CIVIL LEGEND MANHOLE SANITARY CLEANOUT VALVE WATER METER FIRE HYDRANT DROP INLET **CURB INLET GAS METER** POWER POLE LIGHT POLE LIGHT POLE /CONCRETE BASE PEDESTAL **CURB AND GUTTER** FENCE _____x ____ PROPERTY LINE BUILDINGS 18" RCP STORM SEWER **SANITARY SEWER** WATER **ELECTRIC & TELEPHONE LINE** TRAFFIC BOX \bullet ∞ **PAVEMENT** CONC CONCRETE TEMPORARY BENCHMARK (TBM) **ELEVATIONS** TOP OF CURB ELEVATIONS

TRAFFIC MAINTENANCE, CONTROL, & LIGHTING NOTES

1. ALL STRIPING IN THE PUBLIC RIGHT-OF-WAY MUST BE OF THERMOPLASTIC MATERIAL FOR LANE LINES, STOP BARS, CROSSWALKS, ETC. ALL LEGENDS AND ARROWS MUST BE OF VDOT APPROVED TYPE B, CLASS VI PREFORMED PAVEMENT MESSAGE MARKING MATERIAL.

TOP OF WALK ELEVATIONS

SILT FENCE

- 2. THE CITY OF VIRGINIA BEACH, TRAFFIC ENGINEERING DIVISION IS RESPONSIBLE FOR REVIEWING AND APPROVING ALL TRAFFIC MAINTENANCE AND CONTROL PLANS AND REVIEWING THE SEQUENCE OF CONSTRICTION PLANS ESSENTIAL TO COMPLETE THIS PROJECT.
- 3. ALL TRAFFIC MAINTENANCE AND CONTROL DEVICES, METHODS, AND APPLICATIONS WILL CONFORM TO THE FOLLOWING PUBLICATIONS INCLUDING ALL CURRENT EDITIONS AND
- MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS ISSUED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- b.) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS VOL. II.
- c.) VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS. d.) VIRGINIA DEPARTMENT OF TRANSPORTATION WORK AREA PROTECTION MANUAL.
- e.) CITY OF VIRGINIA BEACH, PUBLIC WORKS SPECIFICATIONS AND STANDARDS MANUAL.
- 4. WORK HOURS IN ROADWAY OPEN TO TRAFFIC AND/OR PEDESTRIAN AREA: a.) MONDAY THROUGH SATURDAY: WORK WILL BE COMPLETED BETWEEN THE HOURS OF 9:00
- AM AND 4:00 PM ONLY. b.) SUNDAYS AND HOLIDAYS: NO WORK MAY BE COMPLETED IN THE ROADWAY OR
- PEDESTRIAN AREAS UNLESS OTHERWISE NOTED OR APPROVED IN WRITING BY THE CITY. c.) ADDITIONAL RESTRICTIONS MAY APPLY BASED ON TRAFFIC CONDITIONS. EXTENDED WORK HOURS AND WORKDAYS MAY BE REQUESTED WITH A WRITTEN
- REQUEST TO THE CITY. THIS REQUEST MUST BE SUBMITTED AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE EXTENDED WORK PERIODS. (PLEASE NOTE THAT IF WORK IS TO BE CONDUCTED IN THE RESORT AREA. CERTAIN RESTRICTIONS APPLY FROM APRIL TO OCTOBER. PLEASE CONTACT TRAFFIC ENGINEERING FOR THESE RESTRICTIONS).

TRAFFIC CONTROL PLANS:

- TRAFFIC CONTROL PLANS ARE INCLUDED IN THE CONSTRUCTION PLANS FOR THE REFERENCED PROJECT; HOWEVER, FIELD CONDITIONS MAY REQUIRE MODIFICATIONS. IF THE CONTRACTOR FEELS THAT THE TRAFFIC CONTROL PLAN(S) INCLUDED WITH THIS PROJECT DOES NOT SUIT CONDITIONS AT A WORK SITE, THEN THE CONTRACTOR SHALL SUBMIT TO THE CITY A REVISED PLAN TO MAINTAIN TRAFFIC. THE REVISED PLAN SHALL INCLUDE SITE-SPECIFIC TRAFFIC DETAILS AND SHALL IDENTIFY THE SEQUENCE OF CONSTRUCTION THE CONTRACTOR WILL SUBMIT THE REVISED TRAFFIC CONTROL PLAN(S) A MINIMUM 10 CALENDAR DAYS PRIOR TO THE START OF WORK. THE CONTRACTOR WILL NOT DISRUPT TRAFFIC PATTERNS UNTIL THE CITY HAS APPROVED THE REVISED TRAFFIC CONTROL PLAN THE CITY RESERVES THE RIGHT TO MODIFY ANY TRAFFIC CONTROL PLAN(S) AS NECESSARY IN THE INTEREST OF PUBLIC SAFETY OR TRAFFIC EFFICIENCY. PRIOR TO BEGINNING WORK, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT ALL REQUIREMENTS HAVE BEEN MET AND THAT ALL TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED ACCORDING TO THE APPROVED TRAFFIC CONTROL PLAN(S).
- 6. THE CONTRACTOR SHALL CHECK ALL TRAFFIC MAINTENANCE AND CONTROL DEVICES AND WORK ZONES BEFORE, DURING, AND AFTER EACH WORKDAY TO ENSURE PROPER OPERATION. ON WEEKENDS HOLIDAYS OR ANY NON WORKING DAY THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE TRAFFIC MAINTENANCE AND CONTROL DEVICES DAILY FOR PROPER
- 7. TWO-WAY TRAFFIC WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION UNLESS TRAFFIC ENGINEERING HAS APPROVED ANOTHER ALTERNATIVE FOR TRAFFIC CONTROL, SUCH AS A LANE CLOSURE OR A TEMPORARY STREET CLOSURE. RESIDENT AND EMERGENCY ACCESS WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION REGARDLESS IF A STREET CLOSURE IS IN
- 8. IF THERE IS AN APPROVAL FROM TRAFFIC ENGINEERING FOR A LANE CLOSURE OR A TEMPORARY STREET CLOSURE. ALL LANES OF TRAFFIC WILL BE REOPENED TO TRAFFIC AT THE CONCLUSION OF EACH CONSTRUCTION DAY, <u>UNLESS</u> A 24-HOUR TEMPORARY STREET CLOSURE IS APPROVED

9. IN ALL CASES IN WHICH EXISTING OR ESTABLISHED TRAFFIC PATTERNS WILL BE DISRUPTED. THE

CONTRACTOR WILL NOTIFY ALL AFFECTED RESIDENTS AND/OR BUSINESSES A MINIMUM OF 48

- HOURS IN ADVANCE OF THE ANTICIPATED DISRUPTION BY DISTRIBUTING DOOR-TO-DOOR NOTICES. A COPY OF THE NOTICE SHALL BE FORWARDED TO TRAFFIC ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO BEGINNING WORK. 10. AT NIGHT OR DURING NON-CONSTRUCTION HOURS, ALL EXCAVATED AREAS ARE TO BE
- BACKFILLED OR SECURED AND PROTECTED BY USING APPROVED SAFETY DEVICES OR
- 11. ANY TRAFFIC CONTROL DEVICES INCLUDING BUT NOT LIMITED TO PAVEMENT MARKINGS, SIGN, AND TRAFFIC CONTROL SIGNAL EQUIPMENT DAMAGED OR DESTROYED BY THE CONTRACTOR MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE UNLESS THEIR REMOVAL OR DESTRUCTION IS CALLED FOR BY THE PLANS.
- 12. FOR ANY FURTHER INFORMATION ON TRAFFIC MAINTENANCE AND CONTROL REQUIREMENTS, PLEASE CONTACT THE TRAFFIC ENGINEERING DIVISION, 2405 COURTHOUSE DRIVE, VIRGINIA BEACH, VIRGINIA 23456-9031, (757) 385-4131 FAX: (757) 385-4913.

SINGLE FAMILY SITE PLAN

LOTS 11, 12, & 31, BLOCK 18, SUBDIVISION OF CHESAPEAKE PARK

M.B. 4, PG. 47

BAYSIDE BOROUGH-VIRGINIA BEACH, VIRGINIA

- 2. AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL CONTACT MISS UTILITIES OF VA AT 811
- 3. THE OWNER/DEVELOPER IS RESPONSIBLE FOR REPLACING OR REPAIRING ANY AND ALL DAMAGES TO DRIVEWAYS, ROADS, SIDEWALKS, AND OTHER PUBLIC OR PRIVATE IMPROVEMENTS AND ABOVE AND BELOW GROUND UTILITIES DAMAGED DURING CONSTRUCTION. MILLING AND/OR OVERLAY OF THE STREET MAY BE REQUIRED AT THE DIRECTION OF THE CITY INSPECTOR.
- 4. GPIN: 1570-42-8869, 1570-42-8814, & 1570-42-7880
- 5. THIS LOT OR PARCEL WAS CREATED BY PLAT RECORDED VIA MAP BOOK 4, PAGE 47

6. LEGAL DESCRIPTION: LOTS 11, 12, & 31 BLOCK 18, SUBDIVISION OF CHESAPEAKE BEACH

- IN ACCORDANCE WITH THE AIRPORT NOISE ATTENUATION AND SAFETY ORDINANCE AND HEIGHT
- 9. THIS PLAN IS BASED ON THE NAVD 1988 DATUM. THE CITY OF VIRGINIA BEACH CONTROL REFERENCE POINT FOR THE SURVEY AND DESIGN OF THIS PLAN IS VERTICAL CONTROL STATION PS-300 ELEVATION = 8.94'
- 10. NORTH MERIDIAN SHOWN HEREON IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE
- 11. THE SITE IS LOCATED IN THIS MAJOR WATERSHED(S): CHESAPEAKE BAY
- 12 THIS PROPERTY **DOES** FALL IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON THE FEMA NEIP FIRM FOR THE CITY OF VIRGINIA BEACH, COMMUNITY-PANEL NUMBER 515531-0017G, DATED JANUARY 16, 2015.
- 13. THE PROPERTY FALLS IN FLOOD ZONE "X and VE (EL 9)".
- 14. THE PROPOSED DWELLING IS LOCATED IN A SPECIAL FLOOD HAZARD AREA.
- 15. EXISTING USE: RESIDENTIAL/SINGLE FAMILY
- 16. PROPOSED USE: **RESIDENTIAL/SINGLE FAMILY**
- 17. PROPOSED NUMBER OF DWELLING UNITS: 1
- 18. PROPERTY IS LOCATED IN A "FLOOD ZONE SUBJECT TO SPECIAL RESTRICTIONS" PER CITY CODE, APPENDIX K, FLOODPLAIN ORDINANCE, SECTION 4.10.
- 19. LOWEST FINISHED FLOOR NOTE: FOR NEW CONSTRUCTION OR SUBSTANTIAL IMPROVEMENT OF ANY RESIDENTIAL STRUCTURE OR MANUFACTURED HOME THE LOWEST PROPOSED FLOOR ELEVATION, INCLUDING FEET ABOVE THE 100-YEAR BASE FLOOD ELEVATION PER THE FIRM MAP OR THE 100-YEAR WATER SURFACE ELEVATION SHOWN ON THE APPROVED SUBDIVISION CONSTRUCTION PLAN.
- 20 THE LOT GRADING ON THIS PLAN IS IN ACCORDANCE WITH THE LATEST SUBDIVISION CONSTRUCTION PLAN SUBMITTED TO AND APPROVED BY THE DIRECTOR OF PLANNING OR HIS DESIGNEE ON N/A
- 21. A 5' WIDE CONCRETE SIDEWALK IS NOT REQUIRED ALONG THE FRONTAGE OF THIS LOT AS SHOWN ON THIS
- 22. PLATTED LOT AREA: 7,500 S.F. OR 0.172 AC. (LOTS 11, 12, & 31)
- 23. LOT AREA OUTSIDE OF WATER, MARSH AND WETLANDS: 7,500 S.F. OR 0.172 AC.
- 24. SOIL CLASSIFICATION (PER USDA SOIL SURVEY) SOIL TYPE: 22E, NEWHAN
- 25. AREA OF SITE WITHIN THE RPA: 0 S.F. OR 0 AC. 26. IMPERVIOUS AREA:
- PRE-DEVELOPMENT 3.822 S.F. OR 51% POST-DEVELOPMENT - 4,490 S.F. OR 60%
- 27. AREA OF LAND DISTURBANCE: 7,500 S.F. OR 0.172 AC.
- 28. LOT COVERAGE PER CITY CODE APPENDIX A, ARTICLE 5, SECTION 502(a)(12). 2,375 SQ.FT., 17.5% (30% MAX.) 29. PROPOSED BUILDING HEIGHT (MEASURED FROM THE LOWEST GRADE 6' STRUCTURE TO HIGHEST POINT ON
- 30. BUILDING CONSTRUCTION TYPE: TYPE IIB
- 31. RESIDENTIAL TREE CANOPY, PER CITY CODE APPENDIX E, TREE PLANTING, PRESERVATION AND REPLACEMENT: REQUIRED: 400 S.F., PROVIDED: 400 S.F.
- 32. TREES AND VEGETATION LOCATED IN THE CITY RIGHT OF WAY ARE CITY PROPERTY AND CANNOT BE CUT, DAMAGED OR REMOVED WITHOUT PERMISSION FROM THE DEPARTMENT OF PARKS AND RECREATION/LANDSCAPE MANAGEMENT OFFICE; CALL (757) 385-4461 FOR ASSISTANCE. REMOVAL WITHOUT REQUIRED PERMISSION IS A PUNISHABLE CLASS 3 MISDEMEANOR PER CITY CODE ARTICLE 1, SECTION 23-39.
- 33. ALL TREES IN THE CITY RIGHT OF WAY AND ONSITE TO REMAIN ARE REQUIRED TO HAVE TREE PROTECTION IN COMPLIANCE WITH THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) SPECIFICATIONS AND
- 34. EROSION AND SEDIMENT (E&S) CONTROL AGREEMENT IN LIEU OF A PLAN: ALL LAND DISTURBANCE OF 2.500 SQUARE FEET OR GREATER REQUIRES AN APPROVED FROSION AND SEDIMENT CONTROL PLAN. THE OWNER/DEVELOPER OF THIS SINGLE FAMILY RESIDENCE CHOOSES TO UTILIZE AN "AGREEMENT IN LIEU OF A PLAN" TO MEET THIS REQUIREMENT, THEREFORE ALL E&S MEASURES HAVE NOT BEEN SHOWN HEREON. AT A MINIMUM SILT FENCE SHALL BE INSTALLED AROUND THE AREA OF CONSTRUCTION. A CONSTRUCTION ENTRANCE AND INLET PROTECTION SHALL ALSO BE INSTALLED AND ANY OTHER MEASURES DEEMED NECESSARY BY THE CITY INSPECTOR(S). ALL E&S MEASURES AND PRACTICES SHALL COMPLY WITH THE CITY OF VIRGINIA BEACH AND VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) REGULATIONS, SPECIFICATIONS AND STANDARDS.
- 35. STORMWATER MANAGEMENT AGREEMENT IN LIEU OF A PLAN: A STORMWATER MANAGEMENT PLAN IS REQUIRED FOR THE CONSTRUCTION OF A SINGLE FAMILY RESIDENCE WITH LAND DISTURBANCE OF 2,500 SQUARE FEET OR GREATER LOCATED IN THE CHESAPEAKE BAY WATERSHED, AND LAND DISTURBANCE OF 1 ACRE OR GREATER IN OTHER WATERSHEDS. THE OWNER/DEVELOPER OF THIS SINGLE FAMILY RESIDENCE CHOOSES TO UTILIZE AN "AGREEMENT IN LIEU OF A PLAN" TO MEET THIS REQUIREMENT, THEREFORE STORMWATER MANAGEMENT MEASURES SHOWN HEREON ARE NOT INTENDED FOR REVIEW, AND ARE SHOWN FOR INSPECTION AND OWNER'S MAINTENANCE PURPOSES ONLY. ALL STORMWATER MEASURES AND PRACTICES SHALL COMPLY WITH THE CITY OF VIRGINIA BEACH AND VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) REGULATIONS, SPECIFICATIONS AND STANDARDS.

The undersigned Consulting Firm agrees that the City of Virginia Beach and it's representatives shall have the

developer defaults in his/her obligations to complete these facilities as required by City Code. The undersigned

complete the project. The Design Professional Consulting Firm further agrees that the rights to use these plans

Gaddy Engineering Services, LLC

Engineer also agrees that the City may use these plans for any purpose the City feels necessary in order to

right to use these plans to complete any physical improvements the City deems necessary in the event the

36. TOTAL AREA TREATED BY BMP: IMPERVIOUS 2,238 SQ.FT.

shall be provided without cost to the City.

(authorized/signature)

Name of entity (Consulting Firm

Signature of Design Professional:

Title: PRESIDENT

- 37. HYDRAULIC UNIT CODE (HUC 6): CB26 (HUC 12): 020801080202
- 38. DOMESTIC WATER COMBINED FIXTURE VALUES (AWWA) 80.7; 22.5 GPM DEMAND

- PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREA WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE DENLIDED AREAS THAT MAY NOT BE AT FINAL GRADE BLIT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS
- STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL LAW AND REGULATIONS
- STABILIZATION BLANKETS AND MATTING. THE BUILDING CODE OFFICIAL MAY AUTHORIZE A TEMPORARY CERTIFICATE OF OCCUPANCY WITHOUT THE REQUIRED SOIL STABILIZATION IF THE FAILURE TO STABILIZE IS DUE TO CIRCUMSTANCES BEYOND THE CONTROL OF THE PERMIT HOLDER
- ANY SPACE LESS THAN TWO-FOOT ABOVE THE BASE FLOOD ELEVATION SHALL NOT BE CONVERTED TO LIVING SPACE.
- 5. THE GARAGE SHALL BE WATERPROOFED TWO-FEET ABOVE THE BASE FLOOD
- 6. ALL ELECTRICAL AND MECHANICAL EQUIPMENT SHALL BE LOCATED A MINIMUM OF TWO-FEET ABOVE THE BASE FLOOD FLEVATION
- ANY MILLING AND OVER-LAYING REQUIRED WITHIN RIDGE ROAD RIGHT-OF-WAY TO OBTAIN A SMOOTH PAVEMENT TRANSITION SHALL BE AT THE DIRECTION AND
- 8. ALL STAGING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL BE ONSITE. NO VEHICLES WILL BE ALLOWED TO PARK WITHIN THE RIGHT-OF-WAY OF ANY PUBLIC STREET UNLESS THE VEHICLE IS BEING USED AS PART OF AN ACTIVE CONSTRUCTION
- 9. NO RIGHTS-OF-WAY WILL BE DEDICATED WITH THIS PLAN. THE LOWEST FLOOR ELEVATION. INCLUDING BASEMENTS AND ATTACHED GARAGES. IS AT LEAST TWO-FEET ABOVE THE ONE-HUNDRED YEAR BASE FLOOD ELEVATION AS
- ADOPTED BY THE CITY OF VIRGINIA BEACH 11. THE CERTIFYING DESIGN PROFESSIONAL IS RESPONSIBLE AND LIABLE FOR THE DESIGN AND THE CONTENTS OF THIS APPROVED PLAN.
- 12. WHETHER A STORMWATER MANAGEMENT PLAN IS OR IS NOT REQUIRED, WHERE DRAINAGE FACILITIES (BMPS) ARE NECESSARY DUE TO INADEQUACY OF THE DOWNSTREAM SYSTEM. THE DRAINAGE FACILITIES ARE REVIEWED AND APPROVED AS SHOWN HEREON. ADDITIONAL SEPARATE DRAINAGE CALCULATIONS MAY BE
- SUBMITTED AND ARE CONSIDERED A PART OF THIS PLAN. 13. SEE SEQUENCE OF CONSTRUCTION.
- 14. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, AND AS REQUIRED BY THE CITY'S INSPECTORS.
- 15. ANY AND ALL MATERIALS OR DEBRIS TRACKED ONTO A PUBLIC OR PRIVATE ROAD SURFACE WILL BE REMOVED AT THE END OF EACH DAY OR AS DIRECTED BY THE CIVIL INSPECTOR. SEDIMENT WILL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A LEGALLY PERMITTED SEDIMENT CONTROLLED DISPOSAL
- 16. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF IN A LAWFUL MANNER AT A LEGALLY PERMITTED SITE.
- 17. SEED IN ACCORDANCE WITH PERMANENT SEEDING SPEC. FOR COASTAL PLAIN AREAS, PER THE VIRGINIA EROSION & CONTROL HANDBOOK STANDARD & SPECIFICATION
- 18. SEE SILT FENCE DETAIL.
- 19. ALL LAND DISTURBING ACTIVITIES MUST CONFORM WITH THE APPLICABLE REGULATIONS OF THE CITY OF VIRGINIA BEACH CODES, ORDINANCES, AND PUBLIC WORKS SPECIFICATIONS AND STANDARDS AND THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION EROSION AND SEDIMENT CONTROL HANDBOOK. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION, INCLUDING THE APPLICATION OF TEMPORARY AND/OR PERMANENT MEASURES DEEMED NECESSARY BEFORE, DURING AND AFTER CONSTRUCTION TO CONTROL EROSION AND PREVENT OR MINIMIZE SEDIMENT RUNOFF. THE PLANNING DEPARTMENT/PERMITS AND INSPECTION DIVISION SHALL ENFORCE THESE REQUIREMENT. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE OTHER MEASURES NOT SPECIFICALLY DESCRIBED HEREIN TO CORRECT ANY EROSION OR SILTATION CONDITIONS.
- 20. AFTER OBTAINING ALL REQUIRED PERMITS, AND AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT CIVIL INSPECTIONS AT 385-4558 TO SCHEDULE A PRE-CONSTRUCTION MEETING. FAILURE TO CONTACT CIVIL INSPECTIONS PRIOR TO ANY LAND DISTURBING ACTIVITY MAY RESULT IN A STOP WORK ORDER OR OTHER LEGAL ACTION.

DEPARTMENT OF PLANNING ADDRESSING OFFICE

NO OFFSITE HAULING WILL BE ALLOWED WITHOUT PERMITTING



(757)289-5933

040754 06.11.21 508 N. Birdneck Rd. Virginia Beach, Virginia 23451

- 1. CITY WATER AND SEWER **ARE** AVAILABLE. 2. DEVELOPER MUST VERIFY AND STAKE THE LOCATION OF THE EXISTING SANITARY SEWER CLEANOUT OR LATERAL (AT THE RIGHT-OF-WAY) PRIOR TO DEMOLITION OF EXISTING
- 3. SEWER AND WATER CONNECTION INSTALLATIONS, RELOCATIONS, AND ABANDONMENTS
- 4. IF WATER AND/OR SEWER SERVICES ARE TO BE INSTALLED BY THE CITY, CONTACT THE CITY'S TAPS PROGRAM PROJECT MANAGER AT 385-4171 IMMEDIATELY FOLLOWING PAYMENT OF UTILITY FEES TO SCHEDULE THE INSTALLATION OF WATER AND/OR SEWER SERVICES.
- OF WAY OR PUBLIC EASEMENT REQUIRE A RIGHT OF WAY PERMIT. AND POSTING OF A SURETY (CHECK, LETTER OF CREDIT OR BOND) BASED ON AN APPROVED ENGINEER'S COST ESTIMATE CONTACT THE DEVELOPMENT SERVICES CENTER (DSC) AT (757) 385-8277 FOR ADDITIONAL INFORMATION
- THE OWNER/DEVELOPER/CONTRACTOR MUST CONTACT PUBLIC UTILITIES. INSPECTIONS AT (757) 385-4175 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION
- 6 TO ORDER INSTALLATION OF A WATER METER FOR ALL PROJECTS. THE OWNER/ DEVELOPER/ CONTRACTOR MUST CONTACT PUBLIC UTILITIES INSPECTIONS AT (757
- 385-4175 AFTER THE WATER AND/OR SEWER SERVICES HAVE PASSED INSPECTION. CONNECTION TO THE SANITARY SEWER GRAVITY MAIN IN ADDITION A MINIMUM OF 10 FEET OF THE EXISTING MAIN MUST BE REMOVED AND REPLACED IN CONJUNCTION WITH THE INSTALLATION OF THE WYE
- BRASS FITTINGS TO MEET CDA NO. C89520, WITH NO MORE THAN ONE-QUARTER OF ONE PERCENT (0.25% OR LESS) TOTAL LEAD CONTENT BY WEIGHT SHALL BE USED FOR CORPORATION STOPS, METER VALVES AND SERVICE COUPLINGS.
- 9. EXISTING WATER AND/OR SEWER SERVICES TO BE ABANDONED SHALL BE ABANDONED AT THE MAIN IN ACCORDANCE WITH SECTION 3.9 (SANITARY SEWER) AND 4.9 (WATER) OF THI CITY OF VIRGINIA BEACH DEPARTMENT OF PUBLIC UTILITIES DESIGN STANDARD MANUAL. ANY ADDITIONAL EXISTING SEWER AND WATER SERVICE LINES THAT ARE LOCATED DURING CONSTRUCTION AND NOT SHOWN ON THE PLAN, WILL BE REQUIRED TO BE REMOVED/ABANDONED AS PER CITY SPECIFICATIONS, AT THE DEVELOPER'S EXPENSE.
- 10. IF A BUILDING STRUCTURE IS TO BE DEMOLISHED:
- a.) DEVELOPER MUST VERIFY AND STAKE THE LOCATION OF THE EXISTING SANITARY SEWER CLEANOUT OR LATERAL AT THE RIGHT OF WAY PRIOR TO DEMOLITION OF
- PRIOR TO DEMOLITION, DEVELOPER SHALL CONTACT PUBLIC UTILITIES BUSINESS DIVISION AT (757) 385-4171 TO HAVE THE EXISTING WATER METER REMOVED. THE EXISTING METER MAY NOT BE USED FOR THE NEW BUILDING. A NEW WATER METER SHALL BE INSTALLED BY THE CITY **AT THE DEVELOPER'S EXPENSE** AS SHOWN ON
- 11. INSTALL WATER AND SANITARY SEWER SERVICE LINES UNDER EXISTING TREE ROOTS BY TUNNELING WITH A SOIL AUGER OR TRENCHING WITH A PNEUMATIC AIR EXCAVATOR. WORK IN THIS AREA SHALL BE SUPERVISED OR PERFORMED BY A CERTIFIED ARBORIST 12. THE CITY WILL PERFORM THE INSTALLATION, RELOCATION AND ABANDONMENT OF UTILITY
- SERVICES (WATER AND SANITARY SEWER) AT THE DEVELOPER'S EXPENSE. 13. TYPE "K" SOFT DRAWN COPPER WILL BE USED FOR WATER SERVICE LINES, 2-INCH AND
- LESS, IN RIGHT-OF-WAYS AND PUBLIC UTILITY EASEMENTS. 14. WATER AND SEWER UTILITIES, WITHIN THE RIGHT OF WAY AND UP TO AND INCLUDING THE SEWER CLEANOUT AND WATER METERS, SHALL BE SET BY THE CITY AT THE DEVELOPERS
- 15. PRIOR TO CONSTRUCTION OR EXCAVATION, THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA OF CONSTRUCTION. "MISS UTILITY" OF VIRGINIA (1-800-552-7001) MUST BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO EXCAVATING THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY EXISTING UTILITIES THAT ARE DAMAGED DURING CONSTRUCTION, AT HIS OWN EXPENSE.

OWNER/DEVELOPER: STEVE HALLIDAY 4926B LAUDERDALE AVENUE VIRGINIA BEACH, VIRGINIA 23455 PHONE: 757-777-2277 EMAIL ADDRESS: SHALLIDAY @ AFFINITY4.COM CIVIL ENGINEER:

GADDY ENGINEERING SERVICES, LLC

MICHAEL S. GADDY, PE, LS

508 BIRDNECK RD., SUITE D. VIRGINIA BEACH, VIRGINIA 23451 PH: (757)-289-5933 EMAIL: mike.gaddy@gmail.com

DATE

08.08.19

03.23.21

04.14.21

05.21.21

06.11.21

INITIAL

MSG

MSG

MSG

ATLANTIC OCEAN LAKÉ PLÉASURE LAUDERDALE AVE.

LOCATION MAP SCALE: 1" = 1.000'



Sheet List Table			
Sheet Number	Sheet Title		
C1	COVER SHEET		
C2	TOPOGRAPHIC SURVEY, DEMOLITION, EROSION, & SEDIMENT PLAN		
C3	SITE PLAN		
C4	DETAILS		
C5	DETAILS		

Agreement in Lieu of an Erosion and Sediment Control Plan Required

Agreement in Lieu of a Stormwater Management Plan Required **Development Plan Approval City of**

Virginia Beach

Planning/Development Services Commercial Site Plan

Multi-Lot Residential

Single Family Site Plan

Center (DSC) Duplex Site Plan Land Management Drainage Plan Single Family Site Plan in RPA

- The City of Virginia Beach has reviewed this development plan <u>solely</u> for the purpose of ascertaining its compliance with applicable City ordinances, specifications, standards, policies, and procedures. submitted, complies with such ordinances, specifications, standards, policies, and procedures. The City's approval of this development plan is not, and shall not in any way be deemed or construed to constitute, approval by the City of the accuracy or sufficiency of any design, engineering, structure, improvement, or other information set forth therein. Rather, the City relies solely upon the seal of the design professional of record that this development plan is designed and engineered in accordance with all applicable industry standards of care and practices. Accordingly, the City, and its agents, volunteers, servants, employees and officials shall be neither responsible nor liable for any claims, actions, suits, damages, losses, or expenses, including reasonable attorney's fees and any litigation expenses, resulting from or arising out of or in connection with the design or engineering shown on this approved development plan, the information set forth therein or any work performed in
- accordance with said approved development plan. • The approval of this development plan or the subsequent issuance of a building permit by Planning/Permits and Inspections does not constitute authority for any person, firm or agency to perform work of any nature within the limits of City street rights-of-way/easements without first obtaining a right-of-way permit from Planning/Development Services Center (DSC). Exception:
- driveway apron associated with a residential building permit. • The City of Virginia Beach hereby grants **APPROVAL** for the proposed improvements shown on this development plan. All improvements shall be installed as shown on this development plan and in accordance with all applicable City of Virginia Beach ordinances, specifications, standards, policies and procedures. This approval is VALID for a period of five (5) years from the approval date shown

Zoning Information

. SINGLE FAMILY RESIDENTIAL Standard Setbacks – Variance Setbacks: Zoning Inspection: BZA _____ CUP ___ <65

DSC File Number: E02-010247-SF Date: 07/01/2021

DSC/Zoning Staff

RESERVED FOR APPROVAL CERTIFICATION & NOTES

PLAN STATUS **DESCRIPTION**

5th Site Plan Submittal

PAZ#1 Rev. 7/16/07

1st Site Plan Submittal 2nd Site Plan Submittal 3rd Site Plan Submittal 4th Site Plan Submittal

COVER SHEET

Beth Sykes

1 of 5 Sheets



GADDY ENGINEERING SERVICES. LLC mike.gaddy@gmail.com

*** CAUTION *** THE UTILITIES SHOWN ARE FOR CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, SIZE, DIMENSION AND ELEVATION OF ALL UNDERGROUND UTILITIES. GADDY ENGINEERING SERVICES, LLC ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF BURIED UTILITIES SHOWN ON THE PLANS OR LACK THEREOF. THE CONTRACTOR IS RESPONSIBLE FOR HIRING A PROFESSIONAL SUBSURFACE UTILITY LOCATOR FOR FIELD VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE LIMITS OF WORK. FOR MORE INFORMATION REGARDING THE LOCATION OF UNDERGROUND UTILITIES CALL MISS UTILITIES AT 1-800-552-7001 OR DIAL 811 IN VIRGINIA. ANY DISCREPANCIES IN REFERENCED HORIZONTAL LOCATIONS, ELEVATIONS, DIMENSIONS OR DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK. ANY DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

06.11.21

- 1. THE PROPERTY SHOWN HEREON IS LOCATED WITHIN FLOOD ZONE "X and VE (EL 9)", AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP FOR THE CITY OF VIRGINIA BEACH, VIRGINIA COMMUNITY MAP #5155310017G AND LAST DATED **JANUARY 16, 2015**.
- 2. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF MICHAEL S. GADDY, L.S. (LIC. NO. 3255) FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON MARCH 29, 2019; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE
- 3. SANITARY SEWER AND WATERLINES SHOWN FROM CITY RECORD 'AS-BUILTS'. REFERENCE FLAT FILE #'S E02-002 AND E02-008

TERRY LYNN LEUCI, TRUSTEE

LOT 32A

THOMAS A. BURCHER &

DONALD S. BUCKLESS, TRUSTEE

(INSTR. 20190114000033280) GPIN: 1570-42-8809

APPROXIMATE LOCATION OF

FLOOD ZONE LINE AS SCALED -

PORTION OF LAUDERDALE AVENUE CLOSED BY CITY COUNCIL 08-02-71

SEWER MANHOLE

RIM=10.50(PR*)

INV=(-)0.43(PR*)

D.B. 1227 PG. 576

LAUDERDALE AVENUE

(FORMERLY LAKE AVENUE)

(50' RIGHT-OF-WAY) (M.B. 6, PG. 123)

FROM F.I.R.M.

APPROXIMATE LOCATION OF

(INSTR. 20140929000915500)

GPIN: /1570-42-8869

FENCE 0.2' OUT -

3-STORY FRAME

WALL 1.0' QUT -

DECK

(UNIMPROVED RIGHT-OF-WAY)

(M.B. 6, PG. 123)

S64°08'47"E 50.00

BLOCK-18

METER

ELECTRIC

METER 24.9'

24.9'

1-STORY FRAME

⁻25.00'

- FENCE 0.1' OUT - FENCE ON LINE

> BLOCK-18 GPIN: 1570-42-881

167'± TO NEAREST FIRE HYDRAN<u>T</u>

25.00'

N64°08'47"W

METER

10" D.I. STORM FM

8" PVC (PR*)

SEWER MANHOLE

RIM=9.57

INV=0.49(PR*)

PENCÉ 0.6' IN

- FENCE 0.5' IN

N64°08'47"W

LOT 29

KELLY DIPASQUALE, TRUSTEE (INSTR. 20180418000313670) GPIN: 1570-42-8851

25.00'

LOT 13

PAUL S. BLILEY, TRUSTEE

(INSTR. 20150305000186190)

GPIN: 1570-42-9818

ZONE "VE (EL 9.0)"

4' PRIVATE PEDESTRIAN

INSTR.#20180418000313670

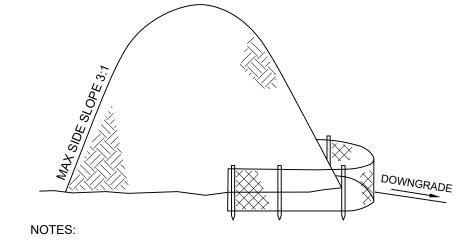
USE OF LOTS 29 & 30

CONC.

ACCESS EASEMENT TO FOR THE

(PRIVATE DRIVE)

BLOCK-18



1. STOCKPILING - SELECT STOCKPILE LOCATION TO AVOID SLOPES, NATURAL DRAINAGEWAYS, AND TRAFFIC ROUTES. ON LARGE SITES, RESPREADING IS EASIER AND MORE ECONOMICAL WHEN TOPSOIL IS STOCKPILED IN SMALL PILES LOCATED NEAR AREAS WHERE THEY WILL BE

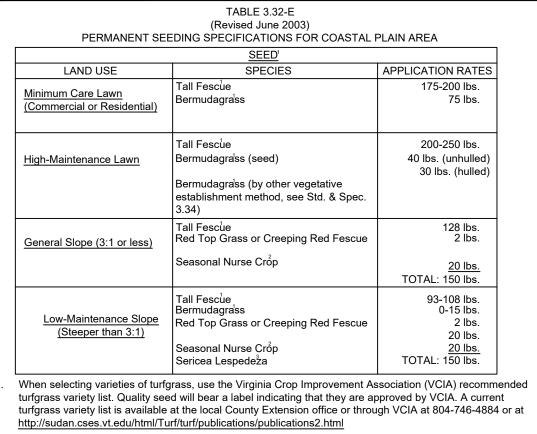
2. SEDIMENT BARRIERS - USE BARRIERS AROUND STOCKPILES TO RETAIN SEDIMENT AS SHOWN ON THE PLANS.

3. TEMPORARY SEEDING - PROTECT TOPSOIL STOCKPILES BY TEMPORARILY SEEDING AS SOON AS POSSIBLE, NO MORE THAN 21 CALENDAR DAYS AFTER THE FORMATION OF THE STOCKPILE.

4. PERMANENT VEGETATION - IF STOCKPILES WILL NOT BE USED WITHIN 90 DAYS THEY MUST BE STABILIZED WITH PERMANENT VEGETATION TO

TYPICAL STOCKPILE

NTS



Use seasonal nurse crop in accordance with seeding dates as stated below: February, March-April... ..Annual Rve May 1st-August Foxtail Millet September, October-November 15th.. ...Annual Rye November 16th-January....

May through October, use hulled seed. All other seeding periods, use unhulled seed. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods increase to 30-40

FERTILIZER & LIME Apply 10-20-10 fertilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000 sq. ft.) Apply Pulverized Agricultural **Limestone** at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

SEEDING SCHEDULE

VE&SC STD & SPEC 3.32

(UNIMPROVED RIGHT-OF-WAY)

(M.B. 6, PG. 123)

When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical

• A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.

• Incorporate the lime and fertilizer into the top 4-6 inches of the soil by disking or by other means.

Bulletin# 4. 2003 Nutrient Management for Development Sites

at http://www.dcr.state.va.us/sw/e&s.htm#pubs

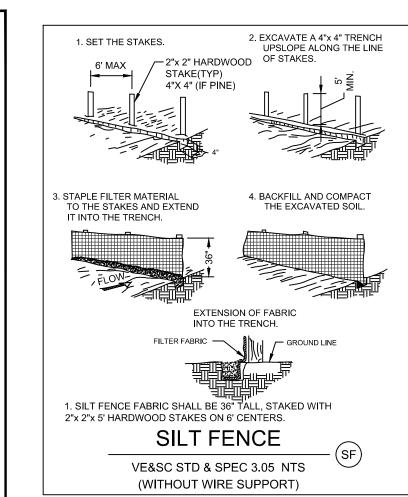


TABLE 3.31-B ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS "QUICK REFERENCE FOR ALL REGIONS PLANTING DATES SEPT. 1 - FEB. 15 50/50 MIX OF ANNUAL RYEGRASS (Lolium multi-florum) 50 - 100 CEREAL (WINTER) RYE (Secale cereale) ANNUAL RYEGRASS (Lolium multi-florum) MAY 1 - AUG. 31 GERMAN MILLET (Setaria italica) **TEMPORARY** SEEDING SCHEDULE VE&SC STD & SPEC 3.31

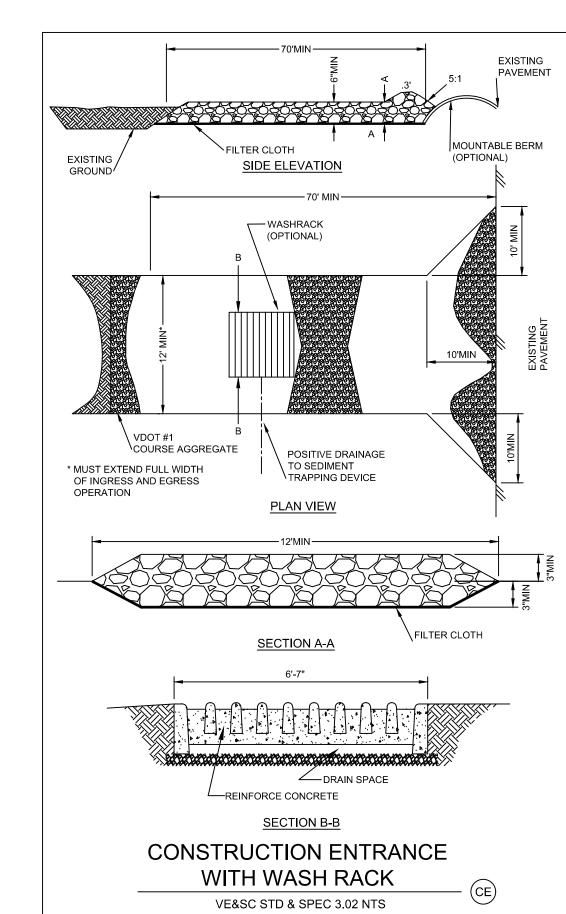
EROSION & SEDIMENT CONTROL LEGEND DESCRIPTION DENOTES AREA TO BE REMOVED **TEMPORARY STONE** CONSTRUCTION ENTRANCE SILT FENCE

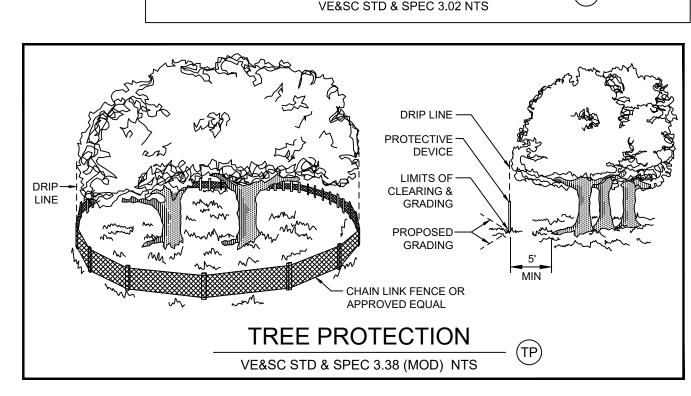


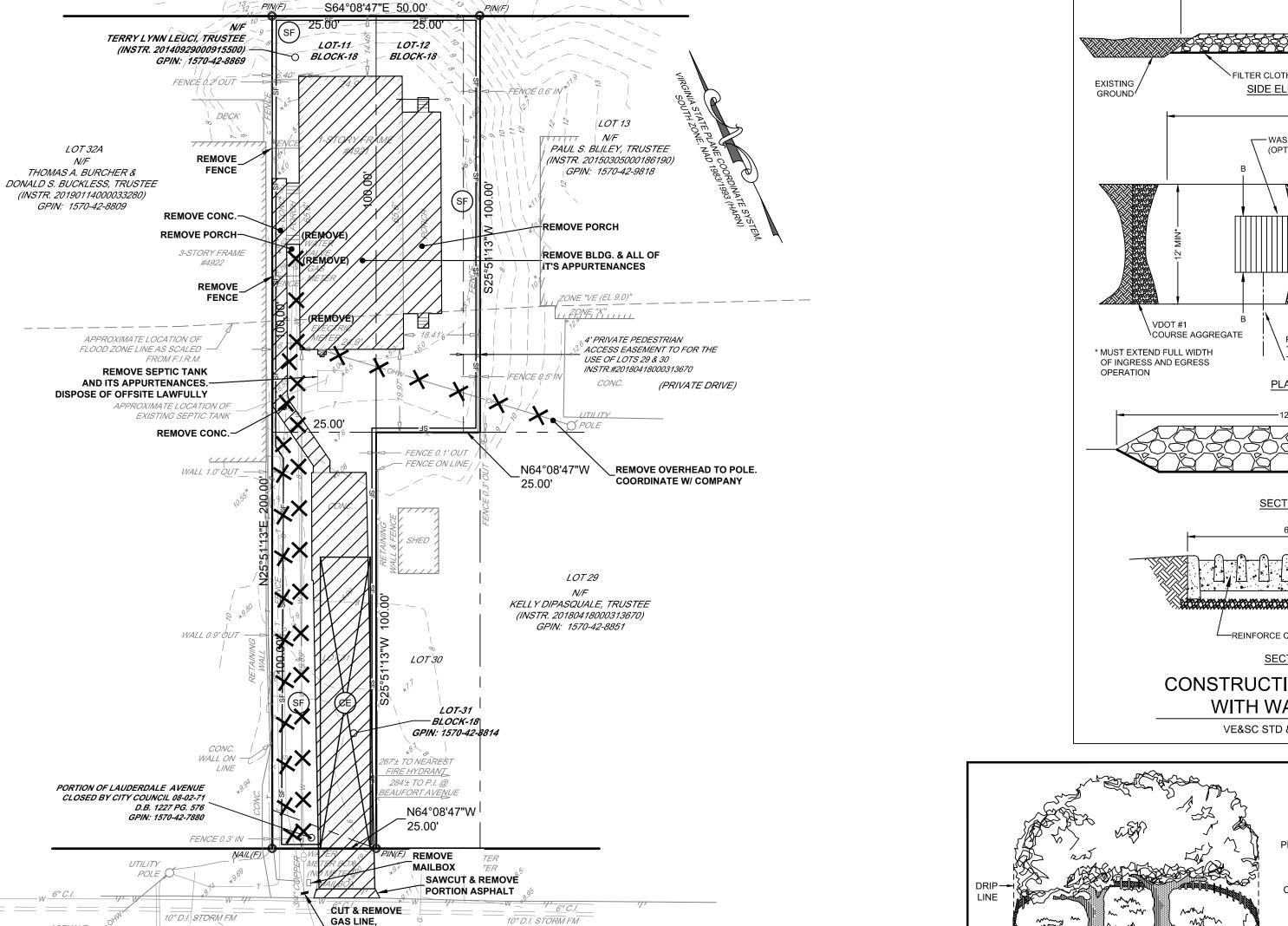
GADDY ENGINEERING SERVICES. 508 N. BIRDNECK RD. SUITE D VIRGINIA BEACH, VIRGINIA 23451 CONTACT: MICHAEL S. GADDY, PE, LS 757-289-5933

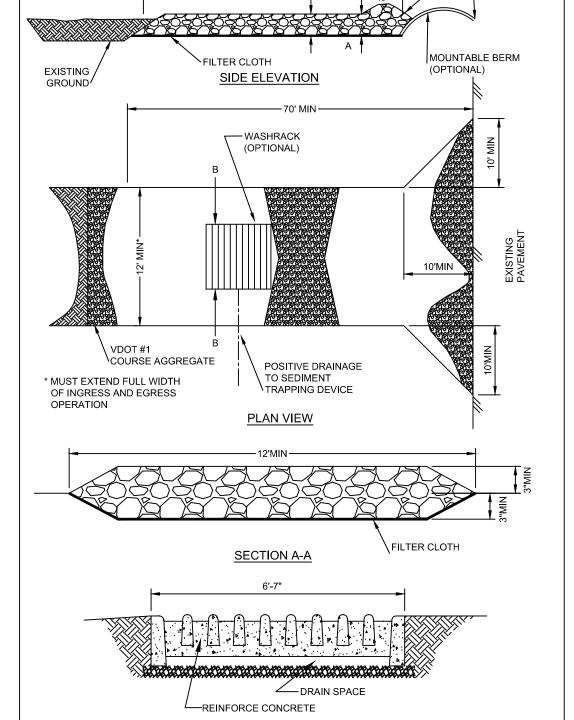
EROSION CONTROL AND CONSTRUCTION SEQUENCING ACQUIRE NECESSARY PERMITS.

- 2. THE CONTRACTOR MUST CONTACT THE PLANNING/CIVIL INSPECTIONS OFFICE AT 385-4558 FOR A PRE-CONSTRUCTION MEETING BEFORE ANY CONSTRUCTION ACTIVITY BEGINS. IN ADDITION, CONTACT CITY ARBORIST AT 385-4461 PRIOR TO ANY TREE REMOVAL WITHIN THE CITY RIGHT-OF-WAYS.
- 3. INSTALL EROSION AND SEDIMENT CONTROL MEASURES. EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE AND SHALL BE MAINTAINED UNTIL SUCH A TIME AS A VEGETATIVE COVER IS ESTABLISHED. 3. REMOVE ITEMS DENOTED ON PLAN.
- 4. CONSTRUCT BUILDING, PAVEMENT, & UTILITIES
- GRADE PER PLAN.
- 6. DRESS AND OVERSEED ALL DISTURBED AREAS AND IMMEDIATELY ESTABLISH PERMANENT VEGETATIVE COVER. MAINTAIN VEGETATIVE COVER THROUGHOUT DURATION OF PROJECT.
- REPAIR ANY INADVERTENT EROSION AND REMOVE ANY INADVERTENT SEDIMENTATION. 8. REMOVE REMAINING TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WITHIN
- THIRTY DAYS AFTER FINAL SITE IS STABILIZED WITH VEGETATIVE GROWTH. 9. REMOVE ALL TEMPORARY EQUIPMENT, CONSTRUCTION MATERIALS AND DEBRIS FROM THE
- 10. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, OR THE FINAL RELEASE OF ANY PERMIT AUTHORIZING A LAND-DISTURBING ACTIVITY, ALL DISTURBED OR DENUDED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL LAW AND REGULATIONS BY SUCH METHODS AS, BUT NOT LIMITED TO, TEMPRORY SEEDING, PERMANENT SEEDING, SOD OR SOIL STABLIZATION BLANKETS AND MATTING. THE BUILDING CODE OFFICIAL MAY AUTHORIZE A TEMPORARY CERTIFICATE OF OCCUPANCY WITHOUT THE REQUIRED SOIL STABILIZATION IF THE FAILURE TO STABLIZE IS DUE TO CIRCUMSTANCES BEYOND THE CONTROL OF THE PERMIT HOLDER.
- 11. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL OWNERS AND RESIDENTS OF THE PROPERTY ADJACENT TO A DEVELOPMENT OR OFF-SITE IMPROVEMENTS 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK UNLESS OTHERWISE DIRECTED BY THE CITY









of 5 Sheets

SCALE: 1" = 20'

DEMOLITION, EROSION, & SEDIMENT PLAN

SEWER MANHOL RIM=9.57

INV=0.49(PR*)

COORDINATE

W/ COMPANY

8" <u>VCP (</u>PR*)

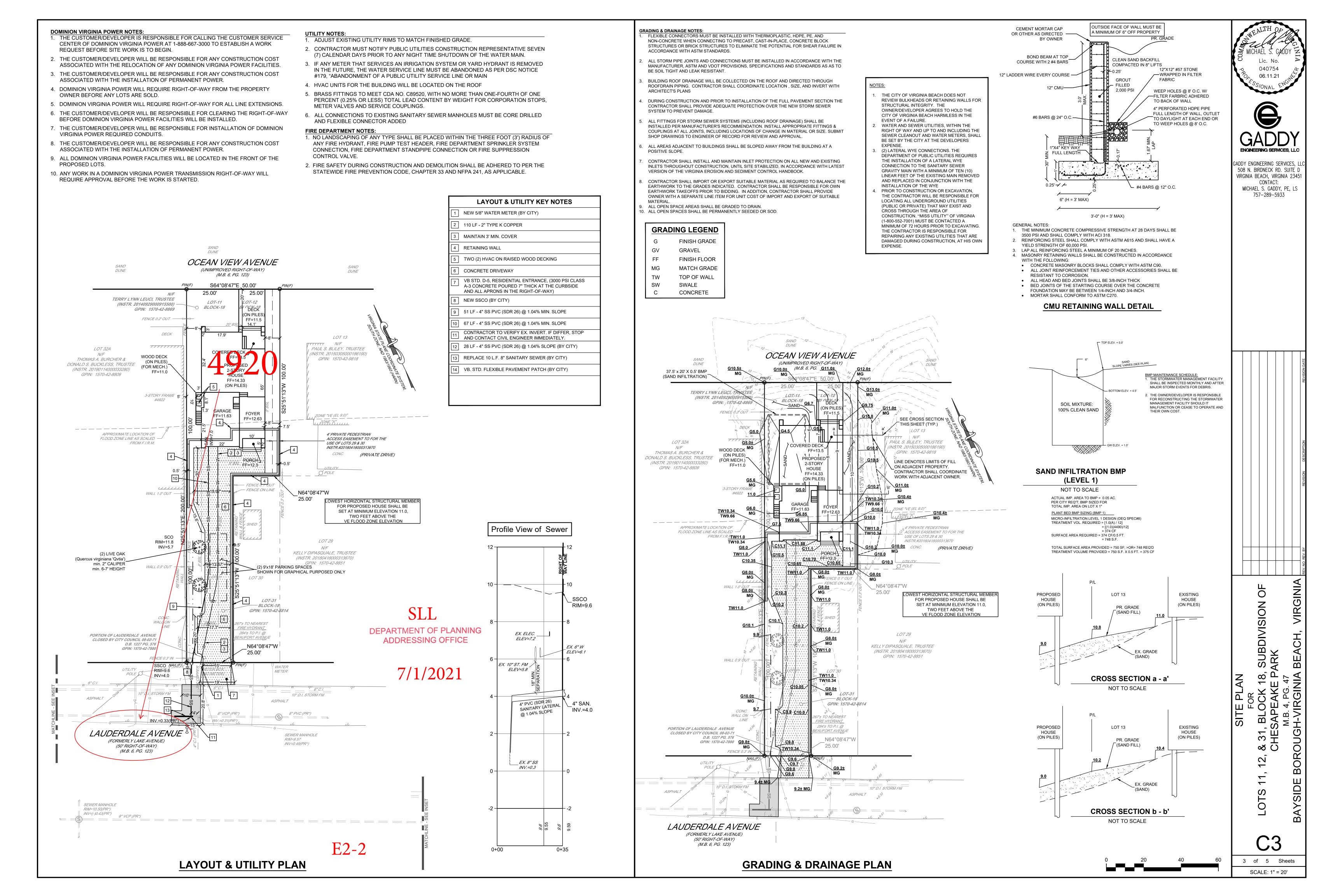
LAUDERDALE AVENUE

(FORMERLY LAKE AVENUE)

(50' RIGHT-OF-WAY)

(M.B. 6, PG. 123)

TOPOGRAPHIC SURVEY



N/A	Erosion and Sediment Control Plan Preparation Cehcklist Using 19 Minim	Explanation of how MS standard is addressed
	Virginia Erosion and Sediment Control Minimum Standards (9VAC25-840-40)	
	MS1: 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 7 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.	The stabilization practices, limits of clearing and grading and seeding specifications are shown on the Plans.
	MS2: 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.	Silt fence will be used at the toe of all stockpile slopes. Intermediate or temporary (Perennial) seeding will be used for long term (30 day to one year) temporary stockpile areas.
	MS3: 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.	The requirements for establishing the permanent vegetation are provided on the Plan.
	MS4: 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.	All measures intended to trap sediment during construction are shown on the Plans. All of these measures will be constructed as a first step in any land-disturbing activity and will be made functional before upslope land disturbing takes place.
▼	MS5: Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.	There are no earthen structures as part of the proposed developm
*	 MS6: 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. 	No sediment traps of basins are proposed.
	MS7: 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.	All cuts and fill slopes are designed in a manner that will minimize erosion as indicated on the Grading & Drainage Plans. Slopes fou to be eroding excessively within one year of permanent stabilization will be provided with additional slope stabilizing measures until the problem is corrected.
	MS8: Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.	Concentrated runoffs will be directed to permanent channels.
✓	MS9: Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.	Water seepage from slope faces are not expected within the limits of this work.
	MS10: 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.	Existing and proposed storm sewer inlets within or adjacent to the limits of construction are adequately protected.
	MS11: 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.	Conveyance will be handled via storm sewer piping. Adequate protection is provided.
✓	MS12: 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.	No work within watercourse is proposed.
√	MS13: 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.	No work within watercourse is proposed.
√	MS14: All applicable federal, state and local requirements pertaining to working in or crossing live watercourses shall be met. MS15: The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.	No work within watercourse is proposed. No work within watercourse is proposed.
	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.	standards in addition to other applicable criteria.
	MS17: 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.	A temporary construction entrance located at the point of vehicular ingress and egress on the construction site will be provided to reduce the soil transport onto the public roads and other paved areas. Any and all material or debris tracked onto a public road ar private road surface will be cleaned thoroughly. Sediment will be removed from roads by shoveling and sweeping and it will be transported to a sediment controlled disposal area.
	MS18: 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.	The timely removal of temporary control structures and stabilization of trapped sediment and disturbed soil have been addressed in the Plans.
	MS19-Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, valocity and peak flow rate of stormwater until for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incurporate natural channel design concepts are not man-made channels.	This development will be required to meet the stormwater regulation as outlined in 9VAC25-870-93; PART IIB. Stormwater management for the site via an agreement in lieu of.

MS19 Preparation Checklist and Certification FormRev4 instructions to contractor 8-17-12

City of Virginia Beach Subdivision and Site Development General Notes Criteria (Rev. 8-30-2013)

Development & Compliance Criteria

Development in the City of Virginia Beach shall conform to the latest edition of: the City of Virginia Beach, Public Works Specifications and Standards Manual, the City of Virginia Beach Department of Public Utilities Design Standards Manual, the City of Virginia Beach Department of Public Utilities Standard Details, the Virginia Erosion and Sediment control Regulations, the Virginia Erosion and Sediment Control Handbook, the Virginia Stormwater Management Handbook, the Virginia Department of Transportation Road and Bridge Specifications. the Virginia Department of Transportation Road and Bridge Standards, the American Standard For Nursery Stock and the Landscaping Guide City of Virginia Beach, and all other applicable ordinances and regulations unless otherwise noted

An erosion and sediment control surety and/or stormwater management surety will be posted with the Development Services Center (DSC) and before the issuance of any permits, following plan approval, in the appropriate amount, to be determined during plan review. 3. The owner/developer/contractor will obtain a right-of-way permit from the DSC, City of Virginia Beach, Virginia, prior to construction within any existing public right-of-way or public

easement. A copy of the approved traffic control plan must be submitted with the right-of-way permit application. 4. The owner/developer/contractor/responsible land disturber (RLD) will contact each appropriate inspections bureau to schedule an on-site pre-construction meeting and/or inspection activity 48 hours prior to the commencement of any land disturbance or construction activity. 5. The stormwater management facility (SWMF) shall not be excavated beyond the typical section(s) as shown on the approved plan unless written approval is obtained from the

DSC. Site materials excavated beyond the typical section(s) shall not be used or sold off-site unless the owner/developer/contractor complies with the current City ordinances pertaining to the operation of borrow pits. Excavation materials from the SWMF that are proposed as backfill must be certified for that purpose, and approval is required by the DSC's Engineer prior to use. Backfill materials may be stockpiled and will not interfere with existing drainage in accordance with the PWSS Section 15.7. 6. Horizontal Datum: This (plat, plan, drawing, survey, etc.) is based on the Virginia State Plane Coordinate System, South Zone, NAD 1983/1993 (HARN). Coordinate values shown are expressed in U.S. Survey Feet.

7 The City of Virginia Beach shall assume no responsibilities or liabilities for the damage or injury that may be incurred as a result of any encroachment into a public easement or

right-of-way. Since an encroachment is considered to be temporary in nature, the current owner(s) are required to remove the encroachment at their expense when deemed necessary by the City of Virginia Beach. As the easement runs with the land, the owner(s) will give notification to the heirs, assigns, successors in title or lessee of the existence of any encroachment and the rights of the City of Virginia Beach. 8. The owner/developer/contractor will be responsible for driveways, walks, curbs, pavement markings, etc., that must be cut, removed, or damaged during construction.

9. Caution: Wetlands may be involved within the boundary of development. The owner/developer/contractor/RLD must comply with the exact limits of construction. Permits may be

Erosion & Sediment Control (ESC) and Tree Protection Notes

required from federal, state, and local agencies.

Vertical Control: This (survey, drawing, etc.) is based on NAVD, 1988.

Unless otherwise indicated, all vegetative and structural erosion and sediment control and tree protection practices shall be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook (VESCH) and the Virginia Erosion and Sediment Control Regulations (4VAC50-30 et seq), Chapter 30 and Appendix E (Tree Planting, Preservation and Replacement) and any other applicable sections of the Code of the City of Virginia Beach and the Planning

Department's Landscaping Guide. 2. The contractor shall exercise every reasonable precaution, including the application of temporary and/or permanent measures deemed necessary before, during, and after construction to control erosion and prevent or minimize sediment runoff and protect trees and vegetation. The Planning Department/Permits and Inspections Division shall enforce these requirements. The City Inspector reserves the right to require other measures not specifically described herein to correct any erosion, siltation or tree protection condition. 3. Non-compliance with any ESC regulation or policy may result in a Notice to Comply, Stop Work Order (SWO) or other legal action.

5. After obtaining the Land Disturbing Permit and at least 48-hours prior to any land disturbing activity, the contractor shall contact Planning/Civil Inspections at (757) 385-4558 to schedule a pre-construction meeting. Failure to contact Planning/Civil Inspections prior to any land disturbing activity may result in a Notice to Comply, Stop Work Order or other 6. The contractor shall contact the Landscape Management Division, Department of Parks and Recreation at (757) 385-4461 at least three (3) days prior to damaging, trimming,

4. A copy of the erosion and sediment control plan approved by Planning Department/Development Services Center (DSC) shall be kept at the site at all times

pruning or removing trees or other vegetation in the City right of way or in City Easements or on City owned property and again immediately after completion of the work. 7. All erosion and sediment control and tree protection measures shall be installed with the first stage of construction and will remain in place until all disturbed areas are stabilized and their removal is directed by the Civil Inspector. All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved. The measures shown on the plan are the minimum necessary. The addition, deletion or modification of erosion and sediment control and tree protection measures will be at the direction of the Civil Inspector. The Civil Inspector may determine when a plan revision is to be submitted to the DSC for review

and approval. 8. Trapped sediment and the disturbed soil areas resulting from the removal of erosion and sediment control and tree protection measures at the end of construction shall be permanently stabilized to prevent further erosion and sedimentation. The original soil grade within any protected tree's drip line shall be preserved and maintained and shall not be disturbed by regrading.

9. The Responsible Land Disturber (RLD) shall inspect: a. during or immediately following initial installation of erosion and sediment controls,

 b. at least once in every two-week period, c. within 48 hours following any runoff producing storm event, and

d. at the completion of the project. In addition, the RLD shall maintain written monitoring reports on-site and provide to the Civil Inspector upon request.

Stabilization measures shall be applied to earthen structures dams, dikes, diversions, side slopes of sediment traps and basins immediately after installation 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. Sediment basins shall be maintained as specified and not converted to permanent stormwater management facilities during land disturbance. Conversion to a permanent stormwater management facility should only occur after permanent stabilization of disturbed areas draining to the basin has occurred.

13. All borrow material shall be excavated from a lawfully permitted site and all excavated material shall be disposed of at a lawfully permitted site. Prior to commencing land disturbing activities in areas other than indicated on these plans a separate Erosion and Sediment Control Plan approval and permit will be required for these off-site areas, if not already approved and permitted

14. Dewatering and well point discharge shall be pumped into an approved filtering device that provides appropriate erosion and sediment control measures. The measures must be approved by the Civil Inspector prior to the commencement of discharge operations. Failure to comply may result in a Notice to Comply. Stop Work Order or other legal action. 15. The contractor shall construct and maintain a temporary construction entrance at each point of ingress/egress per VESCH Std & Spec 3.02. Sites with significant construction traffic may be required to install a larger width and/or longer length construction entrance as deemed necessary by the DSC Engineer or the Civil Inspector. A wash rack may be deemed necessary and required by the Civil Inspector.

16. The contractor shall construct, install, and maintain sufficient erosion and sediment control devices to prevent soil from being eroded and placed on streets, in drainage systems and watercourses. Devices will be clear of mud, debris, and eroded material during all stages of construction. Devices are subject to inspections after a storm event and as 17. Any and all material or debris tracked onto a public or private road surface shall be removed thoroughly at the end of each day or as directed by the Civil Inspector. Sediment shall

be removed from roads by shoveling or sweeping and be transported to a legally permitted disposal facility. 18. The contractor shall be responsible for preventing surface and air movement of dust from exposed soils which may present health hazards, traffic safety problems, or harm anima

or plant life. The contractor shall monitor and take precautions to control dust, by, including but not limited to, the use of water or chemical dust palliative, by limiting the number of vehicles allowed on-site, and minimizing the operating speed of all vehicles. 19. Silt fence fabric shall be constructed of standard 36" filter fabric, staked with 2" x 2" hardwood stakes placed a maximum of 6-foot on center and entrenched in accordance with

the VESCH Std & Spec 3.05. 20. The use of straw bales is prohibited for erosion and sediment control in Virginia Beach unless otherwise approved by the Civil Inspector 21. Due to local experience, some commercially available manufactured ESC devices have been deemed not appropriate or approved in Virginia Beach. Check with the Civil

Inspector for approval prior to installing manufactured devices. 22. Prior to any clearing, grading, or construction, tree protection shall be placed around all trees to be retained. The tree protection shall be in accordance with the VESCH Std &

23. No items, including but not limited to, boards, wires, or signage, shall be nailed or attached to trees to be retained. 24. No stockpiling, placement of materials or equipment, or parking of vehicles shall occur within the tree protection area. 25. The contractor shall immediately notify the City Arborist of damage to trees located in City rights of way and public easements. Damaged tree limbs shall be cut back to the next lateral branch or parent stem at the branch collar. Care for serious injury should be prescribed by the City Arborist.

26. Trees located in City rights of way and public easements that are to be retained, but are destroyed during construction shall be replaced with species, sizes and quantities to be determined upon tree value assessment by the City Arborist. Replacement trees shall conform to the latest edition of The American Standard For Nursery Stock and Planning Department's Landscaping Guide. 27. Trees on private property that are to be retained, but are destroyed during construction shall be replaced with species, sizes and quantities to be determined through a plan

revision to be submitted to, reviewed and approved by the Planning Department/Development Services Center. Replacement trees shall conform to the latest edition of The American Standard For Nursery Stock and Planning Department's Landscaping Guide.

the City of Virginia Beach.

As-built plans must be prepared be a professional engineer or land surveyor licensed in the Commonwealth of Virginia and must be submitted to and approved by the DSC for all SWMF, prior to the release of erosion and sediment control (E&S) and SWMF surety bonds posted with the DSC 2. A test pit in the location of the infiltration SWMF is required prior to the construction of the SWMF. Contact the Planning Civil Inspector for the appropriate meeting. Exfiltration tests are required for all volume control infiltration SWMF's in accordance with PWSS. Excavation volumes and limits of excavation can only be determined during the actual field construction and must be approved by the Planning Civil Inspector in the location of the SWMF prior to the construction.

3. The owner/developer/contractor/RLD must contact the Planning Civil Inspector at (757-385-4558), prior to any construction. A minimum of five (5) inspections are required for infiltration structures. Failure to contact the Planning Civil Inspector, as directed, could result in removal and reconstruction of structures. The Planning Civil Inspector must be notified 48 hours prior to the beginning of construction 4. If subgrade soils have been determined to be suitable for infiltration use based on soil information/evaluation, this information must be certified by a professional engineer and

submitted to the DSC's Engineer for approval prior to the use for the project. 5. The City of Virginia Beach will not be responsible for the design, functioning, maintenance, and/or repair of SWMF's, excluding those areas and/or improvements located within dedicated City drainage easements and right-of-way. 6. The owners will give notifications to their heirs, assigns, successors in title, or lessee of the SWMF, utilized with this development and of the above stated disclaimer (Note 5) by

7. All on-site SWMF's will be protected by silt fence or other approved devices at the direction of the Civil Inspector during all stages of construction to ensure optimum efficiency upon completion and to minimize erosion and sediment from entering into the structure during construction. 8. Public or private utility facilities will not conflict with the structural prism of the proposed SWMF's as shown on the approved plans. If a conflict occurs, the owner/developer/contractor/RLD must immediately contact Planning/Civil Inspections.

9. Exfiltration tests for volume control SWMF or infiltration SWMF's will be performed at each trench location, in accordance with Planning/Civil Inspections policy, prior to the acceptance by the Planning Civil Inspector. Test results must show that the exfiltration trench is in accordance with the City of Virginia Beach performance criteria and approved certified soil report for infiltration SWMF's. 10. All stone sizes for SWMF's will be in accordance with Chapter 8, "Stormwater Management" of the PWSS.

11. All SWMF drainage structures will be protected with a minimum of four feet (4') of sod around the structure and silt fencing will be installed surrounding the sod as required unless otherwise approved by the DSC's Engineer and noted in the plan details. 12. All underground SWMF's must be marked with a 5" x 5" x 1/4" thick, or larger, steel plate at each corner or it must be marked with white metallic marking tape that is three inches (3") wide and placed on top of the SWMF, not to extend one foot (1') below the ground surface. In certain cases, at the option of the Planning Civil Inspector, it may be appropriate

13. All pipe joints and connections must be installed in accordance with the manufacturer, ASTM and VDOT provisions, specifications and standards so as to be soil tight and leak 14. All HDPE & PE pipe specified on the plans and delivered to the site shall be Type S pipe in no lengths less than ten (10) feet long and shall conform to AASHTO M252 and

AASHTO M294 and ASTM F2306, for materials and installation with soil tight connections and/or gaskets conforming to ASTM F477. PVC ribbed pipe shall adhere to AASHTO

15. All thermoplastic, HDPE, PE and non-concrete pipe must have minimum 2-feet of cover during all phases of construction. 16. Flexible connectors must be installed when connecting HDPE pipe to concrete or brick structures.

06.11.21

Date

1. Prior to construction or excavation, the contractor will be responsible for locating all underground utilities (public or private) that may exist and cross through the area of construction. "Miss Utility" of Virginia must be contacted a minimum of 72 hours prior to excavating at "811" or (1-800-552-7001). The contractor is responsible for repairing any existing utilities that are damaged during construction, at his own expense.

2. The relocation of any utilities (public or private) located within the City's right-of-way, will be at the developer's expense, and completed prior to the placement of any proposed roadway base material or pavement in conjunction with the site work. All new utility line installations must be underground (such as telephone, power, cable television, etc.). 3. Water meters and sewer cleanouts must be placed at the right-of-way or at the public utility easement line, (within the right-of-way/easement), outside of entrances and sidewalks. 4. Deflecting, offsetting, or relocating existing utility mains will not be allowed except under extreme circumstances, such exemptions will be submitted to the DSC's Public Utilities

5. Type "K" soft drawn copper will be used for off-site water service lines, two-inch (2") lines and under, in right-of-ways and public utility easements. 6. The owner/developer/contractor must contact Public Utility/Inspections at (757-385-4175) at least 48 hours prior to construction (public or private) located within the City's right-of-way or easement.

Temporary drainage during construction will be provided by the owner/developer/contractor to relieve areas that may cause damage to roadways and/or adjacent properties as directed by Planning/Civil Inspections. The Planning/Civil Inspector will perform an on-site inspection of storm sewer pipe installation prior to any backfilling of the installed pipe.

3. If precast drainage structures are used, shop drawings will be submitted to the DSC's Engineer by the owner/developer/contractor's design consultant, along with the proper certifications, unless previously approved by the City Engineer's Office. 4. All proposed public storm drainage structures shall utilize inlet shaping with paved inverts, unless otherwise noted, on the plans for each structure. 5. Minimum final height of cover, for all storm sewer pipes, shall be two feet (2') or manufacturer's recommendation. See the PWSS, Section 2.2.7 "Pipe Cover", for further

requirements. 6. All concrete storm sewer pipes in the City right-of-ways and easements will be tongue and groove. Pipes subject to traffic loading will be reinforced concrete pipe and conform to the specifications for concrete storm sewer pipe, AASHTO designation M-170, with the modification that all pipes will be manufactured with 4,000-PSI concrete. All pipe joints will be sealed in accordance with Section 302.03 of the Virginia Department of Transportation Road and Bridge Specifications

7. All storm sewer pipe joints will be installed, silt free, or will be completely wrapped with two feet (2') wide approved filter fabric, secured in place prior to backfilling. 8. All pipe culverts (water, sewer, and storm sewer), located within right-of-way excavation areas that are subject to traffic loads will be backfilled with select or granular materials and placed in six-inch (6") layers and compacted to 95 percent theoretical AASHTO density in accordance with Section 302.03 of the Virginia Department of Transportation Road

All metal pipe culverts and storm sewers will be installed in accordance with drawings PB-1 of the Virginia Department of Transportation Road and Bridge Standards. 10. If metal pipe is used, the owner/developer/contactor will furnish pH certifications of the backfill material if the backfill material has not been previously tested. 11. All non-concrete storm sewer pipes placed in the City right-of-way or in City drainage easements will incorporate the use and installation of locator tape/wire to aid in future

All concrete will be Class "A-3" Air Entrained (3,000 PSI) in accordance with Section 217 of the Virginia Department of Transportation Road and Bridge Specifications

unless otherwise specified. Both curb and gutter will be constructed in sections of uniform lengths, approximately ten feet (10') with no sections will be less than six feet (6'). Expansion joints will be formed at intervals of 100 feet using ½-inch premolded bituminous fiber joint filler. Construction joints are required as follows: a. Curb & Gutter

b. Five feet (5') wide sidewalk c. Ten feet (10') wide muli-use path

All entrances will be made of a minimum of seven inches (7") thick concrete from the edge of pavement to the right-of-way line. The contractor shall provide expansion material where new concrete meets existing concrete

4. All concrete work performed in the right-of-way will be inspected by the Planning Civil Inspector.

Pavement and Open Cuts

No open cuts of a public roadway will be allowed except under extreme circumstances. Open cutting of public roadways will be permitted with prior written permission by the DSC's Engineer.

Minimum on-site (private property) pavement replacement and design will be 2-inches, SM-9.5A bituminous concrete surface, over a six-inch (6") Type I or II aggregate base. Pavement replacement and design in City right-of-ways will be in accordance with Section 5.13 "Pavement Replacement and Patching" of the PWSS. 4. The minimum pavement design with the right of way or easement will be 1 ½-inches SM-9.5A bituminous concrete surface asphalt concrete, over 3-inches BM-25.0A Base Mix asphalt concrete, over a 6-inches Type I No. 21A aggregate base material, over compacted subgrade in accordance with Section 5.13 of the Public Works Specifications and

5. Materials that are determined unsuitable for foundations, subgrades, or other roadway purposes within the limits of construction, will be excavated by the contactor, at his own expense, below the grade shown on the plans. Excavated areas will be backfilled with approved suitable materials. Excavated materials suitable for backfill will be stockpiled so as not to interfere with drainage. Unsuitable material will be removed from the site and shall be disposed of in a lawful manner

The replacement of pavement will be in accordance with standard pavement patching detail standards drawings C-3a, "Flexible Pavement Patch for Local & Collector Streets"; or C-3b, "Flexible Pavement Patch for Major & Minor Arterials"; or C-4, "Rigid Pavement Patching" and Section 5.13 of the PWSS. Certification of materials and the test results (e.g., CBR and Proctor, etc.) from each source of supply for select borrow and select material will be submitted to Planning/Civil

Inspections by the contractor prior to installation 8. Certification of materials and test results on the following items will be submitted to Planning/Civil Inspections by the contactor before any road construction is performed: a. The proctor test on the native subgrade materials b. The optimum moisture content of the aggregate.

c. The theoretical maximum density of the aggregate All City infrastructure to be removed, i.e. brick pavers, light poles, planters, etc., must be delivered to the City, or arrangements must be made for pick-up by the proper 10. No construction is allowed within the rights of way of Atlantic and Pacific Avenues and connecting numbered streets between Atlantic and Pacific avenues from Rudee Inlet to

44th Street between May 1 and October 1

A permit for any sign or sign pole must be obtained from Planning/Permits and Inspections. Only flood resistant material may be used below the 100-year flood elevation

3. All structures must be properly anchored with adequate footing below the 100-year flood elevation. 4. No mechanical equipment, electrical equipment, or electrical lines will be installed or located below one foot (1') above the 100-year flood elevation, except underground wiring

or similar materials. All buildings will be accessible in accordance with the <u>American for Disabilities Act</u> (ADA), (latest edition) standards.

Parking, ramps, and building access routes must be in accordance with the American for Disabilities Act (ADA), (latest edition) standards.

There will be no more than 1/2-inch difference between the finished floor and the exterior surface at the entrance door. 8. A permit to demolish any existing structure will be obtained from Planning/Permits and Inspections, prior to any demolition

EROSION AND SEDIMENT CONTROL NARRATIVE

THE PURPOSE OF THIS PROJECT IS FOR THE DEVELOPMENT OF A NEW SINGLE FAMILY HOUSE ON LOTS 11, 12, & 31 LOCATED AT 4921 LAUDERDALE, CITY OF VIRGINIA BEACH, VIRGINIA. THE PROPOSED PROJECT CONSISTS OF EROSION AND SEDIMENT CONTROL INSTALLATION, SITE GRADING, UTILITIES, LANDSCAPING, AND STORMWATER CONVEYANCE. APPROXIMATELY 0.172 ACRE ON-SITE WILL BE DISTURBED DURING CONSTRUCTION.

THE EXISTING SITE WAS PREVIOUSLY DEVELOPED. DRAINAGE PATTERNS WILL BE MAINTAINED AS PREVIOUS.

THE SUBJECT SITE IS BOUNDED BY A RESIDENCE TO THE EAST & WEST; BEACH TO THE NORTH, AND LAUDERDALE AVENUE TO THE SOUTH.

ACCORDING TO THE UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE SOIL SURVEY OF CITY OF VIRGINIA BEACH, VIRGINIA, THE SOIL WITHIN THE PROPOSED DEVELOPMENT IS IDENTIFIED AS 22E, NEWHAN.

CRITICAL AREAS: CARE SHALL BE TAKEN TO MINIMIZE THE EROSION AND TRANSPORT OF SEDIMENT TO THE ADJACENT STORM SEWER SYSTEM. CRITICAL AREAS SHALL BE MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESC), LATEST EDITION.

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VE&SC HANDBOOK. THE MINIMUM STANDARDS OF THE VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

TEMPORARY CONSTRUCTION ENTRANCE - VESC STD. 3.02 A TEMPORARY STONE CONSTRUCTION ENTRANCE WITH WASH RACK WAS SELECTED TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. A TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK SHALL BE INSTALLED AS INDICATED ON THE DEMOLITION, EROSION & SEDIMENT CONTROL PLANS. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE LEAVING THE CONSTRUCTION SITE.

SILT FENCE BARRIER - VESC STD. 3.05 SILT FENCE WAS SELECTED TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE. SILT FENCE WILL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES AS INDICATED ON THE DEMOLITION, EROSION & SEDIMENT CONTROL PLANS.

VEGETATIVE PRACTICES

RESERVING AND USING TOPSOIL TO PROVIDE A SUITABLE GROWTH MEDIUM FOR VEGETATION USED TO STABILIZE DISTURBED AREAS. APPLICABLE WHERE PRESERVATION OR IMPORTATION OF TOPSOIL IS MOST COST-EFFECTIVE METHOD OF PROVIDING A SUITABLE GROWTH MEDIUM; NOT RECOMMENDED FOR SLOPES STEEPER THAN 2:1 UNLESS ADDITIONAL MEASURES ARE TAKEN TO PREVENT SLOUGHING AND EROSION.

EMPORARY SEEDING SHALL BE USED 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. TEMPORARY SEEDING WILL ALSO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM OR OFF-SITE AREAS. AND TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATIVE OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.

PERMANENT SEEDING - VESC STD. 3.32
PERMANENT SEEDING IS THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED. THE PURPOSE OF PERMANENT SEEDING IS TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS. PERMANENTLY STABILIZED DISTURBED AREAS ARE ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOW SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS. PERMANENT SEEDING IMPROVES WILDLIFE HABITAT AND ENHANCES NATURAL BEAUTY. RATE AND TIME OF APPLICATION WILL BE INDICATED IN THE SEEDING SCHEDULE SHOWN IN THE SITE PLAN'S NOTES AND DETAIL SHEET.

APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERHEAD FLOW VELOCITIES. FOSTERS PLANT GROWTH BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD. SHOULD BE APPLIED TO ALL SEEDING OPERATIONS, OTHER PLANT MATERIALS WHICH DO NOT PROVIDE ADEQUATE SOIL PROTECTION BY THEMSELVES, AND BARE AREAS WHICH CANNOT BE SEEDED DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS.

STABILIZING DISTURBED AREAS BY PLANTING TREES, SHRUBS, VINES AND GROUND COVERS WHERE TURF IS NOT PREFERRED. THESE PLANT MATERIALS ALSO PROVIDE FOOD AND SHELTER FOR WILDLIFE AS WELL AS MANY OTHER ENVIRONMENTAL BENEFITS. ESPECIALLY EFFECTIVE WHERE ORNAMENTAL PLANTS ARE DESIRABLE AND TURF

TREE PRESERVATION AND PROTECTION - VESC STD. 3.38
PROTECTING EXISTING TREES FROM MECHANICAL AND OTHER INJURY DURING LAND-DISTURBING AND CONSTRUCTION ACTIVITY TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL AND PROVIDE OTHER ENVIRONMENTAL AND AESTHETIC BENEFITS.

EDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION OR CONSTRUCTION ACTIVITIES IN AREAS SUBJECT TO DUST PROBLEMS IN ORDER TO PREVENT SOIL LOSS AND REDUCE THE PRESENCE OF POTENTIALLY HARMFUL AIRBORNE SUBSTANCE.

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.

2. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.

3. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER ROUGH GRADING.

4. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

5. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

6. DEVELOPMENT OF THE SITE WILL INCLUDE THE FOLLOWING:

* SILT FENCE TO BE INSTALLED AS SHOWN. * REMOVAL OF EXISTING STRUCTURES.

* ROUGH GRADING OF THE SITE AREA. * SEED AREAS NOT TO BE SODDED.

7. WITHIN 30 DAYS AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

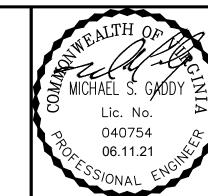
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

STORMWATER RUNOFF CONSIDERATIONS TORMWATER MANAGEMENT IS NOT REQUIRED

CALCULATIONS:
CALCULATIONS ARE NOT REQUIRED.

N GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED * THE TEMPORARY CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. ALL

MATERIAL TRACKED ONTO A PUBLIC OR PRIVATE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A SEDIMENT CONTROLLED DISPOSAL AREA. * THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER. * THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.





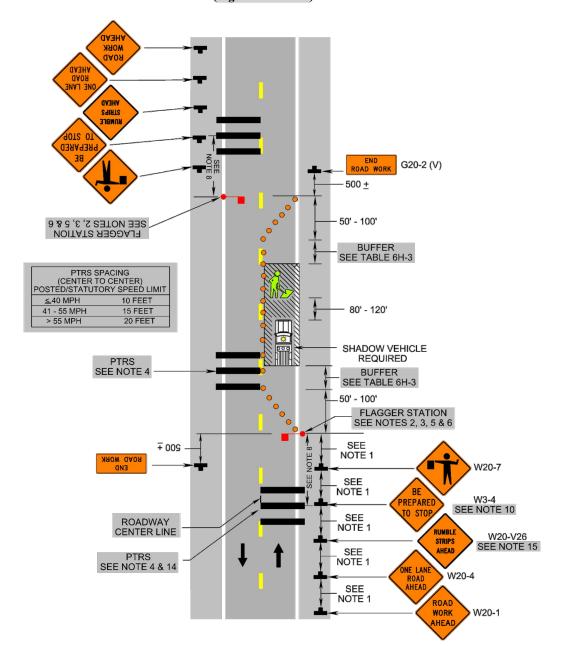
GADDY ENGINEERING SERVICES. 508 N. BIRDNECK RD. SUITE D VIRGINIA BEACH, VIRGINIA 23451 CONTACT: MICHAEL S. GADDY, PE, LS 757-289-5933

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4 of 5 Sheets

SCALE: N/A

Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2)



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

Page 6H-54

September 2019

Typical Traffic Control Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2) **NOTES**

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 notorists should be stopped at a flagger station is 8 minutes for high volume roadways (average daily raffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than

00 vehicles per day). For additional information see Section 6E.07.2

4. Portable Temporary Rumle Strips (PTRS) shall be used as noted in Section 6F.99.2 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

6. 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). 7. Cone spacing shall be based on the posted speed and the values in Table 6H-4 on Page 6H-6.1 8. A shadow vehicle with at least one high intensity amber rotating, flashing, or oscillating light shall

8. A SLOW (W21-V10) sign² may be required in this area to give advance warning of the operation ahead

be parked 80'-120' in advance of the first work crew.

from both directions, may be used (see Chapter 6E).

by slowing approaching traffic prior to reaching the flagger station or queued traffic.

9. If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs, and if used the PTRS¹ should be readjusted at greater distances. 10. 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

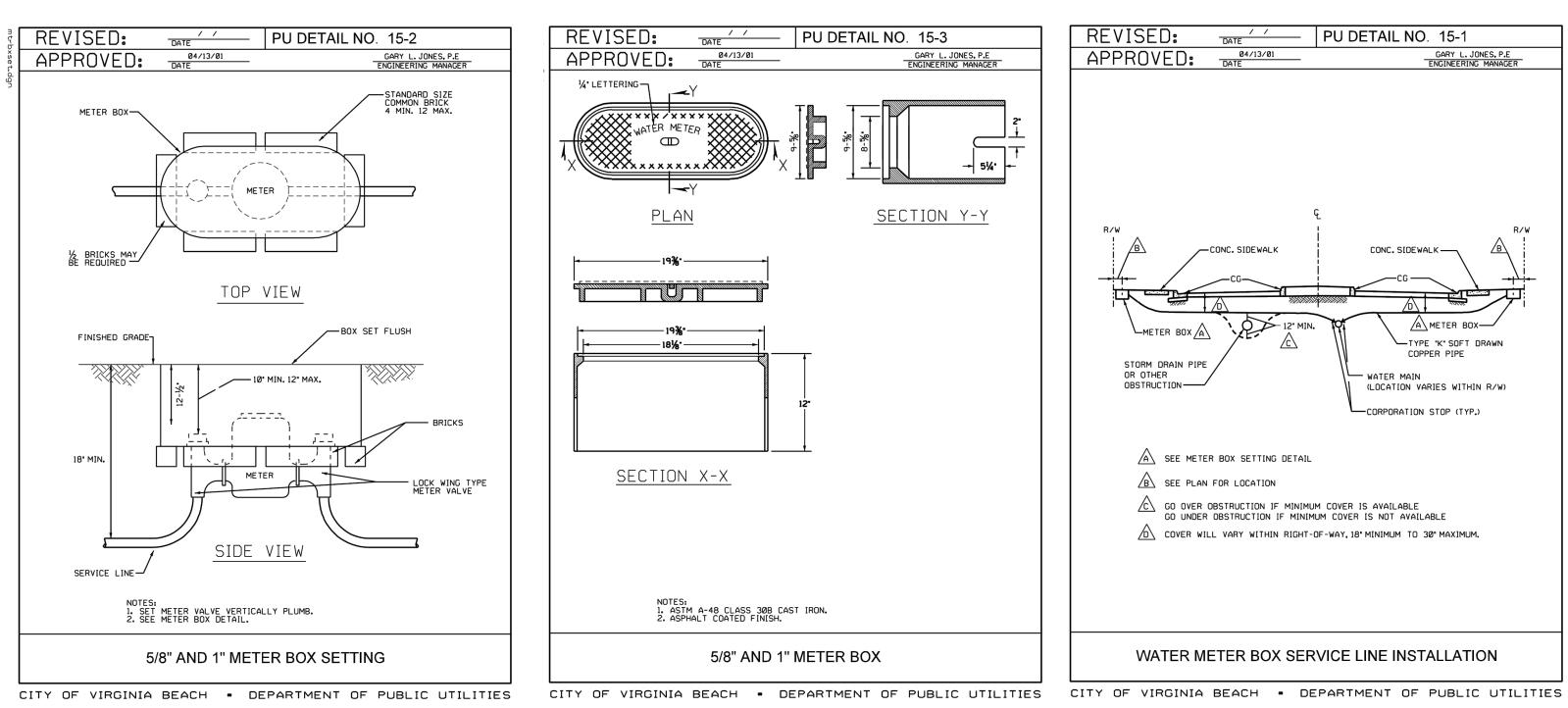
11. At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).

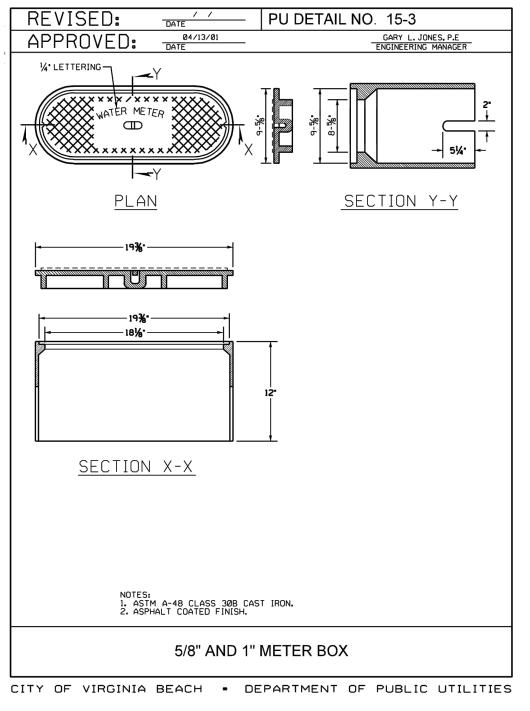
crossing (see Figure TTC-56 for additional information on highway-rail crossings).

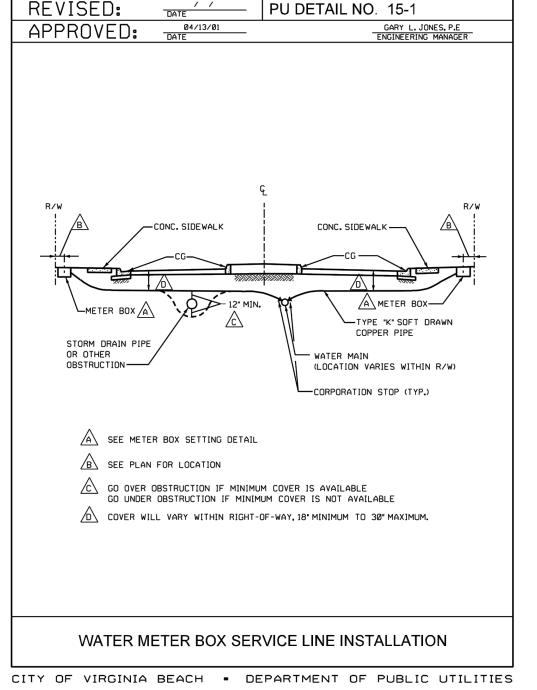
12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet 13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road

Standard: 14. When used², three portable temporary rumble (PTRS) strips shall be installed across the entire travel lane adjacent to the BE PREPARED TO STOP (W3-4) sign. The portable temporary rumble strips shall be monitored and adjusted as necessary during the work shift to ensure proper placement on the roadway. When the PTRS are installed, the RUMBLE STRIPS AHEAD (W20-V26) sign shall also be utilized.

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







CONSTRUCTION NOTES

V.D.O.T. SPECIFICATIONS,

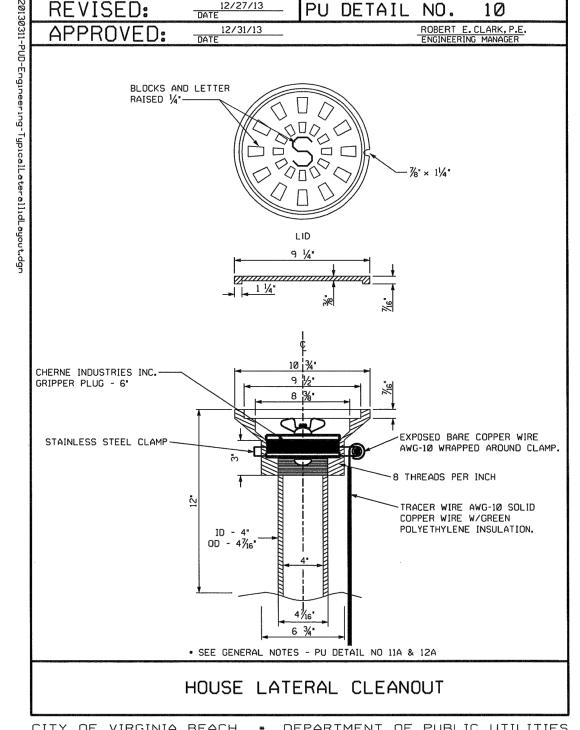
- SAW CUT TO BE COATED WITH AN APPLICATION

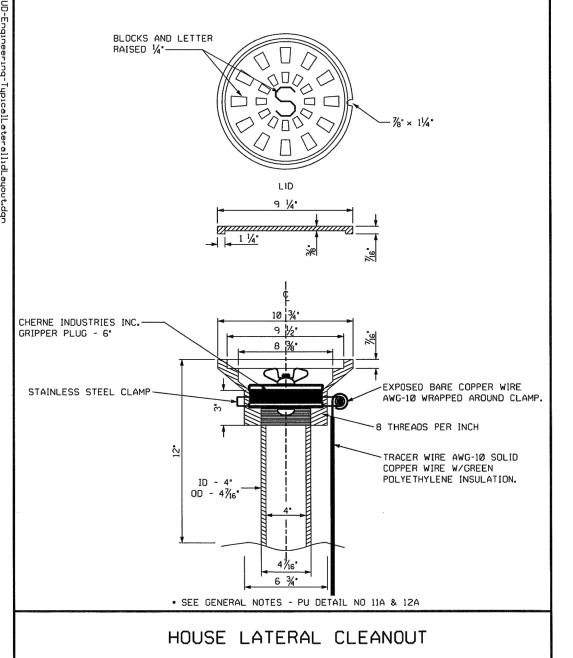
ALLOWED AS AN ALTERNATE IN AREAS WHERE
CURB AND GUTTER WAS PREVIOUSLY
INSTALLED, EXCEPT WHERE AN EXPANSION
JOINT IS INSTALLED WITHIN THE LIMITS OF

OF A TWO (2) COMPONENT EPOXY BONDING COMPOUND IN ACCORDANCE WITH THE

2. THIS METHOD OF CONSTRUCTION WILL BE

THE PROPOSED ENTRANCE OR IN CASE OF FAULTY WORKMANSHIP. IN THIS INSTANCE, COMPLETE REMOVAL OF THE CURB AND GUTTER.





SURFACE

-SAW CUT TO BE NO LESS THAN 60° NOR MORE THAN 90° FROM HORIZONTAL.

LOCAL STREET CUL-DE-SAC

COLLECTOR/ARTERIAL < 35 MPH | 12' - 20' | 16' - 24'

FOR FURTHER DETAILS SEE SECTION 3.10.4

9' - 20' | 13' - 24'

8' - 20' | 12' - 24'

CITY OF VIRGINIA BEACH

RESIDENTIAL ENTRANCES

LOCAL STREET

SECTION A-A

15' RADIUS (MIN.) REQUIRED FOR

--*------------

─_DEPRESSED CURB

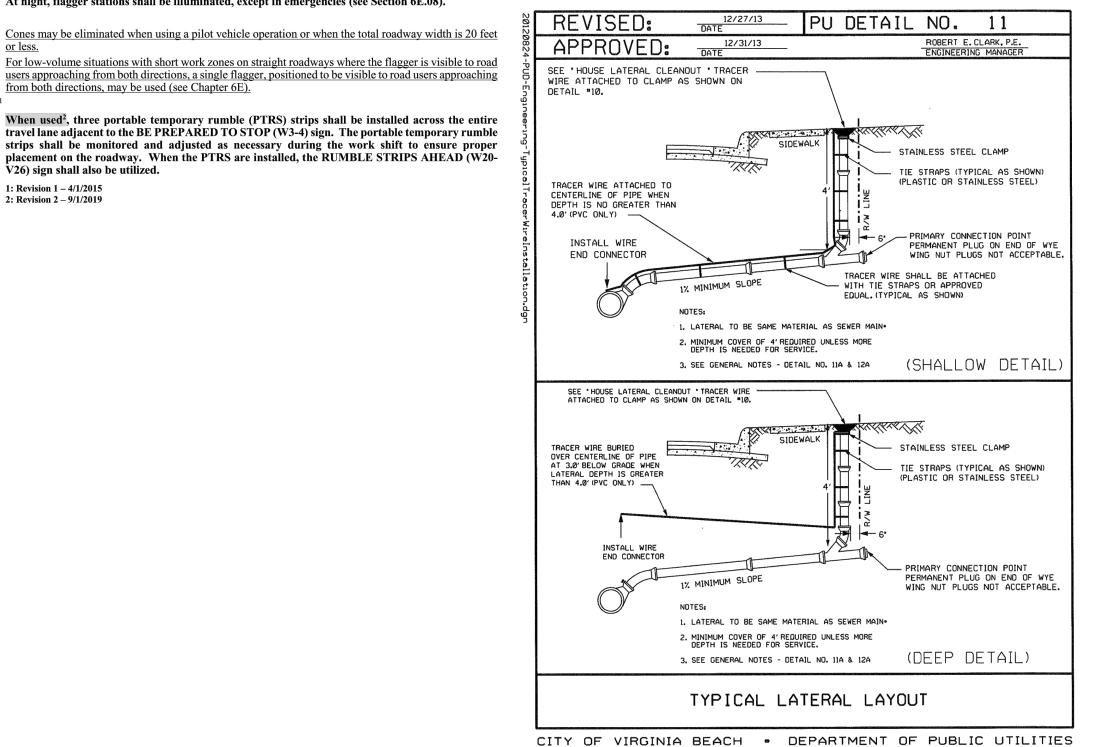
COLLECTOR STREETS AND

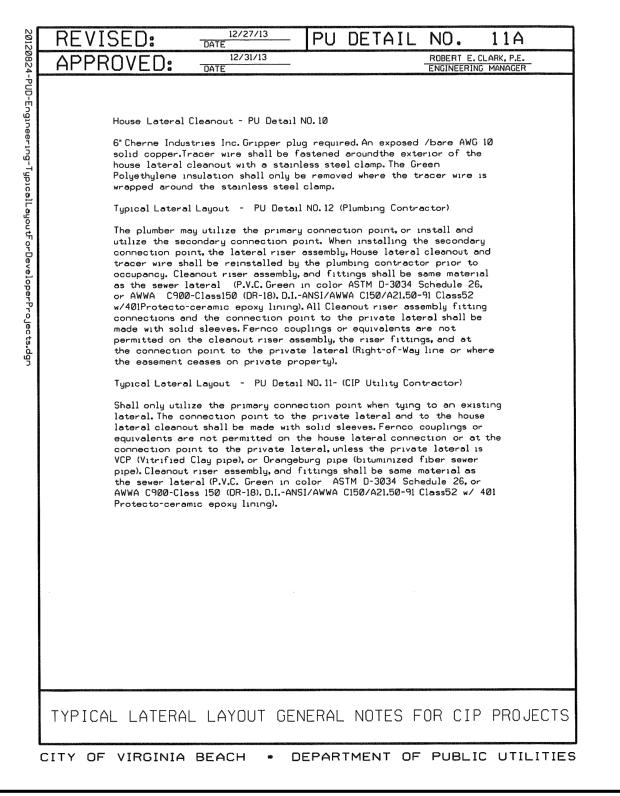
MAJOR ARTERIALS-

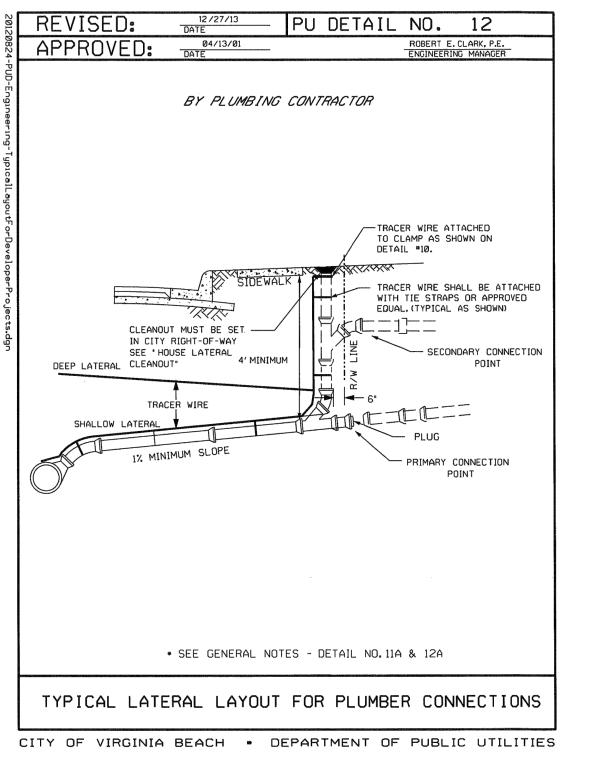


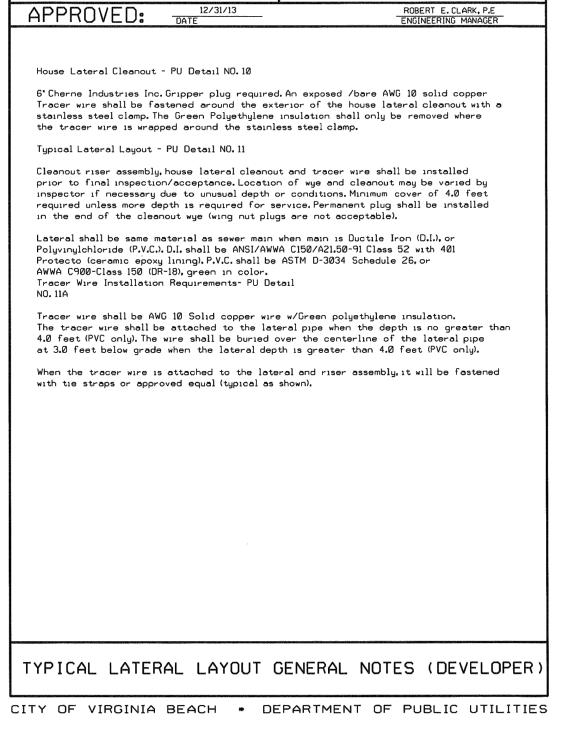
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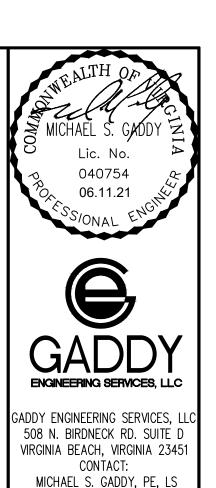
12/27/13 DATE



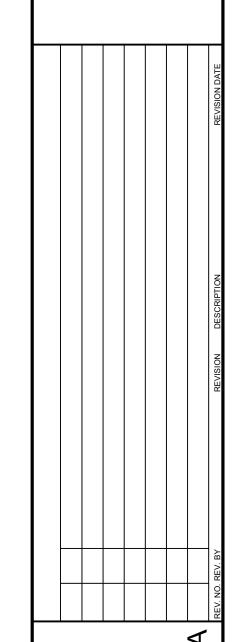








757-289-5933



BEACH, 2, 8 OF CF I.B. 4, 1 BOROUG

5 of 5 Sheets

SCALE: N/A