EROSION AND SEDIMENT CONTROL NARRATIVE

DESCRIPTION OF SITE
THE PURPOSE OF THIS PROJECT IS THE CONSTRUCTION OF A WALMART SUPERCENTER COMMERCIAL SITE. THE 20.65 ACRE SITE IS LOCATED ON COMPASS CREEK PARKWAY, AS PART OF THE CROSSTRAIL DEVELOPMENT PROJECT. APPROXIMATELY 21.05 ACRES WILL BE DISTURBED DURING DEVELOPMENT OF THIS SITE.

EXISTING SITE CONDITIONS
THE SITE GENERALLY SLOPES EAST TO WEST TOWARD COMPASS CREEK PARKWAY. THE MAJORITY OF THE SITE WILL BE ROUGH GRADED AND PERMANENTLY STABILIZED AT THE TIME OF CONSTRUCTION.

CRITICAL AREAS
THERE ARE NO WETLANDS IMPACTS WITH THIS PLAN. THERE ARE NO EXISTING WETLANDS AREAS ON THE WALMART PARCEL.

ADJACENT PROPERTY
THE PROPERTY EAST OF THE SITE IS THE LEESBURG EXECUTIVE AIRPORT. AREAS TO THE NORTH AND SOUTH ARE PARCELS OF THE CROSSTRAIL COMMERCIAL CENTER WHICH WILL BE DEVELOPED IN THE FUTURE. THE AREA WEST OF THE SITE IS BORDERED BY COMPASS CREEK PARKWAY. CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT LEAVE THIS SITE UNTREATED. SEE SHEET SW-1 FOR STORMWATER MANAGEMENT/OUTFALL NARRATIVE AND BMP NARRATIVE.

OFFSITE AREAS
TOPSOIL MUST BE STRIPPED FROM GRADED AREAS AND STOCKPILED FOR USE IN FINAL GRADING AND PERMANENT STABILIZATION. THE STOCKPILE SHALL BE STABILIZED WITH TEMPORARY VEGETATION TO PREVENT SOIL LOSS AND SEDIMENT TRANSPORT FROM THE STOCKPILE ITSELF UNTIL NEEDED. CONTRACTOR TO UTILIZE ANY OFFSITE HAUL AND/OR BORROW FROM A LOCATION APPROVED BY LOUDOUN COUNTY.

SOILS
THE PROJECT SITE CONTAINS CLASS I,II, & IV SOILS PER THE LATEST COUNTY SOILS MAP AND AS IDENTIFIED BY THE "INTERPRETIVE GUIDE TO SOILS MAPS, LOUDOUN COUNTY, VIRGINIA. THE SOILS MAP CAN BE SEEN ON THE E+S DETAILS SHEET.

EROSION CONTROL PROGRAM
ALL SEDIMENT CONTROL MEASURES ARE PLACED TO MINIMIZE SEDIMENT RUNOFF. THE SITE DRAINS TO TWO PROPOSED SEDIMENT BASINS LOCATED ON THE ON THE NORTHWESTER AND SOUTHWESTERN CORNERS OF THE PROPERTY. EROSION CONTROL SHALL BE MAXIMIZED THROUGH RAPID STABILIZATION OF THE DISTURBED AREAS AND BY DIVERTING CLEAN WATER AND EROSIVE FLOWS AROUND OR THROUGH DISTURBED AREAS IN A NON-EROSIVE MANNER. NOT MORE THAN 7 CALENDAR DAYS ARE TO ELAPSE WITH ANY DISTURBED AREA REMAINING DENUDED. TEMPORARY COVER, BY SEEDING AND/OR MULCHING, SHALL BE APPLIED TO AREAS THAT WILL BE EXPOSED FOR A PERIOD OF GREATER THAN 7 DAYS, BEFORE PERMANENT STABILIZATION. PERMANENT COVER SHOULD BE PROVIDED OVER ALL DISTURBED AREAS AS SOON AS POSSIBLE UPON ACHIEVING FINAL GRADE, BY MEANS OF SEEDING AND MULCHING, SODDING AND PEGGING, PAVING, OR AS OTHERWISE DIRECTED BY THE PLAN. LIKEWISE, ALL STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF ACHIEVING FINAL GRADES. UTILITY TRENCHES SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS AFTER BACKFILLING TO THE PROPOSED GRADE. ALL TEMPORARY DIVERSION DIKES SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER CONSTRUCTION.

SEDIMENT CONTROL PROGRAM
SEDIMENT CONTROL SHALL BE ACCOMPLISHED THROUGH RAPID STABILIZATION AND BY THE INSTALLATION OF MECHANICAL DEVICES, AS SHOWN ON THE PHASE I PLAN.

STRUCTURAL PRACTICES
1. TEMPORARY STONE CONSTRUCTION ENTRANCE (CE) - 3.02
   TEMPORARY CONSTRUCTION ENTRANCES WITH WASH RACKS AND SETTLING AREAS ARE TO BE PROVIDED AT EACH POINT OF ACCESS TO THE SITE FOR THE DURATION OF CONSTRUCTION. THE CONTRACTOR IS TO SUPPLY A WATER SOURCE BY PROVIDING A WATER TRUCK/WATER TANK ONSITE FOR WASHING CONSTRUCTION VEHICLES BEFORE ENTERING THE PUBLIC ROAD.
2. SILT FENCE (SF) - 3.05
   A FILTER FABRIC FENCE INSTALLED AS A PERIMETER CONTROL USED TO PREVENT SEDIMENT LADEN RUN-OFF FROM LEAVING THE SITE UNTREATED.
3. SUPER SILT FENCE - N/A
   REINFORCED SILT FENCE TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PRESENT SEDIMENT FROM LEAVING THE SITE.
4. STORM DRAIN INLET PROTECTION (IP) - 3.07
   ALL EXISTING INLETS ARE TO BE SURROUNDED BY A SEDIMENT FILTERING DEVICE AS DEPICTED ON THE DETAIL PROVIDED.
5. TEMPORARY DIVERSION DIKE (DD) - 3.09
   DIVERSION DIKES CONSISTING OF A COMPACTED SOIL RIDGE SHALL BE CONSTRUCTED AS INDICATED ON THE PLAN TO DIVERT UPSTREAM SEDIMENT-LADEN RUNOFF TO THE ASSOCIATED SEDIMENT-TRAPPING DEVICE. MAXIMUM EFFECTIVE LIFE IS 18 MONTHS.
6. TEMPORARY RIGHT-OF-WAY DIVERSION - 3.11
   A RIDGE OF COMPACTED SOIL OR LOOSE ROCK OR GRAVEL CONSTRUCTED ACROSS DISTURBED RIGHTS-OF-WAY AND SIMILAR SLOPING AREAS.
7. OUTLET PROTECTION (OP) - 3.18
   RIPRAP, SIZED AS INDICATED WITHIN THE PLAN AND DETAILS SHEETS, IS TO BE PLACED AT THE END OF EACH SEDIMENT BASIN AND TRAP OUTFALL PIPE
8. SEDIMENT BASIN (SB) - 3.14
   SEDIMENT BASINS ARE TO BE SIZED AND LOCATED AS INDICATED WITHIN THE PLAN AND DETAILS SHEETS
9. TEMPORARY SEEDING - 3.31
   ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER BY SEEDING WITH APPROPRIATE RAPIDLY GROWING PLANTS ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR PERIODS OF 30 DAYS TO ONE YEAR.
10. PERMANENT SEEDING - 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.
11. SODDING - 3.33
    STABILIZING FINE-GRADED DISTURBED AREAS BY ESTABLISHING PERMANENT GRASS STANDS WITH SOD.
12. MULCHING - 3.35
    APPLICATION OF PLAN RESIDUES OR OTHER SUITABLE TO THE SOIL SURFACE.
13. DUST CONTROL - 3.39
    DUST CONTROL WILL BE PROVIDED IF NECESSARY TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS, OR HARM ANIMAL OR PLANT LIFE.

VEGETATIVE PRACTICES
1. SURFACE ROUGHENING - AREAS TO BE SEEDED SHALL BE LIGHTLY ROUGHENED AND LOOSE TO A DEPTH OF 2" TO 4" PRIOR TO SEEDING. AREAS WHICH HAVE BEEN GRADED AND WILL NOT BE STABILIZED IMMEDIATELY MAY BE ROUGHENED TO REDUCE VELOCITY UNTIL SEEDING TAKES PLACE.
2. TOPSOILING (STOCKPILES) - TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE ARE TO BE LOCATED ON-SITE IN OPEN SPACE AREAS, AS DEPICTED ON THE PLAN, ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. AND ARE TO BE SURROUNDED AT THE BASE BY SUPER SILT FENCE.
3. TEMPORARY SEEDING - ALL DENUDED AREAS THAT WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR THAT IT IS APPLIED.
4. EROSION CONTROL BLANKETS OR MULCH - EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN THE SEEDING OPERATION.

ALL SILTATION CONTROL MEASURES ARE INTENDED TO PREVENT SEDIMENT FROM ENCROACHING INTO ENVIRONMENTALLY SENSITIVE AREAS OR ONTO ADJACENT PROPERTIES AND ROADWAYS. THE LOUDOUN COUNTY INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS IN THE FIELD AS SITE CONDITIONS WARRANT. IN ADDITION, NO SEDIMENT TRAPS OR SEDIMENT BASINS MAY BE REMOVED WITHOUT THE PRIOR APPROVAL OF THE COUNTY INSPECTOR. SEDIMENT CONTROL MEASURES INCLUDED ON THE PLAN ARE LISTED BELOW:

EROSION AND SEDIMENT CONTROL MEASURES:
1. SAFETY FENCE
2. TEMPORARY STONE CONSTRUCTION ENTRANCE
3. SILT FENCE
4. STORM DRAIN INLET PROTECTION
5. TEMPORARY DIVERSION DIKE
6. TEMPORARY SEDIMENT BASIN
7. OUTLET PROTECTION
8. TEMPORARY SEEDING
9. PERMANENT SEEDING
10. SODDDING
11. MULCHING

THE LOUDOUN COUNTY INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT TRAPS OR SEDIMENT BASINS. EROSION AND SEDIMENT CONTROL MEASURES MAY NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

UNLESS OTHERWISE NOTED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE MINIMUM STANDARDS OF VESCH SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

PHASING OF LAND DISTURBING ACTIVITIES
AS REQUIRED, SEDIMENT CONTROL IS PROVIDED THROUGH A TWO-PHASED APPROACH.

PERMANENT STABILIZATION
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISHED GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES, WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED. THIS WILL PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

STREAM BANK STABILIZATION
STREAM BANK STABILIZATION IS NOT REQUIRED FOR THIS SITE.

STORMWATER MANAGEMENT/BMP
EXISTING STORMWATER MANAGEMENT IS PROVIDED THROUGH AN OFFSITE SWM FACILITY. SEE SHEET SW-1 FOR STORMWATER MANAGEMENT/OUTFALL NARRATIVE AND BMP NARRATIVE.

MAINTENANCE PROGRAM
IN GENERAL ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL EVENT. THE FOLLOWING MEASURES WILL BE CHECKED IN PARTICULAR.

CONSTRUCTION ENTRANCES: INSPECTIONS SHALL BE MADE DAILY FOR ENTRANCE INTEGRITY; REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. THE CONSTRUCTION ENTRANCE IS TO BE REGULARLY MAINTAINED TO INCLUDE SCARIFICATION AND ADDITION OF FRESH STONE AS NEEDED.

SUPER SILT FENCE: INSPECTIONS SHALL BE MADE DAILY FOR FENCE INTEGRITY; REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT IS TO BE REMOVED WHEN DEPOSITS REACH ONE-HALF THE FENCE HEIGHT.

DIVERSION DIKES: DIKES SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL; REPAIR AS NEEDED.

INLET AND CULVERT PROTECTION: INLETS AND CULVERTS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AS NEEDED.

OUTLET PROTECTION: STORM DRAIN OUTLETS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AND DEBRIS AS NEEDED.

TEMPORARY SEDIMENT BASIN: THE BASIN EMBANKMENT SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT IS STRUCTURALLY SOUNDS AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE BASIN SHOULD BE CHECKED AFTER EACH RUNOFF-PRODUCING RAINFALL FOR SEDIMENT CLEANOUT. WHEN THE SEDIMENT REACHES THE CLEAN-OUT LEVEL, IT SHALL BE REMOVED AND PROPERLY DISPOSED OF.

TREE PROTECTION: INSPECTIONS SHALL BE MADE DAILY FOR FENCE INTEGRITY; REQUIRED REPAIR SHALL BE MADE IMMEDIATELY.

PERMANENT SEEDING: SEEDED AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHALL BE RE-SEEDED AS SOON AS THEY ARE IDENTIFIED.

MULCHING: ALL MULCHED AREAS SHALL BE INSPECTED PERIODICALLY, PARTICULARLY AFTER RAIN STORMS, TO CHECK FOR RILL EROSION; REPAIR AS NEEDED.

NO UNPROTECTED, DISTURBED AREA SHALL DRAIN TO ROADWAY PAVEMENTS SUCH THAT THE SUB BASE, BASE, OR WEARING SURFACE ARE CONTAMINATED BY SILT TRAPPED AT LOW POINTS OR INLETS.

DEVICES SHOWN ARE TO BE CONSIDERED AS MINIMUM EROSION AND SEDIMENTATION CONTROLS. ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO CONTRACTOR'S PHASING OR OTHER UNANTICIPATED CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES AS NECESSARY IN ORDER TO CONTROL EROSION AND SEDIMENTATION. EROSION AND SEDIMENTATION MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION. THE CONTRACTOR IS TO PROVIDE ADEQUATE MEANS OF CLEANING AND REMOVING ALL LAYING DUST AS NECESSARY BY APPLYING EITHER MOISTURE, CALCIUM CHLORIDE, OR OTHER APPROVED MATERIALS ALONG THOSE SECTIONS OF THE PROJECT ADJACENT TO EXISTING DWELLINGS OR PUBLIC ACCESS. CONTROLS MAY BE REMOVED AFTER THE AREAS ABOVE THEM HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE COUNTY INSPECTOR.

SPECIAL CARE NOTES
IT IS THE INTENT OF THIS PLAN TO PRECLUDE SEDIMENT POLLUTION FROM LEAVING THE DELINEATED CONSTRUCTION ZONES. THE CONTRACTOR AND THE RESPONSIBLE LAND DISTURBER SHALL TAKE SPECIAL CARE TO PREVENT CONSTRUCTION DEBRIS AND MUD FROM BEING TRACKED ONTO SURROUNDING PUBLIC AND PRIVATE ROADS. CONSTRUCTION TRAFFIC SHALL ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA DESIGNATED LOCATIONS, WHICH HAVE WORKING CONSTRUCTION TRAFFIC WASH RACKS. THE CONTRACTOR AND RESPONSIBLE LAND DISTURBER SHALL TAKE SPECIAL CARE TO PROTECT THE EXISTING VEGETATION AND STREAMS OUTSIDE OF THE DESIGNATED LIMITS OF WORK SHOWN ON THE PLANS.

DURING CONSTRUCTION, DEBRIS WILL BE KEPT OFF THE AIRPORT PROPERTY.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

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, THIRD EDITION, 1992.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GRADING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLANS SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
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 TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
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.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE
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.
10. CONTRACTOR MUST CONTACT THE COUNTY ARBORIST PRIOR TO THE INSTALLATION OF TREE PROTECTION AND PLANT MATERIAL.
11. ALL AREAS TO BE PAVED MAY BE STABILIZED BY INSTALLATION OF BASE AND SUB BASE MATERIALS INSTEAD OF TEMPORARY VEGETATION COVER.
12. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING THE PUBLIC RIGHT-OF-WAY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAR THE STREETS AND TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN AND DUST-FREE CONDITION AT ALL TIMES.
13. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE WORK IN SUCH A MANNER AS TO PREVENT THE WASHING OF ANY TOPSOIL OR DEBRIS ONTO ADJACENT PROPERTIES.

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 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 OFFSITE PROPERTY.
D. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RE-STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

GENERAL LAND CONSERVATION & STABILIZATION NOTES:

1. NO DISTURBED AREA WHICH IS NOT ACTIVELY BEING WORKED SHALL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR.
2. ALL E&S CONTROL MEASURES APPROVED WITH THE PHASE I E&S CONTROL PLAN SHALL BE PLACED AS THE FIRST STEP IN GRADING.
3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS AFTER BACKFILL. NO MORE THAN 500' SHALL BE OPEN AT ANY ONE TIME.
4. ELECTRIC, TELEPHONE AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND MULCHED WITHIN 7 DAYS AFTER BACKFILL
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS SHALL BE SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY (AS SOON AS POSSIBLE, BUT NOT LATER THAN 48 HORS) AFTER COMPLETION OF GRADING. STRAW OR HAY MULCH IS REQUIRED. ALL SOIL STOCKPILES SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS AFTER GRADING.
6. DURING CONSTRUCTION, ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS, MAINTAINED AND MODIFIED DURING CONSTRUCTION PROGRESS AS REQUIRED.
7. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE (4483 KG/HA) AND OVER-SEEDED BY APRIL 15.
8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.
9. CONTRACTOR TO PROVIDE DOCUMENTATION SHOWING SOURCE OF OFF-SITE FILL AND TESTING RESULTS TO GEOTECHNICAL ENGINEER TO DOCUMENT CAPABILITY OF FILL TO MEET COMPACTION REQUIREMENTS.

MINIMUM STANDARDS

MS-1: PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2: TEMPORARY SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. PROVIDE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL TRANSPORTED FROM THE PROJECT SITE.

MS-3: 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 IN THE OPINION OF THE ARCHITECT/ENGINEER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4: 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 UPSLOPE LAND DISTURBANCE OR TIMBERING TAKES PLACE.

MS-5: STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6: SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

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.

B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A 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: CUT AND FILL SLOPES SHALL BE 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.

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, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED

MS-10: 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.

MS-11: BEFORE STORM WATER CONVEYANCE CHANNELS 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.

MS-12: 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.

MS-13: WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIALS SHALL BE PROVIDED.

MS-14: ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15: THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY FOLLOWING AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16: UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE OPENED AT ONE TIME.

B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

C. 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 OFFSITE PROPERTY.

D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS

E. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS-17: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD 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 SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

MS-18: 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 AUTHORITY HAVING JURISDICTION. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED 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 POINTS 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 TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED BANKS.

(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 BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

(C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR 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 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, HE 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 DISSIPATERS 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 SEDIMENT ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

J. IN APPLYING THESE STORMWATER MANAGEMENT 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.

MINIMIZATION OF DISTURBED AREAS

1. CONTRACTOR SHALL MANAGE CONSTRUCTION ACTIVITIES TO REDUCE EROSION AND RETAIN SEDIMENT AND OTHER POLLUTANTS IN THE SOIL AT THE CONSTRUCTION SITE.
2. CONTRACTOR SHALL MINIMIZE THE TIME BARE SOIL IS EXPOSED.
3. CONTRACTOR SHALL MINIMIZE SITE DISTURBANCE BY MINIMIZING THE EXTENT OF GRADING AND CLEARING TO EFFECTIVELY REDUCE SEDIMENT YIELD.

NOTE TO GC: OWNER HAS AUTHORITY AT ANY TIMES TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND TO DIRECT THE GC TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES.

DEVELOPER/OWNER:
WAL-MART REAL ESTATE BUSINESS TRUST
MAIL STOP 5570
2001 SE 10TH STREET
BENTONVILLE, AR
72716-5570
479-204-3314

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

IMPORTANT: GC MUST SIGN ALL PLAN SHEETS AND ANY NEW PLAN SHEETS ISSUED BY THE CEC.

EROSION AND SEDIMENT CONTROL NARRATIVE

REVISIONS	BY
1 REVISED PER COUNTY AND TOWN COMMENTS	Z
2 REVISED PER COUNTY AND TOWN COMMENTS	G
3 REVISED PER COUNTY AND TOWN COMMENTS	GRP

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE IN VIRGINIA, MARYLAND, THE DISTRICT OF COLUMBIA, NORTH CAROLINA AND DELAWARE CALL - 811
(WV 1-800-245-4848) (PA 1-800-242-1776) (DC 1-800-257-7777) (VA 1-800-552-7001) (MD 1-800-257-7777) (DE 1-800-282-8555)

BOHLER ENGINEERING
22636 DAVIS DRIVE, SUITE 250
STERLING, VIRGINIA 20164
Phone: (703) 709-9500
Fax: (703) 709-9501
VA@BohlerEng.com

EROSION AND SEDIMENT CONTROL NARRATIVE
WALMART SUPERCENTER #1904-005 - SPAM #1
CATOCTIN ELECTION DISTRICT
LEESBURG, LOUDOUN COUNTY, VA

WAL-MART STORES, INC.
BENTONVILLE, AR

Walmart

DRAWN	GRP
CHECKED	MJB
DATE	12/22/16
SCALE	N/A
JOB No.	S148000
SHEET	SW-10

SHEET 44 OF 103

Order Plans @ WWW.DIILine.com