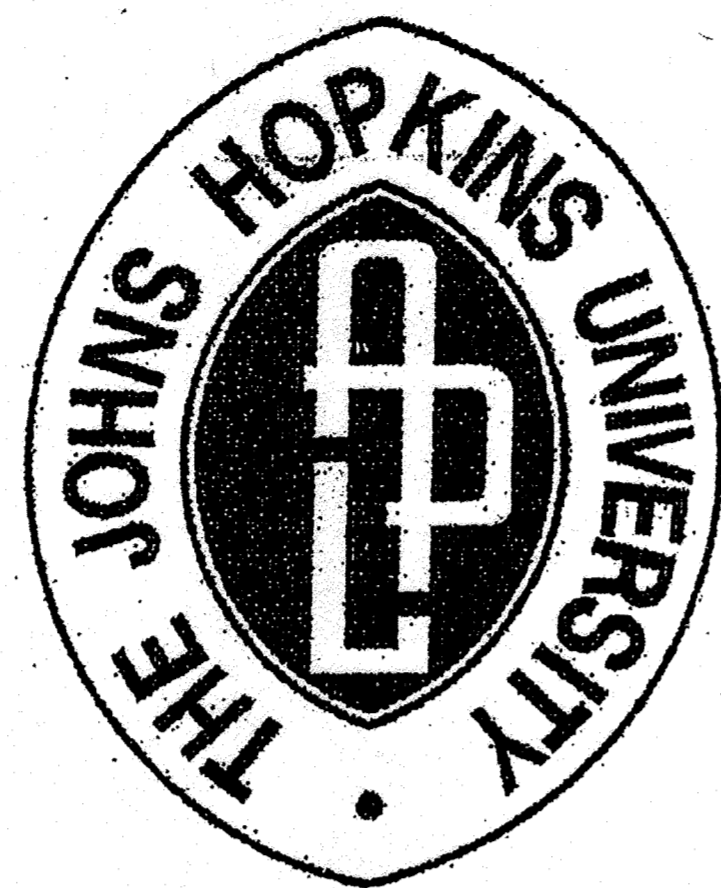


# THE JOHNS HOPKINS UNIVERSITY



**PURPOSE STATEMENT**  
INSTALLER LINGUAL PART OF COMMUNICATION DUCT BANK AND NEW COMMUNICATION VENTS.

**LANDOWNER SUMMARY**  
LIMITS OF DISTURBANCE 3,463 SF  
BY IMPERVIOUS AREA 1,405 SF  
PROP. IMPERVIOUS AREA 774C  
CUT 420C  
FILL

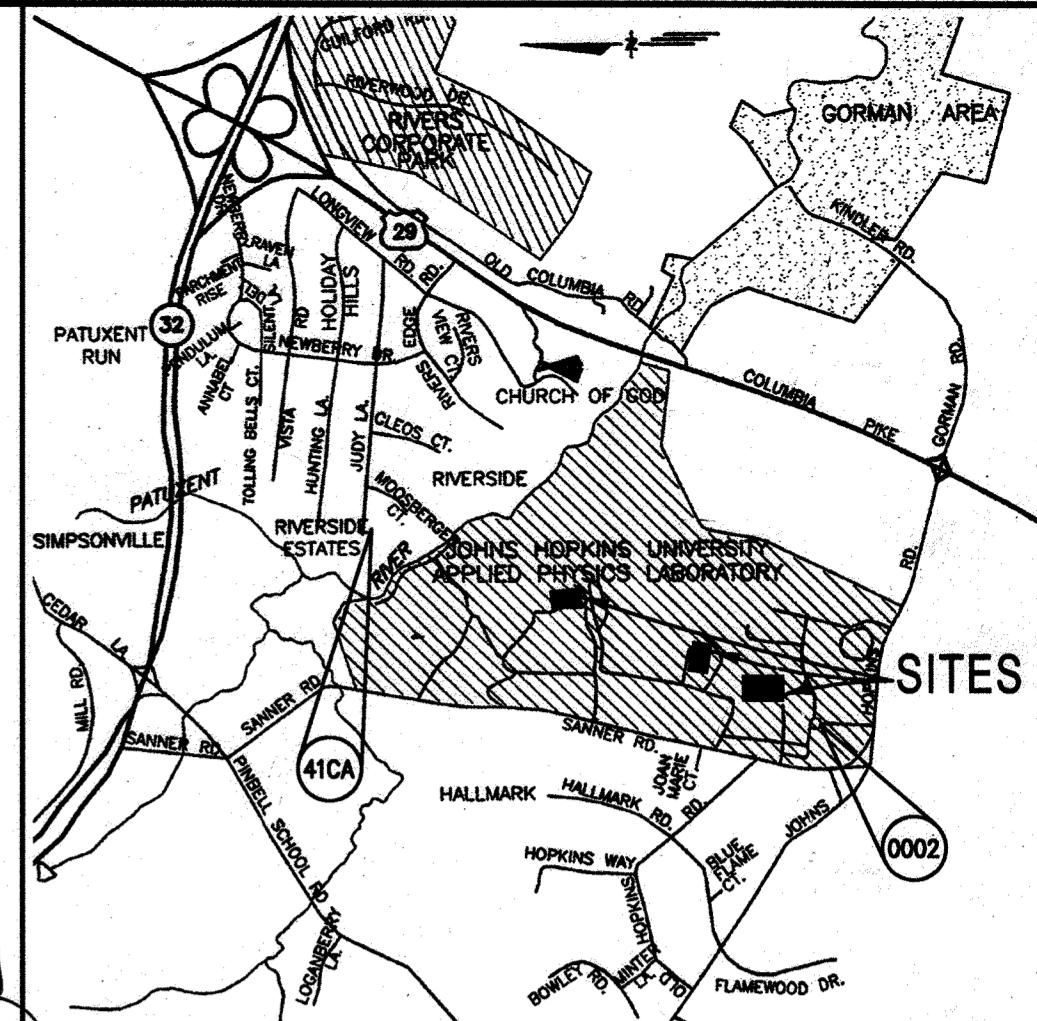
I hereby certify that these documents were prepared or approved by me and that I am a duly licensed professional engineer/landscape architect under the laws of the state of Maryland. License No. 49482, Expiration Date 05/31/2008

R.K. PK  
700 East Pratt St, Suite 600  
Baltimore, MD 21202

THIS STAMP AND SIGNATURE APPLY ONLY TO REVISION 3.

NOTE:  
THIS RED LINE SUBMISSION TO REVISE THE OUTDOOR PLAZA AREA IN FRONT OF BUILDING 17 AND REMOVE ASPHALT ALONG THE MAIN DRIVE IN FRONT OF BUILDING 17. SUBMISSION ALSO INCLUDES PARKING RESTRICTIONS BEHIND BUILDING 17 AND NEAR CENTER SERVICE ROAD.

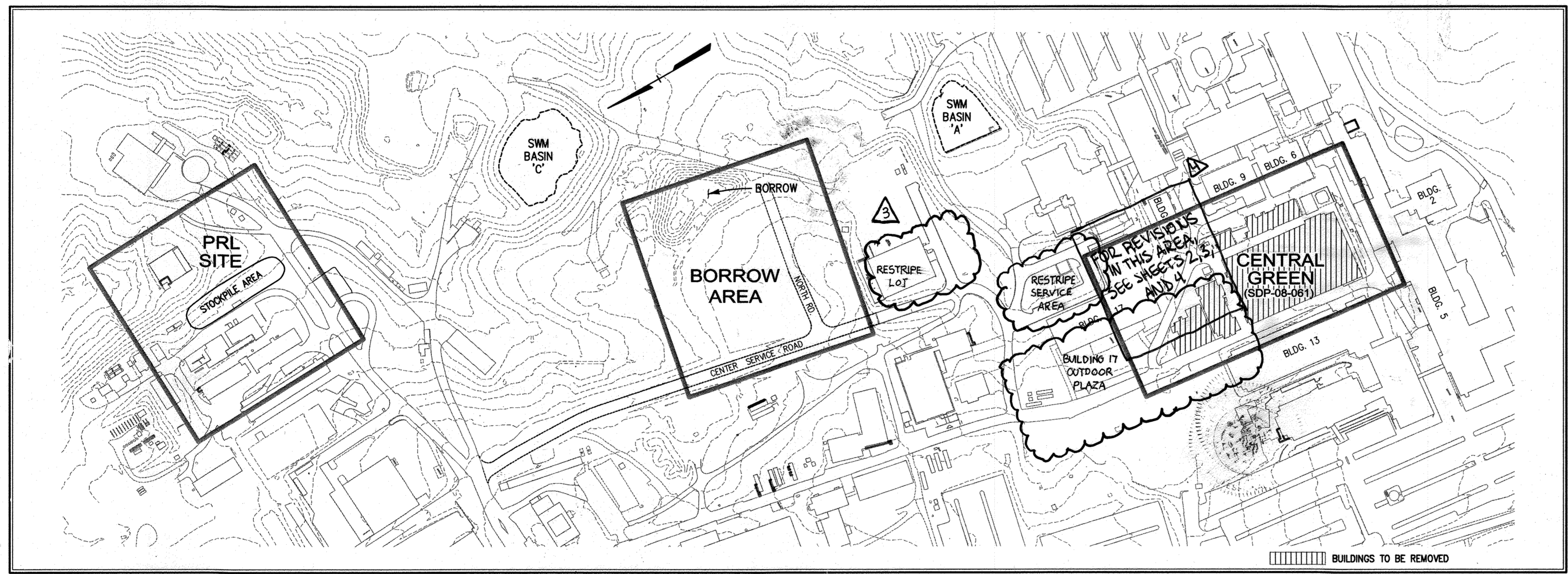
1 OF 16 COVER SHEET  
2 OF 16 SITE PLAN  
3 OF 16 UTILITY PLAN  
4 OF 16 UTILITY PROFILES  
5 OF 16 STORM DRAIN DRAINAGE AREA MAPS  
6 OF 16 BUILDING 17 PLAZA SERVICE AREA LOT RESTRIPING  
7 OF 16 CENTRAL SERVICE ROAD LOT PARKING RESTRIPING  
8 OF 16 BUILDING 17 PLAZA GRADING & EROSION & SEDIMENT CONTROLS  
9 OF 16 BUILDING PLAZA STORMWATER MANAGEMENT DETAILS  
10 OF 16  
11 OF 16  
12 OF 16  
13 OF 16  
14 OF 16



# APPLIED PHYSICS LABORATORY

**LEGEND**

EX. MINOR CONTOUR	---391---
EX. MAJOR CONTOUR	---390---
EX. SPOT ELEVATION	X 387.6
EX. FIRE HYDRANT	⊗
EX. STORM DRAIN	SD
EX. WATER LINE	W
EX. SANITARY SEWER	S
EX. ELECTRIC LINE	Elec
EX. COMMUNICATIONS LINE	---
EX. MANHOLE	⊙
EX. INLET	⊕
EX. TREE LINE	---
EX. BUILDING	---
EX. CURB AND GUTTER	---
EX. BITUMINOUS PAVING	---
EX. CONCRETE SIDEWALK	---
EX. FENCE	X
EX. WALL	---
EX. CLEANOUT	⊕
EX. LIGHT STANDARD	⊕
EX. BUSH	⊕
EX. TREE	⊕
EX. PIPE BOLLARD	⊕
EX. UTILITY POLE	⊕
PROP. MINOR CONTOUR	---379---
PROP. MAJOR CONTOUR	---380---
PROP. SPOT ELEVATION	+385.58
PROP. CURB & GUTTER	---



**SHEET INDEX**

1	COVER SHEET
2	SITE PLAN
3	GRADING PLAN
4	UTILITY PLAN
5	UTILITY PROFILES AND NOTES
6	STORM DRAIN DRAINAGE AREA MAP AND FLOW TABULATIONS
7	EROSION & SEDIMENT CONTROL PLAN
8	BORROW AREA GRADING PLAN
9	BORROW AREA EROSION & SEDIMENT CONTROL PLAN
10	EROSION & SEDIMENT CONTROL DRAINAGE AREA MAP
11	BORROW AREA EROSION & SEDIMENT CONTROL DRAINAGE AREA MAP
12	PRL SITE STOCKPILE AREA EROSION & SEDIMENT CONTROL PLAN
13	PRL SITE STOCKPILE AREA EROSION & SEDIMENT CONTROL DRAINAGE AREA MAP
14	EROSION & SEDIMENT CONTROL SPECIFICATIONS AND NOTES
15	EROSION & SEDIMENT CONTROL DETAILS
16	DEMOLITION PLAN

**PURPOSE OF PLAN**

THIS SITE DEVELOPMENT PLAN IS FOR THE DEVELOPMENT OF THE CENTRAL GREEN. PHASE 1 COVERED THE DEMOLITION OF EXISTING STRUCTURES. PHASE 2 IS FOR THE SITE WORK NEEDED TO CREATE THE CENTRAL GREEN "PARK". THE BORROW AREA IS THE SOURCE OF FILL MATERIAL AND THE PRL SITE IS THE LOCATION WHERE CONCRETE RUBBLE FROM THE REMOVED BUILDING FOUNDATIONS WILL BE CRUSHED AND STOCKPILED.

**LOCATION MAP**  
Scale: 1"=200'

**PREVIOUS SDP AND FINAL PLAN REFERENCES**

SDP-04-76: SERVICES AREA COMPLEX  
F-02-40: SWM BASIN 'A', APPRO. FOREST CONSERVATION  
SDP-04-35: SWM BASIN 'C'  
SDP-99-218: BUILDING NO. 31 AND SWM BASIN 'G'  
SDP-03-63: B52  
F-02-77: SWM BASIN 'B'  
SDP-04-66: MAIN PARKING LOT  
SDP-04-133: BASIN 'D' SWM FACILITIES AND LAYDOWN AREA  
SDP-05-042: JHU/LIBRARIES SERVICE CENTER (FOREST CONSERVATION AND WETLANDS UPDATES)  
SDP-03-043: SANNER ROAD IMPROVEMENTS (NEW APPR NUMBER 4,600)  
SDP-05-050: BUILDINGS 12 AND 15, CENTER SERVICE ROAD AND SA-3  
SDP-05-133: PRECINCT 21, BUILDINGS 21 AND 43 (PARKING RATIO 1.62/1000)  
SDP-07-080: MP-6 CONDUIT PATHWAY  
F-04-188: FOREST CONSERVATION EASEMENT RE-PLAT  
F-04-140: SANNER ROAD SWM, STORM DRAINS AND UTILITY EASEMENT  
F-07-035: FOREST CONSERVATION, RE-PLAT EASEMENT

**SITE ANALYSIS CHART**

A. TOTAL PROJECT AREA: (JHU/APL CAMPUS) 357.88 ACRES/15,593,609 SQ.FT.  
B. AREA OF PLAN SUBMISSION: (CENTRAL GREEN) 2.91 AC. ± (BORROW AREA) 1.74 AC. ± (STOCKPILE PRL SITE AREA) 1.72 AC. ±  
C. LIMIT OF DISTURBED AREA: (CENTRAL GREEN) 2.91 AC. ± (BORROW AREA) 1.74 AC. ± (STOCKPILE PRL SITE AREA) 1.72 AC. ±  
D. PRESENT ZONING DESIGNATION: PEC  
E. PROPOSED USES FOR SITE AND STRUCTURES: RESEARCH CAMPUS PARK  
F. FLOOR SPACE ON EACH LEVEL OF BUILDING(S) PER USE: N/A  
G. TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT AS SHOWN ON FINAL PLAN: N/A  
H. TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION: N/A  
I. MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE: 3937  
J. NUMBER OF PARKING SPACES REQUIRED BY HOWARD COUNTY ZONING REGULATIONS AND/OR FOP CRITERIA: 2450 (SDP-11)  
K. NUMBER OF PARKING SPACES PROVIDED ON SITE: 4954 (SDP-0466)  
L. OPEN SPACE ON SITE: N/A  
M. AREA OF RECREATION OPEN SPACE REQUIRED BY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS: N/A  
N. BUILDING COVERAGE OF SITE: N/A  
O. APPLICABLE DPZ FILE REFERENCES: N/A  
P. ANY OTHER INFORMATION WHICH MAY BE RELEVANT: N/A  
Q. FLOOR AREA RATIO (FAR): N/A

NOTE:  
THIS RED LINE SUBMISSION IS TO REALIGN THE SERVICE ROAD TO BUILDINGS 7, 8 AND 9.

THE FOLLOWING SHEETS ARE MODIFIED:  
1 OF 16 COVER SHEET  
2 OF 16 SITE PLAN  
3 OF 16 GRADING PLAN  
4 OF 16 UTILITY PLAN  
5 OF 16 UTILITY PROFILES & NOTES  
6 OF 16 STORM DRAIN DRAINAGE AREA MAP & FLOW TABULATIONS  
7 OF 16 EROSION & SEDIMENT CONTROL PLAN  
10 OF 16 EROSION & SEDIMENT CONTROL DRAINAGE AREA MAP  
15 OF 16 EROSION & SEDIMENT CONTROL DETAILS  
16 OF 16 DEMOLITION

NOTE:  
THIS SDP IS A REVISION TO PREVIOUSLY APPROVED SDP08-061 AND REFLECTS THE CONSOLIDATION OF SUBSTATIONS #2 AND #3, AND THE INSTALLATION OF RELATED ELECTRICAL AND TELE-COMMUNICATIONS DUCT BANKS.

- GENERAL NOTES**
- UNLESS OTHERWISE NOTED, ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY PLUMBING CODE AND DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS AND DETAILS. IN CASE OF CONFLICT OR DISCREPANCY, THE PLUMBING CODE SHALL APPLY.
  - EXISTING SITE FEATURES AND UTILITIES SHOWN HAVE BEEN BASED UPON SURVEYS AND OTHER SOURCES BELIEVED TO BE RELIABLE. THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION SHOWN IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL INFORMATION BEFORE COMMENCING WORK.
  - THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF FIVE WORKING DAYS PRIOR TO CONSTRUCTION.
  - THE CONTRACTOR SHALL MAINTAIN, REPAIR, AND/OR REPLACE ANY EXISTING SEDIMENT CONTROL DEVICES ENCOUNTERED AND DISTURBED DURING THE COURSE OF CONSTRUCTION AT THE END OF EACH DAY. ALL MEASURES AND DEVICES SHALL BE REPAIRED OR REPLACED BEFORE LEAVING THE WORK SITE.
  - CONSTRUCTION SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION ON THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS.
  - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS.
  - THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES.
  - NUMERICALLY WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
  - UNLESS OTHERWISE NOTED, DIMENSIONS FROM CURB ARE MEASURED AT FACE OF CURB.
  - ALL GRADING AND EXCAVATION SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER.
  - THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES, AS NECESSARY PRIOR TO INSTALLING STORM DRAINS. REPORT ANY DISCREPANCIES FROM THE PLANS TO CENTURY ENGINEERING, INC. ALL UTILITIES SHALL BE RETAINED UNLESS LABELED OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND WORK REQUIRED TO ADJUST EXISTING AND PROPOSED UTILITIES AND APPURTENANCES TO FINISH GRADES WITHIN THE LIMITS OF WORK. DAMAGE TO EXISTING CONDITIONS AND UTILITIES SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR. THE ULTIMATE STATUS OF ALL EXISTING ELECTRIC, TELEPHONE AND LIGHT POLES WITHIN THE LIMIT OF DISTURBANCE SHALL BE COORDINATED WITH FIELD ENGINEER FROM JHU/APL.
  - THE CONTRACTOR SHALL HAVE ALL PRIVATE UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION.
  - EXISTING UTILITIES WHICH ARE NOT TO BE REMOVED OR ABANDONED SHALL REMAIN OPERATIONAL AT ALL TIMES. APPROPRIATE EXISTING UTILITIES SHALL REMAIN IN SERVICE UNTIL REPLACEMENT/RELOCATED UTILITIES ARE OPERATIONAL.
  - THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL UTILITIES TO AVOID CONSTRUCTION PROBLEMS/CONFLICTS WITH EROSION AND SEDIMENT CONTROL MEASURES. SEE APPROVED SEDIMENT CONTROL PLAN.
  - THE CONTRACTOR SHALL MAINTAIN 2.0 FEET MINIMUM COVER OVER ALL UTILITIES DURING CONSTRUCTION.
  - UNLESS OTHERWISE NOTED, ALL PROPOSED WATER LINES SHALL HAVE FOUR FEET MINIMUM COVER, 1.0 FEET MINIMUM VERTICAL CLEARANCE FROM ALL STORM DRAIN LINES, AND 1.0 FEET MINIMUM VERTICAL CLEARANCE ABOVE SANITARY SEWER LINES.
  - THE SUBJECT PROPERTY IS ZONED PEC PER FEBRUARY 2, 2004 COMPREHENSIVE ZONING PLAN AND THE COM-LITE ZONING AMENDMENT.
  - NO GRADING, REMOVAL OF VEGETATION, COVER OF WETLANDS, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN ANY REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND/OR 100 YEAR FLOODPLAIN. NONE ARE LOCATED WITHIN 100 FEET OF THE LIMIT OF DISTURBANCE.
  - THE COORDINATE HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM, GEODETIC CONTROLS 0002 AND 41CA.
  - WATER SERVICE IS PUBLIC.
  - SEWER SERVICE IS PUBLIC.
  - THE SITE IS LOCATED IN THE MIDDLE PATUXENT WATERSHED.
  - STORMWATER MANAGEMENT PROVIDED FOR CENTRAL GREEN IN ON-CAMPUS STORMWATER MANAGEMENT FACILITY SWM BASIN 'A'. IMPERVIOUS COVER REMOVED: 2.40 ACRES. IMPERVIOUS COVER ADDED (OR RESURFACED): 0.22 ACRES. IMPERVIOUS COVER REDUCED BY 2.18 ACRES OR 90% STOCKPILE/LAYDOWN AREA PROVIDED FOR IN SWM BASIN 'C'. NO CHANGE IN IMPERVIOUS AREA. PRL SITE SWM PROVIDED FOR BY OVERMANAGEMENT IN SWM BASIN 'A'.
  - NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT BECAUSE NO TRAFFIC IS GENERATED BY THE APPROVAL OF THIS PROJECT.
  - THERE ARE NO STEEP SLOPES, FLOODPLAINS OR WETLANDS LOCATED IN THE AREAS OF PLAN SUBMISSION.
  - THIS PROJECT COMPLES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY F-02-40.
  - NO PERMETER LANDSCAPING IS REQUIRED FOR THIS PLAN DUE TO INTERIOR LOCATION OF THE SITE.
  - SOIL MAP IS SHEET NUMBER 29, HOWARD COUNTY SOIL SURVEY.

**JHU/APL INTERNAL USE**

THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS REP OR IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
Date: 2/17/08

Chief, Division of Land Development  
Date: 2/19/08

Director  
Date: 3/19/08

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

**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 NUMBER: 32674 EXPIRATION DATE: 1/16/10

**DESIGN BY:** A.J.D.

**DRAWN BY:** M.S.S.

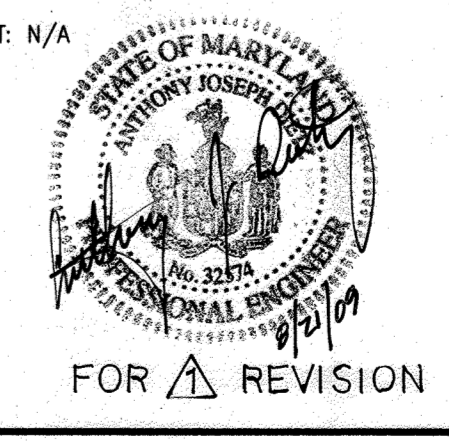
**CHECKED BY:** A.J.D.

**DATE:** FEB. 15, 2008

REV.	NO.	REVISION	DATE
1	1	JHU/APL BUILDING 17 DUCT BANK	10/17/08
2	2	BUILDING 17 OUTDOOR PLAZA, ASPHALT REMOVAL IN FRONT OF BUILDING 17, RESTRIPING BEHIND BUILDING 17 AND CENTER SERVICE LOT	2/19/08
3	3	SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9	3/10/08
4	4	ADD SUBSTATION CONSOLIDATION & DUCT BANKS	05-18-08

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**

11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134



**ADDRESS CHART**

LOT/PARCEL No.	STREET ADDRESS
1	11100 JOHNS HOPKINS ROAD

**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL No.
JOHNS HOPKINS UNIV.-APL	N/A	1
PLAN FILE NO. 15429/15433	16 PEC	41
ELECT. DISTRICT	5-05	
CONV. TRAP	505'02	
WATER CODE	E-21	
SEWER CODE	6480000	

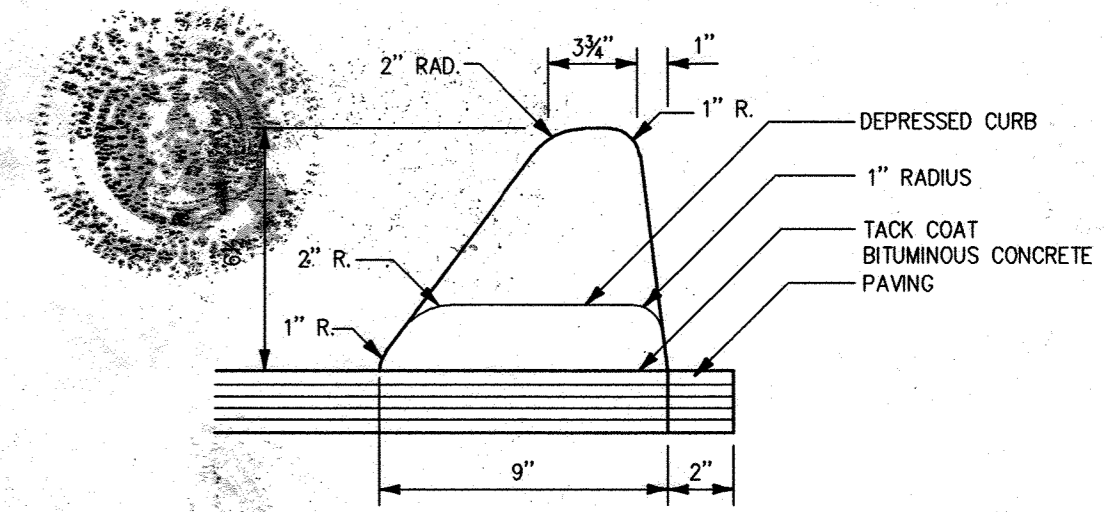
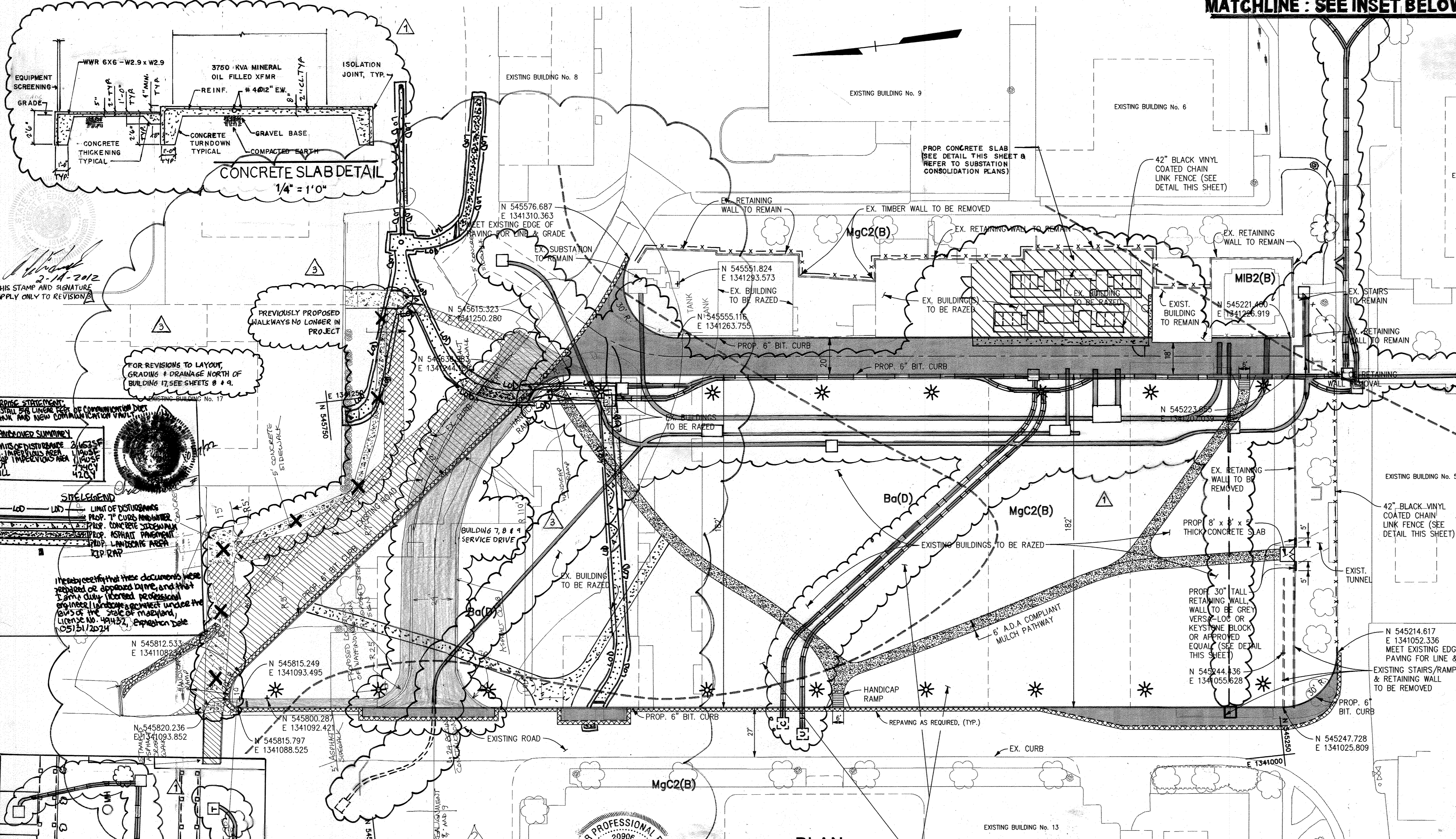
**COVER SHEET**  
**"CENTRAL GREEN, PHASE 2"**

JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 1 OF 16 (RESTRICTED FILE)

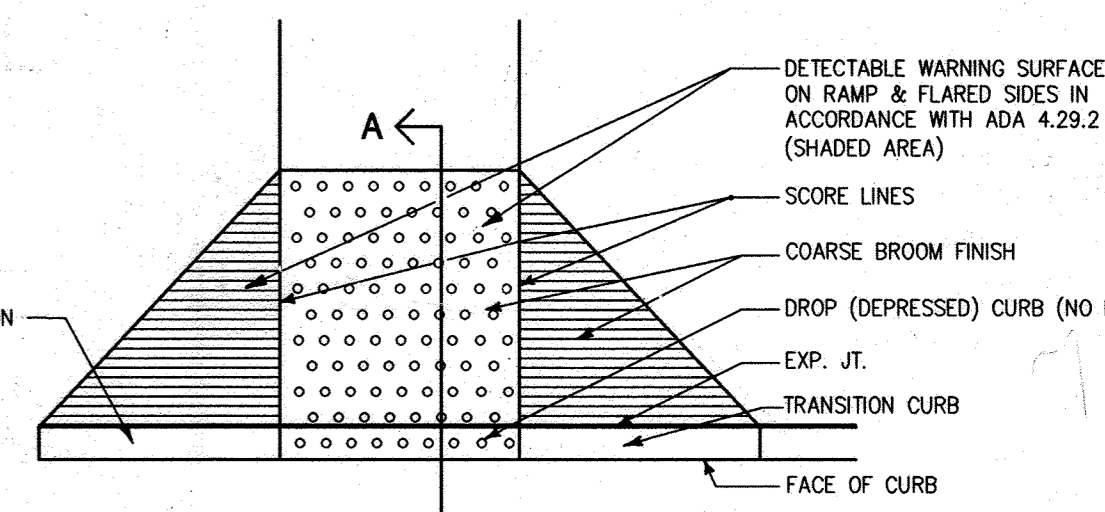
C.E.I. PROJECT NUMBER: 22172.25  
SCALE: AS SHOWN



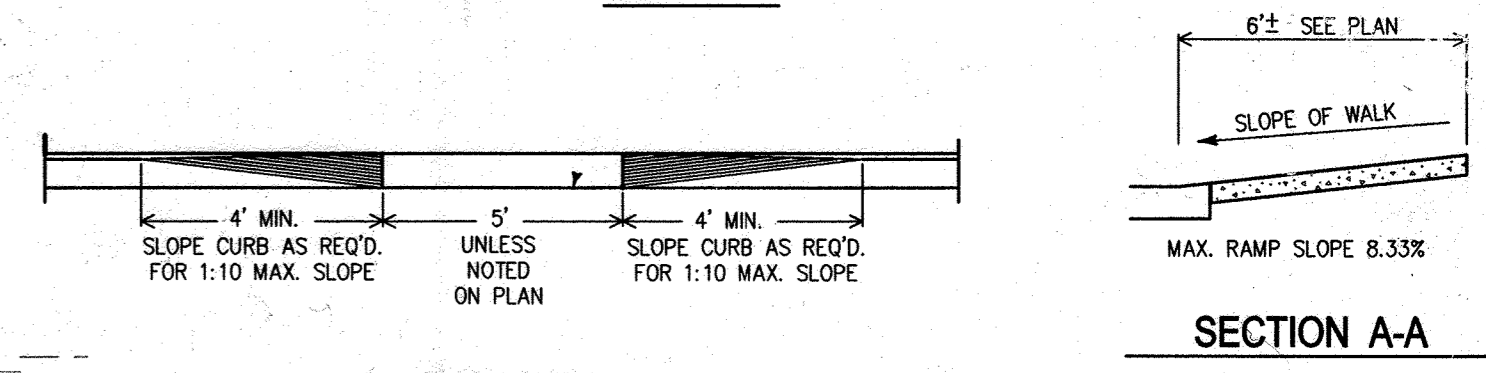
MATCHLINE : SEE INSET BELOW



SECTION Bituminous Concrete Curb NOT TO SCALE

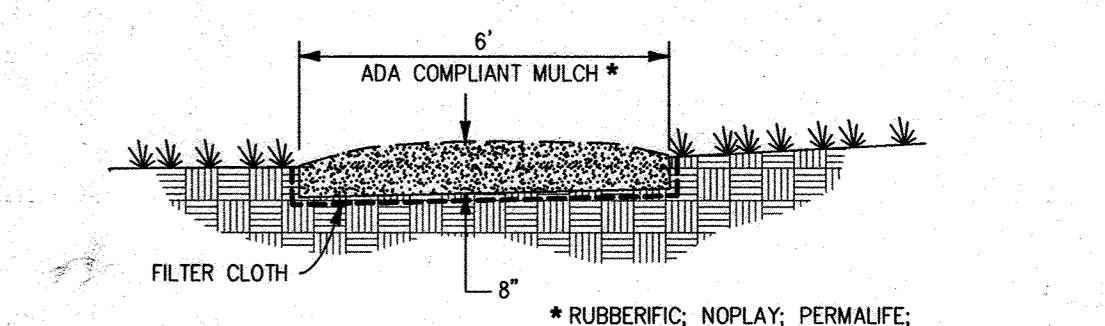


PLAN Handicapped Ramp Type I NOT TO SCALE



SECTION A-A

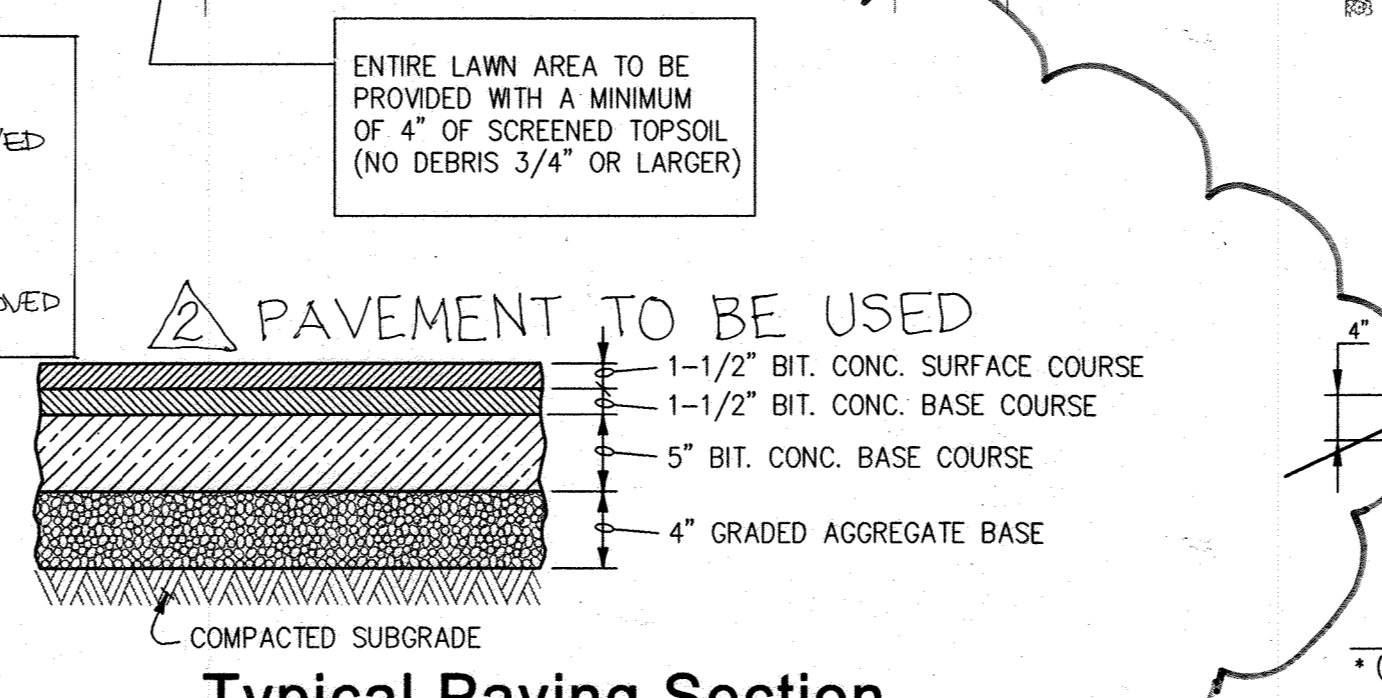
ELEVATION Handicapped Ramp Type I NOT TO SCALE



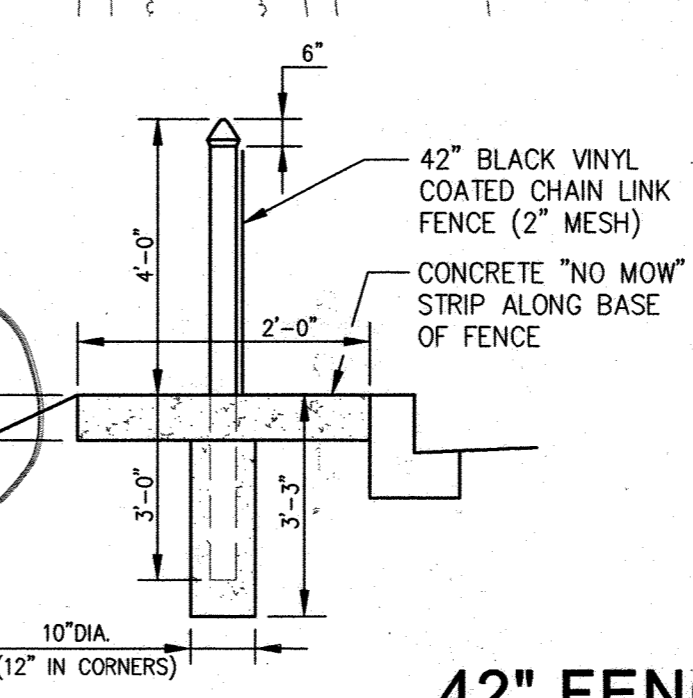
Pathway Detail NOT TO SCALE

LEGEND

- PROP. TELECOM DUCT BANK
- PROP. ELECTRIC DUCT BANK
- PROP. CONCRETE SLAB FOR SUBSTATION
- EX. CONCRETE SIDEWALK
- EX. FENCE
- EX. WALL
- EX. TREE LINE
- EX. BUILDING
- EX. CURB AND GUTTER
- EX. BITUMINOUS PAVING
- EX. RETAINING WALL TO REMAIN
- PROP. CURB & GUTTER
- PROP. A.D.A. COMPLIANT MULCH SIDEWALK
- PROPOSED PAVING
- PROPOSED REPAVING
- SOIL LIMITS
- LIGHT FIXTURES

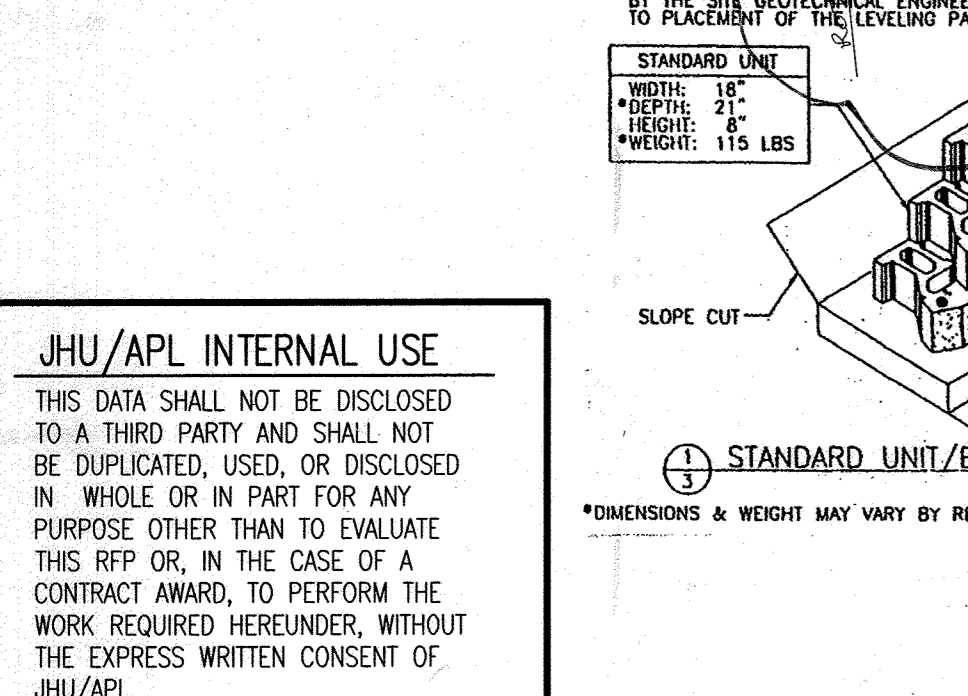


Typical Paving Section (HOWARD COUNTY STANDARD P-4 PAVING SECTION) NOT TO SCALE

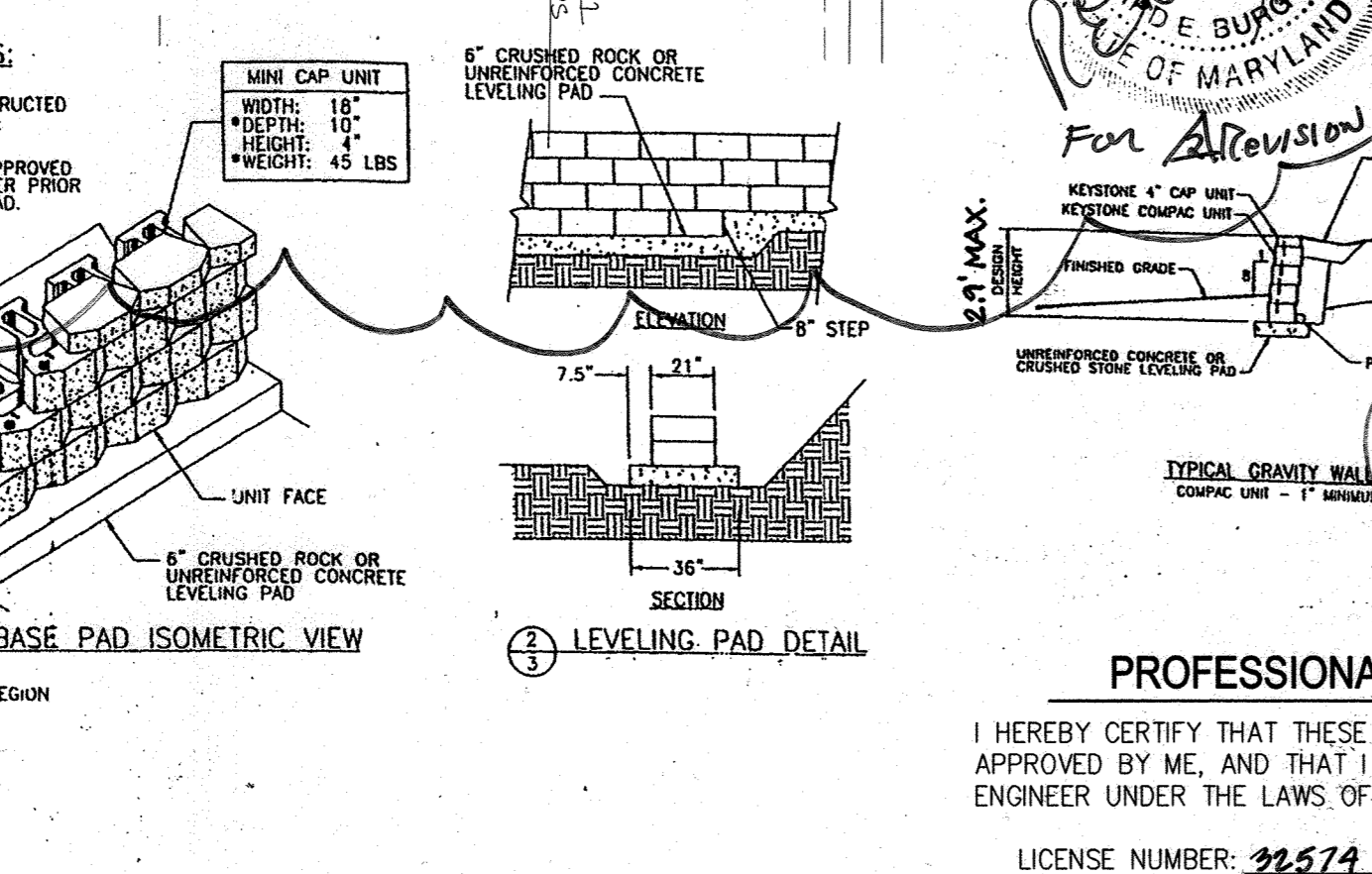


42\"/>

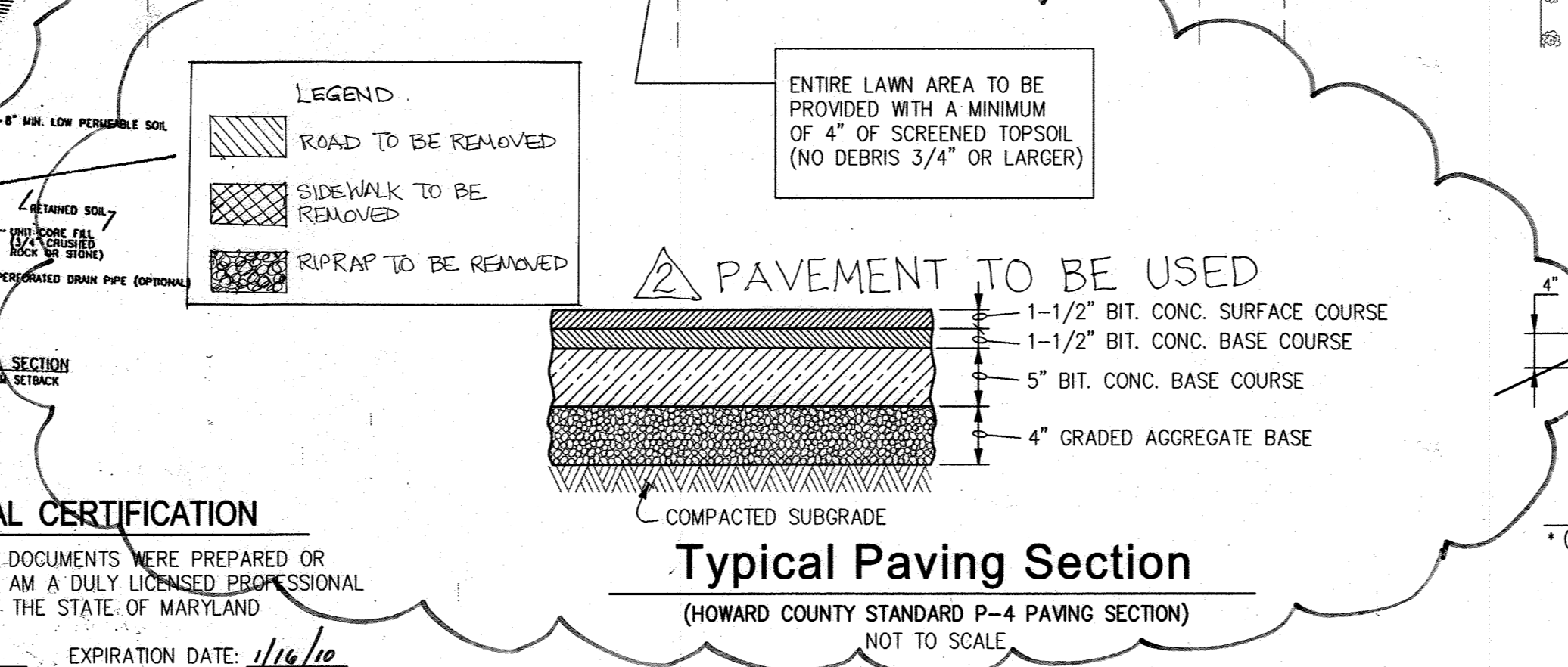
MATCHLINE : SEE PLAN ABOVE



JHU/APL INTERNAL USE. THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.



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 NUMBER: 92574 EXPIRATION DATE: 1/16/10



NO.	DATE	BY	REVISION
1	10/17/08	JHU APL BUILDING 17 DUCTBANK	
2	2/13/12	BUILDING 17 OUTDOOR PLAZA REPAIR REMOVAL IN FRONT OF BUILDING 17, RESTROOM BEHIND BUILDING 17 AND CENTER SERVICE LOT	
3	3/10/10	SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9	
4	05-18-08	ADD SUBSTATION CONSOLIDATION & DUCT BANKS	

APPROVED: DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division: 3/17/08. Chief, Division of Land Development: 3/19/08. Director: 3/19/08.

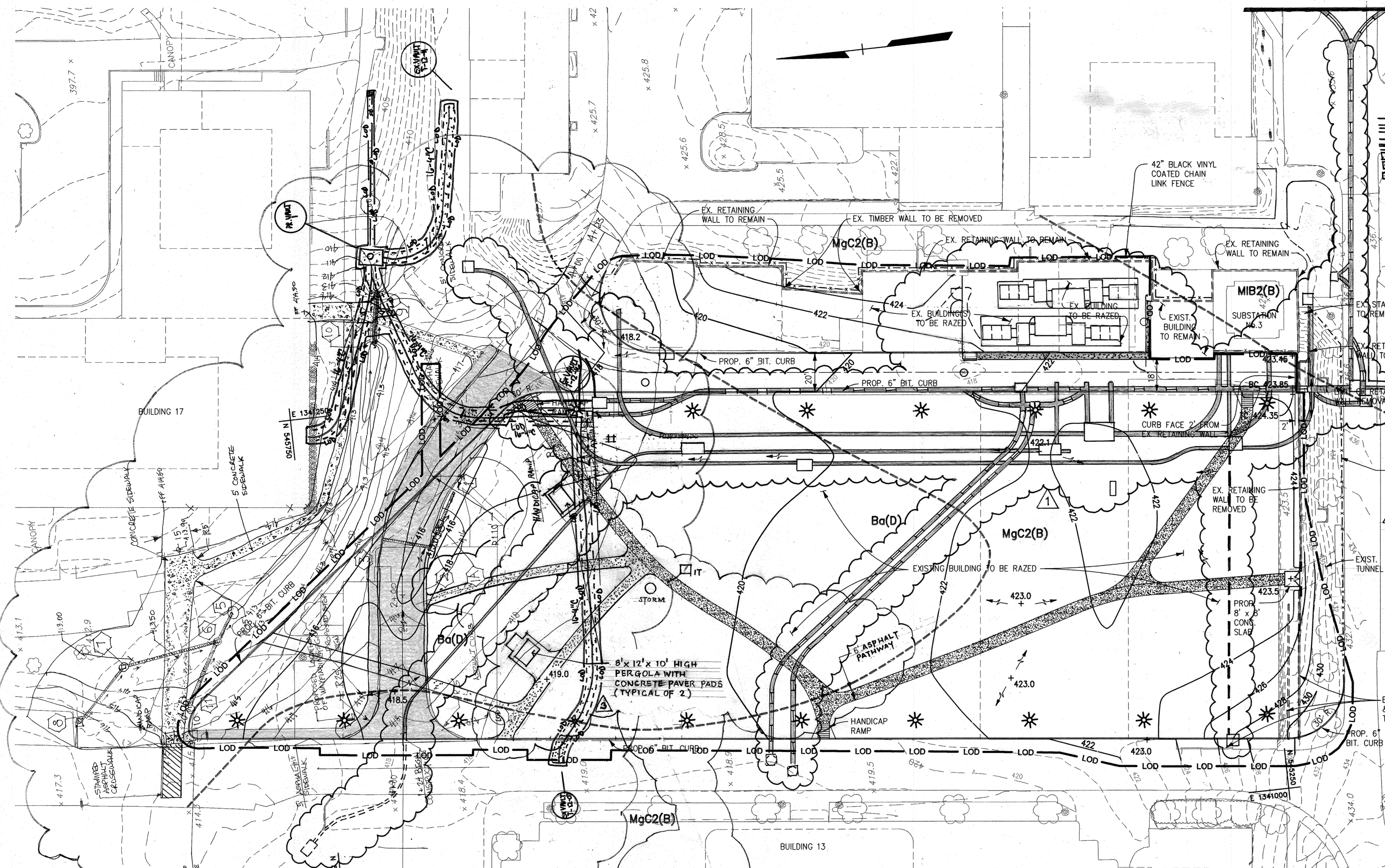
**M CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
1100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134

**SITE PLAN "CENTRAL GREEN, PHASE 2"**  
JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 2 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER: 22172.25  
SCALE: 1"=30'





**PURPOSE STATEMENT:**  
 INSTALL ONE LINE FEET OF COMMUNICATIONS DUCT BANK AND NEW COMMUNICATION VAULT.

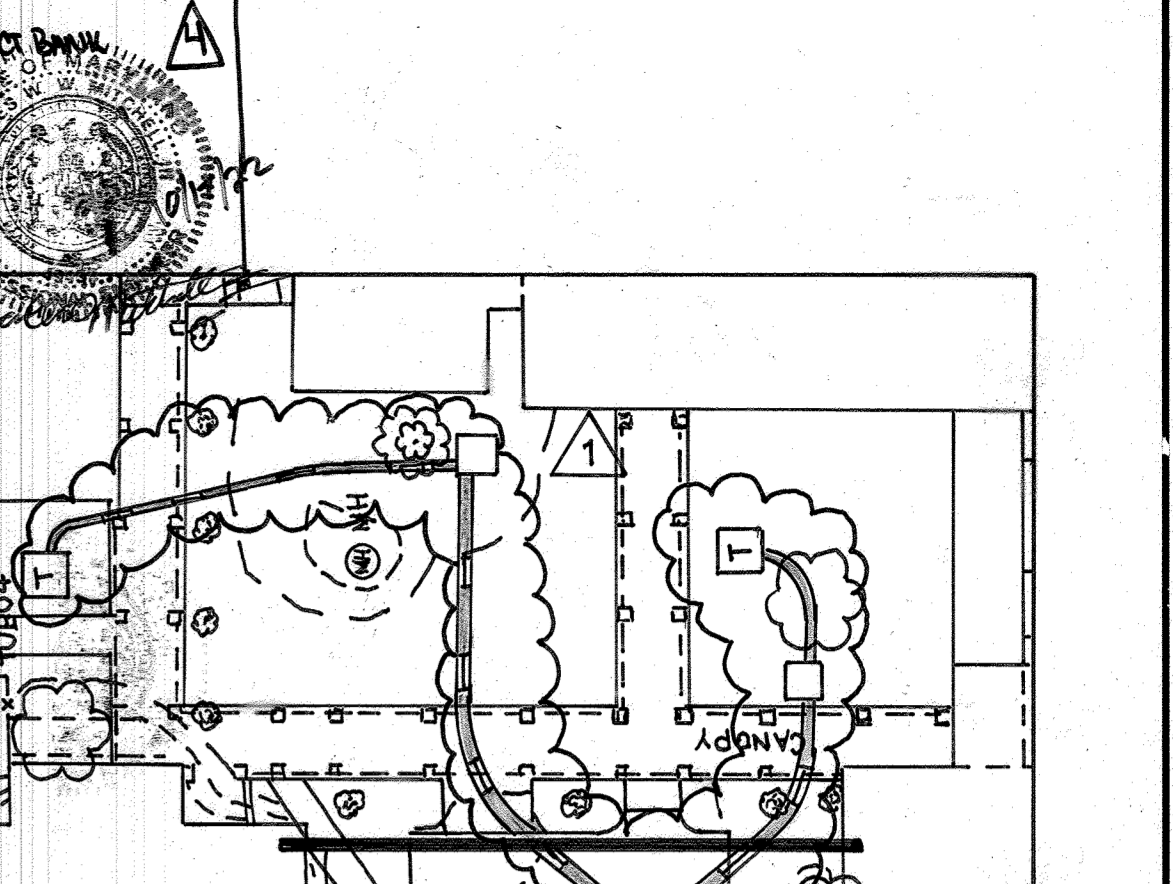
**LANDSCAPE SUMMARY:**  
 JUST SE  
 LIMITS OF DISTURBANCE 1100.5  
 EX. IMPERVIOUS AREA 1100.5  
 PROP. IMPERVIOUS AREA 1100.5  
 CUT FILL 42.01

LOD --- LIMIT OF DISTURBANCE  
 2D --- COMMUNICATIONS CONDUIT  
 --- STORM DRAIN PIPE  
 --- PROP. CURB & GUTTER  
 --- PROP. CONCRETE SIDEWALK  
 --- PROP. ASPHALT PAVEMENT  
 --- PROP. LANDSCAPE AREA

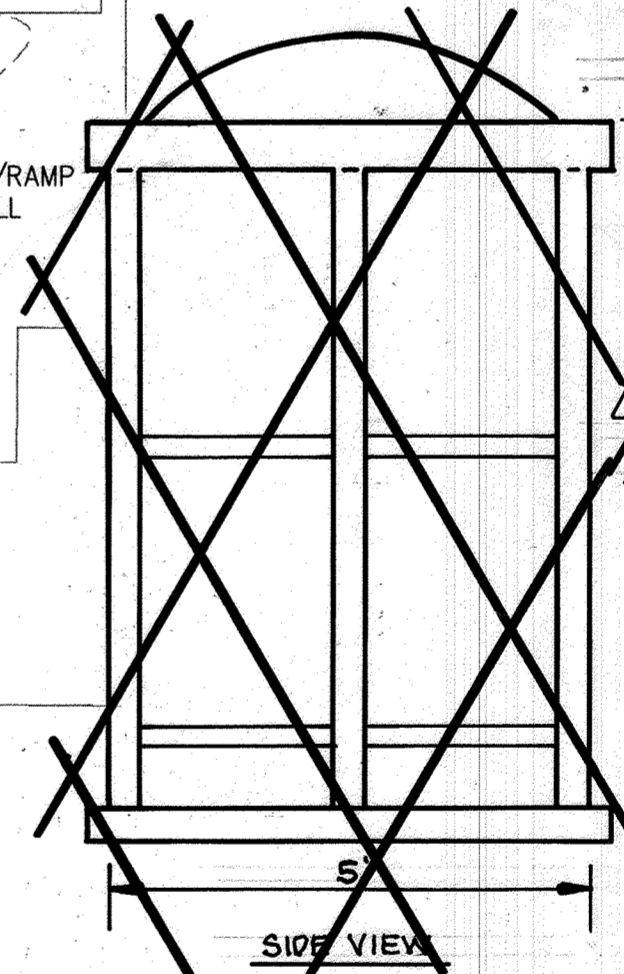
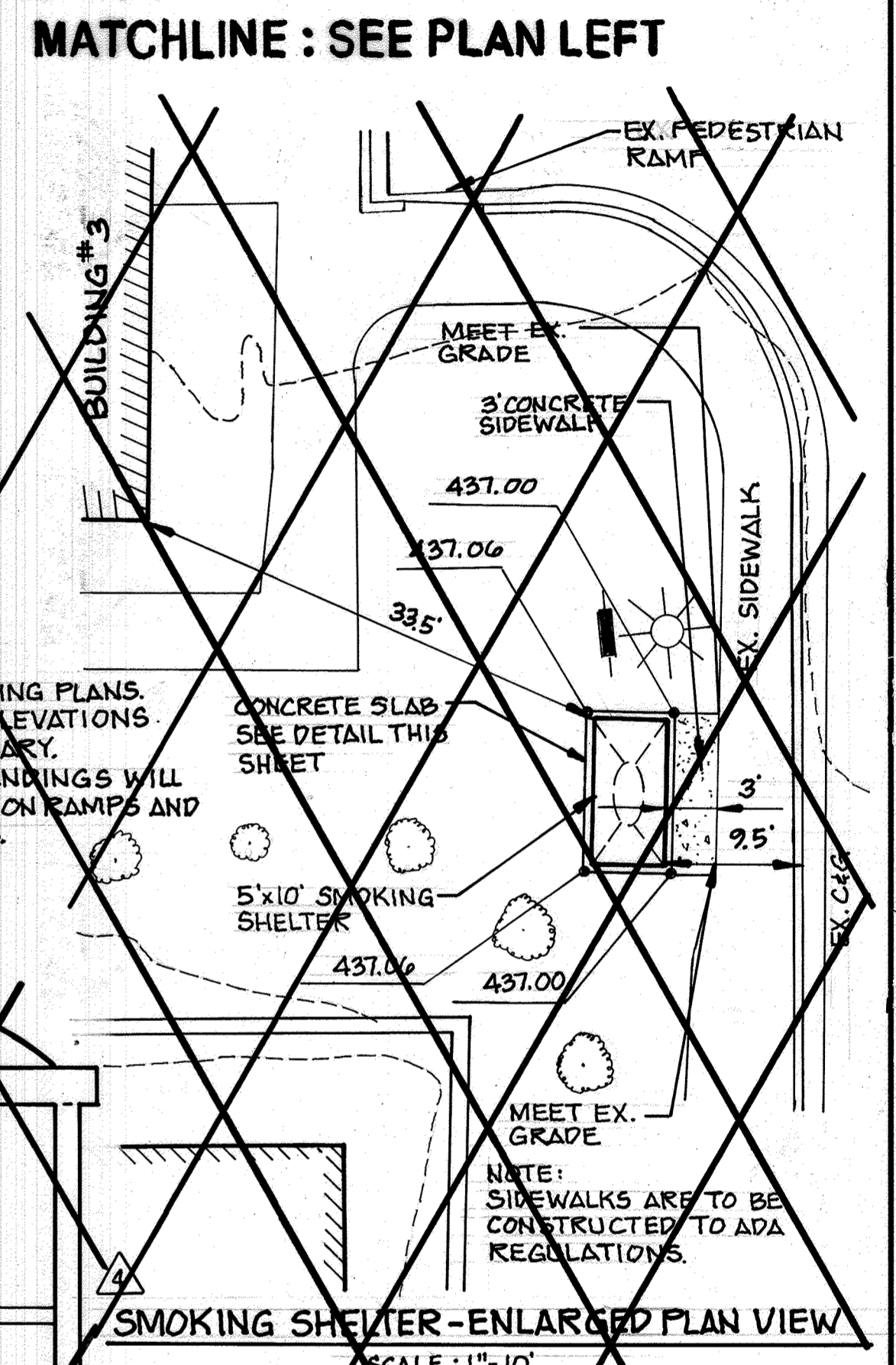
○ COMMUNICATIONS VAULT  
 \* RIP RAP  
 \* LIGHT POLE

(I hereby certify that these documents were prepared or approved by me and that I am a duly licensed professional engineer in the State of Maryland, License No. 49432, Expiration Date 05/31/2024)

2X 8" K  
 700 East Pratt St,  
 Suite 500  
 Baltimore, MD 21202



**GENERAL NOTES:**  
 GRADES BASED ON INTERPOLATED ELEVATIONS DERIVED FROM EXISTING PLANS. THE CONTRACTOR IS TO VERIFY ELEVATIONS AND ADJUST GRADES AS NECESSARY. MAXIMUM SLOPES ON RAMPS, LANDINGS WILL BE 2% IN EITHER DIRECTION, 8% ON RAMPS AND 1% ON SMOKING SHELTER SLABS.

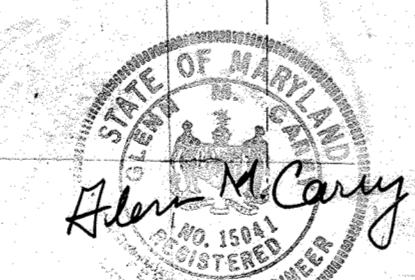


**LEGEND**

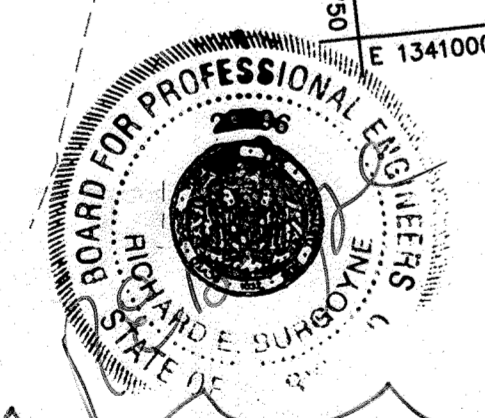
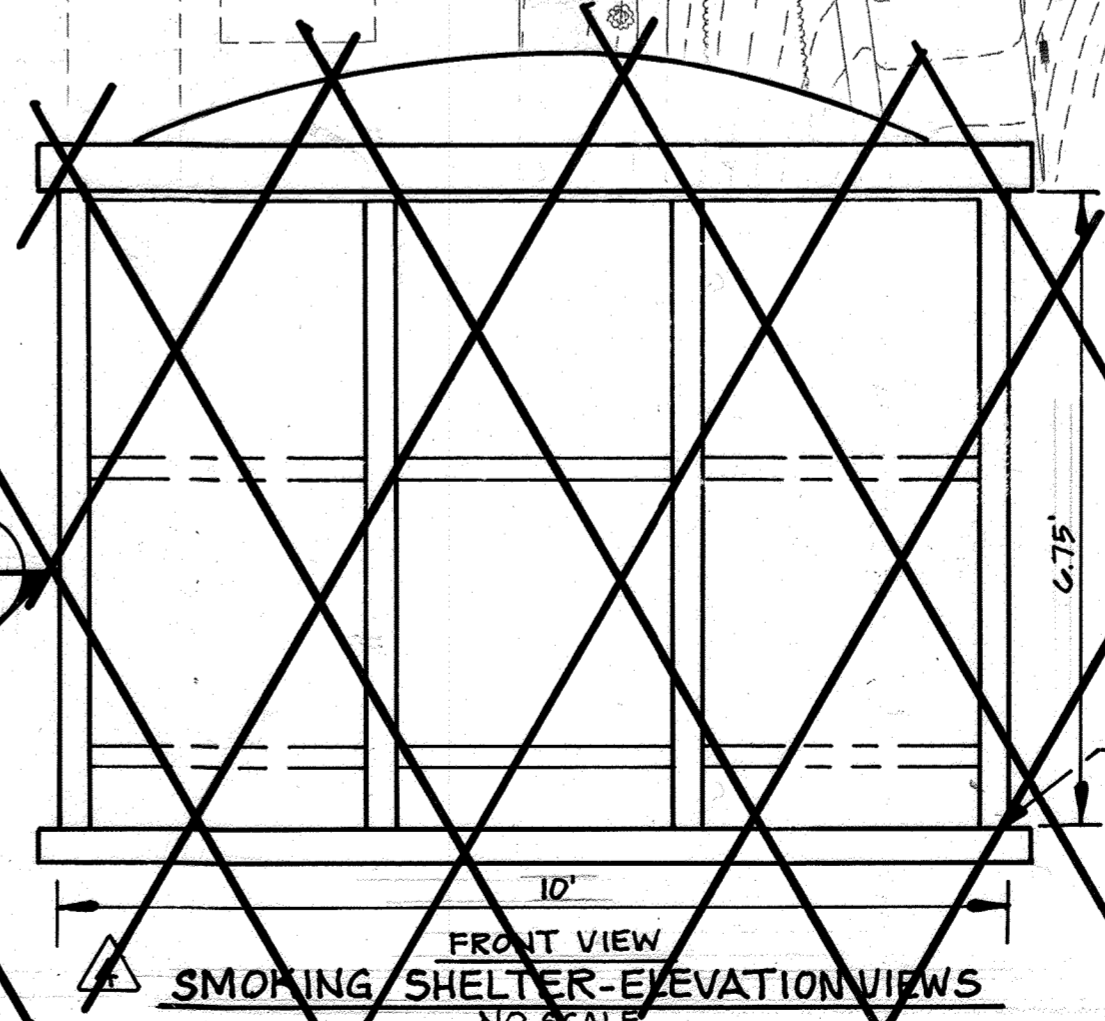
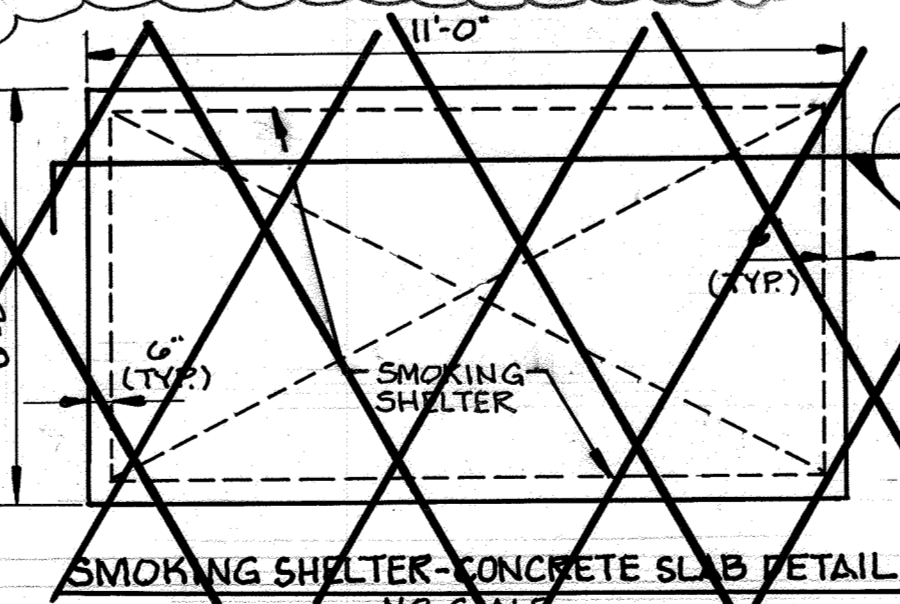
- EX. CONCRETE SIDEWALK
- EX. FENCE
- EX. WALL
- EX. TREE LINE
- EX. BUILDING
- EX. CURB AND GUTTER
- EX. BITUMINOUS PAVING
- EX. RETAINING WALL TO REMAIN
- PROP. CURB & GUTTER
- PROP. A.D.A. COMPLIANT MULCH SIDEWALK
- PROP. INLETS & MANHOLES
- PROP. MINOR CONTOUR --- 379
- PROP. MAJOR CONTOUR --- 380
- PROP. SPOT ELEVATION + 385.58
- LIMIT OF DISTURBANCE --- LOD
- SOIL LIMITS
- SOIL SERIES --- MIB2(B) --- HSG
- LIGHT FIXTURES \*

**PLAN**  
 SCALE: 1" = 30"

**AS-BUILT CERTIFICATION**  
 I HEREBY CERTIFY, BY MY SEAL, THAT THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.  
 GLENN M. CAREY, P.E., PE #15041 9/30/2015



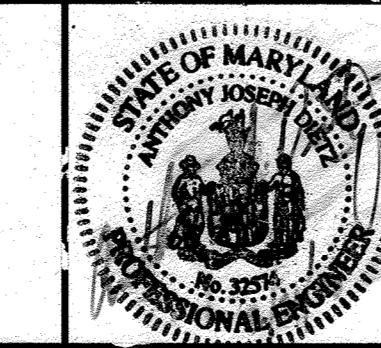
**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NUMBER: 32514 EXPIRATION DATE: 1/16/10



**JHU/APL INTERNAL USE**  
 THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS REP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

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

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY: A.J.D.	DATE: 12/17/09
DRAWN BY: m.s.s.	DATE: 9/30/15
CHECKED BY: A.J.D.	DATE: 3/10/10
DATE: 12/15/2008	DATE: 05-18-09
BY NO.	REVISION
1	JHU APL BUILDING 17 DUCTBANK
2	8'x12' PERGOLAS (2) WITH CONCRETE PAVERS
3	SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9
4	ADD SUBSTATION CONSOLIDATION & DUCT BANKS

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND 20723-6099  
 443-778-5134

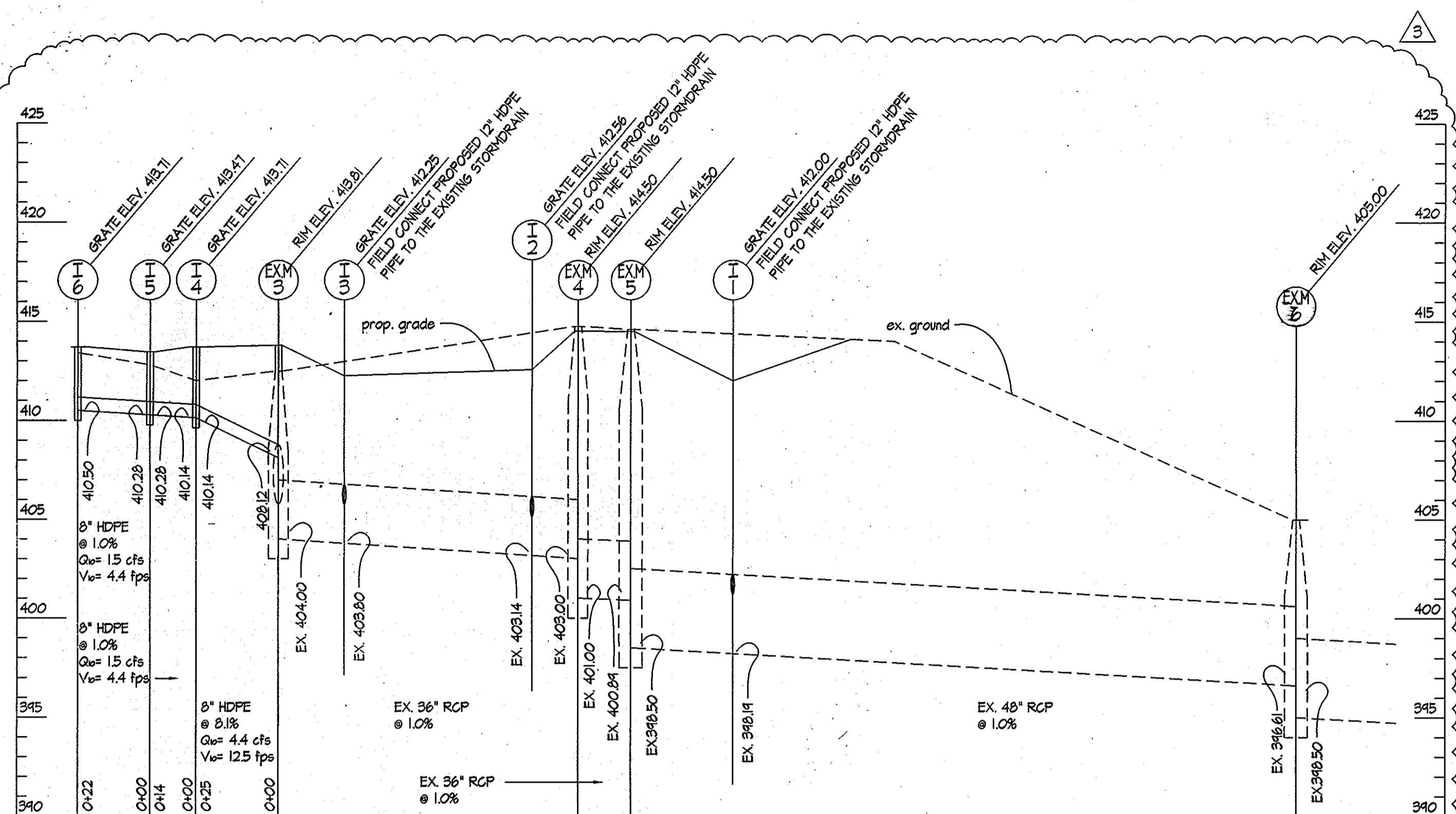
**GRADING PLAN**  
**"CENTRAL GREEN, PHASE 2"**  
 JOHNS HOPKINS UNIVERSITY PROPERTY  
 TAX MAP: 41 GRID: 16 PARCEL: 123  
 ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
 SHEET 3 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
 SCALE: 1" = 30"



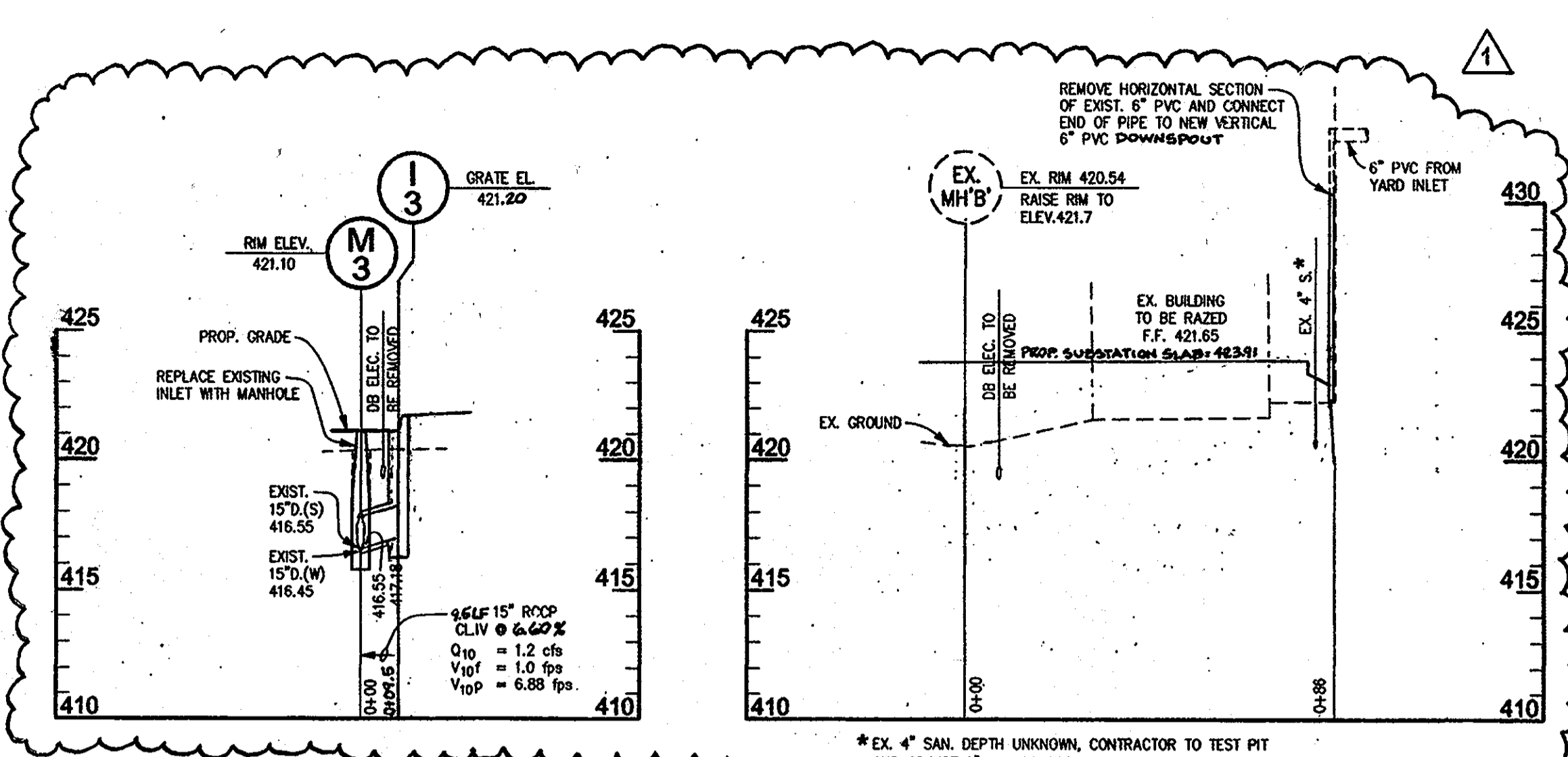




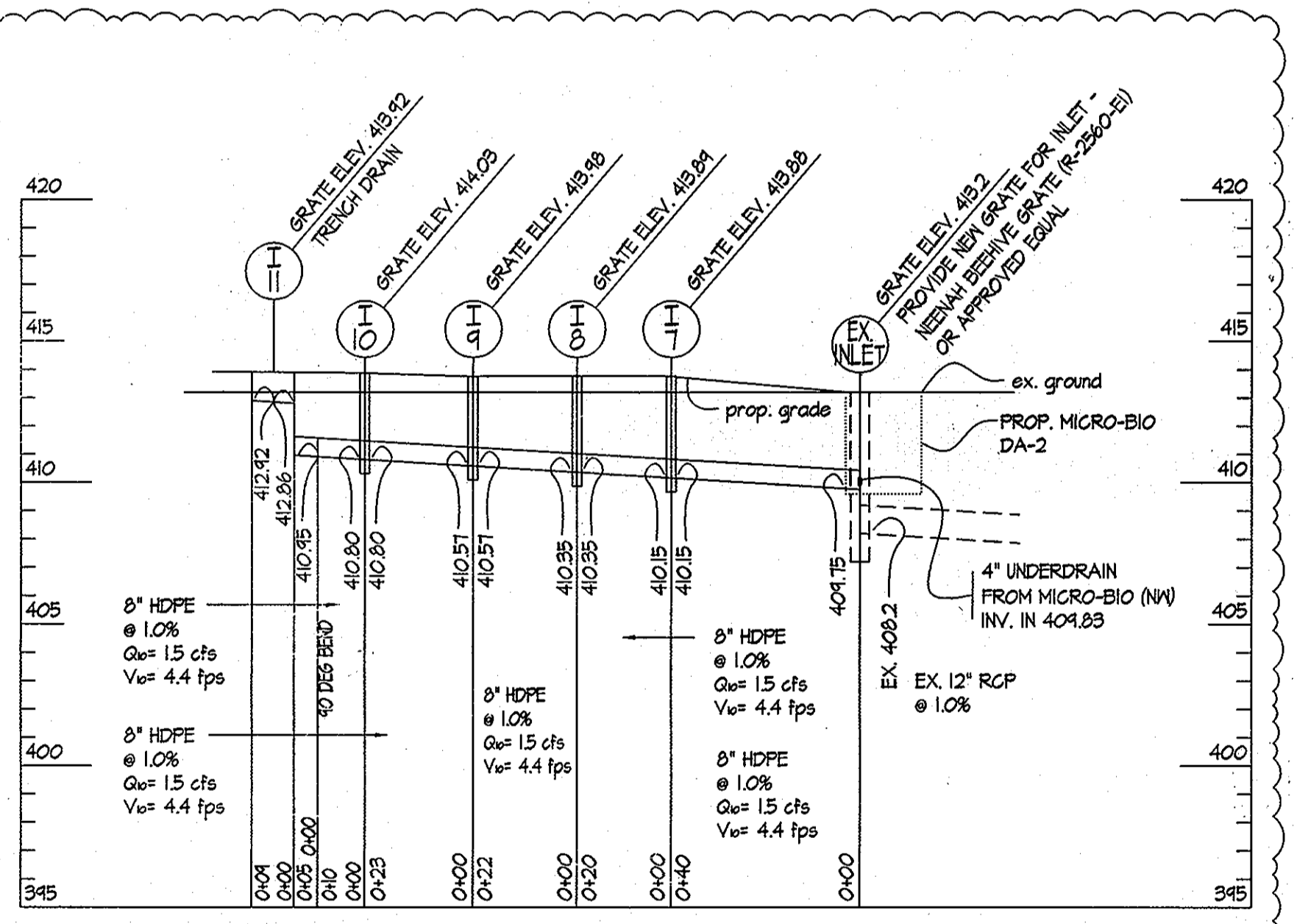
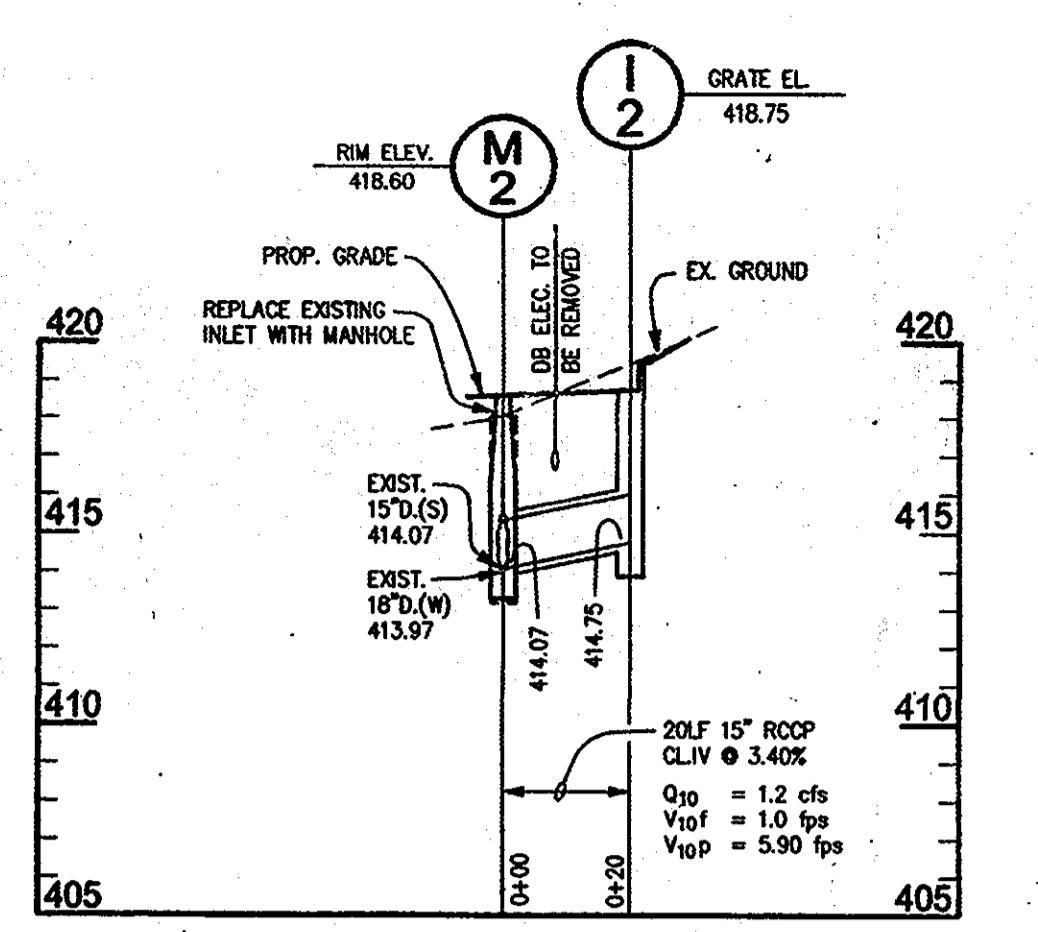


**PROFILE I-6 TO EX. M-6**

EXISTING PIPE INFORMATION OBTAINED FROM SDP-02-0888 AS PROVIDED BY JHU-APL. CONTRACTOR SHALL VERIFY VERTICAL AND HORIZONTAL LOCATION OF STORM DRAIN FOR FIELD CONNECTIONS. PROPOSED INLETS SHALL BE NYLOPLAST 2824AG WITH INTEGRATED STANDARD DUCTILE IRON FRAME AND GRATE OR APPROVED EQUAL. SCALES: HORIZ. 1" = 30' VERT. 1" = 5'

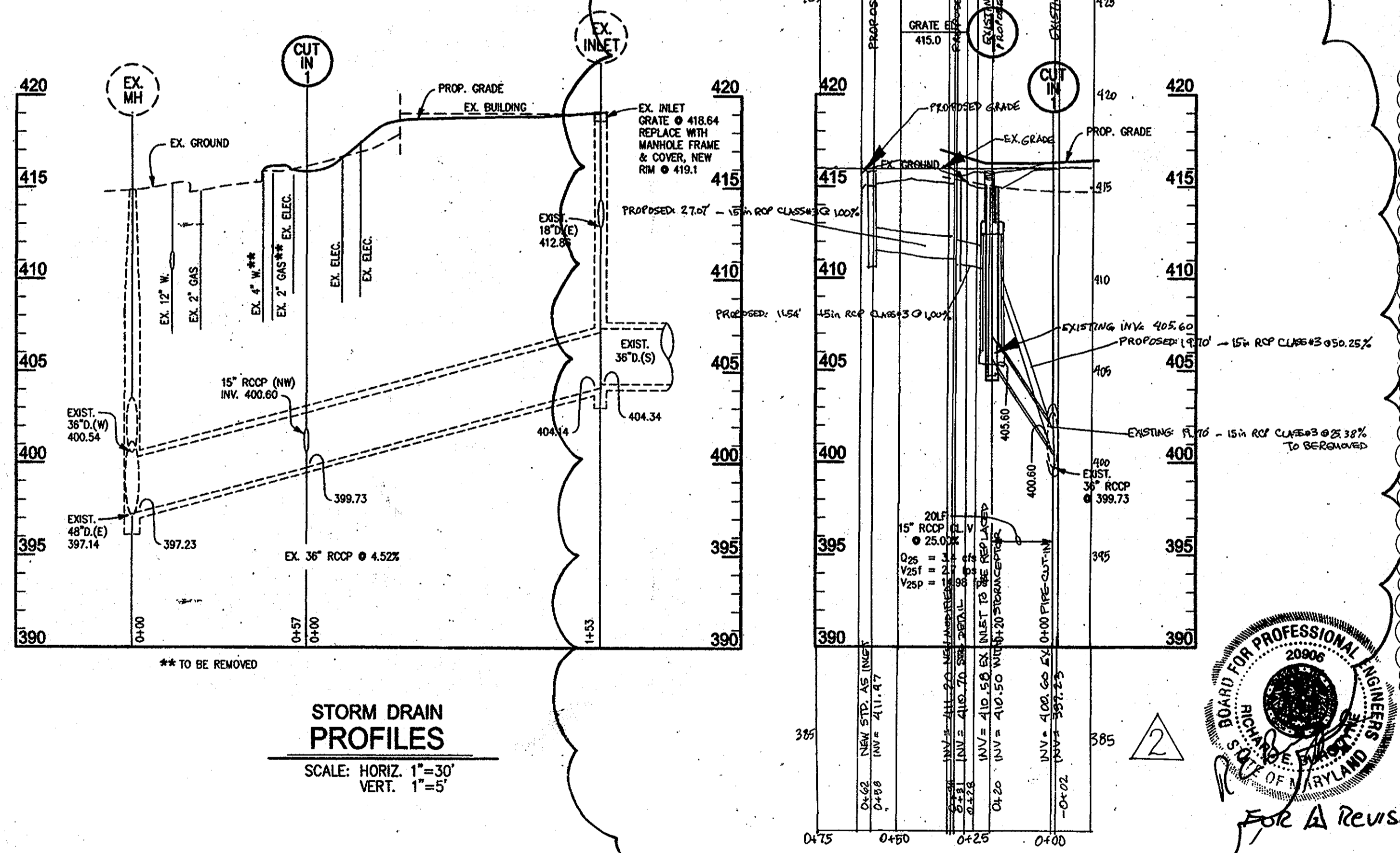


\* EX. 4" SAN. DEPTH UNKNOWN, CONTRACTOR TO TEST PIT AND ADJUST 6" PVC TO PROVIDE 1 FOOT MINIMUM CLEARANCE



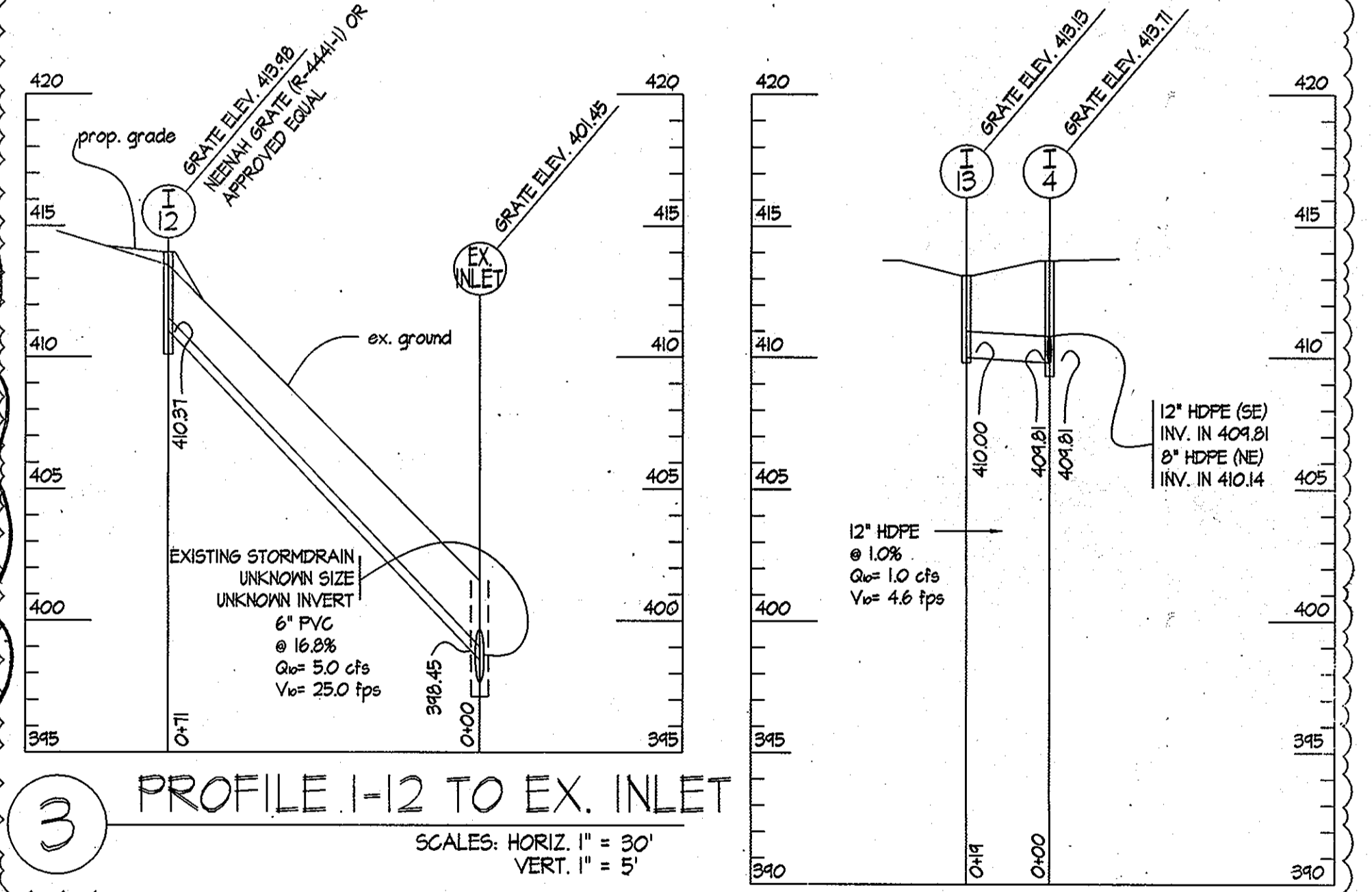
**PROFILE I-II TO EX. INLET**

EXISTING PIPE INFORMATION AS PROVIDED BY JHU-APL. CONTRACTOR SHALL VERIFY VERTICAL AND HORIZONTAL LOCATION OF STORM DRAIN. PROPOSED INLETS SHALL BE NYLOPLAST 2824AG WITH INTEGRATED STANDARD DUCTILE IRON FRAME AND GRATE OR APPROVED EQUAL ACCEPT WHERE NOTED. SCALES: HORIZ. 1" = 30' VERT. 1" = 5'



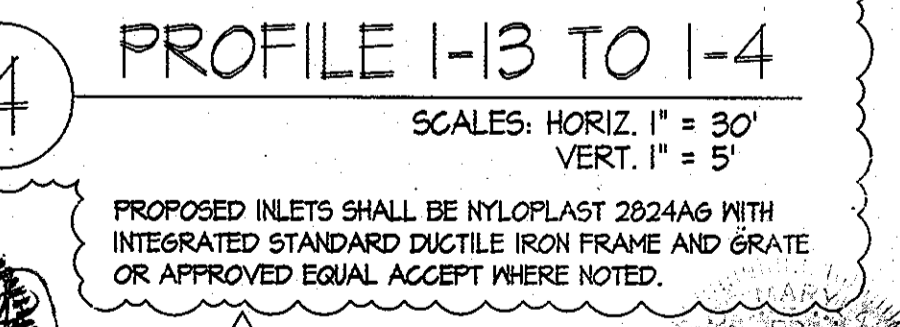
**STORM DRAIN PROFILES**

SCALE: HORIZ. 1" = 30' VERT. 1" = 5'



**PROFILE I-12 TO EX. INLET**

EXISTING PIPE INFORMATION AS PROVIDED BY JHU-APL. CONTRACTOR SHALL VERIFY VERTICAL AND HORIZONTAL LOCATION OF STORM DRAIN. PROPOSED INLETS SHALL BE NYLOPLAST 2824AG WITH INTEGRATED STANDARD DUCTILE IRON FRAME AND GRATE OR APPROVED EQUAL ACCEPT WHERE NOTED. SCALES: HORIZ. 1" = 30' VERT. 1" = 5'



**PROFILE I-13 TO I-4**

EXISTING PIPE INFORMATION AS PROVIDED BY JHU-APL. CONTRACTOR SHALL VERIFY VERTICAL AND HORIZONTAL LOCATION OF STORM DRAIN. PROPOSED INLETS SHALL BE NYLOPLAST 2824AG WITH INTEGRATED STANDARD DUCTILE IRON FRAME AND GRATE OR APPROVED EQUAL ACCEPT WHERE NOTED. SCALES: HORIZ. 1" = 30' VERT. 1" = 5'

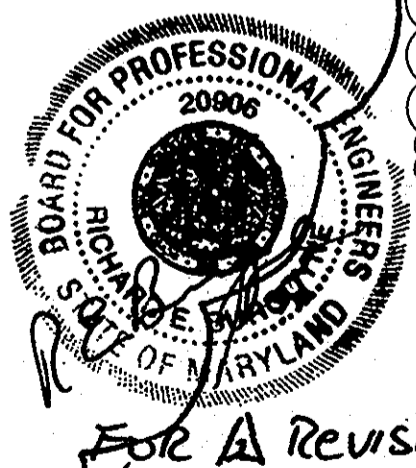
**JHU/APL INTERNAL USE**  
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

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

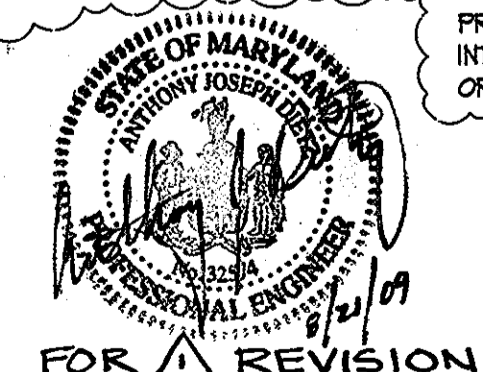
**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

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 NUMBER: 28519 EXPIRATION DATE: 4/6/10

DESIGN BY:	A.J.D.		
DRAWN BY:	M.S.S.		
CHECKED BY:	A.J.D.		
DATE:	FEB. 15, 2008		
BY	NO.	REVISION	DATE
AFB	3	BUILDING 11 OUTDOOR PLAZA, ASPHALT REMOVAL IN FRONT OF BUILDING 11, RESTRAINING BEHIND BUILDING 17 AND CENTER SERVICE LOT	2/17/12
REB		SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9	3/10/10
RDT		ADD SUBSTATION CONSOLIDATION & DUCT BANKS	05-18-09



FOR A REVISION



FOR A REVISION

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134

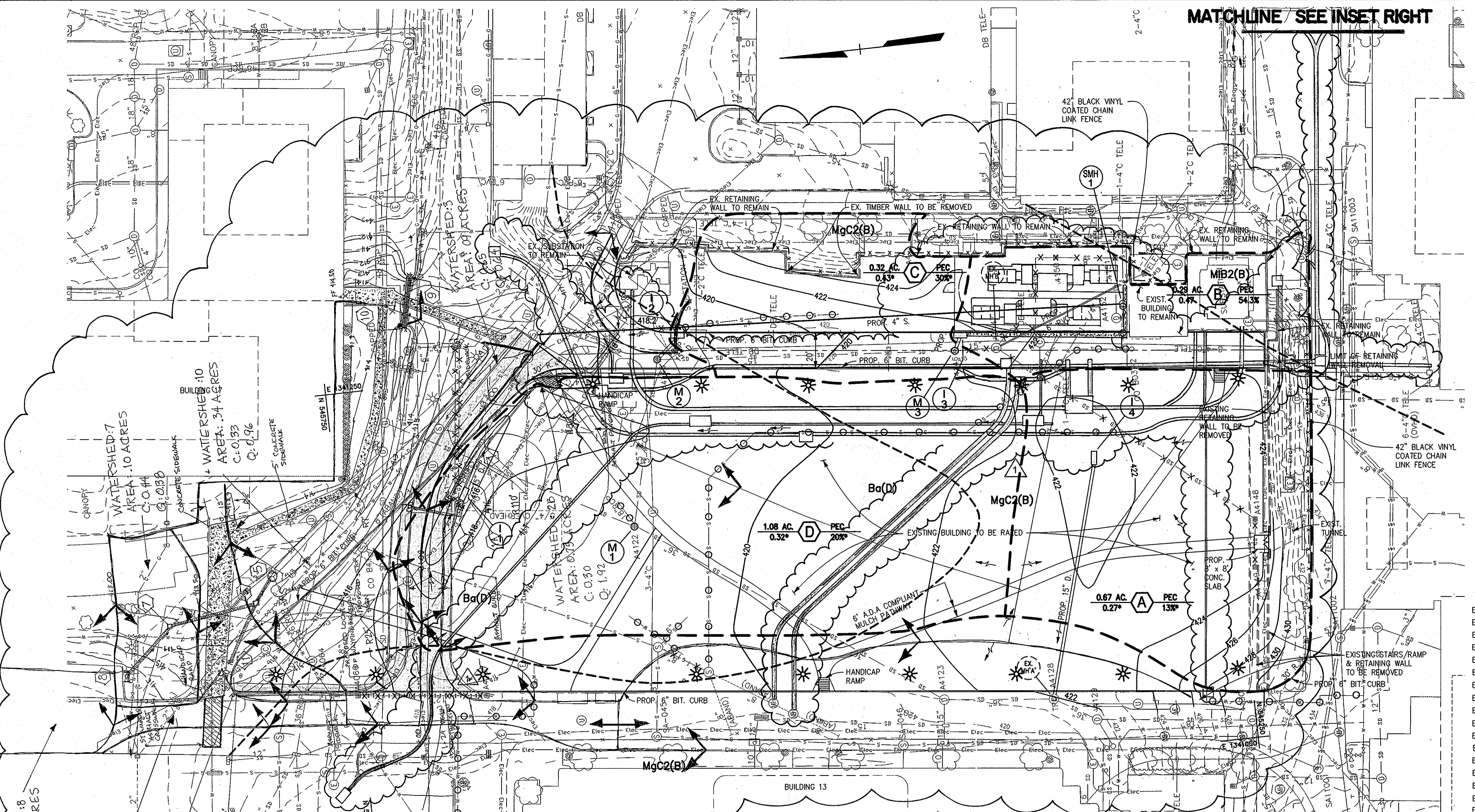
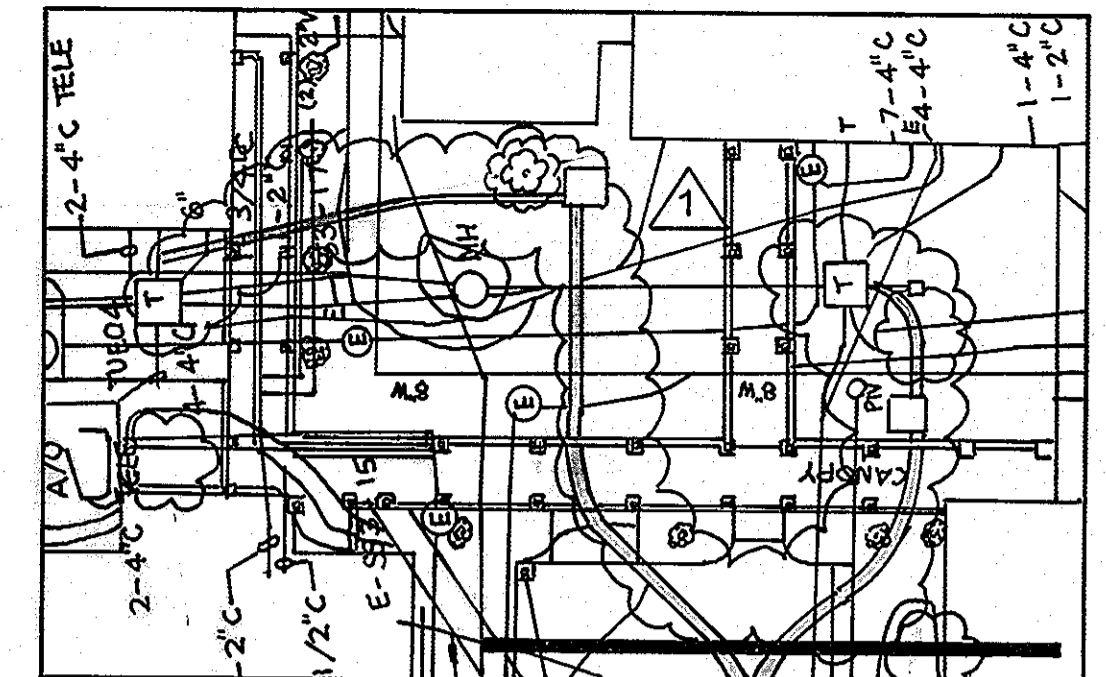
**UTILITY PROFILES & NOTES "CENTRAL GREEN, PHASE 2"**  
JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 5 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
SCALE: AS SHOWN



MATCHLINE SEE INSET RIGHT

MATCHLINE SEE PLAN LEFT



DRAINAGE AREA INFORMATION

- A = AREA (ACRE)
- B = AREA (I.D.)
- C = COMPOSITE RATIONAL 'C'
- Z = ZONING
- P = WEIGHTED% IMPERVIOUS COVER
- S = % SCS SOIL NOTE 'C' SOILS ASSUMED HSG

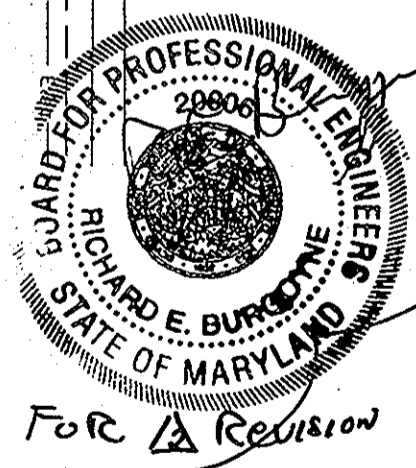
LEGEND

- EX. MINOR CONTOUR
- EX. MAJOR CONTOUR
- EX. SPOT ELEVATION
- EX. FIRE HYDRANT
- EX. STORM DRAIN
- EX. WATER LINE
- EX. SANITARY SEWER
- EX. ELECTRIC LINE
- EX. COMMUNICATIONS LINE
- EX. MANHOLE
- EX. INLET
- EX. TREE LINE
- EX. BUILDING
- EX. CURB AND GUTTER
- EX. BITUMINOUS PAVING
- EX. CONCRETE SIDEWALK
- EX. FENCE
- EX. WALL
- EX. CLEANOUT
- EX. LIGHT STANDARD
- EX. BUSH
- EX. TREE
- EX. PIPE BOLLARD
- EX. UTILITY POLE
- EX. RETAINING WALL TO REMAIN
- EX. UTILITY TO BE REMOVED
- EX. UTILITY TO BE ABANDONED IN PLACE
- PROP. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. SPOT ELEVATION
- PROP. CURB & GUTTER
- PROP. SEWER
- PROP. STORM DRAIN
- DRAINAGE AREA
- SOIL LIMITS
- SOIL SERIES
- PROP. TELECOM DUCT BANK
- PROP. ELECTRIC DUCT BANK
- LIGHT FIXTURES

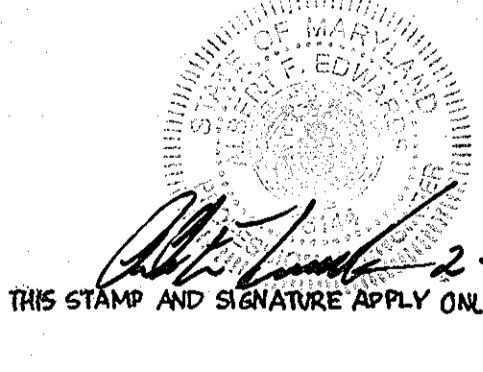
PLAN

SCALE: 1" = 30'

\* BASED ON PROJECTED BUILDOUT IN GREEN SPACE USED FOR DESIGN  
 NOTE: MULCH AREA CONSIDERED LAWN FOR STORM DRAIN PURPOSES  
 NOTE: ALL TC'S ASSUMED TO BE 5.0 MINUTE



FOR REVISION

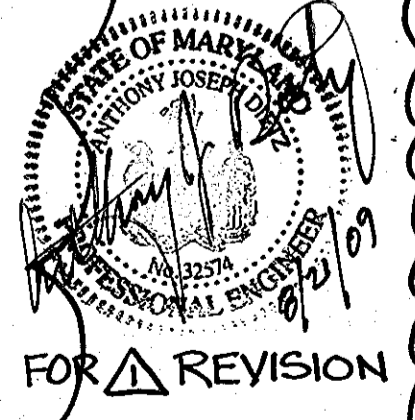


PROFESSIONAL CERTIFICATION

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 NUMBER: 22574 EXPIRATION DATE: 1/16/10

BUILDING SITE IMPROVEMENTS (ACRES)	3/10/2010	SERVICE ROAD REALIGNMENT (ACRES)
42.4	42.4	42.4
26.5	26.5	26.5
28.5	28.3	28.3
0.1	0.0	0.0
28.6	28.3	28.3
10.3	10.6	10.6



FOR REVISION

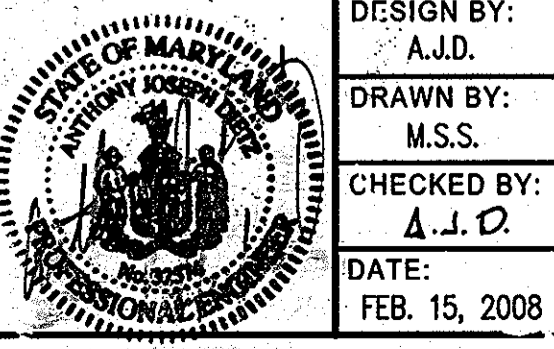
STORMWATER MANAGEMENT DRAINAGE AREA 'A' BASIN - DEVELOPMENT ACCOUNTING

AS OF DATE	FINAL PLAN "A" HOWARD CO. APPROVED (ACRES)	B17 AND B20 DEVELOPMENT (ACRES)	PRE SI'S DEMOLITION (ACRES)	SYSTEMS INTEGRATION BUILDINGS 12 & 15 (ACRES)	PRE BUILDING 21 DEMOLITION CONCLUSION (ACRES)	BUILDING 21 (ACRES)	POST SI'S CONSTRUCTION DEMOLITION (ACRES)	CENTRAL GREEN DEMO BLDGS. #1, 16, 14, 56, 33, 113, 38, 28, 54 (ACRES)
AS OF DATE	2/28/2002	MARCH 2004						
DRAINAGE AREA	43.2	43.2	43.2	42.4	42.4	42.4	42.4	42.4
EXISTING IMPERVIOUS DRAINAGE AREA PRE 1984	27.2	27.2	27.0	26.7	24.4	26.5	26.5	26.5
IMPERVIOUS AREA SEPT. 2007								30.5
PROPOSED IMPERVIOUS DRAINAGE AREA POST 1984	11.7	1.4	0.6	4.4	4.0	4.0	4.0	-2.0 -2.2
TOTAL IMPERVIOUS AREA	38.9	28.6	27.6	31.1	28.4	30.5	30.5	28.5 28.3
IMPERVIOUS DRAINAGE AREA MAXIMUM ALLOWABLE IMPERVIOUS AREA (38.9 AC.) AVAILABLE	0.0	10.3	11.3	7.8	10.5	8.4	8.4	10.5 10.6

JHU/APL INTERNAL USE  
 THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

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

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	A.J.D.
DRAWN BY:	M.S.S.
CHECKED BY:	A.J.D.
DATE:	FEB. 15, 2008
REVISION	DATE
1	ADD SUBSTATION CONSOLIDATION & DUCT BANKS
2	BUILDING 11 OUTDOOR PLAZA, ASPHALT REMOVAL IN FRONT OF BUILDING 17, RESTRICTION
3	REPAIR BUILDING 17 AND CENTER SERVICE LOT

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND 20723-6099  
 443-778-5134

**STORM DRAIN DRAINAGE AREA MAP "CENTRAL GREEN, PHASE 2"**  
 JOHNS HOPKINS UNIVERSITY PROPERTY  
 TAX MAP: 41 GRID: 16 PARCEL: 123  
 ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
 SHEET 6 OF 16 (RESTRICTED FILE)

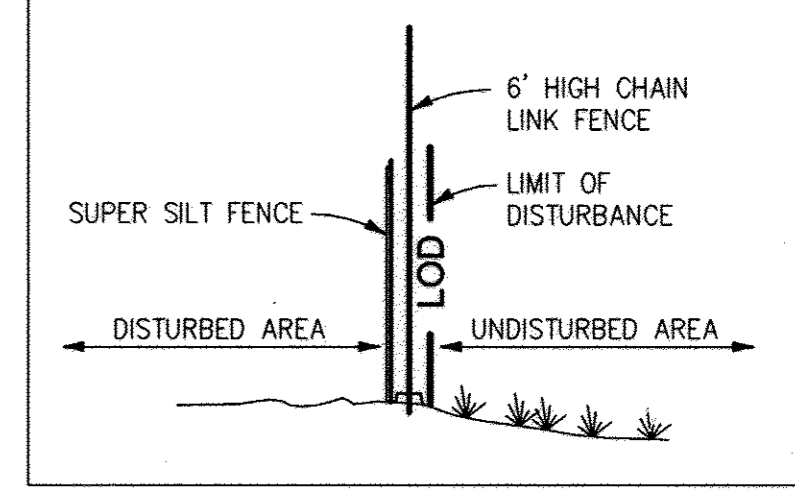
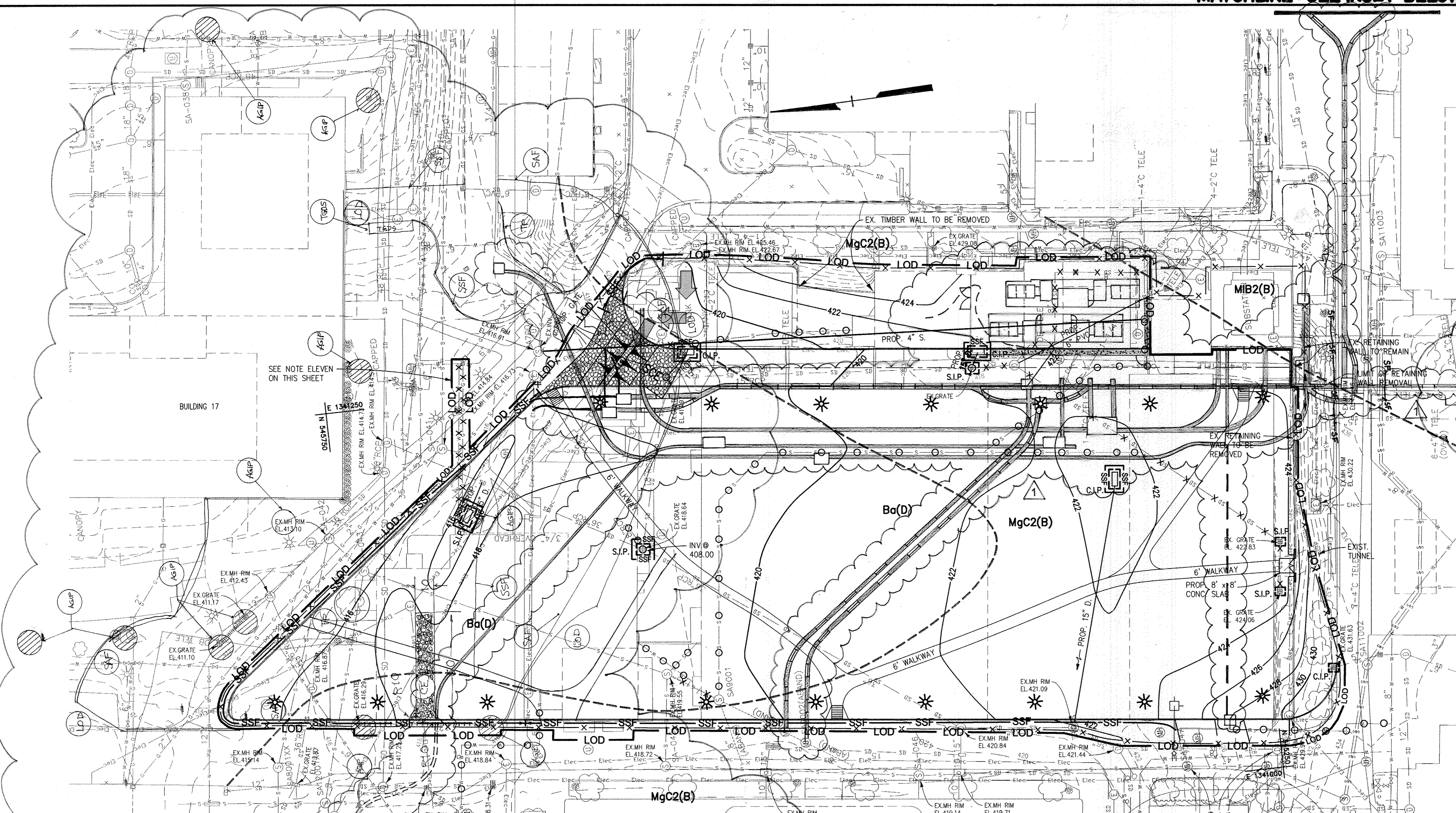
C.E.I. PROJECT NUMBER 22172.25  
 SCALE: 1" = 30'



HOWARD SOIL CONSERVATION DISTRICT  
STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTED 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. 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.
7. SITE ANALYSIS:
 

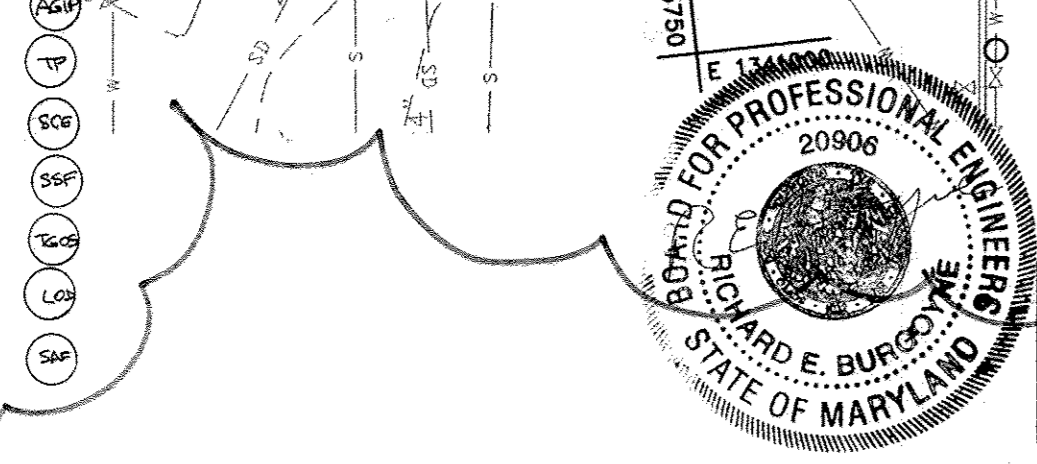
	CENTRAL GREEN	BORROW AREA	STOCKPILE AREA
361 ACRES... TOTAL AREA OF SITE	2.91 ACRES	3.40 ACRES	1.72 ACRES
2.29 ACRES... AREA DISTURBED	2.81 ACRES	3.23 ACRES	0.0 ACRES
2.23 ACRES... AREA TO BE ROOFED OR PAVED	0.18 ACRES	0.0 ACRES	1.72 ACRES
1.06 ACRES... AREA TO BE VEGETATIVELY STABILIZED	2.73 ACRES	3.23 ACRES	1.72 ACRES
755 YD <sup>3</sup> ... TOTAL CUT	3,871 CU.YDS.	3,357 CU.YDS.	STOCKPILE
450 YD <sup>3</sup> ... TOTAL FILL	3,357 CU.YDS.	3,871 CU.YDS.	STOCKPILE
	OFFSITE WASTE/BORROW AREA LOCATION		JHU/APL CAMPUS
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.
12. A TEMPORARY 6 FOOT HIGH SECURITY CONSTRUCTION FENCE WITH GATE SHALL BE PLACED ABOUT THE PERIMETER OF THE CONSTRUCTION AREA TO RESTRICT ACCESS TO THE CONSTRUCTION AREA BY UNAUTHORIZED PERSONNEL DURING CONSTRUCTION.



Perimeter Detail  
Not to Scale

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

- LEGEND**
- AT GRADE INLET PROTECTION
  - TREE PROTECTION
  - CONSTRUCTION ENTRANCE
  - 1P SUPER SILT FENCE
  - TEMPORARY GABION OUTLET STRUCTURE
  - LIMITS OF DISTURBANCE
  - SAFETY FENCE



NOTE: THIS SITE DRAINS TO EXISTING SWM FACILITY 'A' ON THE APPLIED PHYSICS LABORATORY CAMPUS. INTERIM STORMWATER MANAGEMENT IS NOT REQUIRED.

INSTALL SILT FENCE FOR ALL DUCT BANK INSTALLATION IN VEGETATED AREAS OUTSIDE LIMITS OF DISTURBANCE. FOR DUCT BANK INSTALLATION IN PAVED AREAS OUTSIDE LIMITS OF DISTURBANCE LIMIT INSTALLATION TO THAT WHICH CAN BE INSTALLED IN A SINGLE DAY, BACKFILL AND STABILIZE TRENCH AT END OF EACH WORK DAY.

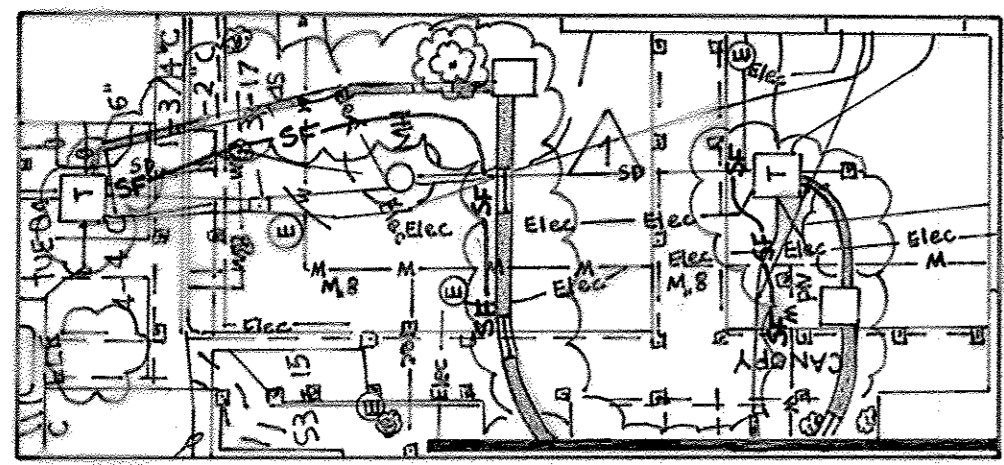
PROFESSIONAL CERTIFICATION

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 NUMBER: 92514 EXPIRATION DATE: 1/16/10

LEGEND

- |                         |         |                                      |         |  |                         |
|-------------------------|---------|--------------------------------------|---------|--|-------------------------|
| EX. MINOR CONTOUR       | ---     | EX. FENCE                            | X X X   | PROP. CURB INLET PROTECTION            | C.I.P.                  |
| EX. MAJOR CONTOUR       | ---     | EX. WALL                             | ---     | PROP. INLET PROTECTION                 | S.I.P.                  |
| EX. SPOT ELEVATION      | X 387.6 | EX. CLEANOUT                         | o       | PROP. LIMIT OF DISTURBANCE             | LOD                     |
| EX. FIRE HYDRANT        | sh      | EX. LIGHT STANDARD                   | o       | PROP. STABILIZED CONSTRUCTION ENTRANCE | SCS                     |
| EX. STORM DRAIN         | SD      | EX. BUSH                             | o       | PROP. CONSTRUCTION FENCE               | X X X                   |
| EX. WATER LINE          | W W     | EX. TREE                             | o       | REMOVABLE PUMP STATION                 | RPS                     |
| EX. SANITARY SEWER      | S S     | EX. PIPE BOLLARD                     | o       | GABION INFLOW PROTECTION               | G.I.P.                  |
| EX. ELECTRIC LINE       | Elec    | EX. UTILITY POLE                     | o       | SOIL LIMITS                            | SOIL SERIES MIB2(B) HSG |
| EX. COMMUNICATIONS LINE | ---     | PROP. MINOR CONTOUR                  | ---     | PROP. SUPER SILT FENCE                 | SSF                     |
| EX. MANHOLE             | o       | PROP. MAJOR CONTOUR                  | ---     | EX. UTILITY TO BE REMOVED              | X X X                   |
| EX. INLET               | o       | PROP. SPOT ELEVATION                 | +385.58 | EX. UTILITY TO BE ABANDONED IN PLACE   | o o o                   |
| EX. TREE LINE           | ---     | PROP. CURB & GUTTER                  | ---     |  |                         |
| EX. BUILDING            | ---     | PROP. SILT FENCE                     | ---     |  |                         |
| EX. CURB AND GUTTER     | ---     | PROP. SUPER SILT FENCE               | ---     |  |                         |
| EX. BITUMINOUS PAVING   | ---     | EX. UTILITY TO BE REMOVED            | X X X   |  |                         |
| EX. CONCRETE SIDEWALK   | ---     | EX. UTILITY TO BE ABANDONED IN PLACE | o o o   |  |                         |
|                         |         | PROP. TELCOM DUCT BANK               | ---     |  |                         |
|                         |         | PROP. ELECTRIC DUCT BANK             | ---     |  |                         |

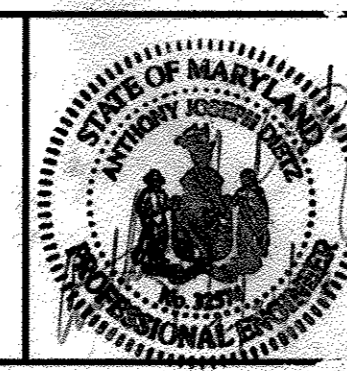
JHU/APL INTERNAL USE  
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.



MATCHLINE : SEE PLAN ABOVE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Date: 3/17/08  
Date: 3/19/08  
Date: 3/19/08

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY: A.J.D.	
DRAWN BY: M.S.S.	
CHECKED BY: A.J.D.	
DATE: FEB. 15, 2008	
REVISION	DATE
3Y NO.	
REB	SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9. 3/10/10
RDT	ADD SUBSTATION CONSOLIDATION & DUCT BANKS 5-18-09

THE JOHNS HOPKINS UNIVERSITY  
APPLIED PHYSICS LABORATORY  
1100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134

EROSION & SEDIMENT CONTROL PLAN  
"CENTRAL GREEN, PHASE 2"  
JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 7 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
SCALE: 1"=30'

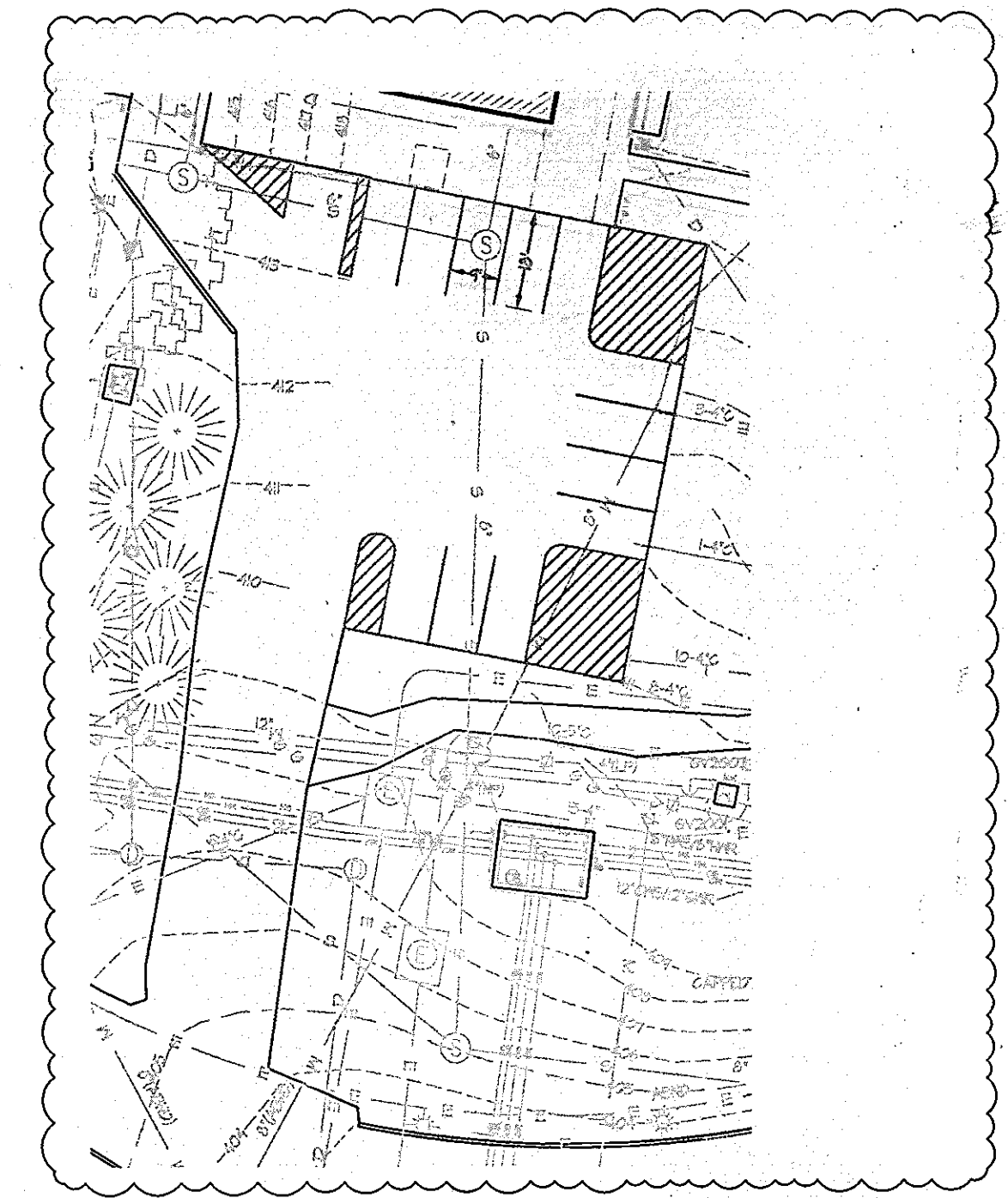
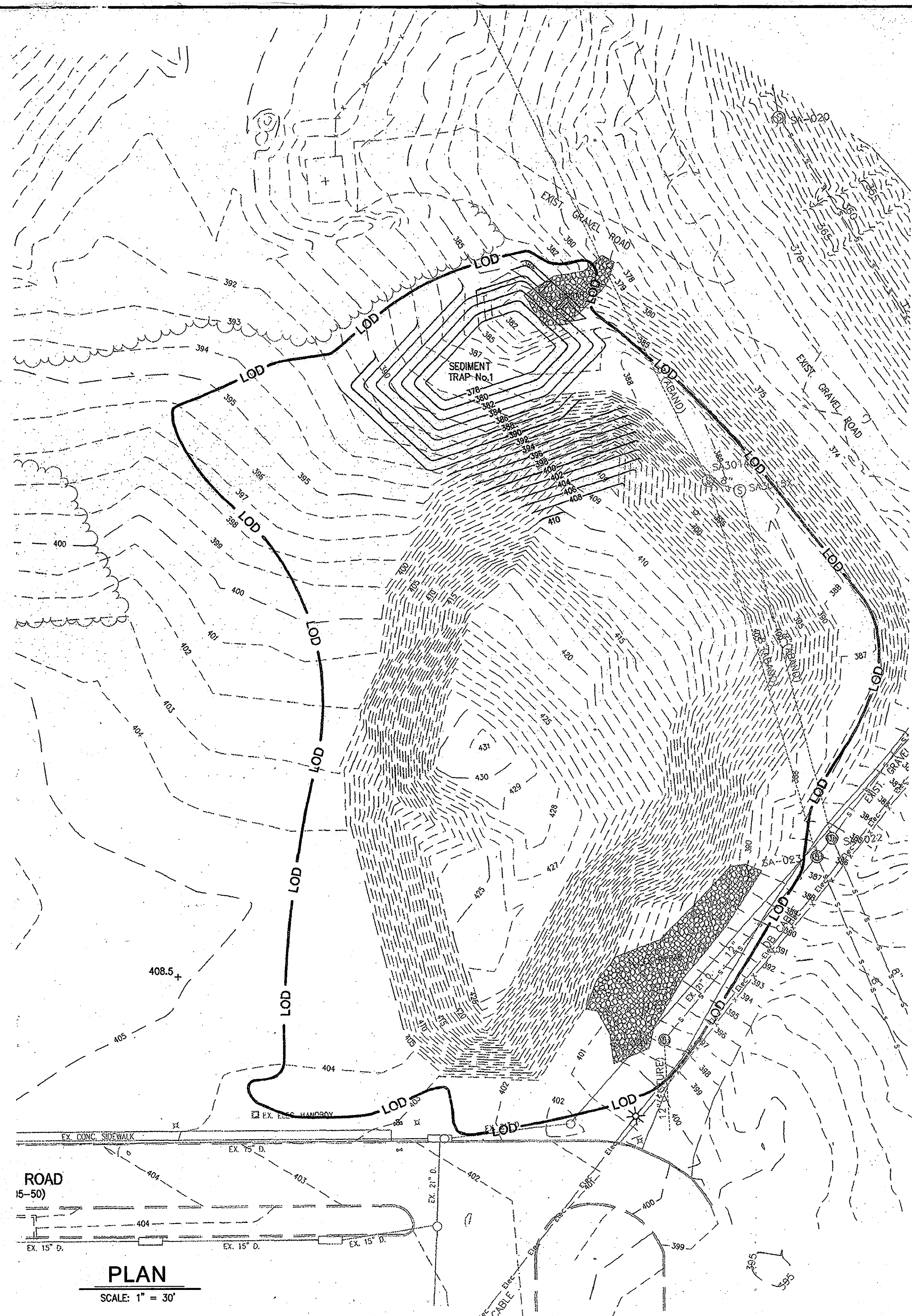
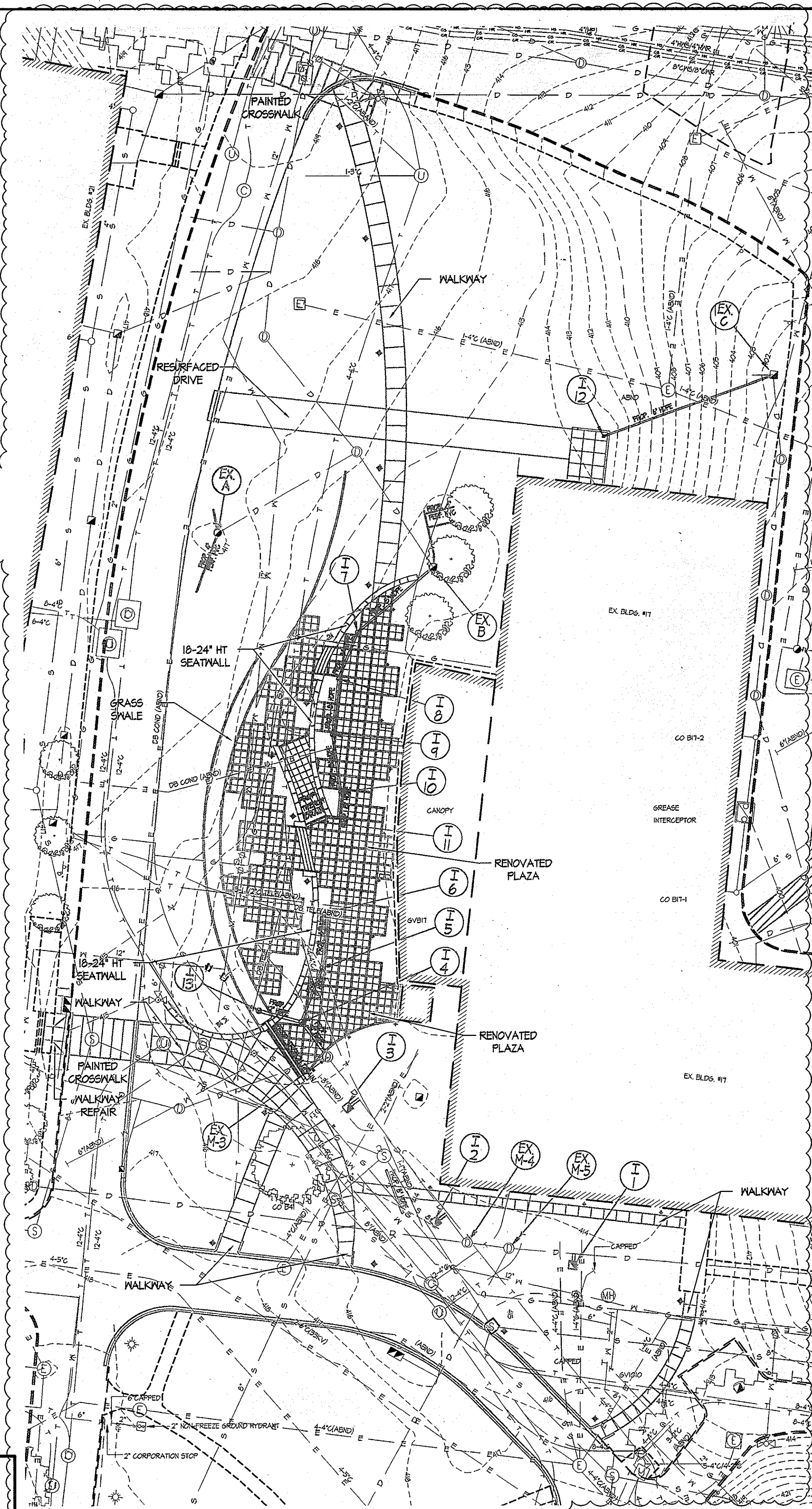
BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature] DATE: 2/1/08

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature] DATE: 2.15.08

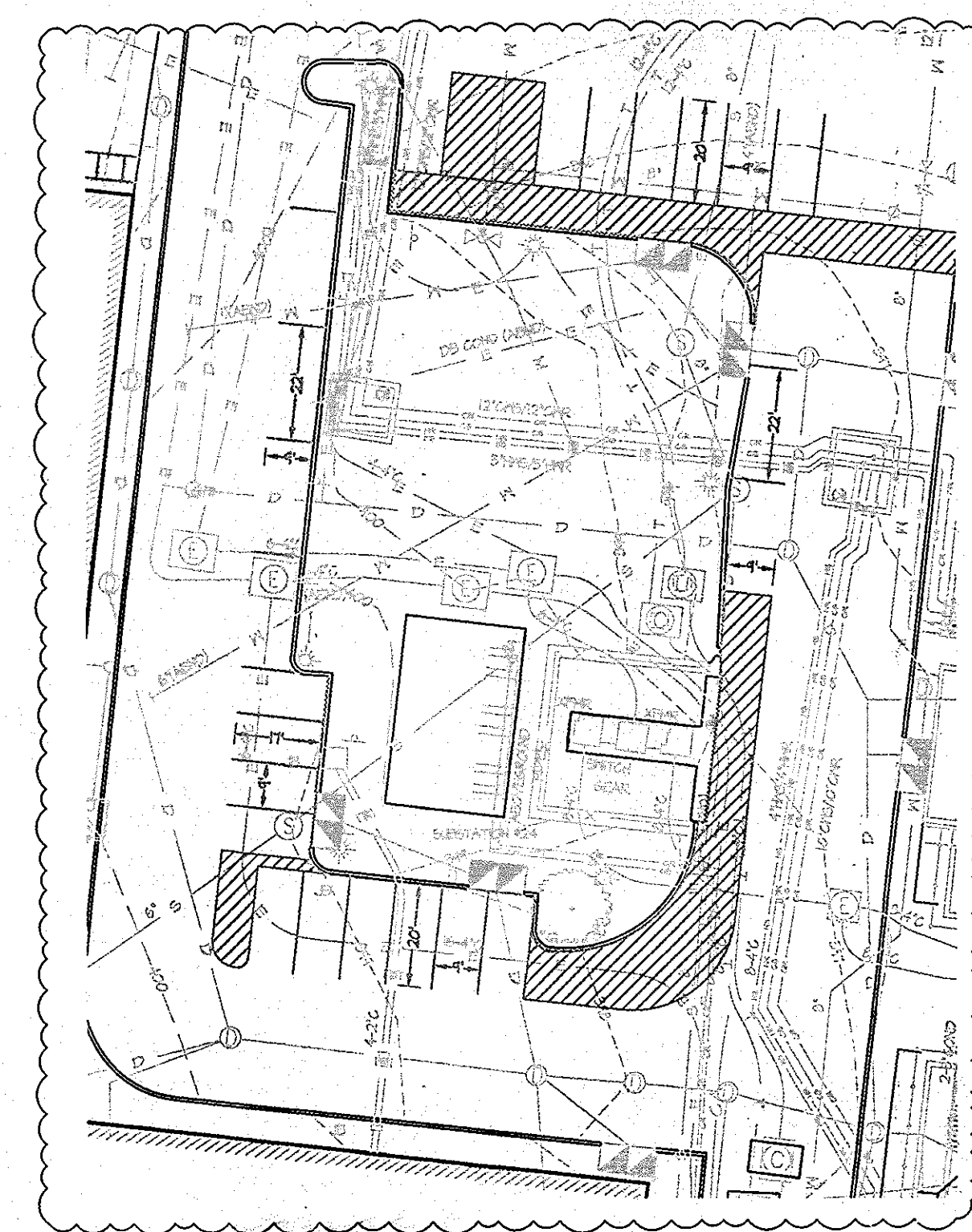
THIS DEVELOPMENT PLAN IS AS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
Signature: [Signature] DATE: 3/13/08



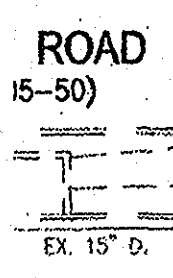
3 BUILDING 17 PLAZA



3 CENTER SERVICE ROAD - PARKING LOT RESTRIPIING



3 BUILDING 17 SERVICE LOT AREA - PARKING RESTRIPIING



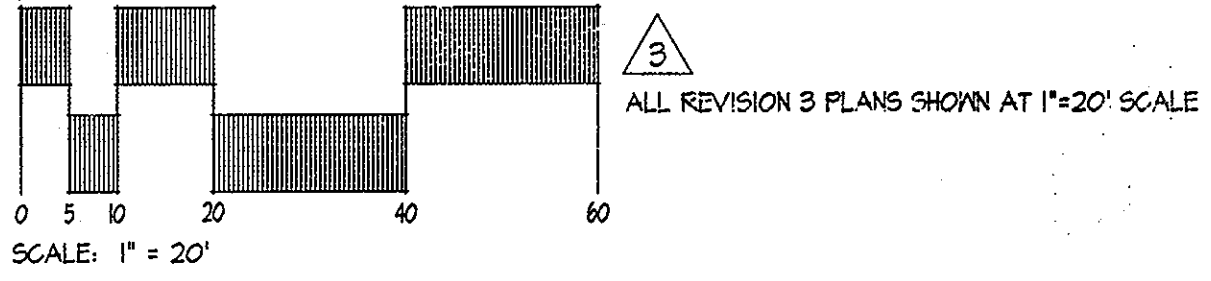
PLAN  
SCALE: 1" = 30'

**LEGEND**

- EX. CONCRETE SIDEWALK
- EX. FENCE
- EX. WALL
- EX. TREE LINE
- EX. BUILDING
- EX. CURB AND GUTTER
- EX. BITUMINOUS PAVING
- PROP. CURB & GUTTER
- PROP. MINOR CONTOUR 379
- PROP. MAJOR CONTOUR 380
- PROP. SPOT ELEVATION + 385.58
- LIMIT OF DISTURBANCE LOD

*[Signature]*  
THIS STAMP AND SIGNATURE APPLY ONLY TO REVISION 3.

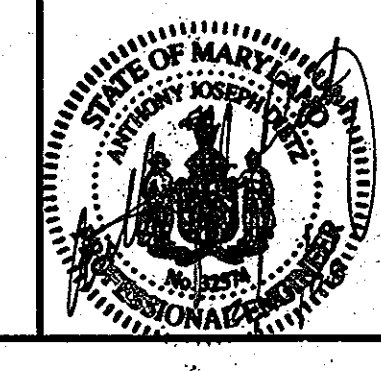
**JHU/APL INTERNAL USE**  
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.



**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 NUMBER: 92514 EXPIRATION DATE: 1/10/10

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 2/17/08  
Chief, Development Engineering Division  
*[Signature]* 3/19/08  
Chief, Division of Land Development  
*[Signature]* 3/19/08  
Director

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	A.J.D.			
DRAWN BY:	M.S.S.			
CHECKED BY:	A.J.D.			
DATE:	FEB. 15, 2008	AFE	BUILDING 17 OUTDOOR PLAZA, ASPHALT REMOVAL IN FRONT OF BUILDING 17, RESTRIPIING BEHIND BUILDING 17 AND CENTER SERVICE LOT	2/13/08
		BY	NO.	REVISION

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134

**GRADING PLAN**  
"CENTRAL GREEN, PHASE 2" - BORROW AREA  
JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 8 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
SCALE: 1"=30'



TRAP No.2  
STAGE/STORAGE TABLE

ELEV. FT.	AREA FT.2	AVG. AREA FT.2	ΔELEV. FT.	ΔVOL. FT.3	ΣVOL. FT.3
378	1260				0
380	1592	1426	2	2852	2852
381	2102	1847	1	1847	4699
382	2610	2356	1	2356	7055
384	3470	3040	2	3040	10095

LEGEND

- EX. MINOR CONTOUR --- -391---
- EX. MAJOR CONTOUR --- -390---
- EX. SPOT ELEVATION × 387.6
- EX. FIRE HYDRANT (Symbol)
- EX. STORM DRAIN (Symbol)
- EX. WATER LINE (Symbol)
- EX. SANITARY SEWER (Symbol)
- EX. ELECTRIC LINE (Symbol)
- EX. COMMUNICATIONS LINE (Symbol)
- EX. MANHOLE (Symbol)
- EX. INLET (Symbol)
- EX. TREE LINE (Symbol)
- EX. BUILDING (Symbol)
- EX. CURB AND GUTTER (Symbol)
- EX. BITUMINOUS PAVING (Symbol)
- EX. CONCRETE SIDEWALK (Symbol)
- EX. FENCE (Symbol)
- EX. WALL (Symbol)
- EX. CLEANOUT (Symbol)
- EX. LIGHT STANDARD (Symbol)
- EX. BUSH (Symbol)
- EX. TREE (Symbol)
- EX. PIPE BOLLARD (Symbol)
- EX. UTILITY POLE (Symbol)
- PROP. MINOR CONTOUR --- -379---
- PROP. MAJOR CONTOUR --- -380---
- PROP. SPOT ELEVATION +385.58
- PROP. CURB & GUTTER (Symbol)
- PROP. SILT FENCE (Symbol)
- PROP. SUPER SILT FENCE (Symbol)
- PROP. LIMIT OF DISTURBANCE (Symbol)
- PROP. EARTH DIKE (Symbol)
- PROP. STABILIZED CONSTRUCTION ENTRANCE (Symbol)
- REMOVABLE PUMP STATION (Symbol)
- GABION INFLOW PROTECTION (Symbol)
- LIGHT FIXTURES (Symbol)

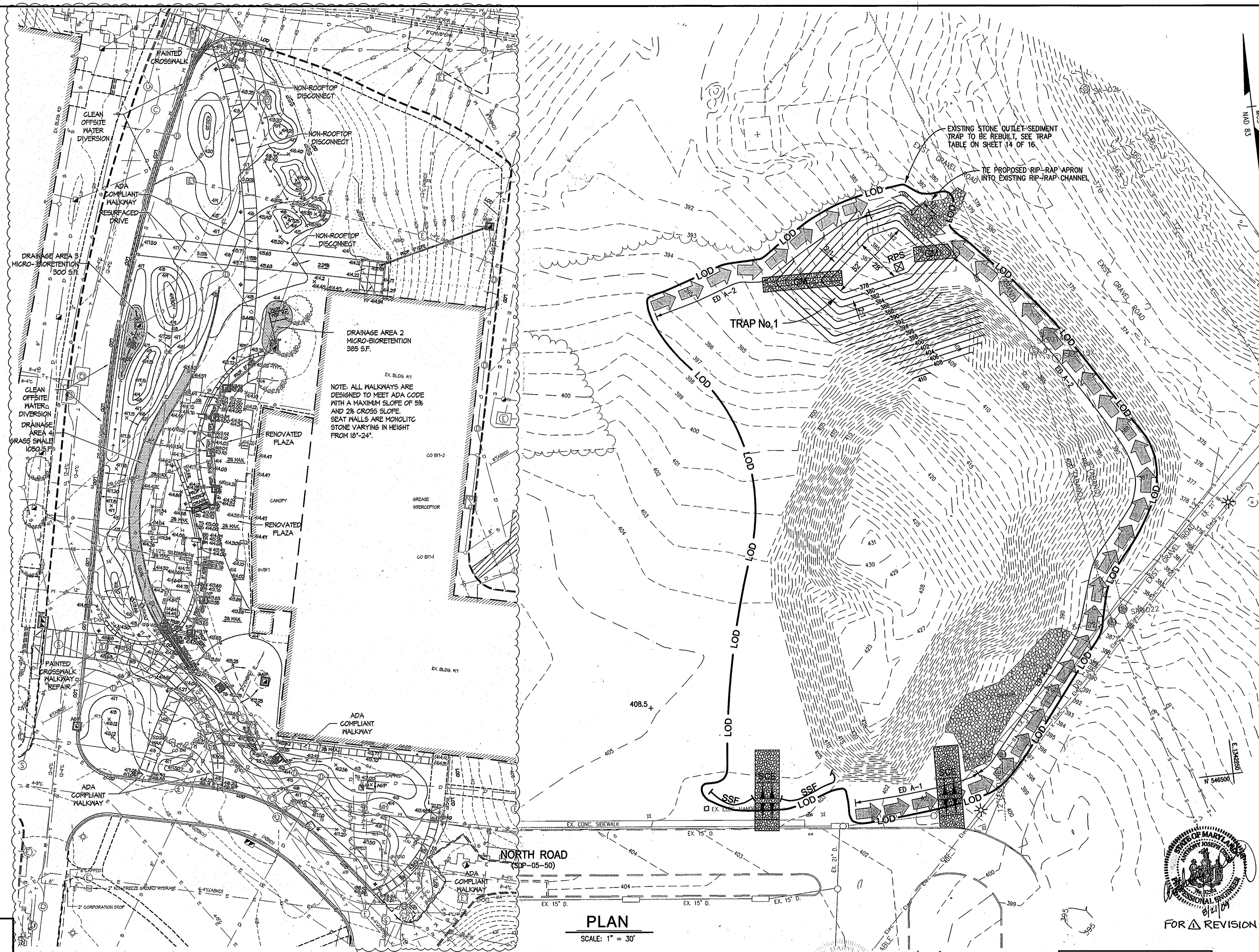
BY THE ENGINEER:  
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Anthony J. D'Amico*  
 SIGNATURE OF ENGINEER      2/2/08  
 DATE

BY THE DEVELOPER:  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING 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."

*James E. Tesch*  
 SIGNATURE OF DEVELOPER      2.15.08  
 DATE

THIS DEVELOPMENT PLAN IS AS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John R. Robertson*  
 HOWARD S.C.D.      3/13/08  
 DATE

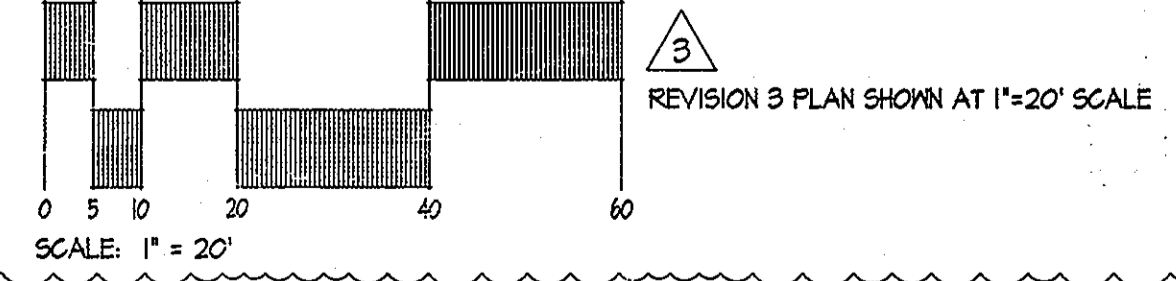


PLAN  
 SCALE: 1" = 30'

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 NUMBER: 32574      EXPIRATION DATE: 1/16/10

JHU/APL INTERNAL USE  
 THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.



APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*John P. ...*  
 Chief, Development Engineering Division      2/7/08  
 Date  
*...*  
 Chief, Division of Land Development      3/19/08  
 Date  
*...*  
 Director      3/19/08  
 Date

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	A.J.D.		
DRAWN BY:	M.S.S.		
CHECKED BY:	A.J.D.		
DATE:	FEB. 15, 2008		
BY NO.			
REVISION			
	AFE	Δ	BUILDING 17 OUTDOOR PLAZA ASPHALT REMOVAL IN FRONT OF BUILDING 17, RESTRIPIPING BEHIND BUILDING 17 AND CENTER SERVICE LOT      2/13/12
	RDT	Δ	ADD SUBSTATION CONSOLIDATION & DUCT BANKS      5-18-09
	BY NO.		

THE JOHNS HOPKINS UNIVERSITY  
 APPLIED PHYSICS LABORATORY  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND 20723-6099  
 443-778-5134

EROSION & SEDIMENT CONTROL PLAN  
 "CENTRAL GREEN, PHASE 2" - BORROW AREA  
 JOHNS HOPKINS UNIVERSITY PROPERTY  
 TAX MAP: 41      GRID: 16      PARCEL: 123  
 ELECTION DISTRICT 5-05      HOWARD COUNTY, MARYLAND  
 SHEET 9 OF 16 (RESTRICTED FILE)

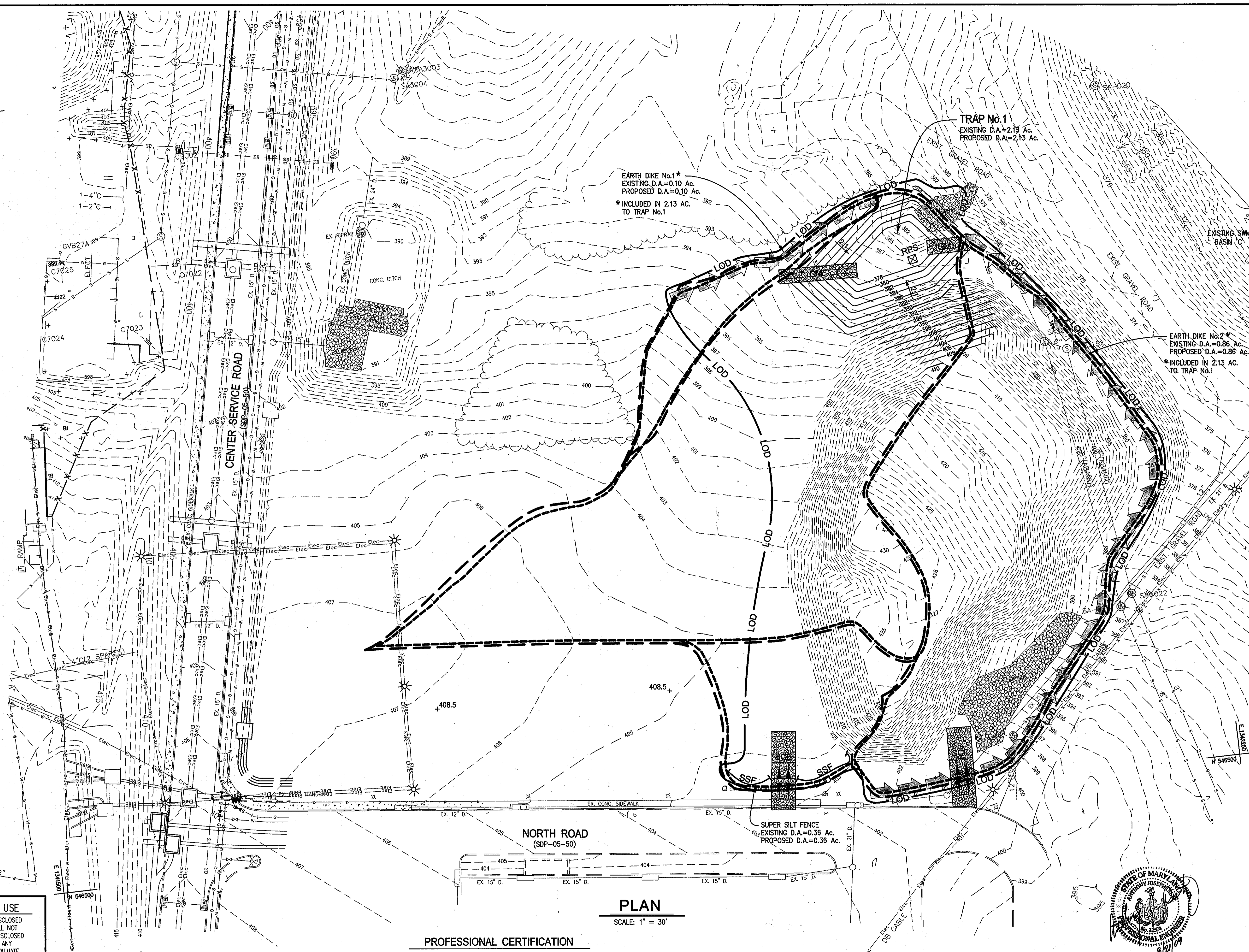
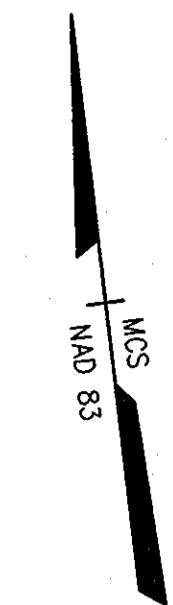
C.E.I. PROJECT NUMBER 22172.25  
 SCALE: 1"=30'







N 547000  
E 141500



**LEGEND**

- EX. MINOR CONTOUR --- 391 ---
- EX. MAJOR CONTOUR --- 390 ---
- EX. SPOT ELEVATION X 387.6
- EX. FIRE HYDRANT ⋄
- EX. STORM DRAIN SD
- EX. WATER LINE W W
- EX. SANITARY SEWER S S
- EX. ELECTRIC LINE Elec
- EX. COMMUNICATIONS LINE ---
- EX. MANHOLE ○
- EX. INLET □
- EX. TREE LINE ~~~~~
- EX. BUILDING [ ]
- EX. CURB AND GUTTER [ ]
- EX. BITUMINOUS PAVING [ ]
- EX. CONCRETE SIDEWALK [ ]
- EX. FENCE [ ]
- EX. WALL [ ]
- EX. CLEANOUT [ ]
- EX. LIGHT STANDARD [ ]
- EX. BUSH [ ]
- EX. TREE [ ]
- EX. PIPE BOLLARD [ ]
- EX. UTILITY POLE [ ]
- PROP. MINOR CONTOUR --- 379 ---
- PROP. MAJOR CONTOUR --- 380 ---
- PROP. SPOT ELEVATION +385.58
- PROP. CURB & GUTTER [ ]
- PROP. SILT FENCE [ ]
- PROP. SUPER SILT FENCE [ ]
- PROP. LIMIT OF DISTURBANCE [ ]
- PROP. EARTH DIKE [ ]
- PROP. STABILIZED CONSTRUCTION ENTRANCE [ ]
- EXISTING DRAINAGE AREA [ ]
- PROPOSED DRAINAGE AREA [ ]
- LIGHT FIXTURES \*

BY THE ENGINEER:  
 "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."

*Anthony J. Pity* 2/21/03  
 SIGNATURE OF ENGINEER DATE

BY THE DEVELOPER:  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING 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."

*James E. Truch* 2.15.08  
 SIGNATURE OF DEVELOPER DATE

THIS DEVELOPMENT PLAN IS AS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John L. Ralston* 3/18/03  
 HOWARD S.C.D. DATE

**PLAN**  
 SCALE: 1" = 30'

**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 NUMBER: 32514 EXPIRATION DATE: 4/6/10



FOR REVISION

TOTAL DISTURBED AREA: 75,794 SQ. FT. / 1.74 ACRES

**JHU/APL INTERNAL USE**  
 THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Chad Williams* 3/17/08  
 Chief, Development Engineering Division Date  
*Leslie Hanna* 3/19/08  
 Chief, Division of Land Development Date  
*Mark A. Legler* 2/19/08  
 Director Date

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



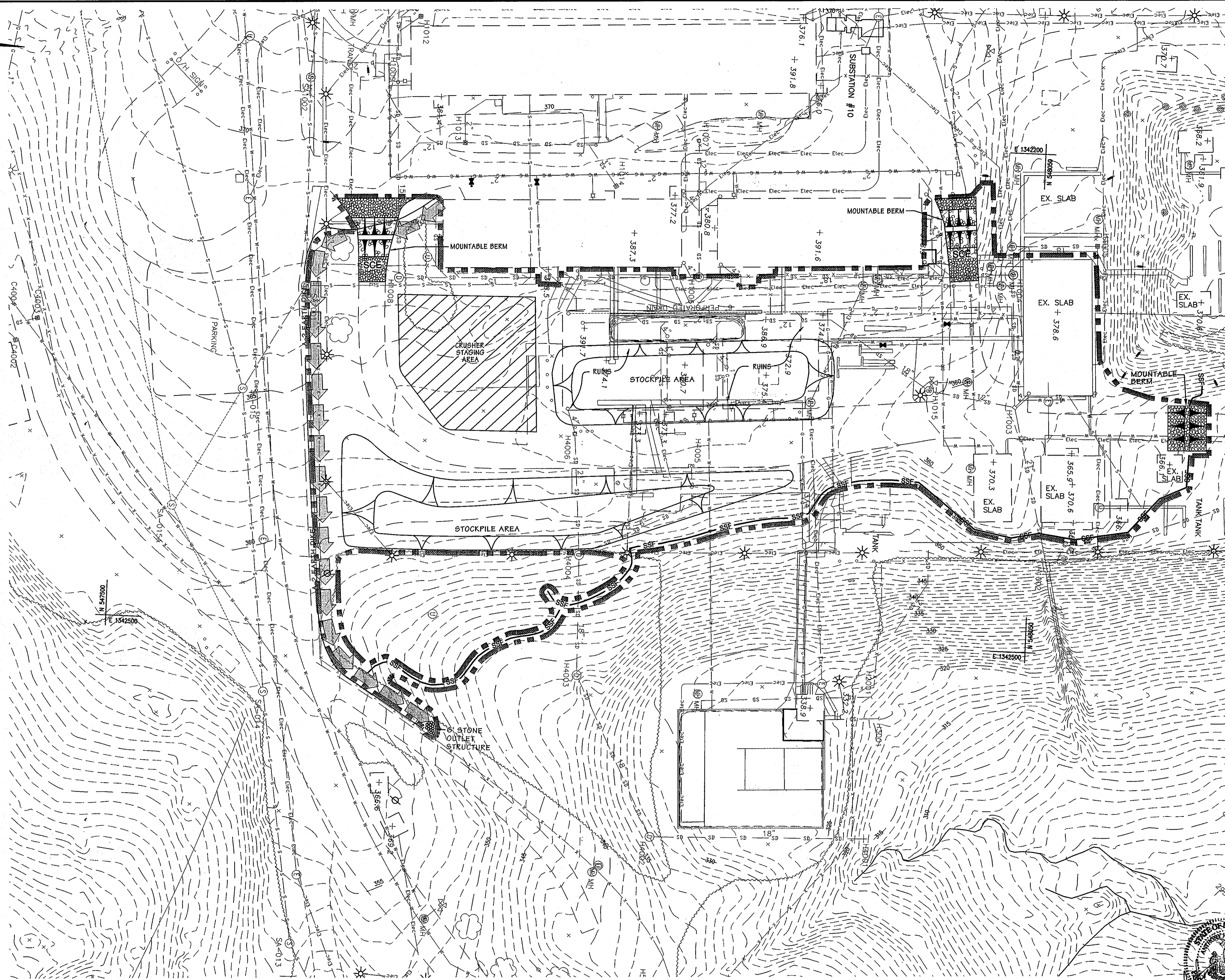
DESIGN BY:	A.J.D.				
DRAWN BY:	M.S.S.				
CHECKED BY:	A.J.D.				
DATE:	FEB. 15, 2008	RDT	ADD SUBSTATION CONSOLIDATION & DUCT BANKS	5-18-09	
		BY	NO.	REVISION	DATE

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND 20723-6099  
 443-778-5134

**EROSION & SEDIMENT CONTROL DRAINAGE AREA MAP**  
**"CENTRAL GREEN, PHASE 2" - BORROW AREA**  
 JOHNS HOPKINS UNIVERSITY PROPERTY  
 TAX MAP: 41 GRID: 16 PARCEL: 123  
 ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
 SHEET 11 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
 SCALE: 1"=30'





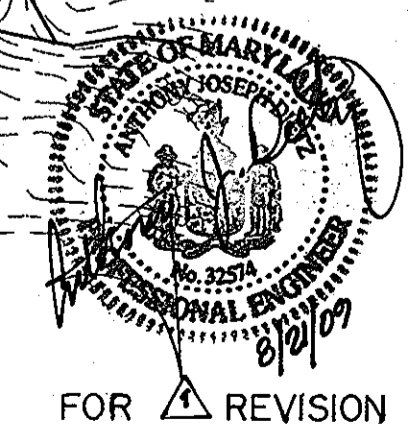
**LEGEND**

- EX. MINOR CONTOUR --- 391 ---
- EX. MAJOR CONTOUR --- 390 ---
- EX. SPOT ELEVATION X 387.6
- EX. FIRE HYDRANT db
- EX. STORM DRAIN --- SD ---
- EX. WATER LINE --- W --- W ---
- EX. SANITARY SEWER --- S --- S ---
- EX. ELECTRIC LINE --- Elec ---
- EX. COMMUNICATIONS LINE --- ---
- EX. MANHOLE o
- EX. INLET o
- EX. TREE LINE ~~~~~
- EX. BUILDING [rectangle]
- EX. CURB AND GUTTER [line with dashes]
- EX. BITUMINOUS PAVING [line with dots]
- EX. CONCRETE SIDEWALK [line with crosses]
- EX. FENCE [line with X's]
- EX. WALL [line with dashes]
- EX. CLEANOUT o
- EX. LIGHT STANDARD [circle with cross]
- EX. BUSH [circle with dots]
- EX. TREE [circle with cross]
- EX. PIPE BOLLARD [circle with dot]
- EX. UTILITY POLE [circle with cross]
- PROP. MINOR CONTOUR --- 379 ---
- PROP. MAJOR CONTOUR --- 380 ---
- PROP. SPOT ELEVATION + 385.58
- PROP. CURB & GUTTER [line with dashes]
- PROP. SILT FENCE --- SF ---
- PROP. SUPER SILT FENCE --- SSF ---
- PROP. LIMIT OF DISTURBANCE [line with squares]
- PROP. EARTH DIKE [line with arrows]
- PROP. STABILIZED CONSTRUCTION ENTRANCE [line with 'SCE' symbol]
- MOUNTABLE BERM [line with triangles]
- PROP. CONSTRUCTION FENCE [line with X's]

**JHU/APL INTERNAL USE**  
 THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

**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 NUMBER: 32514      EXPIRATION DATE: 1/16/10

**NOTE:**  
 THERE ARE NO DRAINAGE AREAS ON THIS SITE GREATER THAN 2.0 ACRES. THEREFORE INTERIM STORMWATER MANAGEMENT IS NOT REQUIRED.



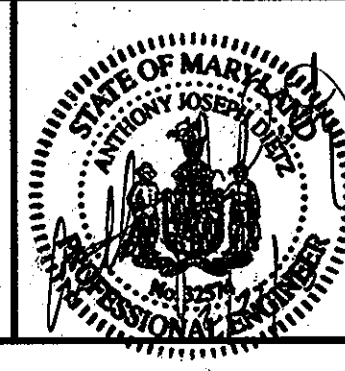
**BY THE ENGINEER:**  
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."  
*Anthony J. Dietz*      2/21/08  
 SIGNATURE OF ENGINEER      DATE

**BY THE DEVELOPER:**  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING 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."  
*James E. Teuch*      2.15.08  
 SIGNATURE OF DEVELOPER      DATE

THIS DEVELOPMENT PLAN IS AS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John K. Ralston*      3/13/08  
 HOWARD S.C.D.      DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*      2/17/08  
 Chief, Development Engineering Division      Date  
*[Signature]*      3/19/08  
 Chief, Division of Land Development      Date  
*[Signature]*      3/19/08  
 Director      Date

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



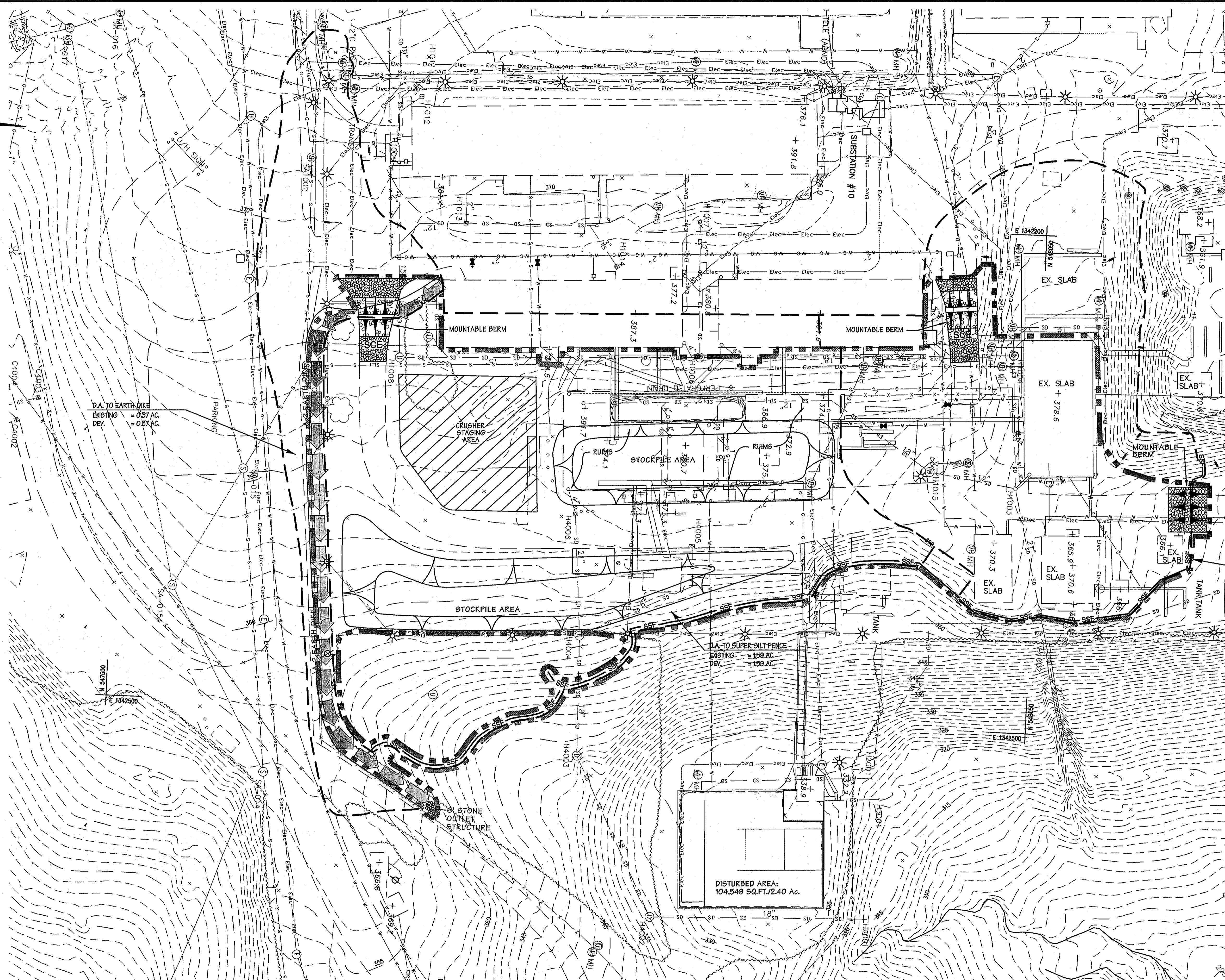
DESIGN BY:	A.J.D.				
DRAWN BY:	M.S.S.				
CHECKED BY:	A.J.D.				
DATE:	FEB. 15, 2008	RDT	ADD SUBSTATION CONSOLIDATION & DUCT BANKS	05-18-09	
		BY	NO.	REVISION	DATE

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND 20723-6099  
 443-778-5134

**EROSION AND SEDIMENT CONTROL PLAN STOCKPILE PRL SITE AREA**  
**"CENTRAL GREEN, PHASE 2"**  
 JOHNS HOPKINS UNIVERSITY PROPERTY  
 TAX MAP: 41      GRID: 16      PARCEL: 123  
 ELECTION DISTRICT 5-05      HOWARD COUNTY, MARYLAND  
 SHEET 12 OF 16 (RESTRICTED FILE)

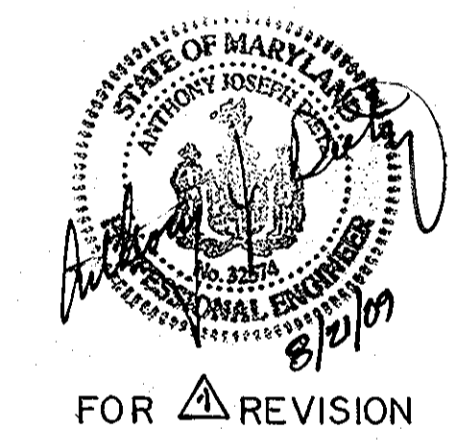
C.E.I. PROJECT NUMBER 22172.25  
 SCALE: 1"=30'





**LEGEND**

- EX. MINOR CONTOUR --- 391 ---
- EX. MAJOR CONTOUR --- 380 ---
- EX. SPOT ELEVATION X 387.6
- EX. FIRE HYDRANT (Symbol)
- EX. STORM DRAIN --- SD ---
- EX. WATER LINE --- W --- W
- EX. SANITARY SEWER --- S --- S
- EX. ELECTRIC LINE --- Elec ---
- EX. COMMUNICATIONS LINE --- (Symbol)
- EX. MANHOLE (Symbol)
- EX. INLET (Symbol)
- EX. TREE LINE (Symbol)
- EX. BUILDING (Symbol)
- EX. CURB AND GUTTER (Symbol)
- EX. BITUMINOUS PAVING (Symbol)
- EX. CONCRETE SIDEWALK (Symbol)
- EX. FENCE (Symbol)
- EX. WALL (Symbol)
- EX. CLEANOUT (Symbol)
- EX. LIGHT STANDARD (Symbol)
- EX. BUSH (Symbol)
- EX. TREE (Symbol)
- EX. PIPE BOLLARD (Symbol)
- EX. UTILITY POLE (Symbol)
- PROP. MINOR CONTOUR --- 379 ---
- PROP. MAJOR CONTOUR --- 380 ---
- PROP. SPOT ELEVATION +385.58
- PROP. CURB & GUTTER (Symbol)
- PROP. SILT FENCE --- SF ---
- PROP. SUPER SILT FENCE --- SSF ---
- PROP. LIMIT OF DISTURBANCE (Symbol)
- PROP. EARTH DIKE (Symbol)
- PROP. STABILIZED CONSTRUCTION ENTRANCE (Symbol)
- MOUNTABLE BERM (Symbol)
- PROP. CONSTRUCTION FENCE (Symbol)



D.A. TO EARTH DIKE  
EXISTING = 0.27 AC.  
DEV. = 0.27 AC.

D.A. TO SUPER SILT FENCE  
EXISTING = 0.96 AC.  
DEV. = 0.96 AC.

DISTURBED AREA:  
104,549 SQ.FT./2.40 Ac.

**JHU/APL INTERNAL USE**  
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

**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 NUMBER: 31514 EXPIRATION DATE: 1/16/10

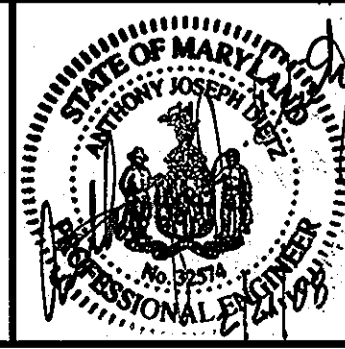
BY THE ENGINEER:  
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."  
*Anthony J. D'Amico* 2/2/08  
SIGNATURE OF ENGINEER DATE

BY THE DEVELOPER:  
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING 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."  
*James E. Fusch* 2.15.08  
SIGNATURE OF DEVELOPER DATE

THIS DEVELOPMENT PLAN IS AS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John R. Robertson* 3/13/08  
HOWARD S.C.D. DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 2/1/08  
Chief, Development Engineering Division Date  
*[Signature]* 3/19/08  
Chief, Division of Land Development Date  
*[Signature]* 3/19/08  
Director Date

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	A.J.D.				
DRAWN BY:	M.S.S.				
CHECKED BY:	A.J.D.				
DATE:	FEB. 15, 2008	RDT	ADD SUBSTATION CONSOLIDATION & DUCT BANKS	05-18-09	
		BY	NO.	REVISION	DATE

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6C39  
443-778-5134

EROSION AND SEDIMENT CONTROL  
DRAINAGE AREA MAP STOCKPILE PRL SITE AREA  
**"CENTRAL GREEN, PHASE 2"**  
JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 13 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
SCALE: 1"=30'



**HOWARD SOIL CONSERVATION DISTRICT**

**PERMANENT SEEDING NOTES (BORROW & STOCKPILE AREAS)**

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

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

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

- PREFERRED - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92,000 LBS/1000 SQ. FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.).
- ACCEPTABLE - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 - APRIL 30 AND AUGUST 1 - OCTOBER 15, SEED WITH 60 LBS/ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY - JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS/ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 - FEBRUARY 28, PROTECT SITE BY: OPTION 1 - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2 - USE SOD. OPTION 3 - SEED WITH 60 LBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

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

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

**PERMANENT SEEDING NOTES (CENTRAL GREEN)**

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENEED. PROVIDE A MINIMUM OF 4" OF SCREENED TOP-SOIL (NO DEBRIS 3/4" OR LARGER)

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

- PREFERRED - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92,000 LBS/1000 SQ. FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.
- ACCEPTABLE - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 - MAY 15 AND AUGUST 15 - OCTOBER 15, SEED WITH 125 LBS/ACRE (2.9 LBS/1000 SF) 3-WAY TALL FESCUE MIX & 25 LBS/ACRE (0.6 LBS/1000 SF) OF PERENNIAL RYE GRASS. FOR THE PERIOD MAY 15 - AUGUST 14, SEED WITH 125 LBS/ACRE (2.9 LBS/100 SF) OF 3-WAY TALL FESCUE MIX & 25 LBS/ACRE (0.6 LBS/1000 SF) OF PERENNIAL RYE GRASS. DURING THE PERIOD OF OCTOBER 16 - FEBRUARY 28, PROTECT SITE BY: OPTION 1 - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION 2 - USE SOD. OPTION 3 - SEED WITH 125 LBS/ACRE 3-WAY TALL FESCUE MIX AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

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

MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

**TEMPORARY SEEDING NOTES**

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

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

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

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

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

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

**UTILITY NOTES**

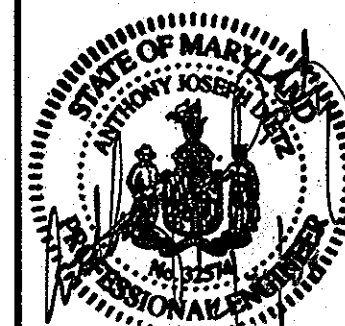
- CONTRACTOR SHOULD OPEN THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE) THE TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

**JHU/APL INTERNAL USE**

THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

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

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY: A.J.D.  
 DRAWN BY: M.S.S.  
 CHECKED BY: A.J.D.  
 DATE: FEB. 15, 2008

BY	NO.	REVISION	DATE
AFE	Δ	BUILDING 17 OUTDOOR PLAZA, ASPHALT REMOVAL IN FRONT OF BUILDING 17, RESTRIKING BEHIND BUILDING 17 AND CENTER SERVICE LOT	2/15/08
RDT	Δ	ADD SUBSTATION CONSOLIDATION & DUCT BANKS	5-18-09

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND .20723-6099  
 443-778-5134

**EROSION & SEDIMENT CONTROL SPECIFICATIONS and NOTES**  
**"CENTRAL GREEN, PHASE 2"**  
 JOHNS HOPKINS UNIVERSITY PROPERTY  
 TAX MAP: 41 GRID: 18 PARCEL: 123  
 ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
 SHEET 14 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER 22172.25  
 SCALE: AS SHOWN

**CENTRAL GREEN**

**SEQUENCE OF CONSTRUCTION**

**TIMETABLE**

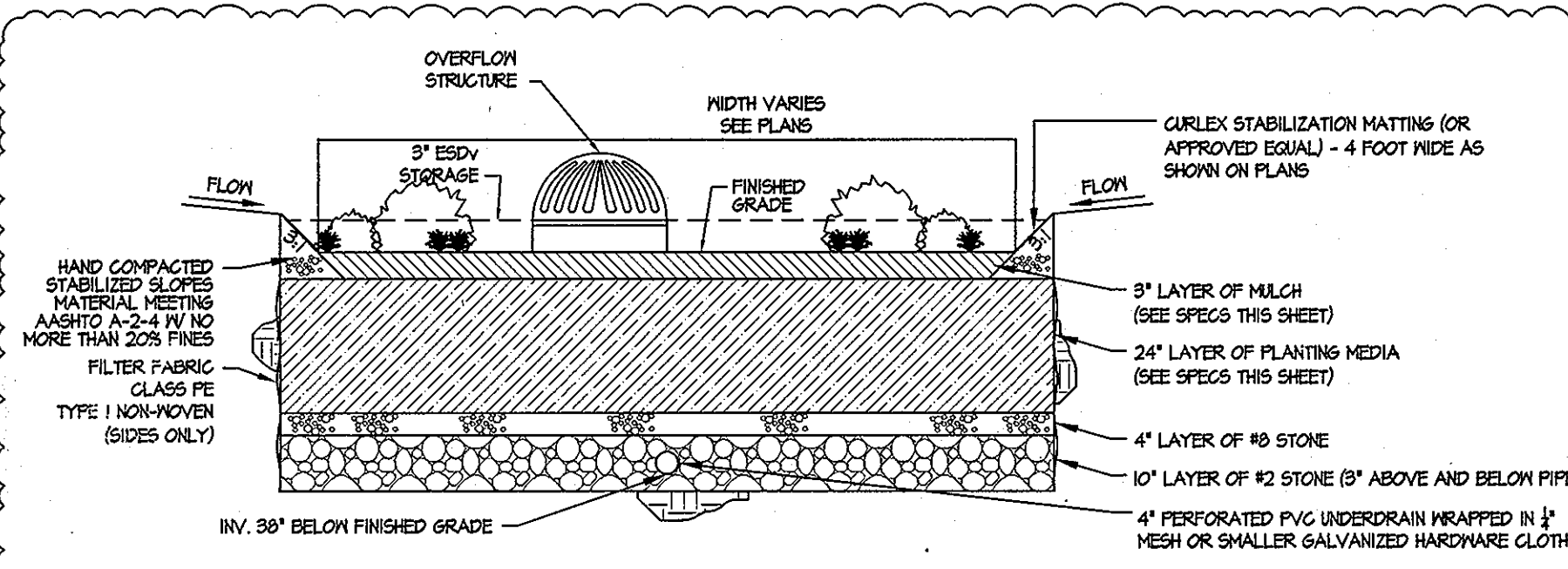
- OBTAIN ALL REQUIRED PERMITS FROM HOWARD COUNTY. 1 WEEK
- NOTIFY JAMES LOESCH, PE AT THE APPLIED PHYSICS LABORATORY AT 443-778-5134 AT LEAST 10 DAYS PRIOR TO BEGINNING WORK. 1 DAY
- NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS & LICENSES, GRADING AND SEDIMENT CONTROL INSPECTIONS AT 410-313-1855, AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. 1 DAY
- INSTALL PERIMETER SECURITY FENCE, SILT FENCE/SUPER SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE. 1 WEEK
- RAZE BUILDINGS 14, 16, 38, 56, 28, 54, 113 53 AND 41. CONTRACTOR TO COORDINATE WITH JHU-APL FACILITIES PERSONNEL FOR TERMINATION OF UTILITY SERVICES AND COMMUNICATION LINES. 1 MONTH
- CONSTRUCT NEW 4" SANITARY SEWER FOR BUILDING NUMBER 3 FROM EXISTING MAINHOLE TO SMH No. 1. SEWER EXISTING SERVICE AT SMH No. 1. 2 WEEKS
- REMOVE BUILDING NUMBER 16 SLAB. 1 WEEK
- REMOVE REMAINING BUILDING SLABS AND GRADE SITE. PLACE A MINIMUM OF 36" OF EARTH FILL AGAINST REMAINING RETAINING WALLS ON EAST SIDE OF DISTURBED AREA. CONSTRUCT NEW TUNNEL ENTRANCE AND RETAINING WALLS AT SUBSTATION IN SOUTHEAST CORNER OF THE SITE. 1 MONTH
- REMOVE OR ABANDON IN PLACE THOSE STORM DRAINS, WATER AND SEWER LINES DESIGNATED AS SUCH ON THE SITE DEVELOPMENT PLAN. 2 WEEKS
- FINE GRADE ROAD. 1 WEEK
- INSTALL NEW STORM DRAINS AND INLETS. PROVIDE INLET PROTECTION. INSTALL SUPER SILT FENCE AROUND INLET PROTECTION AS SHOWN. 2 WEEKS
- INSTALL ROAD SUBBASE AND FOR ANY NEW PAVING ALONG PERIMETER OF SITE. 2 DAYS
- PAVE ALL ROAD SURFACES AND INSTALL 6" BITUMINOUS CONCRETE CURB. 1 WEEK
- INSTALL A.D.A. COMPLIANT MULCH WALKWAY. 2 DAYS
- FINE GRADE AND STABILIZE ALL REMAINING NON-PAVED SURFACES. 2 DAYS
- REMOVE SEDIMENT CONTROLS, FINE GRADE AND STABILIZE THOSE AREAS. 1 WEEK

**BORROW AREA**

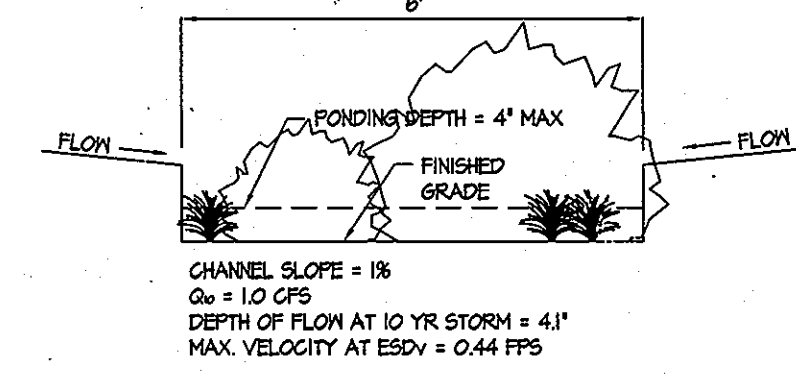
**SEQUENCE OF CONSTRUCTION**

**TIMETABLE**

- OBTAIN ALL REQUIRED PERMITS FROM HOWARD COUNTY. 1 WEEK
- NOTIFY JAMES LOESCH, PE AT THE APPLIED PHYSICS LABORATORY AT 443-778-5134 AT LEAST 10 DAYS PRIOR TO BEGINNING WORK. 1 DAY
- NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS & LICENSES, GRADING AND SEDIMENT CONTROL INSPECTIONS AT 410-313-1855, AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. 1 DAY
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, REBUILD EXISTING STONE OUTLET SEDIMENT TRAP NUMBER ONE. INSTALL EARTH DIKES, SILT FENCE AND SUPER SILT FENCE. 1 WEEK
- BEGIN GRADING IN CONJUNCTION WITH OPERATIONS AT CENTRAL GREEN. 5 MONTHS
- FINE GRADE AND STABILIZE ALL AREAS. 2 DAYS
- SEDIMENT CONTROLS TO REMAIN IN PLACE FOR FUTURE STOCKPILE NEEDS.



1 MICRO-BIORETENTION NOT TO SCALE



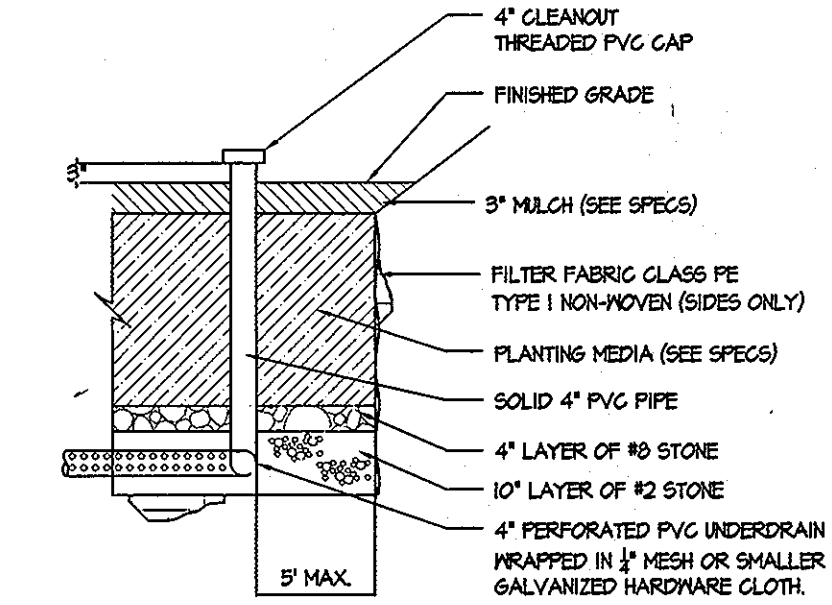
3 GRASS SWALE NOT TO SCALE

**STOCKPILE AREA**

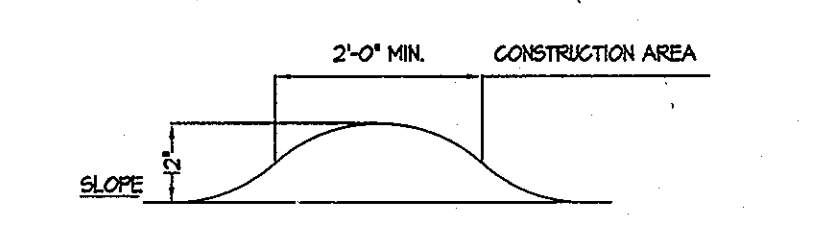
**SEQUENCE OF CONSTRUCTION**

**TIMETABLE**

- OBTAIN ALL REQUIRED PERMITS FROM HOWARD COUNTY. 1 WEEK
- NOTIFY JAMES LOESCH, PE AT THE APPLIED PHYSICS LABORATORY AT 443-778-5134 AT LEAST 10 DAYS PRIOR TO BEGINNING WORK. 1 DAY
- NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS & LICENSES, GRADING AND SEDIMENT CONTROL INSPECTIONS AT 410-313-1855, AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. 1 DAY
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, EARTH DIVERSION DIKE, MOUNTABLE BERM, SILT FENCE, SUPERSILT FENCE, AND STONE OUTLET STRUCTURE. 1 WEEK
- CLEAR AND GRUB STOCKPILE AREAS AND DEPLOY STONE/ROCK CRUSHER ON-SITE. 2 WEEKS
- BEGIN STONE/ROCK CRUSHING OF CONCRETE FROM CENTRAL GREEN SITE AND STOCKPILE RECYCLED CONCRETE ON-SITE IN DESIGNATED STOCKPILE AREAS. 5 MONTHS
- FINE GRADE AND STABILIZE STOCKPILE. 2 DAYS
- SEDIMENT CONTROLS TO REMAIN IN PLACE FOR FUTURE STOCKPILE NEEDS.



2 CAPPED CLEANOUT NOT TO SCALE



4 CLEAN WATER DIVERSION NOT TO SCALE

- SEQUENCE OF CONSTRUCTION**
- Assure that Grading Permit and all other necessary permits are obtained from Owner.
  - Notify Howard County Department of Public Works at least 48 hours before start of work. Notify the Howard County Bureau of Engineering Construction Inspection Division prior to start of any land disturbances.
  - The Contractor shall notify JHU-APL Construction Manager, Greg Downing at 443-250-4211 at least 48 hours prior to any work on site including utilities and sediment control installation.
  - The Contractor shall notify their Inspection Engineer at least 5 business days prior to beginning work so that the SPM on-site construction inspection may be completed.
  - With the approval of the sediment control inspector, clear and grub for and install sediment controls including upper silt fence, inlet protection, tree protection fencing, and siltation diversion berms.
  - Notify Howard County sediment control inspector upon completion of the installation and receive approval to begin construction. The Contractor shall provide access to Building 17 throughout the construction process to the south west side doors or south doors in cooperation with APF. Field adjustments to the sediment controls to provide access may be necessary and should be reviewed with the Howard County sediment control inspector.
  - Remove existing sidewalks, existing roadways, existing paths, and existing storm drain inlets and drain pipe as shown on the demolition plan.
  - Do not disturb any utilities to remain. Field adjustments to the temporary siltation diversion berms may be necessary as field conditions dictate to provide access to building 17 and the contractor should make adjustments as necessary with the consultation with the Howard County inspector.
  - Install storm drain structures and connecting pipes. Block up manholes/covers within structures that will remain. Install silt protection on new inlets.
  - Bring proposed plaza area to subgrade level. Construct seat walls and glass landscape and paving. Construct proposed walkways.
  - Do not begin installation of micro-bioretentation facilities within DA-2 or 3 shown on SPM plans until areas draining to the facilities are stabilized. Once these areas are stabilized, construction micro-bioretentation facilities per the approved Stormwater Management Plan.
  - Fine grade all remaining areas.
  - Provide landscaping installation.
  - Permanently stabilize all remaining areas within the LOP according to the stabilization notes and the specifications.
  - Upon stabilization of the site with established vegetation and with the permission of the sediment control inspector, remove sediment control measures and stabilize those areas disturbed by this process.

- OPERATION AND MAINTENANCE SCHEDULE**
- MICRO-BIORETENTION AREAS (M-6)**
- Inspection shall be performed during wet weather to determine if the facility is functioning properly. Visual inspection of all components shall be completed by the Owner. All drains shall be opened by the Owner once a year. The Owner shall keep notes of each inspection.
  - Annual maintenance of plant material, mulch layer and soil layer is required. 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.
  - Debris and litter shall be removed as a regular operation and as needed. All appearances shall be kept free of trash.
  - Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires. Mowing of plant material may be required during prolonged dry periods.
  - Mulch shall be inspected each spring. Replace mulch annually where practice treats areas with high concentrations of heavy metals. Otherwise, replace top 2-3 inches of mulch as necessary.
  - Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.
  - Remove accumulated sediment from the surface of the filter bed when accumulation exceeds one inch.
  - When water ponds for more than 48 hours, the top few inches of filter media should be removed and replaced.
  - All required maintenance shall be performed by the Owner or the Owner's representative at the Owner's expense.

- GRASS SWALES (S-5)**
- Regular mowing (at least bi-annually) is required to reduce competition from weeds and woody plants and shrubs.
  - Inspect swales annually to assess slope integrity, vegetative health, soil stability, compaction, erosion, ponding, and sedimentation. Remove sediment, debris, or obstructions as needed. Repair and stabilize slopes where needed.
  - Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires. Mowing of plant material may be required during prolonged dry periods.

**TRAP TABLE**

TRAP NUMBER	1
TRAP TYPE	ST II
EXISTING DRAINAGE AREA: ACRES	2.13
INTERIM DRAINAGE AREA: ACRES	N/A
PROPOSED DRAINAGE AREA: ACRES	2.13
STORAGE REQUIRED: CUBIC FEET	WET 3,834 DRY 3,834 TOTAL 7,668
STORAGE PROVIDED: CUBIC FEET	WET 4,935 DRY 5,160 TOTAL 10,095
EXISTING GROUND ELEVATION	383.9
TOP EMBANKMENT ELEVATION	385.0
WEIR CREST OR RISER CREST* ELEV.	384.0
WET STORAGE ELEVATION	381.1
CLEANOUT ELEVATION	379.5
BOTTOM ELEVATION	378.0
DEPTH OF CHANNEL (c)	1.0
OUTLET WIDTH (b)	10'
BOTTOM DIMENSION	28' x 52' (AVG.)
TRAP SIDESLOPES	2:1
TRAP DEPTH	WET 3.1' DRY 2.9' TOTAL 6.0'
BARREL DIAMETER	N/A
RISER DIAMETER	N/A
WET STORAGE ZONE ELEVATION	381.1-378.0
DRY STORAGE ZONE ELEVATION	384.0-381.1

3 STORMWATER MANAGEMENT & EROSION & SEDIMENT CONTROL DETAILS FOR BUILDING 17 PLAZA

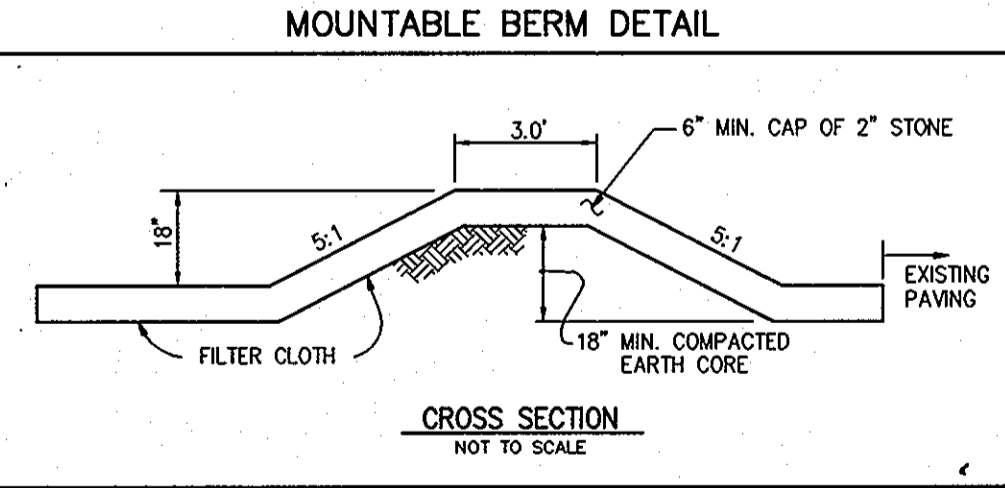
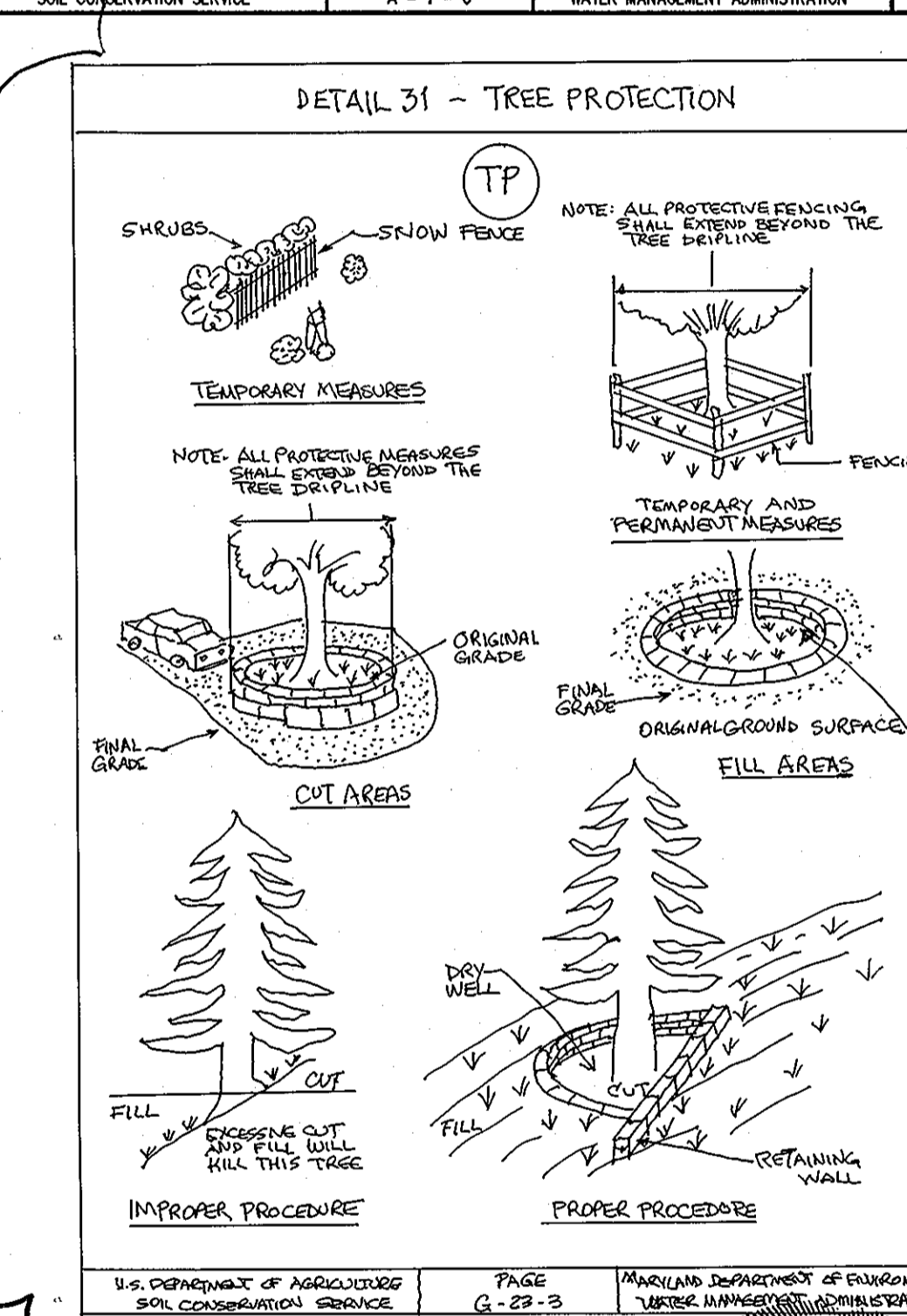
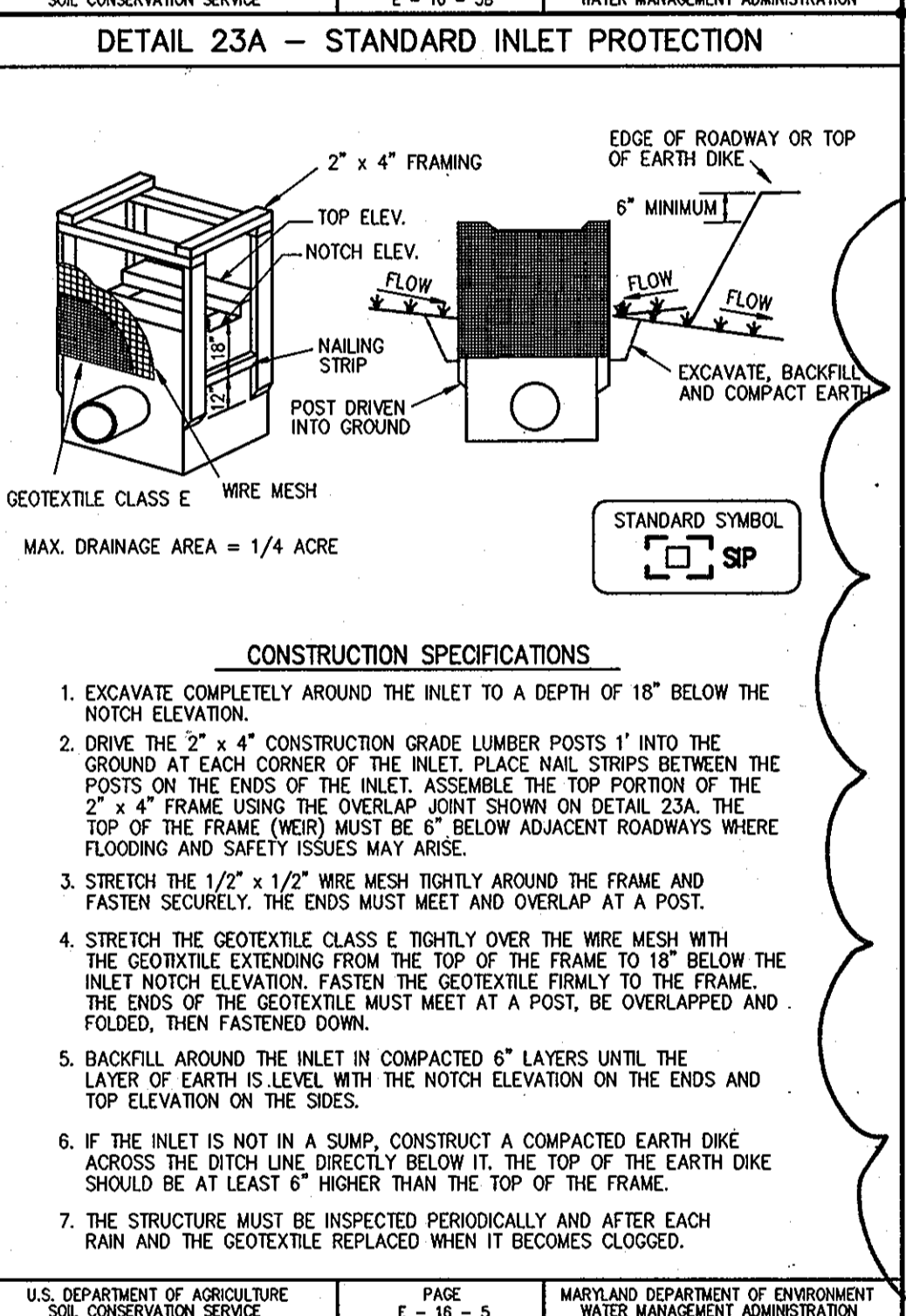
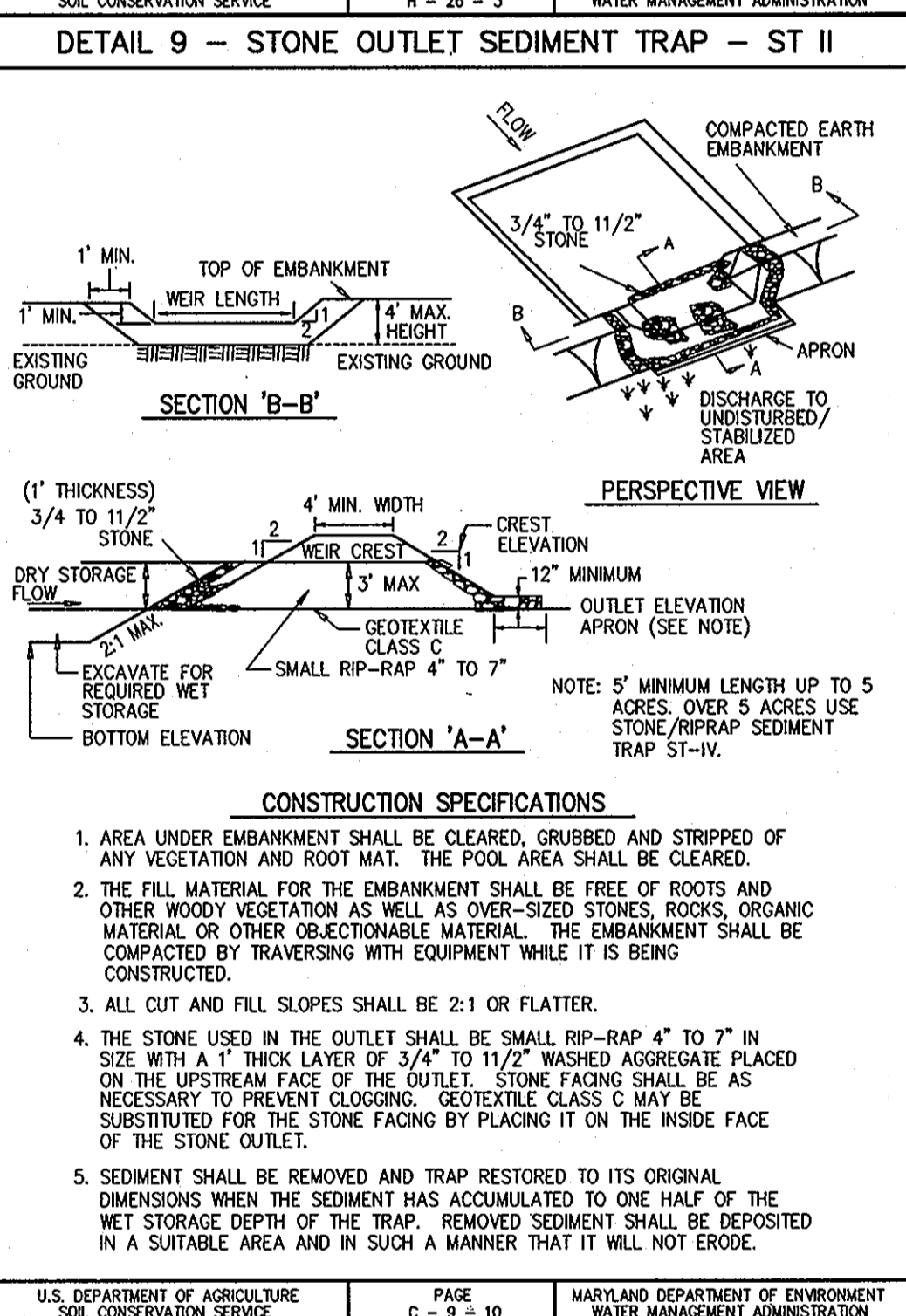
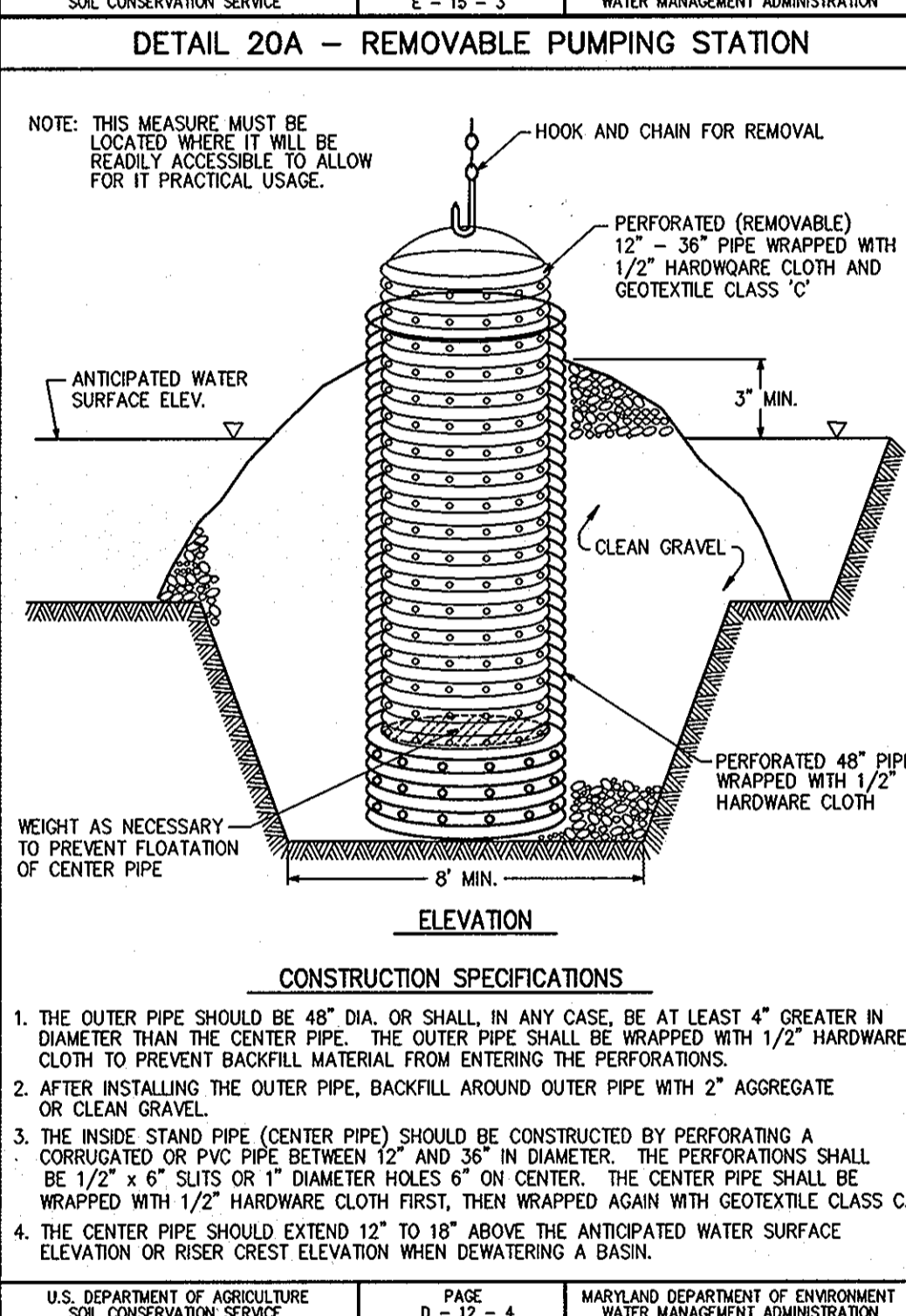
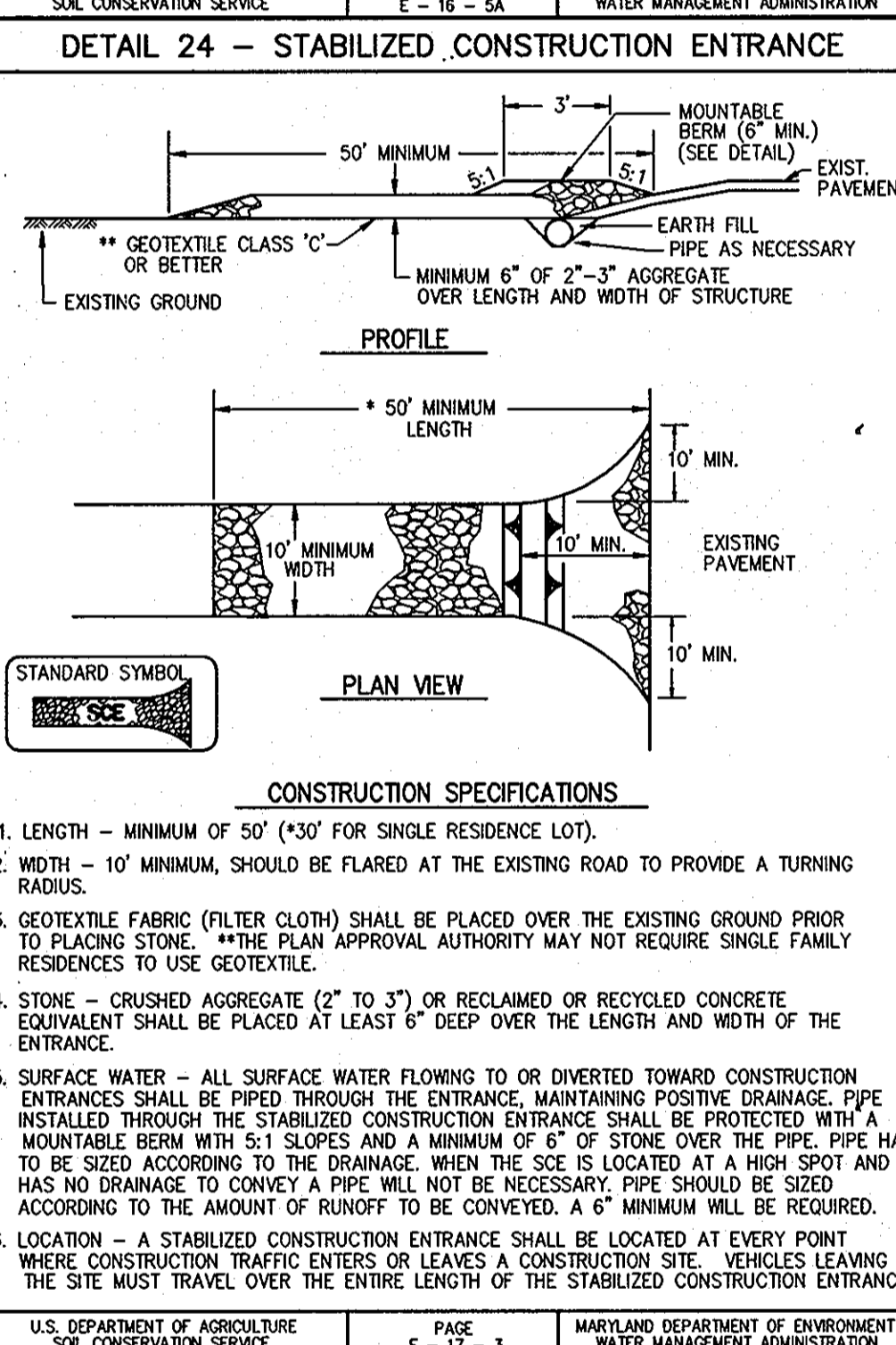
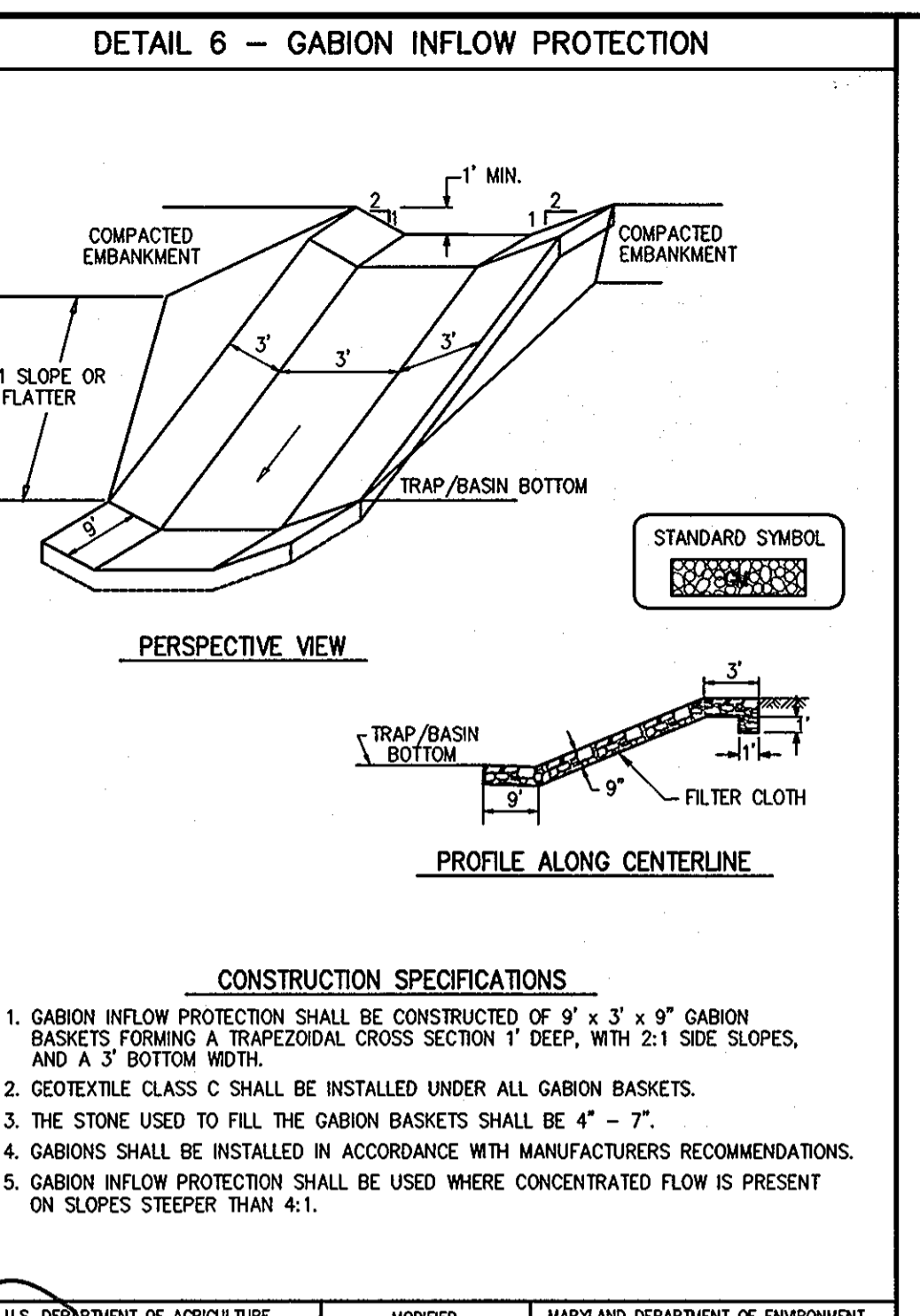
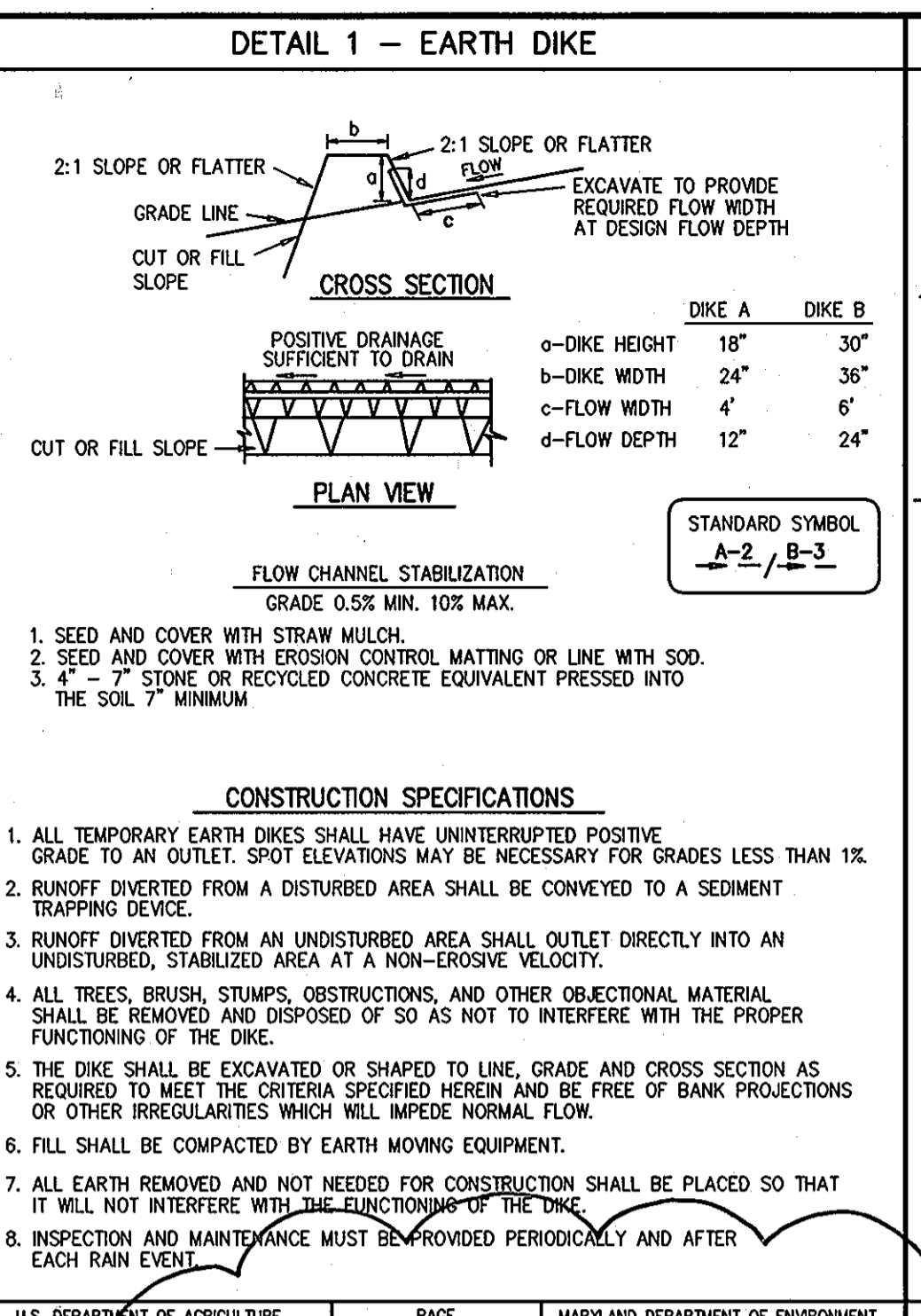
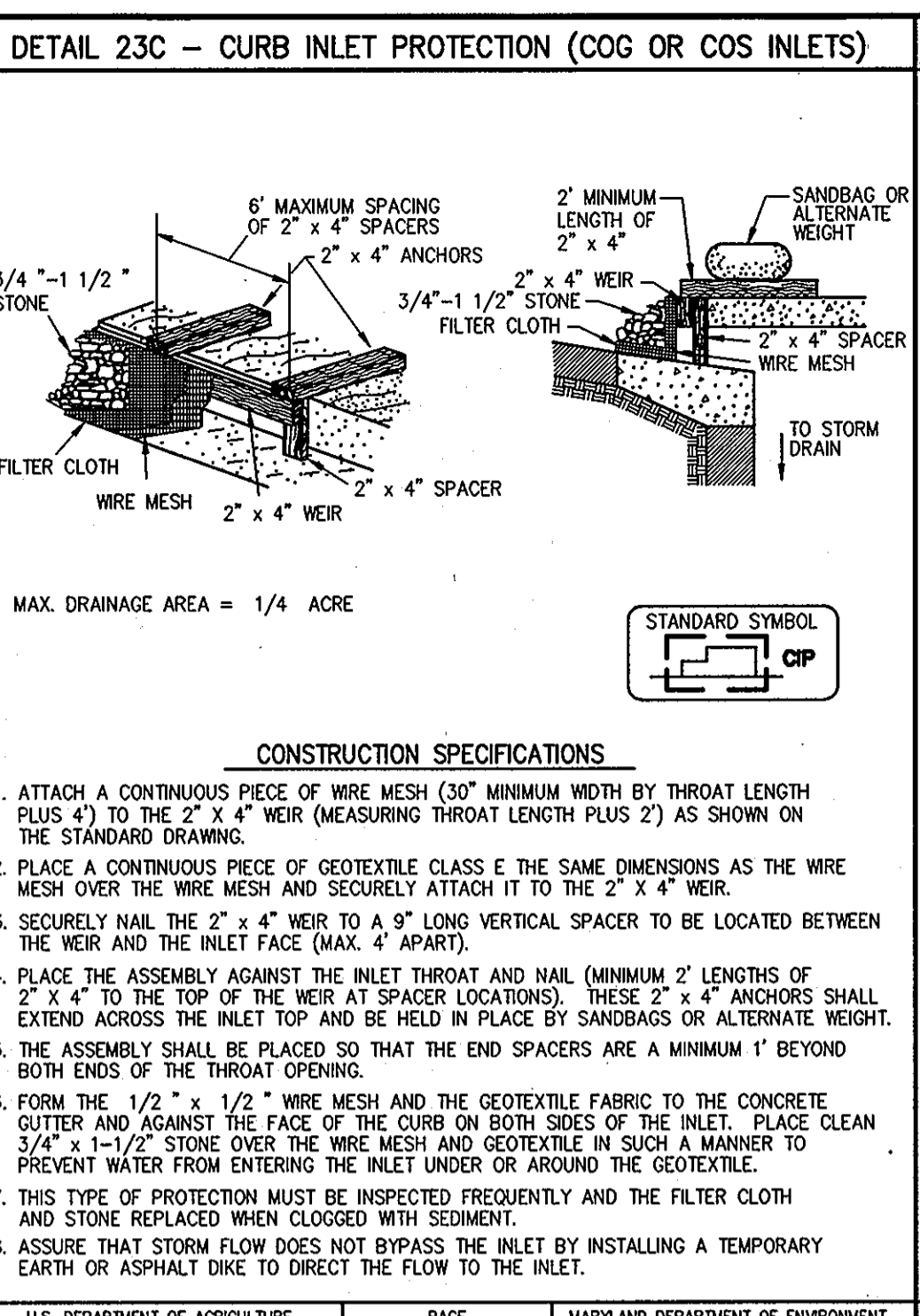
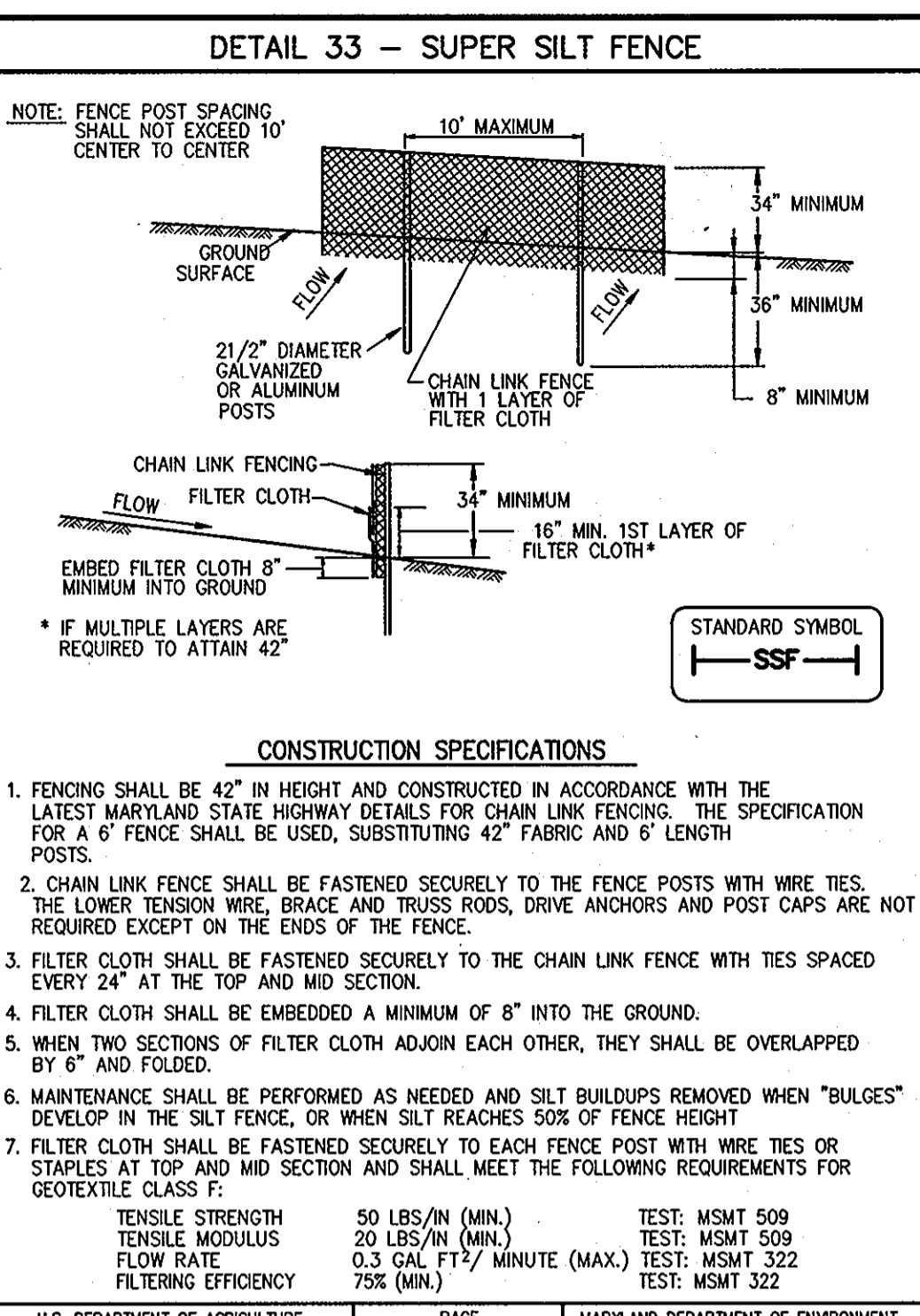
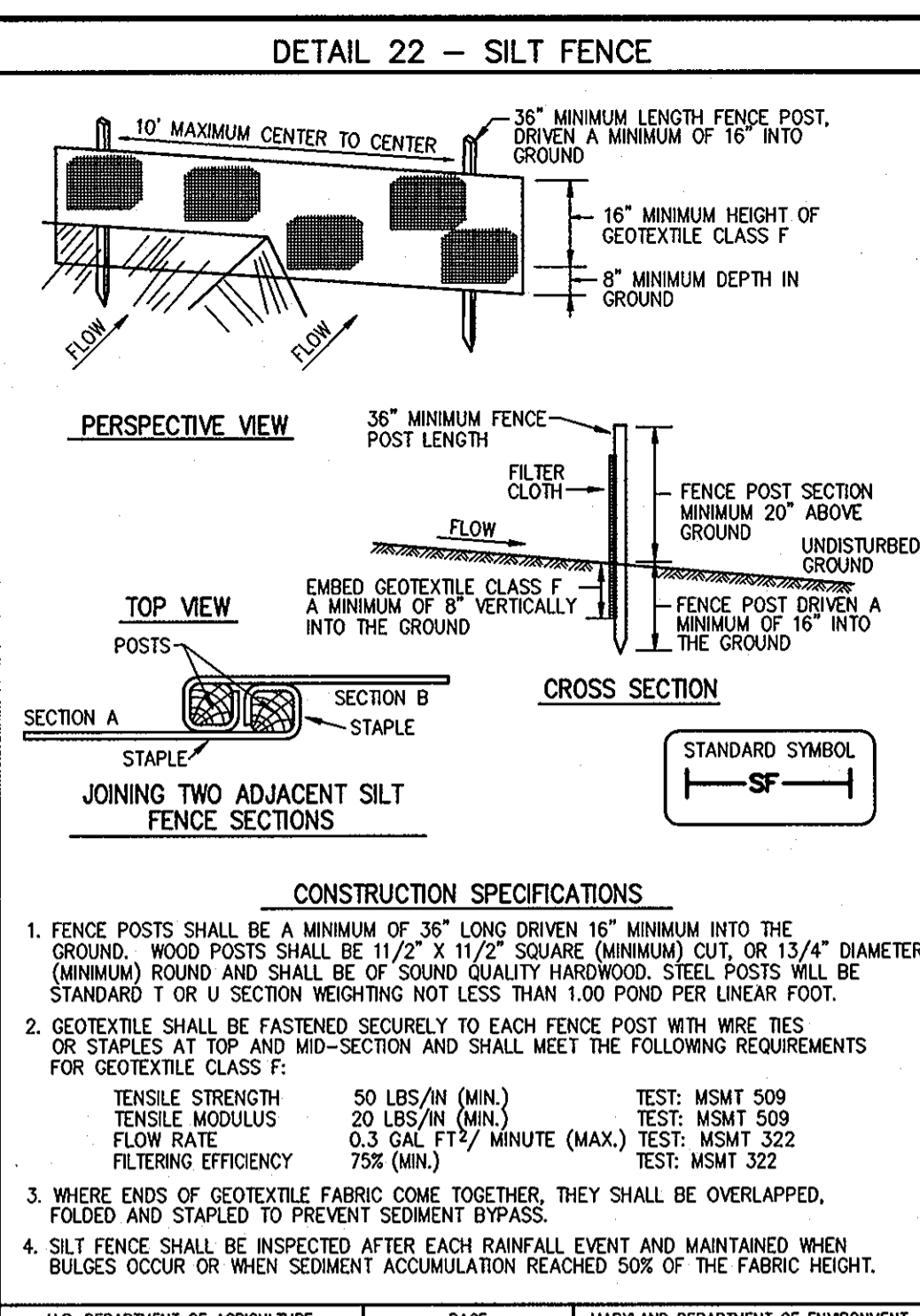
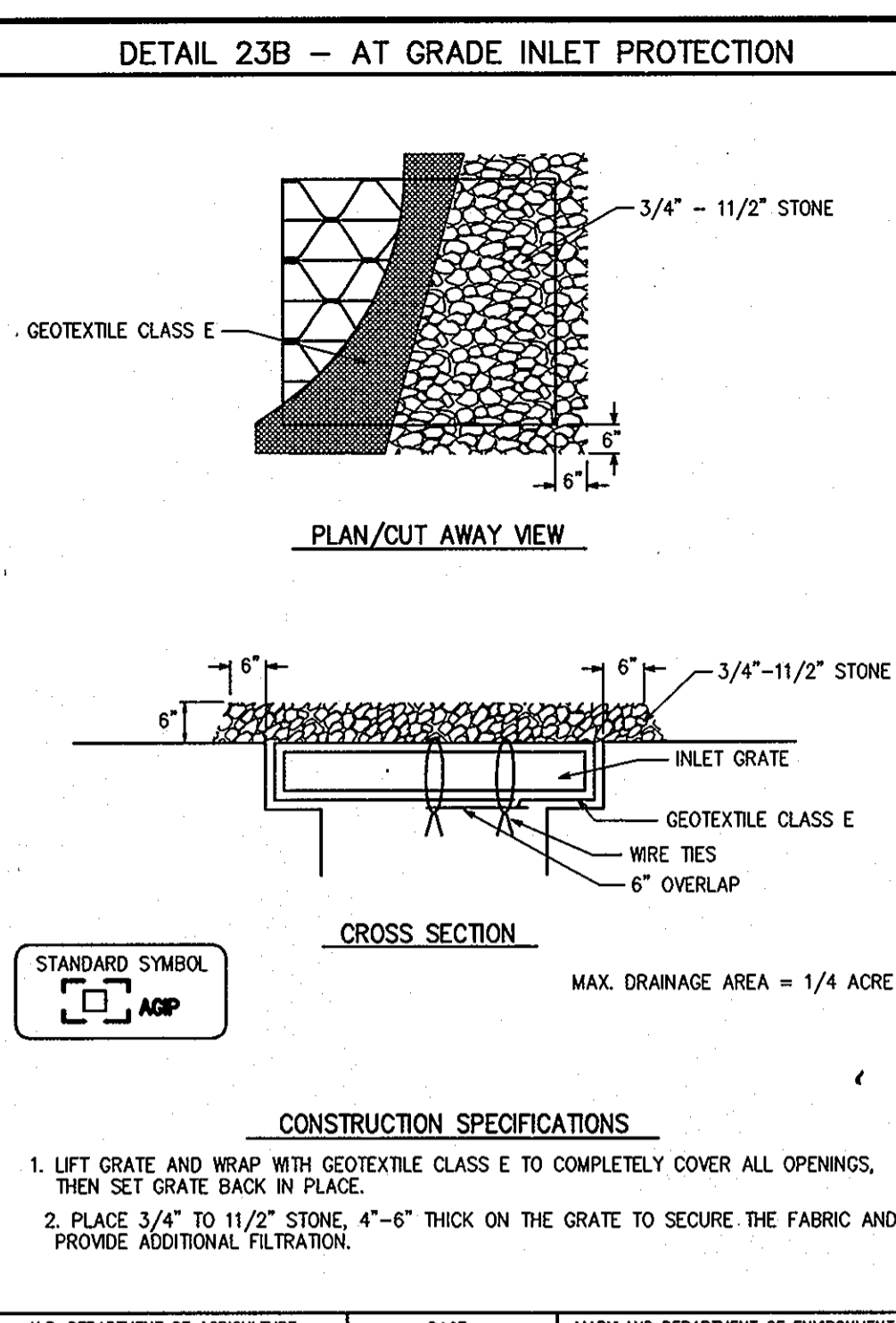
FOR A REVISION

BY THE ENGINEER:  
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *Anthony J. Dietz* DATE: 2/21/08

BY THE DEVELOPER:  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *James E. Teuch* DATE: 2/15/08

Signature: *John R. Blanton* DATE: 2/13/08  
 HOWARD S.C.D.





**JHU/APL INTERNAL USE**

THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

**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 NUMBER: 32574      EXPIRATION DATE: 1/16/10

**FOR REVISION**

REVISIONS:

NO.	DATE	DESCRIPTION
1	3/10/08	SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9.
2	05-18-08	ADD SUBSTATION CONSOLIDATION & DUCT BANKS
3		REVISION

**BY THE ENGINEER:**

*Anthony J. Dwyer*      2/21/08  
SIGNATURE OF ENGINEER      DATE

**BY THE DEVELOPER:**

*James E. Fusch*      2.15.08  
SIGNATURE OF DEVELOPER      DATE

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

*John K. Klatzoff*      3/13/08  
SIGNATURE OF DEVELOPER      DATE

**FOR REVISION**

REVISIONS:

NO.	DATE	DESCRIPTION
1	3/10/08	SERVICE ROAD REALIGNMENT TO BUILDINGS 7, 8, 9.
2	05-18-08	ADD SUBSTATION CONSOLIDATION & DUCT BANKS
3		REVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Michael J. ...*      3/12/08  
Chief, Development Engineering Division      Date

*...*      3/19/08  
Chief, Division of Land Development      Date

*...*      3/19/08  
Director      Date

**CENTURY ENGINEERING**

CONSULTING ENGINEERS - PLANNERS

10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

DESIGN BY: A.J.D.

DRAWN BY: M.S.S.

CHECKED BY: A.J.D.

DATE: FEB. 15, 2008

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**

11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134

**EROSION & SEDIMENT CONTROL DETAILS**

**"CENTRAL GREEN, PHASE 2"**

JOHNS HOPKINS UNIVERSITY PROPERTY

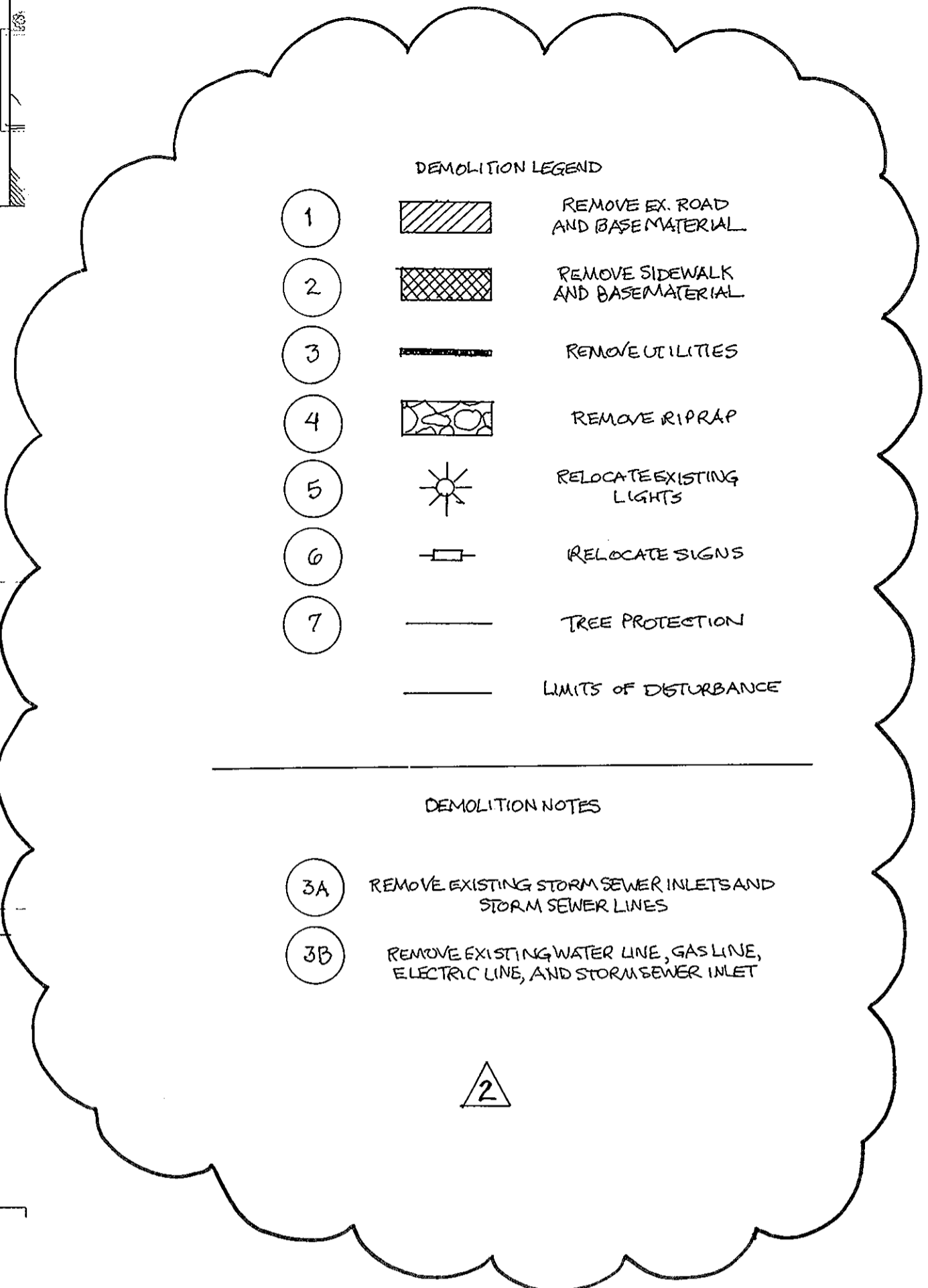
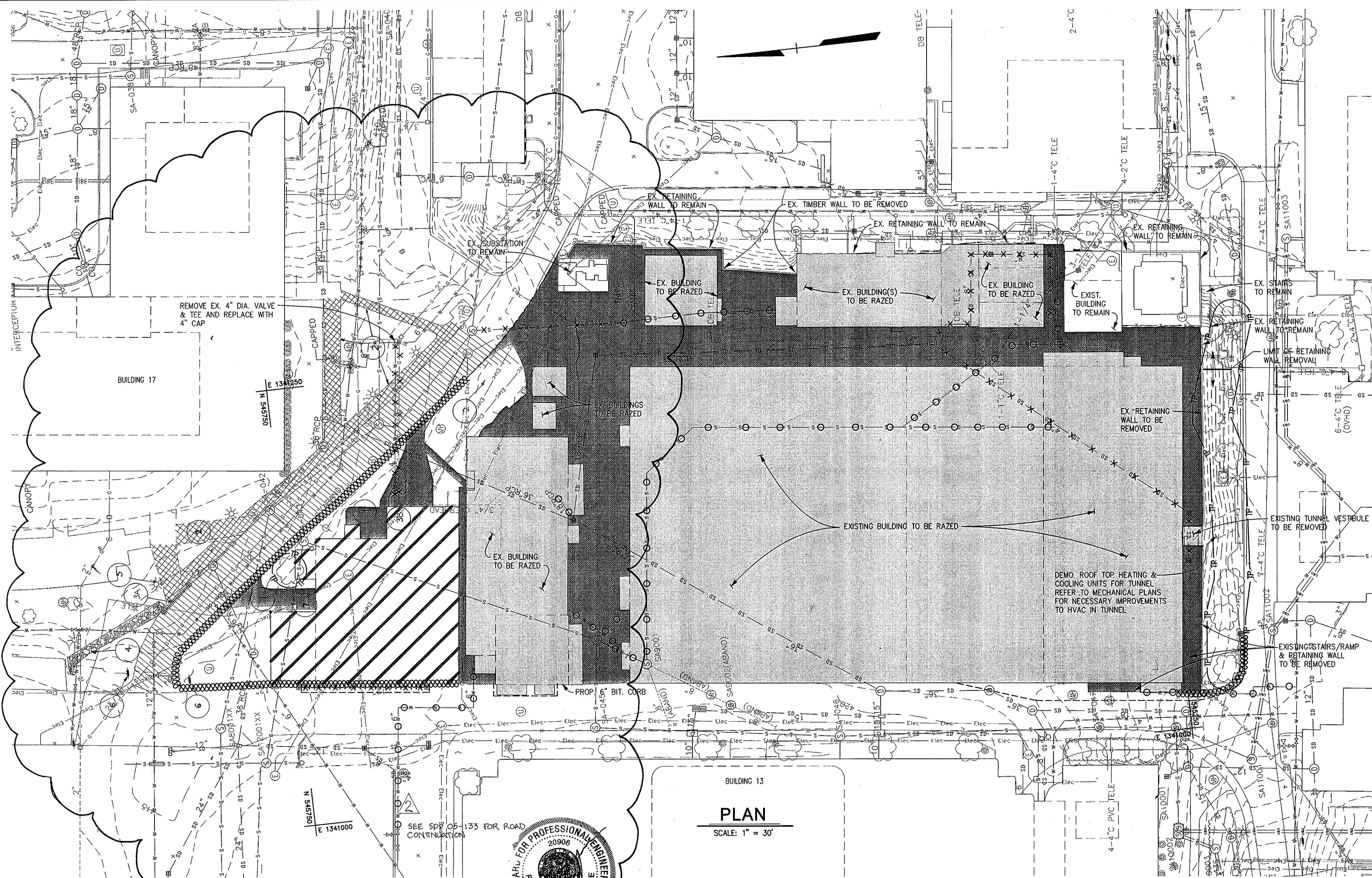
TAX MAP: 41      GRID: 16      PARCEL: 123  
ELECTION DISTRICT 5-05      HOWARD COUNTY, MARYLAND

SHEET 15 OF 16      (RESTRICTED FILE)

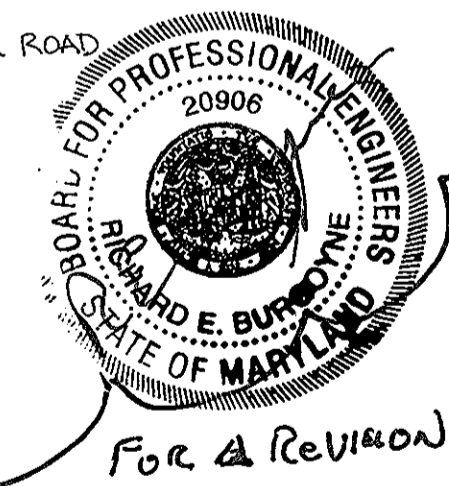
C.E.I. PROJECT NUMBER: 22172.25

SCALE: AS SHOWN





**PLAN**  
SCALE: 1" = 30'



For A Revision

LEGEND			
EX. MINOR CONTOUR	---391---	EX. LIGHT STANDARD	○
EX. MAJOR CONTOUR	---390---	EX. BUSH	○
EX. SPOT ELEVATION	× 387.6	EX. TREE	○
EX. FIRE HYDRANT	⊕	EX. PIPE BOLLARD	⊕
EX. STORM DRAIN	---SD---	EX. UTILITY POLE	⊕
EX. WATER LINE	---W---	EX. UTILITY TO BE REMOVED	×-X-SD-X-×
EX. SANITARY SEWER	---S---	EX. UTILITY TO BE ABANDONED IN PLACE	○-○-SD-○
EX. ELECTRIC LINE	---Elec---	EX. RETAINING WALL TO REMAIN	=====
EX. COMMUNICATIONS LINE	---Com---	PROP. MINOR CONTOUR	---379---
EX. MANHOLE	○	PROP. MAJOR CONTOUR	---380---
EX. INLET	□	PROP. SPOT ELEVATION	+ 385.58
EX. TREE LINE	~~~~~	PROP. CURB & GUTTER	=====
EX. BUILDING	=====	EX. BUILDING TO BE RAZED	██████████
EX. CURB AND GUTTER	=====	EX. PAVING & SIDEWALKS TO BE REMOVED	██████████
EX. BITUMINOUS PAVING	-----	EX. FOUNDATION TO BE REMOVED	▨▨▨▨▨▨
EX. CONCRETE SIDEWALK	-----	TREE PROTECTION FENCE	---TP---TP---
EX. FENCE	---X---		
EX. WALL	=====		
EX. CLEANOUT	○		
EX. SAWCUT EX. PAVING	-----		
EX. CURB AND GUTTER TO BE REMOVED	-----		

**JHU/APL INTERNAL USE**  
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division: *[Signature]* 3/17/08  
 Chief, Division of Land Development: *[Signature]* 3/19/08  
 Director: *[Signature]* 3/19/08

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

**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 NUMBER: 22574 EXPIRATION DATE: 1/16/10

DESIGN BY:	A.J.D.	DATE:	REVISION	DATE
DRAWN BY:	M.S.S.			
CHECKED BY:	A.J.D.			
DATE:	FEB. 15, 2008			
BY	NO.			

**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20723-6099  
443-778-5134

**DEMOLITION PLAN**  
"CENTRAL GREEN, PHASE 2"  
JOHNS HOPKINS UNIVERSITY PROPERTY  
TAX MAP: 41 GRID: 16 PARCEL: 123  
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND  
SHEET 16 OF 16 (RESTRICTED FILE)

C.E.I. PROJECT NUMBER: 22172.25  
SCALE: 1"=30'