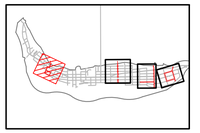


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED



OVERALL MAP KEY - STATION 16

811 Know what's below. Call before you dig.

N W E S

0 50 100 200
SCALE: 1" = 100'

SEAMONWHITESIDE

MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 25434 PHILLIPS

FOR REGISTRATION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

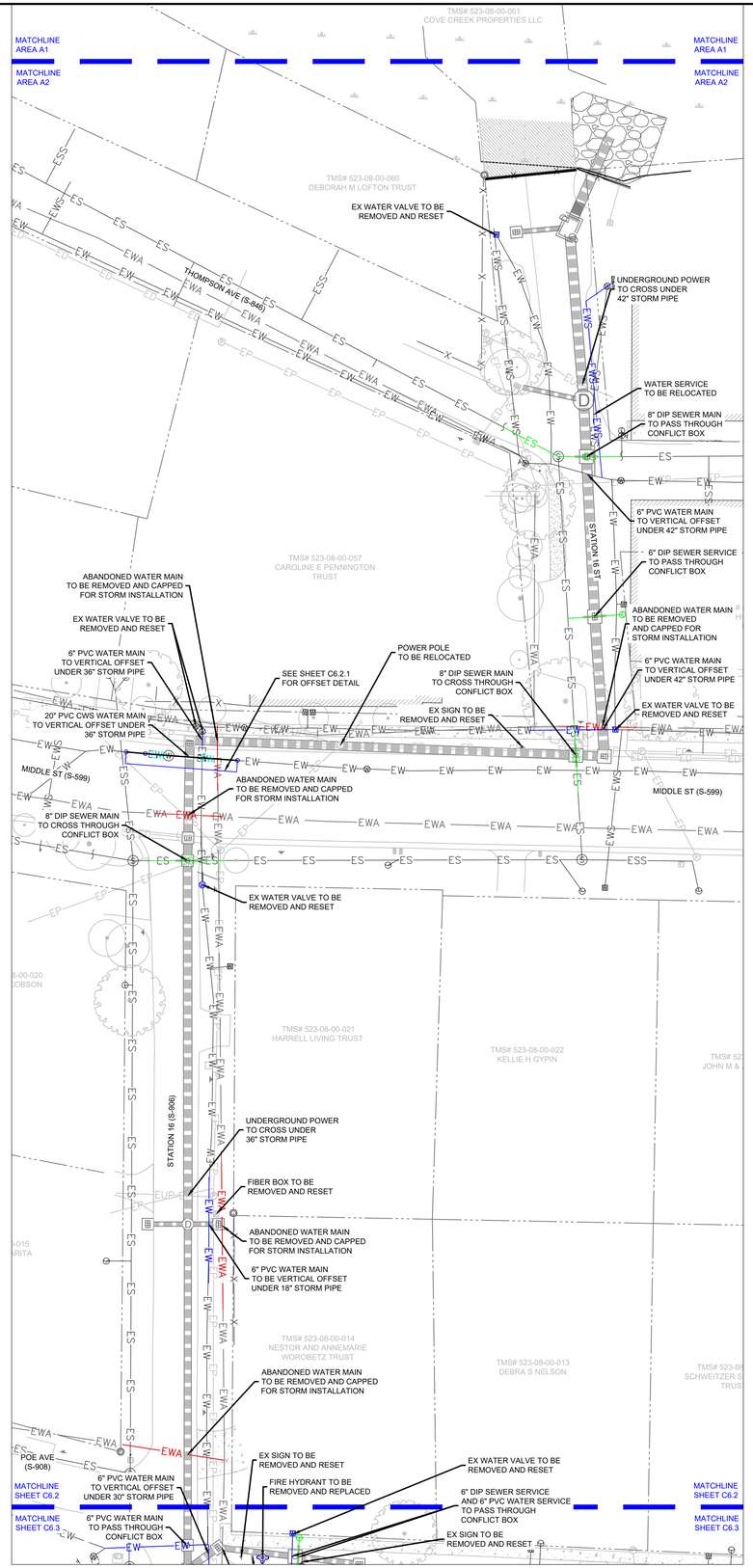
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 16 OVERALL

C6.1

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

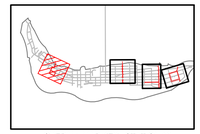
PLOTTED:9/27/2024 1:36 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 D_Utility Relocation Plan - Station 16.dwg



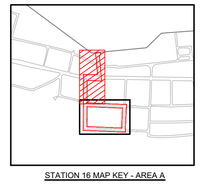
STATION 16 - AREA A

LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 16



STATION 16 MAP KEY - AREA A

811 Know what's Call before you dig.

N W E S

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION No. C00472

NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER SEAL 034434 ENGINEER RICHARD C. PHILLIPS

FOR REVIEW ONLY

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

REVISION HISTORY

1.	8/02/2024	

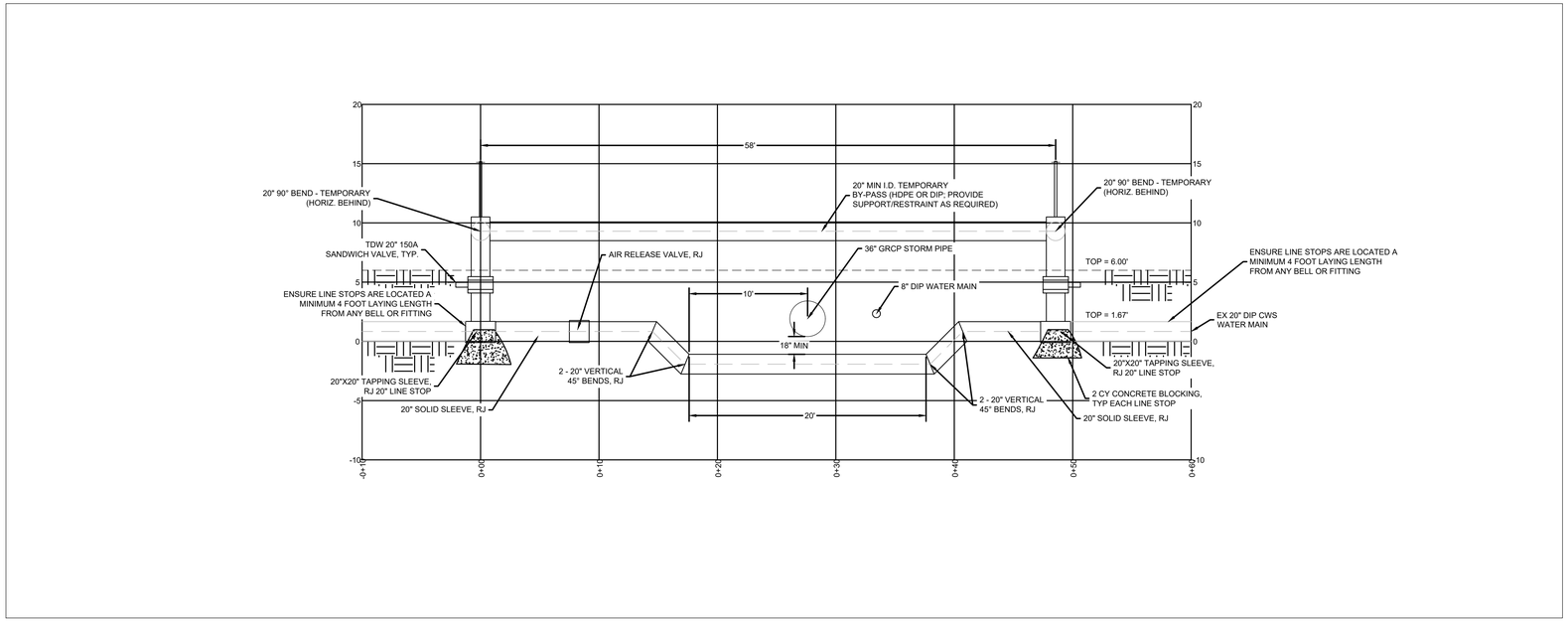
UTILITY RELOCATION PLAN - STATION 16 - AREA A

C6.2

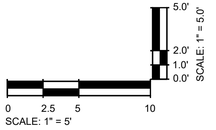
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

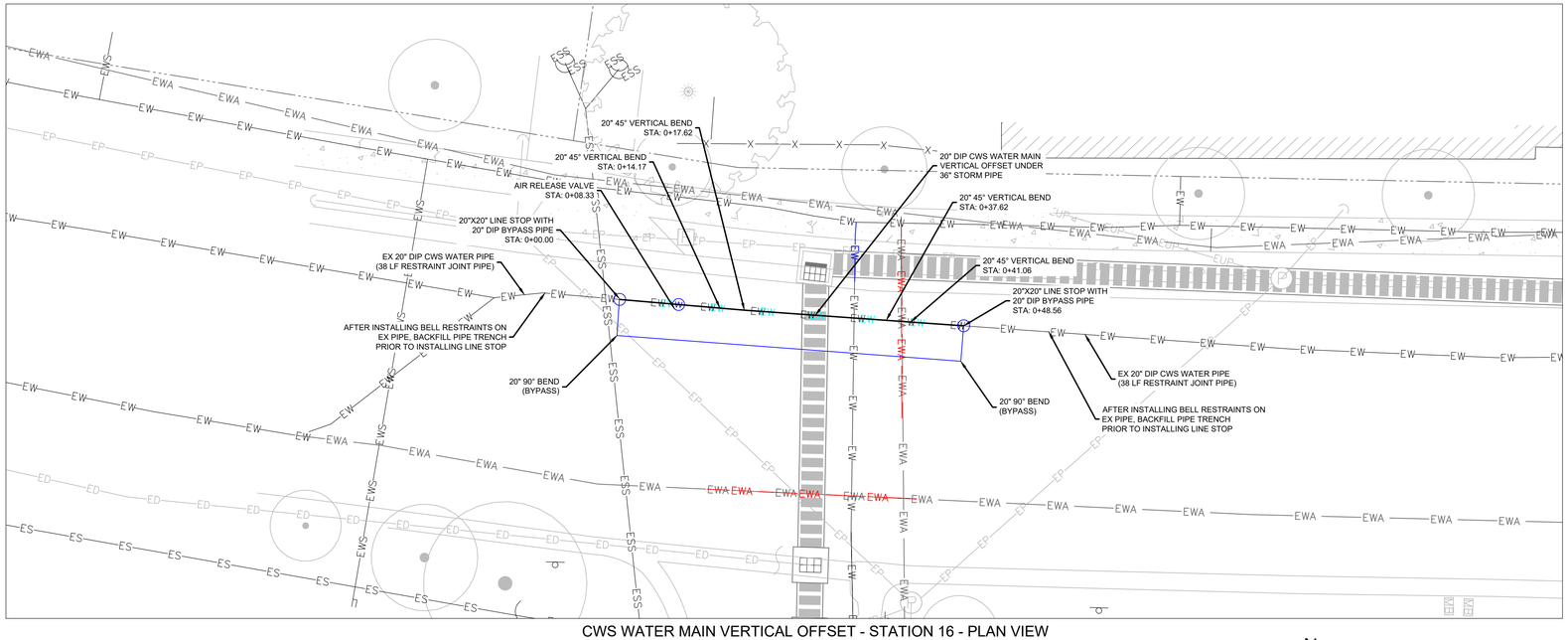
PLOTTED: 9/27/2024 1:36 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\20x\10830 D_Utility Relocation Plan - Station 16.dwg

901 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 (GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION. ALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

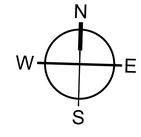


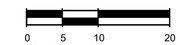
CWS WATER MAIN VERTICAL OFFSET - STATION 16 - PROFILE





CWS WATER MAIN VERTICAL OFFSET - STATION 16 - PLAN VIEW





Know what's Call before you dig.

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
No. C00472
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 34434
PWP
PHILLIPS
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

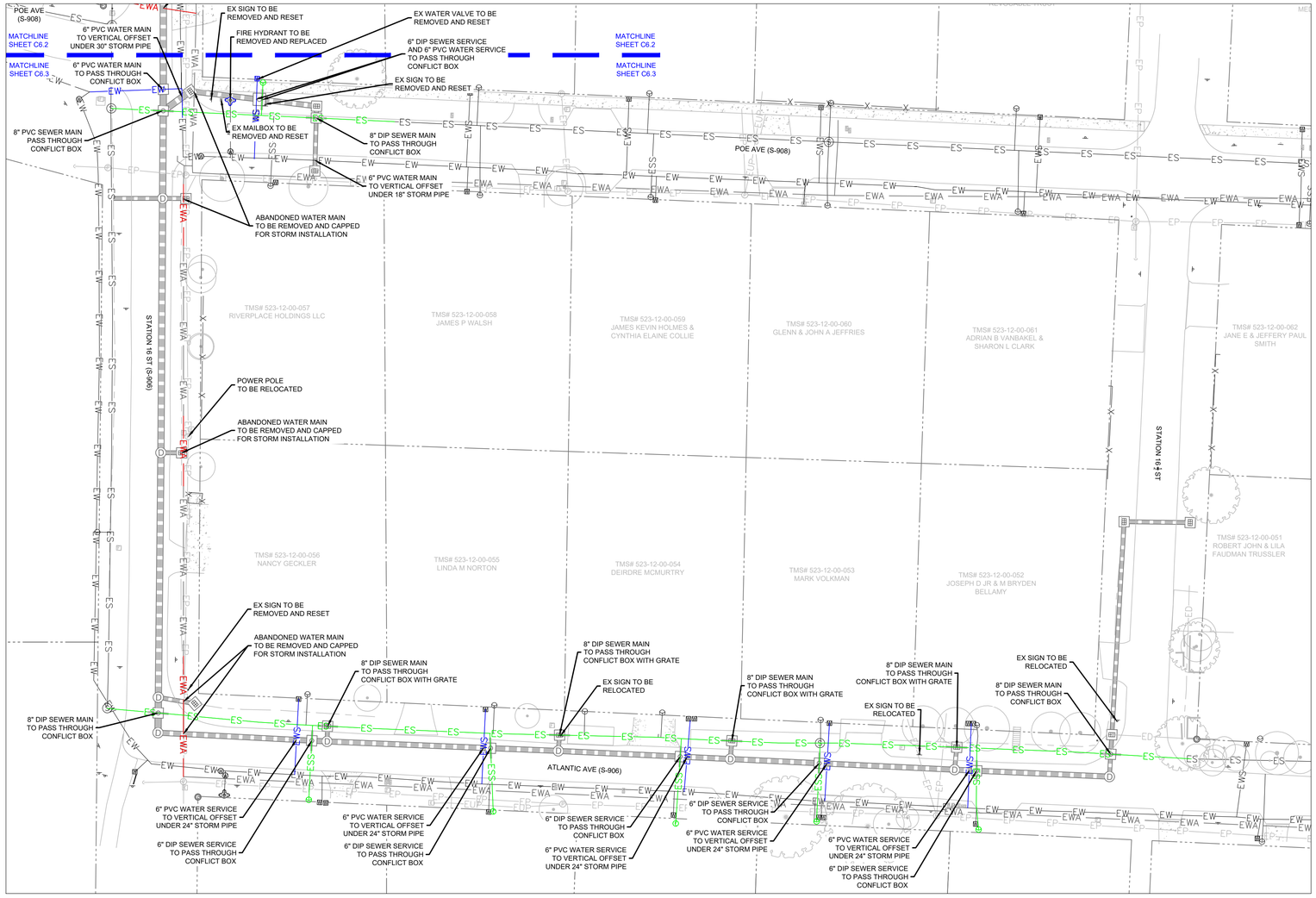
REVISION HISTORY

1.	8/02/2024

UTILITY RELOCATION PLAN - STA 16 - CWS WATER PROFILE

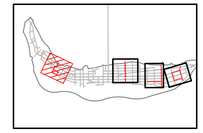
C6.2.1

PLOTTED: 9/27/2024 1:37 PM, BY: Michael Bevacqua P:\ACAD~1\10830\CAD Files\C6's\10830 D_Utility Relocation Plan - Station 16.dwg

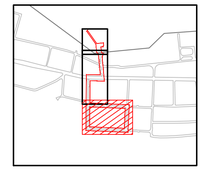


LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 16



STATION 16 MAP KEY - AREA B

Know what's Call below. before you dig.

N
W E
S

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
CERTIFICATE OF AUTHORIZATION
No. C00472

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 34434
ROBERT C. PHILLIPS
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

REVISION HISTORY

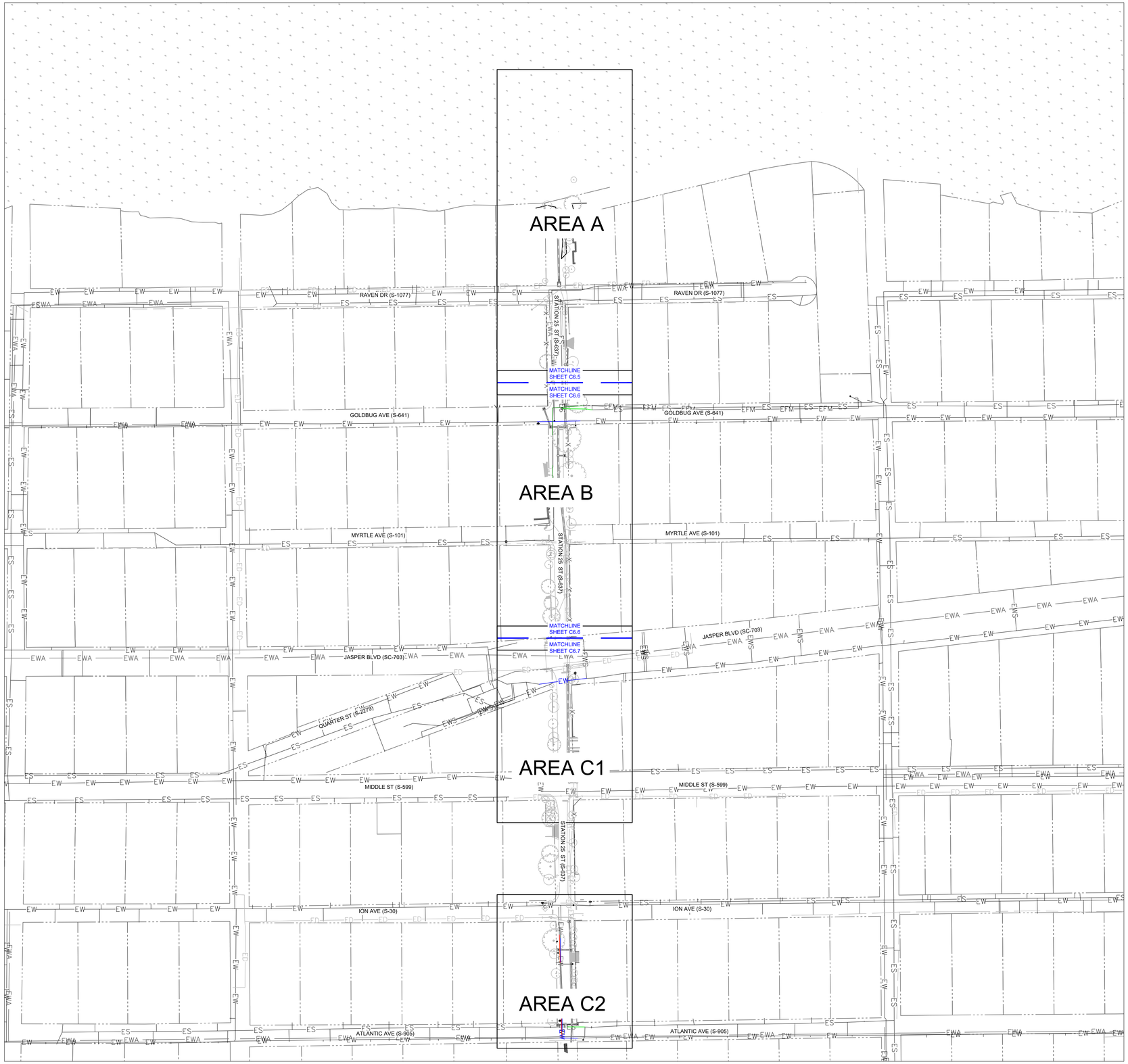
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 16 - AREA B

C6.3

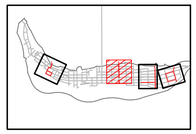
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 (GREENVILLE, SC 29611) | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:37 PM, BY Michael Bevacqua P:\ACAD~1\10830\CAD Files\Civil\10830 D_Utility Relocation Plan - Station 16.dwg



LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 25

811 Know what's below. Call before you dig.

N E S W

0 50 100 200
SCALE: 1" = 100'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 RAVE C. PHILLIPS FOR REVIEW PURPOSES

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

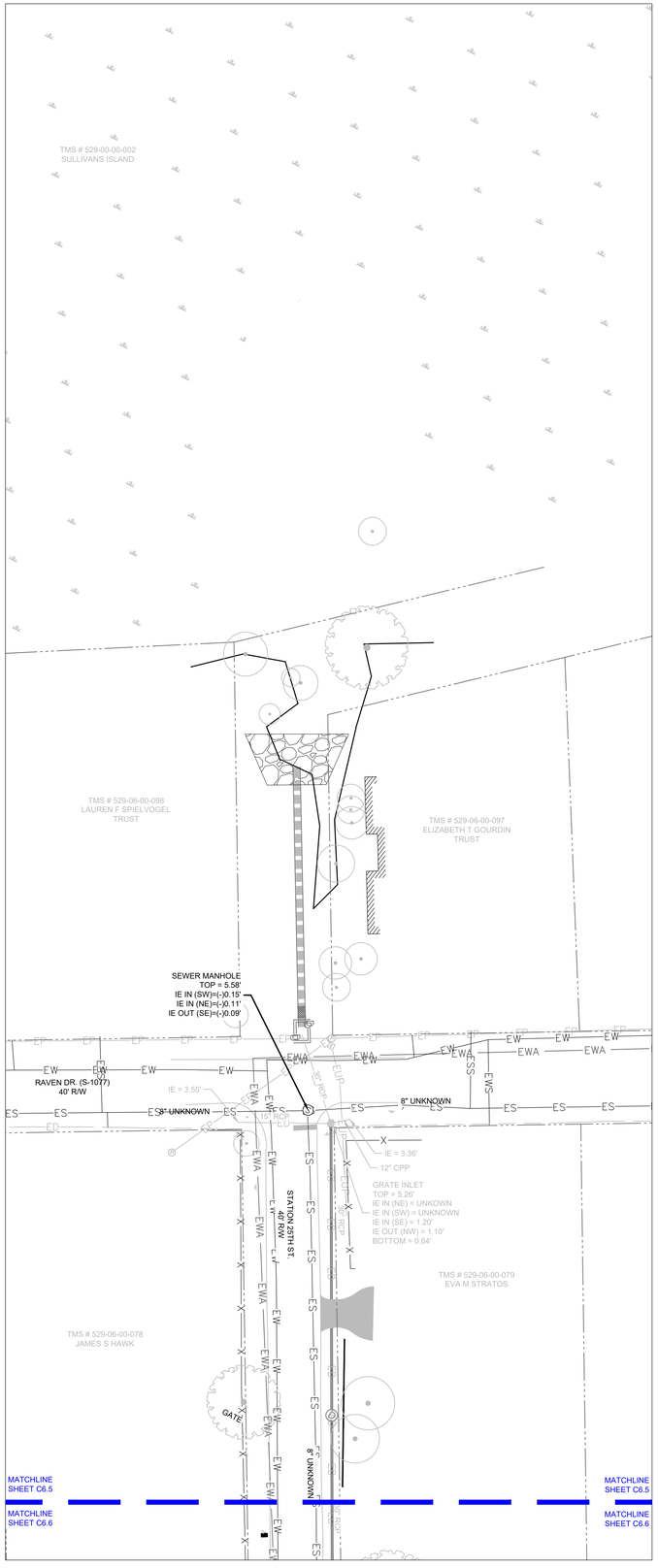
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 25 OVERALL

C6.4

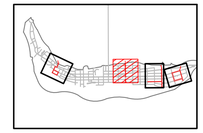
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:39 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\C0's\10830 D_Utility Relocation Plan - Station 25.dwg

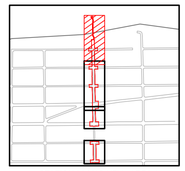


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 25



STATION 25 MAP KEY - AREA A

Know what's below.
Call before you dig.

N
W
E
S

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
No. C00472
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 25434
FOR REGISTRATION
RICE C. PHILLIPS

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

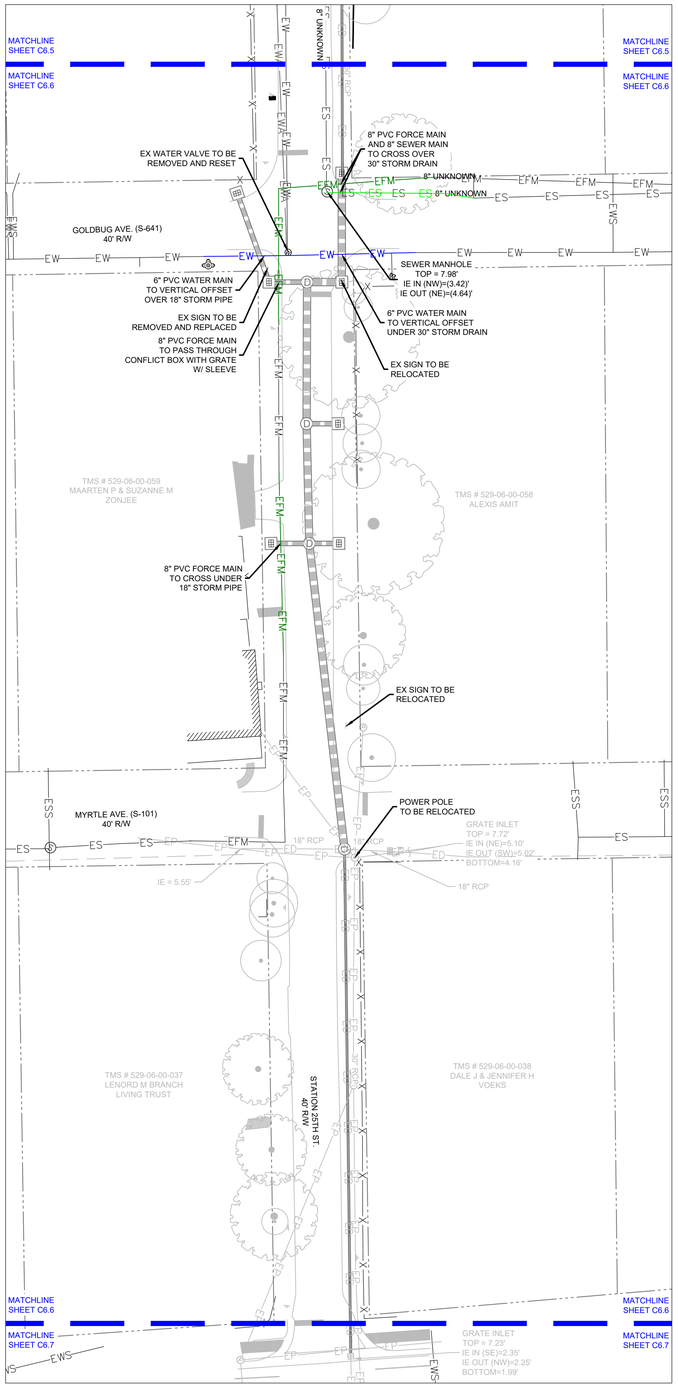
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 25 - AREA A

C6.5

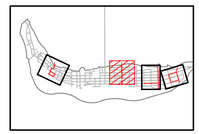
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:39 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 D_Utility Relocation Plan - Station 25.dwg

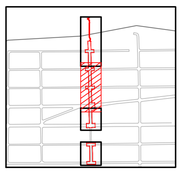


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 25



STATION 25 MAP KEY - AREA B

811 Know what's below. Call before you dig.

N E S W

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 RICE C. PHILLIPS

FOR REVIEW PREVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

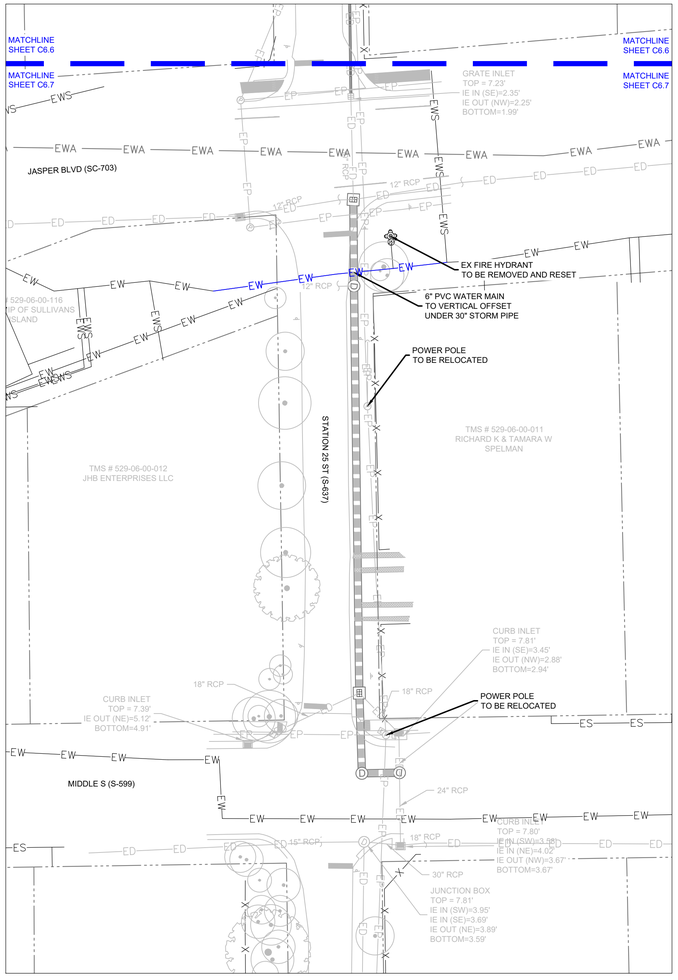
UTILITY RELOCATION PLAN - STATION 25 - AREA B

C6.6

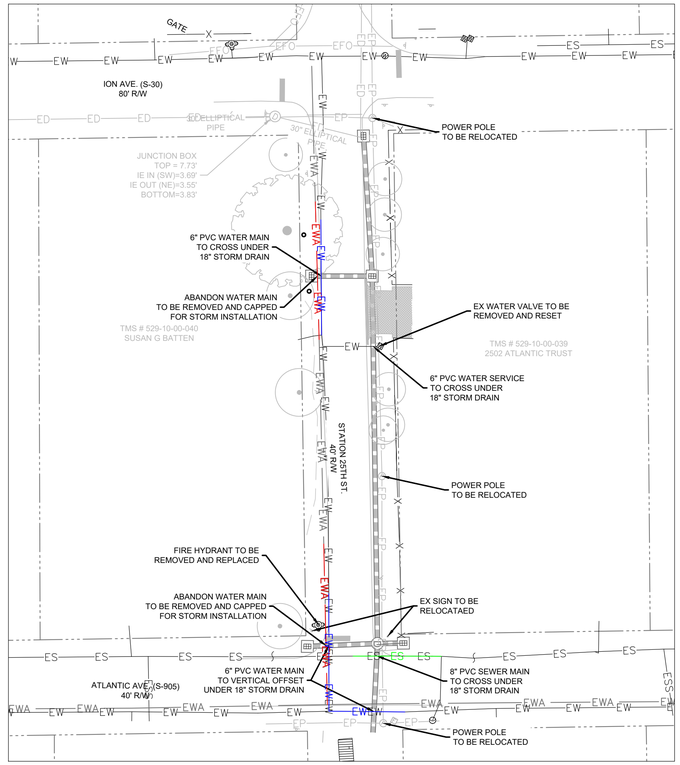
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306

COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:39 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\C0's\10830 D_Utility Relocation Plan - Station 25.dwg



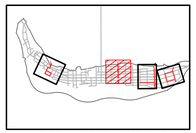
STATION 25 - AREA C1



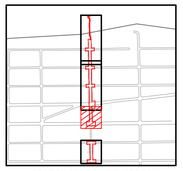
STATION 25 - AREA C2

LEGEND

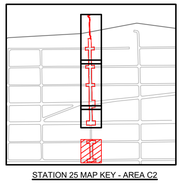
- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 25

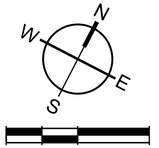


STATION 25 MAP KEY - AREA C1



STATION 25 MAP KEY - AREA C2

Know what's Call before you dig.



SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
No. C00472
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 044434
PRELIMINARY NOT FOR CONSTRUCTION
PHILLIPS

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 25 - AREA C

C6.7

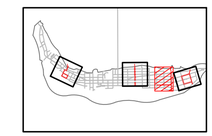
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 (GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION. ALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:40 PM, BY: Michael Bevacqua P:\ACAD~1\10830\CAD Files\03's\10830 D_Utility Relocation Plan - Station 25.dwg



LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 28.5

Know what's below. Call before you dig.

0 50 100 200
SCALE: 1" = 100'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 ROBERT C. PHILLIPS FOR AGENCY REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

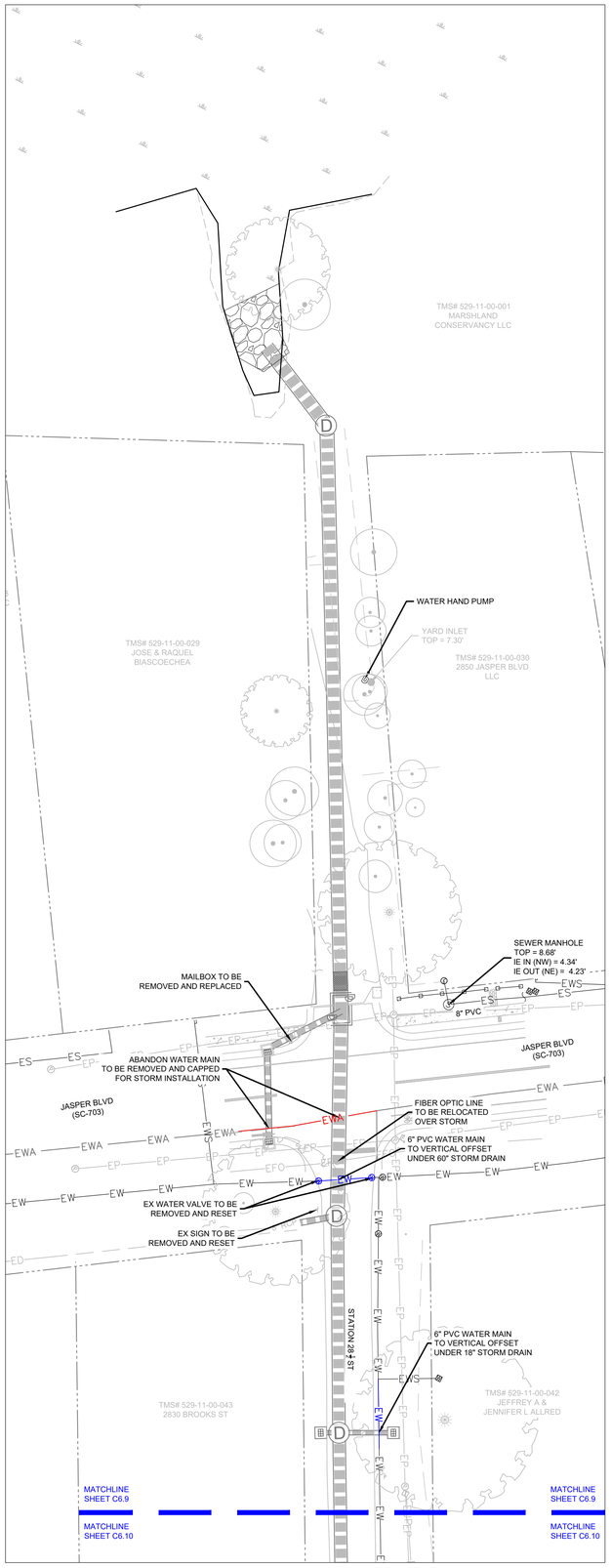
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 28.5 OVERALL

C6.8

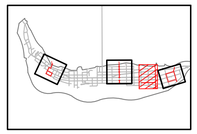
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:41 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\CD's\10830 D_Utility Relocation Plan - Station 28.5.dwg

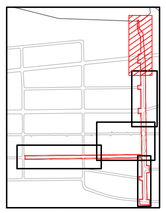


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 28.5



STATION 28.5 MAP KEY - AREA A

811 Know what's below. Call before you dig.

N W E S

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE

MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 RICE C. PHILLIPS
FOR PRELIMINARY REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

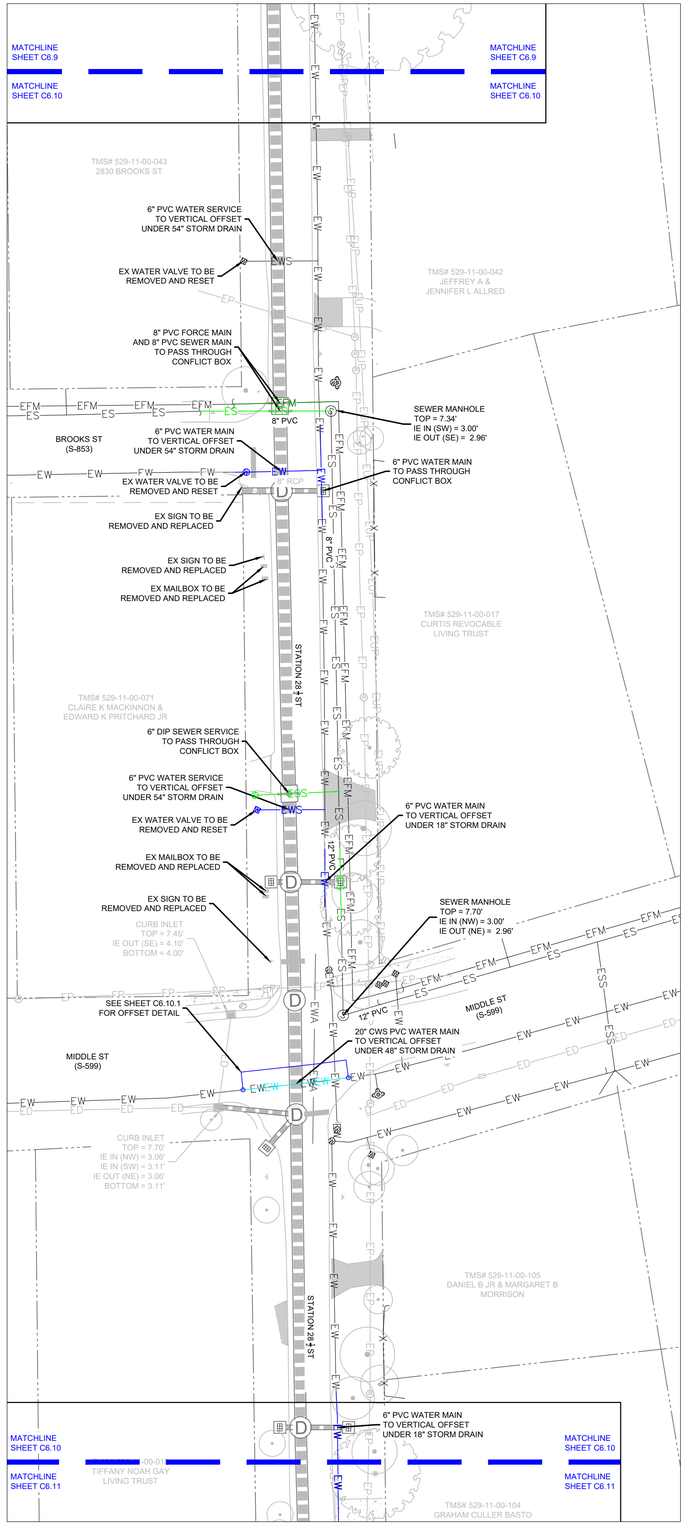
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 28.5 - AREA A

C6.9

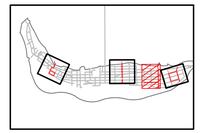
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:42 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\CD's\10830 D_Utility Relocation Plan - Station 28.5.dwg

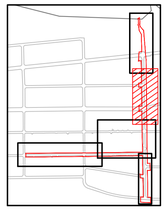


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 28.5



STATION 28.5 MAP KEY - AREA B

811 Know what's below. Call before you dig.

N E S W

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 25434 RICE C. PHILLIPS

FOR PRELIMINARY REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

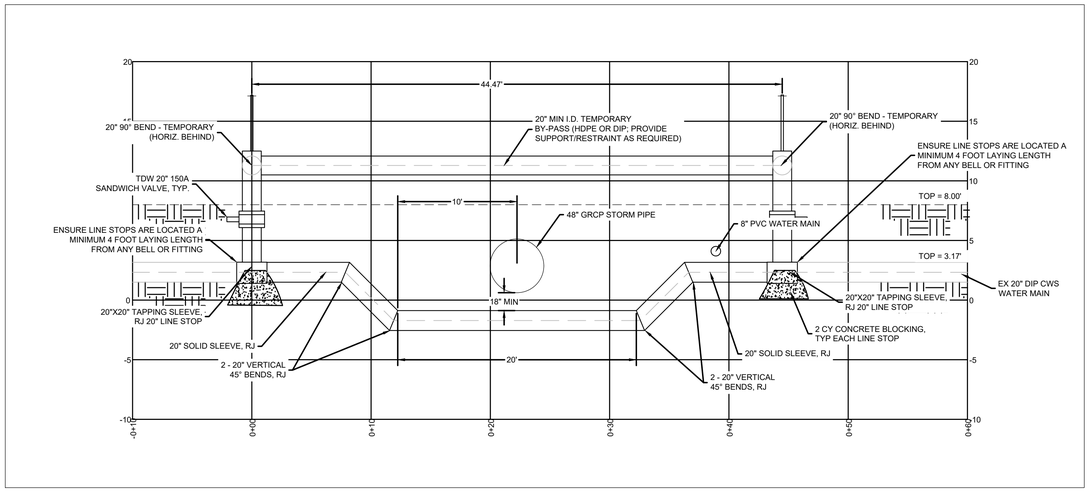
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 28.5 - AREA B

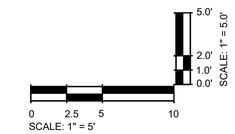
C6.10

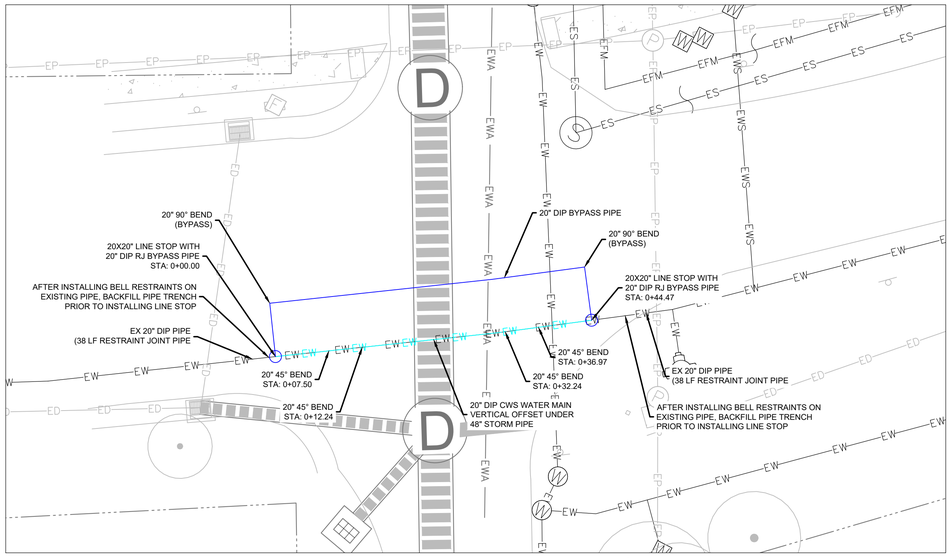
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:42 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 D_Utility Relocation Plan - Station 28.5.dwg

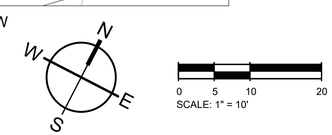


CWS WATER MAIN VERTICAL OFFSET - STATION 28 $\frac{1}{2}$ - PROFILE





CWS WATER MAIN VERTICAL OFFSET - STATION 28 $\frac{1}{2}$ - PLAN VIEW



Know what's below. Call before you dig.

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 PHILLIPS

FOR AGENCY REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

REVISION HISTORY

1. 8/02/2024

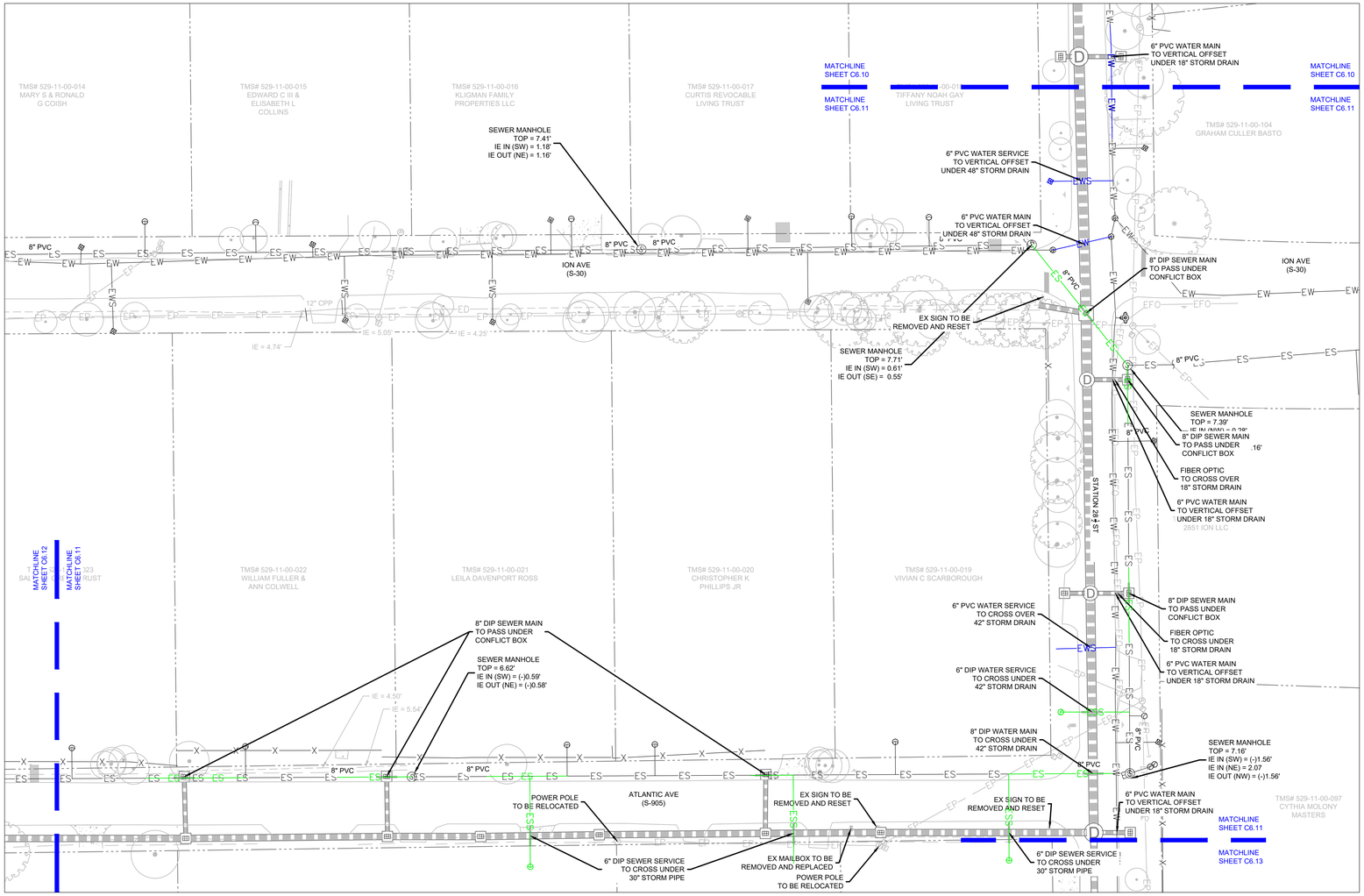
UTILITY RELOCATION PLAN - STA 28.5 - CWS WATER PROFILE

C6.10.1

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

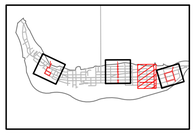
PLOTTED: 9/27/2024 1:42 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 D_Utility Relocation Plan - Station 28.5.dwg

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 (GREENVILLE, SC 29611) | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 713 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

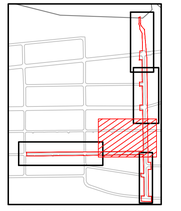


LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE

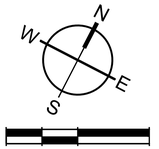


OVERALL MAP KEY - STATION 28.5



STATION 28.5 MAP KEY - AREA C

Know what's **Call** below. before you dig.



0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA — SEAMON, WHITESIDE & ASSOCIATES, INC. — No. C00472 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 34434 — RYAN C. PHILLIPS — 9/27/2024 — PRELIMINARY NOT FOR CONSTRUCTION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

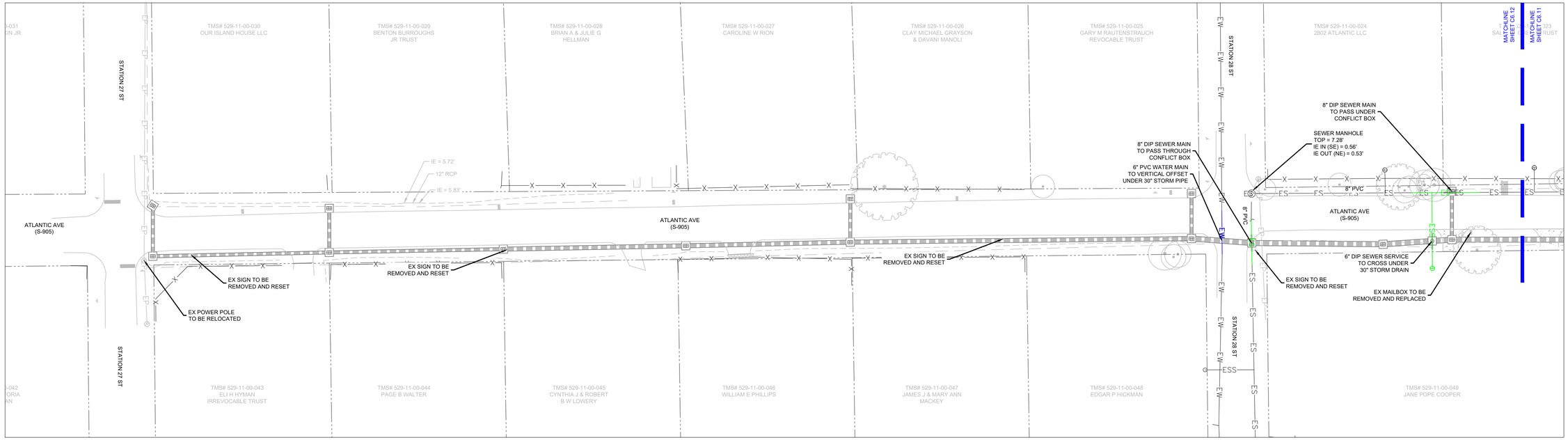
REVISION HISTORY

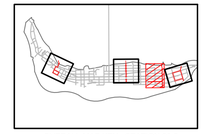
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 28.5 - AREA C

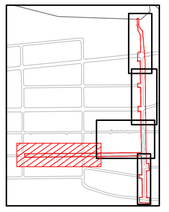
C6.11

PLOTTED: 9/27/2024 1:43 PM, BY: Michael Bevacqua P:\ACAD~1\10830\CAD Files\Dgn's\10830 D_Utility Relocation Plan - Station 28.5.dwg





OVERALL MAP KEY - STATION 28.5



STATION 28.5 MAP KEY - AREA D

LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE

811 Know what's below. Call before you dig.

N E S W

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 25434 FOR PROJECT REVIEW PAGE C. PHILLIPS

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

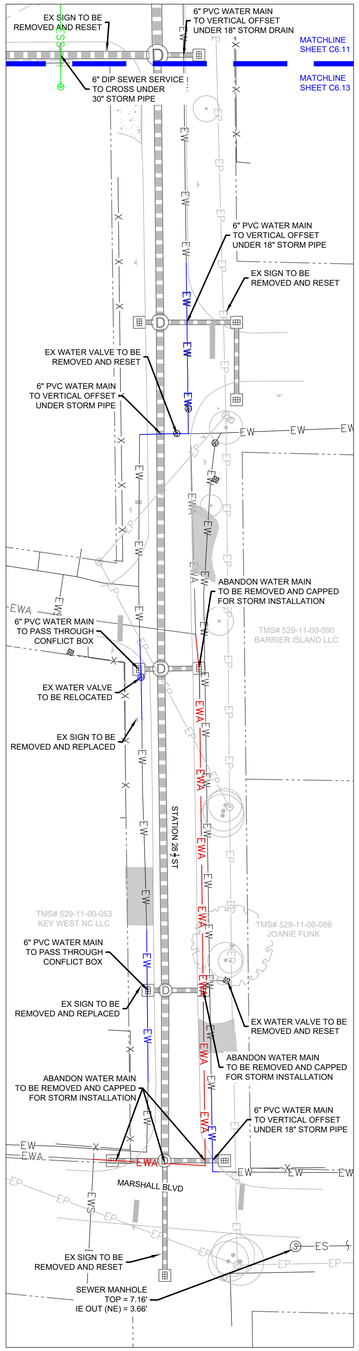
UTILITY RELOCATION PLAN - STATION 28.5 - AREA D

C6.12

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306

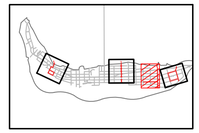
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED:9/27/2024 1:43 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\CD's\10830 D_Utility Relocation Plan - Station 28.5.dwg

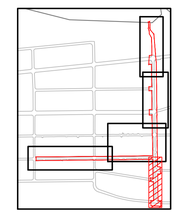


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE

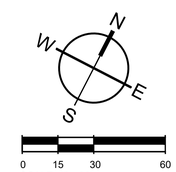


OVERALL MAP KEY - STATION 28.5



STATION 28.5 MAP KEY - AREA E

Know what's below. Call before you dig.



SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 25434 RICHARD C. PHILLIPS FOR PROJECT REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

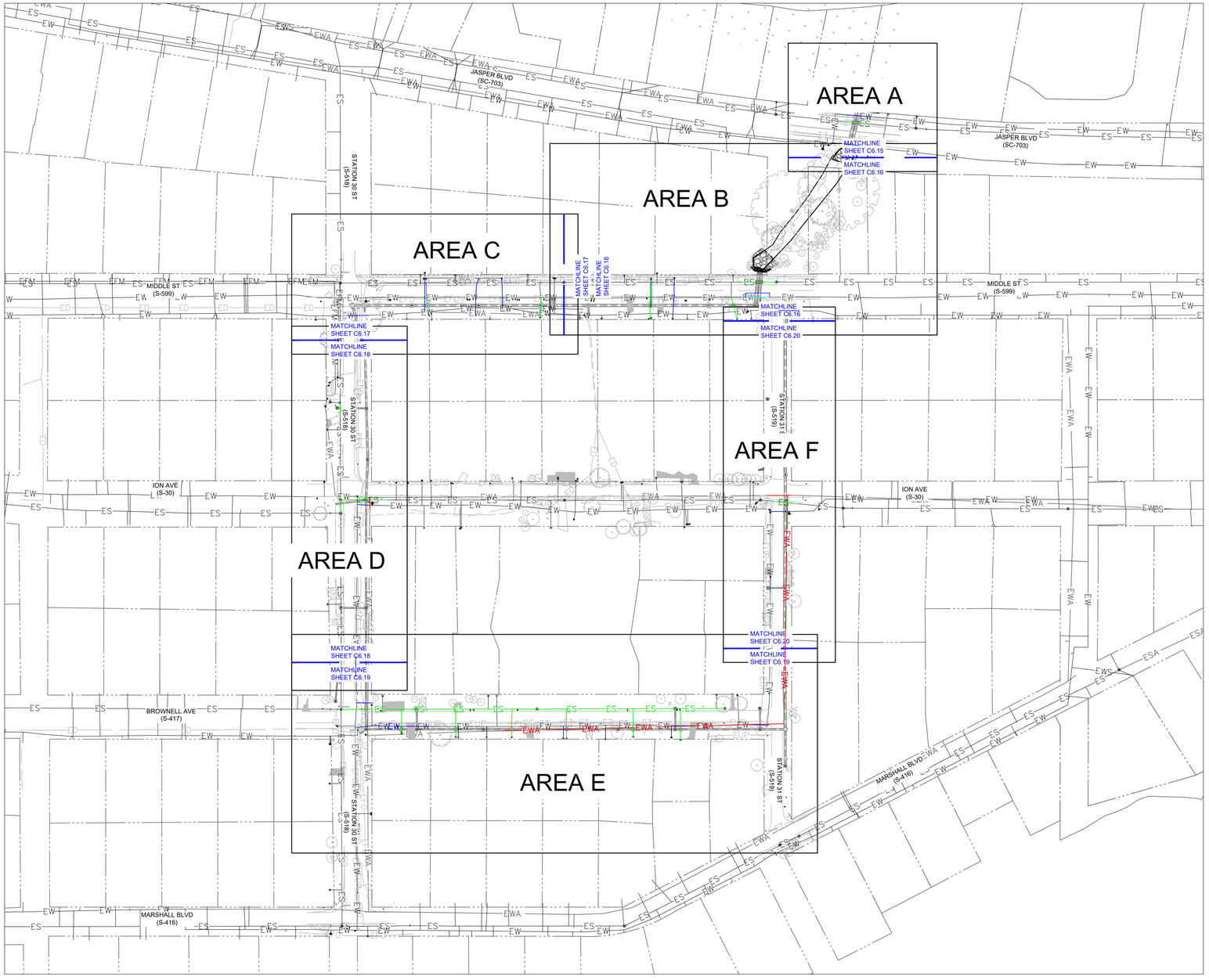
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 28.5 - AREA E

C6.13

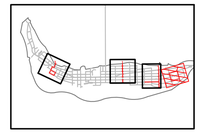
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:43 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\C0's\10830 D_Utility Relocation Plan - Station 28.5.dwg



LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 31

Know what's below. Call before you dig.

0 50 100 200
SCALE: 1" = 100'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 RAVE C. PHILLIPS FOR REGISTRATION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

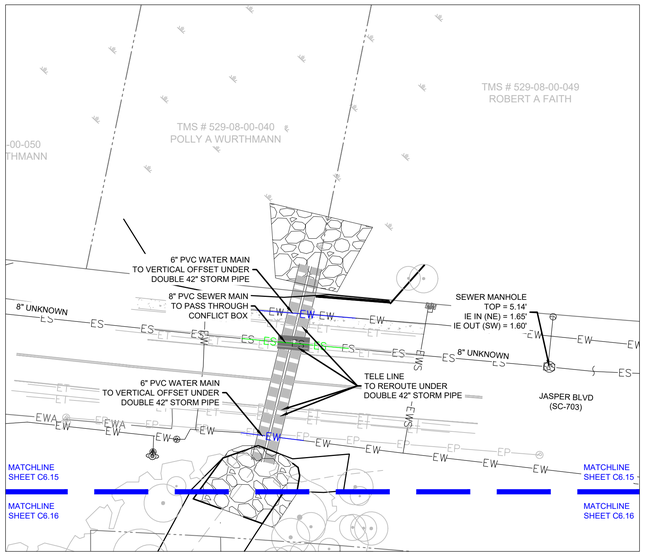
UTILITY RELOCATION PLAN - STATION 31 OVERALL

C6.14

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

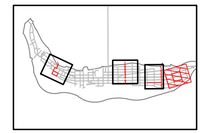
PLOTTED:9/27/2024 1:44 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 D_Utility Relocation Plan - Station 31.dwg

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

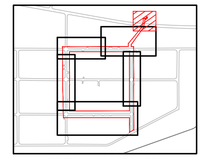


LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE

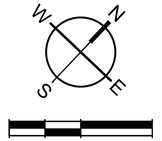


OVERALL MAP KEY - STATION 31



STATION 31 MAP KEY - AREA A

811 Know what's Call before you dig.



0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
CERTIFICATE OF AUTHORIZATION
No. C00472

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 34434
PHILLIP C. PHILLIPS
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

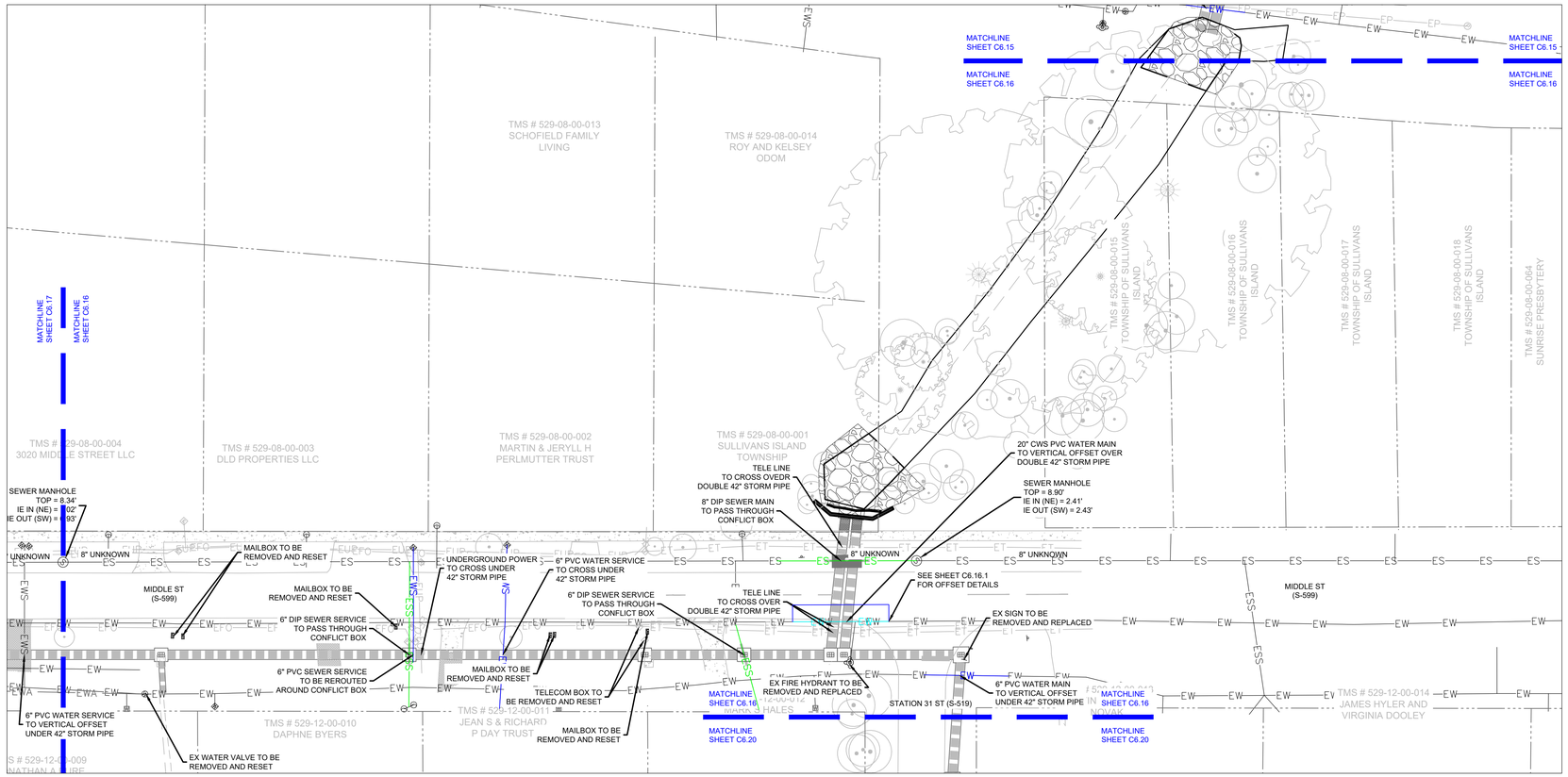
REVISION HISTORY

1. 8/02/2024	

UTILITY RELOCATION PLAN - STATION 31 - AREA A

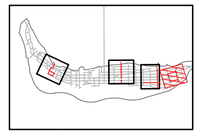
C6.15

PLOTTED: 9/27/2024 1:45 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\Cad's\10830 D_Utility Relocation Plan – Station 31.dwg

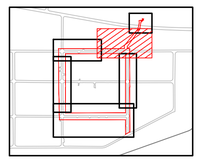


LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE

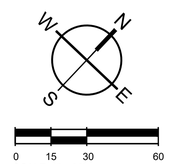


OVERALL MAP KEY - STATION 31



STATION 31 MAP KEY - AREA B

Know what's Call below. before you dig.



SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA — SEAMON, WHITESIDE, & ASSOCIATES, INC. — No. C00472 — CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 034434 — RICHARD CHASE PHILLIPS — SEAL — 9/27/2024 — REVISED 10/25/2024

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

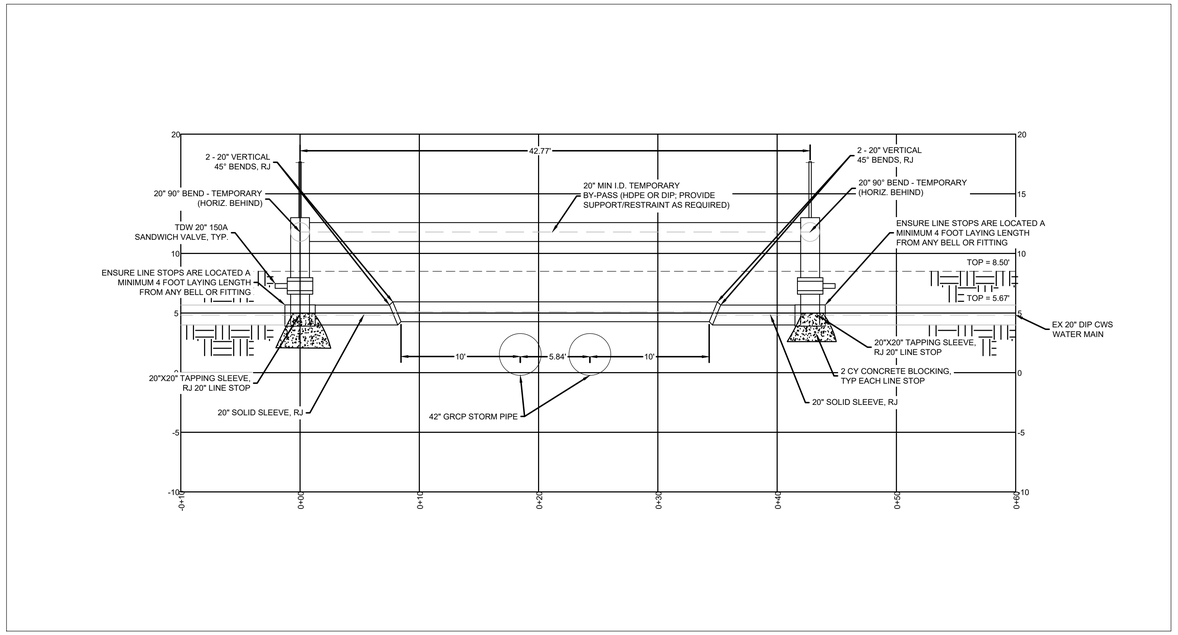
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 31 - AREA B

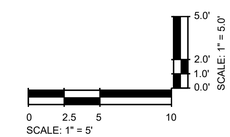
C6.16

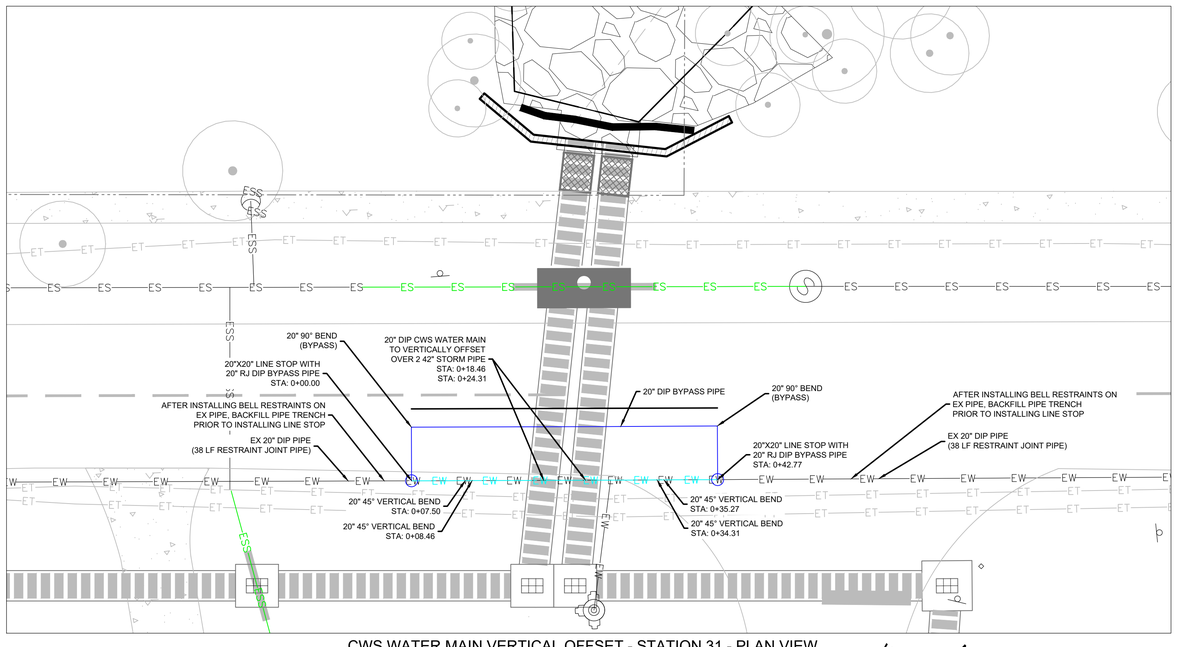
901 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:45 PM, BY Michael Bevacqua P: \ACAD~1\10830\CAD Files\00's\10830 0_Utility Relocation Plan – Station 31.dwg

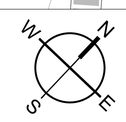


CWS WATER MAIN VERTICAL OFFSET - STATION 31 - PROFILE





CWS WATER MAIN VERTICAL OFFSET - STATION 31 - PLAN VIEW



0 5 10 20
SCALE: 1" = 10'

Know what's below.
Call before you dig.

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 RICHARD C. PHILLIPS FOR REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

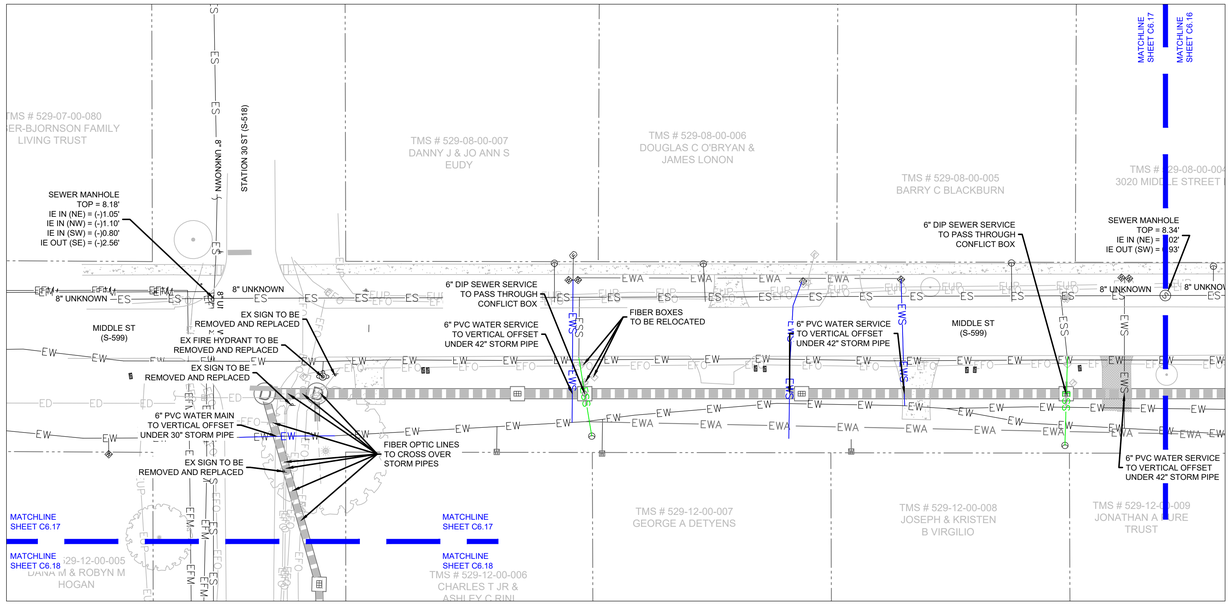
1. 8/02/2024

UTILITY RELOCATION PLAN - STA 31 - CWS WATER PROFILE

C6.16.1

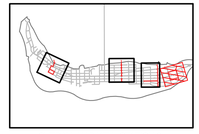
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:45 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 D_Utility Relocation Plan - Station 31.dwg

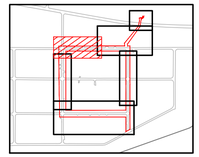


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 31



STATION 31 MAP KEY - AREA C

811 Know what's below. Call before you dig.

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 25434 PHILLIPS FOR REGISTRATION

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

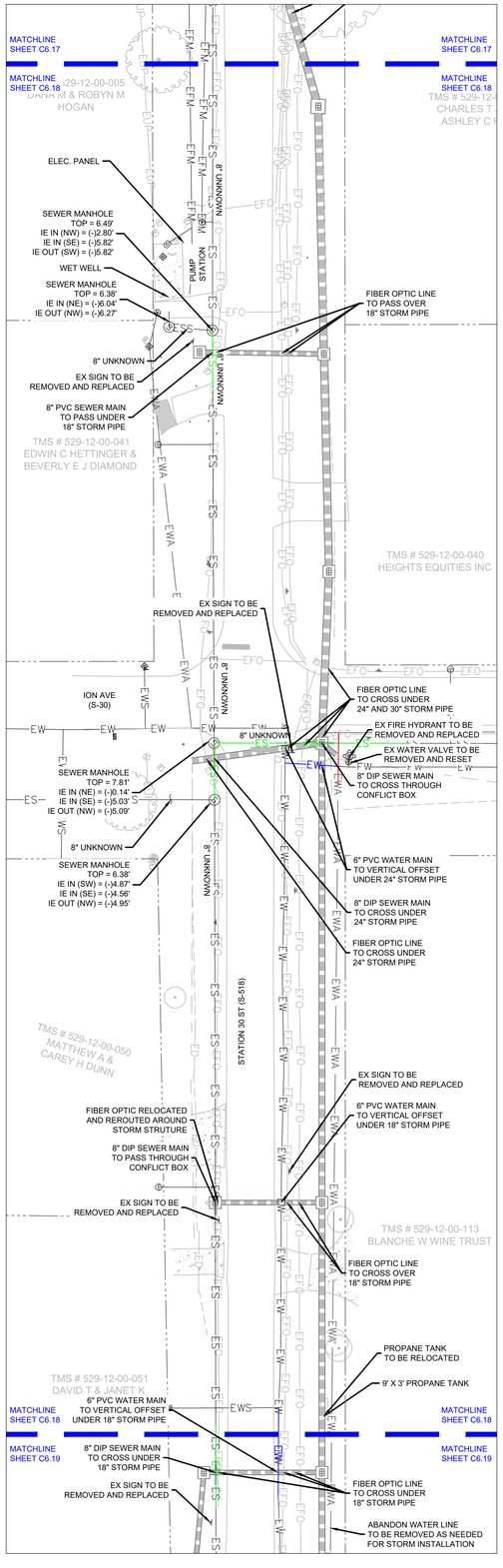
1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 31 - AREA C

C6.17

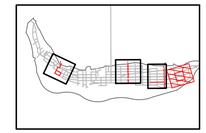
501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:46 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\C0's\10830 D_Utility Relocation Plan - Station 31.dwg

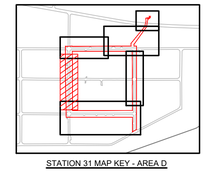


LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 31



STATION 31 MAP KEY - AREA D

Know what's **Call** before you dig.

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA — SEAMON, WHITESIDE & ASSOCIATES, INC. — No. C00472 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — No. 34434 — RICHARD C. PHILLIPS — 9/27/24 — FOR PERMIT REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 31 - AREA D

C6.18

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 (GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306

COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:46 PM, BY: Michael Bevacqua P:\ACAD\0-3\10830\CAD Files\03 x\10830 D_Utility Relocation Plan - Station 31.dwg

901 MANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

TMS # 529-12-00-051
DAVID T & JANET K

TMS # 529-12-00-115
CS LLC

TMS # 529-12-00-060
BROWNELL AVENUE
REALTY LLC

TMS # 529-12-00-084
SMOLEY LIVING TRUST

TMS # 529-12-00-085
ESTHER CAMILLE
WASHINGTON

TMS # 529-12-00-086
ANASTASIA RENEE
JOHNSON TRUST

TMS # 529-12-00-087
WESTWOOD HOLDING CORP

TMS # 529-12-00-088
JARED & HALEY WAGNER

TMS # 529-12-00-089
DAVID R & CARLA M
SIMMONS

TMS # 529-12-00-077
CHRISTOPHER M &
LAURA SERTICH

MATCHLINE SHEET C6.18

MATCHLINE SHEET C6.19

MATCHLINE SHEET C6.20

PROPANE TANK TO BE RELOCATED

9' X 3' PROPANE TANK

6" PVC WATER MAIN TO VERTICAL OFFSET UNDER 18" STORM PIPE

8" DIP SEWER MAIN TO CROSS UNDER 18" STORM PIPE

EX SIGN TO BE REMOVED AND REPLACED

FIBER OPTIC LINE TO CROSS UNDER 18" STORM PIPE

ABANDON WATER LINE TO BE REMOVED AS NEEDED FOR STORM INSTALLATION

6" PVC WATER SERVICE TO VERTICAL OFFSET UNDER 24" STORM PIPE

EX WATER VALVE TO BE REMOVED AND RESET

8" PVC SEWER MAIN TO PASS THROUGH CONFLICT BOX

8" UNKNOWN

SEWER MANHOLE TOP = 5.95' IE IN (SW) = (-)0.46' IE IN (NE) = 0.67' IE IN (SE) = (-)1.58' IE OUT (NW) = (-)2.14'

6" PVC WATER MAIN TO VERTICAL OFFSET UNDER 24" STORM PIPE

FIBER OPTIC LINE AND UNDERGROUND POWER TO CROSS UNDER 24" STORM PIPE

ABANDON WATER LINE TO BE REMOVED AND CAPPED FOR STORM INSTALLATION

6" DIP SEWER SERVICE TO PASS THROUGH CONFLICT BOX

6" PVC WATER MAIN TO VERTICAL OFFSET UNDER 18" STORM PIPE

6" DIP SEWER SERVICE TO PASS THROUGH CONFLICT BOX

6" PVC WATER SERVICE TO VERTICAL OFFSET UNDER 24" STORM PIPE

6" PVC WATER SERVICE TO VERTICAL OFFSET UNDER 24" STORM PIPE

6" DIP SEWER SERVICE TO PASS THROUGH CONFLICT BOX

SEWER MANHOLE TOP = 5.67' IE IN (NE) = 1.16' IE OUT (SW) = 1.12'

8" UNKNOWN

6" DIP SEWER SERVICE TO PASS THROUGH CONFLICT BOX

ABANDON WATER MAIN TO BE REMOVED AND CAPPED FOR STORM INSTALLATION

BROWNELL AVE (S-417)

6" PVC WATER SERVICE TO VERTICAL OFFSET UNDER 24" STORM PIPE

6" DIP SEWER SERVICE TO PASS THROUGH CONFLICT BOX

EX MAILBOX TO BE REMOVED AND REPLACED

BROWNELL AVE (S-417)

TELE LINE TO CROSS UNDER 24" STORM PIPE

6" PVC WATER SERVICE TO VERTICAL OFFSET UNDER 24" STORM PIPE

ABANDON WATER MAIN TO BE REMOVE WHERE IT CROSSES 18" STORM PIPE

6" DIP SEWER SERVICE TO PASS THROUGH CONFLICT BOX

8" UNKNOWN UNDERGROUND POWER TO CROSS OVER 18" STORM PIPE

6" PVC WATER MAIN TO VERTICAL OFFSET OVER 18" STORM PIPE

SEWER MANHOLE TOP = 6.33' IE OUT (SW) = X.XX'

EX SIGN TO BE REMOVED AND REPLACED

UNDERGROUND POWER TO CROSS UNDER 24" STORM PIPE

ABANDON WATER MAIN TO BE REMOVE FOR STORM INSTALLATION

EX SIGN TO BE REMOVED AND REPLACED

UNDERGROUND POWER TO CROSS UNDER 18" STORM PIPE

ABANDON WATER MAIN TO BE REMOVED AND CAPPED FOR STORM INSTALLATION

6" PVC WATER MAIN TO VERTICAL OFFSET UNDER 18" STORM PIPE

EX SIGNS TO BE REMOVED AND REPLACED

STATION 30 ST (S-518)

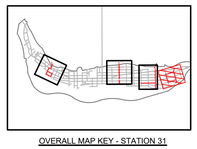
STATION 31 ST (S-519)

SEWER MANHOLE TOP = 7.32' IE IN (NE) = 1.69' IE OUT (SW) = 1.54'

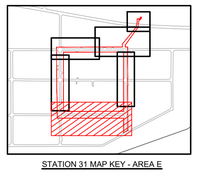
8" UNKNOWN

LEGEND

- NEW STORM LINE
- EW — EXISTING WATER LINE
- ES — EXISTING SEWER LINE
- EWS — EXISTING WATER SERVICE
- ESS — EXISTING SEWER SERVICE
- EFO — EXISTING FIBER OPTIC
- EWA — EXISTING WATER LINE ABANDONED
- ESA — EXISTING SEWER LINE ABANDONED
- NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 31



STATION 31 MAP KEY - AREA E

Know what's Call before you dig.

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
CERTIFICATE OF AUTHORIZATION
No. C00472

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 34434
PHILLIPS

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

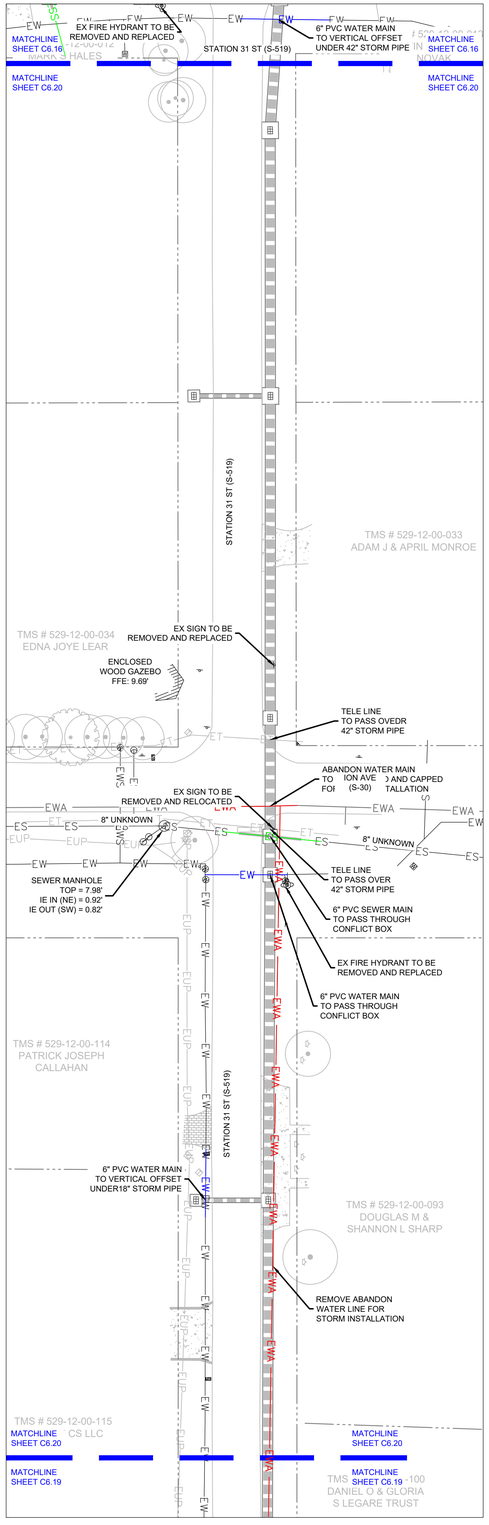
REVISION HISTORY

1. 8/02/2024

UTILITY RELOCATION PLAN - STATION 31 - AREA E

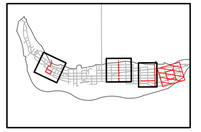
C6.19

PLOTTED: 9/27/2024 1:48 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\C6's\10830 D_Utility Relocation Plan – Station 31.dwg

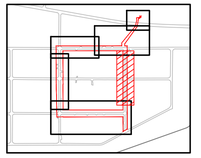


LEGEND

	NEW STORM LINE
EW	EXISTING WATER LINE
ES	EXISTING SEWER LINE
EWS	EXISTING WATER SERVICE
ESS	EXISTING SEWER SERVICE
EFO	EXISTING FIBER OPTIC
EWA	EXISTING WATER LINE ABANDONED
ESA	EXISTING SEWER LINE ABANDONED
	NEW DIP SEWER LINE



OVERALL MAP KEY - STATION 31



STATION 31 MAP KEY - AREA F

811 Know what's below. Call before you dig.

0 15 30 60
SCALE: 1" = 30'

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 25434 RICE C. PHILLIPS

FOR REVIEW PREVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

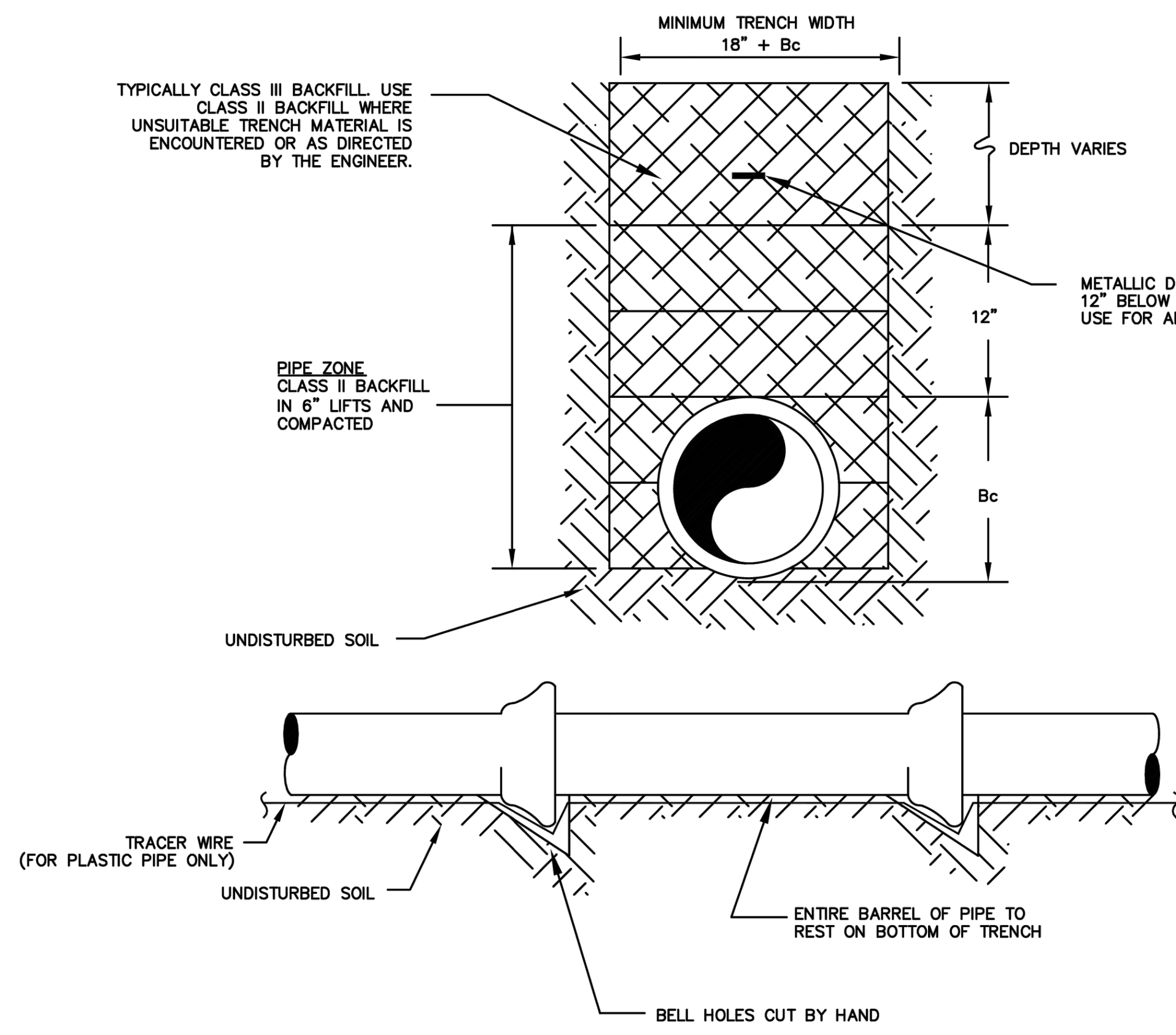
UTILITY RELOCATION PLAN - STATION 31 - AREA F

C6.20

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306

COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED:9/27/2024 1:46 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\CD's\10830 D_Utility Relocation Plan - Station 31.dwg



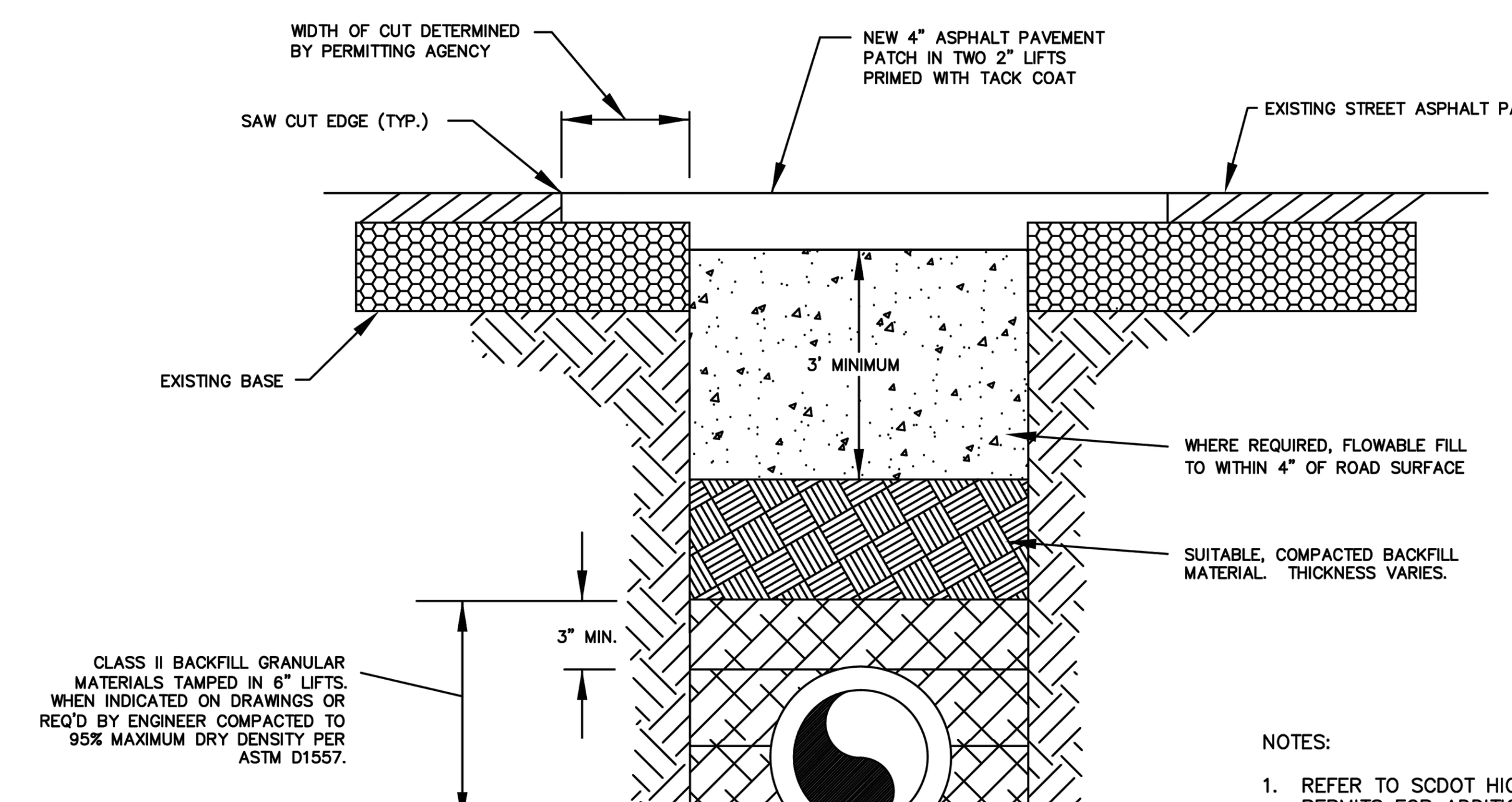
NOTES:

1. REFER TO SCDOT HIGHWAY DEPARTMENT, CITY, OR COUNTY PERMITS FOR ADDITIONAL REQUIREMENTS.
2. IF UNSUITABLE MATERIAL BENEATH FINAL PIPE GRADE IS ENCOUNTERED, SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE AND COMPACTED TO PROPER GRADE.
3. ANY DEBRIS ENCOUNTERED IN TRENCH EXCAVATION SHALL BE REMOVED.

WATER MAIN BEDDING
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 1 | REVISION DATE: NOV 1, 2015



NOTES:

1. REFER TO SCDOT HIGHWAY DEPARTMENT, CITY, OR COUNTY PERMITS FOR ADDITIONAL REQUIREMENTS.
2. IF UNSUITABLE MATERIAL BENEATH FINAL PIPE GRADE IS ENCOUNTERED, SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE AND COMPACTED TO PROPER GRADE.
3. ANY DEBRIS ENCOUNTERED IN TRENCH EXCAVATION SHALL BE REMOVED.

TYPICAL ROAD CUT
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 2 | REVISION DATE: NOV 1, 2015

NOTES:

1. THE FOLLOWING CONDITIONS WERE USED TO CALCULATE THE RESTRAINED LENGTHS SHOWN IN THE TABLE:
   - LAYING CONDITION IS TYPE 3
   - SOIL DESIGNATED AS SAND–SILT
   - DEPTH IS 3 FT.
   - DESIGN PRESSURE (TEST) IS 150 P.S.I.
   - SAFETY FACTOR IS 1.5
   - PIPE IS POLYETHYLENE ENCASED

   FOR THE TEE BRANCH AND REDUCER, LENGTHS ARE BASED ON BRANCHING AND REDUCING FROM THE NEXT LARGER SIZE IN THE TABLE. TEE BRANCH LENGTH BASED ON RUN LENGTH TO FIRST JOINT OF 10 FT. DEVIATIONS FROM THESE CONDITIONS MUST BE BASED ON THE ABOVE PARAMETERS.
2. REFER TO CWS MINIMUM STANDARDS FOR APPROVED RESTRAINING METHODS.
3. THE FOLLOWING RESTRAINING GLANDS AND GASKETS ARE APPROVED PRODUCTS:

   FOR DUCTILE IRON PIPE
   - AMERICAN CAST IRON PIPE – FAST GRIP, FLEX–RING, FIELD FLEX–RING, OR LOCK–RING
   - US PIPE – TR FLEX OR FIELD LOK 350 GASKETS
   - GRIFFIN PIPE – SNAP–LOK RESTRAINED JOINT, OR TALON RJ GASKET
   - EBAA – MEGALUG RESTRAINT GLAND
   - FORD – SERIES 1400 RESTRAINT GLAND
   - SIGMA – ONE–LOK SERIES SLD RESTRAINT GLAND
   - MCWANE – SURE STOP 350 RESTRAINT GASKET

   FOR PVC PIPE
   - EBAA MEGALUG SERIES 2000PV
   - FORD SERIES 1500 WILL BE USED ON EXISTING PVC PIPE

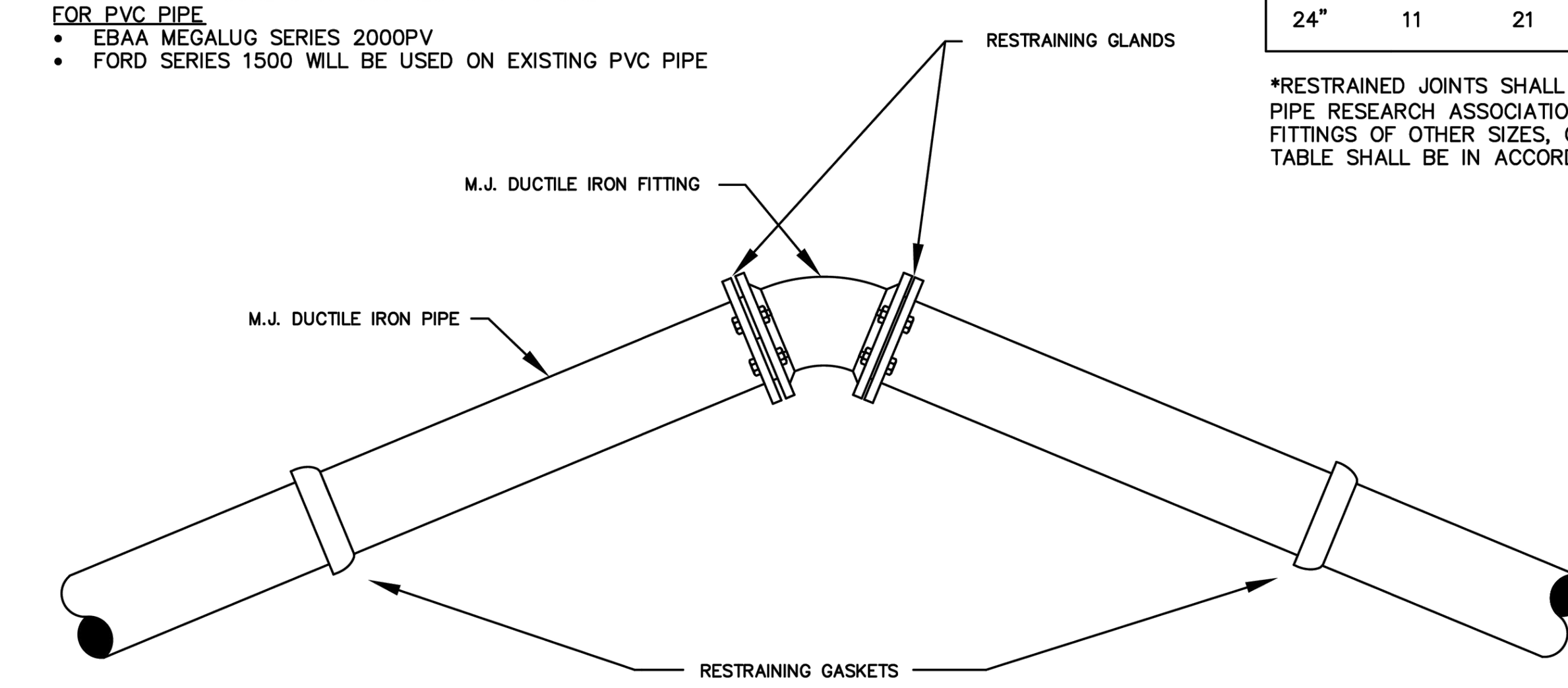
RESTRAINT JOINT TABLE

RESTRAIN ALL JOINTS WITHIN THESE LENGTHS

(IN L.F. EACH SIDE OF THE FITTING)

SIZE	11 1/4°	22 1/2°	45°	90°	TEE BRANCH	DEAD END	REDUCER
4"	2	5	10	24	38	61	44
6"	4	7	14	33	64	85	47
8"	5	9	18	44	91	111	45
10"	6	11	22	52	113	132	46
12"	6	12	25	60	133	155	84
16"	8	16	32	76	177	198	84
20"	9	18	38	91	218	238	83
24"	11	21	43	104	255	277	116

*RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS. FITTINGS OF OTHER SIZES, CHANGES IN CONDITIONS, ETC. NOT IN THIS TABLE SHALL BE IN ACCORDANCE WITH DIPRA STANDARDS.



RESTRAINED JOINT FITTING (HORIZONTAL PIPE ONLY)
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 4 | REVISION DATE: JAN 1, 2016

NOTES:

1. THE FOLLOWING CONDITIONS WERE USED TO CALCULATE THE RESTRAINED LENGTHS SHOWN IN THE TABLE:
   - LAYING CONDITION IS TYPE 3
   - SOIL DESIGNATED AS SAND–SILT
   - DEPTH IS 3 FT.
   - DESIGN PRESSURE (TEST) IS 150 P.S.I.
   - SAFETY FACTOR IS 1.5
   - PIPE IS POLYETHYLENE ENCASED

   FOR THE TEE BRANCH AND REDUCER, LENGTHS ARE BASED ON BRANCHING AND REDUCING FROM THE NEXT LARGER SIZE IN THE TABLE. TEE BRANCH LENGTH BASED ON RUN LENGTH TO FIRST JOINT OF 10 FT. DEVIATIONS FROM THESE CONDITIONS MUST BE BASED ON THE ABOVE PARAMETERS.
2. REFER TO CWS MINIMUM STANDARDS FOR APPROVED RESTRAINING METHODS.
3. THE FOLLOWING RESTRAINING GLANDS AND GASKETS ARE APPROVED PRODUCTS:

   FOR DUCTILE IRON PIPE
   - AMERICAN CAST IRON PIPE – FAST GRIP, FLEX–RING, FIELD FLEX–RING, OR LOCK–RING
   - US PIPE – TR FLEX OR FIELD LOK 350 GASKETS
   - GRIFFIN PIPE – SNAP–LOK RESTRAINED JOINT, OR TALON RJ GASKET
   - EBAA – MEGALUG RESTRAINT GLAND
   - FORD – SERIES 1400 RESTRAINT GLAND
   - SIGMA – ONE–LOK SERIES SLD RESTRAINT GLAND
   - MCWANE – SURE STOP 350 RESTRAINT GASKET

   FOR PVC PIPE
   - EBAA MEGALUG SERIES 2000PV
   - FORD SERIES 1500 WILL BE USED ON EXISTING PVC PIPE

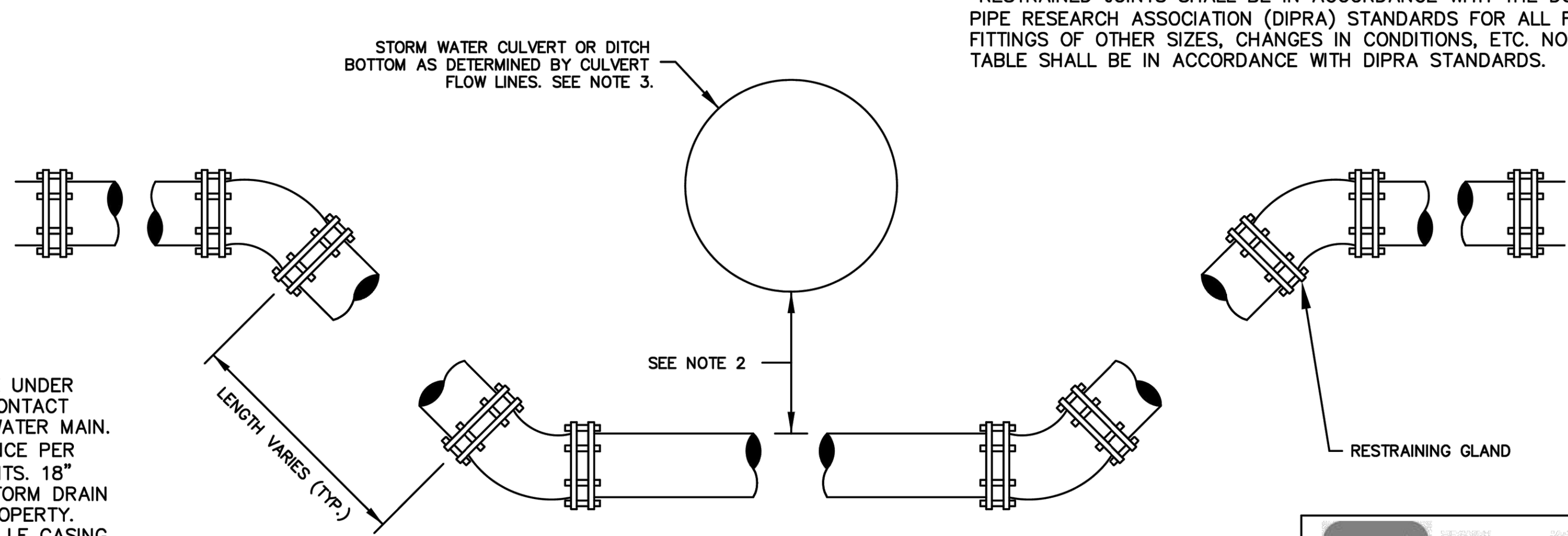
RESTRAINT JOINT TABLE

RESTRAIN ALL JOINTS WITHIN THESE LENGTHS

(IN L.F. EACH SIDE OF THE FITTING)

SIZE	11 1/4°	22 1/2°	45°	90°	TEE BRANCH	DEAD END	REDUCER
4"	2	5	10	24	38	61	44
6"	4	7	14	33	64	85	47
8"	5	9	18	44	91	111	45
10"	6	11	22	52	113	132	46
12"	6	12	25	60	133	155	84
16"	8	16	32	76	177	198	84
20"	9	18	38	91	218	238	83
24"	11	21	43	104	255	277	116

*RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS. FITTINGS OF OTHER SIZES, CHANGES IN CONDITIONS, ETC. NOT IN THIS TABLE SHALL BE IN ACCORDANCE WITH DIPRA STANDARDS.



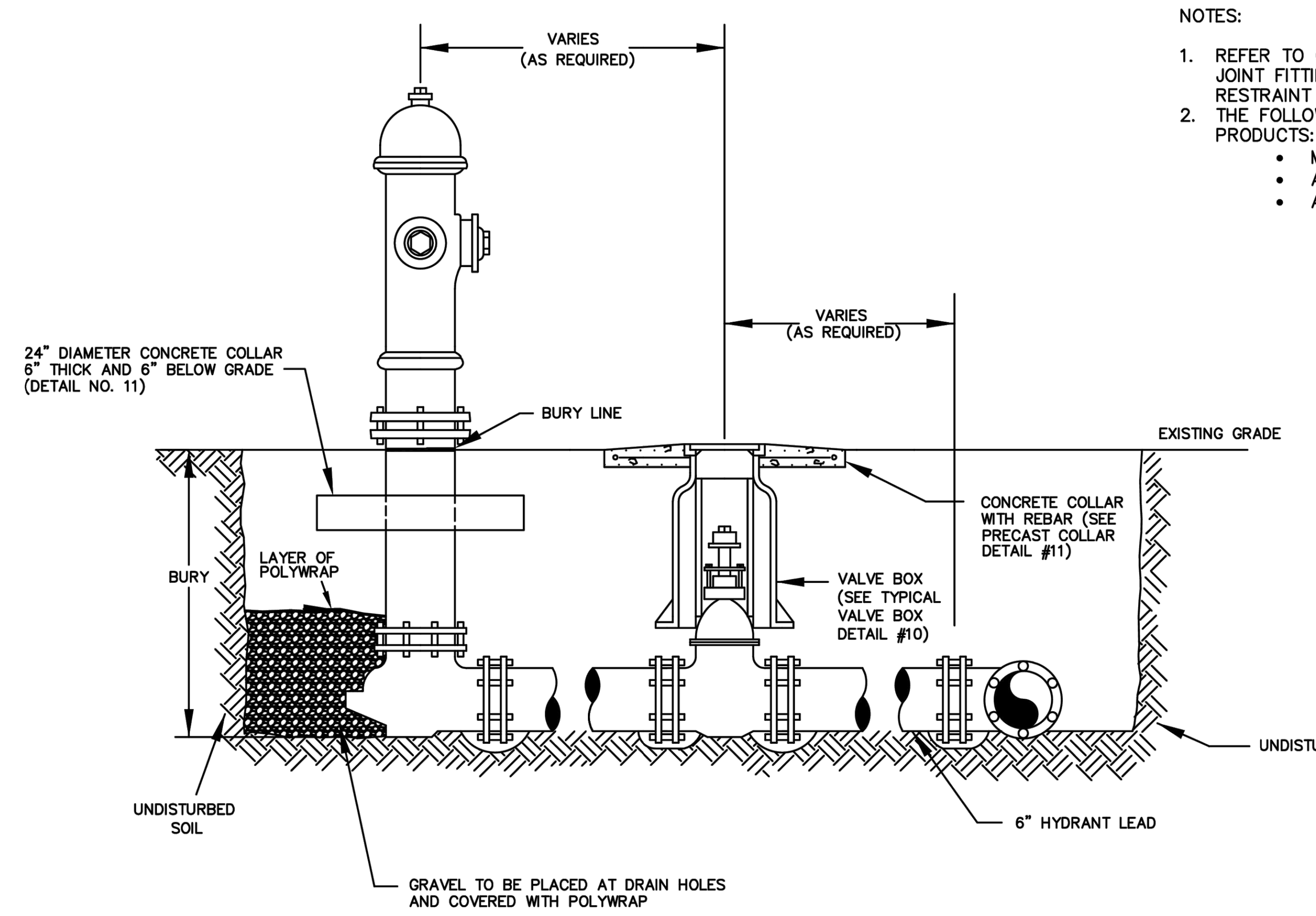
NOTES:

1. DO NOT PLACE STONE UNDER CULVERT IN DIRECT CONTACT WITH POLYWRAP ON WATER MAIN.
2. 36" MINIMUM CLEARANCE PER PUBLIC AGENCY PERMITS. 18" CLEARANCE UNDER STORM DRAIN LINES ON PRIVATE PROPERTY.
3. MAIN SHALL BE IN 10 LF CASING WITH SPACERS WHEN UNDER ANY DRAIN LINES GREATER THAN 24" OR A DITCH DRAINING INTO SUCH A STORM DRAIN LINE. NO JOINTS ARE ALLOWED IN CASING.

VERTICAL OFFSET
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 6 | REVISION DATE: JAN 1, 2016



NOTES:

1. REFER TO CWS MINIMUM STANDARDS AND RESTRAINED JOINT FITTING DETAIL #4 FOR APPROVED METHODS OF RESTRAINT AND PRODUCTS.
2. THE FOLLOWING FIRE HYDRANTS ARE APPROVED PRODUCTS:
   - MUELLER COMPANY (SUPER CENTURION A423)
   - AMERICAN DARLING (B–84–B)
   - AMERICAN AVK (SERIES 2780)

TYPICAL HYDRANT INSTALLATION
NOT TO SCALE

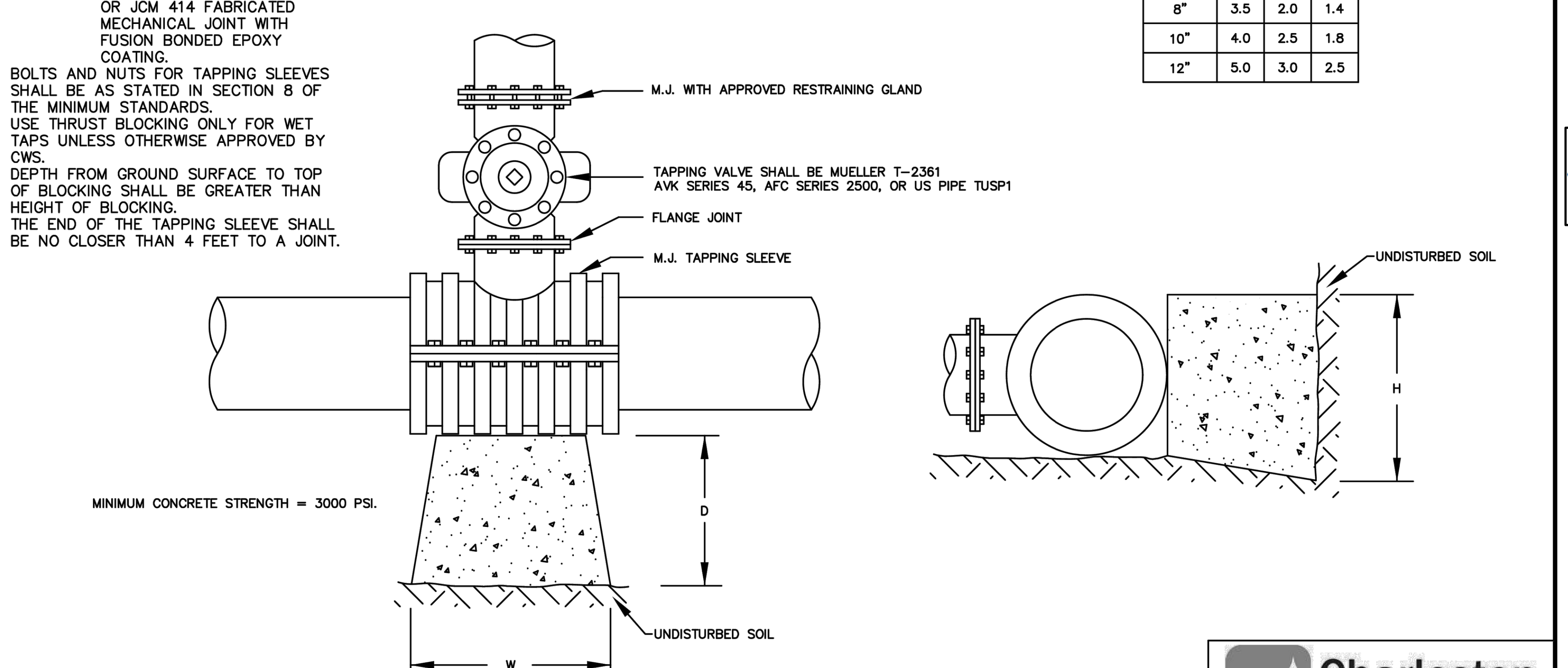
THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 7 | REVISION DATE: NOV 1, 2015

NOTES:

1. TAPPING SADDLES ARE NOT ALLOWED FOR MAIN–ON–MAIN TAPS.
2. REFER TO THE CWS MINIMUM STANDARDS FOR APPROVED INSTALLATION REQUIREMENTS.
3. THE FOLLOWING TAPPING SLEEVES ARE APPROVED PRODUCTS:
   - 4" THROUGH 24" – MUELLER H–615 OR AMERICAN FLOW CONTROL SERIES 2800.
   - 30" THROUGH 36" – AMERICAN FLOW CONTROL SERIES 2800 OR JCM 414 FABRICATED MECHANICAL JOINT WITH FUSION BONDED EPOXY COATING.
4. BOLTS AND NUTS FOR TAPPING SLEEVES SHALL BE AS STATED IN SECTION 8 OF THE MINIMUM STANDARDS.
5. USE THRUST BLOCKING ONLY FOR WET TAPS UNLESS OTHERWISE APPROVED BY CWS.
6. DEPTH FROM GROUND SURFACE TO TOP OF BLOCKING SHALL BE GREATER THAN HEIGHT OF BLOCKING.
7. THE END OF THE TAPPING SLEEVE SHALL BE NO CLOSER THAN 4 FEET TO A JOINT.

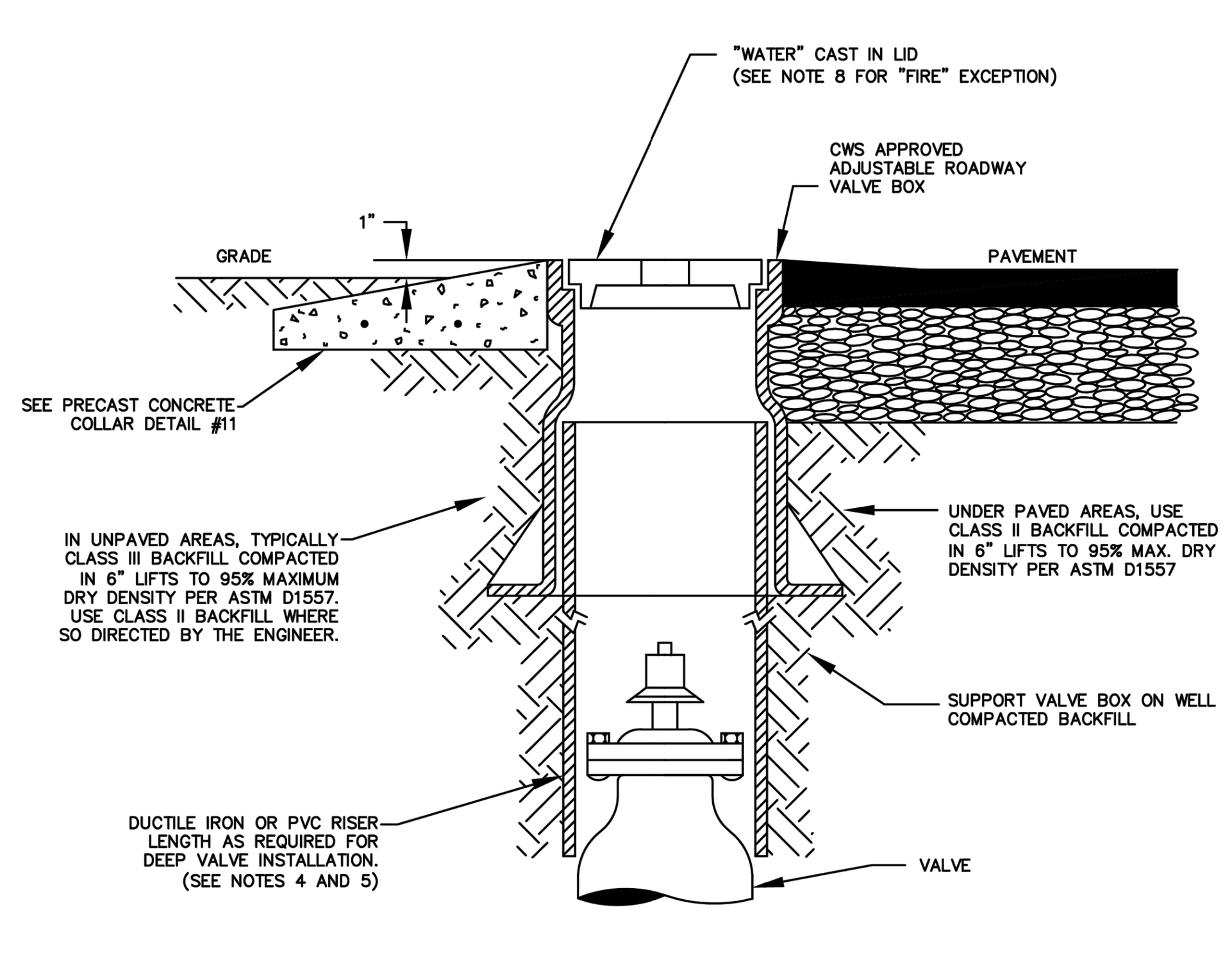
TAP SIZE	DIMENSIONS IN FEET W	H	D
4" & 6"	2.0	1.4	1.0
8"	3.5	2.0	1.4
10"	4.0	2.5	1.8
12"	5.0	3.0	2.5



TYPICAL TAPPING SLEEVE
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 8 | REVISION DATE: JAN 1, 2016



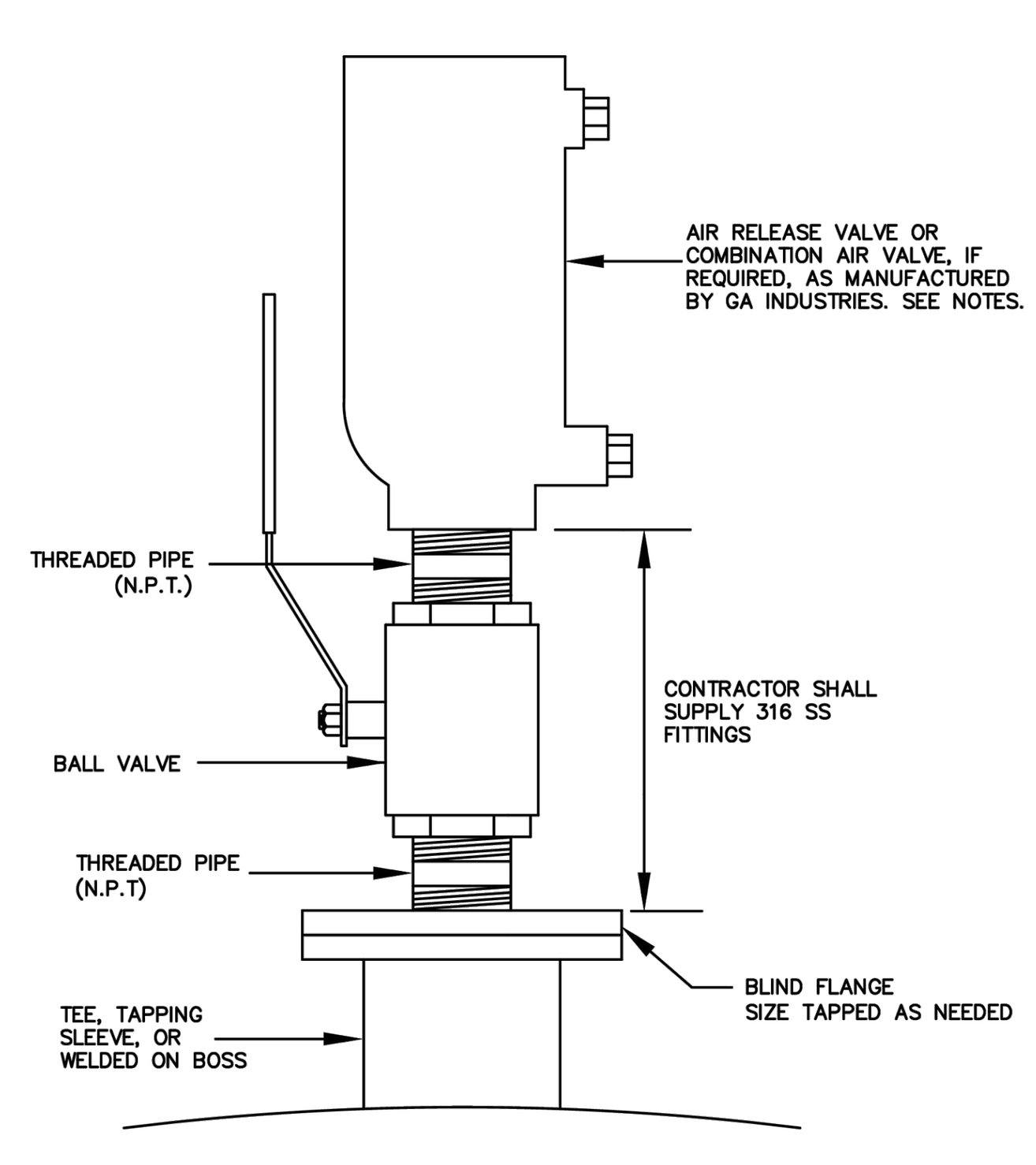
NOTES:

1. CENTER VALVE BOX OVER OPERATING NUT TO ENSURE FREE VALVE OPERATION.
2. USE 6" RISER PIPE ON 4" AND 6" VALVES.
3. USE 8" RISER PIPE ON 8" VALVES AND LARGER.
4. DO NOT ALLOW VALVE BOX OR RISER TO REST ON ANY PORTION OF VALVE.
5. RISER LENGTH AS REQUIRED WITH VALVE BOX ADJUSTED FULLY DOWN. VALVE BOX SHALL BE ADJUSTED UP TO MATCH FINISH PAVEMENT ELEVATION OR 1" ABOVE FINISH GRADE.
6. REFER TO CWS MINIMUM STANDARDS FOR APPROVED INSTALLATION REQUIREMENTS.
7. THE FOLLOWING VALVE BOXES ARE APPROVED PRODUCTS:
   - TYLER UNION #6850 SERIES
   - BINGHAM & TAYLOR #4905 SERIES (U.S. ONLY)
   - AFC BOX WITH EXTERNAL STEM AND LOCKING LID
   - EAST JORDAN IRONWORKS #8550 SERIES
8. IF VALVE BOX IS USED WITH GATE VALVE AS AN ALTERNATIVE TO A FIRE SERVICE POST INDICATOR VALVE, THE UPPER BOX INTERIOR AND LID SHALL BE PAINTED RED AND "FIRE" SHALL BE CAST IN THE LID.

TYPICAL VALVE BOX
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 10 | REVISION DATE: JAN 1, 2016



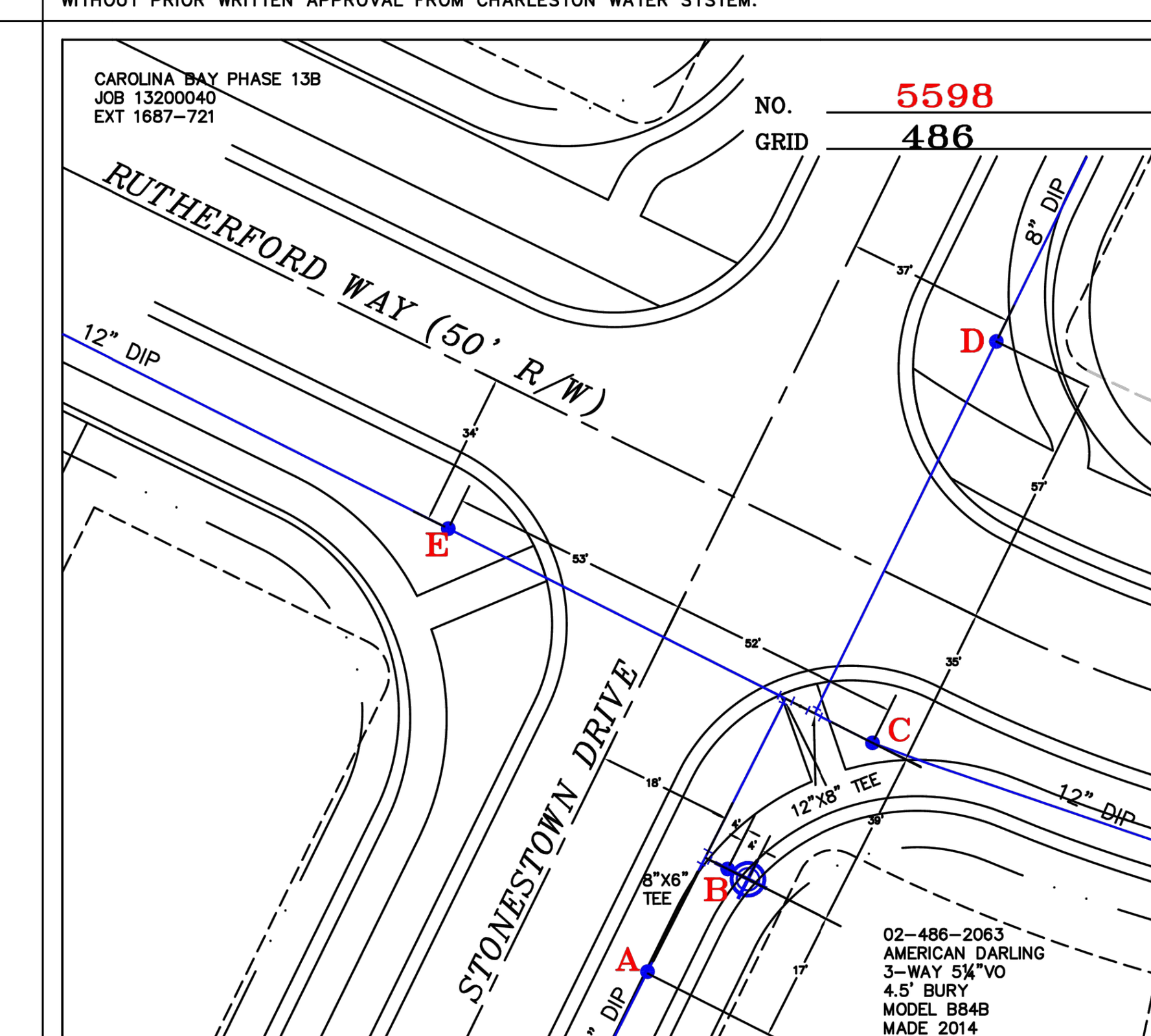
NOTES:

1. ALL AIR VALVES SHALL BE INSTALLED VERTICALLY AND INSTALLED PLUMB.
2. REFER TO CWS MINIMUM STANDARDS FOR APPROVED INSTALLATION REQUIREMENTS.
3. THE FOLLOWING AIR RELEASE VALVES ARE APPROVED PRODUCTS:
   - 1" – SIMPLE LEVER TYPE GA FIGURE 910
   - 2" – COMPOUND LEVER TYPE GA FIGURE 920
   - 3" – COMPOUND LEVER TYPE GA FIGURE 922
4. THE FOLLOWING COMBINATION AIR VALVES ARE ACCEPTABLE PRODUCTS:
   - UP TO 4" – GA FIGURE 945
   - 6" AND LARGER – GA FIGURE 950

AIR RELEASE VALVE FOR WATER SYSTEM
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 17 | REVISION DATE: NOV 1, 2015



LOCATION	SIZE	MAKE	DATE SET	NO.TURNS
A	8"	AM DARLING	11/1/2014	27
B	6"	AM DARLING	11/1/2014	20.5
C	12"	AM DARLING	11/1/2014	38.5
D	8"	AM DARLING	11/1/2014	27
E	12"	AM DARLING	11/1/2014	38.5

REVISED BY:
DATE: 6/16/15
DRAWN BY: MJG/CMA
CHECKED BY:

NOTES:

1. THE NUMBER OF TURNS FOR VALVES SHALL BE FIELD DETERMINED AND NOT TAKEN FROM MANUFACTURER'S MANUAL.
2. ALL HYDRANTS, VALVES & METER VAULTS SHALL HAVE TWO DIMENSIONS FOR TIE–DOWN PERPENDICULAR TO EACH OTHER. NO RADIAL DIMENSIONS SHALL BE INCLUDED.

TYPICAL VALVE CARD
NOT TO SCALE

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

Charleston Water System
DOCUMENT NO.: EC–4.3.2–CD–W | DETAIL NO.: 28 | REVISION DATE: JAN 1, 2016

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 35434 ... C. PHILLIPS — FOR AGENCY REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS
SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY
1. 8/02/2024

UTITLTY DETAILS

C7.0

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

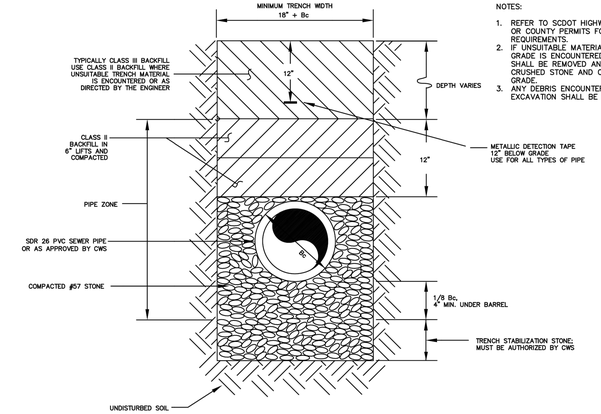
NOTES FOR WATER SYSTEM:

1. WATER INSTALLATION SHALL BE IN ACCORDANCE WITH "TEN STATES STANDARDS", S.C.D.H.E.C. REGULATIONS, AND CHARLESTON WATER SYSTEM'S "MINIMUM STANDARDS FOR THE DESIGN & CONSTRUCTION OF WATER AND SANITARY SEWER SYSTEMS" AS FOUND AT www.charlestonwater.com. BACKFLOW PREVENTION REQUIREMENTS CAN ALSO BE FOUND AT www.charlestonwater.com.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL TAPS. TAPS REQUIRING A SLEEVE SHALL BE NO CLOSER TO A JOINT THAN 4 FEET.
3. THRUST BLOCKING SHALL BE USED ONLY ON WET TAPS. CONTRACTOR SHALL NOTIFY CWS INSPECTOR A MINIMUM OF 72 HOURS (THREE FULL WORKING DAYS) PRIOR TO MAKING ANY WET TAP.
4. ROUGH GRADING SHALL BE DONE PRIOR TO INSTALLATION OF WATER MAINS.
5. CONTRACTOR SHALL MAINTAIN BETWEEN 36" – 48" COVER OVER TOP OF PIPE.
6. ALL COMPONENTS OF THE PIPING SYSTEM SHALL BE NEW DUCTILE IRON AND ENCLOSED WITH LINEAR LOW–DENSITY 8 MILS BLUE POLYETHYLENE ENCASEMENT.
7. ALL VALVES AND HYDRANTS SHALL OPEN CLOCKWISE, EXCEPT ON THE FORMER NAVAL BASE, WHERE THE VALVES SHALL OPEN COUNTERCLOCKWISE..
8. MEGALUG, FORD SERIES 1400, OR SIGMA ONE–LOK RETAINER GLANDS SHALL BE USED FOR ALL FITTINGS, VALVES. AND HYDRANTS.
9. RESTRAINED LENGTHS SHALL BE IN MULTIPLES OF A FULL LENGTH OF PIPE.
10. USE 45° OR FLATTER BENDS WHEN GOING UNDER RCP AND DO NOT INSTALL VALVES, HYDRANTS, OR SERVICES ON DEEP PIPE SECTIONS.
11. WHERE POSSIBLE, HORIZONTAL WATERLINES SHALL BE DEFLECTED IN LIEU OF USING BENDS. DEFLECTIONS SHALL NOT EXCEED 75% OF MANUFACTURER'S SPECIFICATIONS.
12. WHERE WATER AND SANITARY SEWER LINES CROSS WITHIN 18", THE LINE LAID LAST SHALL HAVE A FULL LENGTH OF PIPE INSTALLED WITH ITS MIDPOINT VERTICALLY IN LINE WITH THE OTHER LINE. THE CROSSING SHALL BE AT NOT LESS THAN A 45° ANGLE.
13. ALL MATERIAL SHALL CONFORM TO CWS SPECIFICATIONS AS TO MANUFACTURER, TYPE, AND DESIGN.
14. DEVELOPER'S ENGINEER SHALL INSPECT PROJECT WEEKLY TO PROVIDE WRITTEN WEEKLY UPDATES TO CWS INSPECTOR AND TO CERTIFY THE CORRECTNESS OF THE WATER PORTION OF CONTRACTOR'S RECORD DRAWINGS.
15. CONTRACTOR INSTALLING THE WATER SYSTEM SHALL BE ON CWS'S "APPROVED CONTRACTORS LIST".
16. COORDINATE INSPECTION OF THE BACKFLOW DEVICES WITH CWS CROSS CONNECTION DEPARTMENT BY CALLING (843) 727–6981. WATER SERVICE SHALL NOT BE TURNED ON UNTIL ALL BACKFLOW DEVICES HAVE PASSED INSPECTION.
17. DEVELOPER SHALL TAKE NECESSARY MEASURES TO PROTECT CWS WATER SYSTEM DURING THE TIME BETWEEN THE COMMISSIONING INSPECTION AND THE 2–YEAR MAINTENANCE BOND INSPECTION.
18. CHARLESTON WATER SYSTEM RESERVES THE RIGHT NOT TO INSTALL WATER METERS IF METER BOXES ARE NOT LOCATED AND ON GRADE IN COMPLIANCE WITH ITS MINIMUM STANDARDS.
19. ALL METER VAULTS AND ASSOCIATED PIPING 3" AND LARGER SHALL BE INSTALLED BY CWS UNLESS APPROVED IN WRITING BY THE CWS WATER DISTRIBUTION ENGINEER.

Charleston Water System

DOCUMENT NO.:	DETAIL NO.
EC–4.3.2–CD–W	37
REVISION DATE: NOV 1, 2015	

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.



NOTES:

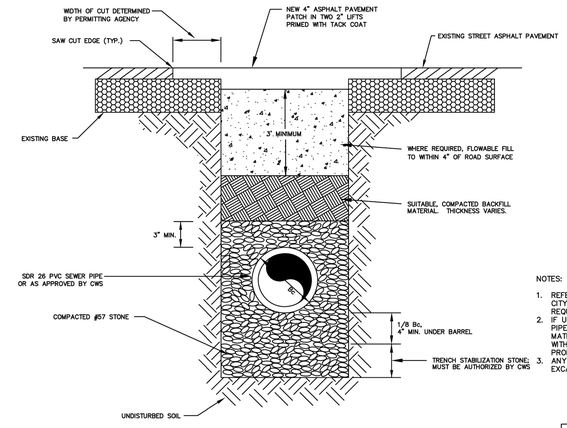
1. REFER TO SCDOT HIGHWAY DEPARTMENT, CITY, OR COUNTY PERMITS FOR ADDITIONAL REQUIREMENTS.
2. IF UNSUITABLE MATERIAL BENEATH FINAL PIPE GRADE IS ENCOUNTERED, SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE AND COMPACTED TO PROPER GRADE.
3. ANY DEBRIS ENCOUNTERED IN TRENCH EXCAVATION SHALL BE REMOVED.

MINIMUM BEDDING FOR GRAVITY SEWER LINE
NOT TO SCALE

Charleston Water System

DOCUMENT NO.:	DETAIL NO.
EC–4.3.2–CD–WW	41
REVISION DATE: NOV 1, 2015	

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.



NOTES:

1. REFER TO SCDOT HIGHWAY DEPARTMENT, CITY, OR COUNTY PERMITS FOR ADDITIONAL REQUIREMENTS.
2. IF UNSUITABLE MATERIAL BENEATH FINAL PIPE GRADE IS ENCOUNTERED, SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE AND COMPACTED TO PROPER GRADE.
3. ANY DEBRIS ENCOUNTERED IN TRENCH EXCAVATION SHALL BE REMOVED.

TYPICAL SEWER MAIN ROAD CUT
NOT TO SCALE

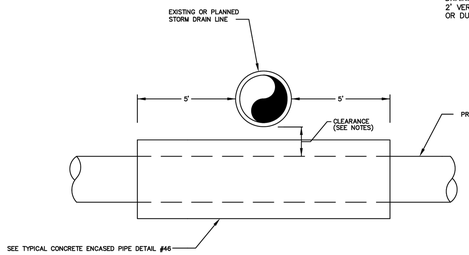
Charleston Water System

DOCUMENT NO.:	DETAIL NO.
EC–4.3.2–CD–WW	42
REVISION DATE: NOV 1, 2015	

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

NOTES:

1. USE PVC C900, C905, OR DUCTILE IRON PIPE IF CLEARANCE IS LESS THAN 3'. CENTER FULL JOINT OF PIPE ON STORM DRAIN LINE. PROVIDE RESTRAINED JOINT FITTINGS WHEN TRANSITIONING FROM DIP TO PVC.
2. IF CLEARANCE IS LESS THAN 18", USE CONCRETE ENCASEMENT ON PIPE. USE POLYWRAP ON DUCTILE IRON PIPE PRIOR TO POURING CONCRETE.
3. WHERE SEWER LINE CROSSES ABOVE A STORM DRAINAGE PIPE OR STRUCTURE WITH LESS THAN 2' VERTICAL SEPARATION, USE PVC C900, C905, OR DUCTILE IRON PIPE.

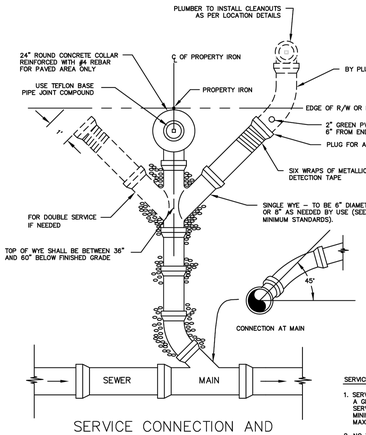


CROSSING UNDER STORM DRAIN LINE
NOT TO SCALE

Charleston Water System

DOCUMENT NO.:	DETAIL NO.
EC–4.3.2–CD–WW	45
REVISION DATE: NOV 1, 2015	

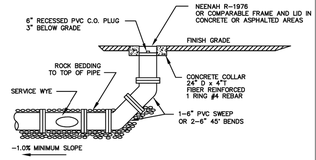
THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.



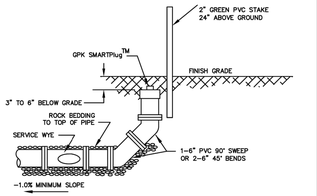
SERVICE CONNECTION AND CLEANOUT INSTALLATION
FOR SINGLE AND DOUBLE WYES
NOT TO SCALE

SERVICE NOTES:

1. SERVICE LINE SHALL BE ON SUCH A GRADE THAT WILL PERMIT SERVICING OF PROPERTY. MINIMUM GRADE SHALL BE 1.0%; MAXIMUM GRADE SHALL BE 50%.
2. NO VERTICAL STACKING SHALL BE ALLOWED.



CLEANOUT IN PAVEMENT



CLEANOUT IN LANDSCAPED AREA

Charleston Water System

DOCUMENT NO.:	DETAIL NO.
EC–4.3.2–CD–WW	54
REVISION DATE: NOV 1, 2015	

THIS DETAIL IS AN "UNCONTROLLED" COPY OF A "CONTROLLED" DOCUMENT. NO REVISION OR MODIFICATION OF THIS DETAIL SHALL BE MADE WHATSOEVER WITHOUT PRIOR WRITTEN APPROVAL FROM CHARLESTON WATER SYSTEM.

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
No. C00472
CERTIFICATE OF AUTHORIZATION



TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024	

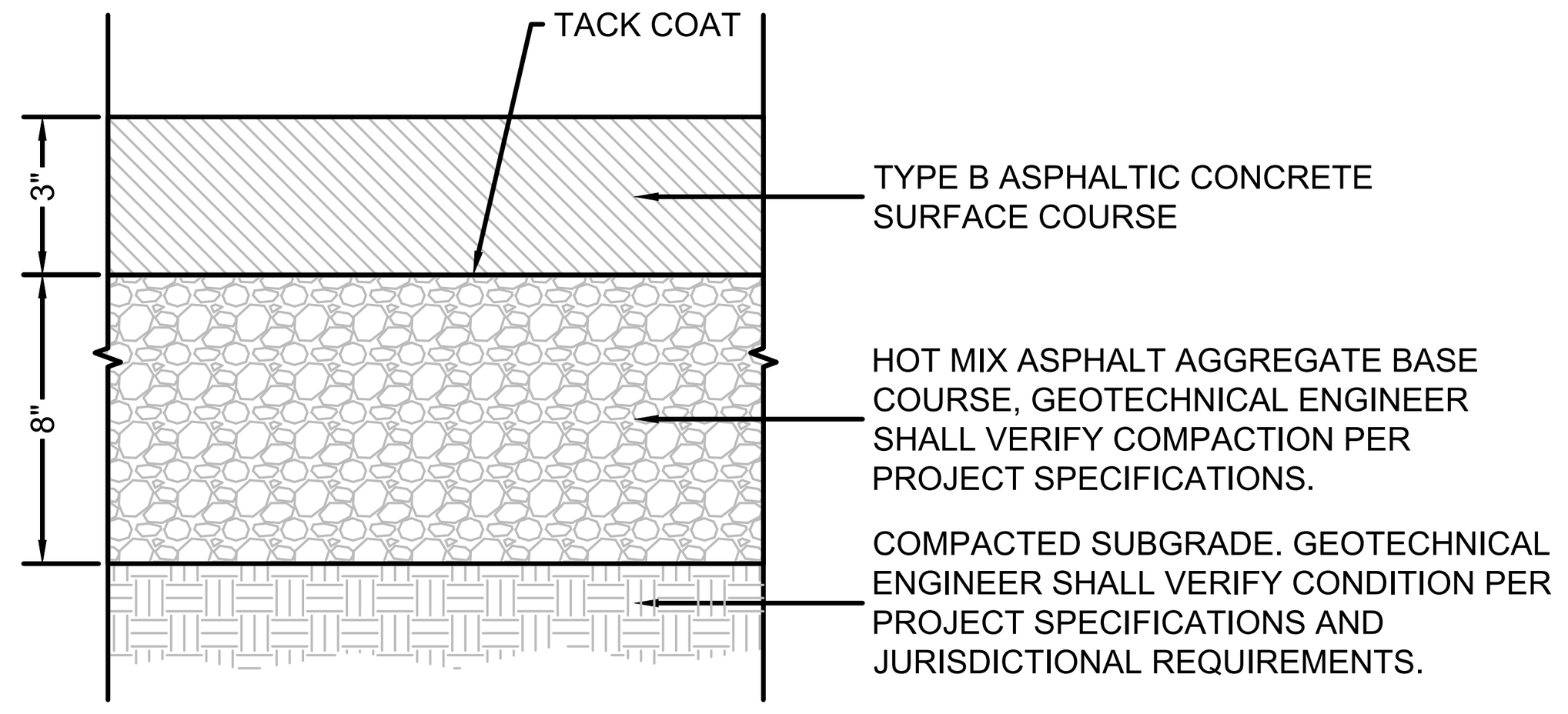
UTITLTY DETAILS

C7.1

901 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 (GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

PLOTTED: 9/27/2024 1:47 PM, BY Michael Bevacqua P:\ACAD–D–3\10830\CAD Files\D0's\10830 E_Utility Detail.dwg

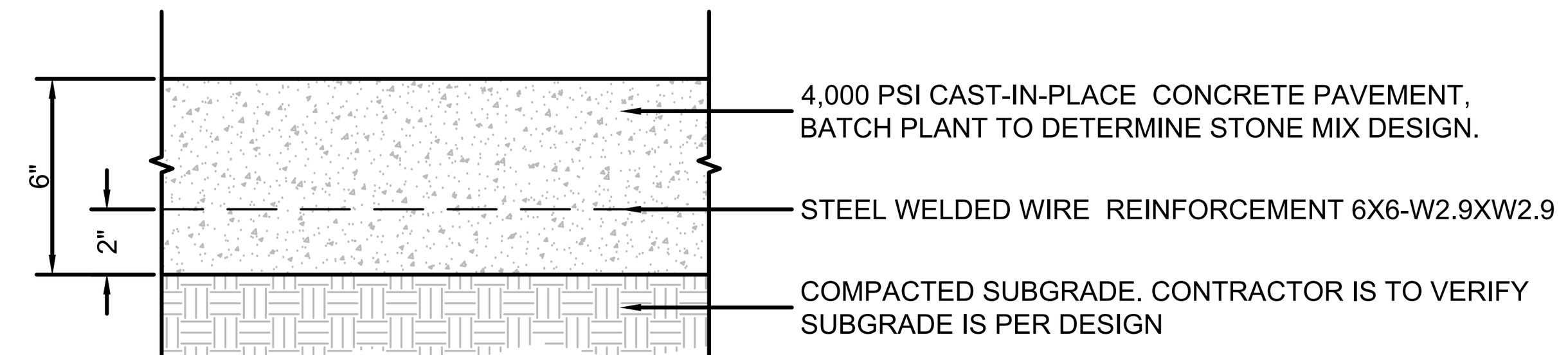
ITEM:	MATERIAL:	SCDOT SPECIFICATION SECTION:
SUBGRADE	PREPARED IN-SITU SUBSOIL OR STRUCTURAL FILL	SECTION 208
BASE COURSE	HOT MIX ASPHALT AGGREGATE BASE COURSE (TYPE A)	SECTION 310
TACK COAT	ASPHALT BINDER OR EMULSIFIED ASPHALT	SECTION 401
INTERMEDIATE (BINDER) COURSE	HOT MIX ASPHALT INTERMEDIATE COURSE (TYPE B)	SECTION 402
SURFACE COURSE	HOT MIX ASPHALT SURFACE COURSE (TYPE B)	SECTION 403



PAVING NOTES:
1. SUBGRADE, BASE COURSE, BINDER AND PAVEMENT CONSTRUCTION METHODS SHALL MEET THE MINIMUM REQUIREMENTS OF THE SCDOT "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST EDITION.
2. SEE SITE MATERIALS PLAN FOR LOCATION OF PROPOSED SURFACES.
3. THIS PAVEMENT SECTION ONLY APPLIES TO PROPOSED ASPHALT PAVEMENT WITHIN THE SCDOT RIGH-OF-WAY.
4. SEE REFERENCED SCDOT STANDARD SPECIFICATION SECTIONS FOR MATERIAL, EQUIPMENT, AND CONSTRUCTION REQUIREMENTS.
5. SWA, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE PERFORMANCE OF THE DEPICTED PAVEMENT SECTION DESIGN. REFER TO THE GEOTECHNICAL ENGINEER FOR PAVEMENT DESIGN SECTIONS

1 SCDOT Asphalt Pavement Section
SCALE:

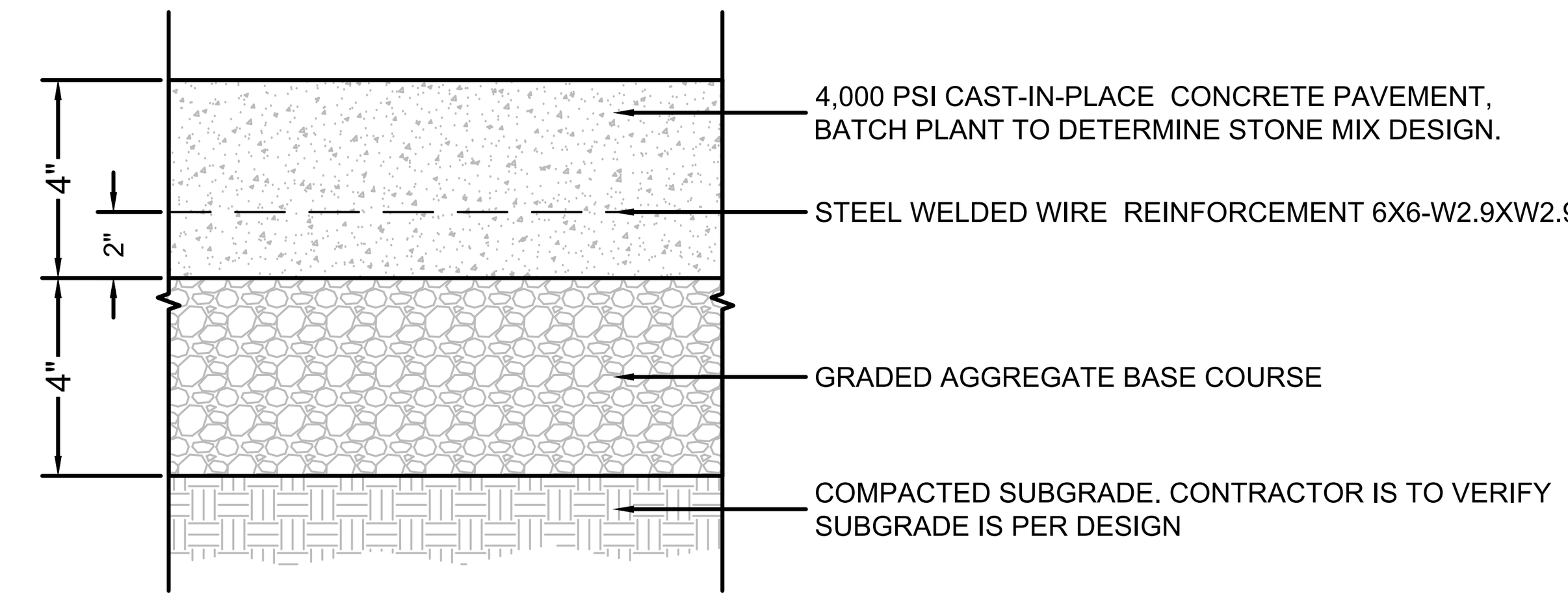
ITEM:	MATERIAL:	SWA SPECIFICATION SECTION NAME:
SUBGRADE	PREPARED IN-SITU SUBSOIL OR STRUCTURAL FILL	EARTH MOVING
CONCRETE PAVEMENT	CAST-IN-PLACE CONCRETE	CONCRETE PAVING



PAVING NOTES:
1. SUBGRADE, BASE COURSE AND PAVEMENT CONSTRUCTION METHODS SHALL MEET THE MINIMUM REQUIREMENTS OF THE SCDOT "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST EDITION.
2. SEE SITE MATERIALS PLAN FOR LOCATION OF PROPOSED SURFACES.
3. SEE REFERENCED SCDOT STANDARD SPECIFICATION SECTIONS FOR MATERIAL, EQUIPMENT, AND CONSTRUCTION REQUIREMENTS.
4. CONTRACTOR MUST COORDINATE REQUIRED GEOTECHNICAL TESTING & INSPECTION TO ENSURE THAT SUBGRADE AND PAVEMENT STRENGTH REQUIREMENTS ARE MET.
5. SWA, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE PERFORMANCE OF THE DEPICTED PAVEMENT SECTION DESIGN. REFER TO THE GEOTECHNICAL ENGINEER FOR PAVEMENT DESIGN SECTIONS

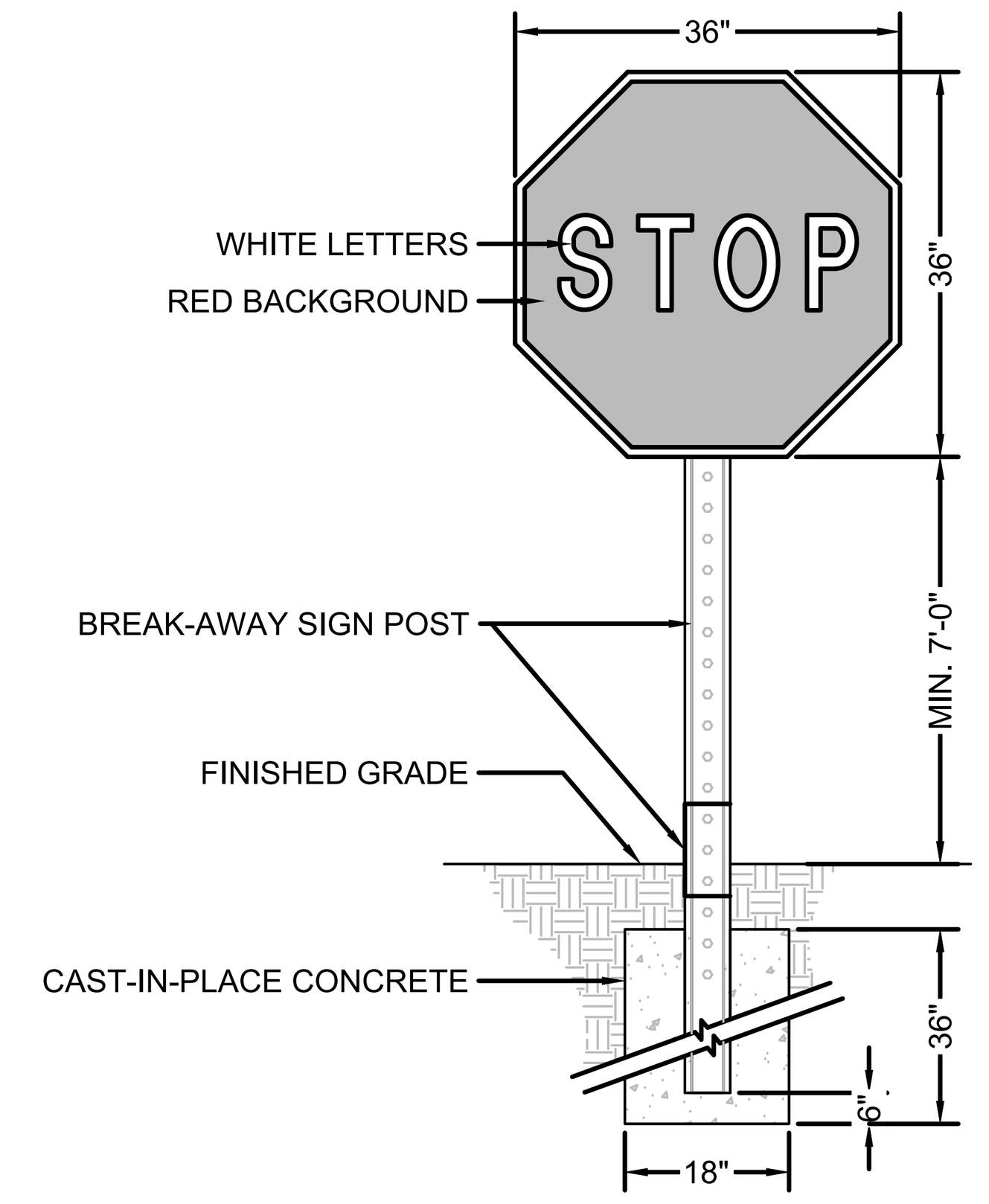
2 Concrete Pavement Section (DRIVEWAYS)
SCALE:

ITEM:	MATERIAL:	SWA SPECIFICATION SECTION NAME:
SUBGRADE	PREPARED IN-SITU SUBSOIL OR STRUCTURAL FILL	EARTH MOVING
BASE COURSE	GRADED AGGREGATE BASE COURSE	EARTH MOVING
CONCRETE PAVEMENT	CAST-IN-PLACE CONCRETE	CONCRETE PAVING



PAVING NOTES:
1. SUBGRADE, BASE COURSE AND PAVEMENT CONSTRUCTION METHODS SHALL MEET THE MINIMUM REQUIREMENTS OF THE SCDOT "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST EDITION.
2. SEE SITE MATERIALS PLAN FOR LOCATION OF PROPOSED SURFACES.
3. SEE REFERENCED SCDOT STANDARD SPECIFICATION SECTIONS FOR MATERIAL, EQUIPMENT, AND CONSTRUCTION REQUIREMENTS.
4. CONTRACTOR MUST COORDINATE REQUIRED GEOTECHNICAL TESTING & INSPECTION TO ENSURE THAT SUBGRADE AND PAVEMENT STRENGTH REQUIREMENTS ARE MET.
5. SWA, INC. MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE PERFORMANCE OF THE DEPICTED PAVEMENT SECTION DESIGN. REFER TO THE GEOTECHNICAL ENGINEER FOR PAVEMENT DESIGN SECTIONS

3 ADA Concrete Pavement Section
SCALE:



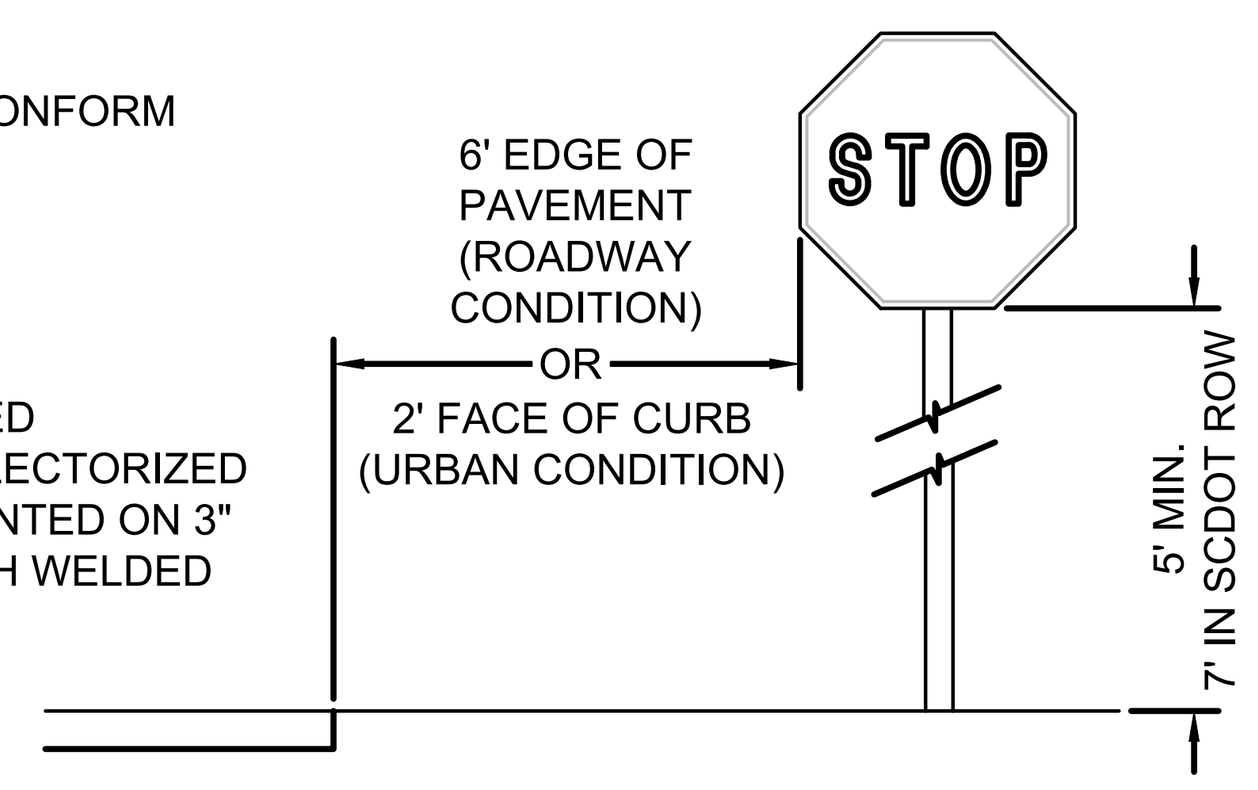
NOTES:
1. SIGN SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES & SCDOT STANDARD SPECIFICATIONS (SIGNS #R1-1-30).
2. SIGN SHALL BE 0.080" THICK ALUMINUM WITH APPLIED REFLECTIVE SHEETING IN ACCORDANCE WITH SCDOT STANDARD SPECIFICATIONS. SIZE: 36"x36", CLASS: STANDARD, BACKGROUND: RED-REFLECTORIZED, LEGEND AND BORDER: WHITE-REFLECTORIZED
3. POST SHALL BE GALVANIZED STEEL U-SECTION IN ACCORDANCE WITH SCDOT STANDARD SPECIFICATIONS. SIGNS MUST BE 7' FROM BOTTOM OF SIGN TO THE GROUND MOUNTED ON A BREAKAWAY POST SYSTEM SO THAT NO MORE THAN 4" OF THE GROUND SUPPORT STUB EXTENDS ABOVE THE SURFACE OF THE GROUND.

4 STOP Sign SCDOT
SCALE:

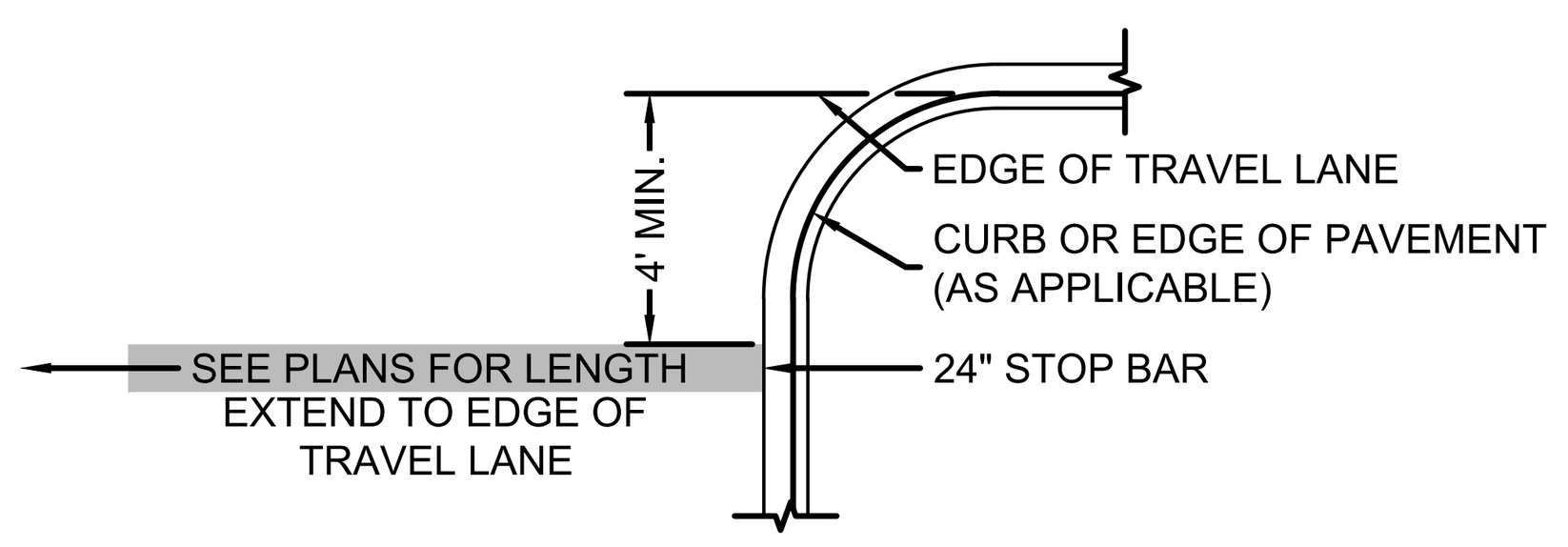
NOTES:
STOP SIGN AND INSTALLATION TO CONFORM WITH S.C.M.U.T.D. SPECIFICATIONS.

USE SCDOT BREAKAWAY DETAIL #651-110-00 FOR THE SIGN POST.

BACKGROUND: RED - REFLECTORIZED
LEGEND AND BORDER: WHITE - REFLECTORIZED
USE TYPE RE-1-30 30"x30" SIGN MOUNTED ON 3" SQUARE OR 3" DIA. STEEL TUBE WITH WELDED CAP (PAINTED BLACK).



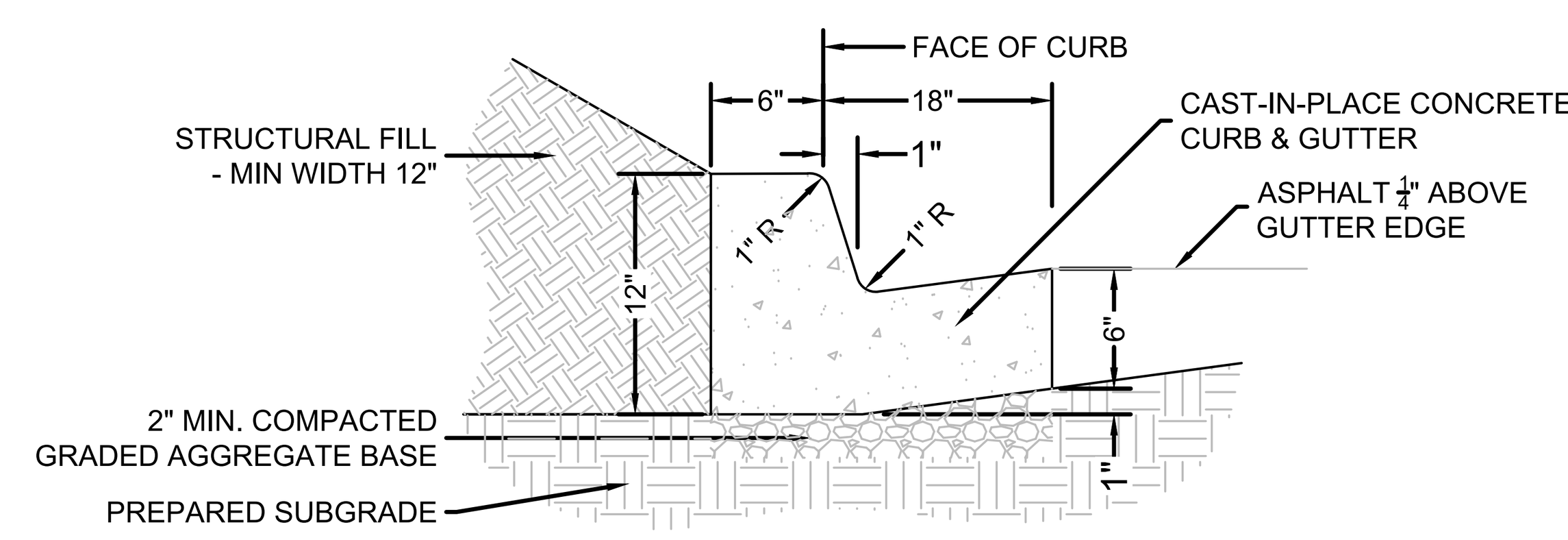
STOP SIGN



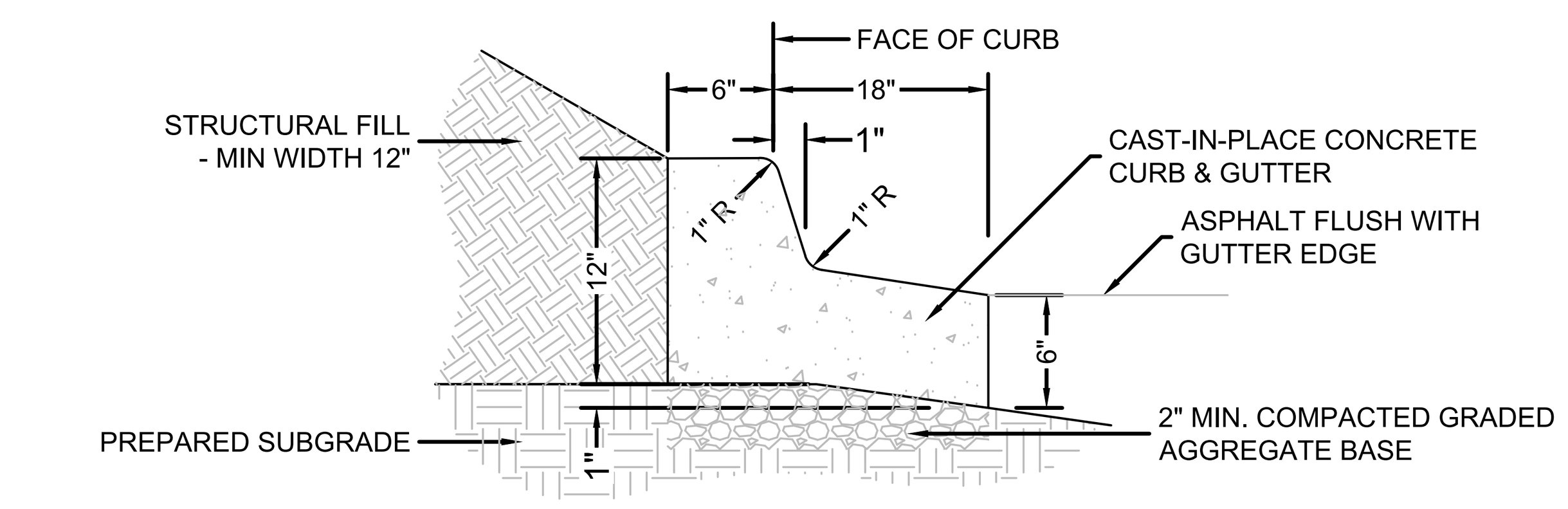
STOP BAR PAVEMENT MARKING

NOTES:
1. ALL MARKINGS SHALL BE THERMO
2. ALL MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH S.C.D.O.T. STANDARD SPECIFICATIONS AND SOUTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. ALL MARKINGS IN SCDOT R/W TO BE THERMOPLASTIC.

5 Pavement Marking - Stop Bar and Stop Sign
SCALE:



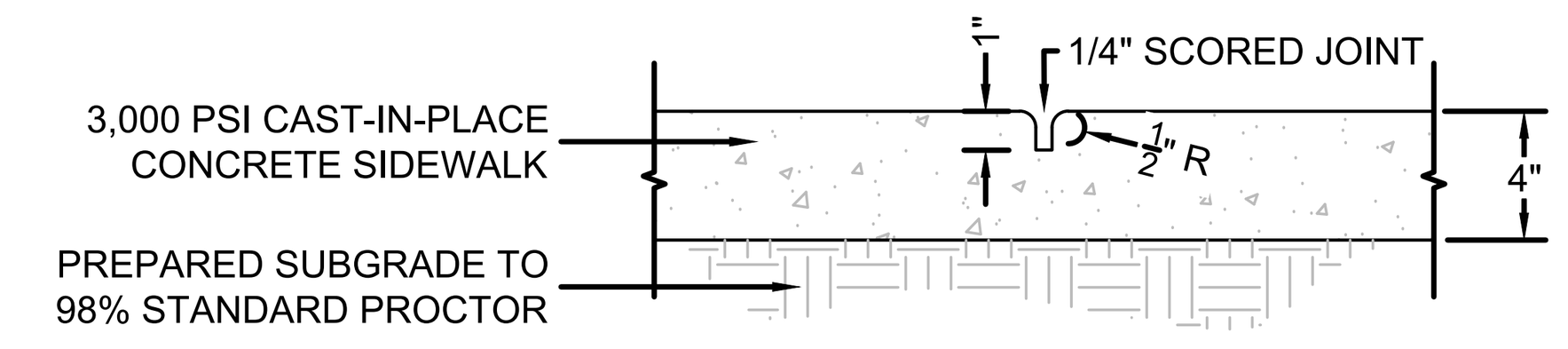
TYPICAL DOWNSLOPE SECTION
(NTS)



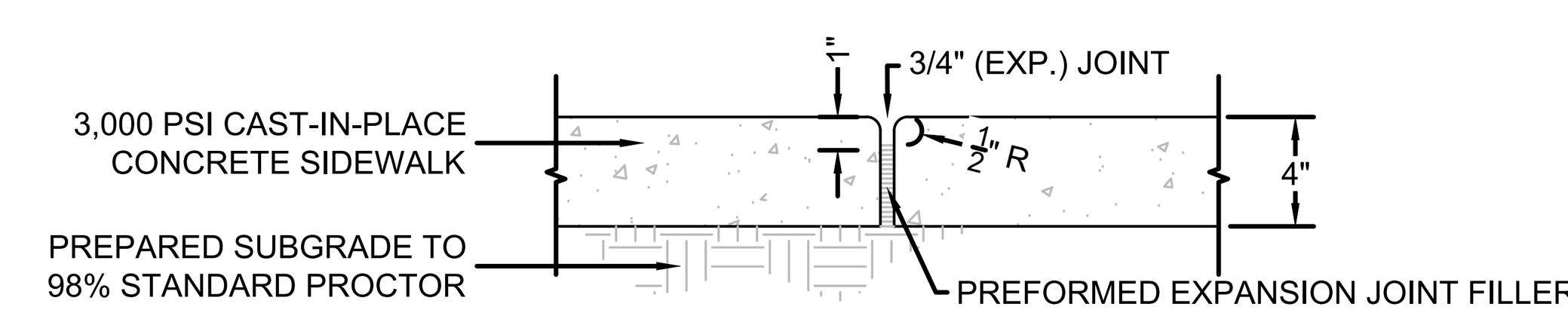
ALTERNATE UPSLOPE SECTION
(NTS)

NOTES:
1. ALTERNATE UPSLOPE SECTION TO BE USED ONLY WHEN DRAINING AWAY FROM CURB.
2. UNLESS OTHERWISE SHOWN ON DRAWINGS, LOCATE CONTROL JOINTS AT 10' INTERVALS AND EXPANSION JOINTS AT 50' INTERVALS. WHERE CURB IS ADJACENT TO CONCRETE WALK, JOINTS SHALL COINCIDE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. UNLESS OTHERWISE SPECIFIED, CONCRETE CURB & GUTTER MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH SCDOT REQUIREMENTS.

6 24" Straight Curb and Gutter
SCALE:



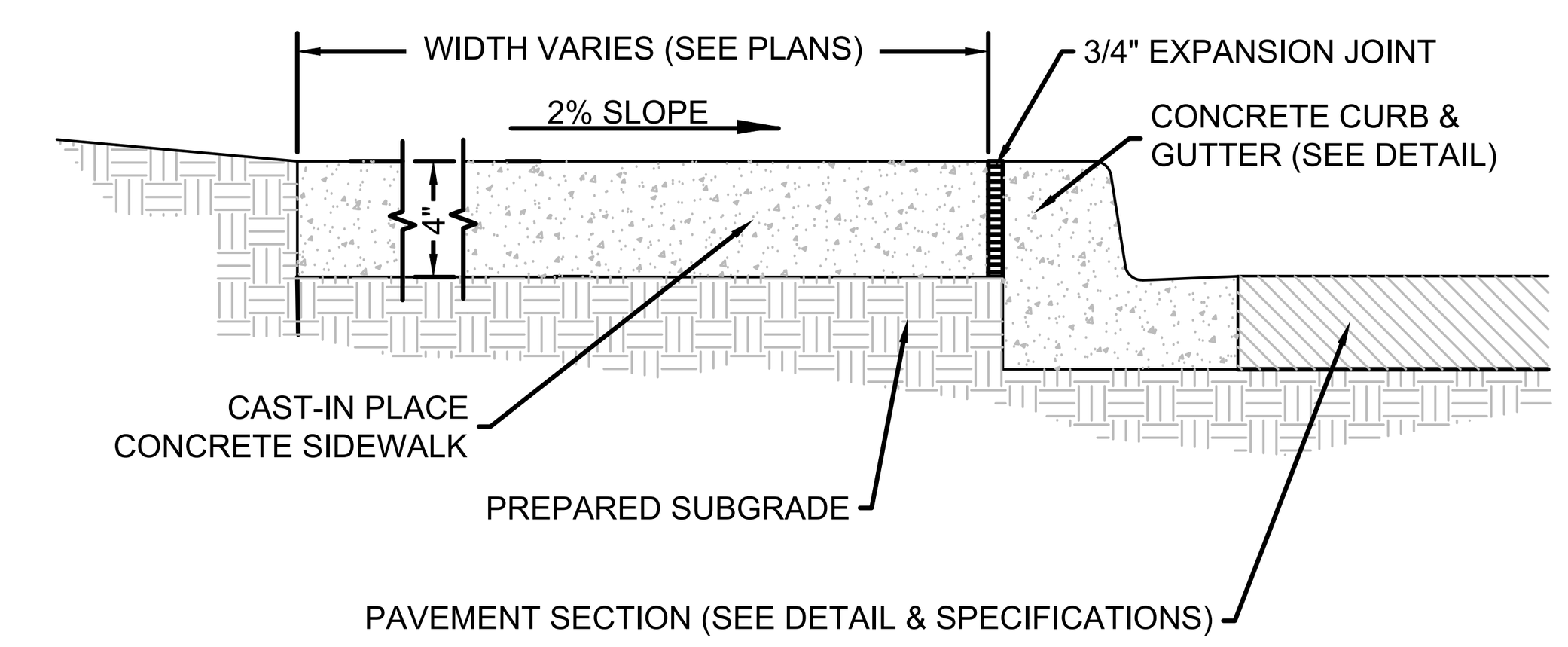
CONTROL JOINT
(SEE NOTE #4)



EXPANSION JOINT
(SEE NOTE #4)

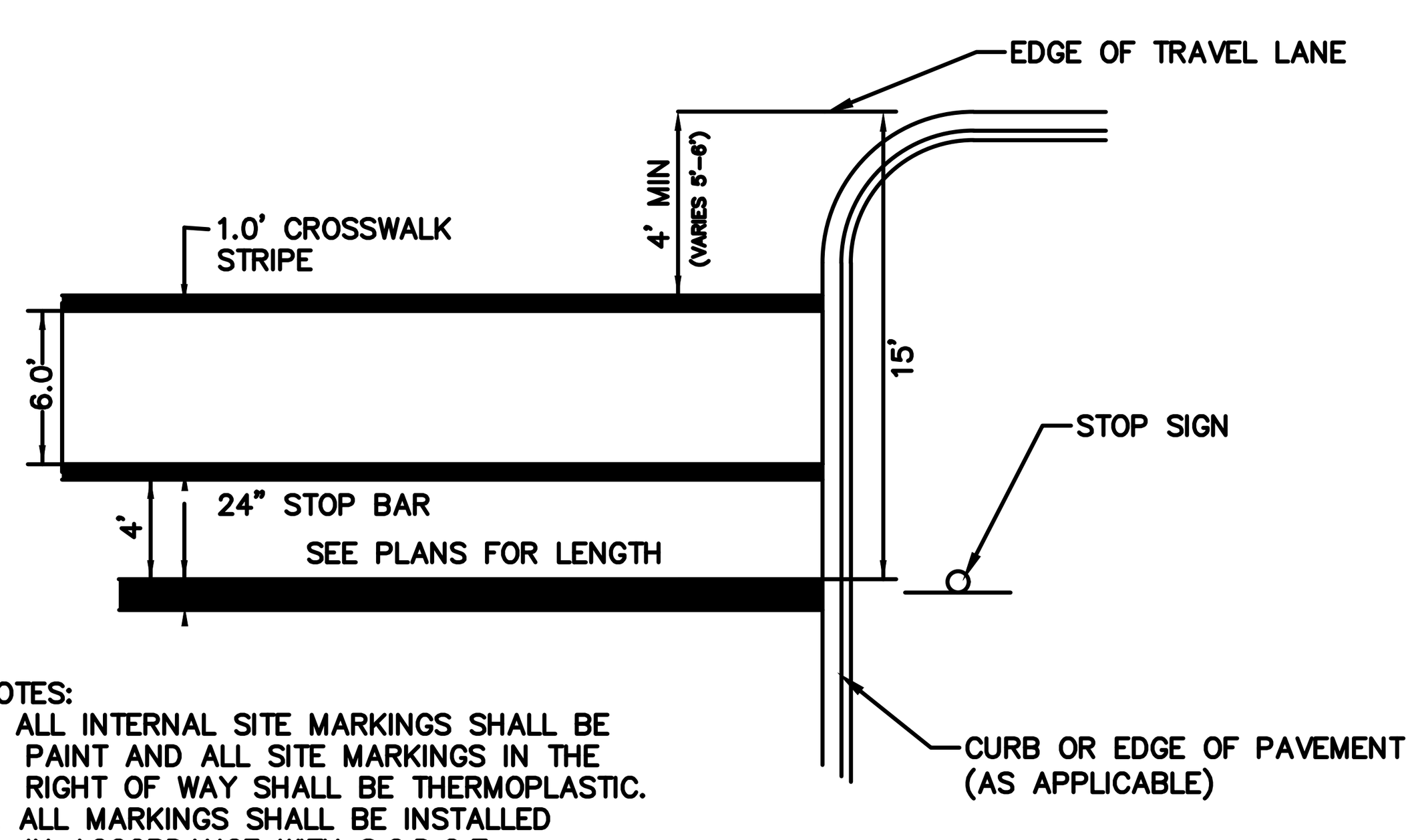
NOTES:
1. SIDEWALK CROSS SLOPE NOT TO EXCEED 2%.
2. SIDEWALK TO HAVE LIGHT BROOM FINISH, PERPENDICULAR TO DIRECTION OF TRAVEL.
3. SEE PLAN FOR SIDEWALK WIDTH.
4. UNLESS OTHERWISE SHOWN ON DRAWINGS, SPACE CONTROL JOINTS AT TWICE THE SIDEWALK WIDTH, NOT TO EXCEED 10'. SPACE EXPANSION JOINTS TO COINCIDE WITH CONTROL JOINTS, NOT TO EXCEED 30'. WHERE CURB IS ADJACENT TO CONCRETE WALK, JOINTS SHALL COINCIDE. SEE SPECIFICATIONS FOR ADDITIONAL INFO.
5. PLACE EXPANSION JOINTS BETWEEN THE SIDEWALK EDGE AND THE BACK OF CURB WHEN ALONG A RADIUS LESS THAN 100'

7 Concrete Sidewalk Detail
SCALE:



NOTES:
1. SEE SIDEWALK SECTION DETAIL FOR CONTROL AND EXPANSION JOINT INFORMATION.
2. SIDEWALK JOINTS SHALL COINCIDE WITH CURB JOINTS UNLESS OTHERWISE NOTED.
3. SIDEWALK TO HAVE LIGHT BROOM FINISH, PERPENDICULAR TO DIRECTION OF TRAVEL.

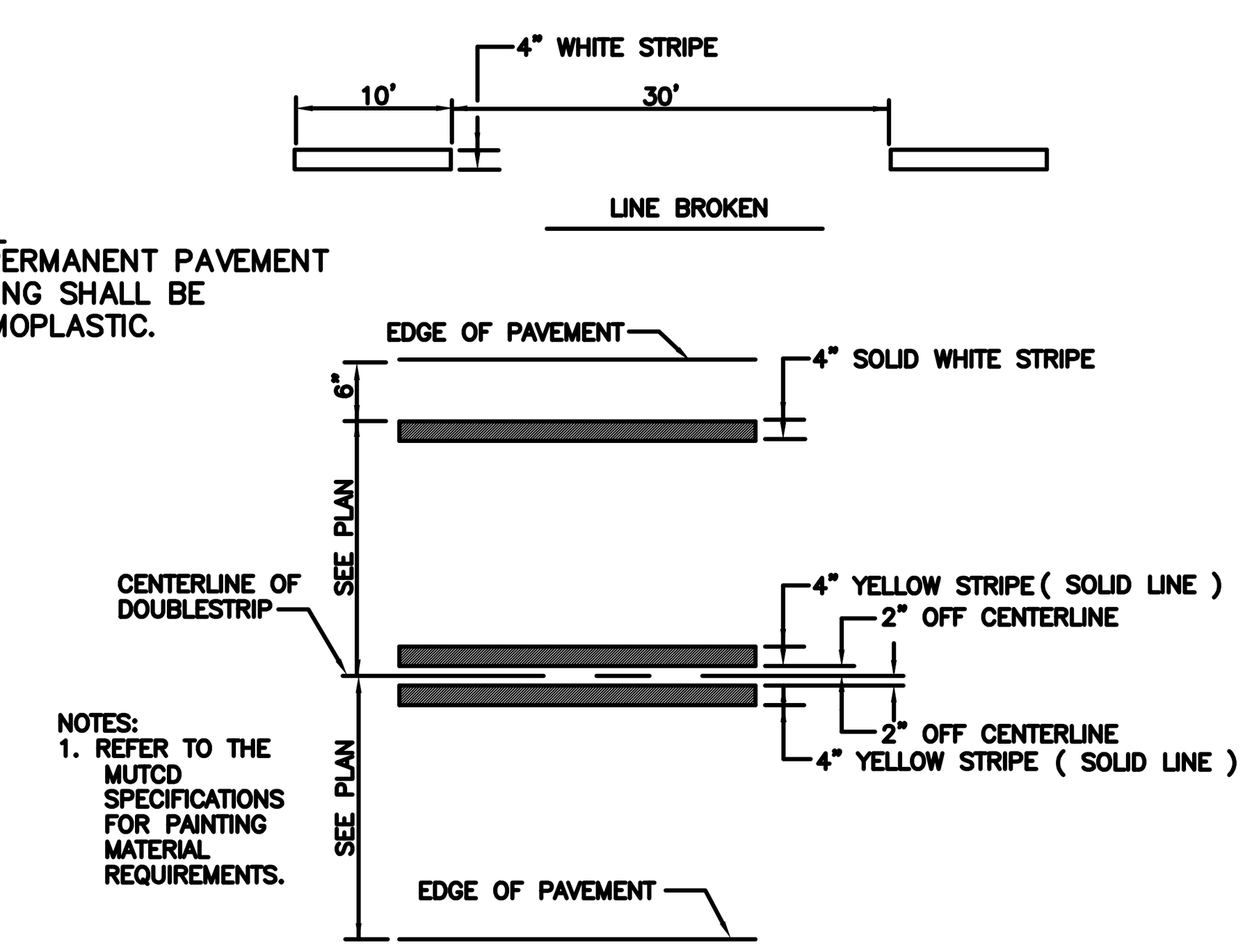
8 Concrete Sidewalk Adjacent to Curb
SCALE:



NOTES:
1. ALL INTERNAL SITE MARKINGS SHALL BE PAINT AND ALL SITE MARKINGS IN THE RIGHT OF WAY SHALL BE THERMOPLASTIC.
2. ALL MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH S.C.D.O.T. STANDARD SPECIFICATIONS AND SOUTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

9 SCDOT CROSSWALK STRIPING
SCALE: NOT TO SCALE

NOTE:
ALL PERMANENT PAVEMENT MARKING SHALL BE THERMOPLASTIC.



NOTES:
1. REFER TO THE MUTCD SPECIFICATIONS FOR PAINTING MATERIAL REQUIREMENTS.

10 TYPICAL ROADWAY STRIPING
SCALE: NOT TO SCALE

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 35434 R... C. PHILLIPS
FOR AGENCY REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

REVISION HISTORY
1. 8/02/2024

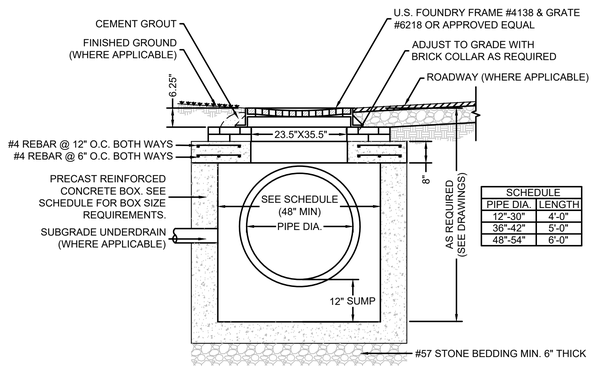
SITE DETAILS

C8.0

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306

COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

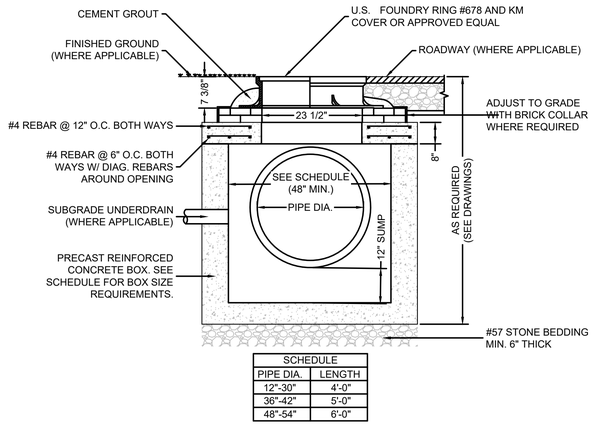
PLOTTED: 9/27/2024 1:47 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\CD's\10830 E_Detail Sheet.dwg



SCHEDULE	
PIPE DIA.	LENGTH
12"-30"	4'-0"
36"-42"	5'-0"
48"-54"	6'-0"

NOTES:
1. BRICK COLLAR SHALL BE COATED WITH 1/2" THICK MORTAR INSIDE AND OUTSIDE.
2. STRUCTURES SHALL COMPLY IN ACCORDANCE WITH SCDOT STANDARD DRAWINGS AND SPECIFICATIONS.

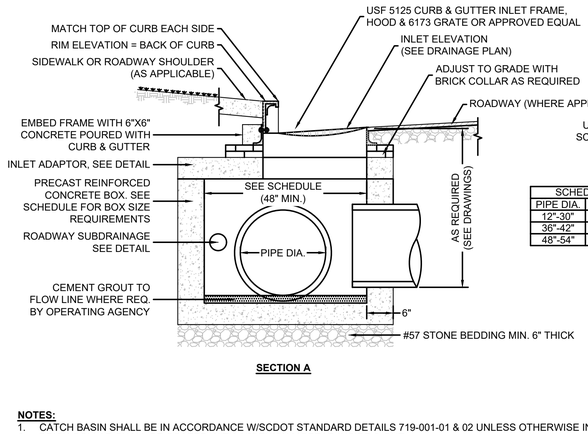
1 Catch Basin with Sump
SCALE:



SCHEDULE	
PIPE DIA.	LENGTH
12"-30"	4'-0"
36"-42"	5'-0"
48"-54"	6'-0"

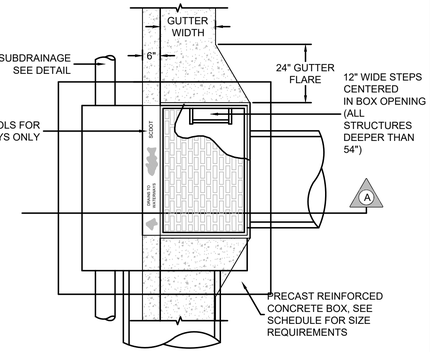
NOTES:
1. SEE REFERENCED SPECIFICATION SECTIONS FOR GENERAL, PRODUCT, AND EXECUTION REQUIREMENTS.
2. BRICK COLLAR SHALL BE COATED WITH 1/2" THICK MORTAR INSIDE AND OUTSIDE.
3. STRUCTURES SHALL COMPLY IN ACCORDANCE WITH SCDOT STANDARD DRAWINGS AND SPECIFICATIONS.

2 Junction Box with Sump
SCALE:



SCHEDULE	
PIPE DIA.	LENGTH
12"-30"	48"
36"-42"	60"
48"-54"	72"

SECTION A



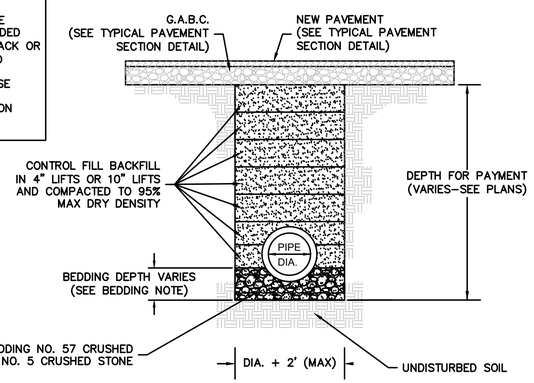
PLAN VIEW

NOTES:
1. CATCH BASIN SHALL BE IN ACCORDANCE W/SCDOT STANDARD DETAILS 719-001-01 & 02 UNLESS OTHERWISE INDICATED.
2. BRICK COLLAR SHALL BE COATED WITH 1/2" THICK MORTAR INSIDE & OUT.
3. PRECAST CONCRETE BOX SHALL BE IN ACCORDANCE W/SCDOT STANDARD DETAIL 719-305.
4. FOR PIPES LARGER THAN 54", CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF BOX & INLET ADAPTOR FOR REVIEW BY ENGINEER.
5. STEPS SHALL BE IN ACCORDANCE WITH SCDOT STANDARD DRAWING 719-550-00.
6. STRUCTURES SHALL COMPLY IN ACCORDANCE WITH SCDOT STANDARD DRAWINGS AND SPECIFICATIONS.

3 Hooded Catch Basin - SCDOT Type 1
SCALE:

LIFT NOTE:

- 4 INCHES OR LESS IN LOOSE THICKNESS WHEN HAND-GUIDED EQUIPMENT (I.E., JUMPING JACK OR PLATE COMPACTOR) IS USED
- 10 INCHES OR LESS IN LOOSE THICKNESS WHEN HEAVY, SELF-PROPELLED COMPACTION EQUIPMENT IS USED



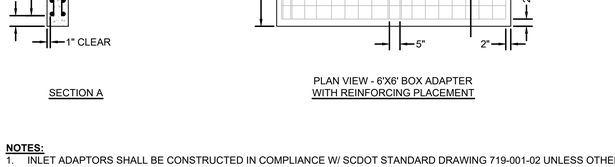
BEDDING NOTE:

BEDDING DEPTHS ARE IDENTIFIED FOR EACH STATION AREA IN THE GEOTECHNICAL ENGINEERING REPORT. BEDDING DEPTH SHALL BE 12 INCHES UNLESS NOTED OTHERWISE BELOW.

- BEDDING DEPTH: 18 INCHES
  STATION 16: AREA B
  STATION 25: AREA B
- BEDDING DEPTH: 30 INCHES
  STATION 16: AREA A1 & AREA A2
  STATION 25: AREA A
  STATION 28.5: AREA A
  STATION 31: AREA A & AREA B

SCDOT NOTE:
- STORM DRAINAGE PIPE TRENCHES TO BE INSTALLED IN ACCORDANCE WITH SCDOT STANDARD DRAWING AND SPECIFICATIONS.
- USE ONLY "O-RING" GASKET CONCRETE PIPE UNDER PAVED ROADS

4 STORM DRAINAGE PIPE TRENCH



SECTION A

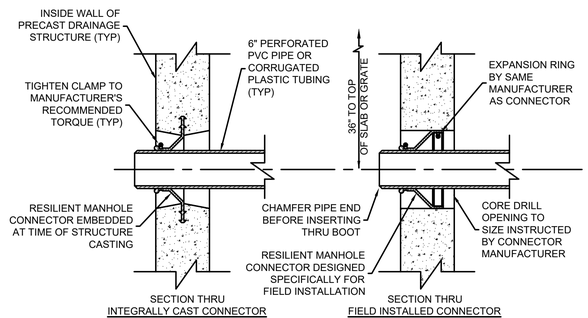
PLAN VIEW - 6'X6' BOX ADAPTER WITH REINFORCING PLACEMENT

PLAN VIEW - 4'X4' BOX ADAPTER

PLAN VIEW - 5'X5' BOX ADAPTER

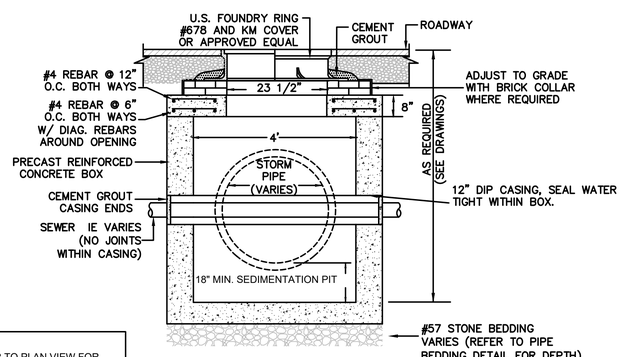
NOTES:
1. INLET ADAPTORS SHALL BE CONSTRUCTED IN COMPLIANCE W/ SCDOT STANDARD DRAWING 719-001-02 UNLESS OTHERWISE INDICATED.
2. INLET ADAPTORS ARE DESIGNED TO BE REVERSIBLE AND CAN BE ROTATED UP TO 180°
3. DIMENSION SHALL BE 24" FOR DROP INLET AND 30" FOR HOODED CATCH BASIN.

5 Inlet Adapter
SCALE:

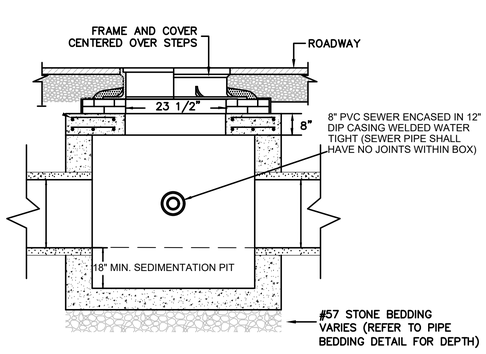


NOTES:
1. CONNECTORS SHALL MEET OR EXCEED ASTM C-923.
2. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. SUBDRAINS SHALL BE CAPPED, GROUT FILLED AND ABANDONED PRIOR TO FINAL PAVING.

6 SUBDRAIN CONNECTOR AT DRAINAGE STRUCTURE
SCALE: NOT TO SCALE



NOTE:
REFER TO PLAN VIEW FOR STORM AND UTILITY INVERTS.



CONFLICT BOX NOTES:
1. BRICK COLLAR SHALL BE COATED WITH 1/2" THICK MORTAR INSIDE AND OUTSIDE.

2. BOX SHALL HAVE 12" WIDE CAST IRON OR POLYPROPYLENE PLASTIC STEPS. FRAME AND COVER SHALL BE CONSTRUCTED DIRECTLY OVER STEPS.

3. WATER OR SEWER LINE REPLACEMENT SECTIONS TO BE BLUE OR GREEN C-900 OR IN SOME CASES DIP (CEMENT LINED FOR WATER OR P401 LINED FOR SEWER). PIPE REMOVAL & REPLACEMENT SHALL EXTEND TO AN EXISTING JOINT WITHIN 10' OF THE STRUCTURE.

7 CONFLICT BOX DETAIL
SCALE: NOT TO SCALE

SEAMONWHITESIDE
MOUNT PLEASANT, SC 843.884.1667
GREENVILLE, SC 864.298.0534
SUMMERVILLE, SC 843.972.0710
SPARTANBURG, SC 864.272.1272
CHARLOTTE, NC 980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER PHILLIPS No. 34434 FOR REVIEW ONLY NOT FOR CONSTRUCTION

TOWN OF SULLIVAN'S ISLAND SCIIP
STORMWATER IMPROVEMENTS
SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

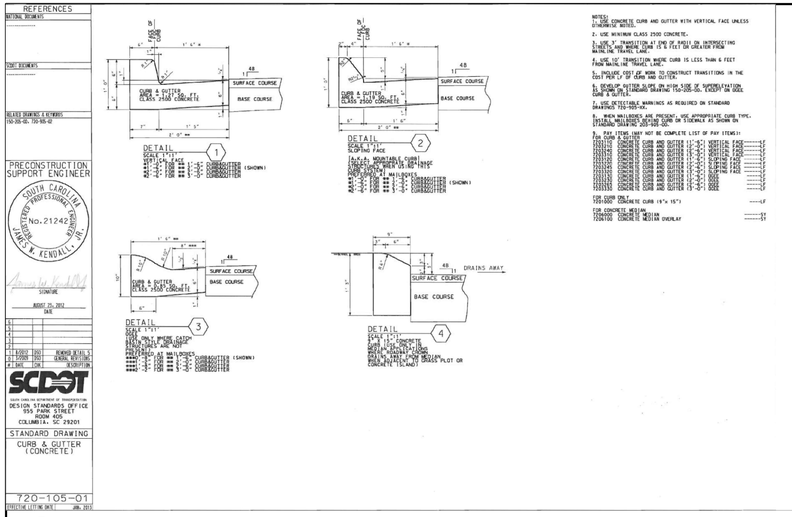
1.	8/02/2024

SITE DETAILS

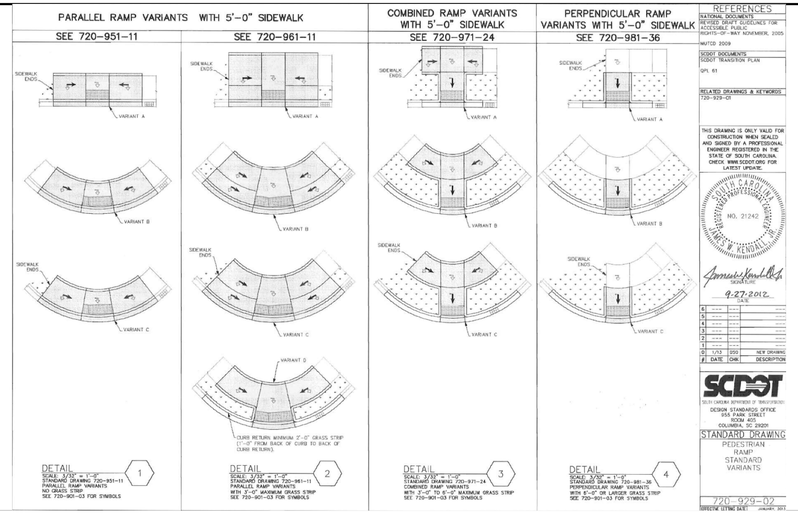
C8.1

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. — THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

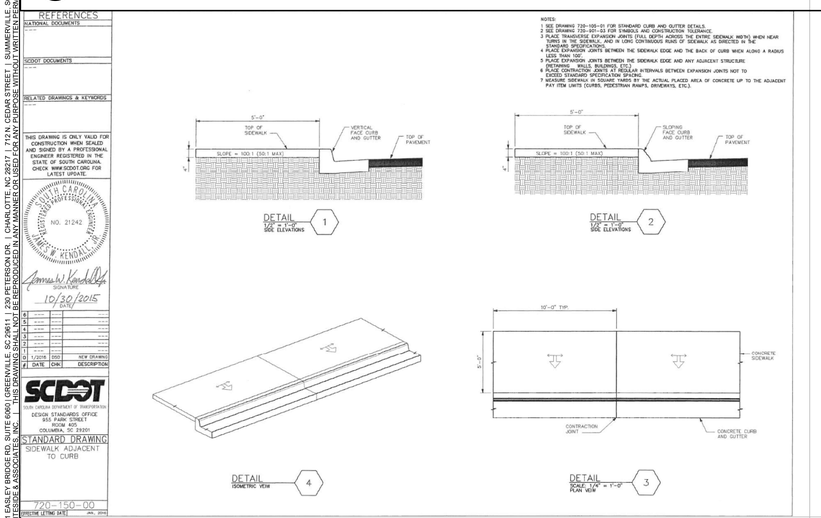
PLOTTED: 9/27/2024 1:47 PM, BY Michael Bevacqua P:\ACAD~0~3\10830\CAD Files\20 x\10830 E_Detail Sheet.dwg



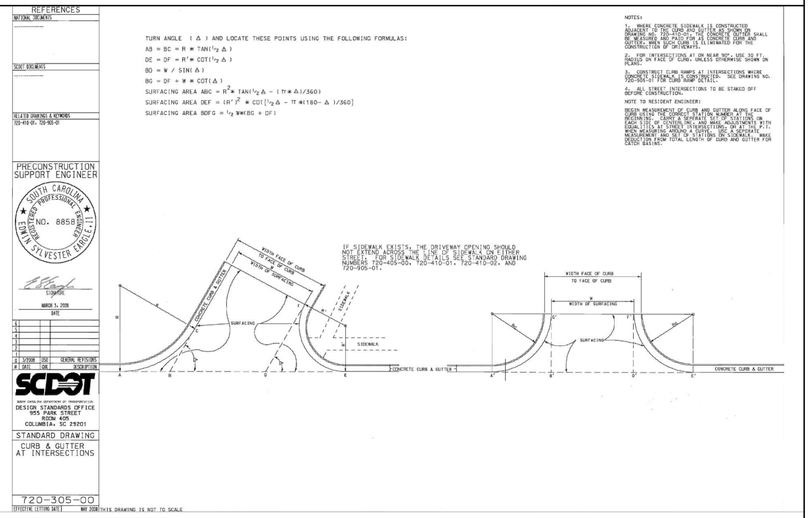
1 Curb & Gutter (Concrete)
SCALE:



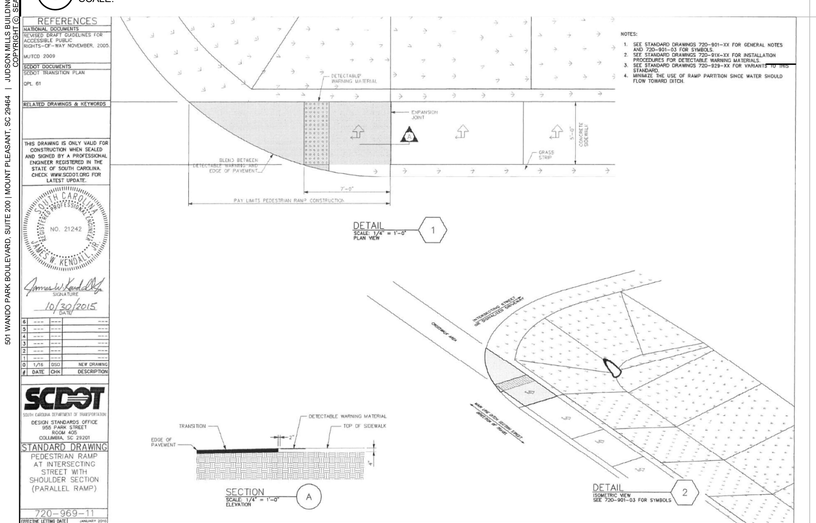
2 Pedestrian Ramp Standard Variants
SCALE:



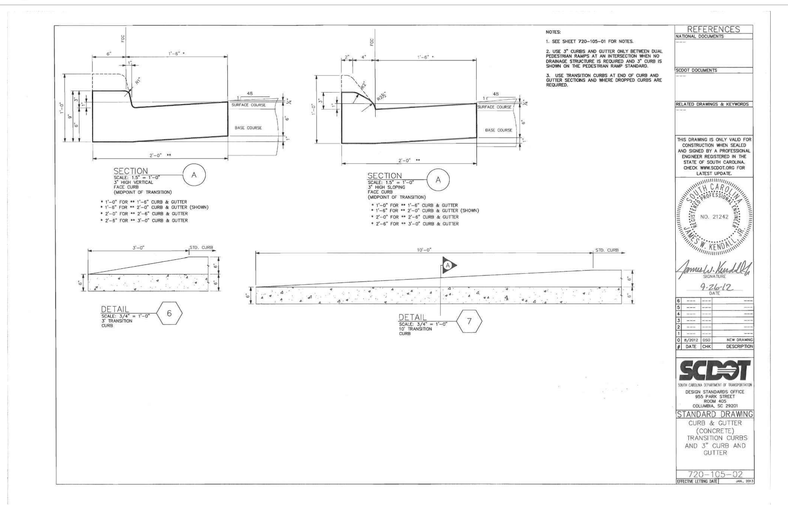
3 Sidewalk Adjacent to Curb
SCALE:



4 Curb & Gutter at Intersections
SCALE:



5 Pedestrian ramp at Intersecting Street with Shoulder Section (Parallel Ramp)
SCALE:



6 CURB & GUTTER TRANSITION DETAIL
SCALE:

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA PROFESSIONAL ENGINEER
SEAMON, WHITESIDE & ASSOCIATES, INC.
No. C00472
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 21242
JAMES W. KENDALL, JR.
FOR PEER REVIEW

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT:	10830
DATE:	09/27/2024
DRAWN BY:	MJB
CHECKED BY:	RCP/PWP

REVISION HISTORY

1. 8/02/2024

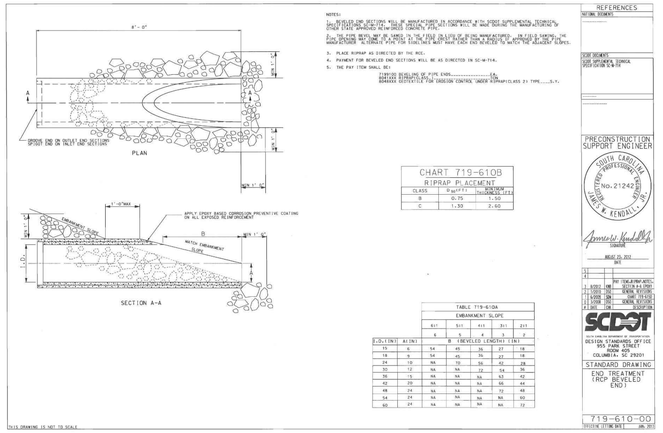
SITE DETAILS

C8.2

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED:9/27/2024 1:47 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\CD's\10830 E_Detail Sheet.dwg

501 MANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION



NOTES:
1. BEVELED END SECTIONS WILL BE MANUFACTURED IN ACCORDANCE W/ ALL SCDOT SUPPLEMENTAL TECHNICAL SPECIFICATIONS AND STANDARD DRAWINGS. ALL REINFORCED CONCRETE PIPE SHALL BE MANUFACTURED BY AN APPROVED SCDOT STATE APPROVED NCPA/SPECI CERTIFIED PIPE.
FOR PIPE BEVEL MAY BE CAREU IN THE FIELD CA LESS OF BEING MANUFACTURED. IN FIELD CASTING, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER PRIOR TO CASTING. ALL MANUFACTURED ELEMENTS MUST HAVE CLEAR AND LEGIBLE MARKS ENGRAVED TO MATCH THE APPROVED SHOPS.
3. PLACE RIPRAP AS DIRECTED BY THE ROC.
4. PAYMENT FOR BEVELED END SECTIONS WILL BE AS DIRECTED IN SC-M-714.
5. THE PAY ITEM SHALL BE:
STRIPLED BEVELED OR PIPE END.....EA.
RIPRAP AS SPECIFIED FOR EROSION CONTROL UNDER RIPRAP CLASS 2) TYPE.....S.Y.

CHART 719-610B
RIPRAP PLACEMENT

CLASS	MINIMUM THICKNESS	MINIMUM D50
B	0.75	1.50
C	1.50	2.60

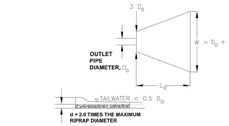
TABLE 719-610A EMBANKMENT SLOPE				
	4:1	3:1	2:1	
D (S.T.EN.T)	B (RECYCLED LENGTH)			
	6	5	3	2
15	6	54	45	36	27	18
18	6	54	45	36	27	18
24	12	NA	72	54	42	28
30	12	NA	NA	72	54	36
36	15	NA	NA	NA	63	42
42	20	NA	NA	NA	66	44
48	24	NA	NA	NA	72	48
54	24	NA	NA	NA	NA	50
60	24	NA	NA	NA	NA	72

THIS DRAWING IS NOT TO SCALE

REFERENCES
NATIONAL DOCUMENTS
HIGHWAY DRAINAGE KNOWLEDGE
FIELD MANUAL
COST DOCUMENTS
HDM
RELATED DRAWINGS & KEYWORDS
PRECONSTRUCTION SUPPORT ENGINEER
SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL
SIGNATURE
AUGUST 25, 2017
DATE
BY CHK/APP'D DATE
1 SCDOT CMR 7/2/2015 GENERAL REVISIONS
2 SCDOT CMR 7/2/2015 GENERAL REVISIONS
3 SCDOT CMR 7/2/2015 GENERAL REVISIONS
4 SCDOT CMR 7/2/2015 GENERAL REVISIONS
DATE CHK DESCRIPTION
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201
STANDARD DRAWING
END TREATMENT
(RCP BEVELED END)
719-610-00
SYSTEM LETTING DATE | JAN 2015

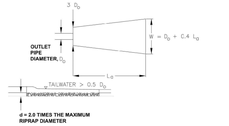
REFERENCES
NATIONAL DOCUMENTS
HIGHWAY DRAINAGE KNOWLEDGE
FIELD MANUAL
COST DOCUMENTS
HDM
RELATED DRAWINGS & KEYWORDS
SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL
SIGNATURE
11/18/2016
DATE
DATE CHK DESCRIPTION
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201
STANDARD DRAWING
OUTLET PROTECTION WITH NO DEFINED CHANNEL
804-305-03
SYSTEM LETTING DATE | JULY 2015

PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL MINIMUM TAILWATER CONDITION:



PIPE INSIDE DIAMETER (D_0) (FT)	MAX PIPE SLOPE	OUTLET PROTECTION DIMENSIONS $3D_0$ (FT)	L_a (FT)	W (FT)	MIN RIPRAP CLASS	RIPRAP DEPTH (d) (FT)
1.5	≤ 1%	6	10	12	A	1.5
1.5	2%	6	14	16	A	1.5
1.5	5%	6	19	21	B	2.7
2.0	≤ 1%	8	14	17	A	1.5
2.0	2%	8	19	22	B	2.7
2.0	5%	8	26	29	B	2.7
2.5	≤ 1%	10	18	21	A	1.5
2.5	2%	10	25	28	B	2.7
2.5	5%	10	34	37	C	3.6
3.0	≤ 1%	12	24	28	B	2.7
3.0	2%	12	32	36	B	2.7
3.0	5%	12	42	46	C	3.6
3.5	≤ 1%	14	28	33	B	2.7
3.5	2%	14	37	42	C	3.6
3.5	5%	14	48	53	C	3.6
4.0	≤ 1%	16	33	38	B	2.7
4.0	2%	16	43	48	C	3.6

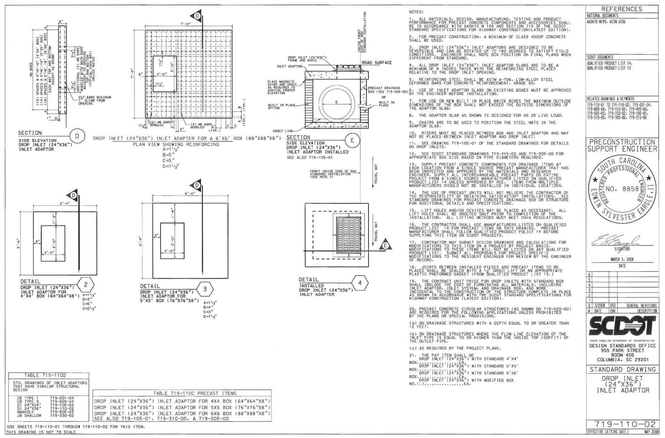
PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL MAXIMUM TAILWATER CONDITON:



PIPE INSIDE DIAMETER (D_0) (FT)	MAX PIPE SLOPE	OUTLET PROTECTION DIMENSIONS $3D_0$ (FT)	L_a (FT)	W (FT)	MIN RIPRAP CLASS	RIPRAP DEPTH (d) (FT)
1.5	≤ 1%	6	8	6	A	1.5
1.5	2%	6	23	11	A	1.5
1.5	5%	6	40	18	A	1.5
2.0	≤ 1%	8	14	8	A	1.5
2.0	2%	8	30	15	A	1.5
2.0	5%	8	55	25	B	2.7
2.5	≤ 1%	10	20	11	A	1.5
2.5	2%	10	39	19	A	1.5
2.5	5%	10	66	30	B	2.7
3.0	≤ 1%	12	27	15	A	1.5
3.0	2%	12	55	26	A	1.5
3.0	5%	12	91	40	C	3.6
3.5	≤ 1%	14	33	18	A	1.5
3.5	2%	14	66	31	B	2.7
3.5	5%	14	105	47	C	3.6
4.0	≤ 1%	16	42	22	A	1.5
4.0	2%	16	78	37	B	2.7

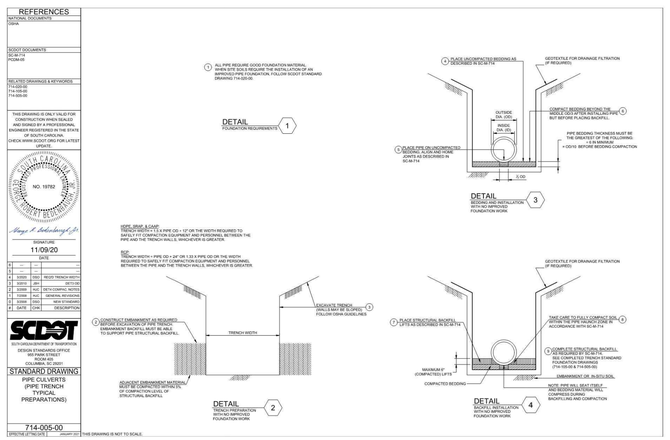
NOTES:
1) THESE TABLES ARE ONLY APPLICABLE FOR THE PIPE SIZES AND MAXIMUM PIPE SLOPES LISTED.
2) LARGER PIPES OR GREATER SLOPES REQUIRE ALTERNATIVE OUTLET PROTECTION DESIGN.
3) WHEN PLANS SPECIFY LARGER OR DIFFERENT OUTLET PROTECTION THAN SHOWN IN TABLES, INSTALL OUTLET PROTECTION PER THE PLANS.
4) SEE DRAWING # 804-305-02 FOR MORE INFORMATION ON OUTLET PROTECTION DIMENSIONS.

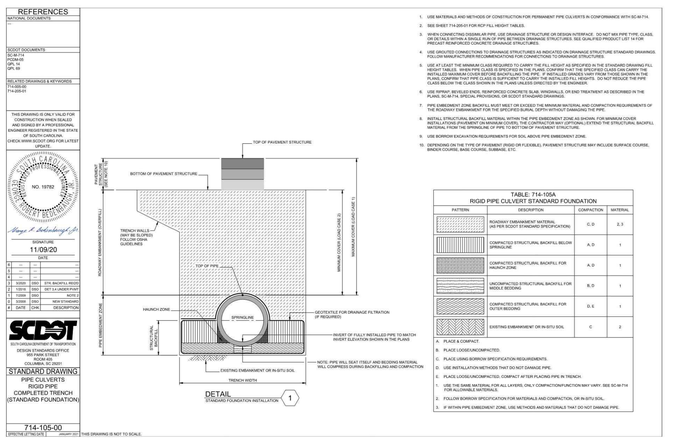
REFERENCES
NATIONAL DOCUMENTS
HIGHWAY DRAINAGE KNOWLEDGE
FIELD MANUAL
COST DOCUMENTS
HDM
RELATED DRAWINGS & KEYWORDS
SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 21242
JAMES W. KENDALL
SIGNATURE
11/18/2016
DATE
DATE CHK DESCRIPTION
SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201
STANDARD DRAWING
OUTLET PROTECTION WITH NO DEFINED CHANNEL
804-305-03
SYSTEM LETTING DATE | JULY 2015

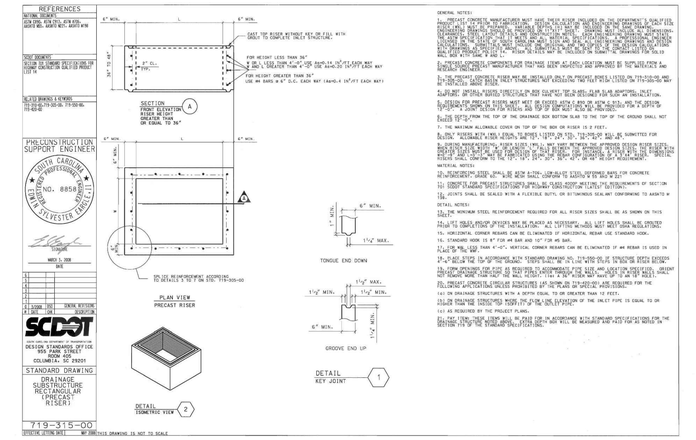


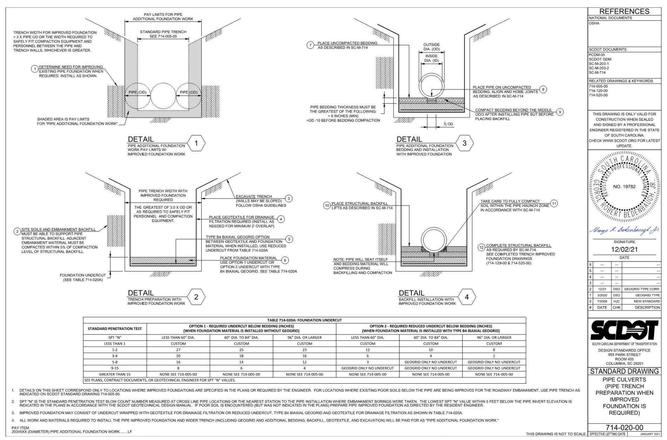
NOTES:
ALL MATERIALS, DESIGN, MANUFACTURING, TESTING AND PRODUCT QUALIFICATIONS FOR PRECAST CONCRETE STRUCTURES SHALL BE IN ACCORDANCE WITH SECTION 714 AND SECTION 715 OF THE LATEST EDITION OF THE SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
FOR PRECAST CONSTRUCTION, A MINIMUM OF CLASS 4000P CONCRETE SHALL BE USED.
DROP INLET (24"X36") TOP OF BRAKETSRD ARE DESIGNED TO BE COMPATIBLE WITH THE SCDOT STANDARD FRAME AND GRATE (24"X36") AS SHOWN ON STANDARD DRAWING 719-110-01.
ALL DROP INLET (24"X36") INLET ADAPTOR SLABS ARE TO BE A MINIMUM OF 8" THICK AND SHALL BE REINFORCED AS SHOWN IN THE DETAILS RELATIVE TO THE BOX SPANNING.
ALL REINFORCING BARS SHALL BE MEET A MIN. 1.5" SKIN ALLOY STEEL REINFORCEMENT.
THE ADAPTOR SLAB AS SHOWN IS DESIGNED FOR HS 25 LIVE LOAD.
CARE MUST BE USED TO POSITION THE STEEL MATS IN THE ADAPTOR SLAB.
ALL OPENING MUST BE IN ACCEPTABLE BOX, AND 24"X" ADAPTOR AND MAY BE CUT IN THE FIELD AS NECESSARY TO ACCOMMODATE PIPE.
DROP INLET (24"X36") INLET ADAPTOR SHALL BE USED IN CONJUNCTION WITH THE STANDARD DRAWINGS FOR DETAILS OF DROP INLET (24"X36") INLET ADAPTOR.
ALL CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL OR COMPACTED BACKFILL. ALL FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET SUFFICIENTLY TO PREVENT DAMAGE TO THE CONCRETE AND SHALL BE REMOVED IN SUCH A MANNER AS TO PREVENT DAMAGE TO THE CONCRETE. ALL CONCRETE SURFACES EXPOSED TO VIEW SHALL BE FINISHED TO A SMOOTH AND UNIFORM APPEARANCE AND SHALL BE FREE FROM HONEYCOMB, PITS, OR OTHER SURFACE DEFECTS. ALL FINISHED SURFACES SHALL BE FREE FROM FINS AND OTHER PROJECTIONS.
THE CONTRACTOR MAY SUBMIT ALTERNATE DESIGNS FOR PRECAST CONCRETE STRUCTURES AS REQUIRED BY SCDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. ALL ALTERNATE DESIGNS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
ALL REINFORCING STEEL SHALL BE BENT TO THE SHAPES SHOWN ON THE PLANS BEFORE BEING PLACED IN THE FORMS. ALL REINFORCING STEEL SHALL BE FREE FROM MILL SCALE, RUST, OIL, GREASE OR OTHER COATINGS WHICH WOULD IMPAIR THE BOND WITH THE CONCRETE.
ALL REINFORCING STEEL SHALL BE SECURELY TIED AT ALL INTERSECTIONS AND SPLICES AND SHALL BE SUPPORTED BY CHAIRS, BOLSTERS, BLOCKS, OR SPACERS SUFFICIENT IN NUMBER AND STRENGTH TO PREVENT DISPLACEMENT BEYOND THE PERMISSIBLE TOLERANCES DURING THE PLACING AND CONSOLIDATION OF

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JACKSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION

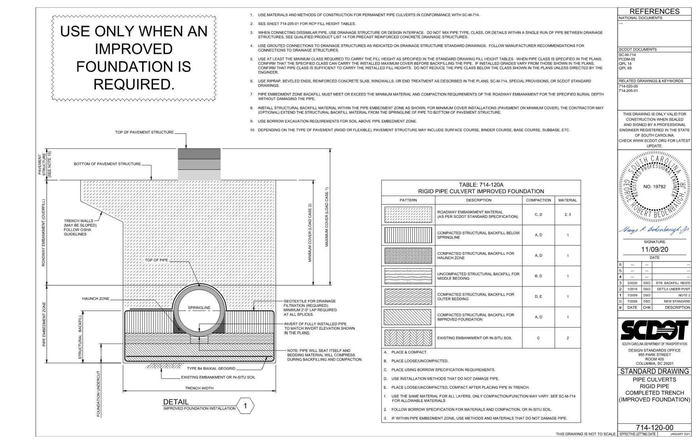




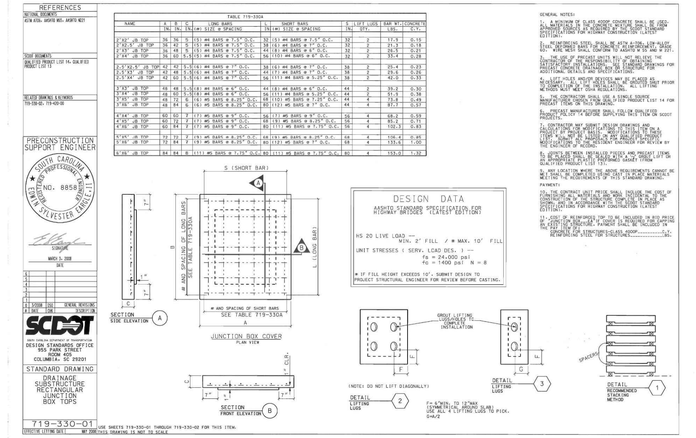




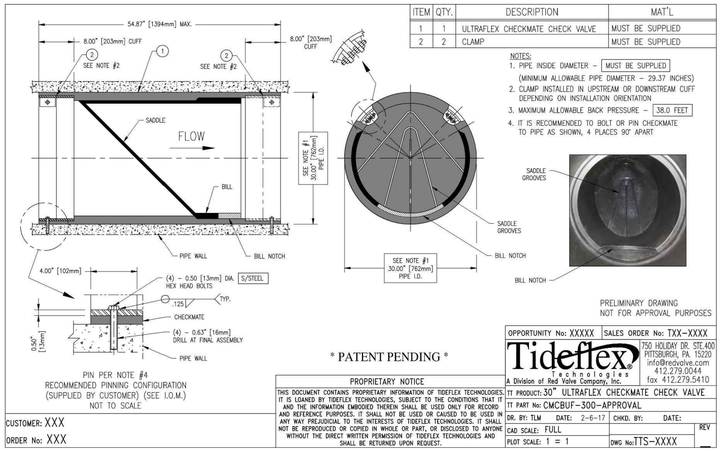
1 SCDOT PIPE TRENCH PREPARATION DETAILS
SCALE:



2 SCDOT PIPE TRENCH DETAILS
SCALE:


REFERENCES
NATIONAL DOCUMENTS
ASTM D75, ASTM D75, ASTM D75
AASHTO M31, AASHTO M171, AASHTO M198
SCDOT DOCUMENTS
SCM-14
QPL 69
RELATED DRAWINGS & KEYWORDS
714-020-00
714-205-01
THIS DRAWING IS ONLY VALID FOR CONSTRUCTION WHEN SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF SOUTH CAROLINA.
CHECK WWW.SCDOT.ORG FOR LATEST UPDATE.
NO. 19792
SIGNATURE
MAR 5, 2020
DATE
PRECONSTRUCTION SUPPORT ENGINEER
NO. 8858
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 420
COLUMBIA, SC 29201
STANDARD DRAWING
DRAINAGE SUBSTRUCTURE RECTANGULAR JUNCTION BOX TOPS
719-330-01
EFFECTIVE (ETTM DATE) MAY 2020
TABLE 719-330A
NAME | A | B | C | LONG BAR | S SHORT BARS | L | LS | LSS | BAR WT/CONCRETE
(No.) (No.) (No.) SIZE @ SPACING (No.) SIZE @ SPACING (No.) (No.) (No.) (Lb.) C.Y.
2'-0" x2'-0" TOP 10 10 5 (10) #4 BARS @ 1'-5" O.C. 10 (10) #4 BARS @ 1'-5" O.C. 12 2 2 17.5 0.15
3'-0" x3'-0" TOP 14 14 7 (14) #4 BARS @ 1'-5" O.C. 14 (14) #4 BARS @ 1'-5" O.C. 16 2 2 24.5 0.21
3'-0" x3'-0" TOP 14 14 7 (14) #4 BARS @ 1'-5" O.C. 14 (14) #4 BARS @ 1'-5" O.C. 16 2 2 24.5 0.21
3'-4" x3'-0" TOP 16 16 8 (16) #4 BARS @ 1'-5" O.C. 16 (16) #4 BARS @ 1'-5" O.C. 16 2 2 28.0 0.24
2'-0" x2'-0" 20' TOP 42 42 21 (42) #5 BARS @ 0'-5" O.C. 38 (38) #4 BARS @ 1'-5" O.C. 44 2 2 55.4 0.50
2'-0" x2'-0" 30' TOP 62 62 31 (62) #5 BARS @ 0'-5" O.C. 56 (56) #4 BARS @ 1'-5" O.C. 64 2 2 80.2 0.73
3'-0" x3'-0" TOP 46 46 23 (46) #5 BARS @ 0'-5" O.C. 42 (42) #4 BARS @ 1'-5" O.C. 48 2 2 60.3 0.55
3'-0" x3'-0" TOP 60 60 30 (60) #5 BARS @ 0'-5" O.C. 54 (54) #4 BARS @ 1'-5" O.C. 62 2 2 77.9 0.71
3'-4" x3'-0" TOP 50 50 25 (50) #5 BARS @ 0'-5" O.C. 44 (44) #4 BARS @ 1'-5" O.C. 52 2 2 67.3 0.61
4'-0" x3'-0" TOP 60 60 30 (60) #5 BARS @ 0'-5" O.C. 52 (52) #4 BARS @ 1'-5" O.C. 60 2 2 77.9 0.71
4'-0" x3'-0" 30' TOP 84 84 42 (84) #5 BARS @ 0'-5" O.C. 72 (72) #4 BARS @ 1'-5" O.C. 80 2 2 103.3 0.93
5'-4" x3'-0" TOP 72 72 36 (72) #5 BARS @ 0'-5" O.C. 60 (60) #4 BARS @ 1'-5" O.C. 68 4 4 104.4 0.95
5'-4" x3'-0" 30' TOP 108 108 54 (108) #5 BARS @ 0'-5" O.C. 92 (92) #4 BARS @ 1'-5" O.C. 100 4 4 154.2 1.40
6'-0" x3'-0" TOP 84 84 42 (111) #5 BARS @ 0'-5" O.C. 80 (111) #4 BARS @ 1'-5" O.C. 80 4 4 153.2 1.39
S (SHORT BAR)
L
A
AND SPACING OF SHORT BARS SEE TABLE 719-330A
JUNCTION BOX COVER
PLAN VIEW
SECTION
SIDE ELEVATION
A
SECTION
FRONT ELEVATION
B
DESIGN DATA
AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 17TH EDITION
HS 20 LIVE LOAD ---- WITH 2' FILL / # MAX. 10' FILL
UNIT STRESSES (SERV. LOAD DES.) ---
fs = 24,000 psi
fc = 1400 psi N = 8
* IF FILL HEIGHT EXCEEDS 10', SUBMIT DESIGN TO PROJECT STRUCTURAL ENGINEER FOR REVIEW BEFORE CASTING.
GROUT LIFTING LOOP AFTER INSTALLATION
DETAIL
LIFTING LUGS
2
DETAIL
LUGS
3
SPACERS
DETAIL
RECOMMENDED STACKING METHOD
1
(NOTE: DO NOT LIFT DIAGONALLY)
For 6"WIDE, TO 12"MAX (STANDARD WALL) USE 4 LIFTING LUGS TO PICK.
6"=2
GENERAL NOTES:
1.- ALL MATERIALS, DESIGN, MANUFACTURE, T

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 220 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT © SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION



ITEM	QTY.	DESCRIPTION	MAT'L
1	1	ULTRAFLEX CHECKMATE CHECK VALVE	MUST BE SUPPLIED
2	2	CLAMP	MUST BE SUPPLIED

NOTES:
1. PIPE INSIDE DIAMETER – MUST BE SUPPLIED
(MINIMUM ALLOWABLE PIPE DIAMETER – 29.37 INCHES)
2. CLAMP INSTALLED IN UPSTREAM OR DOWNSTREAM CUFF DEPENDING ON INSTALLATION ORIENTATION
3. MAXIMUM ALLOWABLE BACK PRESSURE – 38.0 FEET
4. IT IS RECOMMENDED TO BOLT OR PIN CHECKMATE TO PIPE AS SHOWN, 4 PLACES 90° APART

PRELIMINARY DRAWING
NOT FOR APPROVAL PURPOSES

* PATENT PENDING *

PROPRIETARY NOTICE
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TIDEFLEX TECHNOLOGIES. IT IS LOANED BY TIDEFLEX TECHNOLOGIES, SUBJECT TO THE CONDITIONS THAT IT AND THE INFORMATION EMBODIED THEREIN SHALL BE USED ONLY FOR RECORD AND REFERENCE PURPOSES. IT SHALL NOT BE USED OR CAUSED TO BE USED IN ANY WAY PREJUDICIAL TO THE INTERESTS OF TIDEFLEX TECHNOLOGIES. IT SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR PART, OR DISCLOSED TO ANYONE WITHOUT THE DIRECT WRITTEN PERMISSION OF TIDEFLEX TECHNOLOGIES AND SHALL BE RETURNED UPON REQUEST.

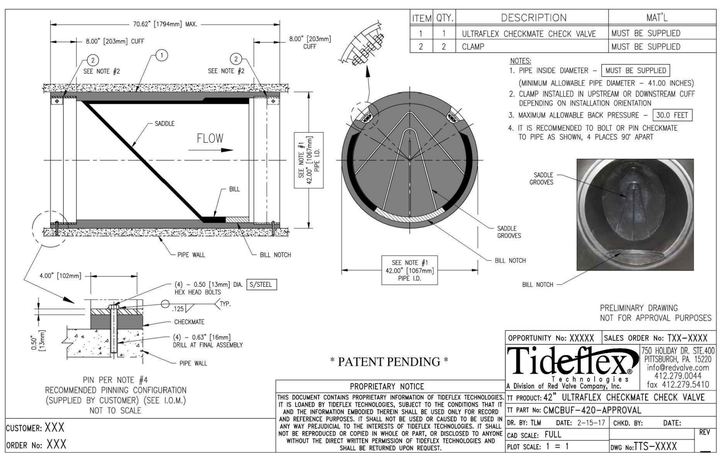
OPPORTUNITY No: XXXXX | SALES ORDER No: TXX–XXXX

Tideflex® Technologies
A Division of Red Valve Company, Inc.

750 HOLIDAY DR. STE.400
PITTSBURGH, PA. 15220
info@redvalve.com
412.279.0044
fax 412.279.5410

TT PRODUCT: 30" ULTRAFLEX CHECKMATE CHECK VALVE
TT PART No: CMCBUF–300–APPROVAL
DR. BY: TLM DATE: 2–6–17 | CHKD. BY: DATE:
CAD SCALE: FULL
PLOT SCALE: 1 = 1
DWG No: TTS–XXXX
REV

CUSTOMER: XXX
ORDER No: XXX



ITEM	QTY.	DESCRIPTION	MAT'L
1	1	ULTRAFLEX CHECKMATE CHECK VALVE	MUST BE SUPPLIED
2	2	CLAMP	MUST BE SUPPLIED

NOTES:
1. PIPE INSIDE DIAMETER – MUST BE SUPPLIED
(MINIMUM ALLOWABLE PIPE DIAMETER – 41.00 INCHES)
2. CLAMP INSTALLED IN UPSTREAM OR DOWNSTREAM CUFF DEPENDING ON INSTALLATION ORIENTATION
3. MAXIMUM ALLOWABLE BACK PRESSURE – 30.0 FEET
4. IT IS RECOMMENDED TO BOLT OR PIN CHECKMATE TO PIPE AS SHOWN, 4 PLACES 90° APART

PRELIMINARY DRAWING
NOT FOR APPROVAL PURPOSES

* PATENT PENDING *

PROPRIETARY NOTICE
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TIDEFLEX TECHNOLOGIES. IT IS LOANED BY TIDEFLEX TECHNOLOGIES, SUBJECT TO THE CONDITIONS THAT IT AND THE INFORMATION EMBODIED THEREIN SHALL BE USED ONLY FOR RECORD AND REFERENCE PURPOSES. IT SHALL NOT BE USED OR CAUSED TO BE USED IN ANY WAY PREJUDICIAL TO THE INTERESTS OF TIDEFLEX TECHNOLOGIES. IT SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR PART, OR DISCLOSED TO ANYONE WITHOUT THE DIRECT WRITTEN PERMISSION OF TIDEFLEX TECHNOLOGIES AND SHALL BE RETURNED UPON REQUEST.

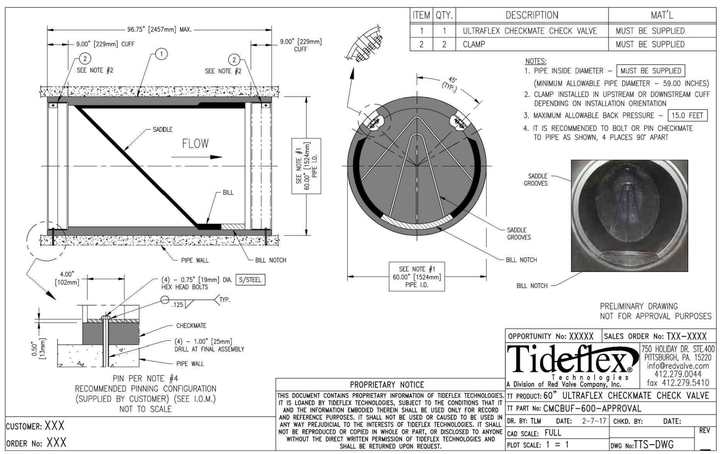
OPPORTUNITY No: XXXXX | SALES ORDER No: TXX–XXXX

Tideflex® Technologies
A Division of Red Valve Company, Inc.

750 HOLIDAY DR. STE.400
PITTSBURGH, PA. 15220
info@redvalve.com
412.279.0044
fax 412.279.5410

TT PRODUCT: 42" ULTRAFLEX CHECKMATE CHECK VALVE
TT PART No: CMCBUF–420–APPROVAL
DR. BY: TLM DATE: 2–15–17 | CHKD. BY: DATE:
CAD SCALE: FULL
PLOT SCALE: 1 = 1
DWG No: TTS–XXXX
REV

CUSTOMER: XXX
ORDER No: XXX



ITEM	QTY.	DESCRIPTION	MAT'L
1	1	ULTRAFLEX CHECKMATE CHECK VALVE	MUST BE SUPPLIED
2	2	CLAMP	MUST BE SUPPLIED

NOTES:
1. PIPE INSIDE DIAMETER – MUST BE SUPPLIED
(MINIMUM ALLOWABLE PIPE DIAMETER – 59.00 INCHES)
2. CLAMP INSTALLED IN UPSTREAM OR DOWNSTREAM CUFF DEPENDING ON INSTALLATION ORIENTATION
3. MAXIMUM ALLOWABLE BACK PRESSURE – 15.0 FEET
4. IT IS RECOMMENDED TO BOLT OR PIN CHECKMATE TO PIPE AS SHOWN, 4 PLACES 90° APART

PRELIMINARY DRAWING
NOT FOR APPROVAL PURPOSES

PROPRIETARY NOTICE
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF TIDEFLEX TECHNOLOGIES. IT IS LOANED BY TIDEFLEX TECHNOLOGIES, SUBJECT TO THE CONDITIONS THAT IT AND THE INFORMATION EMBODIED THEREIN SHALL BE USED ONLY FOR RECORD AND REFERENCE PURPOSES. IT SHALL NOT BE USED OR CAUSED TO BE USED IN ANY WAY PREJUDICIAL TO THE INTERESTS OF TIDEFLEX TECHNOLOGIES. IT SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR PART, OR DISCLOSED TO ANYONE WITHOUT THE DIRECT WRITTEN PERMISSION OF TIDEFLEX TECHNOLOGIES AND SHALL BE RETURNED UPON REQUEST.

OPPORTUNITY No: XXXXX | SALES ORDER No: TXX–XXXX

Tideflex® Technologies
A Division of Red Valve Company, Inc.

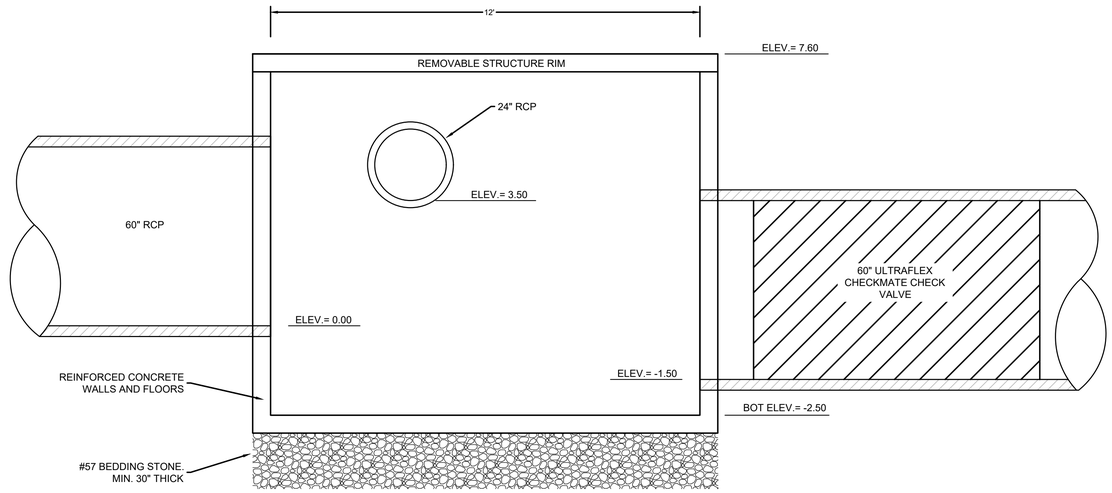
750 HOLIDAY DR. STE.400
PITTSBURGH, PA. 15220
info@redvalve.com
412.279.0044
fax 412.279.5410

TT PRODUCT: 60" ULTRAFLEX CHECKMATE CHECK VALVE
TT PART No: CMCBUF–600–APPROVAL
DR. BY: TLM DATE: 2–7–17 | CHKD. BY: DATE:
CAD SCALE: FULL
PLOT SCALE: 1 = 1
DWG No: TTS–DWG
REV

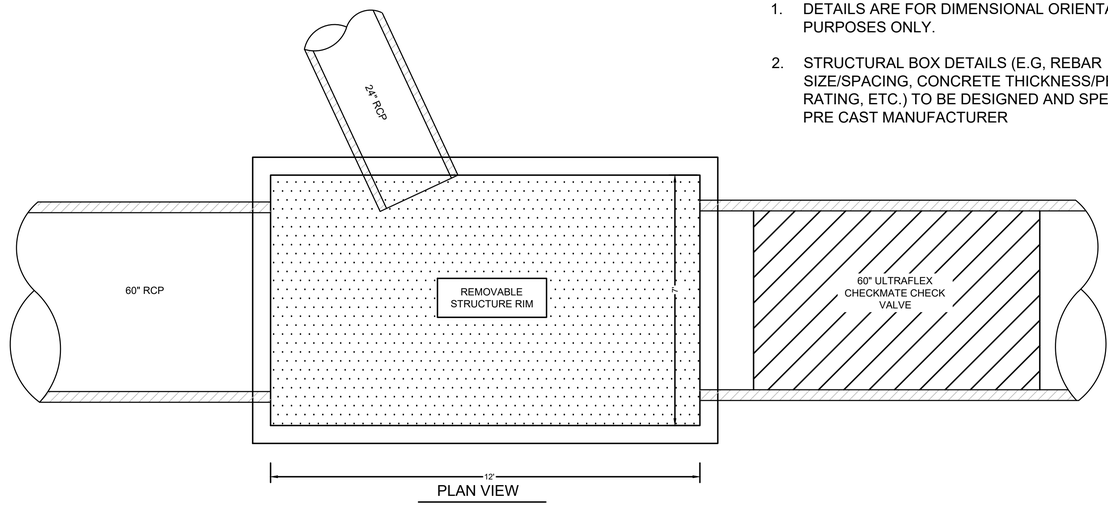
CUSTOMER: XXX
ORDER No: XXX

NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEERING OF RECORD.
2. ALTERNATIVE CHECK VALVE PRODUCTS SHALL BE SUBMITTED FOR ENGINEERING REVIEW AND APPROVAL.

1 TIDE FLEX CHECKMATE INLINE CHECK VALVE (30", 42", 60")



BOX SECTION



PLAN VIEW

2 JUNCTION BOX C3
SCALE: NOT TO SCALE

NOTES:

1. DETAILS ARE FOR DIMENSIONAL ORIENTATION PURPOSES ONLY.
2. STRUCTURAL BOX DETAILS (E.G, REBAR SIZE/SPACING, CONCRETE THICKNESS/PRESSURE RATING, ETC.) TO BE DESIGNED AND SPECIFIED BY PRE CAST MANUFACTURER

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA
SEAMON, WHITESIDE & ASSOCIATES, INC.
No. C00472
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 034434
RICHARD C. PHILLIPS
SEAL
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

TOWN OF SULLIVAN'S ISLAND SCIIP
STORMWATER IMPROVEMENTS
SULLIVAN'S ISLAND, SC

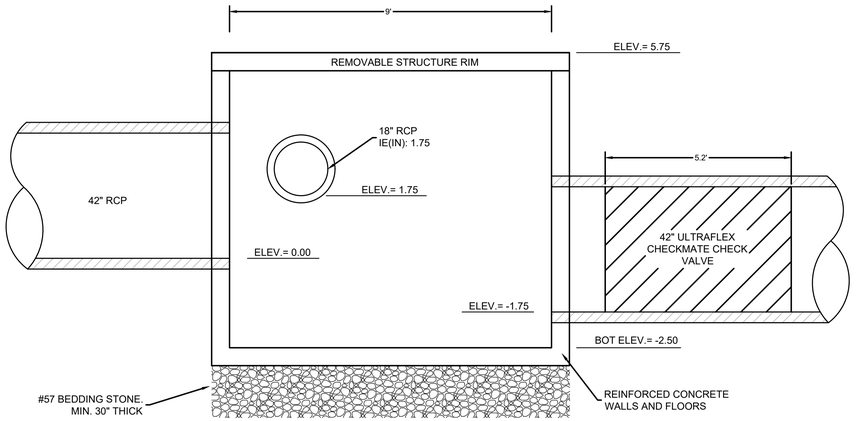
SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

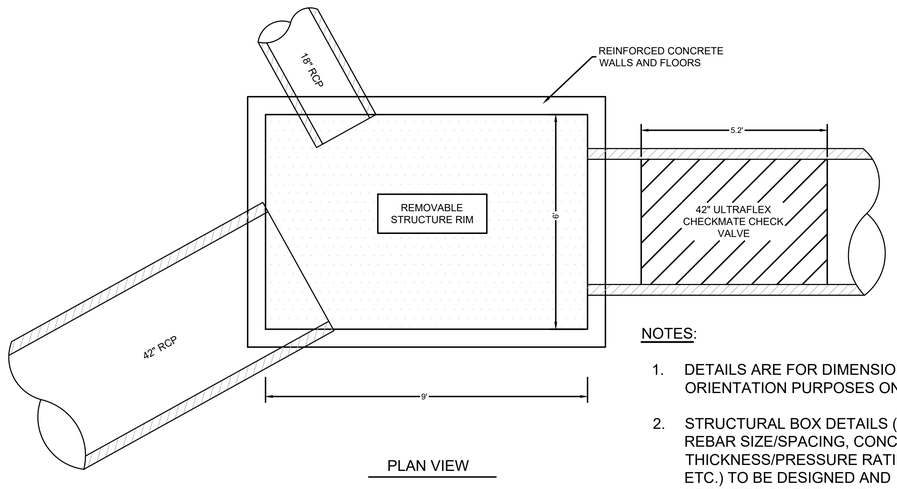
1. 8/02/2024	

SITE DETAILS

C8.5



BOX SECTION

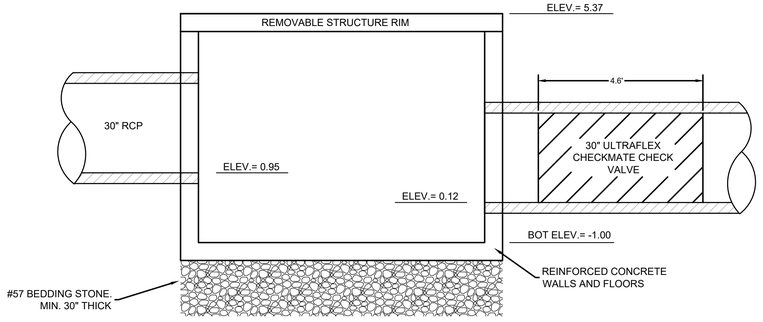


PLAN VIEW

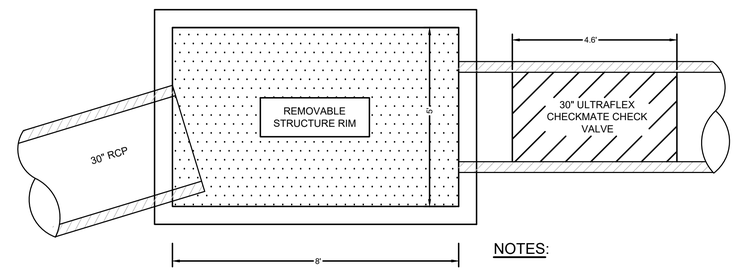
NOTES:

1. DETAILS ARE FOR DIMENSIONAL ORIENTATION PURPOSES ONLY.
2. STRUCTURAL BOX DETAILS (E.G, REBAR SIZE/SPACING, CONCRETE THICKNESS/PRESSURE RATING, ETC.) TO BE DESIGNED AND SPECIFIED BY PRE CAST MANUFACTURER

1 JUNCTION BOX A2
SCALE: NOT TO SCALE



BOX SECTION



PLAN VIEW

NOTES:

1. DETAILS ARE FOR DIMENSIONAL ORIENTATION PURPOSES ONLY.
2. STRUCTURAL BOX DETAILS (E.G, REBAR SIZE/SPACING, CONCRETE THICKNESS/PRESSURE RATING, ETC.) TO BE DESIGNED AND SPECIFIED BY PRE CAST MANUFACTURER

2 JUNCTION BOX B2
SCALE: NOT TO SCALE

SEAMONWHITESIDE
MOUNT PLEASANT, SC
843.884.1667
GREENVILLE, SC
864.298.0534
SUMMERVILLE, SC
843.972.0710
SPARTANBURG, SC
864.272.1272
CHARLOTTE, NC
980.312.5450
WWW.SEAMONWHITESIDE.COM

SOUTH CAROLINA SEAMON, WHITESIDE & ASSOCIATES, INC. No. C00472 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 15434 FOR RECORD PURPOSES PHILLIPS

TOWN OF SULLIVAN'S ISLAND SCIIP STORMWATER IMPROVEMENTS

SULLIVAN'S ISLAND, SC

SW+ PROJECT: 10830
DATE: 09/27/2024
DRAWN BY: MJB
CHECKED BY: RCP/PWP

REVISION HISTORY

1. 8/02/2024

SITE DETAILS

C8.6

501 WANDO PARK BOULEVARD, SUITE 200 | MOUNT PLEASANT, SC 29464 | JUDSON MILLS BUILDING 6000, 701 EASLEY BRIDGE RD, SUITE 6060 | GREENVILLE, SC 29611 | 230 PETERSON DR. | CHARLOTTE, NC 28217 | 712 N. CEDAR STREET | SUMMERVILLE, SC 29483 | 104 N. DANIEL MORGAN AVENUE, SUITE 300 | SPARTANBURG, SC 29306
COPYRIGHT (C) SEAMON, WHITESIDE & ASSOCIATES, INC. | THIS DRAWING SHALL NOT BE REPRODUCED IN ANY MANNER OR USED FOR ANY PURPOSE WITHOUT WRITTEN PERMISSION.

PLOTTED: 9/27/2024 1:47 PM, BY Michael Bevacqua P:\ACAD-D-3\10830\CAD Files\00's\10830 E_Detail Sheet.dwg