Drawing Index

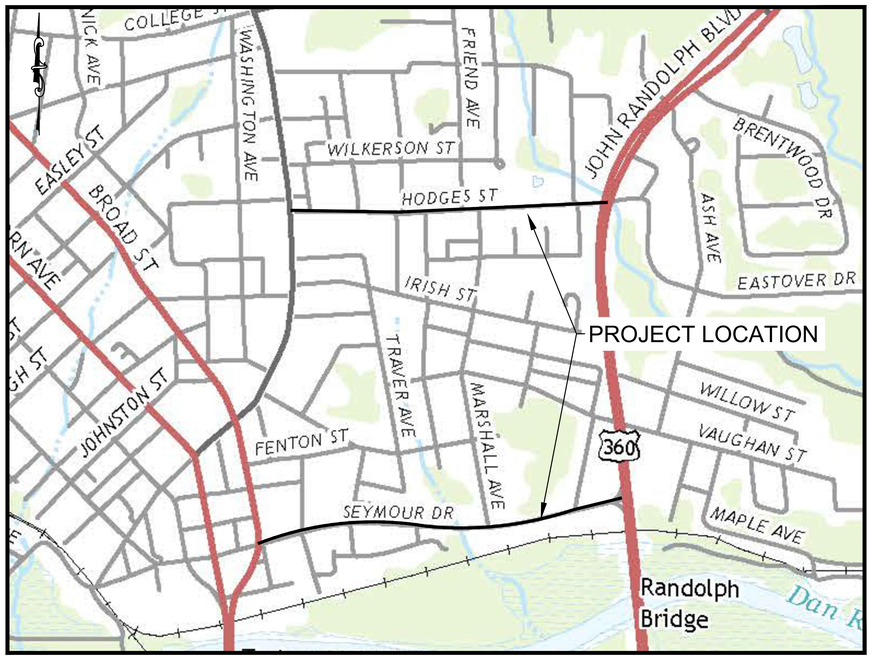
General

Civil

HALIFAX COUNTY SERVICE AUTHORITY

SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS

SOUTH BOSTON, VIRGINIA



Vicinity Map

SCALE: N.T.S.

Contacts:

OWNER:
Halifax County Service Authority
Mark Estes
Executive Director
2529 Houghton Ave.
South Boston, Virginia 24592
PH. (434) 575-4240
mestes@hcsa.us

ENGINEER:
Dewberry
Leslie Mantiply, P.E.
551 Piney Forest Road
Danville, Virginia 24540
PH. (434) 549-8504
lmantiply@dewberry.com

SUBMITTAL

- ☐ PRELIMINARY
- ☐ APPROVAL
- ☑ BIDDING
- ☐ CONSTRUCTION
- ☐ REVISION
- ☐ RECORD

SET NUMBER

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 040205934
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE: AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: ANH
APPROVED BY: RSE
CHECKED BY: LBM
DATE: APRIL, 2022

TITLE
COVER SHEET

PROJECT NO. 50083060

G-001

SHEET NO. 0 OF ----

6/15/2020 9:06:50 AM
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LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BUILDING
00	00	CONTOURS
		CURB & GUTTER
		CONCRETE WALK OR SLAB
		PAVEMENT
		UNIMPROVED OR GRAVEL
		TREE LINE
		TREE OR SHRUB
		FENCE & GATE
		DITCH OR SWALE
		CREEK / WATERS EDGE
		PROPERTY LINE
		CENTERLINE
R/W	R/W	STREET RIGHT-OF-WAY
		LIMITS OF GRADING
		STORM STRUCTURE & LINE
		FLARED END SECTION
		ENDWALL

EXISTING	PROPOSED	DESCRIPTION
PW	PW	POTABLE WATERLINE
NPW	NPW	NON-POTABLE WATERLINE
W	W	WATERLINE
YH	YH	YARD HYDRANT
WM		WATER METER
		FIRE HYDRANT ASSEMBLY
		VALVE ASSEMBLY
		PRESSURE PIPE & FITTINGS
ARV	ARV	AIR RELEASE VALVE
SS	SS	SAN. SEWER M.H. & LINE
FM	FM	FORCEMAIN
C.O.	C.O.	CLEANOUT
G	G	GASLINE
OHE	OHE	OVERHEAD ELECTRIC LINE
UGE	UGE	UNDERGROUND ELECTRIC LINE
OHT	OHT	OVERHEAD UTILITY LINE
		POLE, GUY, & ANCHOR
T	T	TELEPHONE PEDESTAL
FO	FO	FIBER OPTIC CABLE
UGT	UGT	UNDERGOUND TELEPHONE
UGU	UGU	UNDERGOUND UTILITY
CL	CL	CHLORINE SOLUTION
SL	SL	SODIUM BISULFATE SOLUTION
SS	SS	SANITARY SEWER
CS	CS	CHEMICAL FEED
BP	BP	BYPASS SEWER
PD	PD	PLANT DRAIN
E	E	EFFLUENT

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY CORNERS
		SURVEY TRAVERSE POINTS
		SUBSURFACE BORING
		BENCHMARK
	1	REVISION NUMBER
		CABLE (TELEVISION OR FIBER OPTIC)
W	W	WELL
		MONUMENT
		ROAD SIGN
		MAILBOX
		GROUND LIGHTS
		LIGHT POLE
		GUARD PIPE POST
x100.00	x100.00	SPOT ELEVATION
	SF	SILT FENCE
	CD	CHECK DAM
	DV	DIVERSION
	CE	CONSTRUCTION ENTRANCE
	CIP	CULVERT INLET PROTECTION
	OP	OUTLET PROTECTION
	IP	INLET PROTECTION
	PS	PERMANENT SEEDING
	TS	TEMPORARY SEEDING
	LS	LEVEL SPREADER
BM	BM	BLANKET MATTING
	UCS	UTILITY STREAM CROSSING
	S	STRUCTURAL STREAM BANK

ABBREVIATIONS

A	AIR
A.B.	ANCHOR BOLT
ABUT	ABUTMENT
ADD	ADDITIONAL
ADJ	ADJUSTABLE
AGGR	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ASTM	AMERICAN STANDARD FOR TESTING & MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
ASSY	ASSEMBLY
APPROX	APPROXIMATE
BOC	BACK OF CURB
BSMT	BASEMENT
BO	BLOW OFF
BRG	BEARING
BM	BENCH MARK
B	BEND
BOTT	BOTTOM
BOB	BOTTOM OF BANK
BRZ	BRONZE
BLDG	BUILDING
CI	CAST IRON
CB	CATCH BASIN
CEM	CEMENT
CL	CENTERLINE
CO	CLEAN OUT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CMP	CORRUGATED METAL PIPE
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CU IN	CUBIC INCH
CULV	CULVERT
CV	CHECK VALVE
C & G	CURB & GUTTER
CY	CUBIC YARD
DEPT	DEPARTMENT
GEN	GENERATOR
GOVT	GOVERNMENT
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DWG	DRAWING
DR	DRIVE
DI	DROP INLET
DIP	DUCTILE IRON PIPE
DMH	DROP MANHOLE
D	DRAIN
DWL	DWELLING
EA	EACH
EF	EACH FACE
EW	EACH WAY, END WALL
EOP	EDGE OF PAVEMENT
EL	ELBOW
ELEC	ELECTRICAL, ELECTRIC
ELEV	ELEVATION
ENGR	ENGINEER
ENTR	ENTRANCE
EQUIP	EQUIPMENT
EX, EXIST.	EXISTING
EJ	EXPANSION JOINT
EXT	EXTERIOR
FOC	FACE OF CURB
FT	FEET
FES	FLARED END SECTION
FIG	FIGURE
FIN	FINISH
FH	FIRE HYDRANT
FLEX	FLEXIBLE
F.F.	FINISHED FLOOR
FL	FLOOR
FD	FLOOR DRAIN
FLOUR	FLOURESCENT
FM	FORCE MAIN
FLG	FLANGE
GPM	GALLONS PER MINUTE
GALV	GALVANIZED
GV	GATE VALVE
GRD	GRADE
GA	GAUGE
GPDW	GYPSUM DRYWALL
HTR	HEATER
HVAC	HEATING VENTILATION & AIR CONDITIONING
HT	HEIGHT
HWY	HIGHWAY
HOR	HORIZONTAL
HP	HORSEPOWER, HIGH POINT
IN	INCH
ID	INSIDE DIAMETER
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
JB	JUNCTION BOX
LB	POUND
LG	LENGTH OR LONG
LF	LINEAR FEET
LP	LOW POINT
LT	LEFT
MB	MAILBOX
MH	MANHOLE
MFR	MANUFACTURER
MATL	MATERIAL
MAX	MAXIMUM
MJ	MECHANICAL JOINT
MGD	MILLION GALLONS PER DAY
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	MIXED LIQUOR
NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
NPW	NON POTABLE WATER
NPR	NON POTABLE REUSE WATER
NATL	NATIONAL
N	NEW
NCDOT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OSHA	OCCUPATIONAL SAFETY & HEALTH ACT
PB	PAPER BOX
PVC	POLYVINYL CHLORIDE
PRV	PRESSURE RELIEF VALVE, PRESSURE REDUCING VALVE
PL	PROPERTY LINE
PED	PEDESTAL
PVMT	PAVEMENT
PERF	PERFORATED
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND
PI	CURVATURE POINT OF INTERSECTION
PP	POWER POLE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
POVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
RAD	RADIUS REF REFERENCE
RAS	RETURN ACTIVATED SLUDGE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD, ROOF DRAIN
REQ'D	REQUIRED REV REVISED
RT	RIGHT
R/W, ROW	RIGHT OF WAY
R	RISER
RS	RAW SEWAGE
SE	SECONDARY EFFLUENT
SIM	SIMILAR
SPEC	SPECIFICATION
SR	STATE ROUTE OR SECONDARY ROAD
STD	STANDARD
STA	STATION
STL	STEEL
S.S.	SANITARY SEWER, STAINLESS STEEL
SSC	SECONDARY SCUM
SCH	SCHEDULE
SECT	SECTION
SHT	SHEET
STM	STORM
ST	STREET
STY	STORY
TD	TANK DRAIN
TEL	TELEPHONE
TEMP	TEMPORARY OR TEMPERATURE
THK	THICK
T & B	TOP AND BOTTOM
TOB	TOP OF BANK
TOW	TOP OF WALL
TDC	TURNED DOWN CURB
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
VERT	VERTICAL
VC	VERTICAL CURVE
VDOT	VIRGINIA DEPT OF TRANSPORATION
W/	WITH
WAS	WASTE ACTIVATED SLUDGE
WL	WATER MAIN

GENERAL NOTES

1. ALL WORK SHALL BE COORDINATED WITH THE HALIFAX COUNTY SERVICE AUTHORITY.

2. CONTRACTOR SHALL NOTIFY THE TOWN OF SOUTH BOSTON – CW CROWDER – PRIOR TO ANY CONSTRUCTION ON STREET RIGHT-OF-WAYS (PHONE NO. 434-575-4261). ALL WORK SHALL ADHERE TO VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS.

3. ANY CONSTRUCTION WITHIN THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S RIGHTS-OF-WAY ARE TO BE IN ACCORDANCE WITH THE STATE'S STANDARDS AND SPECIFICATIONS REGARDING MATERIALS, INSTALLATION, AND TESTING, UNLESS NOTED OTHERWISE IN THE CONTRACT DRAWINGS AND TECHNICAL SPECIFICATIONS, EXCEPT THE METHOD OF PAYMENT WHICH WILL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS AND CONTRACT DOCUMENTS. ANY CONSTRUCTION WITHIN THE VDOT RIGHTS-OF-WAYS AND AT ENTRANCE TO VDOT RIGHT-OF-WAYS ARE TO BE SIGNED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL STANDARDS AND GUIDELINE.

4. CONTRACTOR SHALL FIELD VERIFY VERTICAL AND HORIZONTAL LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL CONTACT MISS UTILITY (811) 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.

5. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO VERIFY LOCATION OF AND PREVENT DISTURBANCE OF ANY EXISTING UTILITIES IN WORK AREA, AND PROVIDE IMMEDIATE TEMPORARY SERVICE TO ANY DAMAGED UTILITIES.

6. WHEN WORKING ADJACENT TO EXISTING STRUCTURES, POLES, ETC., CONTRACTOR SHALL USE WHATEVER METHODS THAT ARE NECESSARY TO PROTECT STRUCTURES FROM DAMAGE. REPLACEMENT OF DAMAGED STRUCTURES SHALL BE AT THE CONTRACTOR'S EXPENSE.

7. DRIVEWAYS, FENCES, MAILBOXES, ROAD SIGNS, STEPS, SIDEWALKS, ETC., THAT INTERFERE WITH CONSTRUCTION ARE TO BE RESTORED TO ORIGINAL CONDITION.

8. PAVED DRIVEWAYS, PARKING LOTS, AND PRIVATE ROADS SHALL BE OPEN-CUT UNLESS SHOWN OTHERWISE.

9. ALL DISTURBED PAVEMENT AND GRAVEL DRIVES ARE TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.

10. CONTRACTOR SHALL NOT DISTURB ANY TREES, SHRUBS, OR LANDSCAPING OUTSIDE THE CONSTRUCTION LIMITS. CONTRACTOR SHALL USE EXTREME CAUTION TO PREVENT DISTURBANCE TO THE TREES, SHRUBS, ETC., WHICH ARE IN THE CONSTRUCTION LIMITS AND NOTED TO REMAIN.

11. EROSION AND SEDIMENT CONTROL NOTES:
   A) ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL CONFORM TO THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VDOT ROAD AND BRIDGE STANDARDS MANUAL.
   B) CONTRACTOR SHALL INSTALL SILT BARRIERS, INLET PROTECTION, CONSTRUCTION ENTRANCES AT POINTS OF INGRESS AND EGRESS TO PUBLIC RIGHT-OF-WAY, STABILIZE DISTURBED AREAS, AND PROVIDE OTHER MEASURES REQUIRED AS SHOWN ON THE DRAWINGS AND SPECIFIED.
   C) CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT TRACKING ON EXISTING PAVEMENTS.
   D) CONTRACTOR SHALL INSTALL GRAVEL CONSTRUCTION ROAD STABILIZATION OF ADEQUATE AREA TO ACCOMMODATE CONSTRUCTION VEHICLE PARKING, MATERIAL STORAGE, ETC. AT A LOCATION CONVENIENT TO THE INDIVIDUAL CONSTRUCTION AREAS AND CONSISTENT WITH THE CONSTRUCTION SEQUENCES.
   E) THE LOCATIONS OF SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON PLANS ARE APPROXIMATE, THE EXACT LOCATION MUST BE DETERMINED IN THE FIELD.
   F) A ROCK CHECK DAM SHALL BE INSTALLED BELOW THE DISTURBED AREA WITHIN DITCH LINES AND/OR WHERE DITCH LINES OUTLET TO UNDISTURBED AREAS.
   G) SILT FENCE SHALL PROVIDED BELOW DISTURBED AREAS FOR ALL LOCATIONS WHERE DISTURBED AREA DRAINS TOWARD PROPERTY OWNER BY OTHERS AND/OR TOWARD STREAMS.

12. ALL DISTURBED AREAS ARE TO BE MULCHED AND SEEDED PER THE SPECIFICATIONS WITHIN 7 DAYS OF ACHIEVING FINAL GRADES.

13. IF CONSTRUCTION SCHEDULE DOES NOT ALLOW PERMANENT SEEDING IN THE DATES SHOWN IN THE SPECIFICATIONS OR IF CONSTRUCTION IS TEMPORARILY HALTED FOR A PERIOD OF 21 DAYS OR LONGER DUE TO WEATHER, WINTER SHUT DOWN, ETC., CONTRACTOR SHALL INSTALL TEMPORARY SEEDING WITHIN 7 DAYS. WHEN PERMANENT SEEDING DATES CAN BE ACCOMMODATED, THE CONTRACTOR SHALL RESEED WITH PERMANENT SEEDING MIXTURES. ALL SEEDED AREAS, WHICH DO NOT PRODUCE A THICK, HEALTHY, DESIRABLE VEGETATIVE COVER, ARE TO BE RESEEDED AND MULCHED AS NECESSARY UNTIL ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. PRIOR TO RESEEDING WITH PERMANENT VEGETATION, ALL ESTABLISHED TEMPORARY VEGETATION IS TO BE REMOVED.

14. TOPSOIL IS TO BE STOCKPILED AND RE-SPREAD OVER DISTURBED AREAS TO BE SEEDED PER THE TECHNICAL SPECIFICATIONS. STOCKPILES SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND SEDIMENT AND EROSION CONTROLS DEVICES/MEASURES SHALL BE INSTALLED AS NECESSARY. THESE STOCKPILES ARE TO BE LOCATED IN AREAS THAT MINIMIZE DISTURBANCE TO CONSTRUCTION OPERATIONS.

15. WHEN CONSTRUCTION DISTURBS EXISTING DITCHLINES, THE RESTORED DITCHLINES SHALL BE STABILIZED WITH EXCELSIOR MAT FOR EROSION CONTROL.

16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES TO BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM ADMINISTRATOR.

17. HORIZONTAL CONTROL: VIRGINIA STATE PLANE COORDINATES (SOUTH ZONE, NAD83, NSRS 2011 , US FT)
VERTICAL CONTROL: PREVIOUS PLANT VERTICAL BASED ON FINISHED FLOOR ELEVATIONS
HORIZONTAL CONTROL ESTABLISHED BY GPS OBSERVATIONS AND COMPUTED USING NATIONAL GEODETIC SURVEY ONLINE POSITIONING USER SERVICE (OPUS). GRID COORDINATES WERE HELD ON CONTROL POINT #4. NORTH ARROW IS GRID NORTH. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.

18. CONTRACTOR SHALL REFER TO THE 2011 VDOT WORK AREA PROTECTION MANUAL AND THE VIRGINIA SUPPLEMENT TO THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR SHOULDER AND LANE CLOSURE. SHOULDER LANE CLOSURE PLANS SHALL BE APPROVED BY LOCAL VDOT RESIDENT ENGINEER.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXISTING COMPONENTS OF EQUIPMENT FOR REPAIR OR REPLACEMENT.

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

GENERAL NOTES AND LEGEND

PROJECT NO. 50083060

G-002

SHEET NO. 0 OF ----

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9VAC25-840-40. MINIMUM STANDARDS.
A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

1. 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.

2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

3. A 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.

4. 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.

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

   a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

   b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER 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. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

7. 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.

8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

10. 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.

11. 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.

12. 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. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.

13. 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 NONERODIBLE MATERIAL SHALL BE PROVIDED.

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

16. 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 AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

   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 THIS CHAPTER.

   f. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.

17. 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 EACH 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.

18. 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 VESCP 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.

19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM 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. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:

   a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

   b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:

   1.1. THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS 100 TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION;

   1.2. (a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.

   (b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

   (c) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.

   c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:

   1.1. IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS;

   1.2. IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;

   1.3. DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR

   1.4. PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.

   d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.

   e. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.

   f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.

   g. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

   h. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.

   i. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

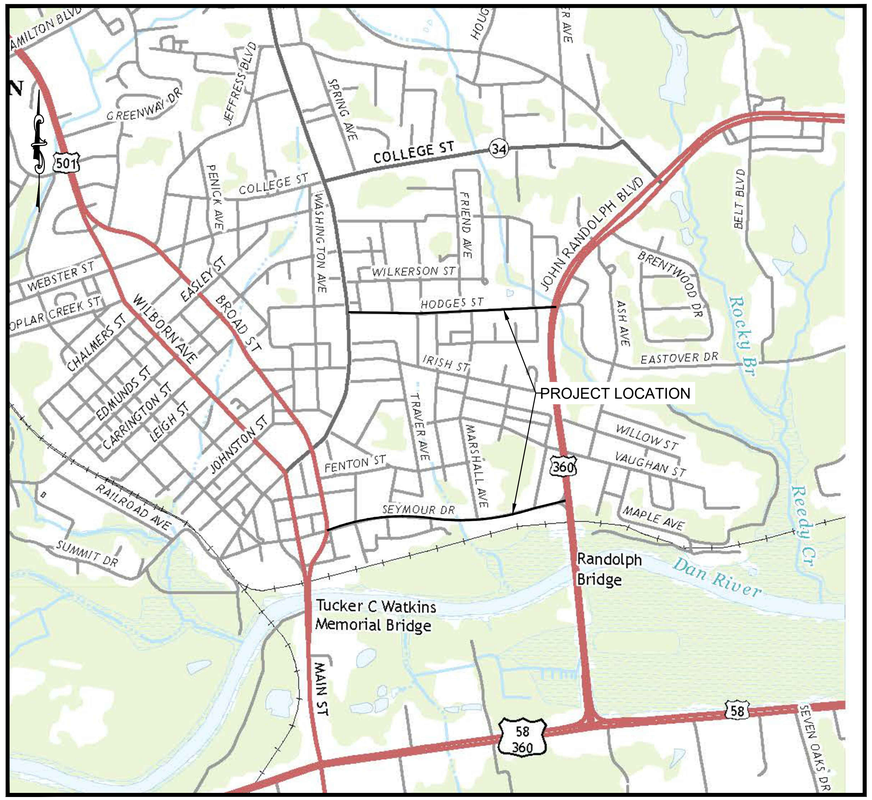
   j. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

   k. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

   l. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT.

   m. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES (I) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-870-47 OR GRANDFATHERING IN 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT SHALL APPLY, OR (II) ARE EXEMPT PURSUANT TO § 62.1-44.15:34 C 7 OF THE ACT.

   n. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBDIVISION 19.



Vicinity Map

SCALE: 1"=1,000'

TOTAL AREA OF LAND DISTURBANCE = 0.95 (ACRES)

E&S LEGEND

LIMITS OF DISTURBANCE — LOD —

- CE — TEMPORARY STONE CONSTRUCTION ENTRANCE, VA STD. 3.02
- TS — TEMPORARY SEEDING, VA E&S STD. 3.31
- PS — PERMANENT SEEDING, VA E&S STD. 3.32
- IP — INLET PROTECTION, VA E&S STD. 3.07
- BM — SOIL STABILIZATION BLANKETS & MATTING, VA E&S STD. 3.36
- SF — SILT FENCE, VA E&S STD. 3.05 — X —
- 0.0% — DRAINAGE FLOW ARROW w/ APPROXIMATE SLOPE

EROSION & SEDIMENT CONTROL NOTES:

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE ADHERED TO BY THE CONTRACTOR AT ALL TIMES:

1. OBTAIN ALL PERMITS AND POST ALL REQUIRED BONDS. CONTRACTOR SHALL OBTAIN LOCAL EROSION & SEDIMENT CONTROL PERMIT.
2. CONTRACTOR SHALL KEEP & MAINTAIN A COPY OF THE VIRGINIA EROSION & SEDIMENT CONTROL HAND-BOOK, LATEST EDITION ON-SITE AT ALL TIMES.
3. INSTALL PERIMETER SILT FENCE AND TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT. TEMPORARY EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO ALL LAND DISTURBING ACTIVITIES.
4. CONTRACTOR SHALL SEED AND MULCH ALL DITCHES LESS THAN 2% SLOPE. ALL DITCHES GREATER THAN 2% SLOPE SHALL BE LINED W/ BLANKET MATTING.
5. ALL SPECIFIC LOCATIONS FOR SILT FENCE OR STONE CHECK DAMS ARE NOT SHOWN ON THE APPROVED PLANS. THE NEED FOR ADDITIONAL E&S CONTROL MEASURES IS TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER AND THE EROSION CONTROL DIRECTOR.
6. INSTALL BLANKET MATTING AND RIP-RAP IN DITCHES AND ON STEEP SLOPES PER DETAILS.
7. TEMPORARY SEEDING SHALL OCCUR AS CONSTRUCTION PROGRESSES. NO SECTION OF DISTURBANCE LONGER THAN 1000' SHALL BE LEFT UNSEEDED. TEMPORARY SEEDING SHALL COMPLY W/ THE VPDES PERMIT ON THIS SHT.
8. REMOVE EROSION AND SEDIMENT CONTROL MEASURES UPON SITE STABILIZATION.
9. CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE MEASURES UNTIL THE SITE IS STABILIZED.
10. ALL DENUDED AREAS SHALL BE SHAPED TO PROMOTE POSITIVE DRAINAGE.

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402069434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

0' 500' 1000' 2000'
SCALE: 1" = 1000'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

EROSION AND SEDIMENT CONTROL NOTES

PROJECT NO. 50083060

G-003

SHEET NO. 0 OF ----

6/15/2020 8:06:50 AM
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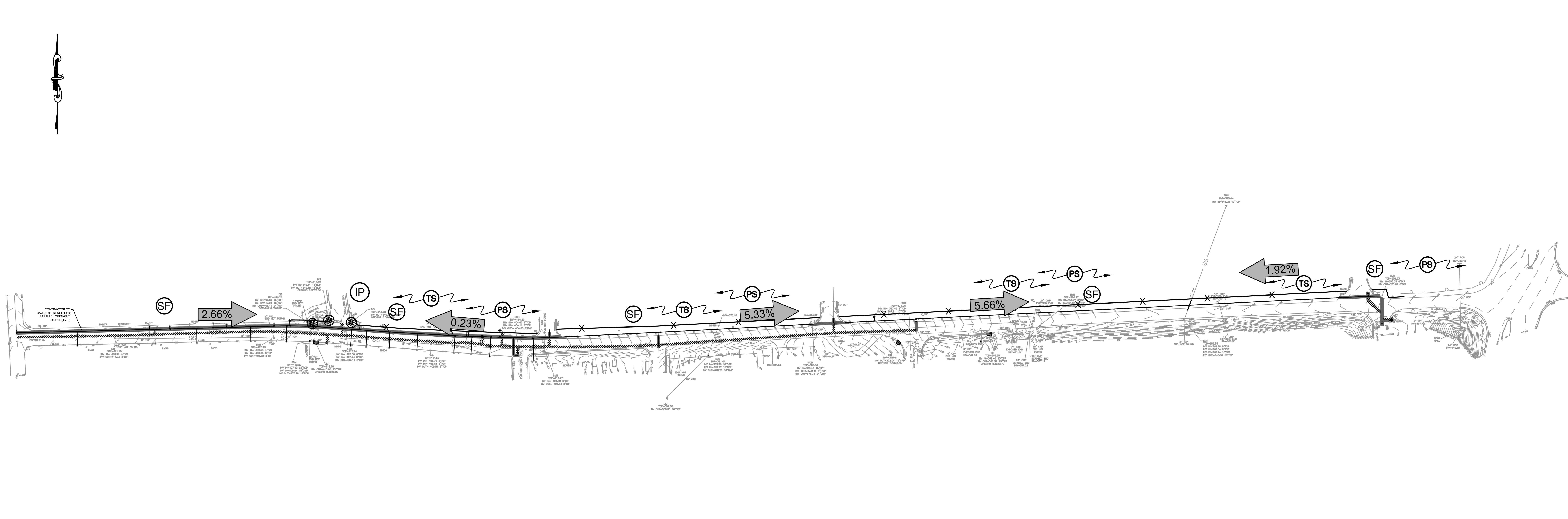
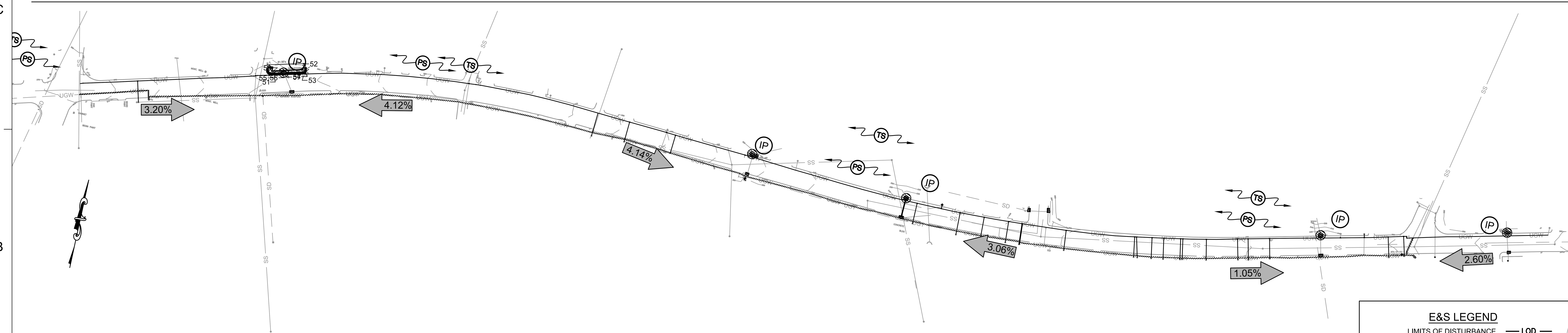
Dewberry
Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

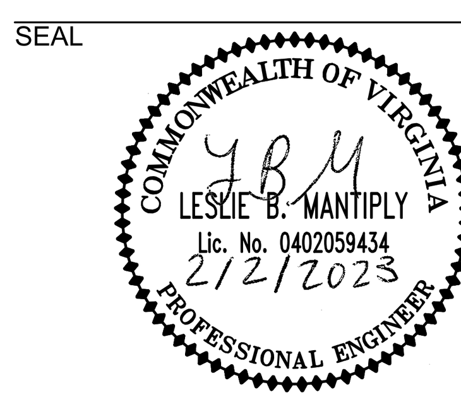


HODGES STREET PLAN
SCALE: 1"=100'



SEYMOUR DRIVE
SCALE: 1"=120'

SEAL



KEY PLAN

SCALE
0' 50' 100' 200'
SCALE: 1" = 100'
0' 60' 120' 140'
SCALE: 1" = 120'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
OVERALL EROSION AND SEDIMENT CONTROL PLAN

PROJECT NO. 50083060

G-004

SHEET NO. 0 OF ---

E&S LEGEND

LIMITS OF DISTURBANCE — LOD —

- CE — TEMPORARY STONE CONSTRUCTION ENTRANCE, VA STD. 3.02
- TS — TEMPORARY SEEDING, VA E&S STD. 3.31
- PS — PERMANENT SEEDING, VA E&S STD. 3.32
- IP — INLET PROTECTION VA E&S STD. 3.07
- BM — SOIL STABILIZATION BLANKETS & MATTING, VA E&S STD. 3.36
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- 0.0% — DRAINAGE FLOW ARROW w/ APPROXIMATE SLOPE

EROSION & SEDIMENT CONTROL NOTES:

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE ADHERED TO BY THE CONTRACTOR AT ALL TIMES:

1. OBTAIN ALL PERMITS AND POST ALL REQUIRED BONDS. CONTRACTOR SHALL OBTAIN LOCAL EROSION & SEDIMENT CONTROL PERMIT.
2. CONTRACTOR SHALL KEEP & MAINTAIN A COPY OF THE VIRGINIA EROSION & SEDIMENT CONTROL HAND-BOOK, LATEST EDITION ON-SITE AT ALL TIMES.
3. INSTALL PERIMETER SILT FENCE AND TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT. TEMPORARY EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO ALL LAND DISTURBING ACTIVITIES.
4. CONTRACTOR SHALL SEED AND MULCH ALL DITCHES LESS THAN 2% SLOPE. ALL DITCHES GREATER THAN 2% SLOPE SHALL BE LINED W/ BLANKET MATTING.
5. ALL SPECIFIC LOCATIONS FOR SILT FENCE OR STONE CHECK DAMS ARE NOT SHOWN ON THE APPROVED PLANS. THE NEED FOR ADDITIONAL E&S CONTROL MEASURES IS TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER AND THE EROSION CONTROL DIRECTOR.
6. INSTALL BLANKET MATTING AND RIP-RAP IN DITCHES AND ON STEEP SLOPES PER DETAILS.
7. TEMPORARY SEEDING SHALL OCCUR AS CONSTRUCTION PROGRESSES. NO SECTION OF DISTURBANCE LONGER THAN 1000' SHALL BE LEFT UNSEEDED. TEMPORARY SEEDING SHALL COMPLY W/ THE VPDES PERMIT ON THIS SHT.
8. REMOVE EROSION AND SEDIMENT CONTROL MEASURES UPON SITE STABILIZATION.
9. CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE MEASURES UNTIL THE SITE IS STABILIZED.
10. ALL DENUDED AREAS SHALL BE SHAPED TO PROMOTE POSITIVE DRAINAGE.

Typical Traffic Control
Non-Stationary Operation on a Two-Lane Roadway Using Flaggers
(Figure TTC-24.2)

NOTES

Guidance:

1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. Generally speaking, motorists should have a clear line of sight from the graphic flagger symbol sign to the flagger.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway the maximum time motorist should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*[1]

Standard:

4. **PTRS shall be used as noted in Section 6F.99.**[2]
5. **Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-5).**
6. **The Flagger (W20-7) symbol sign shall stay within ½ mile of each flagger.**

Guidance:

7. *Additional Flagger symbol signs should be erected by the flagger or others at ½ mile intervals or taken down as the operation proceeds past this point.*[1]
8. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-56 for additional information on highway-rail crossings).*
9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the advance warning signs should be readjusted at greater distances*

Option:[2]

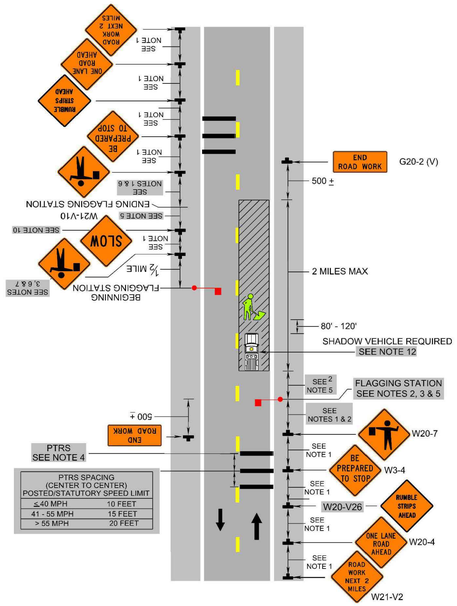
10. A SLOW (W21-V10) sign may be installed after the first FLAGGER symbol sign.[2]

Standard:

11. **All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).**
12. **A shadow vehicle with at least one amber rotating, flashing or[1] oscillating lights shall be parked 80'-120' in advance of the first work crew.**
13. **The maximum length of the work area shall be two miles.**

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

Non-Stationary Operation on a Two-Lane Roadway Using Flaggers
(Figure TTC-24.2)



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 = ½ L Minimum

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

Channelizing Device Spacing

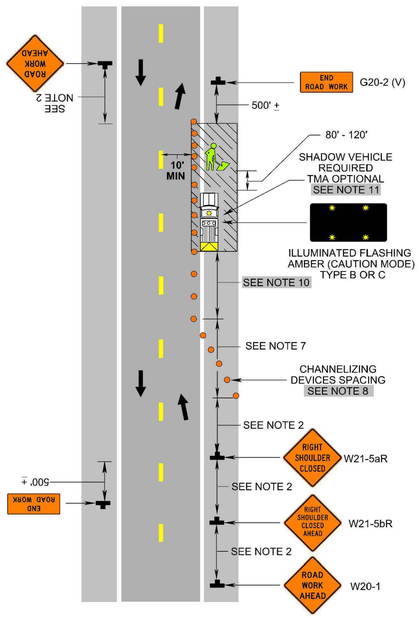
Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	*Construction Access	80'	120'

*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

TRANSPORTATION MANAGEMENT PLAN NOTES

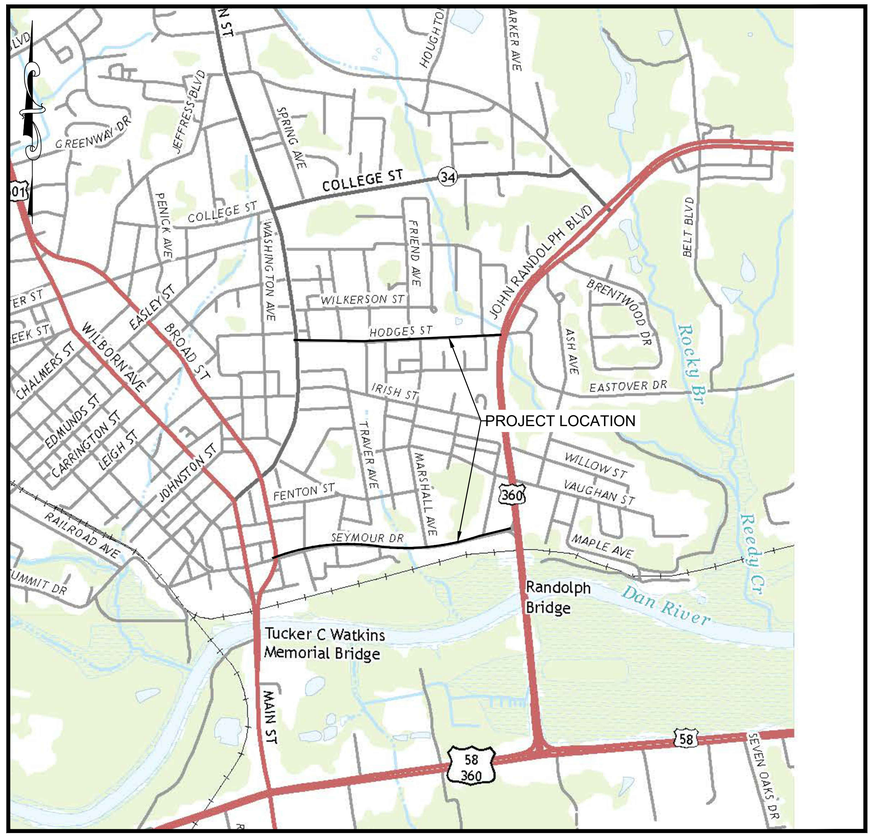
1. THIS TRANSPORTATION MANAGEMENT PLAN (TMP) IS PREPARED FOR THE HALIFAX COUNTY SERVICE AUTHORITY - SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS PROJECT. IT IS NOT THE INTENT OF THIS PLAN TO INCLUDE EVERY DETAIL WHICH MUST BE CONSIDERED FOR TRAFFIC CONTROL DURING CONSTRUCTION OF EACH WORK ZONE, BUT TO PROVIDE THE GENERAL GUIDELINES THAT THE CONTRACTOR SHALL FOLLOW WHEN DEVELOPING THE TMP FOR VDOT APPROVAL. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE FOR SAFE TRAVEL AROUND WORK ZONES IN ACCORDANCE WITH ALL VDOT REQUIREMENTS. **THE ENGINEER DOES NOT ASSUME ANY RESPONSIBILITY FOR THE TRAFFIC CONTROL MEASURES THAT ARE IMPLEMENTED DURING PROJECT CONSTRUCTION.**
2. THE WORK AREAS THAT REQUIRE TRAFFIC MANAGEMENT ARE SHOWN ON THE PROJECT AREA MAP ON THIS SHEET. OTHER ROADWAYS MAY BE AFFECTED DUE TO MATERIAL STAGING, TRANSPORTATION OF MATERIALS, LINE TESTING, UNFORSEEN FIELD CONDITIONS, ETC., AND SHALL BE CONSIDERED FOR WORK AREA PROTECTION AND TRAFFIC MANAGEMENT TECHNIQUES AS REQUIRED. VARIOUS TEMPORARY TRAFFIC CONTROL DETAILS FROM THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL, REVISION 2 ARE SHOWN ON THIS SHEET. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE WHICH DETAILS APPLY FOR EACH SPECIFIC WORK CONDITION. ADDITIONAL DETAILS MAY BE REQUIRED PRIOR TO CONSTRUCTION BY VDOT.
3. THE CONTRACTOR SHALL CONTACT TOWN IN WRITING WITH A WORK SCHEDULE TWO (2) WEEKS PRIOR TO CONSTRUCTION. TOWN WILL DETERMINE IF POLICE PATROL IS NECESSARY FOR TRAFFIC CONTROL. CONSTRUCTION WITHIN THE VICINITY OF SIGNALIZED INTERSECTIONS ARE NOT TO BE FLAGGED WITHOUT THE PRESENCE OF POLICE PATROL. CONTACT CW CROWDER TO ARRANGE AS NECESSARY.
4. THE CONTRACTOR SHALL COORDINATE THE SEQUENCE OF CONSTRUCTION WITH TOWN/VDOT.
5. SIGN SPACING MAY ONLY BE ADJUSTED FOR FIELD CONDITIONS IF AUTHORIZED BY TOWN/VDOT.
6. ALL PAVEMENT MARKINGS CONFLICTING WITH TRAFFIC PATTERNS SHALL BE REMOVED AND RESTRIPED AS NECESSARY. PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE VDOT ROAD AND BRIDGE SPECIFICATIONS.
7. WHEN WORK IS NOT BEING PERFORMED, MATERIALS AND PARKED EQUIPMENT SHALL NOT INTERFERE WITH TRAFFIC.
8. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, REVISION 2 AND AS DIRECTED BY VDOT. WORK SHALL COMPLY WITH ALL REGULATIONS PROVIDED IN THE LAND USE PERMIT.
9. SAFE ACCESS TO ALL EXISTING PUBLIC ROADWAYS SHALL BE MAINTAINED AT ALL TIMES. FOR NECESSARY ROAD CLOSURES, CONTACT CW CROWDER AND FIRE & EMS DISPATCH. CONTRACTOR TO CO-ORDINATE ON-STREET PARKING.
10. (ALL NIGHT WORK WILL REQUIRE VDOT PRIOR AUTHORIZATION) WORK HOURS SHALL BE APPROVED BY TOWN/VDOT PRIOR TO CONSTRUCTION. CONSTRUCTION WORK AFTER DARK IS NOT ANTICIPATED FOR THE PROJECT. HOWEVER, SHOULD CONSTRUCTION CONTINUE AFTER DARK, FLOODLIGHTS SHALL BE UTILIZED WHERE EXISTING LIGHT IS NOT ADEQUATE. THE FLOODLIGHT SHALL NOT CREATE A DISTRACTING GLARE TO DRIVERS.
11. ALL FLAGGERS SHALL BE STATE CERTIFIED AND HAVE THEIR CERTIFICATION CARD IN THEIR POSSESSION WHEN PERFORMING FLAGGING DUTIES.
12. CHANNELING DEVICES SUCH AS CONES SHALL BE UTILIZED WHERE REQUIRED AND FOLLOW THE WORK AREA PROTECTION MANUAL, REVISION 2 GUIDELINES.
13. ALL EXISTING ROADWAY SIGNAGE SHALL BE MAINTAINED DURING THE LIFE OF THE PROJECT.
14. THIS PROJECT IS CLASSIFIED AS TYPE A, CATEGORY 1.

PUBLIC COMMUNICATION PLAN
Sout Boston Public Works: CW CROWDER - 434-575-4261

Traffic Operation Center: 540-375-0170 or 1-800-367-7623

Local Contact: Town Office of South Boston: 434-575-4200
Town of South Boston Fire and EMS: 434-575-4292
Town of South Boston Sheriff's Office: 434-575-4273
Fire & EMS Dispatch: 434-476-3334
Halifax County: 434-476-3300
Halifax County Sheriff's Office: 434-476-3339
Halifax County EMS: 434-572-3960

State Police Contact: Virginia State Police Division 6 Headquarters: 540-375-9500
Virginia State Police Area 42 Office: 276-632-3060



Vicinity Map

SCALE: N.T.S.

Dewberry
Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402089434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
VDOT TRAFFIC MANAGEMENT PLAN

PROJECT NO. 50083060

G-005

SHEET NO. 0 OF ----

8/15/2023 8:06:50 AM
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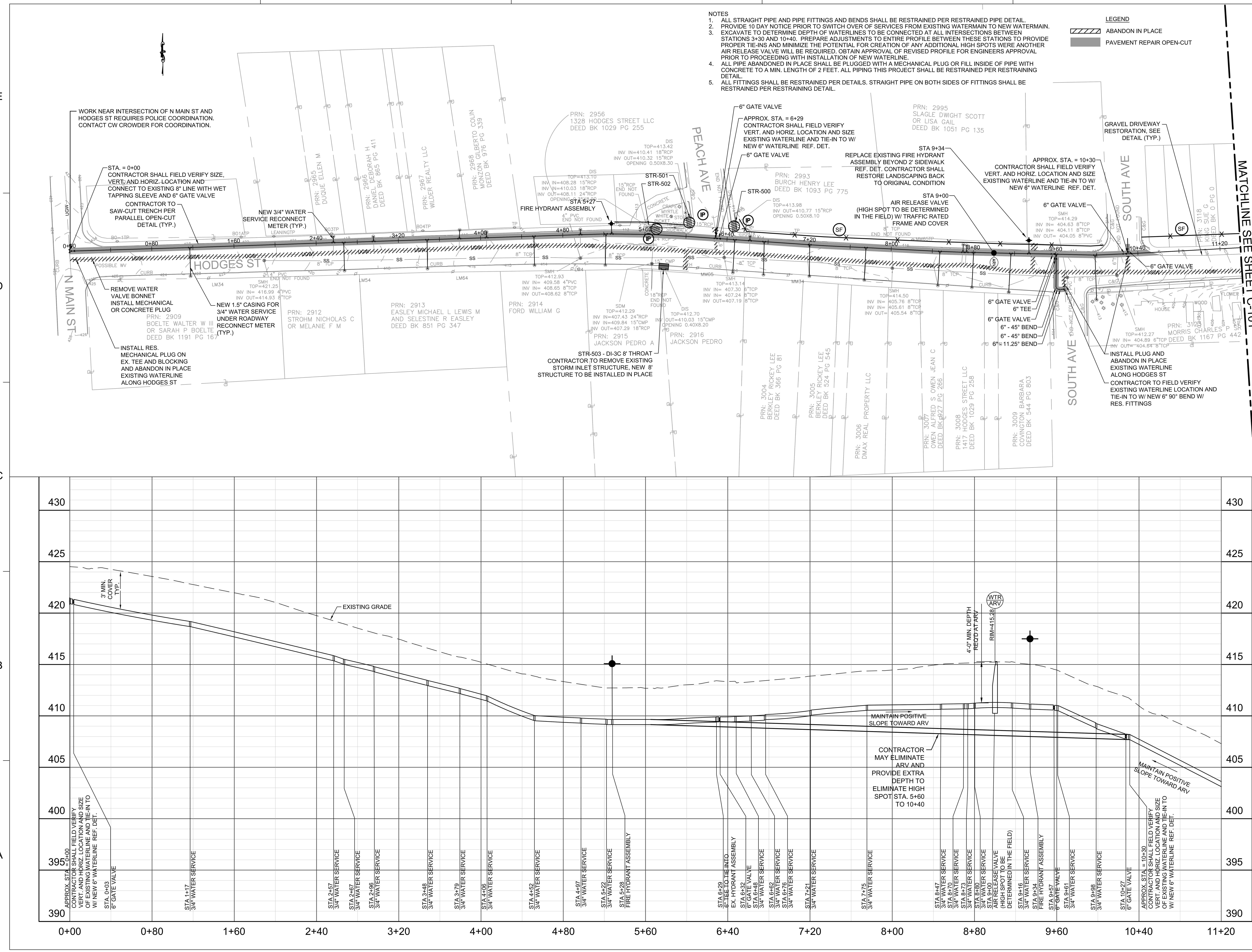
NOTES
1. ALL STRAIGHT PIPE AND PIPE FITTINGS AND BENDS SHALL BE RESTRAINED PER RESTRAINED PIPE DETAIL.
2. PROVIDE 10 DAY NOTICE PRIOR TO SWITCH OVER OF SERVICES FROM EXISTING WATERMAIN TO NEW WATERMAIN.
3. EXCAVATE TO DETERMINE DEPTH OF WATERLINES TO BE CONNECTED AT ALL INTERSECTIONS BETWEEN STATIONS 3+30 AND 10+40. PREPARE ADJUSTMENTS TO ENTIRE PROFILE BETWEEN THESE STATIONS TO PROVIDE PROPER TIE-INS AND MINIMIZE THE POTENTIAL FOR CREATION OF ANY ADDITIONAL HIGH SPOTS WHERE ANOTHER AIR RELEASE VALVE WILL BE REQUIRED. OBTAIN APPROVAL OF REVISED PROFILE FOR ENGINEERS APPROVAL PRIOR TO PROCEEDING WITH INSTALLATION OF NEW WATERLINE.
4. ALL PIPE ABANDONED IN PLACE SHALL BE PLUGGED WITH A MECHANICAL PLUG OR FILL INSIDE OF PIPE WITH CONCRETE TO A MIN. LENGTH OF 2 FEET. ALL PIPING THIS PROJECT SHALL BE RESTRAINED PER RESTRAINING DETAIL.
5. ALL FITTINGS SHALL BE RESTRAINED PER DETAILS. STRAIGHT PIPE ON BOTH SIDES OF FITTINGS SHALL BE RESTRAINED PER RESTRAINING DETAIL.

LEGEND
ABANDON IN PLACE
PAVEMENT REPAIR OPEN-CUT



WORK NEAR INTERSECTION OF N MAIN ST AND HODGES ST REQUIRES POLICE COORDINATION. CONTACT CW CROWDER FOR COORDINATION.
STA. = 0+00 CONTRACTOR SHALL FIELD VERIFY SIZE, VERT. AND HORIZ. LOCATION AND CONNECT TO EXISTING 8" LINE WITH WET TAPPING SLEEVE AND 6" GATE VALVE
CONTRACTOR TO SAW-CUT TRENCH PER PARALLEL OPEN-CUT DETAIL (TYP.)
NEW 3/4" WATER SERVICE RECONNECT METER (TYP.)
REMOVE WATER VALVE BONNET INSTALL MECHANICAL OR CONCRETE PLUG
NEW 1.5" CASING FOR 3/4" WATER SERVICE UNDER ROADWAY RECONNECT METER (TYP.)
INSTALL RES. MECHANICAL PLUG ON EX. TEE AND BLOCKING AND ABANDON IN PLACE EXISTING WATERLINE ALONG HODGES ST
N MAIN ST
HODGES ST
PEACH AVE
SOUTH AVE
STA 5+27 FIRE HYDRANT ASSEMBLY
STR-501
STR-502
STR-500
STR-503 - DI-3C 8' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE
6" GATE VALVE
APPROX. STA. = 6+29 CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE EXISTING WATERLINE AND TIE-IN TO W/ NEW 6" WATERLINE REF. DET.
6" GATE VALVE
STA 9+34 REPLACE EXISTING FIRE HYDRANT ASSEMBLY BEYOND 2' SIDEWALK RESTORE LANDSCAPING BACK TO ORIGINAL CONDITION REF. DET. CONTRACTOR SHALL
STA 9+00 AIR RELEASE VALVE (HIGH SPOT TO BE DETERMINED IN THE FIELD) W/ TRAFFIC RATED FRAME AND COVER
APPROX. STA. = 10+30 CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE EXISTING WATERLINE AND TIE-IN TO W/ NEW 6" WATERLINE REF. DET.
6" GATE VALVE
GRAVEL DRIVEWAY RESTORATION, SEE DETAIL (TYP.)
6" GATE VALVE
6" TEE
6" GATE VALVE
6" - 45° BEND
6" - 45° BEND
6" 11.25° BEND
INSTALL PLUG AND ABANDON IN PLACE EXISTING WATERLINE ALONG HODGES ST
CONTRACTOR TO FIELD VERIFY EXISTING WATERLINE LOCATION AND TIE-IN TO W/ NEW 6" 90° BEND W/ RES. FITTINGS
MATCHLINE SEE SHEET C-101
PRN: 2909 BOELTE WALTER W III OR SARAH P BOELTE DEED BK 1191 PG 167
PRN: 2912 STROHM NICHOLAS C OR MELANIE F M
PRN: 2913 EASLEY MICHAEL L LEWIS M AND SELESTINE R EASLEY DEED BK 851 PG 347
PRN: 2914 FORD WILLIAM G
PRN: 2915 JACKSON PEDRO A
PRN: 2916 JACKSON PEDRO
PRN: 2956 1328 HODGES STREET LLC DEED BK 1029 PG 255
PRN: 2965 DUQUE ELLEN M
PRN: 2966 DANIEL DEBORAH H DEED BK 865 PG 411
PRN: 2967 WILDER REALTY LLC
PRN: 2968 MONZON GILBERTO COLIN DEED BK 976 PG 339
PRN: 2993 BURCH HENRY LEE DEED BK 1093 PG 775
PRN: 2995 SLAGLE DWIGHT SCOTT OR LISA GAIL DEED BK 1051 PG 135
PRN: 3004 BERKLEY RICKEY LEE DEED BK 366 PG 81
PRN: 3005 BERKLEY RICKEY LEE DEED BK 524 PG 545
PRN: 3006 DMAX REAL PROPERTY LLC
PRN: 3007 OWEN ALFRED S OWEN JEAN C DEED BK 827 PG 266
PRN: 3008 1417 HODGES STREET LLC DEED BK 1029 PG 258
PRN: 3009 COVINGTON BARBARA DEED BK 544 PG 803
PRN: 3118 KING SUE G DEED BK 0 PG 0
PRN: 3105 MORRIS CHARLES P SR DEED BK 1167 PG 442
0+00
0+80
1+60
2+40
3+20
4+00
4+80
5+60
6+40
7+20
8+00
8+80
9+60
10+40
11+20
430
425
420
415
410
405
400
395
390
3' MIN. COVER TYP.
EXISTING GRADE
WTR ARV
4'-0" MIN. DEPTH REQ'D AT ARV
RIM=415.28
MAINTAIN POSITIVE SLOPE TOWARD ARV
CONTRACTOR MAY ELIMINATE ARV AND PROVIDE EXTRA DEPTH TO ELIMINATE HIGH SPOT STA. 5+60 TO 10+40
MAINTAIN POSITIVE SLOPE TOWARD ARV
APPROX. STA. 0+00 CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE OF EXISTING WATERLINE AND TIE-IN TO W/ NEW 6" WATERLINE REF. DET.
STA. 0+03 6" GATE VALVE
STA 1+17 3/4" WATER SERVICE
STA 2+57 3/4" WATER SERVICE
STA 2+67 3/4" WATER SERVICE
STA 2+96 3/4" WATER SERVICE
STA 3+48 3/4" WATER SERVICE
STA 3+79 3/4" WATER SERVICE
STA 4+06 3/4" WATER SERVICE
STA 4+52 3/4" WATER SERVICE
STA 4+97 3/4" WATER SERVICE
STA 5+22 3/4" WATER SERVICE
STA 5+28 FIRE HYDRANT ASSEMBLY
STA 6+29 6" TEE TO TIE INTO EX. HYDRANT ASSEMBLY
STA 6+32 6" GATE VALVE
STA 6+48 3/4" WATER SERVICE
STA 6+62 3/4" WATER SERVICE
STA 6+76 3/4" WATER SERVICE
STA 7+21 3/4" WATER SERVICE
STA 7+75 3/4" WATER SERVICE
STA 8+47 3/4" WATER SERVICE
STA 8+70 3/4" WATER SERVICE
STA 8+73 3/4" WATER SERVICE
STA 8+80 3/4" WATER SERVICE
STA 9+00 AIR RELEASE VALVE (HIGH SPOT TO BE DETERMINED IN THE FIELD)
STA 9+16 3/4" WATER SERVICE
STA 9+34 FIRE HYDRANT ASSEMBLY
STA 9+57 6" GATE VALVE
STA 9+61 3/4" WATER SERVICE
STA 9+98 3/4" WATER SERVICE
STA 10+27 6" GATE VALVE
APPROX. STA. = 10+30 CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE OF EXISTING WATERLINE AND TIE-IN TO W/ NEW 6" WATERLINE REF. DET.

6/15/2020 8:06:50 AM
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Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
0' 20' 40' 80'
SCALE: 1" = 40'
VERT. 1"=4'
HORIZ. 1"=40'

REVISIONS

NO.	DESCRIPTION	DATE

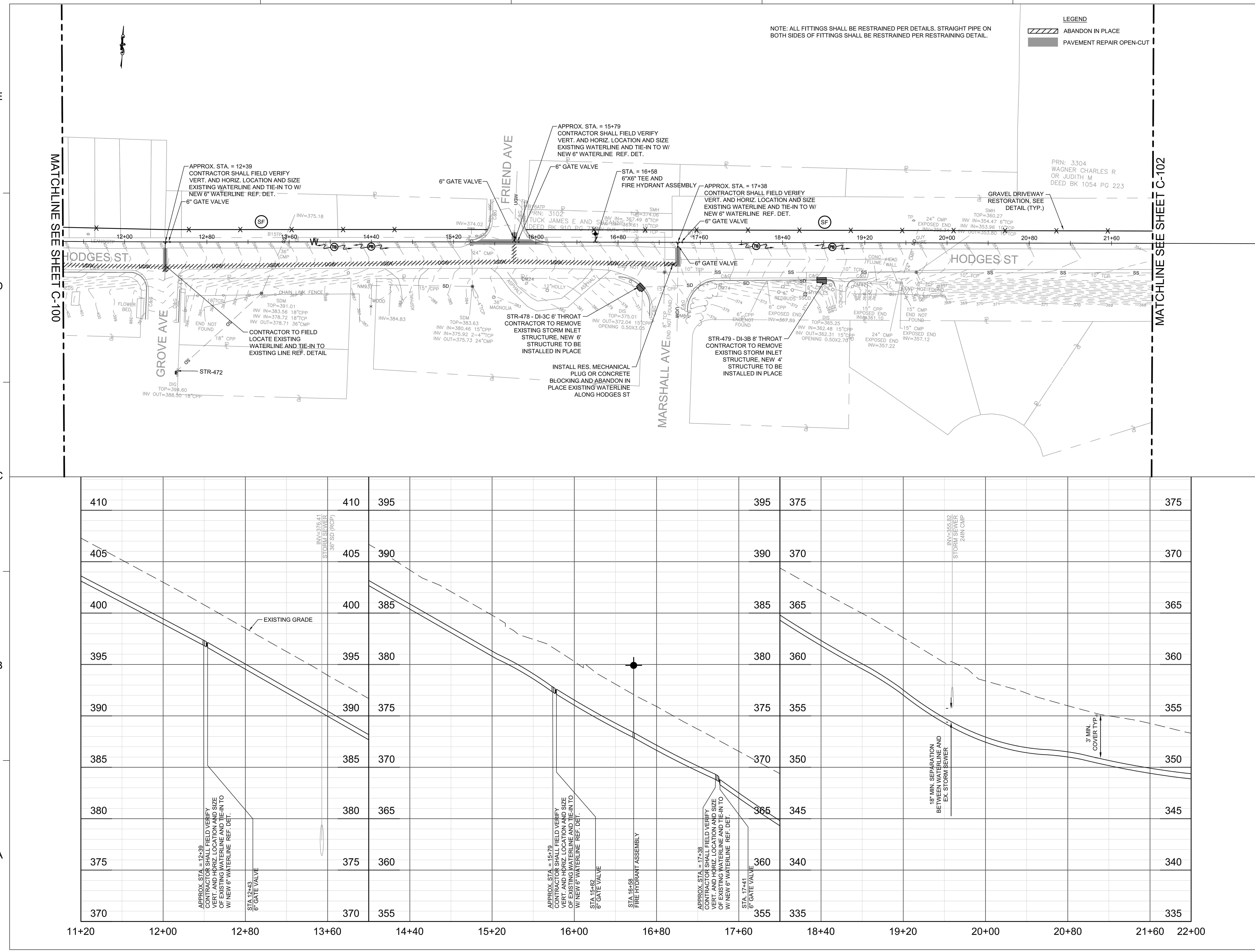
DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
HODGES ST WATERLINE PLAN AND PROFILE

PROJECT NO. 50083060

C-100

SHEET NO. 0 OF ----



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SEAL

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2/2/2023
PROFESSIONAL ENGINEER

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SCALE
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VERT. 1"=4'
HORIZ. 1"=40'

REVISIONS

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DATE APRIL, 2022

TITLE
HODGES ST WATERLINE PLAN AND PROFILE

PROJECT NO. 50083060

C-101

SHEET NO. 0 OF ----

6/15/2020 8:06:50 AM
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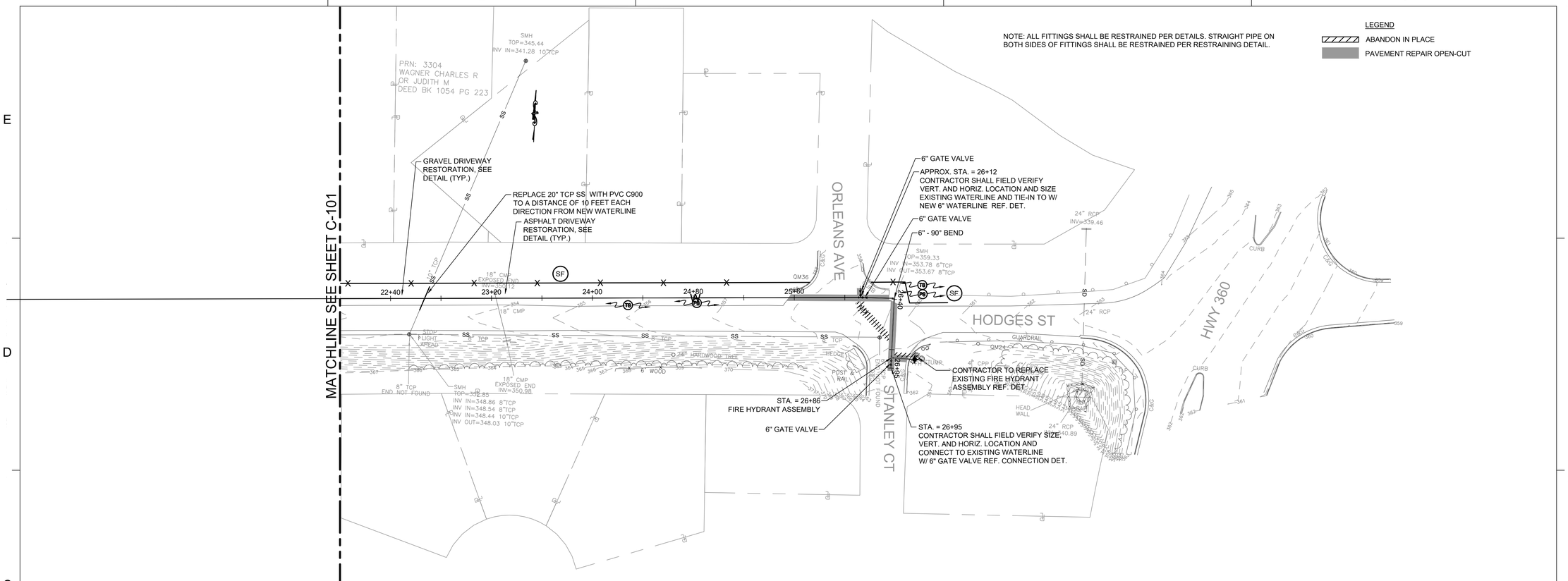

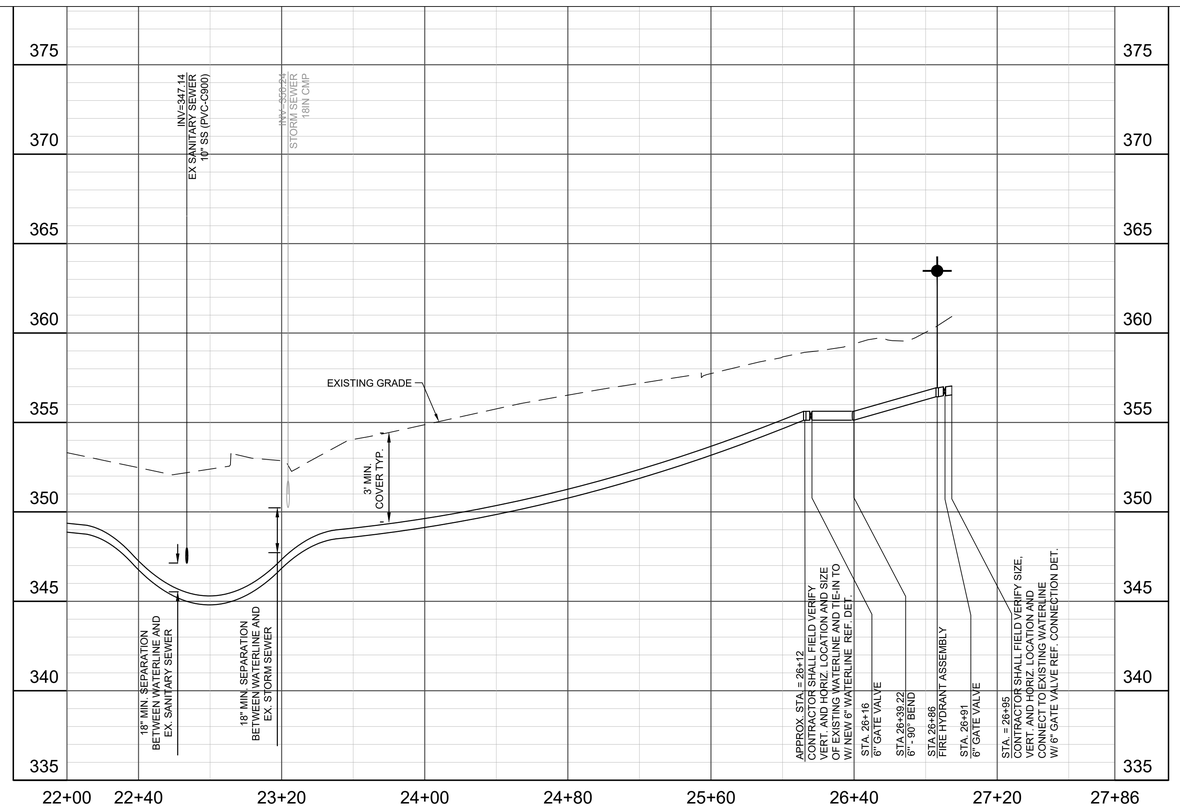

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434.797.4497

HCSA

SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS

SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402069434
2/2/2022
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

0' 20' 40' 80'
SCALE: 1" = 40'
VERT. 1"=4'
HORIZ. 1"=40'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

HODGES ST WATERLINE PLAN AND PROFILE

PROJECT NO. 50083060

C-102

SHEET NO. 0 OF ----

GENERAL NOTES:
1. ALL SERVICES CONNECTED TO THE 6" LINE WILL BE CONNECTED TO THE 10". ABANDON THE 6" LINE IN PLACE.
2. 6" WATERLINE TO REMAIN IN THIS SECTION. PARALLEL 10" BEGINS AT THE INTERSECTION WITH HWY 501 NB. REF NEXT SHEET.
3. ALL FITTINGS SHALL BE RESTRAINED PER DETAILS. STRAIGHT PIPE ON BOTH SIDES OF FITTINGS SHALL BE RESTRAINED PER RESTRAINING DETAIL.

SDM
TOP=369.40
INV OUT=360.92 24"RCP

SMH
TOP=373.80
INV OUT=357.29 8"PVC

MAIN ST/HWY 501 SB

PARADISE LN

BROADWAY ST/HWY 501 NB

FACTORY ST

SEYMOUR DR

PRN: 4095
CUNNINGHAM ANNE B C/O JOEL
AND WILLIAM CUNNINGHAM
DEED BK 878 PG 577

PRN: 4304
GREYHOUND LAND AND PROPERTIES LLC

PRN: 4325
TOWN OF SOUTH BOSTON
DEED BK 461 PG 519

STR-277

STR-282

STR-283

STR-358

DIS
TOP=364.01
INV OUT=359.17 15"RCP
OPENING 0.50X6.60

SDM
TOP=365.52
INV IN=361.30 12"CMP
INV OUT=360.35 18"RCP

YIG
TOP=365.64
INV OUT=363.53 12"CMP

SDM
TOP=367.70
INV OUT=358.78 36"RCP

DIS
TOP=377.23
INV IN=372.17 24"RCP
INV OUT=372.10 24"RCP
OPENING 0.50X8.30

SDM
TOP=364.97
INV IN=357.74 18"RCP
INV IN=354.08 18"TCP
INV IN=354.08 15"RCP
INV OUT=352.54 24"RCP

SMH
TOP=362.80
INV IN=359.20 8"PVC
INV IN=359.15 6"PVC
INV OUT=358.95 8"PVC

SDM
TOP=364.04
INV IN=358.60 15"RCP
INV IN=358.53 15"RCP
INV OUT=358.43 15"RCP

SDM (NO ACCESS)
TOP=362.70

DIS
TOP=365.90
INV OUT=359.89 24"RCP
OPENING 0.40'X8.40'

DIS
TOP=363.41
INV IN=357.53 15"RCP
INV OUT=357.08 24"RCP
OPENING 0.40X8.40

YIG
TOP=362.24
INV OUT=358.82 15"RCP

SMH
TOP=371.06
INV IN=366.75 8"TCP
INV OUT=366.64 8"TCP

SDM
TOP=363.38
INV IN=357.21 24"RCP

SDM
TOP=354.63
INV IN=348.00 30"RCP

SMH
TOP=350.30
INV IN=346.07 8"PVC

SDM
TOP=349.49
INV=341.05 36"RCP

LEGEND
- 6" WATERLINE TO BE ABANDONED IN PLACE
- EXISTING WATER METER

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Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL
COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
0' 12.5' 25' 50'
SCALE: 1" = 25'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
SEYMOUR DR WATERLINE PLAN

PROJECT NO. 50083060

C-103

SHEET NO. 0 OF ----

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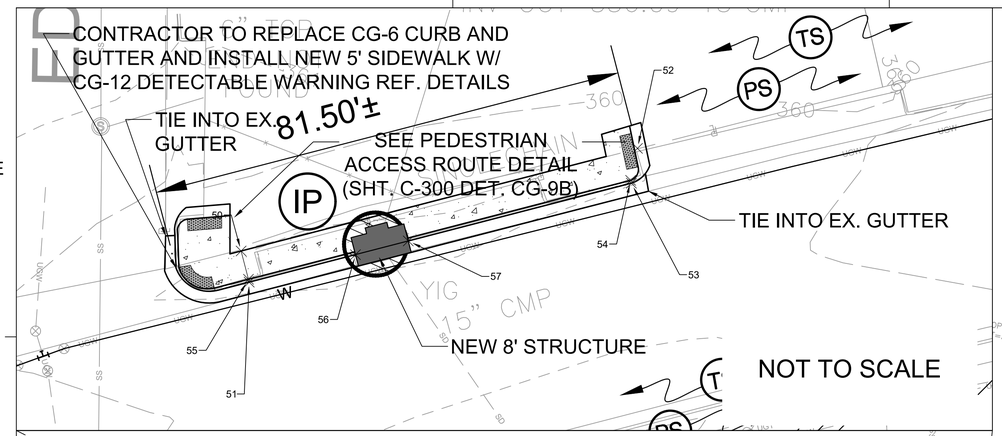

NOTES:
1. ALL SERVICES CONNECTED TO THE 6" LINE WILL BE CONNECTED TO THE 10". ABANDON THE 6" LINE IN PLACE.
2. ALL FITTINGS SHALL BE RESTRAINED PER DETAILS. STRAIGHT PIPE ON BOTH SIDES OF FITTINGS SHALL BE RESTRAINED PER RESTRAINING DETAIL.

STAKEOUT TABLE

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
50	3413413.0338	11366166.6896	359.25	SWLK
51	3413407.7094	11366168.0681	358.64	FOC
52	3413430.5789	11366234.4551	359.50	SWLK
53	3413424.6279	11366233.4135	358.89	FOC
54	3413425.1119	11366233.2881	359.39	BOC
55	3413408.1934	11366167.9428	359.14	BOC
56	3413412.4119	11366186.2357	359.35	DI
57	3413414.7514	11366195.2717	359.35	DI

CONTRACTOR TO INSTALL AND VERIFY POSITIVE DRAINAGE TO NEW STRUCTURE.

STR-359

EXISTING 10" WATERLINE. TIE ALL SERVICES INTO THIS LINE FROM HWY 501 NB TO US 360.

NEW 1.5" CASING FOR 3/4" WATER SERVICE UNDER ROADWAY RECONNECT METER (TYP.)

CONTRACTOR TO REPLACE CG-6 CURB AND GUTTER AND INSTALL NEW 5' SIDEWALK W/ CG-12 DETECTABLE WARNING REF. DETAILS

STR-410 - DI-3C 8' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

APPROX. STA. = 3+76 CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE EXISTING WATERLINE AND TIE-IN TO 10" WATERLINE REF. DET.

SAW-CUT EXISTING CURB AND GUTTER AND ENTRANCE DRIVE. TIE-IN NEW CG-6 AND SIDEWALK AND RESHAPE ENTRANCE DRIVE PER CG-9A

STR-411 - DI-3C 8' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

EXISTING 2" CONNECTION

VERIFY CONNECTION TO 10" WATERLINE

APPROX. STA. = 8+34 CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE EXISTING WATERLINE AND TIE-IN TO 10" WATERLINE REF. DET.

EXISTING ABANDONED

VERIFY CONNECTION TO 10" WATERLINE

VALVE OFF 6" WATERLINE TO THE EAST

BROADST/HWY 501 NB

EDMONDSON AVE

ELLYSON AVE

SEYMOUR DR

MATCHLINE SEE SHEET C-105

PRN: 4316 IMPERIAL OIL CO INC OF NC ATTN: SHIRLEY CARTER DEED BK 478 PG 127

PRN: 4317 PERC PROPERTIES LLC

PRN: 4208 CENTRAL VIRGINIA LAND CORP DEED BK 540 PG 565

PRN: 4239 MEDLEY HALLIE E C/O WM M MI DEED BK 0 PG 54

PRN: 4327 RAGANS ELECTRIC CO INC DEED BK 487 PG 84

LEGEND

6" WATERLINE TO BE ABANDONED IN PLACE

EXISTING WATER METER

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

0' 20' 40' 80'
SCALE: 1" = 40'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
SEYMOUR DR WATERLINE PLAN

PROJECT NO. 50083060

C-104

SHEET NO. 0 OF ----

7/5/2022, 10:03:29 AM
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NOTES:
1. ALL SERVICES CONNECTED TO THE 6" LINE WILL BE CONNECTED TO THE 10". ABANDON THE 6" LINE IN PLACE.
2. ALL FITTINGS SHALL BE RESTRAINED PER DETAILS. STRAIGHT PIPE ON BOTH SIDES OF FITTINGS SHALL BE RESTRAINED PER RESTRAINING DETAIL.

MATCHLINE SEE SHEET C-104

MATCHLINE SEE SHEET C-106

SEYMOUR DR

MARSHALL AVE

SOIL ST

EXISTING 10" WATERLINE. TIE ALL SERVICES INTO THIS LINE FROM HWY 501 NB TO US 360.

NEW 1.5" CASING FOR 3/4" WATER SERVICE UNDER ROADWAY RECONNECT METER (TYP.)

VERIFY CONNECTION TO 10" WATERLINE

APPROX. STA. = 14+45
CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION AND SIZE EXISTING WATERLINE AND TIE-IN TO 10" WATERLINE. REF. DET.

STR-462 - DI-3B 14' THROAT
CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 14' STRUCTURE TO BE INSTALLED IN PLACE

REF. SEE SHT. C-302 FOR REPAIR OF SLOPE AND D.I. STORM PIPE EXTENSION FOR STR-459

REPLACE EXISTING CULVERT IN PLACE

STR-459 - DI-3C 8' THROAT
CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

STR-456 - DI-3B 8' THROAT
CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

STR-457 - DI-3B 6' THROAT
CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 6' STRUCTURE TO BE INSTALLED IN PLACE

VERIFY CONNECTION TO 10" WATERLINE

STR-463
DI-3B 6' THROAT
CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 6' STRUCTURE TO BE INSTALLED IN PLACE

CONTRACTOR TO REPLACE EXISTING FIRE HYDRANT ASSEMBLY REF. DET.

STR-460 - DI-3C 8' THROAT
CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

STA 18+81
FIRE HYDRANT ASSEMBLY

VALVE OFF 6" WATERLINE TO THE SOUTH

PRN: 4460
WIDMACK DAVID H AND RAY T T/A 2W PARTNERS LLP
DEED BK 987 PG 1851

PRN: 4465
SOUTH BOSTON MEMORIALS
DEED BK 926 PG 709

PRN: 4194
TUCKER ALEX
DEED BK 0 PG 0

PRN: 4195
SIDE OUTREACH INC.

PRN: 4470
CARRILLO FRANCISCO OR GRICELDA C VIRGEN
DEED BK 1168 PG 24

PRN: 4471
WILKINS EDWARD B TRUST; SUE WILKINS BALES AND E BRUCE WILKINS

PRN: 4241
M.C. CONSTRUCTION INC
DEED BK 1000 PG 678

LEGEND

▨	6" WATERLINE TO BE ABANDONED IN PLACE
WM	EXISTING WATER METER

7/5/2022 10:03:29 AM
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Dewberry

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SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

0' 20' 40' 80'
SCALE: 1" = 40'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

SEYMOUR DR WATERLINE PLAN

PROJECT NO. 50083060

C-105

SHEET NO. 0 OF ----

NOTES:
1. ALL SERVICES CONNECTED TO THE 6" LINE WILL BE CONNECTED TO THE 10". ABANDON THE 6" LINE IN PLACE.
2. ALL FITTINGS SHALL BE RESTRAINED PER DETAILS. STRAIGHT PIPE ON BOTH SIDES OF FITTINGS SHALL BE RESTRAINED PER RESTRAINING DETAIL.

MATCHLINE SEE SHEET C-105

EXISTING 10" WATERLINE. TIE ALL SERVICES INTO THIS LINE FROM HWY 501 NB TO US 360.

NEW 1.5" CASING FOR 3/4" WATER SERVICE UNDER ROADWAY RECONNECT METER (TYP.)

STR-554 - DI-3C 8' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

3/4" WATER SERVICE METER (TYP.)

STR-558

STR-557A

VALVE OFF 6" WATERLINE AND PLUG TO THE SOUTH

STR-557

STR-561 - DI-3B 8' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

VERIFY CONNECTION TO 10" WATERLINE

END OF 10" WATERLINE. BEGINNING OF 2" LINE.

6" DUCTILE IRON LINE

10" X 6" TEE

VERIFY CONNECTION TO WATERLINE

STR-553 - DI-3C 8' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 8' STRUCTURE TO BE INSTALLED IN PLACE

STR-562 - DI-3B 6' THROAT CONTRACTOR TO REMOVE EXISTING STORM INLET STRUCTURE, NEW 6' STRUCTURE TO BE INSTALLED IN PLACE

STA 28+86
FIRE HYDRANT ASSEMBLY

SEYMOUR DR

RILEY AVE

PRN: 4434
DAY DAVID W SR
DEED BK 939 PG 421

PRN: 4432
HASKETT MICHAEL K
OR ELLEN T

PRN: 4484
BCVS HOTELS LLC

PRN: 4488
RICHARD OLIVER HARRELL III REV TRUST
AND CAROLINE W HARRELL

PRN: 4472
WILKINS EDWARD B TRUST; SUE WILKINS
AND E BRUCE WILKINS

PRN: 4474
TALLEY JOE A, HARRIETT T LOWDER
AND SAMMY COMER
DEED BK 0 PG 0

PRN: 4476
POWELL PHYLLIS H
DEED BK 697 PG 751

PRN: 4477
RHONDA R GREEN 2006 REVOCABLE TRUST
DEED BK 1149 PG 408

PRN: 4479
GLENDA R GREEN 2006 REVOCABLE TRUST
DEED BK 1149 PG 405

PRN: 4475
HAROLD E GREEN JR 2006 REVOCABLE
DEED BK 1149 PG 415

PRN: 4480
GUPTON GARY P
DEED BK 809 PG 475

PRN: 4481
PHILLIPS KELLY SPANGLER
AND LARRY P SNEED
DEED BK 1051 PG 17

36" RCP
(CHANGE IN PIPE MATERIAL)
INV=320.59

LEGEND

6" WATERLINE TO BE ABANDONED IN PLACE

EXISTING WATER METER

7/5/2022 10:03:29 AM
P:\50083060\CAD\CIVIL\50083060-C-PP-SEYMOUR DR WATER.DWG

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402089434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

0' 20' 40' 80'
SCALE: 1" = 40'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

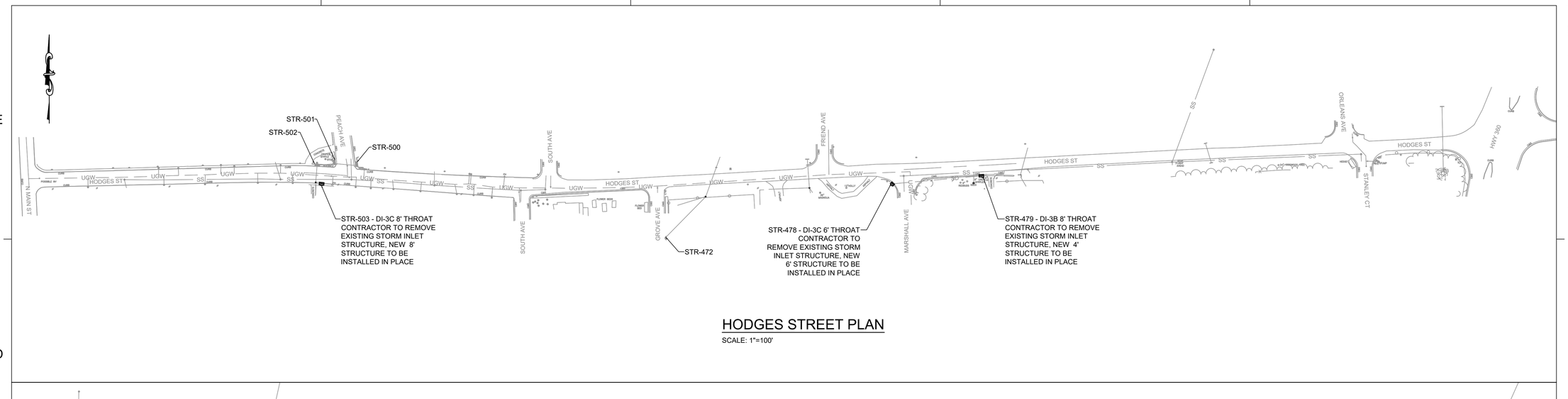
TITLE

SEYMOUR DR WATERLINE PLAN

PROJECT NO. 50083060

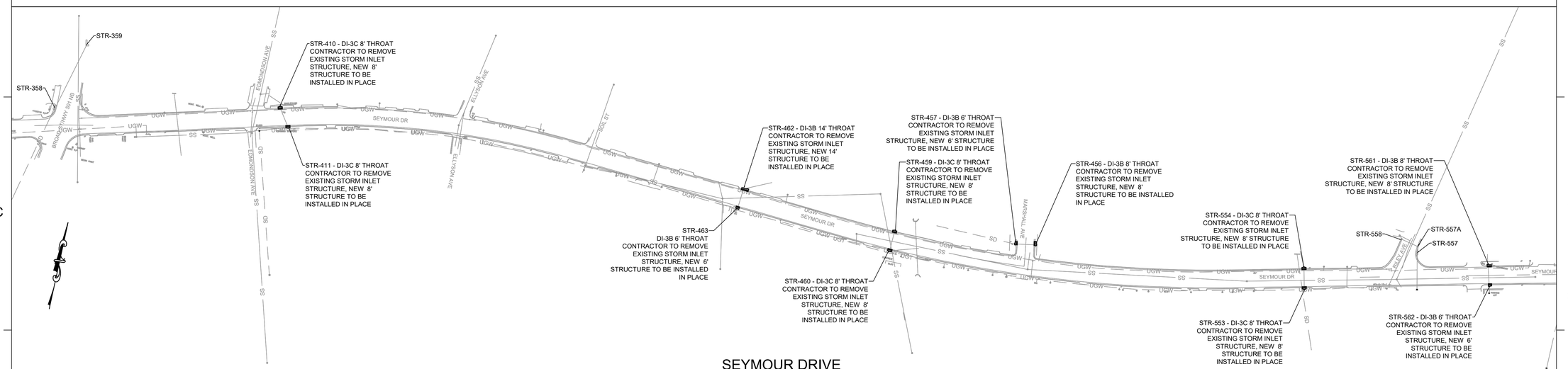
C-106

SHEET NO. 0 OF ----



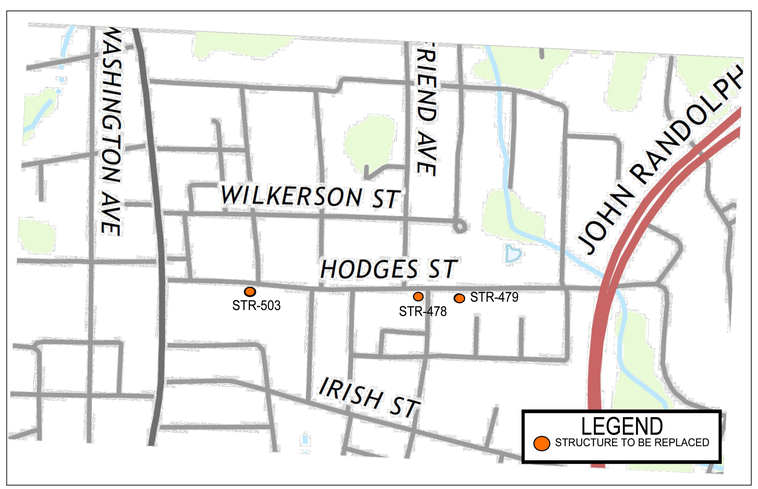
HODGES STREET PLAN

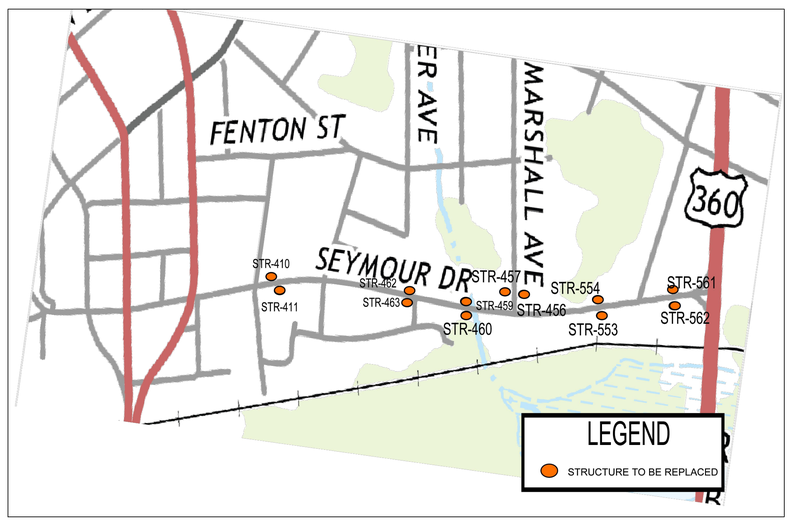
SCALE: 1"=100'



SEYMOUR DRIVE

SCALE: 1"=120'





STORMWATER INLET STRUCTURE REPLACEMENT		
STRUCTURE	ROAD	GENERAL CROSS STREET
STR-503	HODGES STREET	PEACH AVE
STR-478	HODGES STREET	WEST SIDE MARSHALL AVE
STR-479	HODGES STREET	EAST FROM MARSHALL AVE APPROX. 150 FT.
STR-410	SEYMOUR DRIVE	EAST FROM EDMONDS AVE APPROX. 40 FT.
STR-411	SEYMOUR DRIVE	EAST FROM EDMONDS AVE APPROX. 50 FT.
STR-463	SEYMOUR DRIVE	EAST FROM ELLYSON AVE APPROX. 605 FT.
STR-462	SEYMOUR DRIVE	EAST FROM ELLYSON AVE APPROX. 605 FT.
STR-459	SEYMOUR DRIVE	WEST FROM MARSHALL AVE APPROX. 260 FT.
STR-460	SEYMOUR DRIVE	WEST FROM MARSHALL AVE APPROX. 260 FT.
STR-456	SEYMOUR DRIVE	EAST SIDE MARSHALL AVE
STR-457	SEYMOUR DRIVE	WEST SIDE MARSHALL AVE
STR-553	SEYMOUR DRIVE	WEST FROM RILEY AVE APPROX. 200 FT.
STR-554	SEYMOUR DRIVE	WEST FROM RILEY AVE APPROX. 200 FT.
STR-561	SEYMOUR DRIVE	EAST FROM RILEY AVE APPROX. 150 FT.
STR-562	SEYMOUR DRIVE	EAST FROM RILEY AVE APPROX. 150 FT.

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HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2022
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

0' 50' 100' 200'
SCALE: 1" = 100'
0' 60' 120' 140'
SCALE: 1" = 120'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

OVERALL STORMWATER INLET IMPROVEMENTS

PROJECT NO. 50083060

C-200

SHEET NO. 0 OF ----

8/15/2020 8:06:50 AM
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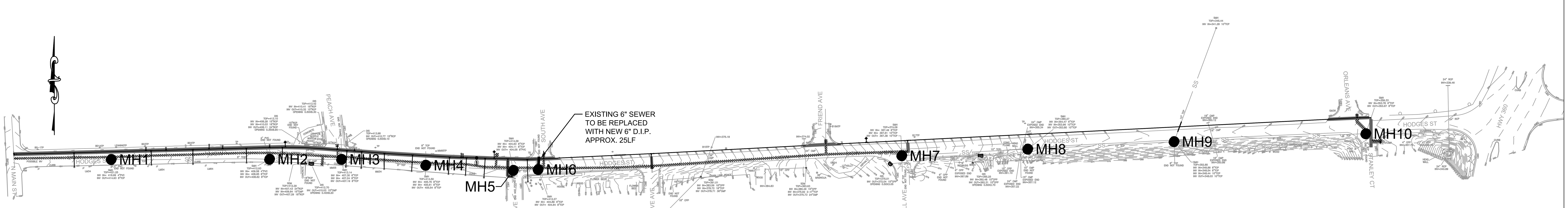
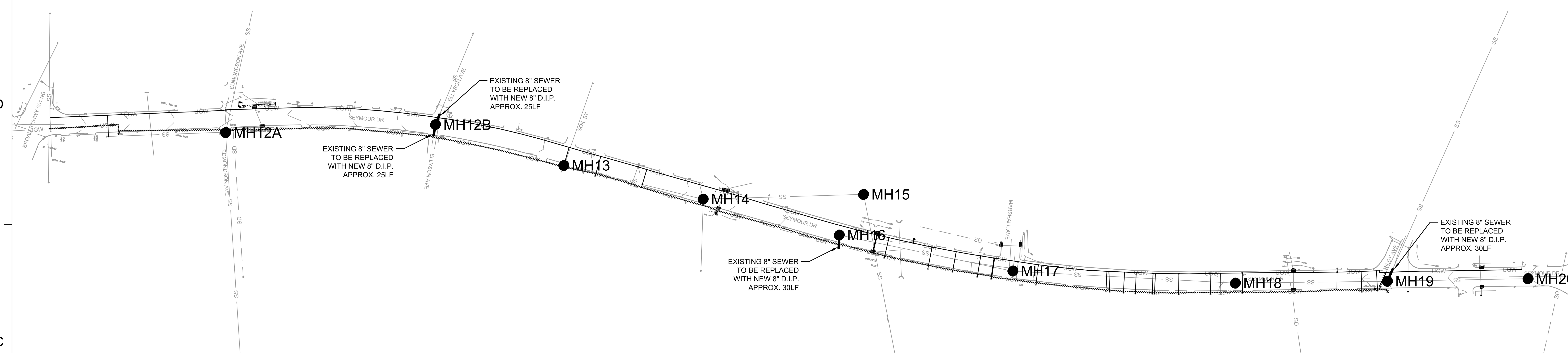


HODGES STREET PLAN

SCALE: 1"=100'

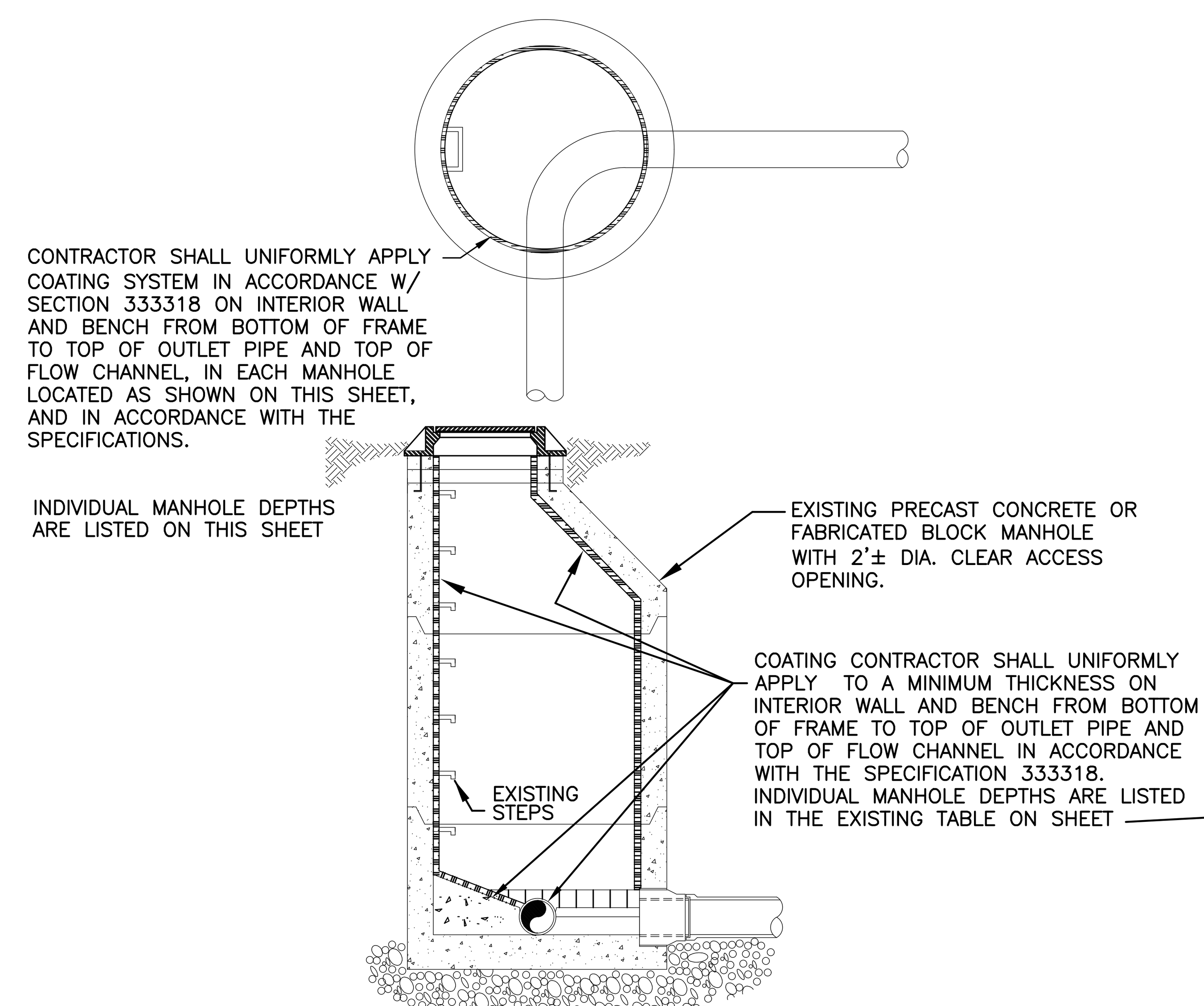


SEYMOUR DRIVE

SCALE: 1"=120'

GENERAL NOTES:

1. ALL SANITARY SEWER PIPE REPLACEMENTS SHALL ADHERE TO THE TRENCH EMBEDMENT DETAILS AND PAVEMENT REPAIR DETAILS LOCATED ON DETAILS SHEET C-301.
2. FOR DISSIMILAR PIPE CONNECTIONS CONTRACTOR SHALL PROVIDE AND INSTALL FERNCO COUPLING PER MANUFACTURERS RECOMMENDATION.



NOTES :

1. ALL ACTIVE LEAKS SHALL BE STOPPED AND SUCH STOPPAGE SHALL BE CONFIRMED BY OWNER OR ENGINEER PRIOR TO COATING.
2. ALL HOLES AND SPALLS SHALL BE PATCHED PRIOR TO COATING.
3. EPOXY COATING SHALL BE INSTALLED PER SPECIFICATION 333318.

TYPICAL REHABILITATED EX. BRICK OR PRE-CAST MANHOLE DETAIL

N.T.S.

SEYMOUR AND HODGES MANHOLE REHABILITATION

MH	NORTHING	EASTING	TOP	BOTTOM
MH1	3416311.867	11366230.74	421.25	414.93
MH2	3416312.26	11366538.27	412.93	408.62
MH3	3416311.965	11366678.19	413.14	407.19
MH4	3416300.607	11366841.63	414.5	405.54
MH5	3416290.586	11367011.8	414.29	404.05
MH6	3416292.269	11367060.09	412.27	404.64
MH7	3416319.193	11367766.39	374.06	367.38
MH8	3416332.011	11368011.01	360.27	353.8
MH9	3416346.476	11368295.18	352.85	348.03
MH10	3416361.915	11368667.68	359.33	353.67
MH11	3413149.051	11365333.8	362.8	358.95
MH12	3413203.875	11365558.59	371.06	366.64
MH12A	11366142.63	3413347.867	359.23	350.4
MH12B	11366576.77	3413459.555	373	370.27
MH13	3413432.643	11366863.17	367.43	360.42
MH14	3413425.53	11367169.23	353.2	346.09
MH15	3413508.052	11367501.86	328.91	322.19
MH16	3413412.2	11367469.67	341.42 NA	
MH17	3413415.932	11367848.44	348.51	339.54
MH18	3413491.644	11368318.17	349.45	344.11
MH19	3413564.499	11368634.56	351.17	347.71
MH20	3413633.512	11368927.06	359.9	356.67

LEGEND

● MH — MANHOLE TO BE REHABILITATED

▬ — EXISTING SANITARY SEWER TO BE REPLACED

Dewberry

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Danville, VA 24540-3353
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HCSA

SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS

SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

SCALE: 1" = 100'

SCALE: 1" = 120'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH

APPROVED BY RSE

CHECKED BY LBM

DATE APRIL, 2022

TITLE

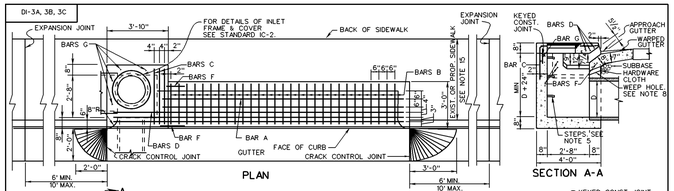
SANITARY SEWER MANHOLE & LINE REHABILITATION PLAN

PROJECT NO. 50083060

C-201

SHEET NO. 0 OF ---

DI-3A, 3B, 3C



TYPE A NOSE DETAIL SHALL BE USED WITH CG-3 & CG-7 STANDARDS.

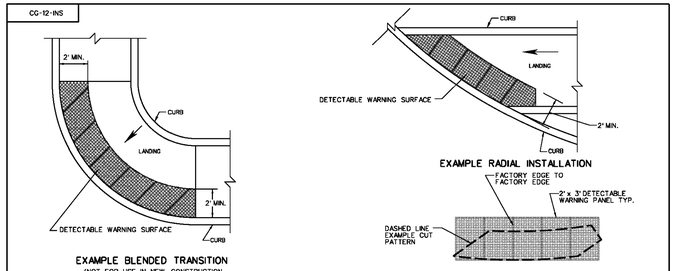
TYPE B NOSE DETAIL SHALL BE USED WITH CG-2 & CG-6 STANDARDS.

GALVANIZED PLATE FOR TYPE A TO BE BENT ON AN ANGLE OF 68° 30' CONNECTORS AND IS TO BE ANCHORED WITH ½" X 4" STUD SHEAR WELDED TO BENT PLATE AT 2'-0"-C.

VDOT ROAD AND BRIDGE STANDARDS		STANDARD CURB DROP INLET 12" - 30" PIPE: MAXIMUM DEPTH (H) = 8' VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 2	REVISION DATE		233 302
104.09	08/10		

2016 ROAD & BRIDGE STANDARDS

CG-12-INS



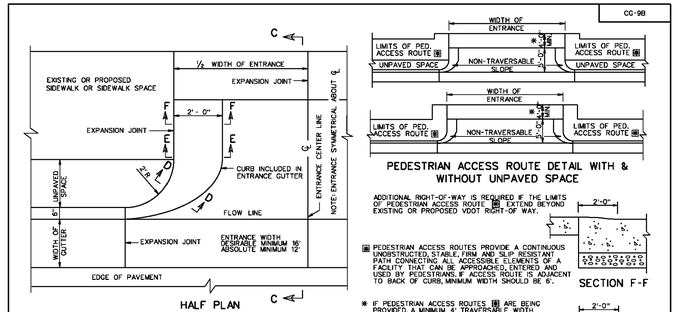
NOTES

1. LOCATIONS WHERE THE DETECTABLE WARNING CANNOT BE INSTALLED WITH A MAXIMUM 2" OFFSET FROM THE BACK OF CURB SHALL HAVE A RADIUS TO MATCH RADIUS OF THE CURB. DETECTABLE WARNING PANELS SHALL HAVE A FACTORY RADIUS OR IF APPROVED BY THE ENGINEER MAY BE FIELD MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.
2. JOINTS BETWEEN DETECTABLE WARNING PANELS SHALL BE FACTORY EDGES. CUT SIDES OF PANELS ARE NOT PERMITTED TO ABUT ADJACENT PANELS.
3. ALIGNMENT OF DOMES ON ADJACENT PANELS THAT WILL BE MODIFIED TO FIT A RADIUS SHALL BE MAINTAINED WHEN FIELD MODIFYING DETECTABLE WARNING PANELS.
4. DETECTABLE WARNING PANEL SIZES SHOWN ARE FOR EXAMPLE PURPOSES. OTHER PANEL SIZES MAY BE USED IN ORDER TO MAINTAIN CONSISTENT ALIGNMENT OF THE DOMES FOR EACH CURB RAMP LOCATION.
5. BLENDED TRANSITION CURB RAMPS ARE FOR ALTERATION SITUATIONS WHERE STANDARD DIRECTIONAL CURB RAMPS ARE NOT FEASIBLE DUE TO SITE CONSTRAINTS. BLENDED TRANSITION CURB RAMPS ARE NOT PERMITTED FOR NEW CONSTRUCTION.
6. PARTIAL DETECTABLE WARNING DOMES THAT ARE THE RESULT OF CUTTING PANELS SHOULD BE GROUND FLUSH WITH THE PANEL SURFACE.
7. GAPS BETWEEN ADJACENT DETECTABLE WARNING PANELS ARE NOT PERMITTED.
8. SEE PLANS FOR CROSSWALK MARKINGS, TURNING AREAS, ROUTE WIDTHS, GRADE CHANGES, AND RAMP CONFIGURATIONS.

VDOT ROAD AND BRIDGE STANDARDS		A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE METHOD OF INSTALLING DETECTABLE WARNINGS ON A RADIUS VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 2 OF 2	REVISION DATE		105 502 504
204.07	NEW 04/19		

2016 ROAD & BRIDGE STANDARDS

CG-9B



SPECIFICATION REFERENCE	STANDARD ENTRANCE GUTTER VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
502		REVISION DATE	SHEET 1 OF 1
		07/15	203.02

2016 ROAD & BRIDGE STANDARDS

TABLE OF QUANTITIES

DI-3A, 3B, 3C

TYPE	L	AREA OF SLOT	REINFORCING STEEL																		WEIGHT
			Concrete	BARS A		BARS B		BARS C		BARS D		BARS E		BARS F		BARS G					
	Ft.	Sq. Ft.	Cu. Yds.	No.	Lin. Ft. ⊕	No.	Lin. Ft. ⊕	No.	Lin. Ft. ⊕	No.	Lin. Ft.⊕	No.	Lin. Ft.⊕	No.	Lin. Ft.⊕	No.	Lin. Ft.⊕				Lbs.
DI-3A	2'-6"	1.15	2.28	-	-	-	-	1	5'-7"	3	3'-2"	-	-	-	-	5	1'-0"				22
DI-3B	4'	1.83	2.59	5	7'-6"	2	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	7'-6"	3	7'-6"	4	1'-0"				54
	6'	2.75	3.02	5	9'-6"	6	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	9'-6"	3	9'-6"	4	1'-0"				111
	8'	3.67	3.46	5	11'-6"	10	6'-7" to 8'-10"	3	5'-7"	3	3'-2"	4	11'-6"	3	11'-6"	4	1'-0"				168
	10'	4.58	3.90	5	7'-6"	14	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	7'-6"	3	7'-6"	4	1'-0"				204
	12'	5.50	4.34	5	9'-6"	18	6'-7" to 6'-10"	3	5'-7"	3	3'-2"	4	9'-6"	3	9'-6"	4	1'-0"				251
	14'	6.42	4.78	5	11'-6"	22	6'-7" to 8'-10"	3	5'-7"	3	3'-2"	4	11'-6"	3	11'-6"	4	1'-0"				298
	16'	7.33	5.22	5	13'-6"	26	6'-7" to 8'-10"	3	5'-7"	3	3'-2"	4	13'-6"	3	13'-6"	4	1'-0"				345
	18'	8.25	5.66	5	15'-6"	30	6'-7" to 8'-10"	3	5'-7"	3	3'-2"	4	15'-6"	3	15'-6"	4	1'-0"				391
	20'	9.17	6.09	5	17'-6"	34	6'-7" to 8'-10"	3	5'-7"	3	3'-2"	4	17'-6"	3	17'-6"	4	1'-0"				438
DI-3C	6'	2.75	3.01	10	1'-9"	4	6'-7" to 6'-10"	5	5'-7"	3	3'-2"	8	1'-9"	6	1'-6"	2	1'-0"				111
	8'	3.67	3.45	10	2'-9"	8	6'-7" to 6'-10"	5	5'-7"	3	3'-2"	8	2'-9"	6	2'-6"	2	1'-0"				158
	10'	4.58	3.89	10	3'-9"	12	6'-7" to 8'-10"	5	5'-7"	3	3'-2"	8	3'-9"	6	1'-6"	2	1'-0"				205
	12'	5.50	4.33	10	4'-9"	16	6'-7" to 6'-10"	5	5'-7"	3	3'-2"	8	4'-9"	6	1'-6"	2	1'-0"				252
	14'	6.42	4.77	10	5'-9"	20	6'-7" to 8'-10"	5	5'-7"	3	3'-2"	8	5'-9"	6	1'-6"	2	1'-0"				298
	16'	7.33	5.21	10	6'-9"	24	6'-7" to 8'-10"	5	5'-7"	3	3'-2"	8	6'-9"	6	1'-6"	2	1'-0"				345
	18'	8.25	5.65	10	7'-9"	28	6'-7" to 8'-10"	5	5'-7"	3	3'-2"	8	7'-9"	6	1'-6"	2	1'-0"				392
	20'	9.17	6.09	10	8'-9"	32	6'-7" to 8'-10"	5	5'-7"	3	3'-2"	8	8'-9"	6	1'-6"	2	1'-0"				439

NOTES

1. DEPTH OF INLET (H) TO BE SHOWN ON PLANS.
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD ST-1, THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.

   IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
5. THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
7. ⊕ 4 X 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT.
8. 3" DIAMETER WEEP HOLE TO BE LOCATED TO DRAIN SUBBASE MATERIAL. WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH ¼" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. ALL REINFORCING STEEL SHALL HAVE A MIN. COVER OF 2".
10. ALL REINFORCING STEEL TO BE CUT CLEAR OF ALL OPENINGS BY 2".
11. CAST-IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
12. LENGTH OF SLOT (L) WILL, IN EVERY CASE, BE SHOWN ON PLANS.
13. IF INLET IS CONSTRUCTED IN MEDIAN CURB OR WITH INTEGRAL CURB, GUTTER IS TO BE OMITTED (SEE DETAIL).
14. STANDARD INLETS MAY BE CONSTRUCTED WITH CONCRETE BLOCKS IN ACCORDANCE WITH THE DETAILS SHOWN ON STANDARD DRAWING DI-MB.
15. THIS AREA MAY BE EARTHEN, IN WHICH CASE THE EXPANSION JOINTS WILL APPLY ONLY TO CURB AND GUTTER.
16. CONCRETE QUANTITIES SHOWN ARE FOR DEPTH (H) OF 5'-2" WITHOUT PIPES. THE AMOUNT DISPLACED BY PIPES MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES. FOR INLETS OF DIFFERENT DEPTHS ADD OR SUBTRACT 0.32 CUBIC YARDS OF CONCRETE FOR EACH FOOT OF DEPTH.
17. LENGTH OF ANGLE IRON AS SHOWN ON SHEET 1 OF 2 IS TO BE L+16" AT 4.10 LBS./FT..
18. ⊕ DENOTES LENGTH OF ONE (1) BAR.
19. ALL REINFORCING BARS TO BE #5.
20. WHEN INLET IS USED IN 4'-0" MEDIAN, BACK OF INLET IS TO BE SHAPED TO CONFORM TO PROPOSED CURB.

SPECIFICATION REFERENCE	STANDARD CURB DROP INLET 12" - 30" PIPE: MAXIMUM DEPTH (H) = 8' VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
233 302		REVISION DATE	SHEET 2 OF 2 104.10

2016 ROAD & BRIDGE STANDARDS

CG-6

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL. IN THE SECTION ON CG URBAN STANDARDS.

SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502		REVISION DATE	SHEET 1 OF 1 201.03

2016 ROAD & BRIDGE STANDARDS

CG-9A

WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.

** 12 % MAXIMUM INCREASE IN SLOPE AT MINIMUM 10' INTERVALS
*** 3 % MAXIMUM DECREASE IN SLOPE FOR FIRST 10' INTERVAL AND 8 % MAXIMUM DECREASE FOR SUCCEEDING MINIMUM 10' INTERVALS

1. FOR SIDEWALK, CURB AND GUTTER - BUILT CONCURRENTLY.
2. FOR INITIAL CURB AND GUTTER ONLY.
3. FOR INITIAL SIDEWALK ONLY - 7" SIDEWALK TO BE DIPPED.
4. FOR PEDESTRIAN ACCESS ROUTE - MINIMUM 4'-0" TRAVERSABLE WIDTH IS REQUIRED WITH A MAXIMUM 2% CROSS SLOPE.
5. FOR CURB AND GUTTER ONLY - AFTER INITIAL SIDEWALK.
6. FOR CURB AND SIDEWALK ONLY - WITHOUT GUTTER.

▲ INDICATES POINT OF GRADE CHANGE.

VDOT ROAD AND BRIDGE STANDARDS		STANDARD ENTRANCE GUTTER WITH FLARED OPENING (FOR USE ACROSS SIDEWALK) VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE		502
203.01			

2016 ROAD & BRIDGE STANDARDS

Dewberry
Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET
WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402069434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
VDOT STANDARD DETAILS

PROJECT NO. 50083060

C-300

SHEET NO. 0 OF ----

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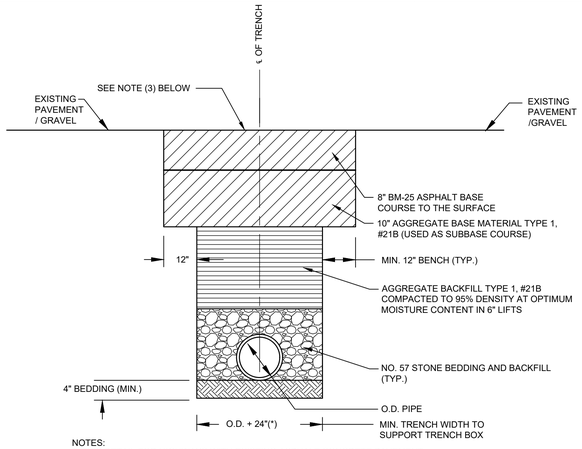
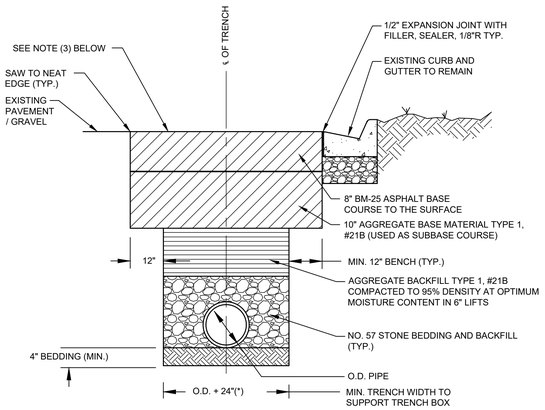


NOTES:
1. THIS DETAIL FOR HIGHWAYS WITH EXISTING ASPHALT CONCRETE PAVEMENT SECTIONS.
2. THE EXTENT OF PAVEMENT RESTORATION FOR ALL OTHER PAVEMENT CUTS SHALL BE THE DISTRICT ADMINISTRATOR'S DESIGNEE.
3. CONTRACTOR SHALL BRING BM-25 MATERIAL TO THE EXISTING PAVEMENT GRADE. VDOT WILL PAVE THIS ROAD IN THE NEAR FUTURE.

PERPENDICULAR OPEN-CUT DETAIL

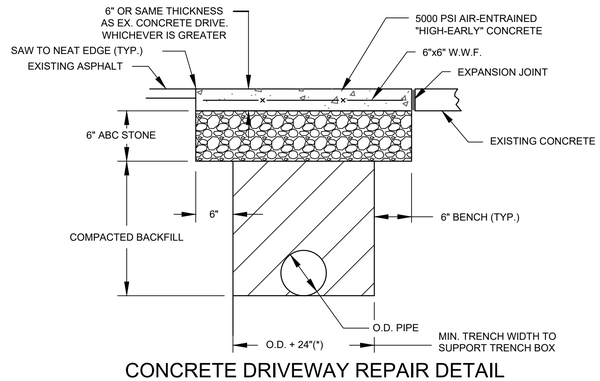
NOT TO SCALE



NOTES:
1. THIS DETAIL FOR HIGHWAYS WITH EXISTING ASPHALT CONCRETE PAVEMENT SECTIONS.
2. THE EXTENT OF PAVEMENT RESTORATION FOR ALL OTHER PAVEMENT CUTS SHALL BE THE DISTRICT ADMINISTRATOR'S DESIGNEE.
3. CONTRACTOR SHALL MILL AND PAVE THIS ROAD IN THE NEAR FUTURE.

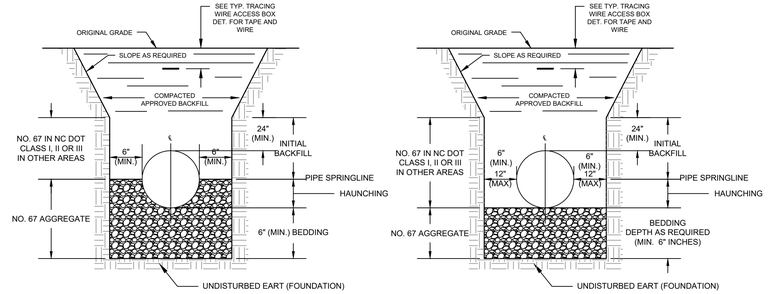
PARALLEL OPEN-CUT DETAIL

NOT TO SCALE



CONCRETE DRIVEWAY REPAIR DETAIL

NOT TO SCALE



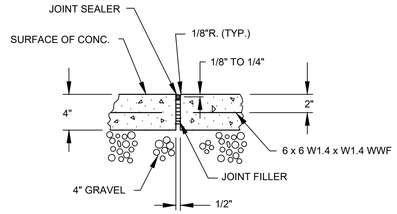
PVC PIPE EMBEDMENT

DIP PIPE EMBEDMENT

TRENCH DETAILS

NOT TO SCALE

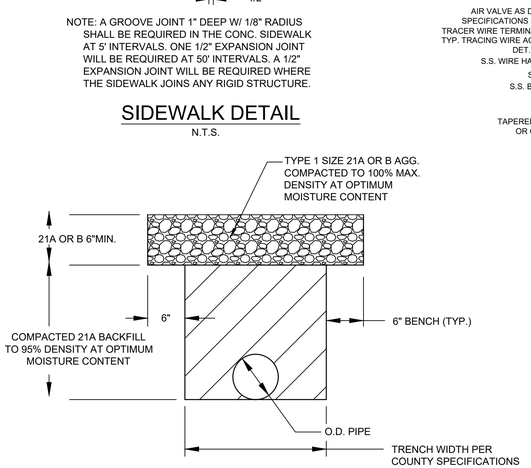
TRENCH NOTES:
1. THE PAVEMENT CUT SHALL BE DEFINED BY STRAIGHT EDGE AND CUT WITH AN APPROVED SAW-CUT MACHINE.
2. NO ROCKS OR BOULDERS 2" OR LARGER TO BE USED IN INTIAL BACKFILL, HAUNCHING OR BEDDING UNLESS OTHERWISE SPECIFIED.
3. NO BOULDERS 6" IN DIAMETER OR GREATER ALLOWED IN FINAL BACKFILL.
4. ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL UNLESS OTHERWISE REQUIRED.
5. INITIAL BACKFILL SHALL BE TAMPED IN 6" LIFTS.
6. FINAL BACKFILL SHALL BE CLASS I, II, OR III FOR CCFRPM PIPE TAMPED IN 6" LIFTS REGARDLESS OF LOCATION (EXCLUDING NCDOT RIGHT-OF-WAYS).
7. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CITY OF RALEIGH STANDARDS, DETAILS, AND SPECIFICATIONS.
8. THE ENTIRE THICKNESS AND VERTICAL EDGE OF CUT SHALL BE TACKED.
9. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH LEVEL PATCH.
10. NO HAND PATCHING ALLOWED.



NOTE: A GROOVE JOINT 1" DEEP W/ 1/8" RADIUS SHALL BE REQUIRED IN THE CONC. SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

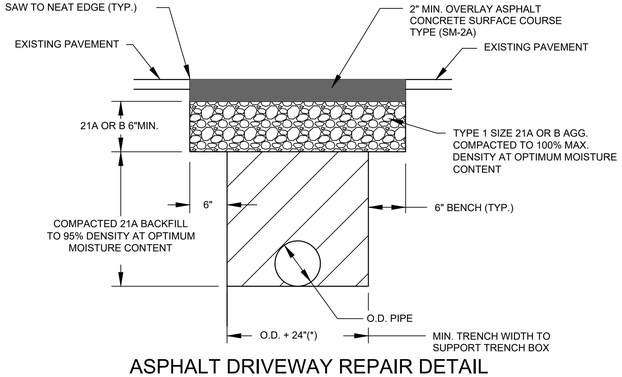
SIDEWALK DETAIL

N.T.S.



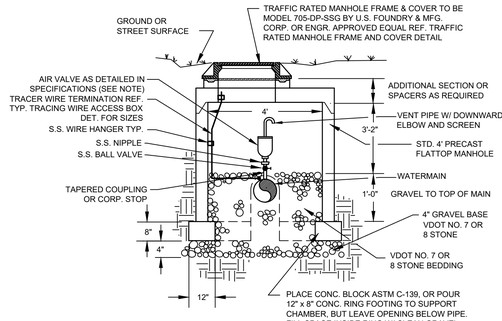
GRAVEL DRIVEWAY REPAIR DETAIL

NOT TO SCALE



ASPHALT DRIVEWAY REPAIR DETAIL

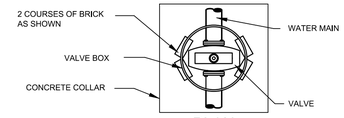
NOT TO SCALE



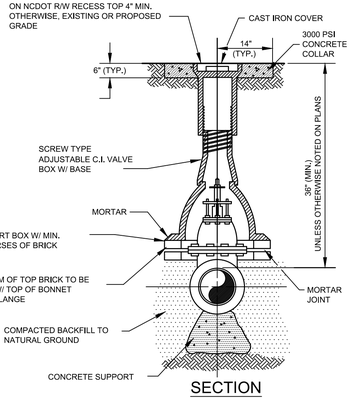
AIR RELEASE VALVE DETAIL

NOT TO SCALE

NOTES:
1. CONTRACTOR SHALL COORDINATE W/ENGINEER AND OWNER FOR PLACEMENT OF AIR RELEASE VALVES AT ALL LOCATIONS AIR RELEASE VALVES SHALL BE PLACED BEHIND GUARDRAILS AND DITCHES, AND NOT IN FILL SLOPES OR CUT SLOPES.
2. PROVIDE BASKWASH ACCESSORIES ASSEMBLED TO VALVE CONSISTING OF A 90° EL., A SHUT OFF VALVE, CLEARWATER INLET VALVE, RUBBER SUPPLY HOSE AND QUICK DISCONNECT COUPLINGS.
3. TRACER WIRE SHALL BE BROUGHT UP INTO ARV MANHOLES FOR ACCESS.



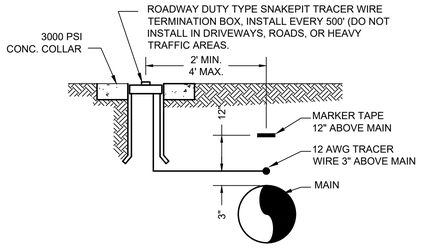
PLAN



SECTION

TYPICAL VALVE SETTING DETAIL SCREW TYPE

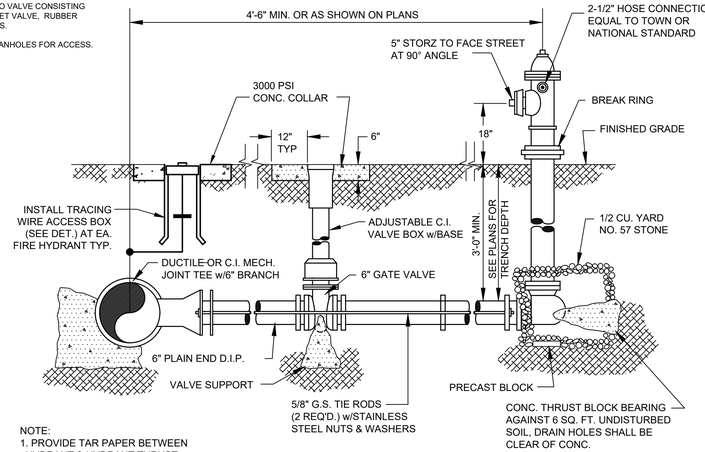
NOT TO SCALE



TYPICAL TRACING WIRE ACCESS BOX DETAIL

NOT TO SCALE

NOTE: ROADWAY DUTY RATED SNAKEPIT TRACER WIRE TERMINATION BOX AT EVERY 500' AND/OR TERMINATE INTO AIR RELEASE VALVE BOX



NOTE:
1. PROVIDE TAR PAPER BETWEEN HYDRANT & HYDRANT THRUST BLOCK
2. ALL THRUST BLOCKS & SUPPORTING CONC. IS 2500 PSI

TYPICAL FIRE HYDRANT ASSEMBLY DETAIL

N.T.S.

NOTE: WHERE REFERENCED ON PLANS HYDRANTS BEING USED FOR BLOWOFF'S IN LOW-LYING AREAS CONTRACTOR SHALL SUPPLY KNOX FDC AND STORZ LOCKS ON EACH CAP AND MCGARD HYDRANT OPERATING NUT LOCK (OR EQUAL).

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

DETAILS

PROJECT NO. 50083060

C-301

SHEET NO. 0 OF ----

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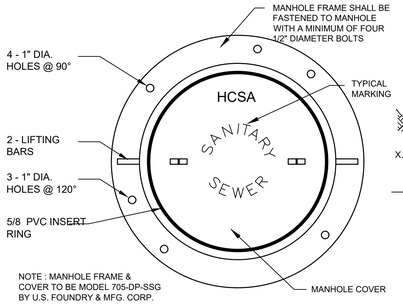
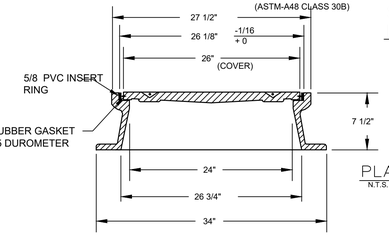


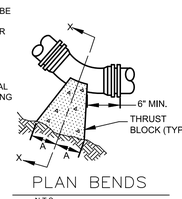
NOTE : MANHOLE FRAME & COVER TO BE MODEL 705-DP-SSG BY U.S. FOUNDRY & MFG. CORP. OR ENGR. APPROVED EQUAL

MATERIAL = GRAY IRON (ASTM-A48 CLASS 30B)



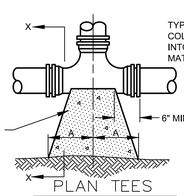
TRAFFIC RATED MANHOLE
STANDARD MANHOLE FRAME & COVER

NOT TO SCALE



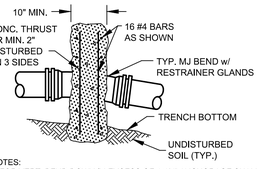
PLAN BENDS

N.T.S.



PLAN TEES

N.T.S.

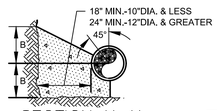


NOTES:
1. FOR VERT. BEND DOWN IN EXCESS OF 1 1/4" ANCHORAGE SHALL BE RECOMMENDED BY ENGINEER.

2. FOR VERT. BEND UPWARD, BLOCKING TO BE SIMILAR TO THAT FOR HORZ. BEND. RES. FITTINGS MAY NOT BE SHOWN ON THE PLANS. CONTRACTOR SHALL INSTALL RES. FITTINGS PER ENGINEERS RECOMMENDATION OR SPEC. 333313.

3. GLANDS & BOLTS SHALL BE PROTECTED FROM CONC. WHEN POURING THRUST BLOCKS

4. ALL THRUST BLOCK & SUPPORT CONC. SHALL BE 4,000 psi CONCRETE, REF. SPEC. 033000.

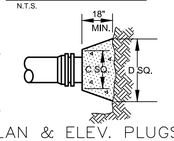


SECTION X-X
BENDS & TEES

N.T.S.

SECTION – VERT. BEND

N.T.S.



PLAN & ELEV. PLUGS

N.T.S.

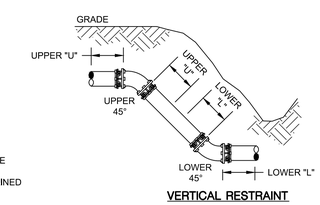
THRUST BLOCK DETAILS

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4 BEND		TEE		PLUG	
	A	B	A	B	A	B	A	B	A	B	A	B
4"	20"	18"	12"	18"	6"	16"	4"	12"	16"	18"	16"	18"
6"	34"	24"	22"	20"	12"	20"	8"	16"	32"	20"	32"	20"
8"	54"	26"	32"	24"	16"	24"	12"	16"	48"	24"	48"	24"
10"	68"	32"	48"	26"	26"	24"	18"	18"	55"	28"	55"	28"
12"	100"	32"	60"	28"	34"	26"	20"	24"	76"	30"	76"	30"
14"	128"	34"	72"	32"	38"	32"	24"	26"	96"	32"	96"	32"
16"	120"	48"	88"	34"	46"	34"	24"	34"	120"	34"	120"	34"
20"	138"	64"	130"	36"	66"	36"	34"	36"	170"	36"	170"	36"

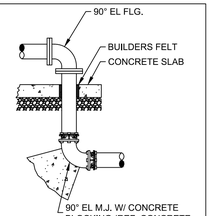
TYP. CONCRETE BLOCKING DETAIL

N.T.S.

NOTES:
1. THRUST RESTRAINT SHALL BE INSTALLED ON DUCTILE IRON "DIP" AND PVC FORCEMAINS AND WATERLINES IN THE MANNER SHOWN PER THIS DETAIL. SEE STANDARD THRUST BLOCK DETAIL FOR ADDITIONAL RESTRAINT CRITERIA.
2. RESTRAINING DEVICES SHALL CONFORM TO ANSI/AWWA C111/A21.11 AND ANSI/AWWA C153/A21.53 OF LATEST REVISION.
3. COMPACT FITTINGS ARE ACCEPTABLE FOR USE WITH IRON RETAINING GLAND M.J. RESTRAINT.
4. THE MINIMUM LENGTH OF RESTRAINT INDICATED SHALL REQUIRE ALL JOINTS WITHIN THAT DISTANCE BE RESTRAINED.
5. RESTRAINT SYSTEMS SHALL BE INSPECTED AND APPROVED PRIOR TO BACKFILLING.
6. RESTRAINT SYSTEMS MAY VARY BASED UPON THE ENGINEERS DESIGN AS SHOWN ON THE PLAN AND PROFILE SHEETS.
7. MAKE ANY JOINT DEFLECTION NECESSARY BEFORE TORQUING THE T-HEAD BOLTS.
8. TIGHTEN T-HEAD BOLTS, BOTTOM FIRST, THEN TOP, SIDES AND REMAINDER.
9. REPEAT NOTE 1. UNTIL ALL T-BOLTS ARE PROPERLY TOURQED.
10. TIGHTEN TWIST-OFF NUTS SO THAT ALL WEDGES FIRMLY CONTACT PIPE.
11. TIGHTEN TWIST-OFF NUTS IN ALTERNATING MANNER, SHEARING OFF NUTS.
12. MEGALUG, STARGRIP, (OR APPROVED EQUAL) MAY BE RESET OR REUSED BY ASSEMBLY AS DESCRIBED ABOVE AND TORQUE WEDGE BOLTS TO 90 FT LBS.
13. ANY PLACE A RESTRAINED FITTING IS CALLED OUT ON THE DRAWINGS THE ADJOINING PIPE JOINTS SHALL ALSO BE RESTRAINED TO A DISTANCE IN BOTH DIRECTIONS FROM THE DESIGNATED FITTING AS INDICATED IN THIS TABLE.

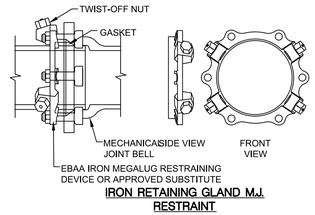


VERTICAL RESTRAINT

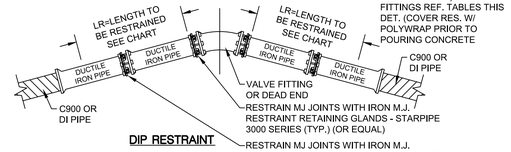


90° EL M.J. W/ CONCRETE BLOCKING (REF. CONCRETE BLOCKING DET.) AND RES. FITTINGS REF. TABLES THIS DET. (COVER RES. W/ POLYWRAP PRIOR TO POURING CONCRETE

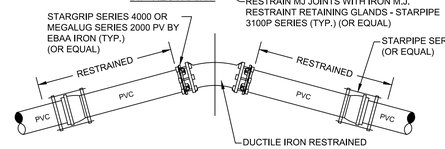
NOMINAL PIPE SIZE (INCHES)	NUMBER OF TWIST-OFF NUTS	NUMBER OF T-BOLTS	RATED PRESSURE
3	2	4	350 PSI
4	2	4	350 PSI
6	3	6	350 PSI
8	4	6	350 PSI
10	6	8	350 PSI
12	8	8	350 PSI
16	12	12	350 PSI
18	12	12	250 PSI
24	16	16	250 PSI
30	20	20	250 PSI
36	24	24	250 PSI
42	28	28	250 PSI

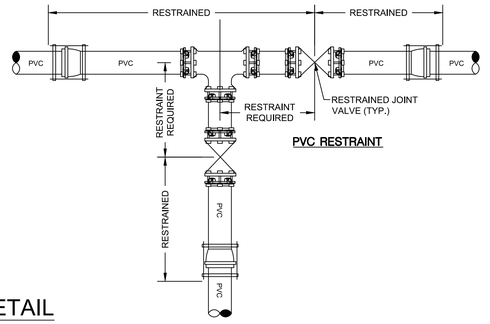


IRON RETAINING GLAND M.J. RESTRAINT



DIP RESTRAINT





PVC RESTRAINT

JOINT RESTRAINT TABLE - PVC

RESTRAIN ALL JOINTS WITHIN THESE LENGTHS (LF EA. SIDE OF FITTING)

PIPE SIZE (INCHES)	11 1/4 BEND	22 1/2 BEND	45 BEND	90 BEND	DEAD END/ VALVE	REDUCER	VERT. 45 BEND U/L
6"	4	8	17	41	99	6"x8" 54'	41'/17'
8"	6	11	22	53	129	8"x12" 97'	54'/22'
12"	8	15	31	73	182	12"x16" 99'	76'/31'
16"	10	19	39	93	233	16"x20" 99'	97'/39'
20"	11	22	46	111	282	20"x24" 99'	117'/46'
24"	13	26	53	127	328	-	136'/53'

JOINT RESTRAINT TABLE - DIP

RESTRAIN ALL JOINTS WITHIN THESE LENGTHS (LF EA. SIDE OF FITTING)

PIPE SIZE (INCHES)	11 1/4 BEND	22 1/2 BEND	45 BEND	90 BEND	DEAD END/ VALVE	REDUCER	VERT. 45 BEND U/L
6"	3	6	13	30	54	6"x8" 54'	23'/13'
8"	4	8	17	39	70	8"x12" 97'	29'/17'
12"	6	11	23	55	98	12"x16" 99'	41'/23'
16"	7	14	29	69	126	16"x20" 99'	52'/29'
20"	9	17	35	83	152	20"x24" 99'	63'/35'
24"	10	19	40	96	177	-	73'/40'

CALCULATION CONDITIONS:
TRENCH = TYPE 3
SOIL TYPE = ML
DEPTH = 3 FEET
TEST PRESSURE = 150 PSI
SAFETY FACTOR = 2.0

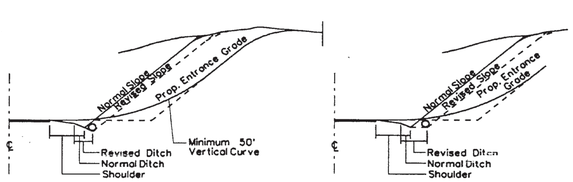
RESTRAINED PIPE DETAIL

NOT TO SCALE

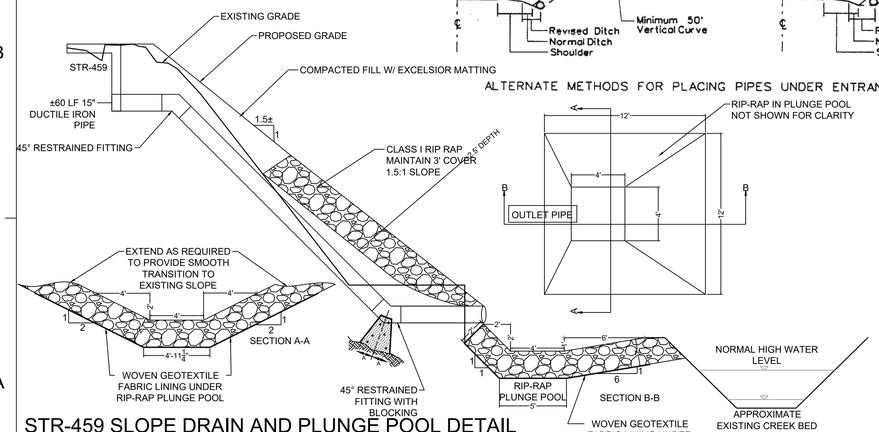
STANDARD PRIVATE SUBDIVISION ROAD/STREET ENTRANCE

NTS

NOTE:
1. ENTRANCE DETAILS SHOWN ON THIS SHEET MAYBE MODIFIED TO MEET SPECIFIC SITE REQUIREMENTS AS DIRECTED OR APPROVED BY THE ENGINEER.
2. ALL ENTRANCE GRADES SHALL START BACK OF THE SHOULDER LINE. IF DRAINAGE IS NECESSARY, THE DITCH LINE MAY BE MOVED BACK TO PROVIDE AT LEAST 9" OF COVER OVER PIPE, AS SHOWN AT RIGHT.
3. ENTRANCE SHALL BE PAVED TO A MINIMUM WIDTH OF 24'.
4. ENTRANCE GRADES ARE TO BE SMOOTHLY TIED INTO THE ROADWAY BY ROUNDING AS NECESSARY.
5. MINIMUM RADIUS TO BE 25', INCREASED RADIUS MAY BE REQUIRED BY LOCAL ORDINANCE, RESIDENT OR DISTRICT TRAFFIC ENGINEER.
6. ENTRANCES IN FILL TO BE SAME AS ABOVE EXCEPT LOCATION OF CULVERT (WHEN NECESSARY).



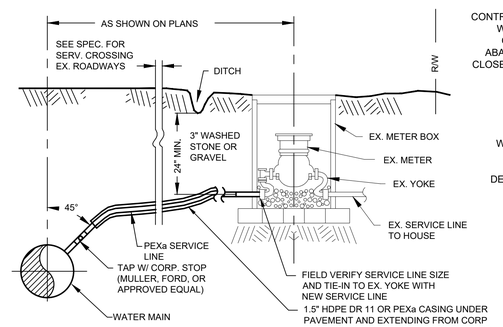
ALTERNATE METHODS FOR PLACING PIPES UNDER ENTRANCES



STR-459 SLOPE DRAIN AND PLUNGE POOL DETAIL

NTS

NOTE:
1. INSTALL CLASS I RIP-RAP APPROX. 15-20' UP BANK WITH A 1.5:1 SLOPE AND ±2.5' DEPTH.
2. REMAINDER OF SLOPE TO HAVE COMPACTED FILL WITH EXCELSIOR MATTING.
3. CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION OF INLET INVERT PRIOR TO INSTALLING NEW LINE WORK.
4. WOVEN GEOTEXTILE FABRIC TO BE INSTALLED UNDER RIP-RAP PLUNGE POOL.
5. LOW LEVEL CREEK FLOW TO BE AT LOWER ELEVATION THAN BOTTOM OF RIP-RAP PLUNGE POOL.



NOTES:
1. WHEN TWO HOUSES ARE SERVED FROM A SINGLE SERVICE LINE THE CORP. STOP & SERVICE LINE SHALL BE 1" & SHALL EXTEND WITHIN 24" OF METER BOX (DUAL ARRANGEMENT) & SHALL BE SPLIT W/ A 1" x 3/4" x 3/4" TEE.

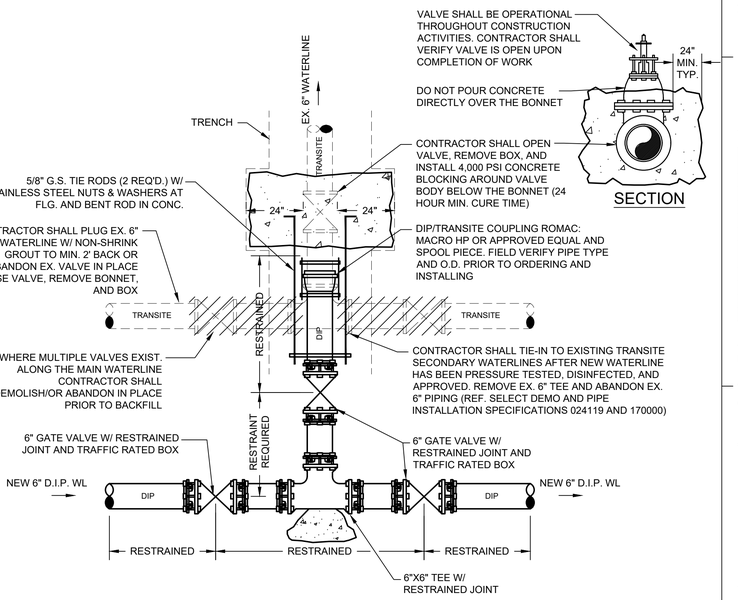
2. CONTRACTOR SHALL FURNISH ADAPTORS, FITTINGS, ETC. AS NEEDED FOR CONNECTING NEW SERVICE ITEMS TO EX. YOKE/METER SETTER.

3. TRACER WIRE TO BE INSTALLED AND TERMINATED IN METER BOX.

4. CONTRACTOR TO EXCAVATE ON THE PRIVATE SIDE OF THE METER BOX WHEN MAKING TIE-IN TO DETERMINE RESIDENTIAL PIPE MATERIAL. HCSA WILL DOCUMENT TO PROVIDE AN INVENTORY FOR THEIR LEAD AND SERVICE LINE RECORDS.

TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE



NEW TO EXISTING 6" WATERLINE TIE-IN DETAIL

NTS

NOTE:
1. REF. SITE PLAN AND PROFILES FOR NUMBER OF ISOLATION VALVES AND LOCATION.

2. CONTRACTOR SHALL FIELD VERIFY VERT. AND HORIZ. LOCATION OF EX. LINE AT TIE-IN LOCATION PRIOR TO INSTALLING NEW LINE WORK.

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2022
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

DETAILS

PROJECT NO. 50083060

C-302

SHEET NO. 0 OF ----

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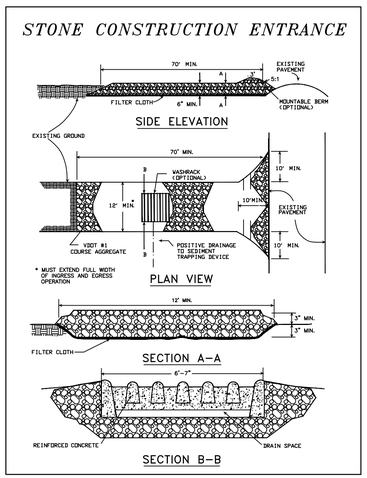

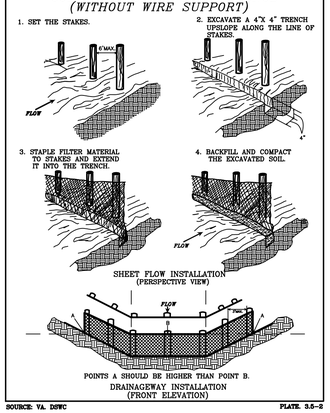

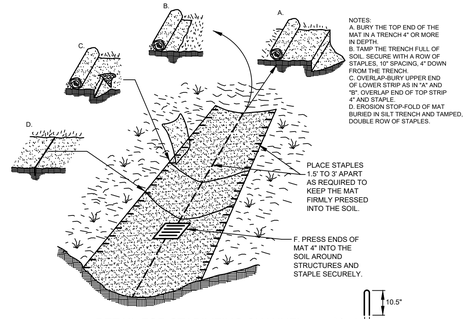

1992 3.32

STD & SPEC 3.32

PERMANENT SEEDING

DEFINITION

THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED.

PURPOSES

1. TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS.
2. TO PERMANENTLY STABILIZE DISTURBED AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS.
3. TO IMPROVE WILDLIFE HABITAT.
4. TO ENHANCE NATURAL BEAUTY.

CONDITIONS WHERE PRACTICE APPLIES

1. DISTURBED AREAS WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL.
2. ROUGH-GRADED AREAS WHICH WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE.

LAND USE: A PRIME CONSIDERATION IN SELECTING WHICH PLANTS TO ESTABLISH IS THE INTENDED USE OF THE LAND. ALL OF THESE USES - RESIDENTIAL, INDUSTRIAL, COMMERCIAL, RECREATIONAL - CAN BE SEPARATED INTO TWO MAJOR CATEGORIES: HIGH-MAINTENANCE AND LOW MAINTENANCE.

HIGH-MAINTENANCE AREAS WILL BE MOWED FREQUENTLY, LIMED AND FERTILIZED REGULARLY, AND WILL EITHER RECEIVE INTENSE USE (e.g., ATHLETICS) OR REQUIRE MAINTAINING TO AN AESTHETIC STANDARD (HOME LAWNS). GRASSES USED FOR THESE SITUATIONS MUST BE FINE-LEAVED AND ATTRACTIVE IN APPEARANCE, ABLE TO FORM TIGHT SOD, AND BE LONG-LIVED PERENNIALS. THEY MUST BE WELL-ADAPTED TO THE GEOGRAPHIC AREA WHERE THEY ARE PLANTED, BECAUSE CONSTANT MOWING PUTS TURF UNDER GREAT STRESS. SITES WHERE HIGH-MAINTENANCE VEGETATIVE COVER IS DESIRABLE INCLUDE HOMES, INDUSTRIAL PARKS, SCHOOLS, CHURCHES, ATHLETIC PLAYING SURFACES AS WELL AS SOME RECREATIONAL AREAS.

LOW-MAINTENANCE AREAS WILL BE MOWED INFREQUENTLY OR NOT AT ALL; AND FERTILIZER MAY NOT BE APPLIED ON A REGULAR BASIS; THE AREAS WILL NOT BE SUBJECTED TO INTENSE USE, NOR REQUIRED TO HAVE A UNIFORM APPEARANCE. THESE PLANTS MUST BE ABLE TO PERSIST WITH LITTLE MAINTENANCE OVER LONG PERIODS OF TIME. GRASS AND LEGUME MIXTURES ARE FAVORED FOR THESE SITES BECAUSE LEGUMES ARE CAPABLE OF FIXING NITROGEN FROM THE AIR FOR THEIR OWN USE, AND THE USE OF THE PLANTS AROUND THEM. SUCH MIXED STANDS ARE BETTER ABLE TO WITHSTAND ADVERSE CONDITIONS. SITES WHICH WOULD BE SUITABLE FOR LOW-MAINTENANCE VEGETATION INCLUDE STEEP SLOPES, STREAM OR CHANNEL BANKS, SOME COMMERCIAL PROPERTIES, AND "UTILITY TURF" AREAS SUCH AS ROADBANKS.

TABLE 3.32-D

SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

MINIMUM CARE LAWN		
- COMMERCIAL OR RESIDENTIAL	175-200 LBS./AC.	
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE		95-100%
- IMPROVED PERENNIAL RYEGRASS		0-5%
- KENTUCKY BLUEGRASS		0-5%
HIGH-MAINTENANCE LAWN		200-250 LBS./AC.
- KENTUCKY 31 OR TURF-TYPE FESCUE		100%
GENERAL SLOPE (3:1 OR LESS)		
- KENTUCKY 31 FESCUE		128 LBS.
- RED TOP GRASS		2 LBS.
- SEASONAL NURSE CROP *		20 LBS.
		150 LBS./AC.
LOW-MAINTENANCE SLOPE (STEEPER THAN 3:1)		
- KENTUCKY 31 FESCUE		108 LBS.
- RED TOP GRASS		2 LBS.
- SEASONAL NURSE CROP *		20 LBS.
- CROWNVETCH **		20 LBS.
		150 LBS./AC.

* USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:

FEBRUARY 16TH THROUGH APRIL	ANNUAL RYE
MAY 1ST THROUGH AUGUST 15TH	FOXTAIL MILLET
AUGUST 16TH THROUGH OCTOBER	ANNUAL RYE
NOVEMBER THROUGH FEBRUARY 15TH	WINTER RYE

** SUBSTITUTE SERICEA LESPEDEZA FOR CROWNVETCH EAST OF FARMVILLE, VA. (MAY THROUGH SEPTEMBER USE HULLED SERICEA, ALL OTHER PERIODS, USE UNHULLED SERICEA). IF FLATPEA IS USED IN LIEU OF CROWNVETCH, INCREASE RATE TO 30LBS./ ACRE. ALL LEGUME SEED MUST BE PROPERLY INOCULATED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW-MANTENANCE MIX DURING WARMER SEEDING PERIODS; ADD 10-20 LBS./ACRE IN MIXES.

3.32

LIME AND FERTILIZER

LIME AND FERTILIZER NEEDS SHOULD BE DETERMINED BY SOIL TESTS. SOIL TESTS MAY BE PERFORMED BY THE COOPERERATIVE EXTENSION SERVICE SOIL TESTING LABORATORY AT VPI & SU, OR BY A REPUTABLE COMMERCIAL LABORATORY. INFORMATION CONCERNING THE STATE SOIL TESTING LABORATORY IS AVAILABLE FROM COUNTY EXTENSION AGENTS.

UNDER UNUSUAL CONDITIONS WHERE IT IS NOT POSSIBLE TO OBTAIN A SOIL TEST, THE FOLLOWING SOIL AMENDMENTS WILL BE APPLIED:

LIME

PIEDMONT AND APPALACHIAN REGION: 2 TONS/ACRE PULVERIZED AGRICULTURAL GRADE LIMESTONE (90 LBS./1000 FT.^{2})

NOTE: AN AGRICULTURAL GRADE OF LIMESTONE SHOULD ALWAYS BE USED.

FERTILIZER

MIXED GRASSES & LEGUMES: 100 LBS./ACRE 10-20-10 OR EQUIVALENT NUTRIENTS (23 LBS./1000 FT.^{2}).

LEGUME STANDS ONLY: 1000 LBS./ACRE 5-20-10 (23 LBS./1000 FT.^{2}) IS PREFERRED; HOWEVER, 1000 LBS./ACRE OF 10-20-10 OR EQUIVALENT MAY BE USED.

GRASS STANDS ONLY: 1000 LBS./ACRE 10-20-10 OR EQUIVALENTS, (23 LBS./1000 FT.^{2}).

OTHER FERTILIZER FORMULATIONS, INCLUDING SLOW-RELEASE SOURCES OF NITROGEN (PREFERRED FROM A WATER QUALITY STANDPOINT), MAY BE USED PROVIDED THEY CAN SUPPLY THE SAME AMOUNTS AND PROPORTIONS OF PLANT NUTRIENTS.

MAINTENANCE OF NEW SEEDING

IN GENERAL, A STAND OF VEGETATION CANNOT BE DETERMINED TO BE FULLY ESTABLISHED UNTIL IT HAS BEEN MAINTAINED FOR ONE FULL YEAR AFTER PLANTING.

IRRIGATION: NEW SEEDINGS SHOULD BE SUPPLIED WITH ADEQUATE MOISTURE. SUPPLY WATER AS NEEDED, ESPECIALLY LATE IN THE SEASON, IN ABNORMALLY HOT OR DRY WEATHER, OR ON ADVERSE SITES. WATER APPLICATION RATES SHOULD BE CONTROLLED TO PREVENT EXCESSIVE RUNOFF. INADEQUATE AMOUNTS OF WATER MAY BE MORE HARMFUL THAN NO WATER.

RE-SEEDING: INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RE-SEEDINGS WITHIN THE SAME SEASON, IF POSSIBLE.

a. IF VEGETATIVE COVER IS INADEQUATE TO PREVENT RILL EROSION, OVER-SEED AND FERTILIZE IN ACCORDANCE WITH SOIL TEST RESULTS.

b. IF A STAND HAS LESS THAN 40% COVER, RE-EVALUATE CHOICE OF PLANT MATERIALS AND QUANITIES OF LIME AND FERTILIZER. THE SOIL MUST BE TESTED TO DETERMINE IF ACIDITY OR NUTRIENT IMBALANCES ARE RESPONSIBLE. RE-ESTABLISH THE STAND FOLLOWING SEEDBED PREPARATION AND SEEDING RECOMMENDATIONS.

FERTILIZATION: COOL SEASON GRASSES SHOULD BEGIN TO BE FERTILIZED 90 DAYS AFTER PLANTING TO ENSURE PROPER STAND AND DENSITY. WARN SEASON FERTILIZATION SHOULD BEGIN AT 30 DAYS AFTER PLANTING.

APPLY MAINTENANCE LEVELS OF FERTILIZER AS DETERMINED BY SOIL TEST. IN THE ABSENCE OF A SOIL TEST, FERTILIZATION SHOULD BE AS FOLLOWS:

COOL SEASON GRASSES

4 LBS. NITROGEN (N)
1 LB. PHOSPHORUS (P)
2 LBS. POTASH (K)
} PER 1000 FT.^{2} PER YEAR

SEVENTY-FIVE PERCENT OF THE TOTAL REQUIREMENTS SHOULD BE APPLIED BETWEEN SEPTEMBER 1 AND DECEMBER 31st. THE BALANCE SHOULD BE APPLIED DURING THE REMAINDER OF THE YEAR. MORE THAN 1 LB. OF SOLUBLE NITROGEN PER 1000 FT.^{2} SHOULD NOT BE APPLIED AT ANY ONE TIME.

WARM SEASON GRASSES

APPLY 4-5 LBS. NITROGEN (N) BETWEEN MAY 1 AND AUGUST 15th PER 1000 FT.^{2} PER YEAR.

PHOSPHOROUS (P) AND POTASH (K) SHOULD ONLY BE APPLIED ACCORDING TO SOIL TEST.

NOTE: THE USE OF SLOW-RELEASE FERTILIZER FORMULATIONS FOR MAINTENANCE OF TURF IS ENCOURAGED TO REDUCE THE NUMBER OF APPLICATIONS AND THE IMPACT ON GROUNDWATER.

SEED QUALITY CRITERIA

WHERE CERTIFIED SEED IS NOT AVAILABLE, THE MINIMUM REQUIREMENTS FOR GRASS AND LEGUME SEED USED IN VEGETATIVE SETABLISHMENT ARE AS FOLLOWS:

a. ALL TAGS ON CONTAINERS OF SEED SHALL BE LABELED TO MEET THE REQUIREMENTS OF THE STATE SEED LAW.

b. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY THAT EMPLOYS A REGISTERED SEED TECHNOLOGIST OR BY A STATE SEED LAB.

c. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN TWELVE (12) MONTHS.

d. INOCULANT - THE INOCULANT ADDED TO LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. TWICE THE SUPPLIER'S RECOMMENDED RATE OF INOCULANT WILL BE USED ON DRY SEEDINGS; FIVE TIMES THE RECOMMENDED RATE IF HYDROSEEDED.

e. THE QUALITY OF THE SEED USED SHALL BE SHOWN ON THE BAG TAGS TO CONFORM TO THE GUIDELINES IN TABLE 3.32-E (VA. EROSION AND SEDIMENT CONTROL HANDBOOK)

STD & SPEC 3.02
TEMPORARY STONE
CONSTRUCTION ENTRANCE

CE

CONSTRUCTION SPECIFICATIONS

THE AREA OF THE ENTRANCE MUST BE EXCAVATED A MINIMUM OF 3 INCHES AND MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE FILTER FABRIC UNDERLINER WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE.

FOLLOWING THE INSTALLATION OF THE FILTER CLOTH, THE STONE SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED ACCORDING TO SPECIFICATIONS. CONVEYANCE OF SURFACE WATER UNDER ENTRANCE, THROUGH CULVERTS, SHALL BE PROVIDED AS REQUIRED. IF SUCH CONVEYANCE IS IMPOSSIBLE, THE CONSTRUCTION OF A "MOUNTABLE" BERM WITH 5:1 SLOPES WILL BE PERMITTED.

THE FILTER CLOTH UTILIZED SAHLL BA A WOVEN OR NONWOVEN FABRIC CONSISTING ONLY OF CONTINUOUS CHAIN POLYMERIC FILAMENTS OR YARNS OF POLYESTER. THE FABRIC SHALL BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS, BE MILDEW AND ROT RESISTANT, AND CONFORM TO THE PHYSICAL PROPERTIES NOTED IN TABLE 3.02-A.

MAINTENANCE

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.

STONE CONSTRUCTION ENTRANCE

SOURCE: MARYLAND WATER RESOURCES ADMINISTRATION VA. DSWC

PLATE. 3.2–1

STD & SPEC 3.05

SILT FENCE

SF

CONSTRUCTION SPECIFICATIONS

MATERIALS

1. SYNTHETIC FILTER FABRIC SHALL BE A PREVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS NOTED IN TABLE 3.05-B.
2. SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0° F TO 120° F.
3. IF WOODEN STAKES ARE UTILIZED FOR SILT FENCE CONSTRUCTION, THEY MUST HAVE A DIAMETER OF 2 INCHES WHEN OAK IS USED AND 4 INCHES WHEN PINE IS USED. WOODEN STAKES MUST HAVE A MINIMUM LENGTH OF 5 FEET.
4. IF STEEL POSTS (STANDARD 'U' OR 'T' SECTION) ARE UTILIZED FOR SILT FENCE CONSTRUCTION, THEY MUST HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT AND SHALL HAVE A MINIMUM LENGTH OF 5 FEET.
5. WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD-STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 14 GAUGE AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES.

INSTALLATION

1. THE HEIGHT OF A SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT EXCEED 34 INCHES ABOVE GROUND ELEVATION.
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE UNAVOIDABLE, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
3. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4-INCHES WIDE AND 4-INCHES DEEP ON THE UPSLOPE SIDE OF THE PROPOSED LOCATION OF THE MEASURE.
4. WHEN WIRE SUPPORT IS USED, STANDARD-STRENGTH FILTER CLOTH MAY BE USED. POSTS FOR THIS TYPE OF INSTALLATION SHALL BE PLACED A MAXIMUM OF 10-FEET APART (SEE PLATE 3.05-1). THE WIRE MESH FENCE MUST BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF TWO INCHES AND SHALL NOT EXTEND MORE THAN 34-INCHES ABOVE THE ORIGINAL GROUND SURFACE. THE STANDARD-STRENGTH FABRIC SHALL BE STAPLED OR WIRED TO THE WIRE FENCE, AND 8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
5. WHEN WIRE SUPPORT IS NOT USED, EXTRA-STRENGTH FILTER CLOTH SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6-FEET APART (SEE PLATE 3.05-2). THE FILTER FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING ONE INCH LONG (MINIMUM) HEVY-DUTY WIRE STAPLES OR TIE WIRES AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT BE STAPLED TO EXISTING TREES. THIS METHOD OF INSTALLATION HAS BEEN FOUND TO BE MORE COMMONPLACE THAN #4.
6. IF A SILT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, THE MEASURE MUST BE OF SUFFICIENT LENGTH TO ELIMINATE ENDFLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE WITH THE ENDS ORIENTED UPSLOPE (SEE PLATE 3.05-2). EXTRA-STRENGTH FILTER FABRIC SHALL BE USED FOR THIS APPLICATION WITH A MAXIMUM 3-FOOT SPACING OF POSTS. ALL OTHER INSTALLATION REQUIREMENTS NOTED IN #5 APPLY.
7. THE 4-INCH BY 4-INCH TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
8. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING.
3. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

TABLE 3.05-B
PHYSICAL PROPERTIES OF
FILTER FABRIC IN SILT FENCE

PHYSICAL PROPERTY	TEST	REQUIREMENTS
FILTERING EFFICIENCY	ASTM 5141	75% (MINIMUM)
TENSILE STRENGTH AT 20%(MAX.) ELONGATION*	VTM-52	EXTRA STRENGTH 50 LBS./LINEAR INCH (MINIMUM) STANDARD STRENGTH- 30 LBS./LINEAR INCH (MINIMUM)
FLOW RATE	ASTM 5141	0.20 GAL. SQ.FT./ MINUTE (MINIMUM)
ULTRAVIOLET RADITION STABILITY %	ASTM-G-26	90% (MINIMUM)

* REQUIREMENTS REDUCED BY 50% AFTER SIX MONTHS OF INSTALLATION.

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

1. SET THE STAKES.
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

SHEET FLOW INSTALLATION (PERSPECTIVE VIEW)

POINTS A SHOULD BE HIGHER THAN POINT B.

DRAINAGEWAY INSTALLATION (FRONT ELEVATION)

SOURCE: VA. DSWC PLATE. 3.5–2

NOTES:
A. BURY THE TOP END OF THE MAT IN A TRENCH 4" OR MORE IN DEPTH.
B. TAMP THE TRENCH FULL OF SOIL. SECURE WITH A ROW OF STAPLES, 10" SPACING, 4" DOWN FROM THE TRENCH.
C. OVERLAP-BURY UPPER END OF LOWER STRIP AS IN "A" AND "B". OVERLAP END OF TOP STRIP 4" AND STAPLE.
D. EROSION STOP-FOLD OF MAT BURIED IN SILT TRENCH AND TAMPED, DOUBLE ROW OF STAPLES.

DETAIL FOR STABILIZING CHANNEL WITH EXCELSIOR MAT

NTS

TYPICAL STAPLES

NTS

STD & SPEC 3.31

TEMPORARY SEEDING

TS

PURPOSES

1. TO REDUCE EROSION AND SEDIMENTATION BY STABILIZING DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS.
2. TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM OR OFF-SITE AREAS, AND TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED.

SPECIFICATIONS

PRIOR TO SEEDING, INSTALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES, WATERWAYS, AND BASINS.

PLANT SELECTION

SELECT PLANTS APPROPRIATE TO THE SEASON AND SITE CONDITIONS FROM TABLE 3.31-B AND 3.31-C. NOTE THAT TABLE 3.31-B PRESENTS PLANTS WHICH CAN BE USED WITHOUT EXTENSIVE EVALUATION OF SITE CONDITIONS; TABLE 3.31-C PRESENTS MORE IN-DEPTH INFORMATION ON THE PLANT MATERIALS.

SEEDBED PREPARATION

TO CONTROL EROSION ON BARE SOIL SURFACES, PLANTS MUST BE ABLE TO GERMINATE AND GROW, SEEDBED PREPARATION IS ESSENTIAL.

1. LIMING: AN EVALUTION SHOULD BE CONDUCTED TO DETERMINE IF LIME IS NECESSARY FOR TEMPORARY SEEDING. IN MOST SOILS, IT TAKES UP TO 6 MONTHS FOR pH ADJUSTMENTS TO OCCUR FOLLOWING THE APPLICATION OF LIME. THEREFORE, IT MAY BE DIFFICULT TO JUSTIFY THE COST OF LIMING A TEMPORARY SITE, ESPECIALLY WHEN THE SOIL WILL LATER BE MOVED AND REGRADED. THE FOLLOWING TABLE MAY BE USED TO DETERMINE THE ACTUAL NEED ALONG WITH SUGGESTED APPLICATION RATES.
2. FERTILIZER: SHALL BE APPLIED AS 600 LBS./ACRE OF 10-20-10 (14 LBS. /1,000 SQ. FT.) OR EQUIVALENT NUTRIENTS. LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2 TO 4 INCHES OF THE SOIL IF POSSIBLE.
3. SURFACE ROUGHENING: IF THE AREA HAS BEEN RECENTLY LOOSENED OR DISTURBED, NO FUTHER ROUGHENING IS REQUIRED. WHEN THE AREA IS COMPACTED, CRUSTED, OR HARDENED, THE SOIL SURFACE SHALL BE LOOSENED BY DISCING, RAKING, HARROWING, OR OTHER ACCEPTABLE MEANS (SEE SURFACE ROUGHENING, STD. & SPEC. 3.29).
4. TRACKING: TRACKING WITH BULLDOZER CLEATS IS MOST EFFECTIVE ON SANDY SOILS. THIS PRACTICE OFTEN CAUSES UNDUE COMPACTION OF THE SOIL SURFACE, ESPECIALLY IN CLAYEY SOILS, AND DOES NOT AID PLANT GROWTH AS EFFECTIVELY AS OTHER METHODS OF SURFACE ROUGHENING.

SEEDING

SEED SHALL BE EVENLY APPLIED WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER. SMALL GRAINS SHALL BE PLANTED NO MORE THAN ONE INCH DEEP. GRASSES AND LEGUMES SHALL BE PLANTED WITH NO LESS THAN 1/4" SOIL COVER.

MULCHING

1. SEEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED ACCORDING TO MULCHING, STD. & SPEC. 3.35, EXCEPT THAT HYDROMULCHES (FIBER MULCH) WILL NOT BE CONSIDERED ADEQUATE. STRAW MULCH SHOULD BE USED DURING THESE PERIODS.
2. TEMPORARY SEEDINGS MADE UNDER FAVORABLE SOIL AND SITE CONDITIONS DURING OPTIMUM SPRING AND FALL SEEDING DATES MAY NOT REQUIRE MULCH.

RE-SEEDING

AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION WILL BE RESEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.

TABLE 3.31-B
ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS
"QUICK REFERENCE FOR ALL REGIONS"

PLANTING DATES	SPECIES	RATE (lbs./acre)
SEPT. 1-FEB. 15	50/50 MIX OF ANNUAL RYEGRASS LOLIUM MULTI-FLORUM & CEREAL (WINTER) RYE (SECALE CEREALE)	50 - 100
FEB. 16-APR. 30	ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM)	60 - 100
MAY1-AUG. 31	GERMAN MILLET (SETARIA ITALICA)	50

TABLE 3.31-C
TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

SPECIS	SEEDING RATE		NORTH[a]			SOUTH[b]			PLANT CHARACTERISTICS
	ACRE	1000 ft^2	3/1 to 4/30	5/1 to 8/15	8/15 to 11/1	2/15 to 4/30	5/1 to 9/1	9/1 to 11/15	
OATS (AVENA SATIVA)	3 bu.(up to 100 lbs.,not less than 50 lbs.)	2 lbs	X	–	–	X	–	–	Use spring varities (e.g., Noble)
RYE[d] (SECALE CEREALE)	2 bu.(up to 110 lbs.,not less than 50 lbs.)	2.5 lbs	X	–	X	X	–	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture.
GERMAN MILLET (SETARIA ITALICA)	50 lbs	approx. 1 lb.	–	X	–	–	X	–	Warm-season annual. Dies at first frost. May be added to summer mixes.
ANNUAL RYEGRASS[c] (LOLIUM MULTI-FLORUM)	60 lbs	1.5 lbs	X –		X	X–		X	May be added in mixes. Will mow out of most stands.
WEEPING LOVEGRASS (ERAGROSTIS CURVULA)	15 lbs	5.5 ozs.	–	X	–	–	X	–	Warm-season perennial. May bunch. Tolerates hot, dry slopes and acids, infertile soils. May be added to mixes.
KOREAN LESPEDEZA[c] (LESPEDEZA STIPULACEA)	25 lbs	approx. 1.5 lbs.	X	X	–	X	X	–	Warm season annual legume. Tolerates acid soils. May be added to mixes.

a NOUTHERN PIEDMONT AND MOUNTAIN REGION. SEE PLATES 3.22-1 AND 3.22-2.
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 FOR FALL SEEDING.
X MAY BE PLANTED BETWEEN THESE DATES.
– MAY NOT BE PLANTED BETWEEN THESE DATES.

STD & SPEC 3.07

STORM DRAIN INLET PROTECTION

IP

CONSTRUCTION SPECIFICATIONS

SILT FENCE DROP INLET PROTECTION

1. SILT FENCE SHALL CONFORM TO THE CONSTRUCTION SPECIFICATIONS FOR 'EXTRA STRENGTH' FOUND IN TABLE 3.05-B AND SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID JOINTS.
2. FOR STAKES, USE 2x4-INCH WOOD (PREFERRED) OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
3. SPACE STAKES EVENLY AROUND PERIMETER OF THE INLET A MAXIMUM OF 3-FEET APART, AND SECURELY DRIVE THEM INTO GROUND, APPROXIMATELY 18-INCHES DEEP (SEE PLATE 3.07-1).
4. TO PROVIDE NEEDED STABILITY TO THE INSTALLATION, FRAME WITH 2x4 INCH WOOD STRIPS AROUND THE CREST OF THE OVERFLOW AREA AT A MAXIMUM OF 1 1/2 FEET ABOVE THE DROP INLET CREST.
5. PLACE BOTTOM 12 INCHES OF THE FABRIC IN A TRENCH (SEE PLATE 3.07-1) AND BACKFILL THE TRENCH WITH 12 INCHES OF COMPACTED SOIL.
6. FASTEN FABRIC SECURELY BY STAPLES OR WIRE TO THE STAKES AND FRAME. JOINTS MUST BE OVERLAPPED TO THE NEXT STAKE.
7. IT MAY BE NECESSARY TO BUILD A TEMPORARY DIKE ON THE DOWNSLOPE SIDE OF THE STRUCTURE TO PREVENT BYPASS FLOW.

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER

1. PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PREIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12-INCHES HIGH AND NO GREATER THAN 24-INCHES HIGH.
2. WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
3. STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER.
4. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

MAINTENANCE

1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SILT FENCE DROP INLET PROTECTION

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 IN STREET OR HIGHWAY MEDIANS.

SOURCE: NORTH CAROLINA SEDIMENT CONTROL COMMISSION

PLATE 3.7–1

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER

SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.
* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

SOURCE: VA. DSWC

ILLUSTRATION. 3.7–8

Dewberry

Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND
HODGES STREET
WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023

KEY PLAN

SCALE

AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

EROSION AND SEDIMENT CONTROL DETAILS

PROJECT NO. 50083060

C-303

SHEET NO. 0 OF ----

6/15/2020 8:06:50 AM
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EROSION AND SEDIMENT CONTROL NARRATIVE
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
TOWN OF SOUTH BOSTON, VA
APRIL 1, 2022

PROJECT DESCRIPTION: THIS PROJECT FOCUSES ON IMPROVEMENTS TO WATERLINES AND SERVICE CONNECTION TIE-INS ALONG SEYMOUR DRIVE AND HODGES STREET IN THE TOWN OF SOUTH BOSTON, VA. THE SCOPE OF LAND DISTURBING ACTIVITIES INCLUDES THE FOLLOWING: SERVICE TIE-INS TO AN EXISTING 10" WATERLINE ALONG SEYMOUR DRIVE; INSTALLATION OF 6" DUCTILE IRON WATERLINE ALONG HODGES STREET; STORM WATER INLET STRUCTURE REPLACEMENT ALONG BOTH STREETS.

THE TOTAL DISTURBANCE IS 2.96 ACRES ±.

THIS PROJECT IS BEING SUBMITTED TO REQUEST EXEMPTION UNDER DEQ GUIDANCE MEMO NO. 15-2003. THIS PROJECT ABIDES BY ALL REQUIREMENTS TO BE A LINEAR UTILITY PROJECT, AND QUALIFIES TO BE EXEMPT FROM A STORMWATER MANAGEMENT PLAN:

a. THE PROJECT DOES NOT SIGNIFICANTLY ALTER THE PREDEVELOPMENT RUNOFF CHARACTERISTICS OF THE LAND SURFACE AFTER THE COMPLETION OF CONSTRUCTION AND FINAL STABILIZATION.
b. THE PROJECT IS MANAGED SO THAT LESS THAN ONE (1) ACRE OF LAND DISTURBANCE OCCURS ON A DAILY BASIS.
c. THE DISTURBED LAND WHERE WORK HAS BEEN COMPLETED IS ADEQUATELY STABILIZED ON A DAILY BASIS.
d. THE ENVIRONMENT IS PROTECTED FROM EROSION AND SEDIMENTATION DAMAGE ASSOCIATED WITH THE LAND-DISTURBING ACTIVITY.
e. THE OWNER AND/OR CONSTRUCTION ACTIVITY OPERATOR DESIGNS, INSTALLS, IMPLEMENTS, AND MAINTAINS POLLUTION PREVENTION MEASURES TO:
i. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS.
ii. MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON-SITE TO PRECIPITATION AND TO STORMWATER.
iii. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS AND IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES.
iv. PROHIBIT THE DISCHARGE OF WASTEWATER FROM THE WASHOUT OF CONCRETE.
v. PROHIBIT THE DISCHARGE OF WASTEWATER FROM THE WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS.
vi. PROHIBIT THE DISCHARGE OF FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.
f. THE OWNER AND/OR CONSTRUCTION ACTIVITY OPERATOR PROVIDES REASONABLE ASSURANCE TO DEQ OR THE LOCAL VSMP AUTHORITY THAT ALL OF THE ABOVE CONDITIONS WILL BE SATISFIED. THIS MAY BE ACCOMPLISHED BY INCORPORATING THESE CONDITIONS INTO AN EROSION AND SEDIMENT CONTROL PLAN DEVELOPED FOR THE PROJECT.

CONSTRUCTION SEQUENCE:
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO PERFORM ANY SCOPE OF WORK PRIOR TO COMMENCING WORK REQUIRING A PERMIT.
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND RESOURCES TO PERFORM THE WORK AS NECESSARY TO PROVIDE A COMPLETED PROJECT IN ACCORDANCE TO THE DESIGN INTENT OF THE ENGINEER AND AS PRESENTED IN THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO PERFORMING ANY LAND DISTURBANCE ACTIVITIES.
- THE NEW DUCTILE IRON WATERLINE, SERVICE CONNECTIONS, AND STORMWATER INLET STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN DOCUMENTS WITHIN THE LIMITS NOTED ON THE DRAWINGS. INSTALLATION OF THE NEW WATERLINE SHALL BE PERFORMED IN A MANNER WHICH DOES NOT DISTURB THE OPERATION OF THE EXISTING WATERLINE. IN THE EVENT THE EXISTING WATERLINE IS DAMAGED DUE TO CONSTRUCTION RELATED ACTIVITIES, THE CONTRACTOR SHALL TAKE ALL PROPER ACTIONS TO REPAIR THE LINE AND IMMEDIATELY BRING THE LINE BACK INTO SERVICE, CLEANUP AND PAY ALL FINES ASSOCIATED WITH THE DAMAGE. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY UTILITIES UNTIL THE EXISTING UTILITIES CAN BE BROUGHT BACK INTO FULL SERVICE.
- UPON COMPLETION OF THE INSTALLATION OF THE WATERLINE AND CONNECTIONS, ALL OPEN CUT AREAS WILL BE RESTORED WITH A PAVEMENT BASE COURSE IN PREPARATION FOR THE UPCOMING SCHEDULED PAVING. THE CONTRACTOR SHALL ADJUST ALL FINISHED GRADES ON SITE TO THOSE SHOWN WITHIN THE CONTRACT DRAWINGS.
- CARRY OUT FINAL GRADING, STABILIZATION, SEEDING, AND PLANTING.
- REMOVE EROSION AND SEDIMENT CONTROL MEASURES UPON SITE STABILIZATION.
- UPON ISSUANCE OF SUBSTANTIAL COMPLETION, THE CONTRACTOR SHALL FINISH ALL PUNCH LIST ITEMS AND PROVIDE ALL FINAL CLEANUP TO THE SITE TO RESTORE TO CONDITIONS AS INDICATED WITHIN THE CONSTRUCTION DOCUMENTS.

EXISTING SITE CONDITIONS: THE NEW WATERLINE WILL PARALLEL THE EXISTING WATERLINE ALONG HODGES STREET. THE EXISTING CONSTRUCTION WILL OCCUR ENTIRELY WITHIN VDOT RIGHT-OF-WAYS AND IT IS NOT ANTICIPATED TO OBTAIN EASEMENTS.

ADJACENT AREAS: MOST AREAS SURROUNDING THE PROPOSED CONSTRUCTION ARE RESIDENTIAL AREAS.

CRITICAL AREAS:

OFF-SITE AREAS: NO OFFSITE LAND DISTURBANCE ACTIVITIES WILL BE A PART OF THIS PROJECT.

EROSION CONTROL MEASURES: ALL EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, VDOT ROAD AND BRIDGE STANDARDS MANUAL. IF THE MEASURES AND DEVICES SPECIFIED DO NOT EFFECTIVELY CONTROL EROSION AND SEDIMENT LOADING, ADDITIONAL MEASURES MAY BE REQUIRED BY THE LOCAL SEDIMENT AND EROSION AND CONTROL OFFICE AND /OR ENGINEER. REFER TO E&S SHEET IN THE DRAWINGS FOR LOCATION OF THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES.

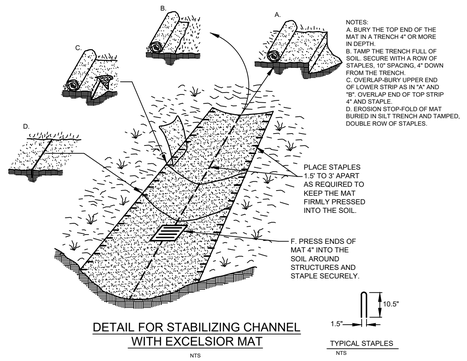
1. TEMPORARY CONSTRUCTION ENTRANCE - GRAVEL CONSTRUCTION ENTRANCES WILL BE INSTALLED AS SHOWN OF THE EROSION AND SEDIMENT CONTROL PLANS TO PREVENT TRACING OF MUD AND SILT ON EXISTING PAVEMENTS. WASHING, SWEEPING, ETC., AS NECESSARY WILL BE REQUIRED TO ENSURE THAT PAVEMENTS REMAIN CLEAN PER VA E&S STD.3.02.
2. TEMPORARY SEEDING - WILL BE INSTALLED WHENEVER CONSTRUCTION SCHEDULES DO NOT PERMIT PERMANENT SEEDING WITHIN THE OPTIMUM SEEDING DATES, AS SPECIFIED IN THE GENERAL NOTES OR WITHIN SEVEN DAYS ON AREAS DISTURBED THAT WILL HAVE NO CONSTRUCTION ACTIVITY FOR 14 DAYS OR LONGER. INSTALL PER VA E&S STD. 3.31.
3. PERMANENT SEEDING - WILL BE INSTALLED WITHIN THE OPTIMUM SEEDING DATES, AS SPECIFIED IN THE GENERAL NOTES BUT NO MORE THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON A PARTICULAR PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. THE EXCEPTION TO THIS REQUIREMENT ARE THE FOLLOWING: WHERE CONSTRUCTION ACTIVITIES WILL RESUME ON A PORTION OF THE SITE WITHIN 30 DAYS FROM WHEN THE CONSTRUCTION ACTIVITIES CEASED; AND WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER OR FROZEN GROUND, IN WHICH CASE, STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE. INSTALL PER VA E&S ST. 3.32.
4. TREE PROTECTION - TO BE USED TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL B EFFECTIVE FOR EROSION AND SEDIMENT CONTROL, WATERSHED PROTECTION, LANDSCAPE BEAUTIFICATION, DUST AND POLLUTION CONTROL, NOISE REDUCTION, SHADE AND OTHER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED FROM FOREST TO URBAN-TYPE USES. CONTRACTOR SHALL BE KNOWLEDGEABLE OF ALL RISKS ASSOCIATED WITH LAND DISTURBING ACTIVITIES IN THE VICINITY OF EXISTING TREES AS OUTLINED IN VA E&S STD. 3.38.
5. SILT FENCE - WILL BE INSTALLED AS SHOWN ON THE E&S PLAN TO PROTECT THE SITE AND ADJOINING PROPERTIES FROM SEDIMENT LOADING PER VA E&S STD. 3.05.
6. CULVERT INLET PROTECTION - WILL BE INSTALLED AS SHOWN ON THE PLANS TO PROTECT THE SYSTEM FROM SEDIMENT LOADING USING STONE AND/OR SILT FENCE TO FILTER WATER GOING INTO A CULVERT INLET STRUCTURE PER VA E&S STD. 3.08.

PERMANENT STABILIZATION: NO AREA SHALL REMAIN UNSTABILIZED FOR MORE THAN 14 DAYS, SEE THE TEMPORARY SEEDING DETAIL. ALSO SEE THE PERMANENT SEEDING DETAIL FOR PERMANENT STABILIZATION MEASURES.

STORMWATER RUNOFF CONSIDERATIONS/MANAGEMENT: THIS IS A LINEAR UTILITY MAINTENANCE PROJECT; PRE- AND POST- DEVELOPMENT RUNOFF CONDITIONS WILL BE UNALTERED BY THIS PROJECT. EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ABOVE AND ON THE PLANS WILL BE UTILIZED THROUGHOUT CONSTRUCTION FOR TEMPORARY LAND DISTURBING ACTIVITIES.

MAINTENANCE: SEE EROSION AND SEDIMENT CONTROL PLAN, AS WELL AS GENERAL NOTES ON PROJECT DRAWINGS AND DETAILS.

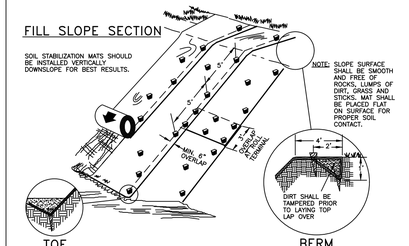
CALCULATIONS: NOT APPLICABLE. PRE- AND POST- DEVELOPMENT RUNOFF CONDITIONS WILL BE UNALTERED DUE TO CONSTRUCTION.
P:\50083060\ADM\PERMITS\2022.01.17 SEYMOUR&HODGES E&S NARRATIVE.DOCX

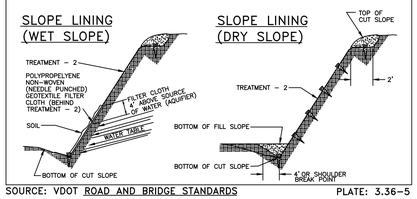


DETAIL FOR STABILIZING CHANNEL WITH EXCELSIOR MAT

NTS

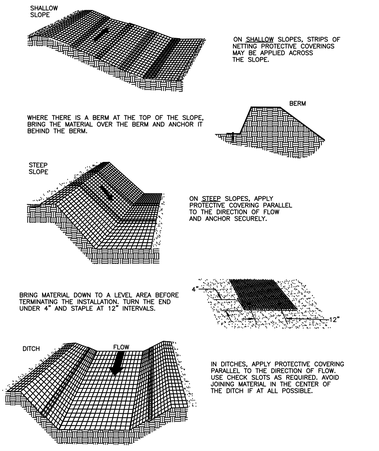
TYPICAL TREATMENT – 2 SOIL STABILIZATION MATTING SLOPE INSTALLATION





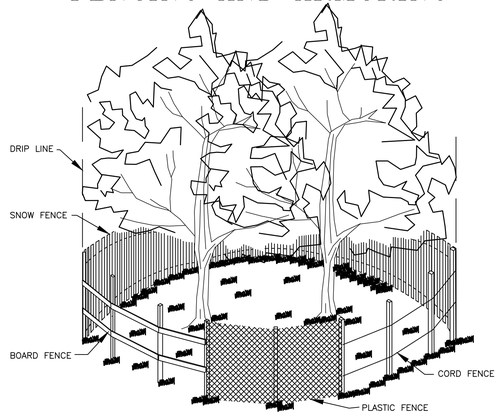
SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE: 3.36-5

TYPICAL ORIENTATION OF TREATMENT – 1 (SOIL STABILIZATION BLANKET)

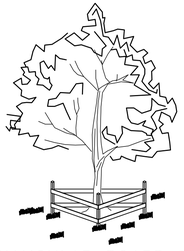


SOURCE: ADAPTED FROM LUDLOW PRODUCTS BROCHURE PLATE: 3.36-1

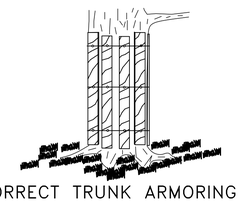
FENCING AND ARMORING



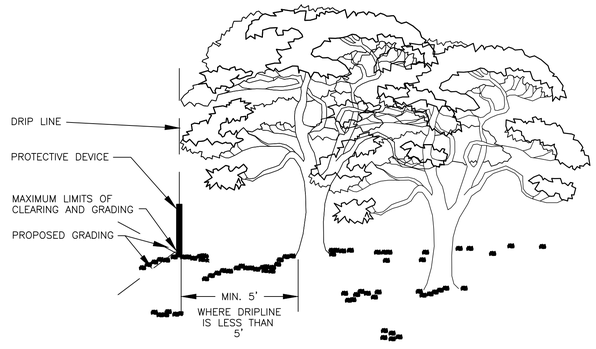
CORRECT METHODS OF TREE FENCING



TRIANGULAR BOARD FENCE



CORRECT TRUNK ARMORING



CONSTRUCTION OPERATIONS RELATIVE TO THE LOCATION OF PROTECTED TREES

Dewberry
Dewberry Engineers Inc.
551 Piney Forest Road
Danville, VA 24540-3353
434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE

EROSION AND SEDIMENT CONTROL DETAILS

PROJECT NO. 50083060

C-304

SHEET NO. 0 OF ----

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Engineers • Architects • Surveyors • Planners • Lab Analysts
817 Wilborn Avenue, Suite 200, South Boston, VA. 24592, (434) 572-3251 • FAX: (434) 572-1751, email: sobo@bandbcons.com

SOUTH BOSTON STORM INVENTORY

Structure # 277 Point # 5323
Location 30' W NW MAIN + SEY
Type CI Throat/Grate Length 6.5' Grid L-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 363.01

Measure down 4.67' Inv 15" RCP = 358.34 (out)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 278

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

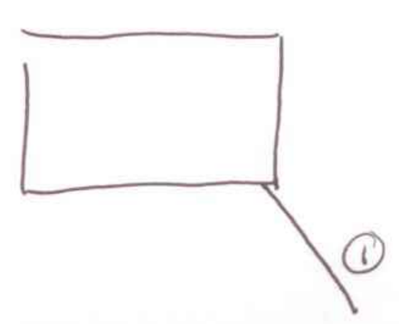
Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

NOTES: NEEDS CLEANING

Drawing



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SOUTH BOSTON STORM INVENTORY

Structure # 282 Point # 5328
Location 15' E NE SEYMOUR + MAIN
Type CI Throat/Grate Length 8' Grid L-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of BLOCK
Top Elevation 365.82

Measure down 5.53' Inv 24" RCP = 359.89 (out)
Condition: Good ☐ Fair ☒ Poor ☐ To/From MAIN LINE RUNNING N + S
taps into pipe STR 280 to 284

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

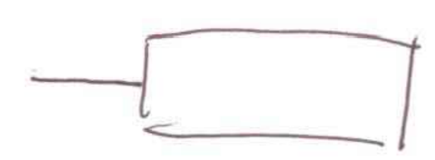
Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

NOTES:

Drawing



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SOUTH BOSTON STORM INVENTORY

Structure # 283 Point # 5329
Location 15' E SE MAIN + SEYMOUR
Type CI Throat/Grate Length 8' Grid L-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 363.23

Measure down 6.10' Inv 24" RCP = 357.13 (out)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 284

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

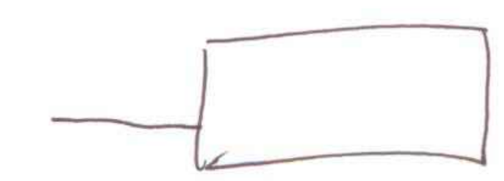
Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

NOTES:

Drawing



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SOUTH BOSTON STORM INVENTORY

358 5406
Structure # 358 Point # 5406
Location 15' W NW BROAD + SEYMOUR
Type CI Throat/Grate Length 8' Grid M-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 377.16

Measure down 4.95' Inv 24" RCP = 372.21 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 359

Measure down 5.05' Inv 24" RCP = 372.11 (out)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 355

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

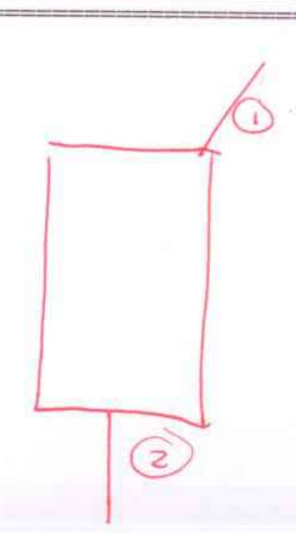
Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

NOTES:

Drawing



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SOUTH BOSTON STORM INVENTORY

Structure # 359 Point # 5407
Location 120' E NE BROAD + SEYMOUR
Type CI Throat/Grate Length 12' Grid M-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC.
Top Elevation 383.66

Measure down 5.81' Inv 24" RCP = 377.85 (out)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 358

Measure down 5.68' Inv 18" RCP = 377.98 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From ~~358~~ 360

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

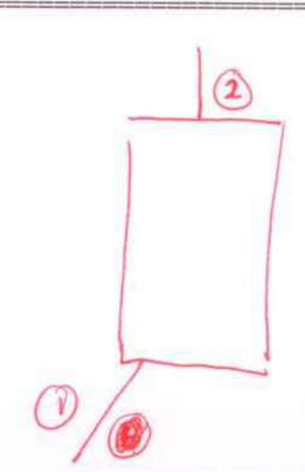
Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

NOTES:

Drawing



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SOUTH BOSTON STORM INVENTORY

Structure # 410 Point # 5458
Location 20' E NE EDMONDSON + SEYMOUR
Type DI Throat/Grate Length 8' x 2' Grid M-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 358.79

Measure down 2.82' Inv 15" CMP = 355.97 (out)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 411

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

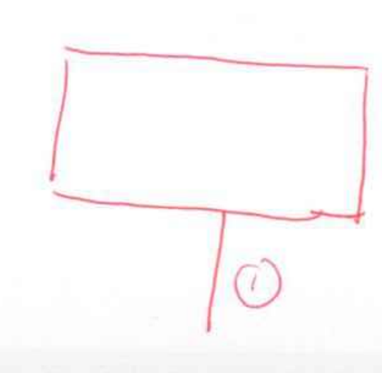
Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

Measure down ___' Inv ___" ___ = ___
Condition: Good ☐ Fair ☐ Poor ☐ To/From ___

NOTES:

Drawing



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434.797.4497

HCSA
SEYMOUR DRIVE AND HODGES STREET WATERLINE IMPROVEMENTS
SOUTH BOSTON, VIRGINIA

SEAL: COMMONWEALTH OF VIRGINIA — LESLIE B. MANTIPLY — Lic. No. 0402059434 — 2/2/2023 — PROFESSIONAL ENGINEER

KEY PLAN

SCALE: AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: ANH
APPROVED BY: RSE
CHECKED BY: LBM
DATE: APRIL, 2022

TITLE: STORM INLET STRUCTURE INSPECTION REPORTS

PROJECT NO. 50083060

C-305

SHEET NO. 0 OF ---

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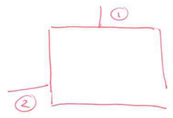
SOUTH BOSTON STORM INVENTORY

Structure # 411 Point # 5459
Location 50' E SE EDMUNDSON + SEYMOUR
Type CI Throat/Grate Length 8' Grid M-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 358.68

Measure down 3.50 ' Inv 15" " CMP = 355.18 (IN)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 410
Measure down 3.65 ' Inv 13" " DIP = 355.13 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 412
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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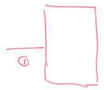
SOUTH BOSTON STORM INVENTORY

Structure # 456 Point # 5510
Location NE CORNER MARSHALL + SEYMOUR
Type CI Throat/Grate Length 8' Grid N-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 347.50

Measure down 3.19 ' Inv 18" " CMP = 344.31 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 457
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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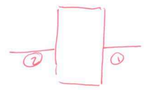
SOUTH BOSTON STORM INVENTORY

Structure # 457 Point # 5511
Location NW CORNER MARSHALL + SEYMOUR
Type CI Throat/Grate Length 8' Grid N-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 347.23

Measure down 3.95 ' Inv 18" " CMP = 343.28 (IN)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 456
Measure down 3.80 ' Inv 18 " CMP = 343.43 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 458
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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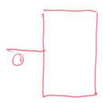
SOUTH BOSTON STORM INVENTORY

Structure # 459 Point # 5513
Location 280' W NW MARSHALL + SEYMOUR
Type CI Throat/Grate Length 8' Grid N-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 339.82

Measure down 2.93 ' Inv 15" " CMP = 336.89 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 460
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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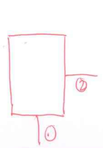
SOUTH BOSTON STORM INVENTORY

Structure # 460 Point # 5514
Location 250' W SW MARSHALL + SEYMOUR
Type CI Throat/Grate Length 8' Grid N-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 340.75

Measure down 4.09 ' Inv 15" " CMP = 336.66 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From See note
Measure down 4.23 ' Inv 15" " CMP = 336.52 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 459
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:
① INVERT PIPE RUNNING WEST PARALLEL W/ SEYMOUR + DUMPING INTO PIPE 461 + 461A

Drawing



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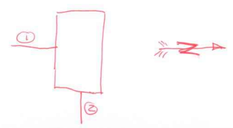
SOUTH BOSTON STORM INVENTORY

Structure # 462 Point # 5517
Location NE CORNER TRAVER + SEYMOUR
Type CI Throat/Grate Length 5' Grid N-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 351.25

Measure down 3.55 ' Inv 18" " CMP = 347.70 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 463
Measure down 3.36 ' Inv 18" " CPP = 347.89 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 464
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
STORM INLET STRUCTURE INSPECTION REPORTS

PROJECT NO. 50083060

C-306

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SOUTH BOSTON STORM INVENTORY

Structure # 463 Point # 5518
Location SE CORNER OF TRAVER & SEYMOUR
Type CI Throat/Grate Length 5' Grid N-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 351.47

Measure down	2.97	Inv	18"	SMP	=	348.50 (out)
Condition: Good ☐ Fair ☒ Poor ☐ To/From				462		
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						

NOTES:

Drawing

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SOUTH BOSTON STORM INVENTORY

Structure # 472 Point # 5527
Location 30' S 35 HODGES & GROVE
Type DI Throat/Grate Length 2'x 2' Grid N-12
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 395.63

Measure down	2.63	Inv	15"	CMP	=	392.40 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From				471		
Measure down	4.13	Inv	12"	TC	=	390.90 (IN)
Condition: Good ☐ Fair ☒ Poor ☐ To/From				473		
Measure down	4.32	Inv	15"	TC	=	390.71 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From				JD		
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						

NOTES:

Drawing

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SOUTH BOSTON STORM INVENTORY

Structure # 478 Point # 5534
Location NW CORNER MARSHALL & HODGES
Type CI Throat/Grate Length 3' Grid N-12
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 374.72

Measure down	2.35	Inv	12"	CMP	=	372.17 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From				479		
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						

NOTES:

Drawing

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SOUTH BOSTON STORM INVENTORY

Structure # 479 Point # 5535 (5535)
Location 120' E SE MARSHALL & HODGES
Type CI Throat/Grate Length 3' Grid N-12
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC.
Top Elevation 364.95

Measure down	3.01	Inv	12"	CPP	=	361.94 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From				478		
Measure down	3.10	Inv	18"	CPP	=	361.85 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From				480		
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						

NOTES:

Drawing

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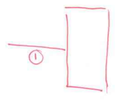
SOUTH BOSTON STORM INVENTORY

Structure # 500 Point # 5558
Location NE CORNER PEACH & HODGES
Type CI Throat/Grate Length 8' Grid M-12
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 413.69

Measure down	3.16	Inv	15"	RCP	=	410.53 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From				501		
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						

NOTES: NEEDS CLEANING

Drawing



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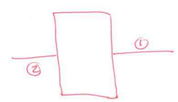
SOUTH BOSTON STORM INVENTORY

Structure # 501 Point # 5559
Location NW CORNER PEACH & HODGES
Type CI Throat/Grate Length 8' Grid M-12
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 413.17

Measure down	2.96	Inv	15"	RCP	=	410.31 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From				500		
Measure down	3.04	Inv	18"	RCP	=	410.13 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From				502		
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						
Measure down		Inv			=	
Condition: Good ☐ Fair ☐ Poor ☐ To/From						

NOTES:

Drawing



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SEAL

COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
STORM INLET STRUCTURE INSPECTION REPORTS

PROJECT NO. 50083060

C-307

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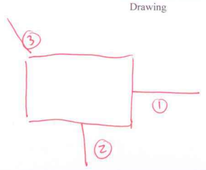
SOUTH BOSTON STORM INVENTORY

Structure # 502 Point # 5560
Location 25' W NW PENCH & HODGES
Type CI Throat/Grate Length 8' Grid M-12
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 412.54

Measure down 3.02 ' Inv 18 " ~~CMP~~ RCP = 409.52 (IN)
Condition: Good ☐ Fair ☐ Poor ☐ To/From 501
Measure down 4.79 ' Inv 24" " RCP = 408.18 (OUT)
Condition: Good ☐ Fair ☐ Poor ☐ To/From 504
Measure down 4.69 ' Inv 12 " RCP = 408.25 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 505
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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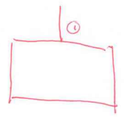
SOUTH BOSTON STORM INVENTORY

Structure # 503 Point # 5561
Location 25' W SW PENCH & HODGES
Type CI Throat/Grate Length 8' Grid M-12
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 412.52

Measure down 2.33 ' Inv 18" " CMP = 410.19 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From USE 2' to 7" then to 504
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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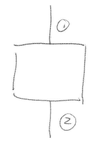
SOUTH BOSTON STORM INVENTORY

Structure # 553 Point # 5619
Location 175' W SW RILEY & SEYMOUR
Type CI Throat/Grate Length 8' Grid O-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 347.17

Measure down 3.65 ' Inv 15" " CMP = 343.52 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 554
Measure down 3.69 ' Inv 15" " CMP = 343.48 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From TIES INTO # 556-A 556
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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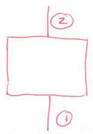
SOUTH BOSTON STORM INVENTORY

Structure # 554 Point # 5620
Location 175' W' NW RILEY + SEYMOUR
Type CI Throat/Grate Length 8' Grid O-14
Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC
Top Elevation 347.91

Measure down 3.34 ' Inv 15" " CMP = 343.67 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 553
Measure down 3.18 ' Inv 12" " PVC = 343.83 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 555
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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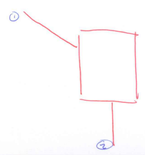
SOUTH BOSTON STORM INVENTORY

Structure # 557 Point # 5624
Location NE CORNER RILEY + SEYMOUR
Type CI Throat/Grate Length 2.5' Grid O-14
Condition: Good ☐ Fair ☐ Poor ☐ Made of BRICK
Top Elevation 351.63

Measure down 6.05 ' Inv 18 " CMP = 345.58 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 558
Measure down 6.07 ' Inv 24 " RCP = 345.56 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 559
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:
NEED TO PULL TOP FOR PIPE SIZE + INVERT

Drawing



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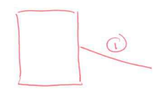
SOUTH BOSTON STORM INVENTORY

Structure # 558 Point # 5625
Location 30' N NW RILEY + SEYMOUR
Type CI Throat/Grate Length 2.5 Grid O-14
Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC
Top Elevation 351.03

Measure down 3.21 ' Inv 18 " CMP = 347.82 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 557
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:
TOP IS BROKEN, NEEDS REPLACING

Drawing



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SEAL
COMMONWEALTH OF VIRGINIA
LESLIE B. MANTIPLY
Lic. No. 0402059434
2/2/2023
PROFESSIONAL ENGINEER

KEY PLAN

SCALE
AS NOTED

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY ANH
APPROVED BY RSE
CHECKED BY LBM
DATE APRIL, 2022

TITLE
STORM INLET STRUCTURE INSPECTION REPORTS

PROJECT NO. 50083060

C-308

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SOUTH BOSTON STORM INVENTORY

Structure # 561 Point # 5628

Location 150' E NE RILEY + SEYMOUR

Type CI Throat/Grate Length 5' Grid D-14

Condition: Good ☒ Fair ☐ Poor ☐ Made of CONC

Top Elevation 356.82

Measure down 4.79 ' Inv 18" " CMP = 352.03 (IN)
Condition: Good ☒ Fair ☐ Poor ☐ To/From PARKING LOT

Measure down 4.94 ' Inv 18" " CMP = 351.88 (OUT)
Condition: Good ☒ Fair ☐ Poor ☐ To/From 562

Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

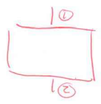
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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SOUTH BOSTON STORM INVENTORY

Structure # 562 Point # 5629

Location 150' E SE RILEY + SEYMOUR

Type CI Throat/Grate Length 5' Grid D-14

Condition: Good ☐ Fair ☒ Poor ☐ Made of CONC

Top Elevation 356.74

Measure down 6.98 ' Inv 18" " CMP = 349.76 (IN)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 561

Measure down 7.23 ' Inv 18" " CMP = 349.51 (OUT)
Condition: Good ☐ Fair ☒ Poor ☐ To/From 565

Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

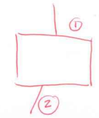
Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

Measure down ____ ' Inv ____ " ____ = ____
Condition: Good ☐ Fair ☐ Poor ☐ To/From ____

NOTES:

Drawing



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PROJECT NO. 50083060

C-309

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