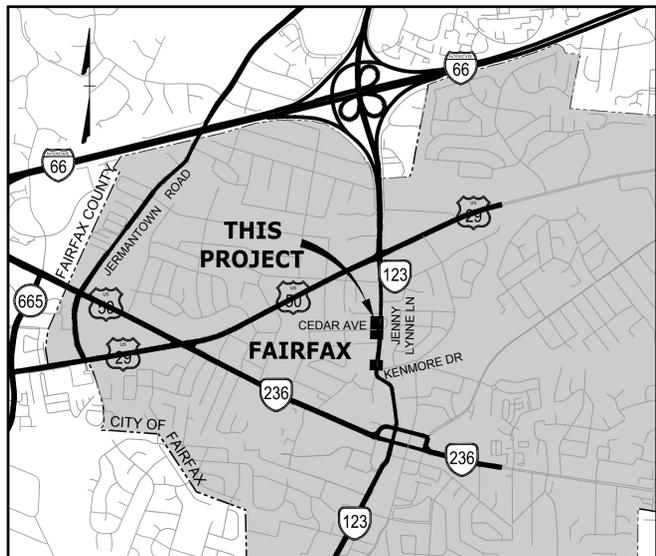


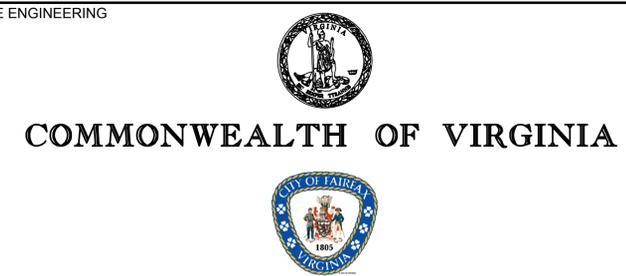
PROJECT MANAGER: (VDOT)
 SURVEYED BY: DATE: TIMMONS.GROUP., 08/09/18
 DESIGN BY: TIMMONS.GROUP.
 SUBSURFACE UTILITY BY: DATE: TIMMONS.GROUP., 08/09/18



LOCATION MAP
 SCALE: 1" = 2,000'

INDEX OF SHEETS
 SEE COVER SHEET C0.0 FOR INDEX OF SHEETS

THIS PROJECT WAS DEVELOPED UTILIZING THE ENGINEERING DESIGN PACKAGE (AutoCAD CIVIL 3D).
 Computer Identification No. (UPC 105573)

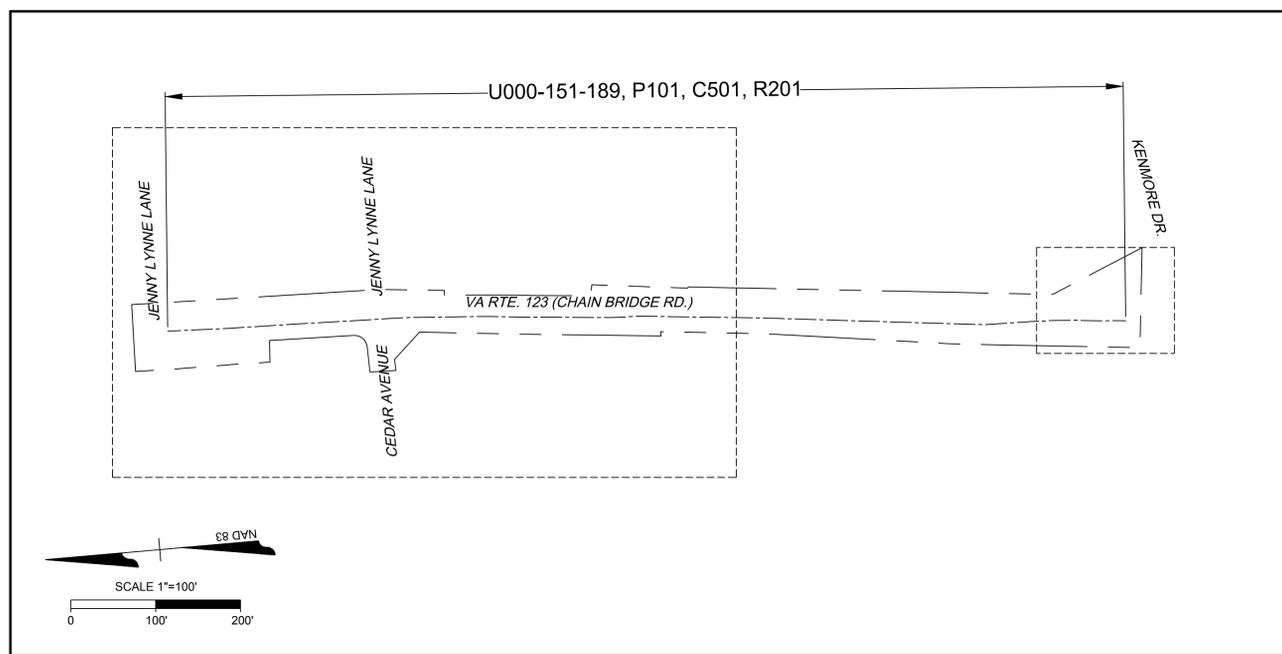


PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

CITY OF FAIRFAX, VIRGINIA

CHAIN BRIDGE ROAD (VA ROUTE 123) SIDEWALK EXTENSION
 FROM: INTERSECTION OF VA RTE 123 (CHAIN BRIDGE RD.) AND NORTH JENNY LYNNE LN.
 TO: INTERSECTION OF VA RTE 123 (CHAIN BRIDGE RD.) AND KENMORE DR.
 (38°51'13" N, 77°18'27" W)

ADVANCED PUBLIC HEARING PLANS



DESCRIPTION REFERENCE
 INTERSECTION OF VA RTE. 123
 (CHAIN BRIDGE RD.) AND CEDAR AVE.
 POI STA. 2+49.28

3/27/2020

Population 24,097 (U.S. Census Bureau - 2017)

| STATE PROJECT NO. | SECTION | FEDERAL AID PROJECT NO. | TYPE CODE | UPC NO. | EQUALITIES | LENGTH INCLUDING BRIDGE(S) | | LENGTH EXCLUDING BRIDGE(S) | | BRIDGE PROJECT NO. | TYPE PROJECT | DESCRIPTION |
|-------------------|---------|-------------------------|-----------|---------|------------|----------------------------|-------|----------------------------|-------|--------------------|--------------|--|
| | | | | | | FEET | MILES | FEET | MILES | | | |
| U000-151-189 | P101 | -- | PENG | 105573 | NONE | 1130.61 | 0.214 | 1130.61 | 0.214 | | PRELIMINARY | Fr: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND NORTH JENNY LYNNE LN. To: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND KENMORE DR. |
| | R201 | -- | ROW | 105573 | NONE | 1130.61 | 0.214 | 1130.61 | 0.214 | | RIGHT OF WAY | Fr: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND NORTH JENNY LYNNE LN. To: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND KENMORE DR. |
| | C501 | -- | CONSTR. | 105573 | NONE | 1130.61 | 0.214 | 1130.61 | 0.214 | | CONSTR. | Fr: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND NORTH JENNY LYNNE LN. To: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND KENMORE DR. |

Project Lengths are based on Construction Baseline.

CONVENTIONAL SIGNS
 SEE SURVEY AND DESIGN LEGEND SYMBOLS ON SHEET C2.1

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.
 THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2016 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS (INCLUDING UPDATES), 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL, REVISION 1, AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.
 THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, ARE FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.

| STATE | FEDERAL AID PROJECT | ROUTE | STATE PROJECT | SHEET NO. |
|-------|--|-------|---|-----------|
| VA. | SEE TABULATION BELOW FOR SECTION NUMBERS | 123 | U000-151-189, P101, R201, C501 (SEE TABULATION BELOW FOR SECTION NUMBERS) | 01 |

| FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA | |
|--|--|
| PRINCIPAL ARTERIAL - 25 MPH MINIMUM DESIGN SPEED | |
| | Fr: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND NORTH JENNY LYNNE LN. To: INTERSECTION OF VA RTE. 123 (CHAIN BRIDGE RD.) AND KENMORE DR. |
| ADT (2018)* | 22,000 |
| ADT (2038)* | -- |
| DHV* | -- |
| D (%) (design hour)* | -- |
| T (%) (design hour)* | -- |
| V (MPH) | 25 mph |

60% PLANS NOT FOR CONSTRUCTION

TIER 1 PROJECT

| LOCALLY ADMINISTERED PROJECTS | |
|---|-------------------|
| NAME OF LOCALITY | |
| (SIGNATURE) | |
| NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED) | |
| RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION | |
| DATE | TITLE OF POSITION |
| (SIGNATURE) | |
| NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED) | |
| RECOMMENDED FOR APPROVAL FOR CONSTRUCTION | |
| DATE | TITLE OF POSITION |

| RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION | |
|---|--|
| DATE | DISTRICT PLANNING AND INVESTMENT MANAGER |
| DATE | DISTRICT PROJECT DEVELOPMENT ENGINEER |

| APPROVED FOR RIGHT OF WAY ACQUISITION | |
|---------------------------------------|-----------------------------------|
| DATE | DISTRICT ENGINEER / ADMINISTRATOR |

| RECOMMENDED FOR APPROVAL FOR CONSTRUCTION | |
|---|--|
| DATE | DISTRICT PLANNING AND INVESTMENT MANAGER |
| DATE | DISTRICT PROJECT DEVELOPMENT ENGINEER |

| APPROVED FOR CONSTRUCTION | |
|---------------------------|-----------------------------------|
| DATE | DISTRICT ENGINEER / ADMINISTRATOR |

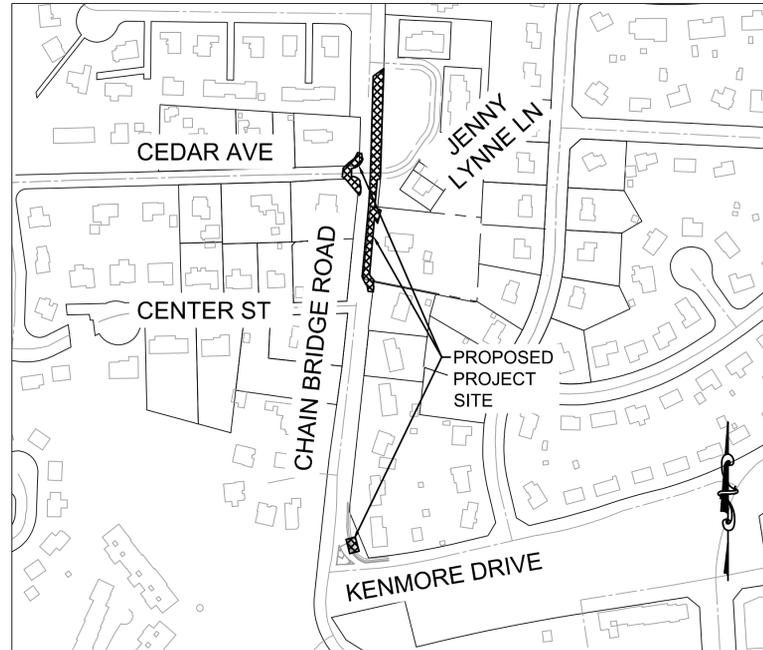
CHAIN BRIDGE ROAD SIDEWALK EXTENSION

3735 CHAIN BRIDGE ROAD, FAIRFAX, VA 22030
 CITY OF FAIRFAX, VIRGINIA
 60% SUBMISSION DOCUMENTS
 CITY CONTRACT # 14009-2014-TIM

NOT FOR
CONSTRUCTION

THIS DRAWING PREPARED AT THE
OFFICE OF
TIMMONS GROUP, INC. VA 20147
20110 Ashbrook Place, Suite 100 Ashburn, VA
TEL 703.726.1342 FAX 703.726.1345 www.timmons.com

| REVISION DESCRIPTION |
|----------------------|
| 60% SUBMISSION |



VICINITY MAP
SCALE: 1" = 200'

3735 CHAIN BRIDGE ROAD
FAIRFAX, VA 22031

OWNER: CITY OF FAIRFAX, VIRGINIA

10455 ARMSTRONG ST
FAIRFAX VA 22031
PETER MILLARD, P.E.
PHONE: (703) 246-6330

ENGINEER: TIMMONS GROUP
20110 ASHBROOK PLACE, SUITE 100
ASHBURN, VIRGINIA 20147
LUKE FETCHO
PHONE: (703) 554-6712

Sheet List Table

| Sheet Number | Sheet Title |
|--------------|--|
| 1 | VDOT COVER SHEET |
| C0.0 | COVER SHEET |
| C1.0 | NOTES & DETAILS |
| C1.1 | NOTES & DETAILS |
| C1.2 | NOTES & DETAILS |
| C1.3 | NOTES & DETAILS |
| C1.4 | NOTES & DETAILS |
| C2.0 | OVERALL PLAN |
| C2.1 | EXISTING CONDITIONS |
| C2.2 | DEMOLITION PLAN |
| C3.0 | EROSION AND SEDIMENT CONTROL - PHASE 1 |
| C3.1 | EROSION AND SEDIMENT CONTROL - PHASE 2 |
| C3.2 | EROSION & SEDIMENT CONTROL NOTES & DETAILS |
| C3.3 | EROSION & SEDIMENT CONTROL NOTES & DETAILS |
| C4.0 | SITE LAYOUT |
| C4.1 | GRADING PLAN |
| C4.2A | DETAILED GRADING PLAN |
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| C4.5 | SIGNAGE AND PAVEMENT MARKING PLAN |
| C4.6 | RRFB RELOCATION PLAN |
| C5.0 | PRE & POST-DEVELOPED DRAINAGE |
| C5.1 | BMP CALCULATIONS |
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| C6.0 | MAINTENANCE OF TRAFFIC PLAN |
| L1.0 | LANDSCAPE PLAN |

TOTAL SHEETS.....28

YOUR VISION ACHIEVED THROUGH OURS.

| DATE | DATE |
|-----------|----------|
| 3/27/2020 | 10.23.18 |

DRAWN BY
PVN

DESIGNED BY
PVN

CHECKED BY
LTF

SCALE
SEE PLAN

TIMMONS GROUP

CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA

COVER SHEET

JOB NO.
35061.023

SHEET NO.
C0.0

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SITE INFORMATION:

LAND OWNER / DEVELOPER:
CITY OF FAIRFAX, VIRGINIA
C/O PETER MILLARD
DEPT OF PUBLIC WORKS
10455 ARMSTRONG STREET
FAIRFAX, VA 22030
PHONE: 703 591-5727

CIVIL DESIGN ENGINEER:
TIMMONS GROUP
20110 ASHBROOK PLACE
SUITE 100
ASHBURN, VIRGINIA 20147
PHONE: (703) 554-6705

- THE SUBJECT PARCEL SHOWN HEREON IS OWNED BY THE CITY OF FAIRFAX AND IS ADJACENT TO 3739, 3737, AND 3735 CHAIN BRIDGE ROAD, FAIRFAX, VA 22031.
- THIS SITE PLAN PROPOSES A SIDEWALK EXTENSION ALONG CHAIN BRIDGE ROAD AND CEDAR AVENUE THAT INCLUDES NEW CURB AND GUTTER, PEDESTRIAN CROSSWALK RELOCATION AS WELL AS A NEW STORM SEWER STRUCTURE.
- THE TOPOGRAPHIC AND EXISTING UTILITY SURVEY WAS PREPARED BY TIMMONS GROUP 09/28/2016 AND IS BASED ON THE NAD 83 VIRGINIA NORTH ZONE.
- THERE IS NO 100-YEAR FLOODPLAIN ASSOCIATED WITH THIS PROPERTY. THE SITE IS ALREADY DEVELOPED AND MINIMUM CLEARING WILL BE REQUIRED FOR THIS PROJECT.
- THIS PLAN HAS BEEN PREPARED WITHOUT BENEFIT OF A TITLE REPORT AND THEREFORE DOES NOT NECESSARILY INDICATE ALL ENCUMBRANCES ON THE PROPERTY.
- EXISTING UTILITIES CONSIST OF STORM DRAINAGE, SANITARY SEWER, GAS, UNDERGROUND POWER AND OVERHEAD POWER.
- CONTACT PROSPECTIVE UTILITY OWNERS AT LEAST A WEEK IN ADVANCE OF ANY WORK ON WATER OF SEWER UTILITIES, INCLUDING SERVICE TAPS.
- SEDIMENT & EROSION CONTROL WILL BE PROVIDED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

GENERAL CONSTRUCTION NOTES:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE LATEST VERSION OF THE VIRGINIA STORM WATER MANAGEMENT HANDBOOK, VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS, AND FAIRFAX WATER (UTILITIES).

- THE SITE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING (ON-SITE) AND REFERENCING DETAIL MANUALS FOR THE ABOVE LISTED AGENCIES AND THE CONTRACTOR SHALL NOTIFY THE CHIEF INSPECTOR 48 HOURS PRIOR TO CONSTRUCTION IF CONFLICTS OR DISCREPANCIES ARISE BETWEEN THE APPROVED CDs AND AGENCY DETAILS AND MANUALS.
- ALL FILL, BASE AND SUBBASE MATERIAL SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD A WITHIN PLUS OR MINUS 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY.
- SIDEWALKS AND TRAILS SHALL BE CONSTRUCTED ON A SUBGRADE COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT (AASHTO T-99).
- CALL "MISS UTILITY" 48 HOURS PRIOR TO THE START OF EXCAVATION. VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES IN AREA OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT INDICATED. IF THERE APPEARS TO BE A CONFLICT, AND UPON DISCOVERY OF ANY UTILITY NOT INDICATED, CALL "MISS UTILITY" AT 1-800-257-7777 (TOLL FREE).
- ACQUIRE ANY AND ALL NECESSARY CONSTRUCTION PERMITS REQUIRED TO COMPLETE THE SITE WORK AND FURNISH COPIES TO THE OWNER. ANY WORK DONE WITHIN THE VDOT RIGHT-OF-WAY REQUIRES A VDOT PERMIT.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY DESIGNATED CITY OF FAIRFAX AND VDOT STAFF. NOTIFY THE CHIEF INSPECTOR 48 HOURS PRIOR TO START OF WORK.
- IN ACCORDANCE WITH HANDICAP ACCESSIBILITY REQUIREMENTS, COMPLY WITH THE 2010 EDITION ADA-AG CODES AND REQUIREMENTS FOR ACCESSIBILITY FOR DISABLED PERSONS.
- DRAIN ALL DISTURBED AREAS TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURES.
- BURNING OF CONSTRUCTION OR DEMOLITION MATERIALS IS NOT PERMITTED ON SITE.
- THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
- ALL TEST PITS SHALL BE PERFORMED 10 DAYS PRIOR TO CONSTRUCTION AND ANY DISCREPANCY IN THE RESULTS FORWARDED TO THE ENGINEER FOR A REDESIGN. SUCH REDESIGNS ARE SUBJECT TO OWNER APPROVAL.
- CONTROLLED FILLS:
 - CONTROLLED COMPACTION SHALL OCCUR IN ALL FILL SECTIONS FOR PAVEMENTS, TRENCHES FOR UTILITIES, AND IN ANY AREA DESIGNATED ON THE DRAWINGS.
 - CONTROLLED FILLS MUST BE COMPACTED TO 95% DENSITY AS DETERMINED BY METHODS AS PER STANDARD PROCTOR AASHTO-T99 OR ASTM-D698. DENSITY MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER.
 - CONTROLLED FILLS SHALL BE COMPACTED IN EIGHT (8) INCH LIFTS (LOOSE THICKNESS) TO THE SPECIFIED DENSITY, BEGINNING FROM THE EXISTING GROUND SURFACE. UNLESS OTHERWISE APPROVED IN WRITING BY A QUALIFIED SOILS ENGINEER.
 - THE SURFACE AREA DIRECTLY BENEATH AREAS TO RECEIVE CONTROLLED FILLS OF LESS THAN FIVE (5) FEET IS TO BE DENUDED OF ALL VEGETATION AND SCARIFIED AND COMPACTED TO A DEPTH OF SIX (6) INCHES TO THE SAME DENSITY AS THE CONTROLLED FILL TO BE PLACED THEREON.
- ALL UTILITIES MUST BE UNDERGROUND.

VDOT STANDARD CONSTRUCTION NOTES

- ALL WORK ON THIS PROJECT SHALL CONFORM TO THE CURRENT EDITIONS OF AND LATEST REVISIONS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS, THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, CITY OF FAIRFAX DESIGN CONSTRUCTION STANDARDS, AND ANY OTHER APPLICABLE STATE, FEDERAL OR LOCAL REGULATIONS. IN CASE OF A DISCREPANCY OR CONFLICT BETWEEN THE STANDARDS OR SPECIFICATIONS AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
- ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST US DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND VIRGINIA OCCUPATIONAL SAFETY & HEALTH (VOSH) RULES AND REGULATIONS.
- WHEN WORKING WITHIN VDOT RIGHT-OF-WAY, ALL TRAFFIC CONTROL, WHETHER PERMANENT OR TEMPORARY, SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF VDOT'S WORK AREA PROTECTION MANUAL. FURTHERMORE, ALL TRAFFIC CONTROL FLAGGERS MUST BE CERTIFIED IN ACCORDANCE WITH SECTION 105.14(c) OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR RELOCATING, AT HIS EXPENSE, ANY AND ALL UTILITIES, INCLUDING TRAFFIC SIGNAL POLES, JUNCTION BOXES, CONTROLLERS, ETC., OWNED BY VDOT OR PRIVATE/PUBLIC UTILITY COMPANIES. IT IS THE SOLE RESPONSIBILITY OF THE DEVELOPER TO LOCATE AND IDENTIFY UTILITY FACILITIES OR ITEMS THAT MAY BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION ACTIVITY. APPROVAL OF THESE PLANS DOES NOT INDEMNIFY THE DEVELOPER FROM THIS RESPONSIBILITY.
- DESIGN FEATURES RELATING TO FIELD CONSTRUCTION, REGULATIONS, AND CONTROL

- OR SAFETY OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY VDOT. ANY ADDITIONAL EXPENSE INCURRED AS A RESULT OF ANY FIELD REVISIONS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
- PRIOR TO INITIATION OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY VDOT OR LOCAL LAND USE PERMITS FOR ANY WORK WITHIN RIGHT OF WAY.
 - A PRE-CONSTRUCTION CONFERENCE SHALL BE ARRANGED AND HELD BY THE ENGINEER AND/OR DEVELOPER WITH THE ATTENDANCE OF THE CONTRACTOR, VARIOUS CITY AGENCIES, UTILITY COMPANIES AND VDOT (IF REQUIRED) PRIOR TO INITIATION OF WORK.
 - THE CONTRACTOR SHALL NOTIFY THE COUNTY OFFICE WHEN WORK IS TO BEGIN OR CEASE FOR ANY UNDETERMINED LENGTH OF TIME. VDOT OR COUNTY INSPECTORS REQUIRES AND SHALL RECEIVE 48 HRS ADVANCE NOTICE PRIOR TO ANY REQUIRED OR REQUESTED INSPECTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE ACCESS TO THE PROJECT FROM THE ADJACENT PUBLIC ROADWAY VIA A CONSTRUCTION ENTRANCE THAT IS CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 3.02 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). FURTHERMORE, ACCESS TO OTHER PROPERTIES AFFECTED BY THIS PROJECT SHALL BE MAINTAINED THROUGH CONSTRUCTION. THE DEVELOPER SHALL HAVE, WITHIN THE LIMITS OF THE PROJECT, AN EMPLOYEE CERTIFIED BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (VDOR) IN E&S CONTROL WHO SHALL INSPECT EROSION AND SILTATION CONTROL DEVICES AND MEASURES ON A CONTINUOUS BASIS FOR PROPER INSTALLATION AND OPERATION. DEFICIENCIES SHALL BE PROMPTLY RECTIFIED.
 - CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE IS ACHIEVED AND MAINTAINED ON THE SITE DURING AND AT THE END OF CONSTRUCTION.
 - ALL WATER AND SEWER LINES WITHIN EXISTING OR PROPOSED VDOT RIGHT-OF-WAY SHALL HAVE A MINIMUM THIRTY SIX (36) INCHES COVER AND WHEN POSSIBLE SHALL BE INSTALLED UNDER ROADWAY DRAINAGE FACILITIES AT CONFLICT POINTS.
 - ANY UNUSUAL SUBSURFACE CONDITIONS (e.g., UNSUITABLE SOILS, SPRINGS, SINKHOLES, VOIDS, CAVES, ETC.) ENCOUNTERED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND VDOT. WORK SHALL CEASE IN THAT VICINITY UNTIL AND ADEQUATE DESIGN CAN BE DETERMINED BY THE ENGINEER AND APPROVED BY VDOT.
 - ALL FILL AREAS, BORROW MATERIAL AND UNDERCUT AREAS SHALL BE INSPECTED AND APPROVED BY A VDOT REPRESENTATIVE PRIOR TO PLACEMENT AND FILL WHERE CBR TESTING IS REQUIRED. A VDOT REPRESENTATIVE SHALL BE PRESENT TO INSURE THE SAMPLE OBTAINED IS REPRESENTATIVE OF THE LOCATION. WHEN SOIL SAMPLES ARE SUBMITTED TO PRIVATE LABORATORIES FOR TESTING, THE SAMPLES SHALL BE CLEARLY IDENTIFIED AND LABELED AS BELONGING TO A PROJECT TO BE ACCEPTED BY VDOT AND THAT TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE VDOT STANDARDS AND PROCEDURES.
 - ALL ROADWAY FILL, BASE, SUBGRADE MATERIAL, AND BACKFILL IN UTILITY /STORM SEWER TRENCHES SHALL BE COMPACTED IN SIX (6) INCH LIFTS TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD A, WITHIN PLUS OR MINUS 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED STREET RIGHT-OF-WAY. AT THE DIRECTION OF VDOT, DENSITY TESTS SHALL BE PERFORMED BY AN INDEPENDENT AGENCY IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO VDOT DAILY, UNLESS SPECIFIED OTHERWISE.
 - VDOT STANDARD CD AND UD UNDERDRAINS SHALL BE INSTALLED WHERE INDICATED ON THESE PLANS AND/OR AS SPECIFIED BY VDOT.
 - THE INSTALLATION OF ANY ENTRANCES AND MAILBOXES WITHIN ANY DEDICATED STREET RIGHT-OF-WAY SHALL MEET THE VDOT MINIMUM DESIGN STANDARDS AND IS THE RESPONSIBILITY OF THE DEVELOPER.
 - PRIOR TO VDOT ACCEPTANCE OF ANY STREETS, ALL REQUIRED STREET SIGNAGE AND/OR PAVEMENT MARKINGS SHALL BE INSTALLED BY THE DEVELOPER OR, AT VDOT'S DISCRETION, BY VDOT ON AN ACCOUNT RECEIVABLE BASIS FOLLOWING THE MUTCD.
 - THE DEVELOPER SHALL PROVIDE THE VDOT RESIDENCY OFFICE WITH A LIST OF ALL MATERIAL SOURCES PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL INVOICES FOR MATERIALS UTILIZED WITHIN ANY DEDICATED STREET RIGHT-OF-WAYS MUST BE PROVIDED TO THE LOCAL VDOT RESIDENCY OFFICE PRIOR TO ACCEPTANCE OF THE WORK. UNIT AND TOTAL PRICES MAY BE ONSCURED.
 - AGGREGATE BASE AND SUBBASE MATERIALS SHALL BE PLACED ON SUBGRADE BY MEANS OF A MECHANICAL SPREADER. DENSITY WILL BE DETERMINED USING THE DENSITY CONTROL STRIP IN ACCORDANCE WITH SECTION 304 OF THE ROAD AND BRIDGE SPECIFICATIONS AND VTM-10. A CERTIFIED COMPACTION TECHNICIAN SHALL PERFORM THESE TESTS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO VDOT DAILY, UNLESS SPECIFIED OTHERWISE. IN ADDITION TO CHECKING STONE DEPTHS, A VDOT REPRESENTATIVE SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO BE PRESENT DURING THE CONSTRUCTION AND TESTING OF THE DENSITY CONTROL STRIP.
 - ASPHALT CONCRETE PAVEMENTS SHALL BE PLACED IN ACCORDANCE WITH SECTION 315 OF THE ROAD AND BRIDGE SPECIFICATIONS. DENSITY SHALL BE DETERMINED USING THE DENSITY CONTROL STRIP AND VTM-7B. A CERTIFIED COMPACTION TECHNICIAN SHALL PERFORM THESE TESTS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO VDOT DAILY, UNLESS SPECIFIED OTHERWISE. IN ADDITION TO CHECKING STONE DEPTHS, A VDOT REPRESENTATIVE SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO BE PRESENT DURING THE CONSTRUCTION AND TESTING OF THE DENSITY CONTROL STRIP.
 - IN ACCORDANCE WITH SECTION 302.3, THE FOUNDATIONS FOR PIPE CULVERTS THIRTY SIX (36) INCHES AND LARGER SHALL BE EXPLORED BELOW THE BOTTOM OF THE EXCAVATION TO DETERMINE THE TYPE AND CONDITION OF THE FOUNDATION. THE CONTRACTOR SHALL REPORT FINDINGS OF FOUNDATION EXPLORATION TO THE ENGINEER AND VDOT FOR APPROVAL PRIOR TO PLACING PIPE. FOUNDATION DESIGNS SHALL COMPLY WITH AASHTO ROAD AND BRIDGE STANDARD PB-1, WHERE SOFT, YIELDING, OR OTHERWISE UNSUITABLE FOUNDATION IS ENCOUNTERED, THE FOUNDATION DESIGN AND/OR NEED FOR FOUNDATION STABILIZATION SHALL BE DETERMINED BY THE ENGINEER AND APPROVED BY VDOT.
 - THE FOUNDATIONS FOR ALL BOX CULVERTS SHALL BE INVESTIGATED BY MEANS OF EXPLORATORY BORINGS ADVANCED BELOW PROPOSED FOUNDATION ELEVATION TO DETERMINE THE TYPE AND CONDITION OF THE FOUNDATION. THE CONTRACTOR SHALL SUBMIT COPIES OF BOREHOLE LOGS AND REPORT FINDINGS OF FOUNDATION EXPLORATION TO THE ENGINEER AND VDOT FOR APPROVAL PRIOR TO CONSTRUCTING BOX. FOUNDATION DESIGNS SHALL COMPLY WITH VDOT ROAD AND BRIDGE STANDARD PB-1, CONTRARY TO THE STANDARD, WHERE ROCK IS ENCOUNTERED AND CAST-IN-PLACE BOX IS PROPOSED, THE THICKNESS OF BEDDING SHALL BE SIX (6) INCHES. WHERE SOFT, YIELDING, OR OTHERWISE UNSUITABLE FOUNDATION IS ENCOUNTERED, THE FOUNDATION DESIGN AND/OR NEED FOR FOUNDATION STABILIZATION SHALL BE DETERMINED BY THE ENGINEER AND APPROVED BY VDOT.
 - APPROVAL OF THESE PLANS SHALL EXPIRE THREE (3) YEARS FROM THE DATE OF THE APPROVAL LETTER.
 - VDOT STANDARD CG-12 CURB RAMPS SHALL BE INSTALLED WHERE INDICATED ON THESE PLANS AND/OR AS SPECIFIED BY VDOT.
 - VDOT STANDARD GUARDRAIL SHALL BE INSTALLED WHERE WARRANTED AND/OR AS PROPOSED ON THESE PLANS IN ACCORDANCE WITH VDOT'S INSTALLATION CRITERIA. FINAL APPROVAL OF THE GUARDRAIL LAYOUT TO BE GIVEN BY VDOT AFTER GRADING IS MOSTLY COMPLETE.

ADDITIONAL VDOT CONSTRUCTION NOTES

- METHODS AND MATERIALS USED SHALL CONFORM TO CURRENT CITY AND VDOT STANDARDS AND SPECIFICATIONS.
- ALL UTILITIES, INCLUDING ALL POLES, ARE TO BE RELOCATED AT THE CONTRACTORS EXPENSE. COORDINATION IS THE RESPONSIBILITY OF THE CONTRACTOR.
- OPEN CUTTING OF PAVED OR SURFACE TREATED ROADS IS NOT PERMITTED. ALL UTILITIES WHICH WILL BE PLACED UNDER EXISTING STREETS ARE TO BE BORED OR JACKED. ANY EXCEPTIONS, DUE TO EXTENUATING CIRCUMSTANCES, ARE TO BE ADDRESSED AT THE PERMIT STAGE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE EXISTING RIGHT OF WAY.
- A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROAD TO PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE

- GUTTERS AND /OR THE PONDING OF ANY WATER IN THE ROADWAY.
- STANDARD GUARDRAILS AND/OR HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FIELD REVIEW BY CITY INSPECTOR OR VDOT.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE CONTRACTOR SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF THIRTY DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
- CBR TEST SHALL BE PERFORMED PRIOR TO DETERMINATION OF FINAL SUBGRADE ELEVATION. SUBGRADE DEPTH IS BASED ON A CBR VALUE OF SIX (6) UNLESS OTHERWISE NOTED. SOILS TEST OF SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF REQUIRED SUBBASE THICKNESS PRIOR TO CONSTRUCTION. ALL SUBGRADE TO BE COMPACTED TO 95% DENSITY AT 2% OF OPTIMUM MOISTURE CONTENT PER AASHTO-T99 METHOD. PAVEMENT DESIGN FOR A PUBLIC ROAD BASED ON THE ACTUAL CBR VALUES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- A 4" (MIN.) LAYER OF STONE IS REQUIRED BENEATH CURB AND GUTTER.
- ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AT THE OWNER'S EXPENSE, AS DETERMINED NECESSARY BY VDOT AND/OR DCR DURING FIELD REVIEW.
- OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.5" DEPTH; ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.
- OWNER IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF ANY TRAFFIC SIGNAL INSTALLATION OR MODIFICATION WHICH WILL BE NECESSARY AS A RESULT OF DEVELOPMENT OF THIS SITE.
- ALL RIGHT OF WAY DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.
- THE OWNER SHALL OBTAIN A PERMIT FOR ALL SIDEWALKS WITHIN THE RIGHT OF WAY THAT DO NOT QUALIFY FOR VDOT MAINTENANCE.
- TRAFFIC CONTROL DEVICES OR ADVISORY SIGNS, SUCH AS MULTIRWAY STOPS, SPEED LIMITS, DEAF CHILD, CHILDREN AT PLAY, ETC., SHALL NOT BE INSTALLED UNLESS SPECIFICALLY SHOWN ON THESE PLANS OR A VDOT APPROVED REVISION. SHOULD UNAPPROVED SIGNS BE NOTED AT THE TIME OF VDOT INSPECTION, THE ROAD ACCEPTANCE PROCESS SHALL BE TERMINATED IMMEDIATELY AND NOT RECOMMENDED UNTIL A DETERMINATION IS MADE REGARDING THE APPROVAL OF ANY ADDITIONAL SIGNS. IMMEDIATE REMOVAL OF SUCH SIGNS SHALL NOT NEGATE FOR THE SUBMISSION OF A REVISION.
- LANDSCAPING AND IRRIGATION SYSTEMS SHALL NOT BE INSTALLED WITHIN THE PUBLIC RIGHT OF WAY EXCEPT AS SHOWN ON THESE PLANS OR A VDOT APPROVED REVISION.

STORM SEWER CONSTRUCTION NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM WHERE APPLICABLE TO THE CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS.
- ALL CONCRETE SHALL BE CLASS A3 IF CAST IN PLACE, CLASS A4 IF PRECAST.
- MANHOLES AND DROP INLETS SHALL BE CONSTRUCTED FROM INVERT TO TOP AS FOLLOWS:
 - MANHOLES TO EIGHT FEET DEEP BLOCK CONSTRUCTION - MINIMUM EIGHT INCH WALLS.

- POURED IN PLACE CONCRETE - MINIMUM EIGHT INCH WALLS AND NONREINFORCED.
- PRECAST - MINIMUM EIGHT INCH WALLS IN CONJUNCTION WITH PRECAST THROAT AND PRECAST SLAB.
- PRECAST.
- POURED IN PLACE REINFORCED CONCRETE.
- SPECIAL DESIGN, I.E., BENDS, PRECAST TEES, PRECAST BOXES, WYES.

- DROP INLETS AND CURB INLETS SHALL HAVE STEPS. THE MAXIMUM DIMENSION FROM FINISH GRADE TO THE FIRST STEP IN THE INLET SHALL NOT EXCEED THREE FEET.
- UNLESS STATED ON THE APPROVED PLANS, SYMMETRICAL CHANNELS SHALL BE PERFORMED IN THE INVERT OF ALL STRUCTURES ACCORDING TO VDOT STANDARDS IS-1 TO PREVENT STANDING OR PONDING OF WATER.
- IF BLOCK CONSTRUCTION IS USED, THE INSIDE AND OUTSIDE WALLS, AS THEY ARE LAID, SHALL BE PLASTERED WITH MORTAR A MINIMUM OF 1/2" THICK.
- ALL PRECAST DROP INLETS, CURB INLETS AND MANHOLES SHALL CONFORM TO ASTM C-478.
- VDOT INLETS, WHERE PIPE SIZE IS LARGER THAN 48 INCHES I.D., REQUIRE A SPECIAL DESIGN. IN CASE OF SPECIAL DESIGN INLETS THAT DEVIATE FROM THE STANDARD, THE PRECAST MANUFACTURER OR DESIGN ENGINEER MUST SUBMIT FIVE COPIES OF DETAIL DRAWINGS TO VDOT FOR PROPER APPROVAL.
- THE OPENING IN PRECAST STORM SEWER STRUCTURES FOR ALL SIZE PIPE SHALL BE A MINIMUM OF FOUR INCHES AND A MAXIMUM OF SIX INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE.
- THE "H" DIMENSIONS SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF OUTFALL PIPE TO THE TOP OF THE STRUCTURE.
- TWO (2) INCH DEEP HOLES SHALL BE PROVIDED IN ENDWALL WHERE DIRECTED BY THE INSPECTOR.
- ALL PIPES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- ALL FILL BENEATH SEWER PIPES AND WATERLINES IS TO BE CONTROLLED FILL OR BETTER. CONTROLLED FILLS MUST BE COMPACTED TO 100% DENSITY AS DETERMINED BY AASHTO T99 OR ASTM d-698. DENSITY MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER. CONTROLLED FILLS SHALL BE COMPACTED IN EIGHT-INCH LIFTS (LOOSE THICKNESS) TO THE SPECIFIED DENSITY, BEGINNING FROM THE EXISTING GROUND SURFACE, UNLESS OTHERWISE APPROVED IN WRITING BY A QUALIFIED SOILS ENGINEER.
- ALL FILL BENEATH MANHOLES IS TO BE SELECT FILL. SELECT FILL MATERIAL SHALL CONSIST OF #67 OR #78 STONE AND MUST BE COMPACTED TO 100% DENSITY AS DETERMINED BY AASHTO T99 OR ASTM d-698. DENSITY MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER. SELECT FILLS SHALL BE COMPACTED IN EIGHT-INCH LIFTS (LOOSE THICKNESS) TO THE SPECIFIED DENSITY, BEGINNING FROM THE EXISTING GROUND SURFACE, UNLESS OTHERWISE APPROVED IN WRITING BY A QUALIFIED SOILS ENGINEER.

MATERIAL NOTES:

- ALL CONCRETE PIPE SHALL BE CLASS III OR AS NOTED ON THE PLANS. REFER TO VDOT SPECIFICATIONS. REFER TO VDOT STD. PB-1 FOR BEDDING DETAILS.
- ALL WATERLINES LARGER THAN 4" SHALL BE DIP CLASS 52 OR AS REQUIRED BY FAIRFAX WATER.
- ALL WATER SERVICE PIPE LESS THAN 4" FOR CONNECTION FROM THE MAIN TO THE METER SHALL BE TYPE "K" COOPER OR AS REQUIRED PER FAIRFAX WATER.
- ALL MANHOLES SHALL BE OF WATER TIGHT CONSTRUCTION AND TESTED IN PLACE PER VIRGINIA WATERWORKS REGULATIONS 12 VAC 5-590-1150. 132c, PAGE 146, DATED NOVEMBER 15, 1995.

CITY OF FAIRFAX NOTES:

- A STREET OPENING PERMIT IS REQUIRED FOR ANY WORK IN A CITY RIGHT-OF-WAY OR EASEMENT. THE PERMIT CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT. FOR INFORMATION, CALL 703.385.7980 OR 703.385.7810.
- ALL SIDEWALKS, CURBS, GUTTERS, DRIVEWAYS, STREETS, STORM PIPES, WATER LINES, SANITARY SEWER, ENDWALLS AND RIP-RAPS MUST BE INSPECTED BY THE CITY. ALL WORK IN THE CITY STREETS WILL BE PERFORMED MONDAY-FRIDAY BETWEEN THE HOURS OF 9:00 A.M. AND 3:00 P.M. NO WORK IS TO BE PERFORMED ON WEEKENDS OR HOLIDAYS UNLESS PRE-APPROVED BY THE DIRECTOR OF PUBLIC WORKS.
- INSPECTIONS PERFORMED BY THE FACILITIES INSPECTOR WILL REQUIRE A FOUR-HOUR NOTICE PRIOR TO INSPECTIONS.

GENERAL STANDARDS

- THE PUBLIC WORKS DIRECTOR MUST BE NOTIFIED ONE WEEK PRIOR TO PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO COMMENCEMENT OF LAND DISTURBING ACTIVITY AND ONE WEEK PRIOR TO FINAL INSPECTION. THE SITE PLAN COORDINATOR IN COMMUNITY DEVELOPMENT AND PLANNING (703-385-7820) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.
- A PRE-CONSTRUCTION MEETING WILL BE REQUIRED THREE DAYS PRIOR TO ANY CONSTRUCTION. CONTRACTORS WILL NOTIFY THE PUBLIC WORKS DEPARTMENT OR FACILITIES INSPECTOR FOR ALL WORK DONE ON SITE AND OFF SITE ONE DAY PRIOR TO STARTING.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR PARKING CONSTRUCTION EQUIPMENT AND PROVIDE EMPLOYEE PARKING ON SITE.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST CITY OF FAIRFAX STANDARDS, VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE VIRGINIA SEDIMENT & EROSION CONTROL CURRENT SPECIFICATIONS, EXCEPT AS SHOWN OR ALTERED BY THESE PLANS.
- TRAFFIC SIGNS FOUND TO BE IN THE WAY AT CONSTRUCTION SITES SHALL BE REMOVED OR RELOCATED ONLY BY PERSONNEL IN THE SIGN & SIGNAL CREW OF THE PUBLIC WORKS DEPARTMENT AT THE CONTRACTOR'S REQUEST. ANY CONTRACTOR FOUND RESPONSIBLE FOR MOVING CITY PROPERTY WITHOUT PERMISSION WILL RECEIVE A SUMMONS.
- BUILDING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE. PERMITS AND INSPECTIONS FOR BUILDING, ELECTRICAL, PLUMBING, MECHANICAL AND FIRE PROTECTION WORK ARE OBTAINED FROM THE OFFICE OF CODE ADMINISTRATION, 703.385.7830.
- PRIVATE FIRE MAINS REQUIRE A PERMIT FROM THE OFFICE OF CODE ADMINISTRATION. PERMIT APPLICATION MUST INCLUDE DETAILS OF INSTALLATION AS SPECIFIED IN NFPA-24. AN APPROVED SITE PLAN IS NOT A PERMIT TO INSTALL FIRE MAINS.
- NO PORTION OF ANY BUILDING SHALL BE OCCUPIED UNTIL A CERTIFICATE OF OCCUPANCY HAS BEEN ISSUED BY THE BUILDING OFFICIAL AND A USE PERMIT BY THE ZONING OFFICE.
- NO BUILDING, EXCEPT ADDITIONS OR ACCESSORIES TO EXISTING DWELLINGS, SHALL PROCEED BEYOND FIRST FLOOR LEVEL UNTIL THE LOCATION OF THE FOOTING AND WALLS AS SHOWN ON A PLAT CERTIFIED BY A LAND SURVEYOR HAS BEEN APPROVED BY THE ZONING ADMINISTRATOR.
- AN AS-BUILT PLAN MUST BE SUBMITTED WITHIN 30 DAYS AFTER COMPLETION OF ALL CONSTRUCTION.
- TEMPORARY STRUCTURES, CONSTRUCTION TRAILERS AND DEMOLITION REQUIRE PERMITS FROM THE OFFICE OF CODE ADMINISTRATION PRIOR TO START OF WORK OR INSTALLATION.
- ADEQUATE EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED AT ALL TIMES. A HARD SURFACED, ALL-WEATHER ROADWAY SHALL BE PROVIDED TO WITHIN 50 FEET OF ALL STRUCTURES AND ANY LOCATION WHERE COMBUSTIBLE MATERIALS ARE STORED.
- CITY ORDINANCE PERMITS CONSTRUCTION NOISE, INCLUDING EXCAVATION, BETWEEN THE HOURS OF 7:00 AM AND 6:00 PM ON WEEKDAYS AND 8:30 AM AND 5:00 PM ON SATURDAYS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT ALL CONTRACTORS AND SUBCONTRACTORS COMPLY WITH THIS ORDINANCE.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH CITY CODE SECTIONS LIMITING GROWTH OF GRASS AND WEEDS TO SIX INCHES IN HEIGHT.

CONSTRUCTION

- ALL SUBGRADE AND SUB-BASE MATERIAL SHALL BE COMPACTED TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.O. T-99 METHOD A WITHIN PLUS OR MINUS 20% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED RIGHT-OF-WAY AND ALL TOWNHOUSE, APARTMENT, CONDOMINIUM, COMMERCIAL AND INDUSTRIAL PARKING LOTS (INCLUDING STORM SEWER, SANITARY SEWER AND WATER).
- COMPACTION TEST SHALL BE PERFORMED BY THE CONTRACTOR. SUBGRADE FOR CURB, GUTTER AND SIDEWALK SHALL BE EVERY 50 FEET; SUB-BASE WILL BE ALTERNATED EVERY 25 FEET. DRIVEWAYS REQUIRE TWO TESTS ON SUBGRADE AND SUB-BASE. COPY OF RESULTS IS REQUIRED PRIOR TO PLACING ANY TYPE OF MATERIAL. VTM-1 CORRECTION ALSO MUST BE USED. ALL STRUCTURES REQUIRE TWO TESTS ON SUBGRADE AND SUB-BASE.
- COMPACTION TESTS FOR ROADWAYS SHALL BE PERFORMED BY THE CITY ONLY, UNLESS APPROVED BY THE PUBLIC WORKS DIRECTOR. COMPACTION TESTS FOR ALL BUILDING PADS MUST BE SUBMITTED TO THE OFFICE OF CODE ADMINISTRATION FOR REVIEW AND APPROVAL.
- ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE INSTALLED TO THE REQUIRED DISTANCE BEYOND THE RIGHT-OF-WAY.
- STORM SEWER AND CULVERT PIPE SHALL BE REINFORCED CONCRETE PIPE TO CONFORM TO THE CURRENT A.A.S.H.T.O. DESIGNATION M170, UNLESS OTHERWISE DESIGNATED ON THE PLANS. CLASS II PIPE IS PERMITTED BEYOND THE LIMITS OF STREET RIGHTS-OF-WAY. CLASS III PIPE IS REQUIRED WITHIN THE LIMITS OF THE RIGHTS-OF-WAY.
- ALL CURB AND GUTTER SHOWN ON PLANS AND NOT IN PROFILES SHALL BE ON STRAIGHT TANGENT GRADES. THE CONTRACTOR SHALL ROUND ALL VERTICAL BREAKS WITH SMOOTH SPLINE CURBS.
- ALL PAVEMENT PLACED ON CITY RIGHT-OF-WAY SHALL HAVE A MIX DESIGN APPROVED PRIOR TO PLACING MATERIAL AND A DENSITY TEST PERFORMED DURING PLACEMENT.
- STREET SIGNS AND MARKINGS SHALL BE INSTALLED BY THE DEVELOPER AT ALL STREET INTERSECTIONS IN A LOCATION TO BE DETERMINED BY THE DIRECTOR OF PUBLIC WORKS. PRIVATE ACCESS WAYS AND ALLEYS SHALL BE CLEARLY DESIGNATED AS SUCH BY A SIGN AT EVERY ENTRANCE FROM A PUBLIC STREET, STATING "PRIVATE STREET, PRIVATELY OWNED AND PRIVATELY MAINTAINED". ALL STREET MARKINGS AND SIGNAGE WILL CONFORM TO CITY OF FAIRFAX STANDARDS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL, PER THE STREET SUPERINTENDENT.
- C.B.R. TEST IS REQUIRED FOR ACTUAL DETERMINATION OF REQUIRED SUB-BASE THICKNESS PRIOR TO CONSTRUCTION. DEPTH OF SUB-BASE IS BASED ON SUBGRADE C.B.R. VALUE OF 10, WHERE C.B.R. VALUE IS LESS THAN 10, ONE-INCH OF SUB-BASE OR BASE MATERIAL SHALL BE ADDED FOR EACH POINT BELOW 10 FOR ON SITE AND OFF SITE AND SHALL BE REVIEWED BY THE CITY OF FAIRFAX FOR SPECIAL DESIGN.
- ALL CONSTRUCTION MUST COMPLY TO THE CODE OF VIRGINIA 36-98 AND 36-99 BY REFERENCE AS PART OF THE UNIFORM STATEWIDE BUILDING CODE OF VIRGINIA, THE FINAL FAIR HOUSING ACCESSIBILITY GUIDELINES (24 CFR CHAPTER I) AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (28 CFR, PART 36) AS PER SITE AND RIGHT-OF-WAY WORK COMPLIANCE.
- PROVIDE PROPER DISTANCE FROM BACK OF SIDEWALK TO BUILDING FOR STOOPS AND STEPS, AND THE LIKE.
- ALL ROOFS, PAVED AREAS, YARDS, COURTS AND COURTYARDS SHALL BE DRAINED INTO A SEPARATE STORM SEWER OR A COMBINED SEWER SYSTEM.

NOT FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE OFFICE OF CIVIL ENGINEER, TIMMONS GROUP, 20110 ASHBROOK PLACE, SUITE 100, ASHBURN, VA 20147. TEL: 703-726-1342. FAX: 703-726-1345. WWW.TIMMONSGROUP.COM

YOUR VISION ACHIEVED THROUGH OURS.

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|----------------------|-----------|
| REVISION DESCRIPTION | DATE |
| 60% SUBMISSION | 3/27/2020 |
| DATE | 10.23.18 |
| DRAWN BY | PVN |
| DESIGNED BY | PVN |
| CHECKED BY | LTF |
| SCALE | SEE PLAN |

TIMMONS GROUP
CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA

NOTES & DETAILS

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| JOB NO. | 35061.023 |
| SHEET NO. | C10 |

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ENVIRONMENTAL

- ALL EROSION SILTATION CONTROL TO BE INSTALLED PRIOR TO STARTING PROJECT TO CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL MANUAL.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING THE CITY OF FAIRFAX RIGHTS-OF-WAY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS AND ALLY DUST AND TO TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE ROAD IS MAINTAINED IN A CLEAN AND DUST-FREE CONDITION AT ALL TIMES.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE WORK IN SUCH A MANNER TO PREVENT THE WASHING OF ANY TOPSOIL, SILT, OR DEBRIS ONTO ADJACENT PROPERTIES.
- IF THE PRESENCE OF ASBESTOS IS SUSPECTED IN THE SOIL, THE CONTRACTOR MUST CONTACT THE AIR POLLUTION CONTROL DIVISION OF THE FAIRFAX COUNTY HEALTH DEPARTMENT AT 703.246.2300.
- ONSITE STORAGE OF FUEL SHALL BE LIMITED TO DIESEL FUEL TANKS NOT OVER 660 GALLONS CAPACITY. TANKS SHALL BE OF A LISTED TYPE AND SHALL BE PROVIDED WITH APPROVED SECONDARY CONTAINMENT, IMPACT PROTECTION AND PLACARDING. A MINIMUM 2A-40BC FIRE EXTINGUISHER SHALL BE PROVIDED IN THE VICINITY OF THE REFUELING AREA. A PERMIT FOR COMBUSTIBLE LIQUID STORAGE SHALL BE OBTAINED FROM THE OFFICE OF CODE ADMINISTRATION, 703.385.7830. FUEL SHALL NOT BE PLACED IN ONSITE STORAGE TANKS UNTIL THE INSTALLATION HAS BEEN INSPECTED AND APPROVED.
- ONSITE REPAIR OF VEHICLES AND EQUIPMENT SHALL BE LIMITED TO REPLACEMENT OF DAMAGED BELTS, HOSES AND TIRES. ANY SPILL OF FUEL, OIL, HYDRAULIC FLUID OR ANTI-FREEZE GREATER THAN ONE GALLON MUST BE REPORTED TO THE OFFICE OF CODE ADMINISTRATION AT 385-7830. ALL SPILLS MUST BE CLEANED UP PROMPTLY AND IN AN APPROVED MANNER.
- THE OWNER SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH CITY CODE SECTIONS REGARDING HEALTH AND SAFETY MENACES, INCLUDING ACCUMULATIONS OF WATER, STORAGE OF MATERIAL, CONSTRUCTION DEBRIS AND SECURITY OF THE SITE.
- THE LINK TO THE ASBESTOS INFORMATION AND MAP ON THE FAIRFAX COUNTY WEBSITE [HTTP://WWW.FAIRFAXCOUNTY.GOV/HD/ASB/](http://www.fairfaxcounty.gov/hd/asb/)
- PRIOR TO THE START OF ANY SITE GRADING WORK, THE DEVELOPER OR OWNER SHALL PROVIDE THE CITY OF FAIRFAX PUBLIC WORKS FACILITIES INSPECTOR WITH DOCUMENTATION THAT A VSMP PERMIT HAS BEEN ISSUED BY THE VA DEPARTMENT OF CONSERVATION AND RECREATION. THE VSMP PERMIT REQUIRES THAT A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES.

DEPARTMENT OF UTILITIES STANDARD NOTES GENERAL

- ALL WATER MAINS AND SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY OF FAIRFAX STANDARDS AND SPECIFICATIONS.
- EASEMENTS FOR ALL SANITARY AND WATER MAINS SHALL BE 10' UNLESS OTHERWISE NOTED.
- SANITARY SEWERS AND WATER MAINS SHALL MAINTAIN A MINIMUM OF 15' HORIZONTAL SEPARATION FROM PROPOSED OR EXISTING BUILDINGS.
- NO LANDSCAPING OR OTHER UTILITIES (I.E. GAS, PHONE, CABLE, ETC.) ARE PERMITTED IN THE WATER AND SEWER EASEMENTS, EXCEPT AT CROSSINGS.
- CONTRACTOR SHALL REQUEST PRE-CONSTRUCTION MEETING AND INSPECTION BY THE CITY OF FAIRFAX DEPARTMENT OF PUBLIC WORKS (703.385.7810) THREE DAYS PRIOR TO COMMENCING CONSTRUCTION OF ANY WATER AND SEWER MAINS.
- A PERMIT FOR INSTALLATION OF SANITARY SEWERS, FIRE HYDRANTS AND WATER MAINS SHALL BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS.
- PRIOR TO ANY WATER MAIN INSTALLATION, ALL REQUIRED SANITARY SEWERS, INCLUDING LATERALS, AND STORM SEWERS MUST BE INSTALLED AND BACKFILLED TO 95% COMPACTION.
- WATER AND SEWER LATERALS NOT WITHIN AN EASEMENT REQUIRE PLUMBING PERMITS AND INSPECTIONS FROM THE OFFICE OF CODE ADMINISTRATION. THE INCLUSION OF THESE ITEMS DOES NOT CONSTITUTE A PERMIT.
- FINAL APPROVAL FROM THE CITY OF FAIRFAX DEPARTMENT OF UTILITIES IS CONTINGENT UPON RECEIPT BY THE DEPARTMENT OF PLANS SHOWING THE LOCATION OF ALL PROPOSED UTILITIES. ALL PROPOSED UTILITIES ARE TO BE LOCATED OUT OF THE WATER OR SEWER EASEMENTS, EXCEPT FOR CROSSINGS.

WATER MAIN

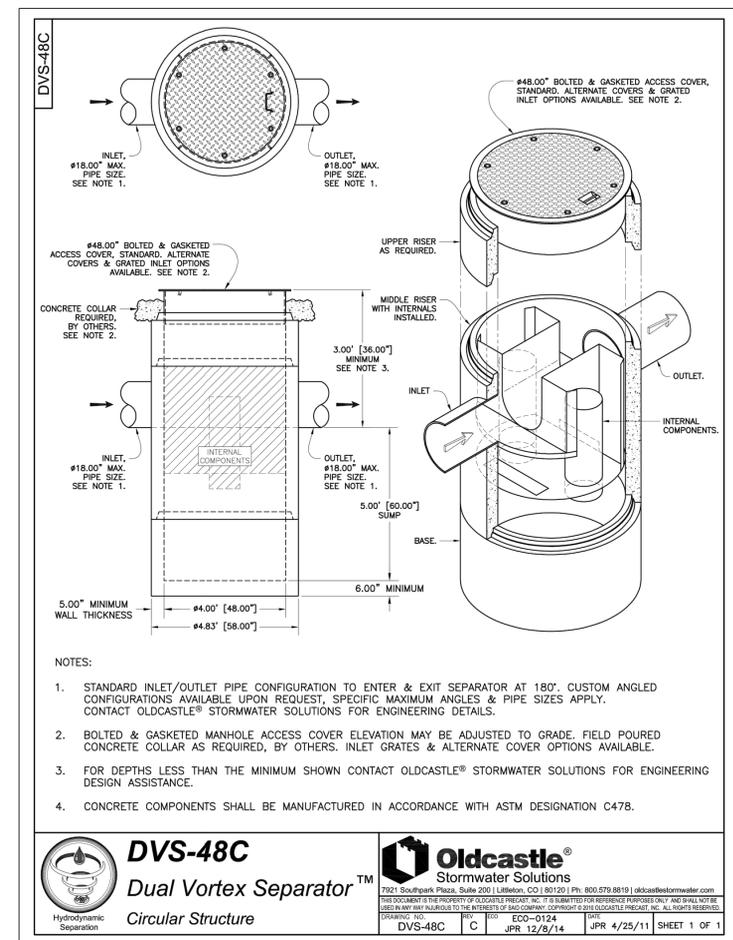
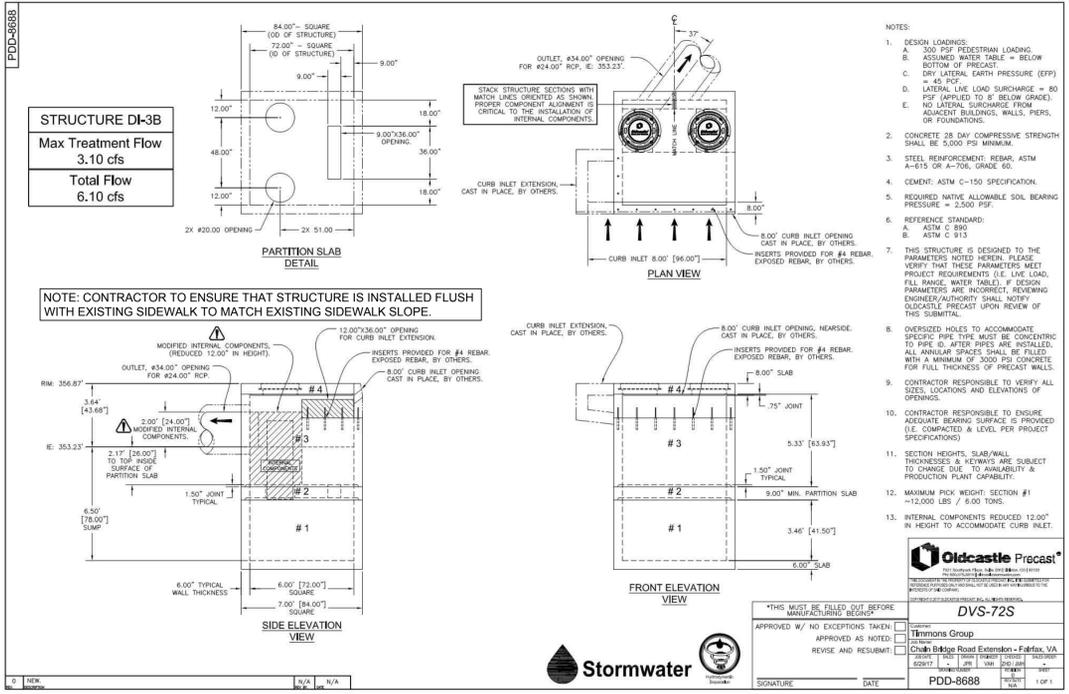
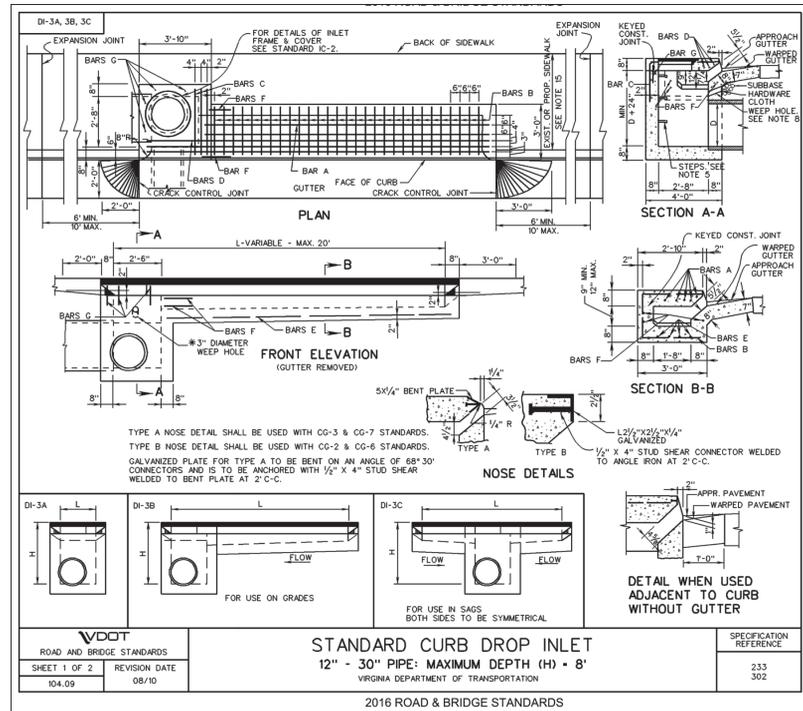
- WATER SERVICES SHALL MAINTAIN A MINIMUM OF 6' HORIZONTAL SEPARATION FROM SANITARY LATERALS.
- ALL HYDRANTS AND METER CROCKS SHALL MAINTAIN 5' HORIZONTAL SEPARATION FROM EDGE OF DRIVEWAY APRONS, WHEN POSSIBLE.
- WATER MAINS SHALL MAINTAIN A MINIMUM 2.5' HORIZONTAL SEPARATION FROM EDGE OF GUTTER PAN, EXCEPT AT DESIGNATED CROSSINGS.
- ALL WATER MAINS LESS THAN OR EQUAL TO 12" IN DIAMETER SHALL BE CLASS 52 DUCTILE IRON PIPE WITH CEMENT LINING. ALL WATER MAINS GREATER THAN 12" IN DIAMETER SHALL BE CLASS 54 DUCTILE IRON PIPE WITH CEMENT LINING.
- A 2" DETECTABLE MARKING TAPE SHALL BE PLACED 2' ABOVE ALL WATER MAINS.
- CONTRACTOR IS RESPONSIBLE TO INSTALL TYPE K COPPER WITH AWWA APPROVED CORPORATION STOP AND ANGLE VALVE FOR ALL WATER SERVICE LINES SMALLER THAN OR EQUAL TO 2", AND EXTEND A 5' SECTION (PIG TAIL) BEYOND THE METERS. METER BOXES, YOKES, ANGLE VALVES, AND DUAL CHECK VALVES WILL BE PROVIDED BY THE CITY OF FAIRFAX DEPARTMENT OF UTILITIES.
- PRESSURE TESTING AND DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C-600 AND AWWA C-601 STANDARDS, RESPECTIVELY.
- WATER VALVES SHALL BE OPERATED BY THE DEPARTMENT OF UTILITIES' STAFF ONLY (703.385.7920; AFTER HOURS CALL 703.385.7924).
- WATER VALVE BOX LIDS SHALL HAVE THE WORD "WATER" OR THE LETTER "W" CAST IN THEM.
- FIRE LINE VALVE BOX LIDS, AT CONNECTION TO CITY WATER MAIN, SHALL HAVE THE WORD "FIRE" CAST IN THEM. MINIMUM FIRE VALVE SIZE IS 6".
- NO BLASTING IS PERMITTED WITHIN CITY LIMITS AND WITHIN 50' OF CITY'S TRANSMISSION MAIN IN FAIRFAX AND LOUDOUN COUNTIES.
- ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4'
- PROPOSED FIRE HYDRANTS SHALL BE PAINTED BY THE CONTRACTOR PER CITY SPECIFICATIONS, AND SHALL BE EQUIPPED WITH THE DEPARTMENT APPROVED REFLECTIVE INFORMATION RING. THE PAINT SHALL CONSIST OF TWO ADDITIONAL COATINGS ON TOP OF THE COATING PROVIDED BY THE HYDRANT MANUFACTURER. SAFETY RED - B54 R38 617-4064 PURE WHITE - B54 W101 7907-9993
- PROPOSED AND EXISTING FIRE HYDRANTS THAT HAVE BEEN TAKEN OFF LINE FOR CONSTRUCTION REASONS OR HAVE NOT YET BEEN APPROVED FOR USE BY THE CITY'S INSPECTOR SHALL BE "BAGGED" TO ALERT THE FIRE DEPARTMENT.

LANDSCAPE

- THE AREA SURROUNDING ALL TREES, SHRUBS AND GROUND COVER SHALL BE TOPPED WITH TWO INCHES OF SHREDDED HARDWOOD BARK MULCH.
- NO CHANGES SHALL BE PERMITTED TO THE PLANT LIST UNLESS APPROVED BY THE CITY OF FAIRFAX.
- TREES SHALL BE CLASSIFIED AS PER "AMERICAN STANDARD FOR PLANT STOCK" AS ADOPTED BY THE AMERICAN ASSOCIATION OF NURSEYMEN. PLANT MATERIAL BELOW THIS STANDARD SHALL NOT BE CONSIDERED.
 - ALL PLANTS MUST CONFORM TO REQUIREMENTS PER PLANT LIST;
 - ALL PLANT MATERIALS MUST BE NURSERY GROWN STOCK;
 - ALL TREES MUST BE WELL BRANCHED, FULL CROWN;
- AT LEAST 5 DAYS BEFORE BEING PLANTED, THE SITE PLAN COORDINATOR SHALL BE NOTIFIED THAT PLANTS ARE AVAILABLE FOR INSPECTION.
- NO PERSON SHALL REMOVE OR DESTROY ANY TREE WHICH IS FIVE (5) INCHES OR GREATER IN CALIPER, MEASURED SIX (6) INCHES ABOVE GROUND LEVEL, ON ANY LOT GREATER THAN ONE-HALF (1/2) ACRE WITHOUT FIRST OBTAINING A TREE REMOVAL PERMIT FROM THE ZONING ADMINISTRATOR. ANY TREE REMOVED, DAMAGED OR DESTROYED WILL BE REPLACED AT THE DISCRETION OF THE ZONING ADMINISTRATOR.

SANITARY SEWER:

- SANITARY SEWERS SHALL BE PVC DR-25 PER AWWA C-900, UNLESS OTHERWISE NOTED.
- SANITARY SEWER LATERALS SHALL BE 4" PVC DR-25 BETWEEN THE MAIN AND THE PROPERTY LINE AND SHALL ENTER THE MAIN AT 90 DEGREES. A CLEANOUT SHALL BE INSTALLED AT THE PROPERTY LINE.
- A 2" DETECTABLE METAL MARKING TAPE SHALL BE PLACED 3- FEET ABOVE ALL SANITARY SEWERS.
- THE DEPARTMENT OF UTILITIES SHALL INSPECT SANITARY SEWERS BY A CAMERA AFTER THE LINES ARE PUT IN SERVICE.
- FINISH GRADE SHALL DRAIN AWAY FROM MANHOLES LOCATED OUTSIDE OF PAVEMENT AREAS.
- TOP OF MANHOLES LOCATED OUTSIDE OF PAVEMENT AREAS SHALL BE 3" ABOVE FINAL GRADE, EXCEPT IN ESTABLISHED LAWNS WHERE IT SHALL MATCH THE FINAL GRADE.
- MANHOLES SHALL HAVE BITUMINOUS COATING ON THE OUTSIDE WALLS.
- ALL SANITARY MANHOLE LIDS SHALL BE HEAVY DUTY AND SHALL HAVE THE WORDS "FAIRFAX CITY SEWER" CAST IN THEM.
- DROP MANHOLES SHALL HAVE AN 8" INSIDE DROP PIPE.
- MANHOLES IN 100 YR. FLOOD PLAIN SHALL HAVE WATERTIGHT LIDS.
- ALL TESTING IS PROVIDED BY THE CONTRACTOR, AS DIRECTED BY THE CITY INSPECTOR.



NOT FOR CONSTRUCTION

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| YOUR VISION ACHIEVED THROUGH OURS. | REVISION DESCRIPTION | DATE | DATE |
| | 60% SUBMISSION | 3/27/2020 | 10.23.18 |
| | | | DRAWN BY |
| | | | DESIGNED BY |
| | | | CHECKED BY |
| | | | SCALE |
| | | | SEE PLAN |

TIMMONS GROUP

CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA

NOTES & DETAILS

JOB NO. 35061.023
SHEET NO. C1.1

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GENERAL NOTES:

1. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.
2. DETECTABLE WARNING TO BE CLASS A-3 CONCRETE (CLASS A-4 IF PRECAST) WITH SUB-RESISTANT INTERIOR SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2 FEET IN EITHER THE DIRECTION OF REGULAR TRAVEL. OTHER TYPES OF MATERIAL WITH THE TRUNCATED DOMES DETECTABLE WARNING MAY BE USED WITH THE APPROVAL OF THE DESIGNER.
3. SLOPING SIDES OF CURB RAMP MAY BE FORMED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SECTIONS CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 X 8' PLACED 4" CENTER TO CENTER ALONG WITH SIDES OF CURB. RAMP FLOOR, MID-DEPTH OF RAMP FLOOR. MINIMUM CONCRETE COVER 1/2".
6. CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMP ARE INCLUDED IN PAYMENT FOR CURB AND GUTTER.
7. CURB RAMP ARE TO BE LOCATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THEY ARE TO BE PROVIDED BY INTERSECTIONS WHEREVER AN ACCESSIBLE ROUTE WITHIN THE RIGHT OF WAY OF A HIGHWAY FACILITY. CONCRETE CURB RAMP ARE TO BE PROVIDED AT ALL INTERSECTIONS, OR WHEREVER THE CURB MUST BE LOCATED WITHIN PROPOSED CHANNELS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER AND SHOULD NOT BE LOCATED NEAR VERTICAL STOP LOCATIONS OR STOP LOCATIONS. HYDRANT, DROP VALVES, ETC. ACCESSIBLE ROUTES PROVIDE A CONTINUOUS UNINTERRUPTED STABLE FIRM AND SLIP RESISTANT PATH CONNECTING ALL ACCESSIBLE ELEMENTS OF A FACILITY THAT CAN BE APPROACHED, ENTERED AND USED BY PEDESTRIANS.
8. RAMP MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
9. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE ENTRANCE RAMP CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, REFER TO STANDARD CG-11, COMMERCIAL ENTRANCE HEAVY TRUCK TRAFFIC FOR CONCRETE DETAIL.
10. WHEN CURB RAMP ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.

| ROCK MINIM. | 10,000 - 20,000 LBS. PER SQ. FT. | 20,000 - 30,000 LBS. PER SQ. FT. | 30,000 - 40,000 LBS. PER SQ. FT. | 40,000 - 50,000 LBS. PER SQ. FT. | 50,000 - 60,000 LBS. PER SQ. FT. | 60,000 - 80,000 LBS. PER SQ. FT. | 80,000 - 100,000 LBS. PER SQ. FT. | 100,000 - 120,000 LBS. PER SQ. FT. | 120,000 - 150,000 LBS. PER SQ. FT. | 150,000 - 200,000 LBS. PER SQ. FT. |
|---------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|
| GRAVEL AND COARSE SAND, WELL CEMENTED | 10,000 | 20,000 | 30,000 | 40,000 | 50,000 | 60,000 | 80,000 | 100,000 | 120,000 | 150,000 |
| CLAY IN THICK BEDS, ALWAYS DRY | 12,000 | 20,000 | 30,000 | 40,000 | 50,000 | 60,000 | 80,000 | 100,000 | 120,000 | 150,000 |
| CLAY IN THICK BEDS, MODERATELY DRY | 8,000 | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 | 48,000 | 60,000 | 80,000 | 100,000 |
| CLAY, SOFT | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 | 12,000 | 16,000 | 20,000 | 24,000 | 30,000 |
| SAND, DRY, COMPACT, AND WELL CEMENTED | 4,000 | 8,000 | 12,000 | 16,000 | 20,000 | 24,000 | 30,000 | 40,000 | 50,000 | 60,000 |
| SAND, CLEAR, DRY | 4,000 | 8,000 | 12,000 | 16,000 | 20,000 | 24,000 | 30,000 | 40,000 | 50,000 | 60,000 |
| ALLUVA, SANDS, ETC. | 1,000 | 2,000 | 3,000 | 4,000 | 5,000 | 6,000 | 8,000 | 10,000 | 12,000 | 15,000 |

CG-12 DETECTABLE WARNING SURFACE GENERAL NOTES
VIRGINIA DEPARTMENT OF TRANSPORTATION

| ROADWAY GRADE IN PERCENT | MINIMUM RAMP LENGTH IN FEET | 4" CURB | 6" CURB |
|--------------------------|-----------------------------|---------|---------|
| 0 | 2 | 2 | 2 |
| 1 | 3 | 3 | 3 |
| 2 | 4 | 4 | 4 |
| 3 | 5 | 5 | 5 |
| 4 | 6 | 6 | 6 |
| 5 | 7 | 7 | 7 |
| 6 | 8 | 8 | 8 |
| 7 | 9 | 9 | 9 |
| 8 | 10 | 10 | 10 |

CG-12 DETECTABLE WARNING SURFACE TYPE C (PARALLEL & PERPENDICULAR) APPLICATION
VIRGINIA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS
PROPOSED MINIMUM 1 1/2" THICK ASPHALT SURFACE COURSE (SEE NOTE 5)
MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC
VIRGINIA DEPARTMENT OF TRANSPORTATION

CONCRETE GRAVITY RETAINING WALL - LEVEL BACKFILL
VIRGINIA DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING DETAIL
NO SCALE

PAVEMENT TO BE NEATLY CUT. PATCH SHALL BE EQUAL OR BETTER THAN THAT REMOVED.
CUT AND MILL SURFACING BACK MIN. OF 2" BEYOND EDGE OF TRENCH (OR 2" BEYOND LIMIT OF HEADED OR OTHERWISE DAMAGED SURFACE).
COMPACTED TO 95% MAX. DENSITY AS DETERMINED BY ASTM D 1557 - 92 STANDARD METHOD.
SUBBASE PAVEMENT MATERIALS PER CURRENT ROAD AND BRIDGE STANDARDS.

STANDARD SIDEWALK SECTION
NO SCALE

MAX. CROSS SLOPE 1/4" : 1'
4" CLASS A-3 CONCRETE
4" 21 A STONE
SUBGRADE (COMPACTED TO 95% DENSITY)

NOTES:
1. PROVIDE CONTROL JOINTS AT 4'-0" ON COVERS (MAX).
2. REMOVAL AND REPLACEMENT SHALL BE TO THE NEAREST JOINT.
3. CONCRETE TO MEET THE REQUIREMENTS OF VDOT A3.

SIDEWALK SHALL BE CONSTRUCTED TO MINIMUM VDOT STANDARDS

DRIVEWAY CONCRETE APRON
NO SCALE

7" CLASS A-3 PORTLAND CEMENT CONCRETE (3000 PSI)
6" 21 A STONE
SUBGRADE (COMPACTED TO 95% DENSITY)

GUTTER PAN CURB TRANSITION DETAIL
NOT TO SCALE

CG-6 5'-10" TRANSITION CG-6

STANDARD SIDEWALK DETAIL
CITY OF FAIRFAX

CONCRETE TO BE CLASS A3 OR BETTER.
LONGITUDINAL EXPANSION JOINT NOT TO EXCEED 80 FEET.

STREET CURB CUT FOR DRIVEWAYS ON C&G STREETS
CITY OF FAIRFAX

CONCRETE SIDEWALK
PLACE 1/2" EXP. JOINT HERE WHEN CROSSING EXISTING CONCRETE DRIVES
THICKNESS AT DRIVEWAY CROSSING
CONCRETE APRON FILLER POURED WITH S/W 4" CONC. APRON
SCORE JOINT
3/4" RAMP PAVEMENT
FACE OF EXISTING CURB
DRIVEN BY OTHERS
PLACE 1/2" EXP. JOINT HERE WHEN CROSSING EXISTING CONCRETE DRIVES

SECTION A-A
PLAN VIEW

NOTES:
1. Residential driveway to be 12' minimum, 16' maximum desirable.
2. Omitted.
3. All concrete shall be 3000 psi @ 28 days air entrained.
4. Curb shall be tapered to finish flush with sidewalk.
5. Beginning radius shall not encroach on adjacent properties based on a projection of property line from the right-of-way to the curb line.
6. Sidewalk section shall not be required along streets which are not planned for sidewalk.

HANDRAIL DETAIL
NOT TO SCALE

HANDRAIL TO BE PRIMED WITH A COAT OF Koppers 425 RUST 1 PENETRATING PRIMER, OR APPROVED EQUAL, THEN PAINTED WITH 2 COATS OF DURON NEW RETHANE MODIFIED BLACK (OR APPROVED EQUAL). PAINT TO BE APPLIED AT THE 1/2" PER COAT COLOR TO BE PICKED BY ARCHITECT.

CITY OF FAIRFAX

TYPICAL CURB and GUTTER STREET SECTION
CITY OF FAIRFAX

CONTRACTOR TO MATCH ASPHALT ON SPECIFICATION OR REPLACE ASPHALT TO THE EXISTING FIELD CONDITIONS, WHICHEVER IS GREATER.

| CLASSIFICATION | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|-----------------------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| RESIDENTIAL | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" |
| COLLECTOR | 44'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" |
| ALLEYS | 19'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" |
| SERVICE DRIVES | 22'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" | 30'-0" | 3'-0" |
| MATERIAL & UNIMPROVED | 32'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" | 30'-0" | 4'-0" |
| PRIVATE ACCESSORIES | 30'-0" | N/A |
| PARKING BAYS | N/A | N/A | 30'-0" | N/A |

NOTES:
For all street classifications within R.O.W. and private

CURB RAMP
CITY OF FAIRFAX

CONCRETE DETECTABLE WARNING PAVEMENT 7/8" x 7 1/2" x 1/2" WITH TRUNCATED DOMES. COLOR = RED & DARK GRAY MIX.
1/2" SAND BEDDING
4" CONCRETE BED
FACE OF CURB
4" LOCAL STREETS
6" COLLECTOR & ARTERIAL STREETS
4" THICK AGGREGATE BASE, VDOT No. 21A
2" THICK AGGREGATE BASE, VDOT No. 21A
BACK TO BACK TO SIDEWALK
BACK OF CURB RAMP ALIGNS WITH BACK OF SIDEWALK
FORM OTHER CURB RAMP SETBACKS USE LATEST EDITION OF VDOT ROAD AND BRIDGE STANDARDS PERKINS 12

SECTION A-A
PLAN VIEW

NOTES:
1. All concrete to be Class A-3 or better.

COMBINATION 6" CURB & GUTTER
VIRGINIA DEPARTMENT OF TRANSPORTATION

NOTES:
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE. 4000 PSI F. PRECAST.
3. CONCRETE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SIDEWALK TO THE DEPTH OF THE PAVEMENT.
4. FOR USE WITH STANDARD OPEN-SHED DRAINAGE, THE BOTTOM OF THE CURB AND GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SIDEWALK TO THE DEPTH OF THE PAVEMENT.
5. ALLOWANCE FOR THE USE OF THE CURB AND GUTTER SHALL BE DETERMINED BY THE ENGINEER AND DESIGNED AS SHOWN IN THE SPECIFICATIONS.
6. THE BOTTOM OF THE CURB AND GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SIDEWALK TO THE DEPTH OF THE PAVEMENT.

TIMMONS GROUP

CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA

NOTES & DETAILS

NOT FOR CONSTRUCTION

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YOUR VISION ACHIEVED THROUGH OURS.

| DATE | REVISION DESCRIPTION |
|-----------|----------------------|
| 3/27/2020 | 60% SUBMISSION |
| 10.23.18 | |
| | DRAWN BY PVN |
| | DESIGNED BY PVN |
| | CHECKED BY LTF |
| | SCALE SEE PLAN |

JOB NO. 35061.023
SHEET NO. C1.2

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2016 ROAD & BRIDGE STANDARDS

PM-3

CROSSWALK WIDTH (TRANSVERSE LINES)

LINE WIDTH (6" MIN.)

CROSSWALK WIDTH (6" MIN.) AS SPECIFIED IN THE CONTRACT DOCUMENTS

TRANSVERSE LINES

SOLID WHITE LINE 6" MIN. WIDTH UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS

4" MIN. SPACE

LONGITUDINAL LINES

2" MAX. 24" SOLID WHITE LINE SEE NOTE 5

4" MIN. SPACE

LONGITUDINAL LINES AT SKEWED INTERSECTIONS (SEE NOTE 4)

2" MAX. 24" SOLID WHITE LINE SEE NOTE 5

4" MIN. SPACE

NOTES:

- ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THESE STANDARDS, THE MUTCD AND THE VIRGINIA SUPPLEMENT TO THE MUTCD, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
- THE LOCATION, WIDTH, AND TYPE OF THE PAVEMENT MARKINGS SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- CROSSWALKS SHALL ALIGN WITH CURB RAMPS IN ACCORDANCE WITH STANDARD CG-12. THE CROSSWALK SHALL BE AT LEAST AS WIDE AS THE LEVEL LANDING AREA OF THE CURB RAMP.
- WHEN LONGITUDINAL LINES ARE SPECIFIED FOR THE CROSSWALK, THE LONGITUDINAL LINES SHALL BE PARALLEL TO THE PATH OF THRU TRAFFIC.
- GAPS BETWEEN LONGITUDINAL LINES SHALL BE BETWEEN 2 - 5 FEET. GAP SPACING MAY VARY IN ORDER TO ALIGN LINES SUCH THAT THEY ARE OUTSIDE THE WHEEL PATHS OF THRU TRAFFIC. THE FIRST AND LAST LINES SHALL BE 2' MAXIMUM FROM EDGE OF SHOULDER OR EDGE OF GUTTER PAN.

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

TYPICAL PAVEMENT MARKING CROSSWALK MARKINGS

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

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| VDOT ROAD AND BRIDGE STANDARDS SHEET 4 OF 4 REVISION DATE 1330.33 NEW 01/15 | 2016 ROAD & BRIDGE STANDARDS TYPICAL PAVEMENT MARKING CROSSWALK MARKINGS VIRGINIA DEPARTMENT OF TRANSPORTATION | SPECIFICATION REFERENCE 704 |
|---|--|-----------------------------|

2016 ROAD & BRIDGE STANDARDS

MH-1

4'-8" (2 x WALL THICKNESS)

HALF PLAN VIEW

SEE STANDARD SL-1 FOR APPLICABILITY OF SAFETY SLABS.

STANDARD MH-1 FRAME & COVER

NOTE: THE TOP OF MASONRY IS TO BE LEFT SUFFICIENTLY LOW TO PERMIT PROPER ADJUSTMENT OF COVER AND FRAME TO BE GRADED BY THE USE OF MORTAR OR BRICK AS DIRECTED BY THE ENGINEER.

FLAT SLAB TOP AS DETAILED ON STANDARD T-MH-2 MAY BE SUBSTITUTED FOR TIERED SECTION WHEN APPROVED BY THE ENGINEER.

BEVEL 45°

SECTION B-B

CONCRETE OR CONCRETE BLOCK

DIAMETER = 4'-8" (2 x WALL THICKNESS)

TABLE OF QUANTITIES

| DEPTH FEET | BRICK THOUSANDS | MANHOLE CONCRETE CU. YARDS | CONCRETE MANHOLE CONCRETE CU. YARDS |
|------------|-----------------|----------------------------|-------------------------------------|
| 4 | 0.5 | 0.785 | 1.157 |
| 5 | 0.7 | 0.785 | 1.699 |
| 6 | 0.9 | 0.785 | 1.961 |
| 7 | 1.0 | 0.785 | 2.223 |
| 8 | 1.2 | 0.785 | 2.485 |
| 9 | 1.4 | 0.785 | 2.747 |
| 10 | 1.6 | 0.785 | 3.009 |
| 11 | 1.9 | 0.970 | 3.455 |
| 12 | 2.2 | 0.970 | 3.872 |
| 13 | 2.5 | 0.970 | 4.179 |
| 14 | 2.8 | 0.970 | 4.541 |
| 15 | 3.1 | 0.970 | 4.903 |
| 16 | 3.4 | 0.970 | 5.265 |
| 17 | 4.0 | 1.173 | 6.032 |
| INCREMENT | 0.45 | - | 0.582 |

NOTES:

- QUANTITIES SHOWN ARE FOR MANHOLE WITHOUT PIPES. THE AMOUNT DISPLACED BY PIPES MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES.
- A BASE THICKNESS OF 9" WAS USED IN COMPUTING QUANTITIES.
- INCREMENTS TO BE ADDED FOR EACH ADDITIONAL FOOT OF DEPTH.
- MATERIALS MAY BE BRICK, CONCRETE OR APPROVED CONCRETE MANHOLE BLOCK.
- IF PIPES ARE USED THE MINIMUM THICKNESS OF SAME IS TO BE 5". OTHER THICKNESSES ARE TO CONFORM TO WALL THICKNESS SHOWN FOR CONCRETE.
- ALL CONCRETE IS TO BE CLASS AS.
- WHEN SPECIFIED ON PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD G-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

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| VDOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 1 REVISION DATE 104.01 | 2016 ROAD & BRIDGE STANDARDS MANHOLE FOR 12" - 48" PIPE CULVERTS VIRGINIA DEPARTMENT OF TRANSPORTATION | SPECIFICATION REFERENCE 302 |
|--|--|-----------------------------|

2016 ROAD & BRIDGE STANDARDS

DI-1

SECTION B-B COLLAR DETAIL

SECTION A-A CONCRETE QUANTITIES FOR MIN. DEPTH

SECTION C-C SECTION D-D GRATE DETAIL

NOTES:

- DEPTH OF INLET (H) TO BE SHOWN ON PLANS. FOR DEPTH GREATER THAN 10' USE STANDARD DI-1A.
- THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTLET PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
- WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
- IN THE EVENT THE INVERT OF THE OUTLET PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR FLOWING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO INLET SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
- STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
- THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
- #4 x 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT IN LEU OF DOWELS. A 2" x 4" NOTCH MAY BE PROVIDED. SEE STANDARD T-DI-3, 4 FOR ALTERNATE DESIGN.
- 3" DIAMETER WEEP HOLE WITH 12"x12" PLASTIC HARDWARE CLOTH 1/4" MESH OR GALVANIZED STEEL WIRE. MINIMUM WIRE DIAMETER 0.03" NUMBER 4 MESH HARDWARE CLOTH WITH 1/4" MESH TO THE OUTSIDE OF THE STRUCTURE.
- CAST IN PLACE CONCRETE IS TO BE CLASS AS 3000 PSI. PRECAST CONCRETE IS TO BE 4000 PSI.
- ANY ALTERNATE METHODS OF ANCHORING MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
- DUMP NO WASTE DRAINS TO WATERWAY. LETTERING IS REQUIRED ON ALL DI-1 GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.

CONCRETE QUANTITIES FOR MIN. DEPTH

12" CONCRETE PIPE - 1.440 CU. YD. CONCRETE
18" CONCRETE PIPE - 1.328 CU. YD. CONCRETE
24" CONCRETE PIPE - 1.620 CU. YD. CONCRETE
24" CONCRETE PIPE - 1.817 CU. YD. CONCRETE

ADD 0.468 CU. YD. PER ADDITIONAL FOOT OF DEPTH.

APPROXIMATE WEIGHT
CAST IRON GRATE 363 ± 18 LBS

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2016 ROAD & BRIDGE STANDARDS

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| VDOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 1 REVISION DATE 104.01 | 2016 ROAD & BRIDGE STANDARDS STANDARD DROP INLET 12" - 24" PIPE: MAXIMUM DEPTH (H) - 10' VIRGINIA DEPARTMENT OF TRANSPORTATION | SPECIFICATION REFERENCE 233 302 |
|--|--|---------------------------------|

2016 ROAD & BRIDGE STANDARDS

MH-1

SECTION A-A

SECTION B-B

PLAN

TOP

BOTTOM

THE LETTERS V.D.O.T. ARE OPTIONAL. IF USED THE LETTERS ARE TO BE CAST IN THE DEPRESSION IN TOP OF COVER 1" WIDE RAISED 3/8" HIGH AS SHOWN.

LETTERING OPTIONAL

APPROXIMATE WEIGHT
CAST IRON FRAME 239 ± 12 LBS.
COVER 137 ± 7 LBS.

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

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| VDOT ROAD AND BRIDGE STANDARDS SHEET 2 OF 5 REVISION DATE 106.02 | 2016 ROAD & BRIDGE STANDARDS STANDARD MANHOLE FRAME AND COVER VIRGINIA DEPARTMENT OF TRANSPORTATION | SPECIFICATION REFERENCE 224 302 |
|--|---|---------------------------------|

2016 ROAD & BRIDGE STANDARDS

ST-1

NO. 6 GALVANIZED STEEL STEP

TYPICAL SECTION

ALUMINUM STEP

NOTES:

- STEPS WILL BE REQUIRED IN ALL STRUCTURES WITH A DEPTH OF 4'-0" OR GREATER UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL STEPS SHALL PROTRUDE 1/2" FROM INSIDE FACE OF STRUCTURE WALL.
- MAXIMUM STEP SPACING TO BE 16" C-C.
- STEPS SHALL WITHSTAND A MINIMUM FORCE OF 300 POUNDS WHEN EXTENDED 1/2" FROM THE FACE OF THE SUPPORT.
- STEPS ARE TO BE VERTICALLY ALIGNED AND UNIFORMLY SPACED FOR THE ENTIRE DEPTH OF ANY STRUCTURE.
- IN PRECAST UNITS STEPS MAY BE CAST IN PLACE, MORTARED INTO HOLES PROVIDED BY THE FABRICATOR, OR DRIVEN.
- STEPS DIFFERING IN DIMENSIONS, CONFIGURATION, OR MATERIALS FROM THOSE SHOWN ABOVE ALSO BE USED PROVIDED THEY MEET THE MINIMUM REQUIREMENTS SHOWN HEREON AND THE CONTRACTOR HAS FURNISHED THE ENGINEER WITH DETAILS AND CERTIFIED TEST REPORTS OF THE PROPOSED SUBSTITUTE AND HAS RECEIVED WRITTEN APPROVAL FROM THE ENGINEER FOR THE USE OF SUCH STEPS.
- ALL STEPS INSTALLED SHALL BE PROVIDED WITH SLIP-RESISTANT SURFACES SUCH AS BUT NOT LIMITED TO, CORRUGATED, KNURLED, OR DIMPLED SURFACES.
- ALUMINUM STEPS SHALL BE FABRICATED IN ACCORDANCE WITH ASTM B221, ALLOY 6063-T5 THAT PORTION OF THE STEP ENCASED IN MASONRY SHALL BE UNIFORMLY COATED WITH A BITUMINOUS SOLVENT TYPE, ASBESTOS FILLED ALUMINUM PIGMENTED COATING CONFORMING TO FEDERAL SPECIFICATION TC-C-00498A.

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

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| VDOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 1 REVISION DATE 106.09 | 2016 ROAD & BRIDGE STANDARDS STANDARD STEP VIRGINIA DEPARTMENT OF TRANSPORTATION | SPECIFICATION REFERENCE 106.09 |
|--|--|--------------------------------|

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| REVISION DESCRIPTION | 60% SUBMISSION |
| DATE | 3/27/2020 |
| DATE | 10.23.18 |
| DRAWN BY | PVN |
| DESIGNED BY | PVN |
| CHECKED BY | LTF |
| SCALE | SEE PLAN |

TIMMONS GROUP

CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA

NOTES & DETAILS

JOB NO. 35061.023
SHEET NO. C1.3

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VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
NATURAL STONE VENEER TREATMENT
(Project No. 0123-151-139, PE 101)

Date: December 31, 2012

I. DESCRIPTION

This work shall consist of furnishing, loading, hauling and laying NATURAL STONE VENEER TREATMENT and related accessories as shown on the plans, in conformance with these Special Provisions, and in close conformity with the materials, pattern, and color, specified herein, or as established by the Engineer.

II. MATERIALS

Quartzitic Sandstone stone- The Basis-of-Design material for the NATURAL STONE VENEER TREATMENT shall be a 6-inch quarry run Huntington Grey Fieldstone as produced by Rolling Rock Stone. Shape shall be natural random irregular shapes. Face area of stones shall range from 0.50- 2.0 square feet. Stone shall be laid to a random irregular mosaic pattern. Finished stone appearance shall be similar to the photo below.



Mortar Materials- Shall consist of:

1. Portland Cement: ASTM C 150, Type I. Provide natural color as required to produce mortar color indicated. Cement shall have no more than 0.60 percent total alkali when tested according to ASTM C 114.
2. Hydrated Lime: ASTM C.207, Type S.

return 2'-0" in length. The outer ends shall incorporate a simulated concrete end condition at the 5'-0" face and a finished stone end at the 2'-0" face. The bottom condition shall simulate a concrete sill and the top condition shall simulate a concrete cap. The panel shall be reviewed by the Engineer for aesthetic effects and set quality standards for materials and execution.

Setting of Stone Masonry- Cut and trim stones to straighten setting beds and edges. Pitch and trim faces of stone to desired finish. Stone shall be set and jointed in a full bed of mortar with all joints filled between stones and between stone and concrete backup. There shall be no cavities between stone and backup. Maintain uniform joint widths (average 1/2-inch) except for variations due to different stone sizes and where minor variations are required to maintain bond alignment if any. Variation in joint width shall be limited to 1/2-inch to 1-inch. Sort stone before it is placed in wall to remove stone that does not comply with requirements relating to aesthetic effects, physical properties, or fabrication, or that is otherwise unsuitable for intended use. Sizes and colors shall be varied as much as possible within the pattern in order to create a uniform appearance throughout. Avoid continuous running joints as much as possible. No stonework shall be set unless the job site temperature is no lower than 40 degrees Fahrenheit and rising.

Stone Anchors- Anchor stone masonry to concrete with stainless steel anchors unless otherwise indicated. Secure anchors by inserting dovetailed ends into dovetail slots in concrete. Embed veneer anchors in mortar joints of stone masonry at least halfway, but not less than 1-1/2 inches, through stone masonry and with at least 5/8-inch cover on outside face. Space anchors not more than 16 inches o.c. vertically and 24 inches o.c. horizontally. Install additional anchors within 12 inches of perimeter at intervals not exceeding 12 inches. Provide a minimum of one wall anchor per 2 sq. ft. of wall area. Masonry Contractor shall furnish stainless steel dovetail slots to General Contractor and shall coordinate proper placement of dovetails with Contractor and associated Sub-Contractors.

Pointing- Prepare stone-joint surfaces for pointing with mortar by removing dust and mortar particles. After the stone is set, and before the mortar hardens, rake out the mortar to a depth of at least 3/4" to 1 1/2". Where setting mortar was removed to depths greater than surrounding areas, apply pointing mortar in layers not more than 3/8-inch deep until a uniform depth is formed. Point stone joints by placing and compacting pointing mortar in layers not more than 3/8 inch deep. Compact each layer thoroughly and allow to become thumbprint hard before applying next layer. Tool joints, when pointing mortar is thumbprint hard, with a smooth jointing tool to produce a joint profile with a smooth, flat face approximately 1/2-inch below edges of stone.

Adjusting and Cleaning- In-Progress Cleaning: Clean stone masonry as work progresses. Remove mortar fins and smears before tooling joints. Final Cleaning: After mortar is thoroughly set and cured, clean stone masonry as follows:

3. Masonry Cement: ASTM C 91.
4. Aggregate: ASTM C 144 and as follows- for pointing mortar, use aggregate graded with 100 percent passing No. 16 sieve.
5. Water: Non-alkaline and potable.

Mortar mixes- General: Do not use admixtures unless otherwise indicated. Do not use calcium chloride. Limit cementitious materials in mortar to portland cement and lime. Mixing Pointing Mortar: Thoroughly mix cementitious and aggregate materials together before adding water. Then mix again, adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for one to two hours. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within 30 minutes of final mixing; do not retemper or use partially hardened material. Mortar for Stone Masonry: Comply with ASTM C.270, Proportion Specification. Mortar for setting and pointing Stone shall be Type S.

Veneer Anchors- shall be Type 304 stainless steel vertical dovetail slot and adjustable anchor system. Basis-of-Design products shall be Hohmann & Barnard Inc. #305 22-Ga Min. Dovetail slot and #309 minimum, 1/8-inch thick and 1-1/4-inch wide stone anchors with length sized for project conditions.

Masonry cleaners- Neutral (non-acidic) Cleaner: Shall be manufacturer's standard-strength cleaner designed for removing mortar and grout stains, efflorescence, and other new construction stains from stone masonry surfaces without discoloring or damaging masonry surfaces or adjacent concrete surfaces; expressly approved for intended use by cleaner manufacturer and stone producer.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Diedrich Technologies, Inc.
 - b. Dominion Restoration Products.
 - c. EaCo Chem, Inc.
 - d. Hydrochemical Techniques, Inc.
 - e. Prosoco, Inc.

III. CONSTRUCTION

Delivery- Stone delivered to site shall be stored on a ground cover of gravel or other suitable material to protect stone from mud splash. Stone stored on site shall be covered to keep it clean and dry until use.

Stone Sample Panel- The contractor shall construct a sample panel on the job site. The sample panel shall have a stone surface area measuring 3'-0" high and 7'-0" in total length, and shall incorporate one outside corner with one face 5'-0" in length and the

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Test cleaning methods on mockup; leave one-half of panel un-cleaned for comparison purposes.
3. Protect adjacent stone and non-masonry surfaces from contact with cleaner.
4. Wet wall surfaces with water before applying cleaner; remove cleaner promptly by rinsing thoroughly with clear water.
5. Clean stone masonry by bucket and brush hand-cleaning method described in BIA Technical Note No. 20 Revised II, using job-mixed detergent solution.

IV. MEASUREMENT AND PAYMENT

Natural Stone Veneer treatment will be measured and paid for at the Contract unit price per square feet of surface area, complete in place. Payment will be full compensation for furnishing all labor, materials, tools, equipment, and incidentals required to complete the work according to the plans and these Special Provisions, and to the satisfaction of the Engineer.

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| | PVN |
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| | PVN |
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| | LTf |
| | SCALE |
| | SEE PLAN |

DATE

TIMMONS GROUP
CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA
NOTES & DETAILS

JOB NO.
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SHEET NO.
C1.4

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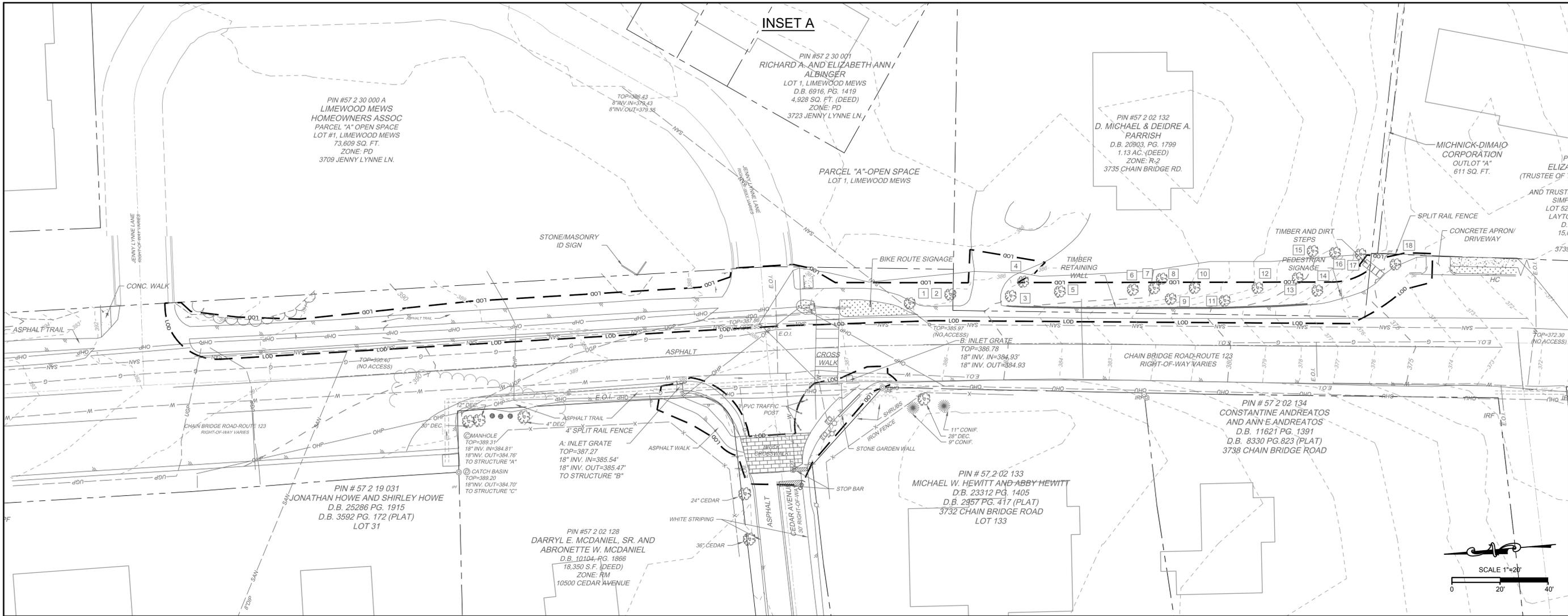
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TIMMONS GROUP
CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA
EXISTING CONDITIONS
JOB NO.
35061.023
SHEET NO.
C2.1



INSET A

PIN #57 2 30 001
RICHARD A. AND ELIZABETH ANN / ALBINGER
LOT 1, LIMEWOOD MEWS
D.B. 6916, PG. 1419
4,928 SQ. FT. (DEED)
ZONE: PD
3723 JENNY LYNNE LN.

PIN #57 2 02 132
D. MICHAEL & DEIDRE A. PARRISH
D.B. 20903, PG. 1799
1.13 AC. (DEED)
ZONE: R-2
3735 CHAIN BRIDGE RD.

MICHNICK-DIMAIO CORPORATION
OUTLOT "A"
611 SQ. FT.

PIN #57 2 30 000 A
LIMEWOOD MEWS
HOMEOWNERS ASSOC
PARCEL "A" OPEN SPACE
LOT #1, LIMEWOOD MEWS
73,609 SQ. FT.
ZONE: PD
3709 JENNY LYNNE LN.

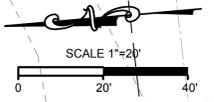
PARCEL "A"-OPEN SPACE
LOT 1, LIMEWOOD MEWS

PIN # 57 2 02 134
CONSTANTINE ANDREATOS
AND ANN E. ANDREATOS
D.B. 11621 PG. 1391
D.B. 8330 PG. 823 (PLAT)
3738 CHAIN BRIDGE ROAD

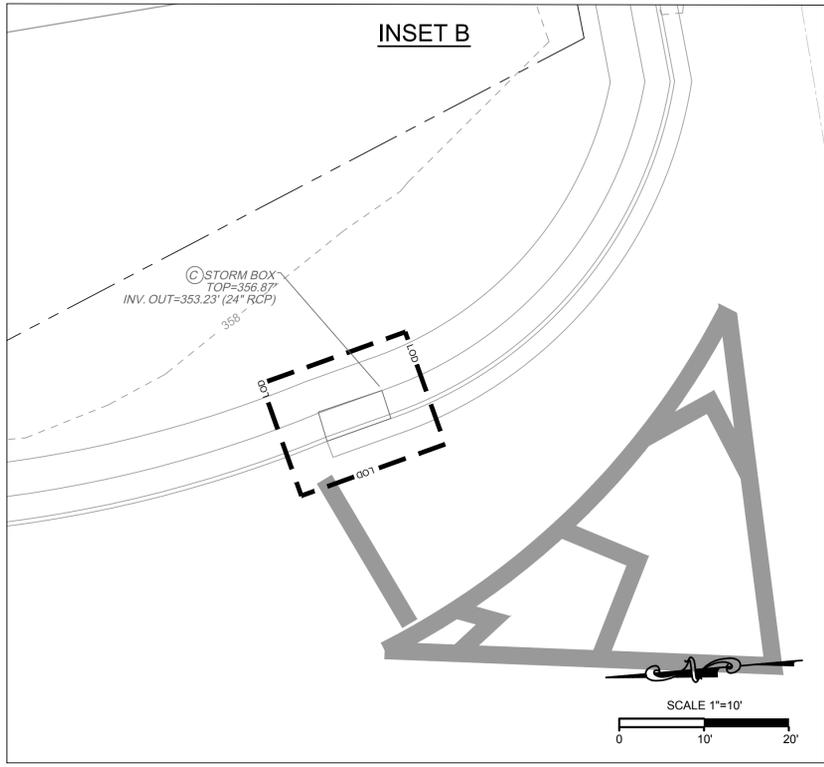
PIN # 57 2 02 133
MICHAEL W. HEWITT AND ABBY HEWITT
D.B. 23312 PG. 1405
D.B. 2957 PG. 417 (PLAT)
3732 CHAIN BRIDGE ROAD
LOT 133

PIN # 57 2 19 031
JONATHAN HOWE AND SHIRLEY HOWE
D.B. 25286 PG. 1915
D.B. 3592 PG. 172 (PLAT)
LOT 31

PIN #57 2 02 128
DARRYL E. MCDANIEL, SR. AND
ABRONETTE W. MCDANIEL
D.B. 10104, PG. 1966
18,350 S.F. (DEED)
ZONE: RM
10500 CEDAR AVENUE



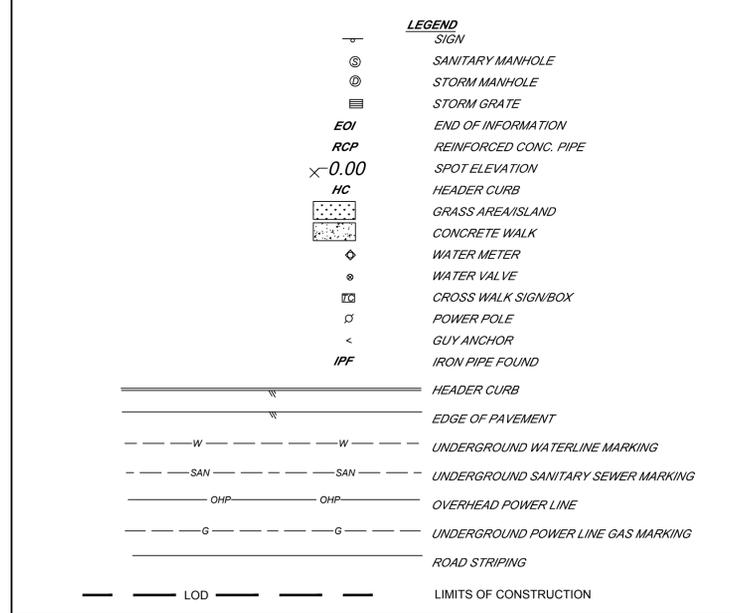
INSET B



THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF JOHN H. GENTNER FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE ORIGINAL DATA WAS OBTAINED ON THE FOLLOWING DATES: SEPTEMBER 27 & 28, 2016, JANUARY 27, 2017 THIS PLAT AND REVISED AUGUST 09, 2018, MAP AND DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

HORIZONTAL DATUM: VA COORDINATE SYSTEM NAD83/88
VERTICAL DATUM: NAVD88
DATUM ESTABLISHED BY RTK COOPERATIVE CORS LOYB - PID DH7960. (RTCM-REF 0576)
FIELDWORK COMPLETED JAN. 27TH, 2017 REVISED AUGUST 09, 2018
SUB SURFACE UTILITIES LOCATED PER MISS UTILITY TICKET #A822102628 (SHOWN BELOW)
BOUNDARY WAS DETERMINED BY AVAILABLE RECORDS AND FIELD LOCATED EVIDENCE

TICKET : A822102628 REV: 00A
ADDRESS : CHAIN BRIDGE RD
MARKING DESCRIPTION RESPONSE
CODE
COX COX COMMUNICATIONS (COX609) 08/13/18 03:40 PM 30
NO CONFLICT; UTILITY IS OUTSIDE OF STATED WORK AREA.
FIELD CONTACT: UTILIQUEST (703)754-2116
IN THE EVENT OF DAMAGE TO A FACILITY CALL: (877)696-1662
DOM DOMINION ENERGY ELEC DIST (DOM400) 08/13/18 03:40 PM 10
MARKED
FIELD CONTACT: UTILIQUEST (703)754-2116
IN THE EVENT OF DAMAGE TO A FACILITY CALL: (888)667-3000
FCW FAIRFAX - WATER (FCW902) 08/13/18 09:52 AM 12
MARKED UP TO PRIVATELY OWNED UTILITY; CONTACT PRIVATE UTILITY OWNER FOR LOCATE
FIELD CONTACT: DOUBLE H (540)364-2005
IN THE EVENT OF DAMAGE TO A FACILITY CALL: (703)698-5600
FFX FAIRFAX CITY - SEWER (FFX902) 08/13/18 11:05 AM 12
MARKED UP TO PRIVATELY OWNED UTILITY; CONTACT PRIVATE UTILITY OWNER FOR LOCATE
FIELD CONTACT: JOE CURRY (571)722-7156
IN THE EVENT OF DAMAGE TO A FACILITY CALL: (703)385-7924
VZN VERIZON (VZN703) 08/13/18 03:41 PM 10
MARKED
FIELD CONTACT: UTILIQUEST (703)754-2116
IN THE EVENT OF DAMAGE TO A FACILITY CALL: (888)483-1233
WGL WASHINGTON GAS (WGL904) 08/13/18 03:40 PM 10
MARKED
FIELD CONTACT: UTILIQUEST (703)754-2116
IN THE EVENT OF DAMAGE TO A FACILITY CALL: (800)752-7520



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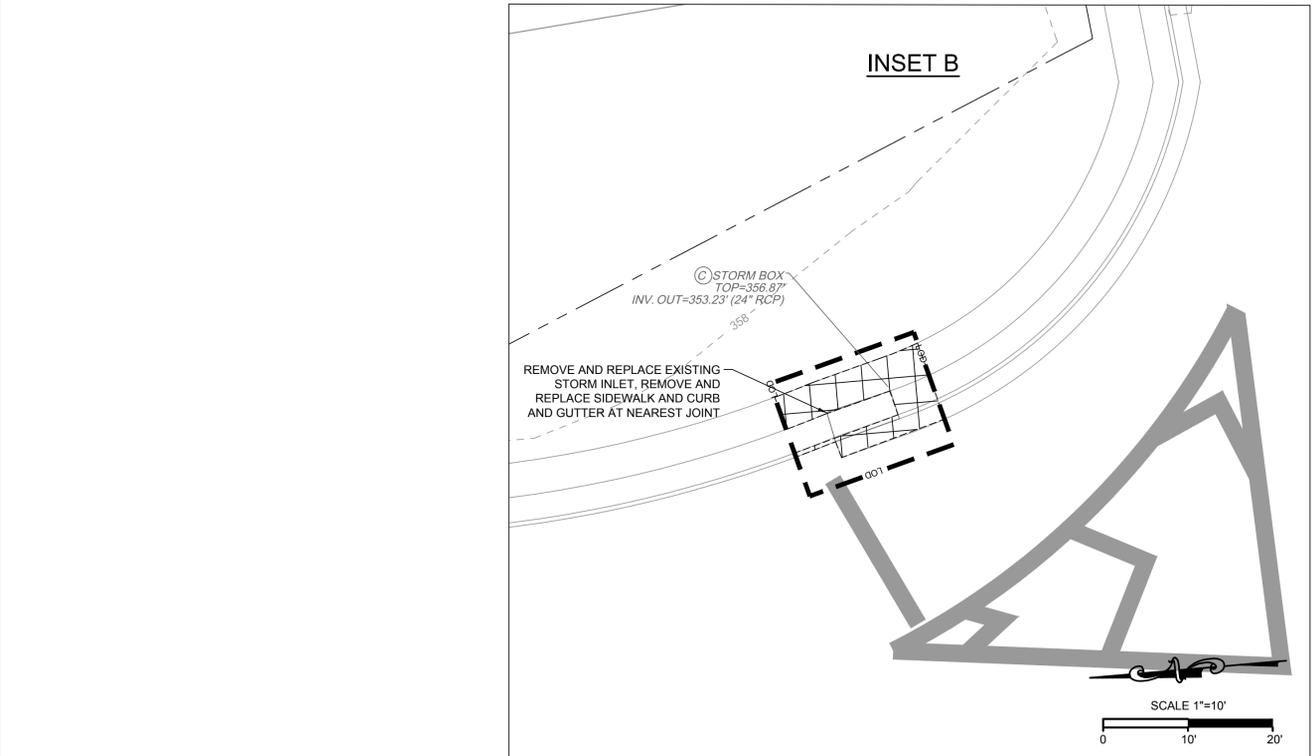
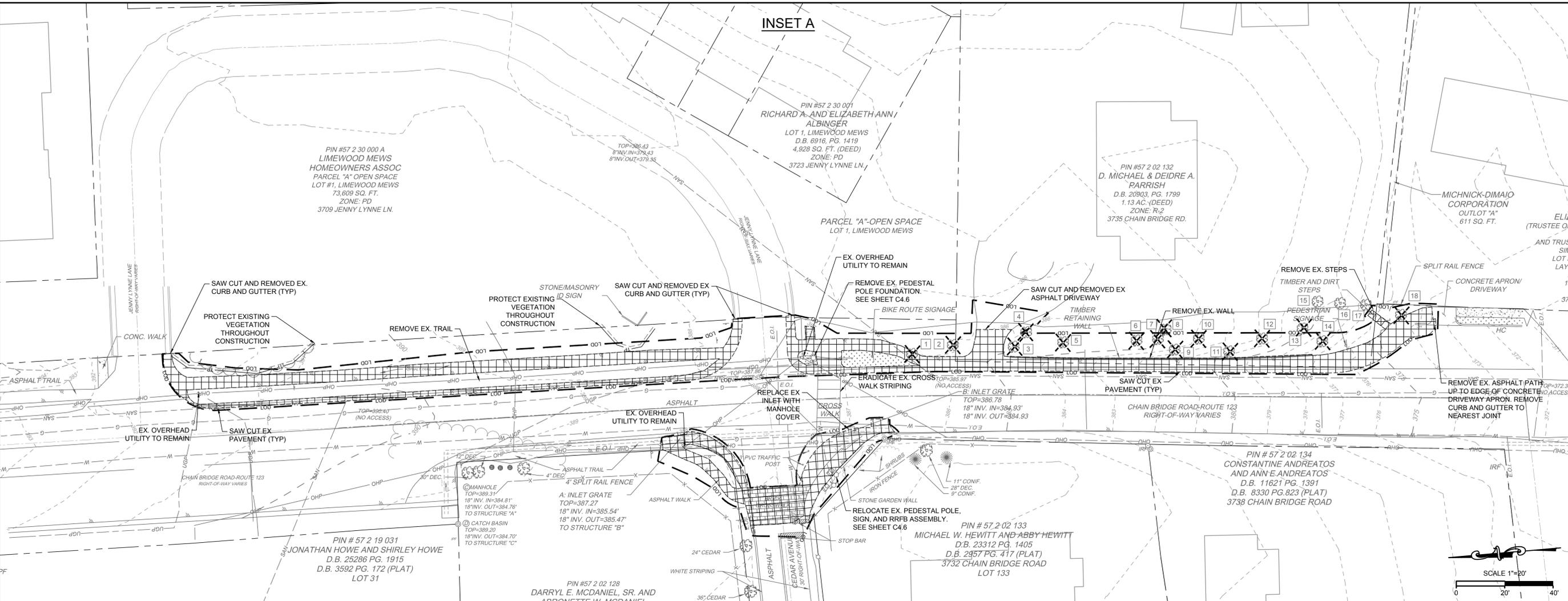
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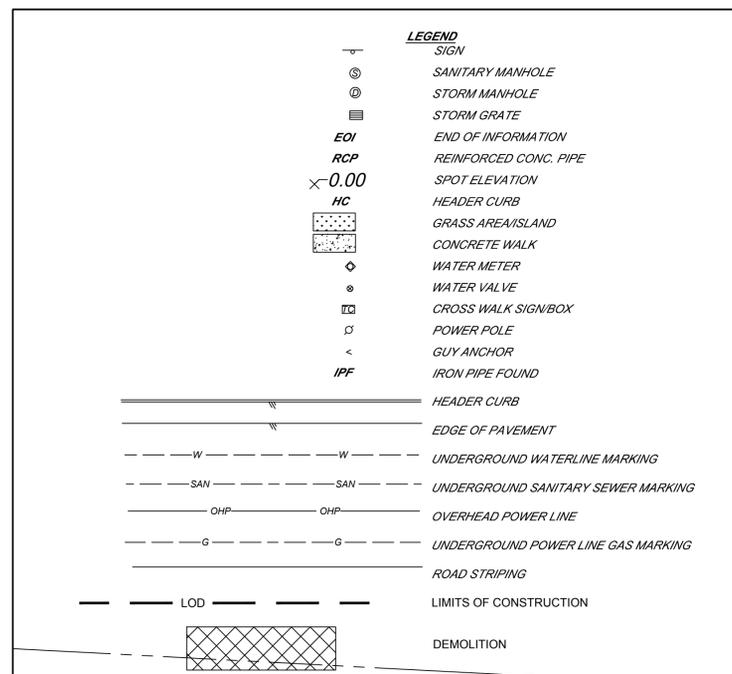


EXISTING VEGETATION AT PARRISH PROPERTY

| Tree # | Description | To Be Demolished and Replaced |
|--------|----------------------------------|-------------------------------|
| 1 | Dogwood | Yes |
| 2 | False Cypress | Yes |
| 3 | Rose Yucca Mess of Weeds | Yes |
| 4 | Black Walnut | Yes |
| 5 | Rose | Yes |
| 6 | Hew | Yes |
| 7 | Hew | Yes |
| 8 | Alder | Yes |
| 9 | Alder | Yes |
| 10 | Unknown | Yes |
| 11 | Redbud and 2 Small False Cypress | Yes |
| 12 | Unknown | Yes |
| 13 | Dogwood | Yes |
| 14 | Mulberry | Yes |
| 15 | Mulberry | No |
| 16 | Unknown | No |
| 17 | Dogwood | No |
| 18 | Firethorn | Yes |

DEMOLITION NOTES:

- ALL EXISTING UTILITY STRUCTURES TO INCLUDE, BUT NOT LIMITED TO, WATER METERS AND VALVES ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
- ALL EXISTING FEATURES PROPOSED TO BE RELOCATED ARE SHOWN ON THE LAYOUT PLAN.
- REMOVE AND REPLACE IN KIND.
- CONTRACTOR TO COORDINATE WITH POWER COMPANY REGARDING THE RELOCATION OR ADJUSTMENT OF THE EXISTING GUY WIRES.
- REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR SEQUENCE OF CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY TIMMONS GROUP OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
- ACCESS TO RESIDENTIAL DRIVEWAYS TO BE MAINTAINED AT ALL TIMES. ANY TEMPORARY CLOSURES SHALL BE COORDINATED WITH THE HOMEOWNERS.



TIMMONS GROUP
 CHAIN BRIDGE ROAD SIDEWALK EXTENSION
 CITY OF FAIRFAX, VIRGINIA
 DEMOLITION PLAN
 JOB NO. 35061.023
 SHEET NO. C2.2

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EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO IMPROVE PEDESTRIAN ACCESS ALONG A PORTION OF CHAIN BRIDGE ROAD (3739, 3737, AND 3735 CHAIN BRIDGE RD.) BY EXTENDING THE SIDEWALK ALONG CHAIN BRIDGE ROAD FROM ADDRESS 3739 CHAIN BRIDGE RD. NORTH TOWARD ADDRESS 3735 CHAIN BRIDGE ROAD TO THE INTERSECTION OF JENNY LYNNE LANE AND CHAIN BRIDGE ROAD, CLOSEST TO 3703 JENNY LYNNE LANE. PEDESTRIAN ACCESS IMPROVEMENTS WILL ALSO OCCUR AT THE INTERSECTION OF CHAIN BRIDGE ROAD AND CEDAR AVENUE. THE PEDESTRIAN CROSSWALK WILL BE RELOCATED TO THE NORTHERN PART OF THE INTERSECTION CLOSEST TO 10500 CEDAR AVENUE AND THEN ACROSS CEDAR AVENUE TO 3732 CHAIN BRIDGE ROAD. UTILITY AND PAVEMENT OPERATIONS ARE ASSOCIATED WITH THIS PROJECT.

ADJACENT PROPERTY

THE PROJECT SITE IS LOCATED ADJACENT TO RESIDENTIAL PROPERTIES 3739, 3737, 3735, AND 3732 CHAIN BRIDGE RD. AND 10500 CEDAR AVENUE, CITY OF FAIRFAX.

CRITICAL EROSION AREAS

EARLY ESTABLISHMENT AND PROPER MAINTENANCE OF PERIMETER CONTROLS WILL PROVIDE SEDIMENTATION CONTROL. STABILIZE AND MAINTAIN FILL SLOPES THROUGHOUT PROJECT CONSTRUCTION TO CONTROL EROSION. USE OF SILT FENCE WILL CONTROL SEDIMENT THAT MAY SHEET FLOW TO THE SOUTH, OFF THE SITE.

EROSION AND SEDIMENT CONTROL MEASURES

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

STRUCTURAL PRACTICES

- SILT FENCE BARRIER – 3.05.** SILT FENCE SEDIMENT BARRIERS SHALL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT-LADEN RUNOFF FROM SHEET FLOW AS INDICATED.
- PERMANENT SEEDING – 3.32.** THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED.
- SOIL STABILIZATION BLANKETS AND MATTING – 3.36.** STABILIZATION MATTING SHALL BE IMMEDIATELY APPLIED TO ALL DISTURBED AREAS UPON REACHING FINAL GRADE.
- DUST CONTROL – 3.39.** REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES.

VEGETATIVE PRACTICES

- TOPSOILING (TEMPORARY STOCKPILE) – 3.30.** TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER SPREADING. STOCKPILE LOCATIONS SHALL BE LOCATED ONSITE AND SHALL BE STABILIZED WITH TEMPORARY SILT FENCE AND VEGETATION.
- TEMPORARY SEEDING – 3.31.** ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR MORE THAN 30 DAYS SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING OF THOSE AREAS. SELECTION OF THE SEED MIXTURE SHALL DEPEND ON THE TIME OF YEAR IT IS APPLIED.

MANAGEMENT STRATEGIES

- PROVIDE SEDIMENT TRAPPING MEASURES AS A FIRST STEP IN GRADING AND SEED AND MULCH IMMEDIATELY FOLLOWING INSTALLATION.
- PROVIDE TEMPORARY SEEDING OR OTHER STABILIZATION IMMEDIATELY AFTER GRADING.
- ISOLATE TRENCHING FOR UTILITIES AND DRAINAGE FROM DOWNSTREAM CONVEYANCES IN ORDER TO MINIMIZE PERIMETER CONTROLS.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED UNTIL THEY ARE NO LONGER REQUIRED TO COMPLY WITH THE CONTRACT DOCUMENTS OR STATE LAW.

PERMANENT STABILIZATION

ALL NON-PAVED AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE IN ACCORDANCE WITH STD. & SPEC. 3.32, PERMANENT SEEDING. SEED TYPE SHALL BE AS SPECIFIED FOR "MINIMUM CARE LAWNS" AND "GENERAL SLOPES" IN THE HANDBOOK. MULCH (STRAW OR FIBER) SHALL BE USED ON ALL SEEDED SURFACES. IN ALL SEEDING OPERATIONS SEED, FERTILIZER AND LIME SHALL BE APPLIED PRIOR TO MULCHING.

MAINTENANCE (SEE "MINIMUM STANDARDS" FOR ADDITIONAL INFORMATION).

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED DAILY AND AFTER EACH RUN-OFF PRODUCING RAINFALL. THE FOLLOWING ITEMS SHALL BE CHECKED IN PARTICULAR:

- CHECK THE SILT FENCE AFTER EVERY STORM EVENT TO ENSURE EFFECTIVE OPERATION AND REMOVE SEDIMENT WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
- CHECK THE GRAVEL INLET PROTECTION FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT; REMOVE AND CLEAN, OR REPLACE.
- CHECK THE SILT FENCE BARRIER FOR UNDERMINING OR DETERIORATION OF THE FABRIC. REMOVE SEDIMENT WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
- CHECK THE SEEDING AREAS TO ENSURE THAT A STAND OF GRASS IS MAINTAINED. FERTILIZE AND RESEED AS NEEDED.
- CHECK DIVERSION TO ENSURE A STAND OF GRASS IS MAINTAINED. REMOVE SEDIMENT AS REQUIRED TO ENSURE FLOW OF WATER IS NOT IMPEDED.

EXISTING SITE CONDITIONS

THE SITE IS LOCATED IN A RESIDENTIAL AREA ON CHAIN BRIDGE RD. IN THE CITY OF FAIRFAX, VIRGINIA. THE SITE DOES NOT HAVE EXISTING STORMWATER INFRASTRUCTURE. THE SITE DRAINS GENERALLY DRAINS FROM NORTH TO SOUTH, TO THE EXISTING CURB AND GUTTER.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- ES-1: UNLESS OTHERWISE INDICATED, CONSTRUCT AND MAINTAIN ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 9VAC25-840 EROSION AND SEDIMENT CONTROL REGULATIONS.
- ES-2: DEQ, HAVING JURISDICTION WILL MAKE A CONTINUING REVIEW AND EVALUATION OF THE METHODS AND EFFECTIVENESS OF THE EROSION CONTROL PLAN.
- ES-3: PLACE ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO OR AS THE FIRST STEP IN CLEARING, GRADING, OR LAND DISTURBANCE.
- ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE MAINTAINED, ON THE SITE AT ALL TIMES.
- ES-5: PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFFSITE BORROW OR WASTE AREA), SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE ARCHITECT/ENGINEER FOR REVIEW AND ACCEPTANCE.
- ES-6: PROVIDE ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY OF FAIRFAX OR DEQ.
- ES-7: ALL DISTURBED AREAS SHALL DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND-DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT.
- ES-8: DURING DEWATERING OPERATIONS, PUMP WATER INTO AN APPROVED FILTERING DEVICE.
- ES-9: INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RUNOFF- PRODUCING RAINFALL EVENT. MAKE ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES IMMEDIATELY.

MINIMUM STANDARDS (PHASE I)

- MS-1: APPLY PERMANENT SOIL STABILIZATION TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. APPLY TEMPORARY SOIL STABILIZATION WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. APPLY PERMANENT STABILIZATION TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- MS-2: STABILIZE OR PROTECT TEMPORARY SOIL STOCKPILES WITH SEDIMENT TRAPPING MEASURES (SUCH AS SILT FENCE), PROVIDE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL TRANSPORTED FROM THE PROJECT SITE.
- MS-3: ESTABLISH A PERMANENT VEGETATIVE COVER ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IN THE OPINION OF THE ARCHITECT/ENGINEER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- MS-4: CONSTRUCT CONSTRUCTION ENTRANCE, STREAM CONVEYANCE CHANNEL, TREE PROTECTION, SUPER SILT FENCE, CHECK DAMS, CULVERT INLET PROTECTION, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND MAKE THESE MEASURES FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE OR TIMBERING TAKES PLACE.
- MS-5: APPLY STABILIZATION MEASURES TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- MS-6: CONTROL SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW MS-6: FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.
- MS-7: CONSTRUCT CUT AND FILL SLOPES IN A MANNER THAT WILL MINIMIZE EROSION. PROVIDE SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- MS-8: CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
- MS-9: WHENEVER WATER SEEPS FROM A SLOPE FACE, PROVIDE ADEQUATE DRAINAGE OR OTHER PROTECTION.
- MS-9A: NO E&S PHASE I CONTROLS SHALL BE REMOVED WITHOUT THE PRIOR APPROVAL OF THE DEQ FIELD MANAGER.

MINIMUM STANDARDS (PHASE II)

- MS-10: PROTECT ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- MS-11: BEFORE STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, PROVIDE ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING IN BOTH THE CONVEYANCE CHANNEL AND THE RECEIVING CHANNEL.
- MS-12: WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, TAKE PRECAUTIONS TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. PROVIDE NONERODIBLE MATERIAL FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- MS-13: WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, PROVIDE A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL.
- MS-14: MEET ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES.
- MS-15: STABILIZE THE BED AND BANKS OF A WATERCOURSE IMMEDIATELY FOLLOWING AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- MS-16: UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THESE STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - a. OPEN NO MORE THAN 500 LINEAR FEET OF TRENCH AT ONE TIME.
 - b. PLACE EXCAVATED MATERIAL ON THE UPHILL SIDE OF TRENCHES.
 - c. FILTER EFFLUENT FROM DEWATERING OPERATIONS OR PASS THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGE IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFFSITE PROPERTY.
 - d. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - e. ACCOMPLISH RESTABILIZATION IN ACCORDANCE WITH THESE REGULATIONS.
 - f. COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS.

OFF-SITE AREAS

THERE ARE NO OFF-SITE AREAS BEING DISTURBED WITH THIS PLAN. SHOULD THE NEED ARISE TO GRADE OFF-SITE, OR OBTAIN MATERIAL FROM A BORROW AREA, THE AREA MUST BE COVERED BY A VALID GRADING PERMIT.

MINIMUM STANDARDS (continued)

- MS-17: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, MAKE PROVISIONS TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, CLEAN THE ROAD THOROUGHLY AT THE END OF EACH DAY. REMOVE SEDIMENT FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORT TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
- MS-18: REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION BUT ONLY AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, AND ONLY AFTER AUTHORIZED BY THE DEQ FIELD MANAGER. PERMANENTLY STABILIZE TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- MS-19: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
 - a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
 - b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
 - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION.
 - (2) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR FREQUENCY STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS AND TWO-YEAR VELOCITY TO VERIFY NO EROSION OF CHANNEL BED OR BANKS.
 - (3) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR FREQUENCY STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS.
 - (4) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR FREQUENCY STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
 - c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
 - (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR FREQUENCY STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR FREQUENCY STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
 - (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR FREQUENCY STORM IS CONTAINED WITHIN THE APPURTENANCES; OR
 - (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL.
 - (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION/RETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.

PHASE I AND II EROSION PLAN NOTES:

- ALL ITEMS PROPOSED TO BE REMOVED ON PRIVATE PROPERTY OR WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REPLACED IN KIND.
- ALL EXISTING UTILITY STRUCTURES TO INCLUDE BUT NOT LIMITED TO MANHOLES, CURB INLETS, HANDHOLES, WATER METERS, AND VALVES ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
- CONTRACTOR TO COORDINATE WITH POWER/GAS COMPANY REGARDING THE RELOCATION OR ADJUSTMENT OF THE EXISTING UTILITIES.
- CONTRACTOR SHALL NOTIFY TIMMONS GROUP OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.

PHASE I SEQUENCE OF CONSTRUCTION:

- A PRE-CONSTRUCTION CONFERENCE IS MANDATORY BEFORE ANY WORK IS DONE AT THE SITE. CONTRACTOR TO ARRANGE A MEETING WITH THE CITY OF FAIRFAX REPRESENTATIVE, ENGINEER, AND E&S INSPECTOR A MINIMUM OF 48 HOURS IN ADVANCE.
- MARK PEDESTRIAN ROUTES THROUGH/AROUND CONSTRUCTION SITE DURING ENTIRE PROJECT.
- INSTALL PERIMETER CONTROLS INCLUDING SILT FENCE.
- STRIP TOPSOIL AND STOCK PILE TO BE RE-SPREAD. AREA TO BE DETERMINED BY THE OWNER. CONTRACTOR TO PROVIDE NECESSARY E&S CONTROLS ONCE THE AREA HAS BEEN IDENTIFIED.
- TEST PIT EXISTING UTILITIES AS NECESSARY TO DETERMINE ELEVATION LOCATION PRIOR TO ANY DEMOLITION WORK. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT EXISTING UTILITIES.
- REMOVE EXISTING TREES AS INDICATED ON THE PLANS.
- CONTRACTOR TO BACKFILL EXCAVATIONS & BARRICADE WORK AREAS BEFORE THE END OF EVERY WORK DAY.
- CONTRACTOR TO PROVIDE SIGNAGE/FLAGGERS/TRAFFIC CONTROL IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION VIRGINIA WORK AREA PROTECTION MANUAL.
- CONTRACTOR TO COORDINATE WITH CITY OF FAIRFAX FOR INTERRUPTION IN UTILITY SERVICES AND ADVANCE NOTICE OF EXCAVATION WORK.

PHASE II SEQUENCE OF CONSTRUCTION:

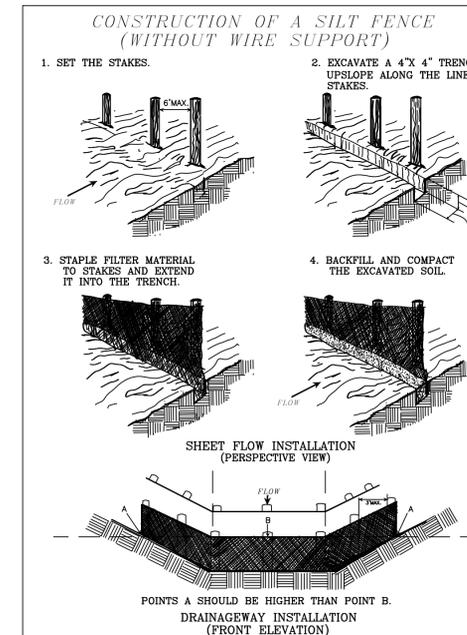
- INSTALL SIDEWALK, RAMPS, DRIVEWAY, RETAINING WALL, RELOCATED SIGNALS, AND STORM STRUCTURES.
- RE-SPREAD TOP SOIL AND PERMANENTLY STABILIZE THE DISTURBED AREAS. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL ALL CONTRIBUTING AREAS HAVE BEEN PERMANENTLY STABILIZED.
- THE COUNTY INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS IN THE FIELD AS SITE CONDITIONS WARRANT.
- NO E&S DEVICE SHALL BE REMOVED WITHOUT PRIOR APPROVAL OF THE COUNTY INSPECTOR.



SILT FENCE

VIRGINIA EROSION & SEDIMENT CONTROL 3.05:

A TEMPORARY SEDIMENT BARRIER CONSTRUCTED OF POSTS, FILTER FABRIC AND, IN SOME CASES, A WIRE SUPPORT FENCE, PLACED ACROSS OR AT THE TOE OF A SLOPE OR IN A MINOR DRAINAGE WAY TO INTERCEPT AND DETAIN SEDIMENT AND DECREASE FLOW VELOCITIES FROM DRAINAGE AREAS OF LIMITED SIZE; APPLICABLE WHERE SHEET AND FLOW EROSION OR SMALL CONCENTRATED FLOWS MAY BE A PROBLEM. MAXIMUM EFFECTIVE LIFE OF 6 MONTHS.



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, VA DNR, Shenandoah and Nysat. PLATE 3A

CONSTRUCTION SPECIFICATIONS:

- SYNTHETIC FILTER FABRIC SHALL BE A PEROUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER AS CONFORMING TO THE REQUIREMENTS NOTED IN TABLE 3.05-B.
- SYNTHETIC FILTER FABRIC SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0° F TO 120° F.
- IF WOODEN STAKES ARE UTILIZED FOR SILT FENCE CONSTRUCTION THEY MUST HAVE A DIAMETER OF 2 INCHES WHEN OAK IS USED AND 1 1/2 INCHES WHEN PINE IS USED. WOODEN STAKES MUST HAVE A MINIMUM LENGTH OF 5 FEET.
- IF STEEL POSTS (STANDARD "U" OR "T" SECTION) ARE UTILIZED SILT FENCE CONSTRUCTION, THEY MUST HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT AND SHALL HAVE A MINIMUM LENGTH OF 5 FEET.
- WIRE FENCE REINFORCEMENT FOR SILT FENCES USING STANDARD-STRENGTH FILTER CLOTH SHALL BE A MINIMUM OF 14 GA AND SHALL HAVE A MAXIMUM MESH SPACING OF 6 INCHES.

MAINTENANCE:

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

NOT FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE OFFICE OF THE ENGINEER, 20110 Ashbrook Pike, Suite 1001, Ashburn, VA 20147. TEL: 703.726.1342. FAX: 703.726.1345. WWW.TIMMONSGROUP.COM

REVISION DESCRIPTION
60% SUBMISSION

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| DATE | 3/27/2020 |
| DATE | 10.23.18 |
| DRAWN BY | PVN |
| DESIGNED BY | PVN |
| CHECKED BY | LTF |
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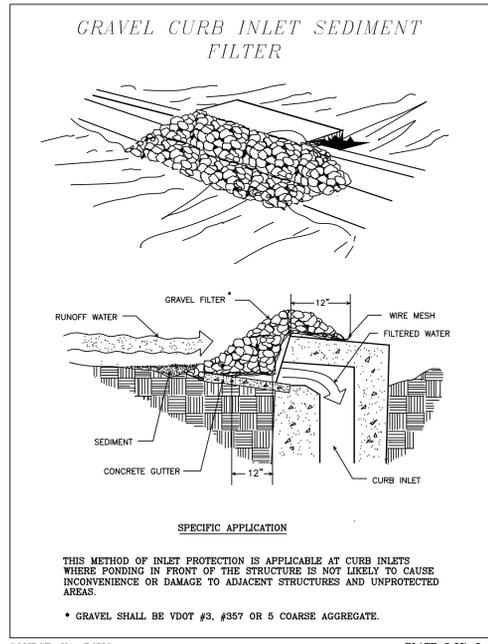
TIMMONS GROUP
CHAIN BRIDGE ROAD SIDEWALK EXTENSION
CITY OF FAIRFAX, VIRGINIA
EROSION & SEDIMENT CONTROL NOTES & DETAILS

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IP STORM DRAIN INLET PROTECTION

VIRGINIA EROSION & SEDIMENT CONTROL 3.07:
 THE INSTALLATION OF VARIOUS KINDS OF SEDIMENT TRAPPING MEASURES AROUND DROP INLETS OR CURB INLET STRUCTURES PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA; LIMITED TO DRAINAGE AREAS NOT EXCEEDING ONE ACRE, AND NOT INTENDED TO CONTROL LARGE, CONCENTRATED STORMWATER FLOWS.



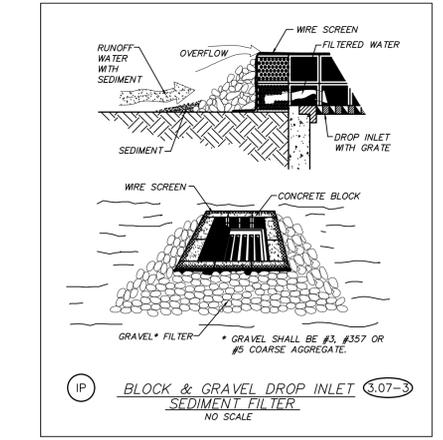
SOURCE: VA. DSWC PLATE 3.07-6

CONSTRUCTION SPECIFICATIONS:

- TWO CONCRETE BLOCKS SHALL BE PLACED ON THEIR SIDES ABUTTING THE CURB AT EITHER SIDE OF THE INLET OPENING.
- A 2-INCH X 4-INCH STUD SHALL BE CUT AND PLACED THROUGH THE OUTER HOLES OF EACH SPACER BLOCK TO HELP KEEP THE FRONT BLOCKS IN PLACE.
- CONCRETE BLOCKS SHALL BE PLACED ON THEIR SIDES ACROSS THE FRONT OF THE INLET AND ABUTTING THE SPACER BLOCKS AS DEPICTED IN PLATE 3.07-8.
- WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
- COARSE AGGREGATE SHALL BE PILE AGAINST THE WIRE TO THE TOP OF THE BARRIER AS SHOWN IN PLATE 3.07-8.
- IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND/OR REPLACED.

MAINTENANCE:

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



IP BLOCK & GRAVEL DROP INLET SEDIMENT FILTER 3.07-3
 NO SCALE

PS PERMANENT SEEDING

VIRGINIA EROSION & SEDIMENT CONTROL 3.32:
 ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER BY PLANTING SEED ON ROUGH-GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE OR WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED ON FINE-GRADED AREAS.

CONSTRUCTION SPECIFICATIONS:

SELECTION OF PLANT MATERIALS:

- SELECTION OF PLANT MATERIALS IS BASED ON CLIMATE, TOPOGRAPHY, SOILS, LAND USE, AND PLANTING SEASON. TO DETERMINE WHICH PLANT MATERIALS ARE BEST ADAPTED TO A SPECIFIC SITE, USE TABLES 3.32-A AND 3.32-B WHICH DESCRIBE PLANT CHARACTERISTICS AND LIST RECOMMENDED VARIETIES.
- APPROPRIATE SEEDING MIXTURES FOR VARIOUS SITE CONDITIONS IN VIRGINIA ARE GIVEN IN TABLES 3.32-C, 3.32-D AND 3.32-E. THESE MIXTURES ARE DESIGNED FOR GENERAL USE, AND ARE KNOWN TO PERFORM WELL ON THE SITES DESCRIBED. CHECK TABLES 3.32-A AND 3.32-B FOR RECOMMENDED VARIETIES.
- A MORE EXTENSIVE DESCRIPTION OF PLANT MATERIALS (GRASSES AND LEGUMES), THEIR USAGE AND PICTORIAL REPRESENTATION CAN BE FOUND IN APPENDIX 3.32-C.
- WHEN USING SOME VARIETIES OF TURFGRASSES, THE VIRGINIA CROP IMPROVEMENT ASSOCIATION (VCOIA) RECOMMENDED TURFGRASS MIXTURES MAY ALSO BE USED. CONSUMER PROTECTION PROGRAMS HAVE BEEN DEVISED TO IDENTIFY QUALITY SEED OF THE VARIETIES RECOMMENDED BY THE VIRGINIA COOPERATIVE EXTENSION SERVICE. THESE WILL BEAR A LABEL INDICATING THAT THEY ARE APPROVED BY THE ASSOCIATION. MIXTURES MAY BE DESIGNED FOR A SPECIFIC PHYSIOGRAPHIC REGION OR BASED ON INTENDED USE. SPECIAL CONSIDERATION IS GIVEN TO PLANT CHARACTERISTICS, PERFORMANCE, ETC.

SEEDBED REQUIREMENTS:

VEGETATION SHOULD NOT BE ESTABLISHED ON SLOPES THAT ARE UNSUITABLE DUE TO INAPPROPRIATE SOIL TEXTURE, POOR INTERNAL STRUCTURE OR INTERNAL DRAINAGE, VOLUME OF OVERLAND FLOW, OR EXCESSIVE STEEPNESS, UNTIL MEASURES HAVE BEEN TAKEN TO CORRECT THESE PROBLEMS.

TO MAINTAIN A GOOD STAND OF VEGETATION, THE SOIL MUST MEET CERTAIN MINIMUM REQUIREMENTS AS A GROWTH MEDIUM. THE EXISTING SOIL MUST HAVE THESE CHARACTERISTICS:

- ENOUGH FINE-GRAINED MATERIAL TO MAINTAIN ADEQUATE MOISTURE AND NUTRIENT SUPPLY.
- SUFFICIENT PORE SPACE TO PERMIT ROOT PENETRATION. A BULK DENSITY OF 1.2 TO 1.5 INDICATES THAT SUFFICIENT PORE SPACE IS PRESENT. A FINE GRANULAR OR CRUMB-LIKE STRUCTURE IS ALSO FAVORABLE.
- SUFFICIENT DEPTH OF SOIL TO PROVIDE AN ADEQUATE ROOT ZONE. THE DEPTH TO ROCK OR IMPERMEABLE LAYERS SUCH AS HARDPANS SHALL BE 12 INCHES OR MORE, EXCEPT ON SLOPES STEEPER THAN 2:1 WHERE THE ADDITION OF SOIL IS NOT FEASIBLE.
- A FAVORABLE PH RANGE FOR PLANT GROWTH. IF THE SOIL IS SO ACIDIC THAT A PH RANGE OF 6.0-7.0 CANNOT BE ATTAINED BY ADDITION OF PH-MODIFYING MATERIALS, THEN THE SOIL IS CONSIDERED AN UNSUITABLE ENVIRONMENT FOR PLANT ROOTS AND FURTHER SOIL MODIFICATION WOULD BE REQUIRED.
- FREEDOM FROM TOXIC AMOUNTS OF MATERIALS HARMFUL TO PLANT GROWTH.
- FREEDOM FROM EXCESSIVE QUANTITIES OF ROOTS, BRANCHES, LARGE STONES, LARGE CLODS OF EARTH, OR TRASH OF ANY KIND. CLODS AND STONES MAY BE LEFT ON SLOPES STEEPER THAN 3:1 IF THEY DO NOT SIGNIFICANTLY IMPEDE GOOD SEED SOIL CONTACT.

IF ANY OF THE ABOVE CRITERIA CANNOT BE MET, I.E., IF THE EXISTING SOIL IS TOO COARSE, DENSE, SHALLOW, ACIDIC, OR CONTAMINATED TO FOSTER VEGETATION, THEN TOPSOIL SHALL BE APPLIED IN ACCORDANCE WITH TOPSOILING, STD. & SPED. 3.30.

NECESSARY STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED PRIOR TO SEEDING. GRADING WILL BE CARRIED OUT ACCORDING TO THE APPROVED PLAN.

SURFACES WILL BE ROUGHENED IN ACCORDANCE WITH SURFACE ROUGHENING, STD. & SPEC. 3.29.

SOIL CONDITIONERS:

IN ORDER TO MODIFY THE TEXTURE, STRUCTURE, OR DRAINAGE CHARACTERISTICS OF A SOIL, THE FOLLOWING MATERIALS MAY BE ADDED TO THE SOIL:

- PEAT IS A VERY COSTLY CONDITIONER, BUT WORKS WELL. IF ADDED, IT SHALL BE SPAGNUM MOSS PEAT, HYPNUM MOSS PEAT, REED-SEDE PEAT OR PEAT HUMUS, FROM FRESH-WATER SOURCES. PEAT SHALL BE SHREDDED AND CONDITIONED IN STORAGE PILES FOR AT LEAST SIX MONTHS AFTER EXCAVATION.
- SAND SHALL BE CLEAN AND FREE OF TOXIC MATERIALS. SAND MODIFICATION IS INEFFECTIVE UNLESS YOU ARE ADDING 80 TO 90% SAND ON A VOLUME BASIS. THIS IS EXTREMELY DIFFICULT TO DO ON-SITE. IF THIS PRACTICE IS CONSIDERED, CONSULT A PROFESSIONAL AUTHORITY TO ENSURE THAT IT IS DONE PROPERLY.
- VERMICULITE SHALL BE HORTICULTURAL GRADE AND FREE OF TOXIC SUBSTANCES. IT IS AN IMPRACTICAL MODIFIER FOR LARGER ACREAGE DUE TO EXPENSE.
- RAW MANURE IS MORE COMMONLY USED IN AGRICULTURAL APPLICATIONS. HOWEVER, WHEN STORED PROPERLY AND ALLOWED TO COMPOST, IT WILL STABILIZE NITROGEN AND OTHER NUTRIENTS. MANURE, IN ITS COMPOSED FORM, IS A VIABLE SOIL CONDITIONER; HOWEVER, ITS USE SHOULD BE BASED ON SITE-SPECIFIC RECOMMENDATIONS OFFERED BY A PROFESSIONAL IN THIS FIELD.
- THOROUGHLY ROTTED SAWDUST SHALL HAVE 6 POUNDS OF NITROGEN ADDED TO EACH CUBIC YARD AND SHALL BE FREE OF STONES, STICKS, AND TOXIC SUBSTANCES.
- THE USE OF TREATED SEWAGE SLUDGE HAS BENEFITED FROM CONTINUING ADVANCEMENTS IN ITS APPLICATIONS IN THE AGRICULTURAL COMMUNITY. WHEN COMPOSTED, IT OFFERS AN ALTERNATIVE SOIL AMENDMENT. LIMITATIONS INCLUDE A POTENTIALLY UNDESIRABLE PH (BECAUSE OF LIME ADDED DURING THE TREATMENT PROCESS) AND THE POSSIBLE PRESENCE OF HEAVY METALS. THIS PRACTICE SHOULD BE THOROUGHLY EVALUATED BY A PROFESSIONAL AND BE USED IN ACCORDANCE WITH ANY LOCAL, STATE, AND FEDERAL REGULATIONS. LIME AND FERTILIZER

LIME AND FERTILIZER NEEDS SHOULD BE DETERMINED BY SOIL TESTS. SOILS TESTS MAY BE PERFORMED BY THE COOPERATIVE EXTENSION SERVICE SOIL TESTING LABORATORY AT VPI&SU, OR BY A REPUTABLE COMMERCIAL LABORATORY. INFORMATION CONCERNING THE STATE SOIL TESTING LABORATORY IS AVAILABLE FROM COUNTY EXTENSION AGENTS. REFERENCE APPENDIX 3.32-D FOR LIMING APPLICATIONS (IN LBS.) NEEDED TO CORRECT UNDESIRABLE PH FOR VARIOUS SOIL TYPES.

CONSTRUCTION SPECIFICATIONS (CONTINUED):

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

LIME
 COASTAL PLAIN: 2 TONS/ACRE PULVERIZED AGRICULTURAL GRADE LIMESTONE (90 LBS./1000 FT2).

PIEDMONT AND APPALACHIAN REGION: 2 TONS/ACRE PULVERIZED AGRICULTURAL GRADE LIMESTONE (90 LBS./100 FT2).
 NOTE: AN AGRICULTURAL GRADE OF LIMESTONE SHOULD ALWAYS BE USED.

FERTILIZER
 MIXED GRASSES AND LEGUMES: 1000 LBS./ACRE 10-20-10 OR EQUIVALENT NUTRIENTS (23 LBS./1000 FT2).

LEGUME STANDS ONLY: 1000 LBS./ACRE 5-20-10 (23 LBS./1000 FT2) IS PREFERRED; HOWEVER, 1000 LBS./ACRE OF 10-20-10 OR EQUIVALENT MAY BE USED.

GRASS STANDS ONLY: 1000 LBS./ACRE 10-20-10 OR EQUIVALENT NUTRIENTS, (23 LBS./1000 FT2).

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

INCORPORATION - LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 4-6 INCHES OF THE SOIL BY DISCING OR OTHER MEANS WHENEVER POSSIBLE. FOR EROSION CONTROL, WHEN APPLYING LIME AND FERTILIZER WITH A HYDROSEEDER, APPLY TO A ROUGH, LOOSE SURFACE.

SEEDING:

- CERTIFIED SEED WILL BE USED FOR ALL PERMANENT SEEDING WHENEVER POSSIBLE. CERTIFIED SEED IS INSPECTED BY THE VIRGINIA CROP IMPROVEMENT ASSOCIATION OR THE CERTIFYING AGENCY IN OTHER STATES. THE SEED MUST MEET PUBLISHED STATE STANDARDS AND BEAR AN OFFICIAL "CERTIFIED SEED" LABEL (SEE APPENDIX 3.32-A).
- LEGUME SEED SHOULD BE INOCULATED WITH THE INOCULANT APPROPRIATE TO THE SPECIES. SEED OF THE LESPEDEZAS, THE CLOVERS AND CROWN VETCH SHOULD BE SCARIFIED TO PROMOTE UNIFORM GERMINATION.
- APPLY SEED UNIFORMLY WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. SEEDING DEPTH SHOULD BE 1/4 TO 1/2 INCH.
- TO AVOID POOR GERMINATION RATES AS A RESULT OF SEED DAMAGE DURING HYDROSEEDING, IT IS RECOMMENDED THAT IF A MACHINERY BREAKDOWN OF 30 MINUTES TO 2 HOURS OCCURS, 50% MORE SEED BE ADDED TO THE TANK, BASED ON THE PROPORTION OF THE SLURRY REMAINING IN THE TANK. BEYOND 2 HOURS, A FULL RATE OF NEW SEED MAY BE NECESSARY.

OFTEN HYDROSEEDING CONTRACTORS PREFER NOT TO APPLY LIME IN THEIR RIGS AS IT IS ABRASIVE. IN INACCESSIBLE AREAS, LIME MAY HAVE TO BE APPLIED SEPARATELY IN PALLETTIZED OR LIQUID FORM. SURFACE ROUGHENING IS PARTICULARLY IMPORTANT WHEN HYDROSEEDING AS A ROUGHENED SLOPE WILL PROVIDE SOME NATURAL COVERAGE OF LIME, FERTILIZER AND SEED.

LEGUME INOCULANTS SHOULD BE APPLIED AT FIVE TIMES THE RECOMMENDED RATE WHEN INOCULANT IS INCLUDED IN THE HYDROSEEDER SLURRY.

MULCHING:

ALL PERMANENT SEEDING MUST BE MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION. REFER TO MULCHING, STD. & SPEC. 3.35.

MAINTENANCE OF NEW SEEDINGS:

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

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

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

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

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

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

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

- COOL SEASON GRASSES
- 4 LBS. NITROGEN (N)
 - 1 LB. PHOSPHORUS (P)
 - 2 LBS POTASH (K)
- > PER 1000 FT2 PER YEAR

SEVENTY-FIVE PERCENT OF THE TOTAL REQUIREMENTS SHOULD BE APPLIED BETWEEN SEPTEMBER 1 AND DECEMBER 31ST. THE BALANCE SHOULD BE APPLIED DURING THE REMAINDER OF THE YEAR. MORE THAN 1 LBS OF SOLUBLE NITROGEN PER 1000 FT2 SHOULD NOT BE APPLIED AT ANY ONE TIME.

WARM SEASON GRASSES

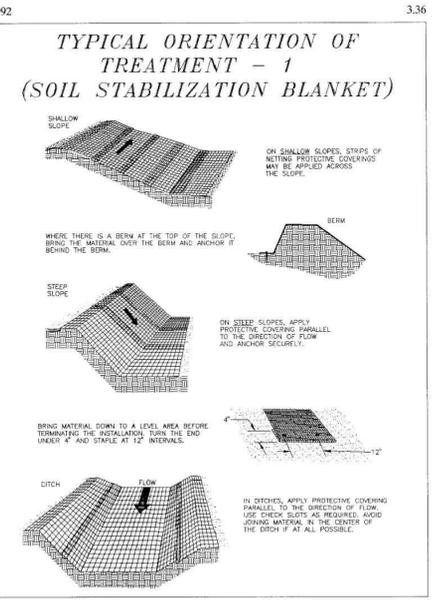
- APPLY 4-5 LBS. NITROGEN (N) BETWEEN MAY 1 AND AUGUST 15TH PER 1000 FT2 PER YEAR.
- PHOSPHORUS (P) AND POTASH (K) SHOULD ONLY BE APPLIED ACCORDING TO SOIL TEST.

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

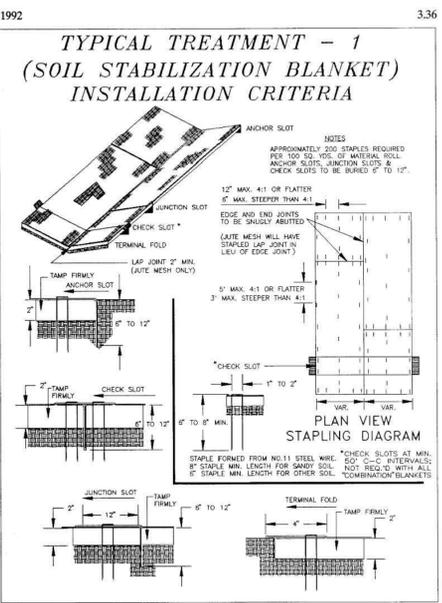
B/M SOIL STABILIZATION BLANKETS AND MATTING

VIRGINIA EROSION & SEDIMENT CONTROL 3.36:

THE INSTALLATION OF A PROTECTIVE BLANKET (TREATMENT 1) OR A SOIL STABILIZATION MAT (TREATMENT 2) ON A PREPARED PLENTING OF A STEEP SLOPE, CHANNEL OR SHORELINE.



Source: Adapted from Ludlow Products Brochure Plate 3.36-1



Source: VDOT Road and Bridge Standards Plate 3.36-2

CONSTRUCTION SPECIFICATIONS:

TREATMENT-1: SOIL STABILIZATION BLANKET

(ALLOWABLE VELOCITY RANGE DURING VEGETATION ESTABLISHMENT: 0 - 4 F.P.S.)

INSTALLATION REQUIREMENTS

SITE PREPARATION - AFTER SITE HAS BEEN SHAPED AND GRADED TO APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1 1/2 INCHES IN DIAMETER AND ANY FOREIGN MATERIAL THAT WILL PREVENT UNIFORM CONTACT OF THE PROTECTIVE COVERING WITH THE SOIL SURFACE.

PLANTING - LIME, FERTILIZER, AND SEED IN ACCORDANCE WITH SEEDING OR OTHER TYPE OF PLANTING PLAN. WHEN USING JUTE MESH ON A SEEDED AREA, APPLY APPROXIMATELY ONE-HALF THE SEED AFTER LAYING THE MAT. THE PROTECTIVE COVERING CAN BE LAID OVER SPRIGGED AREAS WHERE SMALL GRASS PLANTS HAVE BEEN INSERTED INTO THE SOIL. WHERE GROUND COVERS ARE TO BE PLANTED, LAY THE PROTECTIVE COVERING FIRST AND THEN PLANT THROUGH THE MATERIAL AS PER PLANTING DESIGN.

WHEN OPEN-WEAVE NETS ARE USED, LIME, FERTILIZER, SEED AND MULCH SHOULD BE APPLIED BEFORE LAYING THE NET. WHEN A COMBINATION BLANKET (SUCH AS AN "EXCELSIOR" BLANKET) IS USED, SEED AND SOIL AMENDMENTS MUST ALSO BE APPLIED BEFORE THE BLANKET IS LAID.

ORIENTATION - SEE PLATE 3.36-1 FOR ORIENTATION OF TREATMENT-1 FOR DIFFERENT TOPOGRAPHIC CONDITIONS.

LAYING AND STAPLING (SEE PLATE 3.36-2) - IF INSTRUCTIONS HAVE BEEN FOLLOWED, ALL NEEDED CHECK SLOTS WILL HAVE BEEN INSTALLED, AND THE PROTECTIVE COVERING WILL BE LAID ON A FRIABLE SEEDBED FREE FROM CLODS, ROCKS, ROOTS, ETC. THAT MIGHT IMPEDE GOOD CONTACT.

- START LAYING THE PROTECTIVE COVERING FROM THE TOP OF THE CHANNEL OR TOP OF SLOPE AND UNROLL DOWN-GRADE.
- ALLOW TO LAY LOOSELY ON SOIL - DO NOT STRETCH.
- UPSLOPE ENDS OF THE PROTECTIVE COVERING SHOULD BE BURIED IN AN ANCHOR SLOT NO LESS THAN 6-INCHES DEEP. TAMP EARTH FIRMLY OVER THE MATERIAL. STAPLE THE MATERIAL AT A MINIMUM OF EVERY 12 INCHES ACROSS THE TOP END.
- EDGES OF THE MATERIAL SHALL BE STAPLED EVERY 3 FEET. WHEN MULTIPLE WIDTHS ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHALL BE OVERLAPPED A MINIMUM OF 2 INCHES AND STAPLED TOGETHER.
- STAPLES SHALL BE PLACED DOWN THE CENTER, STAGGERED WITH THE EDGES AT 3-FOOT INTERVALS.

CHECK SLOTS - ON HIGHLY ERODIBLE SOILS AND ON SLOPES STEEPER THAN 4:1, EROSION CHECK SLOTS SHOULD BE MADE EVERY 50 FEET (SEE PLATE 3.36-2). INSERT A FOLD OF THE MATERIAL (SEPARATE PIECE) INTO A 6-INCH TRENCH AND TAMP FIRMLY. STAPLE FOLD TO "MAIN" BLANKET AT MINIMUM 12-INCH INTERVALS ACROSS THE UPSTREAM AND DOWNSTREAM PORTION OF THE BLANKET.

NOTE: MANY COMBINATION BLANKETS ARE DESIGNED AND MANUFACTURED TO RESIST MOVEMENT AND UPLIFT TO A POINT WHERE CHECK SLOTS MAY NOT BE REQUIRED. PLAN DESIGNERS AND REVIEW AUTHORITIES ARE URGED TO STUDY MANUFACTURERS' RECOMMENDATIONS AND SITE CONDITIONS.

JOINING PROTECTIVE COVERINGS - INSERT A NEW ROLL OF MATERIAL INTO AN ANCHOR SLOT, AS WITH UPSLOPE ENDS. OVERLAP THE END OF THE PREVIOUS ROLL A MINIMUM OF 12 INCHES, AND STAPLE ACROSS THE END OF THE ROLL JUST BELOW THE ANCHOR SLOT AND ACROSS THE MATERIAL EVERY 12 INCHES.

TERMINAL END - AT THE POINT AT WHICH THE MATERIAL IS DISCONTINUED, OR AT WHICH TIME THE PROTECTIVE COVERING MEETS A STRUCTURE OF SOME TYPE, FOLD 4 INCHES OF THE MATERIAL UNDERNEATH AND STAPLE EVERY 12 INCHES (MINIMUM).

AT BOTTOM OF SLOPES - LEAD NET OUT ONTO A LEVEL AREA BEFORE ANCHORING. TURN ENDS UNDER 4 INCHES, AND STAPLE ACROSS END EVERY 12 INCHES.

FINAL CHECK - THESE INSTALLATION TECHNIQUES MUST BE ADHERED TO:

- PROTECTIVE BLANKET IS IN UNIFORM CONTACT WITH THE SOIL.
- ALL LAP JOINTS ARE SECURE.
- ALL STAPLES ARE DRIVEN FLUSH WITH THE GROUND.
- ALL DISTURBED AREAS HAVE BEEN SEEDDED.

MAINTENANCE:

ALL SOIL STABILIZATION BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL WHICH TIME THEY BECOME PERMANENTLY STABILIZED; AT THAT TIME AN ANNUAL INSPECTION SHOULD BE ADEQUATE.

NOT FOR CONSTRUCTION

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| DRAWN BY | PVN |
| DESIGNED BY | PVN |
| CHECKED BY | LTF |
| SCALE | SEE PLAN |

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TIMMONS GROUP
 CHAIN BRIDGE ROAD SIDEWALK EXTENSION
 CITY OF FAIRFAX, VIRGINIA
 EROSION & SEDIMENT CONTROL NOTES & DETAILS
 JOB NO. 35061.023
 SHEET NO. C3.3

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