%

CB-27 TOP=984.26' OUT=979.87'
CB-28 TOP=981.79' INIS)=978.16' OUT=978.08'
CB-29 TOP=981.33' INW)=977.42' INIS)=977.41' OUT=977.26'
CB-30 TOP=979.76' INE)=976.19' OUT=976.13'
CB-31 TOP=982.78' INE)=980.47' OUT=980.39'
CB-32 TOP=982.67' INE)=979.80' OUT=979.49'
CB-33 TOP=987.76' OUT=984.32'
MH-10 TOP=982.42' INE)=979.86' INV=978.59'
MH-11 TOP=987.02' INIS)=983.73' OUT=980.67'
DI-7 TOP=983.12' INIS)=981.08' OUT=981.01'

SEE SHEET NO. 7 FOR -L- PROFILE
SEE SHEET NO. 8 FOR -Y1- PROFILE
SEE SHEET NO. 9 FOR -Y2- PROFILE
SEE SHEET NO. 9 FOR -Y3- PROFILE
SEE SHEET NO. 9 FOR -Y3A- PROFILE
SEE SHEET NO. 10 FOR -Y4- PROFILE

(32) PETER J. JUGIS, BISHOP OF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE, NORTH CAROLINA, AND HIS SUCCESSORS IN OFFICE

(33) PETER J. JUGIS, BISHOP OF THE ROMAN CATHOLIC DIOCESE OF CHARLOTTE, NORTH CAROLINA, AND HIS SUCCESSORS IN OFFICE

OBLITERATION OF EXISTING ASPHALT PAVEMENT

12/22/2015 K:\RAL_Roadway\011036245 - Kernersville\Roadway\Proj\W5510_RDY_PSH06.dgn

Kimley»Horn
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
W-5510	7

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1/4/2016

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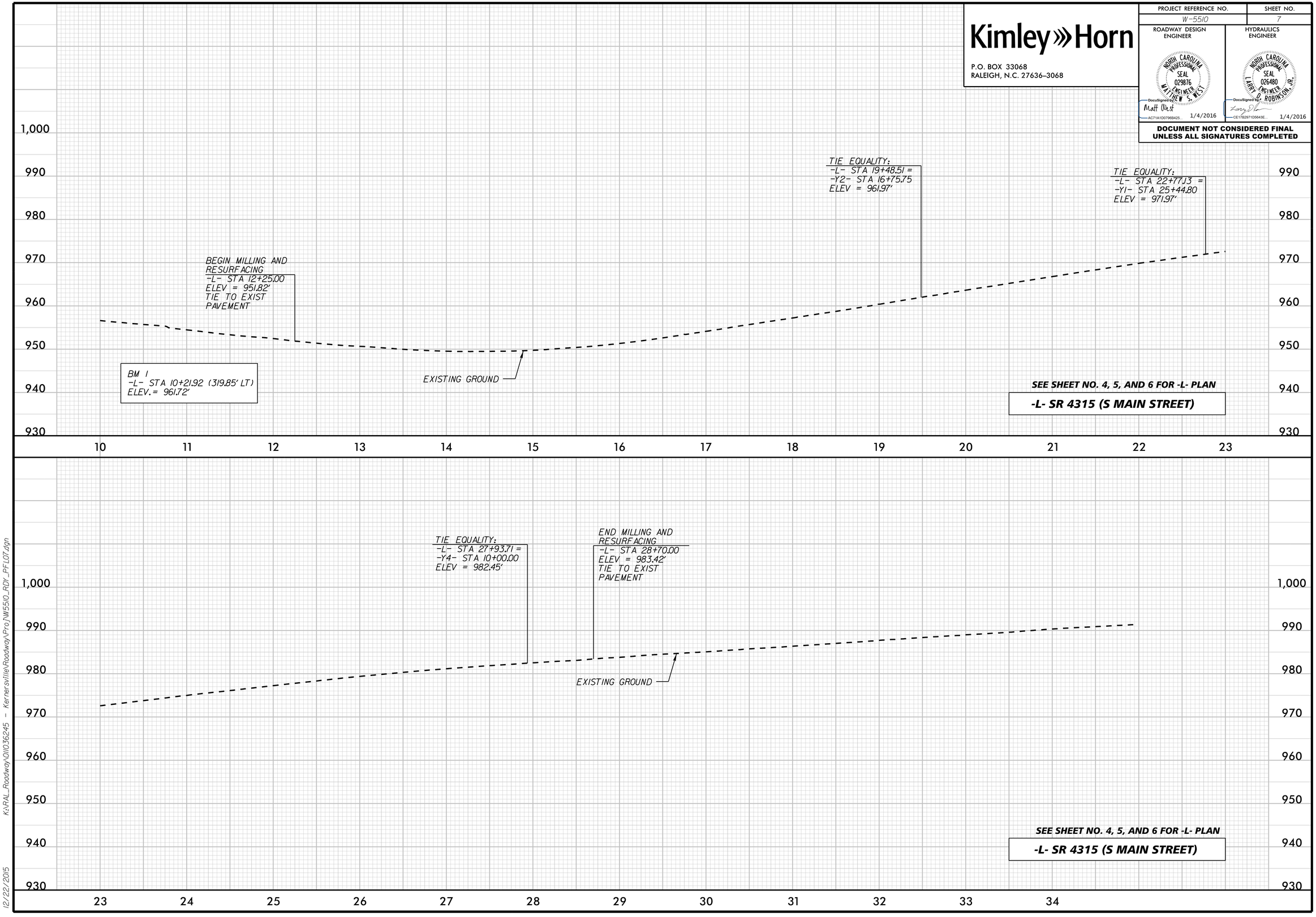

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12/22/2015

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PROJECT REFERENCE NO.	SHEET NO.
W-5510	8

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NORTH CAROLINA PROFESSIONAL SEAL 029876 ENGINEER MATTHEW S. WEST

DocuSigned by: Matt West AC71A1D07968425... 1/4/2016

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DocuSigned by: Larry D. CE178297105643E... 1/4/2016

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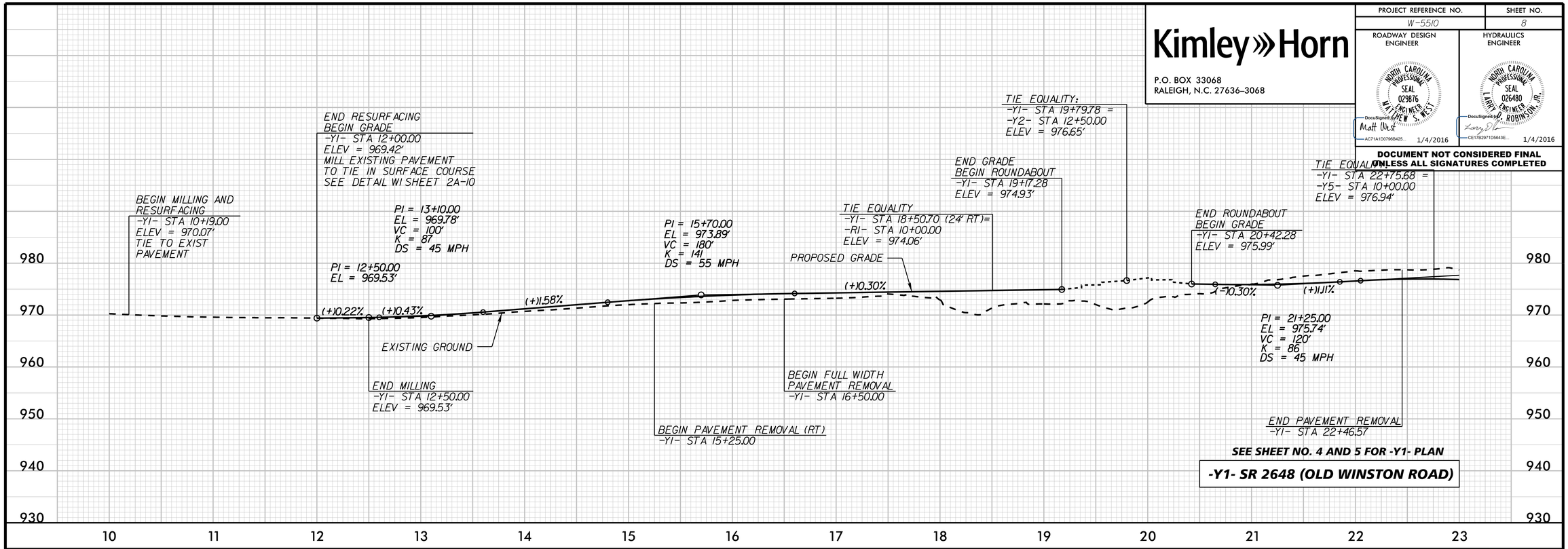
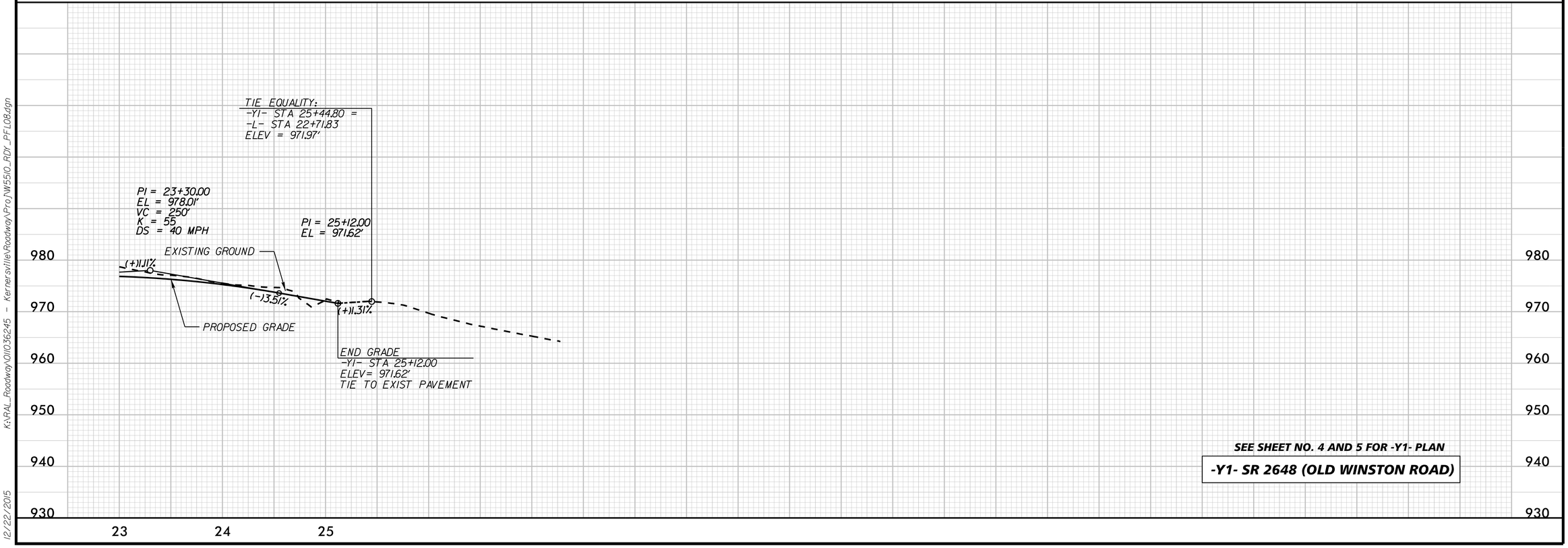


SEE SHEET NO. 4 AND 5 FOR -Y1- PLAN

-Y1- SR 2648 (OLD WINSTON ROAD)



SEE SHEET NO. 4 AND 5 FOR -Y1- PLAN

-Y1- SR 2648 (OLD WINSTON ROAD)

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PROJECT REFERENCE NO.	SHEET NO.
W-5510	9

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DocuSigned by: Larry Robinson CE178297 1D5643E... 1/4/2016

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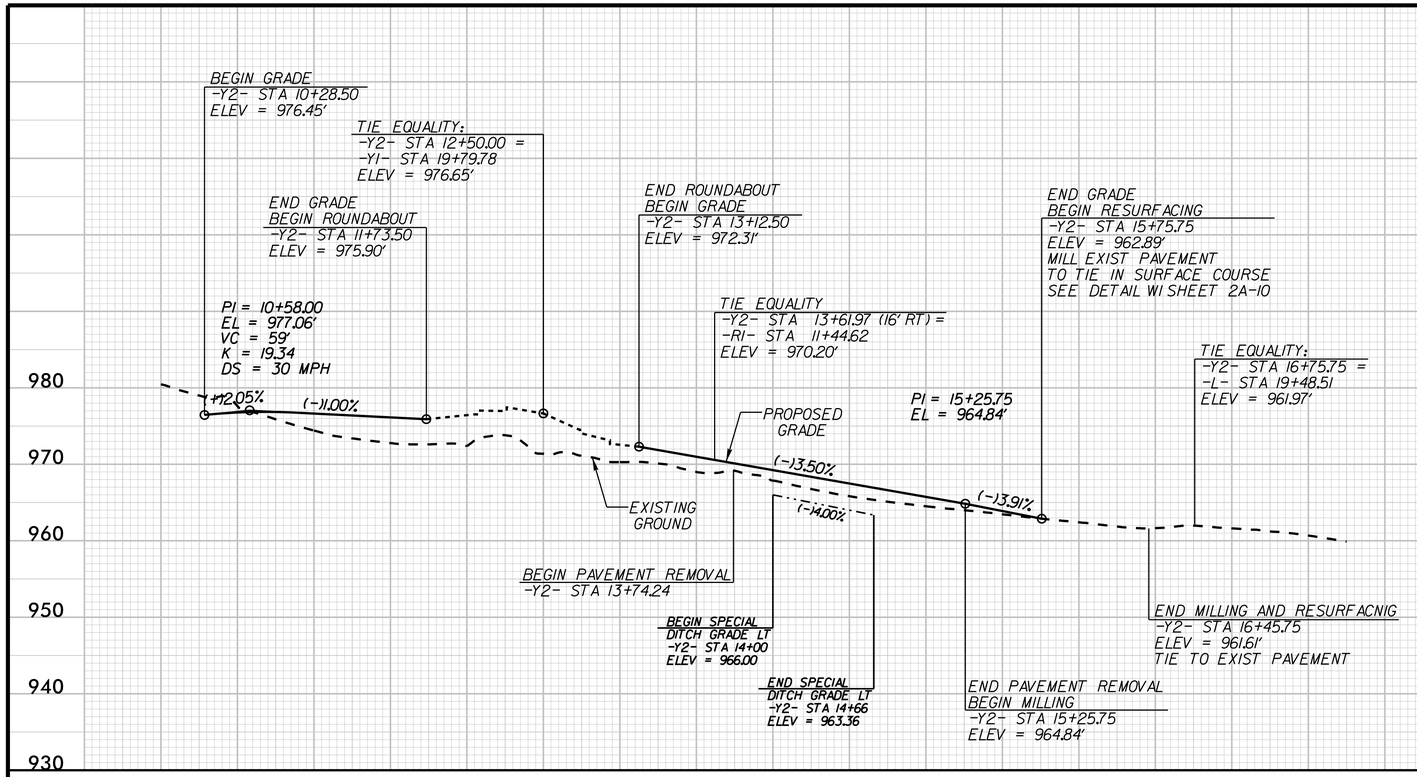
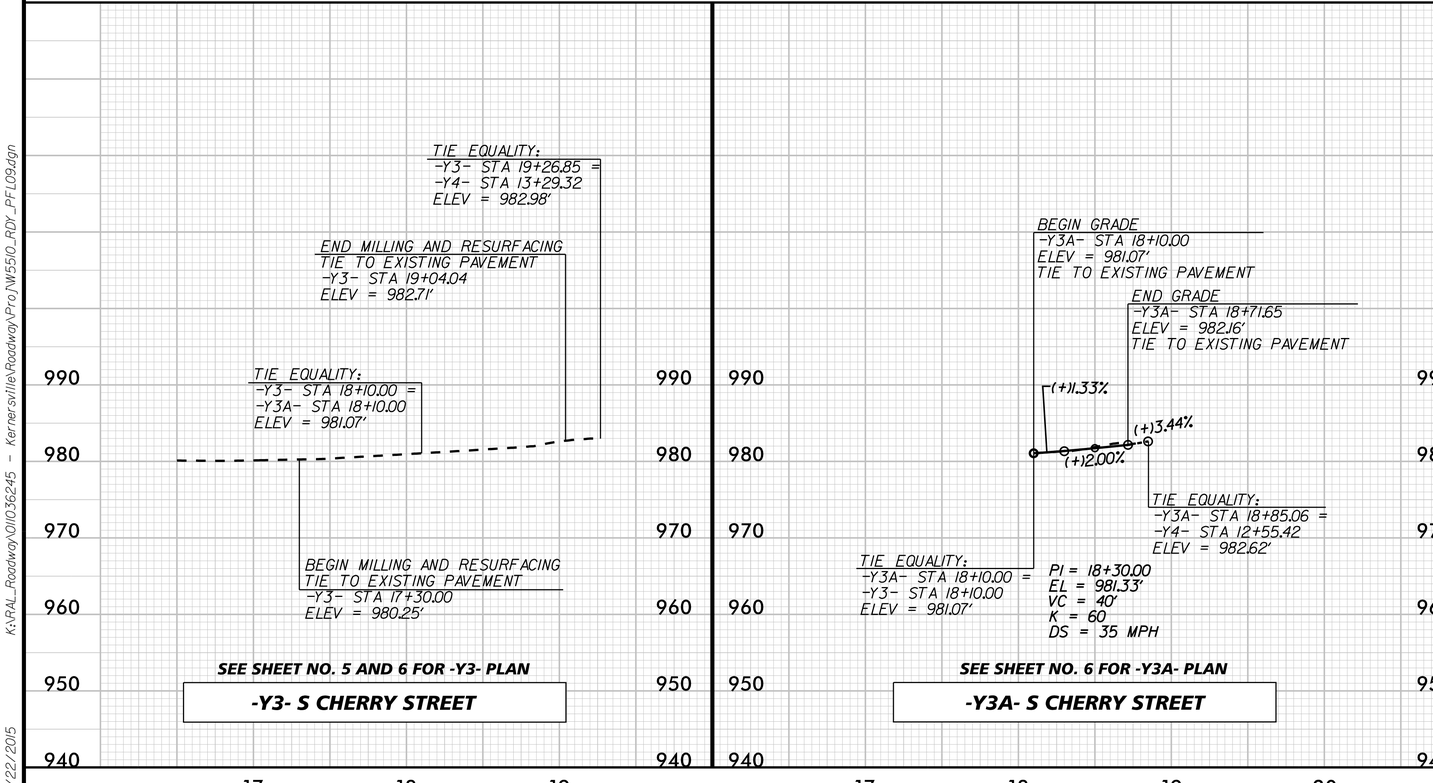


SEE SHEET NO. 5 FOR -Y2- PLAN

-Y2-

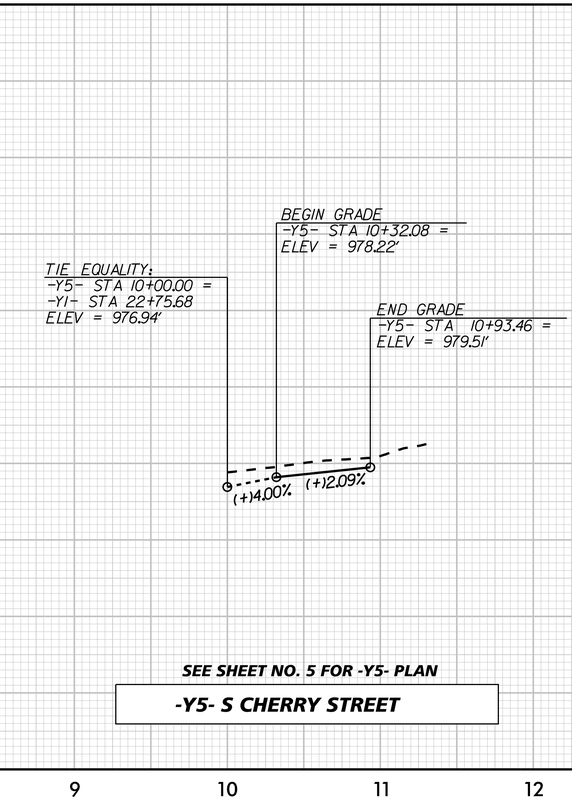


SEE SHEET NO. 5 AND 6 FOR -Y3- PLAN

-Y3- S CHERRY STREET

SEE SHEET NO. 6 FOR -Y3A- PLAN

-Y3A- S CHERRY STREET



SEE SHEET NO. 5 FOR -Y5- PLAN

-Y5- S CHERRY STREET

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W-5510	10

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TIE EQUALITY:
-Y4- STA 10+00.00 =
-L- STA 27+93.71
ELEV = 982.45'

BEGIN MILLING AND RESURFACING
-Y4- STA 10+77.09
ELEV = 982.92'
TIE TO EXISTING PAVEMENT

TIE EQUALITY:
-Y4- STA 12+55.42 =
-Y3A- STA 18+85.06
ELEV = 982.62'

TIE EQUALITY:
-Y4- STA 13+29.32 =
-Y3- STA 19+26.85
ELEV = 982.98'

END MILLING AND RESURFACING
-Y4- STA 15+90.00
ELEV = 984.16'
TIE TO EXISTING PAVEMENT

990 980 970 960 950 940

10 11 12 13 14 15 16

SEE SHEET NO. 5 AND 6 FOR -Y4- PLAN

-Y4- SR 4278 (S CHERRY STREET)

BEGIN GRADE
-R1- STA 10+00.00 =
-Y1- STA 18+50.70 (24' RT)
ELEV = 974.06'

END GRADE
-R1- STA 11+44.62 =
-Y2- STA 13+61.97 (16' RT)
ELEV = 970.20'

PI = 11+00.00
EL = 972.76'
VC = 40'
K = 19
DS = 25 MPH

(-)11.30%

(-)13.50%

980 970 960 950 940 930

10 11

SEE SHEET NO. 5 FOR -R1- PLAN

-R1- SLIP RAMP

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PROJECT REFERENCE NO.	SHEET NO.
W-5510	11

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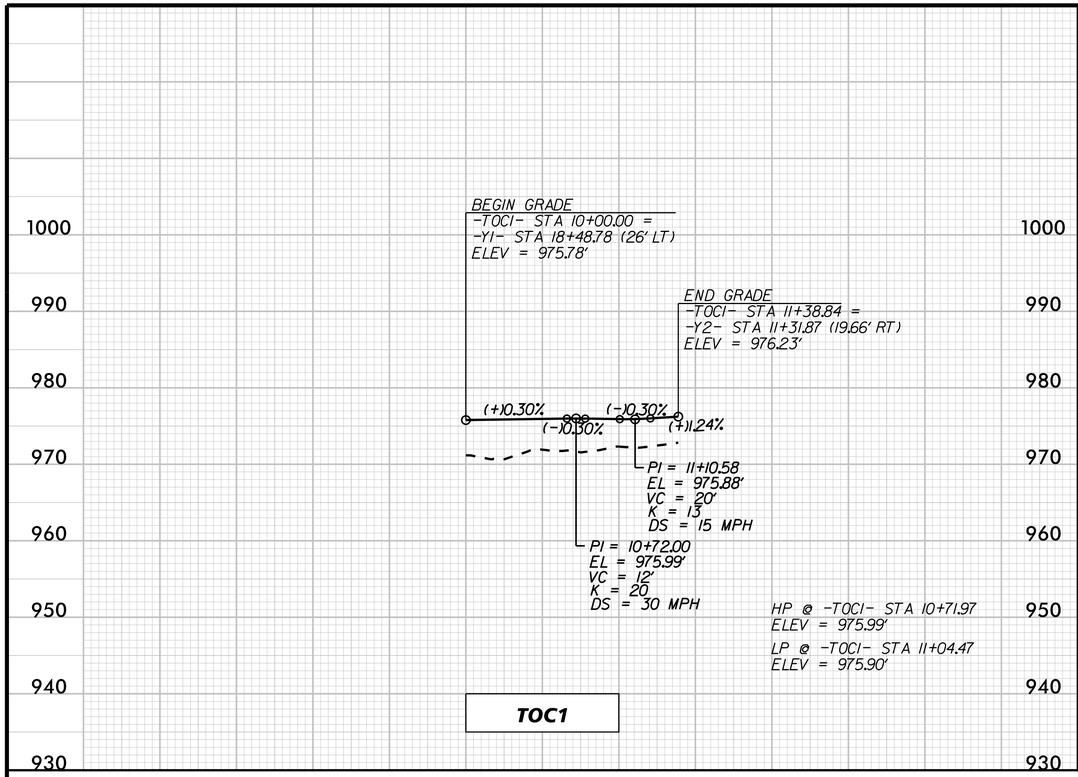

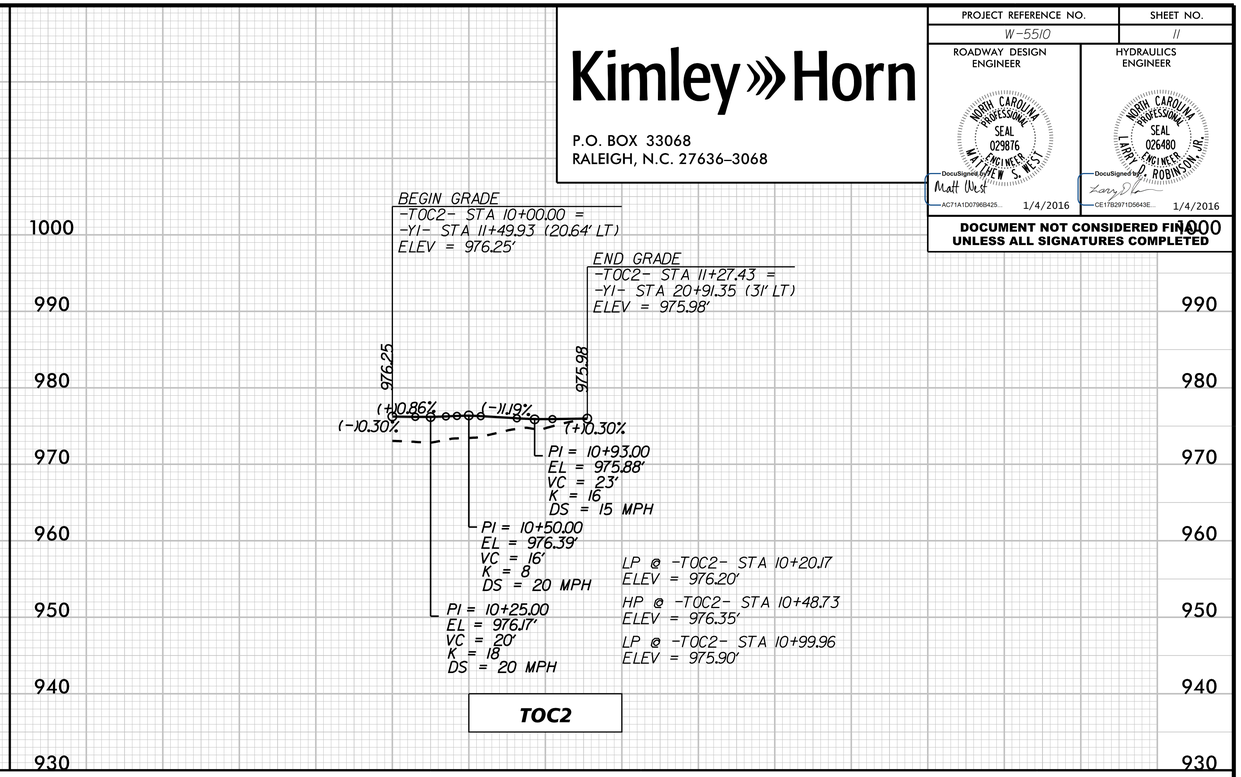

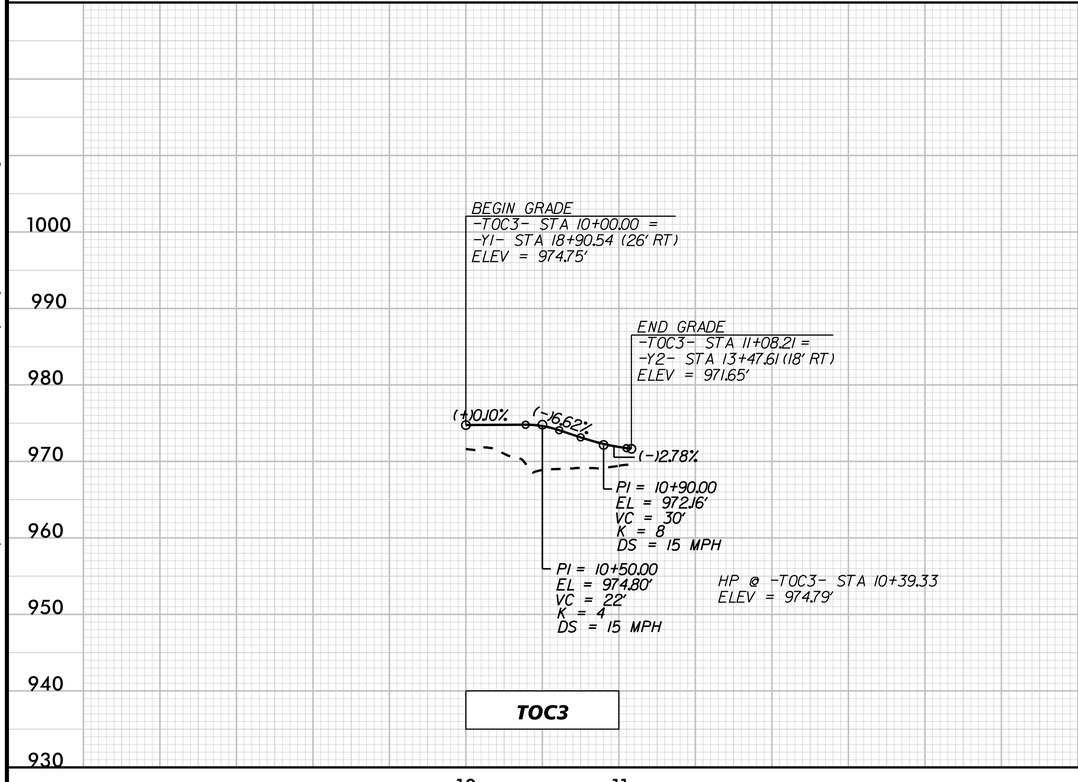

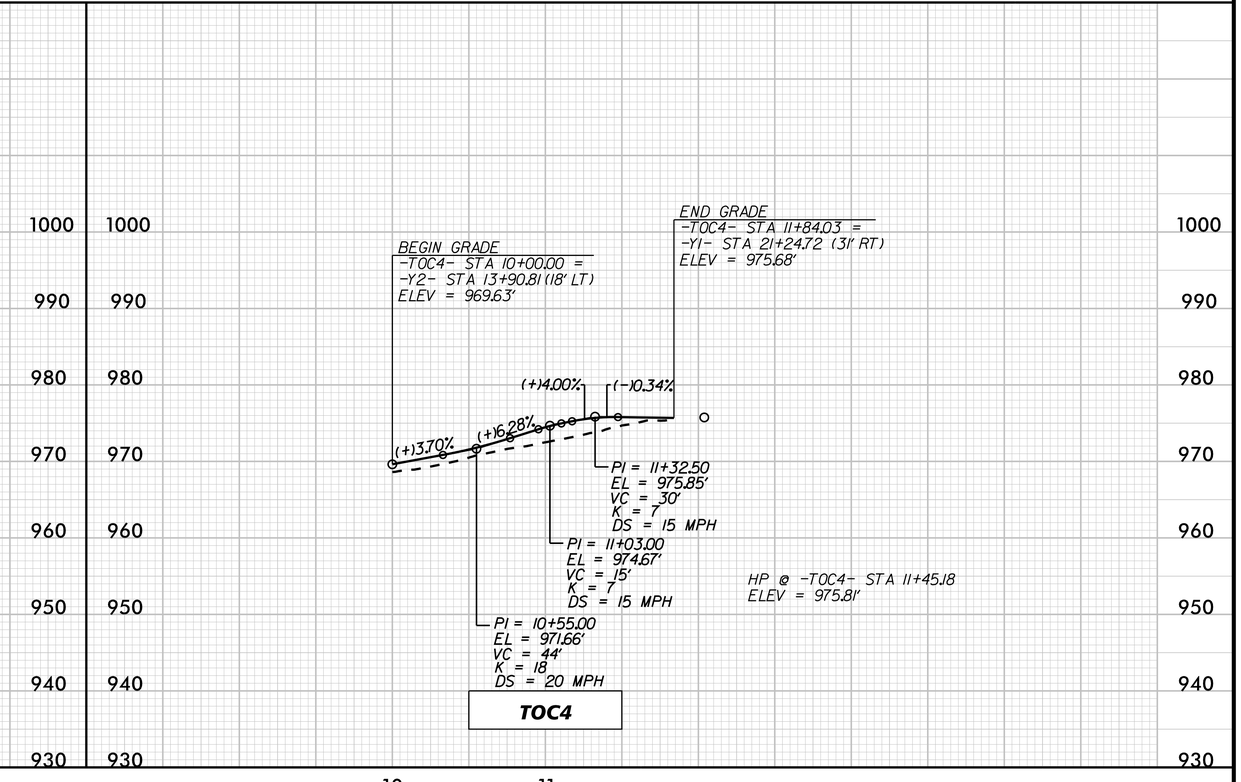

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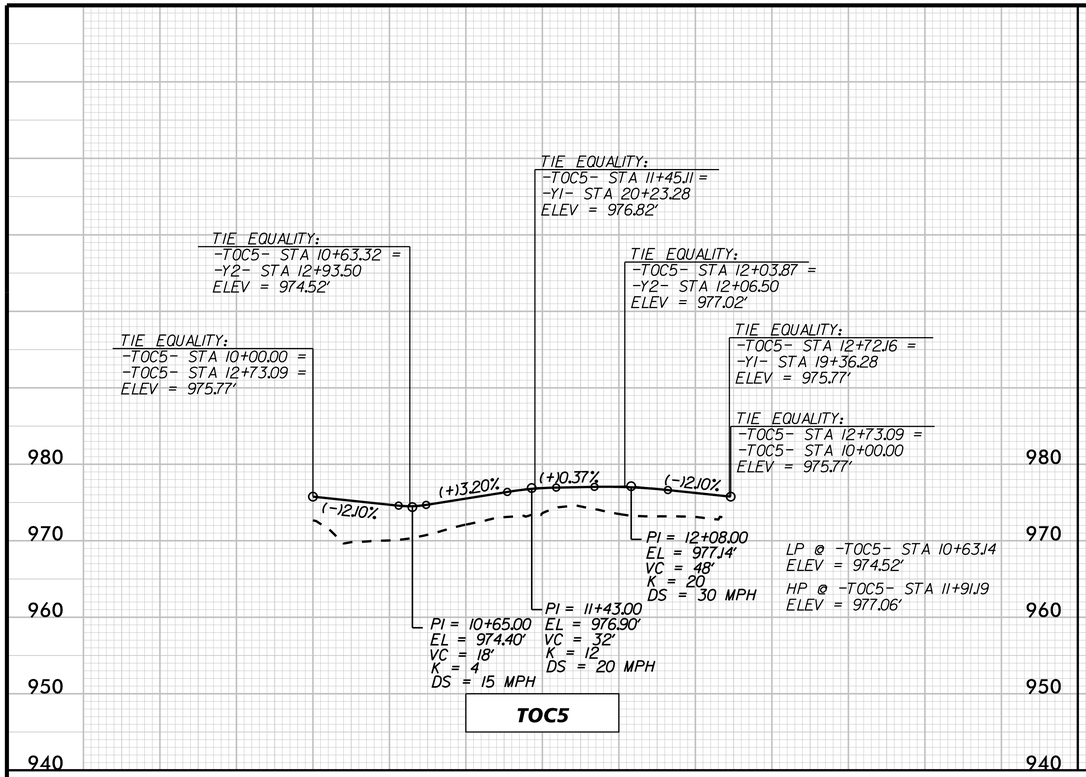

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PROJECT REFERENCE NO.	SHEET NO.
W-5510	12

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