

LOCATION MAP

1 0 0.5 0 1.0 2.0
(IN MILES)
1 inch = 1 mile

UTILITY PROVIDER CONTACTS

WATER AND WASTEWATER PROVIDER:
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NEWBERRY COUNTY WATER & SEWER AUTHORITY
TELEPHONE: (803) 276-7020
FACSIMILE: (803) 276-6461

ELECTRICAL UTILITY PROVIDER:
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NEWBERRY ELECTRIC COOPERATIVE, INC.
TELEPHONE: (803) 276-1121
FACSIMILE: (803) 276-4121

NATURAL GAS PROVIDER:
CONTACT: MR. STAN BRYSON, GENERAL MANAGER
CLINTON-NEWBERRY NATURAL GAS AUTHORITY
TELEPHONE: (803) 276-1550
FACSIMILE: (803) 276-9096

TELECOMMUNICATIONS PROVIDER:
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AT&T
TELEPHONE: (803) 401-2214
FACSIMILE: (803) 765-2674

NEWBERRY COUNTY COUNCIL MEMBERS

MR. HENRY H. LIVINGSTON, III, CHAIRMAN
MS. MARY C. ARROWOOD
MR. LESLIE HIPPI
MR. TODD JOHNSON
MR. TRAVIS REEDER
MR. JOHNNY MACK SCURRY
MR. NICK SHEALY

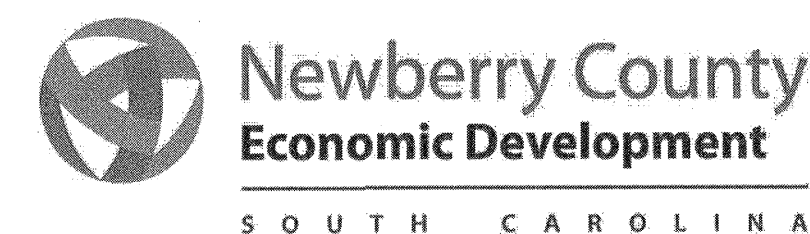
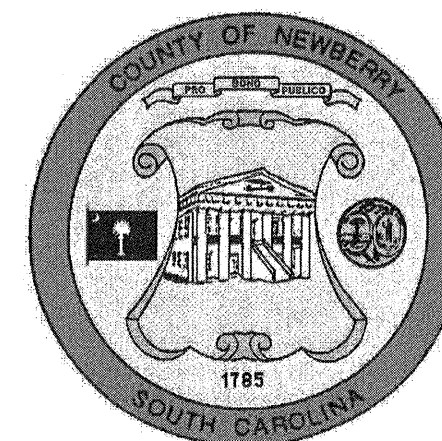
DEVELOPER INFORMATION

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ECONOMIC DEVELOPMENT DIRECTOR
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NEWBERRY, SOUTH CAROLINA 29108
TELEPHONE: (803) 321-2042
FAX: (803) 321-2094
EMAIL: RFARMER@NEWBERRYCOUNTY.NET

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SENIOR PROJECT MANAGER
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PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY SOUTH CAROLINA



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WATER DETAILS
WASTEWATER DETAILS

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REVISION
DATE

ALLIANCE CONSULTING ENGINEERS, INC.
No. C02654
CERTIFICATE OF AUTHORITY

DATE: 5/1/21

ALLIANCE CONSULTING ENGINEERS, INC.
No. 26589
ENGINEER
BENJAMIN S. WHALEY
SIGNATURE

DATE: 5/1/21

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

APRIL 2021

Project No. 17113-0036

DWG NO. 01,514-DO9

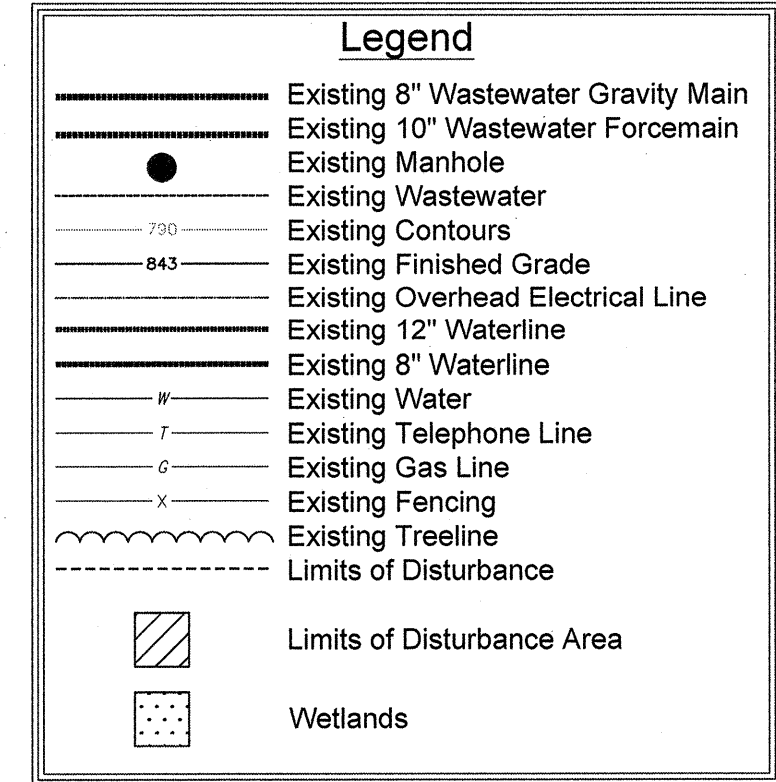
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CONSULTING ENGINEERS

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April 28, 2021 - 11:10:33 AM S:\Projects\7113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Com. Parkway\Construction Plans\CI-Overall Existing Conditions Map.dwg



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	5729.80'	850.78'	850.00'	N 57°30'42" W	08°30'28"
C2	5729.57'	703.29'	702.85'	N 65°16'55" W	07°01'58"
C3	1145.92'	254.28'	253.76'	S 65°39'07" E	12°42'51"
C4	1145.92'	187.63'	187.42'	S 63°29'33" E	09°22'54"
C5	1926.67'	505.07'	503.63'	N 29°42'16" E	15°01'12"

L1	N 60°07'41" E	4.43'	L52	N 18°30'29" E	57.22'
L2	N 28°11'55" E	12.81'	L53	N 18°16'57" W	26.85'
L3	N 04°19'03" W	59.11'	L54	N 01°15'11" W	65.85'
L4	N 21°50'43" E	63.36'	L55	N 44°56'22" E	45.08'
L5	N 16°25'00" W	83.87'	L56	N 83°35'16" W	96.00'
L6	N 15°40'41" W	79.43'	L57	N 30°27'44" W	37.83'
L7	N 01°35'22" E	71.74'	L58	N 09°39'42" W	67.87'
L8	N 08°13'19" W	58.01'	L59	N 35°24'42" E	54.55'
L9	N 25°05'57" W	27.99'	L60	N 39°29'32" W	93.82'
L10	N 08°17'41" E	62.27'	L61	N 12°08'13" E	55.71'
L11	N 48°41'52" E	34.61'	L62	S 15°00'47" E	40.57'
L12	N 01°45'57" E	99.06'	L63	N 60°11'08" E	35.51'
L13	N 14°39'35" E	93.75'	L64	S 63°08'21" E	41.92'
L14	N 00°05'12" W	120.15'	L65	N 77°27'27" E	64.04'
L15	N 12°39'45" W	115.90'	L66	N 40°28'51" W	52.17'
L16	N 01°23'09" W	181.22'	L67	N 18°35'39" E	25.09'
L17	N 01°40'52" E	48.31'	L68	N 01°03'32" W	177.12'
L18	N 02°58'48" W	34.62'	L69	N 01°13'41" W	46.03'
L19	N 05°24'56" E	120.73'	L70	N 00°35'25" W	93.18'
L20	N 40°43'23" E	72.60'	L71	S 65°17'59" W	132.30'
L21	N 81°53'13" E	118.84'	L72	S 22°25'00" W	56.10'
L22	N 15°56'13" E	48.92'	L73	S 51°46'00" W	83.50'
L23	N 55°54'59" E	65.94'	L74	N 60°05'00" W	25.40'
L24	N 01°57'50" W	59.76'	L75	S 85°11'00" W	61.50'
L25	N 38°04'30" E	35.23'	L76	N 86°10'00" W	119.80'
L26	N 02°07'00" W	42.74'	L77	S 82°09'00" W	51.80'
L27	N 49°31'24" W	11.87'	L78	S 51°43'00" W	71.10'
L28	N 03°24'05" E	122.88'	L79	N 74°05'00" W	35.20'
L29	N 03°37'02" E	25.54'	L80	N 74°20'11" W	92.50'
L30	N 43°12'48" E	37.71'	L81	N 43°27'59" W	316.00'
L31	N 59°24'51" E	37.81'	L82	S 86°59'33" W	148.06'
L32	N 34°33'54" E	59.37'	L83	S 17°27'02" W	69.86'
L33	N 08°23'35" W	70.09'	L84	S 52°52'05" W	133.02'
L34	N 23°03'54" W	72.29'	L85	S 83°19'31" W	163.64'
L35	N 43°10'35" W	44.86'	L86	N 62°56'20" W	61.98'
L36	N 40°38'25" W	95.22'	L87	S 80°34'43" W	160.17'
L37	N 22°28'38" E	17.83'	L88	N 80°51'46" W	129.99'
L38	N 12°56'46" E	81.85'	L89	N 22°24'20" W	137.33'
L39	N 27°06'36" E	44.25'	L90	S 89°29'54" W	143.01'
L40	N 09°41'49" E	43.81'	L91	N 49°09'22" W	120.95'
L41	N 02°54'27" W	99.41'	L92	N 85°59'28" W	94.84'
L42	N 09°02'38" E	83.62'	L93	N 22°52'10" W	62.59'
L43	N 35°19'51" E	33.36'	L94	N 39°06'24" W	168.05'
L44	N 17°12'51" E	62.56'	L95	N 55°50'02" W	109.45'
L45	N 17°35'28" W	135.02'	L96	S 04°05'54" E	58.97'
L46	N 21°34'26" E	31.62'	L97	S 49°45'47" W	375.64'
L47	N 81°48'03" W	29.25'	L98	S 47°03'29" W	128.67'
L48	N 55°00'26" E	44.39'	L99	S 48°36'43" E	17.00'
L49	N 77°16'54" E	47.63'	L100	S 43°23'17" W	126.17'
L50	N 59°41'46" E	22.96'	L101	S 41°35'12" W	140.69'
L51	N 66°30'54" E	73.61'	L102	N 21°14'18" E	260.79'

TMS: 573-2
Paul D. Wicker Life Est
Use: Residential - Improved

TMS: 573-3
Virginia Cannon
Use: Agricultural - Vacant

TMS: 576-7
James and Mary Lavone Etal
C/O Ojetta Thompson
Use: Agricultural - Vacant

TMS: 576-3
Spearman Ojetta Roselee &
James Mary Lavone
Use: Agricultural - Vacant

TMS: 577-1
Patricia B. Kohl
Use: Agricultural - Improved

CONTROL POINT
(RW Monument)
Northing = 876004.9634 (NAD83)
Easting = 1859258.1452 (NAD83)
Elevation = 444.79' (NAVD88)

- References:**
- Prepared by photogrammetric methods using aerial photography dated December 18, 2008. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
 - Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
 - Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
 - All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.
 - Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.
 - Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.
 - Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on April 21, 2009 via e-mail from Abraham Land Surveying.

Developer Information
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P.O. Box 381
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Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

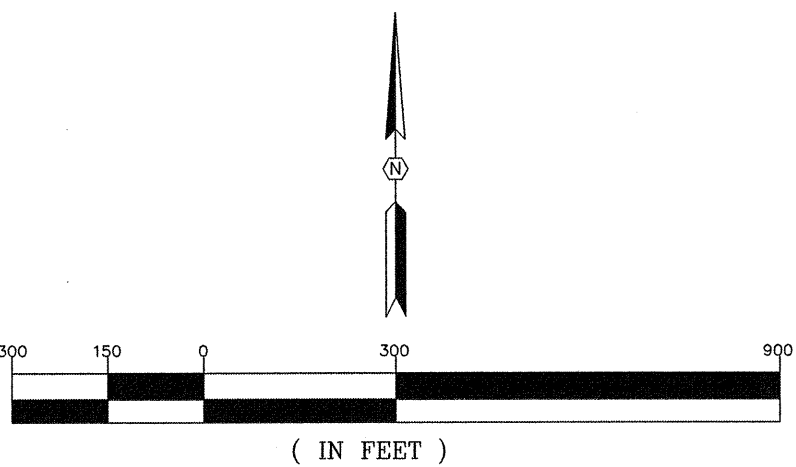
BENCHMARK
(NGS A1662) ("Carver Lincoln")
Northing = 875674.1000 (NAD83)
Easting = 1860977.8100 (NAD83)
Elevation = 500.30' (NAVD88)

CONTROL POINT
(RW Monument)
Northing = 875314.7744 (NAD83)
Easting = 1860464.580 (NAD83)
Elevation = 496.49' (NAVD88)

CONTROL POINT
(1/2" Rebar)
Northing = 874282.7413 (NAD83)
Easting = 1859865.8872 (NAD83)
Elevation = 502.61' (NAVD88)

CONTROL POINT
(1/2" Rebar)
Northing = 873720.9209 (NAD83)
Easting = 1859405.2690 (NAD83)
Elevation = 531.55' (NAVD88)

CONTROL POINT
(1/2" Rebar)
Northing = 873483.3143 (NAD83)
Easting = 1858707.5212 (NAD83)
Elevation = 477.32' (NAVD88)



REVISION
DATE

APPROVALS	DESIGNER	CHECKED BY	APPROVED
BSW	BSW	JAL	BSW

ALLIANCE CONSULTING ENGINEERS

Engineers, Inc.
Post Office Box 8147
Columbia, South Carolina 29202-8147
Phone (803) 779-2078 • Fax (803) 779-2079

OVERALL EXISTING
CONDITIONS MAP AND
DEMOLITION PLAN

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

FILE NAME:
C1.dwg

REFERENCE FILE:
BASE.DWG

PROJECT NO.
17113-0036

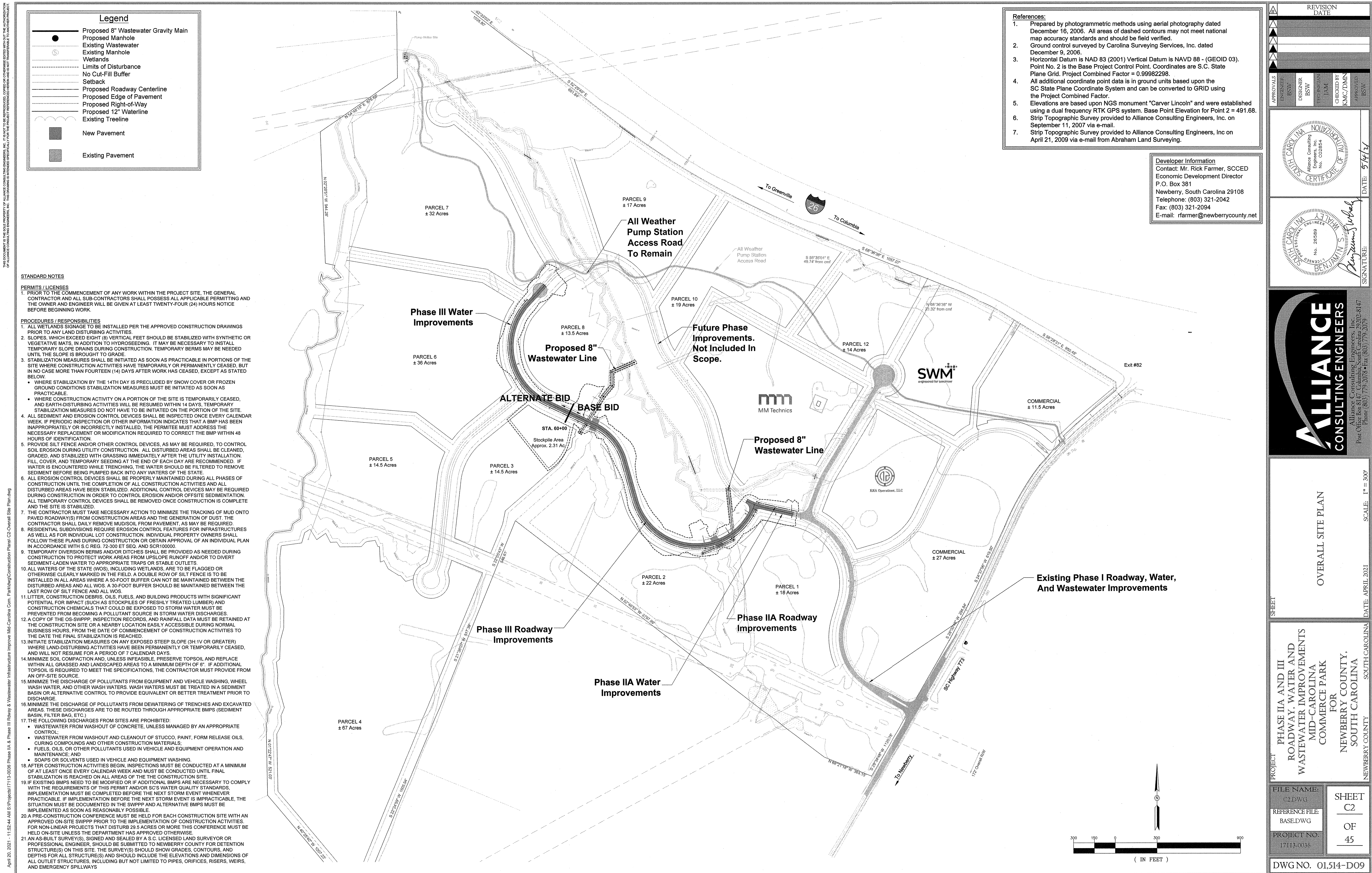
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C1
OF
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DWG NO. 01.514-D09

DATE: 5/14/21

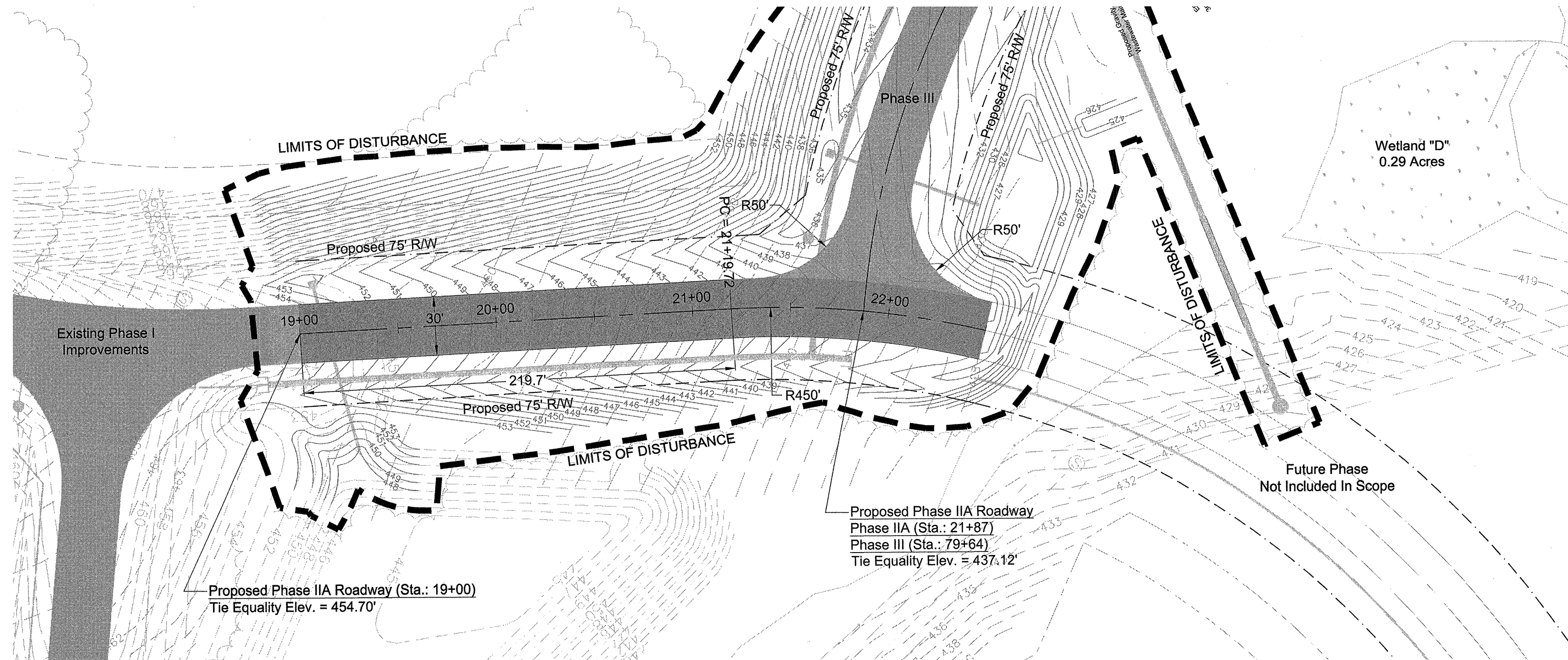
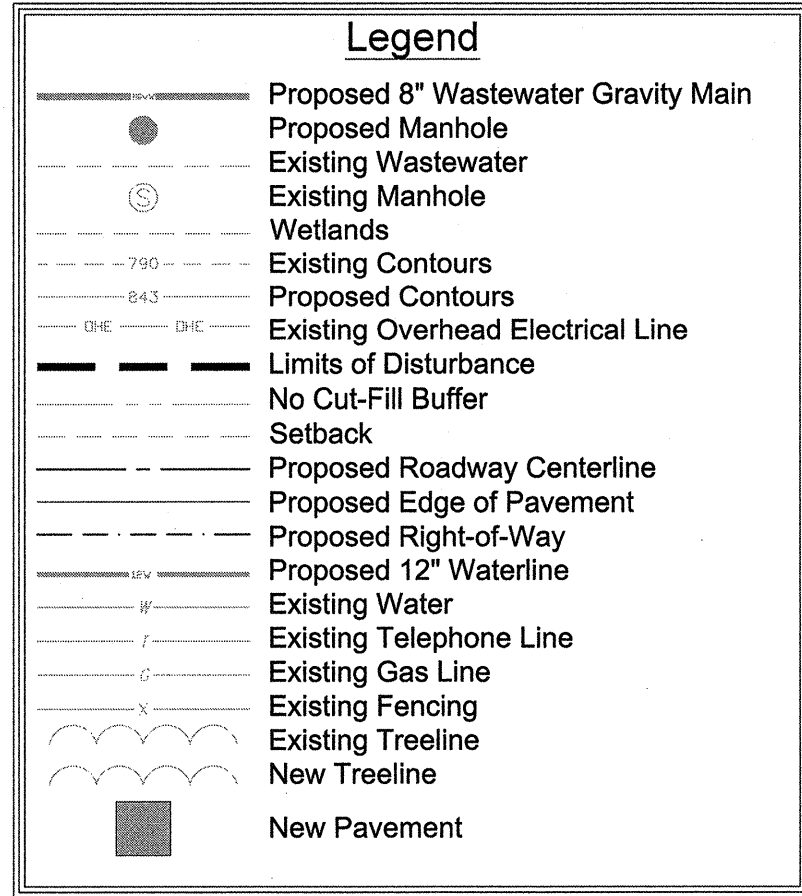
DATE: APRIL 2021

SCALE: 1" = 300'



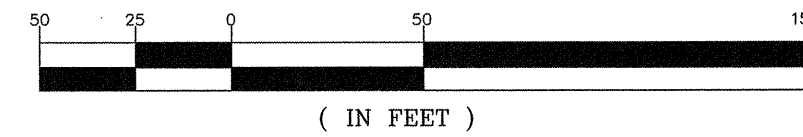
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April 20, 2021 - 12:27:49 PM S:\Project\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Com. Parkway\Construction Plans\3-Phase IIA Roadway Plan and Profile.dwg



Phase IIA Roadway Plan (STA: 19+00 TO 22+50)

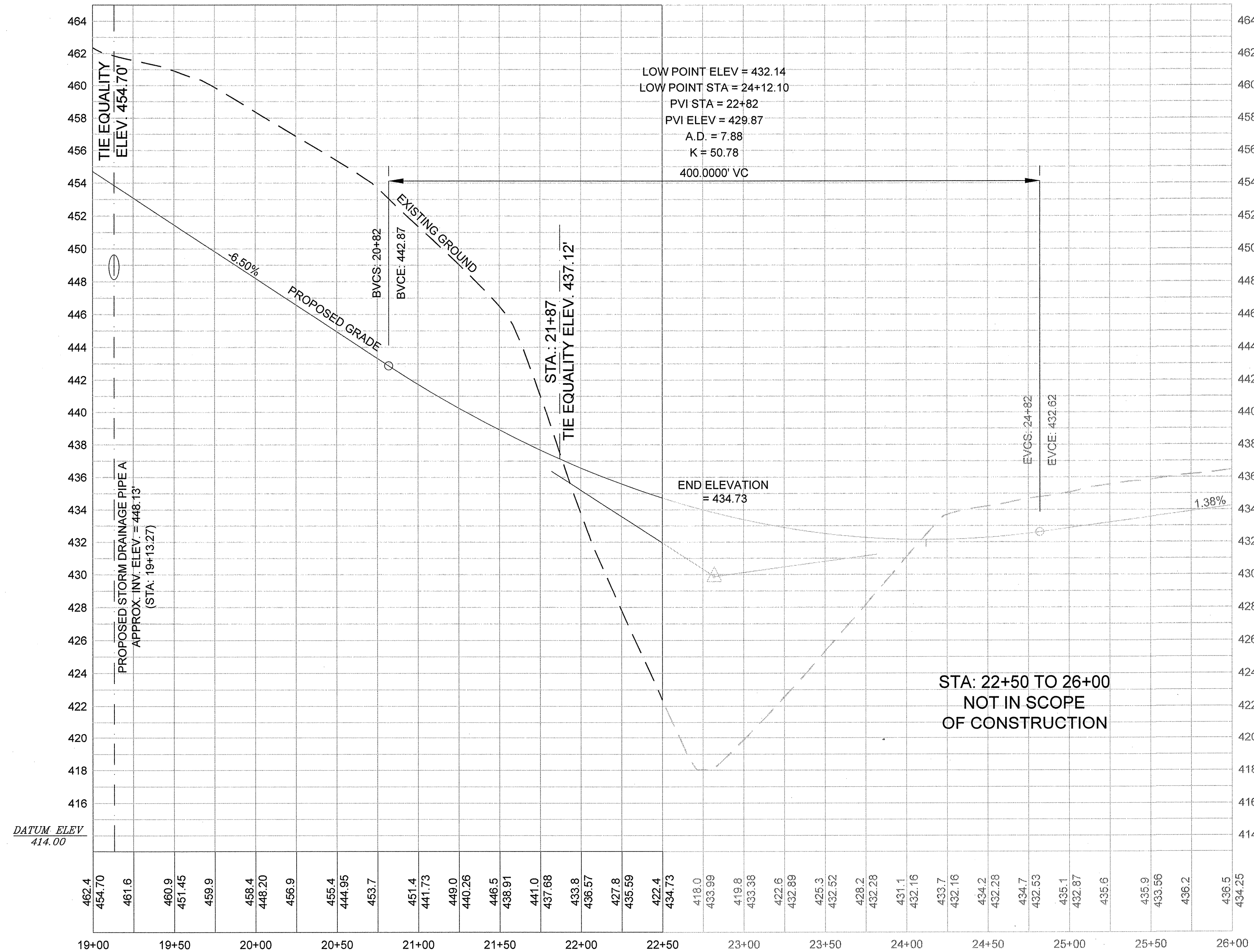
Scale: Horiz. 1"=50'



References:

- Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
- Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
- Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
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Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
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Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



Phase IIA Roadway Profile (STA: 19+00 TO 22+50)

Scale: Horiz. 1"=50', Vert. 1"=5'

REVISION DATE	
APPROVALS	
DESIGNER	BSW
CHECKED BY	JAM
APPROVED	BSW

DATE: 5/14/21

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PHASE IIA ROADWAY
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

FILE NAME: C3.dwg
REFERENCE FILE: BASE.DWG
PROJECT NO: 17113-0036

SHEET C3 OF 45

DWG NO. 01.514-DO9

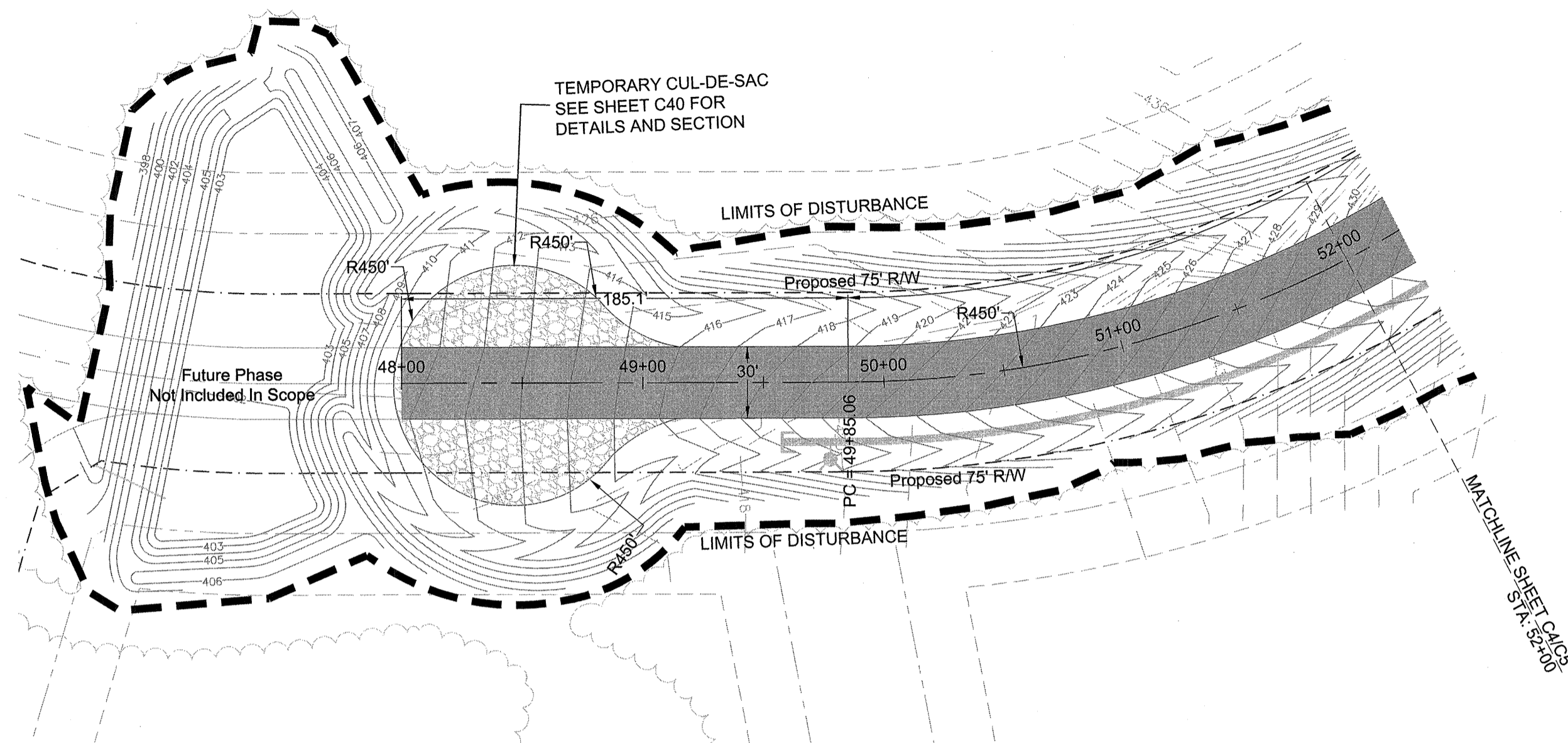
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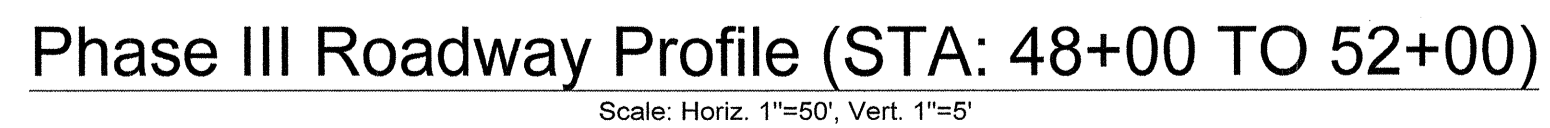
SOUTH CAROLINA

NEWBERRY COUNTY



April 20, 2021 - 1:22:22 PM S:\Projects\17113_0336 Phase II.A & Phase III Rdway & Wastewater Infrastructure Improvements\MerlCarrollina.Com Parkview\Construction Plans\ C4.Phase III Roadway Plan and Profile (1 of 6).dwg



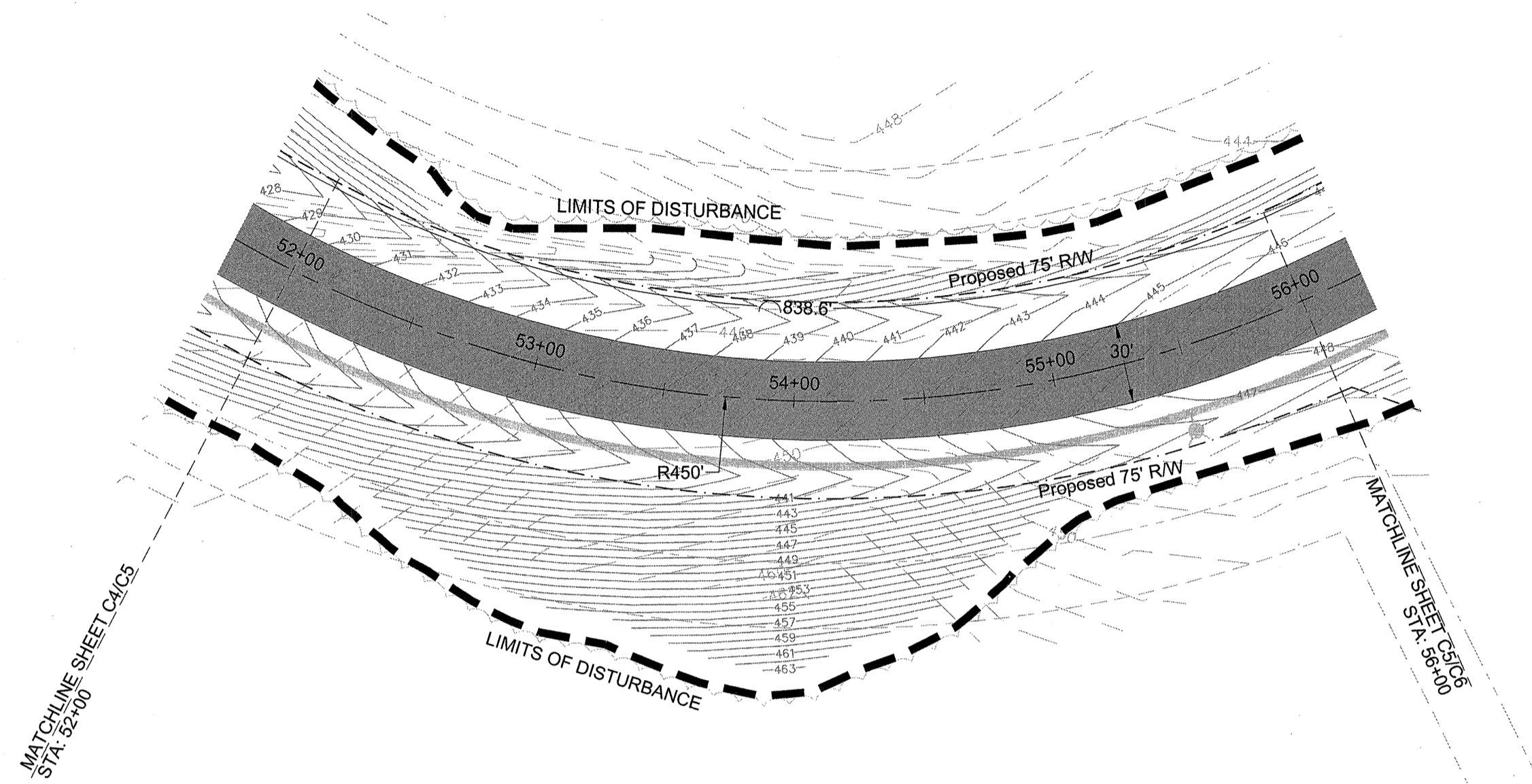
(IN FEET)



- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

<div style="float: right; text-align: center;">REVISION DATE</div> <div style="clear: both;"></div>	
APPROVALS	
ENGINEER: BSW	
DESIGNER: BSW	
TECHNICAL JAM	
CHECKED BY: KMC/DMM	
APPROVED: BSW	
	
	
<p>ALLIANCE CONSULTING ENGINEERS</p> <p>Alliance Consulting Engineers, Inc. Post Office Box 8147 Columbia, South Carolina 29202-8147 Phone (803) 779-2078 • Fax (803) 779-2079</p>	
<p>PHASE III ROADWAY PLAN AND PROFILE (STA: 48+00 TO 52+00)</p>	
SHEET	SCALE: AS SHOWN
<p>PROJECT: PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA</p>	
FILE NAME:	SHEET
C4.dwg	C4
REFERENCE FILE:	OF
BASE.DWG	45
PROJECT NO.	DWG NO.
171113-0036	01,514-D09

April 20, 2021 - 1:30:01 PM S:\Projects\17113_0036 Phase IIA & Phase III Railway & Wastewater Infrastructure Improve Mid-Carolina Comm. Parkway\Construction Plans\ C-5_Phase III Roadway Plan and Profile (2 of 6).dwg



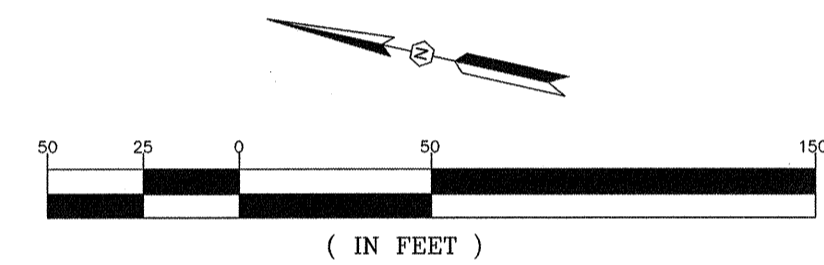
Scale: Horiz. 1"=50'



Scale: Horiz. 1"=50', Vert. 1"=5'

1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
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6. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.
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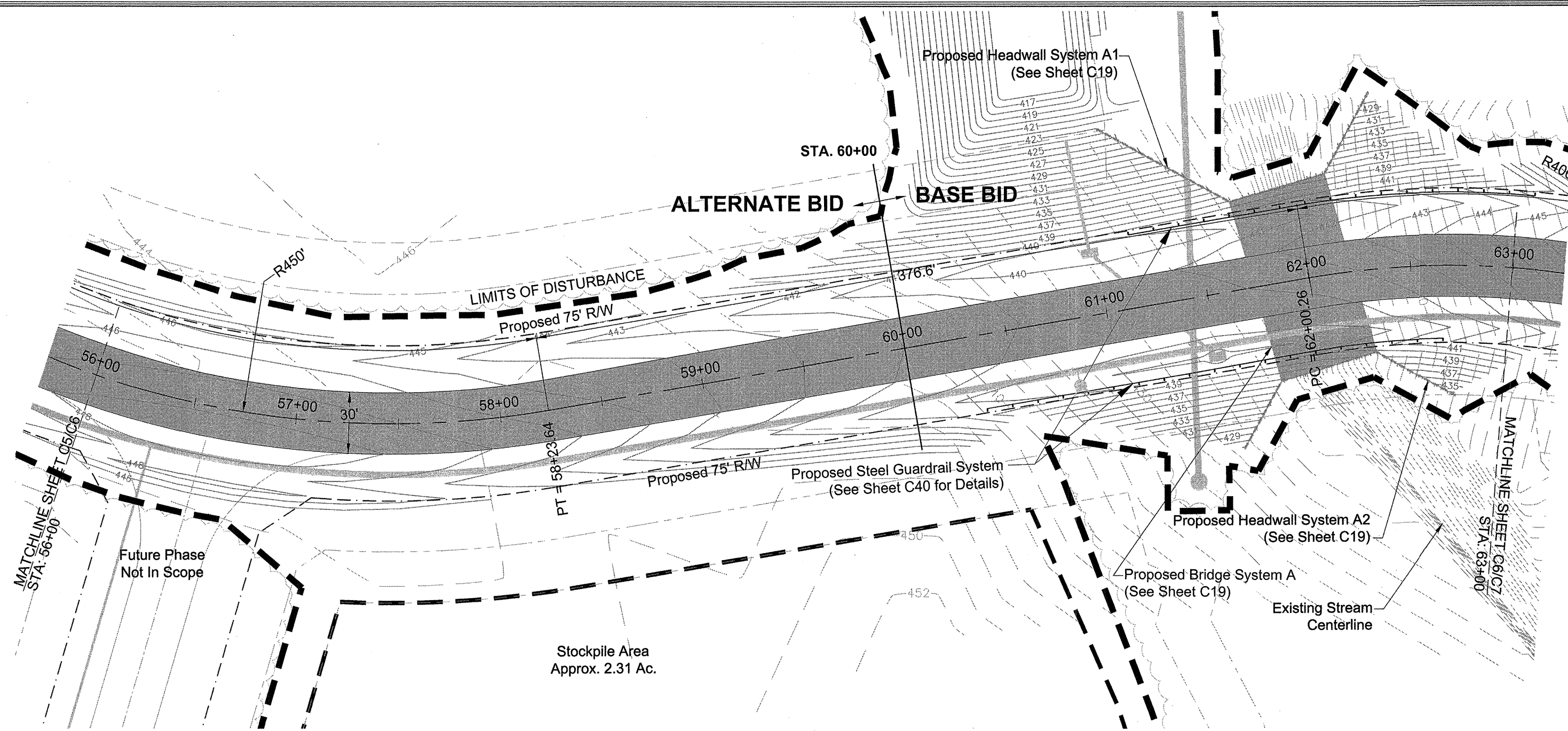
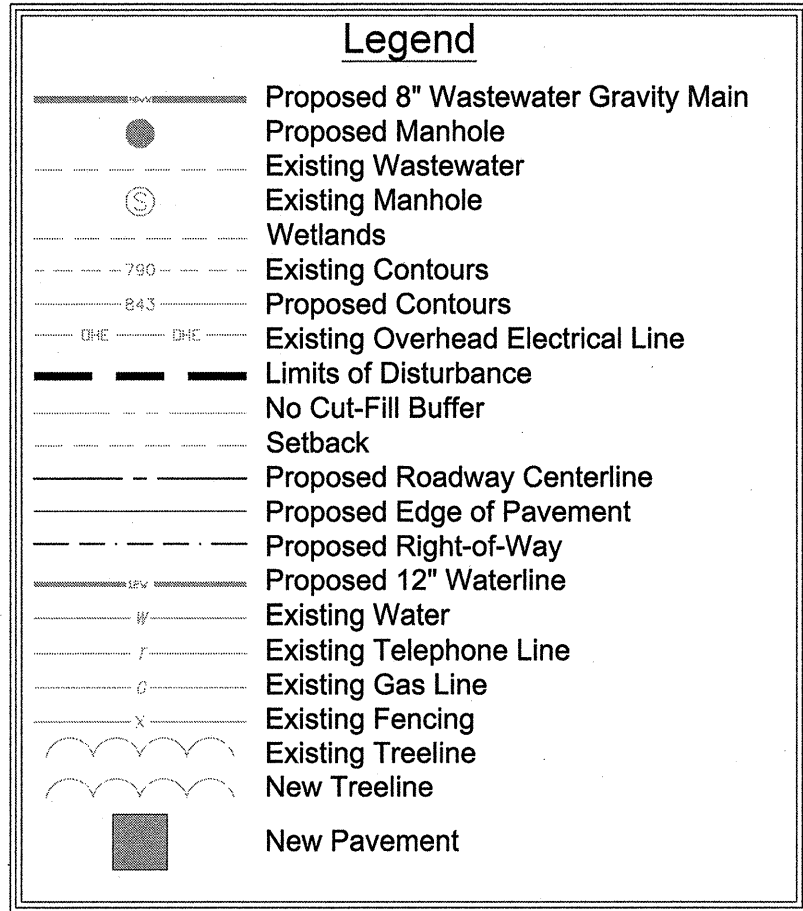
Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> NORTH 0° 00' 00" </div> <div style="text-align: center;"> NORTH 0° 00' 00" </div> <div style="text-align: center;"> NORTH 0° 00' 00" </div> <div style="text-align: center;"> NORTH 0° 00' 00" </div> <div style="text-align: center;"> NORTH 0° 00' 00" </div> <div style="text-align: center;"> NORTH 0° 00' 00" </div> </div>		REVISION DATE	
APPROVALS	ENGINEER ESW	DESIGNER BSW	TECHNICAL JAM
			CHECKED BY KMC/DMN
			APPROVED BSW
			DATE: 5/14/21
			SIGNATURE: <i>Benjamin Whaley</i>
Alliance Consulting Engineers, Inc. P.O. Office Box 8147, Columbia, South Carolina 29202-8147 Phone (803) 779-2078 • Fax (803) 779-2079			
SHEET		SCALE: AS SHOWN	
PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA		DATE: APRIL 2021	
PROJECT		SOUTH CAROLINA NEWBERRY COUNTY	
FILE NAME: C5.dwg		SHEET C5	
REFERENCE FILE: BASED.WDG		OF	
PROJECT NO. 17113-0036		45	
DWG NO. 01.514-D09			

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April 22, 2021 - 2:24:08 PM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Com. Parkway\Construction Plans\Co-Phase III Roadway Plan and Profile (3 of 6).dwg

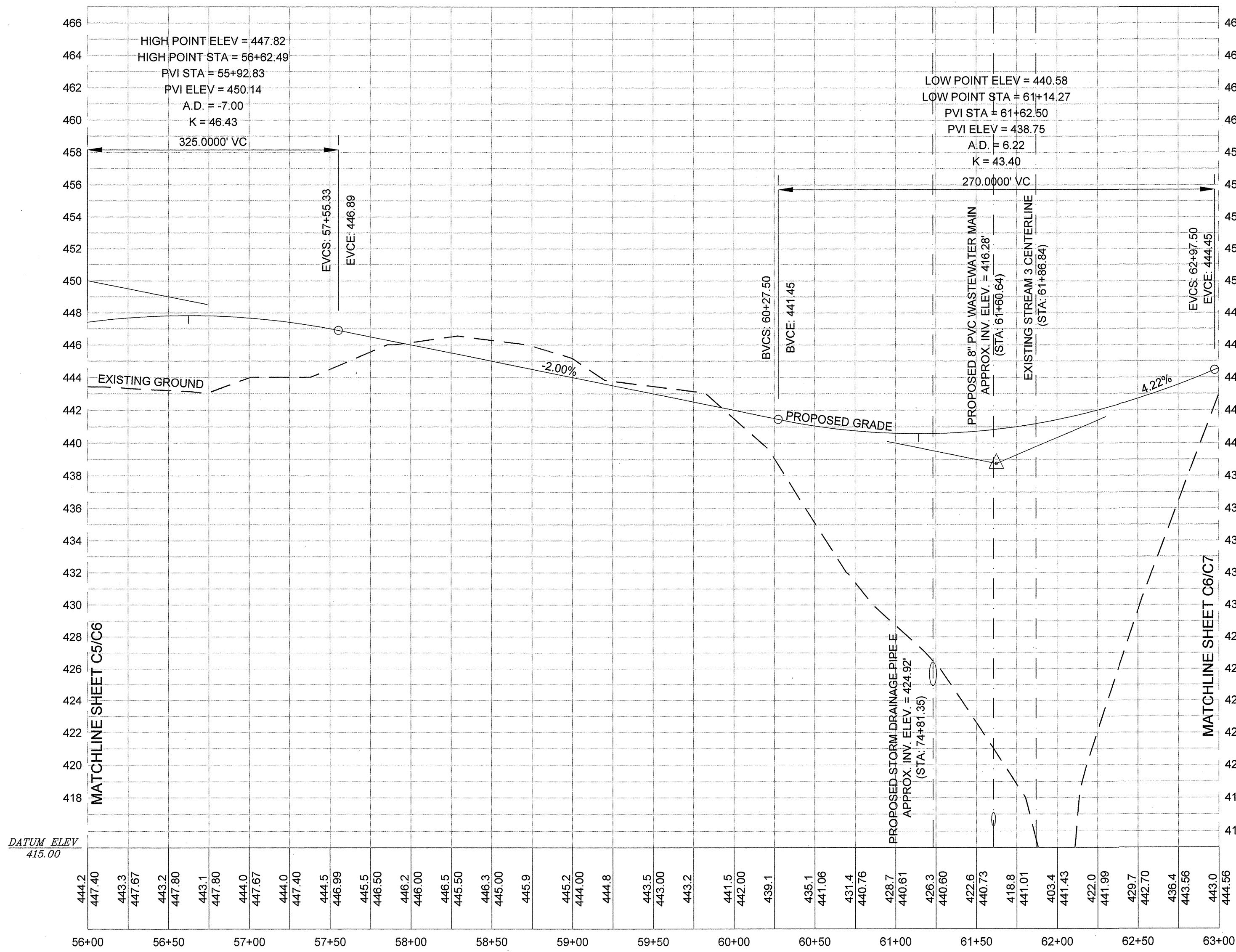
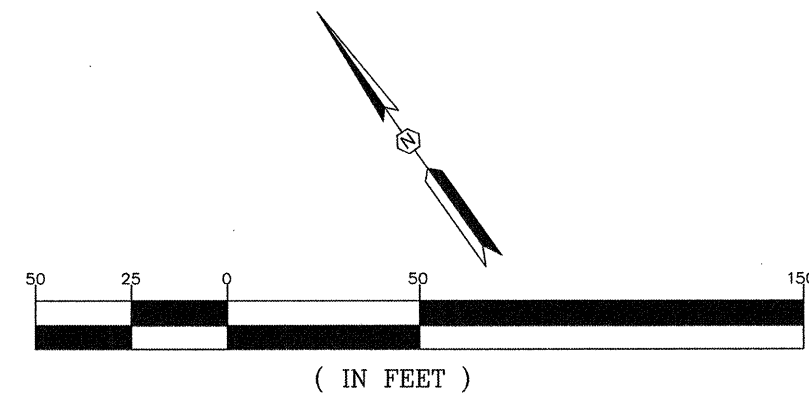


References:

1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
3. Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.
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Developer Information

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REVISION	
DATE	DESCRIPTION

APPROVALS	
DESIGNER	CHECKED BY
IN CHARGE	APPROVED
BSW	BSW
BSW	BSW
JAM	JAM
KMC/DVN	KMC/DVN
BSW	BSW

DATE: 5/6/21

SIGNATURE: *Benjamin J. Farmer*

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Alliance Consulting Engineers, Inc.
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Phone: (803) 729-2078 • Fax: (803) 729-2079

PHASE III ROADWAY
PLAN AND PROFILE
(STA: 56+00 TO 63+00)

SCALE: AS SHOWN

DATE: APRIL 2021

PROJECT: PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

FILE NAME:
C6.dwg

REFERENCE FILE:
BASE.DWG

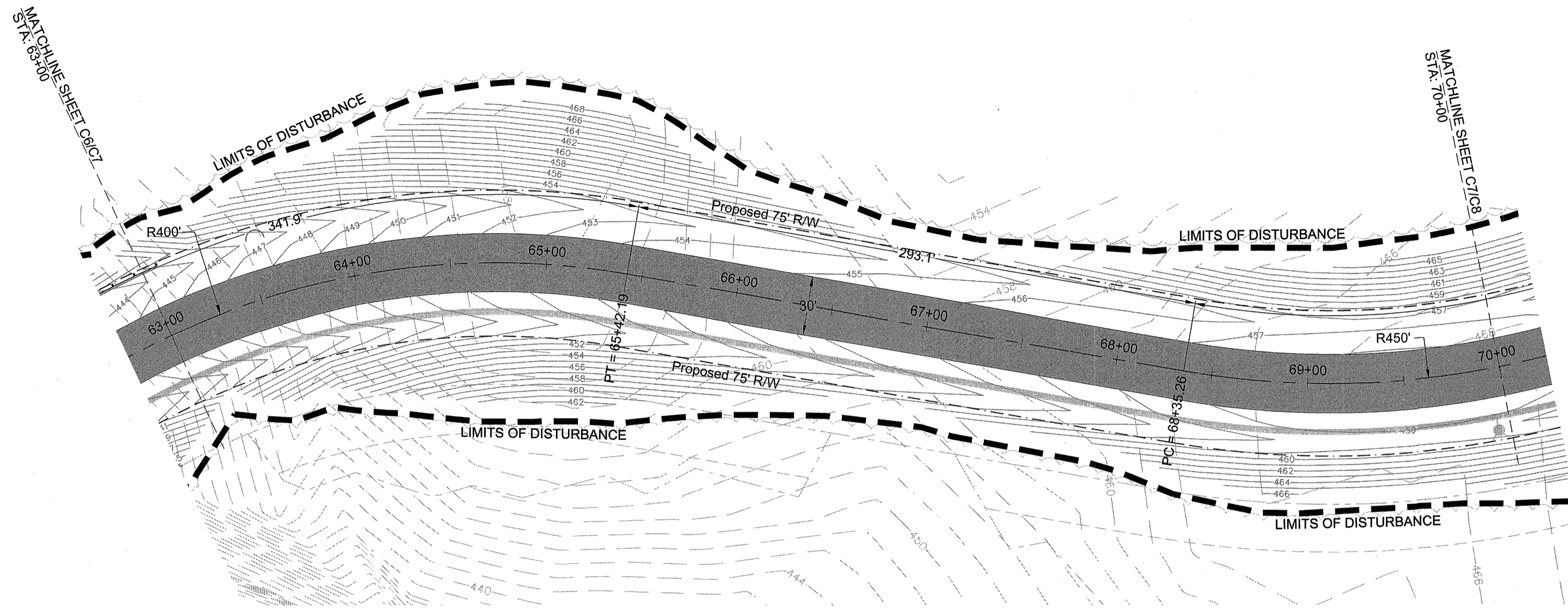
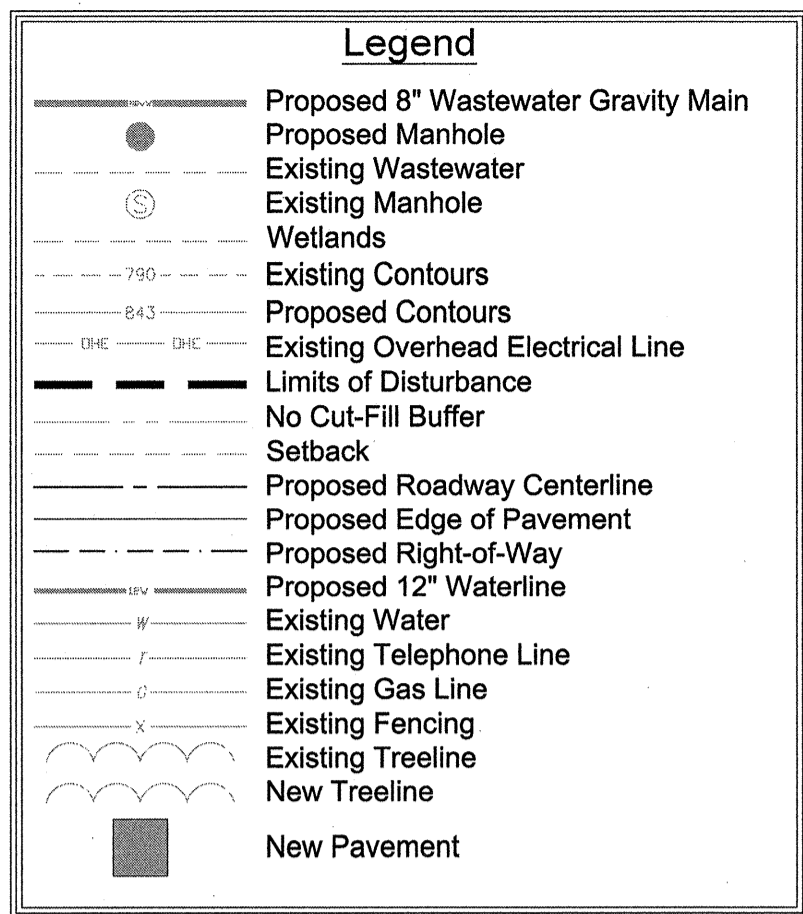
PROJECT NO:
17113-0036

SHEET
C6
OF
45

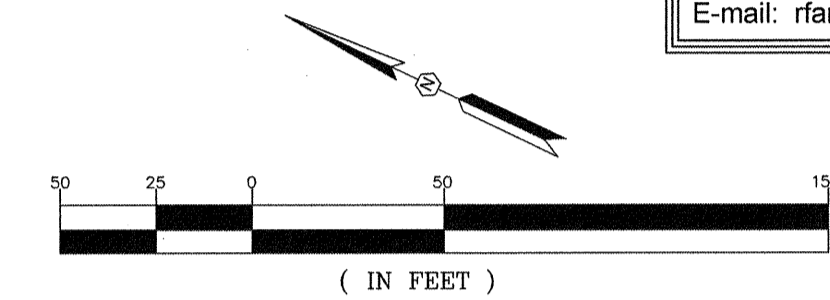
DWG NO. 01.514-D09

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April 20, 2021 - 1:40:39 PM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Con. Parkway\Construction Plans C7-Phase III Roadway Plan and Profile (4 of 8).dwg

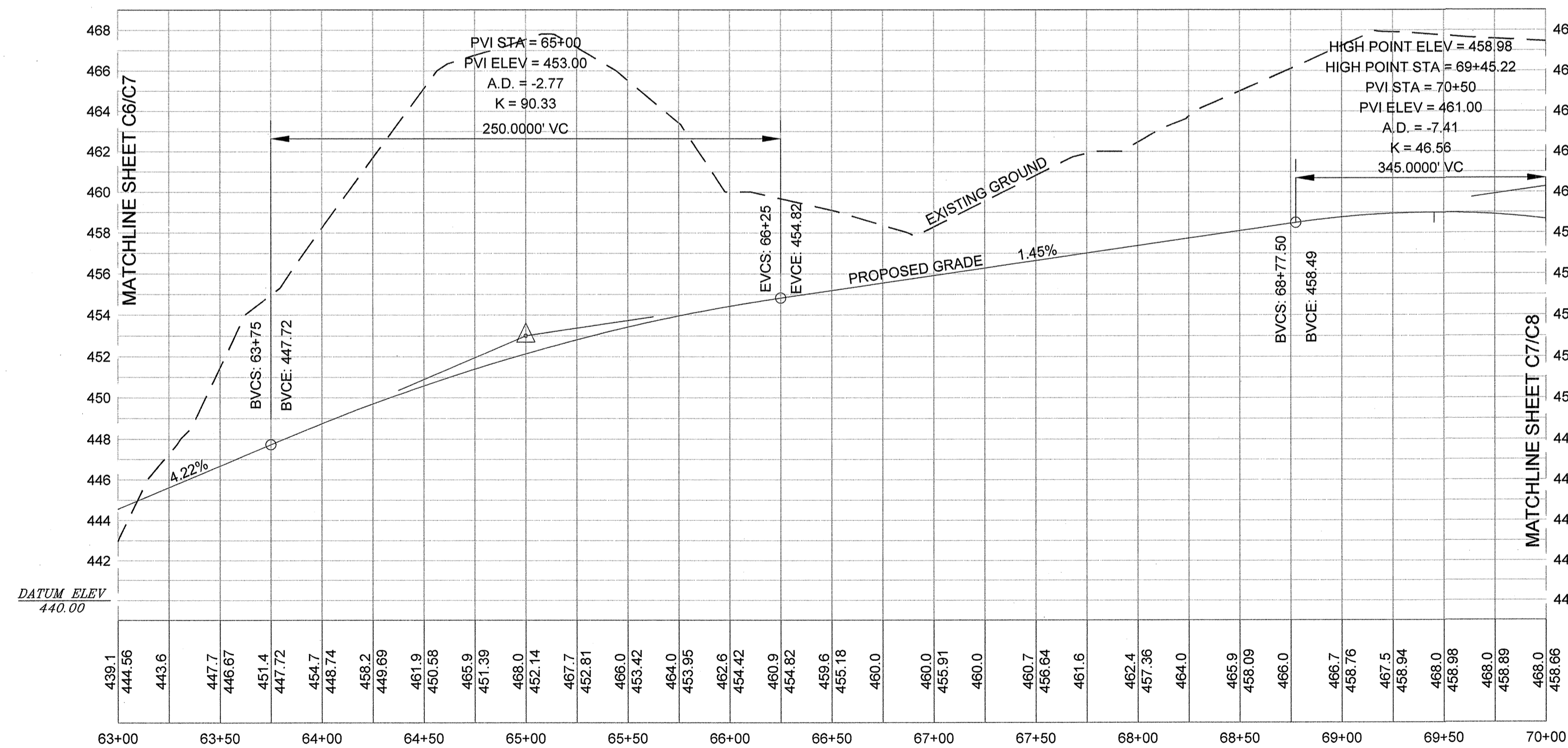


Phase III Roadway Plan (STA: 63+00 TO 70+00)
Scale: Horiz. 1"=50'



Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
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E-mail: rfarmer@newberrycounty.net

- References:**
- Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
 - Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
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Phase III Roadway Profile (STA: 63+00 TO 70+00)
Scale: Horiz. 1"=50', Vert. 1"=5'

REVISION	
DATE	DESCRIPTION

APPROVALS	
ENGINEER	DESIGNER
TECHNICIAN	CHECKED BY
APPROVED	

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Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
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PHASE III ROADWAY PLAN AND PROFILE (STA: 63+00 TO 70+00)

PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA

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REFERENCE FILE: BASE.DWG
PROJECT NO.: 17113-0036

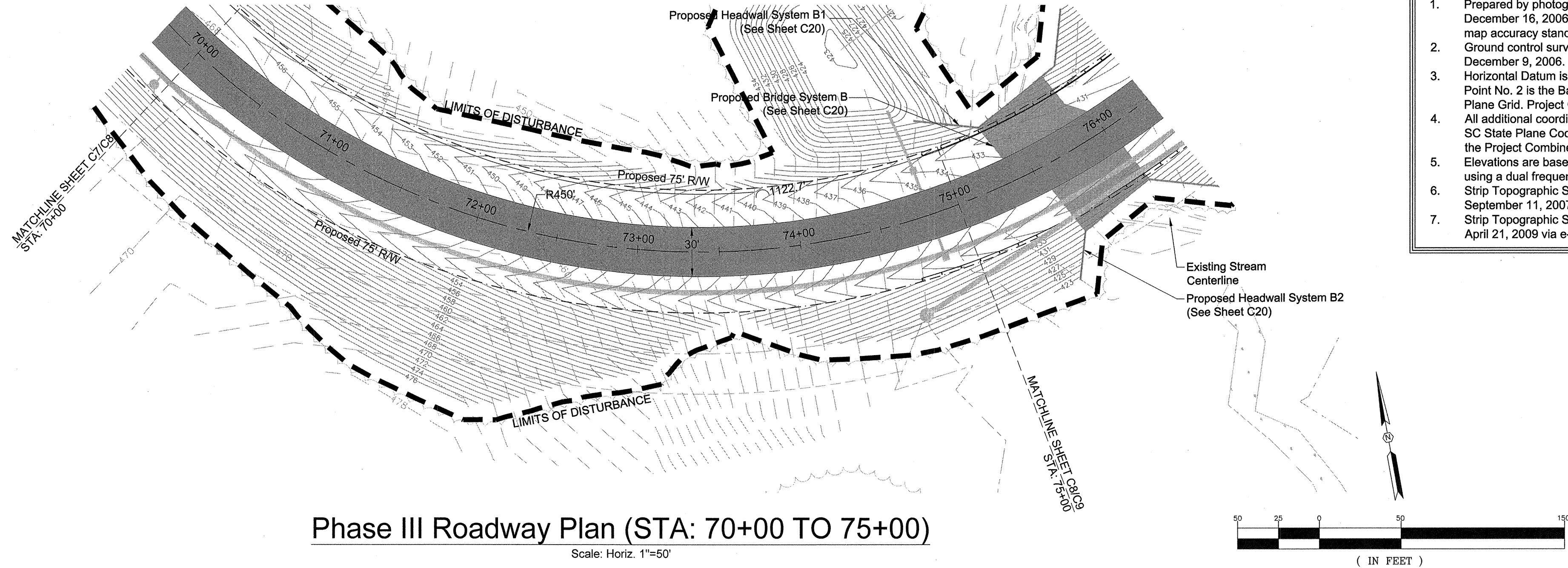
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DWG NO. 01.514-DO9

DATE: 5/17/21
SIGNATURE: *Rick Farmer*

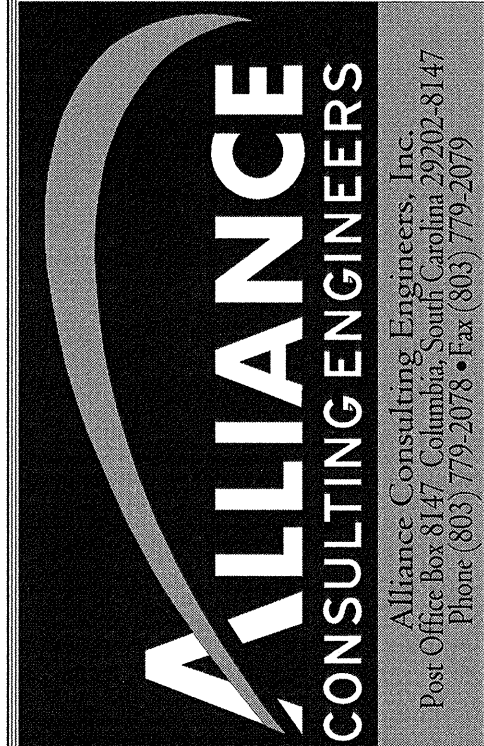
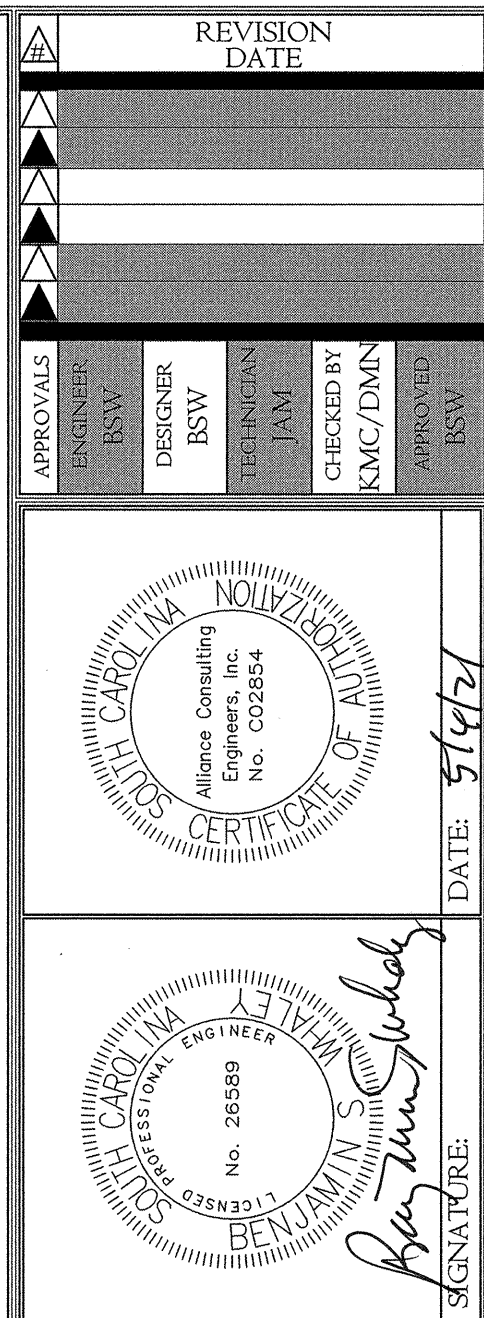
SCALE: AS SHOWN
DATE: APRIL 2021
SOUTH CAROLINA
NEWBERRY COUNTY

April 20, 2021 - 1:56:29 PM S:\Projects\17113-0036 Phase IIA & Phase III Rdway & Wastewater Infrastructure Improve Mid-Carolina Cor. Park\dwg\Construction Plans\ C8-Phase III Roadway Plan and Profile (5 of 6).dwg



1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
3. Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
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Economic Development Director
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Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

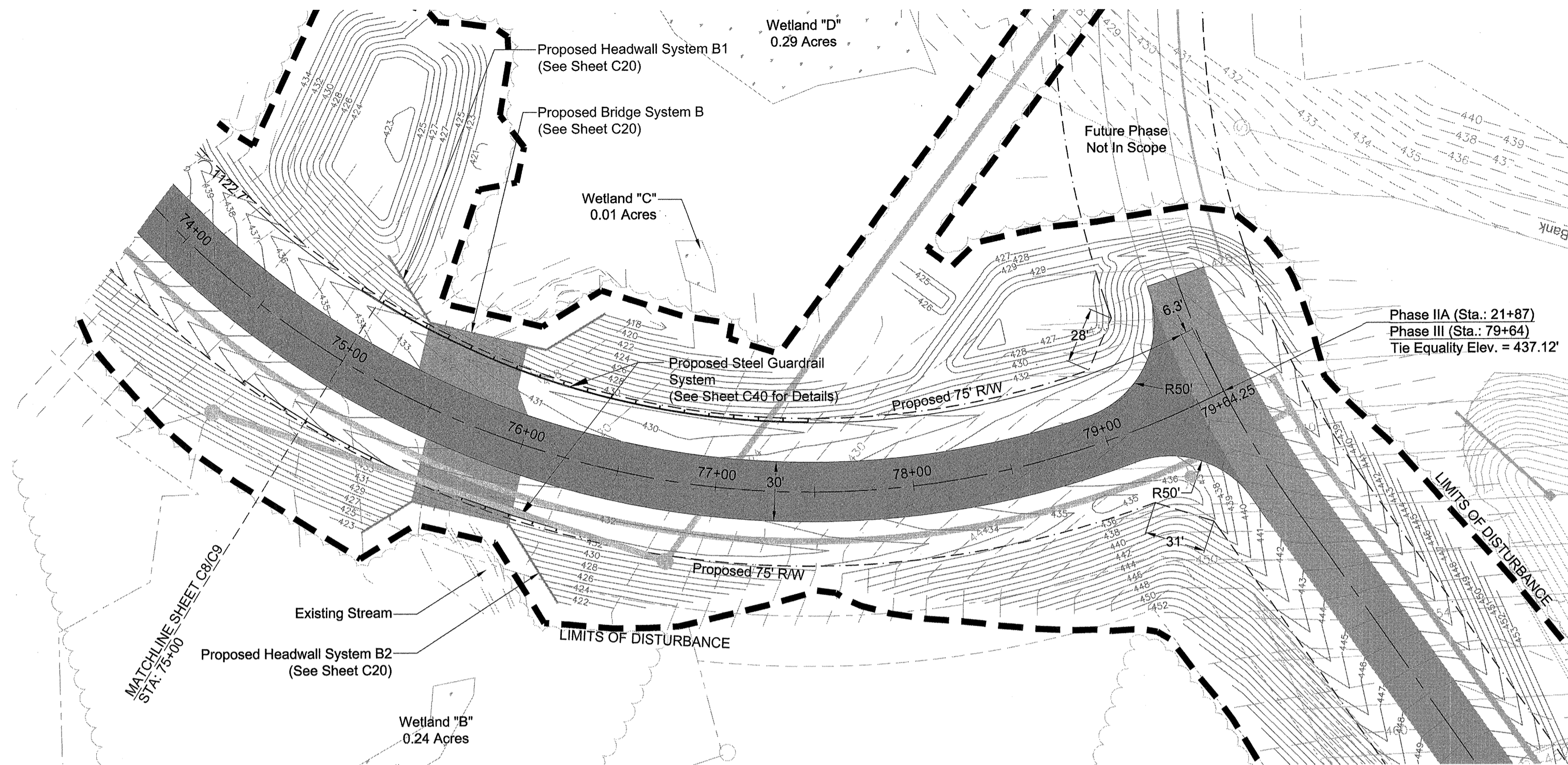
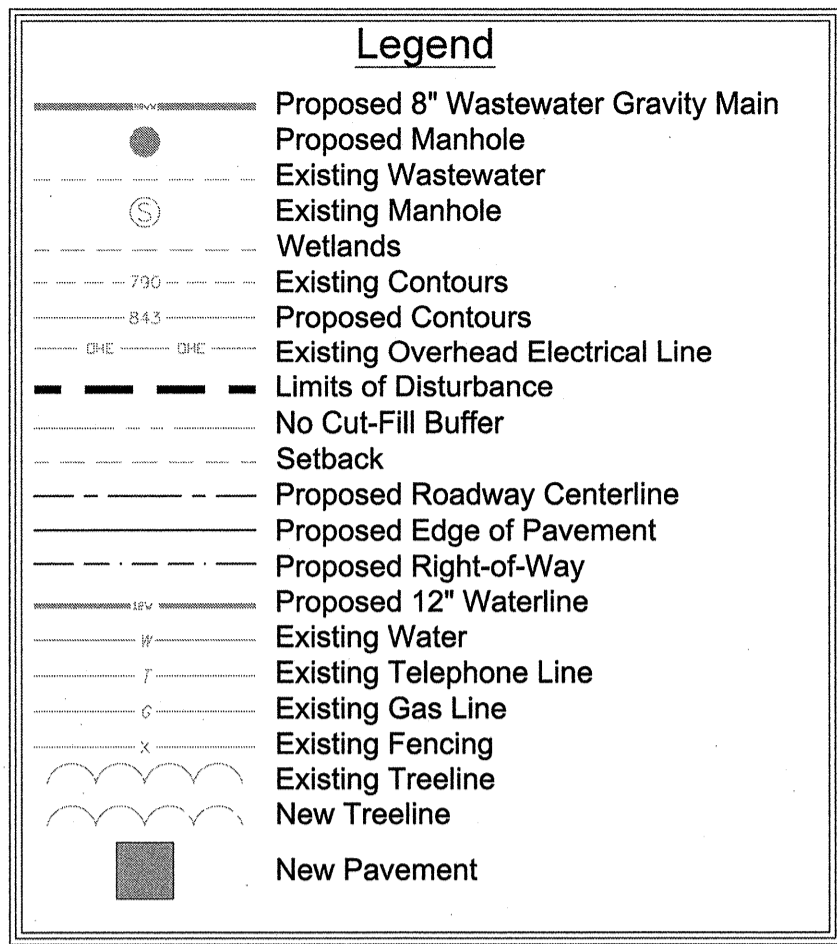


PROJECT	PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	SHEET	PHASE III ROADWAY PLAN AND PROFILE (STA: 70+00 TO 75+00)
NEWBERRY COUNTY	SOUTH CAROLINA	DATE: APRIL 2021	SCALE: AS SHOWN

FILE NAME: C8.dwg	SHEET C8
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	45
DWG NO. 01,514-D09	

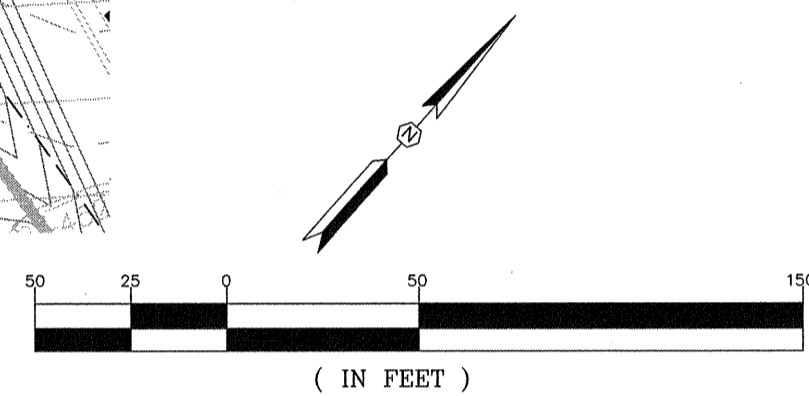
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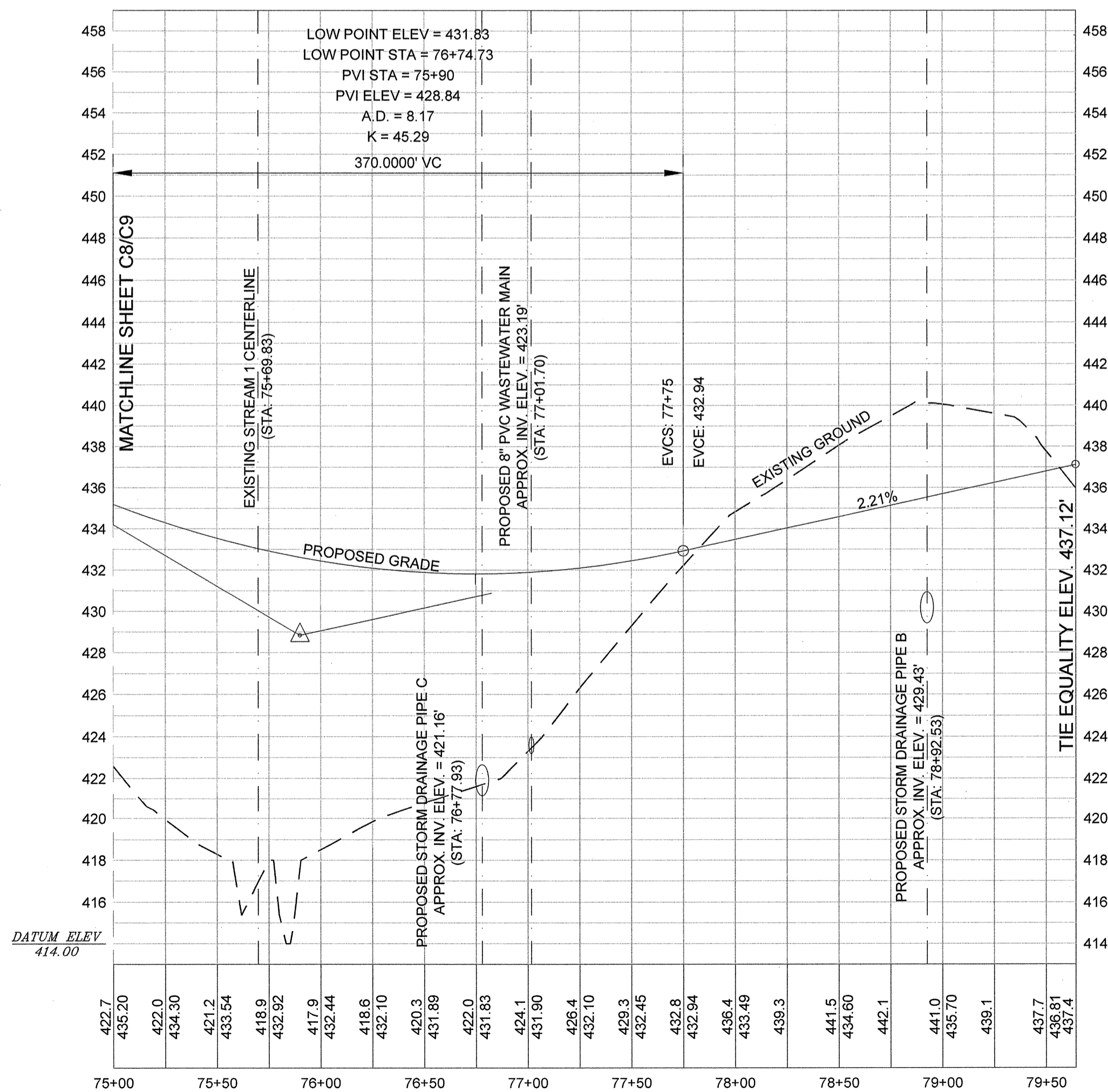
- References:**
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Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



Phase III Roadway Plan (STA: 75+00 TO 79+64.25)

Scale: Horiz. 1"=50'



Phase III Roadway Profile (STA: 75+00 TO 79+64.25)

Scale: Horiz. 1"=50', Vert. 1"=5'

REVISION	
DATE	DESCRIPTION

APPROVALS	
ENGINEER	DESIGNER
BSW	BSW
TECHNICAL	JAM
CHECKED BY	KMC/DMS
APPROVED	BSW

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Phone (803) 779-2078 • Fax (803) 779-2079

PHASE III ROADWAY PLAN AND PROFILE
STA: 75+00 TO 79+64.25

PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS
MID-CAROLINA COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

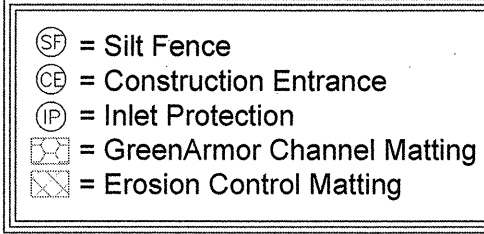
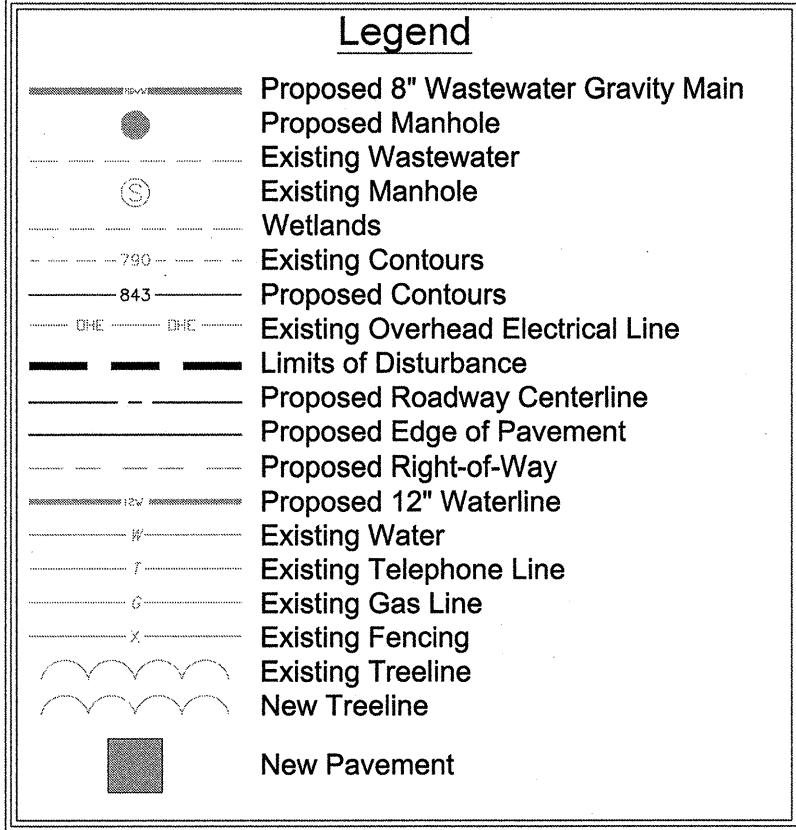
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REFERENCE FILE: BASE.DWG
PROJECT NO. 17113-0036

SHEET C9 OF 45

DWG NO. 01.514-D09

DATE: APRIL 2021
SCALE: AS SHOWN

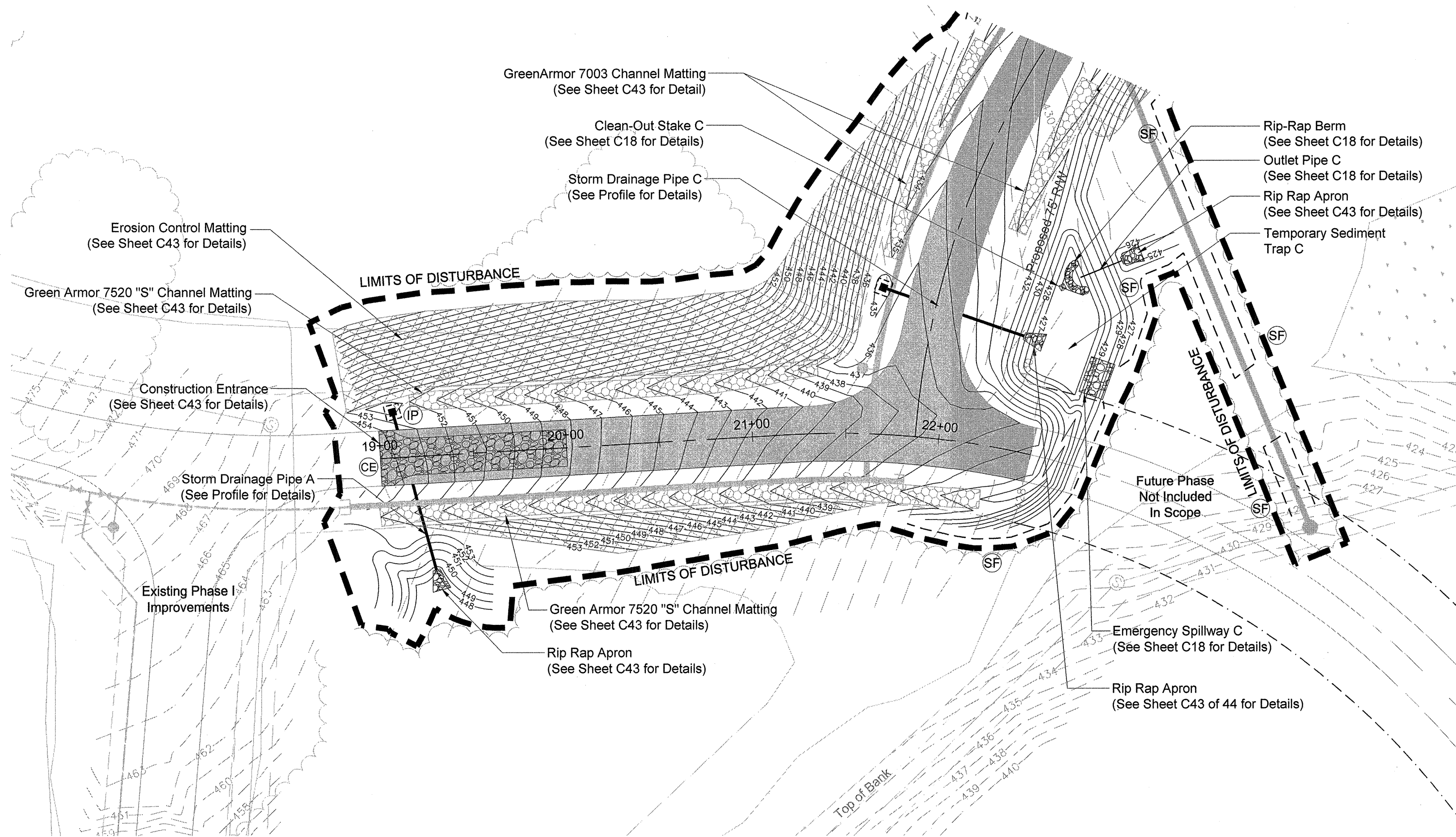
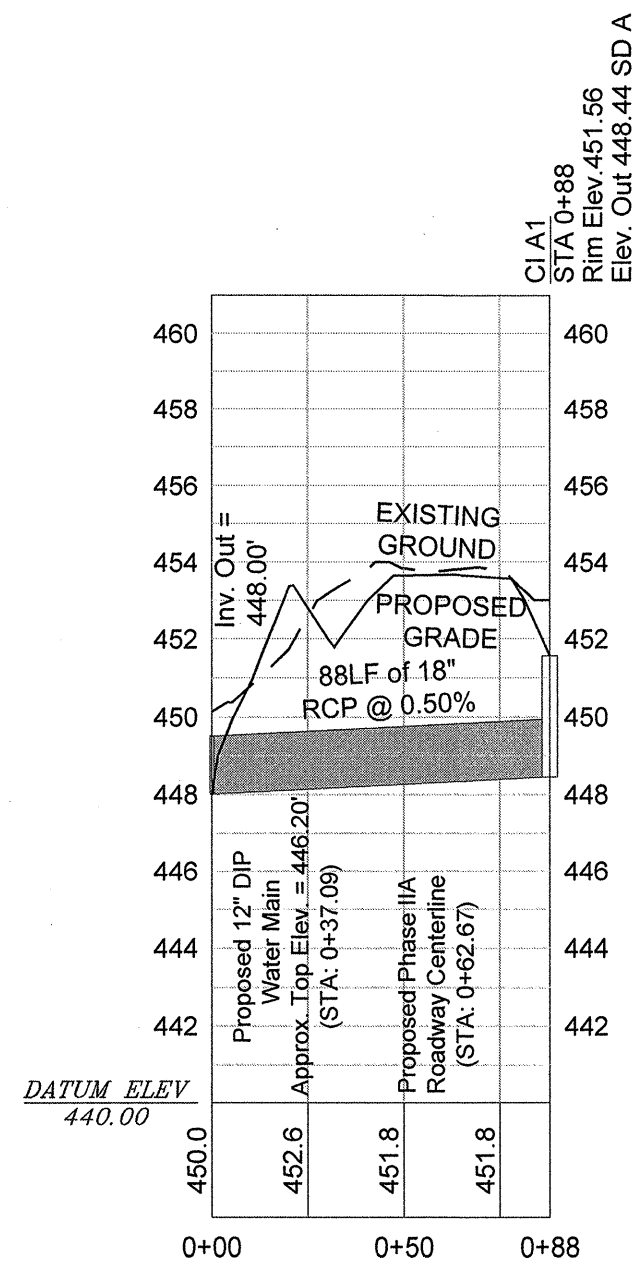
NEWBERRY COUNTY SOUTH CAROLINA



CONTRACTOR NOTES:
EFFORTS SHOULD BE MADE TO AVOID THE REMOVAL OF LARGE TREES AT THE EDGES OF CONSTRUCTION CORRIDORS. DISTURBED AREAS SHOULD BE RESEED WITH SEED MIXTURES THAT ARE BENEFICIAL TO WILDLIFE. FESCUE-BASED MIXTURES SHOULD BE AVOIDED; FESCUE IS INVASIVE AND PROVIDES LITTLE BENEFIT TO WILDLIFE. NATIVE ANNUAL SMALL GRAINS APPROPRIATE FOR THE SEASON ARE PREFERRED AND RECOMMENDED. WHERE FEASIBLE, USE WOODY DEBRIS AND LOGS FROM CORRIDOR CLEARING TO ESTABLISH BRUSH PILES AND DOWNED LOGS AT THE EDGE OF THE CLEARED RIGHT-OF-WAY TO IMPROVE HABITAT FOR WILDLIFE. CORRIDOR MAINTENANCE SHOULD BE MINIMIZED, AND MOWING SHOULD BE PROHIBITED BETWEEN APRIL 1 AND OCTOBER 1 IN ORDER TO REDUCE IMPACTS TO NESTING WILDLIFE. ADDITIONALLY, HERBICIDES SHOULD NOT BE USED IN WETLAND AREAS OR NEAR STREAMS.

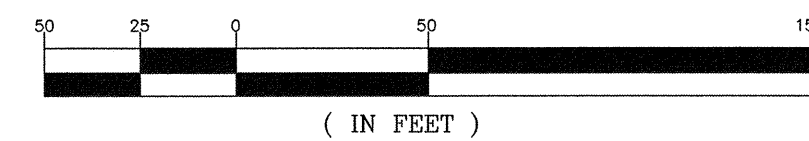
- References:**
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E-mail: rfarmer@newberrycounty.net



Phase IIA Grading, Storm Drainage and Erosion and Sediment Control Plan
(STA: 19+00 TO 22+50)

Scale: Horiz. 1"=50'



REVISION	
DATE	DESCRIPTION

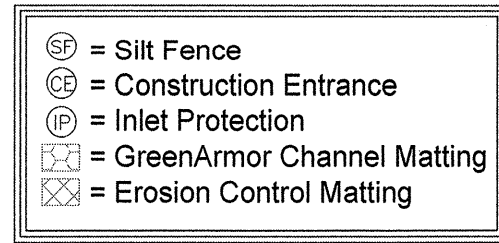
APPROVALS	
ENGINEER	DESIGNER
BSW	BSW
BSW	BSW
BSW	BSW
BSW	BSW
BSW	BSW
BSW	BSW
BSW	BSW

ALLIANCE CONSULTING ENGINEERS	
ALLIANCE CONSULTING ENGINEERS, INC.	2920-8147
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PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	
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PROJECT NO.:	17113-0036

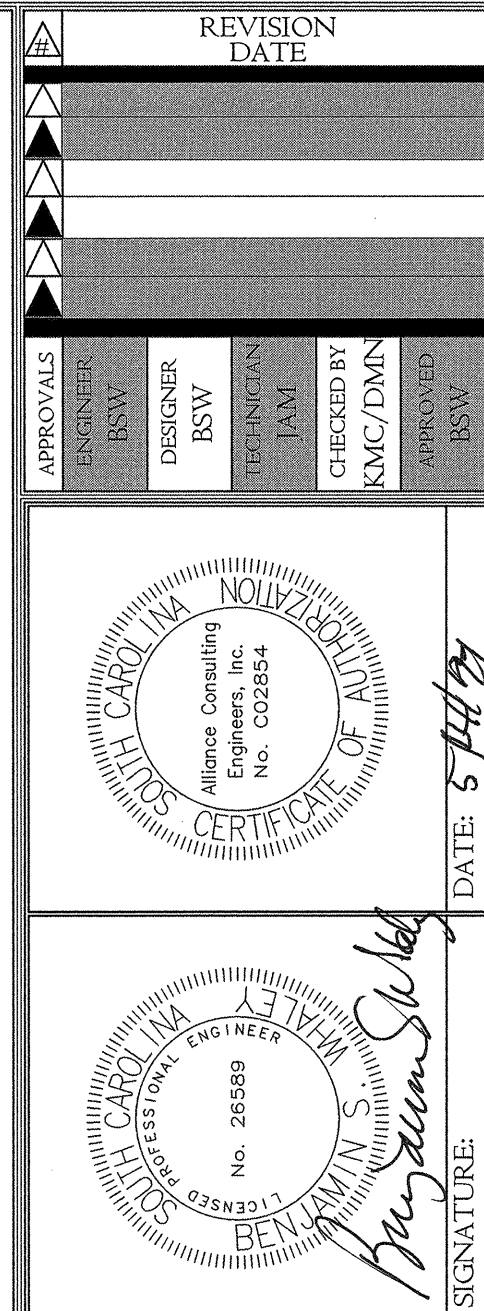
SHEET C10 OF 45	
DWG NO.	01.514-D09

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Scale: Horiz. 1"=50

- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



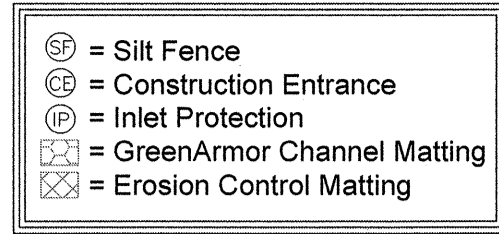
PHASE III GRADING, STORM
DRAINAGE AND EROSION AND
SEDIMENT CONTROL
(STA: 48+00 TO 52+00)

DATE: APRIL 2021
SCALE: AS SHOWN

FILE NAME: C11.dwg	SHEET <u>C11</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	<u>45</u>

DWG NO. 01,514-D09

April 20, 2021 - 2:44:42 PM S:\Projects\17113_0036 Phase II.A & Phase III Rdway & Wastewater Infrastructure Improvements Mid-Carolina Corridor (C12-Phase III Gradings, SD and ESC Plan (2 of 6)) dwg



GreenArmor 7520 "S" Channel Matting
(See Sheet 43 for Details)

LIMITS OF DISTURBANCE

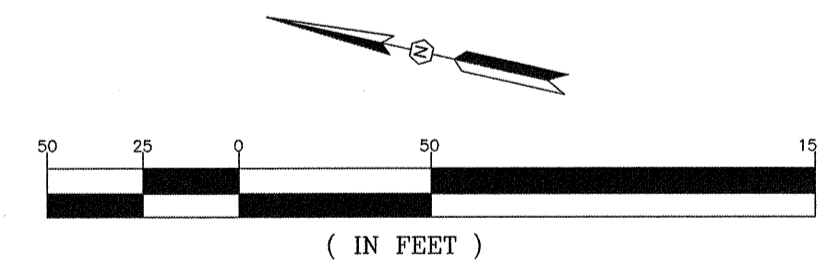
52+00 53+00 54+00 55+00 56+00

MATCHLINE SHEET C11/C12 STA. 52+00

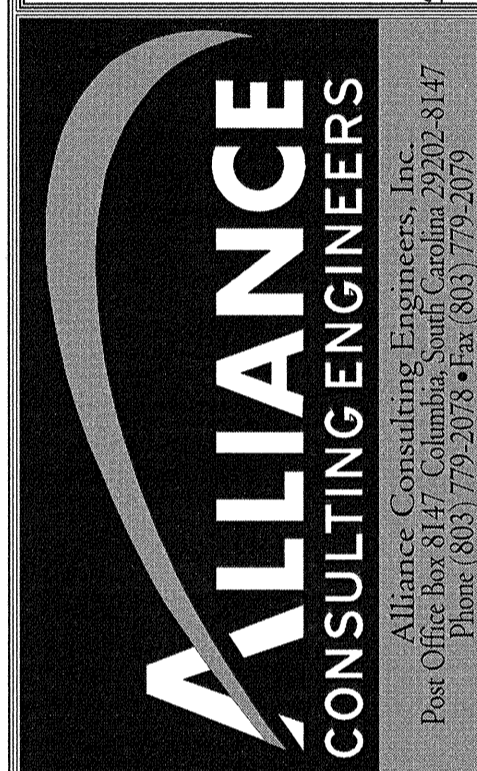
MATCHLINE SHEET C12/C13 STA. 56+00

Erosion Control Matting
(See Sheet 43 for Details)

Scale: Horiz. 1"=50'



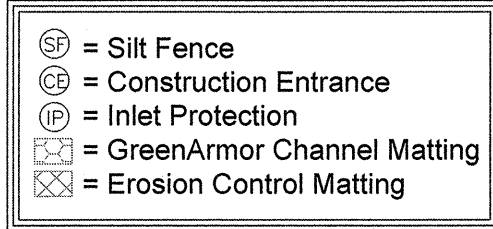
- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
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Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY
SOUTH CAROLINA

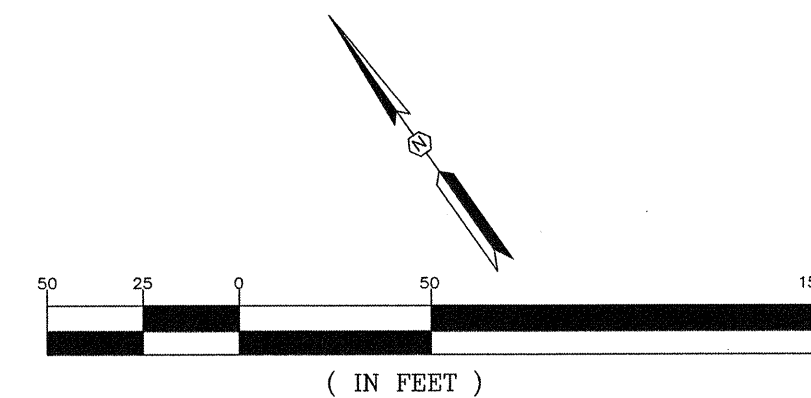
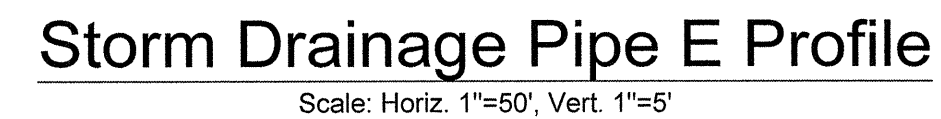
DWG NO. 01,514-D09

April 20, 2021 - 3:04:08 PM C:\projects\171413_0036 Phase II A & Phase III B roadway & Wastewater Infrastructure Improve Mid-Carolina Cor Parkway/Construction Plan/C13 Phase III Grading SD and ESC Plan (3 of 8) dwg

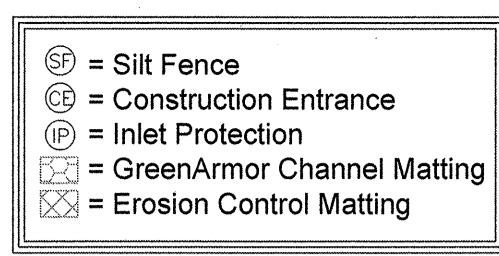
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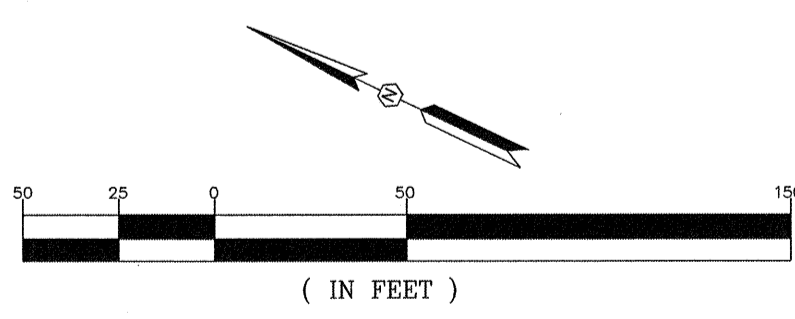
- Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
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Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

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April 20, 2021 - 3:14:15 PM S:\Projects\17113_0036 Phase 1IA & Phase III Edway & Wastewater Infrastructure Intervene Mid-Carolina Cor Park\dwg\Construction Plans\ C14.Phase III Gradlin SD and ESC Plan (4 of 6).dwg

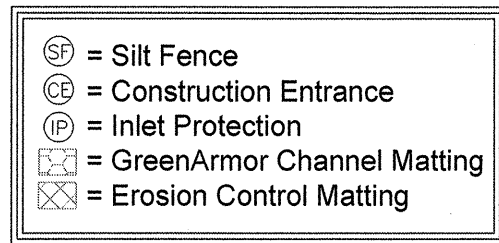


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E-mail: rfarmer@newberrycounty.net



Scale: Horiz. 1"=50

		REVISION DATE	
APPROVALS ENGINEER: DESIGNER: CHECKED BY: KMC/DMS APPROVED:		 CERTIFICATE OF QUALITY No. 002854 DATE: 5/4/21	
PROJECT PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA		SHEET PHASE III GRADING, STORM DRAINAGE AND EROSION AND SEDIMENT CONTROL (STA: 63+00 TO 70+00)	
FILE NAME: C14.dwg REFERENCE FILE: BASE.DWG PROJECT NO. 17113-0036		DWG NO. 01514-D09	
SCALE: AS SHOWN DATE: APRIL 2021		SOUTH CAROLINA NEWBERRY COUNTY	

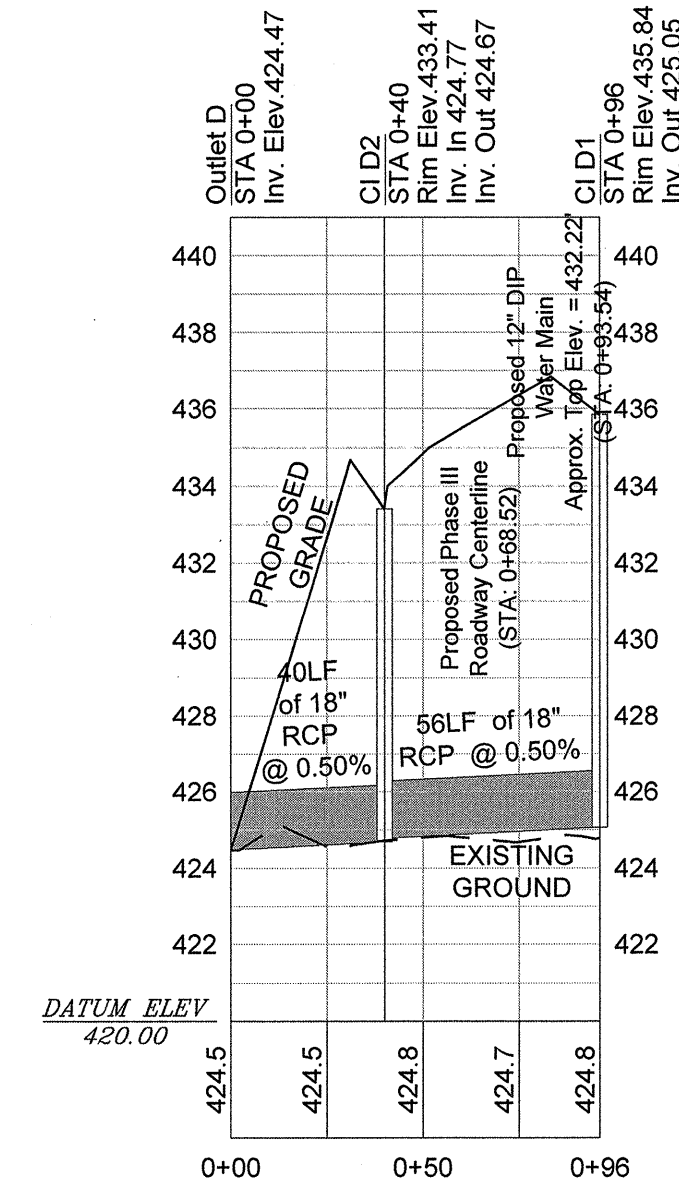


Plan view of a proposed stormwater management facility. The plan shows a central channel with stationing from 70+00 to 75+00. The channel is lined with GreenArmor 7003 Channel Matting. On either side of the channel are areas for Erosion Control Matting. The plan also shows a Rip Rap Apron, a Rip Rap Berm, a Clean-Out Stake D, a Storm Drainage Pipe D, and a Temporary Sediment Trap D. The plan is bounded by dashed lines indicating the LIMITS OF DISTURBANCE. Matchlines are shown at STA. 70+00 and STA. 75+00. A north arrow is located in the upper right corner.

Labels and Callouts:

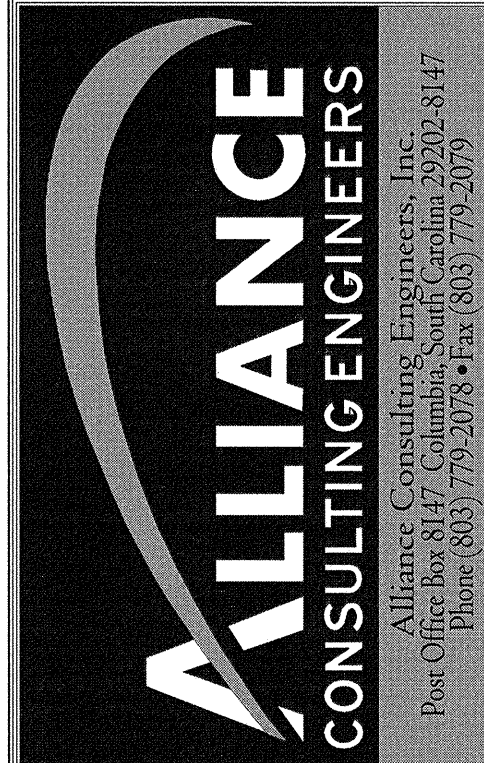
- Rip Rap Apron (See Sheet C43 for Details)
- Outlet Pipe D (See Sheet C18 for Details)
- Emergency Spillway D (See Sheet C18 for Details)
- Rip Rap Berm (See Sheet C18 for Details)
- Clean-Out Stake D (See Sheet C18 for Details)
- Rip Rap Apron (See Sheet C43 for Details)
- Storm Drainage Pipe D (See Profile for Details)
- Temporary Sediment Trap D
- IP
- SF
- LIMITS OF DISTURBANCE
- GreenArmor 7003 Channel Matting (See Sheet C43 for Details)
- Erosion Control Matting (See Sheet C43 for Details)
- Matchline Sheet C41/C15 STA. 70+00
- Matchline Sheet C45/C16 STA. 75+00

Scale: Horiz. 1"=50'



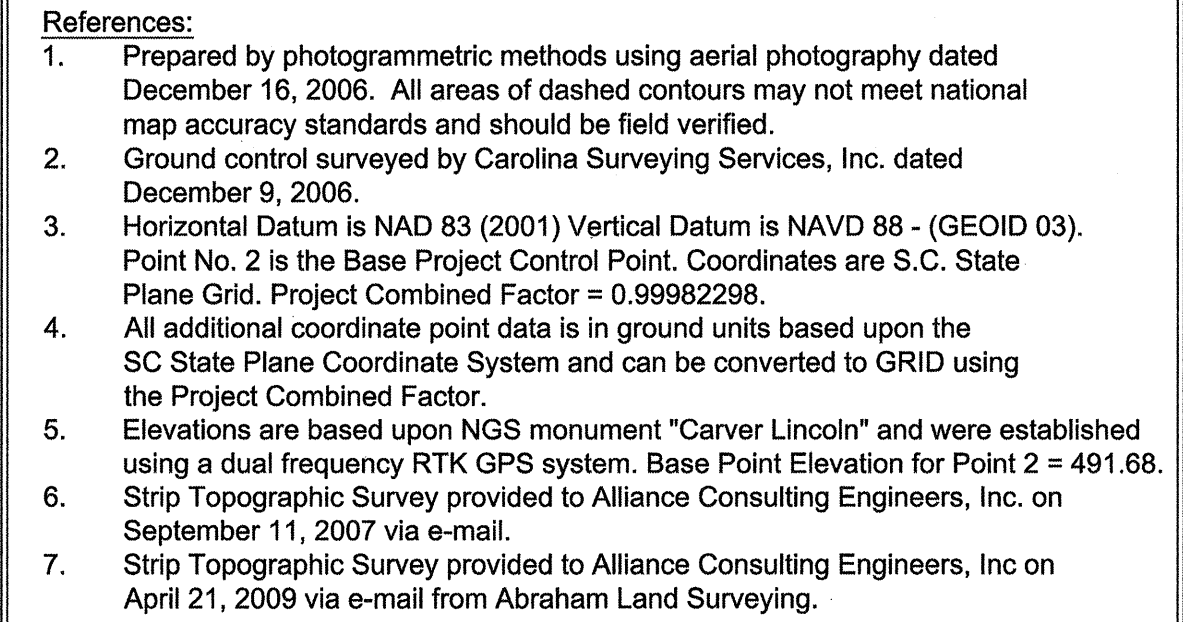
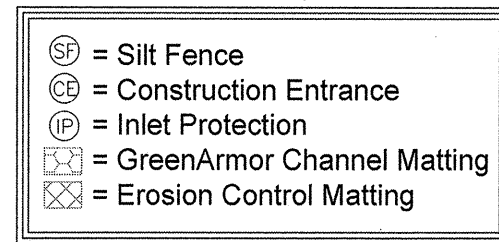
Scale: Horiz. 1"=50', Vert. 1"=5'

- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

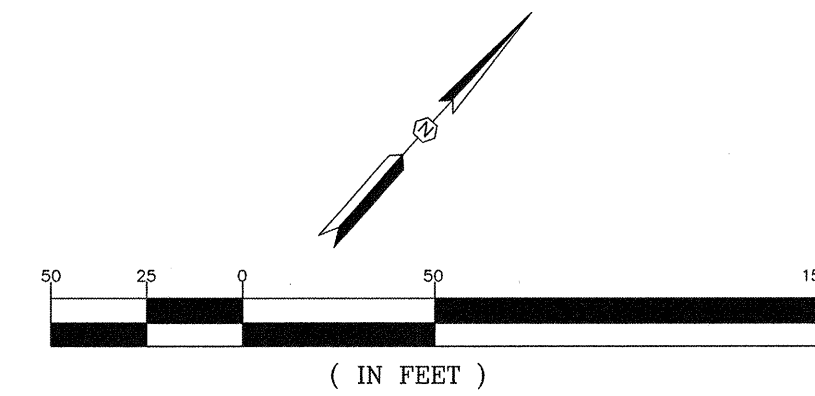


PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY SOUTH CAROLINA

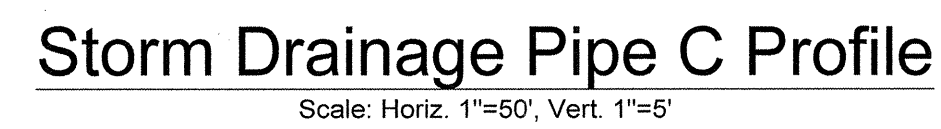
FILE NAME: C15.dwg	SHEET <u>C15</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 171113-0036	<u>45</u>
DWG NO. 01.514-D09	



Developer Information
Contact: Mr. Rick Farmer, SCCED
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Fax: (803) 321-2094
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Scale: Horiz. 1"=50

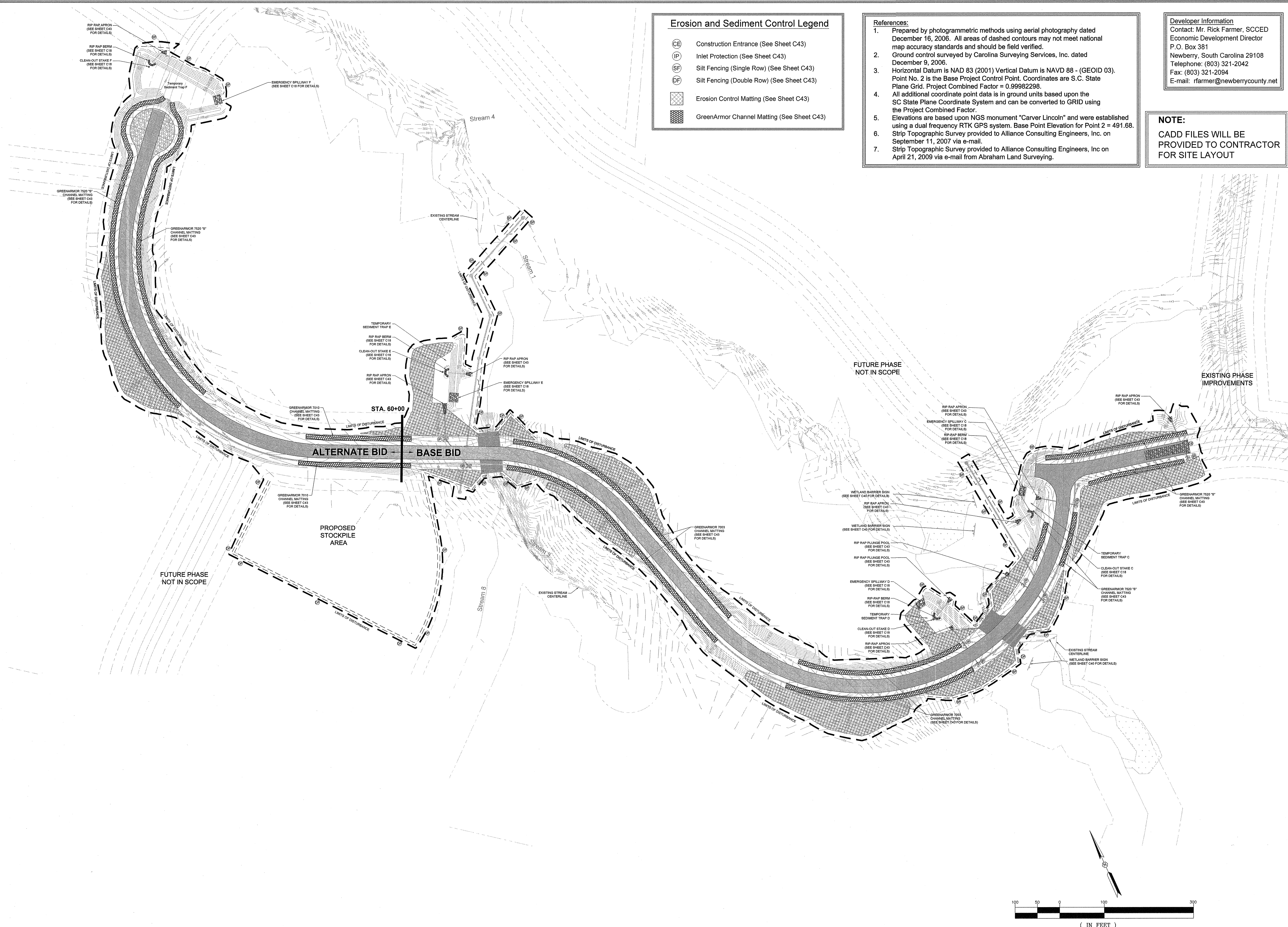


CONTRACTOR NOTES:
EFFORTS SHOULD BE MADE TO AVOID THE REMOVAL OF LARGE TREES AT THE EDGES OF CONSTRUCTION CORRIDORS. DISTURBED AREAS SHOULD BE RESEED WITH SEED MIXTURES THAT ARE BENEFICIAL TO WILDLIFE. FESCUE-BASED MIXTURES SHOULD BE AVOIDED; FESCUE IS INVASIVE AND PROVIDES LITTLE BENEFIT TO WILDLIFE. NATIVE ANNUAL SMALL GRAINS APPROPRIATE FOR THE SEASON ARE PREFERRED AND RECOMMENDED. WHERE FEASIBLE, USE WOODY DEBRIS AND LOGS FROM CORRIDOR CLEARING TO ESTABLISH BRUSH PILES AND DOWNED LOGS AT THE EDGE OF THE CLEARED RIGHT-OF-WAY TO IMPROVE HABITAT FOR WILDLIFE. CORRIDOR MAINTENANCE SHOULD BE MINIMIZED, AND MOWING SHOULD BE PROHIBITED BETWEEN APRIL 1 AND OCTOBER 1 IN ORDER TO REDUCE IMPACTS TO NESTING WILDLIFE. ADDITIONALLY, HERBICIDES SHOULD NOT BE USED IN WETLAND AREAS OR NEAR STREAMS.

[illegible]

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April 20, 2021 - 4:16:33 PM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Com. Park\Drawings\Construction Plans\17-Overall Erosion & Sediment Control Plan.dwg



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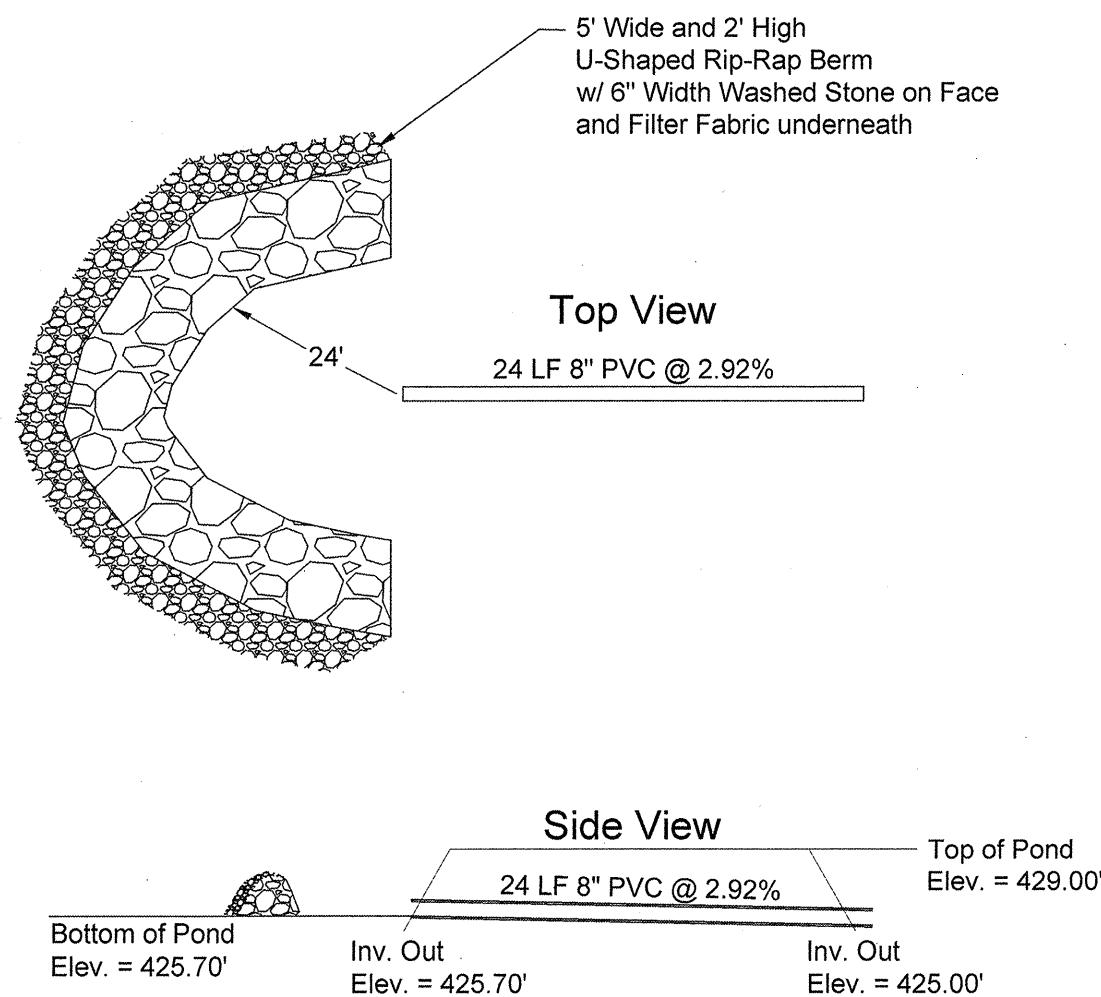
April 21, 2021 - 10:30:31 AM S:\Projects\17113-0036 Phase IIA & Phase III Railway & Wastewater Infrastructure Improve Mid-Carolina Com. Park\dwg\Construction Plans\C18-Outlet Pipe Details.dwg

References:

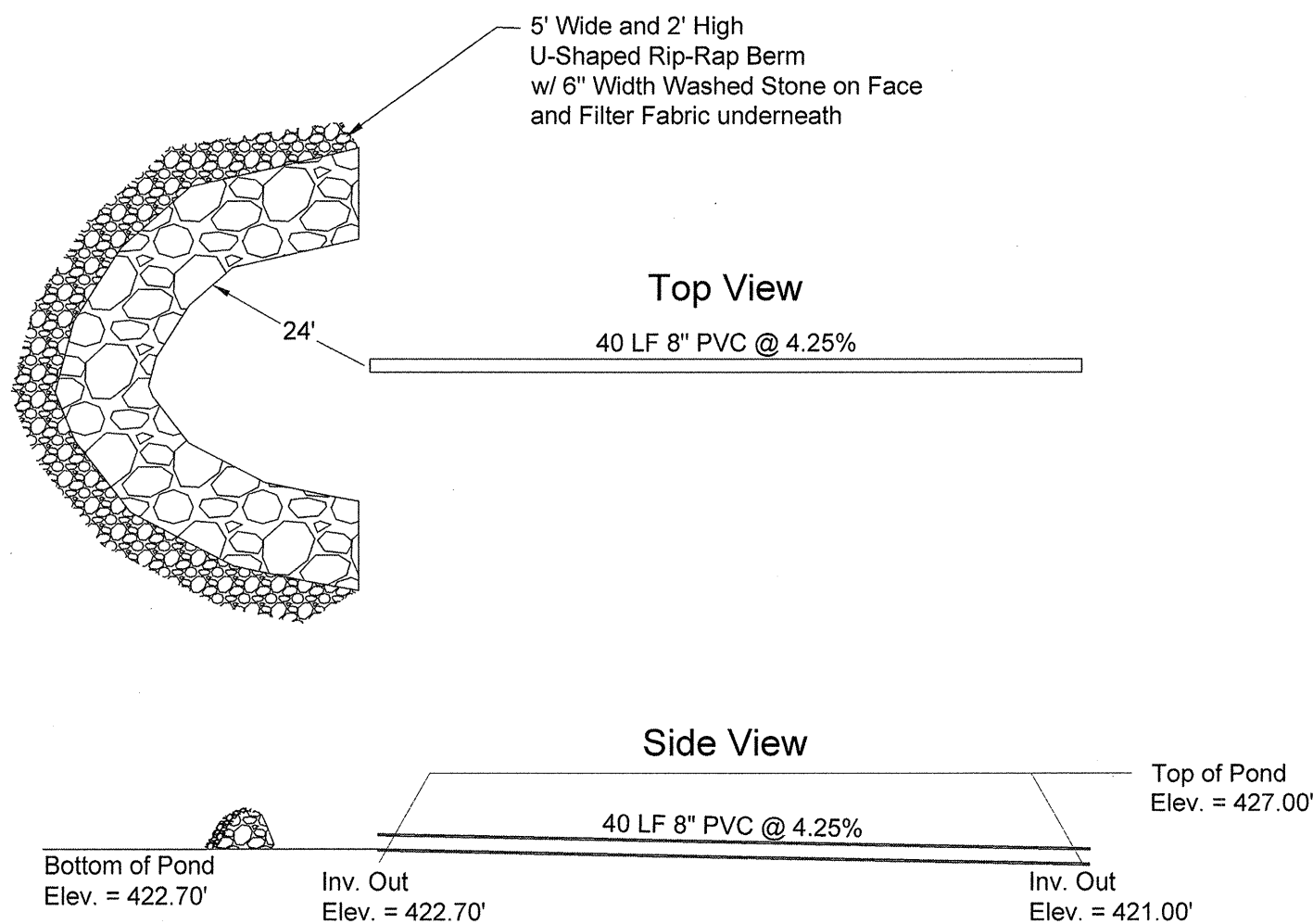
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
3. Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.
5. Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.
6. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.
7. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on April 21, 2009 via e-mail from Abraham Land Surveying.

Developer Information

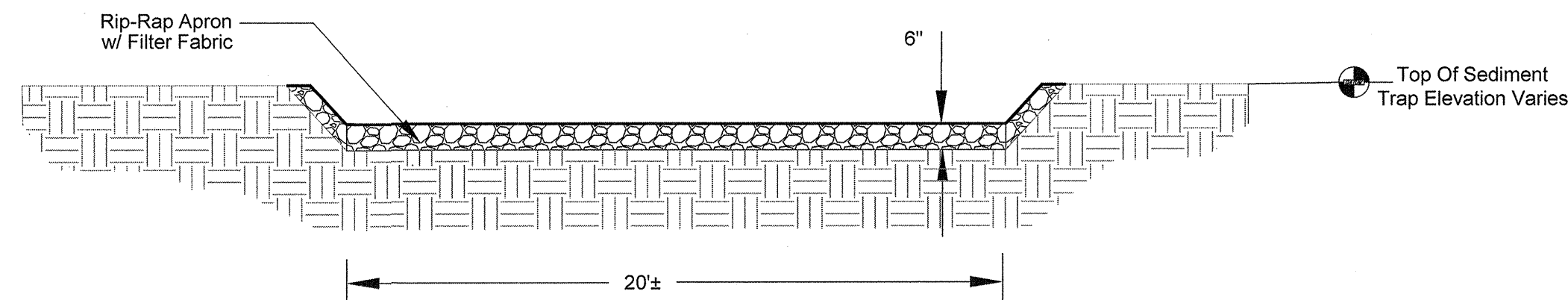
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



OUTLET PIPE C DETAIL
SCALE: 1" = 10'



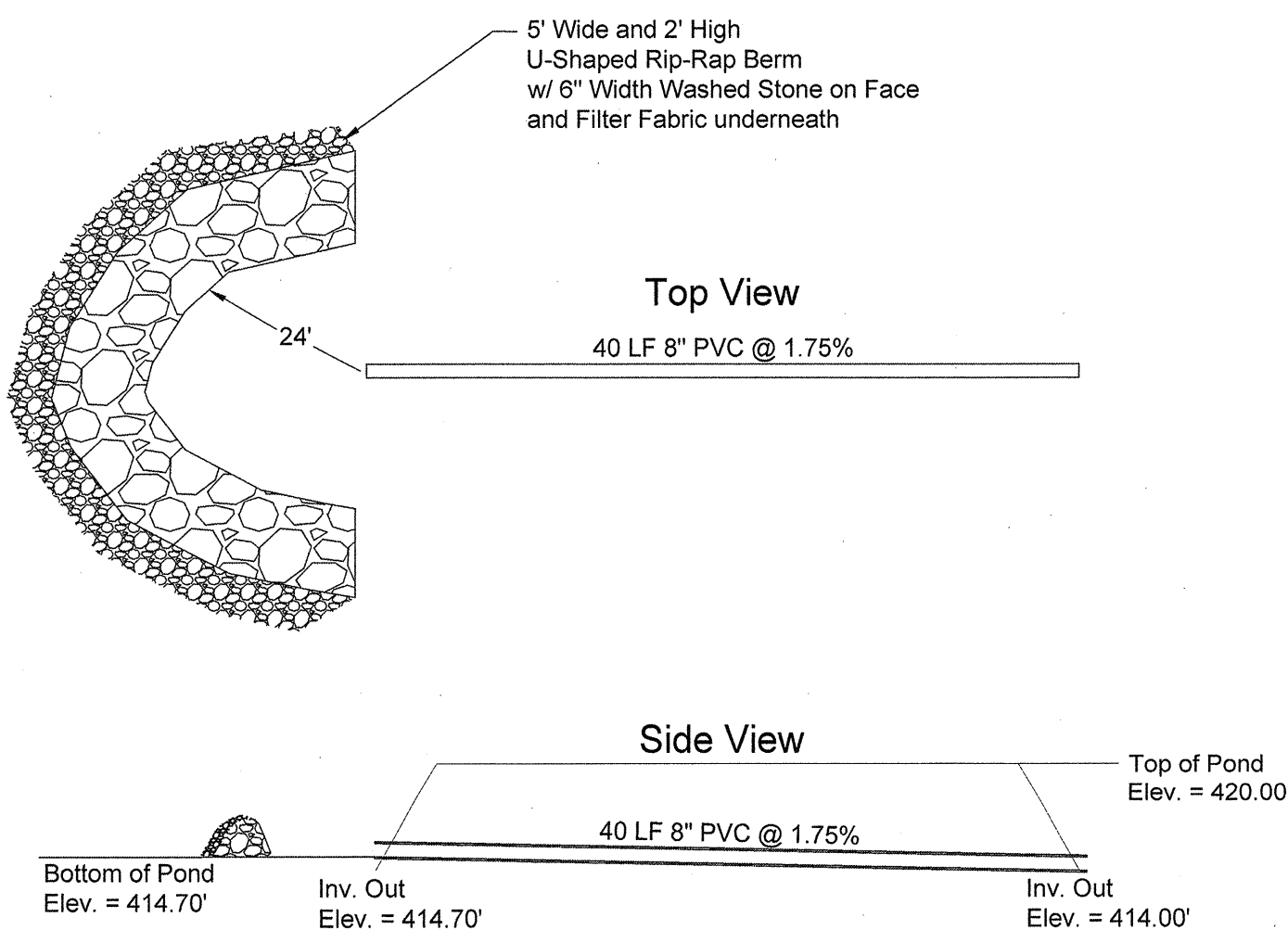
OUTLET PIPE D DETAIL
SCALE: 1" = 10'



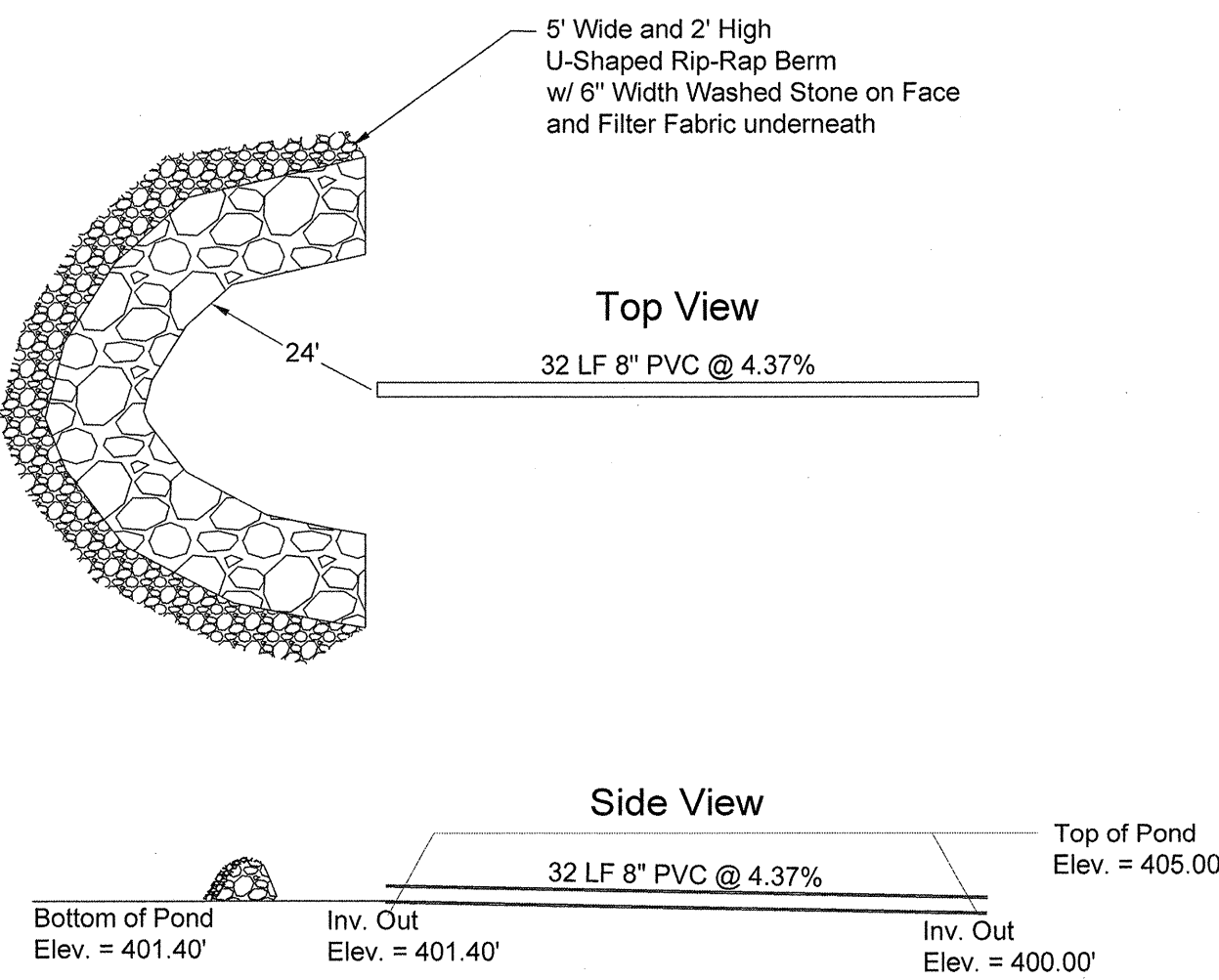
EMERGENCY SPILLWAY TABLE

Temporary Sediment Trap	Top of Basin	Invert To Emergency Spillway
Trap C	429.00'	428.50'
Trap D	427.00'	426.50'
Trap E	420.00'	419.50'
Trap F	405.00'	404.50'

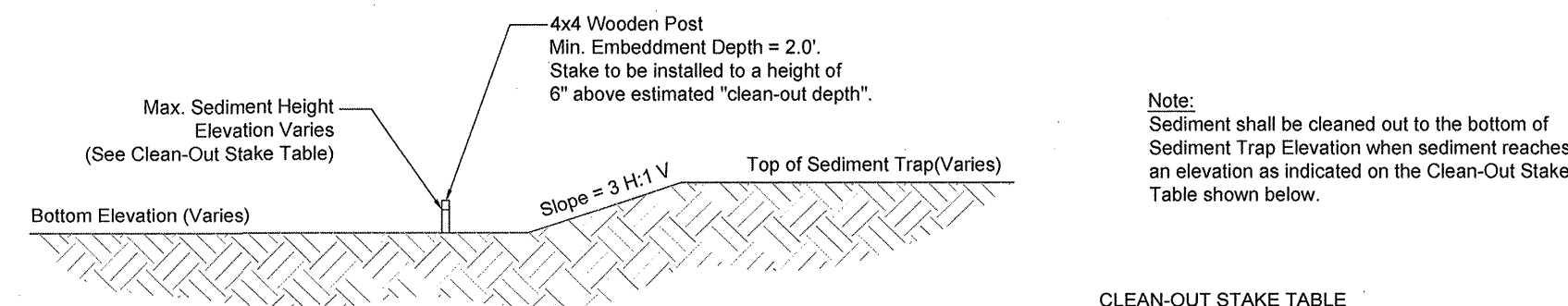
EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



OUTLET PIPE E DETAIL
SCALE: 1" = 10'



OUTLET PIPE F DETAIL
SCALE: 1" = 10'



CLEAN-OUT STAKE TABLE

Temporary Sediment Trap	Bottom Elevation	Sediment Clean-Out Elevation
Trap C	425.70'	426.70'
Trap D	422.70'	423.70'
Trap E	414.70'	415.70'
Trap F	401.40'	402.40'

CLEAN-OUT STAKE DETAIL
NOT TO SCALE

REVISION DATE	
APPROVALS	DESIGNER BSW
CHECKED BY KMC/DMN	APPROVED BSW
ALLIANCE CONSULTING ENGINEERS, INC. No. 002654 CERTIFICATE OF QUALITY	
DATE: 5/14/21	
SIGNATURE: <i>Benjamin S. Kelly</i>	
ALLIANCE CONSULTING ENGINEERS Alliance Consulting Engineers, Inc. Post Office Box 8147 Columbia, South Carolina 29202-8147 Phone (803) 779-2078 • Fax (803) 779-2079	
OUTLET PIPE DETAILS	
SCALE: AS SHOWN	
DATE: APRIL 2021	
SOUTH CAROLINA	
NEWBERRY COUNTY	
PROJECT: PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	
FILE NAME: C18.dwg	SHEET C18
REFERENCE FILE: BASE.DWG	OF 45
PROJECT NO.: 17113-0036	
DWG NO. 01,514-DO9	

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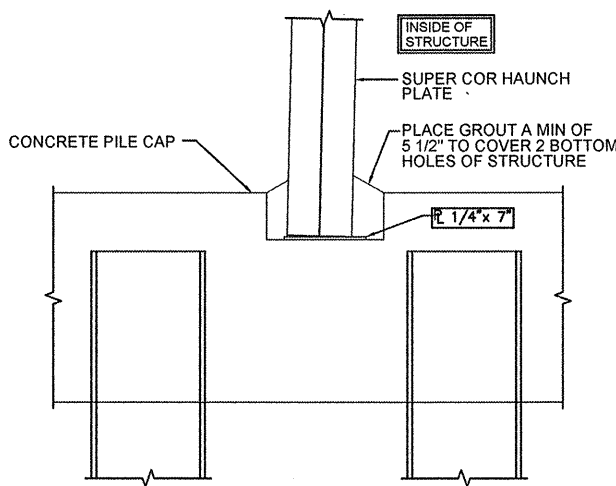
April 22, 2021 - 10:25:02 AM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Con. Parkway\Construction Plans C19-Bridge System A Profile.dwg

References:

1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
3. Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.9982298.
4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.
5. Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.
6. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.
7. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on April 21, 2009 via e-mail from Abraham Land Surveying.

Developer Information

Contact: Mr. Rick Farmer, SCCED
Economic Development Director
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Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



Footing Detail

Not To Scale

GRADE = 441'

CUSTOM SUPER-COR
ARCH STRUCTURE
57'S PERIPHERY
(OR APPROVED EQUAL)

TOF = 412'

7'-0" TYP.

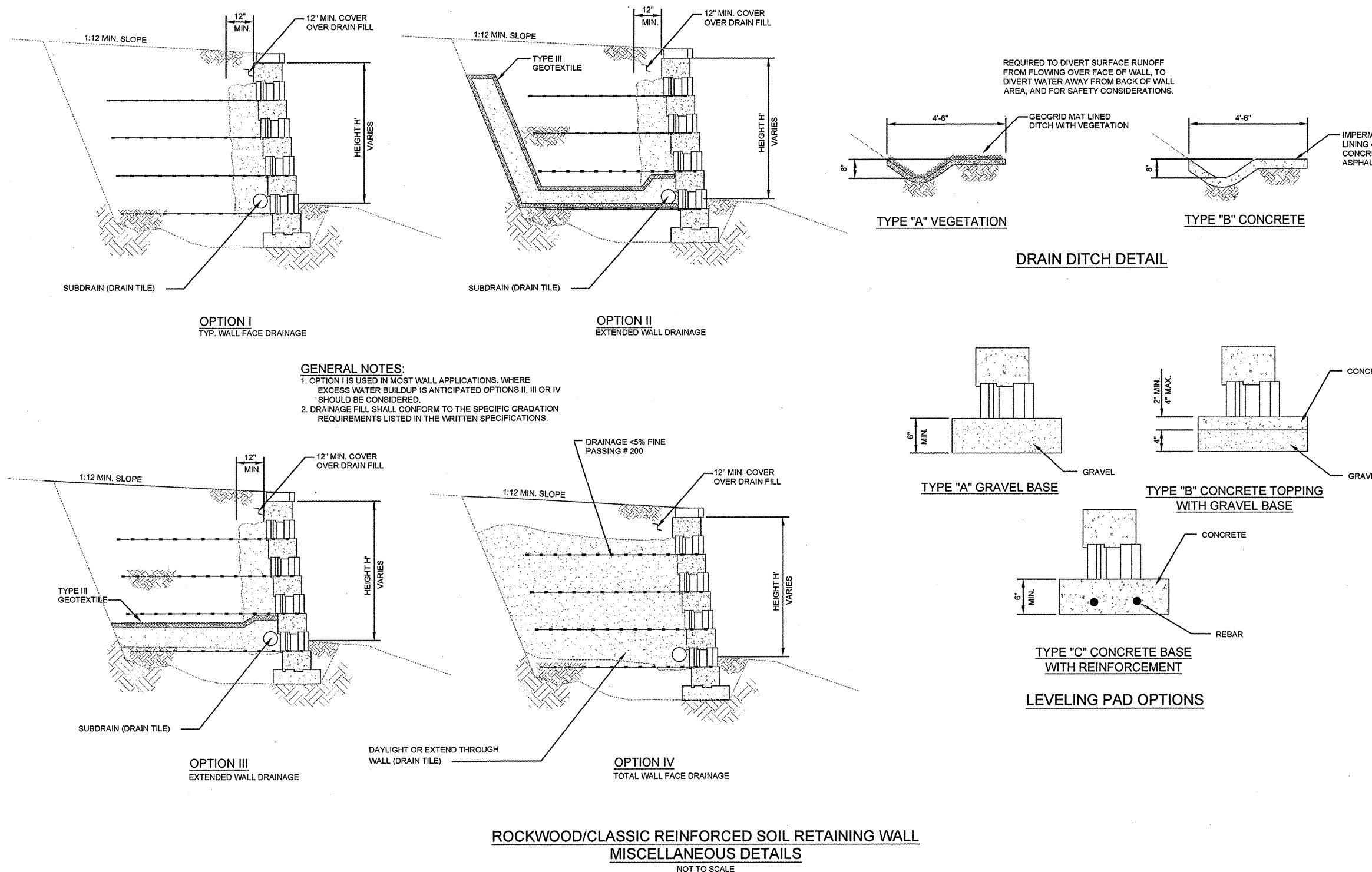
INSIDE BOTTOM SPAN = 48'-0"

FOOTINGS
(BY OTHERS)

STRUCTURE GEOMETRY

Structure Geometry

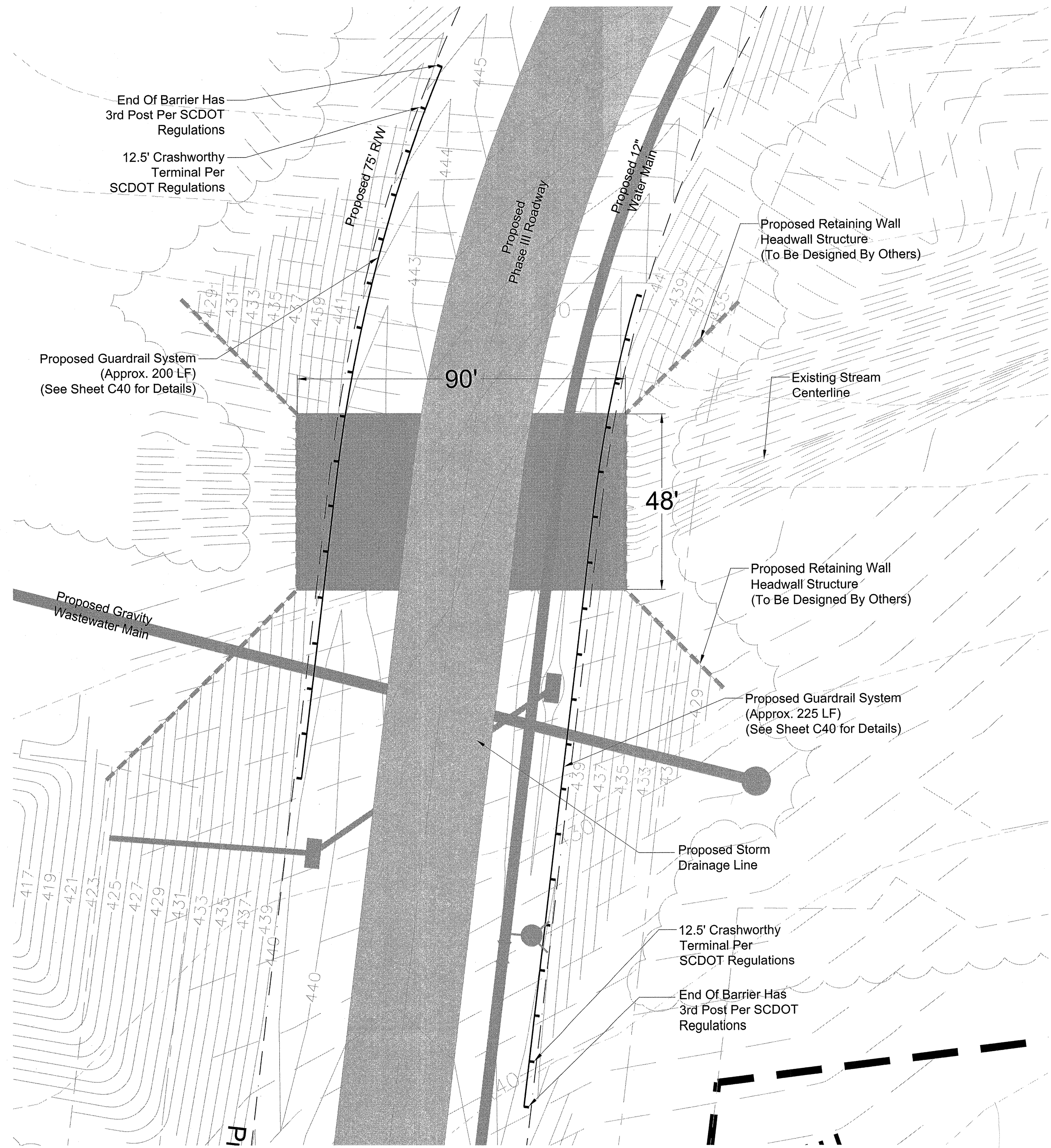
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ROCKWOOD/CLASSIC REINFORCED SOIL RETAINING WALL
MISCELLANEOUS DETAILS
NOT TO SCALE

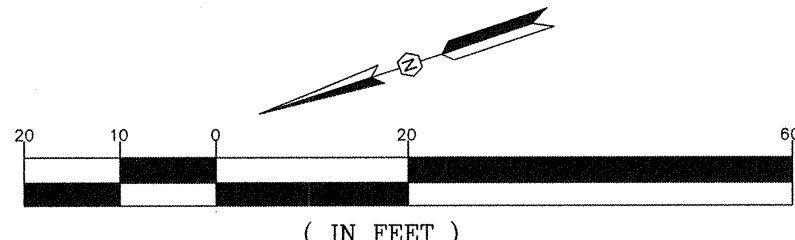
NOTES:

1. MANUFACTURER OF THE PRECAST CONCRETE BOTTOMLESS ARCH CULVERT SHALL PROVIDE BRIDGE SYSTEM INCLUDING ARCH CULVERT, WINGWALLS, AND NECESSARY FOOTINGS.
2. MANUFACTURER SHALL PROVIDE CONTRACTOR INSTALLATION DRAWINGS INCLUDING STRUCTURE AND FOUNDATION DESIGN.
3. OWNER SHALL PROVIDE MANUFACTURER OF PRECAST BOTTOMLESS CULVERT A GEOTECHNICAL EVALUATION DATED APRIL 24, 2009 INCLUDING BEARING CAPACITY, BEARING ELEVATION, TOTAL SETTLEMENT, AND DIFFERENTIAL SETTLEMENT OF SOIL AT CREEK CROSSING PRIOR TO CONSTRUCTION.
4. DETAILS SHOWN AS PROVIDED BY BIG R BRIDGE FOR CUSTOM SUPER-COR ARCH STRUCTURE. ALTERNATED BRIDGE SYSTEM MUST BE PROVIDED TO ENGINEER PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL.



Bridge System A Plan View

Scale: Horiz. 1"=20'



REVISION	
DATE	DESCRIPTION

APPROVALS	DESIGNER	CHECKED BY	APPROVED BY
BSV	BSV	KMC/DMN	BSV

PROJECT	FILE NAME	REFERENCE FILE	PROJECT NO.
PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	C19.dwg	BASE.DWG	17113-0036

SHEET	DATE	SCALE
C19	APRIL 2021	AS SHOWN

DATE	SIGNATURE
5/1/21	<i>Benjamin S. ...</i>

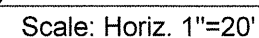
ALLIANCE CONSULTING ENGINEERS
ALLIANCE CONSULTING ENGINEERS, INC. Post Office Box 8147, Columbia, South Carolina 29202-8147 Phone: (803) 779-2076 • Fax: (803) 779-2079

April 22, 2024 10:37:00 AM S:\Documents\17143 0036 Bhacoo IIA & Bhacoo III Bhacoo & Bhacoo water Infrastructure Improvements Mid Carolina Com Park\Bhacoo System 9 Profile.dwg

- Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



Not To Scale



1. MANUFACTURER OF THE PRECAST CONCRETE BOTTOMLESS ARCH CULVERT SHALL PROVIDE BRIDGE SYSTEM INCLUDING ARCH CULVERT, WINGWALLS, AND NECESSARY FOOTINGS.
2. MANUFACTURER SHALL PROVIDE CONTRACTOR INSTALLATION DRAWINGS INCLUDING STRUCTURE AND FOUNDATION DESIGN.
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4. DETAILS SHOWN AS PROVIDED BY BIG R BRIDGE FOR CUSTOM SUPER-COR ARCH STRUCTURE. ALTERNATED BRIDGE SYSTEM MUST BE PROVIDED TO ENGINEER PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL.

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REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	45

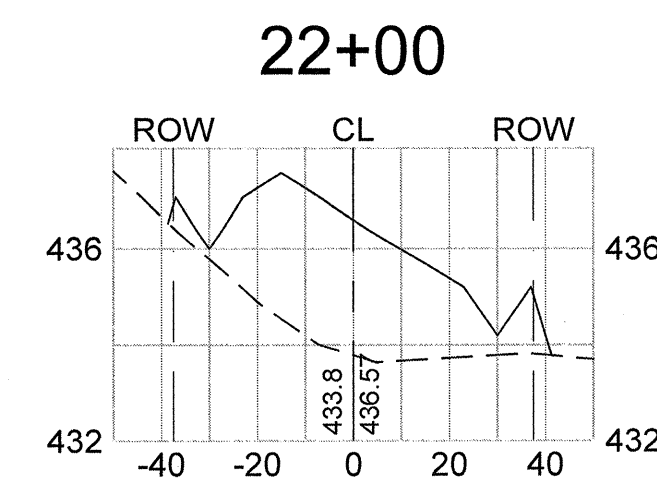
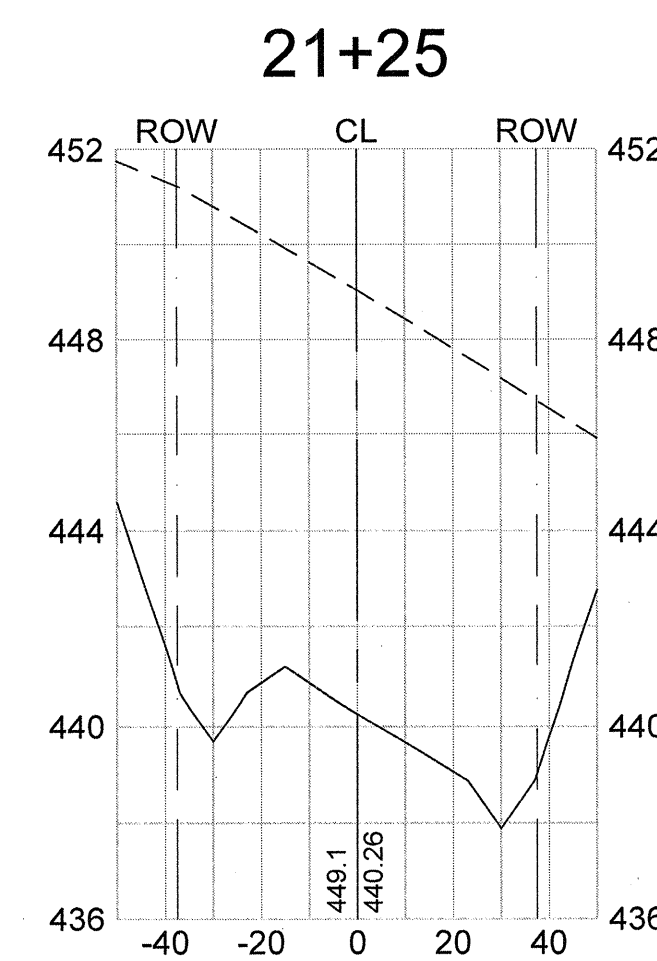
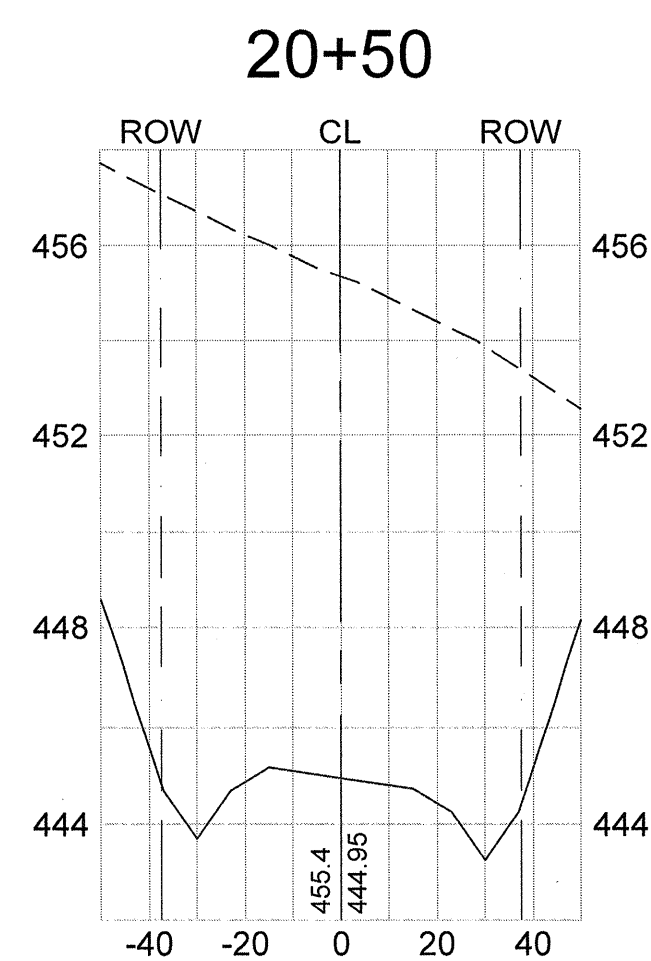
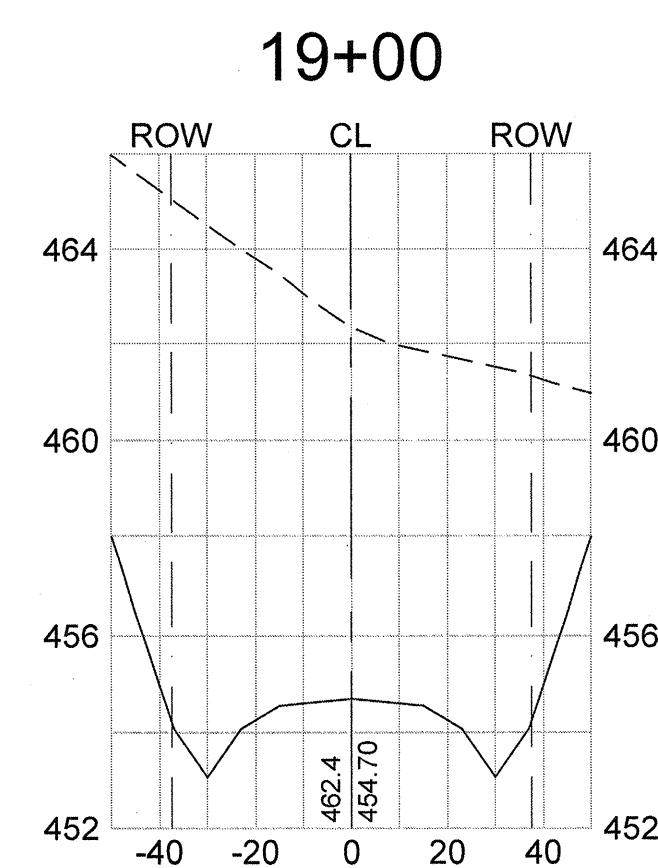
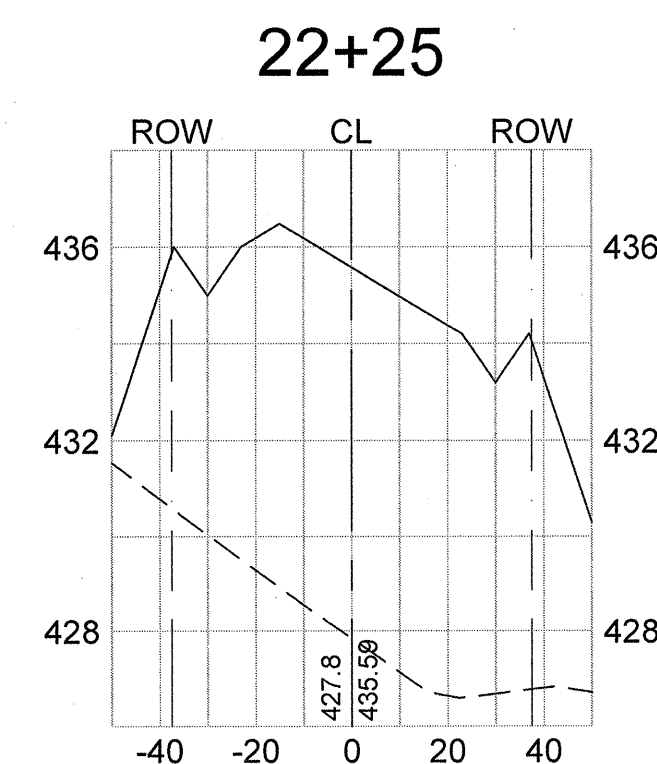
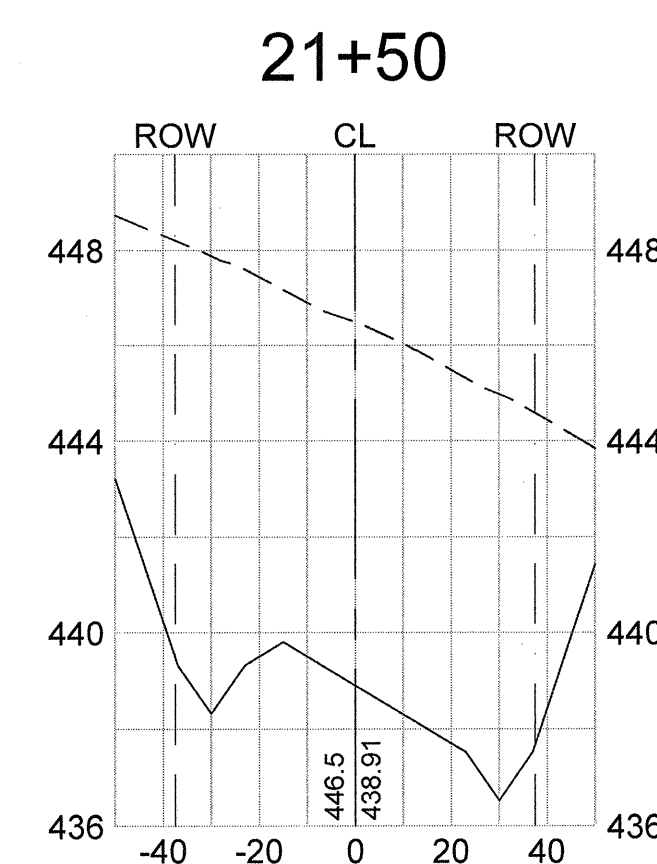
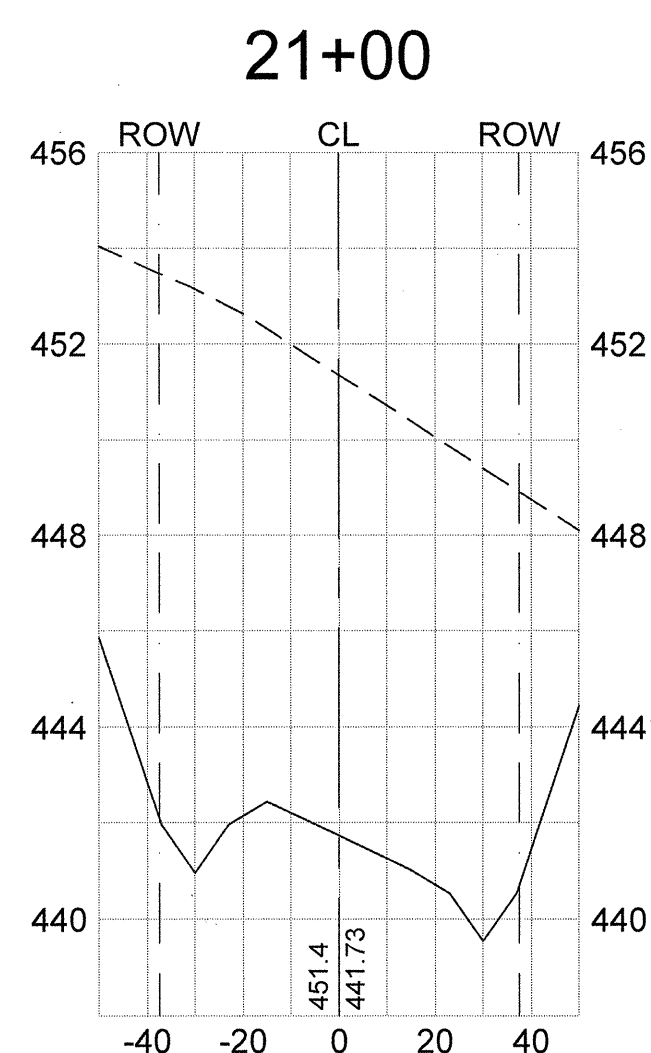
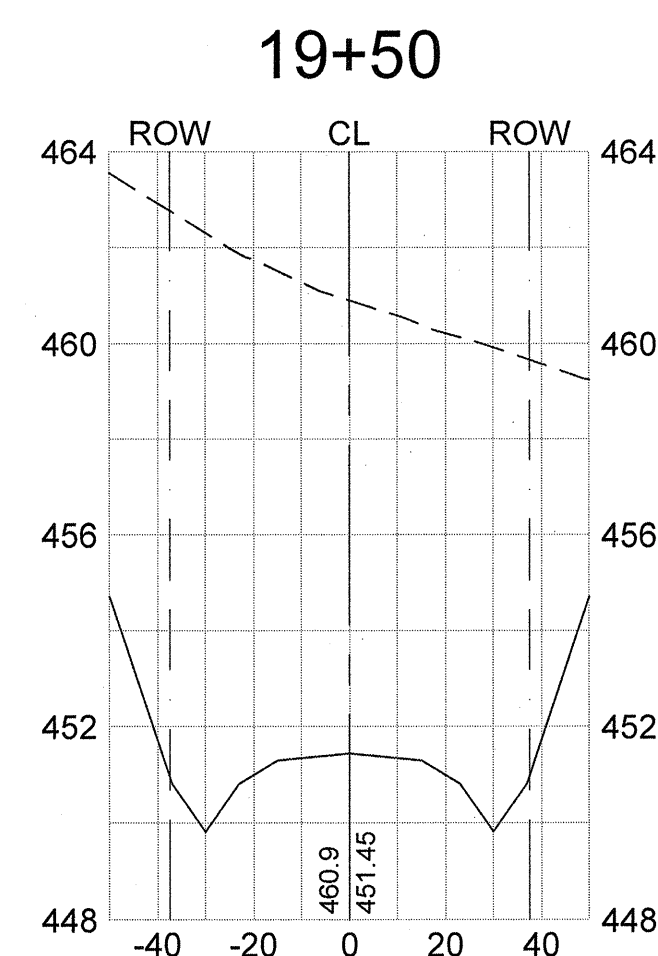
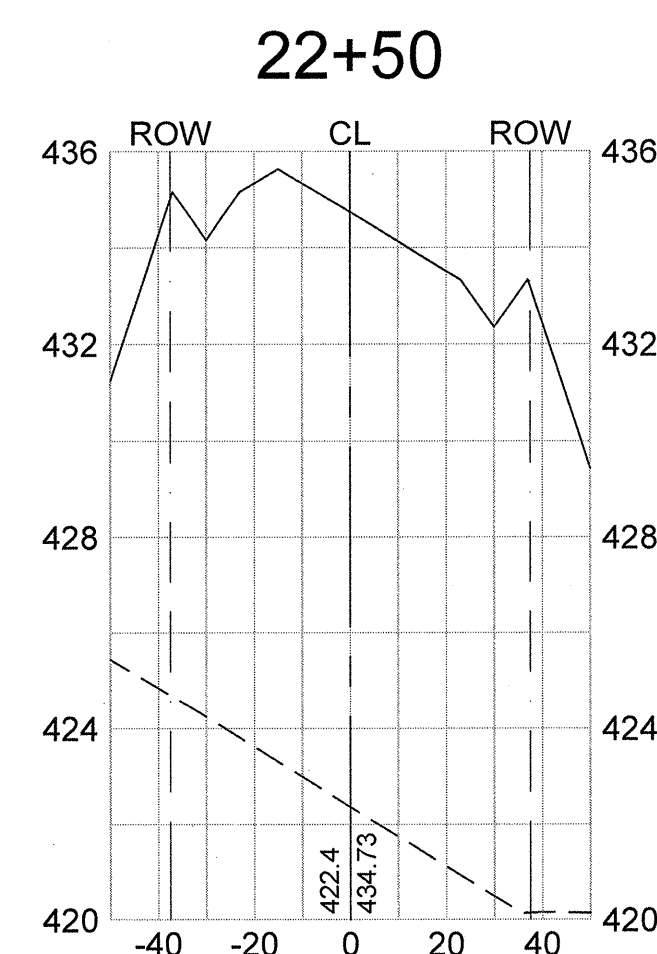
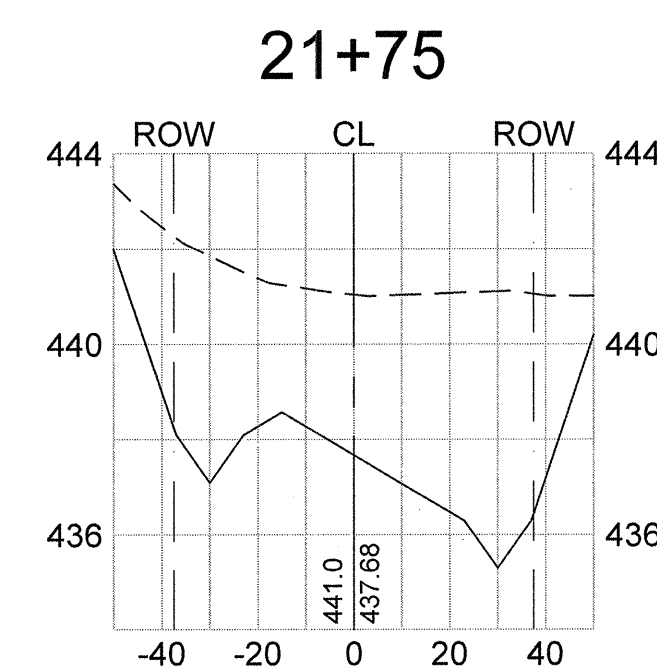
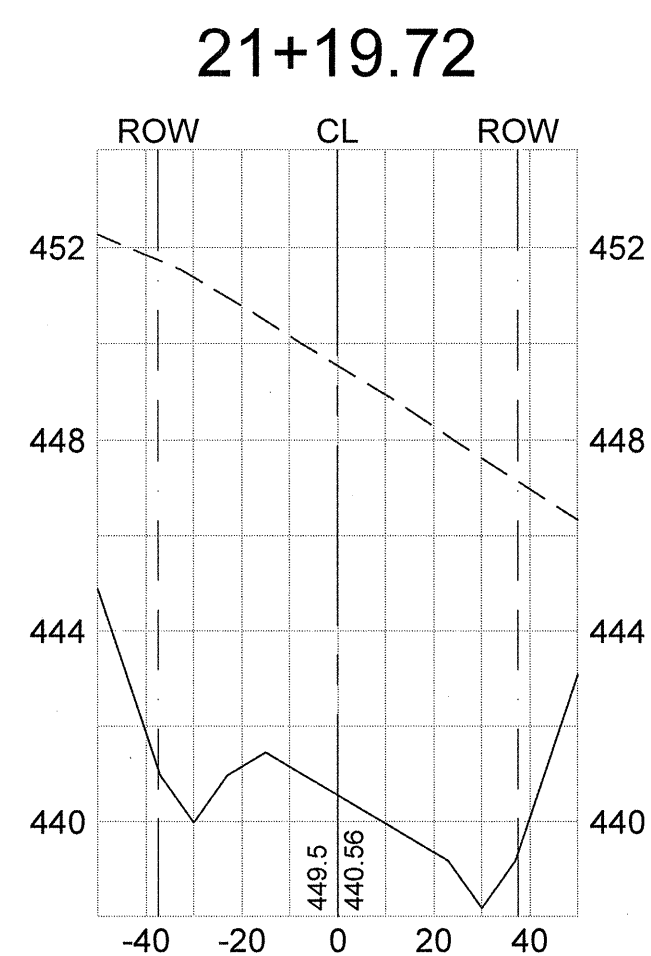
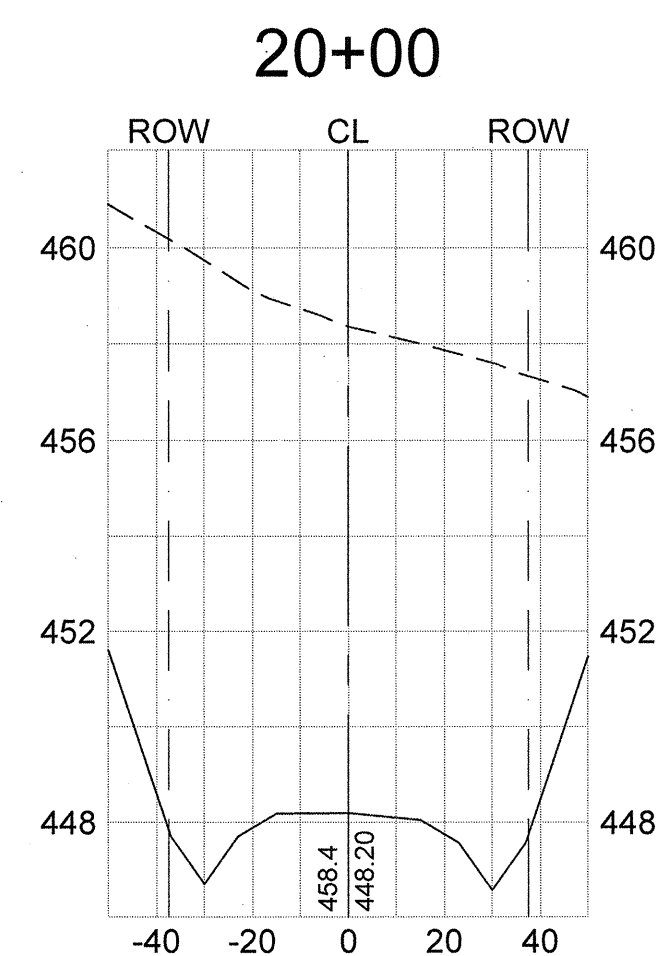
DWG NO. 01,514-D09

April 20, 2024 10:45:25 AM C:\Documents\174442 0036 Phase IIA & Phase III Edumv. & Wiercounter Infrastructure Improves Mid Carolina Com. Backhaul\Construction Plans\ C31 Phase IIA Backhaul Cross Section.dwg

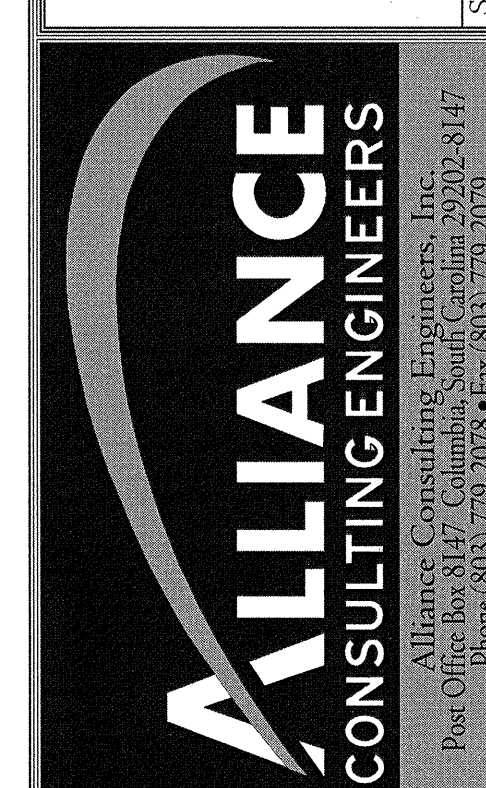
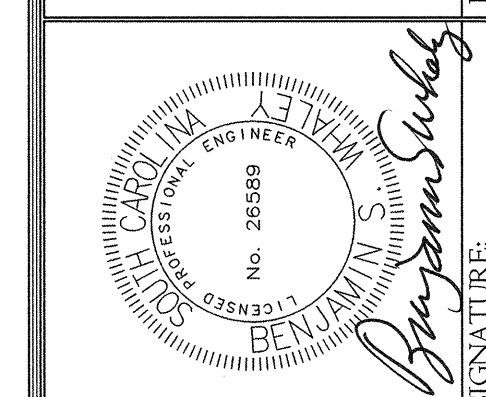
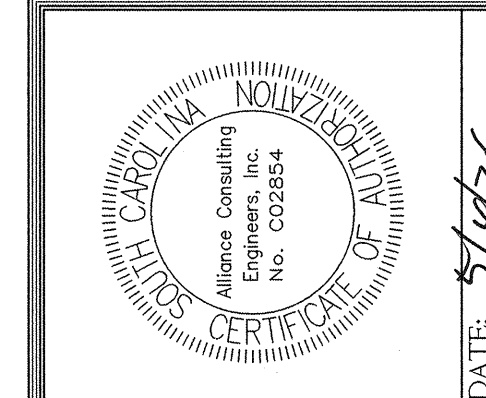
Developer Information
Contact: Mr. Rick Farmer, SCCED
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Legend

- - - - - Existing Ground
 _____ Proposed Grade
 - - - - - Proposed Right of Way
 _____ Proposed Centerline



Phase IIA Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'

[illegible]

PHASE IIA
ROADWAY CROSS-SECTIONS
(STA: 19+00 TO 22+50)

PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

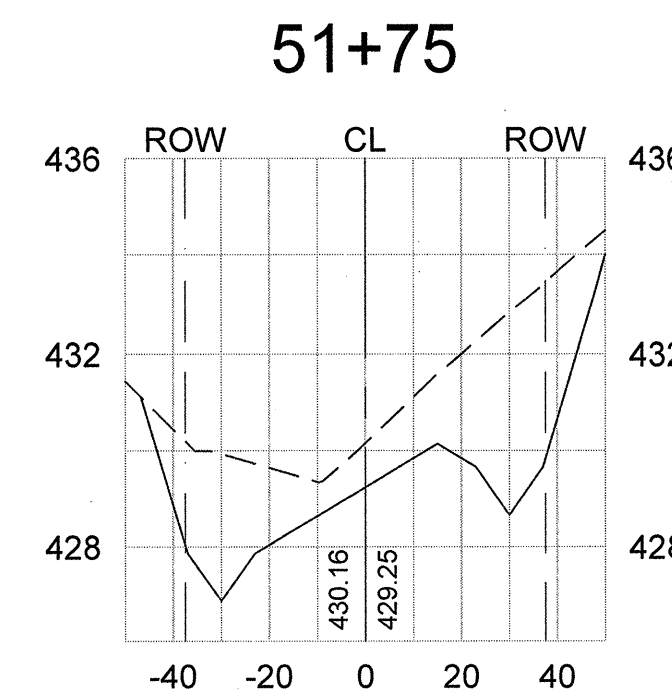
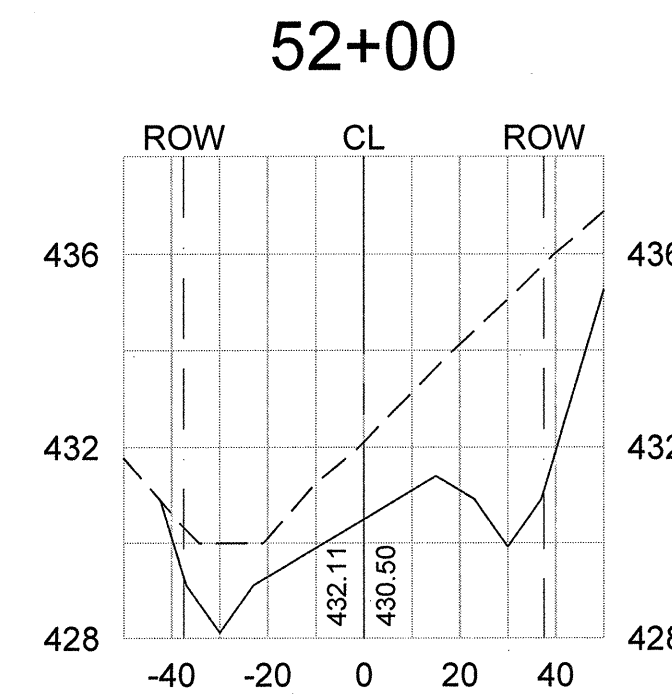
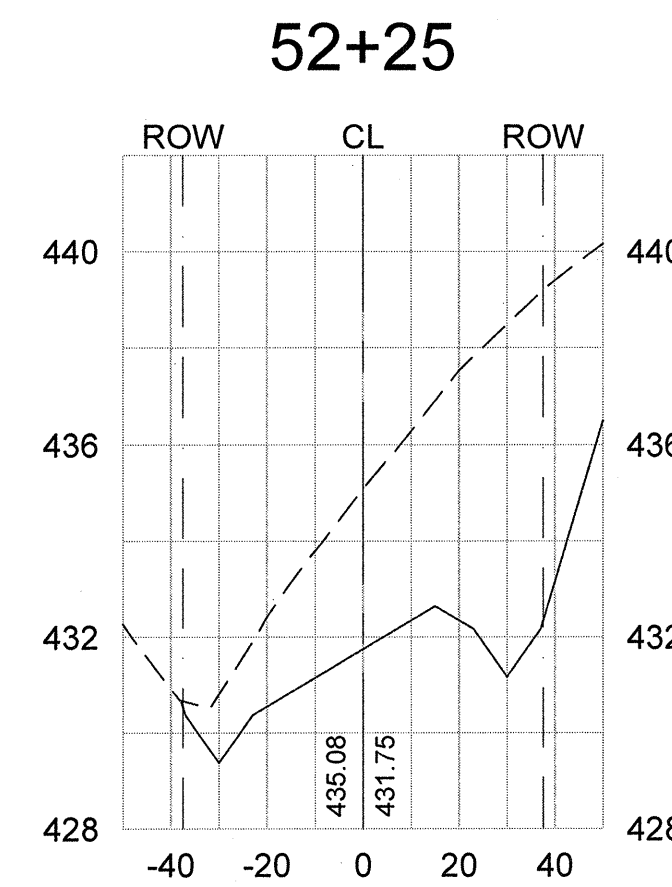
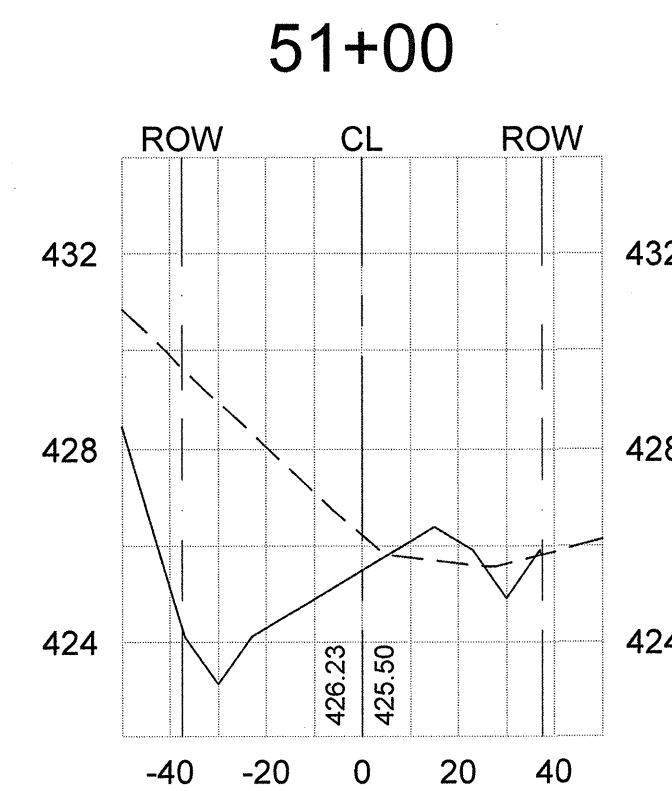
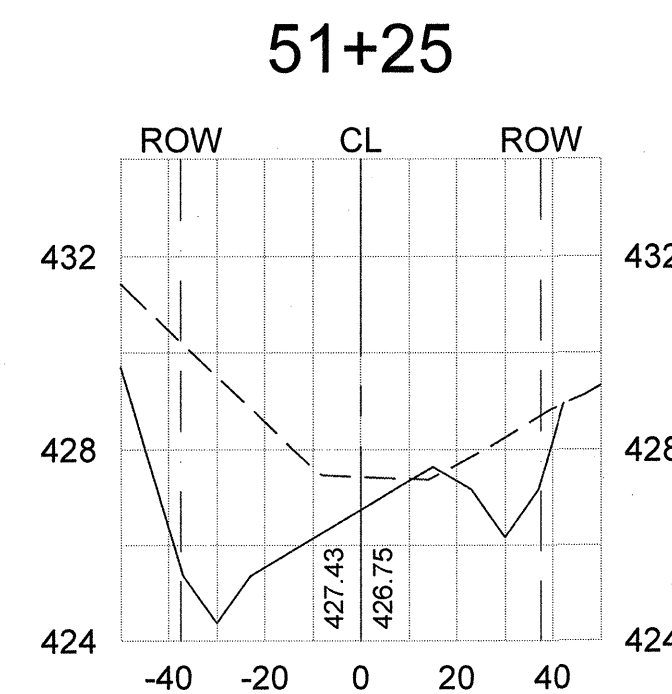
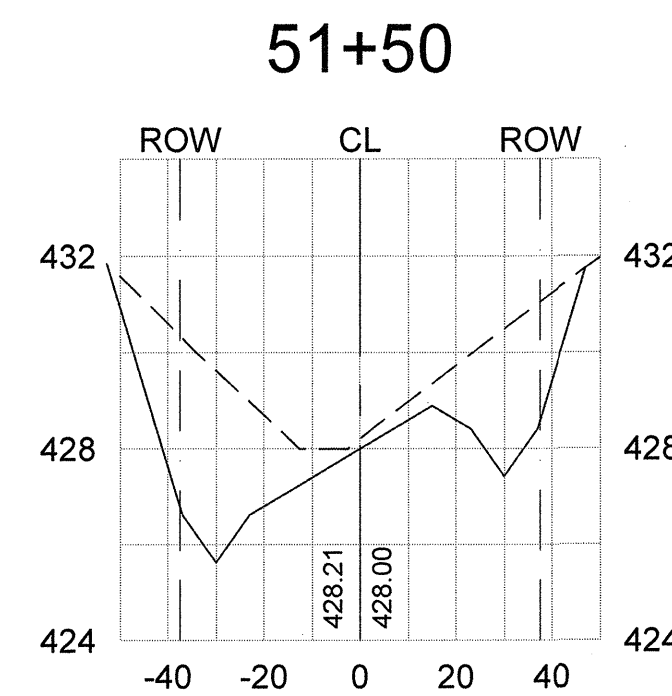
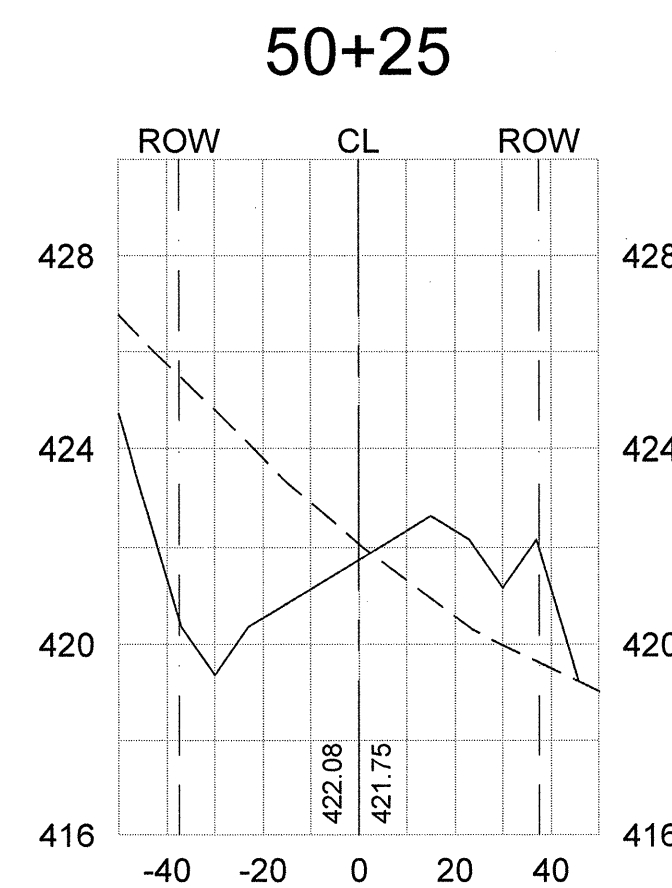
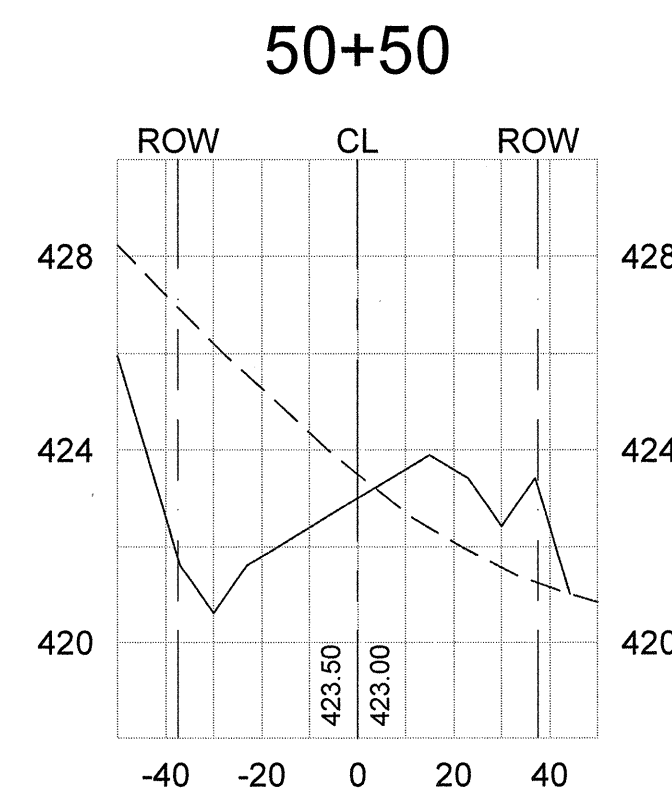
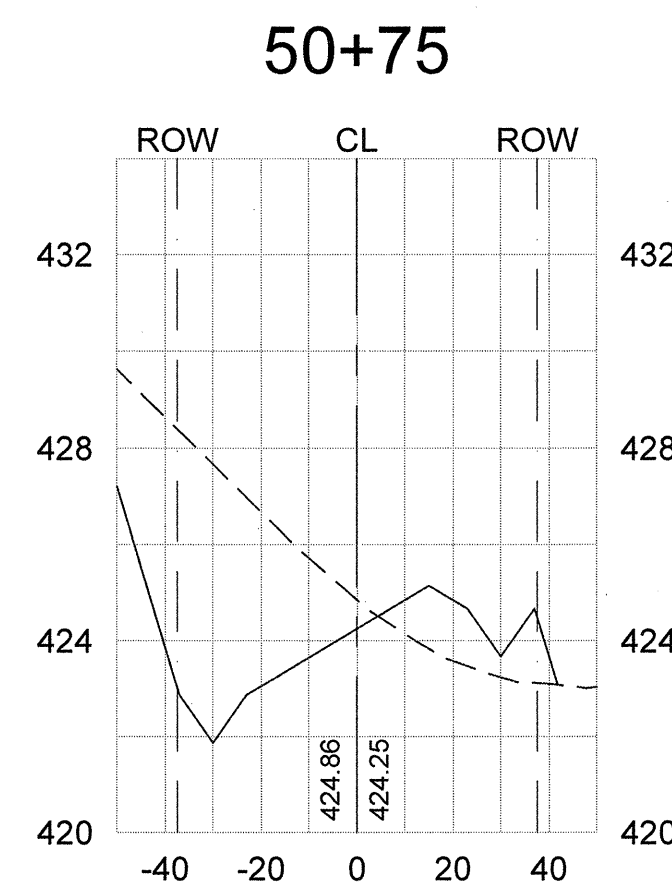
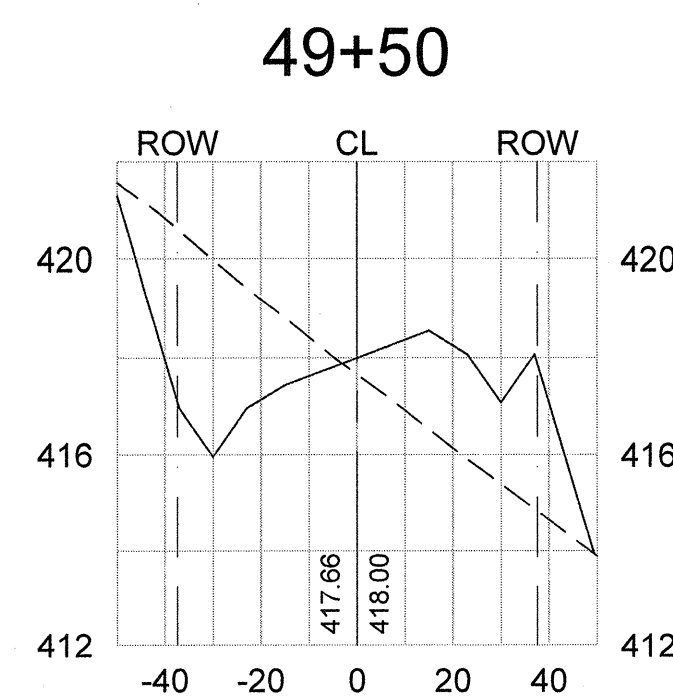
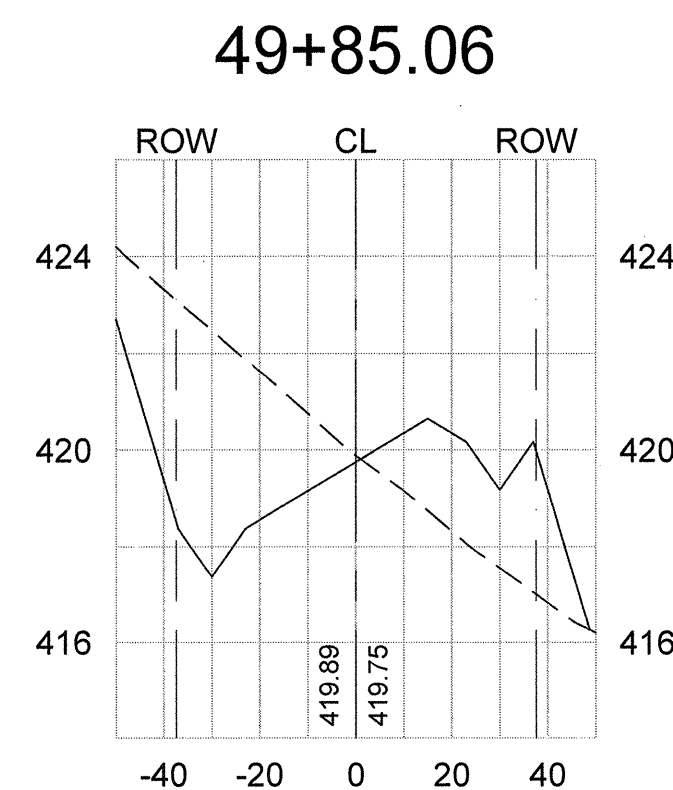
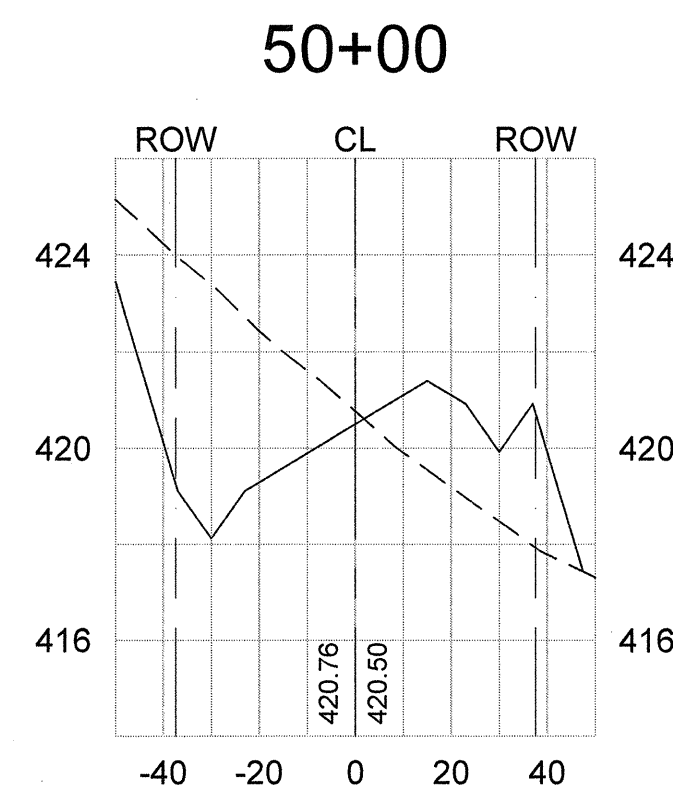
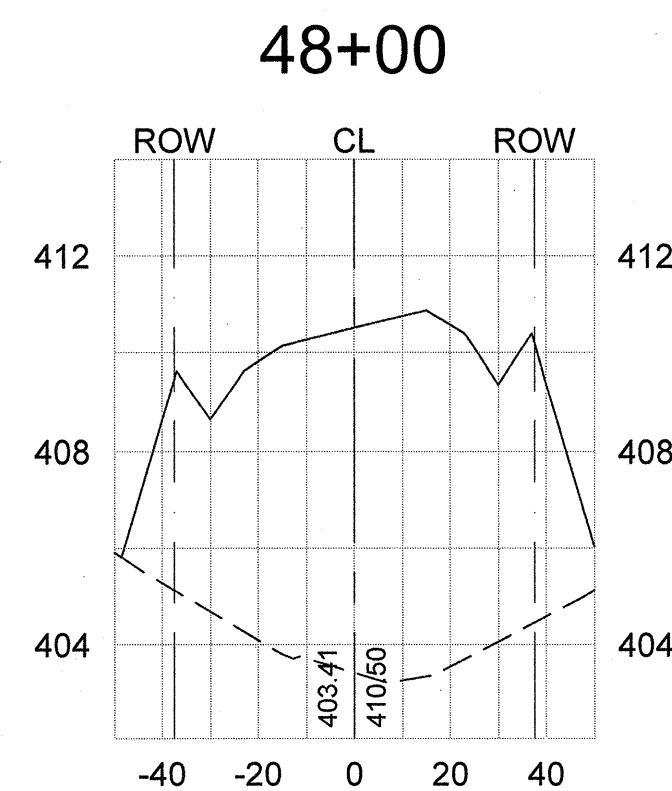
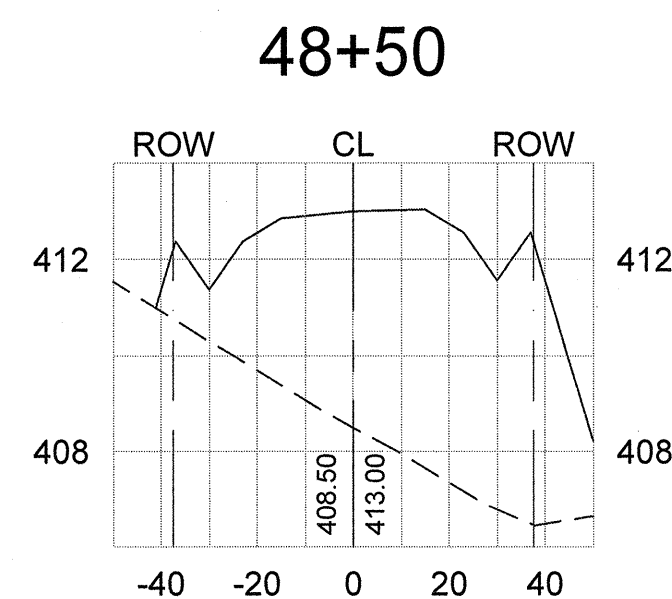
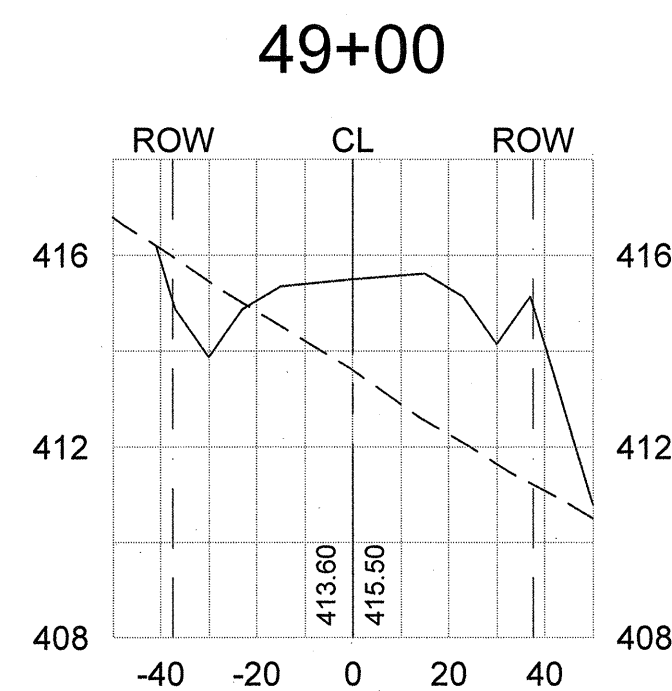
FILE NAME: C21.dwg	SHEET C21
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113 0036	45

DWG NO. 01,514-D09






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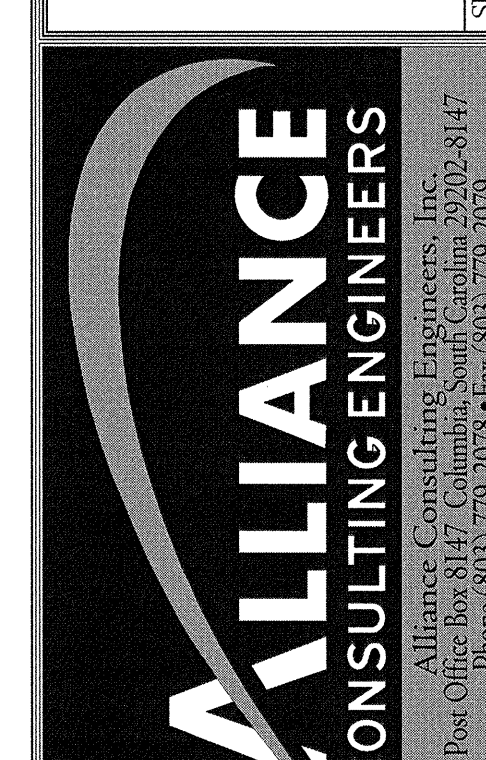
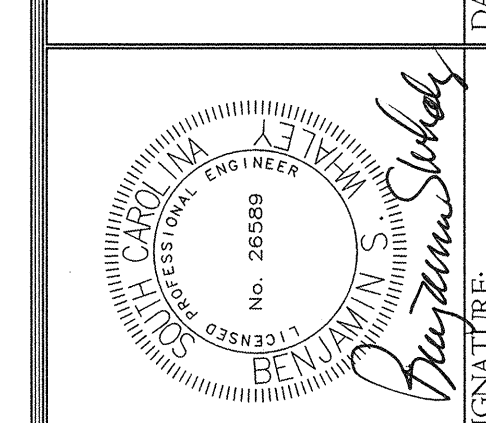
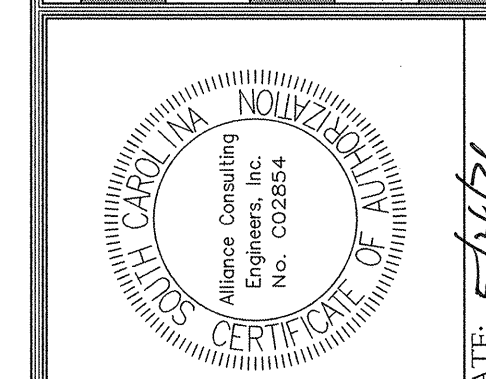
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- - - - - Existing Ground
 _____ Proposed Grade
 - - - - - Proposed Right of Way
 _____ Proposed Centerline



Phase III Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'

    	REVISION DATE	
APPROVALS	DESIGNER	CHECKED BY
ENGINEER BSW	BSW	JAM
		KMC/DMN
		APPROVED
		BSW



PHASE III
ROADWAY CROSS-SECTIONS
(STA: 48+00 TO 52+25)

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

FILE NAME: C22.dwg	SHEET <u>C22</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	<u>45</u>

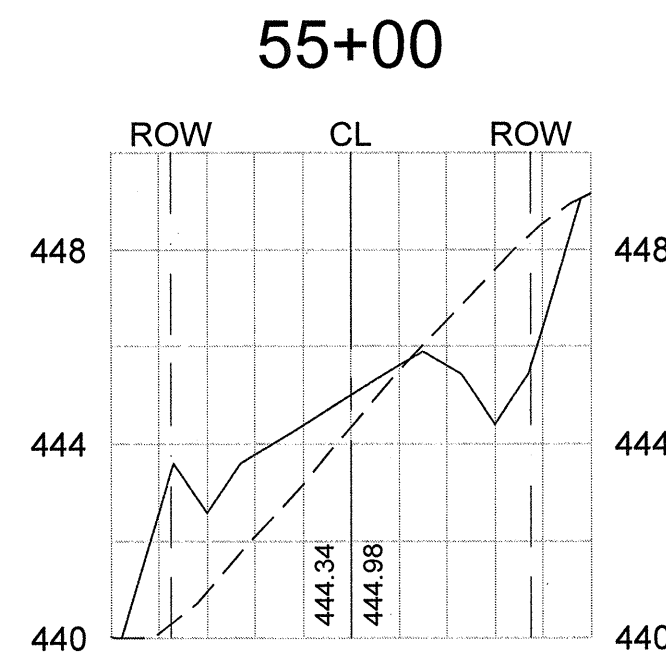
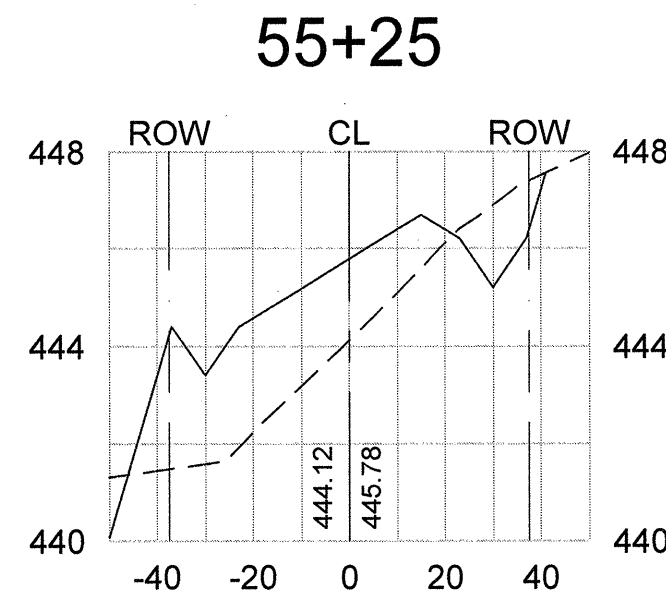
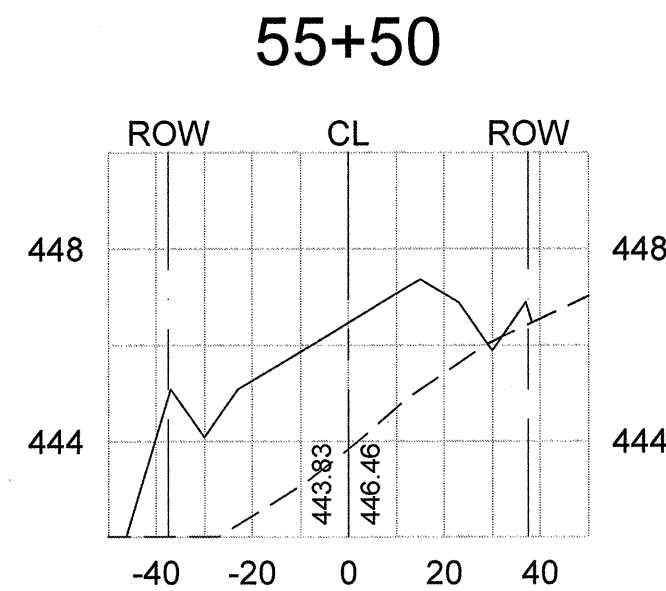
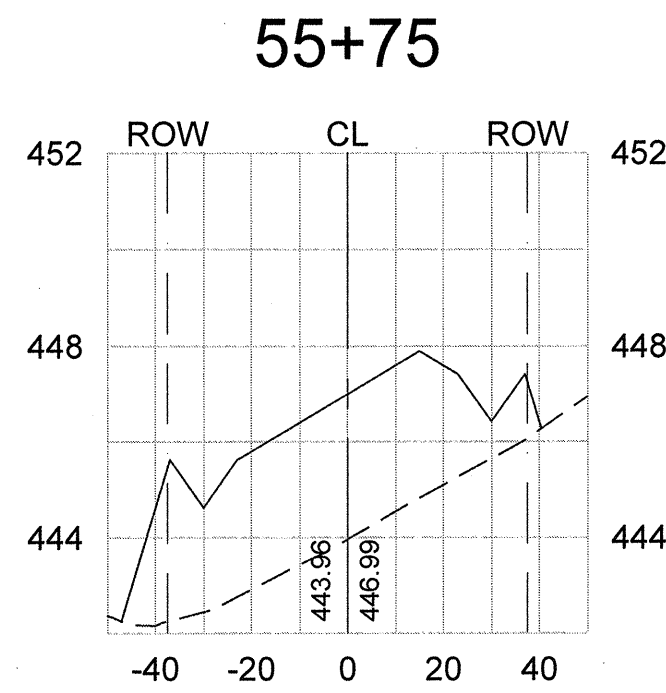
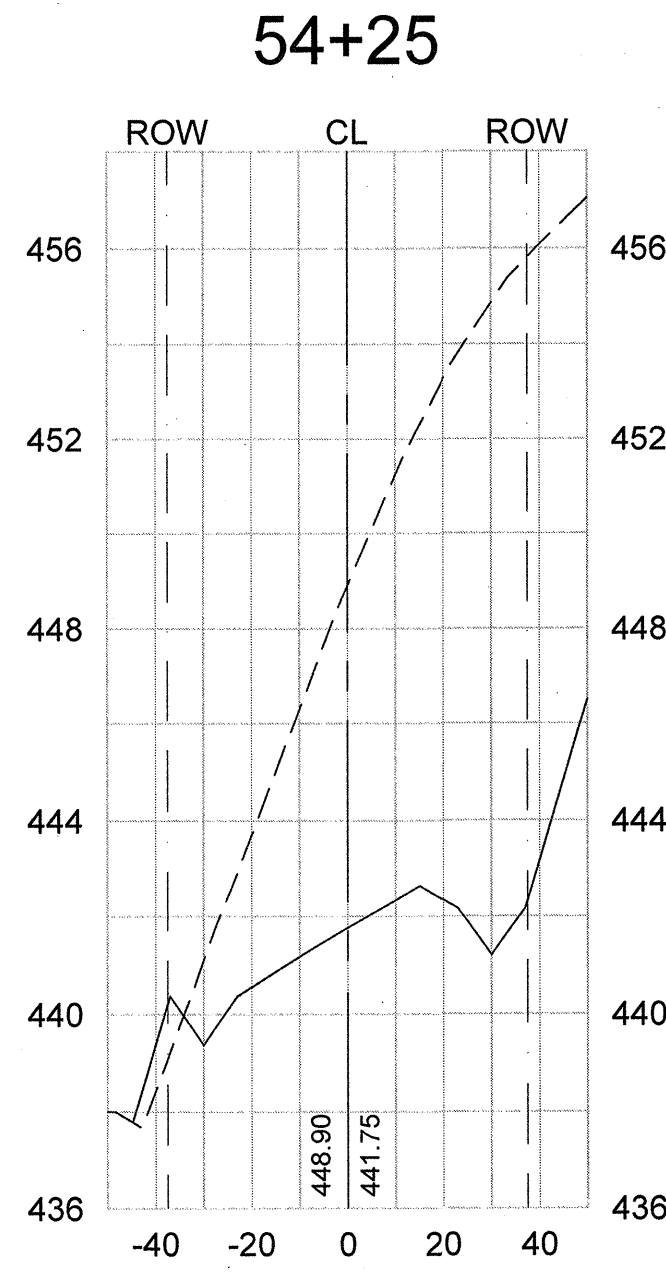
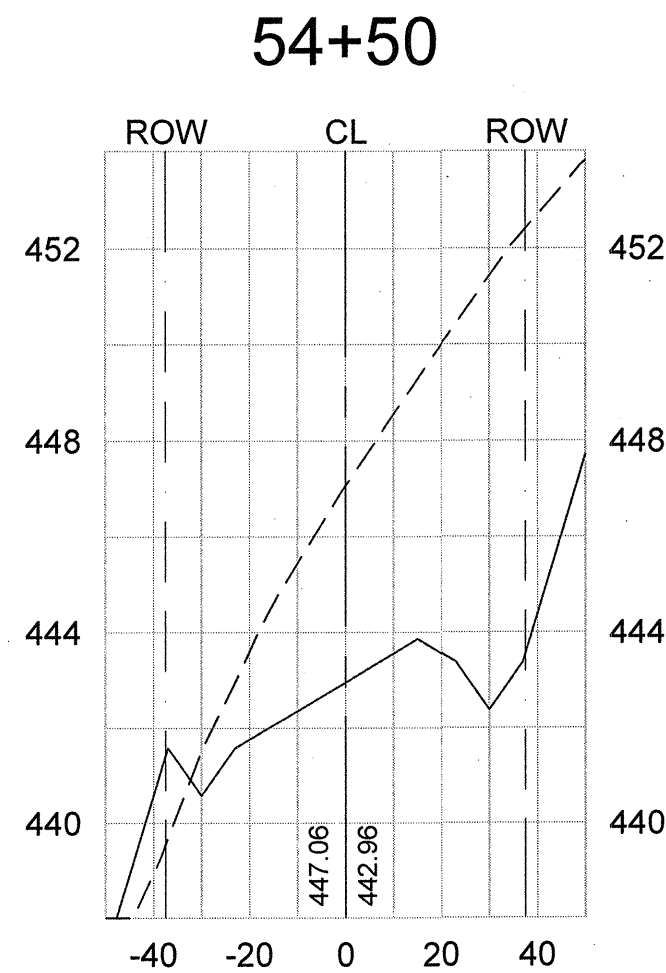
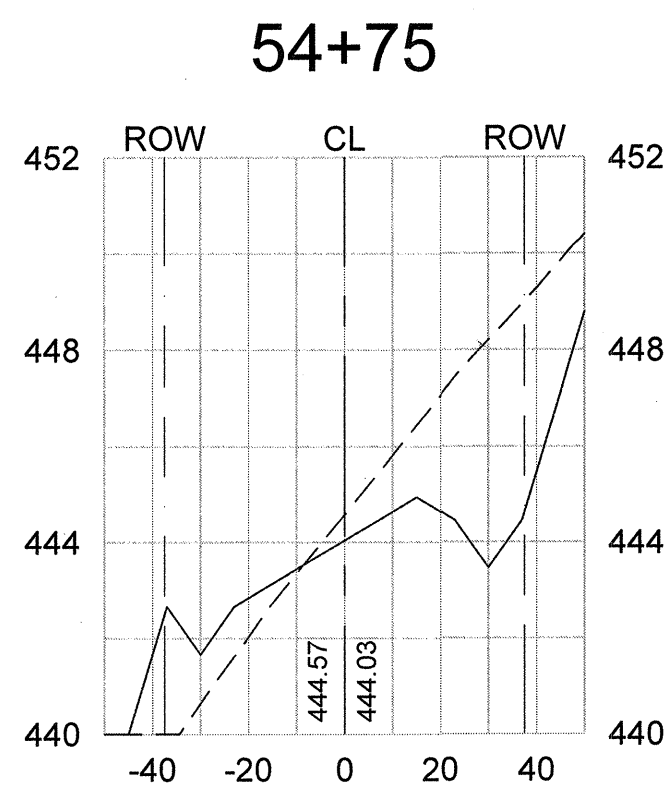
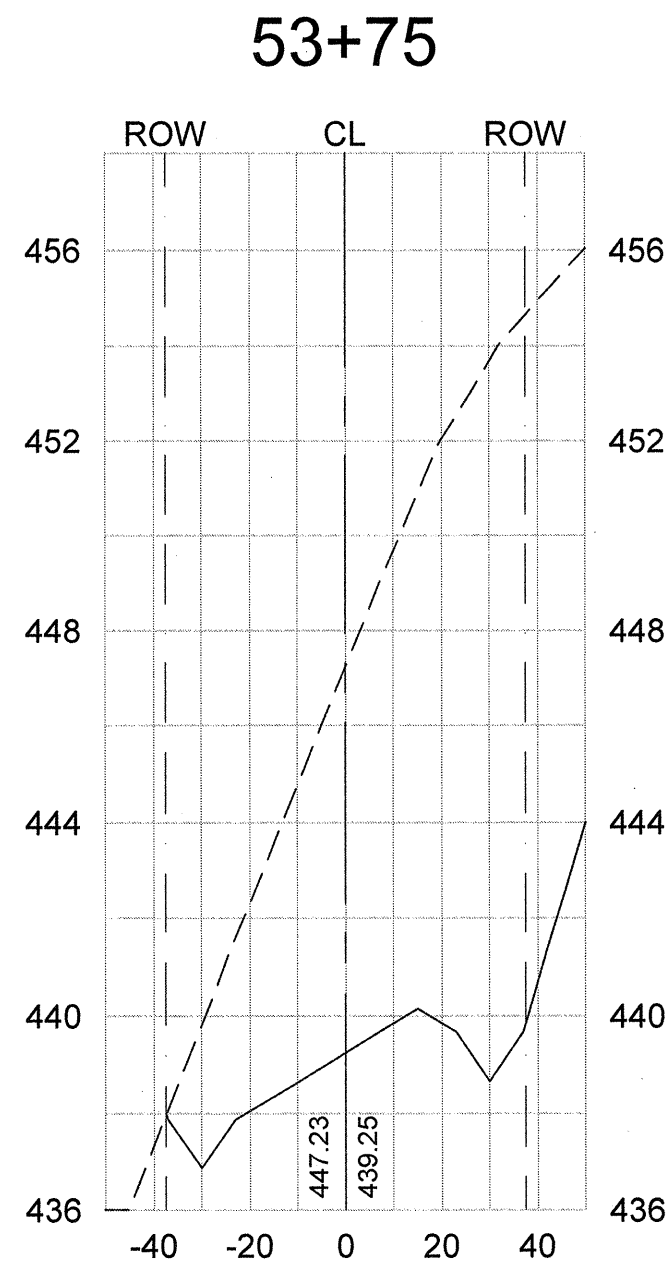
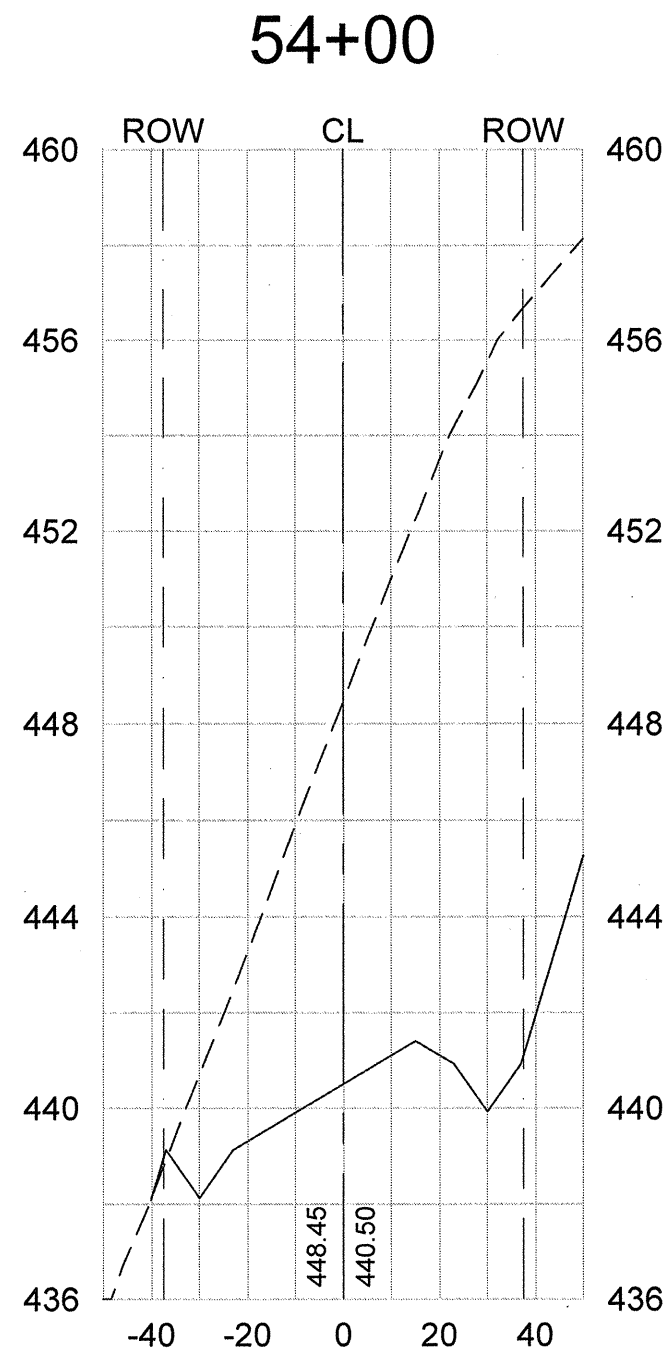
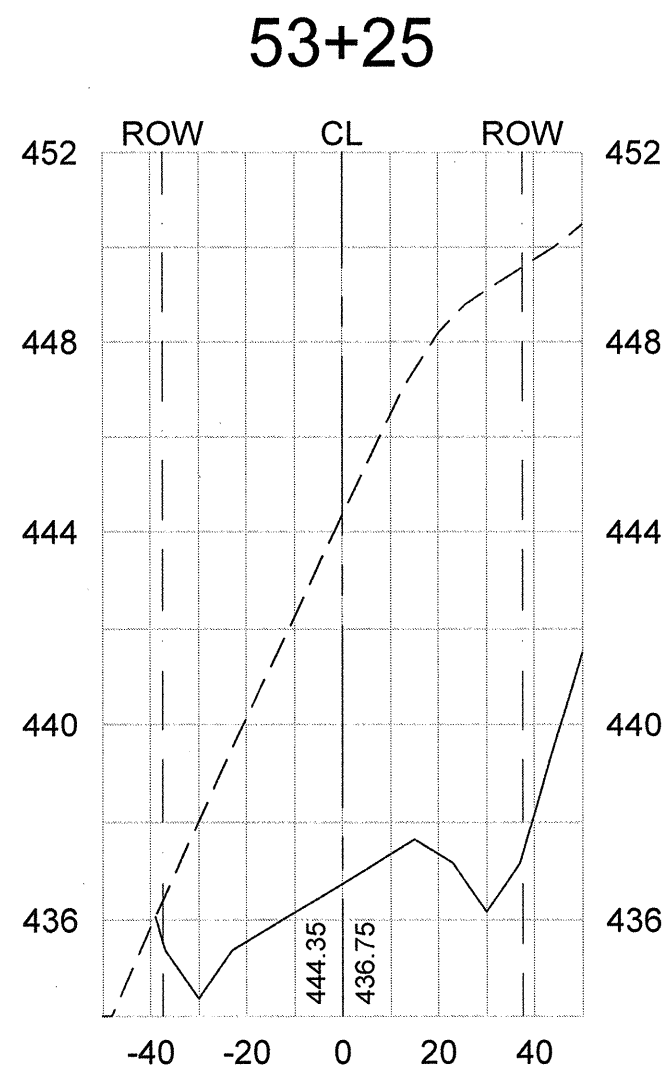
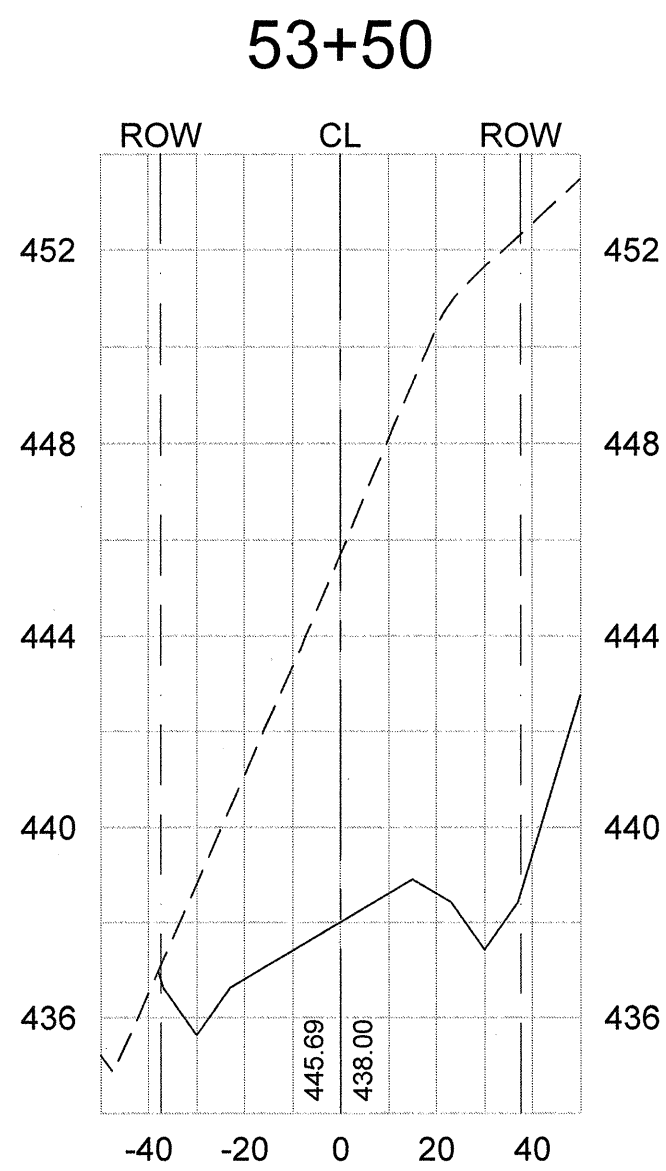
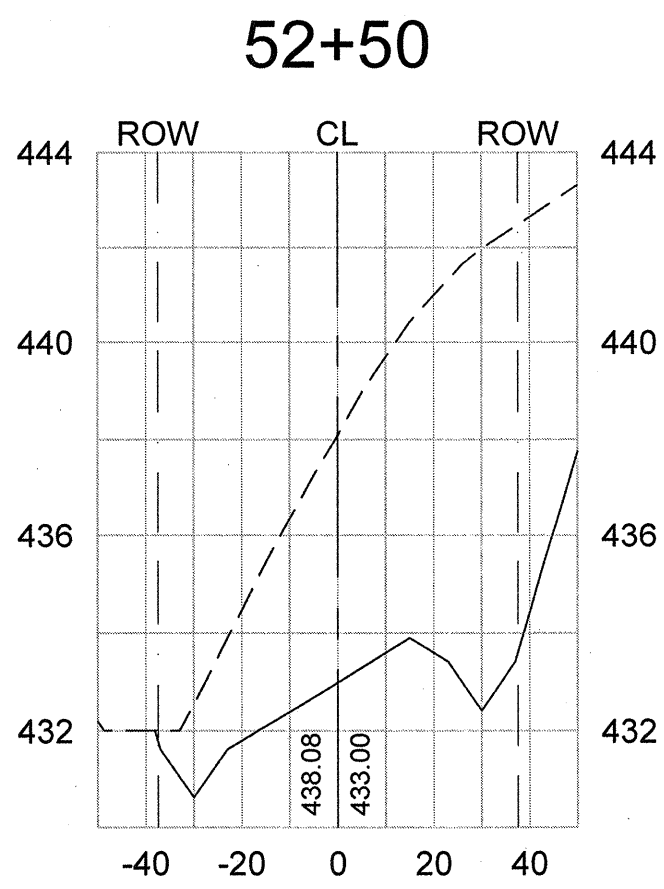
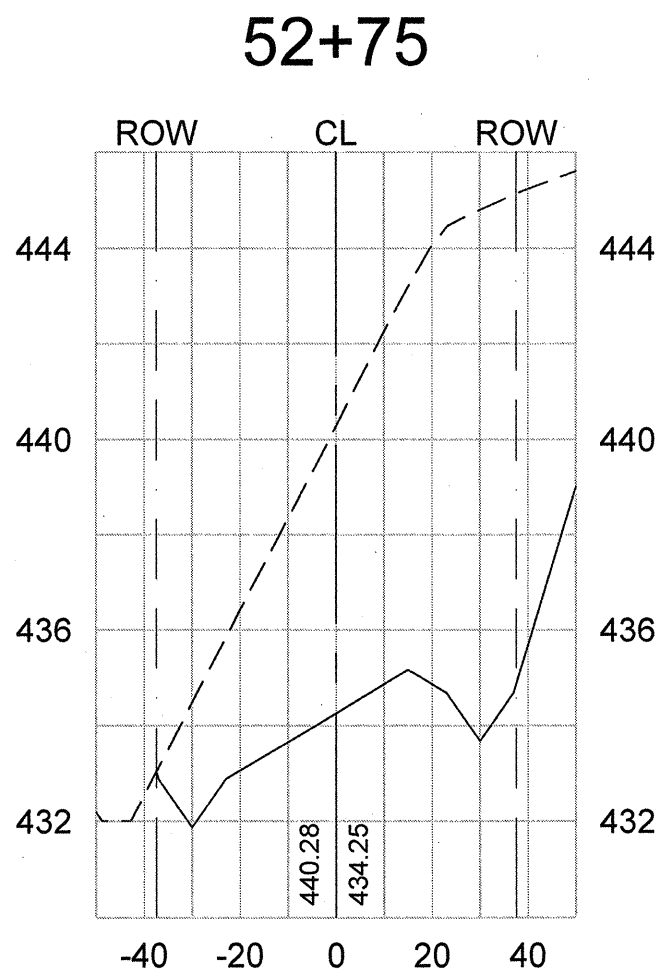
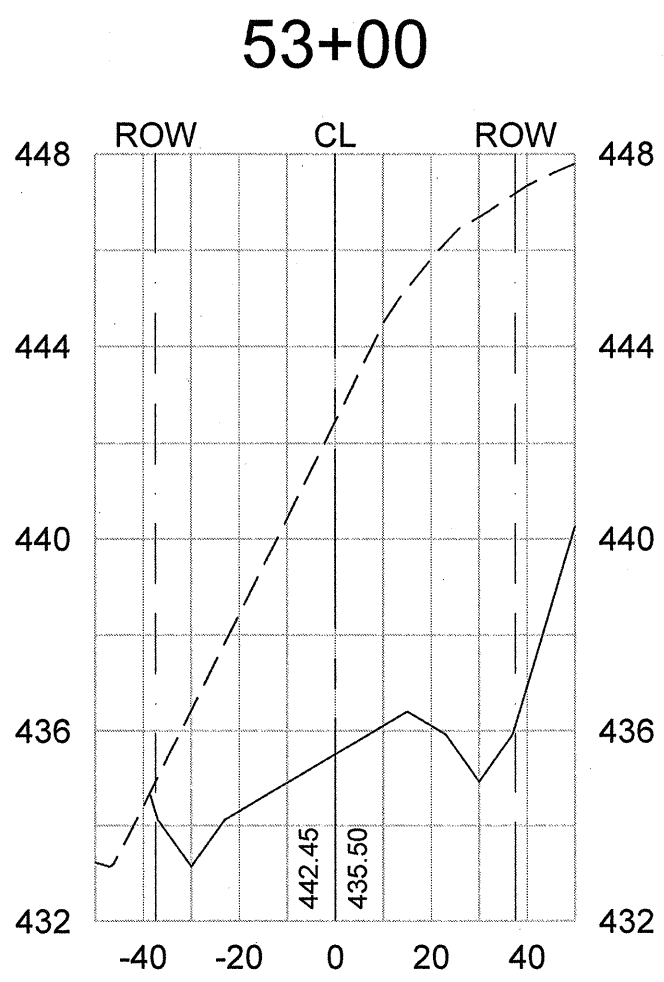
DWG NO. 01,514-D09

April 09, 2021 - 10:15:16 AM S:\Projects\1713-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Com. Park\DWG\Construction Plans C23-Phase III Roadway Cross-Sections (2 of 7).dwg

Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

Legend

- Existing Ground
- Proposed Grade
- Proposed Right of Way
- Proposed Centerline



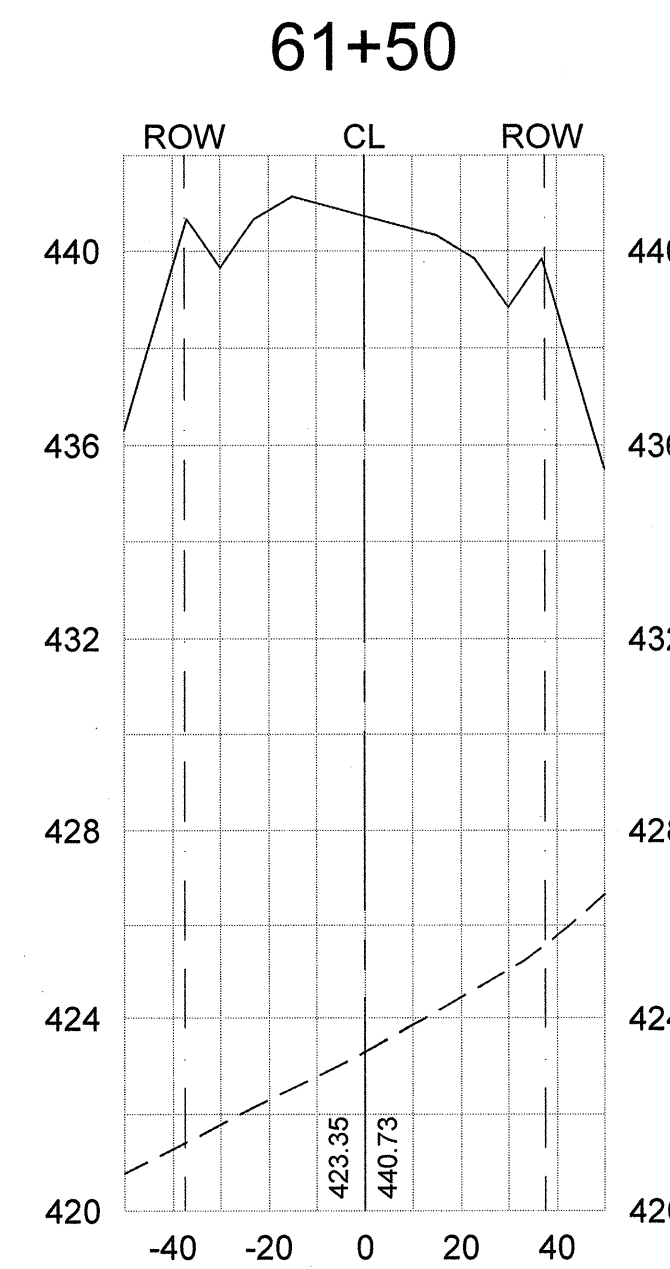
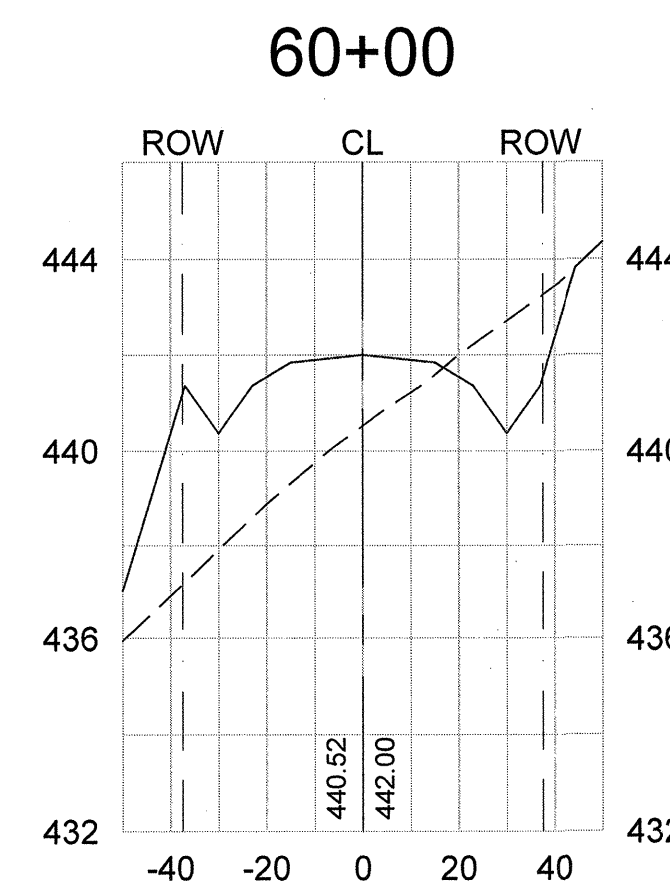
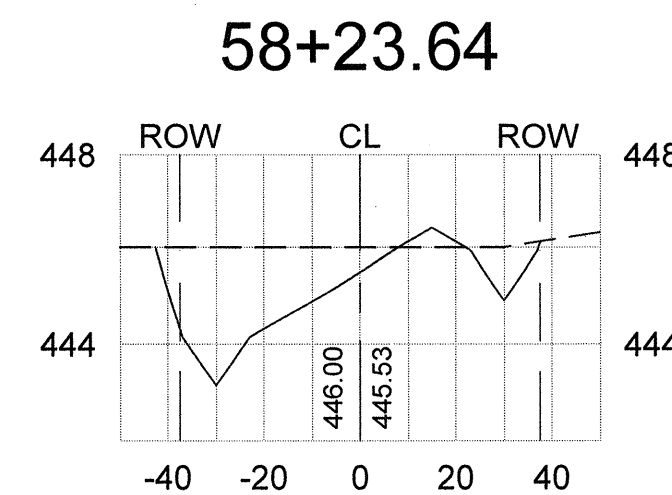
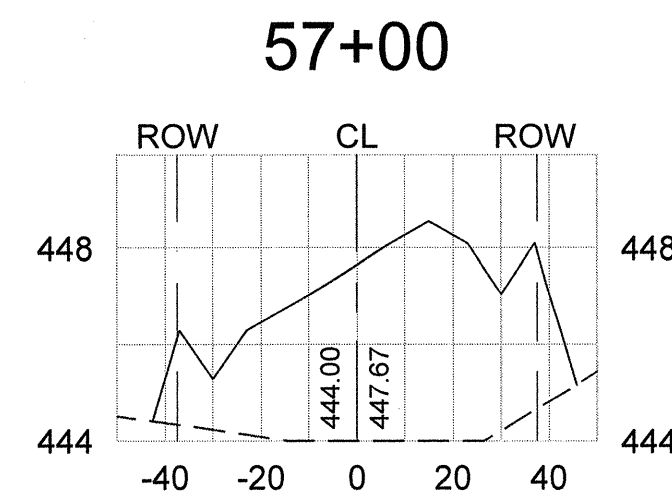
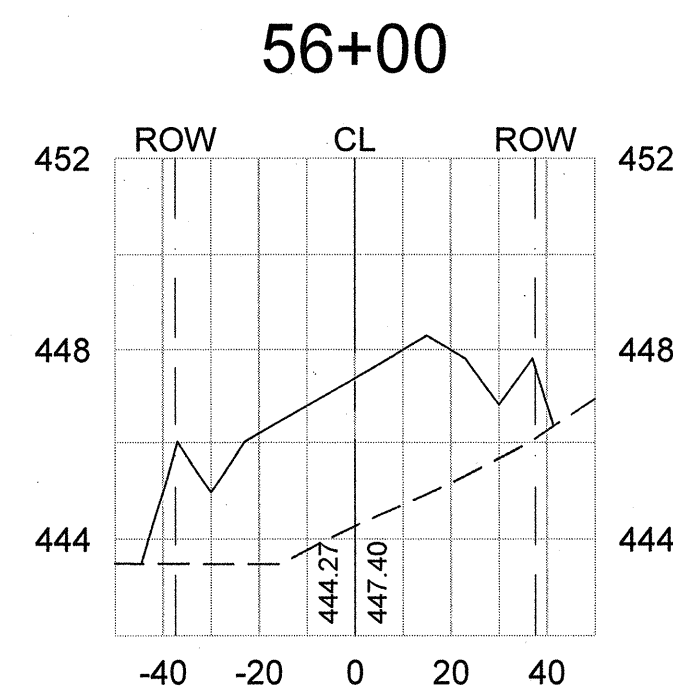
Phase III Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'

REVISION DATE	DATE: 5/17/21
APPROVALS	SIGNATURE: Benjamin S. Roby
ENGINEER BSW	DESIGNER BSW
TECHNICIAN JAM	CHECKED BY KMC/DMN
APPROVED BSW	
ALLIANCE CONSULTING ENGINEERS, Inc. Post Office Box 8147 Columbia, South Carolina 29202-8147 Phone (803) 779-2076 • Fax (803) 779-2079	
PHASE III ROADWAY CROSS-SECTIONS (STA: 52+50 TO 55+75)	
SCALE: AS SHOWN	
DATE: APRIL 2021	
SOUTH CAROLINA	
NEWBERRY COUNTY	
PROJECT PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	
FILE NAME: C23.dwg	SHEET C23
REFERENCE FILE: BASE.DWG	OF 45
PROJECT NO.: 17113-0036	
DWG NO. 01.514-DO9	

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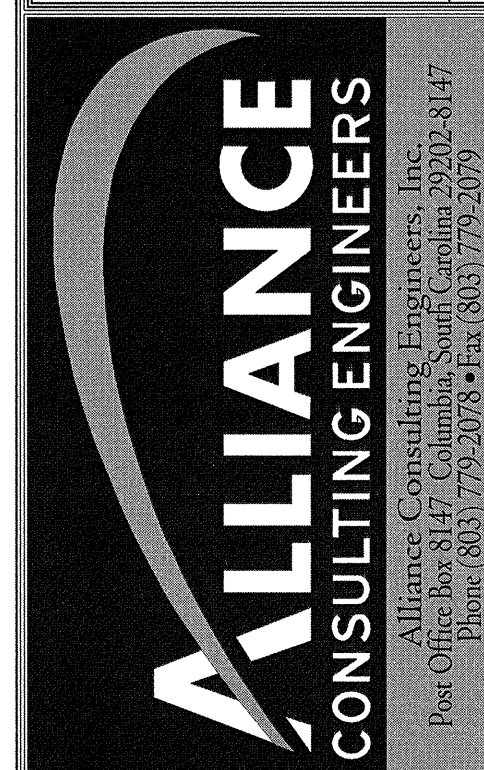
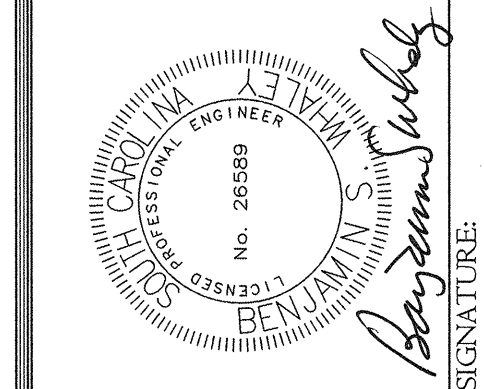
---	Existing Ground
—	Proposed Grade
- - - - -	Proposed Right of Way
— — — — —	Proposed Centerline

[illegible]

AMERICAN INSTITUTE OF CERTIFIED FINANCIAL PLANNERS
FUNDAMENTAL CERTIFICATE OF

Alliance Consulting
Engineers, Inc.
No. C02854
CAROLINA

DATE: 5/14/24



PHASE III
ROADWAY CROSS-SECTIONS
(STA: 56+00 TO 62+00)

DATE: APRIL 2021
SCALE: AS SHOWN

PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY
SOUTH CAROLINA

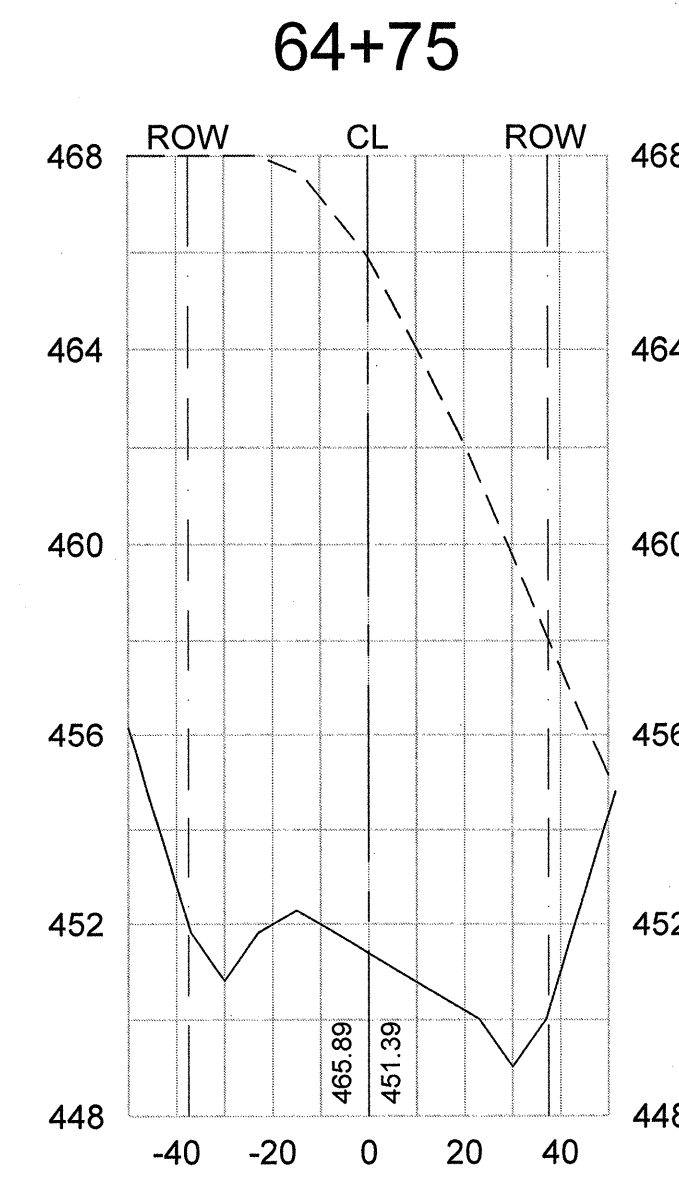
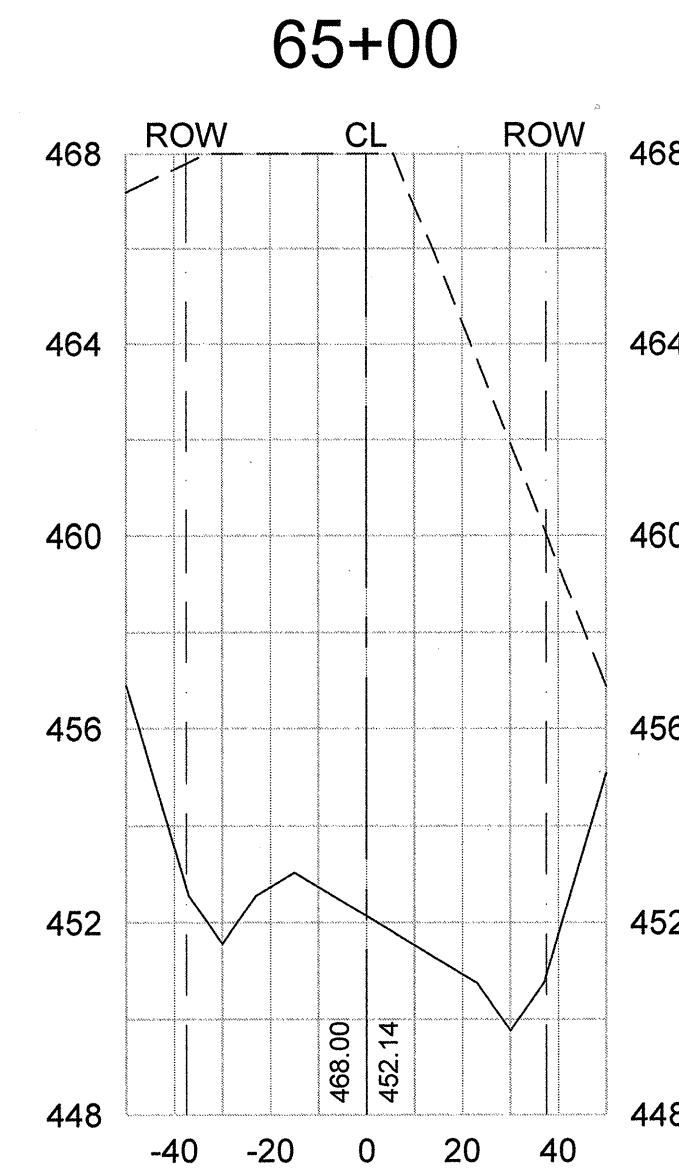
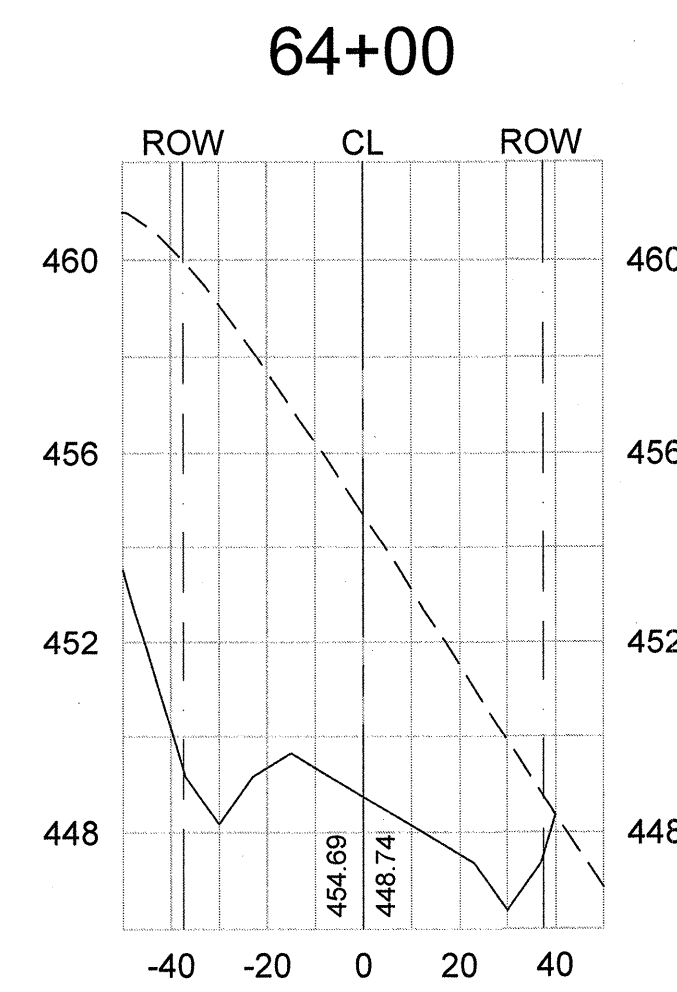
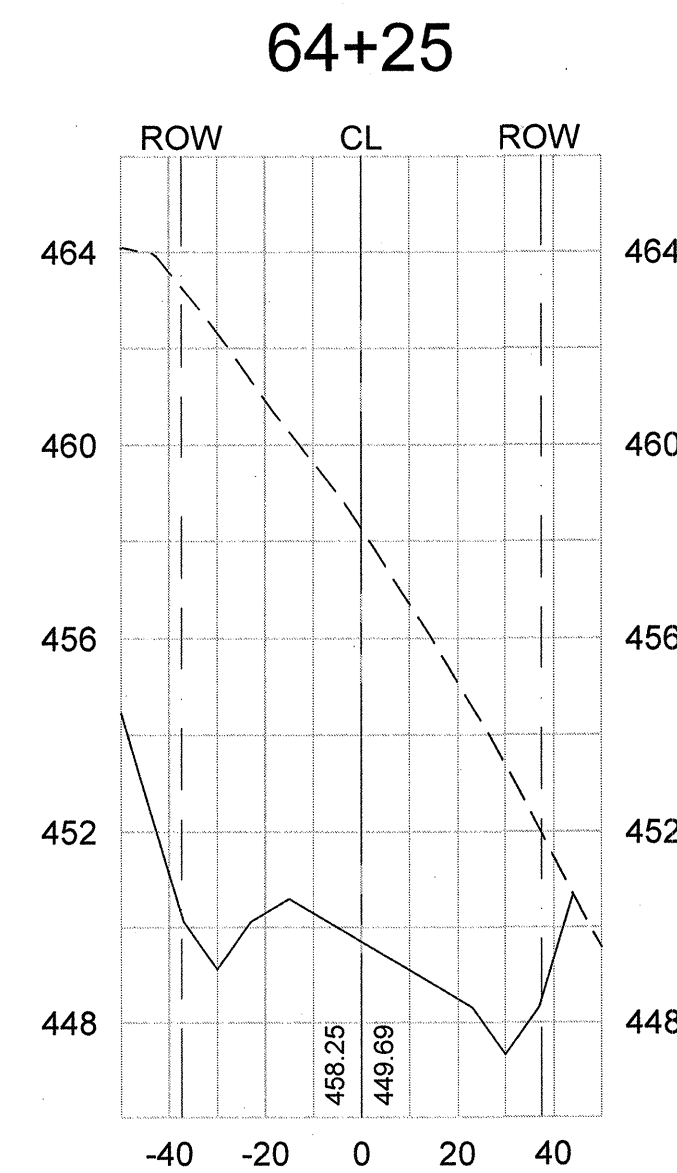
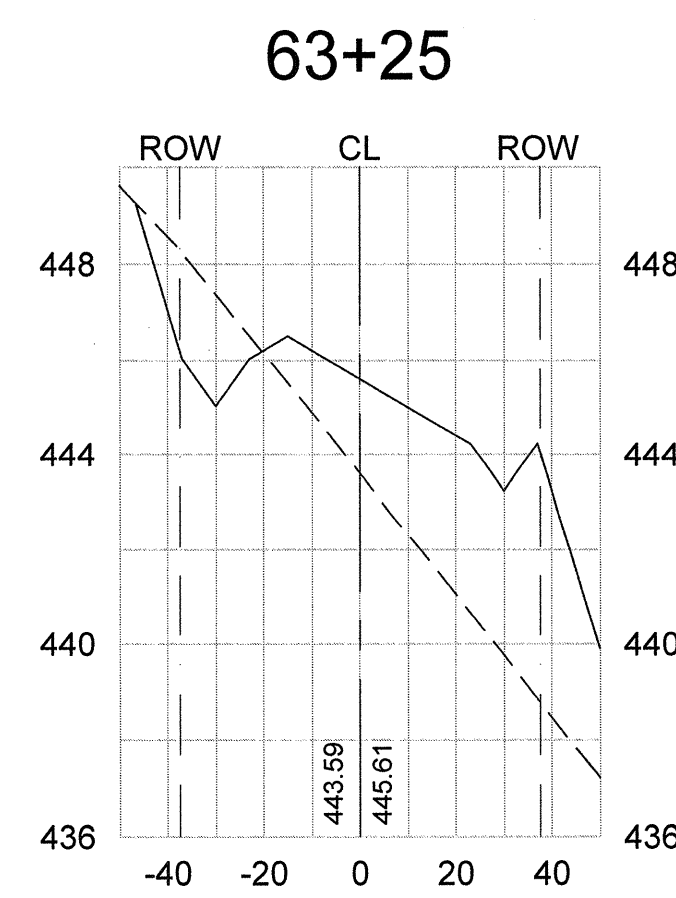
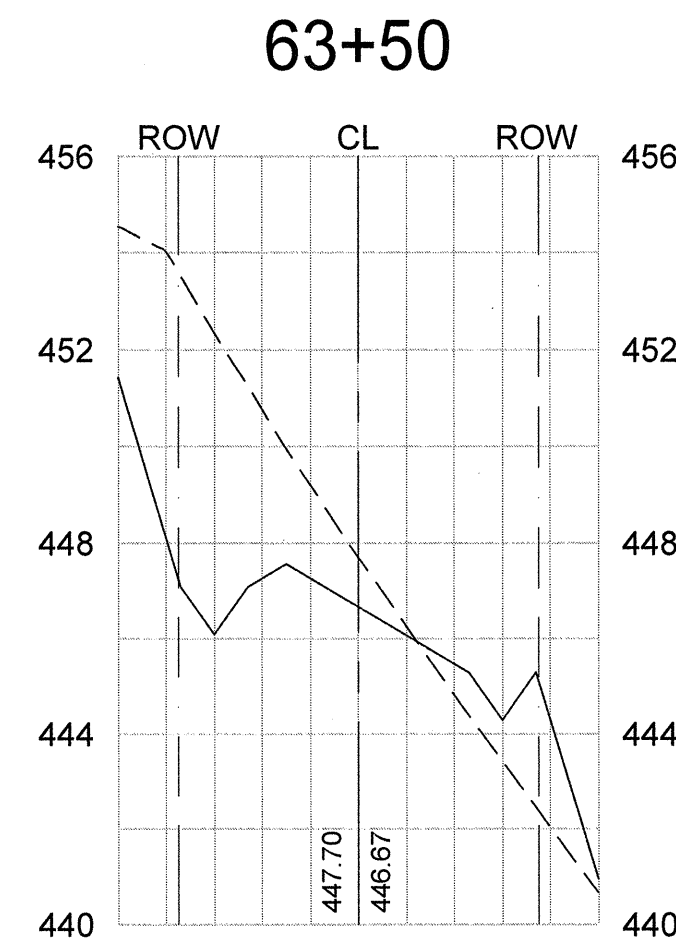
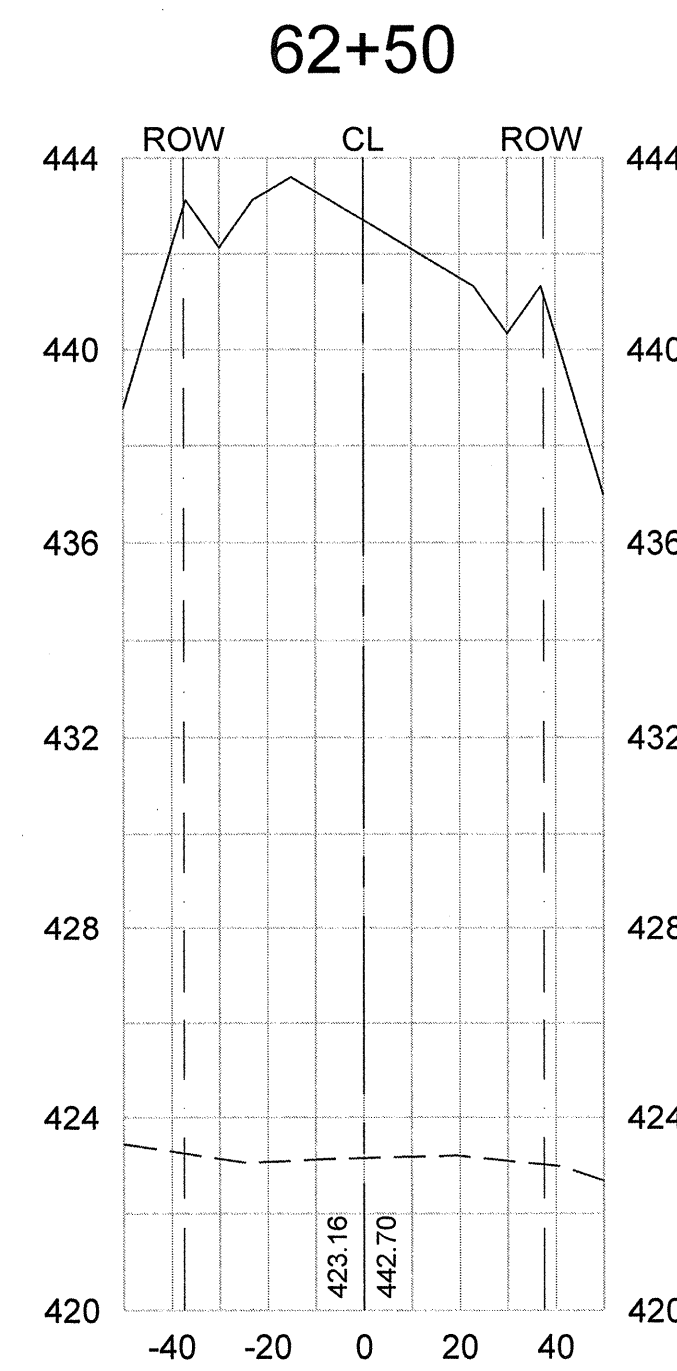
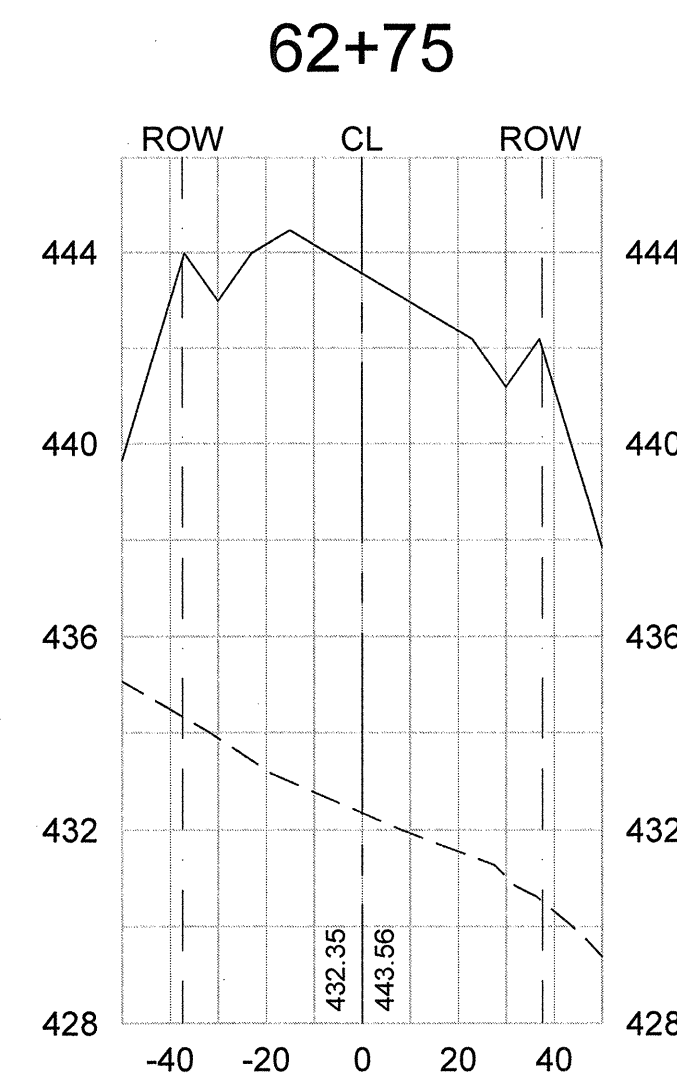
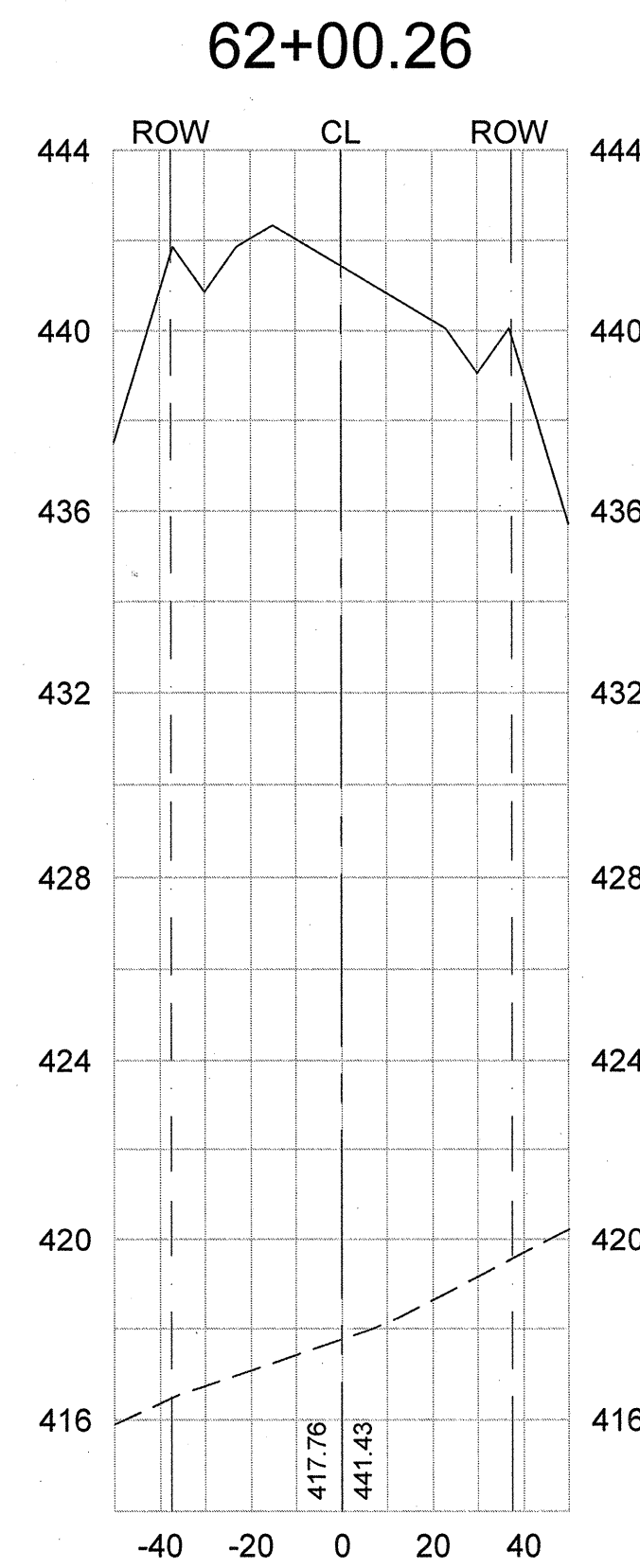
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REFERENCE FILE: BASE.DWG	
PROJECT NO.	

DWG NO. 01,514-D09

April 08 2021 - 10:27:04 AM S:\Projects\17113-0036 Phase IIA & Phase III Rdway & Wastewater Infrastructure Improve Mid-Carolina Com. Park(dwg)\Construction Plans\ C25-Phase III Rdway Cross-Sections (4 of 7).dwg

Legend

- Existing Ground
- Proposed Grade
- Proposed Right of Way
- Proposed Centerline



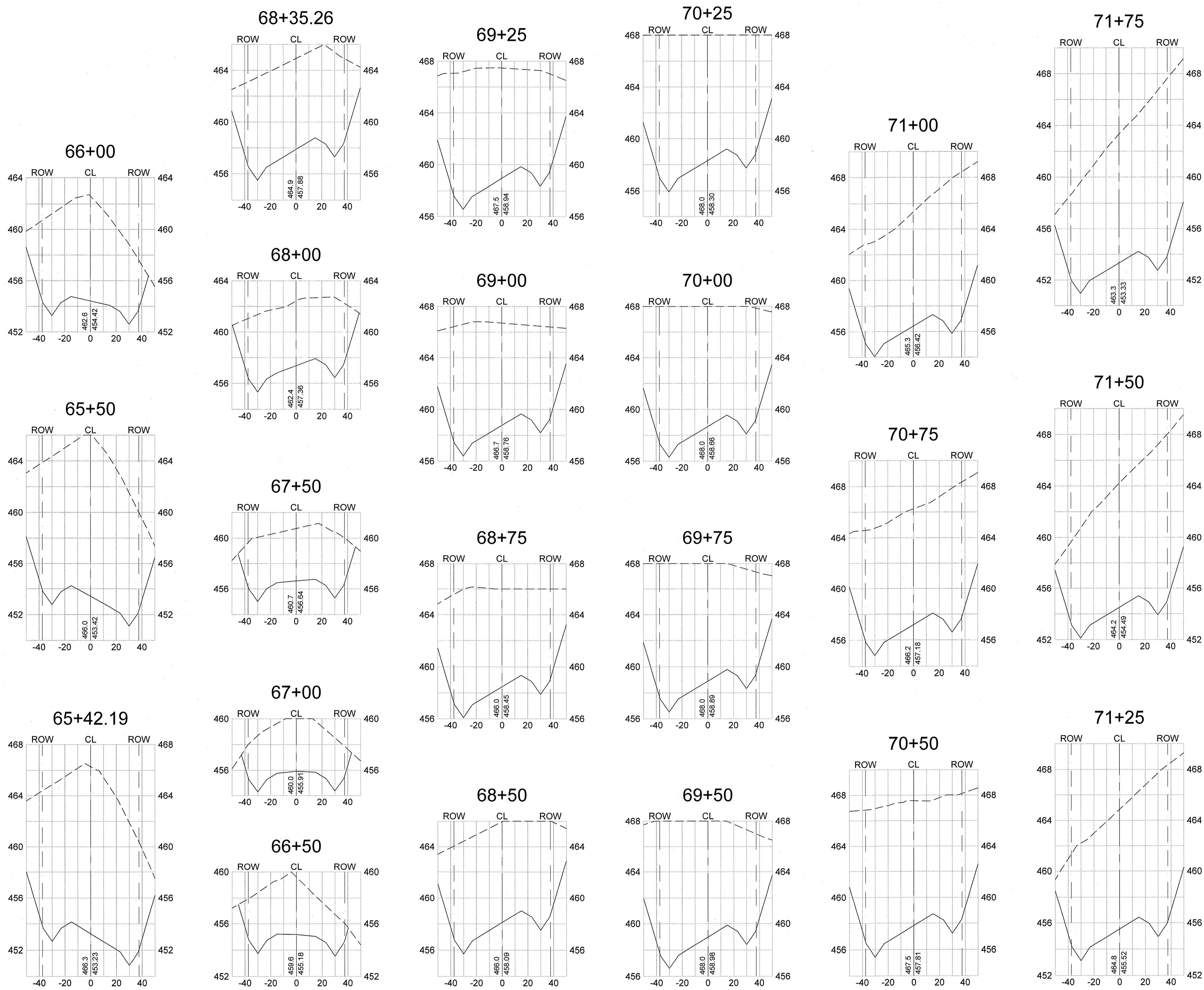
Phase III Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'

<div>REVISION DATE</div>		<div>APPROVALS</div>	
		<div>ENGINEER</div>	<div>BSW</div>
<div>DESIGNER</div> <div>BSW</div> <div>TESTING/ANALYST</div> <div>JAM</div> <div>CHECKED BY</div> <div>KMC/DAMS</div> <div>APPROVED</div> <div>BSW</div>		<div>CERTIFICATE OF AUTHORITY</div>	
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		<div>26589</div>	
		<div>DATE: 5/14/12</div>	
<div>ALLIANCE CONSULTING ENGINEERS, INC.</div>		<div>SIGNATURE: <i>Carol J. VMA</i></div>	
		<div>DATE: 5/14/12</div>	
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		<div>DATE: 5/14/12</div>	
<div>ALLIANCE CONSULTING ENGINEERS, INC.</div>		<div>SIGNATURE: <i>Carol J. VMA</i></div>	
		<div>DATE: 5/14/12</div>	
<div>ALLIANCE CONSULTING ENGINEERS, INC.</div>		<div>SIGNATURE: <i>Carol J. VMA</i></div>	
		<div>DATE: 5/14/12</div>	
<div>ALLIANCE CONSULTING ENGINEERS, INC.</div>		<div>SIGNATURE: <i>Carol J. VMA</i></div>	
		<div>DATE: 5/14/12</div>	
<div>ALLIANCE CONSULTING ENGINEERS, INC.</div>		<div>SIGNATURE: <i>Carol J. VMA</i></div>	
		<div>DATE: 5/14/12</div>	
<div>ALLIANCE CONSULTING ENGINEERS, INC.</div>			

April 09, 2021 - 10:30:55 AM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Com. Park\DWG\Construction Plans C26-Phase III Roadway Cross-Sections (6 of 7).dwg

Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

Legend
--- Existing Ground
--- Proposed Grade
--- Proposed Right of Way
--- Proposed Centerline

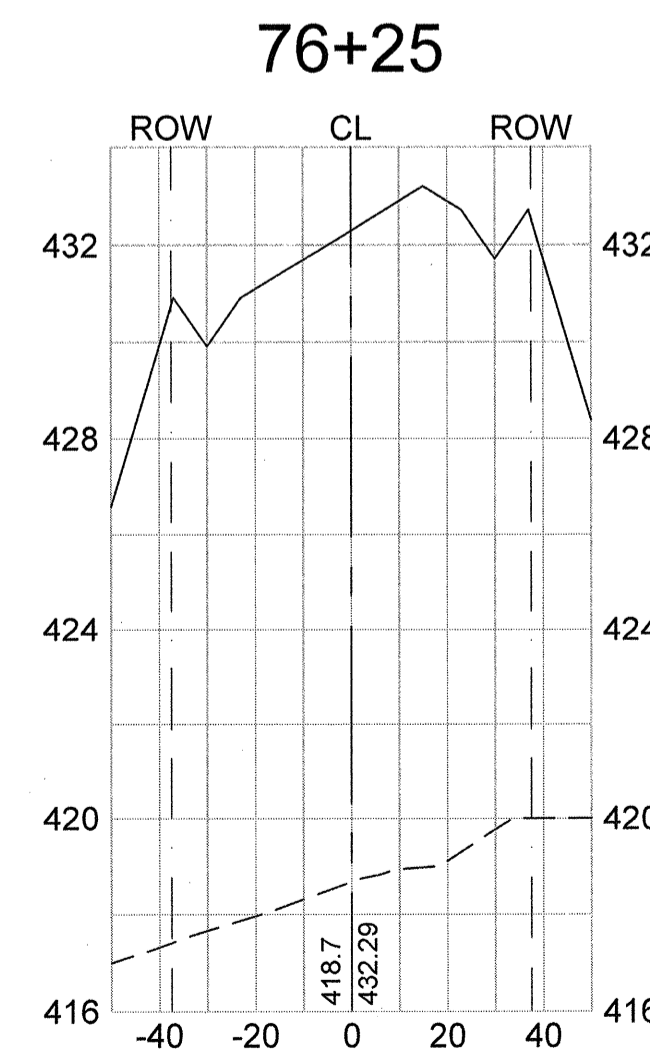
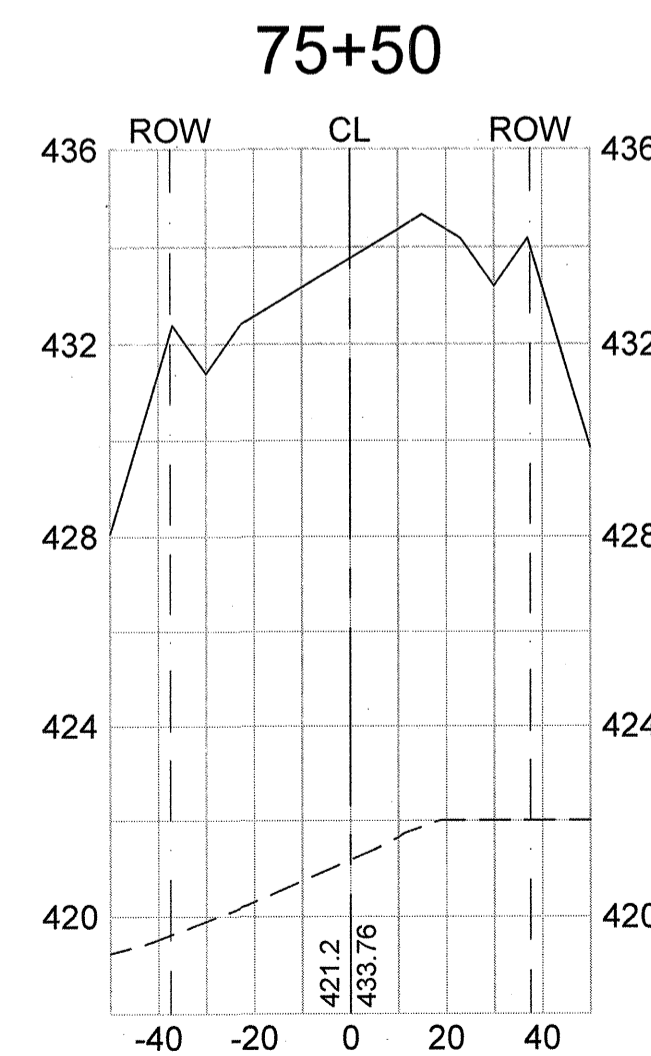
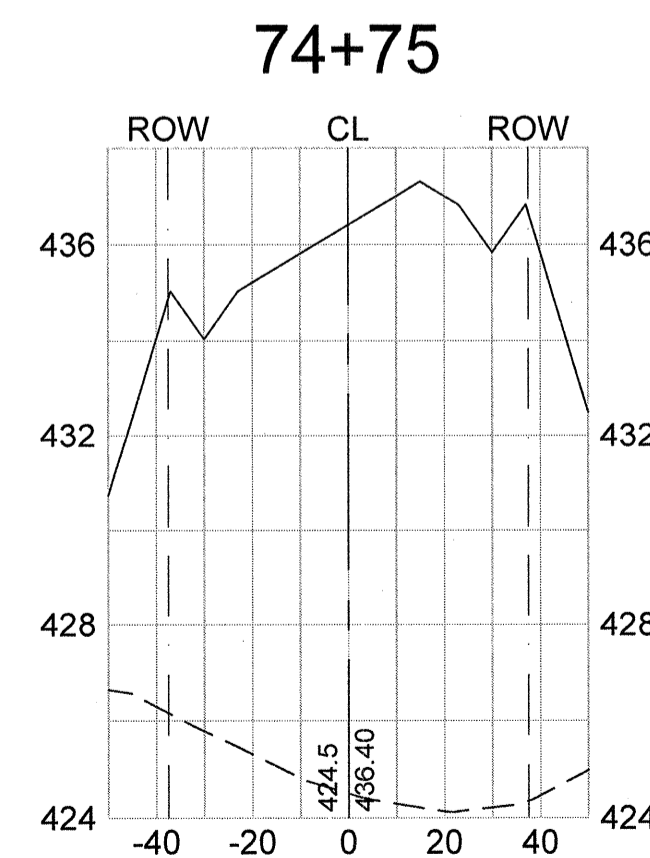
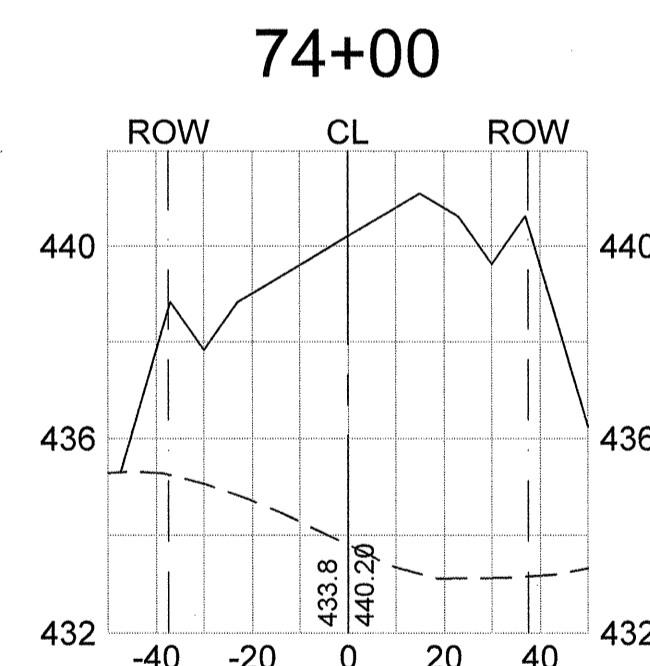
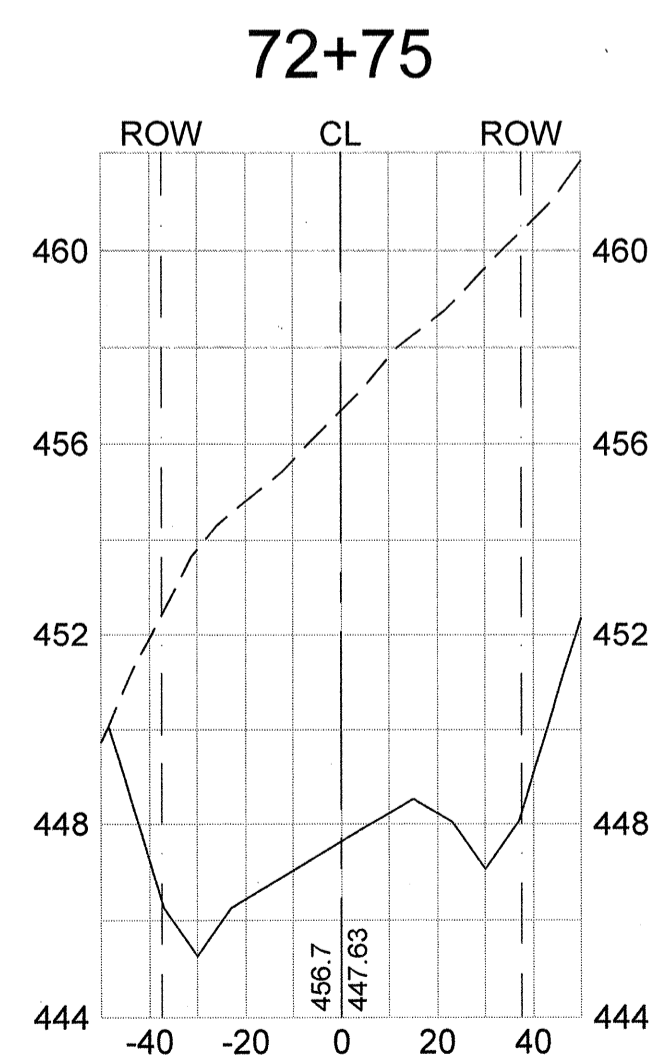
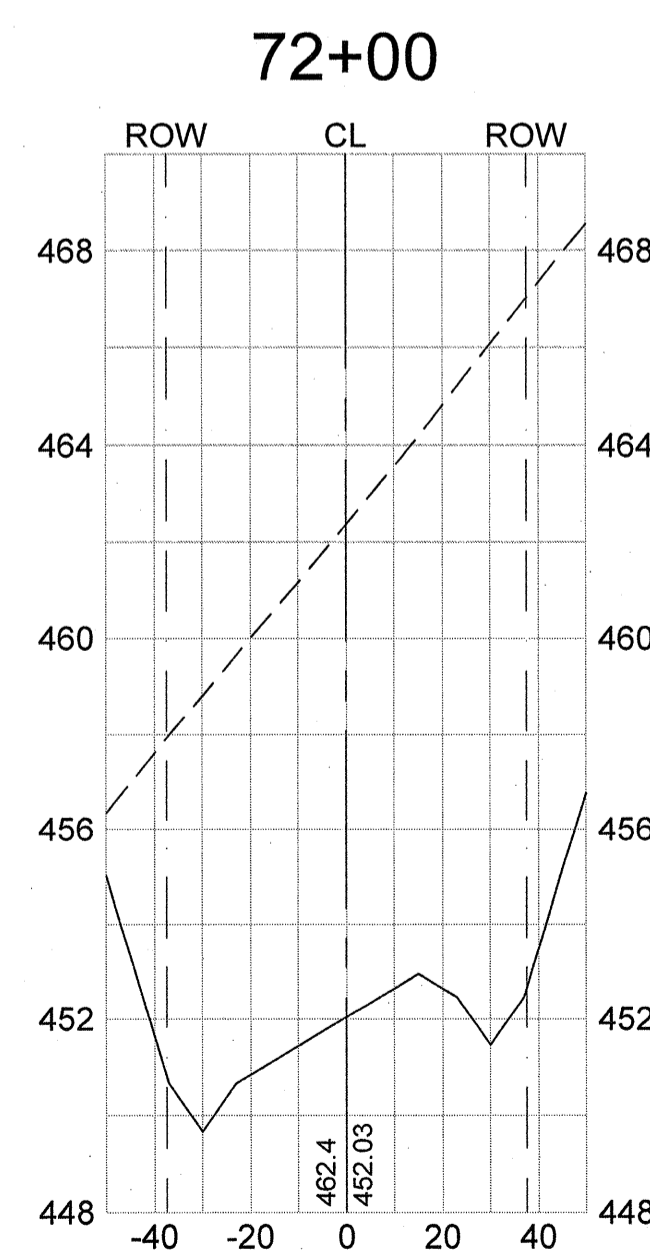
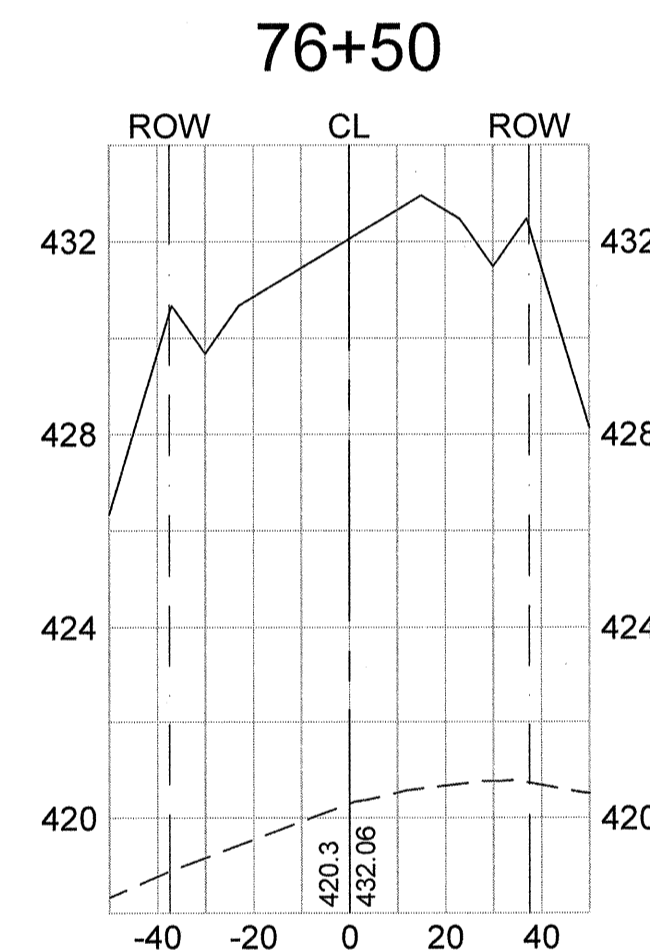
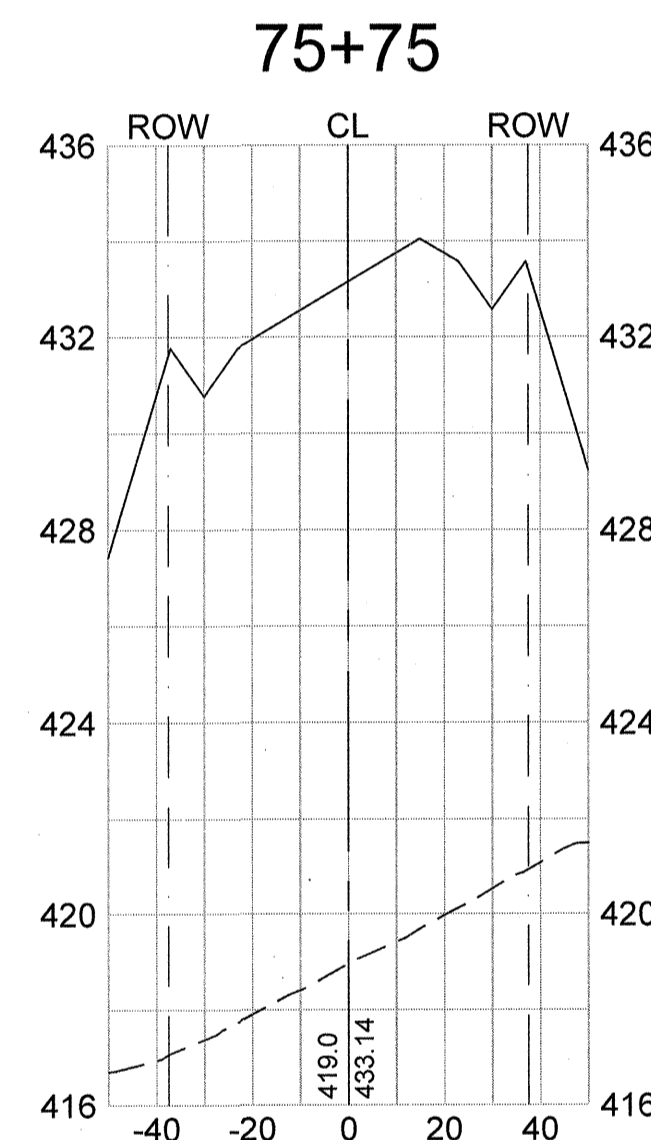
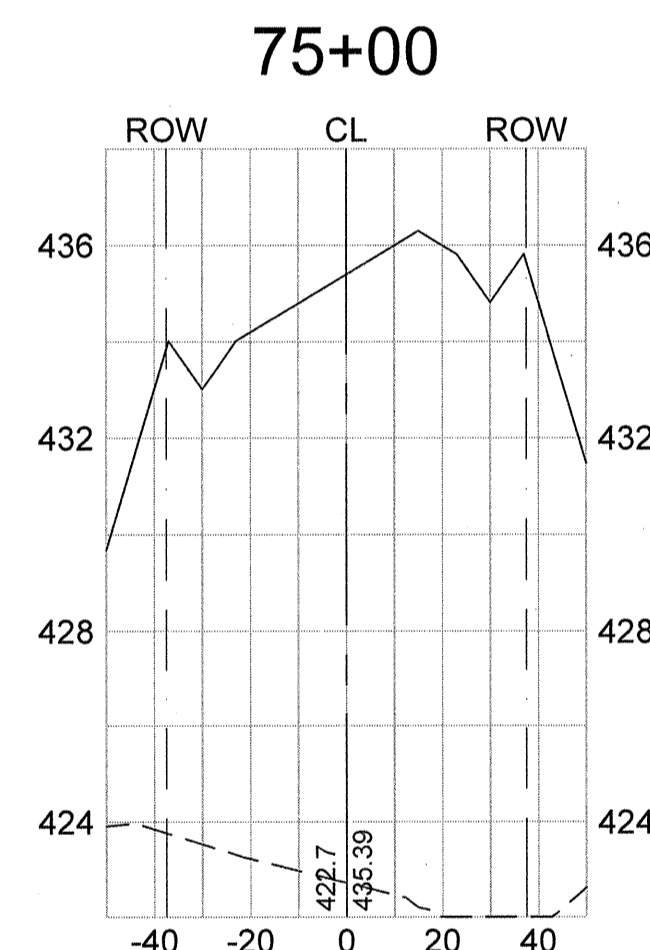
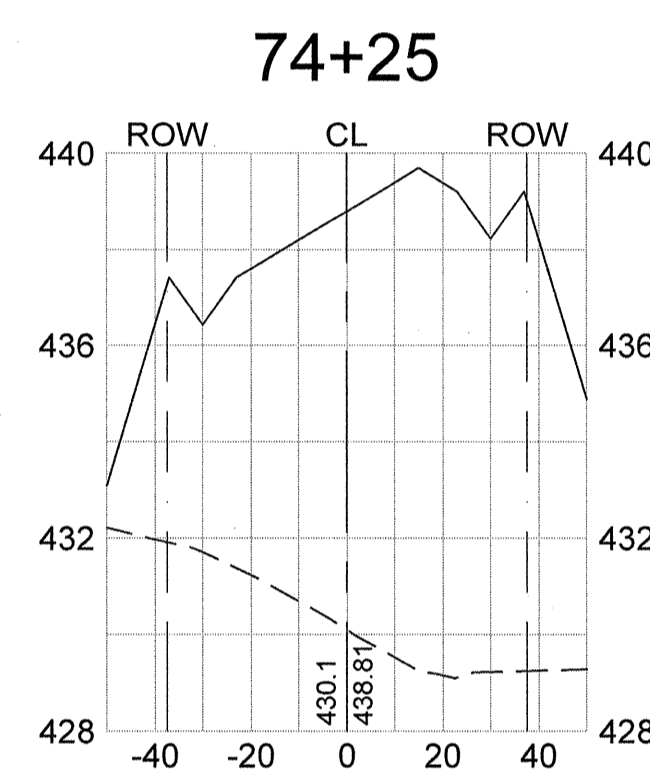
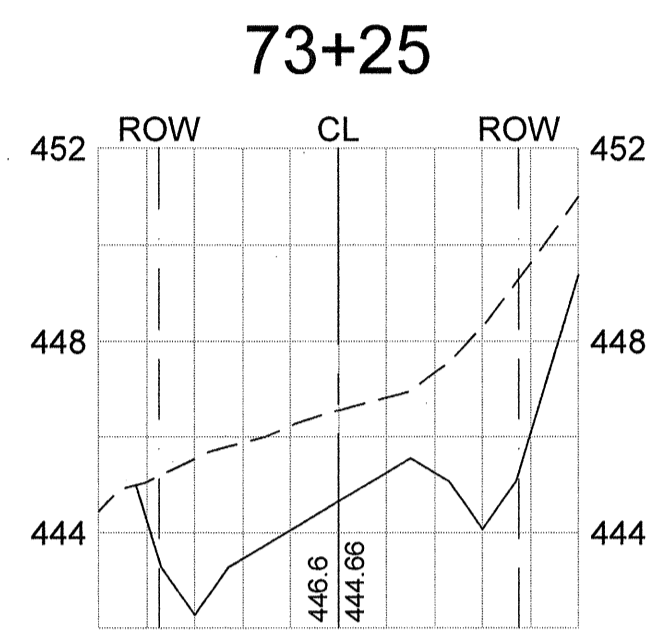
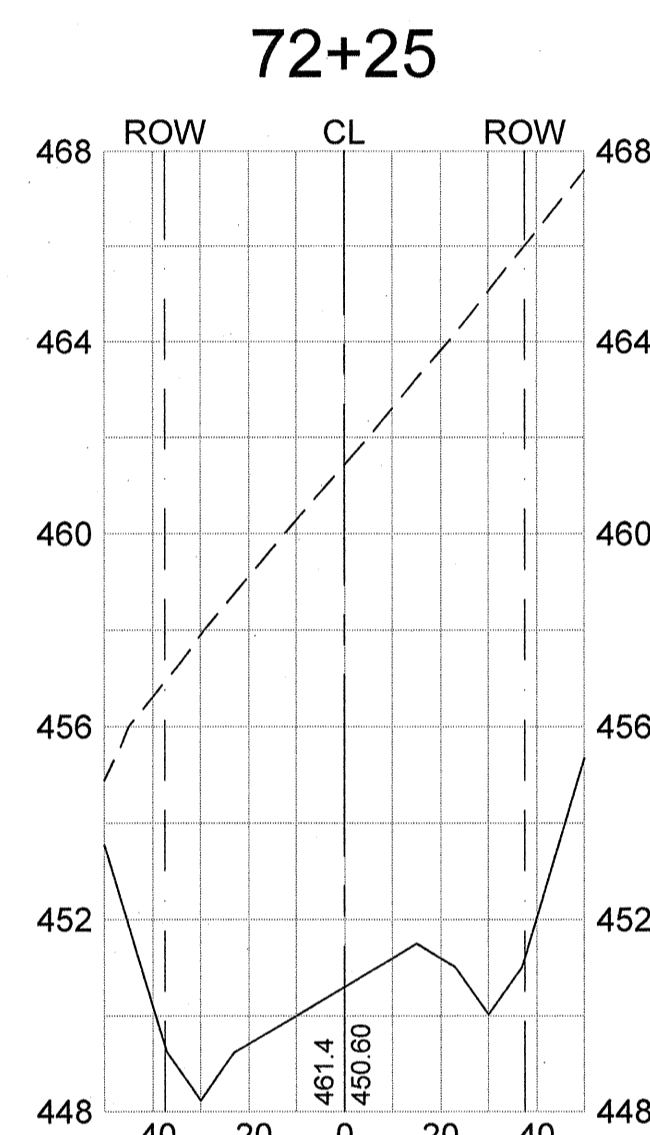
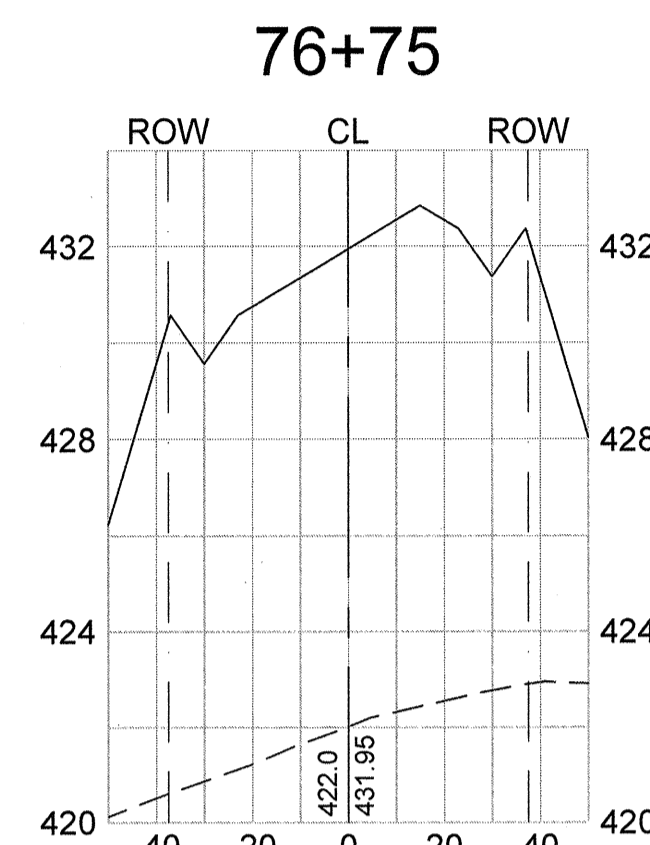
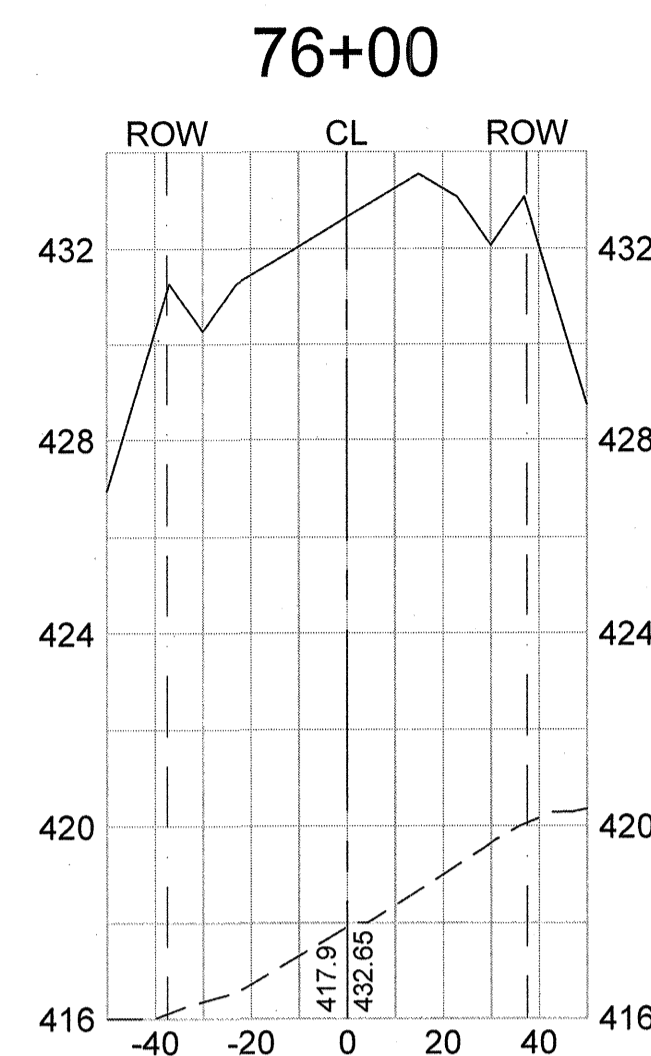
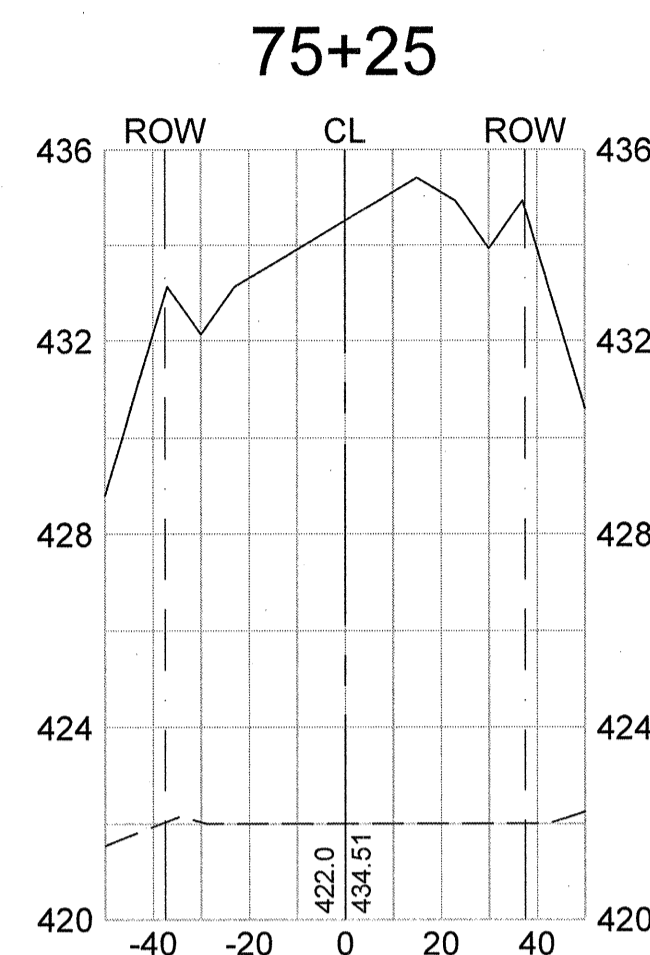
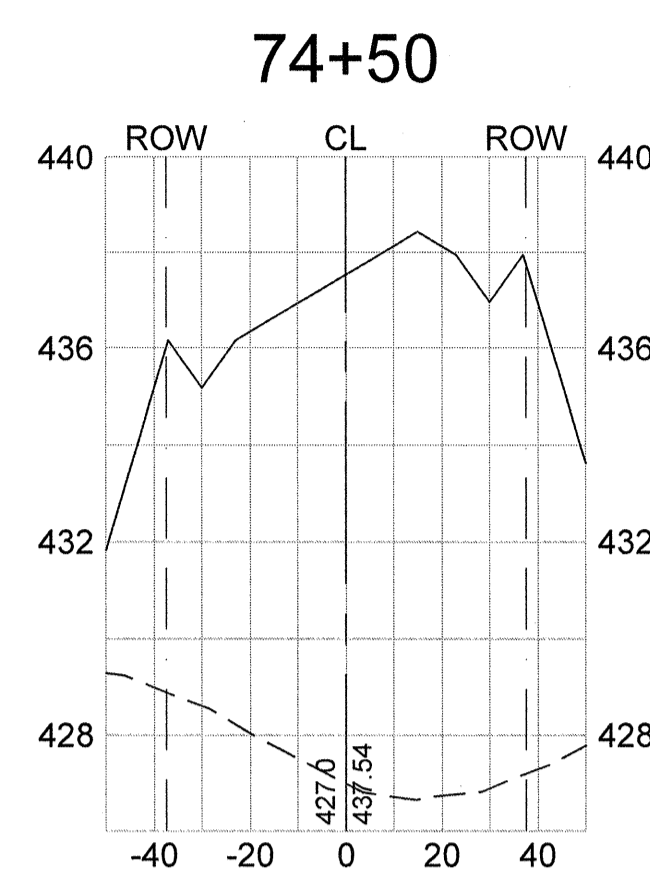
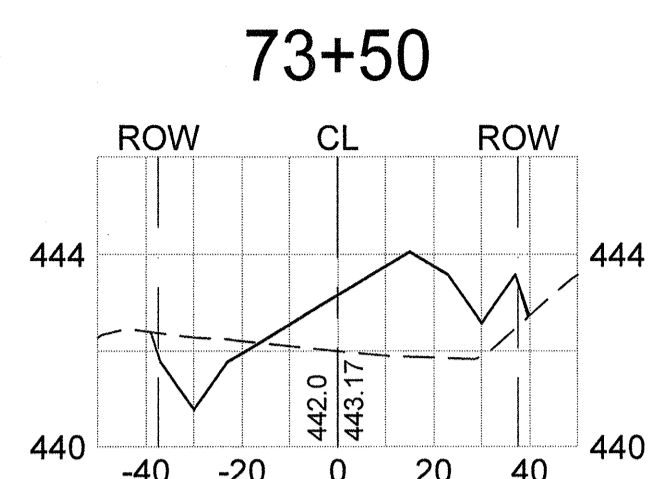
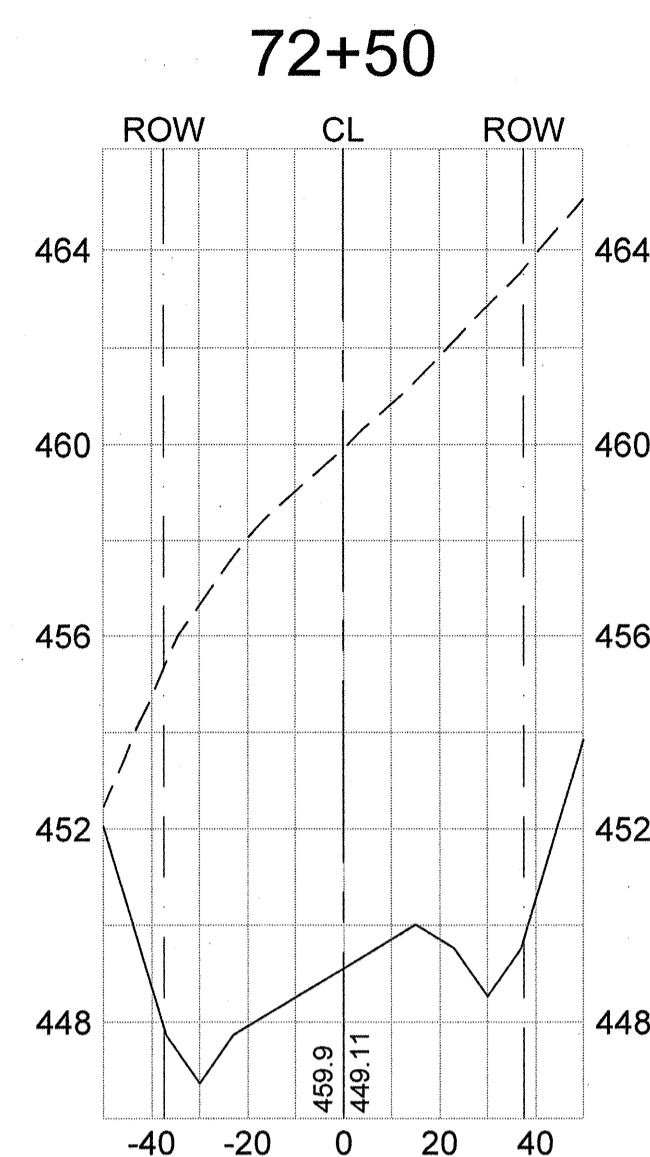


Phase III Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'


REVISION DATE	
APPROVALS	
DESIGNER BSW	CHECKED BY KMC/DMN
TECHNICIAN BSW	APPROVED BSW
DATE: 5/14/21	
ALLIANCE CONSULTING ENGINEERS, INC. No. 002654 CERTIFICATE OF QUALITY	
BENJAMIN S. SUBER No. 26589 LICENSED PROFESSIONAL ENGINEER	
SIGNATURE	
ALLIANCE CONSULTING ENGINEERS, INC. Post Office Box 8147 Columbia, South Carolina 29202-8147 Phone (803) 779-2078 Fax (803) 779-2079	
PHASE III ROADWAY CROSS-SECTIONS (STA: 65+42.19 TO 71+75)	
SCALE: AS SHOWN	
DATE: APRIL 2021	
PROJECT PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	
FILE NAME: C26.dwg	SHEET C26
REFERENCE FILE: BASE.DWG	OF 45
PROJECT NO. 17113-0036	
DWG NO. 01.514-D09	

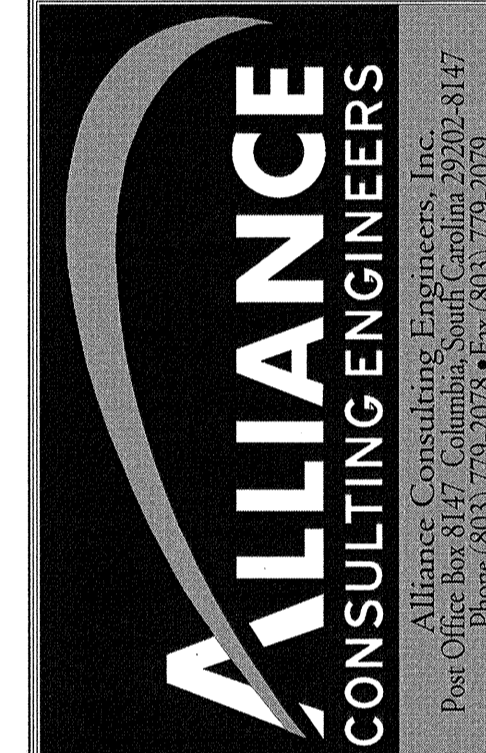
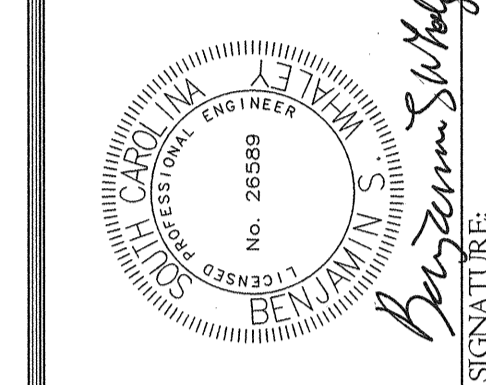
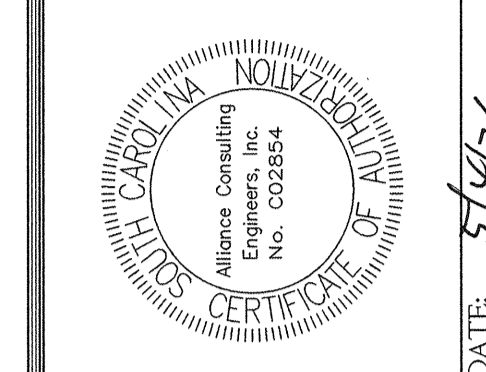
Legend

-----	Existing Ground
—————	Proposed Grade
- - - - -	Proposed Right of Way
_____	Proposed Centerline



Phase III Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'

	REVISION	
	DATE	
APPROVALS	DESIGNER	CHECKED BY
ENGINEER	BSW	JAM
	BSW	KMC/DMN
	TECHNICIAN	APPROVED
		BSW



PHASE III
ROADWAY CROSS-SECTIONS
(STA: 72+00 TO 76+75)

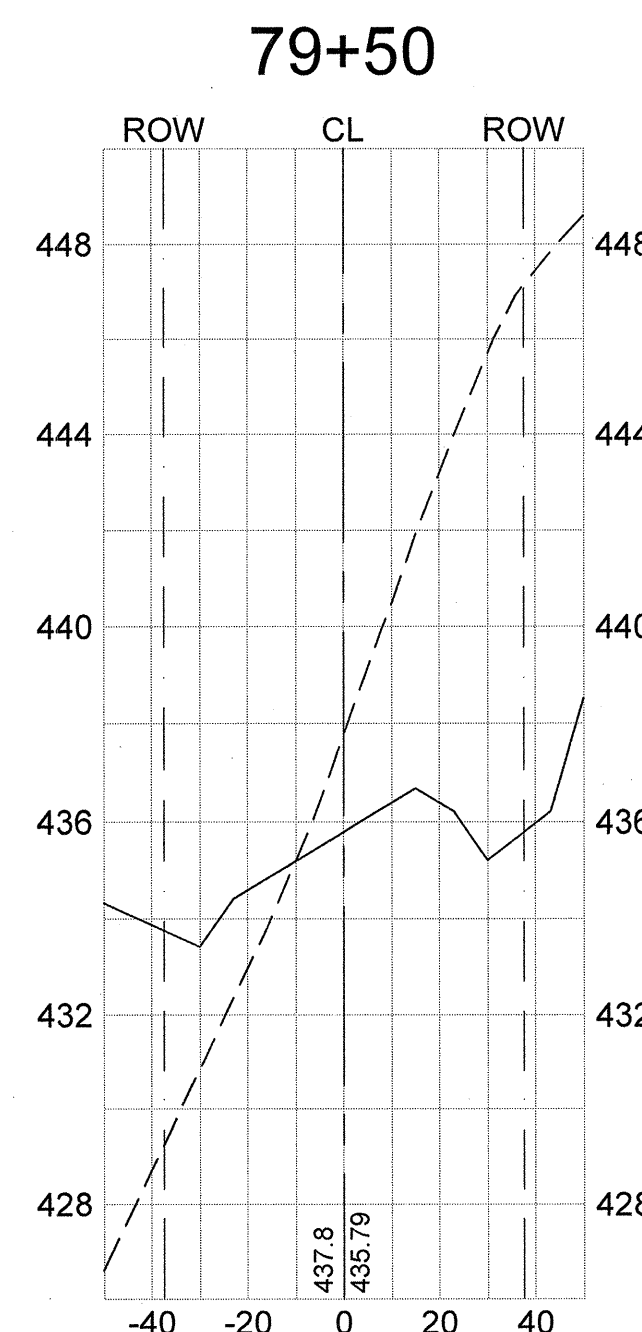
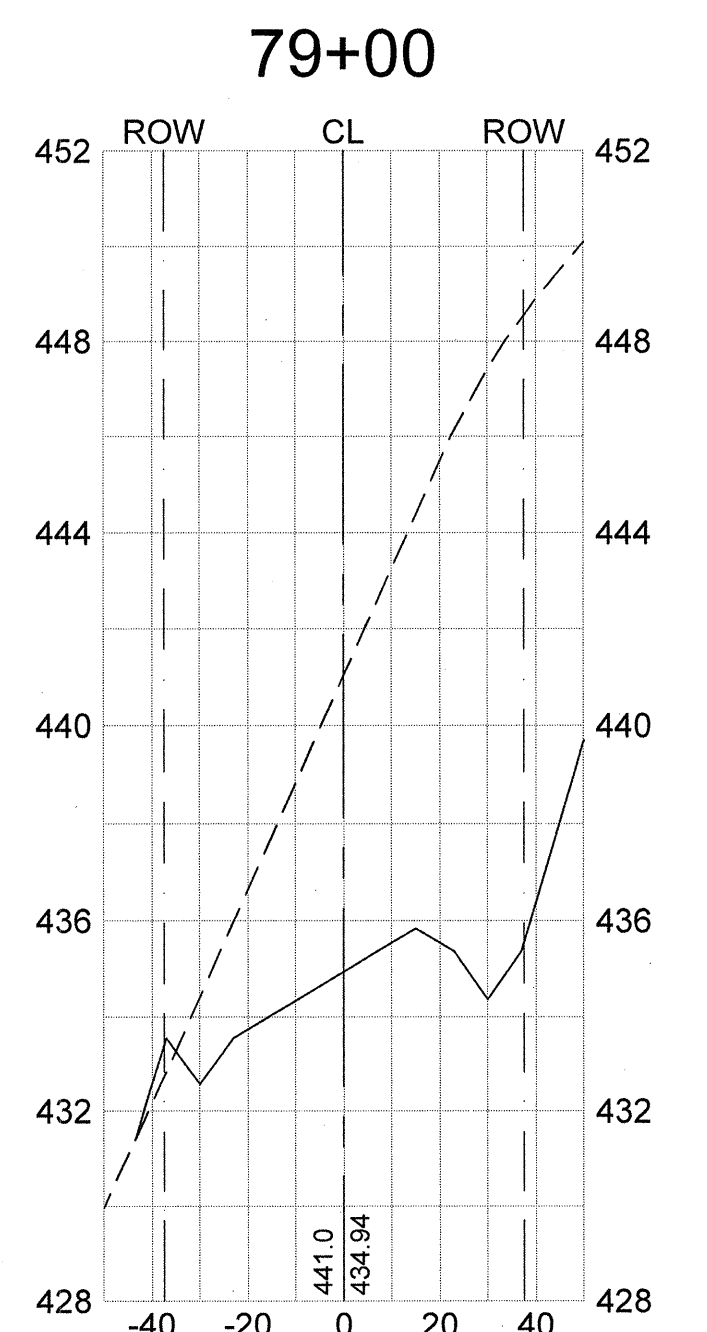
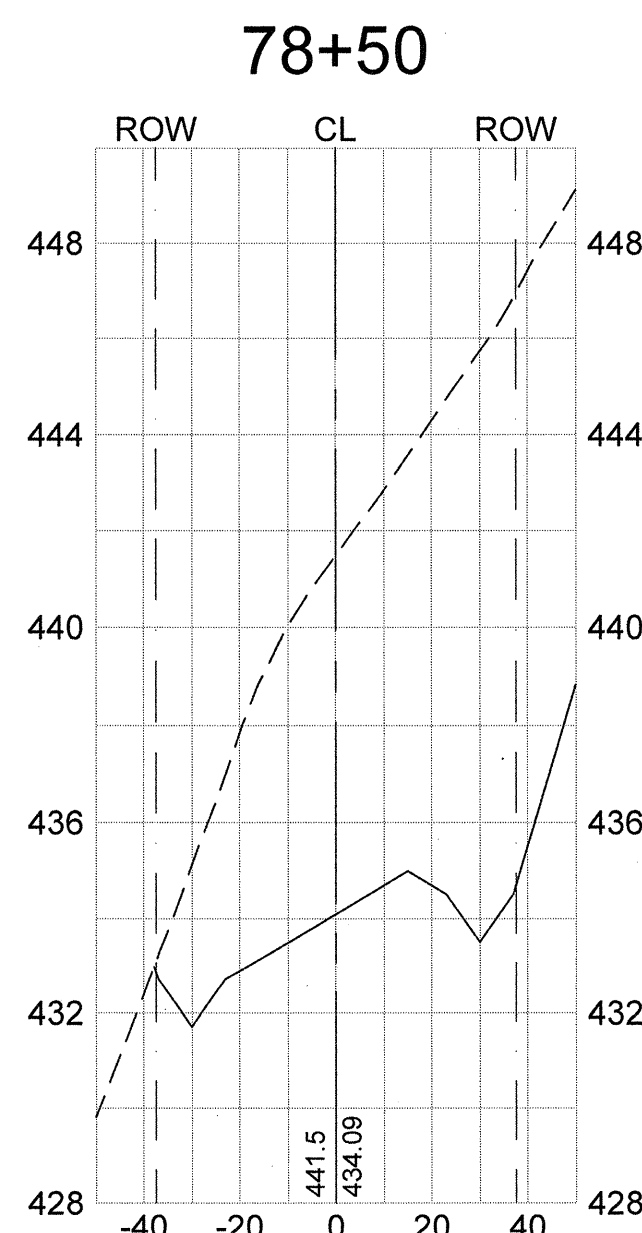
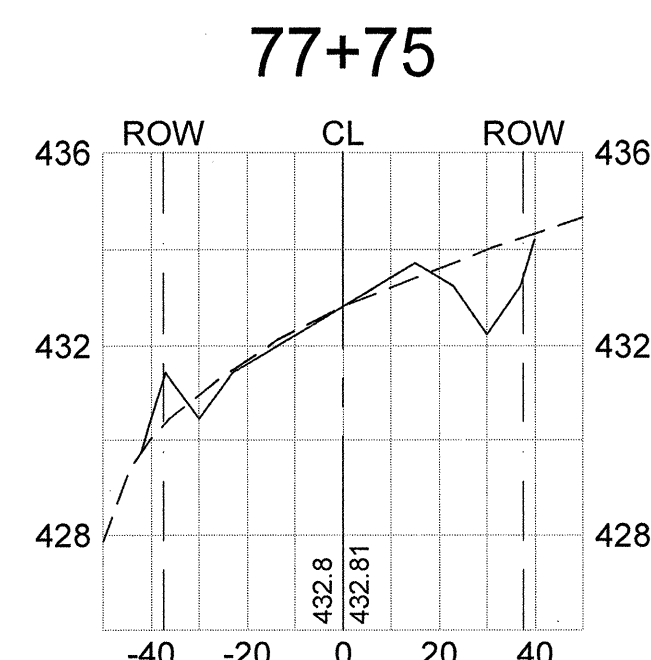
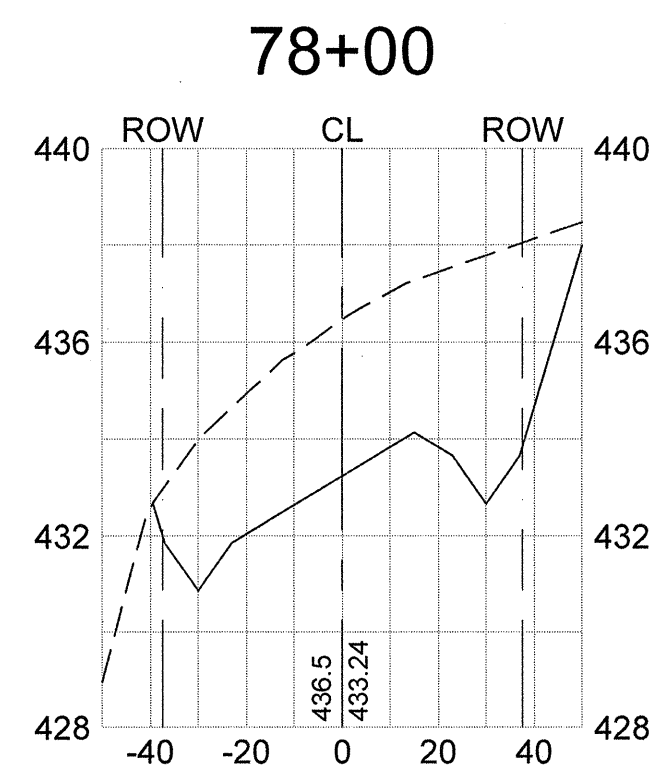
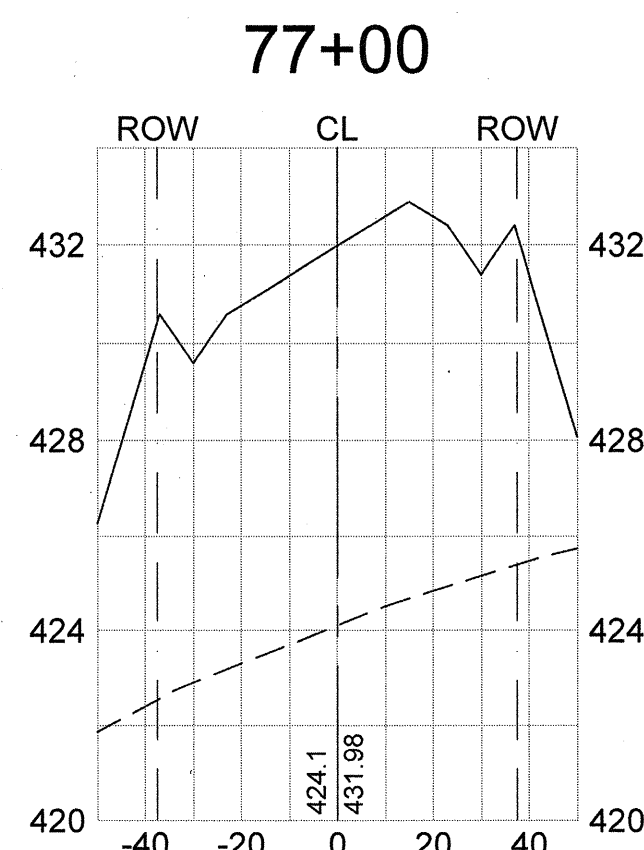
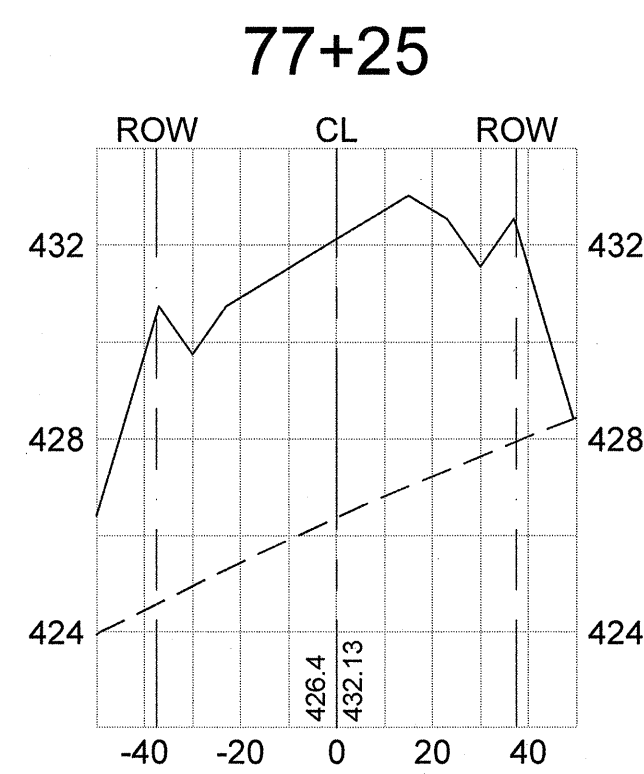
PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

FILE NAME: C27.dwg	SHEET <u>C27</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	<u>45</u>
DWG NO. 01514-D09	


April 08, 2021 - 11:14:04 AM S:\Projects\17113_0036 Phase II A & Phase III B\Way & Wastewater Infrastructure Improve Mid-Carolina Corridor\Construction Plans\ C28_Phase III Roadway Cross Sections (7 of 7).dwg

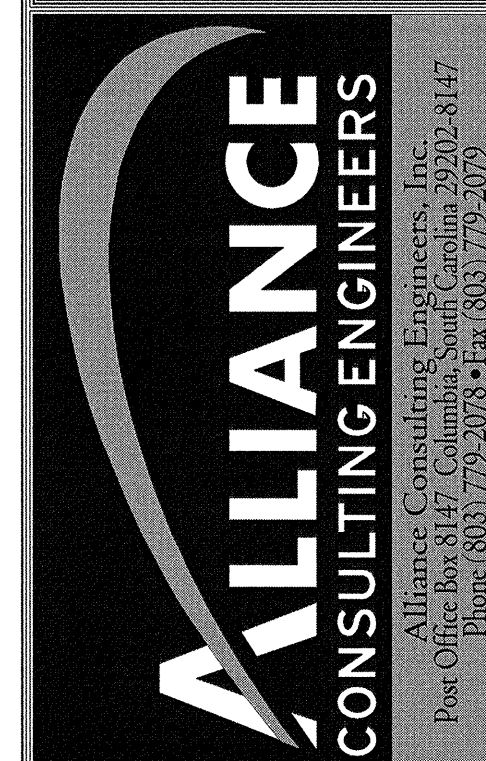
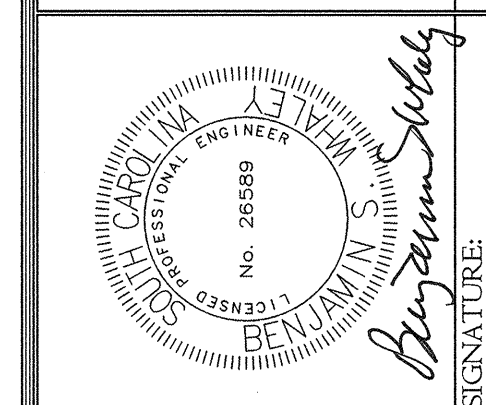
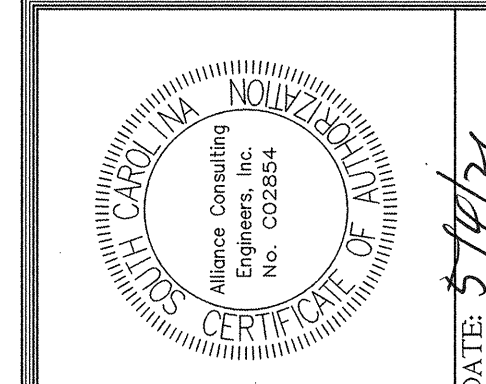
Legend

- - - - - Existing Ground
 _____ Proposed Grade
 - - - - - Proposed Right of Way
 _____ Proposed Centerline



Phase III Roadway
Cross-Sections
Scale: Horiz. 1"=40', Vert. 1"=4'

	REVISION	
	DATE	
APPROVALS	ENGINEER BSW	DESIGNER BSW
	TECHNICIAN JAM	CHECKED BY KMC/DMN
	APPROVED BSW	



PHASE III
ROADWAY CROSS-SECTIONS
(STA: 77+00 TO 79+57.94)

PROJECT

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

NEWBERRY COUNTY
SOUTH CAROLINA

DA

FILE NAME: C28.dwg	SHEET <u>C28</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	<u>45</u>
DWG NO. 01,514-D09	

THIS DOCUMENT IS THE SOLE PROPERTY OF ALLIANCE CONSULTING ENGINEERS, INC. IT IS NOT TO BE REPRODUCED, COPIED OR OTHERWISE EDITED WITHOUT THE AUTHORIZATION OF ALLIANCE CONSULTING ENGINEERS, INC. THIS DRAWING IS INTENDED SPECIFICALLY FOR THE PROJECT REFERENCED HEREIN AND IS NOT TRANSFERABLE TO ANY OTHER PROJECT.

April 22, 2021 - 11:01:48 AM S:\Projects\17113-0036 Phase IIA & Phase III Roadway Infrastructure Improve Mid-Carolina Con. Parkway\Construction Plans C29-Roadway Striping and Signage Plan.dwg

Legend

Proposed 12" Waterline

Existing 12" Waterline

Proposed 8" Wastewater Gravity Main

Proposed Manhole

Existing Wastewater

Existing Manhole

Wetlands

Proposed Right-of-Way

Proposed Roadway Centerline

Proposed Edge of Pavement

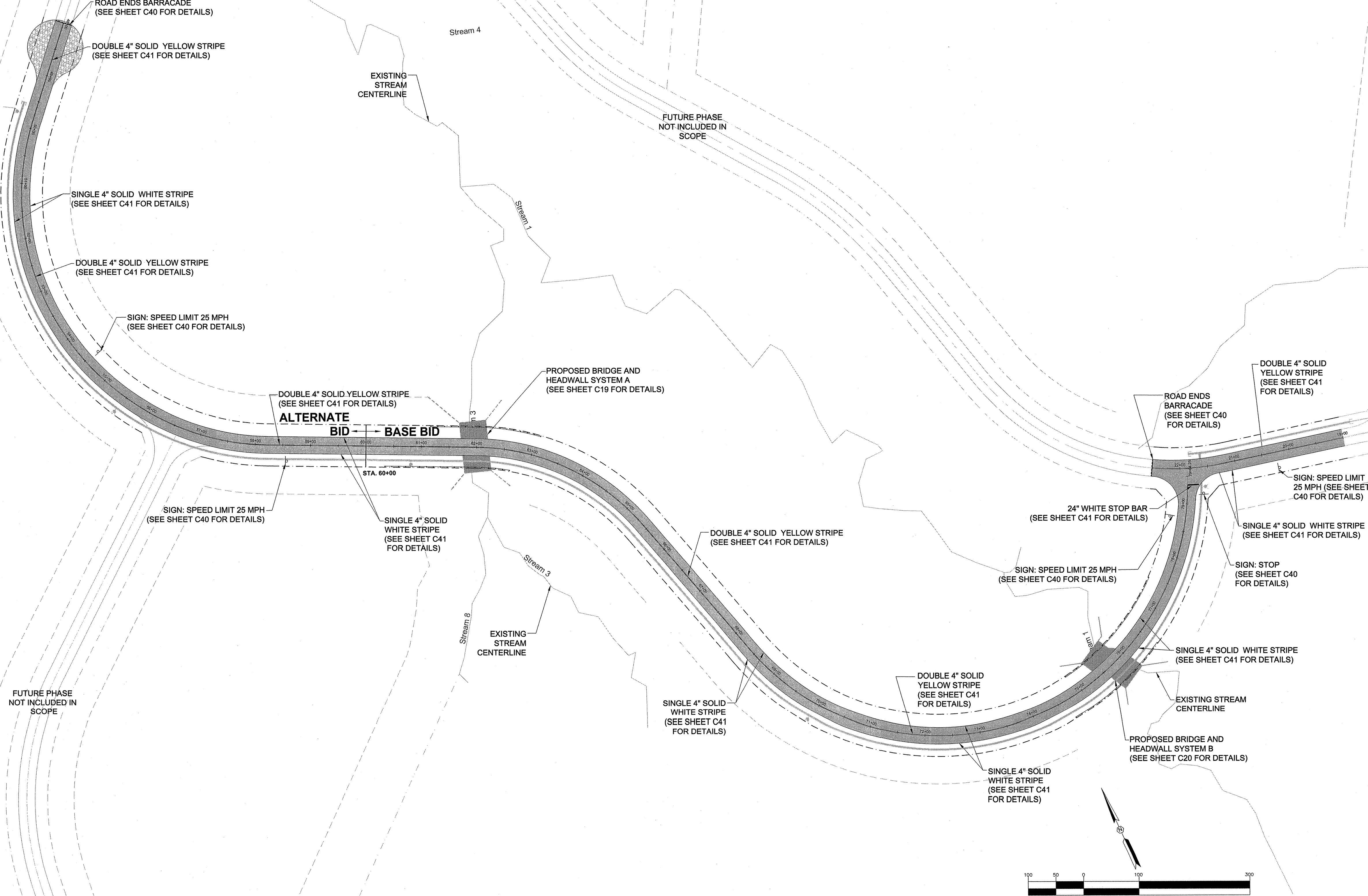
Existing Telephone Line

Existing Gas Line

Existing Fencing

New Pavement

NOTE: IF ALTERNATE IS NOT ACCEPTED, TEMPORARY CUL-DE-SAC AND ROAD ENDS BARRICADE TO BE SHIFTED TO STATION 60+00 AS BASE BID.



NOTE: SEE SHEETS C40 FOR SIGNAGE AND STRIPING DETAILS.

NOTE:
CADD FILES WILL BE PROVIDED TO CONTRACTOR FOR SITE LAYOUT

- References:**
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.

2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.

3. Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.

4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.

5. Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.

6. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.

7. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on April 21, 2009 via e-mail from Abraham Land Surveying.

Developer Information

Contact: Mr. Rick Farmer, SCCED

Economic Development Director

P.O. Box 381

Newberry, South Carolina 29108

Telephone: (803) 321-2042

Fax: (803) 321-2094

E-mail: rfarmer@newberrycounty.net

REVISION

DATE

APPROVALS

DESIGNER

CHECKED BY

APPROVED

ALLIANCE CONSULTING ENGINEERS, INC.

Professional Engineer

No. 26589

STATE OF SOUTH CAROLINA

BENJAMIN S. JONES

Signature

DATE: 5/14/21

OVERALL ROADWAY STRIPING AND SIGNAGE PLAN

DATE: APRIL 2021

SCALE: 1" = 100'

PROJECT

PHASE IIA AND III

ROADWAY, WATER AND WASTEWATER IMPROVEMENTS

MID-CAROLINA COMMERCE PARK

FOR NEWBERRY COUNTY, SOUTH CAROLINA

NEWBERRY COUNTY

FILE NAME:

C29.dwg

REFERENCE FILE:

BASE.DWG

PROJECT NO.

17113-0036

SHEET

C29

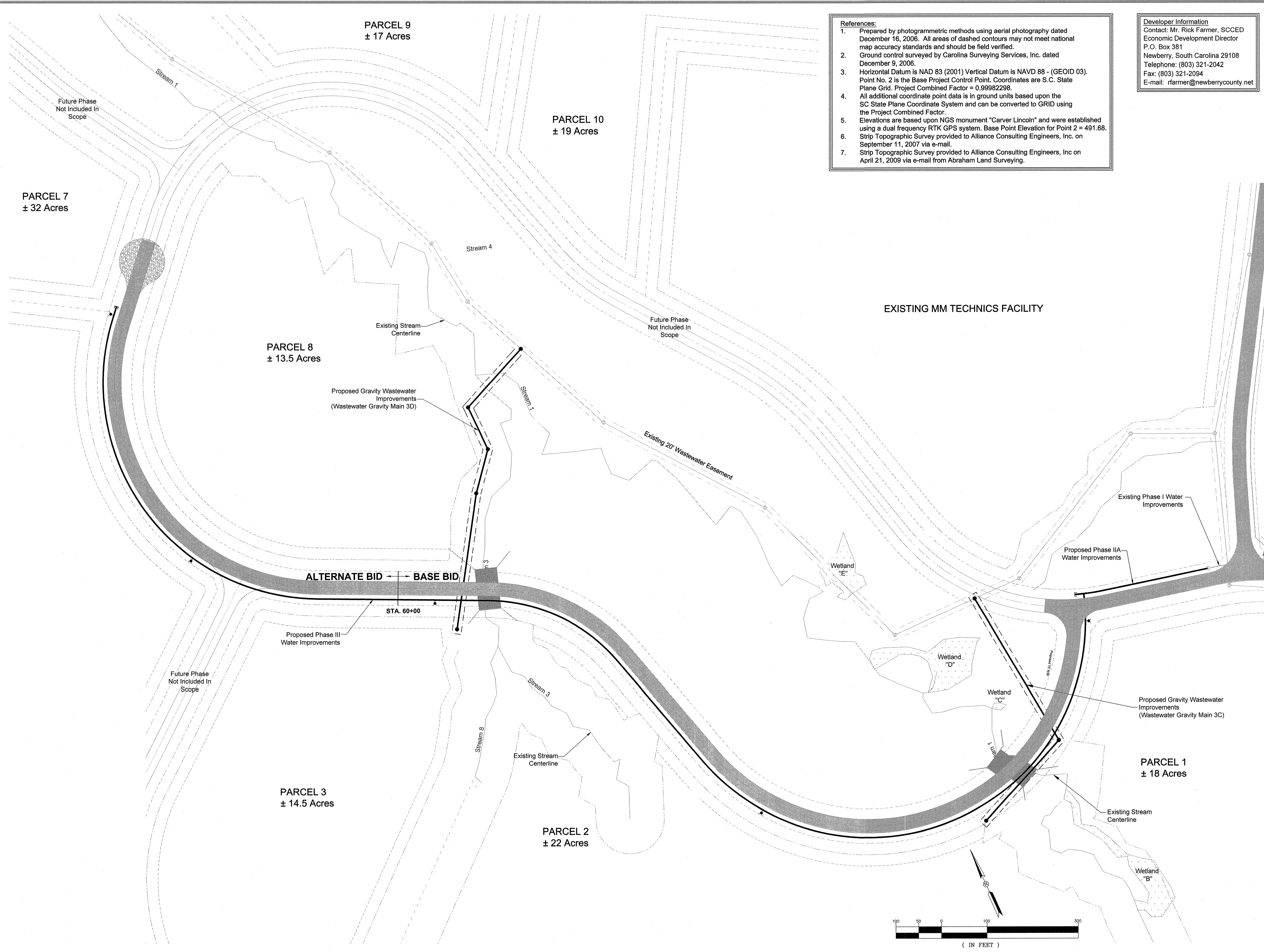
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DWG NO.

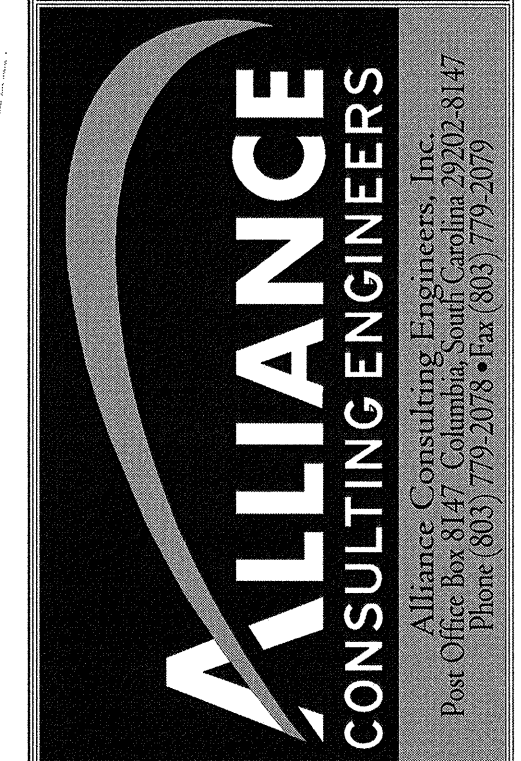
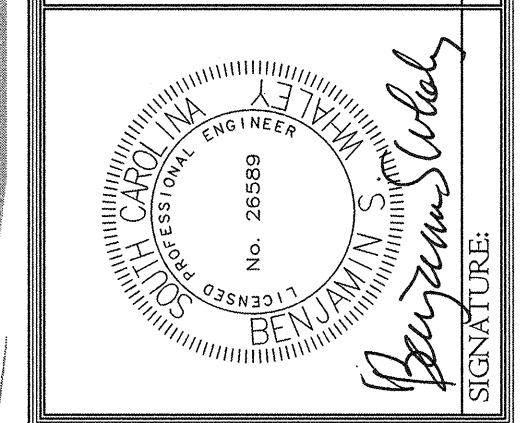
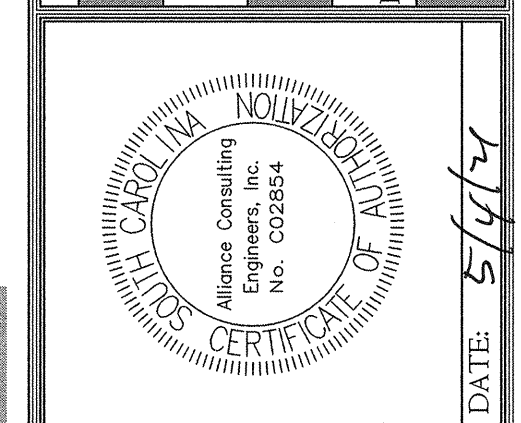
01,514-D09

April 22	2021 - 11:30-34 AM	S:\Briand\17113-0036 Phase 1A & Phase 1B Improve Mid-Carolina Corridor Parkway/Construction Plans/230_Overall	Utility Plan.dwg
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- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

    	REVISION DATE	
APPROVALS	DESIGNER	TECHNICIAN
ENGINEER	RSW	JAM
RSW		
CHECKED BY	KMC/DMN	
APPROVED	RSW	



OVERALL UTILITY
PLAN

DATE: APRIL 2021 SCALE: 1" = 100'

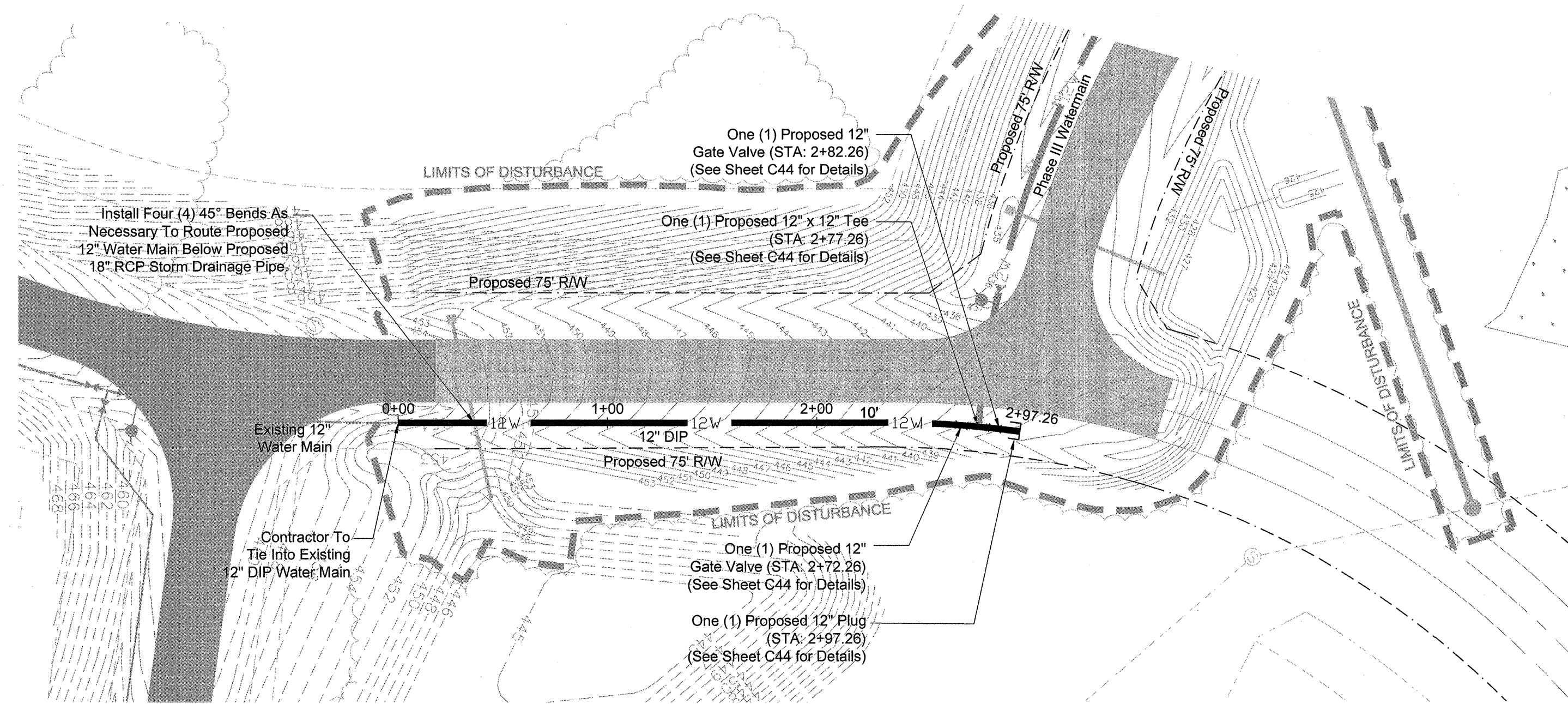
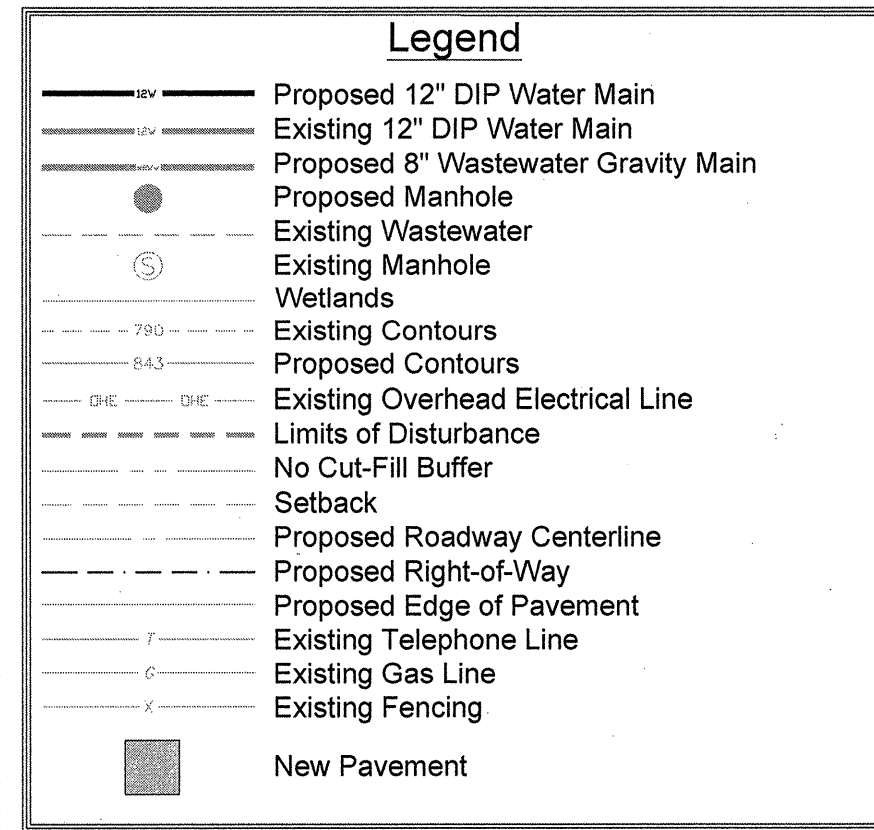
PROJECT

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

NEWBERRY COUNTY SOUTH CAROLINA

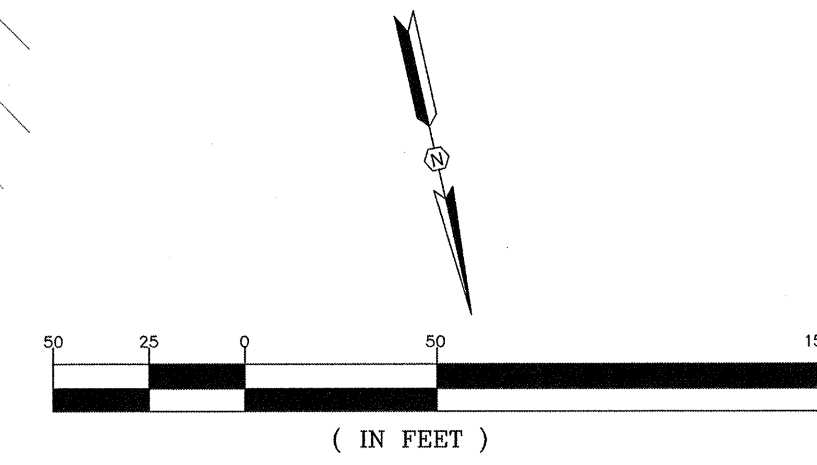
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DWG NO. 01,514-D09	

April 20, 2024 11:45:25 AM EST (Device: 174432 2022 DSpace, IIA & DSpace, III Educaty & Westouatuer Infrastructure Improve Mid Carolina Com. Back2duo(Construction Bnpl) C-21 Bnpl) IIA Water Line Bnpl and Bnpl Run



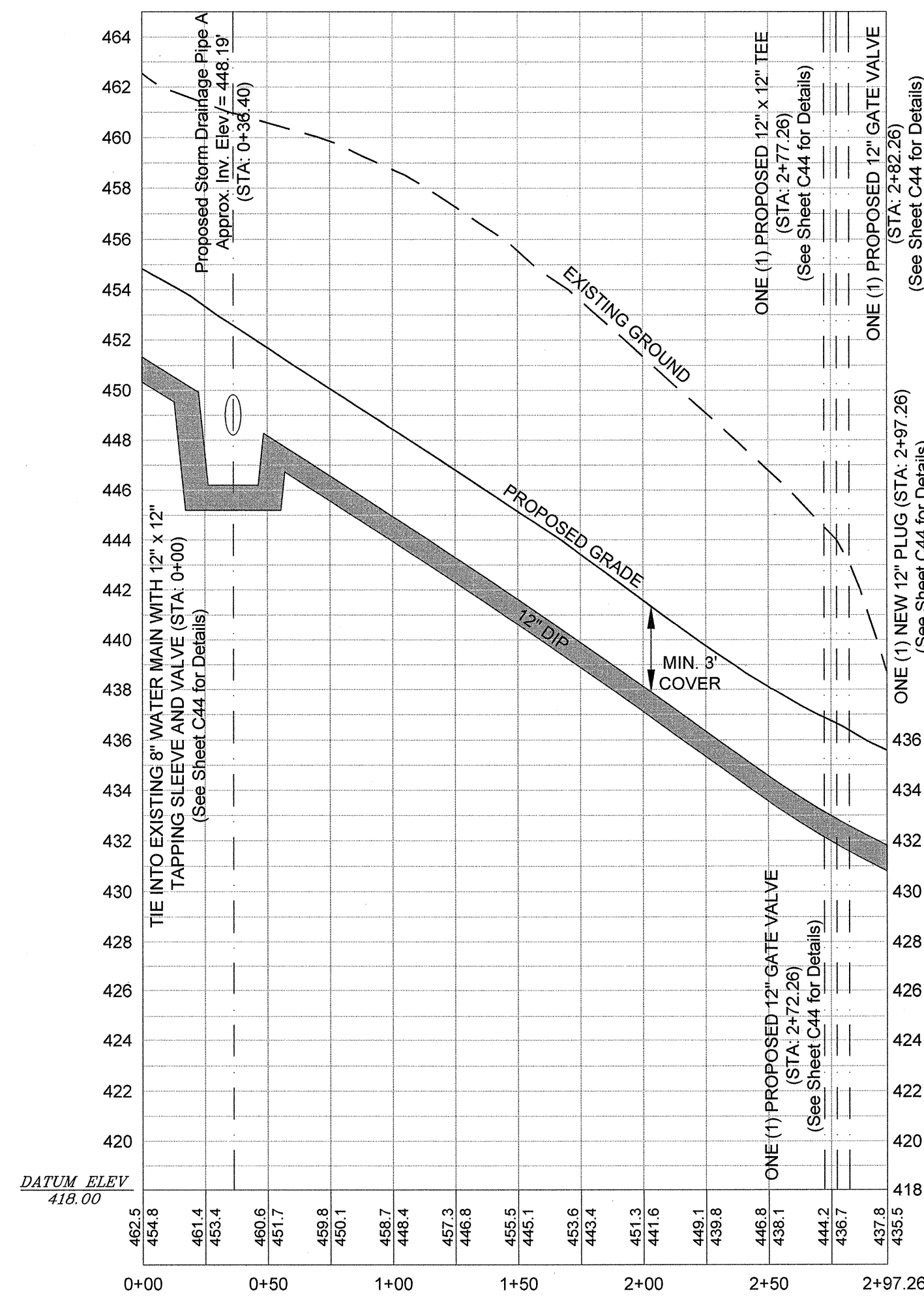
Phase IIA Water Line Plan (STA: 0+00 TO 2+97.26)

Scale: Horiz. 1"=50'



- References:**
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
 2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
 3. Horizontal Datum is NAD 83 (2001) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
 4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.
 5. Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.
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Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

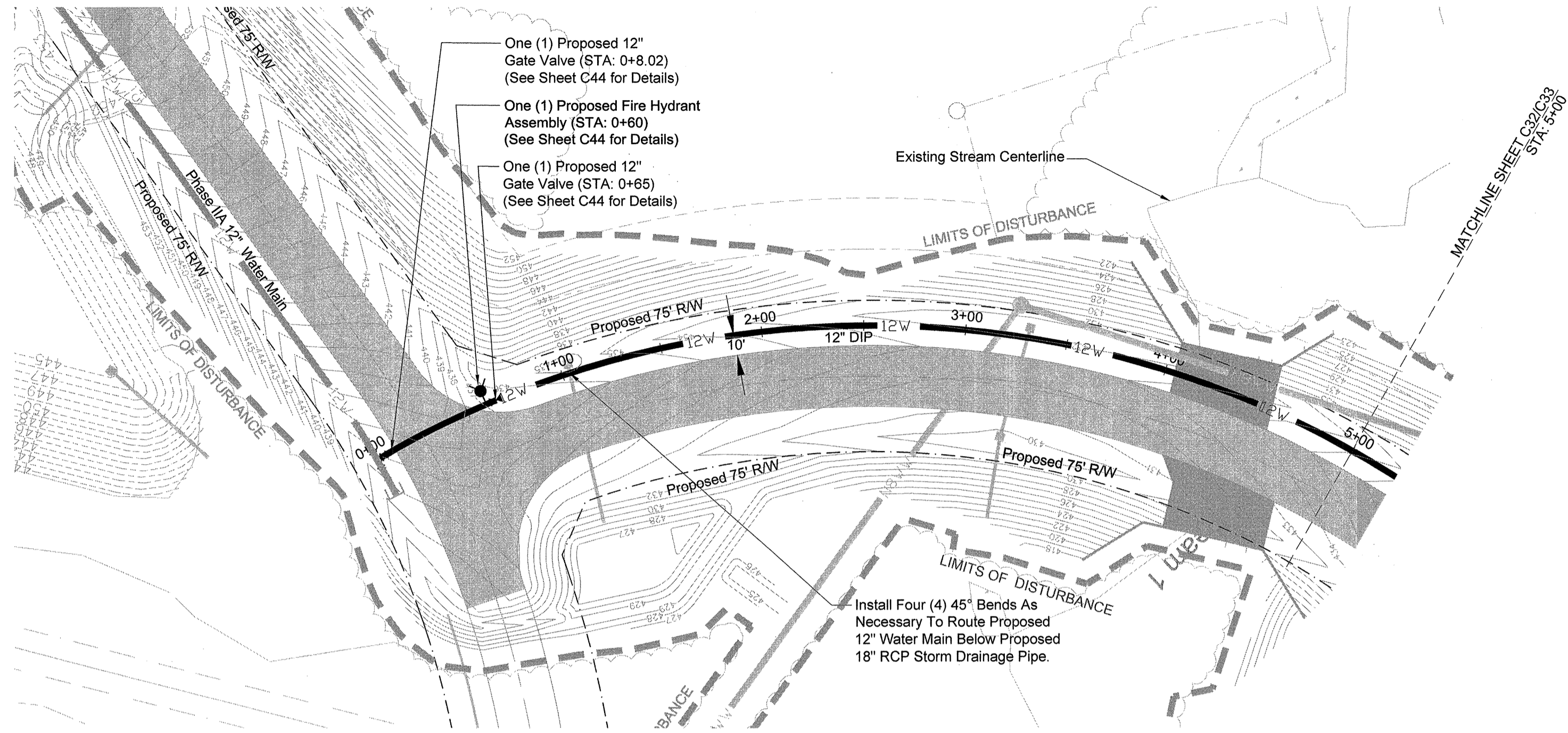


Phase IIA Water Line Profile (STA: 0+00 TO 2+97.26)

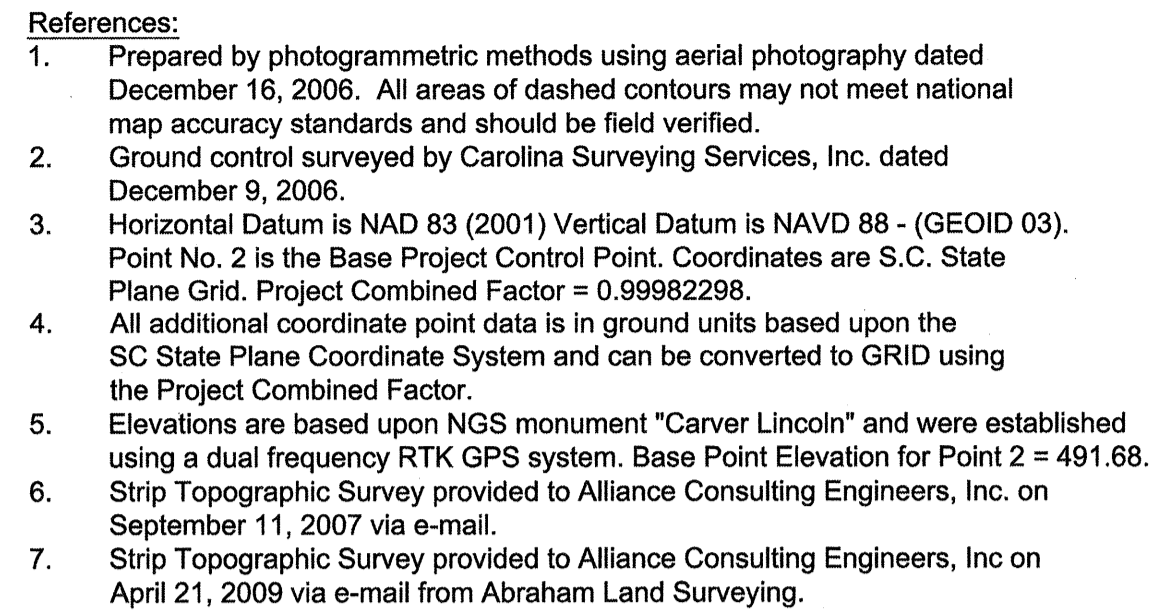
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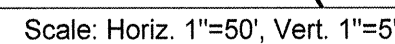
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Scale: Horiz. 1"=50'



<div style="display: flex; justify-content: space-between;"> <div style="width: 10%;">                              </div> <div style="width: 80%; text-align: center;"> <h1>REVISION DATE</h1> </div> </div>	
APPROVALS ENGINEER RSW DESIGNER RSW FEE/ENGINEER JAM CHECKED BY KMC/DMN APPROVED RSW	 <p> Alliance Consulting Engineers, Inc. No. 002854 NORTH CAROLINA PROFESSIONAL ENGINEER CERTIFICATE OF REGISTRATION </p>
 <p> H. CARO, INC. PROFESSIONAL ENGINEER LICENSED BENJAMIN S. JAM No. 261589 </p>	DATE: 5/6/21 SIGNATURE: <i>Benjamin S. Jam</i>



PROJECT

PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY

SHEET

PHASE III WATER LINE
PLAN AND PROFILE
(STA: 0+00 TO 5+00)

SCALE: AS SHOWN

DATE: APRIL 2021

FILE NAME:
C32.dwg

REFERENCE FILE:
BASE.DWG

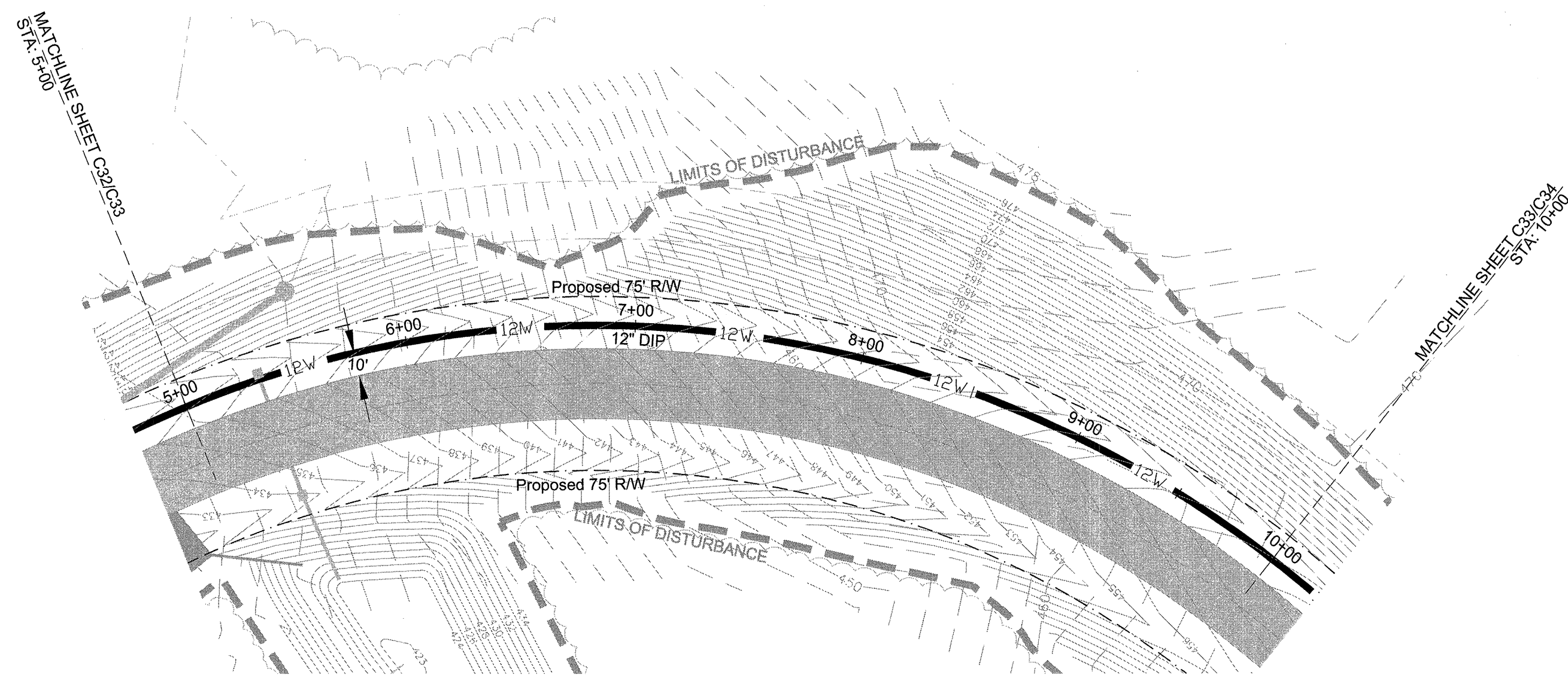
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17113-0036

SHEET
C32

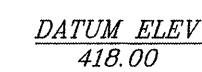
OF
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DWG NO. 01,514-D09

April 22, 2021 - 11:59:42 AM S:\Projects\17113-0036 Phase IIA & Phase III Roadway & Wastewater Infrastructure Improve Mid-Carolina Cor. Parkdown\Construction Plans\ C33-Phase III Water Line Plan and Profile (2 of 6).dwg

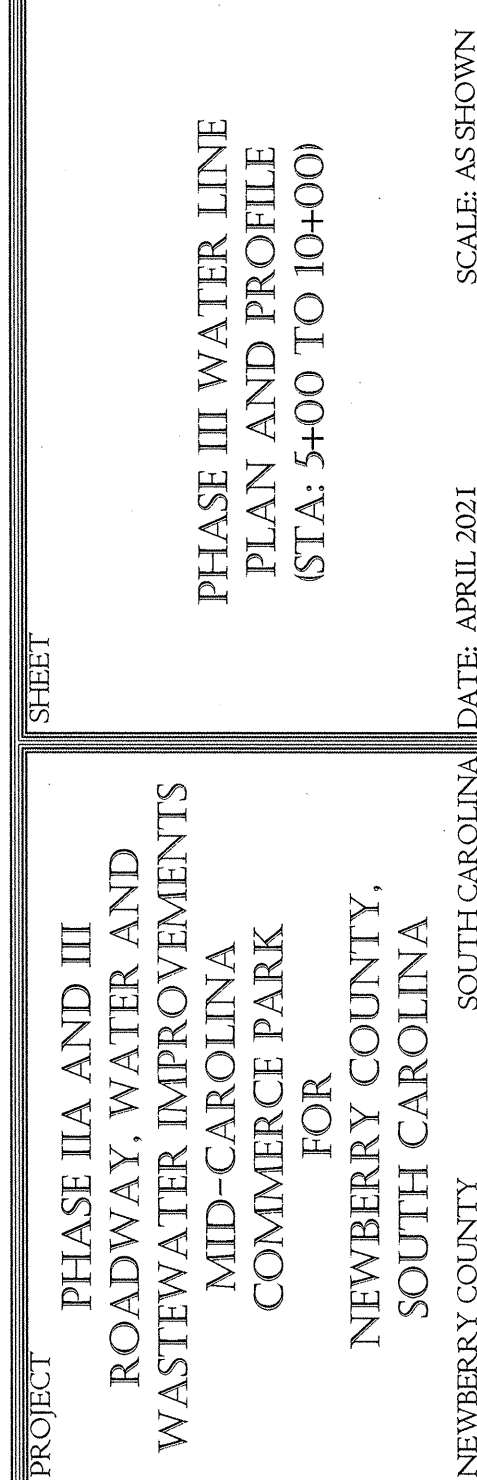
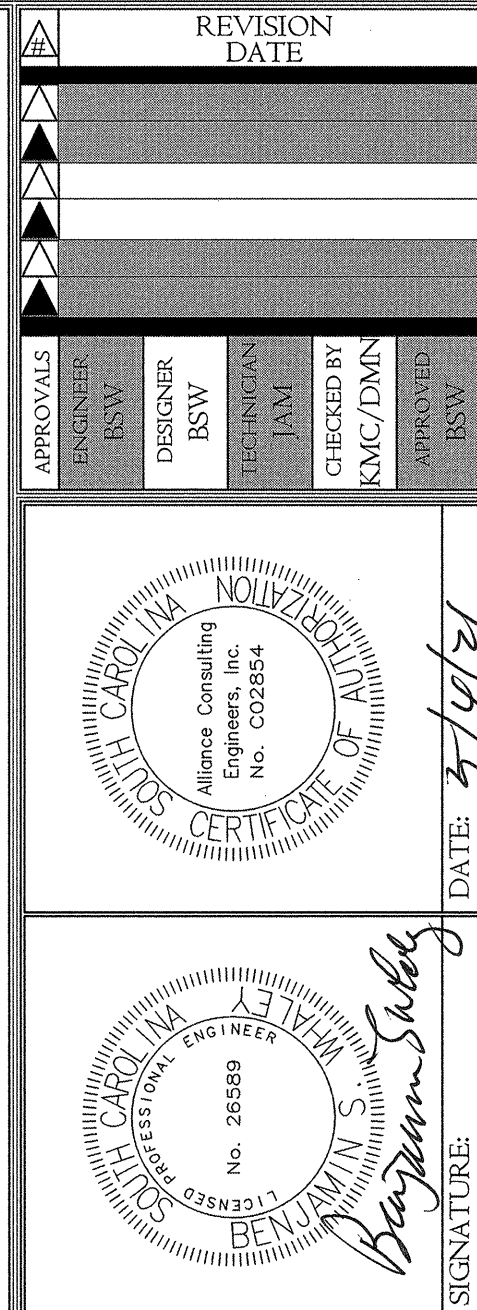


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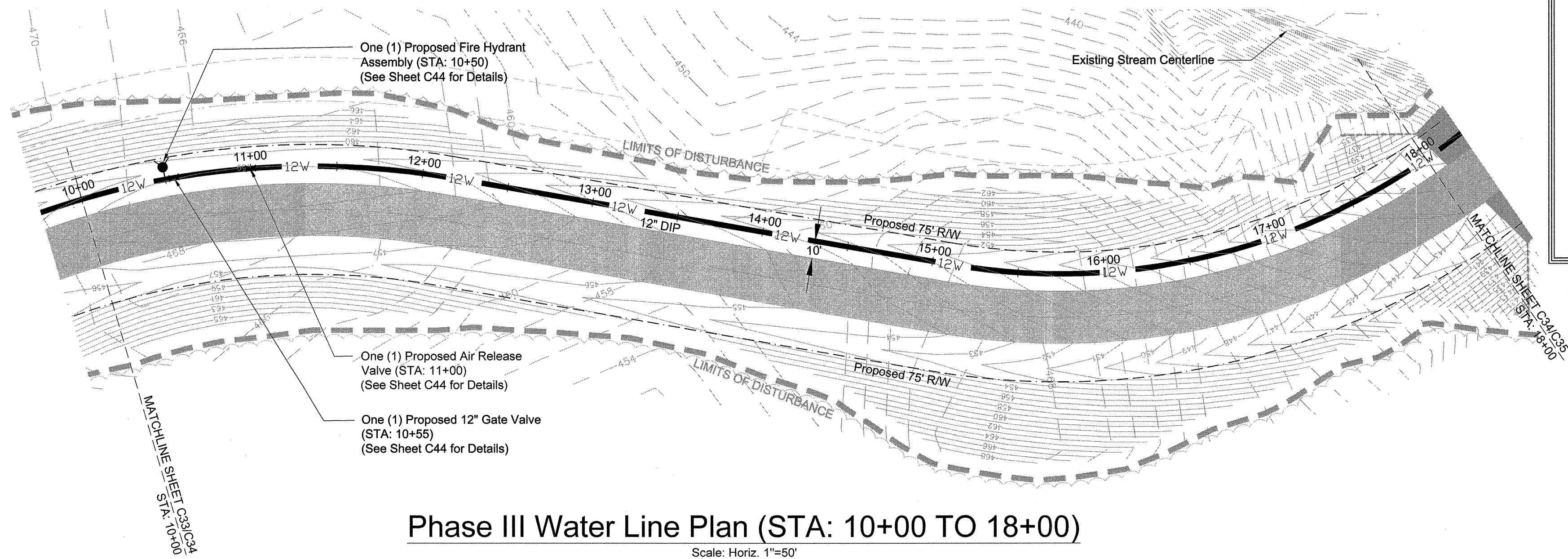
Scale: Horiz. 1"=50', Vert. 1"=5'

- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net

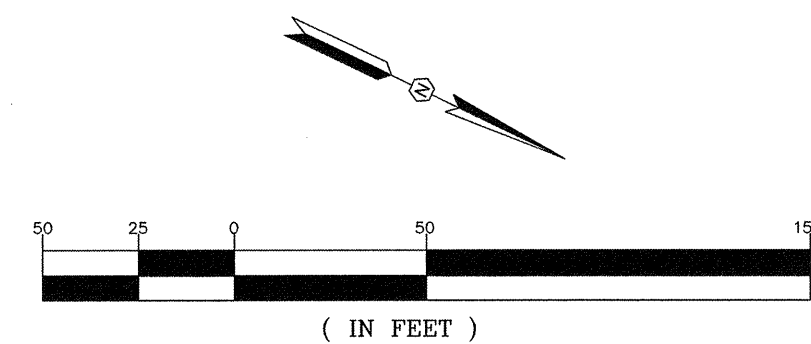
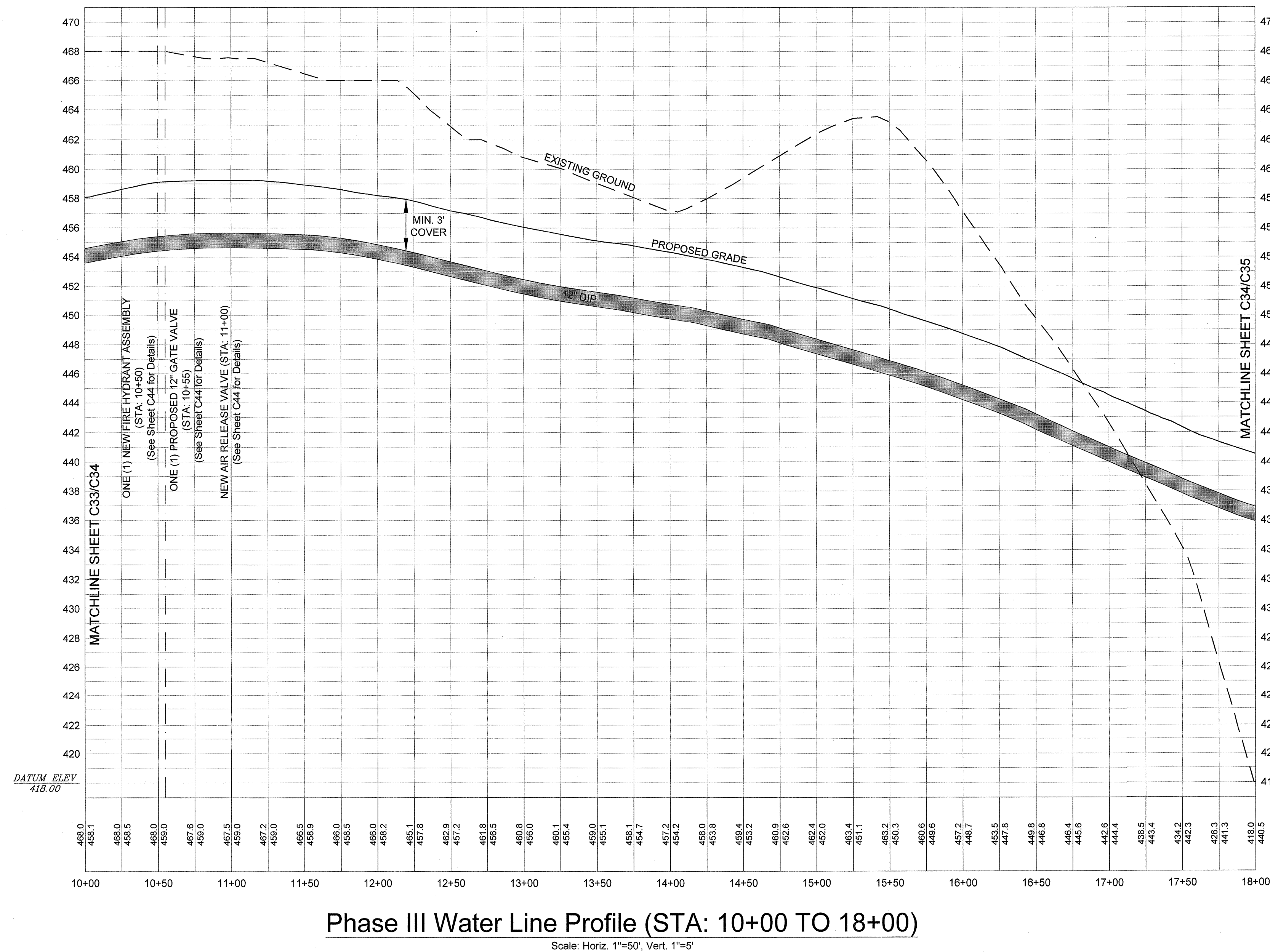


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REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	45
DWG NO. 01,514-D09	

April 22, 2021 - 1:58:06 PM S:\Projects\17113-0038 Phase IIA & Phase III Rdway & Wastewater Infrastructure Improve Mid-Carolina Cor. Park.dwg\Construction Plans\ C34-Phase III Water Line Plan and Profile (3 of 6).dwg

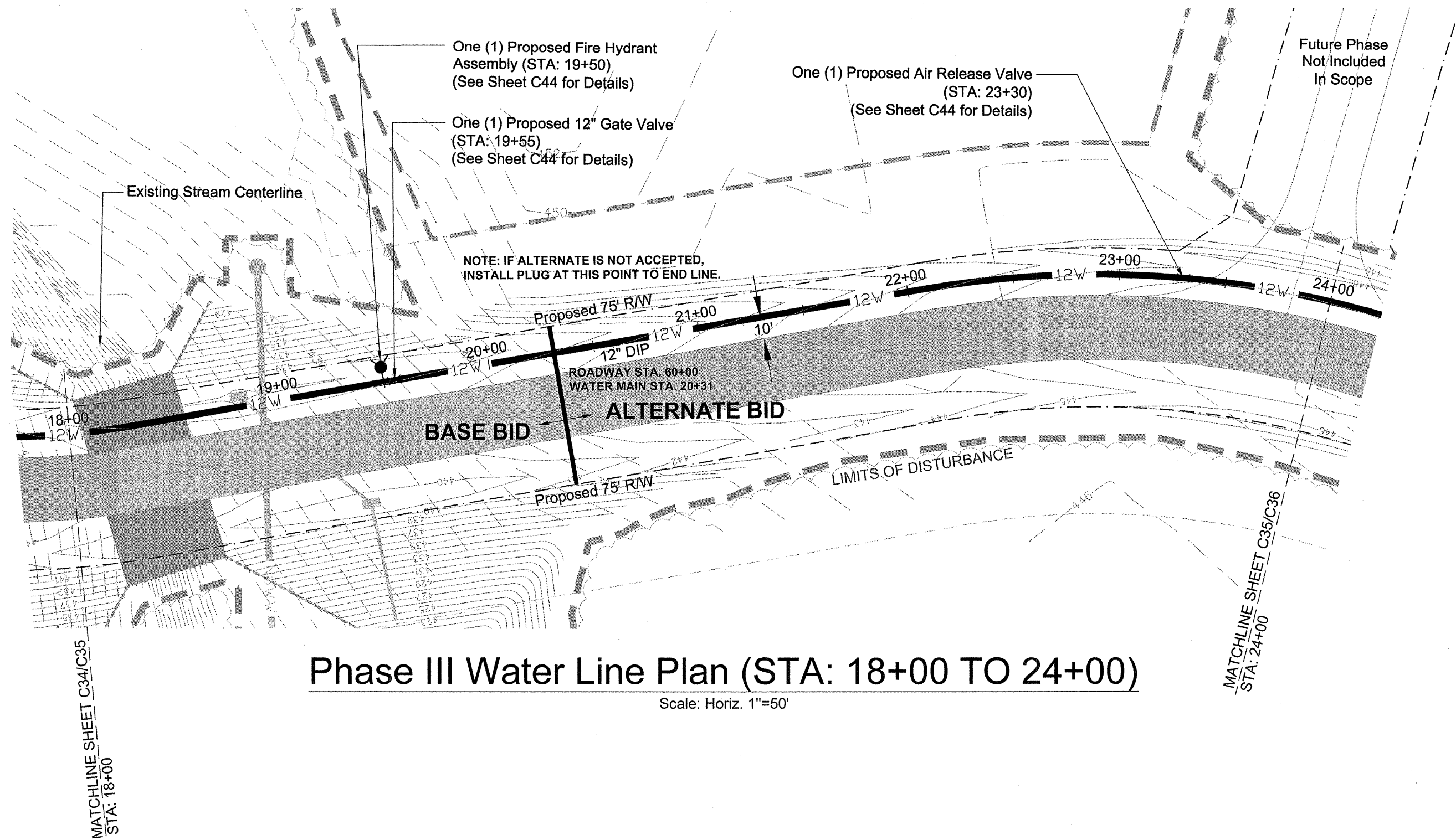


Developer Information
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
Telephone: (803) 321-2042
Fax: (803) 321-2094
E-mail: rfarmer@newberrycounty.net



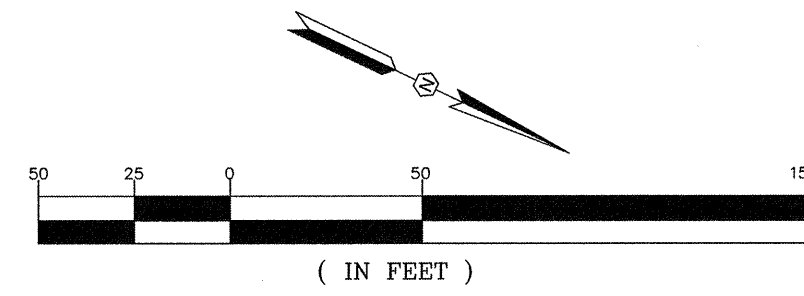
		REVISION		DATE	
APPROVALS	ENGINEER BSW	DESIGNER BSW	ELECTRICIAN JAM	CHECKED BY JAM	SAC/DNA
			DATE: 5/2/21		
			SIGNATURE: <i>Benjamin S. Benjamin</i>		
ALLIANCE CONSULTING ENGINEERS Alliance Consulting Engineers, Inc. Post Office Box 8147 Columbia, South Carolina 29202-8147 Phone: (803) 779-2078 • Fax: (803) 779-2079					
<p>PROJECT: PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA</p> <p>PHASE III WATER LINE PLAN AND PROFILE (STA: 10+00 TO 18+00)</p> <p>DATE: APRIL 2021 SCALE: AS SHOWN</p>					
FILE NAME: C34.dwg		SHEET C34			
REFERENCE FILE: BASE.DWG		OF			
PROJECT NO. 17113-0036		45			
DWG NO. 01.514-D09					

Legend	
	Proposed 12" DIP Water Main
	Existing 12" DIP Water Main
	Proposed 8" Wastewater Gravity Main
	Proposed Manhole
	Existing Manhole
	Existing Wastewater Wetlands
	Existing Contours
	Proposed Contours
	Existing Overhead Electrical Line
	Limits of Disturbance
	No Cut-Fill Buffer
	Setback
	Proposed Roadway Centerline
	Proposed Right-of-Way
	Proposed Edge of Pavement
	Existing Telephone Line
	Existing Gas Line
	Existing Fencing
	New Pavement



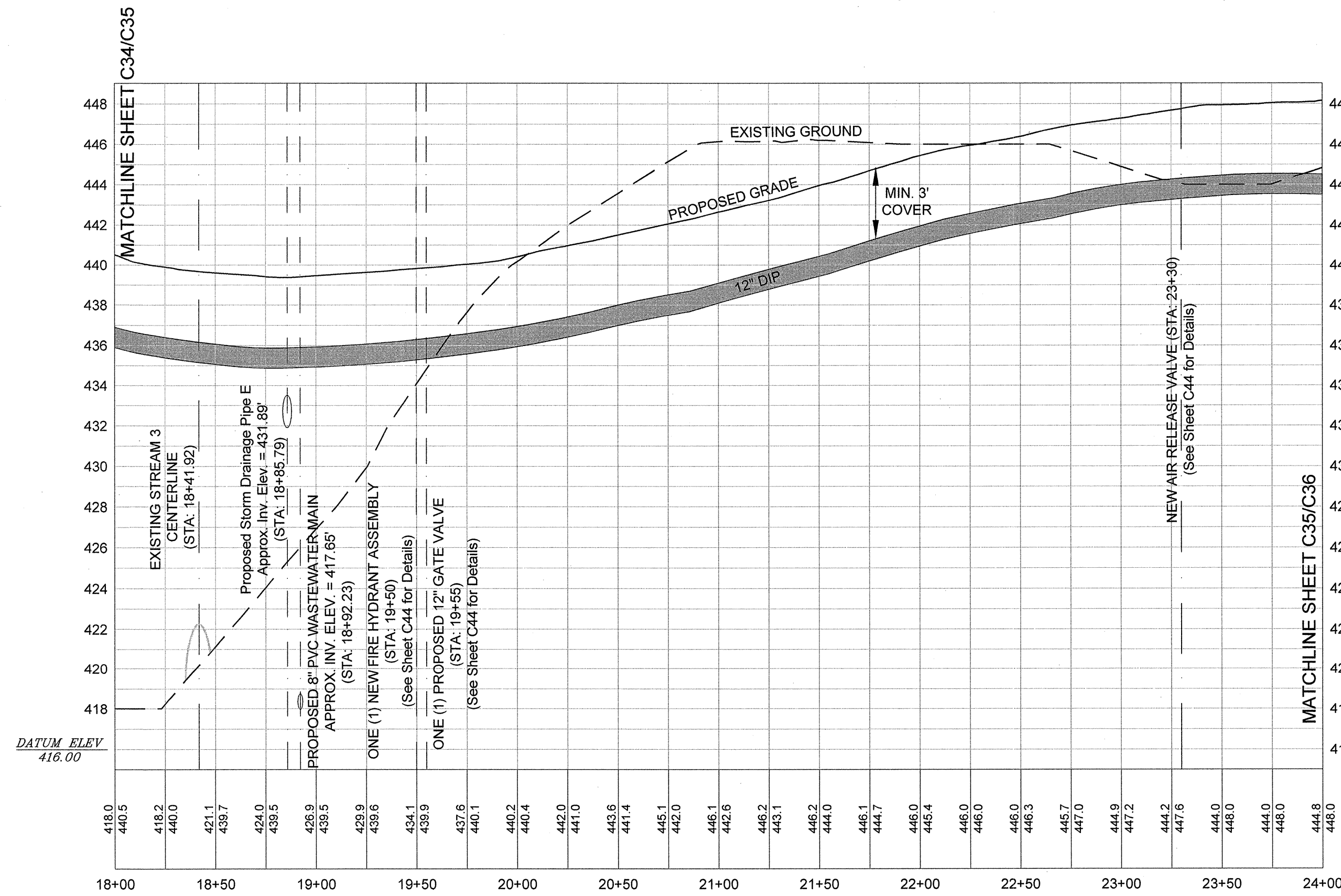
Phase III Water Line Plan (STA: 18+00 TO 24+00)

Scale: Horiz. 1"=50'



- References:
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
 2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
 3. Horizontal Datum is NAD 83 (2001) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
 4. All additional coordinate point data is in ground units based upon the SC State Plane Coordinate System and can be converted to GRID using the Project Combined Factor.
 5. Elevations are based upon NGS monument "Carver Lincoln" and were established using a dual frequency RTK GPS system. Base Point Elevation for Point 2 = 491.68.
 6. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on September 11, 2007 via e-mail.
 7. Strip Topographic Survey provided to Alliance Consulting Engineers, Inc. on April 21, 2009 via e-mail from Abraham Land Surveying.

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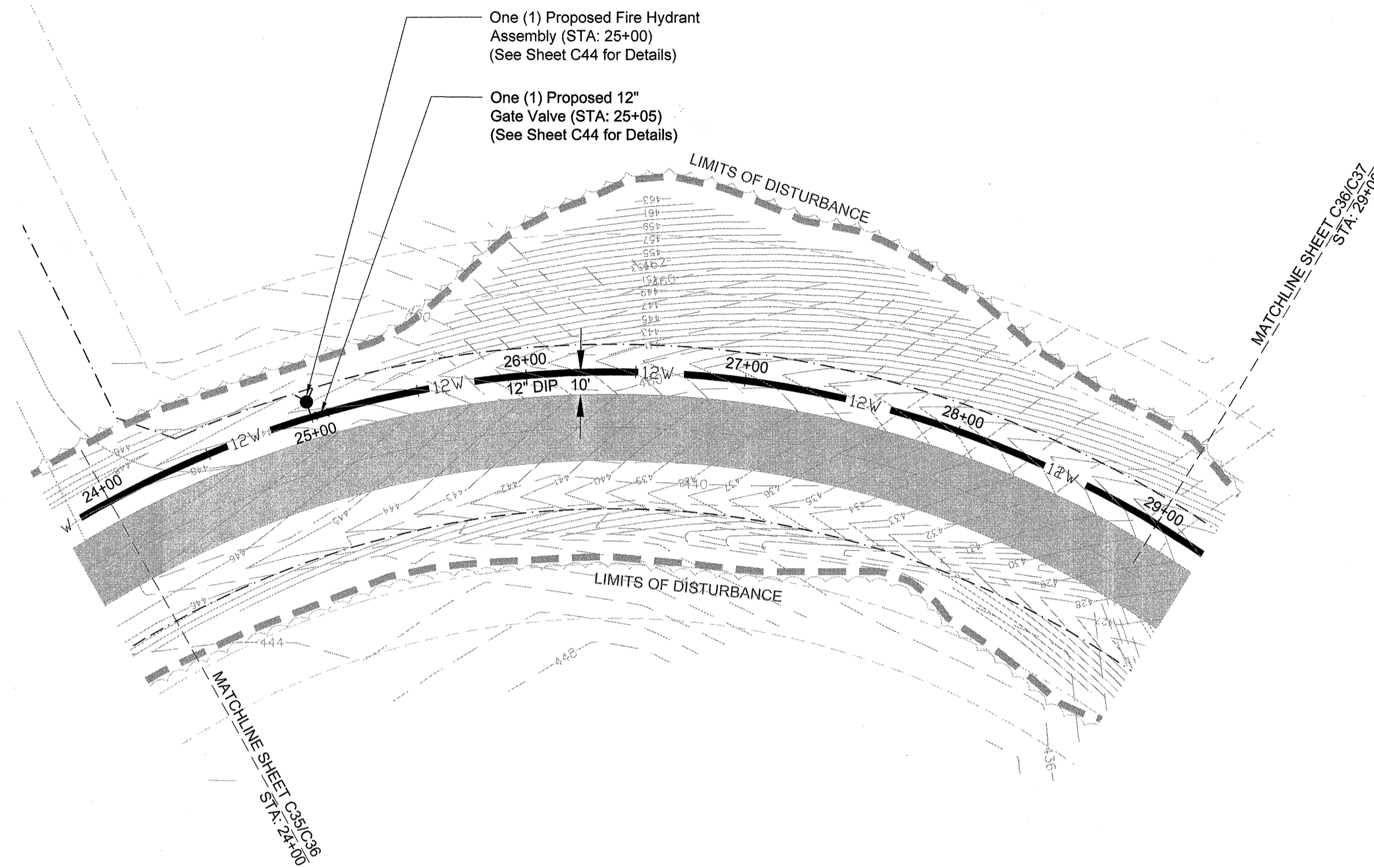


Phase III Water Line Profile (STA: 18+00 TO 24+00)

Scale: Horiz. 1"=50', Vert. 1"=5'

REVISION DATE	
APPROVALS	DATE: 5/14/21
ENGINEER BSW	DESIGNER BSW
CHECKED BY JAM	APPROVED BY BSW
Alliance Consulting Engineers, Inc. No. 26589 BENJAMIN S. BENTLEY	
Alliance Consulting Engineers, Inc. Contact: Mr. Rick Farmer, SCCED Economic Development Director P.O. Box 381 Newberry, South Carolina 29108 Telephone: (803) 321-2042 Fax: (803) 321-2094 E-mail: rfarmer@newberrycounty.net	
Alliance Consulting Engineers, Inc. No. 26589 BENJAMIN S. BENTLEY	
Alliance Consulting Engineers, Inc. Contact: Mr. Rick Farmer, SCCED Economic Development Director P.O. Box 381 Newberry, South Carolina 29108 Telephone: (803) 321-2042 Fax: (803) 321-2094 E-mail: rfarmer@newberrycounty.net	
PHASE III WATER LINE PLAN AND PROFILE (STA: 18+00 TO 24+00)	
PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	
SHEET C35	
OF 45	
DWG NO. 01,514-D09	

April 23, 2021 - 2:46:32 PM S:\Briante\17113_0026 Phase II A & Phase III Rdway & Wastewater Infrastructure Improvements Mid-Carolina Corridor (Construction Phase) C36-Phase III Water Line Plan and Profile (5 of 6).dwg

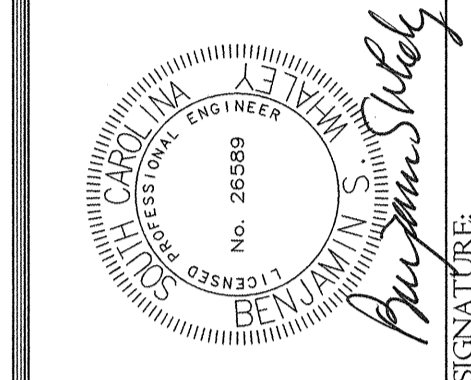
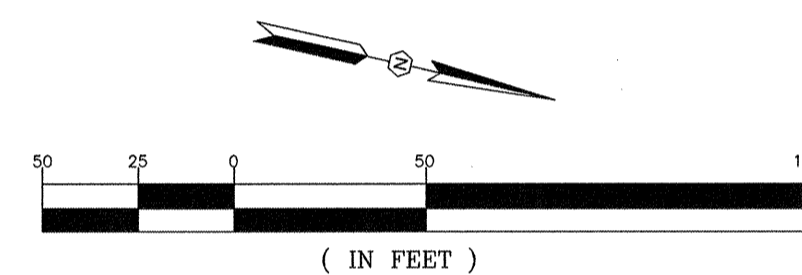


Scale: Horiz. 1"=50'



Scale: Horiz. 1"=50', Vert. 1"=5'

- Developer Information**
Contact: Mr. Rick Farmer, SCCED
Economic Development Director
P.O. Box 381
Newberry, South Carolina 29108
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PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA

SHEET
PHASE III WATER LINE
PLAN AND PROFILE
(STA: 24+00 TO 29+00)

DATE: APRIL, 2011
SCALE: AS SHOWN
SOUTH CAROLINA
DESIGNED BY: COUNTY

FILE NAME: C36.dwg	SHEET <u>C36</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	<u>45</u>

DWG NO. 01,514-D09

Legend

Proposed 12" DIP Water Main

Existing 12" DIP Water Main

Proposed 8" Wastewater Gravity Main

Proposed Manhole

Existing Wastewater Manhole

Wetlands

Existing Contours

Proposed Contours

Existing Overhead Electrical Line

Limits of Disturbance

No Cut-Fill Buffer

Setback

Proposed Roadway Centerline

Proposed Right-of-Way

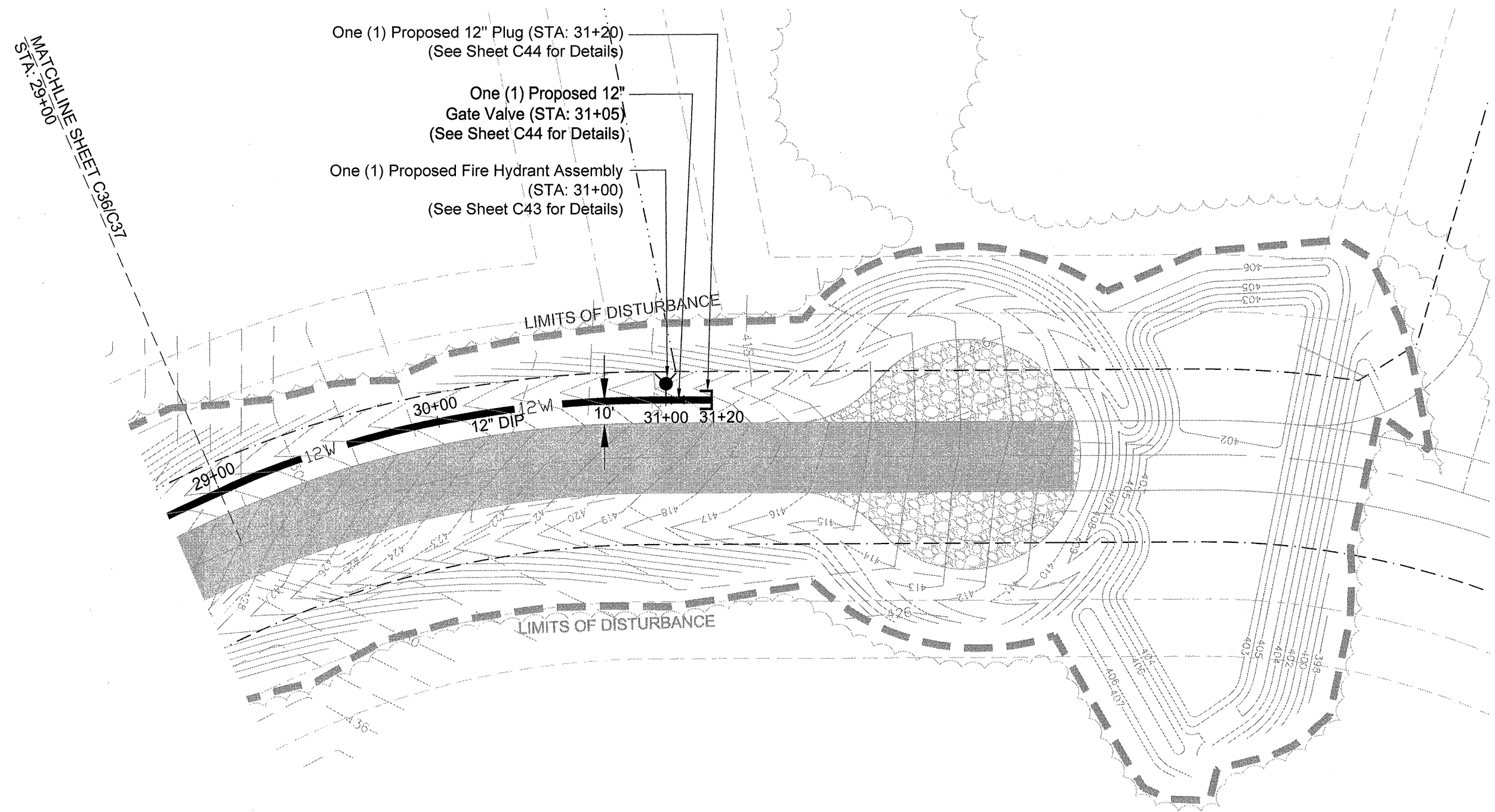
Proposed Edge of Pavement

Existing Telephone Line

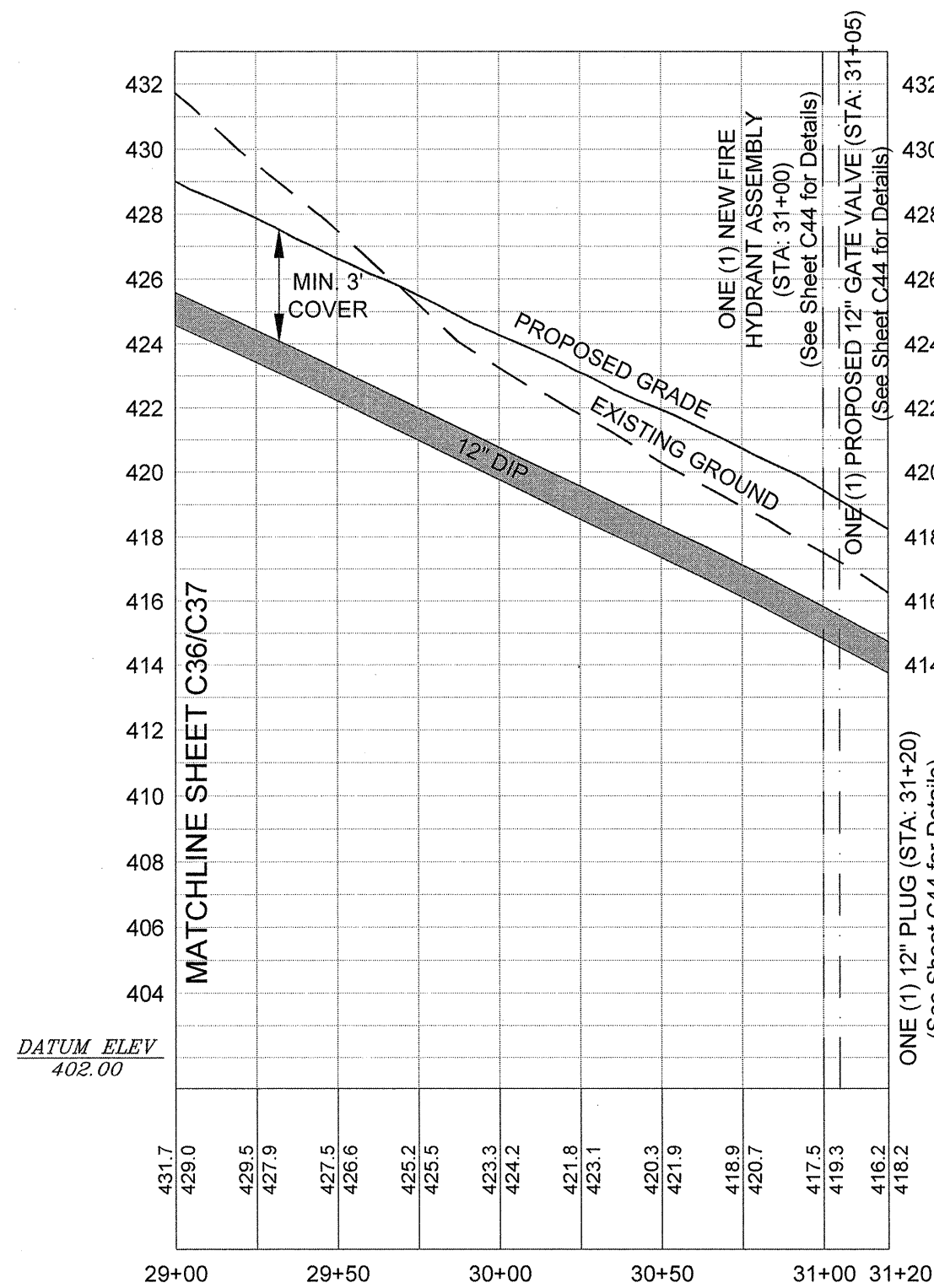
Existing Gas Line

Existing Fencing

New Pavement



Phase III Water Line Plan (STA: 29+00 TO 31+20.00)
Scale: Horiz. 1"=50'



Phase III Water Line Profile
(STA: 29+00 TO 31+20)
Scale: Horiz. 1"=50', Vert. 1"=5'

- References:
1. Prepared by photogrammetric methods using aerial photography dated December 16, 2006. All areas of dashed contours may not meet national map accuracy standards and should be field verified.
 2. Ground control surveyed by Carolina Surveying Services, Inc. dated December 9, 2006.
 3. Horizontal Datum is NAD 83 (2011) Vertical Datum is NAVD 88 - (GEOID 03). Point No. 2 is the Base Project Control Point. Coordinates are S.C. State Plane Grid. Project Combined Factor = 0.99982298.
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E-mail: rfarmer@newberrycounty.net

REVISION
DATE

APPROVALS

ENGINEER
DESIGNER
TECHNICAL
CHECKED BY
APPROVED

DATE: 5/14/21

ALLIANCE
CONSULTING ENGINEERS

ALLIANCE CONSULTING ENGINEERS, INC.
Post Office Box 8147, Columbia, South Carolina 29202-8147
Phone: (803) 779-2078 • Fax: (803) 779-2079

PHASE III WATER LINE
PLAN AND PROFILE
(STA: 29+00 TO 31+20)

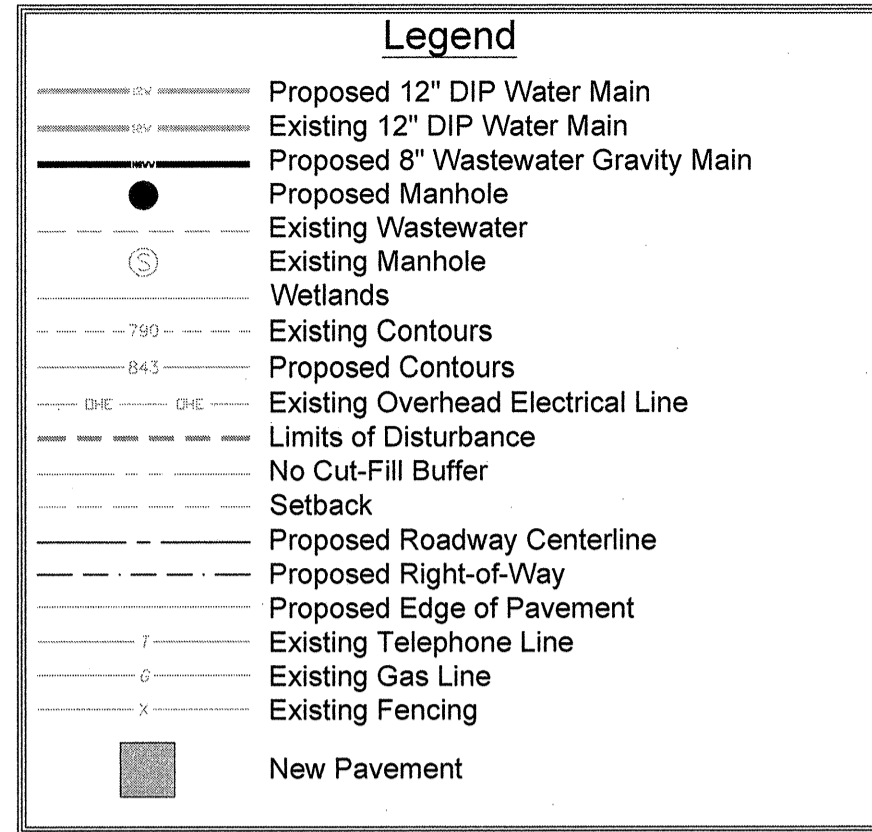
DATE: APRIL 2021
SCALE: AS SHOWN

PROJECT
PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY
SOUTH CAROLINA

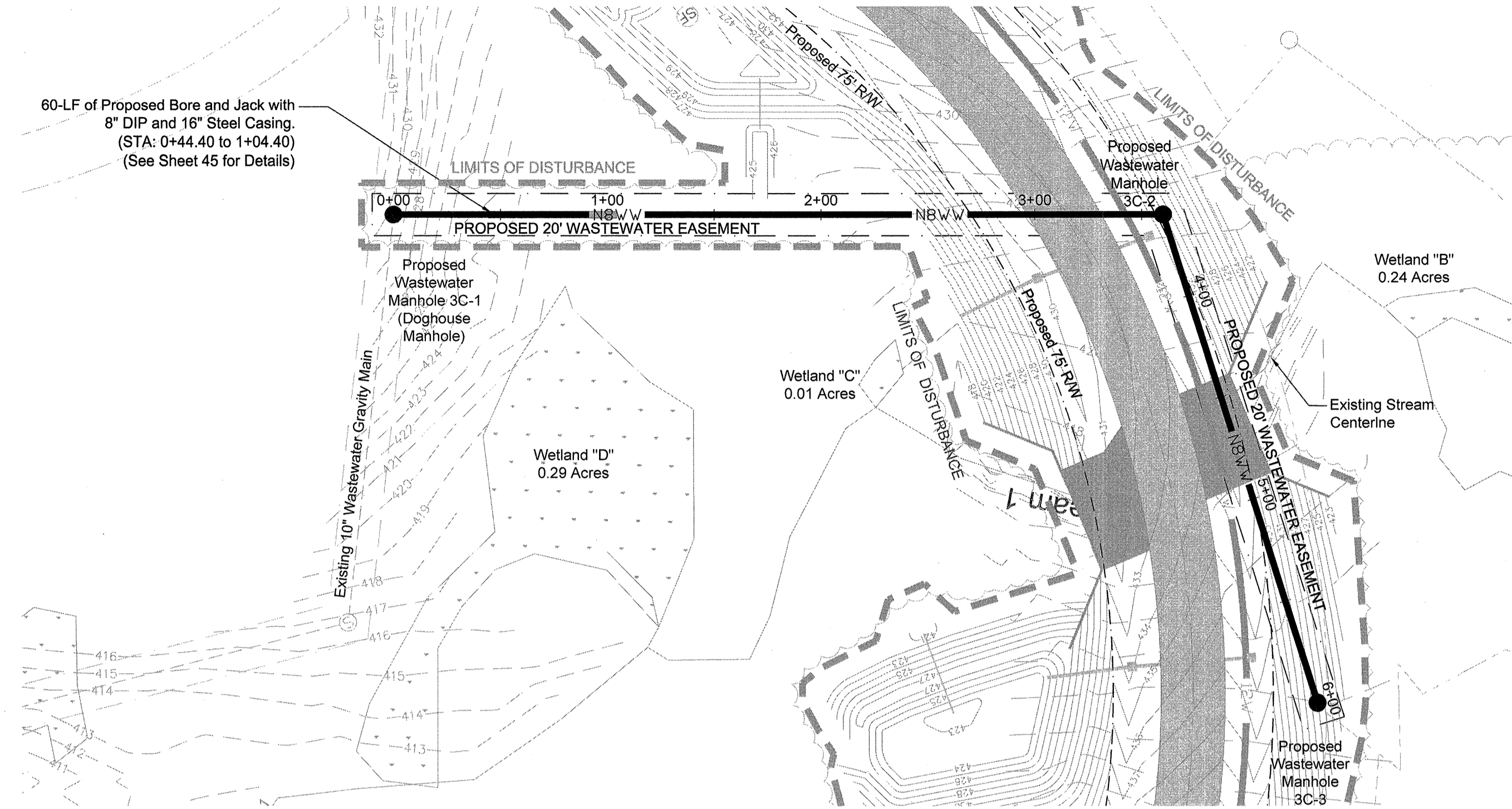
FILE NAME:
C37.dwg
REFERENCE FILE:
BASE.DWG
PROJECT NO.
1713-0036

SHEET
C37
OF
45

DWG NO. 01.514-DO9

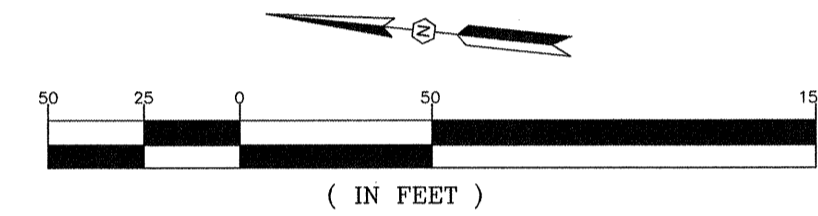


Note To Wastewater Line Contractor:
1. Limits of Disturbance shall be Limited to 20' wide (10' on each side of the Proposed Wastewater Line).



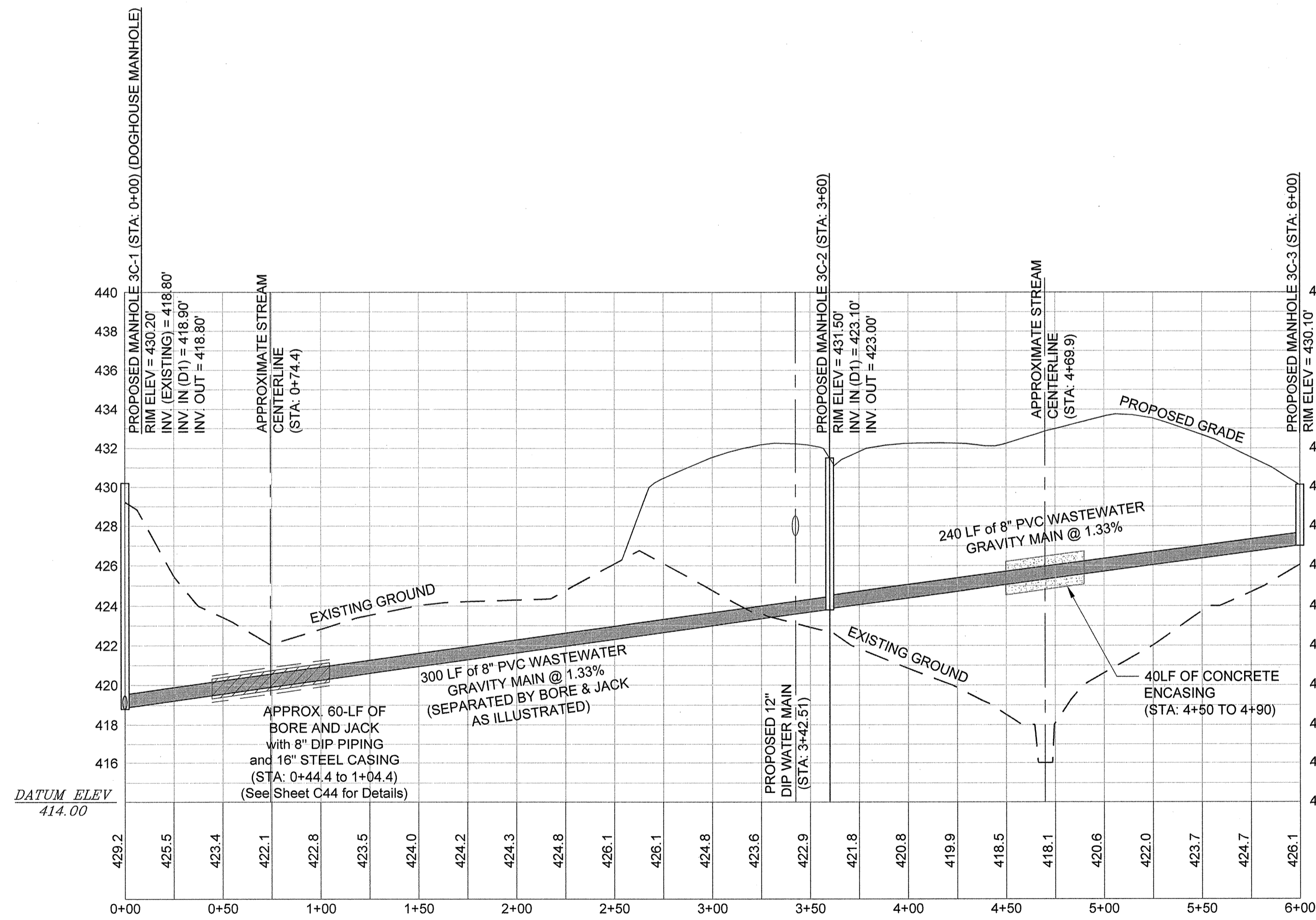
Phase III Wastewater Gravity Main 3C Plan (STA: 0+00 TO 6+00)

Scale: Horiz. 1"=50'



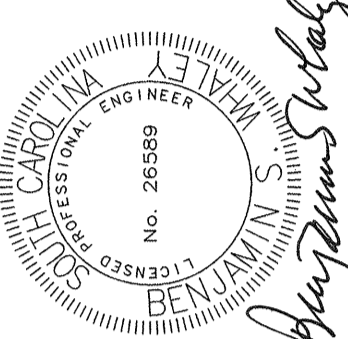
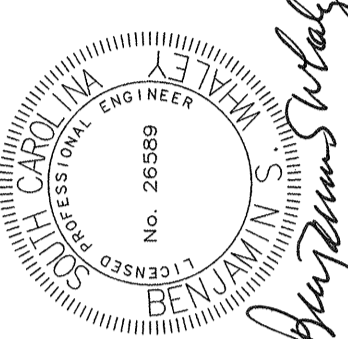
- References:**
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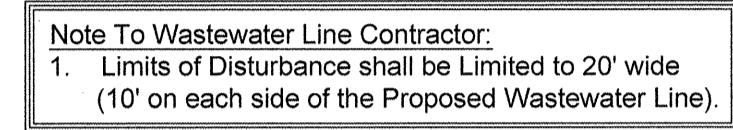


Phase III Wastewater Gravity Main 3C Profile (STA: 0+00 TO 6+00)

Scale: Horiz. 1"=50', Vert. 1"=5'

REVISION DATE	
APPROVALS	DATE: 5/14/21
ENGINEER BSW	DESIGNER BSW
TECHNICIAN JAM	CHECKED BY KMC/DMN
APPROVED BSW	
	
	
ALLIANCE CONSULTING ENGINEERS Alliance Consulting Engineers, Inc. Post Office Box 147, Columbia, South Carolina 29202 Phone (803) 779-2078 • Fax (803) 779-2079	
PROJECT: PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA NEWBERRY COUNTY SOUTH CAROLINA	
FILE NAME: C38.dwg	SHEET C38
REFERENCE FILE: BASE.DWG	OF 45
PROJECT NO. 17113-0036	
DWG NO. 01,514-D09	

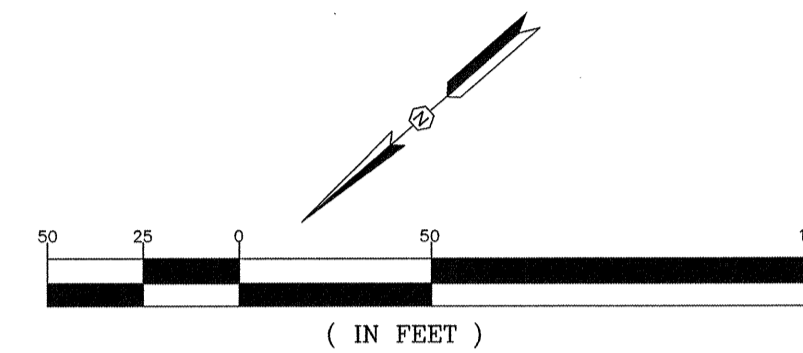
24-01-00-2004 2-24-00 DIA C-12616157412 0026 Phase II & Phase III Bauru & Motozucudos Infraestruturas, Incorcora Mid Carolina Com. Road/diaval/Construction Blonal ~20 Bhaos III WWI Inc. 20 Bhaos and Bhaos dug



Scale: Horiz. 1"=50'


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Scale: Horiz. 1"=50', Vert. 1"=5'

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ALLIANCE
CONSULTING ENGINEERS

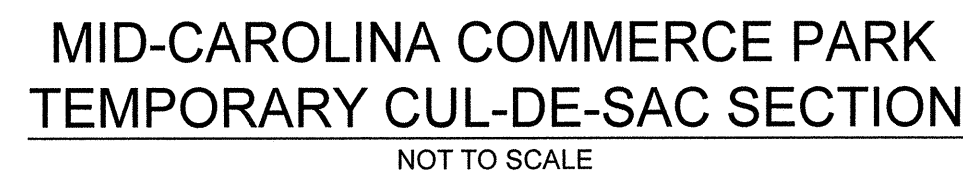
Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
Phone (803) 779-2078 • Fax (803) 779-2079

PROJECT	PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	SHEET	WASTEWATER GRAVITY MAIN PLAN AND PROFILE LINE 3D (STA: 0+00 TO 6+75.9)	SCALE: AS SHOWN
NEWBERRY COUNTY	SOUTH CAROLINA	DATE: APRIL 2021		

FILE NAME: C39.dwg	SHEET <u>C39</u>
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	<u>45</u>
DWG NO. 01,514-D09	



SIGN SUBSTRATUMS MAY BE .01 ALUMINUM OR 2 mm ALUMINUM COMPOSITE SIGN BLANKS
SIGN SUBSTRATUMS MAY BE AN APPROVED REFLECTIVE ROLL-UP MATERIAL OR 2 mm ALUMINUM
COMPOSITE SIGN BLANKS



NOTE:
STONE SECTION ONLY TO BE INSTALLED OUTSIDE OF
THE PAVEMENT LIMITS AS ILLUSTRATED ON SHEET C4.

NOTE: PAVEMENT SECTIONS ARE BASED ON S&ME, INC.'S REPORT OF SUBSURFACE EXPLORATION DATED APRIL 24, 2009.

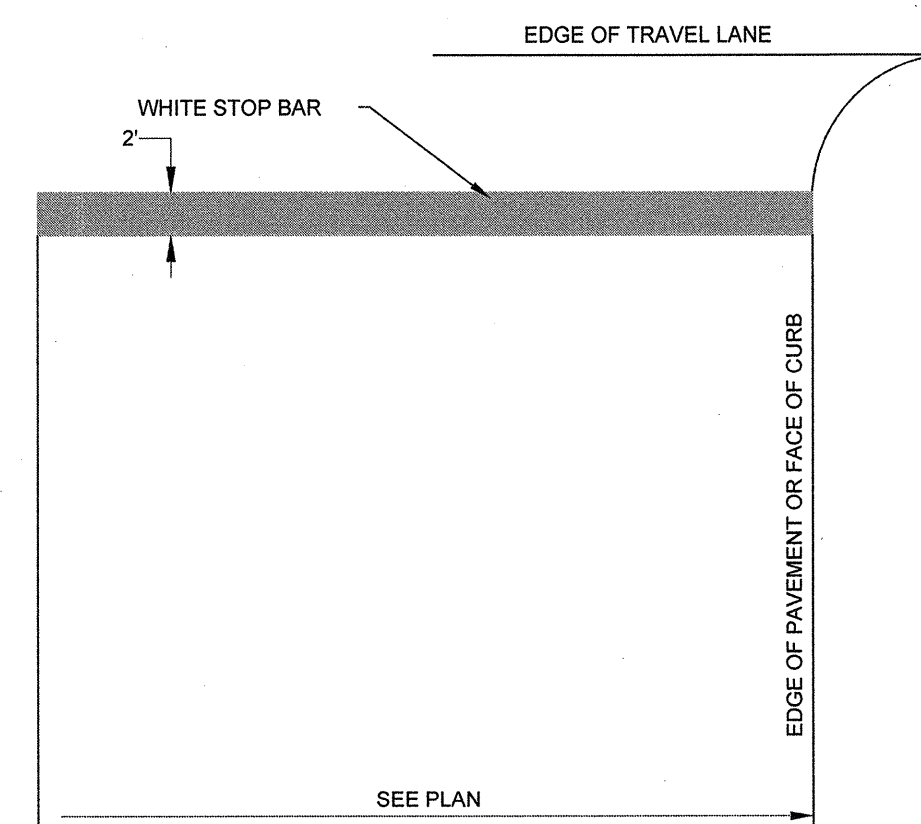


FILE NAME: C40.dwg	SHEET <u>C40</u> OF <u>45</u>
REFERENCE FILE: BASE.DWG	
PROJECT NO. 17113-0036	
DWG NO. 01.514-D09	

April 23, 2024	4-00-26 DM SIDProject17412.0036 Phase IIA, & Phase III Drive & Wastewater Infrastructure Improvements	Mid-Carolina Com	Parkway Construction Plans	C41-Broadway Stripping Details.dwg
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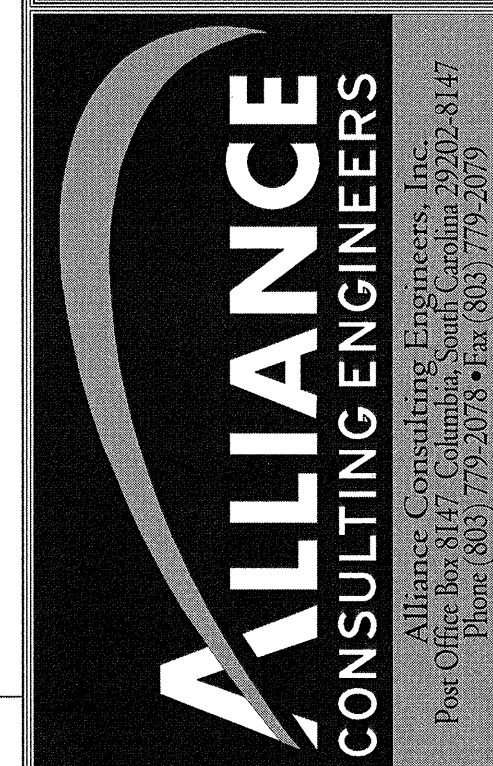
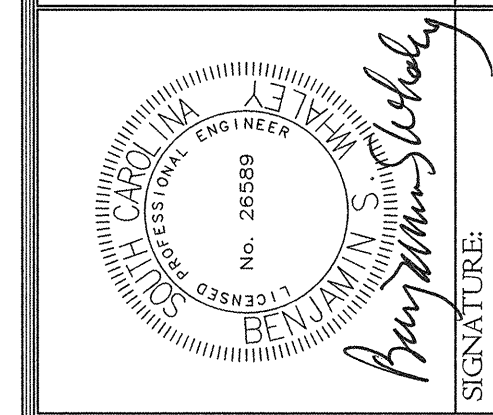
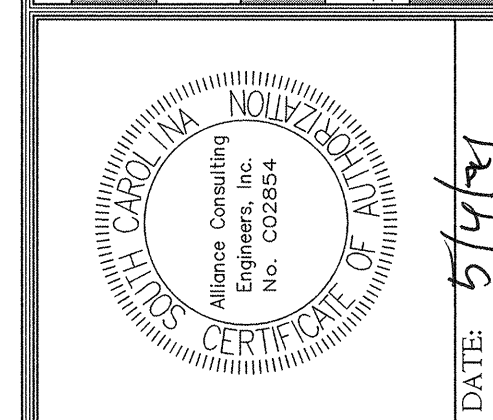
Diagram illustrating the layout of raised markers for a road section. The diagram shows two parallel lanes with raised markers. The first section is 80' long. The second section is 80' MAX. long. The diagram includes dimensions for the markers (4" high) and the spacing between them (8"). A stop line is indicated at the end of the second section. The direction of traffic is shown as moving from left to right.

 WHITE MONO-DIRECTIONAL
 YELLOW BI-DIRECTIONAL
 ALL MARKERS ARE TO BE SURFACE MOUNTED



N.T.S.

- NOTES:**
1. STOP BAR FOR DRIVEWAYS SHALL BE APPLIED ACCORDING TO REQUIREMENTS AS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
 2. THE STOP BAR IS TO BE PAINTED REFLECTIVE WHITE.

[illegible]

ROADWAY STRIPING
DETAILS

DATE: APRIL 2021

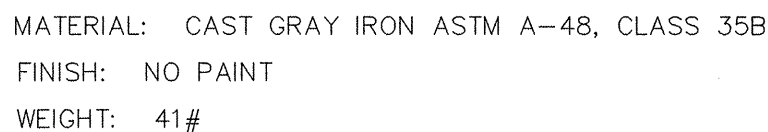
SCALE: AS SHOWN

SHEET

PROJECT PHASE IIA AND III
ROADWAY, WATER AND
WASTEWATER IMPROVEMENTS
MID-CAROLINA
COMMERCE PARK
FOR
NEWBERRY COUNTY,
SOUTH CAROLINA
NEWBERRY COUNTY
SOUTH CAROLINA

FILE NAME: C41.dwg	SHEET C41
REFERENCE FILE: BASE.DWG	OF
PROJECT NO. 17113-0036	45

DWG NO. 01,514-D09



CAD DWG. REF: 49904121.DWG-7



BOX DIMENSIONS (WxLxH) MUST NOT DEVIATE FROM

REQUIREMENTS:

- PRECAST CONCRETE MANUFACTURER MUST HAVE THEIR BOX INCLUDED ON THE DEPARTMENTS' APPROVAL SHEET 14 PRIOR TO FABRICATION. DESIGN CALCULATIONS AND ENGINEERING DRAWING OF EACH SIZE BOX (W X L) MUST BE PREPARED. VARIABLE BOXES ARE ALLOWED. THE BOXES MUST BE 12" MIN. DEEP. THE BOXES MUST BE PROVIDED ON 11"X17" SHEET. DRAWING MUST INCLUDE ALL DIMENSIONS, CLEARANCES, STEEL LAYOUT DETAILS AND CONSTRUCTION NOTES. EACH ENGINEERING DRAWING MUST STATE THE ASTM SPECIFICATION THAT IT MEETS AND ALL MATERIAL SPECIFICATIONS. A SEPARATE SUBMITTAL FOR EACH BOX SIZE IS REQUIRED. THE SUBMITTALS MUST BE SEEN AND SEAL ALL ENGINEERING DRAWINGS AND DESIGN CALCULATIONS. SUBMITTALS MUST INCLUDE ONE ORIGINAL AND TWO COPIES OF THE DESIGN CALCULATIONS WITH DRAWINGS AS SPECIFIED ABOVE. ALL SUBMITTALS MUST BE SENT TO THE ROAD DESIGN ENGINEER. THE ROAD DESIGN ENGINEER COULD REQUEST ADDITIONAL INFORMATION. THE SUBMITTALS MUST BE SUPPLIED FROM A SINGLE SOURCE PRECAST MANUFACTURER THAT HAS BEEN INSPECTED AND APPROVED BY THE ENGINEER AND MATERIALS ENGINEER. IF THE THOSE BOXES ARE OTHER SIZES (W X L X H) SHOWN BELOW WILL BE SUBMITTED FOR THE APPROVAL.

BOX SIZE (W x L x H) FOR DESIGN APPROVAL

2'x3'x2'	2'x3'-2"	3'x3'-2"	3'x3'-2 1/2"	3'x4'-2"	3'x4'-2 1/2"	3'x10'-2"	4'x6'-2"
2'x3'x4'	2'x3'-4"	3'x3'-4"	3'x3'-4 1/2"	3'x4'-4"	3'x4'-4 1/2"	3'x10'-4"	4'x6'-4"
2'x3'x6'	2'x3'-6"	3'x3'-6"	3'x3'-6 1/2"	3'x4'-6"	3'x4'-6 1/2"	3'x10'-6"	4'x6'-6"
2'x3'x8'	2'x3'-8"	3'x3'-8"	3'x3'-8 1/2"	3'x4'-8"	3'x4'-8 1/2"	3'x10'-8"	4'x6'-8"
2'x3'x10'	2'x3'-10"	3'x3'-10"	3'x3'-10 1/2"	3'x4'-10"	3'x4'-10 1/2"	3'x10'-10"	4'x6'-10"
2'x3'x12'	2'x3'-12"	3'x3'-12"	3'x3'-12 1/2"	3'x4'-12"	3'x4'-12 1/2"	3'x10'-12"	4'x6'-12"
2'x3'x14'	2'x3'-14"	3'x3'-14"	3'x3'-14 1/2"	3'x4'-14"	3'x4'-14 1/2"	3'x10'-14"	4'x6'-14"
2'x3'x16'	2'x3'-16"	3'x3'-16"	3'x3'-16 1/2"	3'x4'-16"	3'x4'-16 1/2"	3'x10'-16"	4'x6'-16"
2'x3'x18'	2'x3'-18"	3'x3'-18"	3'x3'-18 1/2"	3'x4'-18"	3'x4'-18 1/2"	3'x10'-18"	4'x6'-18"
2'x3'x20'	2'x3'-20"	3'x3'-20"	3'x3'-20 1/2"	3'x4'-20"	3'x4'-20 1/2"	3'x10'-20"	4'x6'-20"
2'x3'x22'	2'x3'-22"	3'x3'-22"	3'x3'-22 1/2"	3'x4'-22"	3'x4'-22 1/2"	3'x10'-22"	4'x6'-22"
2'x3'x24'	2'x3'-24"	3'x3'-24"	3'x3'-24 1/2"	3'x4'-24"	3'x4'-24 1/2"	3'x10'-24"	4'x6'-24"
2'x3'x26'	2'x3'-26"	3'x3'-26"	3'x3'-26 1/2"	3'x4'-26"	3'x4'-26 1/2"	3'x10'-26"	4'x6'-26"
2'x3'x28'	2'x3'-28"	3'x3'-28"	3'x3'-28 1/2"	3'x4'-28"	3'x4'-28 1/2"	3'x10'-28"	4'x6'-28"
2'x3'x30'	2'x3'-30"	3'x3'-30"	3'x3'-30 1/2"	3'x4'-30"	3'x4'-30 1/2"	3'x10'-30"	4'x6'-30"
2'x3'x32'	2'x3'-32"	3'x3'-32"	3'x3'-32 1/2"	3'x4'-32"	3'x4'-32 1/2"	3'x10'-32"	4'x6'-32"
2'x3'x34'	2'x3'-34"	3'x3'-34"	3'x3'-34 1/2"	3'x4'-34"	3'x4'-34 1/2"	3'x10'-34"	4'x6'-34"
2'x3'x36'	2'x3'-36"	3'x3'-36"	3'x3'-36 1/2"	3'x4'-36"	3'x4'-36 1/2"	3'x10'-36"	4'x6'-36"
2'x3'x38'	2'x3'-38"	3'x3'-38"	3'x3'-38 1/2"	3'x4'-38"	3'x4'-38 1/2"	3'x10'-38"	4'x6'-38"
2'x3'x40'	2'x3'-40"	3'x3'-40"	3'x3'-40 1/2"	3'x4'-40"	3'x4'-40 1/2"	3'x10'-40"	4'x6'-40"
2'x3'x42'	2'x3'-42"	3'x3'-42"	3'x3'-42 1/2"	3'x4'-42"	3'x4'-42 1/2"	3'x10'-42"	4'x6'-42"
2'x3'x44'	2'x3'-44"	3'x3'-44"	3'x3'-44 1/2"	3'x4'-44"	3'x4'-44 1/2"	3'x10'-44"	4'x6'-44"
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2'x3'x50'	2'x3'-50"	3'x3'-50"	3'x3'-50 1/2"	3'x4'-50"	3'x4'-50 1/2"	3'x10'-50"	4'x6'-50"
2'x3'x52'	2'x3'-52"	3'x3'-52"	3'x3'-52 1/2"	3'x4'-52"	3'x4'-52 1/2"	3'x10'-52"	4'x6'-52"
2'x3'x54'	2'x3'-54"	3'x3'-54"	3'x3'-54 1/2"	3'x4'-54"	3'x4'-54 1/2"	3'x10'-54"	4'x6'-54"
2'x3'x56'	2'x3'-56"	3'x3'-56"	3'x3'-56 1/2"	3'x4'-56"	3'x4'-56 1/2"	3'x10'-56"	4'x6'-56"
2'x3'x58'	2'x3'-58"	3'x3'-58"	3'x3'-58 1/2"	3'x4'-58"	3'x4'-58 1/2"	3'x10'-58"	4'x6'-58"
2'x3'x60'	2'x3'-60"	3'x3'-60"	3'x3'-60 1/2"	3'x4'-60"	3'x4'-60 1/2"	3'x10'-60"	4'x6'-60"
2'x3'x62'	2'x3'-62"	3'x3'-62"	3'x3'-62 1/2"	3'x4'-62"	3'x4'-62 1/2"	3'x10'-62"	4'x6'-62"
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2'x3'x72'	2'x3'-72"	3'x3'-72"	3'x3'-72 1/2"	3'x4'-72"	3'x4'-72 1/2"	3'x10'-72"	4'x6'-72"
2'x3'x74'	2'x3'-74"	3'x3'-74"	3'x3'-74 1/2"	3'x4'-74"	3'x4'-74 1/2"	3'x10'-74"	4'x6'-74"
2'x3'x76'	2'x3'-76"	3'x3'-76"	3'x3'-76 1/2"	3'x4'-76"	3'x4'-76 1/2"	3'x10'-76"	4'x6'-76"
2'x3'x78'	2'x3'-78"	3'x3'-78"	3'x3'-78 1/2"	3'x4'-78"	3'x4'-78 1/2"	3'x10'-78"	4'x6'-78"
2'x3'x80'	2'x3'-80"	3'x3'-80"	3'x3'-80 1/2"	3'x4'-80"	3'x4'-80 1/2"	3'x10'-80"	4'x6'-80"
2'x3'x82'	2'x3'-82"	3'x3'-82"	3'x3'-82 1/2"	3'x4'-82"	3'x4'-82 1/2"	3'x10'-82"	4'x6'-82"
2'x3'x84'	2'x3'-84"	3'x3'-84"	3'x3'-84 1/2"	3'x4'-84"	3'x4'-84 1/2"	3'x10'-84"	4'x6'-84"
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2'x3'x100'	2'x3'-100"	3'x3'-100"	3'x3'-100 1/2"	3'x4'-100"	3'x4'-100 1/2"	3'x10'-100"	4'x6'-100"

4. DESIGN FOR PRECAST DRAINAGE STRUCTURES MUST MEET OR EXCEED ASTM C 890 OR ASTM C 913, AND THE DESIGN REQUIREMENTS SHOWN ON THE SHEET.

5. THE MAXIMUM ALLOWABLE COVER ON TOP OF THE BOX IS 2 FEET. THE MAXIMUM BURIAL DEPTH FOR EACH BOX SIZE IS ALSO SHOWN ON TABLE I.

6. THE MINIMUM STEEL REINFORCEMENT REQUIRED FOR ALL BOX SIZES SHALL BE AS SHOWN ON THIS SHEET.

7. THE PRECAST CONCRETE DRAINAGE BOX MAY BE USED WITH A TOP SLAB IN ACCORDANCE WITH STANDARD DRAWING 719-2.3. STRUCTURE COVER FOR JUNCTION BOXES".

8. CONCRETE FOR PRECAST STRUCTURES SHALL BE CLASS 4000 MEETING THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).

9. REINFORCING STEEL SHALL BE ASTM A-706. LOW ALLOY STEEL FORMED BARS FOR PRECAST CONCRETE REINFORCEMENT, GRADE 60. WIRE MESH SHALL CONFORM TO AASHTO M 55, AND M 221.

- WELED VEE FABRIC SHALL CONFORM TO AASHTO M 55 AND M 221.
11. PRECAST C.R. DRAINAGE BOX WITH KNOCK-OUT PANEL SHALL NOT BE USED WITH RISERS OR STACKING BOXES FROM STANDARD DRAINING 719-17A EXCEPT AS INDICATED IN SECTION 1401, NOTE 1401.
12. LIFT HOLES AND/OR DEVICES MAY BE PLACED AS NECESSARY. ALL LIFT HOLES SHALL BE GROUTED SHUT PRIOR TO COMPLETION OF THE INSTALLATION.
- ALL LIFTING METHODS MUST MEET OSHA REGULATIONS.
13. GROUT SHALL BE PREPARED TO FILL THE JOINT PIPE TO MAINTAIN A CONTINUOUS FLOW. GROUT SHALL BE TYPE M MORTAR MATERIAL, IN ACCORDANCE WITH SECTION 719 OF THE SC DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).
14. (A) - BRICK MASONRY OR CLASS 400 CONCRETE MAY BE USED TO FINISH THE PORTION ABOVE THE TOP OF THE BOX (2 FEET MAX TO BRING TO GRADE) OR TO COMPLY WITH THE REQUIREMENTS OF THE PRECAST DRAINAGE BOX, TO SECTION 719 OF THE SC DOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (LATEST EDITION).
15. (B) - DURING THE CONSTRUCTION OF THE PRECAST DRAINAGE BOX, THE WALL (FULL THICKNESS) MAY BE EXTENDED A MAXIMUM OF 2 FEET ABOVE THE TOP OF THE KNOCK-OUT PANEL. HEREON, THE PRECAST DRAINAGE BOX SHALL BE GRouted TO GRADE. IF THIS OPTION IS TO BE USED, THE ENGINEERING DRAWINGS SUBMITTAL SHALL INCLUDE ALL DETAILS FOR THIS ALTERNATE DRAINAGE BOX DESIGN.
16. (C) - A RISE IN THE WALL HEIGHT MAY BE USED TO BRING THE BOX TO GRADE OR TO COMPLETE AN IN-LET STRUCTURE. RISER AND JOINT DETAILS MUST BE DESIGNED IN ACCORDANCE WITH THE PRECAST DRAINAGE BOX DESIGN, SECTION 719-17A. CUT OPENINGS SHALL BE MADE TO THE REQUIRED SIZE AND LOCATION. OPTION 17A KNOCK-OUT PANEL WALL DRAINAGE STRUCTURE IS SUCH THAT PIPES ENTER THROUGH THE KNOCK-OUT PANELS ONLY. PIPES MAY NOT ENTER THROUGH THE CORNERS.
17. THE PRECAST CONCRETE DRAINAGE BOX MAY BE USED WITH THE FOLLOWING DRAINAGE STRUCTURES:

CATCH BASIN TYPE 1	CATCH BASIN TYPE 17
CATCH BASIN TYPE 1 (SPECIAL)	CATCH BASIN TYPE 18
CATCH BASIN TYPE 9 & TYPE 9 MH	DROP INLETS
CATCH BASIN TYPE 12	JUNCTION BOXES
CATCH BASIN TYPE 14 & TYPE 14 MG	SPRING BOXES
CATCH BASIN TYPE 16	

17. PAY ITEM: THESE ITEMS WILL BE PAID FOR IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR THE DRAINAGE STRUCTURE NOTED ABOVE. EXTRA DEPTH BOX WILL BE MEASURED AND PAID FOR AS NOTED IN SECTION 719 OF THE STANDARD SPECIFICATIONS.



- NOTES:

1. BEVELED END SECTIONS WILL BE MANUFACTURED IN ACCORDANCE WITH SECTION 715 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. THESE SPECIAL PIPE SECTIONS WILL BE MADE DURING THE MANUFACTURING OF OTHER STATE APPROVED STANDARD SIZES.
2. THE PIPE BEVEL MAY BE SAVED IN THE FIELD IN LIEU OF BEING MANUFACTURED. IN FIELD SAWING THE PIPE OPENING MAY COME TO A POINT AT THE PIPE CREST RATHER THAN A RADIUS AS SHOWN ON THE DRAWING. ALTERNATE PIPE FOR SLOPES MUST BE ORDERED WITH EACH BEVELED END. THE BEVELS MUST BE SLOPED. NO SEPARATE PAYMENT WILL BE MADE FOR PROVIDING THESE BEVELED ENDS.
3. BEVELED ENDS ON ALUMINUM AND HDPE PIPE ARE TO CONFORM TO DIMENSIONS SHOWN FOR CONCRETE PIPE.
4. WHEN AN ALTERNATE OF CORRUGATED ALUMINUM ALLOY PIPE IS SELECTED FOR USE, THE DIAMETERS WILL BE ONE STANDARD PIPE SIZE LARGER THAN REINFORCED CONCRETE PIPE.
5. TOTAL LINE LENGTH OF ALTERNATE ALUMINUM AND HDPE PIPE MAY BE PLACED IN ONE OR TWO LENGTHS AT THE DISCRETION OF THE CONTRACTOR.
6. PAYMENT FOR BEVELED END SECTIONS WILL BE AS DIRECTED IN THE PLANS OR IN SPECIAL PROVISIONS. WHEN PAYMENT IS TO BE MADE:
THE BID ITEM SHALL BE: RCF PIPE CURVED/BEVELED END SECTION CLASS C OR 20-L.F.

END SECTION DIMENSIONS			
DIA.	A	B	SLOPE
15"	0' - 6"	3' - 0"	4 : 1
18"	0' - 9"	3' - 0"	4 : 1
24"	0' - 10"	4' - 8"	4 : 1
30"	1' - 0"	4' - 6"	3 : 1
36"	1' - 3"	5' - 3"	3 : 1
42"	1' - 6"	5' - 6"	3 : 1
48"	2' - 0"	6' - 0"	3 : 1

APPLY ONLY TO UN-REINFORCED
KNOCK-OUT PANEL. FOR REINFORCED
PANEL, THE MINIMUM KNOCK-OUT
PANEL THICKNESS IS 2 IN.

SCDOT
South Carolina Department of Transportation

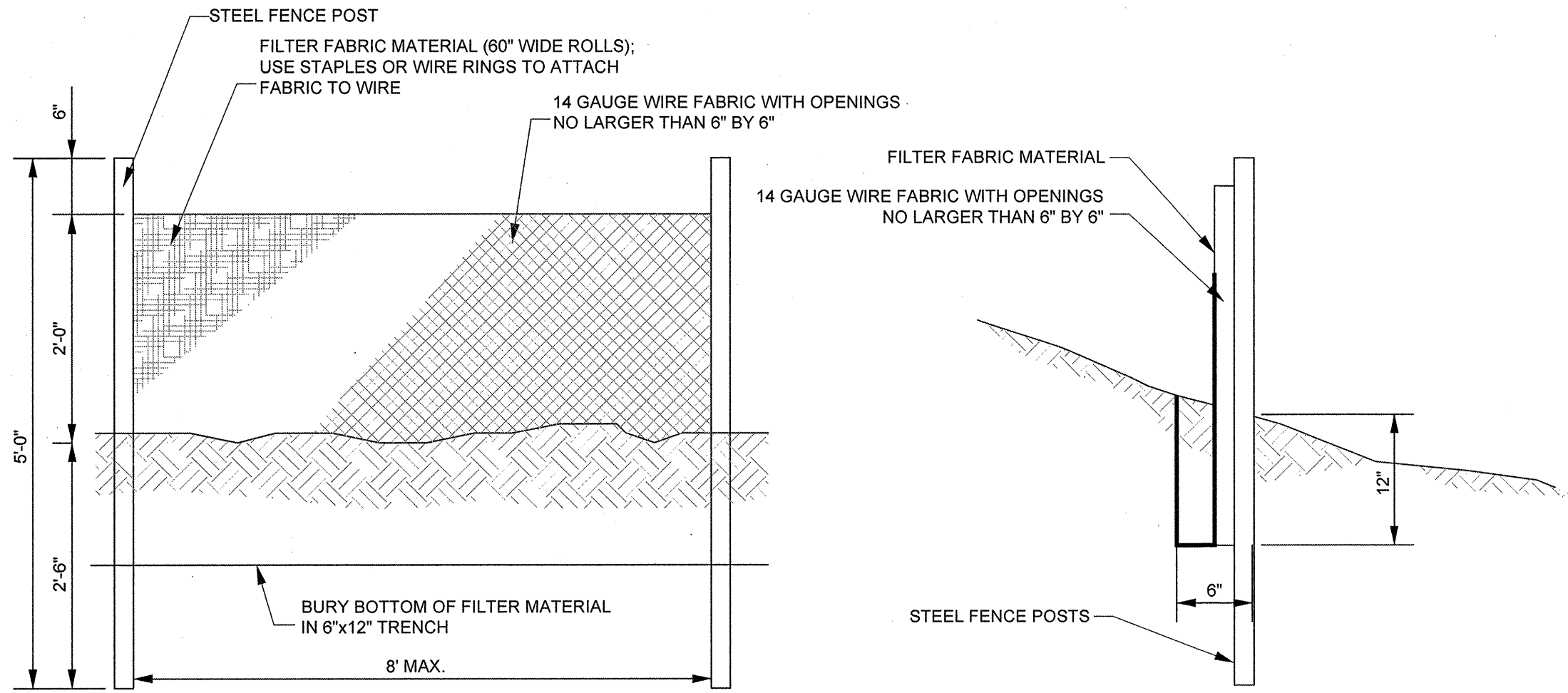
STANDARD DRAWING
DRAWING NO. 719-17

PRECAST R.C. DRAINAGE
BOX WITH KNOCK-OUT PANEL
DESIGN REQUIREMENT

EFFECTIVE LETTING DATE MAY, 2004



DWG NO. 01,514-D09



NOTE: SEDIMENT TO BE CLEANED OUT WHEN SEDIMENT HEIGHT REACHES ONE-THIRD (1/3) THE SILT FENCE HEIGHT.

SILT FENCE
NOT TO SCALE

CONSTRUCTION SEQUENCE

1. Receive NPDES coverage from SCDHEC.
2. Notify SCDHEC Regional Office 48 hours prior to any land disturbing activities.
3. Clearing and Grubbing only as necessary for installation of perimeter controls (e.g., Silt Fence and Construction Entrance).
4. Install perimeter Erosion and Sediment Control Devices.
5. Clearing and Grubbing of Site as necessary to install all Stormwater Detention features and all accompanying Erosion and Sediment Control Measures in these areas.
6. Begin Rough Grading Operations.
7. Install Storm Drainage in relation to Rough Grading.
8. Complete Rough Grading Operation.
9. Temporary Grassing as necessary.
10. Install Stone Base and Asphalt.
11. Complete Fine Grading of Shoulder Areas.
12. Install Rip-Rap and Filter Fabric.
13. Install pavement striping and Parking/Roadway signage.
14. Install Permanent Grassing and Stabilization.
15. Maintain all Erosion and Sediment Control Devices for the Extent of the Project.
16. Once the site stabilizes, remove temporary Erosion and Sediment Control Devices after entire area draining to the structure is finally stabilized (SCDHEC recommends that the Project Owner/Operator have the SWPPP Preparer (if applicable) or registration equivalent approve the removal of the temporary structures).

1. North American Green Product SC250 to be used as Rolled Erosion Control Product (RECP).
2. Prepare soil before installing RECPs, including any necessary application of lime, fertilizer, and seed. Begin at the top of the slope by anchoring the RECPs in a 6" (15cm) deep x 6" (15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12" (30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to compacted soil and fold remaining 12" (30cm) portion of RECPs back over seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12" (30cm) apart across the width of the RECPs.
3. Roll the RECPs (a) down or (b) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide. When using the dot system™, staples/stakes should be placed through each of the colored dots corresponding to the appropriate staple pattern.
4. The edges of parallel RECPs must be stapled with approximately 2"-5" (5cm-12.5cm) overlap depending on RECP type.
5. Consecutive RECPs spliced down the slope must be placed end over end (shingle style) with an approximate 3" (7.5cm) overlap. Staple through overlapped area, approximately 12" (30cm) apart across entire RECP width.

Note: In loose soil conditions, the use of staple or stake lengths greater than 6" (15cm) may be necessary to properly secure the recps.

SLOPE INSTALLATION
DETAIL PROVIDED BY NORTH AMERICAN GREEN
NOT TO SCALE

Sediment and Erosion Control Notes

Standard Notes:

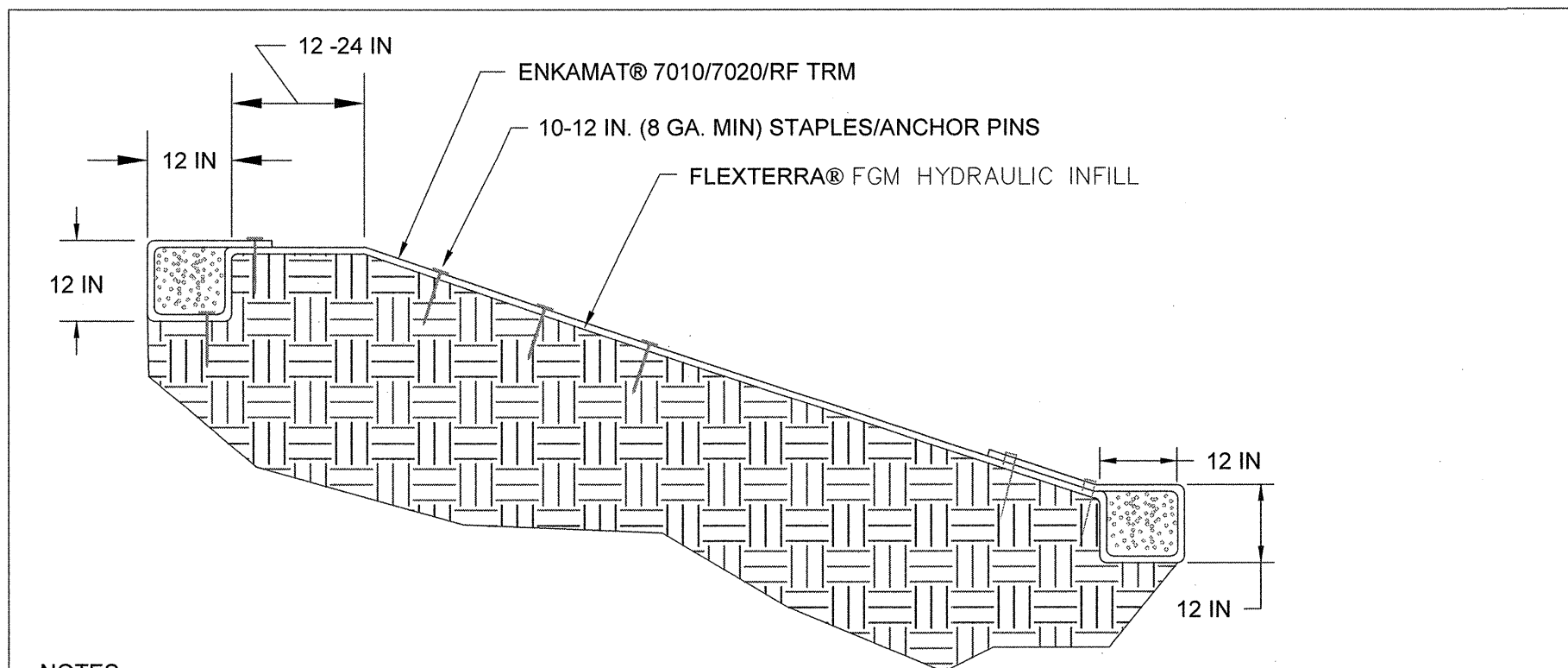
1. If necessary, slopes, which exceed eight (8) vertical feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.
2. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below.
>Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable.
>Where construction activity on a portion of the Site is temporarily ceased, and earth-disturbing activities will be resumed within fourteen (14) days, temporary stabilization measures do not have to be initiated on that portion of the Site.
3. All sediment and erosion control devices shall be inspected every seven (7) days. If site inspections identify BMPs that are damaged or are not operating effectively, maintenance must be performed as soon as practical or as reasonably possible and before the next storm event whenever practicable.
4. Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove any sediments before being pumped back into any waters of the State.
5. All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or off-site sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.
6. The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.
7. Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with S.C. Reg. 72-300 et seq. and SCR10000.
8. Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment-laden water to appropriate traps or stable outlets.
9. All waters of the State (WOS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50-foot buffer can't be maintained between the disturbed area and all WOS. A 10-foot buffer should be maintained between the last row of silt fence and all WOS.
10. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as skidplates of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

Additional Notes:

- A. Install permanent vegetative cover and the long-term erosion protection measures or structures as soon as practical in the development process.
 - B. Provide for handling the increased runoff caused by changed soil and surface conditions. Use effective means to conserve existing on-site soil including the use of diversion ditches, grassed waterways and storm sewers.
 - C. Place silt fence barriers at locations shown on plan. Silt barriers shall be maintained in place and in good condition until ground cover is established.
 - D. All disturbed areas not paved shall be grassed. Use temporary plant cover, mulching, and/or structures to control runoff and protect areas subject to erosion during construction.
 - E. Sediment ponds are to be excavated to original grades upon the accumulation of 1.0' of sediment stage placed at outlet.
 - F. Provide a temporary stone splash pad at all fire hydrants or other points if discharge during testing of the water distribution system.
 - G. Should Permanent Grassing requirements conflict with Landscape Plans, Landscape Plans supersede Permanent Grassing requirements.
- Grassing Specifications:**
- A. All seed mixtures for the various seeding schedules shall be weighed and mixed to the proper proportions in the presence of the owner or the owner's representative.
 - B. Schedule No. 1 - Planting dates March to August:

Common name of seed	Rate A (#/1000 sf)	Rate B (#/1000 sf)
Annual Rye Grass	10	8
Hulled Bermuda	2	2
Pensacola Bahia	2	0
Sericea Leptodes (Clay soils)	2	0
Weeping Love Grass (Sandy soils)	2	0
 - C. Schedule No. 2 - Planting dates September to February:

Common name of seed	Rate A (#/1000 sf)	Rate B (#/1000 sf)
Annual Rye Grass	10	8
Hulled Bermuda	0	0
Brown Top Millet	5	0
Unhulled Bermuda	3	2.0
 - D. Utilize Rate A on slopes over 5:1 vertical in height but less than 3:1, and use Rate B for slopes less than 5:1 vertical.
 - E. Double seed (Rate A) all grassed swales, water ways, and embankments from top of bank to bottom of bank on all bank slopes less than 3:1.
 - F. Provide dolomitic limestone at 1 ton per acre and 16-4-12 fertilizer, at 0.5-ton per Acre and 12-4-8 fertilizer, at 0.5 ton per Acre.



NOTES:

1. REFER TO FLEXTERRA® DETAIL DRAWINGS FOR FURTHER GUIDANCE ON HYDRAULIC INFILL

PLEASE NOTE THAT THE INFORMATION PRESENTED HEREIN IS GENERAL INFORMATION ONLY. IT IS FOR CONCEPTUAL USE ONLY AND NOT INTENDED TO BE USED FOR CONSTRUCTION. WHILE EVERY EFFORT HAS BEEN MADE TO ENSURE ITS ACCURACY, THIS INFORMATION SHOULD NOT BE USED FOR A SPECIFIC APPLICATION WITHOUT INDEPENDENT PROFESSIONAL EXAMINATION AND VERIFICATION OF ITS SUITABILITY, APPLICABILITY AND ACCURACY.

GREEN ARMOR SYSTEM

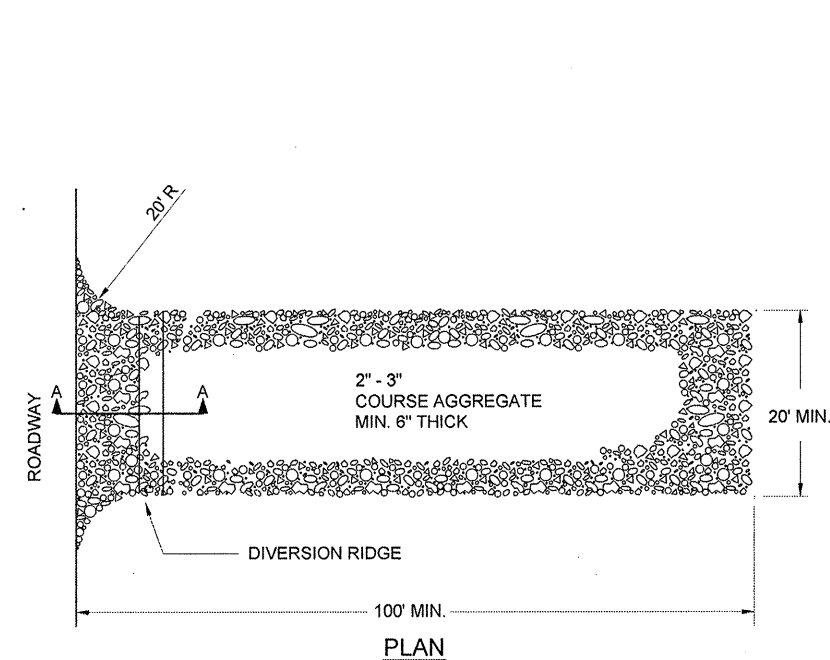
GREEN ARMOR MORT™ PROFILE VIEW - SLOPE DETAIL

FILE NAME: Green Armor Profile View - Slope Detail.dwg
CONTACT NUMBER: 800-508-8681
WEB SITE: www.profileproducts.com
DRAWN BY: MDR
DATE: 4/26/07
CHECKED BY: DATE: SHEET 1 OF 1

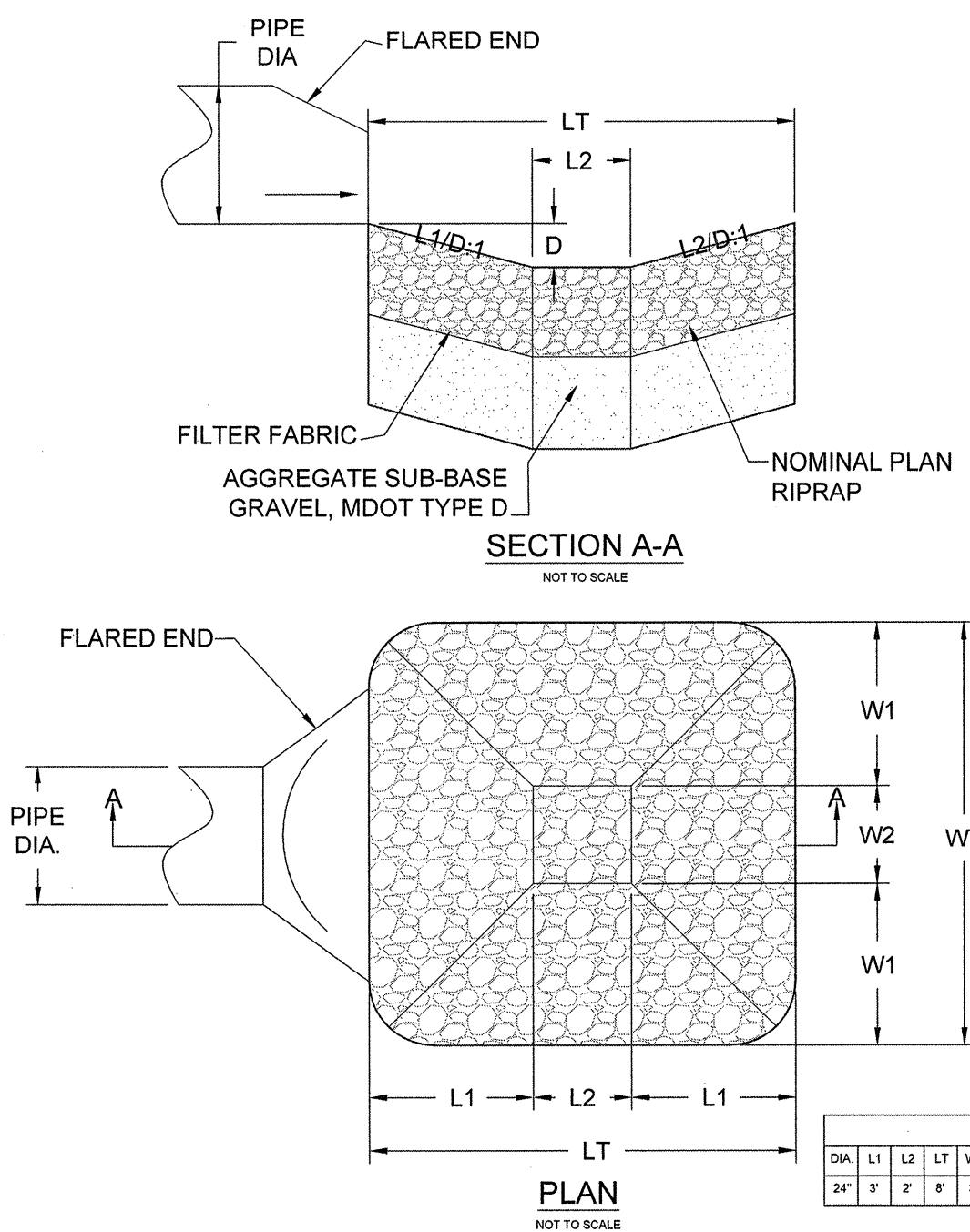
Profile™

Proven. Trusted. Purpose. In Soil Solutions.

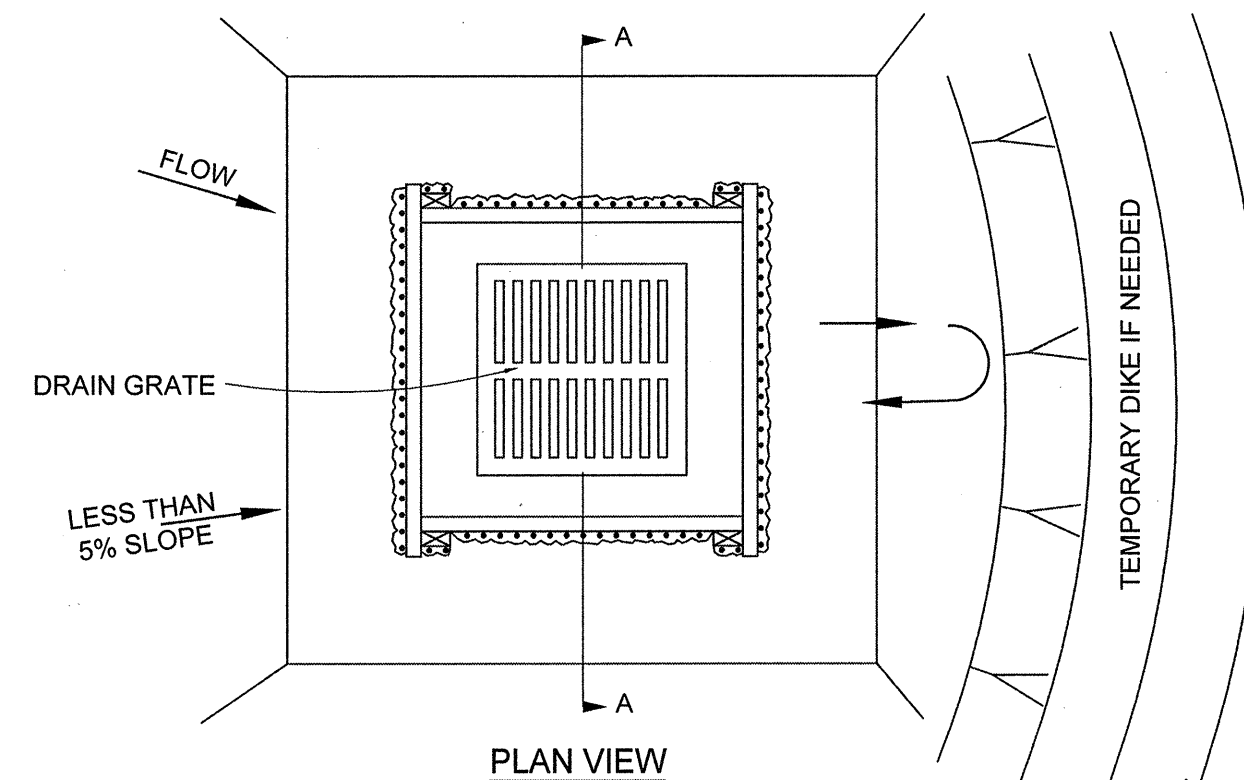
CHANNEL STABILIZATION MATTING DETAIL
NOT TO SCALE



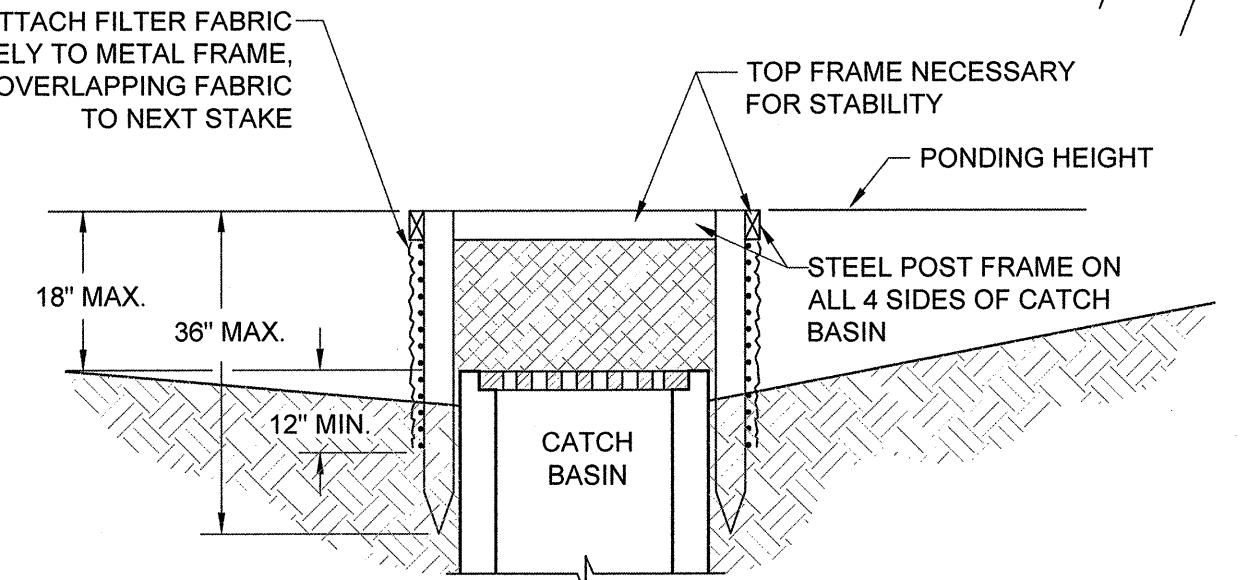
CONSTRUCTION ENTRANCE/EXIT DETAIL
NOT TO SCALE



RIPRAP PLUNGE POOL DETAIL FOR OUTFALL



PLAN VIEW

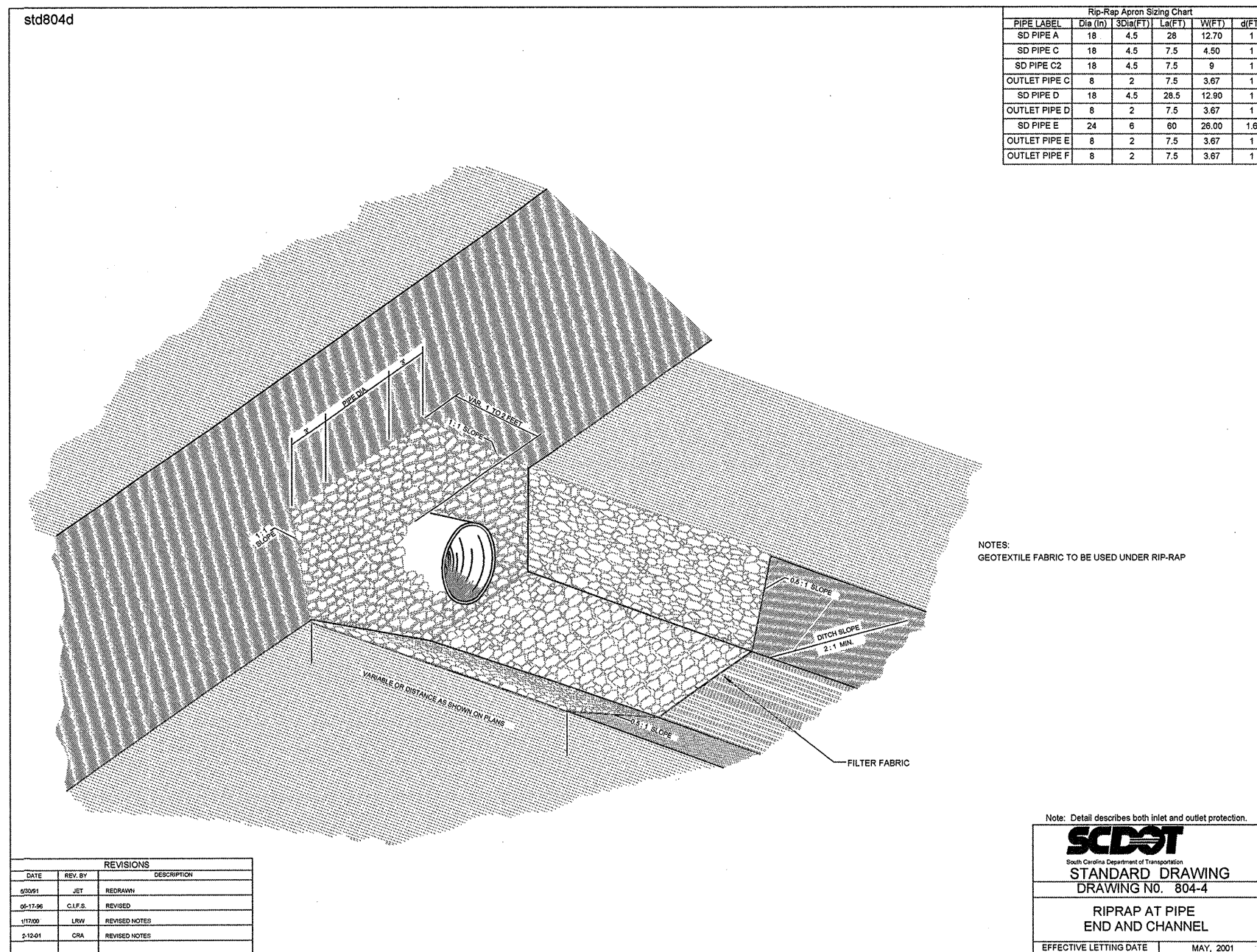


SECTION A-A

NOTES:

1. CATCH BASIN SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS (LESS THAN 5%).
2. USE METAL STAKES, 3" MINIMUM LENGTH.
3. INSTALL METAL TOP FRAME TO ENSURE STABILITY.
4. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
5. SEDIMENT TO BE CLEANED OUT WHEN SEDIMENT HEIGHT REACHES ONE-THIRD (1/3) THE SILT FENCE HEIGHT.

INLET PROTECTION
NOT TO SCALE



NOTE: Detail describes both inlet and outlet protection.

SCDHEC

STANDARD DRAWING

DRIVING NO. 804-4

RIPRAP AT PIPE END AND CHANNEL

EFFECTIVE LITTING DATE: MAY, 2001

REVISION DATE

APPROVALS

DESIGNER: BSW

CHECKED BY: KMC/DMN

APPROVED: BSW

ALLIANCE CONSULTING ENGINEERS, Inc.

2500 S. 81st Ave.

PO Box 8147, Columbia, South Carolina 29202-8147

Phone: (803) 739-2078 • Fax: (803) 739-2079

PHASE IIA AND III

ROADWAY, WATER AND WASTEWATER IMPROVEMENTS

MID-CAROLINA

COMMERCE PARK

FOR

NEWBERRY COUNTY, SOUTH CAROLINA

NEWBERRY COUNTY

FILE NAME: C43.dwg

REFERENCE FILE: BASE.DWG

PROJECT NO: 17113-0036

DWG NO. 01,514-D09

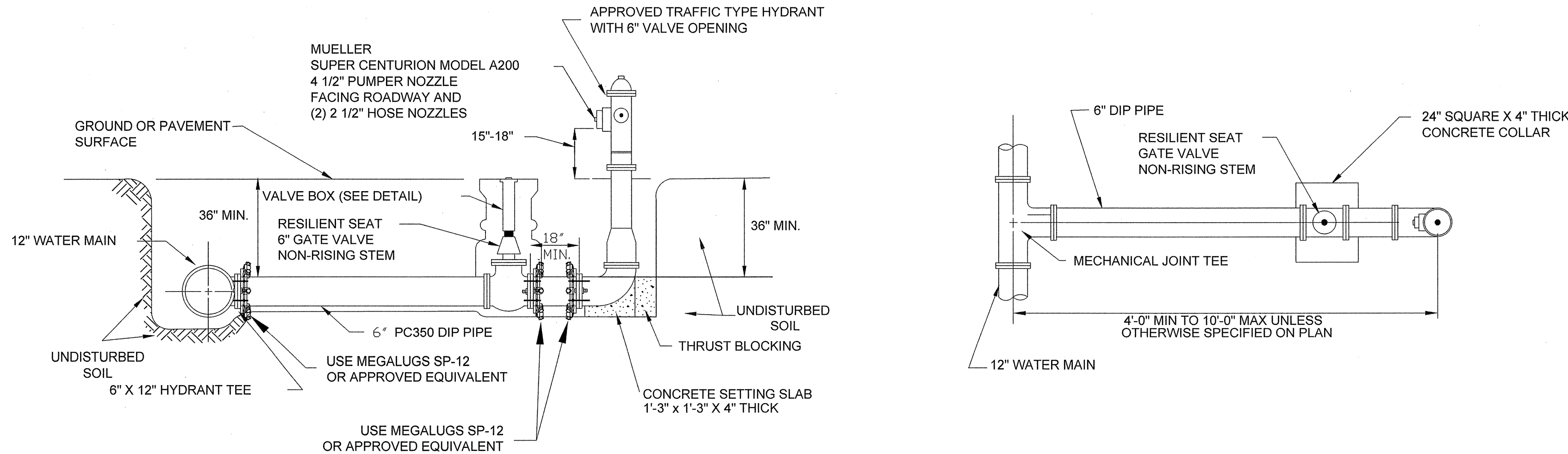
SHEET C43

OF 45

EROSION AND SEDIMENT CONTROL DETAILS

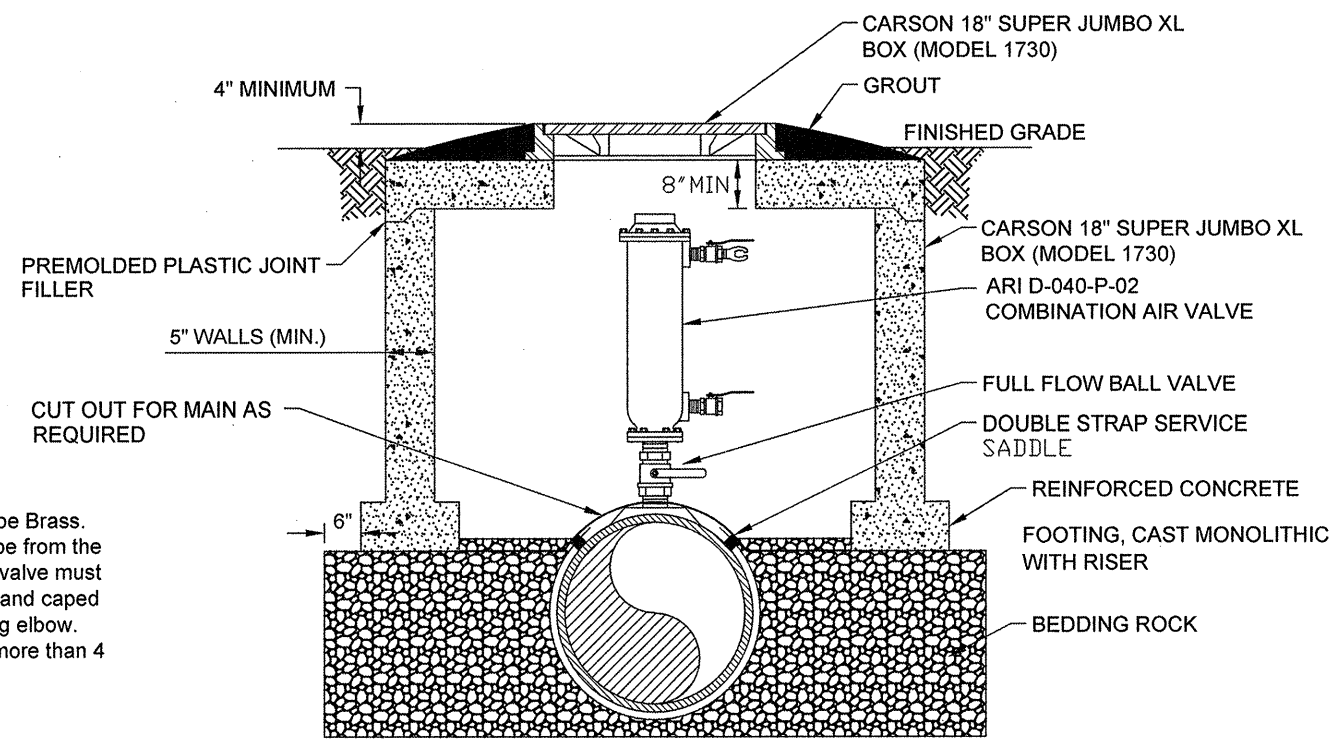
SCALE: AS SHOWN

DATE: APRIL, 2021



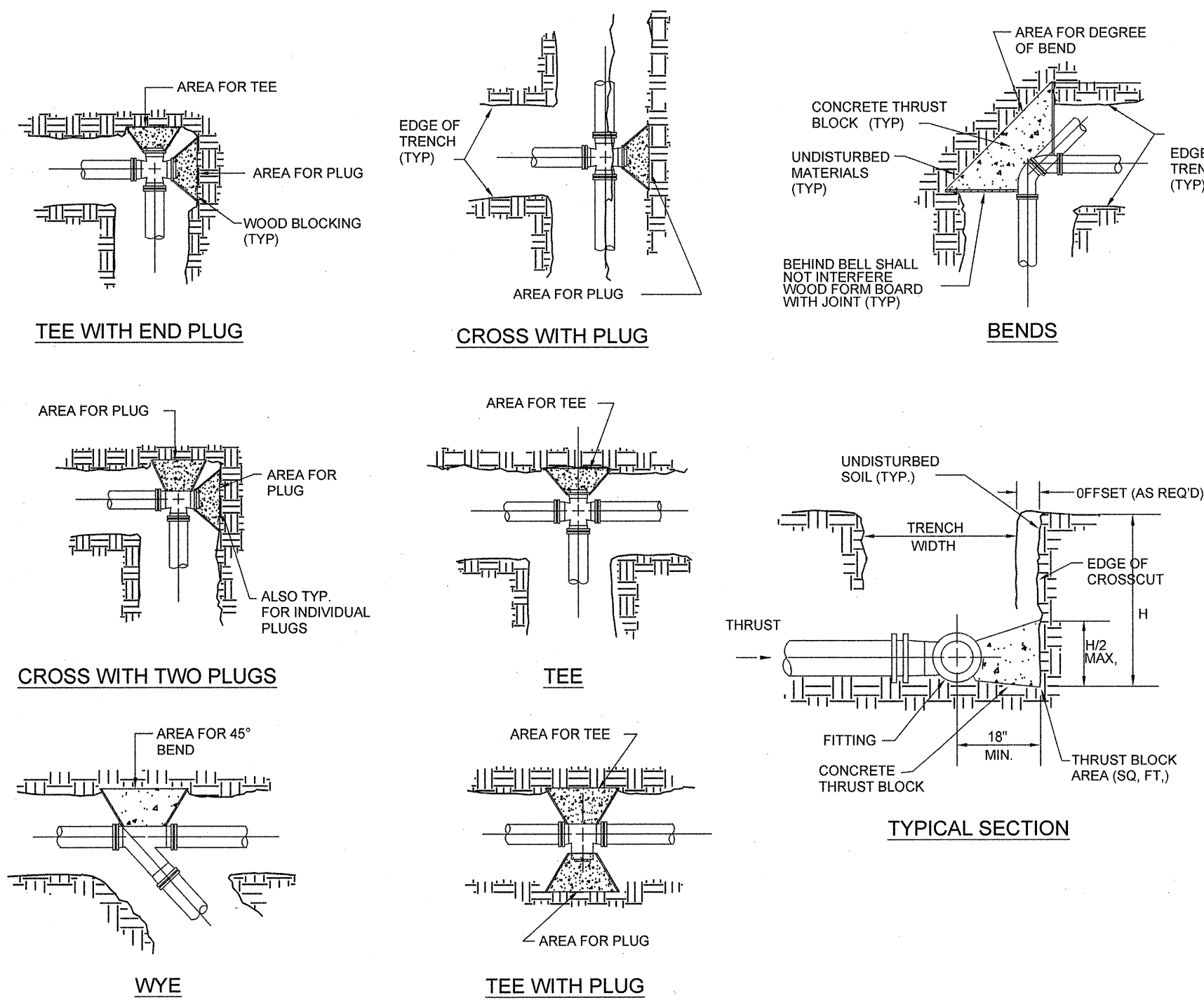
- Notes:
1. HYDRANT SHALL BE AS MANUFACTURED: MUELLER SUPER CENTURION MODEL A200.
 2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
 3. 6\"/>
 4. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
 5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION.
 6. MEGALUGS MAY BE USED ON FIRE HYDRANT BRANCH LEGS FOR RODDING, IF MORE THAN ROD COUPLING IS EXCEEDED.
 7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
 8. HYDRANT LEADS SHALL BE A MINIMUM OF 6 INCHES IN DIAMETER.
 9. PROVIDE A GRAVEL POCKET OR DRY WELL UNLESS THE NATURAL SOILS PROVIDE ADEQUATE DRAINAGE.
 10. DO NOT ALLOW THRUST BLOCKING TO BLOCK FIRE HYDRANT WEEP HOLES.

FIRE HYDRANT DETAIL
NOT TO SCALE



- Notes:
1. Fittings and pipe for valves shall be Brass.
 2. The open end of the Air Relief pipe from the automatic or manually operated valve must be extended to the top of the pit and capped with a screened downward facing elbow.
 3. Place Vault Ring and Cover not more than 4 inches above final grade.

WATER COMBINATION AIR RELEASE VALVE CONNECTION
NOT TO SCALE



NOTE: ALTHOUGH THRUST BLOCKS ARE ALLOWED, THE USE OF RESTRAINED JOINTS IS ENCOURAGED.

1. THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIALS WHERE TRENCH WALL HAS BEEN DISTURBED. EXCAVATE ALL LOOSE MATERIAL AND EXTEND TO UNDISTURBED MATERIAL.
2. EXTEND THRUST BLOCK FULL LENGTH OF FITTINGS. PUT BOARD IN FRONT OF PLUG BEFORE POURING CONCRETE. JOINTS SHALL NOT BE COVERED BY THRUST BLOCK.
3. ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDES OF THRUST BLOCK. THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUIT THE SPECIFIC FITTINGS ARRANGEMENT.
4. ALTERNATE DESIGN RESTRAINING SYSTEM SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE, AND/OR SOIL BEARING CAPACITY IS LESS THAN 2,000 P.S.F. OR PIPE IS 18 INCHES OR GREATER, AND SHALL BE APPROVED BY ORANGEBURG COUNTY.
5. THRUST BLOCKING SHALL BE CONSTRUCTED OF CLASS "A" CONCRETE.
6. CONCRETE THRUST BLOCKING SHALL HAVE A MIN. COMPRESSION STRENGTH OF 3000 PSI.
7. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED MATERIAL AND SHALL NOT COVER JOINTS, BOLTS, OR NUTS OR INTERFERE WITH REMOVAL OF ANY JOINT. WOODEN SIDE FORMS SHALL BE PROVIDED FOR THRUST BLOCKS WHERE TRENCH CONDITIONS REQUIRE.
8. THRUST BLOCKS SHALL BE PROPERLY SET AND ADEQUATELY CURED PRIOR TO PRESSURIZING THE PIPE.
9. FITTINGS SHALL BE PROTECTED BY POLYETHYLENE FILM, MIN. 8 MIL. THICK, PRIOR TO PLACING CONCRETE THRUST BLOCK.

SIZE	TEE, PLUGS	90° BENDS	45° BENDS	22-1/2° BENDS
2"	363	513	259	141
2-1/2"	531	751	379	207
3"	786	1114	562	307
4"	1302	1841	926	508
6"	2822	3990	2012	1101
8"	4783	6763	3410	1865
10"	7430	10506	5297	2898
12"	10452	14778	7452	4076

POUNDS CONCRETE FOR 100PSI SYSTEM PRESSURE

TO CALCULATE THRUST BLOCK POUNDS REQUIRED, ADJUST POUNDS CONCRETE FROM CHART BY RATIO OF SYSTEM PRESSURE TO 100PSI. SYSTEM PRESSURE IS 80PSI. DIVIDE POUNDS REQUIRED BY SOIL BEARING CAPACITY OF 3,000 LBS/SQ. FT. TO DETERMINE AREA OF

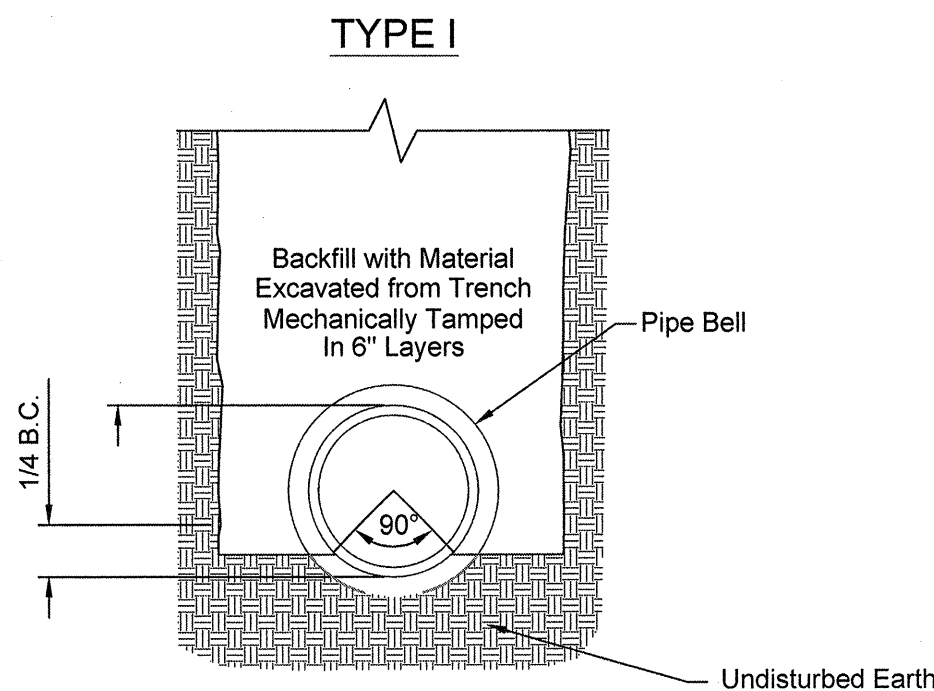
THRUST BLOCK REQUIRED TO BE IN CONTACT WITH UNDISTURBED SOIL.

BEARING CAPACITY BASED UPON GEOTECHNICAL EXPLORATION PERFORMED BY S & ME, INC.

IF CONTRACTOR EXCAVATES SUBSURFACE MATERIAL, VARYING FROM THAT DESCRIBED IN THE GEOTECHNICAL REPORT, CONTACT ENGINEER AT (803) 779-2078

Note:
A Newberry County Water and Sewer Authority Representative must be present during the placement of all Thrust Blocking. (See Cover for Contact Information)

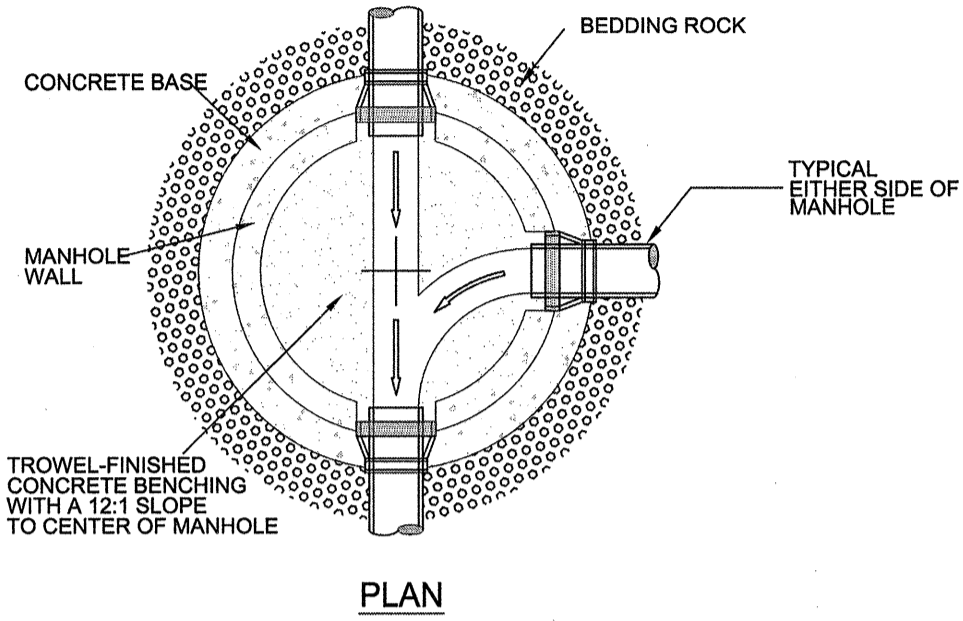
THRUST BLOCK DETAILS
NOT TO SCALE



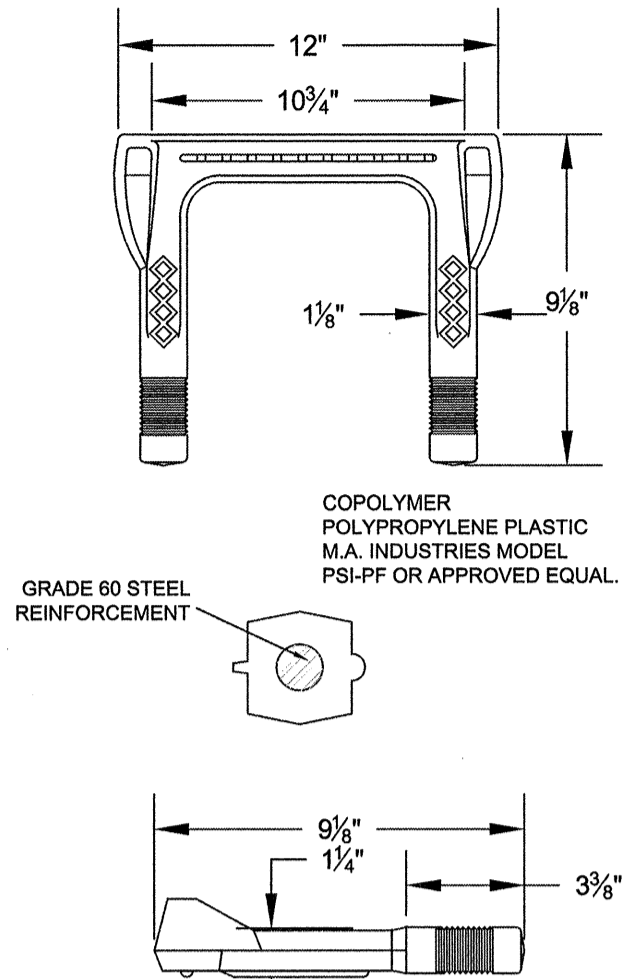
- Note:
1. Hand Shaped Bottom - Shape Bell Holes for use in dry earth trenches only. Applicable to both earth and rock trenches.
 2. B.C. = Outside Bell Circumference
 3. No Sand, Gravel or Crushed Stone to be used for Bedding Material.

CLASS "C" BEDDING
NOT TO SCALE

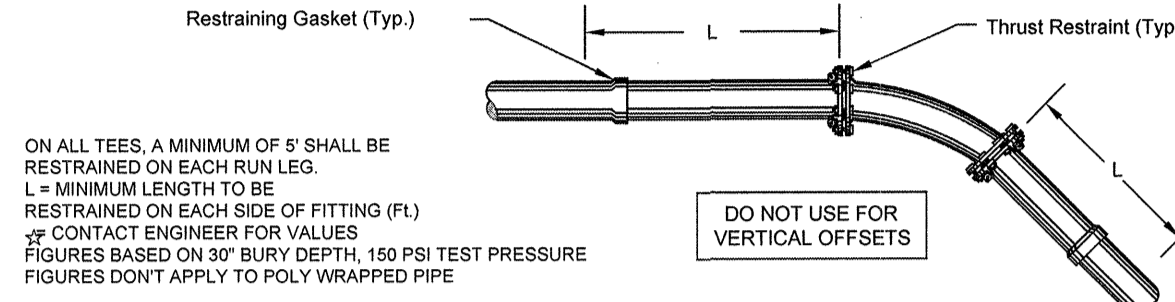
REVISION DATE	
APPROVALS	DATE: 9/14/21
DESIGNER BSW	
CHECKED BY KMC/DMN	
APPROVED BSW	
ALLIANCE CONSULTING ENGINEERS, INC. No. 002854 CERTIFICATE OF AUTHORITY	
SIGNATURE: <i>Raymond S. Bentley</i> No. 26589 LICENSED PROFESSIONAL ENGINEER	
ALLIANCE CONSULTING ENGINEERS Alliance Consulting Engineers, Inc. P.O. Office Box 8147, Columbia, South Carolina 29202-8147 Phone (803) 779-2078 • Fax (803) 779-2079	
WATER DETAILS	
SCALE: AS SHOWN	
DATE: APRIL 2021	
PROJECT: PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA	
FILE NAME: C44.dwg	SHEET C44
REFERENCE FILE: BASE.DWG	OF 45
PROJECT NO. 17113-0036	
DWG NO. 01.514-D09	



STANDARD MANHOLE PLAN
NOT TO SCALE



POLYPROPYLENE PLASTIC STEP
NOT TO SCALE



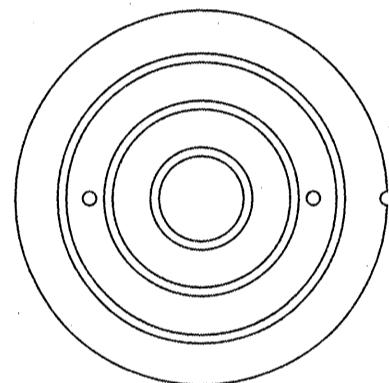
NOM. SIZE	ELBOWS (deg.)				VALVE TEES BRANCH	DEAD END
	11.25	22.50	45	90		
4	2	3	7	17	18	30
6	2	5	10	23	30	42
8	3	6	12	30	42	54
12	4	8	17	42	☆	78
16	5	10	22	53	☆	97
20	6	13	28	63	☆	117

NOTE: THRUST RESTRAINT ON SLIPJOINT DUCTILE IRON PIPE SHALL BE U.S. PIPE FIELD LOCK GASKETS FOR TYTON JOINT PIPE OR AMERICAN FAST-GRIP GASKETS FOR AMERICAN FASTITE PIPE. THRUST RESTRAINT ON DUCTILE IRON FITTINGS SHALL BE PROVIDED BY THE USE OF MEGALUG RETAINERS AND MECHANICAL JOINT FITTINGS.

THE FOLLOWING JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS:

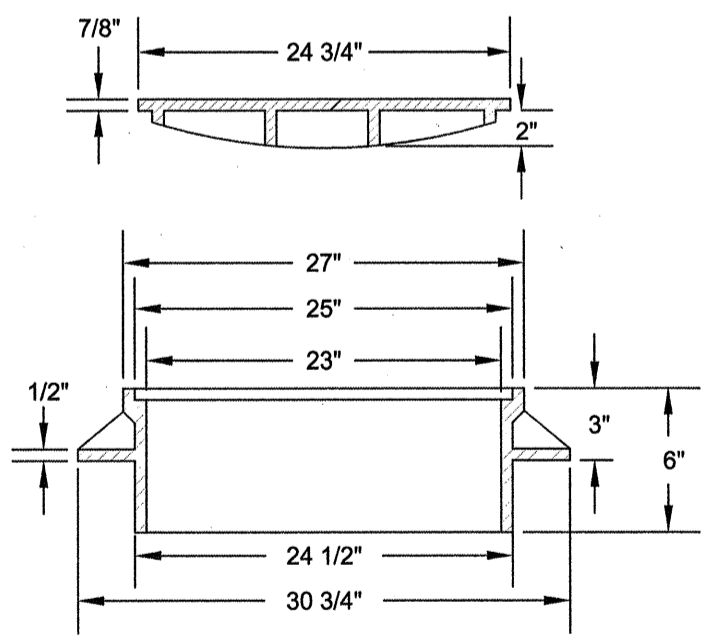
1. BEND - INLET AND OUTLET
2. TEE - ALL BRANCHES
3. OFFSETS - INLET AND OUTLET
4. CAPS
5. PLUGS
6. DEAD ENDS
7. HYDRANT RUNOUTS SHALL BE RESTRAINED AS DEAD ENDS

RESTRAINED JOINT PIPING DETAIL
NOT TO SCALE



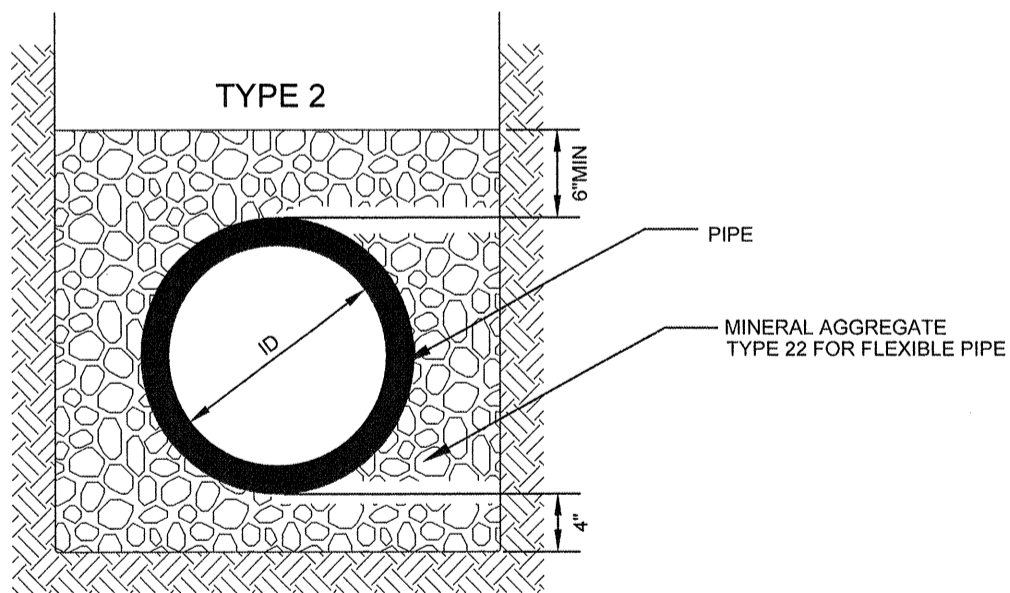
NOTE: LID CENTER MARKING SHALL BE "CSD SANITARY SEWER" MANHOLE FRAMES AND COVERS SHALL BE SUMMIT MACHINERY COMPANY NUMBER MF68L, MC68L, OR APPROVED EQUAL

STANDARD COVER
PLAN VIEW

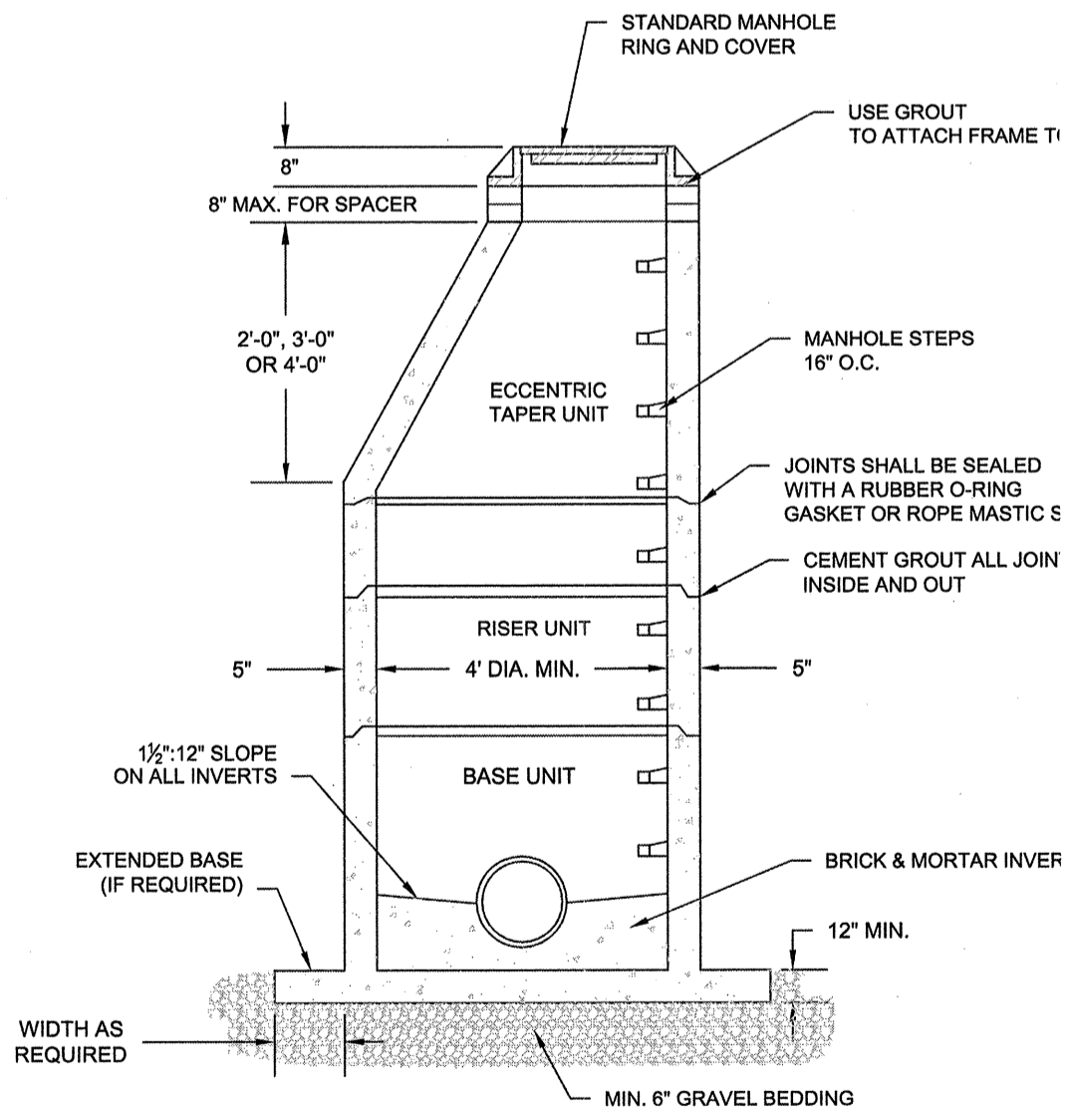


FRAME AND COVER
SECTION

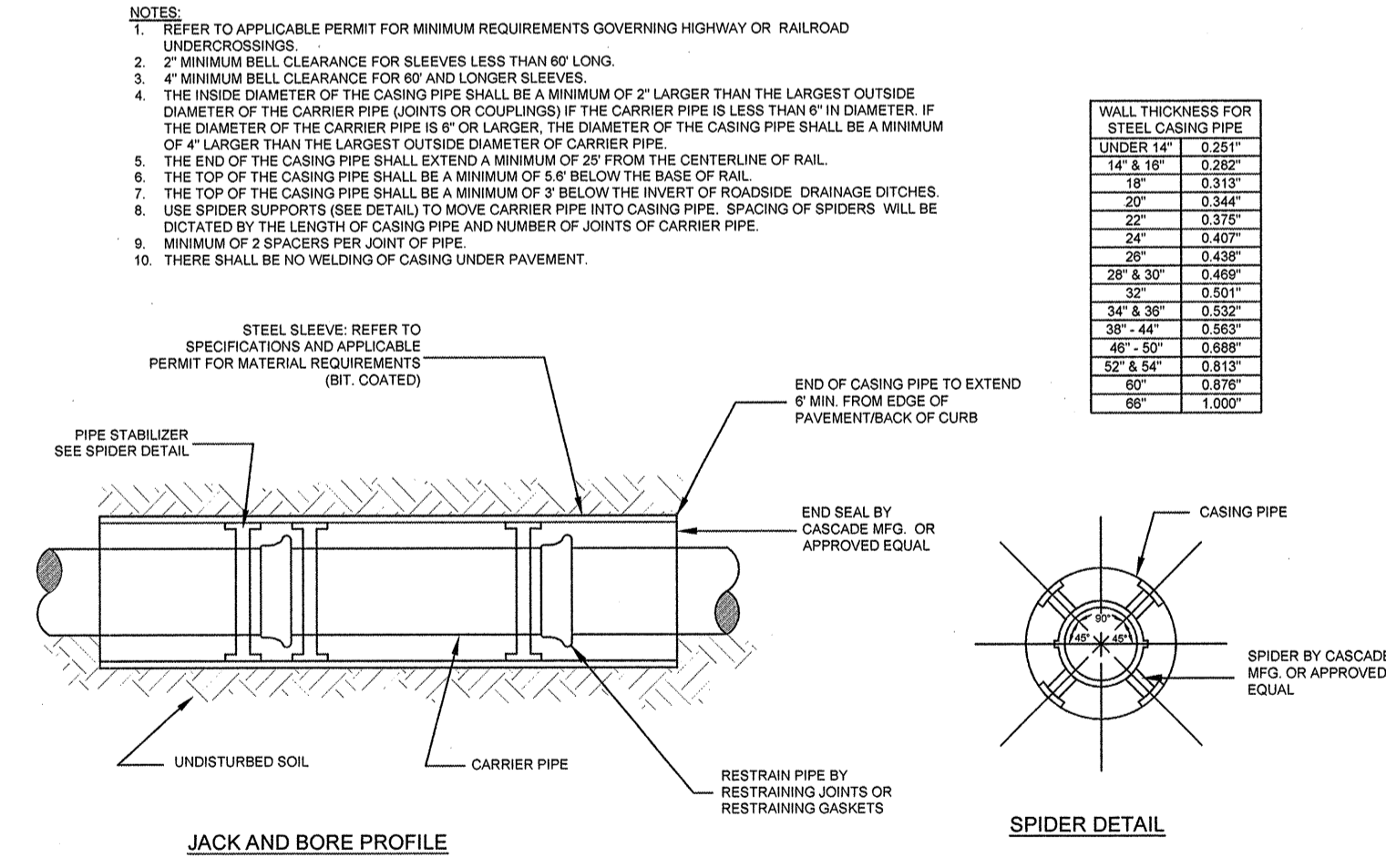
MANHOLE FRAME & COVER
NOT TO SCALE



CLASS "B" BEDDING
NOT TO SCALE



STANDARD PRECAST CONCRETE MANHOLE
NOT TO SCALE



PIPE AND CASING BORE AND JACK DETAIL
NOT TO SCALE

REVISION DATE

APPROVALS

ENGINEER: BSW

DESIGNER: BSW

TECHNICAL: JAM

CHECKED BY: KMC/DMN

APPROVED: BSW

ALLIANCE CONSULTING ENGINEERS, INC. No. 00264

DATE: 5/1/21

SIGNATURE: Benjamin S. Jolly

ALLIANCE CONSULTING ENGINEERS

Alliance Consulting Engineers, Inc.
Post Office Box 8147 Columbia, South Carolina 29202-8147
Phone (803) 775-2078 • Fax (803) 775-2079

WASTEWATER DETAILS

PROJECT: PHASE IIA AND III ROADWAY, WATER AND WASTEWATER IMPROVEMENTS MID-CAROLINA COMMERCE PARK FOR NEWBERRY COUNTY, SOUTH CAROLINA

SCALE: AS SHOWN

DATE: APRIL 2021

FILE NAME: C45.dwg

REFERENCE FILE: BASE.DWG

PROJECT NO. 17113-0036

SHEET C45 OF 45

DWG NO. 01.514-D09