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9VAC25-840-40 VIRGINIA EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. RESPONSE: CONTRACTOR SHALL ADHERE TO THESE STANDARDS BY PROVIDING MULCHING, TEMPORARY SEEDING, AND PERMANENT SEEDING. SEE THE EROSION AND SEDIMENT CONTROL NOTES, NARRATIVE, AND PLAN.
3. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PROTECTION OF A SEDIMENT BASIN OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
4. RESPONSE: ANY STOCKPILES OF SOIL ON SITE SHALL BE STABILIZED ACCORDINGLY.
5. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
6. RESPONSE: SEE THE EROSION AND SEDIMENT CONTROL NOTES, NARRATIVE, AND PLAN.
7. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE EMPLOYEES AND LAND DISTURBANCE TAKES PLACE.
8. RESPONSE: ONLY APPLICABLE TO SILT FENCE. SEE THE EROSION AND SEDIMENT CONTROL NOTES, NARRATIVE, AND PLAN.
9. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DICES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
10. RESPONSE: NOT APPLICABLE TO THIS PROJECT.
11. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
12. A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
13. B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF 10% OF THE DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTLET SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
14. RESPONSE: NOT APPLICABLE TO THIS PROJECT.
15. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
16. RESPONSE: SEE THE EROSION AND SEDIMENT CONTROL NOTES, NARRATIVE, AND PLAN.
17. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
18. RESPONSE: NO MAJOR CUT SLOPES ARE ANTICIPATED AND RUNOFF TO FILL SLOPES WILL BE SHEET FLOW ACROSS A GRASS AREA.
19. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
20. RESPONSE: NO WATER SEEPAGE FROM A SLOPE FACE IS ANTICIPATED.
21. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
22. RESPONSE: SEE THE EROSION AND SEDIMENT CONTROL NOTES, NARRATIVE, AND PLAN.
23. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
24. RESPONSE: THE OUTLET OF THE STORMWATER PIPES ON THIS PROJECT IS AN EXISTING STORM DRAIN STRUCTURE AND STORM DRAIN SYSTEM. THE CALCULATIONS SHOW THIS IS AN ADEQUATE RECEIVING CHANNEL. NO OUTLET PROTECTION IS REQUIRED AT THE END OF THE NEW STORMWATER PIPING WHERE IT CONNECTS TO THE EXISTING STORM DRAIN STRUCTURE.
25. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
26. RESPONSE: NOT APPLICABLE TO THIS PROJECT.
27. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
28. RESPONSE: NOT APPLICABLE TO THIS PROJECT.
29. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
30. RESPONSE: NOT APPLICABLE TO THIS PROJECT.
31. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

2. RESPONSE: NOT APPLICABLE TO THIS PROJECT.
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
- A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- C. EFFLUENT FROM DOWNSIDE OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- E. STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL, DISPOSAL AREA, STREET WASHING OR OTHER APPROPRIATE LOCATION. THIS PROVISION SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
18. A CONSTRUCTION ENTRANCE WILL BE PLACED AT THE NORTH SIDE OF THE SITE. STREET SWEEPING OR OTHER MAINTENANCE SHALL BE REQUIRED.
19. 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 LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
20. RESPONSE: SEE THE EROSION AND SEDIMENT CONTROL NOTES, NARRATIVE, AND PLAN.
21. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN FLOW, 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 RUNOFF FROM DEVELOPMENT 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 OUTLET OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
- B. YEAR STABILITY 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; OR
2. A. NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM GRADING, AND PREVIOUSLY CONSTRUCTED CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND CAUSE EROSION OF CHANNEL BED OR BANKS; AND
- B. ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND CAUSE EROSION OF CHANNEL BED OR BANKS; AND
- C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
1. IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR 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 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; OR
4. PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.
- D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
- F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, THEY SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
- G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
- H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
- I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE OVERTOP TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
- J. IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT AS A WHOLE SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
- K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
- L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (i) DETAIN THE WATER QUALITY VOLUME AND RELEASE IT OVER 48 HOURS; (ii) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE-YEAR, 24-HOUR STORM; AND (iii) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1, 2, 5, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE

SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH THE APPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO 9 VAC 144-1536 OR 9 VAC 144-1538 OF THE ACT.

M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF 9 VAC 144-1532 OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (9 VAC 144-1532 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES (i) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC144-1536 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSM) REGULATION WHICH THE 2- AND 10-YEAR FLOWS DO NOT EXCEED THE MAXIMUM ALLOWABLE RATES AND ARE THEREFORE DEEMED ADEQUATE FOR CHANNEL PROTECTION (2-YEAR) AND FLOOD PROTECTION (10-YEAR), WATER QUALITY COMPLIANCE FOR THIS PROJECT WAS DETERMINED AND USING THE VIRGINIA RUNOFF REDUCTION METHOD, VERSION 3.0, THE WATER QUALITY DESIGN INCLUDES RAINWATER HARVESTING, VEGETATED ROOF (LEVEL 1 DESIGN), AND PURCHASE OF NUTRIENT CREDITS FOR ANY REMAINING REDUCTION REQUIRED FOR WATER QUALITY COMPLIANCE.

N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-06 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSM) REGULATION SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF THIS SUBSECTION.

THE EROSION AND SEDIMENT CONTROL PLAN IS DESIGNED TO PREVENT SEDIMENT FROM LEAVING THE SITE. TOGETHER, THE STORMWATER MANAGEMENT PLAN, AND THE EROSION AND SEDIMENT CONTROL PLAN, ARE DESIGNED TO PROTECT DOWNSTREAM WATERWAYS.

VIRGINIA EROSION AND SEDIMENT CONTROL NOTES

- THESE NOTES COME FROM TABLE 6-1 ON PAGE VI-15 OF THE VIRGINIA DEQ 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 9VAC25-840 EROSION AND SEDIMENT CONTROL REGULATIONS.
- ES-2: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- ES-3: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- ES-4: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED IN THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREA), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-5: 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-6: 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-7: 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.

CONSTRUCTION SEQUENCE

1. INSTALL ALL PERIMETER EROSION CONTROLS.
2. INSTALL TEMPORARY SIDEWALK.
3. STRIP AND STOCKPILE TOPSOIL ON SITE. COORDINATE LOCATION OF STOCKPILE WITH THE OWNER.
4. DEMOLISH SITE FEATURES AS INDICATED ON C-101.
5. GRADE THE SITE.
6. SPREAD TOP SOIL ON UNPAVED DISTURBED AREAS, THEN SEED AND MULCH.
7. ONCE SITE ACHIEVES FINAL STABILIZATION, REMOVE ALL TEMPORARY EROSION CONTROLS.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- THE PURPOSE OF THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS SHALL BE TO PRECLUDE THE TRANSPORT OF ALL WATERBORN SEDIMENTS RESULTING FROM CONSTRUCTION ACTIVITIES FROM ENTERING ONTO ADJACENT PROPERTIES OR STATE WATERS. IF FIELD INSPECTION REVEALS THE INADEQUACY OF THE PLAN TO CONFINE SEDIMENT TO THE PROJECT SITE, APPROPRIATE MODIFICATIONS SHALL BE MADE TO CORRECT ANY PLAN DEFICIENCIES.
1. THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH ALL APPROVED PROCEDURES WHICH MAY BE PERTINENT TO THE PROJECT. MAINTENANCE WILL INCLUDE THE REPAIR OF MEASURES DAMAGED BY ANY SUBSEQUENT ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING MAINTENANCE OF INSTALLED MEASURES ON A DAILY BASIS PRIOR TO THE PRE-CONSTRUCTION MEETING.
2. SEDIMENT CONTROL DEVICES NOT LOCATED IN PROPOSED FILL OR EXCAVATION AREAS SHALL BE CONSTRUCTED PRIOR TO ALL OTHER LAND DISTURBANCE. A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE CITY OF ROANOKE OFFICE BETWEEN THE CITY OF ROANOKE AND THE CONTRACTOR TO IDENTIFY THOSE MEASURES TO BE INITIALLY INSTALLED.
3. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY REDIRECTING FLOWS FROM TRAVERSING THE SLOPES.
4. SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS AT THE TIME OF CONSTRUCTION TO INSURE THEIR INTENDED PURPOSE IS ACCOMPLISHED. CITY OF ROANOKE APPROVAL WILL BE REQUIRED FOR OTHER DEVIATION FROM THE APPROVED PLANS.
5. THE CONTRACTOR SHALL STRIP AND PILE TOPSOIL AT THE LOCATIONS INDICATED ON THE PLANS. SILT FENCE SHALL BE PLACED AT THE TOE OF THE STOCKPILE AFTER STRIPPING OF TOPSOIL IS COMPLETE.
6. THE CONTRACTOR SHALL COMPLETE DRAINAGE FACILITIES WITHIN 30 DAYS FOLLOWING COMPLETION OF ROUGH GRADING AT ANY POINT WITHIN THE PROJECT. THE INSTALLATION OF DRAINAGE FACILITIES SHALL TAKE PRECEDENCE OVER ALL UNDERGROUND UTILITIES. OUTFALL DITCHES FROM DRAINAGE STRUCTURES SHALL BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION OF SAME. THIS INCLUDES INSTALLATION OF EROSION CONTROL STONE WHERE REQUIRED.
7. TEMPORARY VEGETATIVE COVER SHALL BE PROVIDED IN ALL AREAS WHICH ARE NOT DESIGNATED FOR PAVING, UNDERGROUND UTILITIES OR STRUCTURAL USES. SUCH AREAS SHALL NOT BE EXPOSED FOR PERIODS EXCEEDING 7 DAYS. TEMPORARY VEGETATIVE COVER MAY BE ELIMINATED IN FAVOR OF FINAL VEGETATIVE COVER IF CONSTRUCTION AND SEASONAL CONDITIONS PERMIT.
8. ALL AREAS DESIGNATED FOR PAVING, UNDERGROUND UTILITIES, AND STRUCTURAL USE SHALL BE STABILIZED AS SOON AS POSSIBLE, BUT NOT EXCEEDING 15 DAYS FOLLOWING INSTALLATION. NO MORE THAN 50% OF UTILITY TRENCHES ARE TO BE OPEN AT ONE TIME.
9. THE TERM SEEDING, FINAL VEGETATIVE COVER OR STABILIZATION, ON THIS PLAN SHALL MEAN THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF A STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED CONTAINING THE SPECIFIED AMOUNTS OF SEED, FERTILIZER, AND FERTILIZER. IRON PIPES SHALL BE REQUIRED AS NECESSARY TO ENSURE ESTABLISHMENT OF GRASS COVER.
10. INLET PROTECTION SHALL BE PROVIDED FOR ALL STORM DRAIN INLETS AS SOON AS PRACTICAL FOLLOWING CONSTRUCTION OF SAME.
11. BASE COURSE MATERIAL SHALL BE PLACED IN ALL PAVED AREAS WITHIN 30 DAYS OF FINAL GRADING.
12. TEMPORARY EROSION CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEED.
13. SEED AND MUCH AND DRAIN TOPSOIL TO ALL DISTURBED AREAS THAT WILL NOT BE COVERED WITH PAVEMENT.
14. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH ALL APPLICABLE MEASURES CONTAINED THEREIN WHICH MAY BE PERTINENT TO THIS PROJECT. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AFTER COMPLETION OF THE PROJECT. MEASURES INDICATED ON THE PLANS SHALL BE REMOVED IMMEDIATELY AFTER COMPLETION OF THE PROJECT. THE INSPECTOR, CONTRACTOR SHALL FURNISH AND INSTALL ALL MEASURES REQUIRED TO COMPLY WITH APPLICABLE EROSION CONTROL MEASURES WHEN THE SITE HAS BEEN STABILIZED. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS THE FIRST STEP IN GRADING OPERATIONS. SEE THIS SHEET FOR ADDITIONAL EROSION CONTROL NOTES.

GENERAL CIVIL NOTES

1. BOTH THE VIRGINIA TECH UNIVERSITY BUILDING OFFICIAL AND THE CITY OF ROANOKE WILL REVIEW AND ISSUE PERMITS. THE REVIEW DEMARCATION BOUNDARY IS 5' OUTSIDE THE BUILDING. THE VIRGINIA TECH UNIVERSITY BUILDING OFFICIAL IS RESPONSIBLE FOR REVIEW OF WORK WITHIN THE DEMARCATION AND THE CITY OF ROANOKE IS RESPONSIBLE FOR REVIEW OF WORK OUTSIDE THE DEMARCATION.
2. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION AND SEQUENCING OF DEMOLITION AS DESCRIBED BY THESE DOCUMENTS AND SPECIFICATIONS.
3. DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VIRGINIA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION DESIGN STANDARDS.
4. ALL MATERIAL GENERATED BY THE DEMOLITION SHALL BE HAULED FROM THE SITE AND DISPOSED OF PER CITY OF ROANOKE REGULATIONS. PROVIDE AN EROSION AND SEDIMENT CONTROL PLAN FOR ANY OFF-SITE DISPOSAL AREAS.
5. ALL WORK SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AND OTHER CRITERIA ADOPTED BY THE CITY OF ROANOKE.
6. NO WORK SHALL COMMENCE ON SITE UNTIL A LAND DISTURBING PERMIT IS ISSUED BY CITY OF ROANOKE.
7. THE LAND DISTURBANCE PERMIT MUST BE KEPT ON SITE AT ALL TIMES AND SHOWN ON DEMAND.
8. THE CITY OF ROANOKE MUST BE NOTIFIED WHEN THE WORK COMMENCES AND WHEN THE WORK IS COMPLETE.
9. OTHER WORK (GRADING, EXCAVATING, CONSTRUCTION) ON THE PROJECT SHALL NOT COMMENCE UNTIL THE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AS SPECIFIED ON THE PLAN.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND LICENSES REQUIRED BY THE STATE OF VIRGINIA, CITY OF ROANOKE, OR OTHER GOVERNING AGENCIES INVOLVED UNDER THIS CONTRACT.
11. APPROPRIATE FENCING AND/OR BARRICADES SHALL BE USED WHEN DEMOLITION OCCURS NEAR PEDESTRIAN WALKWAYS.
12. DIMENSIONS AND COORDINATES SHOWN AT CURB ARE TO FACE OF CURB. SPOT ELEVATIONS SHOWN AT CURB INLETS ARE AT TOP OF INLETS. SPOT ELEVATIONS SHOWN ON DROP INLETS ARE AT TOP OF INLETS.
13. PROVIDE POSITIVE DRAINAGE AT ALL GRADED AREAS.
14. TOTAL DISTURBED AREA IS APPROXIMATELY 2.50 ACRES.
15. ANY WORK WITHIN CITY RIGHT-OF-WAY MUST BE PERFORMED PER THE CITY OF ROANOKE RIGHT OF WAY EXCAVATION AND RESTORATION STANDARDS.
16. PROVIDE FIELD-SURVEYED CORRECT SET OF AS-BUILT PLANS FOR NEWLY CONSTRUCTED AND MODIFIED STORM DRAINAGE. AS-BUILT PLANS MUST BE SEALED BY A LICENSED PROFESSIONAL REGISTERED IN THE STATE OF VIRGINIA. AS-BUILT PLANS MUST BE PROVIDED IN THE STATE PLANE VIRGINIA SOUTH COORDINATE SYSTEM, NAD 1983, FIPS 402 FEET, US SURVEY FEET, DATUM NA 83. ELECTRONIC COPIES OF AS-BUILT INFORMATION MUST BE PROVIDED IN AUTOCAD FORMAT.
17. THE BOUNDARY LINES ARE DRAWN FROM A PLAT RECORDED AT MAP BOOK 1 PAGE 3386 AT THE CITY OF ROANOKE TITLED 'RESUBDIVISION PLAT FOR CARLILION CLINIC PHYSICIANS, LLC' DATED AUGUST 28, 2008, BY CALDWELL WHITE ASSOCIATES. NO PROPERTY BOUNDARIES WERE SURVEYED AT THIS TIME BY AECOM.

WESTERN VIRGINIA WATER AUTHORITY (WVWA) NOTES

- THE FOLLOWING NOTES ARE APPLICABLE FOR ALL WATER AND SANITARY SEWER WORK.
- GENERAL NOTES**
1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST WVWA DESIGN AND CONSTRUCTION STANDARDS.
2. THE CONTRACTOR OR DEVELOPER IS REQUIRED TO NOTIFY THE WESTERN VIRGINIA WATER AUTHORITY IN WRITING AT LEAST (3) DAYS PRIOR TO ANY CONSTRUCTION. PLEASE CONTACT MARK SINK AT 537-3460.
3. ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE WESTERN VIRGINIA WATER AUTHORITY.
4. FIELD CORRECTIONS SHALL BE APPROVED BY THE WESTERN VIRGINIA WATER AUTHORITY PRIOR TO SUCH CONSTRUCTION.
5. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" CLEARANCE VERTICALLY AND MINIMUM OF 2' MINIMUM HORIZONTALLY FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE AT ALL WATER, SANITARY SEWER CROSSINGS OF ANY OTHER UTILITIES. WHERE THIS CANNOT BE ACHIEVED, ADDITIONAL MEASURES IN ACCORDANCE WITH WVWA STANDARDS SHALL BE ENFORCED.
6. ANY EXISTING APPURTENANCES SHALL BE ADJUSTED TO MATCH GRADE USING NEW FRAME AND COVERS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL EXISTING UTILITIES LOCATED AND PHOTOLOGED TO VERIFY LOCATIONS. PLAN REVIEW BY THE OWNER DOES NOT REMOVE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE ANY EXISTING CONFLICTS FOUND DURING CONSTRUCTION.
- SANITARY SEWER NOTES**
1. ALL SANITARY SEWER CONNECTIONS TO EXISTING LINES SHALL BE COORDINATED WITH AND PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.
2. ALL WATER AND SANITARY SEWER FACILITIES SHALL BE INSTALLED ACCORDING TO THE WESTERN VIRGINIA WATER AUTHORITY DESIGN AND CONSTRUCTION STANDARDS.
3. SANITARY SEWER TAP TO EXISTING MANHOLE TO BE MADE BY CONTRACTOR. MANHOLE CONNECTION MUST BE CORED WITH A BOOT INSTALLED.
4. PROVIDE A TABLE OF LATERAL ELEVATIONS AT SERVICE CLEANOUTS AND MINIMUM BUILDING SEWER ELEVATIONS.
- WATER NOTES**
1. WESTERN VIRGINIA WATER AVAILABILITY NUMBER: 18-049.
2. ALL WATER CONNECTIONS TO EXISTING LINES SHALL BE COORDINATED WITH AND PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.
3. ALL WATER AND SANITARY SEWER FACILITIES SHALL BE INSTALLED ACCORDING TO THE WESTERN VIRGINIA WATER AUTHORITY DESIGN AND CONSTRUCTION STANDARDS.
4. CONTRACTOR SHALL FURNISH AND INSTALL TAPPING SLEEVE AND VALVE. TAP WILL BE MADE BY THE WVWA. CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND SHORING PER OSHA REGULATIONS.
5. THE WATER SERVICE FOR THIS PROJECT WILL REQUIRE A CONCRETE VAULT. PLEASE CONTACT CLEAR FLOW AT (840) 842-3300 TO ORDER THE VAULT. THE APPLICANT IS RESPONSIBLE FOR PAYMENT, DELIVERY AND COORDINATION OF THE VAULT AND INSTALLATION OF THE WATER SERVICE BETWEEN THE AUTHORITY MAN AND THE VAULT. THE CONTRACTOR SHALL FURNISH AND INSTALL TAPPING SLEEVE AND VALVE. THE TAPPING SLEEVE AND VALVE. THE WET TAP WILL BE MADE BY THE AUTHORITY UPON PAYMENT AND SCHEDULING.

GENERAL UTILITY NOTES

1. A MINIMUM COVER OF THREE (3) FEET IS REQUIRED OVER PROPOSED LINES, UNLESS NOTED OTHERWISE.
2. UNLESS NOTED OTHERWISE, ALL UTILITIES ARE TO BE INSTALLED UNDERGROUND.
3. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AT HIS OWN INITIATIVE AND EXPENSE.
4. ALL EXISTING UTILITIES MAY OR MAY NOT BE SHOWN IN THEIR EXACT LOCATION. THE CONTRACTOR SHALL COMPLY WITH THE PROJECT SPECIFICATIONS AND THE WESTERN VIRGINIA WATER AUTHORITY REGULATIONS AND CONSTRUCTION GUIDELINES.
5. CONTRACTOR SHALL BE RESPONSIBLE TO IMMEDIATELY REPAIR ANY ACTIVE UTILITIES DAMAGED DURING CONSTRUCTION AND TO NOTIFY THE OWNER'S REPRESENTATIVE AND ANY APPROPRIATE UTILITY COMPANIES OF THE DAMAGE.
6. LENGTHS OF LINES INDICATED ON THE DRAWINGS FOR UTILITY SYSTEMS ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT AMOUNT OF PIPING REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS.
7. TOP OF INLETS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY EXACT ELEVATION REQUIRED TO ENSURE STRUCTURE HEIGHT COMPLEXES WITH THE PURPOSE OF THE STRUCTURE AND CONFORMS WITH ADJACENT FINISHED GRADES.
8. LINES SHALL BE STAKED PRIOR TO CONSTRUCTION.
9. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PROPOSED CONSTRUCTION AT LEAST TWO (2) BUT NOT MORE THAN (10) WORKING DAYS IN ADVANCE AND COORDINATE WITH THE UTILITY COMPANIES FOR SERVICE DISRUPTION AND OUTAGE REQUIREMENTS. AREA PUBLIC UTILITIES MAY BE NOTIFIED THROUGH MISS UTILITY. 1-800-552-7070.
10. THE CONTRACTOR SHALL SUPPLY ALL UTILITY COMPANIES WITH COPIES OF APPROVED PLANS ADVISING THEM THAT ALL GRADING AND INSTALLATION SHALL CONFORM TO APPROVED PLANS.
11. CONNECT PIPES TO EXISTING MANHOLES OR STRUCTURES BY CORE-DRILLING.
12. UNLESS NOTED OTHERWISE, TOPS OF EXISTING AND NEW UTILITY STRUCTURES SHALL BE SHOWN AT CURB INLETS ARE AT TOP OF INLETS. SPOT ELEVATIONS SHOWN ON DROP INLETS ARE AT TOP OF INLETS.

GENERAL SURVEY NOTES

1. THE BASE MAPPING SHOWN IS A COMBINATION OF A CURRENT FIELD TOPOGRAPHIC SURVEY AND EXISTING MAPS OF RECORD.
2. FIELD TOPOGRAPHIC SURVEY WAS PERFORMED BY AECOM IN JUNE 2017.
3. HORIZONTAL DATUM IS BASED ON VIRGINIA STATE PLANE (NAD83), SOUTH ZONE, IN US SURVEY FEET.
4. VERTICAL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83) IN US SURVEY FEET.
5. EXISTING BOUNDARY INFORMATION TAKEN FROM PLAT TITLED 'RESUBDIVISION PLAT FOR CARLILION CLINIC PHYSICIANS, LLC' BY CALDWELL WHITE ASSOCIATES, DATED AUGUST 28, 2008, AND RECORDED AT THE CITY OF ROANOKE IN MAP BOOK 1 PAGE 3386. NO PROPERTY CORNERS WERE FOUND OR SET BY AECOM FOR THIS PROJECT.
6. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF MARK A. LAWSON, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION. THAT THE MAPPING AND/OR ORIGINAL DATA WAS OBTAINED JUNE 2017, AND THAT THIS PLAT, MAP, OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

FLOOD NOTES

1. PROJECT SITE LIES IN H.U.D FLOOD HAZARD ZONE AE COMMUNITY PANEL NO. 51161C0184G, AND EXISTING MAPS OF RECORD. THE 100-YEAR FLOODPLAIN ELEVATION AT THE PROJECT SITE IS 934.44 FEET.
2. THE BUILDING FINISH FLOOR ELEVATION AND THE ELEVATION OF GENERATOR AND TRANSFORMER PAD IS SET AT LEAST TWO FEET ABOVE THE 100-YEAR FLOOD PLAIN ELEVATION.

LEGEND

- NEW**
- CONCRETE CURB
- CONCRETE CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK, CONCRETE PAD
- GRAVEL
- SIGN
- STORM DRAIN
- WATER MAIN
- GAS MAIN
- SANITARY MAN
- ELECTRICAL DUCTBANK
- TELECOMMUNICATIONS DUCTBANK
- SANITARY MANHOLE
- CLEANOUT
- STORM DRAIN MANHOLE
- CURB INLET
- PROF INLET
- PVC DRAIN BASIN, GRATE COVER
- PVC DRAIN BASIN, SOLID COVER
- GAS VALVE
- GAS METER
- POST INDICATOR VALVE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER VALVE
- UTILITY POLE
- GUY
- UTILITY POLE, GUY & ANCHOR
- LIGHT POLE
- SPOT ELEVATIONS
- ELEVATION CONTROL
- DEMOLITION AND REMOVAL
- SURFACE DEMOLITION AND REMOVAL
- EXISTING**
- CONCRETE CURB
- CONCRETE CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE SIDEWALK, CONCRETE PAD
- GRAVEL
- SIGN
- STORM DRAIN
- WATER MAIN
- GAS MAIN
- SANITARY MAN
- ELECTRICAL DUCTBANK
- TELECOMMUNICATIONS DUCTBANK
- SANITARY MANHOLE
- CLEANOUT
- STORM DRAIN MANHOLE
- CURB INLET
- PROF INLET
- PVC DRAIN BASIN, GRATE COVER
- PVC DRAIN BASIN, SOLID COVER
- GAS VALVE
- GAS METER
- POST INDICATOR VALVE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
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- UTILITY POLE, GUY & ANCHOR
- LIGHT POLE
- SPOT ELEVATIONS
- ELEVATION CONTROL
- DEMOLITION AND REMOVAL
- SURFACE DEMOLITION AND REMOVAL

AECOM

PROJECT

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05/06/18
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ISSUE/REVISION

NO.	DATE	DESCRIPTION
4	03/08/2018	CITY CP SUBMISSION
3	02/09/2018	SH-02 REVISED FOUNDATION
2	01/19/2018	CITY CP SUBMISSION
1	12/04/2017	FOR PRESUBMISSION MEETING
0	12/01/2017	FOUNDATION SUBMISSION

KEY PLAN

PROJECT NUMBER

80544603

SHEET TITLE

CIVIL NOTES
AND LEGEND

SHEET NUMBER

C-001