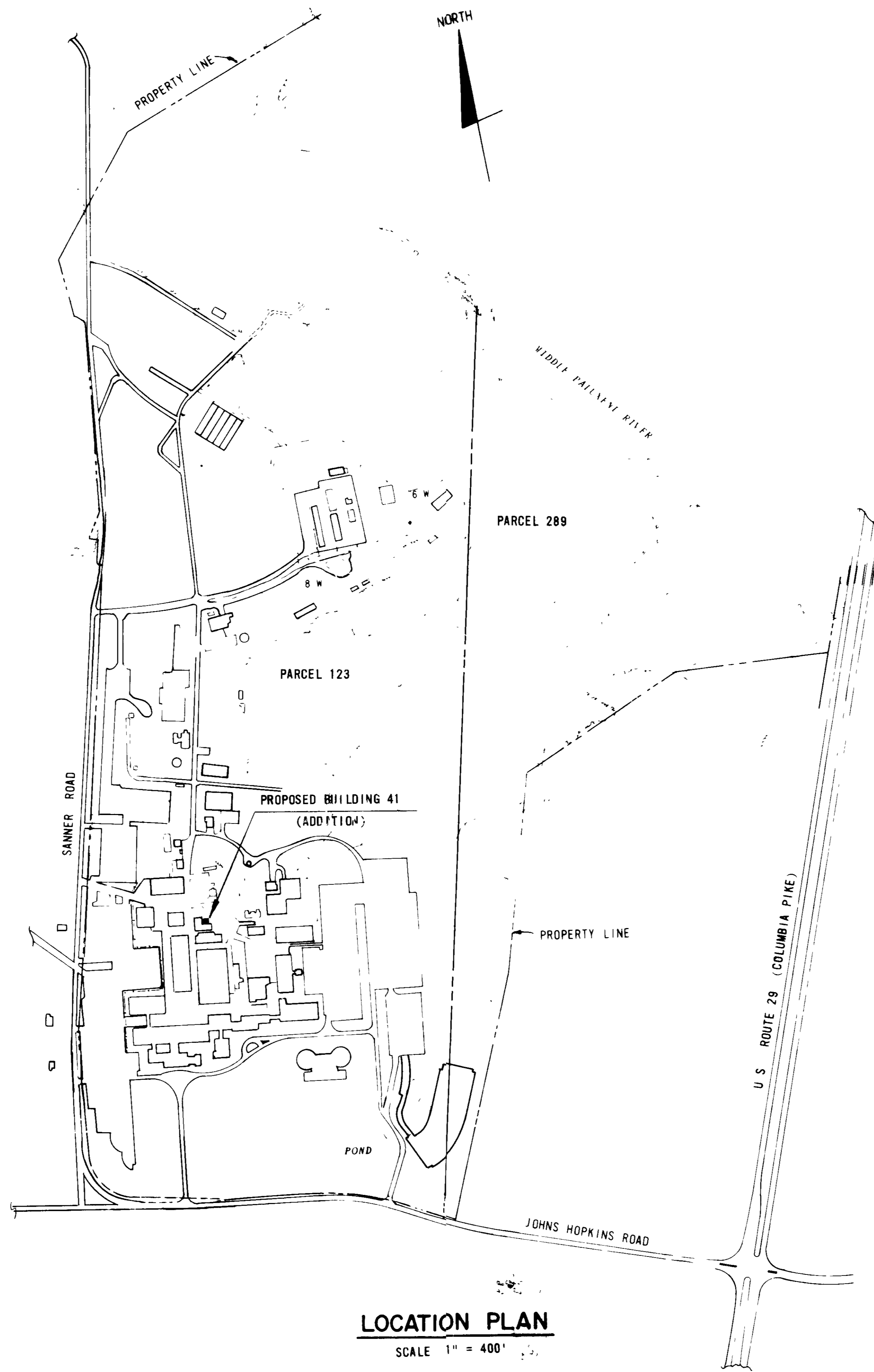


**VICINITY MAP**

SCALE 1" = 2000'

**GENERAL NOTES**

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ELEVATIONS SHOWN ARE BASED ON THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY DATUM. JHU-APL-DATUM - 0.94' = HOWARD COUNTY DATUM.
3. THE CONTRACTOR SHALL CALL MISS UTILITY (301) 559-0100, FIVE DAYS PRIOR TO THE START OF CONSTRUCTION.
4. 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 CONTRACTOR'S EXPENSE.
5. ACCESS TO THE CONSTRUCTION AREA THROUGH THE SECURE AREA OF THE APPLIED PHYSICS LABORATORY MUST BE ARRANGED IN ADVANCE BY CONTACTING THE PLANT ENGINEERING OFFICE (301) 792-5134.
6. SECURITY MUST BE MAINTAINED WITHIN THE EXISTING FENCED AREA. ALL REQUIRED FENCE CONSTRUCTION AND RELOCATION SHALL BE BY THE JOHN HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY. HOWEVER THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH JHU APL AS TO WHEN SUCH WORK IS REQUIRED.
7. LANDSCAPING, OTHER THAN SEEDING AND/OR SODDING, SHALL BE BY JHU-APL.
8. THE CONTRACTOR SHALL CONTACT MR. ARTHUR STUCKI, PLANT ENGINEER, (301) 953-7100 AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING ANY WORK OR SHUTTING DOWN ANY UTILITIES.
9. 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.
10. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
11. ALL SANITARY SEWER MAINS SHALL BE HOWARD COUNTY SCHEDULE 35 P.V.C. UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION, 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK 792-2630.
13. CLEAR ALL UTILITIES BY A MINIMUM OF 1'-0" CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED.
14. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
15. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 2'-0" OF EXTERIOR MANHOLE WALL.



**LOCATION PLAN**

SCALE 1" = 400'

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR *[Signature]* DATE 5/10/88

CHIEF BUREAU OF ENGINEERING *[Signature]* DATE 5-10-88

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT

*[Signature]* DATE 5-20-88

APPROVED HOWARD COUNTY HEALTH DEPARTMENT  
 PLANNING & ZONING

*[Signature]* DATE 5-27-88

*[Signature]* DATE 5/23/88

**SITE DATA**

- 1 ZONING ----- R, RURAL
2. SITE AREA ----- 0.11 AC
3. BUILDING ADDITION FLOOR AREA ----- 1812 SF
4. ACREAGE OF ENTIRE PROPERTY ----- 386± AC.
5. EXISTING BUILDING COVERAGE ----- 14.5 AC = 3.96%
6. PROPOSED BUILDING COVERAGE ----- 14.6 AC = 3.99%
7. PROPOSED NEW EMPLOYEES ----- 0
8. TOTAL NUMBER OF EXISTING EMPLOYEES/  
PERSONNEL ON THE ENTIRE SITE ----- 3100
9. TOTAL NUMBER PARKING SPACES REQUIRED ----- 2258
10. TOTAL NUMBER PARKING SPACES PROVIDED ----- 3180  
EXISTING SPACES ----- 3180  
PROPOSED SPACES ----- 0
11. EXISTING GREEN AREA ----- 304.8 AC = 83.3%
12. PROPOSED GREEN AREA ----- 304.7 AC = 83.3%

**SHEET INDEX**

- 1 COVER SHEET
- 2 PLAN
- 3 SEDIMENT CONTROL NOTES DETAILS

ADDRESS CHART					
PARCEL NUMBER	STREET ADDRESS				
P 123, 289	11100 JOHNS HOPKINS ROAD				
SUBDIVISION NAME		SECT./AREA	LOT/PARCEL		
J H U APPLIED PHYSICS LAB		N/A	P123, 289		
PLAT# OR L/F	BLOCK#	ZONE	TAX/ZONE MAP	ELEC DIST	CENSUS TR
234/304	16	R	41	5TH	6051
WATER CODE			SEWER CODE		
E-21			6480000		

DIVISION: PLANNING & ZONING  
 HOWARD COUNTY  
 DATE 3-24-88  
 AKS

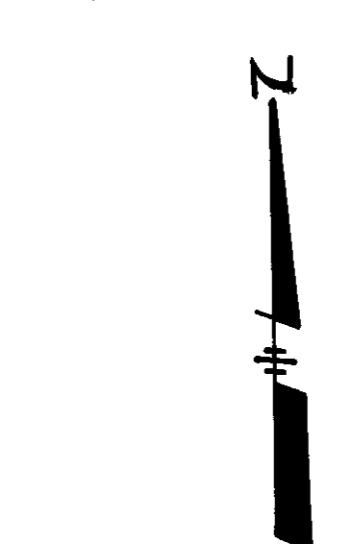
WHITMAN, REQUARDT AND ASSOCIATES  
 ENGINEERS  
 11100 MOUNT PAUL STREET  
 BALTIMORE MARYLAND 21286

APPLIED PHYSICS LABORATORY  
 THE JOHNS HOPKINS UNIVERSITY  
 JOHNS HOPKINS ROAD HOWARD COUNTY MARYLAND  
*[Signatures]*

**PROPOSED BUILDING 41 ADDITION**  
 BUILDING ADDITION TO S.D.P. 88-06  
**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
 JOHNS HOPKINS ROAD

**COVER SHEET**  
 PARCELS 123 AND 289

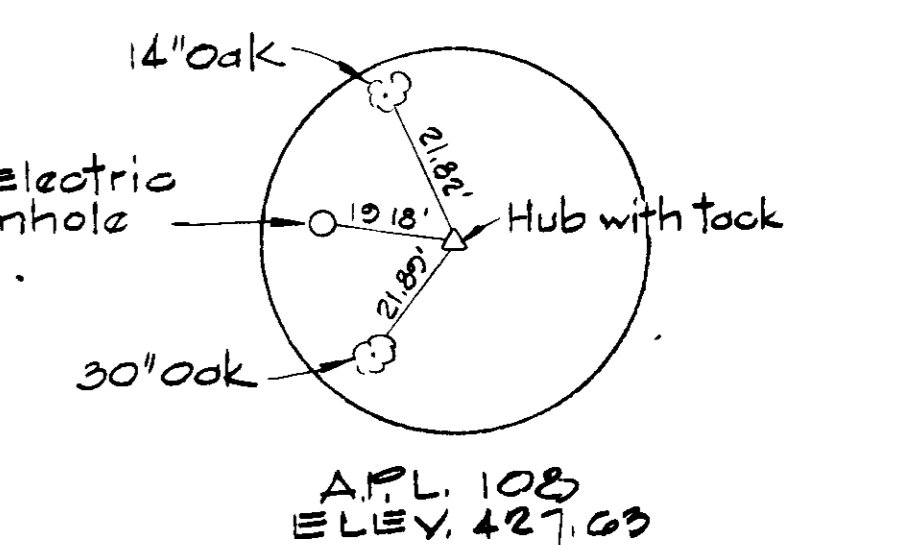
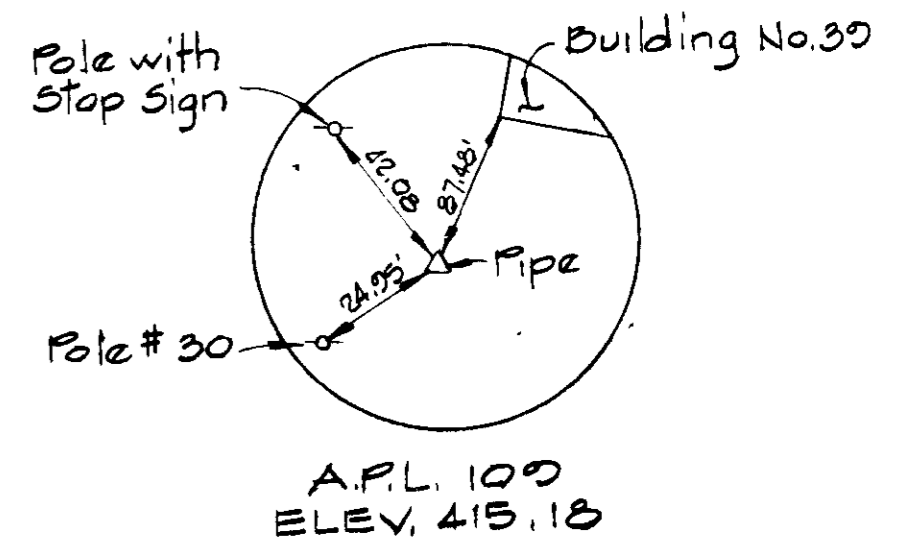
ALL AS SHOWN  
 SHEET NO. 1  
 OF 3  
 DATE 12-31-87



**NOTE:**  
Connect to existing sanitary MH with Type B outside drop connection. Invert elevation 307.26. Furnish CR-6 for backfill of drop connection.

**STORM WATER MANAGEMENT NOTE:**  
This site development plan is exempt from the provisions of Subtitle 9, Section 18.002 and the requirements of providing storm water management because less than 3,000 square feet of land will be disturbed.

**NOTE:**  
HANDICAPPED ACCESS TO BE PROVIDED THROUGH EXISTING AT-GRADE DOORS ON THE WEST WALL OF THE ORIGINAL BLDG.



**PAVING NOTE:**  
PAVING ON DRIVEWAYS TO BE 7" CONCRETE (MIX NO. 2) WITH 6" x 6" W/29 x W/29 WIREMESH OR #3 REINFORCING BARS AT 12" o/c BOTH WAYS. USE 1/2" PREFORMED EXPANSION JOINT FILLER WHERE ADJUTING EXISTING CONCRETE PAVING. BASE COURSE TO BE 4" GRANULAR (MINIMUM). SIDEWALK TO BE 4" THICK (MIX NO. 2) SEE HOWARD COUNTY STANDARD R-9.05.

UTILITY LEGEND	
UTILITY	EXISTING
Water, Heating Water, Cooling Water & Misc Small Utilities	Ex 4" W/2
River Water	
Gas	
Sanitary and Lab Sewer	Ex 4" S/W
Storm Drain < 15" & Foundation Drain	Ex 15" S/D
Storm Drain > 15" &	Ex 18" S/D
Telephone, Electric & Misc Conduit & Direct Bury Cable	Ex 2" S/D
Abandoned	Ex 2" S/D (ABANDONED)

LE 228.550  
4484.800

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

APPROVED  
DIVISION OF LAND DEVELOPMENT  
ZONING  
HOWARD COUNTY, MARYLAND  
DATE 3-24-88  
LKS

Reviewed for HOWARD S.C.D. and other Technical Requirements  
U.S. Soil Conservation Service  
Date 3/27/88  
Date 12-31-87

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 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."  
Date 3/27/88

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."  
Date 12-31-87

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  
DATE TITLE

**PROPOSED BUILDING 41 ADDITION**  
BUILDING ADDITION TO S.O.P. 88-00  
**THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**  
11100 JOHNS HOPKINS ROAD  
LAUREL, MARYLAND 20707

**PLAN**  
FIFTH ELECTION DISTRICT  
TAX MAP 41  
HOWARD COUNTY, MARYLAND  
PARCELS 123 AND 289

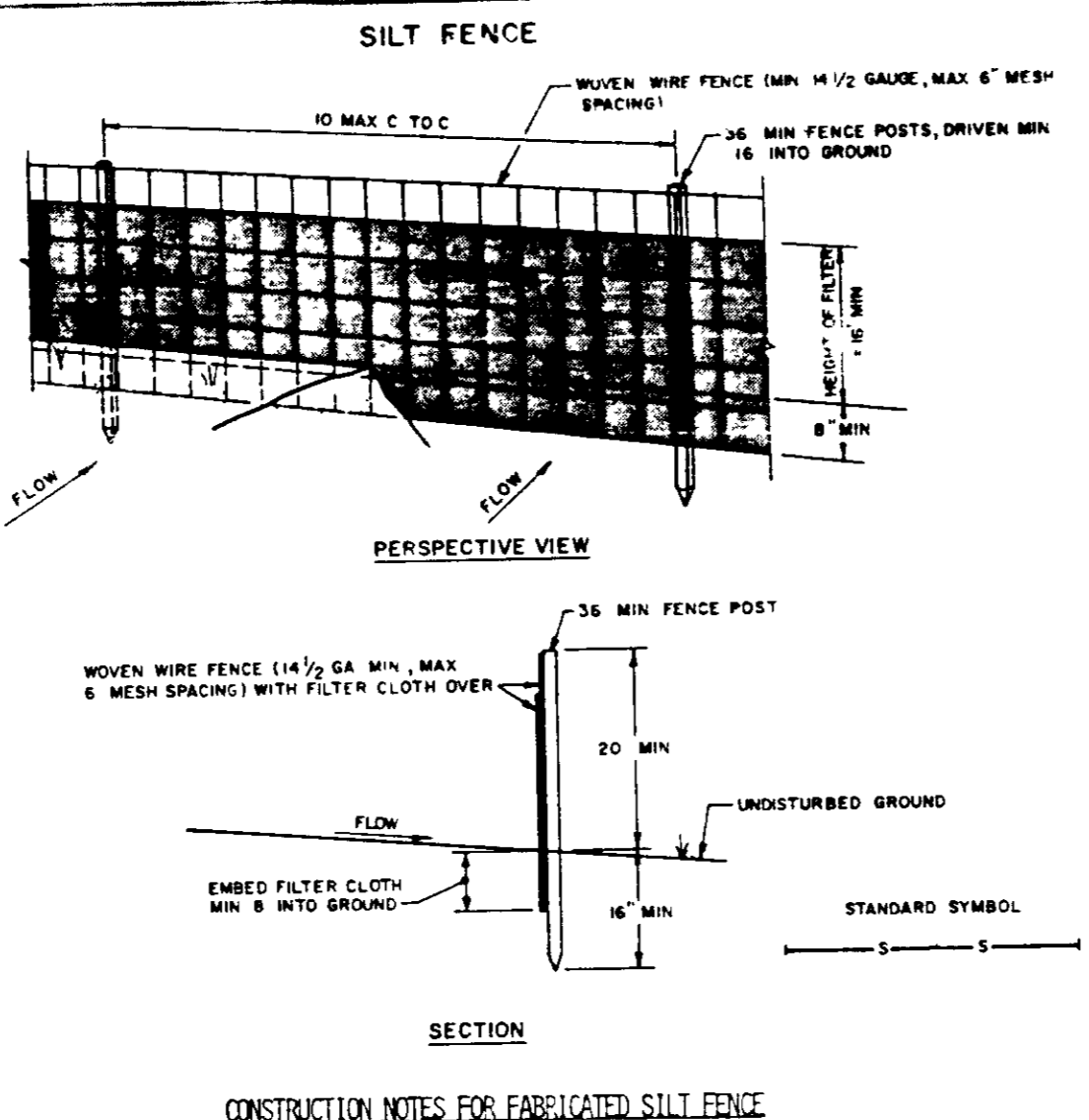
REVISIONS	SCALE 1" = 20'	DRAWING
	SHEET NO. 2	2
	OF 3	
	DATE 12-31-87	

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR *Ramon A. Lewis* DATE 5/10/88  
 CHIEF, BUREAU OF ENGINEERING *[Signature]* DATE 5-10-88  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER *[Signature]* DATE 5-20-88  
 APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR *[Signature]* DATE 5-27-88  
 COUNTY ENGINEER *[Signature]* DATE 5/23/88  
 COUNTY DEPARTMENT OF COMMUNITY PLANNING AND LAND DEVELOPMENT

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.
2. INSTALL SILT FENCE.
3. STRIP AND ROUGH GRADE LIMITS OF CONSTRUCTION.
4. CONSTRUCT BUILDING ADDITION.
5. REMOVE EXISTING CURB AS NECESSARY. CONSTRUCT ENTRANCE FOR NEW BUILDING ADDITION AND ENTRANCE FOR EXISTING BUILDING NO. 41. CONSTRUCT SIDEWALKS.
6. STABILIZE DISTURBED AREAS WITH PERMANENT SEEDING, SEE NOTES THIS SHEET.
7. REMOVE SILT FENCE WHEN DISTURBED AREA IS STABILIZED.

- ES
- 1) 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. (992-2437)
  - 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
  - 3) Following initial soil disturbance or redisturbance, 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, Chapter 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (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:  
 Total Area of Site 0.11 Acres  
 Area Disturbed 0.11 Acres  
 Area to be roofed or paved 0.05 Acres  
 Area to be vegetatively stabilized 0.07 Acres  
 Total Cut 60 Cu. yds  
 Total Fill 22 Cu. yds  
 Offsite waste/borrow area location *[Location]*
  - 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 controls must be provided, if deemed necessary by the Howard County DPM 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.



- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
  2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
  3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE.
- POSTS STEEL EITHER T OR U TYPE OR 2" HARDWOOD  
 FENCE WOVEN WIRE, 1 1/2 GA. 6" MAX. MESH OPENING  
 FILTER CLOTH FILTER X, MINERAL WOOL, STABILIZED LIGNIN TREAT OR APPROVED EQUAL  
 PREFABRICATED UNIT GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

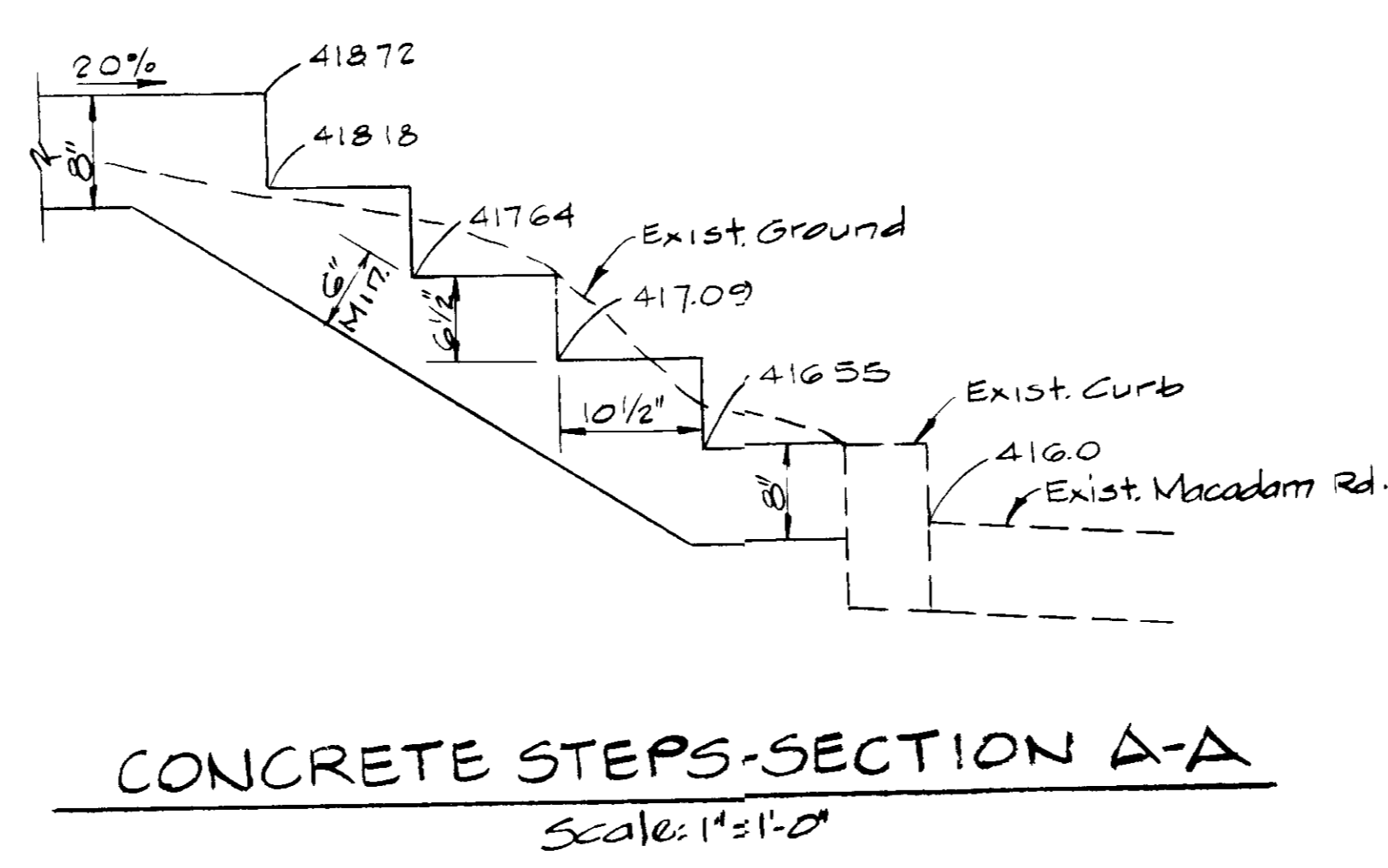
Soil Amendments: In lieu of soil test recommendations, use one of the following schedule

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 400 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

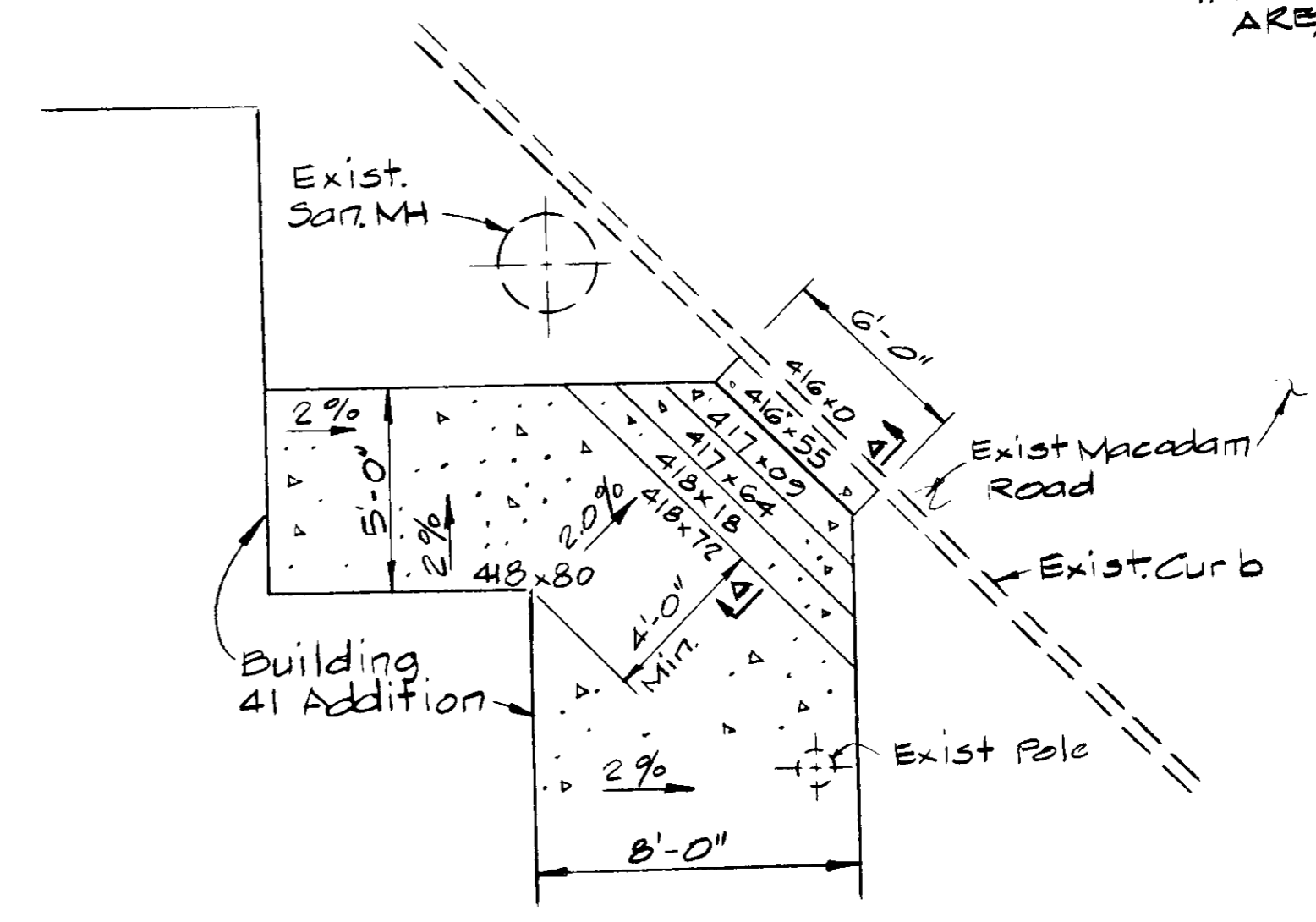
Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 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 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 slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

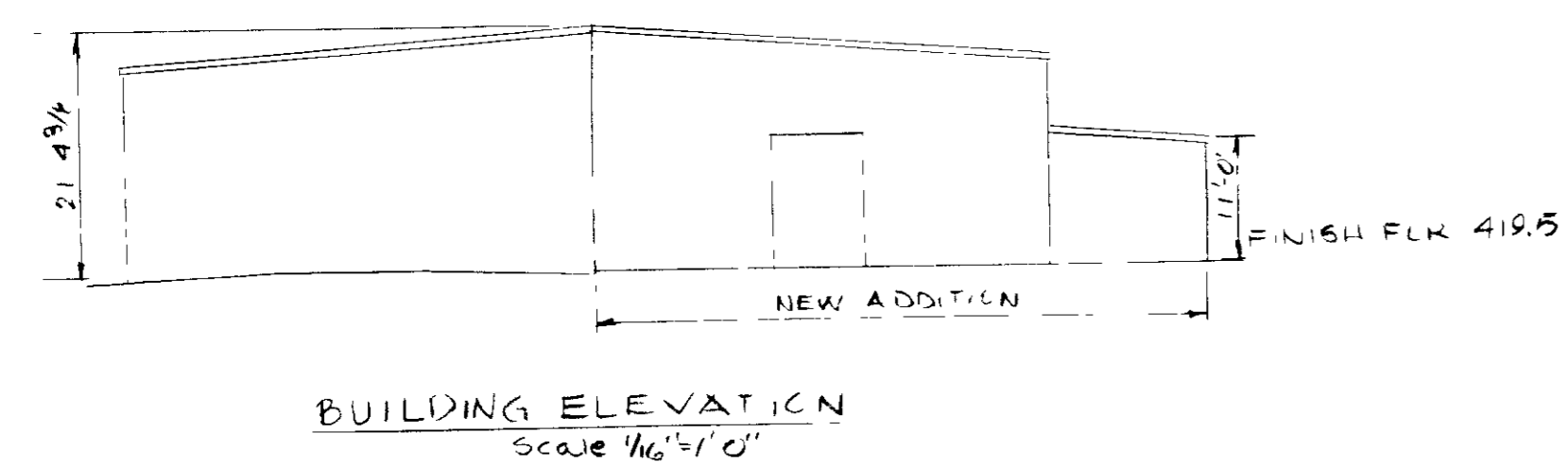
Maintenance - Inspect all seeded areas and make needed repairs, replacements and reseeds.



CONCRETE STEPS-SECTION A-A  
 Scale: 1"=1'-0"



CONCRETE WALK DETAIL  
 Scale: 1"=4'-0"



BUILDING ELEVATION  
 Scale 1/4"=1'-0"

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 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."  
 \_\_\_\_\_  
 Date \_\_\_\_\_

Reviewed for HOWARD S.C.D. and meet Technical Requirements  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
 \_\_\_\_\_  
 Howard S.C.D. Date \_\_\_\_\_

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]*  
 Date 12-31-87

3-24-88  
 LKS

WHITMAN, REQUARDT AND ASSOCIATES  
 ENGINEERS  
 2515 SAINT PAUL STREET  
 BALTIMORE, MARYLAND 21218

APPLIED PHYSICS LABORATORY  
 THE JOHNS HOPKINS UNIVERSITY  
 JOHNS HOPKINS ROAD HOWARD COUNTY, MARYLAND  
 APPROVED FOR THE UNIVERSITY BY *[Signature]*  
 DATE \_\_\_\_\_ TITLE \_\_\_\_\_

PROPOSED BUILDING 41 ADDITION  
 BUILDING ADDITION TO S.D.P. 88-06  
 THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY  
 11100 JOHNS HOPKINS ROAD LAUREL, MARY. AND 20707

SEDIMENT CONTROL NOTES, DETAILS  
 18TH ELECTION DISTRICT HOWARD COUNTY MARY. AND  
 AX MAP 41 PARCELS 123 AND 289

REVISIONS	SCALE AS SHOWN	DRAWN
	SHEET NO. 3	3
	OF 3	
	DATE 12-31-87	