| SANITARY SEWER MAIN LINE BEARINGS AND DISTANCES | | | | |
|--|----------------|----------|--|--|
| LINE | BEARING | DISTANCE | | |
| 1 - EX-1 | S 22' 5' 56" E | 35.41' | | |

| MINIMUM FLOOR | ELEVATION FOR | GRAVITY SANITARY | SEWER SERVICE |
|---------------|---------------|------------------|---------------|
| LOT | MAIN INVERT | CO INVERT | MIN. FFE |
| 7A2A | 1058.36 | 1058.74 | 1063.2 |
| 7A2-B | 1068.08 | 1068.40 | 1071.7 |
| 7A2-C | 1068.08 | 1068.31 | 1071.6 |

| STATIC WATER PRESSURES AT METERS | | | |
|----------------------------------|-----------------|--|--|
| LOTS | STATIC PRESSURE | | |
| 7A2-A | 100 PSI | | |
| 7A2-B AND 7A2-C | 99 PSI | | |

*ABOVE INFORMATION IS BASED ON AN HGL ELEVATION OF 1329 (PER WVWA GIS) AND HAS NOT BEEN FIELD VERIFIED. **ALL LOTS SHALL REQUIRE AN INDIVIDUAL PRESSURE REDUCING VALVE ON THE CUSTOMER'S SIDE OF THE METER.

Mill & resurface

12" m in

7.5"total asphalt

concrete pavement

depth or equal to

asphatt concrete,

the depth of existing

whichever is greater

Sub-base course depth

_shall be 10" or equal to

Horizontal and vertical surfaces

shall be tacked with RC-250 licuid

asphalt at a rate of 0.1 gallon per SY, or as determined by the district administrator's designee

Select Material Type I with minimum CBR = 30.

Class I backfill material in accordance.

Specifications

with Section 302 of the Road and Bridge

Vo. 26 or 27 aggregate pipe bedding in

accordance with Sections 205 & 302 of

the Road and Bridge Specifications

depth of existing sub-base whichever is greater

UTILITIES & RIGHT-OF-WAY NOTES:

- INDIVIDUAL PRESSURE REDUCING VALVES ARE RECOMMENDED ON THE CUSTOMER'S SIDE OF THE METER FOR ALL LOTS WITH
- THE CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS FOR DAMAGE TO EXISTING STRUCTURES AS A RESULT OF WATER AUTHORITY, AND/OR ROANOKE COUNTY STANDARDS AND SPECIFICATIONS.
- WHERE NEW PAVEMENT CONNECTS TO EXISTING PAVEMENT. LOCATION OF SAW CUT TO BE DETERMINED IN FIELD AND ASPHALT SECTION FOR THE EXISTING PAVEMENT.
- NEW 8" SANITARY SEWER PIPE MATERIAL SHALL BE PVC. SDR-35, EXCEPT AS NOTED, OR APPROVED EQUAL.
- NEW SANITARY SEWER LATERAL PIPE MATERIAL SHALL BE PVC,
- NEW WATER LINES SHALL BE C900 PVC DR14, UNLESS OTHERWISE NOTED, OR APPROVED EQUAL.

PAVED INVERT (TYP.)

SANITARY SEWER HORIZONTAL AND SLOPE DISTANCE DETAIL NO SCALE

WWWA NOTES:

- 1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST WVWA DESIGN AND CONSTRUCTION STANDARDS.
- 2. THE CONTRACTOR OR DEVELOPER IS REQUIRED TO NOTIFY THE WESTERN VIRGINIA WATER AUTHORITY AND VDOT IN WRITING AT LEAST THREE (3) DAYS PRIOR TO ANY CONSTRUCTION. PLEASE CONTACT MARK SINK (WVWA) AT (540) 537-3460 AND BRIAN BLEVINS (VDOT) AT (540) 387-5502.
- 3. ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE WESTERN VIRGINIA WATER AUTHORITY AND VDOT.
- 4. FIELD CORRECTIONS SHALL BE APPROVED BY THE WESTERN VIRGINIA WATER AUTHORITY AND VDOT PRIOR TO SUCH CONSTRUCTION.
- 5. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" CLEARANCE VERTICALLY AND 2' MINIMUM HORIZONTALLY FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE AT ALL WATER, SANITARY SEWER CROSSINGS OF ANY OTHER UTILITIES. WHERE THIS CANNOT BE ACHIEVED ADDITIONAL MEASURES IN ACCORDANCE WITH WVWA STANDARDS SHALL BE ENFORCED.
- 6. ANY EXISTING APPURTENANCES SHOULD BE ADJUSTED TO GRADE AND NEW FRAME AND COVERS INSTALLED WHERE REQUIRED.
- 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL EXISTING UTILITIES LOCATED AND POTHOLED TO VERIFY LOCATIONS. THIS PLAN REVIEW DOES NOT REMOVE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE ANY EXISTING CONFLICTS FOUND DURING CONSTRUCTION.
- 8. CONTRACTOR TO FURNISH AND INSTALL TAPPING SLEEVE AND VALVE, TAP TO BE MADE BY WVWA. CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION AND SHORING PER OSHA REGULATIONS.
- 9. SANITARY SEWER TAP TO EXISTING MANHOLE TO BE MADE BY CONTRACTOR. MANHOLE CONNECTION MUST BE CORED WITH A BOOT INSTALLED.

SEWER NOTES:

1. ALL SANITARY SEWER CONNECTIONS TO EXISTING LINES SHALL BE COORDINATED WITH AND PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.

WATER NOTES:

1. ALL WATER CONNECTIONS TO EXISTING LINES SHALL BE COORDINATED WITH AND PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.

2. ALL WATER AND SANITARY SEWER FACILITIES ARE TO BE INSTALLED ACCORDING TO THE WESTERN VIRGINIA WATER AUTHORITY DESIGN AND CONSTRUCTION STANDARDS.

SITE AND ZONING TABULATIONS

CURRENT ZONING: R1 PROPOSED USE: SINGLE FAMILY DETACHED DWELLINGS SITE ACREAGE: 0.664 ACRES (3 LOTS) PROPOSED NUMBER OF LOTS: 3 MINIMUM LOT AREA REQUIRED: 7,200 S.F. MINIMUM FRONTAGE REQUIRED: 60' MINIMUM REQUIRED SETBACKS: FRONT: 30'

REAR: 25' SIDE YARD: 10'

MAXIMUM HEIGHT ALLOWED: 45' (PRINCIPLE STRUCTURE) MAXIMUM BUILDING COVERAGE: 35% MAXIMUM LOT COVERAGE: 50%

GENERAL NOTES

- 1. THE PROPERTY SHOWN ON THESE PLANS IS LOCATED AT ROANOKE COUNTY TAX ASSESSMENT MAP 077.05-01-07.00-0000
- 2. OWNER/DEVELOPER: MAVEAN LLC (DEVELOPER)/FRABO LLC (OWNER) (ATTN: ALEXANDER BOONE) 3922 ELECTRIC RD. SUITE 1A

(540) 278-1359 THE BOUNDARY IS THE DIRECT RESULT OF A FIELD SURVEY BY LUMSDEN ASSOCIATES,

MAXIMUM LIGHTING DENSITY AT ADJOINING RESIDENTIAL PROPERTIES OR RIGHT OF WAYS

P.C. DATED 2018. TOPOGRAPHY DATA BASED ON A FIELD SURVEY BY LUMSDEN ASSOCIATES, P.C. IN 2018.

ROANOKE, VA. 24018

- A TITLE REPORT WAS NOT FURNISHED FOR THIS PROPERTY. THE DEVELOPMENT SHOWN ON THESE PLANS SHALL BE SERVED BY WESTERN VIRGINIA
- WATER AUTHORITY WATER AND SANITARY SEWER. THE PROPERTY ON THESE PLANS SHALL BE ACCESSED BY PUBLIC ROADS. ALL EXTERIOR LIGHTS SHALL BE DESIGNED, ARRANGED, AND LOCATED SO AS NOT TO DIRECT GLARE ON ADJACENT RESIDENTIAL PROPERTIES OR RIGHT OF WAYS. THE
- SHALL NOT EXCEED 0.5 FOOT CANDLES. 9. A SEPARATE SIGN PERMIT WILL BE REQUIRED FOR ANY EXTERIOR SIGNAGE.
- 10. NO CONSTRUCTION/FIELD REVISIONS ARE ALLOWED WITHOUT THE APPROVAL OF THE CONSULTING ENGINEER, ROANOKE COUNTY. THE WESTERN VIRGINIA WATER AUTHORITY AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION.
- ANY NEW ALIGNMENTS, CHANGES IN GRADES, ALTERNATE PIPE SIZES, MANHOLES, OR ESC MEASURES WILL REQUIRE A NEW SET OF PLANS STAMPED BY THE CONSULTING ENGINEER. COUNTY ENGINEERS WILL REVIEW PLANS WITHIN ONE DAY OF SUBMITTAL. PLAN SHEETS CAN BE 8.5 x 11 IF THE INFORMATION IS LEGIBLE AND WITHIN THE LIMITS OF THE APPROVED PLANS.
- 12. ANY TOPOGRAPHIC CHANGES FROM THE APPROVED PLANS MAY REQUIRE ADDITIONAL DRAINAGE STRUCTURES AND EASEMENTS AS DEEMED NECESSARY BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND ROANOKE COUNTY.
- 13. ANY DEVIATIONS BETWEEN THE PROPOSED CONTOURS AND PLANS AND THE AS BUILT CONDITIONS MAY REQUIRE ADDITIONAL DRAINAGE STRUCTURES AND EASEMENTS.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CLEAN OUT THE EXISTING STORM SEWER SYSTEM WITHIN EXISTING DEVELOPMENTS SHOULD THESE SYSTEMS BECOME SILTED OR BLOCKED IN ANY WAY DUE TO THE CONSTRUCTION OF THIS PROPOSED DEVELOPMENT.

CONSTRUCTION NOTES

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT COUNTY OF ROANOKE STANDARDS AND SPECIFICATIONS AND THE CURRENT EDITION OF VDOT'S ROAD AND BRIDGE STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OWNER AND THE ENGINEER OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM ANY AUTHORITY ISSUING PERMITS.
- NO SUBSOIL INVESTIGATIONS HAVE BEEN FURNISHED TO THE DESIGNING ENGINEER.
- THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
- ALL WATER CONNECTIONS TO EXISTING LINES SHALL BE COORDINATED WITH AND PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.
- ALL SANITARY SEWER CONNECTIONS TO EXISTING LINES SHALL BE PERFORMED BY THE CONTRACTOR WITH A WESTERN VIRGINIA WATER AUTHORITY INSPECTOR ONSITE. SEE VDOT ROAD AND BRIDGE STANDARDS FOR CONCRETE CURB AND STORM DRAINAGE
- DETAILS. THE CONTRACTOR AND OR OWNER SHALL PROVIDE A STORAGE CONTAINER FOR TEMPORARY STORAGE AND DISPOSAL OF LAND CLEARANCE DEBRIS AND BUILDING MATERIALS. ON-SITE BURIAL OF MATERIAL SHALL NOT BE PERMITTED.

GRADING NOTES

- AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION, STRUCTURES, AND
- OTHER PHYSICAL FEATURES IN PREPARATION OF GRADING. TOPSOIL SHALL BE REMOVED FROM THE CLEARED AREA AND STOCKPILED FOR FUTURE
- FILL MATERIAL SHALL BE FREE FROM ORGANIC MATTER AND ROCKS LARGER THEN 6 INCHES IN DIAMETER. THE EXISTING SURFACE SHALL BE SCARIFIED PRIOR TO PLACING
- FILL MATERIAL SHALL BE PLACED AND COMPACTED IN EIGHT (8) INCH LOOSE LIFTS AND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698, STANDARD PROCTOR. MAINTAIN MOISTURE CONTENT OF FILL MATERIAL WITHIN THREE (3) PERCENT OF OPTIMUM TO ATTAIN
- REQUIRED COMPACTION DENSITY. NO SUBSURFACE SOILS INFORMATION HAS BEEN FURNISHED TO THE DESIGNING ENGINEER (LUMSDEN ASSOCIATES, PC.). A QUALIFIED GEOTECHNICAL ENGINEER, LICENSED IN THE STATE OF VIRGINIA, SHALL BE CONSULTED CONCERNING SOIL STABILITY, SLOPE STABILIZATION, SOIL COMPACTION, TESTING, AND OTHER SOIL CHARACTERISTICS. FIELD DENSITY TESTS SHALL BE PERFORMED AND RESULTS FORWARDED TO ROANOKE COUNTY. LUMSDEN ASSOCIATES ASSUMES NO RESPONSIBILITY OR LIABILITY RELATING TO FAILURES RESULTING FROM SAME.

CLE December 5, 2018

ANDREW P. LUMSDEN

Lic. No. 052216

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OPME

SHEET 2 OF 8

Dig With CARE Keep Virginia Safe!

Apphalt Concrete Surface Material;

The district administrator's designee shall determine the

*** 12 inches minimum beyond the edge of the trench

on longitudinal open cuts, or 25 feet minimum beyond

the trench centerline on perpendicular open cuts, or as

determined by the district administrator's designee.

restoration requirements for other pavement types.

Trench width and pipe bedding shall be in

SM-9.54 for ADT < 10,000 SM-9.5D for ADT > 10,000

accordance with VDOT Std. PB-1

Date: August 27, 2014

2" ASPHALT CONCRETE; TYPE SM-9.5A

*DETAIL PROVIDED FOR REFERENCE ONLY. CLEARVIEW DRIVE WATERLINE CROSSING IS BY DIRECTIONAL DRILLING METHODS.

Asphalt Pavement Restoration Detail for Open Cut Utility Installations

Sawcut existing pavement

to the full depth of asphalt

Asphalt Concrete SurfaceMaterial

Asphalt Concrete Base, Type BM-25.0A

Aggregate Base Material, Type I

SeeNa 21A or 218

Mill & resurface

6"Berch

10"min

* NOTES: 1. MATCH EXIST. PAVEMENT SECTION IF GREATER THAN SHOWN ABOVE. 2. SEE UTILITIES & RIGHT-OF-WAY NOTE 3, THIS SHEET.

DRIVEWAY REPLACEMENT DETAIL

PRESSURE OVER 80 PSI.

CONSTRUCTION IN ACCORDANCE WITH VDOT, WESTERN VIRGINIA

PERPENDICULAR SAW CUT AND TACK COAT TO BE PROVIDED SHALL BE LOCATED AT THE TERMINATION OF THE FULL DEPTH

SDR-26, EXCEPT AS NOTED, OR APPROVED EQUAL.