

GENERAL NOTES

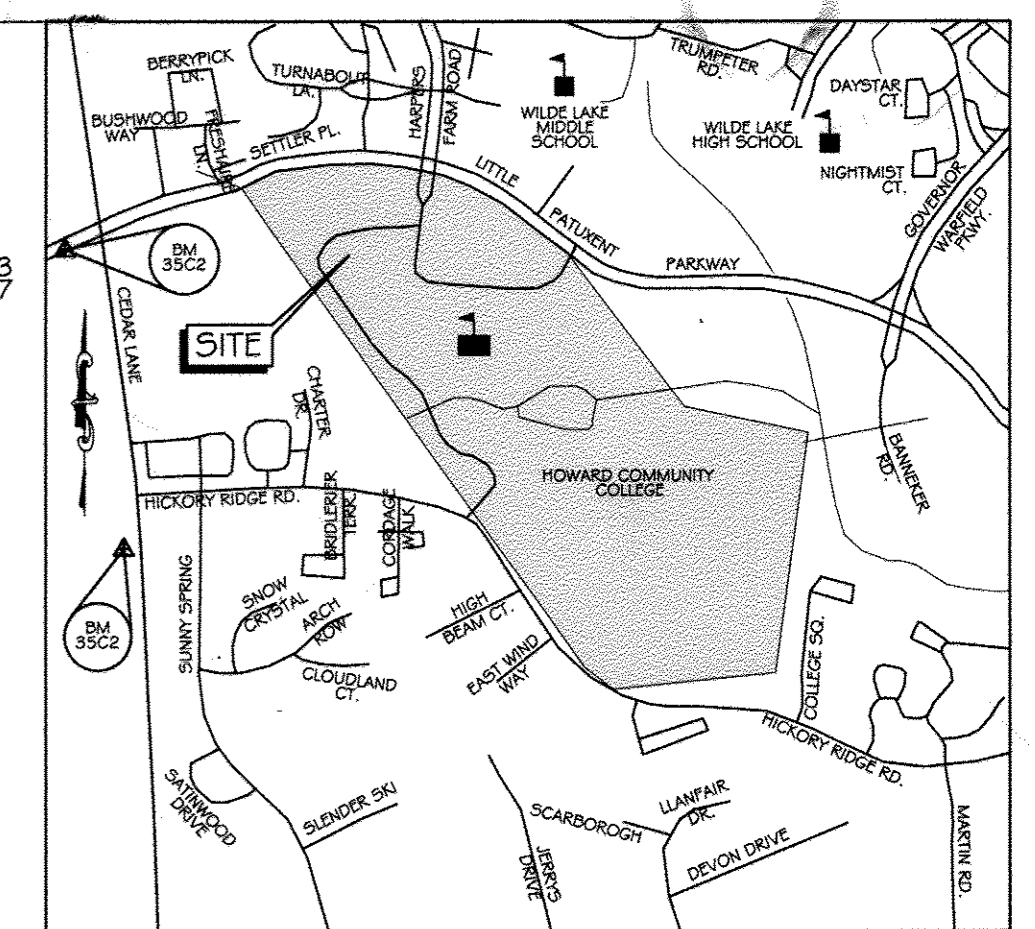
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (800-257-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
- THE CONTRACTOR SHALL 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.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON A SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. IN JANUARY 2012 AND AERIAL PHOTO FROM VIRGINIA RESOURCE MAPPING IN APRIL 27, 2009.
- OBSTRUCTIONS SHOWN ON THESE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH INFORMATION OUTLINED, THE CONTRACTOR SHALL IMMEDIATELY BRING IT TO THE ATTENTION OF THE ARCHITECT PRIOR TO STARTING ANY WORK.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREON BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN.
- CONTRACTOR SHALL REMOVE DRIVEWAY ENTRANCES, STRUCTURES, AND CONCRETE WALKS TO LIMITS INDICATED ON THE DRAWING.
- CONTRACTOR SHALL NOT PROCEED WITH ANY DEMOLITION WORK UNTIL ALL UTILITY DISCONNECTIONS ARE COMPLETED AND VERIFIED IN WRITING.
- BURNING OF COMBUSTIBLE MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED ON SITE.
- CONTRACTOR SHALL INSURE THAT ALL MATERIAL REMOVED FROM DEMOLISHED STRUCTURES ARE LEGALLY DISPOSED OF OFF-SITE.
- SEE DEMOLITION PLAN FOR APPROXIMATE LIMITS OF SIDEWALK AND PAVING REMOVAL.
- EXISTING CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. NO PATCHING SHALL BE PERMITTED.
- A GEOTECHNICAL STUDY WAS PREPARED BY FROEHLING & ROBERTSON, INC., DATED MAY 2014.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- SEE ARCHITECTURAL PLANS FOR ADDITIONAL BUILDING INFORMATION.
- SEE MECHANICAL/ELECTRICAL/PLUMBING PLANS FOR ADDITIONAL MECHANICAL/ELECTRICAL/PLUMBING DEMOLITION AND CONSTRUCTION INFORMATION.
- TRAFFIC CONTROL DEVICES:
 - ALL STOP AND YIELD SIGNS AS WELL AS ANY STREET NAME SIGNS (SNS) MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
 - THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-312-5752) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
 - ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMTCD).
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (1/4 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (1/2 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR TO ADJUST TOP OF CURB GRADES AS NECESSARY TO PROVIDE SMOOTH TRANSITION TO EXISTING.
- SAW CUT EXISTING PAVEMENT AS NEEDED TO INSTALL NEW CONSTRUCTION.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF A DISCREPANCY BETWEEN THE SCALED AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- TRENCH BACKFILL IN GRASS AREAS SHALL BE COMPACTED TO A MINIMUM 90% OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH A.A.S.H.T.O. VERIFY DESIGNATION T-150, METHOD C. TRENCH BACKFILL IN STRUCTURAL AND PAVEMENT AREAS SHALL BE PLACED IN EIGHT INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557). IN PAVED AREAS, FILL BELOW THE TOP 12 INCHES SHOULD BE COMPACTED TO 97%.
- CONTRACTOR SHALL ADJUST ALL EXISTING UTILITIES, I.E. MANHOLE FRAMES AND COVERS, ETC. WITHIN THE LIMITS OF THE CONTRACT TO PROPOSED GRADES AS REQUIRED.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDING STRUCTURES AT ALL TIMES.
- CONTRACTOR SHALL COORDINATE ALL DISCONNECTIONS AND REMOVAL OF EXISTING GAS, ELECTRIC AND TELEPHONE SERVICES AND EQUIPMENT WITH BALTIMORE GAS & ELECTRIC AND VERIZON.
- CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION AND CONSTRUCTION ACTIVITIES.
- ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED THE CONTRACTOR SHALL TERMINATE AND CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
- SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR WANT FIELD CORRECTIONS OR ADJUSTMENTS WITHIN NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- THIS PROJECT WILL FOLLOW LANDSCAPING REQUIREMENTS IN ACCORDANCE WITH SECTION 16.1.24 OF THE HOWARD COUNTY LANDSCAPE MANUAL SHALL BE SHOWN ON THE LANDSCAPE PLAN SHEETS OF THIS SITE PLAN. NO SURETY IS REQUIRED SINCE THIS IS AN EDUCATIONAL USE.
- STORM WATER MANAGEMENT WATER QUALITY HAS BEEN PROVIDED IN ACCORDANCE WITH 2010 MARYLAND STORMWATER MANAGEMENT ORDINANCE AND REVISED 2010 STORMWATER MANAGEMENT DESIGN MANUAL. THERE ARE THREE (3) PRACTICE M-6 MICRO-BIORETENTION AREAS AND ALL PRACTICES WILL BE PRIVATELY OWNED AND MAINTAINED IN THEIR ENTIRETY BY HOWARD COMMUNITY COLLEGE.
- 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. 3565 AND 3565C WERE USED FOR THIS PROJECT.
- WATER IS PRIVATE IN THIS PROJECT AREA.
- SEWER IS PUBLIC, CONTRACT NO. 299-W45 SEWER DRAINAGE AREA: PATUXENT TREATMENT PLANT: LITTLE PATUXENT WWTP
- SUBJECT PROPERTY ZONED POR & NT PER 10/6/13 COMPREHENSIVE ZONING PLAN AND FDP-72-A.
- FOREST CONSERVATION OBLIGATIONS FOR THE ENTIRE CAMPUS IN ACCORDANCE WITH SECTION 16.1.202 OF THE HOWARD COUNTY CODE AND SECTION 3.1.005(A) OF THE CODE. REGISTRATION WITH THE U.S. GREEN BUILDING COUNCIL AND THE APPLICABLE LEED FOR NEW CONSTRUCTION CHECKLIST PREPARED, SIGNED AND DATED BY THE PROJECT LEAD ACCREDITED PROFESSIONAL AND WAS REQUIRED BY DPZ ON AUGUST 8, 2014. THE PROPOSED BUILDING IS TENTATIVELY CERTIFIED BY THE USGBC WITH A GOLD RATING.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO. SDP-75-46, SDP-87-95, SDP-76-30, PB-229, SDP-68-12, SDP-75-32, SDP-00-56, SDP-01-58, WP-01-98, SDP-01-123, SDP-03-11, FDP-72-A, F-07-010 AND SDP-06-106FC.
- ROADWAY LIGHTS MUST REMAIN IN SERVICE DURING THE DURATION OF THE PROJECT, EXCEPT DURING CAMPUS DRIVE RE-CONSTRUCTION.
- THIS PROJECT IS EXEMPT FROM ADEQUATE PUBLIC FACILITIES ORDINANCE (APFO) REQUIREMENTS.
- THERE ARE NO WETLANDS OR 100 YR. FLOODPLAIN LIMITS WITHIN THE PROPOSED LIMIT OF DISTURBANCE.
- THIS SITE COMPLIES WITH THE HOWARD COUNTY GREEN BUILDING LEAD FORTH UNDER TITLE 3, SUBTITLE 10 OF THE HOWARD COUNTY CODE AND SECTION 3.1.005(A) OF THE CODE. REGISTRATION WITH THE U.S. GREEN BUILDING COUNCIL AND THE APPLICABLE LEED FOR NEW CONSTRUCTION CHECKLIST PREPARED, SIGNED AND DATED BY THE PROJECT LEAD ACCREDITED PROFESSIONAL AND WAS REQUIRED BY DPZ ON AUGUST 8, 2014. THE PROPOSED BUILDING IS TENTATIVELY CERTIFIED BY THE USGBC WITH A GOLD RATING.

**SITE DEVELOPMENT PLAN
HOWARD COMMUNITY COLLEGE
PROPOSED SCIENCE, ENGINEERING, AND TECHNOLOGY BUILDING
5TH ELECTION DISTRICT
HOWARD COUNTY, MD
SDP 14-066**

BENCHMARK DATA

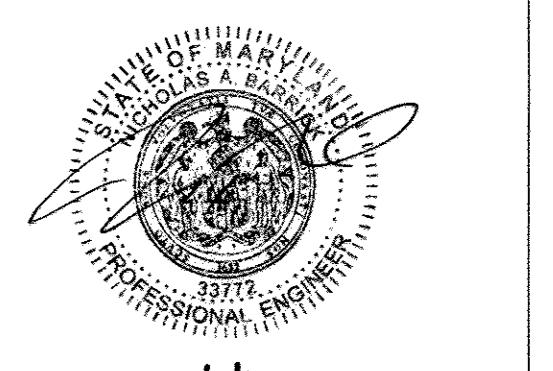
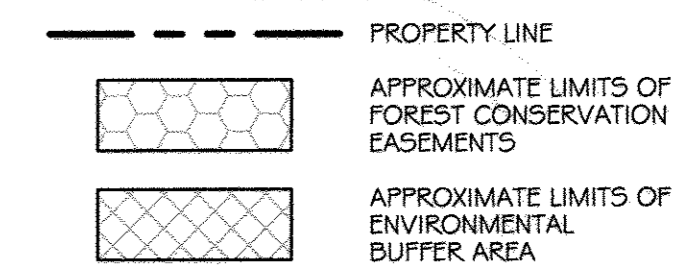
HORIZONTAL NAD83/91 AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.830	1344204.150	464.133
35C2 HOW CO MON	562148.450	1344554.472	452.267



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: D6

LEGEND



1/8/18
No ASHUT INFORMATION THIS SHEET

SITE ANALYSIS DATA SHEET

1. SITE ADDRESS: 10901 LITTLE PATUXENT PKWY COLUMBIA, MD 21044	11. RELATED DPZ FILE REFERENCES: ECP-14-073
2. OWNER/APPLICANT: BOARD OF TRUSTEES OF HOWARD COUNTY COMMUNITY COLLEGE	12. EXISTING PARKING CALCULATIONS: STUDENTS: 1 SPACE / 3 STUDENTS (PER HOWARD COUNTY ZONING REGULATIONS 10/6/2014) 5950 FULL TIME STUDENTS x (1/3) = 1967 SPACES COLLEGE EMPLOYEES: 1 SPACE / EMPLOYEE = 671 EMPLOYEES x 1 = 671 SPACES DAYCARE SPACES: 3 / 1000 S.F. = 12,700 S.F. x 3 / 1000 = 39 SPACES (PER SDP-03-11)
3. TAX ACCOUNT NO.: 15-045868	TOTAL REQUIRED SPACES: 1967 + 671 + 39 = 2677 SPACES
4. PROPERTY REFERENCE: MAP 35 BLOCK 6 PARCEL 47 ELECTION DISTRICT NO. 5	PARKING CALCULATIONS: EXISTING PARKING: 3135 SPACES NO. OF SPACES TO BE REMOVED: 254 +/- SPACES TOTAL ON-SITE PROVIDED: 2881 SPACES TOTAL ON-SITE REQUIRED: 2677 SPACES
5. ZONING: POR & NT EXISTING USE: PARKING LOT PROPOSED USE: EDUCATIONAL BUILDING	
6. TOTAL AREA OF CAMPUS: 117.84 ACRES	
7. TOTAL PROJECT AREA (SDP-14-066): 276,170 S.F. (6.34 AC.)	
8. LIMIT OF DISTURBANCE (SDP-14-066): 154,214 S.F. (3.54 AC.)	
9. OPEN SPACE WITHIN PROJECT AREA: 2.99 AC.	
10. PROPOSED BUILDING AREA: 0.79 AC.	

INDEX OF DRAWINGS

NO.	SHEET	DESCRIPTION	NO.	SHEET	DESCRIPTION
1	C1.00	TITLE SHEET	24	C11.08	EROSION & SEDIMENT CONTROL PLAN INTERMEDIATE DRAINAGE AREA MAP
2	C2.00	EXISTING CONDITIONS / DEMOLITION PLAN	25	C11.09	EROSION & SEDIMENT CONTROL PLAN PROPOSED DRAINAGE AREA MAP
3	C3.00	SITE DEVELOPMENT & GRADING PLAN	26	C12.00	STORM WATER MANAGEMENT EXISTING CONDITIONS DRAINAGE AREA MAP
4	C4.00	PAVING PLAN	27	C12.01	STORM WATER MANAGEMENT DEVELOPED CONDITIONS DRAINAGE AREA MAP
5	C5.00	STRIPING & SIGNAGE PLAN	28	C12.02	STORM WATER MANAGEMENT PLAN
6	C5.01	GEOMETRY PLAN	29	C12.03	STORM WATER MANAGEMENT FACILITY 1A
7	C5.02	ROAD PLAN / PROFILE SHEET	30	C12.04	STORM WATER MANAGEMENT FACILITY 1B
8	C6.00	SITE DETAILS	31	C12.05	STORM WATER MANAGEMENT FACILITY 2A
9	C7.00	SITE DETAILS	32	C12.06	STORM DRAIN DRAINAGE AREA MAP
10	C8.00	SITE DETAILS	33	C12.07	STORM WATER MANAGEMENT NOTES
11	C8.01	SITE DETAILS	34	C12.08	STORM WATER MANAGEMENT BORING LOGS
12	C9.00	UTILITY PLAN	35	L1.00	OVERALL LANDSCAPE PLAN & NOTES
13	C10.00	WATER & SANITARY SEWER PROFILES	36	L1.10	SITE SECTIONS
14	C10.01	STORM DRAIN PROFILES	37	L2.00	DETAILS
15	C10.02	STORM DRAIN PROFILES	38	L2.01	PLANTING DETAILS
16	C11.00	EROSION & SEDIMENT CONTROL PLAN PHASE 1	39	ES.01	ELECTRICAL LEGEND, SCHEDULE AND DETAILS
17	C11.01	EROSION & SEDIMENT CONTROL PLAN PHASE 2	40	ES.1	SITE PLAN - REMOVAL WORK - ELECTRICAL
18	C11.02	EROSION & SEDIMENT CONTROL PLAN PHASE 3	41	ES.2	SITE PLAN - NEW WORK - ELECTRICAL
19	C11.03	EROSION & SEDIMENT CONTROL PLAN PHASE 4	42	ES.3	LIGHTING FIXTURE SCHEDULES
20	C11.04	EROSION & SEDIMENT CONTROL DETAIL SHEET			
21	C11.05	EROSION & SEDIMENT CONTROL NOTES			
22	C11.06	EROSION & SEDIMENT CONTROL NOTES			
23	C11.07	EROSION & SEDIMENT CONTROL PLAN EXISTING DRAINAGE AREA MAP			

NOTE: SEE SHEET C5.01 FOR BUILDING HEIGHT PROFILES.



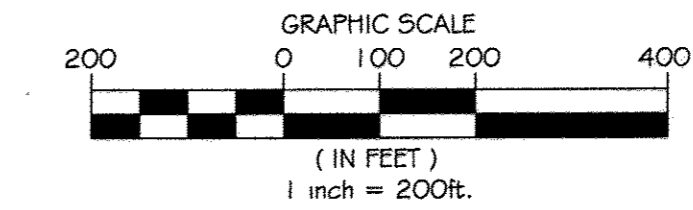
PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NO.
HOWARD COMMUNITY COLLEGE	S.E.T. BUILDING	47
PLAT NUMBER	GRID#	ZONING
16125	35-6	POR & NT
WATER CODE	TAX MAP#	ELECT. DISTR.
107	35	5TH
	SEWER CODE	CENSUS
	5522500	6056.02

LOCATION MAP
SCALE: 1" = 200'

ADDRESS CHART

BLDG.#	STREET ADDRESS
S.E.T. BLDG.	4950 CAMPUS DRIVE



APPROVED: Howard County Department of Planning & Zoning
 Director: *Mark H. Wynn* 1/6/15
 Chief, Division of Land Development: *Walter DeLuca* 1-06-15
 Chief, Development Engineering Division: *Chad Edwards* 12-18-14

Rev.	Date	Description	By	Prepared For and Owner:
1				Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296

Project Name: Howard Community College - Science, Engineering & Technology Building
 SITE PACKAGE GREEN BUILDING SEE NOTE NO. 42
 PARCEL: 47, TAX MAP: 35, GRID: 6
 TAX ACCOUNT #: 045868
 HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-1-2014	1" = 200'	SITE DEVELOPMENT PLAN COVER SHEET
Drawn By: C.T.B.	Designed By: B.S.	
Approved By: R.T.B.	Project No: 27111245	
Tax Map-Grid: 35-6	Zoning: POR & NT	

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. 31089 EXPIRATION DATE: 11/21/14

Discipline Number: **C1.00**
 Sheet Number: **1 OF 42**



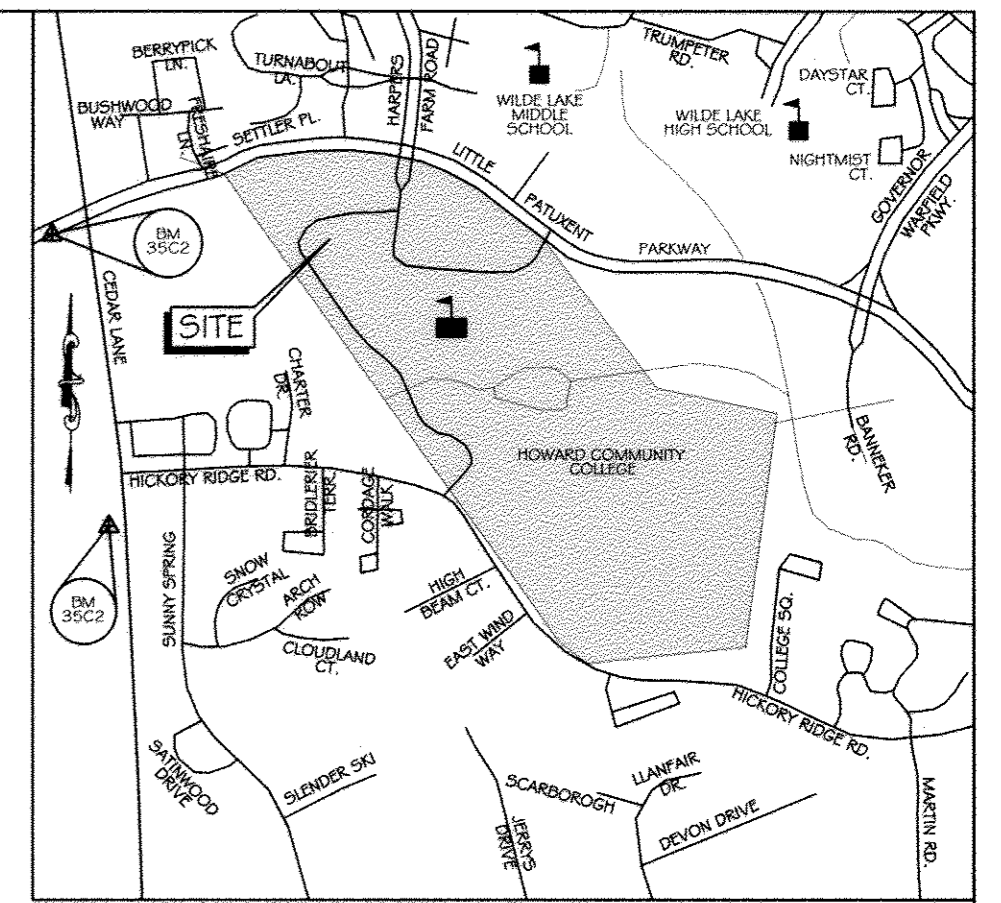
BENCHMARK DATA

HORIZONTAL NAD83(1) AND VERTICAL NGVD(29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY, BENCH MARK NO. 3

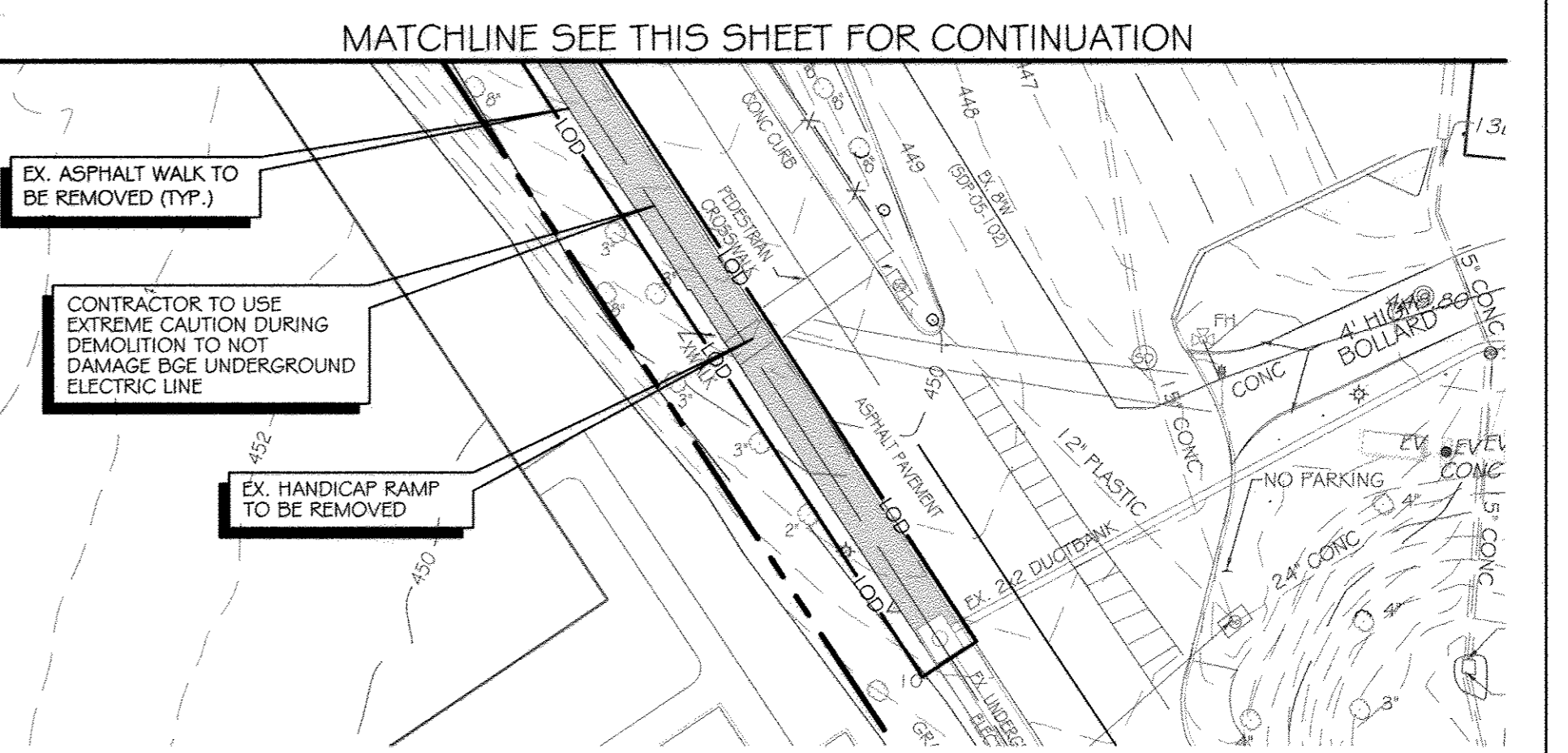
NORTHING	EASTING	ELEV.
3502	HOW 00 MON	562742.430
134493.192		451.287

LEGEND

EX. SANITARY MANHOLE	CO	EX. CLEANOUT
EX. STORM DRAIN MANHOLE	PA	EX. PLANTING AREA
EX. ELECTRIC MANHOLE	EB	EX. ELECTRIC BOX
EX. LIGHT POLE	EX_15'D	EX. STORM DRAIN
EX. WATER METER	G	EX. GAS LINE
EX. SIGN	SS PRIVATE	EX. SANITARY
EX. UTILITY POLE	ES	EX. ELECTRIC
EX. BOLLARD POST	B	EX. TELEPHONE
EX. DECIDUOUS TREE	T	EX. CABLE TV
EX. CONIFEROUS TREE	TV	EX. WATER
EX. GAS VALVE	LOD	LIMIT OF DISTURBANCE
EX. GUY WIRE	W	APPROXIMATE LIMITS OF EX. PAVING, CURB & GUTTER AND SIDEWALKS TO BE REMOVED
EX. WATER VALVE	WV	APPROXIMATE LIMITS OF MILL & OVERLAY
EX. FIRE HYDRANT	WV	LIMITS OF UTILITIES TO BE REMOVED
EX. TREE TO BE REMOVED	TR	
SOIL BORING	SB	



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 1:5 GRID: DG

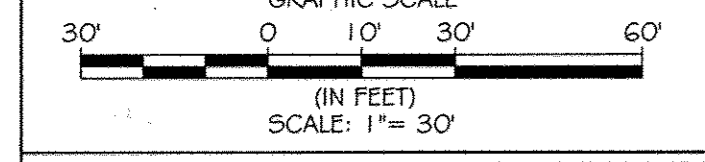


- ### DEMOLITION NOTES
1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (800-257-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
 2. NO WORK SHALL BEGIN UNTIL THE PROPER PERMITS HAVE BEEN RELEASED BY HOWARD COUNTY.
 3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON A SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. SEPTEMBER 2010 AND AERIAL TOPO FROM VIRGINIA RES FOR THE COUNTY OF HOWARD COUNTY, APRIL 27, 2009.
 4. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.
 5. CONTRACTOR SHALL NOT PROCEED WITH ANY DEMOLITION WORK UNTIL ALL UTILITY COMPANIES HAVE VERIFIED IN WRITING THAT DISCONNECTIONS HAVE BEEN COMPLETED.
 6. CONTRACTOR WILL INSTALL A TEMPORARY CONSTRUCTION FENCE AROUND THE CONSTRUCTION AREA WHILE MAINTAINING ACCESS TO THE ADJACENT PUBLIC SIDEWALKS.
 7. CONTRACTOR WILL SECURE THE CONSTRUCTION AREA AT THE END OF EACH WORKING DAY AND WILL INSPECT THE SECURITY FENCING TO INSURE ITS INTEGRITY.
 8. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH MDSA AND OSHA REGULATIONS AS THEY PERTAIN TO EXISTING ADJACENT BUILDING WALLS AND PUBLIC SIDEWALKS AND PROVIDING "SAFE" PASSAGE TO THEM.
 9. CONTRACTOR WILL INSPECT AND TAKE PICTURES OF ADJACENT BUILDING WALLS AND RETAINING WALLS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION ON THE SITE. EXISTING WALL CRACKS (IF ANY) WILL BE NOTED.
 10. CONTRACTOR WILL CONTINUALLY MONITOR THE WALLS OF THE ADJACENT BUILDINGS AND RETAINING WALLS FOR ANY SIGNS OF STRUCTURAL DISTRESS. IF ANY DISTRESS IS NOTED, CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY OWNER, KCI TECHNOLOGIES, INC. AND DEKMAN ASSOCIATES.
 11. CONTRACTOR WILL NOT EXPOSE, UNDERMINE, OR IMPACT THE ZONE OF INFLUENCE FOR FOOTINGS AND FOUNDATIONS OF ADJACENT BUILDINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST TO REPAIR ADJACENT BUILDINGS THAT ARE DAMAGED DUE TO HIS OPERATION.
 12. CONTRACTOR WILL PROVIDE THE NECESSARY MEANS TO CONTROL DUST AND AIR QUALITY DURING THE DEMOLITION PROCESS.
 13. CONTRACTOR WILL SAWCUT EXISTING PAVING TO MINIMIZE DAMAGE TO EXISTING PAVING REMAINING.
 14. IN CONJUNCTION WITH THE REMOVAL OF CONCRETE APRONS AND WALKS, THE CONTRACTOR IS RESPONSIBLE TO ADJUST ALL PUBLIC UTILITIES (I.E. MANHOLE FRAMES & COVERS, EXISTING HAND BOXES, VALVE COVERS) TO BE FINISHED SIDEWALK GRADES.
 15. ANY EXISTING CURB AND GUTTER & CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
 16. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.
 17. THE DEMOLITION INFORMATION SHOWN ON THIS DRAWING IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS.
 18. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREIN BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN.
 19. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.
 20. CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION AND CONSTRUCTION ACTIVITIES.
 21. ALL UTILITY LINES, ELECTRICAL DUCT BANKS, STRUCTURES, ETC. ARE TO BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE INDICATED. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED THE CONTRACTOR SHALL TERMINATE & CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE & LOCAL REQUIREMENTS AND THE PROJECT REQUIREMENTS.
 22. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE THE WORK.
 23. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE A/E IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE A/E, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
 24. CONTRACTOR SHALL CAP EXISTING UTILITY CONNECTIONS AND PROVIDE THEIR HORIZONTAL AND VERTICAL LOCATIONS TO THE OWNER AND THE ENGINEER.
 25. CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS FROM THE SITE AND DISPOSE OF IT AT AN APPROVED, PERMITTED DISPOSAL FACILITY. NO RUBBLE IS TO BE LEFT ON SITE.
 26. BURNING OF COMBUSTIBLE MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED.
 27. NO EXPLOSIVES WILL BE USED IN THE SITE DEMOLITION.
 28. ALL TREES WITHIN THE LOD ARE TO BE REMOVED UNLESS OTHERWISE NOTED.

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14

Discipline Number: **C2.00**
Sheet Number: **2 OF 42**



MATCHLINE SEE THIS SHEET FOR CONTINUATION
EXISTING CONDITIONS / DEMOLITION PLAN
SCALE: 1" = 30'

KCI TECHNOLOGIES
ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
936 Rileysbrook Road Sparks, MD 21159 Phone: (410) 216-7800 Fax: (410) 216-7853 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
1040 Hill Street, Suite 100 Baltimore, MD 21205 P: 410.347.8500 F: 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Masha M. August 10/15
Director

Karl Salas 1-06-15
Chief, Division of Land Development

Chad Cohen 12-18-14
Chief, Development Engineering Division

Rev:	Date:	Description:	By:
1			
2			
3			
4			

Prepared For and Owner:
Howard Community College
10891 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4296

Project Name:
Howard Community College - Science, Engineering & Technology Building

SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868

ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

Date: 10-1-2014
Scale: 1" = 30'

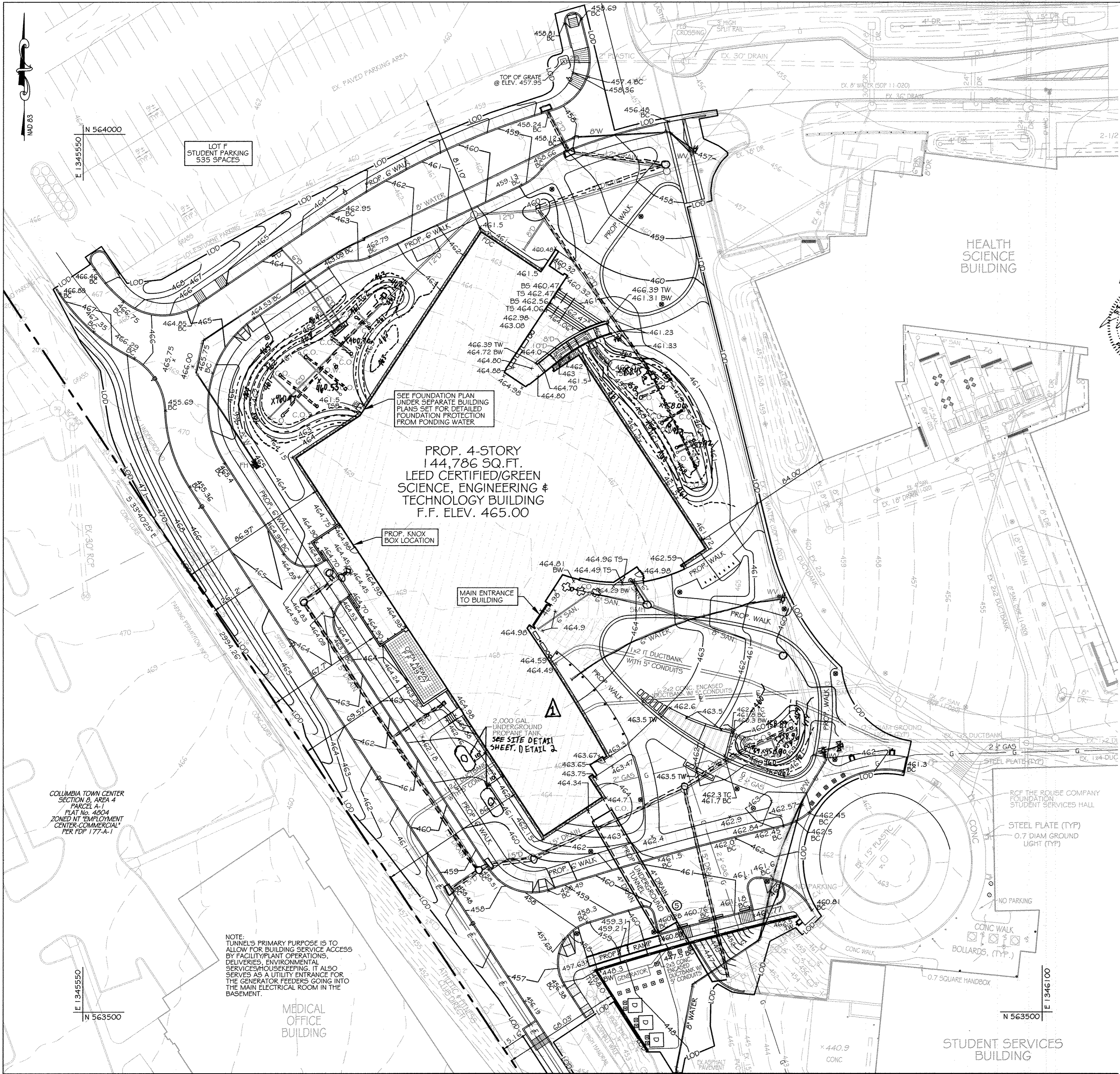
Drawn By: C.T.B.
Designed By: B.S.

Approved By: R.T.B.
Project No: 27111245

Tax Map-Grid: 35-6
Zoning: POR & NT

Sheet Title:
EXISTING CONDITIONS / DEMOLITION PLAN

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 051089
11/21/14



BENCHMARK DATA
 HORIZONTAL NAD83/91 AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO.'S

	NORTHING	EASTING	ELEV.
35C2	HOW CO MON 563920.830	1344204.150	464.133
35C3	HOW CO MON 562148.450	1344554.472	452.267

LEGEND

- PROPERTY LINE
- EX. INDEX CONTOUR
- EX. INTERMEDIATE CONTOUR
- EX. LIGHT POLE
- EX. 15" DRAIN
- EX. 6" GAS
- EX. 6" SANITARY
- EX. ELECTRIC
- EX. TELEPHONE
- EX. CABLE TV
- EX. 8" WATER
- PROP. CONTOUR
- PROP. SPOT ELEVATION
- PROP. ELECTRIC
- PROP. GAS
- PROP. SANITARY
- PROP. STORM DRAIN
- PROP. WATER
- PROP. FIRE HYDRANT
- PROP. WATER VALVE
- PROP. MANHOLE
- PROP. CLEANOUT
- PROP. OBSERVATION WELL
- PROP. INLET
- LIMIT OF DISTURBANCE
- APPROXIMATE LIMITS OF PROPOSED BUILDING

VICINITY MAP
 SCALE 1" = 1000'
 ADC MAP: 15 DR; DG: D6

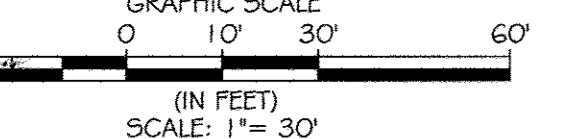
AS-BUILT CERTIFICATION FOR PSWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOSING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BAERICK, P.E. #33772, DATED 06-16-2013

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON A SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. IN SEPTEMBER 2010 AND AERIAL TOPO FROM VIRGINIA RESOURCE MAPPING IN APRIL 27, 2009.
- THE CONTRACTOR SHALL PROVIDE PRIVATE SUBSURFACE UTILITY LOCATION SERVICE, TO LOCATE AND MARK ANY AND ALL EXISTING UNDERGROUND UTILITIES, PRIOR TO THE START OF ANY CONSTRUCTION.
- CONTRACTOR SHALL TEST PIT, AS REQUIRED, ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION TO DETERMINE THE EXACT LOCATION AND DEPTH. CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN WHAT IS FOUND IN THE FIELD AND THAT INDICATED ON THE PLAN TO KCI TECHNOLOGIES, INC. ALL UTILITIES SHALL BE RETAINED UNLESS INDICATED OTHERWISE. DAMAGE TO EXISTING CONSTRUCTION AND UTILITIES TO REMAIN SHALL BE REPAIRED AS REQUIRED, TO THE OWNERS SATISFACTION, AT THE EXPENSE OF THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE AND REPLACE ALL DAMAGED CURB AND GUTTER, UTILITIES, SIDEWALKS, PAVEMENT, ETC., THAT ARE NOT INDICATED TO BE DEMOLISHED, AS REQUIRED FOR TIE-IN TO NEW CONSTRUCTION.
- CONTRACTOR SHALL REPAIR AND MAINTAIN SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED. WITH THE APPROVAL OF INSPECTOR, ALL SEDIMENT CONTROL DEVICES SHALL BE REMOVED AND DISTURBED AREAS RESTORED AND STABILIZED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST AND WORK REQUIRED TO ADJUST EXISTING AND PROPOSED UTILITIES AND APPURTENANCES TO FINISHED GRADES WITHIN THE LIMITS OF WORK.
- OBSTRUCTIONS SHOWN ON THESE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY SUCH INFORMATION TO HIS OWN SATISFACTION.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OR OVER EXISTING UTILITIES.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- EXISTING CURB, GUTTER, AND SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
- DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL FOLLOW LATEST HOWARD COUNTY DEPT. OF PUBLIC WORKS STANDARD SPECIFICATIONS & DETAILS OF CONSTRUCTION OR AS DETAILED ON THE DRAWINGS.
- THIS SHEET IS FOR PURPOSE OF REFERENCING SITE, GRADING, DRAINAGE AND SWM FEATURES TO THEIR LOCATION ON THE OVERALL SITE. FOR DETAILED GRADING, STORM DRAIN INFORMATION AND ENLARGEMENT INFORMATION SEE SHEETS, C3.00 & C10.00 THRU C10.02. FOR DETAILED SWM INFORMATION SEE SHEETS C12.00 THRU C12.05.
- ROADWAY LIGHTS MUST REMAIN IN SERVICE DURING THE DURATION OF THE PROJECT, EXCEPT DURING CAMPUS DRIVE RE-CONSTRUCTION.

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14



MATCHLINE SEE THIS SHEET FOR CONTINUATION
SITE GRADING PLAN
 SCALE: 1" = 30'

KCI TECHNOLOGIES
 ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
 199 Ridgely Road, Sparks, MD 21152
 Phone: (410) 236-7600 Fax: (410) 236-7603 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
 1900 Hall Street, Suite 100, Baltimore, MD 21200
 P: 410.347.8500 F: 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Isabella Mancini Director 1/4/15
Robert Schaefer Chief, Division of Land Development 1-26-15
Bob Eddy Chief, Development Engineering Division 12-18-14

Rev.	Date	Description	By	Prepared For and Owner
1	10/25/14	Revised underground propane tank	WCT	Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296

Howard Community College - Science, Engineering & Technology Building
 ELECTION DISTRICT NO.5 HOWARD COUNTY, MARYLAND

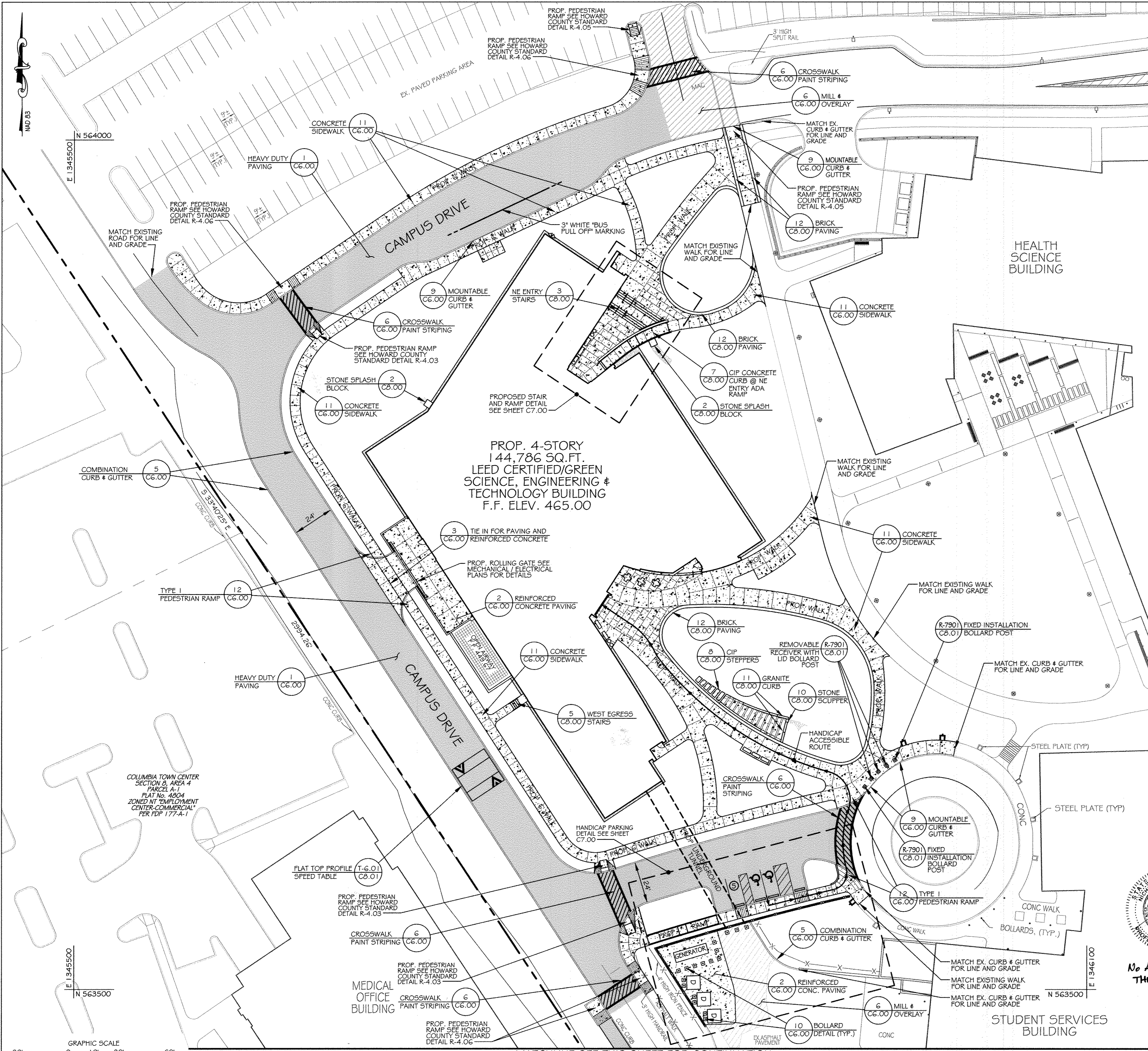
SITE PACKAGE
 PARCEL 47, TAX MAP: 35, GRID: 6
 TAX ACCOUNT #: 045868

Date:	10-1-2014	Scale:	1" = 30'
Drawn By:	C.T.B.	Designed By:	B.S.
Approved By:	R.T.B.	Project No.:	27111245
Tax Map-Grid:	35-6	Zoning:	POR & NT

SITE DEVELOPMENT & GRADING PLAN

Discipline Number: **C3.00**
 Sheet Number: **3 OF 42**

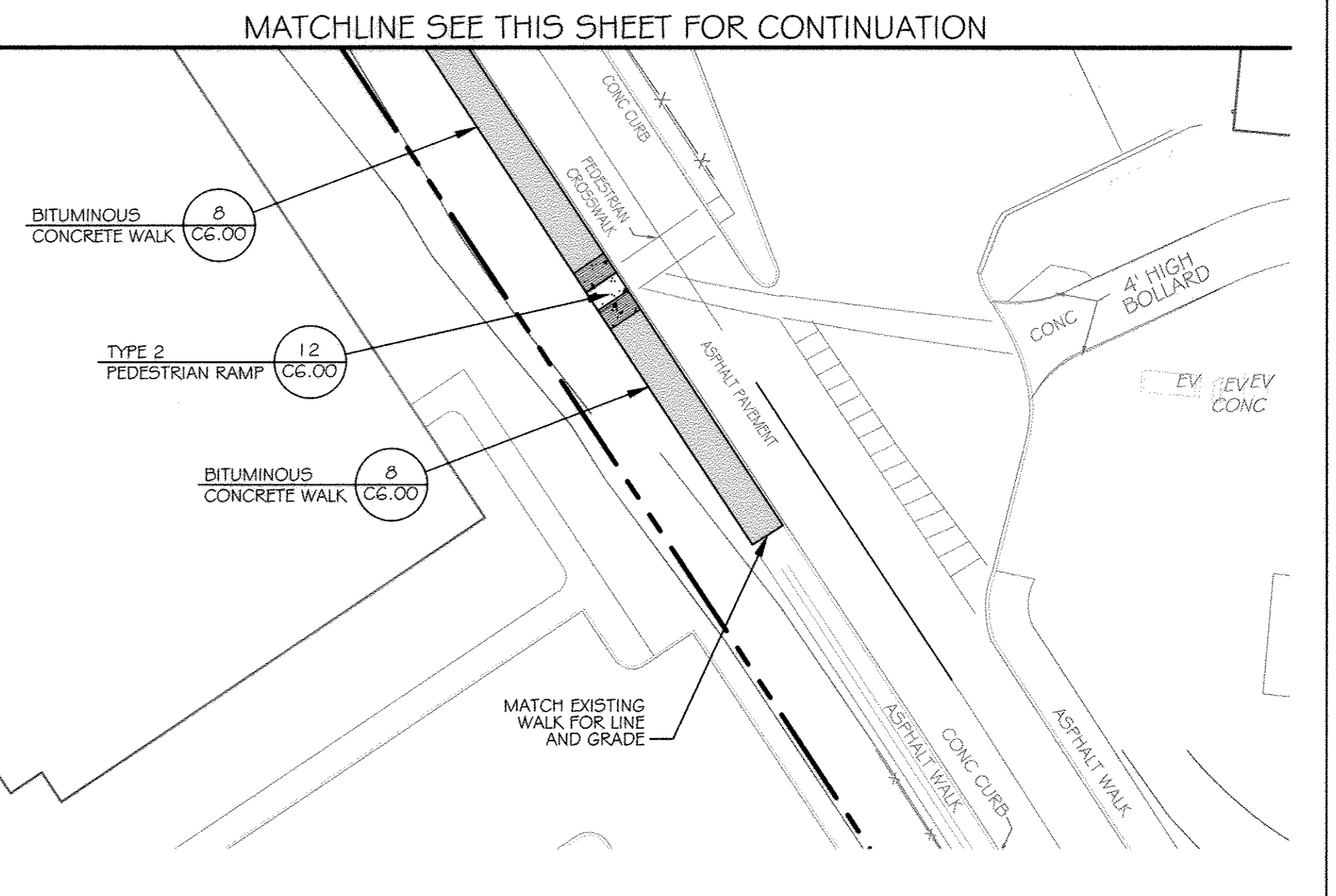
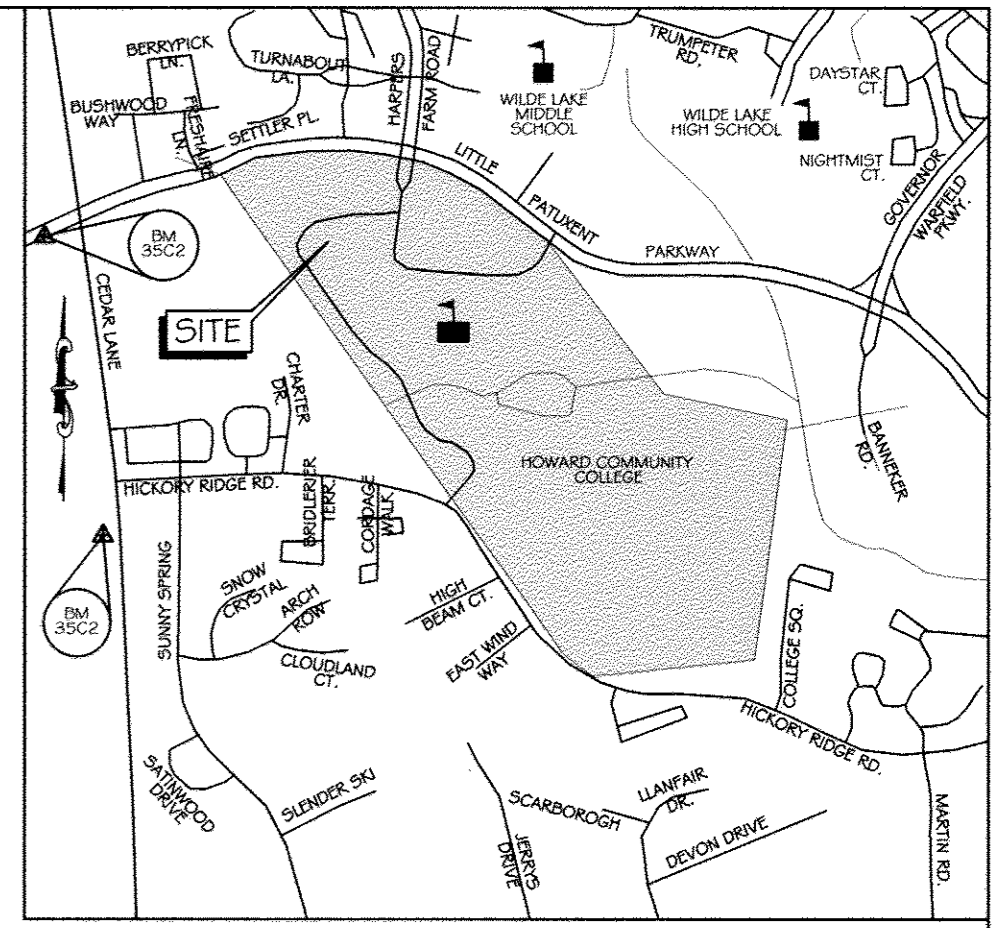
Professional Engineer Seal: NICHOLAS A. BAERICK, P.E. #33772, 06/16/2013



BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.	
35C2	HOW CO MON	563920.830	1344204.150	464.133
35C2	HOW CO MON	562148.450	1344554.472	452.267



LEGEND

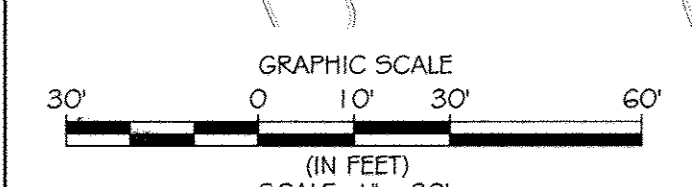
- EX. LIGHT POLE
- EX. SIGN
- EX. FENCE
- PROP. CURB & GUTTER
- PROP. FENCE
- PROP. SIGN
- PROP. LIGHT POLE
- APPROXIMATE LIMITS OF ASPHALT PAVING
- APPROXIMATE LIMITS OF CONCRETE
- APPROXIMATE LIMITS OF 2" MILL AND OVERLAY



No ASBUNT INFORMATION THIS SHEET

CONTRACTOR NOTE:
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MATCHLINE SEE THIS SHEET FOR CONTINUATION
PAVING PLAN
SCALE: 1" = 30'

KCI TECHNOLOGIES
ENGINEERS, PLANNERS, ARCHITECTS, CONSTRUCTION MANAGERS
936 Ridgebrook Road, Suite 2100, Baltimore, MD 21229
Tel: 410-528-7800 Fax: 410-528-7803 www.kci.com

AYERS SAINT GROSS ARCHITECTS - PLANNERS
1500 Hill Street, Suite 100, Baltimore, MD 21220
p 410.247.5000 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Rev:	Date:	Description:	By:
1	1/6/15		
2	1-06-15		
3			
4	12-13-14		
5			

Howard Community College - Science, Engineering & Technology Building
10901 Little Patuxent Parkway, Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale 410-772-4299

SITE PACKAGE
PARCEL: 47, TAX MAP: 36, GRID: 6
TAX ACCOUNT #: 045868

ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

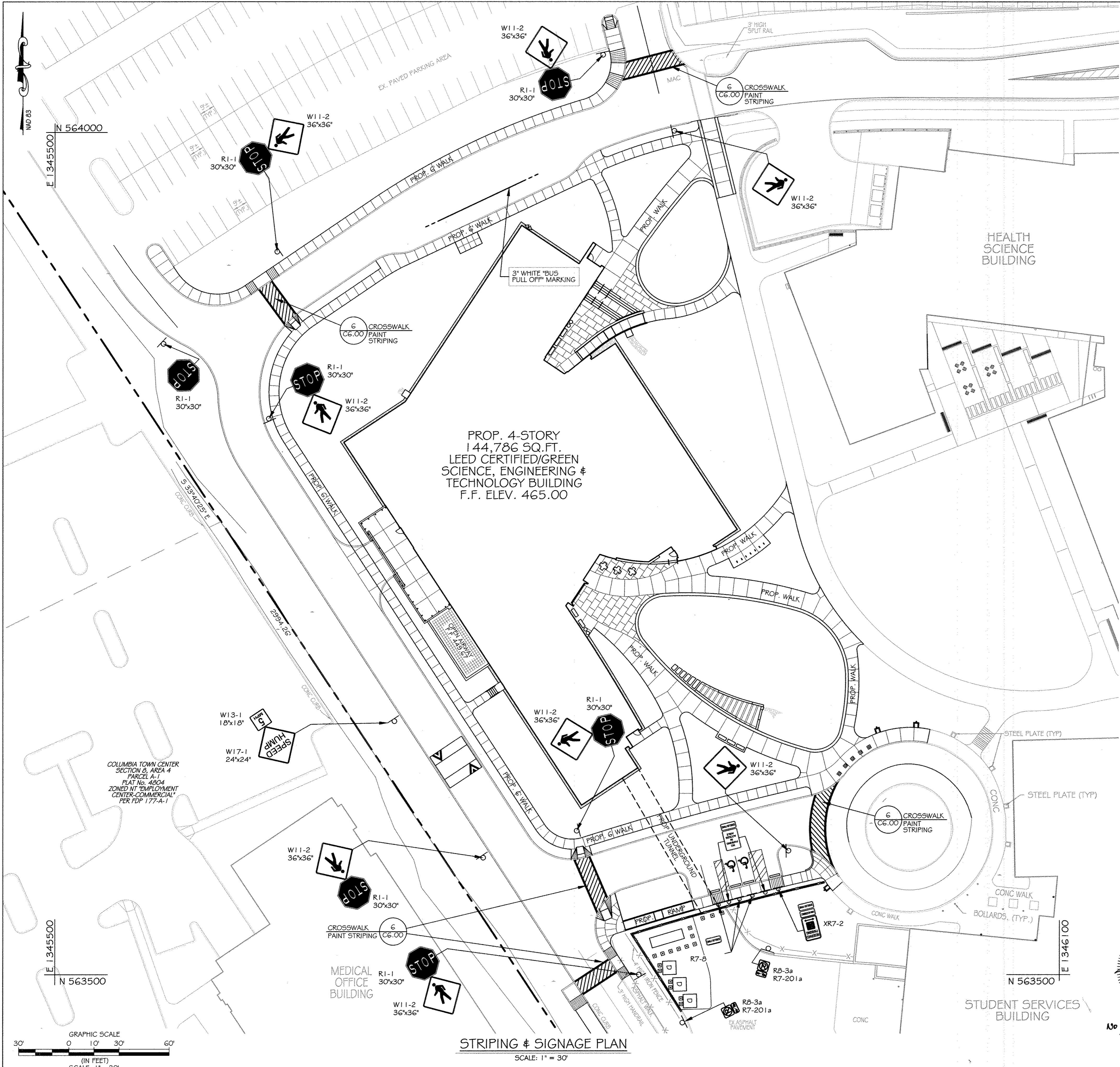
Date:	10-1-2014	Scale:	1" = 30'
Drawn By:	C.T.B.	Designed By:	B.S.
Approved By:	R.T.B.	Project No.:	27111245
Tax Map-Grid:	35-6	Zoning:	POR & NT

Sheet Title: **PAVING PLAN**

Discipline Number: **C4.00**

Sheet Number: **4 OF 42**

Professional Engineer Seal: Howard L. Burt, License No. 178116

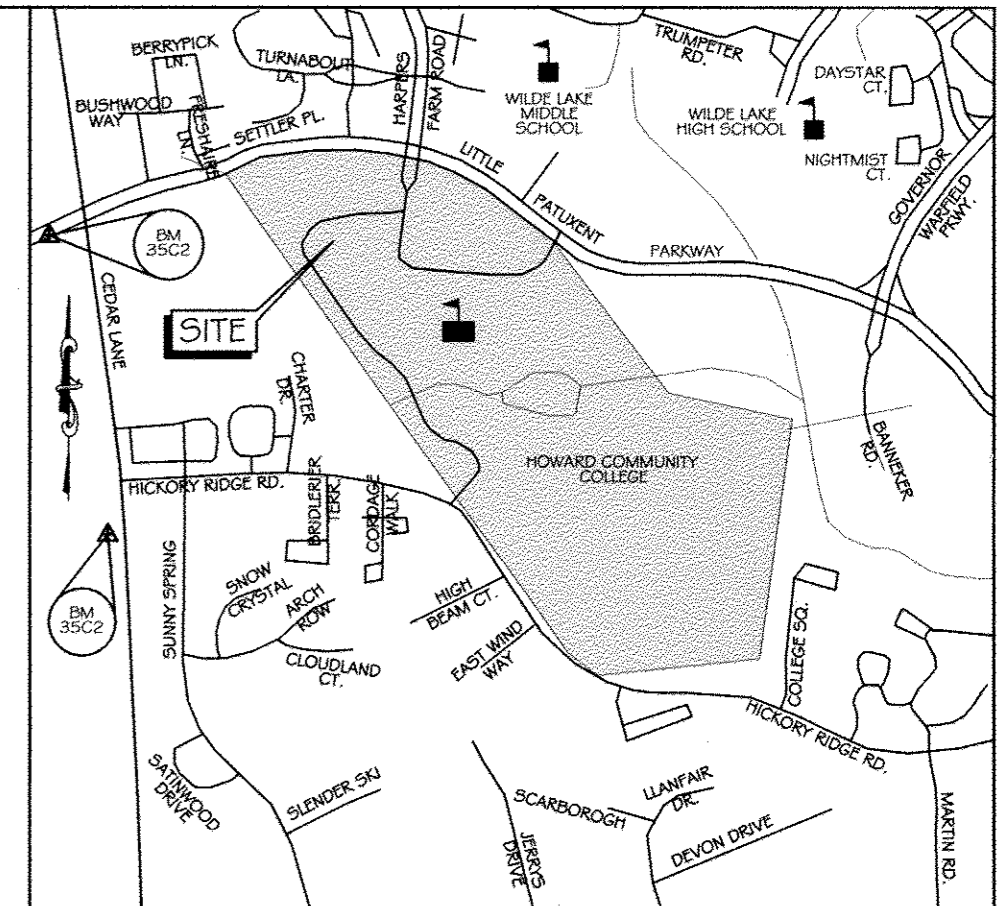


BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCHMARK NO.'S
 NORTHING EASTING ELEV.
 35C2 HOW CO MON 563920.830 1344204.150 464.133
 35C2 HOW CO MON 562148.450 1344554.472 452.267

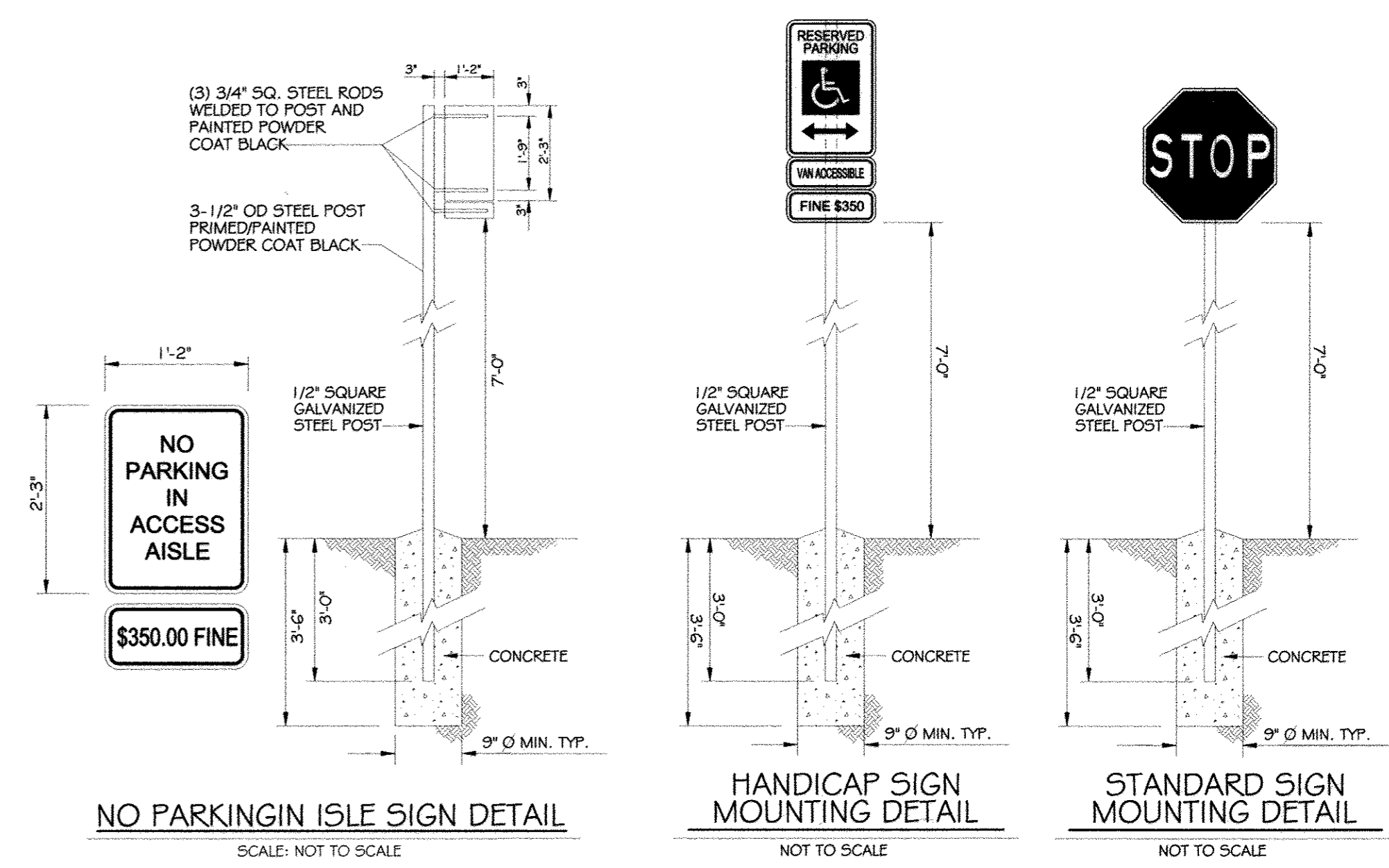
GENERAL NOTES

- ALL SIGNS SHALL BE MOUNTED ON A 2" SQUARE GALVANIZED METAL TUBE POSTS (14 GAUGE) INSERTED INTO A 2 1/2" SQUARE GALVANIZED METAL TUBE SLEEVE, 3' LONG (12 GAUGE). A GALVANIZED POLE CAP SHALL BE MOUNTED ON TOP.
- ALL SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE FIELD MARKED BY TRAFFIC ENGINEER.
- ALL MARKINGS WILL BE MARKED AND APPROVED BY TRAFFIC ENGINEER, PRIOR TO INSTALLATION.
- THE "YIELD LINE" AND 3" WHITE SKIP MARKINGS SHALL BE HEAT APPLIED TAPE.
- SINGLE SIGN ON POST - 5' TO BOTTOM OF SIGN; TWO SIGNS/PANELS - 4' TO BOTTOM OF SIGN; HEIGHT MEASURED FROM ROAD SURFACE, EXCEPT WHERE THERE ARE SIDEWALKS.
- FOR REFERENCE REFER TO HOWARD COUNTY DETAILS T-7.02, T-7.03, W96-9, AND OM-3C.
- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAY" REVISION NUMBER 1 & 2, DATED NOVEMBER 2004 AND DECEMBER 2007.



VICINITY MAP

SCALE 1" = 1000'
 ADC MAP: 1:5 GRID: D6



NO PARKING IN ISLE SIGN DETAIL
 SCALE: NOT TO SCALE

HANDICAP SIGN MOUNTING DETAIL
 NOT TO SCALE

STANDARD SIGN MOUNTING DETAIL
 NOT TO SCALE

LEGEND

- EX. LIGHT POLE
- EX. SIGN
- EX. FENCE
- PROP. CURB & GUTTER
- PROP. CONCRETE WALK
- PROP. FENCE
- PROP. SIGN
- PROP. LIGHT POLE

SIGNAGE SCHEDULE

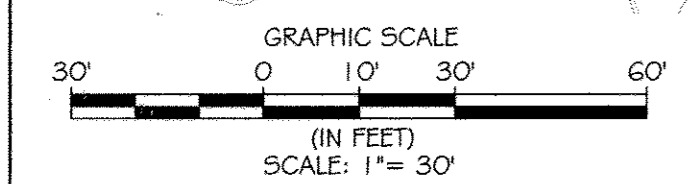
SIGN DESCRIPTION	MUTCD CODE	QUANTITY	MINIMUM	SIGN MATERIAL
STOP	R1-1	7	30x30"	SHEET ALUMINUM (ASTM B209)
TOW AWAY ZONE	R7-201a	2	12x6"	SHEET ALUMINUM (ASTM B209)
NO PARKING	R8-3a	2	24x24"	SHEET ALUMINUM (ASTM B209)
CROSSWALK	W11-2	8	36x36"	SHEET ALUMINUM (ASTM B209)
5 MPH	W13-1	1	18x18"	SHEET ALUMINUM (ASTM B209)
SPEED HUMP	XR7-2	1	24x24"	SHEET ALUMINUM (ASTM B209)
RESERVED PARKING	R7-8	2	12x18"	SHEET ALUMINUM (ASTM B209)
VAN ACCESSIBLE	R-7-8a	1	18x9"	SHEET ALUMINUM (ASTM B209)



NO AS-CUILT INFORMATION THIS SHEET

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STRIPING & SIGNAGE PLAN
 SCALE: 1" = 30'

KCI TECHNOLOGIES
 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
 196 Ridgelywood Road Sparks, MD 21152
 Phone: (410) 256-7800 Fax: (410) 336-7863 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
 1045 Hill Street, Suite 100 Baltimore, MD 21201
 410.347.8000 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Rev:	Date:	Description:	By:
1	1/6/15		[Signature]
2	1-06-15		[Signature]
3	12-18-14		[Signature]

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4296

Project Name:
Howard Community College - Science, Engineering & Technology Building

DATE: 10-1-2014
 SCALE: 1" = 30'

Drawn By: C.T.B. Designed By: B.S.
 Approved By: R.T.B. Project No: 27111245
 Tax Map-Grid: 35-6 Zoning: POR & NT

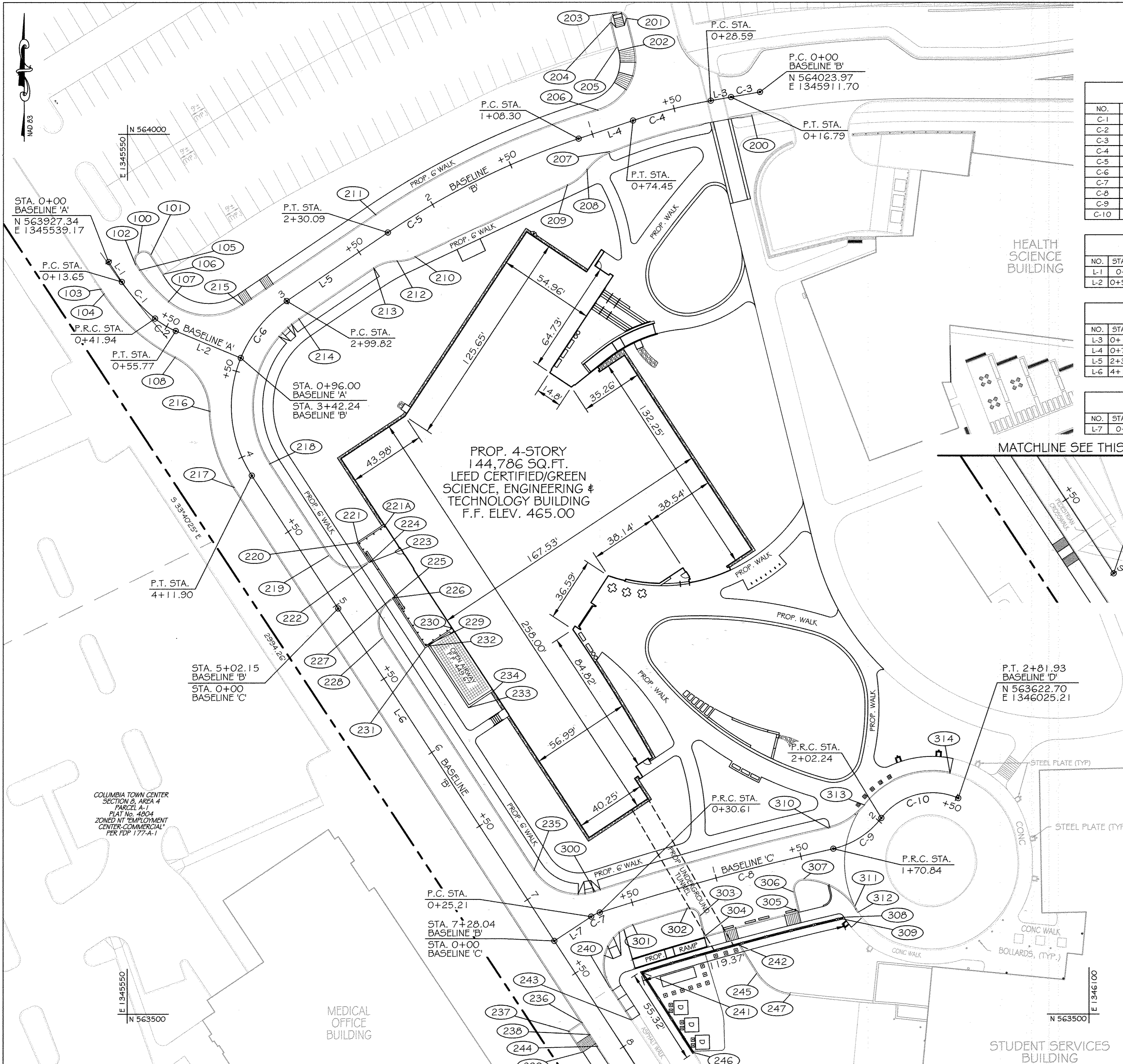
DISCIPLINE: ELECTION DISTRICT NO.5 HOWARD COUNTY, MARYLAND

Sheet Title:
STRIPING & SIGNAGE PLAN

Discipline Number:
C5.00

Sheet Number:
5 OF 42

SDP 14-066



BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO.'S

BENCHMARK	NORTHING	EASTING	ELEV.	
35C2	HOW CO MON	563920.830	1344204.150	464.133
35C3	HOW CO MON	562148.450	1344554.472	452.267

CURVE DATA

NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH
C-1	0+13.65	0+41.94	N 72°34'09" E	93'	14.13'	28.29'	N 42°25'23" W	28.18'
C-2	0+41.94	0+55.77	N 73°30'01" E	40'	6.91'	13.82'	S 59°23'14" E	13.77'
C-3	0+00	0+16.79	N 89°59'02" E	59582.60'	8.40'	16.79'	N 79°57'05" E	16.79'
C-4	0+28.59	0+74.45	N 81°34'11" W	312'	22.93'	45.86'	N 75°34'54" E	45.82'
C-5	1+08.30	2+30.09	N 74°25'26" E	448'	60.85'	121.79'	N 63°55'48" E	121.42'
C-6	2+99.82	4+11.90	N 0°48'23" E	72'	54.63'	112.08'	N 11°22'42" E	101.10'
C-7	0+25.21	0+30.61	N 74°12'35" W	20'	2.70'	5.41'	N 64°32'14" E	5.39'
C-8	0+30.61	1+70.84	N 84°57'51" E	1574.58'	69.19'	140.22'	N 74°48'07" E	138.35'
C-9	1+70.84	2+33.08	N 50°19'30" E	48.00'	16.54'	33.24'	N 57°29'55" E	32.58'
C-10	2+33.08	2+81.93	N 14°04'00" E	36.86'	23.98'	48.85'	N 75°36'41" E	45.36'

BASILINE 'A' DATA

NO.	STATION	NORTHING	EASTING	BEARING	LENGTH
L-1	0+00	563927.34	1345539.17	S 33°42'25" E	13.36'
L-2	0+55.77	563888.17	1345577.62	S 67°38'14" E	40.23'

BASILINE 'B' DATA

NO.	STATION	NORTHING	EASTING	BEARING	LENGTH
L-3	0+16.79	564021.04	1345895.16	N 56°47'25" E	11.80'
L-4	0+74.45	564007.69	1345839.14	S 79°56'33" W	32.75'
L-5	2+30.09	563944.05	1345698.98	S 71°43'05" W	69.73'
L-6	4+11.90	563806.03	1345621.17	S 56°04'30" W	488.10'

BASILINE 'C' DATA

NO.	STATION	NORTHING	EASTING	BEARING	LENGTH
L-7	0+00	563541.53	1345794.34	N 56°47'25" E	25.21'

BASILINE 'A'

NO.	STATION	OFFSET
100	0+05.00	17.00' LT
101	0+10.00	22.50' LT
102	0+10.00	12.00' LT
103	0+10.50	12.00' RT
104	0+13.65	12.00' RT
105	0+13.65	12.00' LT
106	0+26.30	21.84' LT
107	0+41.94	12.00' LT
108	0+61.20	13.60' RT

BASILINE 'B'

BASILINE 'B'

NO.	STATION	OFFSET
200	0+06.91	11.94' LT
201	0+61.51	56.37' RT
202	0+62.00	39.81' RT
203	0+65.55	61.57' RT
204	0+69.97	56.84' RT
205	0+70.74	42.33' RT
206	0+91.50	11.73' RT
207	0+92.57	12.62' LT
208	1+09.13	17.78' LT
209	1+23.17	22.53' LT
210	2+24.66	19.85' LT
211	2+30.09	12.00' RT
212	2+34.64	16.09' LT
213	2+48.03	12.00' LT
214	2+99.82	12.00' LT
215	3+18.39	14.91' RT
216	3+72.67	12.00' RT
217	4+11.90	12.00' RT
218	4+11.90	12.00' LT
219	4+74.02	12.00' LT
220	4+76.60	29.12' LT
221	4+77.43	48.20' LT
221A	4+77.43	29.95' LT
222	4+90.02	28.04' LT
223	4+90.02	29.16' LT

BASILINE 'B'

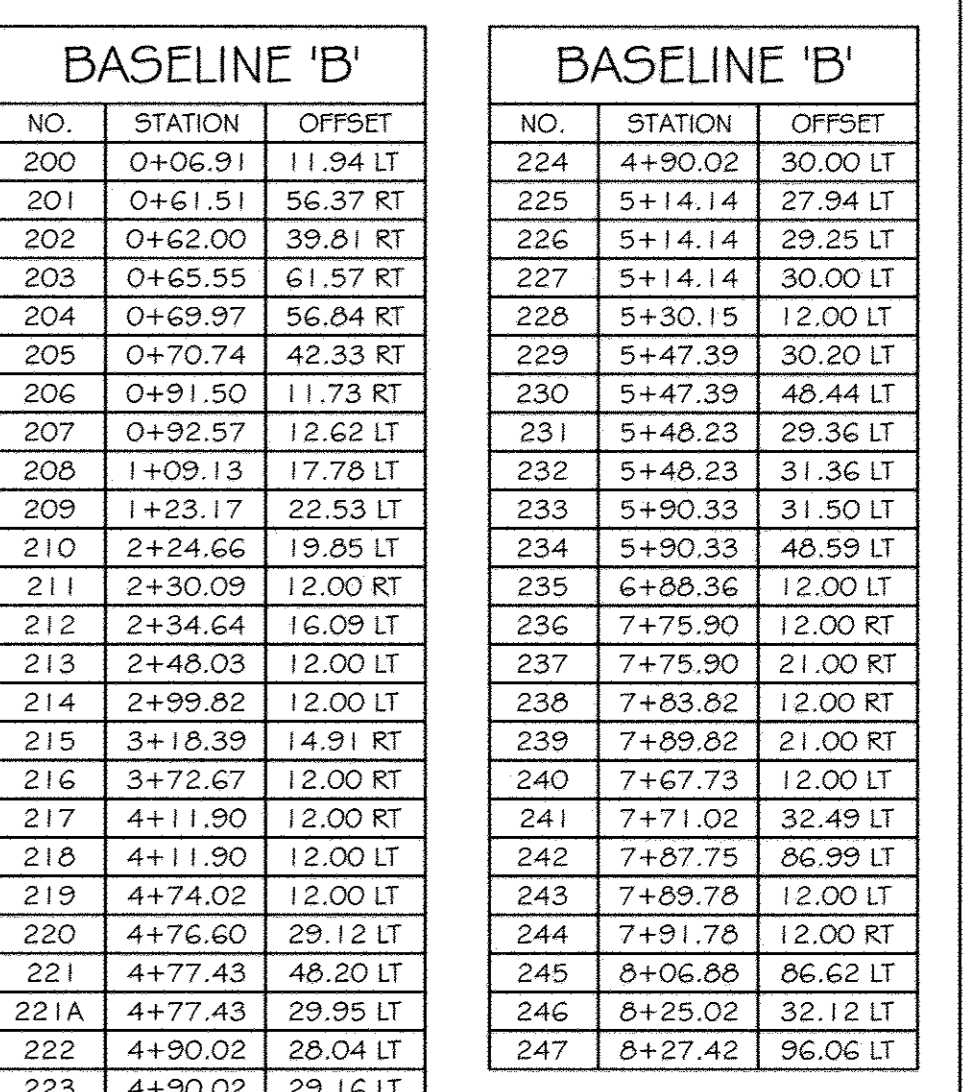
NO.	STATION	OFFSET
224	4+90.02	30.00' LT
225	5+14.14	27.94' LT
226	5+14.14	29.25' LT
227	5+14.14	30.00' LT
228	5+30.15	12.00' LT
229	5+47.39	30.20' LT
230	5+47.39	48.44' LT
231	5+48.23	29.36' LT
232	5+48.23	31.36' LT
233	5+90.33	31.50' LT
234	5+90.33	48.59' LT
235	6+08.36	12.00' LT
236	7+75.90	12.00' RT
237	7+75.90	21.00' RT
238	7+83.82	12.00' RT
239	7+89.82	21.00' RT
240	7+67.73	12.00' LT
241	7+71.02	32.49' LT
242	7+87.75	86.99' LT
243	7+89.78	12.00' LT
244	7+91.78	12.00' RT
245	8+06.88	86.62' LT
246	8+25.02	32.12' LT
247	8+27.42	96.06' LT

BASILINE 'C'

NO.	STATION	OFFSET
300	0+31.70	12.00' LT
301	0+46.63	12.00' RT
302	0+79.41	12.00' RT
303	0+85.48	18.20' RT
304	0+85.48	30.20' RT
305	1+41.13	30.00' RT
306	1+41.13	18.78' RT
307	1+48.66	12.92' RT
308	1+65.60	39.14' RT
309	1+65.60	40.14' RT
310	1+70.84	12.00' LT
311	1+73.71	34.61' RT
312	1+74.28	38.38' RT
313	2+02.24	12.00' LT
314	2+43.59	12.00' LT

VICINITY MAP

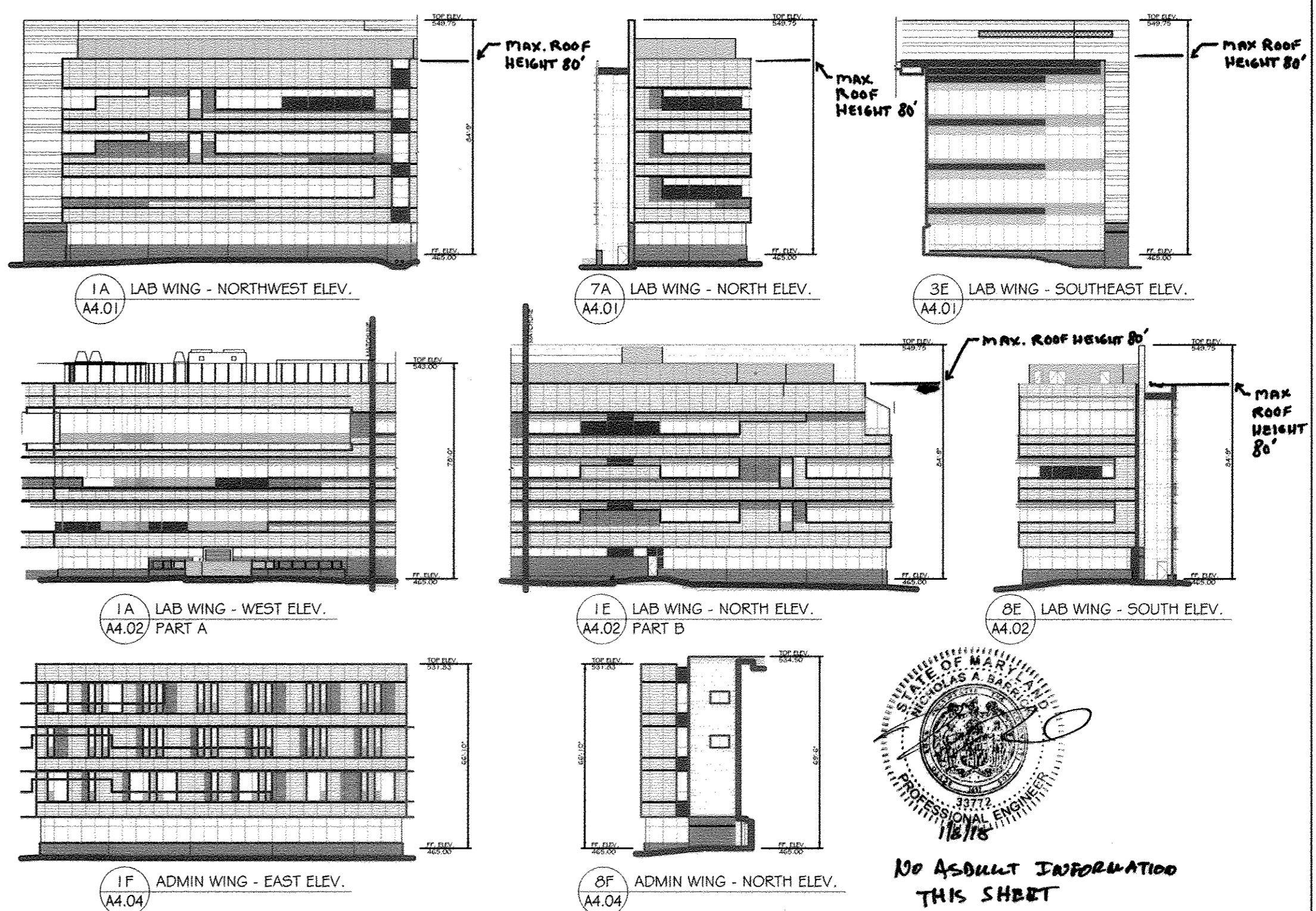
SCALE 1" = 1000'
ADC MAP: 15 GRID: D6



HEALTH SCIENCE BUILDING

MATCHLINE SEE THIS SHEET FOR CONTINUATION

STA. 9+00
BASILINE 'B'
N 563397.67
E 1345888.55

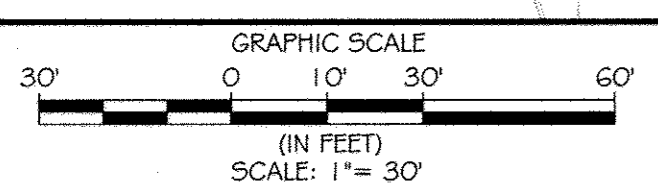
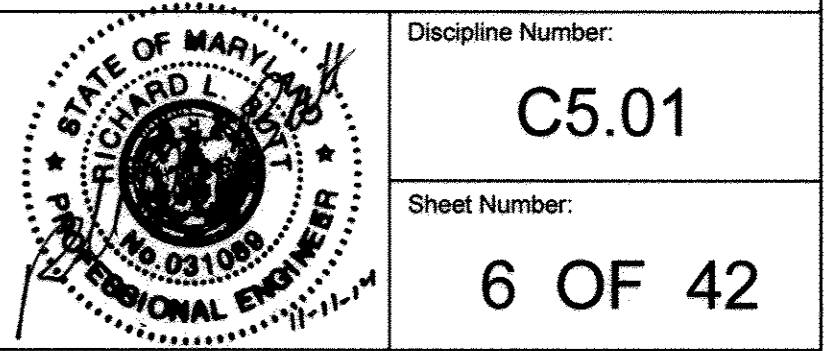


BUILDING ELEVATIONS

SCALE: 1"=500'

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 1/12/14



MATCHLINE SEE THIS SHEET FOR CONTINUATION
GEOMETRY PLAN
SCALE: 1" = 30'

KCI TECHNOLOGIES
ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
396 Rockville Road
Rockville, MD 20855
Phone: (301) 770-7800
Fax: (301) 770-7803
www.kci.com

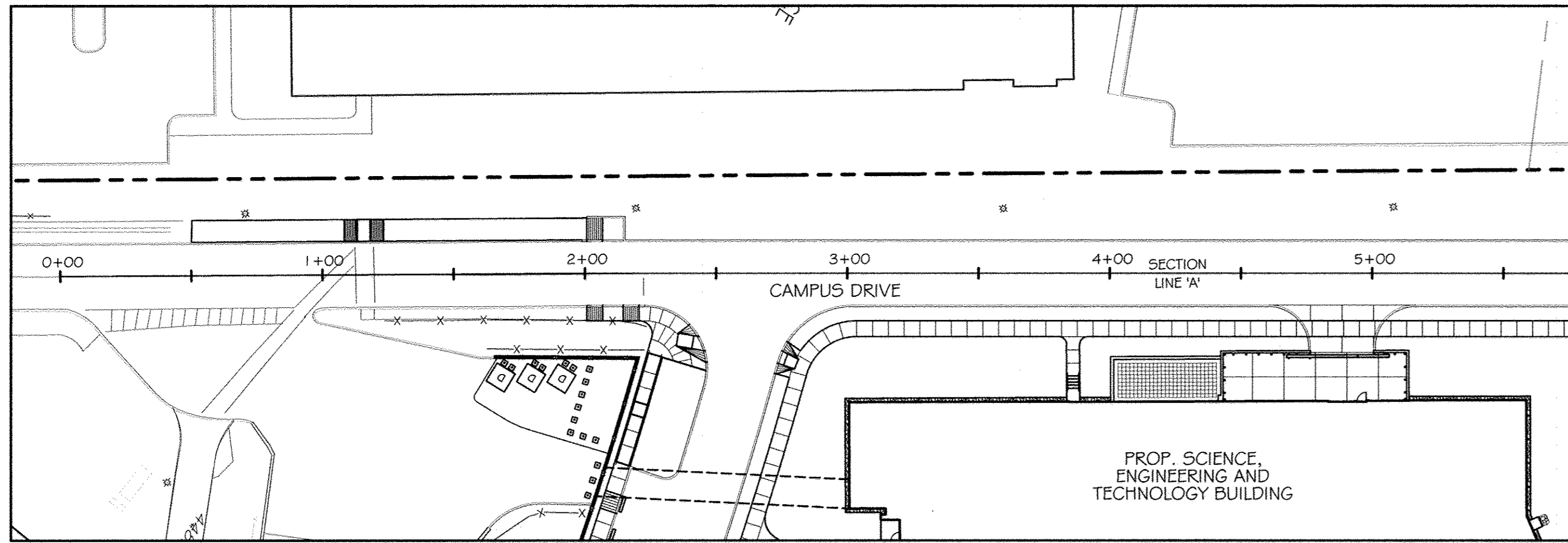
AYERS SAINT GROSS ARCHITECTS + PLANNERS
190 Hill Street, Suite 102
Baltimore, MD 21202
P: 410.347.8000 F: 410.347.8419

Rev.	Date	Description	By
1	1/6/15		
2	1-06-15		
3	12-18-14		

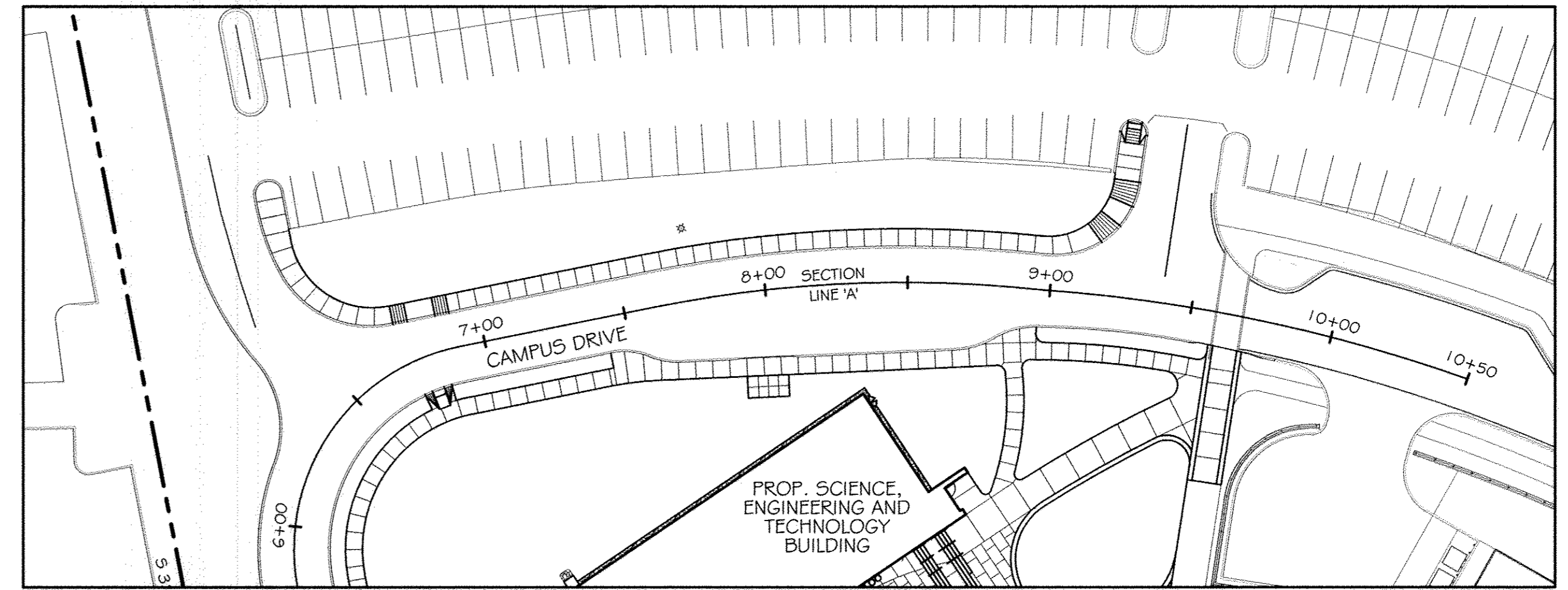
Howard Community College - Science, Engineering & Technology Building
SITING PACKAGE
PARCEL 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045888
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-1-2014	1" = 30'	GEOMETRY PLAN
Drawn By: C.T.B.	Designed By: B.S.	
Approved By: R.T.B.	Project No: 27111245	
Tax Map-Grid: 35-6	Zoning: POR & NT	

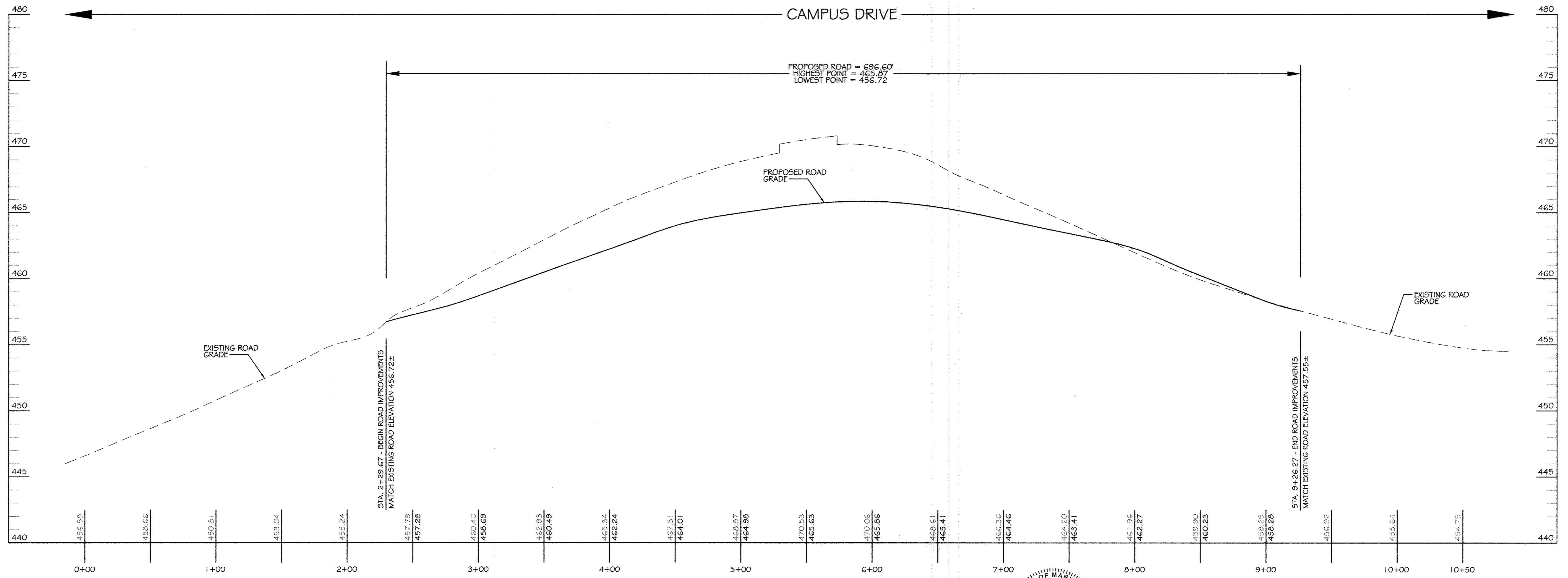
Discipline Number: **C5.01**
Sheet Number: **6 OF 42**



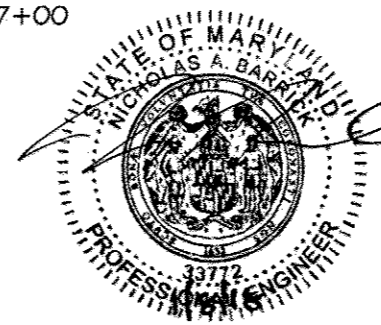
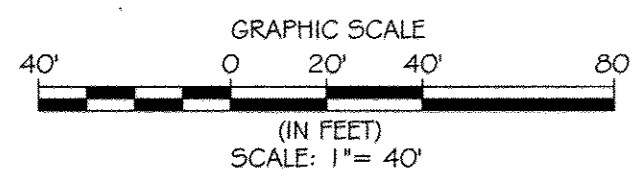
CAMPUS DRIVE PLAN - SECTION LINE A
SCALE: 1" = 40'



MATCHLINE - SEE THIS SHEET FOR CONTINUATION
CAMPUS DRIVE PLAN - SECTION LINE A
SCALE: 1" = 40'



SECTION LINE 'A' PROFILE (CAMPUS DRIVE)
SCALE: HORIZ.: 1" = 40'
VERT.: 1" = 4'



NO ADDITIONAL INFORMATION
THIS SHEET

CONTRACTOR NOTE:
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KCI TECHNOLOGIES
ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
296 Midway Road
Baltimore, MD 21204
Phone: (410) 216-7800
Fax: (410) 216-7803
www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
1940 Hill Street, Suite 100
Baltimore, MD 21204
Phone: (410) 347-8500
Fax: (410) 347-8419

APPROVED: Howard County Department of Planning & Zoning

Chuck Nightingale Director
Date: 1/14/15

Kurt Schulz Chief, Division of Land Development
Date: 1-06-15

Phil Chan Chief, Development Engineering Division
Date: 12-18-14

Rev.	Date	Description	By
1			
2			
3			
4			

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4296

Project Name:
**Howard Community College -
Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868

ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

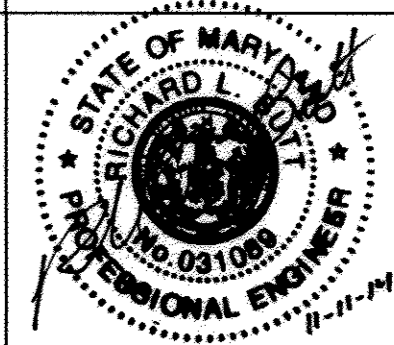
Date: 10-1-2014
Scale: 1" = 30'

Drawn By: C.T.B.
Designed By: B.S.

Approved By: R.T.B.
Project No: 27111245

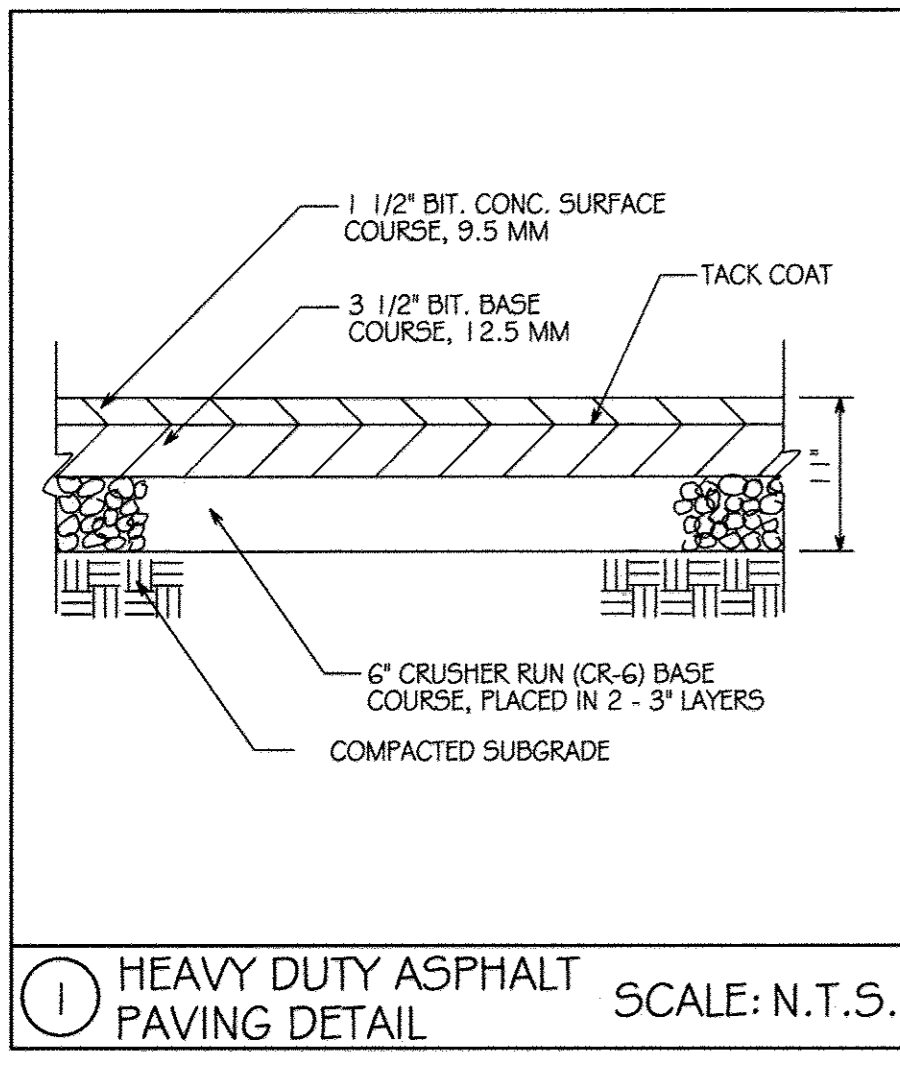
Tax Map-Grid: 35-6
Zoning: POR & NT

Sheet Title:
**ROAD PLAN &
PROFILE SHEET**

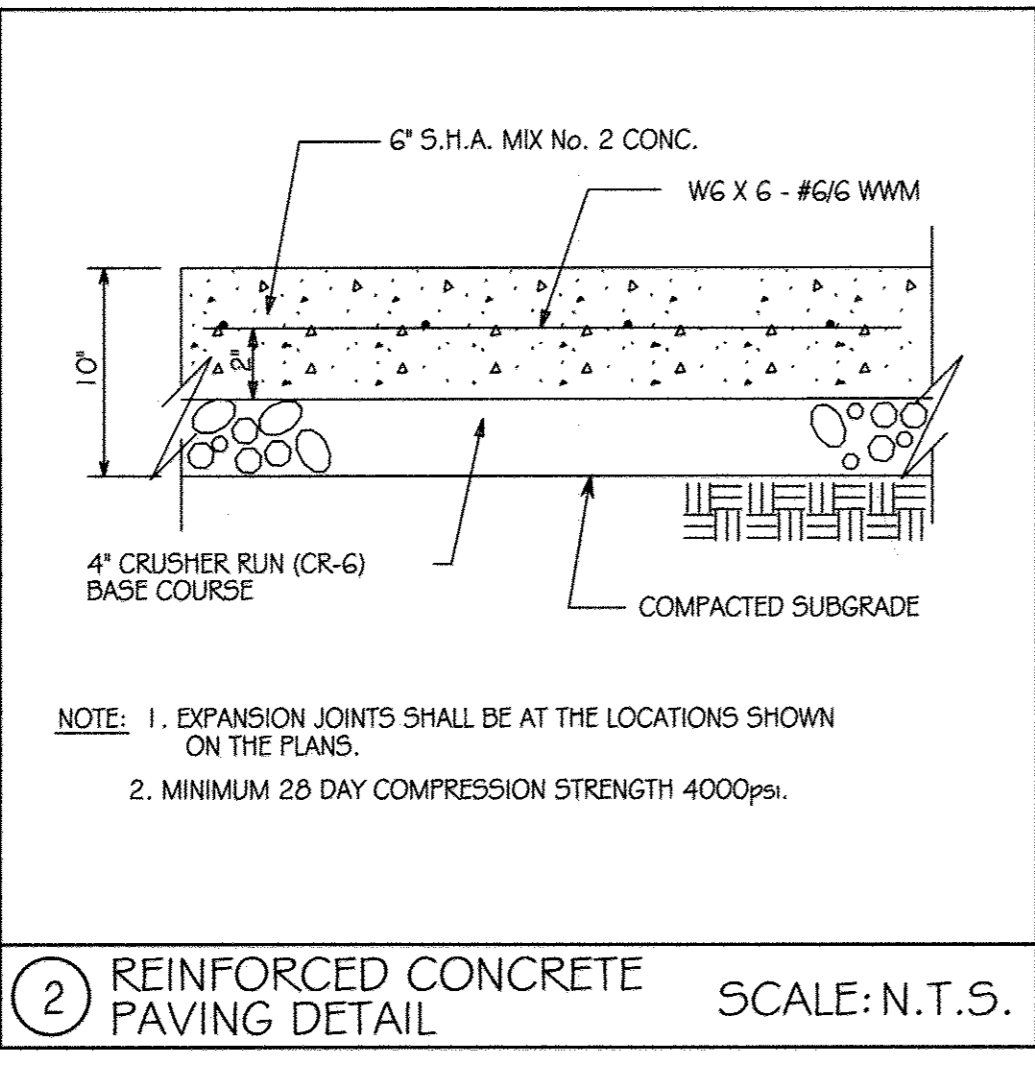


Discipline Number:
C5.02

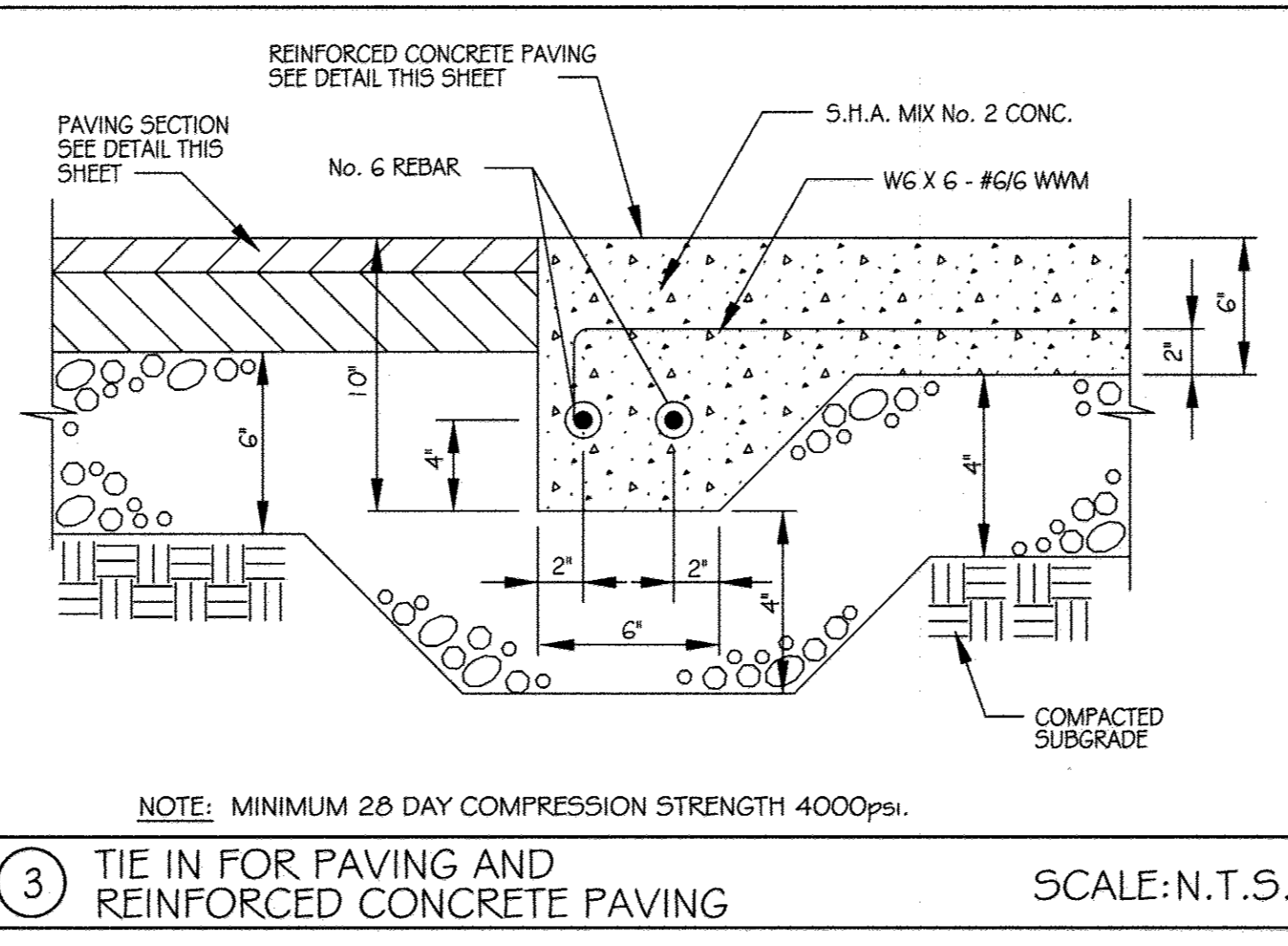
Sheet Number:
7 OF 42



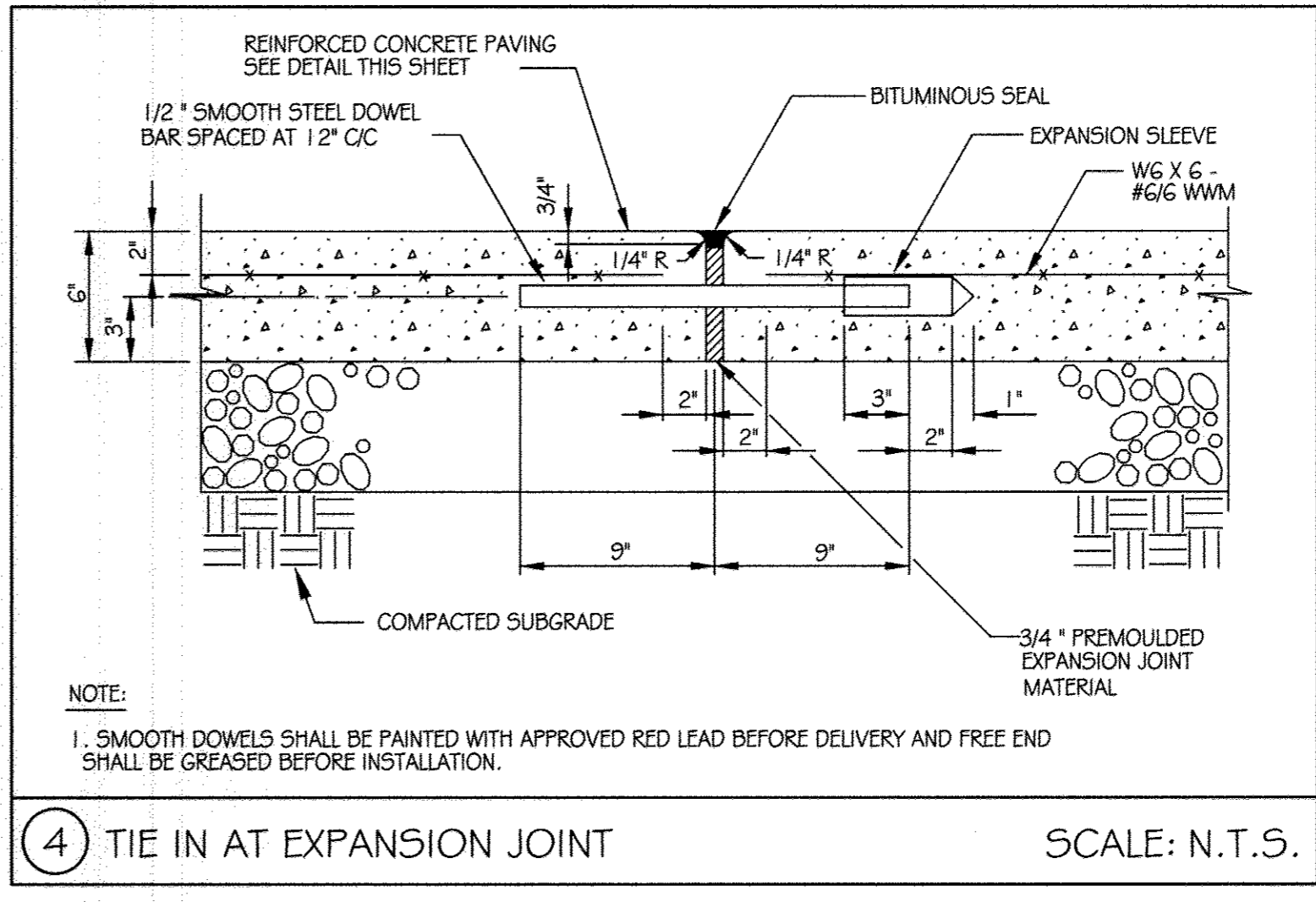
1 HEAVY DUTY ASPHALT PAVING DETAIL SCALE: N.T.S.



2 REINFORCED CONCRETE PAVING DETAIL SCALE: N.T.S.



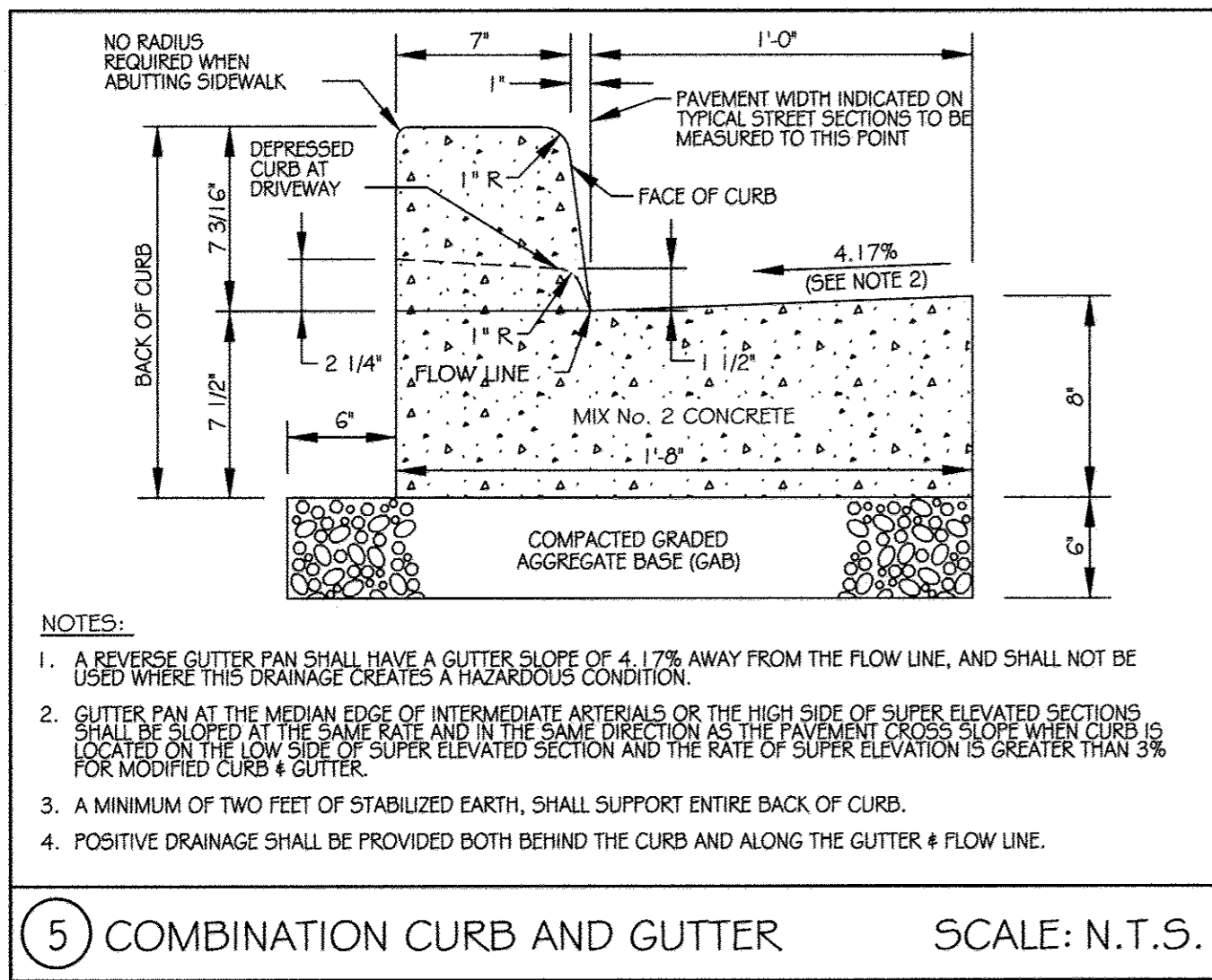
3 TIE IN FOR PAVING AND REINFORCED CONCRETE PAVING SCALE: N.T.S.



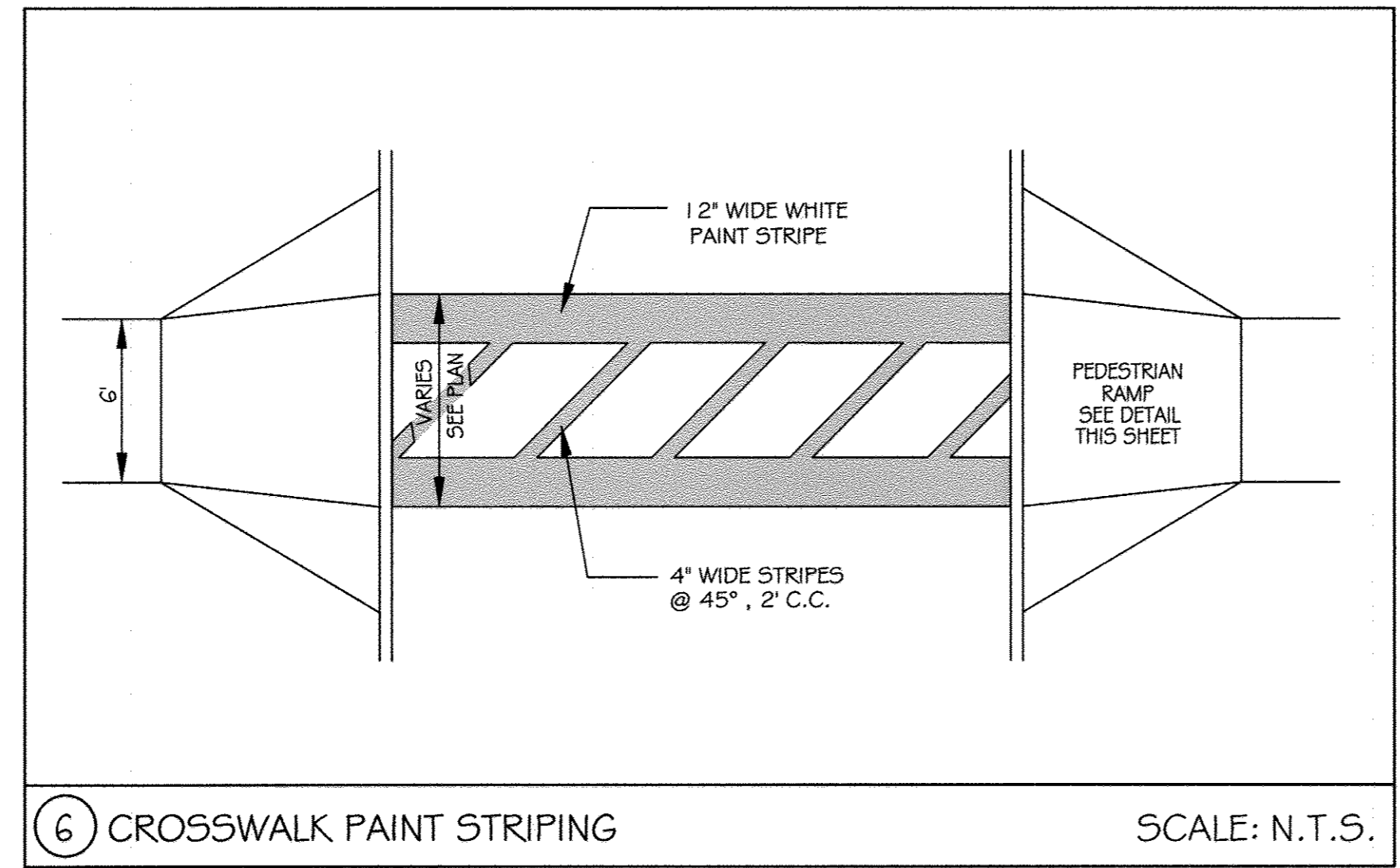
4 TIE IN AT EXPANSION JOINT SCALE: N.T.S.



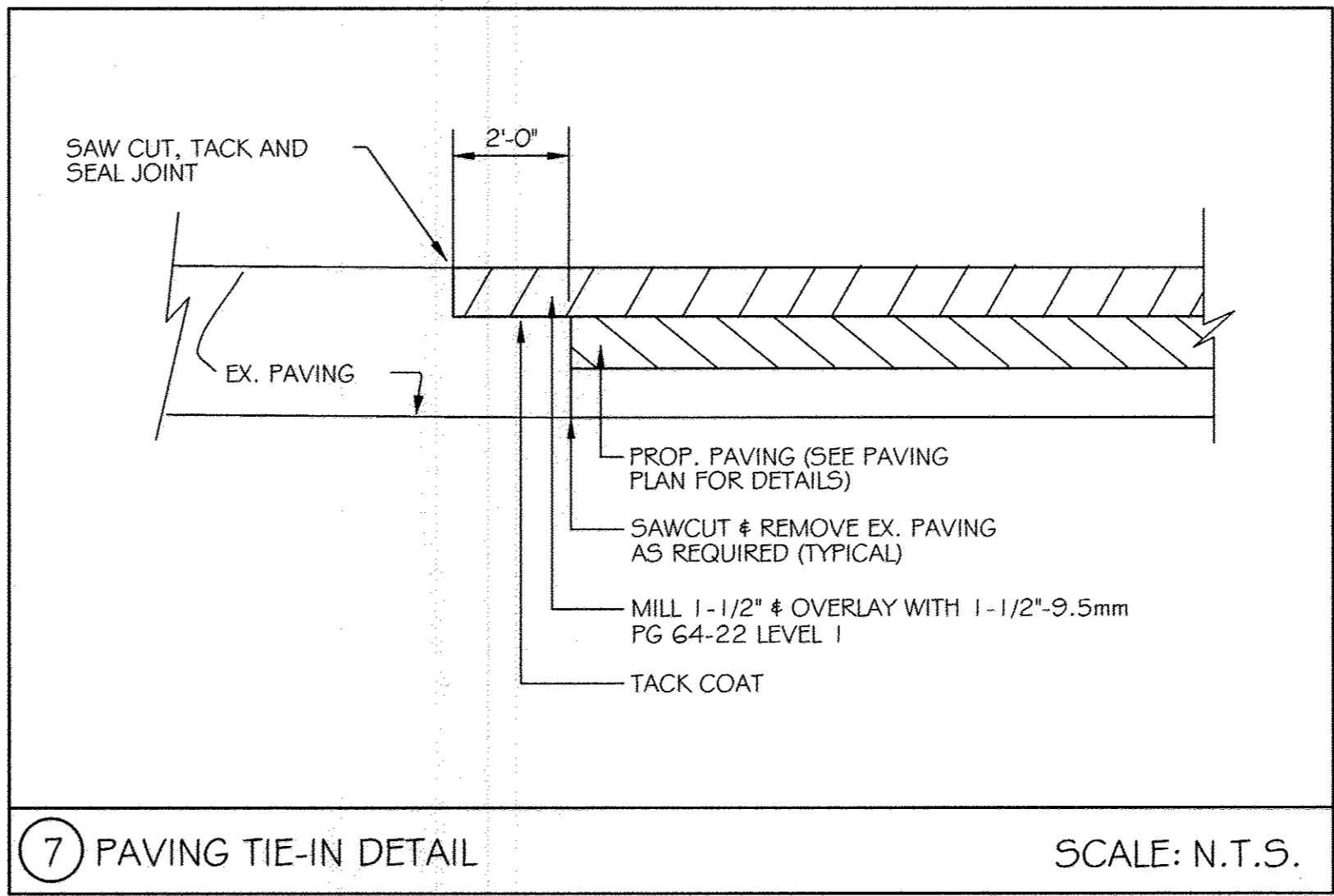
NO ASBUILT INFORMATION THIS SHEET



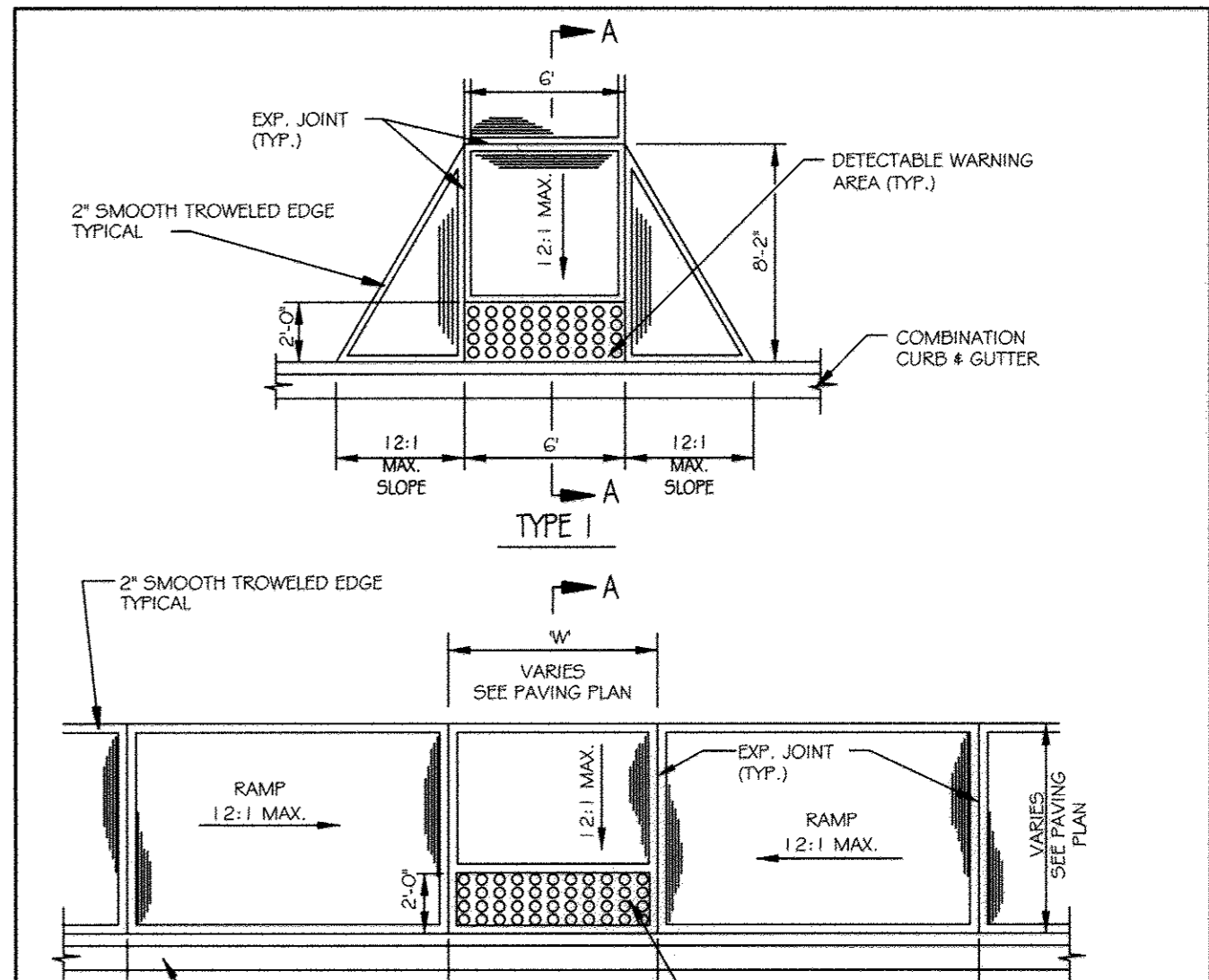
5 COMBINATION CURB AND GUTTER SCALE: N.T.S.



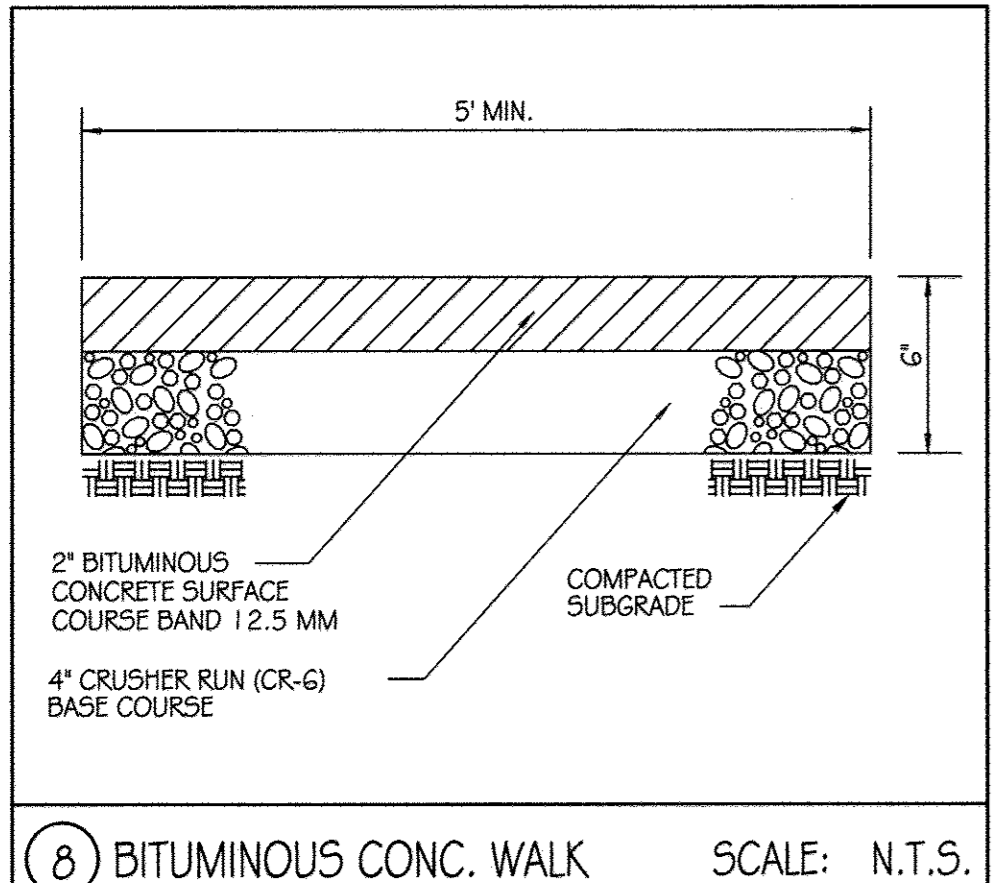
6 CROSSWALK PAINT STRIPING SCALE: N.T.S.



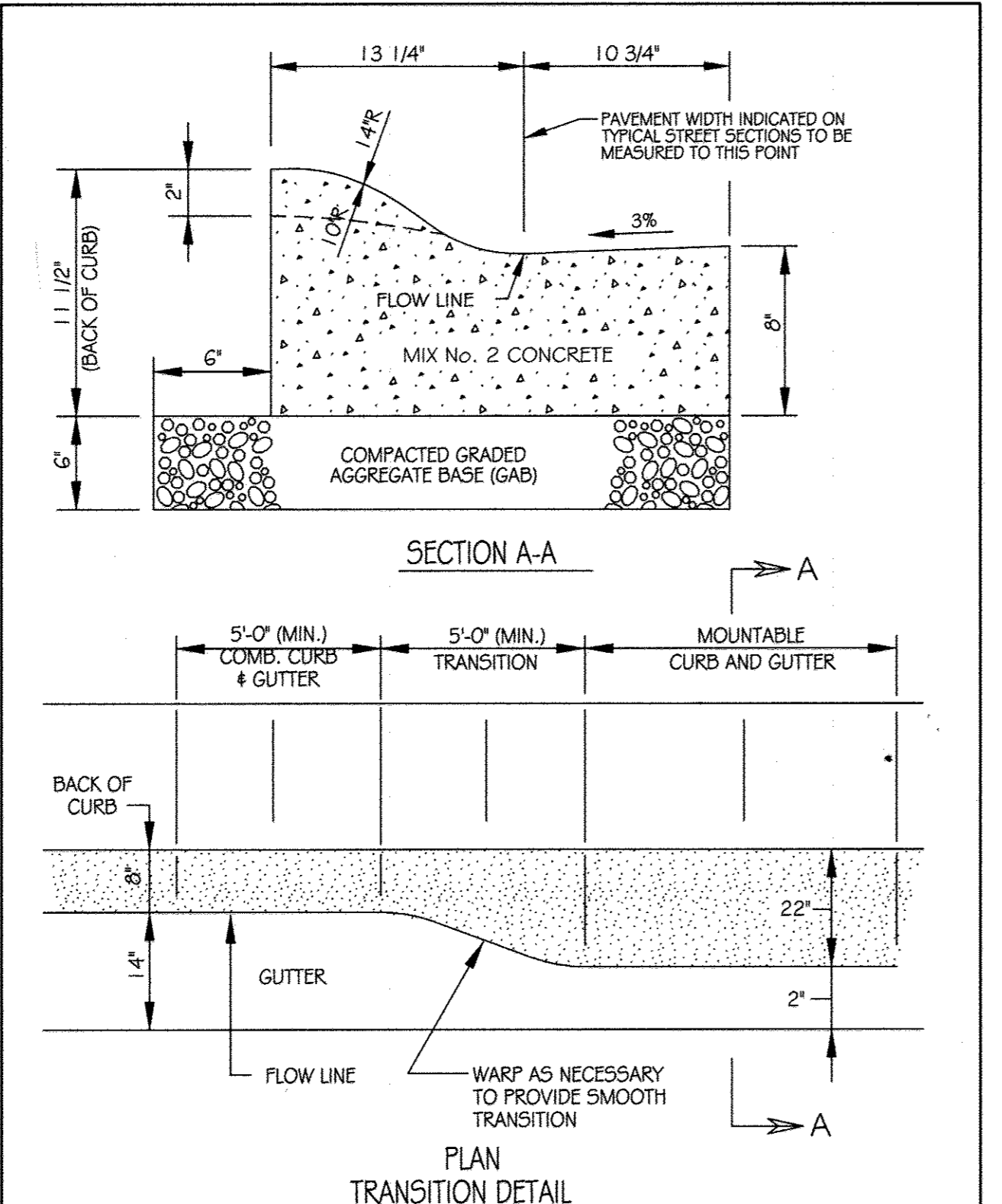
7 PAVING TIE-IN DETAIL SCALE: N.T.S.



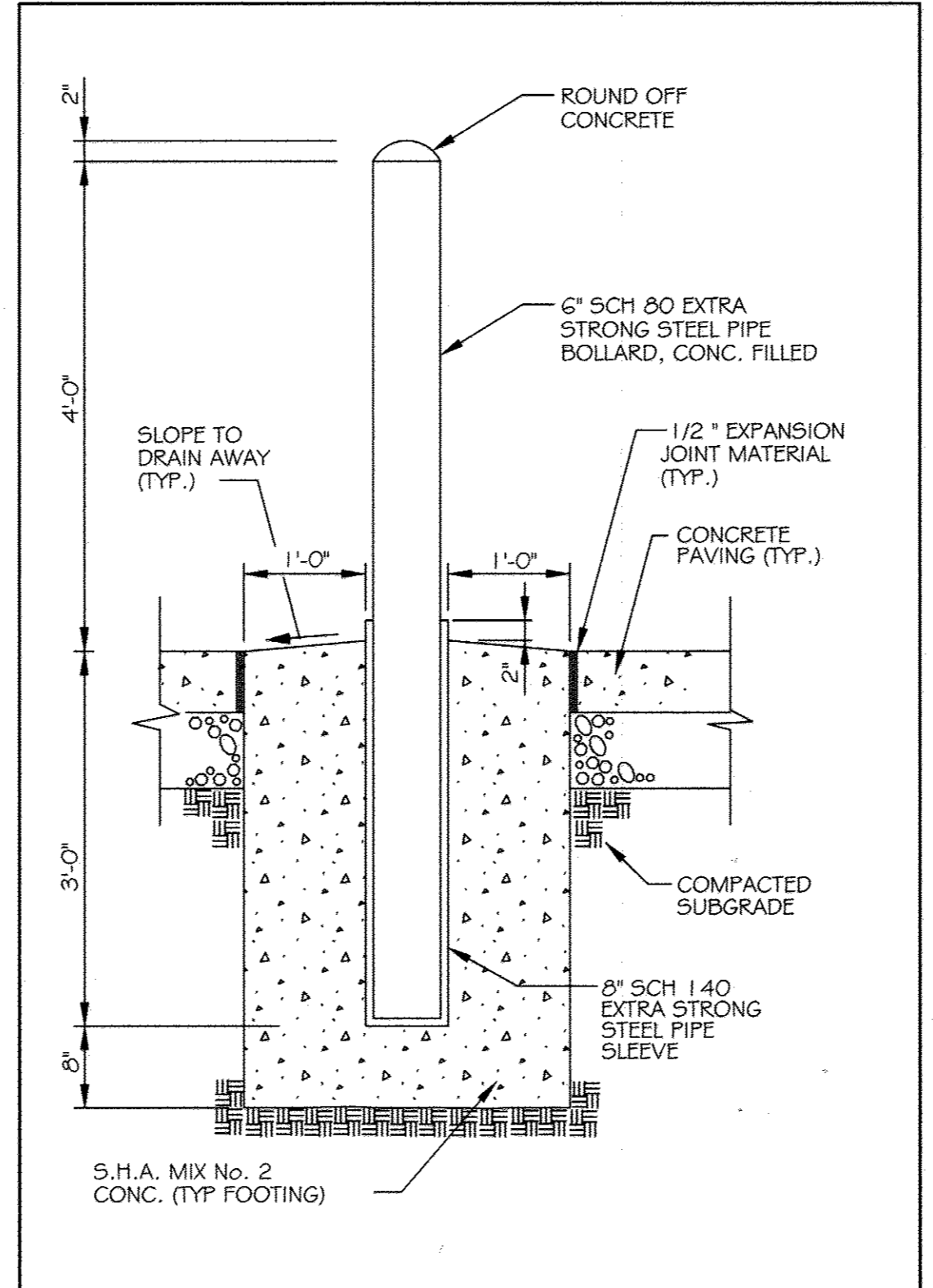
8 PEDESTRIAN RAMPS SCALE: N.T.S.



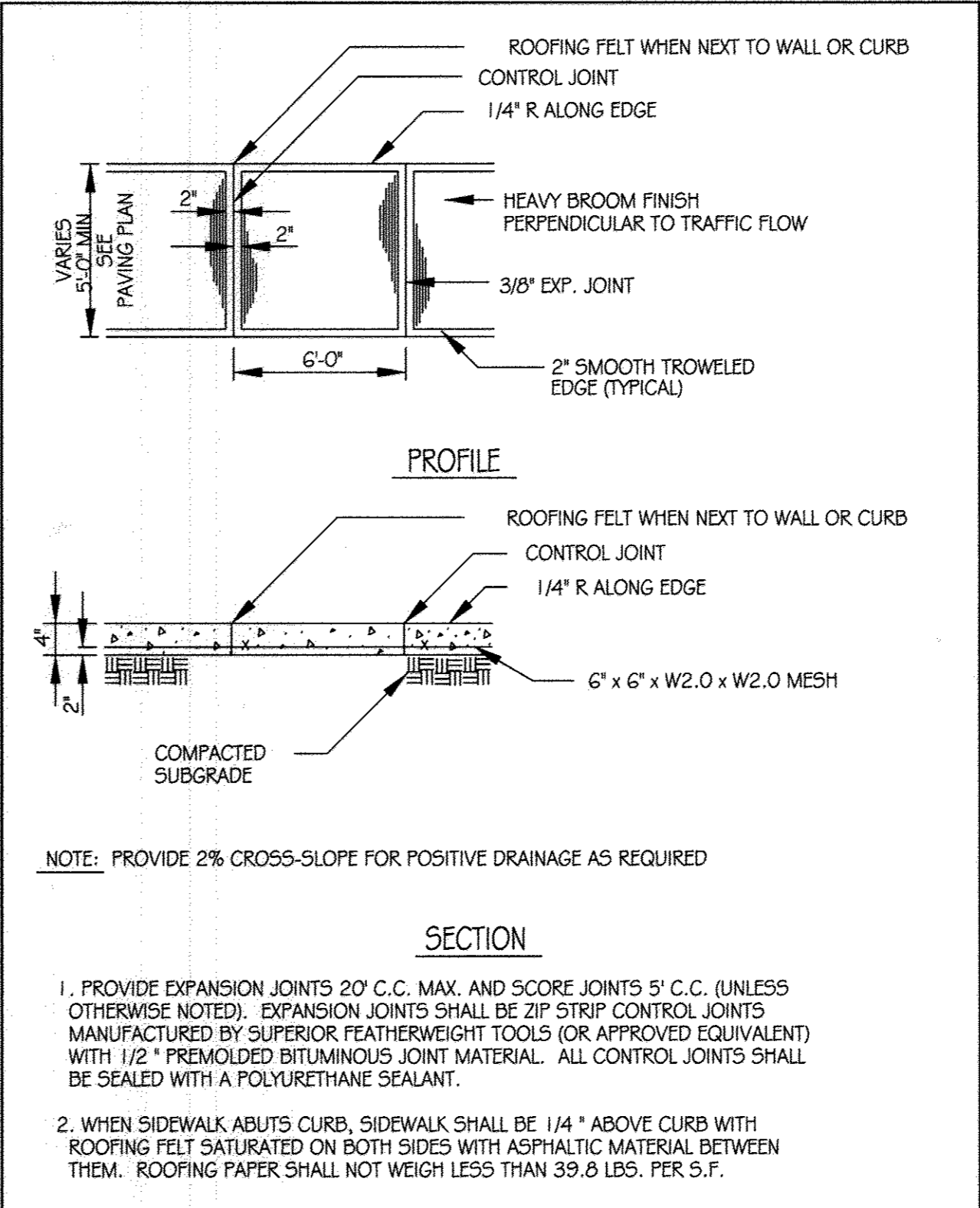
8 BITUMINOUS CONC. WALK SCALE: N.T.S.



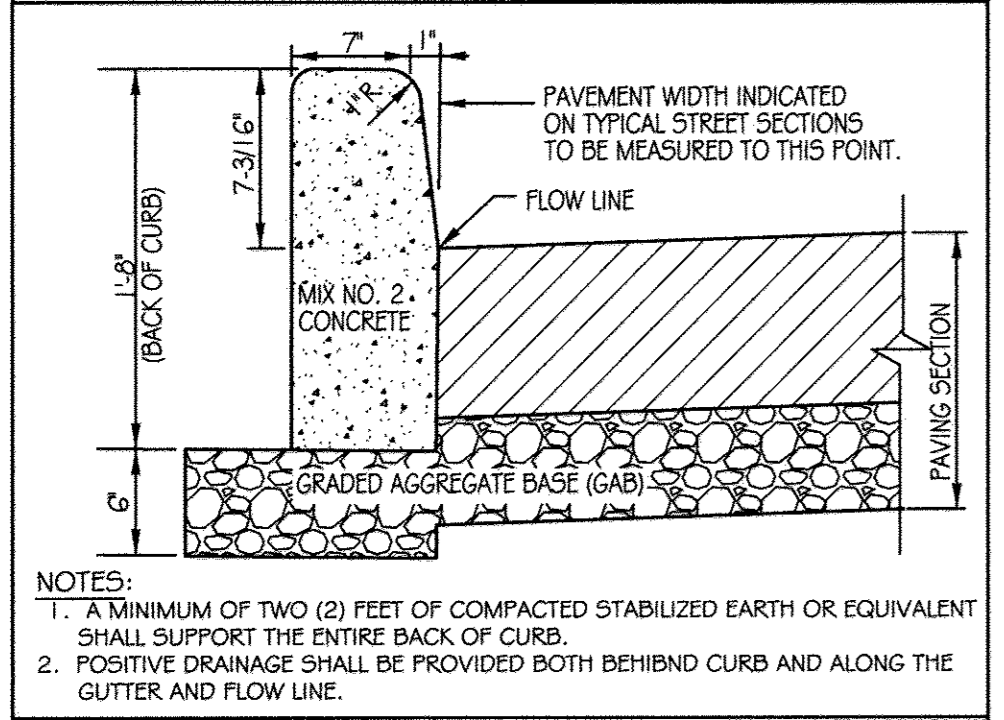
9 MOUNTABLE CURB AND GUTTER SCALE: N.T.S.



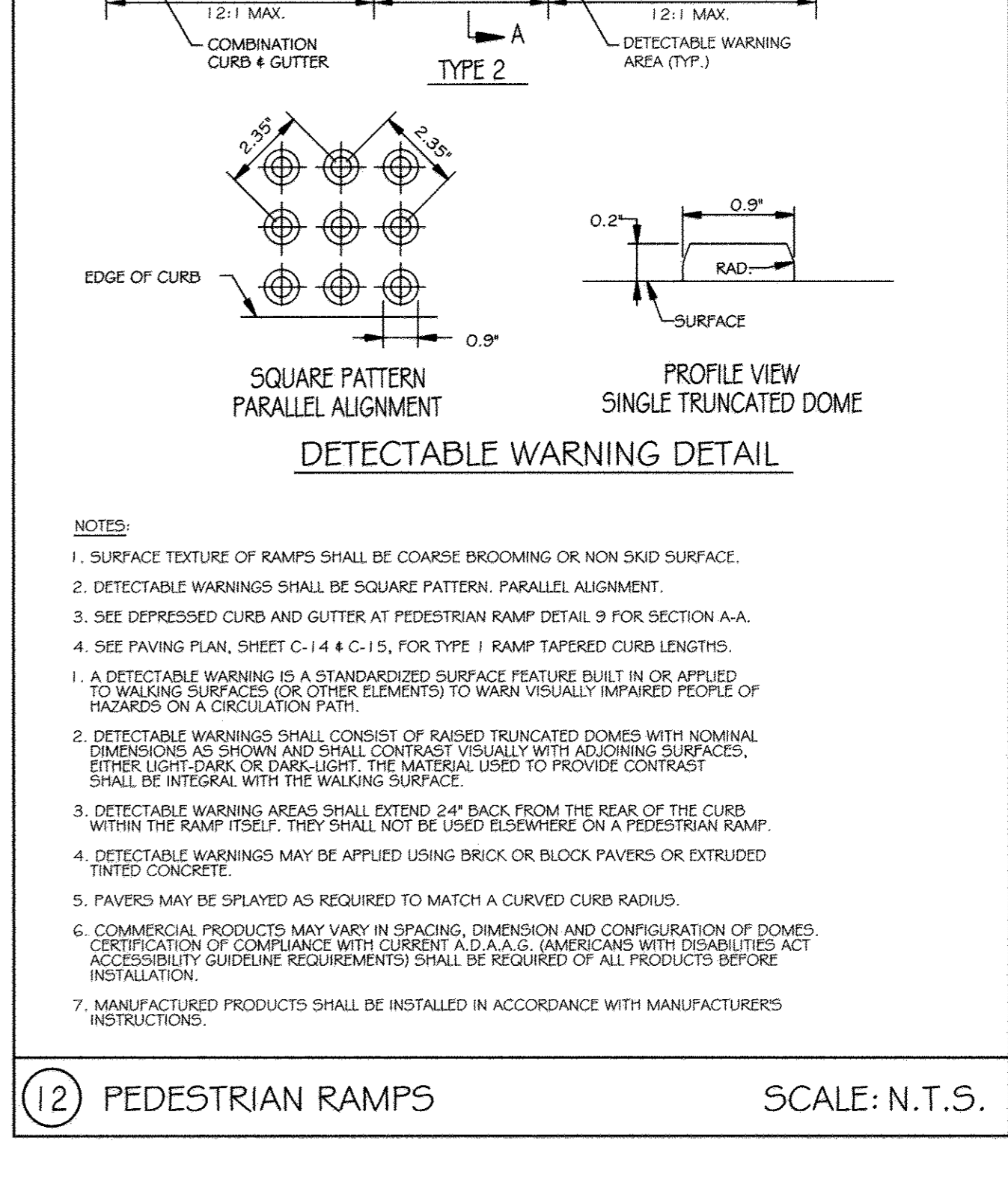
10 REMOVEABLE PIPE BOLLARD SCALE: N.T.S.



11 CONCRETE SIDEWALK SCALE: N.T.S.

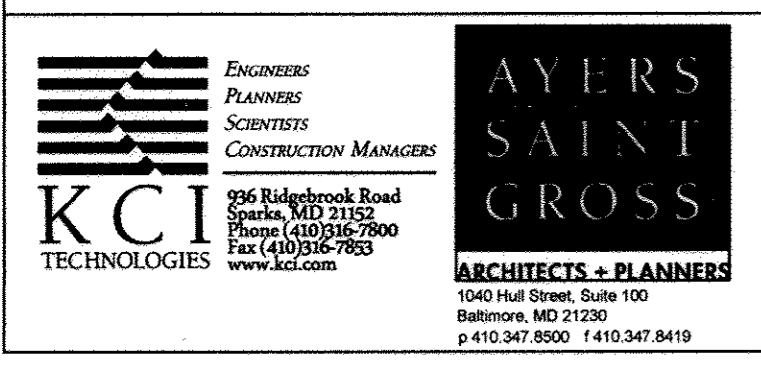


13 CONCRETE BARRIER CURB SCALE: N.T.S.



12 PEDESTRIAN RAMPS SCALE: N.T.S.

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APPROVED: Howard County Department of Planning & Zoning	Rev:	Date:	Description:	By:	Prepared For and Owner:
<i>Mark LaVeigh</i> 1/6/15	1				Howard Community College
<i>Keith Shalwood</i> 1-06-15	2				10901 Little Patuxent Parkway
<i>Chad Clark</i> 12-18-14	3				Columbia, Maryland 21044
	4				ATTN: Mr. Chuck Nightingale
	5				410-772-4286

Project Name: **Howard Community College - Science, Engineering & Technology Building**

DATE: 10-1-2014 Scale: N.T.S.

Drawn By: C.T.B. Designed By: B.S.

Approved By: R.T.B. Project No: 27111245

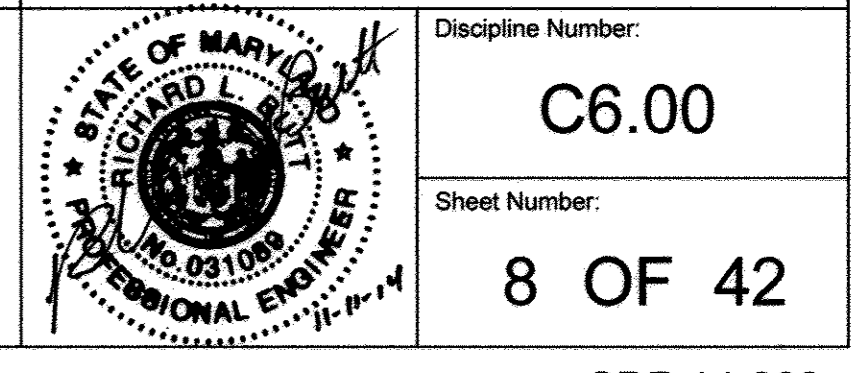
Tax Map-Grid: 35-6 Zoning: POR & NT

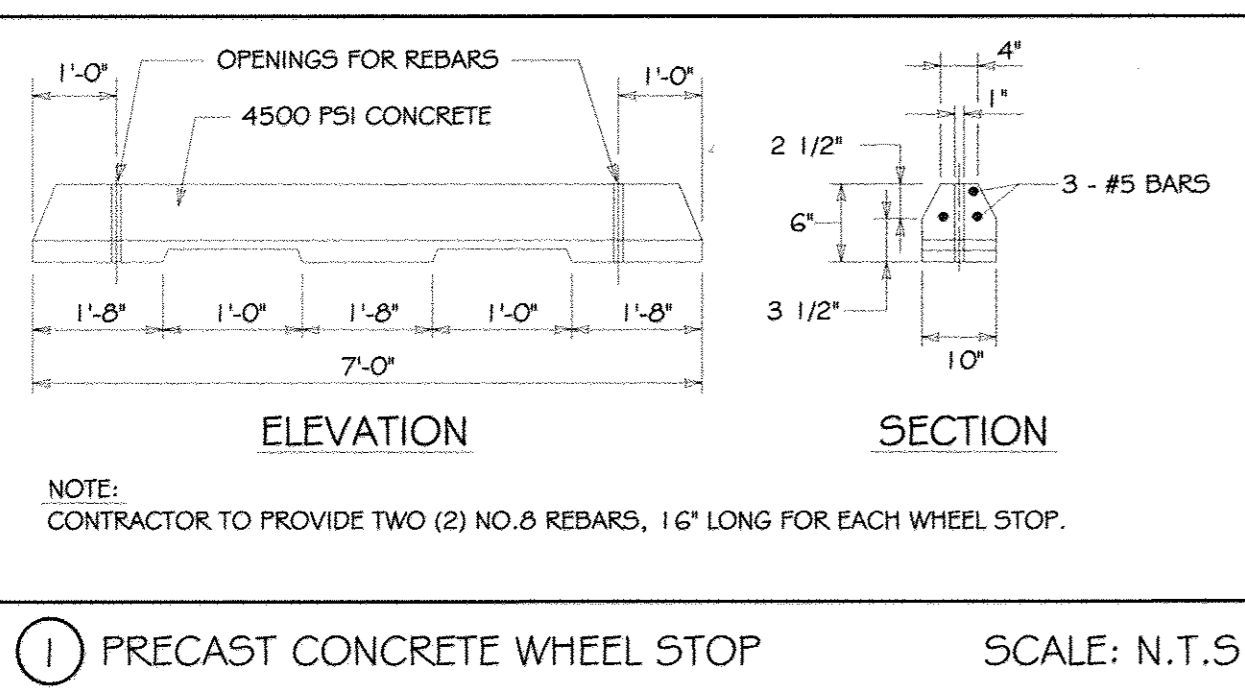
ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

Sheet Title: **SITE DETAILS**

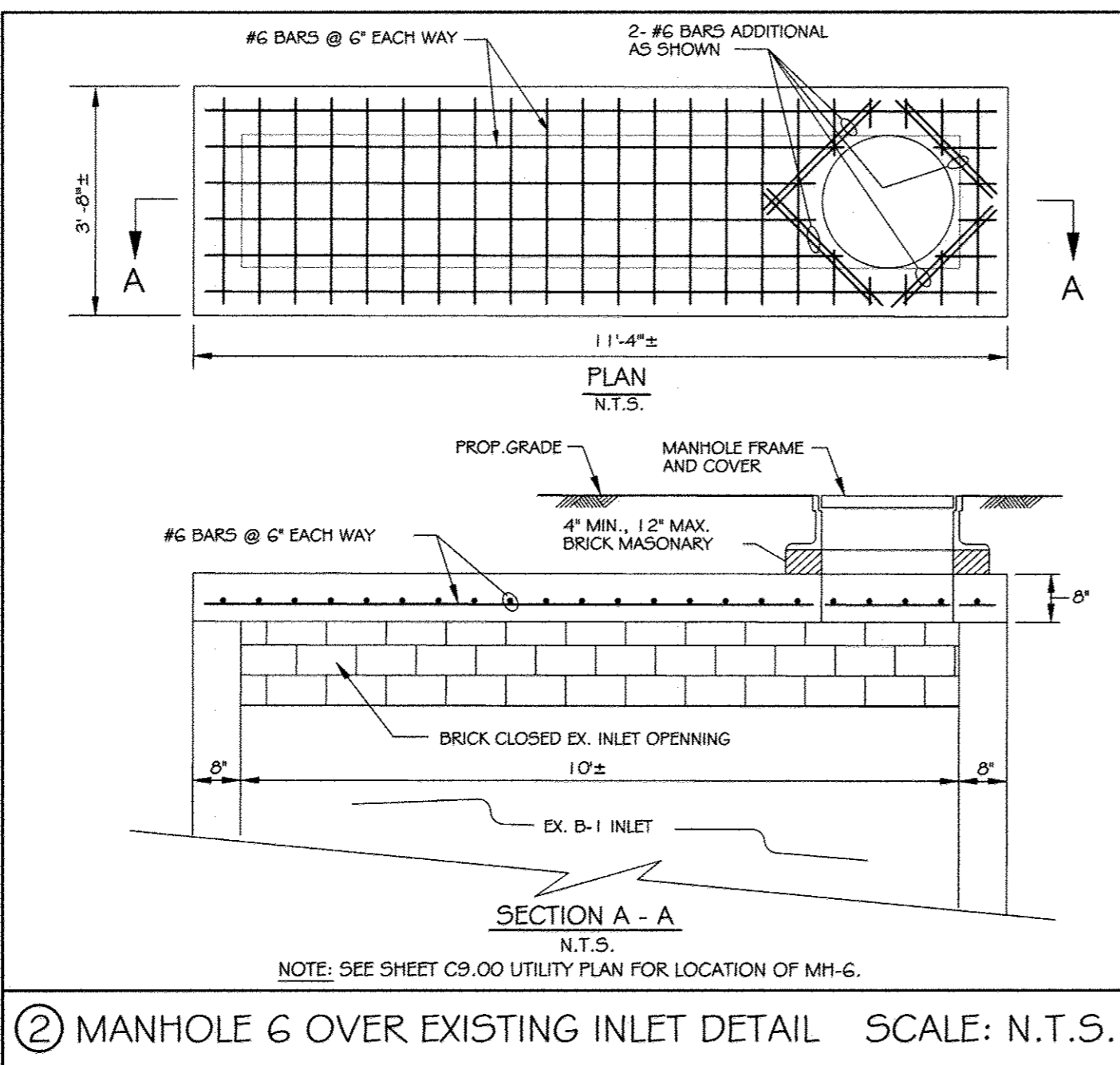
Discipline Number: **C6.00**

Sheet Number: **8 OF 42**

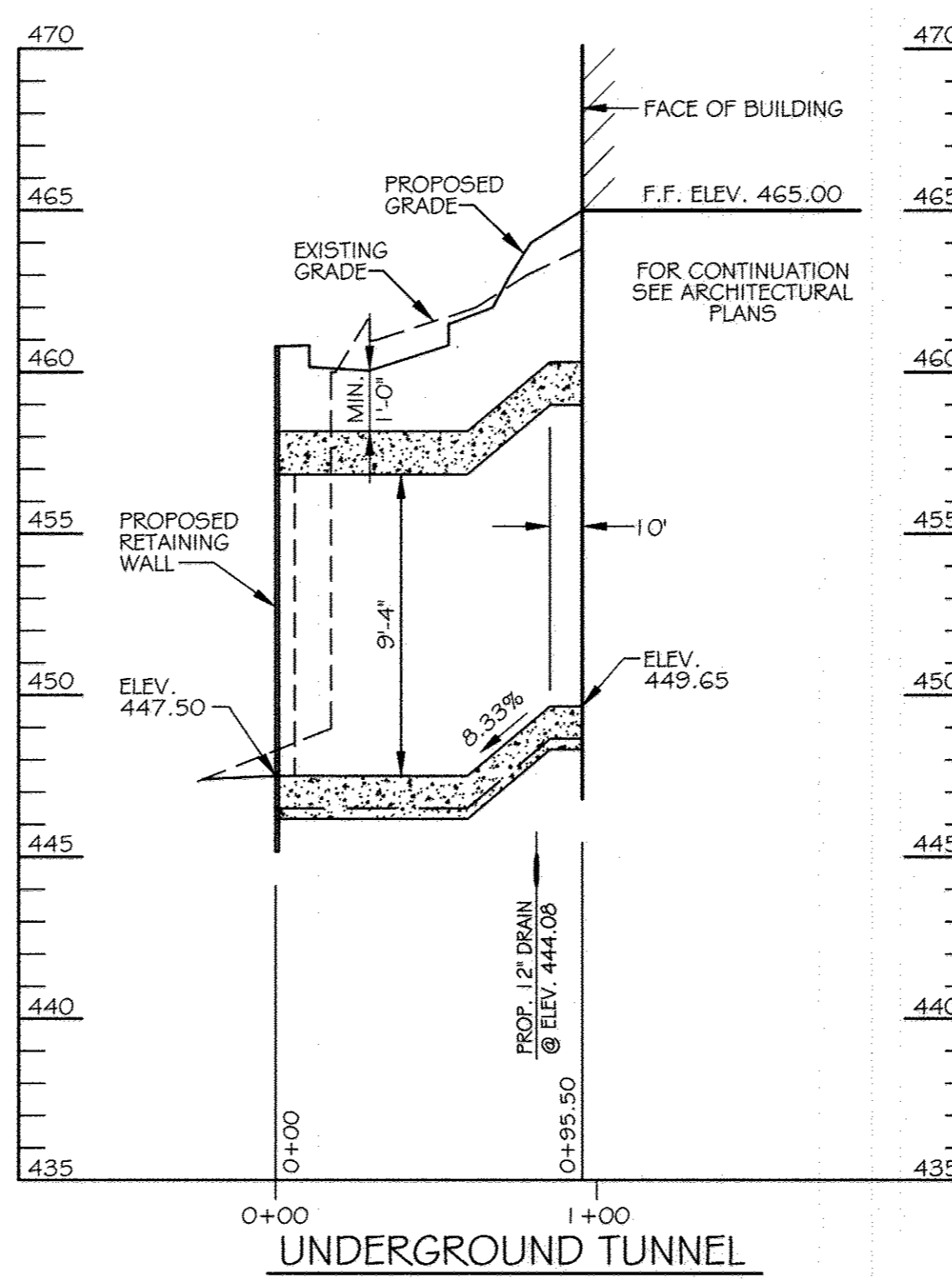




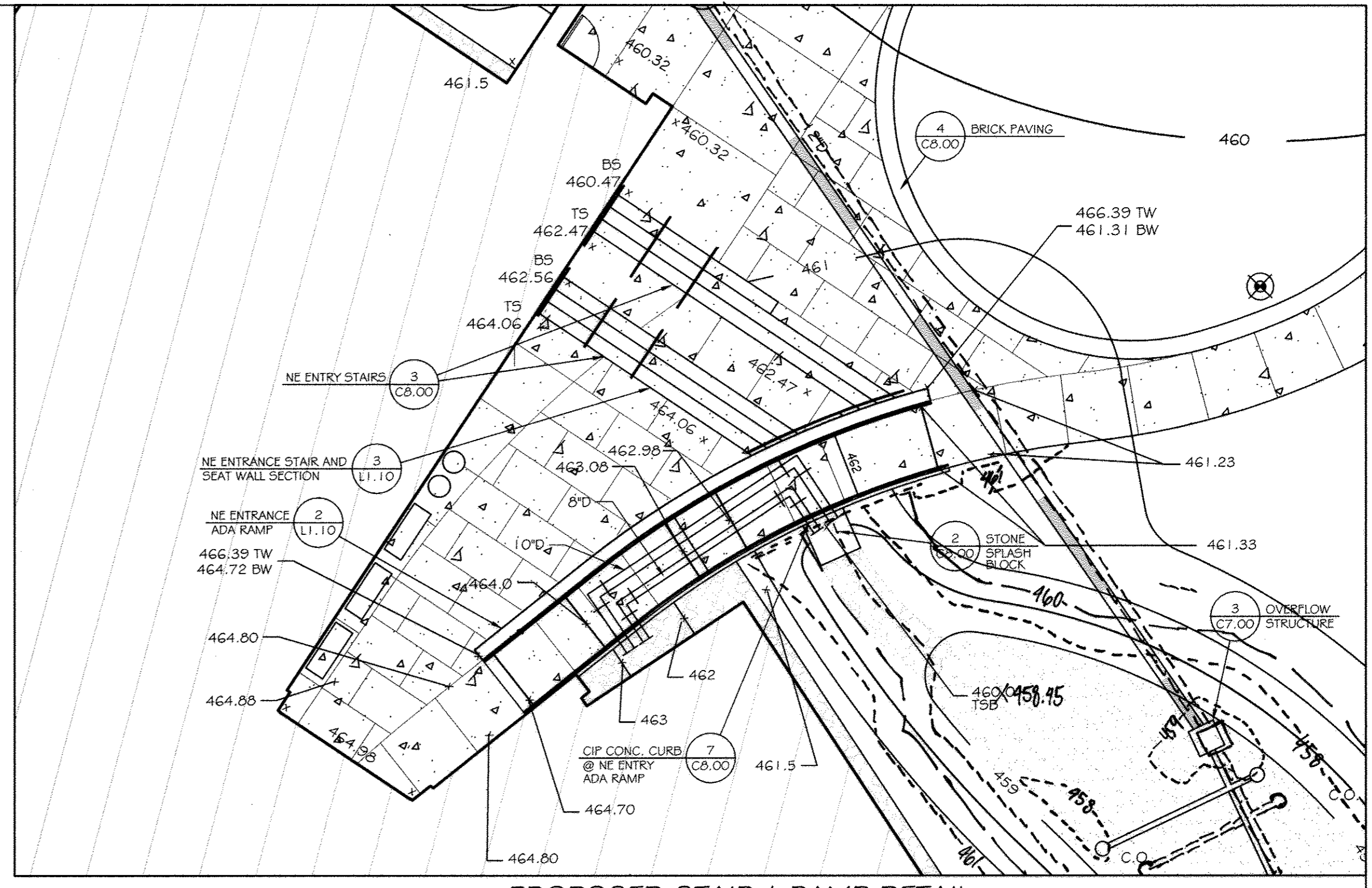
1 PRECAST CONCRETE WHEEL STOP SCALE: N.T.S.



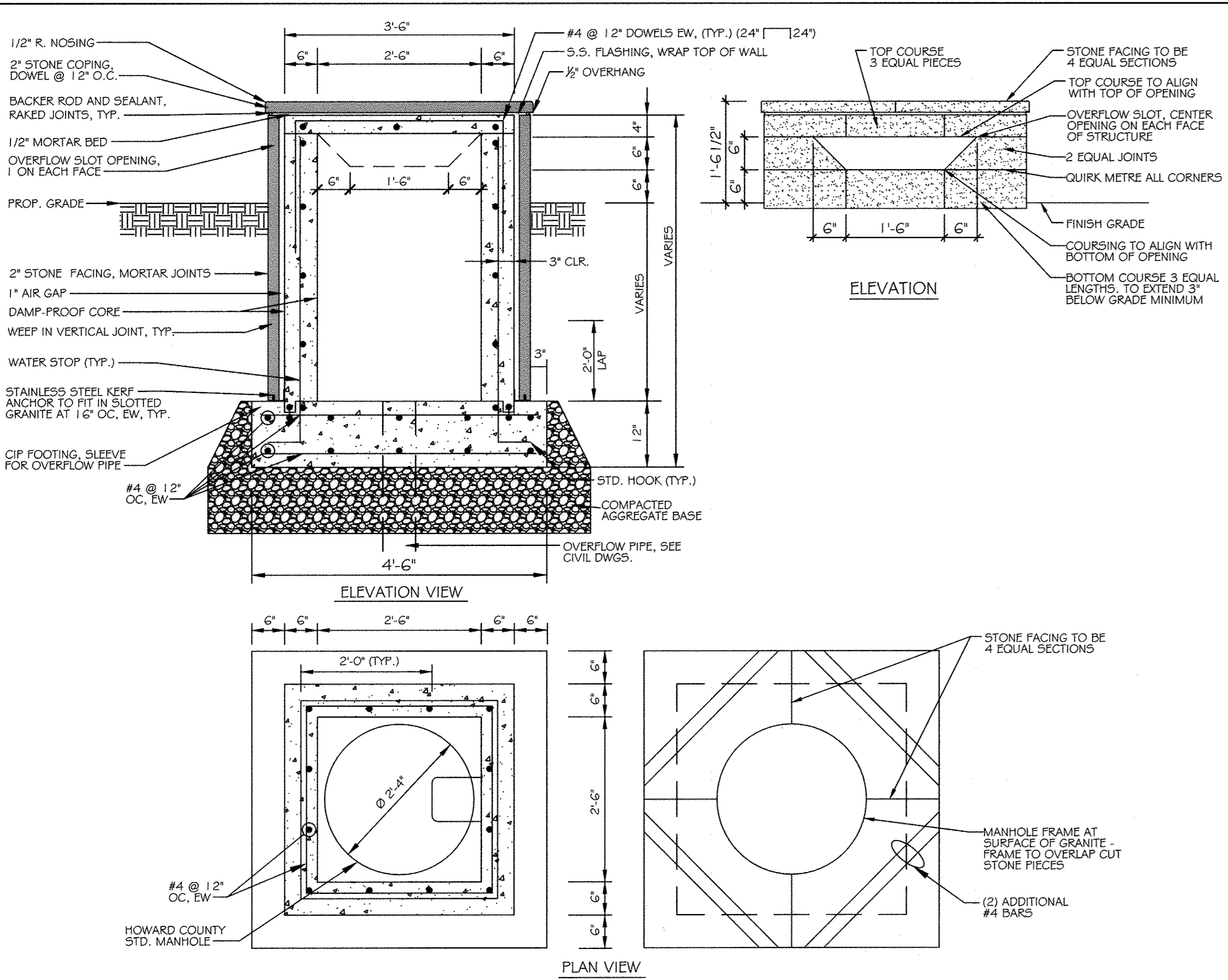
2 MANHOLE G OVER EXISTING INLET DETAIL SCALE: N.T.S.



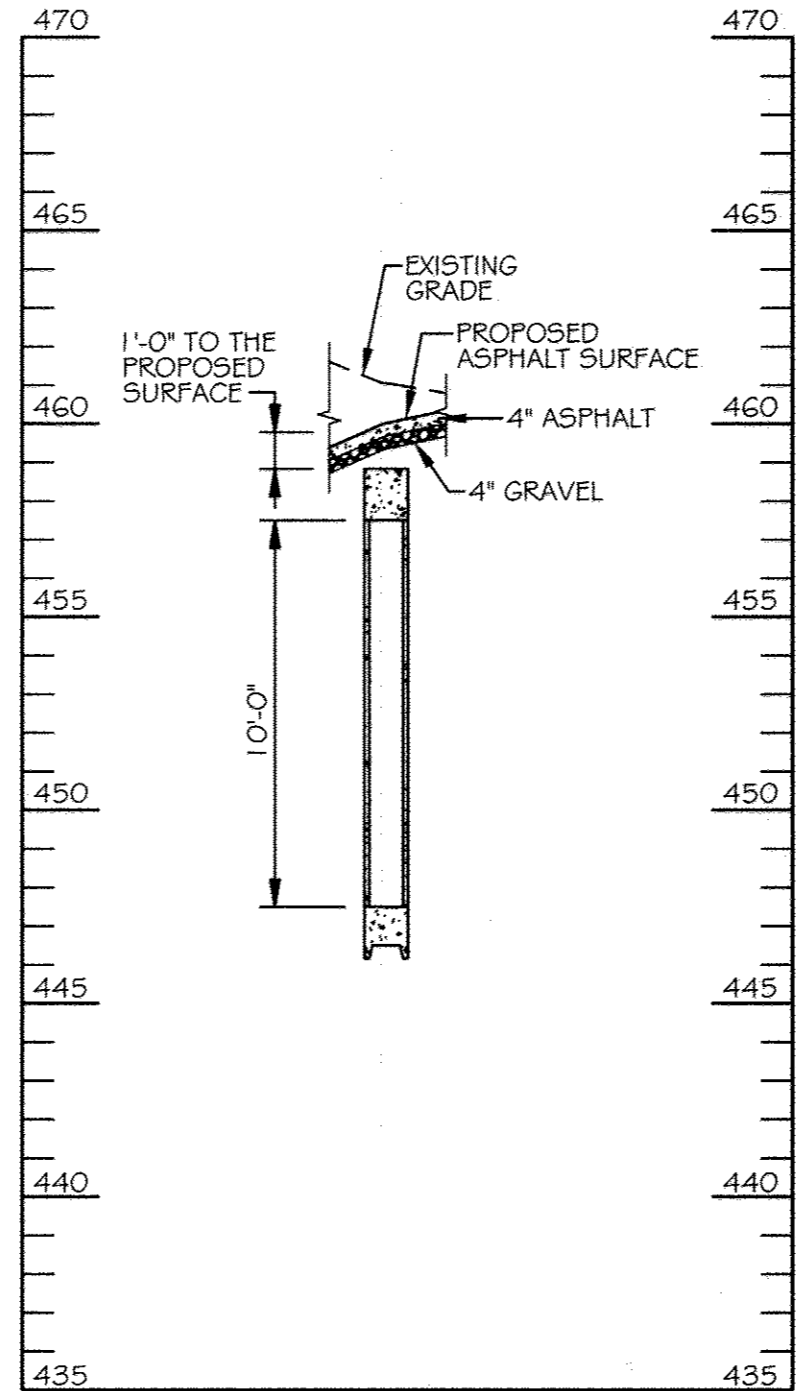
UNDERGROUND TUNNEL SCALE: HORIZ. 1" = 5' VERT. 1" = 5'



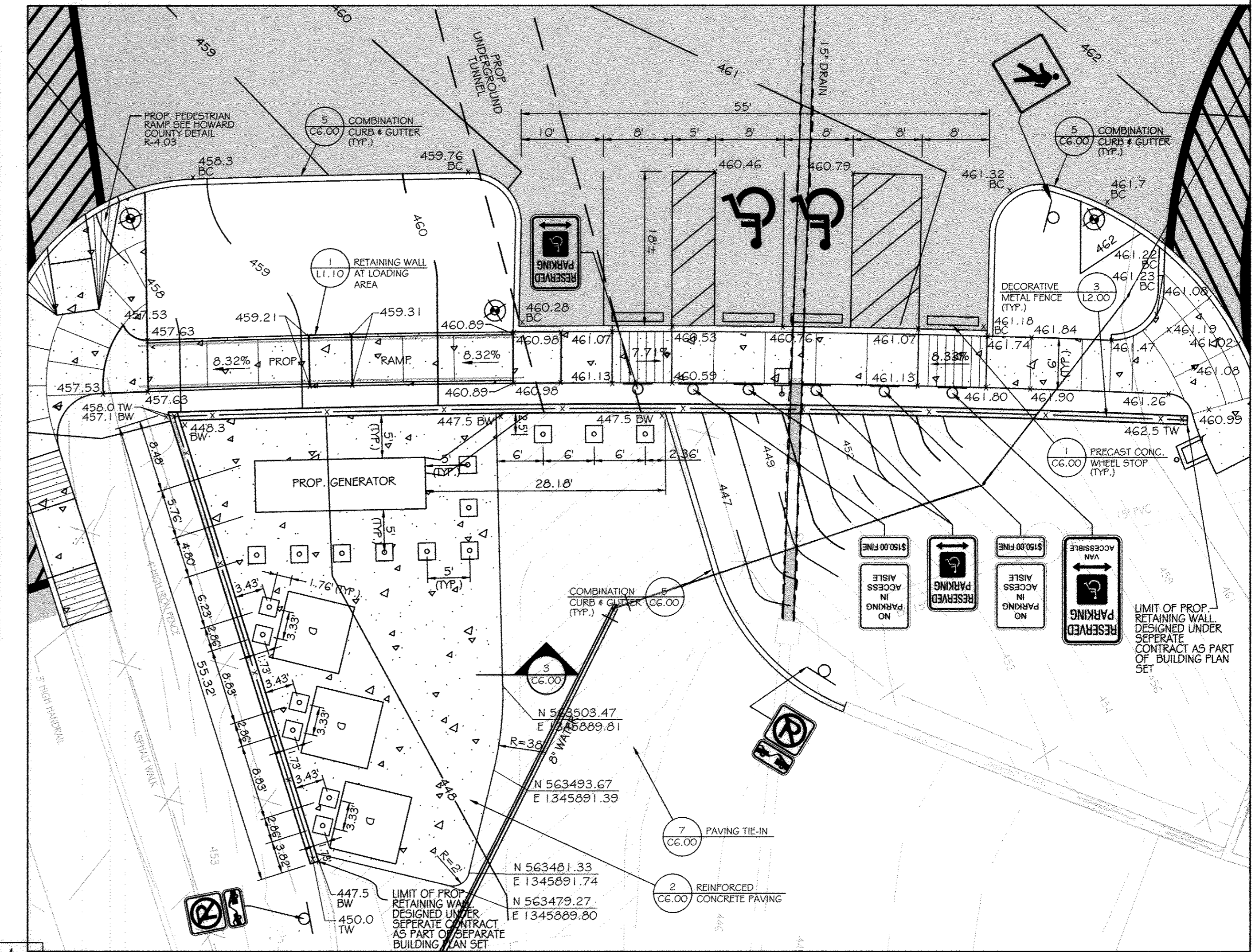
PROPOSED STAIR & RAMP DETAIL SCALE: 1" = 10'



3 OVERFLOW STRUCTURE DETAIL SCALE: 3/4" = 1'-0"



UNDERGROUND TUNNEL SECTION SCALE: HORIZ. 1" = 5' VERT. 1" = 5'



HANDICAP PARKING DETAIL SCALE: 1" = 10'

AS-BUILT CERTIFICATION FOR PSWM
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK PE# 33772. DATE: 06-16-2019

KCI TECHNOLOGIES
 ENGINEERS, PLANNERS, ARCHITECTS & CONSTRUCTION MANAGERS
 1946 Ridgely Road, Sparks, MD 21152
 Phone: (410) 396-7800 Fax: (410) 396-7863 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
 1940 Hill Street, Suite 102, Baltimore, MD 21202
 p 410.947.8500 f 410.247.9419

APPROVED: Howard County Department of Planning & Zoning

Director	<i>Janet A. Long</i>	4/4/15
Chief, Division of Land Development	<i>Kat Schuler</i>	1-06-15
Chief, Development Engineering Division	<i>Bob Chen</i>	12-18-14

Rev:	Date:	Description:	By:
1			
2			
3			
4			

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4296

Project Name:
Howard Community College - Science, Engineering & Technology Building

DATE: 10-1-2014
 Drawn By: C.T.B.
 Approved By: R.T.B.
 Tax Map-Grid: 35-6

Scale: AS SHOWN
 Designed By: B.S.
 Project No: 27111245
 Zoning: POR & NT

Sheet Title:
SITE DETAILS

Discipline Number:
C7.00

Sheet Number:
9 OF 42

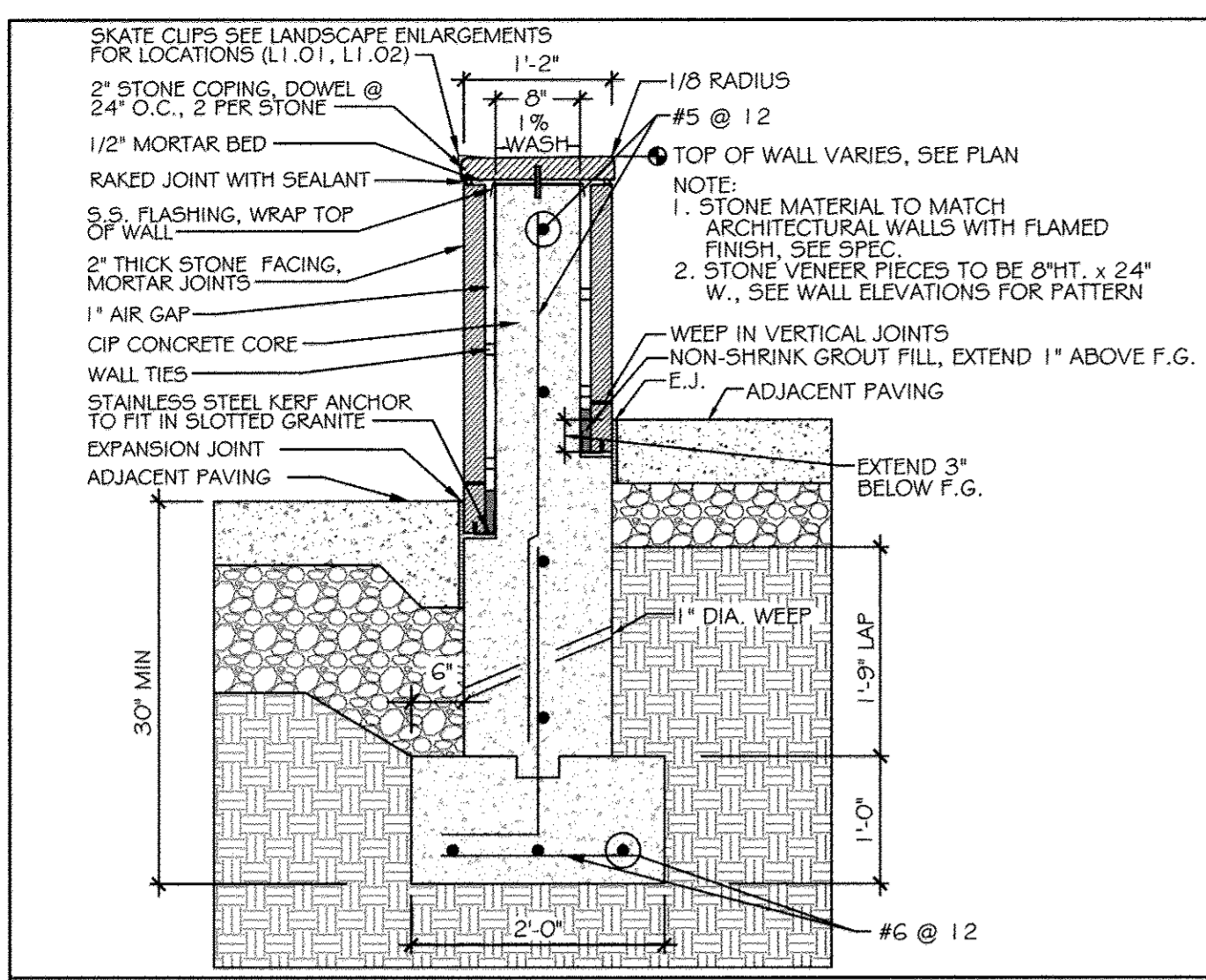
AS-BUILT
 PROFESSIONAL ENGINEER
 NICHOLAS A. BARRICK
 PE# 33772
 DATE: 06-16-2019

CONTRACTOR NOTE:
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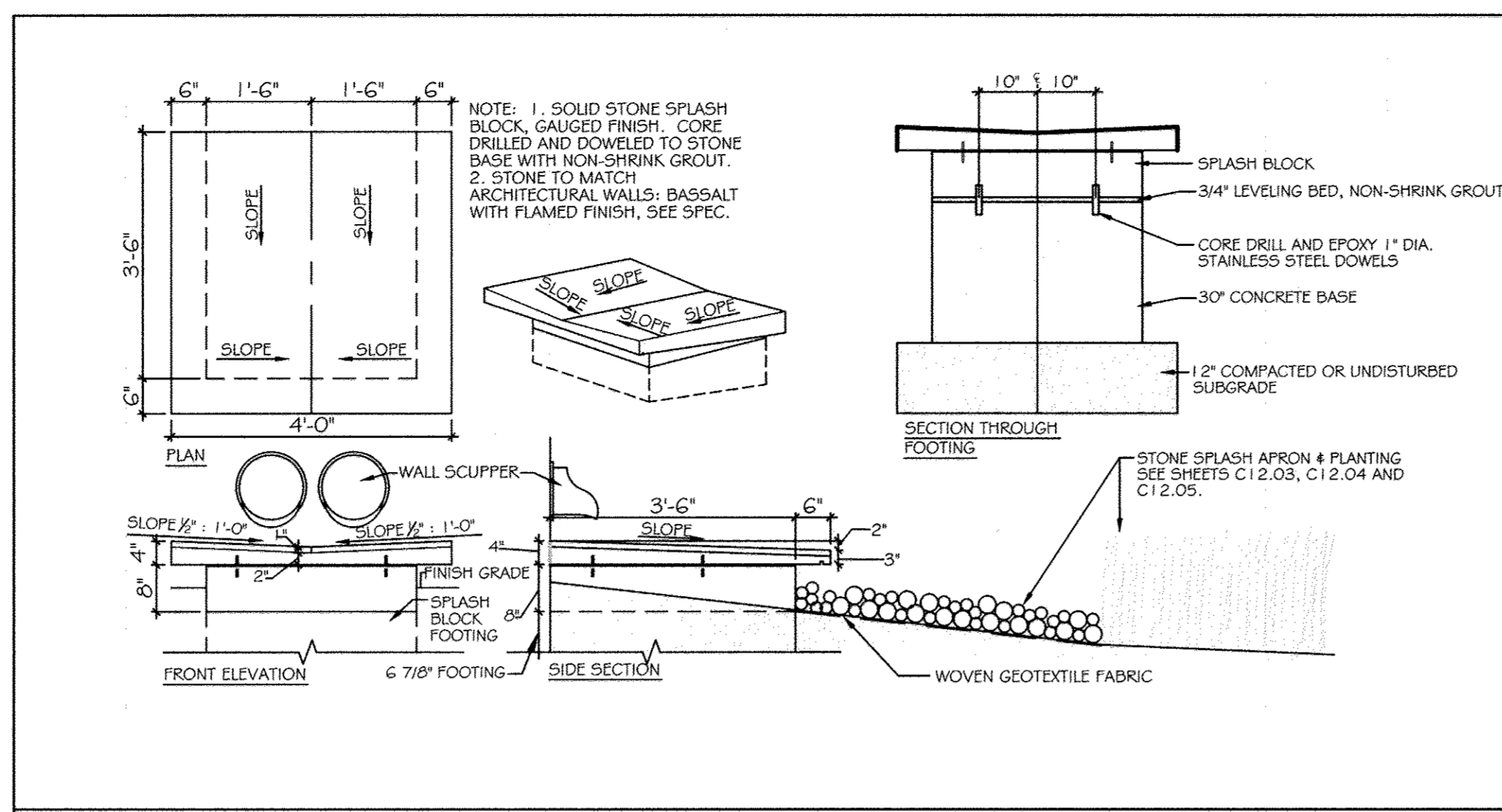
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31089 EXPIRATION DATE: 1/12/14

Discipline Number:
C7.00

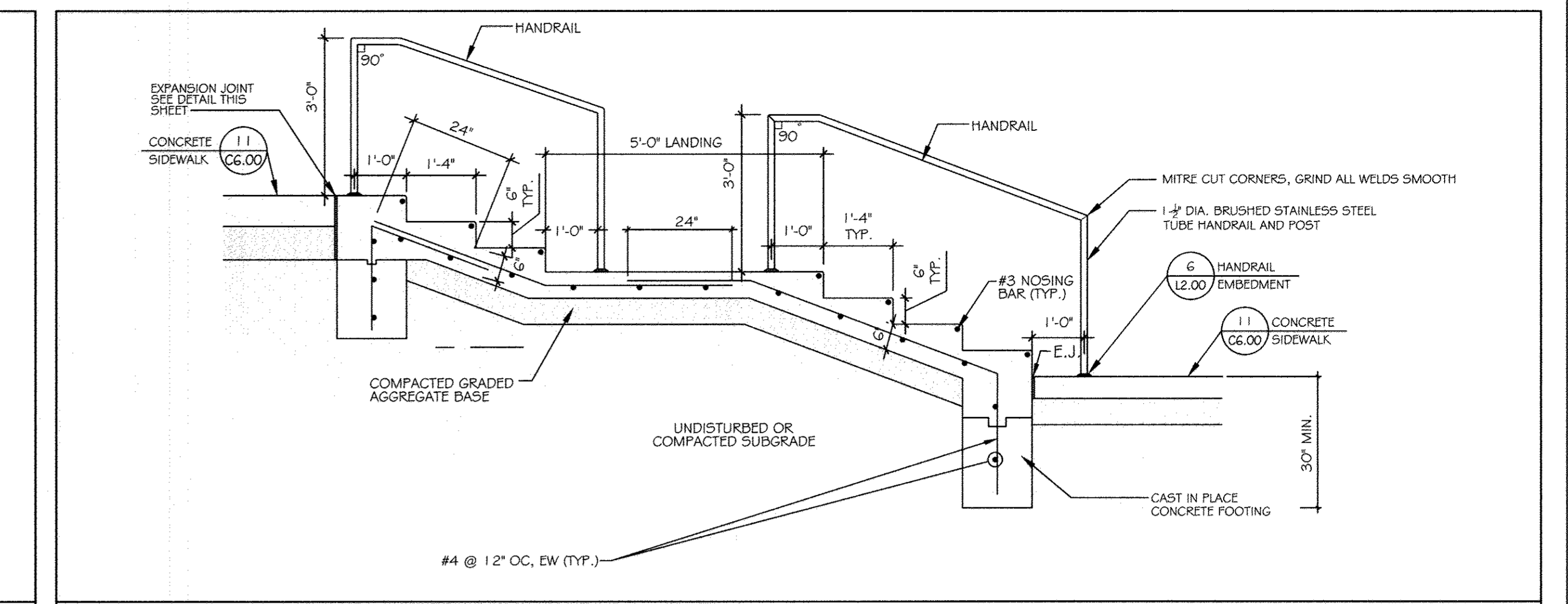
Sheet Number:
9 OF 42



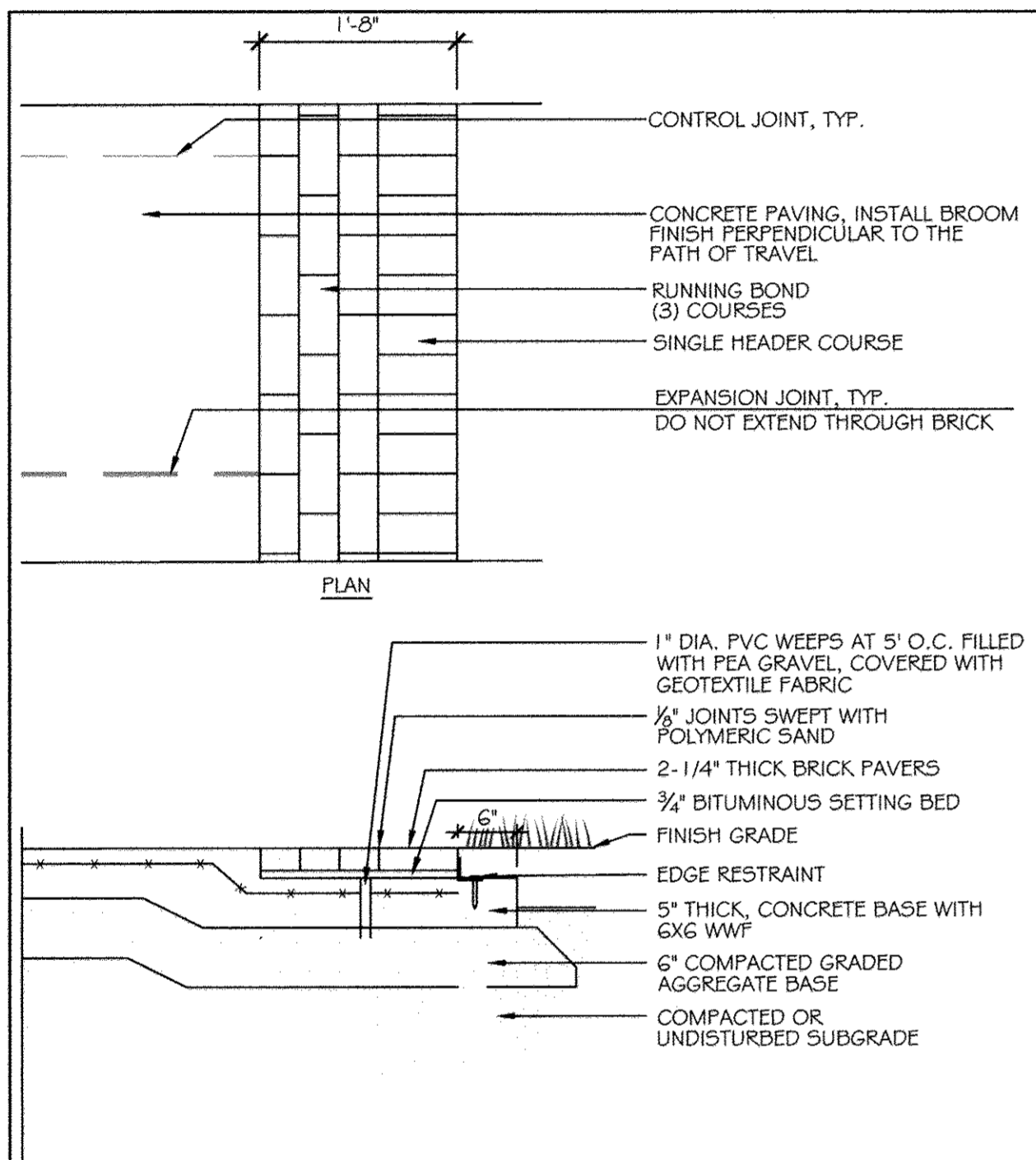
① SITE WALL SCALE: 3/4" = 1'-0"



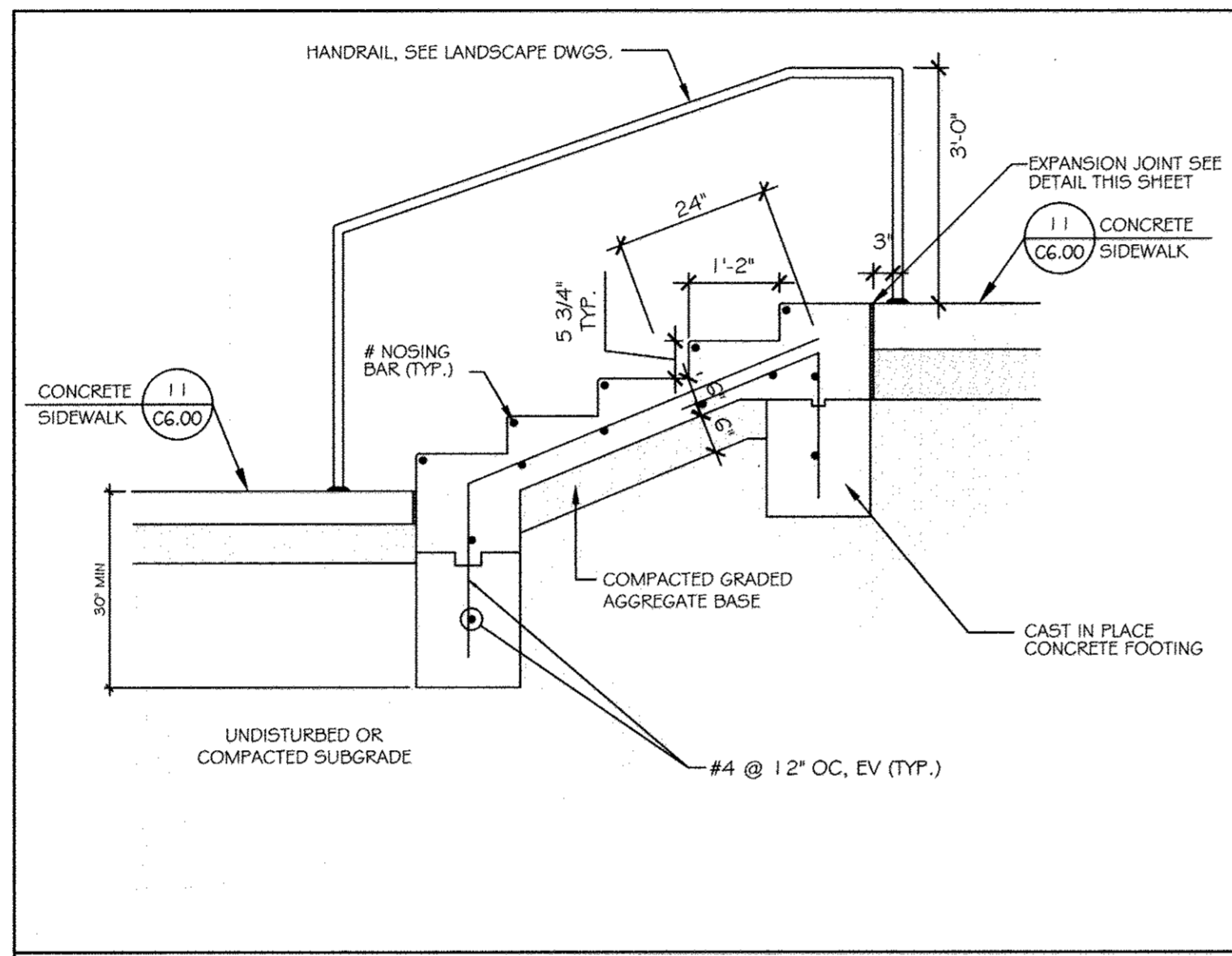
② STONE SPLASH BLOCK SCALE: 1/2" = 1'-0"



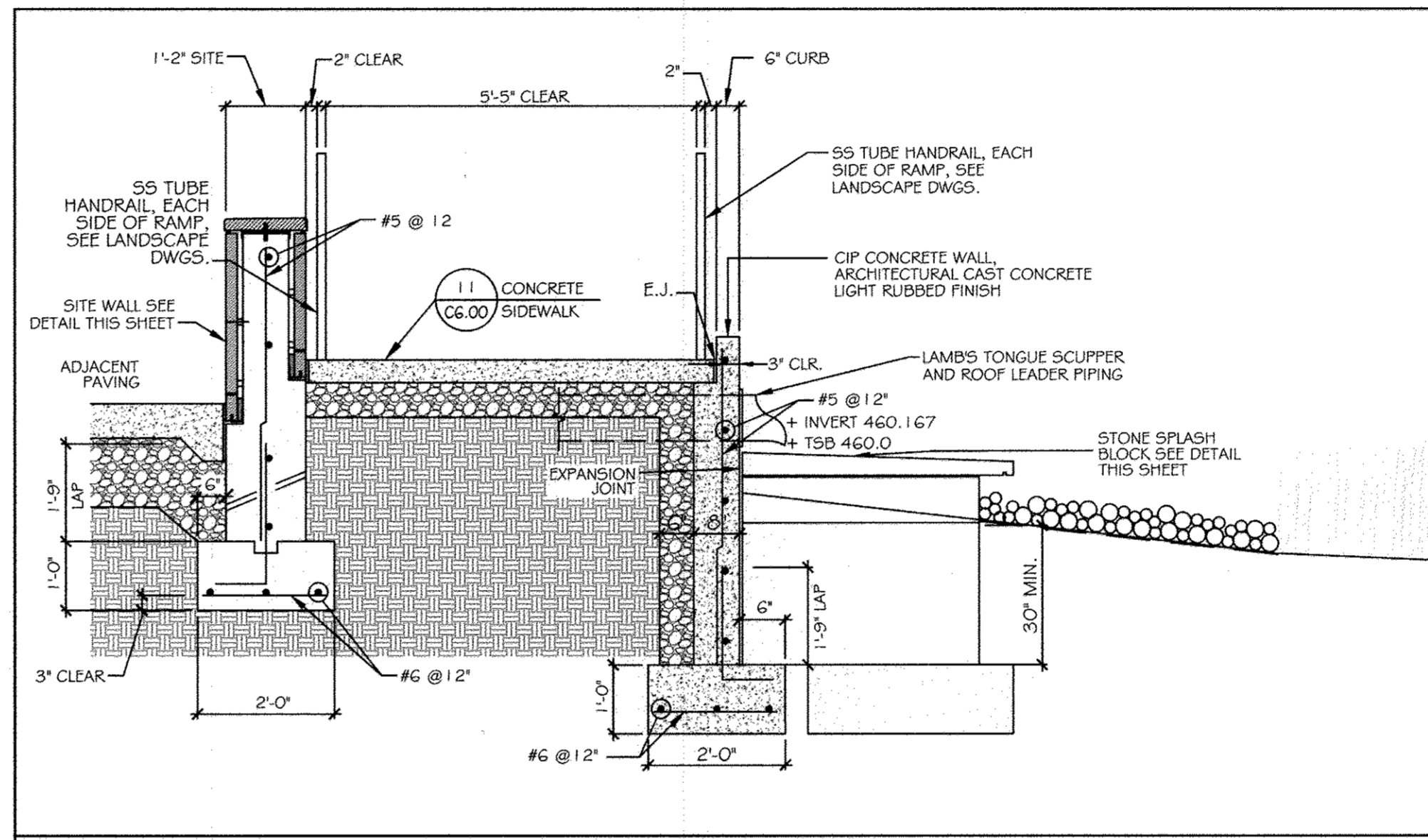
③ NE ENTRY STAIRS SCALE: 1/2" = 1'-0"



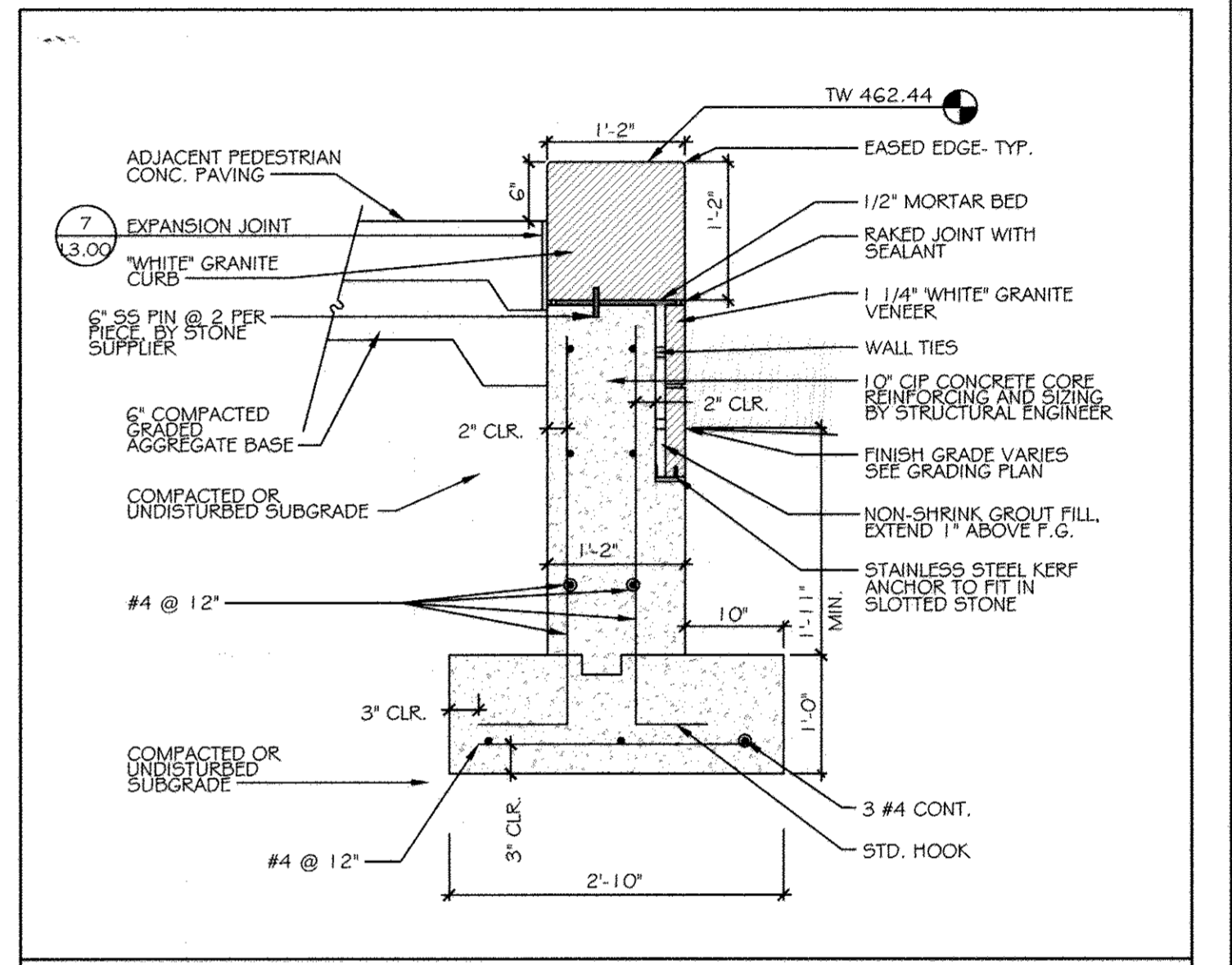
④ BRICK PAVING SCALE: 3/4" = 1'-0"



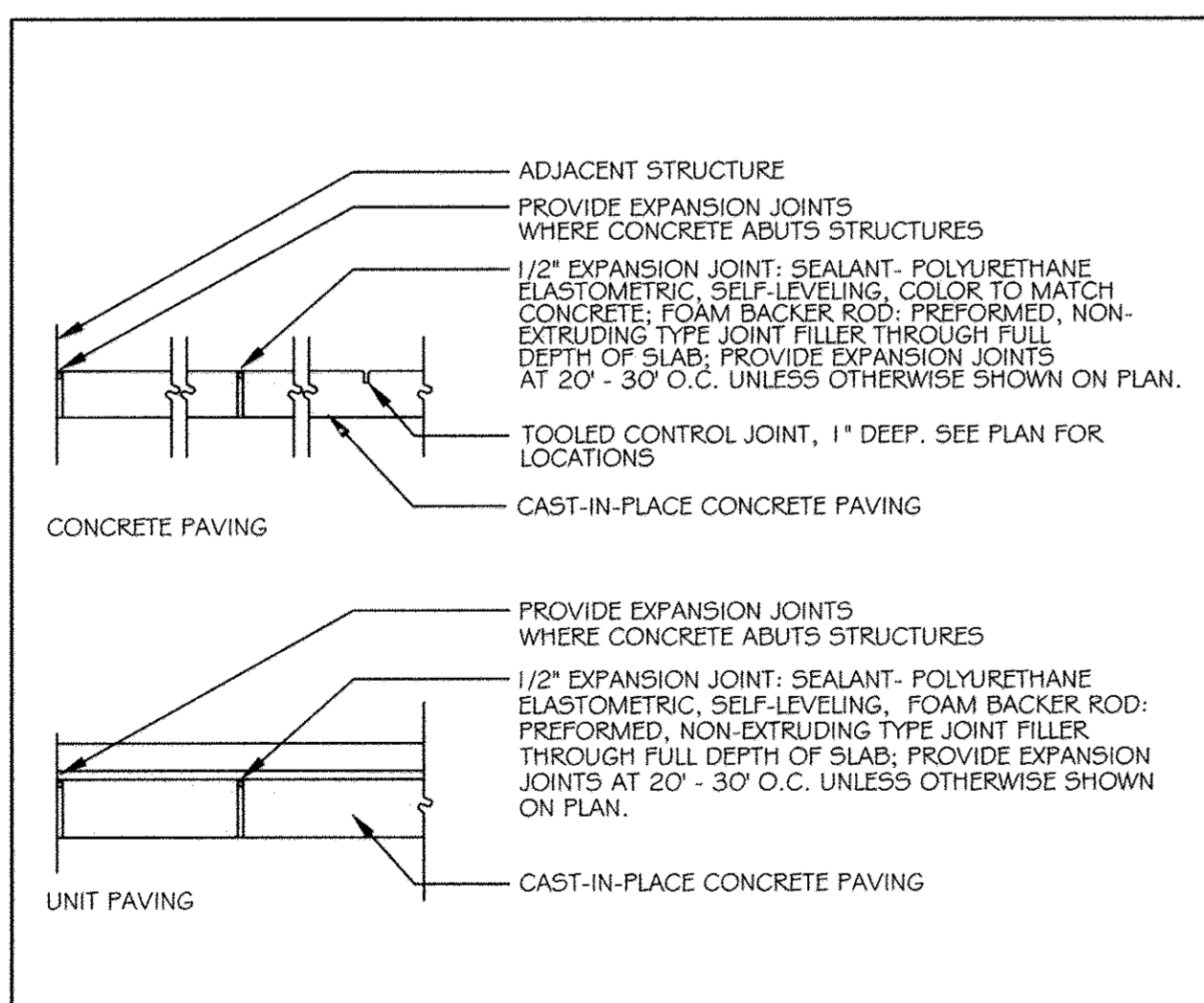
⑤ WEST EGRESS STAIRS SCALE: 1/2" = 1'-0"



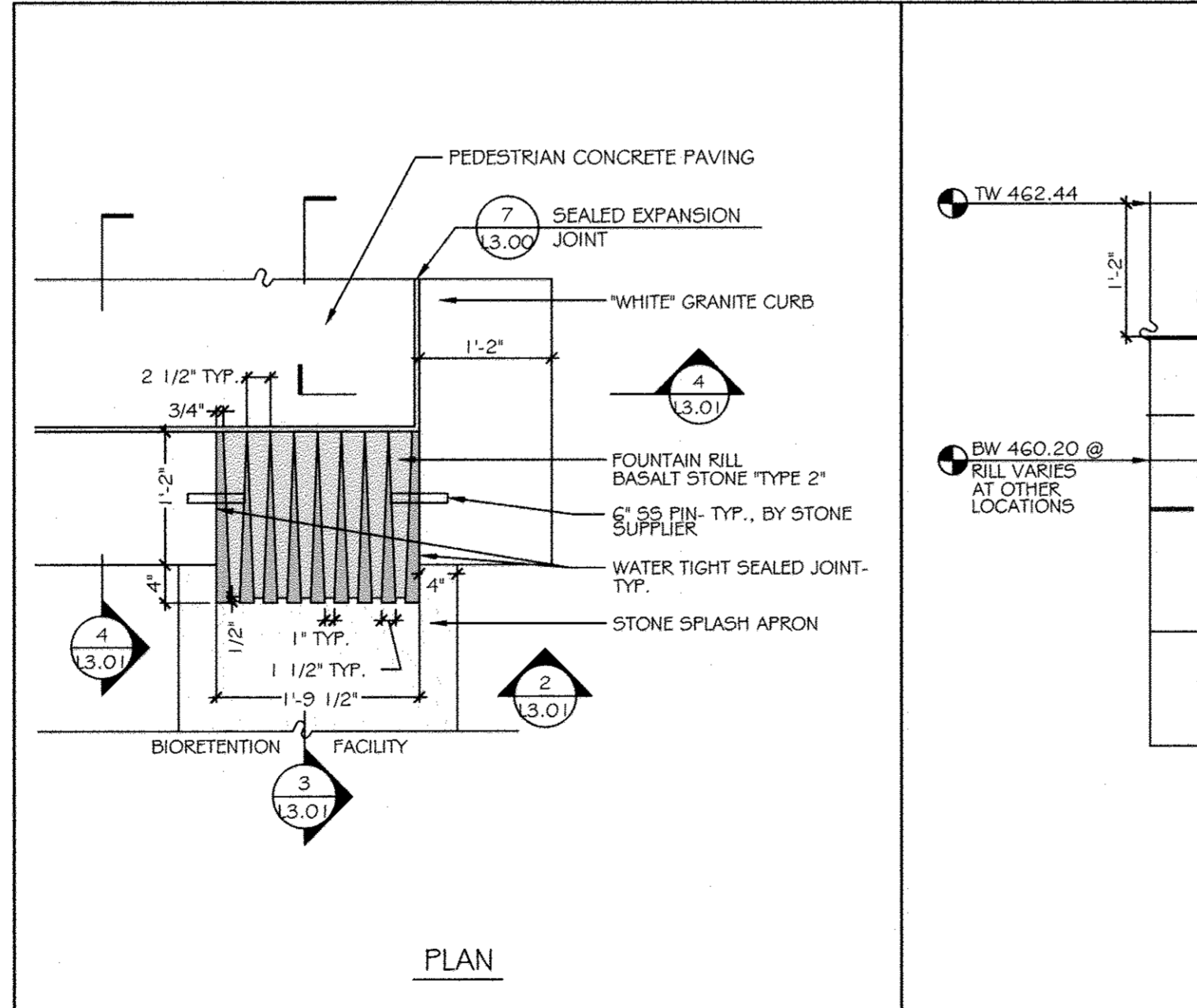
⑦ CIP CONCRETE CURB @ NE ENTRY ADA RAMP SCALE: 1/2" = 1'-0"



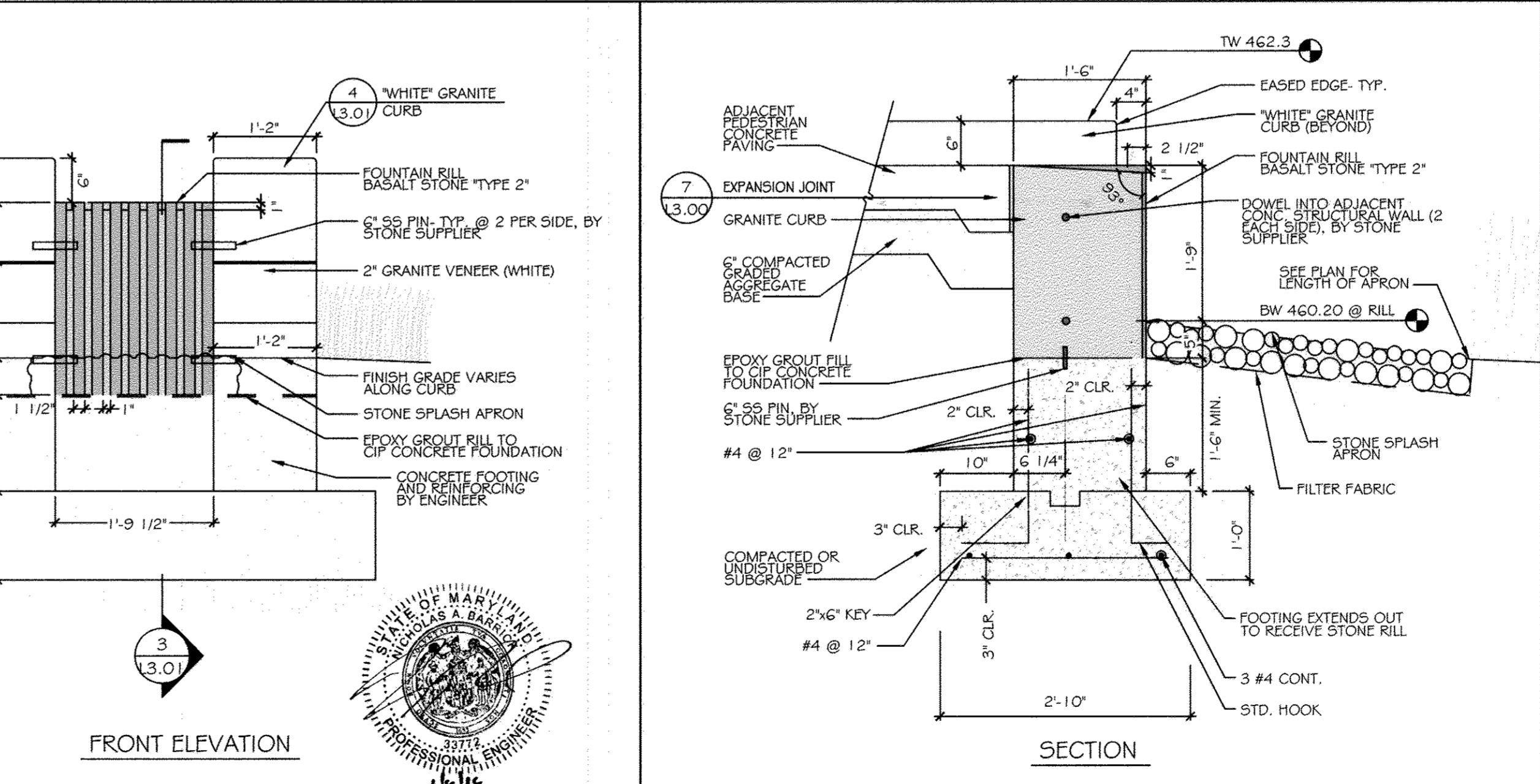
⑪ GRANITE CURB SCALE: 3/4" = 1'-0"



⑨ PAVING JOINTS SCALE: 3/4" = 1'-0"



⑩ STONE SCUPPER SCALE: 3/4" = 1'-0"



⑧ CIP STEPPERS SCALE: 3/4" = 1'-0"

KCI TECHNOLOGIES
295 Ridgelywood Road
Sparks, MD 21155
Phone: (410) 936-7800
Fax: (410) 936-7803
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AYERS
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GROSS
ARCHITECTS & PLANNERS
1040 Hill Street, Suite 100
Baltimore, MD 21202
410-547-8500 410-547-8419

Rev:	Date:	Description:	By:
1	06/15		
2	06-15		
3	08-14		

APPROVED: Howard County Department of Planning & Zoning
Director
Chief, Division of Land Development
Chief, Development Engineering Division

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4296

Project Name:
**Howard Community College -
Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045888

ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

Date:	10-1-2014	Scale:	N.T.S.
Drawn By:	C.T.B.	Designed By:	B.S.
Approved By:	R.T.B.	Project No.:	27111245
Tax Map Grid:	35-6	Zoning:	POR & NT

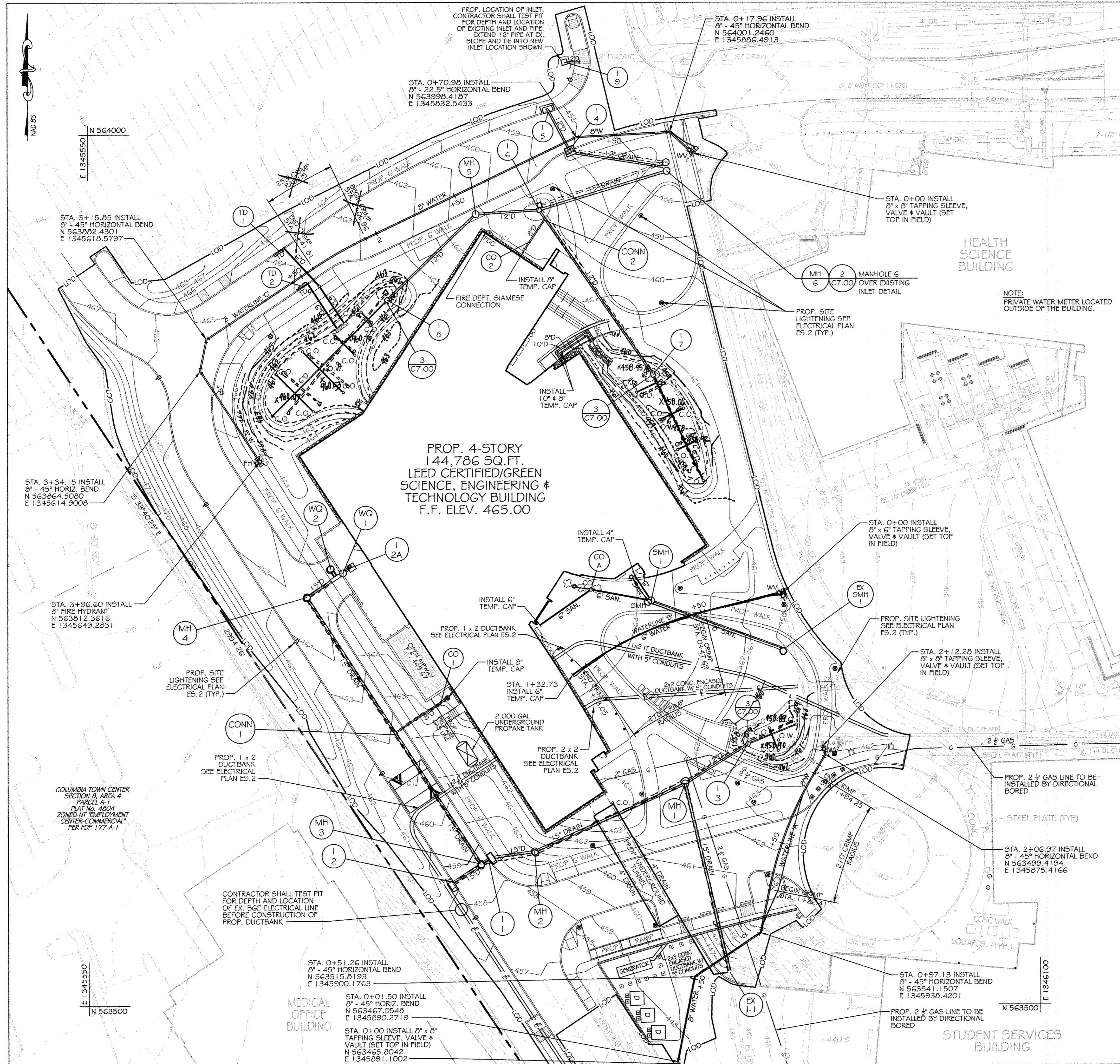
Sheet Title:
SITE DETAILS

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. 31089 EXPIRATION DATE: 11/21/14

Discipline Number:
C8.00

Sheet Number:
10 OF 42

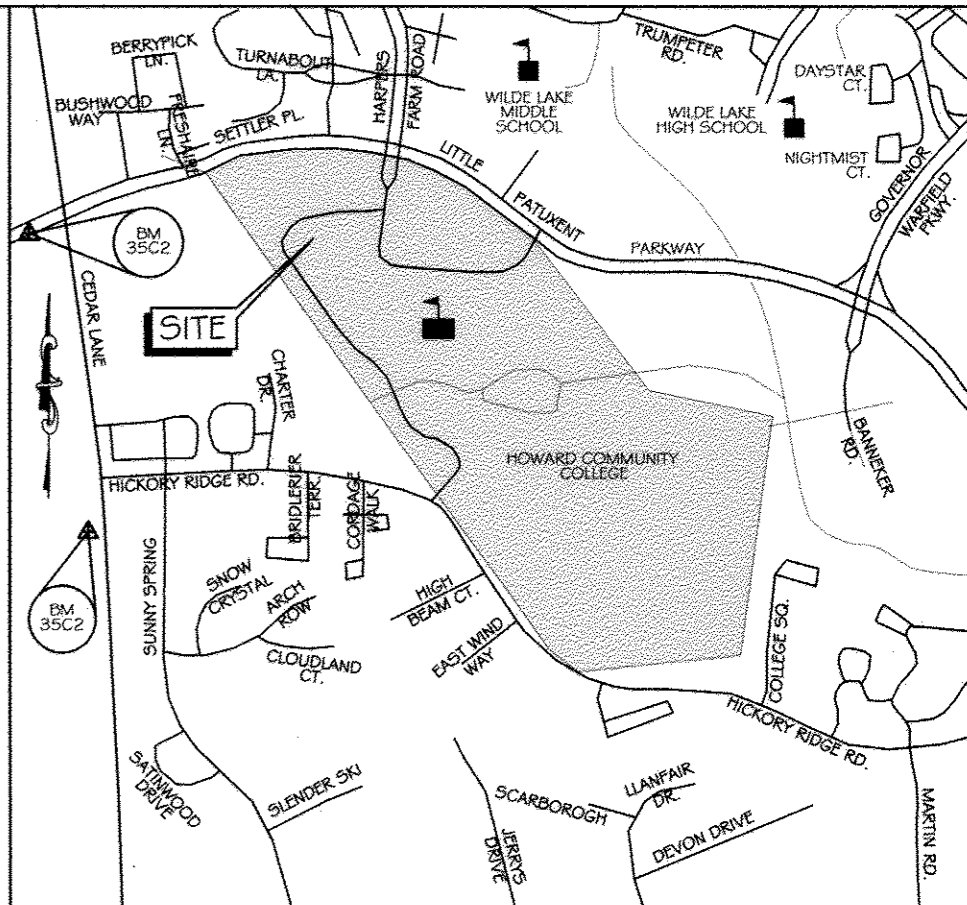
STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
No. 031089



BENCHMARK DATA

HORIZONTAL NAD83(9) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH. CONTROL NO. 5

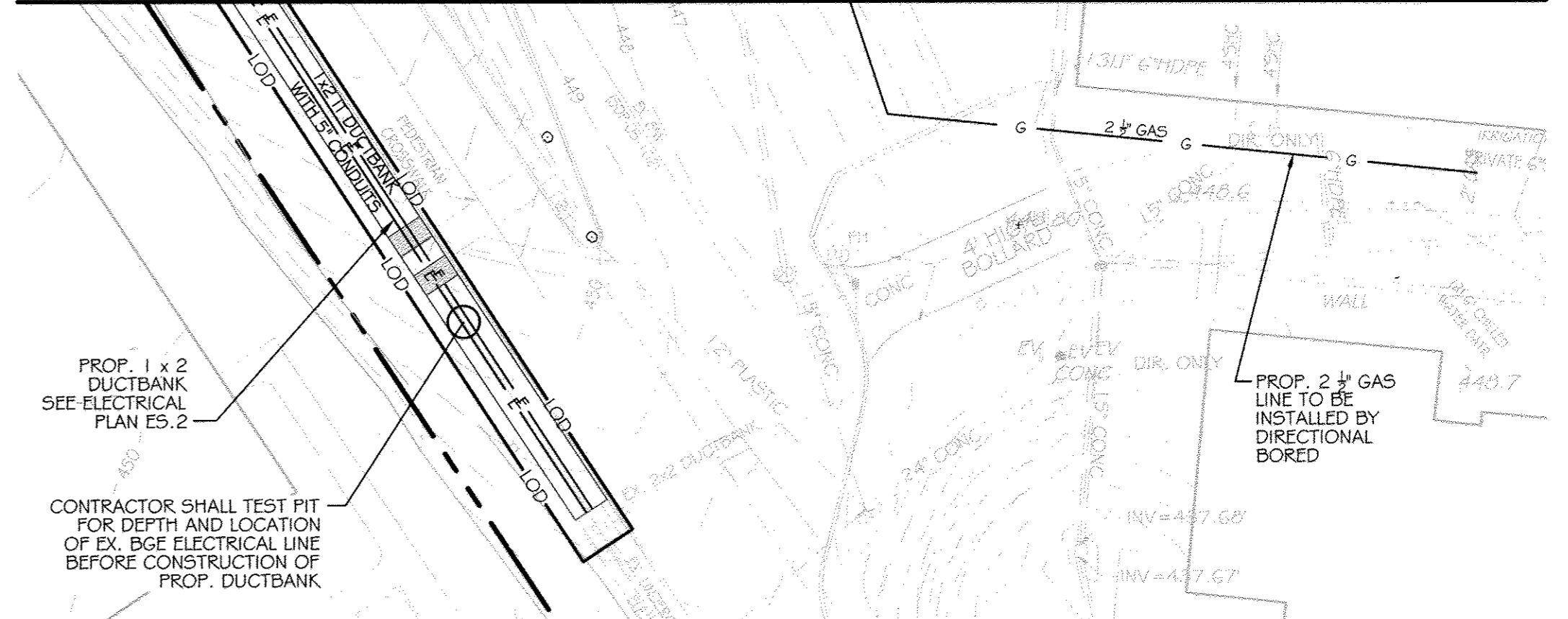
	NORTHING	EASTING	ELEV.	
35C2	HOW CO MON	563920.830	1344204.150	464.133
35C2	HOW CO MON	562148.450	1344554.472	452.267



AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK PE# 33772.
DATE: 06-16-2019

MATCHLINE SEE THIS SHEET FOR CONTINUATION



UTILITY NOTES

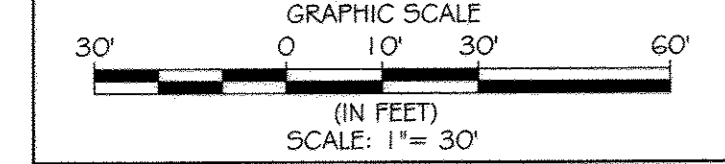
- CONSTRUCTION OF THE PROPOSED UTILITIES WILL BE IN ACCORDANCE WITH THE HOWARD COUNTY PLUMBING CODE, BY A QUALIFIED CONTRACTOR.
- NO WORK IS TO COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED.
- EXISTING CURB AND GUTTER AND CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. NO PATCHING SHALL BE PERMITTED.
- ALL NON-PAVED DISTURBED AREAS WILL BE STABILIZED WITH 4" TOPSOIL, SEED AND MULCH UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL FOLLOW LATEST HOWARD COUNTY DEPT. OF PUBLIC WORKS STANDARD SPECIFICATIONS AND DETAILS OF CONSTRUCTION OR AS DETAILED ON THE DRAWINGS.
- GRAVEL CRADLE IS REQUIRED UNDER ALL PIPE.
- ALL BACKFILL SHALL BE MECHANICALLY TAMPED.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.
- ALL CHANNELS IN MANHOLES MUST BE CONSTRUCTED TO CONFORM AS CLOSE AS POSSIBLE TO THE STANDARD CHANNELS CALLED FOR IN THE PROFILES.
- CLEANOUTS LOCATED IN PAVED AREAS SHALL HAVE COUNTERSUNK LIDS.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE DONE UNDER A PERMIT AND PLAN ISSUED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, WATER AND WASTEWATER ENGINEERING DIVISION.
- FOR UTILITY WORK OUTSIDE THE LOD SHOWN ON THIS PLAN, CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE) THE TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.
- SEE SHEET C10.00 FOR WATER & SANITARY PROFILES AND SCHEDULES.
- SEE SHEETS C10.01 & C10.02 FOR STORM DRAIN PROFILES AND SCHEDULES.
- CONTRACTOR TO COORDINATE WITH VERIZON FOR THE REMOVAL AND/OR RELOCATION OF EXISTING TELEPHONE LINE.
- ALL WATER LINES SHALL HAVE A MINIMUM 3'-6" OF COVER.
- ROADWAY LIGHTS MUST REMAIN IN SERVICE DURING THE DURATION OF THE PROJECT, EXCEPT DURING CAMPUS DRIVE RE-CONSTRUCTION.

LEGEND

○	EX. SANITARY MANHOLE	—	EX. 12" DRAIN	—	EX. STORM PIPE
○	EX. STORM DRAIN MANHOLE	—	EX. ELECTRIC	—	EX. ELECTRIC
○	EX. ELECTRIC MANHOLE	—	G	—	EX. GAS
○	EX. LIGHT POLE	—	TV	—	EX. CABLE TV
○	EX. WATER METER	—	E	—	PROP. ELECTRIC
○	EX. SIGN	—	C	—	PROP. GAS LINE
○	EX. UTILITY POLE	—	—	—	PROP. 12" DRAIN
○	EX. BOLLARD POST	—	—	—	PROP. 4" SAN.
○	EX. GAS VALVE	—	—	—	PROP. WATER
○	EX. GUY WIRE	—	—	—	PROP. FIRE HYDRANT
○	EX. WATER VALVE	—	—	—	PROP. WATER VALVE
○	EX. FIRE HYDRANT	—	—	—	PROP. INLET
○	EX. CLEANOUT	—	—	—	PROP. MANHOLE
○	EX. WATER PIPE	—	—	—	PROP. CLEANOUT
○	EX. SANITARY PIPE	—	—	—	PROP. LIGHT FIXTURES

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MATCHLINE SEE THIS SHEET FOR CONTINUATION

UTILITY PLAN

SCALE: 1" = 30'

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

KCI TECHNOLOGIES

996 Ridgebrook Road
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www.kci.com

AYERS SAINT GROSS

ARCHITECTS + PLANNERS

1040 Hill Street, Suite 100
Baltimore, MD 21202
p 410.347.8500 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Director: *Mark A. Anglin* 4/6/15 Date

Chief, Division of Land Development: *Robert J. ...* 1-06-15 Date

Chief, Development Engineering Division: *Chad ...* 12-18-14 Date

Rev:	Date:	Description:	By:	Prepared For and Owner:
1				Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4295

Project Name: **Howard Community College - Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL: 47, TAX MAP: 36, GRID: 6
TAX ACCOUNT #: 045988

ELECTION DISTRICT NO. 5

HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-1-2014	1" = 30'	UTILITY PLAN
Drawn By: C.T.B.	Designed By: B.S.	
Approved By: R.T.B.	Project No: 27111245	
Tax Map-Grid: 35-6	Zoning: POR & NT	

Discipline Number: **C9.00**

Sheet Number: **12 OF 42**

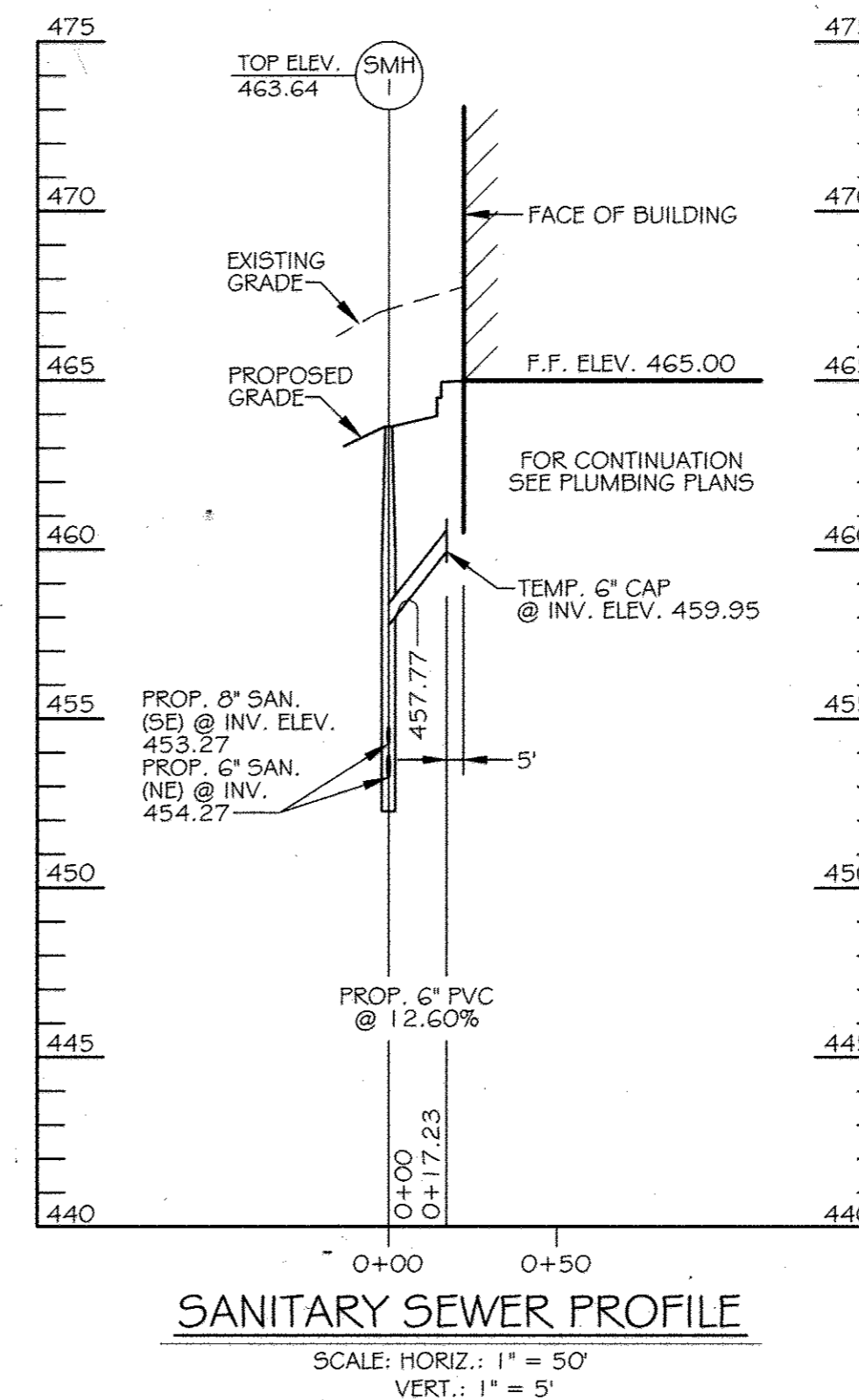
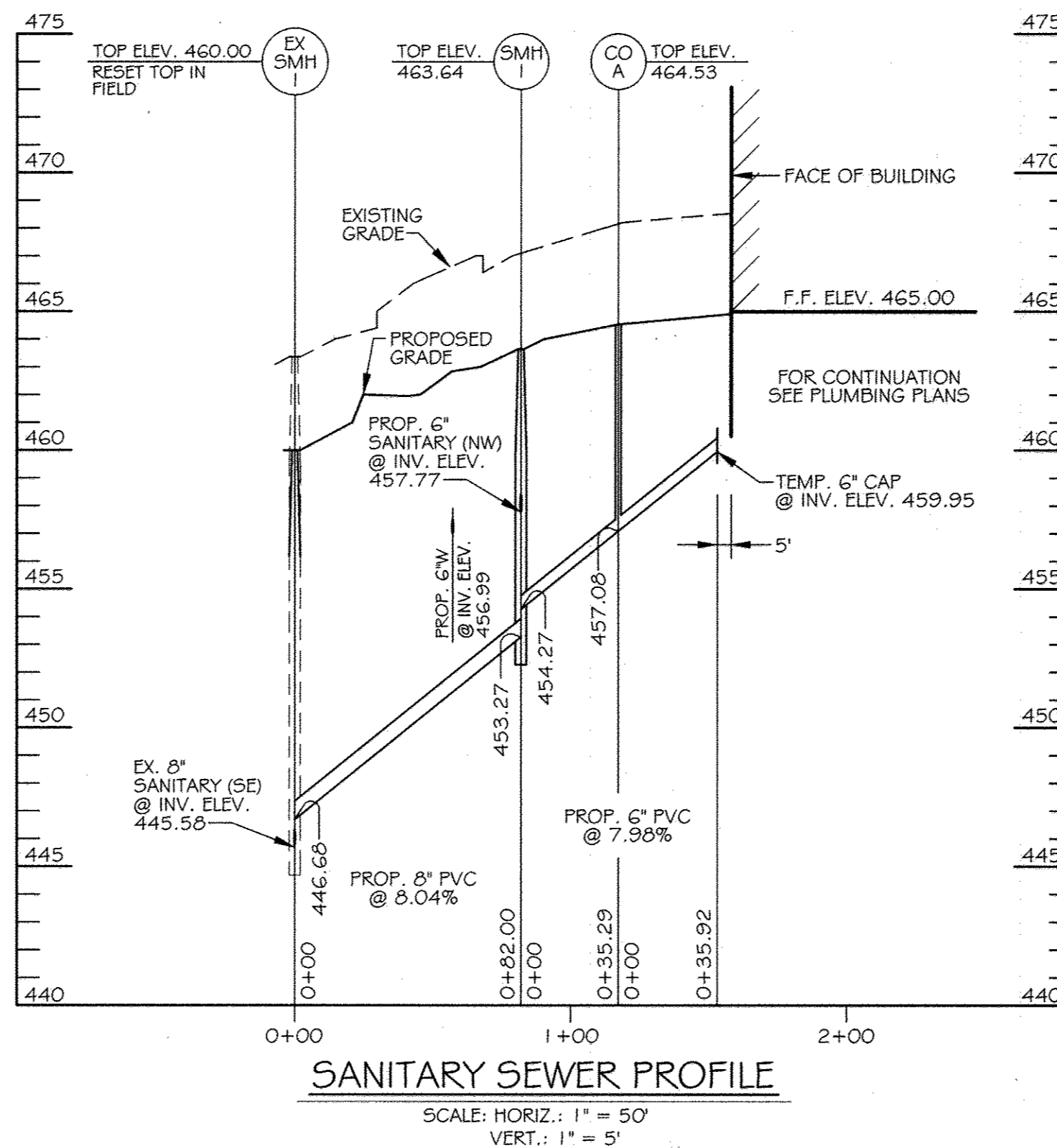
PROFESSIONAL ENGINEER

STATE OF MARYLAND

11/21/14

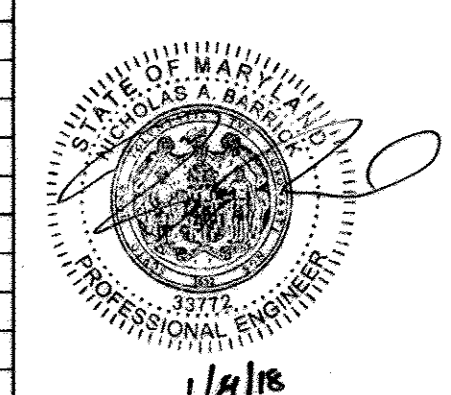
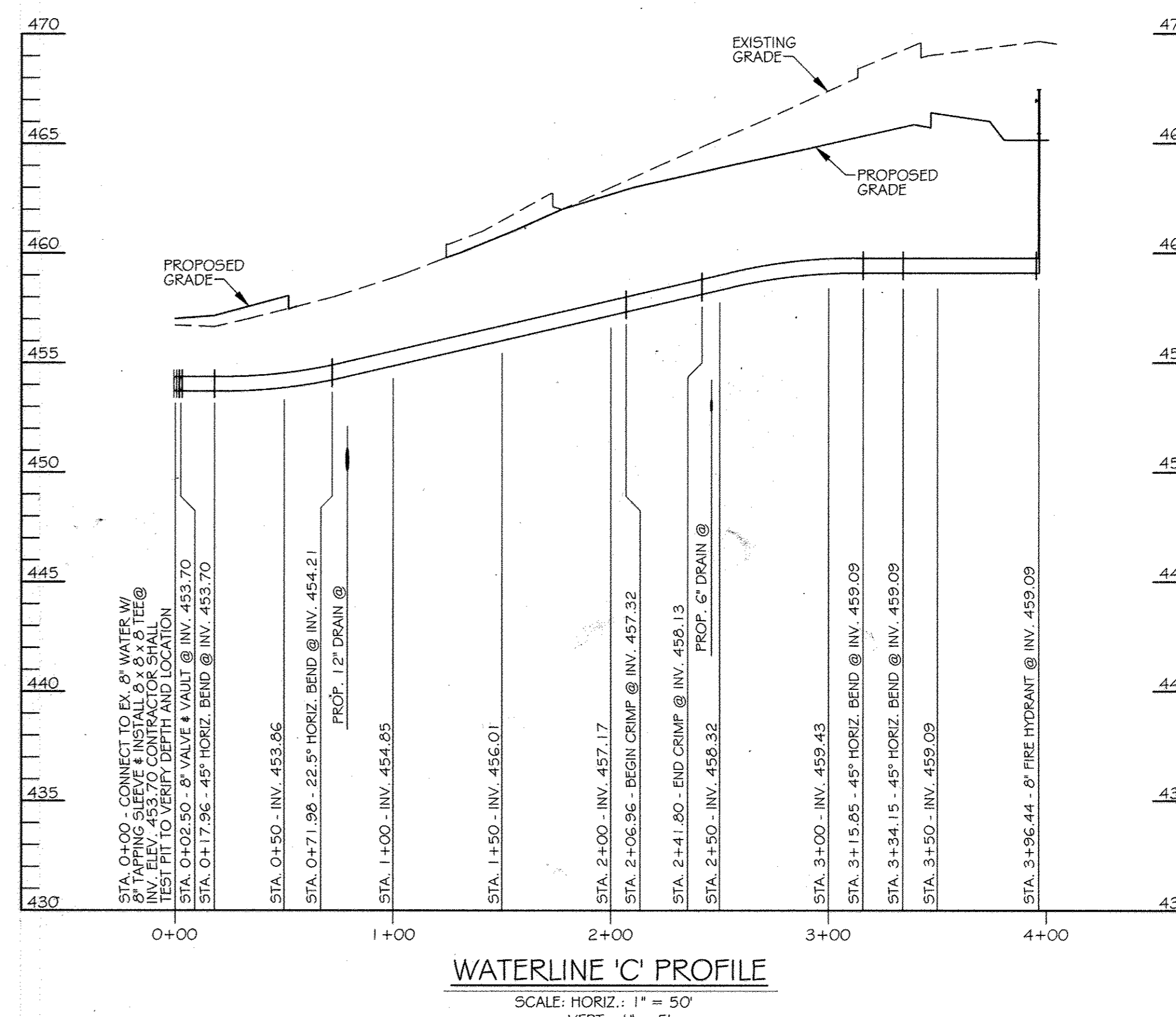
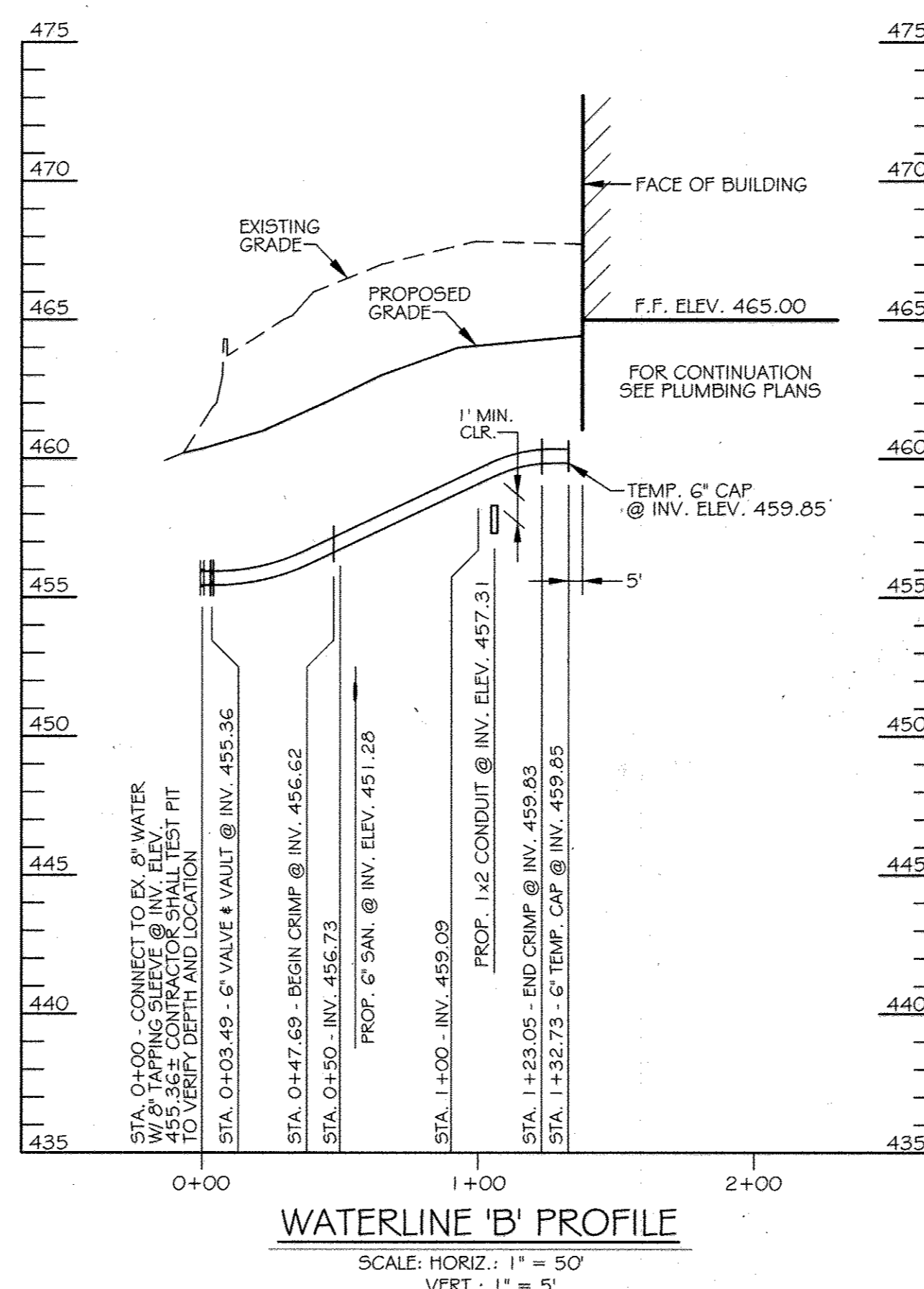
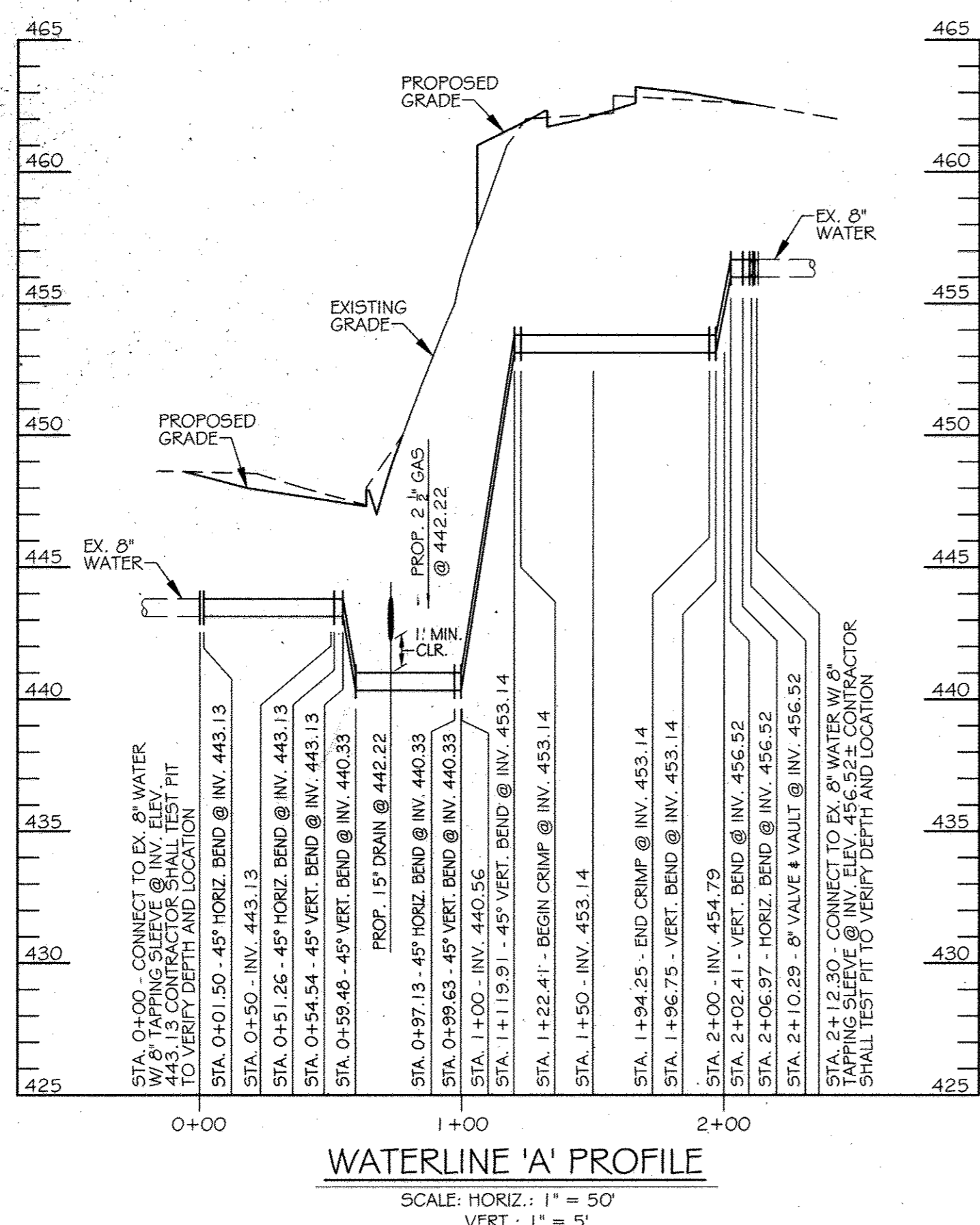
SANITARY SEWER PIPE SCHEDULE		
SIZE	MATERIAL	LENGTH
6"	PVC (SDR-35)	100 L.F.
8"	PVC (SDR-35)	82 L.F.

SANITARY SEWER STRUCTURE SCHEDULE									
NO.	TYPE	SIZE IN	INV. IN	SIZE OUT	INV. OUT	TOP ELEV.	NORTHING	EASTING	HOWARD COUNTY STD. DETAIL
SMH-1	STD. PRE-CAST MANHOLE	8"	454.27	8"	453.27	463.64	563732.1315	1345875.4617	G-5.12
CO-1	MAINLINE CLEANOUT	8"	457.08	8"	457.08	464.53	563738.5260	1345840.7525	S-3.21



WATER PIPE SCHEDULE			
ITEM	UNIT	ESTIMATE	AS-BUILT
6"	EA	PVC (AWWA C900-DR18)	140 LF
8"	EA	PVC (AWWA C900-DR18)	630 LF

WATER PIPE SCHEDULE			
ITEM	UNIT	ESTIMATE	AS-BUILT
8" x 8" TAPPING SLEEVE	EA	2	
8" 45° HORIZ. BEND	EA	7	
8" 45° VERT. BEND	EA	6	
8" 22.5° HORIZ.	EA	1	
8" FIRE HYDRANT	EA	1	
8" WATER VALVE	EA	2	
8" x 6" TAPPING SLEEVE	EA	1	
6" VALVE & VAULT	EA	1	
6" CAP	EA	1	



NO AS-BUILT INFORMATION THIS SHEET

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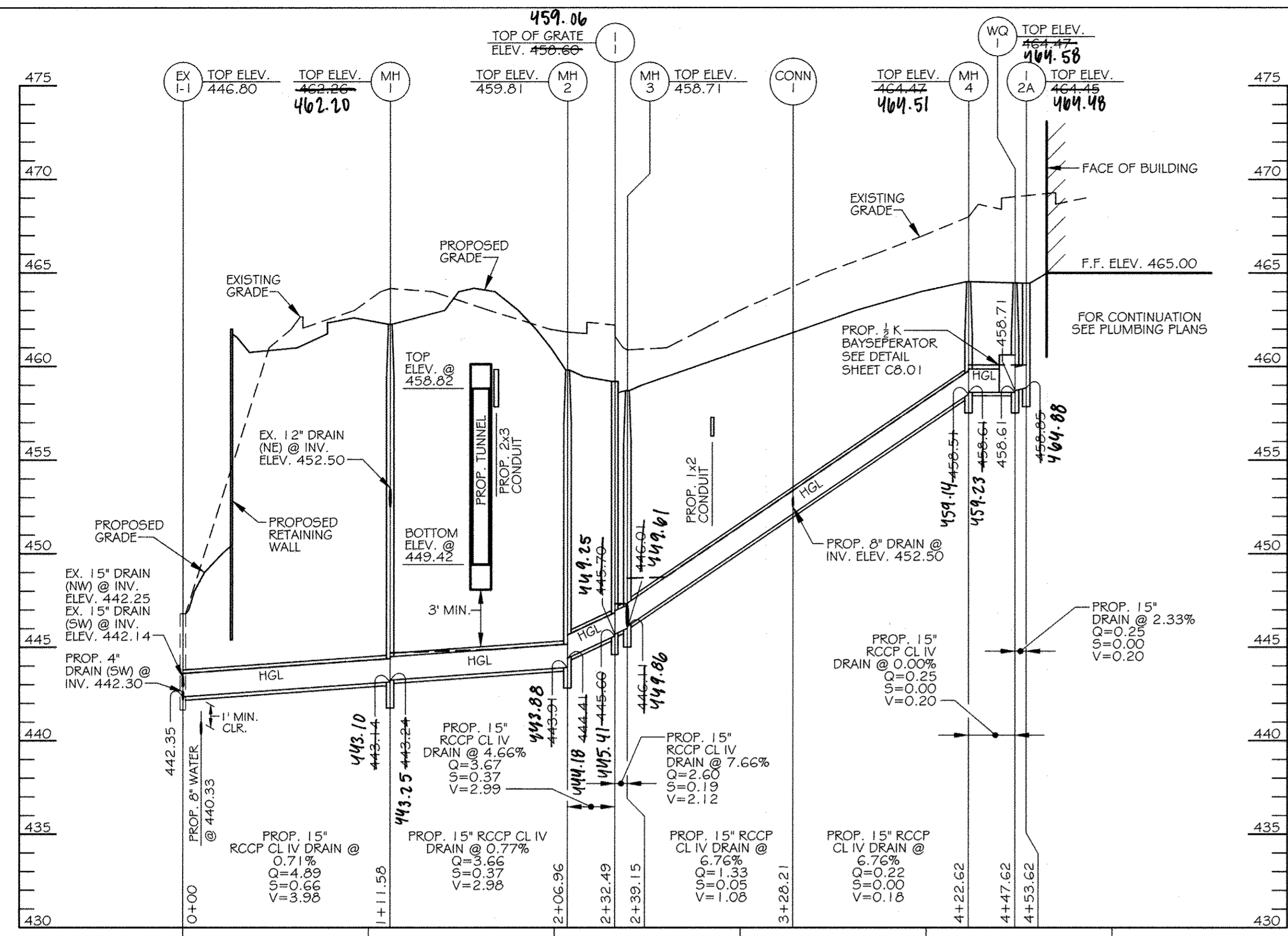
Rev.	Date	Description	By
1	1/6/15		
2	1-06-15		
3	12-18-14		

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nighthale
410-772-4296

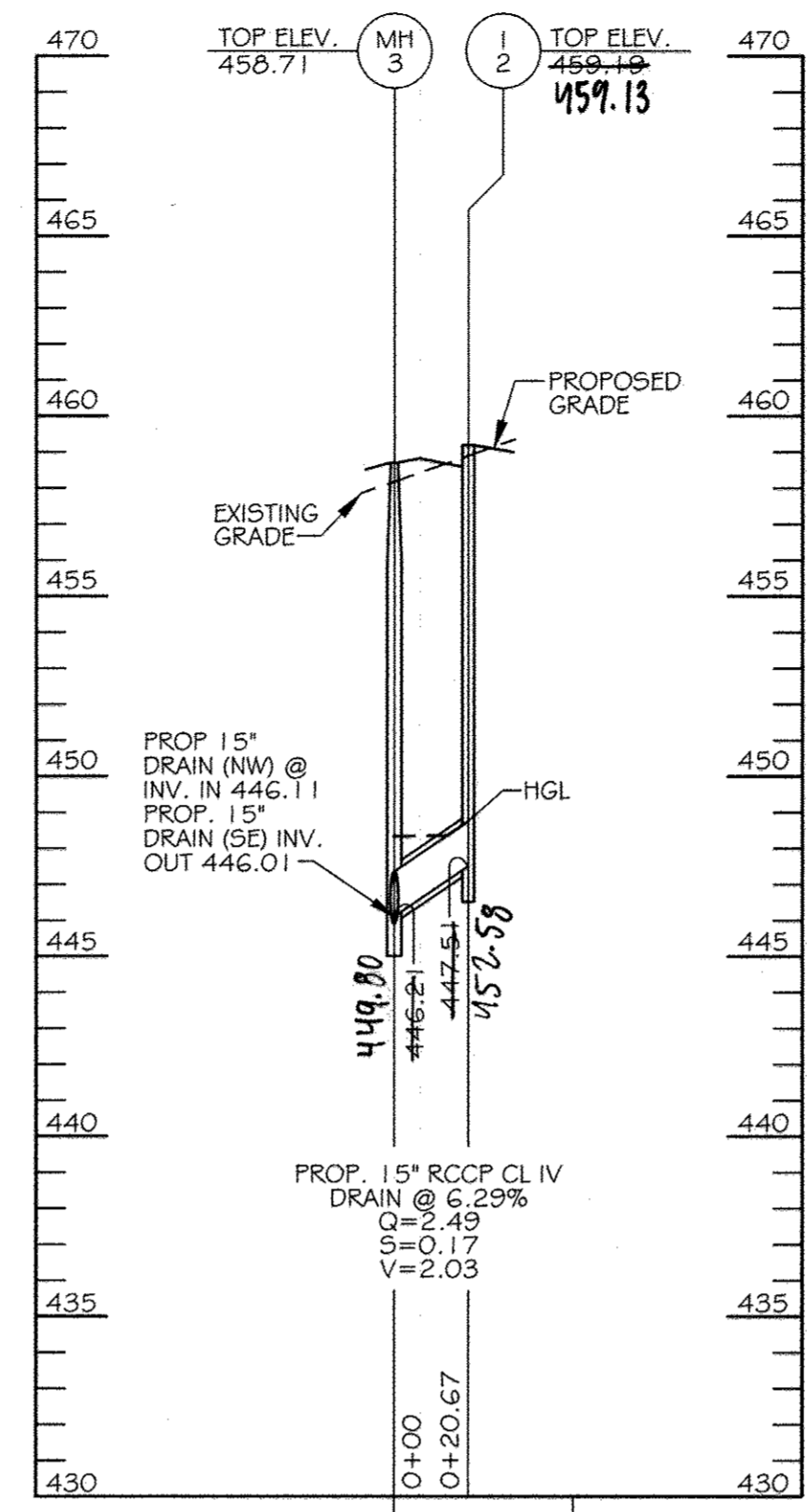
Howard Community College - Science, Engineering & Technology Building
SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-1-2014	AS SHOWN	WATER & SANITARY PROFILE SHEET
Drawn By: C.T.B.	Designed By: B.S.	
Approved By: R.T.B.	Project No: 27111245	
Tax Map-Grid: 35-6	Zoning: POR & NT	

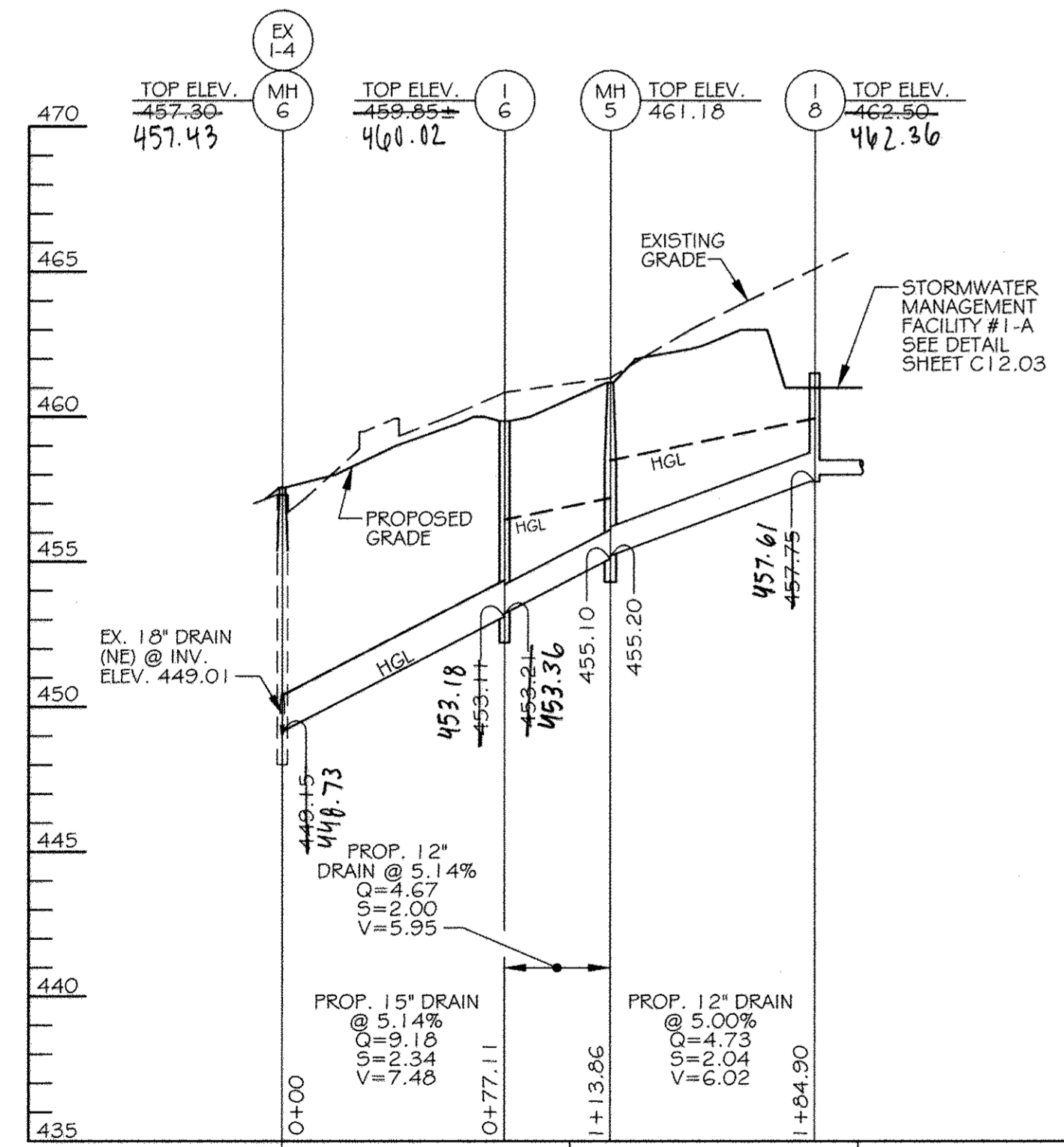
Discipline Number:
C10.00
Sheet Number:
13 OF 42



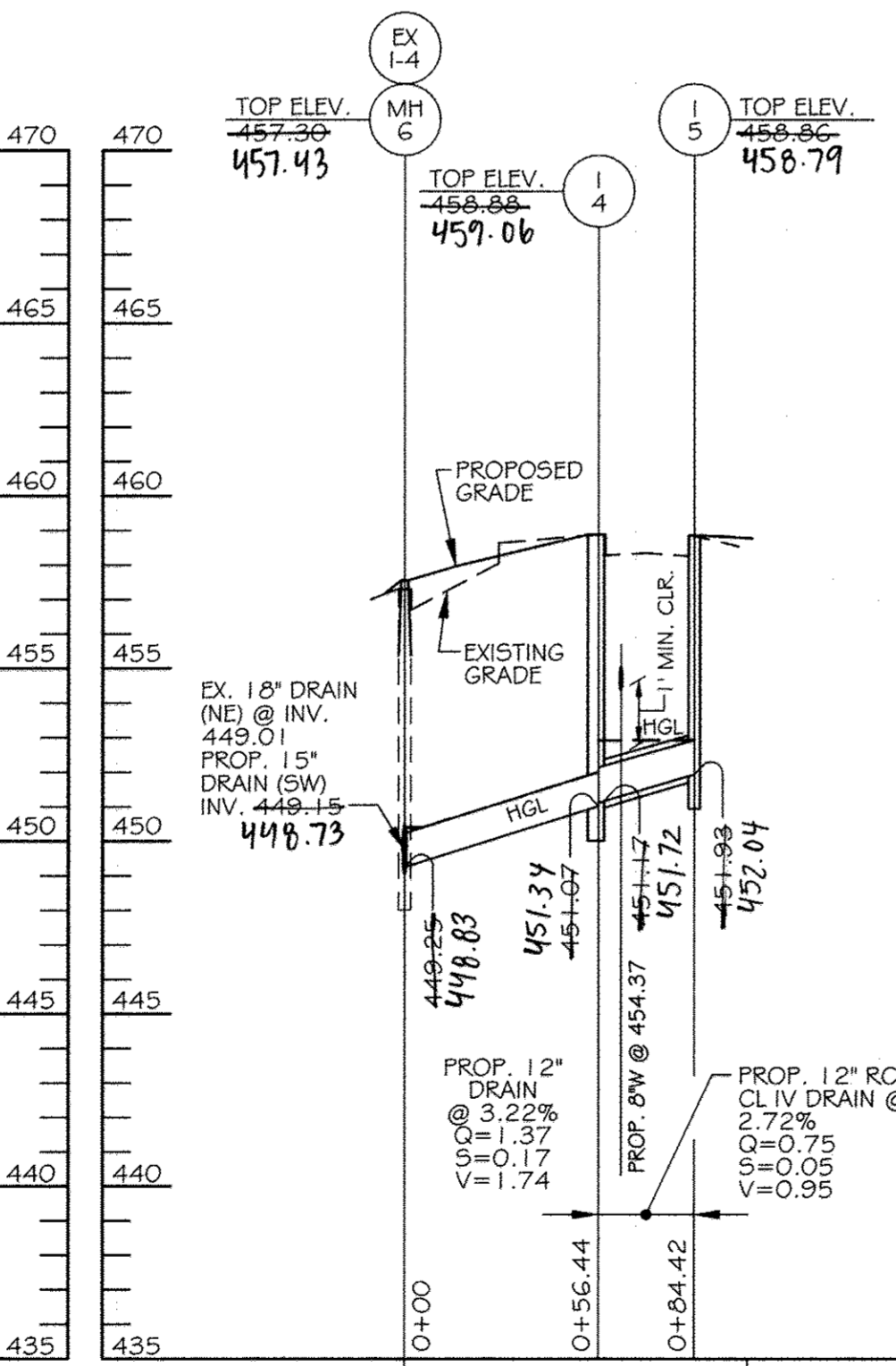
STORM DRAIN PROFILE
SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'



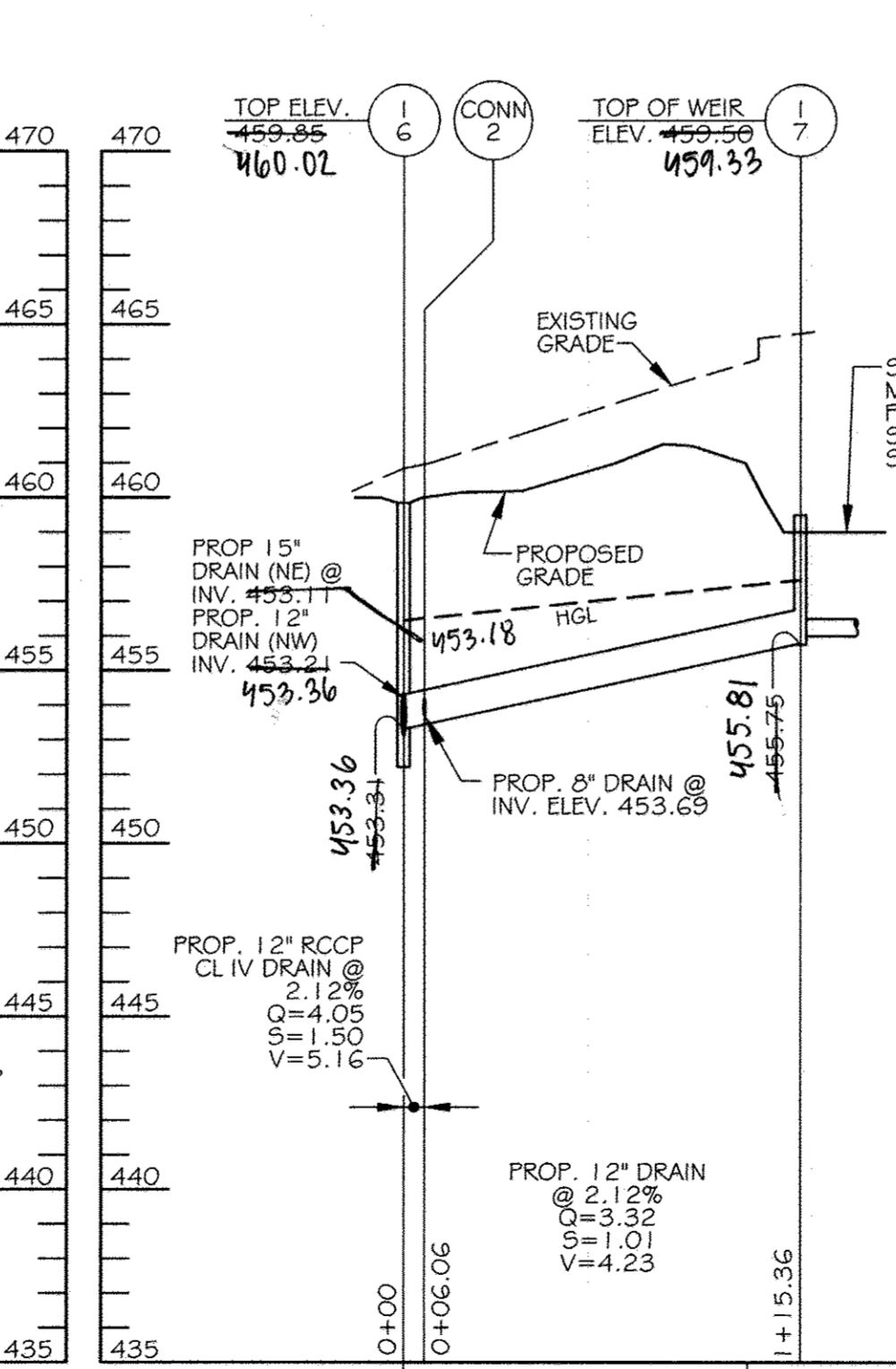
STORM DRAIN PROFILE
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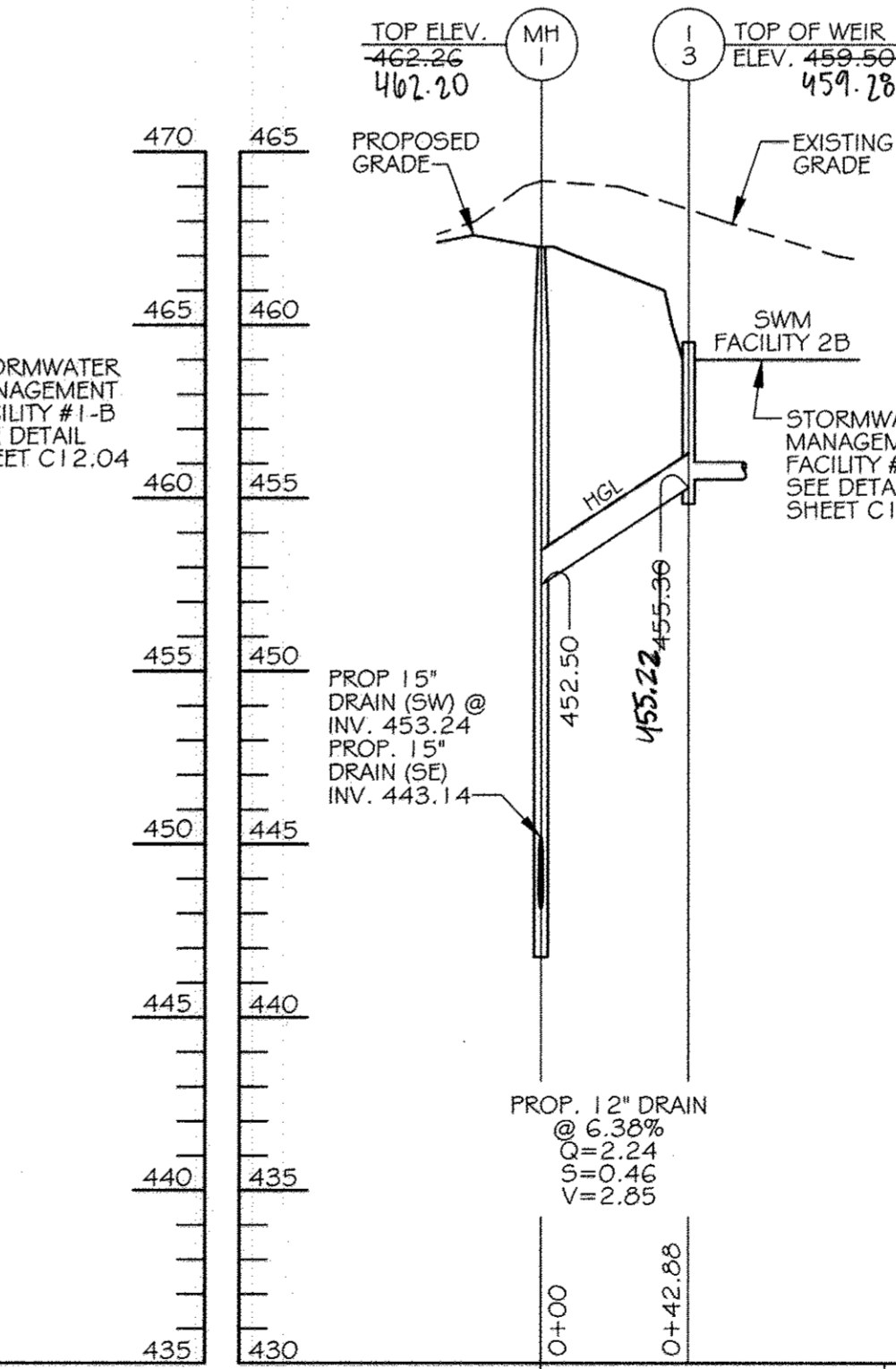
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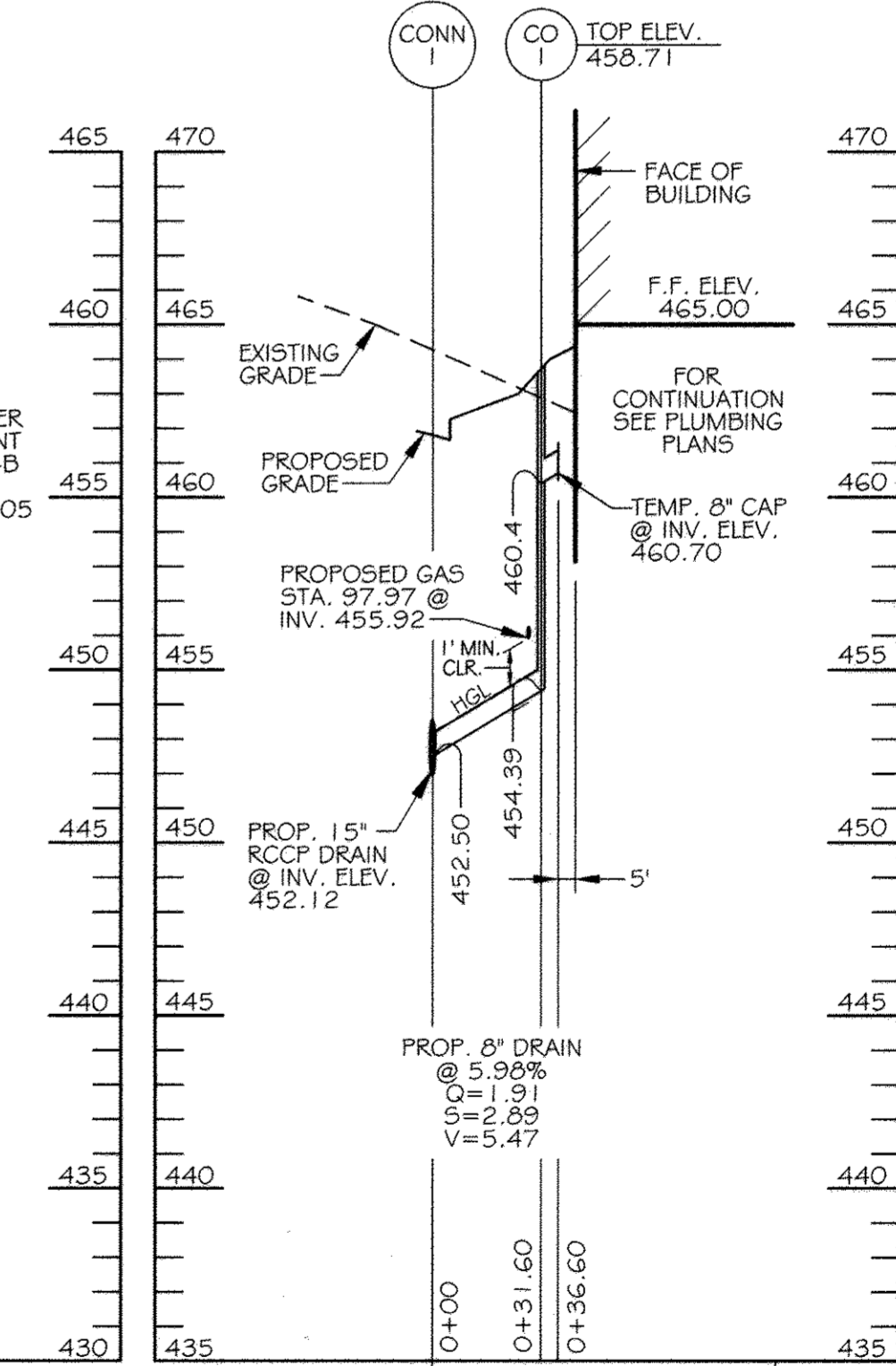
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VERT.: 1" = 5'



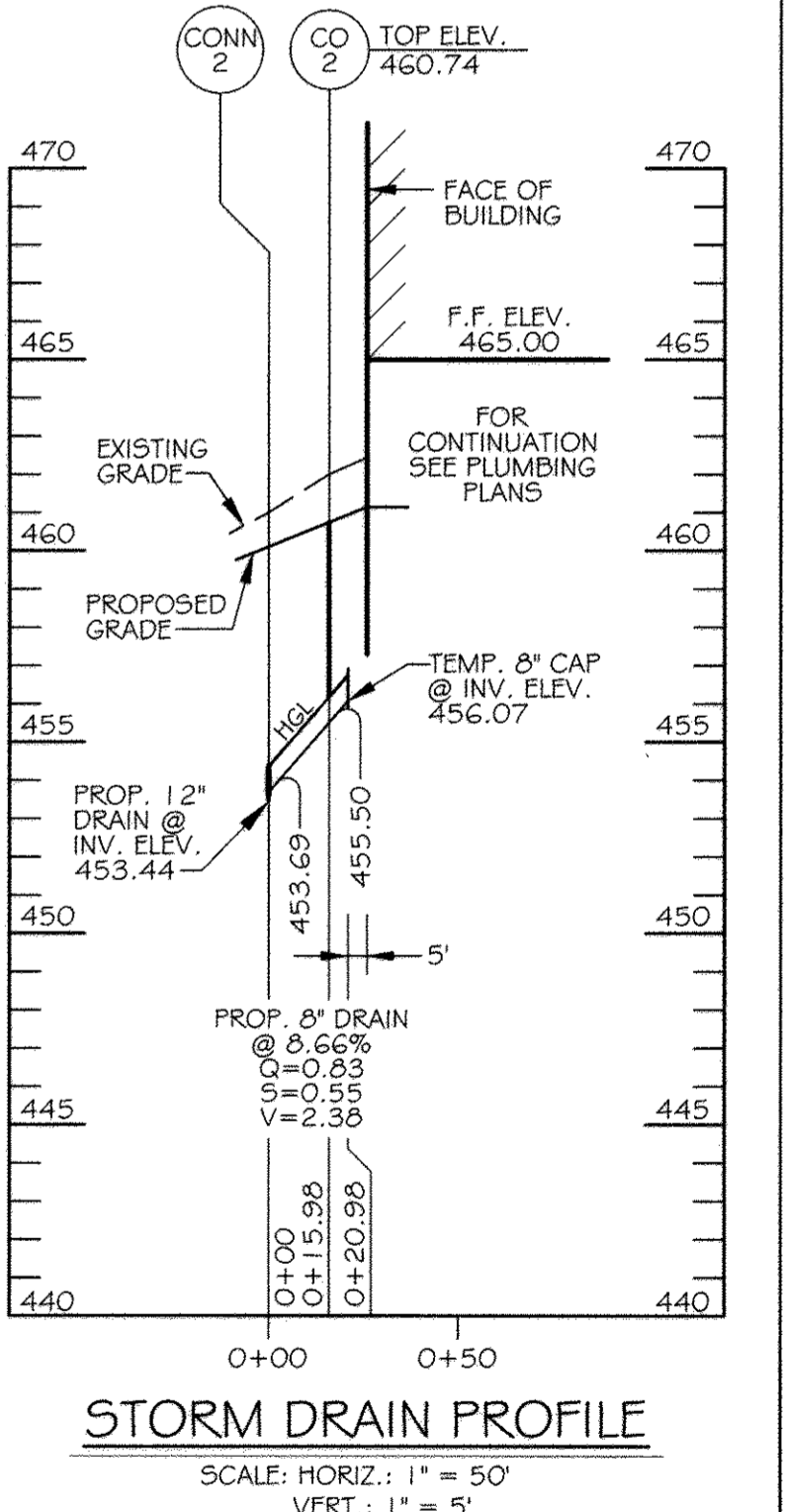
STORM DRAIN PROFILE
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STORM DRAIN PROFILE
SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'



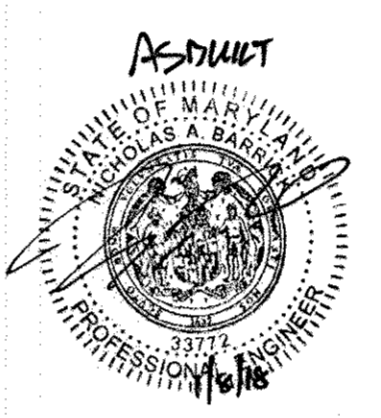
STORM DRAIN PROFILE
SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'



STORM DRAIN PROFILE
SCALE: HORIZ.: 1" = 50'
VERT.: 1" = 5'

NO.	TYPE	SIZE IN.	ELEV. IN.	SIZE OUT	ELEV. OUT	TOP ELEV.	REFERENCES / HOWARD COUNTY STD. DETAIL	NORTHING	EASTING
MH-1	48" STD. BRICK MANHOLE	12" / 15"	452.50 / 443.25	15"	443.10	442.20	G-5.01	563,626.8564	1,345,894.8995
MH-2	48" STD. BRICK MANHOLE	15"	444.18	15"	443.88	459.08	G-5.01	563,588.0322	1,345,807.7744
MH-3	48" STD. PRECAST MANHOLE	15" / 15"	449.80 / 449.80	15"	449.41	458.72	G-5.11	563,580.9268	1,345,776.9077
MH-4	48" STD. PRECAST MANHOLE	15"	459.23	15"	458.51	464.53	G-5.11	563,734.4238	1,345,676.4140
MH-5	48" STD. BRICK MANHOLE	12"	455.20	12"	455.10	461.18	G-5.01	563,954.2696	1,345,774.3126
MH-6	MANHOLE OVER EX. INLET	15" / 12"	448.83 / 448.73	18"	449.01	457.43	DETAIL 2 SHEET C7.00	563,979.0001	1,345,884.7825
I-1	TYPE 'A'-5' INLET	15"	459.25	15"	445.41	459.06	D-4.01	563,583.6656	1,345,781.0909
I-2	TYPE 'A'-5' INLET	-	-	15"	452.58	459.13	D-4.01	563,570.5196	1,345,761.0115
I-2A	TYPE '5'	-	-	12"	458.88	464.48	D-4.22	563,751.5294	1,345,702.2963
I-3	YARD INLET	6"	455.49	12"	455.22	460.28	DETAIL 3 SHEET C7.00	563,649.7057	1,345,931.1862
I-4	TYPE 'A'-5' INLET	12"	451.72	12"	451.34	459.06	D-4.01	563,991.1708	1,345,828.7368
I-5	TYPE 'A'-5' INLET	-	-	12"	452.04	458.79	D-4.01	564,012.6611	1,345,816.5514
I-6	TYPE 'D' INLET	12" / 12"	453.36 / 453.36	15"	453.18	460.32	D-4.10	563,956.6285	1,345,810.9922
I-7	YARD INLET	6"	455.99	12"	455.81	460.33	DETAIL 3 SHEET C7.00	563,861.9040	1,345,876.8316
I-8	YARD INLET	6"	458.04	12"	457.61	462.36	DETAIL 3 SHEET C7.00	563,905.0265	1,345,723.1155
I-9	PRECAST TYPE 'D' INLET	-	-	12"	454.50	458.72	D-4.10	564,041.4371	1,345,825.6745
TD-1	6" CURB DRAIN	-	-	6"	443.15	444.07	ACO USA CURBDRAIN STANDARD	563,932.9528	1,345,660.9736
TD-2	6" CURB DRAIN	-	-	6"	442.96	443.96	ACO USA CURBDRAIN STANDARD	563,913.0074	1,345,674.3222
WQ-1	48" STD. PRECAST MANHOLE	12"	458.71	15"	458.61	464.58	G-5.11	563,748.1979	1,345,697.2825
WQ-2	48" STD. PRECAST MANHOLE	12"	458.71	15"	458.61	464.58	G-5.11	563,913.0074	1,345,674.3222
CO-1	CLEANOUT	6"	454.39	8"	454.39	463.36	DETAIL 1 SHEET C8.01	563,673.9036	1,345,753.8078
CO-2	CLEANOUT	6"	455.50	8"	455.50	460.74	DETAIL 1 SHEET C8.01	563,938.3395	1,345,805.6099

SIZE	MATERIAL	LENGTH
6"	HDPE (SDR-35)	151 L.F.
8"	PVC (SDR-35)	145 L.F.
10"	PVC (SDR-35)	85 L.F.
12"	PVC (SDR-35)	385 L.F.
15"	PVC (SDR-35)	78 L.F.
15"	RCCP CL IV	450 L.F.



AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK, PE# 33772, DATE: 06-16-2019

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AYERS SAINT GROSS ARCHITECTS + PLANNERS
190 Hill Street, Suite 100, Baltimore, MD 21201
p 410.347.8500 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning
Director: *Wanda A. Cayle* 1/6/15
Chief, Division of Land Development: *Wendy Schaefer* 1-06-15
Chief, Development Engineering Division: *Chad Fahn* 12-18-14

Rev:	Date:	Description:	By:
1			
2			
3			
4			
5			

Prepared For and Owner: Howard Community College
10901 Little Patuxent Parkway, Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale 410-772-4286

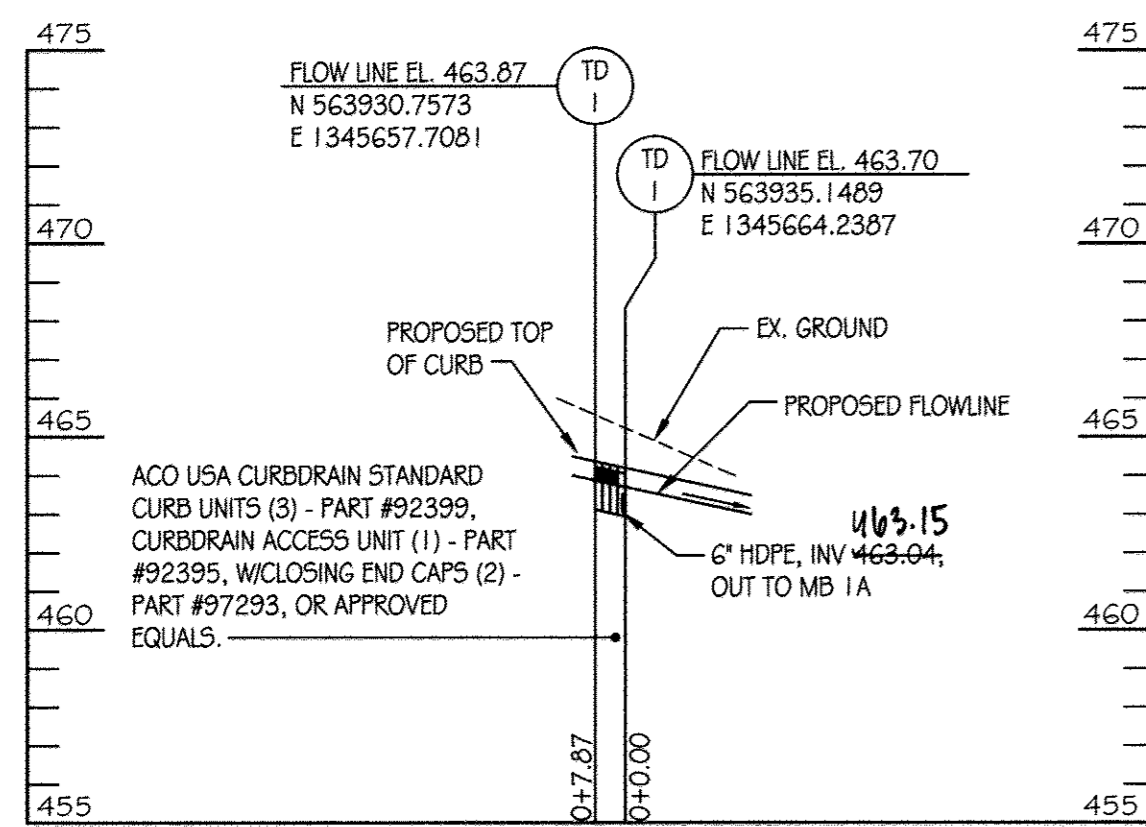
Project Name: **Howard Community College - Science, Engineering & Technology Building**
SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045888
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

Date: 10-1-2014
Scale: AS SHOWN
Sheet Title: STORM DRAIN PROFILE SHEET
Drawn By: C.T.B.
Designed By: B.S.
Approved By: R.T.B.
Project No: 27111245
Tax Map-Grid: 35-6
Zoning: POR & NT

CONTRACTOR NOTE: CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

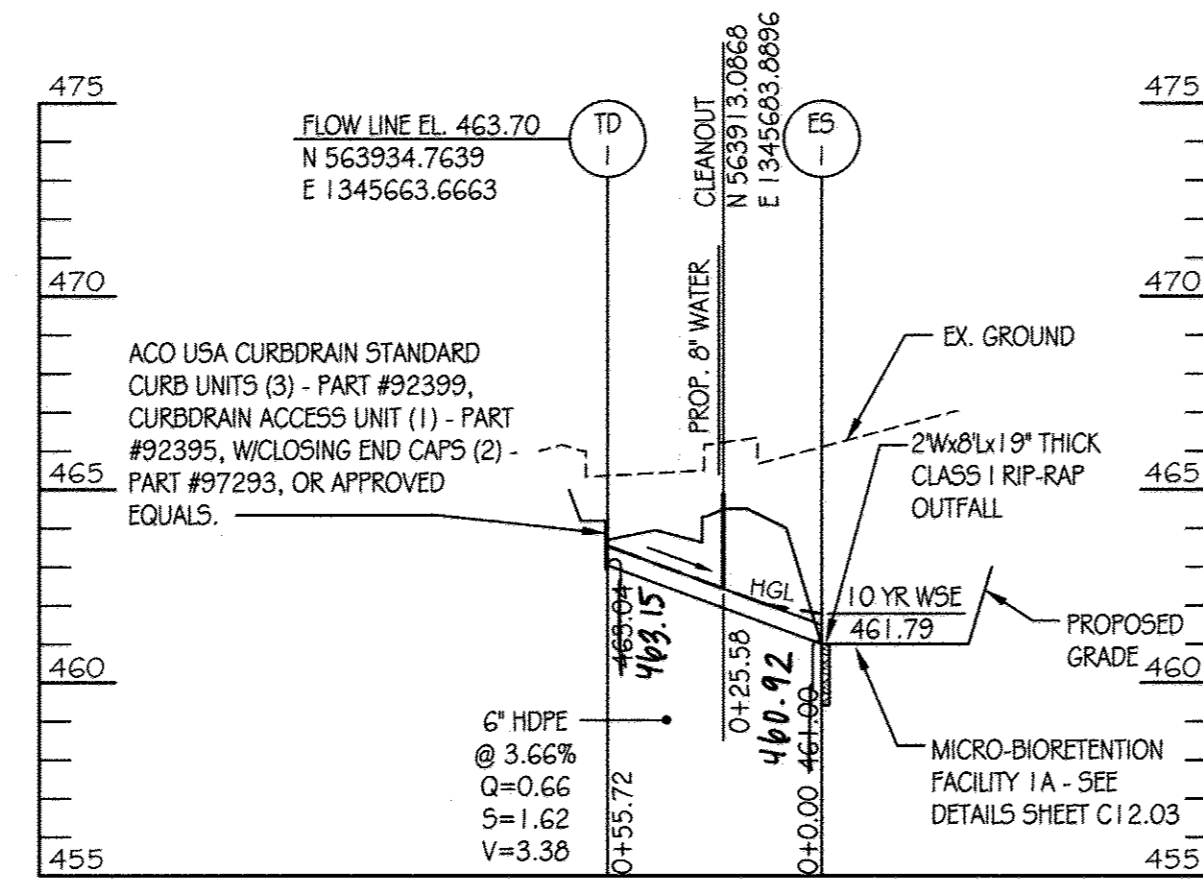
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Discipline Number: **C10.01**
Sheet Number: **14 OF 42**



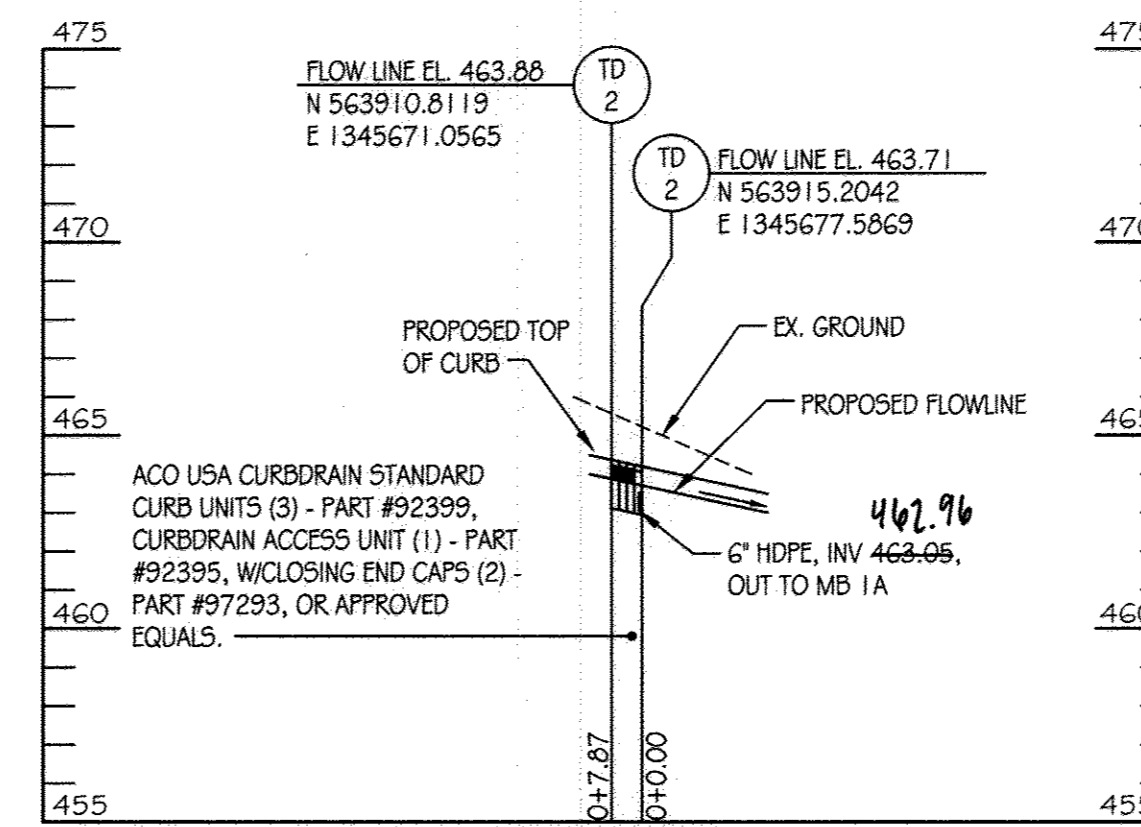
STORM DRAIN PROFILES

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



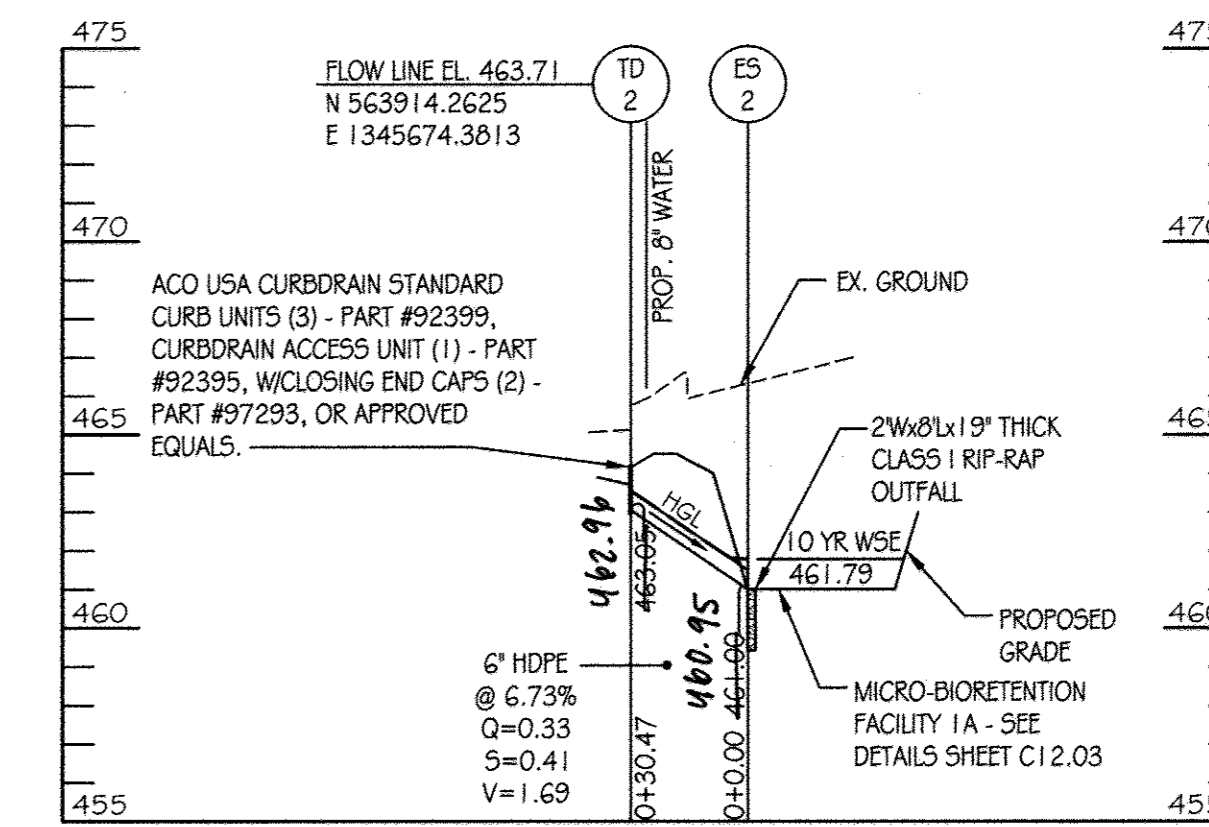
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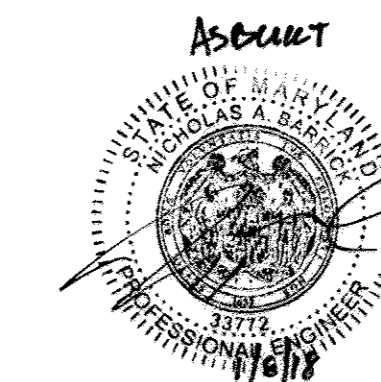
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Baltimore, MD 21206
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APPROVED: Howard County Department of Planning & Zoning
Director: *David A. Leight* 1/6/15
Chief, Division of Land Development: *Walter J. Leight* 1-06-15
Chief, Development Engineering Division: *Phil Edelman* 12-18-14

Rev:	Date:	Description:	By:
1			
2			
3			
4			

Prepared For and Owner: Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4296

Project Name: **Howard Community College - Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868

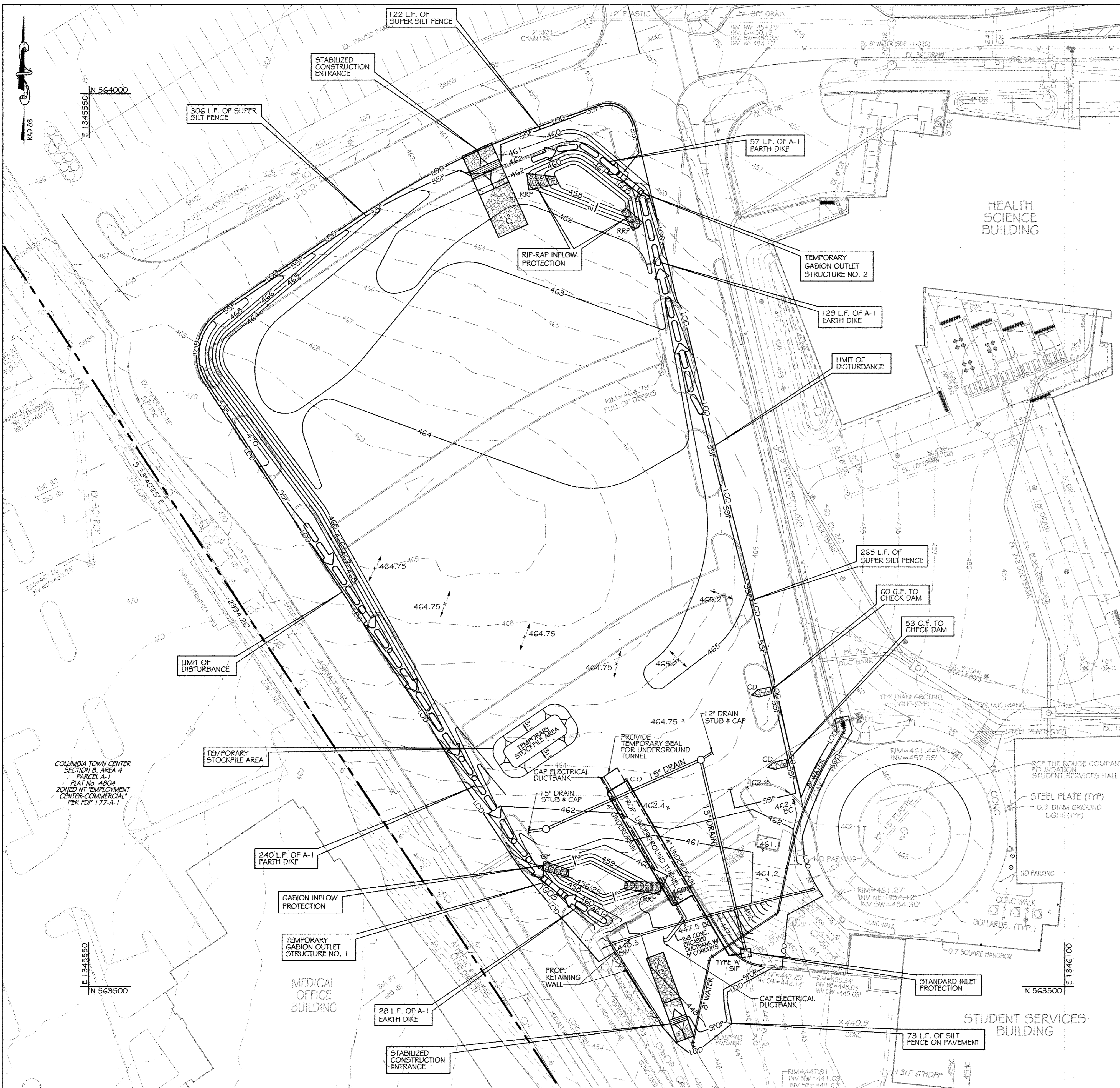
ELECTION DISTRICT NO.5 HOWARD COUNTY, MARYLAND

Date:	Scale:
10-1-2014	SCALE: AS SHOWN
Drawn By: C.T.B.	Designed By: B.S.
Approved By: R.T.B.	Project No: 27111245
Tax Map-Grid: 35-6	Zoning: POR & NT

Sheet Title: **UTILITY STORM DRAIN PROFILE SHEET**

Discipline Number: **C10.02**

Sheet Number: **15 OF 42**



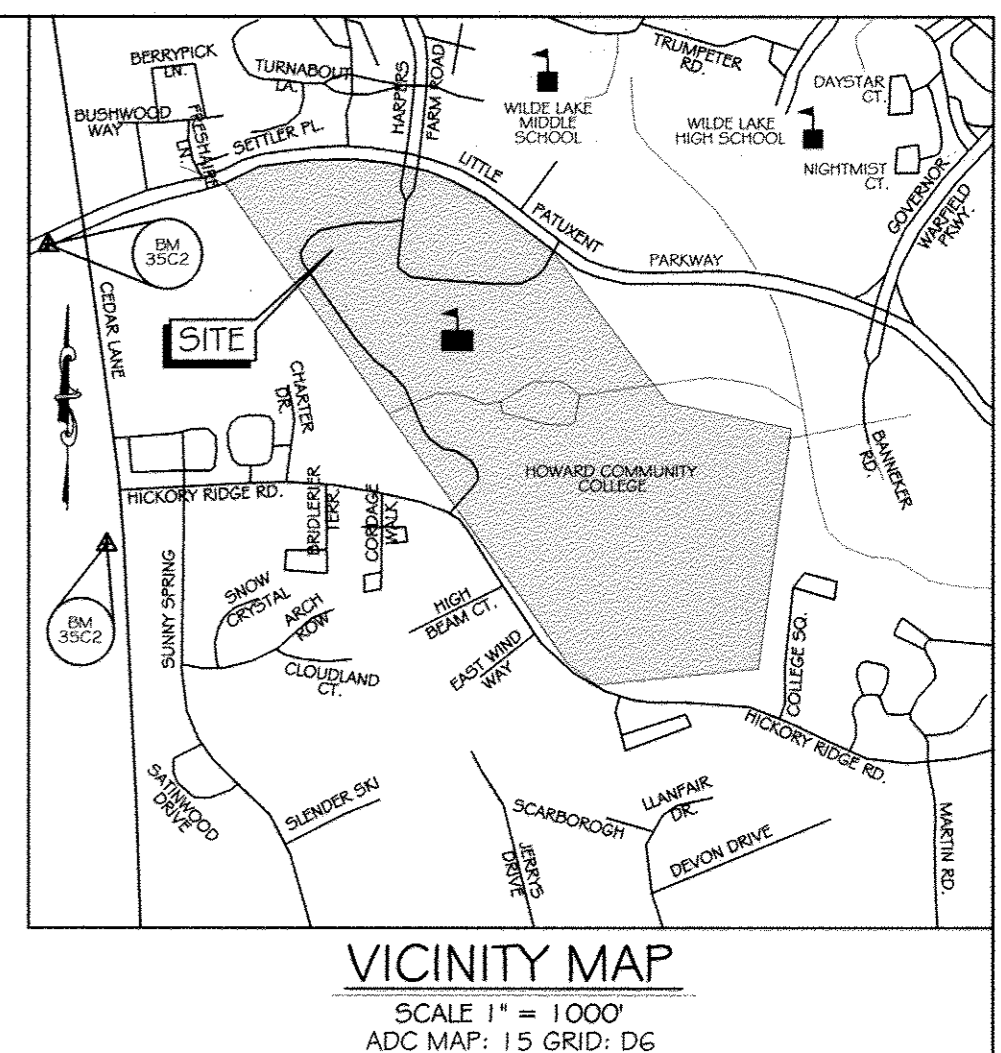
BENCHMARK DATA

HORIZONTAL NAD83(1) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO.'S

	NORTHING	EASTING	ELEV.
35C2	HOW CO MON 563920.830	1344204.150	464.133
35C2	HOW CO MON 562148.450	1344554.472	452.267

LEGEND

CIP	CURB INLET PROTECTION
SIP	STANDARD INLET PROTECTION
LOD	LIMIT OF DISTURBANCE
SSF	SUPER SILT FENCE
SFP	SILT FENCE ON PAVEMENT
TGOS	TEMPORARY GABION OUTLET STRUCTURE
TSOS	TEMPORARY STONE OUTLET STRUCTURE
CD	STABILIZED CONSTRUCTION ENTRANCE
CD	CHECK DAM



FOR SEQUENCE OF CONSTRUCTION SEE SHEET C11.01

TEMPORARY GABION OUTLET STRUCTURE NO. 1

PROP. D.A. = 0.53 AC
EXIST. DA = 0.76 AC
STORAGE REQUIRED = 1,368 C.F.
STORAGE PROVIDED = 2,604 C.F.
WEIR CREST ELEV. = 459.25
TOP OF TGOS = 460.75
BOTTOM ELEV. = 456.25
BOTTOM DIM. = 25' x 16'

STORAGE VS. ELEVATION CHART

ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STOR.	CUM. DEPTH	CUM. STOR.
456.25	318	394	0.75	296	0.75	296
457	470	578	1.0	578	1.75	874
458	686	822	1.0	822	2.75	1,696
459	958	1,009	0.25	252	3.0	1,948
459.25	1,060					TOTAL STOR. = 1,948

TEMPORARY GABION OUTLET STRUCTURE NO. 2

PROP. D.A. = 1.31 AC
EXIST. DA = 0.89 AC
STORAGE REQUIRED = 2,358 C.F.
STORAGE PROVIDED = 2,677 C.F.
WEIR CREST ELEV. = 461.00
TOP OF TGOS = 461.75
BOTTOM ELEV. = 458.00
BOTTOM DIM. = IRREGULAR

STORAGE VS. ELEVATION CHART

ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STOR.	CUM. DEPTH	CUM. STOR.
458	524	632	1.0	632	1.0	632
459	740	860	1.0	860	2.0	1,492
460	980	1,112	1.0	1,112	3.0	2,604
461	1,244					TOTAL STOR. = 2,604

- ### HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES
- A MINIMUM OF 48 HOURS MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION, (313-1050).
 - 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 SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETE WITHIN 14 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, (B) 7 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). 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.
 - SITE ANALYSIS:
TOTAL AREA OF SITE: 117.64 ACRES
AREA DISTURBED: 3.54 ACRES
AREA TO BE ROOFED OR PAVED: 2.16 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 1.36 ACRES
TOTAL CUT: 1,400 CY
TOTAL FILL: 1,300 CY
OFFSITE WASTE AREA LOCATION: 90' SW WITH APPROVED SED. CONTROL PLAN
 - ANY SEDIMENT CONTROL PRACTICE THAT 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 REQUIRED 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 THE 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 WORKDAY, WHICHEVER IS SHORTER.
 - ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
 - A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John R. Ralston 11/13/14
Howard Soil Conservation District 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."

Richard L. O'Neil 11-11-14
Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE

"We certify that all development and construction will be done according to these plans for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance of 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."

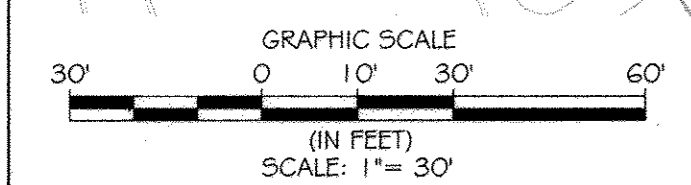
C. Knightingale 11-12-14
Signature of Developer (print name below signature) Date



NO ADULT INFORMATION THIS SHEET

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31 089 EXPIRATION DATE: 11/21/14



EROSION AND SEDIMENT CONTROL PLAN - PHASE I
SCALE: 1" = 30'

KCI TECHNOLOGIES
ARCHITECTS + PLANNERS

AYERS SAINT GROSS
ARCHITECTS + PLANNERS

APPROVED: Howard County Department of Planning & Zoning

Merle A. Hughes 11/15
Director

Neil Selman 1-06-15
Chief, Division of Land Development

Chal Edin 12-18-14
Chief, Development Engineering Division

Rev	Date	Description	By
1			
2			
3			
4			

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4286

Project Name:
**Howard Community College -
Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL 47, TAX MAP: 36, GRID: 6
TAX ACCOUNT #: 045888

ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

Date: 10-1-2014
Scale: 1" = 30'

Drawn By: C.T.B.
Designed By: B.S.

Approved By: R.T.B.
Project No: 27111245

Tax Map-Grid: 35-6
Zoning: POR & NT

Sheet Title:
**EROSION AND
SEDIMENT CONTROL
PLAN PHASE 1**

Discipline Number:
C11.00

Sheet Number:
16 OF 42



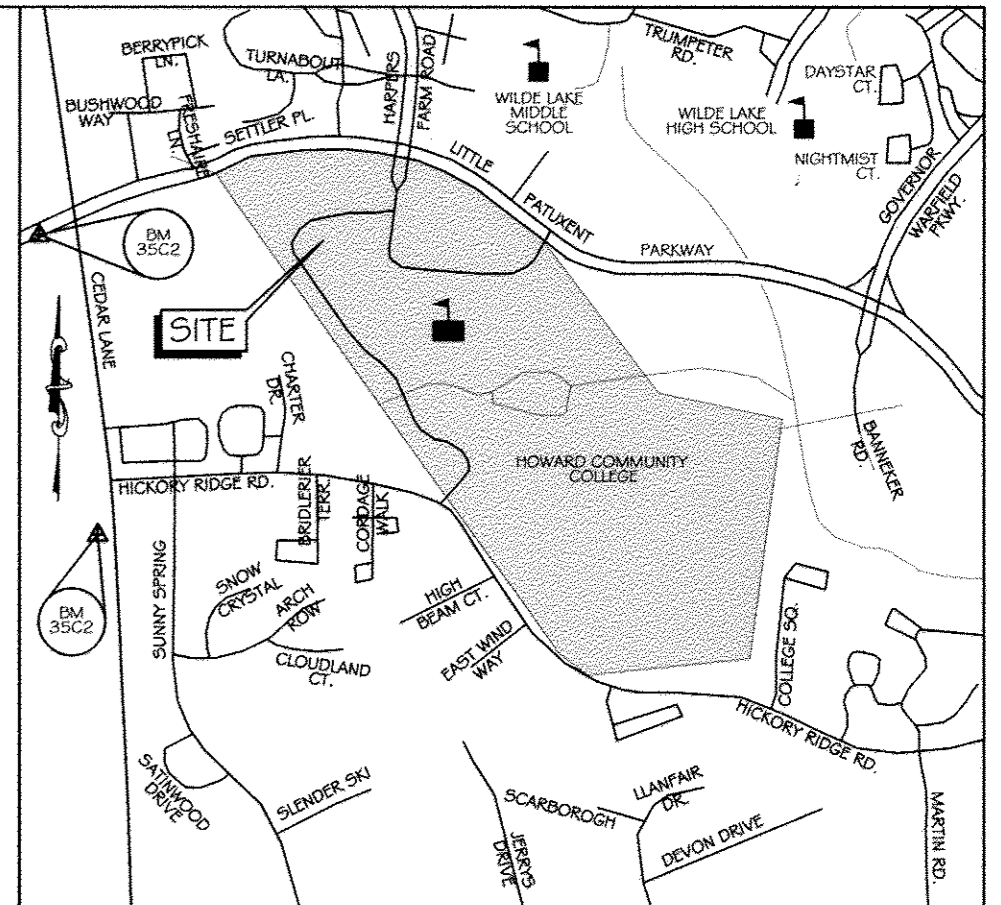
BENCHMARK DATA

HORIZONTAL NAD83/91 AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2	563920.830	1344204.190	464.133
35C2	562148.450	1344554.472	452.267

LEGEND

- CIP [] CURB INLET PROTECTION
- SIP [] STANDARD INLET PROTECTION
- LOD ——— LIMIT OF DISTURBANCE
- >—> DIVERSION DIKE
- SS— SUPER SILT FENCE
- TSOS [] TEMPORARY STONE OUTLET STRUCTURE
- TSOS [] TEMPORARY STONE OUTLET STRUCTURE
- [] STABILIZED CONSTRUCTION ENTRANCE



VICINITY MAP

SCALE 1" = 1000'
ADC MAP: 1:5 GRID: DG

SEQUENCE OF CONSTRUCTION

- 2 WEEKS 1. OBTAIN GRADING PERMIT. CONTACT THE HOWARD COUNTY CID INSPECTOR AT 410-313-2433 A MINIMUM OF 2 WEEKS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. THE CONTRACTOR IS TO SUBMIT A SCHEDULE OF WORK ACTIVITIES TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO INITIATION OF ANY GRADING ACTIVITIES.
- PHASE 1**
- 2 DAYS 2. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS SHOWN AND INSTALL INLET PROTECTION AND BLOCKING WHERE SPECIFIED FOR EXISTING INLETS.
- 2 DAYS 3. INSTALL THE PERIMETER SILT FENCE ON PAVEMENT, SUPER SILT FENCE AT LOCATIONS SHOWN ON SHEET C11.00. MAKE SURE ALL NECESSARY SEDIMENT CONTROLS ARE IN PLACE PRIOR TO STRIPPING THE TOPSOIL.
- 21 DAYS 4. STRIP THE TOPSOIL, REMOVE EXISTING PAVING, CURB & GUTTER AND OTHER EXISTING SURFACE FEATURES TO INSTALL SEDIMENT TRAP NO. 1 & 2, EARTH DIKES AND PROTECTION AS SPECIFIED ON SHEET C11.00 OR AS DIRECTED BY OWNER.
- 8 DAYS 5. STRIP THE REMAINING TOPSOIL AND GRADE SITE AS SHOWN ON EROSION & SEDIMENT CONTROL PLAN - PHASE 1 (C11.00) TO BRING SITE TO SUBGRADE WITHIN LIMITS OF DISTURBANCE.
- 32 DAYS 6. INSTALL PORTION OF WATER, STORM DRAIN, UNDERGROUND TUNNEL, RETAINING WALLS AND SITE ELECTRICAL UTILITIES AS SHOWN ON C11.00.
- 8 DAYS 7. INSTALL TEMPORARY ASPHALT ROAD AND WALKS AS SHOWN ON SHEET C11.00.
- 3 DAYS 8. STABILIZE ALL DISTURBED AREAS WITH TEMPORARY SEED & MULCH.
- PHASE 2**
- 12 DAYS 9. ADJUST/REPAIR PERIMETER EROSION & SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THIS SHEET.
- 2 DAYS 10. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS SHOWN AND PROVIDE ADDITIONAL INLET PROTECTION PER THE PLAN OR AS DIRECTED BY THE HOWARD COUNTY CID INSPECTOR.
- 32 DAYS 11. INSTALLING SITE STORM DRAIN, WATER, SANITARY, ELECTRIC, GAS AND INLET PROTECTION WHERE INDICATED. DO NOT REMOVE EXISTING STORM DRAIN UNTIL NEW STORM DRAIN IS FULLY FUNCTIONAL.
- 17 MONTHS 13. CONSTRUCT BUILDING, RETAINING WALLS, SIDEWALK AND STAIRS. GRADE SITE AS SHOWN ON THIS SHEET.
- 18 DAYS 14. INSTALL MICRO-SCALE STORMWATER MANAGEMENT DEVICES. STABILIZE ALL DISTURBED AREAS AS NECESSARY. INSTALL CONSTRUCTION FENCE AS SHOWN ON THIS PLAN AROUND MICRO-SCALE STORMWATER MANAGEMENT DEVICES TO ENSURE PROTECTION DURING CONSTRUCTION.
- 10 DAYS 15. BEGIN FINAL GRADING OF SITE IN ACCORDANCE WITH THIS SHEET.
- 3 DAYS 16. STABILIZE ALL DISTURBED AREAS WITH TEMPORARY SEED & MULCH.
- PHASE 3**
- 2 DAYS 17. INSTALL STABILIZED CONSTRUCTION ENTRANCE & MOUNTABLE BERM AT LOCATIONS SHOWN ON EROSION AND SEDIMENT CONTROL PLAN - PHASE 3 (C11.02). PROVIDE ADDITIONAL INLET PROTECTION PER PLAN OR AS DIRECTED BY HOWARD COUNTY CID INSPECTOR.
- 10 DAYS 18. INSTALL STORM DRAIN AND ELECTRIC.
- 15 DAYS 19. BRING ROADS TO SUB-GRADE. PLACE CR-6 BASE COURSE.
- 10 DAYS 20. BEGIN FINAL GRADING OF SITE IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN - PHASE 3 (C11.02).
- 30 DAYS 21. INSTALL CURB & GUTTER, SURFACE PAVING, SIDEWALK & SIGNAGE.
- 3 DAYS 22. STABILIZE ALL DISTURBED AREAS WITH TEMPORARY SEED & MULCH.
- PHASE 4**
- 2 DAYS 23. INSTALL STABILIZED CONSTRUCTION ENTRANCE & MOUNTABLE BERM AT LOCATIONS SHOWN ON EROSION AND SEDIMENT CONTROL PLAN PHASE 4 (C11.03). PROVIDE ADDITIONAL INLET PROTECTION PER PLAN OR AS DIRECTED BY HOWARD COUNTY CID INSPECTOR.
- 15 DAYS 24. BRING ROADS TO SUB-GRADE. PLACE CR-6 BASE COURSE.
- 10 DAYS 20. BEGIN FINAL GRADING OF SITE IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN - PHASE 3 (C11.02).
- 30 DAYS 21. INSTALL CURB & GUTTER, SURFACE PAVING, SIDEWALK & SIGNAGE.
- 3 DAYS 22. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED & MULCH. INSTALL SITE LANDSCAPING.
- 14 DAYS 23. UPON APPROVAL FROM THE HOWARD COUNTY CID INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES. REPAIR CURB & GUTTER AND PAVING AS REQUIRED AFTER REMOVAL OF SEDIMENT CONTROL MEASURES. STABILIZE ALL AREAS DISTURBED DURING REMOVAL OF SEDIMENT CONTROL DEVICES. PROVIDE COPY OF HSCD LETTER OF APPROVAL FOR POND AS-BUILT TO INSPECTOR.

PROP. 4-STORY
144,786 SQ. FT.
LEED CERTIFIED/GREEN
SCIENCE, ENGINEERING &
TECHNOLOGY BUILDING
F.F. ELEV. 465.00

COLUMBIA TOWN CENTER
SECTION 2, AREA 4
PARCEL A.1
PLAT NO. 4904
ZONED NT "EMPLOYMENT
CENTER-COMMERCIAL"
PER FDP 177-A-1

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

John K. Robertson
Howard Soil Conservation District
11/13/14
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."

Richard L. Butt
Richard L. Butt
Signature of Engineer (print name below signature)
11-11-14
Date

DEVELOPER'S CERTIFICATE

"I/we certify that all development and construction will be done according to these plans 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."

C. N. W. W. W.
Signature of Developer (print name below signature)
11-12-14
Date

TEMPORARY STONE OUTLET STRUCTURE NO. 1

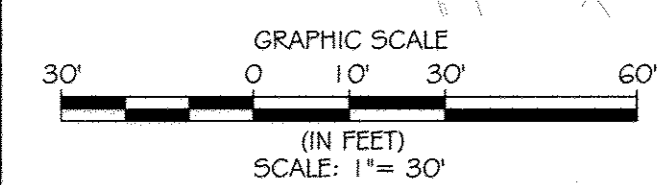
PROP. D.A. = 0.20 AC
EXIST. DA = 0.76 AC
STORAGE REQUIRED = 1,368 C.F.
STORAGE PROVIDED = 2,784 C.F.
WEIR CREST ELEV. = 459.25
TOP OF TSOB = 460.00
BOTTOM ELEV. = 458.50
BOTTOM DIM. = 58' x 16'

ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STOR.	CUM. DEPTH	CUM. STOR.
458.5	864	899	0.50	450	0.50	450
459	935	1,473	1.0	1,473	1.50	1,923
460	2,088	2,143	0.25	636	1.75	2,459
460.25	2,196					
						TOTAL STOR. = 2,459

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/22/14

EROSION AND SEDIMENT CONTROL PLAN - PHASE 2



KCI TECHNOLOGIES
ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
996 Ridgebrook Road
Suite 2110
Baltimore, MD 21286
Tel: (410) 526-7883
www.kci.com

AYERS SAINT GROSS
ARCHITECTS + PLANNERS
1040 Hill Street, Suite 100
Baltimore, MD 21202
p 410.347.8500 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Diana A. Lytle
Director
1/6/15
Date

K. J. ...
Chief, Division of Land Development
1-06-15
Date

Chad ...
Chief, Development Engineering Division
12-18-14
Date

Rev:	Date:	Description:	By:	Prepared For and Owner:
1				Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296

**Howard Community College -
Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL: 47, TAX MAP: 36, GRID: 6
TAX ACCOUNT #: 045888

ELECTION DISTRICT NO. 5

HOWARD COUNTY, MARYLAND

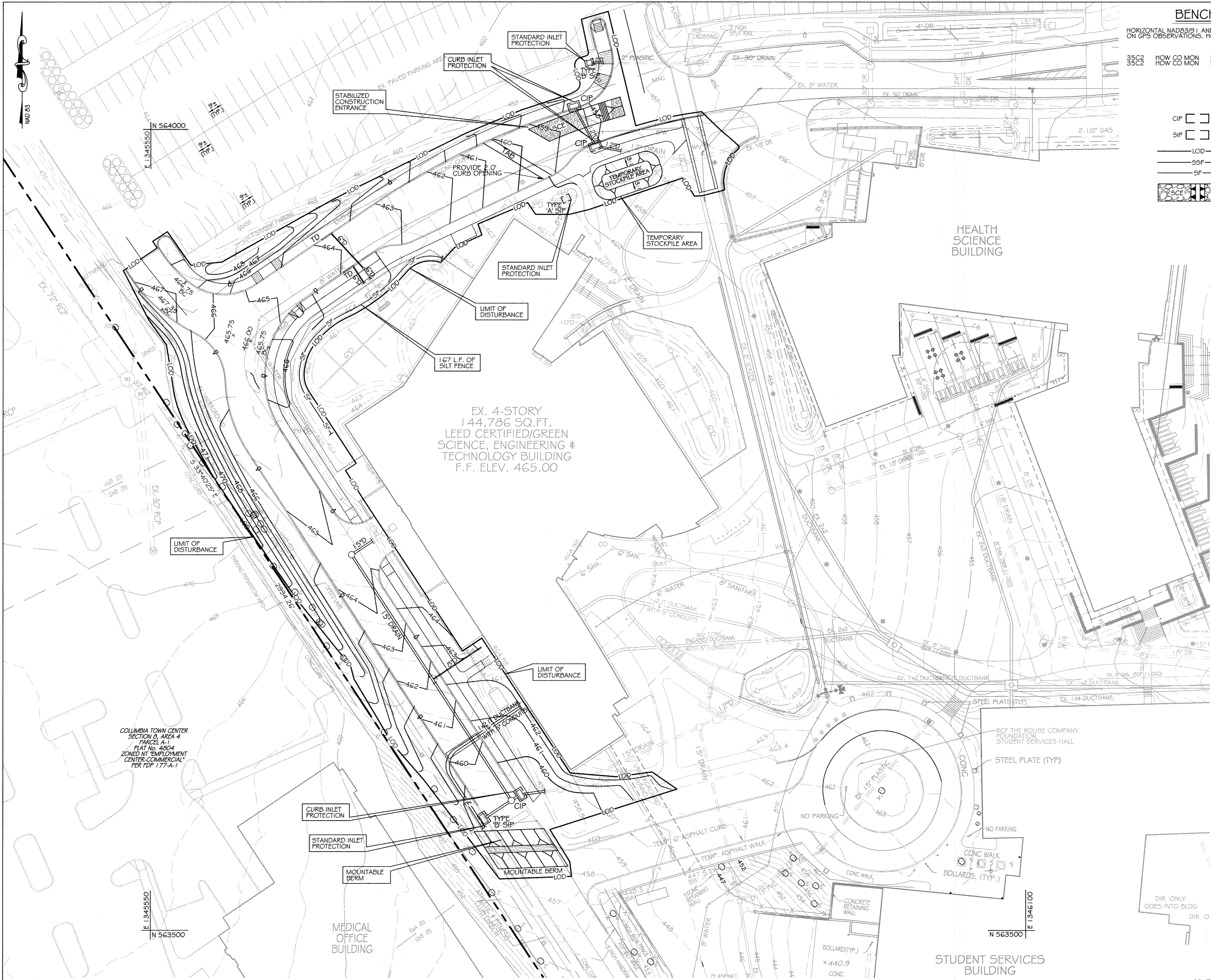
Date:	Scale:
10-1-2014	1" = 30'
Drawn By:	Designed By:
C.T.B.	B.S.
Approved By:	Project No.:
R.T.B.	27111245
Tax Map-Grid:	Zoning:
35-6	POR & NT

Sheet Title:
EROSION AND SEDIMENT CONTROL PLAN PHASE 2

Discipline Number:
C11.01

Sheet Number:
17 OF 42

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
NO. 021089
11-11-14



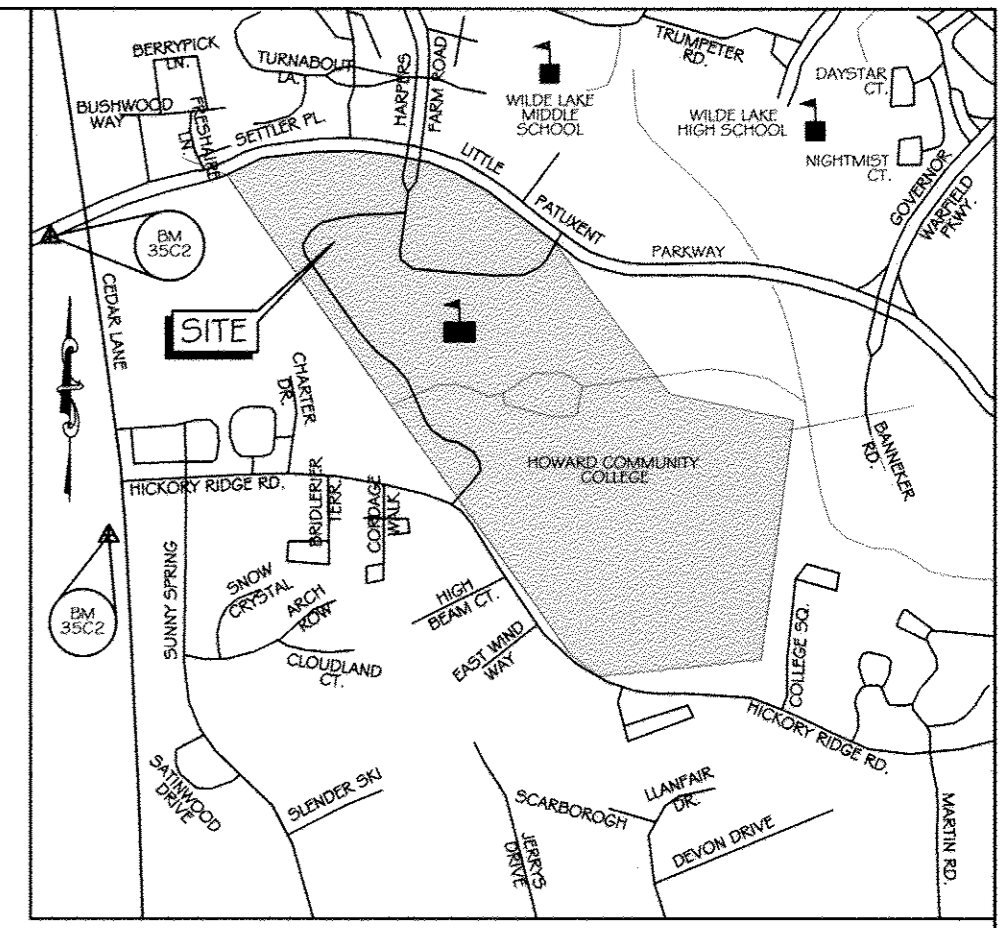
BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO.'S

	NORTHING	EASTING	ELEV.
35C2	563920.630	1344204.150	464.133
35C3	562148.450	1344554.472	452.267

LEGEND

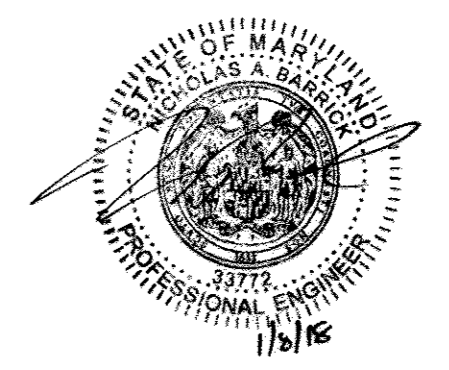
- CIP [Symbol] CURB INLET PROTECTION
- SIP [Symbol] STANDARD INLET PROTECTION
- LOD [Symbol] LIMIT OF DISTURBANCE
- SOF [Symbol] SUPER SILT FENCE
- SF [Symbol] SILT FENCE
- [Symbol] STABILIZED CONSTRUCTION ENTRANCE



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: D6

EX. 4-STORY
144,786 SQ.FT.
LEED CERTIFIED/GREEN
SCIENCE, ENGINEERING &
TECHNOLOGY BUILDING
F.F. ELEV. 465.00

COLUMBIA TOWN CENTER
SECTION 8, AREA 4
PARCEL A-1
FLAT No. 4604
ZONED NT EMPLOYMENT
CENTER-COMMERCIAL
PER FDP 177-A-1



NO AS BUILT INFORMATION
THIS SHEET

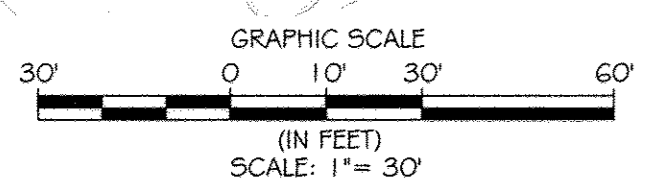
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson
Howard Soil Conservation District
11/13/14
Date

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.
Richard L. Butt
Richard L. Butt
Signature of Engineer (print name below signature)
11-11-14
Date

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to these plans 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.
John R. Robertson
Signature of Developer (print name below signature)
11-12-14
Date

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14



EROSION AND SEDIMENT CONTROL PLAN - PHASE 3
SCALE: 1" = 30'

FOR SEQUENCE OF CONSTRUCTION SEE SHEET C11.01

KCI TECHNOLOGIES
ENGINEERS, PLANNERS, ARCHITECTS, CONSTRUCTION MANAGERS
396 Beltsville Road, Gaithersburg, MD 20878
Tel: (301) 916-7900 Fax: (301) 916-7903 www.kci.com

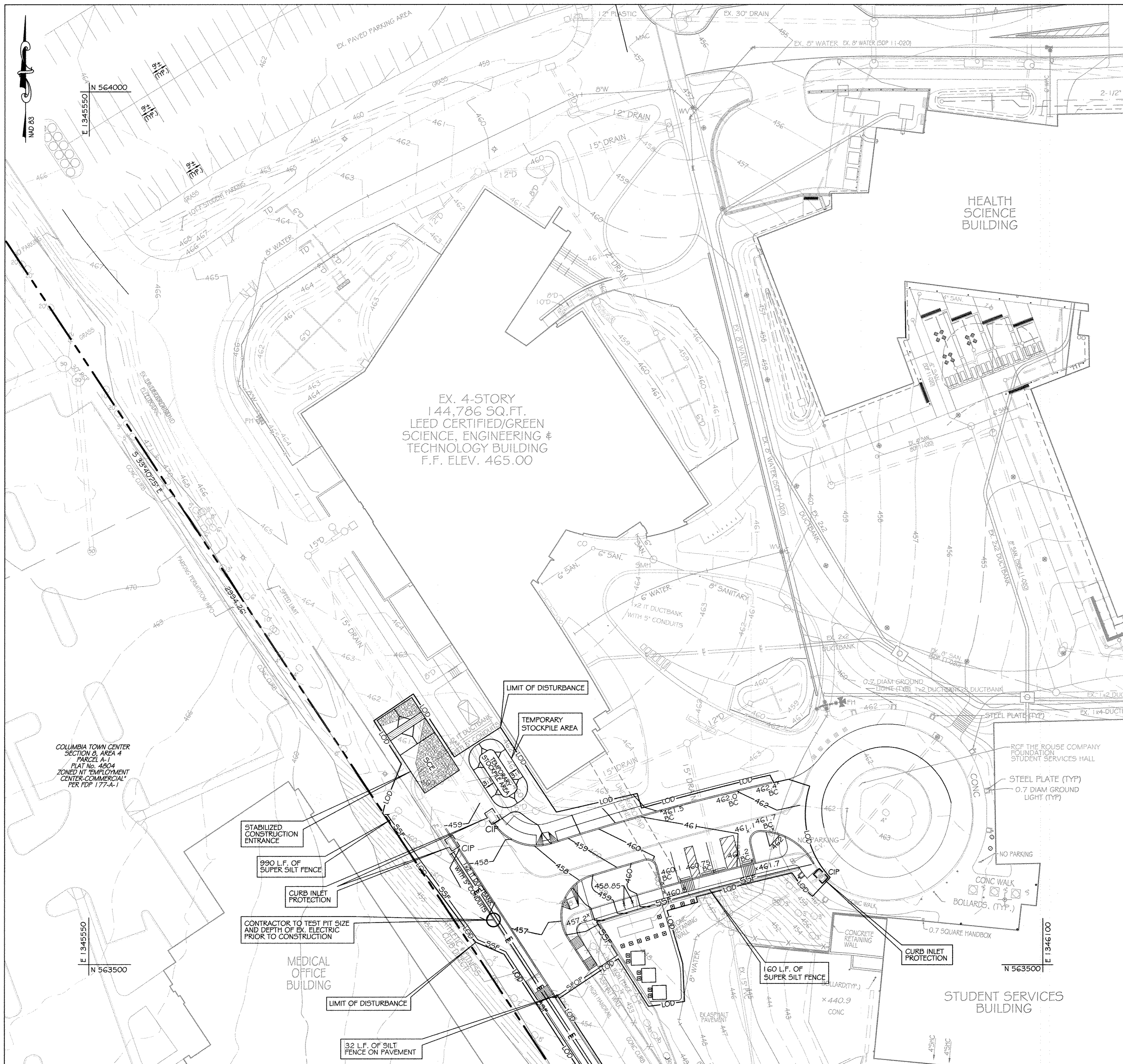
AYERS SAINT GROSS ARCHITECTS + PLANNERS
1940 Hill Street, Suite 100, Baltimore, MD 21202
P: 410.347.8500 F: 410.347.8419

APPROVED:	Rev:	Date:	Description:	By:	Prepared For and Owner:
<i>Dranda M. Cuyler</i> Director	1	11/11/14			Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296
<i>Veit Shalovich</i> Chief, Division of Land Development	2	1-06-15			
<i>Phil Edwards</i> Chief, Development Engineering Division	3	12-18-14			

Howard Community College - Science, Engineering & Technology Building
SITING PACKAGE
PARCEL 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045888
ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

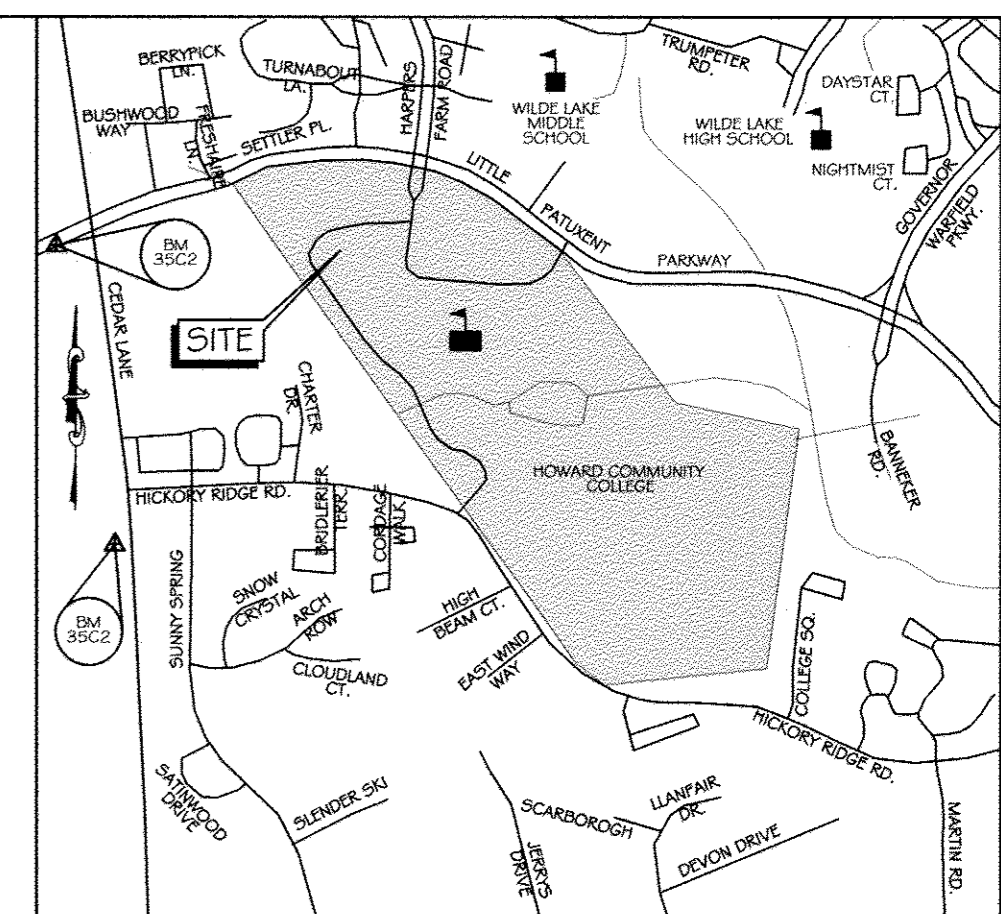
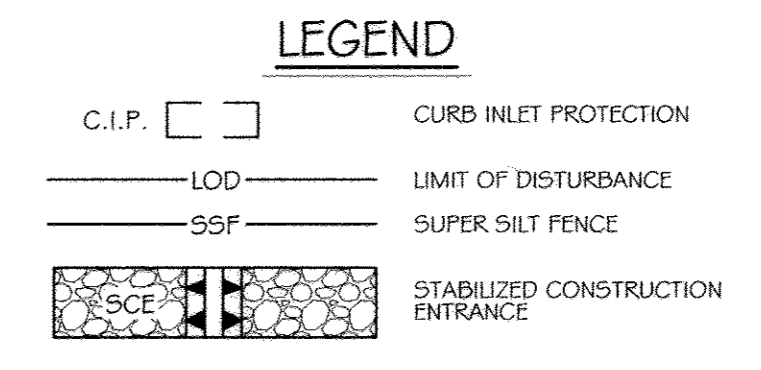
Date:	Scale:	Sheet Title:
10-1-2014	1" = 30'	EROSION AND SEDIMENT CONTROL PLAN PHASE 3
Drawn By:	Designed By:	Discipline Number:
C.T.B.	B.S.	C11.02
Approved By:	Project No.:	Sheet Number:
R.T.B.	27111245	18 OF 42
Tax Map-Grid:	Zoning:	
35-6	POR & NT	

STATE OF MARYLAND
Professional Engineer Seal for Richard L. Butt, License No. 11618.

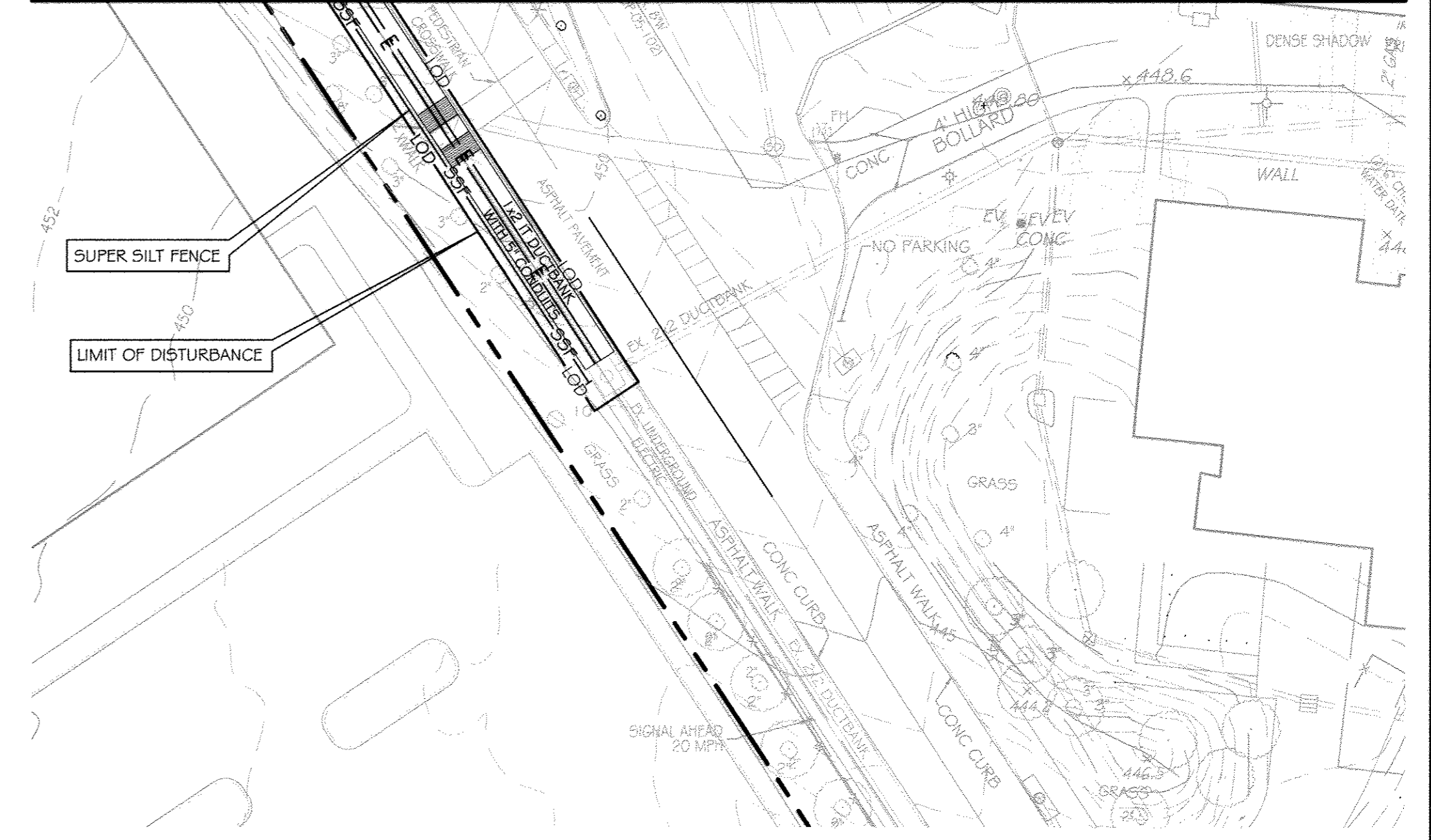


BENCHMARK DATA
 HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH. CONTROL NO. 'S'

	NORTHING	EASTING	ELEV.
35C2	563920.830	1344204.150	464.133
35C2	562148.450	1344554.472	452.267



MATCHLINE SEE THIS SHEET FOR CONTINUATION



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.

Junk K. Keltan 4/13/14
 Howard Soil Conservation District 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.

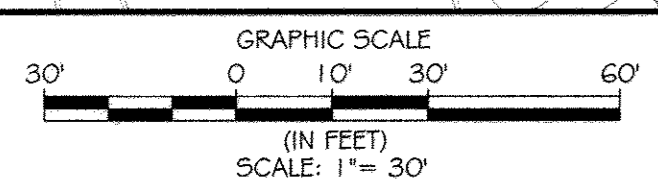
Richard L. Butt 11-11-2014
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
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C. Nightingale 11-12-14
 Signature of Developer (print name below signature) Date



NO ADJUST INFORMATION THIS SHEET



MATCHLINE SEE THIS SHEET FOR CONTINUATION
EROSION AND SEDIMENT CONTROL PLAN - PHASE 4
 SCALE: 1" = 30'

FOR SEQUENCE OF CONSTRUCTION SEE SHEET C11.01

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14

KCI TECHNOLOGIES
 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
 896 Ridgely Road, Suite 200, Gaithersburg, MD 20878
 Phone: (301) 251-2500 Fax: (301) 251-2500 www.kci.com

AYERS SAINT GROSS ARCHITECTS & PLANNERS
 1000 Hill Street, Suite 100, Baltimore, MD 21202
 p 410-241-8500 f 410-241-8410

APPROVED: Howard County Department of Planning & Zoning

Rev:	Date:	Description:	By:
1	4/11/14		<i>Danica M. Taylor</i>
2	1-06-15		<i>K. Keltan</i>
3	12-18-14		<i>Chad Edman</i>

Prepared For and Owner: Howard Community College, 10901 Little Patuxent Parkway, Columbia, Maryland 21044, ATTN: Mr. Chuck Nightingale, 410-772-4296

Project Name: **Howard Community College - Science, Engineering & Technology Building**

SITE PACKAGE PARCEL: 47, TAX MAP: 36, GRID: 6, TAX ACCOUNT #: 045868

ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND

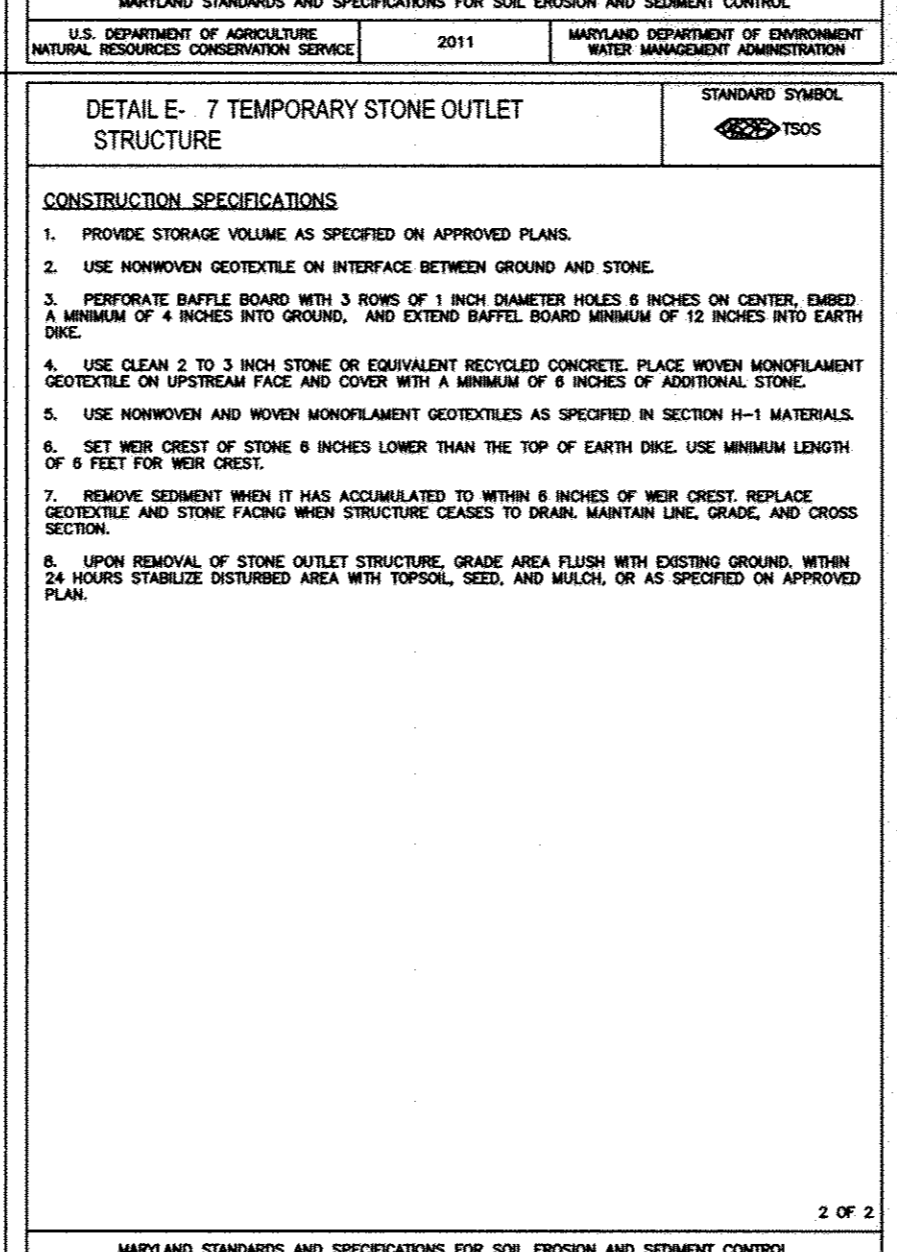
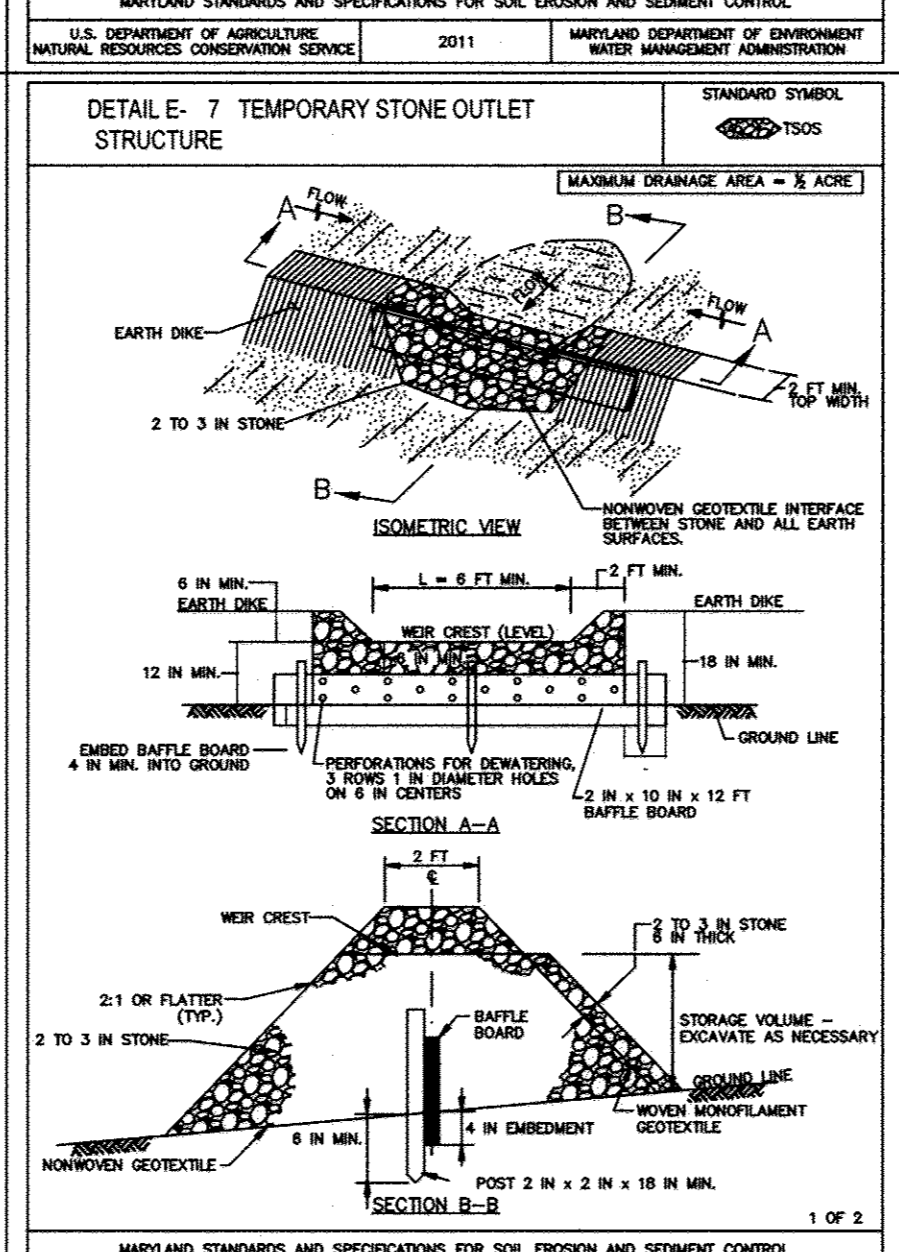
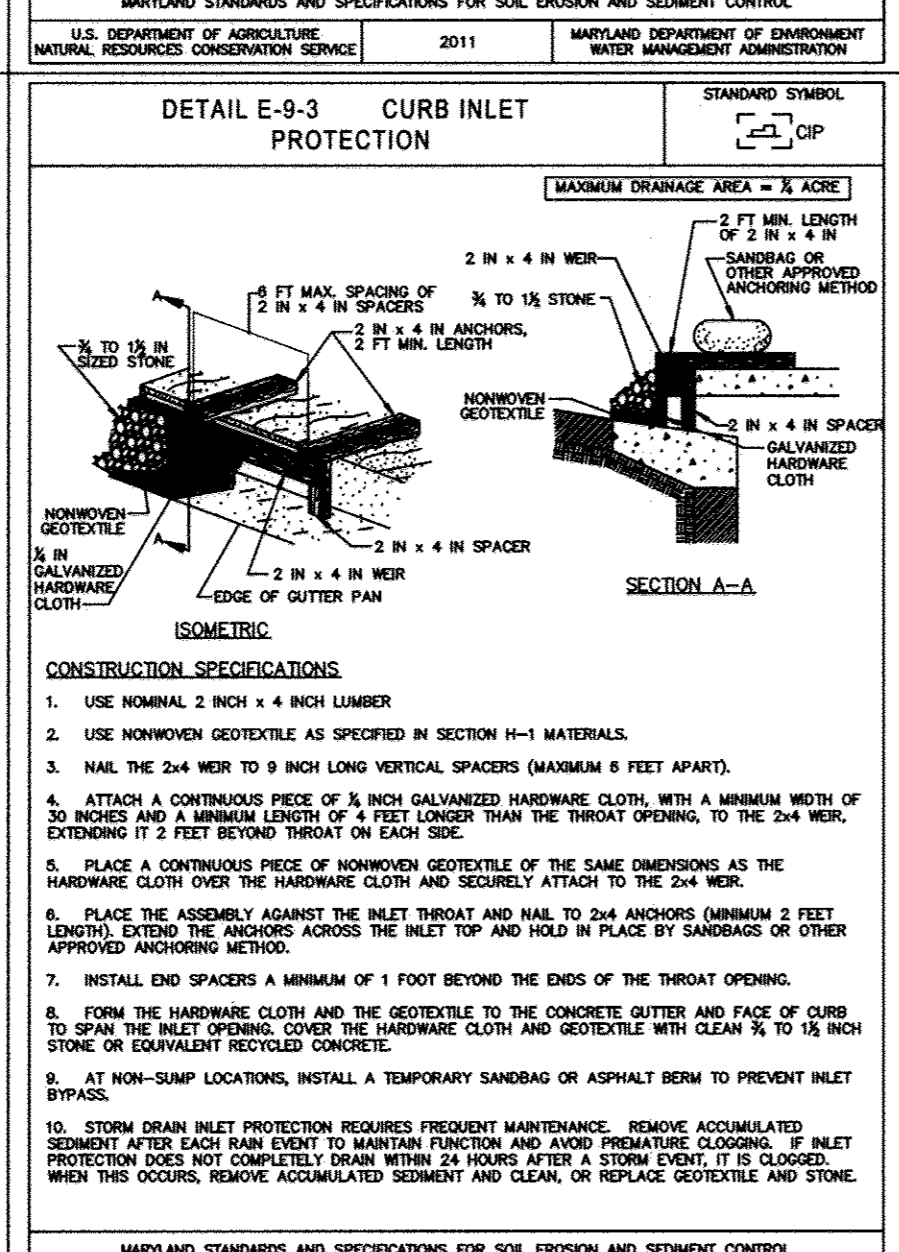
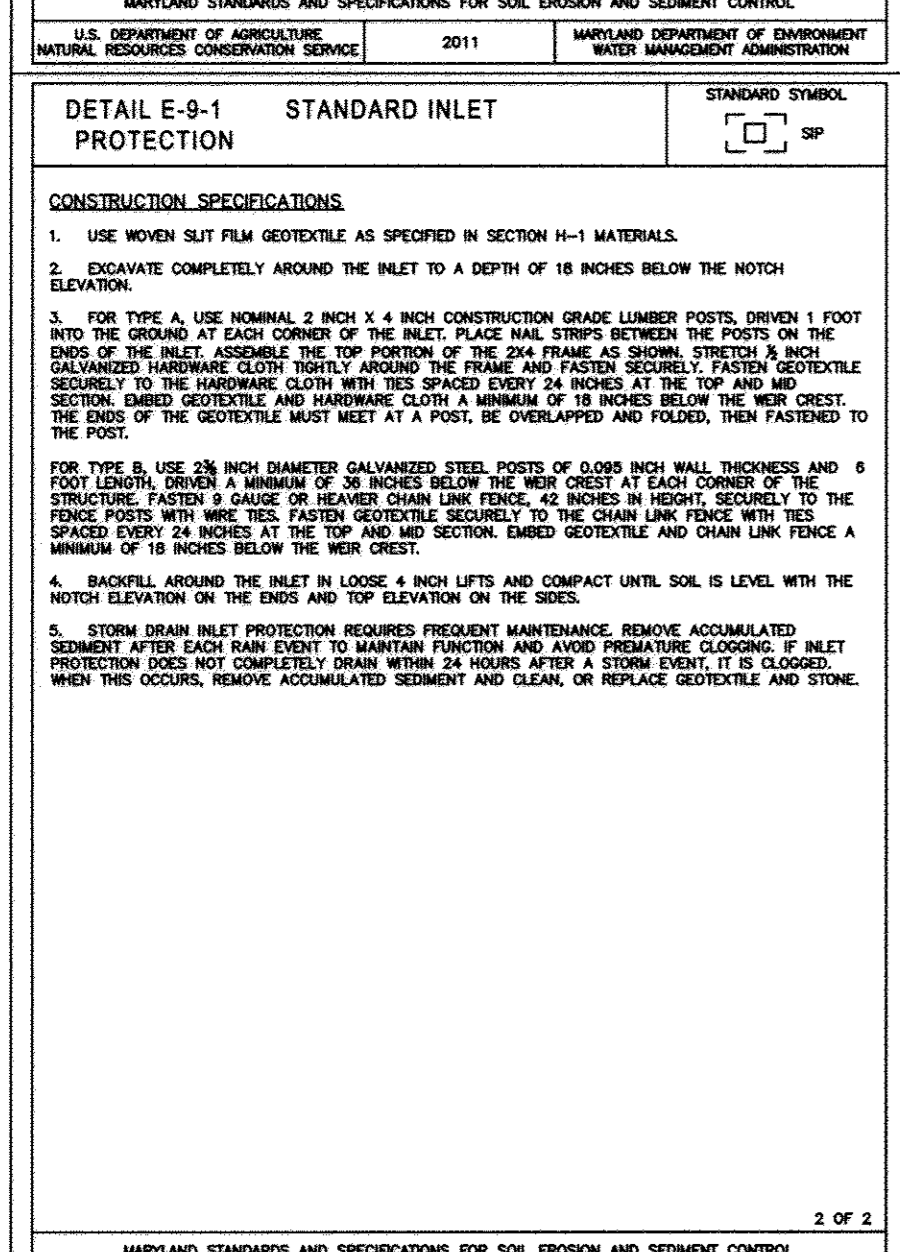
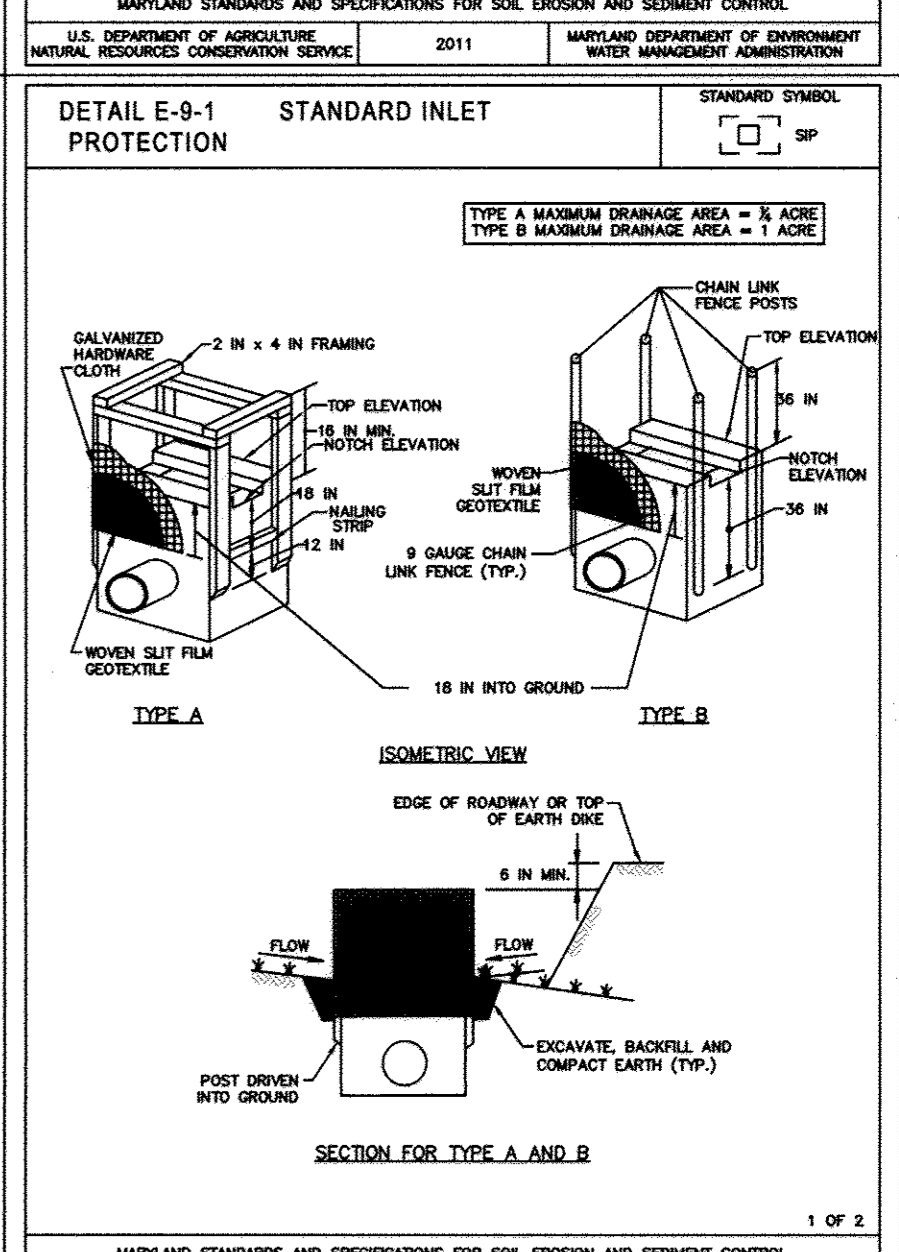
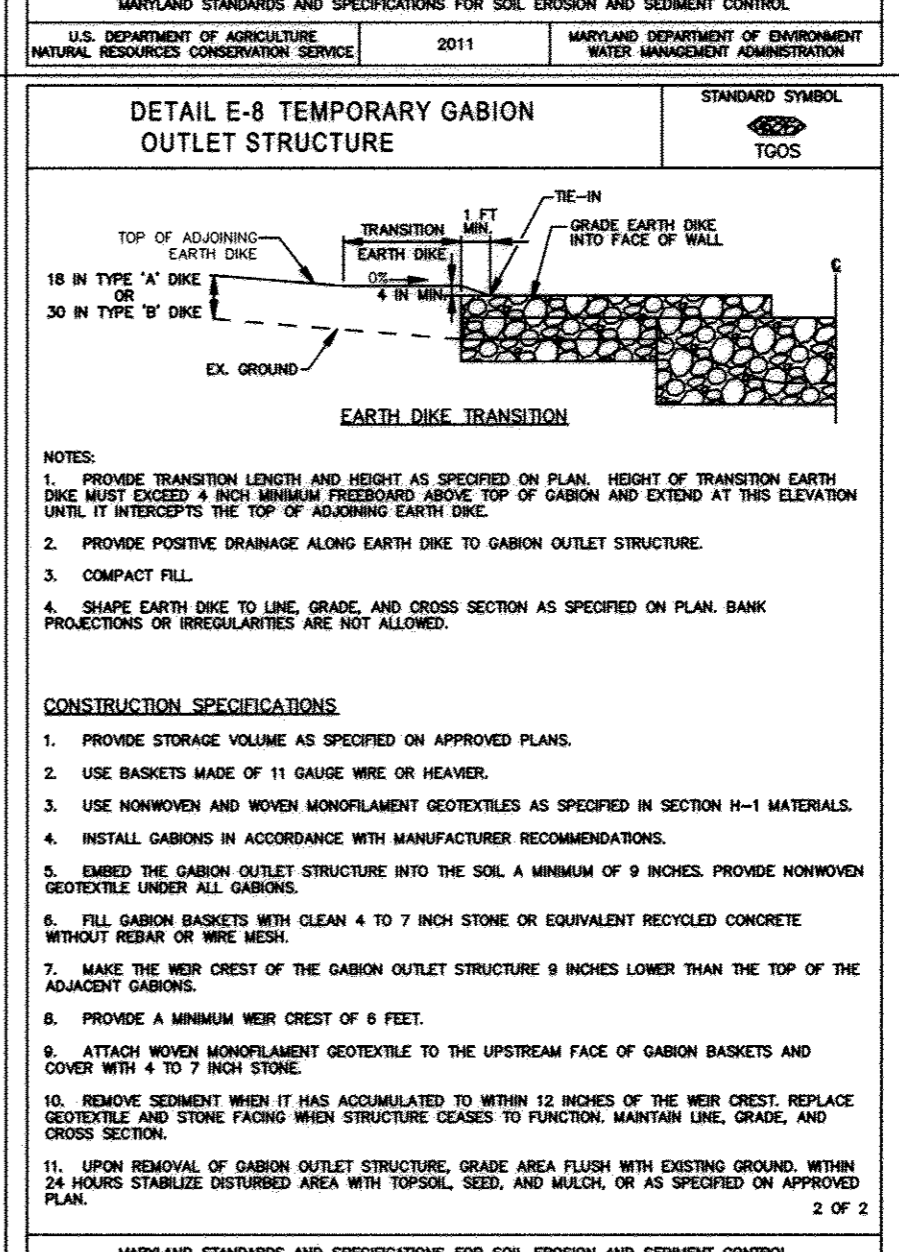
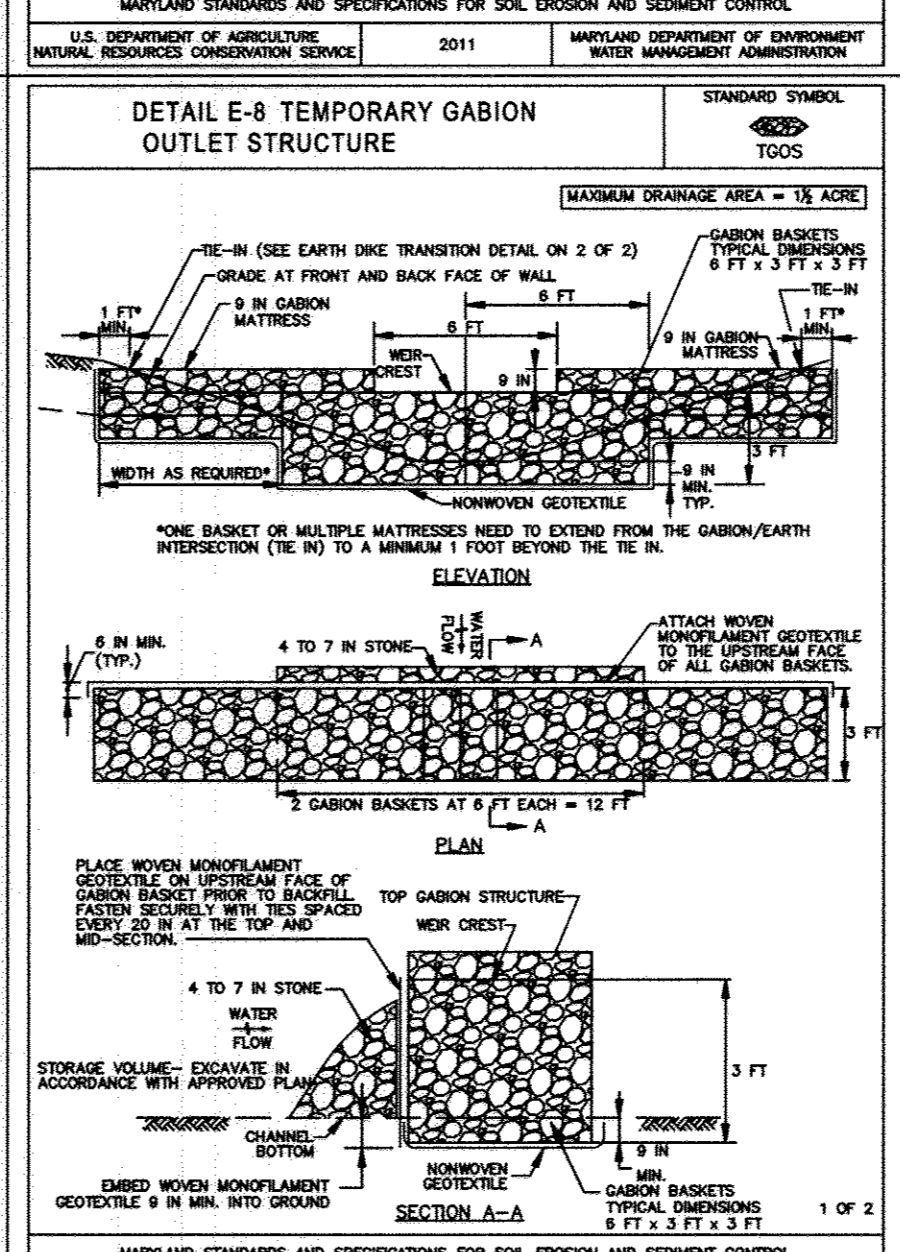
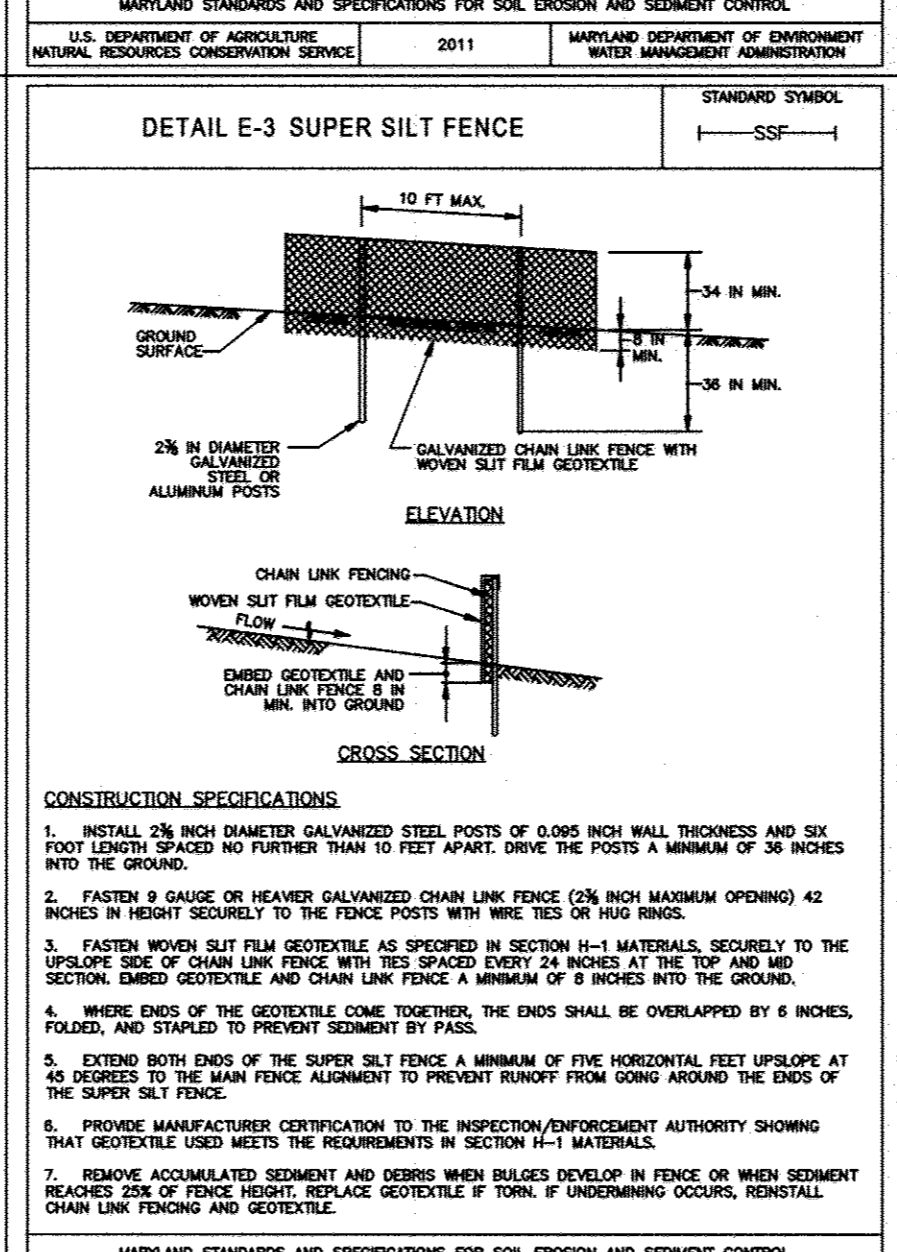
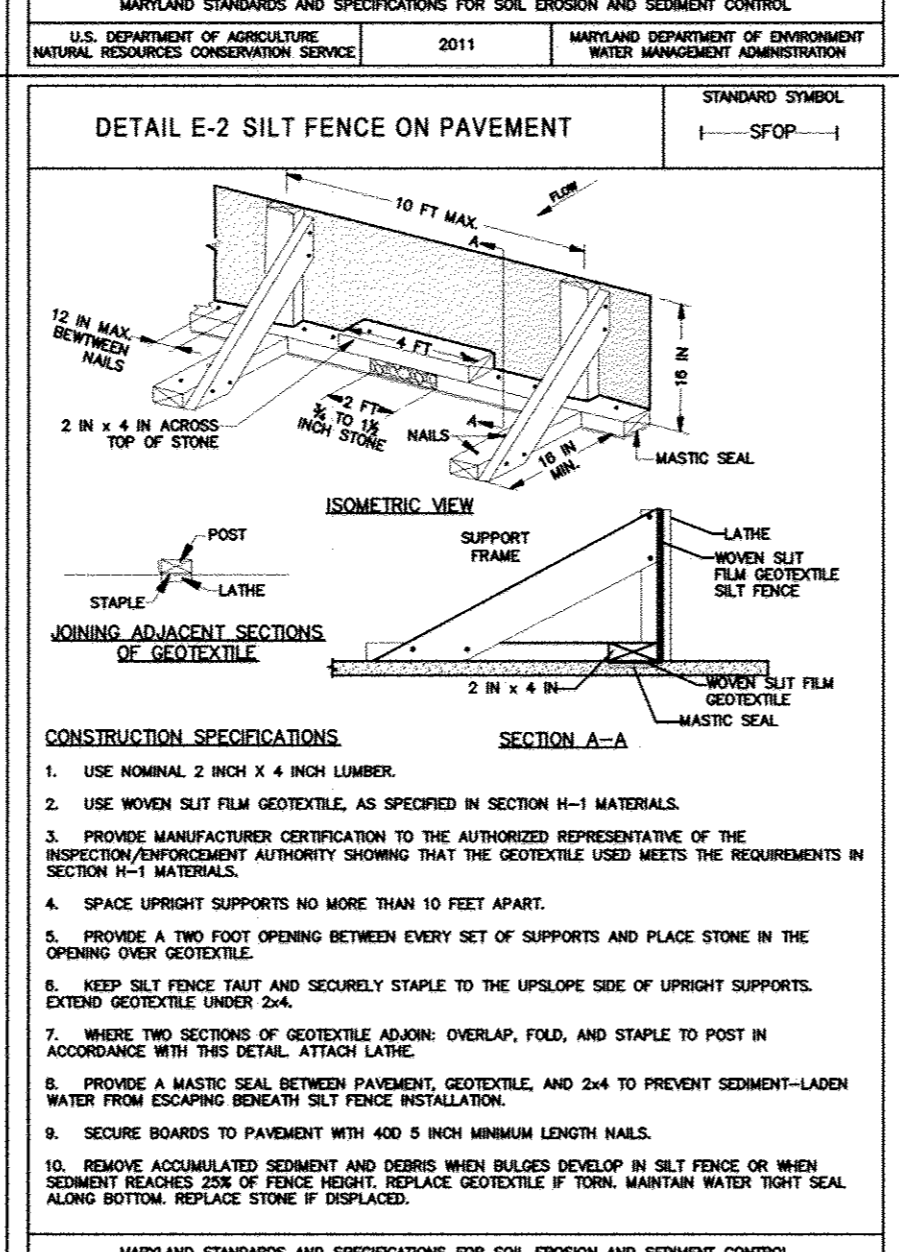
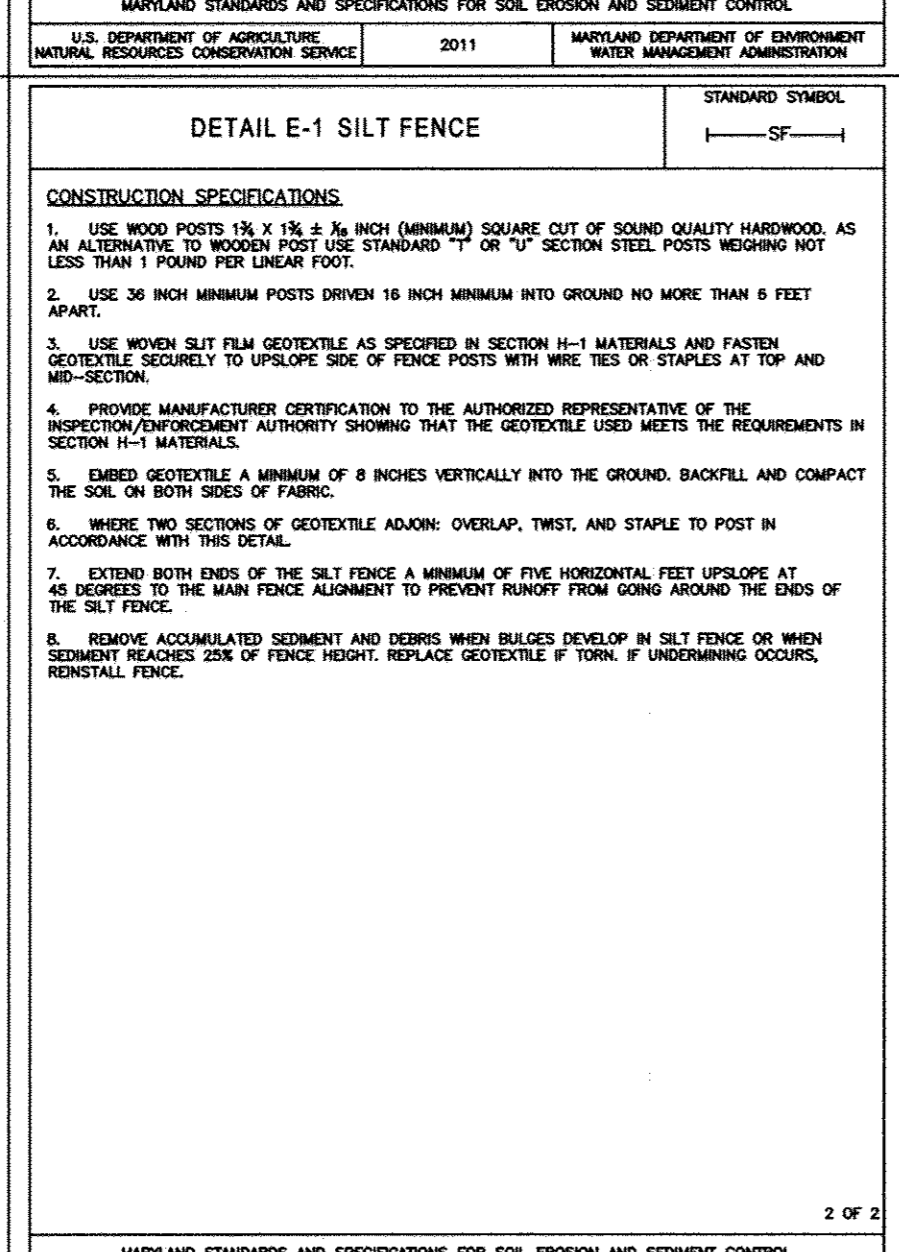
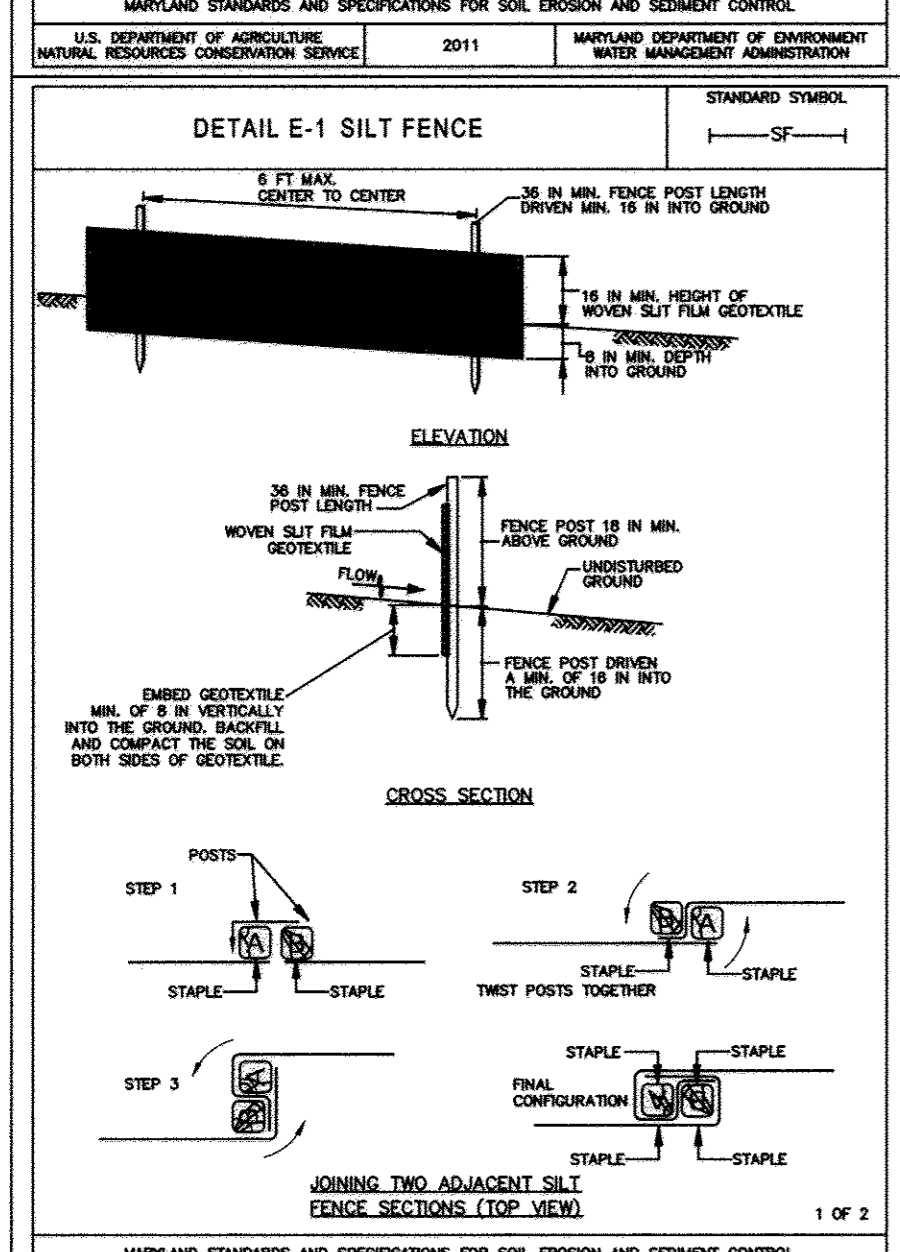
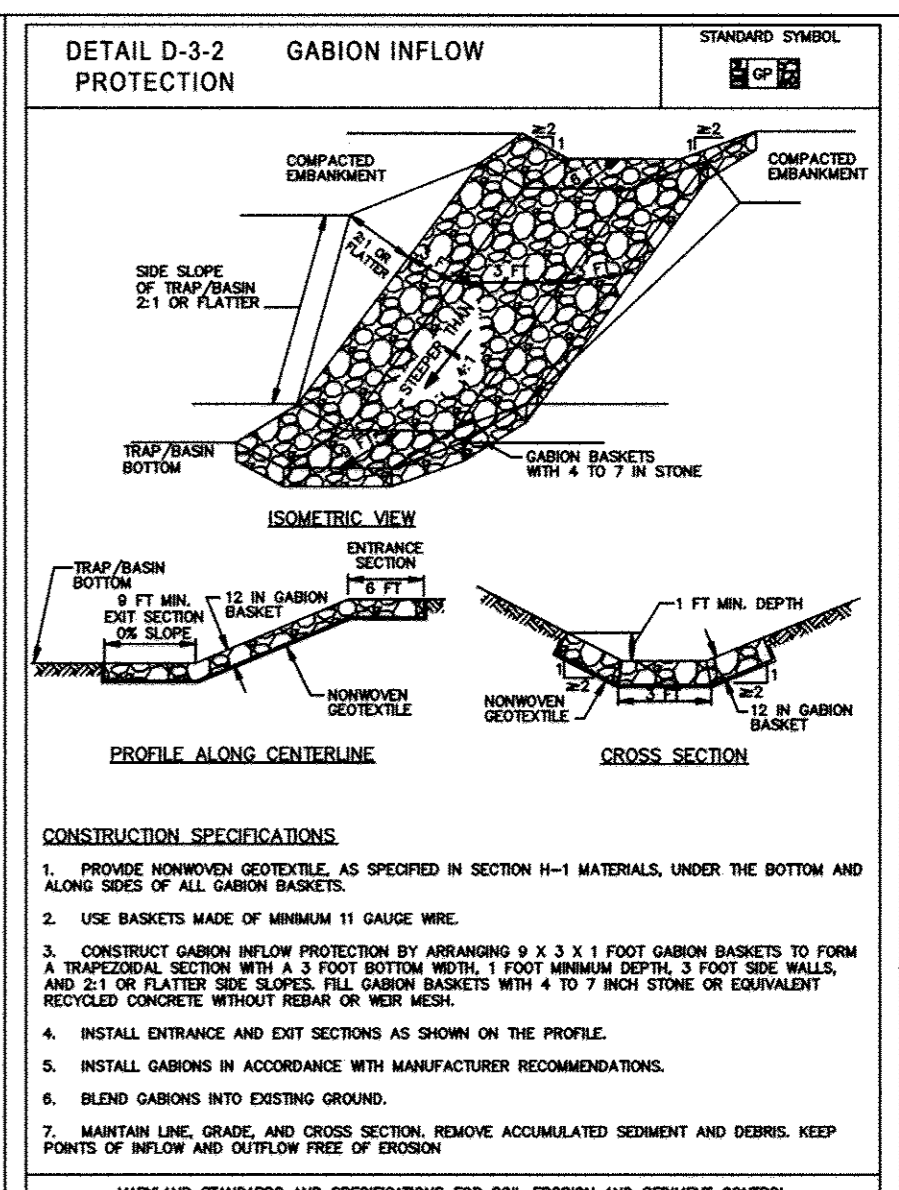
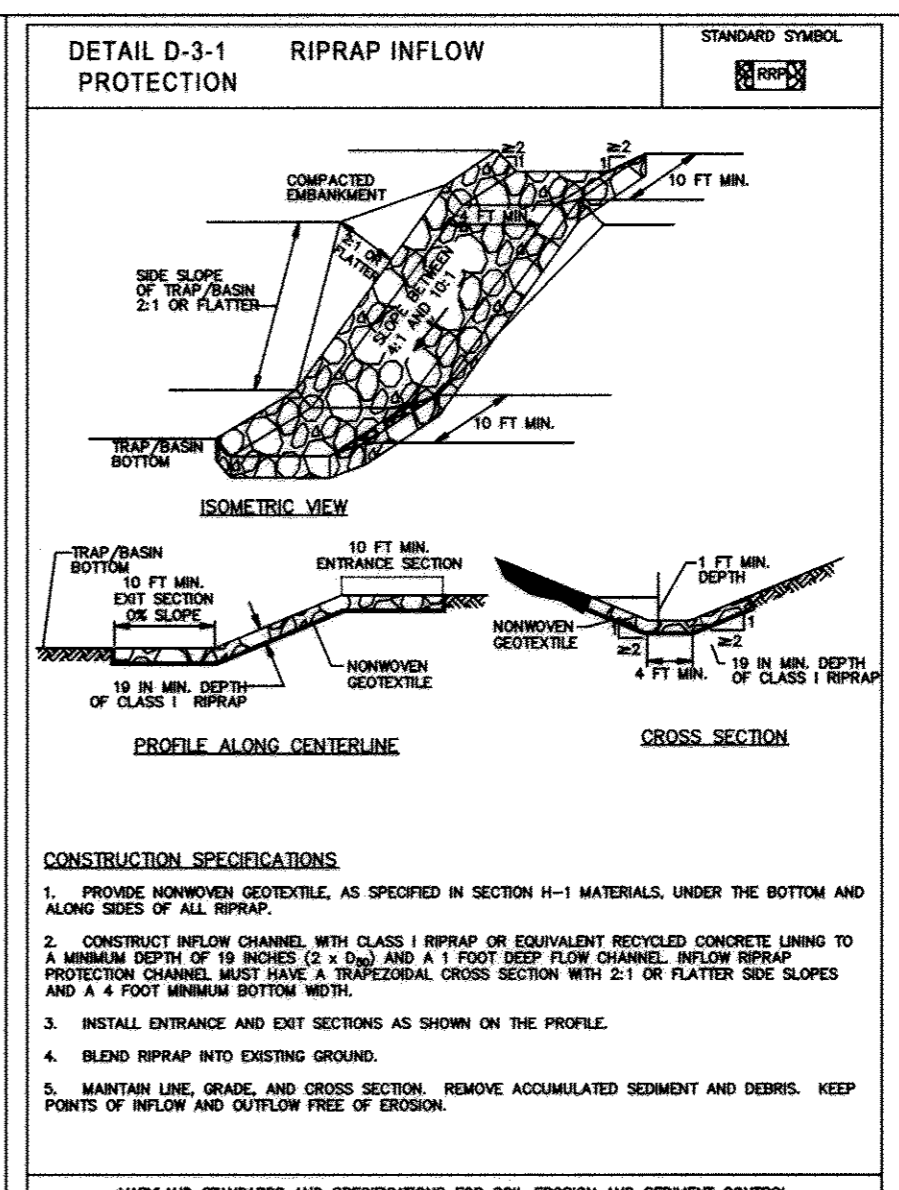
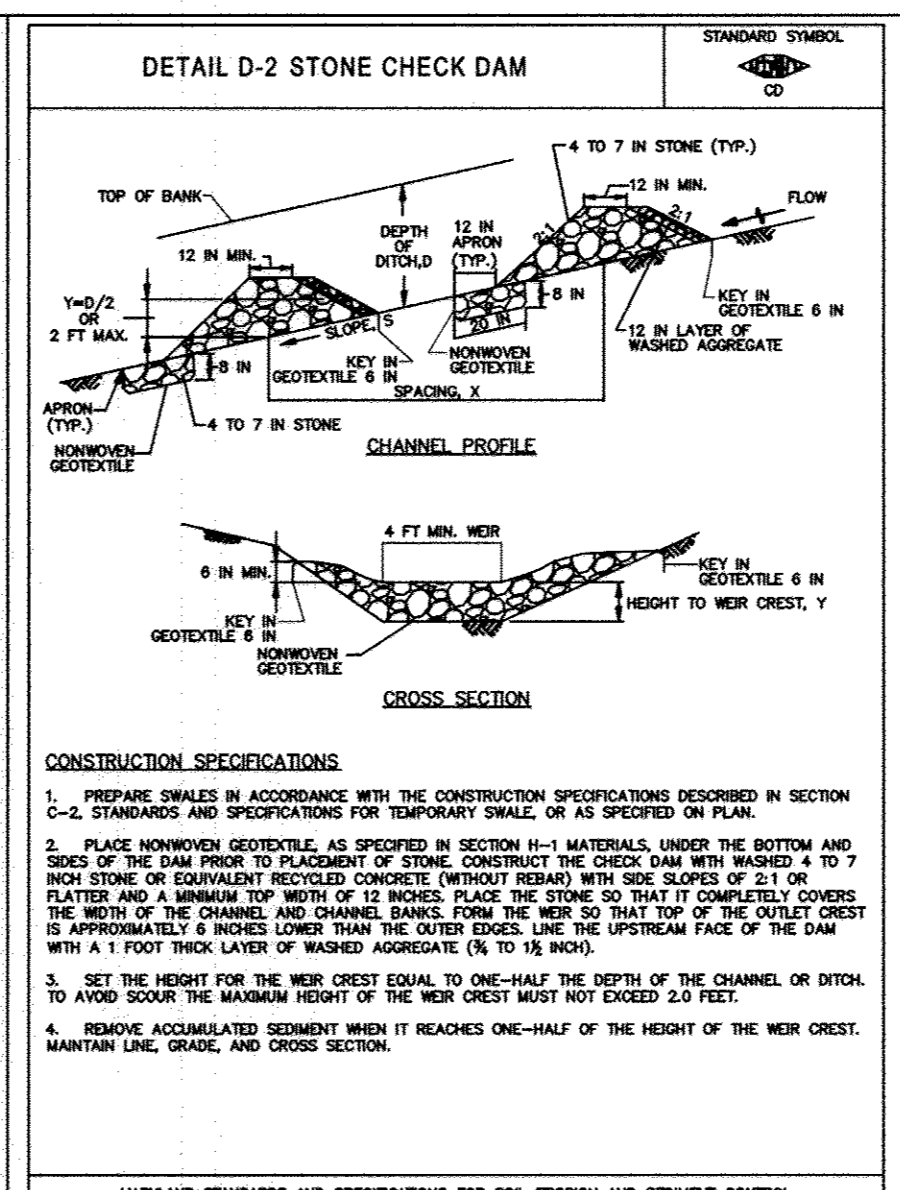
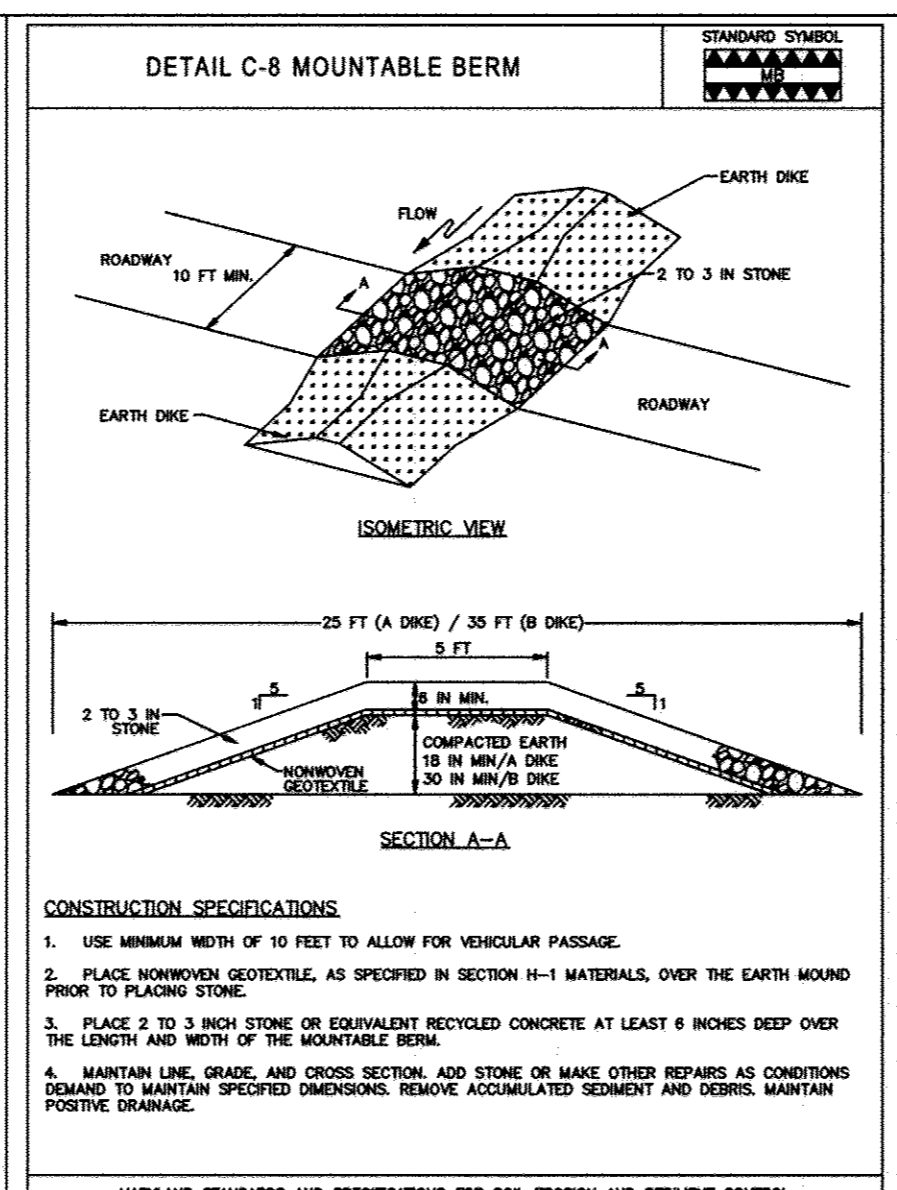
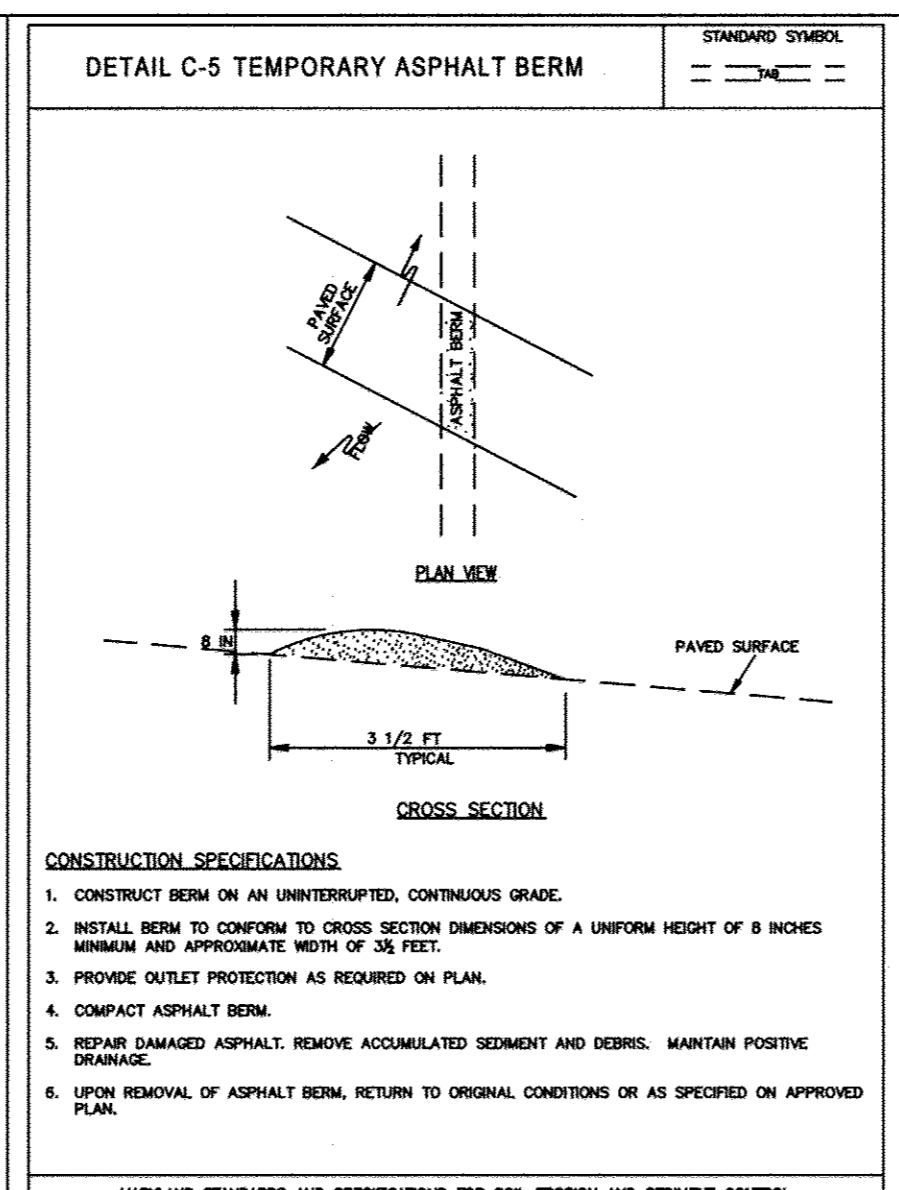
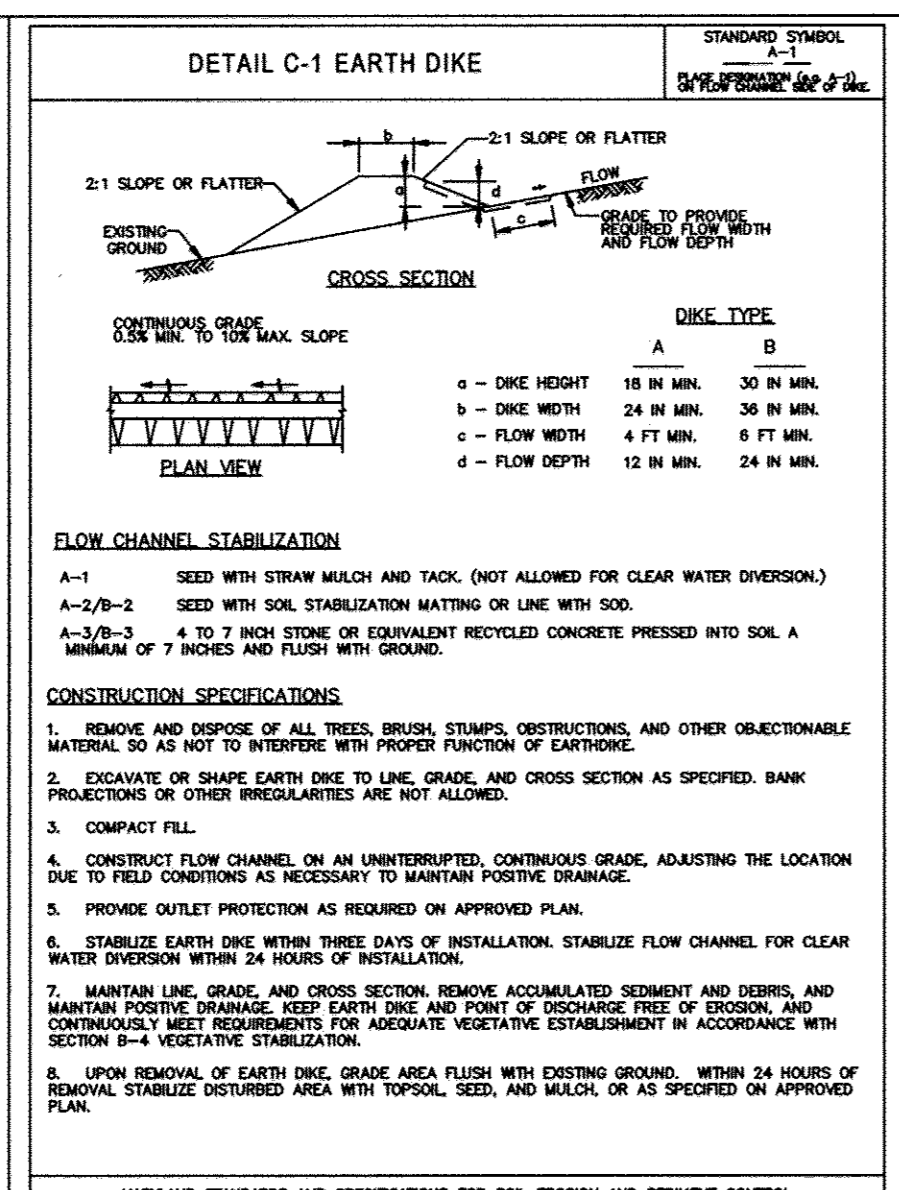
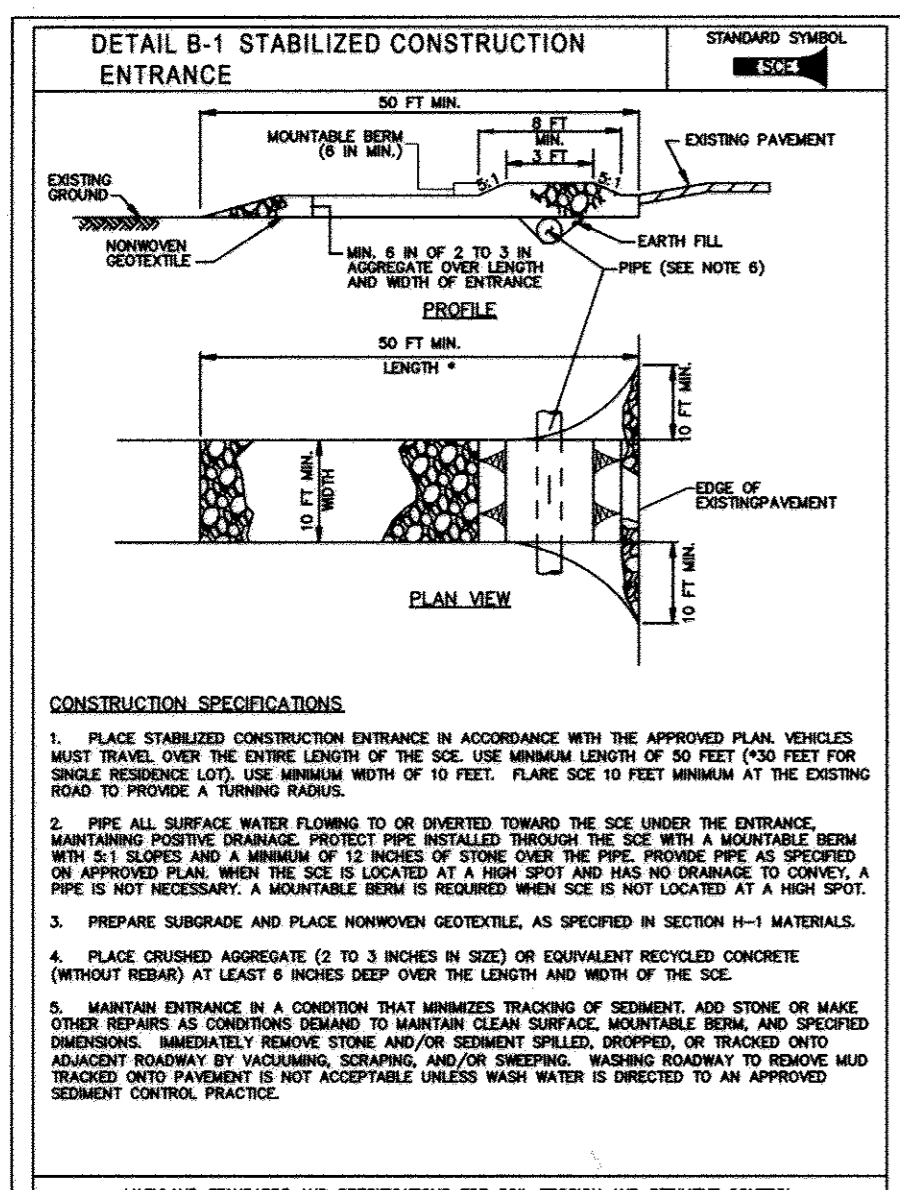
Date:	10-1-2014	Scale:	1" = 30'
Drawn By:	C.T.B.	Designed By:	B.S.
Approved By:	R.T.B.	Project No.:	27111245
Tax Map-Grid:	35-6	Zoning:	POR & NT

Sheet Title: **EROSION AND SEDIMENT CONTROL PLAN PHASE 4**

Discipline Number: **C11.03**

Sheet Number: **19 OF 42**

STATE OF MARYLAND PROFESSIONAL ENGINEER
 License No. 31089, 11-11-14



APPROVED: Howard County Department of Planning & Zoning
 Director: *Mark L. Guehl* 1/6/15
 Chief, Division of Land Development: *Kurt Schulz* 1-06-15
 Chief, Development Engineering Division: *Chad Edrington* 12-18-14

Rev: *1/6/15*
 Date: *1-06-15*
 Date: *12-18-14*

Rev: *1/6/15*
 Date: *1-06-15*
 Date: *12-18-14*

Rev: *1/6/15*
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 Date: *1-06-15*
 Date: *12-18-14*

Rev: *1/6/15*
 Date: *1-06-15*
 Date: *12-18-14*

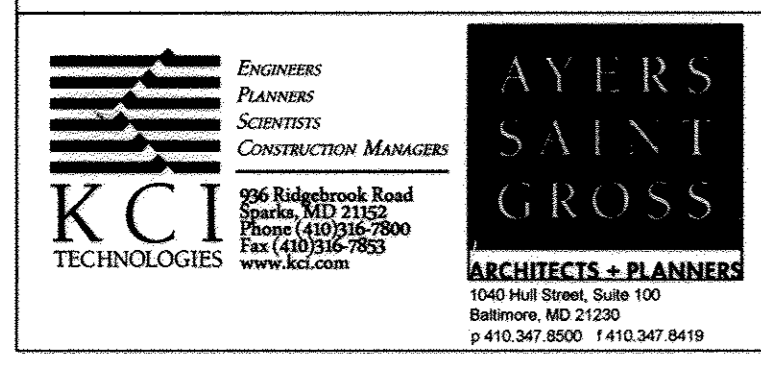
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John K. Robertson 11/12/14
 Howard Soil Conservation District
 ENGINEER'S CERTIFICATE
 "I certify that this plan for erosion and sediment control represents a practical and workable plan 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."
Richard E. Blitt 11-11-2014
 Signature of Engineer (print name below signature)
 DEVELOPER'S CERTIFICATE
 "I certify that all development and construction will be done according to these plans for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance of 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."
C. N. Nightingale 11-12-14
 Signature of Developer (print name below signature)



NO ASSAULT INFORMATION THIS SHEET

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURBS & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 1/12/14



APPROVED: Howard County Department of Planning & Zoning
 Director: *Mark L. Guehl* 1/6/15
 Chief, Division of Land Development: *Kurt Schulz* 1-06-15
 Chief, Development Engineering Division: *Chad Edrington* 12-18-14

Rev: *1/6/15*
 Date: *1-06-15*
 Date: *12-18-14*

Rev: *1/6/15*
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Rev: *1/6/15*
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 Date: *12-18-14*

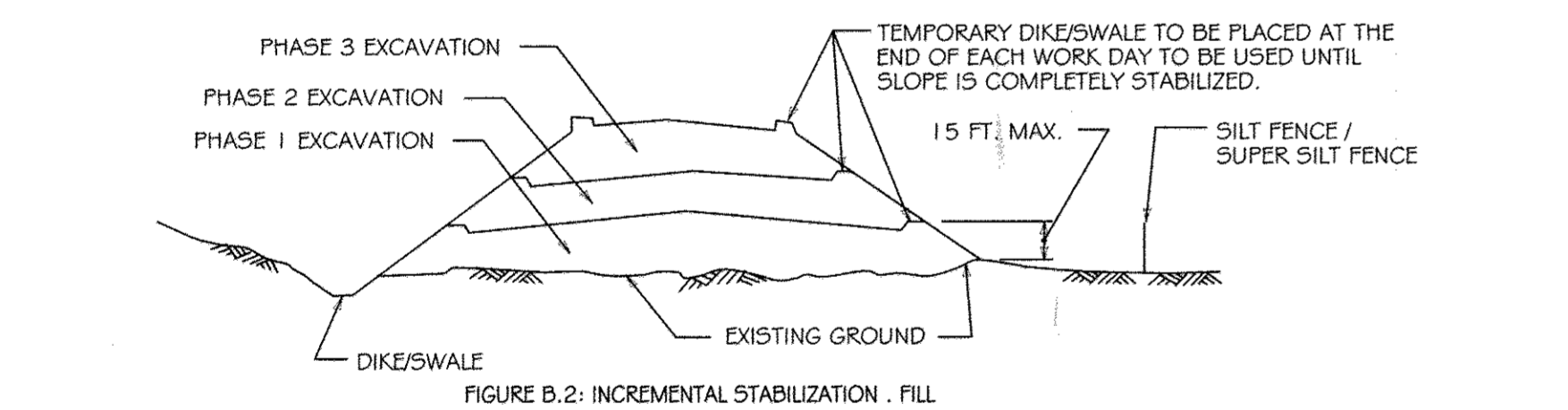
B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION USING VEGETATION AS COVER TO PROTECT EXPOSED SOIL FROM EROSION. PURPOSE TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON EXPOSED SOIL.

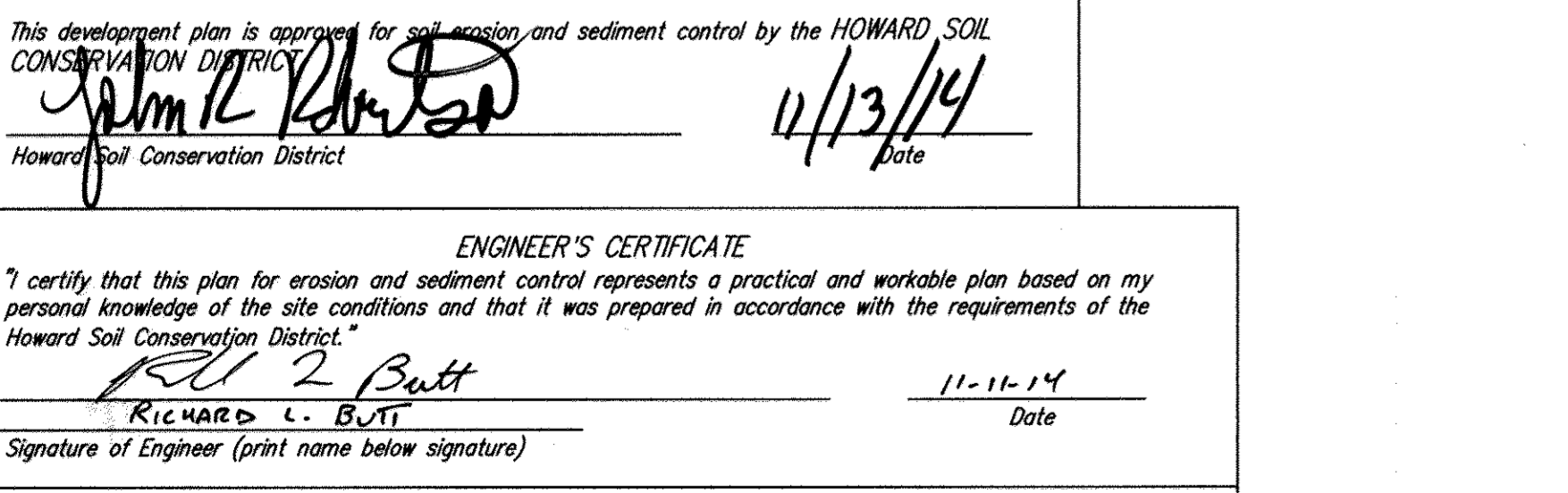
B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

DEFINITION ESTABLISHMENT OF VEGETATIVE COVER ON CUT AND FILL SLOPES. PURPOSE TO PROVIDE TIMELY VEGETATIVE COVER ON CUT AND FILL SLOPES AS WORK PROGRESSES.

- A. INCREMENTAL STABILIZATION - CUT SLOPES 1. EXCAVATE AND STABILIZE CUT SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL CUT SLOPES AS THE WORK PROGRESSES.



- B. INCREMENTAL STABILIZATION - FILL SLOPES 1. CONSTRUCT AND STABILIZE FILL SLOPES IN INCREMENTS NOT TO EXCEED 15 FEET IN HEIGHT. PREPARE SEEDBED AND APPLY SEED AND MULCH ON ALL SLOPES AS THE WORK PROGRESSES.



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT. ENGINEER'S CERTIFICATE: Richard C. Butt, 11-11-14. DEVELOPER'S CERTIFICATE: Signature of Developer, 11-12-14.

Logos for KCI Technologies, Richard C. Butt (Engineer), and Cheryl E. McNease (Developer).

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPERATION, 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.

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

- A. SOIL PREPARATION 1. TEMPORARY STABILIZATION A. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT...

- B. TOPSOILING 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH...

- C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING AREAS OF 5 ACRES OR MORE...

- A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES...

APPROVED: Howard County Department of Planning & Zoning. Signature of Director, 11/16/14. Signature of Chief, 12-18-14.

Table with 5 columns: Rev, Date, Description, By, Prepared For and Owner. It lists revision dates and descriptions of changes to the plan.

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.

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

- A. SEEDING 1. SPECIFICATIONS A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY...

- B. MULCHING 1. MULCH MATERIALS (IN ORDER OF PREFERENCE) A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR...

- DAILY STABILIZATION NOTE CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE STABILIZED BY THE END OF EACH WORK DAY. STABILIZATION SHALL BE AS FOLLOWS: FOR SIDEWALK AREAS OR AREAS TO BE PAVED...

B.3 PLANT HARDINESS ZONE. PLANT HARDINESS ZONE Gb. IF AREA TO BE VEGETATIVELY STABILIZED EXCEEDS 5 ACRES, THE FOLLOWING APPLIES: AT THE TIME OF FINAL GRADING, THE SOILS SHALL BE TESTED TO DETERMINE FERTILIZER AND LIME RATE.

CONTRACTOR NOTE: CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN.

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. 31 029 DURATION DATE: 11/21/14.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

DEFINITION TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS. PURPOSE TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

- 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.3 FOR THE APPROVED PLANT HARDINESS ZONE (FROM FIGURE B.3) AND ENTER THEM IN THE TEMPORAR SEEDING SUMMARY...

Table B.3 Temporary Seeding Rates, Depths, and Dates. Columns include Plant Species, Seeding Rate (lb/ac), Seeding Depth (inches), and Seeding Rates for 5B and 6A, 7A and 7B.

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

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.

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

- GENERAL USE A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2, ENTER SELECTED MIXTURES, APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.

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. 31 029 DURATION DATE: 11/21/14.



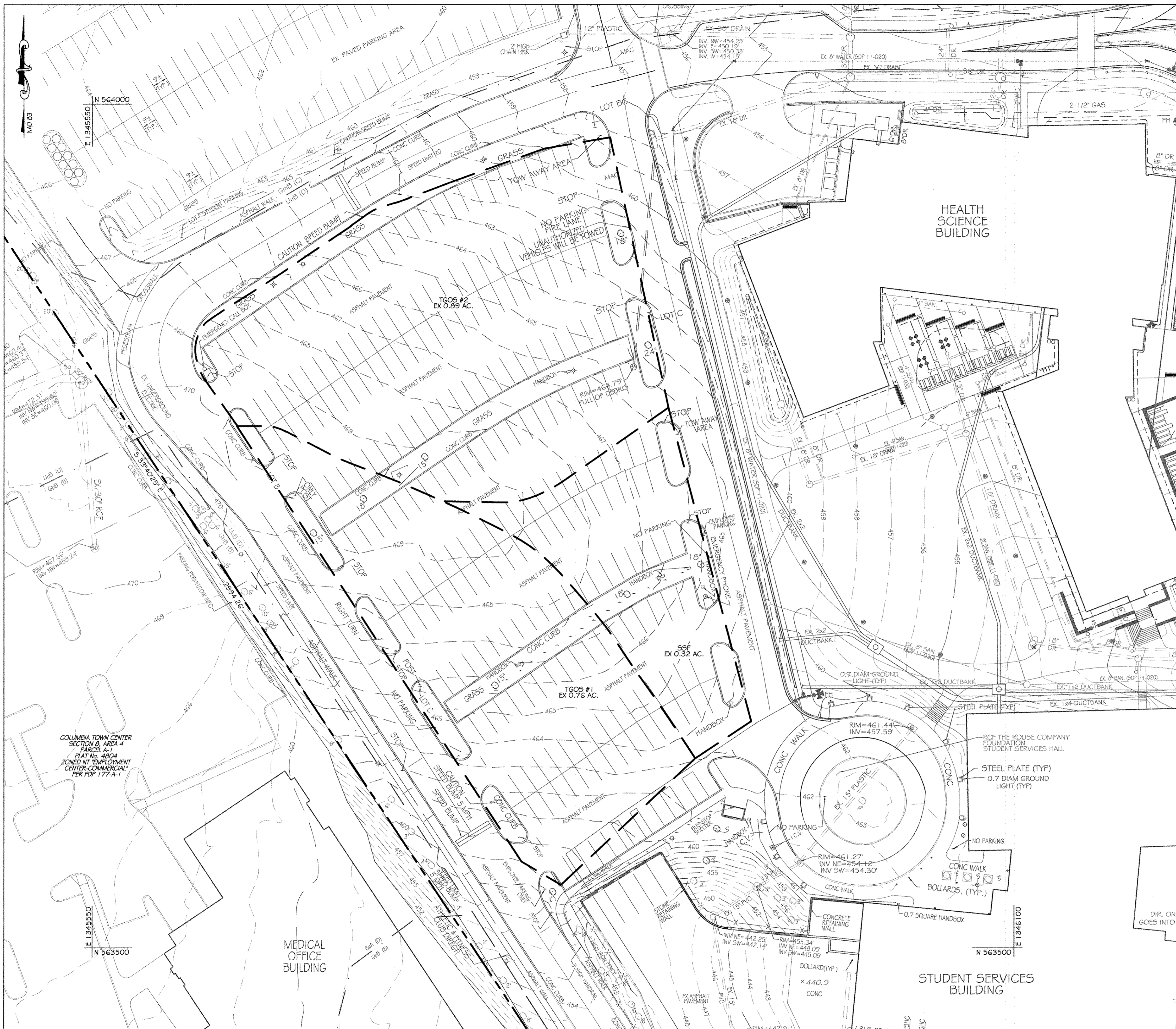
Logos for Engineers, Planners, Scientists, Construction Managers, and Architects + Planners.

APPROVED: Howard County Department of Planning & Zoning. Signature of Director, 11/16/14. Signature of Chief, 12-18-14.

Table with 5 columns: Rev, Date, Description, By, Prepared For and Owner. It lists revision dates and descriptions of changes to the plan.

Howard Community College - Science, Engineering & Technology Building. SITE PACKAGE PARCEL 47 TAX MAP: 35, GRID: 6 TAX ACCOUNT #: 045886. HOWARD COUNTY, MARYLAND.

Discipline Number: C11.05. Sheet Number: 21 OF 42. SDP 14-066



EROSION AND SEDIMENT CONTROL EXISTING DRAINAGE AREA MAP

SCALE: 1" = 30'

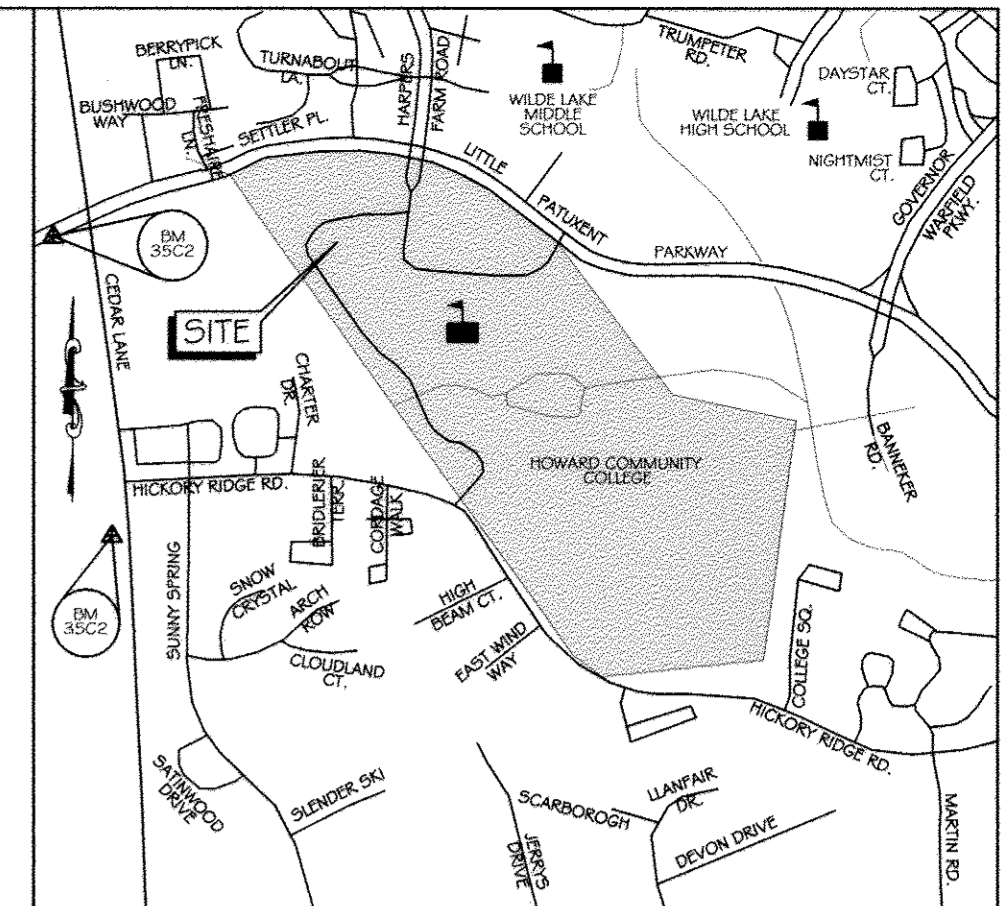
BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 35

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.830	1344204.150	464.133
35C2 HOW CO MON	562148.450	1344554.472	452.267

LEGEND

--- GmB (C) --- DRAINAGE AREA LINE
 --- UuB (D) --- SOILS LINE



VICINITY MAP

SCALE 1" = 1000'
 ADC MAP: 15 GRID: D6

COLUMBIA TOWN CENTER SECTION 3, AREA 4 PARCEL A PLAT NO. 4604 ZONED NT "EMPLOYMENT CENTER-COMMERCIAL" PER PER 177-A-1



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT

Yilmaz K. Robertson 11/13/14
 Howard Soil Conservation District Date

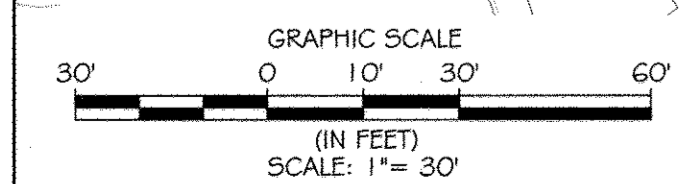
NO AS-BUILT DRAWINGS ALLOWED THIS SHEET

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.
Yilmaz K. Robertson 11-11-14
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to these plans 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.
Yilmaz K. Robertson 11-12-14
 Signature of Developer (print name below signature) Date

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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KCI TECHNOLOGIES
 ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
 896 Ridgebrook Road, Suite 215
 Rockville, MD 20850
 Phone: (410) 336-7800
 Fax: (410) 336-7863
 www.kci.com

AYERS SAINI GROSS ARCHITECTS & PLANNERS
 1000 Hill Street, Suite 100
 Baltimore, MD 21230
 p 410-347-9500 f 410-347-8419

APPROVED: Howard County Department of Planning & Zoning

<i>David P. Gough</i>	4/6/15	Date
<i>Kathleen...</i>	1-06-15	Date
<i>Chad...</i>	12-18-14	Date

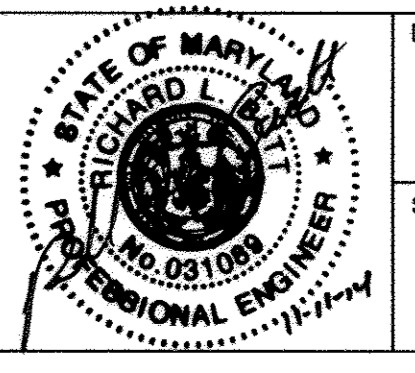
Rev:	Date:	Description:	By:
1			
2			
3			
4			

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4296

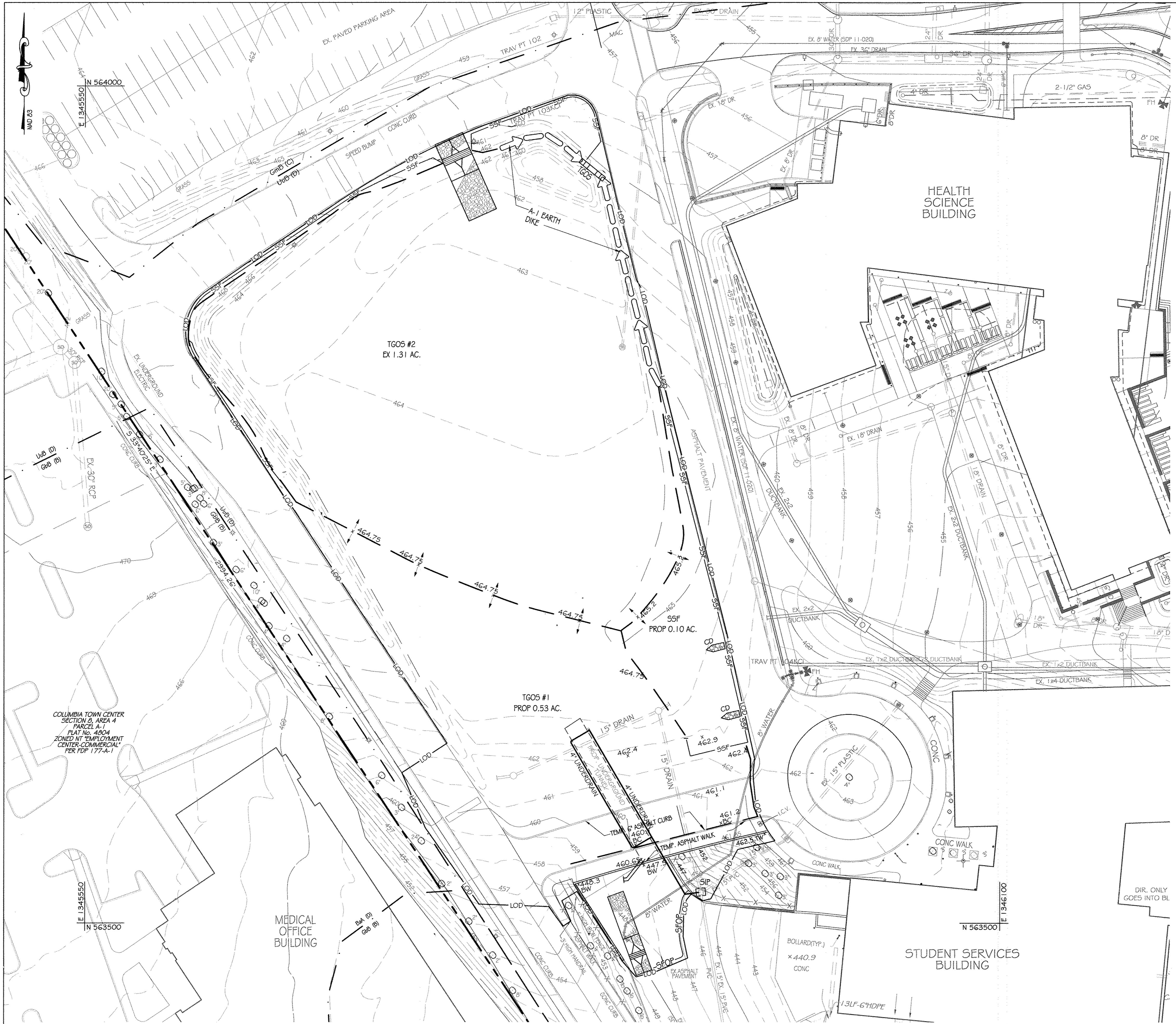
Project Name:
Howard Community College - Science, Engineering & Technology Building
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

Date:	10-1-2014	Scale:	1" = 30'
Drawn By:	C.T.B.	Designed By:	B.S.
Approved By:	R.T.B.	Project No.:	27111245
Tax Map-Grid:	35-6	Zoning:	POR & NT

Sheet Title:
EROSION AND SEDIMENT CONTROL EXISTING DRAINAGE AREA MAP



Discipline Number:
C11.07
 Sheet Number:
23 OF 42

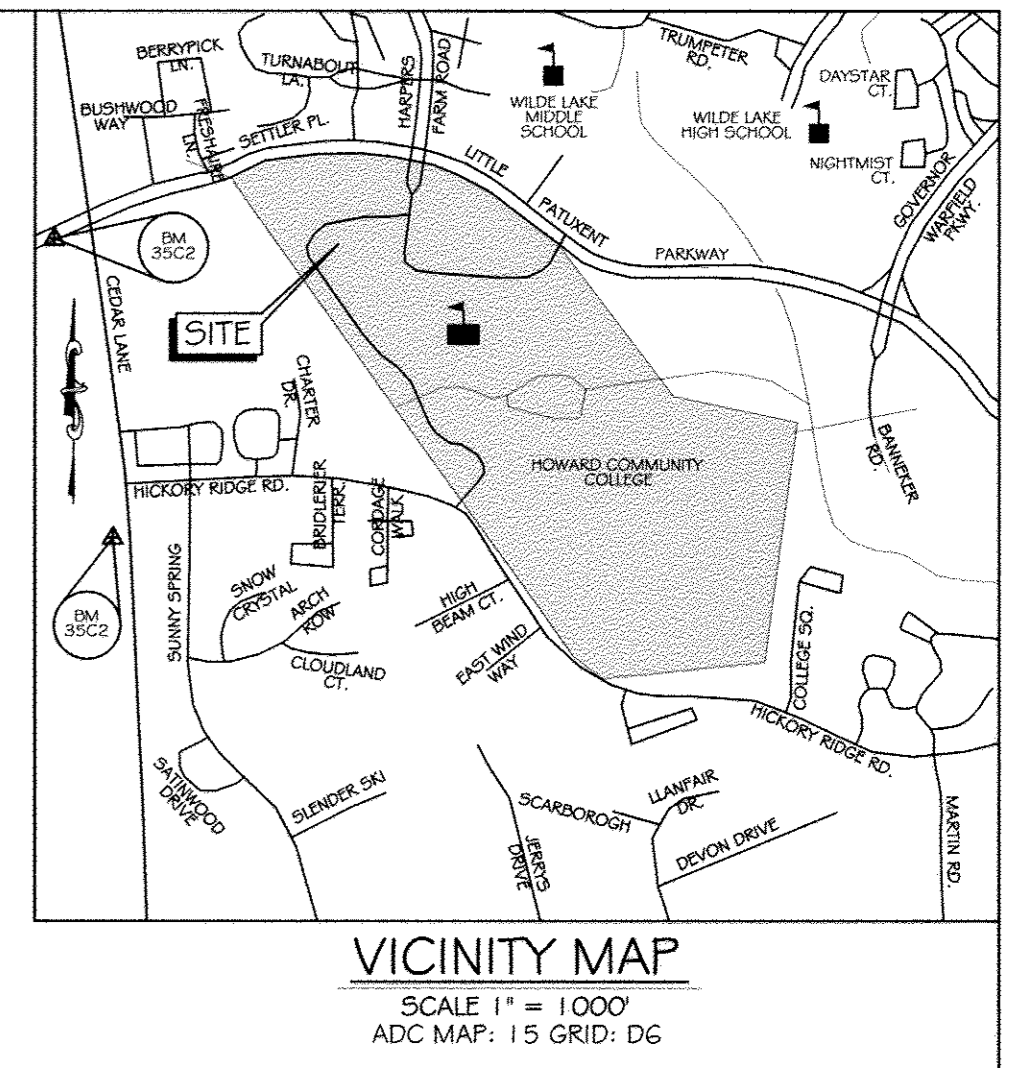


BENCHMARK DATA
 HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO.'S

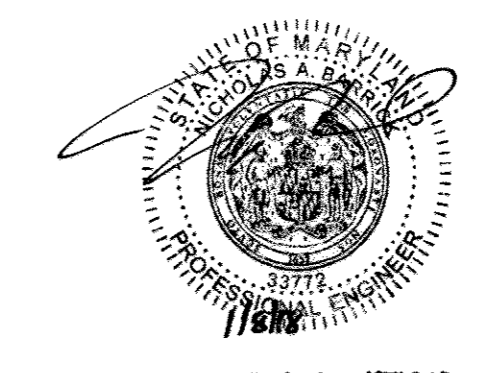
	NORTHING	EASTING	ELEV.
35C2	HOW CO MON 563920.830	1344204.150	464.133
35C2	HOW CO MON 562148.450	1344554.472	452.267

LEGEND

- CIP [] CURB INLET PROTECTION
- SIP [] STANDARD INLET PROTECTION
- DRAINAGE AREA LINE
- - - - - LIMIT OF DISTURBANCE
- DIVERSION DIKE
- SSF SUPER SILT FENCE
- SFOP SILT FENCE ON PAVEMENT
- GMB (C) SOILS LINES
- UWB (D) TEMPORARY GABION OUTLET STRUCTURE
- TGOS TEMPORARY STONE OUTLET STRUCTURE
- TSOS STABILIZED CONSTRUCTION ENTRANCE



COLUMBIA TOWN CENTER
 SECTION 2, AREA 4
 PARCEL A-1
 PLAT No. 4904
 ZONED M1 EMPLOYMENT
 CENTER COMMERCIAL
 PER FDP 177-A-1



NO ABOUT INFORMATION
 THIS SHEET

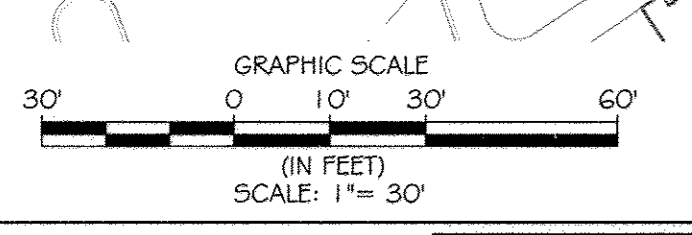
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John R. Blanton 11/13/14
 Howard Soil Conservation District Date

ENGINEER'S CERTIFICATE
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Richard L. Dutt 11-11-14
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
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Chuck Nightingale 11-12-14
 Signature of Developer (print name below signature) Date

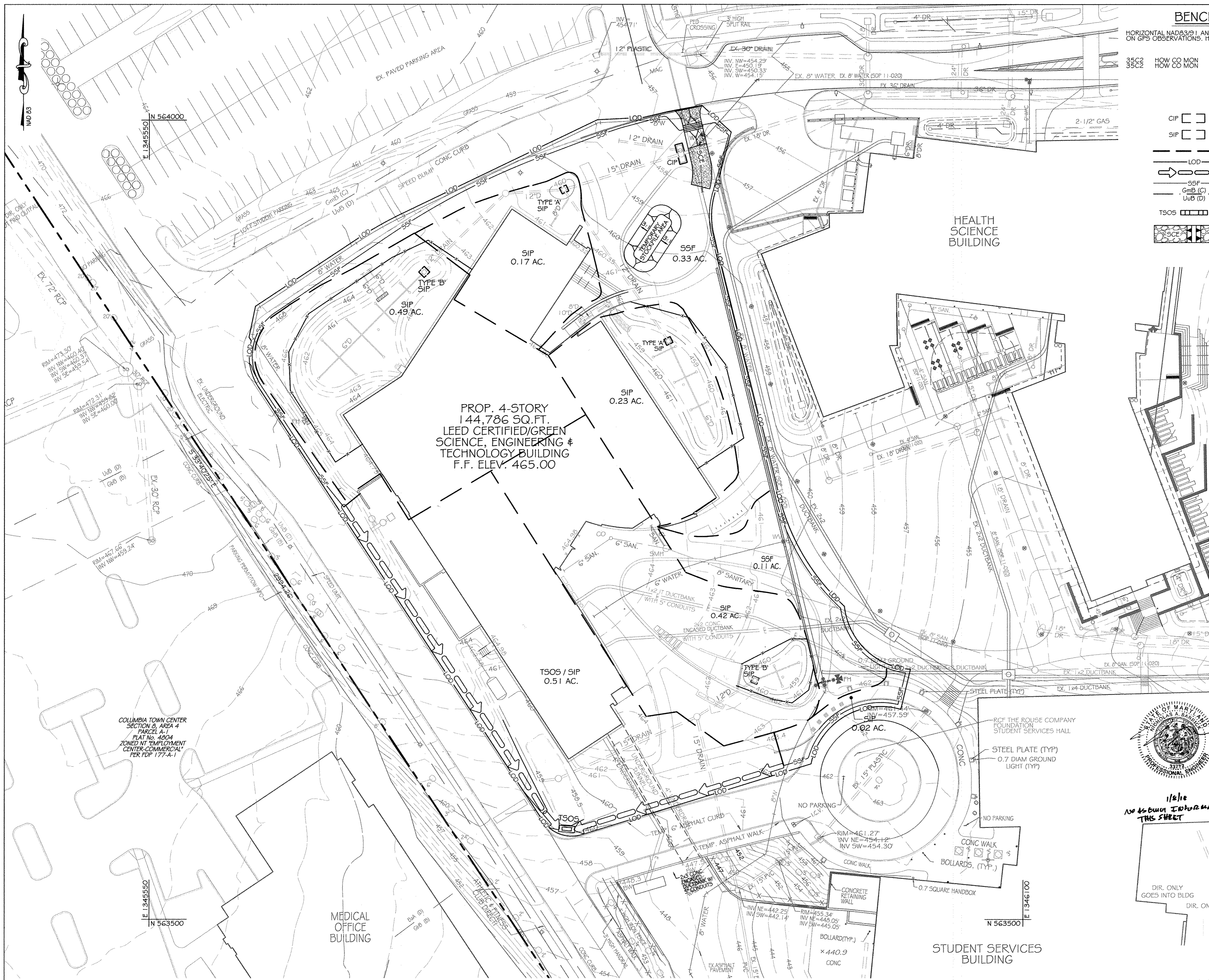
CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14



EROSION AND SEDIMENT CONTROL INTERMEDIATE DRAINAGE AREA MAP
 SCALE: 1" = 30'

		APPROVED: Howard County Department of Planning & Zoning	Rev:	Date:	Description:	By:	Prepared For and Owner:	Project Name:	Date:	Scale:	Sheet Title:		Discipline Number: C11.08 Sheet Number: 24 OF 42
		<i>Joseph P. Wynn</i> 1/4/15 Director <i>Kate Schuman</i> 1-06-15 Chief, Division of Land Development <i>Chuck Nightingale</i> 12-18-14 Chief, Development Engineering Division	Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4286	Howard Community College - Science, Engineering & Technology Building SITE PACKAGE PARCEL 47, TAX MAP: 35, GRID: 6 TAX ACCOUNT #: 045888	10-1-2014 Drawn By: C.T.B. Approved By: R.T.B. Tax Map-Grid: 35-6	1" = 30' B.S. Project No: 27111245 Zoning: POR & NT	EROSION AND SEDIMENT CONTROL INTERMEDIATE DRAINAGE AREA MAP						



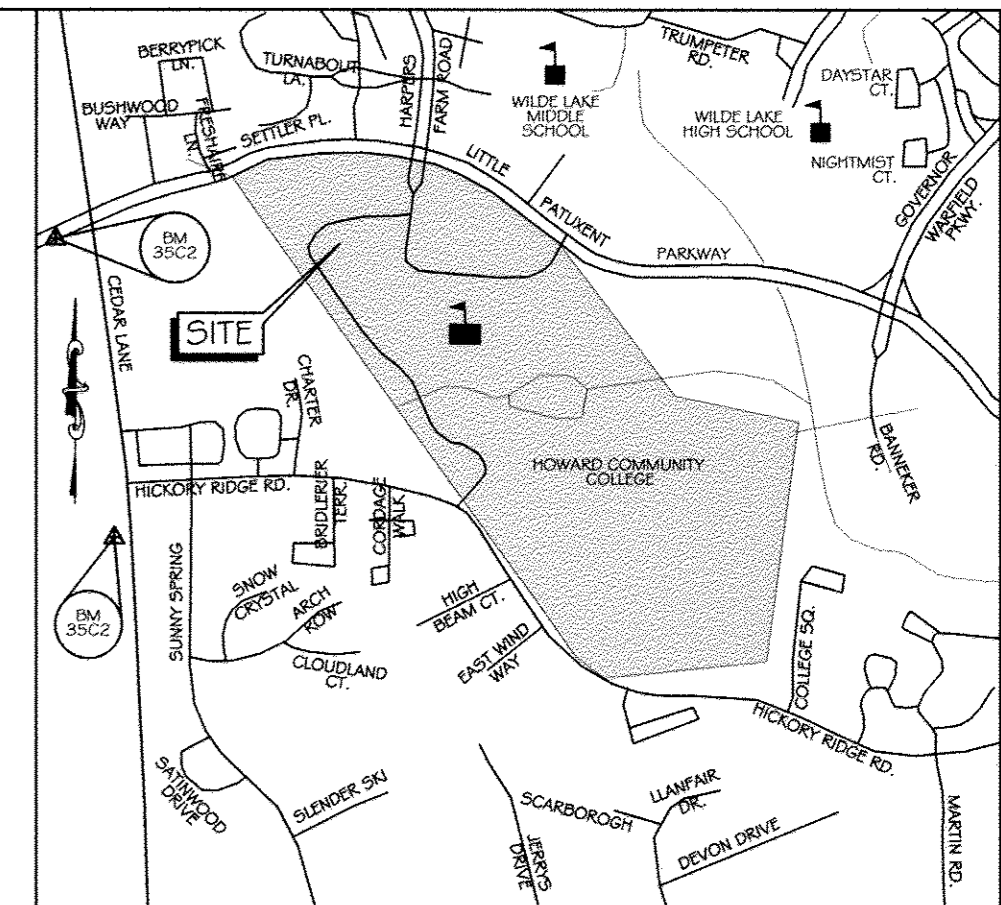
BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2	563920.830	1344204.150	464.133
35C2	562148.450	1344554.472	452.267

LEGEND

- CIP [] CURB INLET PROTECTION
- SIF [] STANDARD INLET PROTECTION
- DRAINAGE AREA LINE
- LOD --- LIMIT OF DISTURBANCE
- DIVERSION DIKE
- SUPER SILT FENCE
- GmB (C) --- SOILS LINES
- UuB (D) --- SOILS LINES
- TSOS [] TEMPORARY STONE OUTLET STRUCTURE
- [] STABILIZED CONSTRUCTION ENTRANCE



VICINITY MAP

SCALE 1" = 1000'
ADC MAP: 15 DGG: D6

PROP. 4-STORY
144,786 SQ.FT.
LEED CERTIFIED/GREEN
SCIENCE, ENGINEERING &
TECHNOLOGY BUILDING
F.F. ELEV. 465.00

EROSION AND SEDIMENT CONTROL PROPOSED DRAINAGE AREA MAP

SCALE: 1" = 30'



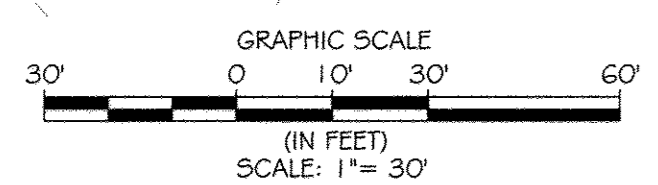
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. Robinson 11/13/14
Howard Soil Conservation District Date

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.
Richard L. Butt 11-11-14
Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to these plans 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 this project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
Chris N. Nighthale 11-12-14
Signature of Developer (print name below signature) Date

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURBS & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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KCI TECHNOLOGIES
ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS
296 Baltchuck Road
Baltimore, MD 21230
Phone: 410-272-7500
Fax: 410-272-7500
www.kci.com

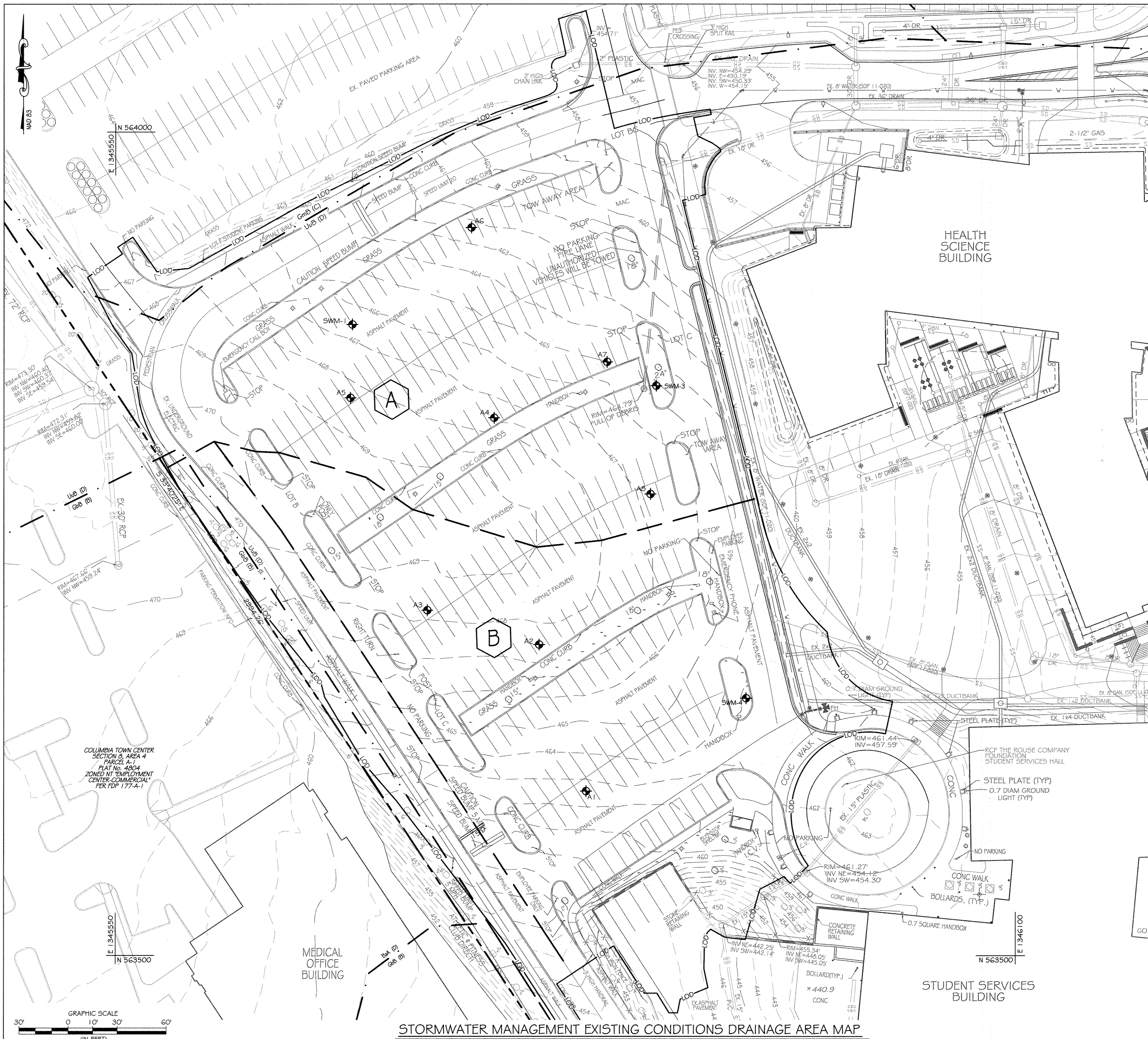
AYERS SAINT GROSS ARCHITECTS & PLANNERS
100 Hill Street, Suite 100
Baltimore, MD 21202
p 410-241-8500 f 410-241-8419

APPROVED:	Howard County Department of Planning & Zoning	Rev:	Date:	Description:	By:	Prepared For and Owner:
<i>Marsha McCoy</i>		1	11/11/14			Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nighthale 410-772-4296
<i>Ketle...</i>		2	1-06-15			
<i>...</i>		3	12-18-14			

Howard Community College - Science, Engineering & Technology Building
SHEET PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

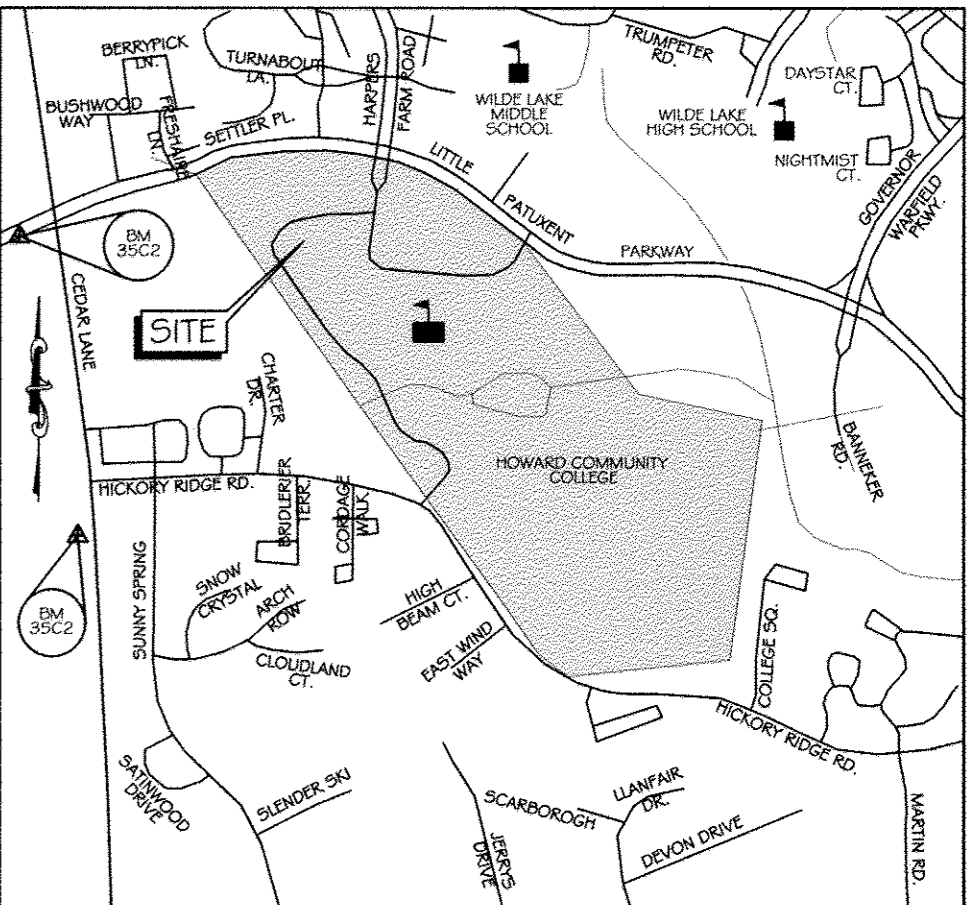
Date:	Scale:	Sheet Title:
10-1-2014	1" = 30'	EROSION AND SEDIMENT CONTROL PROPOSED DRAINAGE AREA MAP
Drawn By: C.T.B.	Designed By: B.S.	
Approved By: R.T.B.	Project No: 27111245	
Tax Map-Grid: 35-6	Zoning: POR & NT	

Discipline Number: **C11.09**
Sheet Number: **25 OF 42**



BENCHMARK DATA
 HORIZONTAL NAD83(9) AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2	563920.830	1344204.150	464.133
35C2	562148.450	1344554.472	452.267



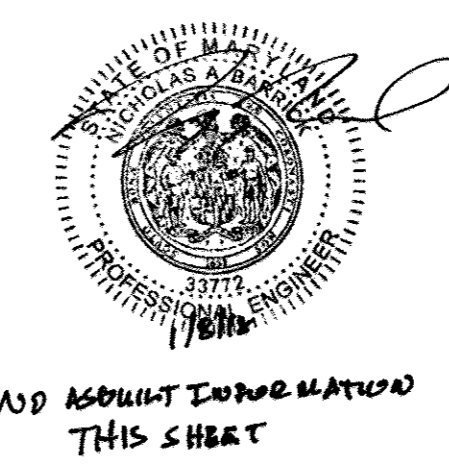
VICINITY MAP
 SCALE 1" = 1000'
 ADC MAP: 15.DIG: D6

LEGEND

---	PROPERTY LINE
-450-	EX. INDEX CONTOUR
-451-	EX. INTERMEDIATE CONTOUR
⊙	EX. LIGHT POLE
⊙	EX. 15" DRAIN
⊙	EX. GAS
⊙	EX. 6" SANITARY
⊙	EX. ELECTRIC
⊙	EX. TELEPHONE
⊙	EX. CABLE TV
⊙	EX. 8" WATER
---	LIMIT OF DISTURBANCE
---	SOILS LINE
---	DRAINAGE AREA DIVIDE
---	DRAINAGE AREA DESIGNATION
⊙	SOIL BORING

SOILS TABLE

SOIL UNIT	SOIL UNIT NAME	HYDROLOGIC SOIL GROUP
UuB (D)	Urban land-Udorthents complex, 0 to 8 percent slopes	D
GmB (C)	Glenville Silt Loam, 3 to 8 percent slopes	C
GbB (B)	Glandstone Loam, 3 to 8 percent slopes	B
BaA (D)	Baile Silt Loam, 0 to 3 percent slopes	D



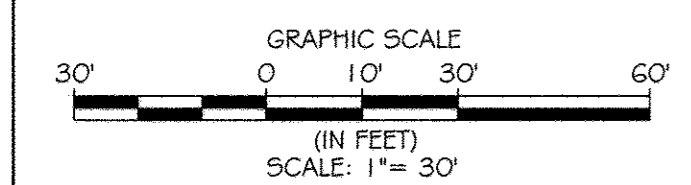
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John P. Krawtch
 Howard Soil Conservation District
 11/13/14 Date

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.
Richard L. Butt
 Signature of Engineer (print name below signature)
 11-11-14 Date

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to these plans 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 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.
C. NIGHTINGALE
 Signature of Developer (print name below signature)
 11-12-14 Date

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/12/14



STORMWATER MANAGEMENT EXISTING CONDITIONS DRAINAGE AREA MAP
 SCALE: 1" = 30'

KCI TECHNOLOGIES
 396 Ridgely Road
 Gaithersburg, MD 20878
 Phone: (301) 796-7800
 Fax: (301) 796-7863
 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
 1000 Wald Street, Suite 100
 Baltimore, MD 21200
 P: 410.347.8000 F: 410.347.8419

APPROVED: Howard County Department of Planning & Zoning
Janet M. Gagliardi 11/4/15
 Director
K. Stroh 1-06-15
 Chief, Division of Land Development
Paul E. ... 12-18-14
 Chief, Development Engineering Division

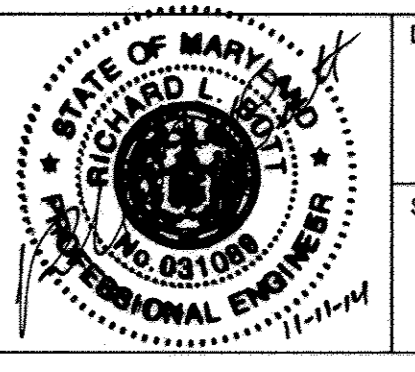
Rev:	Date:	Description:	By:
1			
2			
3			
4			
5			

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4286

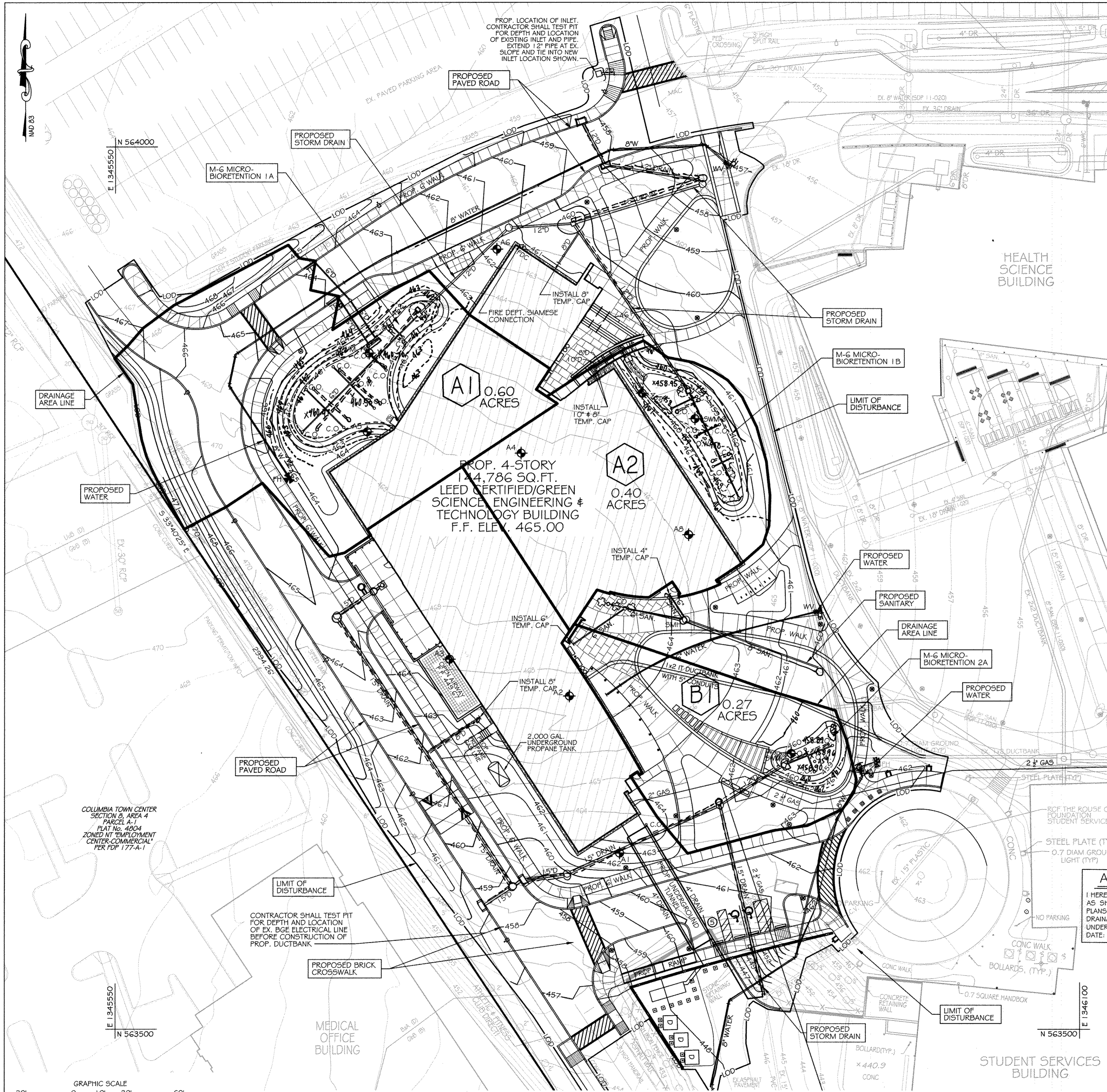
Howard Community College - Science, Engineering & Technology Building
 SITE PACKAGE
 PARCEL: 47. TAX MAP: 35. GRID: 6
 TAX ACCOUNT #: 045888
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

Date: 10-1-2014
 Scale: 1" = 30'
 Drawn By: C.T.B.
 Designed By: B.S.
 Approved By: R.T.B.
 Project No: 27111245
 Tax Map-Grid: 35-6
 Zoning: POR & NT

Sheet Title:
EXISTING CONDITIONS STORMWATER MANAGEMENT DRAINAGE AREA MAP



Discipline Number:
C12.00
 Sheet Number:
26 OF 42



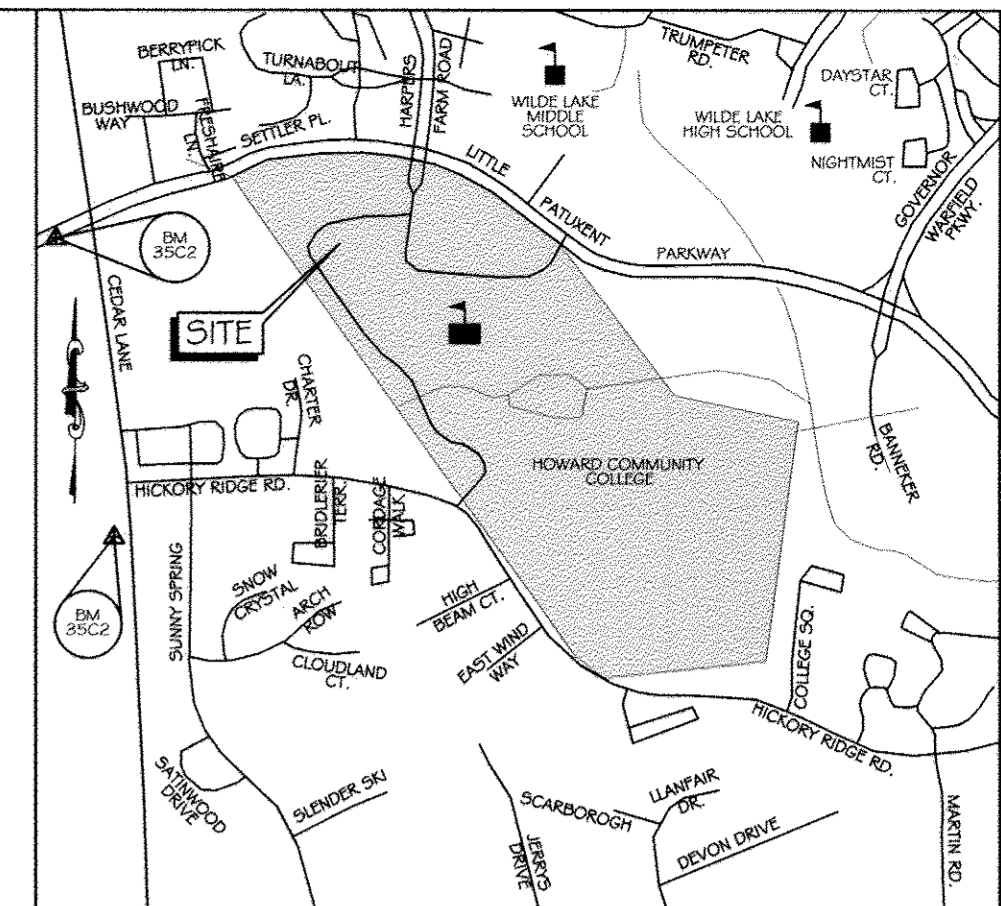
BENCHMARK DATA

HORIZONTAL NAD83(91) AND VERTICAL NGVD29 CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.830	1344204.150	464.133
35C2 HOW CO MON	562148.450	1344554.472	452.267

LEGEND

- EX. SANITARY MANHOLE
- EX. STORM DRAIN MANHOLE
- EX. ELECTRIC MANHOLE
- EX. LIGHT POLE
- EX. WATER METER
- EX. SIGN EX. UTILITY POLE
- EX. BOLLARD POST
- EX. DECIDUOUS TREE
- EX. CONIFEROUS TREE
- EX. GAS VALVE
- EX. GUY WIRE
- EX. WATER VALVE
- EX. MINOR CONTOUR
- EX. MAJOR CONTOUR
- EX. FIRE HYDRANT
- EX. CLEANOUT
- EX. PLANTING AREA
- EX. ELECTRIC BOX
- EX. SANITARY PIPE
- EX. STORM PIPE
- EX. ELECTRIC
- EX. TELEPHONE
- EX. CABLE TV
- LIMIT OF DISTURBANCE
- DRAINAGE AREA DESIGNATION
- DRAINAGE AREA DIVIDE
- PROP. TEE CONNECTION
- PROP. WATER VALVE
- PROP. FIRE HYDRANT
- PROP. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. BUILDING
- PROP. EDGE OF PAVEMENT
- SOILS LINE AND DESIGNATION
- PROP. CLEANOUT
- PROP. OBSERVATION WELL



VICINITY MAP

SCALE 1" = 1000'
ADC MAP: 15 GRID: D6

PROPOSED CONDITION DRAINAGE AREA DISCHARGE SUMMARY

WATERSHED	AREA	ACRES	Tc	RCN	DISCHARGE (SEE TR-20)		
					Q1	Q10	Q100
LITTLE PATUXENT	A1	0.60	0.10	90	1.5	3.5	5.2
	A2	0.41	0.10	92	1.1	2.5	3.6
	BYPASS A	0.25	0.10	94	0.7	1.6	2.3
	B1	0.27	0.10	88	0.6	1.5	2.3
	BYPASS B	0.65	0.10	93	1.8	4.0	5.8
TOTAL					5.7	13.1	19.2

DRAINAGE AREA SUMMARY TABLE

WATERSHED	FACILITY NO.	ACRES	IMP. AC.	PERVIOUS AREA	WOODS	FACILITY TYPE
LITTLE PATUXENT	1A	0.60	0.32	0.28	0.00	MICRO-BIORETENTION M-6
	1B	0.41	0.28	0.13	0.00	MICRO-BIORETENTION M-6
	BYPASS A	0.25	0.20	0.05	0.00	-
	2A	0.27	0.12	0.15	0.00	MICRO-BIORETENTION M-6
	BYPASS B	0.65	0.48	0.17	0.00	-
TOTAL AREA =		2.18 ACRES				

STORMWATER MANAGEMENT SUMMARY TABLE

WATERSHED	DA #	FACILITY NO.	FACILITY TYPE	ESDv				DISCHARGE (cfs)						
				TARGET		PROVIDED		TREATED		REQUIRED		Cv (Q1)		
				Pe	ESDv(CF)	Pe	ESDv(CF)	ESDv(CF)	ESDv(CF)	ESDv(CF)	EX.	PROP.	EX.	PROP.
LITTLE PATUXENT	A1	1A	MICRO-BIORETENTION M-6	2.0	2,267	2.6	3,046	3,046	-	-	-	-	-	-
	A2	1B	MICRO-BIORETENTION M-6	1.9	1,911	2.6	2,659	2,659	-	-	-	-	-	-
	B1	2A	MICRO-BIORETENTION M-6	0.7	293	2.6	1,119	1,119	-	-	-	-	-	-
TOTAL =				4.471	-	6.824	6.824	-	5.7	5.7	1.3	13.1	19.1	19.2

SUMMARY: TO ACHIEVE ENVIRONMENTAL SITE DESIGN REQUIREMENTS, THREE (3) MICRO-BIORETENTION (M-6) FACILITIES HAVE BEEN USED. THE DISCHARGE EVENTUALLY FLOWS TO THE LITTLE PATUXENT RIVER.
CONCLUSION: THE TREATED ESDv (6,024 CF) IS GREATER THAN THE REQUIRED (4,471 CF). THEREFORE, ENVIRONMENTAL SITE DESIGN HAS BEEN ACHIEVED.

SOILS TABLE

KEY	DESCRIPTION	HYDRIC (Y/N)	K-VALUE
Uu(B)	Urban land-Udorthents complex, 0 to 8 percent slopes	N	0.22

AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK PE# 33772. DATE: 06-16-2019



This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John R. Redden
Howard Soil Conservation District
11/13/14 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.
Richard L. Butt
Richard L. Butt
Signature of Engineer (print name below signature)
11-16-14 Date

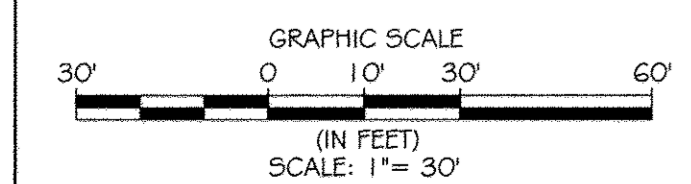
DEVELOPER'S CERTIFICATE
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Chuck Nighthale
Chuck Nighthale
Signature of Developer (print name below signature)
11-17-14 Date

CONTRACTOR NOTE:
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STORMWATER MANAGEMENT DEVELOPED CONDITIONS DRAINAGE AREA MAP

SCALE: 1" = 30'



KCI TECHNOLOGIES
ENGINEERS PLANNERS ARCHITECTS & CONSTRUCTION MANAGERS
390 Ridgebank Road
Baltimore, MD 21230
Phone: (410) 526-7800
Fax: (410) 526-7880
www.kci.com

AYERS SAINT GROSS ARCHITECTS & PLANNERS
1000 Hill Street, Suite 100
Baltimore, MD 21230
p 410-247-8500 f 410-347-8419

APPROVED: Howard County Department of Planning & Zoning
Frank M. Angelo
Director
1/6/15 Date
Richard L. Butt
Chief, Division of Land Development
1-06-15 Date
Chuck Nighthale
Chief, Development Engineering Division
12-18-14 Date

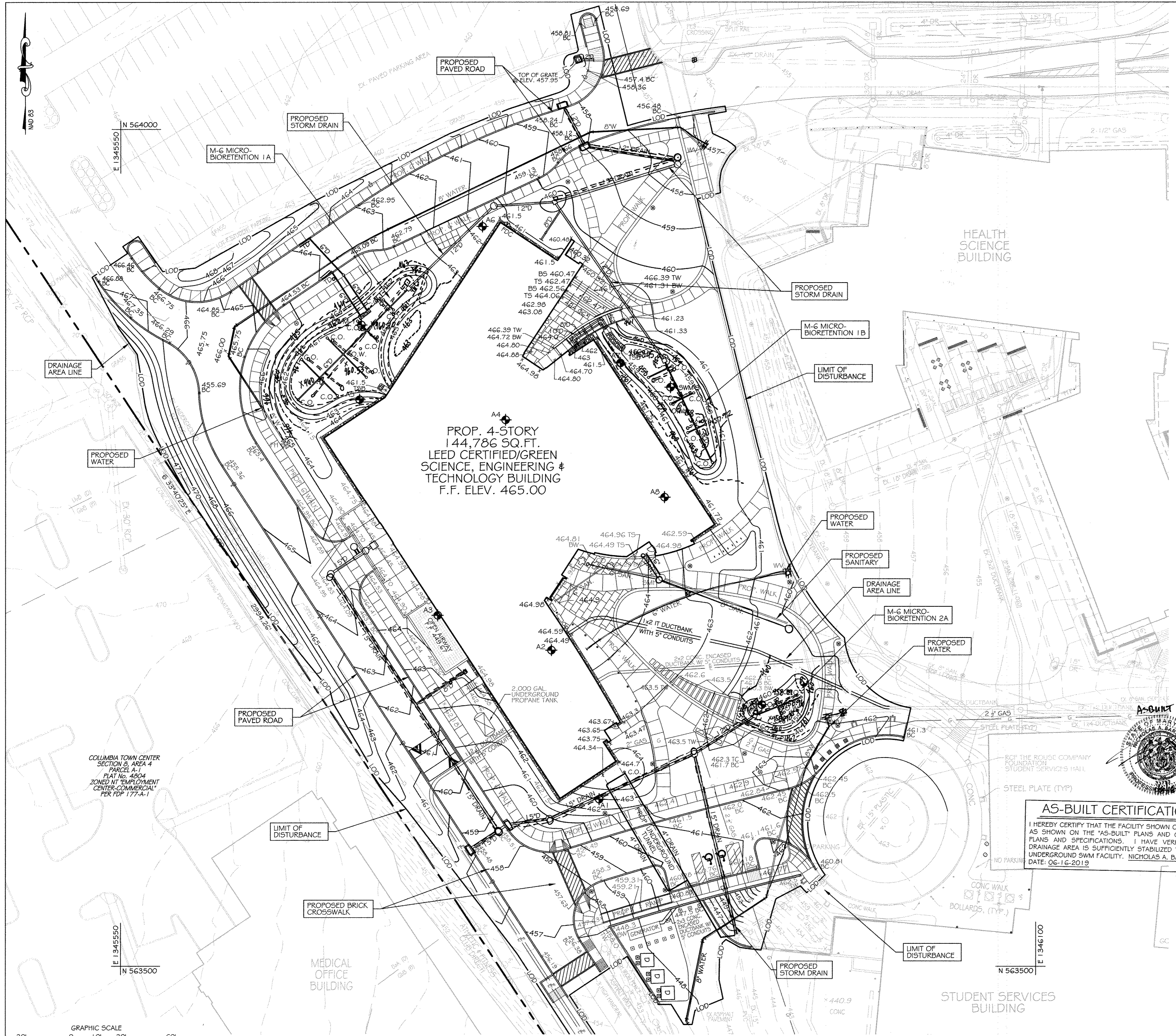
Rev:	Date:	Description:	By:
1	1/6/15		
2	1-06-15		
3			
4			
5			

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nighthale
410-772-4296

Howard Community College - Science, Engineering & Technology Building
SITE PACKAGE
PARCEL: 47, TAX MAP: 36, GRID: 6
TAX ACCOUNT #: 045988
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-1-2014	1" = 30'	ESD STORMWATER DRAINAGE AREA MAP
Drawn By: C.T.B.	Designed By: B.S.	
Approved By: R.T.B.	Project No: 27111245	
Tax Map-Grid: 35-6	Zoning: POR & NT	

Discipline Number: **C12.01**
Sheet Number: **27 OF 42**
STATE OF MARYLAND
RICHARD L. BUTT
PROFESSIONAL ENGINEER
11-17-14



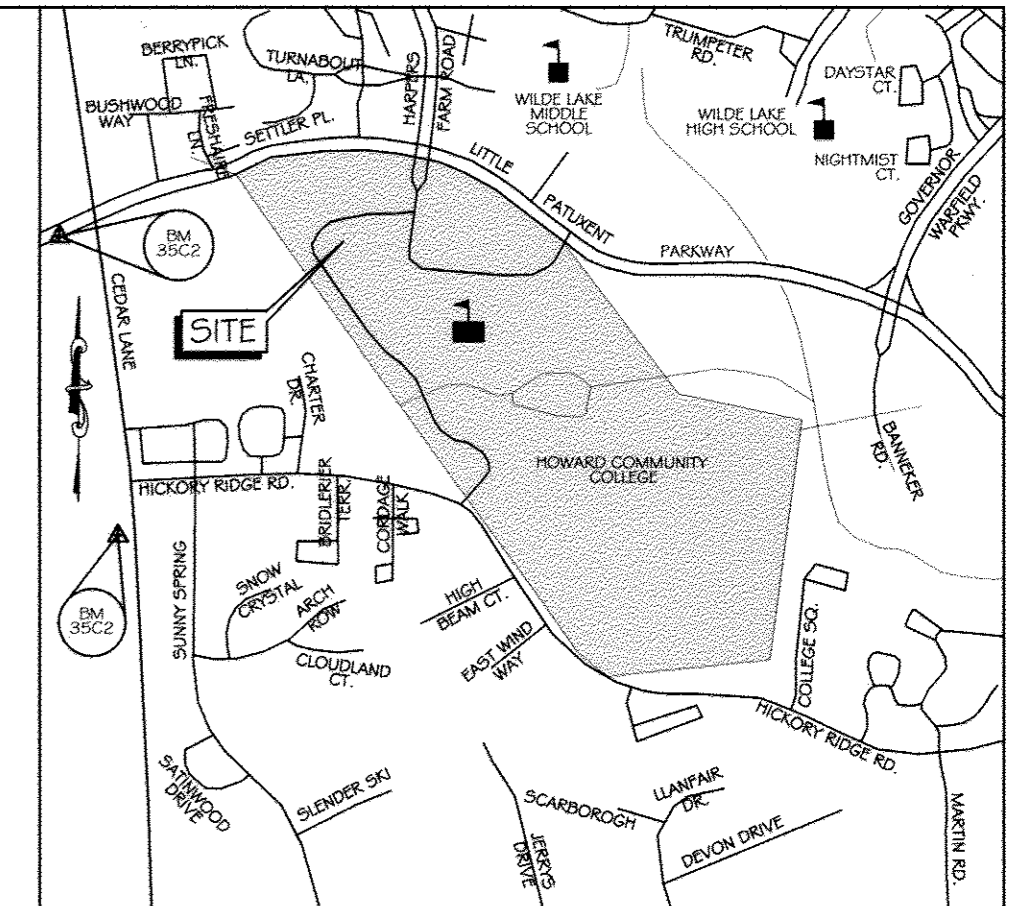
BENCHMARK DATA

HORIZONTAL NAD83(1) AND VERTICAL NGVD29 CONTROL BASED ON GPS OBSERVATIONS. HOWARD COUNTY BENCH MARK NO. 3

	NORTHING	EASTING	ELEV.
35C2	HOW CO MON 563920.430	1344204.150	464.133
35C2	HOW CO MON 562148.450	1344554.472	452.267

LEGEND

---	PROPERTY LINE
---	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	EX. LIGHT POLE
---	EX. STORM DRAIN
---	EX. GAS LINE
---	EX. SANITARY
---	EX. ELECTRIC
---	EX. TELEPHONE
---	EX. CABLE TV
---	EX. WATER
---	PROP. CONTOUR
---	PROP. SPOT ELEVATION
---	PROP. SANITARY
---	PROP. STORM DRAIN
---	PROP. WATER
---	PROP. FIRE HYDRANT
---	PROP. WATER VALVE
---	PROP. MANHOLE
---	PROP. CLEANOUT
---	PROP. OBSERVATION WELL
---	PROP. INLET
---	LIMIT OF DISTURBANCE
---	SOIL BORING



VICINITY MAP

SCALE: 1" = 1000'
ADC MAP: 15 GRID: D6

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED UPON A SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. IN SEPTEMBER 2010 AND AERIAL TOPO FROM VIRGINIA RESOURCE MAPPING IN APRIL 27, 2009.
- THE CONTRACTOR SHALL PROVIDE PRIVATE SUBSURFACE UTILITY LOCATION SERVICE, TO LOCATE AND MARK ANY AND ALL EXISTING UNDERGROUND UTILITIES, PRIOR TO THE START OF ANY CONSTRUCTION.
- CONTRACTOR SHALL TEST PIT, AS REQUIRED, ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION TO DETERMINE THE EXACT LOCATION AND DEPTH. CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN WHAT IS FOUND IN THE FIELD AND THAT INDICATED ON THE PLAN TO KCI TECHNOLOGIES, INC. ALL UTILITIES SHALL BE REPAIRED UNLESS INDICATED OTHERWISE. DAMAGE TO EXISTING CONSTRUCTION AND UTILITIES TO REMAIN SHALL BE REPAIRED AS REQUIRED, TO THE OWNERS SATISFACTION, AT THE EXPENSE OF THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE AND REPLACE ALL DAMAGED CURB AND GUTTER, UTILITIES, SIDEWALKS, PAVEMENT, ETC., THAT ARE NOT INDICATED TO BE DEMOLISHED, AS REQUIRED FOR TIE-IN TO NEW CONSTRUCTION.
- CONTRACTOR SHALL REPAIR AND MAINTAIN SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED. WITH THE APPROVAL OF INSPECTOR, ALL SEDIMENT CONTROL DEVICES SHALL BE REMOVED AND DISTURBED AREAS RESTORED AND STABILIZED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST AND WORK REQUIRED TO ADJUST EXISTING AND PROPOSED UTILITIES AND APPURTENANCES TO FINISHED GRADES WITHIN THE LIMITS OF WORK.
- OBSTRUCTIONS SHOWN ON THESE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY SUCH INFORMATION TO HIS OWN SATISFACTION.
- CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OR OVER EXISTING UTILITIES.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND THE FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- EXISTING CURB, GUTTER, AND SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT.
- DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION SHALL FOLLOW LATEST HOWARD COUNTY DEPT. OF PUBLIC WORKS STANDARD SPECIFICATIONS & DETAILS OF CONSTRUCTION OR AS DETAILED ON THE DRAWINGS.
- THIS SHEET IS FOR PURPOSE OF REFERENCING SITE, GRADING, DRAINAGE AND SWM FEATURES TO THEIR LOCATION ON THE OVERALL SITE. FOR DETAILED GRADING, STORM DRAIN INFORMATION AND ENLARGEMENT INFORMATION SEE SHEETS, C-3.00 THRU C-10.02. FOR DETAILED SWM INFORMATION SEE SHEETS C-12.00 THRU C-12.10.

AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK, PE# 33772. DATE: 06-16-2019

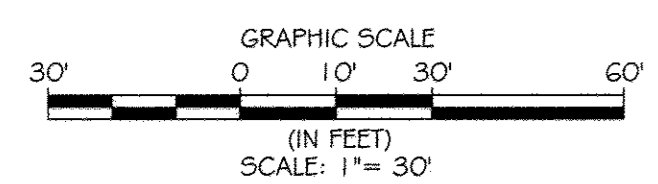
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
John R. Kauter
 Howard Soil Conservation District
 4/13/14

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.
Richard L. Gutt
 Signature of Engineer (print name below signature)
 11-11-14
 Date

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to these plans 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 Environment and 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.
Nicholas A. Barrick
 Signature of Developer (print name below signature)
 11-12-14
 Date

CONTRACTOR NOTE:
 CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14



STORMWATER MANAGEMENT PLAN

SCALE: 1" = 30'

KCI TECHNOLOGIES
 ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
 896 Blakesboro Road, Sparks, MD 21159
 Phone: (410) 796-7800 Fax: (410) 796-7800 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
 1000 Hill Street, Suite 100, Baltimore, MD 21206
 p 410.241.8500 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning
Frankie McLaughlin 1/6/15
 Director
Kent Schaefer 1-06-15
 Chief, Division of Land Development
Paul Edwards 12-18-14
 Chief, Development Engineering Division

Rev:	Date:	Description:	By:	Prepared For and Owner:
1				Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296

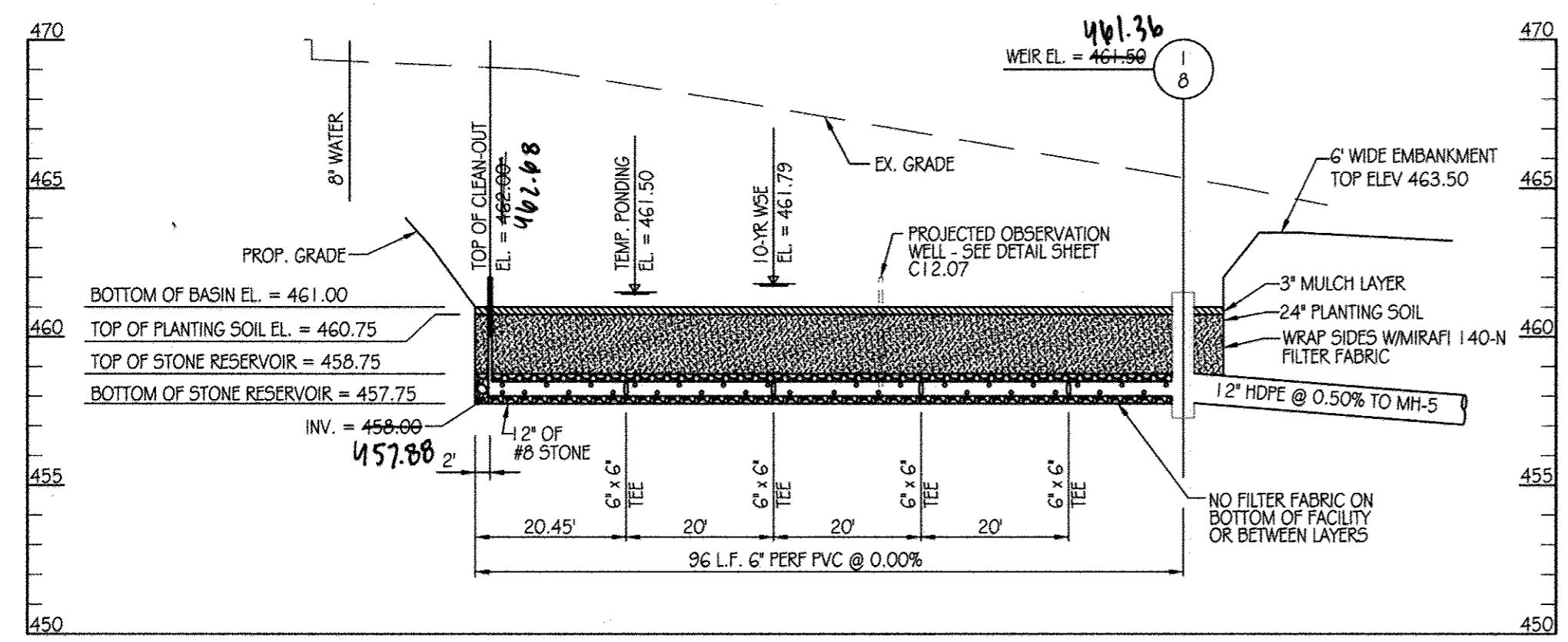
Project Name: **Howard Community College - Science, Engineering & Technology Building**
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

Date: 10-1-2014
 Scale: 1" = 30'
 Drawn By: C.T.B.
 Designed By: B.S.
 Approved By: R.T.B.
 Project No: 27111245
 Tax Map-Grid: 35-6
 Zoning: POR & NT

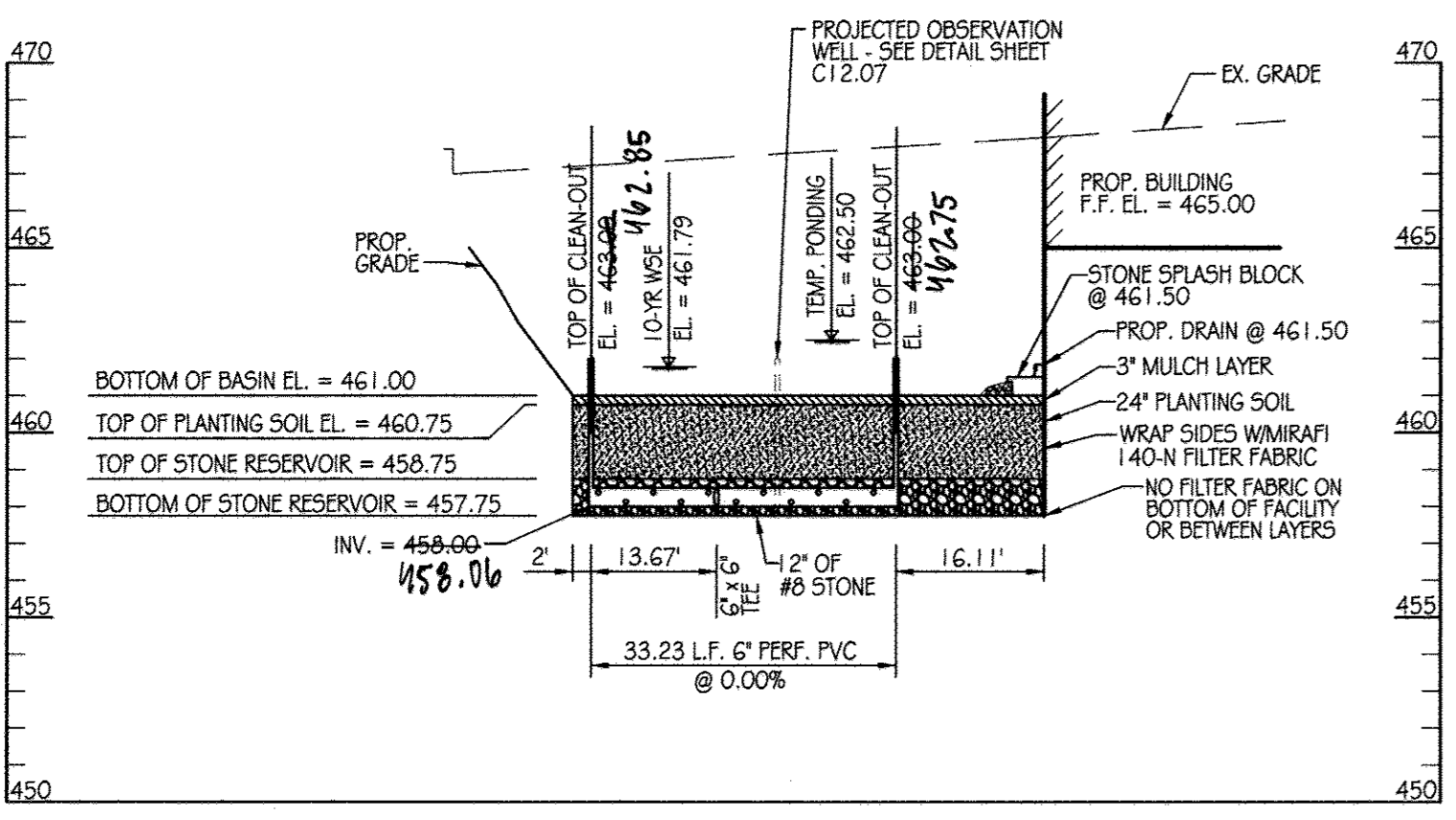
Sheet Title: **STORMWATER MANAGEMENT PLAN**

Discipline Number: **C12.02**
 Sheet Number: **28 OF 42**

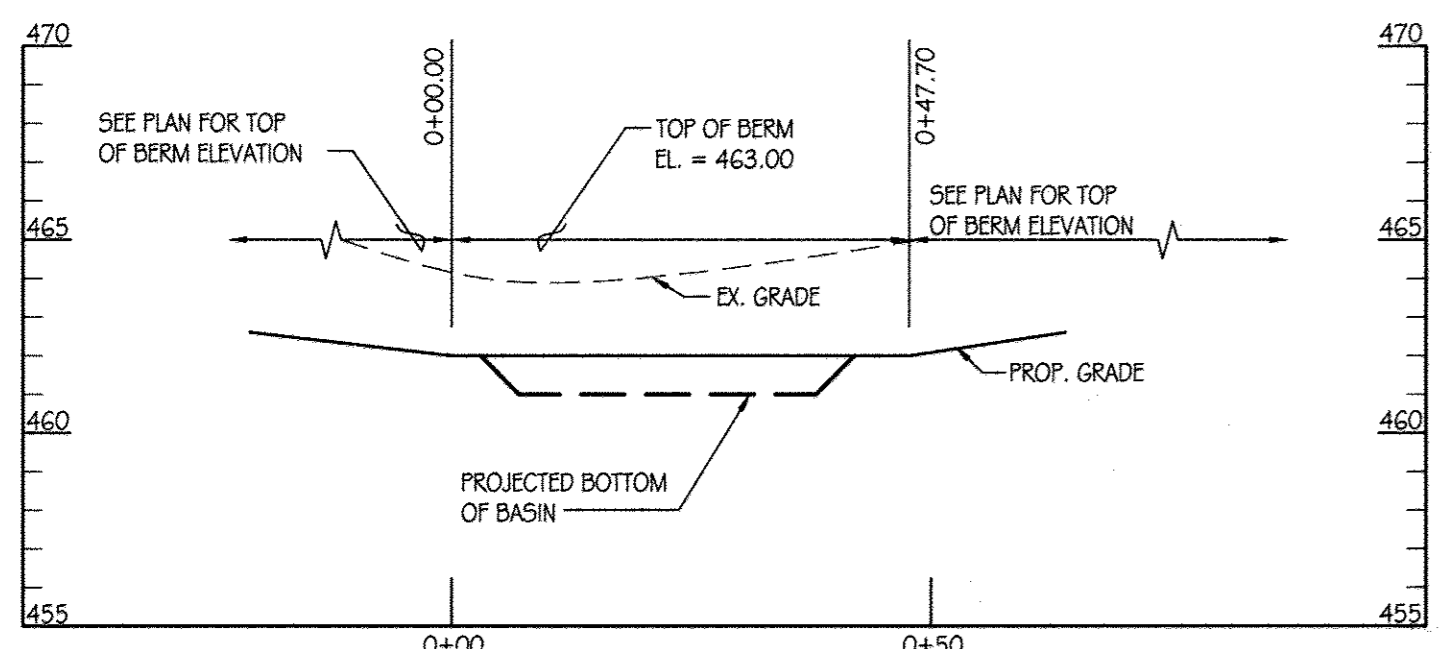
STATE OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER
 11-11-14



MICRO-BIORETENTION FACILITY #1A
SECTION A-A
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL



MICRO-BIORETENTION FACILITY #1A
SECTION B-B
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL



CENTERLINE BERM SWM FACILITY #1A
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

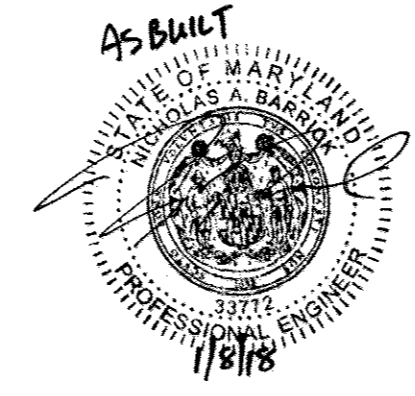
◊ BERM DATA

STATION	BEARING	RADIUS	DISTANCE / ARC LENGTH	CHORD
0+00				
0+18.5	25.5'	18.5'	N87°30'19" E 18.10'	
0+47.7	15.5'	29.2'	S17°41'12" E 25.09'	

- LEGEND
- 440--- EX. CONTOURS
 - EX. WATER LINE
 - FIRE HYDRANT
 - 440--- PROP. MAJOR CONTOUR
 - 441--- PROP. MINOR CONTOUR
 - 12" DRAIN--- PROP. STORM DRAIN
 - 6" WATER--- PROP. WATER LINE
 - [Hatched Box] LIMIT OF PLANTING SOIL
 - [Square] PROP. INLET
 - [Circle] PROP. MANHOLE
 - [Circle with dot] PROP. CLEANOUT

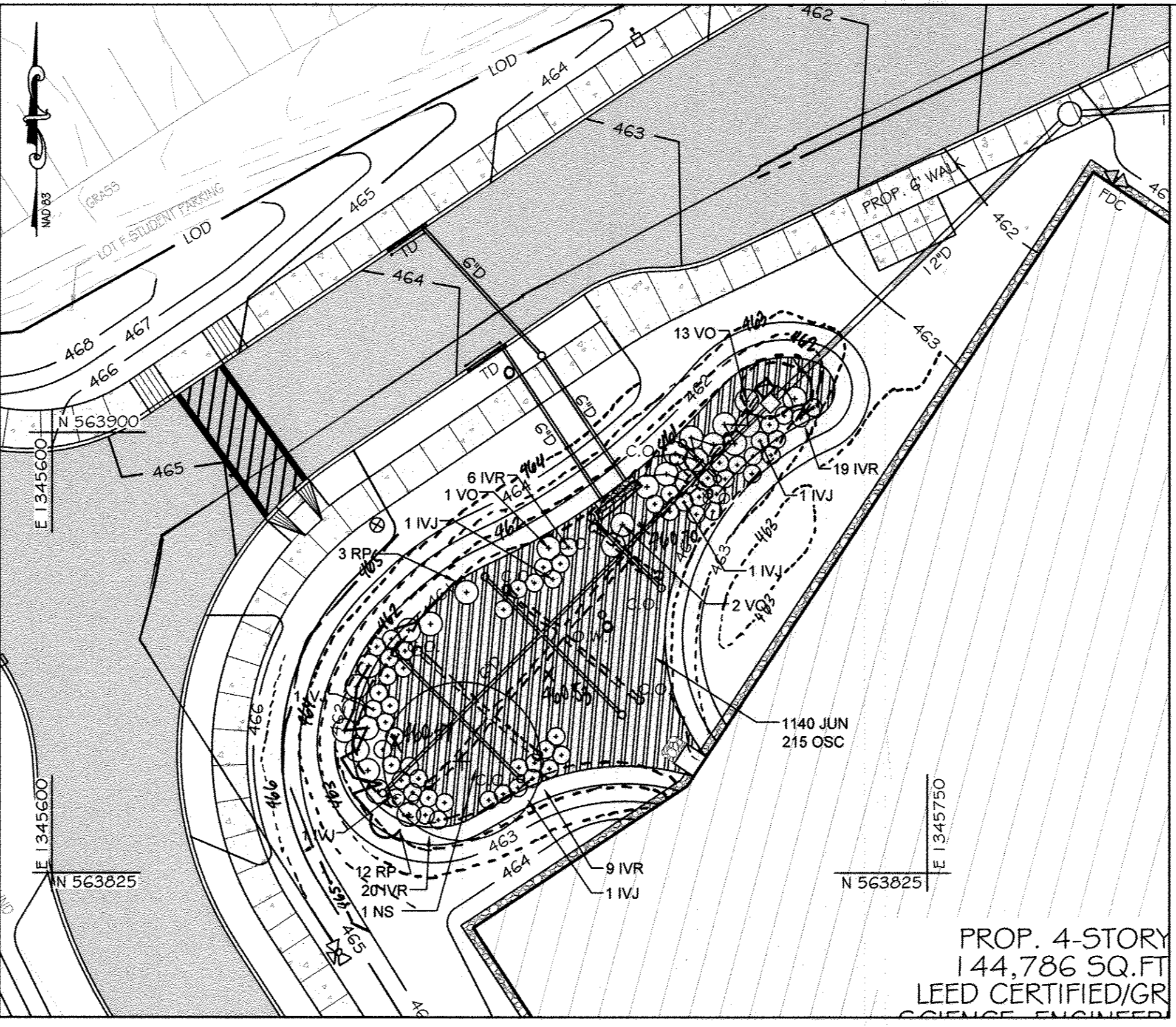
AS-BUILT CERTIFICATION FOR PSWM

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK, PE# 33772. DATE: 06-16-2019



STORMWATER MANAGEMENT FACILITY SEQUENCE OF CONSTRUCTION

- NOTIFY CERTIFYING ENGINEER FIVE (5) WORKING DAYS PRIOR TO BEGINNING STORM WATER MANAGEMENT FACILITY CONSTRUCTION.
- NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO DOING ANY WORK.
- CLEAR, GRUB & INSTALL PERIMETER SEDIMENT CONTROL MEASURES AS SHOWN ON THE SEDIMENT CONTROL PLAN.
- STORM DRAIN OUTFALL FROM I-3 TO MH-1 MUST BE INSTALLED PRIOR TO BEGINNING EXCAVATION OF FACILITY. EXCAVATION BELOW ELEVATION 462.00 (MIN. 460.00) SHALL NOT OCCUR UNTIL AREA DRAINING TO FACILITY IS PERMANENTLY STABILIZED. (1-DAY)
- UPON STABILIZATION OF DRAINAGE AREA EXCAVATE FOR INSTALLATION OF STONE RESERVOIR AND PLANTING SOIL. (2-DAYS)
- INSTALL STONE RESERVOIR, UNDERDRAINS AND PLANTING SOIL. (2-DAYS)
- FINE GRADE AND PERMANENTLY STABILIZE DISTURBED AREA. (1-DAY)



STORMWATER MANAGEMENT FACILITY #1A LANDSCAPE PLAN
SCALE: 1" = 20'

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME / COMMON NAME	SIZE	ROOT	COMMENTS
NS	1	Nyssa sylvatica / Blackgum	3" cal.	B&B	Straight Central Leader, Full Canopy
IVR	54	Ilex verticillata 'Red Sprite' / Red Sprite Winterberry (Female)	#5	cont.	18" Ht., Full, Spaced as shown
IVJ	6	Ilex verticillata 'Jim Dandy' / Jim Dandy Winterberry (Male)	#5	cont.	18" Ht., Full, Spaced as shown
RP	12	Rhododendron penicillanoides / Pinxterbloom Azalea	#5	cont.	30" Ht., Full, Spaced as shown
VO	15	Viburnum opulus var. americanum / American Cranberrybush Viburnum	#5	cont.	36" Ht., Full, Spaced as shown
JUN	850	Juncus effusus / Soft Rush	#SP-4	cont.	15" O.C.
OSC	175	Osmunda cinnamomea / Cinnamon Fern	#SP-4	cont.	24" O.C.

FACILITY #1A TREATMENT SUMMARY TABLE

DRAINAGE AREA	TARGET		PROVIDED		TREATED ESD _v
	R	ESD _v	R	ESD _v	
0.60 AC.	2.0	2,267 C.F.	2.6	3,046 C.F.	3,046 C.F.

INSPECTION SCHEDULE

- THE DEVELOPER SHALL NOTIFY THE COUNTRY AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK IN CONJUNCTION WITH THE STORMWATER MANAGEMENT PLAN AND UPON COMPLETION OF A PROJECT WHEN A FINAL INSPECTION WILL BE CONDUCTED.
- AT A MINIMUM, REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING SPECIFIED STAGES OF CONSTRUCTION.
 - DURING EXCAVATION TO SUBGRADE;
 - DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEM;
 - DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
 - DURING CONSTRUCTION OF APPURTENANCE CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, PRE-FILTERS, FILTERS, OUTLETS AND FLOW DISTRIBUTION STRUCTURES; AND
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- INSPECTIONS SHALL BE CONDUCTED BY THE DEPARTMENT OF PUBLIC WORKS OR ITS AUTHORIZED REPRESENTATIVE. WRITTEN INSPECTION REPORTS SHALL BE MADE OF THE PERIODIC INSPECTIONS NECESSARY DURING CONSTRUCTION OF STORMWATER MANAGEMENT SYSTEMS TO ENSURE COMPLIANCE WITH THE APPROVED PLANS.
- WRITTEN INSPECTION REPORTS SHALL INCLUDE:
 - DATE AND LOCATION OF THE INSPECTION;
 - WHETHER CONSTRUCTION WAS IN COMPLIANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN;
 - ANY VARIATIONS FROM THE APPROVED CONSTRUCTION SPECIFICATIONS; AND
 - ANY VIOLATIONS THAT EXIST.
- ONCE CONSTRUCTION IS COMPLETE, AN AS-BUILT PLAN CERTIFICATION SHALL BE SUBMITTED BY THE APPROPRIATE DESIGN PROFESSIONAL LICENSED IN THE STATE OF MARYLAND TO ENSURE THE CONSTRUCTED STORMWATER MANAGEMENT PRACTICE AND CONVEYANCE SYSTEMS COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE APPROVED PLANS. AT A MINIMUM, AS-BUILT CERTIFICATION SHALL INCLUDE A SET OF DRAWINGS COMPARING THE APPROVED STORMWATER MANAGEMENT PLAN WITH WHAT WAS CONSTRUCTED.

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION AREAS (M-G)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
John R. Kuntz 11/13/14
Howard Soil Conservation District

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.
Richard L. Gotti 11-11-14
Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to these plans 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.
Nicholas Barrick 11-12-14
Signature of Developer (print name below signature) Date

APPROVED: Howard County Department of Planning & Zoning
Mark A. Anglin 1/6/15
Ketche D. ... 1-06-15
Paul ... 12-18-14

Rev: Date: Description: By:

Prepared For and Owner: Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4288

Project Name: **Howard Community College - Science, Engineering & Technology Building**

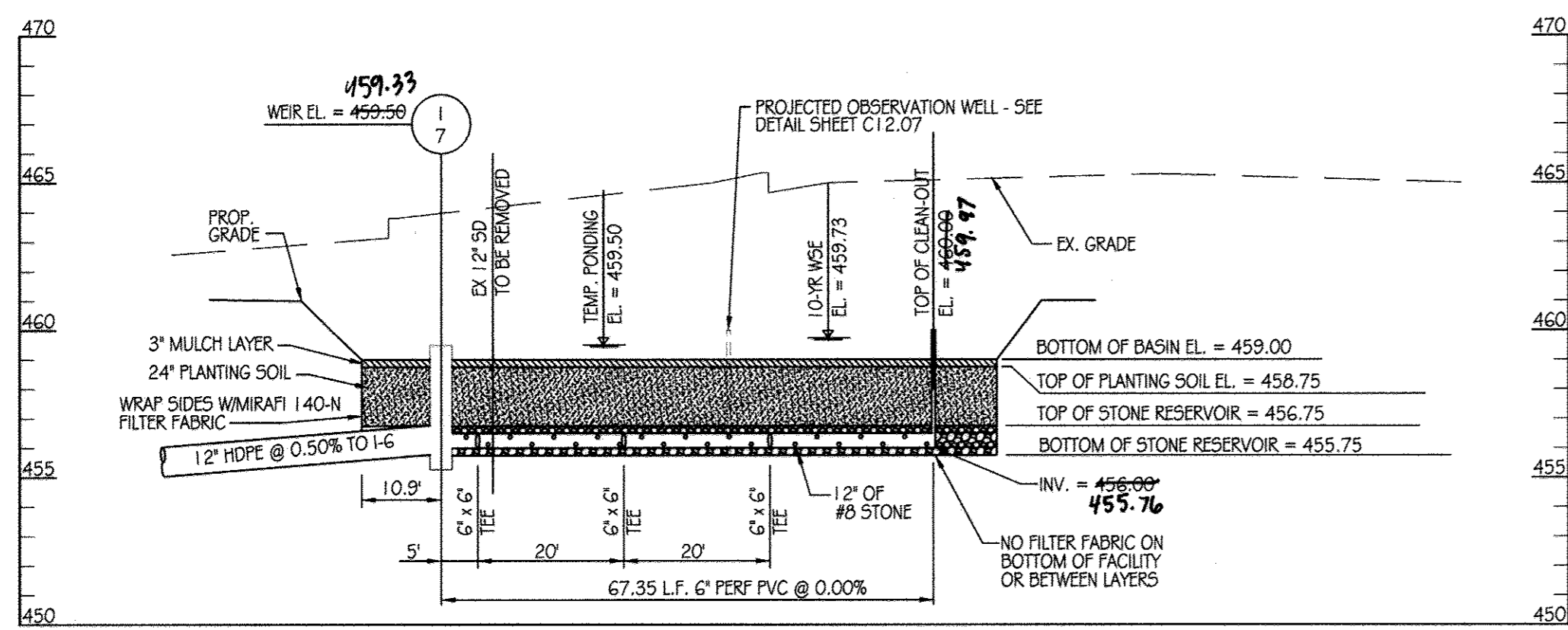
DATE: 10-1-2014
Scale: AS SHOWN
Drawn By: C.T.B.
Designed By: B.S.
Approved By: R.T.B.
Project No: 27111245
Tax Map-Grid: 35-6
Zoning: POR & NT

Sheet Title: **STORMWATER MANAGEMENT FACILITY 1A**

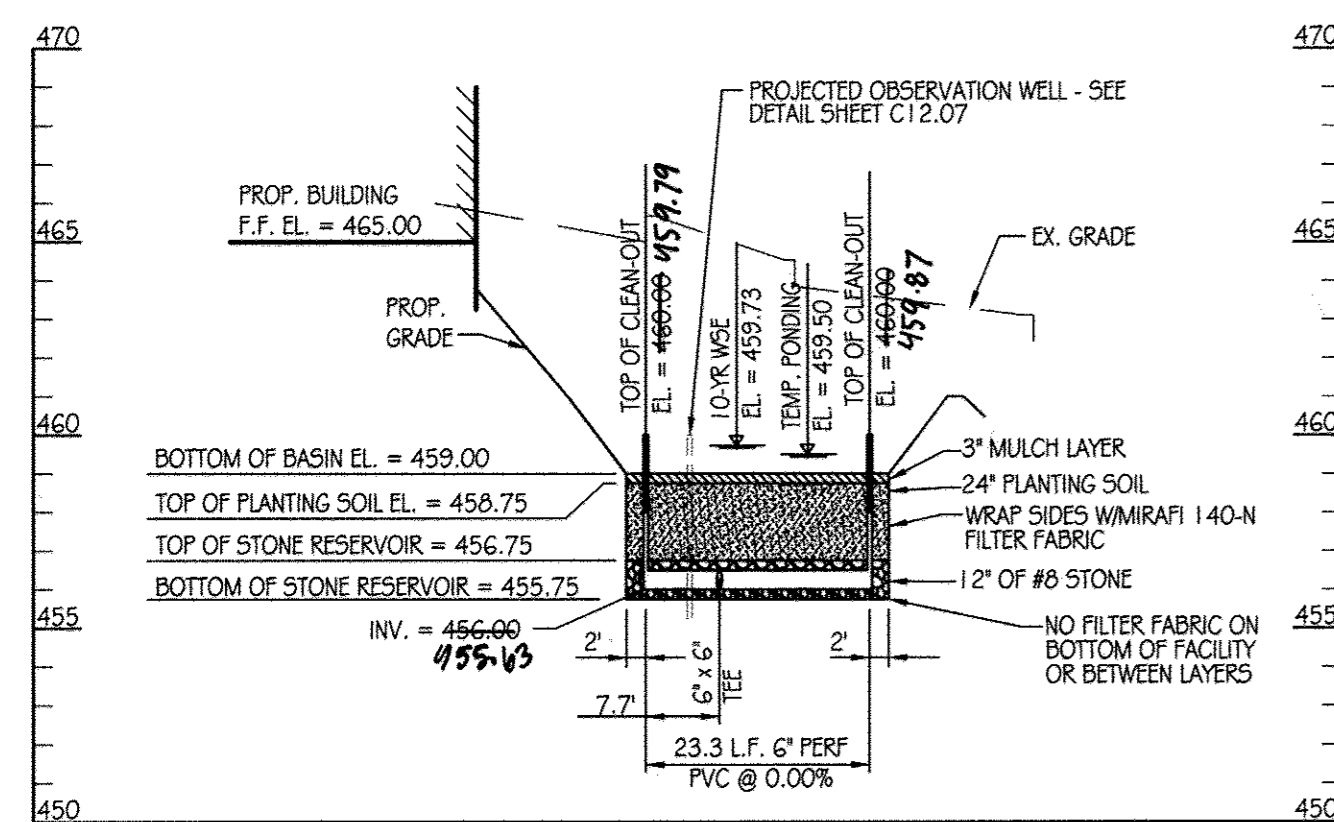
Discipline Number: **C12.03**
Sheet Number: **29 OF 42**

CONTRACTOR: **KCI TECHNOLOGIES**
1000 Hill Street, Suite 100
Baltimore, MD 21202
410-347-8500 410-347-8419

ARCHITECTS + PLANNERS: **AYERS SAINT GROSS**
1000 Hill Street, Suite 100
Baltimore, MD 21202
410-347-8500 410-347-8419



MICRO-BIORETENTION FACILITY #1B
SECTION E-E
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL



MICRO-BIORETENTION FACILITY #1B
SECTION F-F
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

BERM DATA

STATION	BEARING / RADIUS	DISTANCE / ARC LENGTH	CHORD
0+00	3.5'	4.4'	S49°01'58"E 4.13'
0+07.4	167.5'	12.5'	S83°01'22"E 12.49'
0+16.9	48.0'	48.0'	S55°14'10"E 46.0'
0+64.9	128.8'	32.6'	S19°21'50"E 32.5'
0+97.5	128.8'	34.6'	S04°25'58"E 34.5'
1+32	14.0'	6.8'	S17°07'50"W 6.7'
1+38.8			
1+48.2	S31°00'29"W	9.4'	

LEGEND

- EX. CONTOURS
- EX. WATER LINE
- FIRE HYDRANT
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- PROP. STORM DRAIN
- PROP. WATER LINE
- LIMIT OF PLANTING SOIL
- PROP. INLET
- PROP. MANHOLE
- PROP. CLEANOUT

FACILITY #1C TREATMENT SUMMARY TABLE

DRAINAGE AREA	TARGET		PROVIDED		TREATED ESD _v
	P	ESD _v	P	ESD _v	
0.41 AC.	1.9	1,911 C.F.	2.6	2,659 C.F.	2,659 C.F.

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME / COMMON NAME	SIZE	ROOT	COMMENTS
AT	1	Asimina triloba / Paw-Paw	6' Ht.	D4B	Single Leader
CA	30	Clethra alnifolia / Hummingbird / Summersweet Clethra	#3	Cont.	24" Ht., Full, Spaced as shown
CS	8	Cornus senecensis / Isant / Redosier Dogwood	#5	Cont.	30" Ht., Full, Spaced as shown
RV	11	Rhododendron viscosum / Swamp Azalea	#5	Cont.	30" Ht., Full, Spaced as shown
AGL	50	Andropogon glomeratus / Swamp Beardgrass	#SP-4	Cont.	Random spacing interspersed among species mix
CST	100	Carex stricta / Tussock Sedge	#SP-4	Cont.	18" O.C.
JUN	280	Juncus effusus / Soft Rush	#SP-4	Cont.	15" O.C.
OGC	30	Osmunda cinnamomea / Cinnamon Fern	#SP-4	Cont.	24" O.C.

PROPOSED SCIENCE,
ENGINEERING &
TECHNOLOGY BUILDING
F.F. ELEV. 465.00

STORMWATER FACILITY MANAGEMENT #1B LANDSCAPE PLAN

SCALE: 1" = 20'

PROPOSED SCIENCE,
ENGINEERING &
TECHNOLOGY BUILDING
F.F. ELEV. 465.00

STORMWATER FACILITY #1B PLAN

SCALE: 1" = 20'

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION AREAS (M-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
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- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS. INSPECTIONS SHALL BE PERFORMED A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

INSPECTION SCHEDULE

- THE DEVELOPER SHALL NOTIFY THE COUNTRY AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK IN CONJUNCTION WITH THE STORMWATER MANAGEMENT PLAN AND UPON COMPLETION OF A PROJECT WHEN A FINAL INSPECTION WILL BE CONDUCTED.
- AT A MINIMUM, REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING SPECIFIED STAGES OF CONSTRUCTION.
 - (A) DURING EXCAVATION TO SUBGRADE;
 - (B) DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEM;
 - (C) DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
 - (D) DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, PRE-FILTERS, FILTERS, OUTLETS AND FLOW DISTRIBUTION STRUCTURES; AND
 - (E) UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
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- WRITTEN INSPECTION REPORTS SHALL INCLUDE:
 - (A) DATE AND LOCATION OF THE INSPECTION;
 - (B) WHETHER CONSTRUCTION WAS IN COMPLIANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN;
 - (C) ANY VARIATIONS FROM THE APPROVED CONSTRUCTION SPECIFICATIONS; AND
 - (D) ANY VIOLATIONS THAT EXIST.
- ONCE CONSTRUCTION IS COMPLETE, AN AS-BUILT PLAN CERTIFICATION SHALL BE SUBMITTED BY THE APPROPRIATE DESIGN PROFESSIONAL LICENSED IN THE STATE OF MARYLAND TO ENSURE THE CONSTRUCTED STORMWATER MANAGEMENT PRACTICE AND CONVEYANCE SYSTEMS COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE APPROVED PLANS. AT A MINIMUM, AS-BUILT CERTIFICATION SHALL INCLUDE A SET OF DRAWINGS COMPARING THE APPROVED STORMWATER MANAGEMENT PLAN WITH WHAT WAS CONSTRUCTED.

DESIGN SUMMARY

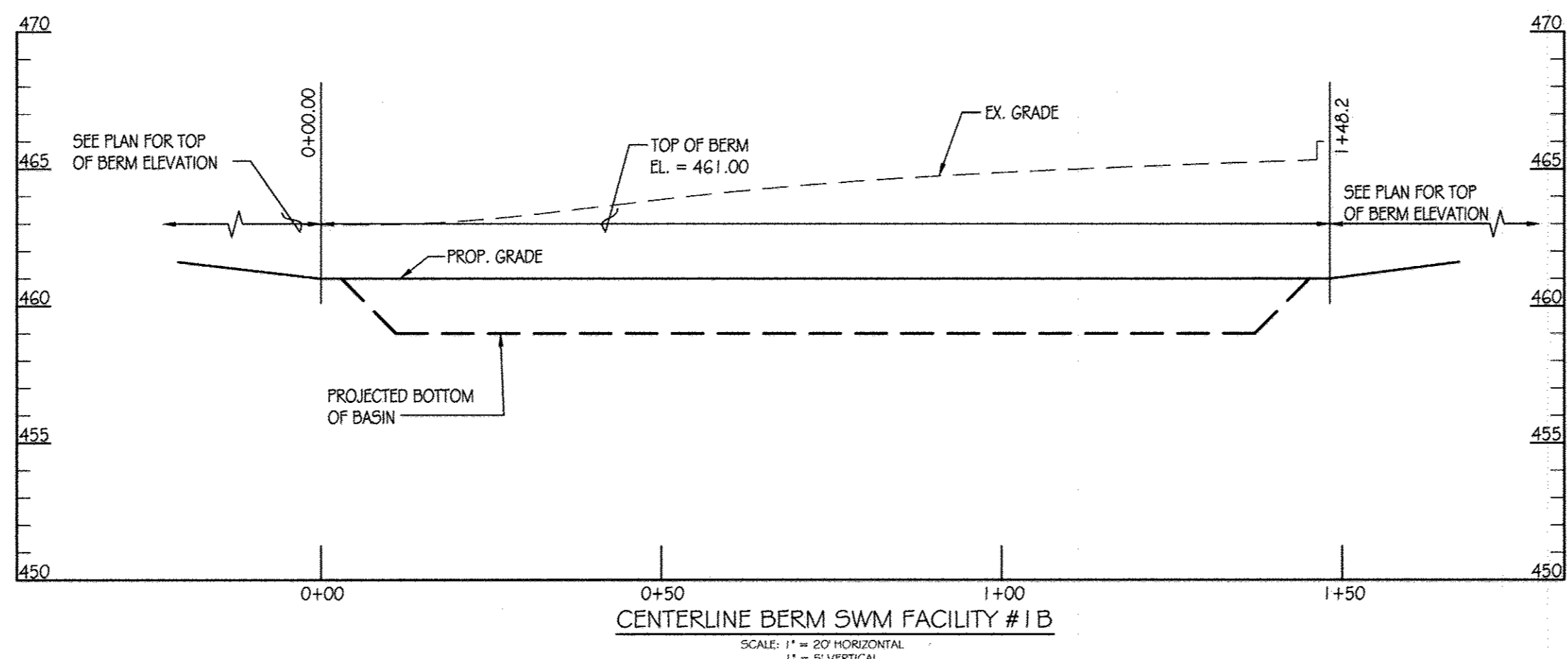
- FACILITY NUMBER: 1C
- FACILITY TYPE: MICRO-BIORETENTION (M-6)
- DRAINAGE AREA = 0.41 AC.
- BOTTOM ELEVATION = 459.00
- TOP OF DAM ELEVATION = 461.00
- STORAGE VOLUME PROVIDED: 2,659 C.F.
- WATER SURFACE ELEV.: 1 YEAR = 459.64
10 YEAR = 459.73
- DISCHARGE: 1 YEAR = 1.11 CFS
10 YEAR = 2.49 CFS
- RISER TYPE: YARD INLET
- BARREL TYPE: 12" HDPE
- MAINTENANCE RESPONSIBILITY: THIS IS A PRIVATE FACILITY TO BE OWNED & MAINTAINED BY THE OWNER
- THIS FACILITY IS EXEMPT FROM MD378 GUIDELINES IN THAT THE FOUNDED DESIGN HIGH WATER DEPTH IS LESS THAN 3 FEET AT THE EMBANKMENT.

STORMWATER MANAGEMENT FACILITY SEQUENCE OF CONSTRUCTION

- NOTIFY CERTIFYING ENGINEER FIVE (5) WORKING DAYS PRIOR TO BEGINNING STORM WATER MANAGEMENT FACILITY CONSTRUCTION.
- NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO DOING ANY WORK.
- CLEAR, GRUB & INSTALL PERIMETER SEDIMENT CONTROL MEASURES AS SHOWN ON THE SEDIMENT CONTROL PLAN.
- STORM DRAIN OUTFALL FROM 1:2 TO 1:1 MUST BE INSTALLED PRIOR TO BEGINNING EXCAVATION OF FACILITY. BELOW ELEVATION 460.00 (MIN. 458.00) SHALL NOT OCCUR UNTIL AREA DRAINING TO FACILITY IS PERMANENTLY STABILIZED. (1-DAY)
- UPON STABILIZATION OF DRAINAGE AREA EXCAVATE FOR INSTALLATION OF STONE RESERVOIR AND PLANTING SOIL. (1-DAY)
- INSTALL STONE RESERVOIR, UNDERDRAINS AND PLANTING SOIL. (2-DAYS)
- FINE GRADE AND PERMANENTLY STABILIZE DISTURBED AREA. (1-DAY)

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

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. 31089 EXPIRATION DATE: 11/21/14



CENTERLINE BERM SWM FACILITY #1B
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT
John K. Roberts 11/13/14
Howard Soil Conservation District

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.
R. L. Butt 11-11-14
Signature of Engineer (print name below signature)

DEVELOPER'S CERTIFICATE
I/we certify that all development and construction will be done according to these plans 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.
C. W. Nightingale 11-12-14
Signature of Developer (print name below signature)

KCI TECHNOLOGIES
ENGINEERS, PLANNERS, SCIENTISTS, CONSTRUCTION MANAGERS
598 Ridgebrook Road, Suite 303, Columbia, MD 21046
Phone: 410-321-7900 Fax: 410-321-7983 www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
1200 Hill Street, Suite 100, Baltimore, MD 21202
P: 410.347.8000 F: 410.347.9419

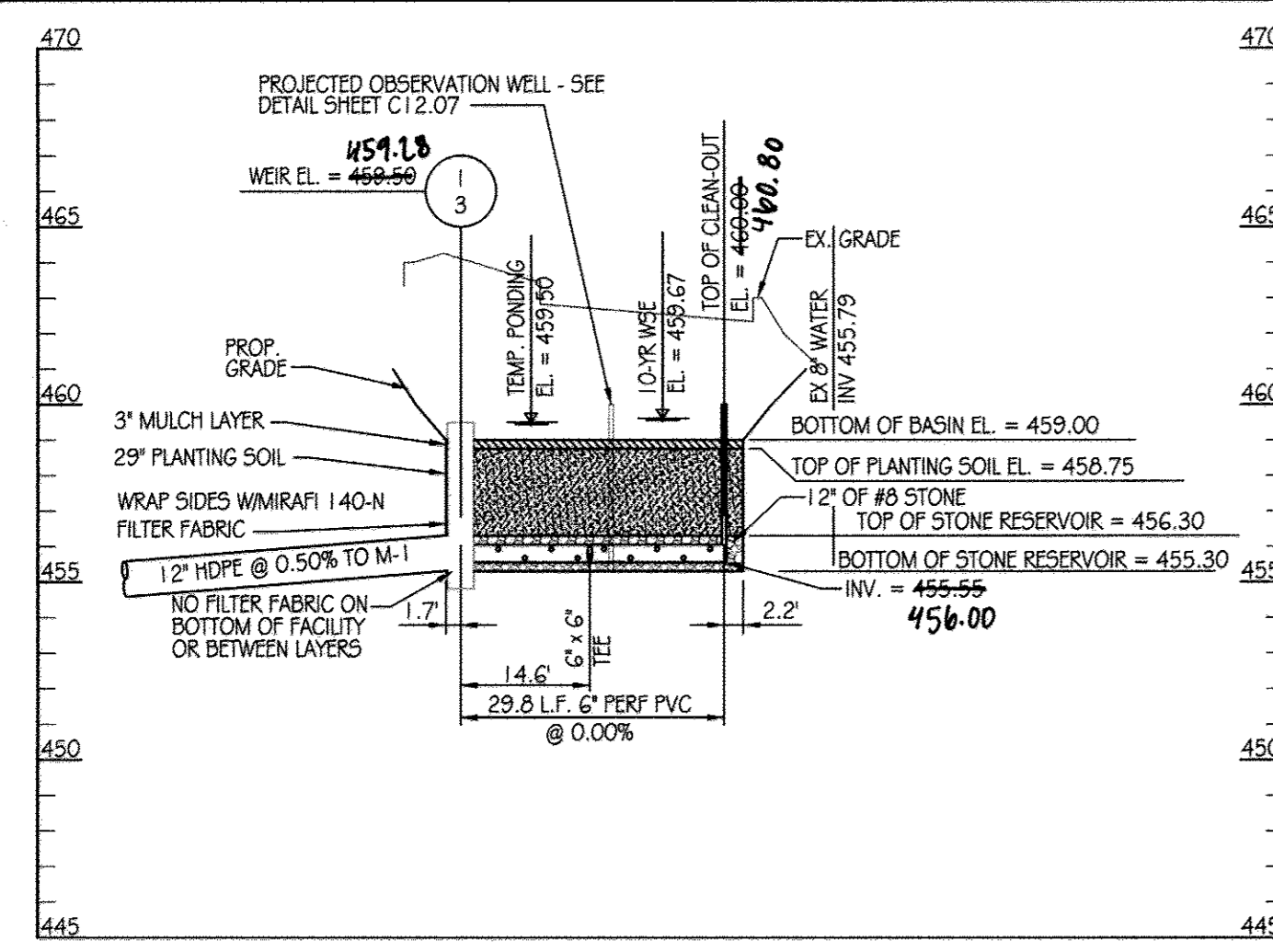
APPROVED: Howard County Department of Planning & Zoning
Director: *Barbara K. Leugh* 1/6/15
Chief, Division of Land Development: *Victoria D. Smith* 1-26-15
Chief, Development Engineering Division: *Phil Edman* 12-18-14

Rev: Date: Description: By: Prepared For and Owner: Howard Community College, 10901 Little Patuxent Parkway, Columbia, Maryland 21044, ATTN: Mr. Chuck Nightingale, 410-772-4296

Project Name: **Howard Community College - Science, Engineering & Technology Building**
ELECTION DISTRICT NO. 5
SPE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045888
HOWARD COUNTY, MARYLAND

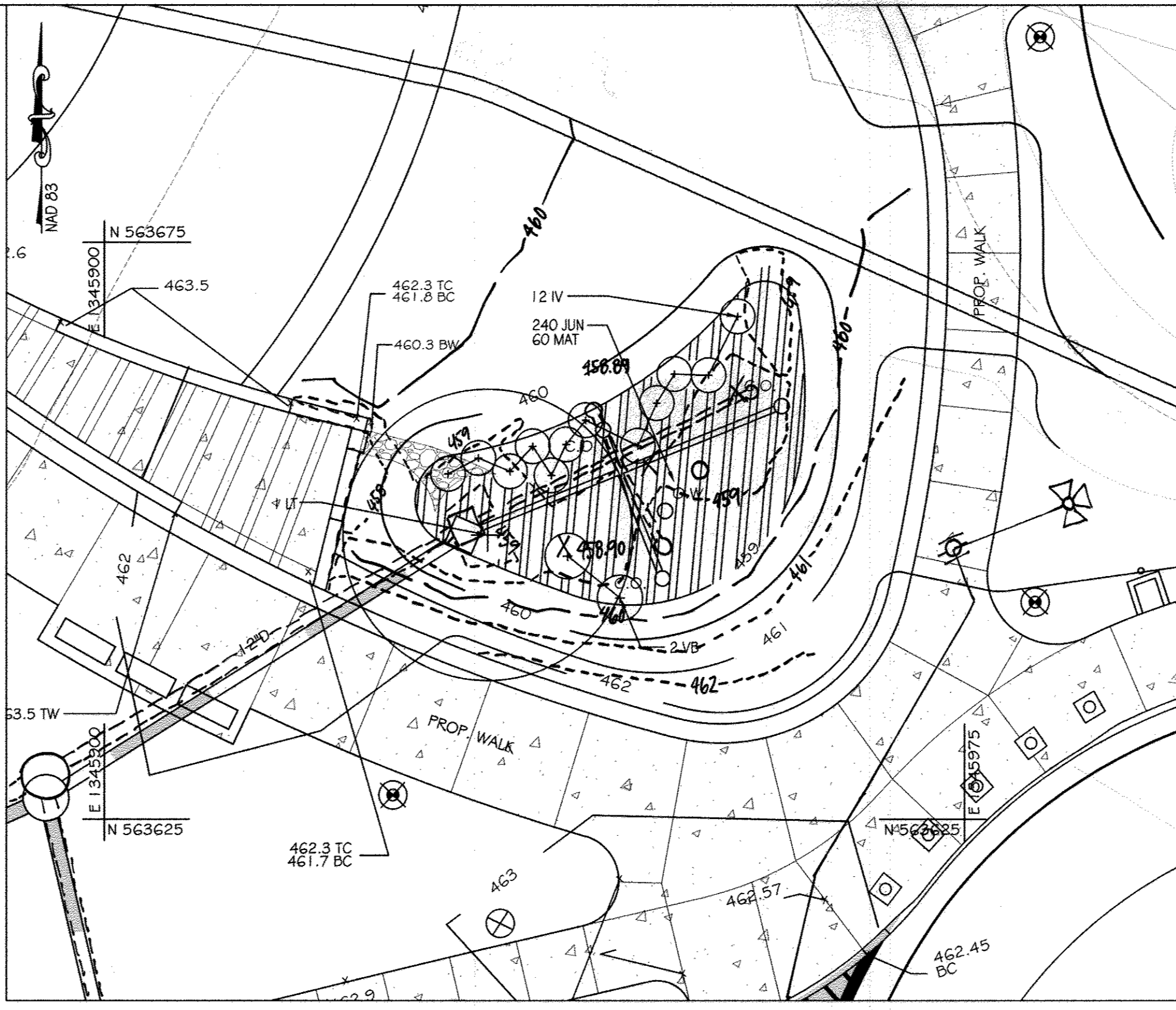
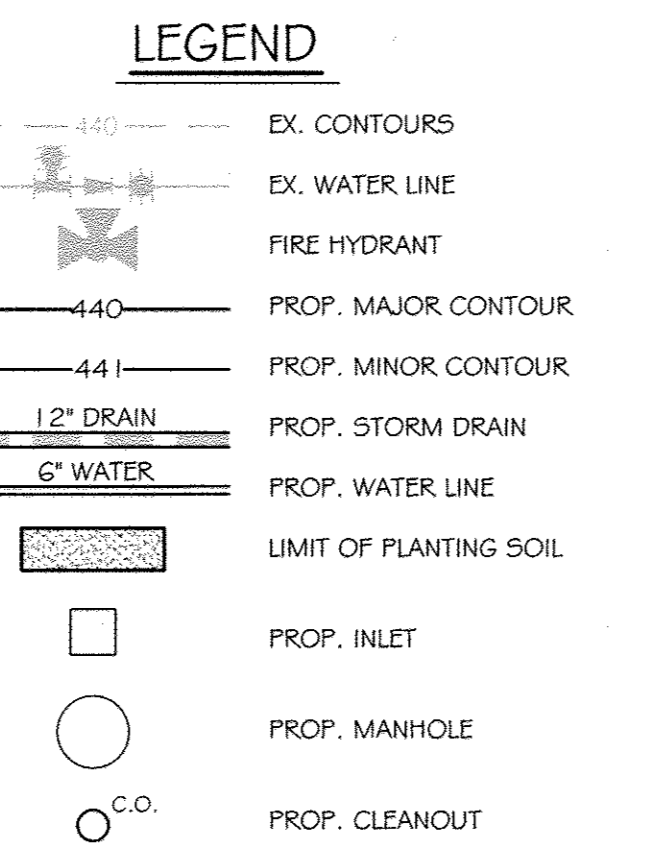
Date: 10-1-2014
Scale: AS SHOWN
Sheet Title: STORMWATER MANAGEMENT FACILITY 1B
Drawn By: C.T.B.
Designed By: B.S.
Approved By: R.T.B.
Project No: 27111245
Tax Map-Grid: 35-6
Zoning: POR & NT

Discipline Number: C12.04
Sheet Number: 30 OF 42
SDP 14-066



CL BERM DATA

STATION	BEARING/RADIUS	DISTANCE/ARC LENGTH	CHORD
0+00	34.7'	1.8'	N38°42'18"E 1.8'
0+01.8	8'	18.3'	S77°27'09"E 14.5'
0+20.1			



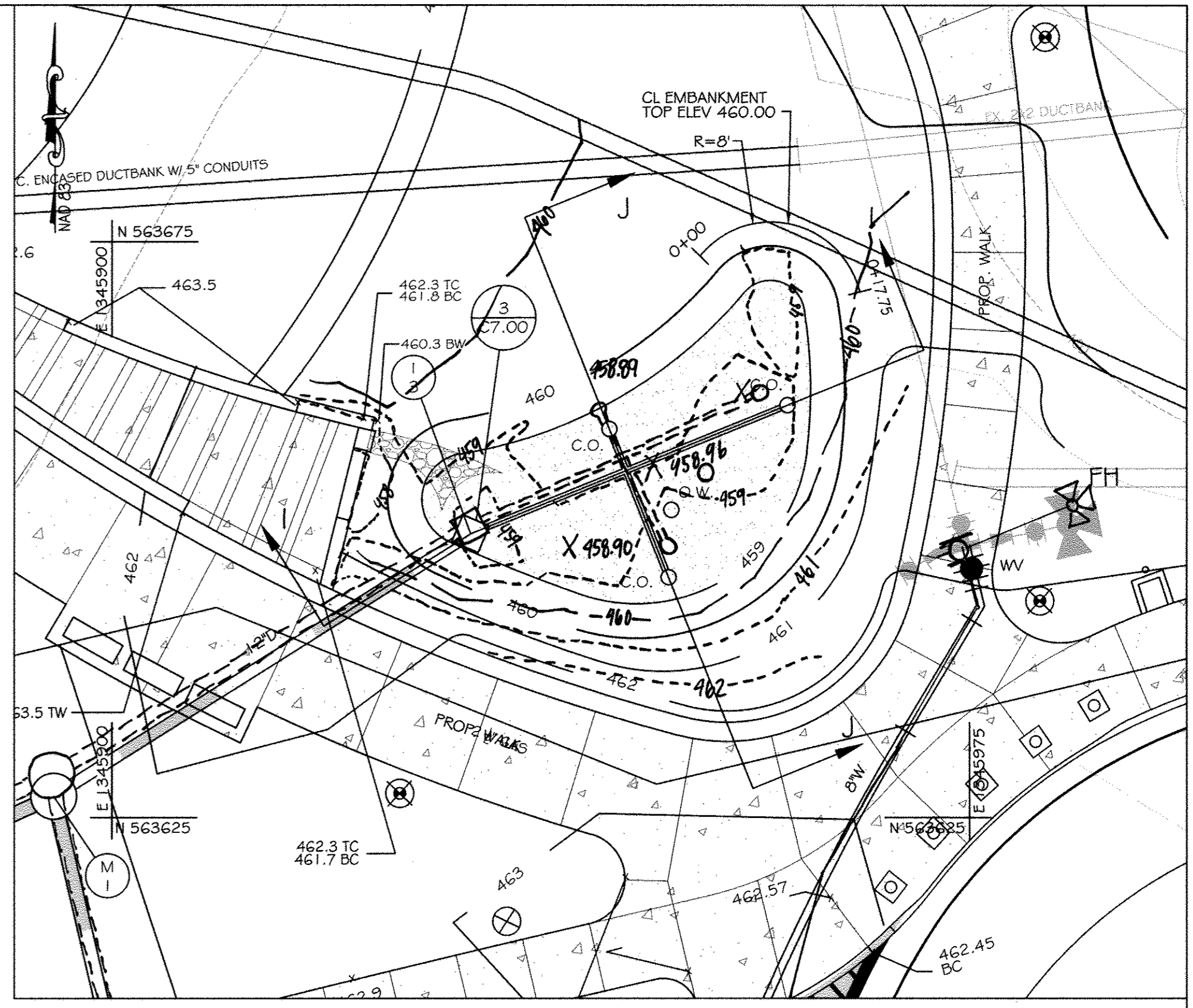
STORMWATER MANAGEMENT FACILITY #2A LANDSCAPE PLAN
SCALE: 1" = 10'

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME / COMMON NAME	SIZE	ROOT	COMMENTS
LT 1	1	Liriodendron tulipifera / Tulip Poplar	4"	Cal.	Straight Central Leader, Full Canopy, Limbed up to 7' Ht.
IV 1,2	2	Itea virginica 'Henry's Garnet' / Henry's Garnet Sweetspire	#5	Cont.	30' Ht., Full, Spaced as shown
VB 2	2	Viburnum dentatum 'Blue Muffin' / Blue Muffin Arrowwood Viburnum	#5	Cont.	30' Ht., Full, Spaced as shown
JUN 240	240	Juncus effusus / Soft Rush	#5P-4	Cont.	15' O.C.
MAT 60	60	Matteuccia struthioptera / Ostrich Fern	#5P-4	Cont.	18' O.C.

FACILITY #2A TREATMENT SUMMARY TABLE

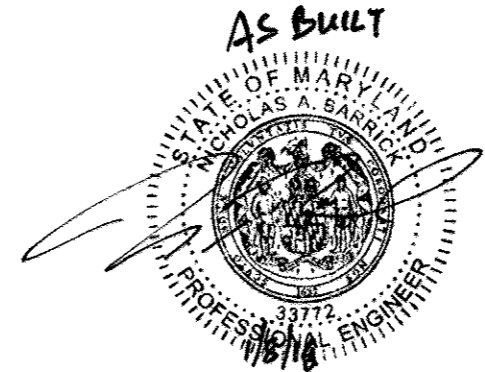
DRAINAGE AREA	TARGET		PROVIDED		TREATED ESD _v
	R	ESD _v	R	ESD _v	
0.27 AC.	0.7	293 C.F.	2.6	1,119 C.F.	1,119 C.F.



STORMWATER MANAGEMENT FACILITY #2A PLAN
SCALE: 1" = 10'

DESIGN SUMMARY

- FACILITY NUMBER: 2B
- FACILITY TYPE: MICRO-BIORETENTION (M-B)
- DRAINAGE AREA = 0.27 AC.
- BOTTOM ELEVATION = 459.00
- TOP OF DAM ELEVATION = 460.00
- STORAGE VOLUME PROVIDED: 1,119 C.F.
- WATER SURFACE ELEV.:
1 YEAR = 459.59
10 YEAR = 459.67
- DISCHARGE:
1 YEAR = 0.61 CFS
10 YEAR = 1.51 CFS
- RISER TYPE: YARD INLET
- BARREL TYPE: 12" HDPE
- MAINTENANCE RESPONSIBILITY: THIS IS A PRIVATE FACILITY TO BE OWNED & MAINTAINED BY THE OWNER.
- THIS FACILITY IS EXEMPT FROM MD378 GUIDELINES IN THAT THE IMPOSED DESIGN HIGH WATER DEPTH IS LESS THAN 3 FEET AT THE EMBANKMENT.



AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK, PE# 33772, DATE: 06-16-2019

INSPECTION SCHEDULE

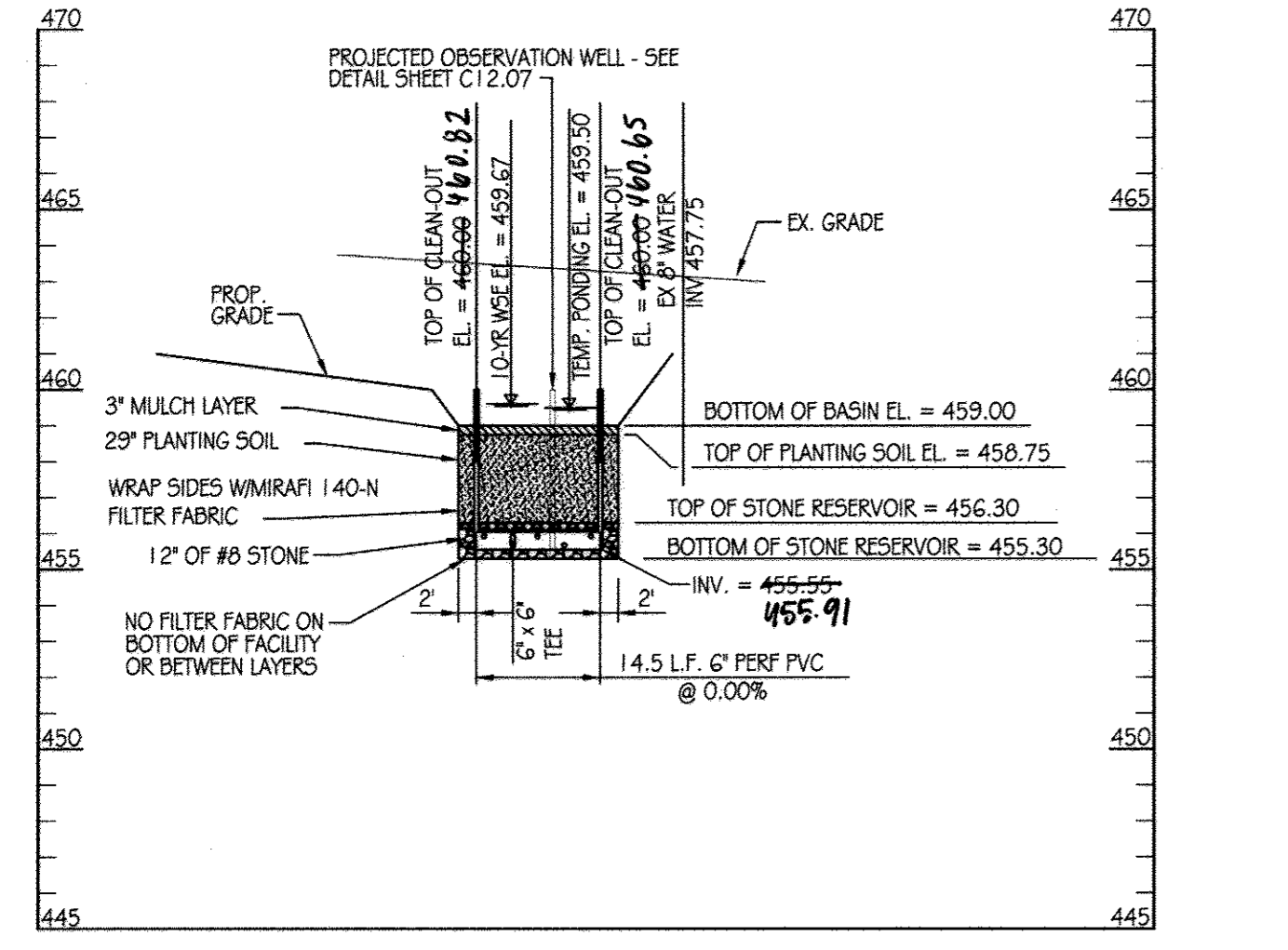
- THE DEVELOPER SHALL NOTIFY THE COUNTRY AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK IN CONJUNCTION WITH THE STORMWATER MANAGEMENT PLAN AND UPON COMPLETION OF A PROJECT WHEN A FINAL INSPECTION WILL BE CONDUCTED.
- AT A MINIMUM, REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING SPECIFIED STAGES OF CONSTRUCTION:
 - DURING EXCAVATION TO SUBGRADE;
 - DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEM;
 - DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
 - DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, PRE-FILTERS, FILTERS, OUTLETS AND FLOW DISTRIBUTION STRUCTURES; AND
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- INSPECTIONS SHALL BE CONDUCTED BY THE DEPARTMENT OF PUBLIC WORKS OR ITS AUTHORIZED REPRESENTATIVE. WRITTEN INSPECTION REPORTS SHALL BE MADE OF THE PERIODIC INSPECTIONS NECESSARY DURING CONSTRUCTION OF STORMWATER MANAGEMENT SYSTEMS TO ENSURE COMPLIANCE WITH THE APPROVED PLANS.
- WRITTEN INSPECTION REPORTS SHALL INCLUDE:
 - DATE AND LOCATION OF THE INSPECTION;
 - WHETHER CONSTRUCTION WAS IN COMPLIANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN;
 - ANY VARIATIONS FROM THE APPROVED CONSTRUCTION SPECIFICATIONS; AND
 - ANY VIOLATIONS THAT EXIST.
- ONCE CONSTRUCTION IS COMPLETE, AN AS-BUILT PLAN CERTIFICATION SHALL BE SUBMITTED BY THE APPROPRIATE DESIGN PROFESSIONAL LICENSED IN THE STATE OF MARYLAND TO ENSURE THE CONSTRUCTED STORMWATER MANAGEMENT PRACTICE AND CONVEYANCE SYSTEMS COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE APPROVED PLANS. AT A MINIMUM, AS-BUILT CERTIFICATION SHALL INCLUDE A SET OF DRAWINGS COMPARING THE APPROVED STORMWATER MANAGEMENT PLAN WITH WHAT WAS CONSTRUCTED.

OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION AREAS (M-B)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT. REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL. TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

CONTRACTOR NOTE:
CONTRACTOR SHALL EXERCISE EXTREME CAUTION SO AS NOT TO DAMAGE ANY EXISTING PAVING, CURB & GUTTER, SIDEWALK OR OTHER SITE FEATURES WHICH ARE TO REMAIN. SHOULD DAMAGE OCCUR, CONTRACTOR SHALL REPAIR TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE.

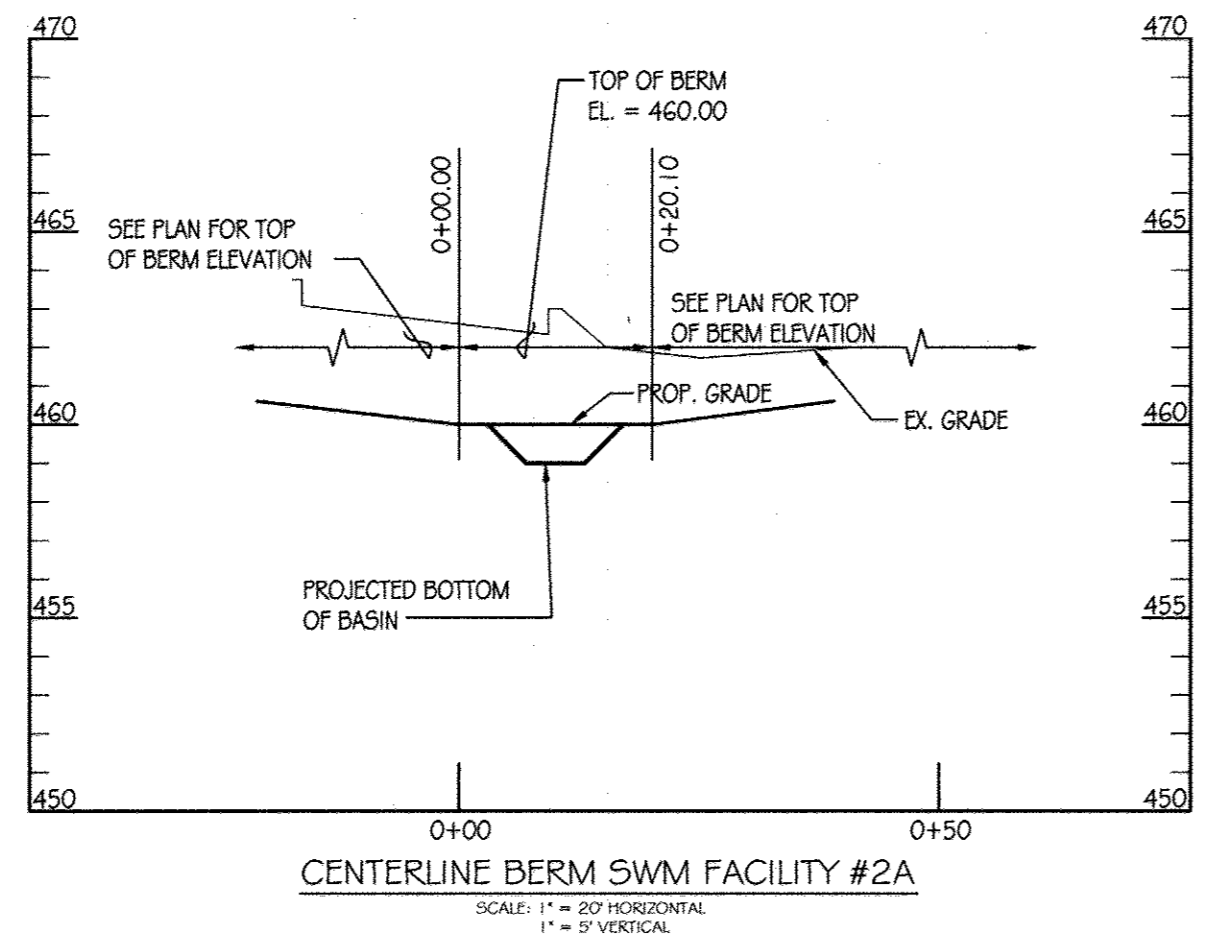
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31089 EXPIRATION DATE: 11/21/14



MICRO-BIORETENTION FACILITY #2A
SECTION J-J
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

STORMWATER MANAGEMENT FACILITY SEQUENCE OF CONSTRUCTION

- NOTIFY CERTIFYING ENGINEER FIVE (5) WORKING DAYS PRIOR TO BEGINNING STORM WATER MANAGEMENT FACILITY CONSTRUCTION.
- NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO DOING ANY WORK.
- CLEAR, GRUB & INSTALL PERIMETER SEDIMENT CONTROL MEASURES AS SHOWN ON THE SEDIMENT CONTROL PLAN.
- STORM DRAIN OUTFALL FROM I-4 TO M-12 MUST BE INSTALLED PRIOR TO BEGINNING EXCAVATION OF FACILITY BELOW ELEVATION 459.00 (MIN. 457.00) SHALL NOT OCCUR UNTIL AREA DRAINING TO FACILITY IS PERMANENTLY STABILIZED. (1-DAY)
- UPON STABILIZATION OF DRAINAGE AREA EXCAVATE FOR INSTALLATION OF STONE RESERVOIR AND PLANTING SOIL. (2-DAYS)
- INSTALL STONE RESERVOIR, UNDERDRAINS AND PLANTING SOIL. (2-DAYS)
- FINE GRADE AND PERMANENTLY STABILIZE DISTURBED AREA. (1-DAY)



CENTERLINE BERM SWM FACILITY #2A
SCALE: 1" = 20' HORIZONTAL
1" = 5' VERTICAL

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John K. Khatun
Howard Soil Conservation District
11/13/14

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.
Richard L. Butt
Richard L. Butt
Signature of Engineer (print name below signature)
11-11-14
Date

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to these plans 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.
Richard L. Butt
Signature of Developer (print name below signature)
11-12-14
Date

KCI TECHNOLOGIES
1940 Hill Street, Suite 110
Baltimore, MD 21220
410.947.8500 410.947.9419

AYERS SAINT GROSS ARCHITECTS + PLANNERS
1000 North Street, Suite 110
Baltimore, MD 21220
410.947.8500 410.947.9419

APPROVED: Howard County Department of Planning & Zoning
Janice J. Leighten
Director
1/6/15
Richard L. Butt
Chief, Division of Land Development
12-18-14
Chief, Development Engineering Division

Rev:	Date:	Description:	By:	Prepared For and Owner:
1	1/6/15			Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296
2	1-06-15			
3				
4	12-18-14			

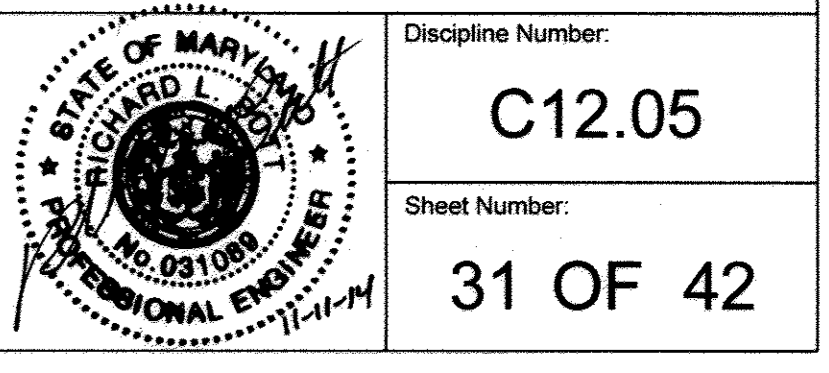
Project Name:
Howard Community College - Science, Engineering & Technology Building
SITING PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045888
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

Date:	Scale:
10-1-2014	AS SHOWN
Drawn By: C.T.B	Designed By: B.S.
Approved By: R.T.B	Project No: 27111245
Tax Map-Grid: 35-6	Zoning: POR & NT

Sheet Title:
STORMWATER MANAGEMENT FACILITY 2A

Discipline Number:
C12.05

Sheet Number:
31 OF 42

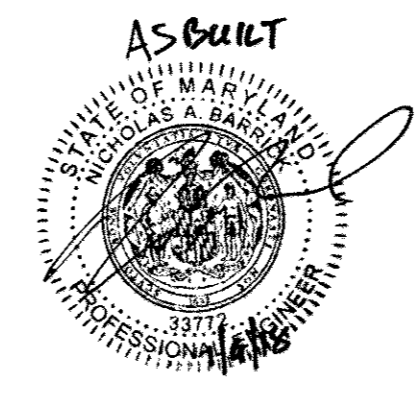




BENCHMARK DATA

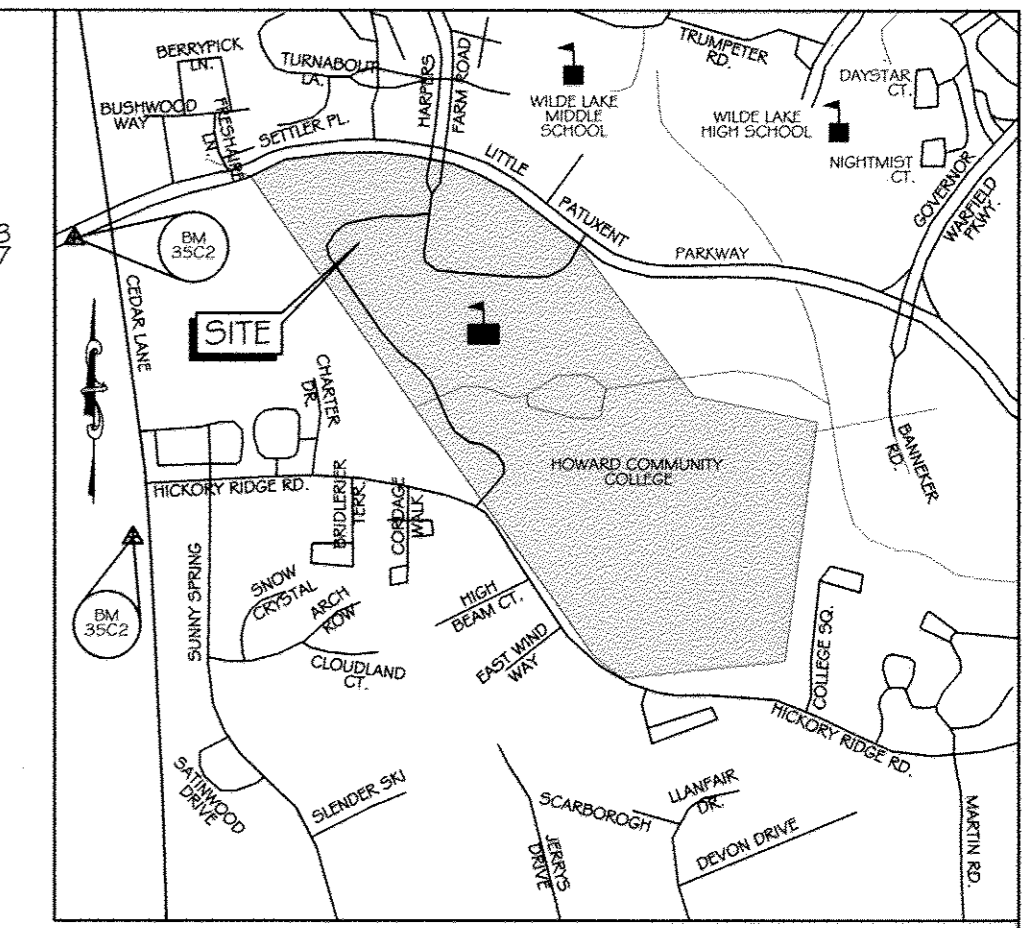
HORIZONTAL NAD83/91 AND VERTICAL (NGVD29) CONTROL BASED ON GPS OBSERVATIONS, HOWARD COUNTY BENCH MARK NO. 5

	NORTHING	EASTING	ELEV.
35C2 HOW CO MON	563920.830	1344204.150	464.133
35C2 HOW CO MON	562148.450	1344554.472	452.267



LEGEND

- GmB (C) SOILS LINE
- UuB (D) SOILS LINE
- 462 DRAINAGE AREA LINE
- 462 PROP. CONTOUR
- PROP. 18" DRAIN
- PROP. INLET
- PROP. MANHOLE
- A DRAINAGE AREA



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 15 GRID: DG

AS-BUILT CERTIFICATION FOR PSWM
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING DRAINAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOGGING OF THE UNDERGROUND SWM FACILITY. NICHOLAS A. BARRICK, PE# 33772, DATE: 06-16-2019

STORM DRAIN DESIGN DATA

FROM	TO	C	AREA (ACRES)	RUNOFF COEF.	CA	ΣA	ΣCA	TC (MIN.)	RAINFALL INTENSITY (IN./HR.)	Q (CFS.)	SIZE (IN.)	TYPE	N	S _o SLOPE (%)	L LENGTH (FT.)	V _o VOLUME (FT. ³ /SEC.)	TIME IN PIPE (MIN.)	REMARKS
I-2A	MH-4	A	0.03	0.85	0.03			5.00	8.50	0.25	15"	RCP	0.014	0.00%	31.00'	0.20	2.55	
MH-4	CONN-1	A	0.03	0.85	0.03			7.55	7.40	0.22	15"	RCP	0.014	0.00	94.41'	0.18	8.91	
CO-1	CONN-1	B	0.23	0.85	0.22			5.00	8.50	1.91	8"	HDPE	0.014	2.89%	41.50'	5.47	0.13	
CONN-1	MH-3	A-B				0.26	0.25	16.46	5.23	1.33	15"	RCP	0.014	0.05%	89.06'	1.08	1.37	
I-2	MH-3	C	0.30	0.85	0.29			5.00	8.50	2.49	15"	RCP	0.014	0.17%	20.62'	2.03	0.17	
MH-3	I-1	A-C				0.56	0.52	17.83	5.03	2.60	15"	RCP	0.014	0.19%	6.66'	2.12	0.05	
I-1	MH-2	A-D	0.22	0.85	0.73	0.78		17.89	5.02	3.67	15"	RCP	0.014	0.37%	25.53	2.99	0.14	
MH-2	MH-1	A-D				0.78	0.73	18.03	5.00	3.66	15"	RCP	0.014	0.37%	95.38'	2.98	0.53	
I-3	MH-1	E	0.27	0.85	0.26			5.00	8.50	2.24	12"	HDPE	0.014	0.46%	42.88'	2.85	0.25	SEE SWM PLAN C12.06
MH-1	EX-1-1	A-E				1.05	1.00	18.56	4.91	4.89	15"	RCP	0.014	0.66%	111.58'	3.98	0.47	
TD-1	ES-1	F	0.08	0.85	0.08			5.0	8.50	0.66	6"	HDPE	0.014	1.62%	46.95	3.38	0.23	SEE SWM PLAN C12.03
TD-2	ES-1	G	0.04	0.85	0.04			5.0	8.50	0.33	6"	HDPE	0.014	0.41%	22.17	1.69	0.22	SEE SWM PLAN C12.03
I-8	MH-5	F-H	0.57	0.85	0.56			5.0	8.50	4.73	12"	HDPE	0.014	2.04%	71.04'	6.02	0.20	
MH-5	I-6	I	0.57	0.85	0.56			5.2	8.40	4.67	12"	HDPE	0.014	2.00%	36.76'	5.95	0.10	
I-7	CONN-2	J	0.40	0.85	0.39			5.0	8.50	3.32	12"	HDPE	0.014	1.01%	109.30'	4.23	0.43	SEE SWM PLAN C12.04
CO-2	CONN-2	K	0.10	0.85	0.10			5.0	8.50	0.83	8"	HDPE	0.014	0.55%	20.98'	2.38	0.15	
CONN-2	I-6	J+K				0.50	0.49	5.43	8.20	4.05	12"	HPE	0.014	1.50%	6.06'	5.16	0.02	
I-6	MH-6	F-K				1.14	1.11	5.45	8.25	9.18	15"	HDPE	0.014	2.34%	77.11'	7.48	0.17	
I-5	I-4	L	0.09	0.85	0.09			5.0	8.5	0.75	12"	RCP	0.014	0.05%	27.98'	0.95	0.49	
I-4	MH-6	L+M	0.08	0.85	0.07	0.17	0.17	5.49	8.25	1.37	12"	RCP	0.014	0.17%	56.44'	1.74	0.54	

SOILS TABLE

SOIL UNIT	SOIL UNIT NAME	HYDROLOGIC SOIL GROUP
UuB (D)	Urban land-Udorthents complex, 0 to 8 percent slopes	D
GmB (C)	Glennville Silt Loam, 3 to 8 percent slopes	C
GbB (B)	Glandstone Loam, 3 to 8 percent slopes	B
BaA (D)	Baile Silt Loam, 0 to 3 percent slopes	D

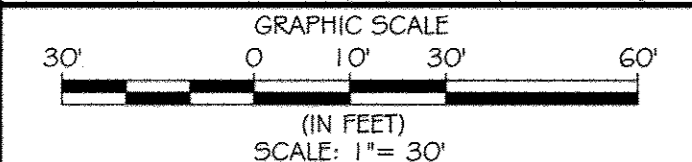
This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
John M. Blanton
Howard Soil Conservation District
4/13/14
Date

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.
R. L. Butt
RICHARD L. BUTT
Signature of Engineer (print name below signature)
11-11-14
Date

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done according to these plans 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.
C. Nightingale
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MATCHLINE SEE THIS SHEET FOR CONTINUATION
STORM DRAIN DRAINAGE AREA MAP
SCALE: 1" = 30'

KCI TECHNOLOGIES
ENGINEERS PLANNERS ARCHITECTS
396 Rookwood Road
Suite 2100
Baltimore, MD 21286
Tel: (410) 516-7800 Fax: (410) 516-7825
www.kci.com

AYERS SAINT GROSS ARCHITECTS + PLANNERS
1090 Hill Street, Suite 100
Baltimore, MD 21202
p 410.347.8500 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning
Frankie M. Auglin
Director
1/6/15
Richard L. Butt
Chief, Division of Land Development
12-18-14
Chris Edlin
Chief, Development Engineering Division

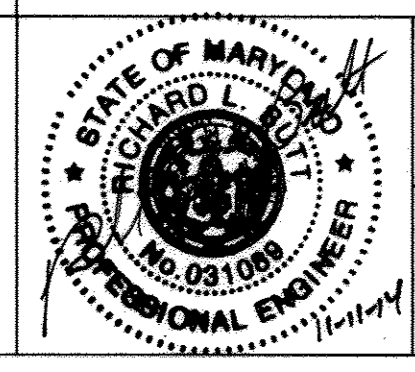
Rev.	Date	Description	By
1			
2			
3			
4			
5			

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4298

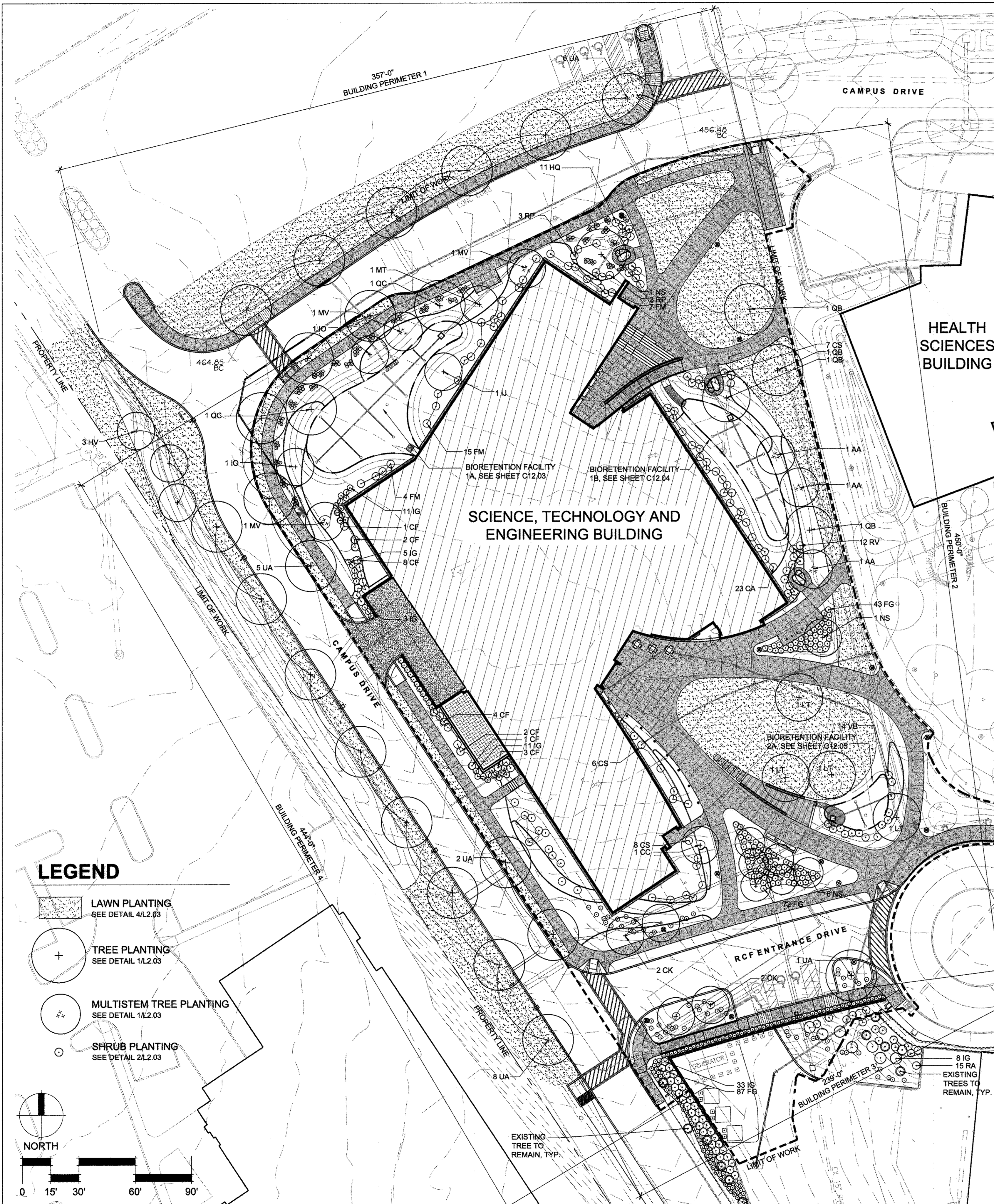
Project Name:
Howard Community College - Science, Engineering & Technology Building
SITE PACKAGE
PARCEL: 47, TAX MAP: 36, GRID: 6
TAX ACCOUNT NO: 048888
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-1-2014	1" = 30'	STORM DRAIN DRAINAGE AREA MAP
Drawn By:	Designed By:	Project No.:
C.T.B.	B.S.	27111245
Approved By:	Zoning:	
R.T.B.	POR & NT	
Tax Map-Grid:		
35-6		

STORM DRAIN DRAINAGE AREA MAP

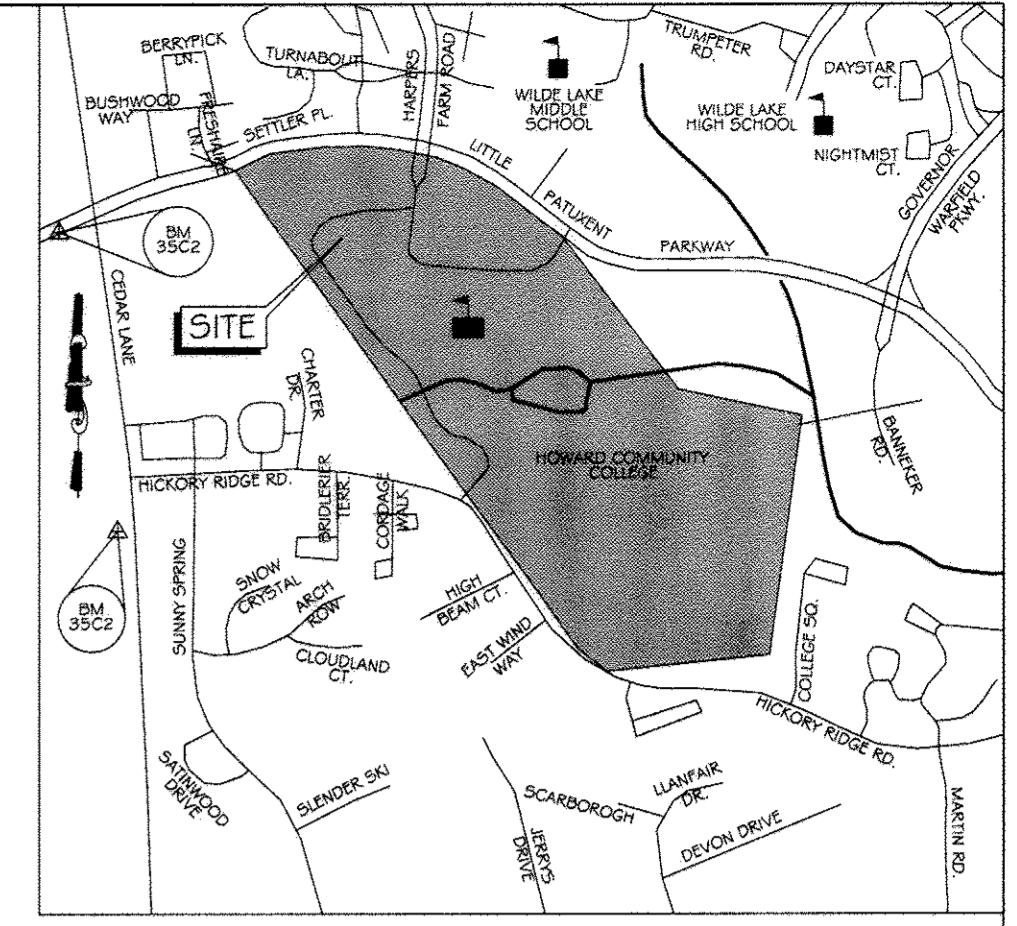


Discipline Number:
C12.06
Sheet Number:
32 OF 42



PLANT SCHEDULE (THIS SHEET ONLY)

QTY.	KEY	BOTANICAL/Common NAME	SIZE	ROOT	COMMENTS
SHADE TREES					
1	CC	Carpinus caroliniana American Hornbeam	3" Cal	B&B	Single Leader, Full Canopy Limbed up to 6' Ht. Min.
2	CK	Cladostis kentuckea American Yellowwood	3" Cal	B&B	Straight Central Leader, Full Canopy Limbed up to 6' Ht. Min.
4	LT	Liriodendron tulipifera Tulip Poplar	4" Cal	B&B	Straight Central Leader, Full Canopy Limbed up to 7' Ht.
8	NS	Nyssa sylvatica Blackgum	3" Cal	B&B/Cont.	Straight Central Leader, Full Canopy Limbed up to 6' Ht.
3	QB	Quercus bicolor Swamp White Oak	3" Cal	B&B	Straight Central Leader, Full Canopy Limbed up to 7' Ht.
2	QC	Quercus coccinea Scarlet Oak	3" Cal	B&B	Straight Central Leader, Full Canopy Limbed up to 7' Ht.
21	UA	Ulmus americana 'Accolade' Accolade Elm	3" Cal	B&B	Straight Central Leader, Full Canopy Limbed up to 7' Ht.
ORNAMENTAL TREES					
3	AA	Amelanchier arborea Common Serviceberry	8' Ht.	B&B	Multistem, 3 trunks
3	HV	Hamelalis virginiana Witchazel	8' Ht.	B&B	Multi-trunk, Full
3	MV	Magnolia virginiana 'Moonglow' Moonglow Sweetbay Magnolia	10' Ht.	B&B	Multi-trunk, 3 Stems, Full Canopy
1	MT	Magnolia tripetala Umbrella Tree	2' Cal.	B&B/Cont.	Single Stem, Full Canopy
EVERGREEN TREES					
2	IO	Ilex opaca 'Jersey Princess' American Holly	9' Ht.	B&B	Single Trunk Full to base
1	IU	Ilex opaca 'Jersey Knight' American Holly	9' Ht.	B&B	Single Trunk Full to base
SHRUBS					
23	CA	Clethra alnifolia 'Hummingbird' Summersweet Clethra	#3	Cont.	24" Ht., Full Spaced as Shown
21	CF	Calycanthus floridus Eastern Sweetshrub	#5	Cont.	36" Ht., Full Spaced as Shown
21	CS	Cornus sericea 'Isant' Redosier Dogwood	#5	Cont.	30" Ht., Full Spaced as Shown
115	FG	Fothergilla gardenii Dwarf Fothergilla	#5	Cont.	24" Ht., Full Spaced as Shown
26	FM	Fothergilla major 'Mt. Airy' Mount Airy Fothergilla	#7	Cont.	36" Ht., Full Spaced as Shown
11	HQ	Hydrangea quercifolia 'Sikes Dwarf' Oakleaf Hydrangea	#5	Cont.	30" Ht., Full Spaced as Shown
30	IG	Ilex glabra 'Nigra' Inkberry Holly	#5	Cont.	24" Ht., Full Spaced as Shown
6	RP	Rhododendron perilymenoides Pinxterbloom Azalea	#5	Cont.	30" Ht., Full Spaced as Shown
12	RV	Rhododendron viscosum Swamp Azalea	#5	Cont.	30" Ht., Full Spaced as Shown
14	VB	Viburnum dentatum 'Blue Muffin' Blue Muffin Arrowwood Viburnum	#5	Cont.	30" Ht., Full Spaced as Shown



VICINITY MAP
SCALE 1" = 1000'
ADC MAP: 4934 GRID: K7

LANDSCAPE NOTES

- PLANT LIST SHOWN ON THE PLANT SCHEDULE ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE.
- ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND CONFORM TO THE A.A.N SPECIFICATIONS. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS ON THIS PLAN.
- NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY DPZ AND THE OWNER OR THEIR REPRESENTATIVE.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED, OR MULCHES SHALL BE SODED OR SEEDED IN ACCORDANCE WITH THE PERMANENT SEED SPECIFICATION. A MINIMUM OF 6" OF TOPSOIL SHALL BE PROVIDED TO ALL PAINTING AREAS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF HE/SHE ENCOUNTERS SOIL DRAINAGE CONDITIONS THAT MAY BE DETRIMENTAL TO THE GROWTH OF THE PLANTS.
- ALL EXPOSED EARTH WITHIN THE LIMITS OF THE PLANTING BEDS SHALL BE MULCHED WITH TRIPLE SHREDDED PINE BARK MULCH PER THE PLANTING DETAILS.
- THE OWNER, TENANT AND OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH PLANTED MATERIALS, BIORETENTION, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY BE REPLACED WITH NEW MATERIALS TO INSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED AND REPLACED.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SUPPORTING TEXT.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BASE INFORMATION PRIOR TO INITIATING PLANTING INSTALLATION. ALL EXISTING PLANTING SHALL REMAIN INTACT AND UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT QUANTITIES SHOWN ON THE PLAN AND QUANTITIES SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL APPLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SEED OR SOO QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE PRIOR TO BED PREPARATION.
- LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH RELATED CONTRACTORS AND WITH THE GENERAL CONSTRUCTION OF THE PROJECT IN ORDER NOT TO IMPEDE THE PROGRESS OF THE WORK OF OTHERS OR THE CONTRACTOR'S OWN WORK.
- CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ALL PORTIONS OF EXISTING LAWN AREAS DAMAGED WHILE COMPLETING PLANTING INSTALLATION WITH THE SAME GRASS SPECIES TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK AND INCLUDED IN THE SPECIFICATIONS. PRIOR TO COMMENCEMENT OF THE LANDSCAPE PLANTING WORK, THE CONTRACTOR SHALL PROVIDE COMPLETE SOIL TESTS FOR AT LEAST TWO ON-SITE AREAS.
- ALL SHADE TREES SHALL HAVE SIX FEET (6') CLEAR TRUNK UNLESS OTHERWISE SPECIFIED. CLEAR TRUNK IS NOT REQUIRED FOR FLOWERING TREES/ ORNAMENTALS.
- ALL CONTAINER SIZES NOTED ON PLANT LIST ARE MINIMUM. INCREASE SIZE IF NECESSARY TO CONFORM TO PLANT SIZE AND SPECIFICATIONS.
- ALL TREE CALIPER SIZES NOTED ON PLANT LIST ARE MINIMUM. INCREASE SIZE IF NECESSARY TO CONFORM TO PLANT SIZE AND SPECIFICATIONS.
- EROSION CONTROL FABRIC SHALL BE INSTALLED IN ALL SHRUB AND GROUND COVER PLANTING AREAS AS PER SPECIFICATIONS FOR ALL SLOPES THAT EXCEED 3:1. SEE CIVIL ENGINEER'S GRADING PLANS FOR LOCATION OF SLOPES GREATER THAN 3:1.
- TYPICALLY, SHRUBS AND GROUND COVER PLANTINGS ARE SHOWN AS MASS PLANTING BEDS. PLANTS SHALL BE PLACED ON A TRIANGULAR SPACING CONFIGURATION (STAGGERED SPACING). PLANT CENTER TO CENTER DIMENSIONS (O.C.) IS LISTED UNDER "SPACING" ON THE PLANT LIST.
- LANDSCAPE CONTRACTOR SHALL FIELD STAKE THE LOCATION OF ALL PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT.
- LANDSCAPE CONTRACTOR SHALL FIELD ADJUST LOCATIONS OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
- ANY CURVILINEAR PLANTING OR UNCLEAR PLANTING LAYOUT IS TO BE STAKED IN THE FIELD AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
- ANY SUBSTITUTIONS IN SIZE AND/OR PLANT MATERIAL MUST BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE BEFORE PLANTING CAN BEGIN.

GENERAL NOTES

- NO SURETY IS REQUIRED SINCE THIS SITE IS AN EDUCATIONAL USE.
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.

SCHEDULE A - PERIMETER LANDSCAPE EDGE

	1	2	3	4
BUILDING PERIMETER	357'	450'	239'	444'
LINEAR FEET OF PERIMETER				
CREDIT FOR EXISTING VEGETATION	NO	NO	NO	NO
CREDIT FOR WALL, FENCE, OR BERM	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	0	0	0	7 Shade Trees
NUMBER OF PLANTS PROVIDED				
SHADE TREES	8	8	12	13
EVERGREEN TREES	3	0	0	1
ORNAMENTAL TREES	4	3	0	3
SHRUBS	44	99	221	62

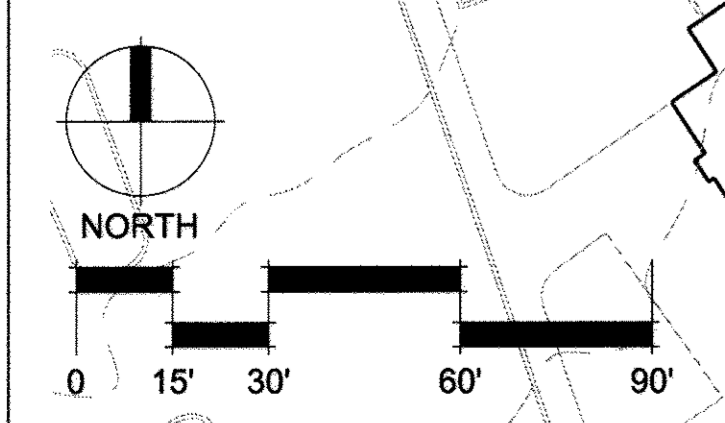
DEVELOPER'S/BUILDER'S CERTIFICATE:
I/WE CERTIFY THAT THE LANDSCAPING SHOWN IN THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE: *[Signature]* DATE: 1-6-2015

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31066. EXPIRATION DATE: 12/31/14
REG. NO. 43523

LEGEND

- LAWN PLANTING
SEE DETAIL 4/L2.03
- TREE PLANTING
SEE DETAIL 1/L2.03
- MULTISTEM TREE PLANTING
SEE DETAIL 1/L2.03
- SHRUB PLANTING
SEE DETAIL 2/L2.03



KCI TECHNOLOGIES
ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS
296 Ridgebrook Road
Suite 210
Baltimore, MD 21228
Phone: (410) 315-7800
Fax: (410) 315-7853
www.kci.com

APPROVED: Howard County Department of Planning & Zoning
[Signature] 1/6/15
[Signature] 1-06-15
[Signature] 12-18-14

Rev:	Date:	Description:	By:
1	10/06/14	ADDENDUM #2	AR

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4296

**Howard Community College -
Science, Engineering & Technology Building**
SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868
ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

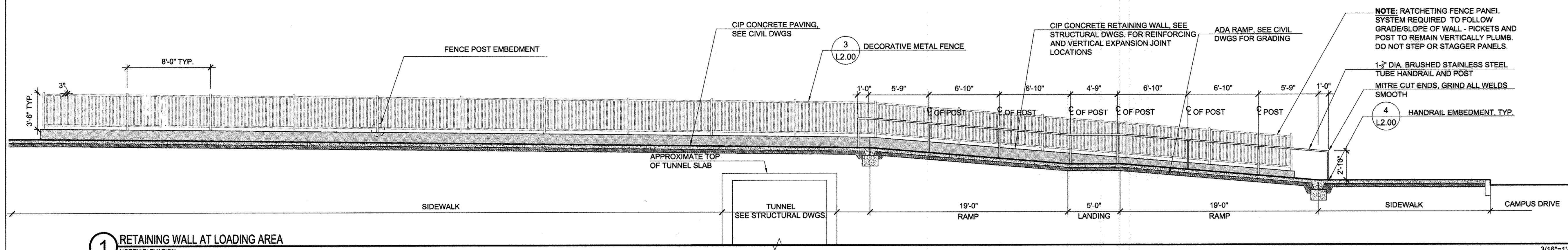
Date:	Scale:	Sheet Title:
10-01-2014	1"=30'	OVERALL LANDSCAPE PLAN AND NOTES
Drawn By: ASG	Designed By: ASG	
Approved By: JC	Project No: 21183	
Tax Map-Grid: 35-6	Zoning: POR & NT	

OVERALL LANDSCAPE PLAN AND NOTES

Discipline Number:
L1.00

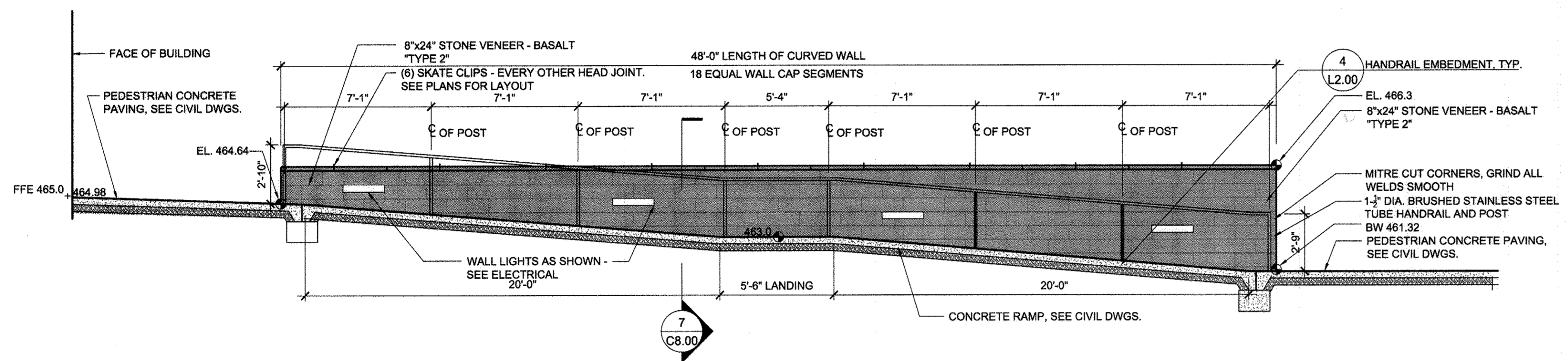
Sheet Number:
35 OF 42

11.13.14 SDP 14-066



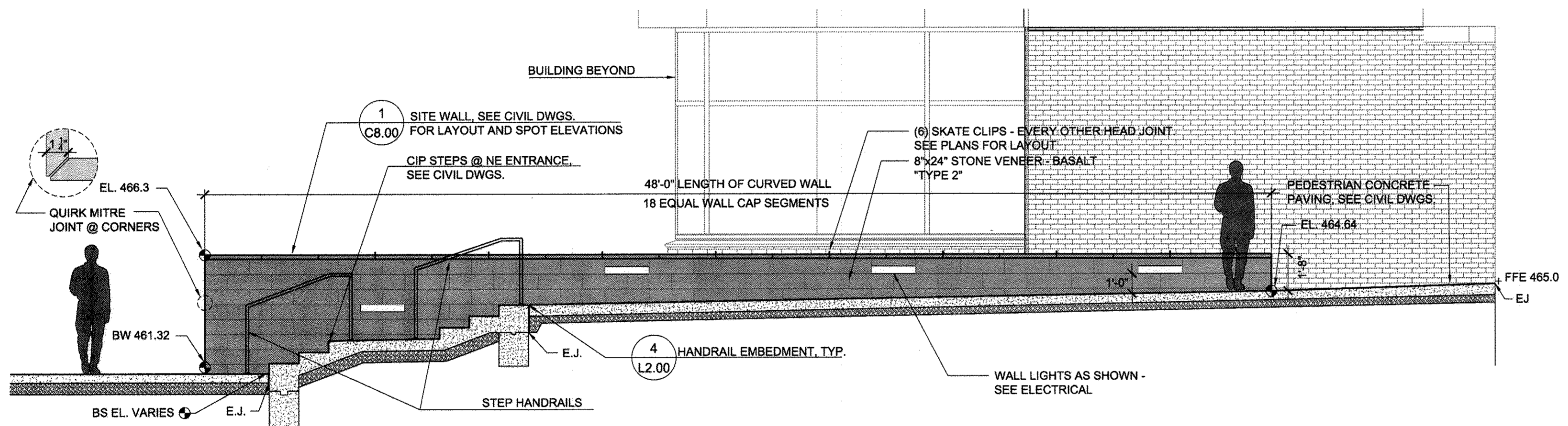
1 RETAINING WALL AT LOADING AREA
NORTH ELEVATION

3/16"=1'-0"



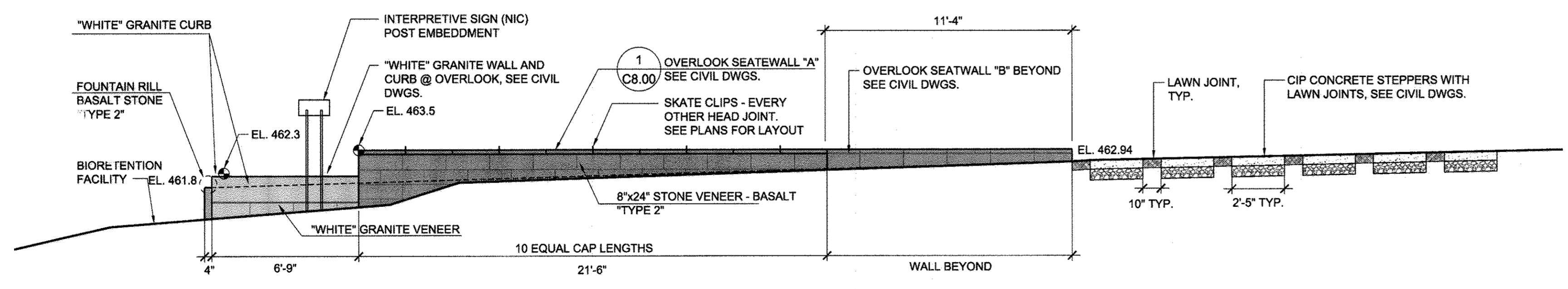
2 NE ENTRANCE ADA RAMP
FLATTENED SECTION ELEVATION

1/4"=1'-0"



3 NE ENTRANCE STAIR AND SEAT WALL
FLATTENED SECTION ELEVATION

1/4"=1'-0"



4 OVERLOOK SEATWALL "A"
ELEVATION

1/4"=1'-0"

KCI TECHNOLOGIES
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AYERS SAINT GROSS
1040 Hill Street, Suite 100
Baltimore, MD 21205
p 410.347.8500 f 410.347.8419

APPROVED: Howard County Department of Planning & Zoning

Mark A. Leitch 1/6/15
Director

Vito Reardon 1-06-15
Chief, Division of Land Development

Chris Clark 12-18-14
Chief, Development Engineering Division

Rev:	Date:	Description:	By:	Prepared For and Owner:
1	10/06/14	ADDENDUM #2	AR	Howard Community College 10901 Little Patuxent Parkway Columbia, Maryland 21044 ATTN: Mr. Chuck Nightingale 410-772-4296

Project Name:
**Howard Community College -
Science, Engineering & Technology Building**

SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868
ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

Date:	10-01-2014	Scale:	AS SHOWN
Drawn By:	ASG	Designed By:	ASG
Approved By:	JC	Project No:	21183
Tax Map-Grid:	35-6	Zoning:	POR & NT

Sheet Title:
SITE SECTIONS

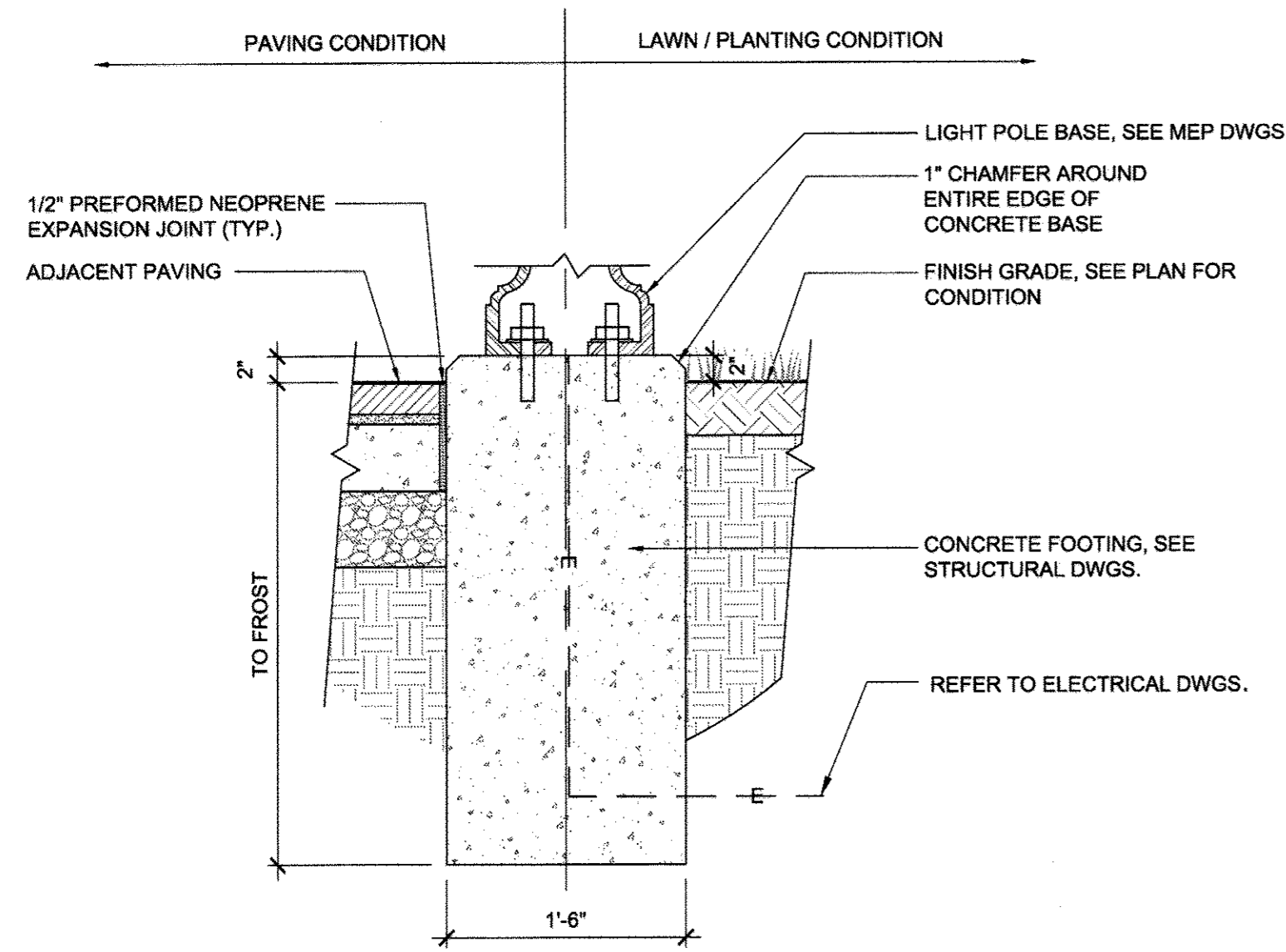
PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31068, EXPIRATION DATE: 12/31/14

JONATHAN M. CECI
STATE OF MARYLAND
L1314

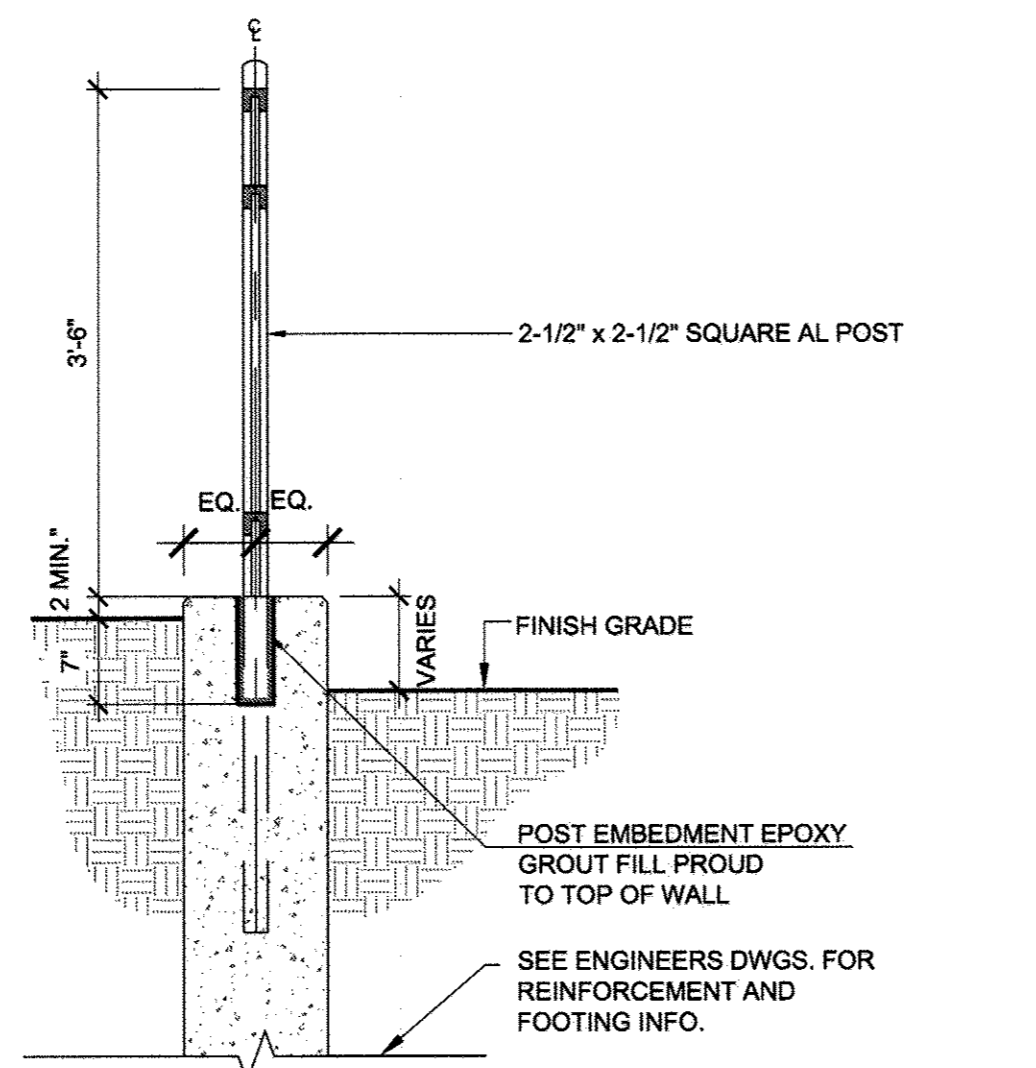
Discipline Number:
L1.10

Sheet Number:
36 OF 42

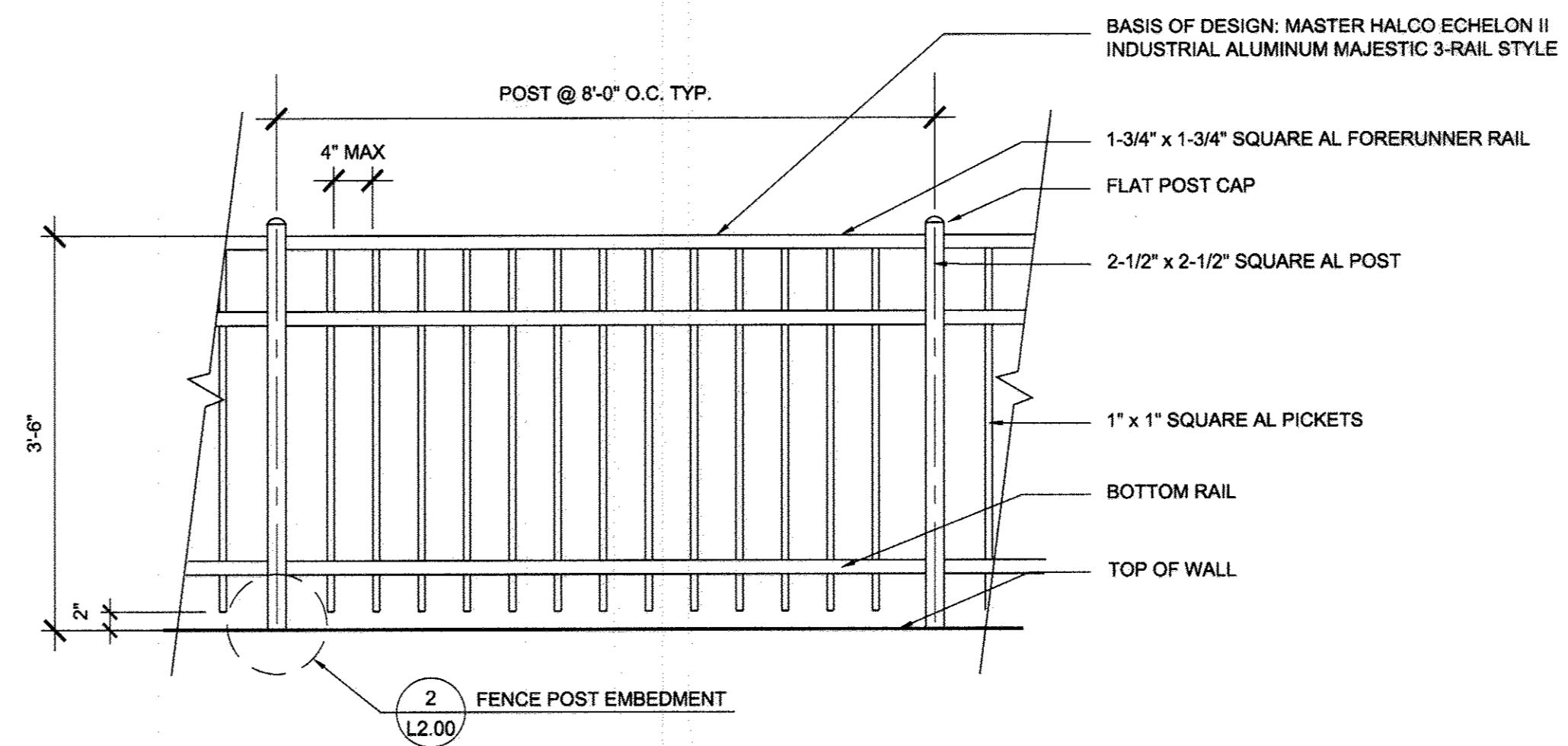
SDP 14-066



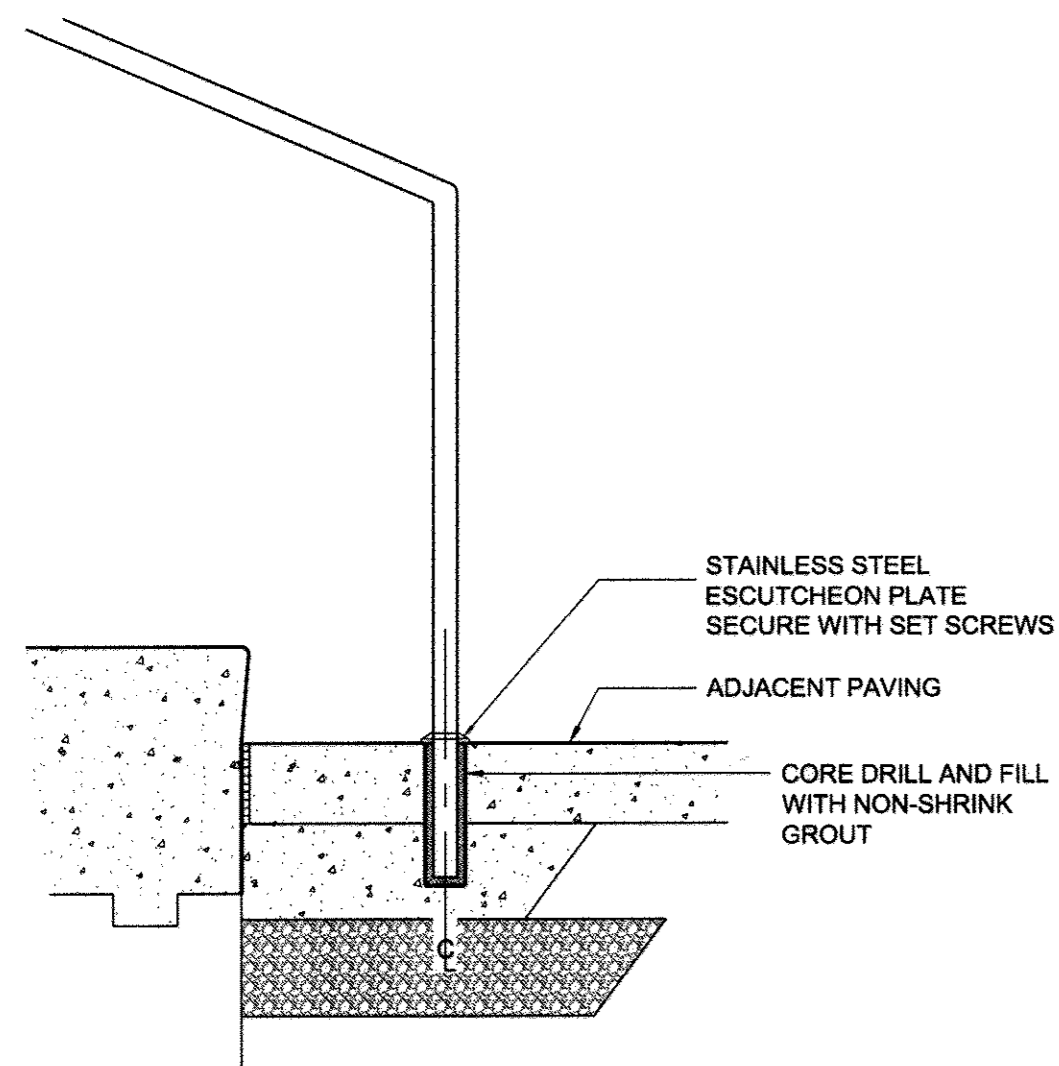
1 PEDESTRIAN LIGHT POLE FOOTING
SECTION 1"=1'-0"



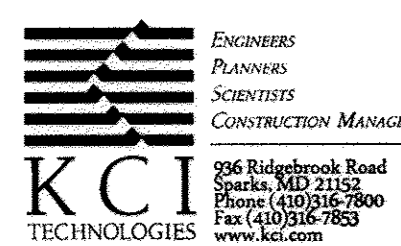
2 FENCE POST EMBEDMENT
SECTION 3/4"=1'-0"



3 DECORATIVE METAL FENCE
ELEVATION 3/4"=1'-0"



4 HANDRAIL EMBEDMENT
SECTION 1"=1'-0"



APPROVED: Howard County Department of Planning & Zoning

David M. Coyle 1/6/15
Director
Chad Edwards 1-06-15
Chief, Division of Land Development
Chad Edwards 12-19-14
Chief, Development Engineering Division

Rev	Date	Description	By
1	10/06/14	ADDENDUM #2	AR
2			
3			
4			
5			

Prepared For and Owner:
Howard Community College
10901 Little Patuxent Parkway
Columbia, Maryland 21044
ATTN: Mr. Chuck Nightingale
410-772-4296

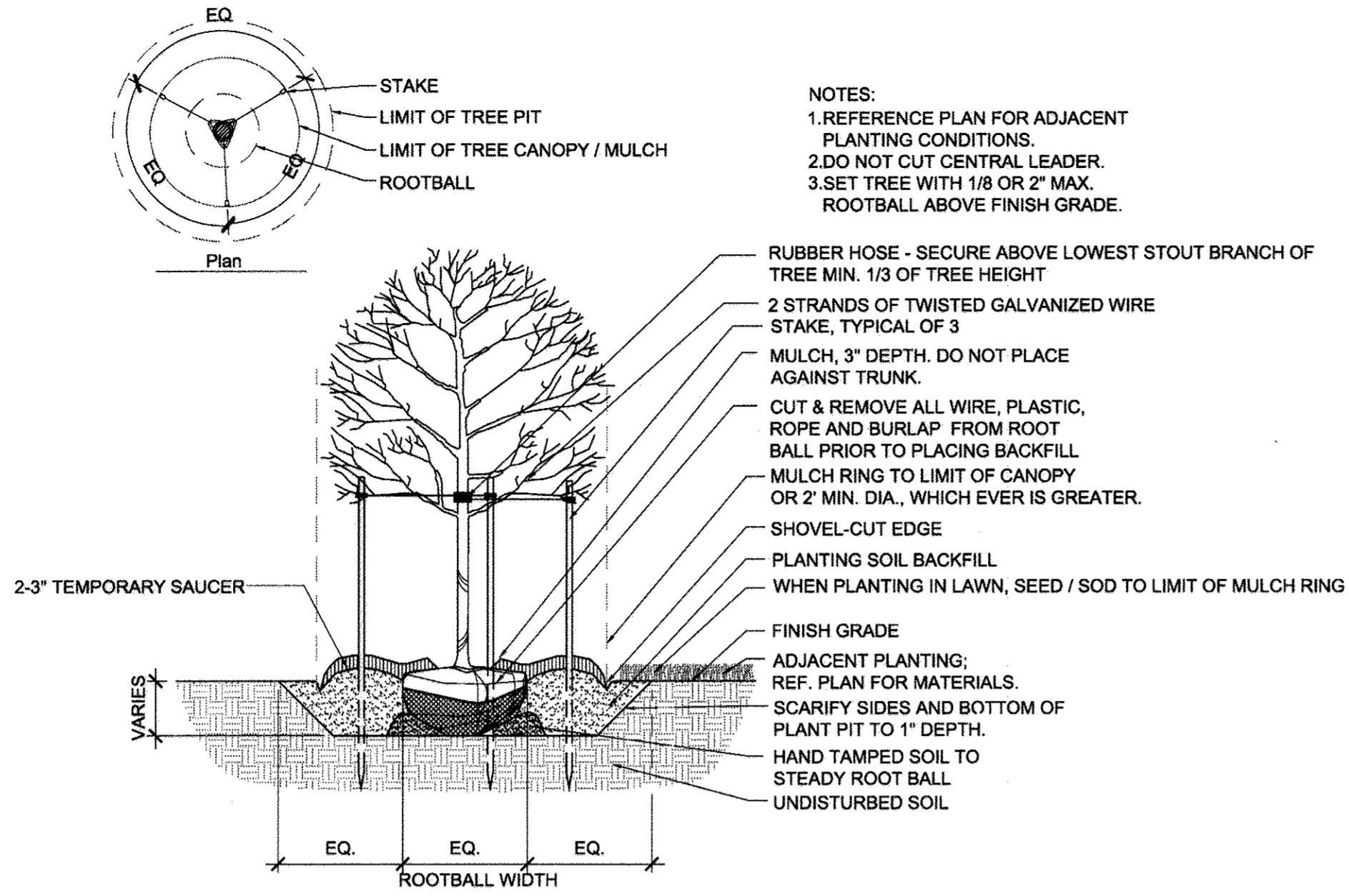
Project Name:
**Howard Community College -
Science, Engineering & Technology Building**
SITE PACKAGE
PARCEL: 47, TAX MAP: 35, GRID: 6
TAX ACCOUNT #: 045868
ELECTION DISTRICT NO.5 HOWARD COUNTY, MARYLAND

Date:	Scale:	Sheet Title:
10-01-2014	AS SHOWN	DETAILS
Drawn By: ASG	Designed By: ASG	
Approved By: JC	Project No: 21183	
Tax Map-Grid: 35-6	Zoning: POR & NT	

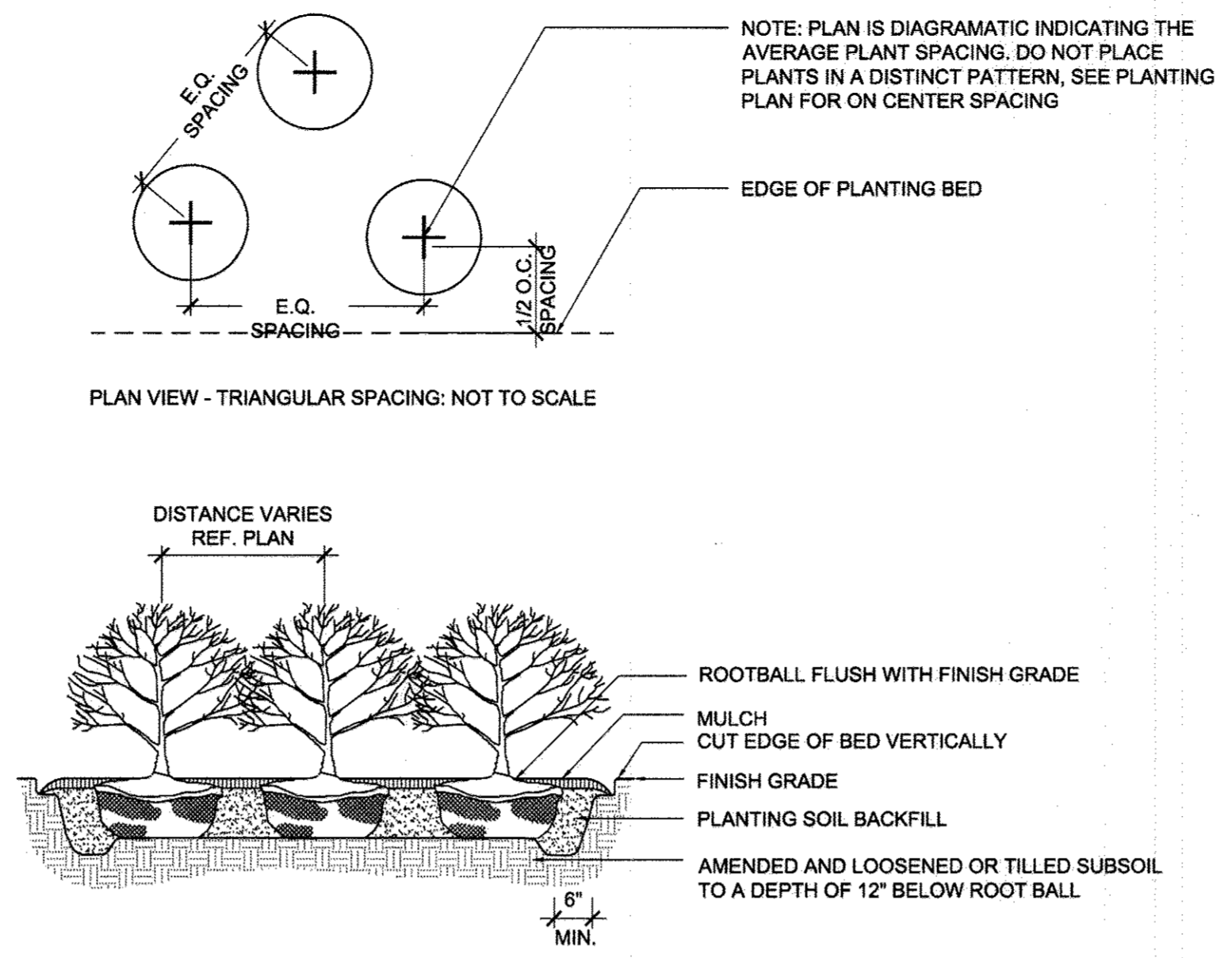
PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31089 IN 1/2/11/4

LANDSCAPE ARCHITECT License #3523

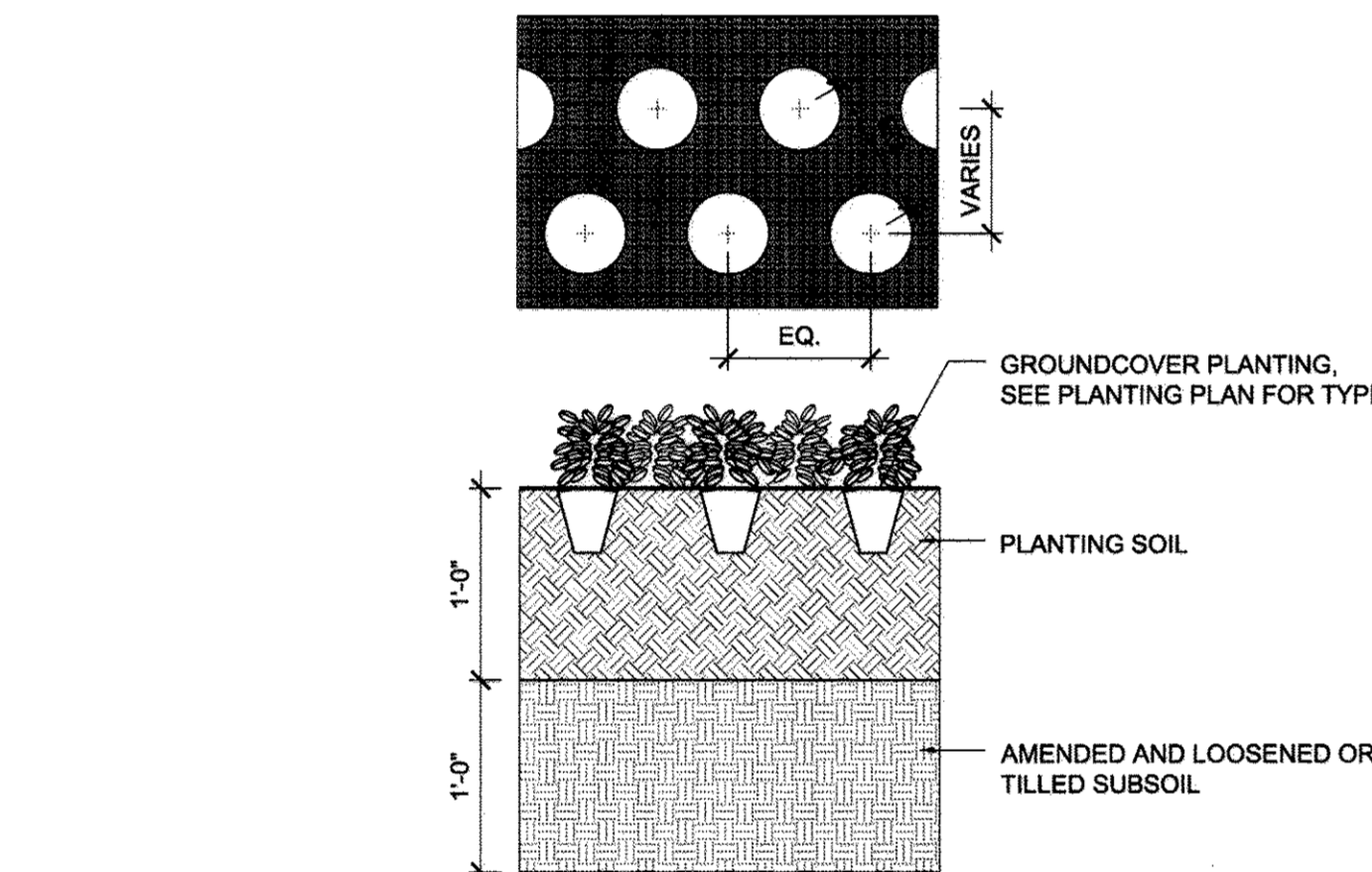
 Discipline Number:
L2.00
 Sheet Number:
37 OF 42



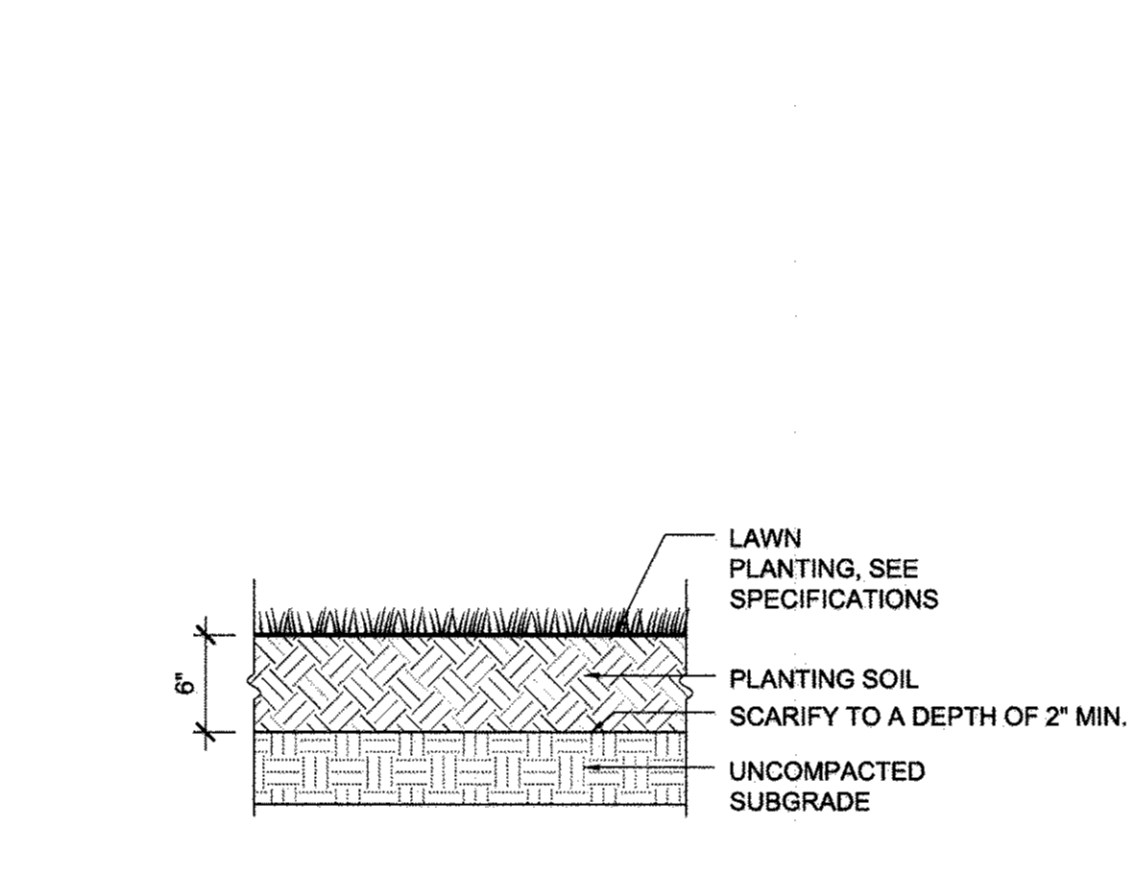
1 TREE PLANTING SECTION 3/8"=1'-0"



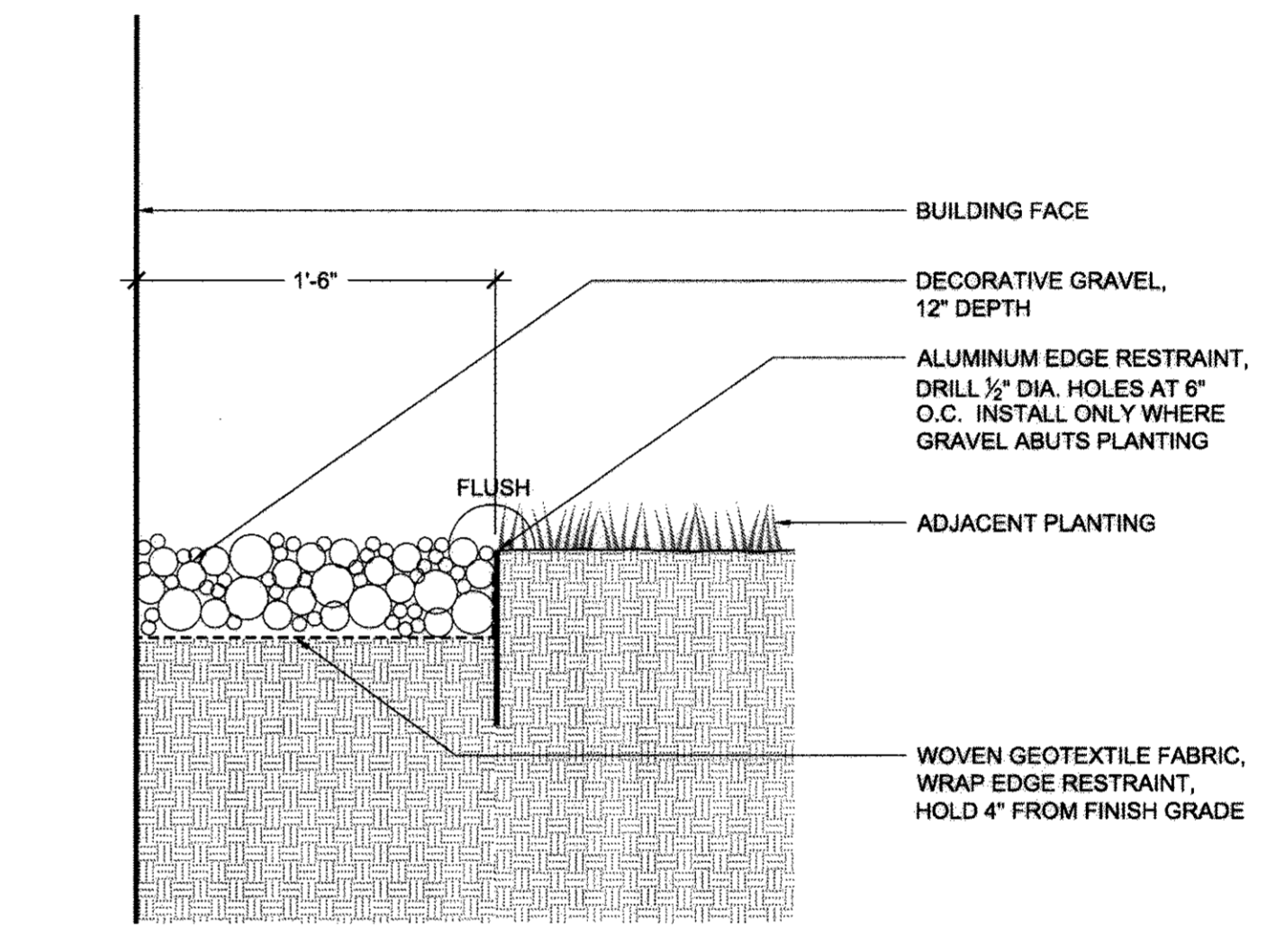
2 SHRUB PLANTING SECTION 3/8"=1'-0"



3 GROUND COVER / PERENNIAL PLANTING SECTION 1"=1'-0"



4 LAWN PLANTING SECTION 1"=1'-0"



5 GRAVEL DRIP EDGE SECTION 1"=1'-0"



APPROVED: Howard County Department of Planning & Zoning
 Director: *[Signature]* 11/6/14
 Chief, Division of Land Development: *[Signature]* 1-06-15
 Chief, Development Engineering Division: *[Signature]* 12-18-14

Rev:	Date:	Description:	By:
1	10/06/14	ADDENDUM #2	AR
2			
3			
4			
5			

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4296

Project Name:
**Howard Community College -
 Science, Engineering & Technology Building**
 ELECTION DISTRICT NO.5
 HOWARD COUNTY, MARYLAND

Date: 10-01-2014
 Scale: AS SHOWN
 Drawn By: ASG
 Designed By: ASG
 Approved By: JC
 Project No: 21183
 Tax Map-Grid: 35-6
 Zoning: POR & NT

Sheet Title:
**PLANTING
 DETAILS**

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 31084. *[Signature]* 11/14

Discipline Number:
L2.01
 Sheet Number:
38 OF 42

11.13.14

ELECTRICAL LEGEND

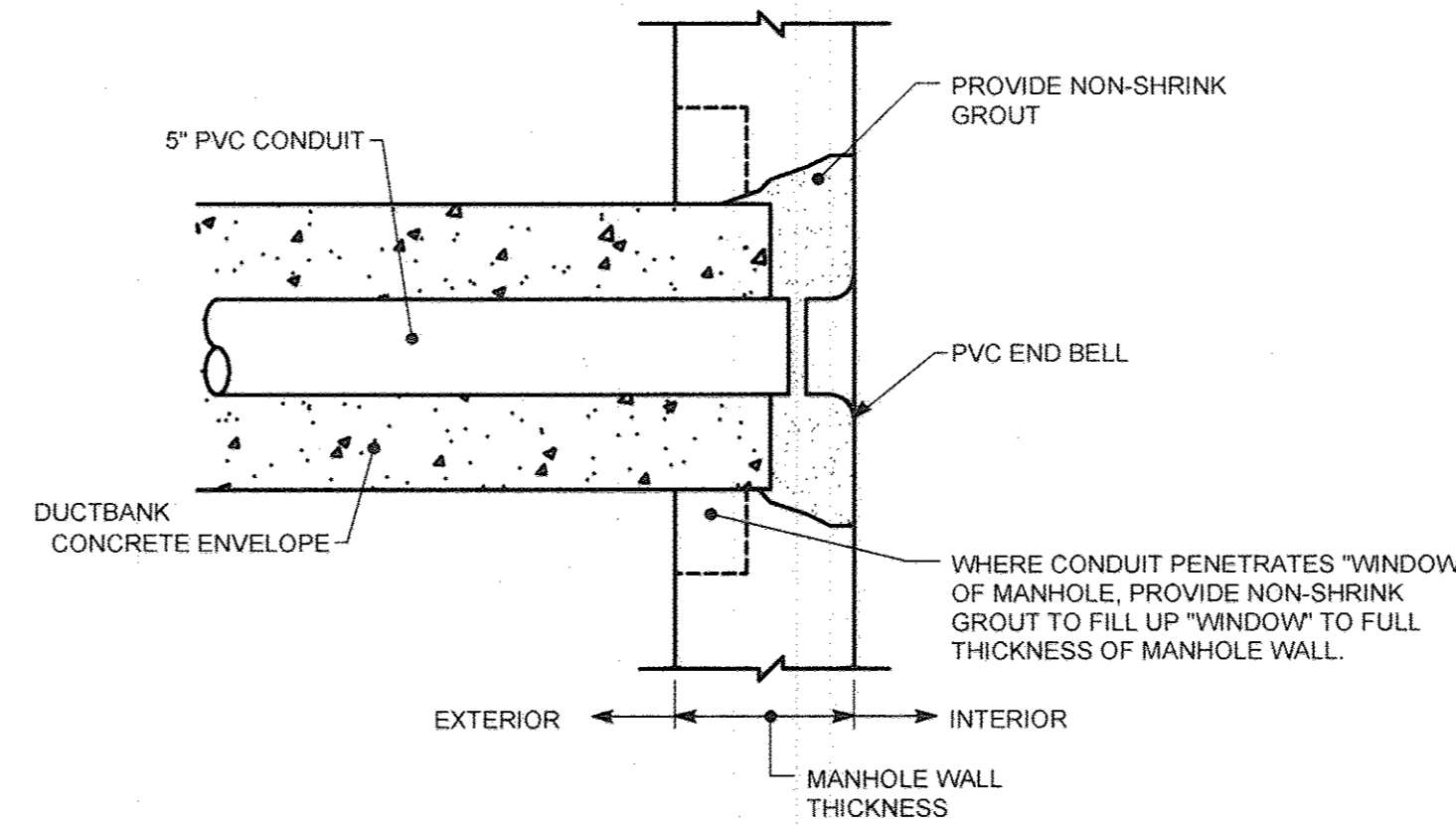
SYMBOLS	DESCRIPTION
	POLE MOUNTED PATH LIGHT
	WALL MOUNTED INCANDESCENT/FLUORESCENT OR H.I.D. LIGHTING FIXTURE
	LIGHTING FIXTURE ON EMERGENCY CIRCUIT
	POLE MOUNTED SITE LIGHT
	JUNCTION BOX
	BRANCH CIRCUIT - CONCEALED IN SLAB OR BELOW GRADE

ABBREVIATIONS

A	AMPS OR AMPERE
AC	ALTERNATING CURRENT
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CAPACITY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
DWG	DRAWING
ECB	ENCLOSED CIRCUIT BREAKER
EMT	ELECTRICAL METALLIC TUBING
ETR	EXISTING TO REMAIN
EX	EXISTING
GRD	GROUND
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
RX	REMOVE EXISTING
UON	UNLESS OTHERWISE NOTED
V	VOLTS OR VOLTAGE
W	WITH
WP	WEATHERPROOF
#	NUMBER
Ø	PHASE

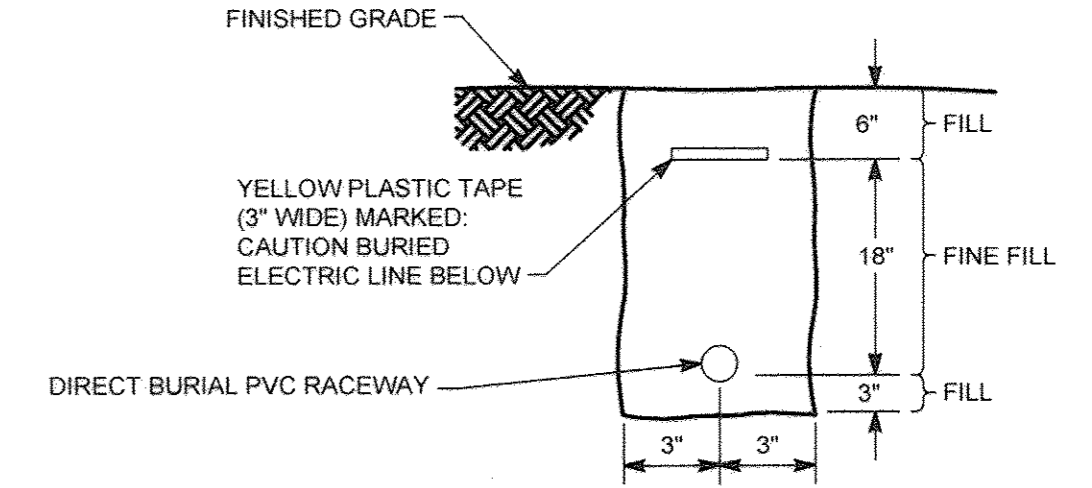
CONVENTIONS

	ELECTRICAL EQUIPMENT DENOTED BY DASHED, HEAVY LINEWEIGHT SHALL BE DISPOSED OF, UNLESS INDICATED TO BE REUSED OR TURNED OVER TO THE OWNER
	ELECTRICAL EQUIPMENT DENOTED BY LIGHT, SOLID LINEWEIGHT INDICATES EXISTING TO REMAIN, UNLESS INDICATED OTHERWISE
	ELECTRICAL EQUIPMENT DENOTED BY HEAVY, SOLID LINEWEIGHT SHALL BE NEW WORK PROVIDED BY CONTRACTOR
	INDICATES SPACE OR POLE NUMBER
	BRANCH CIRCUIT HOMERUN TO PANELBOARD, SWITCHBOARD, MCC
	PANELBOARD DESIGNATION
	INDICATES PHASE, SWITCHED, AND TRAVELER CONDUCTORS (IF NOT SHOWN, PROVIDE 2#12 AWG & 1#12 GROUND)
	INDICATES NUMBER OF SWITCHES IN GROUP
	LIGHTING TOGGLE SWITCH
	DENOTES SWITCH DESIGNATION
	DRAWING NOTE
	GENERAL NOTE - APPLIES TO ALL SHEETS WITHIN THE ELECTRICAL DRAWING SET
	LIGHTING FIXTURE TYPE (REFER TO SCHEDULE)
	LIGHTING FIXTURE
	INDICATES SWITCH DESIGNATION
	INDICATES CIRCUIT DESIGNATION
	INDICATES SWITCHING ZONE DESIGNATION (ZP# REFERS TO ZONE CONTROLLED BY PHOTOCELL)
	FEEDER NUMBER (REFER TO SCHEDULE)
	CONNECT TO EXISTING



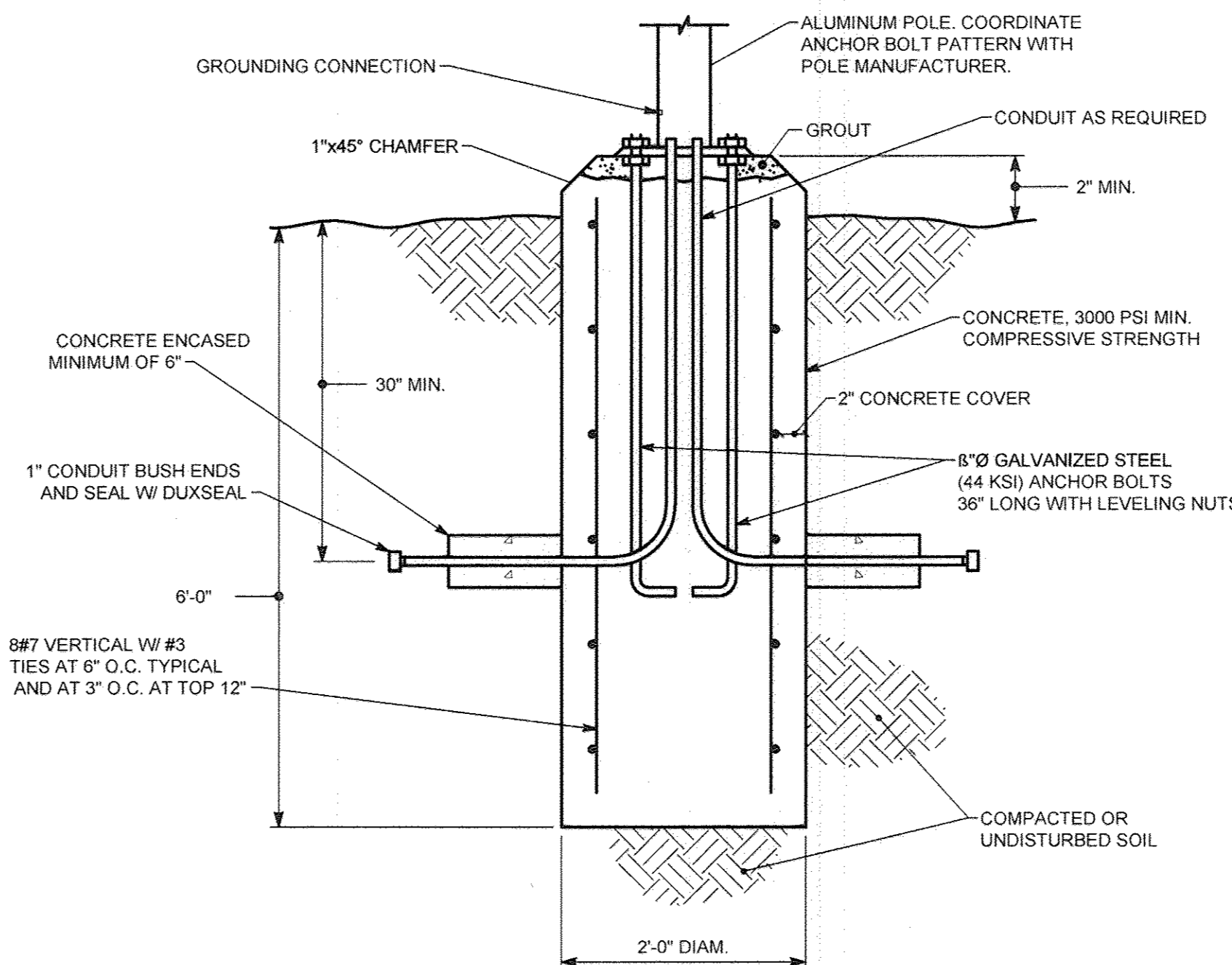
DETAIL - CONDUIT/MANHOLE PENETRATION

NOT TO SCALE



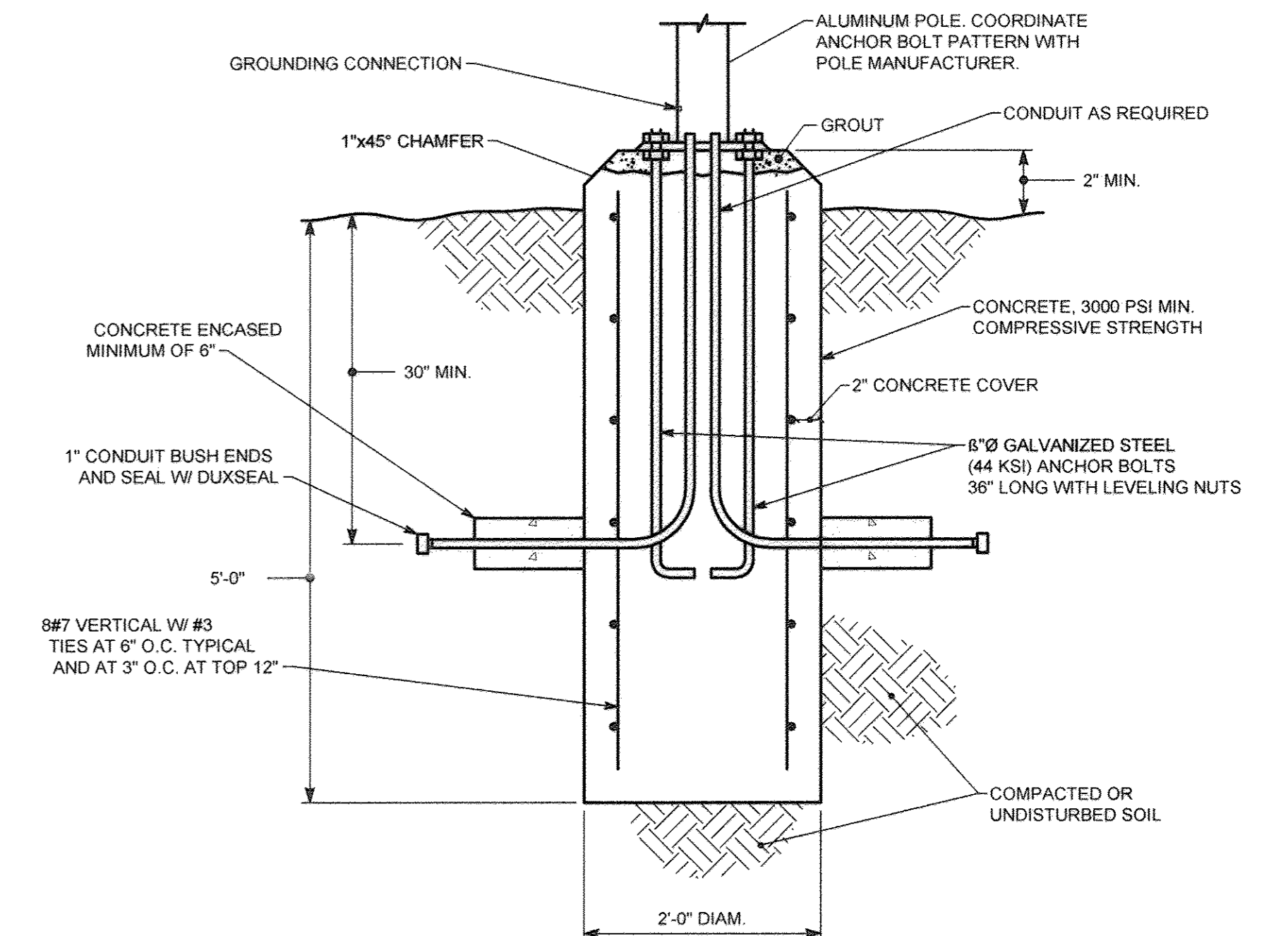
DETAIL - DIRECT BURIAL CONDUIT INSTALLATION

NOT TO SCALE



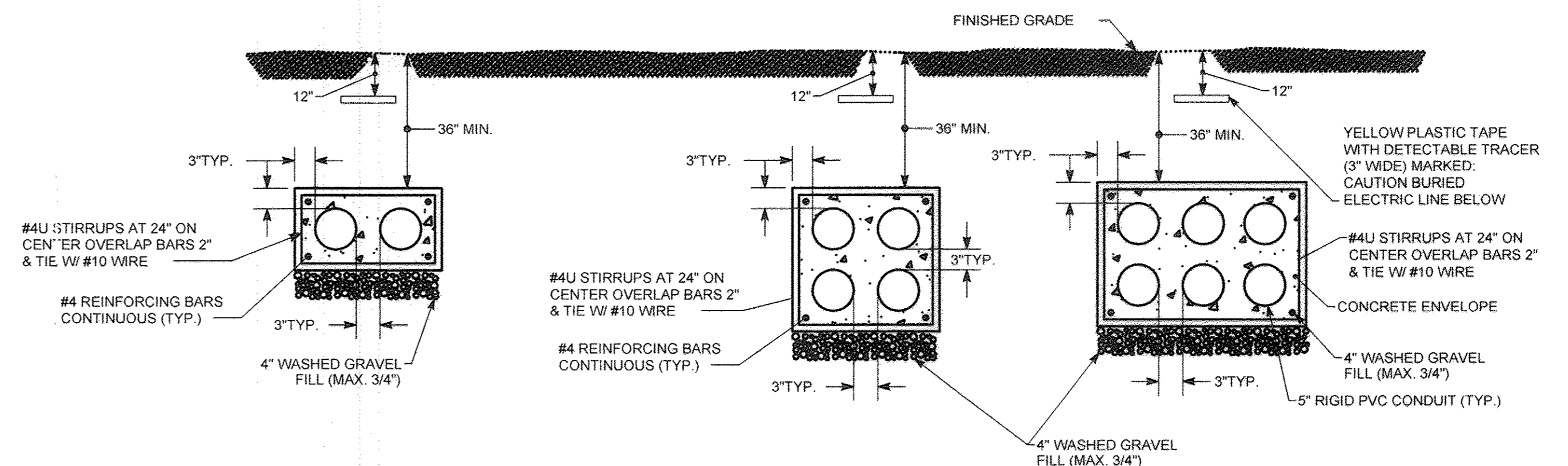
DETAIL - SITE LIGHTING POLE BASE - TYPE B1

NOT TO SCALE



DETAIL - SITE LIGHTING POLE BASE - TYPE B2

NOT TO SCALE



DETAIL - ELECTRICAL DUCTBANKS

NOT TO SCALE

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. 94254 EXPIRATION DATE: 6/28/14



APPROVED: Howard County Department of Planning & Zoning
 Director: *[Signature]* 1/6/14
 Chief, Division of Land Development: *[Signature]* 1-06-15
 Client, Development Engineering Division: *[Signature]* 12-18-14

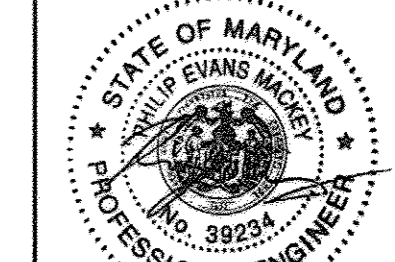
Rev:	Date:	Description:	By:
1	1/6/14		
2	1-06-15		
3	12-18-14		

Prepared For and Owner:
 Howard Community College
 10901 Little Patuxent Parkway
 Columbia, Maryland 21044
 ATTN: Mr. Chuck Nightingale
 410-772-4295

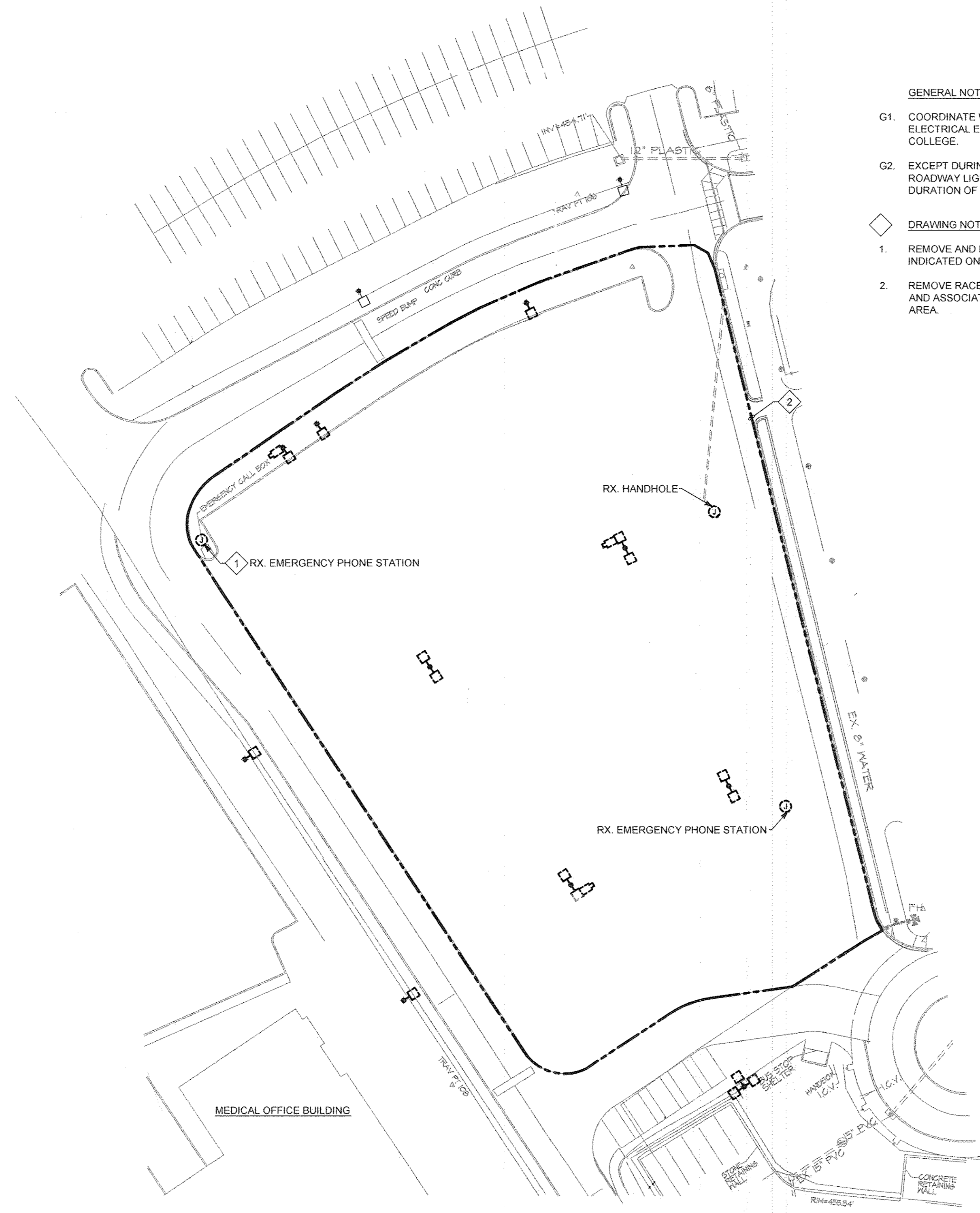
Project Name:
**Howard Community College -
 Science, Engineering & Technology Building**
 SITE PACKAGE
 PARCEL 47, TAX MAP 35, GRID 6
 TAX ACCOUNT # 045868
 HOWARD COUNTY, MARYLAND

Date:	05-12-2014	Scale:	NTS
Drawn By:	PEM	Designed By:	PEM
Approved By:	DED	Project No.:	27111245
Tax Map-Grid:	35-6	Zoning:	POR & NT

Sheet Title:
**ELECTRICAL LEGEND
 AND DETAILS**



Discipline Number:
 ES.0
 Sheet Number:
39 OF 42

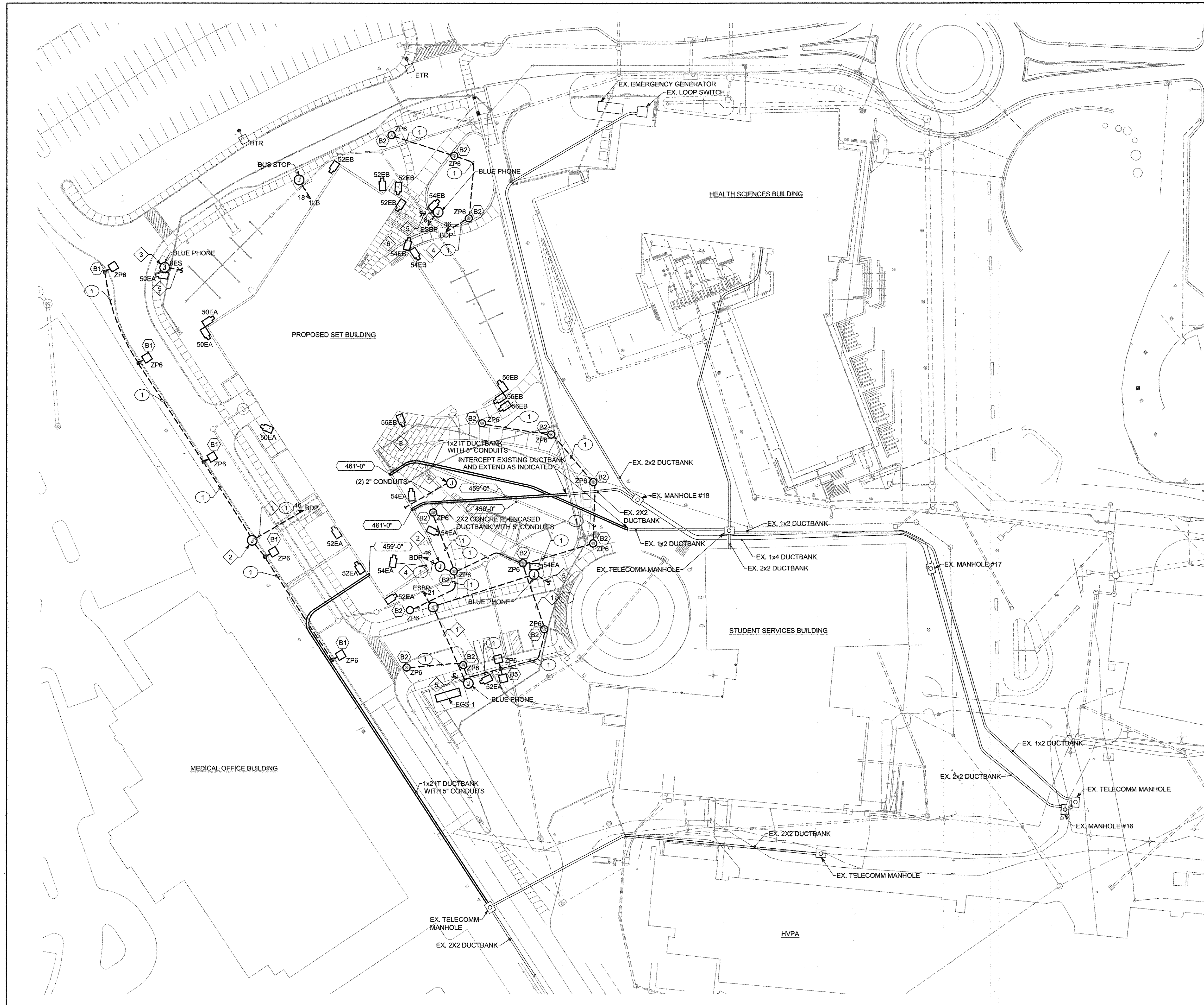


- GENERAL NOTES:**
- G1. COORDINATE WITH OWNER FOR REMOVAL OF ELECTRICAL EQUIPMENT TO BE RETURNED TO COLLEGE.
 - G2. EXCEPT DURING CAMPUS DRIVE RECONSTRUCTION, ROADWAY LIGHTING MUST REMAIN IN SERVICE FOR DURATION OF PROJECT.
- DRAWING NOTES:**
- 1. REMOVE AND RELOCATE ELECTRICAL DEVICE AS INDICATED ON NEW WORK PLAN.
 - 2. REMOVE RACEWAYS, POLE BASES, ANCHOR BOLTS AND ASSOCIATED ELECTRICAL EQUIPMENT IN THIS AREA.

SITE PLAN - REMOVAL WORK - ELECTRICAL
 SCALE: 1" = 40'-0"

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. 94284 EXPIRATION DATE: 6/26/14

		APPROVED: Howard County Department of Planning & Zoning	Rev:	Date:	Description:	By:	Prepared For and Owner:	Date:	Scale:	Sheet Title:	
		 <small>Director</small>	 <small>1-06-15</small> <small>Date</small>	 <small>12-18-14</small> <small>Date</small>	<small>Howard Community College</small> <small>10901 Little Patuxent Parkway</small> <small>Columbia, Maryland 21044</small> <small>ATTN: Mr. Chuck Nightingale</small> <small>410-772-4296</small>	<small>05-12-2014</small> <small>Drawn By: PEM</small> <small>Designed By: PEM</small> <small>Approved By: DED</small> <small>Project No: 27111245</small> <small>Tax Map-Grid: 35-6</small> <small>Zoning: POR & NT</small>	<small>1" = 40'-0"</small> <small>Sheet Title:</small> SITE PLAN - REMOVAL WORK - ELECTRICAL	<small>Discipline Number:</small> ES.1 <small>Sheet Number:</small> 40 OF 42			
Project Name: Howard Community College - Science, Engineering & Technology Building <small>SITE PACKAGE</small> <small>PARCEL 47, TAX MAP 35, GRID 6</small> <small>TAX ACCOUNT # 045868</small> <small>ELECTION DISTRICT NO.5</small>								<small>HOWARD COUNTY, MARYLAND</small>			



CIRCUIT LEGEND:

- (E) PANEL E1P
- (EA) PANEL E3SA
- (EB) PANEL E3SB
- (ES) PANEL E3BP

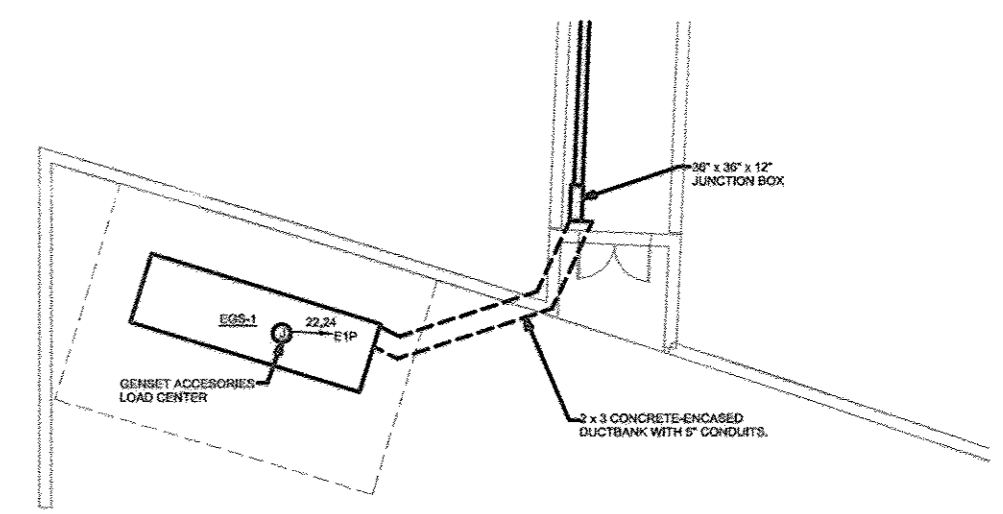
GENERAL NOTES:

- G1. EXCEPT DURING CAMPUS DRIVE RECONSTRUCTION, ROADWAY LIGHTING MUST REMAIN IN SERVICE FOR DURATION OF PROJECT.
- G2. REFER TO ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR EXACT LOCATION OF LIGHTING FIXTURES.

DRAWING NOTES:

1. PROVIDE PORTION OF BRANCH CIRCUIT DIRECTLY UNDER ROADWAY ENCASED IN CONCRETE.
2. PROVIDE HANDHOLE LABELED "ELEC".
3. RELOCATE EXISTING EMERGENCY PHONE STATION TO THIS LOCATION.
4. PARTIAL BRANCH CIRCUIT. CIRCUIT SERVES ADDITIONAL LIGHTING ON THIS SHEET.
5. PROVIDE (1) 2" CONDUIT TO ACCESSIBLE CEILING SPACE OF BASEMENT FOR COMMUNICATION WIRING BY OTHERS.
6. REFER TO PART PLAN, THIS DRAWING FOR LIGHTING IN THIS AREA.

FEEDER SCHEDULE			
FEEDER NUMBER	CONDUIT	WIRE	GROUND
1	1"	2#10	1#10



SITE PLAN - NEW WORK - ELECTRICAL
SCALE: 1" = 40'-0"

PART SITE PLAN - NEW WORK - ELECTRICAL
SCALE: 1/16" = 1'-0"

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APPROVED: Howard County Department of Planning & Zoning

Mark McClellan 1/6/15
Director

K. Tolson 1-06-15
Chief, Division of Land Development

Paul Chubb 12-18-14
Chief, Development Engineering Division

Rev:	Date:	Description:	By:
1			
2			
3			
4			

Prepared For and Owner:
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410-772-4296

Project Name:
Howard Community College - Science, Engineering & Technology Building

SITE PACKAGE
PARCEL 47, TAX MAP 35, GRID 6
TAX ACCOUNT # 045868
ELECTION DISTRICT NO.5
HOWARD COUNTY, MARYLAND

Date:	05-12-2014	Scale:	1" = 40'-0"
Drawn By:	PEM	Designed By:	PEM
Approved By:	DED	Project No.:	27111245
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Sheet Title:
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STATE OF MARYLAND
PROFESSIONAL ENGINEER
94284

Discipline Number:
ES.2

Sheet Number:
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