

**GENERAL NOTES**

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- ELEVATIONS SHOWN ARE BASED ON "THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY DATUM. JHU-APL-DATUM - 0.96' = HOWARD COUNTY DATUM.
- THE CONTRACTOR SHALL CALL MISS UTILITY (301) 559-0100, FIVE DAYS PRIOR TO THE START OF CONSTRUCTION.
- POLY FILTER X FILTER CLOTH BLANKET OR EQUAL SHALL BE PLACED UNDER ALL STONE RIP RAP.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN AN UNINTERRUPTED SERVICE. ANY DAMAGE BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
- ACCESS TO THE CONSTRUCTION AREA THROUGH THE SECURE AREA OF THE APPLIED PHYSICS LABORATORY (WITHIN THE FENCED ENCLOSURE) MUST BE ARRANGED IN ADVANCE BY CONTACTING THE PLANT ENGINEERING OFFICE (301) 792-5134.
- SECURITY MUST BE MAINTAINED WITHIN THE EXISTING FENCED AREA. ALL REQUIRED FENCE CONSTRUCTION AND RELOCATION SHALL BE BY THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY. HOWEVER THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH JHU APL AS TO WHEN SUCH WORK IS REQUIRED.
- LANDSCAPING SHALL BE BY JHU-APL.
- THE CONTRACTOR SHALL CONTACT MR. ARTHUR STUCKI, PLANT ENGINEER, (301) 792-5133 AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING ANY WORK OR SHUTTING DOWN ANY UTILITIES.
- THE CONTRACTOR SHALL SHUTDOWN AND TIE-IN TO THE EXISTING WATER SYSTEM ONLY AFTER NORMAL WORKING HOURS AT JHU-APL. WORK SHALL BE SCHEDULED ACCORDINGLY. NORMAL WORKING HOURS ARE 8:30 AM TO 5:00 PM., MONDAY THROUGH FRIDAY.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- ALL WATER MAINS SHALL BE DUCTILE IRON PIPE CLASS 52.
- ALL SANITARY SEWER MAINS SHALL BE HOWARD COUNTY SCHEDULE 35 P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION, 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK, AT 992-2417 OR 2418.
- TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3 1/2 FEET OF COVER UNLESS OTHERWISE NOTED.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- THE CONTRACTOR SHALL PERMANENTLY SEED AND STABILIZE ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED.
- THE BUILDING 36 EXTENSION IS FOR RESEARCH AND DEVELOPMENT.
- THERE ARE NO WETLANDS WITHIN THE LIMITS OF DISTURBANCE FOR THE BUILDING 36 EXTENSION, THEREFORE SECTION 404 AND SECTION 401 DO NOT APPLY AND THE PERMITS ARE NOT REQUIRED.

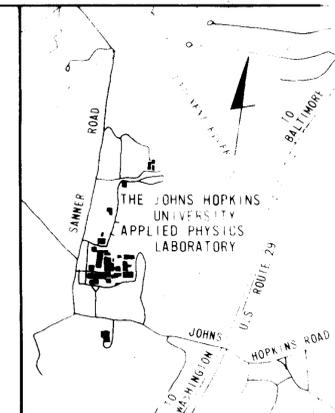
**SITE ANALYSIS**

PRESENT ZONING	-----	RURAL -R
AREA OF PROPERTY	-----	366 ACRES.
AREA OF SUBMISSION	-----	0.1 ACRES
<b>BUILDING FLOOR SPACE:</b>		
EXISTING	-----	1,405,000 S.F.
PROPOSED	-----	4,800 S.F.
TOTAL	-----	1,409,800 S.F.
<b>NUMBER OF EMPLOYEES</b>		
EXISTING	-----	3,100
PROPOSED	-----	0
TOTAL	-----	3,100
<b>NUMBER OF PARKING SPACES</b>		
EXISTING	-----	3,180
REQUIRED	3,100 X 0.7	2,170
PROVIDED	-----	3,180
<b>GREEN AREA</b>		
EXISTING	-----	304.6 AC. 83.2%
PROPOSED	-----	304.5 AC. 83.2%
<b>BUILDING COVERAGE</b>		
EXISTING	-----	14.6 AC. 4.0%
PROPOSED	-----	14.7 AC. 4.0%
<b>PAVING AREA</b>		
EXISTING	-----	46.8 AC. 12.8%
PROPOSED	-----	46.8 AC. 12.8%

NOTE: THERE IS NO ADDITIONAL PARKING PROPOSED BY THIS SUBMITTAL. ADDITIONAL PAVING SHOWN IS FOR PEDESTRIAN CIRCULATION ONLY.

**STORM WATER MANAGEMENT EXEMPTION**

ARTICLE 10.3.1-3.2C OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME 1 - STORM DRAINAGE, EXEMPTS THIS SITE DEVELOPMENT PLAN FROM THE PROVISIONS OF SUBTITLE 9, SECTION 18.902 AND THE REQUIREMENTS OF PROVIDING STORMWATER MANAGEMENT BECAUSE THIS PLAN DOES NOT DISTURB OVER 5,000 SQUARE FEET OF LAND.

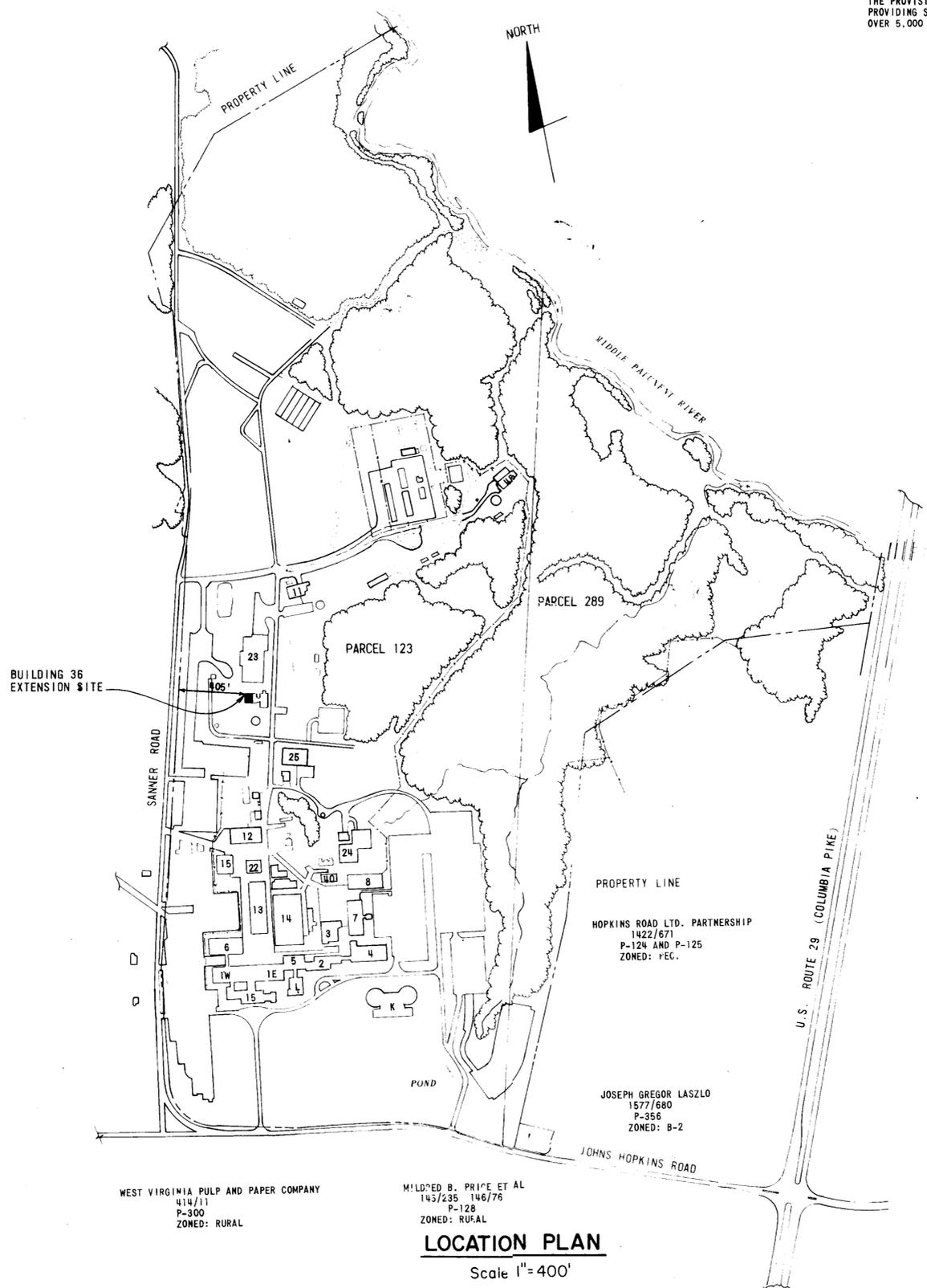


**VICINITY MAP**

SCALE: 1" = 2000'

**SHEET INDEX**

- COVER SHEET
- PLAN
- DETAILS AND NOTES



**LOCATION PLAN**

Scale 1" = 400'

ADDRESS CHART	
PARCEL NUMBER	STREET ADDRESS
P. 123/129	11100 JOHNS HOPKINS ROAD
SUBDIVISION NAME: J.H.U. APPLIED PHYSICS LAB. SECT./AREA: LOT/PARCEL: P.123/289	
PLAT# OR L/F: 234/304	BLOCK#: 16
ZONE: R	TAX/ZONE MAP: 41
ELEC DIST: 5th	CENSUS TR: 6051
WATER CODE: E-21	SEWER CODE: 6480000
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.	
DIRECTOR: James J. ...	DATE: 6/26/88
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT.	
COUNTY HEALTH OFFICER: James P. ...	DATE: 6/26/88
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.	
PLANNING DIRECTOR: ...	DATE: 6/26/88
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT: ... DATE: 6/26/88	

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS  
2315 SAINT PAUL STREET BALTIMORE, MARYLAND 21218



APPLIED PHYSICS LABORATORY THE JOHNS HOPKINS UNIVERSITY JOHNS HOPKINS ROAD HOWARD COUNTY, MARYLAND

APPROVED FOR THE UNIVERSITY BY: ...

**BUILDING 36 EXTENSION**

THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY  
11100 JOHNS HOPKINS ROAD LAUREL, MARYLAND 20707

**COVER SHEET**

FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND TAX MAP 41 PARCEL 123 AND 289

3-27-89 County and Clients Comments Addressed. REVISIONS

SCALE: AS SHOWN

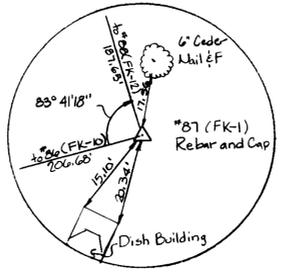
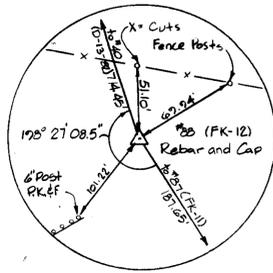
SHEET NO. 1

OF 3

DATE: 12-16-88

DRAWING

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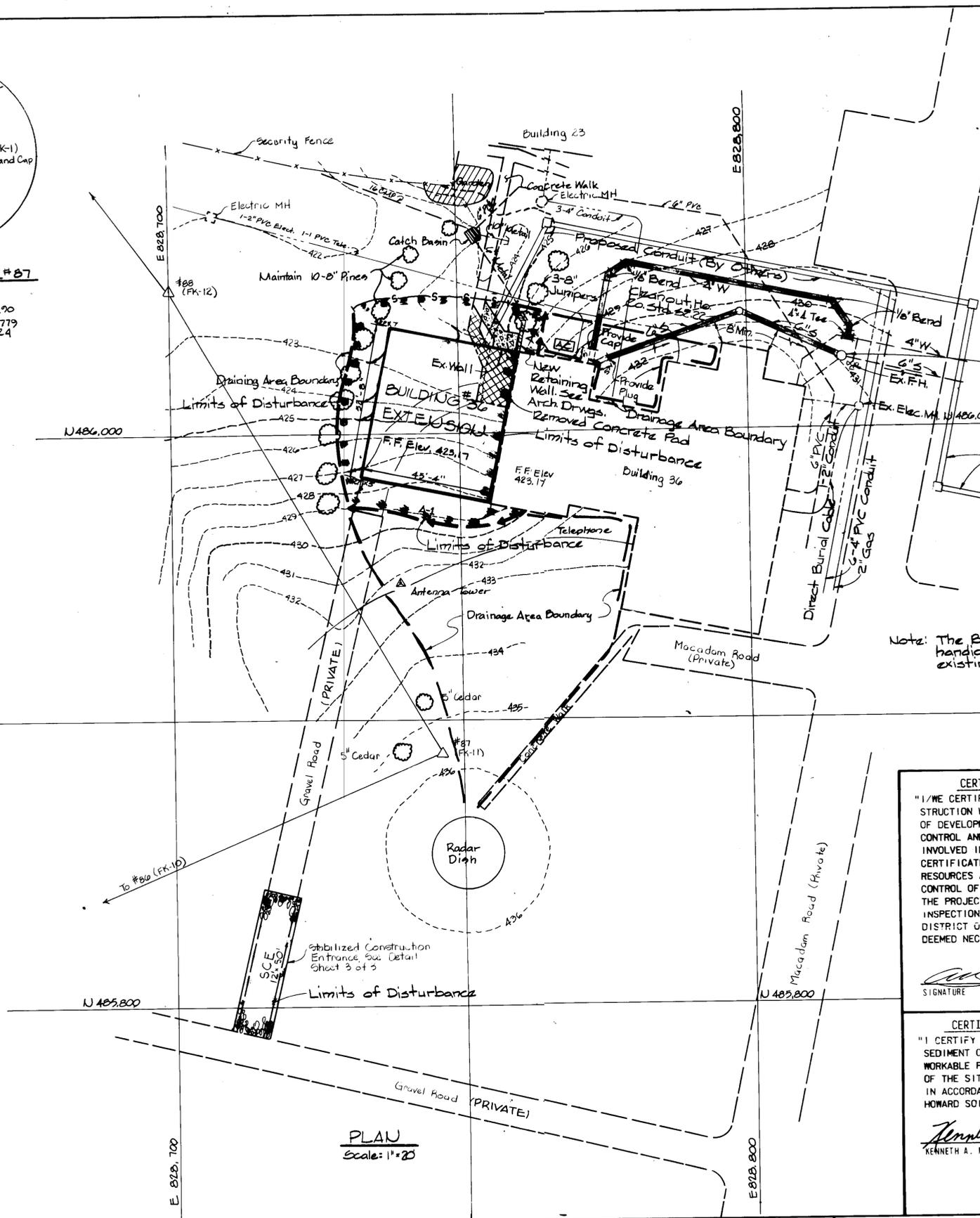
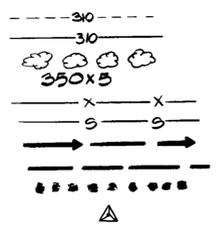


**BENCH MARK #88**  
 JHU-APL Datum  
 N 486 051.0888  
 E 828 600.5990  
 Elev. 422.52

**BENCH MARK #87**  
 JHU-APL Datum  
 N 485 888.2290  
 E 828 673.6779  
 Elev. 435.24

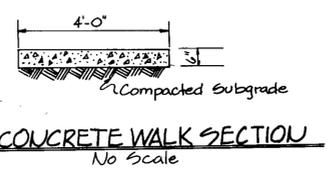
**LEGEND**

- Existing Contour
- Proposed Contour
- Existing Trees
- Proposed Spot Elevation
- Existing Security Fence
- Silt Fence
- Diversion Dike
- Drainage Area Boundary
- Limit of Disturbance
- Antenna Tower



Construct Manhole with offset cover Ho. Co Std. 65.04, at Existing Cleanout. Location to be verified in field at the time of construction.

Note: The Building 36 addition will be handicap accessible through the existing building.



**PLAN**  
 Scale: 1"=20'

**CERTIFICATION BY THE DEVELOPER**  
 "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."  
 APPROVED: *Stephen L. Fitch* 4/3/89  
 HOWARD S.C.D. DATE

**CERTIFICATION 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."  
 APPROVED: *Kenneth A. McCord* 3-28-89  
 KENNETH A. MCCORD, REG. NO. 1974 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 APPROVED: *Stephen L. Fitch* 4/3/89  
 HOWARD S.C.D. DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS  
 SIGNATURE: *James M. Helms* 4/3/89  
 U.S. SOIL CONSERVATION SERVICE DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER STORM DRAINAGE SYSTEMS AND PUBLIC USES HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR: *James M. Helms* DATE 6/16/89  
 CHIEF BUREAU ENGINEER: *William E. Ray* DATE 6-5-89

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 COUNTY HEALTH OFFICER: *Joyce Boyd* 6-12-89  
 DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR: *W.P.A.* DATE 6-21-89  
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT: *Mark S. L. Taylor* DATE 6/21/89

WHITMAN, REQUARDT AND ASSOCIATES  
 ENGINEERS  
 735 SAINT PAUL STREET  
 BALTIMORE, MARYLAND 21201

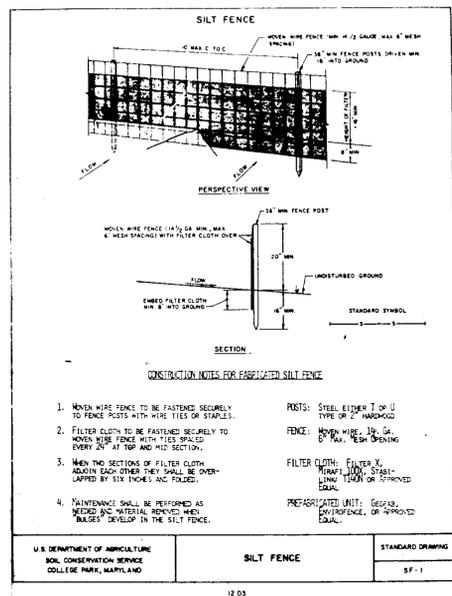
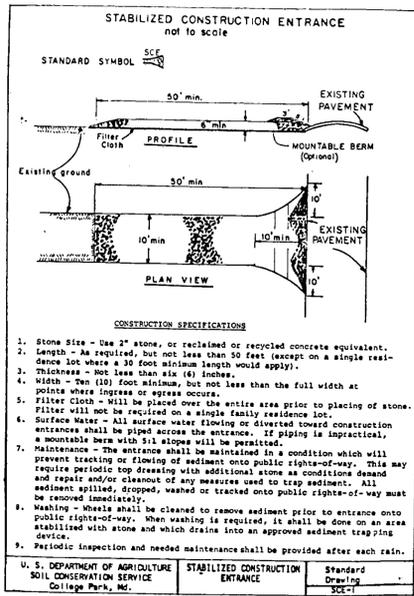


APPLIED PHYSICS LABORATORY  
 THE JOHNS HOPKINS UNIVERSITY  
 JOHNS HOPKINS ROAD HOWARD COUNTY, MARYLAND  
 APPROVED FOR THE UNIVERSITY BY: \_\_\_\_\_

**BUILDING 36 EXTENSION**  
**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 11100 JOHNS HOPKINS ROAD  
 LAUREL, MARYLAND 20707

**PLAN**  
 FIFTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 PARCEL 123 AND 289  
 3-27-89: County and Client Comments Addressed REVISIONS

SCALE 1"=20'  
 SHEET NO. 2  
 3  
 12-16-88  
**C2**  
 SDP-89-133



**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Seeding Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

- Preferred - Apply 2 tons per acre dolomitic limestone (82 lbs/1000 sq ft) and 600 lbs per acre 10-20-10 fertilizer (14 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 500 lbs per acre 30-0-0 urea-form fertilizer (9 lbs/1000 sq ft).
- Acceptable - Apply 2 tons per acre dolomitic limestone (82 lbs/1000 sq ft) and 1000 lbs per acre 10-20-10 fertilizer (23 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil.

**Seeding -** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of seeding lovegrass. During the period of October 16 thru February 28, seed with 3 lbs per acre of seeding lovegrass. For the period of October 16 thru February 28, protect site by applying 2 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 31 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 uncrotted 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 slopes 8 feet or higher, use 248 gallons per acre (8 gal/1000 sq ft) for anchoring.

**Maintenance -** Inspect all seeded areas and make needed repairs, replacements and reseedings.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

**Seeding Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** Apply 60 lbs per acre 10-20-10 fertilizer (14 lbs/1000 sq ft).

**Seeding -** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 24 bushels per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of seeding lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per 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 per acre (70 to 90 lbs/1000 sq ft) of uncrotted 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 slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

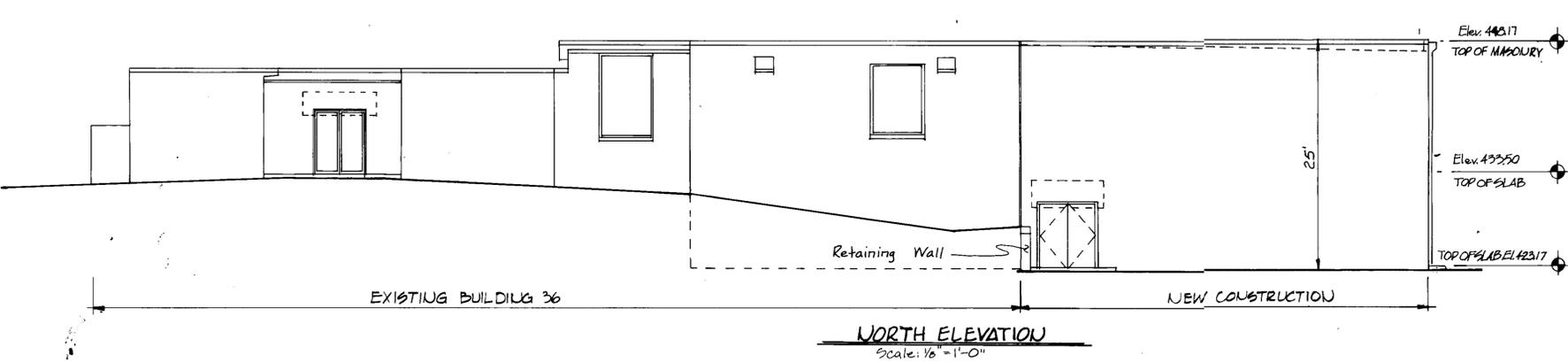
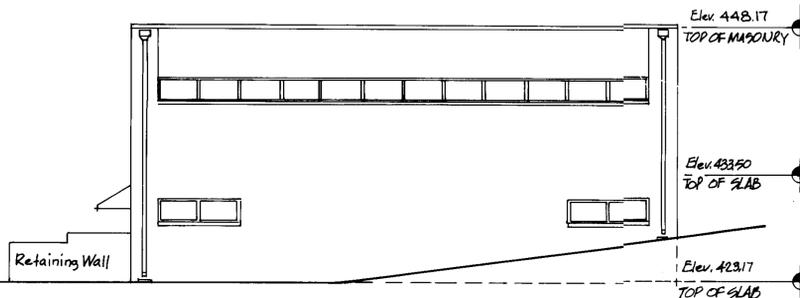
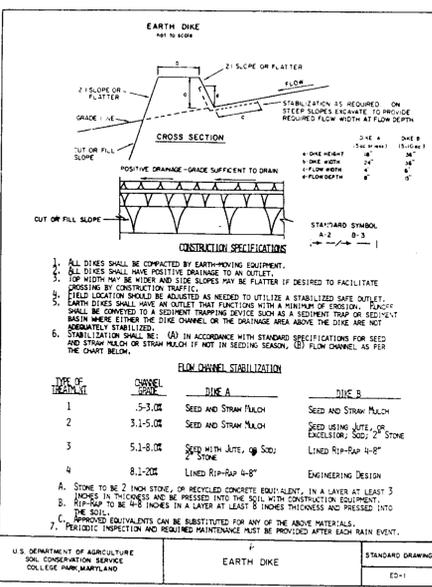
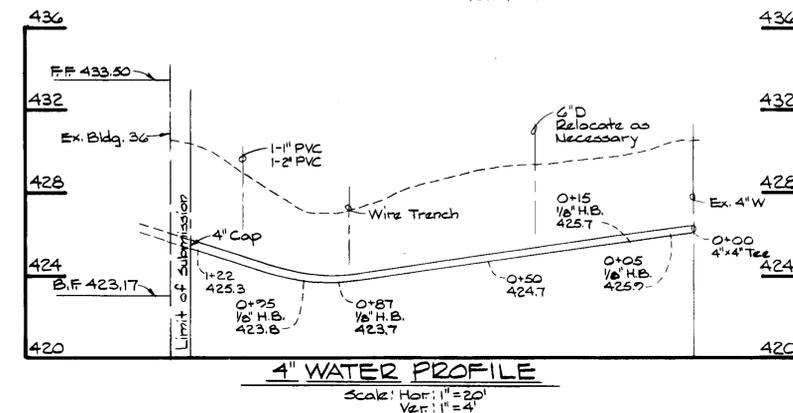
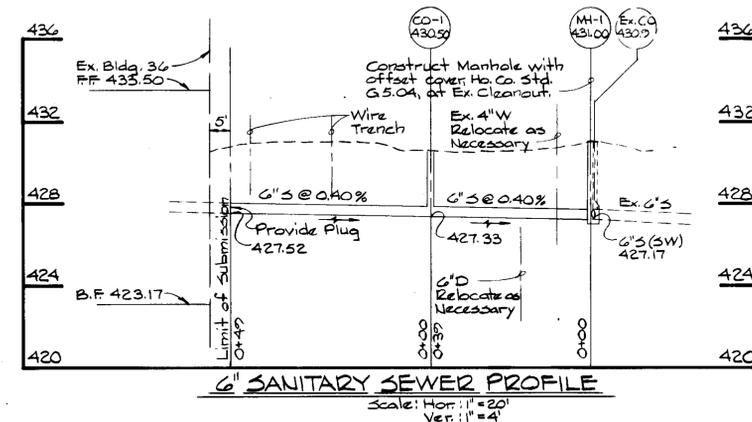
Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

**SEDIMENT CONTROL NOTES**

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2477)
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, 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, 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 17, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 31) and (Sec. 34), temporary seedings (Sec. 50) and mulching (Sec. 32). 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: 0.1 Acres  
Area Disturbed: 0.1 Acres  
Area to be roofed or paved: 0.1 Acres  
Area to be vegetatively stabilized: 0.0 Acres  
Total Cut: 400 Cu. Yds  
Total Fill: 0 Cu. Yds  
Offsite waste/borrow area location: On Campus
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPM sediment control inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

**SEQUENCE OF CONSTRUCTION**

1. Obtain Grading Permit.
2. Notify the Howard Soil Conservation District and the Howard County Bureau of Licenses, Inspections and Permits 48 hours before any work begins.
3. Install sediment control devices.
4. Clear and grub site.
5. Grade site.
6. Construct Building 36 Extension.
7. Permanently seed and stabilize any proposed grass areas.
8. Remove any remaining sediment control devices only after all the contributing areas have been stabilized.



**CERTIFICATION BY THE DEVELOPER**

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APPROVED: *Stephen P. Fisher* 4/3/89  
HOWARD S.C.D.

**CERTIFICATION 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"

*Kenneth A. McLeod* 3-28-89  
KENNETH A. MCLEOD REG. NO. 1914

APPROVED: *James M. Nelson* 4/3/89  
SOIL CONSERVATION SERVICE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

SIGNATURE: *James M. Nelson* 4/3/89  
SOIL CONSERVATION SERVICE

*James P. Fisher* 6/5/89

*John P. Fisher* 6-12-89

*Walt* 6-26-89

*Donald C. Campbell* 6/26/89

**BUILDING 36 EXTENSION**

**DETAILS AND NOTES**



*Kenneth A. McLeod*

THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY

3-27-89 County and Client Comments addressed REVISIONS

AS SHOWN

C3

12-9-88

SDP-89-133