

EROSION & SEDIMENT CONTROL GENERAL NOTES:

(ADOPTED FROM TABLE 6-1 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK)

- ES-1 UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.
- ES-2 UNLESS OTHERWISE NOTED HEREON OR STIPULATED BY THE LAND DISTURBING PERMIT, THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ES-3 UNLESS OTHERWISE NOTED IN THE E&S NARRATIVE, PERIMETER CONTROLS AND SEDIMENT TRAPS SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- ES-4 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN 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, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY OR PROVIDE DOCUMENTATION OF APPROVAL / PERMITTING FOR SAID SITE.
- ES-6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ES-7 ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- ES-8 DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- ES-9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- ES-10 THE EROSION AND SEDIMENT CONTROL (E&S) MEASURES SHOWN ON THESE SHEETS ARE TO BE CONSTRUCTED DURING THE SITE GRADING AND CONSTRUCTION. REFER TO THE FOLLOWING SHEETS FOR EROSION AND SEDIMENT CONTROL NARRATIVE, SEQUENCE OF WORK, DETAILS, AND DESIGN DATA.
- ES-11 STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- ES-12 DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
- ES-13 PERMANENT OR TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
- ES-14 TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION MEASURES SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

- ES-15 PERMANENT SEEDING APPLIED TO ALL MECHANICALLY STABILIZED SLOPES AND SLOPES STEEPER THAN 3:1 AND SHALL MEET THE FOLLOWING SEED MIXTURE:
- | POUNDS PER ACRE | SEED TYPE                                      |
|-----------------|--|
| 108             | KENTUCKY 31                                    |
| 2               | RED TOP  |
| 20              | SEASONAL NURSE CROP                            |
|                 | (ANNUAL RYE, FOXTAIL MILLET, & WINTER RYE MIX) |
| 20              | CROWN VETCH                                    |
- ES-16 ALL AREAS DISTURBED BY THE WORK OF THIS PROJECT SHALL BE STABILIZED BY EITHER THE CONSTRUCTION OF A PERMANENT SURFACE SUCH AS CURB, PAVEMENT, OR CONCRETE SIDEWALK, OR STABILIZED BY MEANS OF PERMANENT SEEDING OR ANOTHER APPROVED STABILIZATION METHOD.
- ES-17 FOLLOWING THE COMPLETION OF SITE DEVELOPMENT CONSTRUCTION/GRADING, CONFIRMED STABILIZATION OF ALL DISTURBED AREAS, CONFIRMATION THAT EROSION OR SEDIMENTATION IS NO LONGER OCCURRING ON THE PROJECT SITE OR AT ITS BOUNDARIES, CONFIRMATION THAT DRAINAGE FLOWS ARE FUNCTIONING ACCORDING TO DESIGN, AND APPROVAL HAS BEEN GRANTED BY THE ROANOKE COUNTY EROSION AND SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR MAY THEN BEGIN TO REMOVE THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. THIS WORK SHALL BE DONE IN A CAREFUL, NEAT, AND ORGANIZED MANNER. IF DEWATERING IS REQUIRED, WATER SHALL BE PUMPED TO AN APPROVED FILTERING DEVICE.

EROSION & SEDIMENT CONTROL SHEET NOTES:

- THIS DRAWING IS INTENDED TO SHOW THE PERIMETER EROSION & SEDIMENT CONTROL (E&S) MEASURES REQUIRED DURING THE CONSTRUCTION OF THE PROJECT IMPROVEMENTS. ADDITIONAL REQUIRED MEASURES AND SEQUENCE OF WORK ARE SHOWN ON SUBSEQUENT SHEETS AND ARE SPECIFIED IN THE SEQUENCE OF WORK, AND STATEMENT OF COMPLIANCE WITH THE MINIMUM STANDARDS
- REFER TO SHEET C5.2 FOR LISTING AND STATEMENT OF COMPLIANCE WITH THE MINIMUM STANDARDS.
- REFER TO SHEET C5.2 FOR STANDARD E&S DETAILS AND DESIGN SUMMARY DATA.
- WHERE APPLICABLE, THIS SHEET SHOWS THE DRAINAGE AREAS (DIVIDES) AND THE TOTAL AREA (IN ACRES) DRAINING TO CRITICAL E&S CONTROL MEASURES. THE AREAS DENOTED REPRESENT THE MAXIMUM AREA DRAINING TO A GIVEN MEASURE.
- WHERE APPLICABLE, THIS DRAWING SHOWS THE TYPES AND APPROXIMATE LIMITS OF SOILS ANTICIPATED TO BE ENCOUNTERED ON THE SITE. ALL SOIL DATA IS TAKEN FROM UNITED STATES DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICES - NATIONAL COOPERATIVE SOIL SURVEY PUBLICATIONS.
- A CERTIFIED RESPONSIBLE LAND DISTURBER (RLD) SHALL OVERSEE AND BE INVOLVED IN ALL ASPECTS OF THE LAND DISTURBANCE ACTIVITIES (FROM INITIAL LAND DISTURBANCE THROUGH FINAL STABILIZATION). THE NAME OF THE RLD SHALL BE PROVIDED TO PLAN REVIEWING AUTHORITY AT OR PRIOR TO THE PRECONSTRUCTION CONFERENCE. THIS PERSON SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND PROVIDE A COPY OF HIS RLD CERTIFICATE.

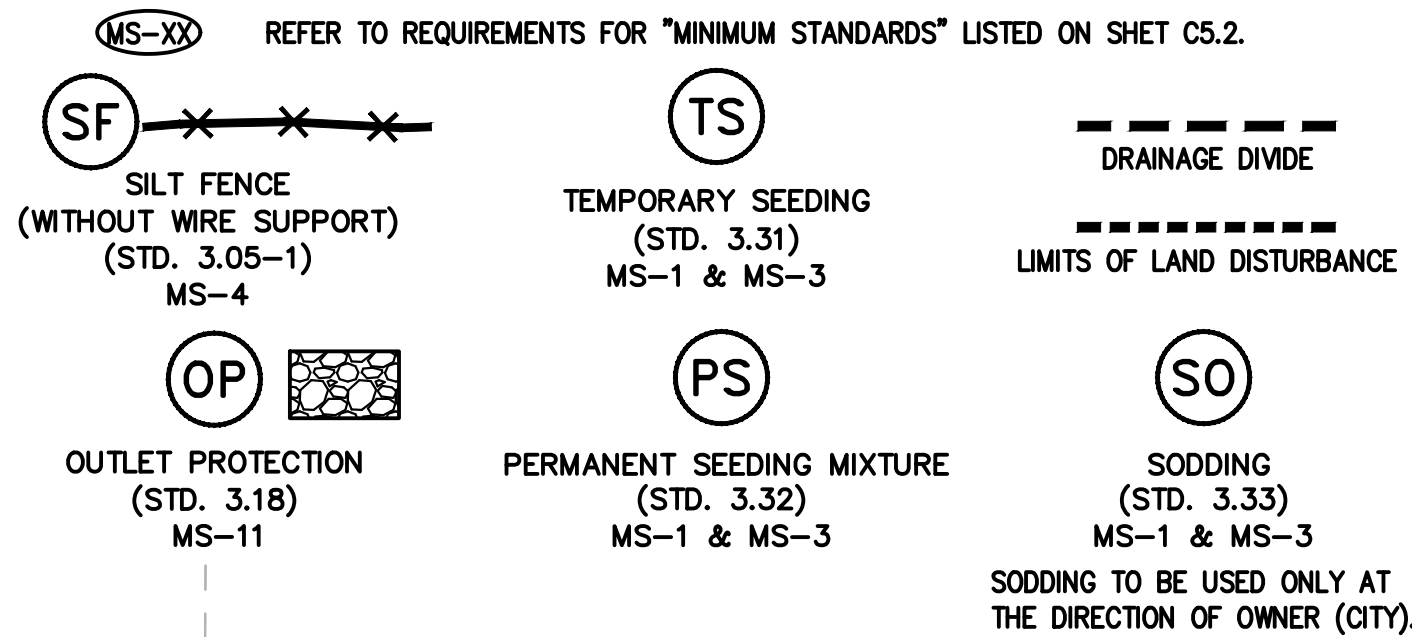
GENERAL SEQUENCE OF WORK:

- GENERAL:
  - IN ORDER TO MINIMIZE THE POTENTIAL FOR SOIL EROSION AND SEDIMENTATION OF DOWNSTREAM WATERWAYS AND PROPERTIES, THE WORK OF THE PROJECT SHOULD BE STAGED AND EXECUTED GENERALLY CHRONOLOGICALLY IN ACCORDANCE WITH THIS GENERAL SEQUENCE OF WORK.
  - THIS SEQUENCE OF WORK IS NOT INTENDED TO PROVIDE THE CONTRACTOR AND THE RESPONSIBLE LAND DISTURBER (RLD) WITH SPECIFIC DIRECTION REGARDING MEANS AND METHODS OF CONSTRUCTION, TECHNICAL REQUIREMENTS FOR CONSTRUCTION, NOR IS IT INTENDED TO ADDRESS EACH AND EVERY REQUIRED STEP TO COMPLY WITH THE INTENT OF THE EROSION AND SEDIMENT CONTROL PLAN.
  - THE CONTRACTOR SHOULD BE FAMILIAR WITH AND AWARE OF THE SEQUENCING PROVISIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS." THE GENERAL SEQUENCE OF WORK MAY BE ALTERED UPON SUBMISSION AND APPROVAL OF WRITTEN AMENDMENTS OR APPROVED FIELD REVISIONS.
  - WHERE APPLICABLE, THE SEQUENCE REFERENCES THE CORRESPONDING MINIMUM STANDARD (MS-XX) REQUIREMENT AS STIPULATED IN THE "STATEMENT OF COMPLIANCE WITH VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS 9VAC25-840-40 - MINIMUM STANDARDS."
- FLAG THE LIMITS OF LAND DISTURBANCE.
- CONSTRUCTION ENTRANCE (CE) / (MS-17):
  - ALL CONSTRUCTION VEHICLES ENTERING AND LEAVING THE SITE SHALL USE EXISTING 24TH STREET PAVEMENT. REFER TO MS-17 FOR ADDITIONAL INFORMATION.
- PERIMETER MEASURES (MS-4 / MS-5):
  - INSTALL SILT FENCE (SF) ALONG THE PERIMETER OF THE LAND DISTURBANCE LIMITS WHERE SHOWN ON THE E&S PLAN OR WHERE REQUIRED TO CONTROL RUNOFF. NOTE THAT SOME SILT FENCE MAY BE DESIGNATED "SUPER" SILT FENCE (SSF). INSTALL RIP-RAP FILTER (RR) OR CHECK DAM (CD) WHERE SILT FENCE CREATES A "LOW-POINT" THAT MAY TRAP EXCESSIVE RUN-OFF.
  - IMMEDIATELY SEED/STABILIZE (TS) ANY AREAS DISTURBED BY THE INSTALLATION OF THE PERIMETER MEASURES AND ADJOINING DOWN-SLOPE DISTURBED AREAS.
  - UPON COMPLETION OF ABOVE TASKS CALL FOR INSPECTION OF THE INSTALLED MEASURES. MAKE ADJUSTMENTS AS NEEDED TO ENSURE COMPLIANCE WITH THE SPECIFICATIONS SHOWN ON THE PLANS AND MAKE ADJUSTMENTS AND/OR ADD ADDITIONAL MEASURES BASED ON INSPECTION BY E&S INSPECTOR FINDINGS/RECOMMENDATIONS.
- WATERLINE INSTALLATION (MS-16):
  - CLEAR VEGETATION FROM THE PROJECT WORK AREA. USE INCREMENTAL CLEARING (I.E. REMOVE VEGETATION ONLY AS WORK IS TO START IN A SPECIFIC AREA). REMOVE CLEARED VEGETATION FROM WORK SITE AS THE WORK PROGRESSES. WHERE PRESENT, STRIP TOPSOIL AND PLACE IN A STOCKPILE (MS-2) WHERE SHOWN ON THE E&S PLAN FOR RE-USE ON FINISHED GRADED AREAS.
  - BEGIN INSTALLATION OF NEW WATERLINE. UTILITY INSTALLATION REQUIREMENTS INCLUDE:
    - NO MORE THAN 200 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
    - EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
    - EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
    - MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
    - COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS REGARDING TRENCHING.
- DEMOLITION & REMOVAL:
  - BEGIN DEMOLITION AND REMOVAL OF EXISTING FEATURES WITHIN THE PAVED SECTION OF 24 TH STREET FIRST - INCLUDING THE EXISTING ASPHALT PAVEMENT, SUB-BASE, AGGREGATE BASE, AND SUB-GRADE. HAUL FROM THE SITE ANY DEMOLISHED PAVEMENT AND DISPOSE OF OFF-SITE IN A LEGAL MANNER.

- EARTHWORK / STONE RESERVOIR / ROADWAY RECONSTRUCTION:
  - UPON COMPLETION OF DEMOLITION & REMOVAL OF THE EXISTING PAVEMENT STRUCTURE, IT IS ANTICIPATED THAT EXCAVATION FOR THE NEW STONE RESERVOIR FOR THE PVIOUS PAVEMENT AND THE INFILTRATION BASIN / TRENCH WILL BEGIN. EXCAVATE THE EXISTING EARTHEN SUB-GRADE MATERIAL AND HAUL OFF-SITE. PREPARE / SHAPE SUBGRADE PER THE PLANS, SECTIONS, AND DETAILS.
  - PLACE FILTER FABRIC AND STONE RESERVOIR. INSTALL UNDERDRAIN SYSTEM AS SHOWN ON PLANS WHEN STONE REACHED APPROPRIATE ELEVATION. PROTECT OPEN ENDS OF UNDERDRAIN PIPE AND CLEANOUTS FROM INFLOW OF SEDIMENT LADEN STORMWATER AND OTHER DEBRIS (MS-10). COMPLETE PLACEMENT OF STONE RESERVOIR AND FILTER FABRIC.
  - UPON COMPLETION OF THE STONE RESERVOIR, PLACE PVIOUS CONCRETE.
- STABILIZATION (MS-1 / MS-3):
  - AS WORK PROGRESSES AND IS COMPLETED, PLACE THE SITE TO FINISHED GRADE AS SOON AS PRACTICAL. APPLY TEMPORARY SEEDING (TS), OR TOPSOIL (TO) AND PERMANENT SEEDING (PS), TO DISTURBED AREA AND CUT SLOPES THAT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS AND/OR WHEN FINAL GRADE IS REACHED.
  - FOR PERMANENT STABILIZATION OF DISTURBED AREAS, APPLY TOPSOIL (TO) AND PERMANENT SEEDING (PS).
- MAINTENANCE OF E&S MEASURES:
  - ALL EROSION AND SEDIMENT MEASURES WILL BE CHECKED DAILY AND AFTER EACH MEASURABLE RAINFALL. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL MAINTENANCE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL MEASURES AS OUTLINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- REMOVAL OF MEASURES (MS-18):
  - PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM AND MATURE ENOUGH TO SURVIVE AND INHIBIT EROSION.
  - UPON STABILIZATION OF ALL DISTURBED SURFACES, CALL-FOR FINAL INSPECTIONS.
  - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE E&S INSPECTOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. IF DEWATERING IS REQUIRED, WATER SHALL BE PUMPED TO AN APPROVED FILTERING DEVISE.

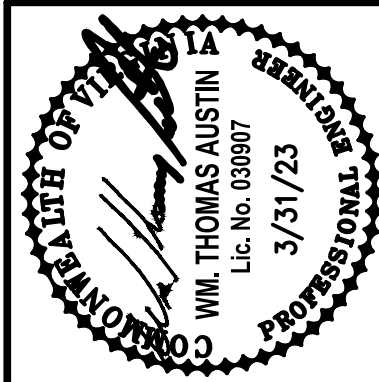
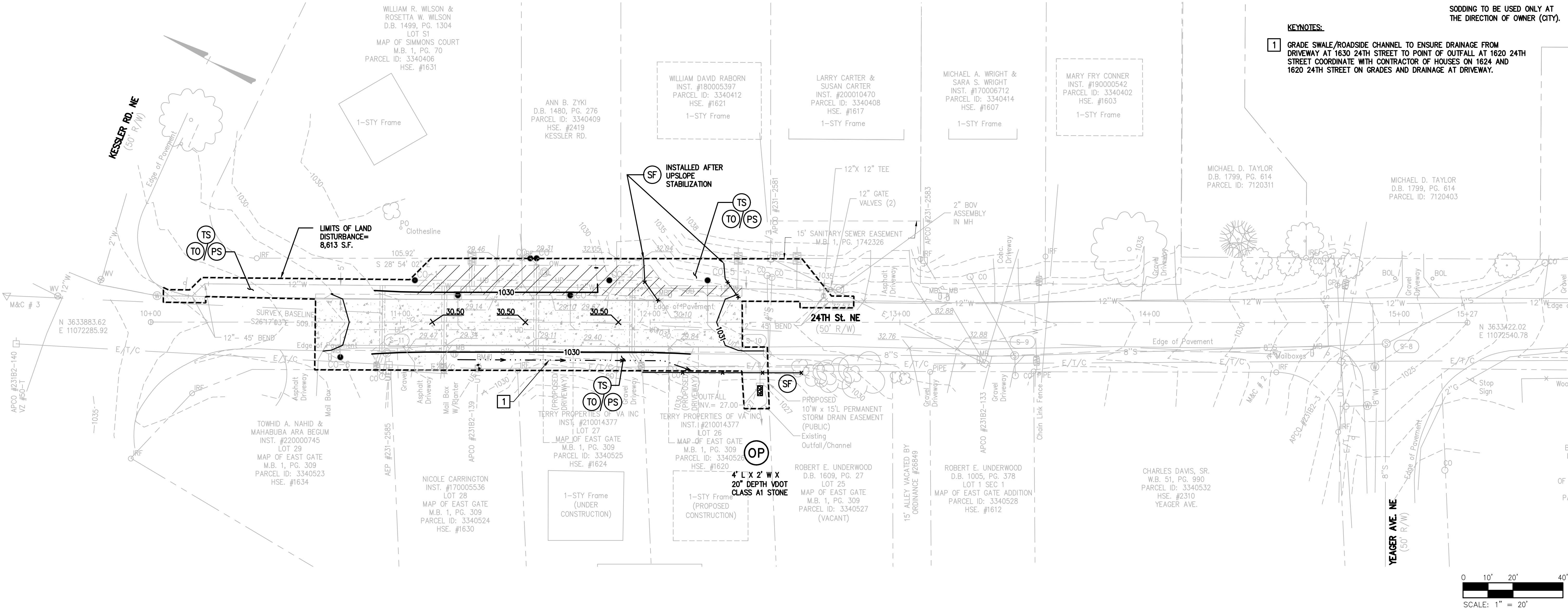
END OF GENERAL SEQUENCE OF WORK

EROSION & SEDIMENT CONTROL  
SYMBOLS LEGEND



KEYNOTES:

- 1 GRADE SWALE/ROADSIDE CHANNEL TO ENSURE DRAINAGE FROM DRIVEWAY AT 1630 24TH STREET TO POINT OF OUTFALL AT 1620 24TH STREET COORDINATE WITH CONTRACTOR OF HOUSES ON 1624 AND 1620 24TH STREET ON GRADES AND DRAINAGE AT DRIVEWAY.



Revisions	Date

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STORMWATER DRAINAGE IMPROVEMENT PROJECT  
FOR 1600 BLOCK 24TH ST. NE  
EROSION AND SEDIMENT CONTROL  
PLAN  
ROANOKE, VIRGINIA

Vertical Scale:  
N/A

Horizontal Scale:  
1" = 20'

Commission Number:  
3991C

Sheet No.:  
**C5.1**