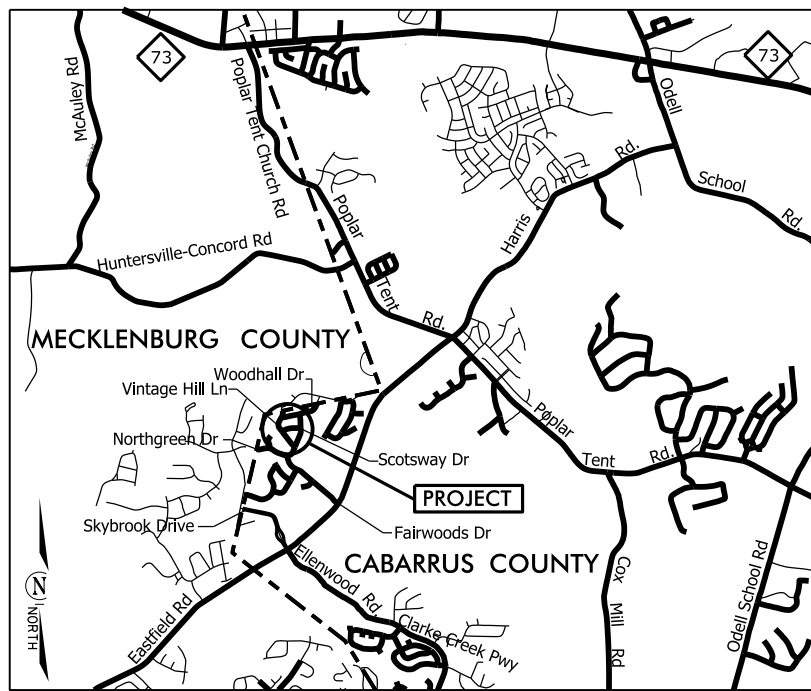


PROJECT: 10.201311 TIP:

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	10.201311	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
10.201311		CONST.	
10.201311		R/W	
9813107		INTERNAL ORDER	

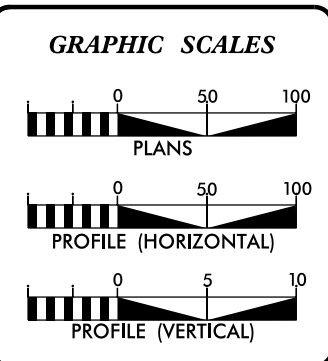
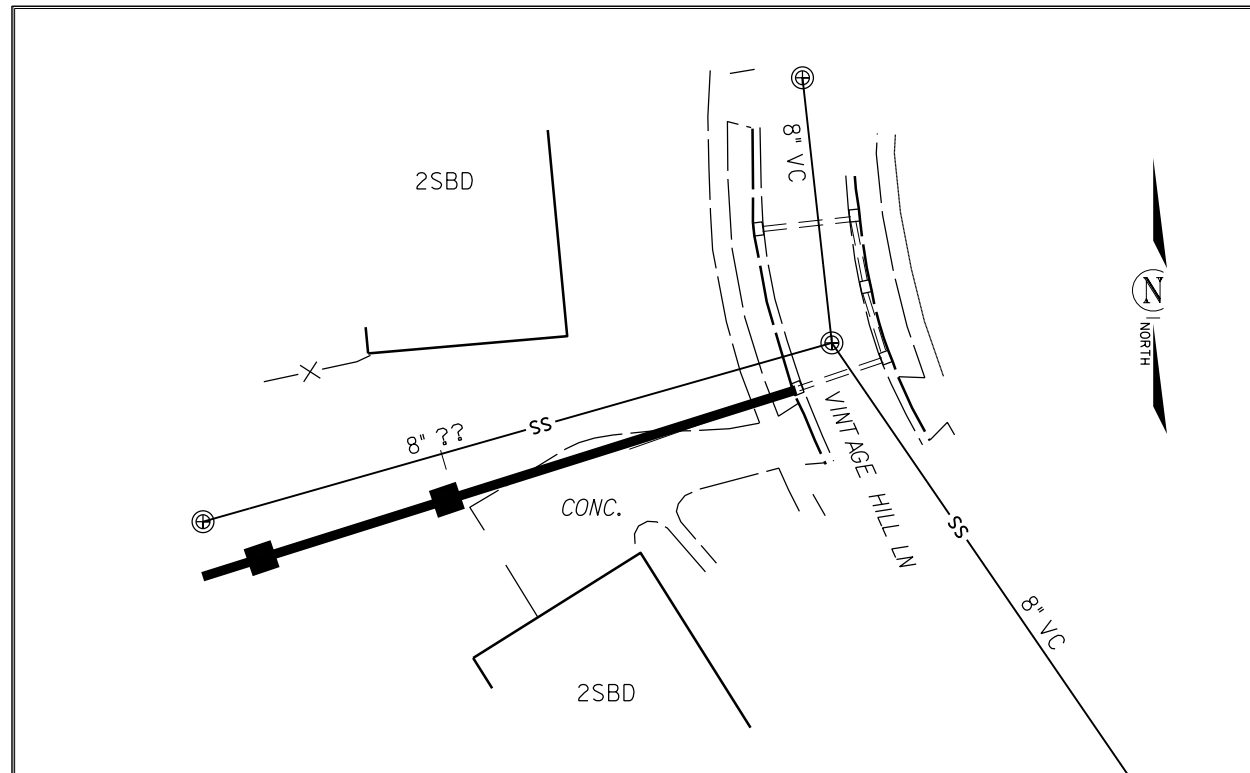


VICINITY MAP NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CABARRUS COUNTY

LOCATION: 330 VINTAGE HILL LANE

TYPE OF WORK: GRADING, DRAINAGE, EROSION CONTROL, CONCRETE DRIVE



DESIGN DATA

ADT	=	
ADT	=	
DHV	=	%
D	=	%
T	=	%
V	=	MPH

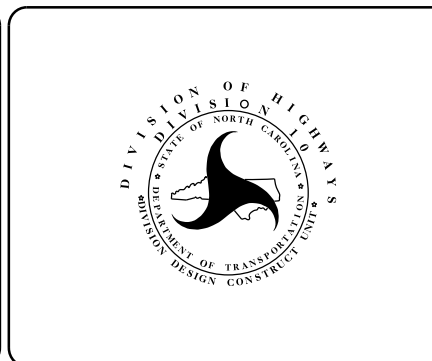
PROJECT LENGTH

LENGTH OF ROADWAY PROJECT	=	0.03	MILES
TOTAL LENGTH OF STATE PROJECT	=	0.03	MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
DIVISION TEN
DIVISION DESIGN / CONSTRUCT UNIT

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: March 12, 2021	DONALD HARWARD PROJECT ENGINEER
LETTING DATE: April 21, 2021	DONALD HARWARD PROJECT DESIGN ENGINEER



ROADWAY DESIGN ENGINEER

Signed by:
Alan Morgan
4B03BF10B67545D...

SIGNATURE

PROJECT NO.	SHEET NO.
10.2013II	IA
F.A. PROJECT NO.	

SURVEY CONTROL SHEET

SKYBROOK GOLF, LLC
DB 13441PG 154

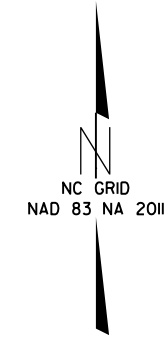
CHARLES S. CLEMENTS
AND WIFE
CARLA JAN CLEMENTS
DB 7502 PG 30I

ALDWIN F. NURSE
DB 7477 PG 127

BL-187
N: 609259.6015
E: 1474880.8133
ELEV: 661.62

GPS-1
N: 609324.4090
E: 1474989.1770
ELEV: 680.70

GPS-2
N: 609164.3304
E: 1475092.4368
ELEV: 688.89



BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1			609324.4090	1474989.1770	680.70	10+39.46	16.09 RT
2			609164.3304	1475092.4368	688.89	OUTSIDE PROJECT LIMITS	
187			609259.6015	1474880.8133	661.62	10+60.78	138.51 RT

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "L 10+61.55 198.25' RT" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 609237.971(fft) EASTING: 1474825.352(fft) ELEVATION: N/A(fft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987645
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "L 10+61.55 198.25' RT" TO -L- STATION 10+00 IS N 50° 40' 06" E 218.87'
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

DRAINAGE ON VINTAGE HILL LN.

SCALE	1"=50'
DATE	2-2021
DWG. BY	JCB
DESIGN BY	JDH
APPROVED	JDH



REVISIONS	

PROJECT NO.	SHEET NO.
10.201311	1B
F.A. PROJECT NO.	

RIGHT OF WAY, EASEMENT AND PROPOSED ALIGNMENT SHEET

L			
TYPE	STATION	NORTH	EAST
PC	10+00.00	609367.0085	1475001.6716
PT	10+86.70	609283.8737	1475021.7907

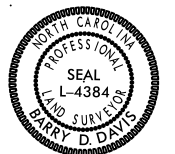
I, Barry D. Davis, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item, R/W and Easement Staking, was performed under my responsible charge meeting NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures as of 2017. Those standards can be found at <https://connect.ncdot.gov/resources/Location/Pages/>.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from survey control established under my supervision; that the depicted property data shown herein were surveyed under my supervision; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (see deeds for final determination).

Witness my signature, registration number and seal this 24th day of FEB 2021

Barry D. Davis, DocuSigned by: PLS# L-4384
Professional Land Surveyor *Barry Davis*
0E2AAE4F48174DC...

PERMANENT DRAINAGE EASEMENT				
ALIGN	STATION	OFFSET	NORTH	EAST
L	10+52.05	25.46	609308.2100	1474983.6966
L	10+52.85	195.93	609256.9707	1474821.1051
L	10+61.55	198.25	609237.3394	1474825.3520
L	10+69.22	25.43	609289.4199	1474990.6127



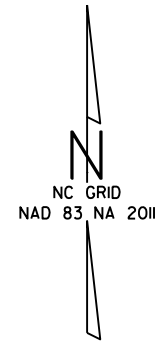
NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED BY THE DIVISION 10 DDC UNIT. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE DIVISION 10 DDC UNIT.

DRAINAGE ON VINTAGE HILL LN.

SCALE	N/A		REVISIONS
DATE	12-2020		
DWG. BY	JCB		
DESIGN BY	JDH		
APPROVED	JDH		

PROJECT NO.	SHEET NO.
10.201311	1C
F.A. PROJECT NO.	



SKYBROOK GOLF, LLC
DB 13441PG 154

CHARLES S. CLEMENTS
AND WIFE
CARLA JAN CLEMENTS
DB 7502 PG 301

1

10+40
25.47' RT

10+39
103' RT

10+44
143' RT

10+51.28
185.08' RT

10+52.85
195.93' RT

EIP

10+61.55
198.25' RT

10+62.32
198.40' RT

10+65.19
194.06' RT

ALDWIN F. NURSE
DB 7477 PG 127

2

S 37°00'20" E
95.00'

EIP

PC Sta. 10+00.00-L-

PI Sta 10+44.56-L-
 $\Delta = 32^\circ 36' 25.5" (LT)$
 $D = 37^\circ 36' 32.8"$
 $L = 86.70'$
 $T = 44.56'$
 $R = 152.35'$

PT Sta. 10+86.70-L-

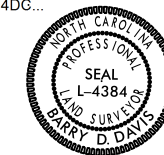
I, Barry D. Davis, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item, R/W and Easement Staking, was performed under my responsible charge meeting NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures as of 2017. Those standards can be found at <https://connect.ncdot.gov/resources/Location/Pages/>.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from survey control established under my supervision; that the depicted property data shown herein were surveyed under my supervision; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (see deeds for final determination).

Witness my signature, registration number and seal this 24th day of FEB 2021

Barry D. Davis, Professional Land Surveyor
 DocuSigned by: Barry Davis
 PLS# L-4384

0E2AAE4F48174DG...



DRAINAGE ON VINTAGE HILL LN.

SCALE	1"=50'		REVISIONS
DATE	12-2020		
DWG. BY	JCB		
DESIGN BY	JDH		
APPROVED	JDH		

PROJECT NO.	SHEET NO.
10.2013II	4
F.A. PROJECT NO.	

ROADWAY DESIGN ENGINEER

SEAL

DESIGNED BY: *Alan Norman*

4B05BF-10B67545D



SKYBROOK GOLF. LLC
DB 13441 PG 154

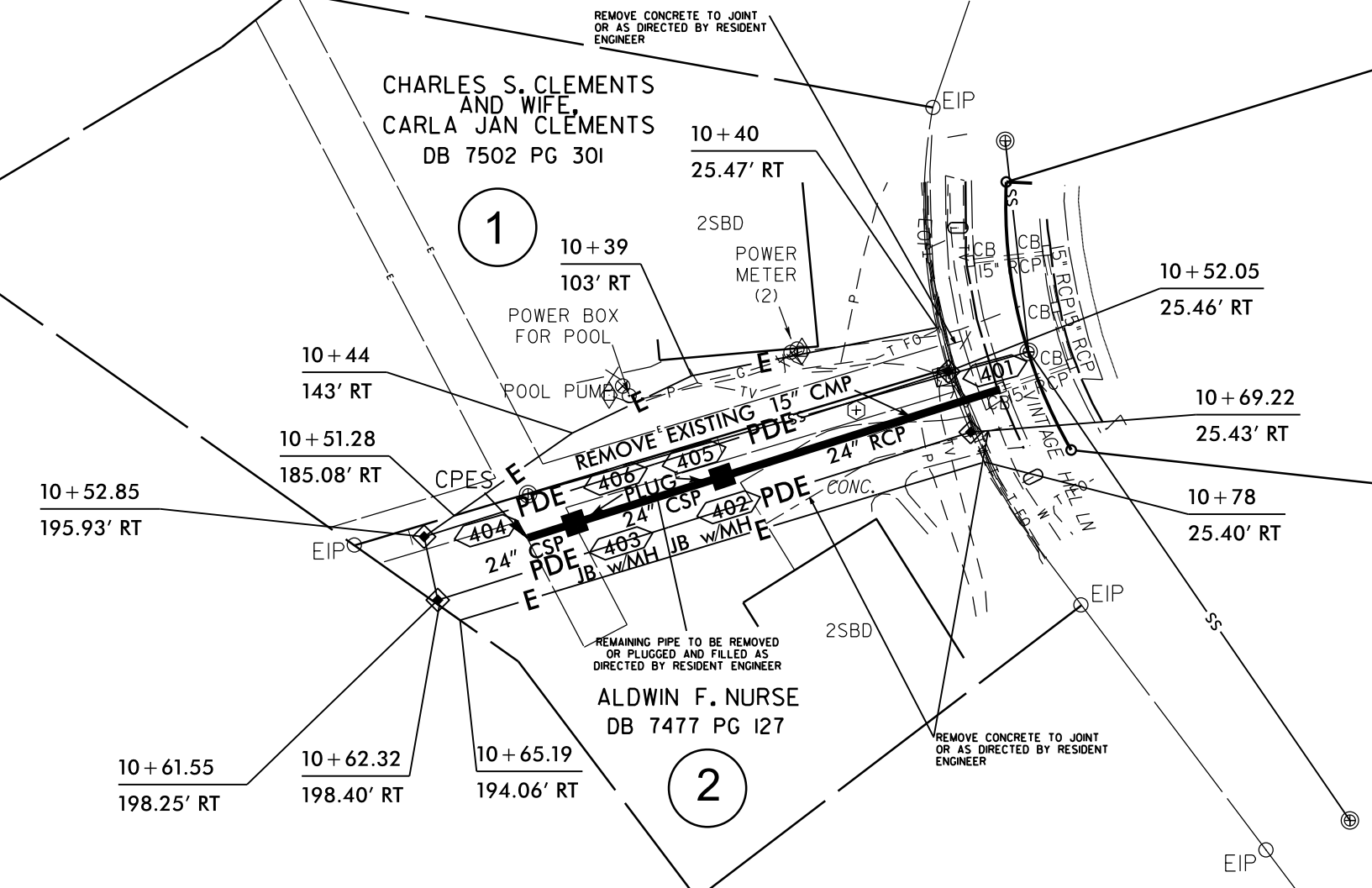
CHARLES S. CLEMENTS
AND WIFE
CARLA JAN CLEMENTS
DB 7502 PG 301

REMOVE CONCRETE TO JOINT
OR AS DIRECTED BY RESIDENT
ENGINEER

PC Sta. 10+00.00-L-

PI Sta 10+44.56-L-
Δ = 32° 36' 25.5" (LT)
D = 37° 36' 32.8"
L = 86.70'
T = 44.56'
R = 152.35'

PT Sta. 10+86.70-L-



ALDWIN F. NURSE
DB 7477 PG 127

REMOVE CONCRETE TO JOINT
OR AS DIRECTED BY RESIDENT
ENGINEER

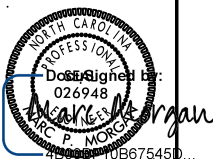
DRAINAGE ON VINTAGE HILL LN.

SCALE	1"=50'
DATE	03-2021
DWG. BY	CEB
DESIGN BY	JDH
APPROVED	JDH



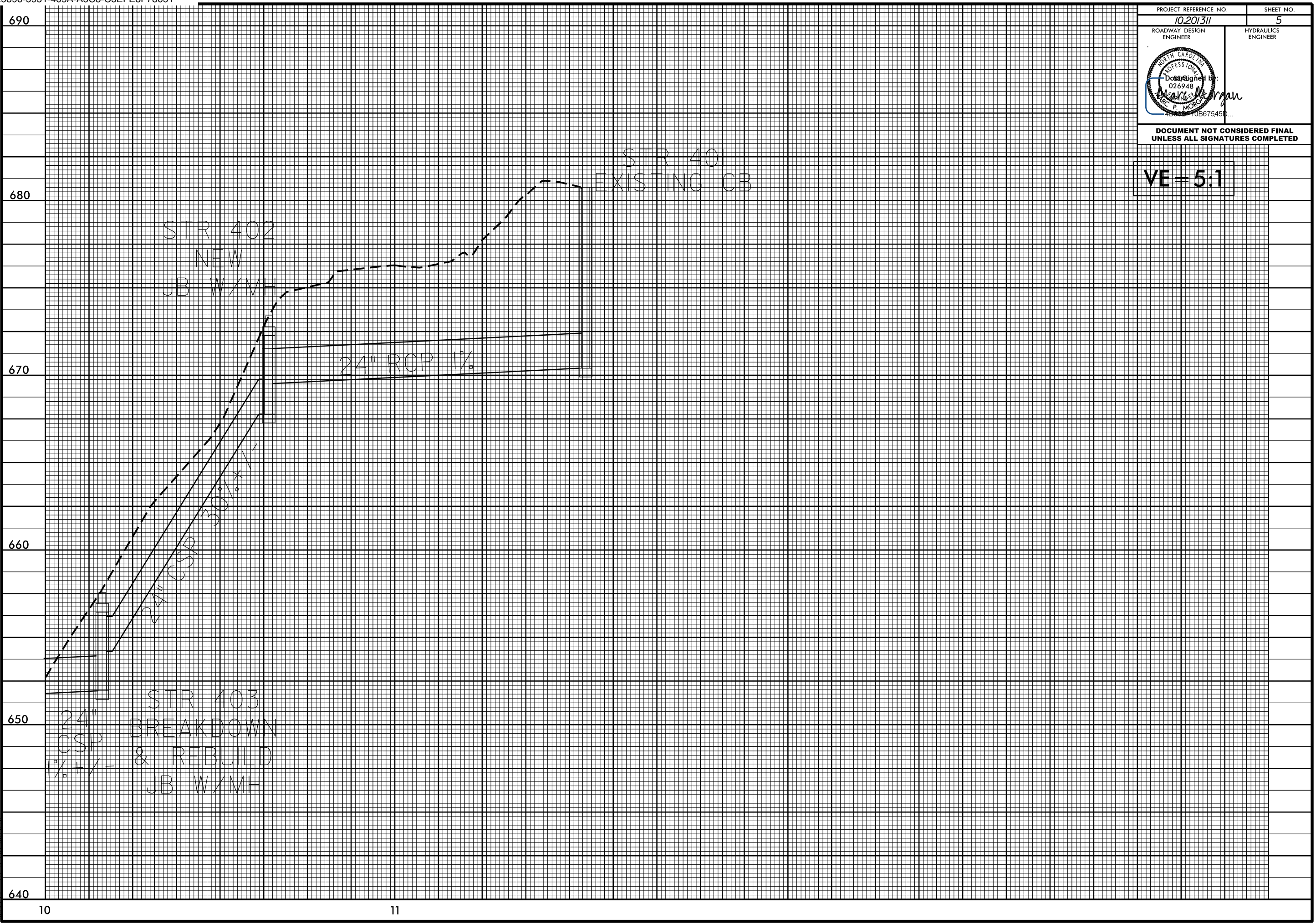
REVISIONS	

5/14/99

PROJECT REFERENCE NO. 10.201311	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

VE = 5:1



10

11

09-MAR-2021 10:38
S:\DB\CA\09\Projects\Vintage Hill Lone Drainage\Vintage Hill Lone Drainage.pfl.dgn
at 11/10/2020

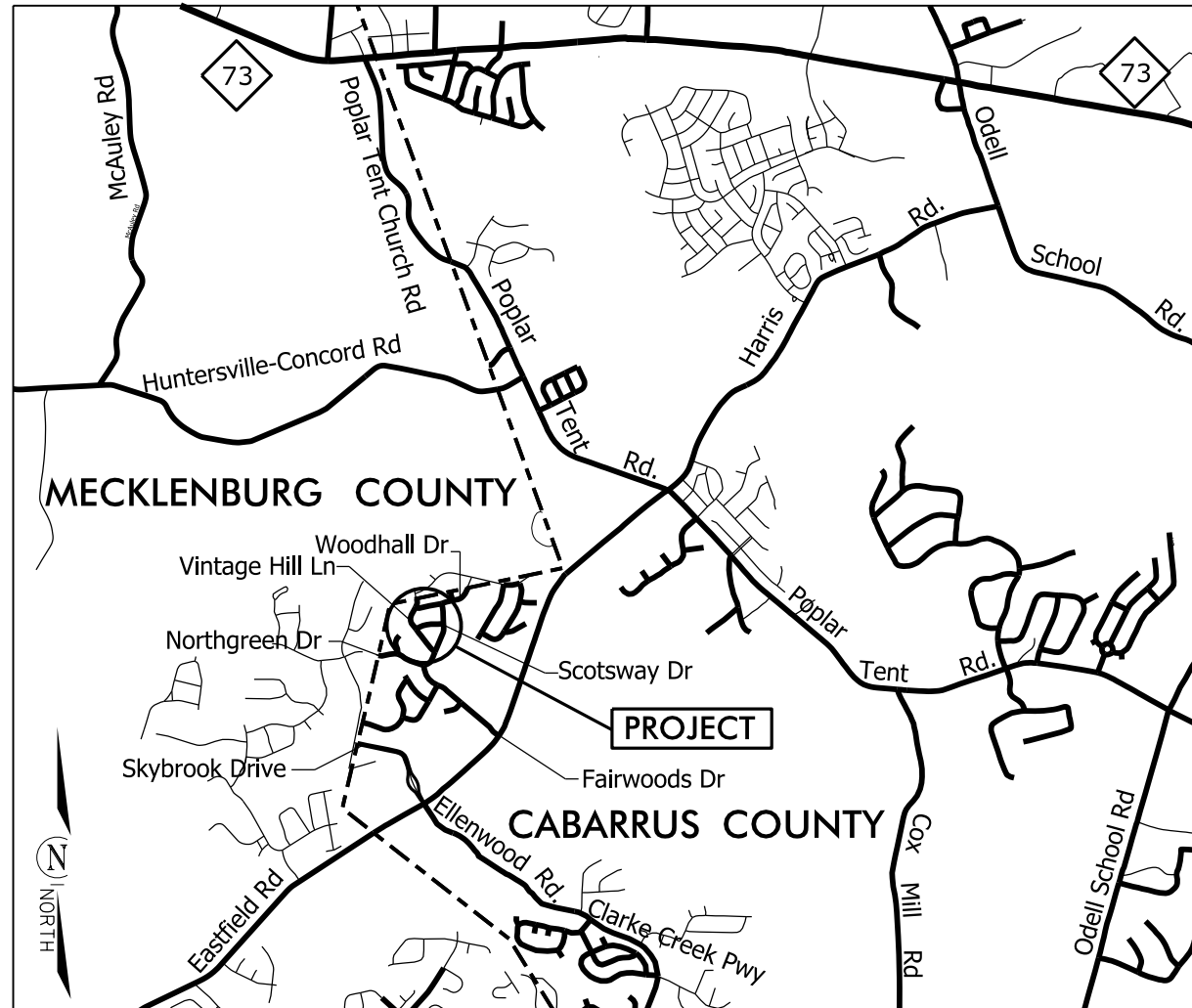
PROJECT: 10.201311

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
**PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	10.201311	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
10.201311		CONST.	
10.201311		RW	
9813107		INTERNAL ORDER	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.05	Temporary Silt Ditch	--- TD ---
1630.05	Temporary Diversion	--- TD ---
1605.01	Temporary Silt Fence	--- III III III ---
1606.01	Special Sediment Control Fence	--- X X X X X ---
1622.01	Temporary Berms and Slope Drains	--- T ---
1630.02	Silt Basin Type B	--- [Symbol] ---
1633.01	Temporary Rock Silt Check Type-A	--- [Symbol] ---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	--- [Symbol] ---
1633.02	Temporary Rock Silt Check Type-B	--- [Symbol] ---
	Wattle / Coir Fiber Wattle	--- [Symbol] ---
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	--- [Symbol] ---
1634.01	Temporary Rock Sediment Dam Type-A	--- [Symbol] ---
1634.02	Temporary Rock Sediment Dam Type-B	--- [Symbol] ---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	--- [Symbol] ---
1635.02	Rock Pipe Inlet Sediment Trap Type-B	--- [Symbol] ---
1630.04	Stilling Basin	--- [Symbol] ---
1630.06	Special Stilling Basin	--- [Symbol] ---
	Rock Inlet Sediment Trap:	
1632.01	Type A	--- A □ ---
1632.02	Type B	--- B □ ---
1632.03	Type C	--- C □ ---
	Skimmer Basin	--- [Symbol] ---
	Tiered Skimmer Basin	--- [Symbol] ---
	Infiltration Basin	--- [Symbol] ---



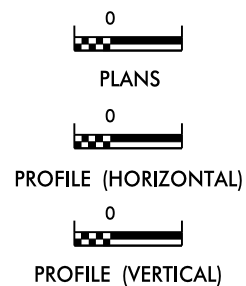
VICINITY MAP NOT TO SCALE

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

HIGH QUALITY WATER(S) EXIST ON THIS PROJECT
High Quality Water Zone(s) Exist
From Sta. 10+00 -Y-
to Sta. 12+17.40 -Y-
Refer To E.C. Special Provisions for Special Considerations.

INSTALL PERIMETER EROSION CONTROL MEASURES DURING INITIAL CLEARING PHASE

GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
DDC UNIT DIVISION 10
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
2018 STANDARD SPECIFICATIONS
Designed by:
CHAD BURRIS 4159
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type J
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type J
1630.05 Temporary Diversion	1640.01 Coir Fiber Jaffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

25 FEB 2021 10:43 AM \\hills\leg_civil\region\Vintage Hill Lane Drainage.dwg, EC, TSHdgn

PROJECT NO.	SHEET NO.
10.201311	EC-2
F.A. PROJECT NO.	

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

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

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

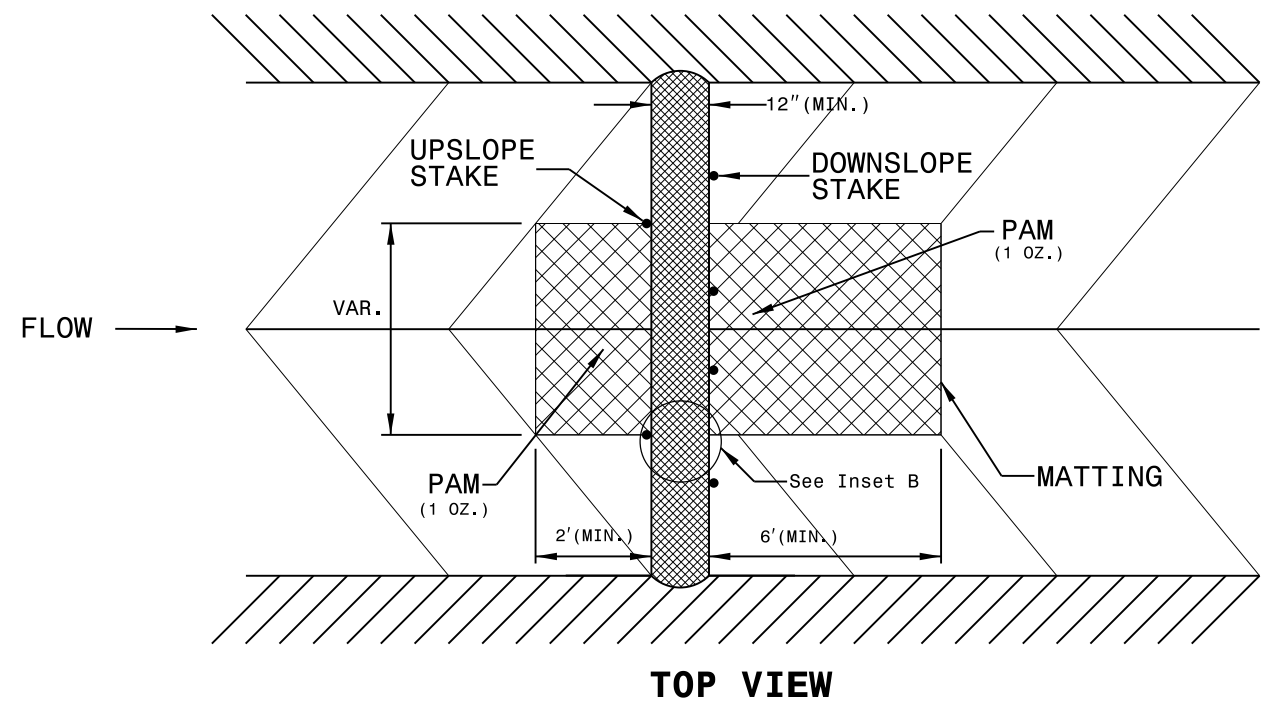
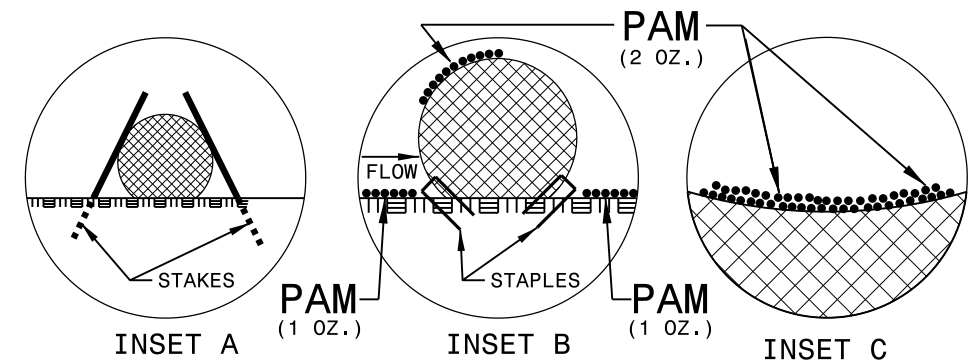
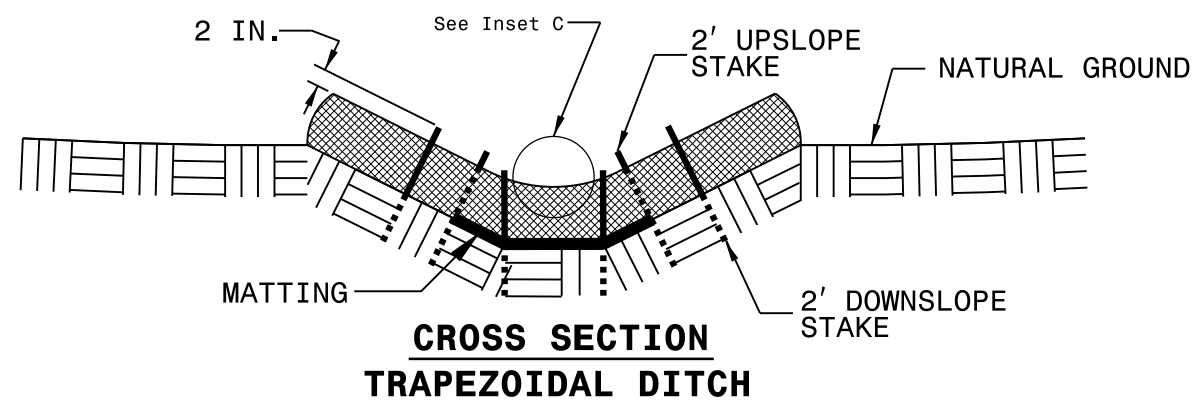
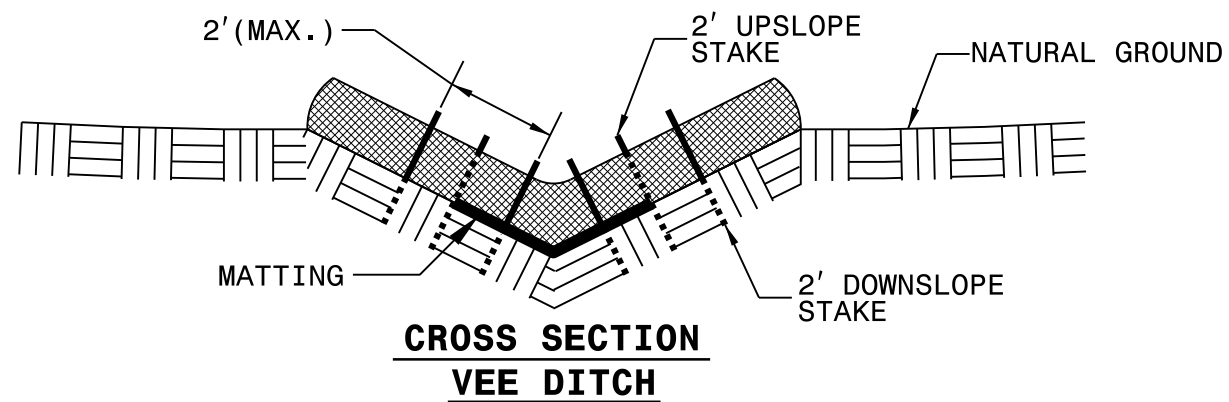
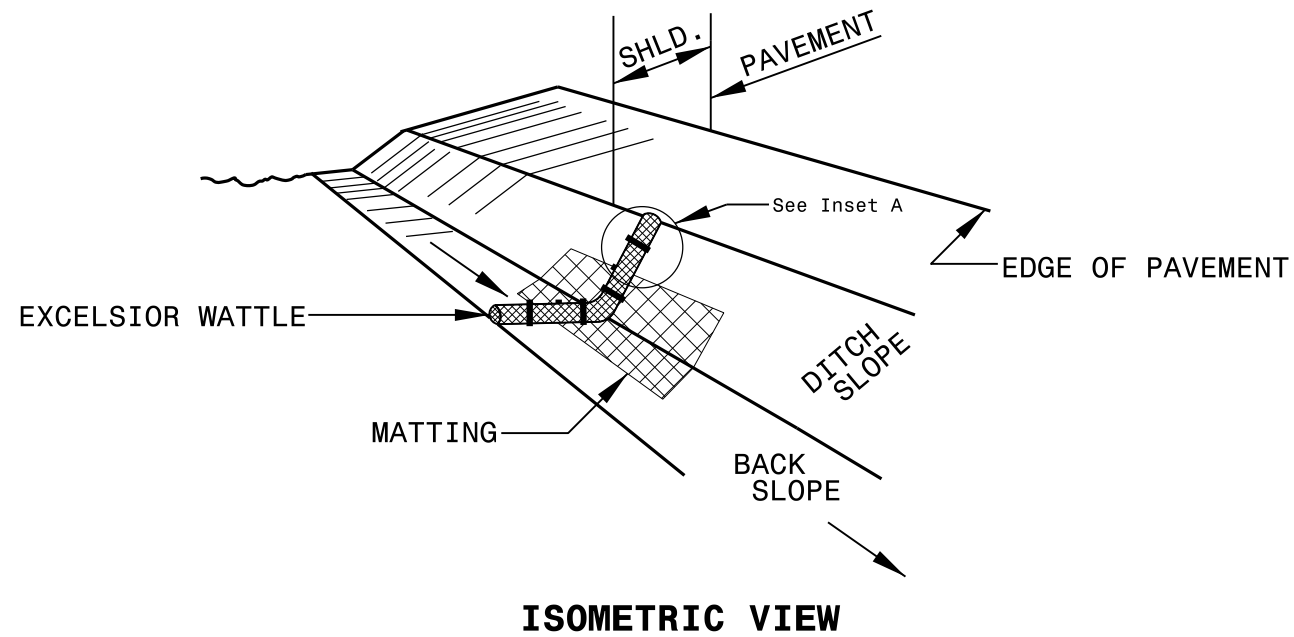
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

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

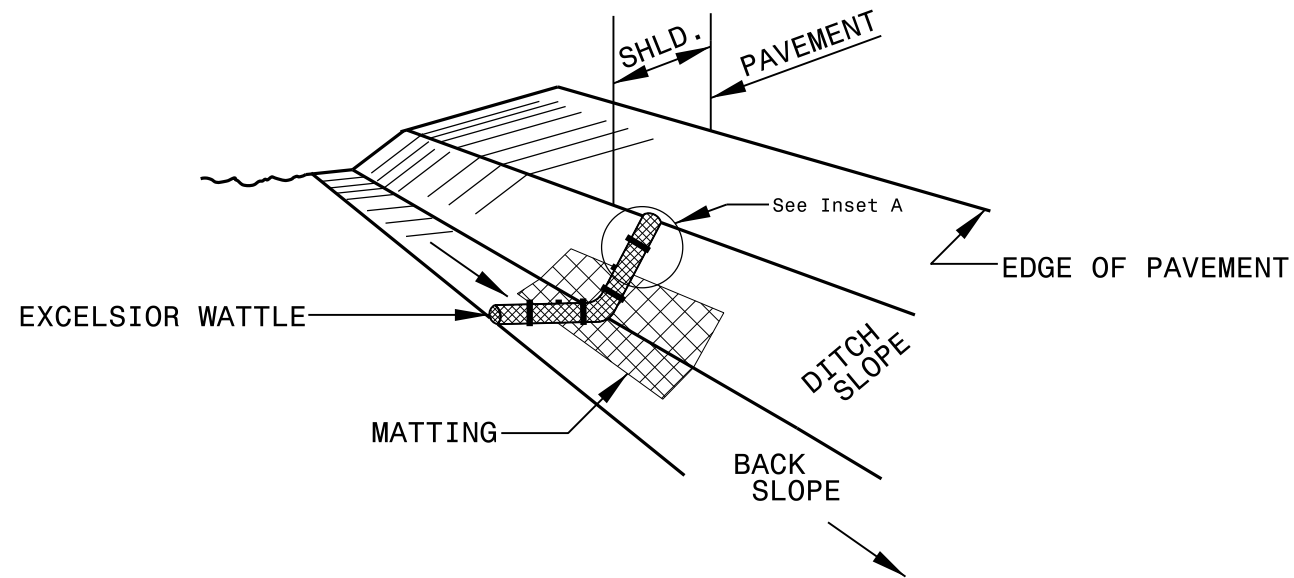
PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

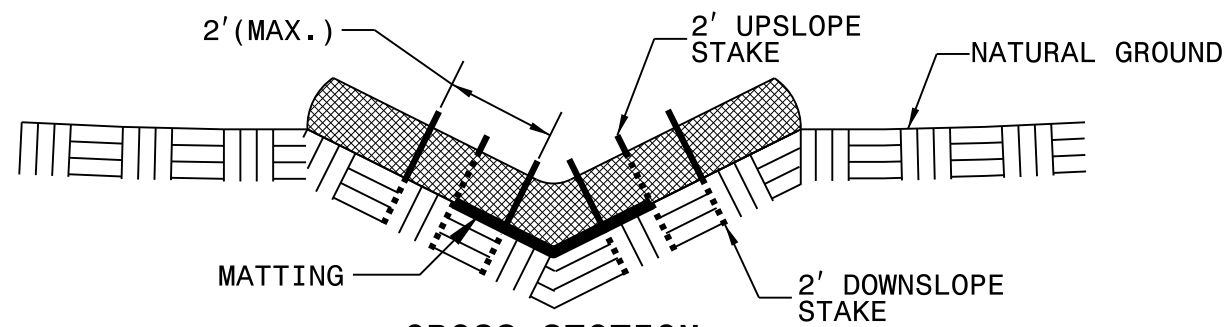


PROJECT NO.	SHEET NO.
10.201311	EC-2A
F.A. PROJECT NO.	

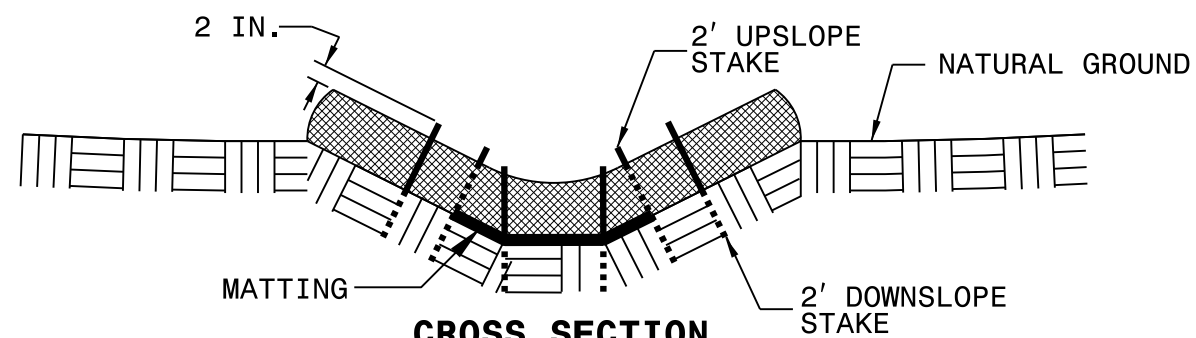
WATTLE DETAIL



ISOMETRIC VIEW



**CROSS SECTION
VEE DITCH**



**CROSS SECTION
TRAPEZOIDAL DITCH**

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

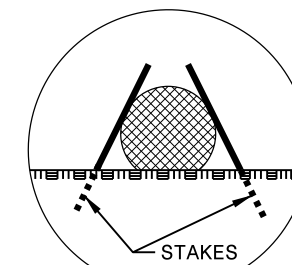
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

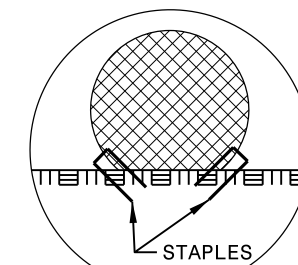
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

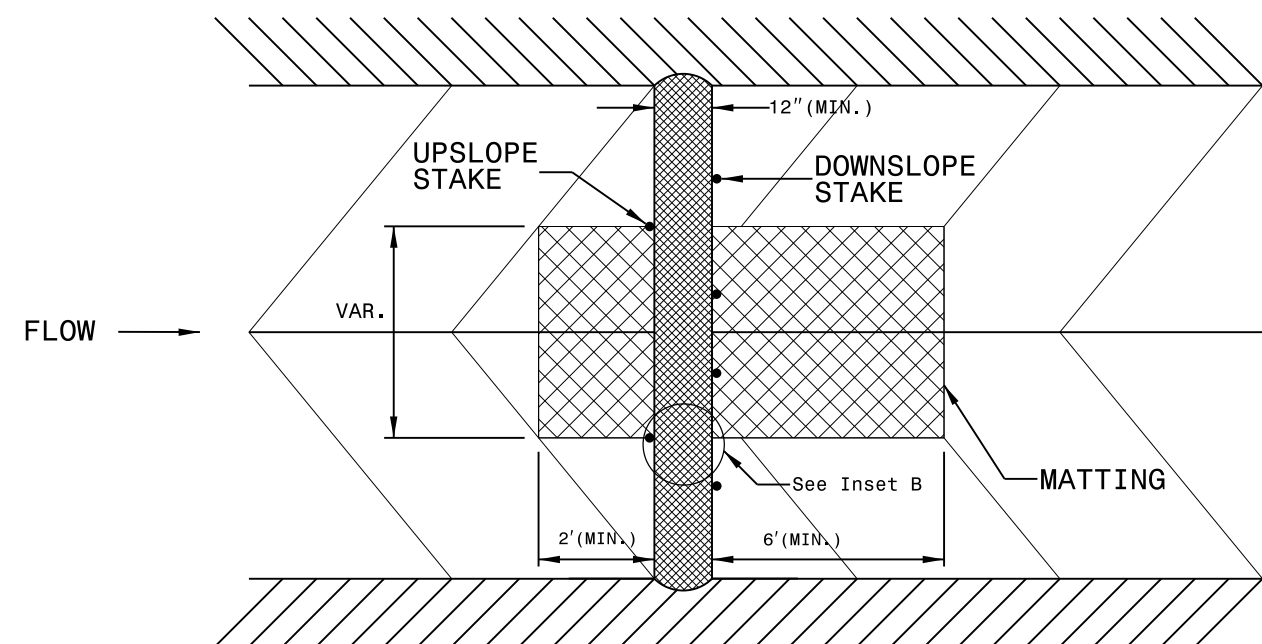
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



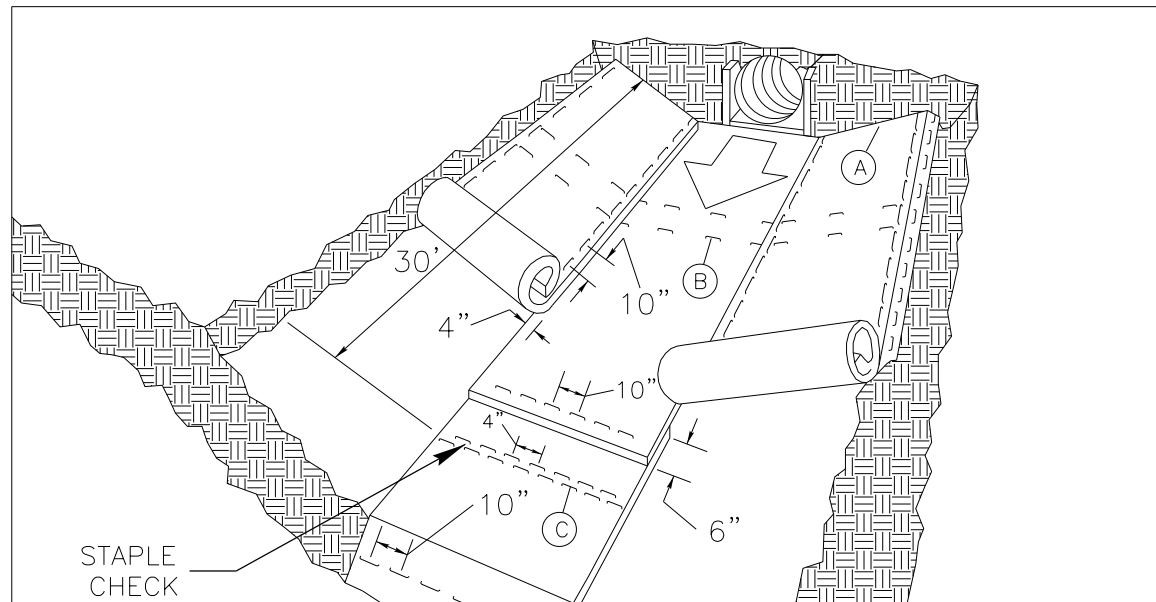
INSET B



TOP VIEW

PROJECT REFERENCE NO. <i>10.201311</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

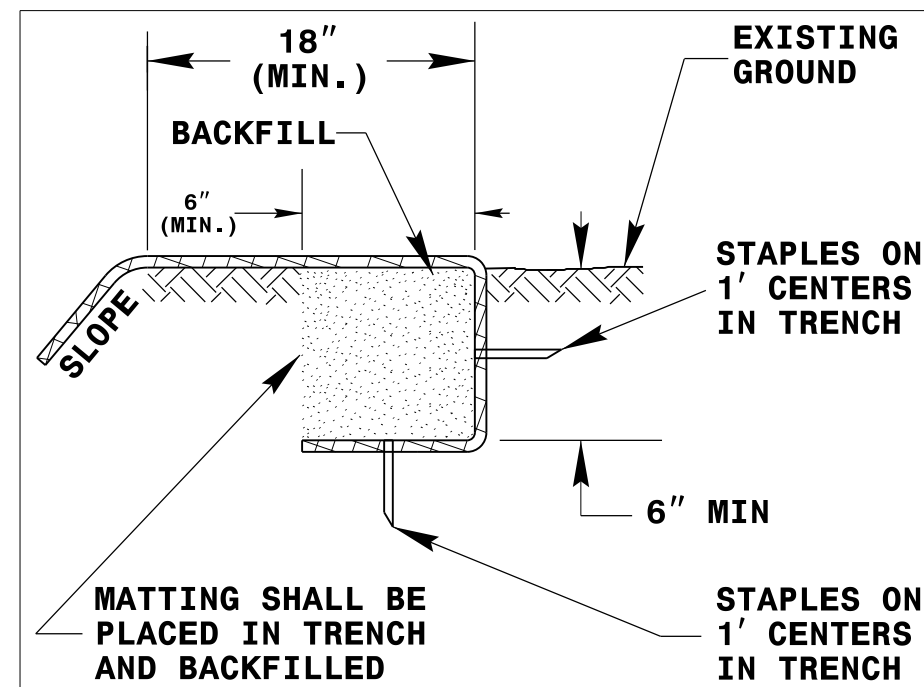
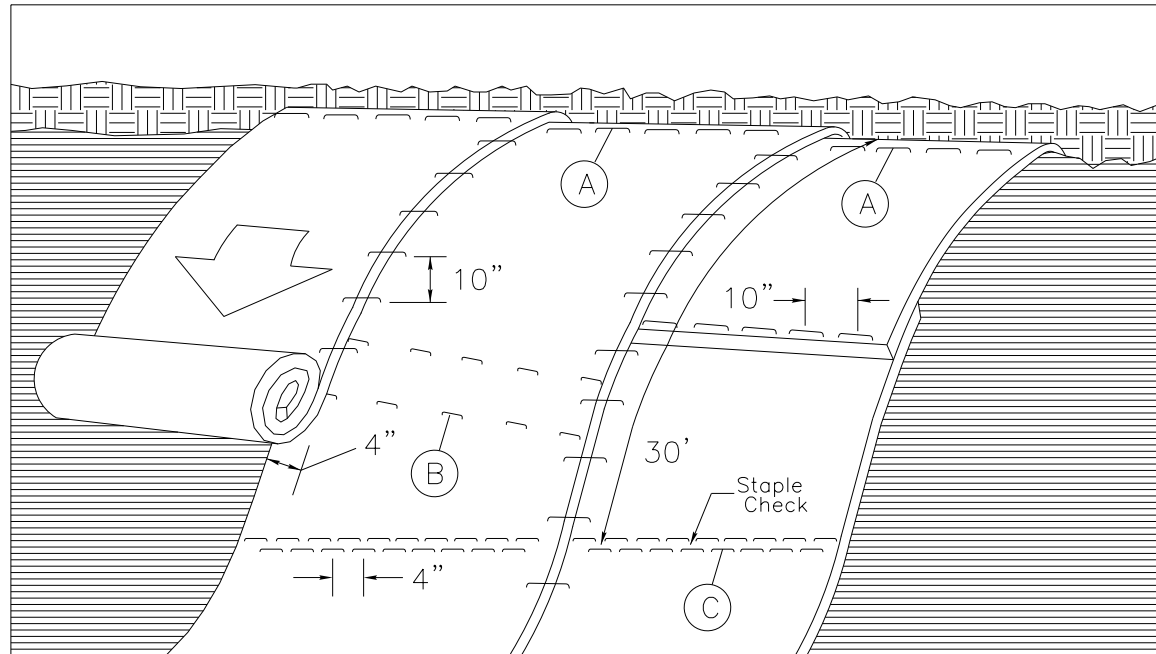


DIAGRAM (A)



MATTING ON SLOPES

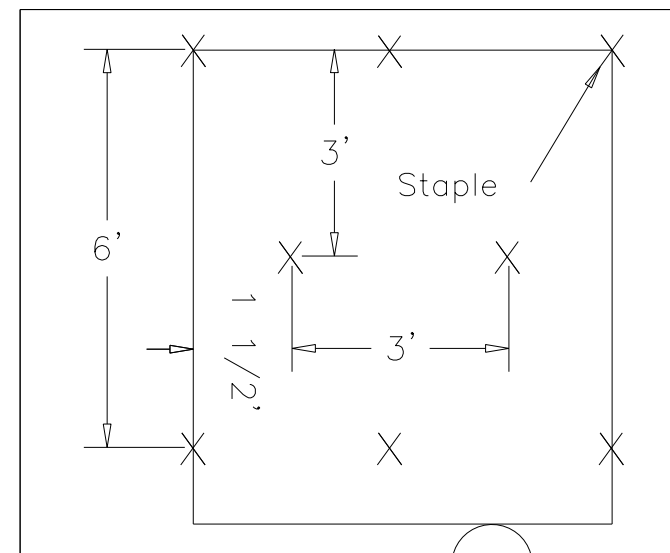


DIAGRAM B

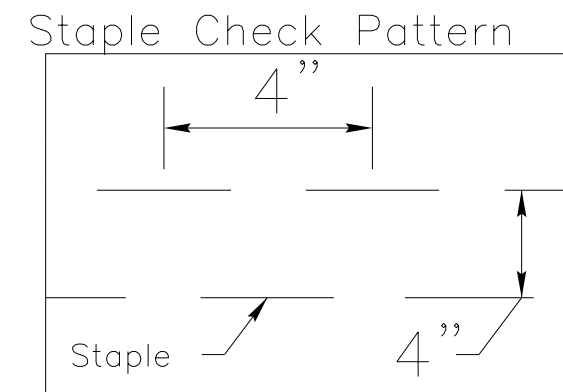


DIAGRAM (C)

NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

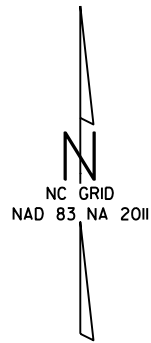
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>10.201311</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT NO.	SHEET NO.
10.201311	EC-4
F.A. PROJECT NO.	



SKYBROOK GOLF, LLC
DB 13441 PG 154

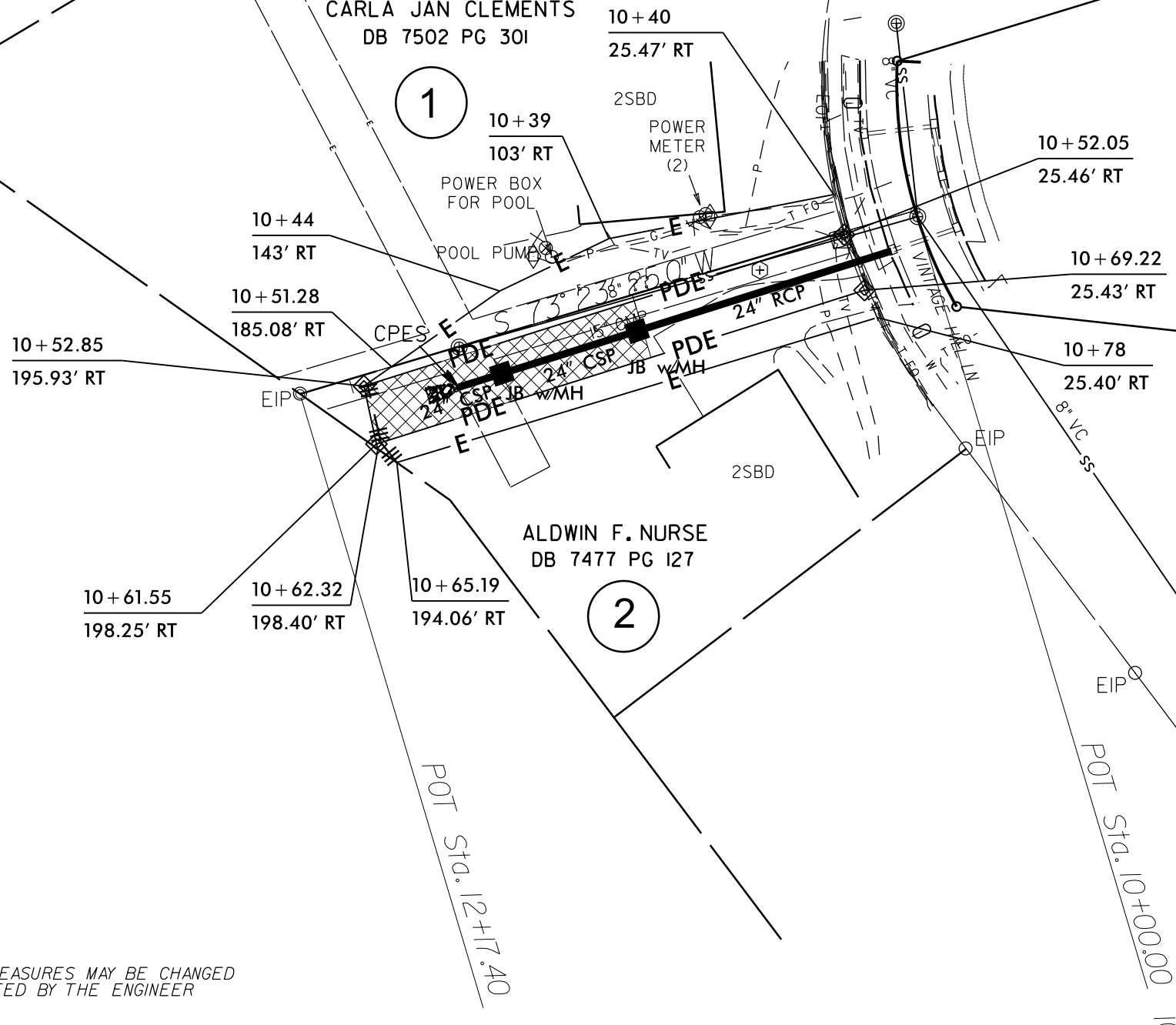
CHARLES S. CLEMENTS
AND WIFE,
CARLA JAN CLEMENTS
DB 7502 PG 301

ALDWIN F. NURSE
DB 7477 PG 127

PC Sta. 10+00.00-L-

PI Sta 10+44.56-L-
 $\Delta = 32^\circ 36' 25.5" (LT)$
 $D = 37^\circ 36' 32.8"$
 $L = 86.70'$
 $T = 44.56'$
 $R = 152.35'$

PT Sta. 10+86.70-L-



INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED CROSSHATCHED AREA
SEE SHEET 2B

DRAINAGE ON VINTAGE HILL LN.

EROSION CONTROL MEASURES MAY BE CHANGED
IN FIELD AS DIRECTED BY THE ENGINEER

SCALE	1"=50'		REVISIONS
DATE	2-2021		
DWG. BY	CEB		
DESIGN BY	JDH		
APPROVED	JDH		