

LEGEND

F FERMENTER
 FC FINAL CLARIFIER
 FEB FLOW EQUALIZATION BASIN
 PC PRIMARY CLARIFIER
 PR PROCESS REACTOR
 PS PRIMARY SUBSTATION
 TB-3 TEST BORING

PROPOSED STRUCTURE
 PROPOSED BITUMINOUS PAVING
 CONCRETE PAVING/SIDEWALK OR MOW STRIP
 PROPOSED CONTOUR
 LIMIT OF DISTURBANCE
 EXISTING CONTOUR
 EXISTING PIPING 12" AND ABOVE
 PROPOSED PIPING 12" AND ABOVE
 EXISTING PIPING SMALLER THAN 12"
 PROPOSED PIPING SMALLER THAN 12"
 EXISTING SPOT ELEVATION
 PROPOSED SPOT ELEVATION

STAKEOUT COORDINATES
 SF SILT FENCE
 SSF SUPER SILT FENCE
 AGIP INLET PROTECTION

NEW STORM MANHOLE AND DESIGNATOR
 NEW STORM INLET AND DESIGNATOR
 NEW SEWER MANHOLE AND DESIGNATOR

LEGEND

EX. SLOPES
 25% OR GREATER
 NEW PAVEMENT
 TEMPORARY ASPHALT BERM
 SUPER SILT FENCE OUTLET STRUCTURE

LEGEND

FOR REV. 10 ONLY
 FOR REV. 11 ONLY
 FOR REV. 12 ONLY
 FOR REV. 13 ONLY
 FOR REV. 14 ONLY

LEGEND

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 FOR REV. 134 ONLY

LEGEND

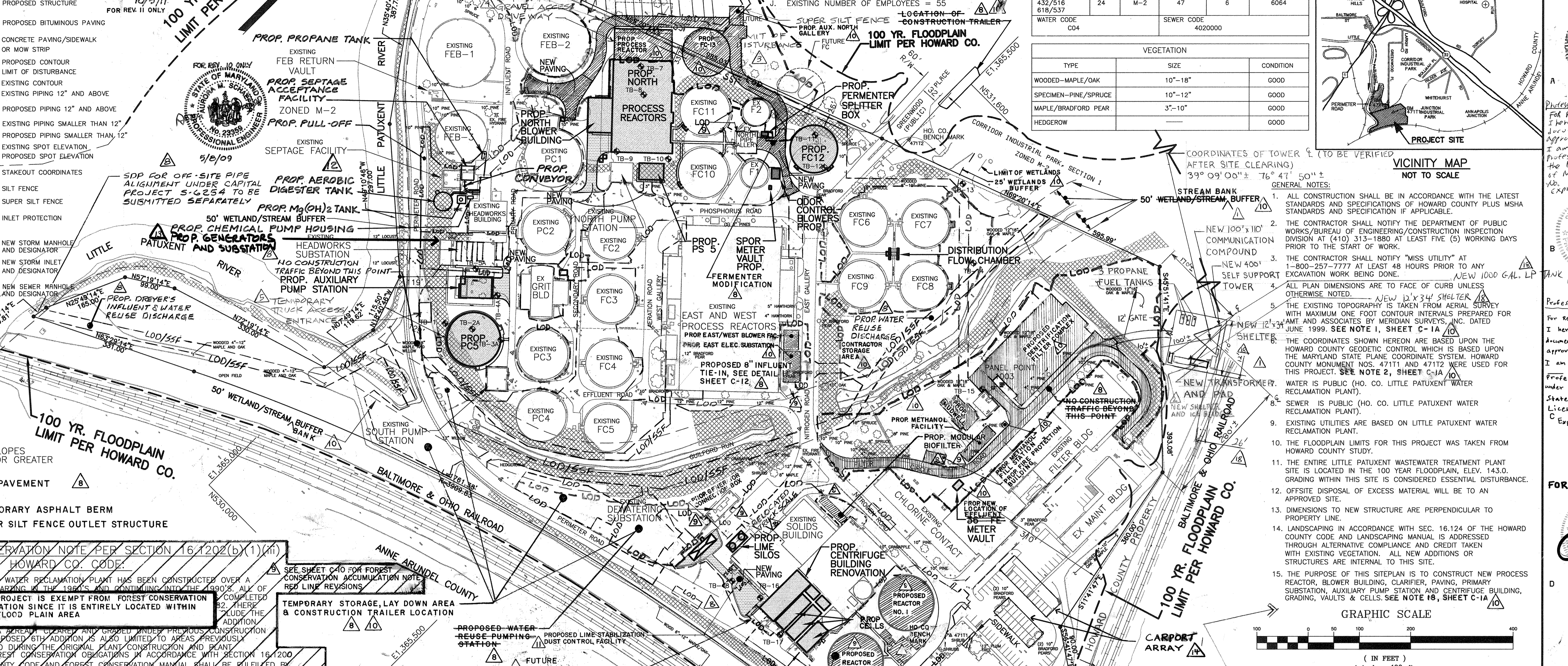
FOR REV. 135 ONLY
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 FOR REV. 149 ONLY



FOREST CONSERVATION NOTE PER SECTION 16.1202(b)(1)(ii) HOWARD CO. CODE

THIS PROJECT IS EXEMPT FROM FOREST CONSERVATION OBLIGATION SINCE IT IS ENTIRELY LOCATED WITHIN THE FLOOD PLAIN AREA

BENCHMARK SEE TRAVERSE DATA ON SHEET C-1C AND C-1D

HORIZONTAL AND VERTICAL BASED UPON HOWARD COUNTY GPS CONTROL MONUMENTS (THIRD CLASS SURVEY CONTROL) NAD 83/91, NAVD 88.

NAME	NORTHING	EASTING	ELEVATION
47111	530819.908	1366225.547	143.274
47112	531440.211	1365496.525	147.001

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 6/21/00

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/23/00

DIRECTOR
 DATE: 5/24/00

OWNER/DEVELOPER

HOWARD COUNTY GOVERNMENT
 DEPT. OF PUBLIC WORKS
 3430 COURTHOUSE DRIVE
 ELLICOTT CITY, MARYLAND 21043

STORM WATER MANAGEMENT

ITEM	MATERIAL	SQ. FT AREA
SHELTER	FIBERGLASS	410
FUEL TANK PADS	CONCRETE	300
TRANSFORMER PAD	CONCRETE	20
TOWER FOUNDATION	CONCRETE	50
TOTAL		780

SHEET INDEX

C-1 OVERALL SITE PLAN SEE SHEET INDEX ON SHEET C-1A
 C-2 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-3 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-4 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-5 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-6 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-7 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-8 SITE DEVELOPMENT & EROSION AND SEDIMENT CONTROL PLAN
 C-9 EROSION AND SEDIMENT CONTROL DETAILS
 C-10 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
 C-11 STORM SEWER PROFILE AND SITE DETAILS
 C-12 STORM SEWER PROFILES
 C-13 STRUCTURE SECTIONS

AMT
 A. MORTON THOMAS AND ASSOCIATES, INC.
 CONSULTING ENGINEERS
 12759 TWINBROOK PARKWAY, SUITE 200, ROCKVILLE MD 20852
 TEL: (301) 981-2546 FAX: (301) 981-8814
 E-MAIL: JBYRNE@AMTEENGINEERING.COM
 HOWARD COUNTY SUBMITTAL 05/01/00

BLACK & VEATCH
 Gathersburg, Maryland
 REG. PROF. ENGR.
 DATE: 5/23/00

DES: AR
DRN: REA
CHK: JB
DATE: 05/01/00

REVISIONS

NO.	DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY	CK
12-13-06		ADD MODULAR BIOFILTER, REVIS-LOD, ADD SENS-A-TOR CONNECTION BOX, ADD REACTORS	9		
5-26-06		ADD ADDITION 7 IMPROVEMENTS FOR DREYER'S WW	8		
7-26-02		ADD GENERAL NOTE CONCERNING C WAIVER	7		
5-20-02		REALIGN STOCKPILE AREA	6		
1-7-02		ADD TRUCK ACCESS PERIMETER ROAD	5		
1-7-02		ADD TRUCK ACCESS NORTH R	4		
1-7-02		REVISED LIMIT OF DISTURBANCE	3		
12-5-01		NEW SHELTER AND ICE BRIDGE	2		
9-5-00		NEW COMMUNICATION TOWER	1		

CIVIL

REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148

OVERALL SITE PLAN

REDLINE REV. NO. 10: PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY & DRAINAGE RESERVATION

LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 6

PARCEL A

CAPITAL PROJECT S-6205 CONTRACT NO

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 59

C-1

2-5-18 Revised addition No. 8 to incorporate Phase 2
 8-24-18 ADD NEW SHELTER AND LP FUEL TANK
 9-19-14 ADD SOLAR CARPORT ARRAY
 1-19-17 Revising of addition 8, process reactor, anaerobic facilities and outlet embankment and stabilization, revised sheet total.
 3-16-12 ADD SEPTAGE ACCEPTANCE FACILITY, DIGESTER TANK, PROPANE TANK, Mg(OH)2 TANK AND APPURTENANCES
 10-21-13 ADD STANDBY GENERATORS AND SUBSTATION

ADDRESS CHART

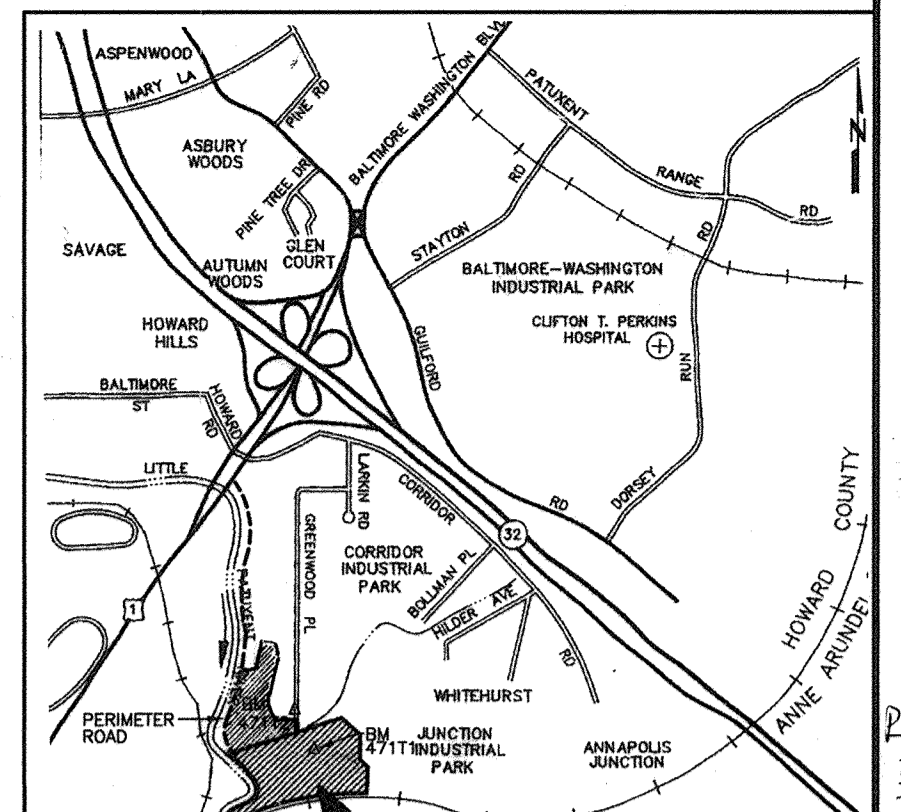
LOT/PARCEL #	STREET ADDRESS
PARCEL A	8900 GREENWOOD PLACE

PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
PLAT # OR L/F GRIDE # <th>ZONING</th> <th>TAX MAP NO.</th>	ZONING	TAX MAP NO.
432/516	M-2	47
618/537		6
		6064
WATER CODE	SEWER CODE	
C04	4020000	

VEGETATION

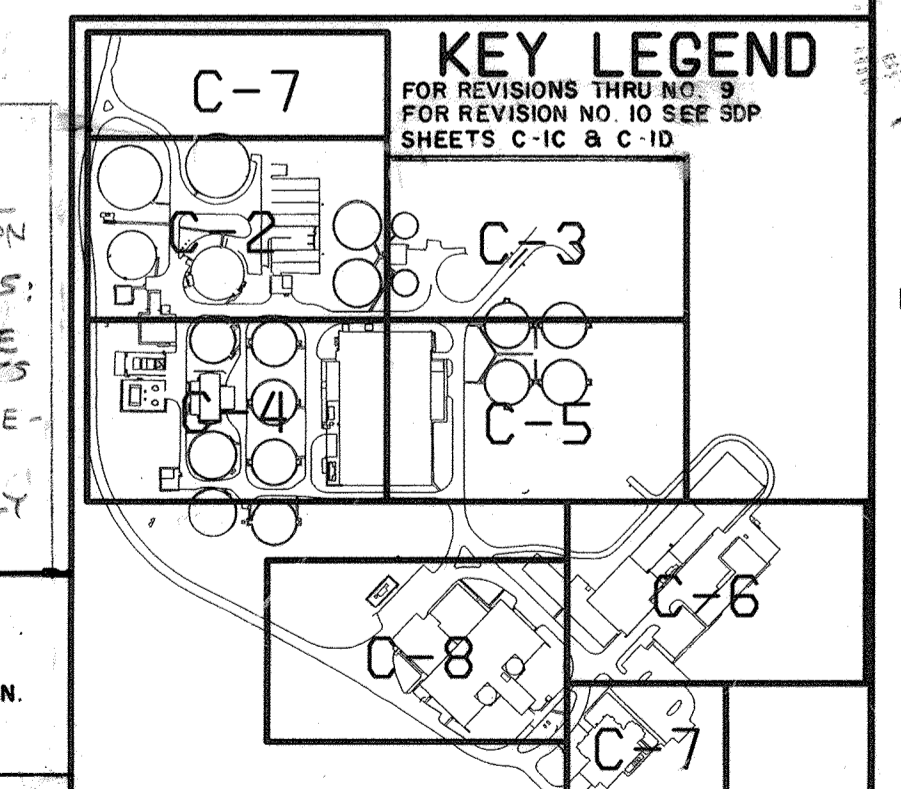
TYPE	SIZE	CONDITION
WOODED-MAPLE/OAK	10"-18"	GOOD
SPECIMEN-PINE/SPRUCE	10"-12"	GOOD
MAPLE/BRADFORD PEAR	3"-10"	GOOD
HEDGEROW		GOOD



GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATION IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE. A NEW 1000 GAL. LP TANK AND 10'x10' COMMUNICATION COMPOUND.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY TAKEN FROM AERIAL SURVEY WITH MAXIMUM ONE FOOT CONTOUR INTERVALS PREPARED FOR JMT AND ASSOCIATES BY MERIDIAN SURVEYS, INC. DATED JUNE 1999. SEE NOTE 1, SHEET C-1A.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 47111 AND 47112 WERE USED FOR THIS PROJECT. SEE NOTE 2, SHEET C-1A.
- WATER IS PUBLIC (HO. CO. LITTLE PATUXENT WATER RECLAMATION PLANT).
- SEWER IS PUBLIC (HO. CO. LITTLE PATUXENT WATER RECLAMATION PLANT).
- EXISTING UTILITIES ARE BASED ON LITTLE PATUXENT WATER RECLAMATION PLANT.
- THE FLOODPLAIN LIMITS FOR THIS PROJECT WAS TAKEN FROM HOWARD COUNTY STUDY.
- THE ENTIRE LITTLE PATUXENT WASTEWATER TREATMENT PLANT SITE IS LOCATED IN THE 100 YEAR FLOODPLAIN, ELEV. 143.0. GRADING WITHIN THIS SITE IS CONSIDERED ESSENTIAL DISTURBANCE.
- OFFSITE DISPOSAL OF EXCESS MATERIAL WILL BE TO AN APPROVED SITE.
- DIMENSIONS TO NEW STRUCTURE ARE PERPENDICULAR TO PROPERTY LINE.
- LANDSCAPING IN ACCORDANCE WITH SEC. 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPING MANUAL IS ADDRESSED THROUGH ALTERNATIVE COMPLIANCE AND CREDIT TAKEN WITH EXISTING VEGETATION. ALL NEW ADDITIONS OR STRUCTURES ARE INTERNAL TO THIS SITE.
- THE PURPOSE OF THIS SITEPLAN IS TO CONSTRUCT NEW PROCESS REACTOR, BLOWER BUILDING, CLARIFIER, PAVING, PRIMARY SUBSTATION, AUXILIARY PUMP STATION AND CENTRIFUGE BUILDING, GRADING, VAULTS & CELLS. SEE NOTE 18, SHEET C-1A.

GRAPHIC SCALE
 (IN FEET)
 1 inch = 100 ft.



PROFESSIONAL CERTIFICATION

For Revision 18 only:
 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. 27723, expiration date 8-14-19.

10/15/17
 11/16/17

PROFESSIONAL CERTIFICATION

For Revision 15, 16, 17 only:
 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. 12975, expiration date: May 26, 2018.

PROFESSIONAL CERTIFICATION

10/17/14
 exp. 6/24/16

PROFESSIONAL CERTIFICATION

For Rev 13 only
 10/11/13 21757

PROFESSIONAL CERTIFICATION

4/16/2012

SITE FEATURES

- R— PROPERTY LINE
- 140— EX GRADE MAJOR CONTOUR
- EX GRADE MINOR CONTOUR
- 132— NEW GRADE CONTOUR
- TEMPORARY GRADE CONTOUR
- X 129.50 EXISTING SPOT ELEVATION
- X 129.50 NEW SPOT ELEVATION
- WVY TOP OF SLOPE
- WVY BOTTOM OF SLOPE
- ← DRAINAGE AREA DIVIDE
- NEW GUARDRAIL
- STEEP SLOPE (25% OR GREATER)
- Cp / Ha SOIL BOUNDARY, SOIL TYPES
- DIRECTION OF (SURFACE) FLOW
- EXISTING TREE LINE
- NEW TREE LINE
- EXISTING TREE OR SHRUB
- EXISTING FENCE
- NEW FENCE
- STAKEOUT CONTROL POINT
- 2004 COORDINATE IDENTIFICATION
- SB 50' STREAM BANK BUFFER

SOIL STYLE LEGEND

- Cp** CODORUS AND HATBORO SOILS, 0 TO 2 PERCENT SLOPES, FREQUENTLY FLOODED
- Ha** HATBORO-CODORUS SILT LOAMS, 0 TO 3 PERCENT SLOPES
- UtD** URBAN LAND-UDORTHENTS COMPLEX, 0 TO 15 PERCENT SLOPES
- Co** CODORUS AND HATBORO SILT LOAMS, 0 TO 3 PERCENT SLOPES
- SrE** SASSAFRAS AND CROOM SOILS, 15 TO 25 PERCENT SLOPES
- DhB** DOWNER-HAMMONTON SANDY LOAMS, 2 TO 5 PERCENT SLOPES

STRUCTURES

- I XX-X STORM DRAIN INLET IDENTIFICATION
- MH XX-X STORM DRAIN MANHOLE IDENTIFICATION
- O XX-X STORM DRAIN OUTFALL IDENTIFICATION
- EMH-XX ELECTRICAL MANHOLE IDENTIFICATION
- TMH-XX TELECOMMUNICATIONS MANHOLE IDENTIFICATION

PIPING AND UTILITIES

- 12" SD EXISTING PIPE AND DESIGNATION (DOUBLE LINE)
- 4" SD EXISTING PIPE AND DESIGNATION (SINGLE LINE)
- 12" SD NEW PIPE AND DESIGNATION (DOUBLE LINE)
- 4" SD NEW PIPE AND DESIGNATION (SINGLE LINE)
- NC PROP. NATURAL GAS LINE, SEDIMENT CONTROLS FOR GAS LINE INSTALLATION
- NOTED ON SHEET 56
- 4" PROP. NATURAL GAS LINE
- 6" PROP. NATURAL GAS LINE

EROSION & SEDIMENT CONTROL SYMBOLS
(SEE DETAILS ON "CE" SERIES)

- LOD— LIMIT OF DISTURBANCE/LIMIT OF WORK
- SF— SUPER SILT FENCE (MDE STD. DETAIL #22) (UPDATED DETAIL E-1)
- SSF— SUPER SILT FENCE (MDE STD. DETAIL #33) (UPDATED DETAIL E-3)
- SCE STABILIZED CONSTRUCTION ENTRANCE (MDE STD. DETAIL #24) (UPDATED DETAIL B-1)
- SP SUMP PIT (MDE STD. DETAIL #20B)
- PST PORTABLE SEDIMENT TANK (MDE STD. DETAIL #21)
- AGIP AT GRADE INLET PROTECTION (MDE STD. DETAIL #23B)
- CIP CURB INLET PROTECTION (MDE STD. DETAIL #23C) (UPDATED DETAIL E-4-3)
- SSIP SUPER SILT FENCE INLET PROTECTION (MODIFIED MDE STD DETAIL #23A)
- TST TEMPORARY SEDIMENT TRAP (SEE CE-15)
- SEDIMENT TRAP Baffle BOARD (DETAIL #101)
- SEDIMENT FILTER BAG (DETAIL #102)
- DF DIVERSION FENCE (DETAIL #103)
- TEMPORARY ASPHALT BERM (LOCATED ON EXIST PAVING ONLY)
- TP TREE PROTECTION FENCING (SEE CM-2)
- ADDITION NO. 8 SEDIMENT CONTROL DRAINAGE AREA

SURFACES

- NEW BITUMINOUS PAVEMENT/BITUMINOUS PAVEMENT REPLACEMENT
- BITUMINOUS PAVEMENT RESTORATION (MILL, PATCH AND OVERLAY)
- NEW CONCRETE SURFACE
- GRAVEL

SDP SHEET INDEX

SDP SHEET NO.	CONTRACT DWG	DRAWING TITLE
1	1	OVERALL SITE PLAN
2	CS-1	LEGEND, SYMBOLS AND GENERAL NOTES
3	CS-2	OVERALL PROPERTY BOUNDARY PLAN
4	CS-3	PLANT SITE AND KEY PLAN
5	CS-4	PLANT SITE AND KEY PLAN
6	S-5	EROSION AND SEDIMENT CONTROL CONCEPT PLAN
7	S-6	EROSION AND SEDIMENT CONTROL CONCEPT PLAN
8	C-2	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
9	C-3	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
10	C-4	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
11	C-5	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
12	C-6	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
13	C-7	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
14	C-8	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
15	CE-1	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN A
16	CE-2	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN B
17	CE-3	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN C
18	CE-4	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN D
19	CE-5	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN E
20	CE-6	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN F
21	CE-7	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN G
22	CE-8	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN H
23	CE-9	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN I
24	CE-10	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN J
25	CE-11	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN K
26	CE-12	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN L
27	CG-1	STAKEOUT, GRADING AND RESTORATION PLAN A
28	CG-2	STAKEOUT, GRADING AND RESTORATION PLAN B
29	CG-3	STAKEOUT, GRADING AND RESTORATION PLAN C
30	CG-4	STAKEOUT, GRADING AND RESTORATION PLAN D
31	CG-5	STAKEOUT, GRADING AND RESTORATION PLAN E
32	CG-6	STAKEOUT, GRADING AND RESTORATION PLAN F
33	CG-7	STAKEOUT, GRADING AND RESTORATION PLAN G
34	CG-8	STAKEOUT, GRADING AND RESTORATION PLAN H
35	CG-9	STAKEOUT, GRADING AND RESTORATION PLAN I
36	CG-10	STAKEOUT, GRADING AND RESTORATION PLAN J
37	CG-11	STAKEOUT, GRADING AND RESTORATION PLAN K
38	CG-12	STAKEOUT, GRADING AND RESTORATION PLAN L
39	CG-13	ROAD PROFILE & LAYOUT
40	CE-13	EROSION AND SEDIMENT CONTROL DETAILS (REMOVED/SUPERCEDED BY SHEET C-9A)
41	CE-15	TEMPORARY SEDIMENT TRAP DETAILS AND RESTORATION PLAN
42	C-10A	EROSION AND SEDIMENT CONTROL NOTES
43	C-11	STORM SEWER PROFILE & SITE DETAILS
44	C-11A	STORM SEWER AND SITE DETAILS
45	C-11B	TREE PROTECTION DETAILS
46	C-11C	MISCELLANEOUS DETAILS
47	C-11D	MISCELLANEOUS DETAILS
48	C-11E	STORM SEWER PROFILES
49	C-11F	STORM SEWER PROFILES
50	C-12B	STRUCTURE AND COORDINATE SCHEDULE
51	C-13	STRUCTURE SECTIONS [EXISTING]
52	C-13A	STRUCTURE ELEVATIONS [PROPOSED]
53	A1	SOLAR OVERALL SITE PLAN
54	A3	SOLAR REPORT ELEVATIONS

FOR REVISED SDP SHEET INDEX SEE SHEET 55

ADDITION NO. 8 SEDIMENT AND EROSION CONTROL SYMBOLS

- LOD— LIMIT OF DISTURBANCE/LIMIT OF WORK FOR ADDITION NO. 8 BIOSOLIDS PROCESSING FACILITIES
- LOD-S— LIMIT OF DISTURBANCE/LIMIT OF WORK FOR ADDITION NO. 8 OUTFALL AND EMBANKMENT STABILIZATION
- CWS ONSITE CONCRETE WASHOUT AREA (MDE STD. DETAIL H-6)
- CD STONE CHECK DAM (MDE STD. DETAIL D-2)
- A-2 TEMPORARY SHALE (MDE STD. DETAIL C-2)
- SILT FENCE ROCK OUTLET (DETAIL I SHEET 56)
- STANDARD INLET PROTECTION
- SANDBAG DIVERSION
- INLET SEDIMENT SACK (FOR DETAIL SEE SHEET 56)
- FL-18 FILTER LOG

GENERAL NOTES

- GROUND SURVEY INFORMATION FOR ADDITION NO. 7, SDP REV. NO. 10, WAS OBTAINED FROM THOTH PROFESSIONAL LAND SURVEYORS, INC., LAST UPDATED NOVEMBER 24, 2008
- THE COORDINATES SHOWN HEREON ARE BASED ON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM, NAD 83/91. THE VERTICAL DATUM IS BASED UPON HOWARD COUNTY GPS CONTROL, NAVD 88. NOTE: COUNTY MONUMENTS 471T1 AND 471T2 WERE DESTROYED PRIOR TO THIS PROJECT. A NEW TRAVERSE AND BENCHMARKS WERE ESTABLISHED WITH ASSISTANCE FROM HOWARD COUNTY. PREVIOUS PROJECTS USED OTHER VERTICAL DATUMS. CONVERSIONS ARE GIVEN AT THE BOTTOM OF ALL SHEETS FOR THIS PROJECT.
- EXISTING UTILITIES AND STRUCTURES SHOWN ARE FROM THE BEST AVAILABLE RECORDS, AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK. THE COMPLETENESS OR CORRECTNESS OF THE INFORMATION GIVEN IS NEITHER WARRANTED NOR GUARANTEED. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS. ANY DAMAGE TO THEM DUE TO HIS NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT HIS OWN EXPENSE AND NO INCREASE IN CONTRACT TIME ALLOWED.
- CONTRACTOR SHALL USE DESIGNATED AREAS FOR STAGING, STORAGE AND EMPLOYEE PARKING, AND SHALL MAINTAIN CLEAR ACCESS FOR PLANT FACILITIES AT ALL TIMES.
- SOIL BORINGS AND THE GEOTECHNICAL REPORT ARE INCLUDED IN THE CONTRACT SPECIFICATIONS.
- TEST SOIL IN RESTORATION AREAS, USING STANDARD METHOD PRESCRIBED BY MD COOPERATIVE EXTENSION SERVICE. APPLY FERTILIZER AND LIME AS RECOMMENDED, ACCORDING TO TEST RESULTS.
- ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH SEDIMENT CONTROL NOTES AND SPECIFICATIONS.
- MAINTAIN MINIMUM ONE-FOOT VERTICAL CLEARANCE BETWEEN ALL STORM DRAIN CROSSINGS AND OTHER UTILITIES.
- ALL WORK SHALL BE PERFORMED WITH REGARD FOR THE SAFETY OF THE CONSTRUCTION CREW.
- COMPACT TRENCH BACKFILL TO NOT LESS THAN 95% DENSITY IN ACCORDANCE WITH ASTM D698. UNDER PAVEMENT, COMPACT LAST ONE-FOOT TO 100% DENSITY IN ACCORDANCE WITH ASTM D698.
- WHERE ANY PART OF THE STORM DRAIN SYSTEM IS LOCATED IN A FILL SECTION, PROVIDE SELECT FILL MATERIAL COMPACTED PER NOTE 10 WITH CORRECT MOISTURE CONTENT FROM EXISTING GROUND TO APPROVED PIPE SUBGRADE.
- SHEETING AND SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHEN GROUNDWATER OR SURFACE RUNOFF IS PRESENT IN THE WORK AREA, DEWATER TO MAINTAIN WATER LEVEL BELOW PIPE FOUNDATION TO PROVIDE A STABLE TRENCH BOTTOM.
- WHERE NEW UTILITIES ARE LOCATED IN FILL, CONTROLLED FILL SHALL FIRST BE PLACED AND COMPACTED TO A MINIMUM OF ONE FOOT ABOVE THE NEW PIPE TOP. THE TRENCH SHALL THEN BE EXCAVATED AND THE PIPE INSTALLED.
- STORM DRAIN PIPE SHALL BE CONSTRUCTED FOR LOW-HEAD PRESSURE FLOW. A WATERTIGHT CONNECTION SHALL BE MADE AT ALL PIPES ENTERING DRAINAGE STRUCTURES. WATERTIGHT CONNECTIONS SHALL BE MADE BETWEEN SECTIONS OF PIPE. SEE NOTE 17.
- REINFORCED CONCRETE PIPE SHALL BE A MINIMUM CLASS III, WALL THICKNESS B, UNLESS OTHERWISE SPECIFIED ON PLANS.
- REINFORCED CONCRETE PIPE SHALL MEET REQUIREMENTS OF ASTM C76. STORM PIPES OPERATING UNDER PRESSURE (HYDRAULIC GRADE LINE ABOVE TOP OF PIPE) OR BELOW THE WATER LINE SHALL CONFORM WITH ASTM C361 AND SHALL BE RUBBER GASKETED.
- PROPOSED SDP REVISION NO.10: THE PURPOSE OF THIS SITE DEVELOPMENT PLAN (SDP) REVISION IS TO CONSTRUCT THE LITTLE PATUXENT WRP ADDITION NO. 7: ENR AND EXPANSION IMPROVEMENTS. THE FACILITIES LISTED BELOW ARE TO BE CONSTRUCTED FOR THIS PROJECT.
 - EXPANSION OF THE NORTH PROCESS REACTORS
 - FINAL CLARIFIER NO. 13
 - AUXILIARY NORTH GALLERY
 - EAST/WEST BLOWER BUILDING
 - EAST ELECTRICAL SUBSTATION
 - DENITRIFICATION FILTER COMPLEX WITH UV DISINFECTION
 - MUDWELL (FOR DENITRIFICATION FILTER BACKWASH)
 - METHANOL FACILITY (SUPPLEMENTARY CARBON SOURCE FOR DENITRIFICATION FILTERS)
 - FIRE PROTECTION BUILDING (FOR METHANOL FACILITY)
 - LIME STABILIZATION ODOR CONTROL FACILITY
 - ASSOCIATED UTILITY CONSTRUCTION, VAULTS, AND PAVING

SDP REVISION NO. 10 - WAIVER PETITION NO. WP-09-134 REQUESTING WAIVERS FROM THE FOLLOWING HOWARD CO. SUBDIVISION & LAND DEVELOPMENT REGULATIONS:

- SECTION 16.115(C)(1) PROHIBITING BUILDING MATERIALS AND OTHER DEBRIS TO BE STORED IN THE FLOOD PLAIN AREA: TO ALLOW TEMPORARY CONTRACTOR STORAGE AREAS, VEHICULAR PARKING, AND TEMPORARY STOCKPILES.
 - SECTION 16.116(A)(2)(I) AND (IV) PROHIBITING GRADING, REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURES IN THE 50' INTERMITTENT AND 50' PERENNIAL STREAM BANK BUFFERS: TO ALLOW A TEMPORARY STOCKPILE, TEMPORARY CONTRACTOR STORAGE, AND NEW AUXILIARY NORTH GALLERY.
 - SECTION 116.116(A)(1) PROHIBITING GRADING AND REMOVAL OF VEGETATIVE COVER AND TREES, PAVING AND NEW STRUCTURES IN THE WETLANDS BUFFER: TO ALLOW A TEMPORARY CONTRACTOR'S STORAGE AREA.
 - SECTION 16.118(C)(1) PROHIBITING GRADING, REMOVAL OF VEGETATIVE COVER AND TREES AND PAVING IN AN INTERMITTENT STREAM UNLESS THE DPZ DETERMINES THE DISTURBANCE AS NECESSARY.
- THE ABOVE WAIVERS WERE APPROVED MARCH 24, 2009 SUBJECT TO THE FOLLOWING CONDITIONS:
- UPON COMPLETION OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS, RESTORE THE AREAS OF TEMPORARY CONTRACTOR STORAGE, PARKING AND GRAVEL DRIVEWAYS, AREAS OF TEMPORARY STOCKPILING AND TEMPORARY SEDIMENT CONTROL TRAPS TO A STABILIZED AND NATURAL VEGETATIVE CONDITION BY RESEEDING, SODDING AND/OR INSTALLING PLANT MATERIALS INDIGENOUS TO THE SITE.
 - APPROVED MDE PERMIT APPLICATIONS PRIOR TO SIGNATURE APPROVAL OF RED-LINE REVISION SDP DRAWINGS - SEE BELOW.
 - INSTALL SEDIMENT CONTROL DEVICES ALONG THE LIMIT OF DISTURBANCE WHICH IMPACT THE STREAM, STREAM BANK BUFFERS, AND STEEP SLOPES.
 - COMPLETE PROCESSING OF RED-LINE REVISION NO. 10, SDP-00-94.

SDP REVISION NO. 10 - MDE WETLANDS AND WATERWAYS PERMIT FOR CONSTRUCTION ACTIVITIES FOR FACILITY ADDITIONS AND TEMPORARY STOCKPILES WITHIN A FLOODPLAIN: TRACKING NO. 20960026/ PERMIT NO. 09-NT-3002, EFFECTIVE DATE MARCH 31, 2009.

PROFESSIONAL CERTIFICATION FOR REVISION 10 (10-2-17) ONLY. I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Walter J. Jaffe 2-7-17
 Director
Walter J. Jaffe 2-6-17
 Chief, Division of Land Development
Walter J. Jaffe 1-31-17
 Chief, Development Engineering Division

REVISIONS AND RECORD OF ISSUE

DES: AMS			
DRN: EJR	4-6-13	SDP Revision 17 - Revised Legend	
CHK: LHM	11/17/17	SDP Revision 10 - Revised Legend	
	1/13/17	REVISION SHEET - ADDITION 8 - REVISED SHEET INDEX ON SHEET 10 AND ADDED ADDITIONAL SYMBOLS TO REVISED SHEET TOTAL	
DATE: 3/09			

M:\380709-Howard County\ENR\03 Civil\CS-01 Legend Symbols Gen Notes.dwg 05/14/09 18:12

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 Fax. 610.444.1593
 www.slantec.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.: 23359, EXPIRATION DATE: 8/13/10.

Walter J. Jaffe
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09
 DATE
 FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 8: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Steve C. Gen 1/20/17
 CHIEF, BUREAU OF UTILITIES
 DATE

DES: AMS			
DRN: EJR	4-6-13	SDP Revision 17 - Revised Legend	
CHK: LHM	11/17/17	SDP Revision 10 - Revised Legend	
	1/13/17	REVISION SHEET - ADDITION 8 - REVISED SHEET INDEX ON SHEET 10 AND ADDED ADDITIONAL SYMBOLS TO REVISED SHEET TOTAL	
DATE: 3/09			

HOWARD COUNTY SDP SHEET C-1A
 CIVIL

LEGEND, SYMBOLS AND GENERAL NOTES

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 10001621
 CONTRACT NO. 60-4598

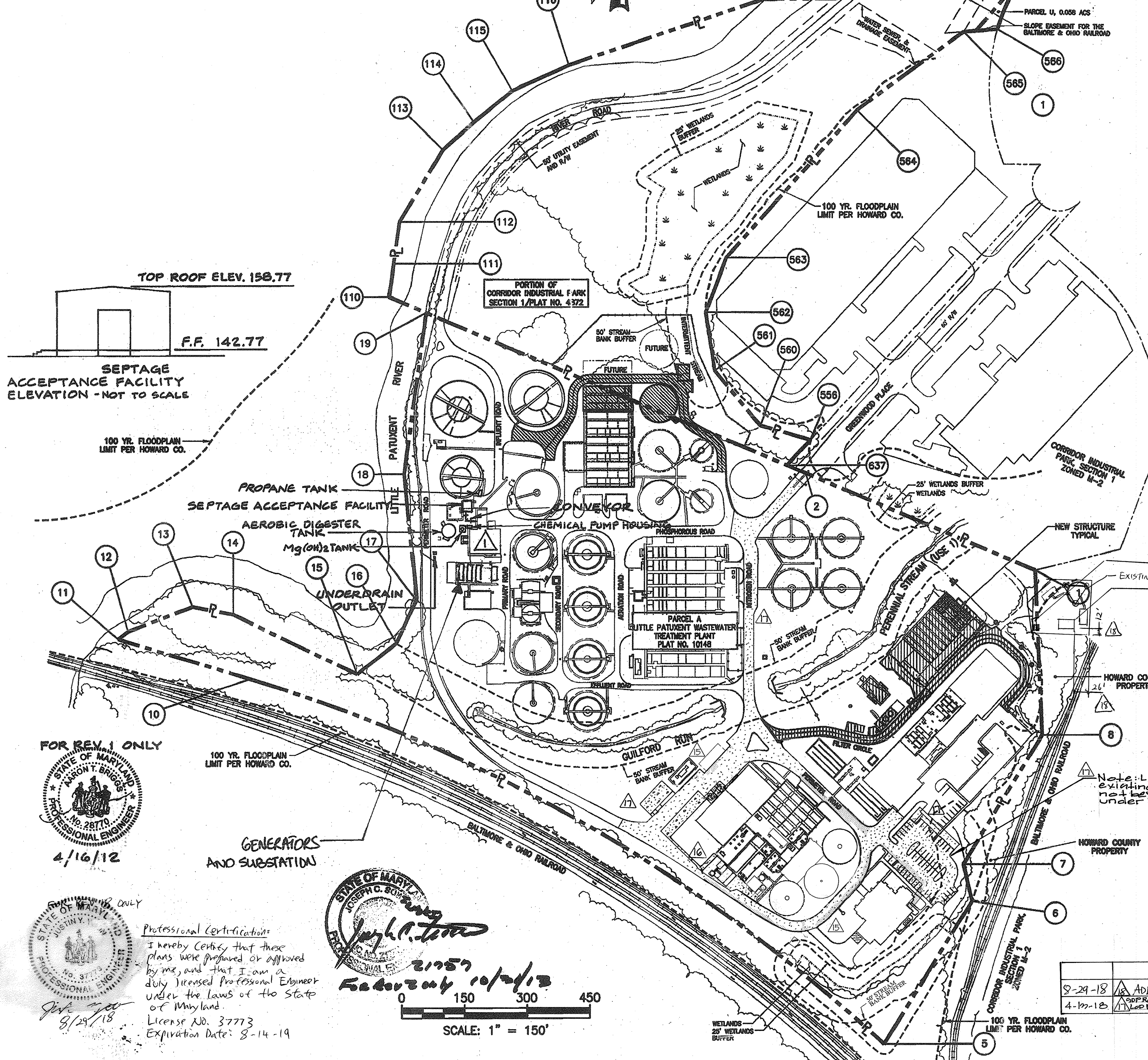
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 37 OF 611
 CS-1
 SDP SHEET 2 OF 59

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

N. J. J. J. 2-7-17
 Director Date
V. J. J. J. 2-6-17
 Chief, Division of Land Development Date
D. J. J. J. 1-31-17
 Chief, Development Engineering Division Date

NOTE: COORDINATES SHOWN HEREON ARE BASED ON CORRIDOR INDUSTRIAL PARK SECTION ONE, PLAT BOOK 31, FOLIO 18



CORRIDOR INDUSTRIAL PARK - SECTION 1

PARCEL "U" AND A PORTION OF THE HOWARD COUNTY PARK UTILITY AND DRAINAGE RESERVATION
 PLAT NO. 4872 A RESUBDIVISION OF THE PARK, UTILITY AND DRAINAGE RESERVATION, 6TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

LITTLE PATUXENT WASTEWATER TREATMENT PLANT - PARCEL A

PARCEL NO. 10148, A RESUBDIVISION OF PARCEL NO. 200, LIBER 423 FOLIO 516 AD PARCEL NO. 198, LIBER 423 FOLIO 537 AS SHOWN ON TAX MAP NO. 47, SIXTH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

NO	NORTHING	EASTING	POINTS	BEARING	DISTANCE
545	471951.91	852583.70	545 TO 546	S12°30'00"	108.20'
546	471948.22	852606.68	546 TO 566	(SEE CURVE DATA)	
566	47731.67	852648.54	566 TO 565	N42°15'00"E	82.13'
565	471670.87	852593.32	565 TO 564	N10°20'00"E	315.00'
564	471360.98	852536.81	564 TO 563	N01°45'00"W	470.00'
563	470891.20	852551.17	563 TO 562	N22°30'00"W	140.00'
562	470761.86	852604.74	562 TO 561	N52°15'00"W	140.00'
561	470676.15	852715.44	561 TO 560	N83°15'00"W	170.00'
560	470656.16	852884.28	560 TO 556	S62°36'00"W	125.00'
556	470713.69	852995.24	556 TO 637	S00°30'00"E	82.42'
637	470631.28	852995.96	637 TO 110	S69°20'14"W	1032.85'
110	470266.81	852029.54	110 TO 111	N35°12'18"W	80.93'
111	470332.94	851982.88	111 TO 112	N35°27'18"W	100.00'
112	470414.40	851924.87	112 TO 113	N12°27'18"W	200.00'
113	470609.70	851881.74	113 TO 114	N04°52'42"	100.00'
114	470709.33	851890.24	114 TO 115	N07°52'42"E	118.00'
115	470826.22	851906.41	115 TO 116	N22°17'42"W	148.50'
116	470863.82	851982.75	116 TO 117	N27°42'40"E	491.14'
117	471397.96	852192.02	117 TO 118	N45°54'10"E	173.25'
118	471518.52	852316.44	118 TO 119	N42°02'10"	63.40'
119	471568.59	852358.51	119 TO 120	N06°36'47"E	411.23'
120	471977.09	852405.87	120 TO 545	S81°56'24"E	178.60'

NO	NORTHING	EASTING	POINTS	BEARING	DISTANCE
1	470858.65	853598.88	1 TO 8	S45°51'41"E	393.08'
8	470584.91	853980.95	8 TO 7	S11°41'47"E	360.00'
7	470232.38	853953.74	7 TO 6	S56°41'47"E	90.00'
6	470182.97	854029.16	6 TO 5	S11°41'47"E	400.00'
5	468791.27	854110.25	5 TO 10	(SEE CURVE DATA)	
10	469379.92	852412.68	10 TO 11	S63°29'14"W	331.00'
11	469232.16	852116.87	11 TO 12	N08°25'14"E	29.81'
12	469261.57	852155.55	12 TO 13	N25°49'14"	65.00'
13	469410.10	852193.42	13 TO 14	N57°19'14"E	99.00'
14	469463.55	852276.74	14 TO 15	N72°19'14"E	330.00'
15	469563.77	852591.16	15 TO 16	N07°49'14"E	119.62'
16	469682.28	852607.44	16 TO 17	N18°40'46"W	115.50'
17	469791.89	852570.44	17 TO 18	N49°10'46"W	297.00'
18	469985.84	852345.69	18 TO 19	N35°40'46"W	367.75'
19	470300.80	852119.53	19 TO 2	N69°20'24"E	985.03'
2	470848.34	853041.21	2 TO 1	N69°20'14"E	595.98'

CURVE DATA

POINTS	RAD	DELTA	ARC	TAN	CHD	BEARING
546 TO 566	490.34'	14°30'56"	124.18'	62.42'	123.85'	S19°45'18"E

SOURCE: PLAT-C.M.P. NO. 4872

CURVE DATA

POINTS	RAD	DELTA	ARC	TAN	CHD	BEARING
5 TO 10	3909.83'	25°48'42"	1761.38'	895.89'	1746.52'	S76°22'38"W

SOURCE: PLAT-M.D.R. NO. 10148

ZONING SITE ANALYSIS:

AREA OF PARCEL/LOT:
 AREA OF PLAT NO. 10148 = 38.01± ACRES
 AREA OF PLAT NO. 4872 = 18.19± ACRES (EXCLUDES PARCEL "U")
 TOTAL SITE AREA = 56.20± ACRES
 PRESENT ZONING = M-2 PER 02/02/04 COMPREHENSIVE REZONING PLAN
 EXISTING/PROPOSED USE: WATER RECLAMATION PLANT
 PROPOSED FLOOR SPACE USE: = BLOWER, PUMP, AND CONTROL ROOMS
 NUMBER OF EMPLOYEES = 55 (NO CHANGE)

BUILDING/PROCESS TANK COVERAGE:	PLAT # 10148	PLAT # 4872	TOTAL SITE
	ACRES	%	ACRES
EXISTING	9.47	25.91	9.47
PROPOSED	0.73	1.92	0.32
TOTAL	10.2	27.83	10.52

DISTURBED AREA	2.36	7.48	4.95	13.02	7.31	13.00
ONSITE PARKING						
EXISTING	107 SPACES	---	---	---	107 SPACES	---
PROPOSED*	3 SPACES	1 SPACE	---	---	4 SPACES	---
TOTAL	110 SPACES	1 SPACE	---	---	111 SPACES	---

* SEE SDP SHEETS C-8N (CG-2) & C-8T (CG-8).

NOTE: FOREST STANDS AND WETLANDS DELINEATED BY AG ENVIRONMENTAL FIELD WORK COMPLETED JULY 2008. DOCUMENTED IN NARRATIVE DATED DECEMBER 13, 2008.

FOR REV 1 ONLY
 PROFESSIONAL ENGINEER
 4/16/12

PROFESSIONAL ENGINEER
 9/25/18

Professional Certification
 I hereby certify that these plans 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. 37773
 Expiration Date: 8-14-19

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. 23359
 Expiration Date: 8/13/10

SCALE: 1" = 150'

PBSJ
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
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 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.com

PROFESSIONAL ENGINEER
 LICENSE NO. 23359
 EXPIRATION DATE: 8/13/10

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. 23359 EXPIRATION DATE: 8/13/10

REGISTERED PROFESSIONAL ENGINEER
 DATE: 4/20/09 FIRM: PBSJ

NOTICE TO CONTRACTORS
 PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 PREVIOUS PROJECTS USED OTHER DATUMS
 APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.86 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES
 DATE: 1/23/17

DES: AMS	11-28-17	ADD NEW SHELTER AND LP FUEL TANK
DRN: EUR	1/13/17	REPLACEMENT SHEET - SDP REVISION IS ADDED
CHK: LHM	10-31-13	ADDITION NO. 8 STRUCTURES, REVISED SHEET TOTAL
	3-16-12	ADD STANDBY GENERATORS AND SUBSTATION
		ADD SEPTAGE ACCEPTANCE FACILITY, DIGESTER TANK, PROPANE TANK, Mg(OH)2 TANK AND APPURTENANCES.

HOWARD COUNTY SDP SHEET C-1B
 CIVIL

OVERALL PROPERTY BOUNDARY PLAN

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E
 CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

PROFESSIONAL CERTIFICATION
 FOR REVISION 15 (16-17) ONLY
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018

SCALE AS SHOWN
 CONTRACT SHEET 38 OF 611
 CS-2
 SDP SHEET 3 OF 59

STRUCTURE IDENTIFICATION

TAG	FACILITY DESCRIPTION
1	SEPTAGE FACILITY
2	HEADWORKS BUILDING
3	HEADWORKS SUBSTATION
4	AUXILIARY PUMP STATION
5	FLOW EQUALIZATION BASIN 1 (FEB-1)
6	FLOW EQUALIZATION BASIN 2 (FEB-2)
7	FLOW EQUALIZATION BASIN 3 (FEB-3)
8	GRIT BUILDING
9	PRIMARY CLARIFIER (PC-1)
10	PRIMARY CLARIFIER (PC-2)
11	NORTH PUMP STATION
12	NORTH SUBSTATION
13	EAST / WEST PROCESS REACTORS
14	EAST PIPE GALLERY ALUM/HYPO STORAGE & FEED
15	WEST PIPE GALLERY NEW FLOW SPLITTER BOX
16	FINAL CLARIFIER (FC-2)
17	FINAL CLARIFIER (FC-3)
18	FINAL CLARIFIER (FC-6)
19	FINAL CLARIFIER (FC-7)
20	DISTRIBUTION FLOW CHAMBER
21	FINAL CLARIFIER (FC-8)
22	FINAL CLARIFIER (FC-9)
23	NORTH PROCESS REACTORS
24	NORTH BLOWER BUILDING
25	FINAL CLARIFIER (FC-10)
26	FINAL CLARIFIER (FC-11)
27	FINAL CLARIFIER (FC-12)
28	NORTH GALLERY
29	PRETREATMENT CLARIFIER/THICKENER
30	PRETREATMENT FERMENTER
31	NEW NORTH PROCESS REACTOR [116.3'X60.5']
32	NEW FINAL CLARIFIER (FC-13) [92.3' DIA.]
33	NEW AUXILIARY NORTH GALLERY [27.0'X38.0']
34	FUTURE PROCESS REACTOR
35	FUTURE FINAL CLARIFIER

CE-12
CG-12
CY-12
(K)

NOTE: ADDITION NO. 7
SEDIMENT CONTROLS HAVE
BEEN REMOVED SINCE
ADDITION NO. 7 COMPLETION

CE-1
CG-1
CY-1
(A)

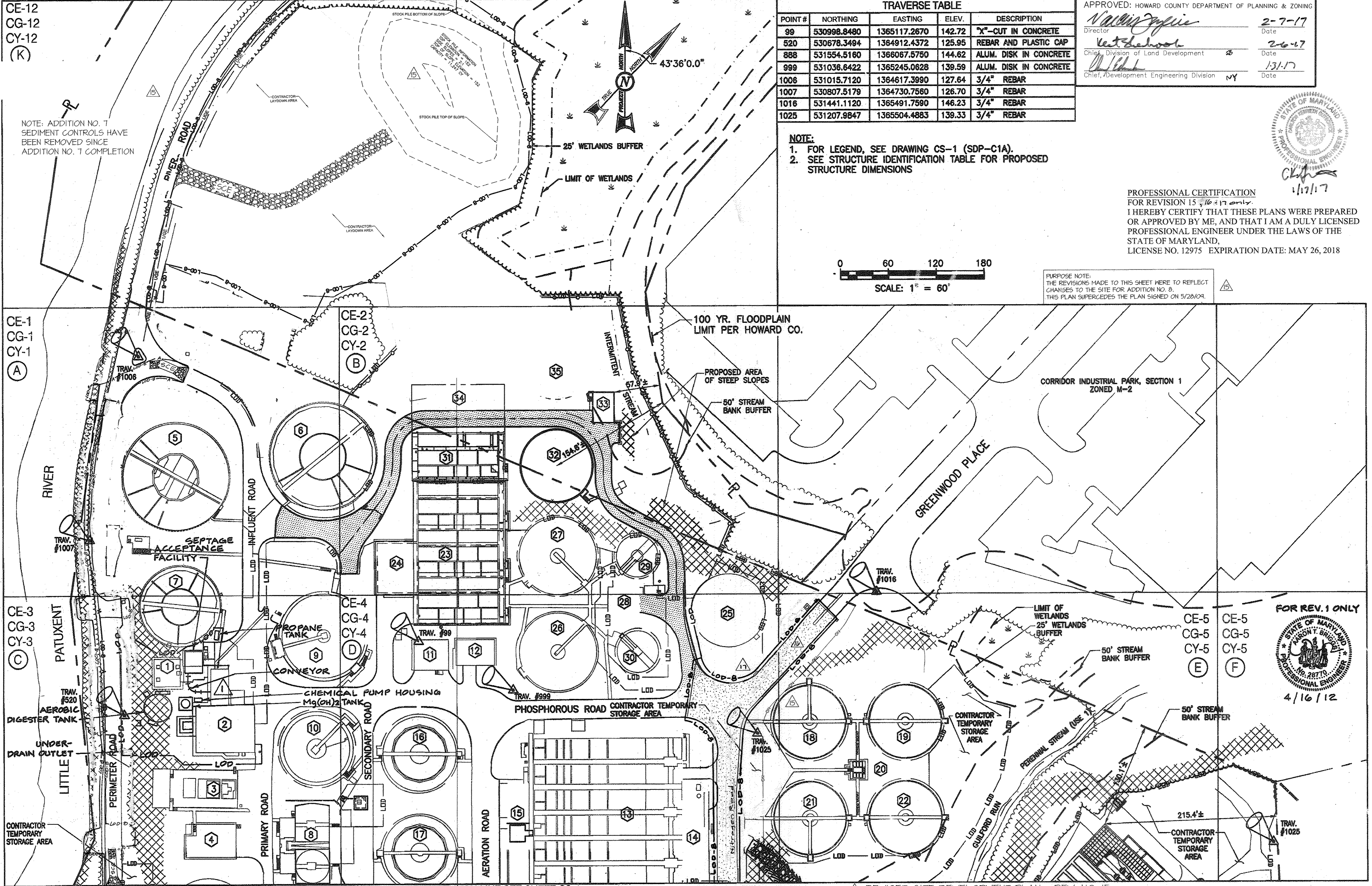
CE-2
CG-2
CY-2
(B)

CE-3
CG-3
CY-3
(C)

CE-4
CG-4
CY-4
(D)

CE-5
CG-5
CY-5
(E)

FOR REV. 1 ONLY
CE-5
CG-5
CY-5
(F)



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LICENSE NO. 23359, EXPIRATION DATE: 8/13/10.
David M. Soder
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE: 4/20/09
FIRM: PBS&J

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
PREVIOUS PROJECTS USED OTHER DATUMS.
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve Coen
CHIEF, BUREAU OF UTILITIES
DATE: 4/20/09

DES: AMS 4-18-18
DRN: EJR 11/17/17
CHK: LHM 3-16-12
DATE: -

NO.	DATE	REVISIONS AND RECORD OF ISSUE
1	4-18-18	ADD ADDITION NO. 15 - REBAR AND PLASTIC CAP
2	11/17/17	ADD ADDITION NO. 14 - SEDIMENT CONTROLS
3	3-16-12	ADD SEPTAGE ACCEPTANCE FACILITY, DIGESTER TANK, PROPANE TANK, Mg(OH)2 TANK AND APPURTENANCES.

HOWARD COUNTY SDP SHEET C-1C
CIVIL
PLANT SITE AND KEY PLAN

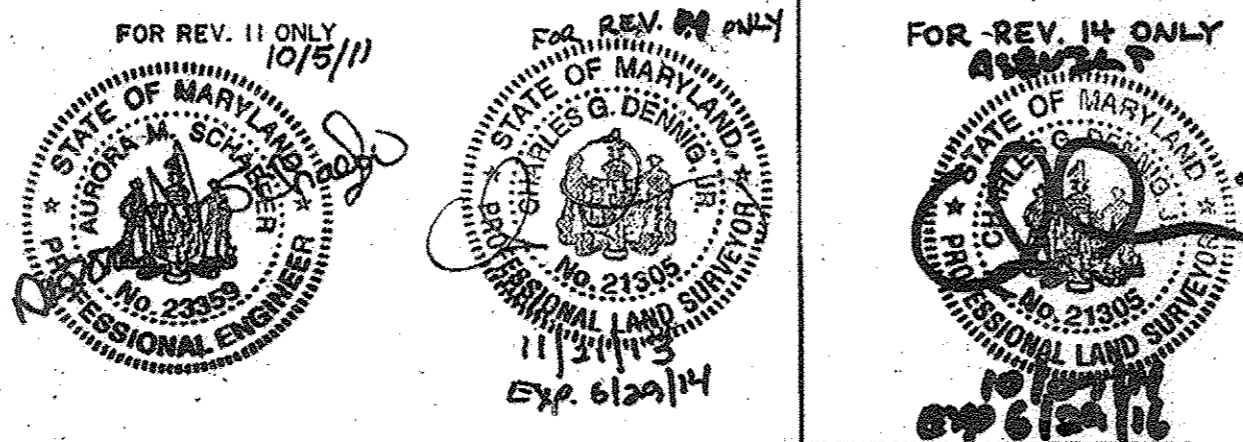
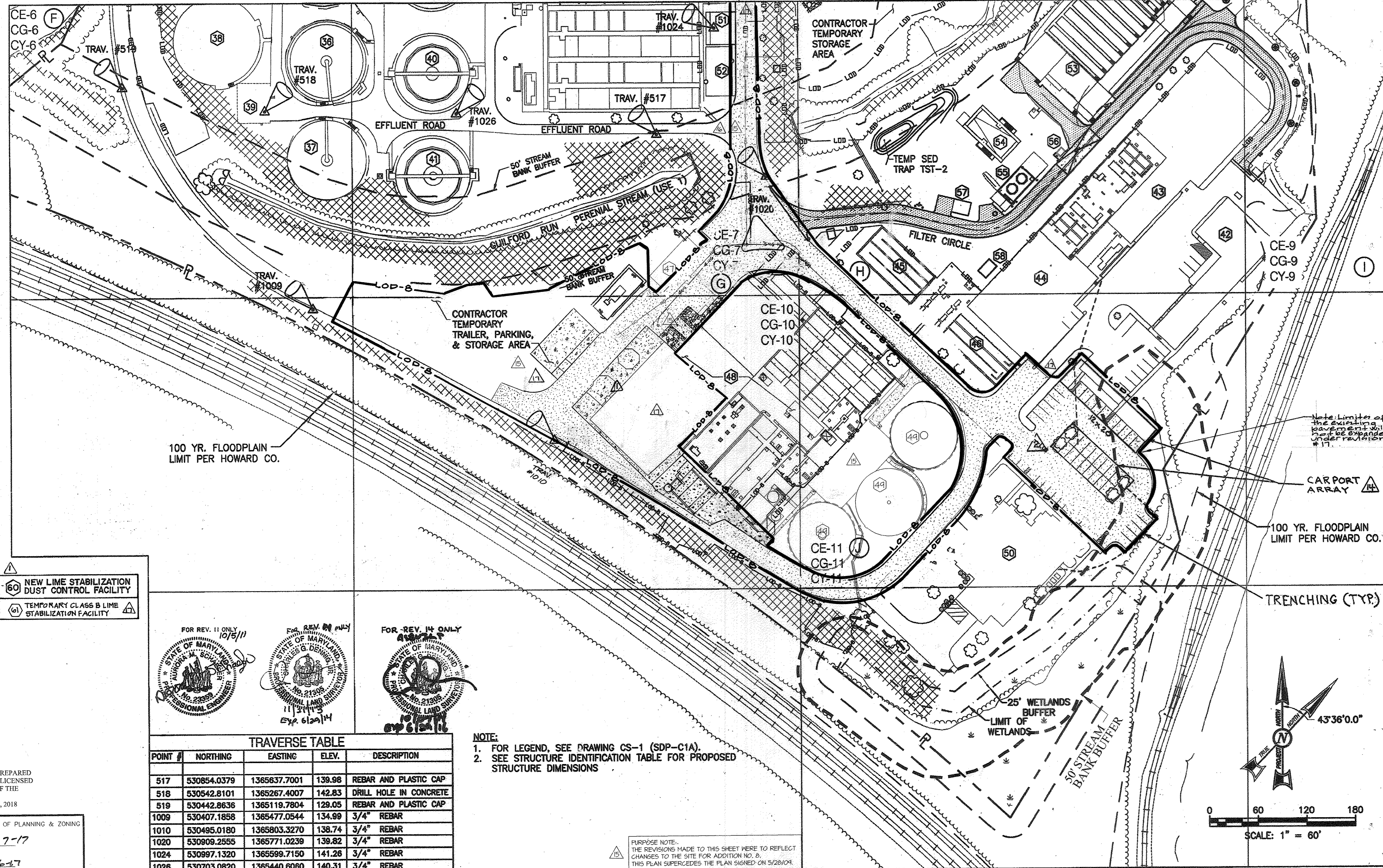
REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 39 OF 611
CS-3
SDP SHEET 4 OF 59

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STRUCTURE IDENTIFICATION

TAG	FACILITY DESCRIPTION
36	PRIMARY CLARIFIER (PC-3)
37	PRIMARY CLARIFIER (PC-4)
38	PRIMARY CLARIFIER (PC-5)
39	SOUTH PUMP STATION
40	FINAL CLARIFIER (FC-4)
41	FINAL CLARIFIER (FC-5)
42	MAINTENANCE BUILDING
43	FILTER BUILDING
44	CHLORINE BUILDING
45	POST AERATION
46	EMERGENCY CHLORINE CONTACT BASINS
47	DEWATERING SUBSTATION
48	BIOSOLIDS FACILITIES
49	PRETREATMENT ANAEROBIC DIGESTERS
50	ADMINISTRATION BUILDING
51	NEW EAST/WEST BLOWER FACILITY [36.0'X40']
52	NEW EAST SUBSTATION [32.5'X60']
53	NEW DENITRIFICATION FILTER COMPLEX [116.0'X210.3']
54	NEW DENITRIFICATION FILTER MUDWELL [65.0'X36.0']
55	NEW METHANOL STORAGE AND FEED FACILITY [24.0'X55.0']
56	NEW METHANOL FILL STATION [9.7'X7.5']
57	NEW FIRE PROTECTION BUILDING [16.3'X21.3']
58	NEW EFFLUENT METER VAULT FUTURE
60	NEW LIME STABILIZATION DUST CONTROL FACILITY
61	TEMPORARY CLASS B LIME STABILIZATION FACILITY



POINT #	NORTHING	EASTING	ELEV.	DESCRIPTION
517	530854.0379	1365637.7001	139.98	REBAR AND PLASTIC CAP
518	530542.8101	1365267.4007	142.83	DRILL HOLE IN CONCRETE
519	530442.8636	1365119.7804	129.05	REBAR AND PLASTIC CAP
1009	530407.1858	1365477.0544	134.99	3/4" REBAR
1010	530495.0180	1365803.3270	138.74	3/4" REBAR
1020	530909.2555	1365771.0239	139.82	3/4" REBAR
1024	530997.1320	1365599.7150	141.26	3/4" REBAR
1026	530703.0820	1365440.6060	140.31	3/4" REBAR

NOTE:
 1. FOR LEGEND, SEE DRAWING CS-1 (SDP-C1A).
 2. SEE STRUCTURE IDENTIFICATION TABLE FOR PROPOSED STRUCTURE DIMENSIONS

PURPOSE NOTE:
 THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 2. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/04.

PROFESSIONAL CERTIFICATION
 FOR REVISION 15, 16, 17
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975, EXPIRATION DATE: MAY 26, 2018

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* 2-7-17
 Chief, Division of Land Development: *[Signature]* 2-6-17
 Chief, Development Engineering Division: *[Signature]* 1-31-17

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-8800
 FAX: (301) 210-4158
 www.pbs&j.com

Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

[Signature]
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09
 DATE FIRM

NOTICE TO CONTRACTORS
 PROJECT ELEVATIONS ARE BASED ON NAVD8S AND HOWARD COUNTY'S BENCHMARK SYSTEM
 PREVIOUS PROJECTS USED OTHER DATUMS
 APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DES: AMS 4-18-15
 DRN: EJR 11/20/17
 CHK: LHH 11/21/13
 DATE: 10/5/11

REVISIONS AND RECORD OF ISSUE

NO.	DATE	REVISIONS AND RECORD OF ISSUE
1	4-18-15	Rev. 11: Revised to show addition No. 2 Plat. etc. Features, LOD, Pavement, hatches, Added Note.
2	11/20/17	SDP REVISION 16: REVISED LOGS LINE, AND SURFACE HATCHES.
3	11/21/13	REPLACEMENT SHEET - SDP REVISION 15: ADDED ADDITION NO. 2 LOD AND PROPOSED FEATURES, REVISED SHEET TOTAL.
4	10/5/11	SDP REVISION 11: ADD LIME STABILIZATION DUST CONTROL FACILITY.

HOWARD COUNTY SDP SHEET C-1D
 CIVIL

PLANT SITE AND KEY PLAN

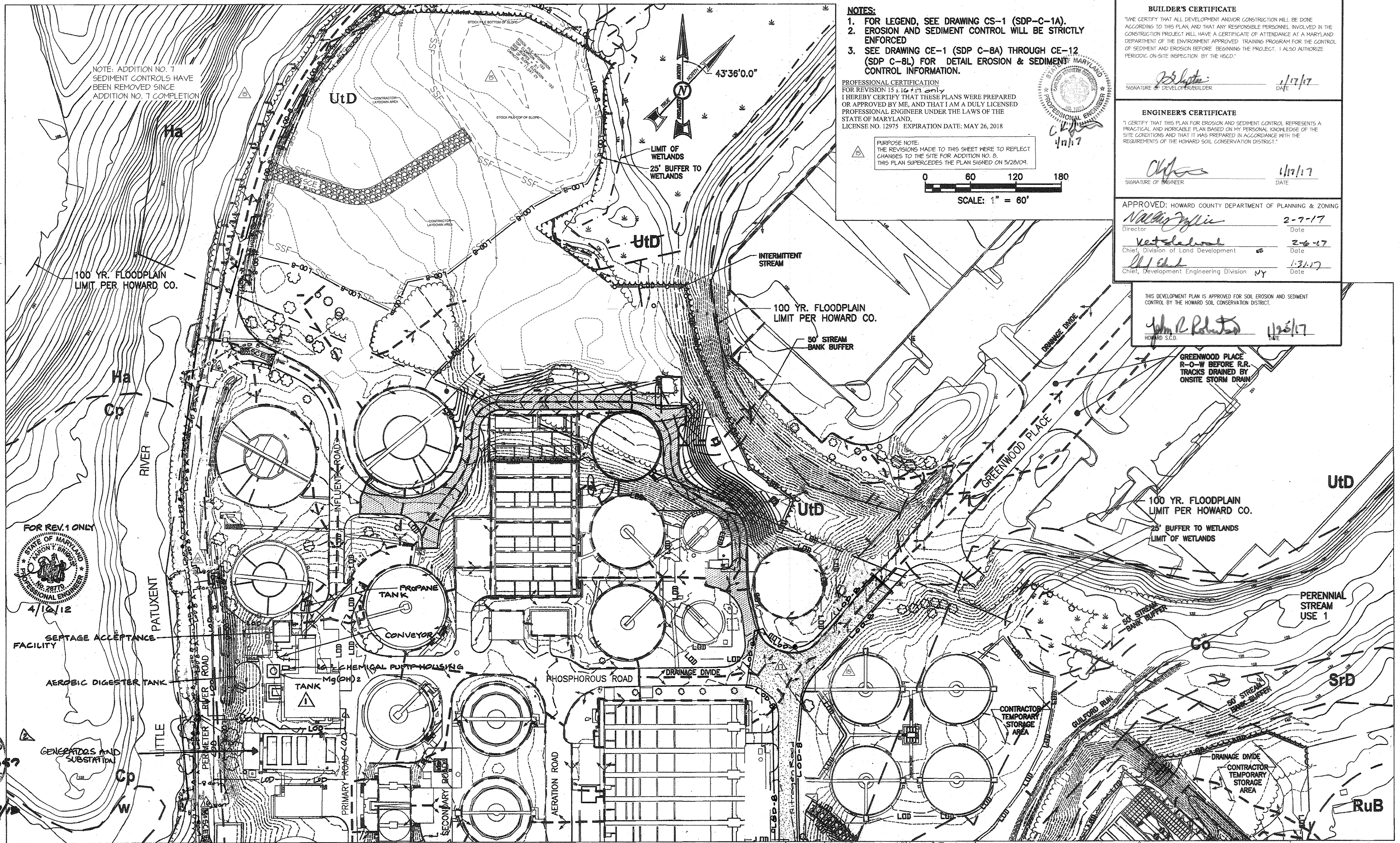
REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001821
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 8 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 40 OF 611
 CS-4
 SDP SHEET 5 OF 59

SDP-00-094



NOTES:
 1. FOR LEGEND, SEE DRAWING CS-1 (SDP-C-1A).
 2. EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.
 3. SEE DRAWING CE-1 (SDP C-8A) THROUGH CE-12 (SDP C-8L) FOR DETAIL EROSION & SEDIMENT CONTROL INFORMATION.

PROFESSIONAL CERTIFICATION
 FOR REVISION 15, 16, 17 ONLY
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018

PURPOSE NOTE:
 THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/04.

0 60 120 180
 SCALE: 1" = 60'

BUILDER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD.

Signature: [Signature] DATE: 4/17/17

ENGINEER'S CERTIFICATE
 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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature] DATE: 4/17/17

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature] DATE: 2-7-17
 Chief, Division of Land Development: [Signature] DATE: 2-6-17
 Chief, Development Engineering Division: [Signature] DATE: 1-31-17

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature] DATE: 1/25/17
 HOWARD S.C.D.

NOTE: ADDITION NO. 7 SEDIMENT CONTROLS HAVE BEEN REMOVED SINCE ADDITION NO. 7 COMPLETION

FOR REV. 1 ONLY
 PROFESSIONAL ENGINEER
 DATE: 4/10/12

SEPTAGE ACCEPTANCE FACILITY

AEROBIC DIGESTER TANK

GENERATORS AND SUBSTITUTION

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. 23359 EXPIRATION DATE: 8/13/10
 Signature: [Signature]
 REGISTERED PROFESSIONAL ENGINEER
 DATE: 4/20/09 FIRM: PBS&J

NOTICE TO CONTRACTORS
 PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
 PREVIOUS PROJECTS USED OTHER DATUMS.
 APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.68 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Signature: [Signature] DATE: 4/20/17
 CHIEF, BUREAU OF UTILITIES

DES:	AMS	11-24-17	1-13-17
DRN:	EJR	10-31-13	3-16-12
CHK:	LHH		
DATE:			

ADD STANDBY GENERATORS AND SUBSTITUTION
 ADD SEPTAGE ACCEPTANCE FACILITY, DIGESTER TANK, PROPANE TANK, Mg(OH)₂ TANK AND APPURTENANCES

HOWARD COUNTY SDP SHEET C-1E
 CIVIL
 EROSION AND SEDIMENT CONTROL CONCEPT PLAN

REVISED SITE DEVELOPMENT PLAN - REV. NO. 15
 REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
 LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 41 OF 611
 CS-5
 SDP SHEET 6 OF 59

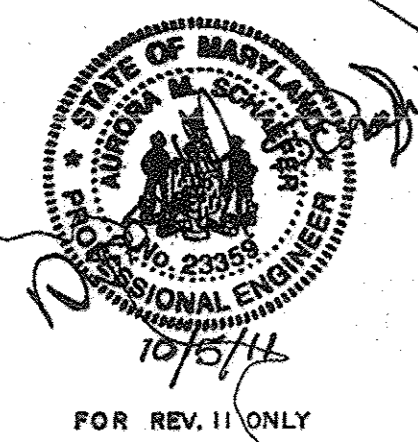
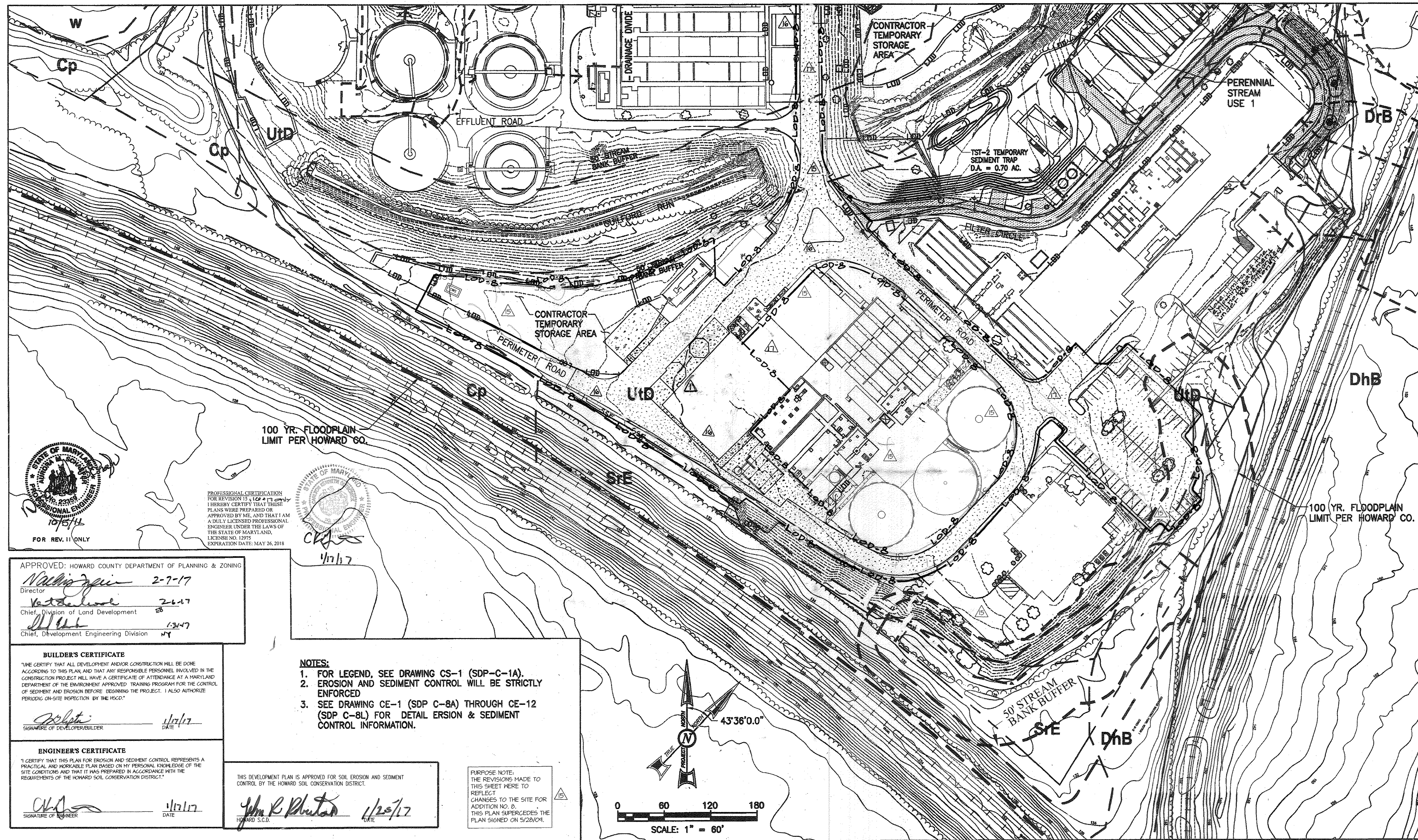
M: 360709-Howard County ENR 03 Concept Plan.dwg 05/15/09_12:18
 State of Maryland Professional Engineer
 Signature: [Signature] DATE: 4/10/12

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156
 www.pbsj.com

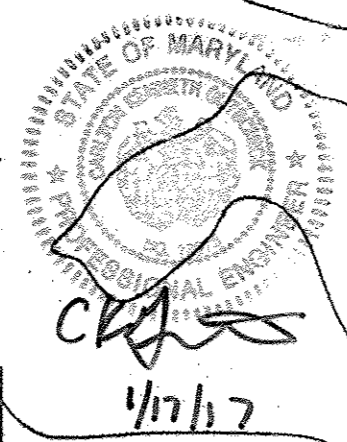
Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.com



MATCH LINE SEE SHEET CS-5



PROFESSIONAL CERTIFICATION
 FOR REVISIONS 1-12 I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *N. J. Z. J. J.* 2-7-17
 Chief, Division of Land Development: *V. J. J.* 2-6-17
 Chief, Development Engineering Division: *J. J. J.* 1-24-17

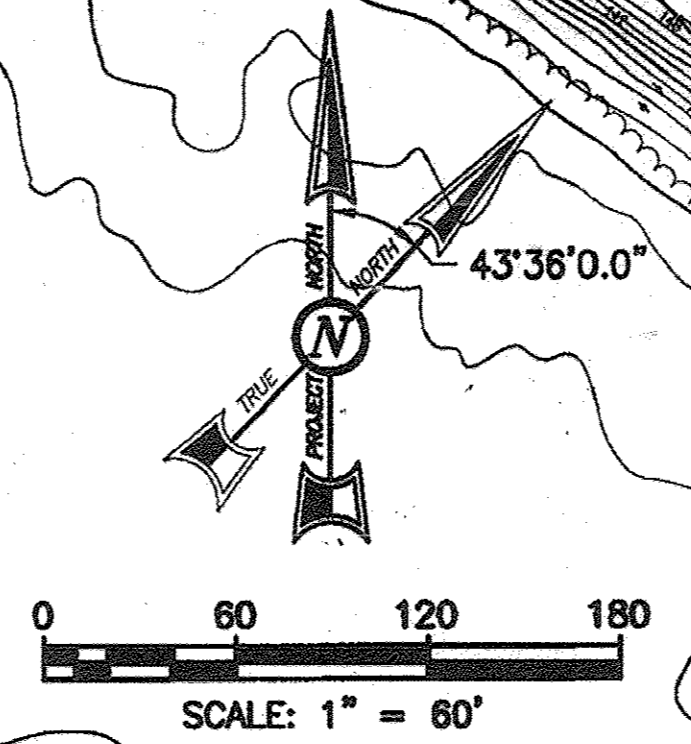
BUILDER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HESCD.
 Signature of Developer/Builder: *J. J. J.* DATE: 1/17/17

ENGINEER'S CERTIFICATE
 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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Engineer: *J. R. Phelan* DATE: 1/17/17

- NOTES:**
1. FOR LEGEND, SEE DRAWING CS-1 (SDP-C-1A).
 2. EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED
 3. SEE DRAWING CE-1 (SDP C-8A) THROUGH CE-12 (SDP C-8L) FOR DETAIL EROSION & SEDIMENT CONTROL INFORMATION.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John R. Phelan* DATE: 1/20/17
 HOWARD S.C.D.

PURPOSE NOTE:
 THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/04.



REVISED SITE DEVELOPMENT PLAN - REV. NO. 15

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156
 www.pbsj.com

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 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 810.444.6522
 Fax. 810.444.1698
 www.stantec.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.: 23359 EXPIRATION DATE: 8/13/10.
 Signature: *Anna W. Schaefer*
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09 DATE
 PBS&J FIRM

NOTICE TO CONTRACTORS
 • PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 • PREVIOUS PROJECTS USED OTHER DATUMS
 • APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Signature: *Steve Chan* DATE: 1/17/17
 CHIEF, BUREAU OF UTILITIES

DES: AMS		
DRN: EJR	4-12-15	SDP REVISION 11: REVISED TO SHOW ADDITION NO. 8 PL. 2 LOTS, SITE FEATURES AND PAVEMENT HATCHES. ADDED NOTE.
CHK: LHH	11-28-17	SDP REV 12: REV. LOTS, PAVEMENT, SITE FEATURES, AND PAVEMENT HATCHES.
	1/13/17	REPLACEMENT SHEET - SDP REVISION 6, ADDED ADDITION NO. 8 LOTS AND PROPOSED FEATURES, REVISED SHEET TOTAL.
	10/5/11	SDP REVISION 11: ADD LIME STABILIZATION DUST CONTROL FACILITY.
DATE: -	DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-1F
 CIVIL
 EROSION AND SEDIMENT CONTROL
 CONCEPT PLAN

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
 LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 42 OF 611
 CS-6
 SDP SHEET 7 OF 59

SDP-00-094

M:\350709-Howard County\ENR\03 Civil\CS-05-06 ES Concept Plan.dwg 05/15/09 12:18

LEGEND

- F FERMENTER
- FC FINAL CLARIFIER
- FEB FLOW EQUALIZATION BASIN
- PC PRIMARY CLARIFIER
- PR PROCESS REACTOR
- PS PRIMARY SUBSTATION
- TB-3 TEST BORING
- PROPOSED STRUCTURE
- PROPOSED BITUMINOUS PAVING
- CONCRETE PAVING/SIDEWALK OR MOW STRIP
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- EXISTING CONTOUR
- EXISTING PIPING 12" AND ABOVE
- PROPOSED PIPING 12" AND ABOVE
- EXISTING PIPING SMALLER THAN 12"
- PROPOSED PIPING SMALLER THAN 12"
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- N 532000 E 1365000 STAKEOUT COORDINATES
- SF SILT FENCE
- SSF SUPER SILT FENCE
- AGIP INLET PROTECTION
- MH 6 NEW STORM MANHOLE AND DESIGNATOR
- I-1 NEW STORM INLET AND DESIGNATOR
- SMH 6 NEW SEWER MANHOLE AND DESIGNATOR

CONSTRUCTION NOTES:

- CONNECT NEW CURB TO EX CURB
- INSTALL NEW PAVING (PAVING SECTION P-2)
- INSTALL NEW CURB
- INSTALL NEW CONCRETE SIDEWALK
- INSTALL 2' CONCRETE MOWING STRIP
- CONNECT NEW CONCRETE WALK TO EX WALK
- NOT USED
- CONNECT NEW PAVING TO EX PAVING
- INSTALL CURB CUT W/RIP-RAP
- INSTALL NEW STORM DRAIN SYSTEM

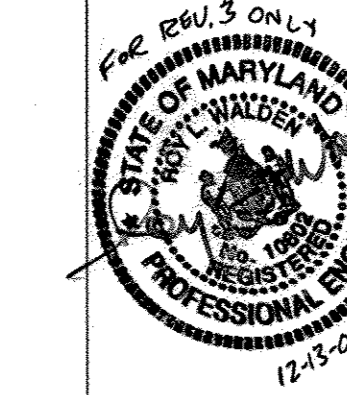
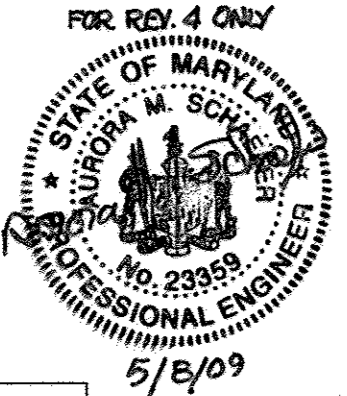
DEMOLITION NOTES:

- D-1 REMOVE CURB
- D-2 REMOVE PAVING
- D-3 REMOVE STORM DRAIN PIPE AND APPURTENANCES
- D-4 REMOVE CONCRETE SLUDGE STORAGE
- D-5 REMOVE RETAINING WALL
- D-6 REMOVE CONCRETE WALK
- D-7 REMOVE TREE

NOTE:
FOR STABILIZED CONSTRUCTION ENTRANCE FOR ENTIRE SITE PROJECT SEE C-7

FOR PROPOSED WORK IN THIS AREA SEE SHEETS C-8A, C-8B AND C-8C

FOR PROPOSED WORK IN THIS AREA, SEE SHEETS C-8A, C-8B AND C-8D



FOR REV. 5 ONLY



EXISTING FLOW EQUALIZATION BASIN # 2

PROP. NORTH BLOWER BUILDING
FF ELEV=144.0

PROP. NORTH PROCESS REACTORS

EXISTING FINAL CLARIFIER #11

EXISTING PRIMARY CLARIFIER # 1

PROP. ELECTRICAL SUBSTATION
PAD ELEV=144.0

EXISTING FINAL CLARIFIER # 10

PROP. SEPTAGE ACCEPTANCE FACILITY

EXISTING NORTH PUMP STATION
FF ELEV=143.56

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft

KEY LEGEND
FOR REVISIONS THRU NO. 3
FOR REV. NO. 10, SEE SDP SHTS. C-1C AND C-1D.

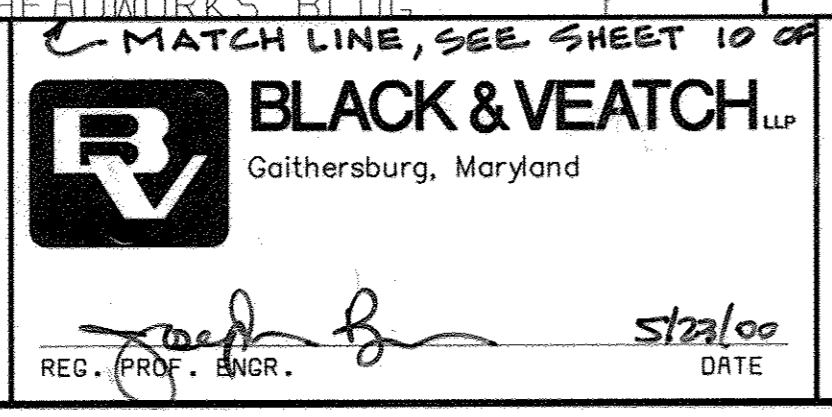
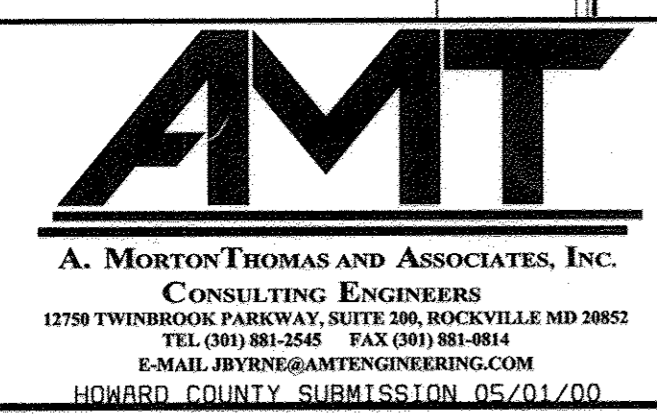
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: 6-5-00
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
HOWARD SCD DATE: 6-5-00

ENGINEER'S CERTIFICATE
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
SIGNATURE OF ENGINEER: Joseph H. Byrnes DATE: 5/23/00

DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
SIGNATURE OF ENGINEER: Daniel Ward DATE: 5/24/00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 6/7/00
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 6/10/00
DIRECTOR DATE: 6/21/00

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Randy Beemer 5-26-00
CHIEF, BUREAU OF UTILITIES DATE



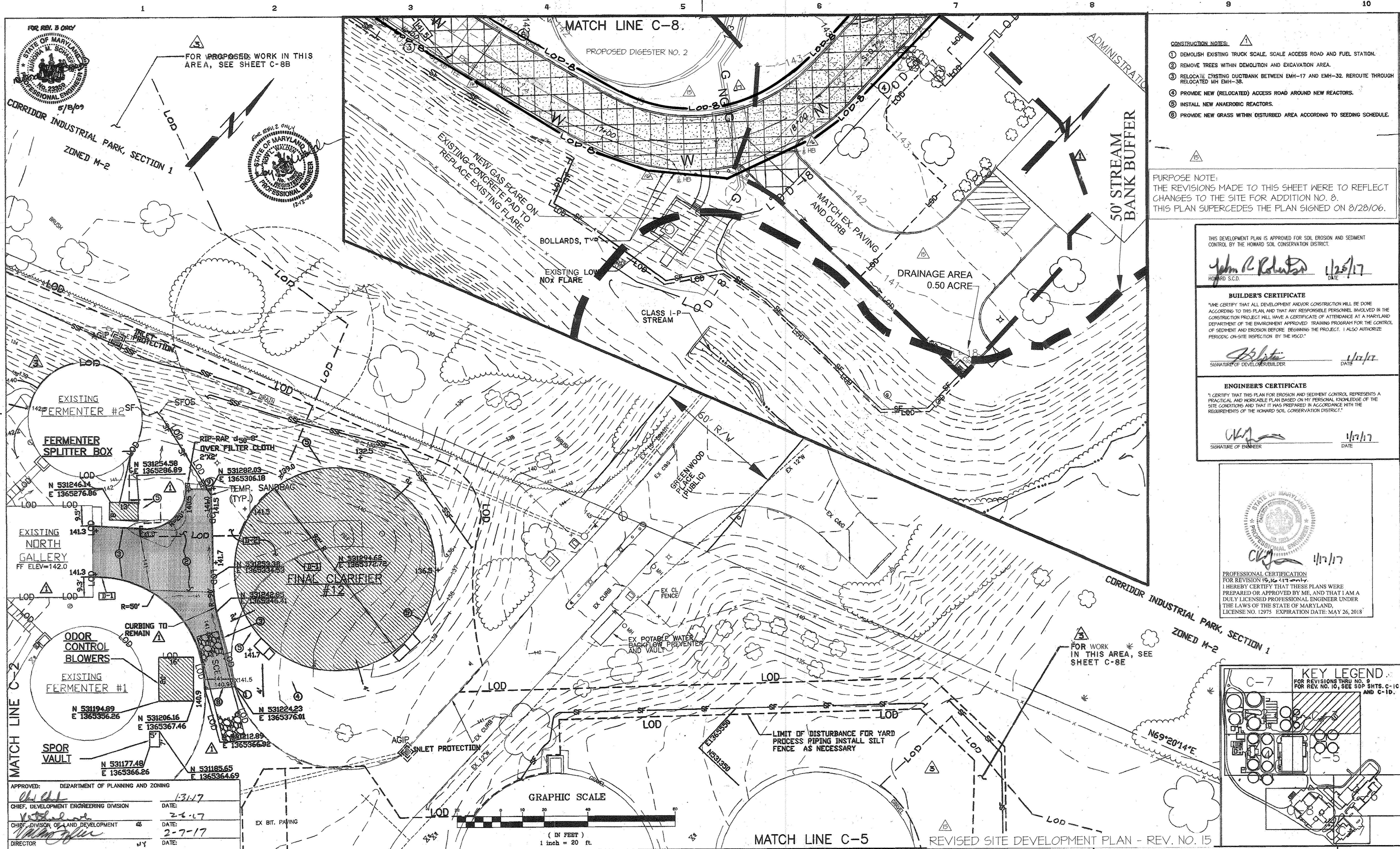
DES: AR 3-16-12 ADD SEPTAGE ACCEPTANCE FACILITY
DRN: REA 4-10-09 REVISED LOD PER RED LINE REVISION 10
CHK: JB 12-13-06 ADDITION 7 - REVISE LOD, ADD SILT FENCE
DATE: 05/01/00 1-7-02 ADD TRUCK ACCESS TO NORTH P
1-7-02 REVISED LIMIT OF DISTURBANCE

1-13-17 REVISED SHEET TOTAL
CIVIL
REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148
SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 6
PARCEL "A"
CAPITAL PROJECT S-6205
CONTRACT NO
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 8 OF 59
C-2

SDP00-94



- CONSTRUCTION NOTES:**
- DEMOLISH EXISTING TRUCK SCALE, SCALE ACCESS ROAD AND FUEL STATION.
 - REMOVE TREES WITHIN DEMOLITION AND EXCAVATION AREA.
 - RELOCATE EXISTING DUCTBANK BETWEEN EMH-17 AND EMH-32. REROUTE THROUGH RELOCATED MH EMH-38.
 - PROVIDE NEW (RELOCATED) ACCESS ROAD AROUND NEW REACTORS.
 - INSTALL NEW ANAEROBIC REACTORS.
 - PROVIDE NEW GRASS WITHIN DISTURBED AREA ACCORDING TO SEEDING SCHEDULE.

PURPOSE NOTE:
 THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 8/28/06.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts 11/25/17
 HOWARD S.C.D. DATE

BUILDER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD.

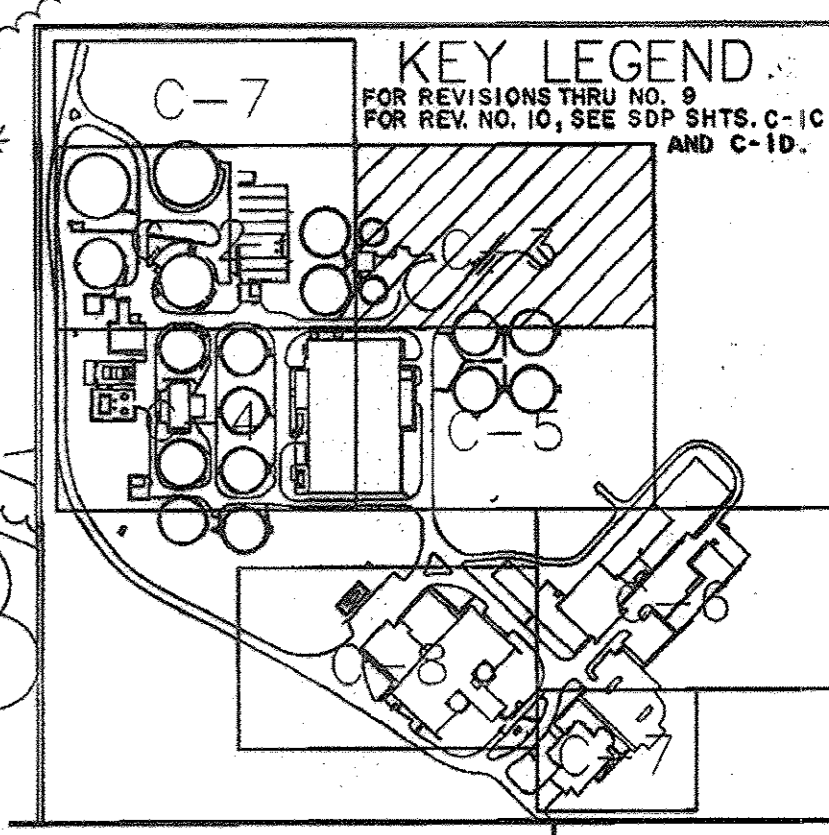
[Signature] 11/27/17
 SIGNATURE OF DEVELOPER/BUILDER DATE

ENGINEER'S CERTIFICATE
 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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 11/17/17
 SIGNATURE OF ENGINEER DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEERING

[Signature] 11/17/17
 PROFESSIONAL CERTIFICATION FOR REVISION 15, 16, 17 ONLY. I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 1-31-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2-6-17
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 2-7-17
 DIRECTOR DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 11/21/17
 CHIEF, BUREAU OF UTILITIES DATE

AMT
 A. MORTON THOMAS AND ASSOCIATES, INC.
 CONSULTING ENGINEERS
 12750 TWINBROOK PARKWAY, SUITE 200, ROCKVILLE, MD 20852
 TEL (301) 881-2346 FAX (301) 881-2814
 E-MAIL: AMT@AMTENGINEERING.COM
 HOWARD COUNTY SUBMISSION 05/01/00

BLACK & VEATCH
 Gaithersburg, Maryland

REG. PROF. ENGR. DATE



DES: AR	4-10-18	REVISED ADDITION NO. 8 PLAN, LOD & ADDED PAVEMENT RESTORATION MATCH							
DRN: REA	11-20-17	SDP REVISION 10 - RELOCATED WATER LINE							
CHK: JB	1-13-17	REPLACEMENT SHEET - REVISED STRUCTURES, GRADING, SEDIMENT CONTROL, AND SHEET TOTAL TO BE UPDATED FOR ADDITION NO. 8 IMPROVEMENTS							
DATE: 05/01/00	4-10-07	REVISED LOD PER REVISION 10							
	12-13-06	ADDITION 7 - ADD FLARE STATION, SHOW FINAL GRADING, REVISE LOD, ADD SF, SHOW E/S'S MEASURES							
	5-26-06	ADDITION 7 - ADD PARTIAL PLAN AND CONSTRUCTION NOTES							
		REVISIONS AND RECORD OF ISSUE	NO.	BY	CK	APP			

CIVIL

REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148
 SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 6
 PARCEL "A"
 CAPITAL PROJECT S-6205
 CONTRACT NO.
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

1" = 40' SHEET 9 of 59

C-3

SDP-00-94

1 MATCH LINE, SEE SHEET 29 OF 52

2 MATCH LINE, SEE SHEET 8 OF 52

3

4

5

6

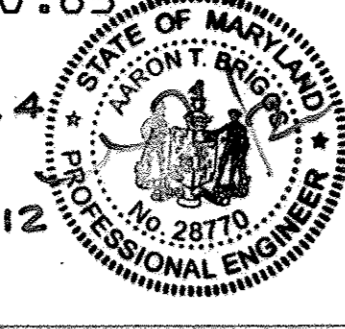
7

8

9

10

FF=142.31 MATCH LINE C-2
BF=120.65
FOR REV. 4 ONLY
4/16/12

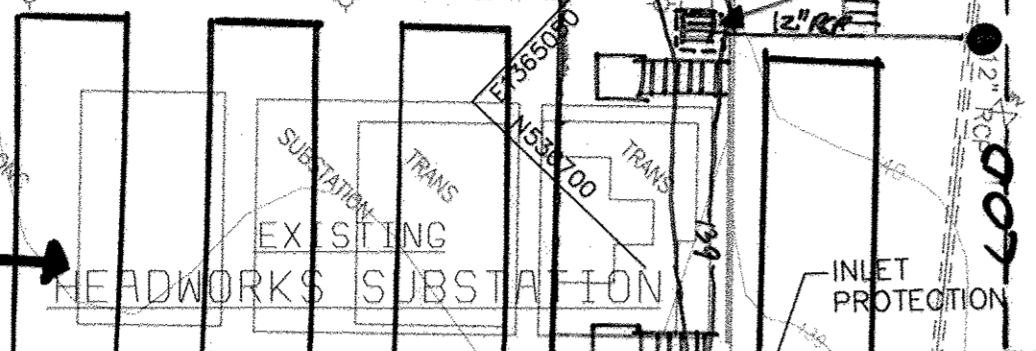


EXISTING PRIMARY CLARIFIER #2
FOR PROPOSED WORK IN THIS AREA, SEE SHEET C-8D

EXISTING FINAL CLARIFIER #2

LIMIT OF DISTURBANCE

PROP GENERATORS AND SUBSTATIONS



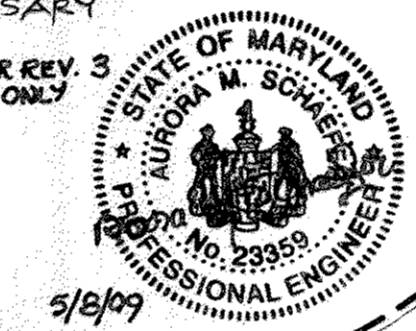
FEI METER VAULT

EXISTING GRIT BASINS
FF=141.03

GRIT BLDG

EXISTING FINAL CLARIFIER #3

LOD FOR UNDERGROUND UTILITY INSTALLATION SILT FENCE AS NECESSARY
FOR REV. 3 ONLY
5/18/09



PROP. AUXILIARY PUMP STATION
FF ELEV. 144.0

PROP. PRIMARY CLARIFIER #5

EXISTING PRIMARY CLARIFIER #3

LIMIT OF DISTURBANCE

PROPOSED: AUXILIARY PUMP STATION PRIMARY CLARIFIER #5 AND PAVING.

EXISTING FINAL CLARIFIER #4

LIMIT OF DISTURBANCE FOR YARD PROCESS PIPING INSTALL SILT FENCE AS NECESSARY

WEST GALLERY

EXISTING SOUTH PUMP STATION
FF=143.54

EXISTING PRIMARY CLARIFIER #4

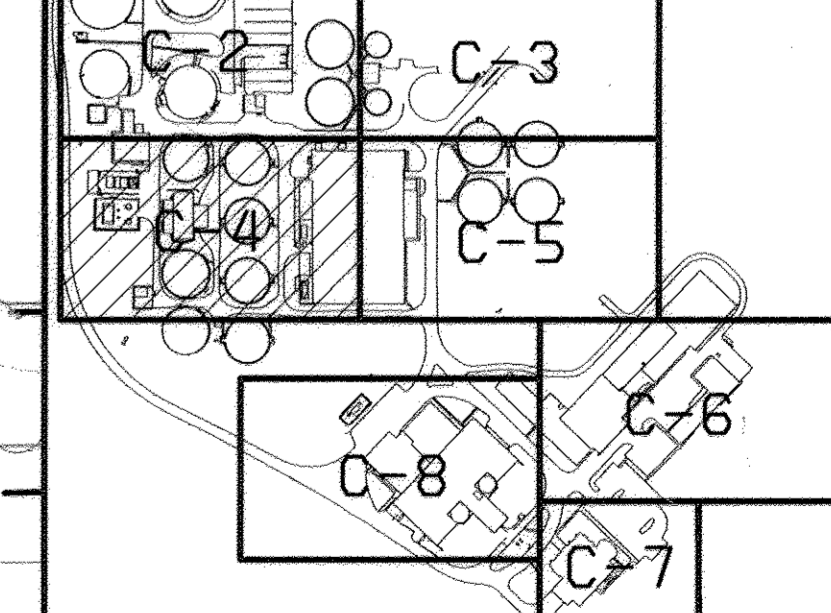
EFFLUENT ROAD

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
6-5-00
DATE: 6-5-00
DATE: 6-5-00

ENGINEER'S CERTIFICATE
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
5/23/00
DATE: 5/23/00

DEVELOPER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
5/21/00
DATE: 5/21/00

KEY LEGEND
FOR REVISIONS THRU NO. 9
FOR REV. NO. 10, SEE SDP SHTS. C-1C AND C-1D.

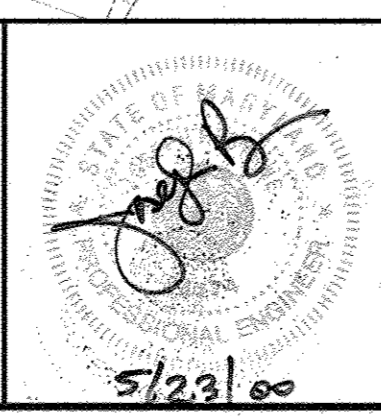


APPROVED: DEPARTMENT OF PLANNING AND ZONING
6/7/00
6/21/00
6/21/00

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth Berman 5-26-00
CHIEF, BUREAU OF UTILITIES DATE

AMT
A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
12750 TWENBROOK PARKWAY, SUITE 200, ROCKVILLE MD 20852
TEL: (301) 981-2565 FAX: (301) 981-0814
E-MAIL: JBYRNE@AMTENGINEERING.COM
HOWARD COUNTY SUBMISSION 05/01/00

BLACK & VEATCH
Gaithersburg, Maryland
5/23/00
DATE: 5/23/00



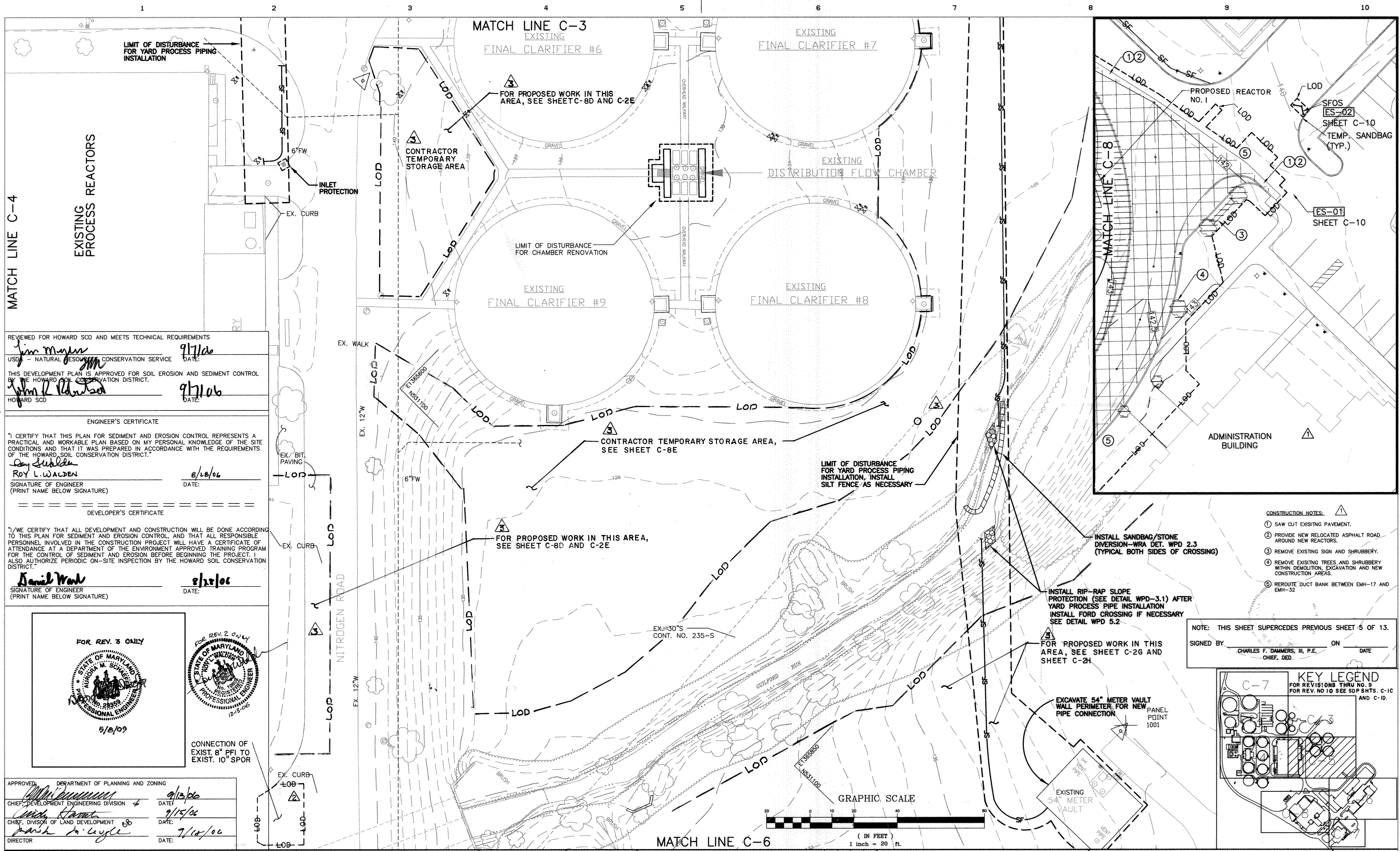
DES:	AR	NO.	BY	CK	APP
DRN:	REA	10-21-13	ADD STANDBY GENERATORS AND SUBSTATION		
CHK:	JB	3-16-12	ADD SEPTAGE ACCEPTANCE FACILITY, DIGESTER TANK, PROPANE TANK, MG(CH) & TANK AND APPURTENANCES		
DATE:	05/01/00	4-10-09	REVISED LOD PER RED LINE REV. 10		
		1-7-02	CONSTRUCTION ENTRANCE		
		1-7-02	REVISED LIMIT OF DISTURBANCE		

CIVIL
REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148
SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 6
PARCEL "A"
CAPITAL PROJECT S-6205
CONTRACT NO
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
3 SHEET
10 OF 59
C-4

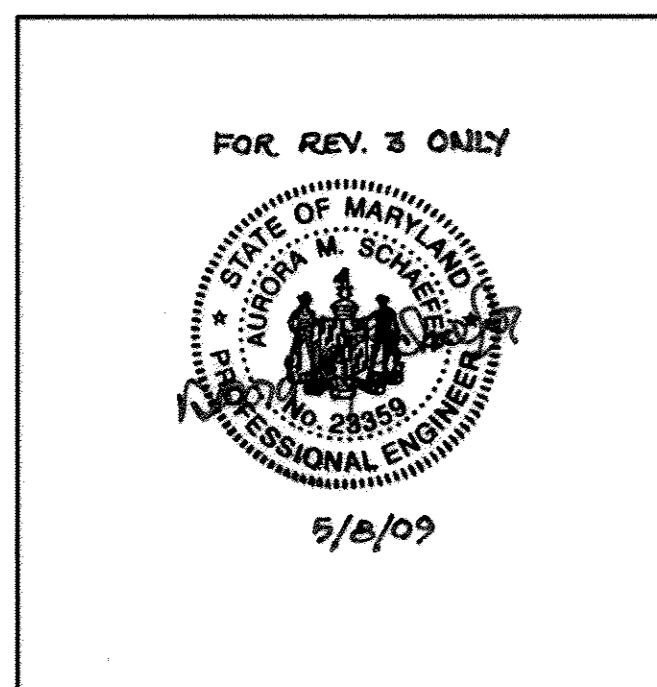
SDP00-94



REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
Jan Mullen 9/17/06
 USF - NATURAL RESOURCE CONSERVATION SERVICE DATE:
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John L. Walden 9/17/06
 HOWARD SCD DATE:

ENGINEER'S CERTIFICATE
 "I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
Roy L. Walden 8/28/06
 ROY L. WALDEN
 SIGNATURE OF ENGINEER DATE:
 (PRINT NAME BELOW SIGNATURE)

DEVELOPER'S CERTIFICATE
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
Daniel Ward 8/28/06
 DANIEL WARD
 SIGNATURE OF ENGINEER DATE:
 (PRINT NAME BELOW SIGNATURE)



APPROVED: DEPARTMENT OF PLANNING AND ZONING
Mark H. Luyke 9/13/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE:
Mark H. Luyke 9/15/06
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE:
 DIRECTOR DATE: 9/18/06

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Ruth B. Bunn 8/29/06
 CHIEF, BUREAU OF UTILITIES DATE

AMT
 A. MORTON THOMAS AND ASSOCIATES, INC.
 CONSULTING ENGINEERS
 12750 TWINBROOK PARKWAY, SUITE 200, ROCKVILLE, MD 20852
 TEL: (301) 881-2545 FAX: (301) 881-0814
 E-MAIL: JBV@AMTENGINEERING.COM
 HOWARD COUNTY SUBMISSION 05/01/00

BLACK & VEATCH
 Gaithersburg, Maryland
 REG. PROF. ENGR. DATE

DES: AR
 DRN: REA
 CHK: JB
 DATE: 05/01/00

NO.	BY	CK	APP
1-13-17			
4-10-09			
12-13-06			
5-26-06			

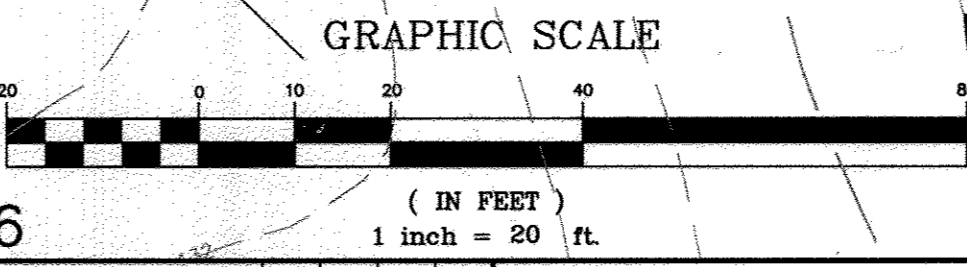
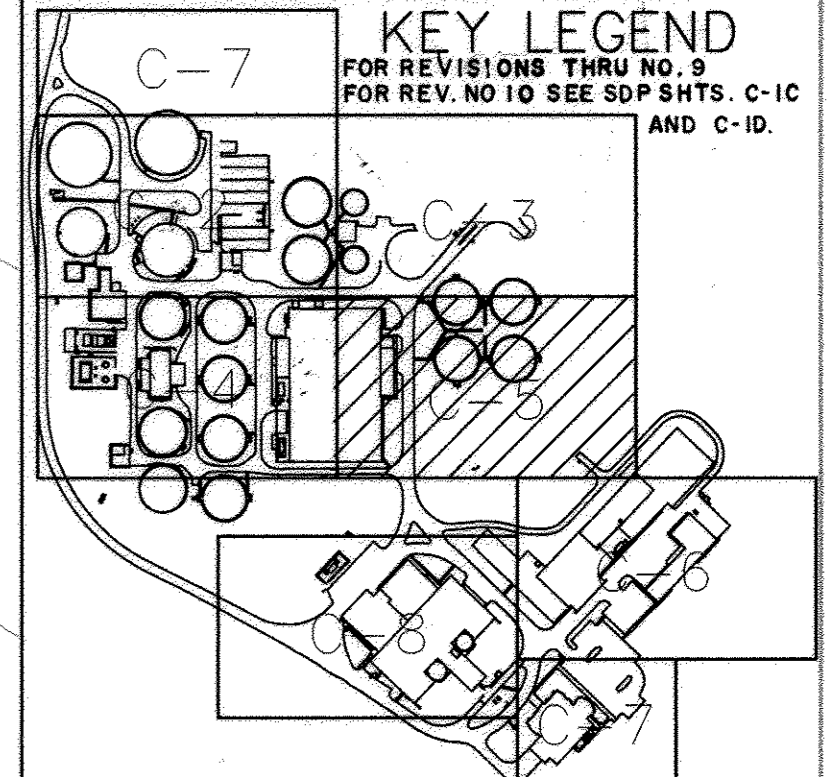
CIVIL
 REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148
 SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 6
 PARCEL "A"
 CAPITAL PROJECT S-6205
 CONTRACT NO.
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 11 OF 59
 C-5

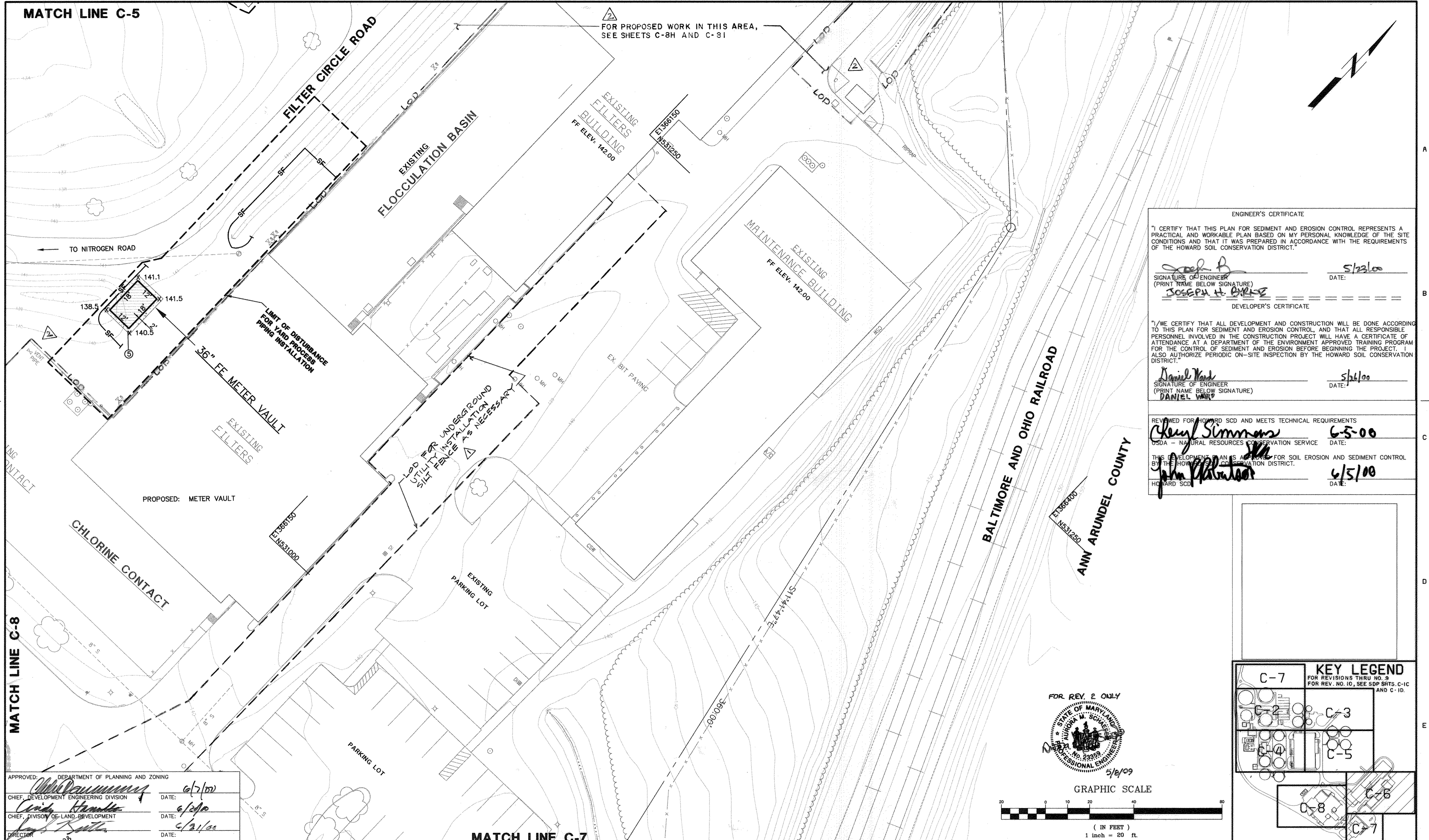
- CONSTRUCTION NOTES:
- SAW CUT EXISTING PAVEMENT.
 - PROVIDE NEW RELOCATED ASPHALT ROAD AROUND NEW REACTORS.
 - REMOVE EXISTING SIGN AND SHRUBBERY.
 - REMOVE EXISTING TREES AND SHRUBBERY WITHIN DEMOLITION, EXCAVATION AND NEW CONSTRUCTION AREAS.
 - REROUTE DUCT BANK BETWEEN EMH-17 AND EMH-32

NOTE: THIS SHEET SUPERCEDES PREVIOUS SHEET 5 OF 13.
 SIGNED BY: CHARLES F. DAMMERS, III, P.E. ON: DATE:
 CHIEF, DED.



DS8472
 FD56472A

SDP00-94



FOR PROPOSED WORK IN THIS AREA, SEE SHEETS C-8H AND C-8I

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Signature of Engineer: *Joseph H. Burke* DATE: 5/23/09
 (PRINT NAME BELOW SIGNATURE) JOSEPH H. BURKE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

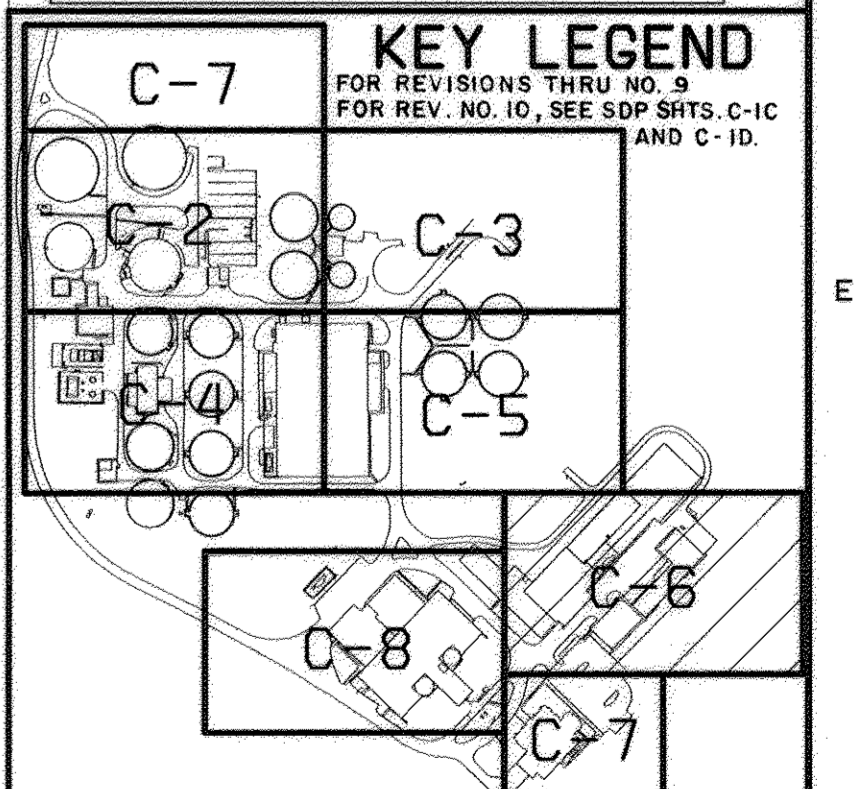
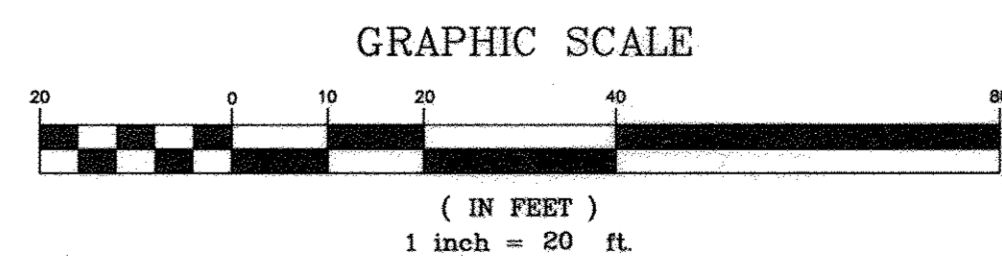
Signature of Engineer: *Daniel Ward* DATE: 5/21/09
 (PRINT NAME BELOW SIGNATURE) DANIEL WARD

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Signature: *Cheryl Simmons* DATE: 6-5-00
 USDA - NATURAL RESOURCES CONSERVATION SERVICE

Signature: *John Blanton* DATE: 6/5/00
 HOWARD SCD

FOR REV. 2 ONLY



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: *Cheryl Simmons* DATE: 6/7/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

Signature: *Cheryl Simmons* DATE: 6/28/00
 CHIEF, DIVISION OF LAND DEVELOPMENT

Signature: *Joseph H. Burke* DATE: 6/21/00
 DIRECTOR

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Signature: *Robert B. ...* DATE: 5-21-00
 CHIEF, BUREAU OF UTILITIES

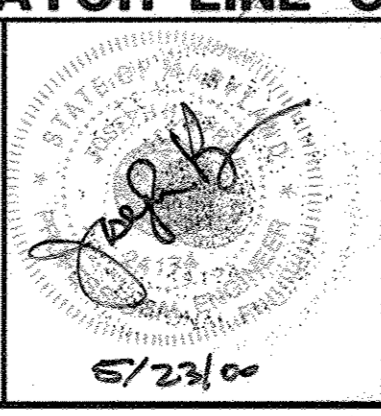
AMT

A. MORTON THOMAS AND ASSOCIATES, INC.
 CONSULTING ENGINEERS
 12750 TWINBROOK PARKWAY, SUITE 200, ROCKVILLE MD 20852
 TEL (301) 881-2565 FAX (301) 881-8814
 E-MAIL: JBYRNE@AMTENGINEERING.COM
 HOWARD COUNTY SUBMISSION 05/01/00

BLACK & VEATCH

Gaithersburg, Maryland

Signature: *Joseph H. Burke* DATE: 5/23/09
 REG. PROF. ENGR.



DES:	AR								
DRN:	REA	1-13-17	REVISED SHEET TOTAL						
CHK:	JB	4-10-07	REVISED LOD PER RED LINE REV. 10						
		1-7-02	REVISED LIMIT OF DISTURBANCE						
DATE:	05/01/00	DATE	REVISIONS AND RECORD OF ISSUE	NO.	BY	CK	APP		

CIVIL

REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148
 SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN

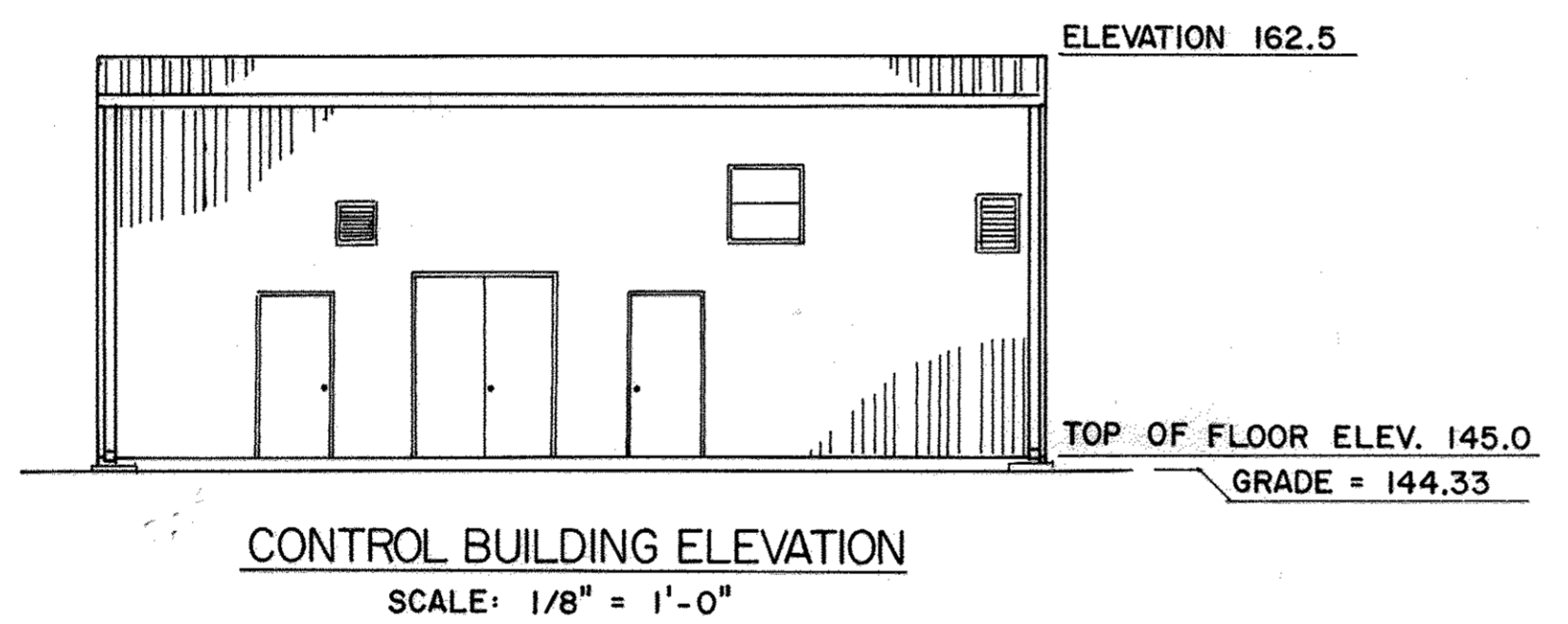
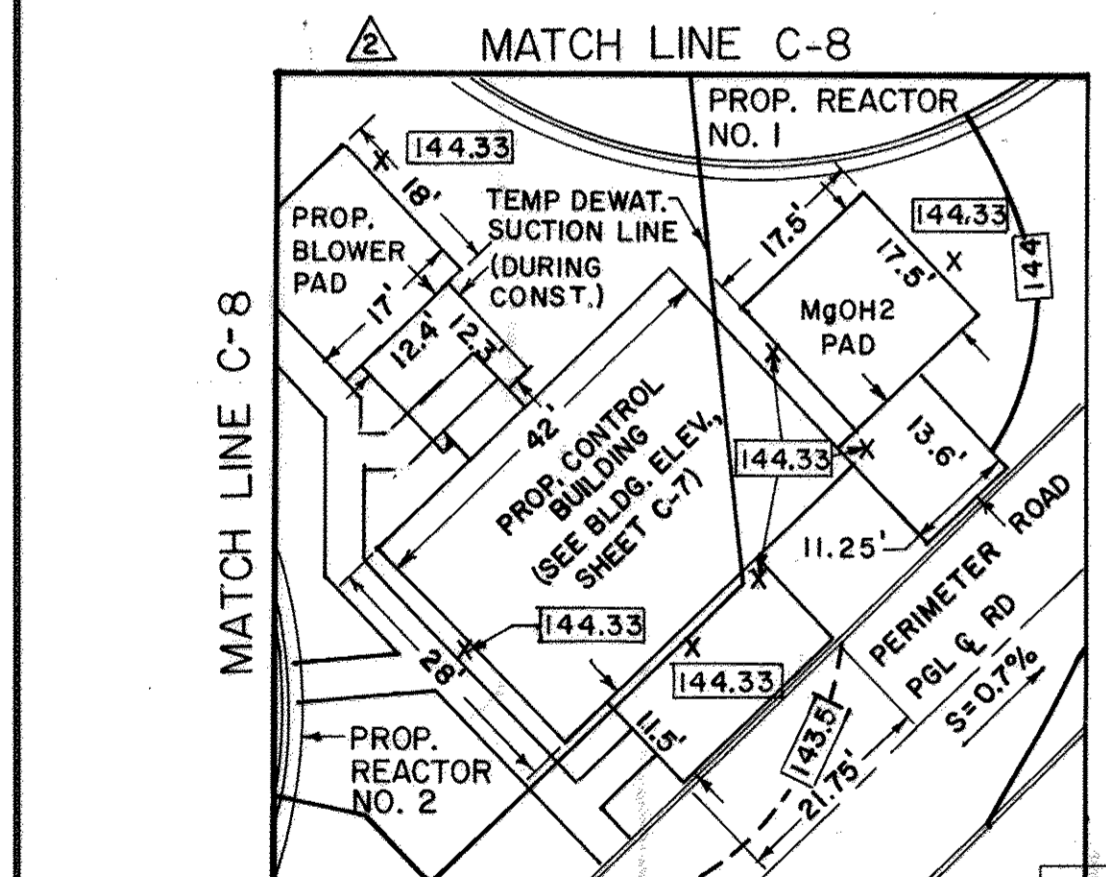
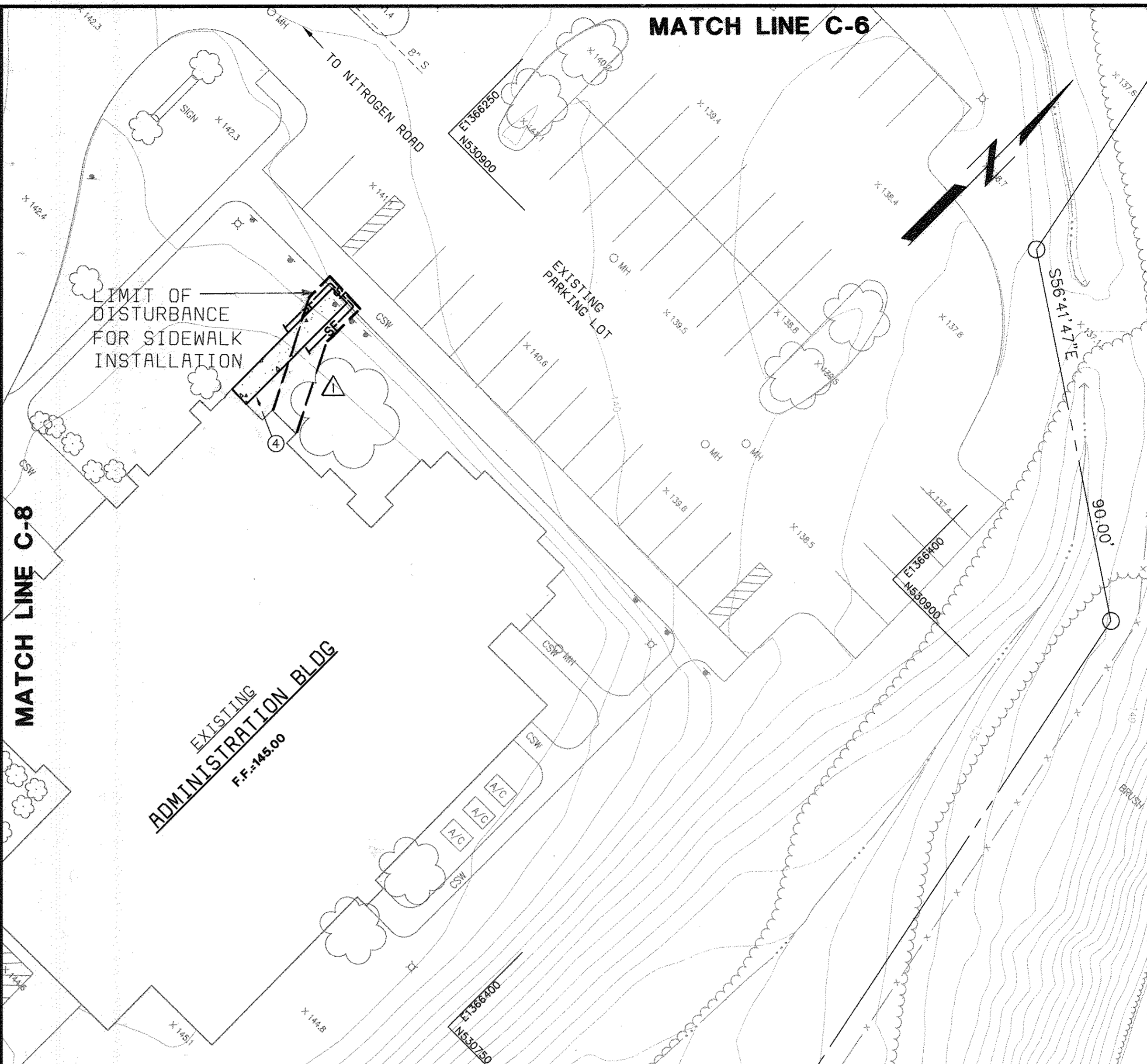
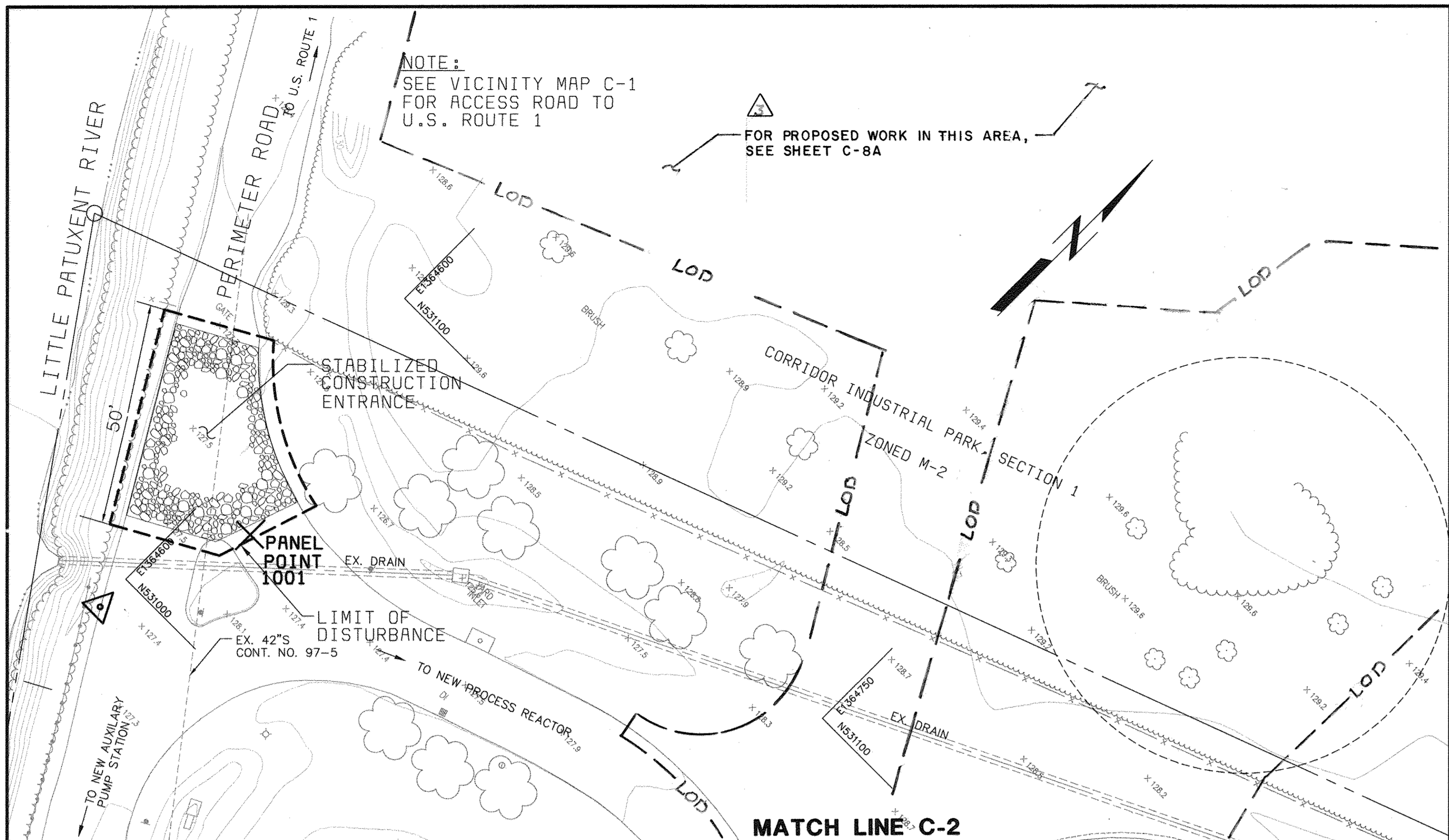
LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 6
 PARCEL "A"
 CAPITAL PROJECT S-6205
 CONTRACT NO
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 12 OF 59

C-6

SDP00-94



ENGINEER'S CERTIFICATE

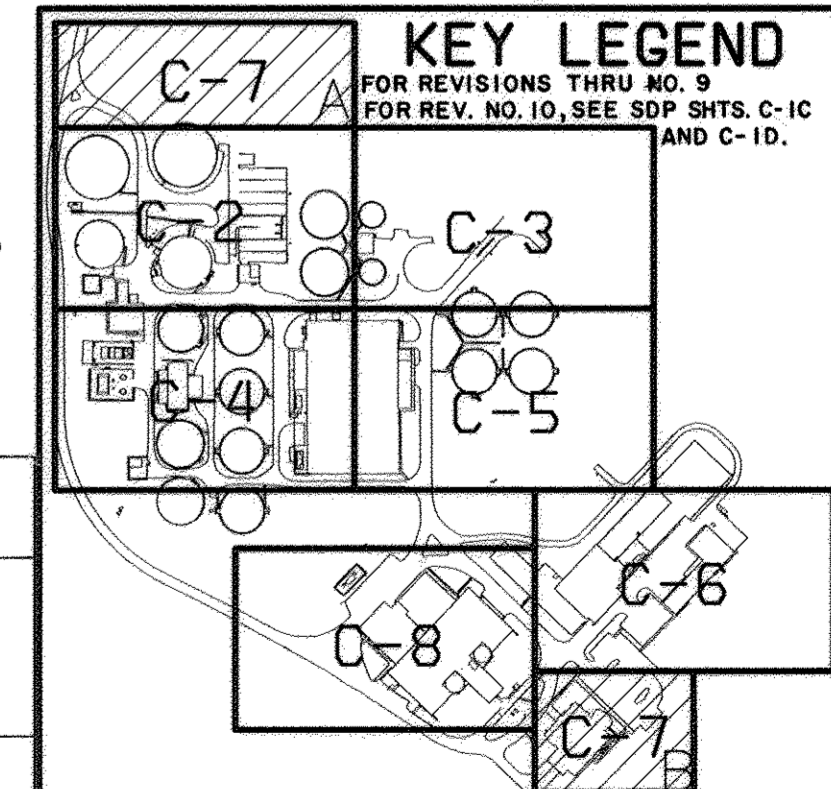
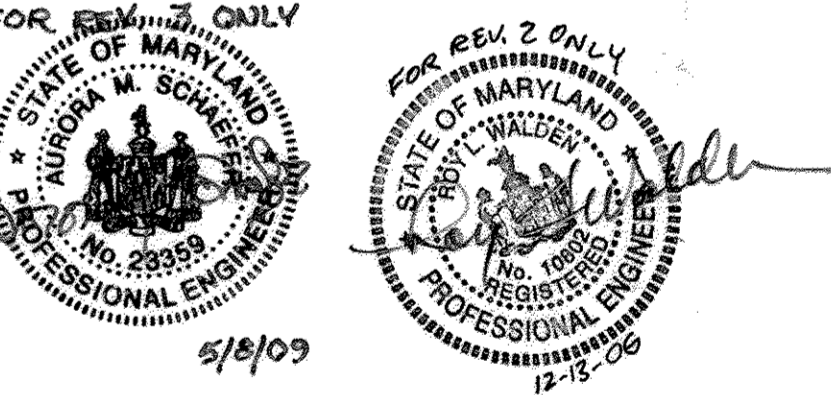
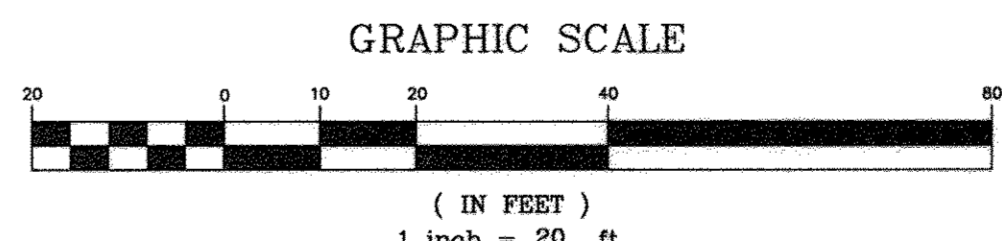
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Signature: *Joseph H. Byrse* DATE: 5/23/00

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Signature: *Daniel Ward* DATE: 5/24/00



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division DATE: 6/2/00

Chief, Division of Land Development DATE: 6/20/00

Director DATE: 6/21/00

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: 6/16/00

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SCD DATE: 6/16/00

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	AMT A. MORTON THOMAS AND ASSOCIATES, INC. CONSULTING ENGINEERS 12750 TWYBROOK PARKWAY, SUITE 200, ROCKVILLE MD 20852 TEL: (301) 881-2555 FAX: (301) 881-0914 E-MAIL: JBYRNE@AMTENGINEERING.COM HOWARD COUNTY SUBMISSION 05/01/00	BLACK & VEATCH LP Gaithersburg, Maryland	DES: AR	DRN: REA	CHK: JB	DATE: 05/01/00	CIVIL	LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 6	SCALE AS SHOWN
				1-13-17 REVISED SHEET TOTAL			REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148	PARCEL "A"	3 SHEET
				4-10-09 REVISED LOD PER RED LINE REV 10			SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN	CAPITAL PROJECT S-6205 CONTRACT NO	13 OF 59
				12-13-06 ADDITION 7: ADDED ANAEROBIC REACTORS AND ANCILLARY EQUIPMENT, ADDED CONTROL BUILDING				ELECTION DISTRICT NO. 6	
				1-7-02 REVISED LIMIT OF DISTURBANCE				HOWARD COUNTY, MARYLAND	
									C-7

SDP 00-94

CONSTRUCTION NOTES:

- 1 REMOVE CONCRETE WALK
- 2 REMOVE CONCRETE CURB - SAWCUT 1" OF EXISTING PAVEMENT PRIOR TO REMOVING CURB
- 3 INSTALL CONCRETE CURB
- 4 EXISTING GRATING TO REMAIN
- 5 REMOVE AND REUSE ALUMINUM STAIRS
- 6 REMOVE BITUMINOUS PAVING FOR SILO INSTALLATION
- 7 INSTALL NEW BITUMINOUS PAVING
- 8 INSTALL 6" WIDE CONCRETE PAD, 2" ABOVE EXISTING GRADE
- 9 RE-INSTALL ALUMINUM STAIRCASE
- 10 INSTALL NEW CONCRETE PAD AROUND SILOS, SEE STRUCTURAL DRAWINGS
- 11 REMOVE A 2' WIDE STRIP OF BITUMINOUS PAVING - SAWCUT PRIOR TO REMOVAL. MEET EXISTING PAVEMENT IN LINE AND GRADE
- 12 INSTALL CONCRETE TRUCK WASH AREA
- 13 INSTALL TRENCH DRAIN W/SAND TRAP AND 8" SANITARY SEWER
- 14 INSTALL 8" SANITARY SEWER AND CONNECT TO EXISTING SANITARY MANHOLE
- 15 RELOCATE LIME SILO PER DRAWINGS PREPARED BY RDP TECHNOLOGIES INC., AND PATCH AREA FLUSH WITH EX GRADE
- 16 INSTALL LIME SILO
- 17 INSTALL 1 1/2" WATER SUPPLY LINE, MIN 4' COVER
- 18 INSTALL 1 1/2" YARD HYDRANT, POST AND NON-FREEZE TYPE
- 19 SEE MECHANICAL/PLUMBING DRAWINGS FOR CONTINUATION
- 20 INSTALL BOLLARDS
- 21 CONNECT NEW PAVING TO EX. PAVING
- 22 GRASS AREA TO REMAIN
- 23 INSTALL 8" SEWER
- 24 INSTALL NEW CLEANOUT
- 25 INSTALL 1 1/2" CURB STOP AND BOX
- 26 RELOCATED LIME SILO (SEE NOTE 15)
- 27 CONTRACTOR TO TEST PIT PRIOR TO CONSTRUCTION

NOTE: THIS SHEET SUPERCEDES PREVIOUS SHEET 8 OF 13.

SIGNED BY: Charles F. Damms, III, P.E. ON _____ DATE _____
 CHIEF, DED

I, Roy C. Walden, ENGINEER, CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: Roy C. Walden DATE: 8/28/06
 (PRINT NAME BELOW SIGNATURE)

DEVELOPER'S CERTIFICATE

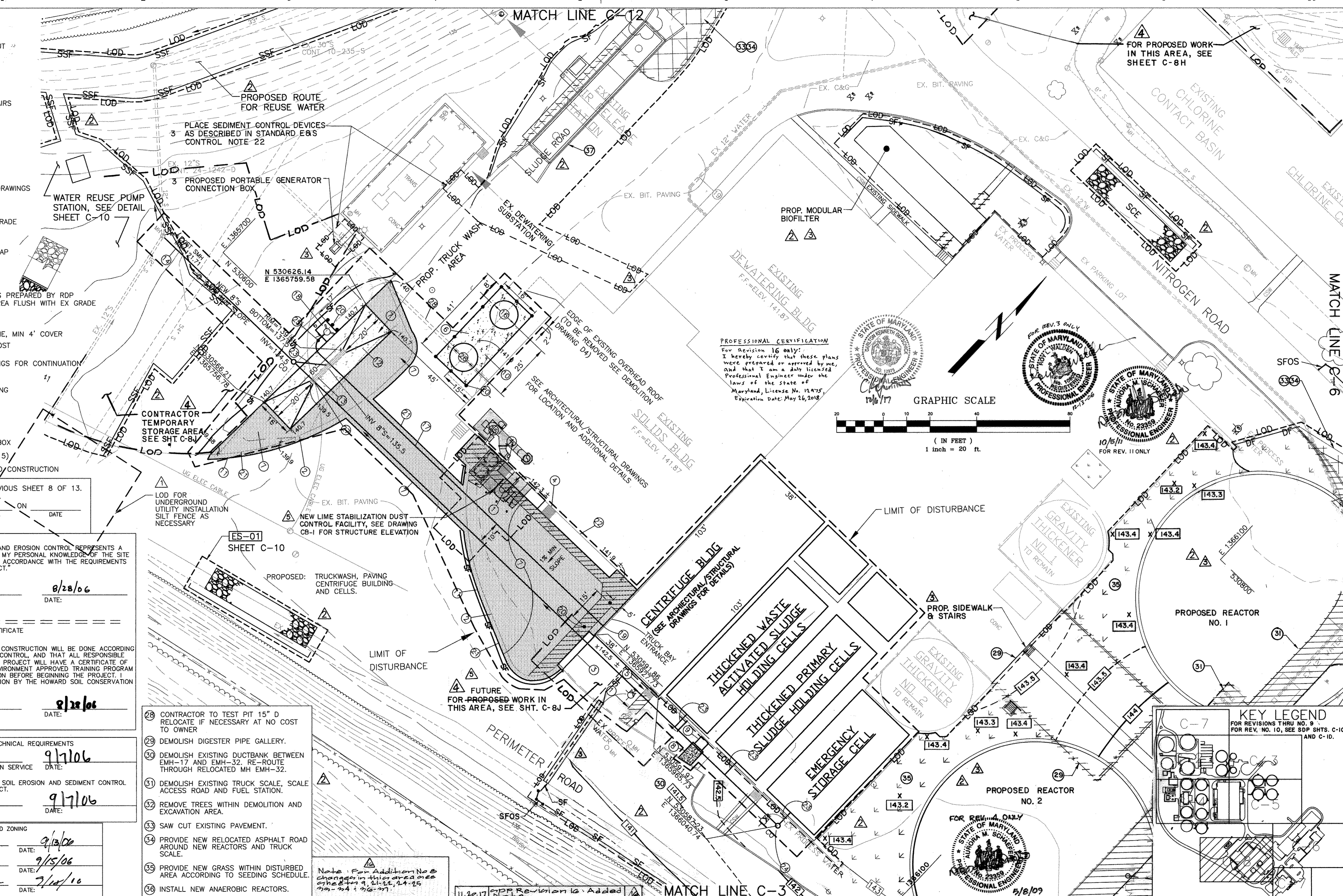
WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: Daniel Wald DATE: 8/28/06
 (PRINT NAME BELOW SIGNATURE)

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 USED BY: John M. Ryan DATE: 9/17/06
 NATURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF HOWARD SCD: John R. Robinson DATE: 9/17/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: Andy Krawch DATE: 9/15/06
 CHIEF, DIVISION OF LAND DEVELOPMENT: Debra K. Coyle DATE: 7/10/10
 DIRECTOR

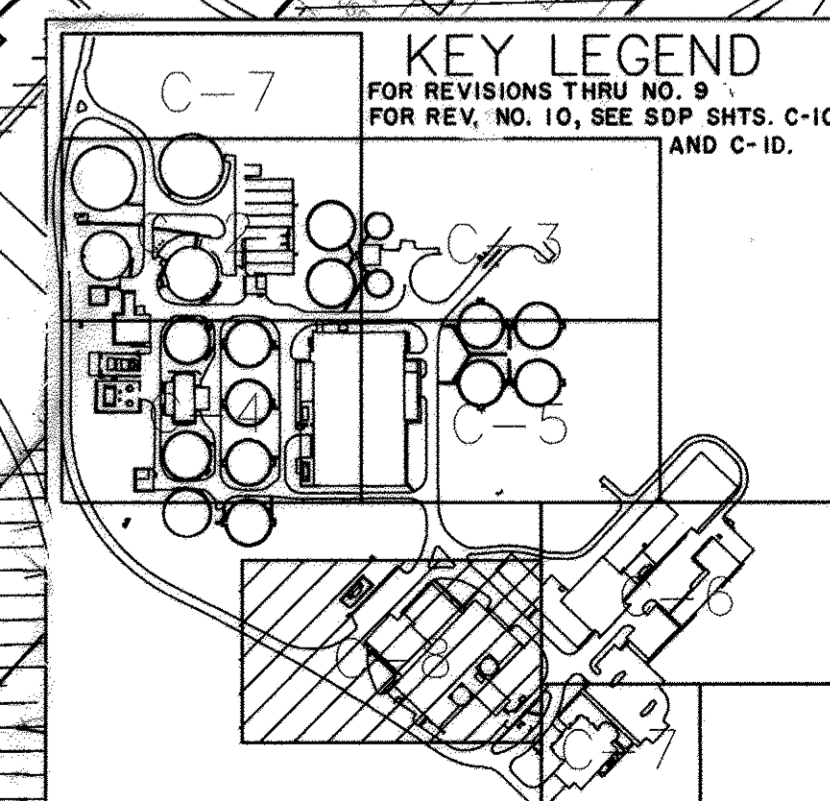
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 SIGNATURE OF CHIEF: Ruth B... DATE: 8-28-06
 CHIEF, BUREAU OF UTILITIES



PROFESSIONAL CERTIFICATION
 For Revision 16 only:
 I hereby certify that these plans 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. 12725, Expiration Date: May 26, 2018.

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 10/6/17

GRAPHIC SCALE
 (IN FEET)
 1 inch = 20 ft.



DES:	AR	REVISED SHEET TOTAL	NO.	BY	CK	APP
DRN:	REA	10/5/11	1			
CHK:	JB	4-10-09	2			
DATE:	05/01/00	12-13-06	3			
		5-26-08	4			
		1-7-02	5			

CIVIL
 REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148
 SITE DEVELOPMENT PLAN, EROSION AND SEDIMENT CONTROL PLAN

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 6
PARCEL "A"
 CAPITAL PROJECT S-6205
 CONTRACT NO.
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 14 OF 59
 C-8

AMT
 A. MORTON THOMAS AND ASSOCIATES, INC.
 CONSULTING ENGINEERS
 12750 TWINBROOK PARKWAY, SUITE 200, ROCKVILLE MD 20852
 TEL: (301) 881-2545 FAX: (301) 881-4814
 E-MAIL: JHYRNE@AMTENGINEERING.COM
 HOWARD COUNTY SUBMISSION 05/01/00

BLACK & VEATCH
 Gaithersburg, Maryland
 REG. PROF. ENGR. DATE _____

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 10/6/17

FOR CONTINUATION SEE SHEET CE-12

NOTES:

7. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS IT IS DIRECTED TO AN MDE APPROVED SEDIMENT CONTROL DEVICE.

8. TRACKING OF SEDIMENT ONTO ROADS IS NOT PERMITTED. IF SEDIMENT IS TRACKED ONTO ROADS, IT SHOULD BE CLEARED AND HAULED OFFSITE AT THE END OF EACH WORKING DAY.

9. STOCKPILING OF MATERIALS WILL NOT BE PERMITTED ON SITE.

10. ALL DISTURBED AREAS, AT A MINIMUM, SHALL BE PERMANENTLY STABILIZED WITH SOIL STABILIZATION MATTING AND SEEDING.

11. STABILIZED CONSTRUCTION ENTRANCE MAY BE RELOCATED/ADJUSTED AT THE DIRECTION OF THE CID INSPECTOR.

PROFESSIONAL CERTIFICATION
FOR REVISION 15:
I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018



PURPOSE NOTE:
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robinson 1/25/17
HOWARD S.C.D. DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Nancy J. Zyllic 2-7-17
Director

Walter L. Leland 2-6-17
Chief, Division of Land Development

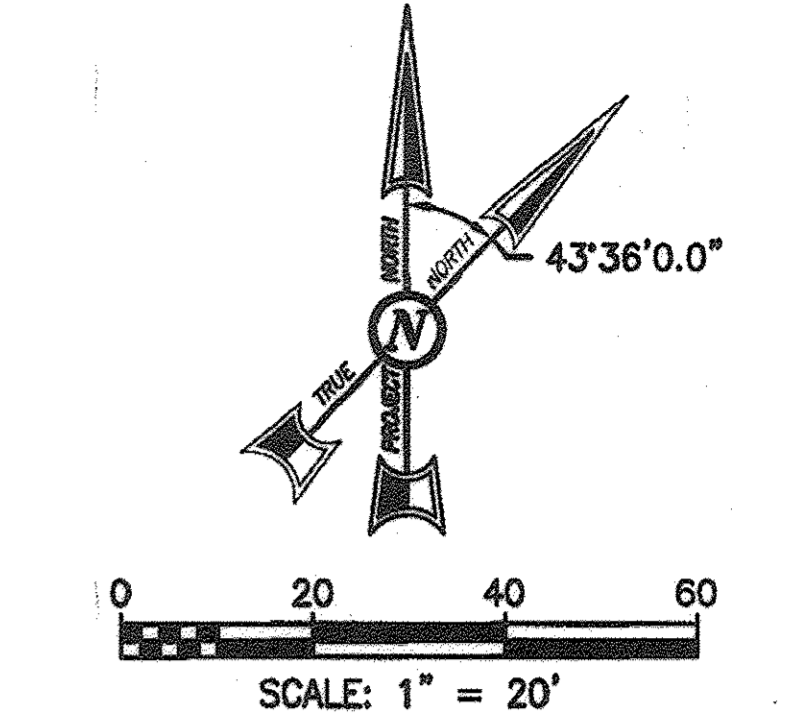
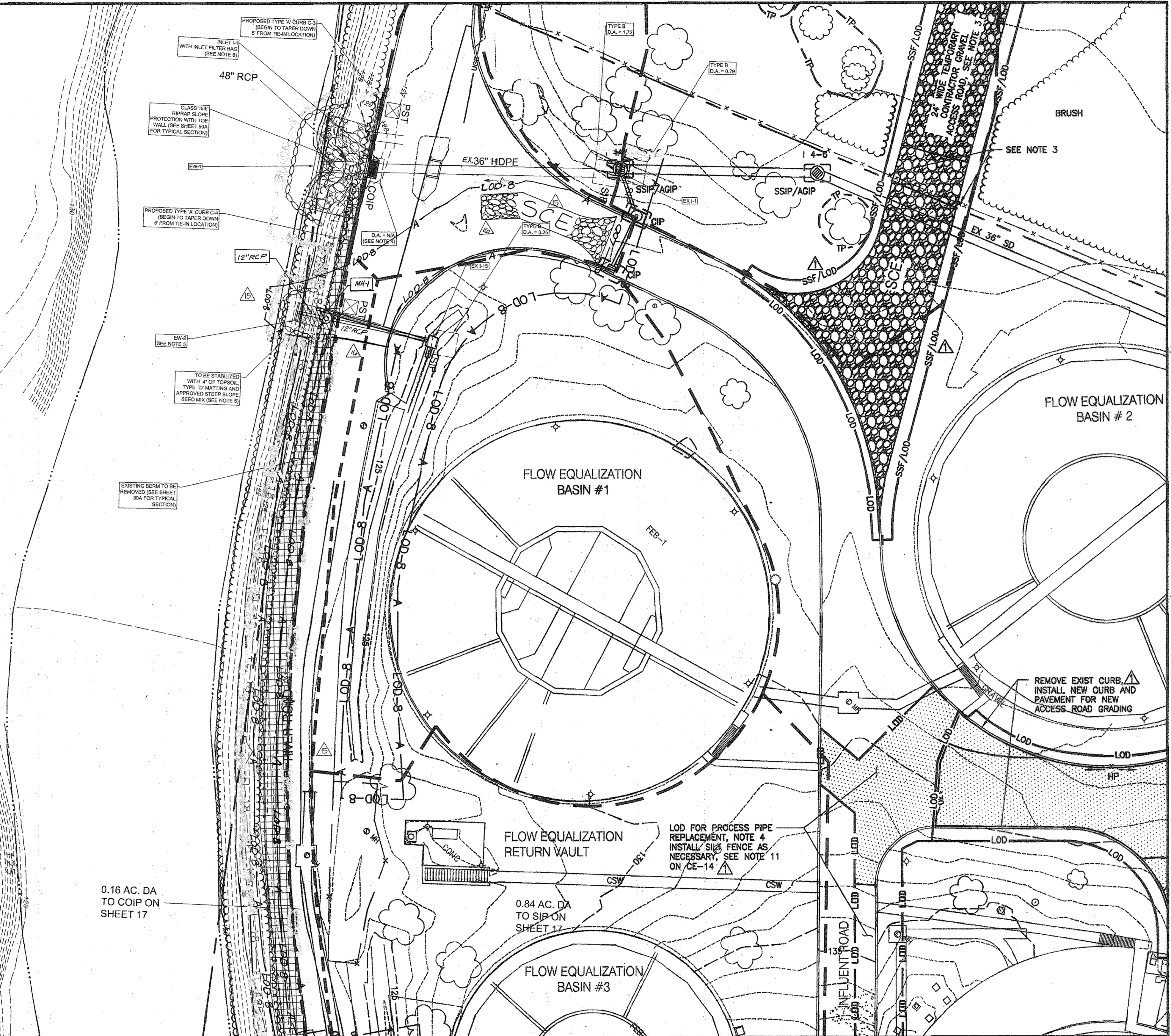
Chad A. ... 1-21-17
Chief, Development Engineering Division

BUILDER'S CERTIFICATE
I CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD.

[Signature] 1/17/17
SIGNATURE OF DEVELOPER/BUILDER DATE

ENGINEER'S CERTIFICATE
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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

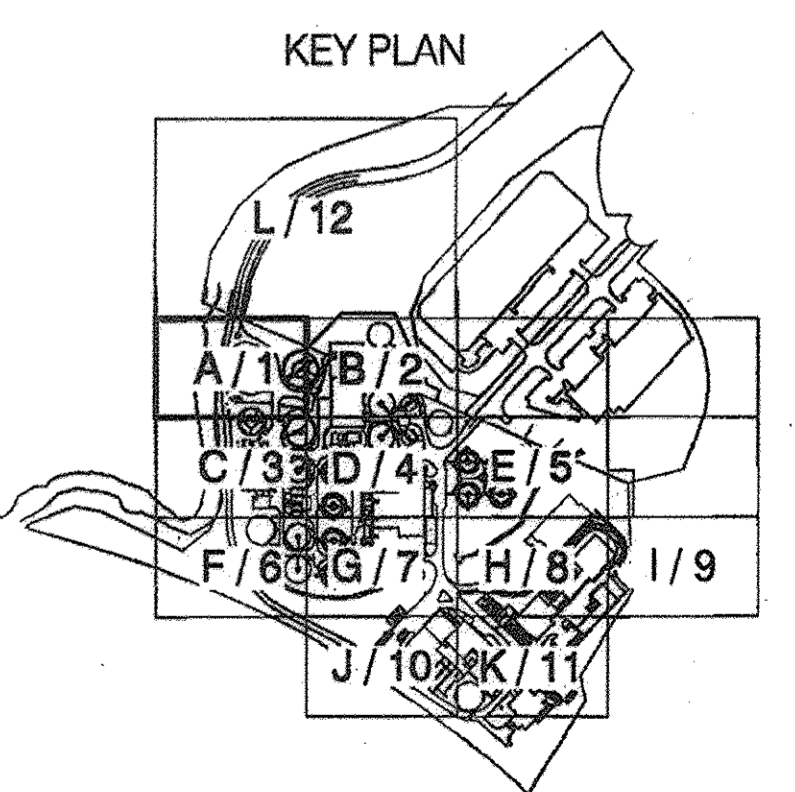
[Signature] 1/17/17
SIGNATURE OF ENGINEER DATE



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CG-1 FOR STRUCTURE, PAVING AND LOD LAYOUT AND LIMITS OF PAVING AND VEGETATIVE RESORATION.
 - REMOVE EX FENCE AS REQUIRED FOR TEMPORARY ACCESS ROAD. INSTALL TERMINAL POSTS AND SECURE EXISTING FENCE.
 - REPLACE PROCESS AIR PIPE WITH EARLY SITE PREPARATION. SEE DRAWING CY-1.
 - FOUR INCHES OF TOPSOIL, TYPE 'D' MATTING AND APPROVED STEEP SLOPE SEED MIX IS TO BE INSTALLED FROM THE EDGE OF THE ROADWAY TO THE TOP OF THE PROPOSED ENDWALL AS SHOWN ON THIS SHEET. SPECIFICATION OF SEED MIX AND ENDWALL DETAIL IS SHOWN ON SHEET 57.
 - AFTER SITE IS STABILIZED AND WORK COMPLETED, ALL PROPOSED INLETS TO HAVE FLEXSTORM INLET FILTER BAGS, OR EQUIVALENT PRODUCT, INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEMS AS PER SPECIFICATION ON SHEET 57.

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED
DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



MATCH LINE SEE SHEET CE-3

REVISOR'S SITE DEVELOPMENT PLAN - REV. NO. 15

M:\380709-Howard County\ENR\03 Civil\ CE-01 E-S Plan A.dwg 05/15/09_10:53

PBSJ
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BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-4156
www.pbsj.com

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425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
Tel. 610.444.6522
Fax. 610.444.1696
www.stantec.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.: 23529 EXPIRATION DATE: 8/13/10.
Nancy W. ...
REGISTERED PROFESSIONAL ENGINEER
4/20/09 PWS&J
DATE FIRM

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
PREVIOUS PROJECTS USED OTHER DATUMS.
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.80 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature] 1/29/17
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	
DRN: SLB	11/20/17
CHK: LHH	1/13/17
	5/10/09
DATE:	DATE

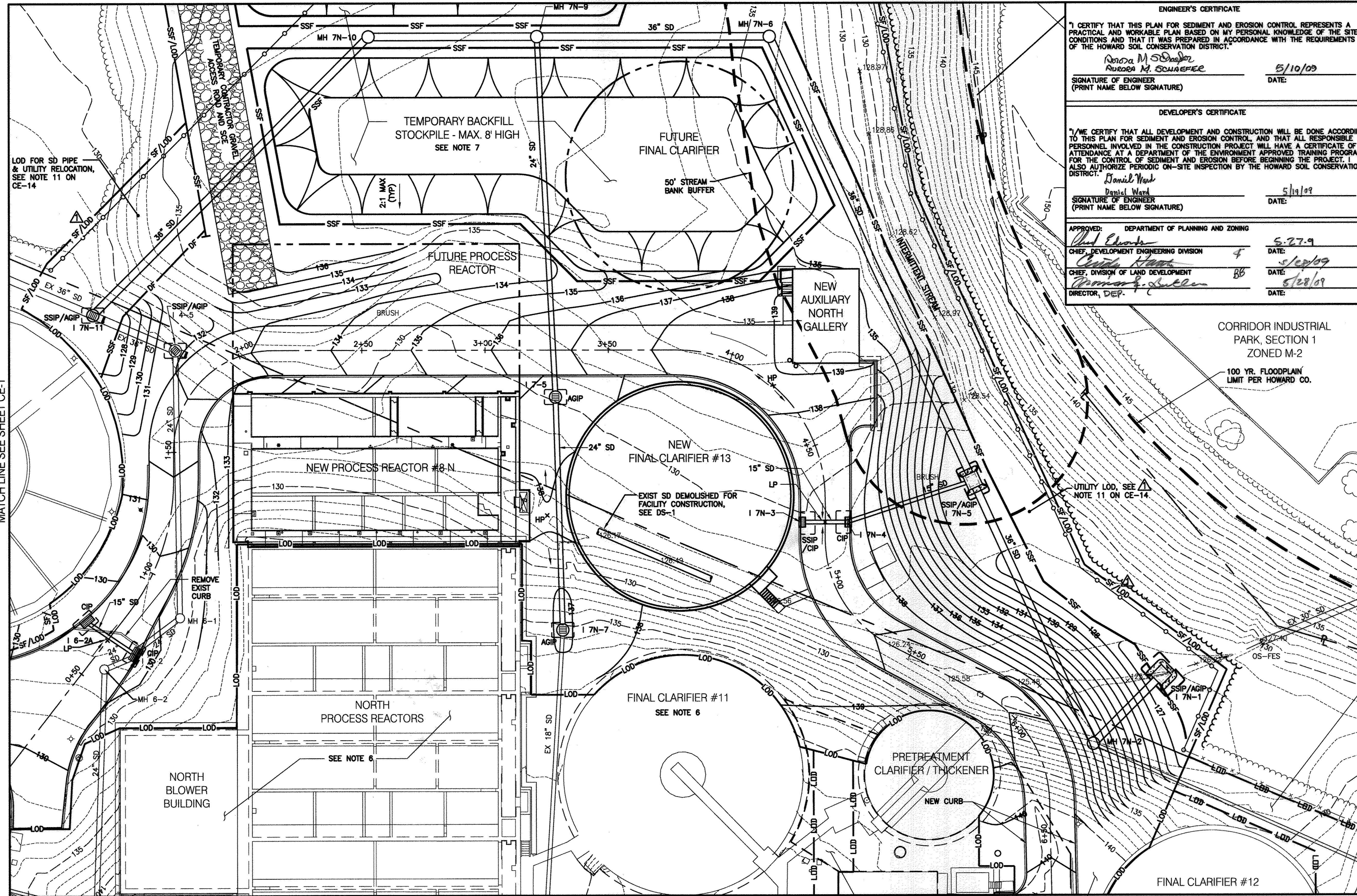
HOWARD COUNTY SDP SHEET C-8A
CIVIL
SITE DEVELOPMENT AND
EROSION AND SEDIMENT CONTROL
PLAN A

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-8245.E PWS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 45 OF 111
CE-1
SDP SHEET 15 OF 59

SDP-00-094

FOR CONTINUATION SEE SHEET CE-12



ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

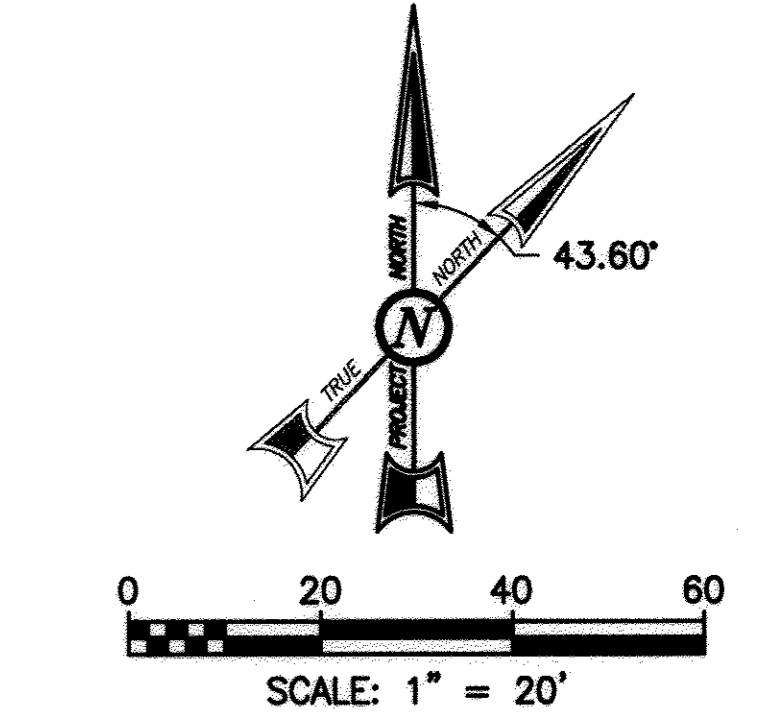
Roseta M. Schneider
Roseta M. SCHNEIDER
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE: 5/10/09

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Daniel Ward
Daniel WARD
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE: 5/19/09

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Clark DATE: 5-27-09
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Chris Hagan DATE: 5/29/09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 5/28/09
DIRECTOR, DEP.



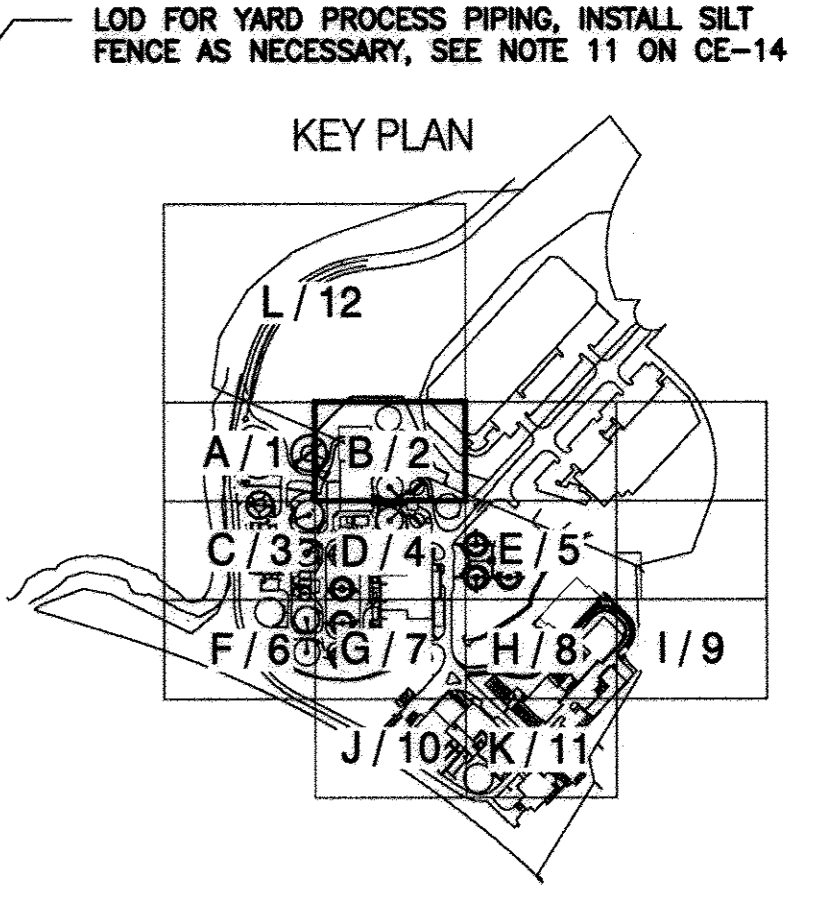
- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CG-4 FOR STRUCTURE, PAVING AND LOD LAYOUT DATA AND LIMITS OF PAVING AND VEGETATIVE RESTORATION.
 - SEE DRAWING CG-13 FOR ROAD PROFILE.
 - SEE DRAWING CY-4 FOR NEW YARD PROCESS PIPING.
 - SEE DRAWING CY-14 FOR SD PROFILE.
 - WORK WITHIN EXISTING STRUCTURE FOR THIS CONTRACT.
 - STOCKPILES TO CONTAIN ONLY MATERIALS TO BE REUSED ON SITE. WITH CONSTRUCTION COMPLETION, REMOVE ANY REMAINING SOILS, REGRADE TO ORIGINAL GRADES, AND STABILIZE WITH PERMANENT SEEDING.

Approved HSCD
5-26-09
John K. Roberts

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



M:\380709-Howard County\ENR\03 Civil\CE-02 E-S Plan B.dwg 05/15/09_10:56

PBS&J
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BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-0800
FAX: (301) 210-4156
www.pbsaj.com

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425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
Tel. 610.444.8522
Fax. 610.444.1698
www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

Roseta M. Schneider
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE
PBS&J
FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Shelby Clark
SHELBY CLARK
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	
DRN: EJR	
CHK: LHH	1-13-17
DATE: -	5/10/09
DATE	5/10/09
REVISIONS AND RECORD OF ISSUE	REVISION SHEET TOTAL REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 28, 2009

HOWARD COUNTY SDP SHEET C-8B
CIVIL

SITE DEVELOPMENT AND
EROSION AND SEDIMENT CONTROL
PLAN B

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE
RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

CONTRACT SHEET
46 OF 611

CE-2

SDP SHEET
16 OF 59

SDP-00-094

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts 1/23/12
HOWARD S.C.D. DATE

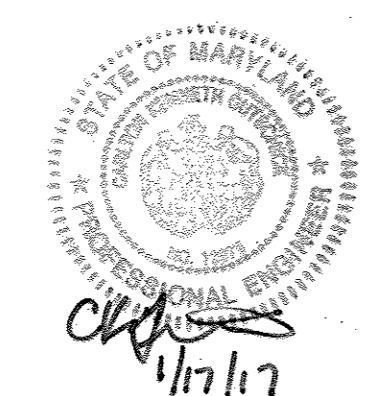
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Nellie J. Jaffe 2-7-12
Director
Kathleen 2-6-12
Chief, Division of Land Development
Chris 1-31-12
Chief, Development Engineering Division

BUILDER'S CERTIFICATE
I CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCOD.

John R. Roberts 1/17/12
SIGNATURE OF DEVELOPER/BUILDER DATE

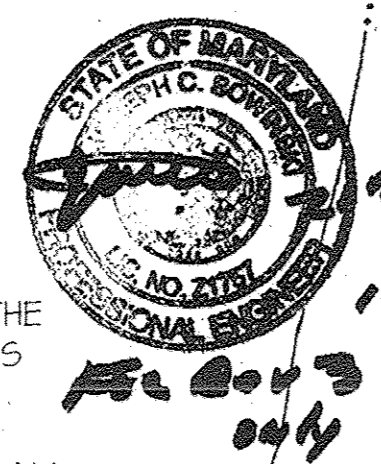
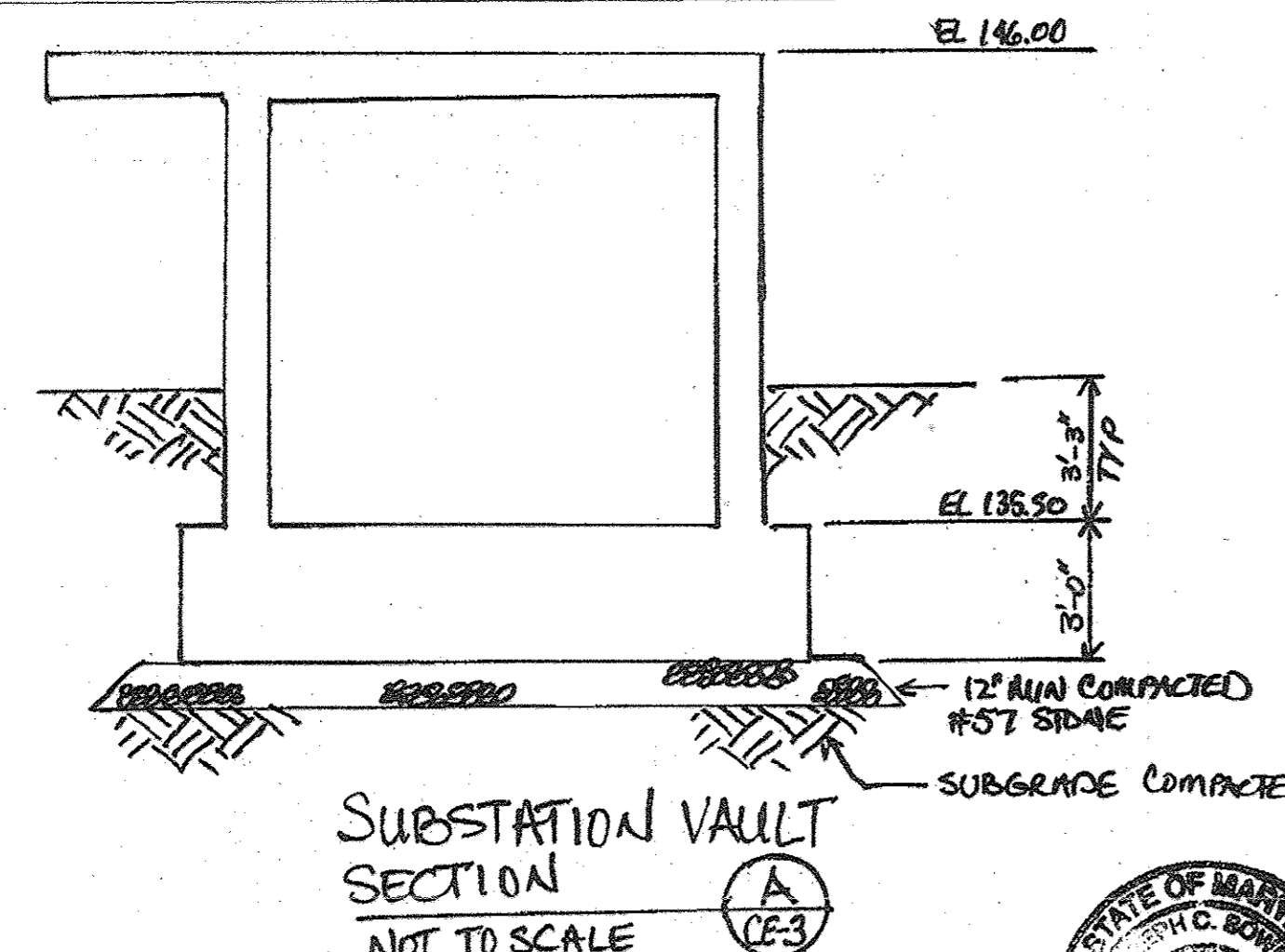
ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Chris 1/17/12
SIGNATURE OF ENGINEER DATE

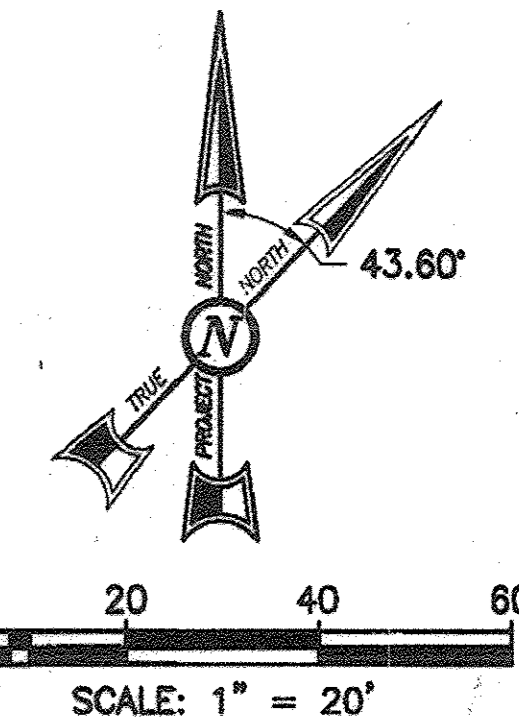
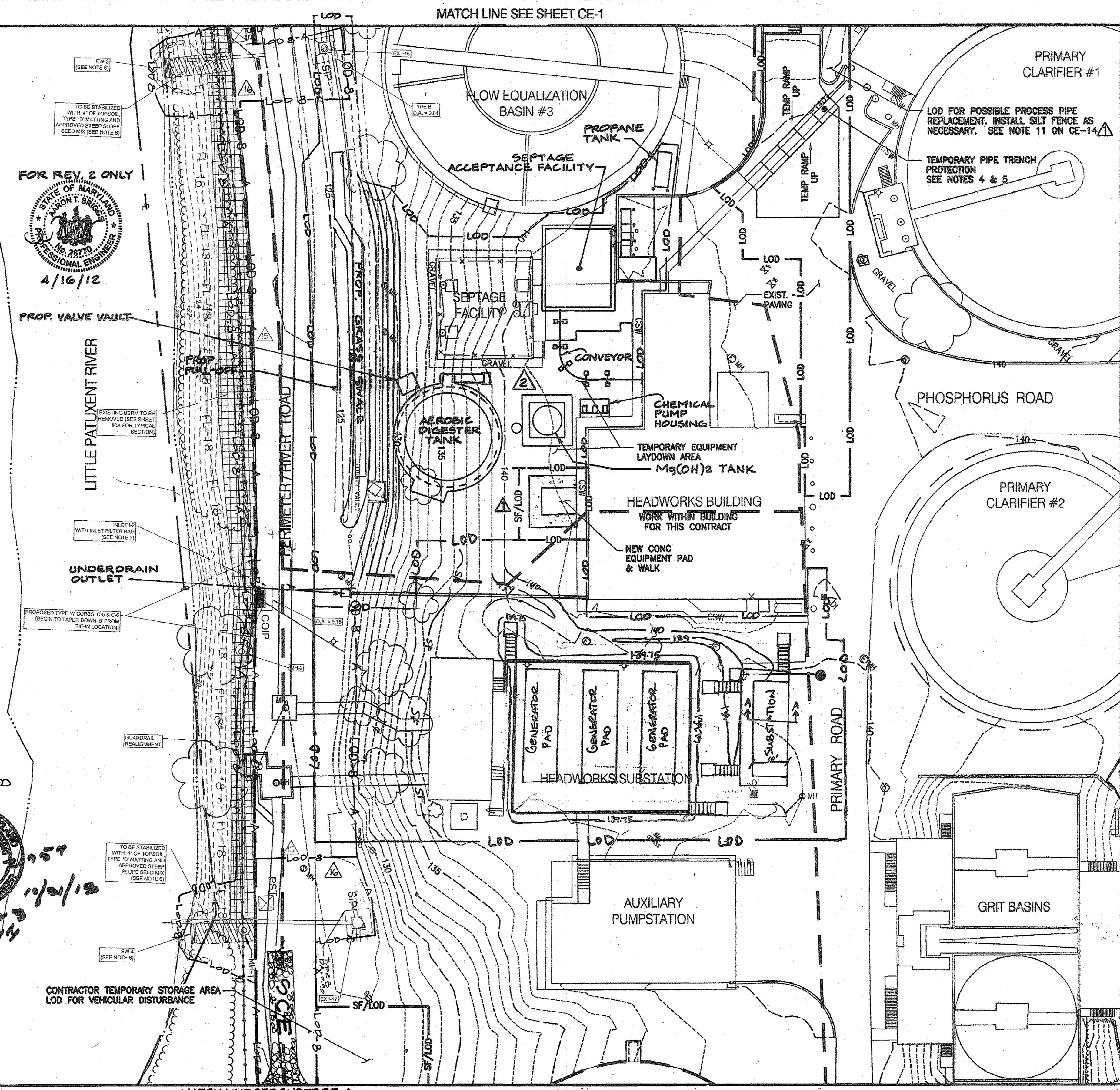


PROFESSIONAL CERTIFICATION FOR REVISION 15-116 ONLY: I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23359, EXPIRATION DATE: MAY 26, 2018.

PURPOSE NOTE:
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.



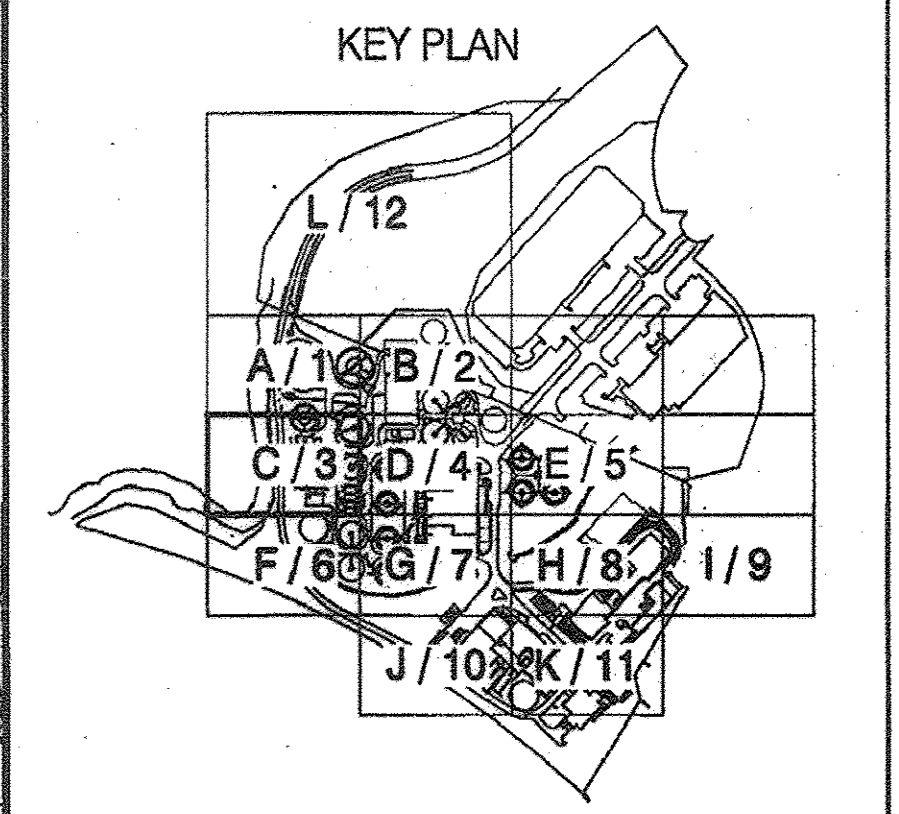
THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CG-3 FOR LOD LAYOUT, LIMITS OF PAVING AND VEGETATIVE RESTORATION.
 - SEE DRAWING CY-3 FOR PROCESS YARD PIPING WORK.
 - TOPS OF EXISTING PIPE TRENCH WALLS ARE FAILING. PROVIDE PROTECTION TO MINIMIZE FURTHER DETERIORATION FROM CONSTRUCTION TRAFFIC. SUGGESTED PROTECTION:
 - CONSTRUCT BITUMINOUS PAVEMENT RAMPS ON BOTH SIDES OF TRENCH.
 - SET STEEL TRAFFIC PLATES OVER TRENCH. PLATES SHALL BE SELECTED TO SUPPORT HEAVIEST FULLY LOADED CONSTRUCTION VEHICLE.
 - POSITION STEEL PLATES SUCH THAT THEY ARE FULLY SUPPORTED BY THE BITUMINOUS RAMPS ON BOTH SIDES.
 - AFTER COMPLETION OF MAJOR FACILITY CONSTRUCTION:
 - REMOVE TEMPORARY TRENCH PROTECTION.
 - EXAMINE TRENCH WALLS WITH THE COUNTY'S PROJECT MANAGER OR DESIGNEE AND DETERMINE EXTENTS OF TRENCH WALL REPAIR.
 - REPAIR TRENCH WALLS AS NECESSARY.
 - PERFORM PAVEMENT RESTORATION.

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

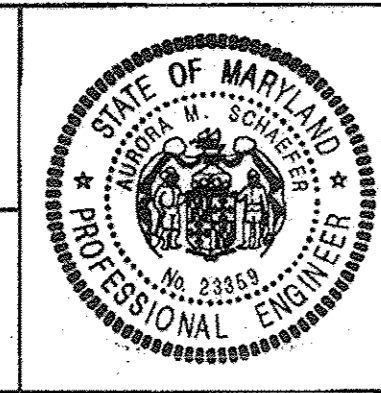
DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.



M:\380709-Howard County\ENR\03 Civil\CE-03 E-S Plan C.dwg 05/15/09_10:57

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
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FAX: (301) 210-4158
www.pbsaj.com

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425 McFarlan Road, Ste. 205
Kenneth Square, PA 19348-2412
Tel: 610.444.6522
Fax: 610.444.1698
www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

Nancy W. Schneider
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE
PBS&J
FIRM

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
PREVIOUS PROJECTS USED OTHER DATUMS.
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.68 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Chris 1/23/12
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	11-29-07	ADD STANDBY GENERATORS AND SUBSTATIONS
DRN: SLB	10-21-09	ADD STANDBY GENERATORS AND SUBSTATIONS
CHK: LHH	3-16-12	ADD SEPTAGE ACCEPTANCE FACILITY, DIGESTER TANK, PROPA...
DATE: -	5/10/09	REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 28, 2009

REVISOR'S RECORD OF REVISIONS

HOWARD COUNTY SDP SHEET C-8C
CIVIL

SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN C

REVISOR'S RECORD OF REVISIONS

REVISOR'S RECORD OF REVISIONS

REVISOR'S RECORD OF REVISIONS

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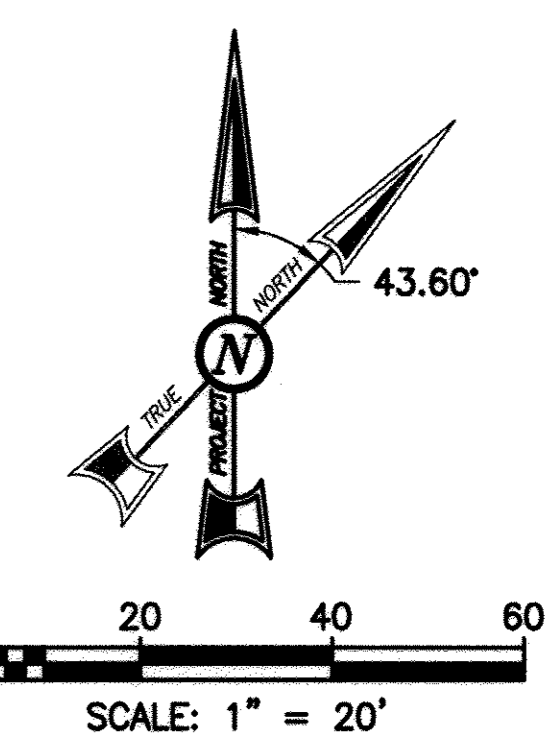
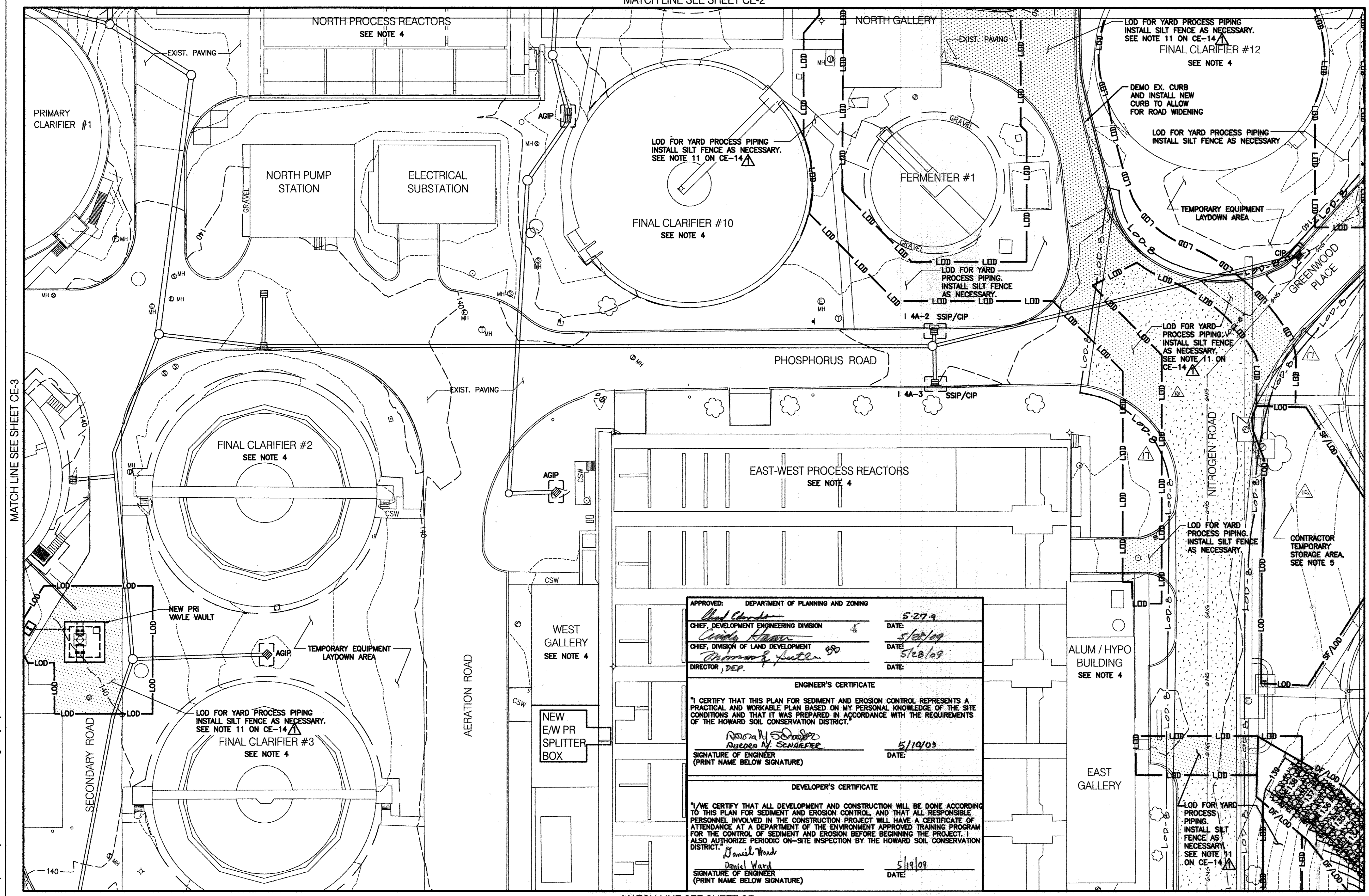
SCALE AS SHOWN

CONTRACT SHEET 47 OF 611

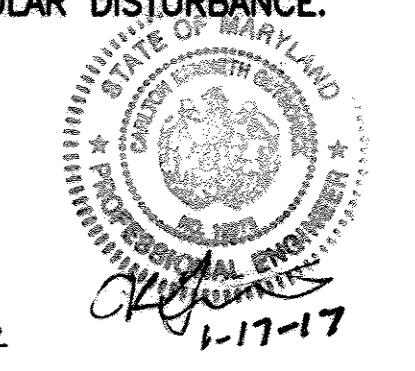
CE-3

SDP SHEET 17 OF 59

MATCH LINE SEE SHEET CE-2



- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CG-4 FOR STRUCTURE, PAVING AND LOD LAYOUT DATA AND LIMITS OF PAVING AND VEGETATIVE RESTORATION.
 3. SEE DRAWING CY-4 FOR NEW YARD PROCESS PIPING.
 4. WORK WITHIN EXISTING STRUCTURE FOR THIS CONTRACT.
 5. LOD FOR VEHICULAR DISTURBANCE.



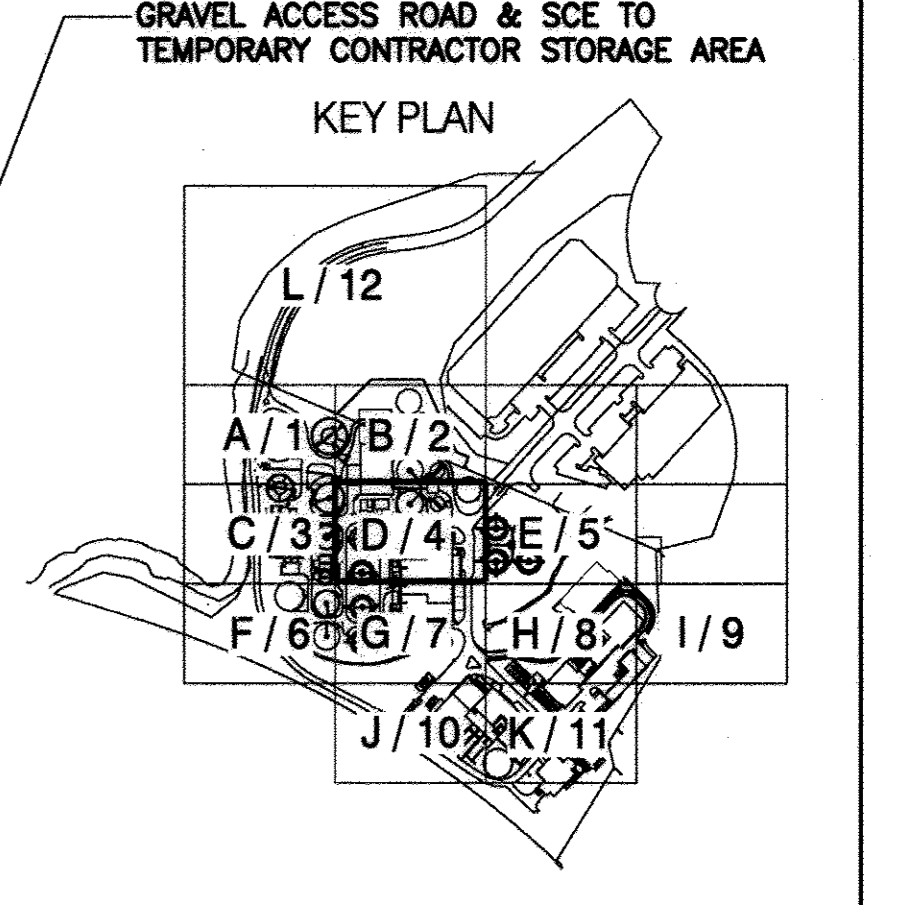
Professional Certification
 For Revision 15, 10/17 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 12,425, Expiration Date: May 26, 2018

Approved by HSCD
 5-26-09
 John R. Roberts

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED IN THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



APPROVED:	DEPARTMENT OF PLANNING AND ZONING	DATE: 5-27-09
<i>[Signature]</i>	CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 5/27/09
<i>[Signature]</i>	CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 5/28/09
<i>[Signature]</i>	DIRECTOR, DEP.	DATE:
ENGINEER'S CERTIFICATE		
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."		
<i>[Signature]</i>	DATE: 5/10/09	
DEVELOPER'S CERTIFICATE		
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."		
<i>[Signature]</i>	DATE: 5/19/09	

MATCH LINE SEE SHEET CE-7

M:\380709-Howard County\ENR\03 Civil\CE-04 E-S Plan D.dwg 05/15/09 10:58

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-8800
 FAX: (301) 210-4156
 www.pbsj.com

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 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.

[Signature]
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09
 DATE

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
- PREVIOUS PROJECTS USED OTHER DATUMS.
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature]
 CHIEF, BUREAU OF UTILITIES
 DATE

DES: AMS		
DRN: SLB	4-0-12	SDP Revision 17: Rev. addition No. 6 stop added pavement restoration hatch
CHK: LHH	11/20/17	SDP REVISION 15: REVISED DMS LINE AND ADDED PAVEMENT REPAIR LIGHT HATCH
	1/19/17	SDP REVISION 16: REVISED ADDITION NO. 6 AND ADDED REVISION 17
	5/10/09	REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 28, 2009
DATE: -	DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8D
 CIVIL

SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN D

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 10001621
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

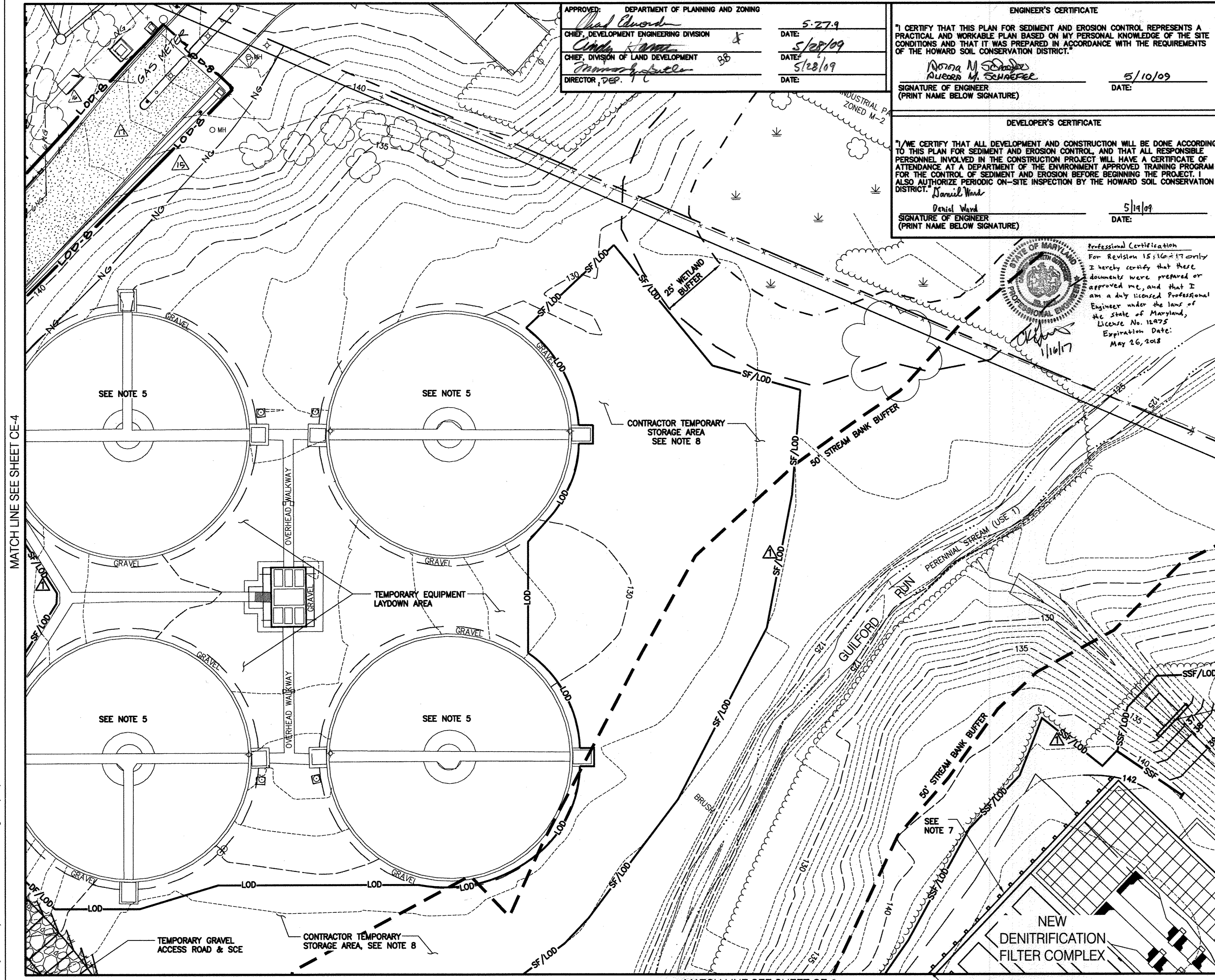
CONTRACT SHEET
 48 OF 611

CE-4

SDP SHEET
 18 OF 59

SDP-00-094

M:\380709-Howard County\ENR\03 Civil\CE-05 E-S Plan E.dwg 05/15/09 11:01

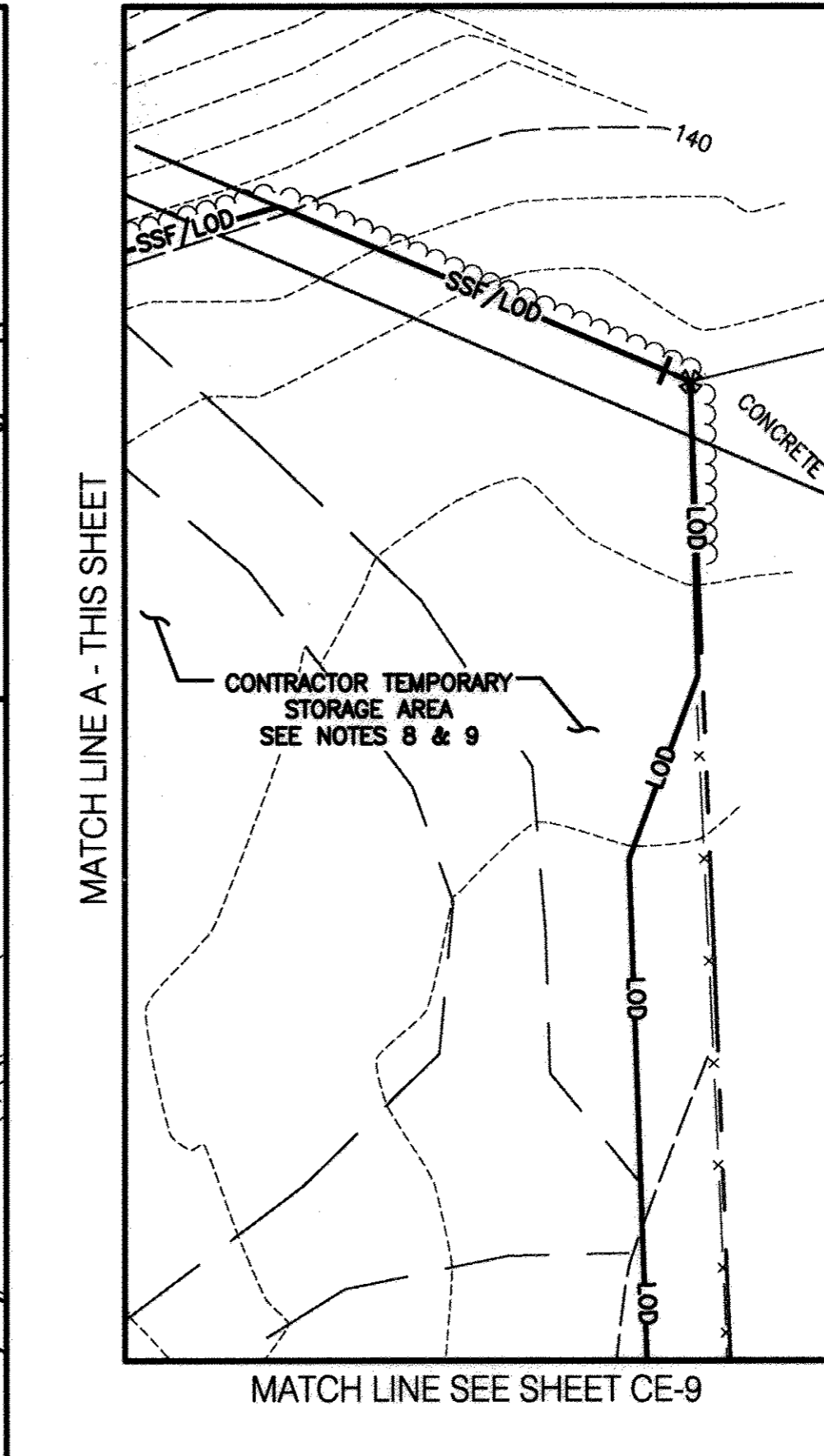


APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Howard 5-27-9
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/28/09
Chad K. Jones 5/28/09
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 5/28/09
 DIRECTOR, DEP. DATE:

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Norona M. Schaefer 5/10/09
 SIGNATURE OF ENGINEER DATE:
 (PRINT NAME BELOW SIGNATURE)

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
Denial Ward 5/19/09
 SIGNATURE OF ENGINEER DATE:
 (PRINT NAME BELOW SIGNATURE)

Professional Certification
 For Revision 15, 16, & 17 only
 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. 15475, Expiration Date: May 26, 2018.
Denial Ward 5/19/09
 PROFESSIONAL ENGINEER

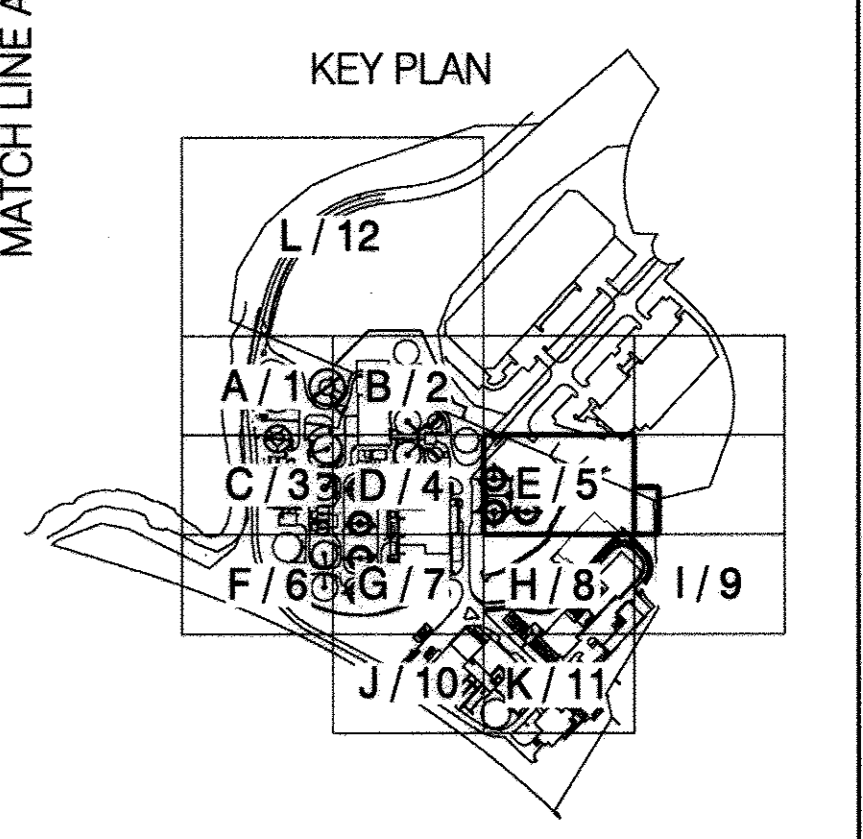


- NOTES:
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CG-5 FOR STRUCTURE AND LOD LAYOUT AND LIMITS OF VEGETATIVE RESTORATION.
 - SEE DRAWING CY-14 FOR SD PROFILE.
 - SEE DRAWING CY-5 FOR PROCESS PIPING.
 - WORK WITHIN EXISTING STRUCTURE FOR THIS CONTRACT.
 - PERFORM PAVEMENT RESTORATION AFTER COMPLETION OF MAJOR FACILITY CONSTRUCTION.
 - APPROXIMATE LOCATION OF EXCAVATION SUPPORT SYSTEM (TO BE DESIGNED BY THE CONTRACTOR).
 - LOD FOR VEHICULAR DISTURBANCE.
 - STABILIZE AREA WITH PERMANENT SEEDING AFTER CLEARING. DO NOT USE AREA FOR STORAGE UNTIL GRASS IS ESTABLISHED. ALTERNATE: STABILIZE AREA WITH GRAVEL (6" MIN DEPTH) AFTER CLEARING. WITH CONSTRUCTION COMPLETION, REMOVE GRAVEL AND PLACE PERMANENT SEEDING.

Approved by HSCD
 5-26-09 *phh/ptb*

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED
 DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6900
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 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6322
 Fax. 610.444.1698
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.
Norona M. Schaefer
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09 PBS&J
 DATE FIRM

NOTICE TO CONTRACTORS
 • PROJECT ELEVATIONS ARE BASED ON NAD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 • PREVIOUS PROJECTS USED OTHER DATUMS
 • APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
John Chen
 CHIEF, BUREAU OF UTILITIES
 DATE

DES: AMS			
DRN: SLB	4-18-18	ADD PER 17. Revised addition No. 8 LOD	
CHK: LHH	11/20/17	ADD PER 17. Revised addition No. 8 LOD	
	5/10/09	REVISED PER HOWARD CO. SCD COMMENTS	
DATE: -	DATE	REVISIONS AND RECORD OF ISSUE	

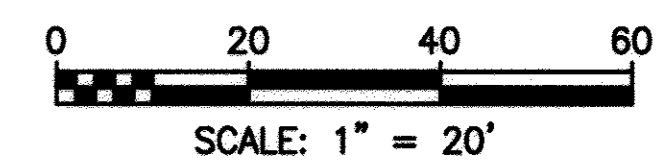
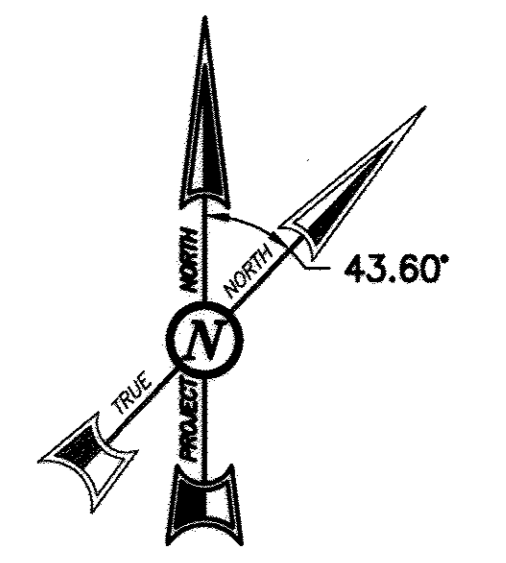
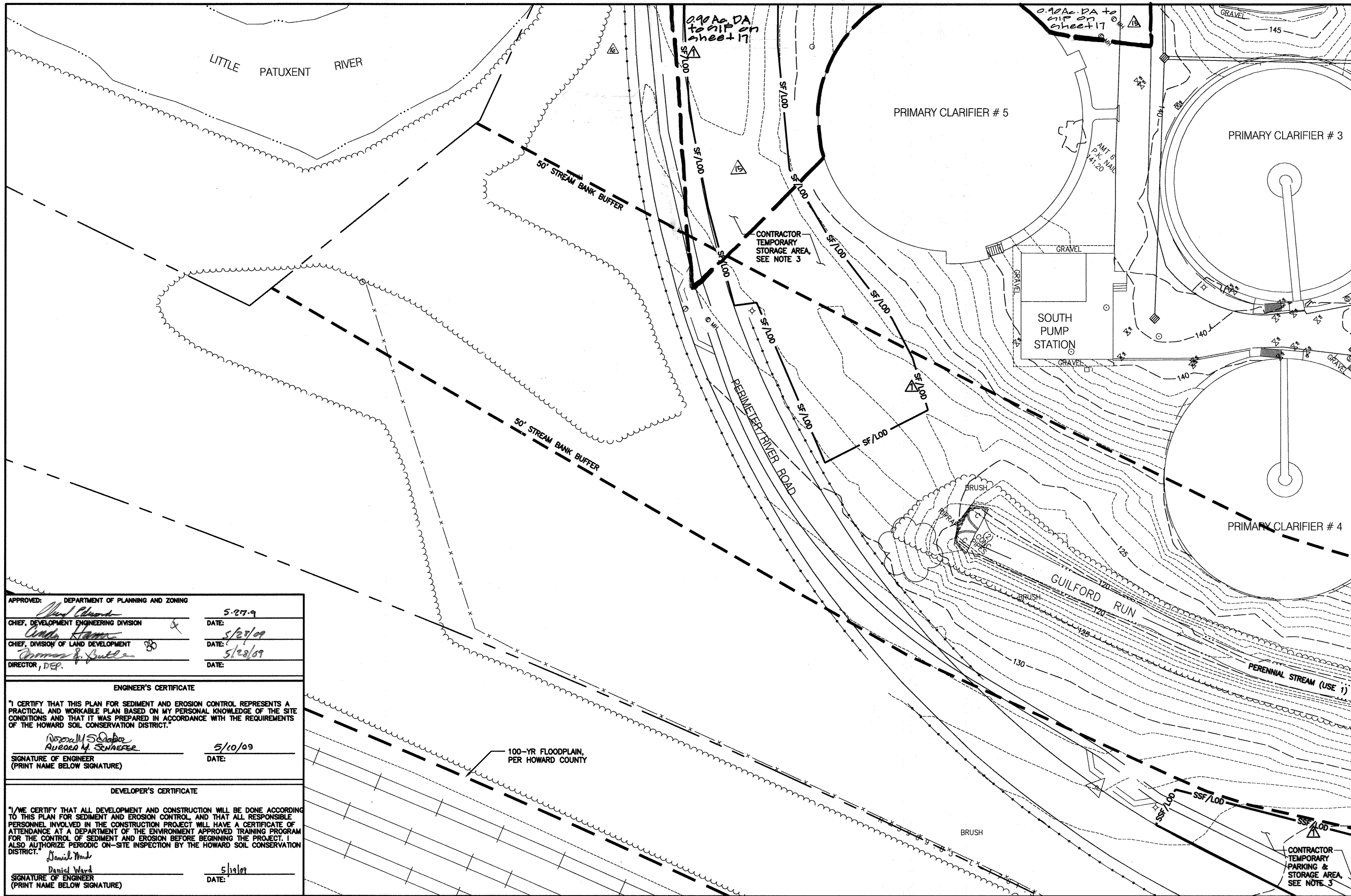
HOWARD COUNTY SDP SHEET C-8E
 CIVIL
 SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN E

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
 LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001821
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 49 OF 611
 CE-5
 SDP SHEET 19 OF 59

SDP-00-094

MATCH LINE SEE SHEET CE-3



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CG-6 FOR STRUCTURE AND LOD LAYOUT AND LIMITS OF VEGETATIVE RESTORATION.
 - SEE DRAWING CY-6 FOR PROCESS PIPING.
 - LOD FOR VEHICULAR DISTURBANCE.

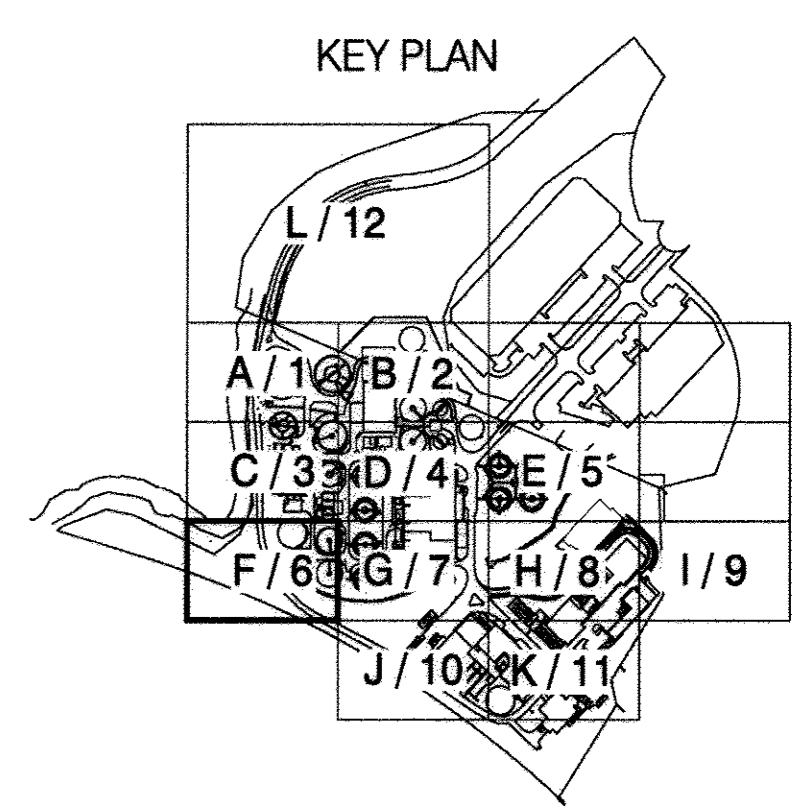


Professional Certification
 For Revision 15/10/09 only
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 12975 Expiration Date: May 26, 2018

Approved by HSCD
 5/26/09
 John K. Blanton

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.
 DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



APPROVED: DEPARTMENT OF PLANNING AND ZONING	5-27-09
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 5/27/09
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 5/28/09
DIRECTOR, DEP.	DATE:

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Rosemary M. Schaefer*
 DATE: 5/10/09

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *Daniel Ward*
 DATE: 5/19/09

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.: 23359, EXPIRATION DATE: 8/13/10.
 Signature: *Rosemary M. Schaefer*
 REGISTERED PROFESSIONAL ENGINEER
 DATE: 4/20/09 FIRM: PBS&J

NOTICE TO CONTRACTORS
 • PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 • PREVIOUS PROJECTS USED OTHER DATUMS
 • APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Signature: *Steve Clever*
 CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	
DRN: SLB	
CHK: LHH	11.20.17 1/10/17 5/10/09
DATE: -	DATE
	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8F
 CIVIL
 SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN F

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
 LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 50 OF 611
 CE-6
 SDP SHEET 20 OF 59

M:\360709-Howard County\ENR\03 CIV\ CE-06 E-S Plan F.dwg 05/15/09 11:03

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-8800
 FAX: (301) 210-4156
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 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.com



SDP-00-094

MATCH LINE SEE SHEET CE-4

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Walter J. Miller 2-7-17
 Director Date

W. J. Delaney 2-6-17
 Chief, Division of Land Development Date

Chad Colburn 1-31-17
 Chief, Development Engineering Division Date

BUILDER'S CERTIFICATE

"I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD."

B. Blitt 1/27/17
 SIGNATURE OF DEVELOPER/BUILDER DATE

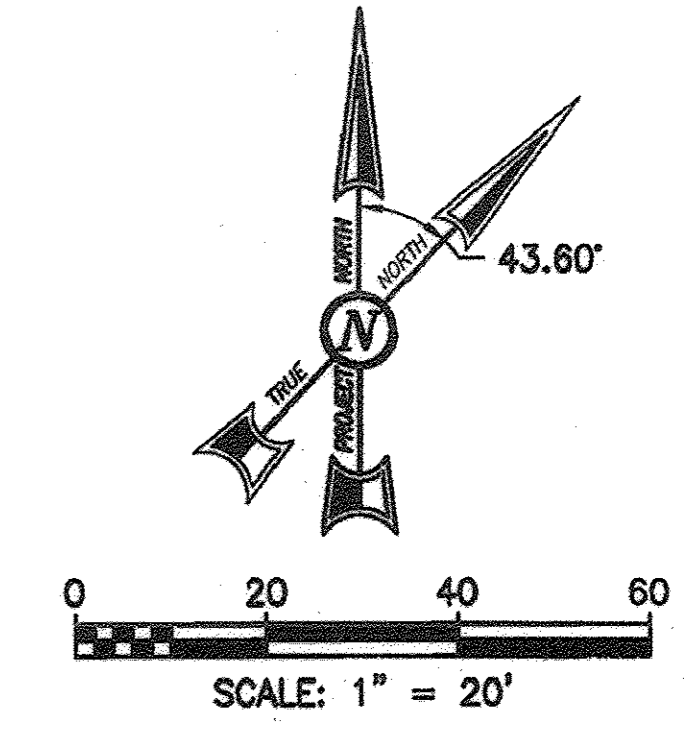
ENGINEER'S CERTIFICATE

"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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

C. K. J. 1/27/17
 SIGNATURE OF ENGINEER DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robinson 1/25/17
 HOWARD S.C.D. DATE



- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CG-7 FOR STRUCTURE, PAVING AND LOD LAYOUT AND VEGETATIVE RESTORATION.
 3. SEE DRAWING CY-7 FOR PROCESS PIPING.
 4. WORK WITHIN EXISTING STRUCTURE FOR THIS CONTRACT.
 5. LOD FOR VEHICULAR DISTURBANCE.
 6. PERFORM PAVEMENT RESTORATION AFTER COMPLETION OF MAJOR FACILITY CONSTRUCTION.

PURPOSE NOTE:
 THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

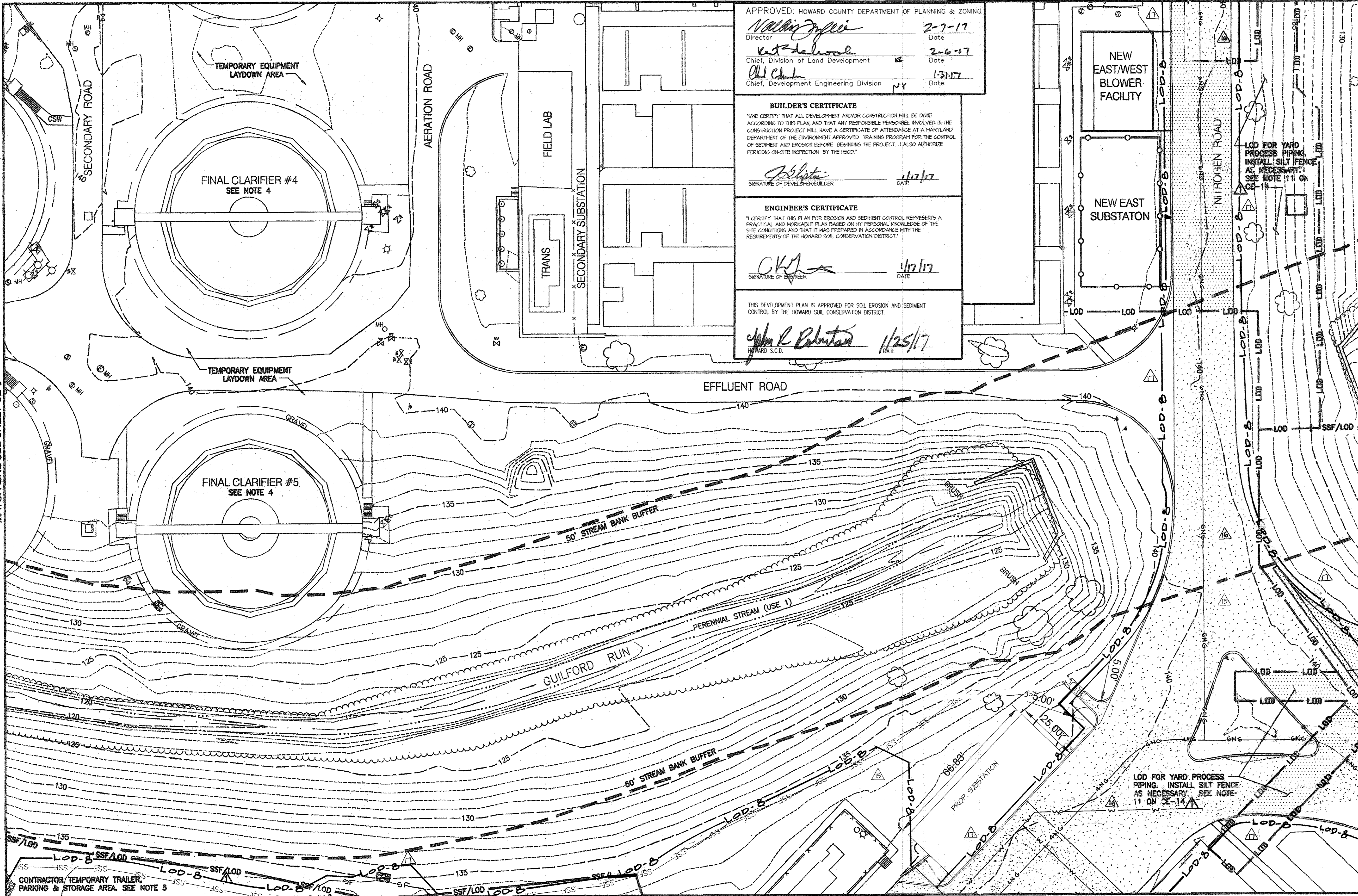
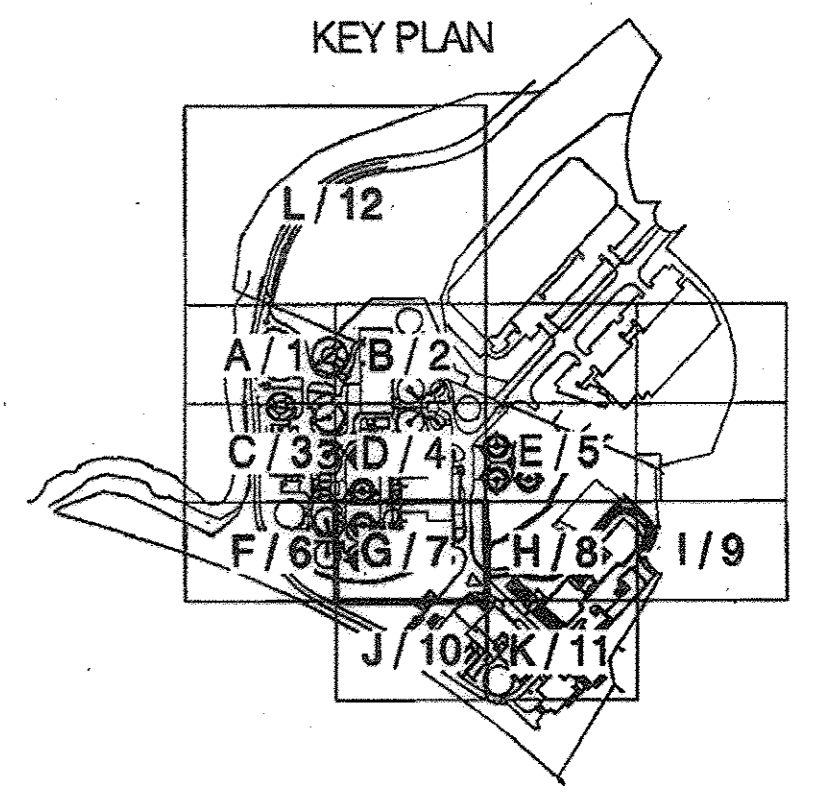
PROFESSIONAL CERTIFICATION FOR REVISION 15, 10/17/17
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 12975
 EXPIRATION DATE: MAY 26, 2018

C. K. J. 1/27/17

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



MATCH LINE SEE SHEET CE-10

REVISED SITE DEVELOPMENT PLAN - REV. NO. 15

PBS&J

12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156
 www.pbsj.com

Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1696
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.

Norma M. Sandoz
 REGISTERED PROFESSIONAL ENGINEER
 DATE: 4/20/09
 FIRM: PBS&J

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Steve C... 1/25/10
 CHIEF, BUREAU OF UTILITIES DATE

DES: AMS		
DRN: SLB	4-10-18	APP. Revision 17: Revised addition No. 8 LOD and Erosion/Sediment Control details; added sediment control devices.
CHK: LHH	11-22-17	APP. Revision 16: Rev. stream placement, stream bank restoration, stream bank stabilization.
DATE: -	5/10/09	REPLACEMENT SHEET - SDP REVISION 15. ADDED ADDITION NO. 8, LOD, STRUCTURES, AND SEDIMENT CONTROL DEVICES. REVISED SHEET TOTAL DATED APRIL 28, 2009.
		REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8G
 CIVIL

SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN G

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4672

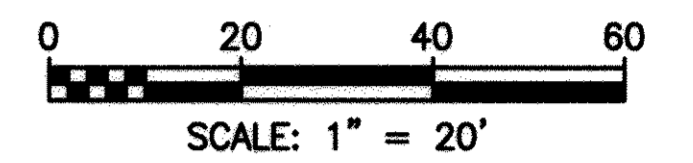
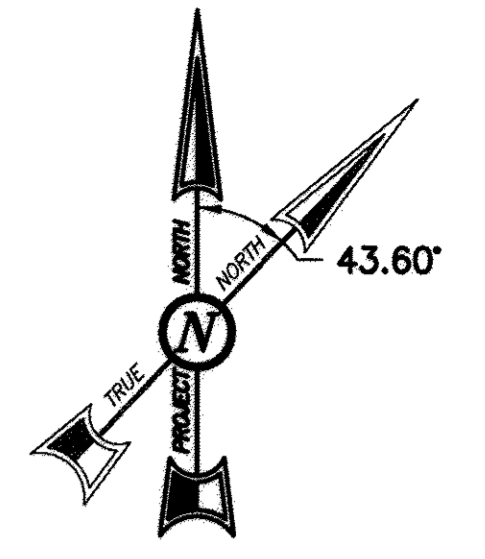
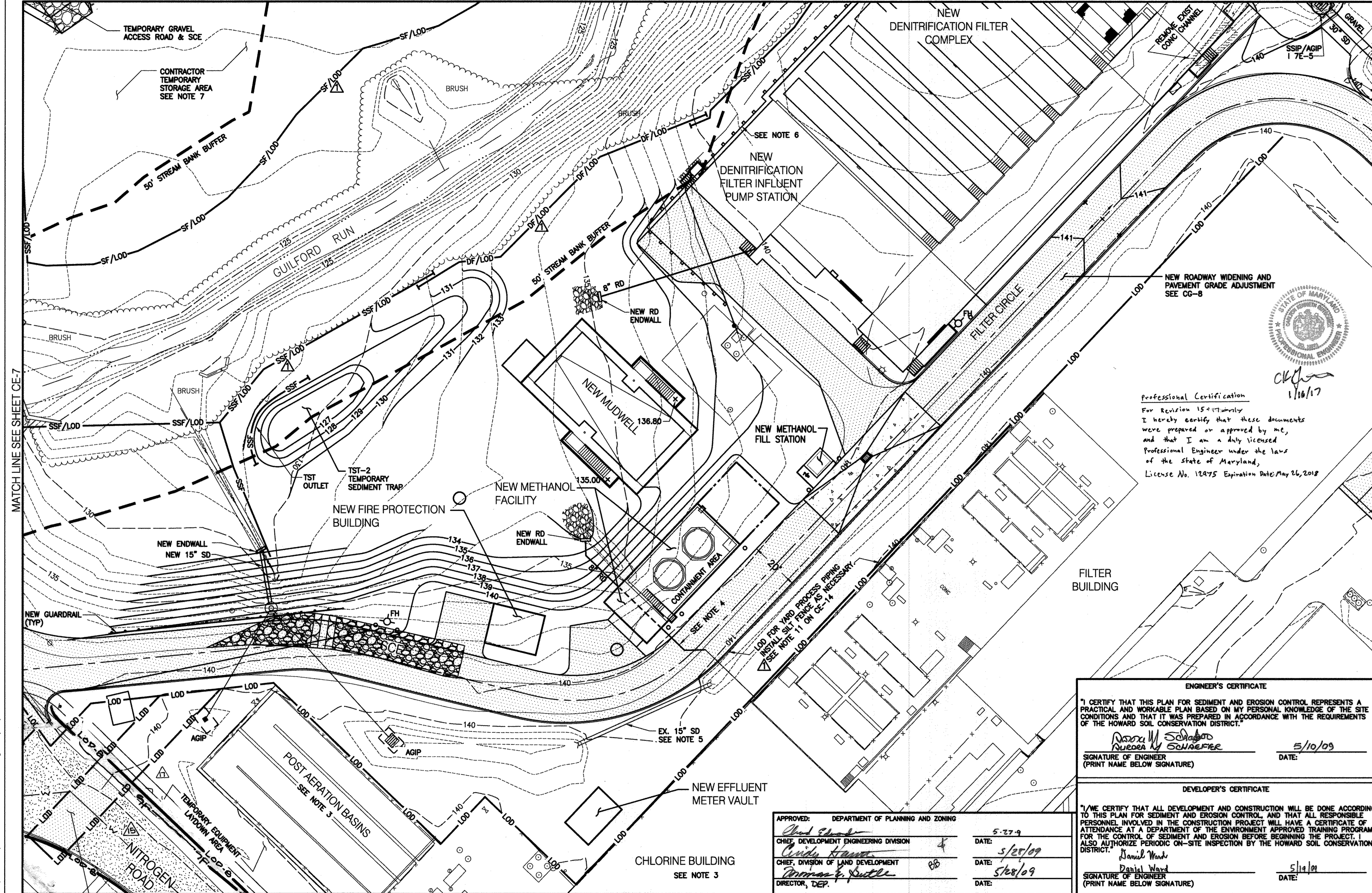
LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 51 OF 611
CE-7
 SDP SHEET 21 OF 59

SDP-00-094

\\1380708-Howard County\ENR\03 Civil\CE-07 E-S Plan G.dwg 05/15/09_11:06

MATCH LINE SEE SHEET CE-5



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CG-8 FOR STRUCTURE, PAVING AND LOD LAYOUT AND VEGETATIVE RESTORATION.
 - WORK WITHIN EXISTING STRUCTURES FOR THIS CONTRACT.
 - RELOCATE EXISTING ROOF DRAIN PIPE BEFORE BEGINNING METHANOL FACILITY CONSTRUCTION. ENCASE NEW PIPE UNDER BUILDING.
 - REMOVE EXISTING 15" SD FOR YARD PIPING CONSTRUCTION. MAINTAIN POSITIVE DRAINAGE TO INLET. REPLACE 15" SD FOLLOWING PROCESS PIPE INSTALLATION.
 - APPROXIMATE LOCATION OF EXCAVATION SUPPORT SYSTEM (TO BE DESIGNED BY THE CONTRACTOR).
 - LOD FOR VEHICULAR DISTURBANCE.

Professional Certification
 For Revision 15-17 only
 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. 12475 Expiration Date May 26, 2012

Approved by HSCD
 Staloy
 John K. Klotz

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

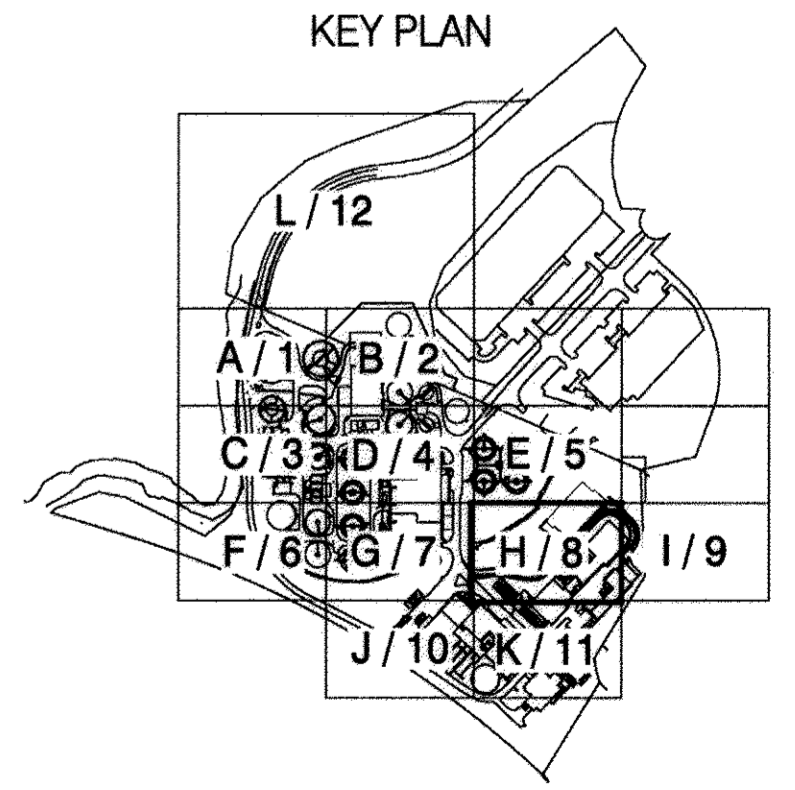
Norona M. Schaeffer
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE: 5/10/09

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

David Ward
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE: 5/14/09

APPROVED:	DEPARTMENT OF PLANNING AND ZONING	DATE:	5/27/09
<i>Chad Gresh</i>	CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE:	5/25/09
<i>Cindy Hanna</i>	CHIEF, DIVISION OF LAND DEVELOPMENT	DATE:	5/28/09
<i>Thomas J. Ruttle</i>	DIRECTOR, DEP.	DATE:	



MATCH LINE SEE SHEET CE-7

MATCH LINE SEE SHEET CE-9

MATCH LINE SEE SHEET CE-11

LOD FOR YARD PROCESS PIPING. INSTALL SILT FENCE AS NECESSARY. SEE NOTE 11 ON CE-14

PBS&J
 12101 INDIAN CREEK COURT
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 www.stantec.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.: 23359 EXPIRATION DATE: 8/13/10

Norona M. Schaeffer
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09
 DATE

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
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 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John Klotz
 CHIEF, BUREAU OF UTILITIES DATE

DES: AMS		
DRN: SLB	4-12-10	SDP Rev. 17: Revised addition No. 6 LOD + 0.66 ft
CHK: LHH	5/10/09	SDP Revision 15: Addition No. 8 LOD and revised sheet total
DATE: --	DATE	REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 29, 2009

HOWARD COUNTY SDP SHEET C-8H
 CIVIL

SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN H

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

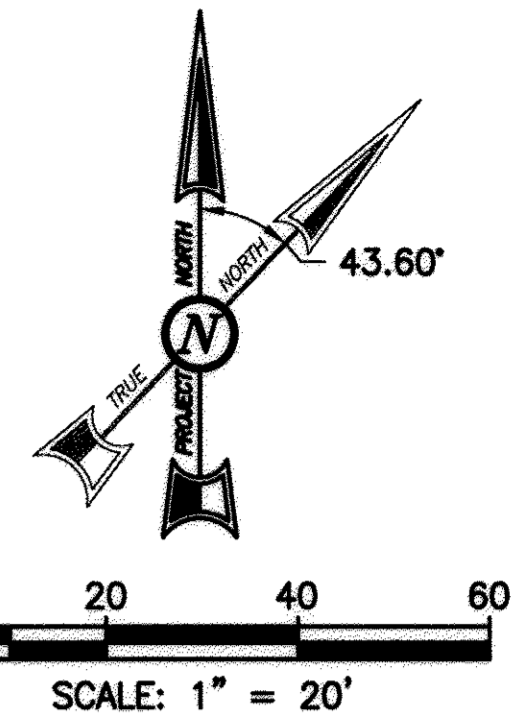
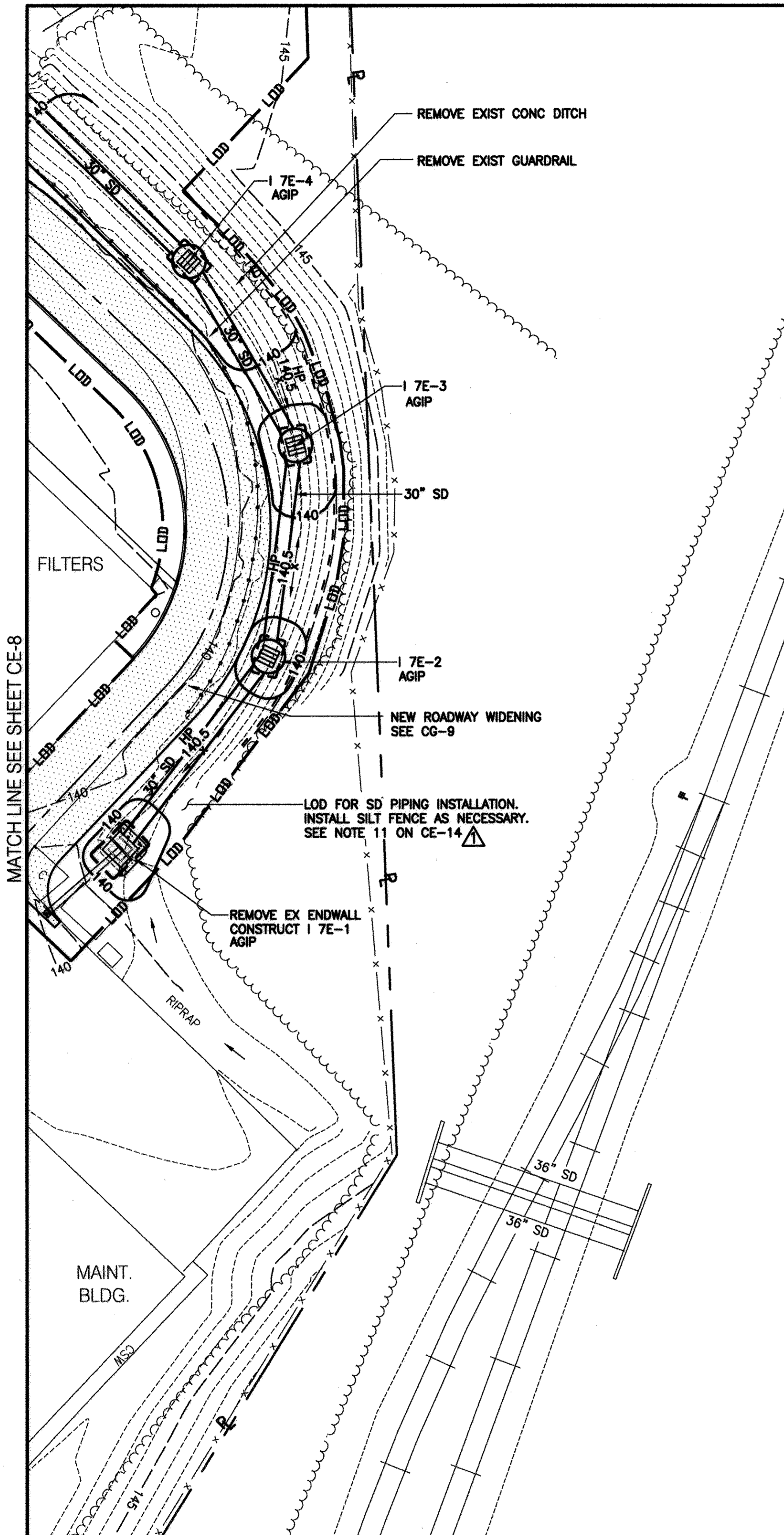
LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 52 OF 611
 CE-8
 SDP SHEET 22 OF 59

Ms:\360709-Howard County\ENR\03 Ch\1 CE-08 E-S Plan H.dwg 05/15/09 11:08

SDP-00-094

MATCH LINE SEE SHEET CE-5



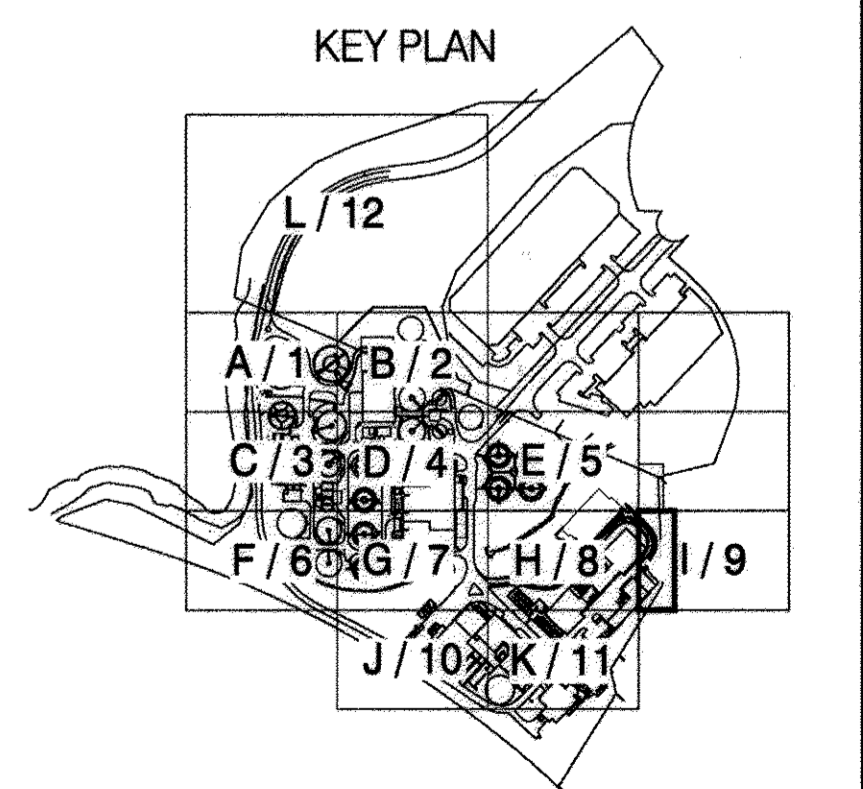
- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CG-9 FOR STRUCTURE, PAVING AND LOD LAYOUT AND VEGETATIVE RESTORATION.
 3. SEE DRAWING CY-14 FOR SD PROFILE.

Approved by HSCD
5/26/09
John K. Robertson

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



APPROVED:	DEPARTMENT OF PLANNING AND ZONING
<i>[Signature]</i>	DATE: 5-27-09
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 5/27/09
<i>[Signature]</i>	DATE: 5/28/09
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 5/28/09
<i>[Signature]</i>	DATE:
DIRECTOR, DEPT.	DATE:

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
AURORA W. SCHAEFER 5/10/09

SIGNATURE OF ENGINEER DATE:
 (PRINT NAME BELOW SIGNATURE)

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
Daniel Ward 5/19/09

SIGNATURE OF ENGINEER DATE:
 (PRINT NAME BELOW SIGNATURE)

M:\360709-Howard County\ENR\03 Civil\CE-09 E-S Plan I.dwg 05/15/09 11:09

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-8800
 FAX: (301) 210-4156
 www.pbsj.com

Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.

[Signature]
AURORA W. SCHAEFER
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09 PBS&J
 DATE FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature]
John C. [Name] 5/19/09
 CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	
DRN: SLB	
CHK: LHH	1-13-17 REVISED SHEET TOTAL 5/10/09 REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 28, 2009
DATE: -	DATE REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8I
 CIVIL

SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN I

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 10001821
 CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

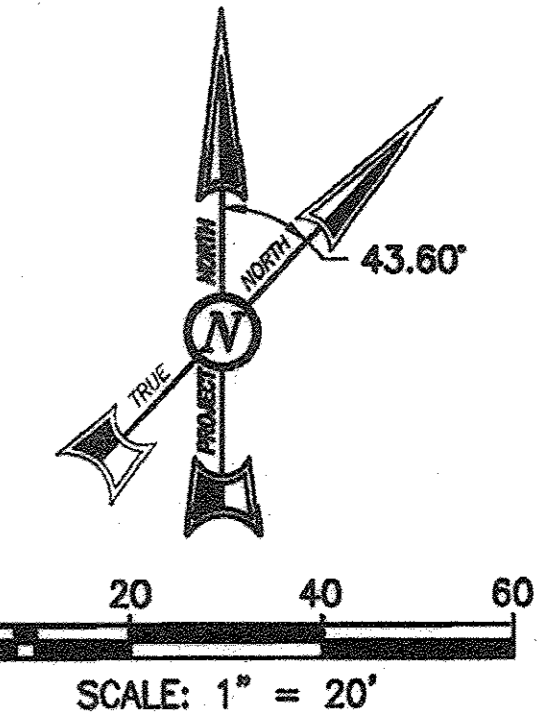
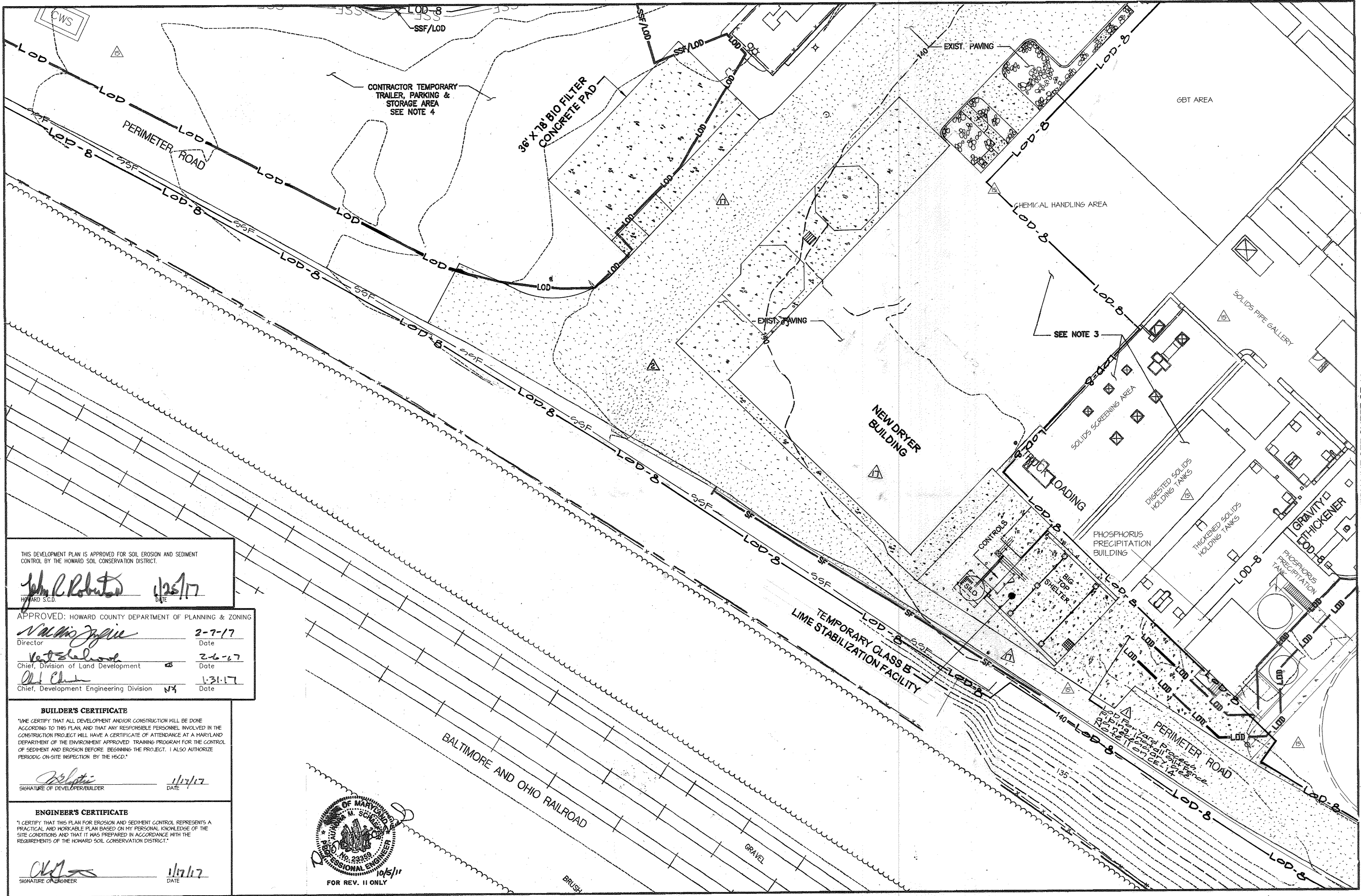
CONTRACT SHEET
 53 OF 611

CE-9

SDP SHEET
 23 OF 59

SDP-00-094

MATCH LINE SEE SHEET CE-7



- NOTES:**
1. SEE DRAWING C-1 FOR LEGEND.
 2. SEE DRAWING CG-10 FOR STRUCTURE, PAVING AND LOD LAYOUT AND VEGETATIVE RESTORATION.
 3. WORK WITHIN EXISTING STRUCTURE FOR THIS CONTRACT.
 4. LOD FOR VEHICULAR DISTURBANCE.

PURPOSE NOTE:
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

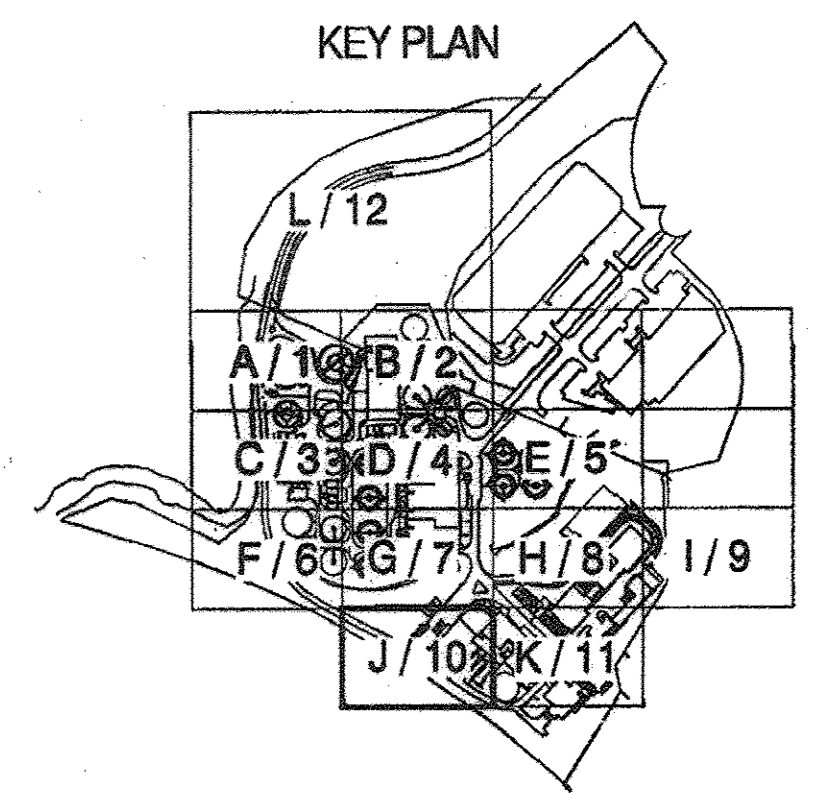
MATCH LINE SEE SHEET CE-11

PROFESSIONAL CERTIFICATION FOR REVISION 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. I HEREBY CERTIFY THAT THESE PLANS 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. 12975 EXPIRATION DATE: MAY 26, 2018

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John P. Roberts 1/26/17
HOWARD SCD

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

W. M. J. J. J. 2-7-17
Director Date

V. J. J. J. 2-6-17
Chief, Division of Land Development Date

A. J. J. J. 1-31-17
Chief, Development Engineering Division Date

BUILDER'S CERTIFICATE

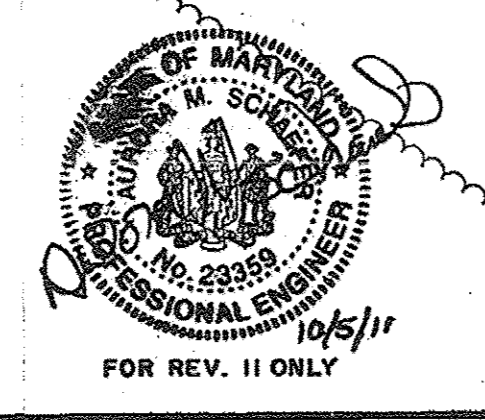
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD.

[Signature] 1/17/17
SIGNATURE OF DEVELOPER/BUILDER DATE

ENGINEER'S CERTIFICATE

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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 1/17/17
SIGNATURE OF ENGINEER DATE



PBS&J

12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE (301) 210-6800
FAX: (301) 210-4158
www.pbsaj.com

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425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
Tel. 610.444.8522
Fax. 610.444.1698
www.stantec.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. 23359 EXPIRATION DATE: 8/13/10.

M. S. S. D. J.
REGISTERED PROFESSIONAL ENGINEER
4/20/09 PBS&J
DATE FIRM

NOTICE TO CONTRACTORS

PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM. PREVIOUS PROJECTS USED OTHER DATUMS. APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:

- ADDITION NO. 6: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.50 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 1/27/17
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	4-12-18	APP REVISION II: REVISED LOD, SEDIMENT CONTROLS
DRN: SLB	11-21-17	APP REVISION I: REVISIONS TO SURFACE HATCHES, ADDED ADDITIONAL SLOPE
CHK: LHH	1-16-17	REPLACEMENT SHEET - SDP REVISION II: ADDED ADDITION NO. 8 LOD, STRUCTURES, AND SEDIMENT CONTROL FEATURES. REVISED SHEET TOTAL
DATE: -	5/10/09	SDP REVISION II: ADD LIME STABILIZATION BUST CONTROL FACILITY
		REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 28, 2009

HOWARD COUNTY SDP SHEET C-8J CIVIL		
SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN J		
REVISIONS AND RECORD OF ISSUE		

HOWARD COUNTY SDP SHEET C-8J CIVIL

SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN J

REVISED SITE DEVELOPMENT PLAN - REV. NO. 15

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 10001621
CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

CONTRACT SHEET 54 OF 611

CE-10

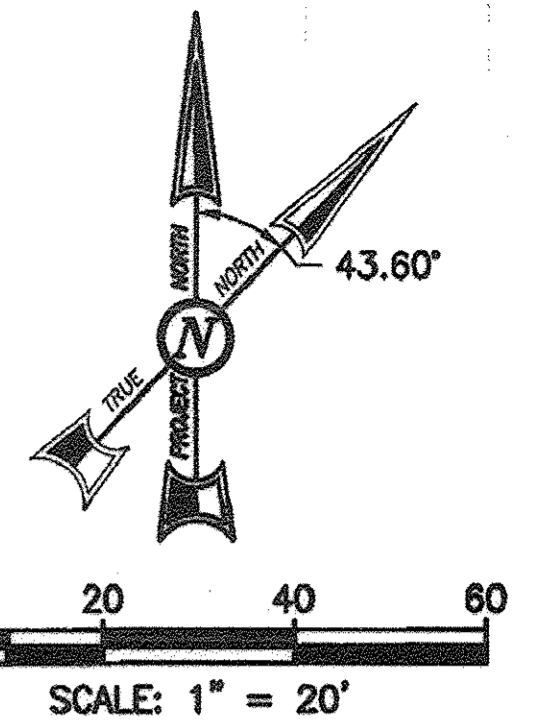
SDP SHEET 24 OF 59

M:\380708-Howard County\ENR\03 Chm\ CE-10 E-S Plan v.dwg 05/15/09_11:11

SDP-00-094

MATCH LINE SEE SHEET CE-8

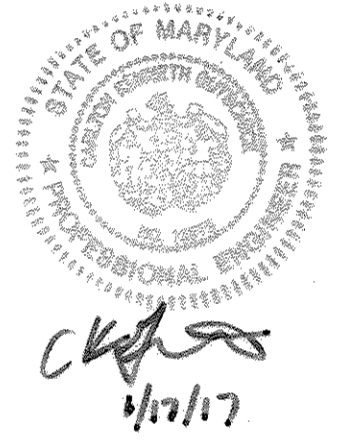
CHLORINE BUILDING
SEE NOTE 3



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - NO SITE DISTURBANCE EXPECTED WITHIN AREA SHOWN ON THIS SHEET.
 - WORK WITHIN EXISTING STRUCTURE FOR THIS CONTRACT.

PURPOSE NOTE:
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

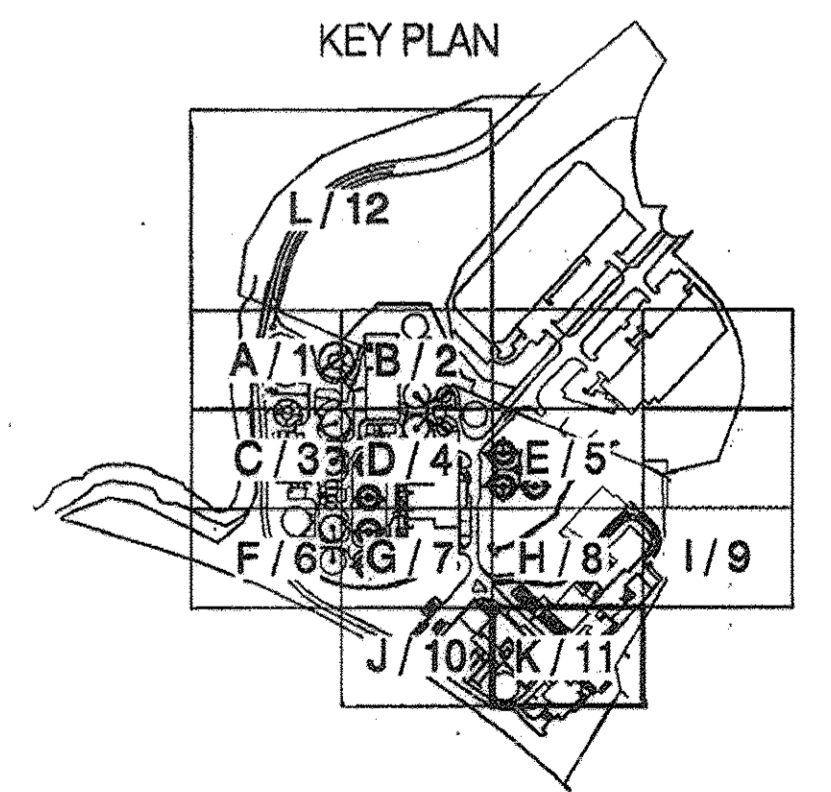
PROFESSIONAL CERTIFICATION FOR REVISION 15 1/24/17
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 12975
EXPIRATION DATE: MAY 26, 2018



EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.
DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

KEY PLAN



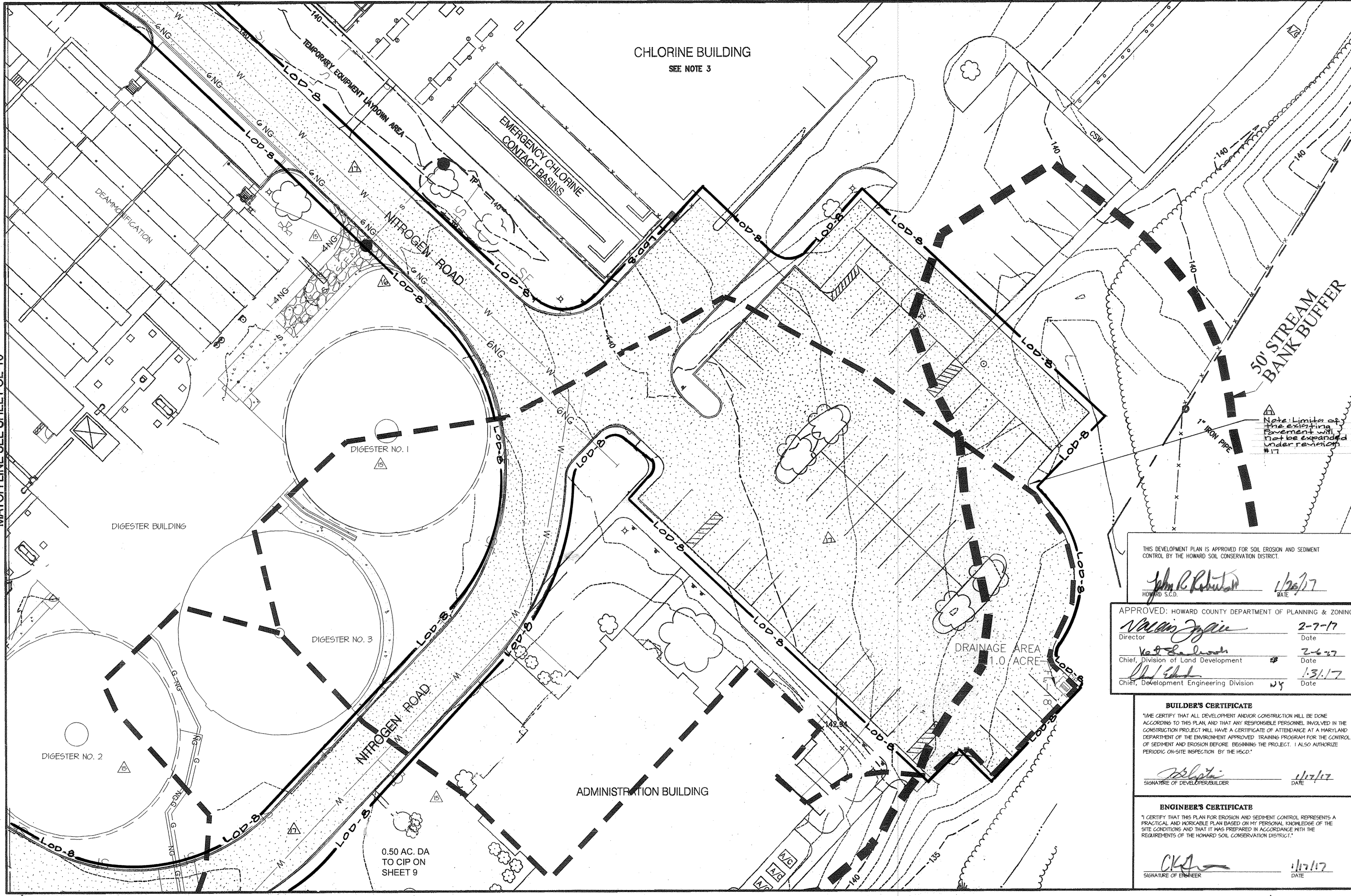
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John R. Rebutan 4/26/17
HOWARD S.C.D. DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
William J. Jaffe 2-7-17
Director Date
W. J. Jaffe 2-6-17
Chief, Division of Land Development Date
John J. Jaffe 1-31-17
Chief, Development Engineering Division NY Date

BUILDER'S CERTIFICATE
"I CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD."
John J. Jaffe 4/17/17
SIGNATURE OF DEVELOPER/BUILDER DATE

ENGINEER'S CERTIFICATE
"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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
John J. Jaffe 4/17/17
SIGNATURE OF ENGINEER DATE

REVISED SITE DEVELOPMENT PLAN - REV. NO. 15



MATCH LINE SEE SHEET CE-10

M: 130709-Howard County\ENR 03 Civil\CE-11 E-S Plan K.dwg 05/14/09 19:22

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156
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425 McFarlan Road, Ste. 205
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Tel. 610.444.6522
Fax. 610.444.1698
www.stantec.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. 23359 EXPIRATION DATE: 8/13/10
David W. Schaefer
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE
PBS&J
FIRM

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM
PREVIOUS PROJECTS USED OTHER DATUMS
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 8: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve C. Chen 11/27/10
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS		
DRN: SLB	4-18-12	Rev. 17: Revised addition No. 8 LOP added
CHK: LHH	12-4-17	Rev. 16: Revised water line, gas line and pavement notes
	1-16-17	REPLACEMENT SHEET - SDP REVISION 15. ADDED ADDITION NO. 8 LOP AND SEDIMENT CONTROL FEATURES REVISED SHEET TOTAL.
DATE: -	DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8K
CIVIL
SITE DEVELOPMENT AND
EROSION AND SEDIMENT CONTROL
PLAN K

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 55 OF 611
CE-11
SDP SHEET 25 OF 59

SDP-00-094

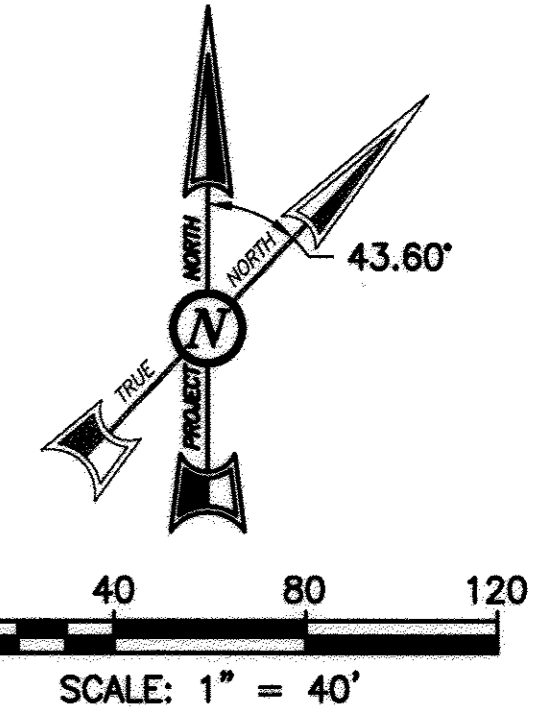
ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Roderic M. Schwabec
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE: 5/10/09

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Edwards DATE: 5-27-09
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Norma B. Sutter DATE: 5/28/09
 CHIEF, DIVISION OF LAND DEVELOPMENT 88
 DIRECTOR, DEP. DATE: 5/28/09

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Daniel Ward
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE: 5/11/09



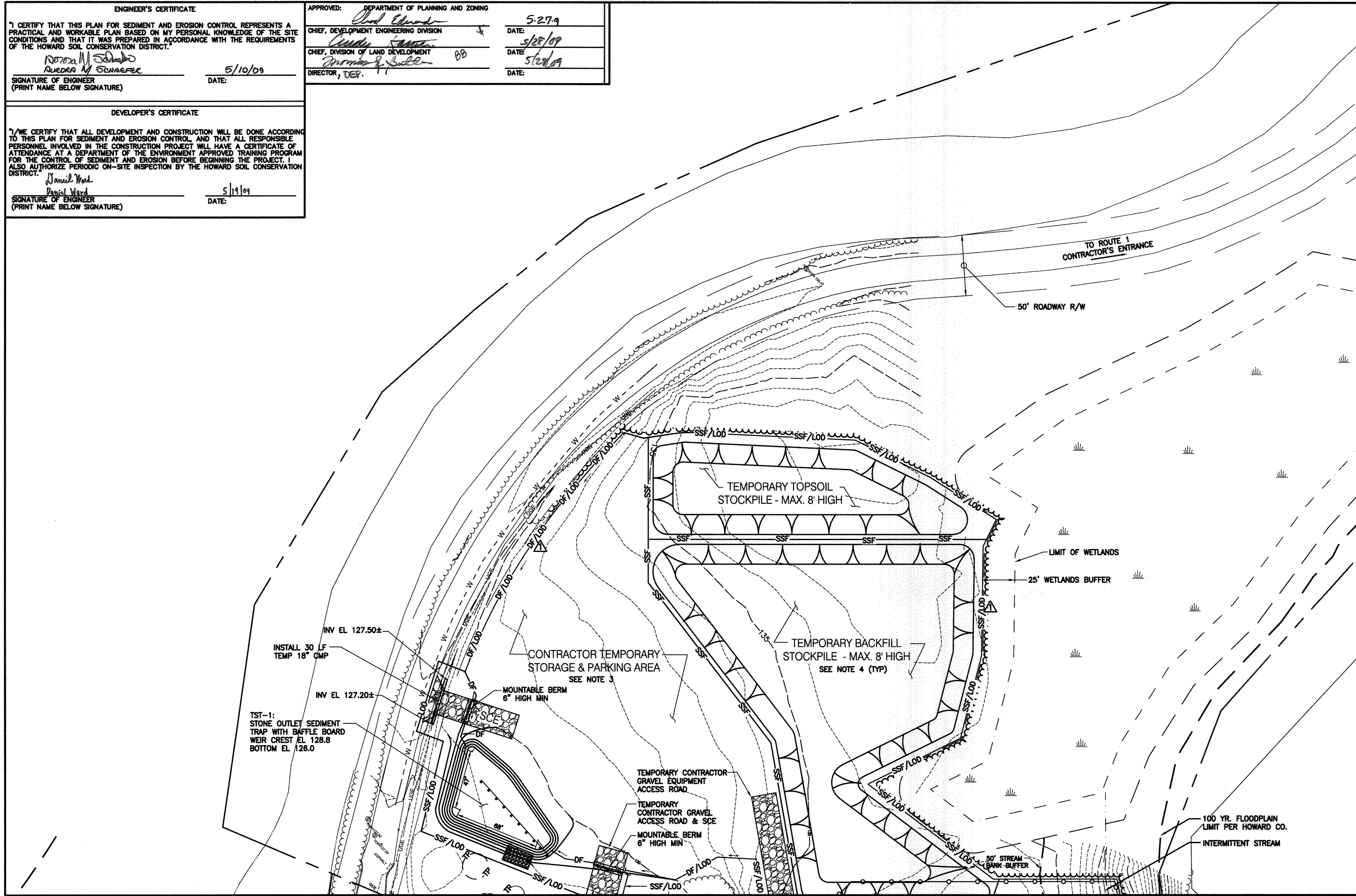
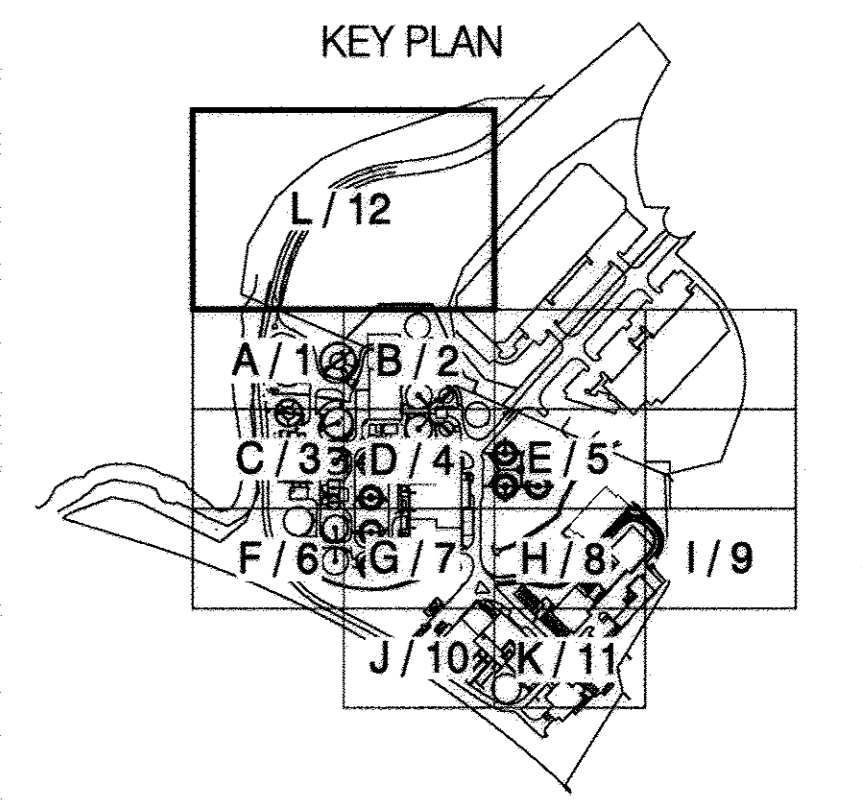
- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CG-12 FOR LOD LAYOUT DATA AND VEGETATIVE RESTORATION.
 3. LOD FOR VEHICULAR DISTURBANCE.
 4. STOCKPILES TO CONTAIN ONLY MATERIALS TO BE REUSED ON SITE. WITH CONSTRUCTION COMPLETION, REMOVE ANY REMAINING SOILS, REGRADE TO ORIGINAL GRADES, AND STABILIZE WITH PERMANENT SEEDING.

Approved by HSCD
5/26/09
John K. Kinton

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

DOUBLE ROW OF SUPER SILT FENCE IS TO BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

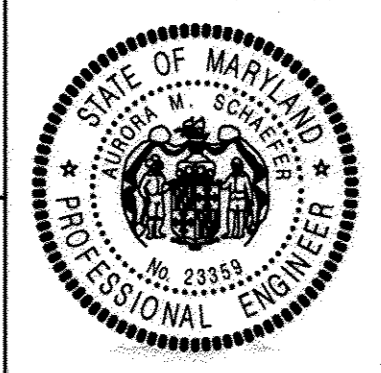


FOR CONTINUATION SEE SHEETS CE-1 & CE-2

M:\380709-Howard County\ENR\03 Civil\CE-12 E-S Plan L.dwg 05/15/09_11:13

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4158
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 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

Roderic M. Schwabec
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09 DATE
 PBS&J FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
- PREVIOUS PROJECTS USED OTHER DATUMS.
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John C. Chen
 CHIEF, BUREAU OF UTILITIES DATE: 5/10/09

DES: AMS	
DRN: SLB	
CHK: LHH	
DATE: 5/10/09	REVISED PER HOWARD CO. SCD COMMENTS DATED APRIL 28, 2009
DATE: -	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8L
 CIVIL

SITE DEVELOPMENT AND
 EROSION AND SEDIMENT CONTROL
 PLAN L

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 56 OF 611
CE-12
 SDP SHEET 26 OF 52

SDP-00-094

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *Nathan J. Jaffe* 2-7-17
Chief, Division of Land Development: *Victor Schulz* 2-6-17
Chief, Development Engineering Division: *Chad E. ...* 12/17

BUILDER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR 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 MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HSCD.

Signature of Developer/Builder: *[Signature]* DATE: 1/17/17

ENGINEER'S CERTIFICATE

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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Engineer: *[Signature]* DATE: 4/17/17

NOTES

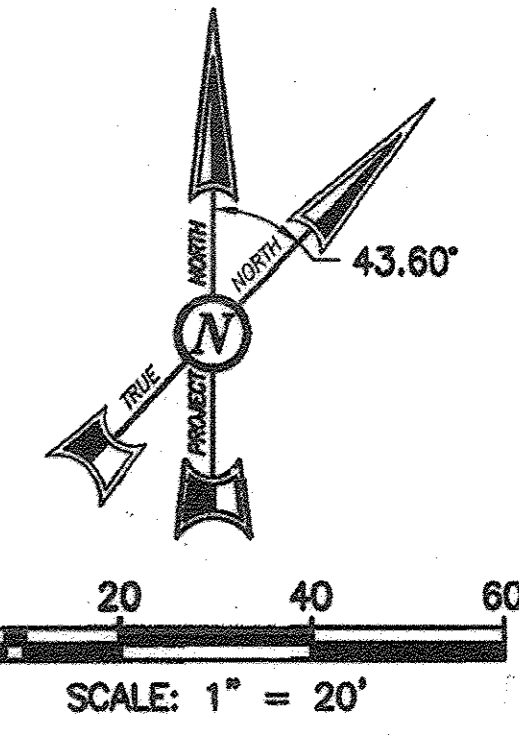
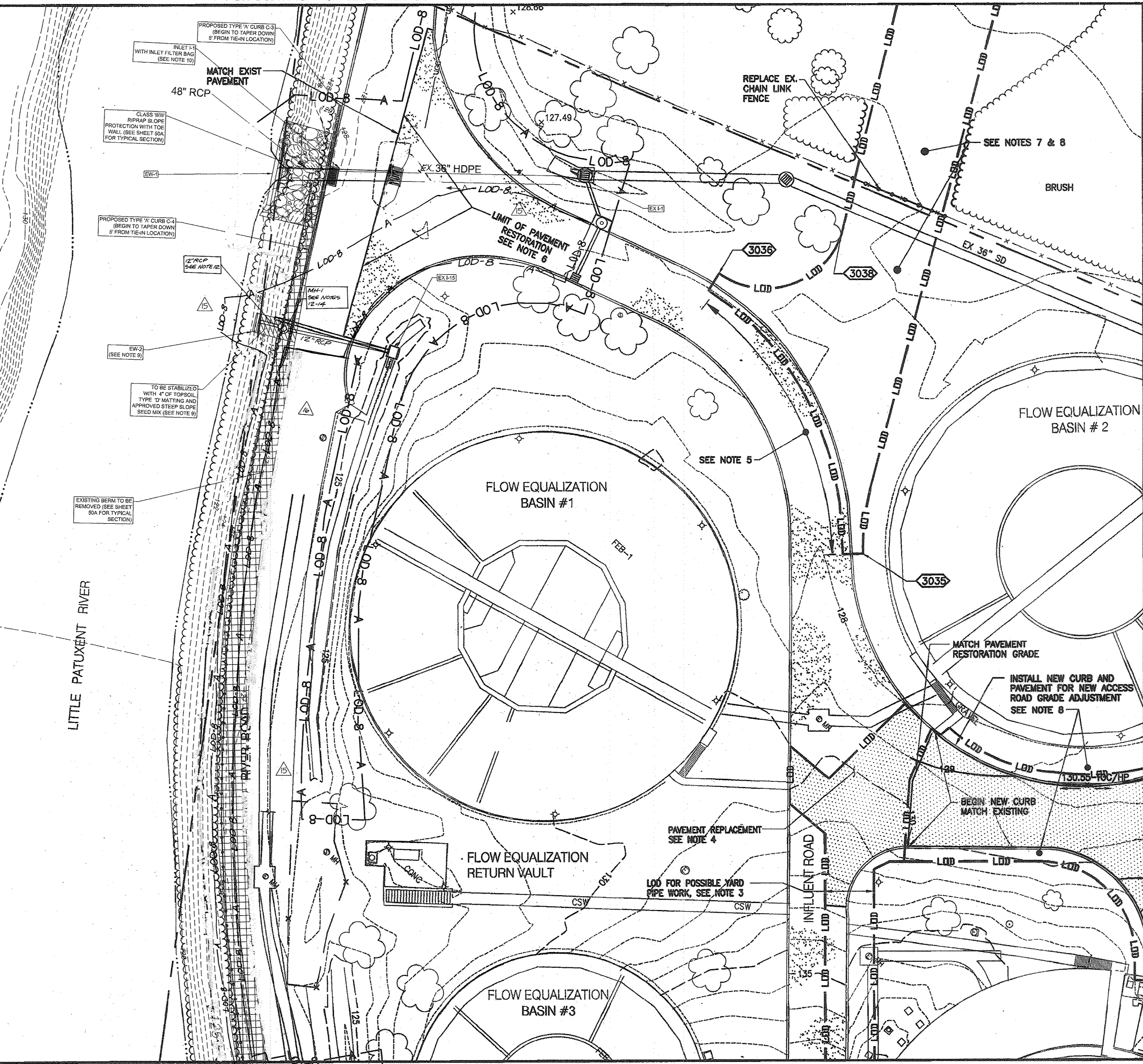
- 11. NO TREES 6' OR GREATER ARE TO BE REMOVED WITHOUT PERMISSION FROM A COUNTY REPRESENTATIVE.
- 12. IF POSSIBLE, CONTRACTOR TO RE-USE PREVIOUSLY INSTALLED 12" RCP AND ENDWALL IN SAME LOCATION PROPOSED ENDWALL AND PIPE ARE TO BE RAISED SO THAT THE INVERT IS SET AT THE EXISTING WATER SURFACE ELEVATION.
- 13. CONTRACTOR TO SURVEY INVERTS AT DOWNSTREAM END OF EXISTING PIPE AND LOCATION OF RELOCATED ENDWALLS PRIOR TO ORDERING PROPOSED STRUCTURES.
- 14. TOP OF MH-1 TO MATCH EXISTING GROUND AND TO BE DETERMINED BY CONTRACTOR PRIOR TO ORDERING PROPOSED STRUCTURE SEE SHEETS-1 FOR MANHOLE DETAIL.

PROFESSIONAL CERTIFICATION FOR REVISION 15: I HEREBY CERTIFY THAT THESE PLANS 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. 12975, EXPIRATION DATE: MAY 26, 2018.



PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/04.

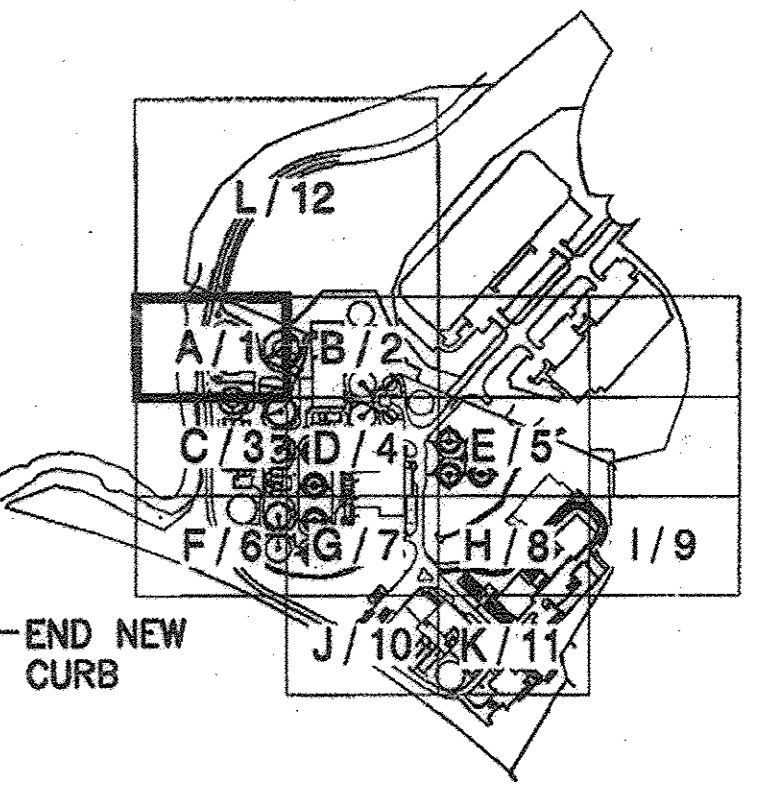
FOR CONTINUATION SEE SHEET CG-12



- NOTES:**
- 1. SEE DRAWING CS-1 FOR LEGEND.
 - 2. SEE DRAWING CE-1 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 - 3. SEE DRAWING CY-1 FOR PROCESS YARD PIPING WORK.
 - 4. REPLACE PAVEMENT WHERE REQUIRED TO ENSURE POSITIVE DRAINAGE TO EXISTING PAVEMENT.
 - 5. REPLACE CURB UPON REMOVAL OF CONTRACTOR ACCESS ROAD.
 - 6. PERFORM PAVEMENT RESTORATION AFTER COMPLETION OF MAJOR FACILITIES CONSTRUCTION.
 - 7. RESTORE TEMP CONTRACTOR ACCESS ROAD AND STORAGE AREA TO ORIGINAL GRADES.
 - 8. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.
 - 9. FOUR INCHES OF TOPSOIL, TYPE 'D' MATTING AND APPROVED STEEP SLOPE SEED MIX IS TO BE INSTALLED FROM THE EDGE OF THE ROADWAY TO THE TOP OF THE PROPOSED ENDWALL AS SHOWN ON THIS SHEET. SPECIFICATION OF SEED MIX AND ENDWALL DETAIL IS SHOWN ON SHEET 57.
 - 10. AFTER SITE IS STABILIZED AND WORK COMPLETED, ALL PROPOSED INLETS TO HAVE FLEXSTORM INLET FILTER BAGS, OR EQUIVALENT PRODUCT, INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEMS AS PER SPECIFICATION ON SHEET 57.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

KEY PLAN



MATCH LINE SEE SHEET CG-3

REVISED SITE DEVELOPMENT PLAN - REV. NO. 15

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156
www.pbsj.com

Stantec Consulting Ltd.
425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
Tel. 610.444.6522
Fax. 610.444.1698
www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

Signature: *Victor Schulz*
REGISTERED PROFESSIONAL ENGINEER
DATE: 4/20/09 FIRM: PBS&J

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
- PREVIOUS PROJECTS USED OTHER DATUMS.
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Signature: *[Signature]* DATE: 12/17
CHIEF, BUREAU OF UTILITIES

DES: AMS	
DRN: SLB	
CHK: LHH	11/20/17
DATE: -	1/16/17
DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8M
CIVIL

STAKEOUT, GRADING AND RESTORATION
PLAN A

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE
RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 60 OF 611
CG-1
SDP SHEET 27 OF 59

SDP-00-094

M:\380709-Howard County\ENR 03 Civil\CG-01 Grading Plan A.dwg 05/14/09_19:43

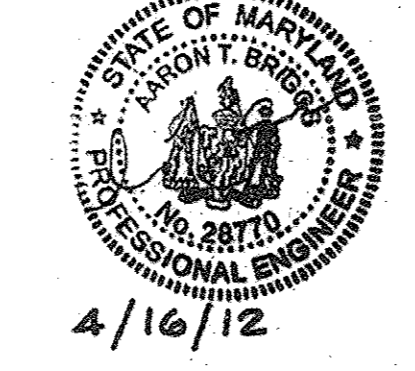
MATCH LINE SEE SHEET CG-1

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Valdis Juffie 2-7-17
Director
Vicki D... 2-2-17
Chief, Division of Land Development
Ch... 1-21-17
Chief, Development Engineering Division

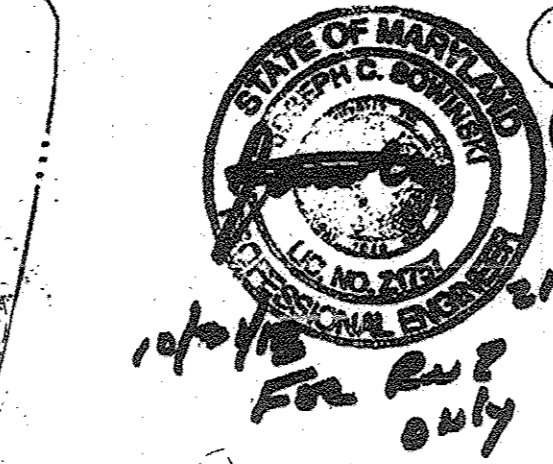
BUILDER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE USDC.
Signature of Developer/Builder: [Signature] DATE: 1/17/17

- 12. No trees 6" or greater are to be removed without permission from a County representative.
- 13. Trench drains are to be extended 7 feet from the edge of roadway on the upstream end and 5 feet from the edge of roadway on the downstream end. Proposed headwalls are to be constructed on the upstream and downstream ends of the trench drains. Existing concrete ditches are not to be impacted by proposed construction. Concrete aprons are to be installed to connect headwalls to concrete ditches on upstream end of trench drains and existing proposed riprap is to be used on the downstream end of the trench drains. Notchings and openings for trench drains are taken at the trench drain openings, see sheet 10-3 for additional information on trench drains and proposed trench drain endwalls.
- 14. Roadway elevations at trench drains crossings from survey data are 126.45 at TD-1 and 126.45 at TD-2. Elevations must be verified by Contractor prior to ordering proposed trench drain.
- 15. Trench drains must maintain 6" of clearance above all existing utilities, which is to be verified by the Contractor.
- 16. Contractor to survey inverts at downstream end of existing pipe and location of relocated endwalls prior to ordering proposed structures.
- 17. Top of MH-1 to match existing ground and to be determined by Contractor.
- 18. Due to removal of existing ground over top of existing concrete ditch, Contractor to verify invert with County Inspector.

Notes:
10. Once existing pipes upstream of proposed manholes have been cleaned and prepared for manhole connections to be made, the County and Contractor are to examine the condition of the existing pipes to determine if they are to be replaced in kind.- 11. Cost of removal of existing pipes is incidental to the installation of proposed pipes.

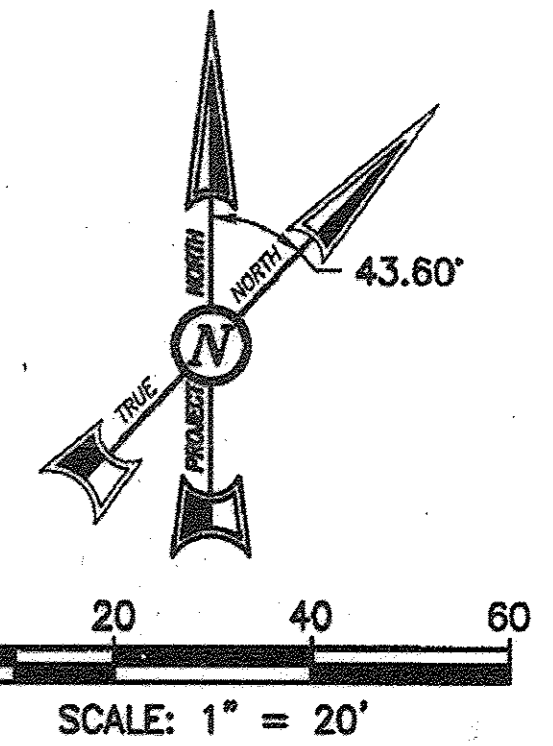


LITTLE PATUXENT RIVER
PERIMETER ROAD
VALVE VAULT
SWALLOW OFF



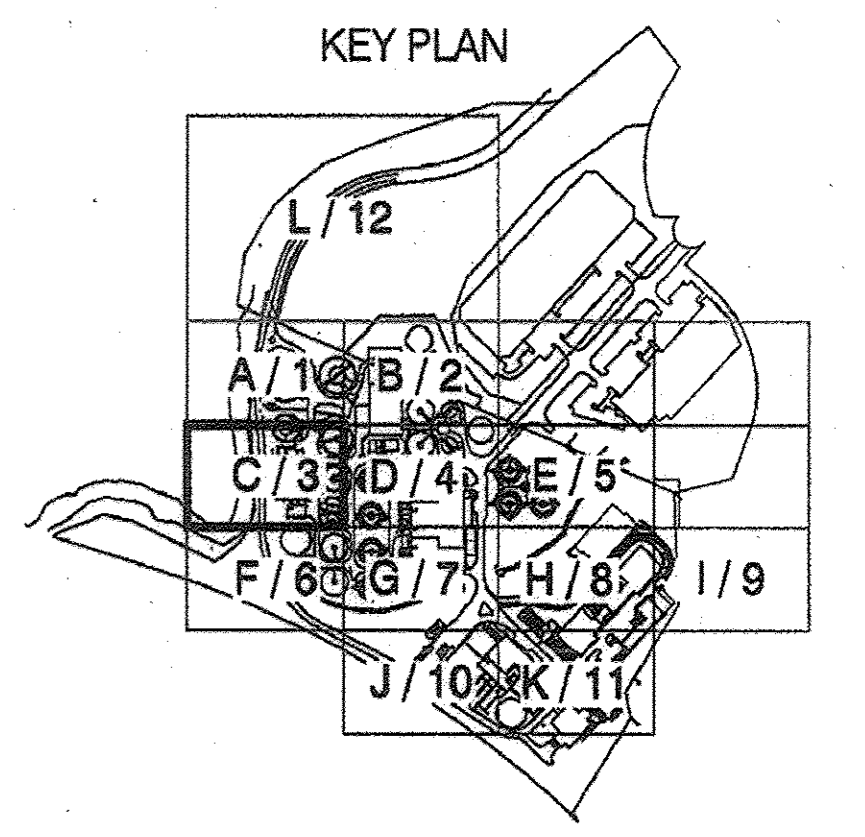
CONTRACTOR TEMPORARY STORAGE AREA
SEE NOTES 6 & 7

MATCH LINE SEE SHEET CG-6



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CE-3 FOR E&S CONTROL MEASURES AND TEMP PIPE TRENCH PROTECTION.
 - SEE DRAWING CY-3 FOR PROCESS YARD PIPING WORK.
 - PERFORM PAVEMENT RESTORATION AFTER COMPLETION OF MAJOR FACILITY CONSTRUCTION.
 - REPLACE PAVEMENT WHERE REQUIRED TO ENSURE POSITIVE DRAINAGE TO EXISTING PAVEMENT.
 - RESTORE CONTRACTOR TEMP STORAGE AREA TO ORIGINAL GRADES.
 - PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.
 - FOUR INCHES OF TOPSOIL, TYPE 'D' MATTING AND APPROVED STEEP SLOPE SEED MIX IS TO BE INSTALLED FROM THE EDGE OF THE ROADWAY TO THE TOP OF THE PROPOSED ENDWALL AS SHOWN ON THIS SHEET. SPECIFICATION OF SEED MIX AND ENDWALL DETAIL IS SHOWN ON SHEET 51.
 - AFTER SITE IS STABILIZED AND WORK COMPLETED, ALL PROPOSED INLETS TO HAVE FLEXSTORM INLET FILTER BAGS, OR EQUIVALENT PRODUCT, INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEMS AS PER SPECIFICATION ON SHEET 51.
- PURPOSE NOTE:**
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



ENGINEER'S CERTIFICATE
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 IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HAWKESVILLE CONSERVATION DISTRICT.
Signature of Engineer: [Signature] DATE: 12/16/17

PROFESSIONAL CERTIFICATION
For Revision 15-110 only:
I hereby certify that these Plans 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. 12775, Expiration Date: May 26, 2012.
Signature of Engineer: [Signature] DATE: 12/16/17

PBSJ
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156
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Kennett Square, PA 19348-2412
Tel. 610.444.6522
Fax. 610.444.1698
www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.
Signature of Engineer: [Signature] DATE: 4/20/09
REGISTERED PROFESSIONAL ENGINEER
DATE: 4/20/09 FIRM: PBS&J

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM. PREVIOUS PROJECTS USED OTHER DATUMS. APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT.
- PRIOR ADDITIONS: SUBTRACT 0.90 FT.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES
DATE: 12/17

DES:	AMS	12-21-17	App Rev 15-110 Rev. 100.0 storm drain and notes
DRN:	SLB	1/16/17	REPLACEMENT SHEET - SDP REVISION 15: ADDED ADDITION NO. 8 LOD AND PROPOSED FEATURES, REVISED SHEET TOTAL
CHK:	LHH	10-31-13	ADD STANDBY GENERATORS AND SUBSTATION
		2-16-12	ADD SEPTAGE ACCEPTANCE FACILITY
			DIGESTER TANK, PROPANE TANK, Mg(OH)2 TANK AND APPURTENANCES
DATE:			REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-80
CIVIL
STAKEOUT, GRADING AND RESTORATION
PLAN C

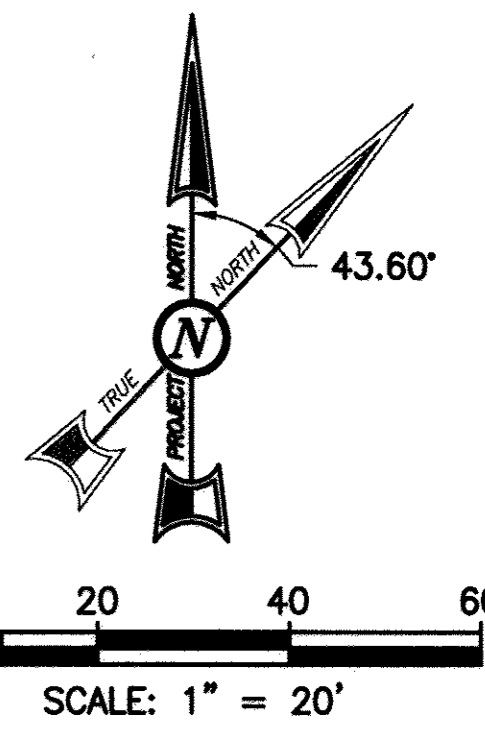
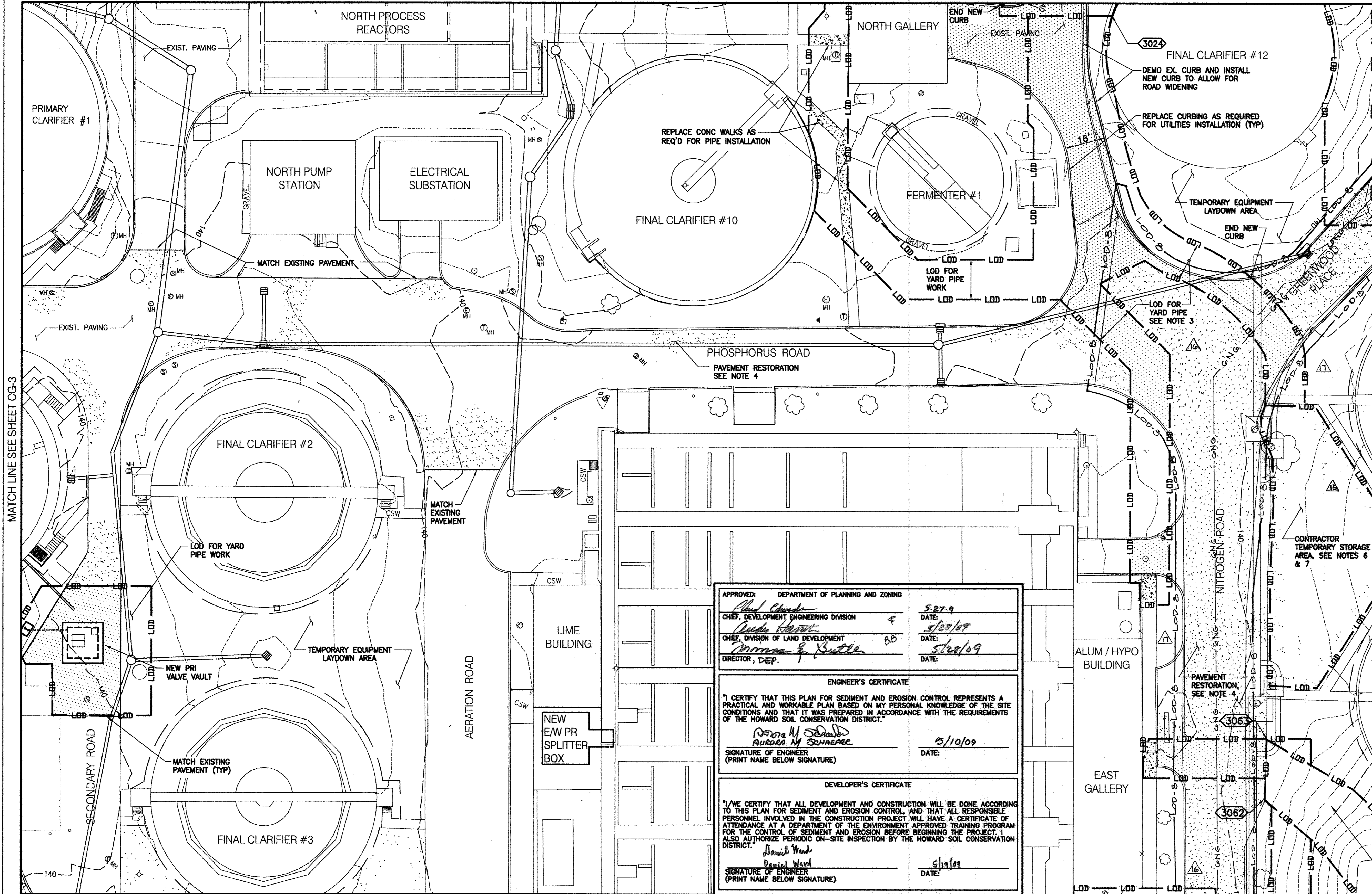
REVISED SITE DEVELOPMENT PLAN - REV. NO. 15
REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET
CG-3
SDP SHEET
29 OF 59

SDP-00-094

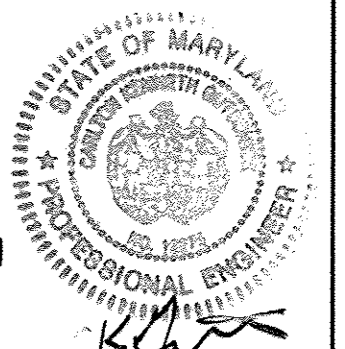
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MATCH LINE SEE SHEET CG-2

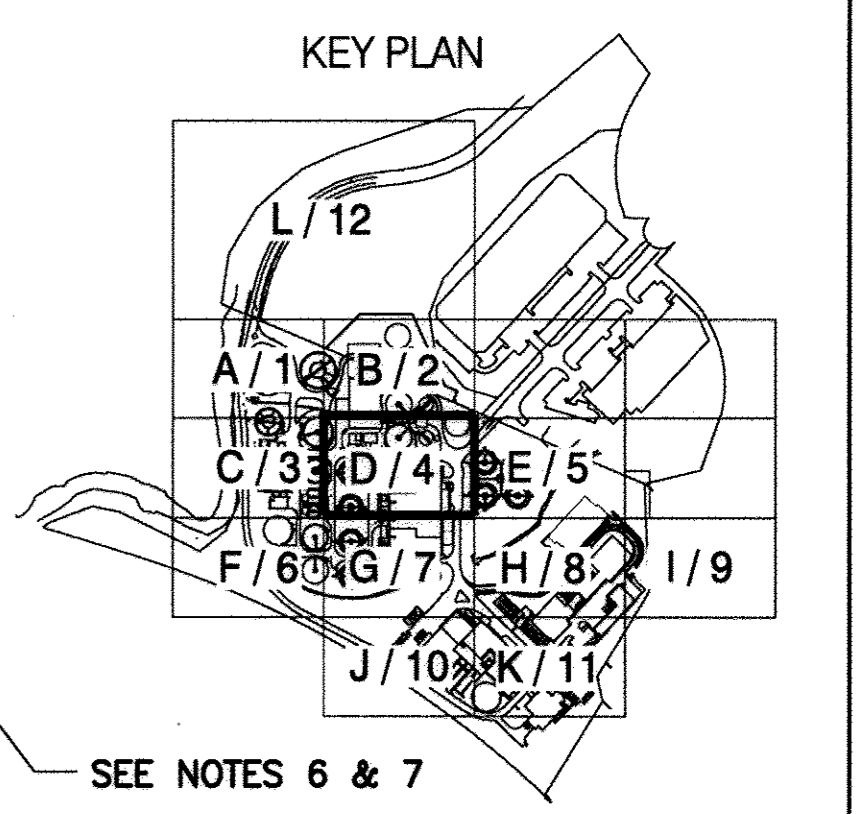


- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CE-4 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 3. SEE DRAWING CY-4 FOR NEW PROCESS YARD PIPING.
 4. PERFORM PAVEMENT RESTORATION AFTER COMPLETION OF MAJOR FACILITY CONSTRUCTION.
 5. REPLACE PAVEMENT WHERE REQUIRED TO ENSURE POSITIVE DRAINAGE TO EXISTING PAVEMENT.
 6. RESTORE TEMP CONSTRUCTOR STORAGE AREA TO ORIGINAL GRADES.
 7. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.

Professional Certification
 For Revision 15, 16 & 17 only.
 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. 12975, Expiration Date: May 26, 2018
 1/16/17



THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



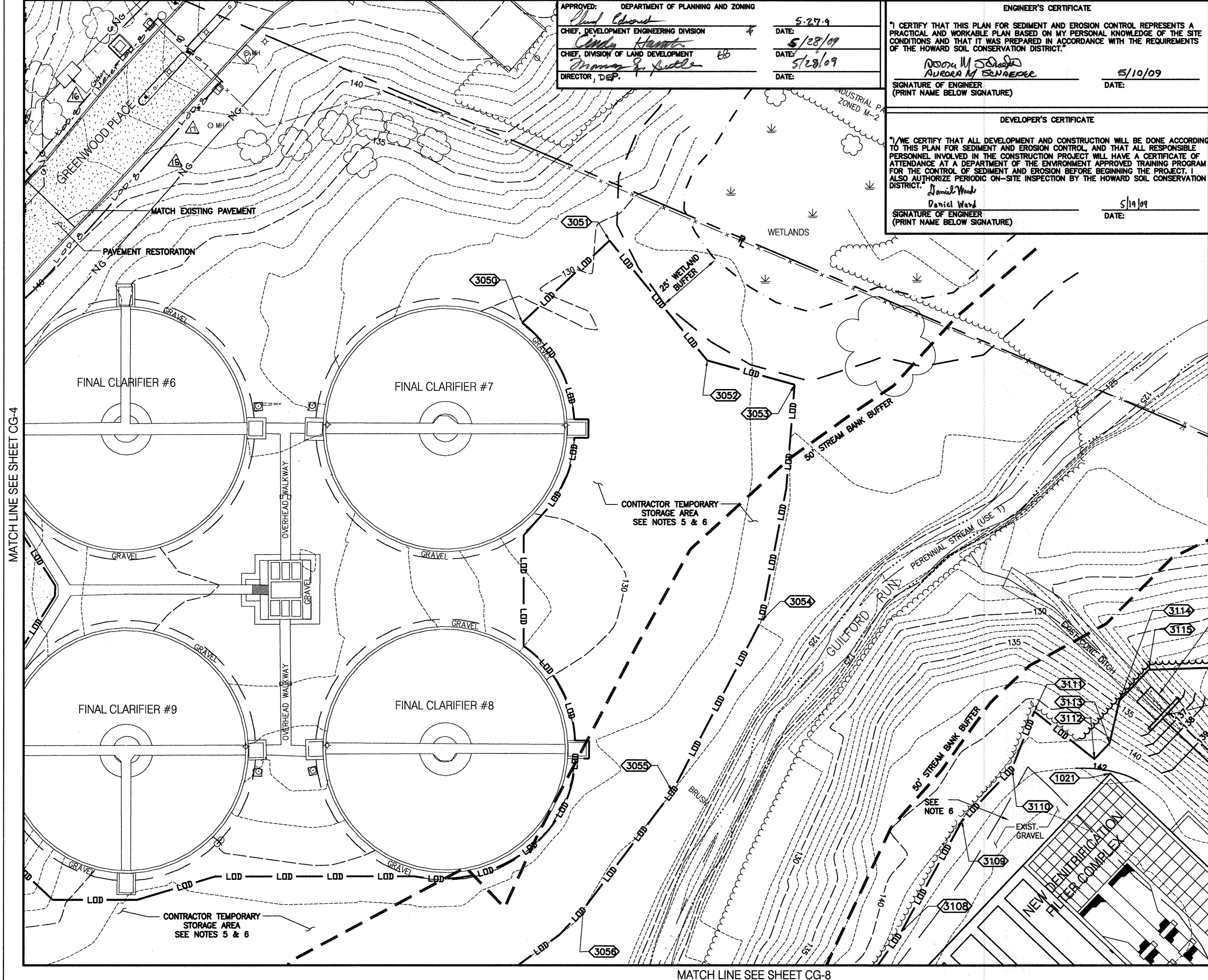
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Chief, Development Engineering Division <i>Chad Chubb</i>	DATE: 5/27/09
Chief, Division of Land Development <i>Lucretia Rouse</i>	DATE: 5/28/09
Director, DEP. <i>Norman E. Kuttler</i>	DATE: 5/28/09
ENGINEER'S CERTIFICATE	
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
Signature of Engineer <i>Ruedra M. Szwed</i>	DATE: 5/10/09
DEVELOPER'S CERTIFICATE	
I ME CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.	
Signature of Engineer <i>Daniel Ward</i>	DATE: 5/19/09

M:\380709-Howard County\ENR\03 Civil\CG-04 Grading Plan D.dwg 05/14/09_18:41

<p>12101 INDIAN CREEK COURT BELTSVILLE, MARYLAND 20705 TELEPHONE: (301) 210-6800 FAX: (301) 210-4156 www.pbsj.com</p> <p>Stantec Consulting Ltd. 425 McFarlan Road, Ste. 205 Kennett Square, PA 19348-2412 Tel. 610.444.6522 Fax. 610.444.1698 www.stantec.com</p>	<p>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.: 23359, EXPIRATION DATE: 8/13/10.</p> <p>REGISTERED PROFESSIONAL ENGINEER 4/20/09 DATE</p>	<p>NOTICE TO CONTRACTORS</p> <ul style="list-style-type: none"> PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM PREVIOUS PROJECTS USED OTHER DATUMS APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS: <ul style="list-style-type: none"> - ADDITION NO. 6: SUBTRACT 0.66 FT - PRIOR ADDITIONS: SUBTRACT 0.90 FT 	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>John C. Clem</i> 5/19/09 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DES: AMS</p> <p>DRN: SLB</p> <p>CHK: LHH</p> <p>DATE: -</p>	<p>HOWARD COUNTY SDP SHEET C-8P CIVIL</p> <p>STAKEOUT, GRADING AND RESTORATION PLAN D</p>	<p>REVISED SITE DEVELOPMENT PLAN - REV. NO. 10 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872</p> <p>LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS</p> <p>CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821 CONTRACT NO. 60-4598</p> <p>ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>CONTRACT SHEET 63 OF 611</p> <p>CG-4</p> <p>SDP SHEET 30 OF 59</p>								
			<p>REVISIONS AND RECORD OF ISSUE</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>4-6-18</td> <td></td> <td>SDP Revision 17. Revised addition No. 8 LOP added pavement restoration hatch</td> </tr> <tr> <td>11-28-17</td> <td></td> <td>SDP Rev'n: Rev. garbage added</td> </tr> <tr> <td>1/19/17</td> <td></td> <td>SDP Revision: Added addition No. 8 (garbage), Revised sheet total</td> </tr> </tbody> </table>		NO.	DATE	DESCRIPTION	4-6-18		SDP Revision 17. Revised addition No. 8 LOP added pavement restoration hatch	11-28-17		SDP Rev'n: Rev. garbage added	1/19/17	
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1/19/17		SDP Revision: Added addition No. 8 (garbage), Revised sheet total													

SDP-00-094

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APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director, DEP.

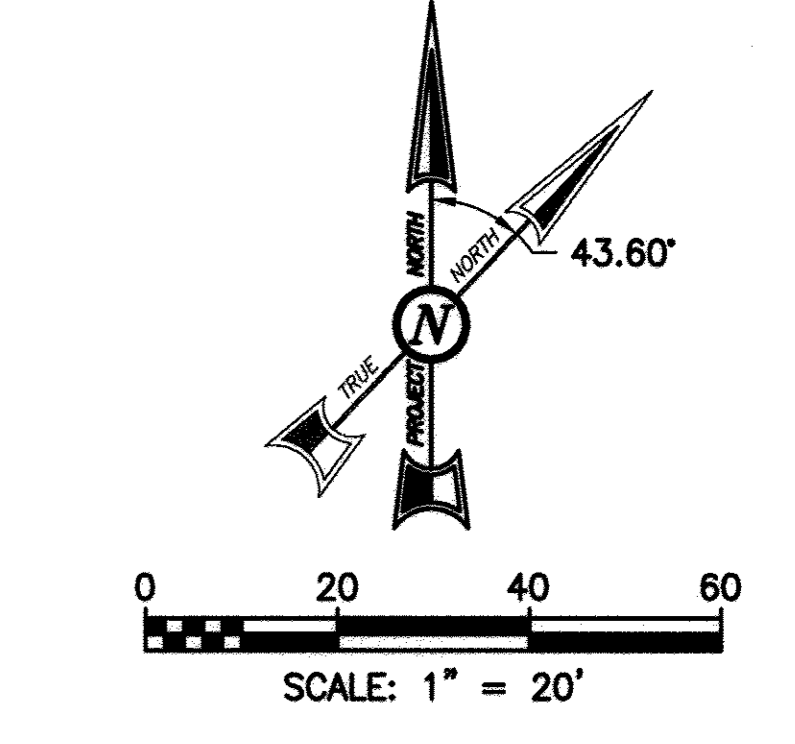
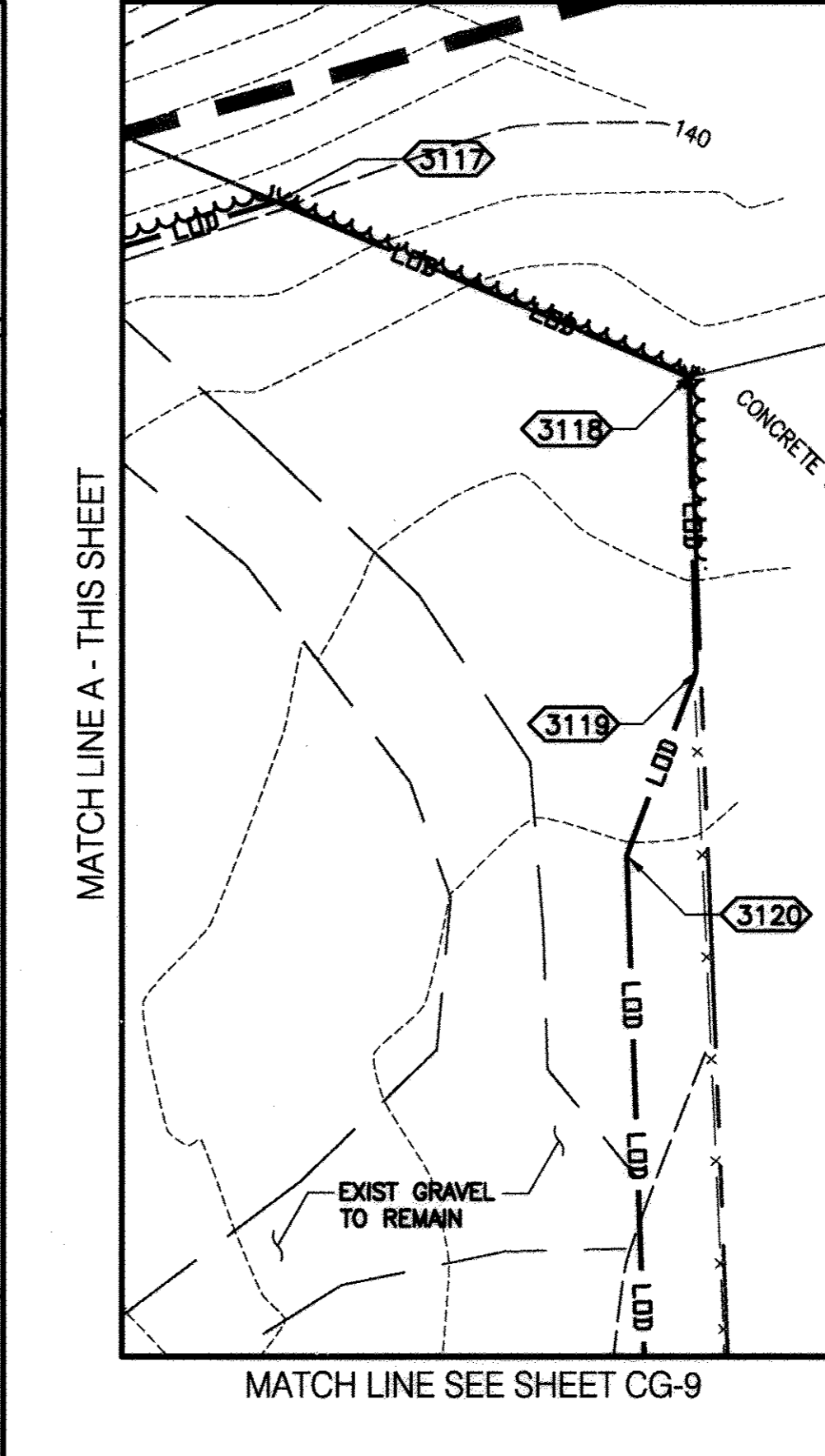
DATE: 5-27-09
 DATE: 5/28/09
 DATE: 5/28/09

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

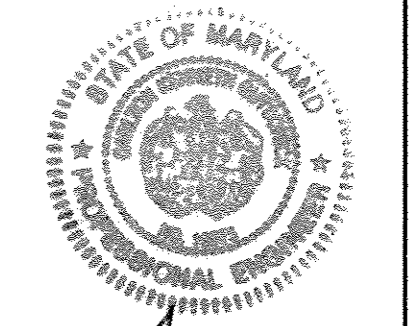
Signature of Engineer: *Noreen M. Sweeney*
 DATE: 5/10/09

DEVELOPER'S CERTIFICATE
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature of Engineer: *Daniel Ward*
 DATE: 5/19/09

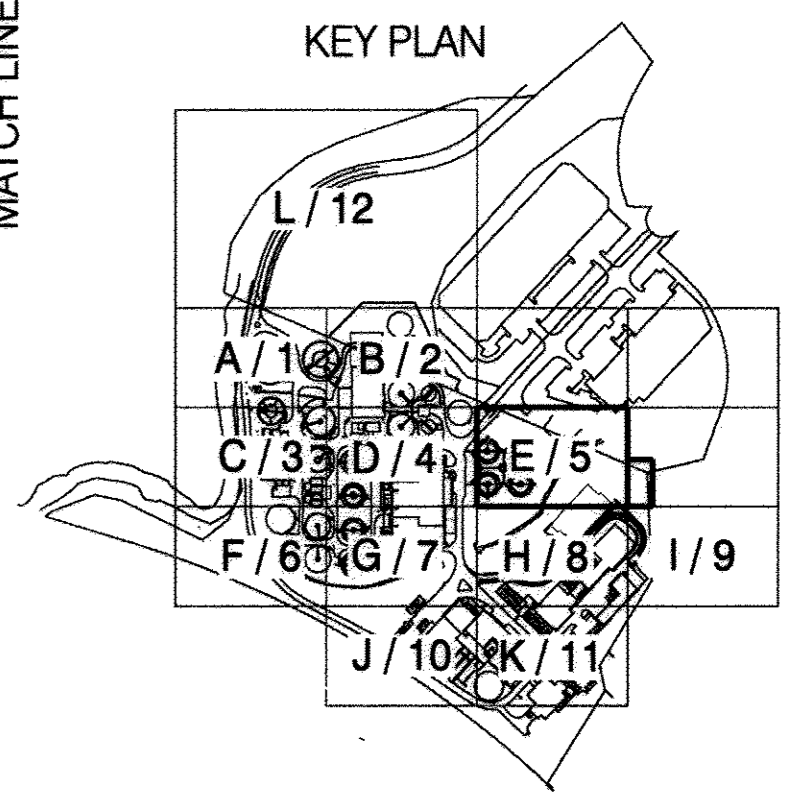


- NOTES:
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CE-5 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 - SEE DRAWING CY-5 FOR NEW PROCESS YARD PIPING.
 - SEE DRAWING CY-14 FOR STORM DRAIN PIPE PROFILE INFORMATION.
 - RESTORE CONTRACTOR TEMP STORAGE AND ACCESS AREAS TO ORIGINAL GRADES.
 - PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.



Professional Certification
 For Revision 15, 16 & 17 only.
 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. 12975 Expiration Date: May 26, 2018

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156
 www.pbsj.com

Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
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 Fax. 610.444.1698
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10

Signature: *Noreen M. Sweeney*
 REGISTERED PROFESSIONAL ENGINEER
 DATE: 4/20/09
 FIRM: PBS&J

NOTICE TO CONTRACTORS
 PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 PREVIOUS PROJECTS USED OTHER DATUMS
 APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Signature: *Silvia Chen*
 DATE: 5/10/09
 CHIEF, BUREAU OF UTILITIES

DES:	AMS	DATE:
DRN:	SLB	4-16-18
CHK:	LHH	11-29-17
DATE:	-	1/19/17

REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8Q
 CIVIL

STAKEOUT, GRADING AND RESTORATION
 PLAN E

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

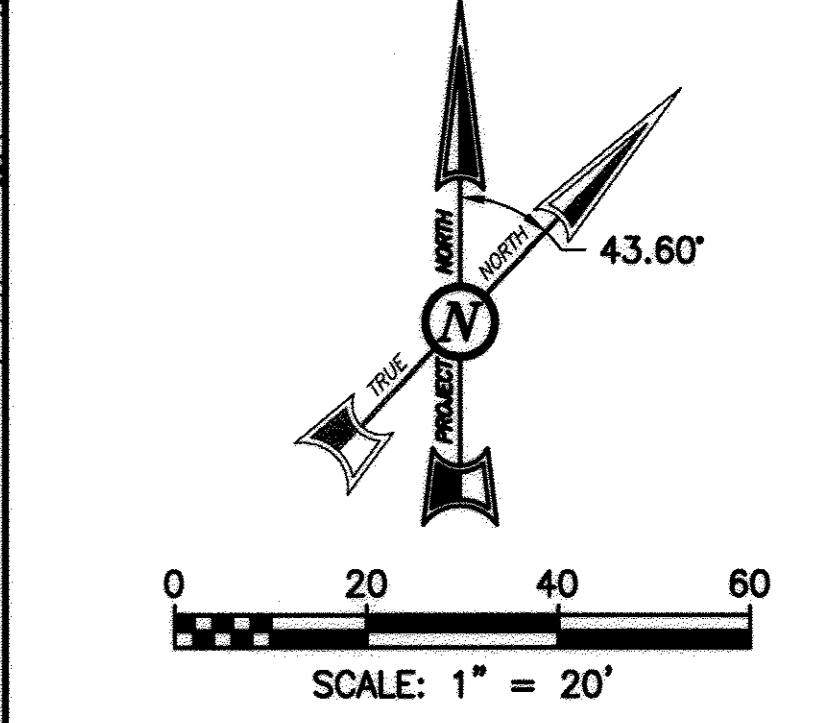
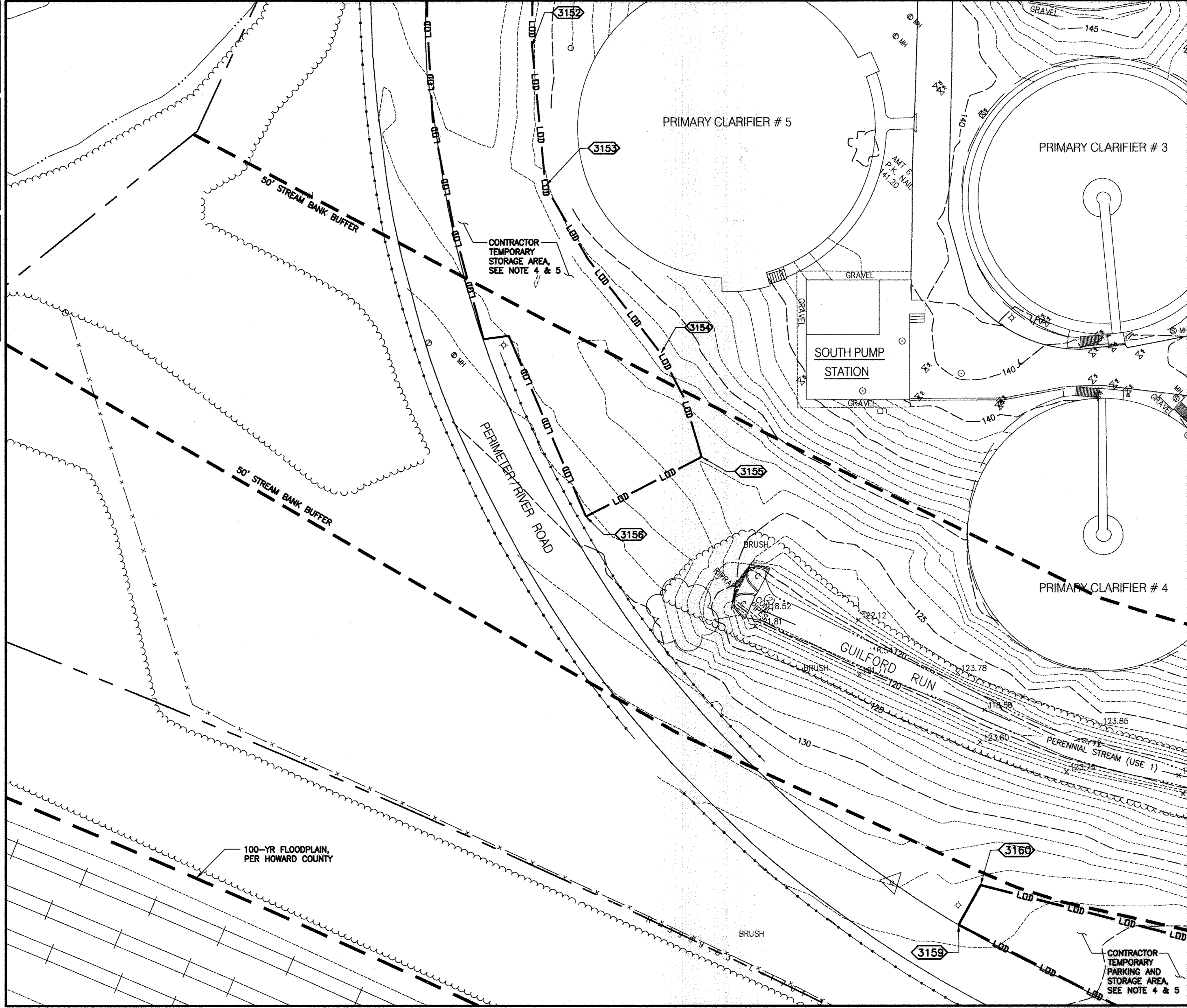
SCALE AS SHOWN
 CONTRACT SHEET
 64 OF 611
 CG-5
 SDP SHEET
 31 OF 59

MATCH LINE SEE SHEET CG-3

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *[Signature]* DATE: 5-27-09
 Chief, Division of Land Development: *[Signature]* DATE: 5/28/09
 Director, DEP: *[Signature]* DATE:

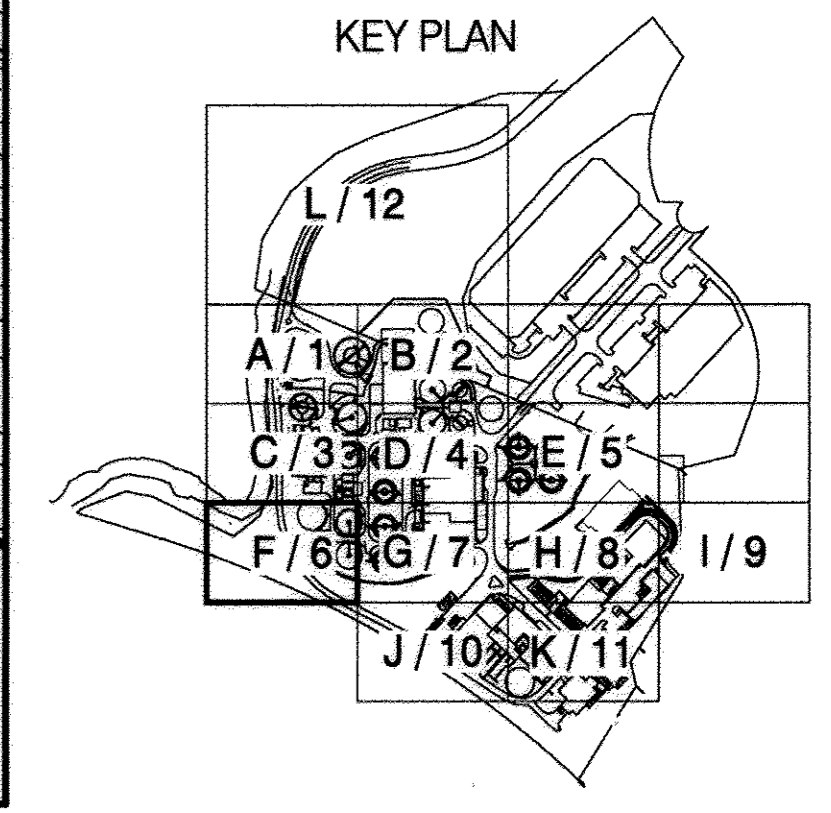
ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] DATE: 5/10/09
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE:

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature] DATE: 5/10/09
 SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE:



- NOTES:
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CE-6 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 3. SEE DRAWING CY-6 FOR PROCESS YARD PIPING.
 4. RESTORE STORAGE AREA TO ORIGINAL GRADES.
 5. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



M:\360709-Howard County\ENR\03 Civil\CG-06 Grading Plan F.dwg 05/14/09 19:43

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4158
 www.pbsj.com

Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10
[Signature]
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09 DATE
 PBS&J FIRM

NOTICE TO CONTRACTORS
 * PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 * PREVIOUS PROJECTS USED OTHER DATUMS
 * APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
[Signature] 5/10/09
 CHIEF, BUREAU OF UTILITIES DATE

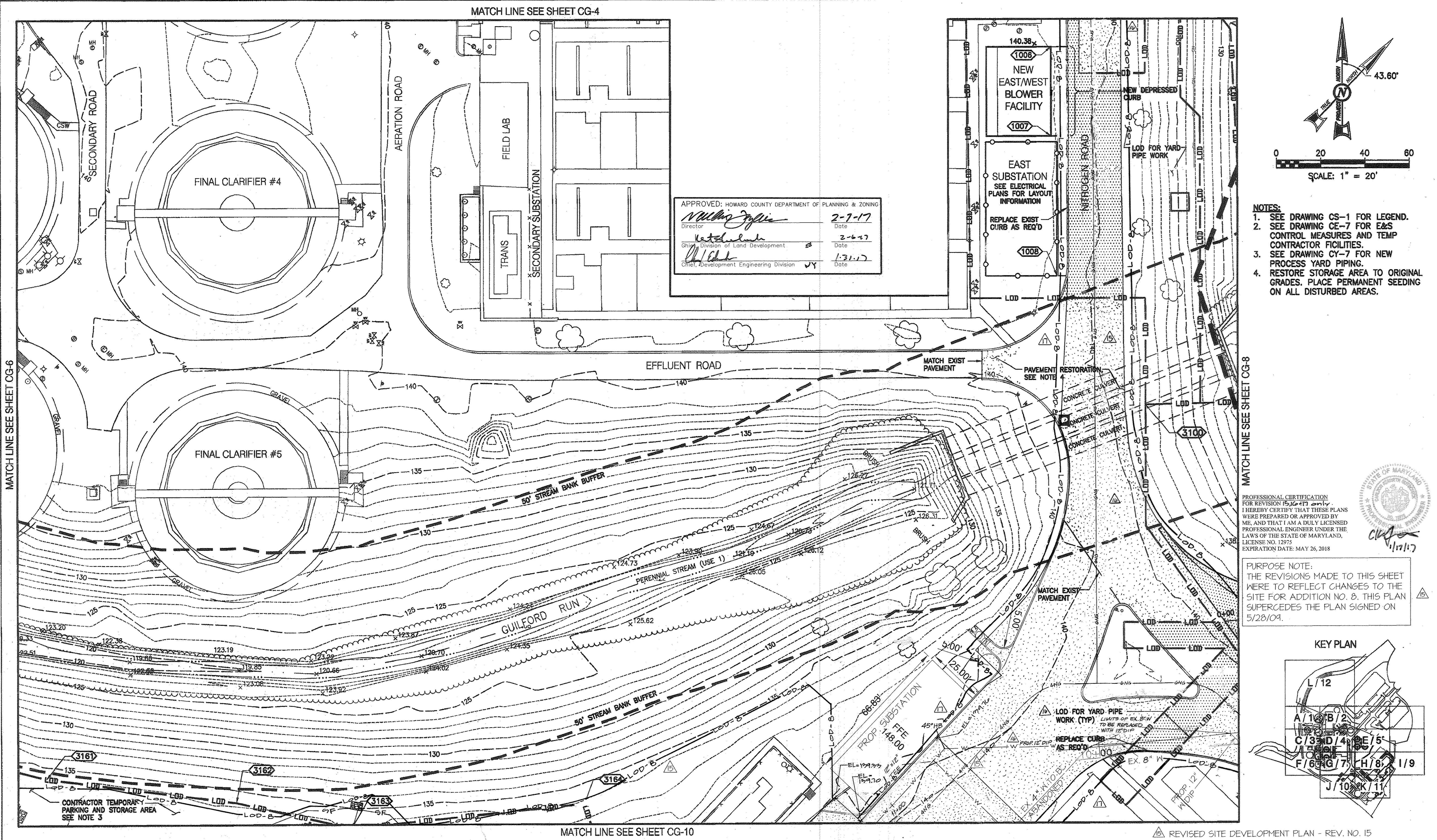
DES: AMS	
DRN: SLB	
CHK: LHH	
DATE: -	
1-13-17	REVISED SHEET TOTAL
DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8R
 CIVIL
 STAKEOUT, GRADING AND RESTORATION
 PLAN F

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
 LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
 CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
 CONTRACT NO. 60-4598
 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 65 OF 611
 CG-6
 SDP SHEET 32 OF 59

SDP-00-094

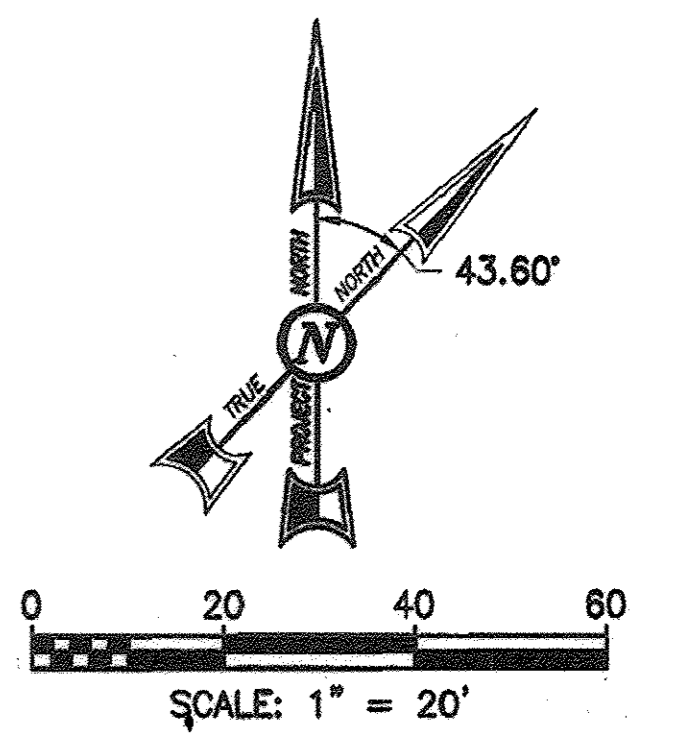


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

William J. Jaffe 2-7-17
 Director Date

Kathleen 2-6-17
 Chief, Division of Land Development Date

Michael 1-31-17
 Chief, Development Engineering Division Date



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CE-7 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 - SEE DRAWING CY-7 FOR NEW PROCESS YARD PIPING.
 - RESTORE STORAGE AREA TO ORIGINAL GRADES. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.

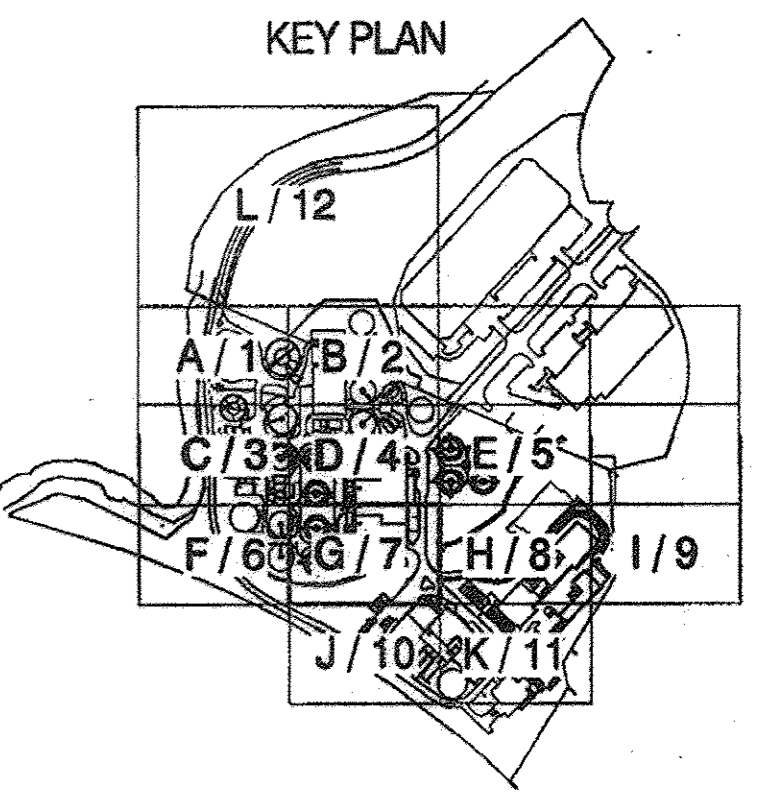
PROFESSIONAL CERTIFICATION FOR REVISION 1510-17 2017

I HEREBY CERTIFY THAT THESE PLANS 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. 12975

EXPIRATION DATE: MAY 26, 2018

PURPOSE NOTE:

THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.



M:\360709-Howard County\ENR\03 Civil\CG-07 Grading Plan G.dwg 05/14/09 18:59

PBS&J

12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156
 www.pbsj.com

Stantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

Michael M. Scahill
 REGISTERED PROFESSIONAL ENGINEER

4/20/09
 DATE

PBS&J
 FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Stacy C. Green 11/21/17
 CHIEF, BUREAU OF UTILITIES DATE

DES:	AMS	DATE	REVISIONS AND RECORD OF ISSUE
DRN:	SLB	4-9-10	1. ADDITION NO. 8 TO LOD
CHK:	LHH	11/21/17	2. REPLACE EXIST CURB AS REQ'D
DATE:		1-16-17	3. PAVING REPLACEMENT, BUILDING, GRADING, & REVISED SHEET TOTAL

HOWARD COUNTY SDP SHEET C-8S
 CIVIL

STAKEOUT, GRADING AND RESTORATION
 PLAN G

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10

PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
 CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

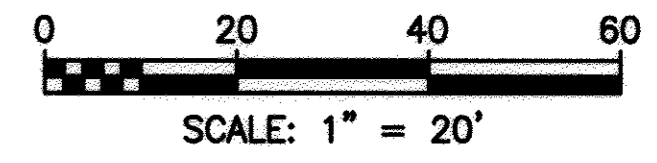
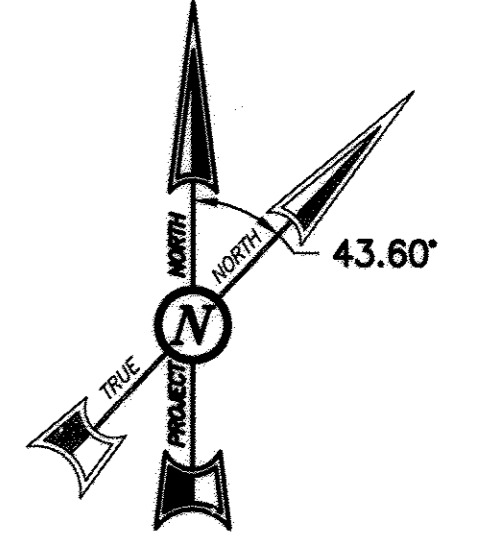
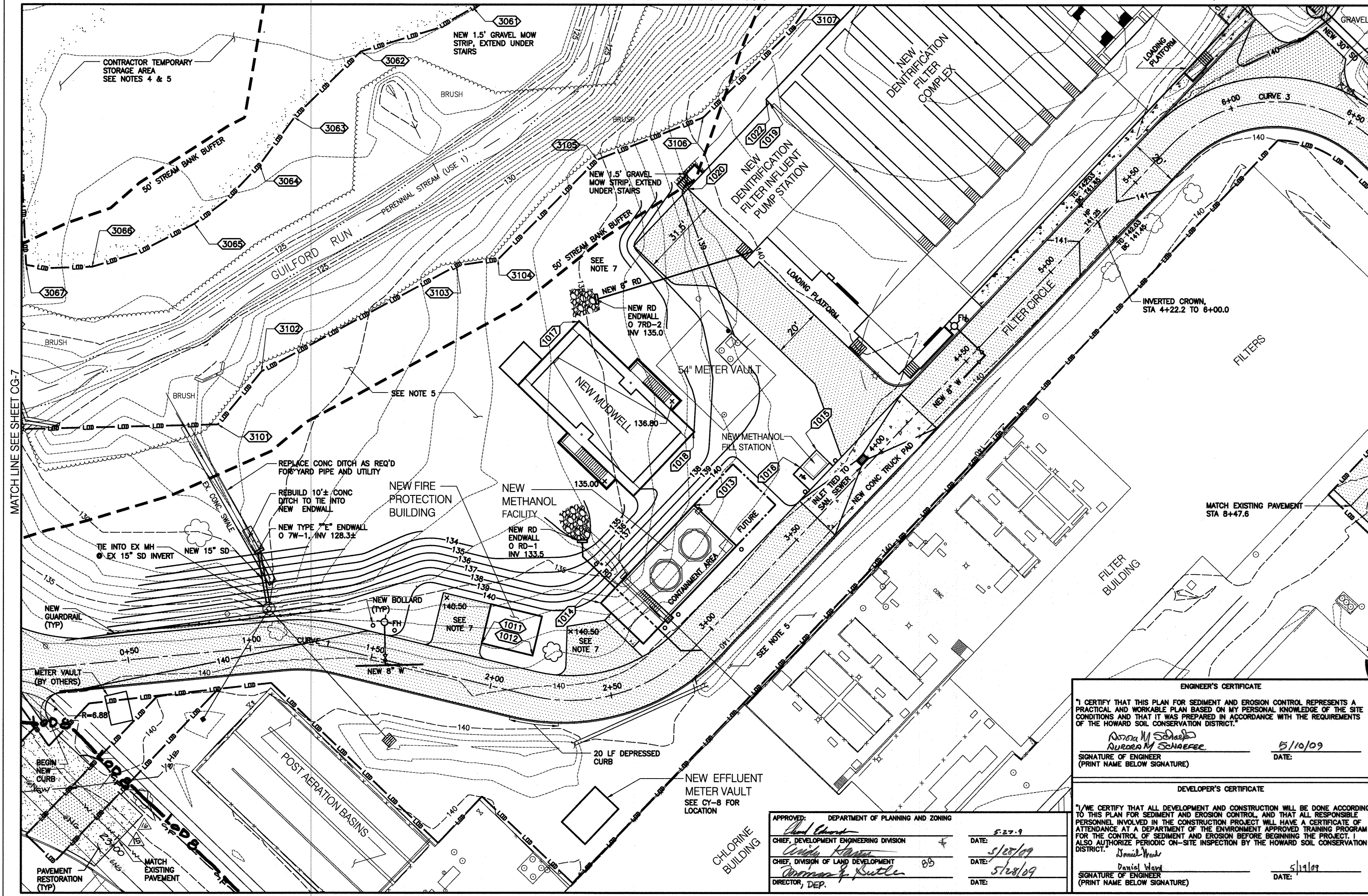
CONTRACT SHEET
 66 OF 611

CG-7

SDP SHEET
 33 OF 59

SDP-00-094

MATCH LINE SEE SHEET CG-5



- NOTES:**
- SEE DRAWING CS-1 FOR LEGEND.
 - SEE DRAWING CE-8 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 - SEE DRAWING CY-8 FOR NEW PROCESS AND DOMESTIC WATER YARD PIPING.
 - RESTORE TEMP. STORAGE AREA TO ORIGINAL GRADES.
 - PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.
 - FIRE HYDRANTS TO CONFORM TO HOWARD COUNTY STD SPECIFICATIONS AND DETAILS W-1.11, W-1.14 AND W-2.11.
 - OPERATOR PARKING FOR ONE VEHICLE AT EACH LOCATION.



Professional Certification
 For Revision 15/10/09 only:
 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. 12475 Expiration Date: May 26, 2018

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Rubra M. Senaeffee
 SIGNATURE OF ENGINEER
 (PRINT NAME BELOW SIGNATURE)

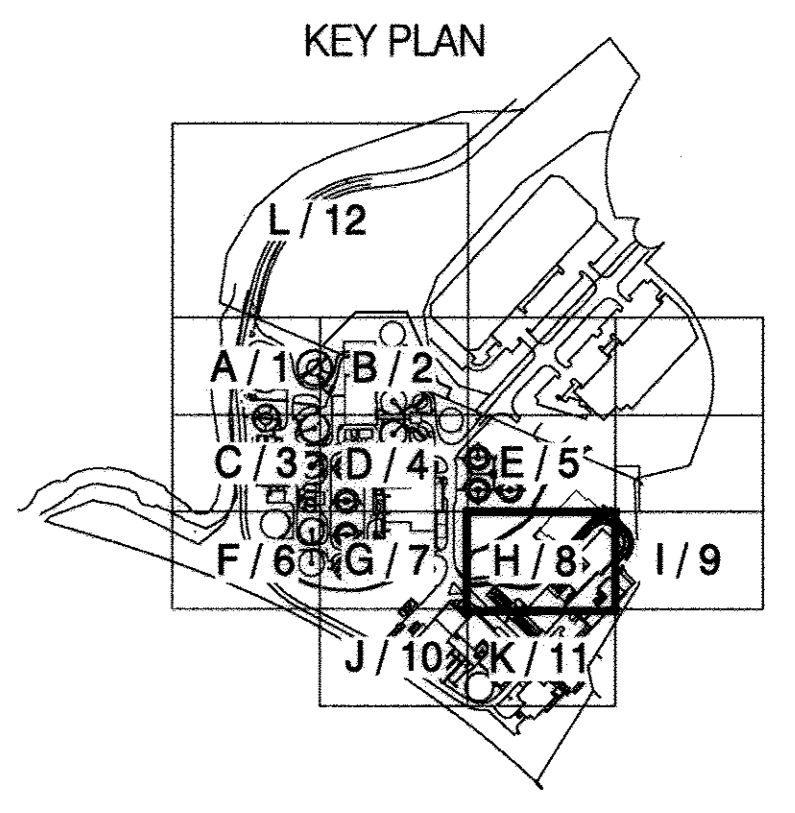
5/10/09
 DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Daniel Ward
 SIGNATURE OF ENGINEER
 (PRINT NAME BELOW SIGNATURE)

5/11/09
 DATE



APPROVED:	DEPARTMENT OF PLANNING AND ZONING	DATE:	5/27/09
<i>[Signature]</i>	CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE:	5/28/09
<i>[Signature]</i>	CHIEF, DIVISION OF LAND DEVELOPMENT	DATE:	5/28/09
<i>[Signature]</i>	DIRECTOR, DEP.	DATE:	

MATCH LINE SEE SHEET CG-11

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-6800
 FAX: (301) 210-4156
 www.pbsj.com

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 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel. 610.444.6522
 Fax. 610.444.1698
 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.

Rubra M. Senaeffee
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09
 DATE
 PBS&J
 FIRM

NOTICE TO CONTRACTORS
 PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
 PREVIOUS PROJECTS USED OTHER DATUMS
 APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature]
 CHIEF, BUREAU OF UTILITIES
 DATE

DES: AMS	
DRN: SLB	
CHK: LHH	1/12/07
	1/10/17
DATE: -	
DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8T
 CIVIL

STAKEOUT, GRADING AND RESTORATION
 PLAN H

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
 CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

CONTRACT SHEET
 67 OF 611

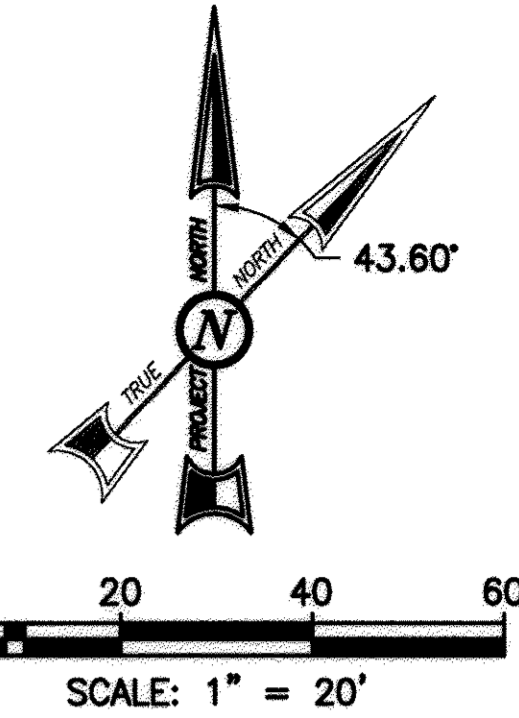
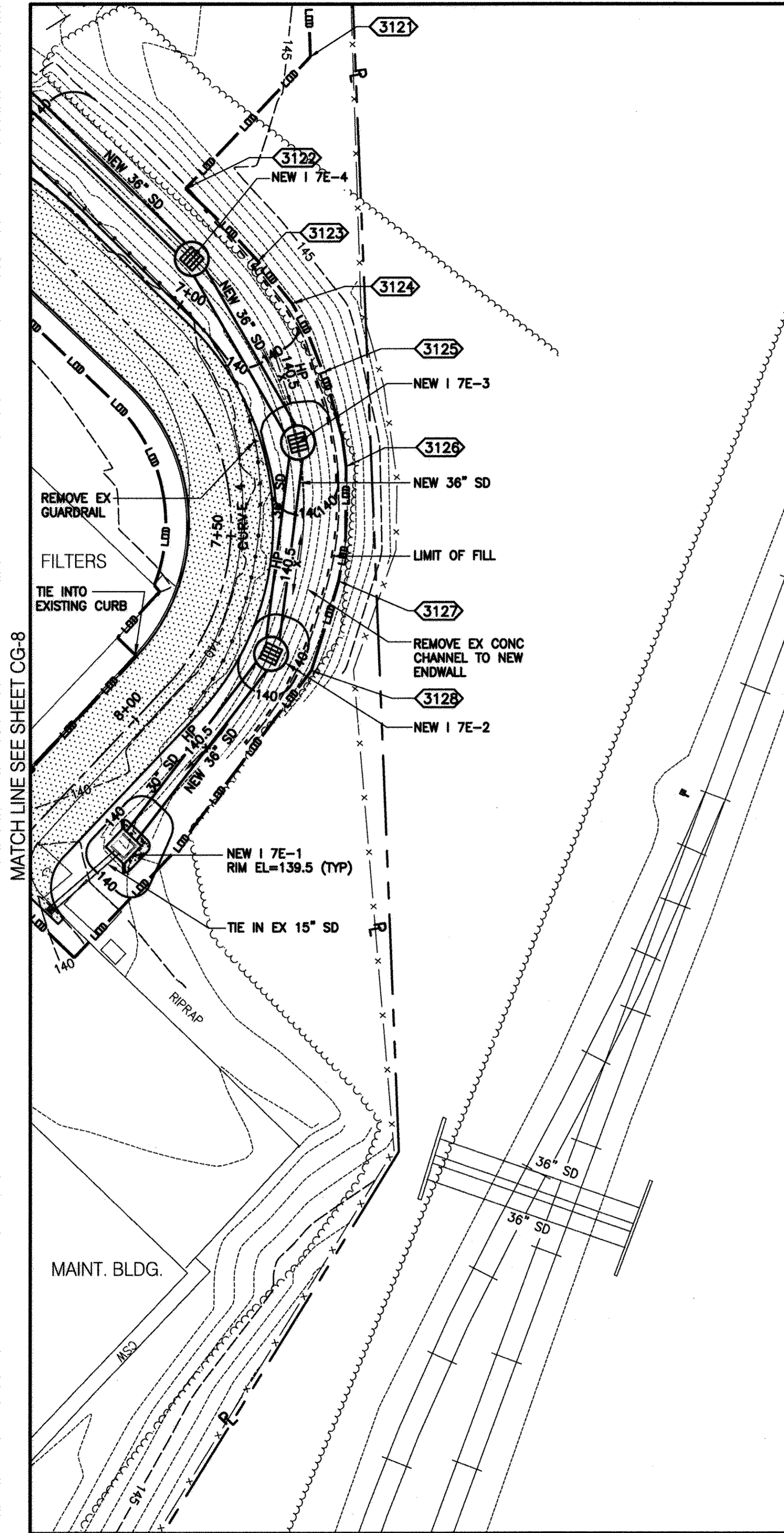
CG-8

SDP SHEET
 34 OF 59

SDP-00-094

M:\380709-Howard County\ENR\03 Civil\CC-08 Grading Plan H.dwg 05/14/09_18:59

MATCH LINE SEE SHEET CG-5

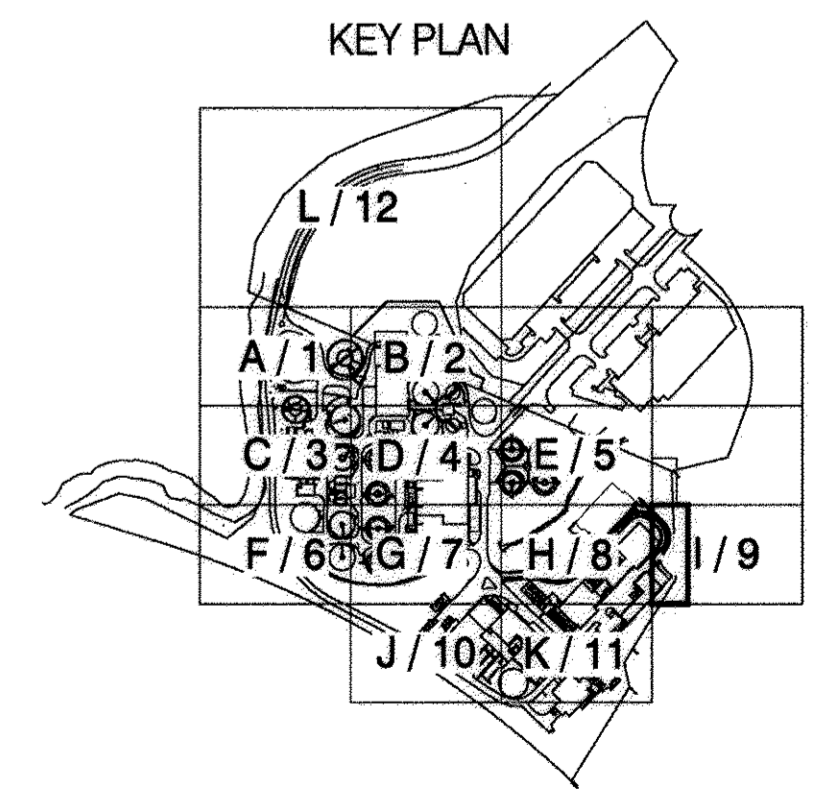


- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CE-9 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 3. SEE DRAWING CY-9 FOR NEW PROCESS YARD PIPING.
 4. SEE DRAWING CY-14 FOR STORM DRAIN PIPE PROFILE INFORMATION.
 5. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.

MATCH LINE SEE SHEET CG-8

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i>	5.22.9
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE:
<i>[Signature]</i>	5/28/09
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE:
<i>[Signature]</i>	5/28/09
DIRECTOR, DEP.	DATE:
ENGINEER'S CERTIFICATE	
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."	
<i>[Signature]</i> ANNE M. SCHAEFER	5/10/09
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE)	DATE:
DEVELOPER'S CERTIFICATE	
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."	
<i>[Signature]</i> Daniel Ward	5/19/09
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE)	DATE:

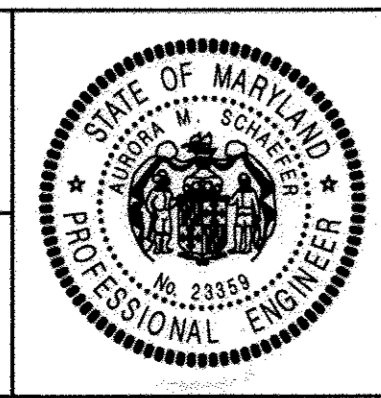
THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.



M:\390709-Howard County\ENR\03 Civil\CG-09 Grading Plan 1.dwg 05/14/09 19:59

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156
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Stantec Consulting Ltd.
425 McFarlan Road, Ste. 205
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www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.
[Signature]
ANNE M. SCHAEFER
REGISTERED PROFESSIONAL ENGINEER
4/20/09 PBS&J
DATE FIRM

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
PREVIOUS PROJECTS USED OTHER DATUMS
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature] 5/19/09
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	
DRN: SLB	
CHK: LHH	
DATE: --	1-13-17
DATE	REVISIONS AND RECORD OF ISSUE

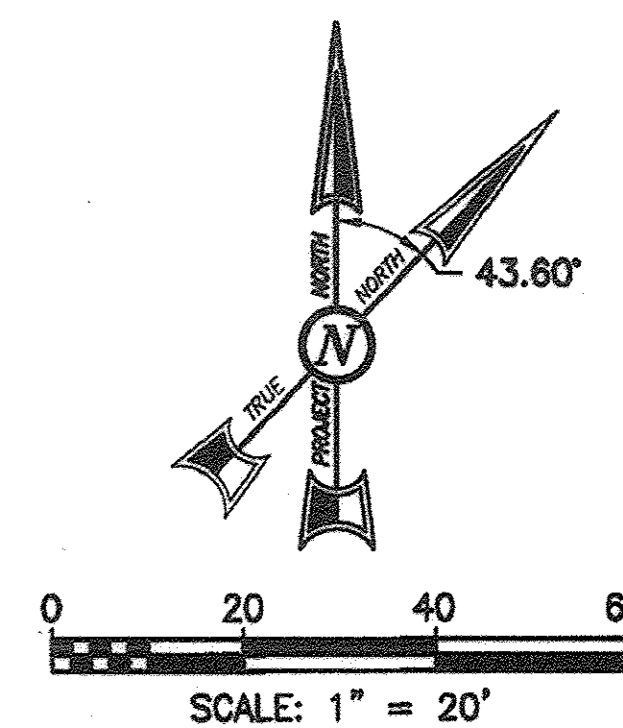
HOWARD COUNTY SDP SHEET C-8U
CIVIL
STAKEOUT, GRADING AND RESTORATION
PLAN I

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 65 OF 611
CG-9
SDP SHEET 35 OF 59

SDP-00-094

MATCH LINE SEE SHEET CG-7

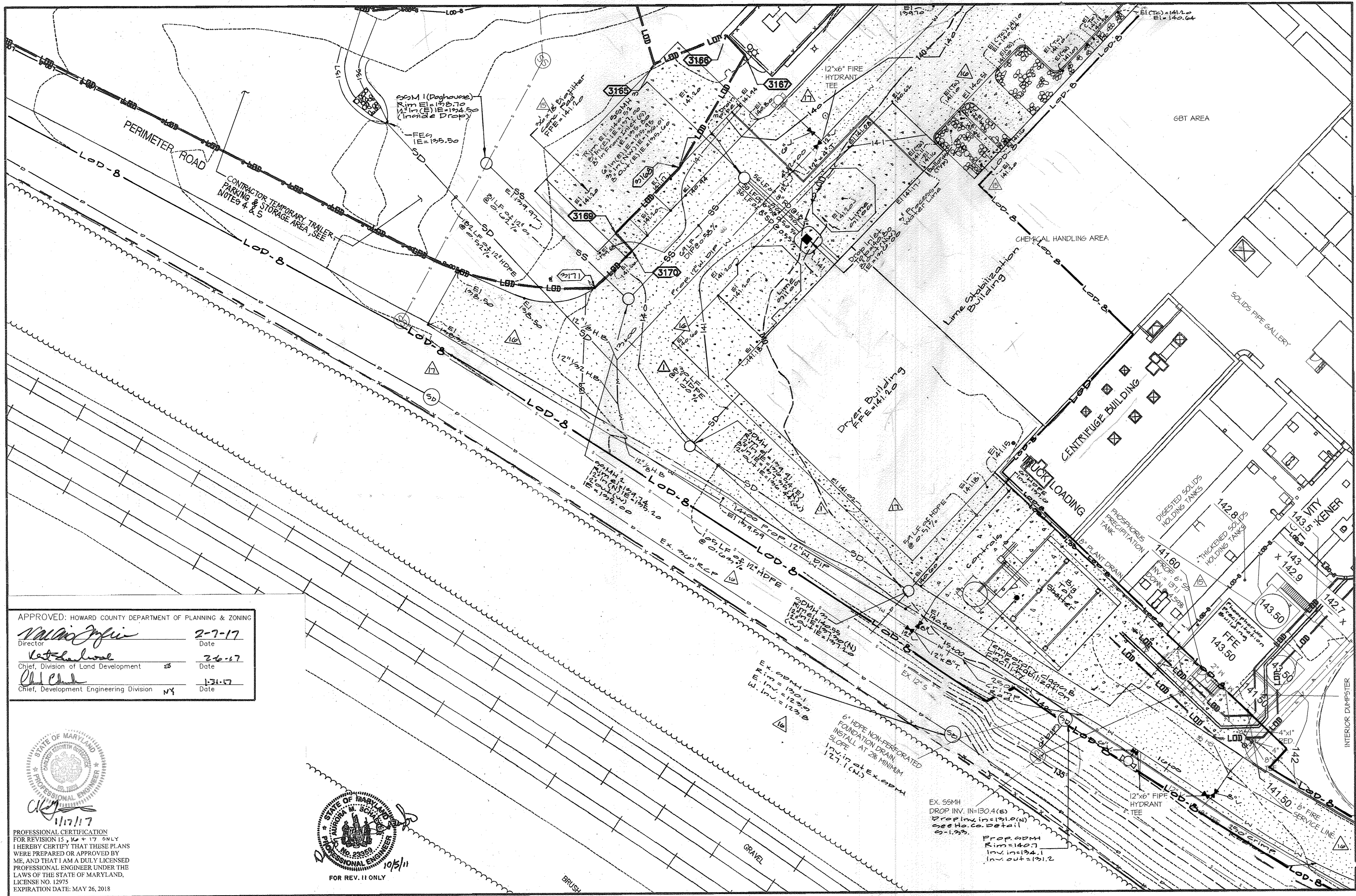
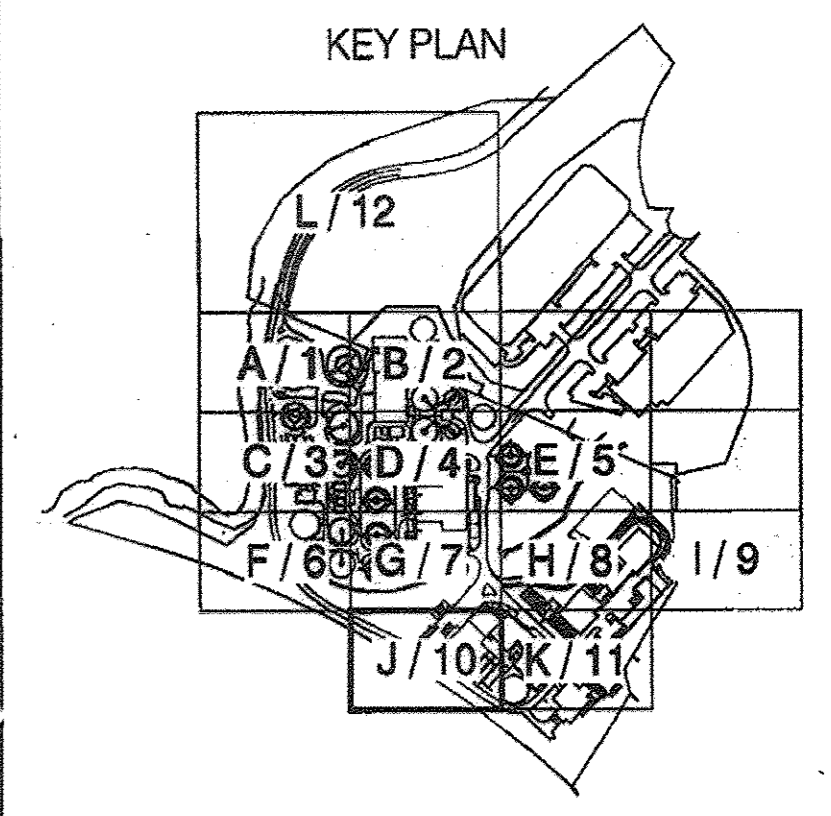


- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CE-10 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 3. SEE DRAWING CY-10 FOR NEW PROCESS YARD PIPING.
 4. RESTORE STORAGE AREA TO ORIGINAL GRADES.
 5. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.

MATCH LINE SEE SHEET CG-11

PURPOSE NOTE:
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/04.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLAN, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

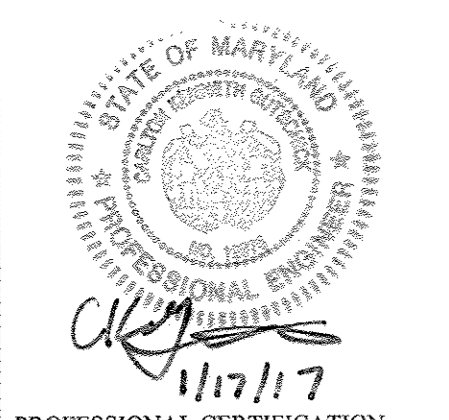


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

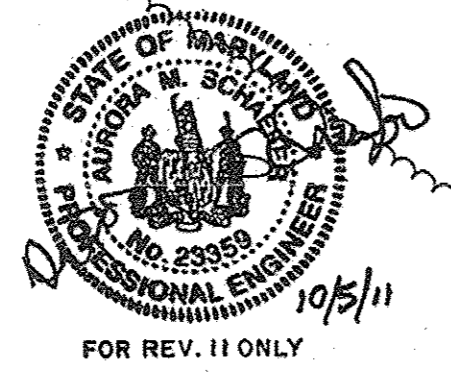
Valerie Griffin 2-7-17
Director Date

Kate Schmalzer 2-6-17
Chief, Division of Land Development Date

Chad Chubb 1-21-17
Chief, Development Engineering Division Date



PROFESSIONAL CERTIFICATION
FOR REVISIONS 15, 16 & 17 ONLY
I HEREBY CERTIFY THAT THESE PLANS 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. 12975
EXPIRATION DATE: MAY 26, 2018



FOR REV. 11 ONLY

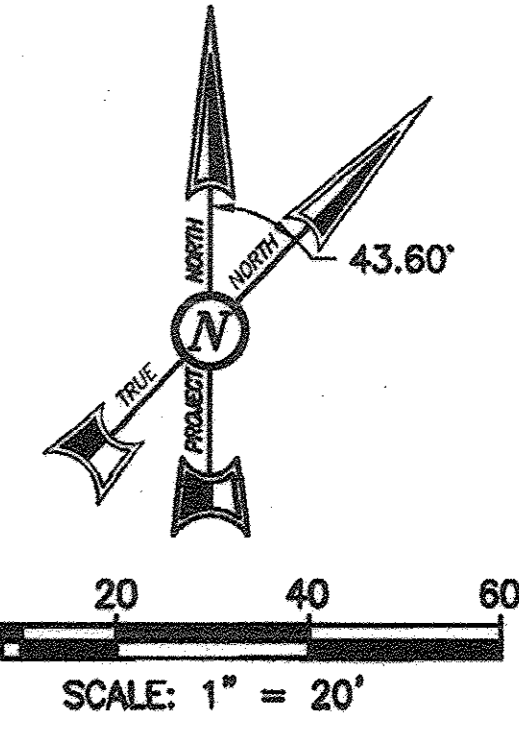
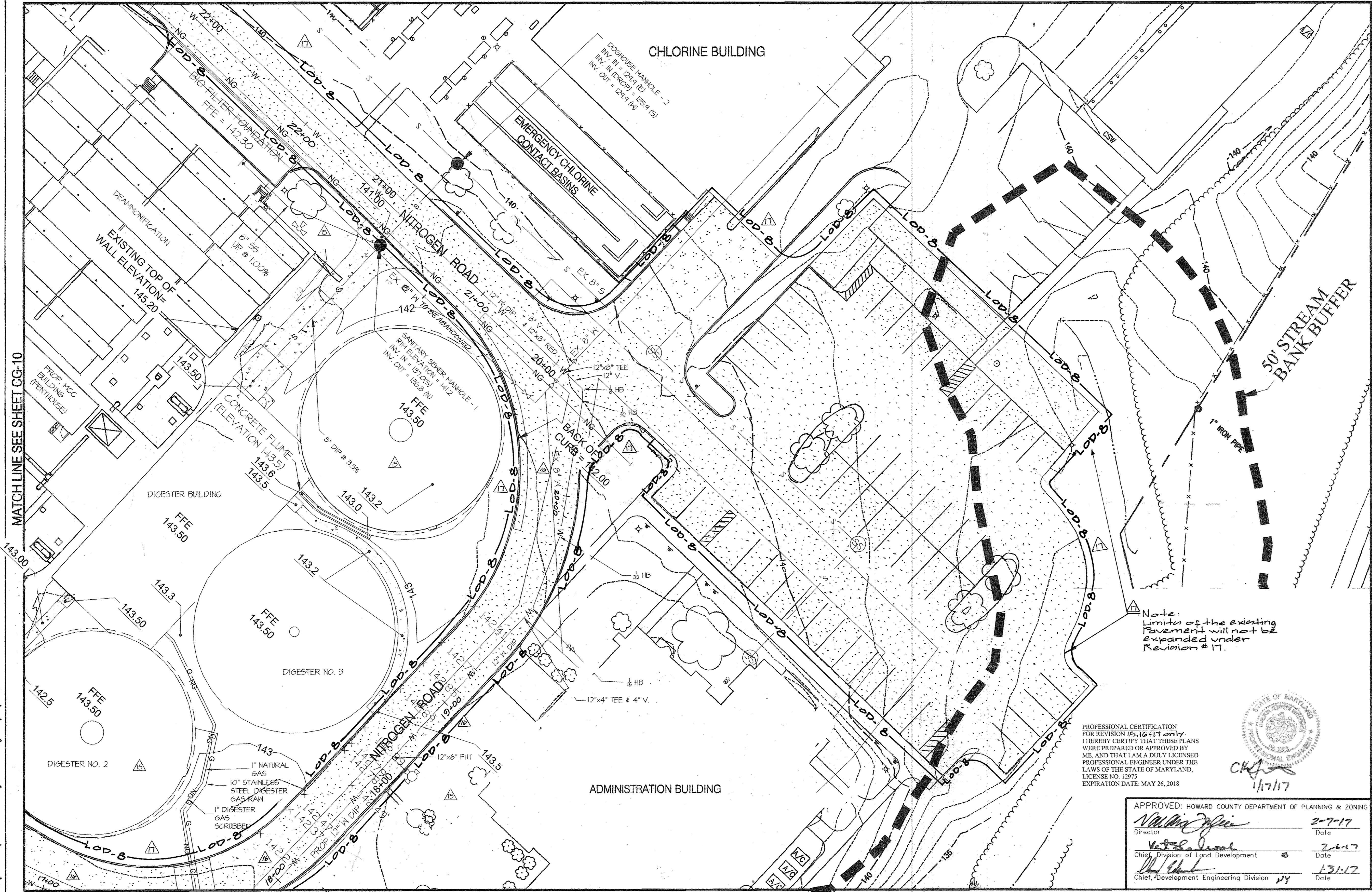
REVISED SITE DEVELOPMENT PLAN - REV. NO. 15

<p>12101 INDIAN CREEK COURT BELTSVILLE, MARYLAND 20705 TELEPHONE: (301) 210-6800 FAX: (301) 210-4156 www.pbsj.com</p> <p>Stantec Consulting Ltd. 425 McFarlan Road, Ste. 205 Kennett Square, PA 19348-2412 Tel. 610.444.6522 Fax. 610.444.1898 www.stantec.com</p>	<p>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. 23359, EXPIRATION DATE: 8/13/10.</p> <p><i>Nora M. Schmalzer</i> REGISTERED PROFESSIONAL ENGINEER 4/20/09 PBS&J DATE FIRM</p>	<p>NOTICE TO CONTRACTORS</p> <ul style="list-style-type: none"> PROJECT ELEVATIONS ARE BASED ON UNDESIGNED HOWARD COUNTY'S BENCHMARK SYSTEM PREVIOUS PROJECTS USED OTHER DATUMS APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS: <ul style="list-style-type: none"> - ADDITION NO. 6: SUBTRACT 0.66 FT - PRIOR ADDITIONS: SUBTRACT 0.90 FT 	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Steve C. Combs</i> 11/21/17 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DES: AMS</p>	<p>DRN: SLB 4-19-18</p>	<p>CHK: LWH 11/6/17</p>	<p>DATE: 10/5/11</p>	<p>HOWARD COUNTY SDP SHEET C-8U CIVIL</p>	<p>REVISED SITE DEVELOPMENT PLAN - REV. NO. 10 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872</p>	<p>SCALE AS SHOWN</p>
				<p>STAKEOUT, GRADING AND RESTORATION PLAN J</p>	<p>LITTLE PATUXENT WATER RECLAMATION PLAN ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS</p>	<p>CONTRACT SHEET 69 OF 111</p>				

SDP-00-094

Mt. 380708-Howard County\ENR\03 Civil\CG-10 Grading Plan L.dwg 05/14/09_19:58

MATCH LINE SEE SHEET CG-8



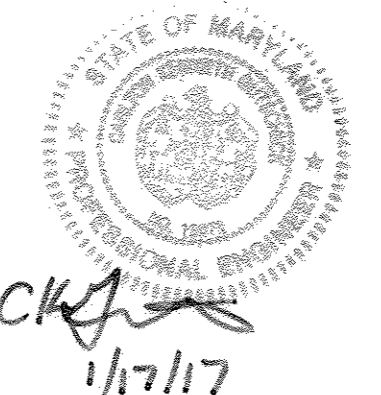
- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CY-11 FOR NEW PROCESS YARD PIPING.
 3. NO SITE DISTURBANCE IS EXPECTED WITHIN AREA SHOWN ON THIS SHEET.
 4. PLACE PERMANENT SEED ON AREA DISTURBED BY CONSTRUCTION.

PURPOSE NOTE:
THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

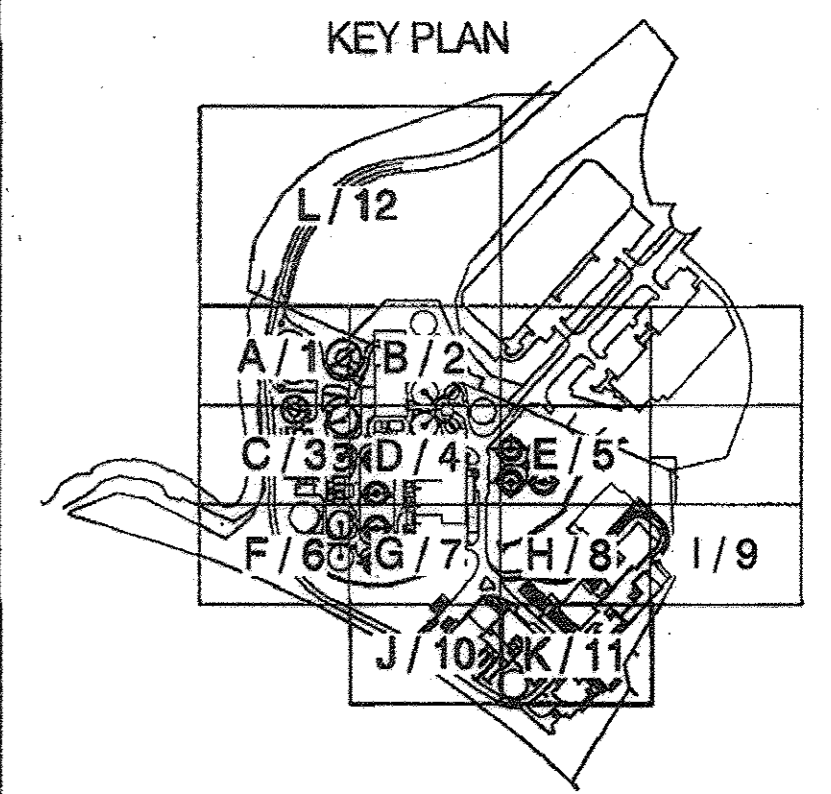
Note:
Limits of the existing Pavement will not be expanded under Revision # 17.

PROFESSIONAL CERTIFICATION
FOR REVISION 15, 16 & 17 ONLY
I HEREBY CERTIFY THAT THESE PLANS 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. 12975
EXPIRATION DATE: MAY 26, 2018



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

<i>Valerie O'Neil</i>	2-7-17
Director	Date
<i>Walter D. Neal</i>	2-6-17
Chief, Division of Land Development	Date
<i>John J. ...</i>	1-31-17
Chief, Development Engineering Division	Date



MATCH LINE SEE SHEET CG-10

M:\390709-Howard County\ENR\05 CH\ CG-11 Grading Plan K.dwg 05/14/09 19:58

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4158
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Stantec Consulting Ltd.
425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
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Fax: 610.444.1898
www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.

Nora W. ...
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.
- PREVIOUS PROJECTS USED OTHER DATUMS.
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John J. ...
CHIEF, BUREAU OF UTILITIES - DATE

DES: AMS	
DRN: SLB	4-10-18
CHK: LHH	11/21/17
DATE: -	1/16/17
DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8W
CIVIL

STAKEOUT, GRADING AND RESTORATION
PLAN K

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

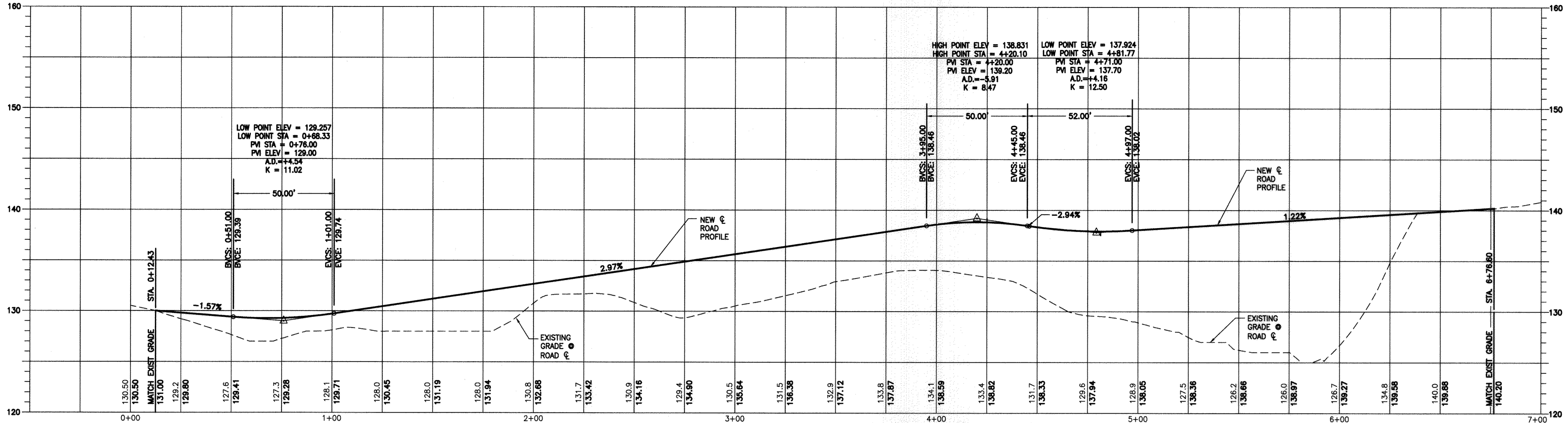
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET
70 OF 611
CG-11
SDP SHEET
37 OF 59

SDP-00-094



NORTH ACCESS ROAD PROFILE

SCALES

VERT: 1" = 5'
HORIZ: 1" = 50'



SCALE: 1" = 5'



SCALE: 1" = 50'

NORTH ACCESS ROAD LAYOUT TABLE

STATION	DESCRIPTION	NORTHING	EASTING
0+00	START PROFILE, MATCH EX GRADE	531008.71	1364970.01
0+80.77	PC CURVE 1	531089.09	1364962.04
1+39.04	PT CURVE 1	531141.09	1364938.19
1+50.75	PC CURVE 2	531149.58	1364930.11
2+13.58	PT CURVE 2	531206.13	1364931.49
3+77.84	PC CURVE 3	531319.40	1365050.44
4+72.09	PT CURVE 3	531317.33	1365135.27
4+87.88	PC CURVE 4	531305.89	1365146.16
5+40.23	PT CURVE 4	531292.59	1365194.20
5+84.27	PC CURVE 5	531304.32	1365236.65
6+37.15	PT CURVE 5	531291.39	1365285.41
6+59.82	END PROFILE, MATCH EX GRADE	531275.32	1365301.40

CURVE DATA

CURVE	RADIUS	CENTER COORDINATES			DELTA
		NORTHING	EASTING	DELTA	
CURVE 1	88.00'	531080.40	1364874.46	37.94 (d)	
CURVE 2	40.00'	531177.16	1364959.08	90.00 (d)	
CURVE 3	60.00'	531275.95	1365091.82	90.00 (d)	
CURVE 4	48.50'	531339.34	1365181.28	61.84 (d)	
CURVE 5	50.00'	531256.13	1365249.97	60.60 (d)	

FILTER CIRCLE LAYOUT TABLE

STATION	DESCRIPTION	NORTHING	EASTING
0+00	START PROFILE, MATCH EX GRADE	530891.92	1365834.40
1+13.36	PC CURVE 1	530977.51	1365908.73
1+36.61	PT CURVE 1	530992.24	1365926.59
2+16.45	PC CURVE 2	531032.16	1365995.73
2+89.76	PT CURVE 2	531092.78	1366030.73
5+69.44	PC CURVE 3	531372.46	1366030.73
6+63.69	PT CURVE 3	531432.46	1366090.73
7+02.66	PC CURVE 4	531432.46	1366129.70
7+89.05	PT CURVE 4	531377.46	1366184.70
8+47.64	END PROFILE, MATCH EX GRADE	531318.88	1366184.70

SOUTHEAST ROAD CURVE DATA

CURVE	RADIUS	CENTER COORDINATES			DELTA
		NORTHING	EASTING	DELTA	
CURVE 1	70.00'	530931.61	1365961.59	19.03 (d)	
CURVE 2	70.00'	531092.78	1365960.73	60.00 (d)	
CURVE 3	60.00'	531372.46	1366090.73	90.00 (d)	
CURVE 4	55.00'	531377.46	1366129.70	90.00 (d)	

THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Norma M. Schaefer
SIGNATURE OF ENGINEER
(PRINT NAME BELOW SIGNATURE) DATE: 5/10/09

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

David Ward
SIGNATURE OF ENGINEER
(PRINT NAME BELOW SIGNATURE) DATE: 5/10/09

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Edwards
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 5/27/09
Chris Hansen
CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 5/27/09
Thomas G. Buttle
DIRECTOR, DEP. DATE: 5/28/09

M:\380709-Howard County\ENR\03 Civil\CG-13 Road Profile.dwg 05/14/09_20:00

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
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LICENSE NO.: 23359, EXPIRATION DATE: 8/13/10.
Norma M. Schaefer
REGISTERED PROFESSIONAL ENGINEER
4/20/09 PBS&J
DATE FIRM

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
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- PRIOR ADDITIONS: SUBTRACT 0.90 FT.

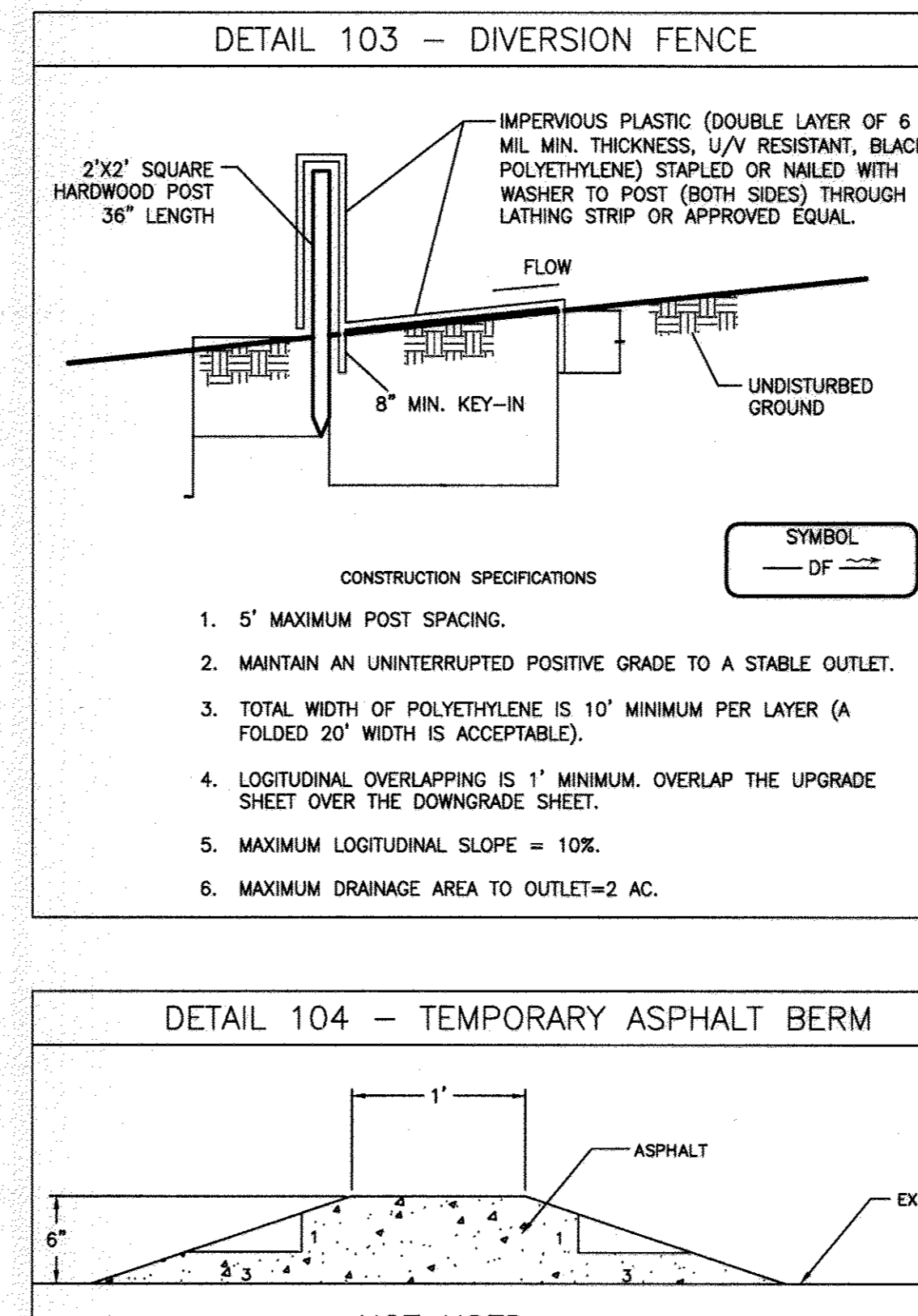
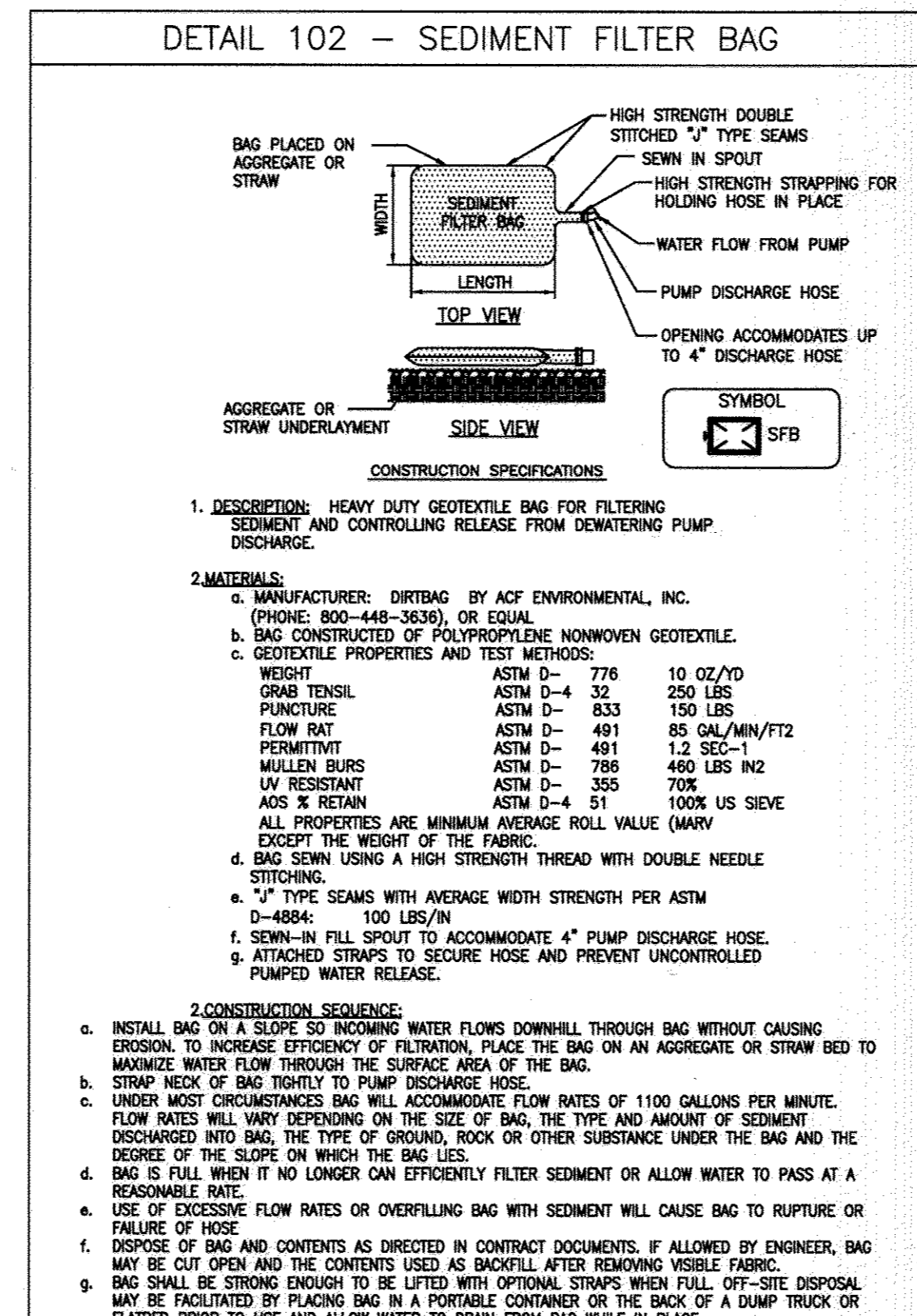
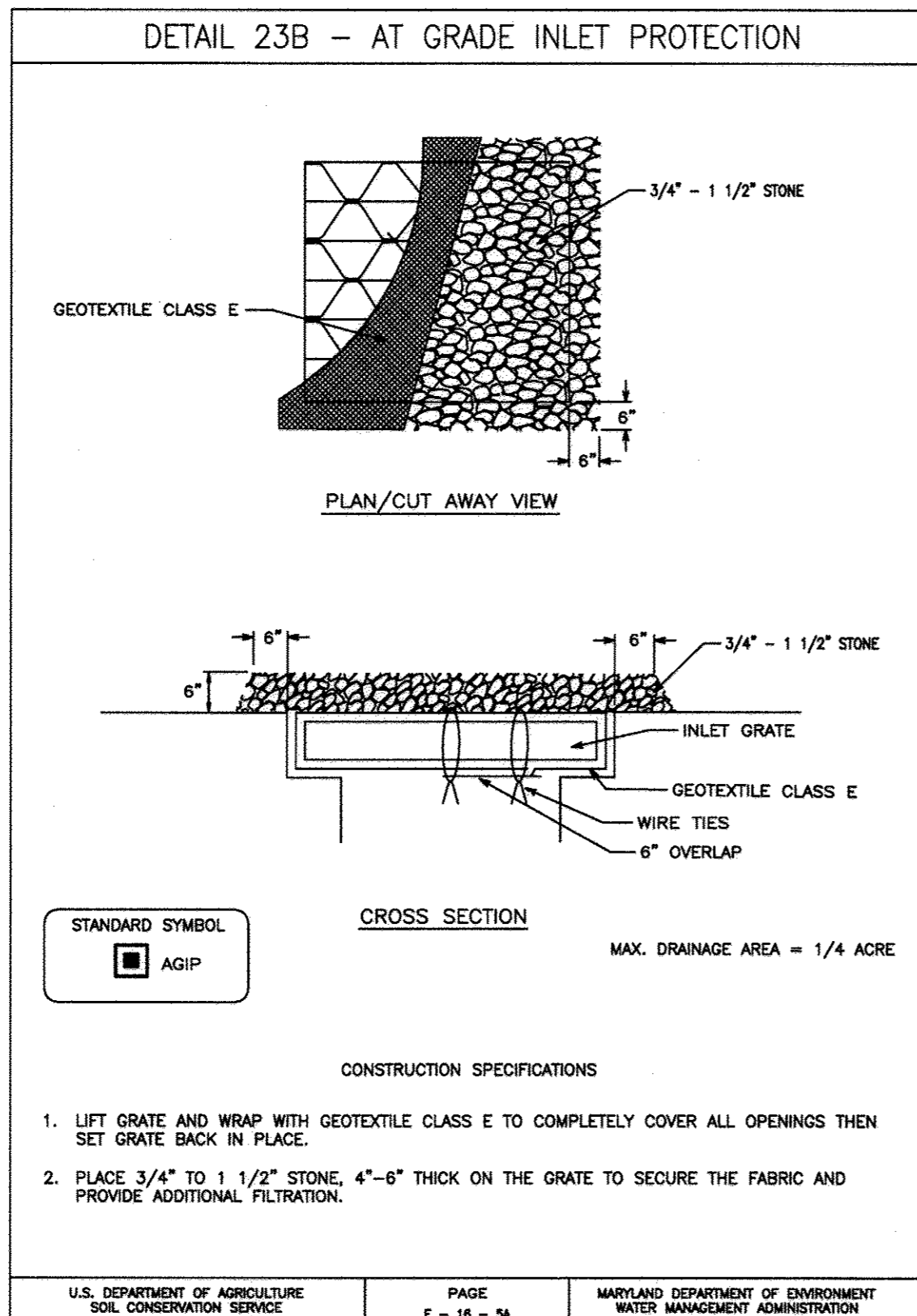
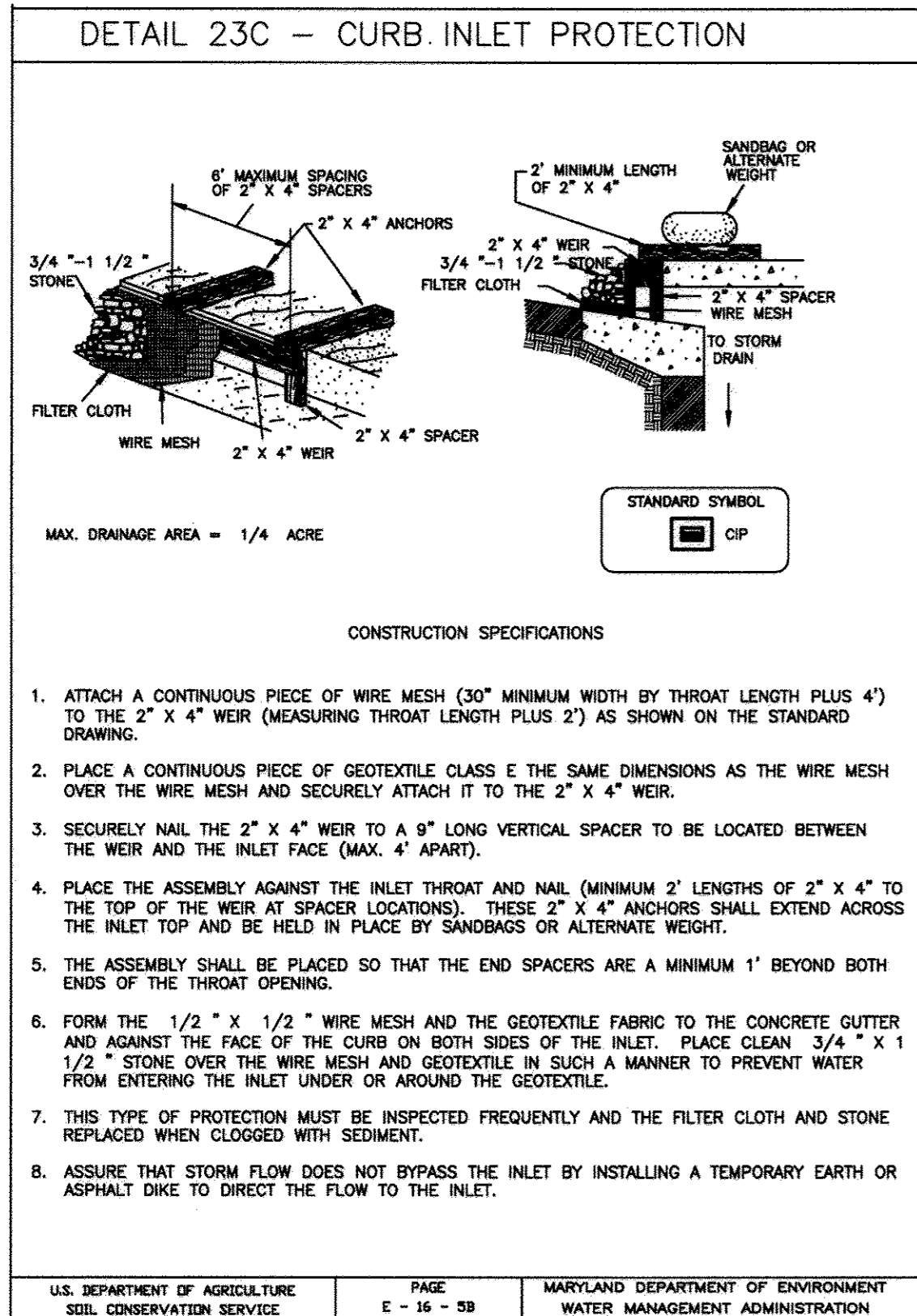
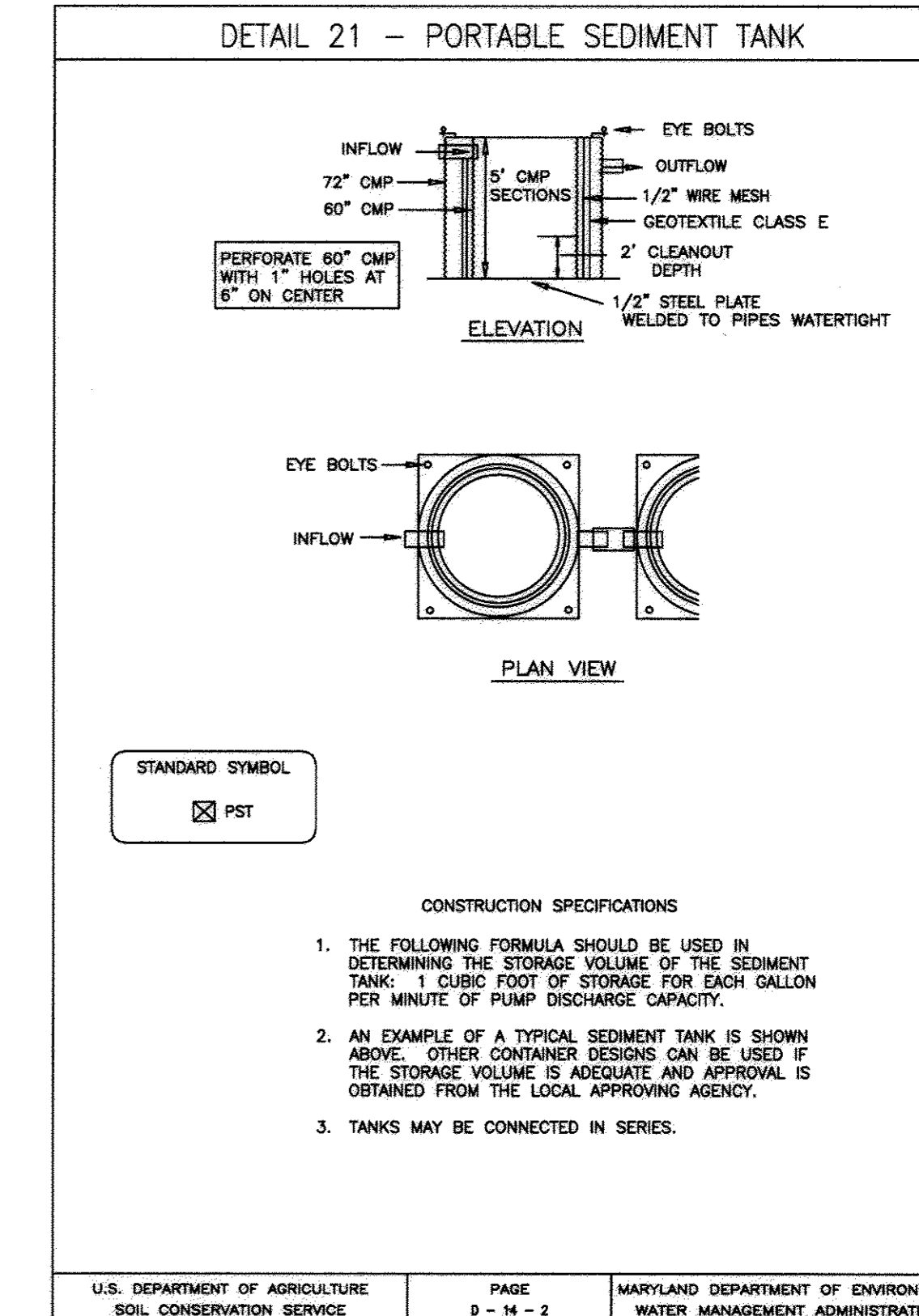
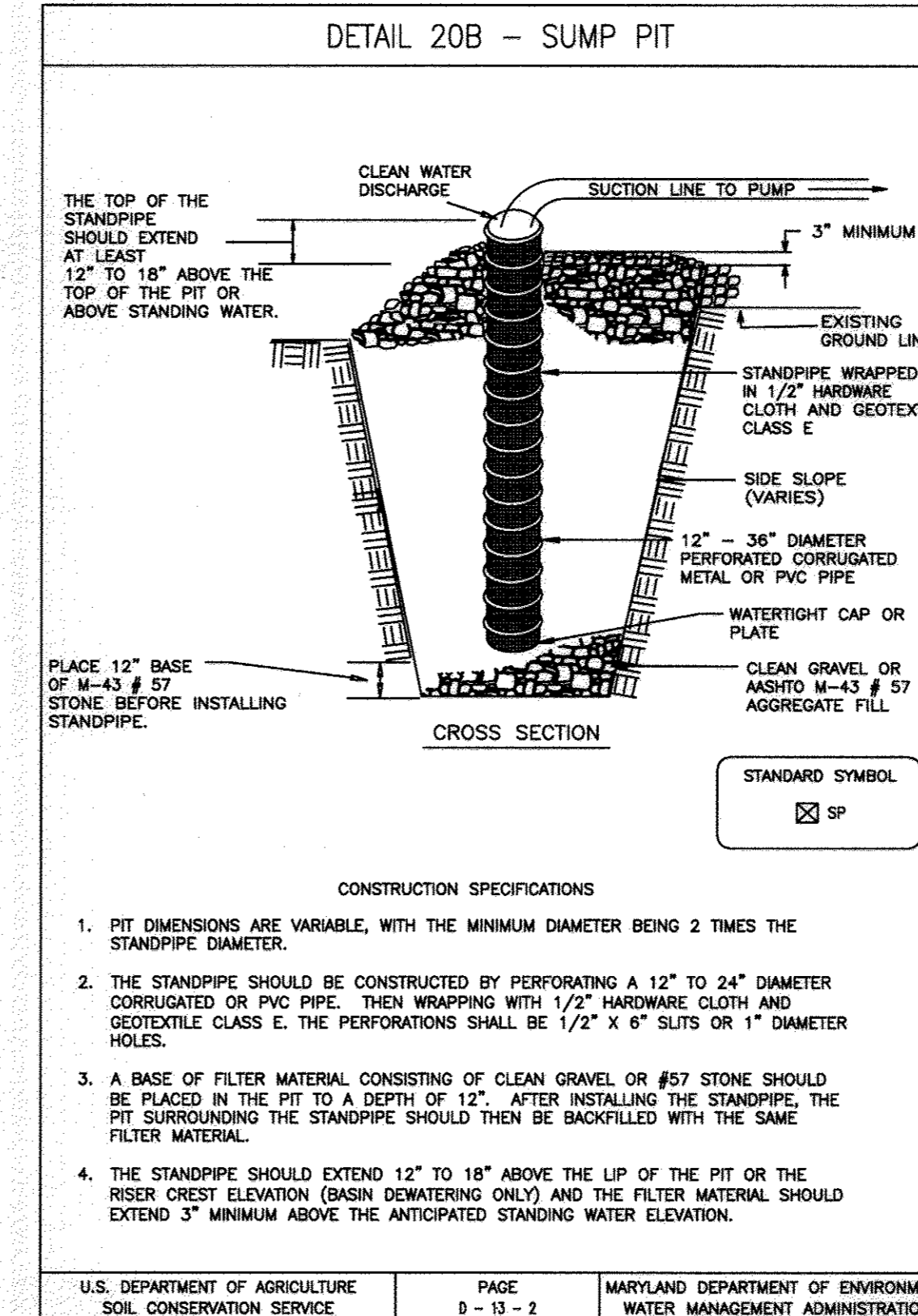
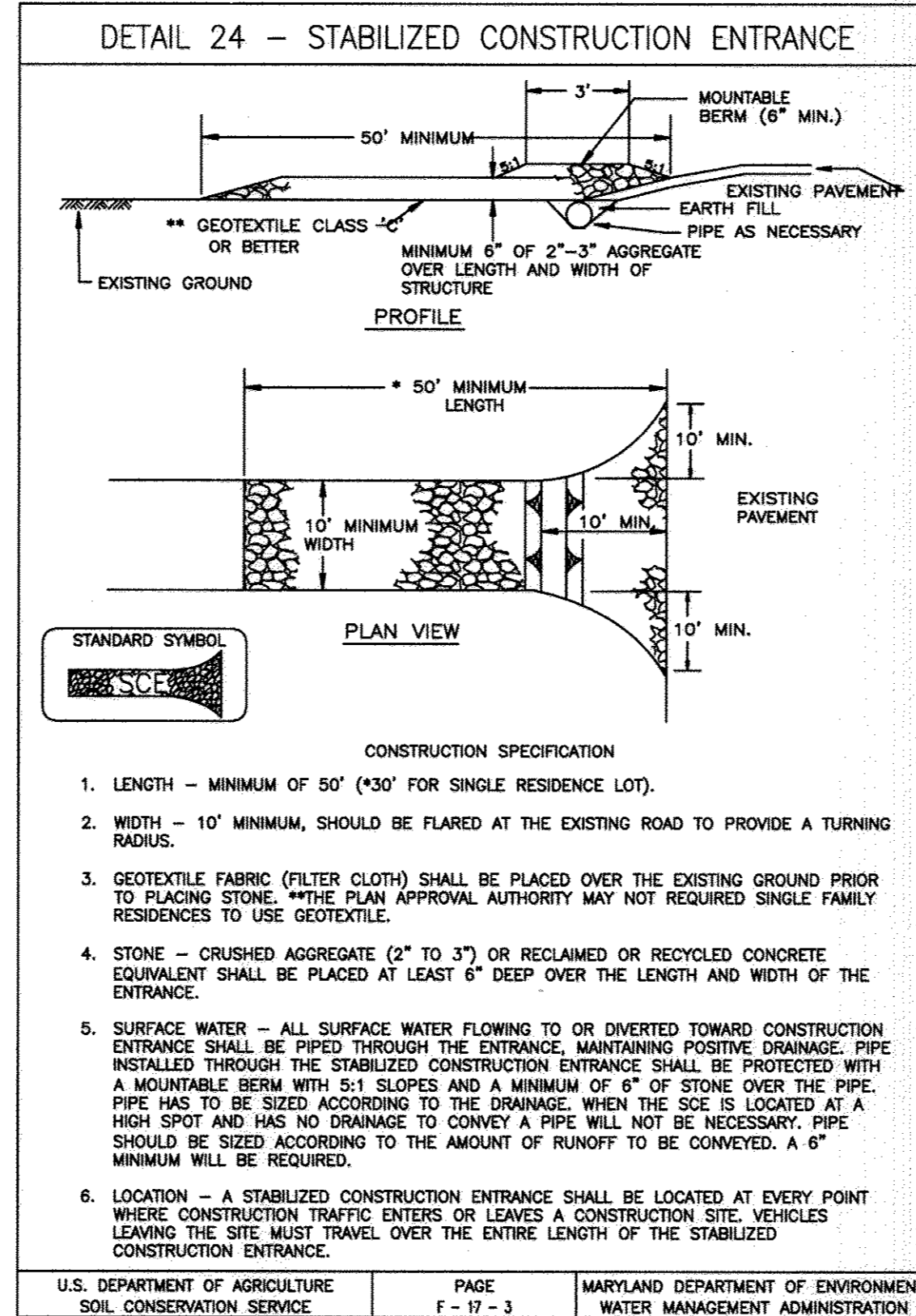
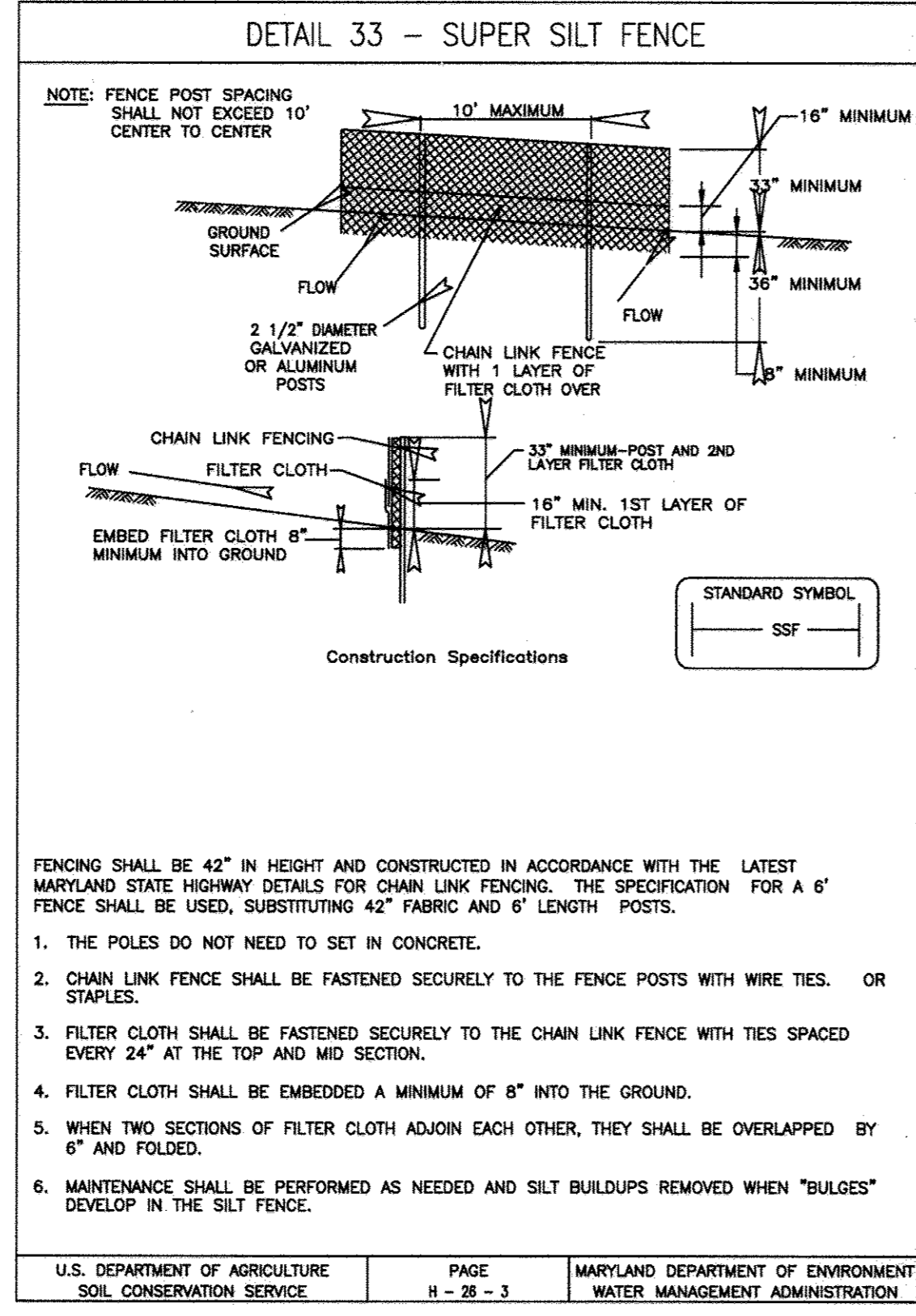
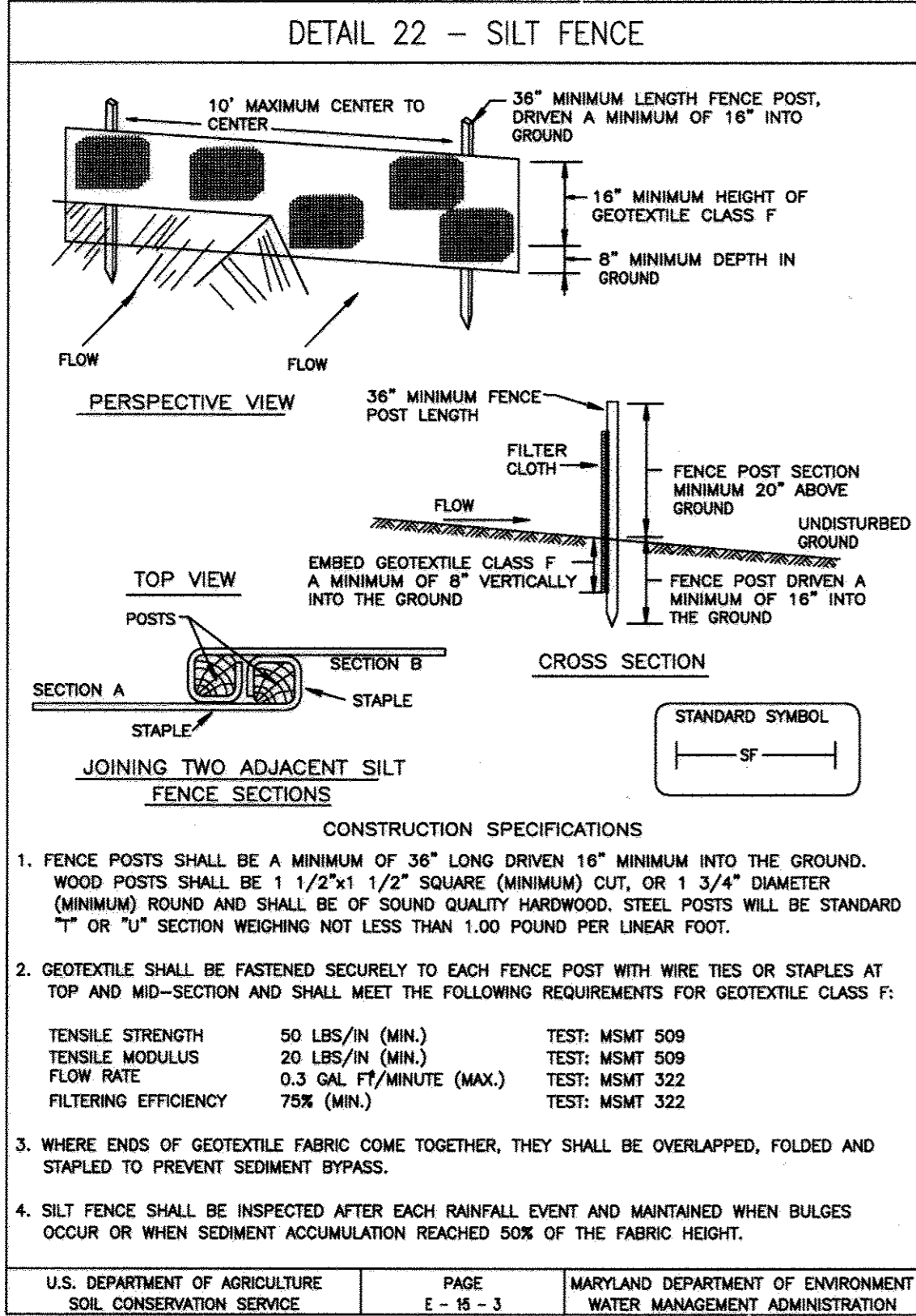
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
John Cleary
CHIEF, BUREAU OF UTILITIES DATE: 5/10/09

DES: AMS	
DRN: GHS	
CHK: LHH	
DATE: -	1-13-17
	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8Y
CIVIL
ROAD PROFILE & LAYOUT

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 72 OF 611
CG-13
SDP SHEET 39 OF 59



Approved by
HSCCD-5/26/09-John R. Roberts

APPROVED: DEPARTMENT OF PLANNING AND ZONING	DATE: 5-27-09
Chief, Development Engineering Division	DATE: 5/27/09
Chief, Division of Land Development	DATE: 5/28/09
Director, DEP	DATE:

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Signature of Engineer: Daniel Ward
Date: 5/10/09

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Signature of Engineer: Daniel Ward
Date: 5/10/09

PBS&J
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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.: 23359, EXPIRATION DATE: 8/13/10.

Signature: Daniel M. Schaefer
REGISTERED PROFESSIONAL ENGINEER
DATE: 4/20/09
FIRM: PBS&J

**DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND**

DES: AMS
DRN: KEG
CHK: LHH
DATE: 1-13-17

REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-9A
CIVIL

EROSION AND SEDIMENT CONTROL
DETAILS

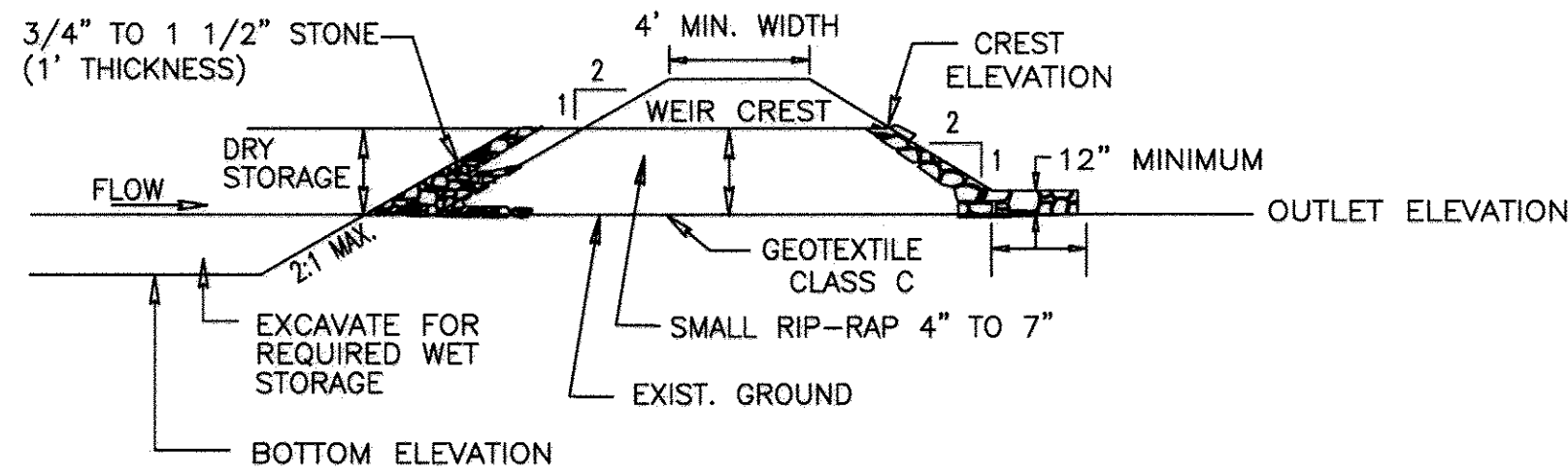
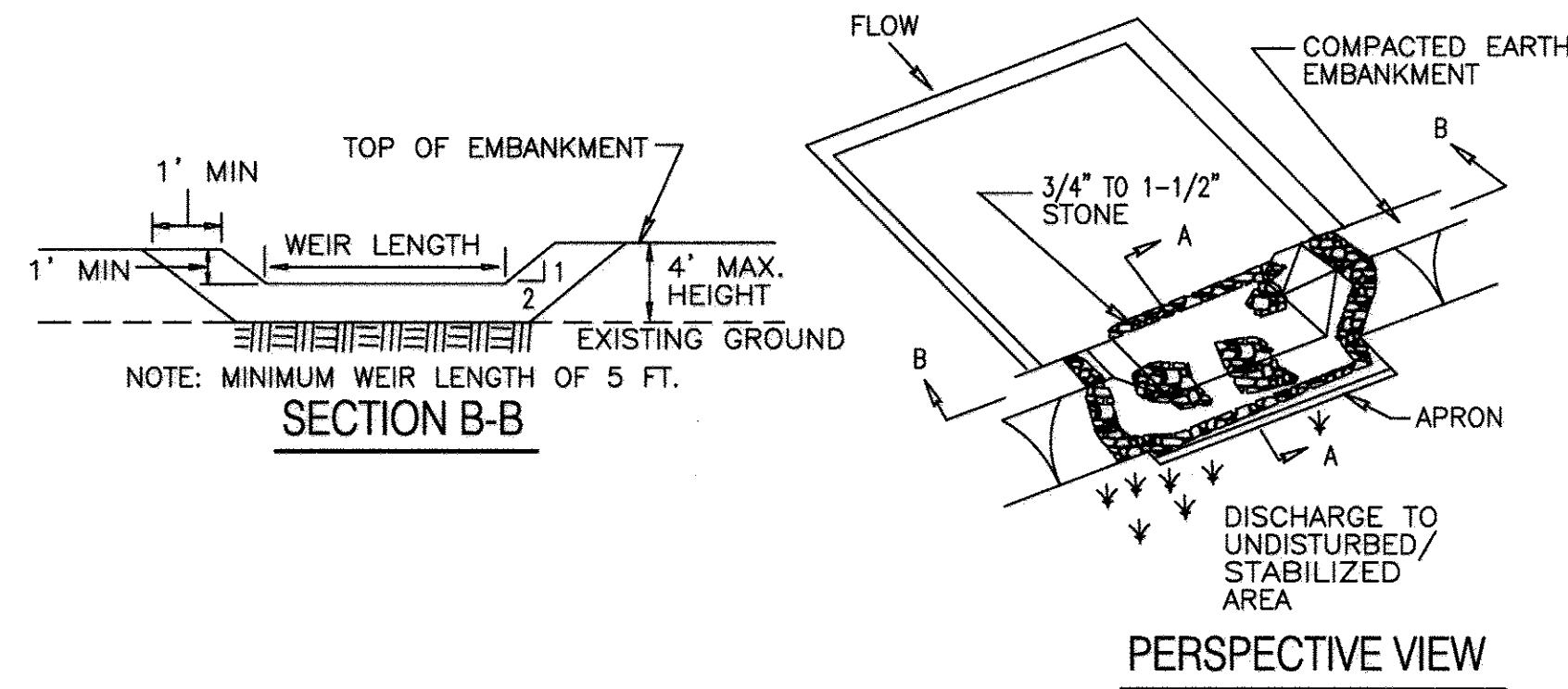
REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598

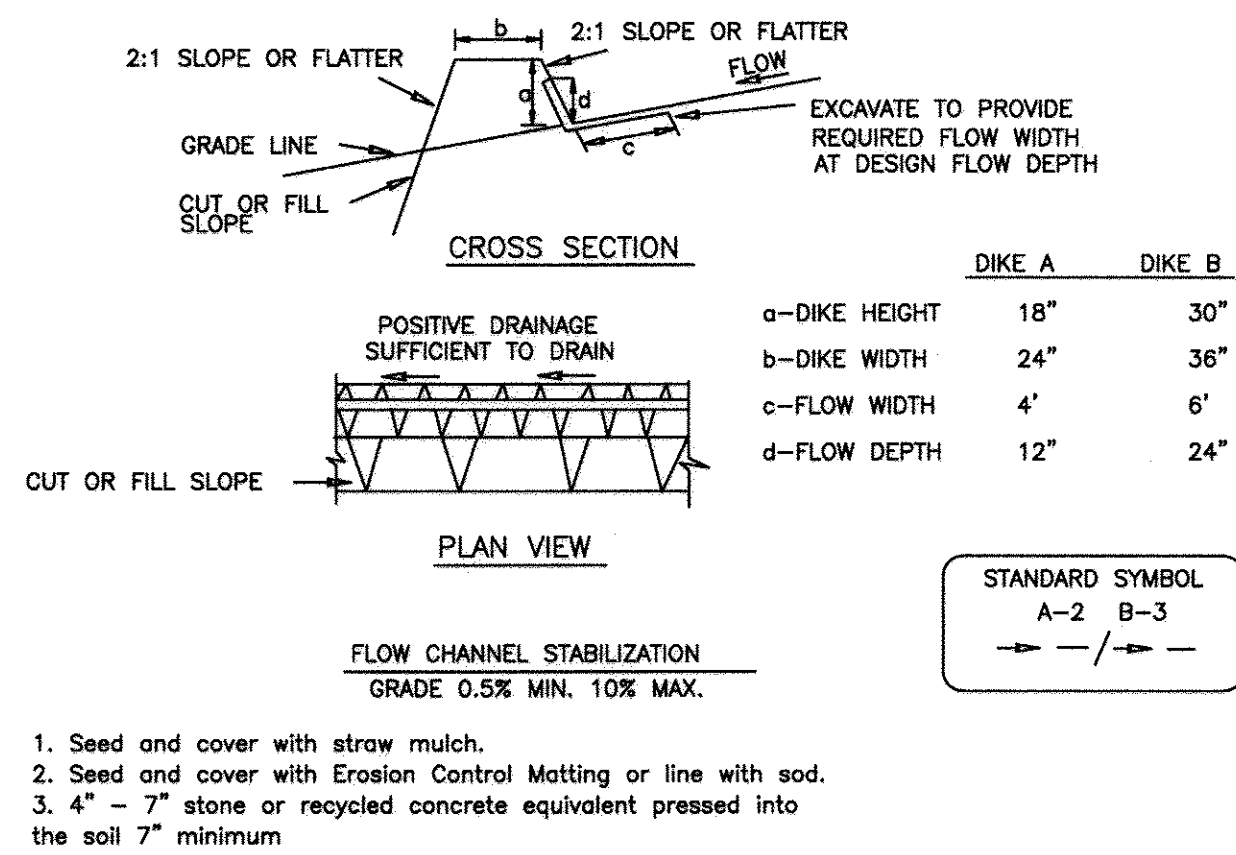
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 57 OF 611
CE-13
SDP SHEET 40 OF 59



SECTION A-A
TST-1: STONE OUTLET SEDIMENT TRAP
NTS
BASED ON MDE DETAIL #8

DETAIL 1 - EARTH DIKE



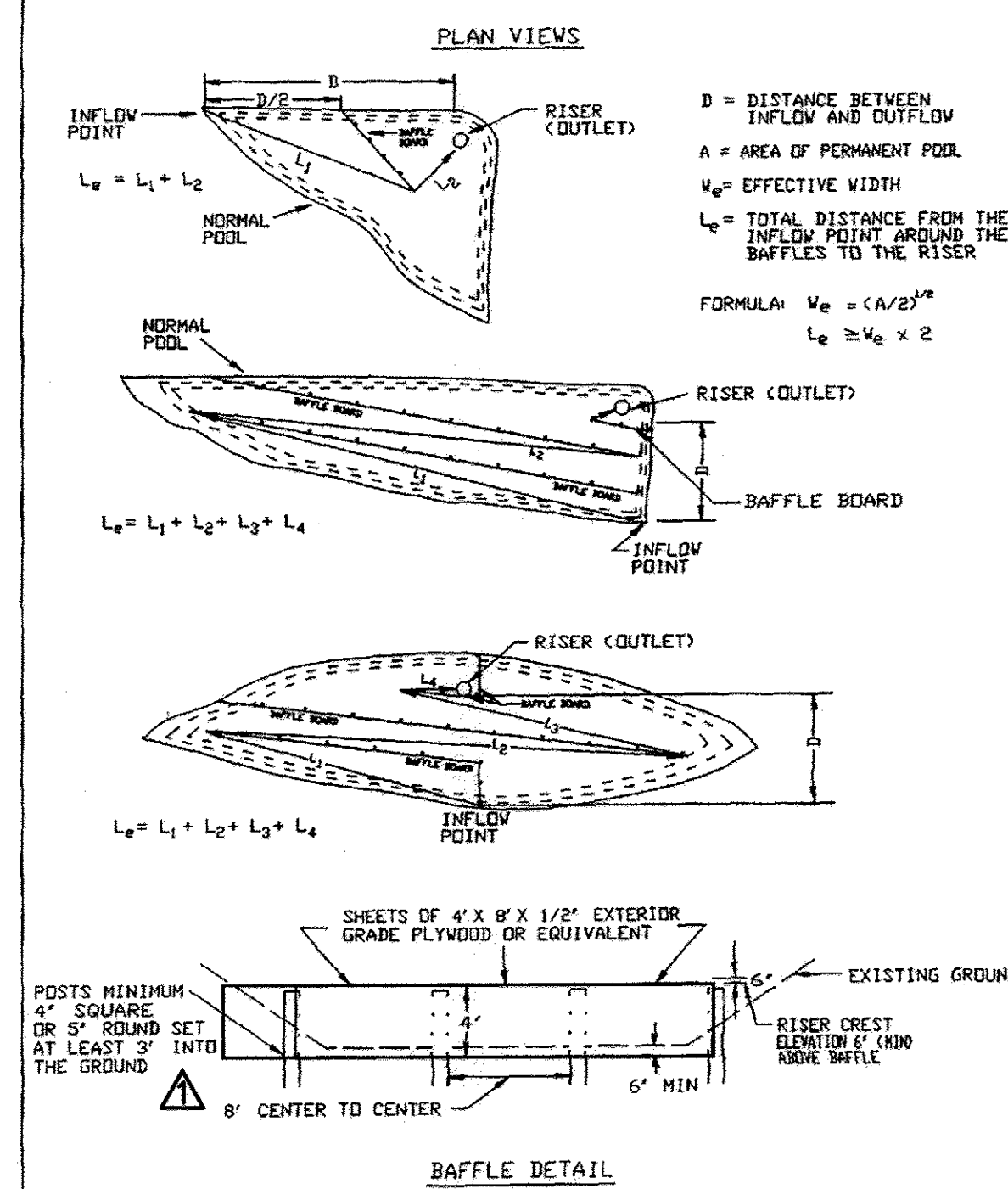
- Construction Specifications
1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
 2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
 4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
 6. Fill shall be compacted by earth moving equipment.
 7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
 8. Inspection and maintenance must be provided periodically and after each rain event.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE A-1 - 6 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

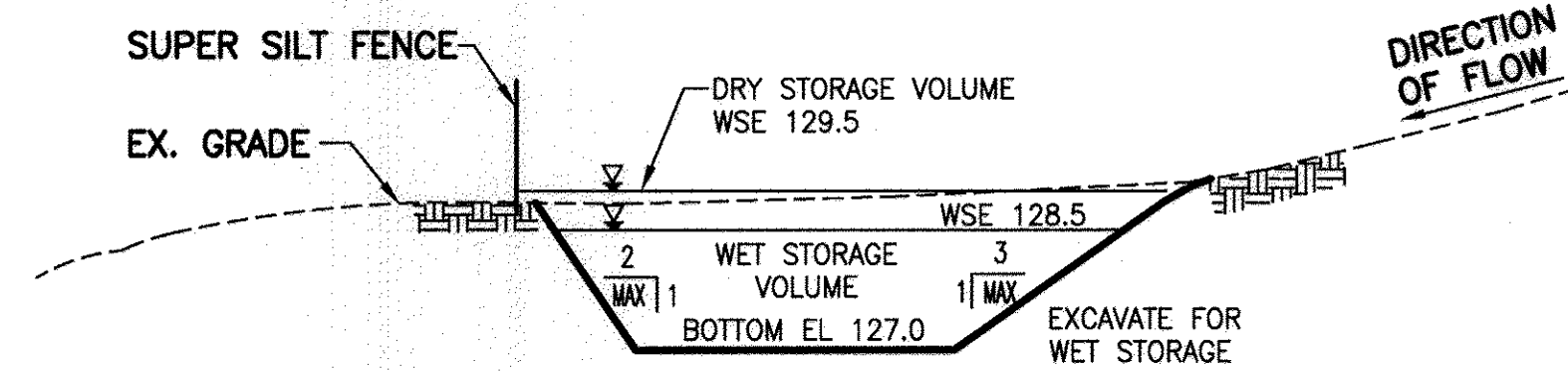
CONSTRUCTION SPECIFICATIONS [REF: 1994 MD STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL]

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AND DRYING AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIP-RAP 4" TO 7" IN SIZE WITH A 1" THICK LAYER OF 3/4" TO 1 1/2" WASHED AGGREGATE PLACED ON THE UPSTREAM FACE OF THE OUTLET. STONE FACING SHALL BE AS NECESSARY TO PREVENT CLOGGING. GEOTEXTILE CLASS C MAY BE SUBSTITUTED FOR THE STONE FACING BY PLACING IT ON THE INSIDE FACE OF THE STONE OUTLET.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE WET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
6. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT POLLUTION IS ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATION INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP.
8. THE STRUCTURE SHALL BE DEWATERED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
9. REFER TO SECTION D FOR SPECIFICATIONS CONCERNING TRAP DEWATERING.
10. MINIMUM TRAP DEPTH SHALL BE MEASURED FROM THE WEIR ELEVATION.
11. THE ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO THE TRAP MUST EQUAL OR EXCEED THE ELEVATION OF THE TRAP EMBANKMENT.
12. GEOTEXTILE CLASS C SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO THE PLACEMENT OF STONE. SECTIONS OF FILTER CLOTH MUST OVERLAP AT LEAST 1' WITH THE SECTION NEAREST THE ENTRANCE PLACED ON TOP. THE FILTER CLOTH SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT THE ENTRANCE OF THE OUTLET CHANNEL.
13. OUTLET - AN OUTLET SHALL BE PROVIDED, INCLUDING A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL.
14. THREE FOOT HIGH SAFETY FENCE SHALL BE PROVIDED AROUND SEDIMENT TRAPS.

SEDIMENT TRAP BAFFLE BOARD



U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE PAGE 3 - 15 - 32 WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

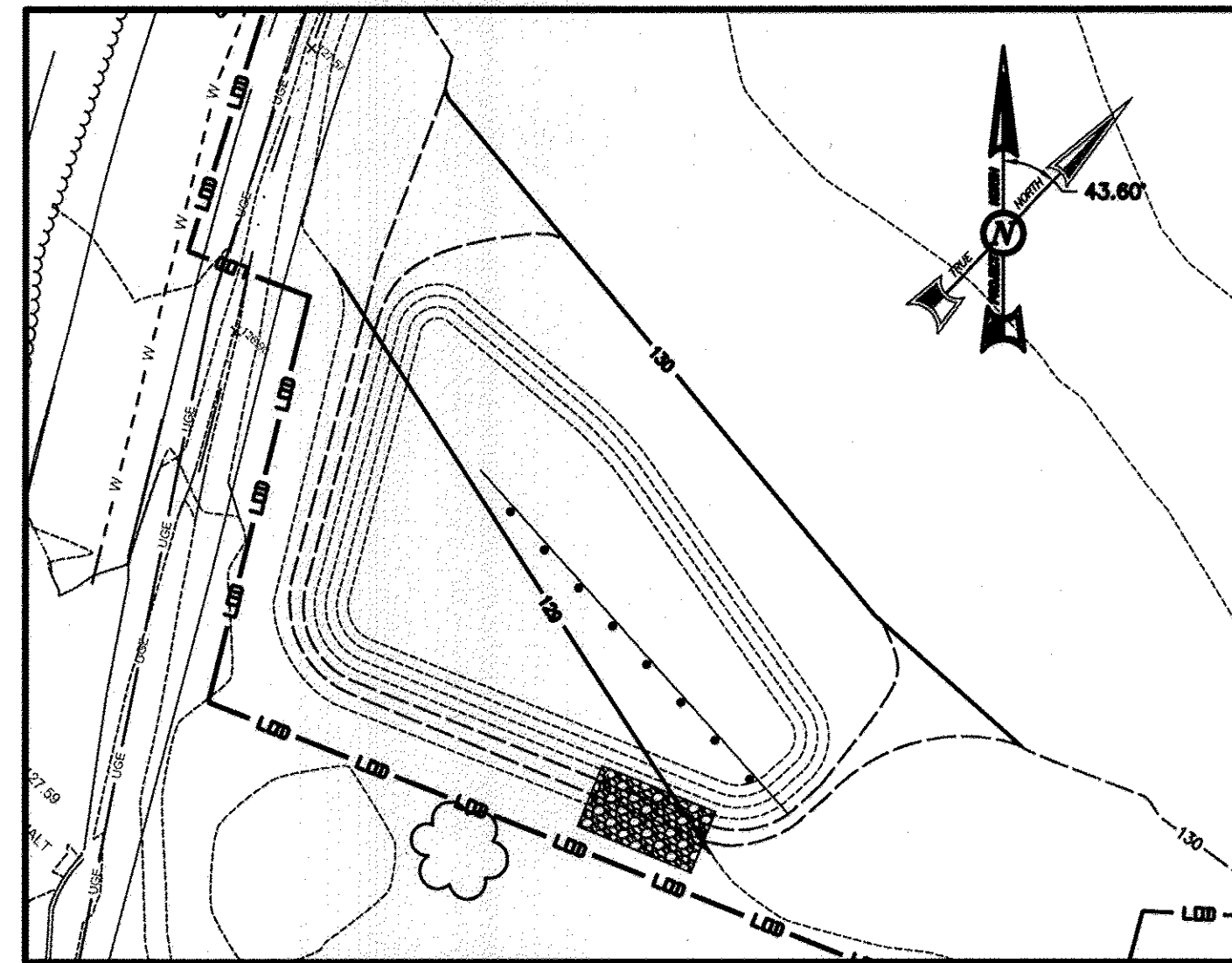


1. CONSTRUCTION SPECIFICATIONS FOR STONE OUTLET SEDIMENT TRAP SHALL APPLY, EXCEPT FOR NOTES 10 & 12.
2. USE SUPER SILT FENCE TO PROVIDE DRY STORAGE VOLUME AND ACT AS THE OUTLET CONTROL. PLACE SUPER SILT FENCE AT THE DOWNSTREAM END OF THE SEDIMENT TRAP. SUPER SILT FENCE THAT IS PLACED AT THE SEDIMENT TRAP MUST REMAIN CLEAR OF SEDIMENT. INSPECT SEDIMENT TRAP SILT FENCE OUTLET PERIODICALLY AND AFTER RAIN EVENTS.

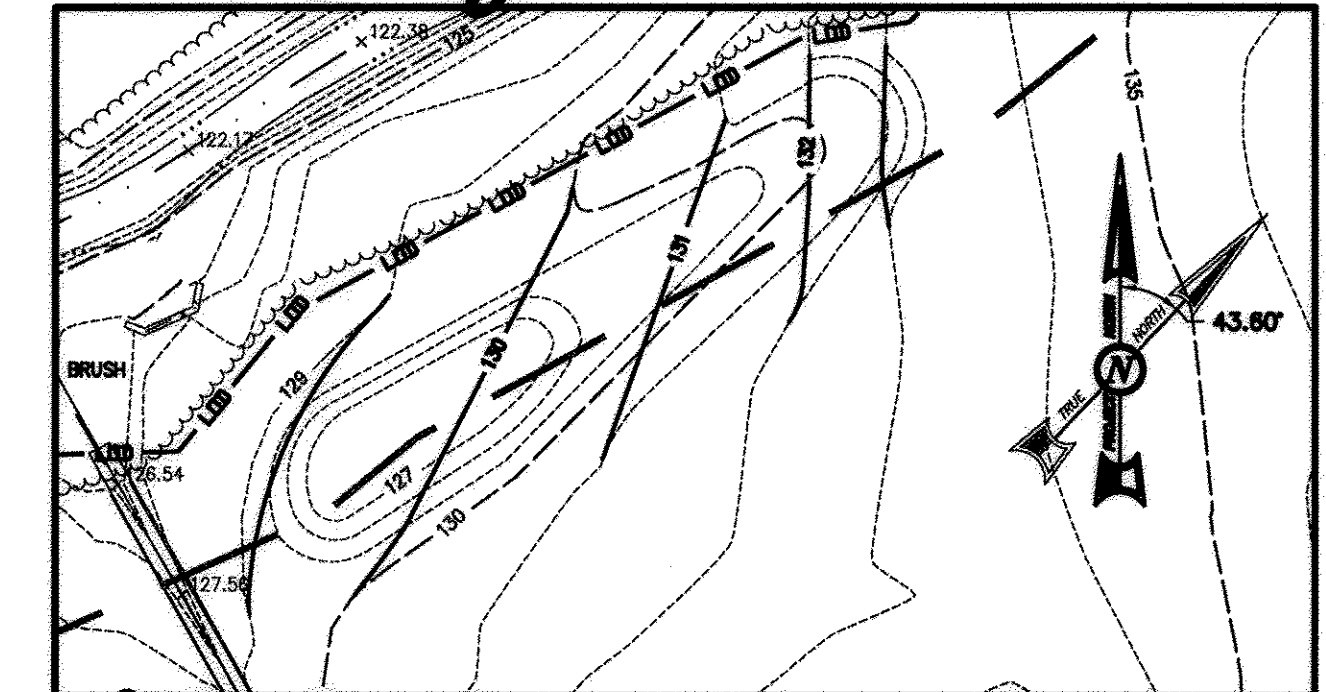
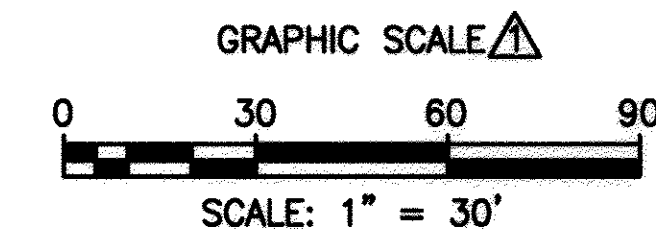
TST-2: CONSTRAINED AREA SEDIMENT TRAP
NTS

SEDIMENT TRAP COMPUTATIONS											
SEDIMENT TRAP NO.	DRAINAGE AREA ACRE	REQUIRED DRY STORAGE CUBIC FT	PROVIDED DRY STORAGE CUBIC FT	REQUIRED WET STORAGE CUBIC FT	PROVIDED WET STORAGE CUBIC FT	TRAP BOTTOM ELEVATION FT	LENGTH FT	WIDTH FT	DEPTH FT	WEIR LENGTH FT	OUTLET ELEVATION FT
TST-1	3.85	6,930	28,771	6,930	11,305	126	*	*	2.8	16	WEIR: 130.0 OUTLET: 128.8
TST-2	0.70	1,260	1,260	1,260	1,260	127	46	14*	2.7	40±	OUTLET: 129.2

NOTE: LENGTH AND WIDTH ARE MEASURED AT THE BOTTOM OF TRAP.
* MINIMUM LENGTH AND/OR WIDTH NOT POSSIBLE WITHIN AVAILABLE AREA.
TST-1: INSTALL BAFFLE BOARD TO INCREASE LENGTH OF FLOW WITHIN TRAP.
EFFECTIVE LENGTH: 142 FT
EFFECTIVE WIDTH: APPROX 20 FT



TST-1 RESTORATION PLAN



TST-2 RESTORATION PLAN

- SEDIMENT TRAP RESTORATION NOTES:
1. DEWATER TRAP AND ALLOW TO DRY TO OPTIMUM WATER CONTENT FOR PLACING FILL MATERIAL.
 2. REMOVE SEDIMENT, OUTLET MATERIALS, AND DEBRIS. DISPOSE IN ACCORDANCE WITH SPECIFICATION SECTION 01732.
 3. PLACE SUITABLE FILL MATERIAL TO PROPOSED GRADE SHOWN IN ACCORDANCE WITH SPECIFICATION SECTION 02200.
 4. PLACE TOPSOIL, PERMANENT SEEDING, AND MULCH IN ACCORDANCE WITH HOWARD COUNTY STANDARDS ON DRAWING CE-14.

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: Daniel Ward
DATE: 5/19/09

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Signature: [Signature]
DATE: 5/10/09

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: [Signature]
DATE: 5/27/09

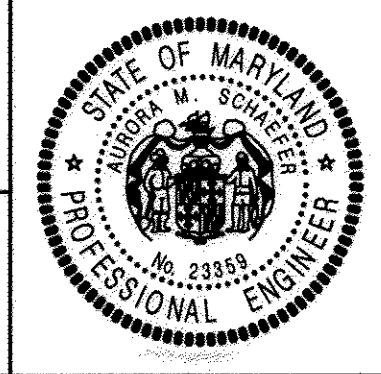
Signature: [Signature]
DATE: 5/29/09

Signature: [Signature]
DATE: 5/28/09

M:\380709-Howard County\ENR\03 Civil\CE-15 Sediment Traps.dwg 05/14/09 19:23

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156
www.pbs&j.com

Stantec Consulting Ltd.
425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
Tel. 610.444.6522
Fax. 610.444.1698
www.stantec.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. 23359, EXPIRATION DATE: 8/13/10.
Norval M. Soldo
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
PREVIOUS PROJECTS USED OTHER DATUMS
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Signature: [Signature]
CHIEF, BUREAU OF UTILITIES
DATE

DES: AMS	
DRN: SLB	
CHK: LHH	1-13-17
DATE: -	5/14/09

REVISED SHEET TOTAL
REVISED PER HOWARD CO. SDP COMMENTS
DATED APRIL 29, 2009

HOWARD COUNTY SDP SHEET C-9B
CIVIL

TEMPORARY SEDIMENT TRAP DETAILS
AND RESTORATION PLAN

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-8245.E
CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 29 OF 611
CE-15
SDP SHEET 41 OF 59

SDP-00-094

HOWARD SOIL CONSERVATION DISTRICT
PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1. PREFERRED --- APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.)

2. ACCEPTABLE --- APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING --- FOR THE PERIODS MARCH 1 --- APRIL 30, AND AUGUST 1 --- OCTOBER 15, SEED WITH 60 LBS/ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 --- JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS/ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 --- FEBRUARY 28, PROTECT SITE BY:

OPTION 1 --- TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.

OPTION 2 --- USE SOD.

OPTION 3 --- SEED WITH 60 LBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING --- APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

MAINTENANCE --- INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: --- LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: --- APPLY 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.).

SEEDING: --- FOR PERIODS MARCH 1 --- APRIL 30 AND FROM AUGUST 15 --- OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 --- AUGUST 14, SEED WITH 3 LBS/ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 --- FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING --- APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED WEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

PERMANENT SEEDING SUMMARY								
SEEDING MIXTURE (FOR HARDINESS ZONE 6b) FROM NIDE TABLE 25				FERTILIZER RATE (10-20-20)			LIME RATE	
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20	
3	TALL FESCUE PERENNIAL RYE KENTUCKY BLUEGRASS	125 15 10	3/1 - 5/15 8/15 - 10/15	1/4 - 1/2	90 lb/ac (15 lb/1000 sq ft)	175 lb/ac (4 lb/1000 sq ft)	175 lb/ac (4 lb/1000 sq ft)	2 tons/ac (1000 lb/1000 sq ft)
7	TALL FESCUE WEEPING LOVEGRASS SERICIA LESPEDEZA	110 3 20	3/1 - 10/15	1/4 - 1/2				

HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1,
 - 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

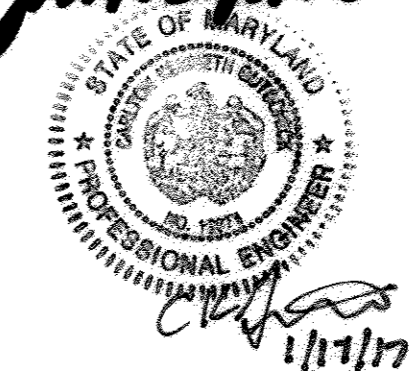
NOTE: THIS SHEET FOR SDP REVISION 14 AND PREVIOUS FOR SDP REVISION 15 (ADDITION NO. B) SEE SHEETS 56 & 57.

SEQUENCE OF CONSTRUCTION ACTIVITIES		APPROXIMATE TIME
PHASE I: SITE PREPARATION		Total: 5 +/- Months
1	Obtain Grading Permit	---
2	Stakeout the LOD for facility construction and manually install high-visibility orange fencing where the LOD borders wetland buffers and forested areas.	1 Week
3	Pre-Construction Meeting: Meet with Howard County DILP, Sediment Control Division prior to start of construction. See General Note 1.	---
4	Construct Stabilized Construction Entrances.	1 Week
5	Install tree protection.	Concurrent with 4
6	Install perimeter sediment control measures, including super silt fence, diversion fence, and sediment traps. County inspection required. See General Note 2.	2 Weeks
7	Install inlet protection for existing storm drain inlets.	Concurrent with 6
8	Clear and grub brush and small trees within limits of proposed work for new facilities.	2 Weeks
9	Strip and stockpile topsoil within limits of proposed work for new facilities.	Concurrent with 8
10	Rough grade new facility areas and construction roads.	4 Weeks
11	Install dewatering devices. A. All dewatering flow shall be run through a sediment filter bag or other dewatering device before discharging. B. Sediment filter bags shall be placed on undisturbed ground. C. Divert clear water from dewatering devices into the storm drainage system. No storm water or silt can be diverted to the wastewater treatment system.	Concurrent with 10
12	Demolish concrete swale at east side construction site (north of Filter Circle) to limits shown.	Concurrent with 10
13	Install new north (relocated) and east storm drain (SD) systems.	Concurrent with 10
14	Install inlet protection on new storm drain inlets immediately after installation.	Concurrent with 13
15	Demolish portion of existing north storm drainage system within area of new construction.	Following installation of north SD system
16	Stabilize disturbed areas outside of new structure construction areas with Permanent Seeding.	Concurrent with 13
17	Construct temporary construction access roads within areas of work.	Concurrent with 10
18	Install excavation support systems.	4 Weeks
19	Perform test pitting for utilities not found during nondestructive subsurface utility investigations.	Concurrent with 18
20	Begin structural excavations for new facilities.	8 Weeks / Concurrent with 18
21	Place suitable structural backfill within stockpile areas designated on the drawings. Excess and unsuitable shall be removed from site in accordance with specification Section 02200.	Concurrent with 20
22	Install dewatering devices in structural excavation areas. Notes 11A, 11B, and 11C apply.	Concurrent with 20
PHASE II: FACILITY CONSTRUCTION		Total: 31 +/- Months
23	Finalize structural excavations.	1 Month
24	Construct new structure and building foundations.	6 Months
25	Continue construction of new structures and buildings.	24 Months
26	Place backfill around major structures.	Concurrent with 25
27	Install new yard piping and utilities.	Concurrent with 25
28	Complete final grading for new roads and paved areas. Stabilize with gravel.	1 Month
29	Install concrete pads, walkways, and curbing. Pave roadways.	Concurrent with 28
30	Complete final grading of entire site. Place topsoil and stabilize with Permanent Seeding.	1 Month
31	After the site is stabilized and with the approval of the County Sediment Control Inspector, remove all sediment control measures and install permanent vegetation on the disturbed areas.	1 Month

HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES (CONTINUED)

- SITE ANALYSIS FOR THIS PROJECT:
 - TOTAL AREA OF SITE..... 56.20 ACRES
 - TOTAL AREA DISTURBED..... 10.29 ACRES
 - TOTAL NEW AREA TO BE ROOFED OR PAVED..... 1.13 ACRES
 - TOTAL NEW AREA TO BE VEGETATIVELY STABILIZED..... 9.16 ACRES
 - TOTAL CUT..... 29,000± CU YDS
 - TOTAL FILL..... 15,000± CU YDS
 - OFFSITE WASTE/BORROW AREA LOCATION..... 14,000± CU YDS
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.

Approved by
HSCD
5/28/09
John M. Robertson



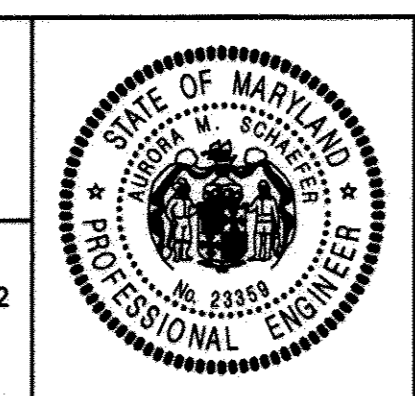
APPROVED: DEPARTMENT OF PLANNING AND ZONING	5-27-9
Chief, DEVELOPMENT ENGINEERING DIVISION	DATE: 5/28/09
Chief, DIVISION OF LAND DEVELOPMENT	DATE: 5/28/09
DIRECTOR, DEP.	DATE:

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Signature of Engineer: Daniel Ward
Date: 5/10/09

DEVELOPER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
Signature of Engineer: Daniel Ward
Date: 5/19/09

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
TELEPHONE: (301) 210-6800
FAX: (301) 210-4156
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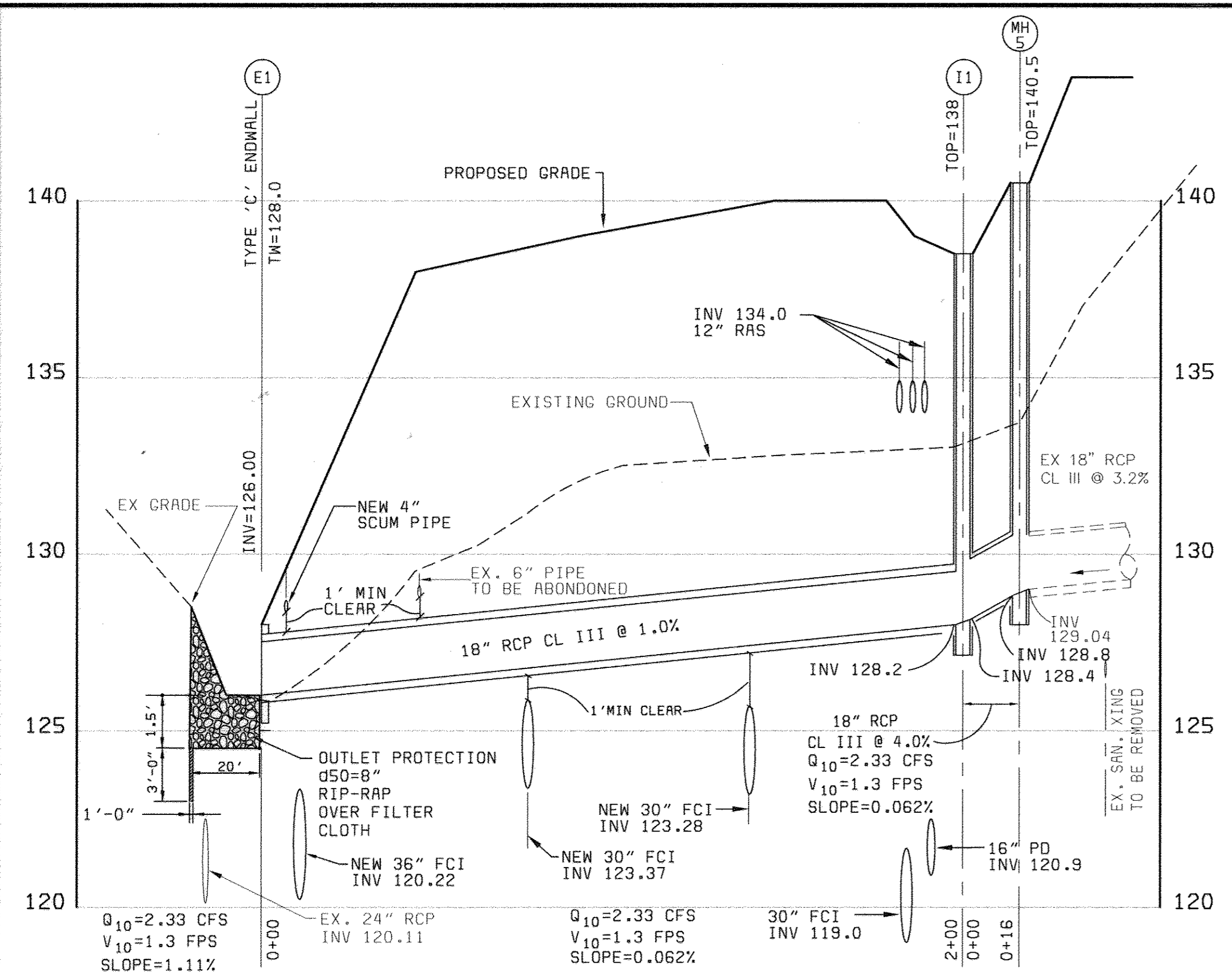
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO.: 23359, EXPIRATION DATE: 8/13/10
REGISTERED PROFESSIONAL ENGINEER
DATE: 4/20/09
FIRM: PBS&J

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM
PREVIOUS PROJECTS USED OTHER DATUMS
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.68 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

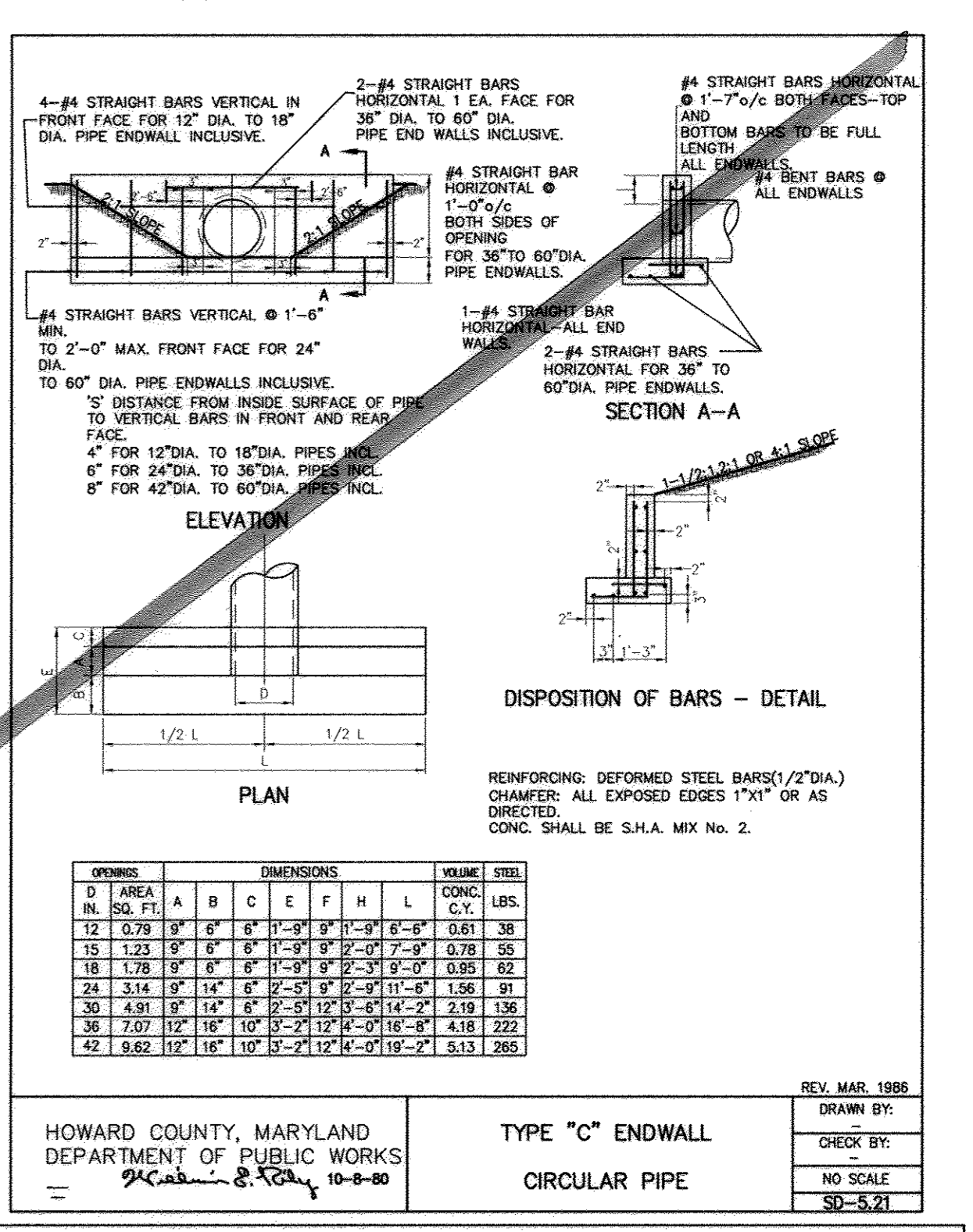
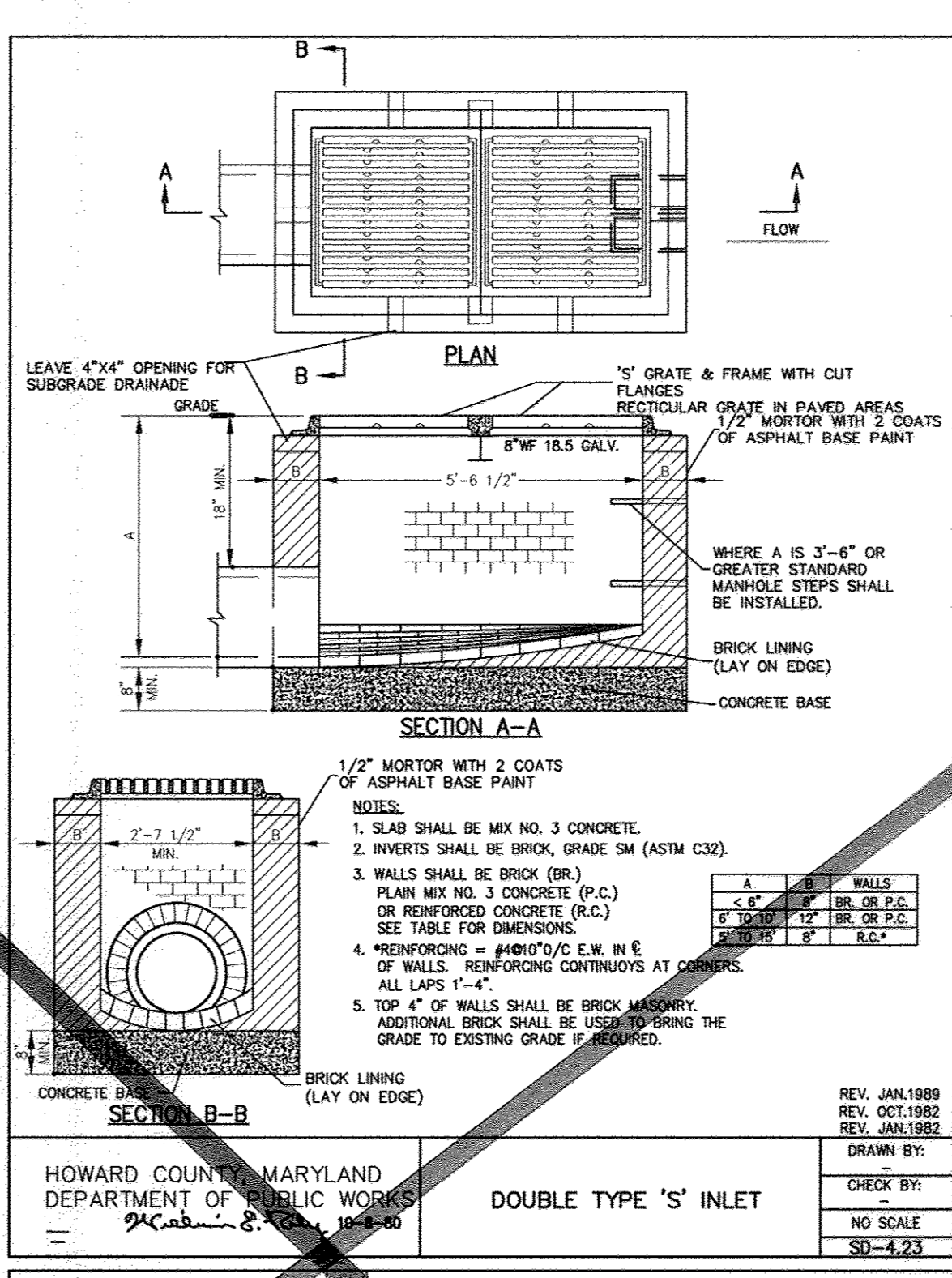
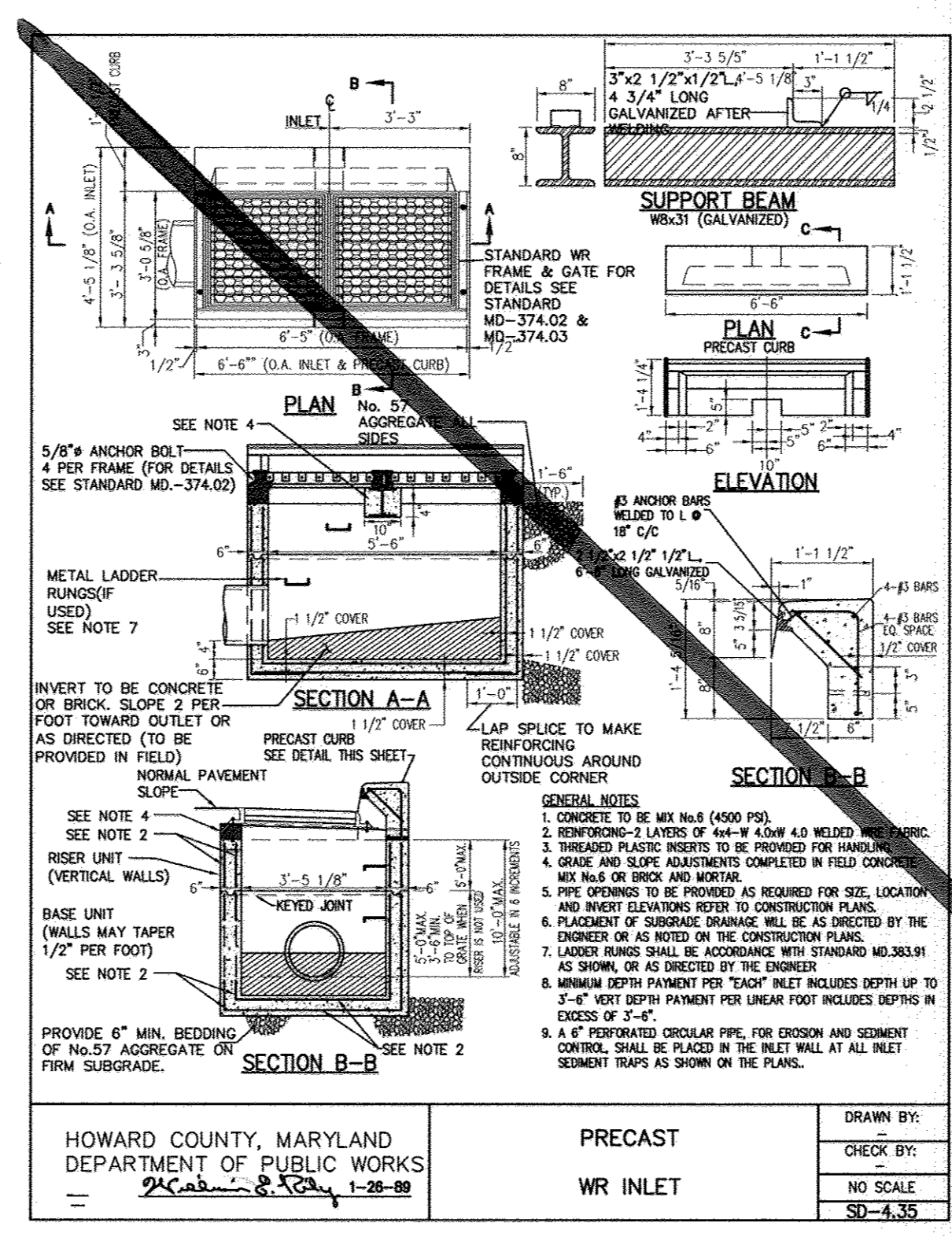
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DES: AMS
DRN: KEG
CHK: LHH
DATE: 1/17/17
CHIEF, BUREAU OF UTILITIES: [Signature] DATE: 5/19/09

HOWARD COUNTY SDP SHEET C-10A CIVIL	REVISED SITE DEVELOPMENT PLAN - REV. NO. 10 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872	SCALE AS SHOWN
EROSION AND SEDIMENT CONTROL NOTES	LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS	CONTRACT SHEET 58 OF 611
	CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621 CONTRACT NO. 60-4598	SDP SHEET 42 OF 59
	ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND	

SDP-00-094



STORM DRAIN PROFILE **EXISTING PIPE**



STRUCTURE SCHEDULE					
NO.	STRUCTURE	INVERT IN	INVERT OUT	TOP ELEV.	REMARKS
I1	INLET (WR FRAME GRATE)	128.4	129.20	138.00	Ho. Co. SD-4.23
I2	INLET	120.97	120.87	127.00	Ho. Co. SD-4.35
MH1	MANHOLE	120.40	120.40	131.0	Ho. Co. 05.12
MH2	MANHOLE	121.32	121.22	129.0	Ho. Co. 05.12
MH3	MANHOLE	122.20	122.10	140.00	Ho. Co. 05.12
MH4	MANHOLE	122.76	122.76	142.40	Ho. Co. 05.12
MH5	MANHOLE		128.8	140.50	Ho. Co. 05.12
E-1	ENDWALL		126.0		Ho. Co. SD-5.21
MH7	MANHOLE	132.68±	132.68±	140.56±	Ho. Co. 05.12

PIPE SCHEDULE			
FROM	TO	PIPE	LENGTH
MH5	TO I1	18" RCP CL III	35 LF
I1	TO E-1	18" RCP CL III	180 LF
MH7	TO E-2	15" RCP CL III	130 LF
MH4	TO MH3	24" RCP CL III	57 LF
MH3	TO MH2	24" RCP CL III	76 LF
MH2	TO I2	24" RCP CL III	27 LF
I2	TO MH1	24" RCP CL III	25 LF

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	PARKING BAYS APARTMENT AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE 4" GRADED AGGREGATE BASE (GAB)
P-2	RESIDENTIAL ZONES LOCAL CUL-DE-SAC STS. ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS. TRAVELWAYS APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY*	1 1/2" BIT. CONC. SURFACE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 6" GRADED AGGREGATE BASE (GAB)
P-3	RESIDENTIAL ZONES MINOR AND MAJOR COLLECTORS COMMERCIAL-INDUSTRIAL ZONES LOCAL CUL-DE-SAC STREETS ALLEYS TRAVELWAYS	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 5" GRADED AGGREGATE BASE (GAB)
P-4	COMMERCIAL-INDUSTRIAL ZONES MINOR COLLECTOR	1 1/2" BIT. CONC. SURFACE 3 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 4" GRADED AGGREGATE BASE (GAB)

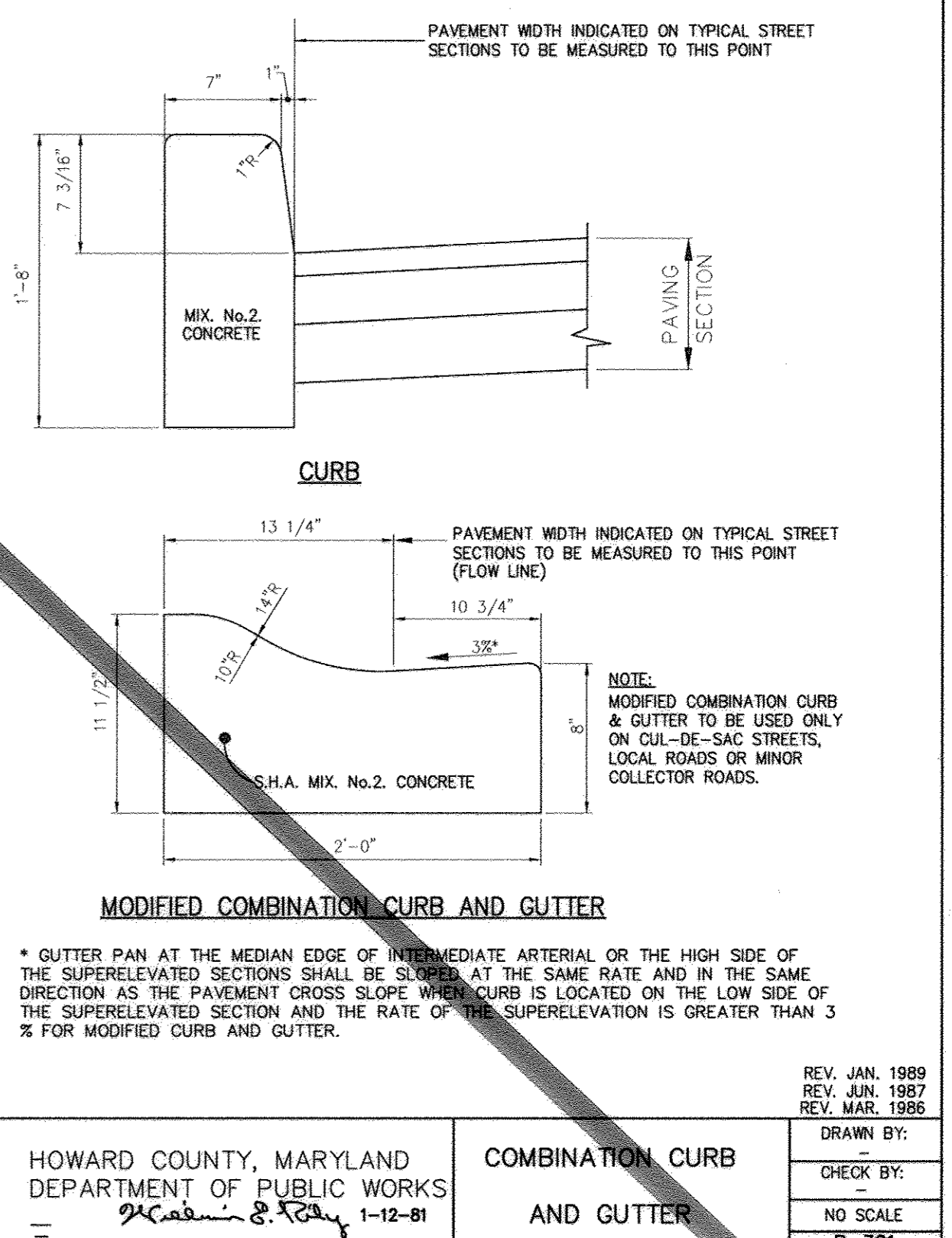
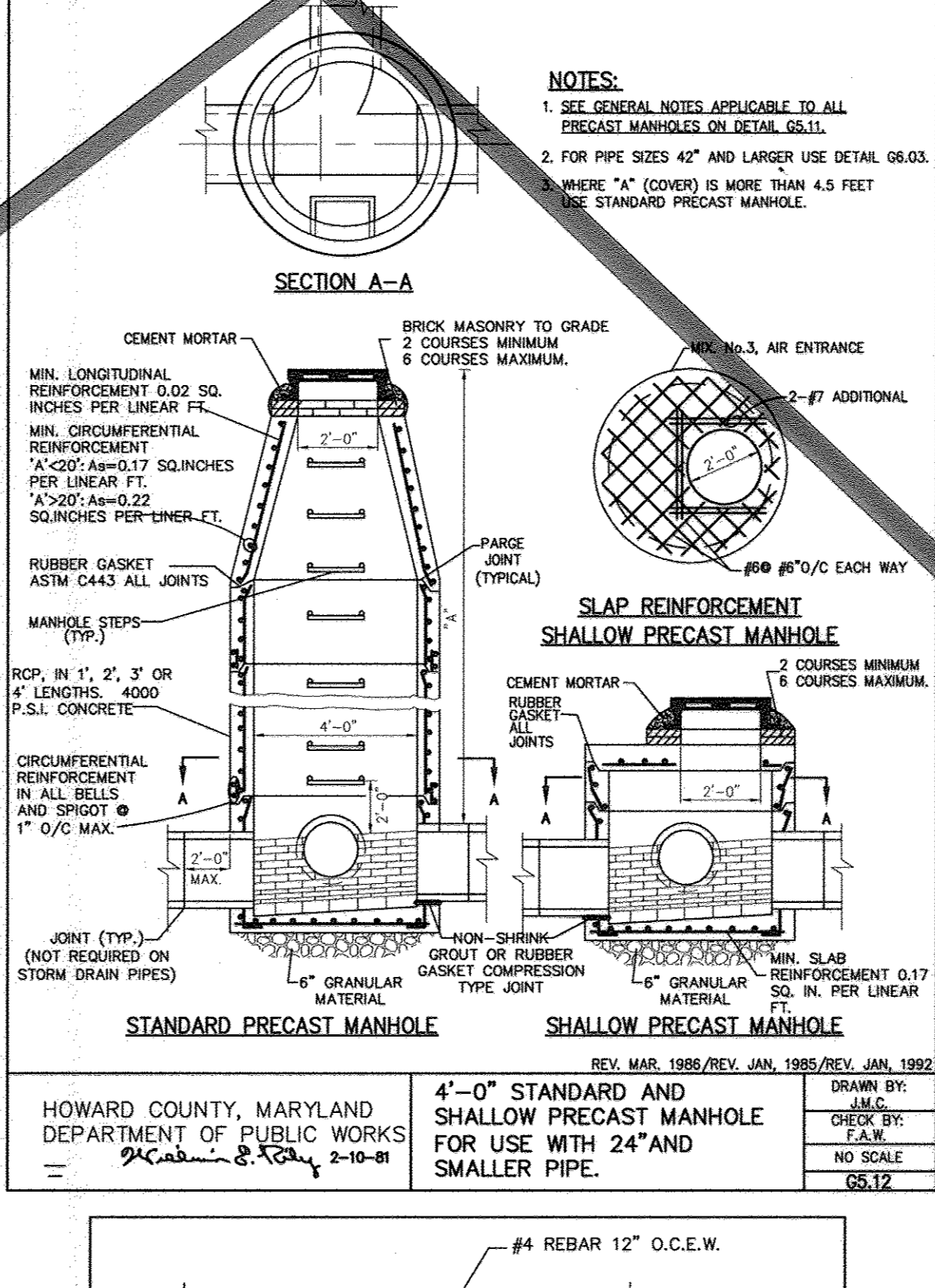
*TRAVELWAYS ARE DEFINED AS THE ROADWAYS LEADING TO THE PARKING BAYS.
*HEAVY TRUCKS ARE DEFINED AS THOSE WITH 6 WHEEL OR MORE INCLUDING GARBAGE TRUCKS.

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
1-12-81

PAVING SECTIONS
P-1 THROUGH P-4

REV. OCT. 1990
REV. JAN. 1989
REV. JAN. 1982

DRAWN BY: R-2.01
CHECK BY: NO SCALE
NO SCALE

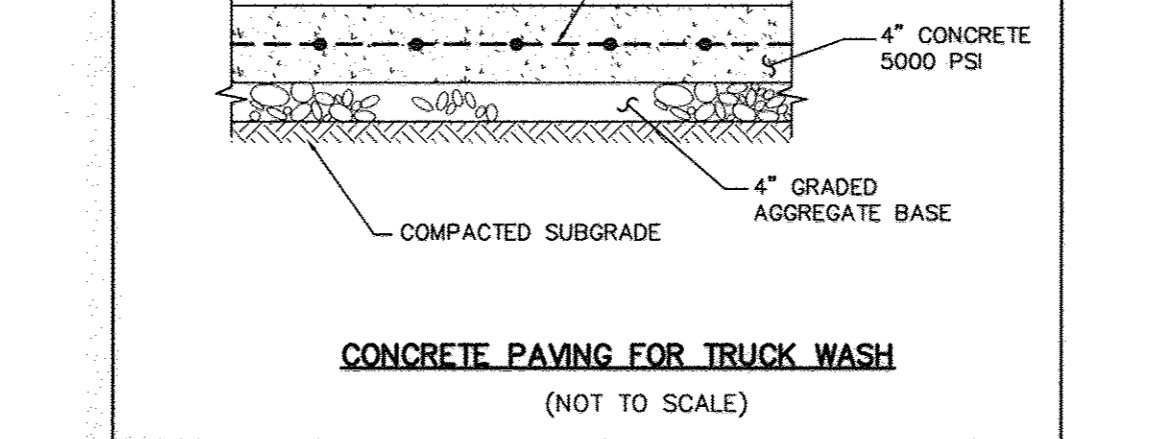
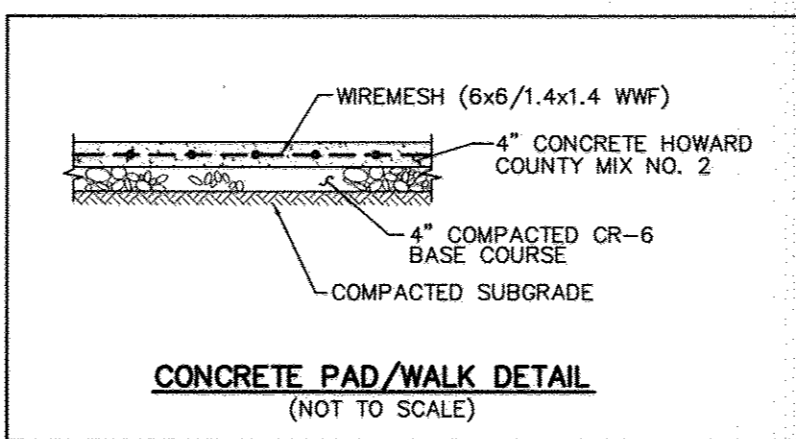


APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: 6/2/00

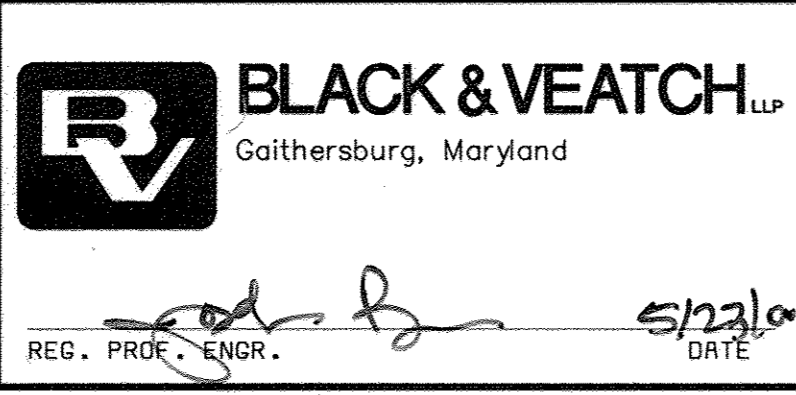
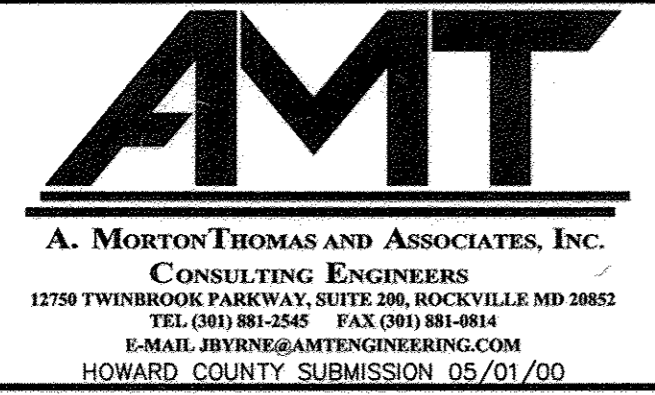
CHIEF, DIVISION OF LAND DEVELOPMENT: 6/2/00

DIRECTOR: 6/2/00



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert Berman 5-26-00
CHIEF, BUREAU OF UTILITIES DATE



DES:	AR				
DRN:	REA				
CHK:	JB	1-13-17	REVISED SHEET TOTAL		
		4-10-09	DELETED DETAILS AND REVISED SHEET NUMBER PER REDLINE REVISION 10.		
DATE:	05/01/00		REVISIONS AND RECORD OF ISSUE		

CIVIL

REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148

STORM SEWER PROFILE AND SITE DETAILS

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 6
PARCEL "A"
CAPITAL PROJECT S-6205
CONTRACT NO
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 43 OF 59

C-11

SDP00-97

M:\380709-Howard County\ENR\03 Civil\CM-01 Storm Sewer and Site Details.dwg 05/14/09_20:02

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Paul Elwood DATE: 5-27-09

CHIEF, DEVELOPMENT ENGINEERING DIVISION

David H. Smith DATE: 5/20/09

CHIEF, DIVISION OF LAND DEVELOPMENT

Christina L. Suttle DATE: 5/20/09

DIRECTOR, DEP.

ENGINEER'S CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Norval M. Szwed DATE: 5/10/09

SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE)

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Daniel Wood DATE: 5/19/09

SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE)

PBS&J 12101 INDIAN CREEK COURT BELTSVILLE, MARYLAND 20705 TELEPHONE: (301) 210-6800 FAX: (301) 210-4156 www.pbs&j.com

Stantec Consulting Ltd. 425 McFarlan Road, Ste. 205 Kennett Square, PA 19348-2412 Tel. 610.444.6522 Fax. 610.444.1698 www.stantec.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.: 23359, EXPIRATION DATE: 8/13/10.

Norval M. Szwed

REGISTERED PROFESSIONAL ENGINEER

4/20/09 **PBS&J** DATE
FIRM

NOTICE TO CONTRACTORS

PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM

PREVIOUS PROJECTS USED OTHER DATUMS

APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:

- ADDITION NO. 6: SUBTRACT 0.68 FT

- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

John Cleon DATE: 5/13/17

CHIEF, BUREAU OF UTILITIES

DES: AMS	
DRN: KEG	
CHK: LHH	
DATE: -	
DATE: 1-13-17	REVISED SHEET TOTAL
REVISIONS AND RECORD OF ISSUE	

HOWARD COUNTY SDP SHEET C-11A CIVIL

STORM SEWER AND SITE DETAILS

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10

PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621 CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

CONTRACT SHEET 94 OF 611

CM-1

SDP SHEET 44 OF 59

TYPE 'S' INLET

Detail D-4.22

GENERAL NOTES:

- BOTTOM AND WALLS SHALL BE MIX NO. 6 CONCRETE.
- REINFORCING-2 LAYERS OF #4 W/O WELDED WIRE FABRIC.
- B=12" WHERE A IS LESS THAN 6"
- B=12" WHERE A IS 6" TO 14"
- TOP 4" OF WALLS SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRADE TO EXISTING GRADE IF REQUIRED.
- 5.8 IN WALLS SHALL BE REINFORCED WITH #1 @ 12" O/C IN THE CENTER OF SLAB OR WALL.
- TOP 4" OF WALL SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRADE TO EXISTING GRADE IF REQUIRED.
- SLAB AND WALLS SHALL BE MIX NO. 6 CONCRETE.

TYPE 'S' COMBINATION INLET

Detail D-4.32

NOTES:

- INVERT SHALL BE APPROVED PLAN MIX NO. 6 CONCRETE OR BRICK LAD ON EDGE. INVERT TO SLAVE OVER TOWER INLET AT THE SIDE OF 2" PER FOOT OR AS SHOWN ON PLAN OR AS DIRECTED. INVERT BRICK SHALL BE ASTM C321-91 GRADE SS.
- WALLS SHALL BE REINFORCED CONCRETE.
- 5.8 IN WALLS SHALL BE REINFORCED WITH #1 @ 12" O/C IN THE CENTER OF SLAB OR WALL.
- TOP 4" OF WALL SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRADE TO EXISTING GRADE IF REQUIRED.
- SLAB AND WALLS SHALL BE MIX NO. 6 CONCRETE.

STANDARD YARD INLET

Detail E-3.02

NOTES:

- FOR SEWERS 18" AND SMALLER DIAMETER, DISCONNECT SEWER AS SHOWN. INSERT MECHANICAL PLUGS, PLACE CONCRETE, PAINTING AND COAT WITH TWO COATS OF ASPHALT-BASED COATING.
- FOR SEWER 18" AND LARGER DIAMETER SAME AS 18" AND SMALLER EXCEPT MASONRY SOUPLEND MAY BE SUBSTITUTED FOR MASONRY PLUG.
- REINFORCE AND FILL EXISTING CHANNEL AS NECESSARY TO PROVIDE SMOOTH CONTOUR BETWEEN INCOMING AND OUTGOING PIPES.

ABANDONMENT PIPE AT MANHOLE

Detail E-3.02

NOTES:

- MANHOLE BASE SECTION SHALL BE BEDDED ON 6-INCH NO. 57 AGGREGATE ON FIRM SUBGRADE.
- NO. 57 AGGREGATE MANDATORY SHALL BE EXTENDED FROM 6-INCHES UNDERNEATH BOTTOM OF STRUCTURE TO SUBGRADE (STORM ONLY).
- CONNECTION BETWEEN MANHOLE WALL AND CONSUMER SHALL BE NON-SHANK GASKET (STORM) OR RUBBER GASKET (SANITARY SEWER).
- MANHOLE STEPS SHALL BE AS INDICATED ON DETAIL G-5.11.
- MANHOLE COVER SHALL BE AS SPECIFIED ON DETAIL G-5.11, G-5.52, & G-5.53.
- PROVIDE TWO APPLICATIONS OF BITUMINOUS MATERIAL (MINIMUM 15 MILS DFT) COATING ON EXTERIOR SURFACE OF MANHOLES (SANITARY SEWER ONLY).
- MANHOLE CHANNELS SHALL BE FORMED TO PROVIDE A SMOOTH HYDRAULIC TRANSITION BETWEEN PIPES. BENCH SHALL BE TO TOP OF PIPE OR AS SHOWN ON CONTRACT DOCUMENTS. MANHOLE CHANNEL AND BENCH SHALL BE PRECAST OR FORMED FROM SEARCH BRICK SET ON EDGE.
- MANHOLE SHALL BE IN ACCORDANCE WITH ASTM C-478 EXCEPT AS INDICATED.
- MAXIMUM INVERT DIFFERENTIAL IS 6 INCHES WITHOUT A DROP CONNECTION. SEE DETAIL S-1.32 FOR DROP CONNECTION DETAILS.
- THE MINIMUM DISTANCE BETWEEN PIPE OPENINGS IN THE WALL OF THE MANHOLE SHALL BE 12 INCHES.
- A MINIMUM OF 2" SHALL BE PROVIDED BETWEEN MANHOLE FLOOR AND LOWEST PIPE INVERT.
- PRECAST FRINGS MAY BE SUPPLIED IN PLACE OF BRICK MASONRY COVERS. SEE DETAIL G-5.50.
- MANHOLE INTERMEDIATE LANDINGS SHALL BE AS INDICATED ON DETAIL G-5.16.

PRECAST MANHOLE

Notes G-5.11

GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES:

- MANHOLE FRAME AND COVER SHALL BE PRECAST CONCRETE. COVER SHALL BE 24" DIA. PIPE ENDS WALLS INCLUSIVE.
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₁ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₁ = 0.02 SQ IN/FT
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₂ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₂ = 0.02 SQ IN/FT
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₃ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₃ = 0.02 SQ IN/FT
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₄ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₄ = 0.02 SQ IN/FT
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₅ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₅ = 0.02 SQ IN/FT
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₆ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₆ = 0.02 SQ IN/FT
- MINIMUM LONGITUDINAL REINFORCING FOR ALL SECTIONS A₇ = 0.02 SQ IN/FT
- MINIMUM CIRCUMFERENTIAL REINFORCING FOR ALL SECTIONS A₇ = 0.02 SQ IN/FT

PRECAST MANHOLE

Detail G-5.12

NOTES:

- SEE GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES ON DETAIL G-5.11.
- FOR PIPE SIZES 24" AND SMALLER USE DETAIL G-5.12.
- WHERE 'A' IS LESS THAN 4.5' USE STANDARD PRECAST MANHOLE.
- MAXIMUM INVERT DIFFERENTIAL IS 6" WITHOUT DROP CONNECTION. (SEE DETAIL S-1.32 FOR DROP CONNECTION)

SHALLOW PRECAST MANHOLE

Detail G-5.13

NOTES:

- SEE GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES ON DETAIL G-5.11.
- FOR PIPE SIZES 24" AND SMALLER USE DETAIL G-5.12.
- WHERE 'A' IS LESS THAN 4.5' USE STANDARD PRECAST MANHOLE.
- MAXIMUM INVERT DIFFERENTIAL IS 6" WITHOUT DROP CONNECTION. (SEE DETAIL S-1.32 FOR DROP CONNECTION)

TYPICAL CONCRETE APRON FOR YARD INLETS

Detail G-5.13

NOTES:

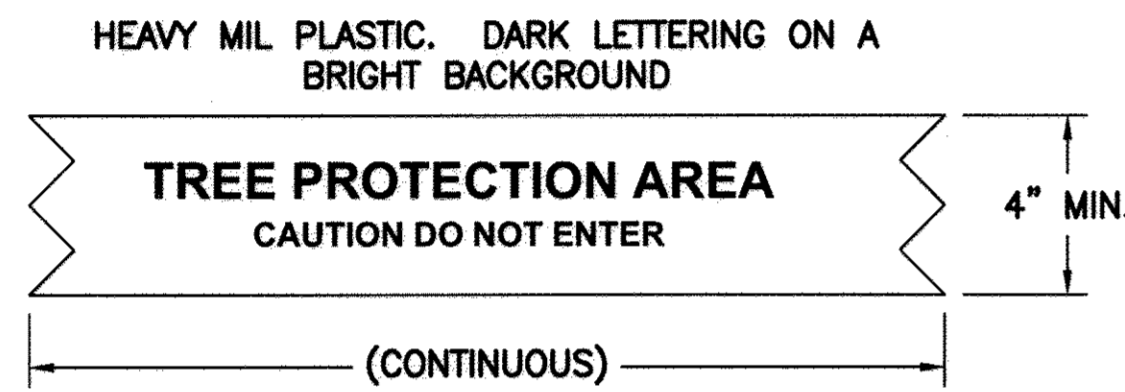
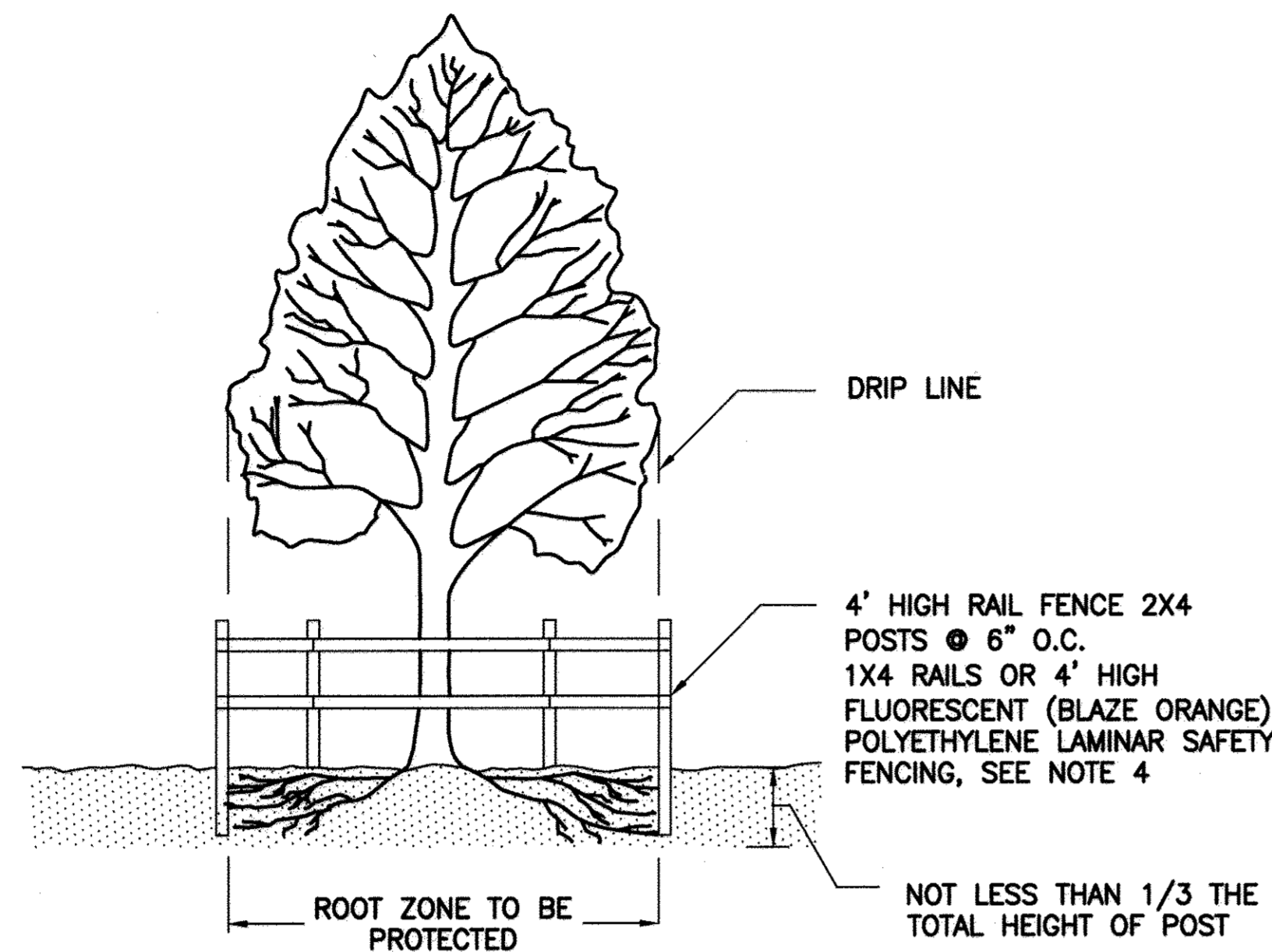
- CONCRETE APRONS TO BE BUILT ON ALL YARD INLETS. REINFORCING SHALL BE 6" X 6" NO. 6 WIRE MESH. ALL CONCRETE SHALL BE CLASS A3. LENGTH OF APRON MAY BE INCREASED TO 36" IF FIELD CONDITIONS WARRANT.
- WHEN APRONS ARE ON ADJACENT SIDES OF INLET, THE ADJOINING WINGWALLS WILL BE OMITTED AND APRON SHALL HAVE 1.5' RADIUS. WHEN INLET IS LARGER THAN 5.0' X 5.0', OPPOSITE CONCRETE APRONS SHALL BE BUILT ON CENTERLINE OF INLET; 2 ADJACENT APRONS SHALL BE BUILT ADJOINING THE COMMON CORNER; AND IF THERE ARE 3 OR 4 CONCRETE APRONS ON 1 INLET, THEN ALL APRONS SHALL BE BUILT ON CENTERLINE OF INLET.

TYPE 'C' ENDWALL

Detail G-5.14

NOTES:

- SEE GENERAL NOTES APPLICABLE TO ALL PRECAST MANHOLES ON DETAIL G-5.11.
- FOR PIPE SIZES 24" AND SMALLER USE DETAIL G-5.12.
- WHERE 'A' IS LESS THAN 4.5' USE STANDARD PRECAST MANHOLE.
- MAXIMUM INVERT DIFFERENTIAL IS 6" WITHOUT DROP CONNECTION. (SEE DETAIL S-1.32 FOR DROP CONNECTION)



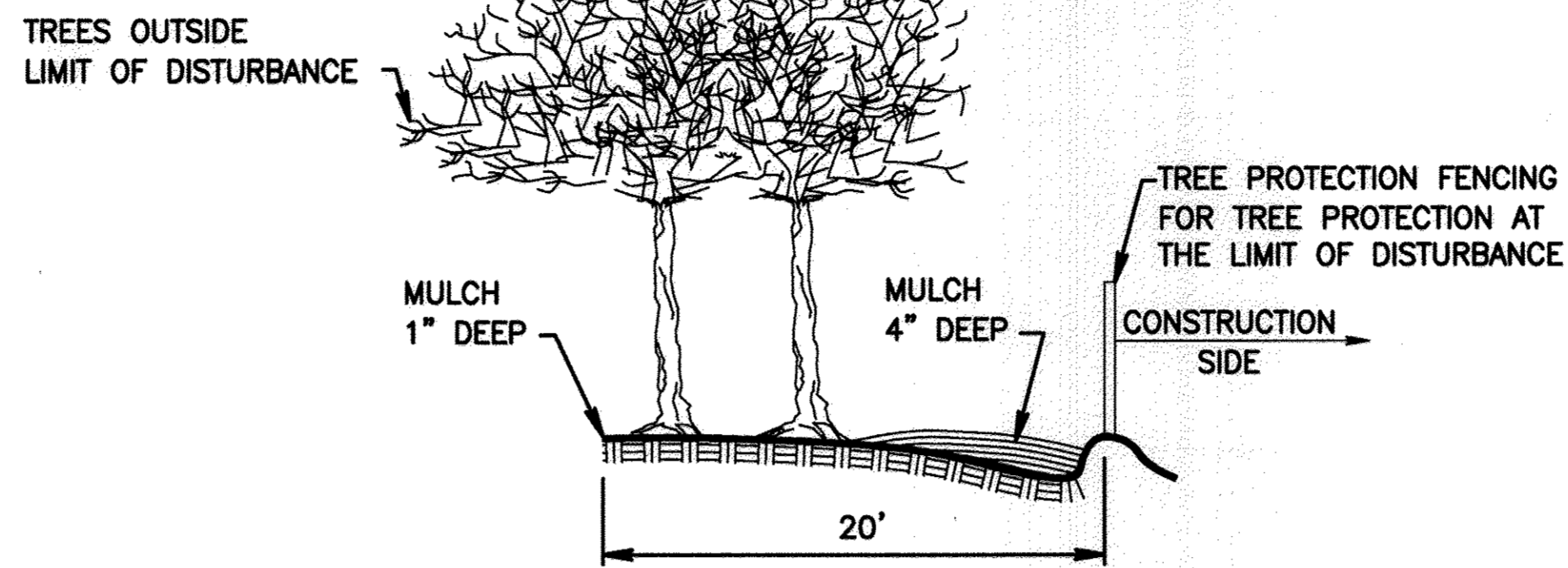
NOTES:

1. PROVIDE PROTECTION FENCE FOR ALL TREES GREATER THAN OR EQUAL TO 6" DIAMETER AND DESIGNATED TO REMAIN OR AS SHOWN ON THE DRAWINGS. RAIL FENCE SHALL BE LOCATED AT THE OUTER PERIMETER OF THE SPREAD OF THE BRANCHES, EXCEPT WHERE SHOWN ON THE DRAWINGS.
2. TREE PROTECTION FENCES SHALL BE PLACED PRIOR TO BEGINNING CONSTRUCTION. PROTECTION SIGNAGE IS REQUIRED.
3. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. USE 8" WIRE "U" TO SECURE POLYETHYLENE SAFETY FENCING AT EACH POST, TOP AND BOTTOM.

TREE PROTECTION DETAIL

NTS

C-001

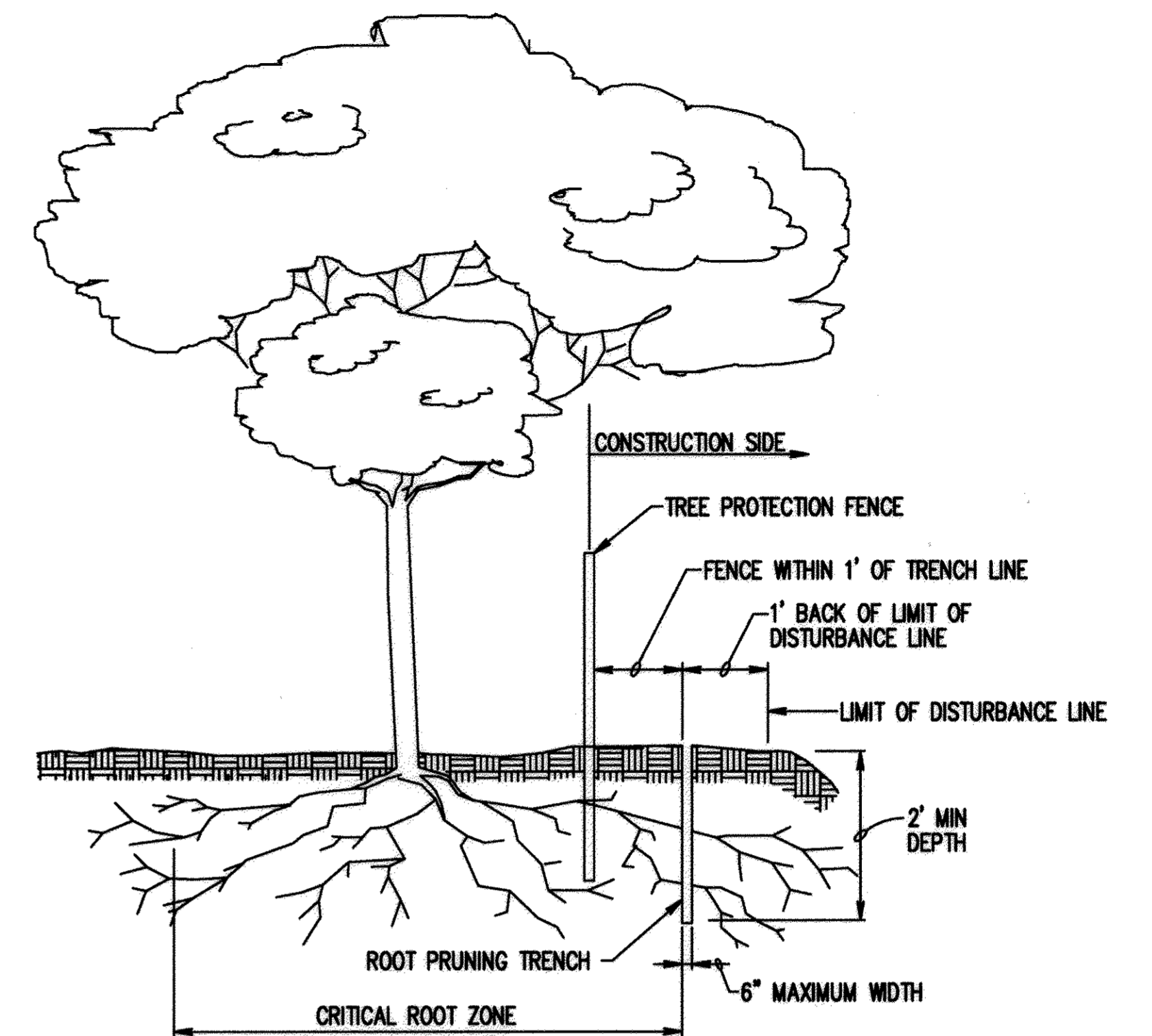


NOTE:
ONLY MULCH AREAS WITH EXISTING TREES OUTSIDE OF THE LIMIT OF DISTURBANCE AND WITHIN 20' OF THE BLAZE ORANGE FENCING. MULCH ONLY ON PROPERTY WHERE PERMISSION HAS BEEN OBTAINED PRIOR TO START OF WORK.

EXISTING TREE MULCHING DETAIL

NTS

C-002



NOTES:

1. EXACT LOCATION OF ROOT PRUNING TRENCH SHALL BE IDENTIFIED AND FLAGGED.
2. ROOTS SHOULD BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
3. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH SOIL REMOVED OR OTHER HIGH ORGANIC SOIL.

ROOT PRUNING DETAIL

NTS

C-003

TREE CONSERVATION NOTES

PRE-CONSTRUCTION ACTIVITIES

- A. LOCATE THE LIMITS OF DISTURBANCE (LOD) IN THE FIELD PRIOR TO ANY CONSTRUCTION ACTIVITIES, THEN INSTALL LOD TREE PROTECTION FENCING ALONG THE LOD AS DIRECTED AND / OR SHOWN ON THE DRAWINGS.
 1. PLACE LIMITS OF DISTURBANCE OUTSIDE OF CRITICAL ROOT ZONES OF TREES TO BE PRESERVED WHEREVER POSSIBLE.
 2. IF LESS THAN 30% OF THE CRITICAL ROOT ZONE FOR SPECIMEN TREES IS AFFECTED BY CONSTRUCTION ACTIVITIES, PRUNE THE TREE ROOTS FOR STRESS REDUCTION (SEE PRUNING DETAIL).
- B. TREE PROTECTION FENCING:
 1. PLACE BLAZE ORANGE FENCING ON ALL LIMITS OF DISTURBANCE AND AS INDICATED ON THE DRAWINGS.
 2. ALL FENCING SHALL BE INSTALLED PRIOR TO CONSTRUCTION ACTIVITIES.
 3. FIRMLY ANCHOR FENCING AT SPACING NO GREATER THAN SIX FEET AND CONSTRUCTED IN A MANNER THAT PRECLUDES SAGGING.
 4. ALL FENCING SHALL BE MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS CONDITIONS WARRANT FOR PROTECTION OF THE ADJACENT WOODLANDS.
 5. FOR SPECIMEN TREES AFFECTED BY CONSTRUCTION ACTIVITY, PLACE TREE PROTECTION FENCING PER THE ROOT PRUNING DETAIL.
- C. SIMULTANEOUS WITH CLEARING, THE FOLLOWING STEPS SHALL BE UNDERTAKEN TO REDUCE STRESS TO EXISTING TREES TO REMAIN:
 1. FERTILIZE TREES WITHIN 20 FEET OF THE LIMIT OF DISTURBANCE. OBTAIN INFORMATION REGARDING APPROPRIATE FERTILIZING AND APPLICATION RATES FROM THE CLEMSON AGRICULTURAL EXTENSION OFFICE. APPLY FERTILIZER TO THE ENTIRE CRITICAL ROOT ZONE UP TO THE TREE PROTECTION FENCING.
 2. FERTILIZER SHOULD BE AT LEAST 50 PERCENT SLOW RELEASE NITROGEN AND CONTAIN OTHER ESSENTIAL ELEMENTS AND MICRO-NUTRIENTS.
 3. WATER CRITICAL ROOT ZONE IMMEDIATELY AFTER APPLYING FERTILIZER TO SATURATE THE TOP 6 INCHES OF SOIL.
 4. A MULCH, 1 TO 4 INCHES DEEP COMPRISED OF WOOD CHIPS OR SHREDDED BARK OR LEAVES, SHALL BE APPLIED IN THE CRITICAL ROOT ZONE ADJACENT TO THE TREE PROTECTION FENCING (SEE EXISTING TREE MULCHING DETAIL).

CONSTRUCTION PHASE

- A. EXCAVATED AND BACKFILL MATERIAL SHALL NOT BE PLACED OR SIDE CAST WITHIN THE CRITICAL ROOT ZONES OF TREES TO BE PROTECTED.
- B. CONSTRUCTION EQUIPMENT SHALL NOT BE DRIVEN INTO OR THROUGH PROTECTED TREES, NOR SHALL SWINGING CRANES OR BACKHOES BE ALLOWED IN THEIR CANOPIES.
- C. THERE SHALL BE NO STACKING OR STORING SUPPLIES WITHIN THE CRITICAL ROOT ZONES OF TREES TO BE PROTECTED.
- D. TREES TO BE REMOVED SHALL BE TAKEN OUT WITHOUT DAMAGING PROTECTED TREES.
- E. ALL GRADING SHALL TAKE PLACE OUTSIDE OF THE CRITICAL ROOT ZONE OF THE TREES TO BE PROTECTED.
- F. ALL EQUIPMENT SHALL BE KEPT INSIDE THE TREE PROTECTION FENCING AND WITHIN THE LIMITS OF DISTURBANCE.
- G. IN THE EVENT OF DROUGHT, THE PROTECTED TREES SHALL BE MONITORED FOR SIGNS OF STRESS AND WATERED AS NEEDED.

POST-CONSTRUCTION ACTIVITIES

- A. IN THE EVENT OF TREE DAMAGE DUE TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL RETAIN A CERTIFIED TREE EXPERT, LANDSCAPE ARCHITECT, FORESTER OR ARBORIST TO DEVELOP A TREE REPAIR PLAN. THE TREE REPAIR PLAN MUST BE SUBMITTED TO THE COUNTY PROJECT MANAGER OR DESIGNEE.
- B. REMEDIAL PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD PRACTICES TO BE APPROVED BY THE COUNTY PROJECT MANAGER OR DESIGNEE.
- C. IRREPARABLE DAMAGE IN TREE PROTECTION ZONES WILL BE SUBJECT TO REPLACEMENT IN KIND AND SIMILAR SIZE, AND WILL BE DETERMINED BY THE COUNTY PROJECT MANAGER OR DESIGNEE.

M:\360709-Howard County\ENR\03 Civil\CM-02 Tree Protection.dwg 05/14/09 20:01

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Rosalia M. Schaefer 5/10/09
SIGNATURE OF ENGINEER DATE
(PRINT NAME BELOW SIGNATURE)

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Daniel Ward 5/19/09
SIGNATURE OF ENGINEER DATE
(PRINT NAME BELOW SIGNATURE)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 5-27-09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Lucretia Johnson 5/28/09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edwards 5/28/09
DIRECTOR, DEP. DATE

PBS&J
12101 INDIAN CREEK COURT
BELTSVILLE, MARYLAND 20705
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PROFESSIONAL CERTIFICATION

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Rosalia M. Schaefer
REGISTERED PROFESSIONAL ENGINEER
4/20/09 PBS&J
DATE FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John C. Spalco
CHIEF, BUREAU OF UTILITIES DATE

DES: AMS	
DRN: KEG	
CHK: LHH	
DATE: -	1-13-17
DATE	REVISED SHEET TOTAL 14
DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-11B
CIVIL

TREE PROTECTION DETAILS

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4672

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
CONTRACT NO. 60-4598

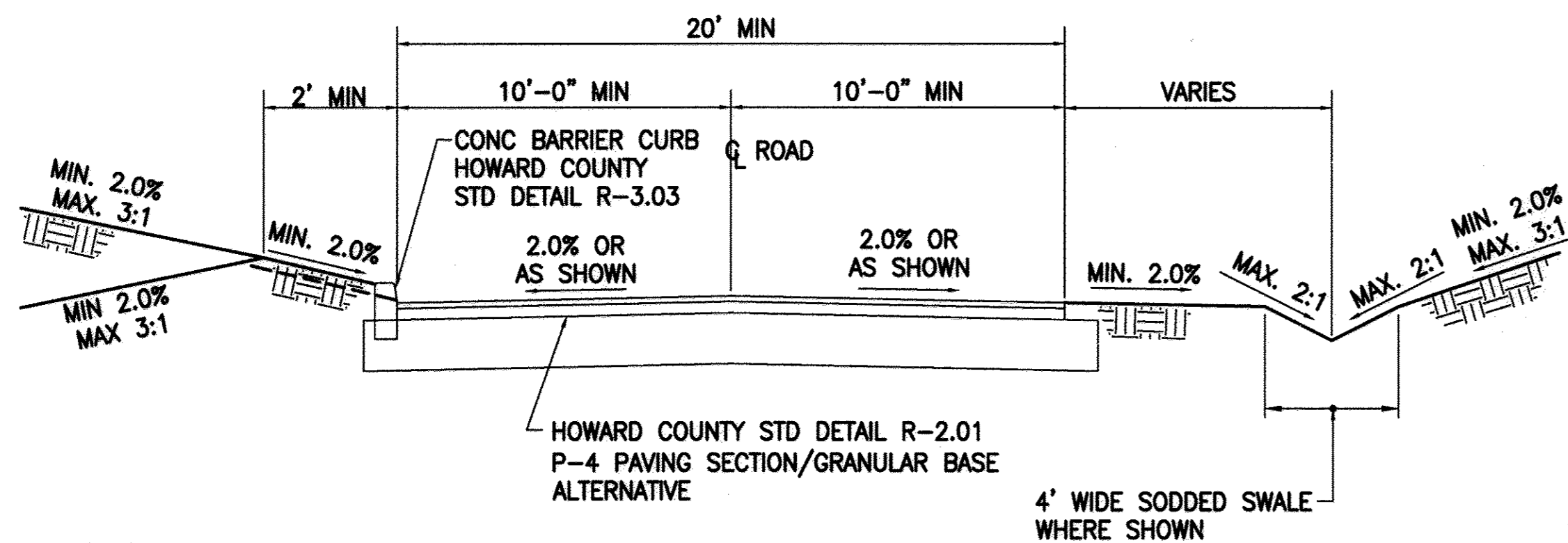
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

CONTRACT SHEET 95 OF 111

CM-2

SDP SHEET 45 OF 59

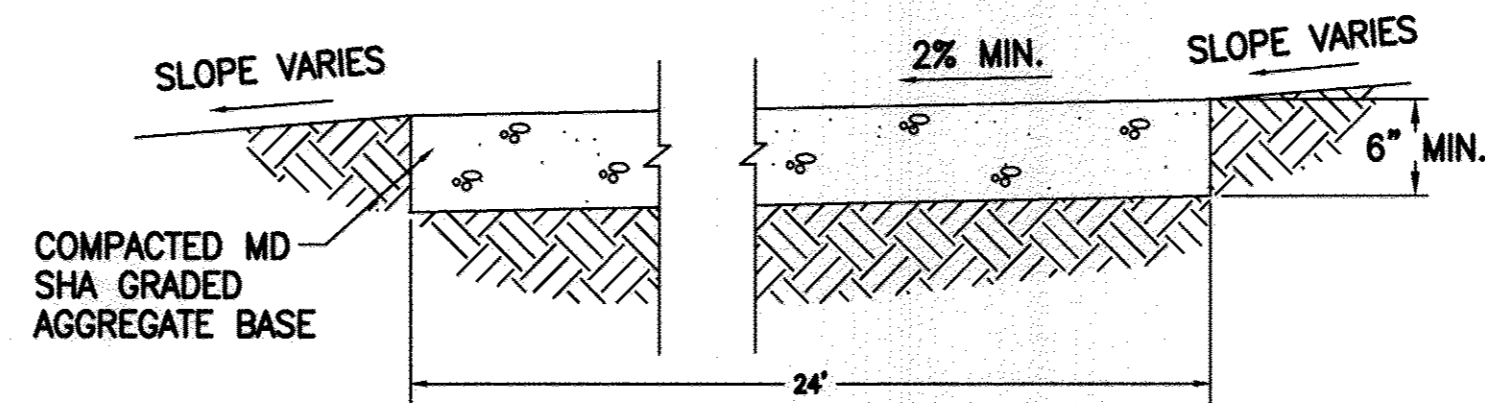


NOTES:
PROVIDE DEPRESSED CURB WHERE SHOWN ON THE DRAWINGS, MINIMUM LENGTH OF CURB TRANSITIONS SHALL BE 2 FEET.

ROAD SECTION

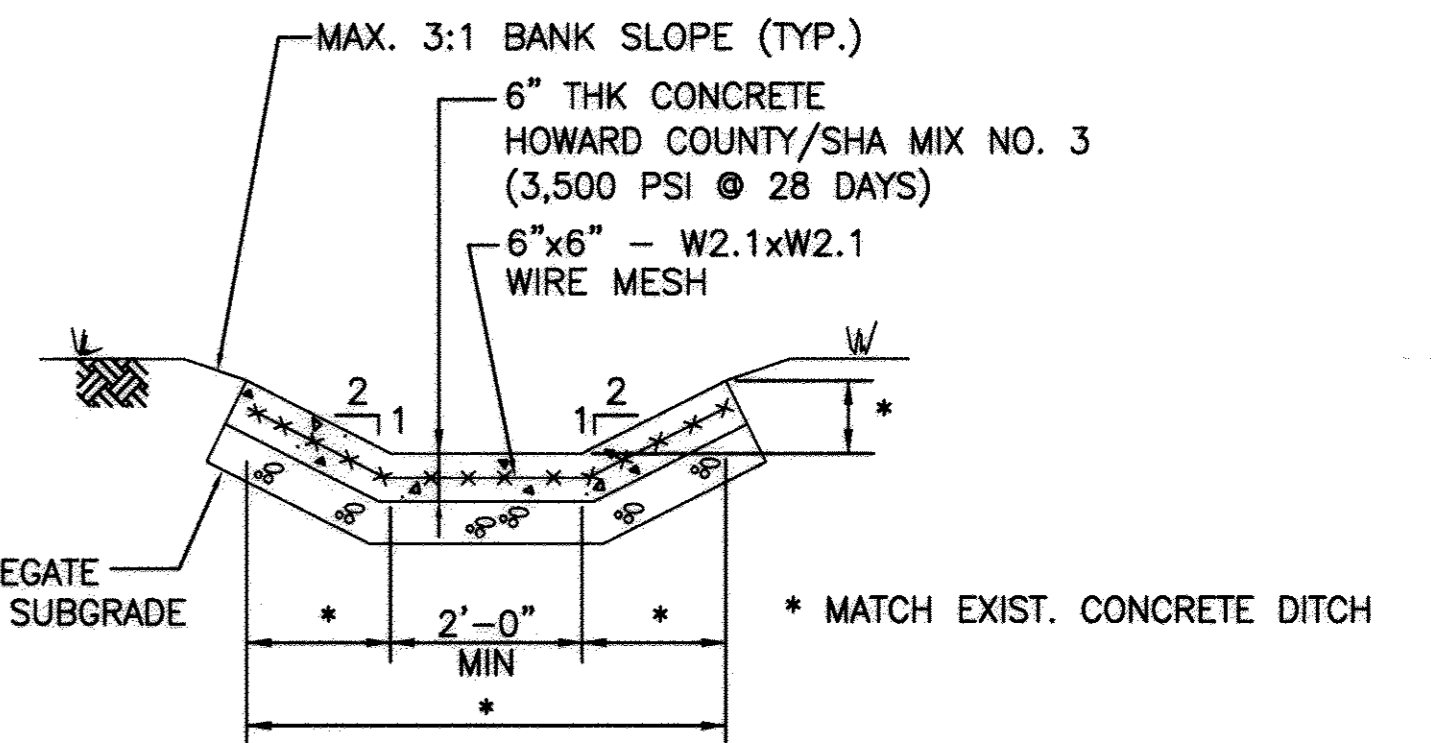
SCALE: 1/4" = 1'-0"

C-011



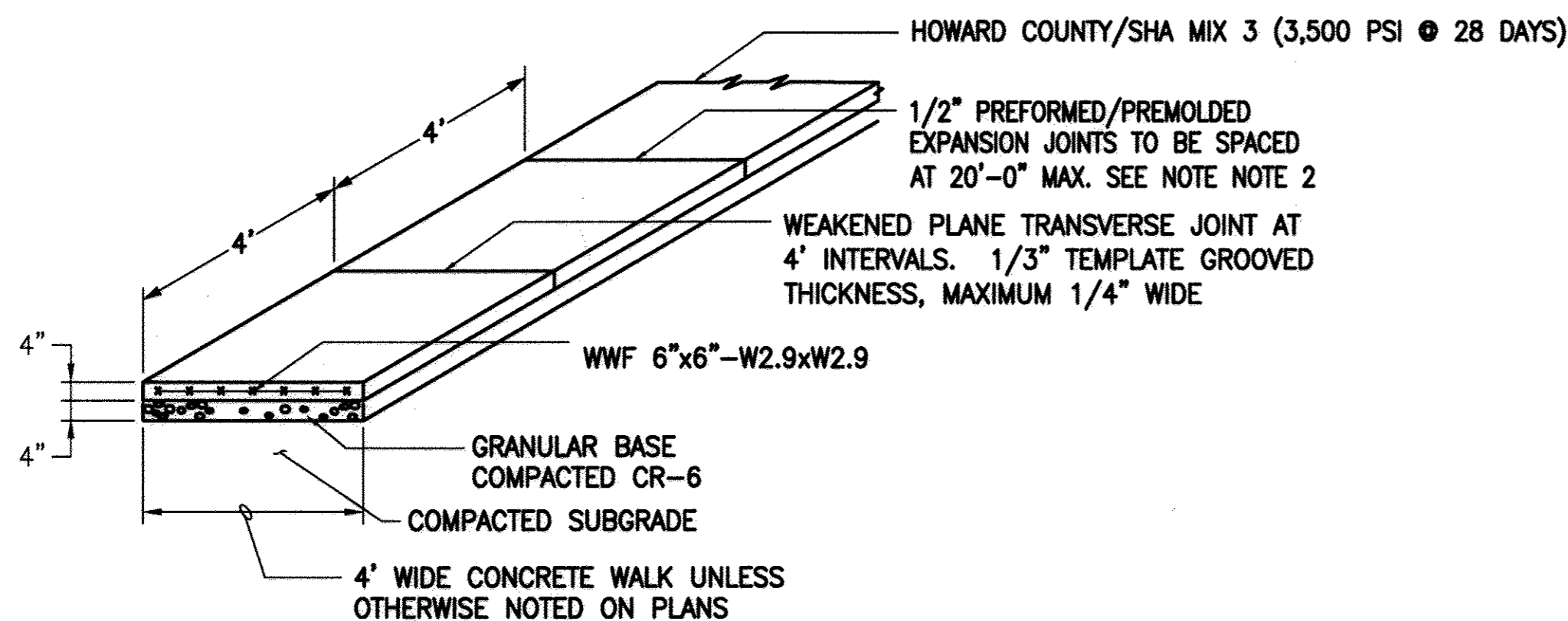
CONSTRUCTION ACCESS ROAD SECTION

NTS C-012



CONCRETE DITCH REPLACEMENT

NTS C-017

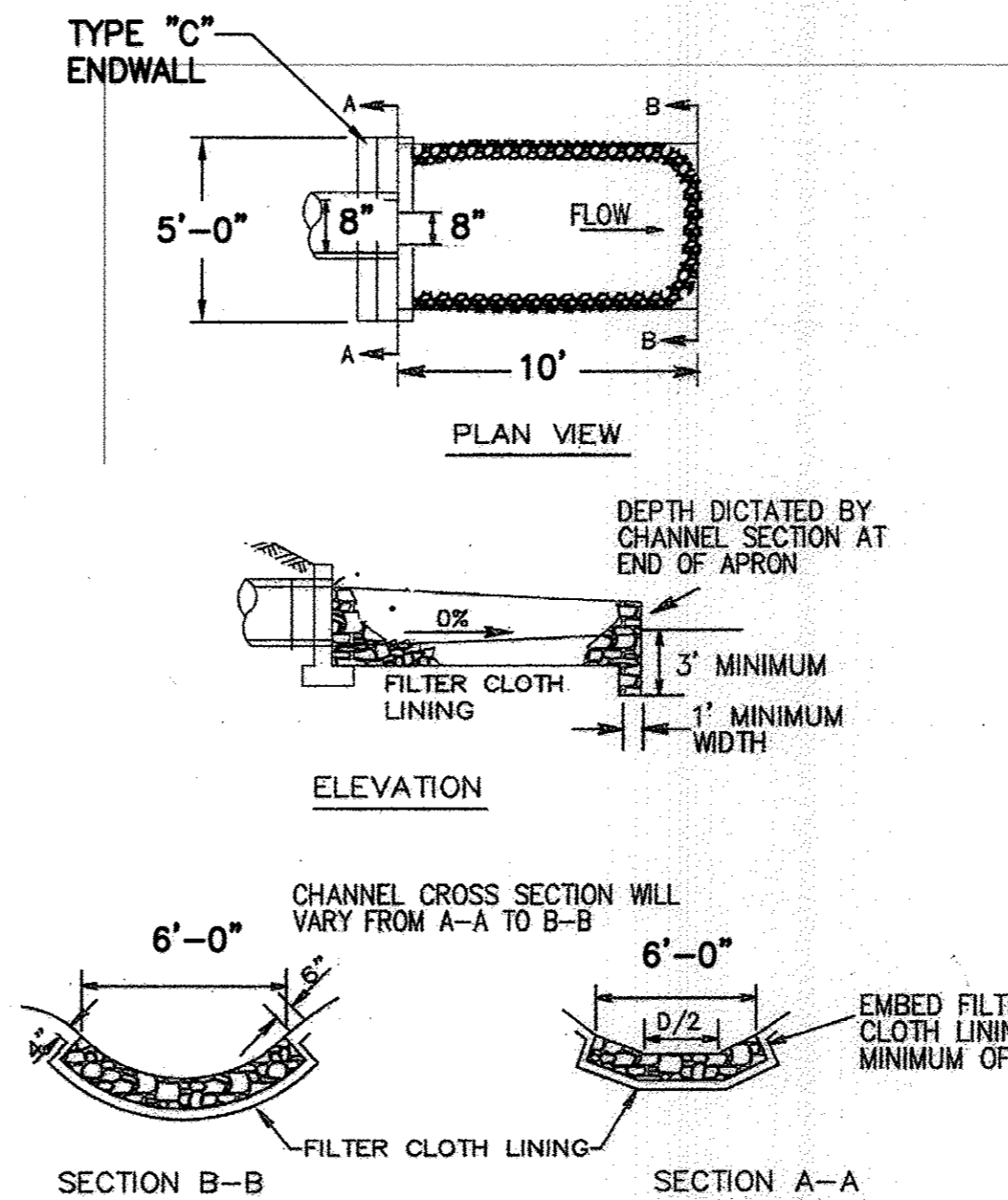


- NOTES:
1. PROVIDE 1/2" PREFORMED/PREMOLDED EXPANSION JOINT MATERIAL IN LOCATIONS WHERE CONCRETE SIDEWALKS MEET STRUCTURAL SLABS, CURBS, WALLS, OR WHERE SIDEWALKS ARE NOT SLOPED FOR POSITIVE DRAINAGE.
 2. SET PREFORMED/PREMOLDED EXPANSION JOINT MATERIAL 1/2" BELOW SURFACE. FILL GAP WITH JOINT SEALER COMPOUND.

SIDEWALK AND CONCRETE PAD DETAIL

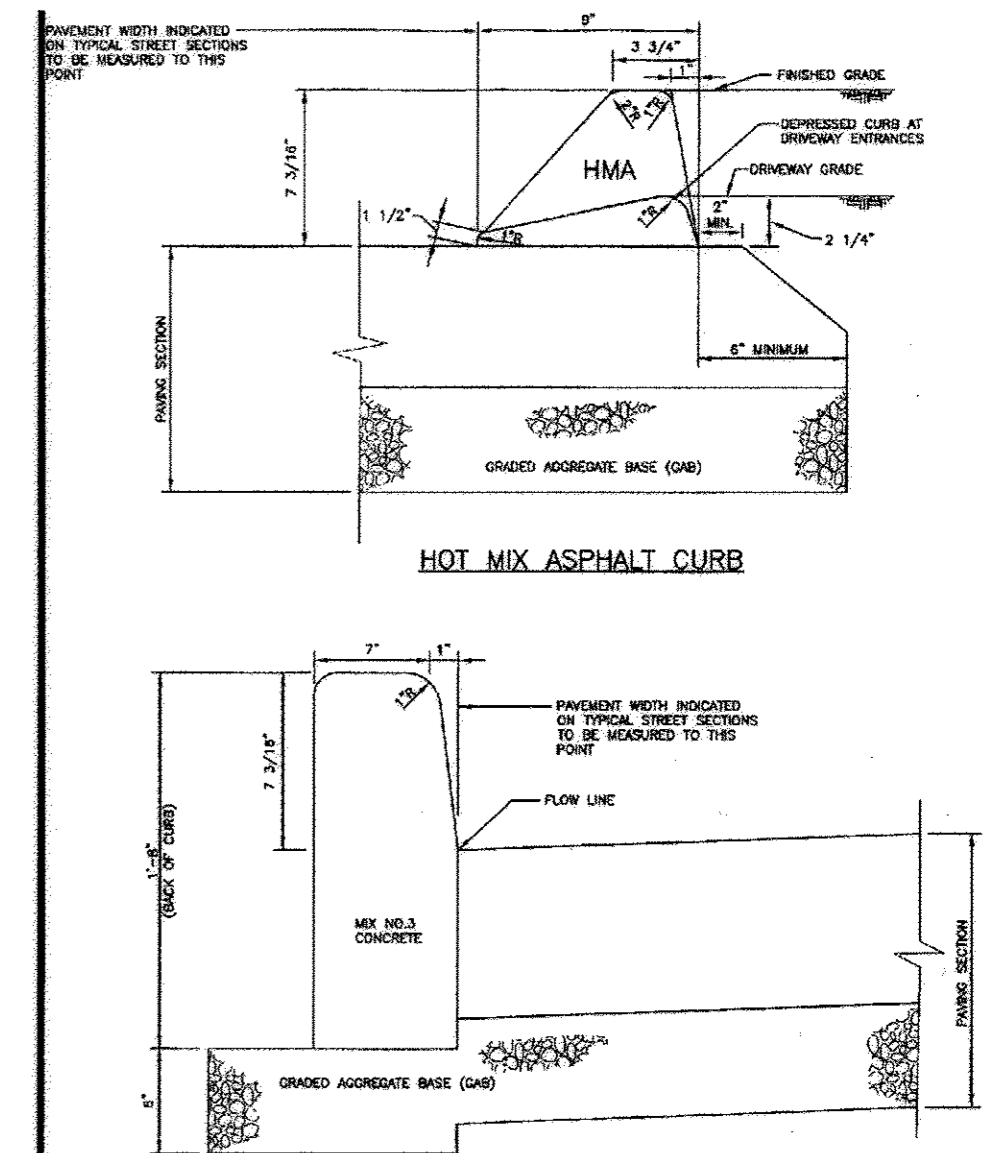
NTS

C-013



ROOF DRAIN ENDWALL AND OUTLET PROTECTION

NTS C-014



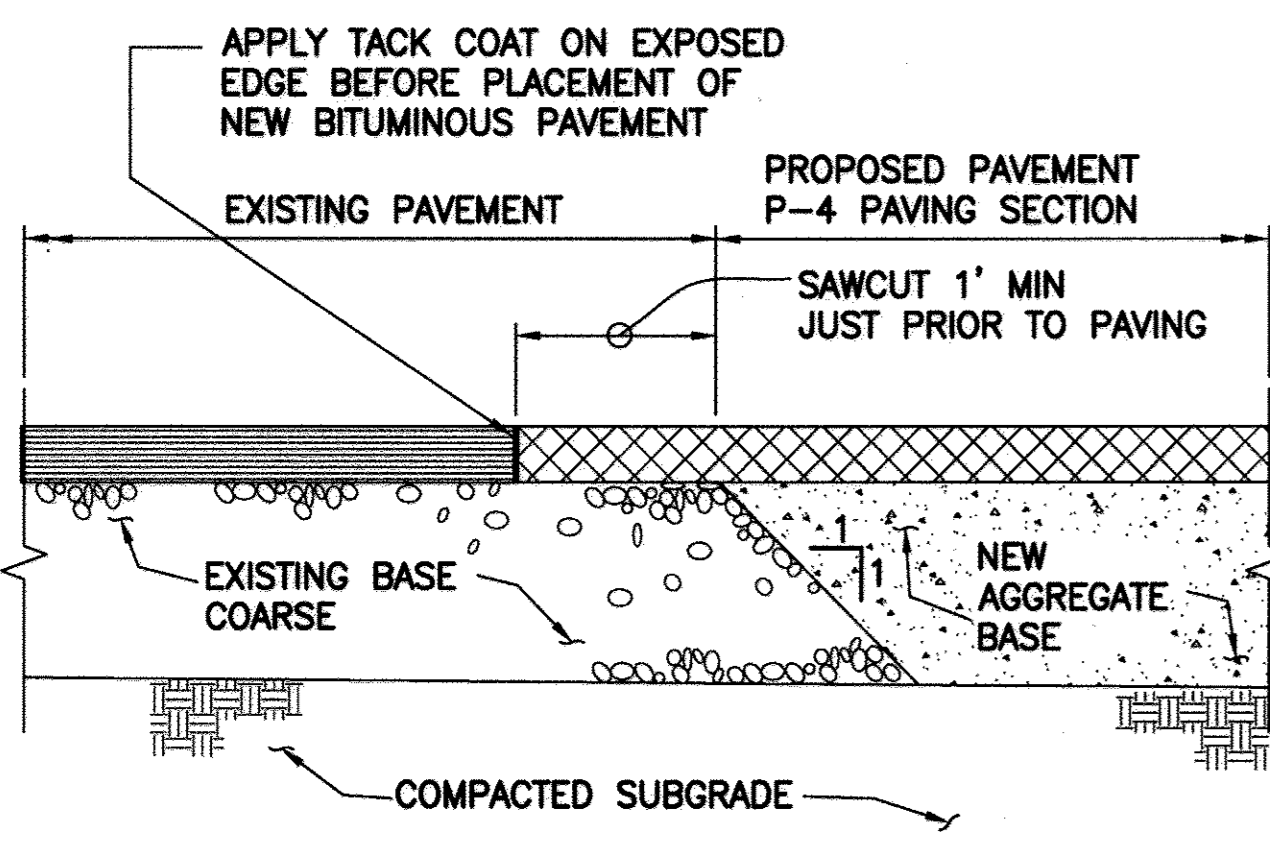
NOTES:
1. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
2. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.

Howard County, Maryland
Department of Public Works
CURBS
Hot Mix Asphalt & Concrete Barrier
Detail
R-3.03

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR, DEP.

ENGINEER'S CERTIFICATE
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
SIGNATURE OF ENGINEER
DATE: 5/10/09

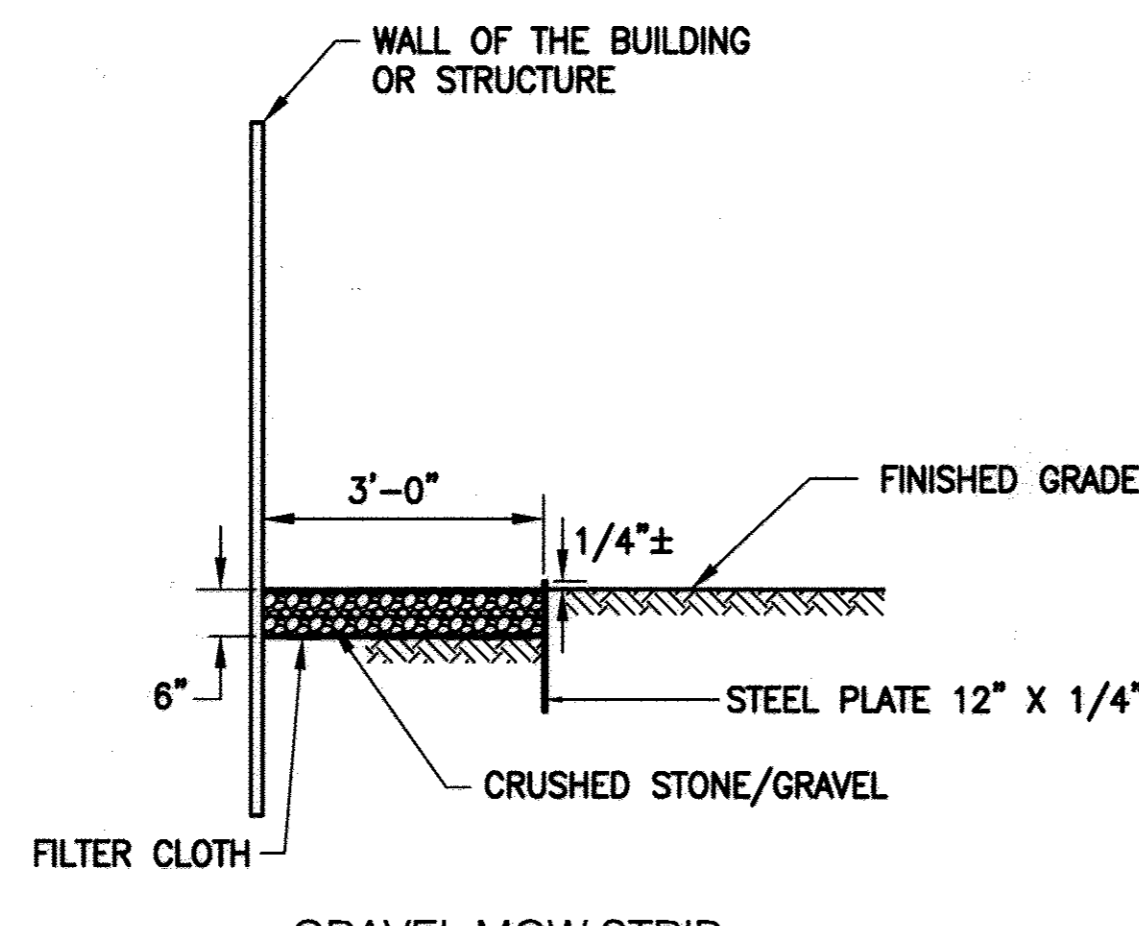
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SIGNATURE OF ENGINEER
DATE: 5/19/09



PAVEMENT CONNECTION DETAIL

NTS

C-015



GRAVEL MOW STRIP

NTS

C-016

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	PARKING BAYS APARTMENT AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 2" BIT. CONC. BASE 4" GRADED AGGREGATE BASE (GAB)
P-2	RESIDENTIAL ZONES MINOR-MAJOR ALLEYS AND LOCAL CUL-DE-SACS PRIVATE ROADS SERVING INDIVIDUAL LOTS TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY*	1 1/2" BIT. CONC. SURFACE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 2 1/2" BIT. CONC. BASE 6" GRADED AGGREGATE BASE (GAB)
P-3	RESIDENTIAL ZONES MINOR-MAJOR COLLECTORS COMMERCIAL-INDUSTRIAL ZONES LOCAL CUL-DE-SAC STREETS ALLEYS TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH MORE THAN 10 HEAVY TRUCKS PER DAY*	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 4 1/2" BIT. CONC. BASE 5" GRADED AGGREGATE BASE (GAB)
P-4	COMMERCIAL-INDUSTRIAL ZONES MINOR COLLECTOR	1 1/2" BIT. CONC. SURFACE 3 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 1 1/2" BIT. CONC. BASE 5" BIT. CONC. BASE 4" GRADED AGGREGATE BASE (GAB)

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
PAVING SECTIONS
P-1 THROUGH P-4
REV. OCT. 1990
REV. JAN. 1982
DRAWN BY:
CHECK BY:
NO SCALE
R-2.01

DES:	DRN:	CHK:	DATE:
AMS	GHS	LHH	1-13-17
REVISED SHEET TOTAL			
REVISIONS AND RECORD OF ISSUE			

HOWARD COUNTY SDP SHEET C-11C
CIVIL
MISCELLANEOUS DETAILS
REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-6245.E
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
CONTRACT SHEET 96 OF 611
CM-3
SDP SHEET 46 OF 59

M:\380709-Howard County\ENR\03 Civil\CM-03 Civil Site Details.dwg 05/14/09_20:01

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www.stantec.com

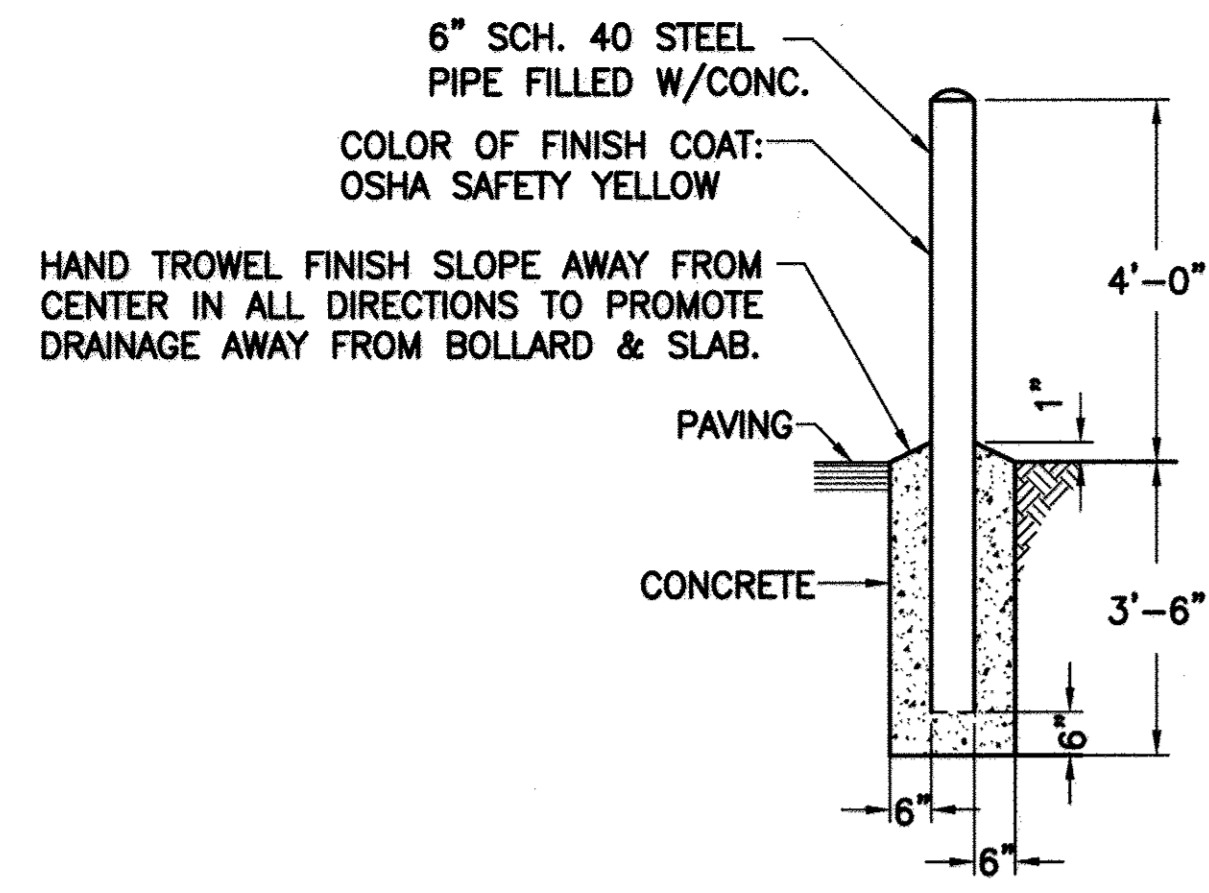


PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO.: 23359, EXPIRATION DATE: 8/13/10
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE

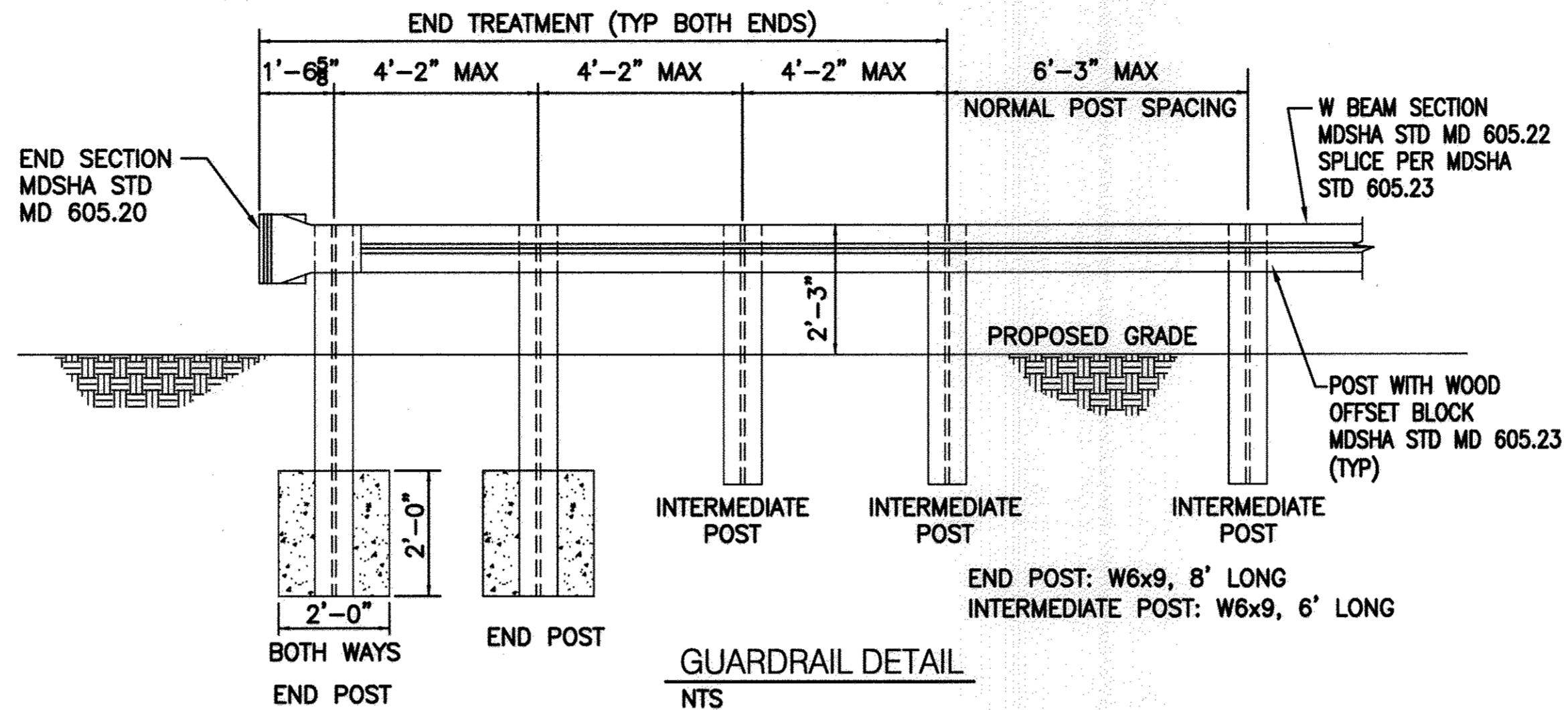
NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
PREVIOUS PROJECTS USED OTHER DATUMS
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.68 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF, BUREAU OF UTILITIES
DATE

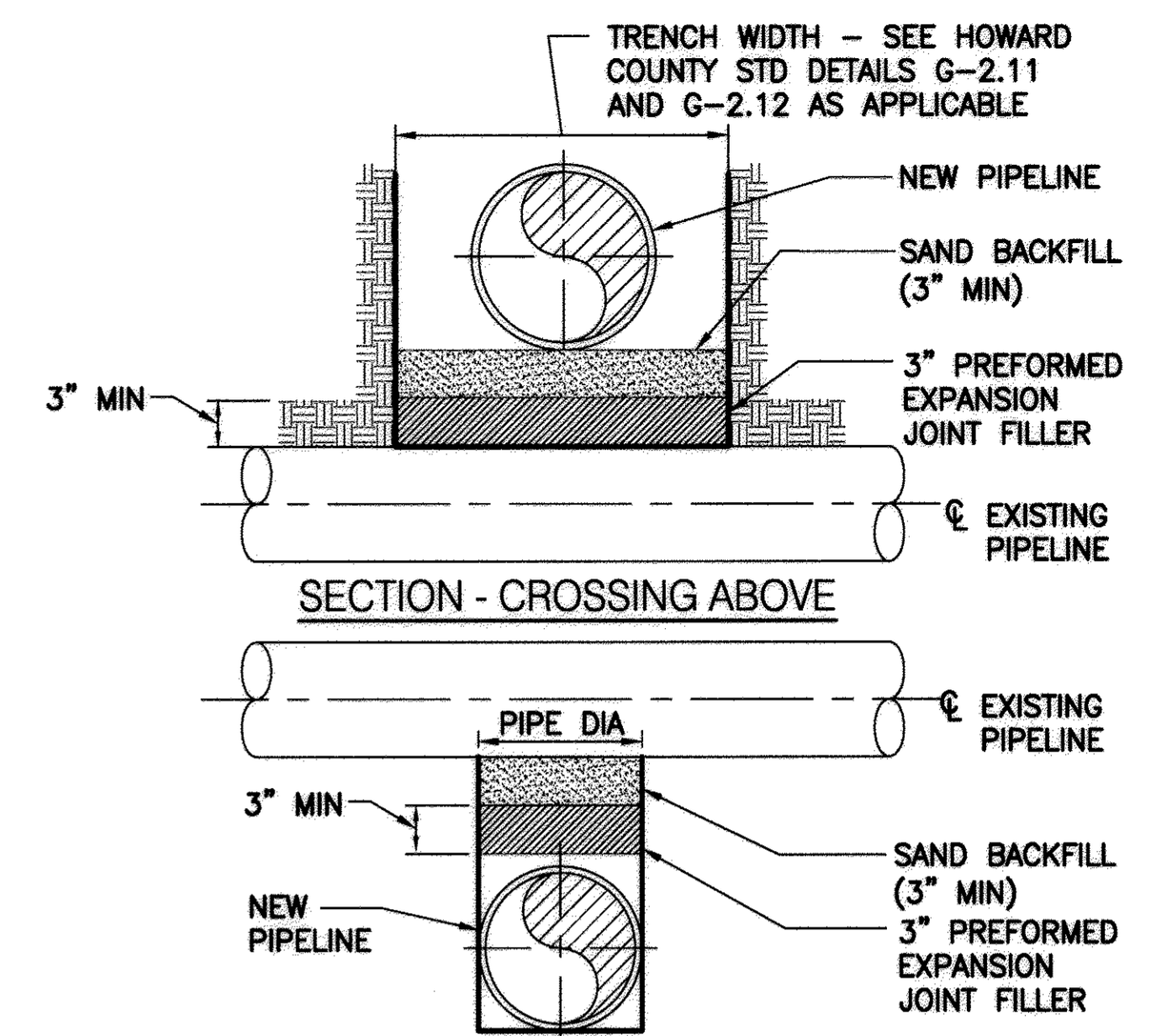
SDP-00-094



BOLLARD DETAIL
NTS
C-020

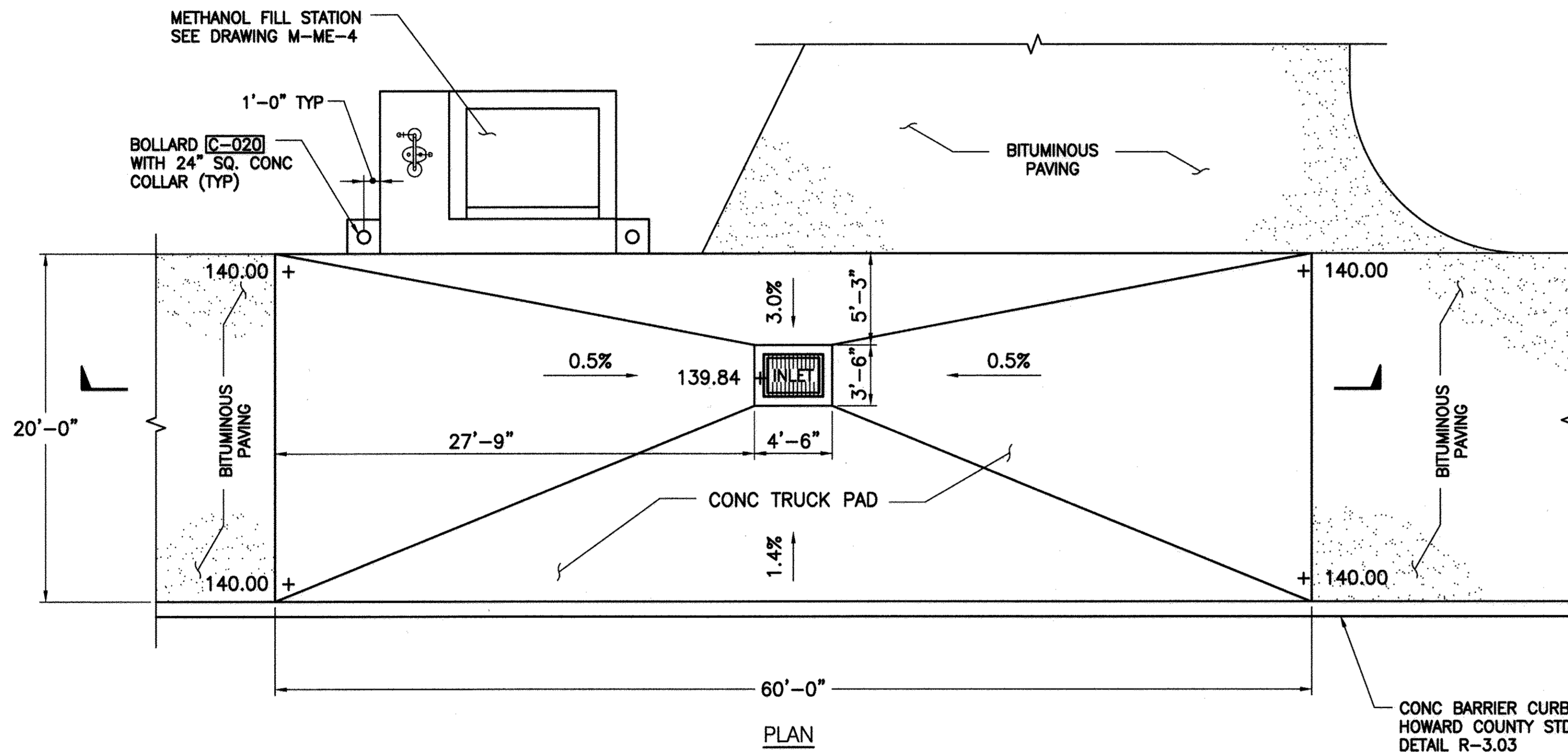


GUARDRAIL DETAIL
NTS
C-021

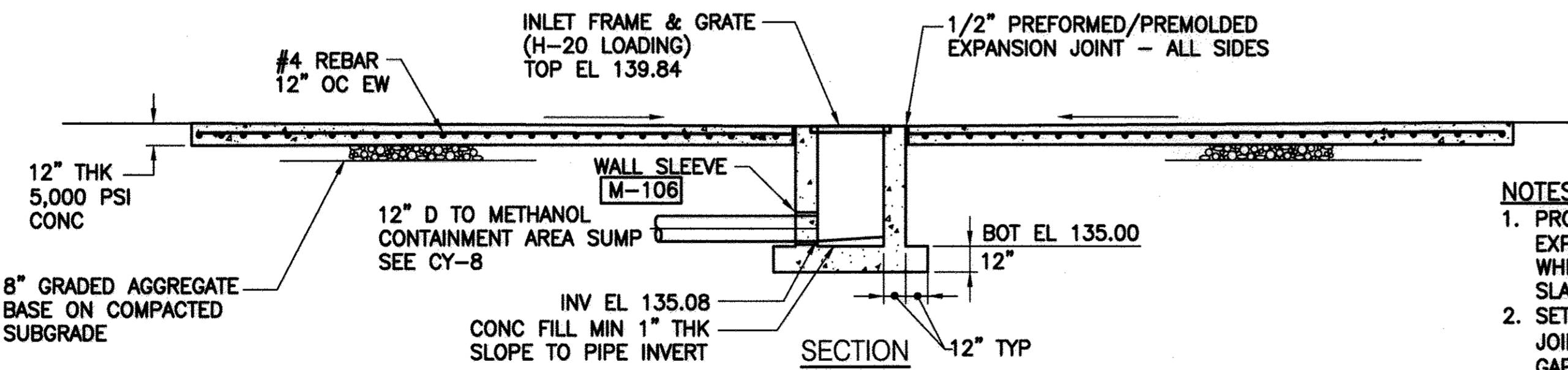


- NOTE:
1. PREFORMED EXPANSION JOINT FILLER TO COMPLY WITH ASTM DESIGNATION D-1751
 2. WATER MAIN AND SEWER MAIN SEPARATION SHALL ADHERE TO THE HOWARD COUNTY STANDARDS.

EXISTING PIPELINE PROTECTION WITH < 12" CLEARANCE
NOT TO SCALE
C-022



PLAN



METHANOL FILL STATION TRUCK PAD
NOT TO SCALE
C-023

- NOTES:
1. PROVIDE 1/2" PREFORMED/PREMOLDED EXPANSION JOINT MATERIAL IN LOCATIONS WHERE CONCRETE PAD MEETS STRUCTURAL SLAB, CURB, AND BITUMINOUS PAVING.
 2. SET PREFORMED/PREMOLDED EXPANSION JOINT MATERIAL 1/2" BELOW SURFACE. FILL GAP WITH JOINT SEALER COMPOUND.
 3. REINFORCING FOR INLET WALLS & BOTTOM: #4 REBAR, 6" OC, BOTH FACES, MIN 2" CLR FROM SURFACE.

APPROVED:	DEPARTMENT OF PLANNING AND ZONING
<i>Paul Edwards</i>	DATE: 5/27/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION	
<i>David Stewart</i>	DATE: 5/27/09
CHIEF, DIVISION OF LAND DEVELOPMENT	BB
<i>Thomas J. Reutter</i>	DATE: 5/28/09
DIRECTOR, DEP.	

ENGINEER'S CERTIFICATE	
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."	
<i>Rosemary M. Edwards</i>	DATE: 5/10/09
SIGNATURE OF ENGINEER	
(PRINT NAME BELOW SIGNATURE)	

DEVELOPER'S CERTIFICATE	
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."	
<i>Daniel Ward</i>	DATE: 5/12/09
SIGNATURE OF ENGINEER	
(PRINT NAME BELOW SIGNATURE)	

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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.: 23359, EXPIRATION DATE: 8/13/10.
Rosemary M. Edwards
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE FIRM

NOTICE TO CONTRACTORS
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APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT
- PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve Chum
CHIEF, BUREAU OF UTILITIES
DATE

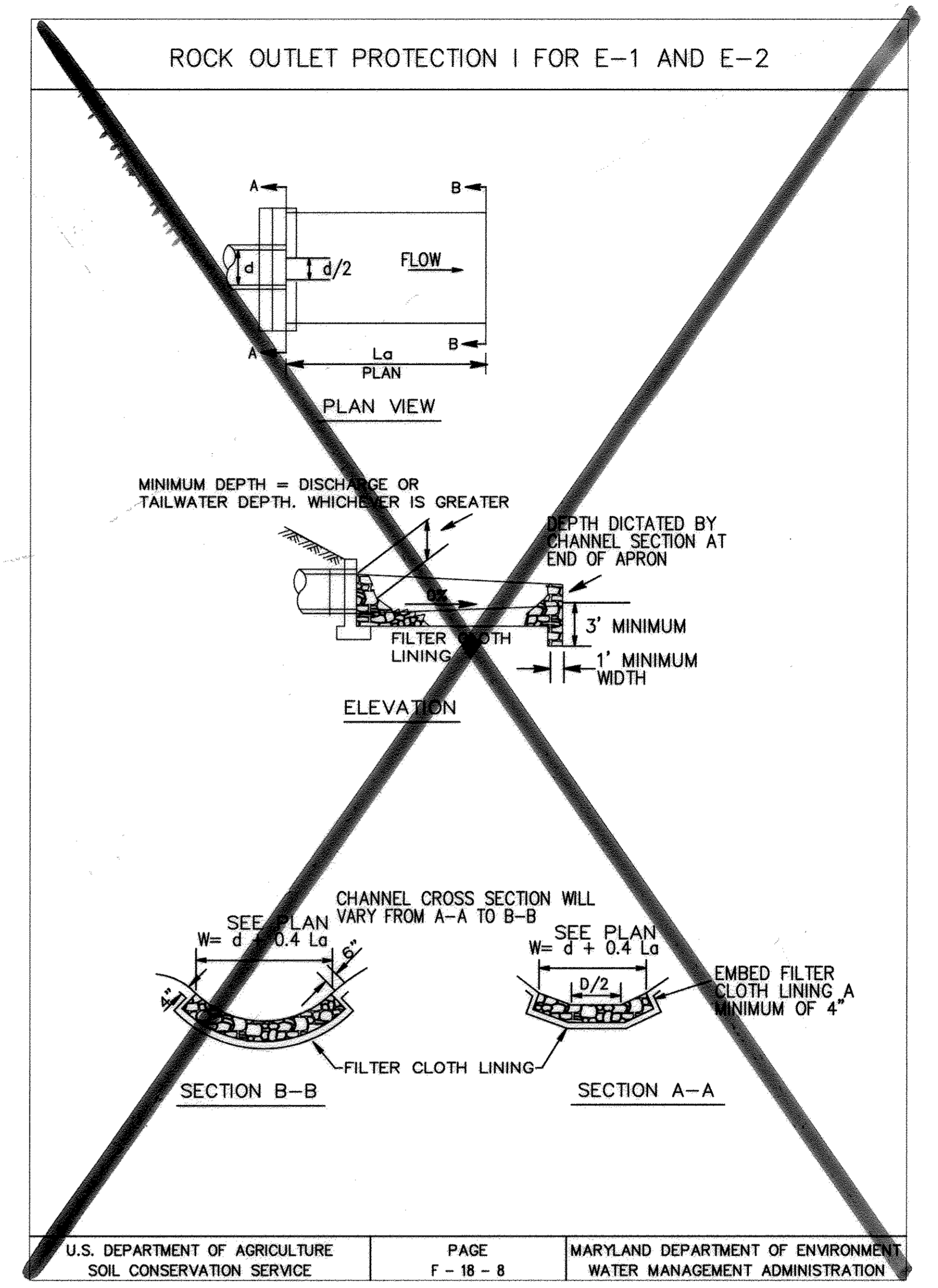
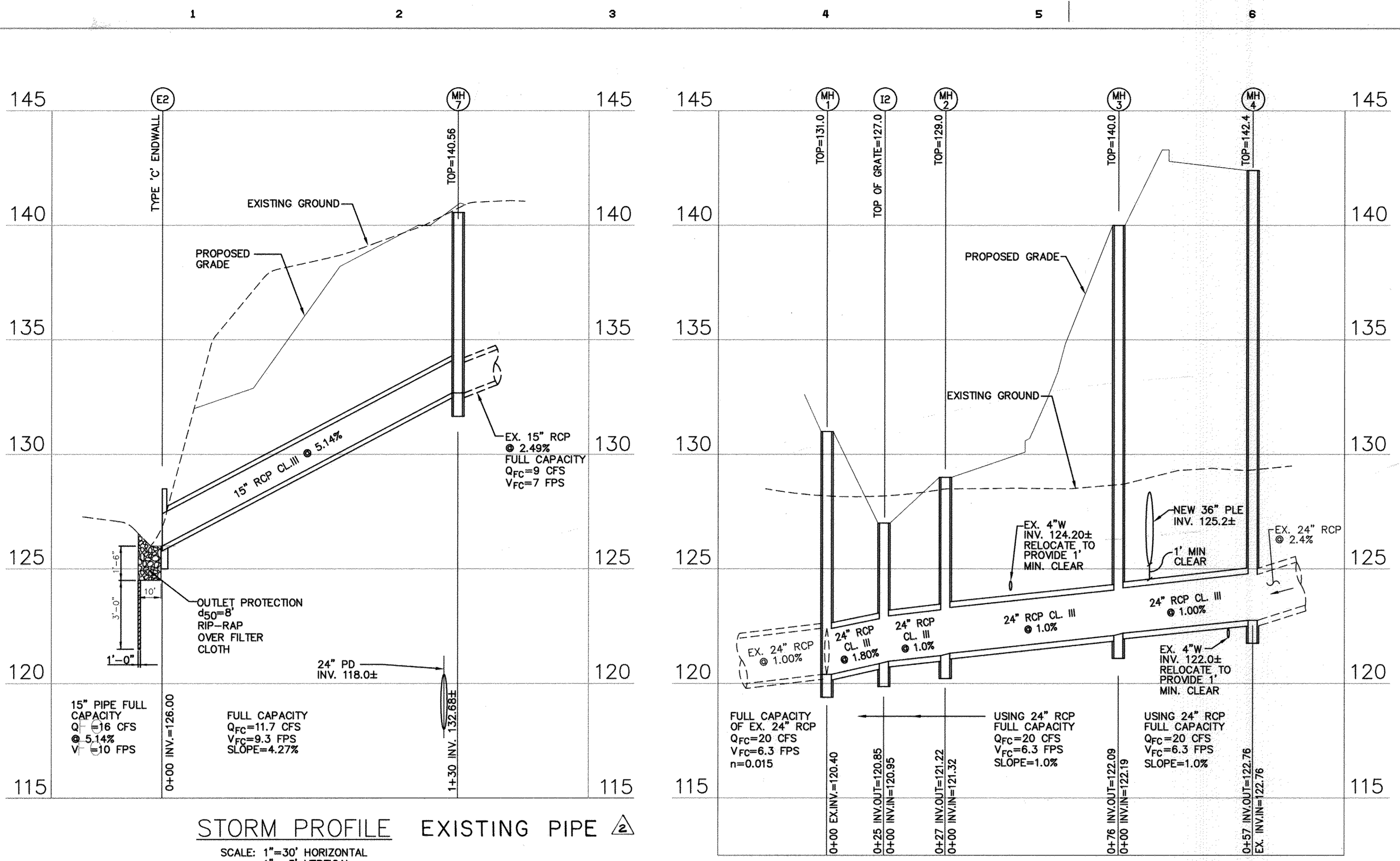
DES: AMS	
DRN: GHS	
CHK: LHH	
DATE: -	
DATE	1-13-17
REVISIONS AND RECORD OF ISSUE	REVISED SHEET TOTAL

HOWARD COUNTY SDP SHEET C-11D
CIVIL
MISCELLANEOUS DETAILS

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-8245.E
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET 97 OF 611
CM-4
SDP SHEET 47 OF 59

SDP-00-094



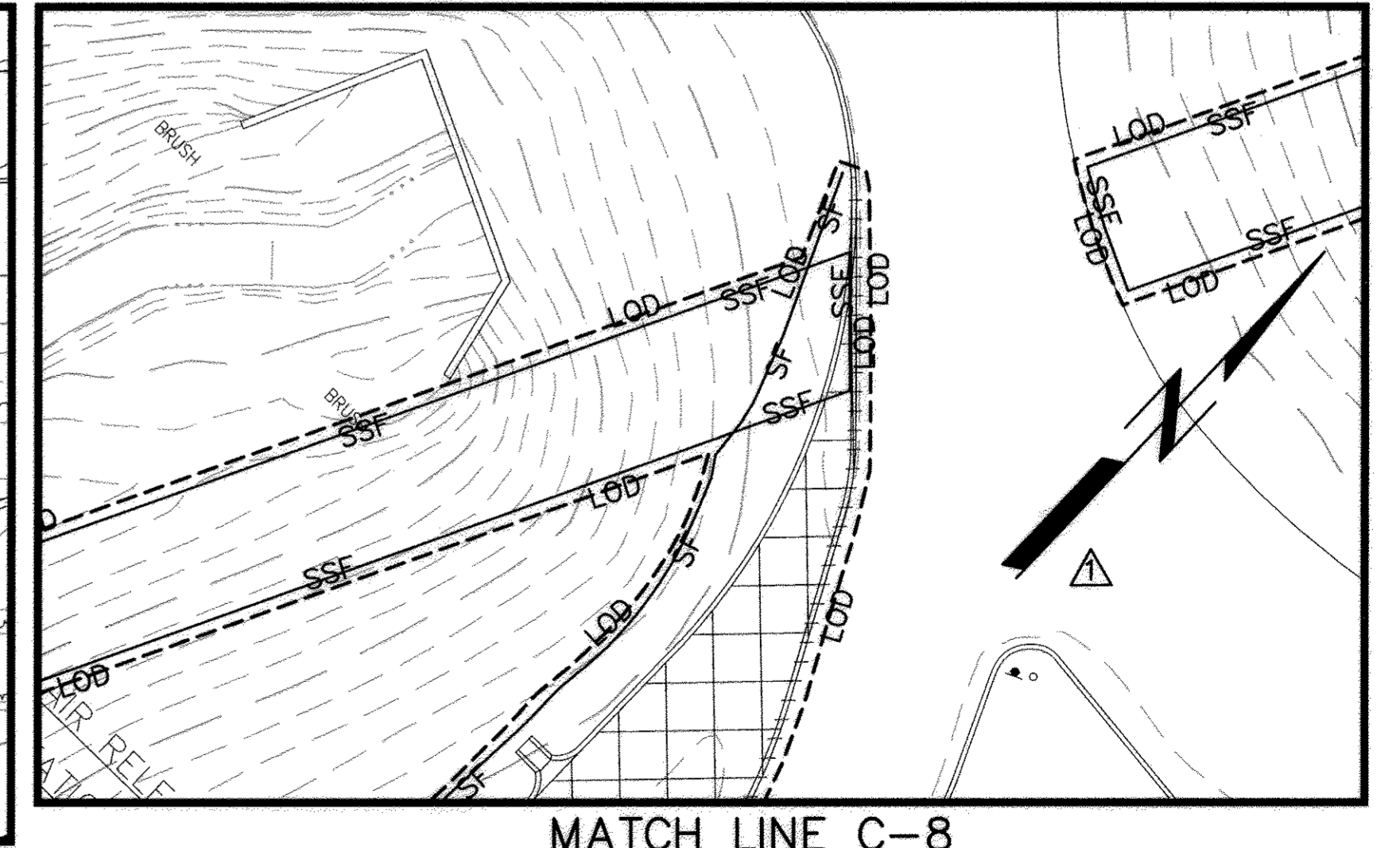
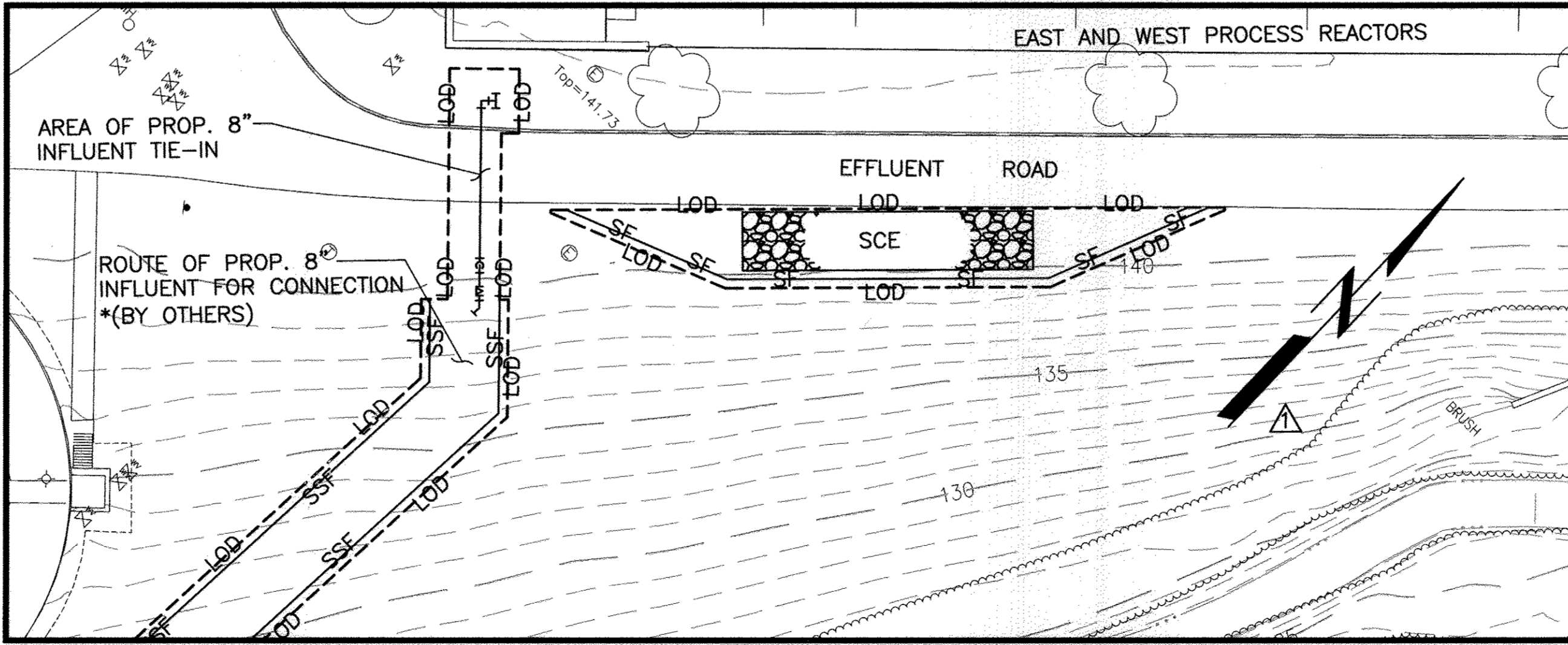
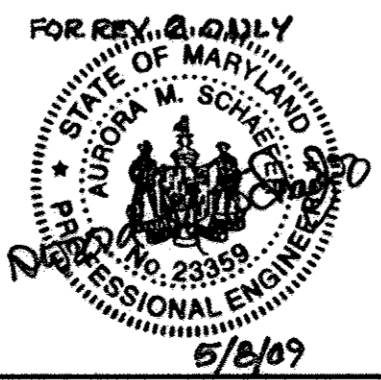
NOTE: THIS SHEET SUPERCEDES PREVIOUS SHEET 12 OF 13.

SIGNED BY CHARLES F. DAMMERS, III, P.E. ON _____ DATE _____
 CHIEF, DED

APPROVED: DEPARTMENT OF PLANNING AND ZONING
[Signature] DATE: 2/13/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] DATE: 2/15/06
 CHIEF, DIVISION OF LAND DEVELOPMENT

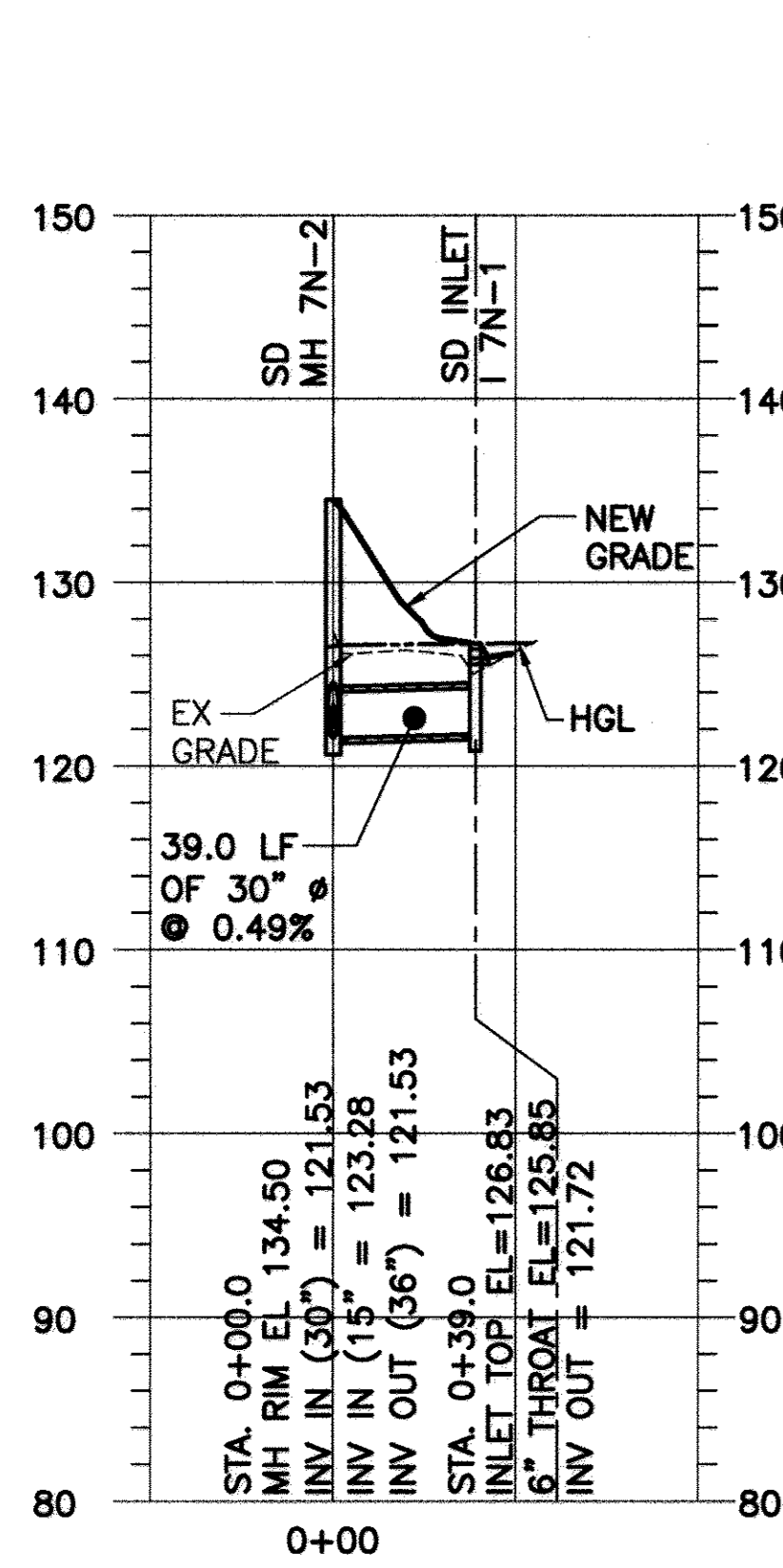
[Signature] DATE: 2/14/06
 DIRECTOR



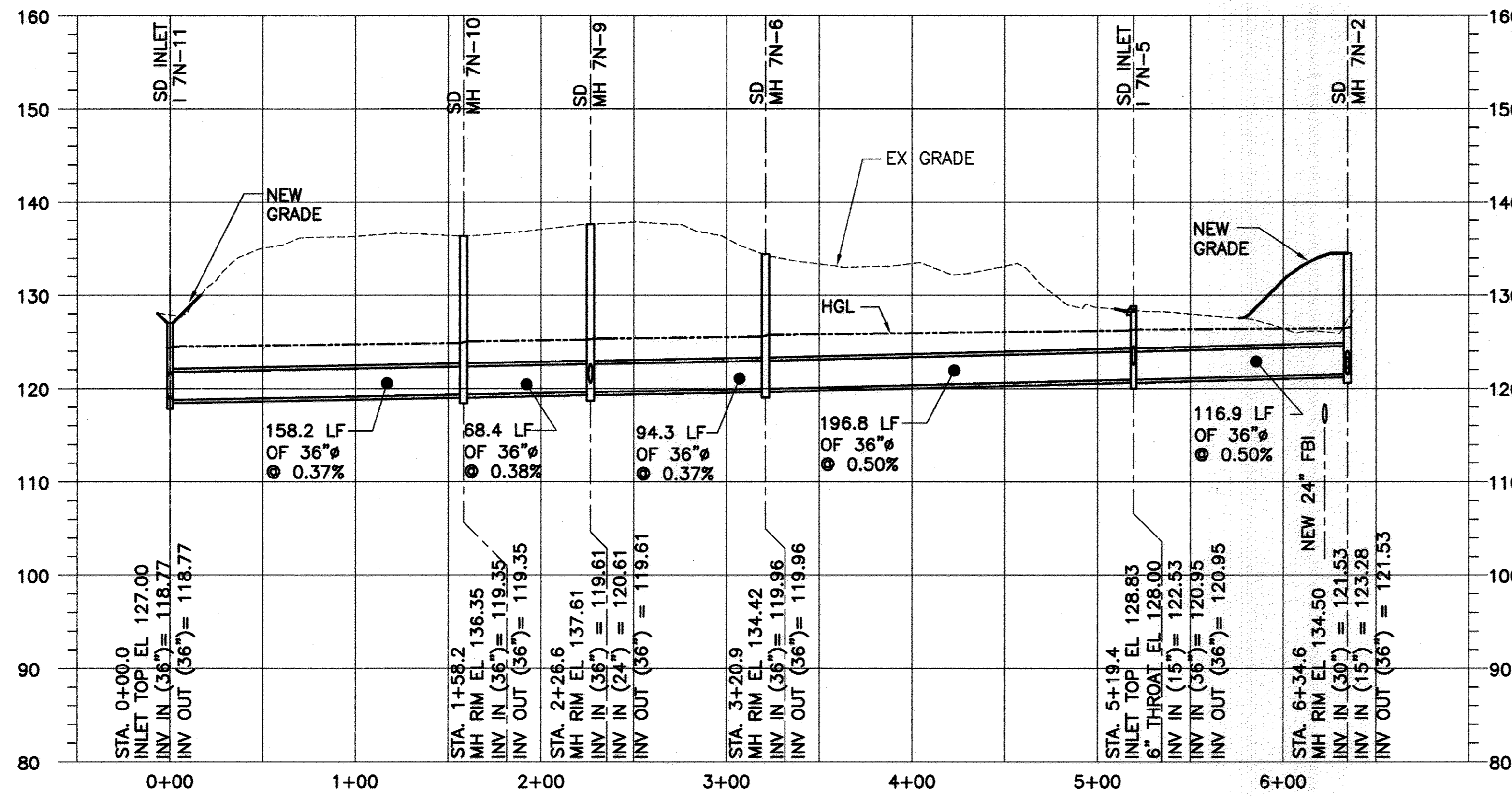
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND AMT A. MORTON THOMAS AND ASSOCIATES, INC. CONSULTING ENGINEERS 12759 TWINBROOK PARKWAY, SUITE 200, ROCKVILLE, MD 20852 TEL: (301) 881-2545 FAX: (301) 881-0814 E-MAIL: JBYRNE@AMTEENGINEERING.COM HOWARD COUNTY SUBMISSION 05/01/00	BLACK & VEATCH Gaithersburg, Maryland REG. PROF. ENGR. _____ DATE _____	DES: AR DRN: REA CHK: JB DATE: 05/01/00	CIVIL REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148 STORM SEWER PROFILES	LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 6 PARCEL "A" CAPITAL PROJECT S-6205 CONTRACT NO. 6 ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 48 OF 59 C-12

SDP00-94

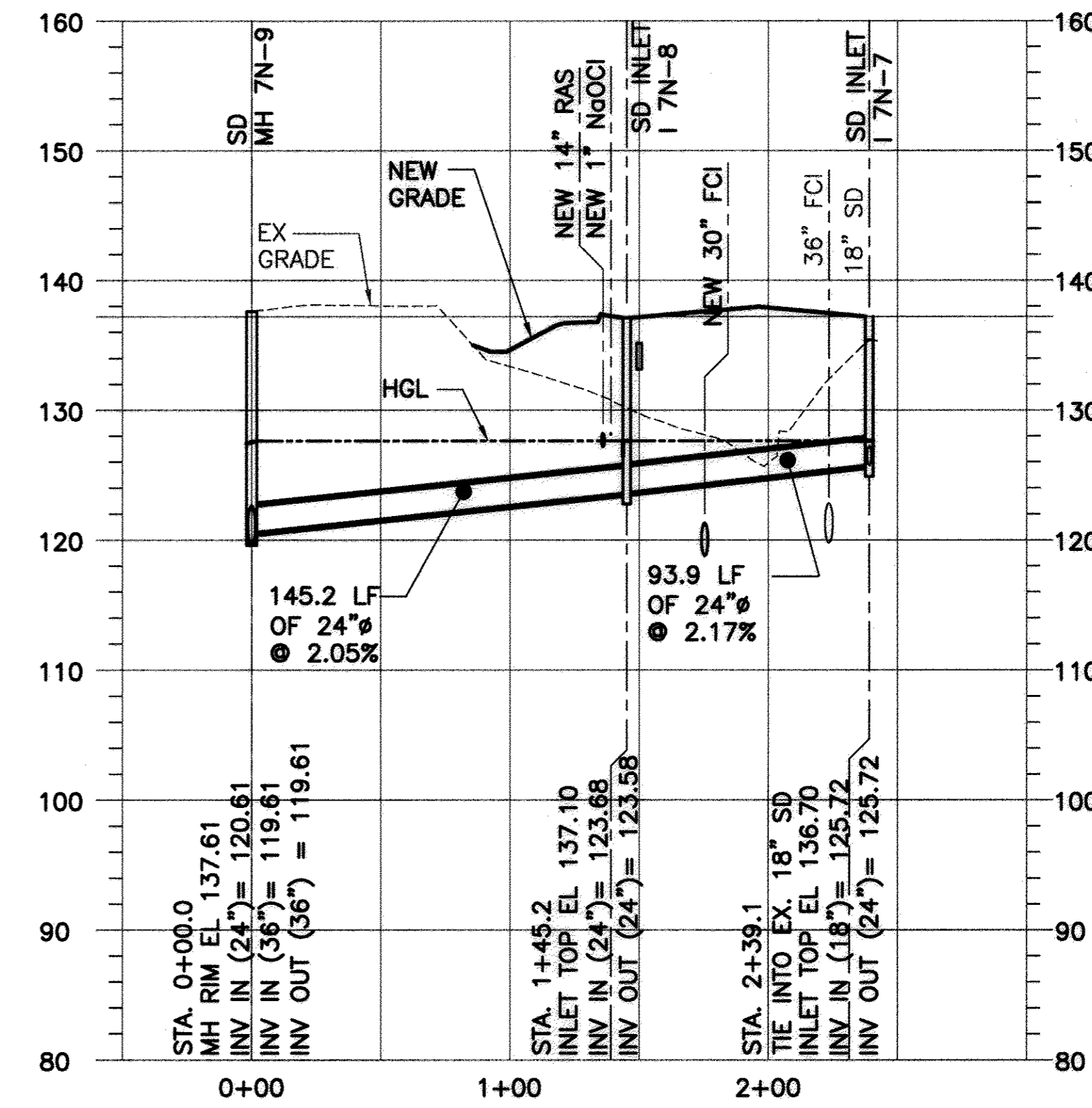
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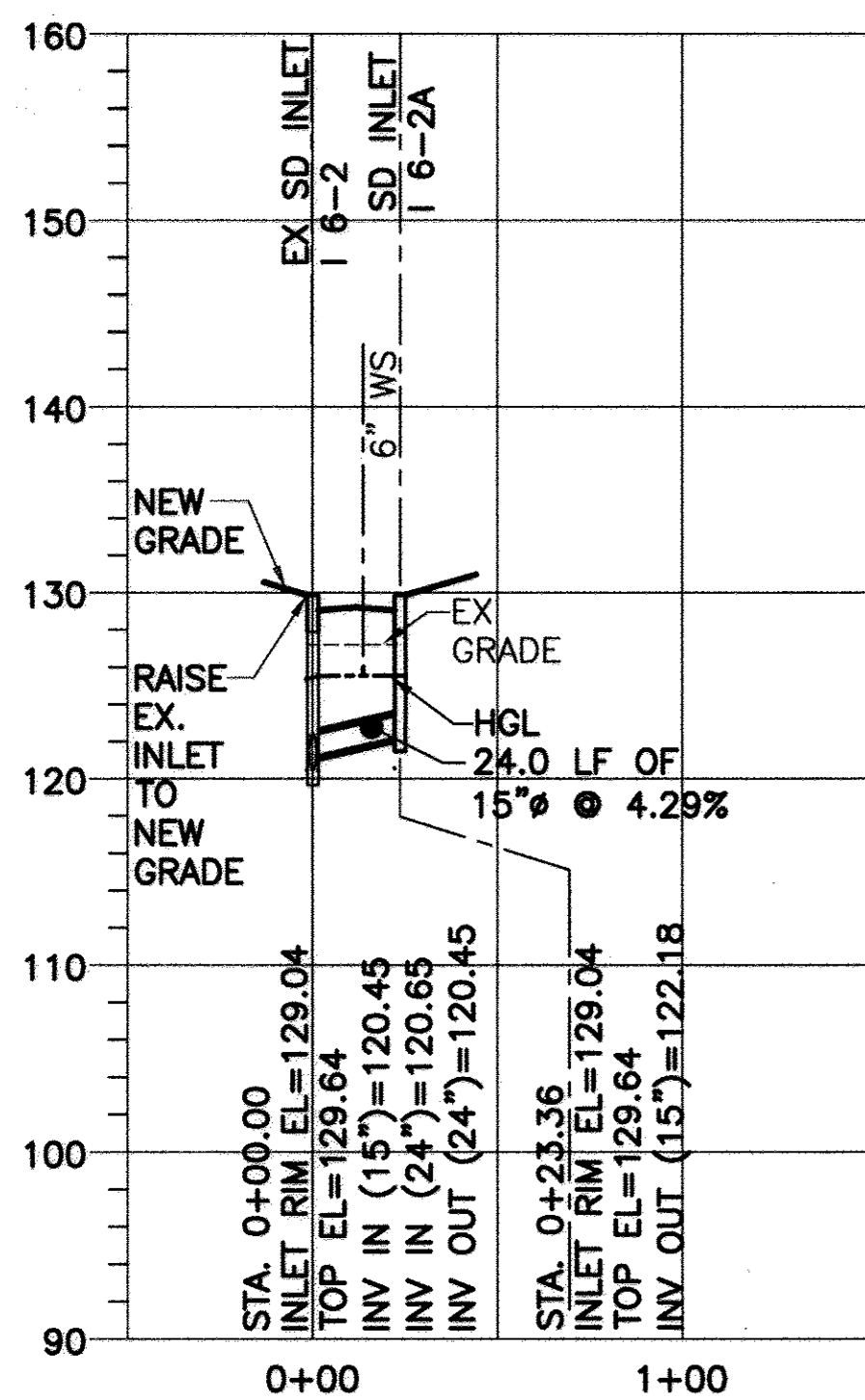
CE/CG/CY-2: 30" SD
MH 7N-2 TO INLET 7N-1



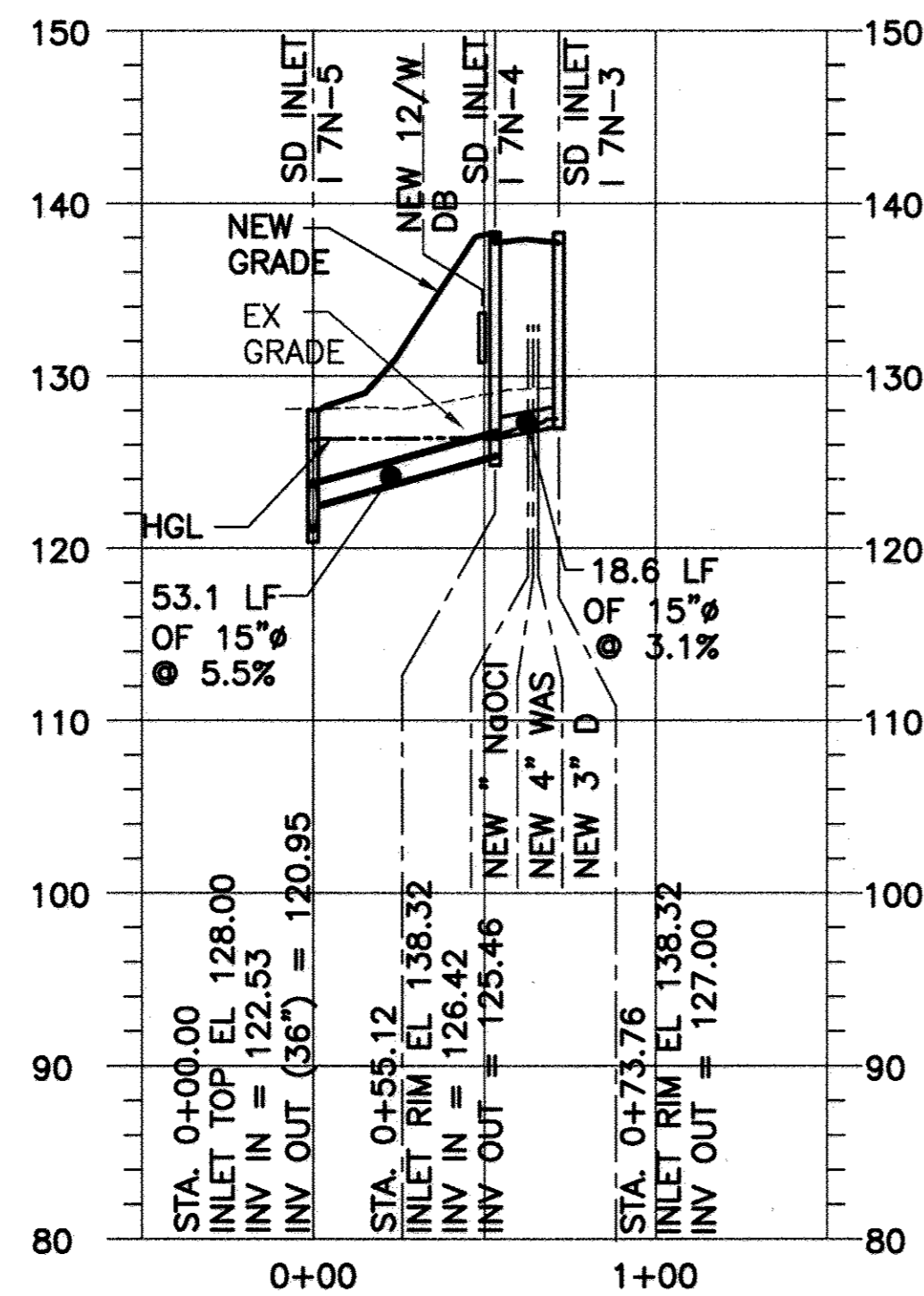
CE/CG/CY-2: 36" SD
INLET 7N-11 TO MH 7N-2



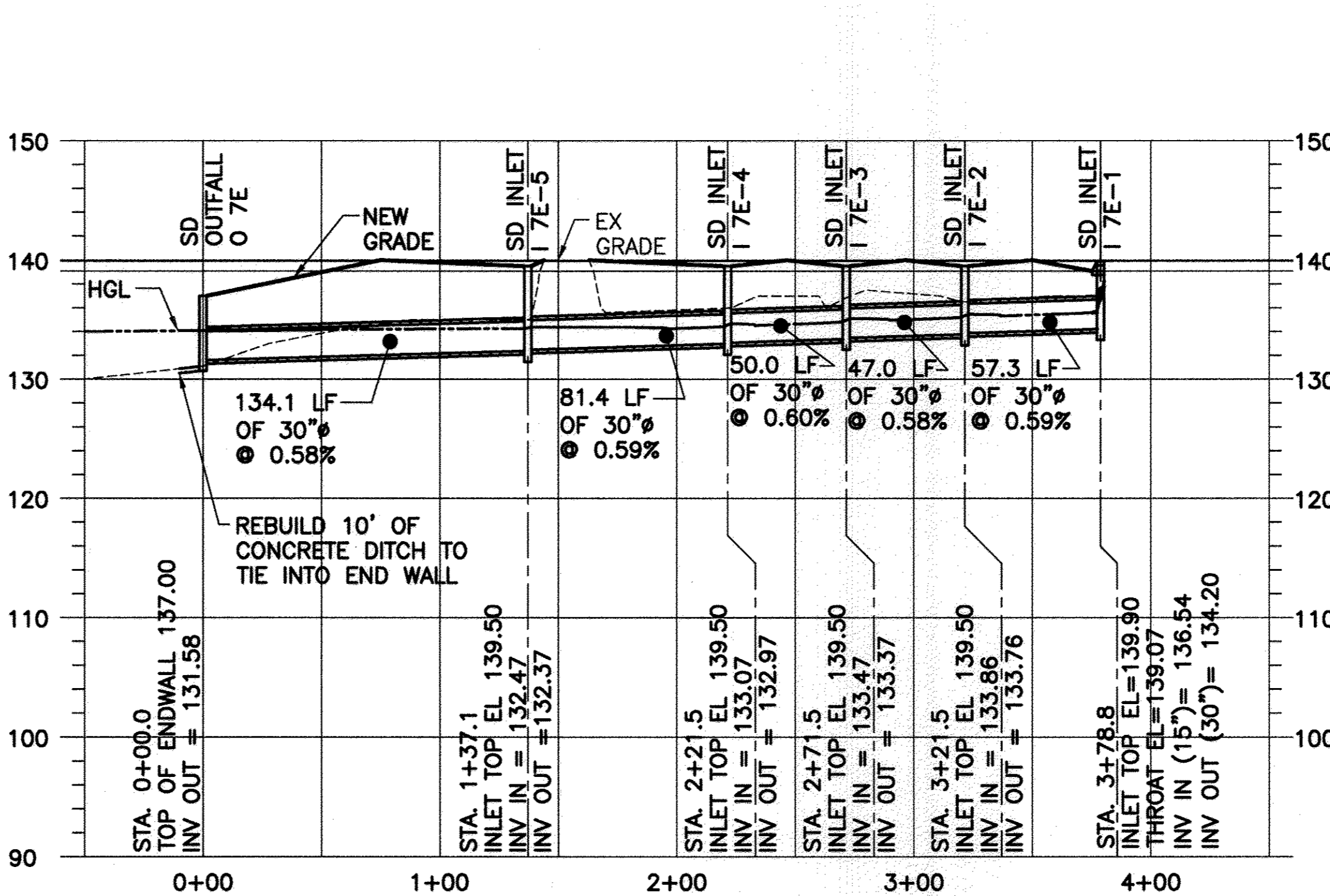
CE/CG/CY-2: 24" SD
MH 7N-9 TO INLET 7N-7



CE/CG/CY-2: 15" SD
INLET 16-2A TO EX INLET 16-2



CE/CG/CY-2: 15" SD
INLET 17N-3 TO INLET 17N-5



CE/CG/CY-5, 8 & 9: 30" SD
OUTFALL TO INLET 7E-1

SCALES

VERT: 1" = 10'
HORIZ: 1" = 50'

ALL STORM DRAIN PIPING SHALL BE RCP CLASS IV

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Daniel Ward
SIGNATURE OF ENGINEER
(PRINT NAME BELOW SIGNATURE)

5/10/09
DATE

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Rebecca M. Schaefer
SIGNATURE OF ENGINEER
(PRINT NAME BELOW SIGNATURE)

5/10/09
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Edwards
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Janet Hant
CHIEF, DIVISION OF LAND DEVELOPMENT

William J. Suttle
DIRECTOR, DEP.

5-29-09
DATE

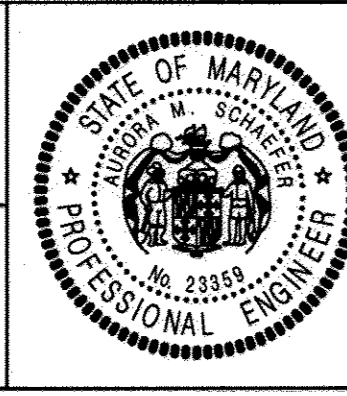
5/20/09
DATE

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PBS&J

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LICENSE NO.: 23359 EXPIRATION DATE: 8/13/10

Rebecca M. Schaefer
REGISTERED PROFESSIONAL ENGINEER

4/20/09
DATE

PBS&J
FIRM

NOTICE TO CONTRACTORS

PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM.

PREVIOUS PROJECTS USED OTHER DATUMS.

APPLY THE FOLLOWING CORRECTIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:

- ADDITION NO. 6: SUBTRACT 0.66 FT.

- PRIOR ADDITIONS: SUBTRACT 0.90 FT.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DES: AMS

DRN: GHS

CHK: LHH

DATE: -

1-12-17
DATE

REVISIONS AND RECORD OF ISSUE

NO.	DATE	REVISIONS AND RECORD OF ISSUE
1-12-17	DATE	REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-12A
CIVIL

STORM SEWER PROFILES

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001821
CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

CONTRACT SHEET 86 OF 611

CY-14

SDP SHEET 49 OF 59

M:\380709-Howard County\ENR\03 Civil\CS-07 Coordinate Schedule 1.dwg 05/14/09_18:50

STRUCTURE SCHEDULE

Table with columns: POINT, STRUCTURE, DESCRIPTION, NORTHING, EASTING. Lists various structures like FINAL CLARIFIER #13, AUXILIARY NORTH GALLERY, PROCESS REACTOR #8N, etc.

STORM DRAIN STRUCTURE SCHEDULE

Table with columns: STRUCTURE, TOP, BOTTOM, REMARKS, DESCRIPTION, NORTHING, EASTING. Lists storm drain structures like YARD INLET, MANHOLE COVER, S INLET, etc.

- NOTES: 1. ALL STRUCTURES TO HAVE A 4" SUMP PER HOWARD COUNTY MANHOLE DETAILS... 2. "S INLET" PER HOWARD COUNTY DETAIL D-4.22...

STRUCTURE SCHEDULE

Table with columns: POINT, STRUCTURE, DESCRIPTION, NORTHING, EASTING. Lists fence structures like TIE INTO EX. CHAIN LINK FENCE, CORNER, etc.

LOD POINT TABLE

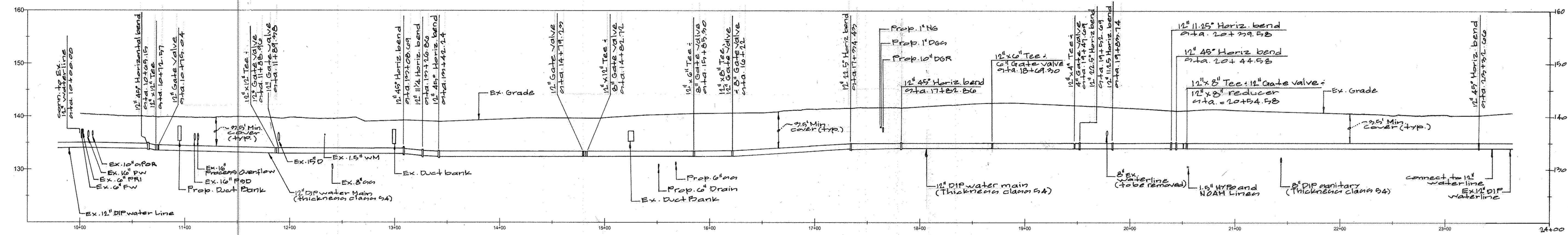
Table with columns: POINT, NORTHING, EASTING. Lists LOD points for various structures.

LOD POINT TABLE

Table with columns: POINT, NORTHING, EASTING. Lists LOD points for various structures.

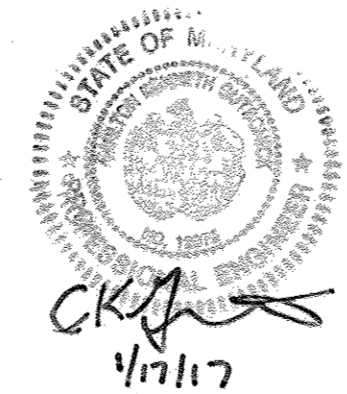
LOD POINT TABLE

Table with columns: POINT, NORTHING, EASTING. Lists LOD points for various structures.



STRUCTURE SCHEDULE table with columns: POINT, STRUCTURE, DESCRIPTION, NORTHING, EASTING. Lists SAN MH 7-6, SAN MH 7-7, TRUCK PAD INLET.

PROFESSIONAL CERTIFICATION FOR REVISION 15/16. I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME...

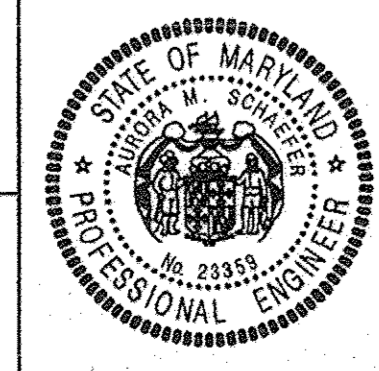


PURPOSE NOTE: THE REVISIONS MADE TO THIS SHEET WERE TO REFLECT CHANGES TO THE SITE FOR ADDITION NO. 8. THIS PLAN SUPERCEDES THE PLAN SIGNED ON 5/28/09.

REVISED SITE DEVELOPMENT PLAN - REV. NO. 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING. Includes signatures and dates for Director and Chief, Development Engineering Division.

PBSJ logo and contact information for Stantec Consulting Ltd., including address and phone numbers.



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME...

NOTICE TO CONTRACTORS: PROJECT ELEVATIONS ARE BASED ON NAVD88 AND HOWARD COUNTY'S BENCHMARK SYSTEM...

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND. Includes signature and date of the Chief, Bureau of Utilities.

DES: AMS, DRN: GHS, CHK: -

Table with columns: DATE, REVISIONS AND RECORD OF ISSUE. Lists dates and descriptions of revisions.

HOWARD COUNTY SDP SHEET C-12B CIVIL. STRUCTURE AND COORDINATE SCHEDULE.

REVISION SITE DEVELOPMENT PLAN - REV. NO. 10. PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872.

SCALE AS SHOWN. CONTRACT SHEET 43 OF 611. SDP SHEET 50 OF 59.

SDP-00-094

M:\380709-Howard County\ENR\03 Civil\CS-07 Coordinates Schedule 1.dwg 05/14/09_18:50

STRUCTURE SCHEDULE

POINT	STRUCTURE	DESCRIPTION	NORTHING	EASTING
1000	FINAL CLARIFIER #13	CENTER POINT	N 531277.52	E 1365091.86
1002	AUXILIARY NORTH GALLERY	EXTERIOR NE CORNER AT GRADE	N 531393.99	E 1365081.45
1003	AUXILIARY NORTH GALLERY	EXTERIOR SE CORNER AT GRADE	N 531366.48	E 1365107.65
N/A	PROCESS REACTOR #8N	EXTERIOR SW CORNER AT GRADE	LOCATE PER EX. STRUCTURE	
N/A	PROCESS REACTOR #8N	EXTERIOR SE CORNER AT GRADE	LOCATE PER EX. STRUCTURE	
1006	EAST/WEST BLOWER BUILDING	EXTERIOR NE CORNER AT GRADE	N 531024.90	E 1365600.31
1007	EAST/WEST BLOWER BUILDING	EXTERIOR SE CORNER AT GRADE	N 530995.93	E 1365627.89
1007	EAST SUBSTATION	EXTERIOR NE CORNER AT GRADE	N 530998.02	E 1365631.60
1008	EAST SUBSTATION	EXTERIOR SE CORNER AT GRADE	N 530952.38	E 1365672.97
1009	PRI VALVE VAULT	APPROX. C. EX. PIPE @ NORTH WALL	N 530806.44	E 1365196.69
1010	PRI VALVE VAULT	APPROX. C. EX. PIPE @ SOUTH WALL	N 530797.38	E 1365205.31
1011	FIRE PROTECTION BUILDING	EXTERIOR SW CORNER AT GRADE	N 531033.97	E 1365986.88
1012	FIRE PROTECTION BUILDING	EXTERIOR SE CORNER AT GRADE	N 531044.64	E 1365985.36
1013	METHANOL FACILITY	EXTERIOR NW CORNER AT GRADE	N 531157.34	E 1365990.73
1014	METHANOL FACILITY	EXTERIOR SW CORNER AT GRADE	N 531079.34	E 1365990.73
1015	METHANOL FILL STATION	EXTERIOR NW CORNER AT GRADE	N 531185.02	E 1366011.40
1016	METHANOL FILL STATION	EXTERIOR SW CORNER AT GRADE	N 531171.35	E 1366011.40
1017	MUDWELL	EXTERIOR NW CORNER AT GRADE	N 531155.90	E 1365905.34
1018	MUDWELL	EXTERIOR SE CORNER AT GRADE	N 531155.85	E 1365970.09
1019	FILTER INFLUENT PUMP STATION	EXTERIOR NW CORNER AT GRADE	N 531273.30	E 1365900.54
1020	FILTER INFLUENT PUMP STATION	EXTERIOR SW CORNER AT GRADE	N 531225.22	E 1365900.54
1021	DENITRIFICATION FILTER COMPLEX	EXTERIOR NW CORNER AT GRADE	N 531425.13	E 1365898.54
1022	DENITRIFICATION FILTER COMPLEX	EXTERIOR NE CORNER AT GRADE	N 531273.38	E 1365898.52
1023	DENIT FILTER EFF METER VAULT	C. NEW 54" DFE @ NORTH INT WALL	N 531024±	E 1366046±
1024	DENIT FILTER EFF METER VAULT	C. NEW 54" DFE @ SOUTH INT WALL	N 531004±	E 1366046±

STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE	TOP	BOTTOM	REMARKS	DESCRIPTION	NORTHING	EASTING
I 7N-1	YARD INLET, WITH 3 OPENINGS	INLET BOTTOM	PROVIDE CONCRETE APRON ON 3 SIDES	CENTER OF INLET	N 531359.61	E 1365283.03
MH 7N-2	MANHOLE COVER	7" DIA MANHOLE	PROVIDE MINIMUM OF 1' OF PIPE SEPARATION	CENTER OF MANHOLE	N 531320.84	E 1365282.07
I 7N-3	S COMBINATION INLET	INLET BOTTOM	-	CENTER MID POINT ALONG CURB	N 531305.15	E 1365134.39
I 7N-4	S COMBINATION INLET	INLET BOTTOM	-	CENTER MID POINT ALONG CURB	N 531317.54	E 1365148.87
I 7N-5	YARD INLET, WITH 2 OPENINGS	INLET BOTTOM	PROVIDE CONCRETE APRON ON 2 SIDES	CENTER OF INLET	N 531363.88	E 1365173.51
MH 7N-6	MANHOLE COVER	5" DIA MANHOLE	-	CENTER OF MANHOLE	N 531436.70	E 1364990.66
I 7N-7	S INLET	INLET BOTTOM	REMOVE EX. ENDWALL & TIE INTO EX. PIPE	CENTER OF INLET	N 531205.75	E 1365094.51
I 7N-8	S INLET	INLET BOTTOM	-	CENTER OF INLET	N 531271.77	E 1365027.73
MH 7N-9	MANHOLE COVER	5" DIA BOTTOM	-	CENTER OF MANHOLE	N 531371.67	E 1364922.37
MH 7N-10	MANHOLE COVER	5" DIA BOTTOM	-	CENTER OF MANHOLE	N 531324.81	E 1364872.85
I 7N-11	S INLET	5" DIA BOTTOM	-	CENTER OF INLET	N 531166.33	E 1364868.99
I 6-2A	S COMBINATION INLET	4" DIA BOTTOM	-	CENTER MID POINT ALONG CURB	N 531075.63	E 1364950.97
I 6-2	S COMBINATION INLET	EX. 4" DIA BOTTOM	RAISE EX. INLET TOP PER STORM PROFILE	CENTER MID POINT ALONG CURB	-	-
I 7E-1	YARD INLET, WITH 2 OPENINGS	INLET BOTTOM	PROVIDE CONCRETE APRON ON 2 SIDES	CENTER OF INLET	N 531342.90	E 1366203.26
I 7E-2	S INLET	5" DIA BOTTOM	-	CENTER OF INLET	N 531399.85	E 1366197.43
I 7E-3	S INLET	5" DIA BOTTOM	-	CENTER OF INLET	N 531440.19	E 1366167.82
I 7E-4	S INLET	5" DIA BOTTOM	-	CENTER OF INLET	N 531454.09	E 1366119.78
I 7E-5	S INLET	5" DIA BOTTOM	-	CENTER OF INLET	N 531454.95	E 1366035.39
O 7E	ENDWALL, PER SD-5.21	-	SIZE FOR 36" DIA PIPE	CENTER OF ENDWALL	N 531455.22	E 1365897.85
O 7W-1	ENDWALL, PER SD-5.21	-	SIZE FOR 15" DIA PIPE	CENTER OF ENDWALL	N 530998.68	E 1365874.82
O 7RD-1	ENDWALL, PER SD-5.21	-	ROOF DRAIN ENDWALL	CENTER OF ENDWALL	N 531082.65	E 1365967.64
O 7RD-2	ENDWALL, PER SD-5.21	-	ROOF DRAIN ENDWALL	CENTER OF ENDWALL	N 531166.91	E 1365904.20

- NOTES:
- ALL STRUCTURES TO HAVE A 4" SUMP PER HOWARD COUNTY MANHOLE DETAILS
 - "S INLET" PER HOWARD COUNTY DETAIL D-4.22
 - "S COMBINATION INLET" PER HOWARD COUNTY DETAIL D-4.32
 - WHEN PIPE DIAMETERS ARE LARGER THAN THE GRATE INLET, A MANHOLE BASE WITH A GRATE INLET RISER IS REQUIRED
 - WITH 4" DIA MANHOLE, USE DETAIL G-5.12
 - WITH 5" DIA MANHOLE, USE DETAIL G-5.13
 - SEE YARD INLET AND CONCRETE DETAILS FOR MORE INFORMATION

STRUCTURE SCHEDULE

POINT	STRUCTURE	DESCRIPTION	NORTHING	EASTING
1200	FENCE	TIE INTO EX. CHAIN LINK FENCE	N 531343.87	E 1365310.46
1201	FENCE	CORNER	N 531376.84	E 1365298.53
1202	FENCE	CORNER	N 531368.52	E 1365229.42
1203	FENCE	CORNER	N 531430.11	E 1365076.15
1204	FENCE	CORNER	N 531482.49	E 1365002.49
1205	FENCE	CORNER	N 531335.48	E 1364848.11
1206	FENCE	TIE INTO EX. CHAIN LINK FENCE	N 531167.84	E 1364844.01

LOD POINT TABLE

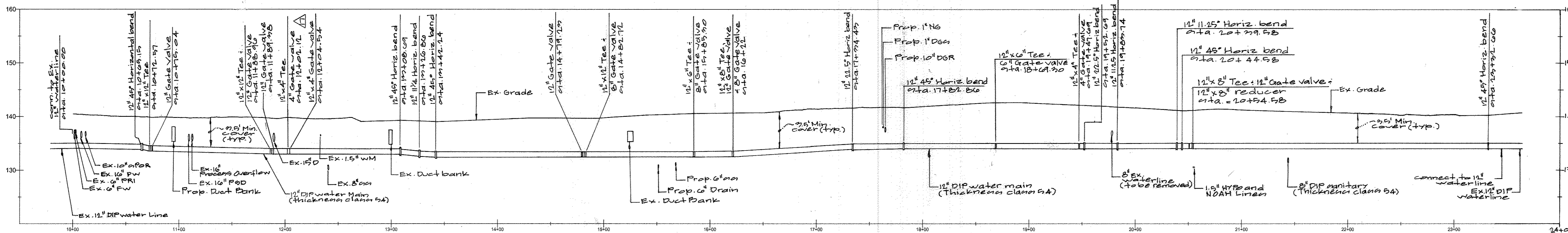
POINT	NORTHING	EASTING
3001	N 531176.28	E 1364696.56
3002	N 531124.45	E 1364567.81
3003	N 531189.11	E 1364531.00
3004	N 531233.25	E 1364483.81
3005	N 531241.73	E 1364505.26
3006	NOT USED	
3007	NOT USED	
3008	NOT USED	
3009	N 531431.88	E 1365077.12
3010	N 531478.15	E 1364479.98
3011	N 531505.18	E 1364500.99
3012	N 531595.20	E 1364604.92
3013	N 531615.34	E 1364669.54
3014	N 531627.56	E 1364731.72
3015	N 531604.60	E 1364739.00
3016	N 531539.65	E 1364799.06
3017	N 531479.61	E 1364832.59
3018	N 531401.42	E 1364803.65
3019	N 531416.13	E 1364929.90
3020	N 531485.08	E 1365002.31
3021	N 531370.57	E 1365229.69
3022	N 531379.57	E 1365300.66
3023	N 531305.17	E 1365327.73
3024	N 531275.05	E 1365330.34
3025	N 531252.73	E 1365282.67
3026	N 531251.23	E 1365221.07
3027	N 531237.72	E 1365196.65
3028	N 531195.53	E 1365121.74
3029	N 531177.89	E 1365103.33
3030	N 531248.60	E 1364842.99
3031	N 531295.32	E 1364779.63
3032	N 531275.02	E 1364755.90
3033	N 531238.09	E 1364743.75
3034	N 531212.59	E 1364714.39
3035	N 531032.29	E 1364817.02
3036	N 531067.68	E 1364715.62

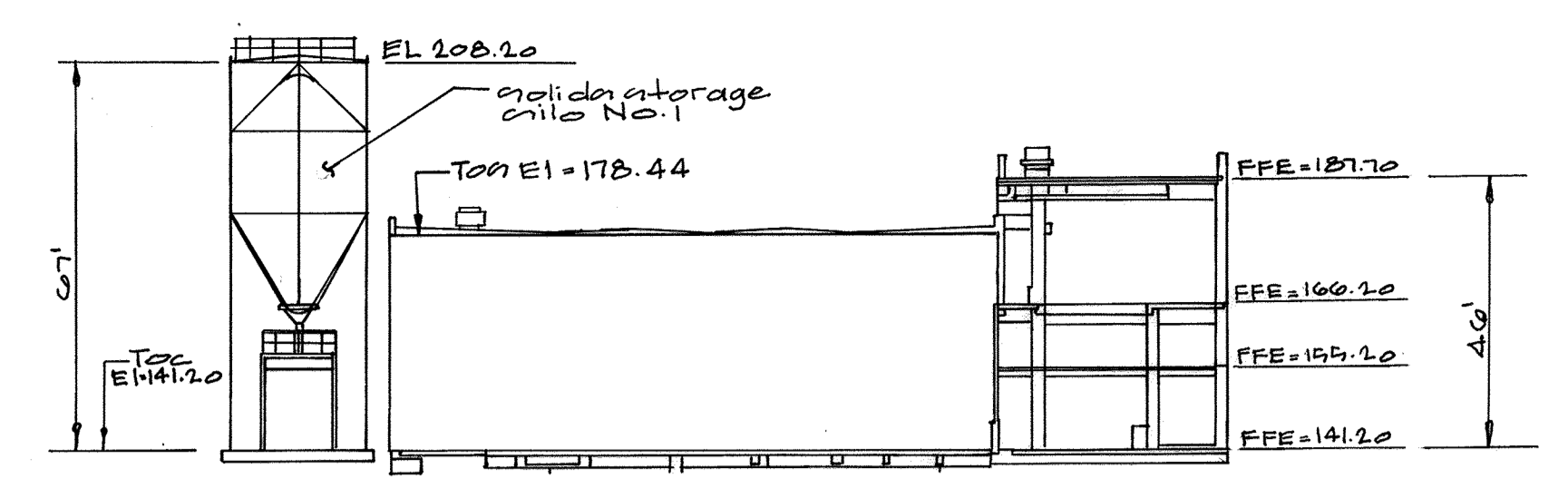
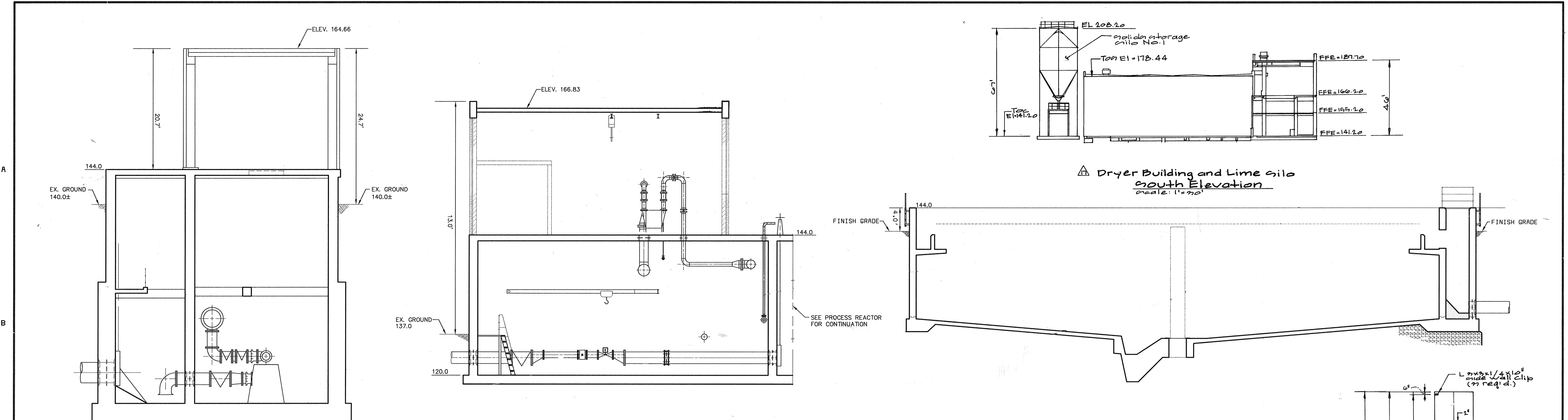
LOD POINT TABLE

POINT	NORTHING	EASTING
3037	NOT USED	
3038	N 531105.79	E 1364736.98
3039	N 531394.58	E 1365622.56
3040	N 531416.66	E 1365623.10
3041	N 531432.05	E 1365627.62
3042	N 531435.75	E 1365636.91
3043	N 531435.82	E 1365693.98
3044	N 531445.08	E 1365709.13
3045	N 531445.68	E 1365715.19
3046	N 531420.41	E 1365739.26
3047	N 531375.99	E 1365764.21
3048	N 531306.81	E 1365784.24
3049	N 531251.88	E 1365790.38
3050	N 531217.80	E 1365786.64
3051	N 531173.29	E 1365785.68
3052	N 531135.30	E 1365784.47
3053	N 531111.75	E 1365787.47
3054	N 531076.07	E 1365764.64
3055	N 531034.75	E 1365746.46
3056	N 531016.68	E 1365726.43
3057	N 531068.57	E 1365672.12
3058	N 531083.53	E 1365672.49
3059	N 531090.63	E 1365621.71
3060	N 531088.93	E 1365594.03
3061	N 531107.19	E 1365577.63
3062	N 531116.82	E 1365617.45
3063	N 531117.02	E 1365674.79
3064	N 530937.92	E 1365741.55
3065	N 531023.99	E 1365827.62
3066	N 531051.81	E 1365825.73
3067	N 531137.59	E 1365853.73
3068	N 531151.10	E 1365864.24
3069	N 531208.18	E 1365865.64
3070	N 531250.38	E 1365885.09
3071	N 531300.56	E 1365886.68
3072	N 531328.18	E 1365882.54

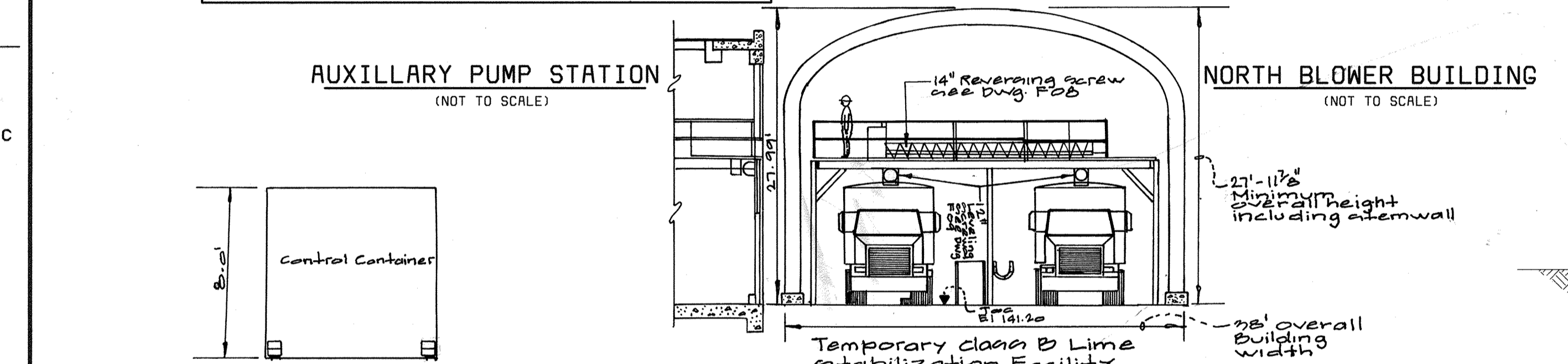
LOD POINT TABLE

POINT	NORTHING	EASTING
3109	N 531373.81	E 1365870.55
3110	N 531401.11	E 1365870.55
3111	N 531422.29	E 1365861.87
3112	N 531424.93	E 1365890.52
3113	N 531433.13	E 1365890.52
3114	N 531447.22	E 1365882.18
3115	N 531463.18	E 1365882.18
3116	N 531485.95	E 1365904.61
3117	N 531589.38	E 1365964.96
3118	N 531609.39	E 1366017.86
3119	N 531583.26	E 1366044.00
3120	N 531560.80	E 1366053.49
3121	N 531508.00	E 1366107.32
3122	N 531465.03	E 1366107.32
3123	N 531464.53	E 1366131.60
3124	N 531462.93	E 1366144.25
3125	N 531456.27	E 1366160.72
3126	N 531443.97	E 1366180.00
3127	N 531423.30	E 1366197.30
3128	N 531403.62	E 1366207.07



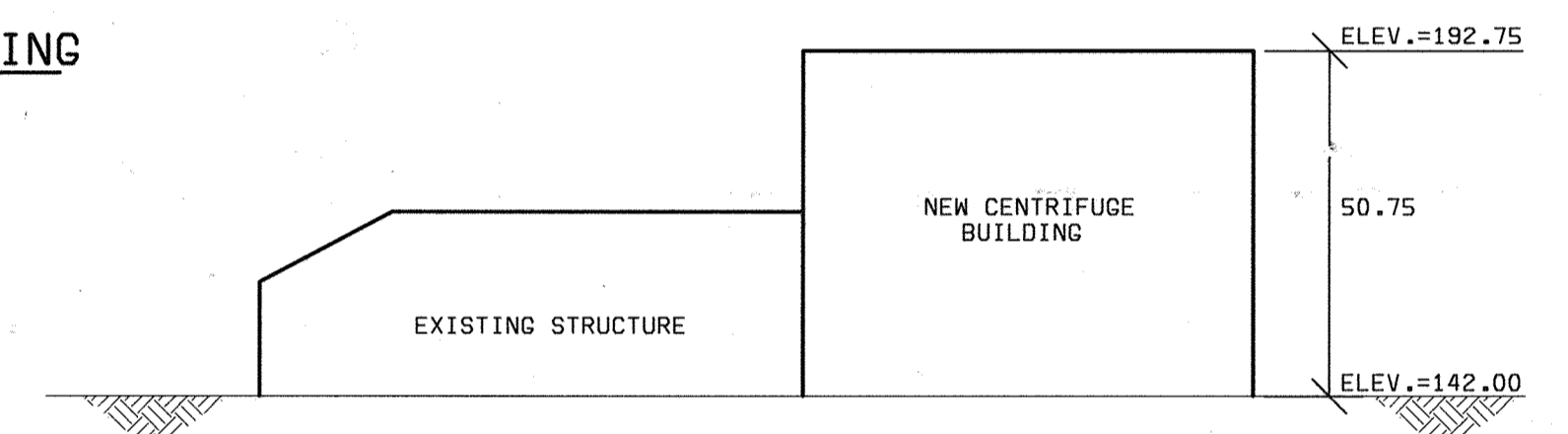


△ Dryer Building and Lime Silo
South Elevation
Scale: 1/8"=1'-0"



AUXILIARY PUMP STATION
(NOT TO SCALE)

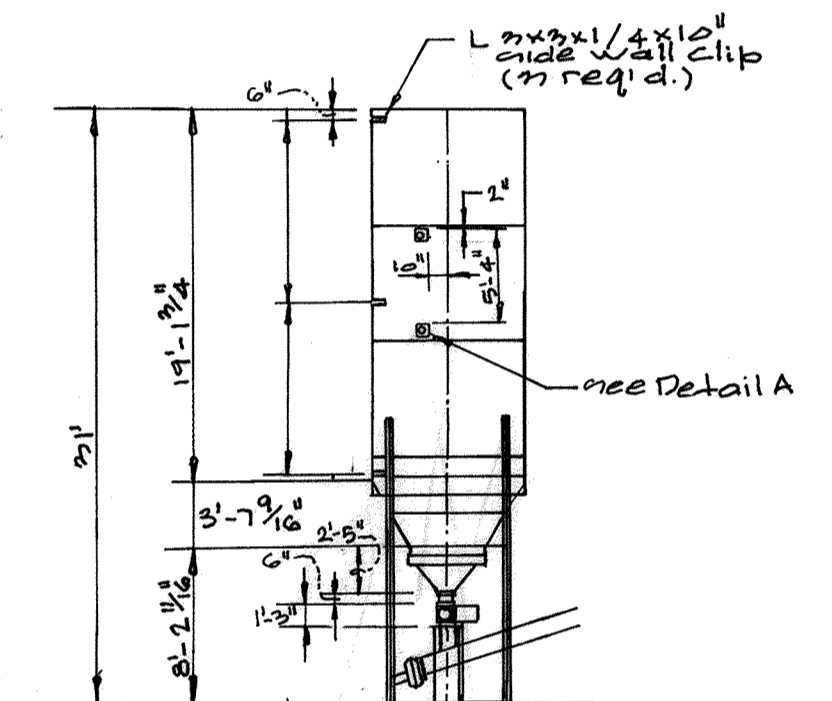
NORTH BLOWER BUILDING
(NOT TO SCALE)



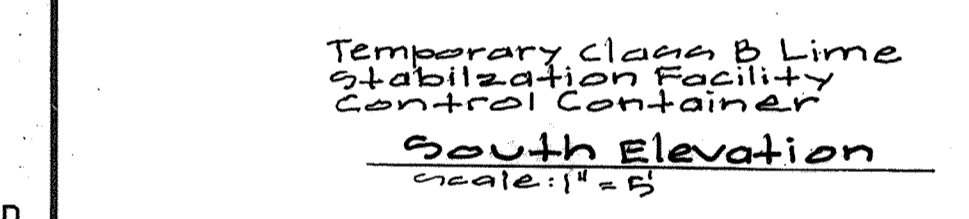
CENTRIFUGE BUILDING PROFILE
(NOT TO SCALE)

PRIMARY CLARIFIER NO. 5 AND FINAL CLARIFIER NO. 12

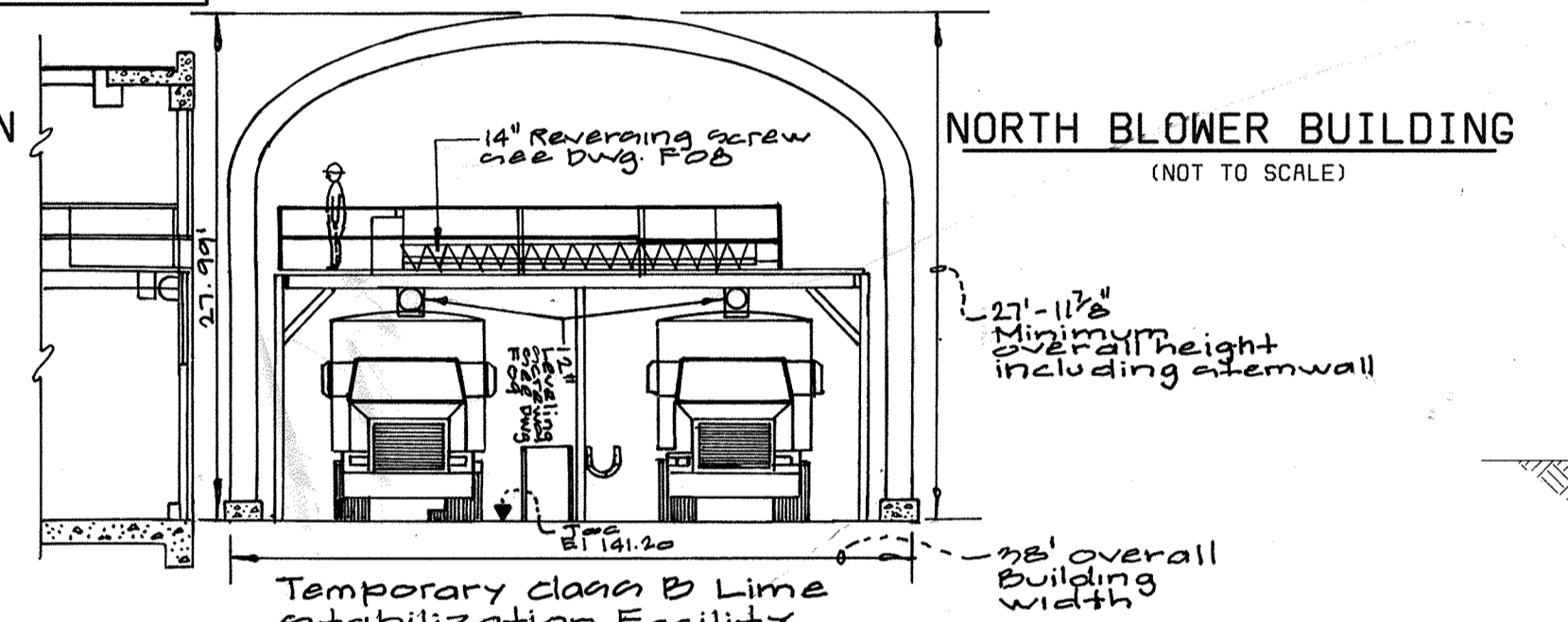
TYPICAL CLARIFIER SECTION
(NOT TO SCALE)



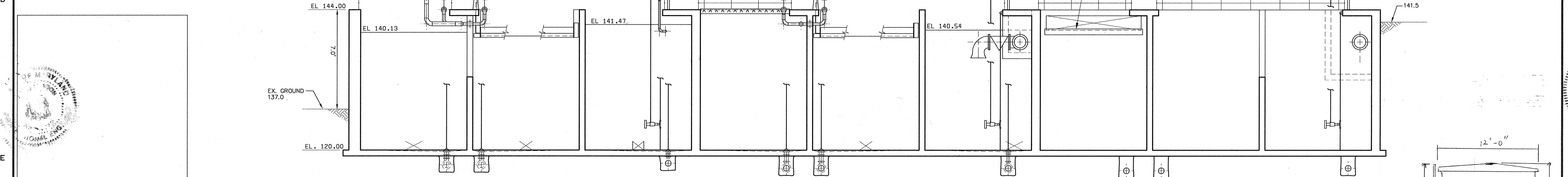
△ Temporary Class B Lime Stabilization Facility Silo
Elevation
Scale: 1/8"=1'-0"



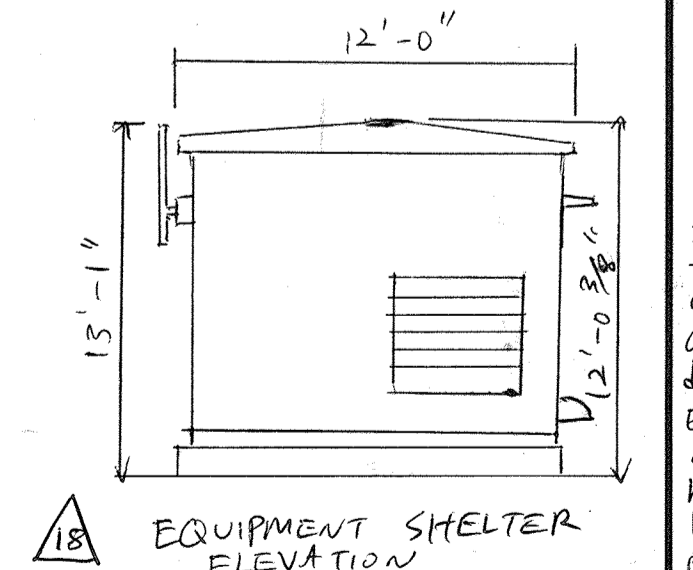
Temporary Class B Lime Stabilization Facility Control Container
South Elevation
Scale: 1/8"=1'-0"



Temporary Class B Lime Stabilization Facility Load-out Shelter
West Elevation
Scale: 1/8"=1'-0"

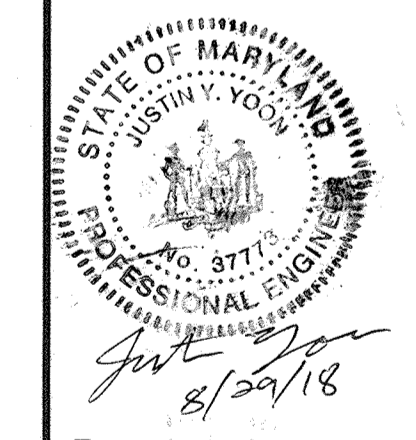


NORTH PROCESS REACTOR SECTION
(NOT TO SCALE)



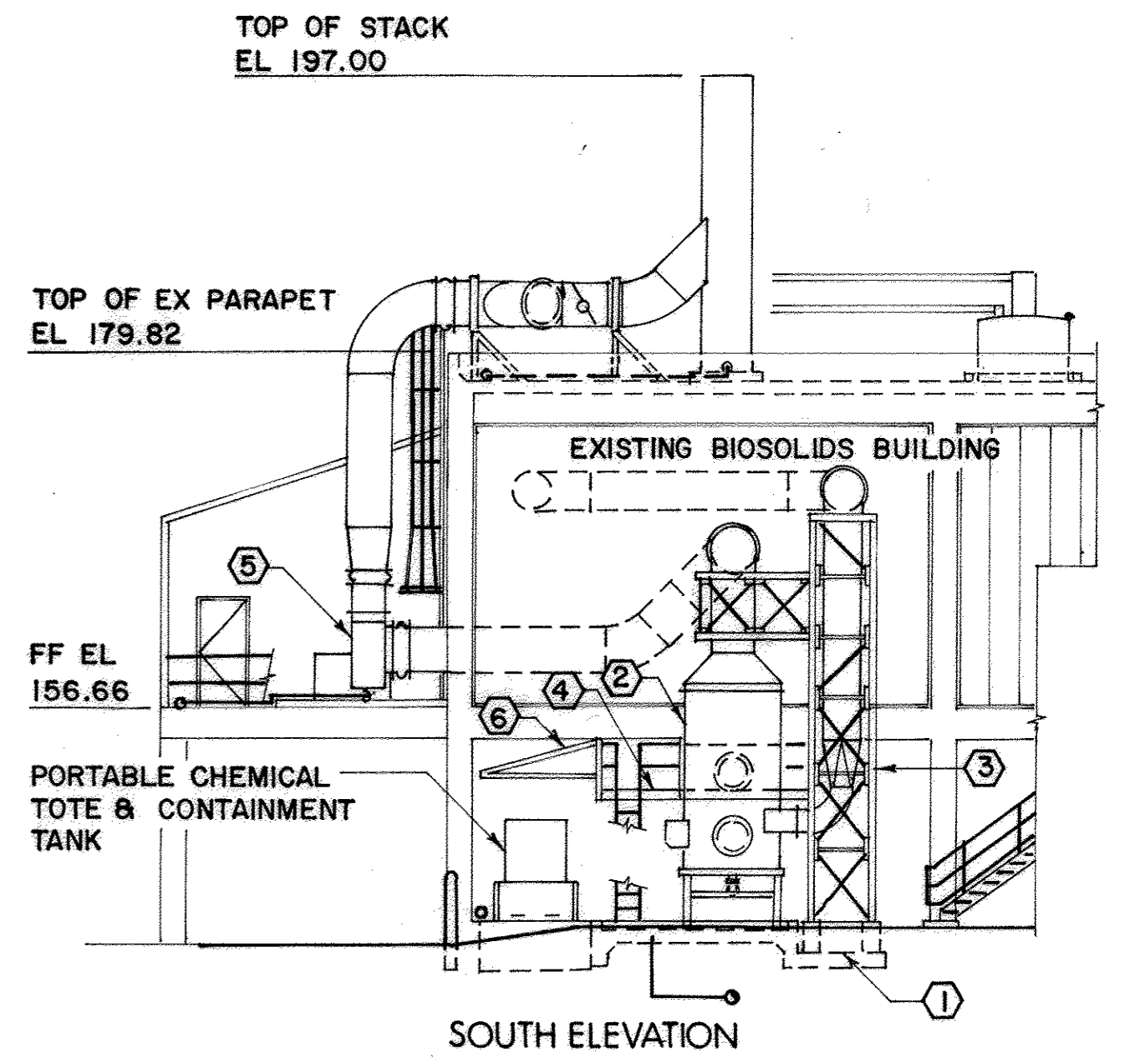
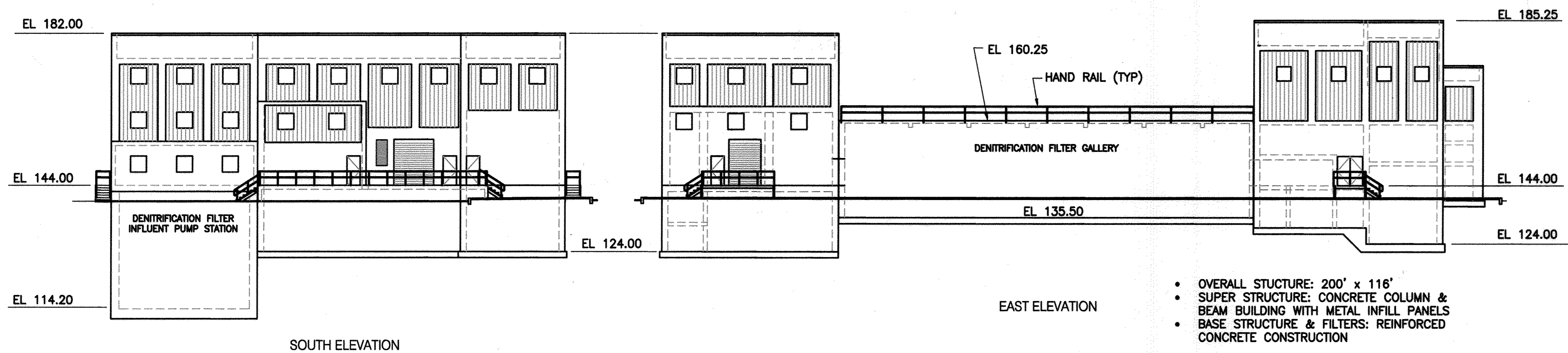
△ EQUIPMENT SHELTER
ELEVATION
(NOT TO SCALE)

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

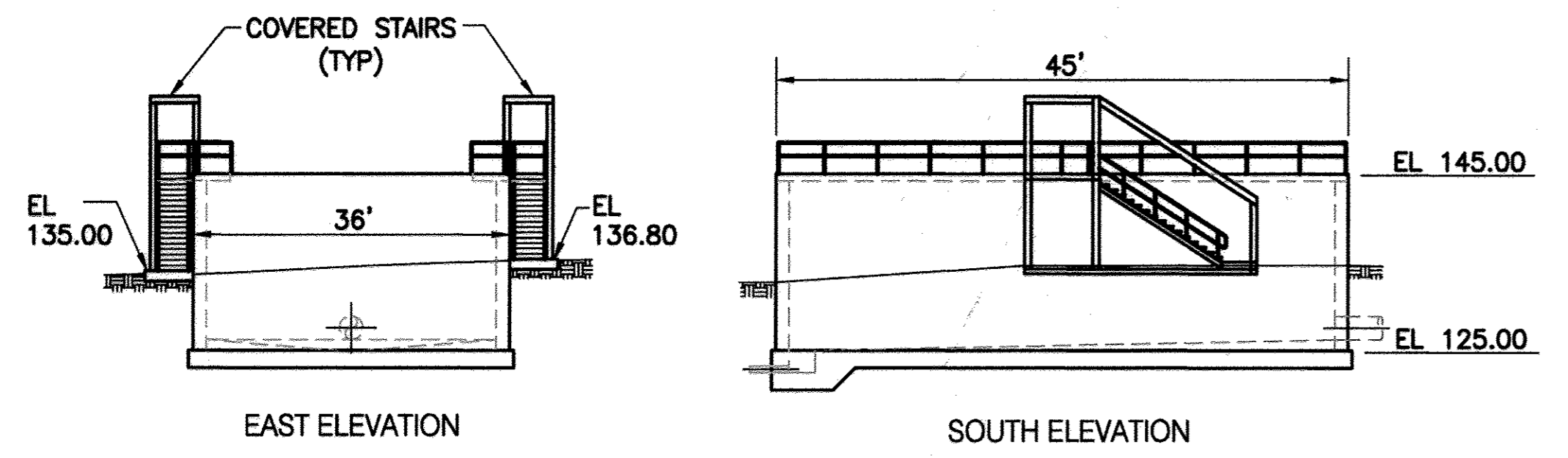


DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF UTILITIES DATE: 5-26-00	AMT A. MORTON THOMAS AND ASSOCIATES, INC. CONSULTING ENGINEERS 12750 TWAINBROOK PARKWAY, SUITE 200, ROCKVILLE MD 20852 TEL: (301) 881-2545 FAX: (301) 881-0814 E-MAIL: JBYRNE@AMTEENGINEERING.COM HOWARD COUNTY SUBMISSION 05/01/00	BLACK & VEATCH Gaithersburg, Maryland REG. PROF. ENGR. DATE: 5/22/00	DES: AR DRN: REA CHK: JB DATE: 05/01/00	CIVIL REVISION TO SDP-78-55, 89-62, 92-33 AND F92-72, PLAT 10148 STRUCTURE SECTIONS	LITTLE PATUXENT WATER RECLAMATION PLANT ADDITION NO. 6 PARCEL "A" CAPITAL PROJECT S-6205 CONTRACT NO. ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 51 OF 59 C-13

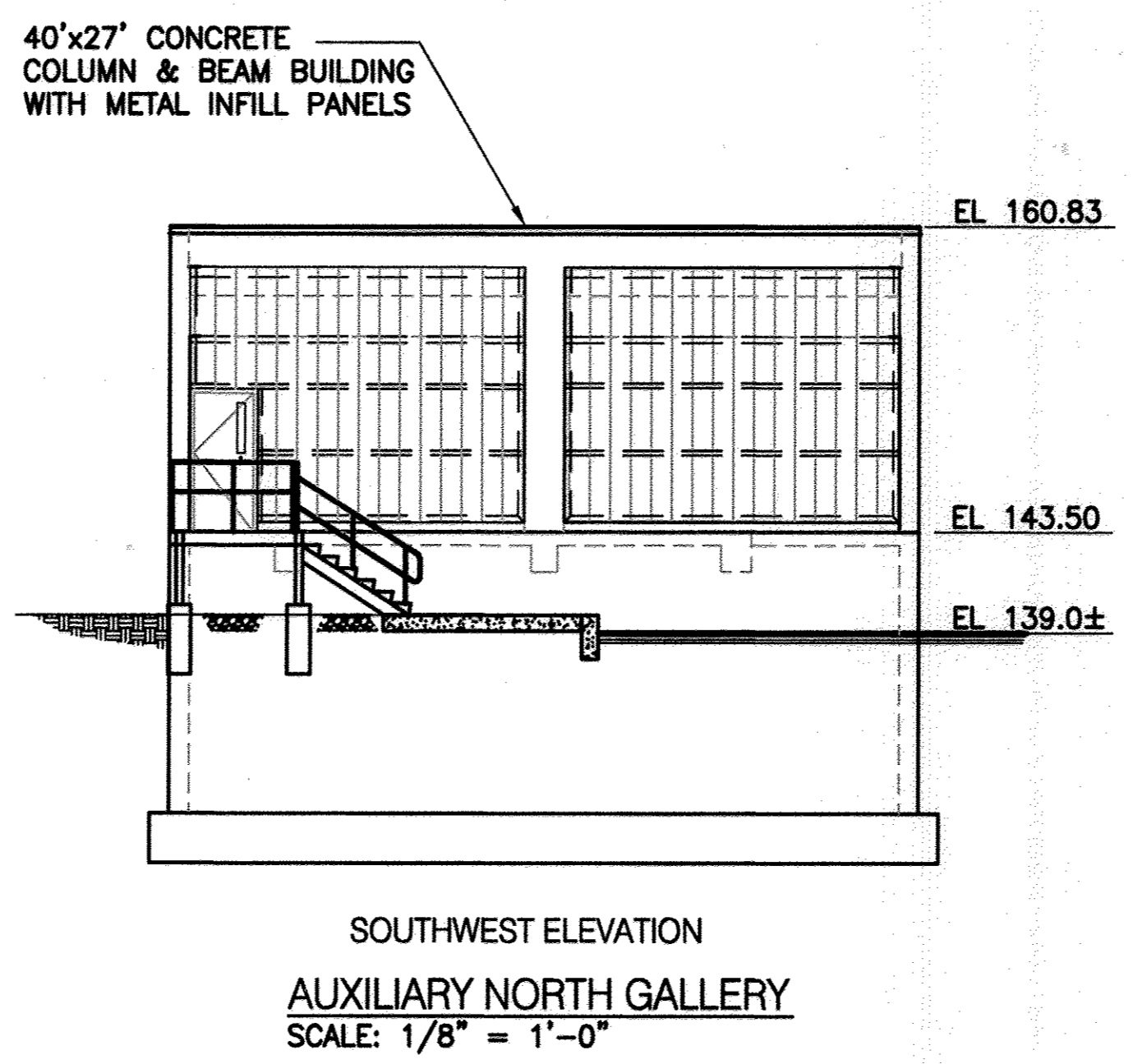
SDP 00-94



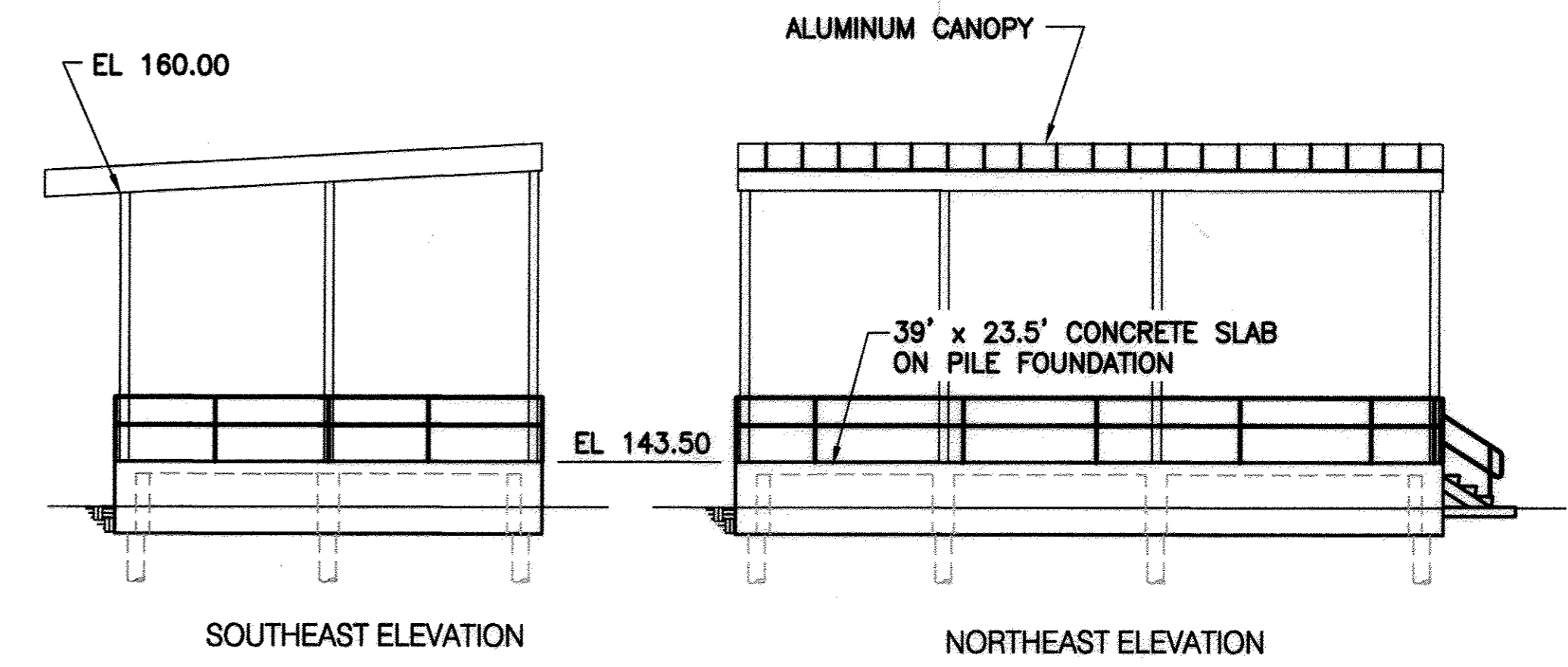
- ① CONCRETE SCRUBBER PAD: 13'-0" X 14'-9"
 - ② PARTICULATE SCRUBBER
 - ③ ALUMINUM DUCT SUPPORT STRUCTURE
 - ④ FRP & ALUMINUM ACCESS PLATFORM
 - ⑤ EXHAUST FAN
 - ⑥ FRP AWNING
- ▲ LIME STABILIZATION DUST CONTROL - PARTICULATE SCRUBBER
SCALE: 3/32" = 1'-0"



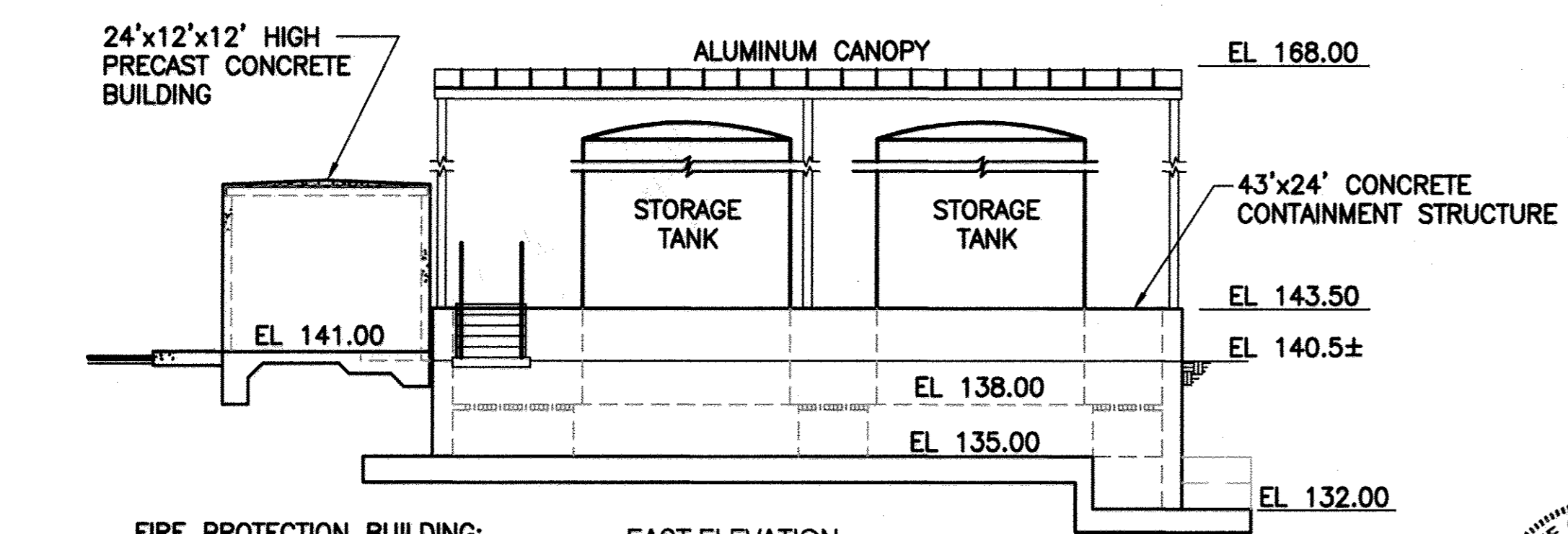
MUDWELL
SCALE: 1/16" = 1'-0"



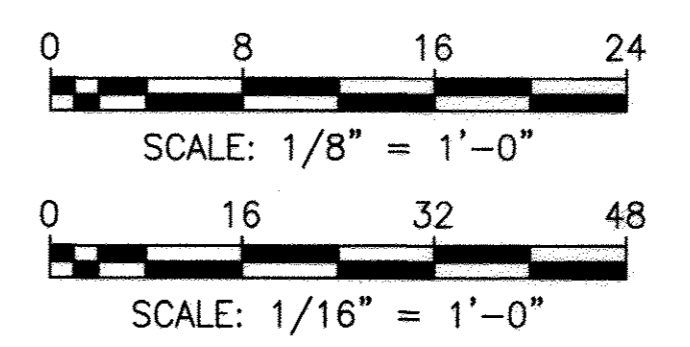
AUXILIARY NORTH GALLERY
SCALE: 1/8" = 1'-0"



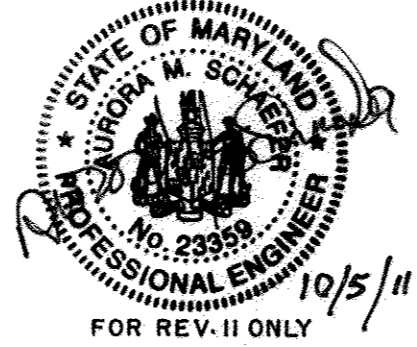
EAST / WEST BLOWER FACILITY
SCALE: 1/8" = 1'-0"



METHANOL FACILITY
SCALE: 1/8" = 1'-0"



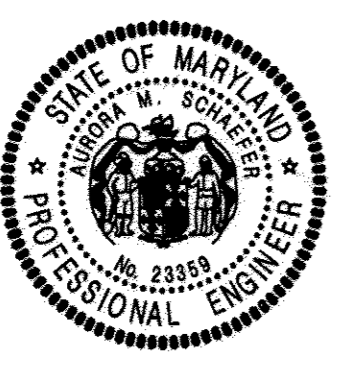
APPROVED:	DEPARTMENT OF PLANNING AND ZONING	
<i>Chad Combs</i>		5-27-09
CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE
<i>Chris Adams</i>		5-28-09
CHIEF, DIVISION OF LAND DEVELOPMENT	BB	DATE
<i>Thomas J. Sille</i>		5/28/09
DIRECTOR, DEPT.		DATE



M:\380709-Howard County\ENR\03 CIV\ CB-1 DFC ELEVATION.dwg 05/19/09_12:01

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425 McFarlan Road, Ste. 205
Kennett Square, PA 19348-2412
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Fax. 610.444.1698
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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. 23359, EXPIRATION DATE: 8/13/10.

Debra M. Sledge
REGISTERED PROFESSIONAL ENGINEER
4/20/09
DATE FIRM

NOTICE TO CONTRACTORS
PROJECT ELEVATIONS ARE BASED ON NAVD8S AND HOWARD COUNTY'S BENCHMARK SYSTEM
PREVIOUS PROJECTS USED OTHER DATUMS
APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
- ADDITION NO. 6: SUBTRACT 0.66 FT.
- PRIOR ADDITIONS: SUBTRACT 0.90 FT.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Shane C. Lewis
CHIEF, BUREAU OF UTILITIES DATE

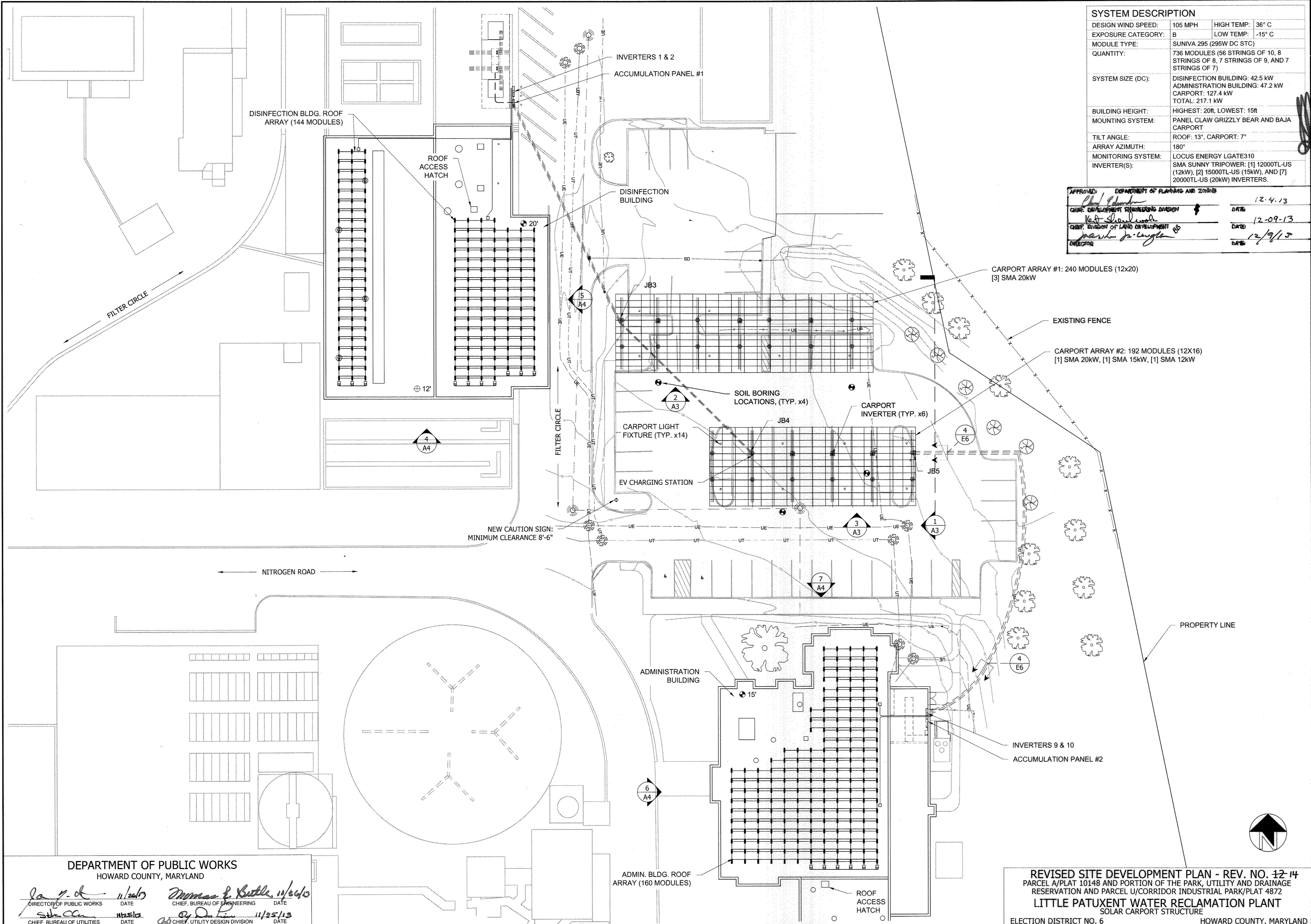
DES: AMS		
DRN: EJR		
CHK: LHH	1-12-17	REVISED SHEET TOTAL
DATE: -	10/5/11	SDP REVISION III: ADD LIME STABILIZATION DUST CONTROL FACILITY
		REVISIONS AND RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-13A
CIVIL

BUILDING ELEVATION
DENITRIFICATION FILTER COMPLEX

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS
CAPITAL PROJECT NO. S-8245.E PBS&J PROJECT NO. 100001621
CONTRACT NO. 60-4598
ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
CONTRACT SHEET OF
CB-1
SDP SHEET 52 OF 59



SYSTEM DESCRIPTION	
DESIGN WIND SPEED:	105 MPH HIGH TEMP: 36° C
EXPOSURE CATEGORY:	B LOW TEMP: -15° C
MODULE TYPE:	SUNIVA 295 (295W DC STC)
QUANTITY:	736 MODULES (56 STRINGS OF 10, 8 STRINGS OF 8, 7 STRINGS OF 9, AND 7 STRINGS OF 7)
SYSTEM SIZE (DC):	DISINFECTION BUILDING: 42.5 kW ADMINISTRATION BUILDING: 47.2 kW CARPORT: 127.4 kW TOTAL: 217.1 kW
BUILDING HEIGHT:	HIGHEST: 20ft. LOWEST: 15ft
MOUNTING SYSTEM:	PANEL CLAW GRIZZLY BEAR AND BAJA CARPORT
TILT ANGLE:	ROOF: 13°, CARPORT: 7°
ARRAY AZIMUTH:	180°
MONITORING SYSTEM:	LOCUS ENERGY LGATE310
INVERTER(S):	SMA SUNNY TRIPOWER: [1] 12000TL-US (12kW), [2] 15000TL-US (15kW), AND [7] 20000TL-US (20kW) INVERTERS.

APPROVED:	DEPARTMENT OF PLANNING AND ZONING	DATE:	12-4-13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	<i>[Signature]</i>	DATE:	12-09-13
CHIEF, DIVISION OF LAND DEVELOPMENT & DESIGN	<i>[Signature]</i>	DATE:	12/9/13

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PROFESSIONAL STRUCTURAL CERTIFICATION
[Stamp]
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE APPLICABLE CODES IN THE STATE OF MARYLAND, INCLUDING THE 2011 EDITION, WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

PROFESSIONAL ELECTRICAL CERTIFICATION
[Stamp]
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE APPLICABLE CODES IN THE STATE OF MARYLAND, INCLUDING THE 2011 EDITION, WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

PROJECT TITLE
Howard County - Little Patuxent WRP
PROJECT ADDRESS
8900 Greenwood Pl.
Savage, MD 20763
SHEET TITLE
OVERALL SITE PLAN

REVISIONS
15 REVISED SHEET NUMBER 1-12-17

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PROJECT NUMBER
13-C005
DRAWN BY
CAS
APPROVED BY
CJC

DATE
10.01.2013
ORIGINAL SHEET SIZE
36X24
SHOULD MEASURE 1":

SCALE
1" = 20'-0"

DRAWING
A1
SDP SHEET
of 59

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 11/26/13
DATE: 11/25/13
DATE: 11/25/13

REVISED SITE DEVELOPMENT PLAN - REV. NO. 12-14
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
SOLAR CARPORT STRUCTURE
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE APPLICABLE CODES IN THE STATE OF MARYLAND, INCLUDING THE 2012 EDITION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

PROFESSIONAL ELECTRICAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE APPLICABLE CODES IN THE STATE OF MARYLAND, INCLUDING THE 2011 EDITION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

PROJECT TITLE: Howard County - Little Patuxent WRP
PROJECT ADDRESS: 8900 Greenwood Pl. Savage, MD 20763
SHEET TITLE: CARPORT ELEVATIONS

REVISIONS	REVISED SHEET NUMBER
15	1-12-17

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PROJECT NUMBER: 13-C005

DRAWN BY: CAS

APPROVED BY: CJC

DATE: 10.01.2013

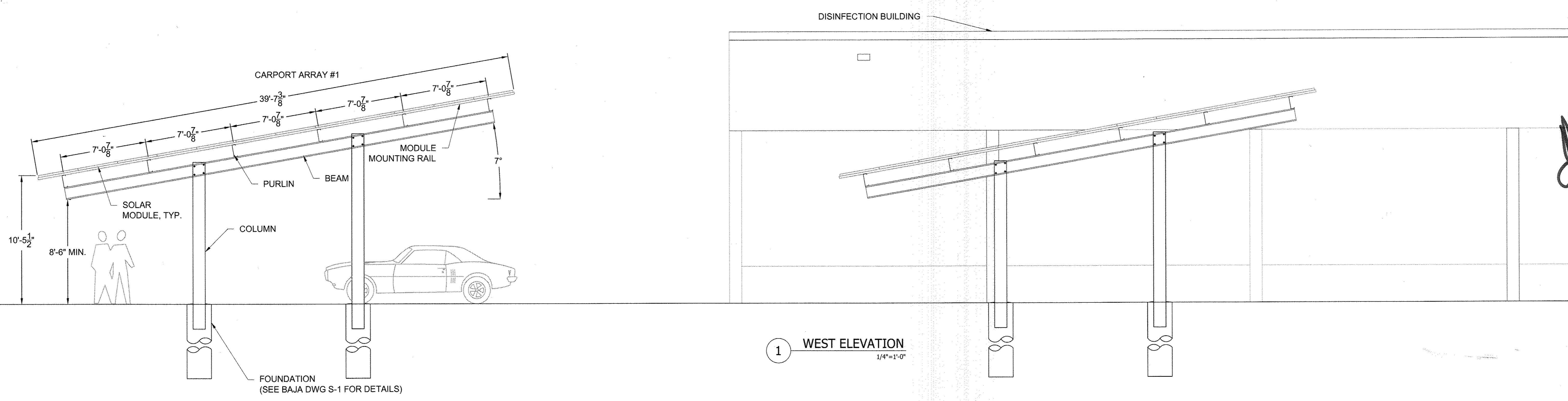
ORIGINAL SHEET SIZE: 36X24
SHOULD MEASURE 1"

SCALE: AS NOTED

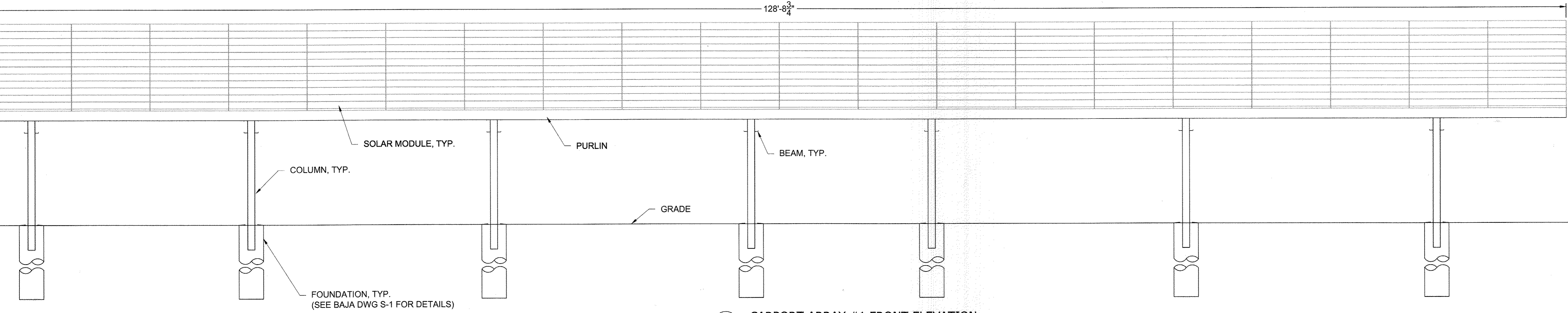
DRAWING

A3

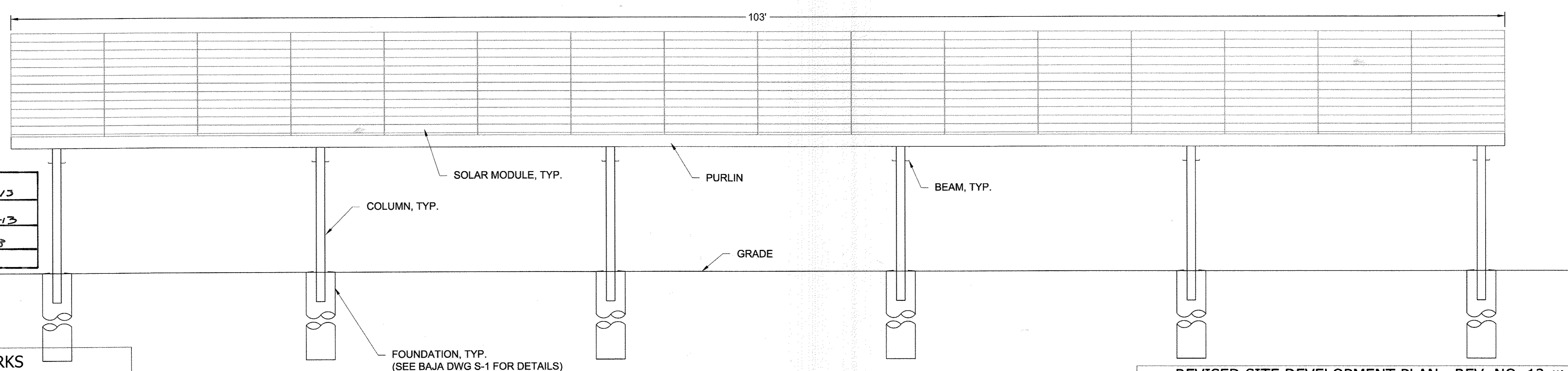
SDP SHEET 54 of 59



1 WEST ELEVATION
1/4"=1'-0"



2 CARPORT ARRAY #1 FRONT ELEVATION
1/4"=1'-0"



3 CARPORT ARRAY #2 FRONT ELEVATION
1/4"=1'-0"

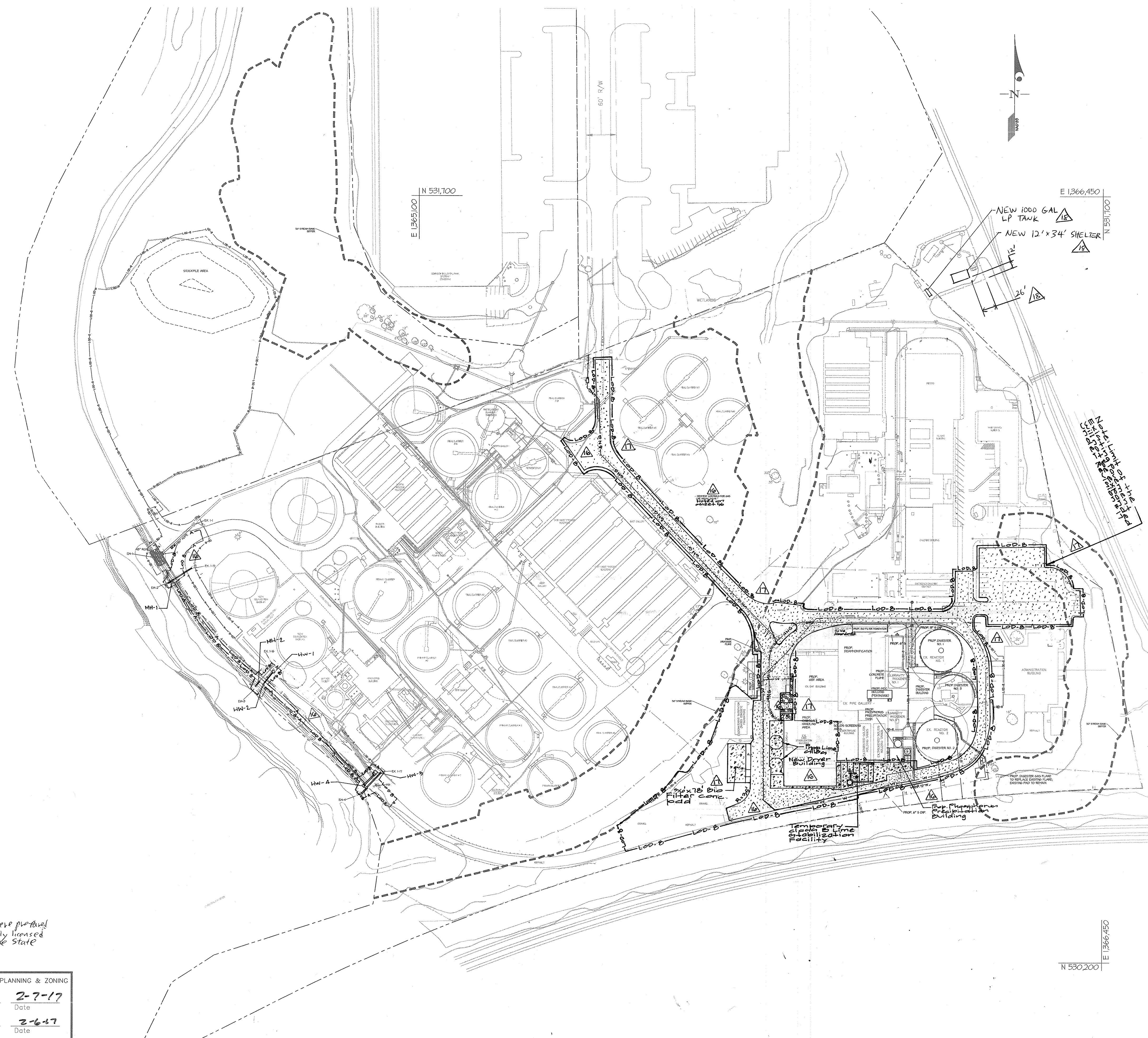
APPROVED: DEPARTMENT OF PLANNING AND ZONING	DATE: 12.4.13
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE: 12.09.13
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE: 12/9/13
DIRECTOR	DATE:

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature] DATE: 11/25/13
Chief, Bureau of Engineering: [Signature] DATE: 11/25/13
Chief, Utility Design Division: [Signature] DATE: 11/25/13

REVISED SITE DEVELOPMENT PLAN - REV. NO. 12-14
PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872
LITTLE PATUXENT WATER RECLAMATION PLANT
SOLAR CARPORT STRUCTURE
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

SDP SHIT NO	SDP DWG	CONTRACT DWG	DRAWING TITLE
1	C-1	-	OVERALL SITE PLAN
2	C-1A	CS-1	LEGEND, SYMBOLS AND GENERAL NOTES
3	C-1B	CS-2	OVERALL PROPERTY BOUNDARY PLAN
4	C-1C	CS-3	PLANT SITE AND KEY PLAN
5	C-1D	CS-4	PLANT SITE AND KEY PLAN
6	C-1E	CS-5	EROSION AND SEDIMENT CONTROL PLAN
7	C-1F	CS-6	EROSION AND SEDIMENT CONTROL PLAN
8	C-2	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
9	C-3	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
10	C-4	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
11	C-5	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
12	C-6	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
13	C-7	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
14	C-8	-	SITE DEVELOPMENT, EROSION AND SEDIMENT CONTROL PLAN
15	C-8A	CE-1	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN A
16	C-8B	CE-2	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN B
17	C-8C	CE-3	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN C
18	C-8D	CE-4	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN D
19	C-8E	CE-5	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN E
20	C-8F	CE-6	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN F
21	C-8G	CE-7	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN G
22	C-8H	CE-8	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN H
23	C-8I	CE-9	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN I
24	C-8J	CE-10	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN J
25	C-8K	CE-11	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN K
26	C-8L	CE-12	SITE DEVELOPMENT AND EROSION AND SEDIMENT CONTROL PLAN L
27	C-8M	CG-1	STAKEOUT, GRADING AND RESTORATION PLAN A
28	C-8N	CG-2	STAKEOUT, GRADING AND RESTORATION PLAN B
29	C-8O	CG-3	STAKEOUT, GRADING AND RESTORATION PLAN C
30	C-8P	CG-4	STAKEOUT, GRADING AND RESTORATION PLAN D
31	C-8Q	CG-5	STAKEOUT, GRADING AND RESTORATION PLAN E
32	C-8R	CG-6	STAKEOUT, GRADING AND RESTORATION PLAN F
33	C-8S	CG-7	STAKEOUT, GRADING AND RESTORATION PLAN G
34	C-8T	CG-8	STAKEOUT, GRADING AND RESTORATION PLAN H
35	C-8U	CG-9	STAKEOUT, GRADING AND RESTORATION PLAN I
36	C-8V	CG-10	STAKEOUT, GRADING AND RESTORATION PLAN J
37	C-8W	CG-11	STAKEOUT, GRADING AND RESTORATION PLAN K
38	C-8X	CG-12	STAKEOUT, GRADING AND RESTORATION PLAN L
39	C-8Y	CG-13	ROAD PROFILE AND LAYOUT
-	C-9	-	EROSION & SEDIMENT CONTROL DETAILS (REMOVED/SUPERCEDED BY SHEET C-9A)
40	C-9A	CE-13	EROSION & SEDIMENT CONTROL DETAILS
41	C-9B	CE-15	TEMPORARY SEDIMENT TRAP DETAILS AND RESTORATION PLAN
-	C-10	-	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS (REMOVED/SUPERCEDED BY SHEETS C-1A, C-8B AND C-10A)
42	C-10A	CE-14	EROSION AND SEDIMENT CONTROL NOTES
43	C-11	-	STORM SEWER PROFILE & SITE DETAILS
44	C-11A	CM-1	STORM SEWER AND SITE DETAILS
45	C-11B	CM-2	TREE PROTECTION DETAILS
46	C-11C	CM-3	MISCELLANEOUS DETAILS
47	C-11D	CM-4	MISCELLANEOUS DETAILS
48	C-12	-	STORM SEWER PROFILES
49	C-12A	CY-14	STORM SEWER PROFILES
50	C-12B	CS-7	STRUCTURE AND COORDINATE SCHEDULE
51	C-13	-	STRUCTURE SECTION [EXISTING]
52	C-13A	-	STRUCTURE ELEVATIONS [PROPOSED]
53	A1	-	SOLAR OVERALL SITE PLAN
54	A2	-	SOLAR CARPORT ELEVATIONS
55	-	-	ADDITION NO. 8 SITE PLAN
56	-	-	ADDITION NO. 8 EROSION AND SEDIMENT CONTROL NOTES
57	-	-	ADDITION NO. 8 EROSION AND SEDIMENT CONTROL NOTES
58	-	-	ADDITION NO. 8 STORM DRAIN PROFILES AND TYPICAL SECTION
59	-	-	ADDITION NO. 8 STRUCTURE ELEVATIONS



NOTE: THE PROPOSED DISTURBANCE TO THE FLOODPLAIN AND STREAM BUFFER AS SHOWN UNDER ADDITION NO. 8 IS DETERMINED TO BE NECESSARY DISTURBANCE IN ACCORDANCE WITH SECTION 16.116(C) OF THE SUBDIVISION REGULATIONS.



Professional Certification:
 For Revision 18 only
 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. 37773
 Expiration date: 8-14-19

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *Justin J. Kelly* 2-7-17
 Chief, Division of Land Development: *Vest Shandor* 2-6-17
 Chief, Development Engineering Division: *Chad...* 1-31-17

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONSVILLE OFFICE PARK
 BIRTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
12-4-17	ADD NEW SHELTER AND LP FUEL TANK	JY	
4-17-18	ADD NEW SHELTER AND LP FUEL TANK	JY	
12-4-17	ADD NEW SHELTER AND LP FUEL TANK	JY	

PREPARED FOR:
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 3430 COURT HOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975
 EXPIRATION DATE: MAY 26, 2018
Justin J. Kelly
 1-17-17

ADDITION NO. 8 SITE PLAN
LITTLE PATUXENT WATER RECLAMATION PLANT
ADDITION NO. 8 - BIOSOLIDS PROCESSING FACILITIES & OUTFALL & EMBANKMENT STABILIZATION
 CAPITOL PROJECTS S-6295 & T8D
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	M-2	14-028
DATE	TAX MAP - GRID	SHEET
JAN., 2017	47-24	55 OF 59

B-4-2 STANDARD AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

1. TEMPORARY STABILIZATION

2. PERMANENT STABILIZATION

3. TOPSOILING

4. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

5. EROSION AND SEDIMENT CONTROL PRACTICES

6. FERTILIZERS

7. LIME

8. ANCHORING

9. MULCHING

10. ANCHORING

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B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES TO THE SURFACE OF ALL PERMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

1. SPECIFICATIONS

2. APPLICATION

3. HYDROSEEDING

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HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

DEFINITION TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

1. GENERAL USE

2. TURFGRASS MIXTURES

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B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

1. GENERAL USE

2. TURFGRASS MIXTURES

3. TURFGRASS MIXTURES

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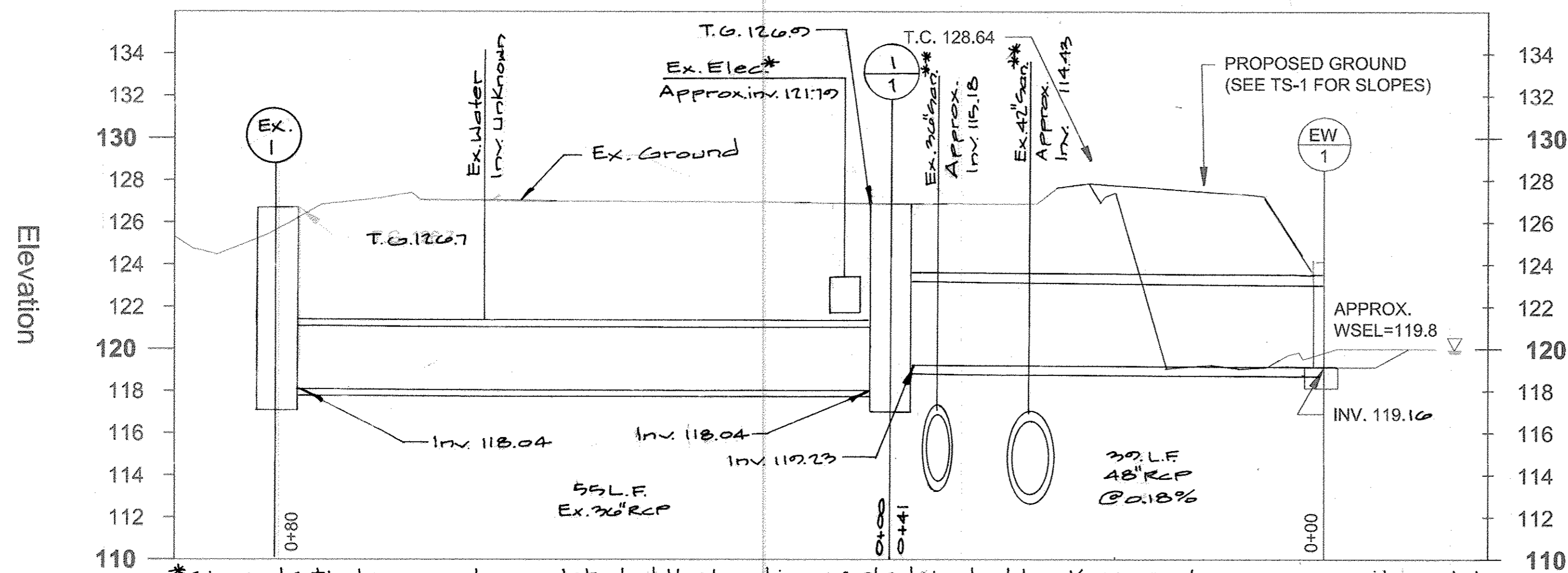
38. TURFGRASS MIXTURES

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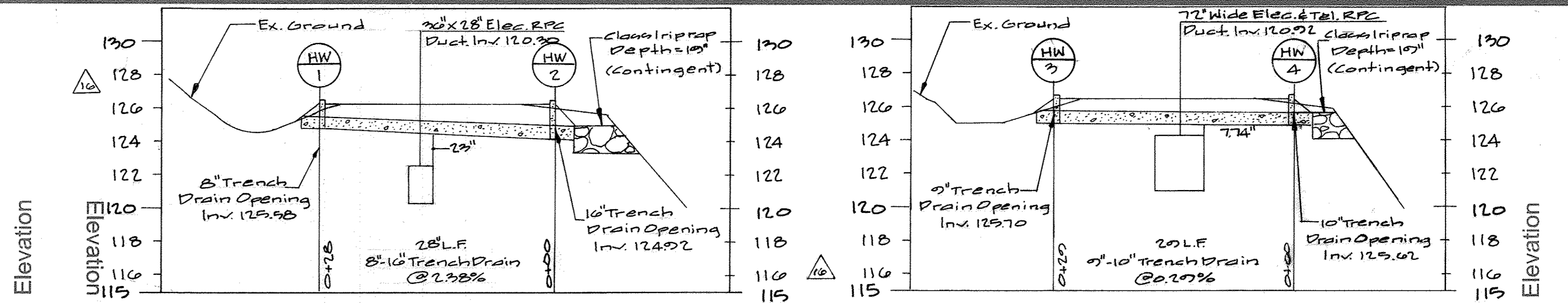
41. TURFGRASS MIXTURES

42. TURFGRASS MIXTURES



*since test hole was not completed at the location of electric duct bank, size shown on profile matches test hole #1 results.
 **size of sanitary sewer lines taken from record drawings.

LITTLE PATUXENT WATER RECLAMATION PLANT
 PIPE PROFILE - EX-1 TO EW-1

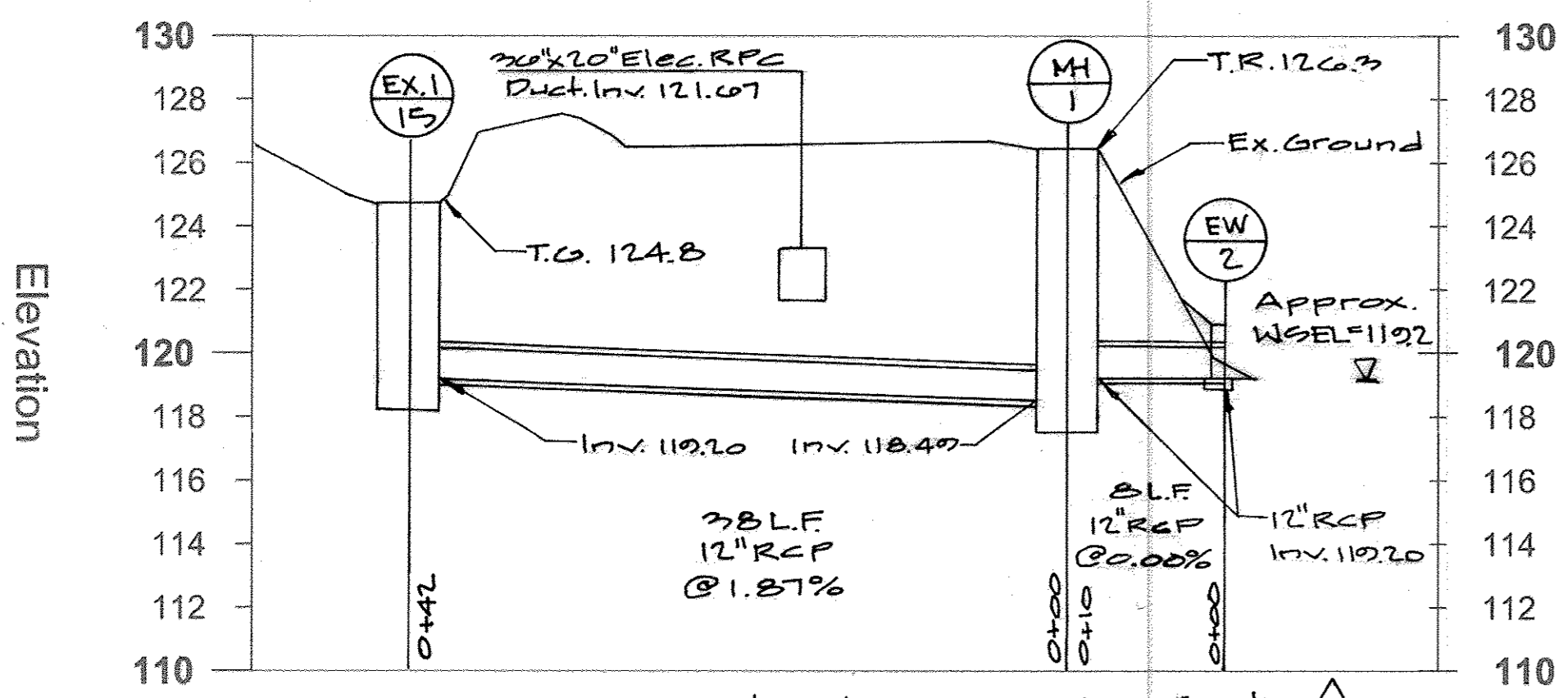


LITTLE PATUXENT WATER RECLAMATION PLANT
 PIPE PROFILE HW-1 TO HW-2
 LITTLE PATUXENT WATER RECLAMATION PLANT
 PIPE PROFILE HW-3 TO HW-4

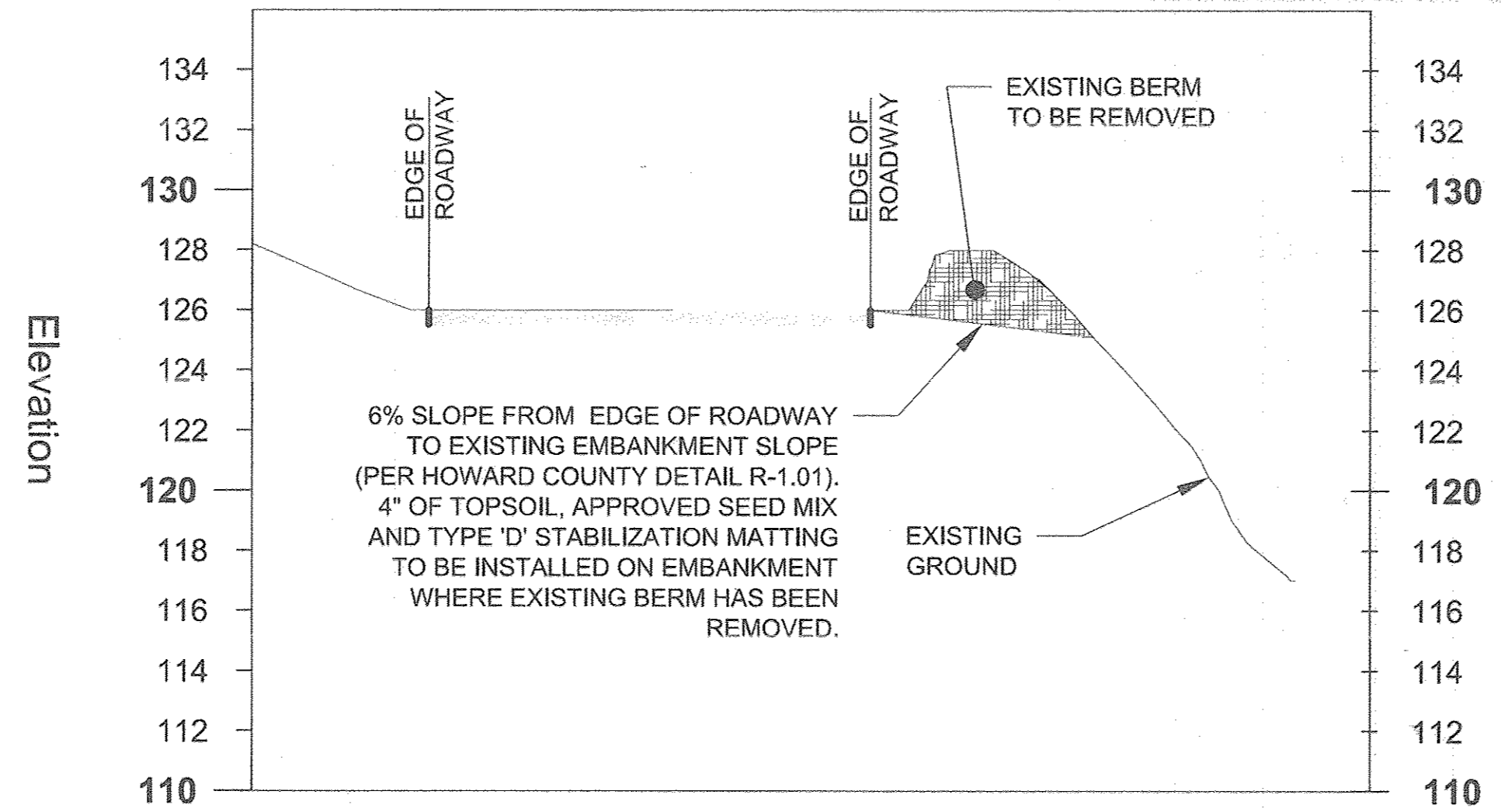
Trench Drain Schedule***

No.	Width	Length	Opening Size	Total Depth***	Inverts*	From		To		Type
						Northing	Easting	Northing	Easting	
TD-1	12"	28'	8"-10"	17"-25"	12558-12492	530,768.48	1,364,815.00	530,746.67	1,364,797.30	MHD-12
TD-2	18"	25'	9"-10"	18"-19"	12570-12562	530,500.80	1,363,015.11	530,548.33	1,364,995.40	MHD-18

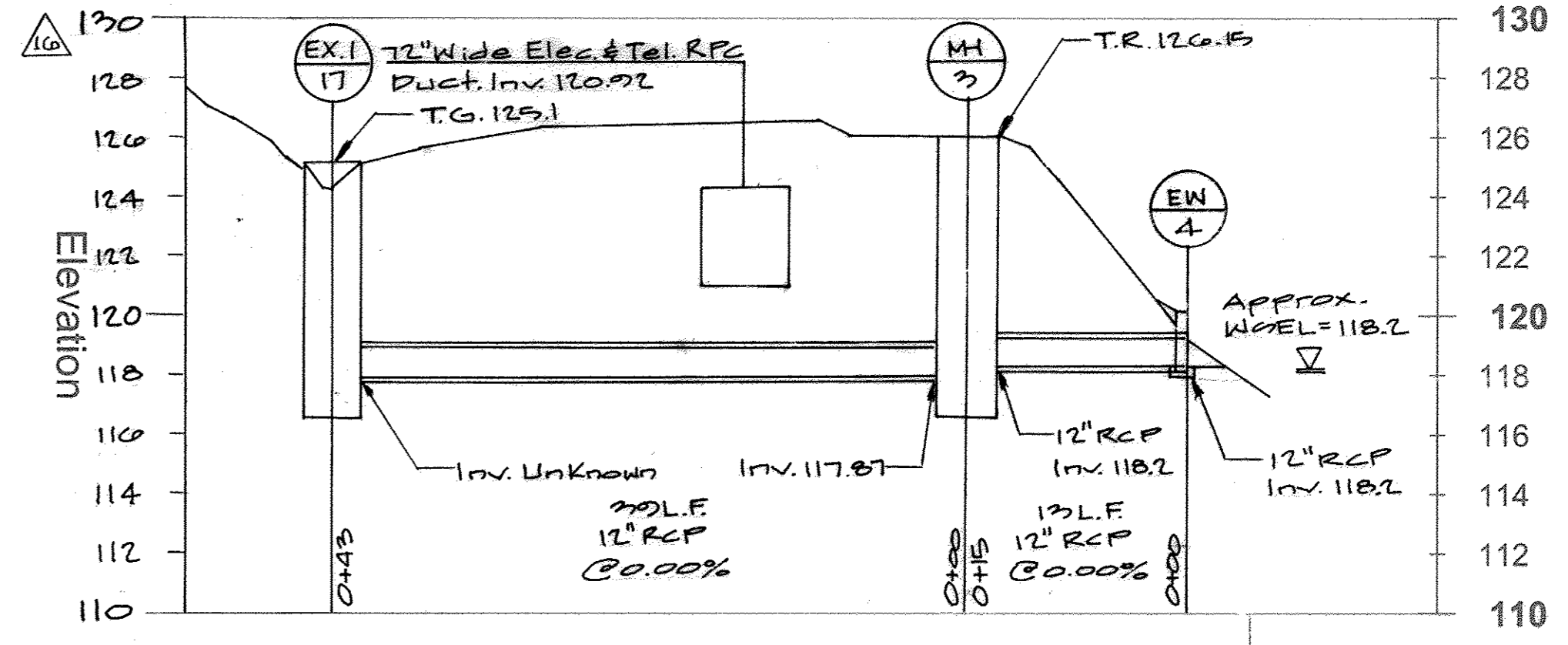
*see Note 18 on sheet 29.
 ** Total Depth is measured From Top of Trench Drain Opening to Bottom of concrete pour.
 *** see Notes 13-15 on sheet 29.



LITTLE PATUXENT WATER RECLAMATION PLANT
 PIPE PROFILE - EX-15 TO EW-2

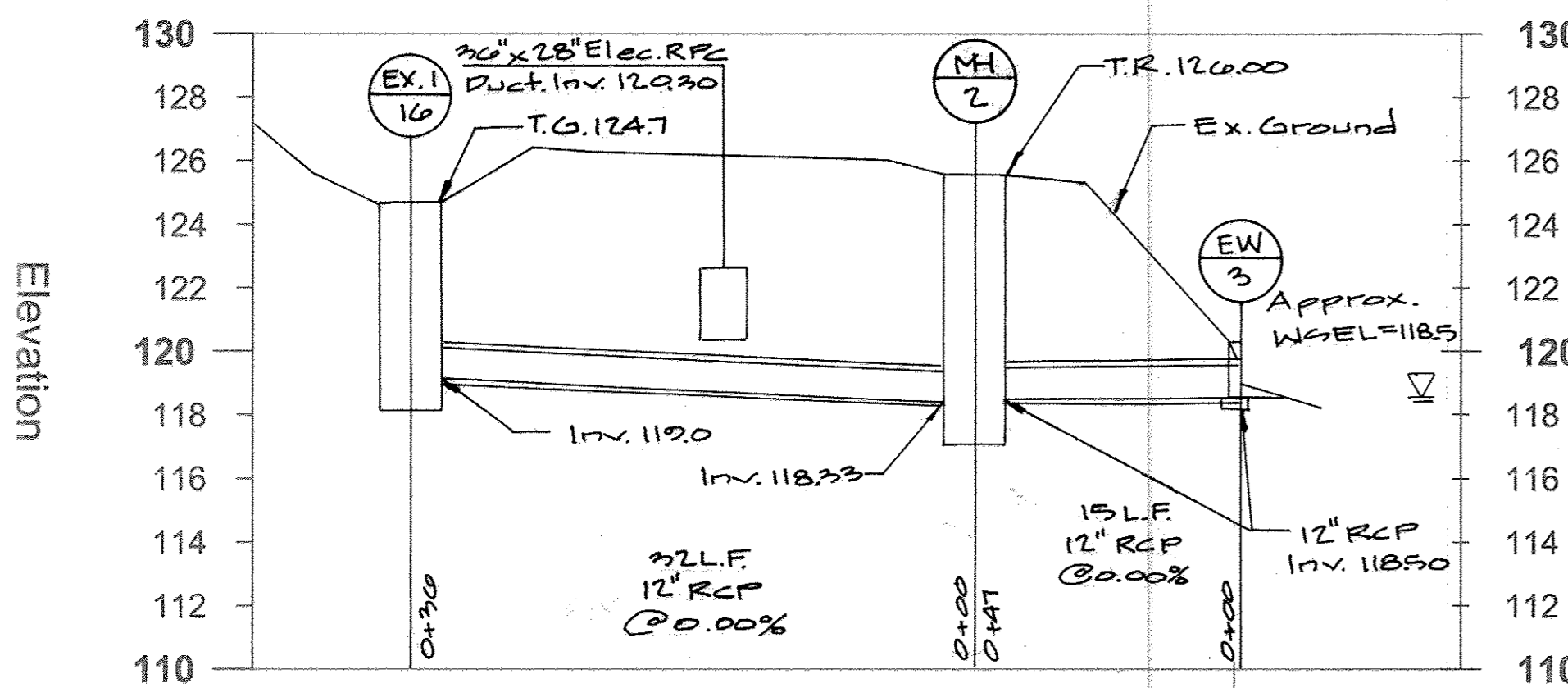


LITTLE PATUXENT WATER RECLAMATION PLANT
 TYPICAL SECTION FOR REMOVAL OF EXISTING BERM



LITTLE PATUXENT WATER RECLAMATION PLANT
 PIPE PROFILE - EX-17 TO EW-4

Note: Top of Manholes to match existing ground and to be determined by contractor prior to ordering proposed structure.



LITTLE PATUXENT WATER RECLAMATION PLANT
 PIPE PROFILE - EX-16 TO EW-3

PIPE SCHEDULE

FROM	TO	SIZE	TYPE	LENGTH (L.F.)
EX. I-1	I-1	36"	RCP	55
I-1	EW-1	48"	RCP	30
EX. I-15	MH-1	12"	RCP	38
I-2	EW-2	12"	RCP	8
MH-2	EW-3	12"	RCP	15
EX. I-16	MH-2	12"	RCP	32*
EX. I-17	MH-3	12"	RCP	30*
MH-3	EW-4	12"	RCP	13

*INSTALLATION OF PROPOSED PIPE IS CONTINGENT ON CONDITION OF EXISTING PIPES

DRAINAGE STRUCTURE SCHEDULE

NO.	T.C. / T.R.	INV. OUT	NORTHING	EASTING	TYPE	REMARKS
I-1	128.64	119.16	530,998.12	1,364,592.49	PRECAST STANDARD TYPE 'S' COMBINATION Inlet Double Grate Tandem	SHA MD-374.71
HW-1	N/A	12558	530,768.48	1,364,815.00	Trench Drain Headwall	8' Opening
EW-1	N/A	119.14	530,986.17	1,364,579.30	STANDARD TYPE 'C' ENDWALL CONCRETE Round Pipe (48")	D-5.21
HW-2	N/A	12492	530,746.67	1,364,797.30	Trench Drain Headwall	10' Opening
EW-2*	N/A	119.20*	530,944.69	1,364,608.89	STANDARD TYPE 'C' ENDWALL CONCRETE Round Pipe (48")	D-5.21
HW-3	N/A	12570	530,500.80	1,363,015.11	Trench Drain Headwall	9' Opening
HW-4	N/A	12562	530,548.33	1,364,995.40	Trench Drain Headwall	10' Opening
MH-1	126.3	119.2*	530,249.93	1,364,617.55	PRECAST MANHOLE STANDARD AND SHALLOW	G-5.12
MH-2	126.0	TBD**	530,751.26	1,364,792.13	PRECAST MANHOLE STANDARD AND SHALLOW	G-5.12
MH-3	126.5	TBD**				
EW-3**	N/A	118.50*	530,738.58	1,364,779.18	STANDARD TYPE 'C' ENDWALL CONCRETE ROUND PIPE (12")	D-5.21
EW-4**	N/A	118.20*	530,530.65	1,364,989.09	STANDARD TYPE 'C' ENDWALL CONCRETE ROUND PIPE (12")	D-5.21

*see Note 12 #13 on sheet 27.
 **see Note 16 on sheet 29.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *[Signature]* 2-7-17
 Chief, Division of Land Development: *[Signature]* 2-6-17
 Chief, Development Engineering Division: *[Signature]* 1-31-17

Riprap Schedule

Location	Class	Depth	Quantity (cy)	Notes
HW-2	1	10"	5	Contingent on condition of exist. riprap at outfall
HW-4	1	10"	3	

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1620 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.
12-4-17	APPROVED FOR CONSTRUCTION		

PREPARED FOR:
 HOWARD COUNTY
 DEPARTMENT OF PUBLIC WORKS
 3430 COURT HOUSE DRIVE
 ELLICOTT CITY, MD 21043
 410-313-4401

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS 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. 12975
 EXPIRATION DATE: MAY 26, 2018
[Signature]
 1-17-17

ADDITION NO. 8 STORM DRAIN PROFILES AND TYPICAL SECTION
LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 8 - BIOSOLIDS PROCESSING FACILITIES & OUTFALL & EMBANKMENT STABILIZATION
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
HORZ. 1"=10' VERT. 1"=5'	M-2	14-028
DATE	TAX MAP - GRID	SHEET
JAN., 2017	47-24	58 OF 59

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Natasha M. Schladt
 SIGNATURE OF ENGINEER
 (PRINT NAME BELOW SIGNATURE) NATASHA M. SCHLADT

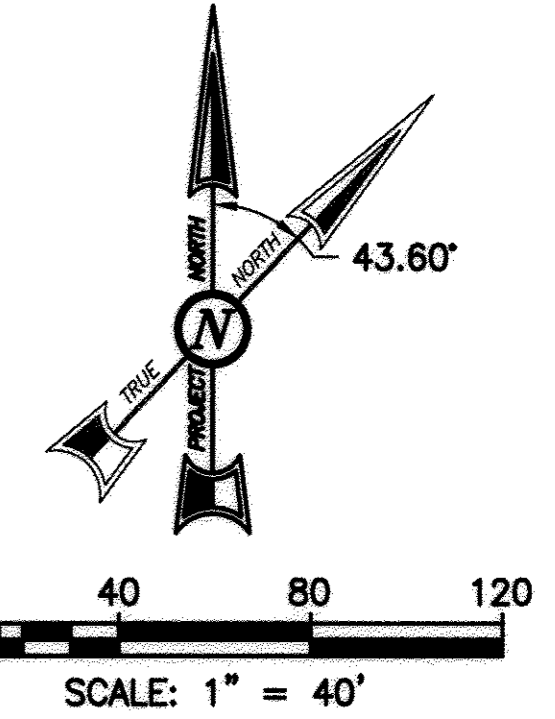
5/10/09
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Blum
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 5-27-9
 DATE: 5/29/09
Wanda Harris
 CHIEF, DIVISION OF LAND DEVELOPMENT 65
 DATE: 5/28/09
Monica J. Hinkle
 DIRECTOR, DEP.
 DATE:

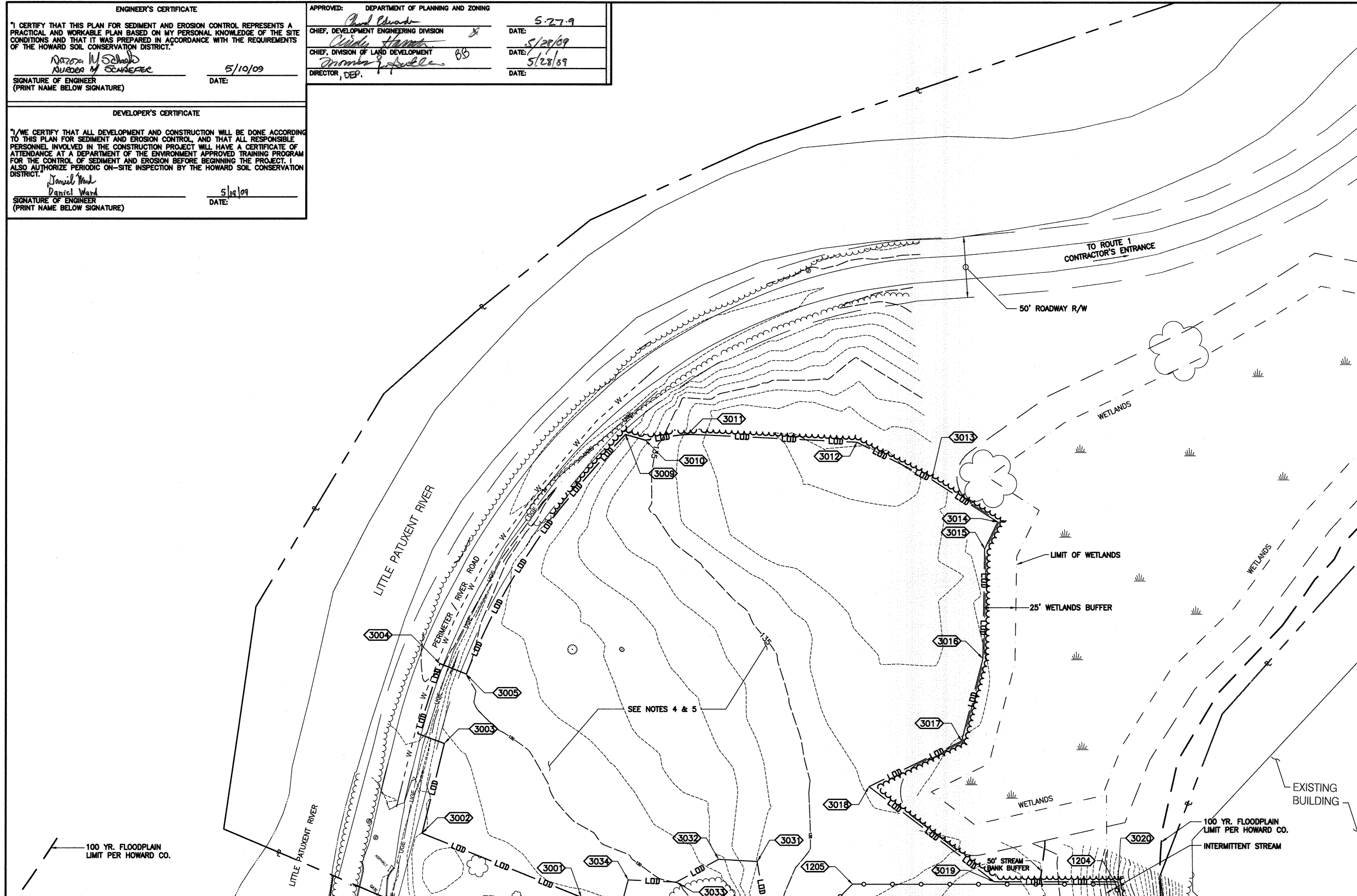
DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Daniel Ward
 SIGNATURE OF ENGINEER
 (PRINT NAME BELOW SIGNATURE) DANIEL WARD

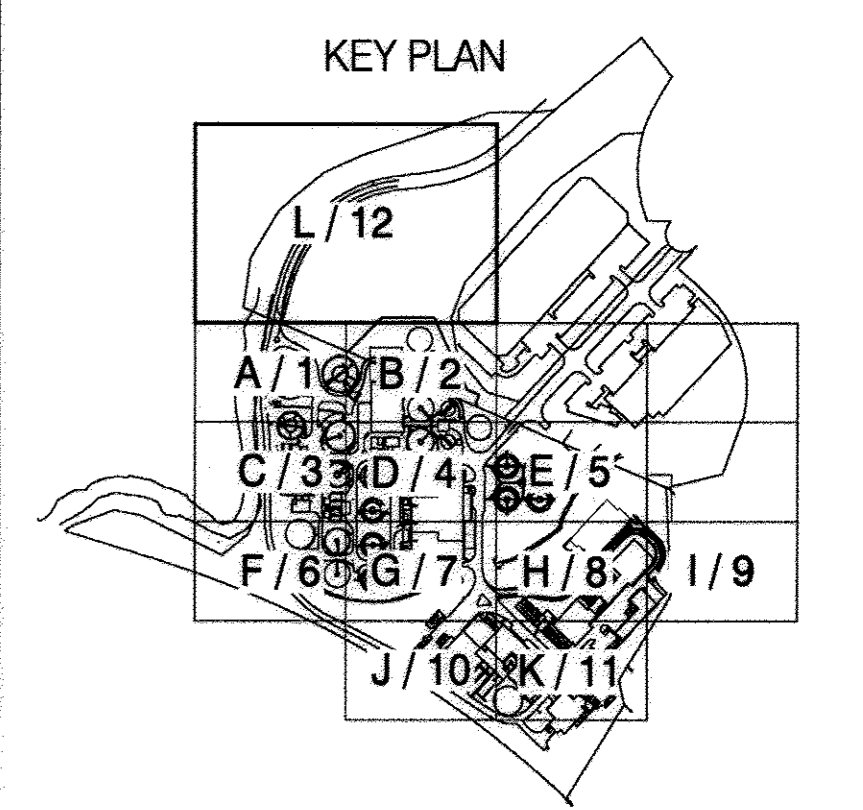
5/19/09
 DATE



- NOTES:**
1. SEE DRAWING CS-1 FOR LEGEND.
 2. SEE DRAWING CE-12 FOR E&S CONTROL MEASURES AND TEMP CONTRACTOR FACILITIES.
 3. RESTORE STORAGE AND STOCKPILE AREA TO ORIGINAL GRADES.
 4. PLACE PERMANENT SEEDING ON ALL DISTURBED AREAS.



THIS DRAWING IS PART OF THE LITTLE PATUXENT WATER RECLAMATION PLANT, ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS CONSTRUCTION CONTRACT DOCUMENTS. IT MAY CONTAIN REFERENCES TO SHEETS THAT ARE NOT INCLUDED IN THE SITE DEVELOPMENT PLAN, BUT ARE PART OF THE CONSTRUCTION CONTRACT DRAWING PACKAGE.

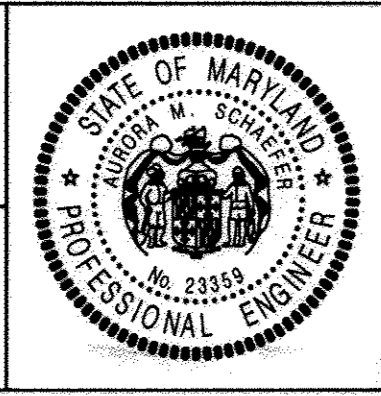


FOR CONTINUATION SEE SHEETS CG-1 & CG-2

M:\360709-Howard County\ENR\03 Civil\CG-12 Grading Plan L.dwg 05/14/09_19:58

PBS&J
 12101 INDIAN CREEK COURT
 BELTSVILLE, MARYLAND 20705
 TELEPHONE: (301) 210-8800
 FAX: (301) 210-4156
 www.pbsj.com

Slantec Consulting Ltd.
 425 McFarlan Road, Ste. 205
 Kennett Square, PA 19348-2412
 Tel: 610.444.6522
 Fax: 610.444.1898
 www.slantec.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.: 23359, EXPIRATION DATE: 8/13/10.
Natasha M. Schladt
 REGISTERED PROFESSIONAL ENGINEER
 4/20/09 DATE
 PBS&J FIRM

NOTICE TO CONTRACTORS

- PROJECT ELEVATIONS ARE BASED ON NAVD83 AND HOWARD COUNTY'S BENCHMARK SYSTEM
- PREVIOUS PROJECTS USED OTHER DATUMS
- APPLY THE FOLLOWING CONVERSIONS WHEN USING PREVIOUS CONTRACT DRAWINGS:
 - ADDITION NO. 6: SUBTRACT 0.66 FT
 - PRIOR ADDITIONS: SUBTRACT 0.90 FT

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Shirley C. ...
 CHIEF, BUREAU OF UTILITIES
 DATE: 5/19/09

DES: AMS			
DRN: SLB			
CHK: LHH			
DATE: -	DATE	REVISIONS	RECORD OF ISSUE

HOWARD COUNTY SDP SHEET C-8X
 CIVIL

STAKEOUT, GRADING AND RESTORATION
 PLAN L

REVISED SITE DEVELOPMENT PLAN - REV. NO. 10
 PARCEL A/PLAT 10148 AND PORTION OF THE PARK, UTILITY AND DRAINAGE RESERVATION AND PARCEL U/CORRIDOR INDUSTRIAL PARK/PLAT 4872

LITTLE PATUXENT WATER RECLAMATION PLANT
 ADDITION NO. 7 - ENR AND EXPANSION IMPROVEMENTS

CAPITAL PROJECT NO. S-6245.E PBS&J PROJECT NO. 100001621
 CONTRACT NO. 60-4598

ELECTION DISTRICT NO. 6 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 CONTRACT SHEET 71 OF 611
 CG-12
 SDP SHEET 38 OF 52

SDP-00-094