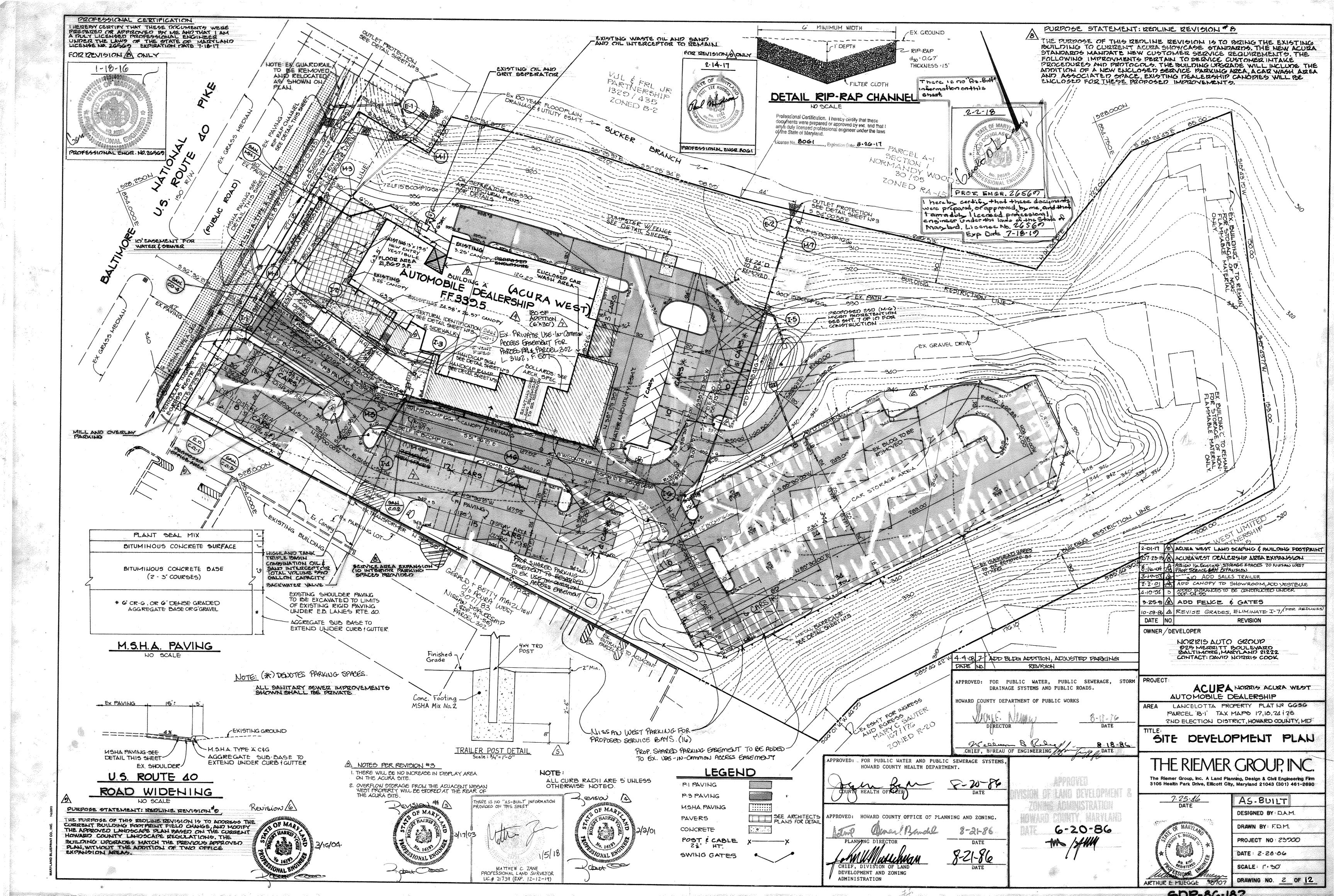
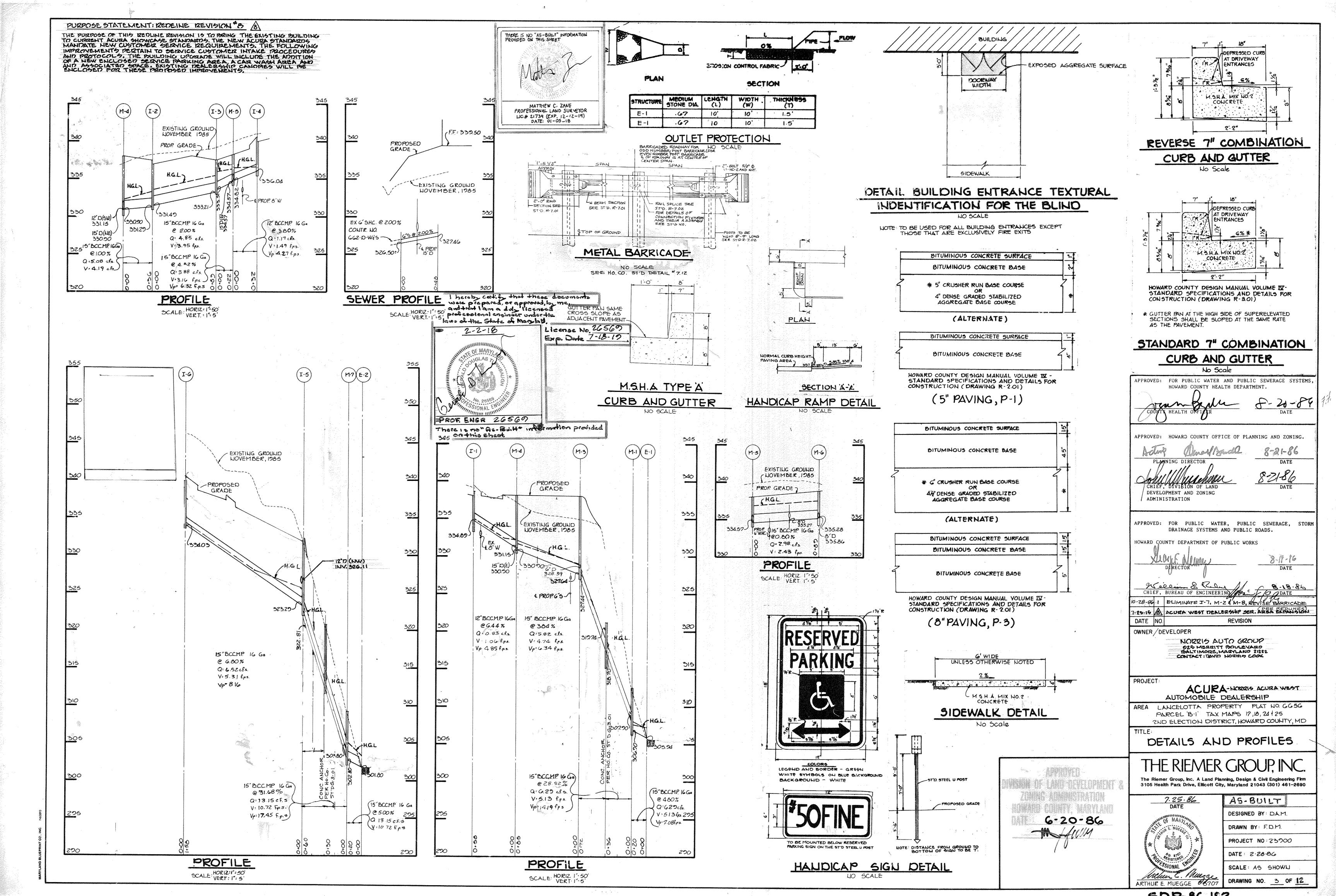
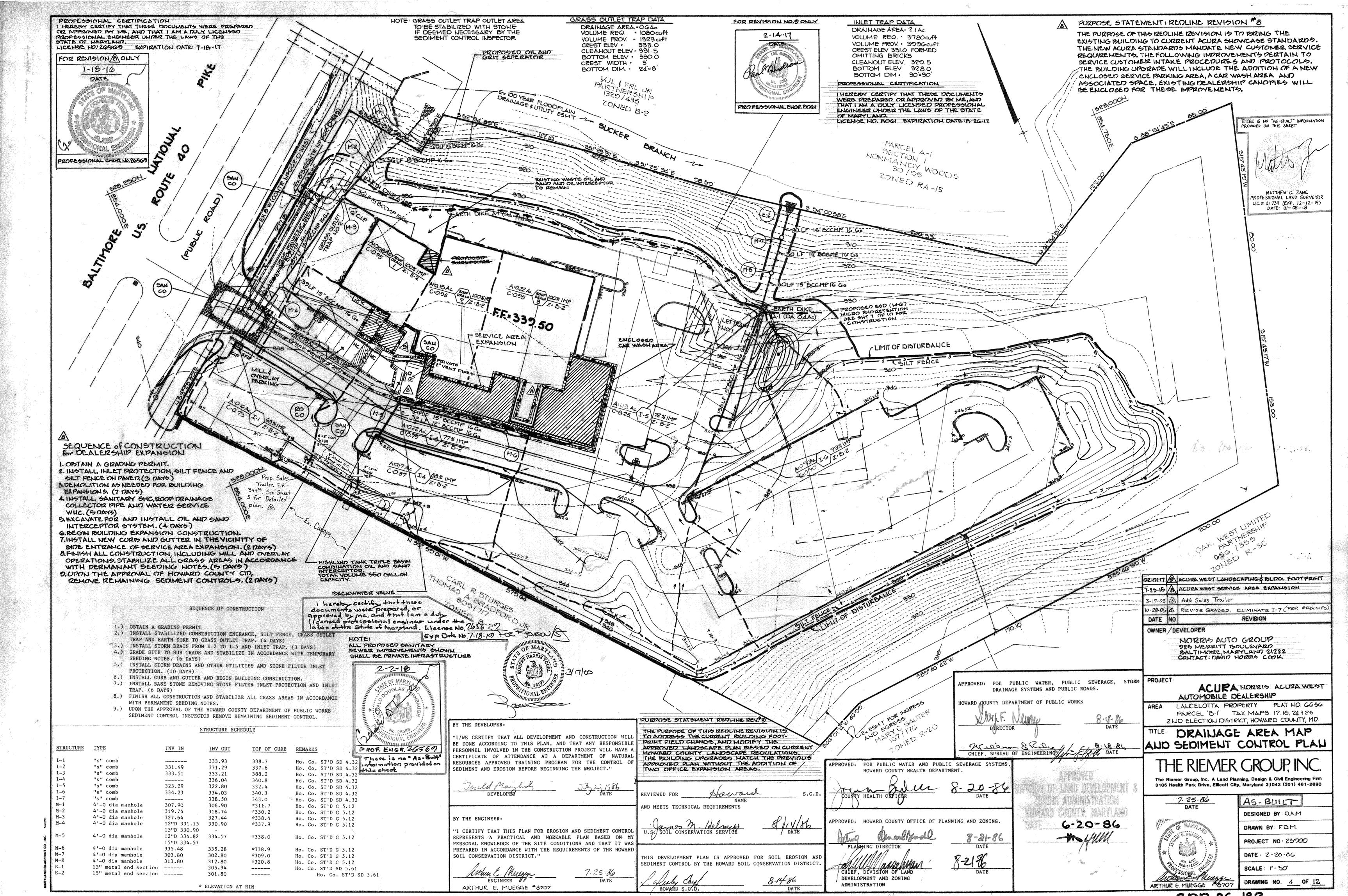
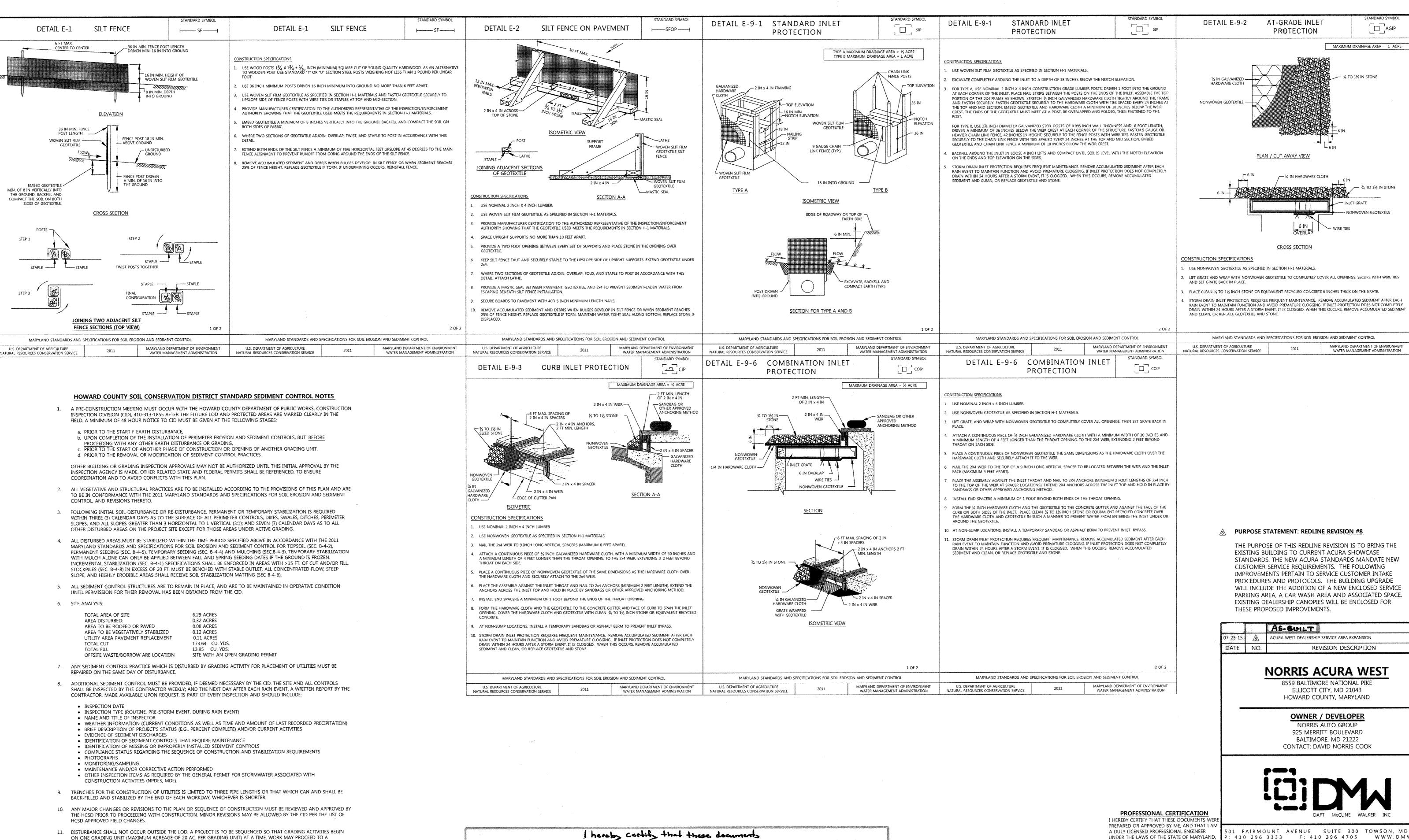
SHEET INDEX DESCRIPTION There is no "As-Bult" TITLE SHEET information on this sheet SITE DEVELOPMENT PLAN SITE DEVELOPMENT PLAN 2-2-18 PROVIDED ON THIS PHEET DETAILS AND PROFILES DRAINAGE AREA, MAP SEDIMENT CONTROL PLAN ACIJRA 2011 SEDIMENT & EROSION CONTROL DETAILS ENOTES 2011 SEDIMENT É EROSION CONTROL SPECIFICATIONS SEDIMENT CONTROL DETAILS SITE DETAILS 2 ND ELECTION DISTRICT MATTHEW C. ZANE PLANTING PROFESSIONAL LAND SURVEYOR UC# 21739 (EXP. 12-12-19) DATE: 01-05-18 MICRO BIO-RETENTION PLAN PROFESSIONAL ENER. 26569 MICRO BIO'RETENTION PLANTING PLANE DRAINAGE AREA HOWARD COUNTY, MARYLAND. I hereby cestify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Mary had. License No. 26560 PROPOSED GRADING PLAN AND ADA RAMP AND ROUTE gal Certification. I hereby certify that these were prepared or approved by me, and that icensed professional engineer under the laws 15. This repline revision, revision no. 9, has been reviewed by, and has received site design input from the howard county design License No. 8061 , Expiration Date: 8.26.17 ADVISORY PAHEL (DAP), OH JANUARY 13, 2016. THE PAHEL APPROVED THE SUBMISSION AS SUPPLIED BY THE APPLICANT. Exp. Date 7-18-19 FOR REVISION NO. 9 ONLY SITE TABULATION GENERAL NOTES 2-14-17 Total area of bite: 6.230 ACRES (275,046.30 50.FT.) PATE 1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE. PRESENT ZOUING: USEOF STRUCTURES: BUILDING A-AUTOMOBILE DEALER-SHIP (SALES, REPAIR, SERVICE BUILDINGS BEC. STORAGE OF NON-CORRUGATED STEEL PIPE SECTIONS WILL BE JOINED WITH A SINGLE OR TWO PIECE CORRUGATED BAND WITH A WATERTIGHT NEOPRENE GASKET. DIMPLE BAND CONNECTORS WILL NOT BE PERMITTED FLAMMABLE MATERIALS ONLY ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL. Total building coverage: 8.693% - 0.547 ACZES VOLUME IV. i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. PAVED PARKING LOT/AREA ON SITE: 2.680 AC. (116,726.68 SQ.FT. TOTAL BUILDING FLOOR AREA: C2.361 SQ.FD (FIRST FLOOR) 21,8695.F. (5.91) SQ.FT. (5.9%) AREA OF LANDSCAPE ISLAND: 970 SQ.FT. (5.9%) LIMIT OF DISTURSSED AREA: .317 AC. (13,808.52 SQ.FT. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. THEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A * Paged on degign by the engineer of record ag approved and shown prior to revision 8 duly licensed professional engineer under THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT ALL CROSSINGS AND CONNECTIONS THE LAWS OF THE STATE OF MARYLAND. professional engr. bogi LICENSE NO. 26569 EXP. DATE 7-18-17 CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS A purpose statement: Redline Revision & FOR REVISION ONLY MISS UTILITY THE PURPOSE OF THIS REDLINE REVISION IS TO BRING THE EXISTING BUILDING TO CURRENT ACURA SHOWCASE C & P TELEPHONE COMPANY 725-9976 FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY BUREAU OF UTILITIES STANDARDS. THE NEW STANDARDS MANDATE NEW 992-2366 AT&T CABLE LOCATION DIVISION 393-3553 CUSTOMER SERVICE REQUIREMENTS. THE FOLLOWING U528,250 BALTIMORE GAS & ELECTRIC COMPANY 685-0123 IMPROVEMENTS PERTAIN TO SERVICE CUSTOMER INTAKE PROCEDURES AND PROTOCOLS. THE BUILDING UPGRADE STATE HIGHWAY ADMINSTRATION 531-5533 BALTIMORE HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY WILL INCLUDE THE ADDITION OF A NEW ENCLOSED SERVICE PARKING AREA AND ASSOCIATED SPACE AND CAR WASH AREA. EXISTING DEALERSHIP CANOPIES WILL BE ENCLOSED FOR THESE PROPOSED IMPROVEMENTS. DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT PPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING PURPOSE STATEMENT REPLINE REVISION "S 3. ALL PIPE ELEVATIONS SHOWN ARE INVERT THE PURPOSE OF THIS REDLINE REVISION IS TO ADDRESS THE CURRENT BUILDING FOOTPRINT FIELD CHANGE AND MODIFY THE APPROVED LANDSCAPE PLAN, BASED ON CURRENT Professional Engr. No. 26569 FIOWARD COUNTY LANDSCAPE REGULATIONS. THE BUILDING UPGRADES MATCH THE PREVIOUS APPROVED PLAN 2. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS. WITHOUT THE ADDITION OF TWO OFFICE EXPANSION AREAS. EX. PRIVATE USE-IN-COMMON 10. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE ACCES GASEMENT FOR PARCEL 199 DEVELOPMENT AND ZONING PARKING TABULATION ! ADMINISTRATION 11. TOPO TAKEN FROM FIELD RUN SURVEY DATED HOVEMBER, 1985 BY THE RIEMER GROUP IN & PARCEL 302 SERALD + BETTY MAIZLISH .3162, F.507 BUILDING A: 82,901 0+ 21,869 5.P. 12. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED 9/0 ACURA WEST SALES/SHOWIZOONA/PAIRTS/OFFICE: 4429 S.F. L. 3071, F. 83 FOR PUBLIC WATER, PUBLIC SEVERAGE, STORM 13. ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL G2.01 (TRENCH IN ROCK OR NISSAN DEALERSHIP DRAINAGE SYSTEMS AND PUBLIC ROADS. TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY @2 SPACES PER 1000 SF PARCEL B-9 SPACES DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE SDP-94-55 SERVICE BAY (6): IG AUTOMOBILE SERVICE BAYS FOR REVISION 6 IOWARD COUNTY DEPARTMENT OF PUBLIC WORKS eg spaces per service bay 4. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR 48 STACES RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL OUT DOOR AUTOMOBILE PISPLAY AREA DATE PRACTICES, STORM WATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORM WATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO OI SPACE PER TODO SE N 527,750 N527,750 ₩ 5 SPACES RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY SPACES REQUIRED FOR SOP 86-182 CHIEF, BUREAU OF ENGINEERING MAN GOODATE THAT MAY BE REQUIRED FOR GRADING AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN GO SPACED PROP SHARED PARKING SPACES REQUIRED FOR SOP 94.05554 16 SPACES EASEMENT TO BE ADDED 4 REVISE BUILDING COVERAGE FOR VESTIBLIE TO EX. USE-IN-COMMON SITE TABULATION Total Spaces required for sop 86-1826 5-17-03 & ADD SALES TRAILER ACCESS GASGMONT Spr DA-055 TO SPACE DATE NO. REVISION 6.2889 Ac. (273,944/48 SF TOTAL AREA OF SITE TOTAL SPACES PROVIDED 19 SMACES OWNER / DEVELOPER EXISTING\ZONING NORRIS AUTO GROUP fsod of obs represents an 925 MERRITT BOULEVARD ADJACENT CAR DEALERSHIP THAT 15 BALTIMORE, MARYLAND 21222 PROPOSED US BUILDING X Automobile Dealership For REVISION (2) -sales, repair and sarvicing CONTACT: DAVID NORRIG COOK PARKING TABULATIONS Storage of nonflammable BUILDING BIC 3.1445 Ac. (136,972 SF) BUILDING COVERAGE PERMITTED (50%) Existing Sales Area on Site = 3,874 s.f. PROJECT PLAN ACURA NORRES AUTO GROUP 0.47 Ac. (20,402 SF) BUILDING COVERAGE PROROSED (7.3%) AUTOMOBILE DEALERSHIP TOTAL BUILDING AREA (3,874 S.F. SERVICE BAYS) 808 SF First floor LANCELOTTA PROPERTY PLAT Nº GG56 .016 SF Mezzanine 3,040 SF Existing Storage Building PARCEL B-1, TAX MAPS 17,18,24 125 NOTE: THE AUTOMOBILE STORAGE PARKING REQUIREMENT PUD ELECTION DISTRICT, HOWARD COUNTY, MD. HAG BEEN GATIGHED THE TO AN OFF GITE AUTOMOBILE Acura west lands caping indic. Protreint frevise sheet index STORAGE PARKING LOT, LOCATED IN BAJTIMORE COUNTY AT GASI BALTIMORE NATIONAL PIKE, CATONEVILLE, MD 21228 TAX MAP# 94 PARCEL 124. 2-01-2017 ARKING REQUIRED TITLE SHEET FOR FENSION A @ 1 space per 500 SF of Sales. 7-25-15 acura west service area expansion REVISED SITE DEVELOPMENT PLAN (7,9368.f.) Provided Repair and Garage (17,828 SF) A) MOTE - NOTE - SEVEN (7) EXTERIOR PARKING SPACES HAVE BEEN REMOVED AND TEN (10) PARKING SPACES HAVE BEEN ADDED WITHIN THE NEW SERVICE STAGING EXPANSION AREA. LANDSCAPING FOR THE REQUIRED HUMBER OF TREES/SHRUBS HAS BEEN PROVIDED IN ACCORDANCE WITH SECTION 124 OF THE SUBJIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE MANUAL. SURETY IN THE AMOUNT OF \$22,170.00 GHALL BE PAID WITH DRW DEVELOPERS AGREEMENT. SPACES FOR ADTACENT NISSAN (CDP-94-55) 4-4-08 REVISE PARKING TABULATION @ 7 spaces per 10 employees ASSIGN IN EXISTING STORAGE SPACES TO THE RIEMER GROUP, INC of Office Area (15 employees) 11 spaces 8-16-04 MISSAN WEST PROP. SERVICE BAY EVANDION Total Required - 74 spaces REVISION 47 spaces total Total Provided - 76 Spaces DATE The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm 3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690 ADDRESS CHART * Existing Sales Building - 4,054 SE PARKING PROPOSED V48 spaces Includes two handicapped spaces PARCEL STREET ADDRESS AS-BUILT DATED THE HAX BUILDING COVERAGE AREA OF 50% IS ALLOWED OPEN SPACE REQUIRED (20%) 8559 US. ROUTE 40 DESIGNED BY: DAM OPEN SPACE PROPOSED (59%) 3.69 Ac 6-20-86 DRAWN BY: F.D.M. LANDSCAPED ISLANDS REQUIRED (5%) 828 SF SOUTHWEST ELEVATION PROJECT NO: 23700 970 SF LANDSCAPED ISLANDS PROPOSED (5.9%) NOTE: 16 EXICTING STORAGE SPACES ASSIGNED TO LOT/PARCEL # ÅREA OF PUBLIC PARKING LOTS /7DATE: 2-28-86 0.38 Ac. /16,440 SK PARCEL B-1 MISSAN WEST (SDP-94-55) PROPOSED e: Additional parking provided (155 spaces) is for storage o TAX/ZONE HAP ELEC. DIST. CENSUS SCALE: AS SHOWN SERVICE BAY EXPANSION. 17,18,24125 auxomobiles. Handicapped parking is computed only as part of public ackslash 6075 ZND parking provided. WATER CODE DRAWING NO. 1 OF 12 14.52600

SDP-86-182









subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has BEEN STABILIZED AND APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE CID, NO MORE THAN 30

under the laws of the State of Magland There is no " As- Bos H' 2-2-18

PROF. ENGR. 26569

I am a duly licensed professional ensures Exp. Date 7-18-19 THERE IS NO "AS-BUILT" INFORMATION PROVIDED ON THIS SHEET MATTHEW C. ZANE PROFESSIONAL LAND SURVEYOR LIC.# 21739 (EXP. 12-12-19) DATE: 01-05-18 HOWARD SCD

APPROVED: DEPARTMENT OF PLANNING AND ZONING 2.26-16 CHIEF, DEVELOPMENT ENGINEERING DIVISION 3-01-66 DATE 3-2-16 DATE THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 26569, EXPIRATION DATE: 7-18-17 FOR REVISION 🕭 ONLY 1-19-16 DATE

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 : 410 296 3333 F: 410 296 4705 WWW.DMW.COM

SEDIMENT AND EROSION CONTROL

DETAILS AND NOTES IBDIVISION NAM LARICELOTTA PROPERTY 199

LOT/PARCEL # 6656 VATER CODE SEWER CODE ADDRESS CHART STREET ADDRESS LOT NUMBER BI 8559 BALTIMORE NATIONAL PINE SCALE: AS SHOWN PROJ. NO. 15028 DES. BY ERS

> DATE: 1/15/16 APPROVED

SDP-86-182

5 OF 12

PROFESSIONAL ENGR. NO. 26569 CHK'D. BY

DRN. BY GMO

16. A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE. information provided 13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE. on this sheet. 15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):

14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25 FT. MINIMUM

12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A

INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2 FT. IN ELEVATION.

USE I AND IP MARCH 1 - JUNE 15

ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

 USE III AND IIIP OCTOBER 1 - APRIL 30 USE IV MARCH 1 - MAY 31

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

(B-4-1) SECTION 1 - INCREMENTAL STABILIZATION

A. INCREMENTAL STABILIZATION - CUT SLOPES

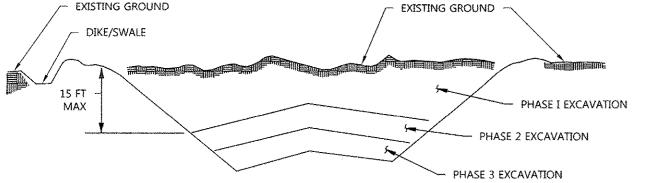
EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES

CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.1);

a. CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO CONVEY RUNOFF AROUND THE

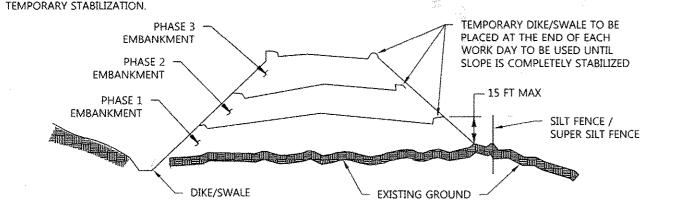
- b. PERFORM PHASE 1 EXCAVATION, PREPARE SEEDBED, AND STABILIZE
- c. PERFORM PHASE 2 EXCAVATION, PREPARE SEEDBED, AND STABILIZE. OVERSEED PHASE 1 AREAS AS NECESSARY.
- d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary

NOTE: ONCE EXCAVATION HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION. EXISTING GROUND **EXISTING GROUND** DIKE/SWALE



- B. INCREMENTAL STABILIZATION FILL SLOPES
- 1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT, PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES
- 2. STABILIZE SLOPES IMMEDIATELY WHEN THE VERTICAL HEIGHT OF A LIFT REACHES 15 FEET, OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS.
- 3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
- CONSTRUCTION SEQUENCE EXAMPLE (REFER TO FIGURE B.2):
- CONSTRUCT AND STABILIZE ALL TEMPORARY SWALES OR DIKES THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SILT FENCE ON LOW SIDE OF FILL UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.
- b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER.
- c. PLACE PHASE 1 FILL, PREPARE SEEDBED, AND STABILIZE.
- d. PLACE PHASE 2 FILL, PREPARE SEEDBED, AND STABILIZE.

e. Place final Phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary. NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE completion of grading and placement of topsoil (if required) and permanent seed and mulch, any interruptions in the operation or completing the operation out of the Seeding Season will necessitate the application of



- (B-4-2) SECTION 2 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS
- A. SOIL PREPARATION
- TEMPORARY STABILIZATION

a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction QUIPMENT. AFTER THÈ SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED. CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

- b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
- c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- PERMANENT STABILIZATION

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE, THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

- SOIL PH BETWEEN 6.0 AND 7.0
- ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE

- iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
- v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
- b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS. c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
- d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS, RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER FOUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE, SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS,

B. TOPSOILING

THERE IS NO "AS-BUILT" INFORMATION

MATTHEW C. ZANE

PROFESSIONAL LAND SURVEYOR LIC.# 21739 (EXP. 12-12-19)

DATE: 01-05-18

PROVIDED ON THIS SHEET

- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION: THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH, SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- 2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
- 3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
- a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH. b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS
- c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
- d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- 4. Areas having slopes steeper than 2:1 require special consideration and design.
- 5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:

There is no "As-Boilt" information provided on this sheet.

2-2-18

PROF. ENGR. 26569

TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN ! PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER

b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

6. TOPSOIL APPLICATION

a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed PREPARATION

- C. SOIL ADMENMENTS (FERTILIZER AND LIME SPECIFICATIONS) 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY, SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
- FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY, FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST bear the name, trade name or trademark and warranty of the producer
- 3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) 1. WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
- 4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS
- WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE 200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.
- (B-4-3) SECTION 3 SEEDING AND MULCHING
- A. SEEDING

ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY, ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE 8.4 REGARDING THE QUALITY OF SEED, SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

:. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN 1. FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN

NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE

- d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

- ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction roll 2. Turfgrass mixtures THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
- b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
- i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
- ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
- i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O
- ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME, DO NOT USE BURNT OR HYDRATED
- LIME WHEN HYDROSEEDING
- iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION. iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
- B. MULCHING
- MULCH MATERIALS (IN ORDER OF PREFERENCE)

i. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, NOTES: SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION. OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A LINIFORM FIBROUS PHYSICAL STATE

WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.

ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.

iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.

Exp Date 7-18-10

a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES, APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre, mix the WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water this may be done by one of the following methods (listed by preference), depending upon the size of the area

SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY, IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR. ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750

A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL

POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER

approved equal may be used. Follow application rates as specified by the manufacturer, application of Liquid BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER) USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

(B-4-4) SECTION 4 - TEMPORARY STABILIZATION

xposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

- SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY, SOIL TESTS are not required for temporary seeding.
- WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS

PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

	Seed Mi	xture (Hardiness	Fertilizer Rate	Lime Rate			
son	Species	Application ¹ Rate (Lb./Ac.)	Seeding ² Dates	Seeding ³ Depths	(10-20-20)	Lime Rate	
ool	Annual Ryegrass	40	2/15-4/30 8/15-11/30	1/2"	436 Lbs./Ac. (10 Lbs./	2 Tons/Ac. (90 Lbs./ 1000 Sq.Ft.)	
arm	Foxtail Millet	30	5/1-8/14	1/2"	1000 Sq.Ft.)		

SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED, ADJUSTMENT'S ARE USUALLY NOT NEEDED FOR THE

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE.

- OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES
- 2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.
- THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

(B-4-5) SECTION 5 - PERMANENT STABILIZATION EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

A. SEED MIXTURES

SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE From Figure B.3) and based on the site condition or purpose found on table B.2. Enter selected mixture(s), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE

b. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING

.. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing i. For areas receiving Low Maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet 150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the permanent

SEEDING SUMMARY.

. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will 2. Values for aos represent the average maximum opening. RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE

b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.

KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE, RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT

i. Kentucky bluegrass/perennial rye: full sun mixture: for use in full sun areas where rapid establishment is CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF TABLE H.2: STONE SIZES THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT

LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE, RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SOUARE FEET, ONE OR MORE CULTIVARS MAY BE BLENDED. iv. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR

CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1:1/2 TO 3 POUNDS PER 1000

ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS

iii. Tall Fescue/Kentucky Bluegrass: Full sun Mixture; for use in drought prone areas and/or for areas receiving

AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC

c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)

CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)

SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B) . TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING

SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY. TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

Seed Mixture No. 9 (Hardiness Zone 7A)					** Fertilizer Rate (10-20-20)			**Lime	
No.	Species	Application Rate (Lb./Ac.)	Seeding Dates**	Seeding Depths	N.	P ₂ O ₅	K ₂ 0	Rate	
9	* _{Tall} Fescue	60	2/15 - 4/30 8/15 - 10/31	1/4"-1/2"	45	90	2 Lb./ (2 Lb./ 1000 1000	2 Tons/Ac. (90 Lb./ 1000 Sq.Ft.)	
	*Kentucky Bluegrass	40			Lb./Ac. (1 Lb./ 1000	Lb./Ac. (2 Lb./ 1000			
	Pennfine Perennial Ryegrass	20			Sq.Ft.)	Sq.Ft.)			

- BLEND 3 CULTIVARS OF ANY CULTIVAR LISTED ON PAGE B.32 OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL
- AT TIME OF FINE GRADING. FERTILIZER AND LIME RATES WILL BE BASED ON SOIL TEST RESULTS; (SEE SECTION 2.C). COPY OF RECOMMENDED RATES TO BE SUPPLIED TO THE SEDIMENT CONTROL INSPECTOR.
- *** FOR SEEDING DATES 5/1-8/14 ADD 6 LB/AC OF EITHER FOXTAIL MILLET OR PEARL MILLET TO PERMANENT SEED MIXTURE #9

NOTE: ALL SEED MUST COMPLY WITH THE MARYLAND STATE SEED LAW. SEED MUST BE FREE OF PROHIBITED OR RESTRICTED NOXIOUS WEEDS, AS CURRENTLY LISTED BY THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION

DATE

a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR

b. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/4 INCH, AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH, BROKEN PADS AND TORN OR UNEVEN

: Standard size sections of sod must be strong enough to support their own weight and retain their size and SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.

. SOD MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY

A SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS, SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE

c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.

d. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

SOD MAINTENANCE

IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT

b. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. c. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

TABLE H.1: GEOTEXTILE FABRICS

(H-1) STANDARDS AND SPECIFICATIONS FOR MATERIALS

	WO' SLIT GEOTE		WO\ MONOFII GEOTE	AMENT	NONWOVEN GEOTEXTILE			
			MINIMUM AVERAGE			VALUE ¹		
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD	
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 lb	200 lb	
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	15%	50%	50%	
Trapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb	
Puncture Strength	ASTM D-6241	450 lb 900 lb		450 lb				
Apparent Opening Size ²	ASTM D-4751		eve 30 mm)	U,S. Sieve 70 (0.21 mm)		U.S. Sieve 70 (0.21 mm)		
Permittivity	ASTM D-4491	0.05 sec -1		0.28 sec -1		1.1 sec -1		
Ultraviolet Resistance Retained at 500 hours	ASTM D-4355	70% st	rength	70% s	trength	70% strength		

ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.

GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM TO THE VALUES IN TABLE H.1. THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS, AND FORMED INTO A STABLE NETWORK SO

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY, OVERLAP THE SECTIONS BY AT LEAST ONE FOOT, THE GEOTEXTILE

MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER EXPOSED FABRIC, WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.

	SIZE RANGE	d50	d100	AASHTO	MIDSIZE WEIGHT ³
NUMBER 57 ¹	⅓ to 1½ in	⅓ in	1½ in	M-43	N/A
NUMBER 1	2 to 3 in	2½ in	3 in	M-43	N/A
RIPRAP ² (CLASS 0)	4 to 7 in	5⅓ in	7 in	N/A	N/A
CLASS I	N/A	9½ in	15 in	N/A	40 lb
CLASS II	N/A	16 in	24 in	N/A	200 lb
CLASS III	N/A	23 in	34 in	N/A	600 lb

THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER, INCLUDING SELVAGES

THIS CLASSIFICATION IS TO BE USED ON THE UPSTREAM FACE OF STONE OUTLETS AND CHECK DAMS.

2, THIS CLASSIFICATION IS TO BE USED FOR GABIONS.

WEIGHT, WILL BE SMALLER AND 50 PERCENT WILL BE LARGER.

3. OPTIMUM GRADATION IS 50 PERCENT OF THE STONE BEING ABOVE AND 50 PERCENT BELOW THE MIDSIZE. STONE MUST BE COMPOSED OF A WELL GRADED MIXTURE OF STONE SIZED SO THAT FIFTY (50) PERCENT OF THE PIECES BY WEIGHT ARE LARGER THAN THE SIZE DETERMINED BY USING THE CHARTS. A WELL GRADED MIXTURE, AS USED HEREIN, IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF LARGER STONE SIZES BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE IN SUCH A MIXTURE MUST NOT EXCEED THE RESPECTIVE D10

SELECTED FROM TABLE H.2. THE D50 REFERS TO THE MEDIAN DIAMETER OF THE STONE, THIS IS THE SIZE FOR WHICH 50 PERCENT, BY

NOTE: RECYCLED CONCRETE EQUIVALENT MAY BE SUBSTITUTED FOR ALL STONE CLASSIFICATIONS FOR TEMPORARY CONTROL

IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3

MEASURES ONLY. CONCRETE BROKEN INTO THE SIZES MEETING THE APPROPRIATE CLASSIFICATION, CONTAINING NO STEEL REINFORCEMENT, AND HAVING A MINIMUM DENSITY OF 150 POUNDS PER CUBIC FOOT MAY BE USED AS AN EQUIVALENT. TABLE H.

I.3: COMPOST					
PARAMETERS ¹	ACCEPTABLE RANGE				
рН	5.0 - 8.5				
Moisture content	30% - 60%, wet weight basis				
Organic matter content	25% - 65%, dry weight basis				
Particle size	% passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 - 100% passing 0.75 in (19 mm), 70 - 100% passing 0.25 in (6.4 mm), 30 - 60% passing 0.04 in (1 mm), 30% min. passing				
Physical contaminants	<1% dry weight basis				

ADAPTED FROM AASHTO STANDARDS SPECS FOR COMPOST FILTER SOCKS AND EPA EXAMPLE COMPOST FILTER PARAMETERS. RECOMMENDED TEST METHODOLOGIES ARE PROVIDED IN TEST METHODS FOR THE EXAMINATION OF COMPOSTING AND COMPOST (TMEC, THE U.S COMPOSTING COUNCIL).

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE

PREPARED OR APPROVED BY ME, AND THAT I AM

SEDIMENT AND EROSION CONTROL

1-19-16 DATE

FOR REVISION & ONLY

LANCELLOTA PROPERTY AX/ZONE MAP B-2 VATER CODE

ADDRESS CHART LOT NUMBER STREET ADDRESS BI DES. BY ERS SCALE: AS SHOWN

A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 26569, EXPIRATION DATE: 7-18-17.

(manmade inerts)

HIEF, DEVELOPMENT ENGINEERING DIVISION DATE DATE 3-2-W

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3-01-66 DATE

I hereby certify that these documents were prepared, or approved, by me, and the I am a duly licensed professional ensineer under the laws of the State of Manyland.

> THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL B THE HOWARD SOIL CONSERVATION DISTRICT

> > HOWARD SCD

ROFESSIONAL ENGR. NO. 26569 CHK'D. BY

BALTIMORE, MD 21222 CONTACT: DAVID NORRIS COOK

PURPOSE STATEMENT: REDLINE REVISION #8

THESE PROPOSED IMPROVEMENTS.

AS-BUILT

DATE

NO.

ACURA WEST DEALERSHIP SERVICE AREA EXPANSION

NORRIS ACURA WEST

8559 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MD 21043

HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

NORRIS AUTO GROUP

925 MERRITT BOULEVARD

REVISION DESCRIPTION

THE PURPOSE OF THIS REDLINE REVISION IS TO BRING THE

STANDARDS. THE NEW ACURA STANDARDS MANDATE NEW

EXISTING BUILDING TO CURRENT ACURA SHOWCASE

CUSTOMER SERVICE REQUIREMENTS. THE FOLLOWING

IMPROVEMENTS PERTAIN TO SERVICE CUSTOMER INTAKE

PROCEDURES AND PROTOCOLS. THE BUILDING UPGRADE

EXISTING DEALERSHIP CANOPIES WILL BE ENCLOSED FOR

WILL INCLUDE THE ADDITION OF A NEW ENCLOSED SERVICE

PARKING AREA, A CAR WASH AREA AND ASSOCIATED SPACE

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 410 296 3333 F: 410 296 4705 WWW,DMW.CO

SPECIFICATIONS ELEC. DIST,

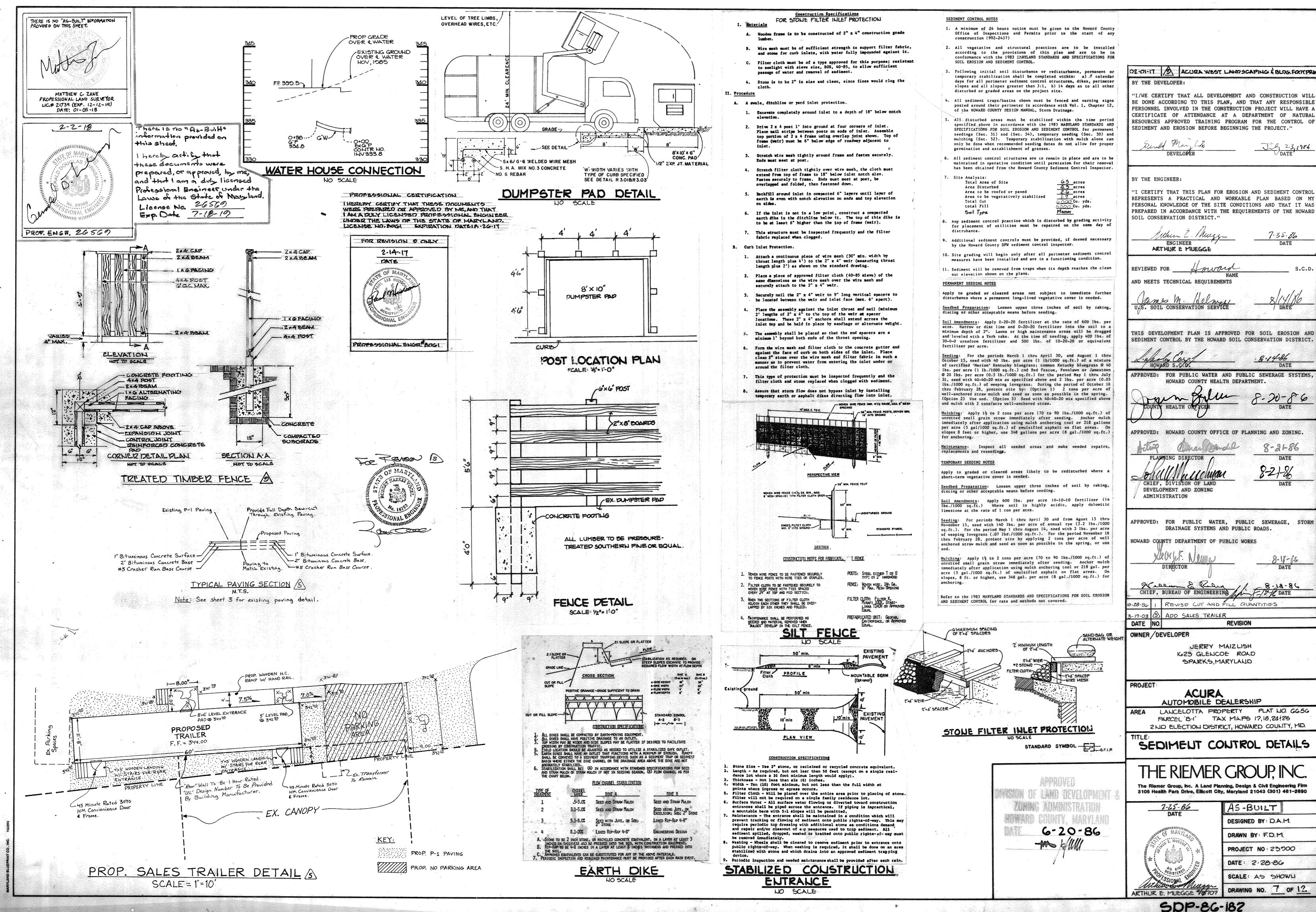
8559 BALTIMORE NATIONAL PIRE PROJ. NO. 15028 DRN. BY GMO DATE: 1/15/16

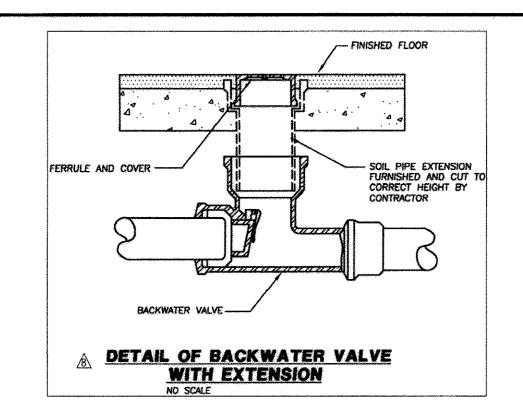
APPROVED

6 OF 12

SDP-86-182

602900





INSIDE APPURTENANCES SETTING

NOTES DOMESTIC AND FIRE OWNER TO DISARM AND REARM FIRE ALARM SYSTEM DURING TESTING AND MAINTENANCE.

ORDER AND INSTALL BACKFLOW PREVENTERS AS PER HOWARD COUNTY STANDARDS.

ALL FITTINGS AND NIPPLES TO BE "LEAD FREE" THREADED PROPERTY ADMITTED. 3. ALL FITTINGS AND NIPPLES TO BE "LEAD FREE" THREADED BRASS WITH APPROPRIATE ADAPTERS.

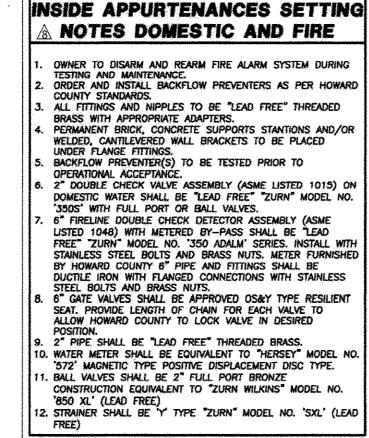
4. PERMANENT BRICK, CONCRETE SUPPORTS STANTIONS AND/OR WELDED, CANTILEVERED WALL BRACKETS TO BE PLACED UNDER FLANGE FITTINGS.

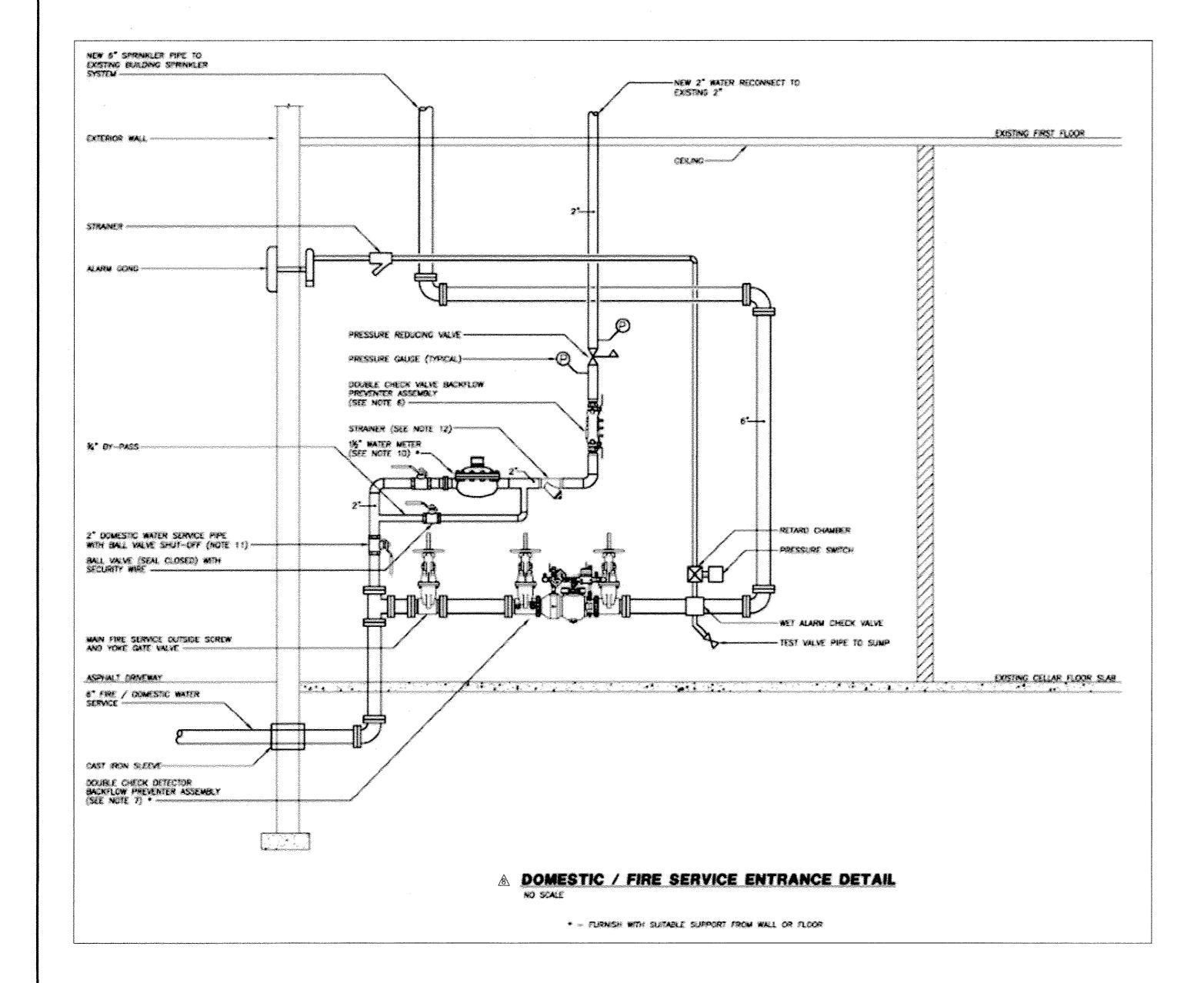
5. BACKFLOW PREVENTER(S) TO BE TESTED PRIOR TO OPERATIONAL ACCEPTANCE.

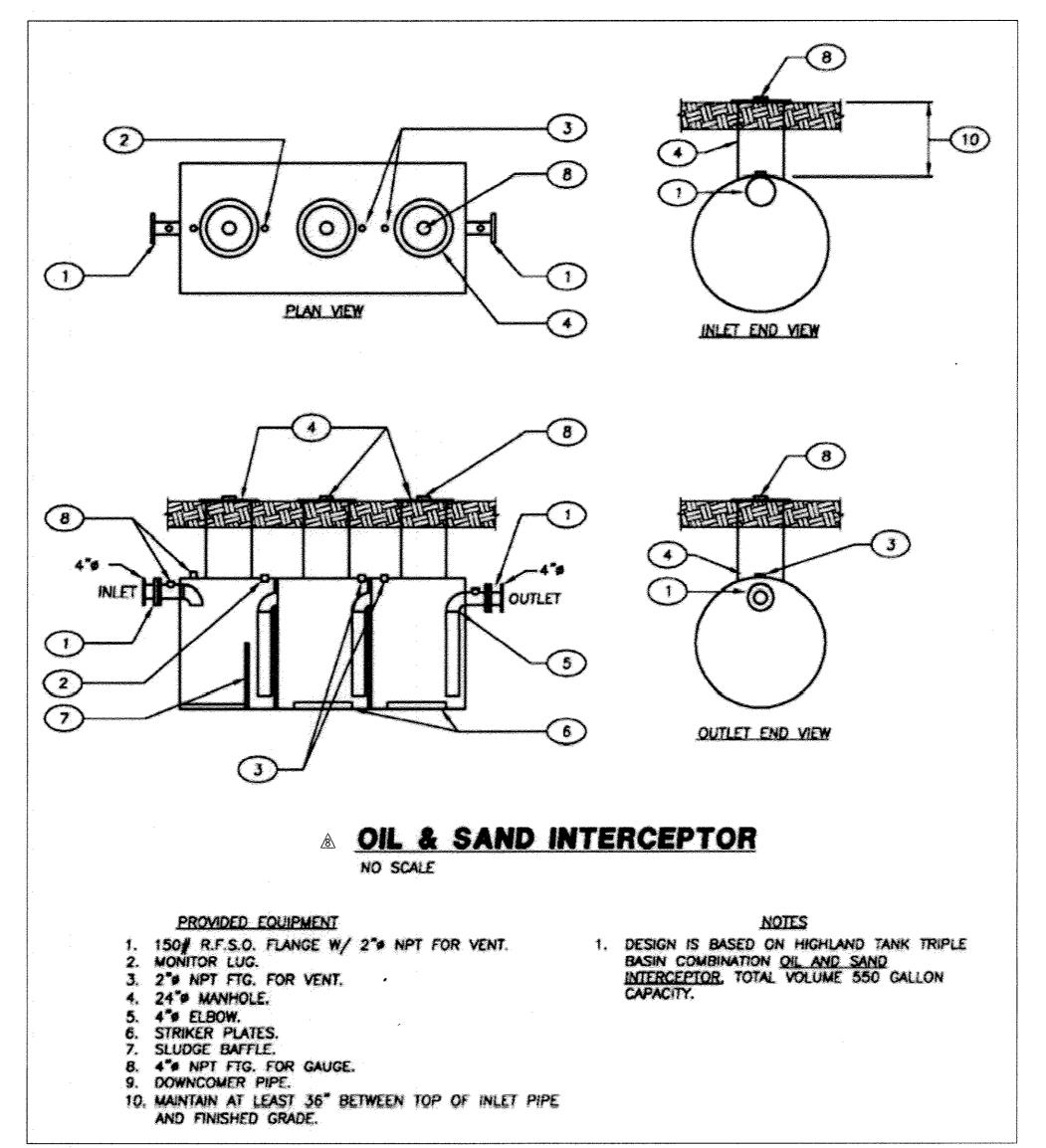
6. 2" DOUBLE CHECK VALVE ASSEMBLY (ASME LISTED 1015) ON DOMESTIC WATER SHALL BE "LEAD FREE" "ZURN" MODEL NO. '350S' WITH FULL PORT OR BALL VALVES.

7. 6" FIRELINE DOUBLE CHECK DETECTOR ASSEMBLY (ASME LISTED 1048) WITH METERED BY—PASS SHALL BE "LEAD 7. 6" FIRELINE DOUBLE CHECK DETECTOR ASSEMBLY (ASME LISTED 1048) WITH METERED BY—PASS SHALL BE "LEAD FREE" "ZURN" MODEL NO. "350 ADALM" SERIES. INSTALL WITH STAINLESS STEEL BOLTS AND BRASS NUTS. METER FURNISHED BY HOWARD COUNTY 6" PIPE AND FITTINGS SHALL BE DUCTILE IRON WITH FLANGED CONNECTIONS WITH STAINLESS STEEL BOLTS AND BRASS NUTS.

8. 6" GATE VALVES SHALL BE APPROVED OS&Y TYPE RESILIENT SEAT. PROVIDE LENGTH OF CHAIN FOR EACH VALVE TO ALLOW HOWARD COUNTY TO LOCK VALVE IN DESIRED POSITION.









There is no " As-Buill" information provided on this short

2-2-18

PROF. ENGR. 26560

documents were prepared, or approved, by me, and that lama

License No. 26569 Exp. Date 7-18-19

I hereby cestify that these

duly licensed professional engineer

under the laws of the State of Manylard

THE PURPOSE OF THIS REDLINE REVISION IS TO BRING THE EXISTING BUILDING TO CURRENT ACURA SHOWCASE STANDARDS. THE NEW ACURA STANDARDS MANDATE NEW CUSTOMER SERVICE REQUIREMENTS. THE FOLLOWING IMPROVEMENTS PERTAIN TO SERVICE CUSTOMER INTAKE PROCEDURES AND PROTOCOLS. THE BUILDING UPGRADE WILL INCLUDE THE ADDITION OF A NEW ENCLOSED SERVICE PARKING AREA, A CAR WASH AREA AND ASSOCIATED SPACE. EXISTING DEALERSHIP CANOPIES WILL BE ENCLOSED FOR THESE PROPOSED IMPROVEMENTS.

THERE IS NO "AS-RULL" INFOLMATION PROVIDED ON THIS SHEET.

MATTHEW C. ZANE PROFESSIONAL LAND SURVEYOR

LIC. # 21739 (EXP. 12-12-19) DATE: 01-05-18

AS-BUILT 07-23-15 ACURA WEST DEALERSHIP SERVICE AREA EXPANSION

NORRIS ACURA WEST

8559 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043 HOWARD COUNTY, MARYLAND

REVISION DESCRIPTION

OWNER / DEVELOPER NORRIS AUTO GROUP

925 MERRITT BOULEVARD BALTIMORE, MD 21222 CONTACT: DAVID NORRIS COOK



501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER

UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 26569, EXPIRATION DATE: 7-18-17.

2-26-16

3-01-16

DATE

DATE

3-2-16

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

KetSlebool

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY

THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SCD

FOR REVISION 🕭 ONLY
1-20-16
DATE
\mathcal{F}
\mathcal{N}

PROFESSIONAL ENGR. NO. 26569

SITE DETAILS

DRN. BY GMO

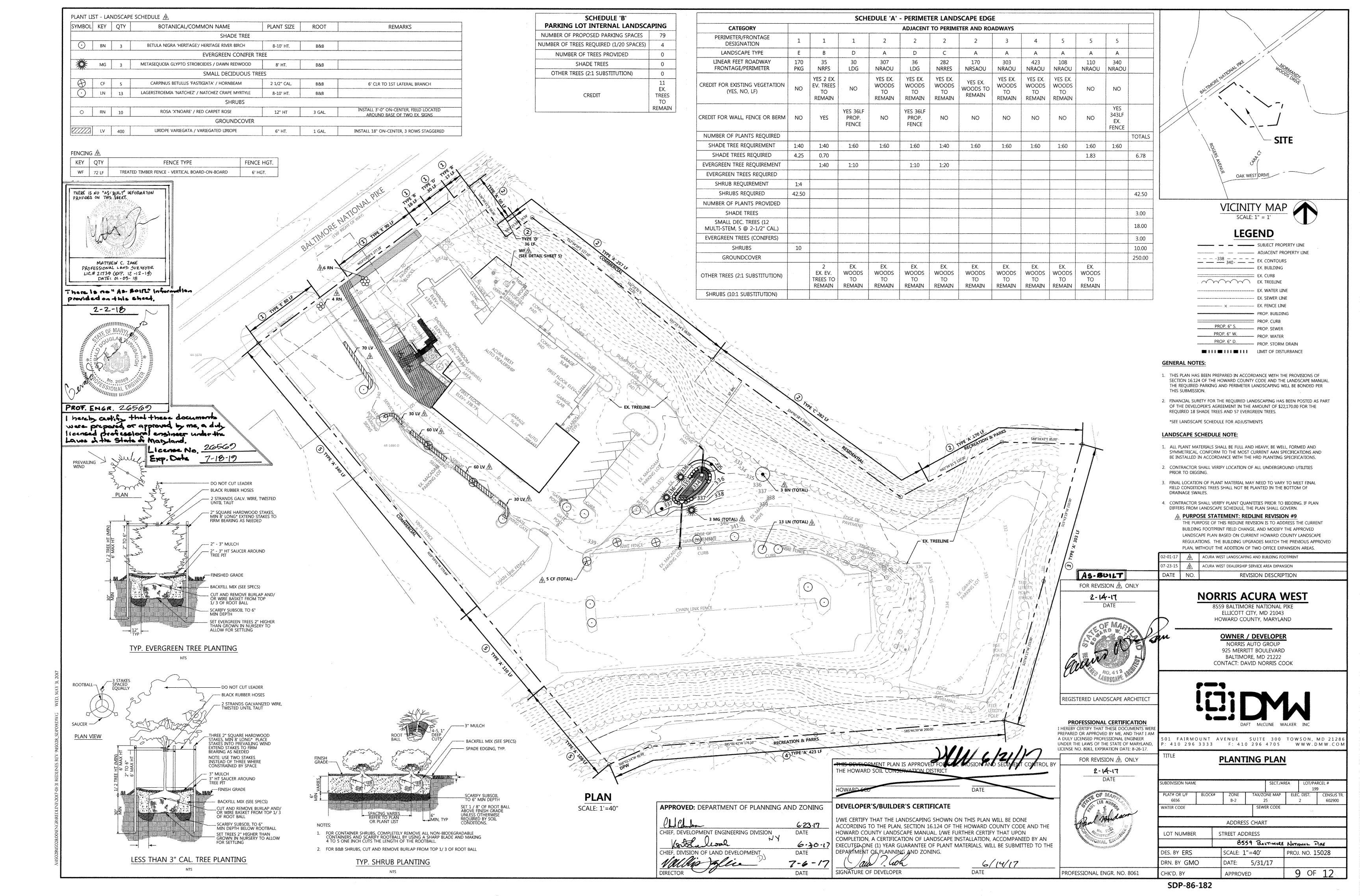
CHK'D. BY

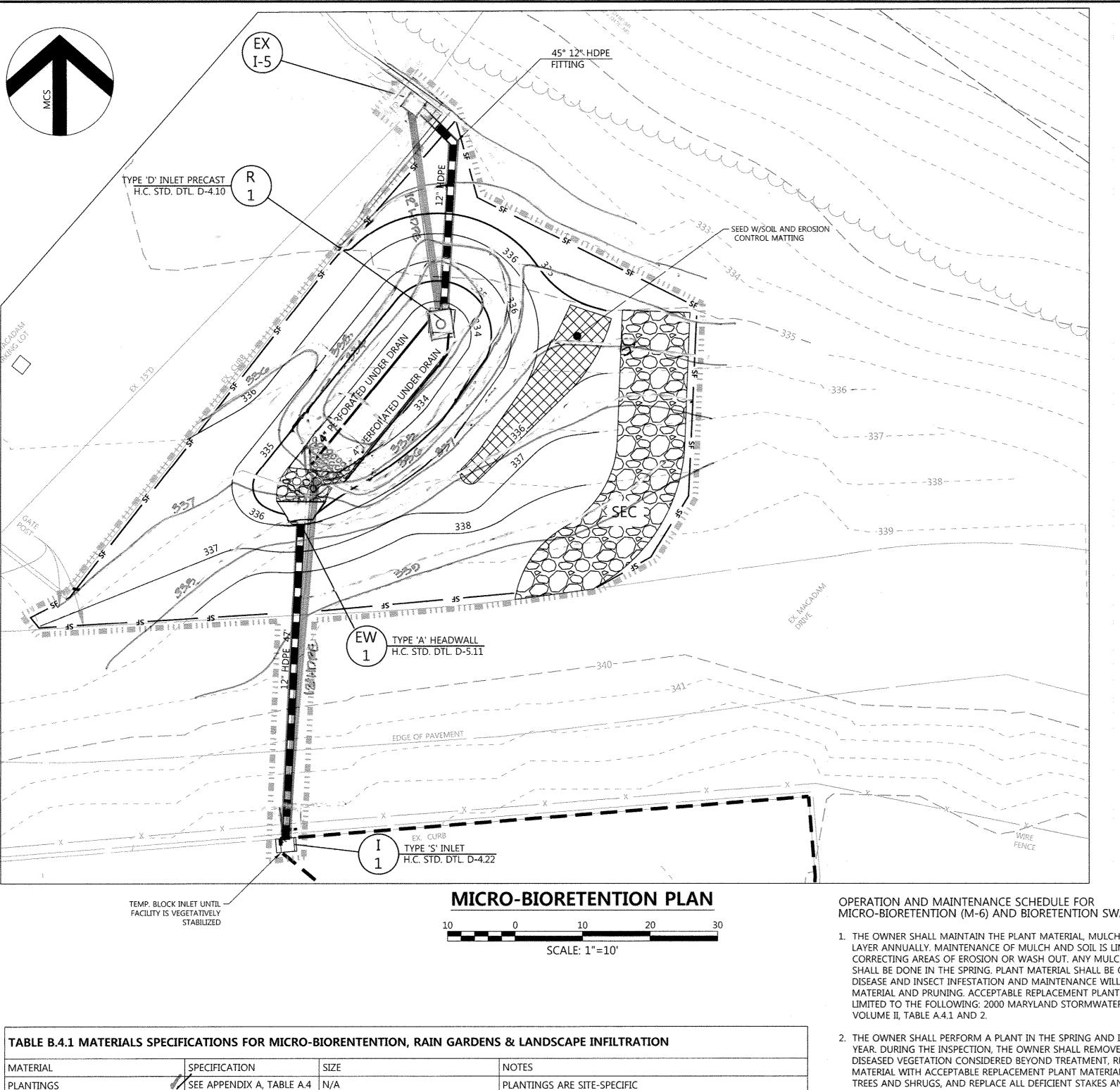
PLAT# OR L/F BLOCK# ZONE 6656 8-2 25 WATER CODE SEWER CODE ADDRESS CHART LOT NUMBER STREET ADDRESS BI 8559 BALTIMORE MATISHAL PILE SCALE: AS SHOWN PROJ. NO. 15028 DES. BY ERS

DATE: 1/20/16

APPROVED

8. OF 12 SDP-86-182





AGED 6 MONTHS, MINIMUM; NO PINE OR WOOD CHIPS

SLOTTED OR PERFORATED PIPE; 3/8" PERF. @ 6" ON CENTER, 4

NECESSARY UNDERNEATH PIPES. PERFORATED PIPE SHALL BE WRAPPED WITH 1/4-INCH GALVANIZED HARDWARE CLOTH

ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED:

28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN

APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN

DESIGN TO INCLUDE MEETING ACI CODE 350.R/89; VERTICAL

(BASED ON SOIL PRESSURES); AND ANALYSIS OF POTENTIAL

SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE

"ROCK DUST" CAN BE USED FOR SAND.

OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO

LOADING [H-10 OR H-20]; ALLOWABLE HORIZONTAL LOADING

(AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED

STRUCTURAL ENGINEER LICENSED IN THE STATE OF MARYLAND

(CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY

DRAWINGS SEALED AND APPROVED BY A PROFESSIONAL

PE TYPE 1 NONWOVEN

4" TO 6" RIGID SCHEDULE 40 PVC OR HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT

CRACKING

LOAMY SAND (60 - 65%) &

COMPOST (35 - 40%)

COARSE SAND (30%) &

MIN. 10% BY DRY WEIGHT

NO. 8 OR NO. 9 (1/8" TO 3/8")

NO. 57 OR NO. 6 AGGREGATE (3/8"

STONE: 2" TO 5"

TO 3/4")

0.02" TO 0.04"

SHREDDED HARDWOOD

PEA GRAVEL: ASTM-D-448

ORNAMENTAL STONE:

758, TYPE PS 28 OR

MSHA MIX NO. 3; F'c =

REINFORCING TO MEET

3500 PSI @ 28 DAYS,

NORMAL WEIGHT,

AIR-ENTRAINED;

AASHTO-M-6 OR

ASTM-C-33

ASTM-615-60

AASHTO M-278

WASHED COBBLES

AASHTO M-43

SANDY LOAM (30%),

COMPOST (40%)

(ASTM D 2974)

PLANTING SOIL [2' TO 4" DEEP]

ORGANIC CONTENT

CURTAIN DRAIN

GEOTEXTILE

REQUIRED)

SAND

PEA GRAVEL DIAPHRAGM

GRAVEL (UNDERDRAINS AND

POURED IN PLACE CONCRETE (IF

INFILTRATION BERMS)

UNDERDRAIN PIPING

MULCH

- 1. THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY, MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL
- 2. THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUGS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- REMOVED BEFORE THE NEW LAYER IS APPLIED.
- 4. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

1. PERIODICALLY REMOVE TRASH & DEBRIS AS IT ACCUMULATES.

2. REMOVE AND REPLACE TOP FEW INCHES OF FILTER MEDIA WHEN WATER PONDS FOR MORE THAN 48

NECESSARY.

MICRO-BIORETENTION (M-6) AND BIORETENTION SWALE (M-8)

- 3. THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE

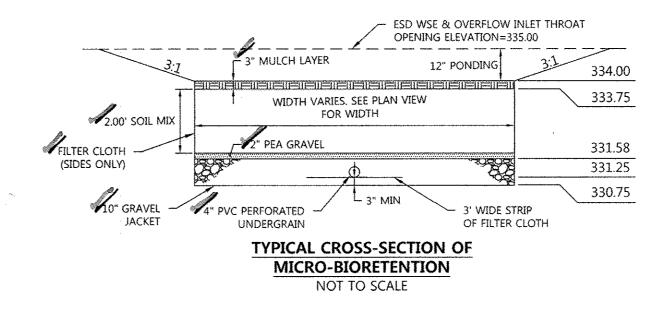
GNATURE OF ENGINEER

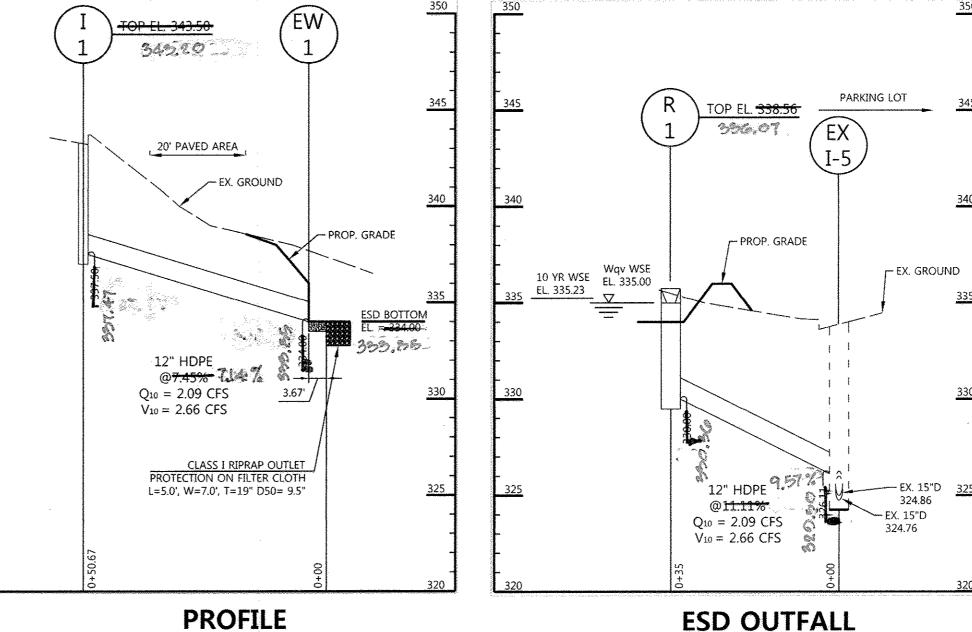
MAINTENANCE CRITERIA

3. PRUNE AND REPLACE DEAD VEGETATION AS

4. WATER VEGETATION DURING DRY PERIODS

DEVELOPERS CERTIFICATION: I/WE CERTIFY. I HAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING ROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT." IGNATURE OF DEVELOPER ENGINEER'S CERTIFICATION: "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.





ESD OUTFALL SCALE: HORZ. 1"=20'

VERT. 1" = 5

I hereby certify that the facility showing Professional Certification, Thereby certify that these on the plan was constructed as shown documents were prepared or approved by me, and that i on the "As-BUILT + Plans and complice am a duly licensed professional engineer under the laws with approved plans and specifications. I have verified that the contribution drainage area is so fficiently stabilized to prevent clossing of the swan facility

SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION

SCALE: HORZ. 1"=20"

VERT. 1'' = 5'

- 1. OBTAIN A GRADING PERMIT FOR THE PROSED WORK. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES (DILP) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. (2 DAYS)
- 2. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE (SCE) AND PERIMETER CONTROLS. (5 DAYS)

26569

- 3. AN ONSITE STOCKPILE AREA, IF APPLICABLE, WILL BE LOCATED WITHIN THE LIMIT OD DISTURBANCE WITH THE COORDINATION AND DISCRETION OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR AND THE GENERAL CONTRACTOR. (1 DAY)
- 4. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BEGIN STORM DRAIN INSTALLATION. AS WELL AS, ESD OVERFLOW INLET AND OUTFALL PIPE. TEMPORARILY BLOCK INLET I-1 AND R-1 UNTIL VEGETATIVE STABILIZATION HAS OCCURRED. (10 DAYS)
- 5. EXCAVATE ESD FACILITY TO SUBGRADE AND FINE GRADE AREA WITHIN LIMIT OF DISTURBANCE. STABILIZE SITE WITH VEGETATION. STABILIZE DIVERSION SWALE WITH SEED AND EROSION CONTROL MATTING. (5 DAYS)
- 6. ONCE SITE HAS BEEN STABILIZED WITH VEGETATION, BEGIN INSTALLATION OF ESD COMPONENTS. REFER TO MICRO-BIORETENTION SEQUENCE OF CONSTRUCTION FOR THIS INSTALLATION LOCATED ON THIS SHEET.
- 7. WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL PRACTICES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS. (2 DAYS)

BY THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT

this development plan is approved for soil erosion and sediment-contro

APPROVED: DEPARTMENT OF PLANNING AND ZONING

DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

2-26-16

DATE

DATE

3-2-16

DATE

3-01-16

8. ONCE DISTURBED AREAS HAVE COMPLETELY BEEN STABILZED, REMOVE INLET BLOCKINGS AND MAKE THE FACILTY ACTIVE. (1 DAY)

HOWARD-SCD

2-2-18 PROF. ENGR. 26569 I HEREBY CERTIFY THAT THERE IS AS-BUILT INFOR-MATION AS SHOWN IN RED ON THIS SHEET! MATHEW C. ZANE PROFESSIONAL LAND SURVEYOR LIC.# 21739 (EXP. 12-12-19 DATE: 01-05-18

PROFESSIONAL CERTIFICATION

EPARED OR APPROVED BY ME, AND THAT I AM

A DULY LICENSED PROFESSIONAL ENGINEER

UNDER THE LAWS OF THE STATE OF MARYLAND,

FOR REVISION 🕭 ONLY

DATE

LICENSE NO. 26569, EXPIRATION DATE: 7-18-17.

1-19-16

PROFESSIONAL ENGR. NO. 26569

SUPER SILT FENCE DIVERSION FENCE LIMIT OF DISTURBANCE — — — — EXISTING EASEMENT **EXISTING ROADWAY** EXISTING WETLANDS **EXISTING INLET EXISTING MANHOLE** EXISTING STORM DRAIN MANHOLE PROPOSED INLET PROPOSED MANHOLE PROPOSED STORM DRAIN PROPOSED MINOR CONTOURS

LEGEND

PURPOSE STATEMENT: REDLINE REVISION #8

THE PURPOSE OF THIS REDLINE REVISION IS TO BRING THE WILL INCLUDE THE ADDITION OF A NEW ENCLOSED SERVICE PARKING AREA, A CAR WASH AREA AND ASSOCIATED SPACE EXISTING DEALERSHIP CANOPIES WILL BE ENCLOSED FOR THESE PROPOSED IMPROVEMENTS.

MICRO-BIORETENTION SEQUENCE OF CONSTRUCTION

- INSTALL STORM DRAIN INFLOW SYSTEM I-1 TO E-1. BLOCK I-1 UNTIL ESD HAS BEEN STABILIZED AND READY FOR STORMWATER TREATMENT.
- INSTALL ESD OVERFLOW INLET R-1 AND OUTFALL PIPE TO EXISTING I-5. TEMPORARILY BLOCK R-1 UNTIL FACILITY IS STABILIZED AND READY FOR STORMWATER TREATMENT.
- EXCAVATE FACILITY TO SUBGRADE AND FINE GRADE AREAS WITHIN LIMIT OF DISTURBANCE. STABILIZE SITE WITH VEGETATION.
- 4. ONCE SITE HAS BEEN STABILIZED AND SUBGRADE ELEVATIONS HAVE BEEN VERIFIED, PLACE 3" OF 10" GRAVEL JACKET OF NO.57 OR NO.6 AGGREGATE IN THE BOTTOM OF EXCAVATION.
- PLACE 3' WIDE STRIPS OF FILTER FABRIC DOWN ON 3" GRAVEL LAYER TO SUPPORT UNDERDRAIN SYSTEM. PLACE UNDERDRAINS IN CENTER OF FABRIC & TIE PIPES TO INLET WALLS AT THEIR PRESCRIBED INVERT ELEVATIONS.

PLACE REMAINDER (7") OF THE 10" GRAVEL JACKET. CHECK FOR

PLACE 2" PEA GRAVEL LAYER OVER GRAVEL JACKET.

BACKFILL TOPSOIL FILTER MEDIA IN LIFTS OF 12" TO 18". DO NOT COMPACT, INSTALL LANDSCAPE PLANTINGS.

INSTALL RIP RAP INFLOW PROTECTION AT ALL CURB OPENING INFLOW

10. SEED OR SOD 3:1 SIDE SLOPES. ADD 3" MULCH LAYER.

11. INSTALL MICRO BIO-RETENTION PLANTINGS

AS-BUILT ACURA WEST DEALERSHIP SERVICE AREA EXPANSION DATE REVISION DESCRIPTION

NORRIS ACURA WEST

8559 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

NORRIS AUTO GROUP 925 MERRITT BOULEVARD BALTIMORE, MD 21222 CONTACT: DAVID NORRIS COOK

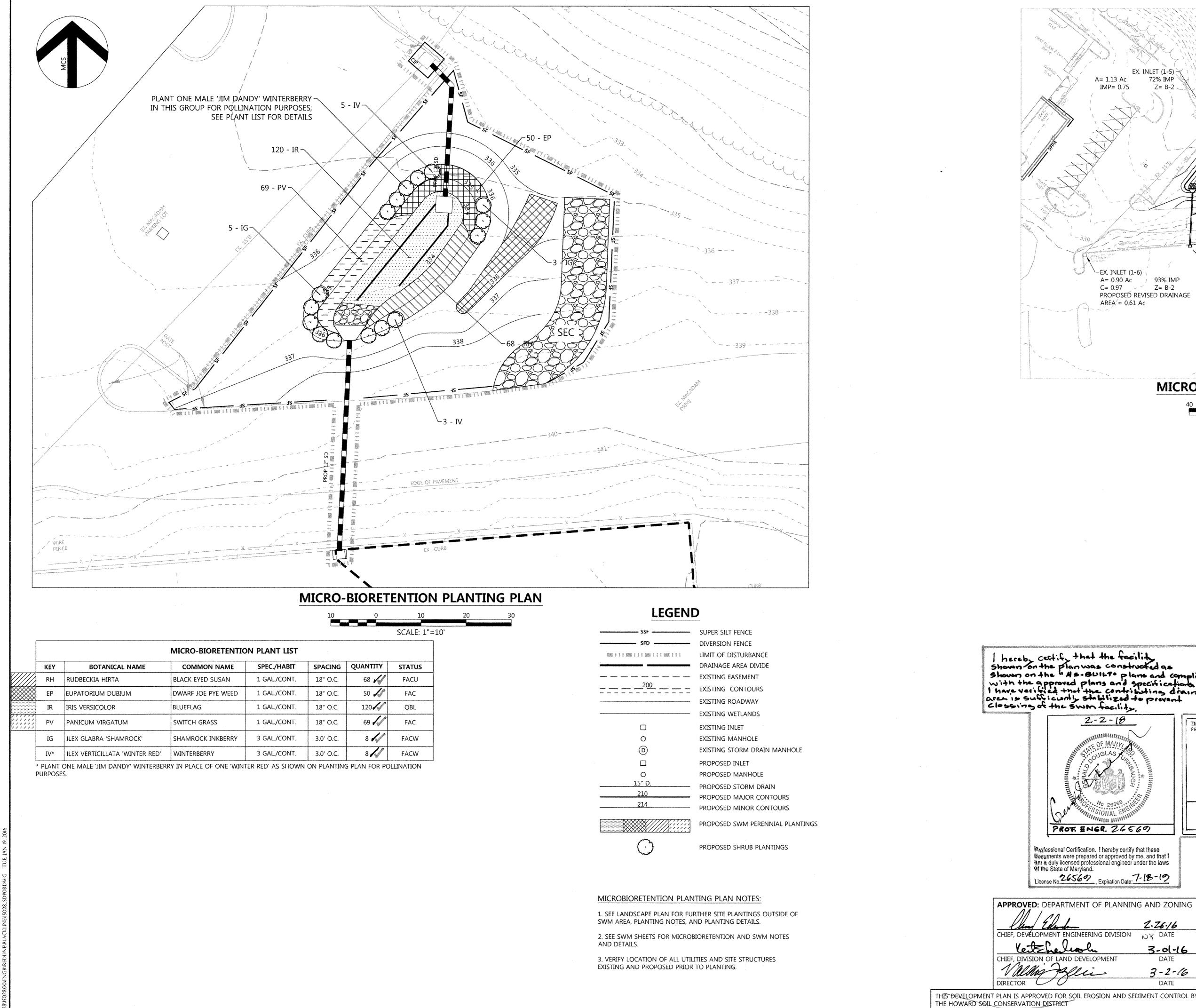


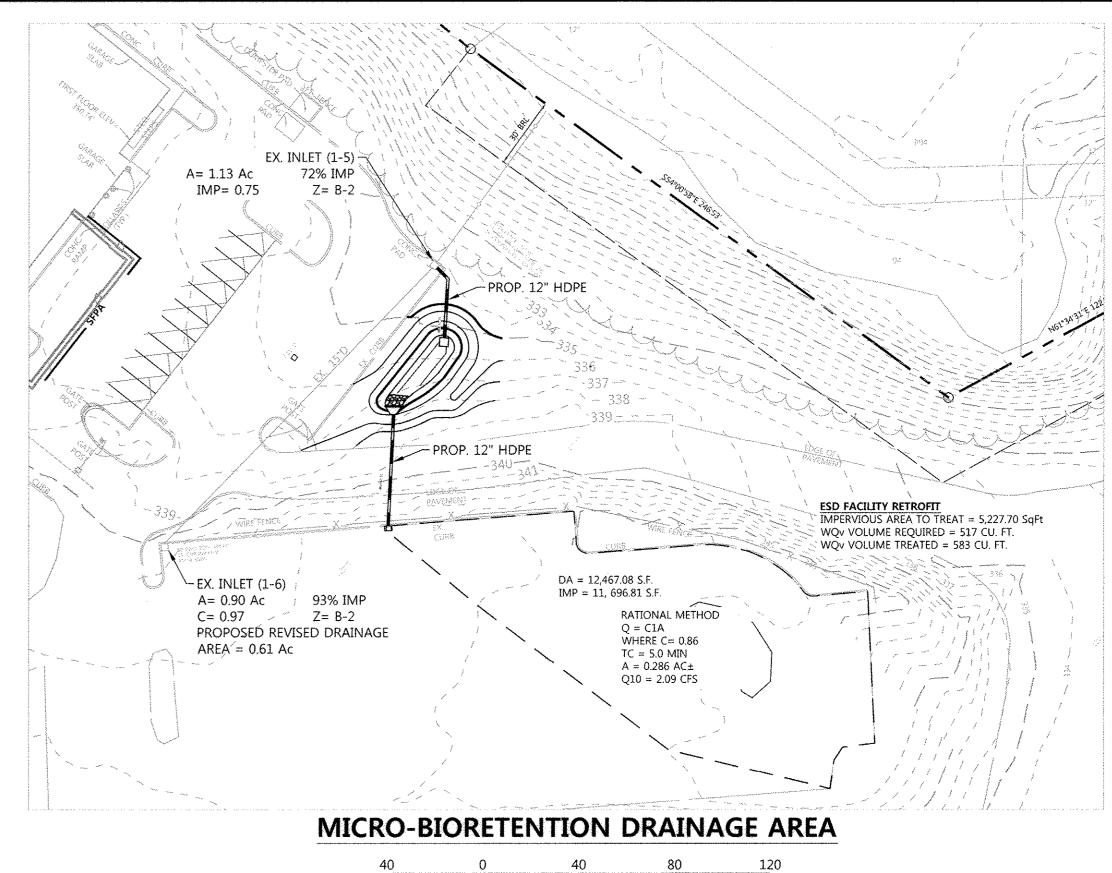
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

MICRO-BIORETENTION DETAILS **AND NOTES**

PVICET 9.		٠.	3EC1,/AREA 101/PA			39	
PLAT# OR L/F 6656	BLOCK#	ZONE B-2	TAX/ZONE M 25	AP ELEC	DIST. 2	CENSUS TR. 602900	
WATER CODE			SEWER CO	DE			
	The second secon	ADDRES	SS CHART				
LOT NUMBER	}	STREET AD	DRESS				
81		8559 8	ALTIMBAE NA	THOUAL T	AKE		
DES. BY ERS		SCALE: A	AS SHOWN	PRO.	PROJ. NO. 15028		
DRN. BY GM	0	DATE:	1/19/16				
CHK'D. BY		APPROV	ED	IC	10 OF 12		

SDP-86-182





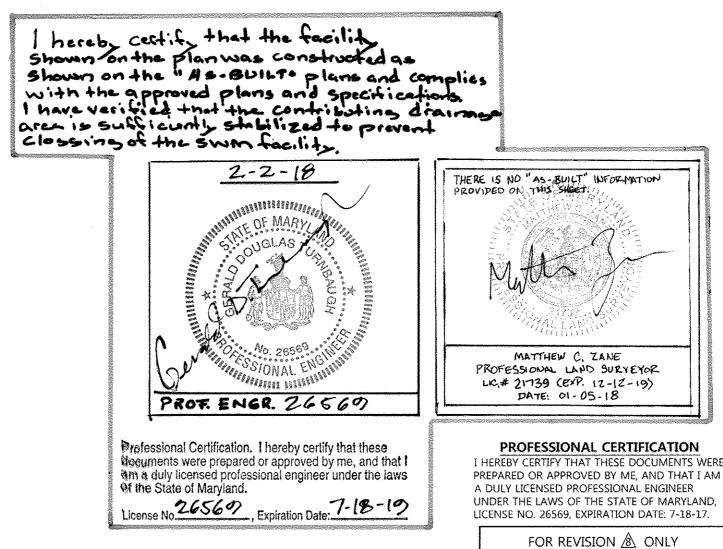
PURPOSE STATEMENT: REDLINE REVISION #8

AS-BUILT

THE PURPOSE OF THIS REDLINE REVISION IS TO BRING THE EXISTING BUILDING TO CURRENT ACURA SHOWCASE STANDARDS. THE NEW ACURA STANDARDS MANDATE NEW CUSTOMER SERVICE REQUIREMENTS. THE FOLLOWING IMPROVEMENTS PERTAIN TO SERVICE CUSTOMER INTAKE PROCEDURES AND PROTOCOLS. THE BUILDING UPGRADE WILL INCLUDE THE ADDITION OF A NEW ENCLOSED SERVICE PARKING AREA, A CAR WASH AREA AND ASSOCIATED SPACE. EXISTING DEALERSHIP CANOPIES WILL BE ENCLOSED FOR THESE PROPOSED IMPROVEMENTS.

ACURA WEST DEALERSHIP SERVICE AREA EXPANSION

REVISION DESCRIPTION



DATE

HOWARD SCD

	NORRIS ACURA WEST						
AS-BUILT' INFORMATION THIS SHEET	8559 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043 HOWARD COUNTY, MARYLAND						
	OWNER / DEVELOPER						
	NORRIS AUTO GROUP 925 MERRITT BOULEVARD BALTIMORE, MD 21222						
	CONTACT: DAVID NORRIS COOK						

1-19-16

PROFESSIONAL ENGR. NO. 26569

DATE

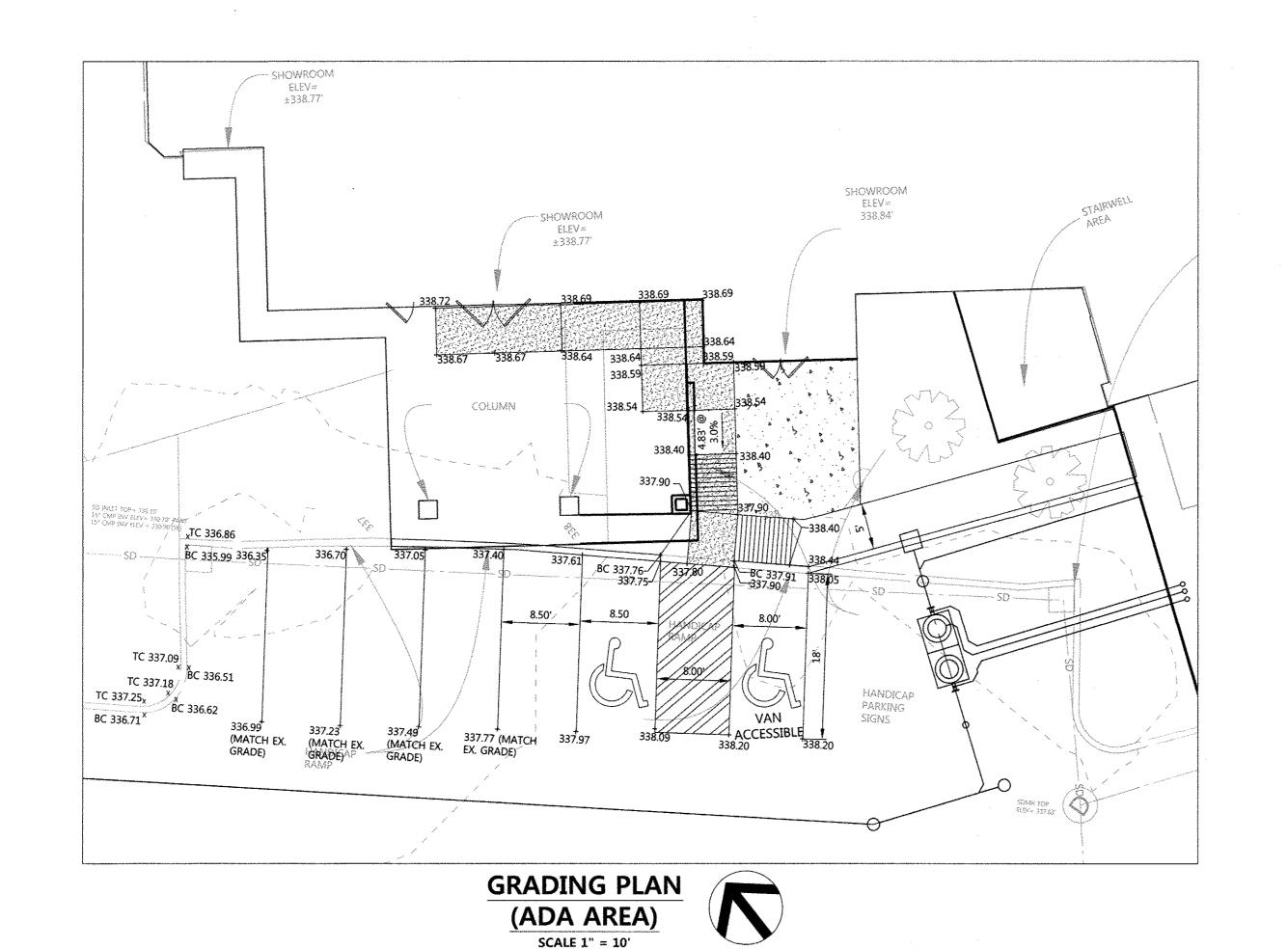
DATE

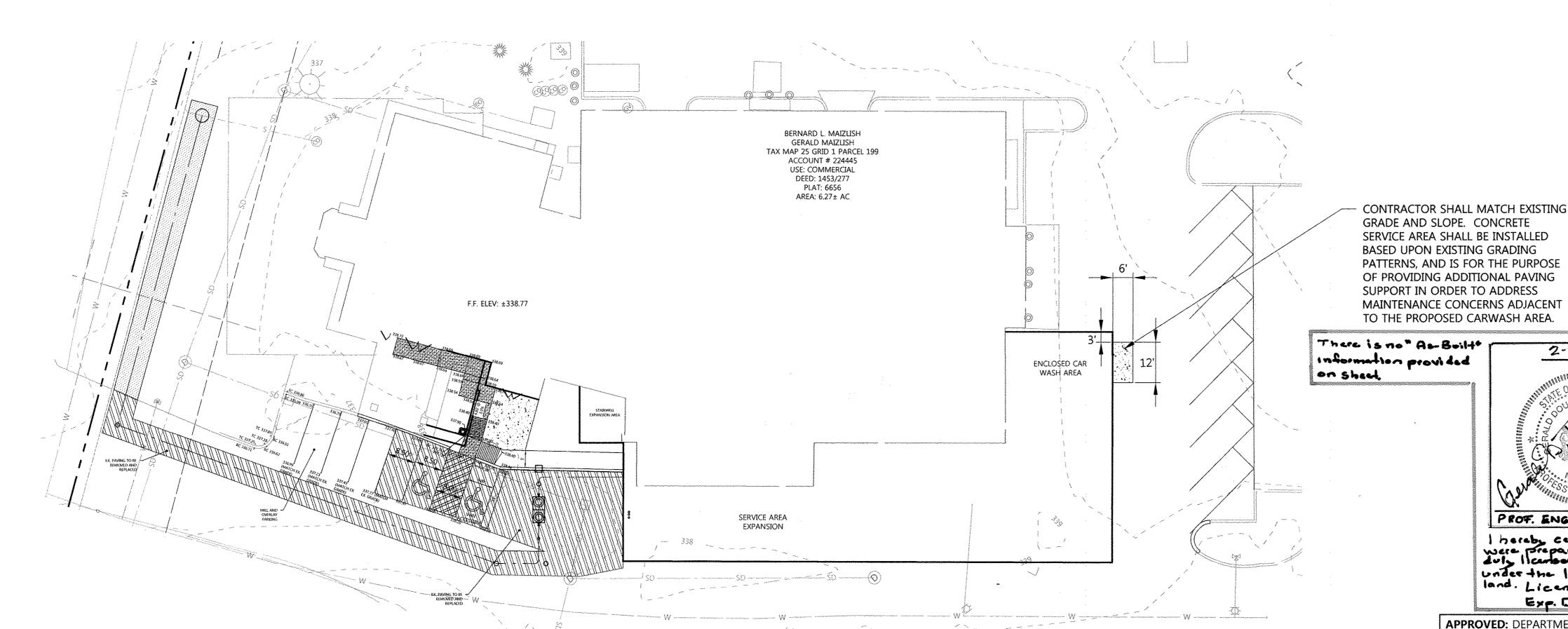


501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

ESD LANDSCAPING AND SEDIMENT AND EROSION CONTROL DETAILS AND NOTES

SUBDIVISION NAME	_	BRETY	SECT./AI		EA	LOT/PARCEL # 199		
PLAT# OR L/F BLOCK# 6656 I		ZONE B-2	TAX/ZONE MAP ELEC. D 25 2			CENSUS TR. 602900		
WATER CODE			SEWER	CODE				
, year (, , , , , , , , , , , , , , , , , ,		ADDRES	S CHART				erica e e e e e e e e e e e e e e e e e e e	
LOT NUMBER		STREET AD	STREET ADDRESS 8559 BALTIMIAE NATIONAL PINE					
31		8559						
DES. BY ERS DRN. BY GMO		SCALE: A	SCALE: AS SHOWN DATE: 1/19/16		OWN PROJ.		5028	
		DATE:				, , ,		
CHK'D. BY		APPROV	APPROVED			OF	12	





GRADING PLAN

SCALE: 1"=20'

LEGEND

SUBJECT PROPERTY LINE ----- ADJACENT PROPERTY LINE ______ 338 ______ EX. CONTOURS EX. BUILDING EX. CURB EX. TREELINE ----- EX. WATER LINE ---- EX. SEWER LINE × ——— EX. FENCE LINE PROP. CURB PROP. 6" S. PROP. SEWER PROP. 6" W. PROP. 6" D. PROP. STORM DRAIN LIMIT OF DISTURBANCE ADA ACCESSIBLE ROUTE (MAX 2% CROSS SLOPE) ADA RAMP (MAX 2% CROSS SLOPE) (MAX 🍰 RISE)

THERE IS NO "AS-BUILT" INFORMATION

MATTHEW C. ZANE
PROFESSIONAL LAND SURVEYOR
LIC.# 21739 (EXP. 12-12-19)
DATE: 01-05-18

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE

PREPARED OR APPROVED BY ME, AND THAT I AM

A DULY LICENSED PROFESSIONAL ENGINEER

UNDER THE LAWS OF THE STATE OF MARYLAND,

LICENSE NO. 8061, EXPIRATION DATE: 8-26-17.

6.23.17

6-30-17

DATE

DATE

DATE

7-6-17

2-2-18

PROF. ENGR 26560

Exp. Date 7-18-19

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTRO

THE HOWARD SOIL CONSERVATION DISTRICT

STORMWATER MANAGEMENT NOTE

STORMWATER MANAGEMENT HAS BEEN ADDRESSED THROUGH ENVIRONMENTAL SITE DESIGN.

SWALE NOTE

ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.

STANDARD NONDISTURBANCE NOTE

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY THE HOWARD COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.

GRADING NOTE

THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY THE HOWARD COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE HOWARD COUNTY CODE. HOWEVER, DUE TO THE BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.

SITE PLAN NOTES:

- 1. CONTRACTOR SHALL VERIFY EX. ELEVATIONS AND SITE CONDITIONS PRIOR TO BEGINNING OF CONSTRUCTION.
- 2. CONTRACTOR TO MATCH REVISED GRADE FOR ALL EXISTING SURFACE APPURTENANCES (i.e. VALVES, MANHOLES, AREA DRAINS, ETC.)
- 3. Contractor shall strictly adhere to all applicable rules and regulations regarding ada accessibility

DATA SOURCE:

- 1. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON PLAT #6656, TITLED "LANCELOTTA PROPERTY PARCEL B-1".
- 2. The topographic information shown hereon is based on a field run survey performed by DMW in august 2015 and supplemented with howard county
- DESIGN & DRAWINGS BASED ON MARYLAND COORDINATE SYSTEM

LIMIT OF DISTURBANCE: 16,758.76 SF. / 0.38 AC.±

02-01-17 ACURA WEST LANDSCAPING AND BUILDING FOOTPRINT
07-23-15 ACURA WEST DEALERSHIP SERVICE AREA EXPANSION
DATE NO. REVISION DESCRIPTION

AS-BUILT

NORRIS ACURA WEST 8559 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MD 21043 HOWARD COUNTY, MARYLAND

OWNER / DEVELOPER

NORRIS AUTO GROUP 925 MERRITT BOULEVARD BALTIMORE, MD 21222 CONTACT: DAVID NORRIS COOK



SCALE: AS SHOWN PROJ. NO. 15028

12 OF 12

PROPOSED GRADING PLAN AND ADA RAMP AND ROUTE

DATE: 5/31/17

APPROVED

SUBDIVISION NAME

SECT./AREA

LOT/PARCE
199

PLAT# OR L/F
6656

B-2
25
2

WATER CODE

ADDRESS CHART

LOT NUMBER

STREET ADDRESS

8559

BALTIMARE NATIONAL PIRE

AND ESSI

FOR REVISION 🛕 ONLY

2-14-17

PROFESSIONAL ENGR. NO. 8061 CHK'D. BY

SDP-86-182

DES. BY ERS

DRN. BY GMO