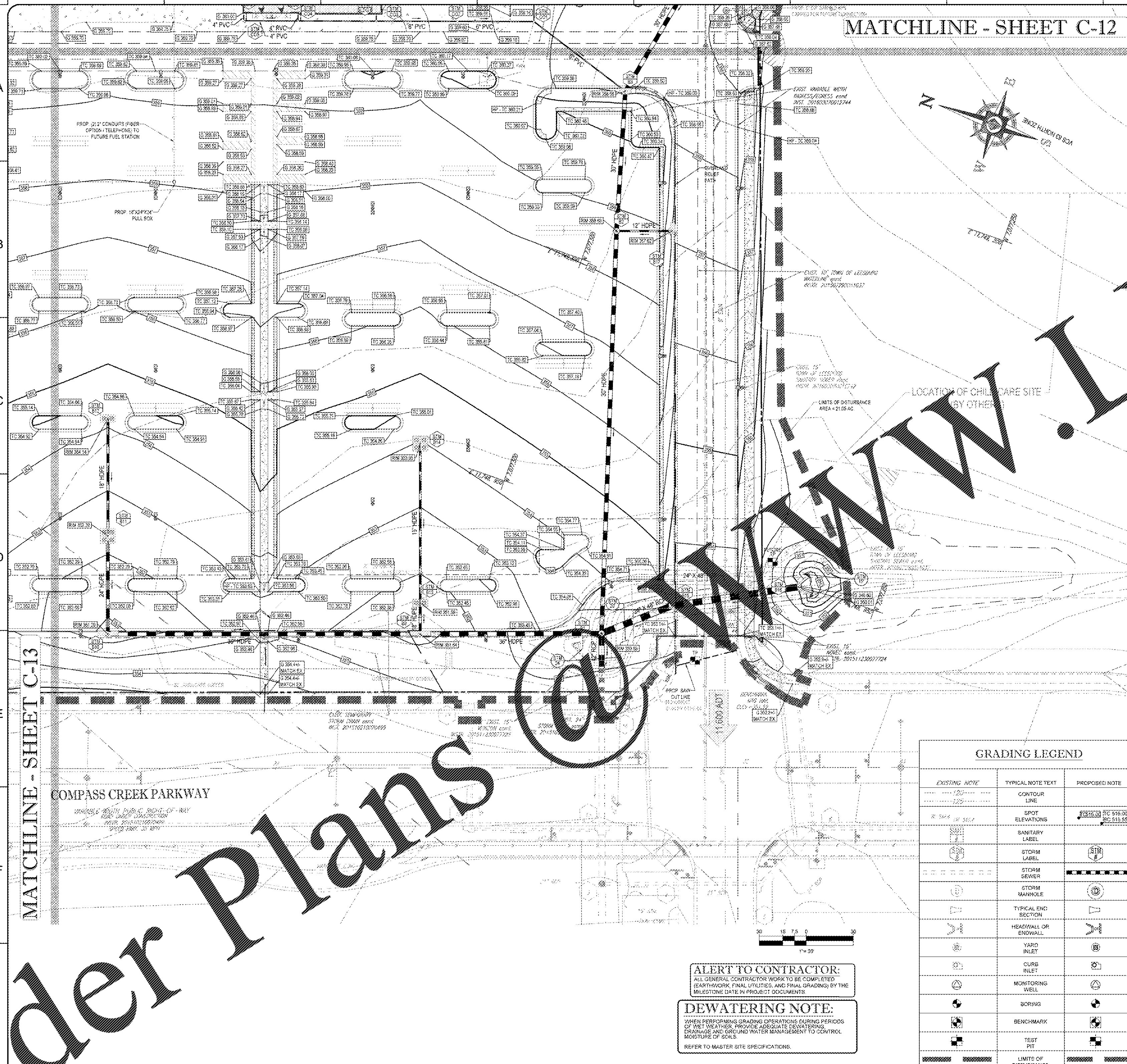

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GRADING NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
3. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
4. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
5. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED: HDPE
6. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
7. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1'.
8. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1' INTER[illegible]
9. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTIO[illegible] ALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING ST[illegible] AS NECESS[illegible] TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
10. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO A[illegible] CONNECTIO[illegible] STRUCTURE [illegible] WATERTIGHT.
11. ALL STORM SEWER MANHOLES [illegible]ED AREAS SHALL BE FLUSH WITH P[illegible]ENT, AND S[illegible] AVE TRAFFIC BEARING RING & COVERS. [illegible] UNPAVED AREAS SHALL BE 6" ABO[illegible]NISH GRADE [illegible] HALL BE LABELED "STORM SEWER".
12. THE CONTRACTO[illegible] HALL ADHERE T[illegible] ERMS & CONDITIONS AS OUTLINED [illegible] EPA OR APPLICABLE STATE GENE[illegible] E.S. PERMIT FO[illegible] M WATER DISCHARGE ASSOCIATE[illegible] H CONSTRUCTION ACTIVITIES AND [illegible] PECIAL CONDITIO[illegible] CTION 8, ENVIRONMENTAL COMPLIANCE AND STORM WATER POLLUTION PREVE[illegible]
13. CONTRACTOR SHALL [illegible] ST AND/OR CUT E[illegible] G PAVEMENT AS [illegible] ESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GR[illegible]
14. [illegible] SHALL ASS[illegible] OSITIVE DRAINA[illegible] M BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
15. TOPOGRA[illegible] ORMATION [illegible] EN FROM A T[illegible] OGRAPHIC SURVEY BY LAND SURVEYORS. IF THE CONTRACTO[illegible] S NOT ACC[illegible] STING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CO[illegible] TOR SHALL [illegible] THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEY[illegible] THE OWNER [illegible] VIEW.
16. ALL UNSURFAC[illegible] REAS DIST[illegible] BED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR [illegible] L APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DIST[illegible] ED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATIO[illegible] S OBTAINED.
17. CONSTRUC[illegible] N SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
18. [illegible] M STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO [illegible] T OUT.
19. THIS PLAN IS BASED UPON A GEOTECHNICAL REPORT PREPARED BY ECS , ENTITLED "FINAL REPORT OF SUBSURFACE EXPLORATION, LABORATORY TESTING, AND GEOTECHNICAL ENGINEERING ANALYSES,WAL-MART SUPERCENTER #1904-05, LEESBURG, LOUDOUN COUNTY, VIRGINIA" (PROJECT NO. 01:21314-A) DATED JUNE 11,2014, REVISED MARCH 19,2015.
20. CONTRACTOR TO ADJUST ANY EXISTING STRUCTURES TO PROPOSED GRADE IN ANY AREA OF PROPOSED GRADING.
21. EXISTING TEMPORARY STORM DRAIN EASEMENT INSTR. #201510210070499 SHALL BE VACATED UPON INSTALLATION OF ALL PERMANENT STORM SEWER STRUCTURES AND PIPES.
22. CONTRACTOR MUST REFER TO ARCHITECTURAL DRAWINGS FOR TRUCK WELL SCREEN WALL HEIGHTS.

FOUNDATION SUBSURFACE PREPARTION

Wal-Mart Supercenter #1904-05, Leesburg, Loudoun County, Virginia
June 10, 2014

UNLESS SPECIFICALLY INDICATED OTHERWISE IN THE DRAWINGS AND/OR SPECIFICATIONS, THE LIMITS OF THIS SUBSURFACE PREPARATION ARE CONSIDERED TO BE THAT PORTION OF THE SITE DIRECTLY BENEATH AND 10 FEET BEYOND THE BUILDING AND APPURTENANCES. WHEN THE BUILDING OR APPURTENANCES ARE LOCATED WITHIN A DISTANCE BEHIND AN ESCARPMENT CREATED BY PLACING FILL OR CONSTRUCTING A RETAINING WALL EQUAL TO THE HEIGHT OF THE ESCARPMENT, THE LIMITS OF THE BUILDING PAD SHALL BE INCREASED BY THE HEIGHT OF THE ESCARPMENT.

APPURTENANCES ARE THOSE ITEMS ATTACHED TO THE BUILDING PROPER (REFER TO DRAWING SHEET SP1), TYPICALLY INCLUDING, BUT NOT LIMITED TO, THE BUILDING SIDEWALKS, GARDEN CENTER, PORCHES, RAMPS, STOOPS, TRUCK WELLS/DOCKS, CONCRETE APRONS AT THE AUTOMOTIVE CENTER, COMPACTOR PAD, ETC. THE BASE AND THE VAPOR BARRIER, WHERE REQUIRED, DO NOT EXTEND BEYOND THE LIMITS OF THE ACTUAL BUILDING AND THE APPURTENANCES.

ESTABLISH THE FINAL SUBGRADE ELEVATION TO ALLOW FOR THE CONCRETE SLAB, BASE, AND SUBBASE (IF SUBBASE IS REQUIRED BELOW). REFERENCE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR REQUIRED SLAB THICKNESS. THE 4-INCH THICK BASE MATERIAL SHALL CONFORM TO VDOT AGGREGATE BASE MATERIAL TYPE I, SIZE 21-B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ACCURATE MEASUREMENTS FOR ALL CUT AND FILL DEPTHS REQUIRED. ANY PROPOSED EQUIVALENT ALTERNATIVE BASE OR SUBBASE MATERIAL MUST BE SUBMITTED FOR APPROVAL WITHIN 30 DAYS AFTER AWARD OF CONTRACT. ANY EQUIVALENT ALTERNATIVE SHALL ONLY BE USED IF APPROVED IN WRITING BY THE CEC AND AOR.

EXISTING DRAINAGE FLOWS SHALL BE DIVERTED AND THEIR CHANNELS CLEANED OUT AND BACKFILLED WITH PROPERLY PLACED AND COMPACTED STRUCTURAL FILL.

EXISTING FOUNDATIONS, SLABS, PAVEMENTS, AND BELOW-GRADE STRUCTURES SHALL BE REMOVED FROM THE BUILDING AREA. REMOVE SURFACE VEGETATIONS, TOPSOIL, ROOT SYSTEMS, ORGANIC MATERIAL, EXISTING FILL, AND SOFT OR OTHERWISE UNSUITABLE MATERIAL FROM THE BUILDING AREA. PROOFROLL EXPOSED SUBGRADE. REMOVE AND REPLACE UNSUITABLE AREAS WITH SUITABLE MATERIAL.

WHERE HIGH PLASTICITY SOILS ARE ENCOUNTERED AT DESIGN SUBGRADE ELEVATIONS IN SLAB AND PAVEMENT AREAS, THE SUBGRADE SHALL BE UNDERCUT 2 FEET AND GRADES RESTORED WITH APPROVED STRUCTURAL FILL. WHERE HIGH PLASTICITY SOILS ARE ENCOUNTERED AT FOUNDATION BEARING ELEVATIONS, THE FOUNDATION EXCAVATION SHALL BE UNDERCUT TO A DEPTH OF 5 FEET BELOW FINISHED GRADE OR THROUGH THE HIGH PLASTICITY SOILS, WHICHEVER IS SHALLOWER. THE DESIGN ELEVATION SHALL BE RESTORED BY BACKFILLING THE EXCAVATION WITH FLOWABLE FILL HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 300 PSI.

SUBGRADE WITHIN THE EXPANDED BUILDING LIMITS SHALL BE MOISTURE CONDITIONED TO WITHIN 2 PERCENTAGE POINTS OF THE SOIL'S OPTIMUM MOISTURE CONTENT AND SHALL BE COMPACTED WITH SUITABLE EQUIPMENT TO A DEPTH OF 10 INCHES. SUBGRADE COMPACTION WITHIN THE EXPANDED BUILDING LIMITS SHALL BE TO A DRY DENSITY OF AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).

ON SITE BORROW MATERIALS SATISFACTORY FOR USE IN STRUCTURAL FILLS SHALL CONSIST OF INORGANIC SOILS CLASSIFIED AS CL, ML, SM, SC, SW, SP, GW, GP, GM AND GC, OR A COMBINATION OF THESE GROUP SYMBOLS, PER ASTM D 2487. ON SITE BORROW MATERIAL SHALL BE FREE OF ORGANIC MATTER AND DEBRIS, SHALL CONTAIN NO PARTICLE SIZES 2 INCHES OR GREATER IN THE LARGEST DIMENSION WITHIN THE TOP 24 INCHES OF DESIGN SUBGRADE OR 4 INCHES BELOW THIS LEVEL, AND SHALL MEET THE FOLLOWING REQUIREMENTS:

LOCATION WITH RESPECT TO FINAL GRADE	P.I.	L.L.
BUILDING AREA, BELOW UPPER 4 FEET	<20 MAX.>	<45 MAX.>
BUILDING AREA, UPPER 4 FEET	<12 MAX.>	<40 MAX.>

IMPORTED MATERIALS SATISFACTORY FOR USE IN STRUCTURAL FILLS SHALL CONSIST OF INORGANIC SOILS CLASSIFIED AS CL, SM, SC, SW, SP, GW, GP, GM AND GC, OR A COMBINATION OF THESE GROUP SYMBOLS, PER ASTM D 2487. IMPORTED STRUCTURAL FILL SHALL HAVE A MAXIMUM LIQUID LIMIT OF 40 AND MAXIMUM PLASTICITY INDEX OF 12 AND SHALL POSSESS A MINIMUM CBR VALUE OF 8.1. IMPORTED STRUCTURAL FILL SHALL BE FREE OF ORGANIC MATTER AND DEBRIS AND SHALL CONTAIN NO PARTICLE SIZES 2 INCHES OR GREATER IN THE LARGEST DIMENSION WITHIN THE TOP 24 INCHES OF DESIGN SUBGRADE OR 4 INCHES BELOW THIS LEVEL. IMPORTED STRUCTURAL FILL PLACED WITHIN THE EXPANDED BUILDING LIMITS SHALL BE CAPABLE OF PROVIDING A MINIMUM MODULUS OF SUBGRADE REACTION (K_s) OF 150 PCI IN A COMPACTED CONDITION.

IMPORTED MATERIAL SATISFACTORY FOR USE IN BACKFILLING OF FOUNDATION EXCAVATIONS SHALL CONSIST OF FLOWABLE FILL HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 200 PSI. FLOWABLE FILL SHALL BE PLACED UNDER THE OBSERVATION OF THE CTL AND SHALL NOT BE USED WHERE GROUNDWATER IS PRESENT.

MATERIALS SATISFACTORY FOR BACKFILLING IN THE CRITICAL ZONE BEHIND BUILDING RETAINING WALLS SHALL CONSIST OF INORGANIC SOILS HAVING USCS CLASSIFICATIONS OF SILTY SAND (SM) OR MORE GRANULAR WITH A MAXIMUM OF 20% FINES AND MINIMUM ANGLE OF INTERNAL FRICTION OF 30 DEGREES WHEN COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DRY DENSITY PER ASTM D 698. ANY EXISTING SOILS NOT MEETING THESE CRITERIA SHALL BE REMOVED FROM THE CRITICAL ZONE OF THE WALLS, AS DETERMINED BY THE CTL PERSONNEL AT THE TIME OF CONSTRUCTION. RETAINING WALL BACKFILL SHALL NOT BE PLACED ON SLOPING SURFACES. FOR BUILDING RETAINING WALLS WHOSE BACKFILL HAS EXTERIOR EXPOSURE, THE TOP 12 INCHES OF BACKFILL SHALL CONSIST OF A 12-INCH THICK LAYER OF CLAYEY SOIL TO REDUCE MOISTURE INFILTRATION OF THE RETAINING WALL BACKFILL.

STRUCTURAL FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS, MOISTURE CONDITIONED TO WITHIN 2 PERCENTAGE POINTS OF THE SOIL'S OPTIMUM MOISTURE CONTENT, AND COMPACTED TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).

THE FOUNDATION SYSTEM SHALL BE ISOLATED SPREAD FOOTINGS AT COLUMNS AND CONTINUOUS SPREAD FOOTINGS AT WALLS.

THIS FOUNDATION SUBSURFACE PREPARATION DOES NOT CONSTITUTE A COMPLETE SITE WORK SPECIFICATION. IN CASE OF CONFLICT, INFORMATION COVERED IN THIS PREPARATION SHALL TAKE PRECEDENCE OVER THE WAL-MART SPECIFICATIONS. REFER

TO THE SPECIFICATIONS FOR SPECIFIC INFORMATION NOT COVERED IN THIS PREPARATION. THIS INFORMATION WAS TAKEN FROM A GEOTECHNICAL REPORT PREPARED BY ECS MID-ATLANTIC, LLC, DATED JUNE 10, 2014, (GEOTECHNICAL REPORT IS FOR INFORMATION ONLY AND IS NOT A CONSTRUCTION SPECIFICATION)

E-Mail address for the Geotechnical Engineer: nmeloy@ecslimited.com

GRADING LEGEND

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
120 / 125	CONTOUR LINE	
TC 516.6 / BC 516.1	SPOT ELEVATIONS	TC516.00 / TC 516.00 BC 515.55
SAN #	SANITARY LABEL	
STM #	STORM LABEL	STM #
	STORM SEWER	
	STORM MANHOLE	
	TYPICAL END SECTION	
	HEADWALL OR ENDWALL	
	YARD INLET	
	CURB INLET	
	MONITORING WELL	
	BORING	
	BENCHMARK	
	TEST PIT	
	LIMITS OF DISTURBANCE	

ALERT TO CONTRACTOR:

ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS.

DEWATERING NOTE:

WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.

REFER TO MASTER SITE SPECIFICATIONS.

CONTRACTOR SHALL CONTACT 811 FOR LOCATION OF ALL UTILITIES, AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION

REVISIONS	BY
1 REVISED PER COUNTY AND TOWN COMMENTS	ZM
2 REVISED PER COUNTY AND TOWN COMMENTS	GRP
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

GRADING PLAN

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	1" = 30'
JOB No.	S148000
SHEET	C-14

SHEET 17 OF 103