

GENERAL NOTES:

- At least 72 hours prior to any excavation, contractor shall contact MISS UTILITIES OF VA at 811 or online to have utilities marked.
- 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.
- GPIN(s) 14698422470000
- This lot or parcel survey was created by instrument #20051110001835770
- Zoning: R20
- AICUZ note: This site does not lie within aircraft Accident Potential Zone "NONE" and/or Clear Zone and/or Noise Zone(s) <65 dB and is not subject to aircraft accidents and/or above average noise levels due to its proximity to airport operations. Noise zone attenuation measures for new construction may be required in accordance with the airport noise attenuation and safety ordinance and height restrictions have been imposed in accordance with Section 202(b) of the City Zoning Ordinance.
- Vertical Datum and Bench Mark Description (NAVD 88) Station #TJJ-21, Elev 16.93'.
- The site is located in Watershed(s): Primary: Chesapeake Bay
Secondary: Little Creek
EPA: Lynnhaven-Poquoson (HUC 02080108)
- Flood Hazard Zone Note: The property appears to fall within Flood Zone "X" as shown on the FEMA NFIP FIRM for the City of Virginia Beach, Community-Panel Number 515531-0118G, dated 01-16-2015.
- The proposed dwelling is not located in a special flood hazard area.
- Property is not located in a "Flood Zone Subject to Special Restrictions" per City Code, Appendix K, Floodplain Ordinance, Sec. 4.10
- Lowest finished floor note: New construction or substantial improvement of any residential structure or manufactured home, lowest proposed floor elevation, including basements, or bottom of lowest structural member, whichever is applicable, is at least two (2) feet above the base flood level.
- Lot grading statement: 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. (N/A if not applicable)
- Per the approved subdivision construction plan, a 5' wide concrete sidewalk is not required along the frontage of this lot as shown.
- Lot area: 27,982 SF = 0.64 Acres
- Proposed impervious area: 5,000 SF
- Percentage of lot covered by impervious area: 17.9%
- Area of Land Disturbance: 19,500 SF = 0.45 Acres
- Proposed Building Height (measured from the lowest grade 6' from structure to highest point on structure): 35 ft.
- Required Residential Tree Canopy, per City Code Appendix E, Tree Planting, Preservation and Replacement: 2,000 SF
- 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.
- 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 standards.
- 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 Erosion 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.
- 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.
- 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.

UTILITY NOTES:

- City water and sewer is available to this site.
- Sewer and water connection installations, relocations and abandonments will be completed by a licensed utility contractor hired and paid by the developer.
- Utilities to be installed by the developer's contractor in the city right 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 any utility construction located in the city right of way or easements.
- The owner/developer/contractor must contact Public Utilities Inspections at (757) 385-4175 to schedule an inspections prior to placing backfill over the service line(s).
- The Department of Public Utilities requires the installation of a lateral wye 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. CB9520, with no more than one quarter of one percent (0.25%) total lead content by weight shall be used for corporation stops, meter valves and service couplings.
- 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 the City of Virginia Beach Department of Public Utilities Design Standard Manual. Any lines not shown on the plan that are located during construction shall be abandoned per Public Utilities requirements at the developer's expense.
- If structure is to be demolished include the following notes: 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 existing structure. b) Prior to demolition, developer shall contact Public Utility Operations at (757) 385-1400 to remove existing water meter. A new x/x" water meter shall be installed by the City at the developer's expense.

continued, see right....

2	04-25-18	REVS PER CITY COMMENT LETTER DATED 02-26-18	PGE	
1	02-05-18	REVS PER CITY COMMENT LETTER DATED 01-16-18	PGE	
NO.	DATE	REVISION	BY	

SINGLE FAMILY SITE PLAN

LOT 7, 0.633 ACRES, BAYSIDE

(LAKE SHORES SUBD.)

VIRGINIA BEACH, VIRGINIA

DSC FILE #D03-006828-SF

DRAWING INDEX

- COVER / NOTE SHEET
- EXISTING CONDITIONS
- DEMOLITION / E&SC PLAN
- SITE DEVELOPMENT PLAN
- GENERAL NOTES & DETAILS
- DETAILS

SEQUENCE OF CONSTRUCTION

- OBTAIN ALL NECESSARY PERMITS
- SETUP A PRE-CONSTRUCTION MEETING WITH THE CITY CIVIL INSPECTOR.
- INFORM ADJOINING OWNERS OF PROPOSED WORK.
- CALL MISS UTILITY TO MARK ANY UNDERGROUND LINES.
***** IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ANY AND ALL UNDERGROUND LINES.**
- INSTALL SILT FENCE, TREE PROTECTION, AND CONSTRUCTION ENTRANCE.
- DESIGNATE TEMPORARY CONSTRUCTION ENTRANCE AND STAGING AREAS.
- COMMENCE CONSTRUCTION WHILE MAINTAINING EROSION CONTROL.
- REMOVE SILT FENCE AFTER VEGETATION IS FIRMLY ESTABLISHED.
- PROVIDE AS-BUILT SURVEY OF SITE, IF REQUIRED.

continuation...

FIRE PROTECTION NOTES:

- An existing public fire hydrant is not located within 500 feet of the proposed structure.
- There is not a minimum of 20' wide paved access from the existing fire hydrant to within 150 feet of the proposed structure.
- Fire suppression system is required to be constructed within the proposed dwelling. If either or both of the preceding notes is "Is Not", a residential fire sprinkler system per NFPA 13D is typically required unless the property is in the rural southern area of the city.
- Standard concrete driveway apron and asphalt drive will be constructed off uncurbed street.

CITY WATER AND SEWER ARE AVAILABLE.

WATER AND SEWER SERVICE IN RIGHT-OF-WAY TO BE INSTALLED, RELOCATED OR ABANDONED BY DEVELOPER'S LICENSED UTILITY CONTRACTOR.

METER TO BE PLACED AT THE RIGHT-OF-WAY LINE.

STORMWATER MANAGEMENT CERTIFICATION

THE UNDERSIGNED HEREBY CERTIFIES THAT ALL LAND CLEARING, CONSTRUCTION, DEVELOPMENT ACTIVITY AND DRAINAGE SHALL BE IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN.

APPLICANT:		DEVELOPER
HELEN WEN		MHM BAY DEVELOPMENT, LLC 1340 N. GREAT NECK ROAD, #1272-208 VIRGINIA BEACH, VIRGINIA 23454 PHONE 757.450.2108 FAX N/A email: hwen2004@yahoo.com
TITLE:		DEVELOPER
DATE		04.25.18

SEWER FLOW

CITY SEWER: YES
ANTICIPATED SEWER FLOW:
0.215 GPM (AVG.)
0.538 GPM (PEAK)

AWWA CALCULATIONS

42.7 (FIXTURE VALUE)
DFU CALCULATIONS:
18 UNITS

LOT SIZE: 27,982 S.F. OR 0.64 AC.

AREA OF DISTURBANCE: 19,500 S.F. OR 0.45 AC.
PURSUANT TO 4 VAC 50-60-380.B.1, LAND-DISTURBING ACTIVITIES THAT ARE EITHER GREATER THAN ONE ACRE OR EXCEED AN AREA OF 2,500 SQ. FT. IN JURISDICTIONS SUBJECT TO THE CHESAPEAKE BAY PRESERVATION ACT AND REGULATIONS **MUST BE REGISTERED FOR COVERAGE** UNDER THE V.S.M.P. GENERAL PERMIT.

SEE REGISTRATION FORM & FEE INFORMATION ON-LINE AT:
http://www.dcr.virginia.gov/soil_and_water/vsmp.shtml.

SUBMIT REGISTRATION STATEMENT TO:
DEPARTMENT OF CONSERVATION AND RECREATION
SOIL AND WATER CONSERVATION DIVISION
STORMWATER PERMITTING
203 GOVERNOR STREET, SUITE 206
RICHMOND, VA 23219

FRANCHISE UTILITY CONTACTS

VERIZON COMMUNICATIONS

ATTN: DEBRA BALLARD (482-8089)
ENGINEERING DEPARTMENT / FIELD PROJECT OFFICE
765 S. BATTLEFIELD BLVD.
CHESAPEAKE, VA 23322

VIRGINIA NATURAL GAS:

ATTN: LISA ASHLEY (671-3410) (VA. BEACH)
OR MIKE CAMPBELL (671-3462) (VA. BEACH)
OR KEVIN STARKE (461-7529)
ENGINEERING DEPARTMENT / FIELD PROJECT OFFICE
5100 E. VIRGINIA BEACH BLVD.
NORFOLK, VA 23502

COX COMMUNICATIONS

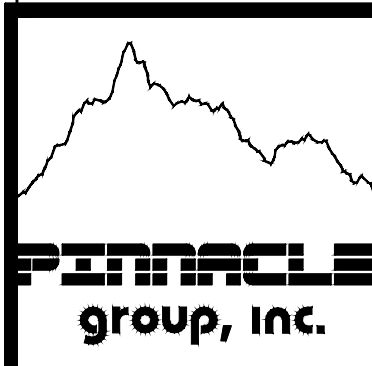
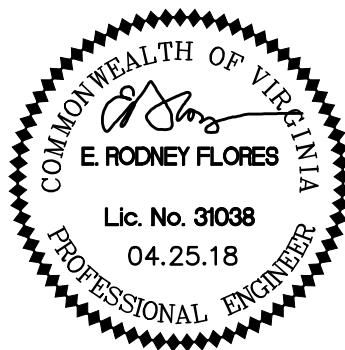
ATTN: THERESA JOHNSON (222-8901)
ENGINEERING DEPARTMENT
5200 CLEVELAND ST.
VIRGINIA BEACH, VA 23462

DOMINION VIRGINIA POWER

ATTN: LISA ASHLEY (671-3410) (VA. BEACH)
MIKE CAMPBELL (671-3462) (VA. BEACH)
WALTER MOYE (671-3500) (VA. BEACH)
DOMINION VIRGINIA POWER ENGINEERING DEPARTMENT
801 S. BATTLEFIELD BLVD.
CHESAPEAKE, VA 23322

LEGEND

EXISTING	PROPOSED	
		INLET PROTECTION
		SILT FENCE
		TREE PROTECTION
		CONSTRUCTION ENTRANCE
		CL DITCH / SWALE
		POWER POLE
		POWER POLE WITH LIGHT
		GUY WIRE
		TELEPHONE PEDESTAL
		OVERHEAD ELECTRIC
		UNDERGROUND ELECTRIC
		GAS
		OVERHEAD ELECTRIC, TELEPHONE & CABLE
		OVERHEAD TELEPHONE & CABLE
		OVERHEAD TELEPHONE
		UNDERGROUND TELEPHONE
		OVERHEAD ELECTRIC & TELEPHONE
		SANITARY SEWER
		SANITARY SEWER CLEAN-OUT
		WATER LINE
		WATER METER
		VALVES
		FIRE HYDRANT
		SIGN
		ASPHALT PAVEMENT
		CONCRETE CURB AND GUTTER
		CATCH BASINS OR CURB INLETS
		DROP INLETS
		MANHOLES
		STORM SEWER
		SPOT ELEVATIONS
		TOP OF CURB
		CONTOURS
		WOOD FENCE
		CHAIN LINK FENCE
		REMOVE LARGE AREAS
		REMOVE AND DISPOSE
		BUILDINGS
		TREE LINE



LOT 7, 0.633 ACRES, BAYSIDE SINGLE FAMILY SITE PLAN

PINNACLE GROUP ENGINEERING, INC.

445 N. BATTLEFIELD BLVD., SUITE R
CHESAPEAKE, VIRGINIA 23320
TELEPHONE (757) 424-7724 FAX. (757) 424-5606
www.pgeva.com
email: rflores@pgeva.com

VICINITY MAP 1"=2000'

BENCHMARK DATA

THIS PLAN IS BASED ON THE NAVD 1988 DATUM. THE CITY OF VIRGINIA BEACH CONTROL REFERENCE POINT USED FOR THE SURVEY AND DESIGN OF THIS PLAN IS STATION TJJ-21, ELEVATION 16.93'.

OWNER INFORMATION

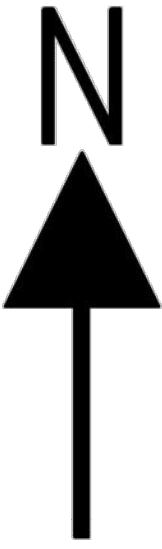
MHM BAY DEVELOPMENT, LLC
1340 N. GREAT NECK ROAD, #1272-208
VIRGINIA BEACH, VIRGINIA 23454-2268
PHONE 757.450.2108
email: hwen2004@yahoo.com

IMPERVIOUS FOOTPRINT CALCULATIONS

BUILDING: 1,705 SQ. FT. OR 6.1% OF LOT
CONCRETE: 450 SQ. FT. OR 1.6% OF LOT
ASPHALT: 2,845 SQ. FT. OR 10.2% OF LOT
BUILDING HEIGHT NOT TO EXCEED 35'

AREA RESERVED FOR CITY APPROVAL STAMPS


INSTR. # 20051110001835770



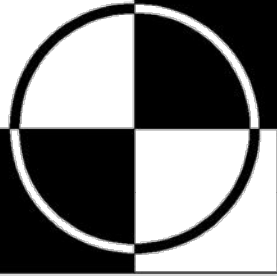
ABBREVIATIONS

C	CONCRETE
DH	DRILL HOLE
EP	EDGE OF PAVEMENT
F	FOUND
G	GROUND
P	PAVEMENT
SCO	SEWER SCEAN OUT
TP	TRAVERSE POINT
WM	WATER METER

THIS TOPOGRAPHIC SURVEY OF PROPERTY SHOWN ON PLAT TITLED "PROPERTY OF IVOR K. MILLER (INSTR. # 20051110001835770)" WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF RICKS PALMER JONES, L.S. #3033 (VA.), FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND / OR ORIGINAL DATA WAS OBTAINED ON OCTOBER 6 - 10, 2017; AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPACIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.


RICKS P. JONES, P.L.S.

RICKS P. JONES
PROFESSIONAL LAND SURVEYOR
344 SHERWOOD DRIVE
SUFFOLK, VIRGINIA 23434-6833
TELEPHONE 757-809-0487
surveyor.jones@outlook.com



TOPOGRAPHIC SURVEY
OF
PROPERTY SHOWN ON PLAT TITLED
"PROPERTY OF IVOR K. MILLER"
(INSTR. # 20051110001835770
JACK FROST ROAD
VIRGINIA BEACH, VIRGINIA

PROJECT TYPE

**TOPOGRAPHIC
SURVEY**

In association with



Construction Layout - (757) 406-7744

0 10 25 50

GRAPHIC SCALE

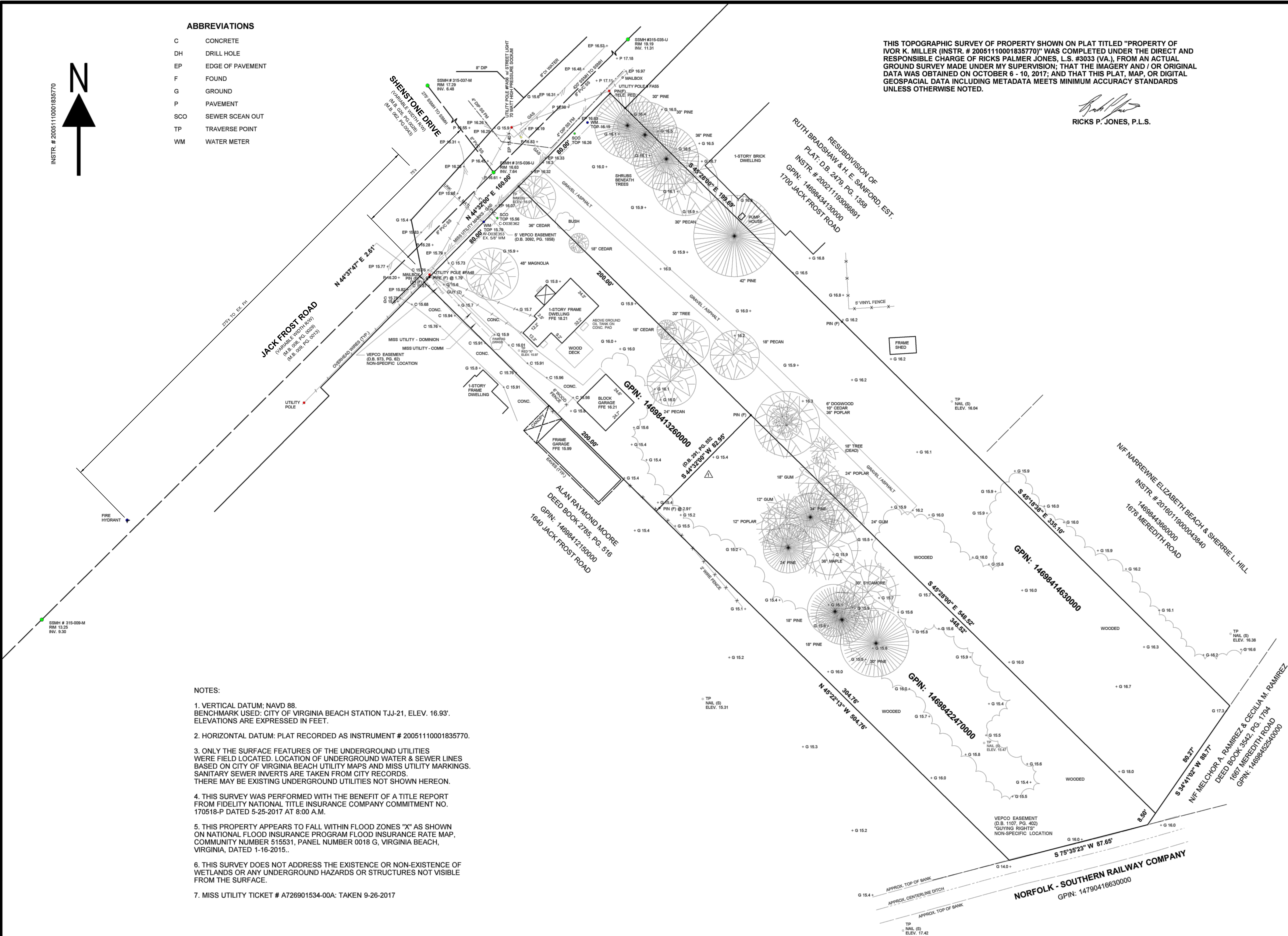
1	BOUNDARY	10-16-17
NO.	REVISION	DATE

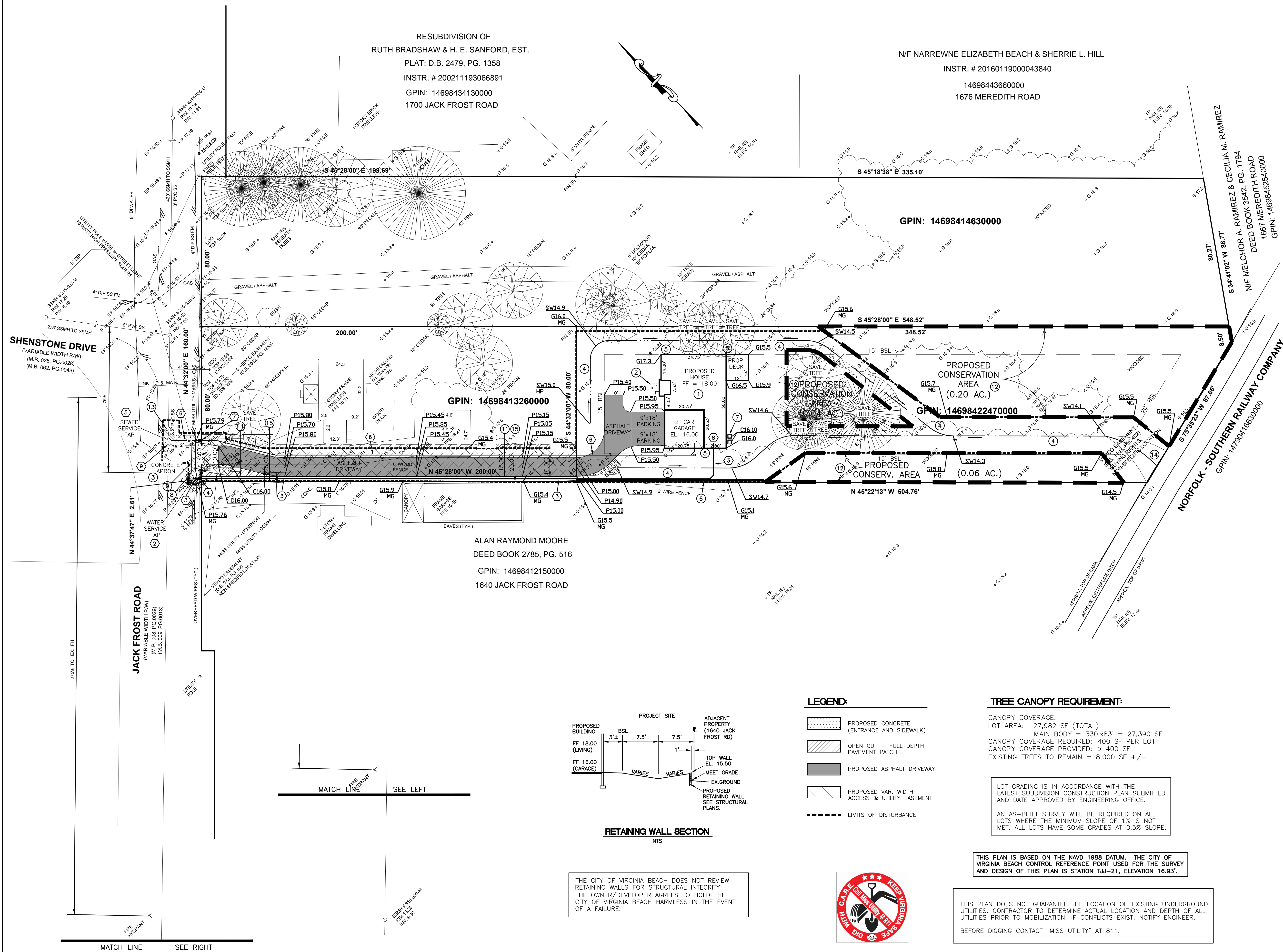
JOB #	171010-93	SHEET
DATE	10-11-2017	C2
SCALE	1" = 25'	2 OF 6

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NOTES:

1. VERTICAL DATUM: NAVD 88.
BENCHMARK USED: CITY OF VIRGINIA BEACH STATION TJJ-21, ELEV. 16.93'.
ELEVATIONS ARE EXPRESSED IN FEET.
2. HORIZONTAL DATUM: PLAT RECORDED AS INSTRUMENT # 20051110001835770.
3. ONLY THE SURFACE FEATURES OF THE UNDERGROUND UTILITIES WERE FIELD LOCATED. LOCATION OF UNDERGROUND WATER & SEWER LINES BASED ON CITY OF VIRGINIA BEACH UTILITY MAPS AND MISS UTILITY MARKINGS. SANITARY SEWER INVERTS ARE TAKEN FROM CITY RECORDS. THERE MAY BE EXISTING UNDERGROUND UTILITIES NOT SHOWN HEREON.
4. THIS SURVEY WAS PERFORMED WITH THE BENEFIT OF A TITLE REPORT FROM FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. 170518-P DATED 5-25-2017 AT 8:00 A.M.
5. THIS PROPERTY APPEARS TO FALL WITHIN FLOOD ZONES "X" AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP, COMMUNITY NUMBER 515531, PANEL NUMBER 0018 G, VIRGINIA BEACH, VIRGINIA, DATED 1-16-2015..
6. THIS SURVEY DOES NOT ADDRESS THE EXISTENCE OR NON-EXISTENCE OF WETLANDS OR ANY UNDERGROUND HAZARDS OR STRUCTURES NOT VISIBLE FROM THE SURFACE.
7. MISS UTILITY TICKET # A726901534-00A: TAKEN 9-26-2017

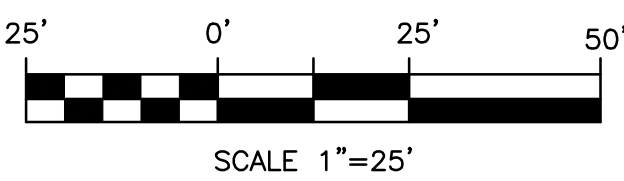




- NOTES:**
- CONTRACTOR TO COORDINATE WITH FRANCHISE UTILITY COMPANIES FOR ANY UTILITY DISCONNECTIONS.
 - CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS PRIOR TO ANY DEMOLITION.
 - CONTRACTOR SHALL CONTACT CIVIL INSPECTIONS TO ARRANGE A PRE-CONSTRUCTION MEETING/INSPECTION. AN INSPECTION MUST BE SCHEDULED PRIOR TO BEGINNING WORK WITHIN THE RIGHT-OF-WAY. CONTACT CIVIL INSPECTIONS AT 385-4558 TO SCHEDULE AN INSPECTION AT LEAST 48 HOURS IN ADVANCE.
 - ELEVATIONS SHOWN HEREON ARE BASED ON NAVD 1988.
 - CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT 757.424.7724 IF CONFLICTS EXIST.
 - ALL PIPE JOINTS AND CONNECTIONS MUST BE INSTALLED IN ACCORDANCE WITH MANUFACTURER, ASTM, AND VDOT PROVISIONS, SPECIFICATIONS AND STANDARDS SO AS TO BE SOIL TIGHT AND LEAK RESISTANCE.
 - MANHOLE INSERTS ARE TO BE PROVIDED IN NEWLY CONSTRUCTED PUBLIC OR PRIVATE SANITARY MANHOLES. ACCEPTABLE INSERTS INCLUDE "22 INCH MODEL C-WH RAINSTOPPER" MANUFACTURED BY SOUTH WESTERN PACKING & SEALS, INC. OR "22-INCH LOCKDRY" MANUFACTURED BY BARTON SOUTHERN COMPANY, OR CITY APPROVED EQUAL.
 - FOR WATER SERVICE LINES 2" AND SMALLER, BRASS FITTINGS TO MEET CDA NO.089520, WITH NO MORE THAN ONE-FOURTH OF ONE PERCENT (0.25% OR LESS) TOTAL LEAD CONTENT BY WEIGHT FOR CORPORATION STOPS, METER VALVES, AND SERVICE COUPLINGS.
 - CONTRACTOR MUST NOTIFY PUBLIC UTILITIES CONSTRUCTION REPRESENTATIVE SEVEN (7) CALENDAR DAYS PRIOR TO ANY NIGHT TIME SHUTDOWN OF THE WATER MAIN.
 - ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES MUST BE CORE DRILLED AND RUBBER BOOT ADDED.
 - ALL PROPOSED ENTRANCES SHALL BE A MINIMUM 7" CLASS A-3 CONCRETE TO THE RIGHT-OF-WAY LINE AND A MINIMUM 12 FEET WIDE AT THE RIGHT-OF-WAY LINE.

- UTILITY NOTES:**
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. IF LOCATIONS DIFFER FROM THAT SHOWN ON THE PLAN CONTACT THE ENGINEER AT 757.424.7724.
 - TIE INTO EX. 8" CIP WATER MAIN WITH 1" CORPORATION STOP. (SEE DETAIL SHEET C6 FOR TRAFFIC CONTROL & PAVEMENT PATCH).
 - PROPOSED 1" TYPE "K" COPPER WATER SERVICE LINE.
 - PROPOSED 5/8" CITY APPROVED WATER METER, WITH VAULT, CITY STANDARD.
 - TIE INTO EXISTING 8" PVC SANITARY ON JACK FROST ROAD. AT INVERT ±7.90. (SEE DETAIL SHEET C6 FOR TRAFFIC CONTROL AND PAVEMENT PATCH).
 - PROPOSED 4" PVC SAN SEWER LATERAL @ 1.04% MINIMUM, TYPICAL.
 - SANITARY CLEANOUT- SCO, CITY STD. PU-10. SEE DETAIL, SHEET C6. PROPOSED CLEANOUT RIM AND INVERT ELEVATIONS AS FOLLOWS:
RIM ELEV 15.70 INV ELEV 10.15
 - A MINIMUM OF 10 LINEAR FEET OF THE EXISTING GRAVITY SEWER SHALL BE REMOVED FOR THE INSTALLATION OF THE PROPOSED GRAVITY SANITARY SEWER LATERAL WYE.

- DESIGN NOTES:**
- CONTRACTOR SHALL USE ARCHITECTURAL PLANS FOR EXACT DIMENSIONS OF BUILDINGS.
 - PROPOSED 4' WIDE, 4" THICK CONCRETE SIDEWALK.
 - PROPOSED CITY STANDARD RESIDENTIAL ENTRANCE (CONCRETE DRIVE APRON).
 - PROPOSED GRASS CHANNEL AT 0.3% SLOPE. SEE DETAIL, SHEET C5.
 - PROPOSED ROOFTOP DISCONNECT BMPS. DIRECT ALL ROOF DOWNSPOUTS TO SPLASH AND SPREAD FOR SHEET FLOW ACROSS GRASS SLOPES TO GRASS CHANNEL BMP. SEE BMP DETAIL ON SHEET C5.
 - PROPOSED RETAINING WALL, TOP OF WALL EL. 15.50, LENGTH = 100'. SEE STRUCTURAL PLANS FOR DESIGN.
 - CONCRETE PADS FOR HVAC UNITS. ELEVATION ON PLAN.
 - SAWCUT 3'(w)x5'(L) AREA FOR WATER SERVICE UTILITY CONNECTION INSTALLATION. SEE DETAIL, SHEET C6 FOR PAVEMENT PATCH.
 - SAWCUT 2'(w)x15.35'(L) PAVEMENT FOR DRIVEWAY INSTALLATION. FULL DEPTH PAVEMENT PATCH (SEE DETAIL, SHEET C6).
 - NOT USED
 - PROPOSED VAR. WIDTH PRIVATE ACCESS AND STORMWATER DRAINAGE EASEMENT.
 - PROPOSED CONSERVATION EASEMENT. ARE WITHIN THE LIMITS IS TO REMAIN UNDISTURBED/NO CONSTRUCTION ALLOWED. AREAS CURRENTLY MOWED WITHIN THE EASEMENT MAY CONTINUE TO BE MOWED.
 - SAWCUT AREA FOR SEWER CONNECTION INSTALLATION. SEE DETAIL, SHEET C6 FOR PAVEMENT PATCH, DIMS AS SHOWN ON CUT LINES.
 - GRASS CHANNEL SLOPE TO BE REDUCED TO NEAR 0% AND SIDES SLOPES TO 100:1 TO CONVERT CONCENTRATED FLOW TO SHEET PRIOR TO LEAVING PROPERTY TO ADJACENT DITCH.
 - PROPOSED VARIABLE WIDTH UTILITY EASEMENT.



LEGEND:

- PROPOSED CONCRETE (ENTRANCE AND SIDEWALK)
- OPEN CUT - FULL DEPTH PAVEMENT PATCH
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED VAR. WIDTH ACCESS & UTILITY EASEMENT
- LIMITS OF DISTURBANCE

TREE CANOPY REQUIREMENT:

CANOPY COVERAGE:
LOT AREA: 27,982 SF (TOTAL)
MAIN BODY = 330'x83' = 27,390 SF
CANOPY COVERAGE REQUIRED: 400 SF PER LOT
CANOPY COVERAGE PROVIDED: > 400 SF
EXISTING TREES TO REMAIN = 8,000 SF +/-

LOT GRADING IS IN ACCORDANCE WITH THE LATEST SUBDIVISION CONSTRUCTION PLAN SUBMITTED AND DATE APPROVED BY ENGINEERING OFFICE.

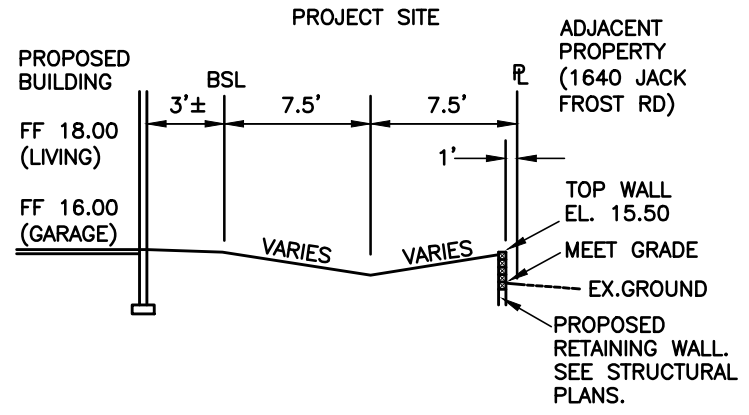
AN AS-BUILT SURVEY WILL BE REQUIRED ON ALL LOTS WHERE THE MINIMUM SLOPE OF 1% IS NOT MET. ALL LOTS HAVE SOME GRADES AT 0.5% SLOPE.

THIS PLAN IS BASED ON THE NAVD 1988 DATUM. THE CITY OF VIRGINIA BEACH CONTROL REFERENCE POINT USED FOR THE SURVEY AND DESIGN OF THIS PLAN IS STATION TJJ-21, ELEVATION 16.93'.

THIS PLAN DOES NOT GUARANTEE THE LOCATION OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR TO DETERMINE ACTUAL LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO MOBILIZATION. IF CONFLICTS EXIST, NOTIFY ENGINEER. BEFORE DIGGING CONTACT "MISS UTILITY" AT 811.



RETAINING WALL SECTION
NTS



THE CITY OF VIRGINIA BEACH DOES NOT REVIEW RETAINING WALLS FOR STRUCTURAL INTEGRITY. THE OWNER/DEVELOPER AGREES TO HOLD THE CITY OF VIRGINIA BEACH HARMLESS IN THE EVENT OF A FAILURE.

Pinnacle Group Engineering, Inc.	
445 N. Battlefield Blvd, Suite R Chesapeake, Va. 23320 Tel. (757) 424-7724 & Fax (757) 424-5606 www.pgna.com	
PROJECT SINGLE FAMILY SITE PLAN LOT 7, 0.633 ACRES, BAYSIDE GPIN 14698422470000 VIRGINIA BEACH, VIRGINIA	
SHEET TITLE SITE DEVELOPMENT PLAN	
PROJECT NO.	2017-016
SCALE	1"=25'
DATE	12.04.17
DRAWN BY	PGE
CHECKED BY	ERF
DRAWING NO.	C4
4 of 6 SHEETS	

Typical Traffic Control Shoulder Operation with Minor Encroachment (Figure TTC-5.1)

NOTES

1. For required sign assemblies for multi-lane roadways see Note 1, TTC-5.1.

2. Sign spacing should be 1500'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-500' 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.

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.

5. A shutoff vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, or oscillating light shall be parked 80' - 120' in advance of the first work crew.

6. Vehicle hazard warning signals shall be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.

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

first work crew.

6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.

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

Taper Length (L)	Channelizing Device Spacing
25	95
30	135
35	185
40	240
45	305
50	380
55	465
60	560
65	665
70	780

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 taper to direct vehicular traffic to remain within the travel way.

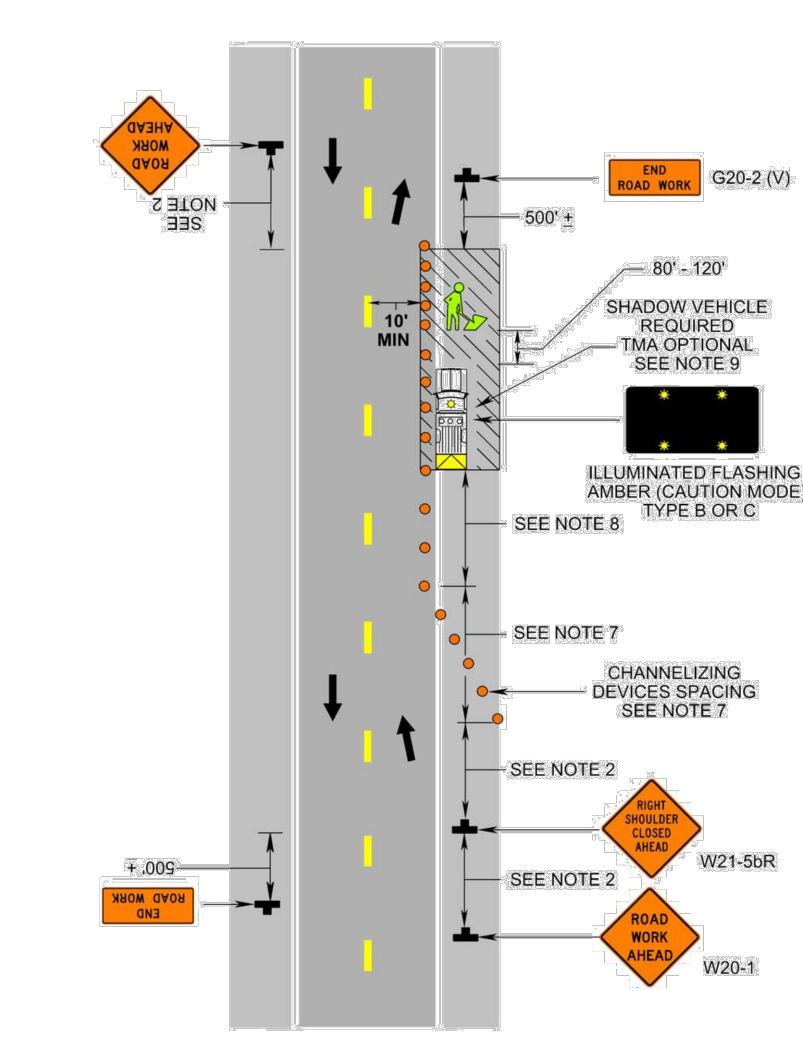
8. The buffer space length shall be as shown in Table 68-5.3 for the posted speed limit.

9. A truck-mounted attenuator (TMA-1) sign shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.

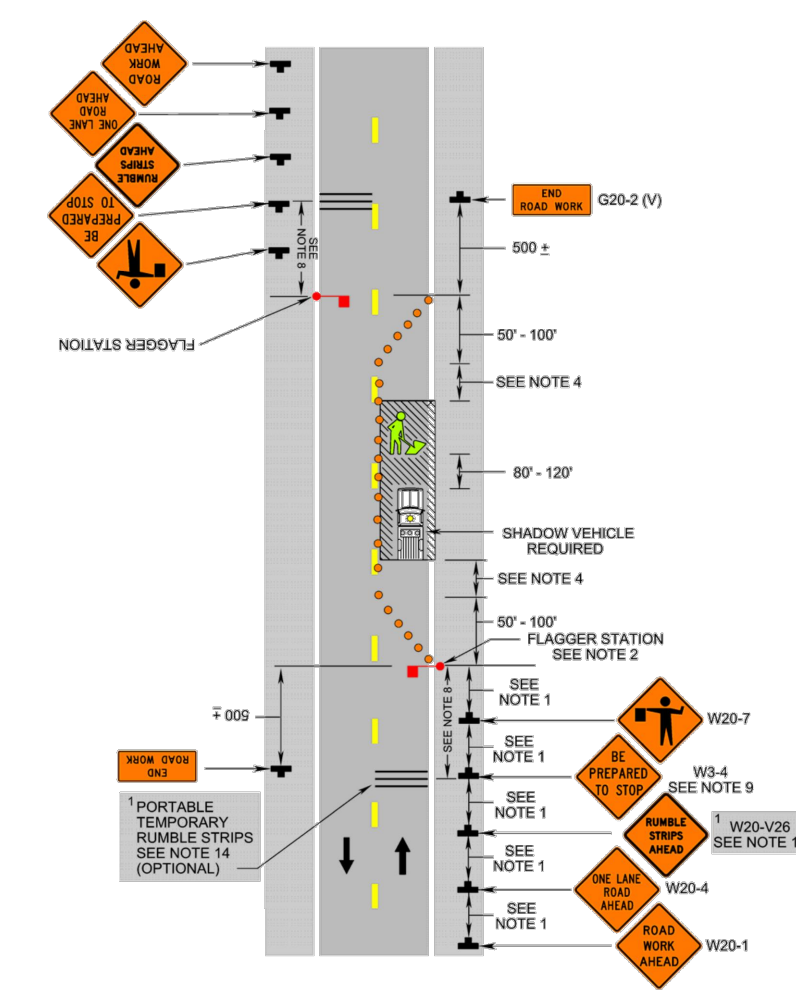
10. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

1. Revision 1 - 4/1/2015

Shoulder Operation with Minor Encroachment (Figure TTC-5.1)



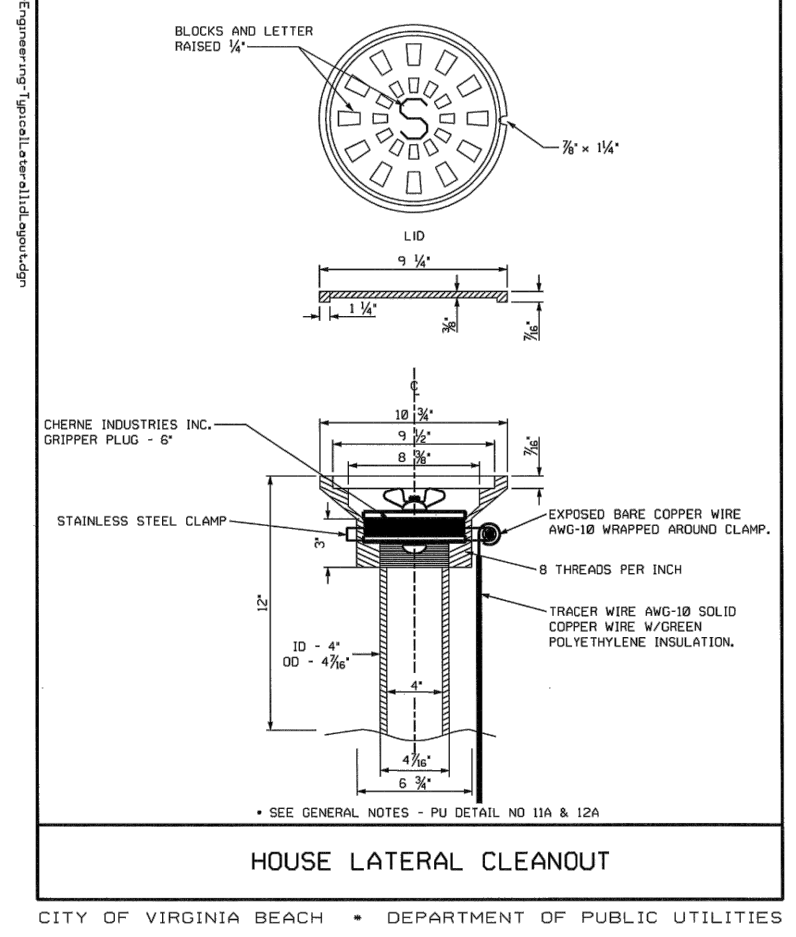
Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.1)



CONTRACTOR SHALL MAINTAIN A 10 FOOT WIDE TRAVEL LANE AT ALL TIMES DURING FLAGGING OPERATIONS.

1. Revision 1 - 4/1/2015

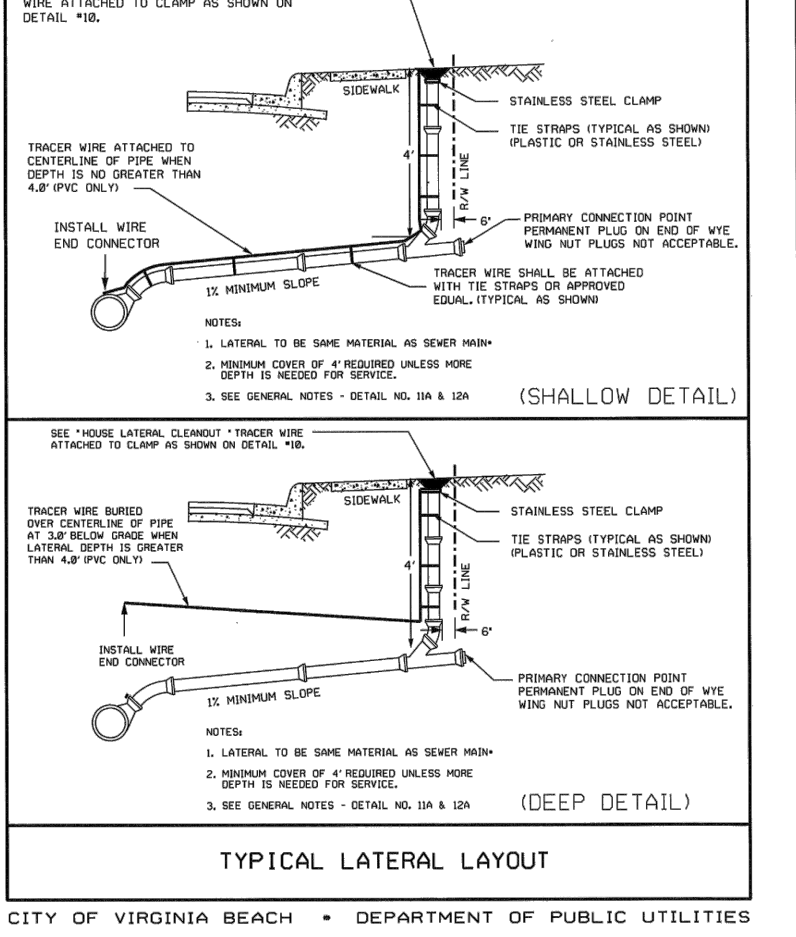
REVISED: 12/22/13 APPROVED: 12/26/13 HOUSE LATERAL CLEANOUT - PU DETAIL NO. 10



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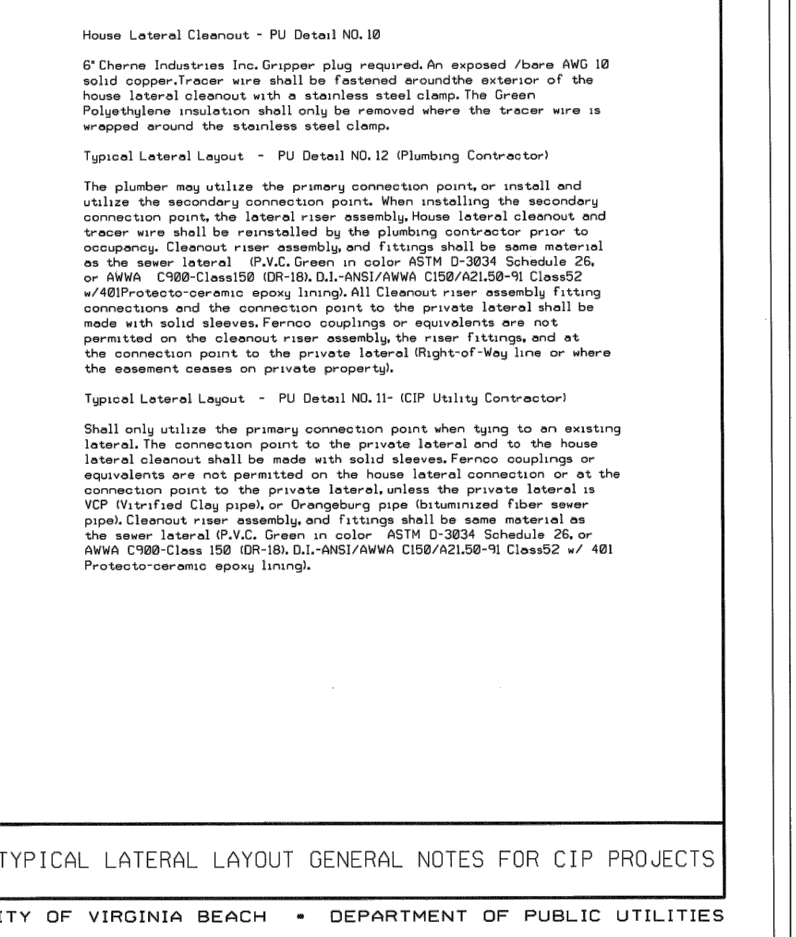
REVISED: 12/22/13 APPROVED: 12/26/13 HOUSE LATERAL CLEANOUT - PU DETAIL NO. 11



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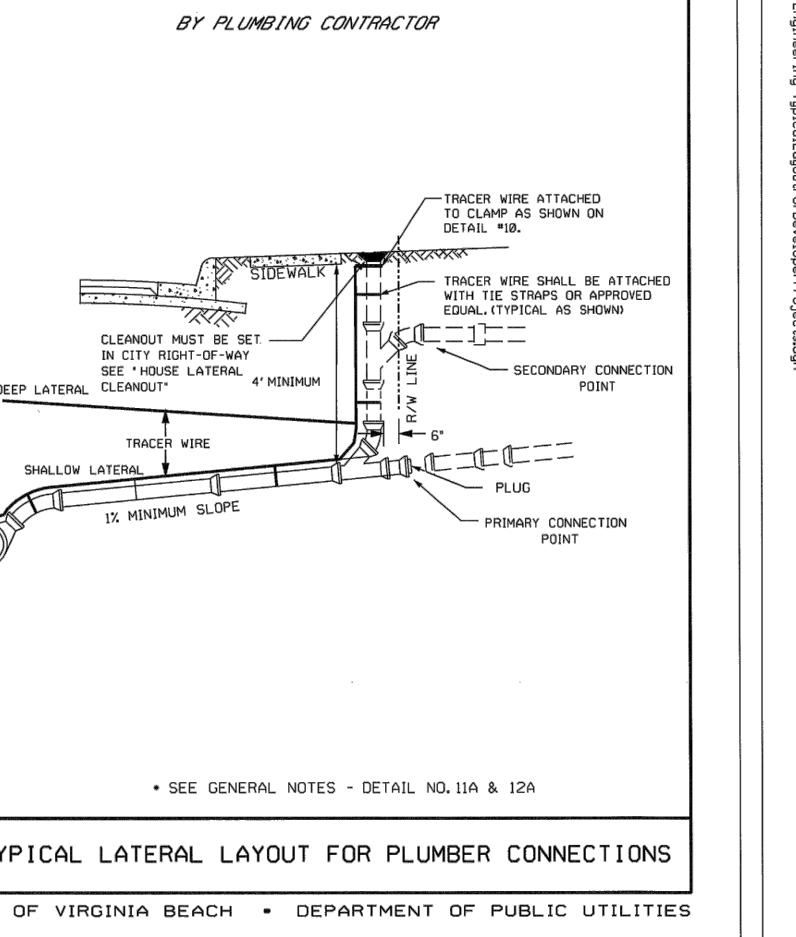
REVISED: 12/22/13 APPROVED: 12/27/13 HOUSE LATERAL CLEANOUT - PU DETAIL NO. 11A



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LATERAL NOTES - 8-Apr 12/27/2013 7:42:22 AM

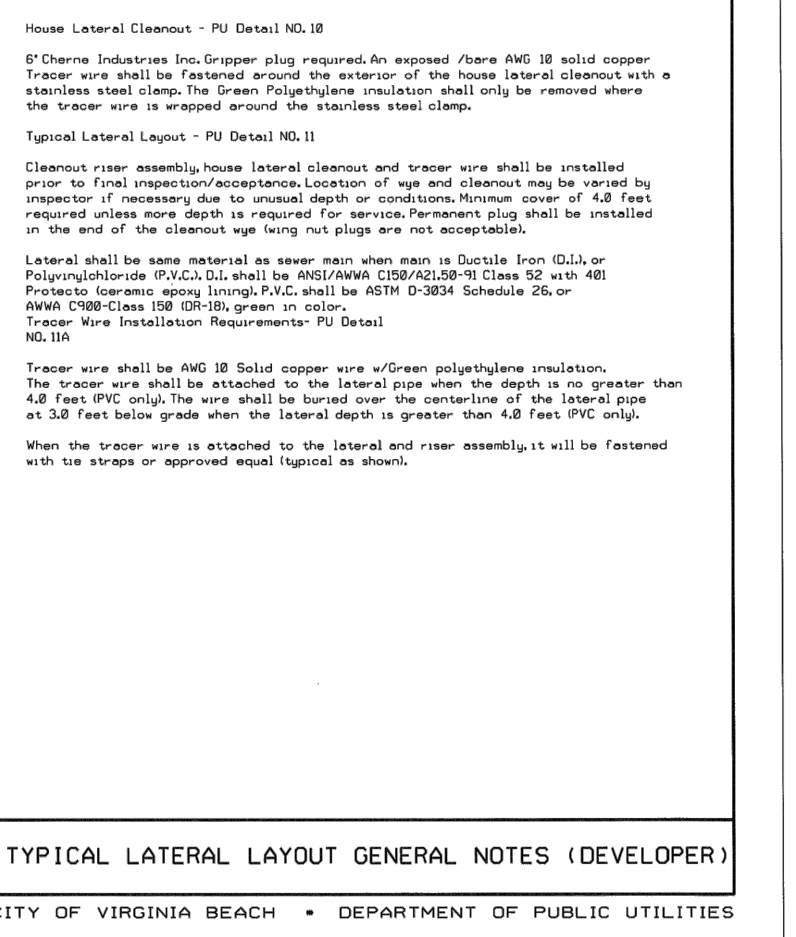
REVISED: 12/22/13 APPROVED: 12/27/13 BY PLUMBING CONTRACTOR TYPICAL LATERAL LAYOUT FOR PLUMBER CONNECTIONS



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Under Design/LATERAL NOTES gpm 12/26/2013 3:16:36 PM

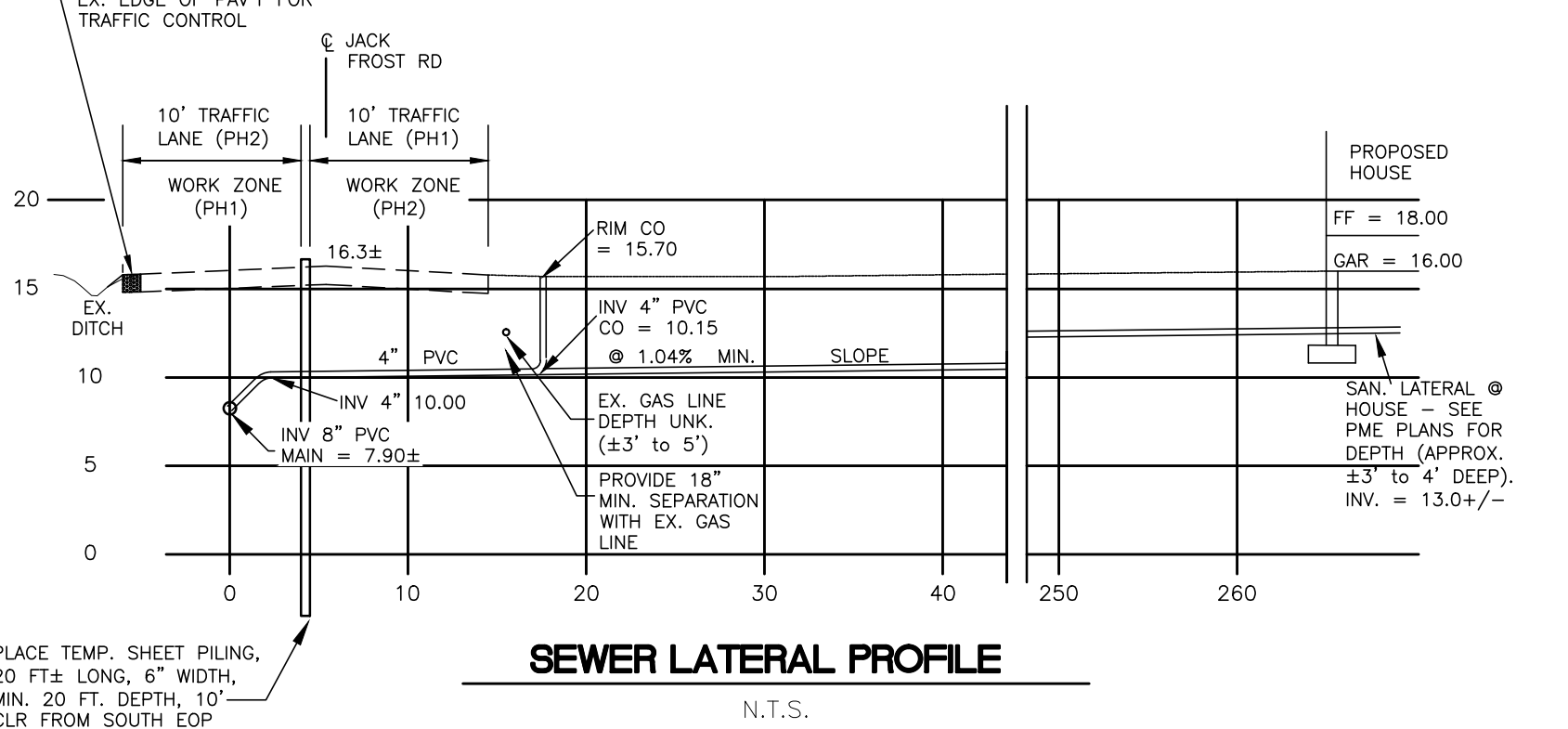
REVISED: 12/22/13 APPROVED: 12/27/13 HOUSE LATERAL CLEANOUT - PU DETAIL NO. 12A



CITY OF VIRGINIA BEACH • DEPARTMENT OF PUBLIC UTILITIES

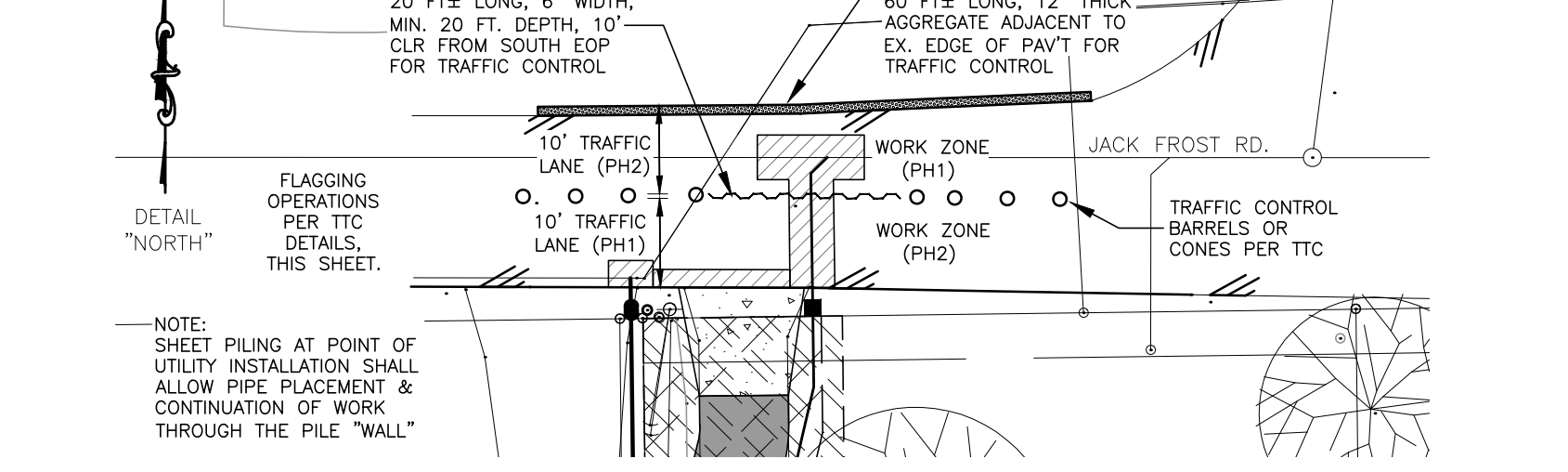
Under Design/LATERAL NOTES gpm 12/27/2013 7:44:02 AM

PLACE TEMP. 1 FT. WIDE, 60 FT. LONG, 12" THICK AGGREGATE ADJACENT TO EX. EDGE OF PAVT FOR TRAFFIC CONTROL



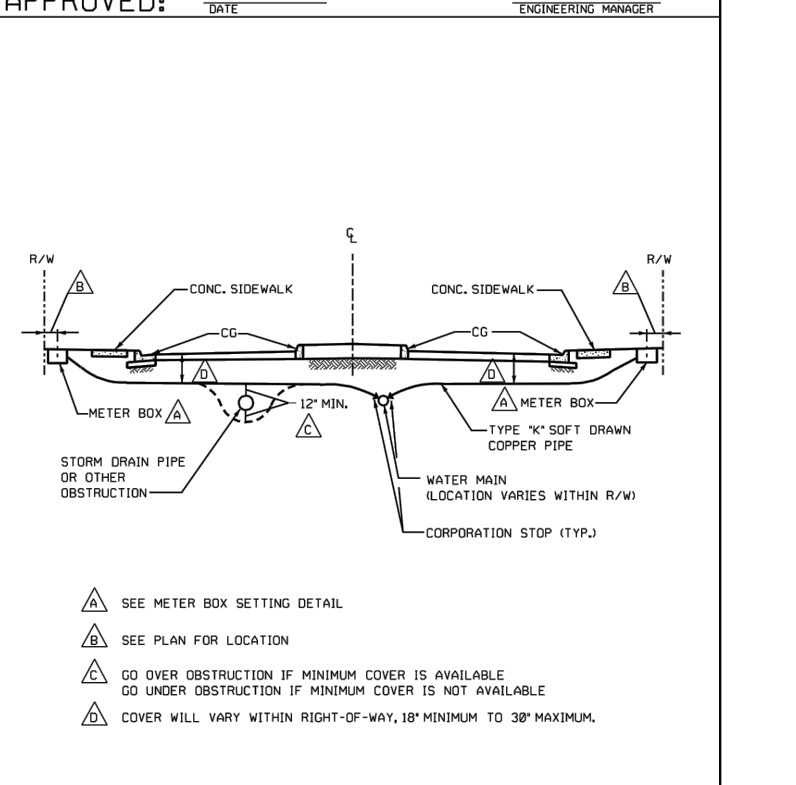
N.T.S.

PLACE TEMP. SHEET PILING, 20 FT. LONG, 6" WIDTH, MIN. 20 FT. DEPTH, 10' CLR FROM SOUTH EOP FOR TRAFFIC CONTROL



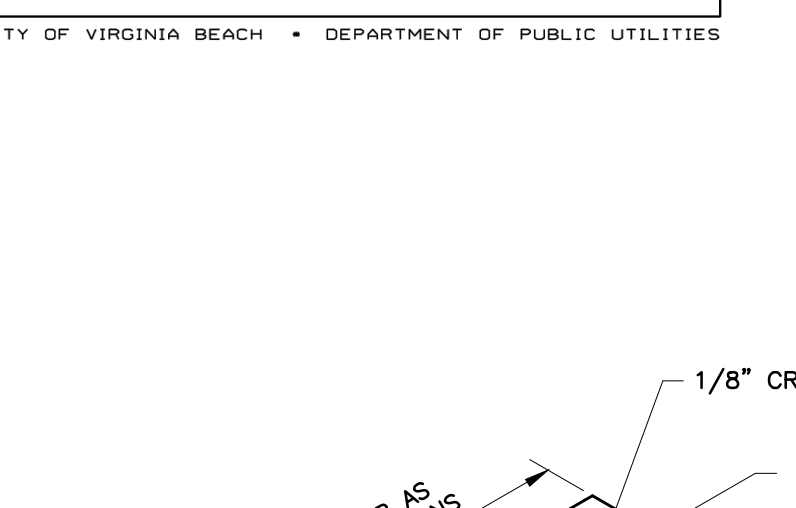
N.T.S.

REVISED: 12/22/13 APPROVED: 12/27/13 WATER METER BOX SERVICE LINE INSTALLATION



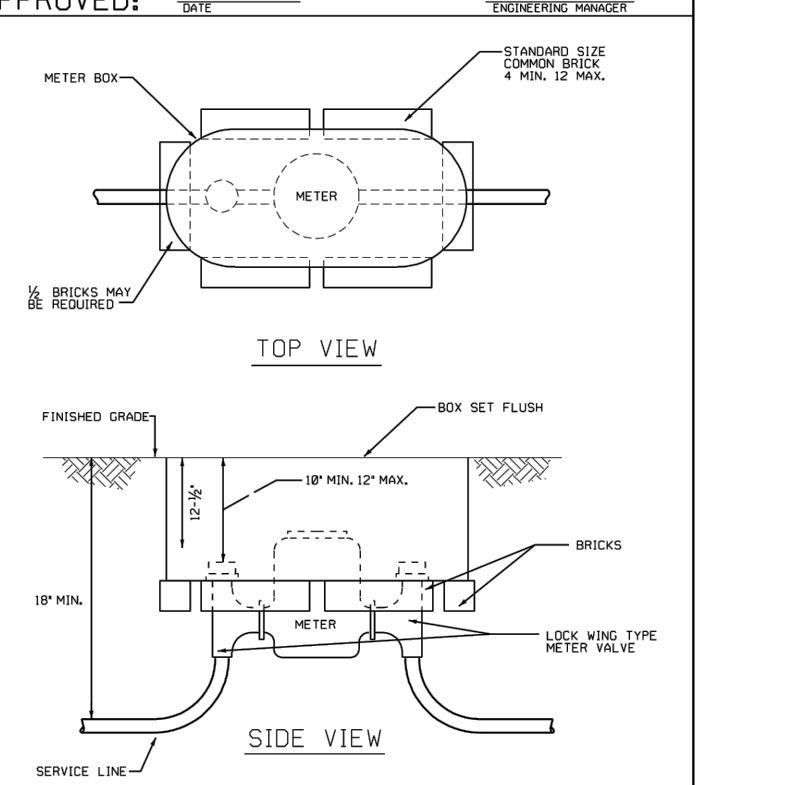
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REVISED: 12/22/13 APPROVED: 12/27/13 5/8" AND 1" METER BOX SETTING



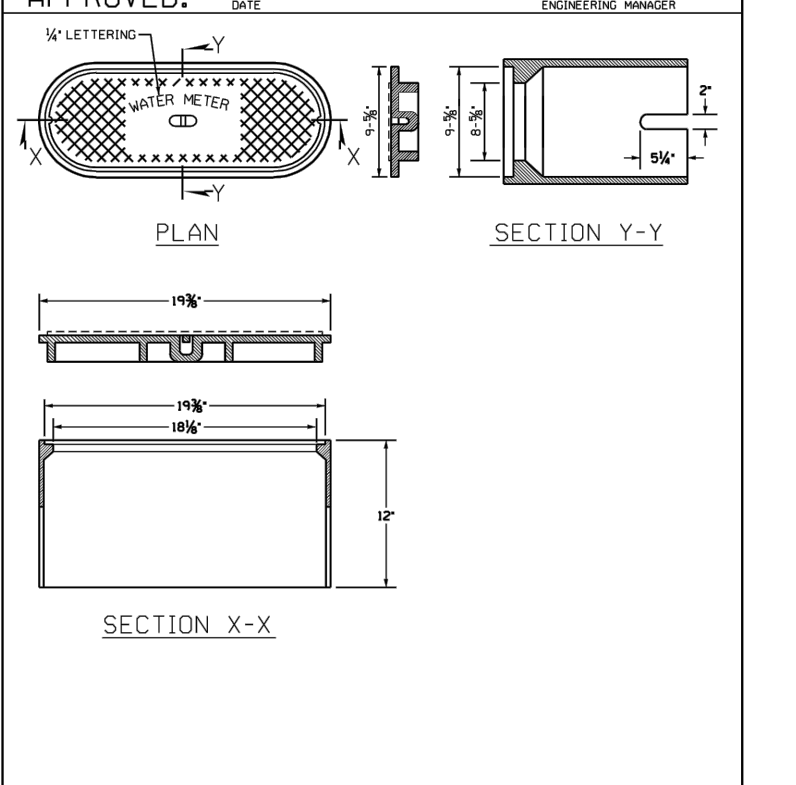
CITY OF VIRGINIA BEACH • DEPARTMENT OF PUBLIC UTILITIES

REVISED: 12/22/13 APPROVED: 12/27/13 5/8" AND 1" METER BOX SETTING



CITY OF VIRGINIA BEACH • DEPARTMENT OF PUBLIC UTILITIES

REVISED: 12/22/13 APPROVED: 12/27/13 5/8" AND 1" METER BOX SETTING



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ROADWAY RECONSTRUCTION

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

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

1. MATCH THE EXISTING PAVEMENT SECTION, OR

2. 2" SM-9.5 SURFACE ASPHALT CONCRETE, OVER 4" BM-25.50 BASE MIX ASPHALT CONCRETE, OVER 8" AGGREGATE BASE MATERIAL, TYPE 1, NO. 2A OVER COMPACTED SUBGRADE. IF SUBGRADE IS A MINOR CBR OF 15, OTHERWISE, SELECT GRANULAR MATERIAL WITH CBR 215 AND USE AS BASEFILL. IF CONCRETE IS UNDER ASPHALT, THEN CONCRETE MUST BE USED AND MATCH EXISTING PAVEMENT, SEE NOTE 4.

TRAFFIC FLOW

AGGREGATE BASE MATERIAL, TYPE 1, NO. 2A

PROPOSED SURFACE ASPHALT COURSE, OR MATCH EXISTING ASPHALT MIXTURE AND THICKNESSES

PROPOSED BASE ASPHALT COURSE, OR MATCH EXISTING ASPHALT MIXTURE AND THICKNESSES

SAW CUT

5' MIN.

5' MIN.

12" MIN. TRENCH WIDTH (W)

SELECT MATERIAL (ONLY) SEE NOTE 4

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

24" MIN.

CONSTRUCTION NOTES

1. SAW CUT TO BE COATED WITH AN APPLICATION OF A TWO (2) COMPONENT EPOXY BONDING COMPOUND IN ACCORDANCE WITH THE V.O.D.T. SPECIFICATIONS.

2. THIS METHOD OF CONSTRUCTION WILL BE ALLOWED AS AN ALTERNATE IN AREAS WHERE CURB AND GUTTER WAS PREVIOUSLY INSTALLED EXCEPT WHERE AN EXPANSION JOINT IS INSTALLED WITHIN THE LIMITS OF THE PROPOSED ENTRANCE OR IN CASE OF FAULTY WORKMANSHIP. IN THIS INSTANCE, COMPLETE REMOVAL OF THE CURB AND GUTTER.

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

SECTION A-A

6" RADIUS (MIN) REQUIRED FOR DRIVEWAYS LOCATED ON MAJOR COLLECTOR STREETS AND MAJOR ARTERIALS

10' - TYPICAL

FLARE

FLARE

CURB TO BE SAW CUT

CURB TO BE SAW CUT

CURB TO BE SAW CUT

CURB TO BE SAW CUT

CURB TO BE SAW CUT

CURB TO BE SAW CUT

CURB TO BE SAW CUT

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CURB TO BE SAW CUT

CURB TO BE SAW CUT

CURB TO BE SAW CUT

1/8" CRACK CONTROL JOINT

MIN. 4" OR AS SHOWN ON PLANS

EXPOSED EDGE SHALL HAVE 1/4" RADIUS

BROOM FINISH

1/2" EXPANSION JOINT

3,000 LB. CLASS "A" A.E. SLOPE 1/4" PER 1' AWAY FROM HOUSE

4" MIN.

CONSTRUCTION NOTES

CRACK CONTROL JOINTS TO BE PROVIDED AT INTERVALS EQUAL TO WIDTH OF SIDEWALK EXTENDING INTO CONCRETE FOR 1/4 OF DEPTH.

EXPANSION JOINTS TO BE INSTALLED AT INTERVALS NOT EXCEEDING 50' AND JUNCTION OF POINTS OF CURBS AND ENTRANCES, AND ON BOTH SIDES OF ALL SIDEWALK SECTIONS CONTAINING UTILITIES.

PREMOULDED 1/2" JOINT FILLER IS TO BE USED EXTENDING FROM BOTTOM OF SLAB TO 1/4" OF ITS TOP SURFACE.

AS SOON AS SURFACE IRREGULARITIES ARE REMOVED, AND A LIGHT TRANSVERSE BROOM FINISH GIVE, A LIQUID MEMBRANE SEAL OR OTHER APPROVED CURING MEDIUM IS TO BE APPLIED.

SIDEWALKS ACROSS ENTRANCES SHALL HAVE A DEPTH OF SEVEN INCHES (7") WITH A MAXIMUM SLOPE OF 1":1'.

CONCRETE SIDEWALK MAY NOT BE PLACED IF TEMPERATURES LESS THAN 40° ARE LIKELY DURING FIRST 72 HOURS AFTER PLACING.

ANY ASPECT OF CONSTRUCTION NOT COVERED HEREIN IS TO BE PER THE CURRENT VDOT, ROAD AND BRIDGE SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL

N.T.S.

NO.	DATE	REVISION
2	04-25-18	REV'S PER CITY COMMENT LETTER DATED 02-26-18
1	02-05-18	REV'S PER CITY COMMENT LETTER DATED 01-18-18