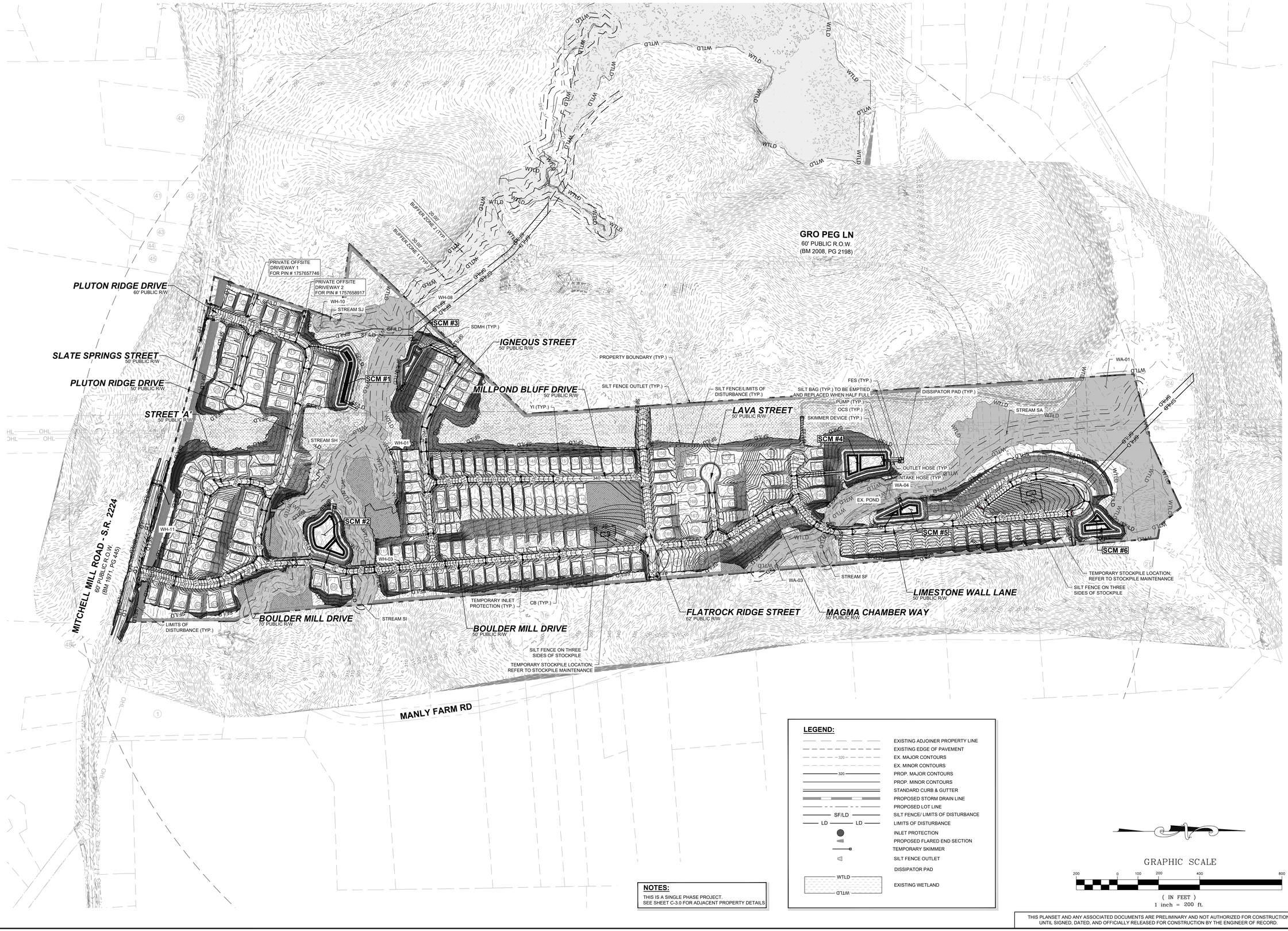
PROGRESS PLOT DATE: 05/08/2025



NOTES:

THIS IS A SINGLE PHASE PROJECT.
SEE SHEET C-3.0 FOR ADJACENT PROPERTY DETAILS

LEGEND:

- EXISTING ADJOINER PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EX. MAJOR CONTOURS
- EX. MINOR CONTOURS
- PROP. MAJOR CONTOURS
- PROP. MINOR CONTOURS
- STANDARD CURB & GUTTER
- PROPOSED STORM DRAIN LINE
- PROPOSED LOT LINE
- SILT FENCE/ LIMITS OF DISTURBANCE
- LIMITS OF DISTURBANCE
- INLET PROTECTION
- PROPOSED FLARED END SECTION
- TEMPORARY SKIMMER
- SILT FENCE OUTLET
- DISSIPATOR PAD
- EXISTING WETLAND

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

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01.	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02.	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

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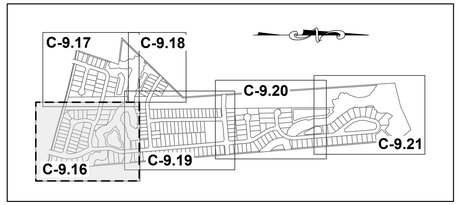
STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA.
CONSTRUCTION PLANS
EROSION CONTROL PLAN - OVERALL STAGE 3

DRAWING SHEET
C-9.15

62 OF 128

PROGRESS PLOT DATE: 05/08/2025



SITE KEY PLAN

NOTE:
EROSION CONTROL NOTES : SEE SHEET C-9.0

MATCH LINE
FOR CONTINUATION, SEE C-9.17

STREET 'A'
50' PUBLIC R/W

PLUTON RIDGE DRIVE
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

BOULDER MILL DRIVE
70' PUBLIC R/W

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

MANLY FARM RD

MATCH LINE
FOR CONTINUATION, SEE C-9.19

ELECTRIC EASEMENT

TEMPORARY INLET PROTECTION (TYP.)

CB (TYP.)

LIMITS OF DISTURBANCE (TYP.)

WETLANDS (WH-11)

WH-01

WH-03

20.00' BUFFER ZONE 2 (TYP.)

30.00' BUFFER ZONE 1 (TYP.)

SILT BAG (TYP.) TO BE EMPTIED AND REPLACED WHEN HALF FULL

DISSIPATOR PAD (TYP.)

FES (TYP.)

STREAM SH

STREAM SI

SCM #2

OUTLET HOSE (TYP.)

PUMP (TYP.)

INTAKE HOSE (TYP.)

OCS (TYP.)

SKIMMER DEVICE (TYP.)

SILT FENCE OUTLET (TYP.)

SILT FENCE/LIMITS OF DISTURBANCE (TYP.)

N/F
THVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
NING: R-30 (WC) USE: SF

N/F
JONES, CHARLES, ET,AL
PIN: 1757856303
DB: 13359 PG: 400
ZONING: R-30 (WC) USE: AG

N/F
JONES PROPERTIES LLC
PIN: 1757856755
DB: 12895 PG: 505
BM: 1993 PG: 446
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCER
PIN: 1757857937
DB: 9320 PG: 1460
BM 1993 PG 446
ZONING: R-30 (WC) USE: SF

N/F
ANDERSON, BOBBY G
PIN: 1757868104
DB: 8776 PG: 573
BM 1993 PG 446
ZONING: R-30 (WC) USE: MO

N/F
HERNADEZ, JUANITA
PIN: 1757866385
DB: 19332 PG: 1806
BM 1990 PG 132
ZONING: R-30 (WC) USE: MO

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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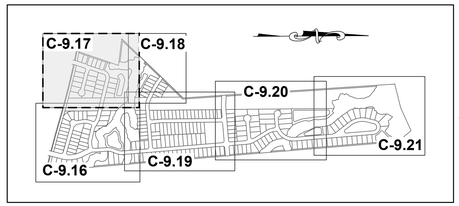
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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
EROSION CONTROL PLAN - STAGE 3

DRAWING SHEET
C-9.16

63 OF 128



SITE KEY PLAN

NOTE:
EROSION CONTROL NOTES : SEE SHEET C-9.0

N/F
UTILITY THREE BUILDERS INC
PIN: 1757656231
DB: 18226 PG: 2104
ZONING: R-30 (WC) USE: SF

N/F
PREDDY, GENADIUS MAC PREDDY, MATTIE F
PIN: 1757656586
DB: 1882 PG: 342
ZONING: R-30 (WC) USE: S

WILLIE RAY SUTTON AND WIFE, PAMELA Z. SUTTON
PIN: 1757657280
DB 2958 PG 536
BM 1981 PG 294
ZONING: R-30 (WC)
USE: SF

N/F
UTILITY THREE BUILDERS INC
PIN: 1757646703
DB: 18226 PG: 2104
BM: 1981 PG:895
ZONING: R-30 (WC)
USE: SF

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

N/F
HAMPTON, MELODY L
PIN: 1757754163
DB: 4777 PG: 764
BM 1990 PG 511
ZONING: R-30 (WC) USE: SF

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W
(BM 1971, PG 445)

PLUTON RIDGE DRIVE
50' PUBLIC R/W

SLATE SPRINGS STREET
50' PUBLIC R/W

PRIVATE OFFSITE DRIVEWAY 1
FOR PIN # 1757657746

PRIVATE OFFSITE DRIVEWAY 2
FOR PIN # 1757658917

SILT FENCE\LIMITS OF DISTURBANCE (TYP.)

SILT FENCE OUTLET (TYP.)

LIMITS OF DISTURBANCE (TYP.)

TEMPORARY INLET PROTECTION (TYP.)

CB (TYP.)

SDMH (TYP.)

DI (TYP.)

WH-10

STREAM SJ

STREAM SH

BM2017-PG-210

SCM #1

INTAKE HOSE (TYP.)

PUMP (TYP.)

OUTLET HOSE (TYP.)

DISSIPATOR PAD (TYP.)

SKIMMER DEVICE (TYP.)

OCS (TYP.)

SILT BAG (TYP.) TO BE EMPTIED AND REPLACED WHEN HALF FULL

FES (TYP.)

BUFFER ZONE 2 (TYP.)

30.00'
BUFFER ZONE 1 (TYP.)

MATCH LINE
FOR CONTINUATION, SEE C-9.18

MATCH LINE
FOR CONTINUATION, SEE C-9.16

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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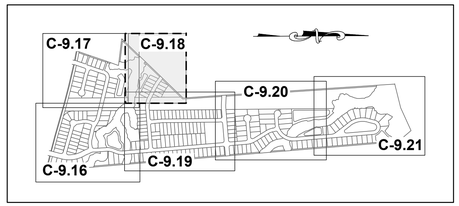
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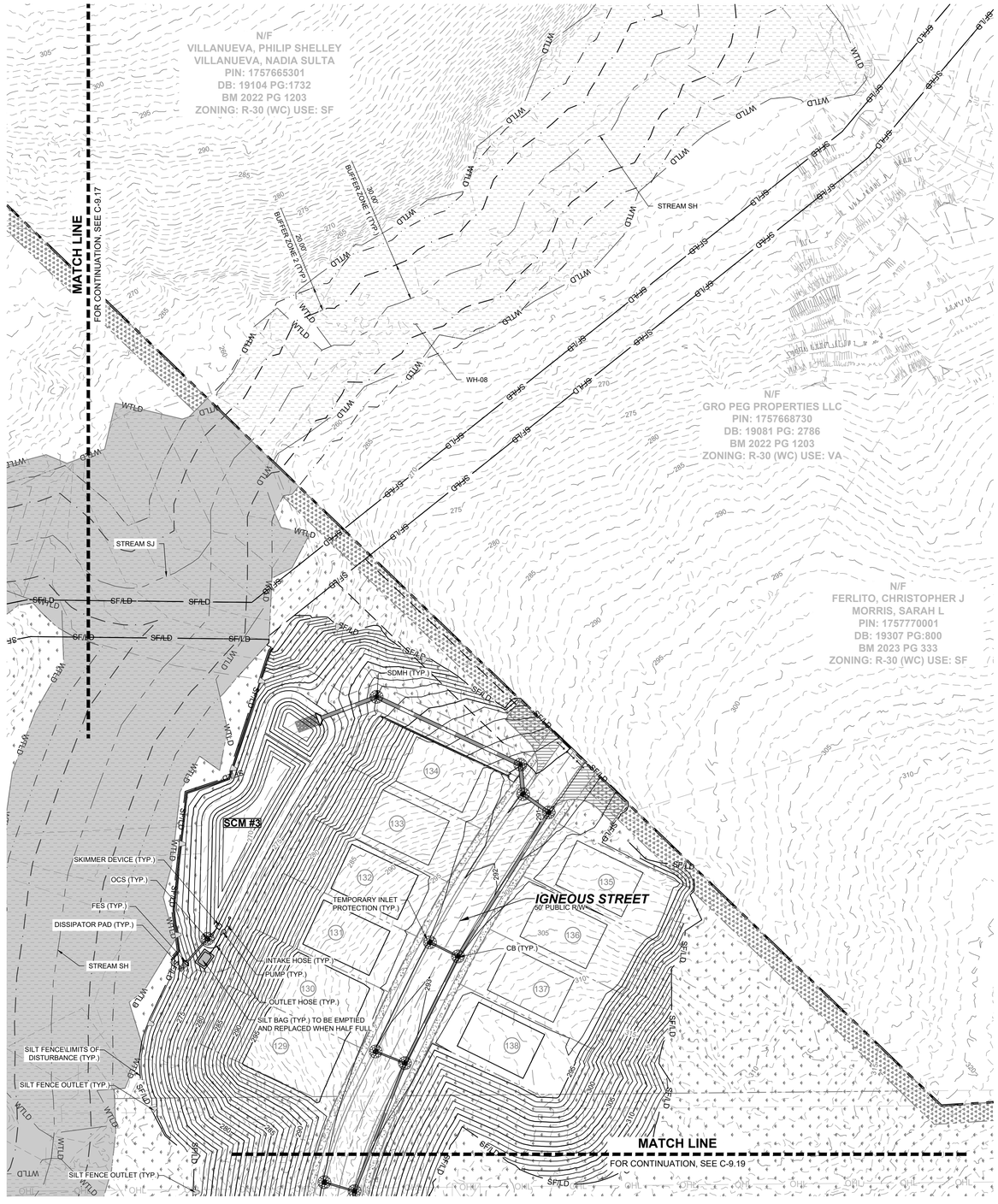
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
EROSION CONTROL PLAN - STAGE 3

DRAWING / SHEET
C-9.17



SITE KEY PLAN

NOTE:
EROSION CONTROL NOTES : SEE SHEET C-9.0



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
EROSION CONTROL PLAN - STAGE 3

DRAWING SHEET
C-9.18

PROGRESS PLOT DATE: 05/08/2025

MATCH LINE
FOR CONTINUATION, SEE C-9.18

MATCH LINE
FOR CONTINUATION, SEE C-9.16

MATCH LINE
FOR CONTINUATION, SEE C-9.20

SILT FENCE OUTLET (TYP.)

SILT FENCE/LIMITS OF DISTURBANCE (TYP.)

YI (TYP.)

CB (TYP.)

TEMPORARY INLET PROTECTION (TYP.)

WH-01

WH-03

STREAM SI

BUFFER ZONE 2 (TYP.)

BUFFER ZONE 1 (TYP.)

MILLPOND BLUFF DRIVE
50' PUBLIC R/W

IGNEOUS STREET
50' PUBLIC R/W

FLATROCK RIDGE STREET
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

TEMPORARY STOCKPILE LOCATION:
REFER TO STOCKPILE MAINTENANCE

SILT FENCE ON THREE SIDES OF STOCKPILE

N/F
GOLD, SHARIE
PIN: 1757866660
DB: PG:
BM 1990 PG 00623
ZONING: R-30 (WC) USE: SF

N/F
LEFRANCOIS CONSTRUCTION CO INC
PIN: 1757866852
DB: 18468 PG: 2535
BM 2002 PG 352
ZONING: R-30 (WC) USE: VA

N/F
LEFRANCOIS, MICHAEL L LEFRANCOIS, TONIA
PIN: 1757876015
DB: 14356 PG: 1438
BM 2002 PG 352
ZONING: R-30 (WC) USE: SF

N/F
BEATTIE, LENORA M
PIN: 1757875349
DB: 07-E PG: 2834
ZONING: R-30 (WC) USE: SF

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

C-9.17 C-9.18 C-9.20 C-9.21 C-9.16 C-9.19

SITE KEY PLAN

NOTE:
EROSION CONTROL NOTES : SEE SHEET C-9.0

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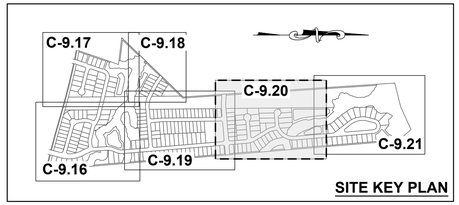
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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
EROSION CONTROL PLAN - STAGE 3

DRAWING SHEET
C-9.19



SITE KEY PLAN

NOTE:

EROSION CONTROL NOTES : SEE SHEET C-9.0

N/F
GRO PEG PROPERTIES LLC
PIN: 1757771603
DB: 18359 PG:1707
BM 2023 PG 333
ZONING: R-30 (WC) USE: VA

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757780258
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: SF

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757781960
DB: 14863 PG: 2493
BM 2009 PG 645
ZONING: R-30 (WC) USE: VA

MATCH LINE
FOR CONTINUATION, SEE C-9.19

MATCH LINE
FOR CONTINUATION, SEE C-9.21

FLATROCK RIDGE STREET
62' PUBLIC R/W

LAVA STREET
50' PUBLIC R/W

LIMESTONE WALL LANE
50' PUBLIC R/W

MAGMA CHAMBER WAY
50' PUBLIC R/W

SILT FENCE OUTLET (TYP.)

SILT FENCE/LIMITS OF DISTURBANCE (TYP.)

TEMPORARY INLET PROTECTION (TYP.)

CB (TYP.)

YI (TYP.)

SCM #4

SCM #5

SKIMMER DEVICE (TYP.)
OCS (TYP.)

DISSIPATOR PAD (TYP.)

FES (TYP.)

SILT BAG (TYP.) TO BE EMPTIED AND REPLACED WHEN HALF FULL

INTAKE HOSE (TYP.)

PUMP (TYP.)

OUTLET HOSE (TYP.)

EXISTING POND 1

STREAM SA

STREAM SF

WA-03

WA-04

30' BUFFER ZONE 1 (TYP.)

20' BUFFER ZONE 2 (TYP.)

"ELECTRIC EASEMENT
180'

N/F
LEFRANCOIS, STEPHEN D
PIN: 1757874787
DB: 5638 PG: 497
ZONING: R-30 (WC) USE: SF

N/F
ADAMS, BENJAMIN ADAMS, WHITNEY
PIN: 1757874938
DB: 18930 PG: 1511
BM 2006 PG 2397
ZONING: R-30 (WC) USE: SF

N/F
JONES PROPERTIES LLC
PIN: 1757884137
DB: 11404 PG: 2275
BM 1986 PG 01374
ZONING: R-30 (WC) USE: MO

N/F
JONES PROPERTIES LLC
PIN: 1757884420
DB: 12589 PG: 1045
BM 1986 PG 1374
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757884608
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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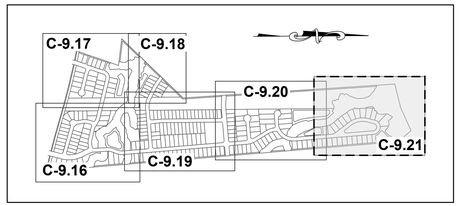
STRONG ROCK PROJECT			
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	DRAWN BY	SRG	
	CHECKED BY	SRG	

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
EROSION CONTROL PLAN - STAGE 3

DRAWING SHEET
C-9.20

67 OF 128

PROGRESS PLOT DATE: 05/08/2025



SITE KEY PLAN

NOTE:

EROSION CONTROL NOTES : SEE SHEET C-9.0

MATCH LINE
FOR CONTINUATION, SEE C-9.20

GRO PEG LN
60' PUBLIC R.O.W.
(BM 2008, PG 2198)

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757790646
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: VA

N/F
JONES, CHARLES E
PIN: 1757694902
DB: 8581 PG: 2079
BM 2018 PG 390
ZONING: R-30 (WC) USE: VA

EX. MH-28
STA: 15+72.93
RIM=254.41
INV IN=238.91 (MH-29)
INV OUT=238.91 (MH-27)

WA-01

STREAM SA

BUFFER ZONE 2 (TYP.)
20.00'

BUFFER ZONE 1 (TYP.)
50.00'

SILT FENCE\LIMITS OF DISTURBANCE (TYP.)

SILT FENCE OUTLET (TYP.)

CB (TYP.)

TEMPORARY STOCKPILE LOCATION: REFER TO STOCKPILE MAINTENANCE

SILT FENCE ON THREE SIDES OF STOCKPILE

SCM #5

SCM #6

TEMPORARY INLET PROTECTION (TYP.)

LIMESTONE WALL LANE
50' PUBLIC R/W

40' EX. SANITARY SEWER EASEMENT

180.0'
ELECTRIC EASEMENT

EX. MH-29
STA: 19+77.26
RIM=253.11
INV IN=240.26 (MH-30)
INV OUT=240.26 (MH-28)

N/F
FORRESTER, JENNIFER N
FORRESTER, HAYES G
PIN: 1758707313
DB: 12620 PG: 2172
ZONING: RL (RO) USE: SF

EX. MH-30
STA: 22+14.65
RIM=251.44
INV IN=241.00 (MH-31)
INV OUT=241.05 (MH-29)

SKIMMER DEVICE (TYP.)
OCS (TYP.)
FES (TYP.)
INTAKE HOSE (TYP.)
PUMP (TYP.)
OUTLET HOSE (TYP.)
DISSIPATOR PAD (TYP.)
SILT BAG (TYP.) TO BE EMPTIED AND REPLACED WHEN HALF FULL

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757894101
DB: 2590 PG: 622
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757893394
DB: 2478 PG: 210
ZONING: R-30 (WC) USE: MO

N/F
RGA CONSULTING LLC
PIN: 757893646
DB: 15770 PG: 1169
BM 2010 PG 725
ZONING: R-30 (WC) USE: VA

N/F
JONES PROPERTIES LLC
PIN: 1758805144
DB: 11187 PG: 542
BM 1971 PG 445
ZONING: R-30 (WC) USE: SF

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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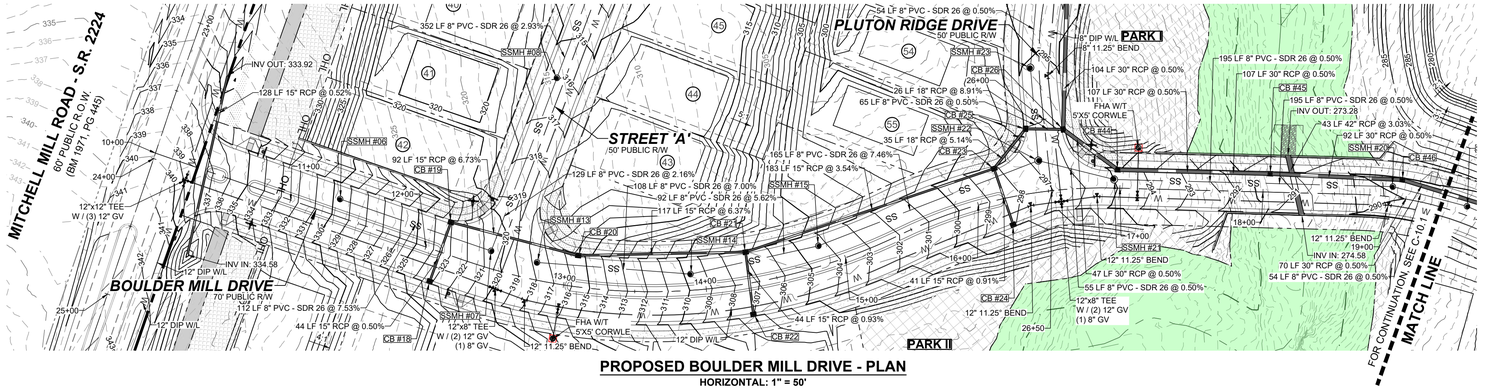
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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
EROSION CONTROL PLAN - STAGE 3

DRAWING SHEET
C-9.21



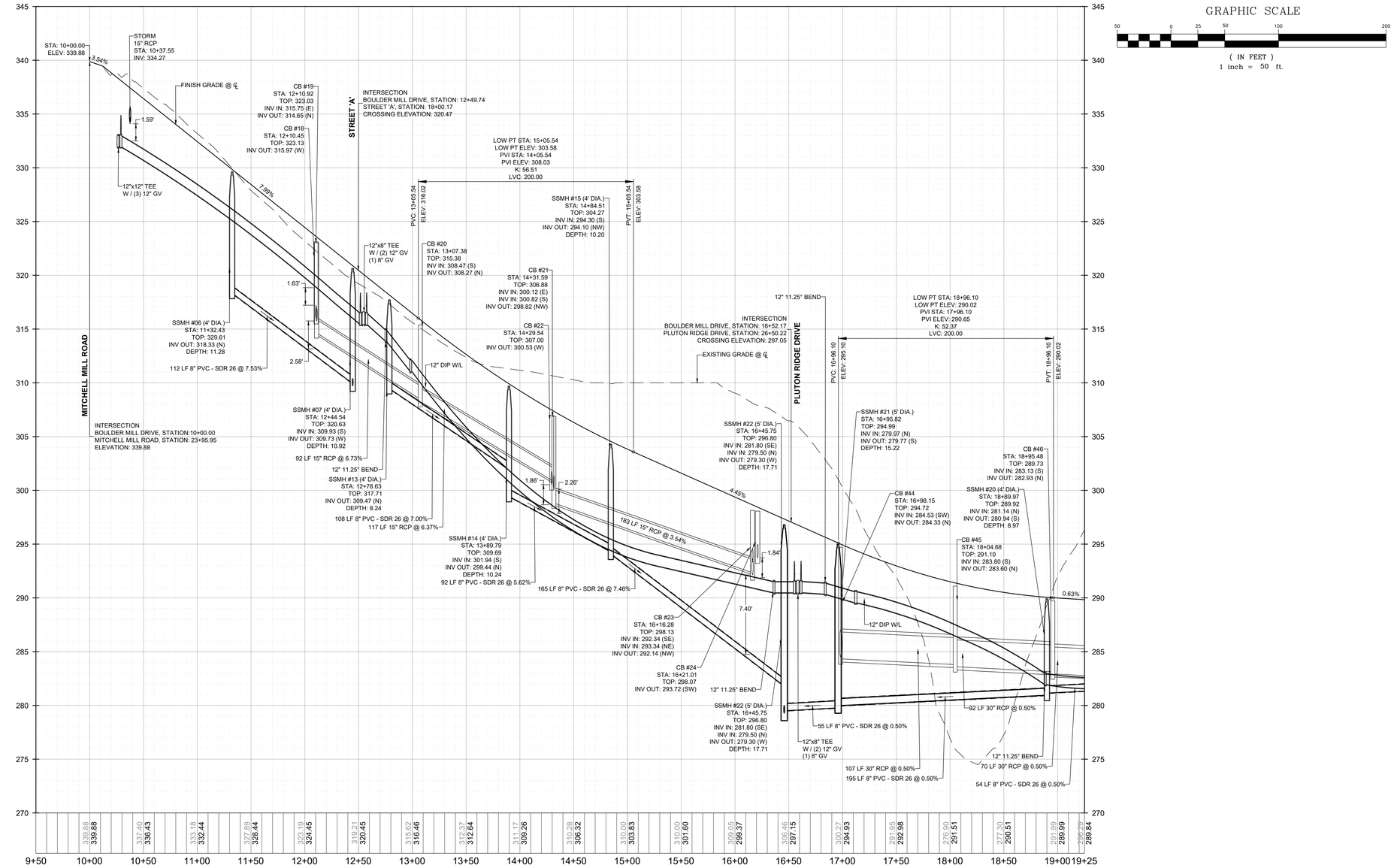
PROPOSED BOULDER MILL DRIVE - PLAN

HORIZONTAL: 1" = 50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PROPOSED BOULDER MILL DRIVE - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

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01	11/01/2024	TOWN OF ROLESVILLE CID-24-07	SREG
02	02/03/2025	TOWN OF ROLESVILLE VC-CID-24-07	SREG

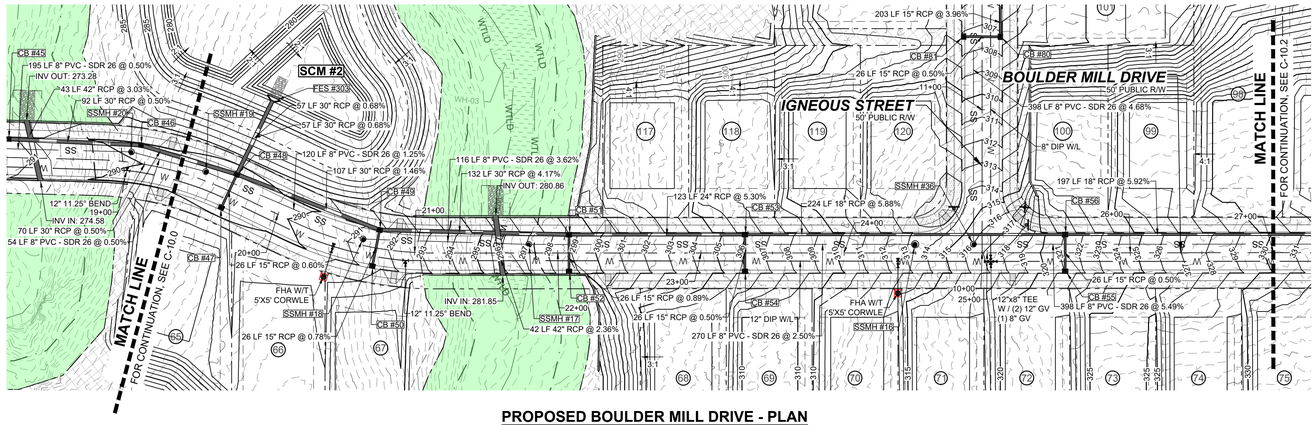
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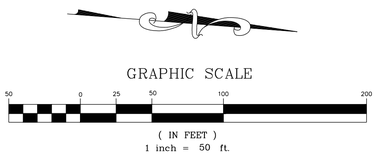
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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED BOULDER MILL DRIVE - PLAN & PROFILE

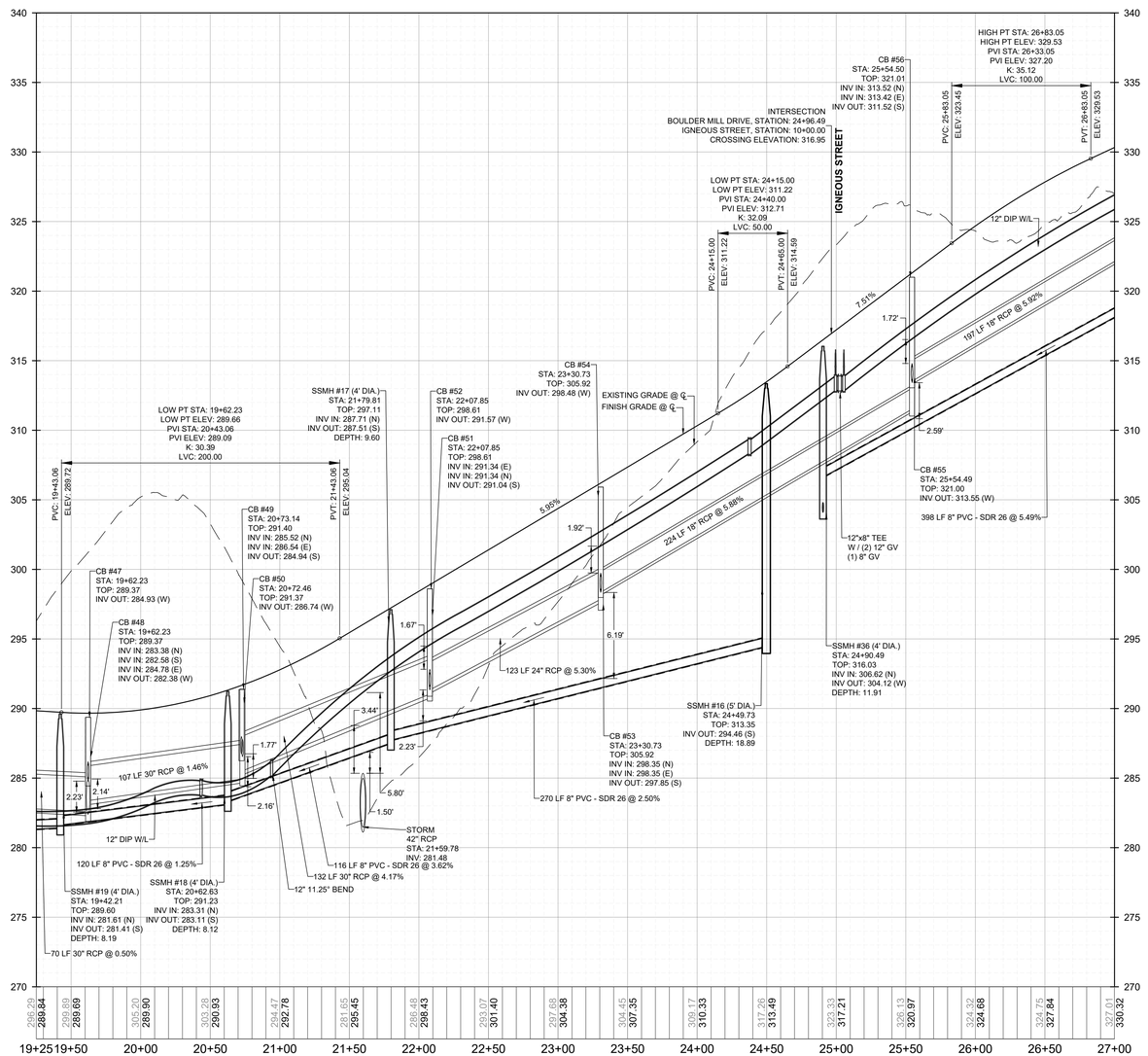
DRAWING SHEET
C-10.0





PROPOSED BOULDER MILL DRIVE - PLAN

HORIZONTAL: 1" = 50'



PROPOSED BOULDER MILL DRIVE - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

No.	DATE	BY
01	11/01/2024	SREG
02	02/03/2025	SREG

REVISIONS

TOWN OF ROLESVILLE CID-24-07
TOWN OF ROLESVILLE VC-CID-24-07

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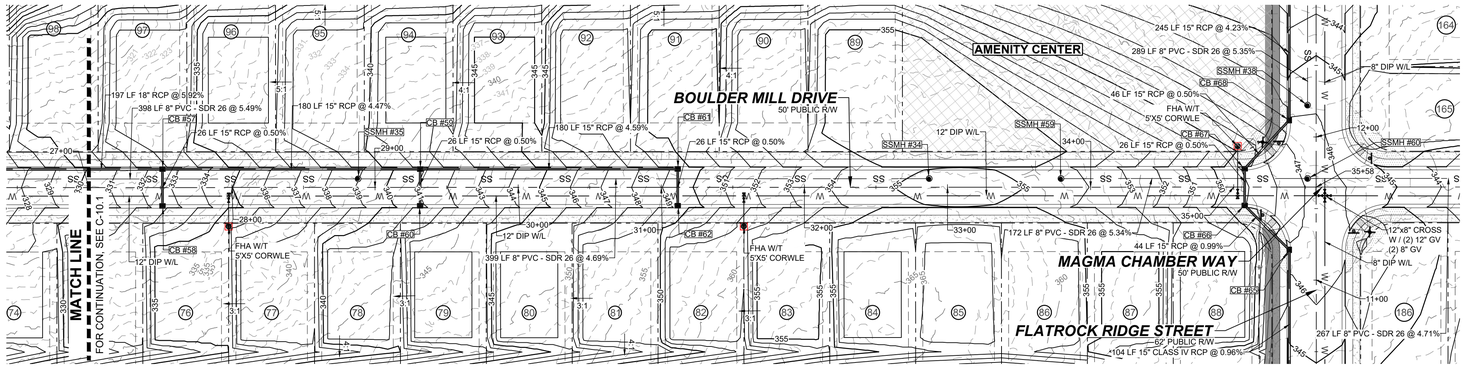
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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED BOULDER MILL DRIVE - PLAN & PROFILE

DRAWING SHEET
C-10.1

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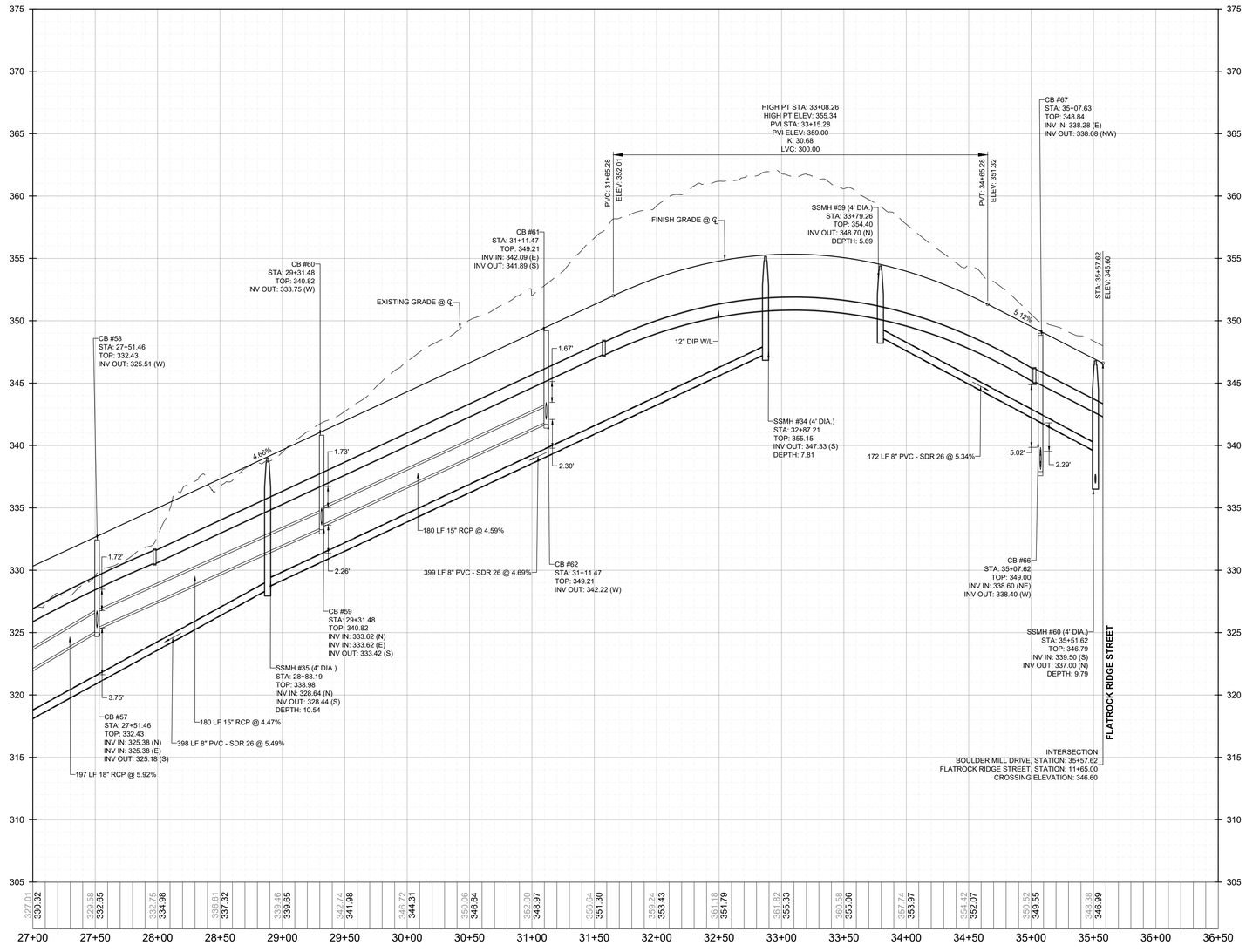


PROPOSED BOULDER MILL DRIVE - PLAN
HORIZONTAL: 1" = 50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PROPOSED BOULDER MILL DRIVE - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

No.	DATE	BY	REVISIONS
01.	11/01/2024	SREG	TOWN OF ROLESVILLE CID-24-07
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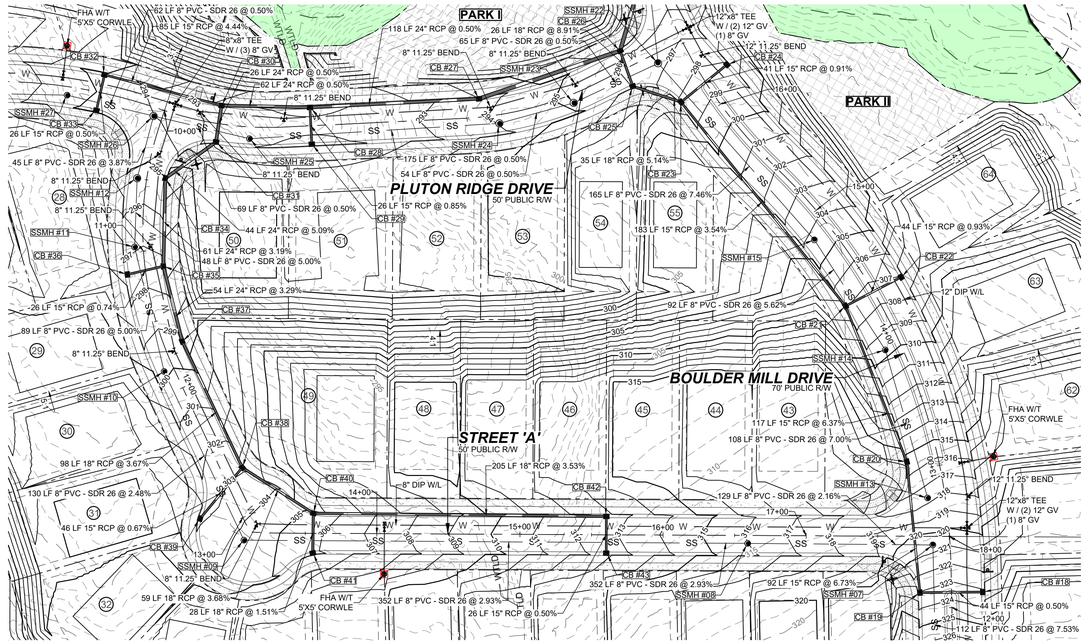
STRONG ROCK PROJECT			
	NOT FOR CONSTRUCTION		
SCALE	AS SHOWN	DESIGNED BY	SRG
		DRAWN BY	SRG
		CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED BOULDER MILL DRIVE - PLAN & PROFILE

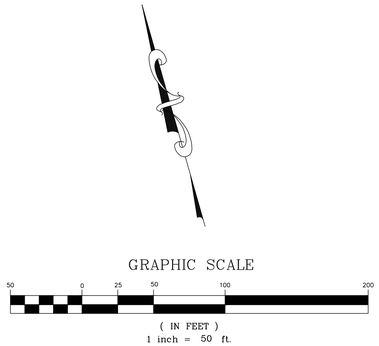
DRAWING / SHEET
C-10.2

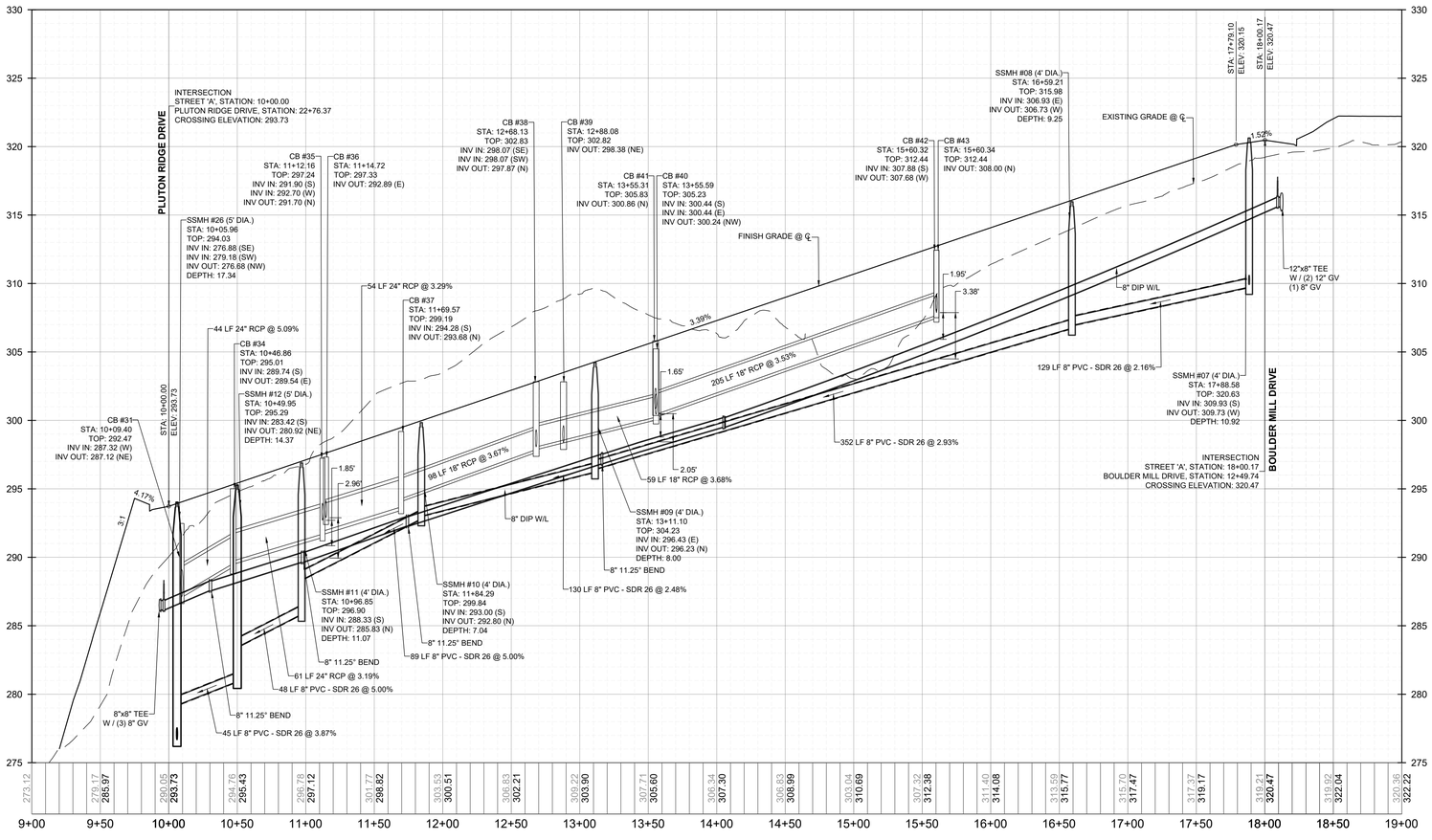
71 OF 128

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PROPOSED STREET 'A' - PLAN
HORIZONTAL: 1" = 50'





PROPOSED STREET 'A' - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

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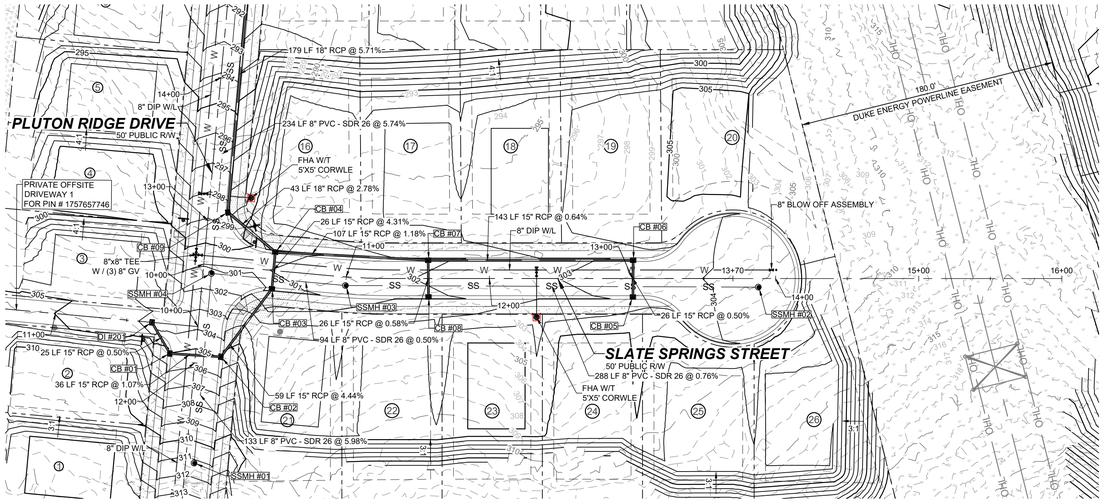
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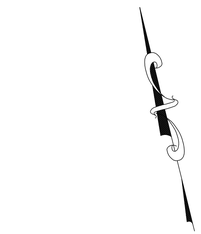
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED STREET 'A' - PLAN & PROFILE

DRAWING SHEET
C-10.3



PROPOSED SLATE SPRINGS STREET - PLAN

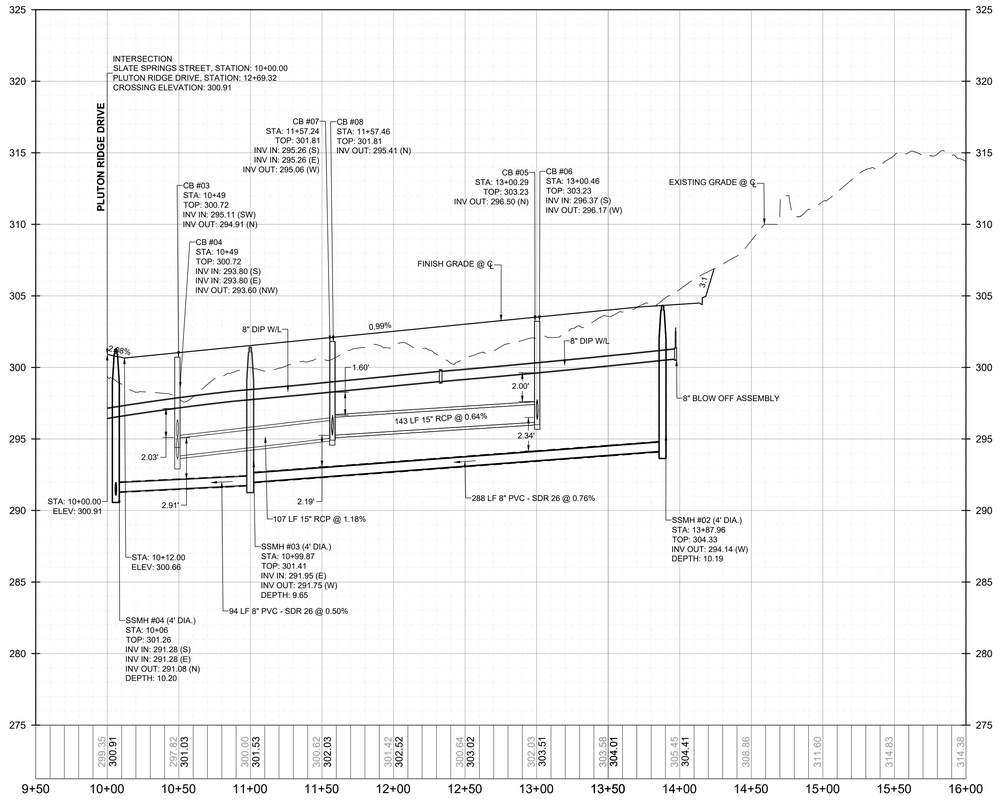
HORIZONTAL: 1" = 50'



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PROPOSED SLATE SPRINGS STREET - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

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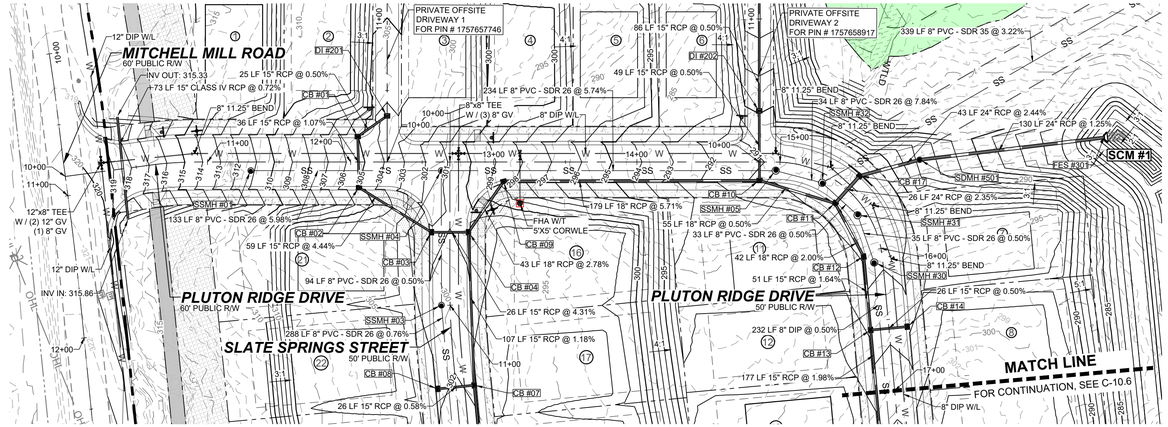
STRONG ROCK PROJECT			
	NOT FOR CONSTRUCTION		
		SCALE	AS SHOWN
		DESIGNED BY	SRG
		DRAWN BY	SRG
		CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

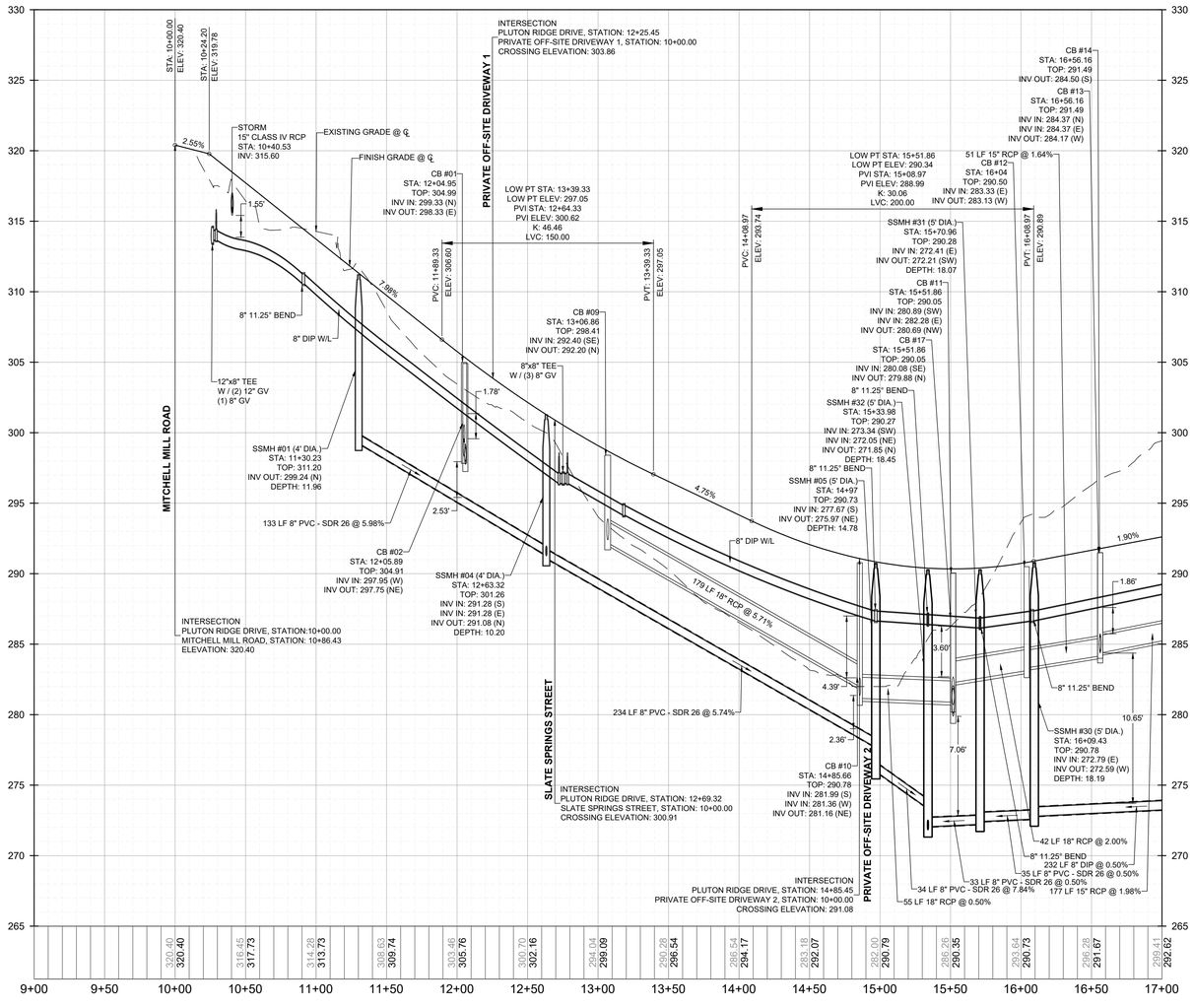
PROPOSED SLATE SPRINGS STREET - PLAN & PROFILE

DRAWING SHEET

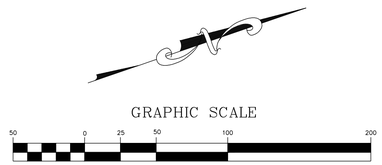
C-10.4



PROPOSED PLUTON RIDGE DRIVE - PLAN
HORIZONTAL: 1" = 50'



PROPOSED PLUTON RIDGE DRIVE - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'



No.	DATE	BY
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REVISIONS

TOWN OF ROLESVILLE CID-24-07
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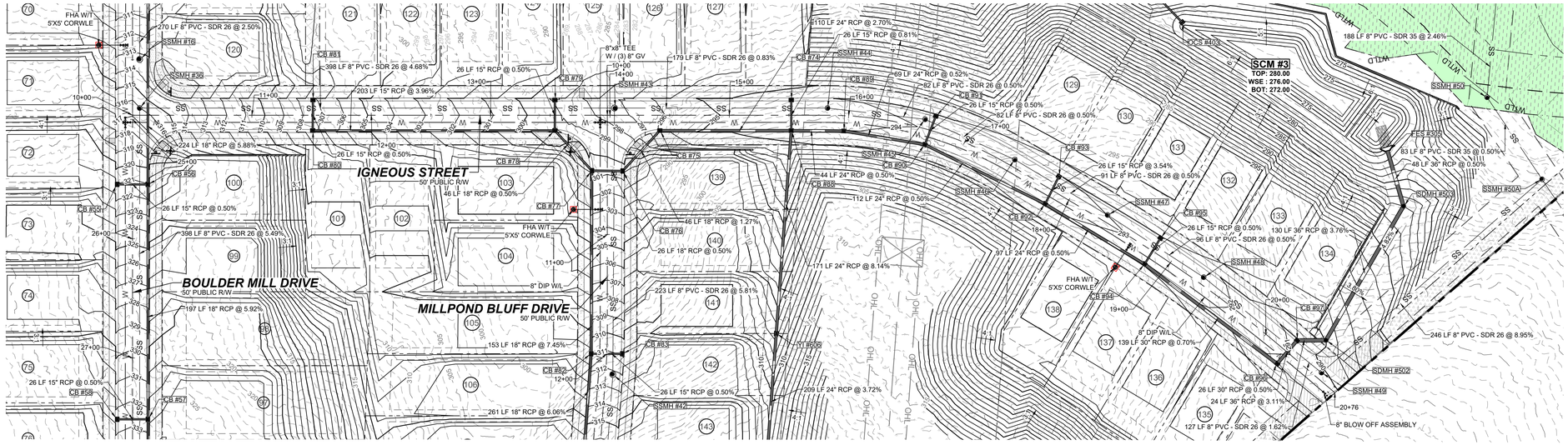
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PROPOSED PLUTON RIDGE DRIVE - PLAN & PROFILE

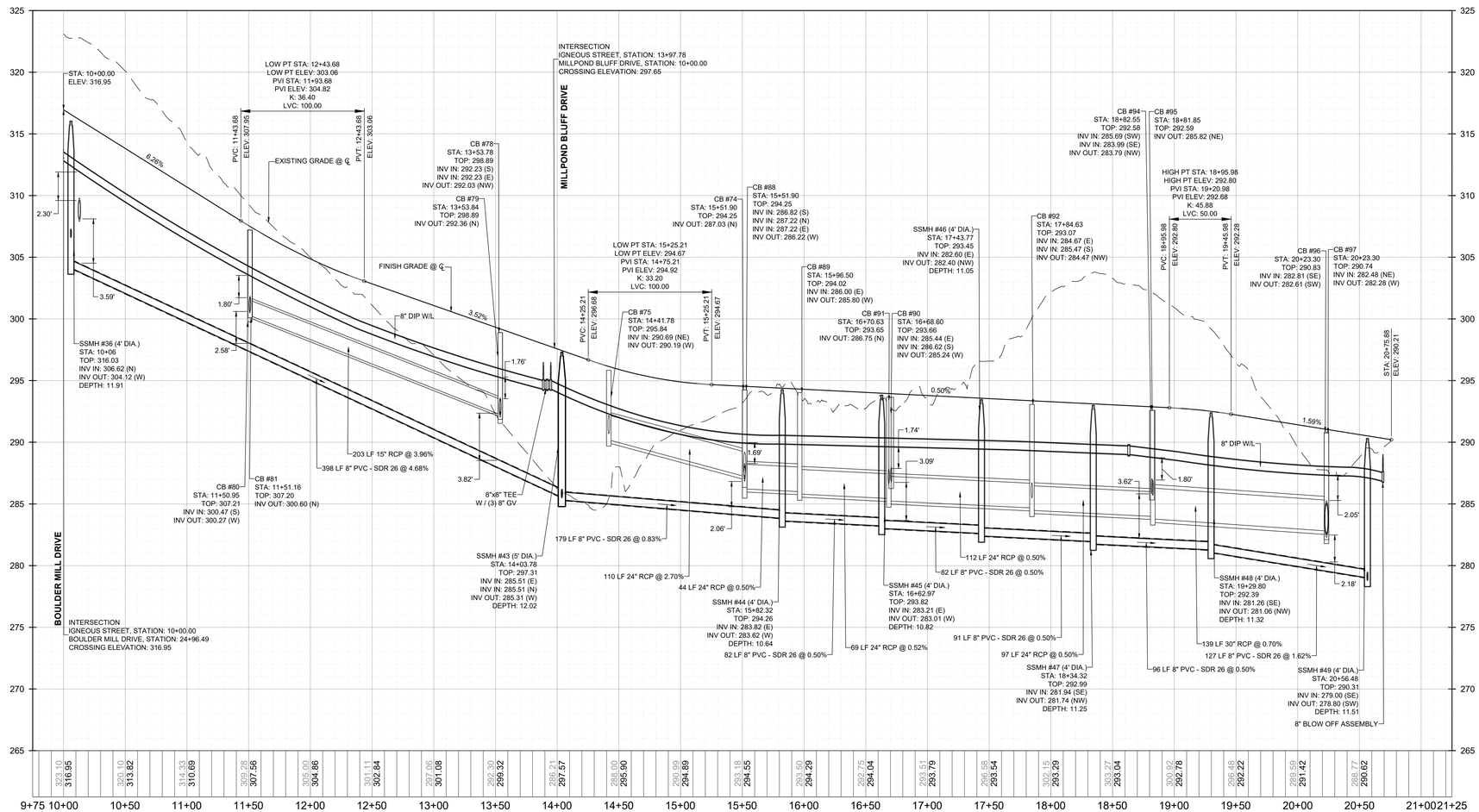
DRAWING / SHEET
C-10.5

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SCM #1
FES #301
MATCH LINE
FOR CONTINUATION, SEE C-10.5
PLUTON RIDGE DRIVE
50' PUBLIC R/W
STREET 'A'
50' PUBLIC R/W
BOULDER MILL DRIVE
50' PUBLIC R/W
70' PUBLIC R/W
PARK
FHA W/T
5'X5' CORWLE
8" DIP W/L
12" DIP W/L
SSMH #21
CB #44
CB #26
CB #24
CB #25
SSMH #23
SSMH #22
CB #23
SSMH #24
SSMH #25
CB #27
CB #28
CB #29
CB #30
CB #31
CB #32
CB #33
SSMH #26
SSMH #27
SSMH #28
SSMH #29
CB #13
CB #12
SSMH #30
SSMH #31
CB #11
SSMH #32
CB #10
SSMH #05
CB #17
CB #16
CB #15
CB #14
CB #18
CB #19
CB #34
CB #35
CB #36
SSMH #17
SSMH #19
INV OUT: 273.28
107 LF 30" RCP @ 0.50%
195 LF 8" PVC - SDR 26 @ 0.50%
12"x8" TEE
W / (2) 12" GV
(1) 8" GV
55 LF 8" PVC - SDR 26 @ 0.50%
47 LF 30" RCP @ 0.50%
65 LF 8" PVC - SDR 26 @ 0.50%
104 LF 30" RCP @ 0.50%
118 LF 24" RCP @ 0.50%
26 LF 18" RCP @ 8.91%
26 LF 24" RCP @ 0.50%
62 LF 24" RCP @ 0.50%
26 LF 15" RCP @ 0.85%
85 LF 15" RCP @ 4.44%
62 LF 8" PVC - SDR 26 @ 0.50%
26 LF 15" RCP @ 0.50%
177 LF 15" RCP @ 1.98%
130 LF 24" RCP @ 1.25%
339 LF 8" PVC - SDR 35 @ 3.22%
43 LF 24" RCP @ 2.44%
26 LF 24" RCP @ 2.35%
33 LF 8" PVC - SDR 26 @ 0.50%
8" 11.25" BEND
26 LF 15" RCP @ 0.50%
51 LF 15" RCP @ 1.64%
35 LF 8" PVC - SDR 26 @ 0.50%
42 LF 18" RCP @ 2.00%
55 LF 18" RCP @ 0.50%
34 LF 8" PVC - SDR 26 @ 7.84%
179 LF 18" RCP @ 5.71%
232 LF 8" DIP @ 0.50%
268 LF 8" DIP @ 0.50%
96 LF 8" DIP @ 0.50%
45 LF 8" PVC - SDR 26 @ 3.87%
48 LF 8" PVC - SDR 26 @ 5.00%
61 LF 24" RCP @ 3.19%
54 LF 24" RCP @ 3.29%
89 LF 8" PVC - SDR 26 @ 5.00%
26 LF 15" RCP @ 0.74%
44 LF 24" RCP @ 5.09%
175 LF 8" PVC - SDR 26 @ 0.50%
35 LF 18" RCP @ 5.14%
165 LF 8" PVC - SDR 26 @ 7.46%
183 LF 15" RCP @ 3.54%
141 LF 15" RCP @ 0.91%
8"x8" TEE
W / (3) 8" GV
8" 11.25" BEND
8" 11.25" BEND
8" 11.25" BEND



PROPOSED IGNEOUS STREET - PLAN
HORIZONTAL: 1" = 50'



PROPOSED IGNEOUS STREET - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

No.	REVISIONS	DATE	BY
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02	TOWN OF ROLESVILLE VC-CID-24-07	02/03/2025	SREG

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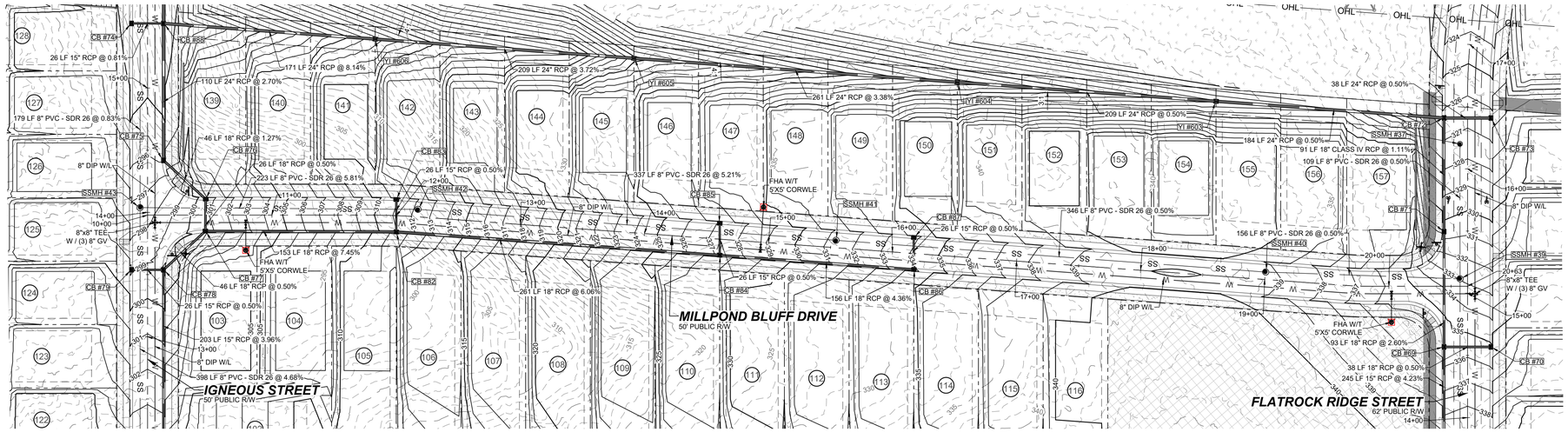
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DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED IGNEOUS STREET PLAN & PROFILE

DRAWING SHEET
C-10.7

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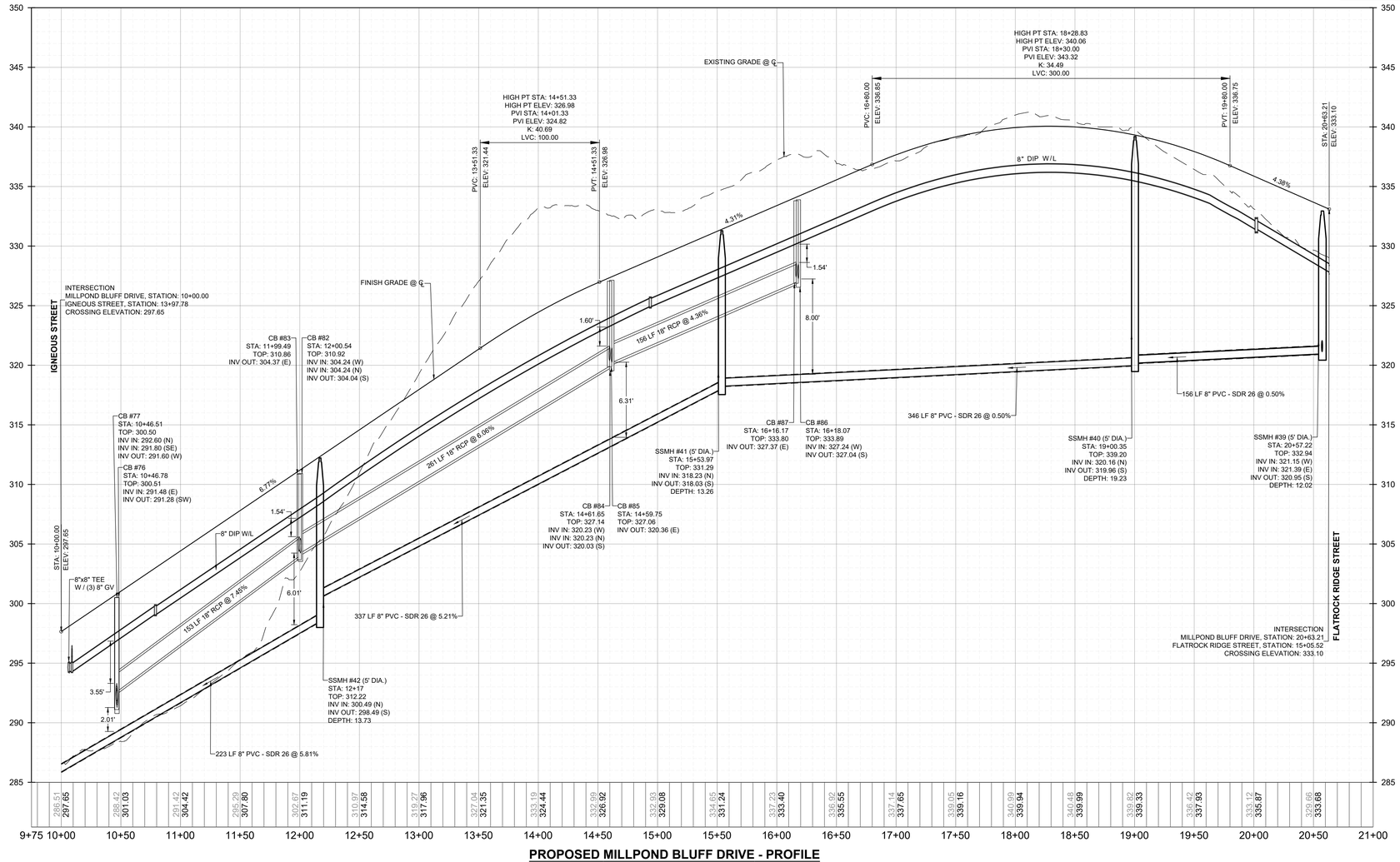
PROPOSED MILLPOND BLUFF DRIVE - PLAN

HORIZONTAL: 1" = 50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PROPOSED MILLPOND BLUFF DRIVE - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

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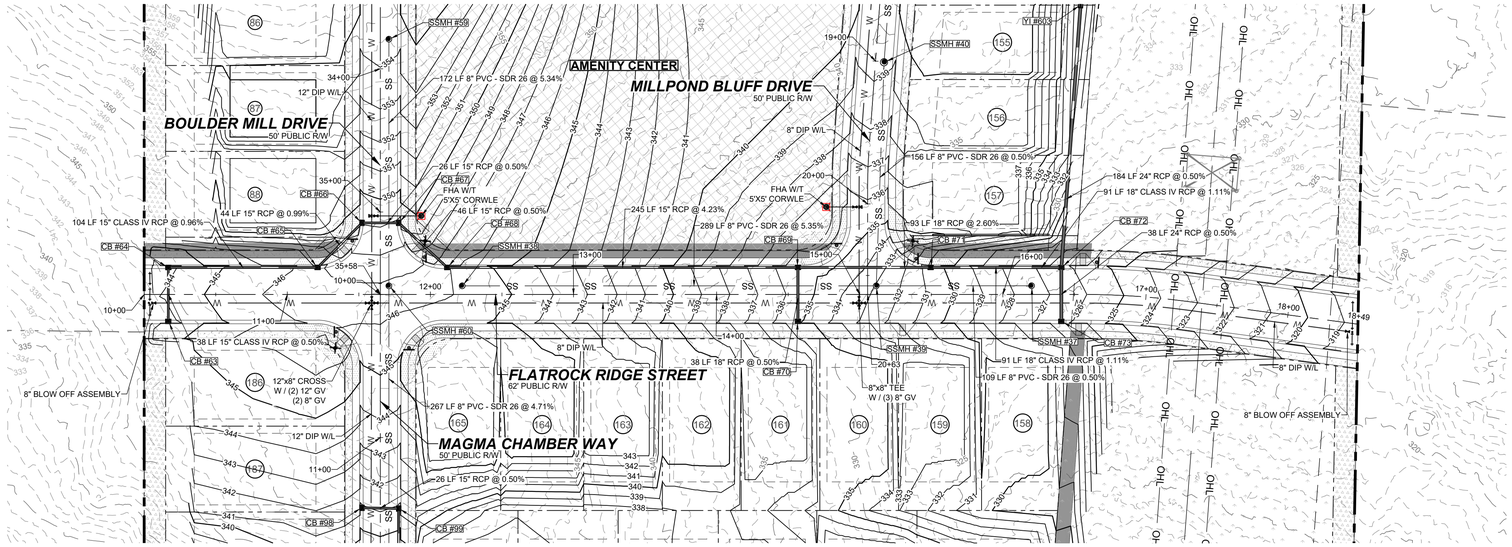
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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED MILLPOND BLUFF DRIVE - PLAN & PROFILE

DRAWING SHEET
C-10.8



PROPOSED FLATROCK RIDGE STREET - PLAN
HORIZONTAL: 1" = 50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

PROPOSED FLATROCK RIDGE STREET - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

No.	DATE	BY
01	11/01/2024	SREG
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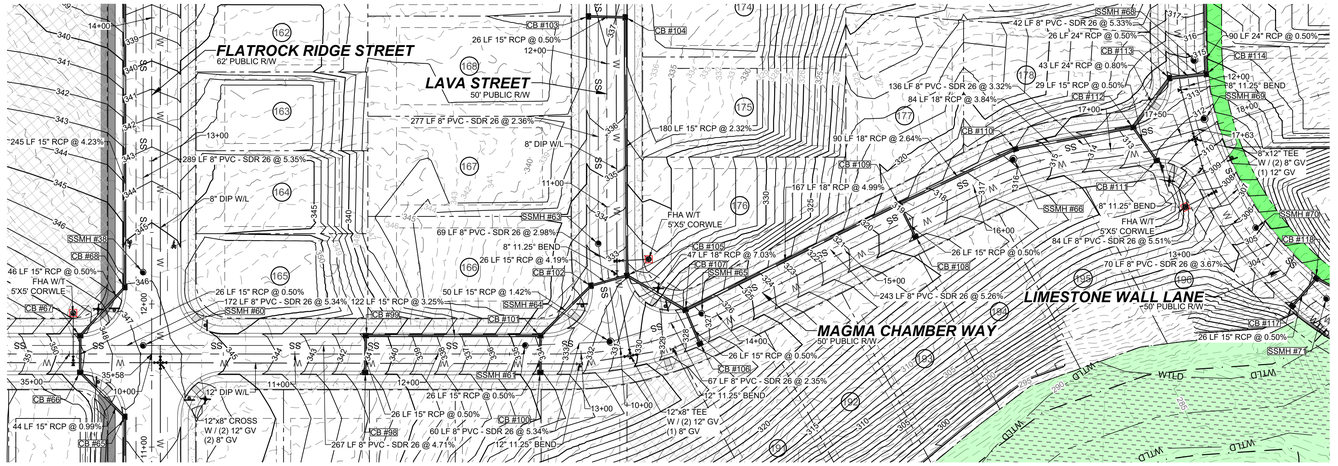
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NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED FLATROCK RIDGE STREET PLAN & PROFILE

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C-10.9

78 OF 128

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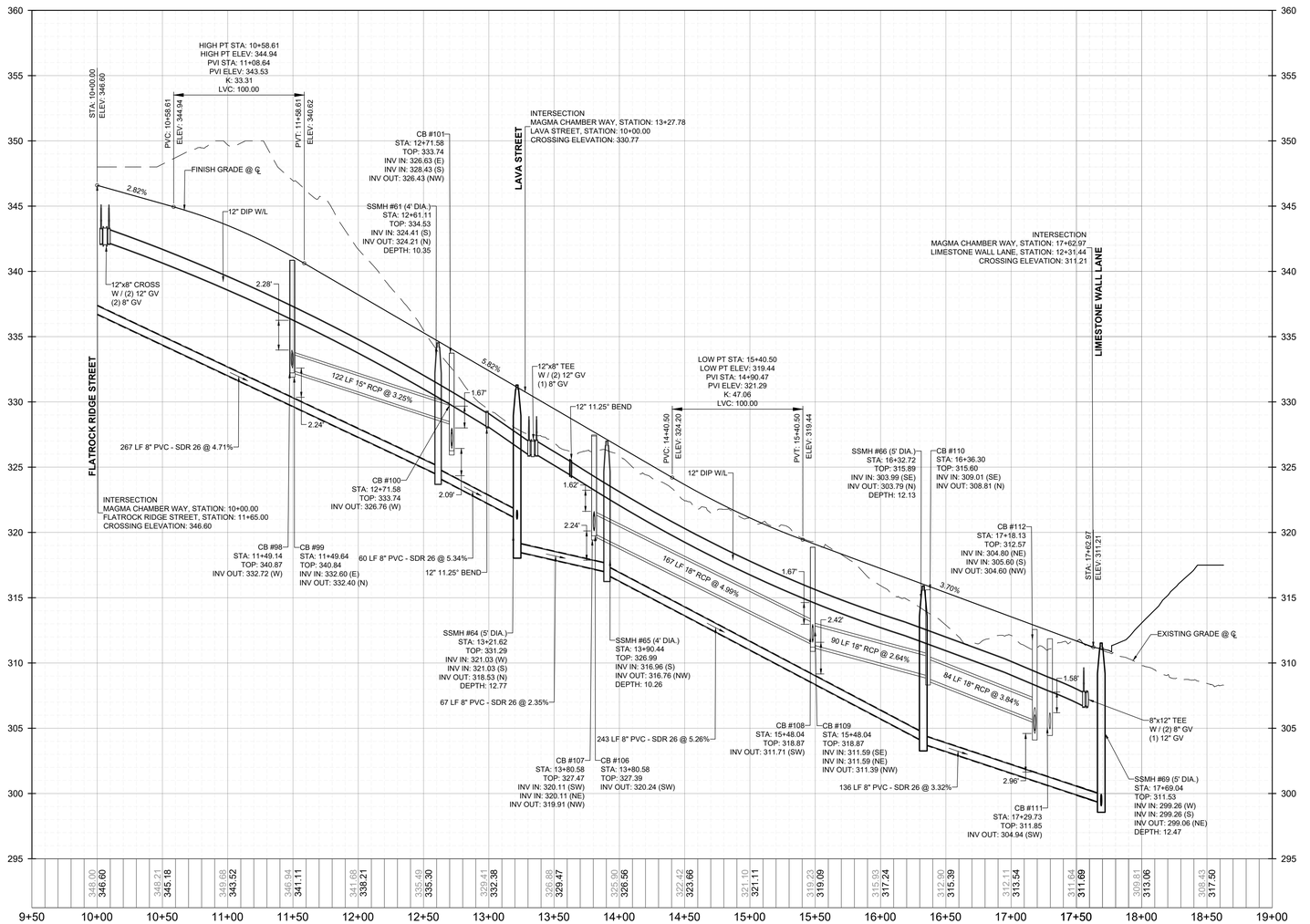
PROPOSED MAGMA CHAMBER WAY - PLAN

HORIZONTAL: 1" = 50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PROPOSED MAGMA CHAMBER WAY - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

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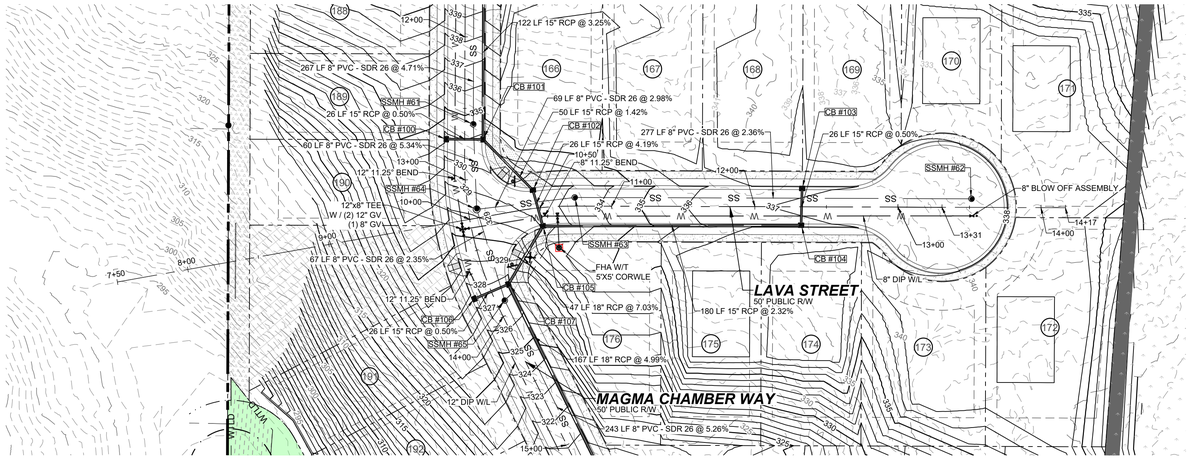
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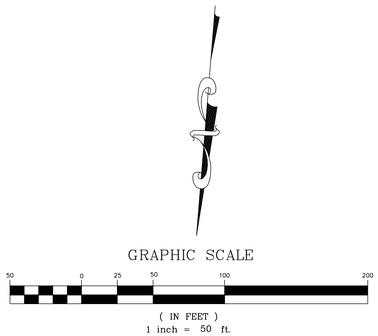
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

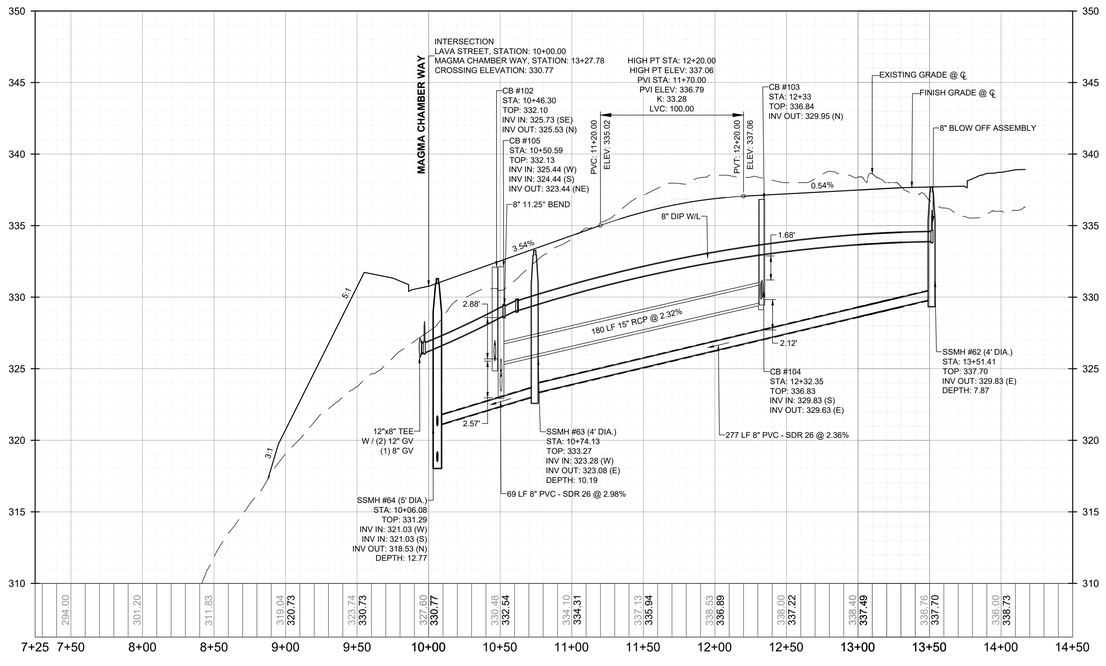
PROPOSED MAGMA CHAMBER WAY - PLAN & PROFILE

DRAWING / SHEET
C-10.10



PROPOSED LAVA STREET - PLAN
HORIZONTAL: 1" = 50'





PROPOSED LAVA STREET - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

No.	REVISIONS	DATE	BY
01.	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02.	TOWN OF ROLESVILLE 1ST CID-24-07	02/03/2025	SREG

SEAL:

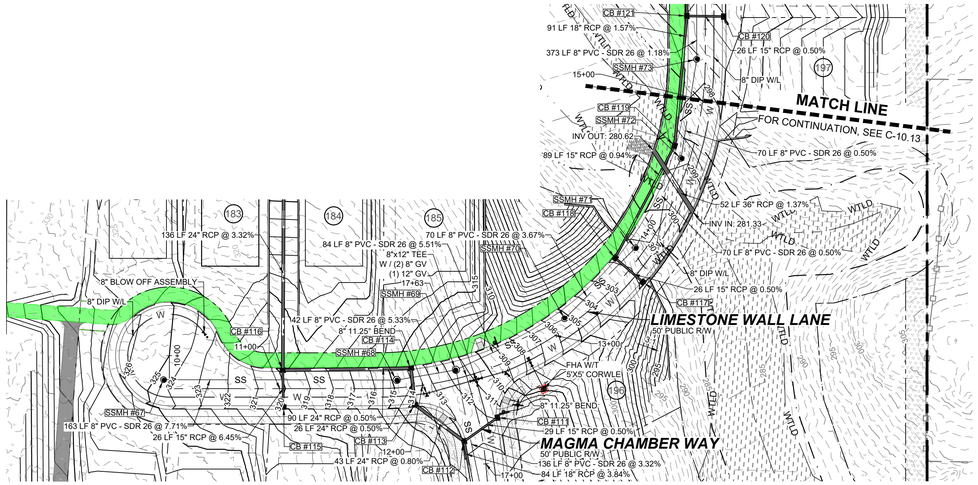
STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION		
	SCALE	AS SHOWN	
	DESIGNED BY	SRG	
	DRAWN BY	SRG	
	CHECKED BY	SRG	

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED LAVA STREET - PLAN & PROFILE

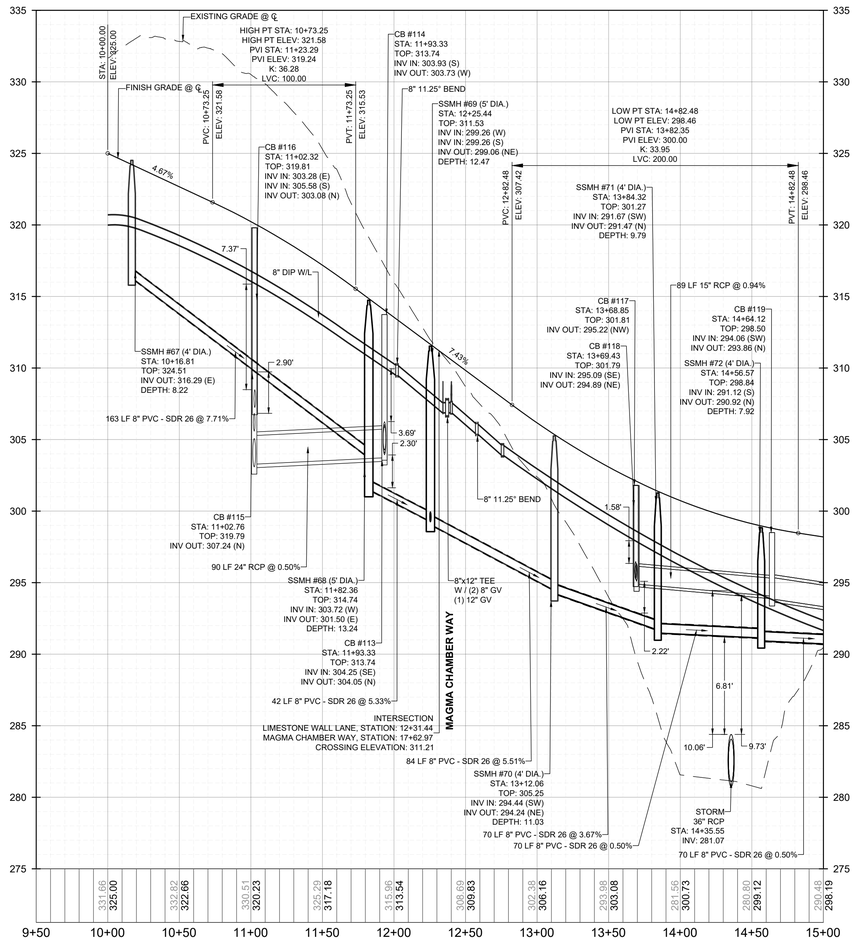
DRAWING SHEET
C-10.11

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



PROPOSED LIMESTONE WALL LANE - PLAN

HORIZONTAL: 1" = 50'



PROPOSED LIMESTONE WALL LANE - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

No.	DATE	BY
01	11/01/2024	SREG
02	02/03/2025	SREG

REVISIONS

TOWN OF ROLESVILLE CID-24-07
TOWN OF ROLESVILLE YZ-CID-24-07

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STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

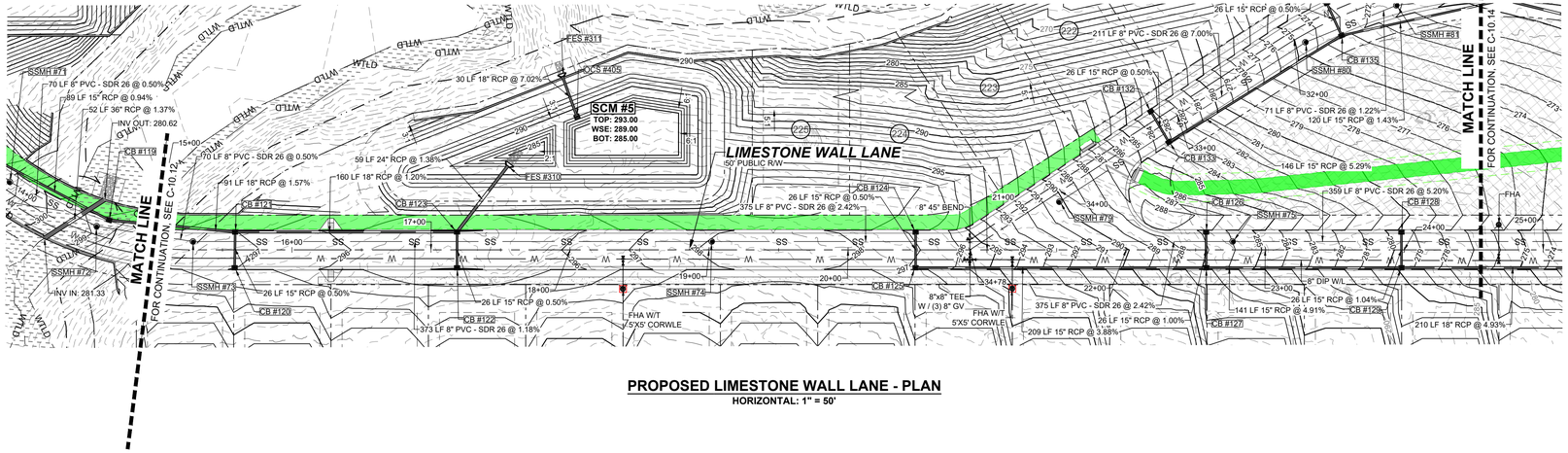
PROPOSED LIMESTONE WALL LANE - PLAN & PROFILE

DRAWING SHEET

C-10.12

81 OF 128

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



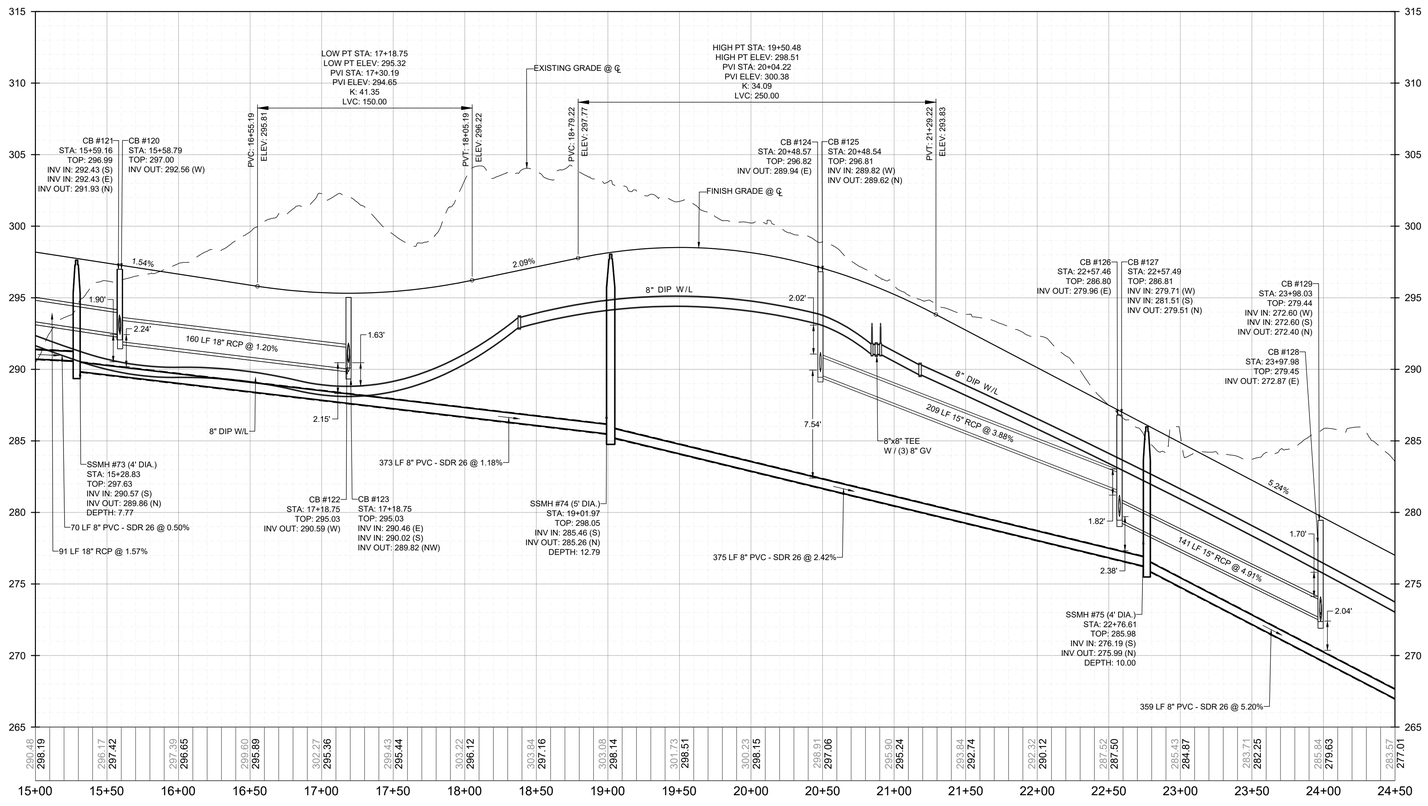
PROPOSED LIMESTONE WALL LANE - PLAN

HORIZONTAL: 1" = 50'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



PROPOSED LIMESTONE WALL LANE - PROFILE

VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'

No.	DATE	BY
01	11/01/2024	SREG
02	02/03/2025	SREG

REVISIONS

TOWN OF ROLESVILLE CID-24-07
TOWN OF ROLESVILLE VC-CID-24-07

SEAL:

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STRONG ROCK PROJECT	
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SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

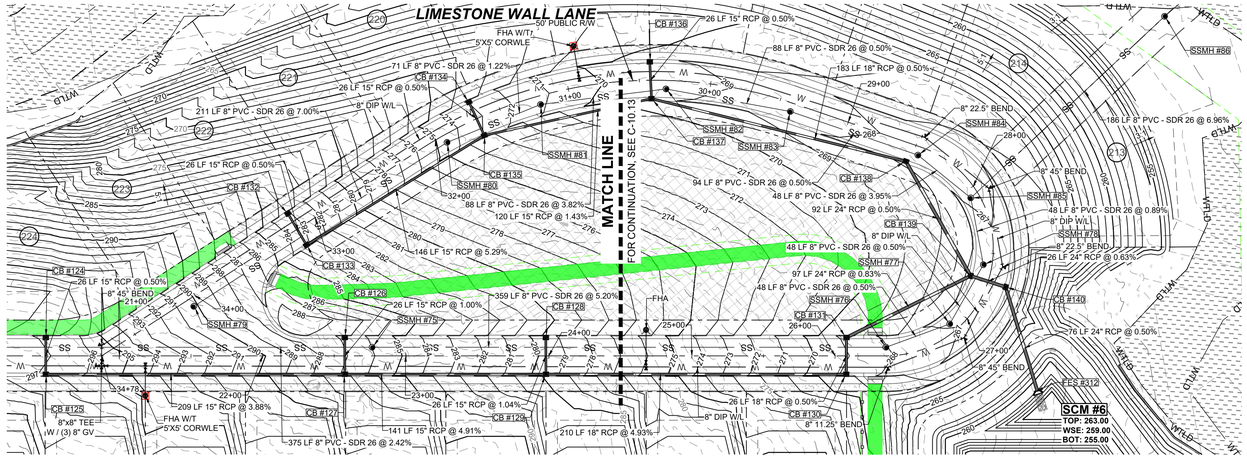
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PROPOSED LIMESTONE WALL LANE - PLAN & PROFILE

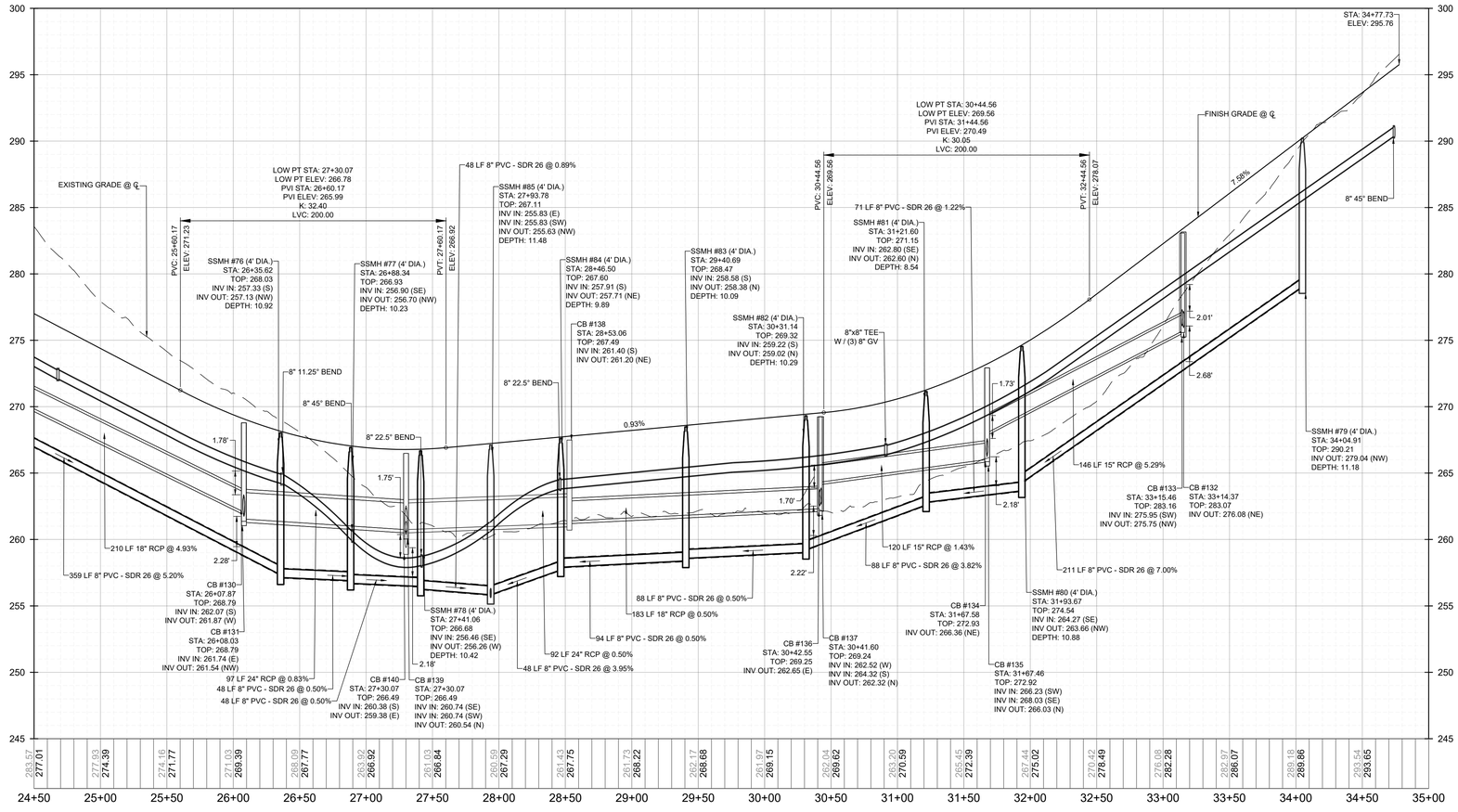
DRAWING SHEET

C-10.13

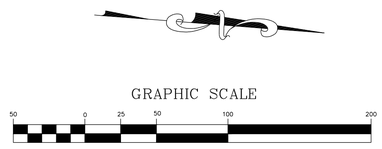
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PROPOSED LIMESTONE WALL LANE - PLAN
HORIZONTAL: 1" = 50'



PROPOSED LIMESTONE WALL LANE - PROFILE
VERTICAL: 1" = 5'
HORIZONTAL: 1" = 50'



No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE 1ST CID-24-07	02/03/2025	SREG

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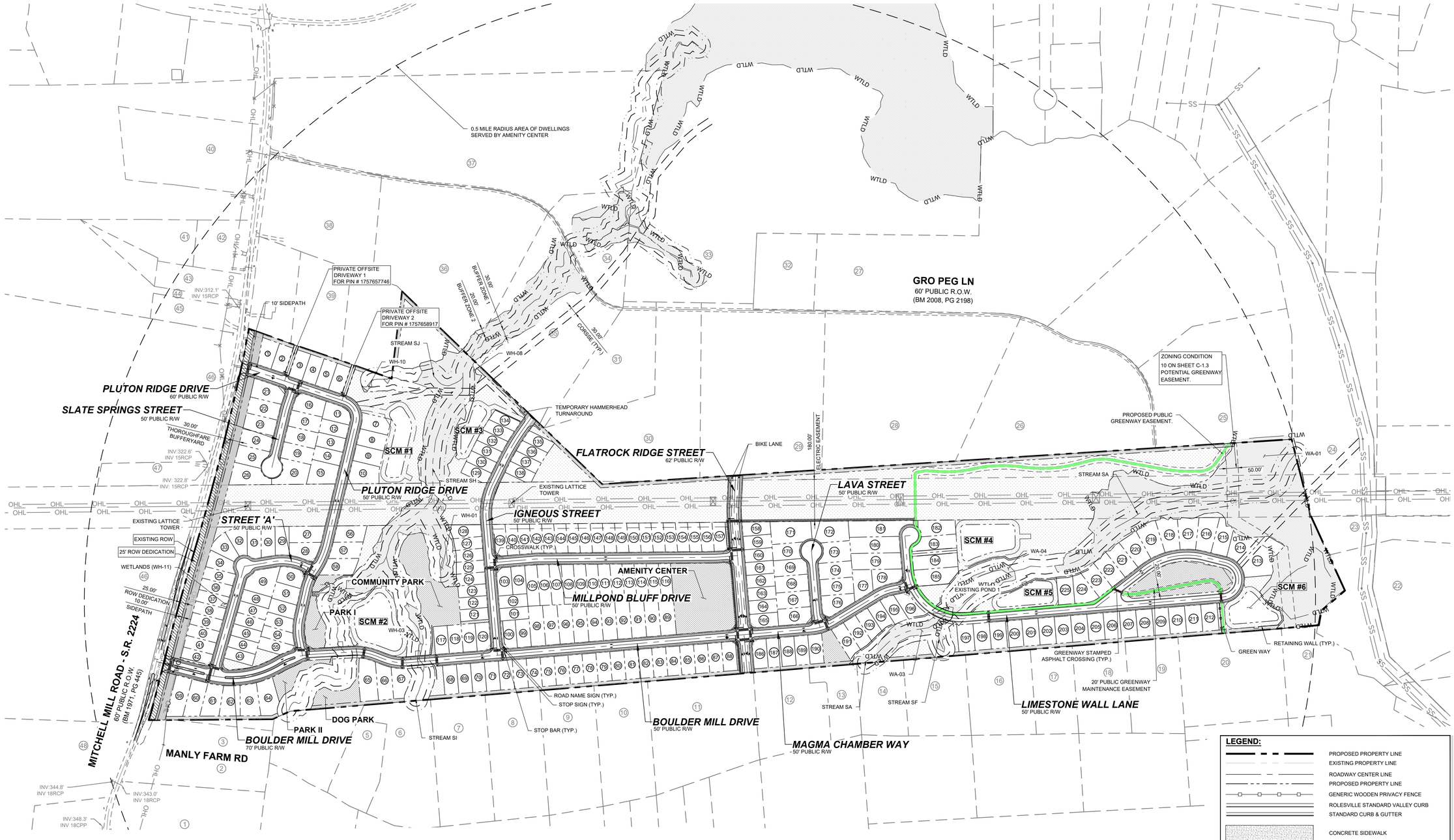
STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PROPOSED LIMESTONE WALL LANE - PLAN & PROFILE

DRAWING SHEET
C-10.14

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PROGRESS PLOT DATE: 05/08/2025



LEGEND:

- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- GENERIC WOODEN PRIVACY FENCE
- ROLESVILLE STANDARD VALLEY CURB
- STANDARD CURB & GUTTER
- CONCRETE SIDEWALK
- ASPHALT PAVEMENT
- OPEN SPACE
- EXISTING WETLAND (WTLD)
- WETLAND AND NATURAL AREAS
- GREENWAY
- ACTIVE AND PASSIVE OPEN SPACE
- SIGN

NOTES:

THIS IS A SINGLE PHASE PROJECT.
SEE SHEET C-3.0 FOR ADJACENT PROPERTY DETAILS.

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

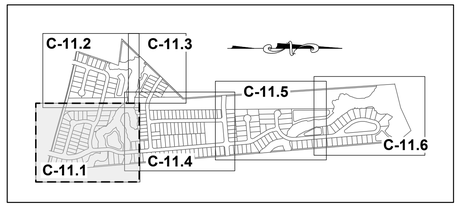
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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	AS SHOWN	DESIGNED BY	SRG	DRAWN BY	SRG	CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

OVERALL SIGNAGE & STRIPING PLAN

DRAWING SHEET
C-11.0



SITE KEY PLAN

LEGEND:

SEE SHEET C-11.0 FOR LEGEND.

MATCH LINE
FOR CONTINUATION, SEE C-11.2

MATCH LINE
FOR CONTINUATION, SEE C-11.4

ELECTRIC EASEMENT

PLUTON RIDGE DRIVE
50' PUBLIC R/W

STREET 'A'
50' PUBLIC R/W

BOULDER MILL DRIVE
70' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

MANLY FARM RD

STOP SIGN
ROAD NAME SIGN
STOP BAR (TYP.)
CROSSWALK (TYP.)
SPEED LIMIT SIGN (TYP.)
25'X25' SIGHT TRIANGLE (TYP.)
RETAINING WALL (TYP.)
WETLANDS (WH-11)
WH-01
WH-03
STREAM SH
STREAM SI
20.00' BUFFER ZONE 2
30.00' BUFFER ZONE 1
SCM MAINTENANCE EASEMENT
SCM #2
TEMPORARY CONSTRUCTION EASEMENT
POWER POLE TO BE RELOCATED BY POWER COMPANY.
25' ROW DEDICATION
EXISTING ROW

PARK I
PARK II
DOG PARK
COMMUNITY PARK

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES, ET,AL
PIN: 1757856303
DB: 13359 PG: 400
ZONING: R-30 (WC) USE: AG

N/F
JONES PROPERTIES LLC
PIN: 1757856755
DB: 12895 PG: 505
BM: 1993 PG: 446
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCER
PIN: 1757857937
DB: 9320 PG: 1460
BM 1993 PG 446
ZONING: R-30 (WC) USE: SF

N/F
ANDERSON, BOBBY G
PIN: 1757868104
DB: 8776 PG: 573
BM 1993 PG 446
ZONING: R-30 (WC) USE: MO

N/F
HERNADEZ, JUANITA
PIN: 1757866385
DB: 19332 PG: 1806
BM 1990 PG 132
ZONING: R-30 (WC) USE: MO

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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No.	REVISIONS	DATE	BY
01.	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02.	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

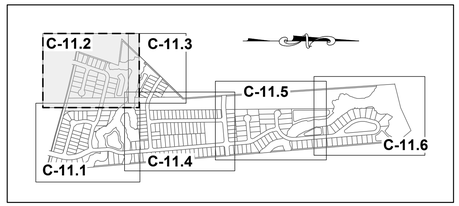
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ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN I

DRAWING SHEET
C-11.1



SITE KEY PLAN

LEGEND:

SEE SHEET C-11.0 FOR LEGEND.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

1 inch = 50 ft.

N/F
UTILITY THREE BUILDERS INC
PIN: 1757656231
DB: 18226 PG: 2104
ZONING: R-30 (WC) USE: SF

WILLIE RAY SUTTON AND WIFE, PAMELA Z. SUTTON
PIN: 1757657280
DB 2958 PG 536
BM 1981 PG 294
ZONING: R-30 (WC)
USE: SF

N/F
UTILITY THREE BUILDERS INC
PIN: 1757646703
DB: 18226 PG: 2104
BM: 1981 PG:895
ZONING: R-30 (WC)
USE: SF

N/F
PREDDY, GENADIUS MAC PREDDY, MATTIE F
PIN: 1757656586
DB: 1882 PG: 342
ZONING: R-30 (WC) USE: S

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

N/F
HAMPTON, MELODY L
PIN: 1757754163
DB: 4777 PG: 764
BM 1990 PG 511
ZONING: R-30 (WC) USE: SF

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

PLUTON RIDGE DRIVE
60' PUBLIC R/W

SLATE SPRINGS STREET
50' PUBLIC R/W

PLUTON RIDGE DRIVE
50' PUBLIC R/W

10' SIDEPATH

PRIVATE OFFSITE DRIVEWAY 1 FOR PIN # 1757657746

PRIVATE OFFSITE DRIVEWAY 2 FOR PIN # 1757658917

15.00' TYPE II PERIMETER BUFFER

STOP SIGN

ROAD NAME SIGN

STOP BAR (TYP.)

25'x25' SIGHT TRIANGLE (TYP.)

CROSSWALK (TYP.)

SPEED LIMIT SIGN (TYP.)

BM 2017 PG 218

BUFFER ZONE 2 20.00'

BUFFER ZONE 1 30.00'

WH-10

WH-08

STREAM SJ

WTLD

20.00' DRAINAGE & ACCESS EASEMENT

30.00' CORSE

SCM MAINTENANCE EASEMENT

SCM #1

ELECTRIC EASEMENT

INV:312.1'
INV 15RCP

INV:322.6'
INV 15RCP

INV: 322.8'
INV: 15RCP

DISTANCE FROM TOWER TO BACK OF CURB = 50'

DISTANCE FROM TOWER TO SIDEWALK = 40'

EXISTING LATTICE TOWER, POWER COMPANY TO PROVIDE NECESSARY SAFETY MEASURES

OHL

MATCH LINE
FOR CONTINUATION, SEE C-11.3

MATCH LINE
FOR CONTINUATION, SEE C-11.1

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK
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SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609

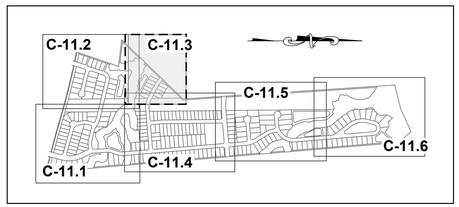
STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN II

DRAWING SHEET

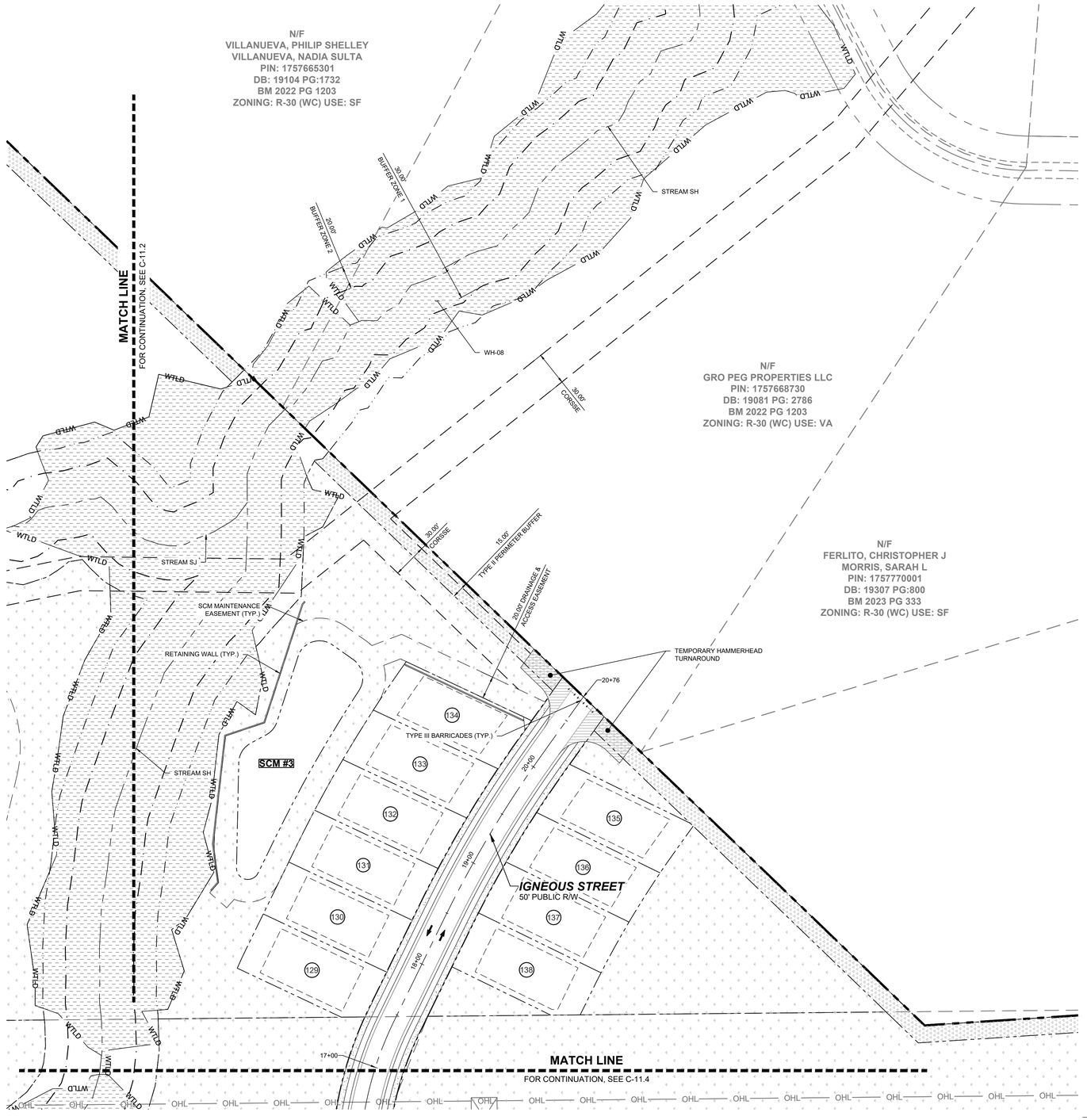
C-11.2



SITE KEY PLAN

LEGEND:

SEE SHEET C-11.0 FOR LEGEND.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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No.	REVISIONS	DATE	BY
01.	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02.	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

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STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN III

DRAWING SHEET

C-11.3

SITE KEY PLAN

LEGEND:

SEE SHEET C-11.0 FOR LEGEND.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE VC-CID-24-07	02/03/2025	SREG

SEAL:

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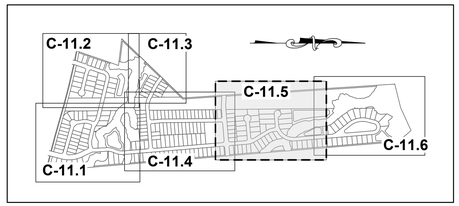
STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN IV

DRAWING SHEET
C-11.4

PROGRESS PLOT DATE: 05/08/2025



SITE KEY PLAN

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

LEGEND:

SEE SHEET C-11.0 FOR LEGEND.

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757780258
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: SF

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757781960
DB: 14863 PG: 2493
BM 2009 PG 645
ZONING: R-30 (WC) USE: VA

15.00' TYPE II PERIMETER BUFFER

30.00' GREENWAY EASEMENT (TYP.)

PROPOSED PUBLIC GREENWAY EASEMENT

10.00' PUBLIC GREENWAY (TYP.)

180.0' ELECTRIC EASEMENT

20.00' GREENWAY EASEMENT (TYP.)

MATCH LINE
FOR CONTINUATION, SEE C-11.6

MATCH LINE
FOR CONTINUATION, SEE C-11.4

SCM MAINTENANCE EASEMENT

SCM #4

SCM #5

SCM MAINTENANCE EASEMENT

STREAM SA

STREAM SF

WA-03

WA-04

WTLD

EXISTING POND 1

RETAINING WALL (TYP.)

OHL

STOP SIGN

STOP BAR (TYP.)

CROSSWALK (TYP.)

ROAD NAME SIGN

SPEED LIMIT SIGN (TYP.)

25'x25' SIGHT TRIANGLE (TYP.)

TYPE III BARRICADES (TYP.)

MILLPOND BLUFF DRIVE
50' PUBLIC R/W

LIMESTONE WALL LANE
50' PUBLIC R/W

LAVA STREET
50' PUBLIC R/W

FLATROCK RIDGE STREET
62' PUBLIC R/W

MAGMA CHAMBER WAY
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

30.0' BUFFER ZONE 1

20.0' BUFFER ZONE 2

N/F
LEFRANCOIS, STEPHEN D
PIN: 1757874787
DB: 5638 PG: 497
ZONING: R-30 (WC) USE: SF

N/F
ADAMS, BENJAMIN ADAMS, WHITNEY
PIN: 1757874938
DB: 18930 PG: 1511
BM 2006 PG 2397
ZONING: R-30 (WC) USE: SF

N/F
JONES PROPERTIES LLC
PIN: 1757884137
DB: 11404 PG: 2275
BM 1986 PG 01374
ZONING: R-30 (WC) USE: MO

N/F
JONES PROPERTIES LLC
PIN: 1757884420
DB: 12589 PG: 1045
BM 1986 PG 1374
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757884608
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

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No.	DATE	BY	REVISIONS
01	11/01/2024	SREG	TOWN OF ROLESVILLE CID-24-07
02	02/03/2025	SREG	TOWN OF ROLESVILLE VC-CID-24-07

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

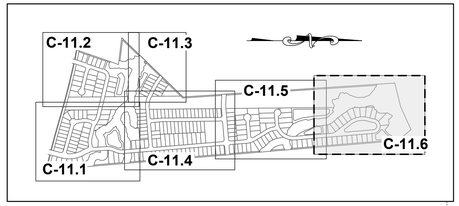
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN V

DRAWING SHEET

C-11.5

PROGRESS PLOT DATE: 05/08/2025



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

LEGEND:

SEE SHEET C-11.0 FOR LEGEND.

SITE KEY PLAN

MATCH LINE
FOR CONTINUATION, SEE C-11.5

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757790646
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: VA

ZONING CONDITION
10 ON SHEET C-1.3
POTENTIAL GREENWAY EASEMENT.

N/F
JONES, CHARLES E
PIN: 1757694902
DB: 8581 PG: 2079
BM 2018 PG 390
ZONING: R-30 (WC) USE: VA

N/F
FORRESTER, JENNIFER N
FORRESTER, HAYES G
PIN: 1758707313
DB: 12620 PG: 2172
ZONING: RL (RO) USE: SF

N/F
JONES PROPERTIES LLC
PIN: 1758805144
DB: 11187 PG: 542
BM 1971 PG 445
ZONING: R-30 (WC) USE: SF

N/F
RGA CONSULTING LLC
PIN: 757893646
DB: 15770 PG: 1169
BM 2010 PG 725
ZONING: R-30 (WC) USE: VA

N/F
JONES, CHARLES SPENCE
PIN: 1757893394
DB: 2478 PG: 210
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757894101
DB: 2590 PG: 622
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

EX. MH-28
STA: 15+72.93
RIM=254.41
INV IN=238.91 (MH-29)
INV OUT=238.91 (MH-27)

EX. MH-29
STA: 19+77.26
RIM=253.11
INV IN=240.26 (MH-30)
INV OUT=240.26 (MH-28)

EX. MH-30
STA: 22+14.65
RIM=251.44
INV IN=241.00 (MH-31)
INV OUT=241.05 (MH-29)

EX. MH-31
STA: 25+39.42
RIM=252.21
INV IN=242.08 (MH-32)
INV OUT=242.08 (MH-30)

TYPE II PERIMETER BUFFER 15.00'

TYPE I PERIMETER BUFFER 15.00'

30.00' GREENWAY EASEMENT (TYP.)

10.00' PUBLIC GREENWAY (TYP.)

PROPOSED PUBLIC GREENWAY EASEMENT.

50.00'

WA-01

40' EX. SANITARY SEWER EASEMENT

180.0' ELECTRIC EASEMENT

30.00' CORSSE

STREAM SA

BUFFER ZONE 2 20.00'

BUFFER ZONE 1 30.00'

GREENWAY STAMPED ASPHALT CROSSING

20' PUBLIC GREENWAY MAINTENANCE EASEMENT (TYP.)

SCM MAINTENANCE EASEMENT

RETAINING WALL (TYP.)

SCM #5

SCM #6

LIMESTONE WALL LANE
50' PUBLIC R/W

GREENWAY

WTLD

OHL

SS

No.	REVISIONS	DATE	BY
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SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

305 CHURCH AT NORTH HILLS STREET

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN VI

DRAWING
SHEET

C-11.6

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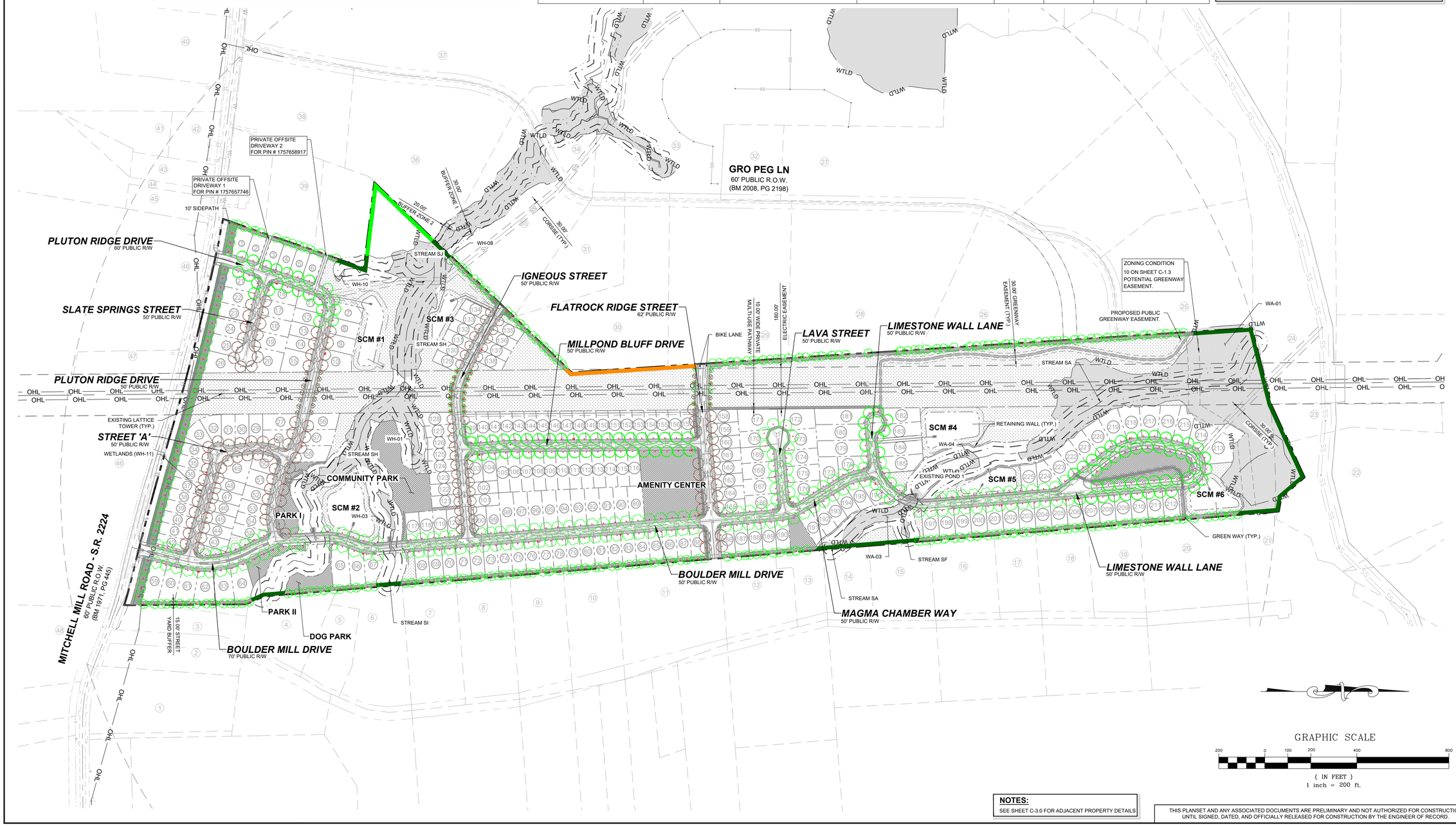
STREET TREE REQUIREMENT				
ROAD	LENGTH	NET LENGTH	REQUIRED STREET TREES	TOTAL PROVIDEO
BOULDER MILL DRIVE	x	x	x	89
SLATE SPRINGS STREET	x	x	x	17
PLUTON RIDGE DRIVE	x	x	x	62
IGNEOUS STREET	x	x	x	50
MILLPOND BLUFF DRIVE	x	x	x	40
FLATROCK RIDGE STREET	x	x	x	33
MAGMA CHAMBER WAY	x	x	x	27
LAVA STREET	x	x	x	15
LIMESTONE WALL LANE	x	x	x	89
STREET A	x	x	x	30
		TOTAL	X	452

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CONTAINER	CALIPER	MIN. SPACING
STREET TREES								
	CELLVI	17	CELTIS LAEVIGATA	SUGAR HACKBERRY	10' HT.	B&B	2.5"	
	CHI WHK	18	CHIONNANTHUS VIRGINICUS 'WHITE KNIGHT'	WHITE KNIGHT WHITE FRINGE TREE	8' HT.	B&B	1.5"	
	GYM KEN	8	GYMNOCLADUS DIOICUS	KEN TUCKY COFFEE TREE	10' HT.	B&B	2.5"	
	HAL JER	4	HALESIA CAROLINA 'JERSEY BELLE'	JERSEY BELLE CAROLINA SILVERBELL	8' HT.	B&B	1.5"	
	OST NHT	18	OSTRYA VIRGINIANA 'JFS-KW5'	AUTUMN TREASUREO AMERICAN HOPHORNBEAM	8' HT.	B&B	1.5"	
	QUE GOB	128	QUERCUS ACUTISSIMA 'GOBBLER'	SAWTOOTH OAK	10' HT.	B&B	2.5"	
	QUE FAL	115	QUERCUS FALCATA	SOUTHRN RED OAK	12' HT.	B&B	2.5"	
	QUE NUT	143	QUERCUS NUTTALII 'QNFTA'	HIGHPOINTO NUTTALL OAK	12' HT.	B&B	2.5"	
SUBTOTAL:		451						

LEGEND:

- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- VALLEY/ROLLED CURB & GUTTER
- STANDARD CURB & GUTTER
- CONCRETE SIDEWALK
- ASPHALT PAVEMENT
- OPEN SPACE
- WTLD / WTLD — EXISTING WETLAND



GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

NOTES:

SEE SHEET C-3.0 FOR ADJACENT PROPERTY DETAILS.

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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

OVERALL LANDSCAPE PLAN

DRAWING SHEET

L-1.0

BUFFER CALCULA TIONS			
PERIMETER BUFFER TYPE 2			
TOTAL LINEAR FOOTAGE (LF)	7116		TABEL 6.2.2.1.F.2 PERIMETER BUFFERTYPE 2
NUMBER OF PLANTS	REQUIRED	PROVIDED	
CANOPY TREES	x	207	
UNDERSTORY TREES	x	69	
SHRUBS	x	3521	
30 FT THOROUGHFARE BUFFER			
TOTAL LINEAR FOOTAGE (LF)	1580.9		TABEL 6.2.2.2 STREET TREES
DUKE EASEMENT LENGTH	187.1		
MITCHELL MILL STREET FRONTAGE	1393.8		
MITCHELL MILL STREET FRONTAGE POWEREASEMENT			
CANOPY TREES	34.8	35	
UNDERSTORY TREES	x	10	

LEGEND:

- BUFFER REQUIREMENT COVERED BY NATURAL FEATURES
- BUFFER REQUIREMENT COVERED BY TREE SAVE AREA
- BUFFER REQUIREMENT INTERFERES WITH DUKE EASEMENT

NOTE:

1

IN COMPLIANCE WITH LDO 6.2.2.1.C.3:

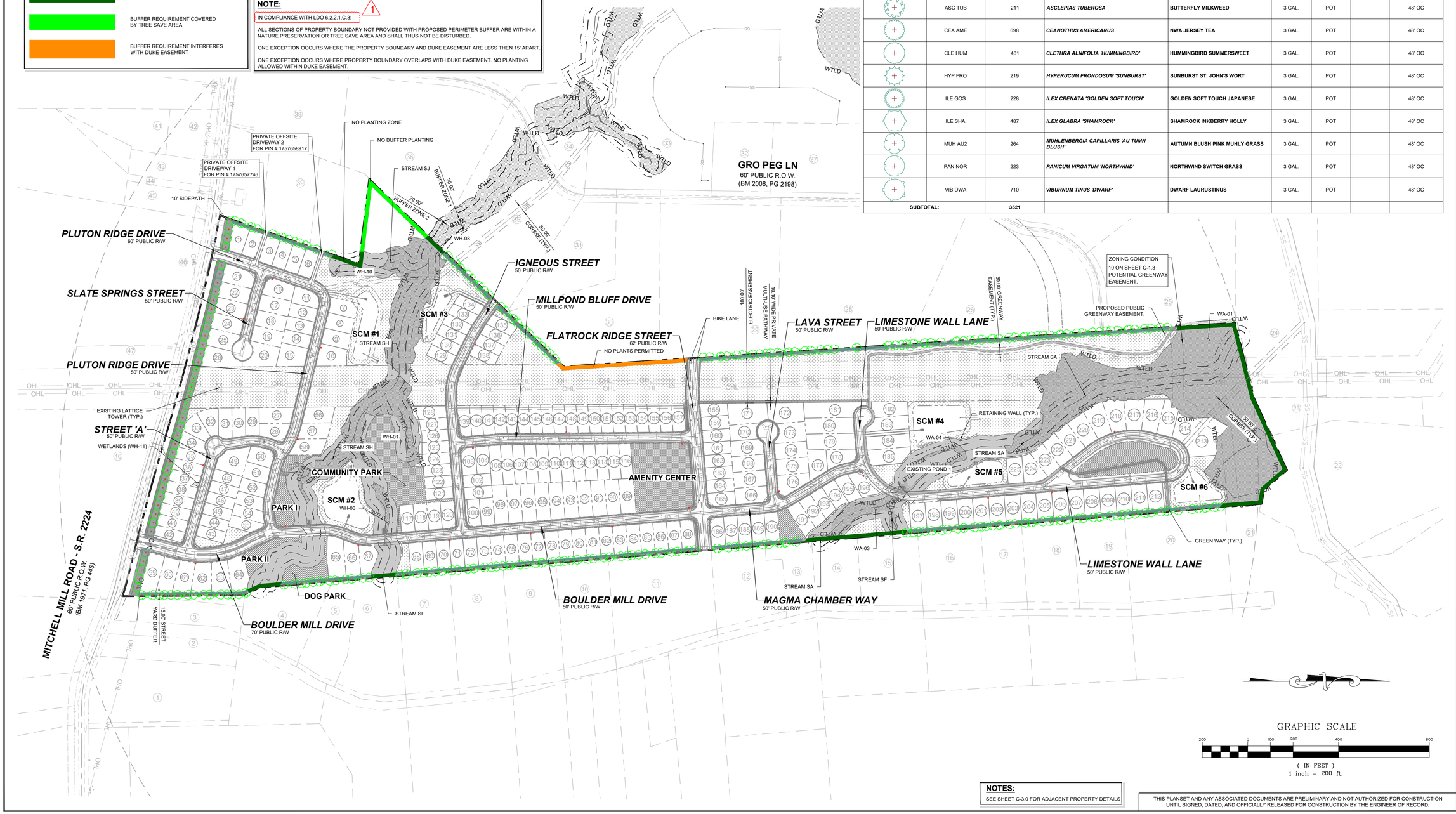
ALL SECTIONS OF PROPERTY BOUNDARY NOT PROVIDED WITH PROPOSED PERIMETER BUFFER ARE WITHIN A NATURE PRESERVATION OR TREE SAVE AREA AND SHALL THUS NOT BE DISTURBED.

ONE EXCEPTION OCCURS WHERE THE PROPERTY BOUNDARY AND DUKE EASEMENT ARE LESS THEN 15' APART.

ONE EXCEPTION OCCURS WHERE PROPERTY BOUNDARY OVERLAPS WITH DUKE EASEMENT. NO PLANTING ALLOWED WITHIN DUKE EASEMENT.

30' THOROUG HF RE BUFFER								
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CONTAINER	CALIPER	MIN. SPACING
UNDERSTORY BUFFER								
	AME ARB	2	***AMELANCHIER ARBOREA***	**DOWNY SERVICEBBERRY**	6' HT.	B&B	1.5"	
	COR CHE	4	***CORNUS FLORIDA 'CHEROKEE BRAVE'***	**CHEROKEE BRAVE DOGWOOD**	5' HT.	B&B	1.5"	
	VIB CHI	4	***VIBURNUM AWABUKI 'CHIDO'***	**CHIDO SWEET VIBURNUM**	6' HT.	B&B	1.5"	
SUBTOTAL:		**10**						
CANOPY BUFFER								
	GIN AUT	9	***GINKGO BLOBA 'AUTUMN GOLD'***	**AUTUMN GOLD MAIDENHAIR TREE**	10' HT.	B&B		
	MAG GRA	4	***MAGNOLIA GRANDIFLORA***	**SOUTHRN MAGNOLIA**	12' HT.	B&B	3.0"	
	QUE MAC	22	***QUERCUS MACROCARPA***	**BURR OAK**	12' HT.	B&B	2.5"	
SUBTOTAL:		**35**						

PERIMETER BUFFER TYPE 2								
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CONTAINER	CALIPER	MIN. SPACING
CANOPY BUFFER								
	ACE FLD	45	***ACER FLORIDANUM***	**SOUTHERN SUGAR MAPLE**	12' HT.	POT	2.5"	
	NYS SYL	68	***NYSSA SYLVATICA***	**TUPELO**	12' HT.	POT	2.5"	
	QOU NUT	46	***QUERCUS NUTTALLII***	**NUTTALL OAK**	12' HT.	POT	2.5"	
	QUE PR2	48	***QUERCUS PALUSTRIS 'PRINGREEN'***	**GREEN PILLARO PIN OAK**	12' HT.	POT	2.5"	
SUBTOTAL:		**207**						
UNDERSTORY BUFFER								
	AME ARB	26	***AMELANCHIER ARBOREA***	**DOWNY SERVICEBBERRY**	6' HT.	POT	1.5"	
	CER EAS	43	***CERCIS CANADENSIS***	**EASTERN REDBUD MULTI-TRUNK**	5' HT.	POT	1.5"	
SUBTOTAL:		**69**						
BUFFER SHRUBS								
	ASC TUB	211	***ASCLEPIAS TUBEROSA***	**BUTTERFLY MILKWEED**	3 GAL.	POT		48" OC
	CEA AME	698	***CEANOTHUS AMERICANUS***	**NWA JERSEY TEA**	3 GAL.	POT		48" OC
	CLE HUM	481	***CLETHRA ALNIFOLIA 'HUMMINGBIRD'***	**HUMMINGBIRD SUMMERSWEET**	3 GAL.	POT		48" OC
	HYP FRO	219	***HYPERUCUM FRONDOSUM 'SUNBURST'***	**SUNBURST ST. JOHN'S WORT**	3 GAL.	POT		48" OC
	ILE GOS	228	***ILEX CRENATA 'GOLDEN SOFT TOUCH'***	**GOLDEN SOFT TOUCH JAPANESE**	3 GAL.	POT		48" OC
	ILE SHA	487	***ILEX GLABRA 'SHAMROCK'***	**SHAMROCK INKBERRY HOLLY**	3 GAL.	POT		48" OC
	MUH AU2	264	***MUHLENBERGIA CAPILLARIS 'AU TUMN BLUSH'***	**AUTUMN BLUSH PINK MUHLY GRASS**	3 GAL.	POT		48" OC
	PAN NOR	223	***PANICUM VIRGATUM 'NORTHWIND'***	**NORTHWIND SWITCH GRASS**	3 GAL.	POT		48" OC
	VIB DWA	710	***VIBURNUM TINUS 'DWARF'***	**DWARF LAURUSTINUS**	3 GAL.	POT		48" OC
SUBTOTAL:		**3521**						



GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

NOTES:

SEE SHEET C-3.0 FOR ADJACENT PROPERTY DETAILS.

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SEAL:

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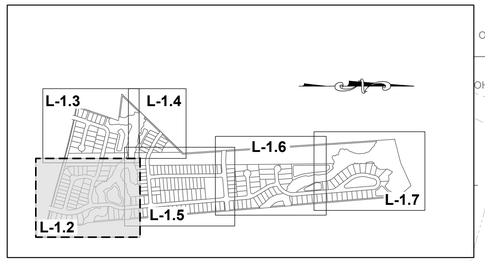
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PERIMETER BUFFER PLAN

DRAWING SHEET

L-1.1

PROGRESS PLOT DATE: 05/08/2025



SITE KEY PLAN

LEGEND:

SEE SHEET L-1.0 & L-1.1 FOR LEGEND AND TREE SCHEDULES.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

MATCH LINE
FOR CONTINUATION, SEE L-1.3

ELECTRIC EASEMENT

PLUTON RIDGE DRIVE
50' PUBLIC R/W

RETAINING WALL (TYP.)

3' MINIMUM CLEARANCE, TYP.

25.00' ROW DEDICATION

10.00' SIDEPATH

30.00' STREET YARD BUFFER

WETLANDS (WH-11)

WTLD

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 446)

STREET 'A'
50' PUBLIC R/W

PARK I

SCM #2

SCM MAINTENANCE EASEMENT

30.00' BUFFER ZONE 1

20.00' BUFFER ZONE 2

STREAM SH

COMMUNITY PARK

MATCH LINE
FOR CONTINUATION, SEE L-1.5

WH-01

WH-03

27.08'
3' MINIMUM CLEARANCE, TYP.

BOULDER MILL DRIVE
50' PUBLIC R/W

14.79'
3' MINIMUM CLEARANCE, TYP.

PARK II

BOULDER MILL DRIVE
70' PUBLIC R/W

6.36'
3' MINIMUM CLEARANCE, TYP.

DOG PARK

TYPE I PERIMETER BUFFER
15.00'

STREAM SI

N/F
HERNADEZ, JUANITA
PIN: 1757866385
DB: 19332 PG: 1806
BM 1990 PG 132
ZONING: R-30 (WC) USE: MO

10' SIDEPATH

POWER POLE TO BE RELOCATED BY POWER COMPANY.

N/F
JONES, CHARLES, ET,AL
PIN: 1757856303
DB: 13359 PG: 400
ZONING: R-30 (WC) USE: AG

N/F
JONES PROPERTIES LLC
PIN: 1757856755
DB: 12895 PG: 505
BM: 1993 PG: 446
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCER
PIN: 1757857937
DB: 9320 PG: 1460
BM 1993 PG 446
ZONING: R-30 (WC) USE: SF

N/F
ANDERSON, BOBBY G
PIN: 1757868104
DB: 8776 PG: 573
BM 1993 PG 446
ZONING: R-30 (WC) USE: MO

MANLY FARM RD

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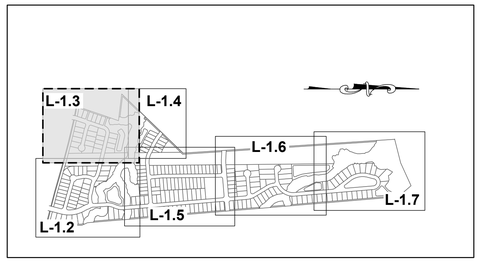
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PARTIAL LANDSCAPE PLAN I

DRAWING SHEET

L-1.2

93 OF 128



SITE KEY PLAN

LEGEND:

SEE SHEET L-1.0 & L-1.1 FOR LEGEND AND TREE SCHEDULES.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

N/F
PREDDY, GENADIUS MAC PREDDY, MATTIE F
PIN: 1757656586
DB: 1882 PG: 342
ZONING: R-30 (WC) USE: S

PRIVATE OFFSITE DRIVEWAY 1 FOR PIN # 1757657746

10' SIDEPATH

PRIVATE OFFSITE DRIVEWAY 2 FOR PIN # 1757658917

PLUTON RIDGE DRIVE
60' PUBLIC R/W

BM 2017 PG 218

MATCH LINE
FOR CONTINUATION, SEE L-1.4

BUFFER ZONE 2 - 20.00'

BUFFER ZONE 1 - 30.00'

WH-10

STREAM SJ

WTLD

INV:312.1'
INV 15RCP

5.83'
3' MINIMUM CLEARANCE, TYP.

14.36'
3' MINIMUM CLEARANCE, TYP.

6.76'
3' MINIMUM CLEARANCE, TYP.

SCM MAINTENANCE EASEMENT (TYP.)

30.00' CMSSE

WH-08

SCM #1

SLATE SPRINGS STREET
50' PUBLIC R/W

PLUTON RIDGE DRIVE
50' PUBLIC R/W

STREAM SH

ELECTRIC EASEMENT

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

INV:322.6'
INV 15RCP

INV: 322.8'
INV: 15RCP

N/F
HAMPTON, MELODY L
PIN: 1757754163
DB: 4777 PG: 764
BM 1990 PG 511
ZONING: R-30 (WC) USE: SF

EXISTING LATTICE TOWER, POWER COMPANY TO PROVIDE NECESSARY SAFETY MEASURES

MATCH LINE
FOR CONTINUATION, SEE L-1.2

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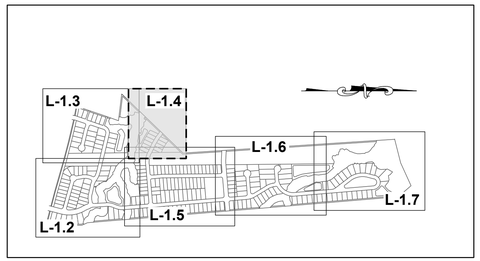
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PARTIAL LANDSCAPE PLAN II

DRAWING SHEET
L-1.3

94 OF 128

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SITE KEY PLAN

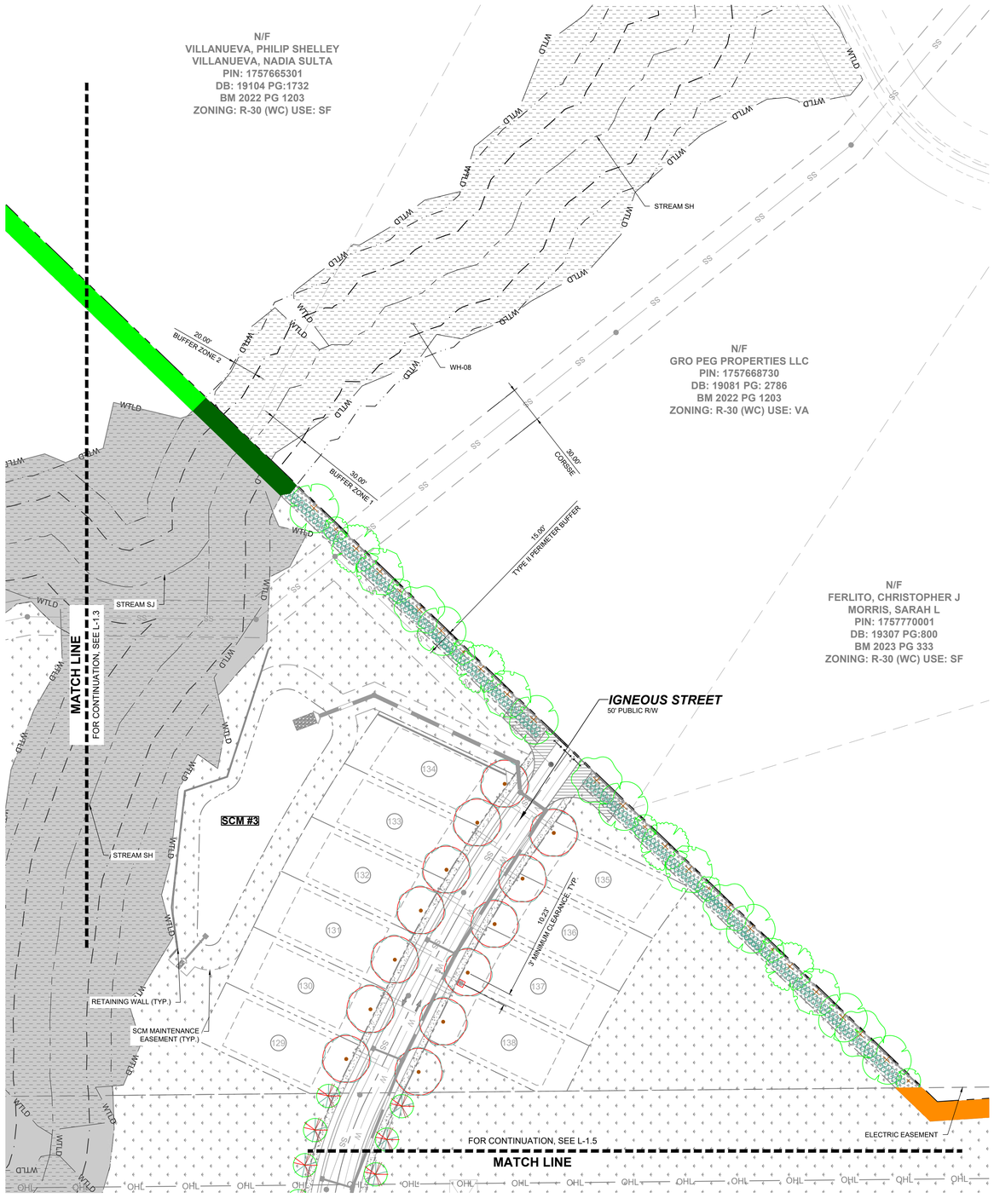
LEGEND:

SEE SHEET L-1.0 & L-1.1 FOR LEGEND AND TREE SCHEDULES.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



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No.	REVISIONS	DATE	BY
01.	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02.	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

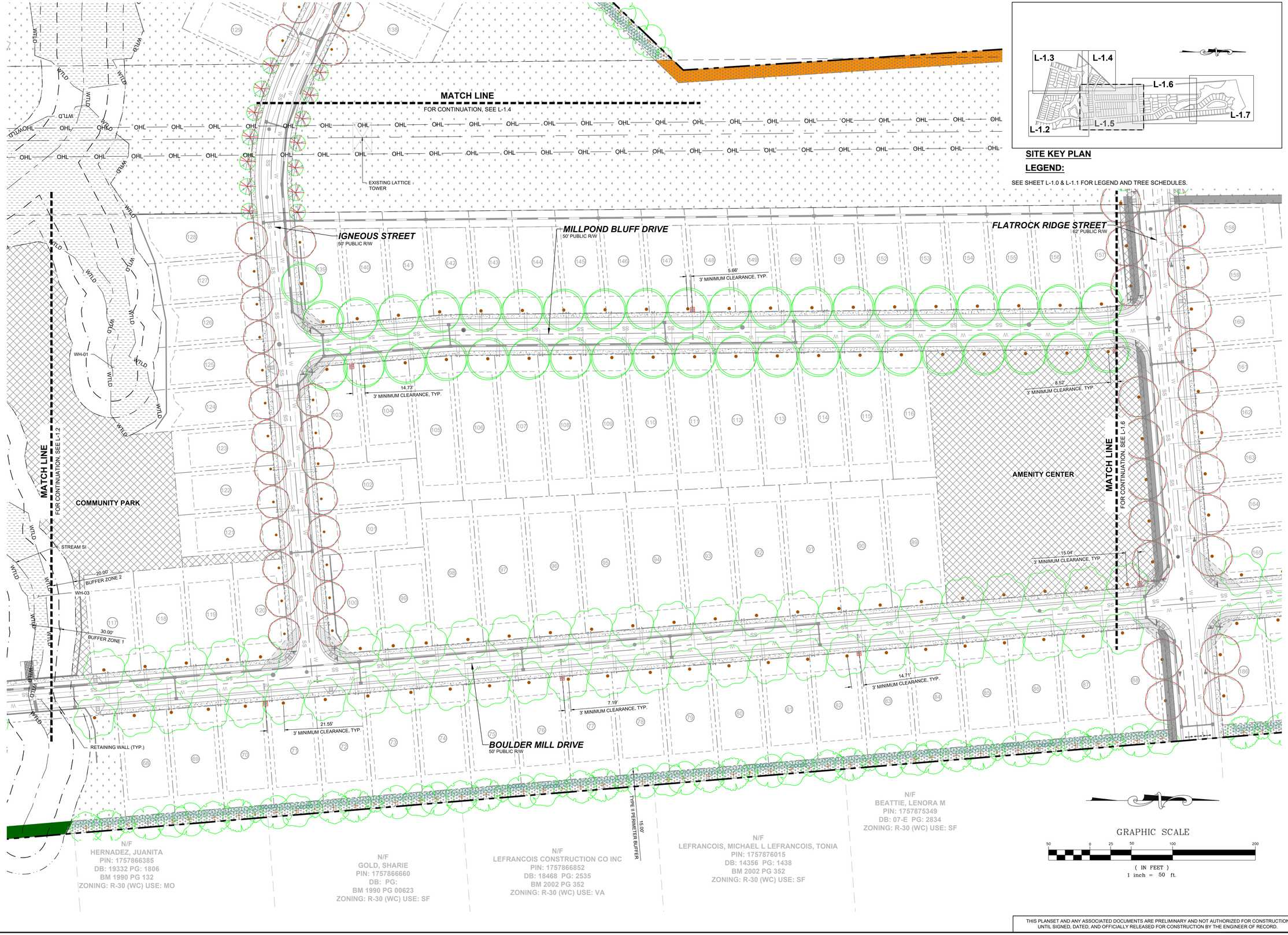
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PARTIAL LANDSCAPE PLAN III

DRAWING SHEET

L-1.4

PROGRESS PLOT DATE: 05/08/2025



SITE KEY PLAN

LEGEND:

SEE SHEET L-1.0 & L-1.1 FOR LEGEND AND TREE SCHEDULES.

No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

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STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
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HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

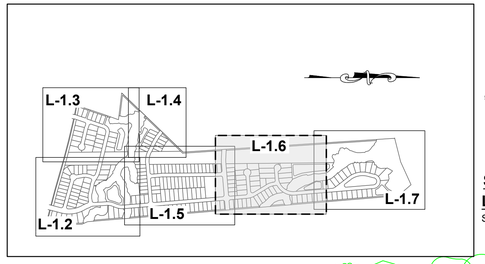
PARTIAL LANDSCAPE PLAN IV

DRAWING SHEET

L-1.5

96 OF 128

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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SITE KEY PLAN

LEGEND:

SEE SHEET L-1.0 & L-1.1 FOR LEGEND AND TREE SCHEDULES.

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757780258
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: SF

15.00' TYPE II PERIMETER BUFFER

PROPOSED PUBLIC GREENWAY EASEMENT

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757781960
DB: 14863 PG: 2493
BM 2009 PG 645
ZONING: R-30 (WC) USE: VA

30.00'

10.00' PUBLIC GREENWAY (TYP.)

ELECTRIC EASEMENT

180.0'

FLATROCK RIDGE STREET
62' PUBLIC R/W

LAVA STREET
50' PUBLIC R/W

8.40'
3' MINIMUM CLEARANCE. TYP.

MATCH LINE
FOR CONTINUATION, SEE L-1.5

14.13'
3' MINIMUM CLEARANCE. TYP.

MAGMA CHAMBER WAY
50' PUBLIC R/W

20.42'
3' MINIMUM CLEARANCE. TYP.

5.20'
3' MINIMUM CLEARANCE. TYP.

SCM #4

MATCH LINE
FOR CONTINUATION, SEE L-1.7

RETAINING WALL (TYP.)

LIMESTONE WALL LANE
50' PUBLIC R/W

STREAM SA

SCM MAINTENANCE EASEMENT

SCM #5

19.32'
3' MINIMUM CLEARANCE. TYP.

WA-03

STREAM SA

STREAM SF

30.0'
BUFFER ZONE 1

20.0'
BUFFER ZONE 2

N/F
LEFRANCOIS, STEPHEN D
PIN: 1757874787
DB: 5638 PG: 497
ZONING: R-30 (WC) USE: SF

N/F
ADAMS, BENJAMIN ADAMS, WHITNEY
PIN: 1757874938
DB: 18930 PG: 1511
BM 2006 PG 2397
ZONING: R-30 (WC) USE: SF

N/F
JONES PROPERTIES LLC
PIN: 1757884137
DB: 11404 PG: 2275
BM 1986 PG 01374
ZONING: R-30 (WC) USE: MO

N/F
JONES PROPERTIES LLC
PIN: 1757884420
DB: 12589 PG: 1045
BM 1986 PG 1374
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757884608
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

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SEAL:

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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT #	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

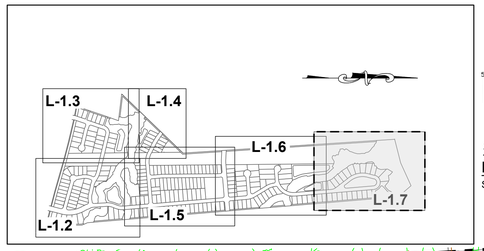
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PARTIAL LANDSCAPE PLAN V

DRAWING SHEET

L-1.6

PROGRESS PLOT DATE: 05/08/2025



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SITE KEY PLAN

LEGEND:

SEE SHEET L-1.0 & L-1.1 FOR LEGEND AND TREE SCHEDULES.

MATCH LINE
FOR CONTINUATION, SEE L-1.6

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757790646
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: VA

N/F
JONES, CHARLES E
PIN: 1757694902
DB: 8581 PG: 2079
BM 2018 PG 390
ZONING: R-30 (WC) USE: VA

N/F
FORRESTER, JENNIFER N
FORRESTER, HAYES G
PIN: 1758707313
DB: 12620 PG: 2172
ZONING: RL (RO) USE: SF

N/F
JONES PROPERTIES LLC
PIN: 1758805144
DB: 11187 PG: 542
BM 1971 PG 445
ZONING: R-30 (WC) USE: SF

N/F
RGA CONSULTING LLC
PIN: 757893646
DB: 15770 PG: 1169
BM 2010 PG 725
ZONING: R-30 (WC) USE: VA

N/F
JONES, CHARLES SPENCE
PIN: 1757893394
DB: 2478 PG: 210
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757894101
DB: 2590 PG: 622
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

TYPE II PERIMETER BUFFER 15.00'

100.00' PROPOSED PUBLIC GREENWAY EASEMENT (TYP.)

100.00' PROPOSED PUBLIC GREENWAY (TYP.)

ZONING CONDITION
10 ON SHEET C-1.3 POTENTIAL GREENWAY EASEMENT

STREAM SA

BUFFER ZONE 2 20.00'

BUFFER ZONE 1 30.00'

8.78'
3' MINIMUM CLEARANCE, TYP.

RETAINING WALL (TYP.)

SCM MAINTENANCE EASEMENT

11.26'
3' MINIMUM CLEARANCE, TYP.

10.73'
3' MINIMUM CLEARANCE, TYP.

SCM #5

SCM #6

LIMESTONE WALL LANE
50' PUBLIC R/W

GREEN WAY (TYP.)

SCM MAINTENANCE EASEMENT

TYPE I PERIMETER BUFFER 15.00'

EX. MH-28
STA: 15+72.93
RIM=254.41
INV IN=238.91 (MH-29)
INV OUT=238.91 (MH-27)

40' EX. SANITARY SEWER EASEMENT

30.00' CORRIDE

180.0' ELECTRIC EASEMENT

EX. MH-29
STA: 19+77.26
RIM=253.11
INV IN=240.26 (MH-30)
INV OUT=240.26 (MH-28)

EX. MH-30
STA: 22+14.65
RIM=251.44
INV IN=241.00 (MH-31)
INV OUT=241.05 (MH-29)

EX. MH-31
STA: 25+39.42
RIM=252.21
INV IN=242.08 (MH-32)
INV OUT=242.08 (MH-30)

No.	REVISIONS	DATE	BY
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SEAL:

STRONGROCK
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STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

PARTIAL LANDSCAPE PLAN VI

DRAWING SHEET

L-1.7

98 OF 128

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PROGRESS PLOT DATE: 05/08/2025

GRO PEG LN
60' PUBLIC R.O.W.
(BM 2008, PG 2198)

PLUTON RIDGE DRIVE
60' PUBLIC R/W

IGNEOUS STREET
50' PUBLIC R/W

FLATROCK RIDGE STREET
62' PUBLIC R/W

LIMESTONE WALL LANE
50' PUBLIC R/W

SLATE SPRINGS STREET
50' PUBLIC R/W

LAVA STREET
50' PUBLIC R/W

STREET 'A'
50' PUBLIC R/W

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

MAGMA CHAMBER WAY
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

BOULDER MILL DRIVE
70' PUBLIC R/W

PLUTON RIDGE DRIVE
50' PUBLIC R/W

MANLY FARM RD

AMENITY CENTER

COMMUNITY PARK

PARK I

PARK II

DOG PARK

SCM #1

SCM #2

SCM #3

SCM #4

SCM #5

SCM #6

EX. POND

PROPERTY BOUNDARY (TYP.)

30.00' BUFFER ZONE 1 (TYP.)

20.00' BUFFER ZONE 2 (TYP.)

STREAM SJ

STREAM SH

STREAM SI

STREAM SA

STREAM SF

WH-01 WH-03 WH-08 WH-10 WH-11

WA-01 WA-03 WA-04

NOTES:

THIS IS A SINGLE PHASE PROJECT.
SEE SHEET C-3.0 FOR ADJACENT PROPERTY DETAILS

LEGEND:

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

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SEAL:

STRONGROCK
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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

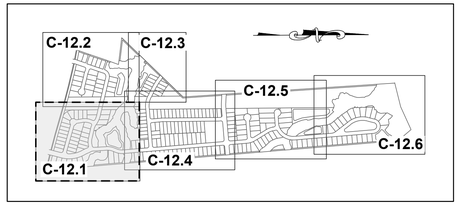
STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
OVERALL PRESERVATION PLAN

DRAWING SHEET
C-12.0

99 OF 128

PROGRESS PLOT DATE: 04/29/2025



SITE KEY PLAN

LEGEND:

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

MATCH LINE
FOR CONTINUATION, SEE C-12.2

MATCH LINE
FOR CONTINUATION, SEE C-12.4

PLUTON RIDGE DRIVE
50' PUBLIC R/W

STREET 'A'
50' PUBLIC R/W

BOULDER MILL DRIVE
70' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

MANLY FARM RD

ELECTRIC EASEMENT

STREAM SH

STREAM SI

WETLANDS (WH-11)

PARK I

PARK II

DOG PARK

SCM #2

COMMUNITY PARK

BUFFER ZONE 2

20.00'

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES, ET,AL
PIN: 1757856303
DB: 13359 PG: 400
ZONING: R-30 (WC) USE: AG

N/F
JONES PROPERTIES LLC
PIN: 1757856755
DB: 12895 PG: 505
BM: 1993 PG: 446
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCER
PIN: 1757857937
DB: 9320 PG: 1460
BM 1993 PG 446
ZONING: R-30 (WC) USE: SF

N/F
ANDERSON, BOBBY G
PIN: 1757868104
DB: 8776 PG: 573
BM 1993 PG 446
ZONING: R-30 (WC) USE: MO

N/F
HERNADEZ, JUANITA
PIN: 1757866385
DB: 19332 PG: 1806
BM 1990 PG 132
ZONING: R-30 (WC) USE: MO

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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No.	REVISIONS	DATE	BY
0	TOWN OF ROLESVILLE V1-PSP-24-03	05/30/2024	SREG
1	TOWN OF ROLESVILLE V2-PSP-24-03	08/30/2024	SREG
2	TOWN OF ROLESVILLE V3-PSP-24-03	11/01/2024	SREG
3	TOWN OF ROLESVILLE V4-PSP-24-03	02/03/2025	SREG

SEAL:

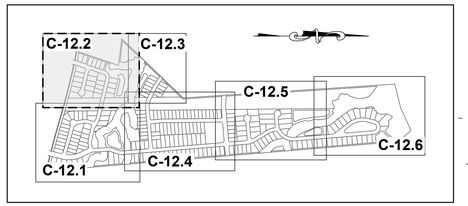
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STRONG ROCK PROJECT			
NOT FOR CONSTRUCTION			
SCALE	AS SHOWN		
DESIGNED BY	SRG	DRAWN BY	SRG
CHECKED BY	SRG		

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
PRELIMINARY SUBDIVISION PLAT
PRESERVATION PLAN I

DRAWING SHEET
C-12.1

100 OF 128



SITE KEY PLAN

LEGEND:

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

N/F
UTILITY THREE BUILDERS INC
PIN: 1757656231
DB: 18226 PG: 2104
ZONING: R-30 (WC) USE: SF

WILLIE RAY SUTTON AND WIFE, PAMELA Z. SUTTON
PIN: 1757657280
DB 2958 PG 536
BM 1981 PG 294
ZONING: R-30 (WC)
USE: SF

N/F
UTILITY THREE BUILDERS INC
PIN: 1757646703
DB: 18226 PG: 2104
BM: 1981 PG:895
ZONING: R-30 (WC)
USE: SF

N/F
PREDDY, GENADIUS MAC PREDDY, MATTIE F
PIN: 1757656586
DB: 1882 PG: 342
ZONING: R-30 (WC) USE: S

N/F
SOUTHVIEW INVESTMENT LLC
PIN: 1757738451
DB: 19248 PG: 2000
ZONING: R-30 (WC) USE: SF

N/F
HAMPTON, MELODY L
PIN: 1757754163
DB: 4777 PG: 764
BM 1990 PG 511
ZONING: R-30 (WC) USE: SF

ROCK FARM ROAD
60' PRIVATE R/W

PRIVATE OFF-SITE DRIVEWAY 1
20' PRIVATE R/W
16' B-B

PRIVATE OFF-SITE DRIVEWAY 2
20' PRIVATE R/W
16' B-B

PLUTON RIDGE DRIVE
60' PUBLIC R/W

SLATE SPRINGS STREET
50' PUBLIC R/W

MITCHELL MILL ROAD - S.R. 2224
80' PUBLIC R.O.W
(BM 1971, PG 445)

PLUTON RIDGE DRIVE
50' PUBLIC R/W

SCM #1

BM 2017 PG 178

MATCH LINE
FOR CONTINUATION, SEE C-12.3

MATCH LINE
FOR CONTINUATION, SEE C-12.1

STREAM SJ
STREAM SH
WETLD
20.00' BUFFER ZONE 2
30.00' BUFFER ZONE 1

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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3	TOWN OF ROLESVILLE V4-PSP-24-03	02/03/2025	SREG

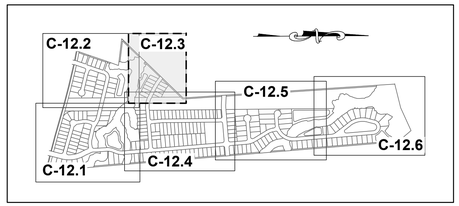
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SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
PRELIMINARY SUBDIVISION PLAT
PRESERVATION PLAN II

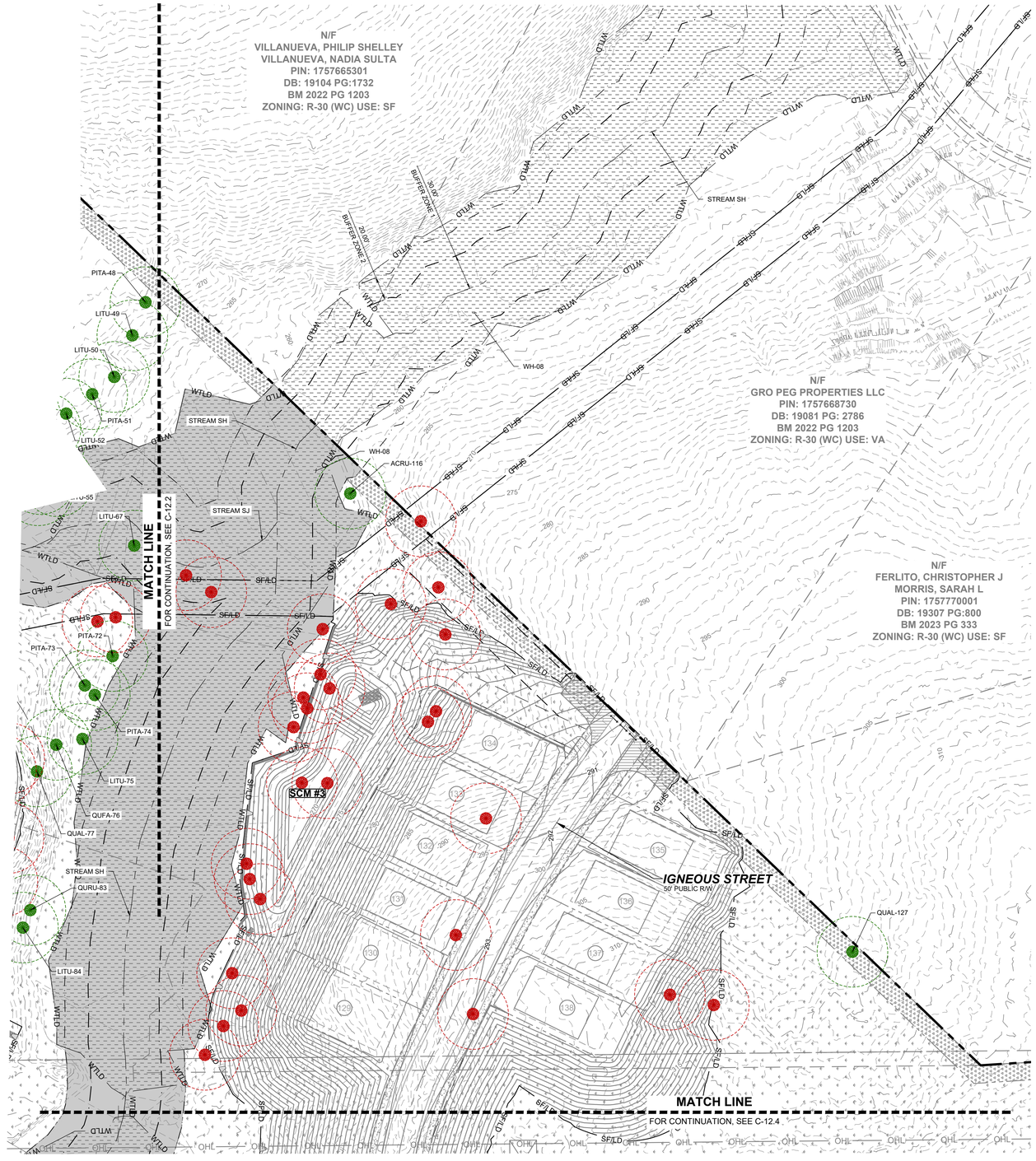
DRAWING SHEET
C-12.2



SITE KEY PLAN

LEGEND:

	TREES WILL BE PRESERVED
	TREES WILL BE REMOVED
	CRZ FOR TREES WILL BE PRESERVED
	CRZ FOR TREES WILL BE REMOVED
LD	LIMIT OF DISTURBANCE
SF/LD	SILT FENCE/LIMIT OF DISTURBANCE
TPF	TREE PROTECTION FENCE



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
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STRONG ROCK PROJECT			
	NOT FOR CONSTRUCTION		
SCALE	AS SHOWN	DESIGNED BY	SRG
		DRAWN BY	SRG
		CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PRESERVATION PLAN III

DRAWING SHEET
C-12.3

PROGRESS PLOT DATE: 05/08/2025

LEGEND:

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

MATCH LINE
FOR CONTINUATION, SEE C-12.3

IGNEOUS STREET
50' PUBLIC R/W

MILLPOND BLUFF DRIVE
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

FLATROCK RIDGE STREET
60' PUBLIC R/W

MATCH LINE
FOR CONTINUATION, SEE C-12.1

MATCH LINE
FOR CONTINUATION, SEE C-12.5

COMMUNITY PARK

AMENITY CENTER

BUFFER ZONE 1 30.0'

BUFFER ZONE 2 20.0'

STREAM SI

QURU-370 · LITU-369 · LITU-368 · ILOP-363 · LITU-365 · LITU-367 · LIST-364 · LIST-361 · LITU-366 · LITU-371 · WH-01 · LITU-360 · LITU-359 · LITU-356 · LITU-357 · LITU-358 · LITU-373 · LITU-372 · LIST-350 · QUAL-325 · QUNI-351 · ACRU-348 · PITA-347 · PITA-349 · PITA-326 · PITA-346 · QUAL-327 · LITU-345 · PLOC-328 · QUFA-329 · LITU-344 · LITU-343 · WH-03 · LITU-332 · QURU-342 · LITU-333 · QUNI-341 · LITU-340 · LITU-339 · LITU-338 · PITA-128

N/F
HERNADEZ, JUANITA
PIN: 1757866385
DB: 19332 PG: 1806
BM 1990 PG 132
ZONING: R-30 (WC)
USE: MO

N/F
GOLD, SHARIE
PIN: 1757866660
DB: PG:
BM 1990 PG 00623
ZONING: R-30 (WC) USE: SF

N/F
LEFRANCOIS CONSTRUCTION CO INC
PIN: 1757866852
DB: 18468 PG: 2535
BM 2002 PG 352
ZONING: R-30 (WC) USE: VA

N/F
LEFRANCOIS, MICHAEL L LEFRANCOIS, TONIA
PIN: 1757876015
DB: 14356 PG: 1438
BM 2002 PG 352
ZONING: R-30 (WC) USE: SF

N/F
BEATTIE, LENORA M
PIN: 1757875349
DB: 07-E PG: 2834
ZONING: R-30 (WC) USE: SF

SITE KEY PLAN
C-12.1 · C-12.2 · C-12.3 · C-12.4 · C-12.5 · C-12.6

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE VC-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

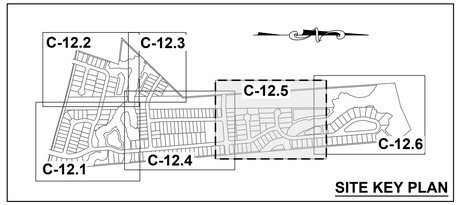
STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PRESERVATION PLAN IV

DRAWING SHEET
C-12.4

103 OF 128

PROGRESS PLOT DATE: 05/08/2025



SITE KEY PLAN

LEGEND:

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

N/F
GRO PEG PROPERTIES LLC
PIN: 1757771603
DB: 18359 PG:1707
BM 2023 PG 333
ZONING: R-30 (WC) USE: VA

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757780258
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: SF

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757781960
DB: 14863 PG: 2493
BM 2009 PG 645
ZONING: R-30 (WC) USE: VA

MATCH LINE
FOR CONTINUATION, SEE C-12.4

MATCH LINE
FOR CONTINUATION, SEE C-12.6

LAVA STREET
50' PUBLIC R/W

FLATROCK RIDGE STREET
62' PUBLIC R/W

MAGMA CHAMBER WAY
50' PUBLIC R/W

LIMESTONE WALL LANE
50' PUBLIC R/W

ELECTRIC EASEMENT
180.0'

SCM #4

SCM #5

BUFFER ZONE 1
30.0'

BUFFER ZONE 2
20.0'

N/F
LEFRANCOIS, STEPHEN D
PIN: 1757874787
DB: 5638 PG: 497
ZONING: R-30 (WC) USE: SF

N/F
ADAMS, BENJAMIN ADAMS, WHITNEY
PIN: 1757874938
DB: 18930 PG: 1511
BM 2006 PG 2397
ZONING: R-30 (WC) USE: SF

N/F
JONES PROPERTIES LLC
PIN: 1757884137
DB: 11404 PG: 2275
BM 1986 PG 01374
ZONING: R-30 (WC) USE: MO

N/F
JONES PROPERTIES LLC
PIN: 1757884420
DB: 12589 PG: 1045
BM 1986 PG 1374
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757884608
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

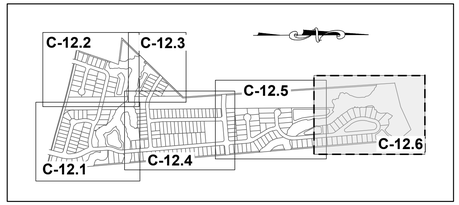
STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA.
CONSTRUCTION PLANS
PRESERVATION PLAN V

DRAWING SHEET
C-12.5

104 OF 128



SITE KEY PLAN

MATCH LINE
FOR CONTINUATION, SEE C-12.5

GRO PEG LN
60' PUBLIC R.O.W.
(BM 2008, PG 2198)

N/F
CARLE, SCOTT CARLE, THERESA
PIN: 1757790646
DB: 14863 PG: 2493
BM 2008 PG 2198
ZONING: R-30 (WC) USE: VA

N/F
JONES, CHARLES E
PIN: 1757694902
DB: 8581 PG: 2079
BM 2018 PG 390
ZONING: R-30 (WC) USE: VA

EX. MH-28
STA: 15+72.93
RIM=254.41
INV IN=238.91 (MH-29)
INV OUT=238.91 (MH-27)

EX. 404.33 LF - 24" PVC SAN. SWR.

40' EX. SANITARY SEWER EASEMENT

40' EX. SANITARY SEWER EASEMENT

180.0' ELECTRIC EASEMENT

EX. MH-29
STA: 19+77.26
RIM=253.11
INV IN=240.26 (MH-30)
INV OUT=240.26 (MH-28)

N/F
FORRESTER, JENNIFER N
FORRESTER, HAYES G
PIN: 1758707313
DB: 12620 PG: 2172
ZONING: RL (RO) USE: SF

EX. 237.39 LF - 24" PVC SAN. SWR.

EX. MH-30
STA: 22+14.65
RIM=251.44
INV IN=241.00 (MH-31)
INV OUT=241.05 (MH-29)

N/F
JONES PROPERTIES LLC
PIN: 1758805144
DB: 11187 PG: 542
BM 1971 PG 445
ZONING: R-30 (WC) USE: SF

N/F
RGA CONSULTING LLC
PIN: 757893646
DB: 15770 PG: 1169
BM 2010 PG 725
ZONING: R-30 (WC) USE: VA

N/F
JONES, CHARLES SPENCE
PIN: 1757893394
DB: 2478 PG: 210
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757894101
DB: 2590 PG: 622
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

LIMESTONE WALL LANE
50' PUBLIC R/W

LIMESTONE WALL LANE
50' PUBLIC R/W

SCM #5

SCM #6

STREAM SA

BUFFER ZONE 2 (30')

BUFFER ZONE 1 (30')

QUAL-133 QUAL-147 LITU-148 ACRU-135 OXAR-134 PITA-149 FRAM-146 LIST-158 LIST-160 LIST-159 WA-01 ACRU-161 PITA-156 QUAL-136 QUAL-137 QURU-145 QURU-138 LITU-144 PITA-150 PITA-157 ACRU-162 QURU-140 PITA-153 QURU-143 QUAL-139 PITA-155 PITA-163 QURU-141 LITU-142 PITA-151 PITA-152 PITA-154 PITA-164

QURU-476 LITU-478 LITU-467 PITA-466 PLOC-465 ACRU-463 LITU-464 LITU-434 PITA-435 PITA-438 ACRU-440

BENI-474 ACRU-473 ACRU-472 QUAL-471 LITU-448 QUAL-470

LEGEND:

- TREES WILL BE PRESERVED
- TREES WILL BE REMOVED
- CRZ FOR TREES WILL BE PRESERVED
- CRZ FOR TREES WILL BE REMOVED
- LD — LIMIT OF DISTURBANCE
- SF/LD — SILT FENCE/LIMIT OF DISTURBANCE
- TPF — TREE PROTECTION FENCE

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PRESERVATION PLAN VI

DRAWING SHEET
C-12.6

TREE TO BE PRESERVED			
NO OF TREE	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
1	QUNI	20	FAIR
31	LITU	21	FAIR
32	LITU	20	FAIR
33	LITU	25	FAIR
34	LITU	21	FAIR
35	LITU	19	FAIR
36	ULAM	18	FAIR
37	LITU	24	FAIR
38	LITU	28	POOR
39	CEOC	21	FAIR
40	LIST	17	FAIR
41	PITA	24	FAIR
42	QUAL	21	FAIR
43	PITA	24	FAIR
44	PITA	25	FAIR
45	CATO	21	FAIR
46	LITU	25	FAIR
47	PITA	20	FAIR
48	PITA	26	FAIR
49	LITU	24	FAIR
50	LITU	19	FAIR
51	PITA	25	FAIR
52	LITU	26	FAIR
53	LITU	22	FAIR
54	LITU	24	FAIR
55	LITU	26	FAIR
56	LITU	25	FAIR
57	LITU	26	FAIR
58	LITU	27	FAIR
59	LITU	20	FAIR
60	LITU	27	FAIR
61	LIST	24	FAIR
62	QUFA	18	FAIR
67	LITU	22	FAIR
72	PITA	24	FAIR
73	PITA	20	FAIR
74	PITA	22	FAIR
75	LITU	26	FAIR
76	QUFA	26	FAIR
77	QUAL	25	FAIR
83	QURU	20	FAIR
84	LITU	26	FAIR
116	ACRU	18	FAIR
127	QUAL	20	FAIR
128	PITA	25	FAIR
130	PITA	24	FAIR
131	QUAL	21	FAIR
132	CATO	18	FAIR
133	QUAL	25	FAIR
134	OXAR	18	FAIR
135	ACRU	18	FAIR
136	QUAL	20	FAIR
137	QUAL	25	FAIR
138	QURU	20	FAIR
139	QUAL	18	FAIR
140	QURU	18	FAIR
141	QURU	20	FAIR
142	LITU	20	FAIR
143	QURU	20	FAIR
144	LITU	24	FAIR
145	QURU	19	FAIR
146	FRAM	24	FAIR
147	QUAL	19	FAIR
148	LITU	24	FAIR
149	PITA	20	FAIR
150	PITA	20	FAIR
151	PITA	21	FAIR
152	PITA	21	FAIR
153	PITA	20	FAIR
154	PITA	21	FAIR
155	PITA	21	FAIR
156	PITA	20	FAIR
157	PITA	22	FAIR

TREE TO BE PRESERVED			
NO OF TREE	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
158	LIST	19	FAIR
159	LIST	19	FAIR
160	LIST	21	FAIR
161	ACRU	25	FAIR
162	ACRU	20	FAIR
163	PITA	20	FAIR
164	PITA	20	FAIR
179	PLAC1	23	POOR
180	PLAC1	18	FAIR
181	LITU	36	GOOD
182	PLAC1	25	GOOD
183	LITU	28	GOOD
184	LIST	18	GOOD
185	LIST	21	GOOD
186	LITU	24	FAIR
187	QUAL	18	GOOD
233	LITU	22	FAIR
234	LITU	28	POOR
235	LITU	25	FAIR
236	QUAL	26	GOOD
237	QUAL	20	GOOD
238	LITU	18	FAIR
239	LITU	22	GOOD
240	PITA	22	GOOD
241	LITU	22	GOOD
242	PLAC1	19	GOOD
243	LITU	18	FAIR
244	LITU	18	GOOD
245	QURU	19	GOOD
246	QURU	24	FAIR
247	QUAL	18	GOOD
251	QURU	19	FAIR
266	LITU	28	GOOD
267	LITU	31	FAIR
268	QUAL	33	POOR
271	QURU	31	FAIR
274	QUAL	40	FAIR
275	LITU	20	FAIR
276	LITU	21	FAIR
277	LITU	24	FAIR
278	PITA	23	DEAD
279	ACRU	24	DEAD
280	LITU	26	FAIR
281	PLOC	28	POOR
282	LITU	28	FAIR
283	PITA	23	FAIR
284	PITA	24	DEAD
285	PITA	24	FAIR
286	PLOC	24	FAIR
287	LITU	25	DEAD
292	LITU	28	FAIR
293	PITA	24	FAIR
294	PLOC	23	FAIR
295	ACRU	24	POOR
297	QURU	26	FAIR
298	LITU	20	FAIR
299	QUAL	19	FAIR
301	LITU	18	FAIR
302	PITA	20	FAIR
317	LITU	23	FAIR
324	QUAL	23	FAIR
325	QUAL	27	FAIR
326	PITA	20	FAIR
327	QUAL	27	FAIR
328	PLOC	22	FAIR
329	QUFA	24	POOR
332	LITU	19	FAIR
333	LITU	19	FAIR
338	LITU	21	FAIR
339	LITU	27	FAIR
340	LITU	19	FAIR
341	QUNI	20	FAIR
342	QURU	19	FAIR

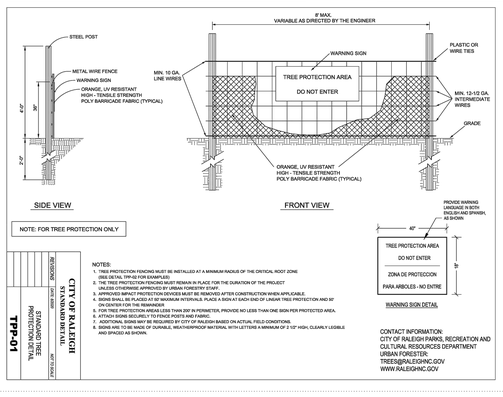
TREE TO BE PRESERVED			
NO OF TREE	BOTANICAL NAME	CALIPER INCHES	CONDITION OVERALL
343	LITU	18	FAIR
344	LITU	18	FAIR
345	LITU	19	FAIR
346	PITA	23	FAIR
347	PITA	23	FAIR
348	ACRU	18	FAIR
349	PITA	24	FAIR
350	LIST	23	FAIR
351	QUNI	20	FAIR
356	LITU	24	POOR
357	LITU	24	FAIR
358	LITU	19	FAIR
359	LITU	19	FAIR
360	LITU	25	FAIR
361	LIST	18	FAIR
363	ILOP	18	FAIR
364	LIST	18	FAIR
365	LITU	23	FAIR
366	LITU	19	FAIR
367	LITU	23	FAIR
368	LITU	18	FAIR
369	LITU	20	FAIR
370	QURU	18	FAIR
371	LITU	23	FAIR
372	LITU	23	FAIR
373	LITU	18	FAIR
374	PITA	25	FAIR
375	LITU	19	FAIR
406	QUAL	19	FAIR
409	LITU	20	FAIR
410	ACRU	20	FAIR
411	LITU	18	FAIR
412	LITU	23	FAIR
414	LITU	21	FAIR
415	LITU	24	FAIR
418	QUAL	24	FAIR
419	QUAL	19	FAIR
421	QUAL	19	FAIR
428	LITU	20	FAIR
429	PITA	20	FAIR
430	QUAL	20	FAIR
431	PITA	21	FAIR
432	QUAL	24	FAIR
433	QUAL	19	FAIR
434	LITU	19	FAIR
435	PITA	20	FAIR
436	LITU	21	FAIR
437	QUAL	21	FAIR
438	PITA	20	FAIR
439	ACRU	18	FAIR
440	ACRU	24	FAIR
442	LITU	26	FAIR
443	PITA	23	FAIR
446	LITU	20	FAIR
448	LITU	19	FAIR
462	CATO	18	FAIR
463	ACRU	24	FAIR
464	LITU	19	FAIR
465	PLOC	20	FAIR
466	PITA	20	FAIR
467	LITU	18	FAIR
470	QUAL	24	FAIR
471	QUAL	21	FAIR
472	ACRU	18	FAIR
473	ACRU	21	FAIR
474	BENI	18	FAIR
476	QURU	19	FAIR
478	LITU	19	FAIR

TREE TO BE REMOVED			
TYPE	NO OF TREE	BOTANICAL NAME	CALIPER INCHES
CONIFERS	2	PITA	25
CONIFERS	5	PIST	25
CONIFERS	8	PITA	21
CONIFERS	9	PITA	20
CONIFERS	10	PITA	24
CONIFERS	11	PITA	26
CONIFERS	12	PITA	24
CONIFERS	13	PITA	23
CONIFERS	14	PITA	21
CONIFERS	16	PITA	26
CONIFERS	17	PITA	24
CONIFERS	18	PITA	21
CONIFERS	19	PITA	25
CONIFERS	20	PITA	20
CONIFERS	21	PITA	21
CONIFERS	23	PITA	33
CONIFERS	24	PITA	26
CONIFERS	25	PITA	24
CONIFERS	29	PITA	24
CONIFERS	63	PITA	21
CONIFERS	64	PITA	40
CONIFERS	92	PITA	24
CONIFERS	93	PITA	25
CONIFERS	94	PITA	25
CONIFERS	95	PITA	31
CONIFERS	96	PITA	25
CONIFERS	97	PITA	24
CONIFERS	101	PITA	24
CONIFERS	102	PITA	21
CONIFERS	104	PITA	24
CONIFERS	107	PITA	24
CONIFERS	108	PITA	23
CONIFERS	111	PITA	25
CONIFERS	112	PITA	20
CONIFERS	113	PITA	21
CONIFERS	114	PITA	26
CONIFERS	120	PITA	21
CONIFERS	121	PITA	20
CONIFERS	167	PITA	20
CONIFERS	168	PITA	22
CONIFERS	169	PITA	24
CONIFERS	170	PITA	20
CONIFERS	171	PITA	26
CONIFERS	172	PITA	24
CONIFERS	196	PLAC1	23
CONIFERS	200	PITA	30
CONIFERS	201	PITA	20
CONIFERS	202	PITA	27
CONIFERS	203	PITA	28
CONIFERS	211	PITA	32
CONIFERS	214	PISE	31
CONIFERS	272	PITA	27
CONIFERS	300	PITA	21
CONIFERS	306	PITA	20
CONIFERS	307	PITA	20
CONIFERS	308	PITA	20
CONIFERS	309	PITA	24
CONIFERS	310	PITA	20
CONIFERS	313	PITA	21
CONIFERS	314	PITA	21
CONIFERS	315	PITA	20
CONIFERS	316	PITA	20
CONIFERS	321	PITA	20
CONIFERS	322	PITA	20
CONIFERS	323	PITA	24
CONIFERS	331	PITA	24
CONIFERS	354	PITA	20
CONIFERS	389	PITA	20
CONIFERS	390	PITA	20
CONIFERS	391	PITA	20
CONIFERS	416	PITA	24
CONIFERS	426	PITA	20
CONIFERS	427	PITA	20
CONIFERS	454	PITA	23
CONIFERS	456	PITA	20
CONIFERS	457	PITA	20
CONIFERS	458	PITA	24
CONIFERS	459	PITA	21
CONIFERS	468	PITA	20
TOTAL			79

TREE TO BE REMOVED			
TYPE	NO OF TREE	BOTANICAL NAME	CALIPER INCHES
DECIDUOUS	3	CEOC	26
DECIDUOUS	4	ULAL	23
DECIDUOUS	6	CAIL	28
DECIDUOUS	7	CAIL	22
DECIDUOUS	15	LITU	18
DECIDUOUS	22	LITU	21
DECIDUOUS	26	PLOC	29
DECIDUOUS	27	PLOC	27
DECIDUOUS	28	ULAM	18
DECIDUOUS	30	LITU	25
DECIDUOUS	65	LITU	24
DECIDUOUS	66	LITU	18
DECIDUOUS	68	ACRU	22
DECIDUOUS	69	LITU	21
DECIDUOUS	70	LITU	28
DECIDUOUS	71	LITU	21
DECIDUOUS	78	QUFA	28
DECIDUOUS	79	QUAL	20
DECIDUOUS	80	QUAL	30
DECIDUOUS	81	QURU	19
DECIDUOUS	82	QUAL	24
DECIDUOUS	85	QURU	19
DECIDUOUS	86	QUAL	32
DECIDUOUS	87	QUAL	18
DECIDUOUS	88	QUAL	24
DECIDUOUS	89	QUAL	33
DECIDUOUS	90	QUAL	22
DECIDUOUS	91	QUAL	24
DECIDUOUS	98	LIST	19
DECIDUOUS	99	ULAL	18
DECIDUOUS	100	LITU	21
DECIDUOUS	103	LITU	31
DECIDUOUS	105	ACRU	23
DECIDUOUS	106	NYSY	18
DECIDUOUS	109	LITU	24
DECIDUOUS	110	LIST	19
DECIDUOUS	115	QUAL	48
DECIDUOUS	117	QUAL	26
DECIDUOUS	118	QUAL	25
DECIDUOUS	119	LITU	19
DECIDUOUS	122	QUAL	20
DECIDUOUS	123	QUAL	27
DECIDUOUS	124	ACRU	20
DECIDUOUS	125	CATO	25
DECIDUOUS	126	LITU	25
DECIDUOUS	129	LIST	20
DECIDUOUS	165	ACRU	25
DECIDUOUS	166	LITU	20
DECIDUOUS	173	QUNI	18
DECIDUOUS	174	QUNI	25
DECIDUOUS	175	QUNI	31
DECIDUOUS	176	LITU	29
DECIDUOUS	177	LITU	35
DECIDUOUS	178	LITU	18
DECIDUOUS	188	LITU	18
DECIDUOUS	189	LITU	21
DECIDUOUS	190	LITU	23
DECIDUOUS	191	QUAL	22
DECIDUOUS	192	QUAL	24
DECIDUOUS	193	LITU	25
DECIDUOUS	194	LITU	18
DECIDUOUS	195	LITU	19
DECIDUOUS	197	LITU	20
DECIDUOUS	198	LITU	19
DECIDUOUS	199	LITU	18
DECIDUOUS	204	LIST	18
DECIDUOUS	205	LITU	20
DECIDUOUS	206	LITU	18
DECIDUOUS	207	ACRU	26
DECIDUOUS	208	ACRU	29
DECIDUOUS	209	CEOC	24
DECIDUOUS	210	ACRU	24
DECIDUOUS	212	ACRU	30
DECIDUOUS	213	LIST	21
DECIDUOUS	216	LITU	27
DECIDUOUS	217	ACRU	18
DECIDUOUS	218	LITU	21
DECIDUOUS	219	LITU	36
DECIDUOUS	220	LITU	20
DECIDUOUS	221	LITU	32
DECIDUOUS	222	LITU	35
DECIDUOUS	223	LITU	22
DECIDUOUS	224	ACRU	24
DECIDUOUS	225	QUAL	28
DECIDUOUS	226	LITU	18
DECIDUOUS	227	LITU	25
DECIDUOUS	228	LITU	23
DECIDUOUS	229	LITU	23
DECIDUOUS	230	LITU	26
DECIDUOUS	231	LITU	35
DECIDUOUS	232	LITU	31
DECIDUOUS	241	LITU	22
DECIDUOUS	248	QUAL	25
DECIDUOUS	249	QUAL	23

TREE TO BE REMOVED			
TYPE	NO OF TREE	BOTANICAL NAME	CALIPER INCHES
DECIDUOUS	250	QURU	21
DECIDUOUS	252	ACRU	18
DECIDUOUS	253	ULAM	35
DECIDUOUS	254	QUAL	25
DECIDUOUS	255	ACRU	28
DECIDUOUS	256	QUNI	18
DECIDUOUS	257	ACRU	18
DECIDUOUS	258	LITU	19
DECIDUOUS	259	PLOC	38
DECIDUOUS	260	LITU	30
DECIDUOUS	261	LITU	21
DECIDUOUS	262	LITU	24
DECIDUOUS	263	LITU	31
DECIDUOUS	264	LITU	42
DECIDUOUS	265	LITU	24
DECIDUOUS	269	QURU	24
DECIDUOUS	270	QUAL	24
DECIDUOUS	273	QUAL	38
DECIDUOUS	288	LITU	22
DECIDUOUS	290	LIST	24
DECIDUOUS	291	LIST	18
DECIDUOUS	296	LITU	20
DECIDUOUS	303	QUFA	20
DECIDUOUS	304	LITU	20
DECIDUOUS	305	QURU	20
DECIDUOUS	311	QURU	18
DECIDUOUS	312	QUAL	20
DECIDUOUS	318	LITU	20
DECIDUOUS	319	QUAL	37
DECIDUOUS	320	QUAL	36
DECIDUOUS	330	LITU	20
DECIDUOUS	334	QURU	23
DECIDUOUS	335	QURU	25
DECIDUOUS	336	LITU	20
DECIDUOUS	337	QUFA	24
DECIDUOUS	352	QUNI	36
DECIDUOUS	353	QUNI	32
DECIDUOUS	355	LIST	20
DECIDUOUS	362	QUNI	26
DECIDUOUS	376	QUAL	24
DECIDUOUS	377	QURU	18
DECIDUOUS	378	QUAL	18
DECIDUOUS	379	CATO	19
DECIDUOUS	380	QURU	18
DECIDUOUS	381	PLOC	19
DECIDUOUS	382	QUFA	18
DECIDUOUS	383	QUAL	21
DECIDUOUS	384	LITU	31
DECIDUOUS	385	LITU	18
DECIDUOUS	386	CATO	24
DECIDUOUS	387	CATO	18
DECIDUOUS	388	QUAL	19
DECIDUOUS	392	QUAL	30
DECIDUOUS	393	QUAL	25
DECIDUOUS	394	QUAL	20
DECIDUOUS	395	QUFA	24
DECIDUOUS	396	QUAL	21
DECIDUOUS	397	QUAL	21
DECIDUOUS	398	QUAL	19
DECIDUOUS	399	QUAL	20
DECIDUOUS	400	ULAL	36
DECIDUOUS	401	ULAL	19
DECIDUOUS	402	QUAL	18
DECIDUOUS	403	QUAL	18
DECIDUOUS	404	QUFA	22
DECIDUOUS	405	QUFA	26
DECIDUOUS	407	QUAL	21
DECIDUOUS	408	QUAL	20
DECIDUOUS	413	QUAL	21
DECIDUOUS	417	QUAL	21
DECIDUOUS	420	QUAL	18
DECIDUOUS	422	QUAL	19
DECIDUOUS	423	LITU	38
DECIDUOUS	424	QUAL	18
DECIDUOUS	425	ACRU	19
DECIDUOUS	441	QUAL	18
DECIDUOUS	444	CATO	18
DECIDUOUS	445	QUAL	19
DECIDUOUS	447	LITU	30
DECIDUOUS	449	QUAL	21
DECIDUOUS	450	QUAL	18
DECIDUOUS	451	QUAL	18
DECIDUOUS	452	ACRU	24
DECIDUOUS	453	QUAL	21
DECIDUOUS	455	CAGL	19
DECIDUOUS	460	QUFA	20
DECIDUOUS	461	QUAL	20
DECIDUOUS	469	LITU	19
DECIDUOUS	475	QURU	18
DECIDUOUS	477	LIST	19
DECIDUOUS	479	LITU	21
DECIDUOUS	480	ACRU	24
TOTAL			186

TREE TYPE	CODE SECTION	CALIPERMIN. (")	REPLACEMENT RATE	NUMBER OF QUALIFING TREES	NUMBER OF REPLACEMENT TREES
EVERGREEN *	6.2.4.5.B.2 & 6.2.4.5.B.3	20	4 TREES	79	316
DECIDUOUS*		18	4 TREES	186	744
ALL**	6.2.4.5.B.4	60	60"	-	-
			TOTAL:		1060
* REPLACEMENT TREES TO BE OF SIMILAR SPECIES AND SIZE					
** REPLACEMENT TREE MIN 3" CALIPER					



CITY OF RALEIGH STANDARD DETAIL
TREE PROTECTION DETAIL
TPP-01
REVISION | DATE | BY

NOTES:
1. TREE PROTECTION FENCING MUST BE INSTALLED AT A MINIMUM RADIUS OF THE CRITICAL ROOT ZONE (SEE DETAIL TPP-02 FOR EXAMPLES)
2. THE TREE PROTECTION FENCING MUST REMAIN IN PLACE FOR THE DURATION OF THE PROJECT
3. NO WORK CAN BEGIN UNTIL INSPECTED BY URBAN FORESTRY STAFF.
4. APPROVED IMPACT WITHIN TREE PROTECTION AREAS MUST BE REMOVED AFTER CONSTRUCTION WHEN APPLICABLE.
5. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER FOR THE REMAINDER.
6. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTED AREA.
7. USE 2" X 4" WOOD OR METAL STAKES TO FENCE POSTS AND FABRIC.
8. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF RALEIGH BASED ON ACTUAL FIELD CONDITIONS.
9. SIGNS ARE TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL WITH LETTERS A MINIMUM OF 2 1/2" HIGH, CLEARLY LEGIBLE AND SPACED AS SHOWN.

CONTACT INFORMATION:
CITY OF RALEIGH PARKS, RECREATION AND CULTURAL RESOURCES DEPARTMENT
URBAN FORESTER:
TREES@RALEIGHNC.GOV
WWW.RALEIGHNC.GOV

No.	REVISIONS	DATE	BY
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SEAL:

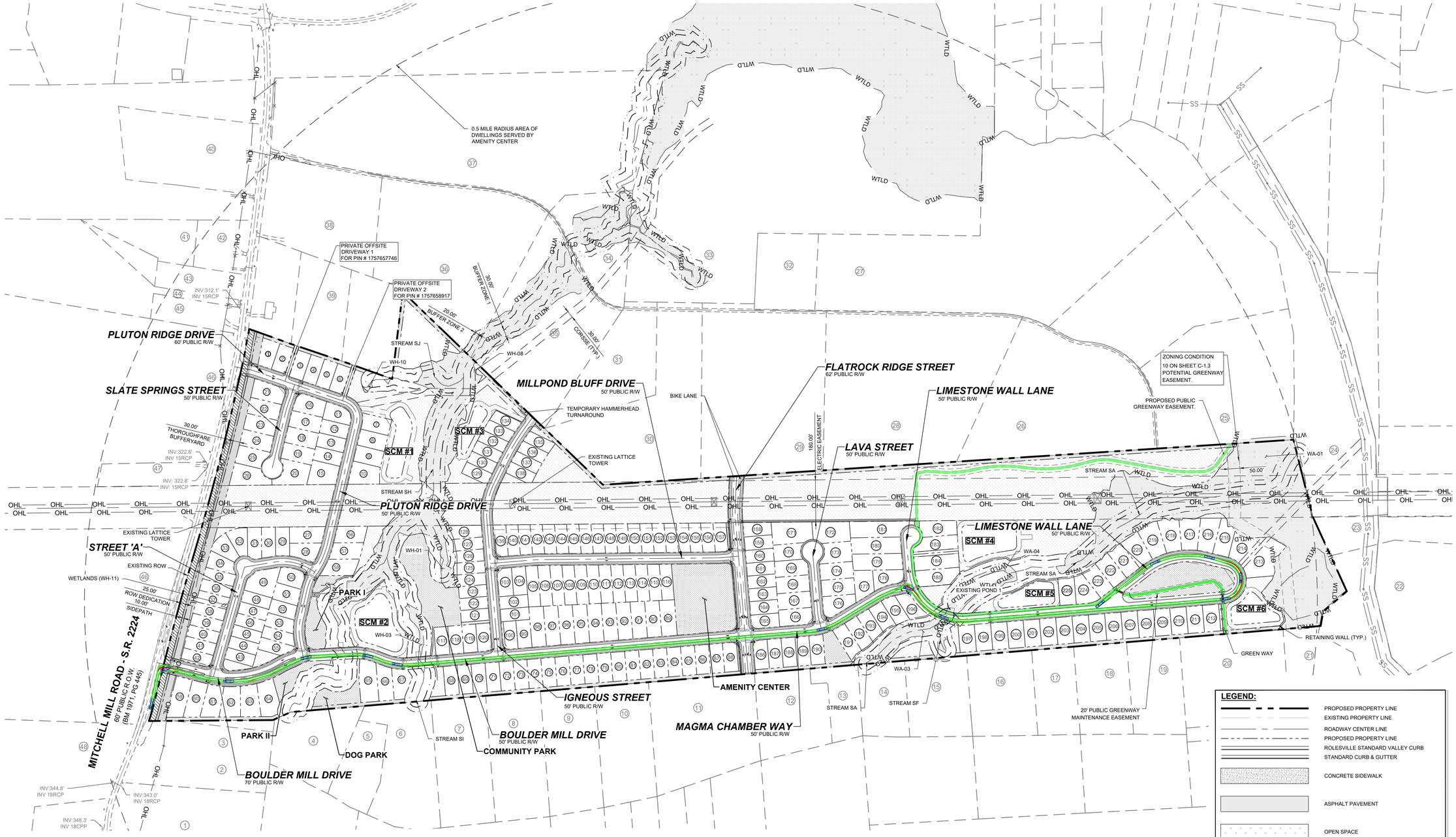
STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
PRESEVATION TABLE

DRAWING SHEET
C-12.7

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



LEGEND:

- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- ROADWAY CENTER LINE
- PROPOSED PROPERTY LINE
- ROLESVILLE STANDARD VALLEY CURB
- STANDARD CURB & GUTTER
- CONCRETE SIDEWALK
- ASPHALT PAVEMENT
- OPEN SPACE
- WTLD — EXISTING WETLAND — WTLD
- TRUCK BODY PATH OUTLINE
- WHEELS PATH OUTLINE
- FIRE TRUCK

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

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02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

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CHECKED BY	SRG

HILLS AT HARRIS CREEK

TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA

CONSTRUCTION PLANS

OVERALL FIRE PLAN

DRAWING SHEET

C-13.0

PROGRESS PLOT DATE: 05/08/2025

STREET 'A'
50' PUBLIC R/W

PLUTON RIDGE DRIVE
50' PUBLIC R/W

MILLPOND BLUFF DRIVE
50' PUBLIC R/W

IGNEOUS STREET
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

BOULDER MILL DRIVE
70' PUBLIC R/W

MITCHELL MILL ROAD - S.R. 2224
60' PUBLIC R.O.W.
(BM 1971, PG 445)

MANLY FARM RD

PARK I

PARK II

DOG PARK

COMMUNITY PARK

SCM #2

STREAM SI

STREAM SI

WH-11

WTLD

OHL

THO

MATCH LINE
FOR CONTINUATION, SEE C-13.2

C-13.1

C-13.2

C-13.3

SITE KEY PLAN

LEGEND:

SEE SHEET C-13.0 FOR LEGEND.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

FIRE PLAN I

DRAWING SHEET

C-13.1

PROGRESS PLOT DATE: 05/08/2025

MILLPOND BLUFF DRIVE
50' PUBLIC R/W

FLATROCK RIDGE STREET
62' PUBLIC R/W

LAVA STREET
50' PUBLIC R/W

BOULDER MILL DRIVE
50' PUBLIC R/W

MAGMA CHAMBER WAY
50' PUBLIC R/W

AMENITY CENTER

MATCH LINE
FOR CONTINUATION, SEE C-13.1

MATCH LINE
FOR CONTINUATION, SEE C-13.3

N/F
GOLD, SHARIE
PIN: 1757866660
DB: PG:
BM 1990 PG 00623
ZONING: R-30 (WC) USE: SF

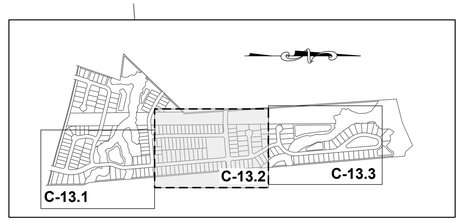
N/F
LEFRANCOIS CONSTRUCTION CO INC
PIN: 1757866852
DB: 18468 PG: 2535
BM 2002 PG 352
ZONING: R-30 (WC) USE: VA

N/F
LEFRANCOIS, MICHAEL L LEFRANCOIS, TONIA
PIN: 1757876015
DB: 14356 PG: 1438
BM 2002 PG 352
ZONING: R-30 (WC) USE: SF

N/F
BEATTIE, LENORA M
PIN: 1757875349
DB: 07-E PG: 2834
ZONING: R-30 (WC) USE: SF

N/F
LEFRANCOIS, STEPHEN D
PIN: 1757874787
DB: 5638 PG: 497
ZONING: R-30 (WC) USE: SF

N/F
ADAMS, BENJAMIN ADAMS, WHITNEY
PIN: 1757874938
DB: 18930 PG: 1511
BM 2006 PG 2397
ZONING: R-30 (WC) USE: SF



SITE KEY PLAN

LEGEND:

SEE SHEET C-13.0 FOR LEGEND.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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SEAL:

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305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

FIRE PLAN II

DRAWING SHEET

C-13.2

PROGRESS PLOT DATE: 05/08/2025

MATCH LINE
FOR CONTINUATION, SEE C-13.2

LIMESTONE WALL LANE
50' PUBLIC R/W

MAGMA CHAMBER WAY
50' PUBLIC R/W

SCM #4

SCM #5

EX. POND

STREAM SA

STREAM SF

WA-03

WA-04

WTLD

DUKE ENERGY POWERLINE EASEMENT
180.00'

BUFFER ZONE
20.00'

30.00' BUFFER ZONE

20' PUBLIC GREENWAY MAINTENANCE EASEMENT

GREEN WAY

N/F
JONES PROPERTIES LLC
PIN: 1757884137
DB: 11404 PG: 2275
BM 1986 PG 01374
ZONING: R-30 (WC) USE: MO

N/F
JONES PROPERTIES LLC
PIN: 1757884420
DB: 12589 PG: 1045
BM 1986 PG 1374
ZONING: R-30 (WC) USE: MO

N/F
JONES, CHARLES SPENCE
PIN: 1757884608
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757883981
DB: 5319 PG: 135
BM 1994 PG 1952
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757894101
DB: 2590 PG: 622
ZONING: R-30 (WC) USE: SF

N/F
JONES, CHARLES SPENCE
PIN: 1757893394
DB: 2478 PG: 210
ZONING: R-30 (WC) USE: MO

N/F
RGA CONSULTING LLC
PIN: 757893646
DB: 15770 PG: 1169
BM 2010 PG 725
ZONING: R-30 (WC) USE: VA

C-13.1 C-13.2 C-13.3

SITE KEY PLAN

LEGEND:

SEE SHEET C-13.0 FOR LEGEND.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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SEAL

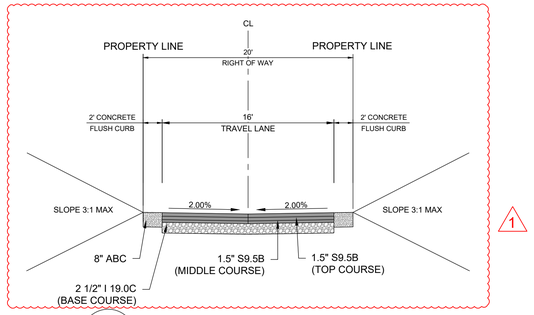
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STRONG ROCK PROJECT	
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SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

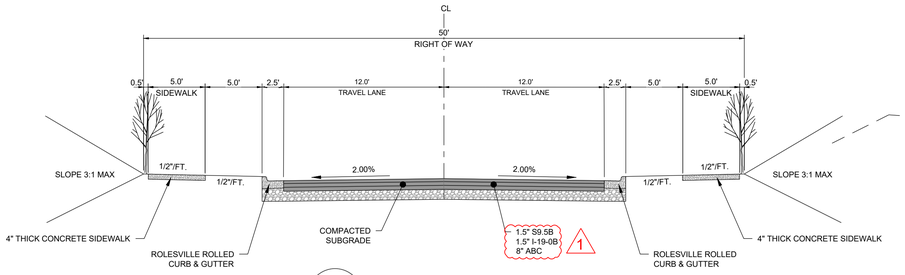
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
FIRE PLAN III

DRAWING SHEET
C-13.3

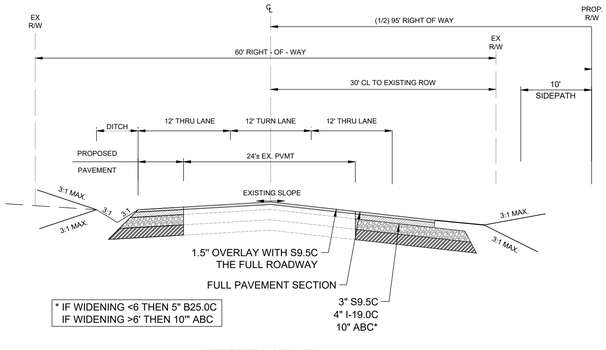
110 OF 128



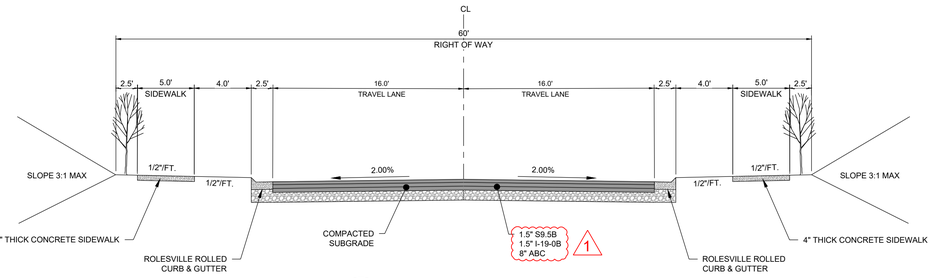
1 D-1.0 **20' PRIVATE OFFSITE DRIVEWAY SECTION - 20' ROW**
SCALE:



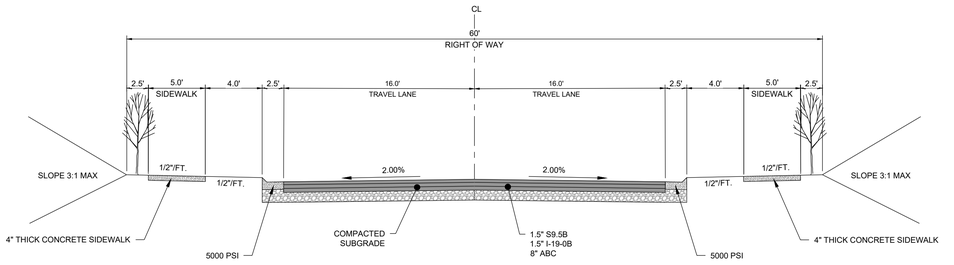
2 D-1.0 **TYPICAL CROSS SECTION - 50' ROW**
SCALE: NTS



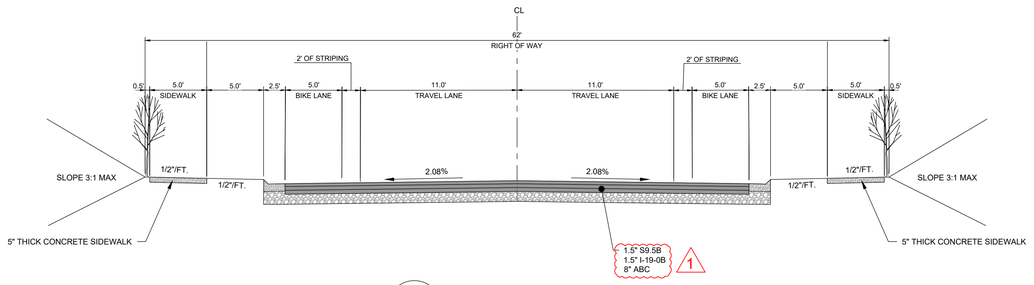
3 D-1.0 **MITCHELL MILL RD ROADWAY IMPROVEMENTS**
SCALE: NTS



4 D-1.0 **TYPICAL CROSS SECTION - 60' ROW**
SCALE: NTS

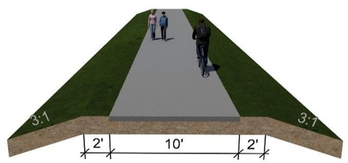


4 D-1.0 **TYPICAL CROSS SECTION - 60' ROW**
SCALE: NTS



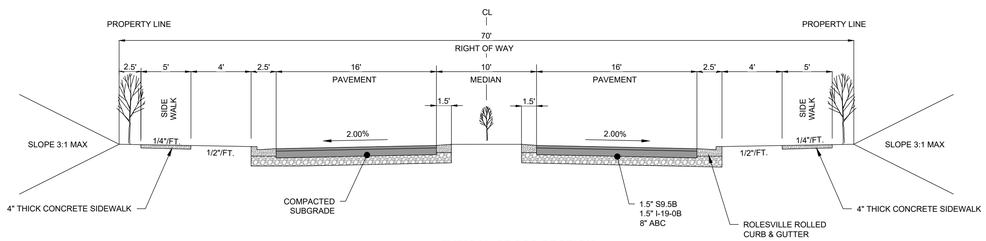
NOTE:
TYPICAL CROSS SECTION AS PER TOWN OF ROLESVILLE BICYCLE PLAN PAGE 72. GRANITE FALLS BLVD SEPARATED BIKE LANES.

5 D-1.0 **TYPICAL CROSS SECTION - 62' ROW**
SCALE: NTS



7 D-2.0 **TYPICAL GREENWAY SECTION**
SCALE: NTS

NOTE: GREENWAYS SHALL BE CONSTRUCTED WITH EITHER ASPHALT OR CONCRETE PAVEMENT. WHEN USING ASPHALT, A 2" MINIMUM ASPHALT COURSE, TYPE S9.5B, WITH A 6" AGGREGATE BASE COURSE SHALL BE PROVIDED. WHEN CONCRETE IS USED, A 4" MINIMUM PORTLAND CEMENT CONCRETE (PCC) WITH A 6" AGGREGATE BASE COURSE SHALL BE PROVIDED. REGAARDLESS OF THE MATERIAL, GEOTEXTILE STABILIZATION FABRIC SHALL BE PLACED UNDER THE COMPACTED AGGREGATE BASE COURSE (ABC) THE ENTIRE LENGTH AND WIDTH OF THE GREENWAY



6 D-1.0 **TYPICAL CROSS SECTION - 70' ROW**
SCALE: NTS

NOTE:
THE MINIMUM PAVEMENT SECTION FOR ALL TOWN ROADWAYS INCLUDES 3-INCHES OF ASPHALT AND 8-INCHES OF ABC. SURFACE MIX IS REQUIRED TO BE TTHE TOP LAYER IN ANY PAVEMENT DESIGN. THE ASPHALT SHALL BE PLACED IN TWO 1.5-INCCH LIFTS, FOR 3-INCH PAVEMENT.

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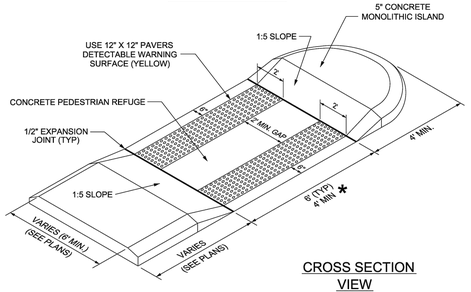
STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

TYPICAL CROSS SECTIONS

DRAWING SHEET
D-1.0

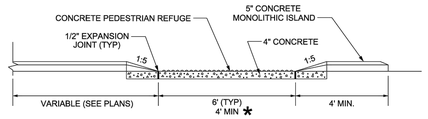
ISOMETRIC VIEW



CROSS SECTION VIEW

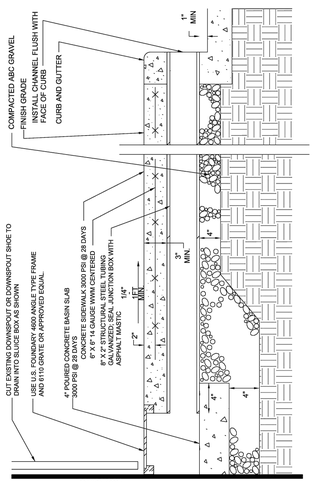


* 10'-0" MIN AT SHARED PEDESTRIAN AND BICYCLE CROSSINGS (TYP)

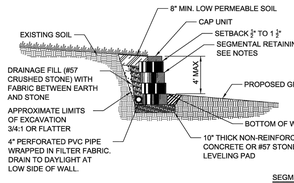


PROFILE VIEW

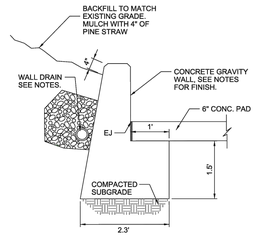
CITY OF RALEIGH STANDARD DETAIL	
REVISIONS DATE: 6/2020	NOT TO SCALE
DATE: 12/2022	PEDESTRIAN REFUGE
	T-20.03



CITY OF RALEIGH STANDARD DETAIL	
REVISIONS DATE: 6/2020	NOT TO SCALE
	CURB DRAIN DETAIL
	SW-10.12



SEGMENTAL GRAVITY RETAINING WALL



REINFORCED CONCRETE GRAVITY RETAINING WALL

SEGMENTAL GRAVITY RETAINING WALL NOTES:

1. STANDARD UNIT WILL MEET NCDOT APPROVED VENDORS LIST. DIMENSIONS OF CONCRETE BLOCKS ARE TYPICALLY 18" WIDE BY 18" DEEP BY 8" TALL WITH PIN OR SIMILAR LOCKING MECHANISMS. BACK FILL VOIDS IN BLOCKS WITH #57 STONE TO TOP.
2. DO NOT MIX UNITS FROM DIFFERENT VENDORS ON SAME WALL.
3. TOP CAP UNIT WILL BE GLUED TO BLOCKS WITH ADHESIVE MEETING MANUFACTURERS RECOMMENDATIONS.
4. DO NOT USE SEGMENTAL GRAVITY WALLS WHEN SURCHARGE LOADS WILL BE WITHIN 5'-6" OF THE BACK OF THE CAP UNIT.
5. DO NOT ATTACH FENCE OR HANDRAIL TO WALL.
6. WALL SIMILAR TO NCDOT STANDARD DRAWING 453.02.

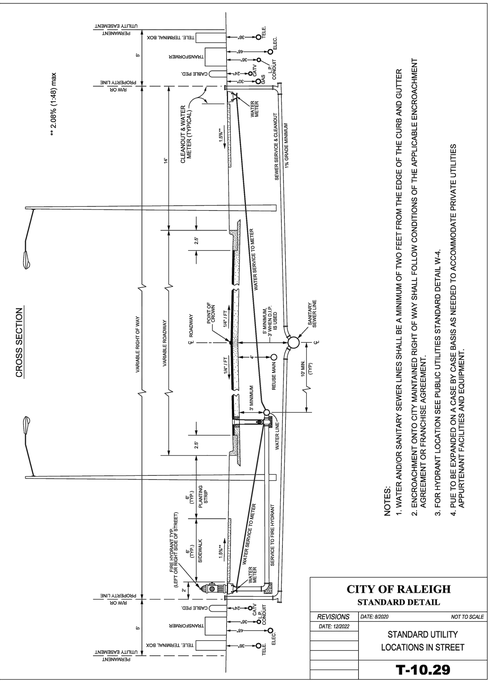
REINFORCED CONCRETE GRAVITY RETAINING WALL NOTES:

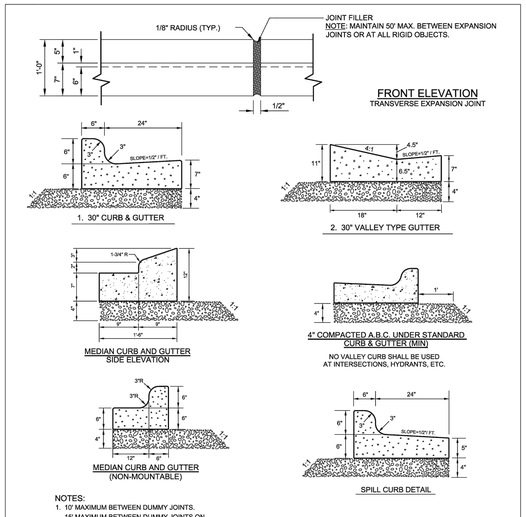
1. USE CLASS A CONCRETE AND PROVIDE CLASS I SURFACE FINISH ON ALL EXPOSED SURFACES.
2. PROVIDE GROVED CONTRACTION JOINTS EVERY 10'-0".
3. PROVIDE 4" PERFORATED PVC DRAIN PIPE THE LENGTH OF THE WALL. WRAP PIPE WITH FILTER FABRIC AND PROVIDE 1' WIDE BY 1' DEEP WASHED STONE AROUND PIPE. TIE TO STORM DRAIN OR DAYLIGHT AT ENDS AND PROVIDE SOCK AROUND END OF PIPE.
4. DO NOT BACKFILL WALL UNTIL CONCRETE DEVELOPS A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. COMPACT BACKFILL AND COMPACT WITH HAND OPERATED EQUIPMENT.
5. TAPER ENDS OF WALL TO 6" ABOVE GRADE IN 3' MINIMUM. END OF WALL SHALL HAVE 6" HORIZONTAL CLEARANCE FROM THE EDGE OF SIDEWALK.
6. WALL SIMILAR TO NCDOT STANDARD DRAWING 453.01.

GENERAL NOTES:

1. COORDINATE WITH CITY OF RALEIGH ON WHICH WALL TYPE TO USE.
2. ALL RETAINING WALLS SHALL BE DESIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER.

CITY OF RALEIGH STANDARD DETAIL	
REVISIONS DATE: 6/2020	NOT TO SCALE
	RETAINING WALL
	TT-09


** 2.00% (1:50) max
CROSS SECTION
TELE. TERMINAL BOX
UTILITY EASEMENT
PERMANENT
JB
GAS
GAS METER
TRANSFORMER
CABLE PED.
POWER
PWR ON
PWR ON
POWER
CABLE PED.
TRANSFORMER
TELE. TERMINAL BOX
UTILITY EASEMENT
PERMANENT
CLEARLY MARK LOCATION OF WATER METER
CLEARLY MARK LOCATION OF SEWER CLEANOUT
CLEARLY MARK LOCATION OF WATER METER
CLEARLY MARK LOCATION OF WATER METER
CLEANOUT
SEWER
WATER METER
CLEARLY MARK LOCATION OF WATER METER
CLEANOUT
SEWER
WATER METER
CLEANOUT
SEWER
WATER METER
CLEANOUT
SEWER

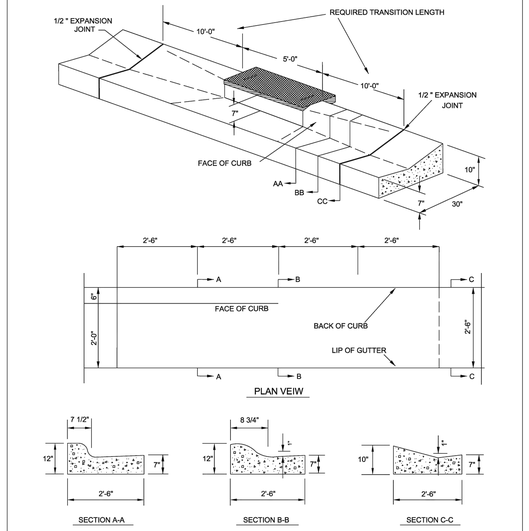


NOTES:
1. 10' MAXIMUM BETWEEN DUMMY JOINTS. 15' MAXIMUM BETWEEN DUMMY JOINTS ON MACHINE POURS.
2. 1/2" EXPANSION JOINT EVERY 50'.
3. 3000 PSI CONCRETE MINIMUM, 4" SLUMP MAXIMUM.
4. LIQUID MEMBRANE CURING COMPOUND SHALL MEET THE REQUIREMENTS OF SECTION 1026-2 OF NCDOT STANDARDS & SPECIFICATIONS FOR ROADS AND STRUCTURES.
5. ALL CONSTRUCTION JOINTS SHALL BE FILLED WITH JOINT FILLER AND SEALER IN ACCORDANCE WITH NCDOT ROADWAY STANDARD DETAIL 846.01 THE JOINT MATERIAL SHALL CONFORM TO SECTION 1028-2 OF NCDOT STANDARD & SPECIFICATIONS FOR ROADS AND STRUCTURES.
6. REFER TO NCDOT DETAIL 846.01 FOR CURB AND GUTTER SUPERELEVATION RATES.

SHEET 1 OF 2

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	CURB AND GUTTER	
	T-10.26.1	

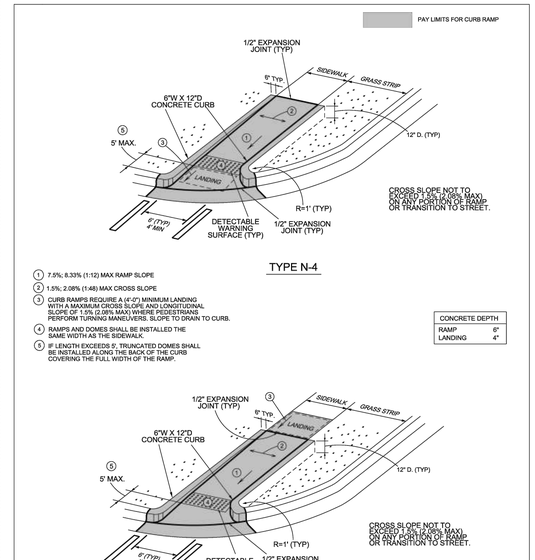


NOTES:
TRANSITION NOT TO BE LOCATED WITHIN THE CURB RADIUS.

SHEET 2 OF 2

CITY OF RALEIGH
STANDARD DETAIL

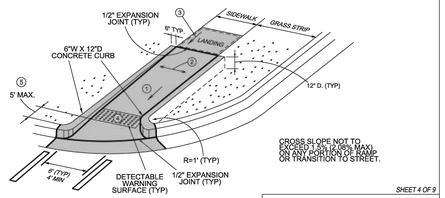
REVISIONS	DATE: 8/2020	NOT TO SCALE
	CURB TRANSITION TO 2'- 6" VALLEY GUTTER	
	T-10.26.2	



TYPE N-4

1. 7.5%; 8.33% (1:12) MAX RAMP SLOPE
2. 1.5%; 2.08% (1:48) MAX CROSS SLOPE
3. CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 1.5% (2.08% MAX) WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.
4. RAMPS AND DOMES SHALL BE INSTALLED THE SAME WIDTH AS THE SIDEWALK.
5. IF LENGTH EXCEEDS 5', TRUNCATED DOMES SHALL BE INSTALLED ALONG THE BACK OF THE CURB COVERING THE FULL WIDTH OF THE RAMP.

CONCRETE DEPTH	
RAMP	6"
LANDING	4"

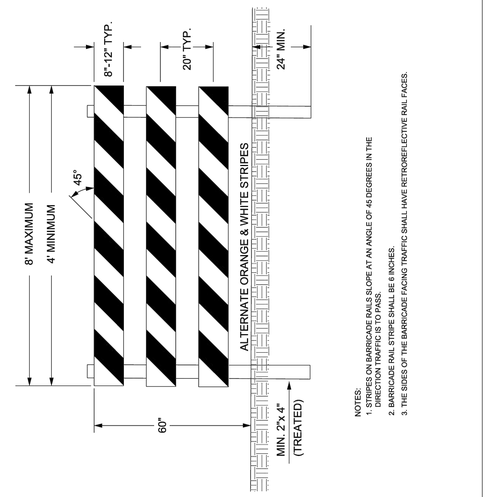


TYPE N-4A

SHEET 4 OF 9

CITY OF RALEIGH
STANDARD DETAIL

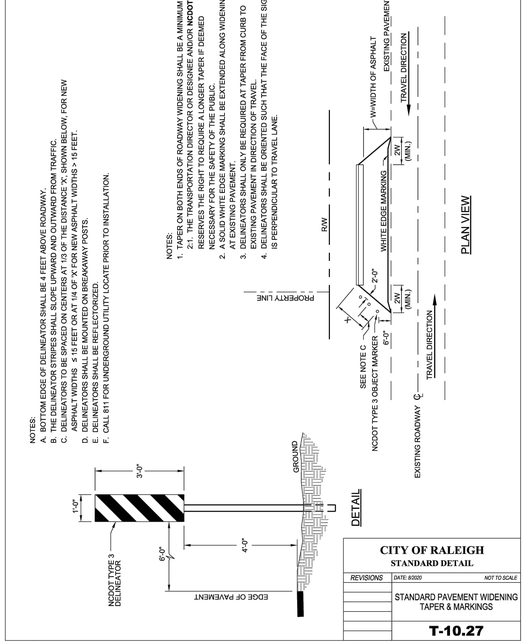
REVISIONS	DATE: 8/2020	NOT TO SCALE
DATE: 12/2022	CURB RAMPS (NEW DEVELOPMENT)	
	T-20.01.4	



NOTES:
1. STRIPES ON BARRICADE RAILS SLOPE AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.
2. BARRICADE RAIL STRIPE SHALL BE 8 INCHES.
3. THE SIDES OF THE BARRICADE FACING TRAFFIC SHALL HAVE RETROREFLECTIVE RAIL FACES.

CITY OF RALEIGH
STANDARD DETAIL

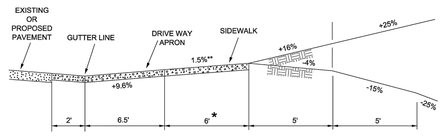
REVISIONS	DATE: 8/2020	NOT TO SCALE
	STANDARD TEMPORARY BARRICADE	
	SW-20.17	



CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	STANDARD PAVEMENT WIDENING TAPER & MARKINGS	
	T-10.27	

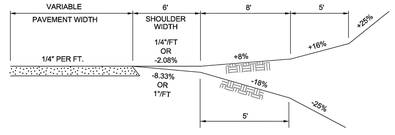
DRIVEWAY GRADES



★ 5' FOR SENSITIVE AREA AVENUE AND SENSITIVE AREA RESIDENTIAL STREET

★★ 2.08% (1:48) max

A. CURB & GUTTER , SIDEWALK SECTION

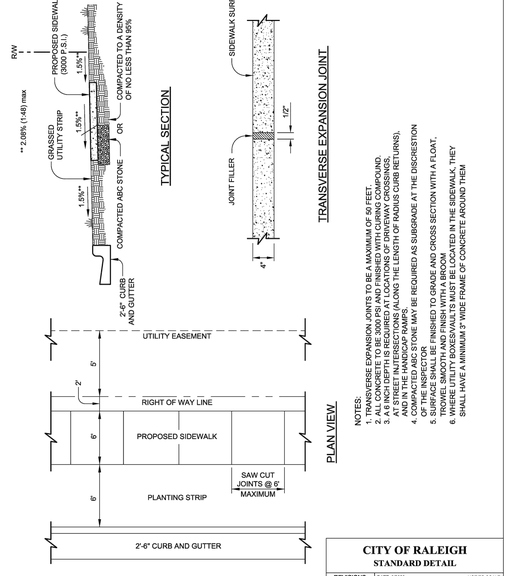


B. SHOULDER SECTION

NOTES:
IF THE SLOPE BETWEEN THE TOP OF CURB AND GUTTER AND A POINT 30 FEET FROM THE CURB AND GUTTER EXCEEDS 20%, THIS SLOPE SHALL BE ADJUSTED TO A MAXIMUM OF 8.33% (1"/FT) UP OR 4.17% (1/2" /FT) DOWN.

CITY OF RALEIGH
STANDARD DETAIL

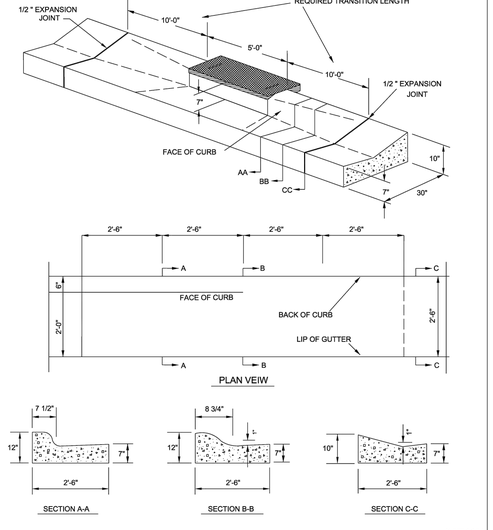
REVISIONS	DATE: 8/2020	NOT TO SCALE
DATE: 12/2022	DRIVEWAY GRADES	
	T-10.04	



NOTES:
1. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 50 FEET.
2. ALL CONCRETE TO BE 3000 PSI AND FINISHED WITH CURING COMPOUND.
3. A 6' INCH DEPTH IS REQUIRED AT LOCATIONS OF DRIVEWAY CROSSINGS, AND AT STREET INTERSECTIONS ALONG THE LENGTH OF RADIUS CURB RETURNS), AND IN THE HANDICAP RAMPS.
4. COMPACTED ABC STONE MAY BE REQUIRED AS SUBGRADE AT THE DISCRETION OF THE INSPECTOR.
5. SURFACE SHALL BE FINISHED TO GRADE AND CROSS SECTION WITH A FLOAT, TROWEL SMOOTH AND FINISH WITH A BROOM.
6. WHERE DETECTABLE WARNING SURFACE IS INSTALLED IN THE SIDEWALK, THEY SHALL HAVE A MINIMUM 3' WIDE FRAME OF CONCRETE AROUND THEM

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
DATE: 12/2022 DATE: 05/2023	CONCRETE SIDEWALK	
	T-30.01.1	



SHEET 2 OF 2

NOTES:
TRANSITION NOT TO BE LOCATED WITHIN THE CURB RADIUS.

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	CURB TRANSITION TO 2'- 6" VALLEY GUTTER	
	T-10.26.2	

No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE VC-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

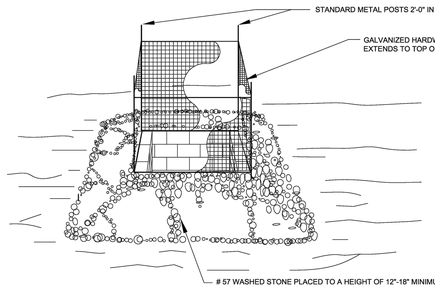
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SITE DETAILS

DRAWING SHEET
D-1.2

113 OF 128

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



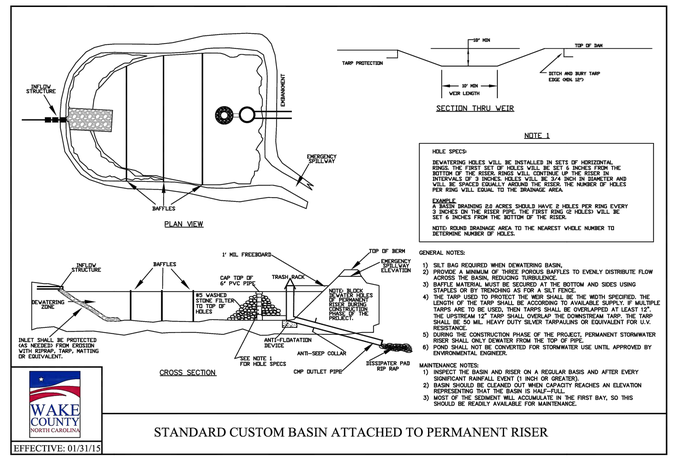
MAINTENANCE NOTES:

1. REMOVE SEDIMENT WHEN HALF HEIGHT OF STONE AND CLEAR HARDWARE OF DEBRIS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS, TAKING CARE NOT TO DAMAGE OR UNDERCUT HARDWARE DURING SEDIMENT REMOVAL.
2. REPLACE STONE AS NEEDED.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD GRAVEL YARD INLET PROTECTION



NOTE 1

HOLE SPECS:

DEWATERING HOLES WILL BE INSTALLED IN SETS OF HORIZONTAL RINGS. TOP FIRST SET OF HOLES WILL BE SET 3 INCHES FROM THE BOTTOM OF THE RISER. RISER RINGS WILL CONTINUE UP THE RISER IN INTERVALS OF 3 INCHES. HOLES WILL BE 3/4 INCH IN DIAMETER AND WILL BE SPACED EQUALLY AROUND THE RISER. THE NUMBER OF HOLES PER RING WILL EQUAL TO THE DRAINAGE AREA.

EXAMPLE
A BASIN DRAINING 2.0 ACRES SHOULD HAVE 2 HOLES PER RING EVERY 3 INCHES ON THE RISER PIPE. THE FIRST RING (2 HOLES) WILL BE SET 3 INCHES FROM THE BOTTOM OF THE RISER.

NOTE: ROUND DRAINAGE AREA TO THE NEAREST WHOLE NUMBER TO DETERMINE NUMBER OF HOLES.

GENERAL NOTES:

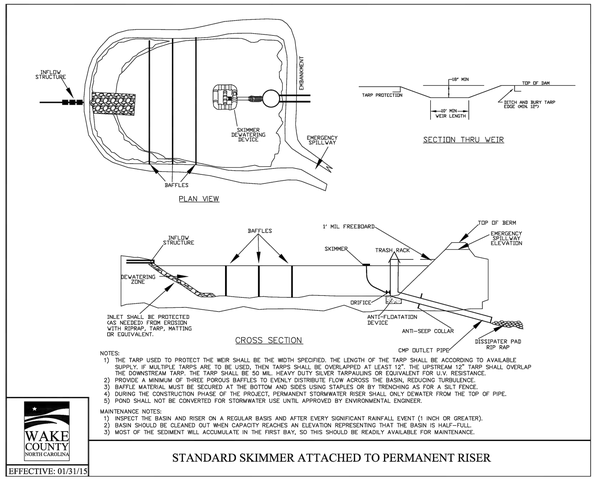
1) SILT BAG REQUIRED WHEN DEWATERING BASIN.
2) PROVIDE A MINIMUM OF THREE POROUS BAFFLES TO EVENLY DISTRIBUTE FLOW ACROSS THE BASIN, REDUCING TURBULENCE.
3) BAFFLE MATERIAL MUST BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR A SILT FENCE.
4) THE TARP USED TO PROTECT THE WEIR SHALL BE THE WIDTH SPECIFIED. THE LENGTH OF THE TARP SHALL BE ACCORDING TO AVAILABLE SUPPLY. IF MULTIPLE TARPS ARE TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.
5) DURING THE CONSTRUCTION PHASE OF THE PROJECT, PERMANENT STORMWATER RISER SHALL ONLY DEWATER FROM THE TOP OF PIPE.
6) POND SHALL NOT BE CONVERTED FOR STORMWATER USE UNTIL APPROVED BY ENVIRONMENTAL ENGINEER.

MAINTENANCE NOTES:
1) INSPECT THE BASIN AND RISER ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT (1 INCH OR GREATER).
2) BASIN SHOULD BE CLEANED OUT WHEN CAPACITY REACHES AN ELEVATION REPRESENTING THAT THE BASIN IS HALF-FULL.
3) MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY AVAILABLE FOR MAINTENANCE.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/15

STANDARD CUSTOM BASIN ATTACHED TO PERMANENT RISER



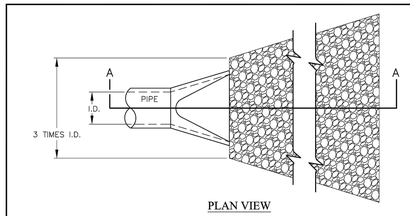
NOTES:
1) THE TARP USED TO PROTECT THE WEIR SHALL BE THE WIDTH SPECIFIED. THE LENGTH OF THE TARP SHALL BE ACCORDING TO AVAILABLE SUPPLY. IF MULTIPLE TARPS ARE TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.
2) PROVIDE A MINIMUM OF THREE POROUS BAFFLES TO EVENLY DISTRIBUTE FLOW ACROSS THE BASIN, REDUCING TURBULENCE.
3) BAFFLE MATERIAL MUST BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR A SILT FENCE.
4) DURING THE CONSTRUCTION PHASE OF THE PROJECT, PERMANENT STORMWATER RISER SHALL ONLY DEWATER FROM THE TOP OF PIPE.
5) POND SHALL NOT BE CONVERTED FOR STORMWATER USE UNTIL APPROVED BY ENVIRONMENTAL ENGINEER.

MAINTENANCE NOTES:
1) INSPECT THE BASIN AND RISER ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT (1 INCH OR GREATER).
2) BASIN SHOULD BE CLEANED OUT WHEN CAPACITY REACHES AN ELEVATION REPRESENTING THAT THE BASIN IS HALF-FULL.
3) MOST OF THE SEDIMENT WILL ACCUMULATE IN THE FIRST BAY, SO THIS SHOULD BE READILY AVAILABLE FOR MAINTENANCE.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/15

STANDARD SKIMMER ATTACHED TO PERMANENT RISER

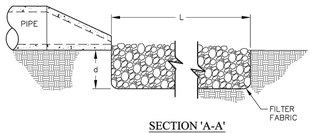


NOTES:

1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

MAINTENANCE NOTES:

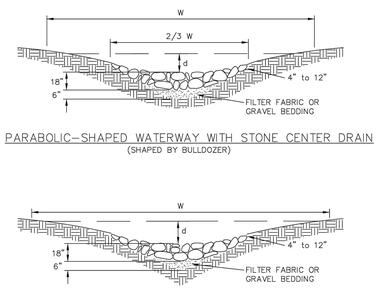
1. INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



WAKE COUNTY NORTH CAROLINA

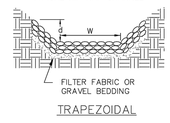
EFFECTIVE: 01/31/08

STANDARD PIPE OUTLET TO FLAT AREA NO WELL-DEFINED CHANNEL



NOTES:

- TO BE USED WHERE EXCESSIVE STORMWATER VELOCITIES PROHIBIT VEGETATIVE LININGS.
- SIZE OF STONE MUST BE DETERMINED BY APPROPRIATE DESIGN PROCEDURE.
- DIMENSIONS FOR d & W VARIES ACCORDING TO DESIGN.

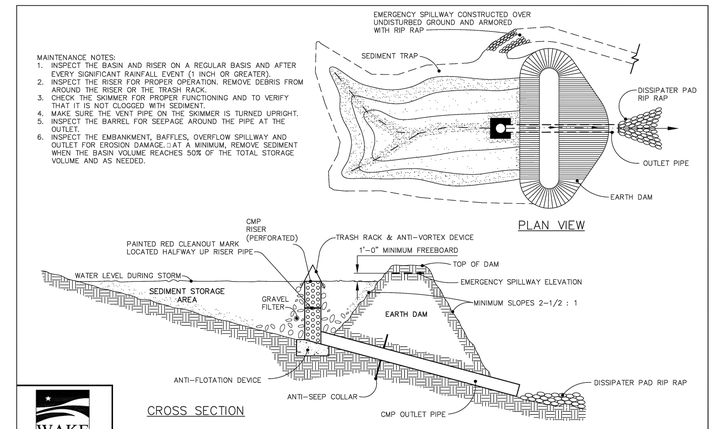


MAINTENANCE NOTES:
-INSPECT RIPRAP DITCH WEEKLY AND AFTER SIGNIFICANT RAIN EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIP RAP HAS TAKEN PLACE. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.
-IF EROSION IS EVIDENT PAST END OF RIPRAP DITCH DUE TO RUNOFF DISCHARGING FROM DITCH, INCREASE DIMENSIONS OF RIPRAP PAD PROVIDED SPACE IS AVAILABLE WITHIN THE APPROVED LIMITS OF DISTURBANCE.
-MAINTAIN ALL VEGETATION ADJACENT TO CHANNEL IN A HEALTHY, VIGOROUS CONDITION TO PROTECT DITCH FROM EROSION AND SCOUR DURING OUT-OF-BANK FLOW.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD RIP-RAP LINED CHANNELS

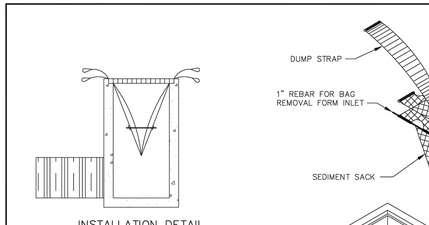


MAINTENANCE NOTES:
1. INSPECT THE BASIN AND RISER ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT (1 INCH OR GREATER).
2. INSPECT THE BASIN FOR PROPER OPERATION. REMOVE DEBRIS FROM AROUND THE RISER OR THE TRASH RACK.
3. CHECK THE SKIMMER FOR PROPER FUNCTIONING AND TO VERIFY THAT IT IS NOT CLOGGED WITH SEDIMENT.
4. MAKE SURE THE VENT PIPE ON THE SKIMMER IS TURNED UPRIGHT.
5. INSPECT THE BARREL FOR SEEPAGE AROUND THE PIPE AT THE OUTLET.
6. INSPECT THE EMBANKMENT, BAFFLES, OVERFLOW SPILLWAY AND OUTLET FOR EROSION DAMAGE. AT A MINIMUM, REMOVE SEDIMENT WHEN THE BASIN VOLUME REACHES 50% OF THE TOTAL STORAGE VOLUME AND AS NEEDED.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD RISER-BARREL SEDIMENT BASIN



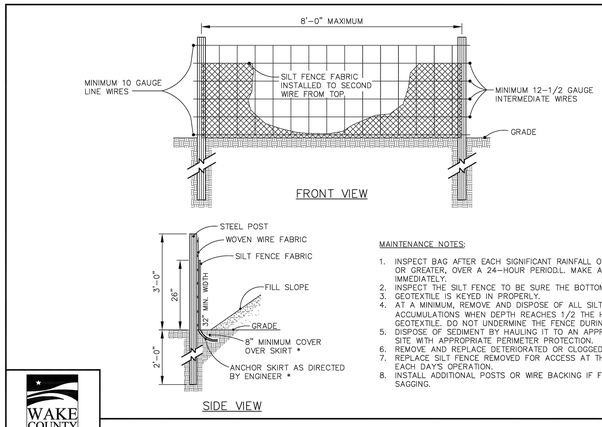
MAINTENANCE NOTES:

1. INSPECT BAG AFTER EACH SIGNIFICANT RAINFALL OF 1 INCHES OR GREATER, OVER A 24-HOUR PERIOD.
2. FOLLOW ROAD SAFETY WHILE PERFORMING MAINTENANCE.
3. REPLACE BAG WHEN THEY BECOME CONTAMINATED WITH SEDIMENT AND CONSTRUCTION DEBRIS.
4. WHEN MAINTAINING AND REMOVING INLET PROTECTION DEVICES, EXERCISE CARE TO MINIMIZE SEDIMENT FALLING INTO THE INLET. IMMEDIATELY REMOVE ALL MATERIAL THAT HAS FALLEN INTO INLETS. DEPOSIT SEDIMENT REMOVED FROM THE DEVICE IN A SUITABLE AREA AND STABILIZE.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD SILT BAG - INLET SEDIMENT CONTROL DEVICE



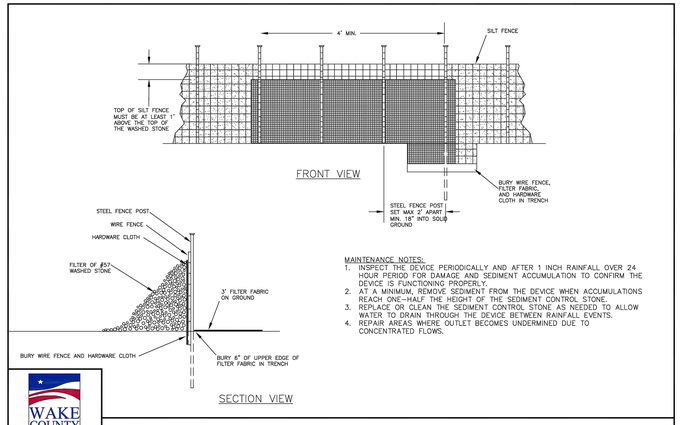
MAINTENANCE NOTES:

1. INSPECT BAG AFTER EACH SIGNIFICANT RAINFALL OF 1 INCHES OR GREATER, OVER A 24-HOUR PERIOD. MAKE ANY REPAIRS IMMEDIATELY.
2. INSPECT THE SILT FENCE TO BE SURE THE BOTTOM OF THE GEOTEXTILE IS KEYED IN PROPERLY.
3. GEOTEXTILE IS KEYED IN PROPERLY.
4. AT A MINIMUM, REMOVE AND DISPOSE OF ALL SILT ACCUMULATIONS WHEN DEPTH REACHES 1/2 THE HEIGHT OF THE GEOTEXTILE. DO NOT UNDERMINE THE FENCE DURING CLEANOUT.
5. DISPOSE OF SEDIMENT BY HAULING IT TO AN APPROVED WASTE SITE WITH APPROPRIATE PERIMETER PROTECTION.
6. REMOVE AND REPLACE DETERIORATED OR CLOGGED SILT FENCE.
7. REPLACE SILT FENCE REMOVED FOR ACCESS AT THE END OF EACH DAY'S OPERATION.
8. INSTALL ADDITIONAL POSTS OR WIRE BACKING IF FENCE IS SAGGING.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD TEMPORARY SILT FENCE



MAINTENANCE NOTES:

1. INSPECT THE DEVICE PERIODICALLY AND AFTER 1 INCH RAINFALL OVER 24 HOUR PERIOD FOR DAMAGE AND SEDIMENT ACCUMULATION TO CONFIRM THE DEVICE IS FUNCTIONING PROPERLY.
2. AT A MINIMUM, REMOVE SEDIMENT FROM THE DEVICE WHEN ACCUMULATIONS REACH ONE-HALF THE HEIGHT OF THE SEDIMENT CONTROL STONE.
3. REPLACE OR CLEAN THE SEDIMENT CONTROL STONE AS NEEDED TO ALLOW WATER TO DRAIN THROUGH THE DEVICE BETWEEN RAINFALL EVENTS.
4. REPAIR AREAS WHERE OUTLET BECOMES UNDERMINED DUE TO CONCENTRATED FLOWS.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD SILT FENCE OUTLET

No.	DATE	BY
01	11/01/2024	SREG
02	02/03/2025	SREG

TOWN OF ROLESVILLE CID-24-07
TOWN OF ROLESVILLE VP-CID-24-07

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

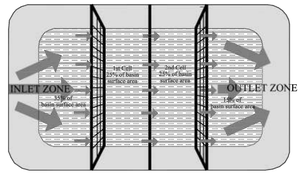
EROSION CONTROL DETAILS

DRAWING SHEET

D-2.0

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THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.

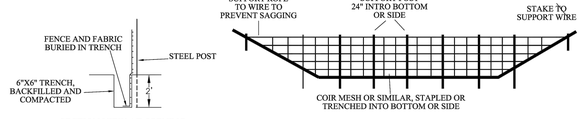


PLAN VIEW

NOTES:
1. BAFFLE MATERIAL SHOULD BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TRENCHING AS FOR SILT FENCE.
2. MOST OF THE SEDIMENT WILL ACCUMULATE IN THE 1ST BAY, WHICH SHOULD BE READILY ACCESSIBLE FOR MAINTENANCE.
3. PROVIDE 3 BAFFLES (USE TWO IF LESS THAN 20 FEET IN LENGTH). PROVIDE 5 BAFFLES FOR DRAINAGE AREAS GREATER THAN 10 ACRES.
4. BAFFLE SHALL BE 700 GM2 COIR EROSION BLANKET.
5. TOPS OF BAFFLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERMS.

MAINTENANCE NOTES:
1. INSPECT BAFFLES FOR REPAIR ONCE A WEEK AND AFTER EACH 1" RAINFALL.
2. MAINTAIN ACCESS TO BAFFLES AND MAKE ANY REPAIRS IMMEDIATELY.
3. REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL.
4. AVOID DAMAGING BAFFLES DURING CLEANOUT AND REPLACE IF DAMAGED.
5. REMOVE BAFFLES AND SEDIMENT DEPOSITS AFTER CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.

CROSS SECTION

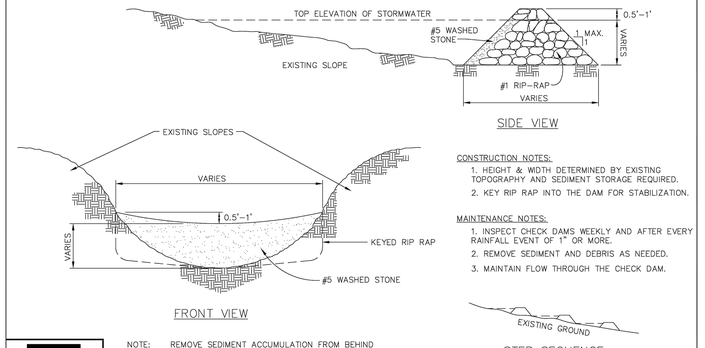


SECTION VIEW AT OPENING

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD BAFFLES DETAIL



CONSTRUCTION NOTES:
1. HEIGHT & WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.
2. KEY RIP RAP INTO THE DAM FOR STABILIZATION.

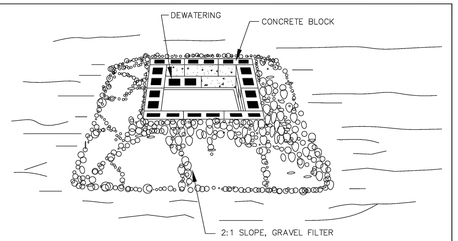
MAINTENANCE NOTES:
1. INSPECT CHECK DAMS WEEKLY AND AFTER EVERY RAINFALL EVENT OF 1" OR MORE.
2. REMOVE SEDIMENT AND DEBRIS AS NEEDED.
3. MAINTAIN FLOW THROUGH THE CHECK DAM.

NOTE: REMOVE SEDIMENT ACCUMULATION FROM BEHIND CHECK DAMS TO PREVENT DAMAGE TO CHANNEL VEGETATION. FLOW SHOULD BE MAINTAINED THROUGH THE DAM.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD CHECK DAM

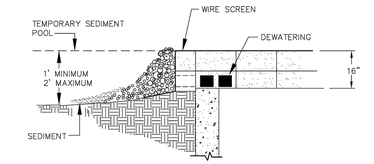


CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE IN THE BOTTOM ROW TO ALLOW POOL DRAINAGE. THE FOUNDATION SHOULD BE EXCAVATED AT LEAST 2 INCHES BELOW THE CREST OF THE STORM DRAIN. PLACE THE BOTTOM ROW OF BLOCKS AGAINST THE EDGE OF THE STORM DRAIN FOR LATERAL SUPPORT AND TO AVOID WASHOUTS WHEN OVERFLOW OCCURS. IF NEEDED, GIVE LATERAL SUPPORT TO SUBSEQUENT ROWS BY PLACING 2x4 WOOD STUDS THROUGH BLOCK OPENINGS.
2. CAREFULLY FIT HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENINGS OVER ALL BLOCK OPENINGS TO HOLD GRAVEL IN PLACE.
3. USE CLEAN GRAVEL, 3/4 TO 1/2 INCH IN DIAMETER, PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER AND SMOOTH IT TO AN EVEN GRADE. DOT #57 WASHED STONE IS RECOMMENDED.

MAINTENANCE NOTES:

1. INSPECT INLET PROTECTION AND REMOVE SEDIMENT AFTER EACH 1" RAIN EVENT.
2. REMOVE SEDIMENT WHEN VOLUME OF THE BASIN IS REDUCED BY ONE-HALF.
3. GRAVEL SHOULD BE REPLACED AND REPAIRS MADE AS NEEDED.



WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

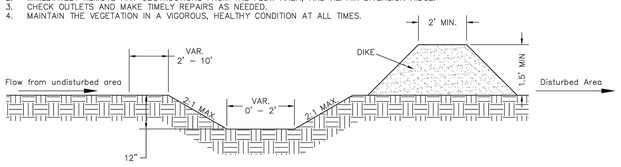
STANDARD BLOCK & GRAVEL DROP INLET PROTECTION

NOTES:

1. DIVERSION TO BE USED UPSLOPE OF A CONSTRUCTION SITE TO PREVENT STORM RUNOFF FROM ENTERING THE DISTURBED AREA.
2. IMMEDIATELY LINE AND STABILIZE BEFORE ANY DOWNSLOPE GRADING BEGINS (STABILIZATION MUST OCCUR BEFORE ISSUANCE OF A CERTIFICATE OF COMPLIANCE). STABILIZATION METHOD IS BASED ON VELOCITY OF OFFSITE DRAINAGE.
3. DIVERSIONS SHOULD ONLY BE USED FOR DRAINAGES 5 ACRES OR LESS.
4. ANY SEDIMENT LADEN WATER PRIOR TO STABILIZATION OF THE DIVERSION MUST BE DIVERTED INTO AN APPROVED EROSION AND SEDIMENT CONTROL BMP. CLEAN WATER SHOULD EMPTY INTO AN APPROVED OUTLET DEVICE.

MAINTENANCE NOTES:

1. INSPECT AFTER EVERY RAINFALL DURING THE CONSTRUCTION OPERATION.
2. IMMEDIATELY REMOVE ANY OBSTRUCTIONS FROM THE FLOW AREA, AND REPAIR DIVERSION RIDGE.
3. CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.
4. MAINTAIN THE VEGETATION IN A VIGOROUS, HEALTHY CONDITION AT ALL TIMES.

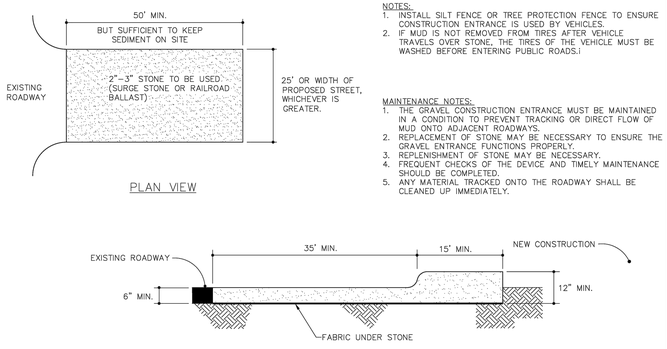


CROSS SECTIONAL VIEW

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD CLEAN WATER DIVERSION



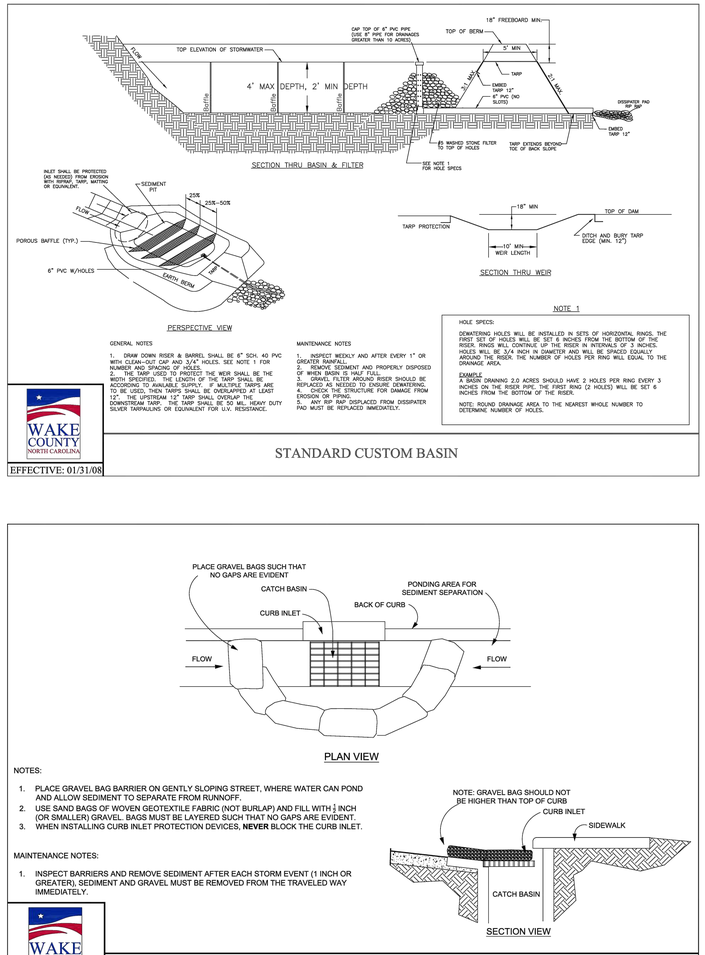
NOTES:
1. INSTALL SILT FENCE OR TREE PROTECTION FENCE TO ENSURE CONSTRUCTION ENTRANCE IS USED BY VEHICLES.
2. IF MUD IS NOT REMOVED FROM TIRES BY VEHICLE TRAVELS OVER STONE, THE TIRES OF THE VEHICLE MUST BE WASHED BEFORE ENTERING PUBLIC ROADS.I

MAINTENANCE NOTES:
1. THE GRAVEL CONSTRUCTION ENTRANCE MUST BE MAINTAINED IN A CONDITION TO PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO ADJACENT ROADWAYS.
2. REPLACEMENT OF STONE MAY BE NECESSARY TO ENSURE THE GRAVEL ENTRANCE FUNCTIONS PROPERLY.
3. REPLENISHMENT OF STONE MAY BE NECESSARY.
4. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE SHOULD BE COMPLETED.
5. ANY MATERIAL TRACKED ONTO THE ROADWAY SHALL BE CLEANED UP IMMEDIATELY.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD CONSTRUCTION ENTRANCE



GENERAL NOTES

1. DRAW DOWN RISER & BARREL SHALL BE 6" SCH. 40 PVC WITH CLEAN-OUT CAP AND 3/4" HOLES. SEE NOTE 1 FOR NUMBER AND SPACING OF HOLES.
2. THE TARP USED TO PROTECT THE WEIR SHALL BE WEIGHTED SPECIFICALLY ALONG THE TOP. SHALL BE WOODEN STRIPS OR SIMILAR. IF STONE IS USED THEN TO BE USED, THEN TARPS SHALL BE OVERLAPPED AT LEAST 12". THE UPSTREAM 12" TARP SHALL OVERLAP THE DOWNSTREAM TARP. THE TARP SHALL BE 50 MIL. HEAVY DUTY SILVER TARPAULINS OR EQUIVALENT FOR U.V. RESISTANCE.

MAINTENANCE NOTES

1. INSPECT WEEKLY AND AFTER EVERY 1" OR GREATER RAINFALL.
2. REMOVE SEDIMENT AND PROPERLY DISPOSED OF WHEN BASIN IS HALF FULL.
3. WOODEN SPECIFIED LENGTH OF TARP SHALL BE REPLACED AS NEEDED TO ENSURE DEWATERING.
4. CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING.
5. ANY RIP RAP DISPLACED FROM DISSIPATER PAD MUST BE REPLACED IMMEDIATELY.

NOTE 1

HOLE SPECS:

DEWATERING HOLES WILL BE INSTALLED IN SETS OF HORIZONTAL RINGS. THE FIRST SET OF HOLES WILL BE SET 6 INCHES FROM THE BOTTOM OF THE RISER. RINGS WILL CONTINUE UP THE RISER IN INTERVALS OF 3 INCHES. HOLES WILL BE 3/4 INCH IN DIAMETER AND WILL BE SPACED EQUALLY AROUND THE RISER. THE NUMBER OF HOLES PER RING WILL EQUAL TO THE DRAINAGE AREA.

EXAMPLE

A BASIN DRAINING 2.0 ACRES SHOULD HAVE 2 HOLES PER RING EVERY 3 INCHES ON THE RISER PIPE. THE FIRST RING (2 HOLES) WILL BE SET 6 INCHES FROM THE BOTTOM OF THE RISER.

NOTE: ROUND DRAINAGE AREA TO THE NEAREST WHOLE NUMBER TO DETERMINE NUMBER OF HOLES.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

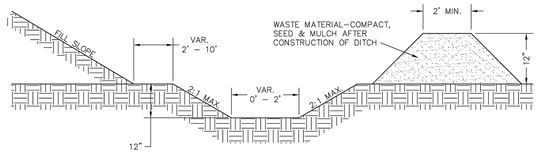
STANDARD CUSTOM BASIN

NOTES:

1. TEMPORARY DIVERSION DITCH TO BE USED TO INTERCEPT FLOW AND/OR DIVERT TO A SEDIMENT CONTROL MEASURE OR BMP.
2. STABILIZE DIVERSION DITCH BERM WITH TEMPORARY SEEDING, MULCH WITH TAC, AND/OR EROSION CONTROL NETTING.

MAINTENANCE NOTES:

1. INSPECT ONCE A WEEK AND AFTER EVERY 1" RAINFALL.
2. SILT SHALL BE REMOVED WHEN DITCH IS ONE-HALF FULL.
3. DITCH SHALL BE RECONSTRUCTED WHEN DAMAGED BY EQUIPMENT OR COVERED BY FILL.
4. CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.
5. AFTER DRAINAGE AREA IS PERMANENTLY STABILIZED, PLACE WASTE MATERIAL IN DITCH TO BLEND WITH NATURAL GROUND AND STABILIZE.

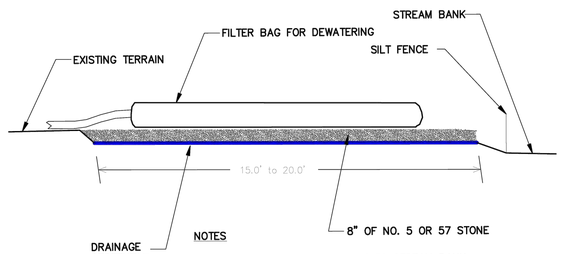


CROSS SECTIONAL VIEW

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD TEMPORARY DIVERSION DITCH



NOTES

1. PROVIDE STABILIZED OUTLET TO STREAM BANK.
2. WOOD PALLETS MAY BE USED IN LIEU OF STONE AND GEOTEXTILE AS DIRECTED. A SUFFICIENT NUMBER OF PALLETS MUST BE PROVIDED TO ELEVATE THE ENTIRE FILTER BAG FOR DEWATERING ABOVE NATURAL GROUND.

MAINTENANCE NOTES

1. REPLACE AND DISPOSE OF FILTER BAG(S) WHEN IT IS ¾ FULL OF SEDIMENT OR WHEN IT IS IMPRCTICAL FOR BAG TO FILTER SEDIMENT.
2. PROVIDE A SUFFICEINT QUANTITY OF FILTER BAGS TO CONTAIN SILT FROM PUMPED EFFLUENT.

NOT TO SCALE

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD FILTER BAG FOR DEWATERING ACTIVITIES

NOTES:
1. PLACE GRAVEL BAG BARRIER ON GENTLY SLOPING STREET, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNNOFF.
2. USE SAND BAGS OF WOVEN GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH ¾ INCH (OR SMALLER) GRAVEL. BAGS MUST BE LAYERED SUCH THAT NO GAPS ARE EVIDENT.
3. WHEN INSTALLING CURB INLET PROTECTION DEVICES, **NEVER** BLOCK THE CURB INLET.

MAINTENANCE NOTES:
1. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT (1 INCH OR GREATER). SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD GRAVEL BAG CURB INLET PROTECTION

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE VZ-CID-24-07	02/03/2025	SREG

SEAL

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

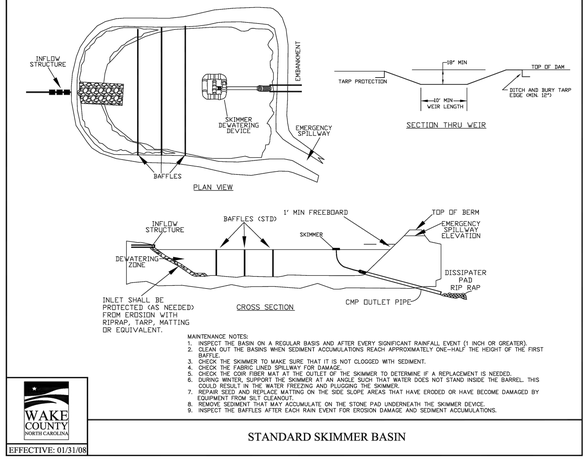
STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

EROSION CONTROL DETAILS

DRAWING SHEET

D-2.1



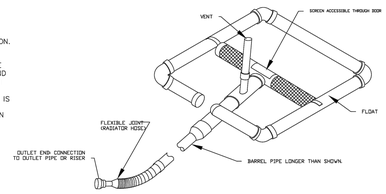
MAINTENANCE NOTES:
1. INSPECT THE BASIN ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT (1 INCH OR GREATER).
2. CLEAN OUT THE BASINS WHEN SEDIMENT ACCUMULATIONS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE FIRST BAFFLE.
3. CHECK THE SKIMMER TO MAKE SURE THAT IT IS NOT CLOGGED WITH SEDIMENT.
4. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE.
5. CHECK THE COIR FIBER MAT AT THE OUTLET OF THE SKIMMER TO DETERMINE IF A REPLACEMENT IS NEEDED.
6. DURING WINTER, SUPPORT THE SKIMMER AT AN ANGLE SUCH THAT WATER DOES NOT STAND INSIDE THE BARREL. THIS COULD RESULT IN THE WATER FREEZING AND PLUGGING THE SKIMMER.
7. REPAIR SEED AND REPLACE MATTING ON THE SIDE SLOPE AREAS THAT HAVE ERODED OR HAVE BECOME DAMAGED BY EQUIPMENT FROM SILT CLEANOUT.
8. REMOVE SEDIMENT THAT MAY ACCUMULATE ON THE STONE PAD UNDERNEATH THE SKIMMER DEVICE.
9. INSPECT THE BAFFLES AFTER EACH RAIN EVENT FOR EROSION DAMAGE AND SEDIMENT ACCUMULATIONS.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD SKIMMER BASIN

MAINTENANCE NOTES:
1. INSTALL A PAD FOR SKIMMER TO REST ON STONE OR WOOD PALLETS OR H-BEAM SECTION.
2. INSTALL SKIMMER AND PAD AWAY FROM BAFFLES.
3. ATTACH ROPE TO SKIMMER FOR MAINTENANCE.
4. INSPECT THE BASIN ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT (1 INCH OR GREATER).
5. CHECK THE SKIMMER TO MAKE SURE THAT IT IS NOT CLOGGED WITH SEDIMENT.
6. REMOVE SEDIMENT THAT MAY ACCUMULATE ON THE STONE PAD UNDERNEATH THE SKIMMER DEVICE.

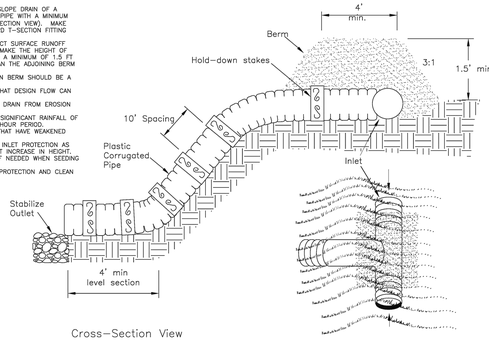


WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD SKIMMER DETAIL

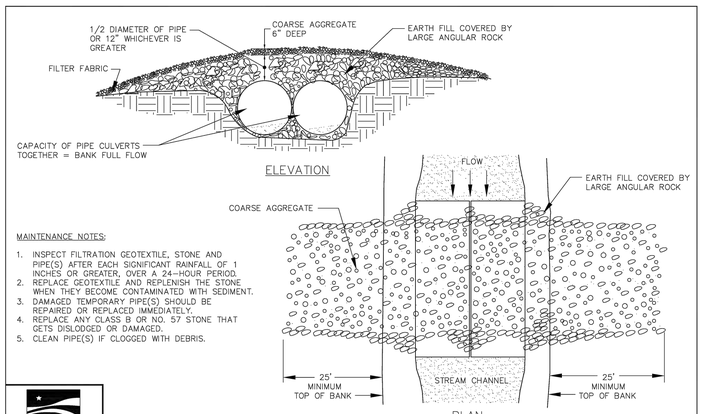
MAINTENANCE NOTES:
1. CONSTRUCT THE ENTRANCE TO THE SLOPE DRAIN OF A STANDARD FLARED-END SECTION OF PIPE WITH A MINIMUM 6-INCH METAL TOE PLATE (CROSS-SECTION VIEW). MAKE ALL FITTINGS WATERTIGHT. A STANDARD T-SECTION FITTING MAY ALSO BE USED AT THE INLET.
2. USE AN EARTHEN DIVERSION TO DIRECT SURFACE RUNOFF INTO THE TEMPORARY SLOPE DRAIN. MAKE THE HEIGHT OF THE BERM OVER THE DRAIN CONDUIT A MINIMUM OF 1.5 FT AND AT LEAST 6 INCHES HIGHER THAN THE ADJOINING BERM ON EITHER SIDE.
3. THE LOWEST POINT OF THE DIVERSION BERM SHOULD BE A MINIMUM OF 1 FT ABOVE THE TOP OF THE DRAIN SO THAT DESIGN FLOW CAN FREELY ENTER THE PIPE.
4. PROTECT THE OUTLET OF THE SLOPE DRAIN FROM EROSION WITH RIPRAP DISSIPATOR.
5. INSPECT SLOPE DRAINS AFTER EACH SIGNIFICANT RAINFALL OF 1 INCHES OR GREATER, OVER A 24-HOUR PERIOD.
6. REBUILD EARTH BERMS AND INLETS THAT HAVE WEAKENED DUE TO SCOURING.
7. EXTEND SLOPE DRAINS AND REBUILD INLET PROTECTION AS SLOPE IS BUILT, AFTER EACH 2-FOOT INCREASE IN HEIGHT.
8. REBUILD OR REPAIR SLOPE DRAINS IF NEEDED WHEN SEEDING AND MULCHING IS PERFORMED.
9. REFURBISH CLASS B STONE OUTLET PROTECTION AND CLEAN AS NEEDED.
10.



WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD TEMPORARY SLOPE DRAIN



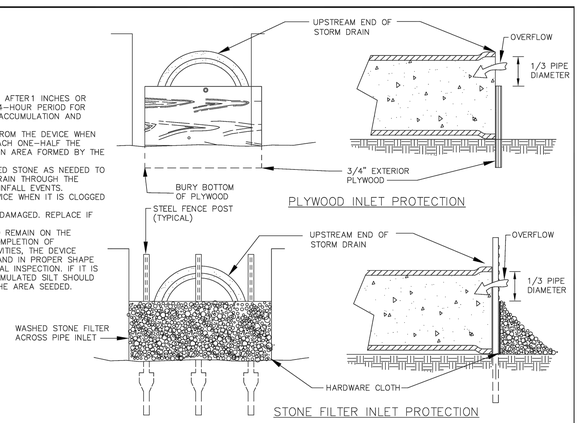
MAINTENANCE NOTES:
1. INSPECT FILTRATION GEOTEXTILE, STONE AND PIPE(S) AFTER EACH SIGNIFICANT RAINFALL OF 1 INCHES OR GREATER, OVER A 24-HOUR PERIOD.
2. REPLACE GEOTEXTILE AND REPLENISH THE STONE WHEN THEY BECOME CONTAMINATED WITH SEDIMENT.
3. DAMAGED TEMPORARY PIPE(S) SHOULD BE REPAIRED OR REPLACED IMMEDIATELY.
4. REPLACE ANY CLASS B OR NO. 57 STONE THAT GETS DISLODGED OR DAMAGED.
5. CLEAN PIPE(S) IF CLOGGED WITH DEBRIS.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD TEMPORARY STREAM CROSSING

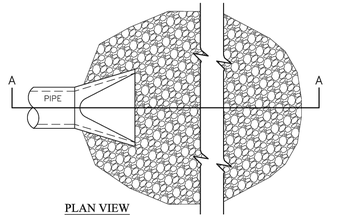
MAINTENANCE NOTES:
1. INSPECT THE DEVICE AFTER1 INCHES OR GREATER, OVER A 24-HOUR PERIOD FOR DAMAGE, SEDIMENT ACCUMULATION AND PROPER FUNCTION.
2. REMOVE SEDIMENT FROM THE DEVICE WHEN ACCUMULATIONS REACH ONE-HALF THE HEIGHT OF THE BASIN AREA FORMED BY THE DEVICE.
3. REPLACE THE WASHED STONE AS NEEDED TO ALLOW WATER TO DRAIN THROUGH THE DEVICE BETWEEN RAINFALL EVENTS.
4. CLEAN OUT THE DEVICE WHEN IT IS CLOGGED WITH DEBRIS.
5. CHECK PLYWOOD IF DAMAGED. REPLACE IF NEEDED.
6. IF THE DEVICE IS TO REMAIN ON THE PROJECT AT THE COMPLETION OF CONSTRUCTION ACTIVITIES, THE DEVICE SHOULD BE CLEAN AND IN PROPER SHAPE AT THE TIME OF FINAL INSPECTION. IF IT IS REMOVED, ALL ACCUMULATED SILT SHOULD BE REMOVED AND THE AREA SEEDED.



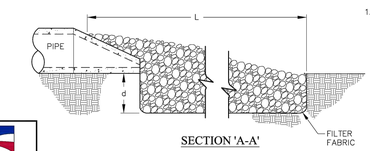
WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD PIPE INLET PROTECTION (PLYWOOD & STONE)



NOTES:
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" (INCHES) ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.



MAINTENANCE NOTES:
1. INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

WAKE COUNTY NORTH CAROLINA

EFFECTIVE: 01/31/08

STANDARD PIPE OUTLET TO WELL-DEFINED CHANNEL

No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA.
CONSTRUCTION PLANS

EROSION CONTROL DETAILS

DRAWING SHEET

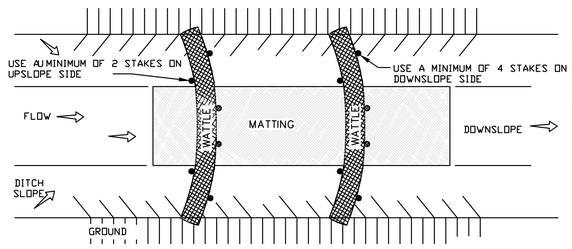
D-2.2

116 OF 128

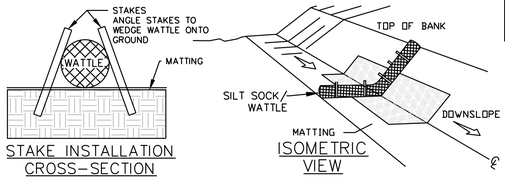
THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.

DATE:

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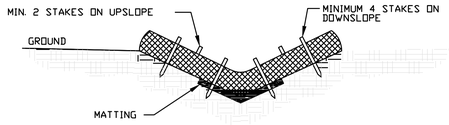
PLAN VIEW



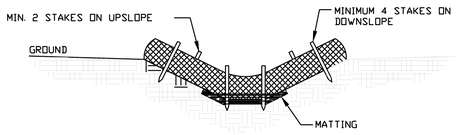
STAKE INSTALLATION CROSS-SECTION

ISOMETRIC VIEW

Ditch Spacing For 12 Inch Silt Sock/Wattle	
Channel Slope (%)	Space Between Silt Socks/ Wattles (Feet)
1	100
2	50
3	33
4	25
5	20



V-DITCH SECTION VIEW

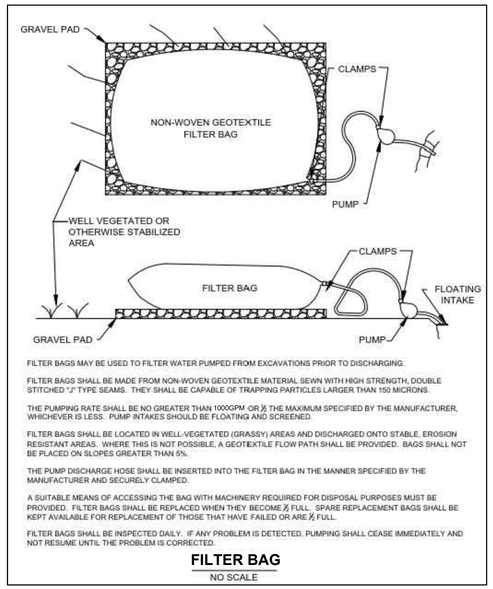


TRAPEZOIDAL DITCH SECTION VIEW

NOTES:
1. Other materials providing equivalent protection against erosive velocities may be substituted for use in silt socks or wattles.
2. Use a minimum 12 inch diameter silt sock/wattle.
3. Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
4. Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
5. Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
6. Install a minimum of two upslope stakes and four downslope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch.
7. The use of Polyacrylamide (PAM) is recommended. Apply 2-3 ounces of anionic PAM on top of sock/wattle. Apply 1-2 ounces to matting on either side of sock/wattle. Reapply after each 1.0 inch rainfall.

MAINTENANCE:
1. Inspect silt sock/wattle(s) weekly and after each rain of 1 inch or greater. Remove accumulated sediment and any debris.
2. Silt sock/Wattle(s) must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/Wattles shall be inspected until land disturbance is compete and the area above the measure is permanently stabilized.

SILT SOCK / WATTLE FOR CHECK DAM



FILTER BAGS MAY BE USED TO FILTER WATER PUMPED FROM EXCAVATIONS PRIOR TO DISCHARGING.

FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.

THE PUMPING RATE SHALL BE NO GREATER THAN 1000GPM OR ½ THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

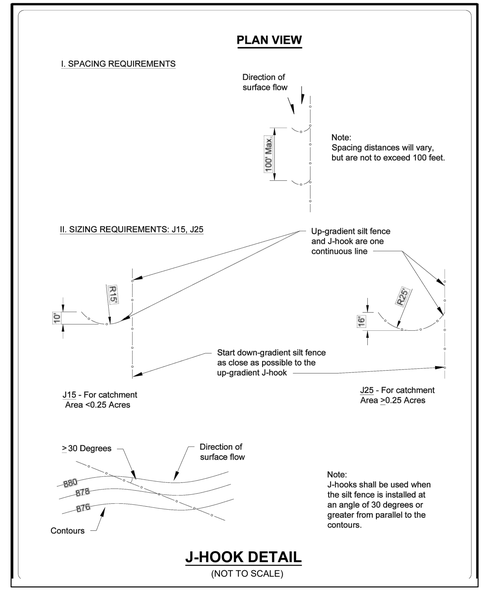
FILTER BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREAS AND DISCHARGED ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE FILTER BAG IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME ½ FULL. SPARE REPLACEMENT BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE ½ FULL.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

FILTER BAG
NO SCALE



J-HOOK DETAIL
(NOT TO SCALE)

J-HOOK MAINTENANCE:

1. INSPECT J-HOOK INSTALLATION AT REGULAR INTERVALS PER NPDES MONITORING REQUIREMENTS.
2. REPLACE TORN SILT FENCE FABRIC WITH NEW FENCE MATERIAL.
3. BENT OR BROKEN WIRES AND T-POLES SHALL BE REPLACED IMMEDIATELY.
4. SEDIMENT ACCUMULATION HIGHER THAN 1/3 OF INSTALLED HEIGHT OF FABRIC SHALL BE PROMPTLY REMOVED.

DATE:

PAGE:

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10 feet or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers. • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants.*
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

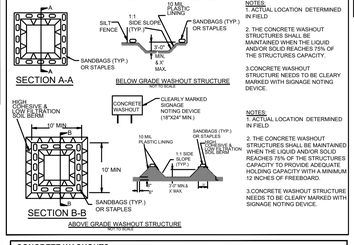
EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

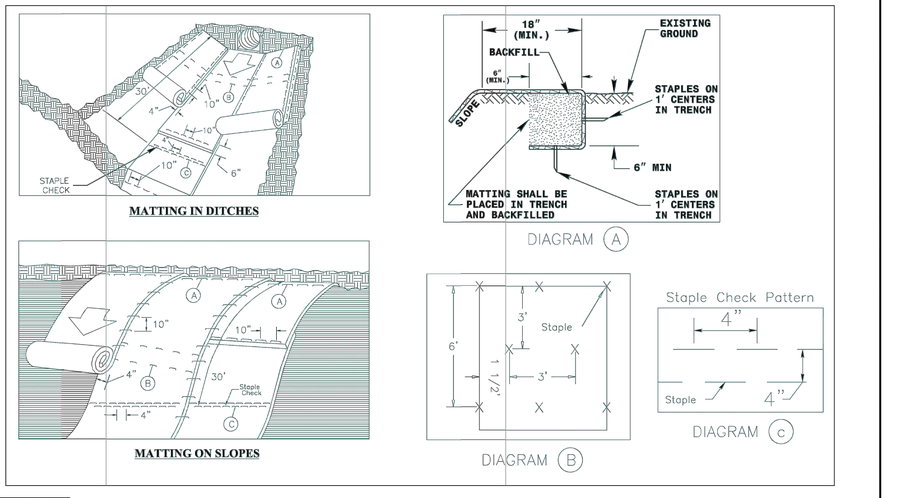
CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional corrals may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

NCG-01 GROUND COVER & MATERIALS HANDLING



WAKE COUNTY NORTH CAROLINA

REVISED: 1/2/2020

ROLLED EROSION CONTROL PRODUCT INSTALLATION DETAIL

A-10

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.

No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE V2-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	AS SHOWN	DESIGNED BY	SRG	DRAWN BY	SRG	CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

EROSION CONTROL DETAILS

DRAWING SHEET

D-2.3

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

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SECTION E: GROUND STABILIZATION

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

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2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

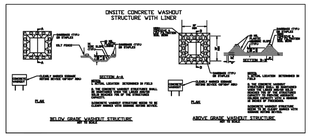
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING | EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working ondor	Daily	Daily rainfall amounts. If on daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the sto, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the streams or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours,*** an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA Environmental Quality

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING | EFFECTIVE: 04/01/19

SEEDING SPECIFICATIONS:

SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSESOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE MIXTURE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, REESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT WAKE COUNTY SOIL & WATER OR NC STATE COOPERATIVE EXTENSION ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

MIXTURE:

AGRICULTURAL LIMESTONE	2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS)
FERTILIZER	1,000 LBS/ACRE - 10-10-10
SUPERPHOSPHATE	500 LBS/ACRE - 20% ANALYSIS
MULCH	2 TONS/ACRE - SMALL GRAIN STRAW
ANCHOR	ASPHALT EMULSION AT 400 GALS/ACRE

SEEDING SCHEDULE:

FOR SHOULDERS, SIDE DITCHES. SLOPES (MAX 3:1):

DATE	TYPE	PLANTING RATE
AUG 15-NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1-MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS/ACRE
MAR 1-APR 15	TALL FESCUE	300 LBS/ACRE
APR 15-JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1-AUG 15	TALL FESCUE AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRIDS***	125 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MILLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)

FOR SHOULDERS, SIDE DITCHES. SLOPES (MAX 3:1 TO 2:1):

DATE	TYPE	PLANTING RATE
MAR 1-JUN 1	SERICEA LESPEDEZA (SCARIFIED) AND USE THE FOLLOWING COMBINATIONS:	50 LBS/ACRE (SERICEA LESPEDEZA);
MAR 1-APR 15	ADD TALL FESCUE	120 LBS/ACRE
MAR 1-JUN 30	OR ADD WEEPING LOVE GRASS	10 LBS/ACRE
MAR 1-JUN 30	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1-SEPT 1	TALL FESCUE AND BROWNTOP MULLET OR SORGHUM-SUDAN HYBRIDS***	120 LBS/ACRE (TALL FESCUE); 35 LBS/ACRE (BROWNTOP MULLET); 30 LBS/ACRE (SORGHUM-SUDAN HYBRIDS)
SEPT 1-MAR 1	SERICEA LESPEDEZA (UNHULLED -UNSCARIFIED) AND TALL FESCUE	70 LBS/ACRE (SERICEA LESPEDEZA); 120 LBS/ACRE (TALL FESCUE)
NOV 1-MAR 1	AND ABRUZZI RYE	25 IBS/ACRE

CONSULT WAKE COUNTY SOIL & WATER CONSERVATION DISTRICT OR NC STATE COOPERATIVE EXTENSION FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

*** TEMPORARY:
RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12" IN HEIGHT BEFORE MOWING; OTHERWISE, FESCUE MAY BE SHADED OUT.

WAKE COUNTY NORTH CAROLINA
Environmental Services
Sedimentation & Erosion Control
336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602
TEL 919 856 7400
FAX 919 743 4772

Effective September 1, 2008
Soil stockpiles shall be located on the approved plan and shall adhere to the following requirements:

Design Criteria

a. A 25-foot temporary maintenance and access easement shall be shown around all proposed stockpiles (erosion control measures surrounding the stockpile shall be shown at the outer limit of this easement).
b. Stockpile footprints shall be setback a minimum of 25' from adjacent property lines.
c. A note shall be provided on the approved plan that stockpile height shall not exceed 35 feet.
d. Stockpile slopes shall be 2:1 or flatter.
e. Approved BMPs shall be shown on a plan to control any potential sediment loss from a stockpile.
f. Stockpiling materials adjacent to a ditch, drainageway, watercourse, wetland, stream buffer, or other body of water shall be avoided unless an alternative location is demonstrated to be unavailable.
g. Any concentrated flow likely to affect the stockpile shall be diverted to an approved BMP.
h. Off-site spoil or borrow areas must be in compliance with Wake County UDO and State Regulations. All spoil areas over an acre are required to have an approved sediment control plan. Developer/Contractor shall notify Wake County of any offsite disposal of soil, prior to disposal. Fill of FEMA Floodways and Non-encroachment Areas are prohibited except as otherwise provided by subsection 14-19-2 of the Wake County Unified Development Ordinance (certifications and permits required).

Maintenance Requirements to be Noted on the Plan

i. Seeding or covering stockpiles with tarps or mulch is required and will reduce erosion problems. Tarps should be keyed in at the top of the slope to keep water from running underneath the plastic.
j. If a stockpile is to remain for future use after the project is complete (builders, etc.), the financial responsible party must notify Wake County of a new responsible party for that stockpile.
k. The approved plan shall provide for the use of staged seeding and mulching on a continual basis while the stockpile is in use.
l. Establish and maintain a vegetative buffer at the toe of the slope (where practical).

No.	DATE	BY
01	11/01/2024	SREG
02	02/03/2025	SREG

REVISIONS

TOWN OF ROLESVILLE CID-24-07
TOWN OF ROLESVILLE VC-CID-24-07

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2165
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

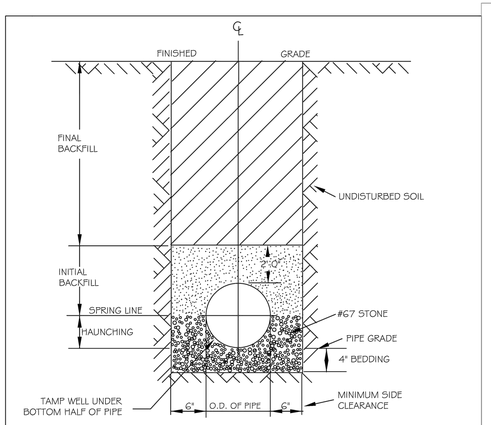
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA.
CONSTRUCTION PLANS

EROSION CONTROL DETAILS

DRAWING SHEET
D-2.4

118 OF 128

THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.

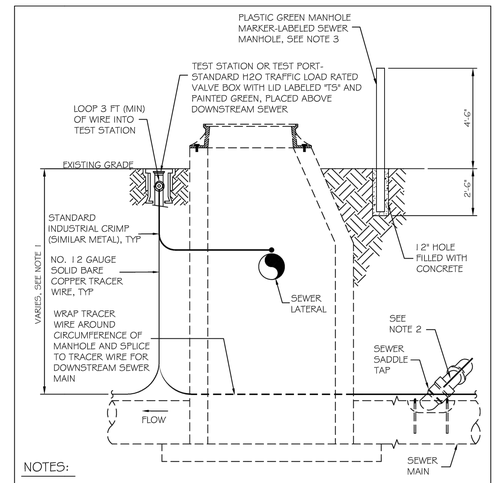


TYPICAL TRENCH BOTTOM DIMENSIONS FOR SDR 35 PVC GRAVITY PIPE

NOTES:
1. FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
2. NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
3. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
4. BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TRENCH BOTTOM DIMENSIONS AND BACKFILLING REQUIREMENTS FOR PVC GRAVITY SEWER MAIN

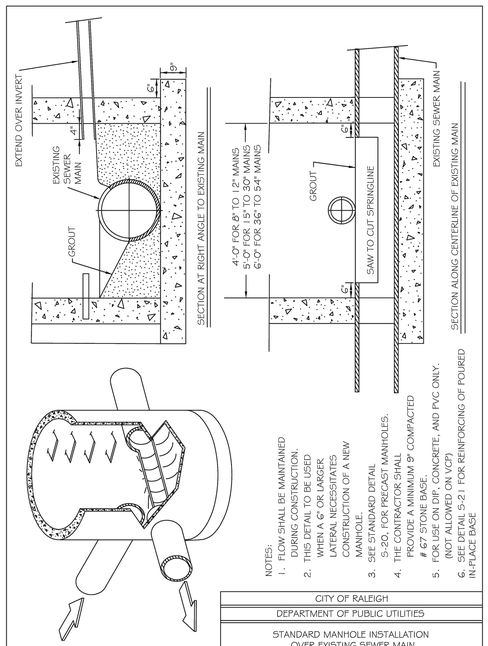
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-5	TO NOTES	3-1-87	D.W.C.	9-3-99
		7-2-82	RRH	3-30-00



NOTES:
1. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. FOR GRAVITY MAIN AND OR LATERAL INSTALLATIONS LESS THAN 8 FT, THE TRACING WIRE SHALL BE ATTACHED TO THE PIPE. TRACER WIRE SHALL BE LAID FLAT AND SECURELY AFFIXED TO THE PIPE AT 10 FOOT INTERVALS. FOR GRAVITY MAIN AND OR LATERAL INSTALLATION DEEPER THAN 8 FT, THE TRACING WIRE SHALL BE INSTALLED AT A DEPTH OF 7-8 FT. THE WIRE SHALL BE PROTECTED FROM DAMAGE DURING THE EXECUTION OF THE WORK. NO BREAKS OF CUTS IN THE TRACER WIRE SHALL BE PERMITTED.
2. WHERE LATERAL TAPS ARE MADE BY SERVICE SADDLES, THE TRACER WIRE SHALL NOT BE ALLOWED TO BE PLACED BETWEEN THE SADDLE AND MAIN.
3. MANHOLE MARKERS SHALL BE PLACED ADJACENT TO MANHOLES AT THE DISCRETION OF OWNER OR OWNERS REPRESENTATIVE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
GRAVITY SEWER MAIN TRACER WIRE AND MANHOLE MARKER

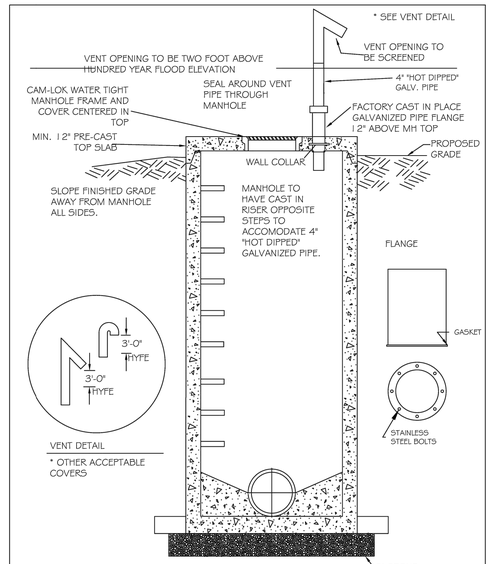
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20A	WKD	09-14		



NOTES:
1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION. THIS DETAIL TO BE USED WHEN A 6" OR LARGER LATERAL NECESSITATES CONSTRUCTION OF A NEW MANHOLE.
3. SEE STANDARD DETAIL S-20, FOR PRECAST MANHOLES.
4. THE CONTRACTOR SHALL PROVIDE A MINIMUM 9" COMPACTED #67 STONE BASE.
5. FOR PVC, CONCRETE, AND PVC ONLY. (NOT ALLOWED ON VCP)
6. SEE DETAIL S-21 FOR REINFORCING OF POURED IN-PLACE BASE

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD MANHOLE INSTALLATION OVER EXISTING SEWER MAIN

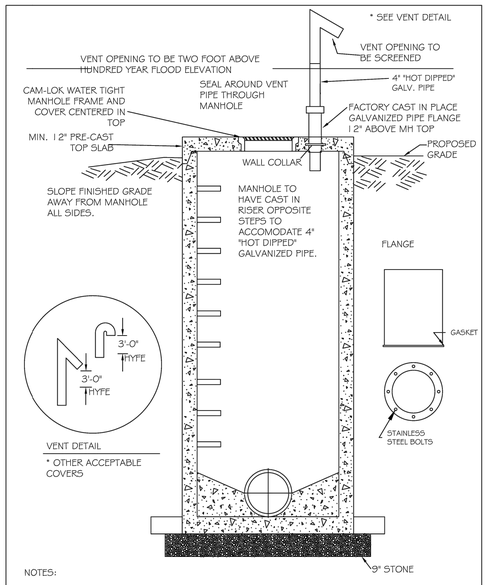
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-22	Y.C.A.	12-31-91	A.B.B.	1-19-05
	RRH	3-30-00	D.H.L.	6/16/08



NOTES:
1. VENT MUST BE FACTORY WELDED FABRICATED AND "HOT DIPPED" GALVANIZED.
2. HYFE- Hundred Year Flood elevation

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD SEAL TIGHT MANHOLE WITH VENTED STACK

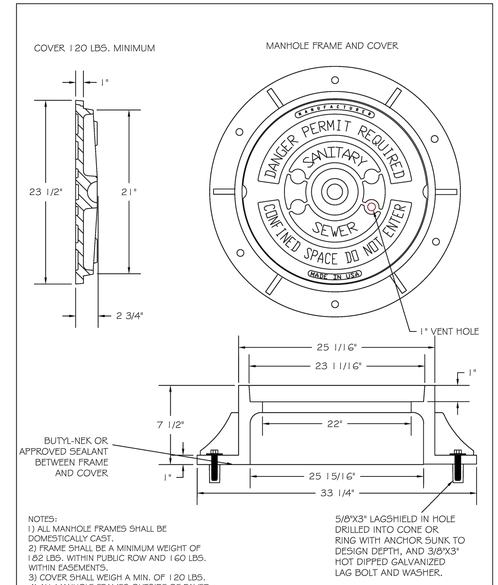
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-24	D.W.C.	6-7-99	A.B.B.	4-15-04
	RRH	3-30-00	D.H.L.	6/16/08



NOTES:
1. VENT MUST BE FACTORY WELDED FABRICATED AND "HOT DIPPED" GALVANIZED.
2. HYFE- Hundred Year Flood elevation

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD SEAL TIGHT MANHOLE WITH VENTED STACK

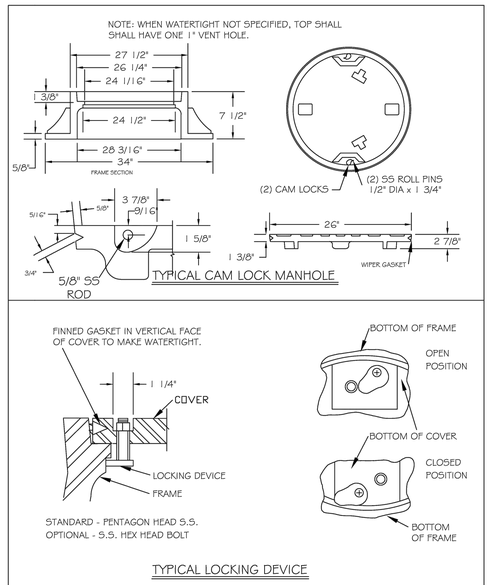
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S-24	D.W.C.	6-7-99	A.B.B.	4-15-04
	RRH	3-30-00	D.H.L.	6/16/08



NOTES:
1) ALL MANHOLE FRAMES SHALL BE DOMESTICALLY CAST.
2) FRAME SHALL BE A MINIMUM WEIGHT OF 182 LBS. WITHIN PUBLIC ROW AND 160 LBS. WITHIN EASEMENTS.
3) COVER SHALL WEIGH A MIN. OF 120 LBS.
4) ALL MANHOLE FRAMES OUTSIDE OF PAVED SURFACES SHALL BE BOLTED TO THE CONE SECTION OR RING WITH A MINIMUM OF 4 BOLTS PER FRAME.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD MANHOLE COVER

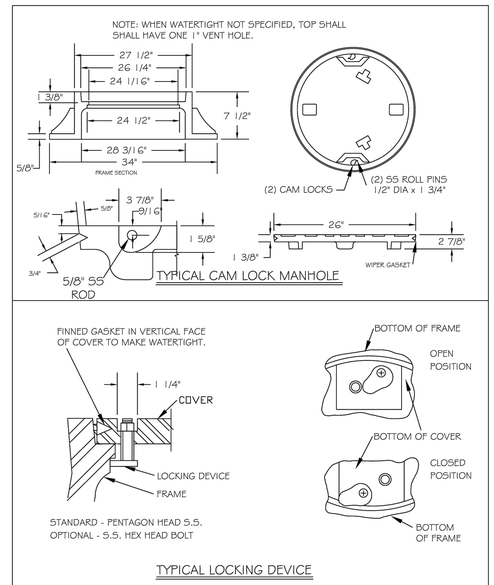
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S-25	3-1-87	3-1-87	A.B.B.	2-9-05
	RRH	3-30-00	D.H.L.	6-18-08



RING MUST BE ANCHORED IN ACCORDANCE WITH S-25

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
WATER-TIGHT MANHOLE FRAME WITH CAM LOCK COVER

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-27	RRH	3-30-00		
	DHL	6-18-08		



RING MUST BE ANCHORED IN ACCORDANCE WITH S-25

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
WATER-TIGHT MANHOLE FRAME WITH CAM LOCK COVER

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-27	RRH	3-30-00		
	DHL	6-18-08		

No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE VP-CID-24-07	02/03/2025	SREG

SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609

STRONG ROCK PROJECT	NOT FOR CONSTRUCTION	SCALE	AS SHOWN	DESIGNED BY	SRG	DRAWN BY	SRG	CHECKED BY	SRG

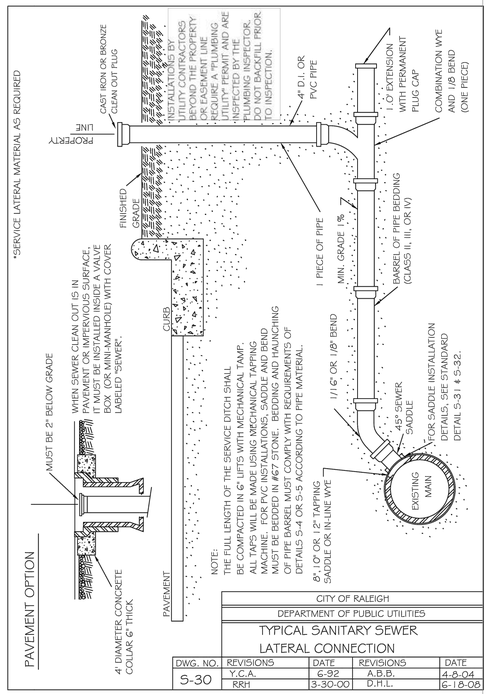
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

SANITARY SEWER & WATER DETAILS

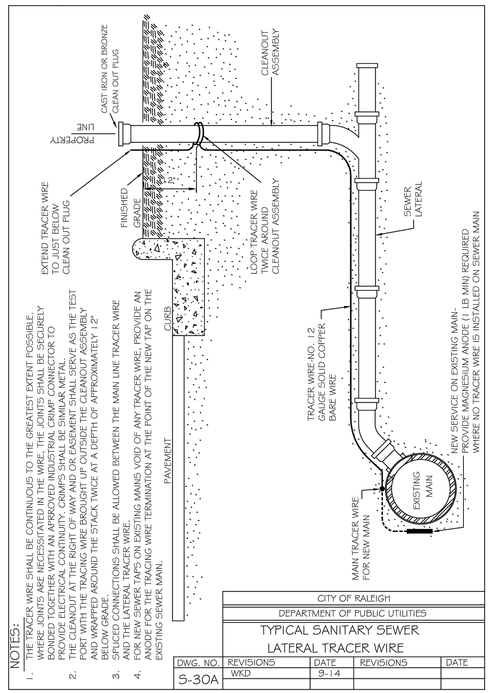
DRAWING SHEET
D-3.0

119 OF 128

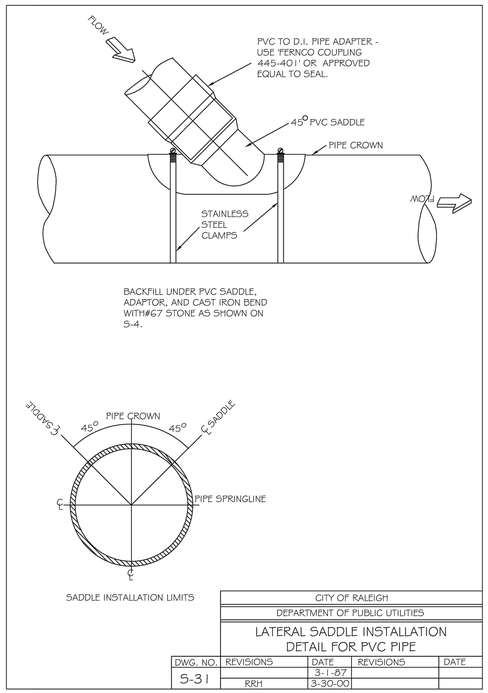
THIS PLANSET AND ANY ASSOCIATED DOCUMENTS ARE PRELIMINARY AND NOT AUTHORIZED FOR CONSTRUCTION UNTIL SIGNED, DATED, AND OFFICIALLY RELEASED FOR CONSTRUCTION BY THE ENGINEER OF RECORD.



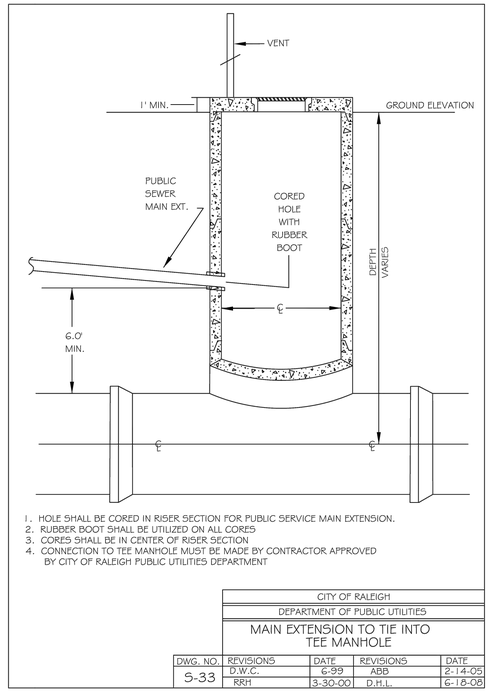
CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TYPICAL SANITARY SEWER LATERAL CONNECTION				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-30	Y.C.A.	6-92	A.B.B.	4-8-04
	RRH	3-30-00	D.H.L.	6-18-08



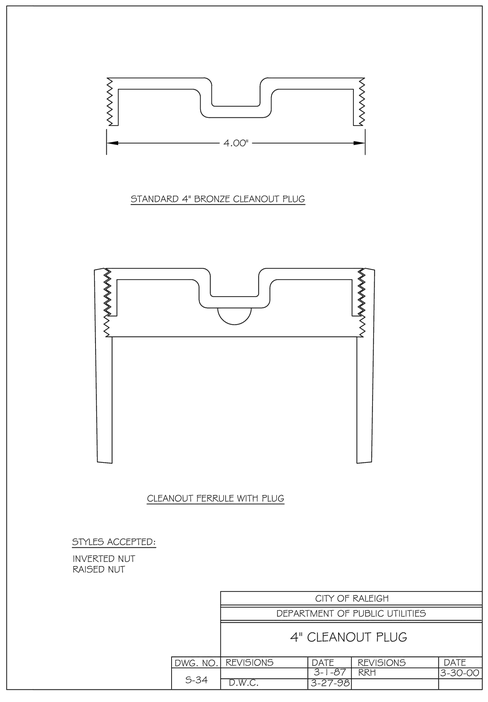
CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TYPICAL SANITARY SEWER LATERAL TRACER WIRE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-30A	WKD	9-14		



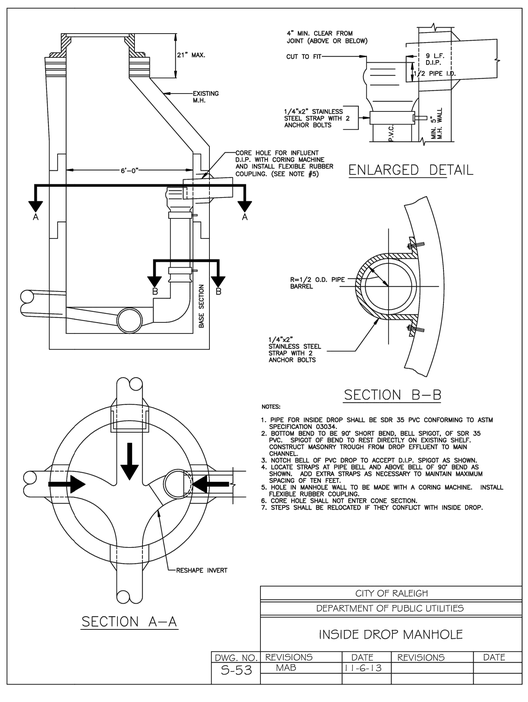
CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
LATERAL SADDLE INSTALLATION DETAIL FOR PVC PIPE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-31		3-1-87		
	RRH	3-30-00		



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
MAIN EXTENSION TO TIE INTO TEE MANHOLE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-33	D.W.C.	6-99	ABB	2-14-05
	RRH	3-30-00	D.H.L.	6-18-08



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
4" CLEANOUT PLUG				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-34		3-1-87	RRH	3-30-00
	D.W.C.	3-27-98		



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
INSIDE DROP MANHOLE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-53	MAB	11-6-13		

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
02	TOWN OF ROLESVILLE VP-CID-24-07	02/03/2025	SREG

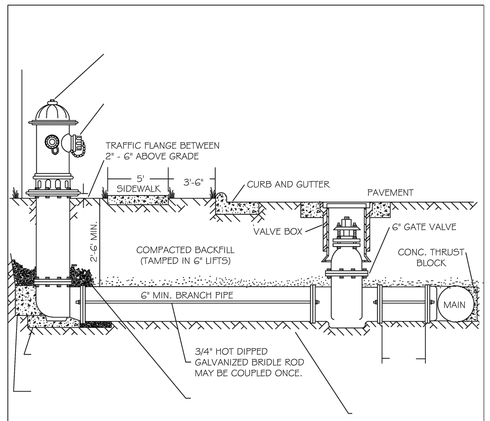
SEAL:

STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609

STRONG ROCK PROJECT			
NOT FOR CONSTRUCTION	SCALE	AS SHOWN	
	DESIGNED BY	SRG	
	DRAWN BY	SRG	
	CHECKED BY	SRG	

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
SANITARY DETAILS

DRAWING SHEET
D-3.1

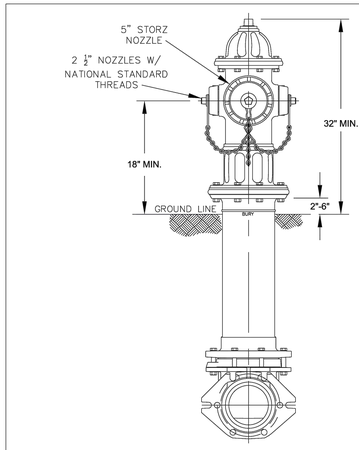


NOTES:
1. FIRE HYDRANT SHALL BE A5 MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, M&H, WATEROUS, CLOW, EAST JORDAN IRON WORKS, OR US PIPE.
2. BRANCH PIPE SHALL BE DUCTILE IRON AWWA C150-96
3. 6" GATE VALVE SHALL BE AWWA C500-86 OPEN LEFT
4. STEEL RODS AND BOLTS SHALL BE ¾" HOT DIPPED GALVANIZED
5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION
   RODS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CAGE SHALL BE INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.
   FIRE HYDRANTS TO BE LOCATED IN ROW OR 2 FOOT EASEMENT ADJACENT TO ROW

ANYTIME SITE WORK, CONSTRUCTION, ROAD WORK, OR ANY OTHER WORK CHANGES THE GRADE OF THE FIRE HYDRANT, THE PERSON RESPONSIBLE FOR THE WORK IS RESPONSIBLE FOR ADJUSTING THE FIRE HYDRANT TO STAY WITHIN COMPLIANCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD FIRE HYDRANT INSTALLATION DETAIL

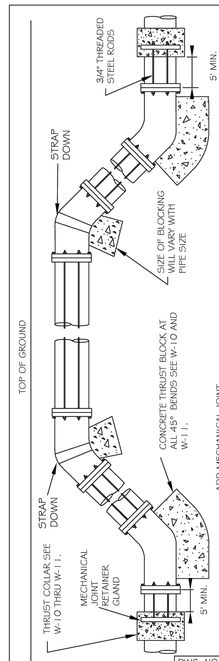
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-4a	ABB	4-6-04		



NOTES:
1. ALL PUBLIC FIRE HYDRANTS IN THE CITY OF RALEIGH AND THE MERGER TOWNS OF GARNER, ROLESVILLE, WAKE FOREST, KNIGHTDALE, WENDELL AND ZEBULON SHALL BE PAINTED CHROME YELLOW WITH HIGH REFLECTIVE ALUMINUM SILVER CAPS, BONNETS AND OPERATING NUTS.
2. ALL PRIVATE FIRE HYDRANTS SHALL BE RED.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
RALEIGH, GARNER, KNIGHTDALE, ROLESVILLE, WAKE FOREST, WENDELL & ZEBULON
STANDARD FIRE HYDRANT WITH 5" STORZ PUMPER NOZZLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-3	MAB	6-30-16		
	KAT	9-15-17		



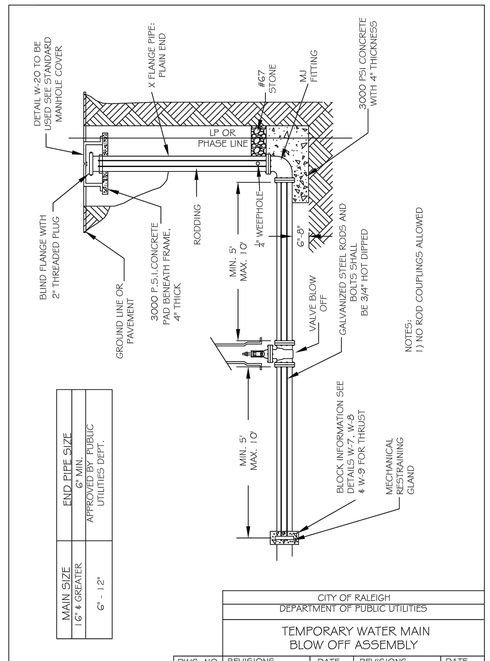
ROD REQUIREMENTS

SIZE OF 45 BEND	STATIC THRUST IN POUNDS	NO. OF RODS REQUIRED
6"	4,326	2
8"	7,694	4
12"	17,312	4
16"	30,779	6
24"	69,252	6

GENERAL NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. CONCRETE SHALL NOT COVER BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
3. RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.
4. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.
5. 3' MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD VERTICAL BEND

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-12	ABB	4-6-04	J.P.S.	11-1-10
	D.M.L.	6-18-08		

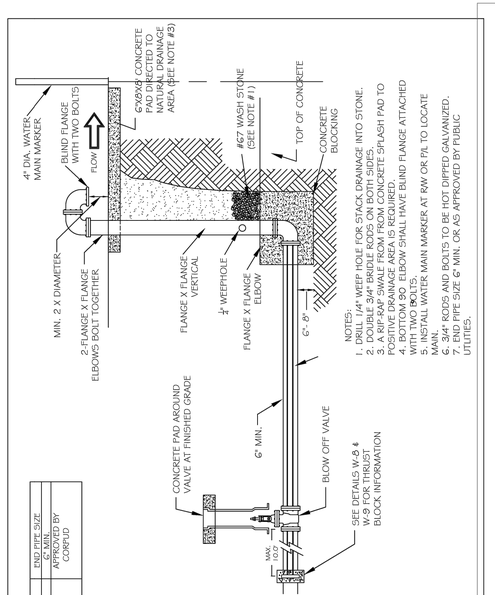


NOTES:
1) NO ROD COUPLINGS ALLOWED

MAIN SIZE	END PIPE SIZE
16" & GREATER	6" MIN. APPROVED BY PUBLIC UTILITIES DEPT.
6" - 12"	

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TEMPORARY WATER MAIN BLOW OFF ASSEMBLY

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-21	D.W.C.	12-28-99	A.B.B.	4-12-04
	RRH	3-31-00	DHL	8-16-07

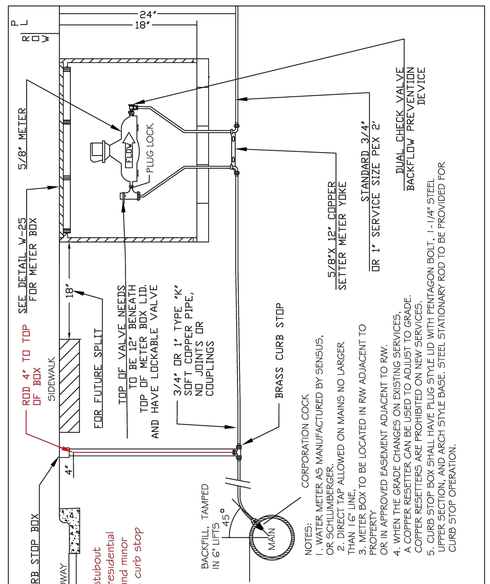


NOTES:
1. DRILL 1/4" WEEP HOLE FOR STACK DRAINAGE INTO STONE.
2. ADD ¾" WASHED STONE TO TOP OF CONCRETE SIDES.
3. A 6'x6'x6" CONCRETE PAD OR CONCRETE SPLASH PAD TO POSITIVE DRAINAGE AREA IS REQUIRED.
4. BOTTOM 90° ELBOW SHALL HAVE BLIND FLANGE ATTACHED WITH TWO ¾" BOLTS.
5. INSTALL WATER MAIN MARKER AT R/W OR P/L TO LOCATE MAIN.
6. 3/4" RODS AND BOLTS TO BE HOT DIPPED GALVANIZED.
7. END PIPE SIZE 6" MIN. OR AS APPROVED BY PUBLIC UTILITIES.

MAIN SIZE	END PIPE SIZE
16" & 12"	APPROVED BY CORP/UD
6"-4"	

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
PERMANENT WATER MAIN BLOW OFF ASSEMBLY

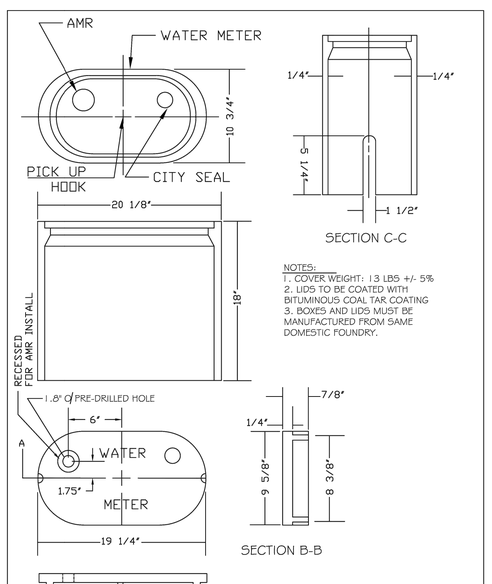
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-22	D.W.C.	12-28-99	DHL	8-16-07
	A.B.B.	4-13-04		



NOTES:
1. WATER METER AS MANUFACTURED BY SENSUS, OR SCHLUMBERGER.
2. DIRECT TAP ALLOWED ON MAINS NO LARGER THAN 1" LINE.
3. METER BOX TO BE LOCATED IN R/W ADJACENT TO PROPERTY OR IN APPROVED EASEMENT ADJACENT TO R/W.
4. WHEN THE GRADE CHANGES ON EXISTING SERVICES, A COPPER RESETTER CAN BE USED TO ADJUST TO GRADE. COPPER RESETTERS ARE PROHIBITED ON NEW SERVICES.
5. SERVICE STOP SHALL HAVE PLUG STYLE LOCKING MECHANISM BOLT, 1-1/4" STEEL UPPER SECTION, AND ARCH STYLE BASE. STEEL STATIONARY ROD TO BE PROVIDED FOR CURB STOP OPERATION.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
STANDARD 3/4" & 1" WATER SERVICE INSTALLATION

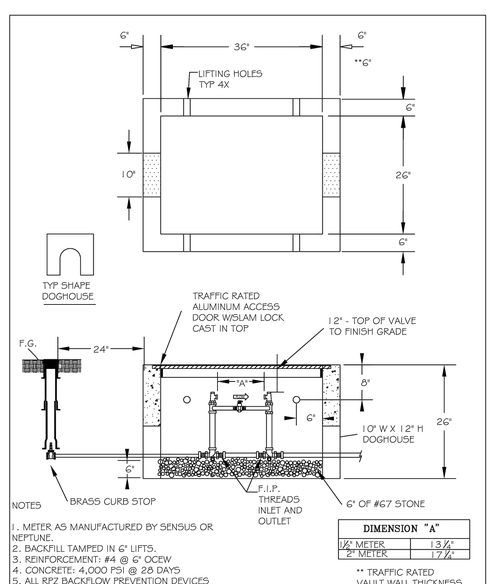
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-23	ABB	4-6-04	RKV.	7/23/13
	D.H.L.	6/18/08		



NOTES:
1. COVER WEIGHT: 13 LBS +/- 5%
2. LIDS TO BE COATED WITH BITUMINOUS COAL TAR COATING
3. BOXES AND LIDS MUST BE MANUFACTURED FROM SAME DOMESTIC FOUNDRY.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
WATER METER BOX DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-25			ABB	1-20-05
	R.K.V.	8-20-13	J.P.S.	11-4-10



1. METER AS MANUFACTURED BY SENSUS OR NEPTUNE.
2. BACKFILL TAMPED IN 6" LIFTS.
3. REINFORCEMENT: #4 @ 6" OCEW
4. CONCRETE: 4,000 PSI @ 28 DAYS
5. ALL RPZ BACKFLOW PREVENTION DEVICES MUST BE INSTALLED PRIOR TO METER BEING SET.
6) ALL COPPER SETTERS ARE TO HAVE A BALL TYPE SHUT OFF VALVE ON BOTH SIDES OF COPPER SETTER WITH HIGH RISE BYPASS THAT IS MANUFACTURED BY FORD, MUELLER, OR AY McDONALD. (NO EXCEPTIONS)

DIMENSION "A"	
1½" METER	13¼"
2" METER	17¼"

** TRAFFIC RATED VAULT WALL THICKNESS

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
TYPICAL 1 1/2"- 2" WATER METER BOX INSTALLATION

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-31	A.B.B.	6-17-04	J.P.S.	11-4-10
	D.H.L.	6-18-08		

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No.	REVISIONS	DATE	BY
01	TOWN OF ROLESVILLE CID-24-07	11/01/2024	SREG
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SEAL:

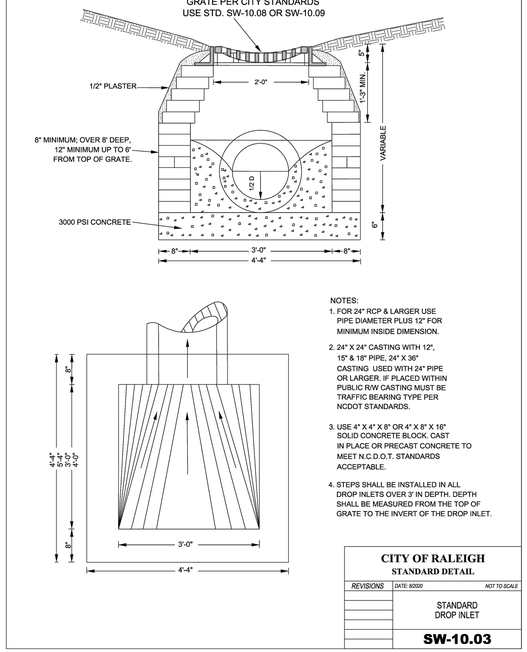
STRONGROCK
ENGINEERING GROUP
STRONG ROCK ENGINEERING GROUP, PLLC | COMPANY LICENSE # P-2166
305 CHURCH AT NORTH HILLS STREET, SUITE 1110 RALEIGH, NC 27609 | INFORMATION@STRONGROCKGROUP.COM

STRONG ROCK PROJECT	
NOT FOR CONSTRUCTION	
SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS

WATER DETAILS

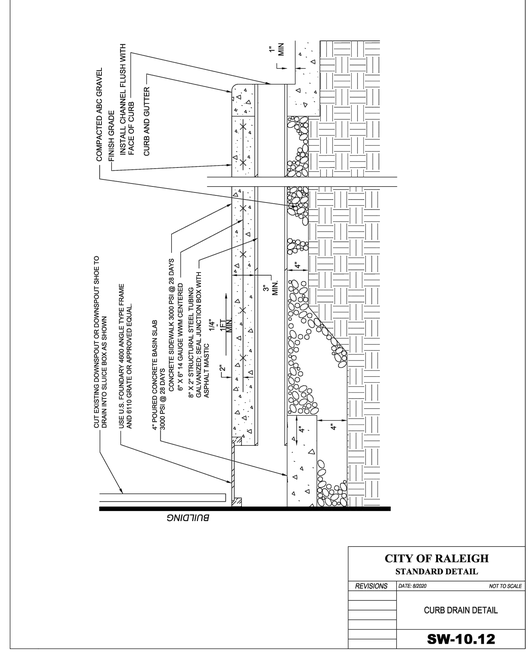
DRAWING SHEET
D-4.0



NOTES:
1. FOR 24" RCP & LARGER USE PIPE DIAMETER PLUS 12" FOR MINIMUM INSIDE DIMENSION.
2. 24" X 24" CASTING WITH 12", 15" & 18" PIPE, 24" X 36" CASTING USED WITH 24" PIPE OR LARGER. IF PLACED WITHIN PUBLIC R/W CASTING MUST BE TRAFFIC BEARING TYPE PER NCDOT STANDARDS.
3. USE 4" X 4" X 8" OR 4" X 8" X 16" SOLID CONCRETE BLOCK, CAST IN PLACE OR PRECAST CONCRETE TO MEET N.C.D.O.T. STANDARDS ACCEPTABLE.
4. STEPS SHALL BE INSTALLED IN ALL DROP INLETS OVER 3' IN DEPTH. DEPTH SHALL BE MEASURED FROM THE TOP OF GRATE TO THE INVERT OF THE DROP INLET.

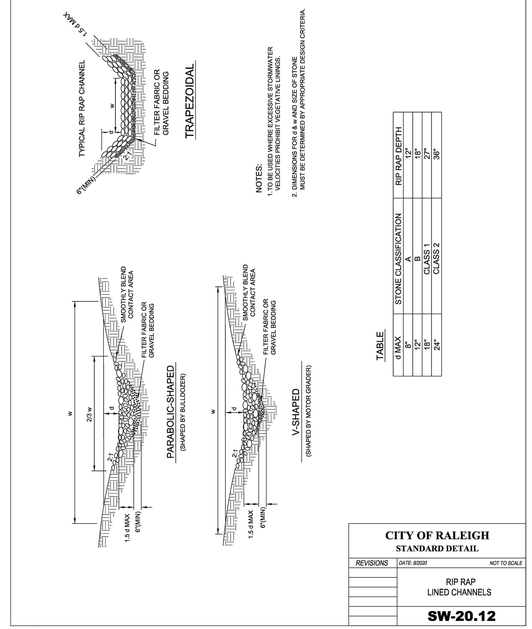
CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	STANDARD DROP INLET	
	SW-10.03	



CITY OF RALEIGH
STANDARD DETAIL

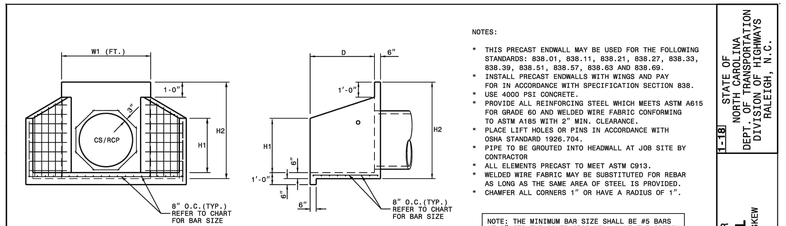
REVISIONS	DATE: 8/2020	NOT TO SCALE
	CURB DRAIN DETAIL	
	SW-10.12	



d MAX	STONE CLASSIFICATION	RIP RAP DEPTH
9"	A	12"
15"	B	18"
18"	CLASS 1	27"
24"	CLASS 2	36"

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	RIP RAP LINED CHANNELS	
	SW-20.12	



NOTES:
* THIS PRECAST ENDWALL MAY BE USED FOR THE FOLLOWING STANDARDS: 838.01, 838.11, 838.21, 838.27, 838.33, 838.39, 838.51, 838.57, 838.63 AND 838.69.
* INSTALL PRECAST ENDWALLS WITH WINGS AND PAY FOR IN ACCORDANCE WITH SPECIFICATION SECTION 838.
* USE 4000 PSI CONCRETE.
* PROVIDE ALL REINFORCING STEEL WHICH MEETS ASTM A615 FOR GRADE 60 AND WELDED WIRE FABRIC CONFORMING TO ASTM A185 WITH 2" MIN. CLEARANCE.
* PLACE LIFT HOLES OR PINS IN ACCORDANCE WITH OSHA STANDARD 1926.704.
* PIPE TO BE GROUTED INTO HEADWALL AT JOB SITE BY CONTRACTOR
* ALL ELEMENTS PRECAST TO MEET ASTM C913.
* WELDED WIRE FABRIC MAY BE SUBSTITUTED FOR REBAR AS LONG AS THE SAME AREA OF STEEL IS PROVIDED.
* CHAMFER ALL CORNERS 1" OR HAVE A RADIUS OF 1".

NOTE: THE MINIMUM BAR SIZE SHALL BE #5 BARS AT 8" CTS.THE CONTRACTOR WILL HAVE THE OPTION TO INCREASE THIS BAR SIZE AS NEEDED.

ENDWALL DIMENSIONS

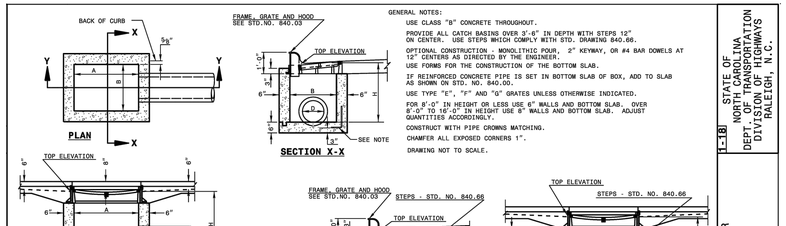
FT.	MINIMUM	MIN./MAX.	MIN./MAX.	MIN./MAX.	MIN./MAX.	MIN./MAX.
PIPE DIA.	BAR SIZE	H1(FT.)	H2(FT.)	D (FT.)	W1	W2
1.0	#5 @ 8"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.50/6.00
1.25	#5 @ 8"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75
1.50	#5 @ 8"	1.25/2.00	3.00/4.25	1.50/2.50	3.50/3.75	6.50/6.75
2.0	#5 @ 8"	1.50/2.50	4.00/4.75	1.75/2.50	4.00/4.25	7.50/8.25
2.5	#5 @ 8"	2.50/3.50	4.00/6.00	2.00/3.00	4.50/5.50	10.00/11.50
3.0	#5 @ 8"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75
3.5	#5 @ 8"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25
4.0	#5 @ 8"	3.50/4.50	6.50/7.00	3.25/3.50	6.50/6.75	13.00/13.25
4.5	#5 @ 8"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/15.75
5.0	#5 @ 8"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/15.75
5.5	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.25/9.25	14.00/15.75
6.0	#5 @ 8"	4.50/5.00	7.50/8.50	3.25/4.00	7.75/9.25	14.75/16.75

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

1-18

ROADWAY STANDARD DRAWING FOR
PRECAST CONCRETE ENDWALL
FOR SINGLE 12" THRU 72" PIPE - 90° SKEW

SHEET 1 OF 1
838.80



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

1-18

ROADWAY STANDARD DRAWING FOR
CONCRETE CATCH BASIN
12" THRU 54" PIPE

SHEET 1 OF 2
840.02

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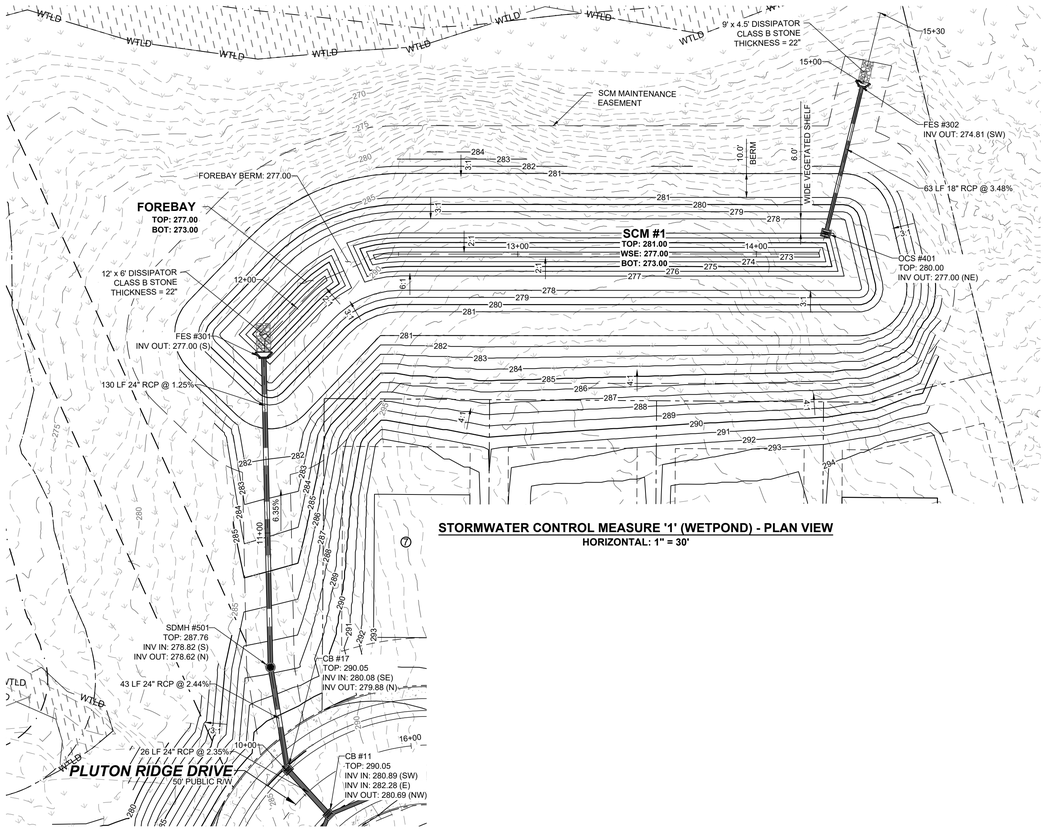
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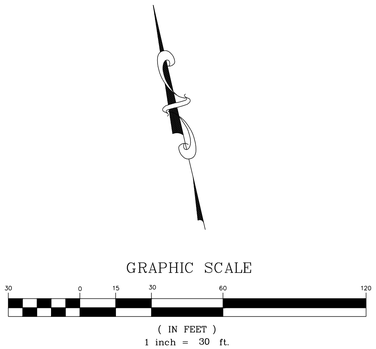
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SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
STORM DETAILS

DRAWING
SHEET
D-5.0



STORMWATER CONTROL MEASURE '1' (WETPOND) - PLAN VIEW
HORIZONTAL: 1" = 30'



STORMWATER CONTROL MEASURE '1' (WETPOND) - PROFILE VIEW
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

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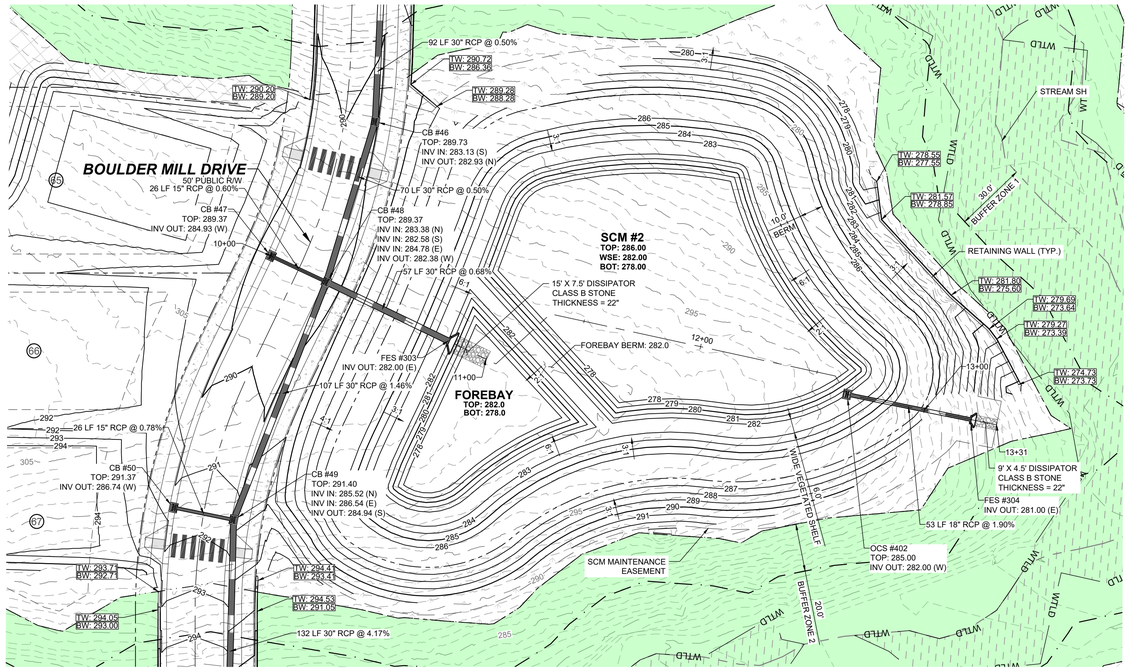
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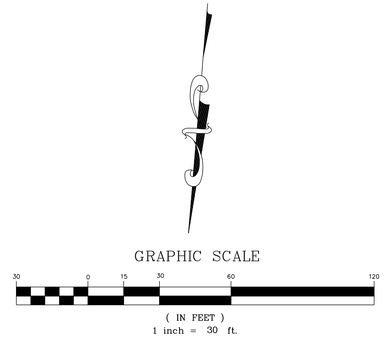
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SCALE	AS SHOWN
DESIGNED BY	SRG
DRAWN BY	SRG
CHECKED BY	SRG

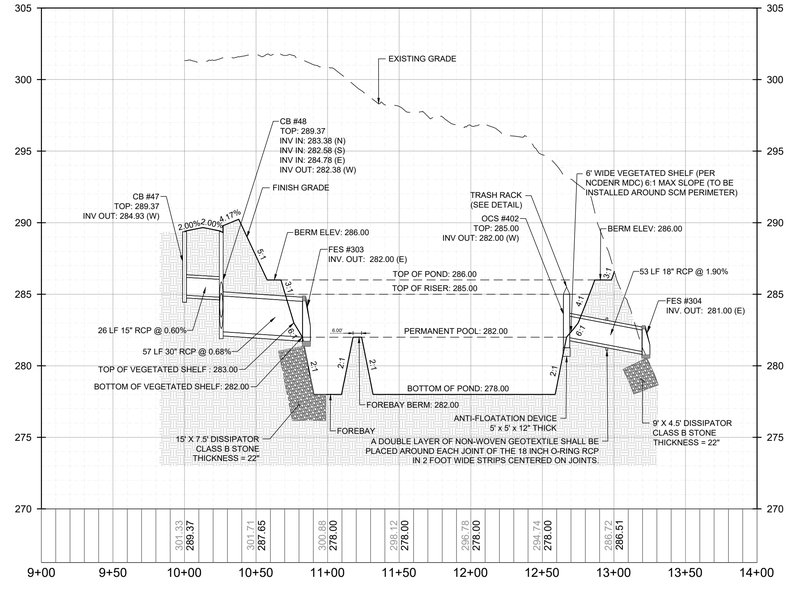
HILLS AT HARRIS CREEK
TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
STORMWATER CONTROL MEASURE '1'

DRAWING SHEET
D-5.1



STORMWATER CONTROL MEASURE '2' (WETPOND) - PLAN VIEW
HORIZONTAL: 1" = 30'





STORMWATER CONTROL MEASURE '2' (WETPOND) - PROFILE VIEW
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

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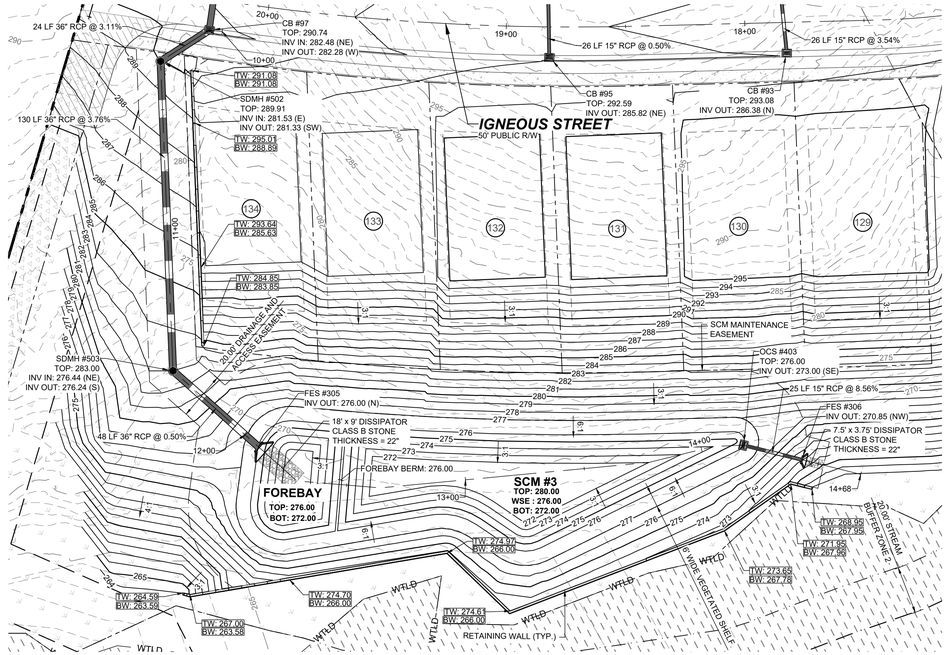
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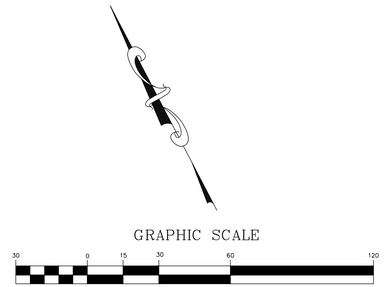
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	CHECKED BY	SRG	

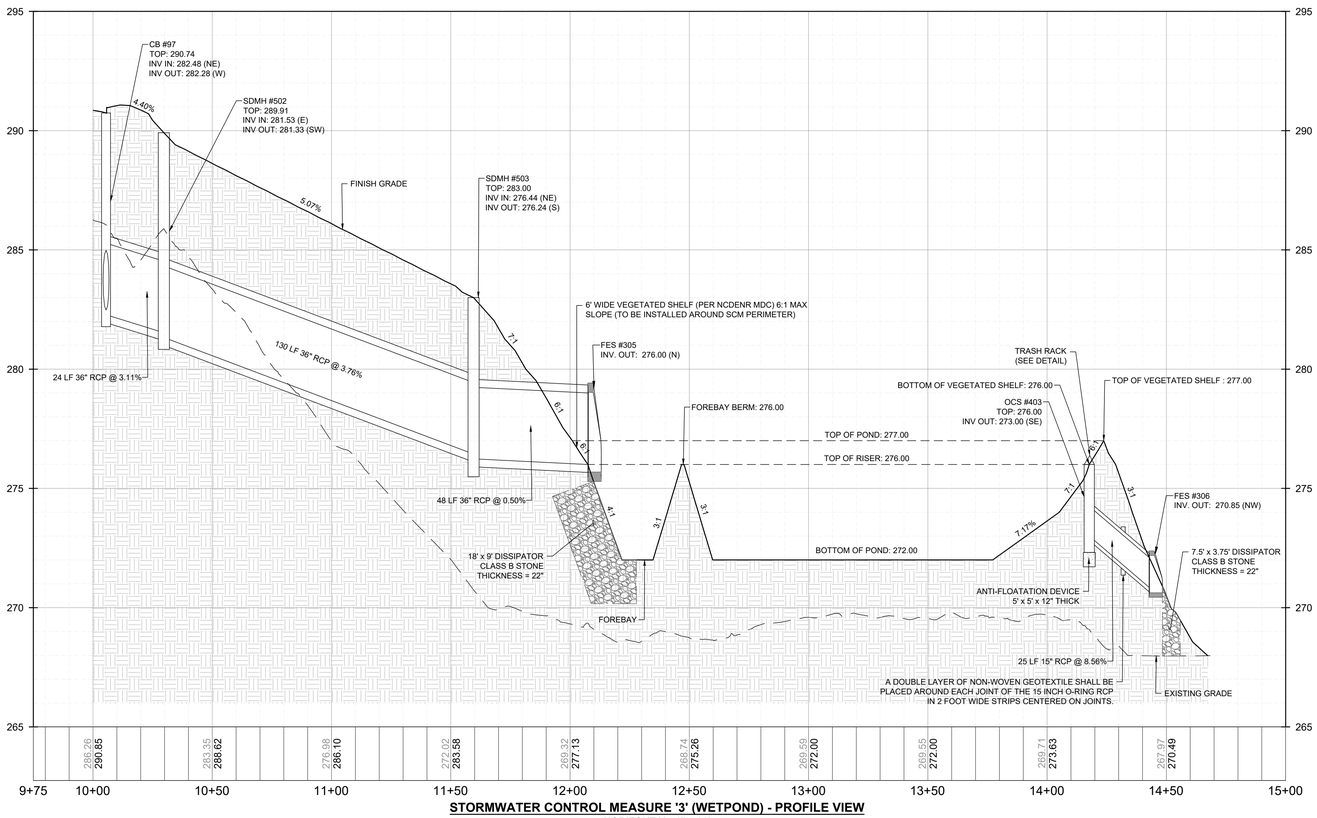
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TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA
CONSTRUCTION PLANS
STORMWATER CONTROL MEASURE '2'

DRAWING
SHEET
D-5.2



STORMWATER CONTROL MEASURE '3' (WETPOND) - PLAN VIEW
HORIZONTAL: 1" = 30'





STORMWATER CONTROL MEASURE '3' (WETPOND) - PROFILE VIEW
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

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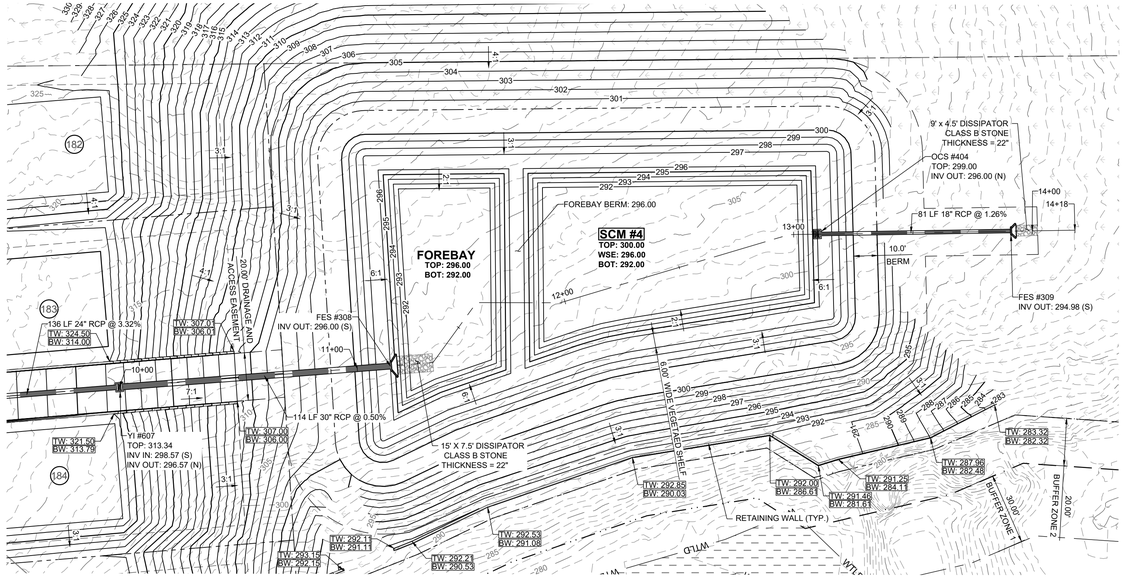
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CONSTRUCTION PLANS
STORMWATER CONTROL MEASURE '3'

DRAWING SHEET
D-5.3

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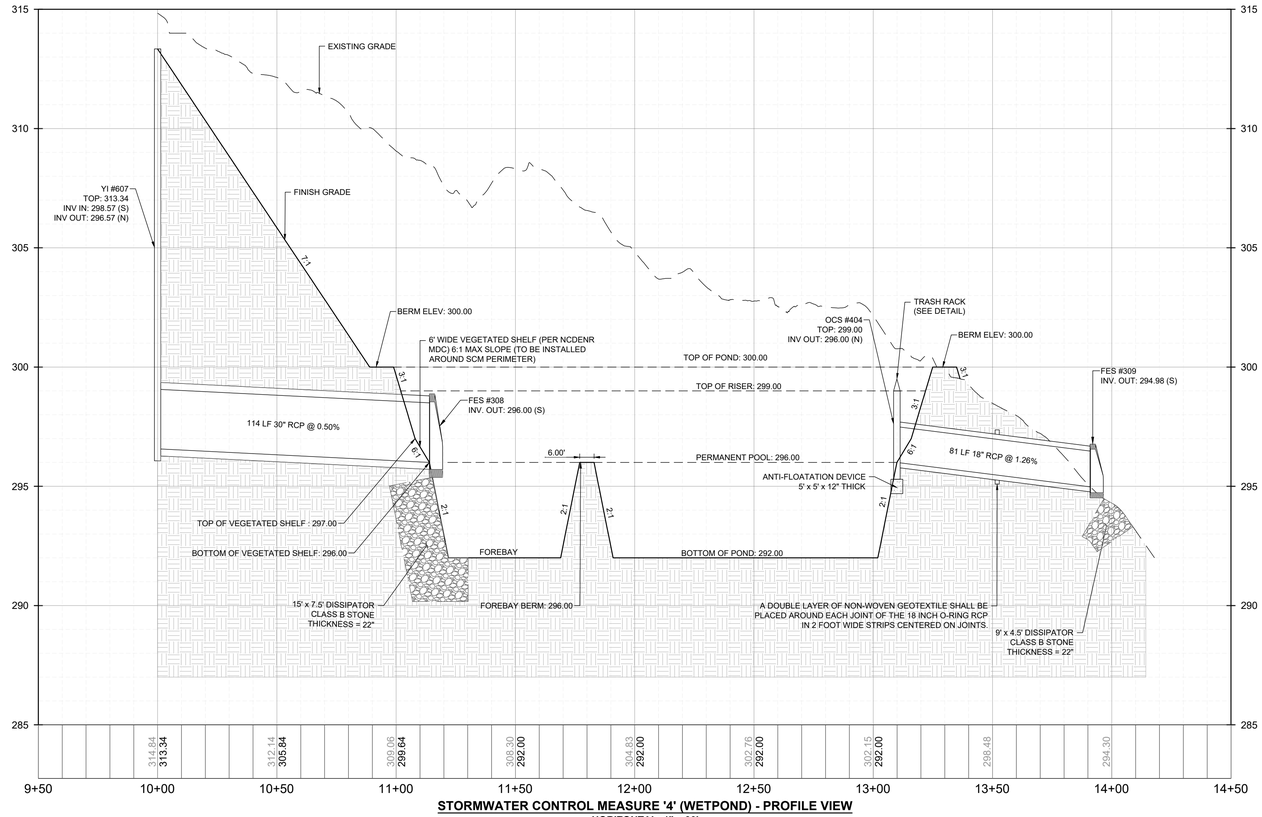


STORMWATER CONTROL MEASURE '4' (WETPOND) - PLAN VIEW
HORIZONTAL: 1" = 30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



STORMWATER CONTROL MEASURE '4' (WETPOND) - PROFILE VIEW
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

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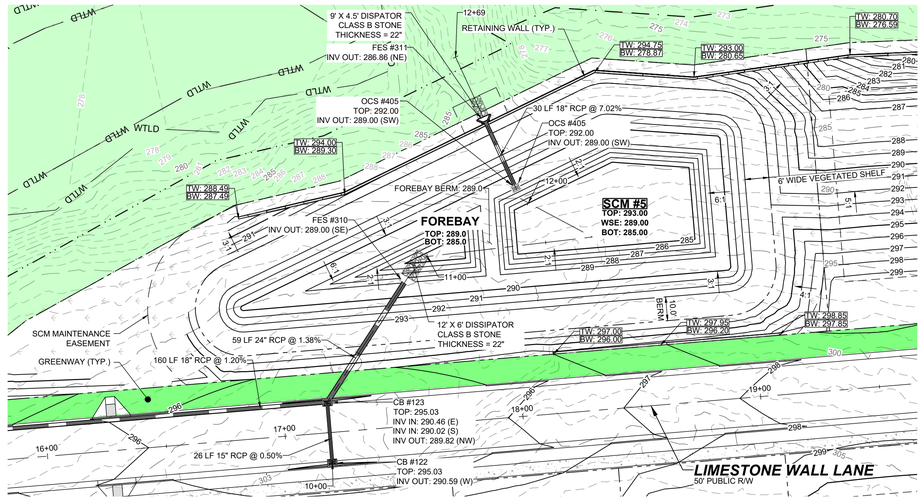
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CONSTRUCTION PLANS
STORMWATER CONTROL MEASURE '4'

DRAWING / SHEET
D-5.4

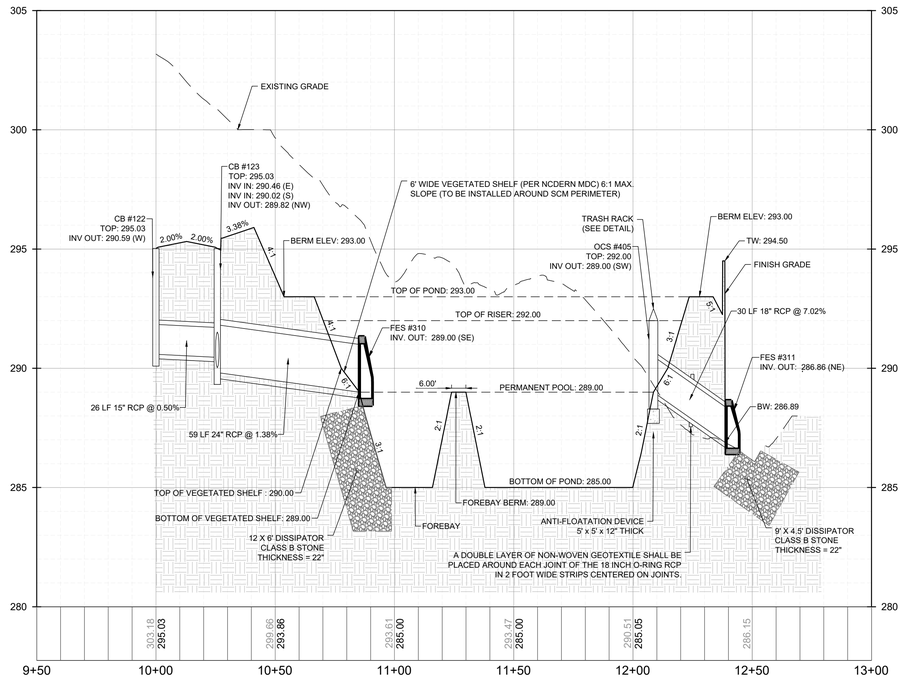


STORMWATER CONTROL MEASURE '5' (WET POND) - PLAN VIEW
HORIZONTAL: 1" = 30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



STORMWATER CONTROL MEASURE '5' (WET POND) - PROFILE VIEW
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

No.	REVISIONS	DATE	BY
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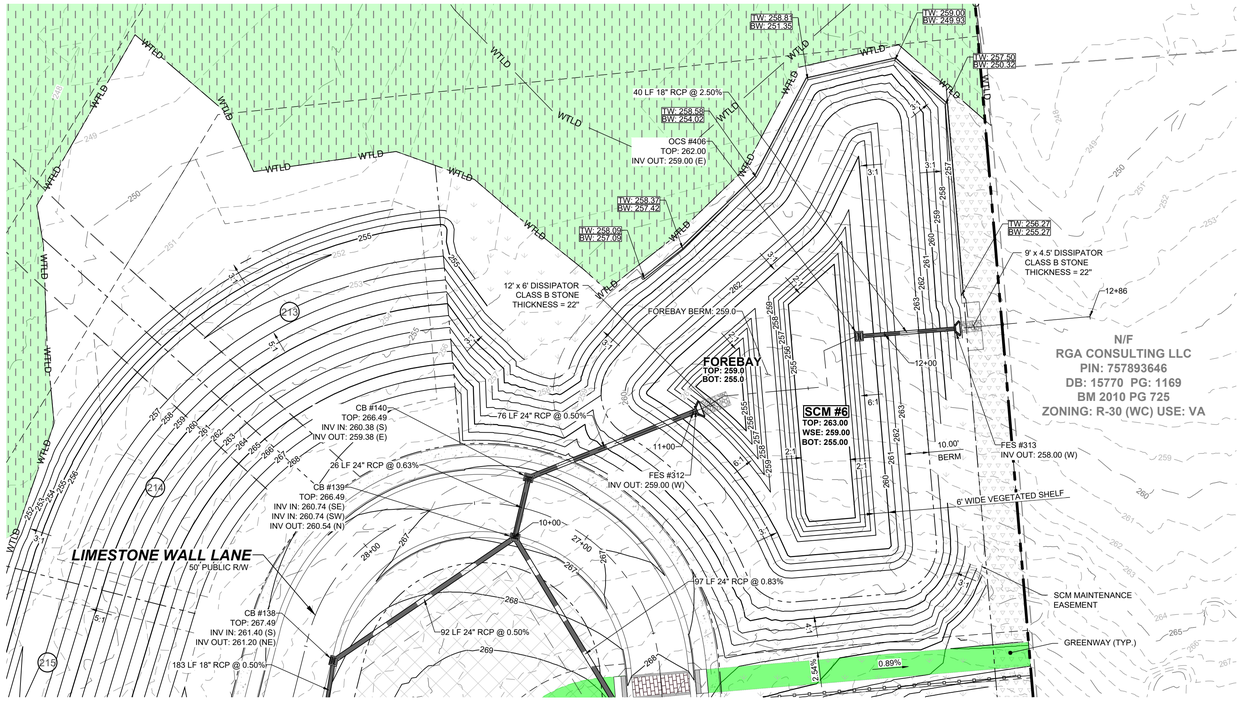
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CONSTRUCTION PLANS
STORMWATER CONTROL MEASURE '5'

DRAWING SHEET
D-5.5

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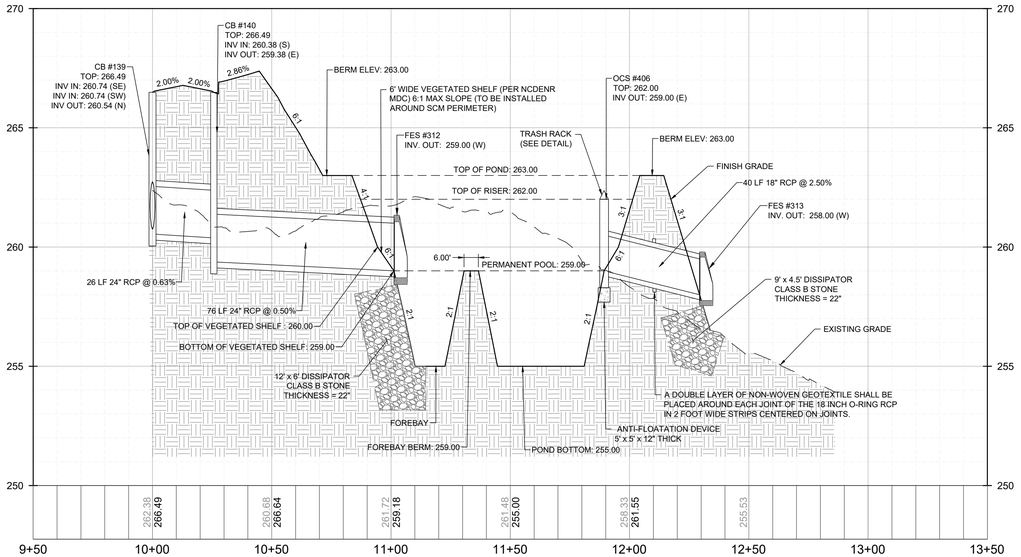


STORMWATER CONTROL MEASURE '6' (WETPOND) - PLAN VIEW
HORIZONTAL: 1" = 30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



STORMWATER CONTROL MEASURE '6' (WETPOND) - PROFILE VIEW
HORIZONTAL: 1" = 30'
VERTICAL: 1" = 3'

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CONSTRUCTION PLANS
STORMWATER CONTROL MEASURE '6'

DRAWING SHEET
D-5.6

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