PROJECT ADDRESS	OWNER/APPLICANT NAME & ADDRESS	GRANDFATHERED? (YES OR NO)	VSMP TECHNICAL CRITERIA (IIB OR IIC)	JPA/WETLANDS REQUIRED (YES OR NO)
SHORE DR FROM MARLIN BAY DR TO DUPONT CIR	CITY OF VIRGINIA BEACH 484 VIKING DRIVE, SUITE 200 VIRGINIA BEACH VA, 23452	NO	IIB	NO

WATERSHED/HUC	TOTAL AREA OF PROJECT LIMIT	TOTAL AREA OF DISTURBANCE	TOTAL AREA OF MILL/OVERLAY
CB25	0.66 AC	0.62 AC	0.04 AC

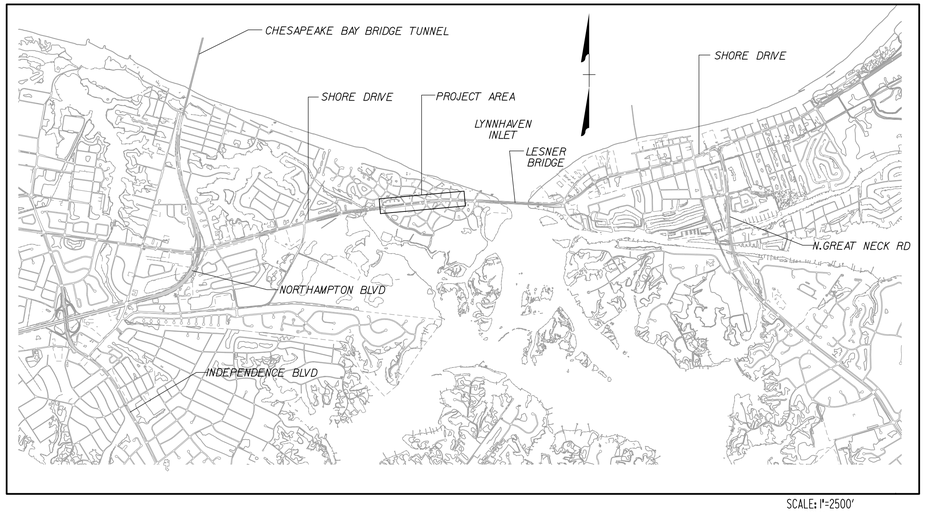
CITY OF VIRGINIA BEACH, VIRGINIA
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
SHORE DRIVE - URBAN PRINCIPAL ARTERIAL	
	Fr: 50' East of Marlin Bay Drive To: 120' East of Dinwiddie Road
ADT (2022)	32,200
ADT (2045)	44,800
DHV (2019)	2772
D (%) (design hour)	56
T (%) (design hour)	2
V (MPH)	40 MPH

SHORE DRIVE PEDESTRIAN IMPROVEMENTS

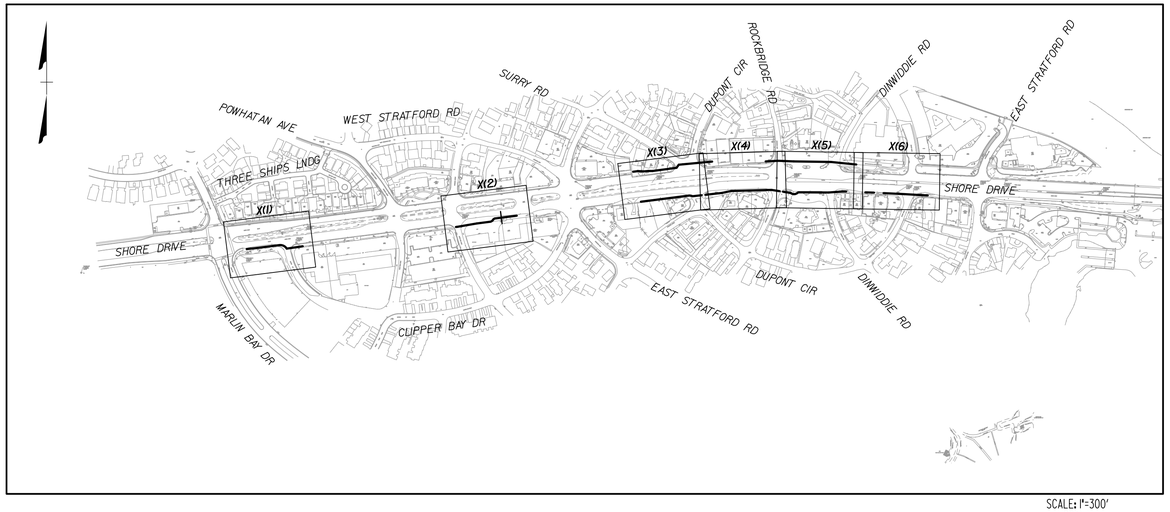
CIP No. 100383.001

VICINITY MAP



SCALE: 1"=2500'
SCALE
0 2500' 5000'

LOCATION MAP



SCALE: 1"=300'
SCALE
0 300' 600'

APPROVED: _____ DATE _____
CITY ENGINEER

APPROVED: _____ DATE _____
DIRECTOR OF PUBLIC WORKS

APPROVED: _____ DATE _____
DIRECTOR OF PUBLIC UTILITIES

APPROVED: _____ DATE _____
UTILITY ENGINEERING MANAGER

APPROVED: _____ DATE _____
UTILITY OPERATIONS ADMINISTRATOR

APPROVED: _____ DATE _____
OPERATIONS ENGINEER

APPROVED: _____ DATE _____
REAL ESTATE

ALL CONSTRUCTION METHODS AND MATERIALS WILL CONFORM TO THE CURRENT CITY OF VIRGINIA BEACH DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS MANUAL (MARCH 2022), DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAILS, DEPARTMENT OF PUBLIC UTILITIES DESIGN STANDARDS MANUAL (2024), CITY OF VIRGINIA BEACH AMENDMENTS TO THE 2020 VDOT ROAD AND BRIDGE SPECIFICATIONS (DATED JANUARY 1, 2022), VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS (2020), VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS (2016, REVISED SEPTEMBER 2022), VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, VIRGINIA STORMWATER MANAGEMENT HANDBOOK, VERSION 1.1, AND ANY OTHER APPLICABLE CITY OF VIRGINIA BEACH OR STATE ORDINANCES, CODES, AND LAWS PRIOR TO CONSTRUCTION.

ALL TRAFFIC CONTROL METHODS AND DEVICES SHALL CONFORM TO "FEDERAL HIGHWAY ADMINISTRATION, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2009 EDITION" WITH REVISIONS 1 AND 2, MAY 2012, AND REVISION 3, JULY 2022, THE "VIRGINIA WORK AREA PROTECTION MANUAL, STANDARDS AND GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, AUGUST 2011" WITH REVISION 2.1 - NOVEMBER 1, 2020.

JUNE 2025

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

FILE NO.	SHEET NO.	TOTAL SHEETS
CIP No. 100383.001	1	69

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16:22
2-JUN-2025
\\wsppw14ics01\ICS_pdf_work_dir\233934\827262_2\d10024901A.dgn

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	1C(2)	SURVEY NOTES, LEGENDS, EXISTING STORM AND SANITARY STRUCTURE INFORMATION
	1D	ALIGNMENT DATA SHEET
	1E	EROSION & SEDIMENT CONTROL NOTES
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* NOT INCLUDED IN THIS SUBMITTAL

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

INDEX OF SHEETS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

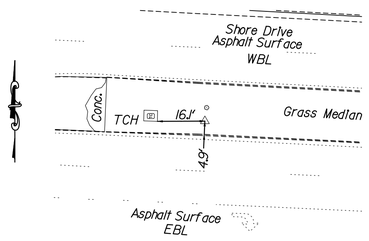
WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		1A	

SURVEY CONTROL INFORMATION

Control Id: PIn w/Cap *501
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 5.73
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,966.009
X(South): 12,185,024.272

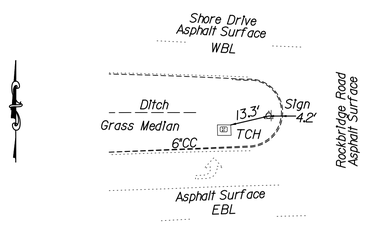
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: PIn w/Cap *502
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 5.25
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,987.588
X(South): 12,184,619.719

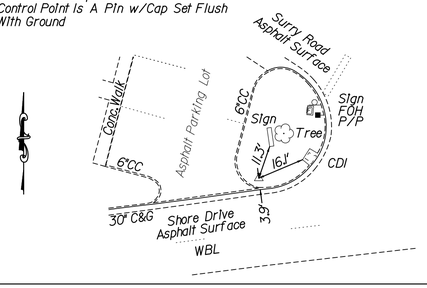
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: PIn w/Cap *503
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 4.35
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,499,011.301
X(South): 12,184,217.482

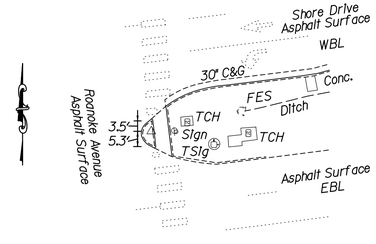
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: PIn w/Cap *504
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 4.91
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,910.066
X(South): 12,183,847.749

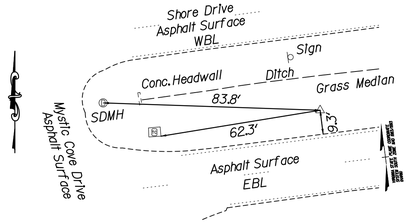
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: PIn w/Cap *505
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 3.57
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,853.814
X(South): 12,183,443.019

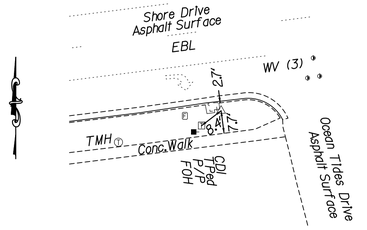
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: PIn w/Cap *506
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 3.93
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,758.299
X(South): 12,183,081.315

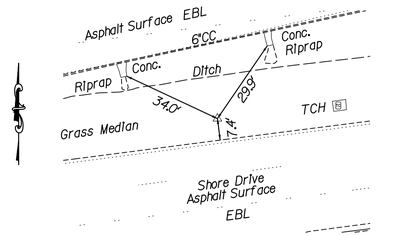
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: PIn w/Cap *508
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 3.95
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,751.677
X(South): 12,182,661.847

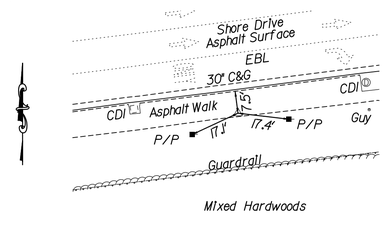
Detailed Description:
Control Point Is A PIn w/Cap Set Flush With Ground



Control Id: Mag.Nail *509
Shore Drive
City: Virginia Beach,VA
Established By: Precision Measurements,Inc.
Vertical Datum Based On NAVD88
Elevation = 4.36
Horzontal Datum Based On Virginia State Plane
Coordinate System,South Zone (nad83/93 harn)

U.S. Survey Feet Values
Y(North): 3,498,650.402
X(South): 12,182,267.701

Detailed Description:
Control Point Is A Mag Nail Set Flush With
Asphalt Walk



Mixed Hardwoods

NOTE:
CONTACT MISS UTILITY OF VIRGINIA
AT LEAST 72 HOURS BEFORE GROUND
PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=25'
SCALE
0 25' 50'

COMMONWEALTH OF VIRGINIA
IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SURVEY CONTROL INFORMATION

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		1C(1)

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2-JUN-2025
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SURVEY NOTES, LEGENDS & EXISTING STORM STRUCTURE INFORMATION

GENERAL SURVEY NOTES

TOPOGRAPHIC SURVEY OF SHORE DRIVE

VIRGINIA BEACH, VIRGINIA

SCALE: 1"=25'

PMI PROJECT #20562

SURVEY NOTES:

1. THE MERIDIAN SOURCE OF THIS TOPOGRAPHIC SURVEY IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM 1983/1993 HARN (U.S. SURVEY FOOT).
2. ELEVATIONS REFER TO NAVD 88 CITY OF VIRGINIA BEACH DISK #G-03 (RESET)(ELEVATION=10.87)
3. THIS SURVEY WAS PREPARED TO SHOW EXISTING FEATURES AS OF JANUARY 24, 2020 AND DOES NOT CERTIFY AS TO THE ACCURACY OF PROPOSED OR FUTURE ITEMS WHICH ARE ADDED TO THIS DRAWING.
4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OR LEASE EXHIBIT AND MAY NOT SHOW ALL EASEMENTS OR RESTRICTIONS THAT MAY EFFECT THE PROPERTY.
5. THIS SURVEY DOES NOT CONSTITUTE A BOUNDARY SURVEY NOR A SUBDIVISION OF LAND.
6. THIS SURVEY DOES NOT INTEND TO DEPICT ANY HAZARDOUS WASTE AND ENVIRONMENTAL FEATURES THAT MAY EFFECT SAID PROPERTY SHOWN HEREON EXCEPT AS SHOWN.
7. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, IVAN LINEBERRY, L.S., FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
8. ALL EXISTING PROPERTY AND ROAD RIGHT-OF-WAY CONTROL MONUMENTS SHOWN HEREON ARE TO BE PROTECTED FROM DAMAGE OR DISPLACEMENT DURING CONSTRUCTION. ANY MONUMENT DAMAGED OR DISPLACED SHALL BE REPLACED AT THE LAST STAGES OF CONSTRUCTION BY A LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA. THE COST FOR REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED. THE LAND SURVEYOR SHALL CERTIFY TO THE OWNER, IN WRITING, THAT REPLACEMENTS ARE IN PLACE AND EXIST.
9. THIS TOPOGRAPHIC SURVEY WAS PREPARED BY:

PRECISION MEASUREMENTS, INC.
SURVEYORS – GPS – GIS – MAPPING – 3-D LASER SCANNING
770 LYNNHAVEN PARKWAY, SUITE 240
VIRGINIA BEACH, VA 23452
(757) 368-0945
WWW.PRECISIONMEASUREMENTS.COM
VIRGINIA BEACH – NEWPORT NEWS – RICHMOND, VIRGINIA

GENERAL UTILITY NOTES

- PMI INC. PERFORMED AN UNDERGROUND UTILITY DESIGNATION EFFORT IN 10/01/2022 THRU 01/24/2023 WITHIN THE PROJECT LIMITS SPECIFIED BY THE CLIENT.
- PMI, DOES NOT GUARANTEE THAT UTILITIES SHOWN COMPRISE ALL UTILITIES WITHIN THE PROJECT LIMITS PROVIDED BY THE CLIENT
- FIELD DESIGNATING AND MARKING PERFORMED BY ACCUMARK INC. IN ACCORDANCE WITH QUALITY LEVEL B STANDARDS UNLESS OTHERWISE NOTED HEREON AS QUALITY LEVELS C OR D.

A QUALITY CONTROL / QUALITY ASSURANCE REVIEW WAS PERFORMED BY JOHN HARRISON.

- THE UTILITY SIZES SHOWN HEREIN ARE BASED ON INFORMATION PROVIDED BY THE UTILITY OWNER, BY WRITTEN RECORDS, BY VERBAL INFORMATION OR BY OBSERVED VISUAL EVIDENCE. SURVEYED LOCATIONS OF DESIGNATED UTILITIES MAY NOT REPRESENT THE EXACT CENTERLINE OF THE UTILITY.
- ALL NON GRAVITY LINES ARE SHOWN AT QUALITY LEVEL B UNLESS OTHERWISE NOTED QL/C OR QL/D BASED ON AVAILABLE INFORMATION. ALL SERVICES REPRESENTED QL/C OR QL/D REPRESENTS POSSIBLE SERVICE CONNECTIONS BASED ON RECORDS AND/OR FIELD INFORMATION.

SUE QUALITY LEVELS OF SERVICE (ACCURACY)

QL/A = QUALITY LEVEL A (TEST HOLES)
DATA TYPICALLY ACQUIRED AT ONE POINT ON AN UNDERGROUND UTILITY FEATURE EXPOSED BY AIR VACUUM EXCAVATION OR OTHER MEANS. THE HORIZONTAL AND VERTICAL LOCATION OF THIS REFERENCE POINT IS ACQUIRED AND REPORTED TO ACCEPTABLE SURVEY TOLERANCES. THE ACQUIRED DATA FULFILLS SECTION 5.4.5 ON PAGE 6 OF ASCE STANDARD 38-02.

QL/B = QUALITY LEVEL B (UTILITY DESIGNATION)
DEPICTION OF AN UNDERGROUND UTILITY LINE ESTABLISHED BY SENSING THE LOCATION WITH ELECTRONIC INSTRUMENTATION. LINEWORK AND UTILITY SURFACE FEATURES ARE ACQUIRED BY SURVEYING POINTS ALONG ALIGNMENT TO ACCEPTABLE SURVEY TOLERANCES.

QL/C = QUALITY LEVEL C (RECORDS PLOTTING)
UTILITY INFORMATION OBTAINED FROM RECORD INFORMATION AND PLOTTED TO CORRELATE WITH SURFACE UTILITY FEATURES WHICH HAVE BEEN SURVEY LOCATED AND ACCURATELY REDUCED ONTO DESIGN/ CONSTRUCTION DOCUMENTS.

QL/D = QUALITY LEVEL D (RECORDS DRAFTING)
DEPICTION OF UNDERGROUND UTILITY LINES BY TRANSPOSITION FROM UTILITY RECORDS OR PLACED FROM VERBAL RECOLLECTIONS WITHOUT BENEFIT OF SURVEYED SURFACE FEATURES. ACCURACY OF INFORMATION IS QUESTIONABLE.

EOI
END OF INFORMATION PERTAINS TO THE LOSS OF SIGNAL THAT HAS BEEN APPLIED TO AN UNDERGROUND UTILITY AND THEN DETECTED TO ELECTRONICALLY LOCATE THE UTILITY. COMMONLY FOUND WHERE UTILITIES CHANGE TO NON-CONDUCTIVE MATERIALS, ARE CUT OR AT END OF UTILITY.

PLANIMETRIC LEGEND

- Advertising Sign
- Bore Hole
- BM — Bench Mark
- Bollard Post
- PHOTO CP — Photo Control Point
- Control Station
- Drainage Flow Arrow (Storm Drainage)
- FC — Filler Cap (Gas Stations)
- Flow Arrow (Streams & Rivers)
- Flag Pole
- Secondary Control Point
- FP — Filler Pipe (Gas Stations)
- GA — Gas Tank Access Manhole (Gas Stations)
- Gravesite Marker
- Guard Post
- Gas Vent Pipe (Gas Stations)
- Mail Box
- Mine Entrance
- Node Point
- Property Line Symbol
- Found Monumentation
- Property Monument
- Metal or Wooden Post
- Monitoring Well
- Road Arrow
- Reference
- Right of Way Monument
- VDOT Commission Monument
- Iron Right of Way Pin
- Railroad Mile Marker
- Railroad Right of Way Monument
- Railroad Signal Pole or Gate
- Railroad Telegraph Pole
- Railroad Telephone Pole
- Railroad Switch
- Shrub
- Storm Sewer Manhole
- Photogrammetric Target
- Tree
- Traffic Left Turn Arrow
- Traffic Left-Right Arrow
- Traffic Left-Thru Arrow
- Traffic Left-Thru-Right Arrow
- Traffic Right Turn Arrow
- Traffic Thru Arrow
- Traffic Thru-Right Arrow
- Traffic Springback Marker
- Wetland Flag Automatic
- Wetland Flag Manual
- Bridge Elevation
- Plan Elevation
- Water Elevation
- Elevation Tick Mark
- Connected Plat Symbol
- Brush Line
- Pipe Culverts *
- City Line
- County Line
- Curb Only
- Curb and Gutter
- Fence Line
- Guardrail
- Hedge Row
- Jersey Barrier
- OBSC — Obscure Areas
- Paved Ditches
- Railroad
- Right of Way
- State Line
- Edges of Water
- Sidewalks
- WL — Wetlands
- Woods

* Designate size of culverts (Variable from 12" to 120")

UTILITY LEGEND

EB — Electric Box	TB — Telephone Booth
Electric Guy Pole	Telephone Guy Pole
Electric Ground Light	Telephone Guy Wire
Electric Guy Wire	Test Holes (All Utilities)
Electric Hand Hole	Telephone Cell Tower
Electric Meter	Telephone Hand Hole
Electric Manhole	Telephone Manhole
Electric Marker Post	Telephone Marker Post
Electric Pedestal	Telephone Pole
Electric Stub	Telephone Pedestal
Electric Power Pole	Telephone Riser Pole
Electric Power Riser Pole	Television Satellite Dish
Electric Light Pole	Tower Anchor
Electric Luminaire	Traffic Camera Pole
End of Information (All Utilities)	Traffic Control Hand Hole
Fire Hydrant	Traffic Control Manhole
Fiber Optic Hand Hole	Traffic Control Guy Wire
Fiber Optic Marker	Traffic Control Pedestal
FO — Fiber Optic Manhole	Traffic Signal Guy Pole
FO — Fiber Optic Pedestal	Traffic Signal Pole
Gas Meter	Traffic Signal Pole w/Luminaire
G — Gas Manhole	Telephone Stub
Gas Marker Post	TM — Television Hand Hole
MW — Gas Monitoring Well	TV — Television Manhole
Gas Stub	Television Marker Post
Gas Test Station	TV — Television Pedestal
Gas Valve	Television Stub
Gas Vent	Water Blow Off
Gas Well	W — Water Well
Sanitary Air Release Valve	Water Meter
Sanitary Flow Arrow	MW — Water Manhole
Sanitary Stub	Water Marker Post
Sewer Clean Out	Water Spigot
Sanitary Force Main Valve	Water Siamese Connection
Sanitary Marker Post	Water Stub
S — Sanitary Manhole	Water Valve
Sewer Vent Pipe	Water Post Inspection Valve
Unknown Clean Out	Water Irrigation Valve
U — Unknown Hand Hole	ST — Water Steam Manhole
UK — Unknown Manhole	Water Steam Vent Pipe

- CAFO — Fiber Optic Cable Television
- CHEM — Chemical Line (above or below ground)
- FO Duct — Underground Fiber Optic Duct
- FUEL — Fuel Line (above or below ground)
- G — Gas Line *
- G Duct — Gas Line Duct
- SAN — Gravity Sewer *
- SFM — Sanitary Force Main *
- TCFO — Traffic Control Fiber Optic
- T/FO — Telephone Fiber Optic
- FO — Underground Fiber Optic
- Unk — Unknown Utility Line
- E — Underground Power Cable
- E Duct — Underground Power Cable Duct
- T/Tg — Underground Telephone Cable
- T/Tg Duct — Underground Telephone Cable Duct
- TC — Underground Traffic Control
- TC Duct — Underground Traffic Control Duct
- CATV — Underground Television Cable
- CATV Duct — Underground Television Cable Duct
- VS — Vacuum Sewer
- W — Water Line *
- W Duct — Water Line Duct
- Unk — Depicted According To Utility Records **
- Unk — Abandoned According To Utility Records **
- Unk — According To Miss Utility Information **

* Designate size (Variable from 0.75" to 54")
** Designate type (Unknown line is shown)

EASEMENT TABLE

A	Easement For Road Purpose Per VDOT Plan #0060-134-102,PE-101,C-501 RW-201
B	8' Verizon Easement Inst.#201304260047981O
C	1' Public No Ingress/Egress Easement Inst.#201301160000677BO
D	5' Verizon Easement Inst.#201304260047981O
E	8' Private Drainage Easement Inst.#200310210171868
F	5' Private Drainage Easement Inst.#201710170008933900
G	7.5' Electric And Power Company Easement Inst.#201710170008933390
H	Variable Width Public Pedestrian Access Easement Inst.#201710040085481O
I	5'x5' Public Utility Easement Inst.#201710040085481O
J	1' Public No Ingress/Egress Easement Inst.#201710100087439O
K	Variable Width Public Pedestrian Access Easement Inst.#201710040085481O
L	Variable Width Drainage Easement (M.B.293 Pg.53)
M	Variable Width Public Pedestrian Access Easement (M.B.293 Pg.53)
N	5' Public Pedestrian Access Easement Inst.#201110170010658OO
O	10' Drainage Easement (D.B.2258 Pg.191)
P	1' Public No Ingress/Egress Easement Inst.#201110170010658OO
Q	City Of Virginia Beach 1' No Ingress/Egress Easement Inst.#200411220185521
R	1' No Ingress/Egress Easement Inst.#200410220168773
S	5' Utility,Drainage & Walkway Easement (M.B.137 Pg 48)
T	5' Public Drainage & Utility & Private Walkway Easement (M.B.137 Pg.49)
U	5' Public Drainage & Utility Easement (M.B.137 Pg.49)
V	Walkway Easement (M.B.137 Pg.49)
W	5' Public Drainage Easement (D.B.2708 Pg.725)
X	5' Utility & Drainage Easement (M.B.87 Pg.11A)
Y	Variable Width Drainage Easement (D.B.2258 Pg.195)
Z	Variable Width Virginia Power Easement Inst.#200606010008288SO
AA	24' Public Drainage & Utility Easement And 24' Driveway Easement For Use Of Abuting Lots (M.B.79 Pg 24)
BB	5' Public Drainage & Utility Easement (M.B.79 Pg 24)
CC	City Of Virginia Beach 1' No Ingress/Egress Easement Inst.#202000097043 (Plat)
DD	5'x5' Public Utility Easement Inst.#202000097043 (Plat)
EE	12'x50' Private Shared Ingress/Egress Easement For The Benefit Of Lots 1 & 2 Inst.#202000097043 (Plat)
FF	Variable Width Public Pedestrian Access Easement Inst.#202000097043 (Plat)
GG	City Of Virginia Beach 1' No Ingress/Egress Easement Inst.#202000097043 (Plat)
HH	Variable Width Public Pedestrian Access Easement Inst.#202000097043 (Plat)
II	1' Public No Ingress/Egress Easement (M.B.273 Pg.86)
JJ	Overhead Virginia Power Elec. Line Easement (D.B.167 Pg.558)
KK	Variable Width Public Ingress/Egress Easement Inst.#200703210003803SO
LL	20'x25' Verizon Right-Of-Way Easement Inst.#202000097043 (Plat)
MM	Variable Width Permenant Utility Easement M.B.211,Pg.26
NN	VEPCO Easement D.B.241,Pg.274

EXISTING SANITARY STRUCTURE INFORMATION

306-078-M
In Pl.SMH *584
Rim = 3.42
In Pl.8" Clay (a)
Inv.In= -1.04
In Pl.8" Clay (b)
Inv.Out= -1.07

308-010-U
In Pl.SMH *802
Rim = .10
In Pl.8" Clay (a)
Inv.In= -0.35
In Pl.8" Clay (b)
Inv.In= -0.39
In Pl.10" Clay (c)
Inv Out= -0.55

308-063-U
In Pl.SMH *804
Rim = 4.55
In Pl.8" Clay (a)
Inv.In= -0.02
In Pl.8" Clay (b)
Inv.In= -0.02
In Pl.8" PVC (c)
Inv Out= -0.04

308-065-N
In Pl.SMH *806
Rim = 3.86
In Pl.8" Clay (a)
Inv.In= 1.11
In Pl.6" PVC (b)
Inv.Out= 1.36

308-009-U
In Pl.SMH *807
Rim = 5.23
In Pl.10" Clay (a)
Inv.In= -1.63
In Pl.8" Clay (b)
Inv.In= -1.63
In Pl.10" Clay (c)
Inv Out= -1.69

308-056-N
In Pl.SMH *810
Rim = 3.75
In Pl.8" Clay (a)
Inv.Out= -0.15

308-007-U
In Pl.SMH *811
Rim = 3.89
In Pl.8" Clay (a)
Inv.In= -3.32
Inv.In =1.01(Drop)
In Pl.10" Clay (b)
Inv.In= -3.29
In Pl.10" Clay (c)
Inv In= -3.29
In Pl.10" Clay (d)
Inv Out= -3.42

308-059-M
In Pl.SMH *812
Rim = 3.76
In Pl.8" Clay (a)
Inv.In= -1.48
In Pl.8" Clay (b)
Inv.Out= -1.56

308-008-U
In Pl.SMH *814
Rim = 5.06
In Pl. 10" Clay (a)
Inv.In= -2.69
In Pl. 8" Clay (b)
Inv.In= -2.34
In Pl. 4" PVC (c)
Inv In= 1.86
In Pl. 8" Clay (d)
Inv.In= -2.71
In Pl. 10" Clay (e)
Inv.Out= -3.04

308-057-N
In Pl.SMH *817
Rim = 3.48
In Pl.8" Clay (a)
Inv.Out= -0.17

308-112-N
In Pl.SMH *818
Rim = 4.02
In Pl.8" Clay (a)
Inv.In= -1.26
In Pl.8" Clay (b)
Inv.Out= -1.50

308-53-M
In Pl.SMH *819
Rim = 5.42
In Pl.8" Clay (a)
Inv.In= -1.41
In Pl.8" Clay (b)
Inv.Out= -1.61

308-100-M
In Pl.SMH *820
Rim = 5.97
In Pl.8" Clay (a)
Inv.In= -1.04
In Pl.8" Clay (b)
Inv.Out= -1.18

308-025-M
In Pl.SMH *837
Rim = 3.71
In Pl.8" Clay (a)
Inv.In= -1.55
In Pl.8" Clay (b)
Inv.Out= -1.65

308-026-M
In Pl.SMH *838
Rim = 3.96
In Pl.8" Clay (a)
Inv.In= -0.97
In Pl.6" Clay (b)
Inv.In= -0.37 (Abandoned)
In Pl.8" Clay (c)
Inv Out= -1.07

EXISTING STORM STRUCTURE INFORMATION

In.Pl. CDI *530
Rim = 3.31
In Pl. 18" RCP (a)
Inv. Out= 1.35

In.Pl. CDI *728
Rim = 3.89
In Pl. 8" CPP (a)
Inv. In = 1.06
In Pl. 15" RCP (b)
Inv. In = 1.29
In Pl. 24" RCP (c)
Inv. Out = 0.11

In.Pl. CDI *730
Rim = 4.97
In Pl. 21" RCP (a)
Inv. In = 0.59
In Pl. 15" RCP (b)
Inv. In = 0.67
In Pl. 24" RCP (c)
Inv. Out = -0.13

In.Pl. CDI *750
Rim = 3.72
In Pl. 30" RCP (a)
Inv. In = -0.46
In Pl. 18" RCP (b)
Inv. In = -0.11
In Pl. 12" RCP (c)
Inv. In = 0.84 (Capped)
In Pl. 36" RCP (d)
Inv.Out = -0.86

In.Pl. CDI *755
Rim = 4.22
In Pl. 15" RCP (a)
Inv. Out= 2.37

In.Pl. DI *759
Rim = 3.43
In Pl. 15" RCP (a)
Inv. Out= 0.28

In.Pl. DI *785
Rim = 3.84
In Pl. 15" RCP (a)
Inv. In = 1.09
In Pl. 18" RCP (b)
Inv. Out = 1.09

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SURVEY NOTES, LEGENDS, EXISTING STORM AND SANITARY STRUCTURE INFORMATION

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		1C(2)	

ALIGNMENT DATA SHEET

SW-EB-01 CONSTRUCTION BASELINE

POINT SEB10 N 3,498,686.8026 E 12,182,471.5227 Sta 10+00.00

Course from SEB10 to SEB11 N 82° 48' 03.73" E Dist 10.0000

POINT SEB11 N 3,498,688.0557 E 12,182,481.4438 Sta 10+10.00

Course from SEB11 to SEB12 N 86° 37' 24.92" E Dist 15.0000

POINT SEB12 N 3,498,688.9392 E 12,182,496.4178 Sta 10+25.00

Course from SEB12 to PC SEB-10 N 82° 48' 03.73" E Dist 109.3035

(S1) Curve S1
P.I. Station 11+53.94 N 3,498,705.0977 E 12,182,624.3444
Delta = 65° 33' 23.33" (RT)
Degree = 187° 51' 18.05"
Tangent = 19.6395
Length = 34.8974
Radius = 30.5000
External = 5.7762
Long Chord = 33.0247
Mid.Ord. = 4.8564
P.C. Station 11+34.30 N 3,498,702.6366 E 12,182,604.8597
P.T. Station 11+69.20 N 3,498,688.3778 E 12,182,634.6476
C.C. N 3,498,672.3770 E 12,182,608.6818
Back = N 82° 48' 03.73" E
Ahead = S 31° 38' 32.94" E
Chord Bear = S 64° 25' 14.60" E

Course from PT SEB-10 to SEB15 N 81° 38' 00.20" E Dist 65.7948

POINT SEB15 N 3,498,697.9514 E 12,182,699.7422 Sta 12+35.00

SW-EB-02 CONSTRUCTION BASELINE

POINT SEB25 N 3,498,776.5731 E 12,183,324.5816 Sta 20+00.00

Course from SEB25 to SEB20 N 82° 33' 32.40" E Dist 7.0800

POINT SEB20 N 3,498,777.4900 E 12,183,331.6020 Sta 20+07.08

Course from SEB20 to SEB21 N 80° 13' 20.21" E Dist 78.4988

POINT SEB21 N 3,498,790.8212 E 12,183,408.9605 Sta 20+85.58

Course from SEB21 to PC SEB22 N 82° 39' 11.23" E Dist 55.6465

(S2) Curve S2
P.I. Station 21+47.43 N 3,498,798.7304 E 12,183,470.3036
Delta = 44° 56' 31.94" (LT)
Degree = 381° 58' 18.71"
Tangent = 6.2043
Length = 11.7658
Radius = 15.0000
External = 1.2325
Long Chord = 11.4665
Mid.Ord. = 1.1389
P.C. Station 21+41.23 N 3,498,797.9370 E 12,183,464.1502
P.T. Station 21+52.99 N 3,498,803.6387 E 12,183,474.0986
C.C. N 3,498,812.8139 E 12,183,462.2320
Back = N 82° 39' 11.23" E
Ahead = N 37° 42' 39.29" E
Chord Bear = N 60° 10' 55.26" E

Course from PT SEB22 to PC SEB23 N 37° 42' 39.29" E Dist 47.912

(S3) Curve S3
P.I. Station 21+61.92 N 3,498,810.7056 E 12,183,479.5627
Delta = 44° 59' 45.85" (RT)
Degree = 572° 57' 28.06"
Tangent = 4.1417
Length = 7.8533
Radius = 10.0000
External = 0.8238
Long Chord = 7.6530
Mid.Ord. = 0.7611
P.C. Station 21+58.17 N 3,498,807.4291 E 12,183,477.0293
P.T. Station 21+66.03 N 3,498,811.2314 E 12,183,483.6709
C.C. N 3,498,801.3123 E 12,183,484.9404
Back = N 37° 42' 39.29" E
Ahead = N 82° 42' 25.14" E
Chord Bear = N 60° 12' 32.21" E

Course from PT SEB23 to SEB24 N 82° 42' 25.14" E Dist 89.3600

POINT SEB24 N 3,498,822.5751 E 12,183,572.3080 Sta 22+55.00

SW-EB-03 CONSTRUCTION BASELINE

POINT SEB30 N 3,498,879.5493 E 12,184,078.5914 Sta 30+00.00

Course from SEB30 to PC SEB-30 N 82° 42' 39.29" E Dist 196.7818

(S4) Curve S4
P.I. Station 32+04.74 N 3,498,905.5257 E 12,184,281.6758
Delta = 35° 18' 40.50" (RT)
Degree = 229° 10' 59.22"
Tangent = 7.9572
Length = 15.4074
Radius = 25.0000
External = 1.2.358
Long Chord = 15.1648
Mid.Ord. = 1.1776
P.C. Station 31+96.78 N 3,498,904.5161 E 12,184,273.7829
P.T. Station 32+12.19 N 3,498,901.7873 E 12,184,288.7002
C.C. N 3,498,879.7182 E 12,184,276.9548
Back = N 82° 42' 39.29" E
Ahead = S 61° 58' 40.21" E
Chord Bear = S 79° 38' 00.46" E

Course from PT SEB-30 to SEB33 N 83° 33' 13.11" E Dist 37.8136

POINT SEB33 N 3,498,906.0328 E 12,184,326.2747 Sta 32+50.00

SW-EB-04 CONSTRUCTION BASELINE

POINT SEB40 N 3,498,907.7217 E 12,184,341.2225 Sta 40+00.00

Course from SEB40 to SEB41 N 83° 33' 13.10" E Dist 67.5391

POINT SEB41 N 3,498,915.3045 E 12,184,408.3346 Sta 40+67.54

Course from SEB41 to SEB42 N 78° 14' 44.61" E Dist 38.4584

POINT SEB42 N 3,498,923.1390 E 12,184,445.9865 Sta 41+06.00

Course from SEB42 to SEB43 N 88° 23' 45.69" E Dist 164.4845

POINT SEB43 N 3,498,927.7431 E 12,184,610.4066 Sta 42+70.48

Course from SEB43 to SEB44 S 81° 01' 33.54" E Dist 34.5177

POINT SEB44 N 3,498,922.3588 E 12,184,644.5018 Sta 43+05.00

SW-EB-05 CONSTRUCTION BASELINE

POINT SEB50 N 3,498,920.2175 E 12,184,658.0611 Sta 50+00.00

Course from SEB50 to PC SEB-50 S 81° 01' 33.54" E Dist 29.6636

(S5) Curve S5
P.I. Station 50+31.98 N 3,498,915.2289 E 12,184,689.6510
Delta = 26° 06' 00.54" (RT)
Degree = 572° 57' 28.06"
Tangent = 2.3179
Length = 4.5553
Radius = 10.0000
External = 0.2651
Long Chord = 4.5161
Mid.Ord. = 0.2583
P.C. Station 50+29.66 N 3,498,915.5904 E 12,184,687.3615
P.T. Station 50+34.22 N 3,498,913.8969 E 12,184,691.5480
C.C. N 3,498,905.7128 E 12,184,685.8017
Back = S 81° 01' 33.54" E
Ahead = S 54° 55' 33.00" E
Chord Bear = S 67° 58' 33.27" E

(S6) Curve S6
P.I. Station 50+50.01 N 3,498,904.8225 E 12,184,704.4720
Delta = 76° 35' 16.55" (LT)
Degree = 286° 28' 44.03"
Tangent = 15.7916
Length = 26.7342
Radius = 20.0000
External = 5.4828
Long Chord = 24.7879
Mid.Ord. = 4.3032
P.C. Station 50+34.22 N 3,498,913.8969 E 12,184,691.5480
P.T. Station 50+60.95 N 3,498,915.2892 E 12,184,716.2967
C.C. N 3,498,930.2651 E 12,184,703.0407
Back = S 54° 55' 33.00" E
Ahead = N 48° 29' 10.44" E
Chord Bear = N 86° 46' 48.72" E

SW-EB-05 CONSTRUCTION BASELINE CONT'D.

(S7) Curve S7
P.I. Station 50+64.78 N 3,498,917.8223 E 12,184,719.1586
Delta = 41° 49' 59.01" (RT)
Degree = 572° 57' 28.06"
Tangent = 3.8219
Length = 7.3012
Radius = 10.0000
External = 0.7055
Long Chord = 7.1401
Mid.Ord. = 0.6590
P.C. Station 50+60.95 N 3,498,915.2892 E 12,184,716.2967
P.T. Station 50+68.25 N 3,498,917.8010 E 12,184,722.9805
C.C. N 3,498,907.8012 E 12,184,722.9247
Back = N 48° 29' 10.44" E
Ahead = S 89° 40' 50.55" E
Chord Bear = N 69° 24' 09.95" E

Course from PT SEB-52 to SEB54 S 89° 40' 50.55" E Dist 121.1777

POINT SEB54 N 3,498,917.1258 E 12,184,844.1562 Sta 51+89.43

Course from SEB54 to SEB55 N 85° 46' 37.70" E Dist 58.2396

POINT SEB55 N 3,498,921.4143 E 12,184,902.2377 Sta 52+47.67

Course from SEB55 to SEB56 S 88° 50' 53.58" E Dist 12.3318

POINT SEB56 N 3,498,921.1664 E 12,184,914.5670 Sta 52+60.00

SW-EB-06 CONSTRUCTION BASELINE

POINT SEB60 N 3,498,917.6482 E 12,184,993.7085 Sta 60+00.00

Course from SEB60 to SEB61 S 88° 10' 15.72" E Dist 34.9990

POINT SEB61 N 3,498,916.5312 E 12,185,028.6897 Sta 60+35.00

SW-EB-07 CONSTRUCTION BASELINE

POINT SEB71 N 3,498,914.5558 E 12,185,067.7757 Sta 70+00.00

Course from SEB71 to SEB72 S 87° 15' 57.10" E Dist 85.0982

POINT SEB72 N 3,498,910.4965 E 12,185,152.7770 Sta 70+85.10

Course from SEB72 to SEB73 S 86° 38' 33.64" E Dist 94.8984

POINT SEB73 N 3,498,904.9390 E 12,185,247.5125 Sta 71+80.00

SW-WB-01 CONSTRUCTION BASELINE

POINT SWB10 N 3,499,001.7807 E 12,184,047.1784 Sta 70+00.00

Course from SWB10 to SWB11 N 82° 42' 39.29" E Dist 20.1600

POINT SWB11 N 3,499,004.3385 E 12,184,067.1755 Sta 70+20.16

Course from SWB11 to SWB12 S 86° 47' 08.86" E Dist 22.2530

POINT SWB12 N 3,499,003.0908 E 12,184,089.3934 Sta 70+42.41

Course from SWB12 to SWB13 N 85° 06' 58.25" E Dist 19.3950

POINT SWB13 N 3,499,004.7420 E 12,184,108.7180 Sta 70+61.81

Course from SWB13 to SWB14 N 89° 57' 40.93" E Dist 17.6815

POINT SWB14 N 3,499,004.7539 E 12,184,126.3995 Sta 70+79.49

Course from SWB14 to SWB15 N 82° 26' 26.56" E Dist 98.1466

POINT SWB15 N 3,499,017.6653 E 12,184,223.6931 Sta 71+77.64

Course from SWB15 to SWB16 N 35° 51' 25.66" E Dist 15.6402

POINT SWB16 N 3,499,030.3414 E 12,184,232.8546 Sta 71+93.28

Course from SWB16 to SWB17 N 84° 38' 43.52" E Dist 136.7257

POINT SWB17 N 3,499,043.1005 E 12,184,368.9836 Sta 73+30.00

SW-WB-02 CONSTRUCTION BASELINE

POINT SWB20 N 3,499,043.7428 E 12,184,587.1449 Sta 80+00.00

Course from SWB20 to SWB21 N 86° 55' 41.70" E Dist 49.8062

POINT SWB21 N 3,499,046.4117 E 12,184,636.8796 Sta 80+49.81

Course from SWB21 to SWB22 S 87° 43' 34.42" E Dist 64.8086

POINT SWB22 N 3,499,043.8404 E 12,184,701.6371 Sta 81+14.61

Course from SWB22 to SWB23 S 89° 09' 38.20" E Dist 151.0928

POINT SWB23 N 3,499,041.6270 E 12,184,852.7137 Sta 82+65.71

Course from SWB23 to SWB24 S 84° 13' 38.64" E Dist 104.2972

POINT SWB24 N 3,499,031.1367 E 12,184,956.4820 Sta 83+70.00

DWY 2-1 CONSTRUCTION BASELINE

POINT DWY21 N 3,498,839.8276 E 12,183,506.2568 Sta 10+00.00

Course from DWY21 to DWY22 S 1° 20' 48.77" E Dist 49.9985

POINT DWY22 N 3,498,790.2395 E 12,183,512.6505 Sta 10+50.00

NOTE:
CONTACT MISS UTILITY OF VIRGINIA
AT LEAST 72 HOURS BEFORE GROUND
PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

ALIGNMENT DATA SHEET

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		1D	

16:21
2-JUN-2025
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EROSION AND SEDIMENT CONTROL

I. GENERAL NOTES

A. Erosion Control and Tree Protection

1. The Contractor will comply with applicable regulations of the City of Virginia Beach Erosion and Stormwater Management Ordinance, the current Virginia Erosion and Stormwater Management Regulations, and the current Virginia Stormwater Management Handbook (VSMH), issued by the Virginia Department of Environmental Quality for all erosion and sediment control practices, materials and standards. The approval of this plan does not relieve the contractor of controlling erosion and siltation and providing additional measures to reasonably control problem areas which may arise during construction.
2. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards of the VSMH and shall be adhered to unless otherwise waived or approved by a variance by the Owner.
3. The Owner shall have the authority to directly change, add or delete erosion and sediment control devices as needed in the field, as site conditions warrant. The Contractor should not remove the erosion and sediment control without prior approval from the Owner.
4. The Contractor shall conform to modified siltation/erosion controls as required by the Owner to increase efficiency of the sediment control plan. Erosion and sediment control measures are to be provided prior to beginning land disturbing activities. The sequence of construction will be enforced by the Contractor's Qualified personnel who will be responsible for carrying out the plan. This individual will represent the permit applicant, hold required certification(s) in accordance with 9VAC25-880, and will be in charge of and responsible for carrying out the regulated "Land-Disturbing Activity".
5. The Contractor shall not attach (nail, wrap, etc.) non-protective boards or wires onto trees during construction. The Contractor will caution the heavy equipment operator's to operate carefully around trees to avoid damage to existing tree trunks and roots during land levelling operations.
6. The Contractor shall not store construction equipment or materials under existing trees. Soil compaction around trees will be avoided.
7. The Contractor will not cut feeder roots within an area equal to twice the tree circumference (measured in inches at 4.5 feet above ground) converted to feet. (Example: circumference of 10 inches would have a "No Cut Zone" of 20 feet in all directions from the tree).
8. The Contractor will treat tree trunks and exposed roots damaged during equipment operations in accordance with arboricultural standards. Cut back damaged tree limbs to the next lateral branch or parent stem at the branch collar and contact the Owner's Arborist for care of severely injured trees. The Contractor shall remove all damaged tree limbs as soon as possible.
9. If trees protected by the above means are damaged during construction, the Contractor will replace them with trees of at least 2 inch caliper of the same species with the quality as specified by the Owner's Arborist at the Contractor's expense. Replacement trees will conform to the latest edition of the American Standard for Nursery Stock.
10. The Contractor will only stockpile materials within areas designated on the plans or as directed by the Owner.
11. The Contractor will leave erosion control devices in place until all disturbed areas are permanently stabilized to the satisfaction of the Owner's representative. After permanent stabilization, Contractor is to remove appropriate erosion and sediment controls as approved by the Owner.
12. Erosion control devices shown by the plan are the minimum necessary to fulfill requirements or applicable regulations.
13. The Contractor will construct and maintain sufficient devices to prevent soil eroding onto adjacent streets, and into drainage systems and water courses.
14. The Contractor will install devices to protect existing storm drainage systems in conjunction with seeding and stabilization, as necessary.
15. The Contractor will control and monitor dust resulting from construction. Provisions may include, but are not limited to, use of water or chemical dust palliatives, limiting the number of vehicles allowed on-site, and minimizing the operating speed of all vehicles.

B. Maintenance

1. All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function.
2. All erosion and sediment control measures will be checked daily and after each significant rainfall by the Contractor or the appropriate representative, and repaired by the end of the day and in accordance with all permit requirements.
3. The Contractor will clean the erosion control devices of mud, debris, and eroded materials during construction and maintain all erosion control devices on a daily basis or as required by the Owner.
4. The silt fence barrier will be checked regularly for undermining or deterioration of the fabric and/or posts. Trash, floatables, and large sediment deposits shall be removed after each storm event and when deposits reach approximately one half the height of the barrier.
5. The inlet protection devices will be checked regularly for sediment buildup, which will prevent drainage. If the inlet protection devices are clogged by sediment, they shall be removed and cleaned or replaced.
6. The seeded areas shall be checked regularly to ensure that a good stand of vegetation is maintained. As needed, seeded areas shall be fertilized and reseeded.
7. The temporary construction entrance shall be inspected weekly and immediately after each rainfall. The entrance shall be maintained in a condition which will prevent tracking or flow of dirt, mud, or sediment onto public rights-of-way. All materials spilled, dropped, washed, or tracked from vehicles onto a public or private roadway or stormdrains must be removed immediately. Sediment shall be removed from roads by shoveling or sweeping and be transported to a sediment controlled disposal area. Stones dislodged from the entrance by construction traffic onto the adjoining roadway shall be removed immediately.
8. The temporary sediment trap shall be checked regularly to ensure that the embankment and outlet are structurally sound and have not been damaged by erosion or construction equipment. Damaged embankments and/or outlets shall be restored to design conditions. Filter stone shall be checked regularly to ensure that filtration performance is maintained. Stone that has been displaced within the embankment or outlet shall be replaced. The height of the stone outlet shall be checked to ensure that its center is at least 1 foot below the top of the embankment. The sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to ½ the design volume of the wet storage. Deposit sediment removed from the trap in a suitable area so that the placed material will not erode and cause sedimentation. Stone chocked with sediment shall be removed and cleaned or replaced. Repair or replace any damaged compost filter socks used in the compost filter sock sediment trap. A sediment basin may be used for drainage areas 3 acres or less in size and constructed in accordance with SWMH requirements.

C. Minimum Standards and Land Conservation Notes

1. The Contractor will install temporary seeding or stabilization immediately after any soil disturbance.
2. The Contractor will stabilize with permanent seeding immediately following finish grading on all disturbed areas. In all seeding operations, seed, fertilizer and lime will be applied prior to mulching.
3. Permanent or temporary stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site unless the plans or specifications indicate sooner.
4. Temporary soil stabilization shall be applied within seven (7) days to denuded areas that may not be at final grade but will remain dormant for longer than fourteen (14) days, but less than one (1) year unless the plans or specifications indicate sooner.
5. Permanent stabilization shall be applied to areas that are to be left dormant for more than one (1) year.
6. All siltation controls shall be placed at the limits of construction and not in wooded areas to remain undisturbed. Areas that are not to be disturbed shall be clearly marked by flags.
7. Any stockpiled material which will remain in place longer than seven (7) days shall be seeded and mulched. When soil is placed on the downhill side of the trench, it shall be backsloped to drain toward the trench. When necessary to dewater the trench, the pump discharge hose shall discharge via sediment trapping devices in a stabilized area.
8. During construction, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. Temporary protection and permanent stabilization shall be applied to all soil stockpiles onsite and borrow areas or soil intentionally transferred offsite.
9. Permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is:
   a. Uniform
   b. Mature enough to survive
   c. Will inhibit erosion
10. Sediment basins, sediment traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.
11. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.
12. Sediment traps shall be designed for a controlled drainage area less than three (3) acres and a minimum storage capacity of 134 c.y./acres of drainage area.
13. Sediment basins shall be designed for a controlled drainage area three (3) acres or greater, and minimum storage capacity of 134 c.y./acres of drainage area. The outfall system for sediment basin shall at a minimum maintain the structural integrity of the basin during a twenty five (25) year storm of 24-hour duration.
14. Cut and fill slopes that are found to be eroding excessively within one (1) year of permanent stabilization shall be provided with additional slope stabilization measures until the problem is corrected.
15. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume, or slope drain structures.
16. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.
17. All storm drainage inlets made operable during construction shall be protected so that sediment-laden water cannot enter the stormwater conveyance system without first being filtered/treated to remove sediment.
18. Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and the receiving channel.
19. When work in a live watercourse is performed
    a. Precautions shall be taken to minimize encroachment, control sediment transport, and stabilize the work area to the greatest extent possible during construction and as directed by the Owner.
    b. Nonerodible material shall be used for the construction of causeways and cofferdams.
    c. Earthen fill may be used for these structures if armored by nonerodible cover materials.
20. All applicable federal, state and local regulations pertaining to working in or crossing live watercourses shall be met.
21. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed and as directed by the Owner.
22. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
    a. No more than 500 linear feet of trench may be opened at one time
    b. Excavated material shall be placed on the uphill side of trenches
    c. Effluent from dewatering operations shall be filtered or passed through approved sediment trapping devices, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property in accordance with 9VAC25-880-G.3.e. Refer to Section IV of the SWPPP.
    d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization
    e. Restabilization shall be accomplished in accordance with these regulations
    f. Comply with applicable safety regulations.
23. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the Owner. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

II. VSMH MINIMUM STANDARDS (MS-19)

This section presents the guidelines & requirements identified in Chapter 5 of the Virginia Stormwater Management Handbook. All applicable Minimum Standards (from the Virginia Erosion & Stormwater Management Regulations, MS-1 - MS-19) must be addressed

Requirement	Action
MS-1: Stabilization Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.	1. Contractor shall schedule and apply temporary seeding in accordance with VDOT spec 603.03(d) and Virginia Beach amendment along disturbed areas within the time specified.
MS-2: Stockpiles, Waste, and Borrow Areas During construction of the project, soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. Temporary protection and permanent stabilization shall be applied to all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.	2. Contractor shall install temporary silt fence around all stockpiles. Excavated soil shall either be stored in stockpiles contained completely within the public right-of-way, on city property or immediately hauled off site.
MS-3: Permanent Vegetation Permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.	3. Contractor shall provide permanent seeding in accordance with VDOT Spec 603.03(D) and Virginia Beach amendment within denuded areas of the site that are at final grade or areas not at final grade but will remain dormat for more than one (1) year.
MS-4: First-Step Measures Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.	4. Contractor shall install inlet protection and silt fence in accordance with the erosion and sediment control plans prior to any land disturbance.
MS-5: Earthen Structure Stabilization Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.	N/A
MS-6: Traps and Basins Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin. Sediment traps shall be constructed to control drainage areas less than three acres with minimum storage capacity of 134 cubic yards/acre of drainage area. Sediment basins shall be constructed to control drainage areas greater than three acres with minimum storage capacity of 134 cubic yards/acre of drainage area. The outfall system shall at a minimum maintain the structural integrity of the basin during a 25 year storm of 24 hour duration.	N/A
MS-7: Cut and Fill Slopes Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.	7. Contractor shall follow the grading plans provided.
MS-8: Concentrated Runoff Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.	N/A
MS-9: Water Seeps Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.	N/A
MS-10: Inlet Protection All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.	10. Contractor shall place inlet protection at all inlets within the limits of construction, including proposed inlets.
MS-11: Outlet Protection Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.	N/A
MS-12: Watercourse Construction When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for theses structures if armored by non-erodible cover materials.	N/A
MS-13: Temporary Vehicular Stream Crossing When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of non-erodible material shall be provided.	N/A
MS-14: Other Watercourse Regulations All applicable federal, state, and local regulations pertaining to working in or crossing live watercourses shall be met.	N/A
MS-15: Bed and Bank Stabilization The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.	N/A
MS-16: Utility Construction Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:	
a. No more than 500 linear feet of trench may be opened at one time	16a. No more than 500 linear feet of trench may be opened per utility at one time.
b. Excavated material shall be placed on the uphill side of trenches	16b. Excavated material shall be placed to avoid sedimentation of adjacent storm structures or negatively impact positive drainage for the roadway.
c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.	16c. Dewatering activities shall be filtered by a dewatering device in accordance with VSMH Section C-SCM-10.
d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.	16d. Contractor shall ensure backfilled trenches are compacted in accordance with VDOT standard PB-1 or UB-1 and spec 303.
e. Re-stabilization shall be accomplished in accordance with Part V of the Regulation, 9VAC25-875-470 et seq.	16e. Re-stabilization shall be accomplished in accordance with VSMH Section C-SSM-9.
f. Applicable safety regulations shall be complied with.	16f. The contractor shall comply with all safety regulations in accomplishing this work.
MS-17: Vehicular Tracking and Construction Entrances Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of the day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities.	17. The contractor shall minimize the amount of sediment transported onto paved surfaces. Any sediment trasported onto paved surfaces shall be removed by sweeping or shoveling at the end of each day at a minimum and transported to a sediment control disposal area. Street washing shall only be done when necessary and erosion and sediment control measures must be in place and maintained to prevent sediment from entering the system.
MS-18: Temporary Control Removal All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the local program authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.	18. The contractor shall remove temporary erosion and sediment control measures within 30 days after final site stabilzation and after approval from the Owner. The trapped sediment shall be permanently stabilized to prevent further erosion or transport of sediment.
MS-19: Adequate Stormwater Conveyance to Adequate Stormwater Outfall Properties and waterways downstream from development sites shall be protected from the sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Concentrated stormwater runoff leaving a development site shall be discharged directly into adequate natural or man-made receiving channel, pipe, or storm sewer system. For those sites, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.	19. Prior to the start of any excavation activity erosion and sediment control devices shall be installed and maintained. Permanent drainage improvements are provided that meet MS-19 requirements. Calculations are provided under separate cover in the Stormwater Report.

III. NARRATIVE AND MANAGEMENT STRATEGIES

A. Site Information:

1. Location:
   The project is located on Shore Drive in the City of Virginia Beach, between Marlin Bay Drive and East Stratford Road.

2. Project Description:
   The construction associated with this project consists of new sidewalk, curb and gutter, and drainage improvements along Shore Drive.

3. Existing Site Conditions:
   The site is an urban roadway corridor adjacent to commercial and residential properties. Land cover within the project limits is approximately 51% impervious. The elevation of the project corridor ranges between 3 and 5 feet NAVD88, with elevations above 10 feet at the east and west ends of the site.

4. Adjacent Areas:
   The project is located in a residential area of Virginia Beach. The project is bordered by residential neighborhoods on all sides, with some commercial properties on the north and south sides.

5. Off-site Areas:
   Off-site land disturbing activities are not anticipated. The contractor may have an off-site staging area that is located outside of the project limits and is responsible for VSMP coverage for any off-site areas.

6. Soils:
   Soils are type A and D.

7. Critical Erosion Areas:
   Critical erosion areas located along cut and fill slopes shall be immediately protected with slope stabilization measures.

8. Erosion and Sediment Control Measures:
   1. Silt Fence C-PCM-4: A temporary sediment barrier consisting of a synthetic filter fabric stretched across and attached to supporting post and entrenched. This will intercept and detain small amounts of sediment from disturbed areas during construction operations in order to prevent sediment from leaving the site.

   2. Inlet Protection C-SCM-4 and VDOT EC-6, Type B: A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet. This will prevent sediment from entering storm drainage systems prior to permanent stabilization of the disturbed area. All drop inlets and curb inlets within the project corridor will require inlet protection during construction.

   3. Temporary Seeding C-SSM-9: The establishment of a temporary vegetative covers on disturbed areas by seeding with appropriate rapidly growing annual plants. This will reduce erosion and sedimentation by stabilizing disturbed areas that will not be brought to final grade for a period of more than 30 days.

   4. Permanent Seeding C-SSM-10: The establishment of perennial vegetative cover on disturbed areas by planting seed. This will reduce erosion and decrease sediment yield from disturbed areas.

9. Permanent Stabilization:
   Prior to the close of construction, the construction area will be stabilized with top soil and permanently seeded and mulched per VSMH Section C-SSM-11.

10. Stormwater Runoff Considerations:
    Stormwater management will be addressed in accordance with VSMP Techinical Criteria IIB.

11. Calculations:
    No ESC measures requiring erosion and sediment control calculations have been proposed.

12. Maintenance:
    a. All erosion and sediment control measures will be checked daily and after each significant rainfall by the site superintendent or the appropriate representative, and repaired by the end of the day.
    b. The silt fence will be checked regularly for undermining or deterioration of the fabric and/or posts.
    c. The seeded areas shall be checked regularly to ensure that a good stand is maintained. Areas should be fertilized and reseeded as needed.
    d. No erosion and sediment control device shall be removed without the permission of the Owner.
    e. Parliament Drive and adjacent roadways will be cleaned as frequently as needed to maintain safe driving conditions any sediment or mud tracked onto this road that creates a safety hazard must be removed immediately. (Virginia erosion and stormwater management (VESMR) minimum standard 17)

B. Sequencing of Construction:
   1. Pre-construction meeting.
   2. Contractor shall locate concrete duct bank (approximate size 1 FT by FT) prior to construction in this vicinity. Perform test holes at locations where duct bank crosses proposed storm drain pipes and provide test hole report to the City of Virginia Beach Project Manager immediately after locating.
   3. Place erosion and sediment control measures.
   4. The Contractor shall construct improvements as indicated on the plans. See Sheets 1F(1)-1F(5) for detailed Sequence of Construction and Maintenance of Traffic. If at any point during construction additional erosion and sediment controls are needed, the Contractor shall immediately install necessary controls to maintain compliance with all permits and regulations.
   5. Temporary seeding or other stabilization shall follow immediately after grading.
   6. Within thirty (30) days after achieving adequate stabilization, the temporary erosion and sediment controls shall be cleaned up and removed.

C. Supplemental Specification for Pollution Prevention:
   1. Contractor shall be aware and implement the Supplemental Specification for Pollution Prevention (P2). Contractor shall maintain a copy of the P2 and ensure that all site personnel involved in construction related activities understand and adhere to the requirements of the P2. Contractor shall obtain the P2 from the City of Virginia Beach Department of Public Works.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

DATE	REVISIONS
11-1-2014	MS-19, #1 Requirement
1-26-2016	Edit Approval Block
3-09-2016	Edit Section C. Minimum Standard Note #4

These Plans Have Been Checked To Ensure Inclusion Of Erosion And Sediment Control Measures Appropriate For The Project and Have Been Approved.

PW ENGINEERING E&S ADMINISTRATOR _____ DATE _____

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
PROFESSIONAL ENGINEER
6/02/25
HYDRAULIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EROSION & SEDIMENT CONTROL NOTES

CITY OF VIRGINIA BEACH · VIRGINIA · LIBERTY OF THE SEVERAL STATES

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	1E
CHECKED BY			

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2-JUN-2025
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MAINTENANCE OF TRAFFIC GENERAL NOTES

TEMPORARY TRAFFIC CONTROL NOTES

1. THE CITY OF VIRGINIA BEACH, TRAFFIC ENGINEERING DIVISION IS RESPONSIBLE FOR REVIEWING AND APPROVING ALL TEMPORARY TRAFFIC CONTROL PLANS AND REVIEWING THE SEQUENCE OF CONSTRUCTION PLANS ESSENTIAL TO COMPLETE THIS PROJECT.

2. ALL TEMPORARY TRAFFIC CONTROL DEVICES, METHODS AND APPLICATIONS SHALL CONFORM TO THE FOLLOWING PUBLICATIONS:
   A. "U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION (FHWA), MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS (MUTCD), 2009 EDITION WITH REVISIONS 1, 2, AND 3".
   B. "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), 2016 ROAD AND BRIDGE STANDARDS, VOL. II".
   C. "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), 2020 ROAD AND BRIDGE SPECIFICATIONS".
   D. "CITY OF VIRGINIA BEACH AMENDMENTS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), 2020 ROAD AND BRIDGE SPECIFICATIONS".
   E. "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), VIRGINIA WORK AREA PROTECTION MANUAL STANDARDS AND GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, 2011 EDITION WITH REVISION 2.1, NOVEMBER 1, 2020".
   F. "CITY OF VIRGINIA BEACH, VIRGINIA, DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS MANUAL (PWDSM), MARCH 2022".

3. WORK HOURS IN ROADWAY OPEN TO TRAFFIC AND/OR PEDESTRIAN AREAS:
   A. MONDAY THROUGH FRIDAY: WORK WILL BE COMPLETED BETWEEN THE HOURS OF 9:00 AM AND 3:00 PM ONLY.
   B. SATURDAYS, SUNDAYS, AND HOLIDAYS: NO WORK MAY BE COMPLETED IN THE ROADWAY OR PEDESTRIAN AREAS UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS OR APPROVED IN WRITING BY THE OWNER.
   C. ADDITIONAL RESTRICTIONS MAY APPLY BASED ON TRAFFIC CONDITIONS.
   D. EXTENDED WORK HOURS AND WORKDAYS MAY BE REQUESTED FROM THE OWNER IN WRITING. THIS REQUEST MUST BE SUBMITTED AT LEAST TEN (10) BUSINESS DAYS PRIOR TO THE EXTENDED WORK PERIODS (PLEASE NOTE THAT IF WORK IS TO BE CONDUCTED IN THE RESORT AREA, CERTAIN RESTRICTIONS APPLY FROM MAY THROUGH SEPTEMBER. PLEASE CONTACT TRAFFIC ENGINEERING FOR THESE RESTRICTIONS).
   E. AT THE RESORT AREA, ALL ROADS SHALL BE OPEN AND WORK WILL NOT BE ALLOWED FRIDAY THROUGH SUNDAY ON SPECIAL EVENT WEEKENDS IMPACTING THE ROADWAYS. COORDINATE WITH THE RESORT MANAGEMENT OFFICE AND RESORT PROJECT COORDINATOR (757-385-4800 OR EVENTS@VBGOV.COM) FOR A COMPLETE LISTING OF SUCH EVENTS AND REQUIREMENTS.

4. TRAFFIC CONTROL PLANS ARE INCLUDED IN THE CONTRACT DOCUMENTS. HOWEVER, FIELD CONDITIONS MAY REQUIRE MODIFICATIONS. IF THE CONTRACTOR FEELS THAT THE TRAFFIC CONTROL PLAN(S) INCLUDED WITH THIS PROJECT DOES NOT SUIT CONDITIONS AT A WORK SITE, THEN THE CONTRACTOR SHALL SUBMIT TO THE OWNER A REVISED PLAN TO MAINTAIN TRAFFIC. THE REVISED PLAN SHALL INCLUDE SITE-SPECIFIC TRAFFIC DETAILS AND SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THE REVISED TRAFFIC CONTROL PLAN(S) A MINIMUM 10 BUSINESS DAYS PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL NOT DISRUPT TRAFFIC PATTERNS UNITL THE OWNER HAS APPROVED THE REVISED TRAFFIC CONTROL PLAN. THE OWNER RESERVES THE RIGHT TO MODIFY ANY TRAFFIC CONTROL PLAN(S) AS NECESSARY IN THE INTEREST OF PUBLIC SAFETY OR TRAFFIC EFFICIENCY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIREMENTS HAVE BEEN MET PRIOR TO BEGINNING WORK AND THAT ALL TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED ACCORDING TO THE APPROVED TRAFFIC CONTROL PLAN(S).

5. THE CONTRACTOR SHALL CHECK ALL TEMPORARY TRAFFIC CONTROL DEVICES AND WORK ZONES BEFORE, DURING, AND AFTER EACH WORKDAY TO ENSURE PROPER OPERATION. ON WEEKENDS, HOLIDAYS, OR ANY NON-WORKING DAY, THE CONTRACTOR SHALL INSPECT THE TEMPORARY TRAFFIC CONTROL DEVICES DAILY FOR PROPER INSTALLATION AND OPERATION.

6. ALL LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION UNLESS TRAFFIC ENGINEERING HAS APPROVED TEMPORARY TRAFFIC CONTROL, SUCH AS A LANE CLOSURE OR A TEMPORARY STREET CLOSURE. RESIDENT AND EMERGENCY ACCESS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION REGARDLESS OF THE APPROVED STREET CLOSURES.

7. IF THERE IS APPROVAL FROM TRAFFIC ENGINEERING FOR A LANE CLOSURE OR A TEMPORAY STREET CLOSURE, ALL LANES OF TRAFFIC SHALL BE REOPENED TO TRAFFIC AT THE CONCLUSION OF EACH CONSTRUCTION DAY, UNLESS A TWENTY-FOUR (24) HOUR TEMPORARY STREET CLOSURE IS APPROVED AND IN EFFECT.

8. IN ALL CASES WHEN EXISTING OR ESTABLISHED ACCESS WILL BE DIRECTLY IMPACTED, THE CONTRACTOR SHALL NOTIFY ALL AFFECTED RESIDENTS AND BUSINESSES A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE OF THE ANTICIPATED IMPACT.

9. AT NIGHT OR DURING NON-CONSTRUCTION HOURS, ALL EXCAVATED AREAS ARE TO BE BACKFILLED OR SECURED AND PROTECTED BY USING APPROVED SAFETY DEVICES OR MATERIALS. TRAFFIC ENGINEERING DOES NOT REVIEW AND APPROVE THE USE OF STEEL PLATES.

10. FOR CONSTRUCTION OPERATIONS LASTING MORE THAN FOURTEEN (14) CALENDAR DAYS, THE CONTRACTOR SHALL INSTALL "ROAD WORK AHEAD" (W20-1(V), 48-INCH X 48-INCH) AND "END ROAD WORK" (G20-2(V), 48-INCH X 24-INCH) WARNING SIGNS ON 4-INCH X 4-INCH NOMINAL WOODEN GROUND MOUNTED POSTS. THESE SIGNS SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION WORK AND SHALL BE REMOVED AFTER COMPLETION OF ALL CONSTRUCTION ACTIVITIES.

11. FOR ALL APPROVED CONSTRUCTION ENTRANCES, THE CONTRACTOR SHALL INSTALL "TRUCKS ENTERING HIGHWAY" (W11-V4, 48-INCH X 48-INCH ORANGE AND BLACK) WARNING SIGNS ON 4-INCH X 4-INCH NOMINAL WOODEN GROUND MOUNTED POSTS. THESE SIGNS SHALL BE INSTALLED 500 FEET IN ADVANCE OF ALL APPROVED CONSTRUCTION ENTRANCE POINTS.

12. ANY TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO; PAVEMENT MARKINGS, SIGNS, AND TRAFFIC CONTROL SIGNAL EQUIPMENT DAMAGED OR DESTROYED BY THE CONTRACTOR OR THE CONTRACTOR'S OPERATIONS MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE UNLESS THEIR REMOVAL OR DESTRUCTION IS CALLED FOR BY THE CONTRACT DOCUMENTS.

13. CONSTRUCTION MATERIALS SHALL NOT BE STOCKPILED WITHIN THE "CLEAR ZONE" AS DEFINED IN THE "AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) ROADSIDE DESIGN GUIDE". EQUIPMENT OR MACHINERY SHALL NOT BE LEFT PARKED OR UNATTENDED WITHIN THE CLEAR ZONE WHILE WORK IS NOT BEING PERFORMED.

14. AT THE CONCLUSION OF EACH WORKDAY, ALL PAVEMENT EDGE DROP-OFFS SHALL MEET THE REQUIREMENTS OF APPENDIX A, FIGURE 2 OF THE "VIRGINIA WORK AREA PROTECTION MANUAL" FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC. ALL COSTS FOR MEETING THE REQUIREMENTS SHALL BE AT THE CONTRACTOR'S EXPENSE.

15. FOR ANY FURTHER INFORMATION ON TEMPORAY TRAFFIC CONTROL REQUIREMENTS, PLEASE CONTACT THE TRAFFIC ENGINEERING DIVISION AT 757-385-4131.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC GENERAL NOTES

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY K. BUXTON	K. BELFIELD	JUNE 2025	
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	
CHECKED BY C. GAVIN	C. GAVIN	1F(1)	

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2-JUN-2025

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Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

Hedgerow

Conc.Walk

L/P #K147

36" RCP SDFM (DATR)

30" C&G

SFMV

SFMV (2)

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

Stamped Brick

6"CC

Conc.(Typ.)

Riprap (Typ.)

Shrubs

Swale

TCHH (2) Wood Sign

In Pl. 18" RCP w/FES Inv. Out = 11.18

TCHH

Constr. ℄

SW-EB-01

TH-204

TH-205

TH-206

TH-207

TH-208

L/P #K114

FO Duct

Guy

Guy (3)

Existing R/W

INSTALL PCMS FOR 2 WEEKS PRIOR TO THE START OF PHASE I

Marlin Bay Drive

Clipper Bay Drive

Sapling (2)

Shrubs

P/P #K134

8'CLF

T/P #27/178

Sign

L/P

Pin (F)

T-Ped (2)

MON (F)

Conc.Gutter

L/P #K164

530

12

10

SEQUENCE OF CONSTRUCTION NOTES

1. PLACE TRAFFIC CONTROL MEASURES. USE VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 (VWAPM).
2. PLACE EROSION AND SEDIMENT CONTROL MEASURES.
3. OPEN ALL CLOSED LANES TO TRAFFIC AS SOON AS POSSIBLE.
4. MAINTAIN PEDESTRIAN AND BUSINESS ENTRANCE ACCESS AT ALL TIMES.

PHASE I:

1. CONSTRUCT ROADWAY, DRAINAGE, AND SIDEWALK IMPROVEMENTS WITHIN THE WORK ZONE.
2. WITHIN ALLOWABLE WORK HOURS, USE THE FOLLOWING VWAPM FIGURES:
   a. FIGURE TTC-27.2 TO CLOSE THE EASTBOUND SHORE DRIVE OUTSIDE LANE.
   b. FIGURE TTC-68.0 TO CLOSE ONE LANE OF CLIPPER BAY DR USING FLAGGER OPERATIONS. MAINTAIN ACCESS TO CLIPPER BAY DR AT ALL TIMES.

LEGEND

- WORK ZONE
- PROP. PUBLIC PEDESTRIAN ACCESS EASEMENT
- TEMP. CONST. EASEMENT

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC PLAN
PHASE I

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY K. BUXTON	K. BELFIELD	JUNE 2025	
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	
CHECKED BY C. GAVIN	C. GAVIN	1F(2)	

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Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

Gravel Surface

Grass Median

Existing R/W

Mystic Cove

TH-209

SW-EB-02 Constr. Ⓑ

DWY 5(2)-1 Constr. Ⓑ

In Pl. 15" RCP w/Headwall Inv. In = 0.28

In Pl. 15" RCP Inv. In = 1.30

12" Oak

Sign

Sign (Typ.)

X-Walk Post

TCHH

TCHH (2)

30" C&G

Conc. Walk

L/P #M158

L/P #M126

L/S Timbers

T-Ped

TCab

Pin

6'CLF

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

SEQUENCE OF CONSTRUCTION NOTES

1. PLACE TRAFFIC CONTROL MEASURES. USE VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 (VWAPM).
2. PLACE EROSION AND SEDIMENT CONTROL MEASURES.
3. OPEN ALL CLOSED LANES TO TRAFFIC AS SOON AS POSSIBLE.
4. MAINTAIN PEDESTRIAN AND BUSINESS ENTRANCE ACCESS AT ALL TIMES.

PHASE II:

1. CONSTRUCT ROADWAY, DRAINAGE, AND SIDEWALK IMPROVEMENTS WITHIN THE WORK ZONE.
2. WITHIN ALLOWABLE WORK HOURS, USE THE FOLLOWING VWAPM FIGURES:
   a. FIGURE TTC-27.2 TO CLOSE THE EASTBOUND SHORE DR OUTSIDE LANE.
   b. FIGURE 4.2 FOR WORK ALONG THE SHOULDER.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

LEGEND

- WORK ZONE
- PROP. PUBLIC PEDESTRIAN ACCESS EASEMENT
- TEMP. CONST. EASEMENT

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC PLAN
PHASE II

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	1F(3)
CHECKED BY C. GAVIN	C. GAVIN		

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2-JUN-2025
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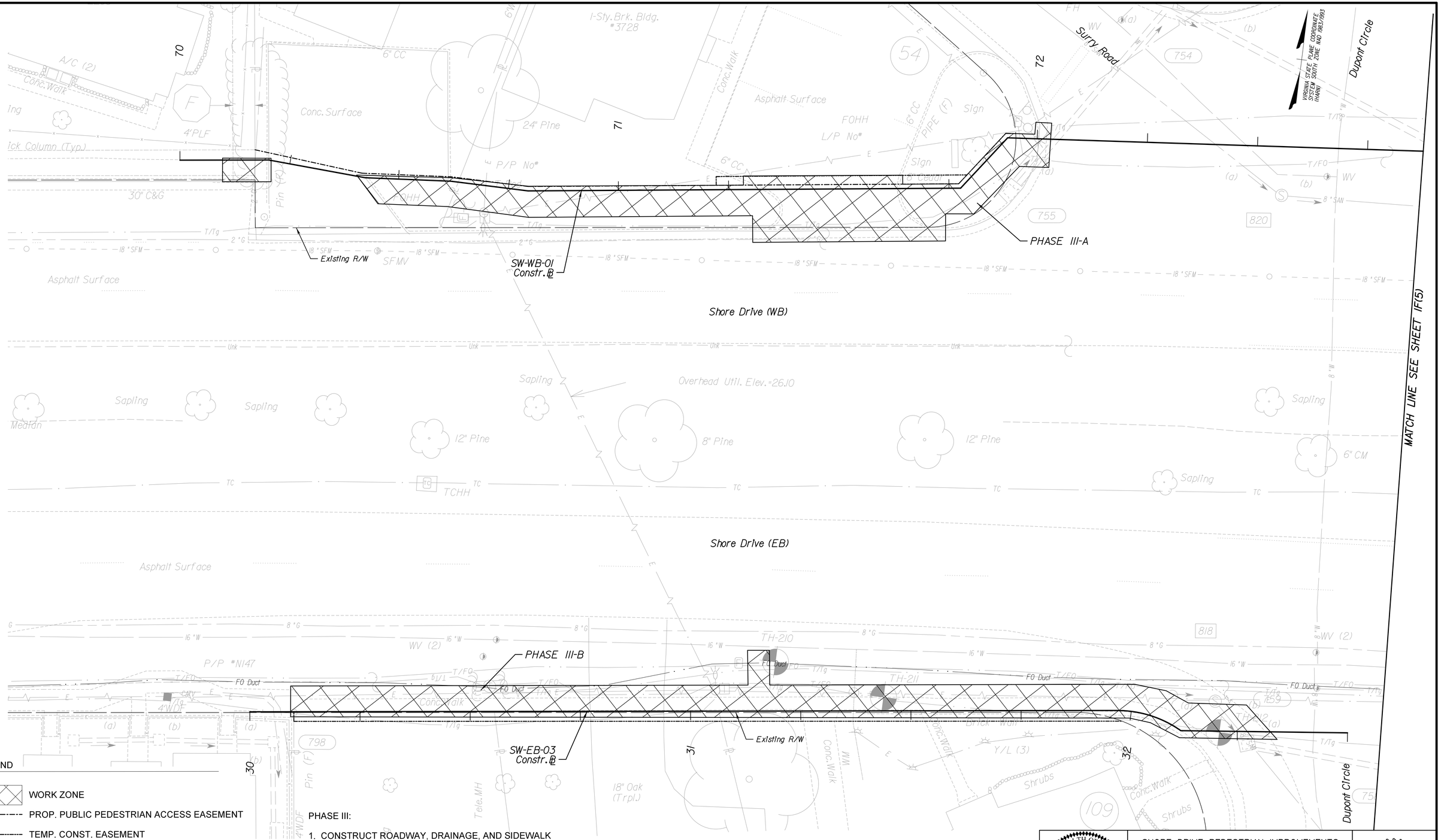

LEGEND

- WORK ZONE
- PROP. PUBLIC PEDESTRIAN ACCESS EASEMENT
- TEMP. CONST. EASEMENT

SEQUENCE OF CONSTRUCTION NOTES

1. PLACE TRAFFIC CONTROL MEASURES. USE VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 (VWAPM).
2. PLACE EROSION AND SEDIMENT CONTROL MEASURES.
3. OPEN ALL CLOSED LANES TO TRAFFIC AS SOON AS POSSIBLE.
4. MAINTAIN PEDESTRIAN AND BUSINESS ENTRANCE ACCESS AT ALL TIMES.

PHASE III:

1. CONSTRUCT ROADWAY, DRAINAGE, AND SIDEWALK IMPROVEMENTS WITHIN THE WORK ZONE IN SUB-PHASES:
   a. PHASE III-A: ALONG THE NORTHSIDE OF SHORE DR.
   b. PHASE III-B: ALONG THE SOUTHSIDE OF SHORE DR.
   c. CONSTRUCTION ON BOTH SUB-PHASES SHALL NOT OCCUR SIMULTANEOUSLY.
2. WITHIN ALLOWABLE WORK HOURS, USE THE FOLLOWING VWAPM FIGURES:
   a. FIGURE TTC-4.2 FOR WORK ON THE NORTHWEST AND SOUTHWEST QUADRANTS OF THE SHORE DR AT DUPONT CIRCLE/SURRY RD INTERSECTION.
   b. FIGURE TTC-27.2 TO CLOSE THE WESTBOUND SHORE DRIVE OUTSIDE LANE.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC PLAN
PHASE III

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	1F(4)
CHECKED BY C. GAVIN	C. GAVIN		

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LEGEND

WORK ZONE

PROP. PUBLIC PEDESTRIAN ACCESS EASEMENT

TEMP. CONST. EASEMENT

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/93 (HARN)

MATCH LINE SEE SHEET 1F(4)

MATCH LINE SEE SHEET 1F(6)

Dupont Circle

Shore Drive (WB)

Shore Drive (EB)

Shore Drive
Variable Width R/W
VDOT Projects
#0060-134-102 PE-101, C-501, RW-201
#0060-075-011 RW-2, C-2
#2175-06 08-13 0060-075-011 RW-1, C-1, C-2, RW-2

PHASE IV-A

PHASE IV-B

SW-WB-01 Constr. ℄

SW-WB-02 Constr. ℄

SW-EB-04 Constr. ℄

Existing R/W

Conc.Walk

Shrubs

Guy

FOHH

PIPE (F)

T-Ped

L/P #0J01

6'PLF

6" CC

T/FO

T/Tg

8"SAN

Conc. Apron

15" Pine

P/P #0J42

30" C&G

SFMV

Asphalt Surface

6" CM

8" Oak

TC

TCHH

Overhead Util. Elev.=32.72

Grass Median

8"G

16"W

FO Duct

P/P #0138

P/P #0148

Bollard (4)

CTV Power Box

Wood Rail Fence

Sign

Rockbridge Road

PHASE IV:

1. CONSTRUCT ROADWAY, DRAINAGE, AND SIDEWALK IMPROVEMENTS WITHIN THE WORK ZONE IN SUB-PHASES:
   a. PHASE IV-A: ALONG THE SOUTHSIDE OF SHORE DR.
   b. PHASE IV-B: ALONG THE NORTHSIDE OF SHORE DR.
   c. CONSTRUCTION ON BOTH SUB-PHASES SHALL NOT OCCUR SIMULTANEOUSLY.
2. WITHIN ALLOWABLE WORK HOURS, USE THE FOLLOWING VWAPM FIGURES:
   a. FIGURE TTC-4.2 FOR WORK ON THE NORTHEAST AND SOUTHEAST QUADRANTS OF THE SHORE DR AT DUPONT CIRCLE/SURRY RD INTERSECTION.
   b. FIGURE TTC-4.2 FOR WORK ON THE NORTHWEST AND SOUTHWEST QUADRANTS OF THE SHORE DR AT ROCKBRIDGE RD INTERSECTION.
   c. FIGURE TTC-16.2 TO CLOSE THE EASTBOUND SHORE DRIVE OUTSIDE LANE.

SEQUENCE OF CONSTRUCTION NOTES

1. PLACE TRAFFIC CONTROL MEASURES. USE VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 (VWAPM).
2. PLACE EROSION AND SEDIMENT CONTROL MEASURES.
3. OPEN ALL CLOSED LANES TO TRAFFIC AS SOON AS POSSIBLE.
4. MAINTAIN PEDESTRIAN AND BUSINESS ENTRANCE ACCESS AT ALL TIMES.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC PLAN
PHASE IV

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031		PROJECT MANAGER	DATE
DRAWN BY K. BUXTON		K. BELFIELD	JUNE 2025
DESIGNED BY K. BUXTON		APPROVED BY	SHEET NO.
CHECKED BY C. GAVIN		C. GAVIN	1F(5)

MATCH LINE SEE SHEET IF(7)

PHASE V:

1. CONSTRUCT ROADWAY, DRAINAGE, AND SIDEWALK IMPROVEMENTS WITHIN THE WORK ZONE IN SUB-PHASES:
   a. PHASE V-A: ALONG THE SOUTHSIDE OF SHORE DR.
   b. PHASE V-B: WITHIN THE NORTHEAST QUADRANT OF THE SHORE DR AND DINWIDDIE RD INTERSECTION.
   c. PHASE V-C: WITHIN THE NORTHWEST QUADRANT OF THE SHORE DR AND DINWIDDIE RD INTERSECTION.
   d. PHASE V-D: ALONG THE NORTH SIDE OF SHORE DR.
   e. CONSTRUCTION ON ANY SUB-PHASE SHALL NOT OCCUR SIMULTANEOUSLY WITH ANY OTHER SUB-PHASE.
2. WITHIN ALLOWABLE WORK HOURS, USE THE FOLLOWING VWAPM FIGURES:
   a. FIGURE TTC-4.2 FOR WORK ON THE NORTHEAST AND SOUTHEAST QUADRANTS OF THE SHORE DR AT ROCKBRIDGE RD INTERSECTION.
   b. FIGURE TTC-4.2 AND/OR TTC-5.2 FOR WORK ALONG WESTBOUND SHORE DR.
   c. FIGURE TTC-68.0 TO CLOSE ONE LANE OF DINWIDDIE RD ON THE NORTH SIDE OF SHORE DR USING FLAGGER OPERATIONS. BUSINESS ENTRANCE ALONG DINWIDDIE RD SHALL BE TEMPORARILY CLOSED SIMULTANEOUSLY AND REOPENED UPON COMPLETION OF FLAGGER OEPRATIONS. MAINTAIN ACCESS TO DINWIDDIE RD AT ALL TIMES.

SEQUENCE OF CONSTRUCTION NOTES

1. PLACE TRAFFIC CONTROL MEASURES. USE VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 (VWAPM).
2. PLACE EROSION AND SEDIMENT CONTROL MEASURES.
3. OPEN ALL CLOSED LANES TO TRAFFIC AS SOON AS POSSIBLE.
4. MAINTAIN PEDESTRIAN AND BUSINESS ENTRANCE ACCESS AT ALL TIMES.

LEGEND

- WORK ZONE
- PROP. PUBLIC PEDESTRIAN ACCESS EASEMENT
- TEMP. CONST. EASEMENT

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
0 10' 20'

TEMPORARILY CLOSE BUSINESS DRIVEWAY
Existing R/W
Rockbridge Road
Dinwiddie Road
SW-WB-02 Constr. EB
SW-EB-05 Constr. EB
PHASE V-A
PHASE V-B
PHASE V-C
PHASE V-D
INSTALL PCMS FOR 2 WEEKS PRIOR TO THE START OF PHASE I
Shore Drive (WB)
Shore Drive (EB)
Asphalt Surface
Asphalt Parking Lot
Conc. Median
Overhead Util. Elev.=25.0
FO Duct
Existing R/W
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC PLAN
PHASE V

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY K. BUXTON	K. BELFIELD	JUNE 2025	
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	
CHECKED BY C. GAVIN	C. GAVIN	1F(6)	

16:20
2-JUN-2025
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2-JUN-2025
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MATCH LINE SEE SHEET 1F(6)

LEGEND

- WORK ZONE
- PROP. PUBLIC PEDESTRIAN ACCESS EASEMENT
- TEMP. CONST. EASEMENT

Shore Drive (WB)

Shore Drive (EB)

Existing R/W

SW-EB-06 Constr. Ⓔ

SW-EB-07 Constr. Ⓔ

0.69' *41.27

2.69' *41.20

2.57' *78.42

Dupont Circle

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

SEQUENCE OF CONSTRUCTION NOTES

1. PLACE TRAFFIC CONTROL MEASURES. USE VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 (VWAPM).
2. PLACE EROSION AND SEDIMENT CONTROL MEASURES.
3. OPEN ALL CLOSED LANES TO TRAFFIC AS SOON AS POSSIBLE.
4. MAINTAIN PEDESTRIAN AND BUSINESS ENTRANCE ACCESS AT ALL TIMES.

PHASE VI:

1. CONSTRUCT ROADWAY, DRAINAGE, AND SIDEWALK IMPROVEMENTS WITHIN THE WORK ZONE.
2. WITHIN ALLOWABLE WORK HOURS, USE THE FOLLOWING VWAPM FIGURES:
   a. FIGURE TTC-29.2 TO CLOSE THE EASTBOUND SHORE DRIVE RIGHT TURN LANE AT DUPONT CIR.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE 0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC PLAN
PHASE VI

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	1F(7)
CHECKED BY C. GAVIN	C. GAVIN		

Typical Traffic Control
Stationary Operation on a Shoulder
(Figure TTC-4.2)
NOTES

Standard

1. **For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-5bR), RIGHT SHOULDER CLOSED (W21-5aR)[1]), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed.**

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*

Option:

3. The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
4. For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or[1] oscillating lights is used.

Standard:

5. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or[1] oscillating, lights.**
6. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed, for shifting taper see Table 6H-2[2]

Shoulder Taper = ⅓ L Minimum

7. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

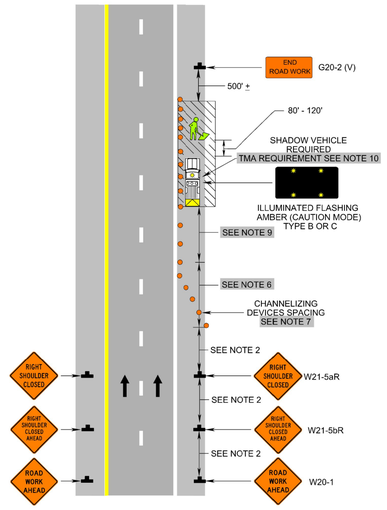
Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	60'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

8. **On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.**
9. **The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph for operations with a duration greater than 60 minutes.**
11. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Stationary Operation on a Shoulder
(Figure TTC-4.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.2)
NOTES

Standard

1. **For required sign assemblies for multi-lane roadways see Note 1, TTC-4.[1]**

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:

4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:

5. **A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, or[1] oscillating light shall be parked 80' - 120' in advance of the first work crew.**
6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or[1] oscillating lights.**
7. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed, a 750' shifting taper for posted speeds < 65 mph and a 1000' shifting taper for posted speeds ≥ 65 mph.[2]

Shoulder Taper = ⅓ L Minimum

8. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

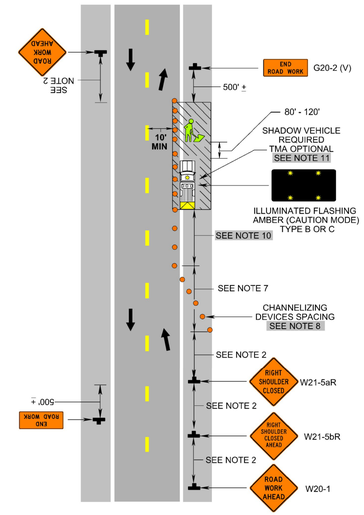
Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	60'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

9. **On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.[2]**
10. **The buffer space length The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
11. **A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
12. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Shoulder Operation with Minor Encroachment
(Figure TTC-5.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Typical Traffic Control
Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)
NOTES

Standard:

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.[2]*
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

Standard:

6. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed.

Shifting Tapers see Table 6H-2[2] | **Shoulder Taper = ⅓ L Minimum**

7. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	* Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

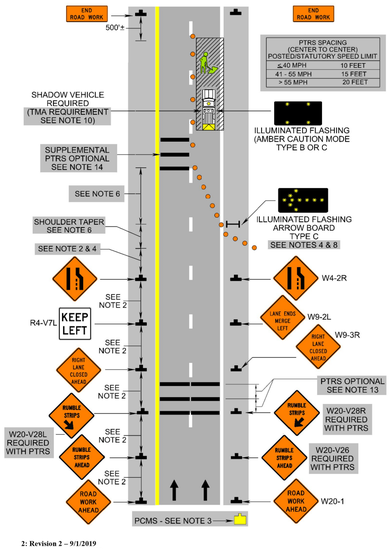
8. **An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
11. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights but can be used to supplement the amber rotating, flashing, or[1] oscillating lights.**
12. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Option:[2]

13. PTRS and their supporting signs may be used, see Sections 6F.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.[2]
14. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)



2: Revision 2 – 9/1/2019
3: Revision 2.1 -11/1/2020

Typical Traffic Control
Lane Closure Operation – Far Side of an Intersection
(Figure TTC-27.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **Taper length (L) shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW

Shifting Tapers - full lane width shifts on Limited Access Highways shall use a 750' shifting taper for posted speeds less than 65 mph and a 1000' shifting taper for posted speeds equal to or greater than 65 mph. For all other roadways ¾ L should be used.[2]

Shoulder Taper = ⅓ L Minimum

4. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.

Guidance:

5. *If room permits, a shadow vehicle with at least one amber[1] rotating, oscillating, or high intensity flashing[1] light should be parked 80'-120' in advance of the first work crew.*

Standard:

6. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

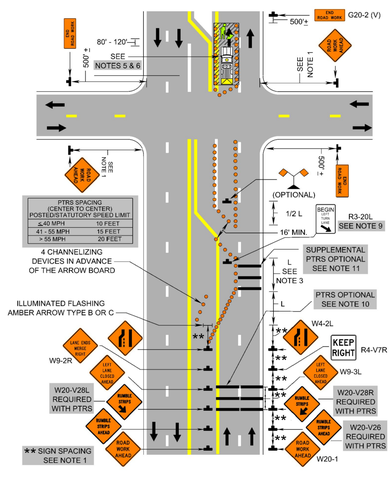
9. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.[1]**

Option:[2]

10. PTRS may be used as shown in Figure TTC-17 and in accordances with Section 6F.99.[2]
11. The supplemental PTRS may be eliminated.[2]

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Lane Closure Operation - Far Side of an Intersection
(Figure TTC-27.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC DETAILS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY K. BUXTON	K. BELFIELD	JUNE 2025
DESIGNED BY	APPROVED BY	SHEET NO.
CHECKED BY C. GAVIN	C. GAVIN	1F(8)

2-JUN-2025
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Typical Traffic Control
Turn Lane Closure Operation
(Figure TTC-29.2)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**
3. **To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 10' on centers or as directed by the Engineer** [2]

Option:

4. This layout may be used for either right or left turn lane closures.
5. For a high volume of turning movements, additional traffic control devices, such as signs (graphic NO LEFT TURN (R3-2) or LEFT LANE MUST TURN LEFT (R3-7L)), channelizing devices and vehicles may be used.

Standard:

6. **Taper length (L) shall be at the following:**

Taper Length L											
Speed Limit (mph)	Lane Width (Feet)				Remarks	Speed Limit (mph)	Lane Width (Feet)				Remarks
	9	10	11	12			9	10	11	12	
25	95	105	115	125	L=S*W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S*W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S*W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S*W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW
Shoulder Taper = ½ L Minimum											

7. **Length of the Longitudional Buffer spacing shall be at the following:**

Posted Speed Limit (mph)	Distance (Feet)	Posted Speed Limit (mph)	Distance (Feet)
≤ 20	115 – 120	50	425 – 445
25	155 – 165	55	500 – 530
30	200 – 210	60	570 – 600
35	250 – 260	65	645 – 675
40	305 – 325	70	730 – 760
45	360 – 380		

Guidance:

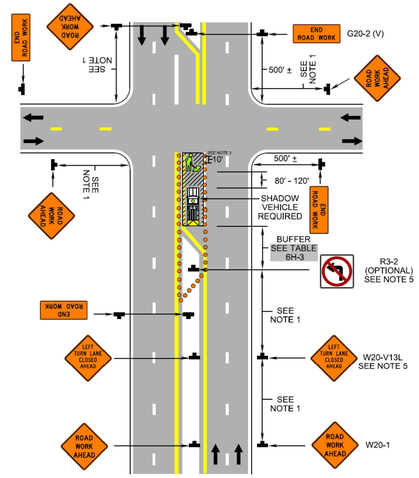
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

1: Revision 1 – 4/1/2015
2: Revision 2 – 9/1/2019

Turn Lane Closure Operation
(Figure TTC-29.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**

Guidance:

2. *Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.*
3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

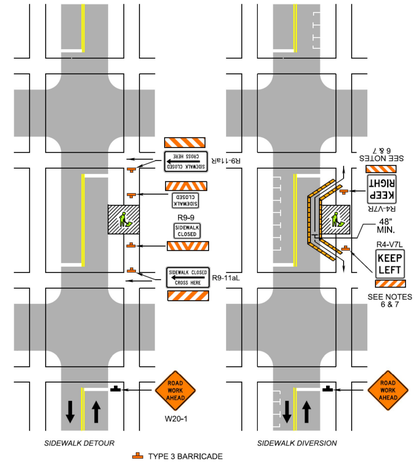
5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary sidewalk to guide or direct pedestrians.

Standard:

8. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.** [2]

2: Revision 2 – 9/1/2019

Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Lane Closure Operation for Flagging Operations on an Intersecting Roadway [2]
(Figure TTC-68.0)
NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*

Standard:

2. **Channelizing devices shall be spaced a maximum of 10' through the intersection.**
3. **Traffic controlled by the flagger on the multi-lane roadway shall not queue traffic into the through lane.**

Guidance:

4. *If room permits, a shadow vehicle with at least one amber rotating, oscillating, or strobe light should be parked 80'-120' in advance of the first work crew.*

Standard:

5. **If the posted speed limit is 45 mph or greater, the shadow vehicle shall have a truck-mounted attenuator.**
6. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or two high intensity amber flashing or oscillating lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

7. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Standard:

8. **If the left turn lane is closed a NO LEFT TURN (Symbol) (R3-2) shall be used.**
9. **If through traffic is not permitted a NO STRAIGHT THROUGH (Symbol) (R3-27) shall be used.**
10. **If through traffic is not permitted a MANDATORY MOVEMENT LANE CONTROL (Symbol) (R3-5R) shall be used.**

Option:

11. On long-term projects a ONEWAY (R1-6R) sign may be used to supplement the R3-5R sign.[2]

Guidance:

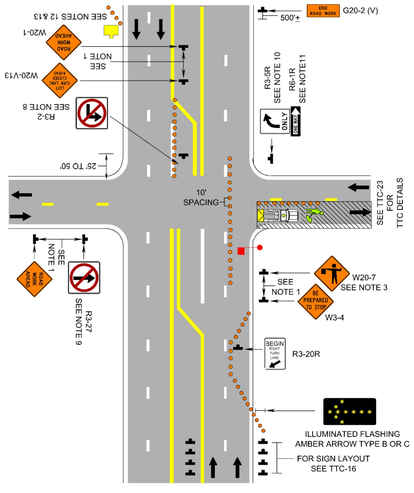
12. *A PCMS should be considered as part of the traffic control plan to provide clear guidance to motorists warning of the movement prohibition.*

Standard:

13. **A minimum of 4 drum channelizing devices shall be placed on the shoulder in advance of the PCMS in a taper for delineation (see Figure 6F-6).**

2: Revision 2 – 9/1/2019

Lane Closure Operation for Flagging Operations on an Intersecting Roadway [2]
(Figure TTC-68.0)



2: Revision 2 – 9/1/2019

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

MAINTENANCE OF TRAFFIC DETAILS

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY K. BUXTON	K. BELFIELD	JUNE 2025
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.
CHECKED BY C. GAVIN	C. GAVIN	1F(9)

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TEST HOLE DATA SHEET

PLAN SHEET	TEST HOLE NO.	NORTHING	EASTING	OWNER	TYPE OF FACILITY	ELEVATION AT CROWN OF UTILITY (FEET)	COMMENTS
3(5)	200	3499035.644	12184861.419	VERIZON	(X2) 1.5" FIBER OPTIC	3.41	
3(5)	201	3499029.937	12184873.013	VERIZON	2" TELECOMM	3.36	
3(5)	202	3499025.245	12184922.223	VERIZON	N/A	N/A	EXCAVATED DOWN TO 5' UNTIL GROUNDWATER WAS REACHED. PROBED DOWN TO 9'. NO UTILITY SEEN OR FELT. BELIEVE UTILITY IS AROUND 9' DEEP BASED ON UTILITY LOCATOR READING.
3(5)	203	3499025.407	12184923.018	VIRGINIA NATURAL GAS	3" GAS	2.62	
3(1)	204	3498699.342	12182511.971	VIRGINIA NATURAL GAS	12" GAS	1.65	
3(1)	205	3498693.319	12182512.214	VERIZON	3" TELECOMM	0.63	UNABLE TO OBTAIN PICTURE OF UTILITY DUE TO GROUND WATER
3(1)	206	3498690.799	12182512.782	COX	2" CATV	1.75	
3(1)	207	3498704.85	12182615.579	VERIZON	3" TELECOMM	0.02	
3(1)	208	3498699.824	12182633.834	VERIZON	(X6) 4.5" FIBER OPTIC	1.62	TOP OF X6 4.5" PLASTIC CONDUITS FOUND AT 2.08'. BOTTOM OF DUCT BANK FOUND AT 2.76'. GROUND ELEVATION TAKEN ABOVE NORTH SIDE OF DUCT.
3(2)	209	3498796.181	12183397.398	VERIZON	3" TELECOMM	0.88	
3(3)	210	3498905.73	12184195.460	VERIZON	(X6) 4" FIBER OPTIC	1.47	BOTTOM OF DUCT BANK FOUND AT 3.04'. BELIEVE FIBER OPTIC/TELEPHONE REQUESTED ARE LOCATED IN/BELOW DUCT BANK FOUND. TELEPHONE PEDESTALS HAVE BEEN REMOVED FROM THE AREA.
3(3)	211	3498900.88	12184220.798	N/A	N/A	N/A	TELEPHONE PEDESTALS HAVE BEEN REMOVED FROM AREA. NO SIGNAL ON UTILITY. EXCAVATED DOWN TO 5'. PROBED DOWN TO 8'. NO UTILITY FOUND
3(3)	212	3498902.46	12184297.403	N/A	N/A	N/A	TELEPHONE PEDESTALS HAVE BEEN REMOVED FROM AREA. NO SIGNAL ON UTILITY. EXCAVATED DOWN TO 5'. PROBED DOWN TO 8'. NO UTILITY FOUND
3(6)	213	3498919.891	12185080.989	VERIZON	(X6) 4" FIBER OPTIC	1.76	BOTTOM OF DUCT BANK FOUND AT 3.63'. GROUND ELEVATION TAKEN ABOVE NORTH SIDE OF DUCT

Utility Owners

Cox Communications
Contact - Victor Batchelor
Phone - (757) 222-8914
Victor.Batchelor@cox.com

Water / Sewer
City of Va Beach
Contact - Public Utility/Inspections
Phone - (757) 385-4175
Contact - Algen Canonizado
Phone - (757) 385-2025
acanonlz@vbgov.com

Virginia Natural Gas (VNG)
Contact - Ryan Windoloski
Phone - (757) 266-7050
rwindolo@southernco.com

Verizon
Contact - Jason Riordan
Phone - (757) 613-6721
Jason.J.Riordan@verizon.com

Dominion Energy
Contact - Bellnda Winstead
Phone - O: (757) 857-2870
Phone - M: (757) 619-2919
Bellnda.Winstead@dominionenergy.com

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

TEST HOLE DATA SHEET

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		1G	

2-JUN-2025
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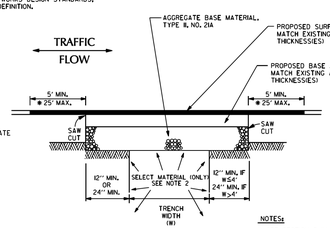
2-JUN-2025
\\wsppw14ics01\ICS_pdf_work_dir\233990\827262_47\d10024901H(1).dgn

● ROADWAY RECONSTRUCTION - IS DEFINED AS A RECONSTRUCTION OF PAVEMENT THAT HAS BEEN REMOVED TO SUCH EXTENT THAT TMS PAVEMENT PATCH CANNOT BE USED. IN THE CASE OF ROADWAY RECONSTRUCTION, THE CONSULTING ENGINEER SHALL DESIGN THE PAVEMENT THICKNESS BASED ON THE CBR, ETC. OF THE SOIL TO GO BACK IN THE TRENCH. SEE SECTION 5.01F PUBLIC WORKS DESIGN STANDARDS, AND ROADWAY PATCH DEFINITION.

● ROADWAY PATCH - IS DEFINED AS A REPAIR OF A PAVEMENT CUT THAT DOES NOT EXCEED APPROX. 5' WIDE, AT AN ANGLE BETWEEN 45 DEGREES AND 90 DEGREES TO THE LENGTH OF THE ROADWAY, OR UP TO A 10' x 10' SQUARE. MORE EXTENSIVE PAVEMENT CUTS ARE CONSIDERED ROADWAY RECONSTRUCTION.



* IF THE EXISTING STREET HAS BEEN RESURFACED WITHIN THE LAST 2 YEARS THEN IT IS IN A MORATORIUM STATUS OF "NO OPEN CUTS" PERMITTED WITHOUT PUBLIC WORKS APPROVAL. IF APPROVED THEN AN ADDITIONAL 25-FOOT AREA BEFORE AND AFTER THE TRENCH AREA WILL HAVE TO BE MILLED AND RESURFACED WITH AN APPROPRIATE SURFACE ASPHALT COURSE MIX TO PROVIDE A SMOOTH TRANSITION.

NOTES:

1) SEE SECTION 5 IN PUBLIC WORKS DESIGN STANDARDS. IN ALL CASES, IT IS ALWAYS PREFERABLE TO ACTUALLY DESIGN ANY PAVEMENT PATCH AND REPAIRS BASED ON GOOD ENGINEERING PRACTICES.

2) BACKFILL TO BE SELECT MATERIAL (CBR ≥15) COMPACTED IN 12" LAYERS TO 3' BELOW PAVEMENT AND THEN IN 6" LAYERS THEREAFTER TO 95% OF THE ASTM D-698 MAXIMUM THEORETICAL DENSITY.

3) USE OF TEMPORARY STEEL BRIDGE PLATE FOR TRAFFIC PRIOR TO PLACEMENT OF ASPHALT MUST BE APPROVED BY CITY INSPECTOR.

ROADWAY PATCH FOR ASPHALT (ONLY) STREETS WITH THE CLASSIFICATION OF LOCAL OR COLLECTOR SHALL BE THE GREATER OF:

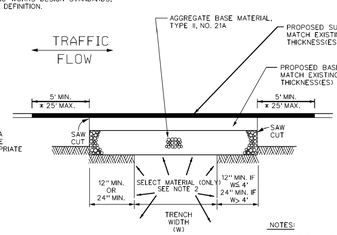
● MATCH THE EXISTING PAVEMENT, OR

● 1½"-SM-9.5A SURFACE ASPHALT CONCRETE, OVER 3"-BM-25.0A BASE MIX ASPHALT CONCRETE, OVER 6" AGGREGATE BASE MATERIAL, TYPE I NO. 21A, OVER COMPACTED SUBGRADE IF SUBGRADE IS A MINIMUM CBR OF 15. OTHERWISE SELECT MATERIAL WITH CBR ≥15 TO BE USED AS BACKFILL. IF CONCRETE IS UNDER ASPHALT, THEN CONCRETE MUST BE USED AND MATCH EXISTING PAVEMENT. SEE NOTE *1.

(N.T.S.) REV. 5/14	CITY OF VIRGINIA BEACH STANDARD		
	FLEXIBLE PAVEMENT PATCH FOR LOCAL & COLLECTOR STREETS		
	PUBLIC WORKS	C-3A	

● ROADWAY RECONSTRUCTION IS DEFINED AS A RECONSTRUCTION OF PAVEMENT THAT HAS BEEN REMOVED TO SUCH EXTENT THAT THIS PAVEMENT PATCH CANNOT BE USED. IN THE CASE OF ROADWAY RECONSTRUCTION, THE CONSULTING ENGINEER SHALL DESIGN THE PAVEMENT THICKNESS BASED ON THE CBR, ETC. OF THE SOIL TO GO BACK IN THE TRENCH. SEE SECTION 5.11 OF PUBLIC WORKS DESIGN STANDARDS, AND ROADWAY PATCH DEFINITION.

● ROADWAY PATCH- IS DEFINED AS A REPAIR OF A PAVEMENT CUT THAT DOES NOT EXCEED APPROX. 5' WIDE, AT AN ANGLE BETWEEN 45 DEGREES AND 90 DEGREES TO THE LENGTH OF THE ROADWAY, OR UP TO A 10' x 10' SQUARE. MORE EXTENSIVE PAVEMENT CUTS ARE CONSIDERED ROADWAY RECONSTRUCTION.



* IF THE EXISTING STREET HAS BEEN RESURFACED WITHIN THE LAST 2 YEARS THEN IT IS IN A MORATORIUM STATUS OF "NO OPEN CUTS" PERMITTED WITHOUT PUBLIC WORKS APPROVAL. IF APPROVED THEN AN ADDITIONAL 25-FOOT AREA BEFORE AND AFTER THE TRENCH AREA WILL HAVE TO BE MILLED AND RESURFACED WITH AN APPROPRIATE SURFACE ASPHALT COURSE MIX TO PROVIDE A SMOOTH TRANSITION.

NOTES:

1) SEE SECTION 5 IN PUBLIC WORKS DESIGN STANDARDS. IN ALL CASES, IT IS ALWAYS PREFERABLE TO ACTUALLY DESIGN ANY PAVEMENT PATCH AND REPAIRS BASED ON GOOD ENGINEERING PRACTICES.

2) BACKFILL TO BE SELECT MATERIAL (CBR 15) COMPACTED IN 12" LAYERS TO 3' BELOW PAVEMENT AND THEN IN 6" LAYERS THEREAFTER TO 95% OF THE ASTM D-698 MAXIMUM THEORETICAL DENSITY.

3) USE OF TEMPORARY STEEL BRIDGE PLATE FOR TRAFFIC PRIOR TO PLACEMENT OF ASPHALT MUST BE APPROVED BY CITY INSPECTOR.

ROADWAY PATCH FOR ASPHALT (ONLY) STREETS WITH THE CLASSIFICATION OF MAJOR OR MINOR ARTERIALS SHALL BE THE GREATER OF:

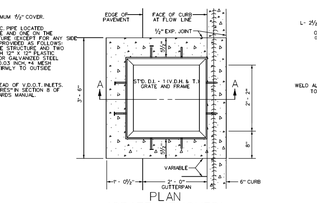
● MATCH THE EXISTING PAVEMENT SECTION, OR

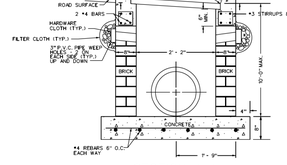
● 2" SM-9.5A SURFACE ASPHALT CONCRETE, OVER 4" BM-25.0D BASE MIX ASPHALT CONCRETE, OVER 8" AGGREGATE BASE MATERIAL, TYPE I NO. 21A, OVER COMPACTED SUBGRADE IF SUBGRADE IS A MINIMUM CBR OF 15. OTHERWISE, SELECT GRANULAR MATERIAL WITH CBR 15 AND USE AS BACKFILL. IF CONCRETE IS UNDER ASPHALT, THEN CONCRETE MUST BE USED AND MATCH EXISTING PAVEMENT. SEE NOTE *1.

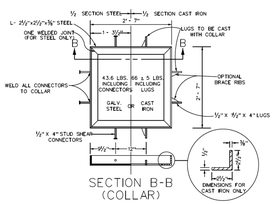
(N.T.S.) REV. 04/16	CITY OF VIRGINIA BEACH STANDARD		
	FLEXIBLE PAVEMENT PATCH FOR MAJOR & MINOR ARTERIALS		
	PUBLIC WORKS	C-3B	

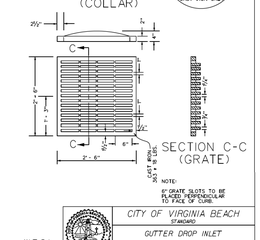
NOTE:

1. ALL REBAR SHALL HAVE A MINIMUM 1½" COVER.
2. WELD HOLES MADE OF 3" P.V.C. PIPE LOCATED AT THE TOP OF THE SUBGRADE AND ONE ON THE BACK SIDE OF THE CURB AT THE LOW POINT. WHERE WELD HOLE IS PROVIDED AS FOLLOWS: ONE ON THE TOP FACE OF THE STRUCTURE AND TWO ON ALL SIDES. WRAP PIPE WITH 12" x 12" #16 GAUGE WELDED WIRE FABRIC WITH 2" x 2" #16 GAUGE WIRE MINIMUM WIRE DIAMETER 0.03 INCH. W MESH REINFORCE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE.
3. THIS ITEM MAY BE USED INSTEAD OF V.D.O.T. INLETS. SEE D.6.1 "DRAINAGE STRUCTURES" IN SECTION 5 OF PUBLIC WORKS DESIGN STANDARDS MANUAL.



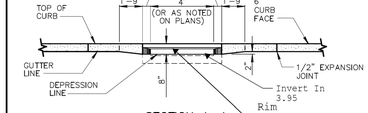




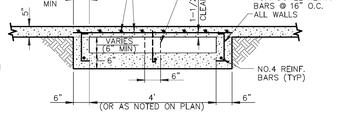


* NOTE:
1" GRATE SLOTS TO BE PARALLEL OR PERPENDICULAR TO FACE OF CURB

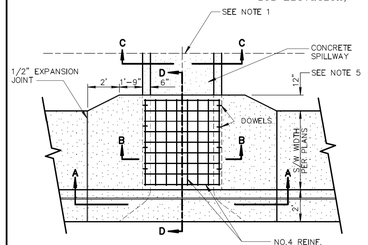
(N.T.S.) REV. 11/16	CITY OF VIRGINIA BEACH STANDARD		
	GUTTER DROP INLET		
	PUBLIC WORKS	B-4	



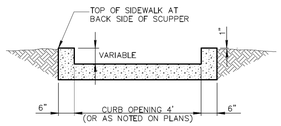
SECTION A-A



SECTION B-B



SCUPPER PLAN VIEW



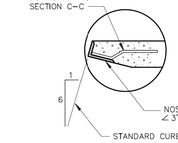
SECTION C-C SPILLWAY

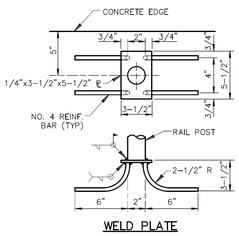
NOTES:

1. TRANSITION TO SPILLWAY/CHANNEL AS PER APPROVED PLANS.
2. A CENTER WALL SHALL BE INSTALLED IN SCUPPERS WIDER THAN 4' OR IF MORE THAN 1 SCUPPER IS BUILT IN SERIES.
3. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, ASTM D-1751.
4. CONCRETE FOR THE SCUPPER SHALL BE CLASS A3 OR A4 PER SECTION 217. CONCRETE FOR THE SPILLWAY SHALL BE CLASS A3 OR A4.
5. CONCRETE SCUPPER SHALL BE CONTINUOUS FROM BACK OF CURB TO 1' BEYOND BACK OF SIDEWALK.

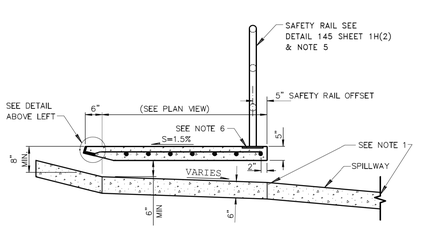
DETAIL NO.			REVISED	DETAIL NO.
206-1		CONCRETE SCUPPER	01-01-2007	206-1

NO. 4 REINFORCEMENT WELDED TO ANGLE SEE DETAIL 5.36-1, SECTION C-C





WELD PLATE

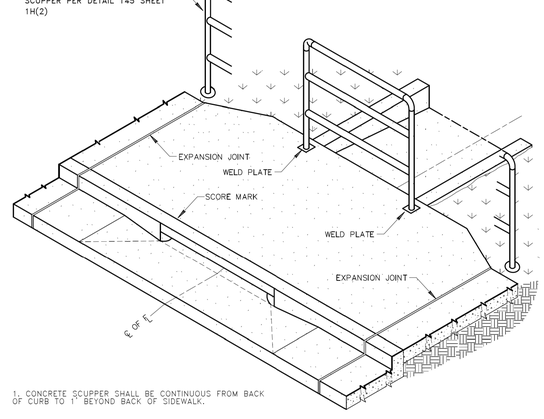


SECTION D-D

NOTES:

1. TRANSITION TO SPILLWAY/CHANNEL AS PER APPROVED PLANS.
2. A CENTER WALL SHALL BE INSTALLED IN SCUPPERS WIDER THAN 4' OR IF MORE THAN 1 SCUPPER IS BUILT IN SERIES.
3. EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS TYPE PREFORMED EXPANSION JOINT FILLER, ASTM D-1751.
4. CONCRETE FOR THE SCUPPER SHALL BE CLASS A3 OR A4 PER SECTION 217. CONCRETE FOR THE SPILLWAY SHALL BE CLASS A3 OR A4.
5. SAFETY RAIL SHALL BE CONTINUOUS BETWEEN THE SPILLWAY EXTERIOR WALLS.
6. USE WELD PLATES FOR SAFETY RAIL ANCHORS LOCATED IN THE 5" THICK CONCRETE.

DETAIL NO.			REVISED	DETAIL NO.
206-2		CONCRETE SCUPPER	01-01-2007	206-2



1. CONCRETE SCUPPER SHALL BE CONTINUOUS FROM BACK OF CURB TO 1' BEYOND BACK OF SIDEWALK.

DETAIL NO.			REVISED	DETAIL NO.
206-3		CONCRETE SCUPPER	01-01-2007	206-3

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DETAILS

CITY OF VIRGINIA BEACH, VIRGINIA

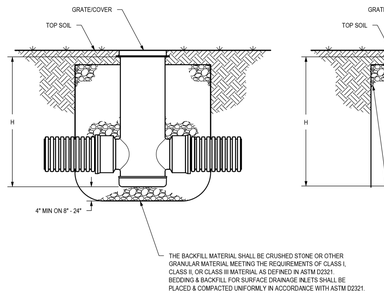
WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	1H(1)
CHECKED BY			

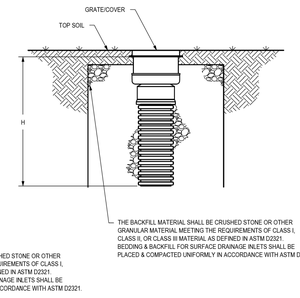
21:10
2-JUN-2025
\\wsppw14ics01\ICS_pdf_work_dir\233990\827262_46\d10024901H(2).dgn

ADS NYLOPLAST DRAIN BASIN AND INLINE DRAIN NON TRAFFIC INSTALLATION

DRAIN BASIN



INLINE DRAIN



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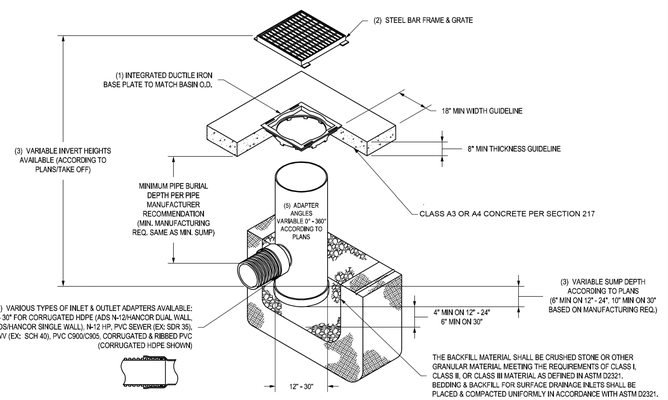
DRAWN BY CJA	MATERIAL	ADS Nyloplast	3126 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 9-30-09			
REVISED BY NMH	PROJECT NO./NAME	TITLE	DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION
DATE 03-11-16			
DWG SIZE A	SCALE 1:25 SHEET 1 OF 1	DWG NO.	7001-110-111 REV F

OR APPROVED EQUAL

NYLOPLAST DRAIN BASIN WITH 2 FT X 2FT STEEL BAR GRATE



1 - 12" - 30" BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAME & GRATE SHALL BE STEEL PER ASTM A36.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4"-24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - STEEL BAR GRATE SHALL MEET H-20 LOAD RATING.

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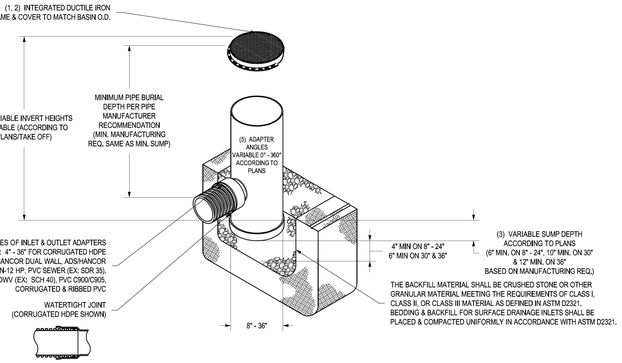
DATE 03-22-10			
REVISED BY NMH	PROJECT NO./NAME	TITLE	DRAIN BASIN WITH 2 FT X 2 FT STEEL BAR GRATE QUICK SPEC INSTALLATION DETAIL
DATE 03-16-16			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO.	7001-110-394 REV D

OR APPROVED EQUAL

NYLOPLAST DRAIN BASIN WITH SOLID COVER



1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4"-36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12"- 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

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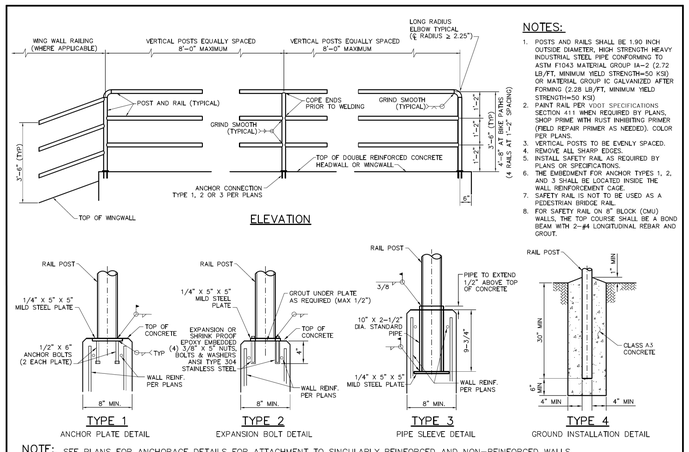
DATE 09-14-07			
REVISED BY NMH	PROJECT NO./NAME	TITLE	DRAIN BASIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL
DATE 06-12-18			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO.	7001-110-298 REV E

OR APPROVED EQUAL

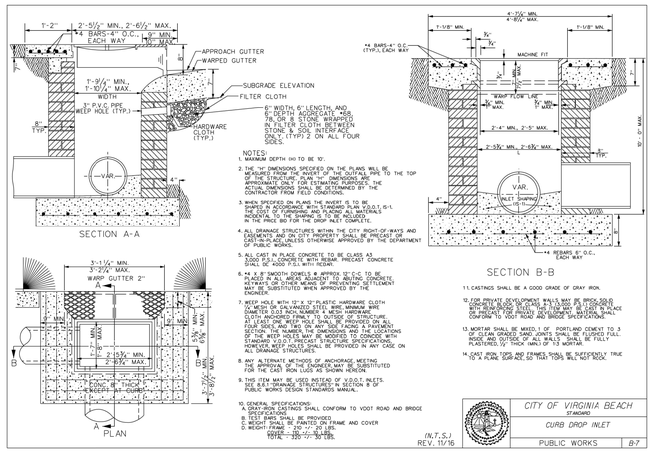


NOTE: SEE PLANS FOR ANCHORAGE DETAILS FOR ATTACHMENT TO SINGULARLY REINFORCED AND NON-REINFORCED WALLS.

NOTES:

1. POSTS AND RAILS SHALL BE 1.90 INCH OUTSIDE DIAMETER, HIGH STRENGTH HEAVY INDUSTRIAL STEEL PIPE CONFORMING TO ASTM F1043 MATERIAL GROUP 1A-2 (2.72 LB/FT, MINIMUM YIELD STRENGTH=50 KSI) OR MATERIAL GROUP IC GALVANIZED AFTER FORMING (2.28 LB/FT, MINIMUM YIELD STRENGTH=50 KSI).
2. PAINT RAIL PER VDOT SPECIFICATIONS SECTION 411 WHEN REQUIRED BY PLANS. SHOP PRIME WITH RUST INHIBITING PRIMER (FIELD REPAIR PRIMER AS NEEDED). COLOR PER PLANS.
3. VERTICAL POSTS TO BE EVENLY SPACED.
4. REMOVE ALL SHARP EDGES.
5. INSTALL SAFETY RAIL AS REQUIRED BY PLANS OR SPECIFICATIONS.
6. THE EMBEDMENT FOR ANCHOR TYPES 1, 2, AND 3 SHALL BE LOCATED INSIDE THE WALL REINFORCEMENT CAGE.
7. SAFETY RAIL IS NOT TO BE USED AS A PEDESTRIAN BRIDGE RAIL.
8. FOR SAFETY RAIL ON 8" BLOCK (CMU) WALLS, THE TOP COURSE SHALL BE A BOND BEAM WITH 2-#4 LONGITUDINAL REBAR AND GROUT.

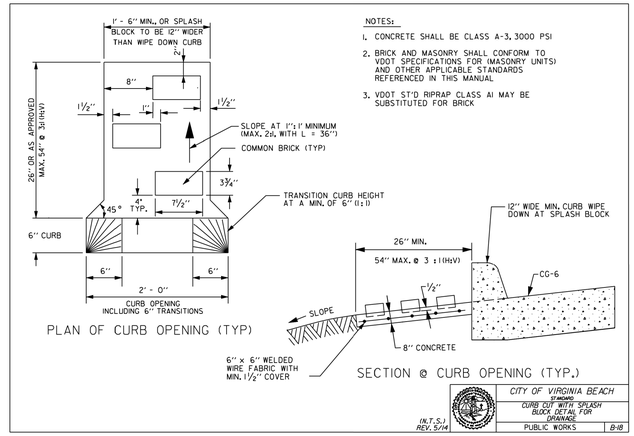
DETAIL NO.			REVISED	DETAIL NO.
145		SAFETY RAIL	01-01-2020	145



1. MAXIMUM DEPTH 6H TO TO BE 10'.
2. THE "H" DIMENSIONS SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE GRATE OR TOP OF THE CURB OPENING. THIS IS APPROXIMATE ONLY FOR ESTIMATING PURPOSES. THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. WHEN SPECIFIED ON PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD PLAN VDOT, IS-1. ALL COSTS ASSOCIATED WITH SHAPING THE INVERT AS DETAILS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE PRICE BID FOR THE DROP INLET COMPLETE.
4. ALL DRAINAGE STRUCTURES WITHIN THE CITY RIGHT-OF-WAYS AND EASEMENTS AND ON CITY PROPERTY SHALL BE PRECAST OF CAST IN PLACE UNLESS OTHERWISE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
5. ALL CAST IN PLACE CONCRETE TO BE CLASS A3, 3,000 P.S.I. CONCRETE WITH REBAR. PRECAST CONCRETE SHALL BE 4000 P.S.I. WITH REBAR.
6. #4 X 8' SMOOTH DOWELS @ APPROX 12" C.C. TO BE PLACED IN ALL AREAS ADJACENT TO ASPHALT CONCRETE (EXCEPT AT CURB). PRECAST CONCRETE (WITH APPROVED JOINT) MAY BE SUBSTITUTED WHEN APPROVED BY THE ENGINEER.
7. WEEP HOLE WITH 12" X 12" PLASTIC HARDWARE CLOTH (¼" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.035") FILTER CLOTH (MIRAFI 140N OR EQUAL) ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE. AT LEAST ONE WEEP HOLE SHALL BE PROVIDED ON ALL SIDES OF THE DROP INLET. DEPENDING ON THE SIZE OF THE SECTION, THE NUMBER, THE DIMENSIONS, AND THE LOCATIONS OF THE WEEP HOLES MAY BE MODIFIED TO COINCIDE WITH STANDARD VDOT CURRENT STRUCTURE SPECIFICATIONS. ADDITIONAL WEEP HOLES SHALL BE PROVIDED IN ANY CASE ON ALL GRADES 5% OR STEEPER.
8. ANY ALTERNATE METHODS OF ANCHORAGE MEETING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
9. THIS ITEM MAY BE USED INSTEAD OF V.D.O.T. INLETS. SEE B&B-1(DRAINAGE STRUCTURES) IN SECTION B OF PUBLIC WORKS DESIGN STANDARDS MANUAL.
10. GENERAL SPECIFICATIONS:
   A. ALL CONCRETE FINISHES SHALL CONFORM TO VDOT ROAD AND BRIDGE SPECIFICATIONS.
   B. TEST BARS SHALL BE PROVIDED.
   C. CASTINGS SHALL BE DUCTILE IRON FRAME AND COVER
   D. WEIGHT: FRAME = 200 +/- 20 LBS. COVER = 200 +/- 10 LBS. TOTAL = 370 +/- 30 LBS.
11. CASTINGS SHALL BE A GOOD GRADE OF GRAY IRON.
12. FOR PRIVATE DEVELOPMENT WALLS MAY BE BRICK-SOLID CONCRETE BLOCK OR CAST IN PLACE CONCRETE WITH APPROVED MIX DESIGNS. SUCH WALLS MAY BE LEFT IN PLACE WHEN THEY ARE NOT IN CONFLICT WITH PROPOSED WORK AND CONFORM TO VDOT ROAD AND BRIDGE SPECIFICATIONS.
13. MORTAR SHALL BE MIXED 1 OF PORTLAND CEMENT TO 3 OF CLEAN GRADED SAND. JOINTS SHALL BE FLUSHED FULL. ALL EXPOSED FACES SHALL BE NEATLY POINTED AND FULLY PLASTERED, ½" THICK (MIN.) OF 1:2 MORTAR.
14. CAST IRON TOPS AND FRAMES SHALL BE SUFFICIENTLY TRUE TO A PLANE SURFACE SO THAT TOPS WILL NOT ROCK.

CITY OF VIRGINIA BEACH
CURB DROP INLET
PUBLIC WORKS 8-7

(N.T.S.) REV. 11/16



NOTES:

1. CONCRETE SHALL BE CLASS A-3, 3000 PSI
2. BRICK AND MASONRY SHALL CONFORM TO VDOT SPECIFICATIONS FOR (MASONRY UNITS) AND OTHER APPLICABLE STANDARDS REFERENCED IN THIS MANUAL
3. VDOT ST'D RIPRAP CLASS AI MAY BE SUBSTITUTED FOR BRICK

CITY OF VIRGINIA BEACH STANDARD
CURB CUT WITH SPLASH BLOCK DETAIL FOR DRAINAGE
PUBLIC WORKS 8-18

(N.T.S.) REV. 5/14

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS CIP No. 100383.001

CITY OF VIRGINIA BEACH DEPARTMENT OF PUBLIC WORKS ENGINEERING GROUP

DETAILS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER K. BELFIELD	DATE JUNE 2025
DRAWN BY J. HOLLAND		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO. 1H(2)
CHECKED BY		

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2-JUN-2025
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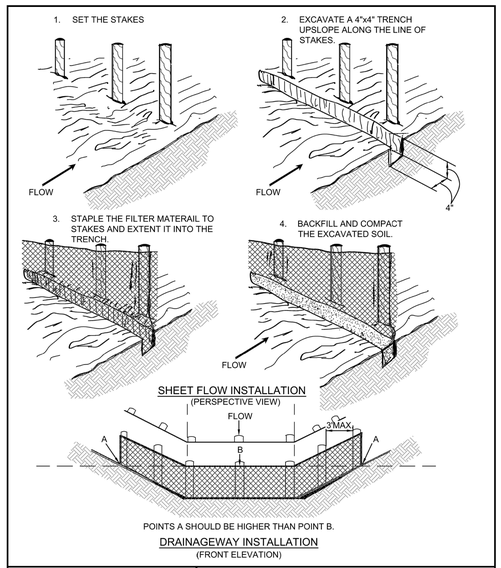


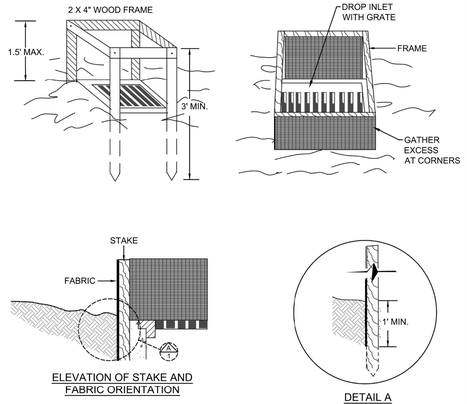
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

CONSTRUCTION OF SILT FENCE WITHOUT WIRE SUPPORT

SOURCE: ADAPTED FROM STRAW & FAB. BARRIERS, SHERWOOD & WYANT

v1.1

C-PCM-04-2B



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

SILT FENCE DROP INLET PROTECTION

v1.1

SOURCE: NC ESC DESIGN MAN.

C-SCM-04-1

Table C-SSM-09-4 Temporary Seeding Applications

Temporary Seeding Plant Materials, Seeding Rates, and Dates

Species	Seeding Rate lbs./acre	Seeding Rate lbs/1,000 ft^2	North[a] 3/1 - 4/30	North[a] 5/1 - 8/15	North[a] 8/15 - 11/1	South[b] 2/15 - 4/30	South[b] 5/1 - 9/1	South[b] 9/1 - 11/15	Plant Characteristics
Oats (*Avena sativa*)	50 - 100	2	X	-	--	X	-	-	Use spring varieties (e.g., Noble).
Rye[d] (*Secale cereale*)	50 - 110	2.5	X	-	X	X	-	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture.
German millet (*Setaria italica*)	50	1	-	X*	-	-	X*	-	Warm-season annual. Dies at first frost. May be added to summer mixes.
Annual ryegrass[c] (*Lolium multiflorum*)	60	1.5	X*	-	X	X*	-	X	May be added in mixes. Will mow out of most stands.
Korean Lespedeza[c] (*Lespedeza stipulacea*)	25	1.5	X	X	-	X	X	-	Warm-season annual legume. Tolerates acid soils. May only be used in a mix with another grass (e.g., annual or cereal rye); it is not suitable as a pure seeding for this purpose.

a. Northern Piedmont and Mountain regions. See Figure C-ENV-01-1 and Figure C-ENV-01-2.
b. Southern Piedmont and Coastal Plain.
c. May be used as a cover crop with spring seeding.
d. May be used as a cover crop with fall seeding.
Xe. May not be planted between these dates.
-f. May be planted between these dates.

*** The shift date for annual rye to German millet should be April 15 for the Piedmont and Coastal Plain, rather than May 1.**

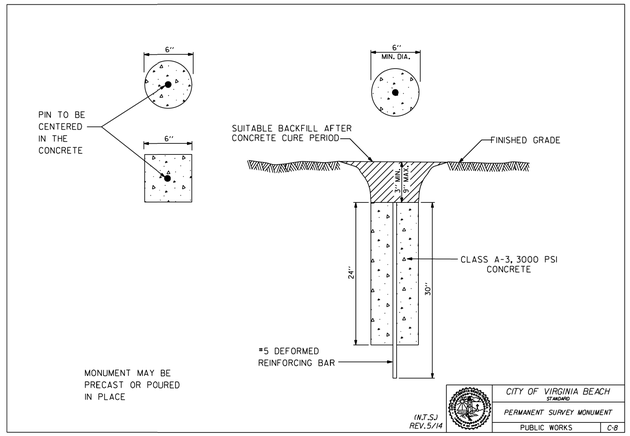
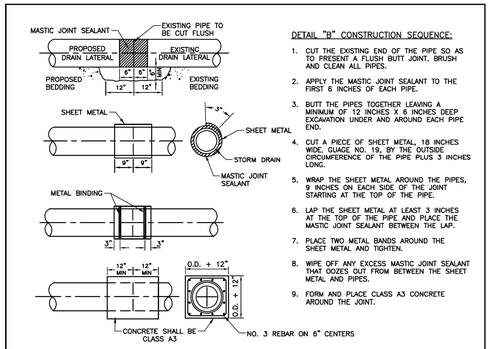


Table C-SSM-10-8 Site-Specific Seeding Mixtures for Coastal Plain Area

Site Condition	Seed Mix	Application Rate (pounds per acre)
Minimum-Care Lawn Commercial or Residential	Kentucky 31* or VCIA approved Turf-Type Tall Fescue	150 – 200
	or Common Bermudagrass	75
High-Maintenance Lawn	Kentucky 31 or VCIA approved Turf-Type Tall Fescue	150 – 200
	Hybrid Bermudagrass (seed) **	40 (unhulled)
	Hybrid Bermudagrass (by other vegetative establishment method refer to Bermudagrass & Zoysiagrass Establishment (C-SSM-07))	30 (hulled)
General Slope (3H:1V or less)	Tall Fescue and/or Hard Fescue	50 – 75
	Red Top Grass	5 – 10
	Annual Lespedeza and/or White Clover***	10 – 20
	Seasonal Nurse Crop ****	30 – 40
Low-Maintenance Slope (Steeper than 3H:1V)	Tall Fescue and/or Hard/Hard Fescue	75 – 100
	Common Bermudagrass **	0 – 15
	Redtop Grass	5 – 10
	Annual Lespedeza and/or White Clover***	10 – 20
	Seasonal Nurse Crop ****	30 – 40

* Increase seed rate if only KY-31 is used.
** May through October, use hulled seed. All other seeding periods, use unhulled see. Weeping lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10 - 20 pounds per acre in mixes.
*** Use legume seed that is properly inoculated with specified Rhizobia. Legumes recommended unless periodic N fertilization is intended. Weeping lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10 to 20 lbs/acre in mixes.
**** Use seasonal nurse crop in accordance with seeding dates as stated below:
March 15 through August, foxtail/German millet
September, October through November 15 annual/cereal rye
November 16 through March 15, annual/cereal rye
Note: Seed mixes are suggested and subject to modification based on site-specific conditions by an agronomist or other qualified revegetation professionals. All seed rates expressed as PLS (Pure Live Seed; see Table C-SSM-10-9).



DETAIL "B"

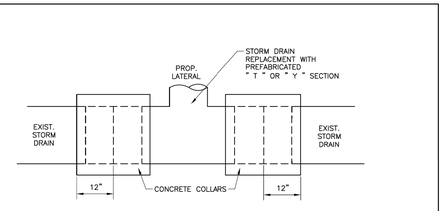
CONCRETE COLLAR
NTS

NOTES

1. CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE STORM DRAIN. ALL DEBRIS WHICH ENTERS THE STORM DRAIN MUST BE REMOVED. THE STORM DRAIN MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.
2. THIS PROCEDURE/DETAIL WILL ONLY BE USED WHEN A PREFAB REDUCTION IS NOT POSSIBLE.
3. USE MANUFACTURES COLLAR AND SPECIFICATIONS WHEN CONNECTING TO HDPE & RCP PIPE.
4. CONCRETE SHALL BE CLASS A3.
5. IF THE EXISTING STORM DRAIN PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING STORM DRAIN, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

DETAIL "B" CONSTRUCTION SEQUENCE:

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6 INCHES OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12 INCHES X 6 INCHES DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL, 18 INCHES WIDE, GUAGE NO. 19, BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3 INCHES LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9 INCHES ON EACH SIDE OF THE JOINT STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3 INCHES AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND PIPES.
9. FORM AND PLACE CLASS A3 CONCRETE AROUND THE JOINT.



NOTES:

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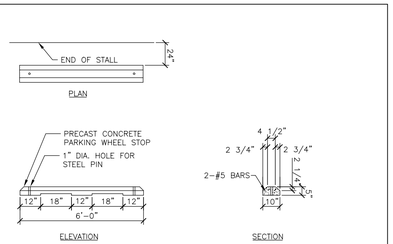
2. IF THE EXISTING STORM DRAIN PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING STORM DRAIN, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION

STORM DRAIN CONNECTION TO EXISTING
NTS



NOTES:

1. 3000 PSI, MINIMUM AIR ENTRAINED CONCRETE.
2. STEEL ANCHOR RODS SHALL BE 24" LONG X 3/4" DIAMETER.
3. RODS SHALL BE FLARED AND DRIVEN TO TOP OF STOP.
4. CENTER WHEEL STOP ON PARKING STALL.

WHEEL STOP
NTS

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
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CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DETAILS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		1H(3)

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2-JUN-2025
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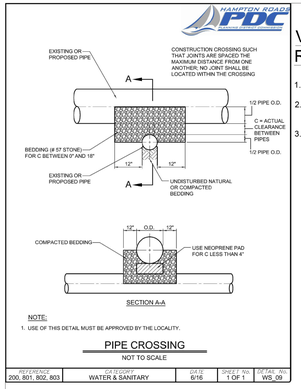


NOTE:

1. USE OF THIS DETAIL MUST BE APPROVED BY THE LOCALITY.

PIPE CROSSING

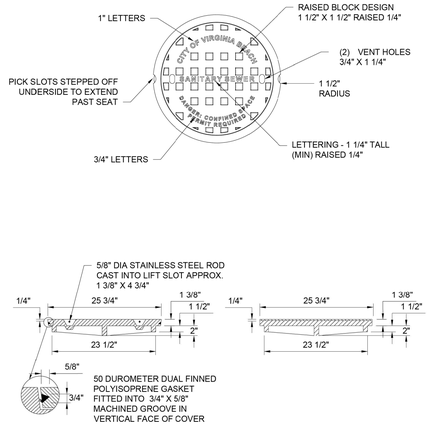
NOT TO SCALE

REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200, 801, 802, 803	WATER & SANITARY	6/16	1 OF 1	WS_09

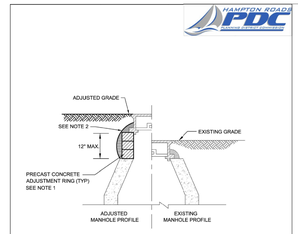
VIRGINIA BEACH MODIFICATIONS TO REGIONAL STANDARDS SIXTH EDITION

1. USE OF THIS DETAIL REQUIRES VARIANCE APPROVAL.
2. ADDITIONAL MEASURES MAY BE REQUIRED BEYOND WHAT IS SHOWN ON DETAIL THAT WILL BE DETERMINED DURING THE VARIANCE PROCESS.
3. DETAIL TO BE USED FOR VERTICAL CLEARANCES LESS THAN 18".

Public Utilities DATE: 10/2023	CITY OF VIRGINIA BEACH - PUBLIC UTILITIES STANDARD DETAILS	SCALE: NOT TO SCALE
	PIPE CROSSING	DRAWING NO. PU 3.5
		SHEET NO. 1 OF 1



Public Utilities DATE: 10/2023	CITY OF VIRGINIA BEACH - PUBLIC UTILITIES STANDARD DETAILS	SCALE: NOT TO SCALE
	MANHOLE COVER	DRAWING NO. PU 4.12
		SHEET NO. 1 OF 1



NOTES:

1. RINGS TO BE COATED AND SEALED SMOOTH ON ALL INSIDE SURFACES, 3/8" THICK (MIN.) WITH HYDRAULIC CEMENT HIGH STRENGTH GROUT.
2. MANHOLE CASTING AND ADJUSTMENT RINGS TO BE SET AND IMBEDDED IN BUTYL JOINT MATERIAL AND CAPPED WITH HYDRAULIC CEMENT GROUT OVER FRAME FLANGE, ADJUSTMENT RINGS AND SECTION.
3. FOUNDATION, FOOTING PAD, LOWEST BARREL SECTION OF MANHOLE AND PIPES SHALL REMAIN UNDISTURBED.

SANITARY SEWER MANHOLE ADJUSTMENT

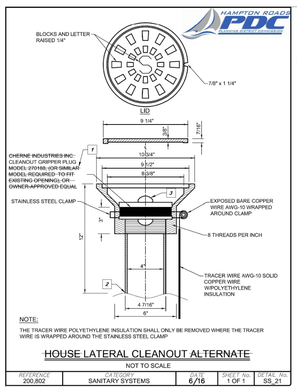
NOT TO SCALE

REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200,802	SANITARY SYSTEMS	6/16	1 OF 1	SS_06

VIRGINIA BEACH MODIFICATIONS TO REGIONAL STANDARDS SIXTH EDITION

1. HDPE ADJUSTMENT RINGS MAY BE SUBSTITUTED FOR THE CONCRETE ADJUSTMENT RINGS.
2. ADJUSTMENT RINGS ARE NOT ALLOWED FOR NEW MANHOLES.

Public Utilities DATE: 10/2023	CITY OF VIRGINIA BEACH - PUBLIC UTILITIES STANDARD DETAILS	SCALE: NOT TO SCALE
	SANITARY SEWER MANHOLE ADJUSTMENT	DRAWING NO. PU 4.15
		SHEET NO. 1 OF 1



NOTE:

THE TRACER WIRE POLYETHYLENE INSULATION SHALL ONLY BE REMOVED WHERE THE TRACER WIRE IS WRAPPED AROUND THE STAINLESS STEEL CLAMP.

HOUSE LATERAL CLEANOUT ALTERNATE

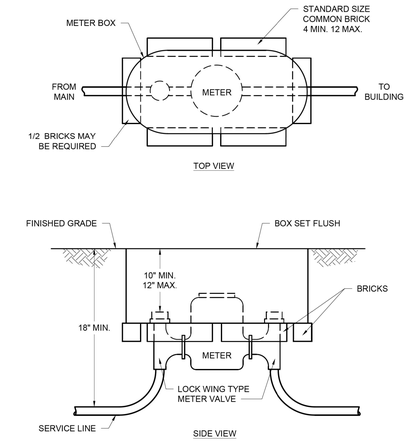
NOT TO SCALE

REFERENCE	CATEGORY	DATE	SHEET No.	DETAIL No.
200,802	SANITARY SYSTEMS	6/16	1 OF 1	SS_21

VIRGINIA BEACH MODIFICATIONS TO REGIONAL STANDARDS SIXTH EDITION

1. AS INDICATED ON THE PUBLIC UTILITIES APPROVED PRODUCTS LIST
2. CONNECT TO RISER PIPE WITH SOLID SLEEVE
3. HEX NUT

Public Utilities DATE: 10/2023	CITY OF VIRGINIA BEACH - PUBLIC UTILITIES STANDARD DETAILS	SCALE: NOT TO SCALE
	LATERAL CLEANOUT	DRAWING NO. PU 4.17
		SHEET NO. 1 OF 1



NOTES:

1. SET METER VALVE VERTICALLY PLUMB.
2. SEE PU 8.3 "5/8" AND 1" METER BOX".

Public Utilities DATE: 10/2023	CITY OF VIRGINIA BEACH - PUBLIC UTILITIES STANDARD DETAILS	SCALE: NOT TO SCALE
	5/8" AND 1" METER BOX SETTING	DRAWING NO. PU 8.2
		SHEET NO. 1 OF 1

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DETAILS

WSP PROJECT NO. 30901031	PROJECT MANAGER K. BELFIELD	DATE JUNE 2025
DRAWN BY J. HOLLAND		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO. 1H(4)
CHECKED BY		

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2-JUN-2025

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I-Sty. Stuc. Bldg. #3656

Conc.

Conc. Walk

6"WDF

3"WDF

P/P No*

L/P No*

Wood Ramp

Sapling

Sign

Wood Deck

Wood Ret. Wall

Steps

WM

733

(a)

(b)

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

(10)

Now Or Formerly
3656 SHORE DRIVE LLC
*2208 Rockbridge Rd.
GPIN:*1489498135
Inst.*201512150012009OO
M.B.5, Pg.137
Lots 14-16, Blk 14
0.555 Ac.

(70.52')(98.06')

(69.2')(102.89')

(57.50')(94.70')

(56.80')(97.51')

Proposed Temporary Constr. Easement

Dinwiddie Road

Asphalt Surface

FORM

P/P No*

T-Ped (2)

E-Trans

Pin (F)

See Note * 1 and 2

Existing R/W

Rockbridge Road

814

81

807

728

729

730

Sign

Overhead Util. Elev.-24.69

Asphalt Surface

17 Perpendicular Parking Spaces - 18' x 9'

Wheel Stop (typ.)

4" White (typ.)

Now Or Formerly
CITY OF VIRGINIA BEACH
GPIN:*1489498059
D.B.2752, PG.162
M.B.5, Pg.137
0.135 Ac.

Existing R/W

PI 82+65.71

82

83

PI 81+14.61

3' Wide Curb Cut

S 87° 43' 34" E

S 89° 09' 38" E

S 84° 13' 38" E

POT 83+70.00

Field Verified that telephone Utility Box Is not In conflict with proposed sidewalk

8I+15.II
6.00' RT

SW-WB-02
Constr. IB

Perform Pre & Post CCTV of 10" VCP SS main between SS manhole *814 (308-008-U) and *807 (308-009-U). See Note *2.

82+69.08
6.00' RT

Adjust FO Box to grade

Adjust FO Box to grade

3' Wide Curb Cut with Conc. Flume Sta. 83+31.13

Adjust manhole to grade

LOD

DOT

SEMV

T/FO

Shore Drive (WB)

LEGEND

- (00) ------- Proposed Temporary Construction Easement
- ////////// Abandon Pipe
- Concrete/Asphalt to be Removed
- (00) Parcel No.
- ——LOD—— Limits of Disturbance

NOTES:

1. CONTRACTOR TO LOCATE UPSTREAM INLET ON THE WEST SIDE OF DINWIDDIE RD. AND CONFIRM NO UPSTREAM CONNECTIONS. NOTIFY PROJECT MANAGER IF UPSTREAM CONNECTION EXIST. INSTALL PER NOTE *2 IF NO UPSTREAM CONNECTIONS EXIST.
2. CAP EXISTING 15' RCP AND FILL WITH FLOWABLE BACKFILL PER VDOT STD. DETAIL PP-1 UNDER ROADWAY AND RESTORE GRADE AND COVER TO EXISTING.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

ABANDONED PIPE PLAN DETAIL

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	1H(5)
CHECKED BY			

16:20
2-JUN-2025
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VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

Conc.
1-Sty. Stuc. Bldg. #3656
Conc.Walk
6'WDF
P/P No#
L/P No#
Conc.
Conc.
6'WDF
3'WDF
Wood Ramp
Sapling
Sign
Wood Deck
Wood Ret.Wall
Steps
WM
733
(a)
(b)
(10)
Now Or Formerly
3656 SHORE DRIVE LLC
*2208 Rockbridge Rd.
GPIN:*1489498135
Inst.*201512150012009OO
M.B.5,Pg.137
Lots 14-16, Blk 14
0.555 Ac.
DI shown per plan Not Found (buried)
Asphalt Surface
Dinwiddie Road
FOAH
P/P No#
T-Ped (2)
E-Trans
Pin (F)
Pin (F)
Existing R/W
16' Existing Striping
26' Drive Aisle
Asphalt Surface
Now Or Formerly
CITY OF VIRGINIA BEACH
GPIN:*1489498059
D.B.2752,PG.162
M.B.5,Pg.137
0J35 Ac.
Existing R/W
17 Perpendicular Parking Spaces - 18' x 9'
Wheel Stop (typ.)
4" White (typ.)
P/P No#
Rockbridge Road
814
81
82
83
PI 81+14.61
PI 82+65.71
3' Wide Curb Cut
S 87° 43' 34" E
S 89° 09' 38" E
S 84° 13' 39" E
Field Verified that telephone Utility Box Is not In conflict with proposed sidewalk
POT 83+70.00
807
728
729
730
8I+15.II
6.00' RT
SW-WB-02
Constr. IE
Perform Pre & Post CCTV of 10" VCP SS main between SS manhole *814 (308-008-U) and *807 (308-009-U). See Note *2.
82+69.08
6.00' RT
Adjust FO Box to grade
Adjust FO Box to grade
Adjust manhole to grade
3' Wide Curb Cut with Conc. Flume Sta. 83+31.13
Telephone Line To Be Relocated During Construction
Provide Curb Cut (CVB B-18) and 5 SY of Class AI Riprap
Clean Out Existing Curb Cut and Provide 2 SY of Class AI Riprap
Overhead Util. Elev.-24.69
Asphalt Surface
Shore Drive (WB)

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 8II.

SCALE: I"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PARKING LOT DETAIL

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(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	1H(6)
CHECKED BY			

15:44

10-JUN-2025

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RIGHT OF WAY DATA SHEET

PARCEL No.	GPIN No.	LANDOWNER	SHEET NO.	AREA																PROFFERS
				TOTAL		FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS								
												PUBLIC DRAINAGE		PUBLIC PED. ACCESS		PRIVATE UTILITY		TEMPORARY CONSTRUCTION		
				ACRES	SQ. FEET	ACRES	SQ. FEET	ACRES	SQ. FEET	ACRES	SQ. FEET	ACRES	SQ. FEET	ACRES	SQ. FEET	ACRES	SQ. FEET	ACRES	SQ. FEET	YES/NO
1	1489491015	CYNTHIA RUNNELLS	5(3)	0.141	6137					0.141	6137			0.014	604			0.014	604	
2	1489491094	CAROL T. CHAPPELL BRETHAUER REVOCABLE TRUST	5(3)	0.171	7432					0.171	7432			0.029	1252			0.031	1364	
3	1489481843	NORMAN L. FISHER, JR. AND LORAINE J. WHEELER	5(3)	0.168	7312					0.168	7312							0.002	91	
4	1489481894	NORMAN L. FISHER, JR. AND LORAINE J. WHEELER	5(3)	0.139	6071					0.139	6071							0.002	102	
5	1489482867	NORMAN L. FISHER, JR. AND LORAINE J. WHEELER	5(3)	0.153	6665					0.153	6668							0.004	175	
6	1489484828	VIRGINIA NATURAL GAS	5(4)	0.127	5525					0.127	5525			0.005	217			0.012	502	
7	1489484886	VIRGINIA NATURAL GAS	5(4)	0.159	6922					0.159	6922			0.005	224			0.005	224	
8	1489485887	PHILIP M. TRAHADIAS & MARY A. TRAHADIAS	5(4)	0.264	11480					0.264	11480			0.022	952			0.022	952	
9	1489581858	EL TAPATIO III, LLC	5(6)	0.113	4903	0.002	67			0.111	4836									
10	1489498135	3656 SHORE DRIVE LLC	1(H)5	0.555	24187					0.555	24187							0.001	58	

PROPERTY OWNER INFORMATION

Now Or Formerly
CITY OF VIRGINIA BEACH
GPIN: *1489279736
Inst.*201207110007665803
Inst. *201207100007644l0-Plat
Parcel I
3l.l35 Ac.

(01)

Now Or Formerly
CYNTHIA RUNNELLS
*3705 Surry Rd.
GPIN:*1489491015
Inst.*202103061967
M.B.5,Pg.137
Lot 5,blk 26
0.l4l Ac.

Now Or Formerly
TOWNHOMES AT ROANOKE
AVENUE A CONDOMINIUM
GPIN: *1489399074
Inst. *201806040004536l0
Inst.*201806040004536l0(Plat)

(02)

Now Or Formerly
CAROL T.CHAPPELL
BRETHAUER REVOCABLE
TRUST
*3728 Shore Dr.
GPIN:*1489491094
Inst.*200603070003518l0
M.B.5,Pg.137
Lot 4,Block 26
0.l7l Ac.

Now Or Formerly
OCEAN PARK VOLUNTEER
& RESCUE,INC.
*3761 Shore Dr.
GPIN: *1489386716
D.B.1496,Pg.653
M.B.5,Pg.69,137,195 & 197
Lots 1-5, Blk 34
0.769 Ac.

(03)

Now Or Formerly
NORMAN L.FISHER,JR.AND LORAINE J.
WHEELER,TRUSTEES OF THE NORMAN L.
FISHER,JR.AND LORRAINE J.WHEELER
REVOCABLE LIVING TRUST
*3745 Shore Dr.
GPIN: *1489481843
Inst.*201110050010302l0
M.B.5,Pg.69
Lot 5, Sec A,Blk 27
0.l68 Ac.

(04)

Now Or Formerly
NORMAN L.FISHER,JR.AND LORAINE J.
WHEELER,TRUSTEES OF THE NORMAN L.
FISHER,JR.AND LORRAINE J.WHEELER
REVOCABLE LIVING TRUST
GPIN: *1489481894
Inst.*201110050010302l0
M.B.5,Pg.69
Lot 6, Sec A,Blk 27
0.l39 Ac.

(05)

Now Or Formerly
NORMAN L.FISHER,JR.AND LORAINE
J.WHEELER,TRUSTEES OF THE
NORMAN L.FISHER,JR.AND LORRAINE
J.WHEELER REVOCABLE LIVING
TRUST
*3725 Shore Dr.
GPIN: *1489482867
Inst.*201110050010302l0
M.B.5,Pg.69
Lot 7, Sec A,Blk 27
0.l53 Ac.

(06)

Now Or Formerly
VIRGINIA NATURAL GAS
GPIN: *1489484828
Inst.*202203062219
M.B.5,Pg.69
Lot l, Blk 2l
0.l27 Ac.

(07)

Now Or Formerly
VIRGINIA NATURAL GAS
*3708 Dupont Cir.
GPIN: *1489484886
Inst.*202203062219
M.B.5,Pg.69
Lot 2, Blk 2l
0.l59 Ac.

(08)

Now Or Formerly
PHILIP M.TRAHADIAS
& MARY A.TRAHADIAS
*3705 Shore Dr.
GPIN:1489485887
Inst.*201907220006026l0
M.B.5,Pg.69
Lot 3&4, Blk 2l
0.264 Ac.

Now Or Formerly
CITY OF VIRGINIA BEACH
GPIN:*1489498059
D.B.2752,PG.162
M.B.5,Pg.137
0.l35 Ac.

Now Or Formerly
PATRICIA S.HASSELL
GPIN: *1489486893
Inst.*201312000135979l0
M.B.5,Pg.69
W.B.202106005399
Lot l, Blk l5
0.l42 Ac.

(09)

Now Or Formerly
EL TAPATIO III,LLC
GPIN: *1489581858
Inst.*202203010208
M.B.5,Pg.69
Lot 5, Blk l3
0.ll3 Ac.

(10)

Now Or Formerly
3656 SHORE DRIVE LLC
*2208 Rockbridge Rd.
GPIN:*1489498135
Inst.*201512150012009l0
M.B.5,Pg.137
Lots l4-l6, Blk l4
0.555 Ac.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA
AT LEAST 72 HOURS BEFORE GROUND
PENETRATION OR EXCAVATION AT 8ll.

COMMONWEALTH OF VIRGINIA
GARY C. THOMAS
Lic. No. 001985
6/2/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

RIGHT OF WAY DATA SHEET

CITY OF VIRGINIA BEACH VIRGINIA
DEPARTMENT OF PUBLIC WORKS ENGINEERING

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	1J
CHECKED BY			

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2-JUN-2025
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GENERAL NOTES

GENERAL NOTES

1. VIRGINIA LAW MANDATES THAT THE CONTRACTOR SHALL CONTACT MISS UTILITY OF VIRGINIA @ 811 OR 800-552-7001 AT LEAST THREE (3) BUSINESS DAYS PRIOR TO BEGINNING ANY GROUND DISTURBING ACTIVITY IN ORDER TO DETERMINE THE EXTENT AND LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL FOLLOW ALL STATE CODE RELATED TO UTILITY LOCATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING AT THE CONTRACTOR'S EXPENSE ANY UTILITIES, PAVEMENT, CONCRETE ITEMS, PIPES, ETC THAT ARE DAMAGED DURING CONSTRUCTION IN KIND OR BETTER, AS APPROVED BY THE OWNER.
3. THE CONTRACTOR SHALL KEEP THE AREA WITHIN THE PROJECT LIMITS IN A CLEAN CONDITION FREE OF DEBRIS AND TRASH. THE OWNER RESERVES THE RIGHT TO STOP WORK IF THE PROJECT IS NOT MAINTAINED IN A CLEAN CONDITION AT ALL TIMES. THE COST OF THIS DELAY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHEN SOILS OR OTHER MATERIALS UNSUITABLE FOR FOUNDATIONS, SUBGRADE, OR STRUCTURAL PURPOSES IS FOUND WITHIN THE LIMITS OF ROADWAY CONSTRUCTION OR THE STRUCTURAL ZONE OF INFLUENCE, THE CONTRACTOR SHALL EXCAVATE SUCH MATERIAL BELOW THE GRADE AS SHOWN ON THE CONTRACT DOCUMENTS AND SHALL BACKFILL THOSE EXCAVATED AREAS WITH APPROVED MATERIALS AT COMPACTION RATES AS REQUIRED BY THE CONTRACT DOCUMENTS. THE DENSITY OF THE SUBBASE AND AGGREGATE BASE MATERIAL SHALL CONFORM TO THE "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2020 ROAD AND BRIDGE SPECIFICATIONS", SECTIONS 308 AND 309. THE EXTENT OF THE UNDERCUT AND BACKFILL SHALL BE DETERMINED BY THE OWNER. ANY SUITABLE EXCAVATED MATERIALS SHALL BE STOCKPILED SO AS NOT TO INTEREFERE WITH SURFACE DRAINAGE. THE CONTRACTOR SHALL REMOVE ANY UNSUITABLE MATERIAL UNABLE TO BE UTILIZED IN OTHER PARTS OF THE PROJECT FROM THE PROJECT LIMITS AND DISPOSE OF IT IN A LAWFUL MANNER.
5. UNLESS OTHERWISE DIRECTED BY THE OWNER OR NOTED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL ONLY WORK WITHIN THE RIGHT-OF-WAY, OWNER'S PROPERTIES NOTED, AND PERMANENT AND TEMPORARY EASEMENTS.
6. UNLESS OTHERWISE DIRECTED BY THE OWNER OR NOTED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL GRADE DISTURBED AREAS TO 3:1 (H:V) OR FLATTER.
7. THE CONTRACTOR SHALL PLACE A MINIMUM OF FOUR (4) INCHES OF CLASS B TOPSOIL ON ALL DISTURBED AREAS.
8. UNLESS OTHERWISE DIRECTED BY THE OWNER OR NOTED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL FINE GRADE THE TOPSOIL, ADD SOIL MODIFIERS AS REQUIRED BY THE CONTRACT DOCUMENTS AND APPLY MULCH AND SEEDING ON ALL DISTURBED AREAS. THE CONTRACTOR SHALL USE THE SEEDING SCHEDULE(S) SHOWN IN THE CONTRACT DOCUMENTS.
9. ANY EXISTING SIGNS, FENCE, TREES, LANDSCAPING OR OTHER STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE PROTECTED AND/OR REMOVED AND STORED FOR LATER REPLACEMENT BY THE CONTRACTOR AS NOTED IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE OWNER.
10. ALL SAFETY REQUIREMENTS SHALL BE STRICTLY FOLLOWED.
11. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, ORDINANCES, RULES, PERMITS, REGULATIONS AND ORDERS OF ANY AUTHORITIES WITH JURISDICTION. IN CASE OF A DISCREPANCY, THE FOLLOWING ORDER OF PRIORITY WILL APPLY IN SECTION 105.12 "COORDINATION OF CONTRACT DOCUMENTS" OF THE SPECIFICATIONS. ANY CONFLICTS BETWEEN THESE REQUIREMENTS AND THE CONTRACT DOCUMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER.
12. THERE MAY BE OTHER CONSTRUCTION WITHIN THE PROJECT LIMITS. IF THIS OCCURS, THE CONTRACTOR WILL COOPERATE WITH THE OWNER, THE OTHER CONTRACTORS, AND UTILITY OWNERS TO COORDINATE THEIR OPERATIONS AND TO PREVENT DELAYS IN CONSTRUCTION. IF THE CONTRACTOR CHOOSES TO PERFORM WORK OUT OF SEQUENCE OR ADJUST THE CONSTRUCTION SCHEDULE TO ACCOMMODATE OTHER CONSTRUCTION EFFORTS WITHIN THE PROJECT LIMITS, THE CONTRACTOR IS NOT PERMITTED TO SUBMIT A CLAIM FOR DELAY AGAINST THE OWNER FOR FAILURE TO ADEQUATELY COORDINATE SCHEDULES WITH OTHER CONTRACTORS AS REQUIRED.
13. PRIOR TO PREPARING A BID, THE CONTRACTOR IS REQUIRED TO CONTACT KNOWN UTILITY OWNERS TO DETERMINE THE NATURE, EXTENT, AND LOCATION OF EXISTING, ADJUSTED, OR PROPOSED NEW UTILITY FACILITIES WITHIN THE AREAS OF CONSTRUCTION. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR (1) HAS CONSIDERED IN THEIR BID ALL OF THE PERMANENT AND TEMPORARY UTILITY APPURTENANCES IN THEIR PRESENT AND RELOCATED POSITION AND, ANY PROPOSED UTILITY CAPITAL IMPROVEMENTS, AND (2) THE CONTRACTOR HAS CONTACTED THE UTILITY OWNERS WITH REGARD TO THE CONTRACTOR'S PROPOSED SCHEDULE OF WORK. THE CONTRACTOR SHALL INCLUDE IN THEIR PROPOSED SCHEDULE THE AMOUNT OF TIME TO MAKE UTILITY ADJUSTMENTS FROM TIME ESTIMATES FURNISHED BY THE UTILITY OWNERS. ANY COST ASSOCIATED WITH CONTACTING AND COORDINATING WITH THE UTILITY OWNERS SHALL BE REFLECTED IN THE BID PRICE FOR OTHER ITEMS IN THE CONTRACT. IN THE EVENT THE UTILITY OWNERS ARE NON-RESPONSIVE TO THE CONTRACTOR'S EFFORTS TO CONTACT THEM, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO SUBMITTING A BID AS REQUIRED IN SECTION 102.05 (A) "PREPARATION OF BID" OF THE SPECIFICATIONS.
14. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY FIELD CONDITIONS BE ENCOUNTERED THAT VARY FROM THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS.
15. THE CONTRACTOR SHALL COORDINATE ACCESS TO THE WORK, STORAGE AREA, STOCKPILES, STAGING AREAS, AND LAYDOWN LOCATIONS WITH THE OWNER. THE CONTRACTOR SHALL RESTORE THE ACCESS, STORAGE, STOCKPILES, LAYDOWN, AND STAGING AREAS TO THEIR ORIGINAL CONDITION AFTER THE WORK IN THESE AREAS IS COMPLETED. THIS RESTORATION INCLUDES REPLACEMENT OF FENCING, SIGNAGE, GRASS, LANDSCAPING AND ANY OTHER AFFECTED MISCELLANEOUS ITEMS.
16. STOCKPILE LOCATIONS, STORAGE, UNATTENDED EQUIPMENT OR MACHINERY, STAGING AREA OR LAYDOWN AREAS SHALL NOT BE LOCATED WITHIN THE "CLEAR ZONE" AS DEFINED IN THE "AASHTO ROADSIDE DESIGN GUIDE". CONSTRUCTION ENTRANCES SHALL BE PLACED AS REQUIRED BY THE STANDARD DETAILS IN THE CONTRACT DOCUMENTS.
17. STAGING AREAS MUST BE APPROVED BY THE OWNER PRIOR TO UTILIZATION AND SHALL BE FENCED AND MAINTAINED BY THE CONTRACTOR. STAGING AREAS SHALL BE CLEARED OF DEBRIS AND TEMPOARY ITEMS PRIOR TO THE ACCEPTANCE OF WORK IN THESE AREAS.
18. A FULL SET OF CONTRACT DOCUMENTS, INCLUDING ALL ADDENDUMS, THE PROJECT MANUAL, APPROVED SHOP DRAWINGS, AND PERMITS SHALL BE KEPT ON SITE.
19. THE OWNER MUST REVIEW AND APPROVE ANY MODIFICATIONS OR CHANGES TO THE WORK PRIOR TO IMPLEMENTATION OF ANY CHANGES TO THE CONTRACT DOCUMENTS MUST BE MADE IN WRITING AND APPROVED BY BOTH THE CONTRACTOR AND OWNER. THE CONTRACTOR SHALL DENOTE ALL APPROVED MODIFICATIONS AND CHANGES ON THE AS-BUILT DRAWINGS.
20. NO CITY REFUSE COLLECTION WILL BE PROVIDED TO THE PROJECT.
21. THIS SITE DOES NOT LIE WITHIN AIRCRAFT ACCIDENT POTENTIAL ZONE OR CLEAR ZONE OR NOISE ZONE AND MAY NOT BE SUBJECT TO AIRCRAFT ACCIDENTS AND/OR ABOVE AVERAGE NOISE LEVELS DUE TO ITS PROXIMITY TO AIRPORT OPERATIONS. NOISE ZONE ATTENUATION MEASURES FOR NEW CONSTRUCTION ARE REQUIRED IN ACCORDANCE WITH THE AIRPORT NOISE ATTENUATION AND SAFETY ORDINANCE AND HEIGHT RESTRICTIONS HAVE BEEN IMPOSED IN ACCORDANCE WITH SECTION 202(B) OF THE CITY ZONING ORDINANCE.

INCIDENTAL DRAINAGE

1. TEMPORARY DRAINAGE DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR TO ENSURE POSITIVE DRAINAGE IN ALL AREAS WITHIN THE PROJECT LIMITS. STANDING WATER IS NOT PERMITTED WITHIN THE PROJECT LIMITS EXCEPT WHERE AREAS ARE DESIGNED AND INTENDED TO RETAIN STANDING WATER. ADDITIONAL EROSION PROTECTION AND SEDIMENT CONTROL MAY BE REQUIRED FOR TEMPORARY DRAINAGE OR AS DIRECTED BY THE OWNER.
2. THE PROPOSED ROADWAY STORM WATER SYSTEM SHALL BE CONSTRUCTED TO MATCH EXISTING ELEVATIONS UNTIL THE PROPOSED CURBS, CURB AND GUTTERS, ENTRANCES, AND PAVEMENT ARE COMPLETED. THE CONTRACTOR SHALL VERIFY THE EXISTING TOP OF CURB, DRAINAGE STRUCTURE RIM ELEVATIONS, AND PAVEMENT ELEVATIONS AT STORM WATER STRUCTURES AND BULBOUT/NARROWING LOCATIONS PRIOR TO ANY DEMOLITION. THE PROPOSED STORM WATER STRUCTURE RIM ELEVATIONS MAY NEED TO BE ADJUSTED WITH NEW ROADWAY ELEVATIONS AND SLOPES AFTER CONSTRUCTION, FLEXIBLE PAVEMENT PLANING AND PAVEMENT OVERLAY. PROPOSED GRADES CONVEY POSITIVE DRAINAGE AND GRADES MAY VARY SLIGHTLY BASED ON FIELD CONDITIONS. POSITIVE DRAINAGE MUST BE MAINTAINED AT ALL TIMES. CURB INLETS SHALL BE INLINE WITH THE CURB AND GUTTER FLOW LINES. ALL EXISTING CONCRETE ITEMS SUCH AS SIDEWALKS, CURBS, CURB AND GUTTERS, ENTRANCES, AND STORM WATER STRUCTURES SHALL BE CHECKED IN THE FIELD BEFORE CONSTRUCTION AND VERIFIED FOR CORRECT ELEVATIONS.
3. SHOP DRAWINGS ALONG WITH THE PROPER CERTIFICATIONS SHALL BE SUBMITTED TO THE OWNER FOR ALL PRECAST STORM WATER STRUCTURES UNLESS PREVIOUSLY APPROVED OTHERWISE IN WRITING BY THE OWNER. THE CONTRACTOR SHALL PROVIDE SUBMITTALS CONTAINING THE DESIGNS AND SUPPORTING STRUCTURAL CALCULATIONS FOR ALL MODIFICATIONS TO PRECAST STRUCTURES FOR REVIEW AND APPROVAL BY THE OWNER PRIOR TO INSTALLATION.
4. UNLESS NOTED BY THE CONTRACT DOCUMENTS OR DIRECTED IN WRITING BY THE OWNER, ALL PROPOSED STORM WATER STRUCTURES WILL UTILIZE INLET SHAPING WITH PAVED INVERTS.
5. UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS, ALL DRAINAGE STRUCTURE BEDDING FOR DROP INLETS, MANHOLES, AND JUNCTION BOXES SHALL BE INSTALLED IN ACCORDANCE WITH DRAWING "DSB-1" OF THE "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2016 ROAD AND BRIDGE STANDARDS".
6. UNLESS NOTED IN THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED IN WRITING BY THE OWNER, MINIMUM FINAL HEIGHT OF COVER SHALL BE TWO (2) FEET FOR ALL CLASS III, REINFORCED CONCRETE PIPES. FOR FURTHER REQUIREMENTS, SEE SECTION 2.2.7 IN THE DEPARTMENT OF "PUBLIC WORKS DESIGN STANDARDS MANUAL" (PWDSM) FOR PIPE COVER REQUIREMENTS.
7. UNLESS NOTED IN THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED IN WRITING BY THE OWNER, ALL STORM WATER PIPES IN THE RIGHT-OF-WAYS AND EASEMENTS WILL BE TONGUE AND GROOVE REINFORCED CONCRETE PIPE (RCP). STORM WATER PIPE SHALL CONFORM WITH AMERICAN "ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS" (AASHTO) DESIGNATION "M170". ALL PIPE JOINTS SHALL BE SEALED IN ACCORDANCE WITH SECTION 302.03 OF THE "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2020 ROAD AND BRIDGE SPECIFICATIONS".
8. ALL STORM WATER PIPE JOINTS WILL BE INSTALLED SILT FREE AND WILL BE COMPLETELY WRAPPED WITH A TWO (2) FOOT WIDE APPROVED FILTER FABRIC, SECURED IN PLACE PRIOR TO BACKFILLING.
9. ALL STORM WATER PIPES AND CULVERTS LOCATED WITHIN RIGHT-OF-WAY EXCAVATION AREAS THAT ARE SUBJECT TO TRAFFIC LOADS SHALL BE BACKFILLED WITH A SELECT OR GRANULAR MATERIAL PLACED IN SIX (6) INCH LAYERS AND COMPACTED TO 95 PERCENT THEORETICAL AASHTO DENSITY IN ACCORDANCE WITH SECTION 302.03 OF THE "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2020 ROAD AND BRIDGE SPECIFICATIONS".
10. METAL STORM WATER PIPES AND CULVERTS SHALL NOT BE INSTALLED IN THE RIGHT-OF-WAY OR EASEMENTS UNLESS NOTED IN THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED IN WRITING BY THE OWNER IN THAT INSTANCE. METAL STORM WATER PIPES OR CULVERTS SHALL BE INSTALLED IN ACCORDANCE WITH DRAWING "PB-1" OF THE "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2016 ROAD AND BRIDGE STANDARDS".
11. WHEN NOTED IN THE CONTRACT DOCUMENTS OR DIRECTED BY THE OWNER, THE CONTRACTOR WILL FURNISH PH CERTIFICATIONS OF THE BACKFILL MATERIAL IF THE BACKFILL MATERIAL HAS NOT BEEN PREVIOUSLY TESTED.
12. WHEN NON-CONCRETE OR NON-CORRUGATED METAL STORM WATER PIPES AND CULVERTS ARE REQUIRED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL INSTALL A LOCATOR CONDUCTOR (I.E. TAPE OR WIRE) TO AID IN FUTURE DETECTION OF SUCH PIPES AND CULVERTS. THE LOCATOR CONDUCTOR SHALL BE TESTED FOR THE FULL LENGTH OF EACH PIPE BOTH PRIOR TO PAYMENT FOR THE PIPE BEING MADE AND AFTER ALL BACKFILLING OPERATIONS ARE COMPLETE. IF THE LOCATOR CONDUCTOR IS WITHIN A FOOT OF THE PAVEMENT STRUCTURE, IT SHALL BE RE-TESTED AFTER PLACEMENT OR ROADWAY BASE BUT PRIOR TO PAVING OPERATIONS.
13. ENDWALLS AND FLARED END SECTIONS WILL NOT BE CONSTRUCTED ON OUTFALL PIPES UNTIL THE OWNER GIVES APPROVAL ON SITE.
14. UNLESS NOTED BY THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED BY THE OWNER, RIPRAP WILL BE PROVIDED AT ALL ENDWALLS AND FLARED END SECTIONS.
15. THE DESIGN SLOPES FOR STORM DRAIN PIPES ARE DETERMINED BY SENSITIVE HYDRAULIC CALCULATIONS. FAILURE TO PROVIDE DESIGN SLOPES CAN RESULT IN FLOODING OR DEFICIENT WORK. THESE PIPES MAY NEED TO BE REMOVED AND REINSTALLED AT THE CONTRACTOR'S EXPENSE.
16. THE CONTRACTOR SHALL PERFORM A PRE-CONSTRUCTION AND POST-CONSTRUCTION CCTV INSPECTION OF ADJACENT STORM DRAIN PIPES AND MAKE ANY NECESSARY REPAIRS RESULTING FROM THE CONSTRUCTION ACTIVITY AT NO ADDITIONAL COST.
17. AT NIGHT OR DURING NON-CONSTRUCTION HOURS, ACTIVE STORM DRAIN PIPES MUST BE TEMPORARILY CONNECTED AND THE EXCAVATED AREA SHALL BE BACKFILLED UNLESS A TWENTY-FOUR (24) HOURS TEMPORARY STREET CLOSURE IS APPROVED AND IN EFFECT, OR SECURED AND PROTECTED BY USING APPROVED SAFETY DEVICES OR MATERIALS.
18. FAILURE TO COMPLY WITH THE POLLUTION PREVENTION CONTRACT REQUIREMENTS WILL RESULT IN IMMEDIATE HALT OF PAYMENTS UNTIL ALL NOTICES OR NON-COMPLIANCE ARE RESOLVED.
19. THE CONTRACTOR WILL PROVIDE A STORM WATER FLOW PLAN WHEN PREFORMING WORK ON EXISTING STORM DRAIN SYSTEMS. THIS PLAN WILL DEMONSTRATE HOW THE CONTRACTOR WILL MAINTAIN OR RESTORE THE EXISTING CAPACITY OF THE STORM DRAIN SYSTEM IN THE EVENT OF INCLEMENT WEATHER AS REQUIRED. THE PREPARATION OF THIS PLAN ALONG WITH ANY EQUIPMENT, MATERIAL, OR LABOR NECESSARY TO MAINTAIN FLOWS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
20. ALL HEADWALLS, CULVERTS, FLARED END SECTIONS, SWALES/DITCHES, OR OTHER EXPOSED FIXED OBJECTS MUST MEET THE CLEAR ZONE REQUIREMENTS PER VDOT ROAD DESIGN MANUAL.

INCIDENTAL CONCRETE

1. UNLESS OTHERWISE NOTED IN THE BID DOCUMENTS, ALL CONCRETE WILL BE CLASS "A-3", 3,000 PSI AIR ENTRAINED CONCRETE IN ACCORDANCE WITH SECTION 217 OF THE "VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2020 ROAD AND BRIDGE SPECIFICATIONS" AND AS AMENDED BY THE "CITY OF VIRGINIA BEACH AMENDMENTS TO THE VDOT 2020 ROAD AND BRIDGE SPECIFICATIONS".
2. ANY EXISTING CONCRETE INCLUDING, BUT NOT LIMITED TO SIDEWALKS, DRIVEWAYS, ENTRANCES, CURBS, CURB AND GUTTERS, GUTTERS, CURB RAMPS OR RAISED MEDIANS DAMAGED DURING CONSTRUCTION (INCLUDING DEFECTIVE, FAULTY, CRACKED, DISLOCATED, OR BROKEN CONCRETE) SHALL BE REMOVED AND REPLACED TO THE NEAREST JOINTS AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. SIDEWALKS, CURBS, AND CURB AND GUTTERS WILL BE CONSTRUCTED IN SECTIONS OF UNIFORM LENGTH OF APPROXIMATELY TEN (10) FEET. NO SECTION WILL BE LESS THAN SIX (6) FEET. EXPANSION JOINTS WILL BE FORMED USING ONE-HALF (½) INCH PREMOLDED BITUMINOUS FIBER JOINT FILLER. CONSTRUCTON JOINTS ARE REQUIRED AT THE FOLLOWING INTERVALS:
   A. CURB AND/CURB AND GUTTER 100'
   B. FIVE (5) FOOT WIDE SIDEWALK 50'
   C. TEN (10) FOOT WIDE SIDEWALK 50'
4. ALL ENTRANCES WILL BE CONSTRUCTED WITH A MINIMUM OF SEVEN (7) INCH THICK, 3,000 PSI CONCRETE FROM THE EDGE OF PAVEMENT TO THE RIGHT-OF-WAY LINE.
5. WHEN EXISTING DRIVEWAYS ARE DISTURBED BEYOND THE PROPOSED CONSTRUCTION LIMITS, THE OWNER, PROPERTY OWNER AND THE CONTRACTOR WILL COORDINATE A WORKABLE TIE-IN TO THE EXISTING DRIVEWAYS. THE CONTRACTOR SHALL MATCH THE EXISTING DRIVEWAY WIDTH, THICKNESS, REINFORCING, ELEVATION AND FINISH FROM THE RIGHT-OF-WAY TO THE TIE-IN.
6. UNLESS NOTED BY THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED BY THE OWNER, CONCRETE SIDEWALKS SHALL BE FOUR (4) INCH THICK, 3,000 PSI CONCRETE. CG-12 CURB RAMPS AND TAPERS SHALL BE SEVEN (7) INCH THICK, 3,000 PSI CONCRETE.
7. ALL CONCRETE WORK IN THE RIGHT-OF-WAY SHALL BE INSPECTED BY THE OWNER.
8. THE CONTRACTOR SHALL REPLACE ALL DAMAGED OR REMOVED SIDEWALKS DAILY. THE TEMPORARY SIDEWALK SHALL BE ONE (1) INCH COLD MIX OVER COMPACTED SUBGRADE AND SLOPED TO PROVIDE POSITIVE DRAINAGE AND ADA COMPLIANCE. THE PERMANENT SIDEWALK REPLACEMENT SHALL BE IN ACCORDANCE WITH THE DETAILS IN THE CONTRACT DOCUMENTS. TEMPORARY SIDEWALK IS INCIDENTAL TO THE PROJECT.

PAVEMENT AND OPEN CUTS

1. UNLESS NOTED BY THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED BY THE OWNER, OPEN CUTS SHALL NOT BE ALLOWED ON PUBLIC ROADWAYS. OPEN CUTS NOT NOTED ON THE CONTRACT DOCUMENTS MAY BE PERMITTED ON THE PUBLIC ROADWAYS ONLY WITH PRIOR WRITTEN APPROVAL BY THE OWNER.
2. THE CONTRACTOR SHALL REPAIR ALL PAVEMENT DAMAGE DUE TO MARRING SETTLEMENT OF EXCAVATIONS, PIPE BEDDING, BACKFILLING, FROST, BACKFILL MATERIALS OR COMPACTIONS OF OPEN CUTS AT THE CONTRACTOR'S EXPENSE.
3. ON PRIVATE PROPERTY, THE MINIMUM ON-SITE PAVEMENT REPLACEMENT AND DESIGN WILL BE ONE AND ONE-HALF (1 ½) INCHES OF ASPHALT CONCRETE, TYPE SM-9.5A OVER EIGHT (8) INCHES OF COMPACTED AGGREGATE BASE MATERIAL, TYPE I, NO. 21A OR 21B OVER COMPACTED SUBGRADE.
4. WITHIN THE RIGHT-OF-WAY, PAVEMENT REPLACEMENT WILL BE DESIGNED IN ACCORDANCE WITH THE "PUBLIC WORKS DESIGN STANDARD MANUAL" (PWDSM) INCLUDING SECTIONS 5.10 "PAVEMENT REPLACEMENT AND PATCHING", PAVEMENT PATCHING DETAIL STANDARD DRAWINGS "C-3A" (FLEXIBLE PAVEMENT PATCH FOR LOCAL & COLLECTOR STREETS), "C-3B" (FLEXIBLE PAVEMENT PATCH FOR MAJOR & MINOR ARTERIALS) AND "C-4" (RIGID PAVEMENT PATCHING).
5. THE CONTRACTOR SHALL INSPECT TEMPORARY PAVEMENT PATCHES AT THE END OF EACH DAY AND AFTER RAINFALL EVENTS FOR DAMAGE. THE CONTRACTOR SHALL MAKE REPAIRS AS REQUIRED TO PROVIDE A SMOOTH AND STABLE RIDING SURFACE. TEMPORARY PAVEMENT PATCH AND REPAIRS SHALL BE INCLUDED IN THE COST OF OTHER ITEMS AND WILL NOT BE PAID FOR SEPARATELY.
6. BEFORE ANY CONSTRUCTION IS PERFORMED, THE CONTRACTOR SHALL SUBMIT THE CERTIFICATION OF MATERIALS AND THE TEST RESULTS TO THE OWNER AS NOTED IN CONTRACTOR'S QUALITY CONTROL AND IN SECTION 200.07 OF THE "CITY'S AMENDMENTS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2020 ROAD AND BRIDGE SPECIFICATIONS".
7. NO CONSTRUCTION IS ALLOWED WITHIN THE RIGHT-OF-WAY OF ATLANTIC AND PACIFIC AVENUES AND CONNECTING NUMBERED STREETS BETWEEN ATLANTIC AND PACIFIC AVENUES FROM RUDEE INLET TO 42 ND STREET BETWEEN MAY 1 ST AND SEPTEMBER 30 TH. ADDITIONAL RIGHT-OF-WAY AT THE OCEANFRONT, CROATAN, SANDBRIDGE, AND ALONG GENERAL BOOTH BLVD. MAY BE INCLUDED UNDER THIS SEASONAL RESTRICTION. CONTACT TRAFFIC ENGINEERING AT 757-385-4131 FOR THESE ADDITIONAL RESTRICTIONS.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

GENERAL NOTES

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		2(1)

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GENERAL NOTES

UTILITY NOTES

1. THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITIES CONSTRUCTION REPRESENTATIVE IN WRITING AT LEAST TEN (10) CALENDAR DAYS PRIOR TO ANY SHUT DOWN ON ANY UTILITY WORK. PUBLIC UTILITIES REPRESENTATIVE SHALL BE PRESENT FOR ALL WATER AND SANITARY SEWER CONNECTIONS, TESTING AND ACCEPTANCE.

2. ALL PUBLIC UTILITIES WATER MAINS TWELVE (12) INCHES OR LARGER SHALL BE RESTRICTED FROM SHUTDOWN DURING THE PERIOD OF MAY 1ST THROUGH SEPTEMBER 30TH. THE CONTRACTOR SHALL PLAN WORK SCHEDULE AROUND THIS PERIOD. ANY REQUEST FOR SHUTDOWN DURING THIS PERIOD SHALL REQUIRE THE APPROVAL OF THE UTILITY OPERATION ADMINISTRATOR.

3. THE LOCATION AND EXTENT OF EXISTING UTILITY AND STORM DRAIN FACILITIES ARE SHOWN BASED UPON INFORMATION AVAILABLE DURING DESIGN. THE EXISTING UTILITIES AND STORM DRAINS ARE SHOWN BASED ON AVAILABLE RECORDS AND SURVEYS AND MAY NOT BE EXACT OR COMPLETE. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES AND STORM DRAIN FACILITIES IN ADVANCE OF CONSTRUCTION.

4. UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS, PRIVATE UTILITIES ARE TO BE ADJUSTED OR RELOCATED BY THEIR RESPECTIVE PRIVATE UTILITY OWNER. RELOCATION OF PRIVATE UTILITIES MUST BE COMPLETED PRIOR TO PLACEMENT OF ANY ROADWAY BASE MATERIAL OR PAVEMENTS.

5. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR IS TO LOCATE, MARK AND PROTECT ALL UTILITY SURFACE FEATURES TO INCLUDE, BUT NOT LIMITED TO: VALVES, MANHOLES, APPURTENANCE, COVERS, WATER METERS, SANITARY SEWER CLEANOUTS AND AIR VENTS.

6. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN UNINTERRUPTED SERVICES. ANY LOST AND DAMAGE INCURRED TO UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND REPAIRED AT THE CONTRACTOR'S EXPENSE. ANY EXPENSES INCURRED BY THE CITY FOR REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR. THE REPLACEMENTS SHALL BE IN KIND OR BETTER AS APPROVED BY THE OWNER.

7. THE CONTRACTOR SHALL VERIFY EXISTING UPSTREAM AND DOWNSTREAM SANITARY SEWER MANHOLE INVERTS PRIOR TO GRAVITY SANITARY SEWER CONSTRUCTION.

8. THE CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ALL UTILITY APPURTENANCES INCLUDING, BUT NOT LIMITED TO: VALVES, HYDRANTS, VAULTS, METERS, VENTS, CLEANOUTS, AND MANHOLES.

9. CLEARANCES BETWEEN PUBLIC AND PRIVATE UTILITIES SHALL BE IN ACCORDANCE WITH THE "PUBLIC UTILITIES DESIGN STANDARDS MANUAL".

10. CLEARANCES BETWEEN PUBLIC UTILITY MAINS AND OTHER CITY INFRASTRUCTURE SHALL BE IN ACCORDANCE WITH THE "PUBLIC UTILITIES DESIGN STANDARDS MANUAL".

11. UNLESS NOTED IN THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED BY THE OWNER, ALL VALVE BOXES WITHIN THE LIMITS OF CONSTRUCTION SHALL NOT BE ADJUSTED TO GRADE WITH RISER RINGS BUT SHALL BE EXCAVATED AND ADJUSTED TO PROPOSED GRADE.

12. UNLESS NOTED IN THE CONTRACT DOCUMENTS OR OTHERWISE DIRECTED BY THE OWNER, MANHOLE ADJUSTMENTS REQUIRE THE FRAME AND COVER CASTING TO BE REMOVED AND THE TOP ELEVATION OF THE FRAME AND COVER ADJUSTED TO PROPOSED GRADE BY USING MANHOLE ADJUSTMENT RING(S) PER THE SANITARY SEWER MANHOLE ADJUSTMENT DETAIL.

13. ALL VAULTS, HYDRANTS, METERS, AND CLEANOUTS IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO THE PROPOSED GRADE.

14. RIM ELEVATIONS SHOWN IN THE CONTRACT DOCUMENTS FOR STORM WATER MANHOLES, GAS VALUES, ELECTRIC, TELEPHONE AND TRAFFIC PULL BOXES, AND OTHER SUCH ITEMS ARE APPROXIMATE. RIM ELEVATIONS SHALL BE ADJUSTED TO GRADE FLUSH WITH THE PROPOSED GRADE. CURB INLETS SHALL BE INLINE WITH THE CURB AND GUTTER FLOWLINES. THE COST OF ADJUSTING THESE ITEMS TO GRADE SHALL BE INCIDENTAL AND INCLUDED IN THE COST OF OTHER PAY ITEMS.

15. THE CONTRACTOR WILL CAREFULLY EXCAVATE DOWN TO THE EXISTING UTILITY LINES OR STORM WATER PIPES TO VERIFY THE TYPE OF MATERIAL, OUTSIDE DIAMETER, ORIENTATION JOINT LOCATIONS/TYPE, AND ELEVATION OF THE UTILITY OR STORM WATER PIPE AT EACH PROPOSED CONNECTION PRIOR TO ORDERING MATERIALS. THE CONTRACTOR WILL ENSURE THAT FITTINGS AND JOINTING MATERIALS ARE PROPERLY SIZED TO PERFORM THE FUNCTION OF THE EXISTING UTILITY AND/OR STORM WATER PIPES. ALL NECESSARY FITTINGS, MATERIALS, AND EQUIPMENT REQUIRED TO MAKE CONNECTIONS SHALL BE ONSITE CHECKED AND APPROVED BY THE OWNER BEFORE ANY CONNECTION WORK. UNLESS SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS, THE COST OF THESE CONNECTIONS SHALL BE INCIDENTAL TO OTHER PAY ITEMS.

16. UNLESS OTHERWISE SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS, ALL PIPE MATERIALS SHALL BE IN ACCORDANCE WITH THE PUBLIC UTILITIES DESIGN STANDARDS MANUAL. ALL DUCTILE IRON PIPE SHALL BE INSTALLED WITH V-BIO POLYETHYLENE ENCASEMENT INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

17. CONTRACTOR SHALL ADJUST PIPELINE ALIGNMENT AND DEFLECT JOINTS AS NECESSARY PER CONTRACT DOCUMENTS OR OWNER APPROVAL.

18. RESTRAINED PIPE JOINTS SHALL BE INSTALLED AS INDICATED ON THE CONTRACT DOCUMENTS.

19. UNLESS NOTED IN THE CONTRACT DOCUMENTS OR AS OTHERWISE DIRECTED BY THE OWNER, CONNECTIONS TO EXISTING MAINS SHALL BE IN ACCORDANCE WITH THE "PUBLIC UTILITIES DESIGN STANDARD MANUAL".

20. TAPPING SLEEVES SHALL BE INSTALLED A MINIMUM OF FIVE AND ONE-HALF (5 ½) FEET FROM JOINTS AND PIPES FREE FROM DETERIORATION PER THE MANUFACTURER'S RECOMMENDATIONS.

21. MECHANICAL JOINT CAPS OR PLUGS SHALL BE PLACED ON ALL PARTIALLY COMPLETED WATER MAINS, FORCE MAINS AND GRAVITY SEWER MAINS DURING CONSTRUCTION AND REMAIN IN PLACE UNTIL FINAL COMPLETION OF AFFECTED WATER MAINS, FORCE MAINS AND GRAVITY SEWER MAINS.

22. THE CONTRACTOR IS RESPONSIBLE FOR RESTRAINT (INCLUDING TEMPORARY BUTTRESSING) OF THE EXISTING WATER MAINS AND FORCE MAINS AGAINST SYSTEM PRESSURE PRIOR TO RESTORING PRESSURE, DURING SYSTEM START UP, AND UNTIL FINAL BACKFILL IS PLACED AND COMPACTED.

23. EXISTING PIPE JOINTS AT TIE-IN LOCATIONS SHALL BE RESTRAINED AS INDICATED ON THE CONTRACT DOCUMENTS WITH APPROVED JOINT RESTRAINT SYSTEMS. THE CONTARCTOR SHALL RESTRAIN EXISTING PIPE JOINTS PRIOR TO PERFORMING TIE-IN WORK.

24. UPDATED AS-BUILT DRAWINGS SHALL BE AVAILABLE FOR INSPECTION BY THE OWNER AS A PART OF THE MONTHLY INVOICING PROCESS.

25. THE CONTRACTOR SHALL MAINTAIN EIGHTEEN (18) INCHES MINIMUM VERTICAL SEPARATION AND FIVE (5) FEET MINIMUM HORIZONTAL SEPARATION FROM HAMPTON ROADS SANITATION DISTRICT (HRSD) INFRASTRUCTURE. PIPE CROSSINGS ON HRSD INFRASTRUCTURE SHALL BE A MINIMUM OF FIVE (5) FEET FROM ANY JOINT.

26. THE CONTRACTOR SHALL PROVIDE HRSD A MINIMUM OF 2 WORKING DAYS NOTICE PRIOR TO COMMENCING ANY WORK ON OR AROUND HRSD INFRASTRUCTURE AND THREE (3) WEEKS NOTICE PRIOR TO PLANNED CONNECTION TO HRSD INFRASTRUCTURE. NOTIFYING MISS UTILITY DOES NOT FULFILL THIS REQUIREMENT. CONTACT INTERCEPTION OPERATIONS:
    OFFICE (DURING BUSINESS HOURS): (757) 460-7072
    EMERGENCY (AFTER HOURS): (757) 284-8118 (DUTY SUPERVISOR)
    (757) 284-8120 (DUTY TECHNICIAN)

27. THE CONTRACTOR SHALL CLEAN AND CCTV ALL STORM DRAINS, GRAVITY SANITARY SEWER MAINS, AND GRAVITY SEWER LATERALS CROSSED BY PROPOSED PIPELINES BEFORE AND AFTER INSTALLATION OF THE PROPOSED PIPELINES FROM MANHOLE TO MANHOLE, THE CONTRACTOR SHALL PROVIDE PRE AND POST CCTV OF ALL STORM DRAINS, GRAVITY SANITARY SEWER MAINS AND GRAVITY SEWER LATERALS TO THE OWNER. IF DAMAGED DURING CONSTRUCTION, PUBLIC UTILITIES PREFERS REPAIR WITH C900/DI PIPE. CONTRACTOR TO COORDINATE REPAIRS WITH PUBLIC UTILITIES. ANY REPAIRS REQUIRED SHALL BE RE-CCTV'D FOR REVIEW BY THE OWNER UNTIL FINAL OWNER ACCEPTANCE.

28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SANITARY SEWER FLOWS AT ALL TIMES DURING CONSTRUCTION PER CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPERVISION, LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE CONTROL OF SEWAGE DURING CONSTRUCTION ACTIVITIES. UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS. THE COST OF MAINTAINING SANITARY SEWER FLOWS SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS.

29. DURING THE SHUTDOWN PROCESS, THE OWNER CANNOT GUARANTEE THE FULL STOPPAGE OF FLOW WILL BE ACHIEVED AT TIE-IN LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HANDLING CONSTANT FLOWS DURING TIE-IN WORK SHOULD FULL ISOLATION FROM FLOW AT THE TIE-IN LOCATION NOT BE ACHIEVED. THE COST OF HANDING CONSTANT FLOWS DURING TIE-IN WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER BID ITEMS.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

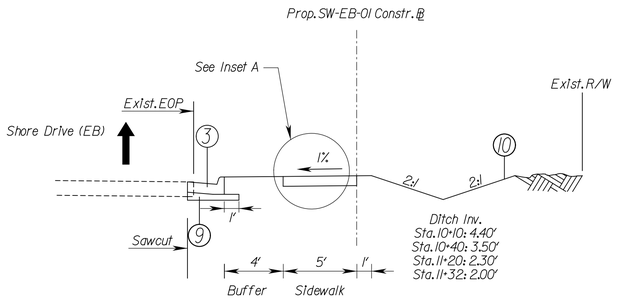
CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

GENERAL NOTES

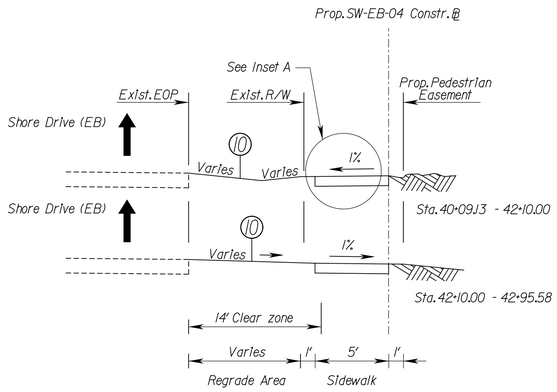
WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	2(2)
CHECKED BY			

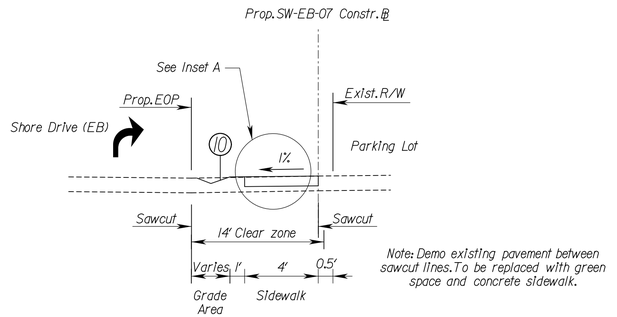
TYPICAL SECTIONS



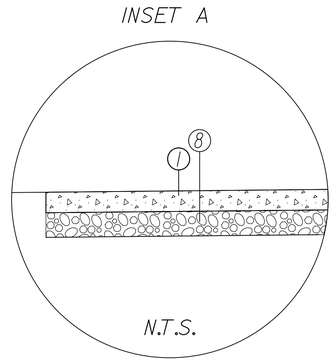
Sidewalk (EB) - 01
Sta.10+10.00 to Sta.12+28.40

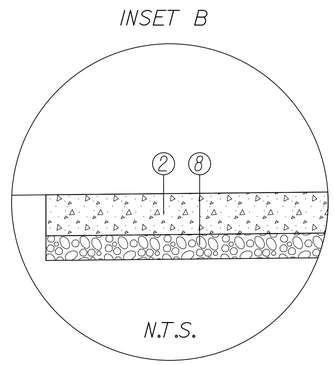


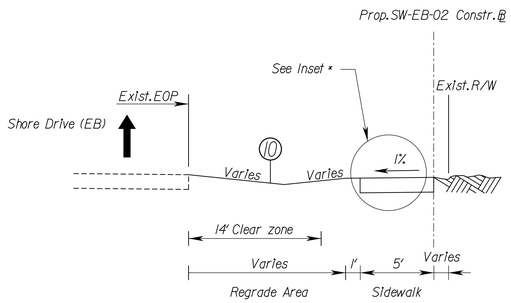
Sidewalk (EB) - 04
Sta.40+09.13 to Sta.42+95.58



Sidewalk (EB) - 07
Sta.70+41.48 to Sta.70+94.23

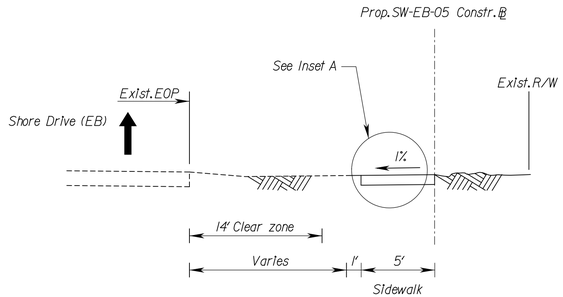




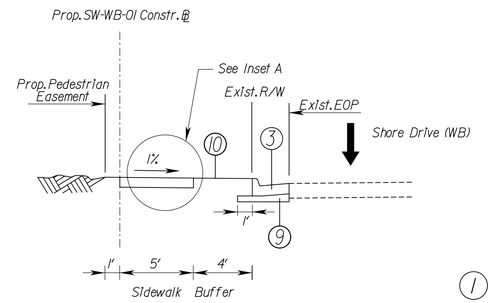


* See Inset A - Sta.20+00.51 to Sta.20+16.62
See Inset B - Sta.20+45.00 to Sta.21+76.50
See Inset A - Sta.22+06.92 to Sta.22+43.00

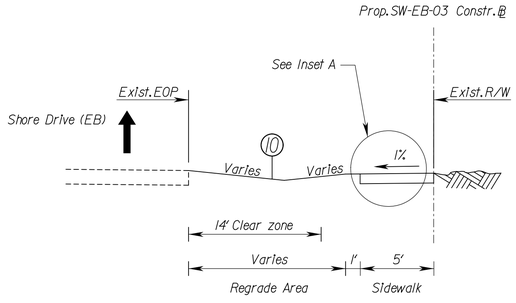
Sidewalk (EB) - 02
Sta.20+00.51 to Sta.22+43.39



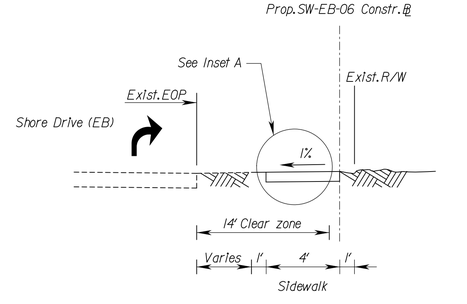
Sidewalk (EB) - 05
Sta.50+10.00 to Sta.52+47.67



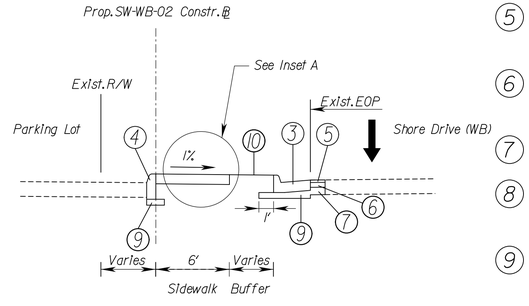
Sidewalk (WB) - 01
Sta.70+10.00 to Sta.73+12.86



Sidewalk (EB) - 03
Sta.30+10.00 to Sta.32+31.32



Sidewalk (EB) - 06
Sta.60+10.00 to Sta.60+25.67



Sidewalk (WB) - 02
Sta.80+39.16 to Sta.83+49.62

(1) 4" Hydraulic Cement Concrete Sidewalk

(2) 7" Hydraulic Cement Concrete Sidewalk

(3) Std.VDOT CG-6 Curb and Gutter

(4) Std.VDOT CG-2 Curb

(5) 2" Asphalt Concrete Surface Course, Type SM-9.5A

(6) 3" Asphalt Concrete Intermediate Course, Type IM-19.0A

(7) 4" Asphalt Concrete Base Course, Type BM-25.0A

(8) 4" Std. VDOT Aggregate Base Material Type I or II No.21A or 21B

(9) Variable Depth Aggregate Base Material, Type I or II No.21A or 21B (4" Min.)

(10) 4" Topsoil and Seed

PRIVATE AND COMMERCIAL ENTRANCES

TYPE I
Crusher Run Aggr.

6" Crusher Run Aggr.
25 or 26

TYPE II
Concrete

Concrete Entrance Pavement
7" HES
4" Aggr.Base Mat'l.Ty.I
No.21A or 21B

TYPE III
Asphalt

Asphalt Conc.Type
SM-9.5A or SM-9.5D @ 220 Lbs.per S.Y.
4" Aggr.Base Mat'l.Ty.I
No.21A or 21B

TYPE IV
Asphalt Commercial

Asphalt Conc.Type
SM-9.5A or SM-9.5D @ 165 Lbs.per S.Y.
4" Asphalt Conc.Base Course
BM-25.0
6" Aggr.Base Mat'l.Ty.I
No.21A or 21B

NOT TO SCALE

The type of entrance (I,II,III,IV) to be constructed will be determined by the existing condition at the time of construction

Undercut Note: Excavate approximately 6" beneath proposed sidewalk section to replace with compacted select borrow material.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

TYPICAL SECTIONS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		2A	

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2-JUN-2025
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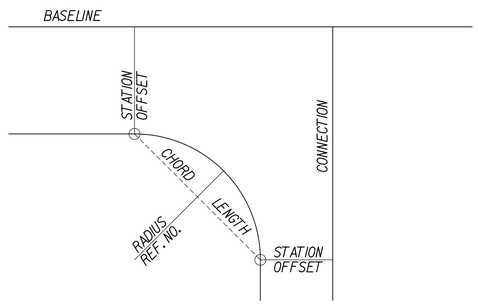
CURB DATA SHEET

RADIAL OFFSETS / BULLET NOSE DATA



LOCATION (REF. NO.)	BASELINE		CONNECTION		RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET
5(1) - 1-1	11+34.27	8.50L	11+81.96	11.50R	40	55.85	61.82
5(1) - 1-2	12+12.58	0.50R	12+32.82	14.38L	21.48	25.12	26.83
5(2) - 2-1	20+12.53	6.13L	20+17.61	2.53R	23.80	10.03	10.11
5(4) - 4-1	73+03.49	1.34L	73+14.46	10.10R	47.34	15.84	15.92
5(4) - 4-2	80+50.71	7.54R	80+57.62	2.48L	75.42	12.16	12.18
5(5) - 5-1	80+25.97	15.50L	80+27.97	13.50L	2	2.83	3.14
5(5) - 5-2	80+10.97	10.50L	80+15.97	15.50L	5	7.07	7.85
5(5) - 5-3	80+10.97	4.35L	80+15.58	6.47R	15	11.76	12.09
5(5) - 5-4	80+15.58	6.47R	80+42.87	17.61R	40	31.38	32.25
5(5) - 5-5	81+59.77	21.34R	81+98.91	13.20L	40	50.95	55.23
5(5) - 5-6	81+93.26	18.65L	81+98.91	13.20L	5	7.85	9.03
5(5) - 5-7	81+79.06	14.70L	81+80.77	16.95L	2	2.83	3.14
5(5) - 5-8	83+29.70	5.00R	83+31.22	8.86R	33	4.15	4.15

LOCATION (REF. NO.)	BASELINE		CONNECTION		RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET

All curb data dimensioned to face of curb unless otherwise noted.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA
AT LEAST 72 HOURS BEFORE GROUND
PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

CURB DATA SHEET

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	2B
CHECKED BY			

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2-JUN-2025
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Hedgerow
L/P #K147
36" RCP SDFM (DAT
Conc.Walk
Unk
T/Tg
30" C&G
SFMV
SFMV (2)
Asphalt Surface
Shore Drive (WB)
36" RCP SDFM (DATR)
Stamped Brick
6"CC
Conc.(Typ.)
Riprap (Typ.)
Shrubs
Swale
TCHH (2)
Wood Sign
In Pl. 18" RCP w/FES Inv. Out = 1.18
TCHH
S 89°05'44" W 419.52'
Survey Baseline
Pin w/Cap #508
X=12,182,661.847
Y=3,498,751.677
Elev.=3.95'
Shore Drive (EB)
Asphalt Surface
N 75°36'30" W 407.53'
Survey Baseline
SW-EB-01
Constr. ℄
TH-204
TH-205
TH-206
TH-207
TH-208
N 82° 48' 04" E
N 86° 37' 25" E
N 82° 48' 04" E
N 81° 38' 00" E
POT 10+90.00
PI 10+10.00
PI 10+25.00
PCI 11+34.30
PT 11+69.20
POT 12+35.00
Guy
Guy (3)
CATV
FO Duct
L/P #K114
L/P #K134
L/P #K164
P/P #K178
8'CLF
Sign
Conc.
Marlin Bay Drive
Clipper Bay Drive
Sapling (2)
Shrubs
Asphalt Surface
Conc. Gutter
C-Ped (2)
T-Ped (2)
530
12
5
2
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

LEGEND

Test Hole

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
COMMONWEALTH OF VIRGINIA
LAND SURVEYOR
SURVEYOR

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EXISTING CONDITIONS PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	3(1)
CHECKED BY			

16:20

2-JUN-2025

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584 583 786 586 838 837 785 784 783

Shore Drive (WB)

Asphalt Surface

30" C&G

In Pl. 15" RCP w/Headwall Inv. In = 0.28

In Pl. 15" RCP Inv. In = 1.30

Sign

Sign (Typ.)

Grass Median

12" Oak

X-Walk Post

TCHH

TCHH (2)

S 82°05'15" W 408.62'
Survey Baseline

S 89°05'44" W 419.52'
Survey Baseline

Shore Drive (EB)

Pin w/Cap #505
X=12,183,443.019
Y=3,498,853.814
Elev.=3.57

POT10+00.00

POT22+55.00

Conc. Walk

L/P #M158

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1983 (HARN)

PI 20+85.58

PT21+52.99

N 82° 39' 11" E

N 37° 42' 39" E

PC21+57.78

PC21+41.23

S 7° 20' 49" E

N 82° 42' 25" E

Post

Unk

DWY 5(2)-1
Constr. ℄
POT10+50.00

SW-EB-02
Constr. ℄

Gravel Surface

TH-209

N 80° 13' 20" E

N 82° 33' 32" E

POT20+00.00

PI 20+07.08

TCab

Pin

Mystic Cove

6'CLF

L/S Timbers

T-Ped

L/P #M126

Asphalt Surface

LEGEND

Test Hole

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
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LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EXISTING CONDITIONS PLAN - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	3(2)
CHECKED BY			

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2-JUN-2025
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1-Sty.Brk. Bldg. #3728
6"W
6"CC
Conc.Walk
A/C (2)
Conc.Walk
ing
ick Column (Typ.)
POT 30+00.00 70
PI 30+20.16
Conc.Surface
PI 30+42.41
PI 30+61.81
Pine
PI 30+73.49
71
Asphalt Surface
FOHH
L/P No#
6"CC
PIPE
Sign
PI 17+93.28
N 35° 51' 26" E
Surry Road
754
Dupont Circle
4'PLF
N 82° 42' 39" E
S 86° 47' 09" E
N 85° 06' 58" E
N 89° 57' 41" E
N 82° 26' 27" E
30" C&G
Pin (F)
FOHH
P/P No#
Sign
8" Cedar
PI 17+77.64
N 84° 38' 44" E
T/Tg
T/FO
2"G
755
820
Sidy / Cap #503
N 2,184,217.482
E 3,499,011.301
Elev.=4.35'
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993
SFMV
SW-WB-01
Constr. B
N 86° 37' 34" W 402.94'
Survey Baseline
Asphalt Surface
Shore Drive (WB)
S 74° 41' 15" W 383.34'
Survey Baseline
Unk
Sapling
Overhead Util. Elev.=26.10
Sapling
Sapling
Median
12" Pine
8" Pine
12" Pine
Sapling
6" CM
TC
TCHH
Shore Drive (EB)
Asphalt Surface
POT 30+00.00
4'WDF
Conc.Walk
N 82° 42' 39" E
TH-210
TH-211
TH-212
N 83° 33' 13" E
818
759
Brick Wall
Y/L (3)
Conc.Walk
Shrubs
PC 31+96.78
PRT 32+12.19
POT 32+50.80
Conc.Walk
Shrubs
Dupont Circle
SW-EB-03
Constr. B
Tele.MH
18" Oak (Trpl.)
902
901
798
*3718
*3716
*3714
4'WDF
MATCH LINE SEE SHEET 3(4)

LEGEND

Test Hole

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EXISTING CONDITIONS PLAN - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	3(3)
CHECKED BY			

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2-JUN-2025

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MATCH LINE SEE SHEET 4(3)

MATCH LINE SEE SHEET 3(5)

Conc.Walk
Shrubs
POT 73+30.00
73
(a)
(b)
N 84° 38' 44" E
SW-WB-01 Constr.
FOHH
PIPE (F)
T-Ped
L/P #0J01
6'PLF
Shrubs
Shrubs
6" CC
T/FO
T/Tg
8 "SAN
Conc.Walk
Conc. Apron
(c)
30" C&G
819
752
SFMV
Asphalt Surface
Asphalt Surface
P/P #0J42
POT 80+00.00
80
732
15" Pine
Pin (F)
(a)
PI 80+49.81
S 87° 43' 34" E
6" CC
Conc.Walk
N 86° 55' 42" E
8 "SAN
T/Tg
T/FO
15" Pine
SW-WB-02 Constr.
(a)
(b)
30" C&G
73FMV (3)
Shore Drive
Variable Width R/W
VDOT Projects
#0060-134-102 PE-101, C-501, RW-201
#0060-075-011 RW-2, C-2
#2175-06 08-13 0060-075-011 RW-1, C-1, C-2, RW-2
Shore Drive (WB)
N 86° 37' 34" W 402.94'
Survey Baseline
Overhead Util. Elev.=32.72
Grass Median
751
6" CM
6" CM
6" CM
6" CM
8" Oak
TC
TCHH
6" CC
TCHH
Pin w/Cap #502
X=12,846,19.719
Y=3,498,987.588
Elev.=5.25'
Shore Drive (EB)
Asphalt Surface
POT 40+00.00
N 83° 33' 13" E
8 "G
16 "W
FO Duct
T/FO
T/Tg
E
(a)
(b)
(c)
(d)
PI 41+06.00
N 78° 14' 45" E
750
PI 40+67.54
Wood Rail Fence
P/P #0138
SW-EB-04 Constr.
CTV Power Box
817
Pin (F)
Bollard (4)
N 88° 23' 46" E
Sign
P/P #0148
8 "SAN
747
MM
Sign
FOHH
743
742
GV
PI 42+70.48
PI 43+05.00
S 81° 01' 34" E
Rockbridge Road
Dupont Circle
40
41
42
43
T-Ped
L/P #0116
6" CC
Asphalt Surface

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EXISTING CONDITIONS PLAN - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA — ENGINEERED TO GO BEYOND

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		3(4)	

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2-JUN-2025
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MATCH LINE SEE SHEET 3(4)
MATCH LINE SEE SHEET 3(6)

Asphalt Surface
PXP No#
Rockbridge Road
814
81
PI 81+14.61
L/P #0181
S 87° 43' 34" E
10 'SAN
FOHH
S 89° 09' 38" E
SW-WB-02
Constr. E
T/FO
T/Tg
730
6" CC
82
PI 82+65.71
Sign
83
Dinwiddie Road
807
TH-200
S 84° 13' 39" E
TH-201
TH-203
TH-204
729
728
POT 83+79.00
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993
(a)
(b)
(c)
(d)
SFMV
Sign
Overhead Util. Elev.=24.69
Asphalt Surface
Shore Drive (WB)
Overhead Util. Elev.=25.0
N 86°56'48" W 405.13'
Survey Baseline
TCHH
Conc. Median
TC
Shore Drive (EB)
Asphalt Surface
736
737
727
726
811
810
POT 50+00.00
Rockbridge Road
PC 50+29.66
PRC 50+34.22
PCSC 50+66.95
PT 50+68.26
51
52
P/P #0178
WM
S 89° 40' 51" E
S 81° 01' 34" E
POT 51+89.43
SW-EB-05
Constr. E
POT 52+47.67
POT 52+60.00
S 85° 46' 38" E
S 88° 58' 54" E
FH
T-Ped
P/P #0116
Asphalt Parking Lot
Conc. Dr
Dinwiddie Road
FO Duct
8 "G
16 "W
8 "SAN

LEGEND

Test Hole

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EXISTING CONDITIONS PLAN - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		3(5)	

16:22

2-JUN-2025

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MATCH LINE SEE SHEET 3(5)

T-Ped
L/P #P129
Guy (2)
Y/L
TCHHH
FDC
WM (2)
Pin (F)
WV (2)
24" Oak
TCHHH
12" Oak (2)
Steps
Sign
12" Oak
Dupont Circle
(b)
8 "SAW
802
(c)
(d)
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993
36" Oak
10 "SAN
T/Tg
T/FO
CATV
Conc.Walk
2 "G
MH
30" C&G
Asphalt Surface
Pin w/Cap #501
X=12,185,024.272
Y=3,498,966.009
Elev.=5.73'
6" CC
TC
TCHHH
Sapling
Grass Median
12" Pine
Overhead Util. Elev.=24.13
6" CC
Sign
723
(a)
6 "W
FH
Shore Drive (EB)
Asphalt Surface
SW-EB-06
Constr.
POT60+00.00
720
POT60+35.00
POT70+00.00
SW-EB-07
Constr.
724
722
POT77+80.00
16 "W
(b)
(a)
FO Duct
TH-213
Conc. Apron
Conc.Walk
8 "SAN
806
S 88° 10' 16" E
S 87° 15' 57" E
S 86° 38' 34" E
MB
Bollard
Sign
Conc.Dr
60
24" C&G
FH
WV
Asphalt Parking
I-Sty Blk. Bldg.
Pin (F)
POT85.10
804
SCO
71
Dupont Circle
Sapling (3)
Conc.
PIF

LEGEND

Test Hole

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
IVAN R. LINEBERRY
Lic. No. 003230
5/29/2025
LAND SURVEYOR
SURVEYOR

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

EXISTING CONDITIONS PLAN - SHORE DRIVE

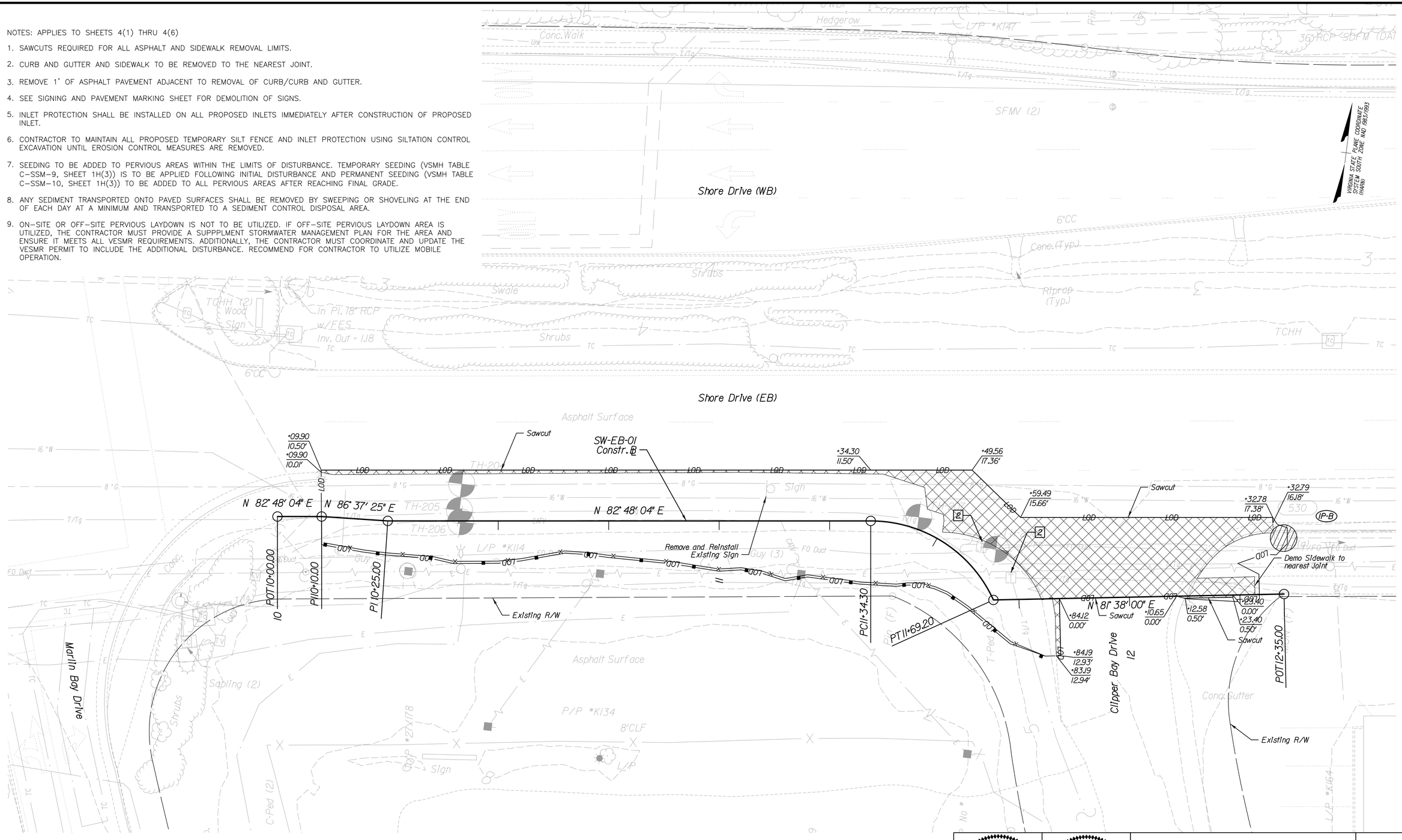
CITY OF VIRGINIA BEACH, VIRGINIA
INCORPORATED MAY 1, 1963

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		3(6)

NOTES: APPLIES TO SHEETS 4(1) THRU 4(6)

1. SAWCUTS REQUIRED FOR ALL ASPHALT AND SIDEWALK REMOVAL LIMITS.
2. CURB AND GUTTER AND SIDEWALK TO BE REMOVED TO THE NEAREST JOINT.
3. REMOVE 1' OF ASPHALT PAVEMENT ADJACENT TO REMOVAL OF CURB/CURB AND GUTTER.
4. SEE SIGNING AND PAVEMENT MARKING SHEET FOR DEMOLITION OF SIGNS.
5. INLET PROTECTION SHALL BE INSTALLED ON ALL PROPOSED INLETS IMMEDIATELY AFTER CONSTRUCTION OF PROPOSED INLET.
6. CONTRACTOR TO MAINTAIN ALL PROPOSED TEMPORARY SILT FENCE AND INLET PROTECTION USING SILTATION CONTROL EXCAVATION UNTIL EROSION CONTROL MEASURES ARE REMOVED.
7. SEEDING TO BE ADDED TO PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE. TEMPORARY SEEDING (VSMH TABLE C-SSM-9, SHEET 1H(3)) IS TO BE APPLIED FOLLOWING INITIAL DISTURBANCE AND PERMANENT SEEDING (VSMH TABLE C-SSM-10, SHEET 1H(3)) TO BE ADDED TO ALL PERVIOUS AREAS AFTER REACHING FINAL GRADE.
8. ANY SEDIMENT TRANSPORTED ONTO PAVED SURFACES SHALL BE REMOVED BY SWEEPING OR SHOVELING AT THE END OF EACH DAY AT A MINIMUM AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA.
9. ON-SITE OR OFF-SITE PERVIOUS LAYDOWN IS NOT TO BE UTILIZED. IF OFF-SITE PERVIOUS LAYDOWN AREA IS UTILIZED, THE CONTRACTOR MUST PROVIDE A SUPPPLMENT STORMWATER MANAGEMENT PLAN FOR THE AREA AND ENSURE IT MEETS ALL VESMR REQUIREMENTS. ADDITIONALLY, THE CONTRACTOR MUST COORDINATE AND UPDATE THE VESMR PERMIT TO INCLUDE THE ADDITIONAL DISTURBANCE. RECOMMEND FOR CONTRACTOR TO UTILIZE MOBILE OPERATION.



LEGEND

- Concrete/Asphalt to be Removed
- I — Adjust Utility Structure to Grade
- 2 — Telephone Pedestal to be Relocated by Others
- +00.00 00.00' — Staking Station and Offset
- (00) — Parcel No.
- LOD — Limits of Disturbance
- IP-A — Inlet Protection Type A,VSMH Std.C-SCM-04
- IP-B — Inlet Protection Type B,VDOT EC-6
- TSF — Temporary Silt Fence,VSMH Std.C-PCM-04
- ////////// — Abandon Pipe

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA — JUSTIN R. TWINE — Lic. No. 057286 — 6/02/25 — PROFESSIONAL ENGINEER — HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA — JIMMY D. HOLLAND, JR — Lic. No. 058535 — 6/2/2025 — PROFESSIONAL ENGINEER — ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DEMOLITION AND E&S PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	4(1)
CHECKED BY			

16:22
2-JUN-2025
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16:23

2-JUN-2025

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Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

POT10+00.00

POT22+55.00

Asphalt Paving limits completed after survey was conducted

PI 20+85.58

PT21+52.99

PC21+57.18

PC21+41.23

PT21+65.64

N 82° 33' 32" E

N 80° 13' 20" E

N 82° 39' 11" E

N 37° 42' 39" E

N 82° 42' 25" E

S 7° 20' 49" E

POT20+00.00

PI 20+07.08

+13.86
7.34'

+19.33
1.96'

Demo Sidewalk to nearest Joint

Demo Existing asphalt curb

SW-EB-02
Constr. ℄

DWY 5(2)-1
Constr. ℄

POT10+50.00

Existing R/W

Mystic Cove

Gravel Surface

6'CLF

Grass Median

In Pl. 15" RCP
w/Headwall
Inv. In = 0.28

In Pl. 15" RCP
Inv. In = 1.30

30" C&G

Sign

Sign (Typ.)

TCHH

TCHH (2)

X-Walk Post

12" Oak

Conc. Walk

L/P #M158

L/P #M126

L/S Timber

Post

T-Ped

TH-209

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

LEGEND

- Concrete/Asphalt to be Removed
- 1 — Adjust Utility Structure to Grade
- 2 — Telephone Pedestal to be Relocated by Others
- +00.00 / 00.00' — Staking Station and Offset
- (00) — Parcel No.
- LOD — Limits of Disturbance
- IP-A — Inlet Protection Type A,VSMH Std.C-SCM-04
- IP-B — Inlet Protection Type B,VDOT EC-6
- TSF — Temporary Silt Fence,VSMH Std.C-PCM-04
- //////// — Abandon Pipe

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DEMOLITION AND E&S PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	4(2)
CHECKED BY			

16:22

2-JUN-2025

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POT70+00.00 TO

PI 70+20.16

PI 70+42.41

PI 70+61.81

PI 70+79.49

PI 71+17.64

PI 71+93.28

N 82° 42' 39" E

S 86° 47' 09" E

N 85° 06' 58" E

N 89° 57' 41" E

N 82° 26' 27" E

N 35° 51' 26" E

N 84° 38' 44" E

Demo Sidewalk to nearest Joint

Demo Existing Curb

Existing R/W

SW-WB-01 Constr. ℄

Demo Existing Curb

•46.57
5.00'

•28.90
2.00'

Sawcut

•63.48
2.00'

•31.33
11.25'

•73.38
11.03'

•02.49
3.15'

•02.09
5.59'

IP-B

Shore Drive (WB)

Shore Drive (EB)

POT 30+00.00

•10.00
4.88'

Demo Sidewalk to nearest Joint

SW-EB-03 Constr. ℄

Remove and Relocate Existing Mailbox

Existing R/W

Sawcut Sidewalk if existing brick wall is set on top of existing sidewalk in order to preserve wall

Sawcut Sidewalk if existing brick wall is set on top of existing sidewalk in order to preserve wall

PC 31+96.78

PT 32+12.19

•18.35'
1.5'

N 83° 33' 13" E

IP-A

Demo Sidewalk to nearest Joint

POT 32+50.00

MATCH LINE SEE SHEET 4(4)

Dupont Circle

Surry Road

VIRGINIA STATE PLANE COORDINATE SYSTEM ZONE NAD 1983/1983 HARN

LEGEND

- Concrete/Asphalt to be Removed
- 1 — Adjust Utility Structure to Grade
- 2 — Telephone Pedestal to be Relocated by Others
- +00.00 / 00.00' — Staking Station and Offset
- (00) — Parcel No.
- LOD — Limits of Disturbance
- IP-A — Inlet Protection Type A,VSMH Std.C-SCM-04
- IP-B — Inlet Protection Type B,VDOT EC-6
- TSF — Temporary Silt Fence,VSMH Std.C-PCM-04
- ////////// — Abandon Pipe

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DEMOLITION AND E&S PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	4(3)
CHECKED BY			

22:30
2-JUN-2025
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MATCH LINE SEE SHEET 4(3)

MATCH LINE SEE SHEET 4(5)

Demo Sidewalk to nearest Joint
Demo Sidewalk to edge of drainage structure
SW-WB-01 Constr. ℄
SW-WB-02 Constr. ℄
POT 73+30.00
POT 80+00.00
PI 80+49.81
S 87° 43' 34" E
N 84° 38' 44" E
N 86° 55' 42" E
+08.39
6.68'
+01.83
0.21'
+13.16
11.81'
17.57'
6.98'
+59.38
1.46'
+52.25
8.79'
Shore Drive
Variable Width R/W
VDOT Projects
#0060-134-102 PE-101, C-501, RW-201
#0060-075-011 RW-2, C-2
#2175-06 08-13 0060-075-011 RW-1, C-1, C-2, RW-2
Shore Drive (WB)
Shore Drive (EB)
Asphalt Surface
Conc. Apron
Conc. Walk
Shrubs
6' PLF
T-Ped
L/P #0J01
P/P #0J42
15" Pine
Grass Median
Overhead Util. Elev.=32.72
8" Oak
TCHH
SFMV
73FMV (3)
30" C&G
6" CC
Demo top of existing drainage structure and flume
Existing R/W
POT 40+00.00
PI 41+06.00
PI 42+70.48
PI 43+05.00
N 83° 33' 13" E
N 78° 14' 45" E
N 88° 23' 46" E
S 81° 01' 34" E
SW-EB-04 Constr. ℄
Bus Sign to Remain
Remove and Relocate Existing Sign
Dupont Circle
Rockbridge Road
Wood Fence
CTV Power Box
P/P #0I38
P/P #0I16
Sign
Asphalt Surface

LEGEND

- Concrete/Asphalt to be Removed
- 1 — Adjust Utility Structure to Grade
- 2 — Telephone Pedestal to be Relocated by Others
- +00.00 / 00.00' — Staking Station and Offset
- 00 — Parcel No.
- LOD — Limits of Disturbance
- IP-A — Inlet Protection Type A, VSMH Std. C-SCM-04
- IP-B — Inlet Protection Type B, VDOT EC-6
- TSF — Temporary Silt Fence, VSMH Std. C-PCM-04
- //////// — Abandon Pipe

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
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HYDRAULIC ENGINEER

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ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
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Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DEMOLITION AND E&S PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		4(4)

MATCH LINE SEE SHEET 44)

MATCH LINE SEE SHEET 46)

Rockbridge Road

Dinwiddie Road

Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

Asphalt Surface

Asphalt Surface

Asphalt Parking Lot

Existing R/W

Existing R/W

Existing R/W

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

Remove and Reinstall Existing Sign

Sign

Sign

Sawcut

Sawcut

Sawcut

Sawcut

Sawcut

Sawcut

Remove Vegetation

Existing Drainage Structure to Remain

SW-WB-02 Constr. IB

SW-EB-05 Constr. IB

Demo Sidewalk to nearest Joint

Demo Sidewalk to nearest Joint

See Note * 1

Saw Cut and Remove Existing Concrete Flume. Saw Cut Existing pipe, Remove As necessary To Install Proposed Pipe. Cap Remaining Existing Pipe. Brick Up Wall Around Proposed Concrete Pipe and Existing Flume Opening and Cover Both Sides with Grout

Remove and Relocate Existing Sign

Remove Sign and Return to Owner

Demo Existing Curb

Demo Existing Curb

Demo Existing Curb

Demo Existing Curb

Overhead Util. Elev.=24.69

Overhead Util. Elev.=25.0

Conc. Median

TCHH

Conc.Dr

FOHH

SFMV

P/P #0181

P/P #0178

P/P #0186

L/P #0181

P/P #0186

P/P #0187

P/P #0188

P/P #0189

P/P #0190

P/P #0191

P/P #0192

P/P #0193

P/P #0194

P/P #0195

P/P #0196

P/P #0197

P/P #0198

P/P #0199

P/P #0200

P/P #0201

P/P #0202

P/P #0203

P/P #0204

P/P #0205

P/P

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2-JUN-2025
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MATCH LINE SEE SHEET 4(5)

T-Ped
L/P #P129
Guy (2)
Y/L
TCHH
FDC
WM (2)
WV (2)
12" Oak (2)
Pin (F)
24" Oak
TCHH
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993
Steps
Existing R/W
12" Oak
Sign
Dupont Circle
(b)
(c)
(a)
802
36" Oak
10 "SAN
T/Tg
Conc.Walk
2 "G
T/FO
CATV
8 "SAN
Unk
TC
30" C&G
Asphalt Surface
6 "W
FH
723
6" CC
Sapling
Grass Median
12" Pine
Overhead Util. Elev.=24.13
Shore Drive (EB)
Asphalt Surface
SW-EB-06
Constr.
P0T60+00.00
P0T60+35.00
Demo 8 LF of Drainage Pipe
SW-EB-07
Constr.
P0T70+00.00
+05.00
15.00'
+05.00
10.50'
+18.00
15.00'
+18.00
8.82'
LOD
GO7
Sawcut
+05.96
9.05'
+41.48
0.00'
+85.10
0.00'
+94.23
0.00'
+94.23
15.47'
+06.23
15.47'
P1T0-85.10
P0T71+80.00
724
722
804
Demo Sidewalk to nearest Joint
S 88° 10' 16" E
S 87° 15' 57" E
S 86° 38' 34" E
Demo Pavement to Regrade where ponding occurs
Existing R/W
Conc. Apron
Conc. Walk
Asphalt Parking
24" C&G
Bollard
MB
I-Sty Blk. Bldg.
Dupont Circle
Sapling (3)
Conc.
60
09

LEGEND

- Concrete/Asphalt to be Removed
- [1] Adjust Utility Structure to Grade
- [2] Telephone Pedestal to be Relocated by Others
- +00.00 / 00.00' Staking Station and Offset
- (00) Parcel No.
- LOD- Limits of Disturbance
- IP-A Inlet Protection Type A,VSMH Std.C-SCM-04
- IP-B Inlet Protection Type B,VDOT EC-6
- TSF Temporary Silt Fence,VSMH Std.C-PCM-04
- ////////// Abandon Pipe

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE 0 10' 20'

JUSTIN R. TWINE
COMMONWEALTH OF VIRGINIA
Lic. No. 057286
6/02/25
HYDRAULIC ENGINEER

JIMMY D. HOLLAND, JR
COMMONWEALTH OF VIRGINIA
Lic. No. 058535
6/2/2025
ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DEMOLITION AND E&S PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	4(6)
CHECKED BY			

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2-JUN-2025

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Shore Drive (WB)

Shore Drive (EB)

Marlin Bay Drive

Clipper Bay Drive

Modify cross slope of gutter pan as needed to provide positive drainage due to flat segment at existing edge of pavement

Begin CG-6 Sta.10+09.90

Begin Sidewalk Sta.10+10.00

VDOT Std.CG-6

SW-EB-01 Constr.@

Std.5' Conc.Sidewalk

I-1 R=40'

I-2 R=21.48'

+35.00 3.44' LT

End CG-6 Sta.12+32.82

N 82° 48' 04" E

N 86° 37' 25" E

N 82° 48' 04" E

POT 10+00.00

PI 10+10.00

PI 10+25.00

V-Ditch Provide permanent seeding (Table C-SSM-9-4, Sheet IH(3)) following final grading of ditch.

Existing R/W

12" RCP

18" X 12" RCP

VDOT Std.CG-12,Type B

End Sidewalk Sta.11+79.32

End Sidewalk Sta.12+28.40

Std.4' Conc.Sidewalk

PCI 11+34.30

PT 11+69.20

N 81° 38' 00" E

Begin CG-6

Begin Sidewalk Sta.12+12.58

End CG-6 Sta.11+81.19 12.95' RT

+08.44 12.95' RT

Top of Curb to match top of existing asphalt surface

POT 12+35.00

Conc.Gutter

Now Or Formerly
CITY OF VIRGINIA BEACH
GPIN: #1489279736
Inst.#201207110007665803
Inst.#201207100007644I0-Plat
Parcel I
31.1135 Ac.

Curve SI
PI = 11+53.94
DELTA = 65° 33' 23.33" (RT)
D = 187° 51' 18"
T = 19.64'
L = 34.90'
R = 30.50'
PC = 11+34.30
PT = 11+69.20

NOTES:

1. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(1).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- 5(1)-1 Proposed Driveway Entrance
- (00) Parcel No.
- Proposed Temporary Construction Easement
- Proposed Public Pedestrian Access Easement
- C Construction Limits In Cuts
- F Construction Limits In Fills
- +00.00 00.00' Staking Station and Offset
- Proposed Yard Drain
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed End Section
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

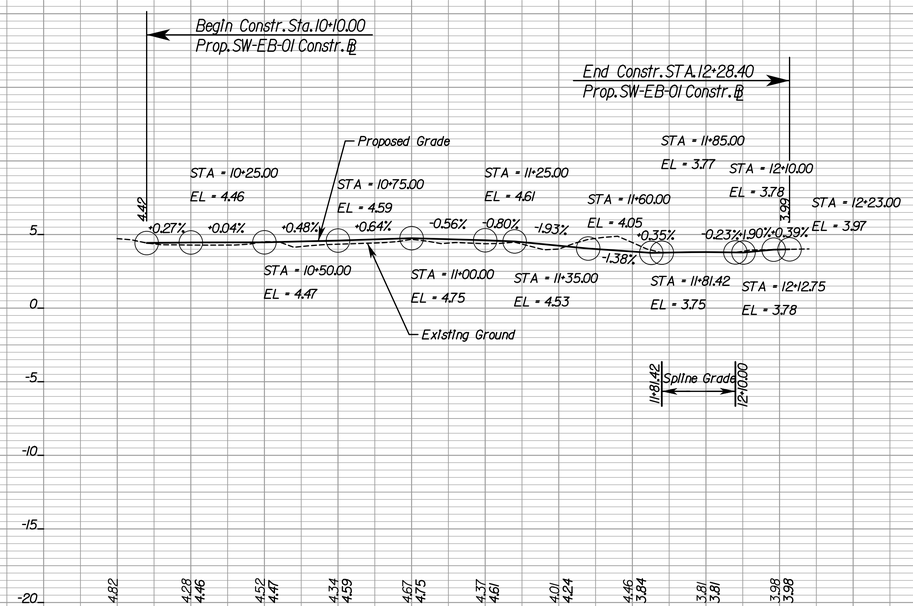
CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PLAN - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		5(1)	



NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PROFILE - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 185742	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(1)A
CHECKED BY			

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Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

Grass Median

Gravel Surface

Sign

Sign (Typ.)

12" Oak

X-Walk Post

TCHH

TCHH (2)

30" C&G

Conc. Walk

In Pl. 15" RCP
w/Headwall
Inv. In = 0.28

In Pl. 15" RCP
Inv. In = 1.30

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

POT 10+00.00

POT 10+50.00

POT 20+00.00

POT 22+55.00

Pl 20+85.58

Pl 20+07.08

PT 21+52.99

PC 21+41.23

PT 21+65.64

PC 21+57.18

Begin CG-6
Sta. 20+12.53

Begin Sidewalk
Sta. 20+00.51

VDOT Std. CG-12,
Type B

Begin Vehicular
Graded Sidewalk
Sta. 20+45.00

2-1
R=23.80'

VDOT Std. CG-6

End Sidewalk
Sta. 20+16.62

End CG-6
Sta. 20+17.61

Std. 4' Conc. Sidewalk

12" HDPE

N 82° 33' 32" E

N 80° 13' 20" E

N 82° 39' 11" E

N 37° 42' 39" E

S 7° 20' 49" E

N 82° 42' 25" E

Existing R/W

Std. 5' Vehicular Graded Conc. Sidewalk
(See Typical Sheet Inset B)

SW-EB-02
Constr. ℄

Remove Existing Gravel and
Regrade with Suitable Soil and
Grass Buffer Between Back of
Sidewalk and Property Line.

Now Or Formerly
OCEAN PARK VOLUNTEER
& RESCUE, INC.
#3761 Shore Dr.
GPIN: #1489386716
D.B. 1496, Pg. 653
M.B. 5, Pg. 69, 137, 195 & 197
Lots 1-5, Blk 34
0.769 Ac.

End Vehicular
Graded Sidewalk
Sta. 21+76.50

DWY 5(2)-I
Constr. ℄

DWY 5(2)-I
PE-1 (Entrance Type II)
30' Wide
15' Radii

Adjust manhole
frame to grade

Std. 5' Conc. Sidewalk

Asphalt Paving limits completed
after survey was conducted

VDOT Std. CG-12,
Type B

Existing asphalt curb to
be replaced with
sidewalk

Begin Sidewalk
Sta. 22+06.92

End Sidewalk
Sta. 22+43.00

Mystic Cove

6' CLF

Curve S2
PI = 21+46.41
DELTA = 44° 56' 31.94" (LT)
D = 381° 58' 19"
T = 6.20'
L = 11.77'
R = 15.00'
PC = 21+41.23
PT = 21+52.99

Curve S3
PI = 21+61.92
DELTA = 44° 59' 45.85" (RT)
D = 57.2° 57' 28"
T = 4.14'
L = 7.85'
R = 10.00'
PC = 21+57.78
PT = 21+65.64

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- 5(1)-I — Proposed Driveway Entrance
- (00) — Parcel No.
- Proposed Temporary Construction Easement
- Proposed Public Pedestrian Access Easement
- C — Construction Limits In Cuts
- F — Construction Limits In Fills
- +00.00 / 00.00' — Staking Station and Offset
- Proposed Yard Drain
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed End Section
- Proposed Combination Inlet
- Proposed Pipe
- X-X — Drainage Structure Number
- Flow Direction

NOTES:

1. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(2).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(2)
CHECKED BY			

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2-JUN-2025
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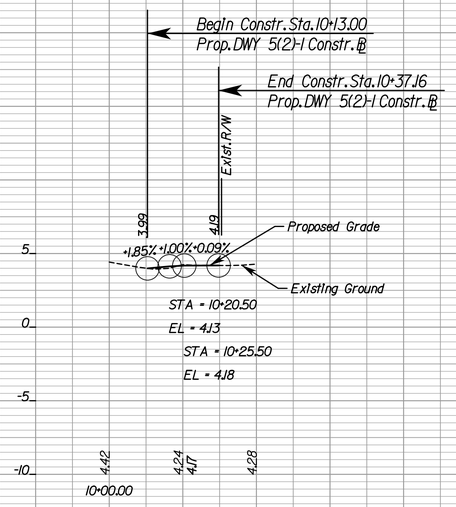
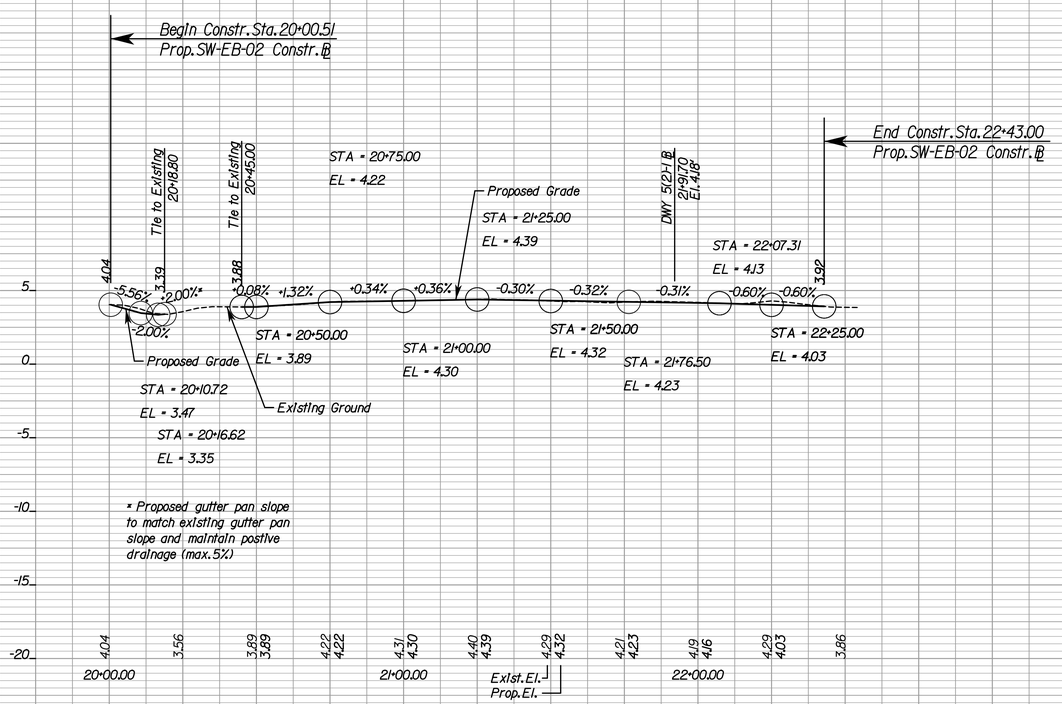
DRIVEWAY 5(2)-I



SIDEWALK EB02



NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
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6/2/2025
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ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PROFILE - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 185742	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(2)A
CHECKED BY			

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10-JUN-2025

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TOWNHOMES AT ROANOKE AVENUE A CONDOMINIUM
GPIN:*1489399074
Inst.*20180604000453680
Inst.*20180604000453690(Plat)

Existing Variable Width Public Pedestrian Access Easement

POT 70+00.00

PI 70+20.16

PI 70+42.41

PI 70+61.81

PI 70+79.49

N 82° 42' 39" E

S 86° 47' 09" E

N 85° 06' 58" E

N 89° 57' 41" E

N 82° 26' 27" E

Begin Sidewalk Sta.70+10.00

Tie Sidewalk to Existing Concrete

Std.5' Conc.Sidewalk

Existing R/W

SW-WB-01 Constr.B

Std.5' Conc.Sidewalk

01
Now Or Formerly
CYNTHIA RUNNELLS
*3705 Surry Rd.
GPIN:*1489491015
Inst.*202103061967
M.B.5,Pg.137
Lot 5,blk 26
0.141 Ac.

02
Now Or Formerly
CAROL T.CHAPPELL BRETHAUER REVOCABLE TRUST
*3728 Shore Dr.
GPIN:*1489491094
Inst.*20060307000351830
M.B.5,Pg.137
Lot 4,Block 26
0.171 Ac.

Proposed Public Pedestrian Access Easement & Temporary Constr. Easement

Proposed Public Pedestrian Access Easement & Temporary Constr.Easement

VDOT Std.CG-12, Type B

Proposed Public Pedestrian Access Easement
Temporary Constr.Easement

DWY 5(3)-1
CG-11(Entrance Type II)
27' Wide
LT-5' Radii
RT-10' Radii

PI 71+17.64

PI 71+92.28

N 35° 51' 26" E

Begin Sidewalk Sta.71+63.89

End Sidewalk Sta.71+35.87

VDOT Std.CG-12, Type B

Proposed Public Pedestrian Access Easement & Temporary Constr.Easement

End CG-6 Sta.70+00.49 3.25' LT

VDOT Std.CG-6

End Sidewalk Sta.72+00.34

VDOT Std.CG-12, Type B

Begin CG-6 Sta.70+00.10 5.50' RT

N 84° 38' 44" E

Surry Road

Dupont Circle

VIRGINIA STATE PLANE COORDINATE SYSTEM ZONE NAD 1983/1993 (HARN)

Shore Drive (WB)

Shore Drive (EB)

Curve S4
PI = 32+04.74
DELTA = 35° 18' 40.50" (RT)
D = 229° 10' 59"
T = 7.96'
L = 15.41'
R = 25.00'
PC = 31+96.78
PT = 32+12.19

POT 30+00.00

Begin Sidewalk Sta.30+10.00

Std.5' Conc.Sidewalk

Adjust 2 valves to grade

Adjust manhole to grade

Std.4' Conc.Sidewalk

Adjust FO Box to grade

+11.00 4.00' LT
+12.00 5.00' LT

+01.00 4.00' LT
+00.00 5.00' LT

12" HDPE

Adjust Water Meter to grade

Cleanout

Std.5' Conc.Sidewalk

Adjust manhole to grade

End Sidewalk Sta.32+31.32
VDOT Std.CG-12, Type B

POT 32+50.00

N 83° 33' 13" E

Temporary Constr.Easement

03
Now Or Formerly
NORMAN L.FISHER,JR.AND LORAINE J. WHEELER,TRUSTEES OF THE NORMAN L. FISHER,JR.AND LORAINE J.WHEELER REVOCABLE LIVING TRUST
*3745 Shore Dr.
GPIN:*1489481843
Inst.*201110050010240
M.B.5,Pg.69
Lot 5, Sec A,Blk 27
0.168 Ac.

SW-EB-03 Constr.B

04
Now Or Formerly
NORMAN L.FISHER,JR.AND LORAINE J. WHEELER,TRUSTEES OF THE NORMAN L. FISHER,JR.AND LORAINE J.WHEELER REVOCABLE LIVING TRUST
GPIN:*1489481894
Inst.*201110050010240
M.B.5,Pg.69
Lot 6, Sec A,Blk 27
0.139 Ac.

Relocate Mailbox

Cleanout

Existing R/W

Install Sidewalk to abut power pole and utility box. Taper to 5' Sidewalk as soon as space is available. Ensure a minimum width of 4' is installed in order to meet ADA requirements.

Connect Proposed Sidewalk to bottom of Existing Step

05
Now Or Formerly
NORMAN L.FISHER,JR.AND LORAINE J.WHEELER,TRUSTEES OF THE NORMAN L.FISHER,JR.AND LORAINE J.WHEELER REVOCABLE LIVING TRUST
*3725 Shore Dr.
GPIN:*1489482867
Inst.*201110050010240
M.B.5,Pg.69
Lot 7, Sec A,Blk 27
0.153 Ac.

PC 31+96.78

PT 32+12.19

Existing Brick Wall to remain

Cleanout

12" HDPE

MATCH LINE SEE SHEET 5(4)

NOTES:

1. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(3).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
0 10' 20'

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- 5(1)-1 Proposed Driveway Entrance
- (00) Parcel No.
- Proposed Temporary Construction Easement
- Proposed Public Pedestrian Access Easement
- C Construction Limits In Cuts
- F Construction Limits In Fills
- +00.00 / 00.00' Staking Station and Offset
- Proposed Yard Drain
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed End Section
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/10/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(3)
CHECKED BY			

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2-JUN-2025
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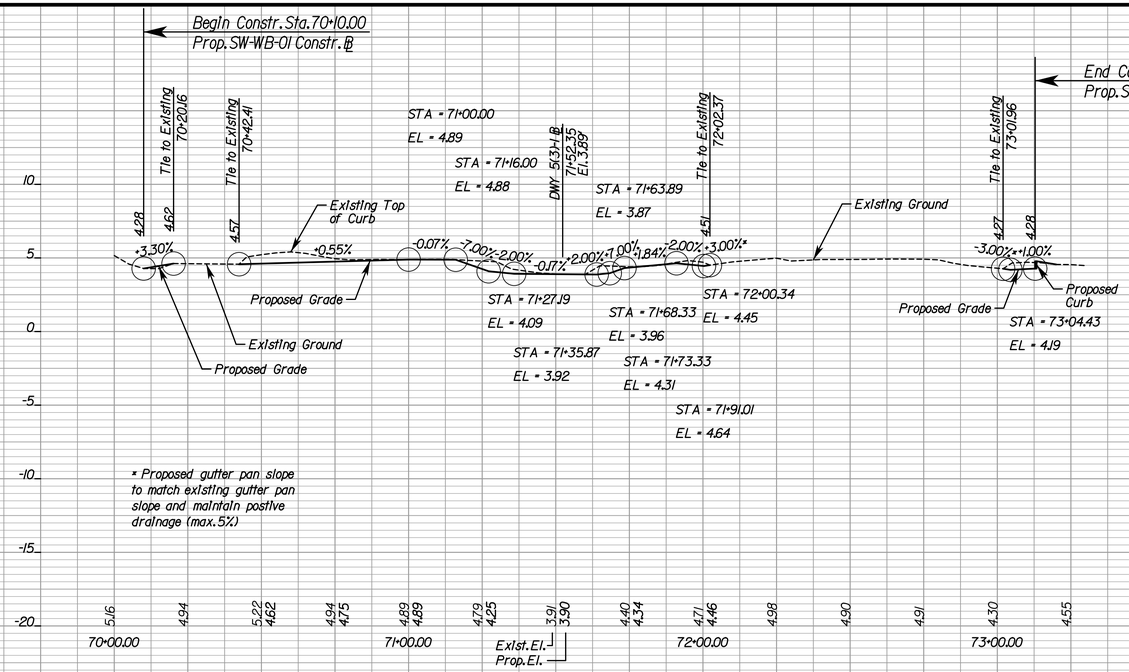
SIDEWALK WB01

Begin Constr. Sta. 70+10.00
Prop. SW-WB-01 Constr. ℄

End Constr. Sta. 73+12.86
Prop. SW-WB-01 Constr. ℄

Tie to Existing 70+20.16
Tie to Existing 70+42.41
Tie to Existing 72+02.37
Tie to Existing 73+01.96
DWY 5(3)-H ℄ 71+52.35 El. 3.89

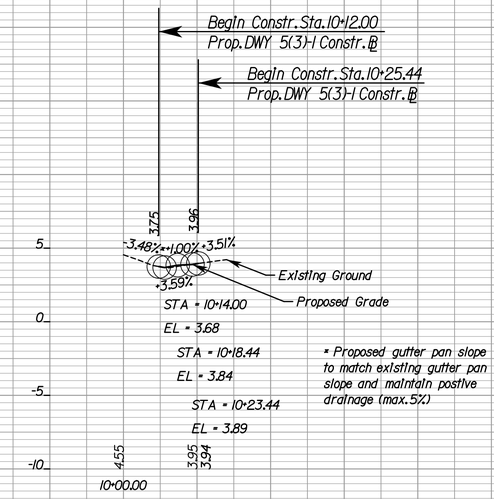


* Proposed gutter pan slope to match existing gutter pan slope and maintain postive drainage (max. 5%)

DRIVEWAY 5(3)-I

Begin Constr. Sta. 10+12.00
Prop. DWY 5(3)-I Constr. ℄

Begin Constr. Sta. 10+25.44
Prop. DWY 5(3)-I Constr. ℄

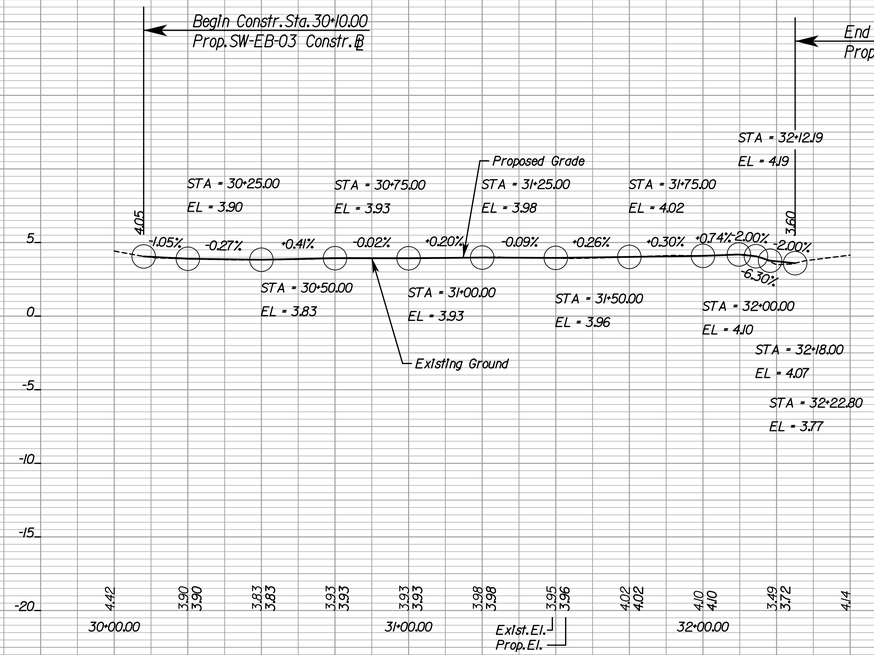


* Proposed gutter pan slope to match existing gutter pan slope and maintain postive drainage (max. 5%)

SIDEWALK EB03

Begin Constr. Sta. 30+10.00
Prop. SW-EB-03 Constr. ℄

End Constr. Sta. 32+31.32
Prop. SW-EB-03 Constr. ℄



HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PROFILE - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 185742	PROJECT MANAGER K. BELFIELD	DATE JUNE 2025	
DRAWN BY J. HOLLAND			
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO. 5(3)A	
CHECKED BY			

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2-JUN-2025
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MATCH LINE SEE SHEET 5(3)

MATCH LINE SEE SHEET 5(5)

Shore Drive (WB)

Shore Drive (EB)

Shore Drive
Variable Width R/W
VDOT Projects
#0060-134-102 PE-101, C-501, RW-201
#0060-075-011 RW-2, C-2
#2175-06 08-13 0060-075-011 RW-1, C-1, C-2, RW-2

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

POT 73+30.00
N 84° 38' 44" E
+04.94 5.10' RT
+08.39 6.68' RT
+11.33 1.72' RT
+15.17 2.28' RT
+17.57 6.98' RT
+14.79 9.67' RT
Begin CG-6 Sta.73+03.49
4-1
R=47.34'
VDOT Std.CG-6
VDOT Std.CG-12, Type C
End CG-6 Sta.73+14.46
SW-WB-01 Constr. ℄

POT 80+00.00
N 86° 55' 42" E
SW-WB-02 Constr. ℄
PI 80+49.81
S 87° 43' 34" E
End CG-6 Sta.80+57.62
+44.16 4.95' RT
Begin Sidewalk Sta.80+39.16
VDOT Std.CG-6
4-2
R=75.42'
52.72
4.95' RT
Begin CG-6 Sta.80+50.71
VDOT Std.CG-12, Type B
End Sidewalk Sta.80+56.24

POT 40+00.00
Begin Sidewalk Sta.40+09.13
VDOT Std.CG-12, Type B
4-1
N 83° 33' 13" E
PI 40+67.54
N 78° 14' 45" E
PI 41+06.00
N 88° 23' 46" E
PI 42+70.48
S 81° 01' 34" E
PI 43+05.00
End Sidewalk Sta.42+95.58
VDOT Std.CG-12, Type B
Std. 5' Conc. Sidewalk
Existing R/W
+03.50 12.70' LT
+03.50 7.70' LT
+11.50 12.70' LT
+11.50 7.70' LT
Proposed Public Pedestrian Access Easement & Temporary Constr. Easement
Curb Wipedown
End CG-2 Sta.40+45.00
Proposed Temporary Constr. Easement
VDOT Std.CG-2
Begin CG-2 Sta.40+23.00
Curb Wipedown
Proposed Temporary Constr.Easement
SW-EB-04 Constr. ℄
Proposed Public Pedestrian Access Easement & Temporary Constr. Easement
Bus Sign to Remain
Relocate Sign
Proposed Public Pedestrian Access Easement & Temporary Constr. Easement

06 Now Or Formerly VIRGINIA NATURAL GAS GPIN: *1489484828 Inst. *202203062219 M.B.5, Pg.69 Lot 1, Blk 21 0.127 Ac.

07 Now Or Formerly VIRGINIA NATURAL GAS *3708 Dupont Cir. GPIN: *1489484886 Inst. *202203062219 M.B.5, Pg.69 Lot 2, Blk 21 0.159 Ac.

08 Now Or Formerly PHILIP M.TRAHADIAS & MARY A.TRAHADIAS *3705 Shore Dr. GPIN: *1489485887 Inst. *201907220006026O0 M.B.5, Pg.69 Lot 3&4, Blk 21 0.264 Ac.

8.00' *28.76	1.00' *36.80	8.00' *50.00	5.00' *50.00	5.01' *67.54	1.00' *67.54	5.00' *90.00	1.00' *90.00	1.00' *06.09	1.00' *06.09	1.00' *70.39	1.00' *70.39	1.00' *80.25	1.00' *80.25

Asphalt Surface
Conc. Walk
Conc. Apron
Shrubs
6' PLF
6" CC
T-Ped
L/P #0J01
P/P #0J42
P/P #0J38
15" Pine
8" Oak
6" CM
TCHH
FOHH
Overhead Util. Elev.=32.72
Grass Median
30" C&G
SFMV
Wood Fence
Bollard (4)
Sign
Pin (F)
Rockbridge Road
Dupont Circle
732
751
752
819
817
747
812
743
42
43

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- 5(1)-1 Proposed Driveway Entrance
- (00) Parcel No.
- (·/·) Proposed Temporary Construction Easement
- [·/·] Proposed Public Pedestrian Access Easement
- C Construction Limits In Cuts
- F Construction Limits In Fills
- +00.00 / 00.00' Staking Station and Offset
- Proposed Yard Drain
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed End Section
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction

NOTES:

1. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(4).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

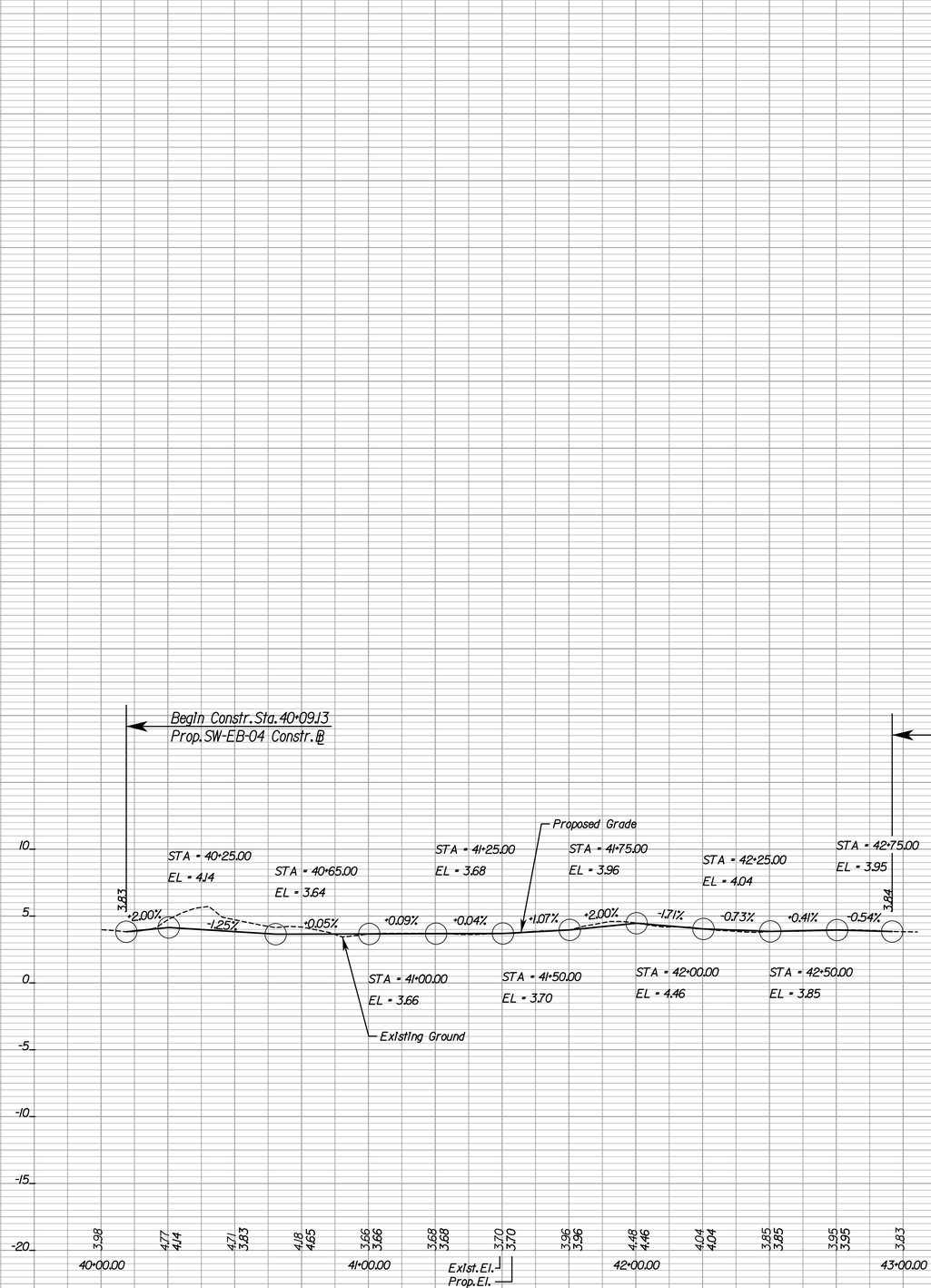
SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(4)
CHECKED BY			



HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
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6/2/2025
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ROADWAY ENGINEER

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SIDEWALK PROFILE - SHORE DRIVE

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DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(4)A
CHECKED BY			

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MATCH LINE SEE SHEET 5(4)

MATCH LINE SEE SHEET 5(6)

Rockbridge Road

Dinwiddie Road

Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

Asphalt Parking Lot

Conc. Median

Overhead Util. Elev.=24.69

Overhead Util. Elev.=25.0

S 87° 43' 34" E

S 89° 09' 38" E

S 84° 13' 39" E

S 81° 01' 34" E

S 89° 40' 51" E

S 85° 46' 38" E

S 88° 50' 54" E

End CG-2
Begin CG-6
Sta. 80+97.86
10.08' LT

5-2
R=5'

5-1
R=2'

81

PI 81+14.61

5-2

5-3
R=15'

3' Wide Curb Cut

Begin Sidewalk
Sta. 80+98.64

VDOT Std. CG-12,
Type B

5-4
R=40'

Adjust FO
Box to grade

81+15.11
6.00' RT

SW-WB-02
Constr. ℄

VDOT Std. CG-2

17 Perpendicular Parking
Spaces - 18' x 9'

Wheel Stop (typ.)

4" White (typ.)

82

Now Or Formerly
CITY OF VIRGINIA BEACH
GPIN:*1489498059
D.B. 2752, Pg. 162
M.B. 5, Pg. 137
0.135 Ac.

Existing R/W

26' Drive Aisle
See Sheet 1H(6) for
additional parking lot
dimensions

VDOT Std. CG-6

Std. 6' Conc. Sidewalk

Perform Pre & Post CCTV of 10" VCP SS
main between SS manhole *814 (308-008-U)
and *807 (308-009-U). See Note *2.

82+69.08
6.00' RT

Adjust FO
Box to grade

PI 82+65.71

5-7
R=2'

5-6
R=5'

18' HDPE

5-5

5-5
R=40'

83

End CG-6
Begin CG-2
Sta. 82+86.70 Field Verified that
telephone Utility Box
Is not in conflict with
proposed sidewalk

Existing R/W

Std. 5' Conc. Sidewalk

VDOT Std. CG-12,
Type B

Begin Sidewalk
Sta. 83+28.51

End Sidewalk
Sta. 83+49.62

POT 83+70.00

VDOT Std. CG-6

5-4

24" RCP
End Sidewalk
Sta. 82+83.30

VDOT Std. CG-12,
Type B

5-8
R=33'

3' Wide Curb Cut
with Conc. Flume
Sta. 83+31.13

5-3

Adjust manhole
to grade

Telephone Line To
Be Relocated
During Construction

Provide Curb Cut
(CVB B-18) and 5
SY of Class AI
Riprap

+53.72
25.92' RT

Clean Out Existing
Curb Cut and
Provide 2 SY of
Class AI Riprap

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983 (HARN)

Curve S5
PI = 50+31.98
DELTA = 26° 06' 00.54" (RT)
D = 572° 57' 28"
T = 2.32'
L = 4.56'
R = 10.00'
PC = 50+29.66
PT = 50+34.22

Curve S6
PI = 50+50.01
DELTA = 76° 35' 16.55" (LT)
D = 286° 28' 44"
T = 15.79'
L = 26.73'
R = 20.00'
PC = 50+34.22
PRC = 50+60.95

Curve S7
PI = 50+64.78
DELTA = 41° 49' 59.01" (RT)
D = 572° 57' 28"
T = 3.82'
L = 7.30'
R = 10.00'
PRC = 50+60.95
PT = 50+68.26

Relocate Sign
(Not on Survey)

Avoid Existing
Guy Wires

Adjust manhole
frame to grade

Begin Sidewalk
Sta. 50+10.00

VDOT Std. CG-12,
Type B

Std. 5' Conc. Sidewalk

Adjust water meter to
grade with Sidewalk

SW-EB-05
Constr. ℄

POT 51+89.43

Std. 5' Conc. Sidewalk

Std. 4' Conc. Sidewalk

VDOT Std. CG-12,
Type B

POT 52+47.67

POT 52+60.00

Existing R/W

Begin Sidewalk
Sta. 52+40.12

End Sidewalk
Sta. 52+47.67

Tie Sidewalk to
Existing Asphalt

End Sidewalk
Sta. 51+94.76

POT 50+00.00

PC 50+29.66

PRC 50+34.22

PRC 50+60.95

PT 50+68.26

Relocate Sign

Existing R/W

S5

S6

S7

51

52

Now Or Formerly
PATRICIA S. HASSELL
GPIN: *1489486893
Inst. *201311200013597 90
M.B. 5, Pg. 69
W.B. 202106005399
Lot 1, Blk 15
0.142 Ac.

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- 5(1)-1 Proposed Driveway Entrance
- (00) Parcel No.
- (÷) Proposed Temporary Construction Easement
- [÷] Proposed Public Pedestrian Access Easement
- C Construction Limits In Cuts
- F Construction Limits In Fills
- +00.00 / 00.00' Staking Station and Offset
- Proposed Yard Drain
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed End Section
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction

NOTES:

1. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(5).
2. THE CITY SHALL PROVIDE THE CONTRACTOR WITH "COMPKEYS" FOR EACH SANITARY SEWER MAIN REQUIRING CCTV TO INPUT THE ASSETS INTO THE CCTV SOFTWARE. CCTV DELIVERABLES SHALL BE IN A NASSCO PACP TEMPLATE WITH A POSM.WINCAN.OR APPROVED EQUAL EXPORT. THE CONTRACTOR SHALL UPLOAD THE ZIPPED CCTV DATA AND MEDIA FILES TO PUBLIC UTILITIES' SHAREPOINT PAGE.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JIMMY B. HOLLAND, JR
Lic. No. 058535
6/20/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PLAN - SHORE DRIVE

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277 Bendix Road
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WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		5(5)	

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2-JUN-2025
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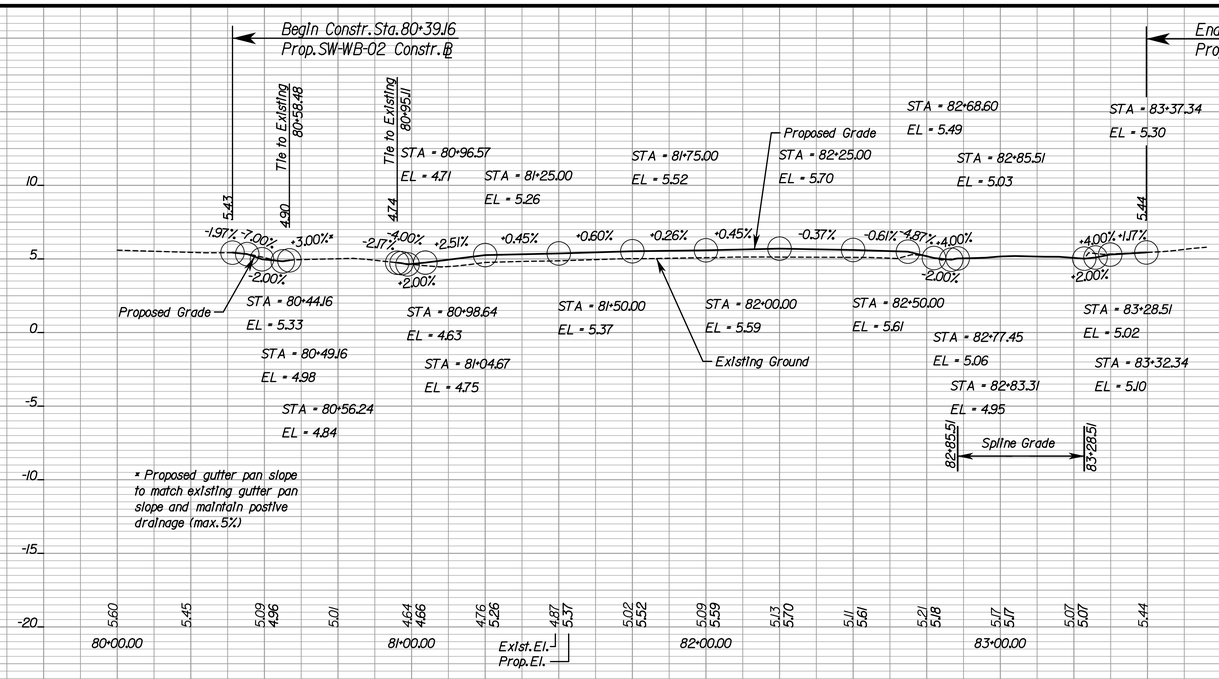
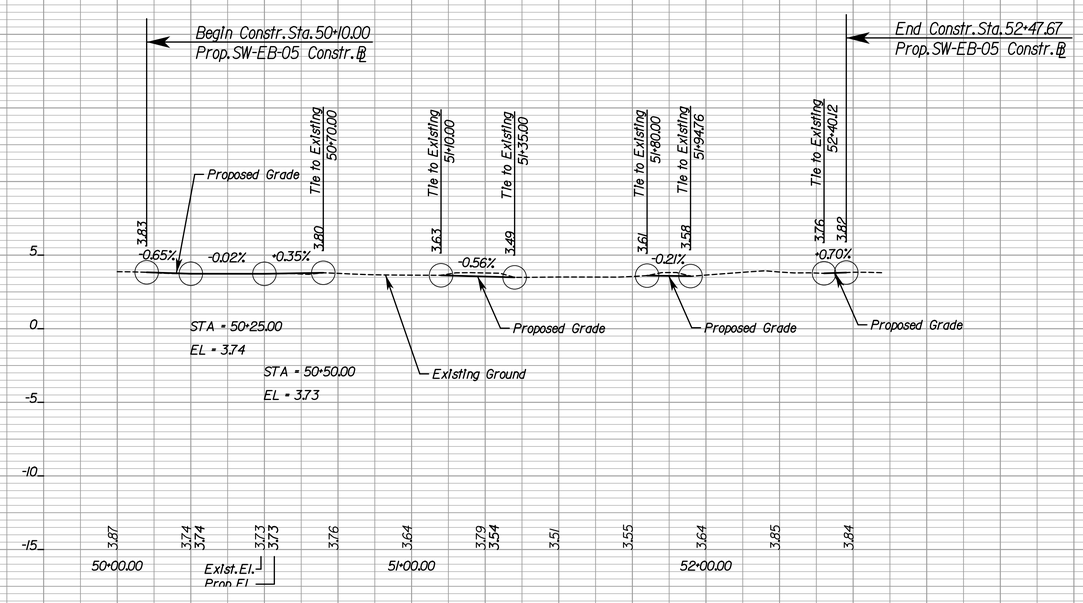
SIDEWALK WB02



SIDEWALK EB05



NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
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SIDEWALK PROFILE - SHORE DRIVE

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DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(5)A
CHECKED BY			

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MATCH LINE SEE SHEET 5(5)

Shore Drive (EB)

Existing R/W

Steps

Conc.Walk

Asphalt Surface

30" C&G

6" CC

Grass Median

Sapling

12" Pine

TCHH

Overhead Util. Elev.=24.13

Sign

12" Oak (2)

12" Oak

24" Oak

36" Oak

T-Ped

L/P #P129

Guy (2)

Y/L

FDC

Pin (F)

WM (2)

WV (2)

Dupont Circle

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

802

804

722

723

724

SW-EB-06
Constr. ℄

POT 60+00.00

POT 60+35.00

Std. 4' Conc. Sidewalk

Begin Sidewalk
Sta. 60+10.00

Adjust manhole
frame to grade

S 88° 10' 16" E

End Sidewalk
Sta. 60+25.67

Place sanitary sewer manhole
within one sidewalk slab, centered
between sidewalk joints.

SW-EB-07
Constr. ℄

POT 70+00.00

Wheel Stop (typ.)

Std. 4' Conc. Sidewalk

+43.81
4.00' LT

+41.48
3.00' LT

S 87° 15' 57" E

Existing R/W

Begin Sidewalk
Sta. 70+41.48

0.69'
+41.27

2.69'
+41.20

Prop. R/W

09
Now Or Formerly
EL TAPATIO III, LLC
GPIN: #1489581858
Inst. #202203010208
M.B. 5, Pg. 69
Lot 5, Blk 13
0.13 Ac.

2.57'
+78.42

P/I 70+85.10

71

+88.57
4.00' LT

R=35'

Adjust SCO
to grade

End Sidewalk
Sta. 70+94.23

Existing ramp to remain,
ADA compliant

POT 71+80.00

S 86° 38' 34" E

Existing R/W

Asphalt Parking

I-Sty Blk. Bldg.

Conc. Apron

Bollard

MB

Sapling (3)

Conc.

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- 5(I)-I — Proposed Driveway Entrance
- (00) — Parcel No.
- Proposed Temporary Construction Easement
- Proposed Public Pedestrian Access Easement
- C — Construction Limits In Cuts
- F — Construction Limits In Fills
- +00.00 / 00.00' — Staking Station and Offset
- Proposed Yard Drain
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed End Section
- Proposed Combination Inlet
- Proposed Pipe
- X-X — Drainage Structure Number
- Flow Direction

NOTES:

1. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(6).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

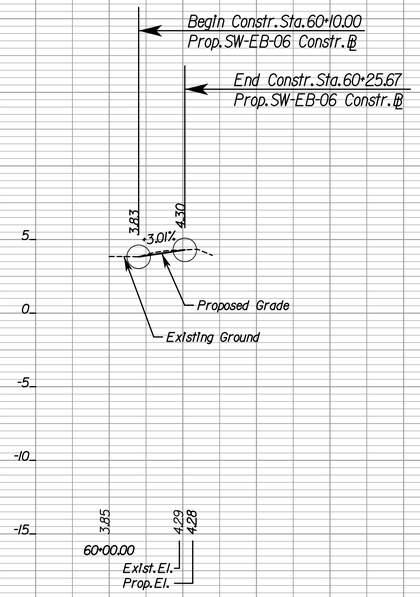
CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PLAN - SHORE DRIVE

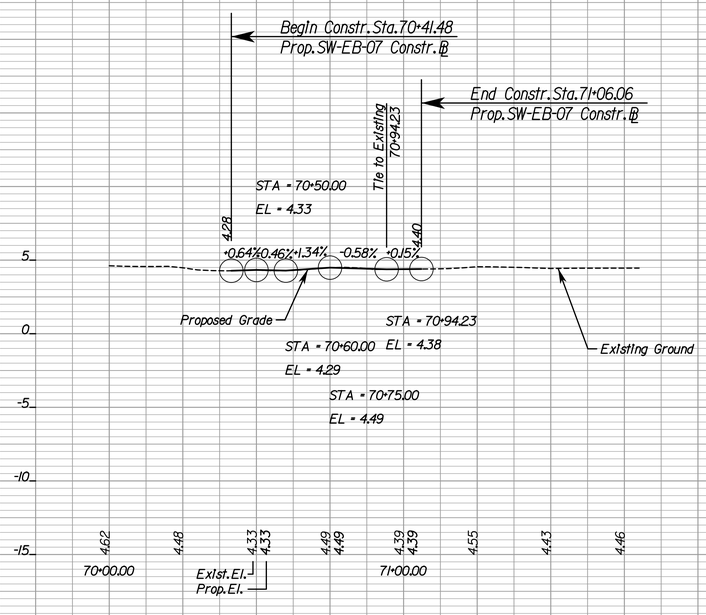
WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		5(6)	

SIDEWALK EB06



SIDEWALK EB07



HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

WSP USA Inc.
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Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIDEWALK PROFILE - SHORE DRIVE

WSP PROJECT NO. 185742	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	5(6)A
CHECKED BY			

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Hedgerow
Conc.Walk
L/P #KI47
Rim
36" RCP SDFM (DAT
30" C&G
SFMV
SFMV (2)
Asphalt Surface
Shore Drive (WB)
36" RCP SDFM (DATR)
6"CC
Conc.(Typ.)
Shrubs
Swale
Riprap (Typ.)
Stamped Brick
TCHH (2) Wood Sign
In Pl.18" RCP w/FES Inv. Out = 1.18
TCHH
Shore Drive (EB)
Asphalt Surface
RIM 4.45'
TC 4.50' FL 4.00'
I-4
TH-204
SW-EB-01 Constr.#
TC 4.70' FL 4.20'
ME 4.13'
RIM 3.50'
I-2
ME 3.74'
I-1
ME 3.23'
SW 3.97'
18" X 12" RCP
TC 4.36' SW 3.86'
TC 4.26' SW 3.76'
TC 4.18' FL 3.68'
SW 3.94'
12" RCP
SW 3.97'
TC 4.46' SW 3.96'
N 82° 48' 04" E
N 86° 37' 25" E
N 81° 38' 00" E
POT 10+00.00
PI 10+00.00
PI 10+25.00
INV. 4.40'
3.00%
INV. 3.50'
1.50%
V-Ditch Provide permanent seeding (Table C-SSM-9-4, Sheet IH(3)) following final grading of ditch.
INV. 2.30'
2.50%
INV. 2.00'
PCI 14+34.30
PT 11+69.20
ME 3.76'
ME 3.75'
TC 4.28' FL 3.78'
ME 3.92'
TC 4.40' FL 3.90'
TC 4.42' SW 3.92'
TC 4.28' FL 3.78'
Landing Slope 2.00% Ramp Slope 2.15%
POT 12+35.00
Landing Slope 1.90% Ramp Slope 1.90%
Existing R/W
Existing R/W
Marlin Bay Drive
Clipper Bay Drive
Sapling (2)
Shrubs
C-Ped (2)
P/P #2YK178
P/P #KI64
8'CLF
Sign
Conc. Gutter
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

NOTES:

1. CONTRACTOR SHALL LOCATE AND PROTECT CONCRETE DUCT BANK (APPROXIMATE SIZE 1 FT BY 1 FT) DURING CONSTRUCTION IN THIS VICINITY TO VERIFY NO CONFLICT.
2. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(1).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

LEGEND

Concrete Entrance & Sidewalk	—13—	Proposed Contours	Proposed Curb Drop Inlet	(∞)	Parcel No.
Proposed Pavement	—5—	Exist.Contours	Proposed Grate Drop Inlet	C	Construction Limits In Cuts
Pavement Milling, Buildup and/or Overlay	PG	Proposed Grade	Proposed Endwall	F	Construction Limits In Fills
Proposed Detectable Warning Surface	ME	Match Existing	Proposed Combination Inlet		Proposed Yard Drain
Flow Arrows (Grading)	TC	Top of Curb	Proposed Pipe		
	FL	Flow Line	Drainage Structure Number (X-X)		
			Flow Direction		

SCALE: 1"=10'
SCALE 0 10' 20'

COMMONWEALTH OF VIRGINIA — JUSTIN R. TWINE — Lic. No. 057286 — 6/02/25 — PROFESSIONAL ENGINEER — HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA — JIMMY D. HOLLAND, JR — Lic. No. 058535 — 6/2/2025 — PROFESSIONAL ENGINEER — ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE AND GRADING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	6(1)
CHECKED BY			

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Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

POT10+00.00

POT22+55.00

PG 3.85'

PG 3.95'

RIM 3.69'

RIM 3.82'

PI 20+85.58

PT21+52.99

Landing Slope 2.00%
Ramp Slope 5.56%

TC 3.88'
FL 3.38'

SW 3.99'
TC 3.92'
SW 3.42'

SW 3.86'

SW 3.88'

TC 3.97'
SW 3.47'

TC 3.85'
FL 3.35'

SW 4.04'

POT20+00.00

PI 20+07.08

N 82° 33' 32" E

N 80° 13' 20" E

N 82° 39' 11" E

N 82° 42' 25" E

S 7° 20' 49" E

N 3° 42' 39" E

PC21+65.64

PC21+41.23

PT21+57.18

1.00%

0.40%

12" HDPE

2-1

2-2

2-3

3.75

4.25

Existing R/W

SW-EB-02
Constr. ℄

DWY 5(2)-I
Constr. ℄

POT10+50.00

In Pl. 15" RCP
w/Headwall
Inv. In = 0.28

In Pl. 15" RCP
Inv. In = 1.30

Grass Median

TCHH

TCHH (2)

12" Oak

Sign

Sign (Typ.)

X-Walk Post

30" C&G

Conc. Walk

L/P #MI58

L/P #MI26

L/S Timber

T-Ped

Gravel Surface

6'CLF

Mystic Cove

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

NOTES:

1. CONTRACTOR SHALL LOCATE AND PROTECT CONCRETE DUCT BANK (APPROXIMATE SIZE 1 FT BY 1 FT) DURING CONSTRUCTION IN THIS VICINITY TO VERIFY NO CONFLICT.
2. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(2).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

LEGEND

Concrete Entrance & Sidewalk	—13—	Proposed Contours	Proposed Curb Drop Inlet	(∞)	Parcel No.
Proposed Pavement	- -5- -	Exist. Contours	Proposed Grate Drop Inlet	C	Construction Limits In Cuts
Pavement Milling, Buildup and/or Overlay	PG	Proposed Grade	Proposed Endwall	F	Construction Limits In Fills
Proposed Detectable Warning Surface	ME	Match Existing	Proposed Combination Inlet		Proposed Yard Drain
Flow Arrows (Grading)	TC	Top of Curb	Proposed Pipe		
	FL	Flow Line	Drainage Structure Number (X-X)		
			Flow Direction		

SCALE: 1"=10'
SCALE
0 10' 20'

JUSTIN R. TWINE
Lic. No. 057286
6/02/25
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

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(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE AND GRADING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		6(2)

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2-JUN-2025
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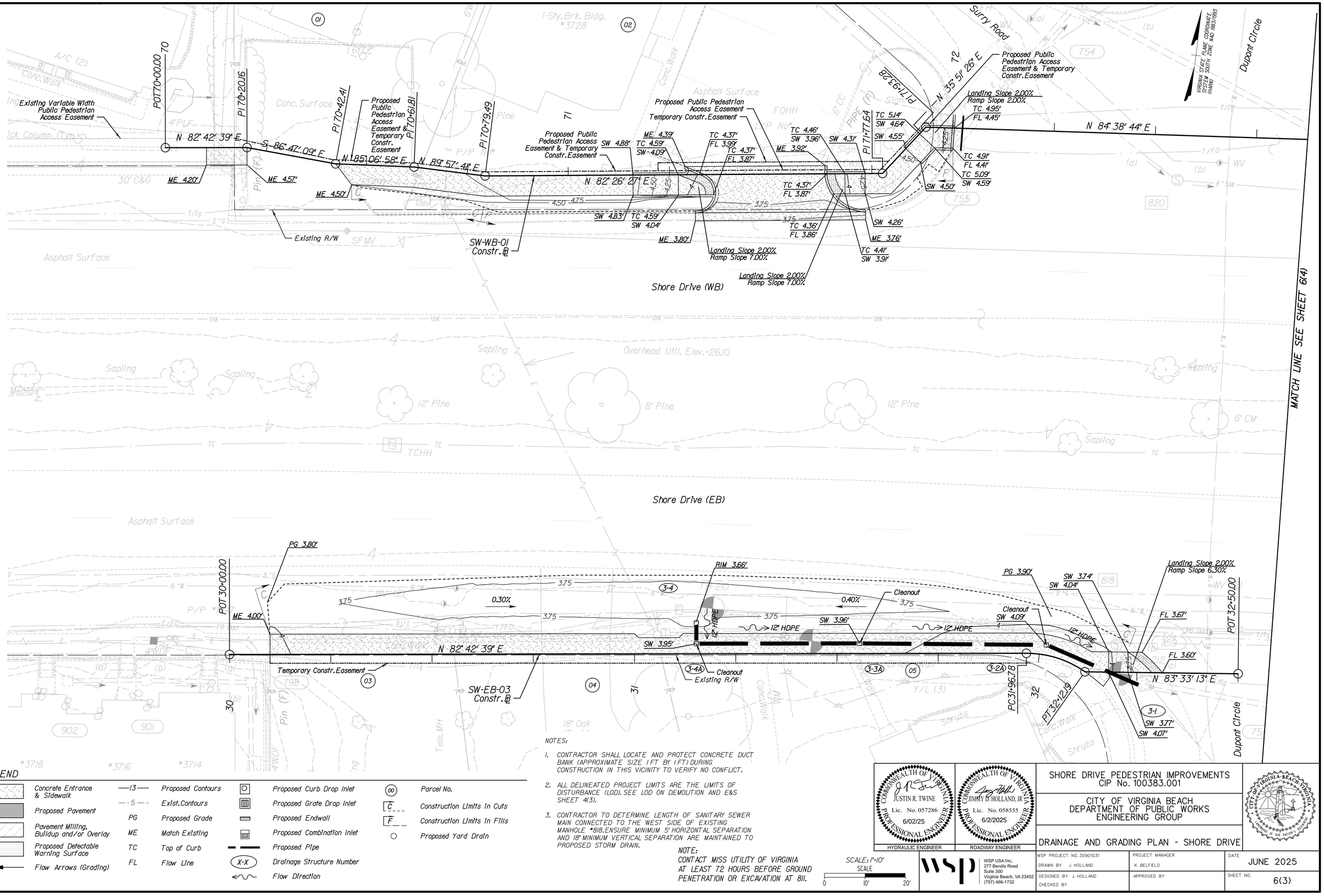

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- Flow Arrows (Grading)
- —13— Proposed Contours
- —·5·— Exist.Contours
- PG Proposed Grade
- ME Match Existing
- TC Top of Curb
- FL Flow Line
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed Endwall
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction
- (00) Parcel No.
- C--- Construction Limits In Cuts
- F__ Construction Limits In Fills
- Proposed Yard Drain

NOTES:

1. CONTRACTOR SHALL LOCATE AND PROTECT CONCRETE DUCT BANK (APPROXIMATE SIZE 1 FT BY 1 FT) DURING CONSTRUCTION IN THIS VICINITY TO VERIFY NO CONFLICT.
2. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(3).
3. CONTRACTOR TO DETERMINE LENGTH OF SANITARY SEWER MAIN CONNECTED TO THE WEST SIDE OF EXISTING MANHOLE #818. ENSURE MINIMUM 5' HORIZONTAL SEPARATION AND 18" MINIMUM VERTICAL SEPARATION ARE MAINTAINED TO PROPOSED STORM DRAIN.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA
JIMMY D. HOLLAND, JR
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE AND GRADING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		6(3)

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MATCH LINE SEE SHEET 6(3)

MATCH LINE SEE SHEET 6(5)

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

POT 73+30.00

SW 4.64'
SW 4.73'
TC 4.71'
SW 4.21'
TC 4.80'
SW 4.30'
TC 4.65'
FL 4.15'
N 84° 38' 44" E
TC 4.79'
SW 4.29'
TC 4.66'
FL 4.16'
SW 4.73'
TC 4.73'
SW 4.23'
SW 4.76'
SW-WB-01 Constr. B
Landing Slope 2.00%
Ramp A Slope 7.80%
Ramp B Slope 8.33%

Asphalt Surface
Shrubs
Concrete Gutter
FOHH
PIPE (F)
T-Ped
L/P #0J01
6'PLF
Shrubs
6" CC
T/FO
Conc. Walk
8" SAN
T/Tg
Conc. Apron
30" C&G
SFMV
Asphalt Surface
Shore Drive
Variable Width R/W
VDOT Projects
#0060-134-102 PE-101, C-501, RW-201
#0060-075-011 RW-2, C-2
#2175-06 08-13 0060-075-011 RW-1, C-1, C-2, RW-2
Shore Drive (WB)
Overhead Util. Elev.=32.72
Grass Median
6" CM
8" Oak
TC
TCHH
Asphalt Surface
Shore Drive (EB)

POT 80+00.00

P/P #0J42
15" Pine
Pin (F)
SW 5.33'
PI 80+49.81
S 87° 43' 34" E
N 86° 55' 42" E
SW-WB-02 Constr. B
ME 5.36'
SW 5.22'
TC 5.32'
FL 4.82'
TC 5.48'
SW 4.98'
TC 5.37'
SW 4.87'
Landing Slope 2.00%
Ramp Slope 7.00%

POT 40+00.00
PG 4.00'
FL 3.86'
RIM 3.30'
4+06.00
PI 41+06.00
3.50
0.30%
3.75
2.00%
N 83° 33' 13" E
N 78° 14' 45" E
FL 3.83'
Dupont Circle
PI 40+67.54
Proposed Temporary Constr. Easement
Proposed Public Pedestrian Access Easement & Temporary Constr. Easement
Proposed Temporary Constr. Easement
SW-EB-04 Constr. B
Proposed Public Pedestrian Access Easement & Temporary Constr. Easement
Existing R/W
PG 3.71'
ME 3.89'
ME 3.91'
PI 42+70.48
N 88° 23' 46" E
Proposed Public Pedestrian Access Easement & Temporary Constr. Easement
ME 3.74'
PI 43+05.00
S 81° 01' 34" E
Rockbridge Road
Bollard (4)
Sign
P/P #0148
Pin (F)
Asphalt Surface

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- Flow Arrows (Grading)
- —13— Proposed Contours
- —5— Exist. Contours
- PG Proposed Grade
- ME Match Existing
- TC Top of Curb
- FL Flow Line
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed Endwall
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction
- (00) Parcel No.
- C Construction Limits In Cuts
- F Construction Limits In Fills
- Proposed Yard Drain

NOTES:

1. CONTRACTOR SHALL LOCATE AND PROTECT CONCRETE DUCT BANK (APPROXIMATE SIZE 1 FT BY 1 FT) DURING CONSTRUCTION IN THIS VICINITY TO VERIFY NO CONFLICT.
2. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(4).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
JUSTIN R. TWINE
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA
JIMMY B. HOLLAND, JR
Lic. No. 058535
6/2/2025
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ROADWAY ENGINEER

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277 Bendix Road
Suite 300
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(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE AND GRADING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		6(4)

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19-JUN-2025
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MATCH LINE SEE SHEET 6(4)

MATCH LINE SEE SHEET 6(6)

Rockbridge Road

Dinwiddie Road

Shore Drive (WB)

Shore Drive (EB)

Asphalt Surface

Existing R/W

S 87° 43' 34" E

S 89° 09' 38" E

S 84° 13' 39" E

S 81° 01' 34" E

S 89° 40' 51" E

S 85° 46' 38" E

S 88° 50' 54" E

SW-WB-02
Constr.

SW-EB-05
Constr.

Ensure positive drainage West to proposed Inlet along curb. Notify Engineer if raised locations are found in the field.

Landing Slope 2.00%
Ramp Slope 2.51%

Landing Slope 2.00%
Ramp Slope 4.81%

Landing Slope 2.00%
Ramp Slope 4.00%

24" RCP

Telephone Line To Be Relocated During Construction

Provide Curb Cut (CVB B-18) and 5 SY of Class AI Riprap

Clean Out Existing Curb Cut and Provide 2 SY of Class AI Riprap

POT 50+00.00
50
Rockbridge Road

PC 50+29.66

PRC 50+34.22

PT 50+68.26

PRC 50+60.95

POT 51+89.43

POT 52+47.67

POT 52+60.00

PI 82+65.71

PI 81+46.61

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

Overhead Util. Elev.=24.69

Overhead Util. Elev.=25.0

Conc. Median

Conc. Dr

TCHH

FOHH

P/P #0178

P/P #0116

730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811

5-1 5-2 5-3 5-4 5-5

81 82 83 51 52

LEGEND

- Concrete Entrance & Sidewalk
- Proposed Pavement
- Pavement Milling, Buildup and/or Overlay
- Proposed Detectable Warning Surface
- Flow Arrows (Grading)
- 13 Proposed Contours
- 5 Exist. Contours
- PG Proposed Grade
- ME Match Existing
- TC Top of Curb
- FL Flow Line
- Proposed Curb Drop Inlet
- Proposed Grate Drop Inlet
- Proposed Endwall
- Proposed Combination Inlet
- Proposed Pipe
- X-X Drainage Structure Number
- Flow Direction
- Parcel No.
- C Construction Limits In Cuts
- F Construction Limits In Fills
- Proposed Yard Drain

NOTES:

1. CONTRACTOR SHALL LOCATE AND PROTECT CONCRETE DUCT BANK (APPROXIMATE SIZE 1 FT BY 1 FT) DURING CONSTRUCTION IN THIS VICINITY TO VERIFY NO CONFLICT.
2. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(5).

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
0 10' 20'

COMMONWEALTH OF VIRGINIA
AMITY B. DEWEY
Lic. No.055840
06/19/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

COMMONWEALTH OF VIRGINIA
JIMMY B. HOLLAND, JR
Lic. No. 058535
6/20/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

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SHORE DRIVE PEDESTRIAN IMPROVEMENTS
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CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE AND GRADING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.
CHECKED BY		6(5)

16:24
2-JUN-2025
\\wsppw14cs01\ICS_pdf_work_dir\23393418827262_36\d100249066(6).dgn

MATCH LINE SEE SHEET 6(5)

Existing R/W

Steps

12" Oak (2)

Sign

12" Oak

Pin (F)

T-Ped
L/P #P129
Guy (2)

Y/L

TCHH

FDC

WM (2)

Pin (F)

WV (2)

24" Oak

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

36" Oak

Dupont Circle

802

Conc.Walk

30" C&G

Asphalt Surface

Grass Median

Sapling

12" Pine

Overhead Util. Elev.=24.13

723

724

722

804

Shore Drive (EB)

Asphalt Surface

SW-EB-06
Constr. ℄

POT60+00.00

POT60+35.00

ME 4.28'

ME 3.88'

S 88° 10' 16" E

Conc. Apron

Conc.Dr

24" C&G

Asphalt Parking

SW-EB-07
Constr. ℄

POT70+00.00

S 87° 15' 57" E

Existing R/W

Prop.R/W

Bollard

MB

PG 4.00'

PG 4.30'

ME 4.38'

ME 4.49'

PG 4.35'

PG 4.30'

ME 4.31'

ME 4.22'

POT71+80.00

S 86° 38' 34" E

Existing R/W

Conc.

Asphalt Parking

Dupont Circle

0.69'
•41.27
2.69'
•41.20

2.57'
•78.42

POT70+85.10

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

LEGEND

Concrete Entrance & Sidewalk	—13—	Proposed Contours		Proposed Curb Drop Inlet	(00) Parcel No.
Proposed Pavement	—·5·—	Exist.Contours		Proposed Grate Drop Inlet	C Construction Limits In Cuts
Pavement Milling, Buildup and/or Overlay	PG	Proposed Grade		Proposed Endwall	F Construction Limits In Fills
Proposed Detectable Warning Surface	ME	Match Existing		Proposed Combination Inlet	Proposed Yard Drain
Flow Arrows (Grading)	TC	Top of Curb		Proposed Pipe	
	FL	Flow Line	(X-X)	Drainage Structure Number	
				Flow Direction	

NOTES:

1. CONTRACTOR SHALL LOCATE AND PROTECT CONCRETE DUCT BANK (APPROXIMATE SIZE 1 FT BY 1 FT) DURING CONSTRUCTION IN THIS VICINITY TO VERIFY NO CONFLICT.
2. ALL DELINEATED PROJECT LIMITS ARE THE LIMITS OF DISTURBANCE (LOD). SEE LOD ON DEMOLITION AND E&S SHEET 4(6).

JUSTIN R. TWINE
COMMONWEALTH OF VIRGINIA
Lic. No. 057286
6/02/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

JIMMY D. HOLLAND, JR
COMMONWEALTH OF VIRGINIA
Lic. No. 058535
6/2/2025
PROFESSIONAL ENGINEER
ROADWAY ENGINEER

SCALE: 1"=10'
SCALE
0 10' 20'

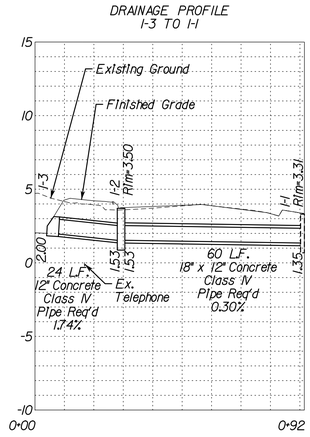
WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

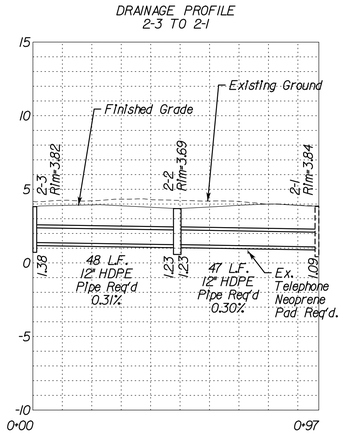
SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

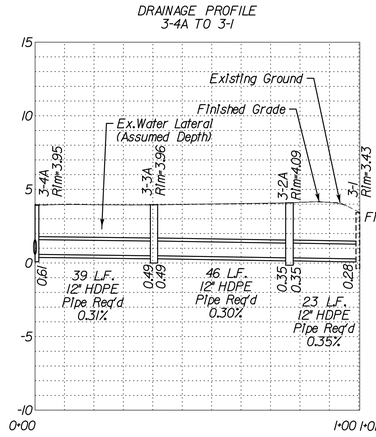
CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

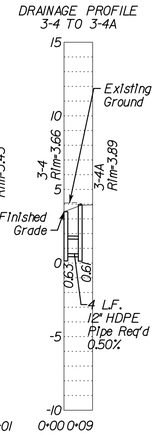
DRAINAGE AND GRADING PLAN - SHORE DRIVE

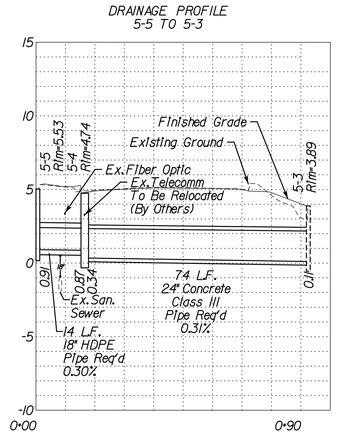
WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO. 6(6)
CHECKED BY		

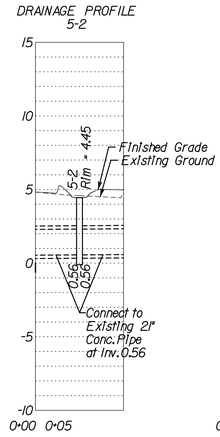


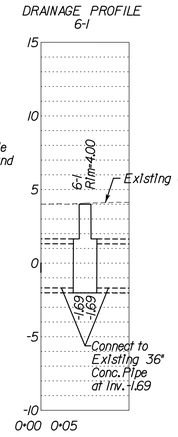












*ALL HDPE PIPE REFERS TO CORRUGATED DOUBLE WALL PIPE (SMOOTH INTERIOR W/H-25 LOADING) AS PER ASC.

INLET	BASELINE	STATION	OFFSET
1-1	SW-EB-01	12+33.11	12.43
1-2	SW-EB-01	11+59.03	9.84
1-3	SW-EB-01	11+34.38	5.86
1-4	SW-EB-01	10+40.00	9.50
2-1	SW-EB-02	20+46.64	3.66
2-2	SW-EB-02	20+93.68	12.30
2-3	SW-EB-02	21+52.37	11.84
3-1	SW-EB-03	32+25.08	1.45
3-2A	SW-EB-03	32+01.27	2.50
3-3A	SW-EB-03	31+55.63	2.50
3-4A	SW-EB-03	31+15.27	2.50
3-4	SW-EB-03	31+15.29	12.21
4-1	SW-EB-04	40+63.20	8.79
5-2	SW-WB-02	81+11.99	7.85
5-3	SW-WB-02	83+52.85	11.28
5-4	SW-WB-02	82+75.35	8.30
5-5	SW-WB-02	82+69.89	2.79
6-1	SW-EB-07	70+11.55	9.84

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

HORIZ. SCALE: 1"=25'
SCALE
0 25' 50'

VERT. SCALE: 1"=5'
SCALE
0 5' 10'

COMMONWEALTH OF VIRGINIA
AMITY B. DEWEY
Lic. No.055840
06/19/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE PROFILES - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 185742
DRAWN BY J. HOLLAND
DESIGNED BY J. HOLLAND
CHECKED BY
PROJECT MANAGER K. BELFIELD
APPROVED BY
DATE JUNE 2025
SHEET NO. 6(7)

20-21
19-JUN-2025
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DRAINAGE DESCRIPTION SHEET

(1-1) MODIFY EXISTING CURB INLET
MODIFY TO ACCEPT PROPOSED 18" X 12" CONC. PIPE AT INV. 1.35

(1-2) TO (1-1) 60'-18"x12" ELLIPTICAL RCP CLASS IV REQ. (10" COVER)
INV.(IN) = 1.53 , INV.(OUT) = 1.35

(1-2) 1 ST'D. CITY GUTTER DROP INLET (B-4) REQ.
H=1.97', INV = 1.53 , RIM = 3.50
STD. IS-1 REQ.

(1-3) TO (1-2) 24'-12" RCP CLASS IV REQ. (1' COVER MIN.)
INV.(IN) = 2.00 , INV.(OUT) = 1.53

(1-3) 1 ST'D. ES-1 (12") REQ.
INV = 2.00

(1-4) 1 CONCRETE SIDEWALK SCUPPER REQ.
H=0.50', INV = 4.03 , RIM = 4.53
SEE DETAIL 206-1 (SHEET 1H(1))
2 SY EC-1 CLASS A1 REQ.

(2-1) MODIFY EXISTING MANHOLE
MODIFY TO ACCEPT PROPOSED 12" HDPE PIPE AT INV. 1.09

(2-2) TO (2-1) 47'-12" HDPE REQ. (1' COVER MIN.)
INV.(IN) = 1.23 , INV.(OUT) = 1.09

(2-2) 1 ADS NYLOPLAST DRAIN BASIN W/ 2' x 2' GRATE COVER REQ.
H=2.46', INV = 1.23 , RIM = 3.69
OR APPROVED EQUAL

(2-3) TO (2-2) 48'-12" HDPE REQ. (1' COVER MIN.)
INV.(IN) = 1.38 , INV.(OUT) = 1.23

(2-3) 1 ADS NYLOPLAST DRAIN BASIN W/ 2' x 2' GRATE COVER REQ.
H=2.44', INV = 1.38 , RIM = 3.82
OR APPROVED EQUAL

(3-1) MODIFY EXISTING DROP INLET
MODIFY TO ACCEPT PROPOSED 12" HDPE PIPE AT INV. 0.28

(3-2A) TO (3-1) 23'-12" HDPE REQ. (2' COVER)
INV.(IN) = 0.35 , INV.(OUT) = 0.28

(3-2A) 1 ADS NYLOPLAST DRAIN BASIN W/ SOLID COVER REQ.
H=3.74', INV = 0.35 , RIM = 4.09

(3-3A) TO (3-2A) 46'-12" HDPE REQ. (2' COVER)
INV.(IN) = 0.49 , INV.(OUT) = 0.35

(3-3A) 1 ADS NYLOPLAST DRAIN BASIN W/ SOLID COVER REQ.
H=3.47', INV = 0.49 , RIM = 3.96

(3-4A) TO (3-3A) 39'-12" HDPE REQ. (2' COVER)
INV.(IN) = 0.61 , INV.(OUT) = 0.49

(3-4A) 1 ADS NYLOPLAST DRAIN BASIN W/ SOLID COVER REQ.
H=3.34', INV = 0.61 , RIM = 3.95

(3-4) TO (3-4A) 4'-12" HDPE REQ. (1' COVER MIN.)
INV.(IN) = 0.63 , INV.(OUT) = 0.61

(3-4) 1 ADS NYLOPLAST DRAIN BASIN W/ 2' x 2' GRATE COVER REQ.
H=3.03', INV = 0.63 , RIM = 3.66
OR APPROVED EQUAL

(4-1) MODIFY EXISTING DROP INLET
ADJUST RIM TO GRADE, LOWER 0.42'
ADD T-DI-1 TOP
PROPOSED TOP ELEV = 3.30

(5-2) 1 ST'D. DI-1 REQ.
H=3.89', INV = 0.56 , RIM = 4.45
CONNECT TO EXISTING 21" CONC. PIPE AT INV. 0.56
CONNECT TO EXISTING 21" CONC. PIPE AT INV. 0.56
STD. IS-1 REQ.

(5-3) MODIFY EXISTING DROP INLET
MODIFY WALL TO ACCEPT PROPOSED 24" CONC. PIPE AT INV. 0.11
SAW CUT AND REMOVE EXISTING CONCRETE FLUME
BRICK UP WALL AROUND 15" CONCRETE PIPE AND EXISTING FLUME OPENING AND COVER BOTH SIDES WITH GROUT

(5-4) TO (5-3) 74'-24" RCP CLASS III REQ. (2' COVER)
INV.(IN) = 0.34 , INV.(OUT) = 0.11

(5-4) 1 ST'D. CITY GUTTER DROP INLET (B-4) REQ.
H=4.40', INV = 0.34 , RIM = 4.74
STD. IS-1 REQ.
STD. ST-1 REQ.

(5-5) TO (5-4) 14'-18" HDPE REQ. (2' COVER)
INV.(IN) = 0.91 , INV.(OUT) = 0.87

(5-5) 1 ST'D. CITY CURB DROP INLET (B-7) REQ.
H=4.62', INV = 0.91 , RIM = 5.53
STD. IS-1 REQ.
STD. ST-1 REQ.

(6-1) 1 ST'D. VDOT B-3 REQ.
DIA = 36", INV = -1.69, H = 5.69
STD. ST-1 REQ.
1 ST'D. R-1 REQ.
1 ST'D. T-DI-1 REQ. GRATE B REQ.
RIM = 4.00
CONNECT TO EXISTING 36" CONC. PIPE
SEE DETAILS STORM DRAIN CONNECTION TO EXISTING AND CONCRETE COLLAR (SHEET 1H(3))

*ALL HDPE PIPE REFERS TO CORRUGATED DOUBLE WALL PIPE (SMOOTH INTERIOR W/H-25 LOADING) AS PER ASC.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
AMITY B. DEWEY
Lic. No.055840
06/19/25
PROFESSIONAL ENGINEER
HYDRAULIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

DRAINAGE DESCRIPTION SHEET

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY J. HOLLAND	K. BELFIELD		
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	6(8)
CHECKED BY			

PUBLIC UTILITY GENERAL NOTES

1. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA OF CONSTRUCTION. "MISS UTILITY" OF VIRGINIA MUST BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO EXCAVATING AT "811" OR (1-800-552-7001). THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION, AT HIS OWN EXPENSE.

2. WATER METERS AND SEWER CLEANOUTS MUST BE PLACED AT THE RIGHT OF WAY OR AT THE PUBLIC UTILITY EASEMENT LINE, (WITHIN THE RIGHT OF WAY / EASEMENT), OUTSIDE OF ENTRANCES AND SIDEWALKS.

3. DEFLECTING, OFFSETTING, OR RELOCATING EXISTING UTILITY MAINS WILL NOT BE ALLOWED EXCEPT UNDER EXTREME CONDITIONS, SUCH EXEMPTIONS WILL BE SUBMITTED TO THE CITY'S PUBLIC UTILITIES ENGINEER FOR APPROVAL.

4. PRODUCTS THAT HAVE BEEN APPROVED BY THE PRODUCT SELECTION COMMITTE CAN BE FOUND ON THE APPROVED PRODUCTS LIST AT HTTPS://PU.VIRGINIABEACH.GOV/ENGINEERING-CONSTRUCTION/APPROVED-PRODUCTS

5. THE CONTRACTOR MUST CONTACT PUBLIC UTILITY/INSPECTIONS AT (757) 385-4175 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION (PUBLIC OR PRIVATE) LOCATED WITHIN THE CITY'S RIGHT-OF-WAY OR EASEMENT.

6. ALL COSTS FOR CONTAINING OR PUMPING SEWAGE, DURING INSTALLATION OF SANITARY SEWER AND CONNECTION TO EXISTING SEWERS SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS. (CITY AMENDMENTS TO 2020 VDOT ROAD AND BRIDGE SPECIFICATIONS JANUARY 1, 2022)

7. THE LOCATION OF THE SUBSURFACE UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. NO GUARANTEE IS MADE TO THE ACCURACY OF THE LOCATIONS AS SHOWN ON THE PLANS EXCEPT WHERE VERIFIED BY TEST HOLES (WHERE INDICATED ON PLANS). THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL, AT A MINIMUM, REMOVE OR RELOCATE ANY UTILITY THAT INTERFERES WITH THE CONSTRUCTION SHOWN ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY UTILITY THAT NEEDS TO BE RELOCATED PRIOR TO CONSTRUCTION, SO THAT THE EXISTING CONDITIONS CAN BE IDENTIFIED. THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS AND RELOCATION WITH THE APPROPRIATE UTILITY OWNER.

8. THE RELOCATION OF ANY UTILITIES (PUBLIC OR PRIVATE) LOCATED WITHIN THE CITY'S RIGHT-OF-WAY, SHALL BE AT THE CONTRACTOR'S EXPENSE, AND COMPLETED PRIOR TO THE PLACEMENT OF ANY PROPOSED ROADWAY BASE MATERIAL OR PAVEMENT IN CONJUNCTION WITH THE SITE WORK. ALL NEW UTILITY LINE INSTALLATIONS MUST BE UNDERGROUND (SUCH AS TELEPHONE, POWER, CABLE TELEVISION, ETC.).

9. TYPE "K" SOFT DRAWN COPPER WILL BE USED FOR OFF-SITE WATER SERVICE LINES, TWO-INCH (2") LINES AND UNDER, IN RIGHT-OF-WAYS AND PUBLIC UTILITY EASEMENTS.

10. UTILITY WORK IN THE CITY OF VIRGINIA BEACH SHALL CONFORM TO THE LATEST EDITION OF PUBLIC UTILITIES STANDARDS, PUBLIC WORKS SPECIFICATIONS, AND ALL OTHER APPLICABLE ORDINANCES AND REGULATIONS UNLESS OTHERWISE NOTED.

11. STATE LAW MANDATES THE NOTIFICATION OF UTILITY OWNERS 48 HOURS IN ADVANCE OF EXCAVATION FOR THE FOLLOWING BUT NOT LIMITED LOCAL UTILITIES;

    -WATER & SEWER
    -COX COMMUNICATIONS
    -WINDSTREAM
    -VIRGINIA NATURAL GAS
    -VERIZON
    -DOMINION ENERGY
    -TRAFFIC CONTROLS
    -SEGRA
    -STORM DRAIN

12. NO SEWER LINE SECTION OF ANY DIAMETER SHALL BE PLUGGED OR REMOVED FROM SERVICE WITHOUT APPROVAL BY THE CITY OF VIRGINIA BEACH DEPARTMENT OF UTILITIES.

13. NO SEWER LINE SECTION OF ANY DIAMETER SHALL BE PLUGGED LONGER THAN 2 HOURS WITHOUT MAKING PROVISIONS FOR AN ALTERNATE FORM OF SERVICE, SUCH AS, BY-PASS PUMPING AND PUMP AND HAUL. SUCH ALTERNATE FORMS OF SERVICE SHALL BE PROVIDED TO THE CUSTOMER/RESIDENCE AT NO ADDITIONAL COST TO THE CITY, AND SHALL BE APPROVED BY THE CITY OF VIRGINIA BEACH DEPARTMENT OF PUBLIC UTILITIES.

14. SEWER SERVICE SHALL BE MAINTAINED FOR ALL MAINS AND LATERALS. SERVICE LATERAL REPLACEMENT MUST PROCEED IMMEDIATELY FOLLOWING COMPLETION OF SUCCESSFUL TESTING OF THE MAINS.

15. WHEN CONNECTING A NEW SANITARY SEWER LATERAL TO AN EXISTING GRAVITY MAIN, THE CONNECTION SHALL BE MADE AT THE EXISTING TEE/WYE IF AT ALL POSSIBLE. IF A NEW CONNECTION POINT IS REQUIRED, THE CONNECTION TO THE EXISTING GRAVITY MAIN SHALL BE MADE USING AN INSERT-A-TEE OR OTHER APPROVED PRODUCT FROM THE CITY OF VIRGINIA BEACH PUBLIC UTILITIES APPROVED PRODUCT LIST.

16. AIR VENT/RELEASE VALVE SHALL BE INSTALL AT ALL HIGH POINTS ALONG THE WATER MAIN SYSTEM.

17. CONTRACTOR SHALL HAND DIG NEAR EXISTING SANITARY SEWER MAINS (VITRIFIED CLAY PIPE -VCP)

Utility Owners

Cox Communications
Contact - Victor Batchelor
Phone - (757) 222-8914
Victor.Batchelor@cox.com

Water / Sewer
City of Va Beach
Contact - Public Utility/Inspections
Phone - (757) 385-4175
Contact - Algen Canonizado
Phone - (757) 385-2025
acanonlz@vbgov.com

Virginia Natural Gas (VNG)
Contact - Ryan Windoloski
Phone - (757) 266-7050
rwindolo@southernco.com

Verizon
Contact - Jason Riordan
Phone - (757) 613-6721
Jason.d.riordan@verizon.com

Dominion Energy
Contact - Belinda Winstead
Phone - O: (757) 857-2870
Phone - M: (757) 619-2919
Belinda.Winstead@dominionenergy.com

Traffic Management Operations
City of Virginia Beach
Contact - Chris Hasty
Phone - (757) 385-1489
chasty@vbgov.com

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PUBLIC UTILITY GENERAL NOTES

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	
DRAWN BY J. HOLLAND	K. BELFIELD	JUNE 2025	
DESIGNED BY J. HOLLAND	APPROVED BY	SHEET NO.	
CHECKED BY		7	

16:22
2-JUN-2025
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16:21

2-JUN-2025

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Hedgerow

L/P #K147

36" RCP SDFM (DAT

Conc.Walk

Unk

T/Tg

30" C&G

SFMV

SFMV (2)

Asphalt Surface

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)

Shore Drive (WB)

Unk

36" RCP SDFM (DATR)

6"CC

Conc.(Typ.)

Riprap (Typ.)

Stamped Brick

Shrubs

Swale

TCHH (2)

Wood Sign

In Pl. 18" RCP w/FES Inv. Out = 1.18

Tc

TCHH

6"CC

Shore Drive (EB)

Asphalt Surface

SW-EB-01 Constr.

16 'W

8 'G

TH-204

TH-205

TH-206

Sign

530

L/P #K114

FO Duct

CATV

Guy

Guy (3)

Existing R/W

Asphalt Surface

P/P #K134

8'CLF

L/P

T/P #27178

Sapling (2)

Shrubs

Marlin Bay Drive

C-Ped (2)

Pin (F)

T-Ped (2)

MON (F)

Clipper Bay Drive

Conc.Gutter

L/P #K164

D

101

12

10

PAVEMENT MARKING LEGEND

- (A) WHITE SOLID LANE LINE (TYP.), 18' LENGTH, 9' SPACING
- (B) WHITE GORE MARKING (TYP.), 45 DEGREE LINE, 4' SPACING
- (C) WHITE SOLID LANE LINE (TYP.)
- (D) WHITE STOP BAR (TYP.)
- (E) ERADICATE EXISTING PAVEMENT MARKING(TYP.)

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING & SIGNING PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	8(1)
CHECKED BY C. GAVIN	C. GAVIN		

16:22
2-JUN-2025
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Shore Drive (WB)

Shore Drive (EB)

584 583 786 586 838 637 785 784 783 129

30" C&G
Asphalt Surface
In Pl. 15" RCP
w/Headwall
Inv. In = 0.28
In Pl. 15" RCP
Inv. In = 1.30
Sign
Sign (Typ.)
Grass Median
12" Oak
X-Walk Post
TCHH
TCHH (2)
TC
Conc. Walk
L/P #M158
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (HARN)
TH-209
Existing R/W
SW-EB-02
Constr. ℄
DWY 5(2)-1
Constr. ℄
Gravel Surface
Mystic Cove
6'CLF
Post
Unk
L/S Timbers
L/P #M126
T-Pad
Asphalt Surface
TCab
Pin
30" C&G
8 "SAN
8 "G
16 "W
F.O. Duct
T/Tg
E
CATV
2 "G

PAVEMENT MARKING LEGEND

- (A) WHITE SOLID LANE LINE (TYP.), 18' LENGTH, 9' SPACING
- (B) WHITE GORE MARKING (TYP.), 45 DEGREE LINE, 4' SPACING
- (C) WHITE SOLID LANE LINE (TYP.)
- (D) WHITE STOP BAR (TYP.)
- (E) ERADICATE EXISTING PAVEMENT MARKING(TYP.)

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING & SIGNING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	8(2)
CHECKED BY C. GAVIN	C. GAVIN		

16:22

2-JUN-2025

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Shore Drive (WB)

Shore Drive (EB)

Surry Road

Dupont Circle

Existing R/W

SW-WB-01 Constr. ℄

SW-EB-03 Constr. ℄

MATCH LINE SEE SHEET 8(4)

PAVEMENT MARKING LEGEND

- (A) WHITE SOLID LANE LINE (TYP.), 18' LENGTH, 9' SPACING
- (B) WHITE GORE MARKING (TYP.), 45 DEGREE LINE, 4' SPACING
- (C) WHITE SOLID LANE LINE (TYP.)
- (D) WHITE STOP BAR (TYP.)
- (E) ERADICATE EXISTING PAVEMENT MARKING(TYP.)

NOTE:
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SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
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SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING & SIGNING PLAN - SHORE DRIVE

CITY OF VIRGINIA BEACH, VIRGINIA

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	8(3)
CHECKED BY C. GAVIN	C. GAVIN		

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2-JUN-2025
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MATCH LINE SEE SHEET 8(3)

MATCH LINE SEE SHEET 8(5)

Shore Drive (WB)

Shore Drive (EB)

Shore Drive
Variable Width R/W
VDOT Projects
#0060-134-102 PE-101, C-501, RW-201
#0060-075-011 RW-2, C-2
#2175-06 08-13 0060-075-011 RW-1, C-1, C-2, RW-2

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993 (feet)

SW-WB-01 Constr. Ⓔ

SW-WB-02 Constr. Ⓔ

SW-EB-04 Constr. Ⓔ

Existing R/W

Relocate Sign Panel onto New Post

Existing Sign Assembly to Remain

ONE WAY

Conc.Walk
Shrubs
Guy
FOHH
PIPE (F)
T-Ped
L/P #0J01
6'PLF
6" CC
T/FO
T/Tg
8 "SAN
30" C&G
Asphalt Surface
SFMV
Conc. Apron
15" Pine
P/P #0J42
Pin (F)
73FMV (3)
Overhead Util. Elev.=32.72
Grass Median
6" CM
8" Oak
TC
TCHH
8 "G
16 "W
FO Duct
P/P #0138
CTV Power Box
Wood Fence
Bollard (4)
Sign
P/P #0143
P/P #0116
T-Ped
Dupont Circle
Rockbridge Road
GV
MM
Pin (F)
40'
41'
42'
43'

PAVEMENT MARKING LEGEND

- (A) WHITE SOLID LANE LINE (TYP.), 18' LENGTH, 9' SPACING
- (B) WHITE GORE MARKING (TYP.), 45 DEGREE LINE, 4' SPACING
- (C) WHITE SOLID LANE LINE (TYP.)
- (D) WHITE STOP BAR (TYP.)
- (E) ERADICATE EXISTING PAVEMENT MARKING(TYP.)

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SCALE: 1"=10'
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING & SIGNING PLAN - SHORE DRIVE

WSP PROJECT NO. 30901031		PROJECT MANAGER	DATE
DRAWN BY K. BUXTON		K. BELFIELD	JUNE 2025
DESIGNED BY K. BUXTON	APPROVED BY		SHEET NO.
CHECKED BY C. GAVIN	C. GAVIN		8(4)

16:23
2-JUN-2025
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MATCH LINE SEE SHEET 8(4)

MATCH LINE SEE SHEET 8(6)

Rockbridge Road

Dinwiddie Road

Shore Drive (WB)

Shore Drive (EB)

Existing R/W

SW-WB-02
Constr. ℄

SW-EB-05
Constr. ℄

Asphalt Surface

Asphalt Parking Lot

Conc. Median

Overhead Util. Elev.=25.0

Relocate Sign Panels onto New Post

Private Sign to be Relocated (By Others, Not Shown on Survey)

ROCKBRIDGE RD

SHORE DR

STOP

VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993

PAVEMENT MARKING LEGEND

- (A) WHITE SOLID LANE LINE (TYP.), 18' LENGTH, 9' SPACING
- (B) WHITE GORE MARKING (TYP.), 45 DEGREE LINE, 4' SPACING
- (C) WHITE SOLID LANE LINE (TYP.)
- (D) WHITE STOP BAR (TYP.)
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NOTE:
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SCALE: 1"=10'
SCALE
0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
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6/2/25
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TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING & SIGNING PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	8(5)
CHECKED BY C. GAVIN	C. GAVIN		

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2-JUN-2025
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MATCH LINE SEE SHEET 8(5)

Existing R/W
Steps
12" Oak (2)
T-Ped
L/P #P129
Guy (2)
Y/L
TCHH
FDC
WM (2)
Pin (F)
WV (2)
24" Oak
VIRGINIA STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD 1983/1993
Dupont Circle
36" Oak
802
Sign
Conc.Walk
Asphalt Surface
30" C&G
6" CC
Grass Median
Sapling
12" Pine
Overhead Util. Elev.=24.13
723
Shore Drive (EB)
SW-EB-06
Constr.
SW-EB-07
Constr.
725
724
722
TH-213
Conc. Apron
Bollard
MB
24" C&G
Asphalt Parking
Conc.Dr
60
71
09
Sapling (3)
Conc.

PAVEMENT MARKING LEGEND

- (A) WHITE SOLID LANE LINE (TYP.), 18' LENGTH, 9' SPACING
- (B) WHITE GORE MARKING (TYP.), 45 DEGREE LINE, 4' SPACING
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0 10' 20'

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING & SIGNING PLAN - SHORE DRIVE

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	8(6)
CHECKED BY C. GAVIN	C. GAVIN		

1622
2-JUN-2025
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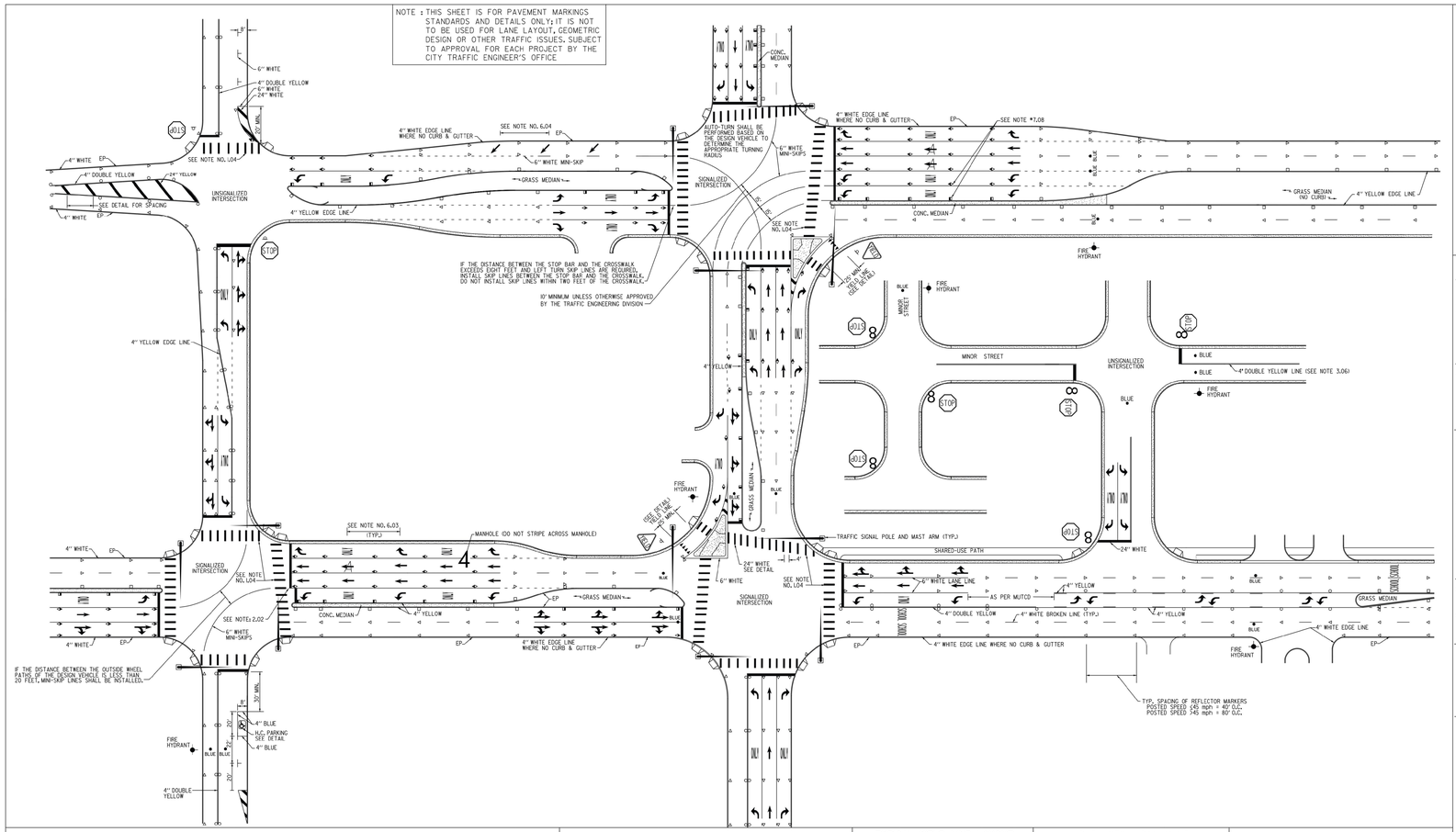
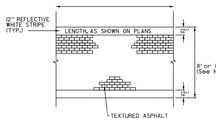
NOTE : THIS SHEET IS FOR PAVEMENT MARKINGS STANDARDS AND DETAILS ONLY; IT IS NOT TO BE USED FOR LANE LAYOUT, GEOMETRIC DESIGN OR OTHER TRAFFIC ISSUES. SUBJECT TO APPROVAL FOR EACH PROJECT BY THE CITY TRAFFIC ENGINEER'S OFFICE



TYPICAL DETAIL FOR TEXTURED ASPHALT CROSSWALK



NOTES:

1) WIDTH OF CROSSWALK SHALL BE 8' EXCEPT IN BEACH BOROUGH OR OTHER HEAVY PEDESTRIAN AREAS WHERE WIDTH SHALL BE 10'.
2) TEXTURED ASPHALT SHALL BE IN CONFORMANCE WITH CITY OF VIRGINIA BEACH - AMENDMENTS TO THE VDOT ROAD AND BRIDGE SPECIFICATIONS FOR TEXTURED ASPHALT.
3) PATTERN OF TEXTURED ASPHALT TO BE RUNNING BOND PATTERN UNLESS OTHERWISE NOTED ON PLAN.
4) COLOR OF TEXTURED ASPHALT SHALL MATCH THE COLOR DESCRIPTION INDICATED ON THE PLANS.

NOTES

CROSSWALKS

L01 CROSSWALK LINES WILL EXTEND FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT OR EDGE OF SHOULDER, AS APPLICABLE.
L02 LINES FORMING A CROSSWALK WILL BE PARALLEL.
L03 THE WIDTH OF A CROSSWALK WILL BE 8 FEET EXCEPT IN THE BEACH BOROUGH OR OTHER HEAVY PEDESTRIAN AREAS WHERE THEY WILL BE 10 FEET.
L04 CROSSWALKS WILL HAVE 24 INCH WIDE CONSECUTIVE WHITE RECTANGLES 8 FEET OR 9 FEET LONG AND WILL BE INSTALLED PARALLEL TO TRAFFIC FLOW. SPACING WILL BE APPROXIMATELY 6 FEET ON CENTER. THEY WILL BE LOCATED SO AS TO AVOID NORMAL WHEEL PATHS; SEE DETAIL FOR PLACEMENT OF MARKINGS WITHIN LANE.

STOP BARS

2.01 STOP BARS, SOLID WHITE LINES BEING 24 INCHES WIDE, WILL COMPLETELY TRAVERSE EACH TRAFFIC LANE ON EACH APPROACH AT SIGNALIZED INTERSECTIONS, OR APPROACHES WITH "STOP" SIGN CONTROL AT MAJOR COLLECTORS & ARTERIAL ROADWAYS, OR AS TRAFFIC ENGINEER SEES WARRANTED.
2.02 STOP BARS WILL BE LOCATED AT A MINIMUM OF 4 FEET IN ADVANCE OF CROSSWALK.

LANE, EDGE AND CENTERLINES

3.01 WHITE LANE LINES, EITHER SOLID OR MINI-SKIP, WILL BE 6 INCHES WIDE.
3.02 LANE LINES FOR THRU LANES ON AN APPROACH TO A SIGNALIZED INTERSECTION WILL BE SOLID WHITE FOR A DISTANCE OF NOT LESS THAN 150 FEET MEASURED FROM STOP BAR OR EQUAL TO THE LENGTH OF THE SOLID LANE LINES FOR ADJACENT AUXILIARY (RIGHT AND/OR LEFT TURN) LANES.
3.03 LANE LINES THAT DELINEATE THE EDGE OF A TURNING LANE WILL BE 6 INCH SOLID WHITE LINES AND THEY WILL EXTEND CONTINUOUSLY FROM THE BEGINNING OF THE FULL WIDTH OF THE TURNING LANE TO THE STOP BAR. MINI-SKIPS WILL EXTEND FROM THE LANE LINE TO THE END OF THE TRANSITION.
3.04 EDGE LINES, WHEN NOTED ON THE PLANS, WILL BE SOLID WHITE LINES 4 INCHES WIDE, BUT SOLID YELLOW LINES ARE TO BE USED WHEN ADJACENT TO A MEDIAN WHICH SEPARATES OPPOSING DIRECTIONS OF VEHICULAR TRAFFIC FLOW. EDGE LINES ARE NOT USED ADJACENT TO CURB AND GUTTER ON THE OUTSIDE LANE.
3.05 CENTERLINES ON UNDIVIDED HIGHWAYS WILL BE SOLID DOUBLE YELLOW LINES 4 INCHES WIDE SEPARATED BY A 4 INCH SPACE.
3.06 ON MINOR APPROACH TO AN ARTERIAL/COLLECTOR LANE, EDGE LINES, AND/OR CENTERLINES WILL BE EXTENDED A MINIMUM DISTANCE OF 100 FEET FROM THE STOP BAR.

MEDIAN MARKINGS

4.01 "CENTER LANE LEFT TURN ONLY" (TWO-WAY LEFT TURN LANES) MEDIANS WILL CONSIST OF TWO (2) SETS OF (ONE WAY BARRIER LINES, 10 FEET BROKEN YELLOW LINES WITH 30 FEET SPACE WILL BE LOCATED INSIDE OF THESE SOLID YELLOW LINES.
4.02 TRANSVERSE MEDIAN MARKINGS WILL CONSIST OF 24 INCH YELLOW LINES SPACED AS REQUIRED BY NOTE 5.03 AT 45 DEGREE ANGLE WITHIN TWO (2) SETS OF TWO WAY BARRIER LINES.

GORE MARKINGS

5.01 MARKINGS WILL CONSIST OF 24 INCH SOLID WHITE TRANSVERSE LINES SPACED AS REQUIRED BY NOTE 5.03 WITHIN BARRIER LINES.
5.02 CHEVRONS WILL BE USED WHEN SPECIFIED ON THE PLANS.
5.03 24 INCH MEDIAN AND GORE MARKINGS WILL BE SPACED ACCORDING TO THE POSTED SPEED LIMIT AS FOLLOWS:
SPACING WILL MATCH POSTED SPEED LIMIT UP TO A MAXIMUM SPACING OF 35 FEET.
(OR AS APPROVED BY TRAFFIC ENGINEERING DIVISION)

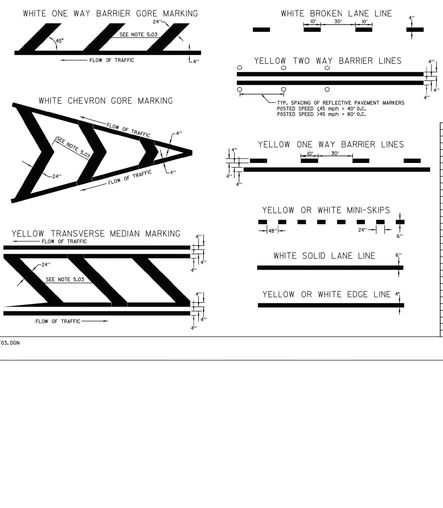
PAVEMENT LEGENDS

6.01 LEGENDS WILL BE TRANSVERSELY ALIGNED ACROSS EACH LANE, THE DISTANCE BETWEEN THE ARROW SYMBOL AND THE STOP BAR WILL BE 8 FEET.
6.02 ARROWS AND LEGENDS WILL NOT BE PLACED PRIOR TO THE SOLID WHITE LANE LINES.
6.03 WORD MESSAGES WILL BE LOCATED IN ADVANCE OF ITS ACCOMPANYING SYMBOL BY A DISTANCE OF NOT LESS THAN 32 FEET NOR MORE THAN 80 FEET FROM THE SYMBOL. AFTER FIFTH LEGEND IN A TURN LANE, SPACING BETWEEN LEGENDS MAY GO TO 120 FEET MAXIMUM (NOT SHOWN ON PLANS). FOR AUXILIARY (RIGHT AND/OR LEFT TURN) LANES ON ALL APPROACHES, LEGENDS WILL BE CENTERED WITHIN THE LANE. THEY WILL CONTINUE THE LENGTH OF THE LANE BEGINNING AND ENDING WITH A SYMBOL. THRU ARROWS WILL NOT BE INSTALLED ON THE UNCONTROLLED THRU STREET AT UNSIGNALIZED INTERSECTIONS.
6.04 MERGE ARROWS WILL BE SPACED ACCORDING TO THE POSTED SPEED LIMIT AS FOLLOWS:
POSTED SPEED < 35 mph = 80' O.C.
POSTED SPEED LIMIT > 35 mph = 120' O.C.

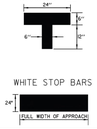
GENERAL NOTES

7.01 INSTALLATION AND MATERIALS FOR ALL PAVEMENT MARKINGS AND LEGENDS IN THE PUBLIC RIGHT-OF-WAY WILL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF VIRGINIA BEACH DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION SPECIFICATIONS AND STANDARDS MANUAL, UNLESS OTHERWISE SPECIFIED ON THE PLANS OR IN CONTRACT DOCUMENTS.
7.02 THE CONTRACTOR WILL NOTE ALL SPECIAL PROVISIONS OF THE CONTRACT SPECIFICALLY WITH REGARD TO THE RATE OF APPLICATION, MAINTENANCE OF TRAFFIC, RESTRICTED WORKING HOURS, AND/OR RESTRICTED WEATHER CONDITIONS.
7.03 THE CONTRACTOR WILL REMOVE COMPLETELY ALL PREVIOUS PAVEMENT MARKINGS WHICH CONFLICT WITH THE NEW PAVEMENT MARKINGS. "ERADICATING PAVEMENT MARKINGS" WILL BE IN ACCORDANCE WITH CURRENT V.D.O.T. ROAD AND BRIDGE SPECIFICATIONS.
7.04 PRIOR TO APPLICATION, THE CONTRACTOR WILL FIELD CHECK AND LOCATE ALL PAVEMENT MARKINGS TO THE SATISFACTION OF THE ENGINEER.
7.05 ALL MARKINGS IMPROPERLY APPLIED OR LOCATED WILL BE COMPLETELY REMOVED AND CORRECTLY REAPPLIED, AT THE SOLE EXPENSE OF THE CONTRACTOR.
7.06 THERMOPLASTIC MARKINGS OR PREFORMED POLYMER MARKINGS WILL NOT BE INSTALLED WITHIN A FORTY-EIGHT (48) HOUR PERIOD FOLLOWING A RAINFALL.
7.07 MARKINGS INSTALLED ON CONCRETE SURFACES FOR BRIDGE DECKS WILL BE BLACK AND WHITE CONTRAST TAPE (EDGE LINES & SKIP LINES).
7.08 TWO WAY (WHITE/RED AND YELLOW/RED) MARKERS WILL BE INSTALLED ON BOTH APPROACHES OF THE DIVIDED HIGHWAY AT "T" AND 4 - LEG INTERSECTIONS (SIGNALIZED AND UNSIGNALIZED).

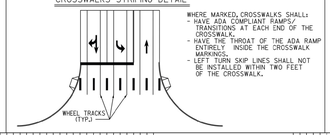
ROADWAY PAVEMENT MARKINGS



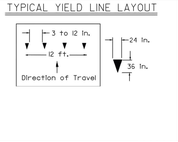
PARKING TEE



CROSSWALKS STRIPING DETAIL



TYPICAL YIELD LINE LAYOUT



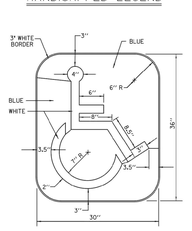
REFLECTIVE PAVEMENT MARKER LEGEND

- YELLOW
- YELLOW / RED
- YELLOW / YELLOW
- WHITE
- WHITE / RED
- RAISED BLUE

NOTES:

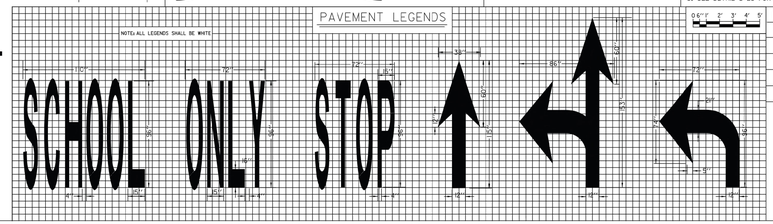
1. REFER TO CITY OF VIRGINIA BEACH PUBLIC WORKS DESIGN STANDARDS DETAILS D-23 THROUGH D-26 FOR ADDITIONAL MARKER INFORMATION.
2. SEE DETAILS ABOVE FOR SPACING.
3. SEE DETAIL D-23 FOR PAVEMENT MARKER DETAILS

HANDICAPPED LEGEND



NOTES:
1) ALL HANDICAPPED PARKING SPACES AND LEGENDS WILL BE MARKED WITH APPROVED PREFORMED BLUE PAVEMENT MARKING MATERIAL.

PAVEMENT LEGENDS



DATE	REVISION
3/15	GENERAL

FILE NAME:	CHECKED BY:	SCALE:
D-55 25SCALE.DGN	M.S.	NONE

PAVEMENT MARKING STANDARDS & DETAILS

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING DIVISION

D-55

TRST03.DGN

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

PAVEMENT MARKING STANDARDS & DETAILS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE
DRAWN BY S. MATHAI	K. BELFIELD	JUNE 2025
DESIGNED BY S. MATHAI	APPROVED BY	SHEET NO.
CHECKED BY R. HUELSBECK	C. GAVIN	8(7)

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2-JUN-2025
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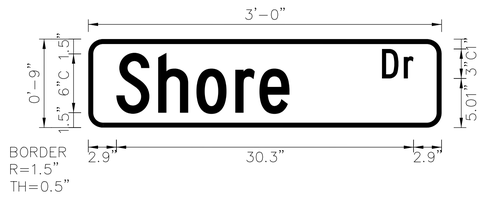
SIGN DETAIL



SIGN NUMBER	101
WIDTH x HGHT.	3'-0" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

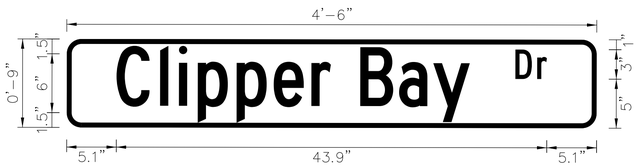
SYMBOL	ROT	X	Y	WID	HT

Panel Style:Street Name 6-3in.ssi
Dimensions are inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)																					LENGTH	SERIES/SIZE
	D	r																				C 2000
29.9	2.2	1	2.9																		3.2	3/2.3
	S	h	o	r	e																	C 2000
2.9	4.3	3.9	4	2.5	3.1	15.5															17.6	6/4.5

SIGN DETAIL



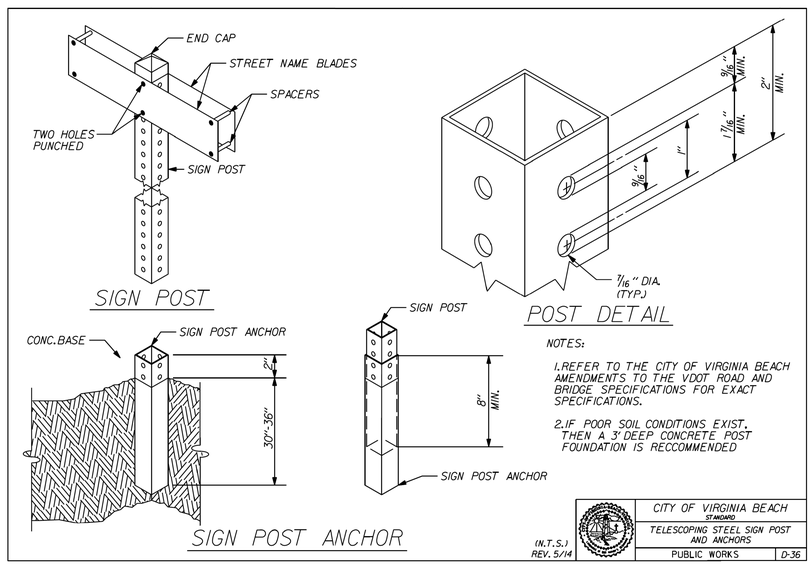
SIGN NUMBER	101
WIDTH x HGHT.	4'-6" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

Panel Style:Street Name 6-3in.ssi
Dimensions are inches.tenths

Letter spacings are to start of next letter

LETTER POSITIONS (X)																					LENGTH	SERIES/SIZE
	D	r																				C 2000
45.7	2.2	1	5.1																		3.2	3/2.3
	C	l	i	p	p	e	r		B	a	y											C 2000
5.1	4.4	1.9	1.9	4	3.8	3.8	2	3	4	3.5	3.7	12.9									36	6/4.5



NOTES:

1. REFER TO THE CITY OF VIRGINIA BEACH AMENDMENTS TO THE VDOT ROAD AND BRIDGE SPECIFICATIONS FOR EXACT SPECIFICATIONS.
2. IF POOR SOIL CONDITIONS EXIST, THEN A 3' DEEP CONCRETE POST FOUNDATION IS RECCOMMENDED

CITY OF VIRGINIA BEACH STANDARD	
TELESCOPING STEEL SIGN POST AND ANCHORS	
PUBLIC WORKS	D-36

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

COMMONWEALTH OF VIRGINIA
KRISTIN M. BELFIELD
Lic. No.054398
6/2/25
PROFESSIONAL ENGINEER
TRAFFIC ENGINEER

SHORE DRIVE PEDESTRIAN IMPROVEMENTS
CIP No. 100383.001

CITY OF VIRGINIA BEACH
DEPARTMENT OF PUBLIC WORKS
ENGINEERING GROUP

SIGNING STANDARDS & DETAILS

WSP USA Inc.
277 Bendix Road
Suite 300
Virginia Beach, VA 23452
(757) 466-1732

WSP PROJECT NO. 30901031	PROJECT MANAGER	DATE	JUNE 2025
DRAWN BY K. BUXTON	K. BELFIELD		
DESIGNED BY K. BUXTON	APPROVED BY	SHEET NO.	8(8)
CHECKED BY C. GAVIN	C. GAVIN		

16:20
2-JUN-2025
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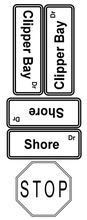
GENERAL NOTES

1. SIGNING AND PAVEMENT MARKINGS ARE TO BE PER THE CITY OF VIRGINIA BEACH PUBLIC WORKS DESIGN STANDARDS MANUAL (2022). THIS DOCUMENT SITES ADDITIONAL REFERENCES, INCLUDING (BUT NOT LIMITED TO) THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PLEASE SEE THE CITY OF VIRGINIA BEACH PUBLIC WORKS DESIGN STANDARDS MANUAL FOR INFORMATION ON ALL REFERENCES TO BE USED ON THIS PROJECT. PROJECT SPECIFICATIONS SHALL ALSO BE PER THE CITY OF VIRGINIA BEACH AMENDMENTS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, 2022.
2. SIGN LOCATIONS ARE TO BE STAKED BY THE CONTRACTOR AND APPROVED BY THE CITY INSPECTOR PRIOR TO INSTALLATION.
3. UNLESS OTHERWISE APPROVED BY THE ENGINEER, EXISTING TRAFFIC SIGNS WHICH ARE TO BE REMOVED SHALL REMAIN IN PLACE UNTIL THE NEW SIGN STRUCTURE AND CRITICAL SIGN MESSAGE ARE IN PLACE.
4. EXISTING SIGNS WITHIN THE LIMITS OF THE CONTRACT WHICH HAVE NOT BEEN ACCOUNTED FOR IN THE SIGNING AND MOT PLANS SHALL BE RELOCATED OR REMOVED AS DIRECTED BY THE CITY TRAFFIC ENGINEER.
5. VDOT TYPE A PAVEMENT MARKINGS (PAINT) WILL NOT BE USED ON PUBLIC STREETS.
6. MATERIALS AND WORKMANSHIP WILL CONFORM TO CITY SPECIFICATIONS.
7. PAVEMENT MARKINGS WILL BE INSTALLED ACCORDING TO THE REGULATIONS GOVERNING THE DESIGN, LOCATION, AND OPERATION OF ALL OFFICIAL TRAFFIC SIGNS, SIGNALS, AND MARKINGS ON AND ALONG HIGHWAYS WITHIN THE COMMONWEALTH OF VIRGINIA.
8. ALL PAVEMENT MARKINGS WILL BE REFLECTORIZED ACCORDING TO VDOT ROAD AND BRIDGE SPECIFICATIONS, (2020) SECTION 246.
9. THE CONTRACTOR WILL PREPARE THE PAVEMENT SURFACE FOR PROPER ADHESION. ANY SWEEPING OR REMOVAL OF DEBRIS, GRAVEL, DIRT, OR OTHER FOREIGN MATERIALS WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION. NO SEPARATE PAYMENT WILL BE MADE FOR THIS.
10. THE CONTRACTOR WILL COMPLETELY REMOVE ALL PREVIOUS MARKINGS THAT COULD CONFLICT WITH THE NEW PAVEMENT MARKINGS.
11. THE CONTRACTOR WILL NOTE ALL SPECIAL PROVISIONS OF THE CONTRACT ON THE PLANS, SUCH AS THE RATE OF APPLICATION, MAINTENANCE OF TRAFFIC, RESTRICTED WORKING HOURS, AND/OR RESTRICTED WEATHER CONDITIONS. NO DEVIATIONS FROM THIS WILL BE PERMITTED.
12. UNLESS OTHERWISE SPECIFIED, THE BASIS OF MEASUREMENT WILL BE ALONG THE LONGITUDINAL CENTERLINE OF THE PAVEMENT MARKINGS. MEASUREMENT FOR LEGENDS WILL BE ACCORDING TO THE MESSAGE; COMPLETE, AND IN PLACE.
13. BEFORE THE APPLICATION, THE CONTRACTOR WILL "FIELD CHECK" AND PLACE ALL PAVEMENT MARKINGS, TO THE SATISFACTION OF THE ENGINEER.
14. ALL MARKINGS IMPROPERLY APPLIED OR LOCATED WILL BE COMPLETELY REMOVED AND CORRECTLY REAPPLIED AT THE EXPENSE OF THE CONTRACTOR.
15. WHERE BITUMINOUS SEALANTS PREVENT OR MAKE IT IMPRACTICAL TO EXTEND THE LINES TO EDGE OF THE PAVEMENT, THE CONTRACTOR WILL EXTEND THE LINES TO END OF THE SEALED AREA OR WITHIN ONE (1) FOOT OF THE EDGE OF THE PAVEMENT.
16. THERMOPLASTIC PAVEMENT MARKINGS OR PREFORMED POLYMER MARKINGS WILL NOT BE INSTALLED WITHIN A 48-HOUR PERIOD FOLLOWING A RAINFALL.
17. THE COLORS WILL NOT CHANGE THROUGHOUT THE EXPECTED LIFE OF THE FILM.
18. MARKING MATERIAL WILL BE APPLIED AT SPECIFIED DIMENSIONS AT A RATE RESULTING IN A MARKING THICKNESS OF 90 MILS È 5 MILS, NOT INCLUDING GLASS BEAD TOP DRESSING.
19. THE MARKINGS WILL BE PROVIDED IN SPECIFIED WIDTHS AND SHAPES. PREFORMED WORDS AND SYMBOLS WILL CONFORM TO THE APPLICABLE SHAPES AND SIZES AS OUTLINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, OR AS MODIFIED.
20. PROPOSED MARKINGS SHALL TIE-INTO EXISTING PAVEMENT MARKINGS.
21. PERMANENT PAVEMENT MARKINGS SHALL BE VDOT TYPE B, CLASS I.

SIGN LEGEND

DESCRIPTION	*SYMBOLS:*	*EXISTING*	*PROPOSED*
SIGN LOCATION (ONE POST)			
SIGN PANEL			
SIGN TO BE RELOCATED			
SIGN NO. / *TEXT NO.*			

SIGN SCHEDULE

TEXT NO.	TEXT	SIGN NO.	SIGN STRUCT. STD.	PANEL SIZE W	PANEL SIZE H	STD. NO.	QTY.	SIGN AREA S.F. EA.	REMARKS
1		101	CITY OF VIRGINIA BEACH STD. STP-1	36" 36" 48"	36" 9" 9"	R1-1 D3-1 D3-1	1 2 2	9.00 2.25 3.00	CONTRACTOR TO FURNISH SIGNS AND POST. SEE SIGN SCHEDULE NOTES.

NOTE:
CONTACT MISS UTILITY OF VIRGINIA AT LEAST 72 HOURS BEFORE GROUND PENETRATION OR EXCAVATION AT 811.

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PAVEMENT MARKING & SIGNING GENERAL NOTES

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