

PROJECT: WBS 37449 CONTRACT: C201913

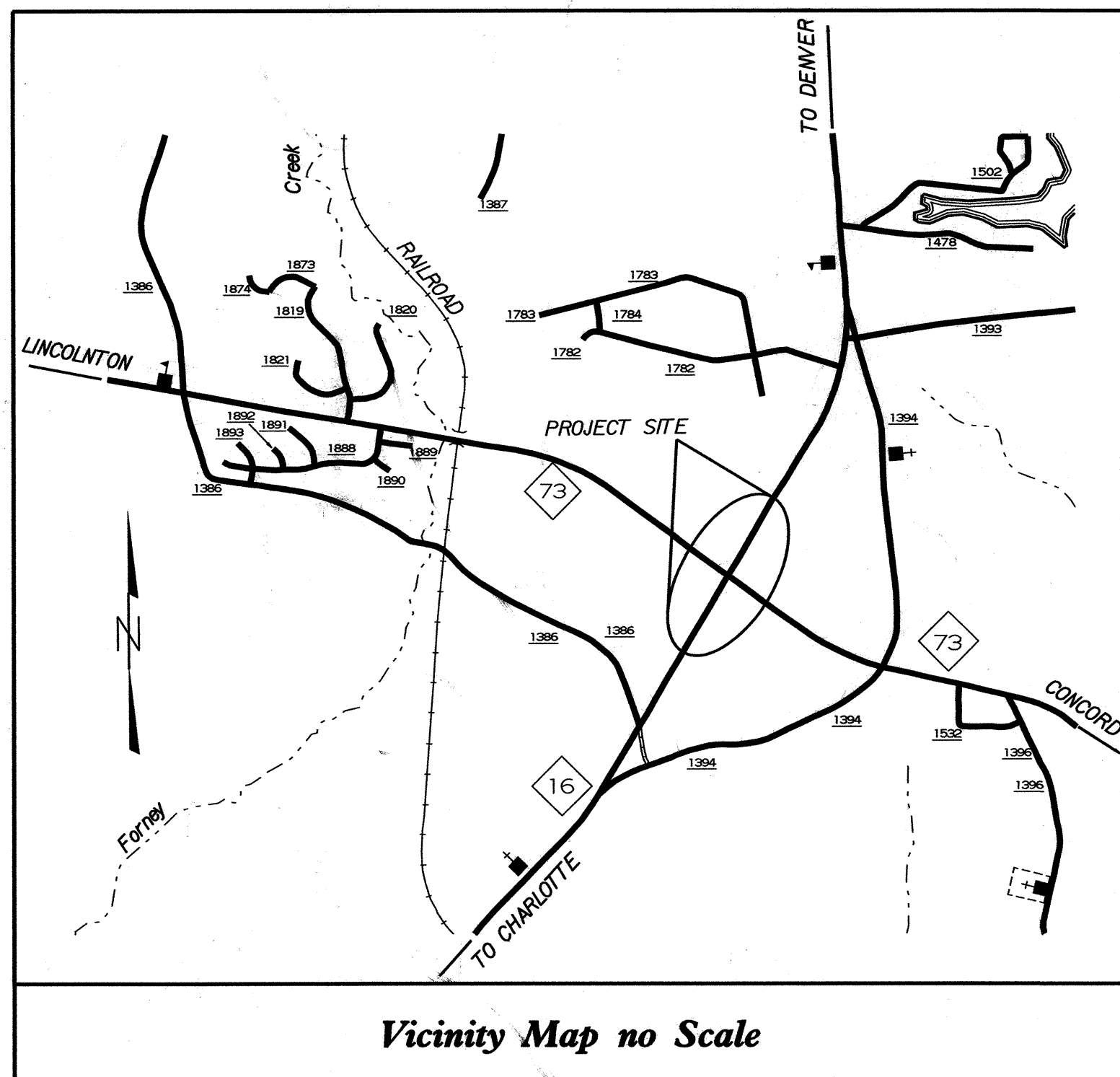
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	WBS 37449	1	6

LINCOLN COUNTY

LOCATION: INTERSECTION OF NC73 AND NC16

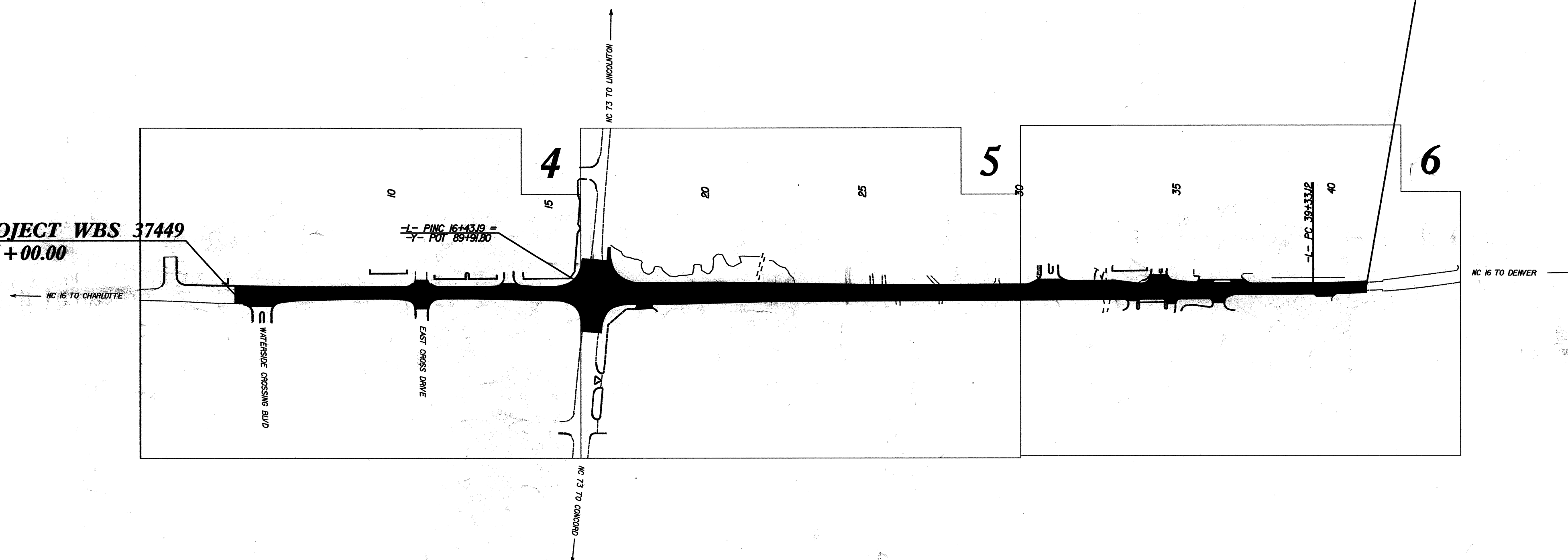
TYPE OF WORK: WIDENING, PAVING, CURB AND GUTTER, DRAINAGE, RETAINING WALL AND CULVERT EXTENSION.



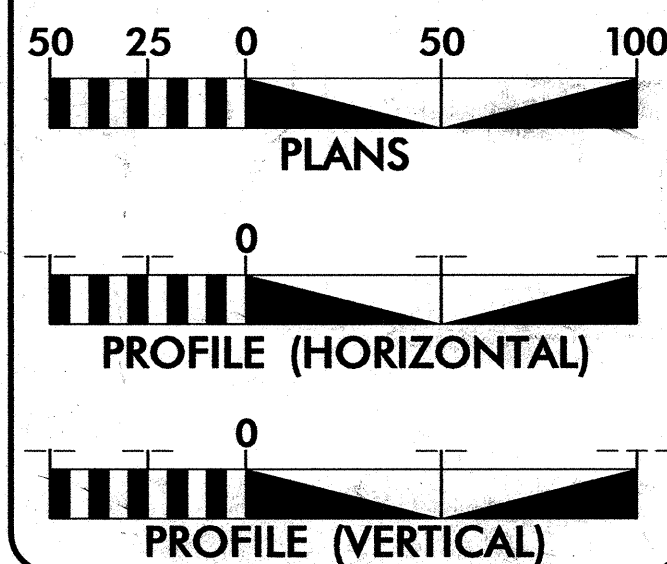
Vicinity Map no Scale

END STATE PROJECT WBS 37449
-L- POC 41+00.00

BEGIN STATE PROJECT WBS 37449
-L- POT 5+00.00



GRAPHIC SCALES



DESIGN DATA

ADT 2007 = 26650
ADT 2027 = 32550
DHV = 10 %
D = 56 %
T = 09 % *
V = 45 MPH
* TTST 5% DUAL 4%

PROJECT LENGTH

LENGTH ROADWAY STATE PROJECT WBS 37449 = 0.68 MILES
TOTAL LENGTH STATE PROJECT WBS 37449 = 0.68 MILES

Prepared In the Office of:

DIVISION 12 DDC

1710 EAST MARION ST., SHELBY, NC, 28152

2006 STANDARD SPECIFICATIONS

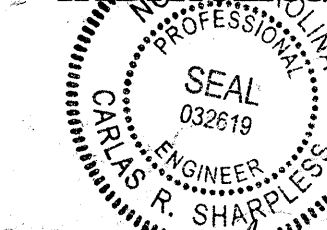
RIGHT OF WAY DATE:
February 16, 2007

LETTING DATE:
December 18, 2007

MARK STAFFORD, PE
DIVISION OPERATIONS ENGINEER

R.E. HUMPHRIES, PLS
DIVISION DESIGN / CONSTRUCT ENGINEER

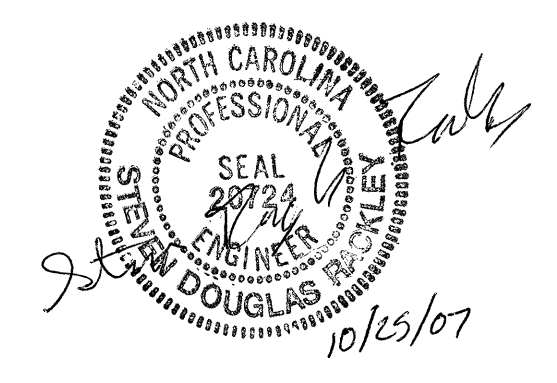
HYDRAULICS ENGINEER



Signature: *Carlos R. Sharpless P.E.*
10/30/07
Professional Engineer
SEAL 20724
STEVEN DOUGLAS PRICHLI
ENGINEER
Signature: *Steven Douglas PricHLI P.E.*
10/17/07

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

M.L. HOLDER P.E.
DIVISION ENGINEER



SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
2-A	ANCHORAGE FOR FRAMES DETAIL
3	SUMMARY OF QUANTITIES
3-A THRU 3-D	SUMMARY OF DRAINAGE QUANTITIES SUMMARY OF GUARDRAIL, EARTHWORK SUMMARY RIGHT OF WAY SUMMARY
4 THRU 6	PLAN SHEETS
TCP-1 THRU TCP- 6	TRAFFIC CONTROL PLANS
PM-1 THRU PM- 3	PAVEMENT MARKING PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
X-SUMMARY	CROSS-SECTIONS SUMMARY
X-1 THRU X- 18	CROSS-SECTIONS
C-1 THRU C- 4	CULVERT PLANS
W-1 THRU W- 2	GRAVITY RETAINING WALL PLANS

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED: 07-18-06

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

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 3' 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.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

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 PIEDMONT NATURAL GAS
WCP TRANSCO, DUKE ENERGY, BELL SOUTH AND CHARTER COMMUNICATIONS
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

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

2006 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 07-18-06
REV. 01-02-07

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 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 Superlevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation - Method 'A'
300.02	Method of Pipe Installation - Method 'B'
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
840.00	Concrete Base Pad for Drainage Structures
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
840.45	Precast Drainage Structure
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Wheelchair Ramp - Curb Cut
852.01	Concrete Islands
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets

3/15/06

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ EDM
Parcel/Sequence Number	⑩ 123
Existing Fence Line	---x---x---x---
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

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or UG Tank Cap	○
Sign	○
Well	○
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	□

HYDROLOGY:

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

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Utility Easement	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Wheel Chair Ramp	-----
Proposed Wheel Chair Ramp Curb Cut	-----
Curb Cut for Future Wheel Chair Ramp	-----
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	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	-----
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	-----
Proposed Power Pole	-----
Existing Joint Use Pole	-----
Proposed Joint Use Pole	-----
Power Manhole	-----
Power Line Tower	-----
Power Transformer	-----
UG Power Cable Hand Hole	-----
H-Frame Pole	-----
Recorded UG Power Line	-----
Designated UG Power Line (S.U.E.*)	-----

TELEPHONE:

Existing Telephone Pole	-----
Proposed Telephone Pole	-----
Telephone Manhole	-----
Telephone Booth	-----
Telephone Pedestal	-----
Telephone Cell Tower	-----
UG Telephone Cable Hand Hole	-----
Recorded UG Telephone Cable	-----
Designated UG Telephone Cable (S.U.E.*)	-----
Recorded UG Telephone Conduit	-----
Designated UG Telephone Conduit (S.U.E.*)	-----
Recorded UG Fiber Optics Cable	-----
Designated UG Fiber Optics Cable (S.U.E.*)	-----

WATER:

Water Manhole	-----
Water Meter	-----
Water Valve	-----
Water Hydrant	-----
Recorded UG Water Line	-----
Designated UG Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

TV:

TV Satellite Dish	-----
TV Pedestal	-----
TV Tower	-----
UG TV Cable Hand Hole	-----
Recorded UG TV Cable	-----
Designated UG TV Cable (S.U.E.*)	-----
Recorded UG Fiber Optic Cable	-----
Designated UG Fiber Optic Cable (S.U.E.*)	-----

GAS:

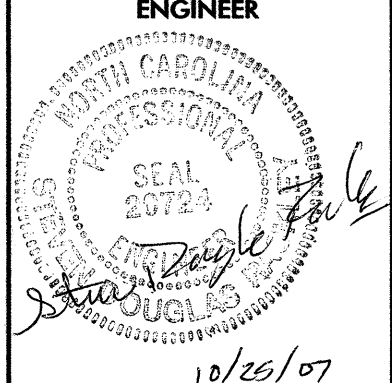
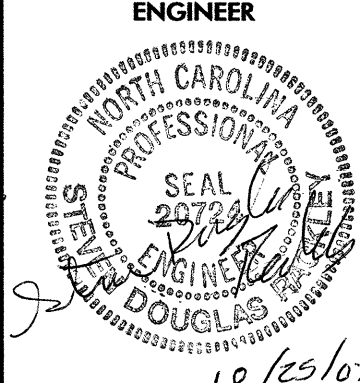
Gas Valve	-----
Gas Meter	-----
Recorded UG Gas Line	-----
Designated UG Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

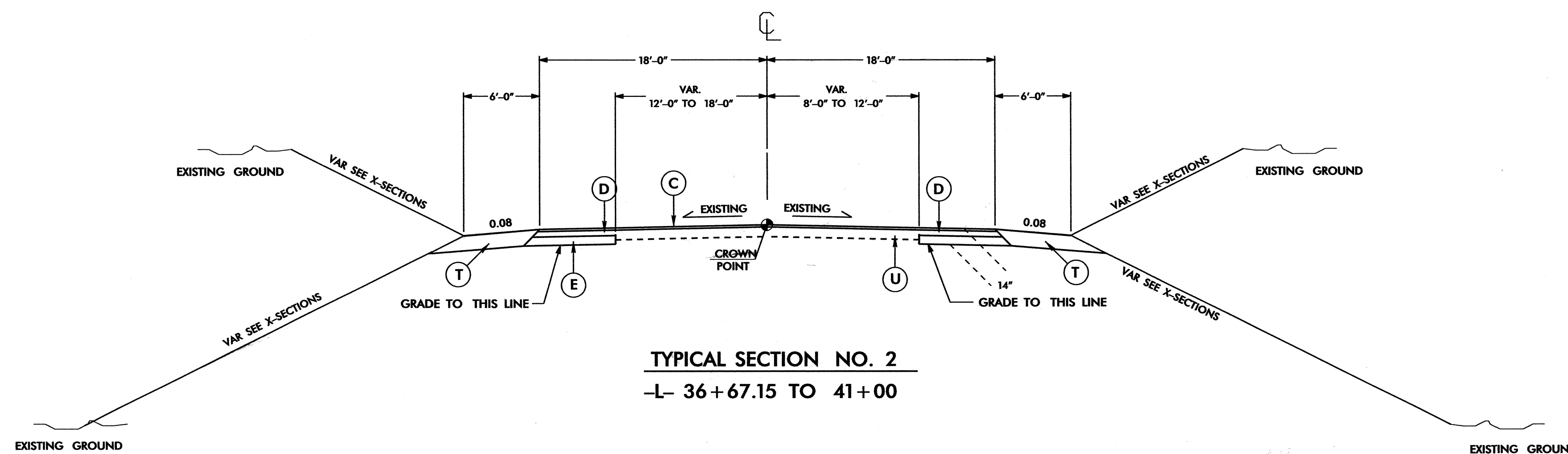
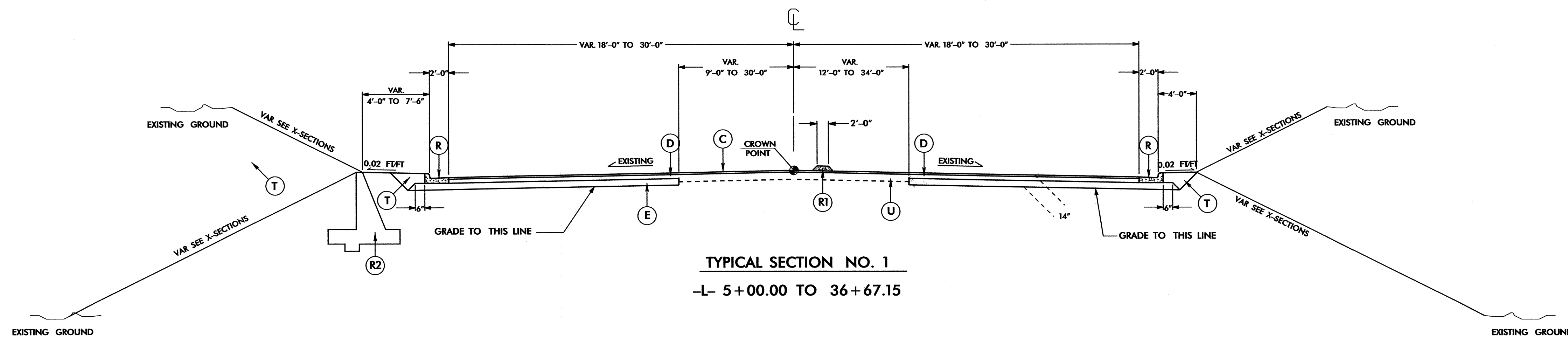
SANITARY SEWER:

Sanitary Sewer Manhole	-----
Sanitary Sewer Cleanout	-----
UG Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	-----
Utility Pole with Base	-----
Utility Located Object	-----
Utility Traffic Signal Box	-----
Utility Unknown UG Line	-----
UG Tank; Water, Gas, Oil	-----
A/G Tank; Water, Gas, Oil	-----
UG Test Hole (S.U.E.*)	-----
Abandoned According to Utility Records	-----
End of Information	-----

PROJECT REFERENCE NO. WBS 37449	SHEET NO. 2
RW SHEET NO. 2	
ROADWAY DESIGN ENGINEER 	PAVEMENT DESIGN ENGINEER 
10/25/07	10/25/07



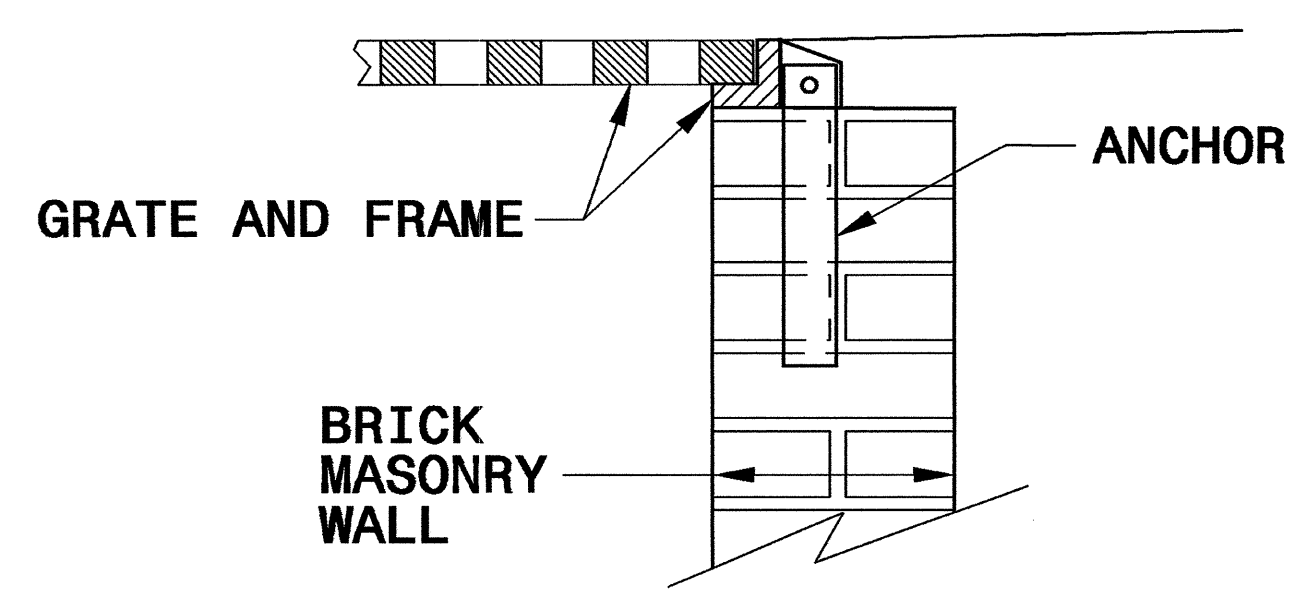
PAVEMENT SCHEDULE	
C	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S12.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
D	PROP. APPROX. 5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD., IN EACH OF 2 LIFTS
E	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
R	2'-6" CONCRETE CURB AND GUTTER.
R1	5" MONOLITHIC CONCRETE ISLAND (KEYED IN) -L- 17+38.64 TO 19+27.14
R2	GRAVITY RETAINING WALL -L- LT 17+50 TO 20+00
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE STATED

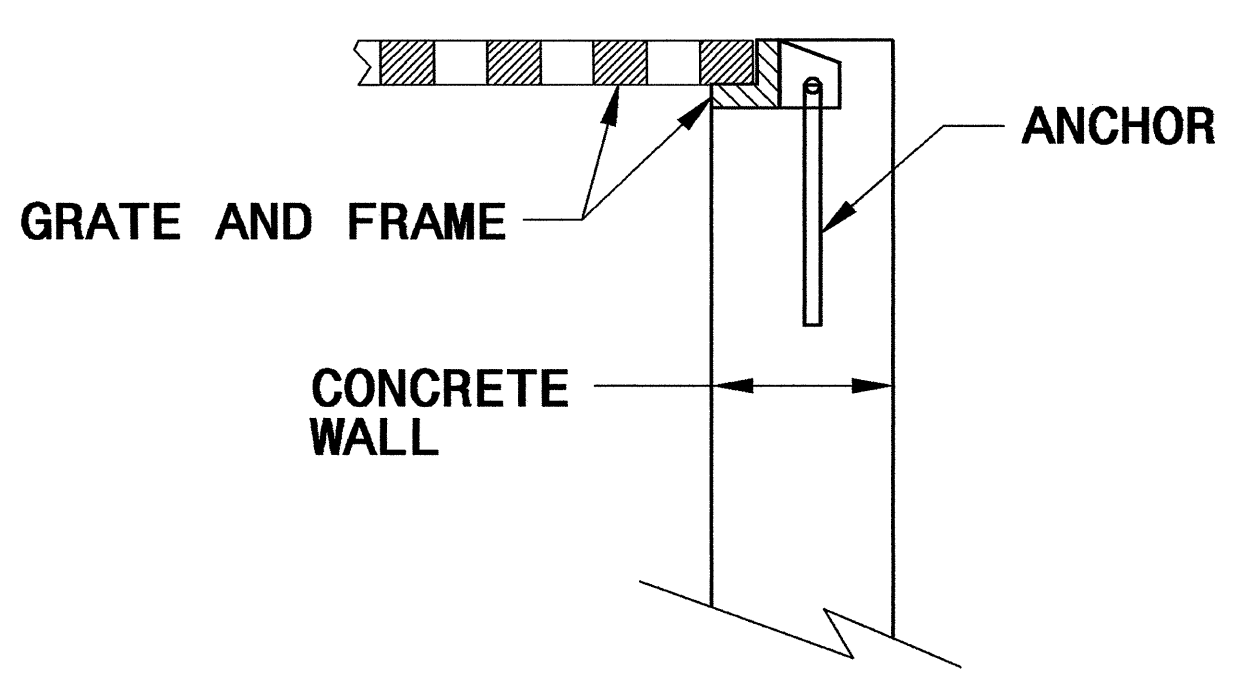
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

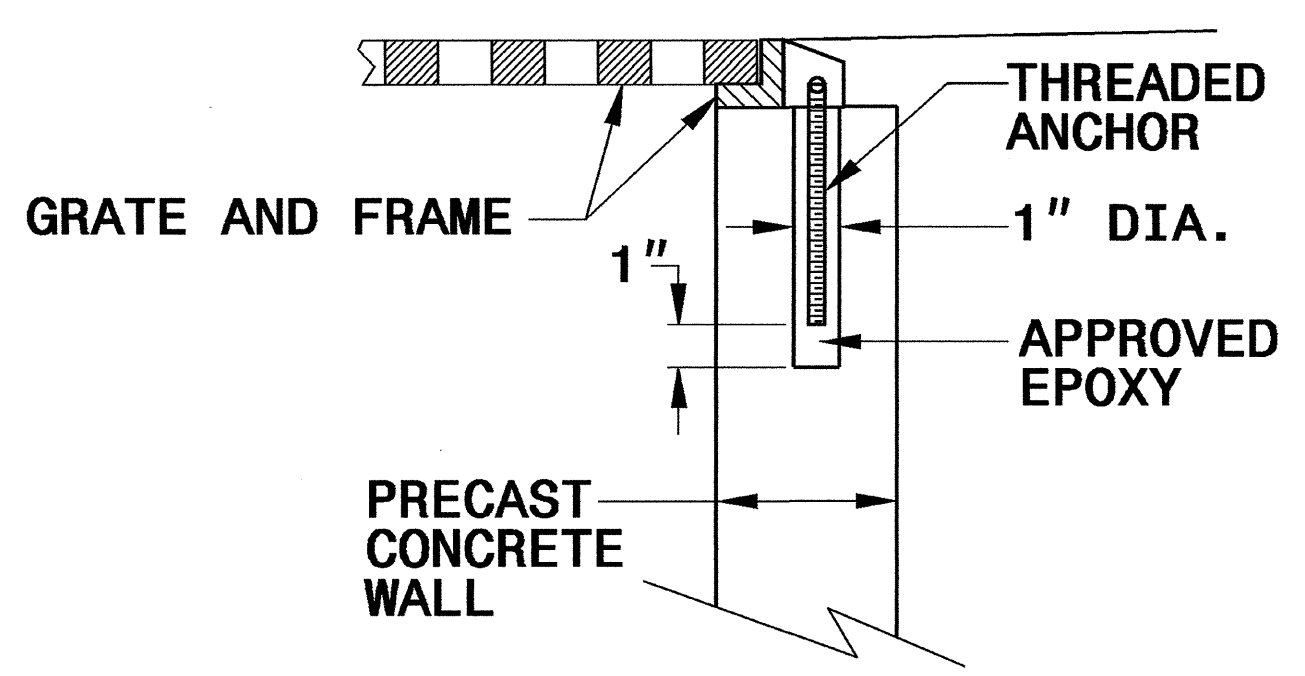
SHEET 1 OF 1
840D25



**BRICK MASONRY
CONSTRUCTION**



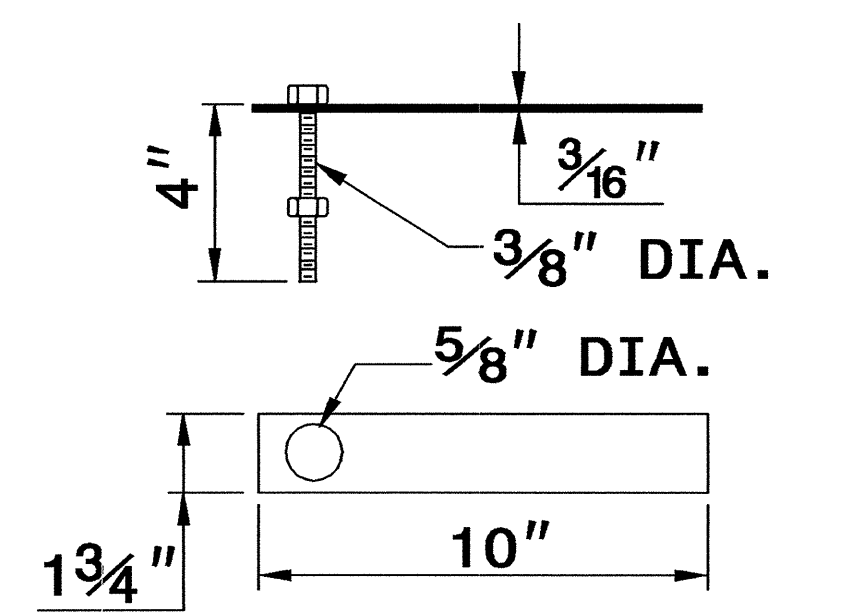
**CONCRETE
CONSTRUCTION**



**PRECAST CONCRETE
CONSTRUCTION**

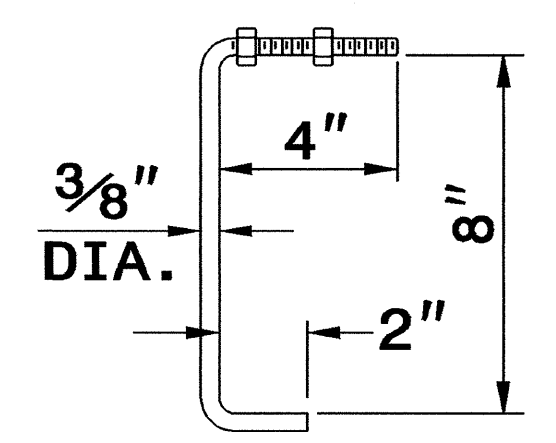
**DETAIL SHOWING ANCHORAGE OF
FRAME FOR GRATED DROP INLET**

NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL
OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



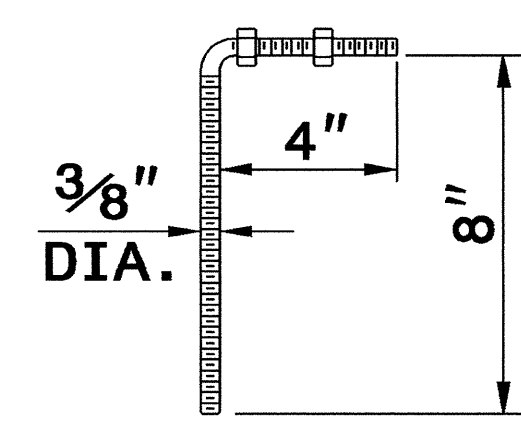
MASONRY ANCHOR

3/8" DIA. BOLT WITH PLATE



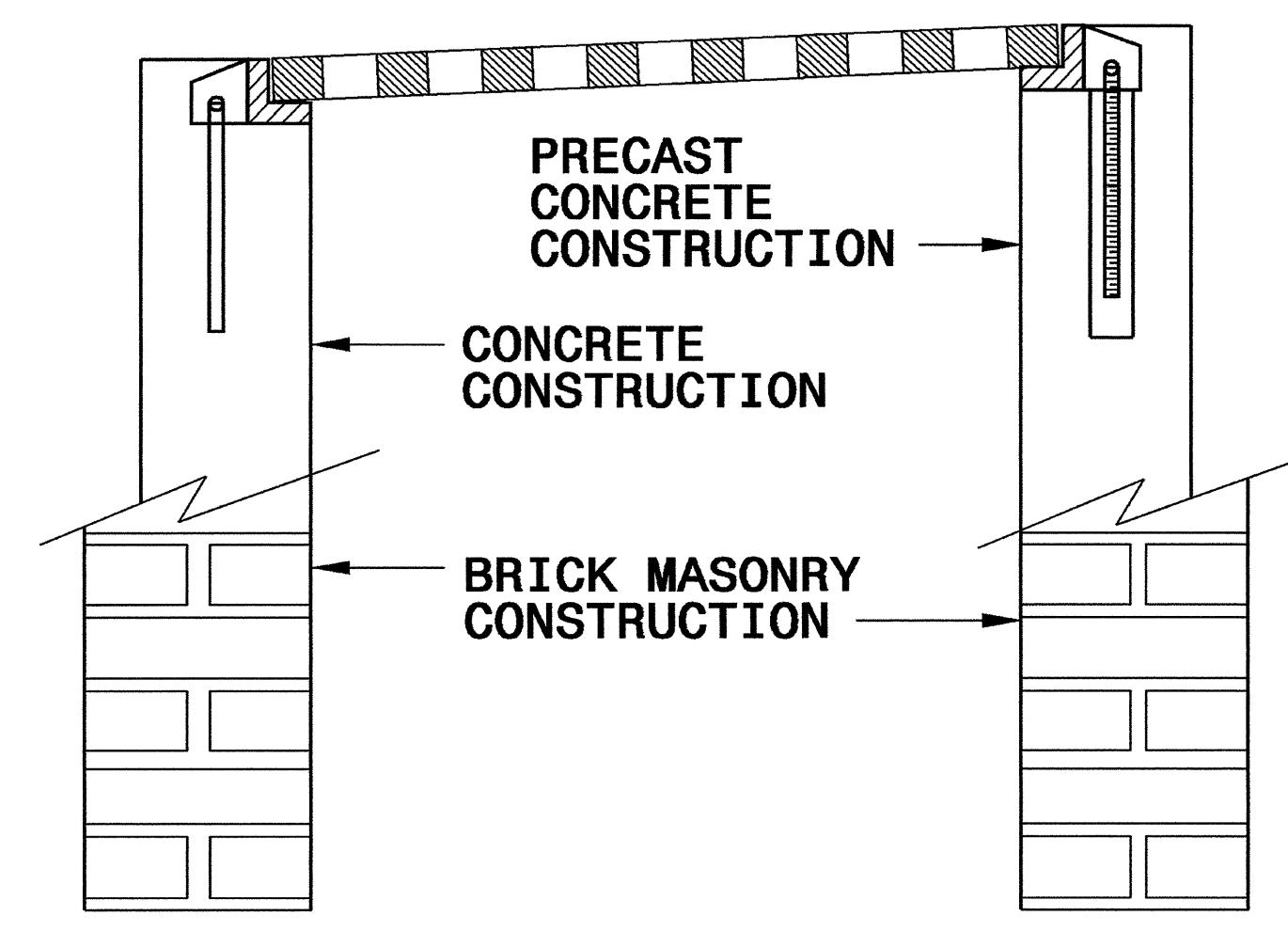
CONCRETE ANCHOR

3/8" DIA. BENT BAR



**PRECAST
CONCRETE ANCHOR**

3/8" DIA. BENT BAR

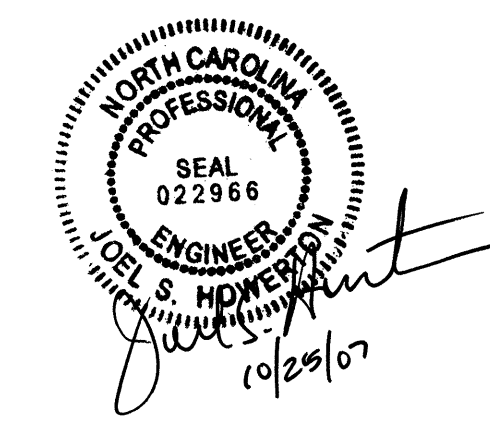


**FRAME AND GRATE INSTALLATION
FOR NORMAL CROWN AND
SUPERELEVATED SECTIONS**

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

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1
840D25



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

SEE PLATE FOR TITLE

ORIGINAL BY: 2006 STD 840.25 DATE: 07/18/06
 MODIFIED BY: E.E. WARD DATE: 9/25/06
 CHECKED BY: DATE: _____
 FILE SPEC.: _____

S:\SEP-2006\0865\Projects\Special Details\review\dstds\06\Std to Special Detail\Anchor\06\Std to Special Detail\Anchor.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201913

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING
0043000000-N	226	Lump Sum		GRADING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
0134000000-E	240	40	CY	DRAINAGE DITCH EXCAVATION
0318000000-E	300	250	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
0343000000-E	310	72	LF	15" SIDE DRAIN PIPE
0366000000-E	310	504	LF	15" RC PIPE CULVERTS, CLASS III
0372000000-E	310	224	LF	18" RC PIPE CULVERTS, CLASS III
0378000000-E	310	492	LF	24" RC PIPE CULVERTS, CLASS III
0708000000-E	310	48	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0720000000-E	310	16	LF	24" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0806000000-E	310	4	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
0808000000-E	310	2	EA	24" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
0995000000-E	340	288	LF	PIPE REMOVAL
1489000000-E	610	2,287	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1503000000-E	610	1,634	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE 119.0C
1539000000-E	610	2,650	TON	ASPHALT CONC SURFACE COURSE, TYPE S12.5C
1560000000-E	620	180	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
1565000000-E	620	150	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
1693000000-E	654	40	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
1704000000-E	SP	100	TON	PATCHING EXISTING PAVEMENT
2000000000-N	806	11	EA	RIGHT OF WAY MARKERS

ItemNumber	Sec #	Quantity	Unit	Description
2253000000-E	840	0.4	CY	PIPE COLLARS
2286000000-N	840	37	EA	MASONRY DRAINAGE STRUCTURES
2308000000-E	840	14	LF	MASONRY DRAINAGE STRUCTURES
2364000000-N	840	7	EA	FRAME WITH TWO GRATES, STD 840.16
2374000000-N	840	5	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)
2374000000-N	840	9	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)
2374000000-N	840	16	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)
2549000000-E	846	5,230	LF	2'-6" CONCRETE CURB & GUTTER
2612000000-E	848	70	SY	6" CONCRETE DRIVEWAY
2655000000-E	852	170	SY	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)
3030000000-E	862	212.5	LF	STEEL BM GUARDRAIL
3045000000-E	862	162.5	LF	STEEL BM GUARDRAIL, SHOP CURVED
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3195000000-N	862	1	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
3270000000-N	SP	1	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3628000000-E	876	40	TON	RIP RAP, CLASS 1
3649000000-E	876	20	TON	RIP RAP, CLASS B
3656000000-E	876	85	SY	FILTER FABRIC FOR DRAINAGE
4400000000-E	1110	144	SF	WORK ZONE SIGNS (STATIONARY)
4405000000-E	1110	96	SF	WORK ZONE SIGNS (PORTABLE)
4415000000-N	1115	2	EA	FLASHING ARROW PANELS, TYPE C
4420000000-N	1120	2	EA	CHANGEABLE MESSAGE SIGN
4430000000-N	1130	280	EA	DRUMS
4435000000-N	1135	50	EA	CONES

ItemNumber	Sec #	Quantity	Unit	Description
4455000000-N	1150	120	MD	FLAGGER
4465000000-N	1160	4	EA	TEMPORARY CRASH CUSHIONS
4480000000-N	1165	1	EA	TMIA
4485000000-E	1170	1,215	LF	PORTABLE CONCRETE BARRIER
4510000000-N	SP	132	HR	POLICE
4516000000-N	1180	280	EA	SKINNY DRUM
4650000000-N	1251	245	EA	TEMPORARY RAISED PAVEMENT MARKERS
4685000000-E	1205	1,608	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
4686000000-E	1205	10,121	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
4695000000-E	1205	204	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)
4710000000-E	1205	150	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
4721000000-E	1205	8	EA	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)
4725000000-E	1205	41	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)
4810000000-E	1205	15,713	LF	PAINT PAVEMENT MARKING LINES (4")
4835000000-E	1205	160	LF	PAINT PAVEMENT MARKING LINES (24")
4845000000-N	1205	8	EA	PAINT PAVEMENT MARKING SYMBOL
4905000000-N	1253	204	EA	SNOWPLOWABLE PAVEMENT MARKERS
5255000000-N	1413	Lump Sum		PORTABLE LIGHTING
6000000000-E	1605	4,375	LF	TEMPORARY SILT FENCE
6009000000-E	1610	100	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	50	TON	SEDIMENT CONTROL STONE
6042000000-E	1632	1,000	LF	1/4" HARDWARE CLOTH
6084000000-E	1660	3.2	ACR	SEEDING & MULCHING
6111000000-E	SP	100	LF	IMPERVIOUS DIKE
8126000000-N	414	Lump Sum		CULVERT EXCAVATION, STA ***** (22+94.00-L-)
8133000000-E	414	15	TON	FOUNDATION CONDITIONING MATERIAL, BOX CULVERT
8196000000-E	420	32.4	CY	CLASS A CONCRETE (CULVERT)
8245000000-E	425	3,076	LB	REINFORCING STEEL (CULVERT)
8436000000-E	453	1,825	SF	GRAVITY RETAINING WALLS

***** BEGIN SCHEDULE AA *****				
***** (3 ALTERNATES) *****				
0384000000-E	310	980	LF	30" RC PIPE CULVERTS, CLASS III
AA1				
*** OR ***				
0384000000-E	310	500	LF	30" RC PIPE CULVERTS, CLASS III
AA2				
0536000000-E	SP	480	LF	*** HDPE PIPE CULVERTS (30")
AA2				
*** OR ***				
0384000000-E	310	500	LF	30" RC PIPE CULVERTS, CLASS III
AA3				
0540000000-E	SP	480	LF	*** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (30", 0.079")
AA3				
***** END SCHEDULE AA *****				

5/28/99

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RD222226

COMPUTED BY: BKS DATE: 09/27/07
 CHECKED BY: REH DATE: 09/28/07

PROJECT NO. WBS 37449 SHEET NO. 3-A

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-	5+00 - 41+00	2056	5735	3679	0
SUBTOTALS:		2056	5735	3679	0
Estimated Loss Due to Clearing		-103		103	
Shoulder Material			198	198	
Est. Replace soil in Borrow Pit				194	
SUBTOTALS:		1953	5933	4174	0
PROJECT TOTALS:		1953	5933	4174	0
PROJECT TOTALS:		1953	5933	4174	0
GRAND TOTALS:					
SAY:		1973	5993	4216	0

Approximate quantities only. Unclassified excavation, borrow excavation, shoulder borrow, fine grading, and clearing and grubbing will be paid for at the lump sum price for "Grading".

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
 W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
 G = GATING IMPACT ATTENUATOR TYPE 350
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

LINE	BEG. STA.	END STA.	LOC.	LENGTH			WARRANT POINT		"N" DIST FROM E.O.L.	TOTAL SHLDR WIDTH	FLAIR LENGTH		W		ANCHORS						IMP. ATTN. TYPE 350			REMOVE EXISTING GRDRAIL	REMARKS				
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPR. END	TRAIL. END			APPR. END	TRAIL. END	APPR. END	TRAIL. END	XI MOD	XI	GRAU 350	M-350	XII	AT-1	VI MOD	EA	G			NG			
L	16+94.10	20+50.00	LT	212.5	162.5		20+00	17+50	2	N/A			1																
TOTAL				212.5	162.5																								

ADDITIONAL GUARDRAIL POSTS: 5 EA.

5/14/99

PROJECT REFERENCE NO. WBS 37449	SHEET NO. 3-D
RW SHEET NO. 3	
ROADWAY DESIGN ENGINEER SEAL 20724 DOUGLAS RICKY	HYDRAULICS ENGINEER

RIGHT OF WAY AREA DATA

PARCEL NO.	PROPERTY OWNERS NAMES	TOTAL ACREAGE	AREA TAKEN	AREA REMAINING RT.	AREA REMAINING LT.	CONST. EASE.	PERM. DRAIN. EASE.	TEMP. DRAIN. EASE.
001	CN REID REAL ESTATE LIMITED PARTNERSHIP	1.03 (D)				369 SF	600 SF	
002	CAROMONT HEALTH SERVICES	6.83 (D)				8280 SF		
003	PEOPLES BANK	1.49 (D)				2945 SF	1544 SF	
004	TRIANGLE CROSSROADS LLC	6.12 (D)				615 SF		
005	K-BO INC	1.00 (D)				2350 SF	200 SF	
006	ROSALIE WADE FAMILY LIMITED PARTNERSHIP	1.53 (TM)	2266 SF		1.48	1479 SF		
007	WATERSIDE CROSSING MASTER ASSOCIATION INC.	0.84 (D)						
008	LARRY E. JONES	5.32 (D)	769 SF		5.30	2915 SF	499 SF	
009	GRIFFIN BROS ACQUISITIONS INC	1.67 (TM)				1372 SF		
010	STTR LIMITED PARTNERSHIP	37.50 (TM)				7495 SF	996 SF	
011	L.L. & DORIS KEEVER	1.30 (TM)	7906 SF		1.12			
012	CECIL M. DELLINGER JR	30.36 (TM)	15598 SF	30.00		3104 SF	1875 SF	
013	MICHAEL LEROY KEEVER	1.27 (TM)	5433 SF		1.15			
014	RIVERWALK APARTMENTS OF LINCOLN COUNTY LLC	13.10 (TM)						
015	TRIPLE S REAL ESTATE LLC	2.40 TM	2637 SF		2.34	1664 SF		
016	WATERSIDE PARTNERS LLC	1.25 (TM)				1539 SF		
017	NORMAN PLANTATION INC	8.30 (TM)						
018	LEGGETT ENTERPRISE LLC	1.13 (TM)				142 SF		
019	TURBYFILL TRUE VALUE HARDWARE	1.33 (TM)	6051 SF		1.18	4824 SF		
020	WESTLAKE CENTRE LLC	5.08 (TM)						
021	WESTLAKE INVESTORS INC	2.14 (TM)						

NOTE: ALL AREAS ARE IN ACRES UNLESS OTHERWISE NOTED

(TM) = ACREAGE TAKEN FROM TAX MAP

(D) = ACREAGE TAKEN FROM DEED

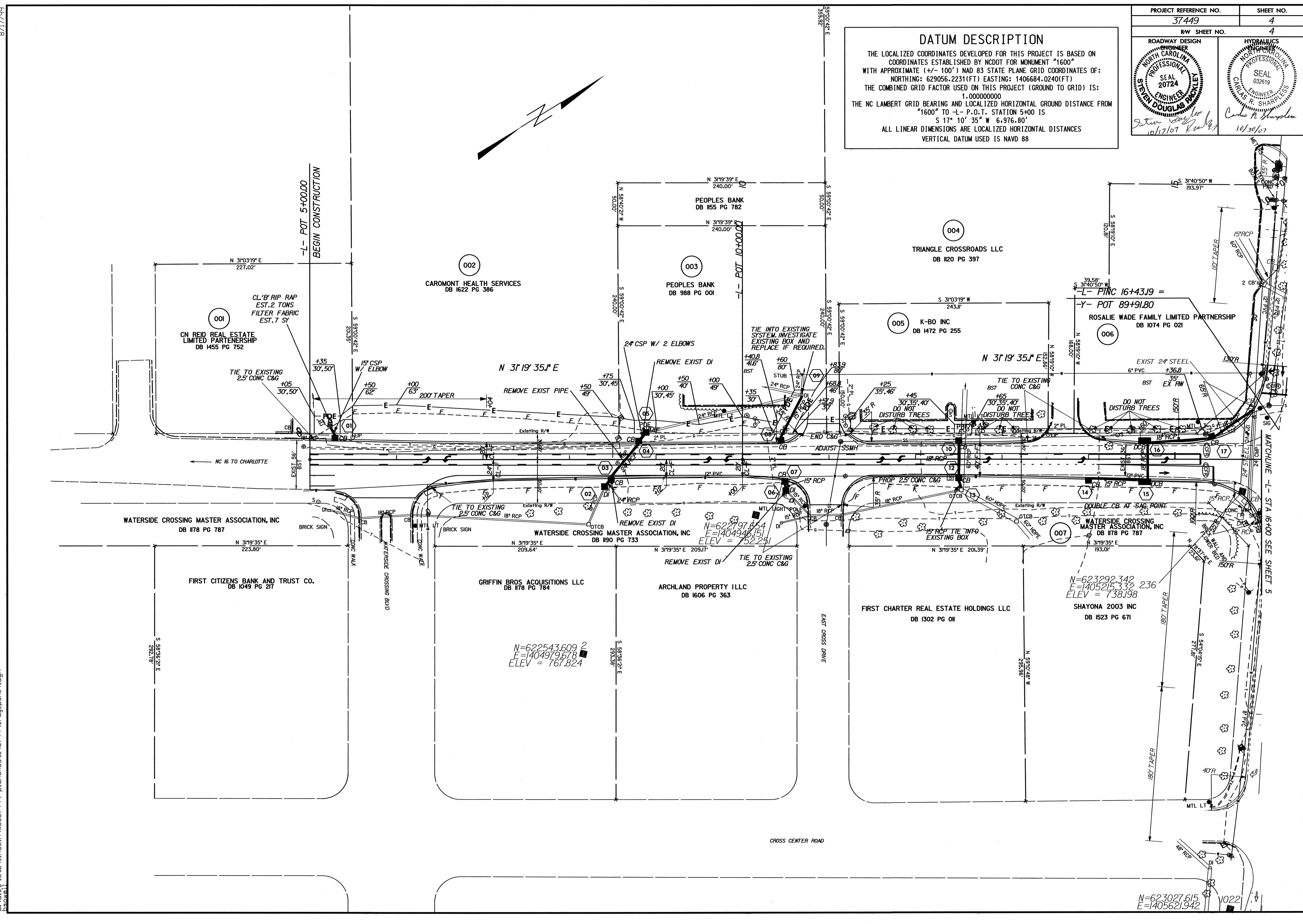
PROJECT REFERENCE NO.	SHEET NO.
37449	4
R/W SHEET NO.	4
ROADWAY DESIGN	HYDRAULICS
10/17/07	10/30/07

DATUM DESCRIPTION

THE LOCALIZED COORDINATES DEVELOPED FOR THIS PROJECT IS BASED ON COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "1600" WITH APPROXIMATE (+/- 100') NAD 83 STATE PLANE GRID COORDINATES OF: NORTING: 629056.2231(FT) EASTING: 1406684.0240(FT) THE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00000000

THE NC LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "1600" TO -L- P.O.T. STATION 5+00 IS
 S 17° 10' 35" W 6,976.80'

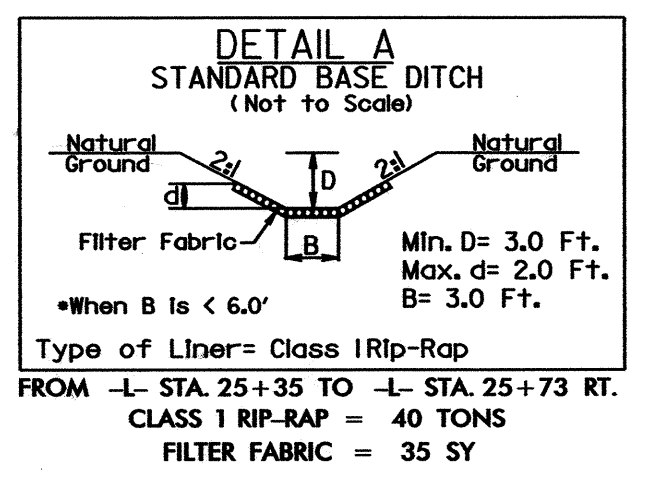
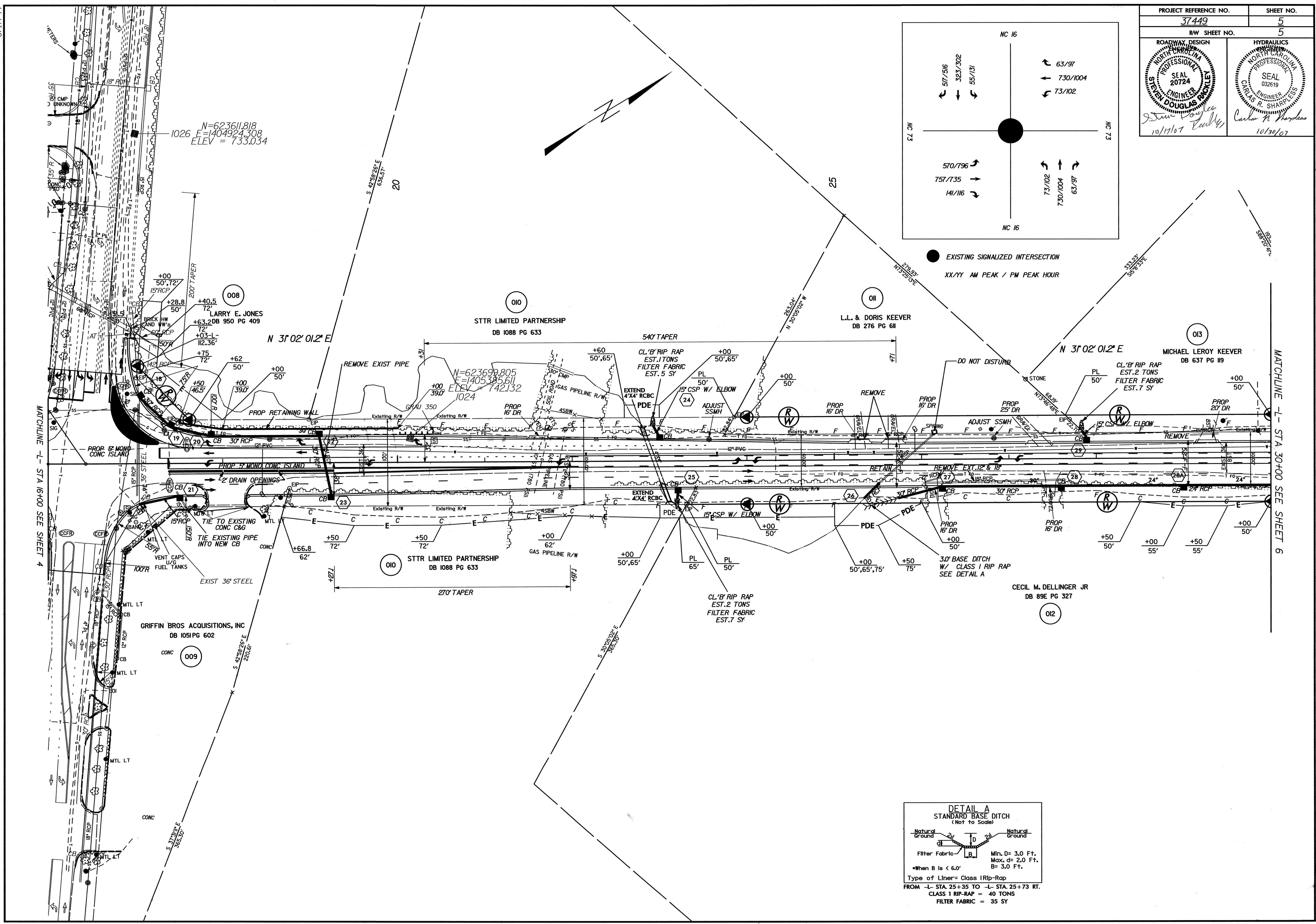
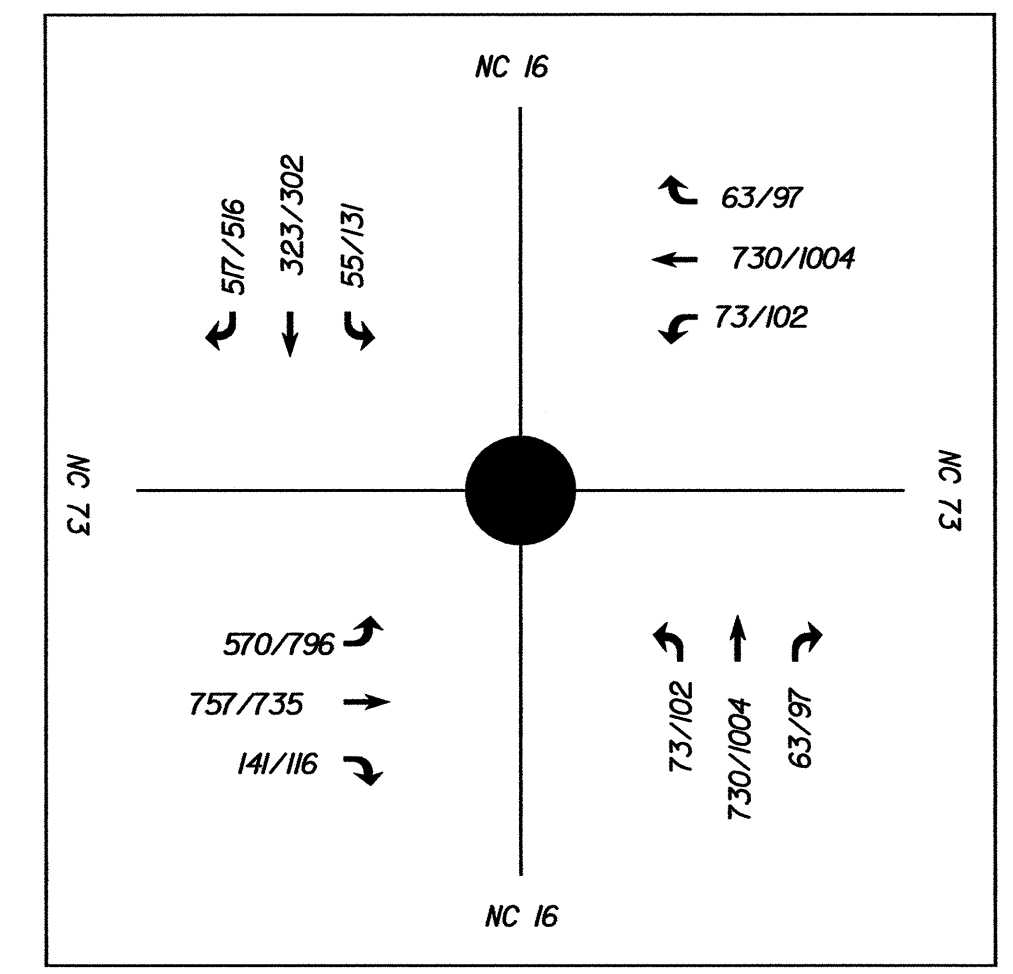
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88



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 E=1405621.942

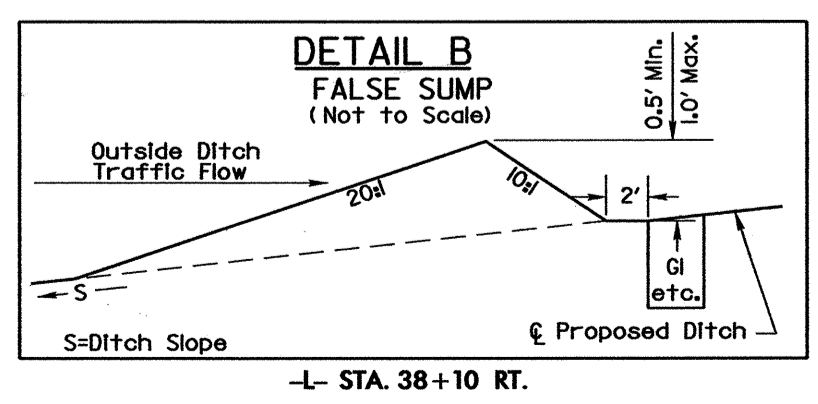
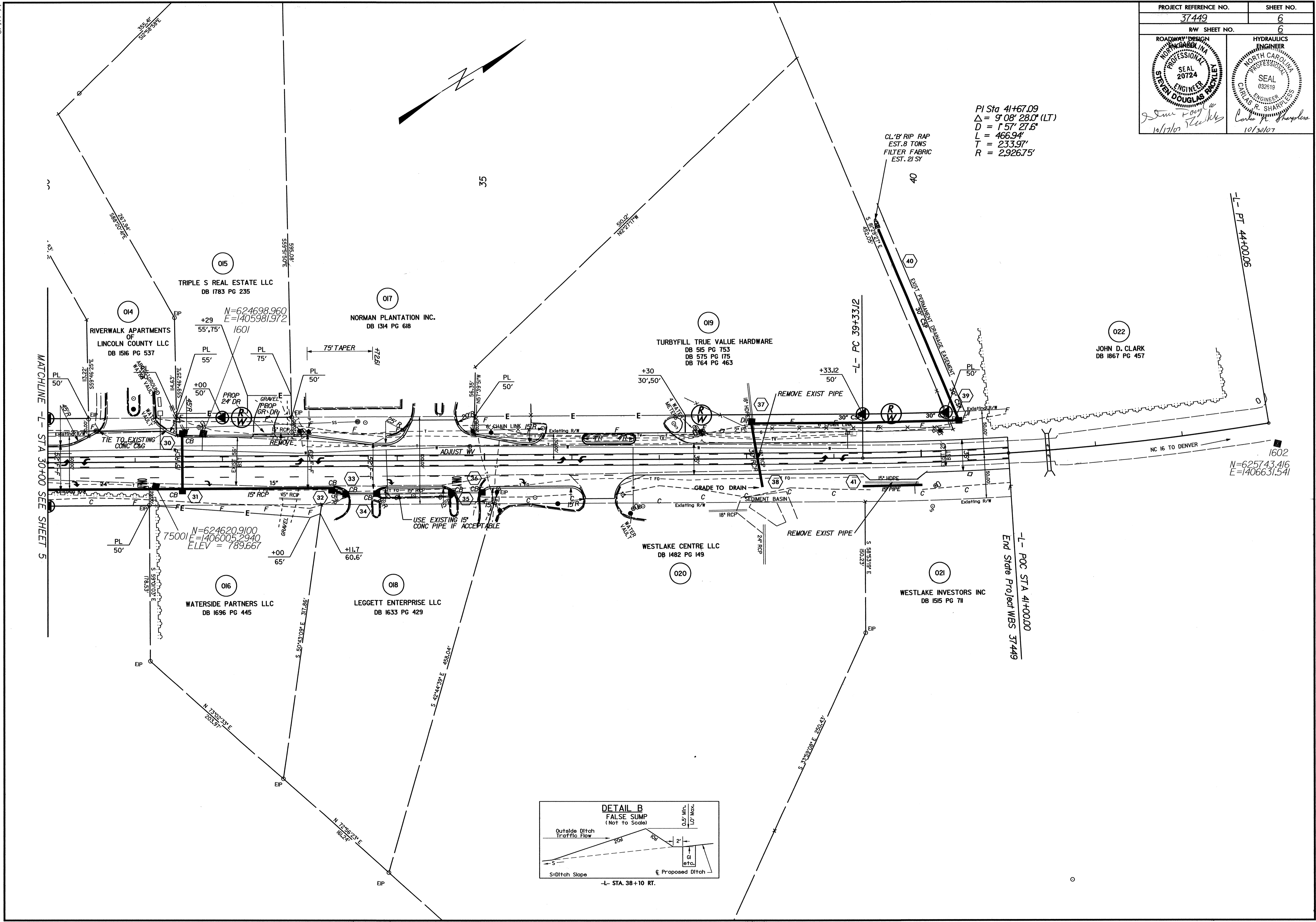
PROJECT REFERENCE NO. 37449	SHEET NO. 5
RW SHEET NO. 5	
ROADWAY DESIGN PROFESSIONAL SEAL 20724 STEVEN DOUGLAS RACKLEY 10/17/07	HYDRAULICS PROFESSIONAL SEAL 032619 CARLOS R. SHARPLES 10/30/07



8/17/99

PROJECT REFERENCE NO. 37449	SHEET NO. 6
RW SHEET NO. 6	

PI Sta 41+67.09
 $\Delta = 9' 08" 28.0" (LT)$
 $D = 1' 57" 27.6"$
 $L = 466.94'$
 $T = 233.97'$
 $R = 2,926.75'$



-L- STA. 38+10 RT.