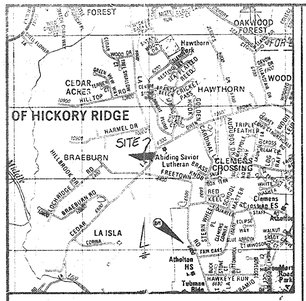


VICINITY MAP

Scale : 1" = 2000'

BM Description: Concrete Monument 0.1' below surface
Located at South end of athletic field,
207' West of centerline Freetown Road
Coordinates N494415.124 E833503.031

SITE ANALYSIS LOT 9	
AREA OF PARCEL:	(Site Area) 4.28 Ac. ; 186,446 SF 215,065 SQ. FT. (Site Area + Off-Site Easement) 4.94 Ac. (Disturbed Area) 3.26 Ac. ; 142,006 sq. ft.
PRESENT ZONING:	Lot 9 POR (Planned Office Research)
PROPOSED USE OF STRUCTURE:	Nursing Home
MAXIMUM No. OF EMPLOYEES: (Day shift)	79
No. OF EX. BEDS:	180
No. OF PROP. BEDS:	100
TOTAL:	280
No. OF PARKING SPACES REQUIRED: (site)	One space per 2 beds = 140 Total required = 140
No. OF PARKING SPACES PROVIDED: (site)	92 (SEE BELOW)
	*An additional 48 proposed parking spaces on Lot 10 will be utilized for Lot 9 required parking
PROPOSED PARKING AND LANDSCAPE ISLAND AREAS:	Proposed parking lot area = 40,071 sq ft Area of landscaped islands = 3,452 sq ft Percentage of landscaped islands = 8.61%
OPEN SPACE (Green Area):	1.459 Ac. ; 34% of site
EXISTING Bldg A:	No. of floors = 2 Square foot area (Ex. floor) = 14,012 USE: 1st floor = Admin., Dining, Maintenance & Health Care 2nd floor = Health Care
EXISTING Bldg B:	No. of floors = 2 Square foot area (Ex. floor) = 14,753 USE: 1st floor = Administration & Health Care 2nd floor = Health Care
PROPOSED Bldg:	No. of floors = 2 Square foot area (Ex. floor) = 15,410 USE: 1st floor = Admin., Dining, Maintenance & Health Care 2nd floor = Health Care
PROP. ADDITION:	No. of floors = 1 Square foot area = 6,258 USE: Dining & Corridor
TOTAL Bldg: COVERAGE	58,493 sq. ft. = 28.7% of Site Area

Proposed Parking Area	0.920 Acres
Existing Parking Area	0.831 Acres
Open Space Area	1.805 Acres
Total Building Area	1.342 Acres
Total Area	4.28 Acres

SITE ANALYSIS LOT 10	
AREA OF PARCEL:	12.286 Ac. ; 535,171 sq. ft.
PRESENT ZONING:	POR
EXISTING USE OF STRUCTURES:	Health Care & Nursing Home Therapy Center
	*48 proposed parking spaces on Lot 10 will be utilized by Lot 9
OPEN SPACE (GREEN AREA):	344,124 sq ft (69.80% of site)

REFERENCE FILE No.:			
	S-89-38	SDP-81-36	BA-85-36
	PB-250	P-84-24	PB-143
	BA-983	SDP-82-82	4A-08-20
	BA-89-08	SDP-76-93	F-09-09

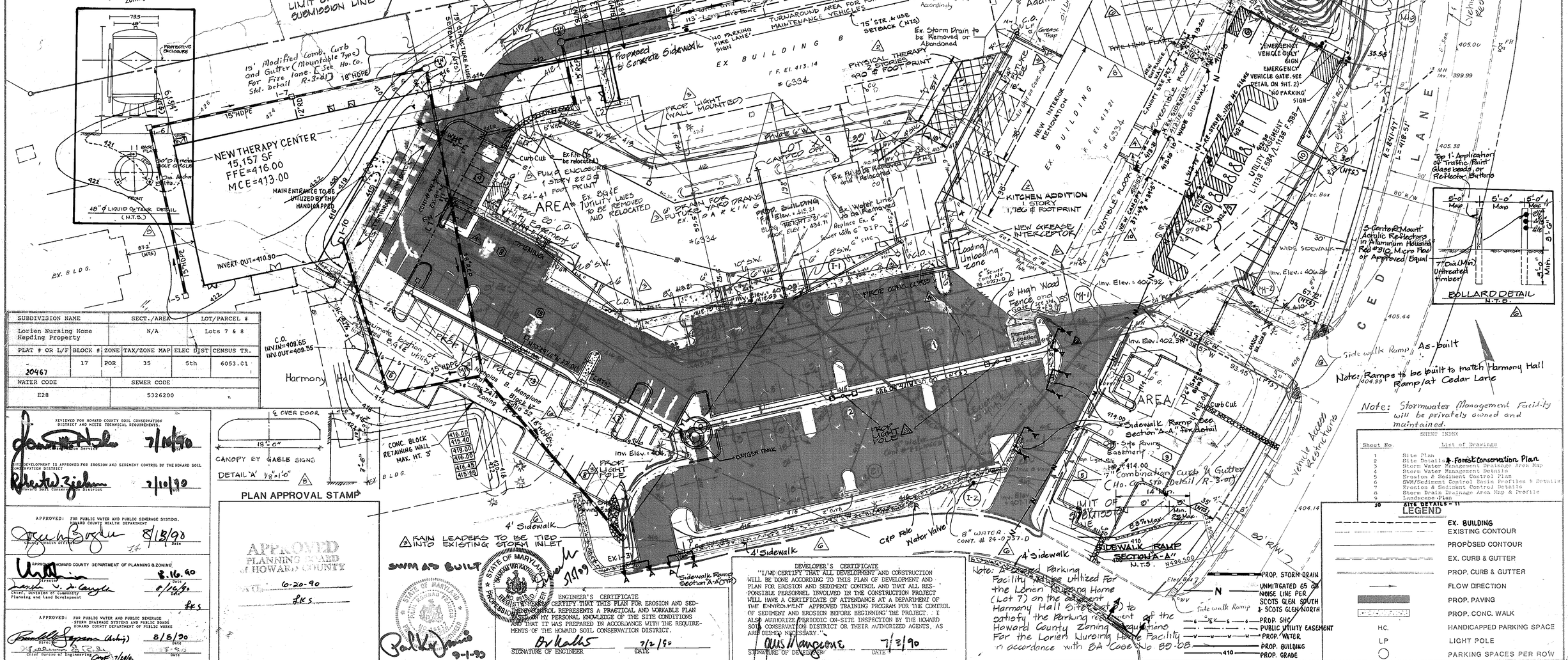
ADDRESS CHART	
LOT NUMBER	STREET ADRESS
9	6334 Cedar Lane
10 Therapy Center	6336 Cedar Lane 6332 Cedar Lane

NOTE: Exact location of existing utilities is the responsibility of the contractor, any damage to existing utilities during construction must be repaired at the cost of the contractor.

NOTE: A BUILDING PERMIT FOR THE PROPOSED ENTRY, PARKING & SIDEWALK IMPROVEMENTS SHALL BE APPLIED FOR WITHIN 1 YEAR MEASURED FROM THE DED APPROVAL LETTER FOR THIS REDLINE REVISIO

A BUILDING PERMIT FOR THE PROPOSED CANOPY SHALL BE APPLIED FOR WITHIN 1 YEAR MEASURED FROM THE DED APPROVAL LETTER FOR THIS REDLINE REVISION

LINE	BEARING	DISTANCE
L1	N36°25'54"E	113.32'
L2	N86°09'29"E	92.29'
L3	N03°50'31"W	99.61'



SUBDIVISION NAME	SECT./AREA	LOT/PARCEL #
Lorien Nursing Home Hepding Property	N/A	Lots 7 & 8

PLAT # OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC DIST	CENSUS TR.
20467	17	POR	35	5th	6053.01

WATER CODE	SEWER CODE
E28	5326200

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. 7/10/90

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. 7/10/90

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT 8/13/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING 8.16.90

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 8/8/90

DESIGNED	MAL	6/89	DATE
DRAWN	SGP	9/89	DATE
CHECKED			DATE
APPROVED			DATE

REVISIONS		
DATE	BY	DESCRIPTION
4-1-90	SGP	1 Prop. S.D. Manhole is eliminated
8-30-91	SGP	2 Addition of Kitchen and Physical Therapy
9-24-91	MCK	3 Addition of Roof Drain, Grease Interceptor & Relocation of Light Poles.
01-22-92	MCK	4 Addition of Vestibule Floor & roof, 4' SHC, Prop. curb & 2' curb opening.
10-28-92	RMC	5 ADDITION OF PUMP ENCLOSURE FLOOR, ROOF AND FENCING.
04/28/10	KCE	6 ADDED TEMPORARY CONNECTOR AND OXYGEN TANK

REVISIONS		
DATE	BY	DESCRIPTION
11-25-02	RMC	7 Revised Sidewalk, Sidewalk Ramps, Fence.
9-1-93	PKF	SWM AS BUILT 8
12-2-05	KCE	PARKING TABULATION REVISED. NEW CANOPY, HC. PARKING @ EX. BLDG 9
7-31-06	KCE	NEW CANOPY @ BLDG B PARKING LOT EXPANDED & RESTRIPED 10
10-26-06	KCE	CANOPY SIDE REVISED. PART ELEV ADDED. CANOPY ELEV. CHANGED
4-28-09	KCE	ADDED THERAPY CENTER PARKING REVISE PROPERTY LINE

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE SUITE 101
ELLICOTT CITY, MD. 21043
(301) 461 - 9920

OWNER / DEVELOPER
NICKOLAS B. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

SWM AS BUILT

Site Development Plan

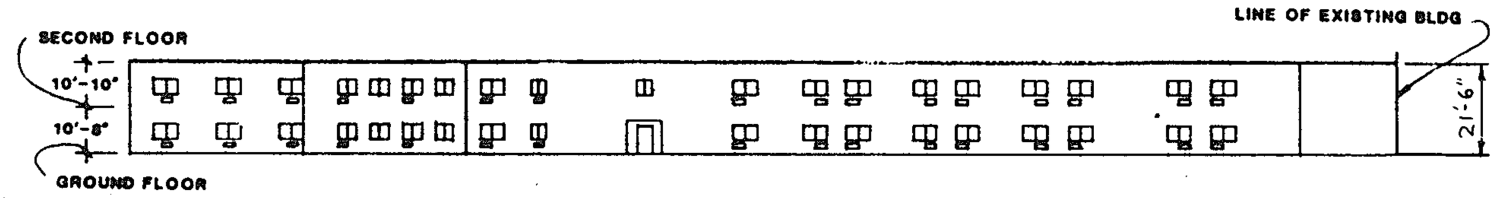
BUILDING AND PARKING LOT ADDITION
LORIEN NURSING HOME EXPANSION
HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOT 9 & 10
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: E28 SEWER CODE: 5326200
5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD.

SCALE: 1" = 30' | CONTRACT NO. | DATE 5/90 | SHEET: 1 of 10

SHEET INDEX

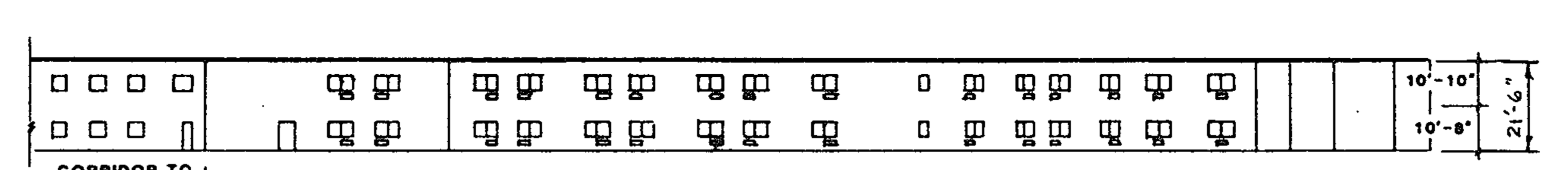
Sheet No.	List of Drawings
1	Site Plan
2	Site Details & Forest Conservation Plan
3	Storm Water Management Drainage Area Map
4	Storm Water Management Details
5	Erosion & Sediment Control Plan
6	SWM/Sediment Control Basin Profiles & Details
7	Erosion & Sediment Control Details
8	Storm Drain Drainage Area Map & Profile
9	Landscape Plan
10	SITE DETAILS - II

SDP- 90- 109



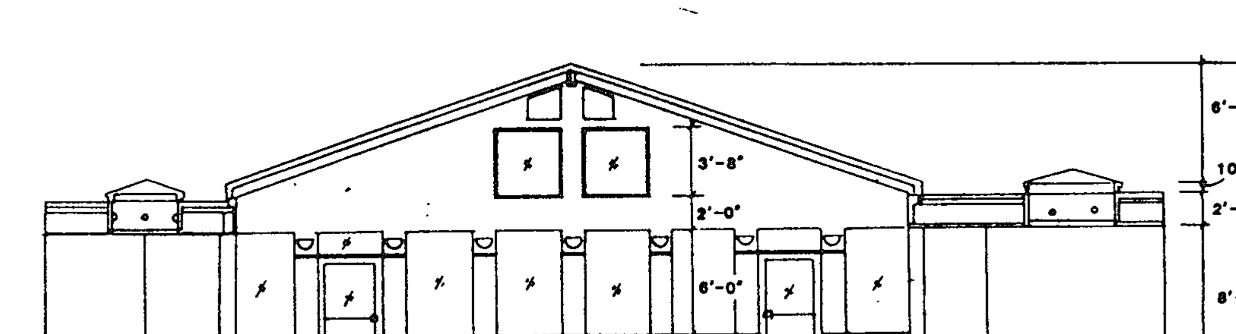
SOUTH ELEVATION

NOT TO SCALE



NORTH ELEVATION

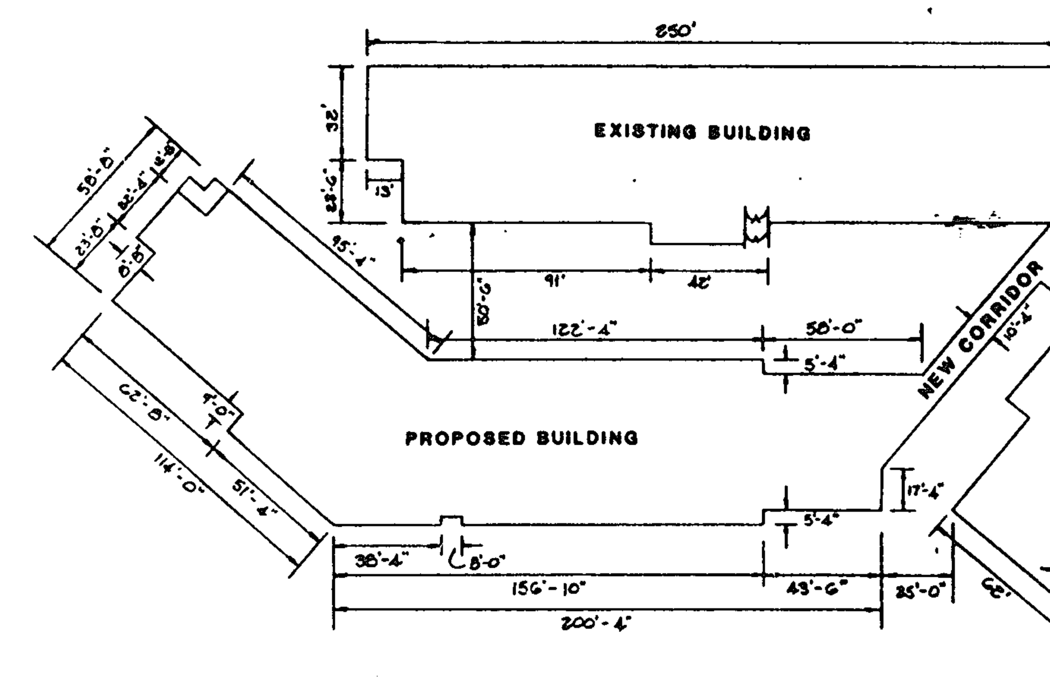
NOT TO SCALE



PROPOSED ADDITION (LOUNGE)

NOT TO SCALE

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
P-1	PARKING BAYS APARTMENTS AND COMMERCIAL-INDUSTRIAL ZONES WITH NO HEAVY TRUCKS TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCK	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 2" BIT. CONC. BASE PRIME 5" CRUSHER RUN BASE COURSE OR 4" DENSE GRADED STABILIZED AGGREGATE BASE COURSE



FOOTPRINT PLAN

NOT TO SCALE

NOTE: A special exception and setback variance to allow construction of a parking lot on Lot 8 to satisfy parking requirements for the proposed expansion of Lorien Nursing Home on Lot 7 (Board of Appeals Case 89-08) has been approved subject to the following conditions:

1. Conformity is required of existing development with previous special exception BA 983-C, condition 9, and site plan SDP 81-36, and as shown on sketch plan S-89-38.
2. Screening along the western property line is planted.
3. Pedestrian connections between wings of Harmony Hall need to be installed.
4. A site development plan is required with complete stormwater management as per Department of Public Works comments.
5. Petitioner agrees to accept reasonable financial responsibility for the upgrading of the traffic signal at the Cedar Lane/Freetown intersection, based on negotiations with the Department of Public Works.
6. Petitioner, in his capacity as owner of Lot 8, agrees to provide to the board, after it has been recorded, a certified copy of the Deed of Easement, granting to the owner of Lot 7, or his assigns, the right to use the designated parking area on Lot 8, for the duration of the use of the buildings as a nursing facility.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ANY DAMAGE TO PUBLIC RIGHT-OF-WAY, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE EXPENSE OF CONTRACTOR.
3. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HOURS IN ADVANCE OF ANY CONSTRUCTION.
4. THE LAND INCLUDED IN THIS PLAN IS ZONED:
   LOT 7 - POR (PLANNED OFFICE & RESEARCH)
   LOT 8 - POR(PLANNED OFFICE & RESEARCH)
5. THE AREA SHOWN IN THIS SUBMISSION IS LOCATED ON ZONE MAP No. : 35
6. TYPE OF SOIL: CHESTER SILT LOAM; GLENELG LOAM; MANOR LOAM
7. "THE CONTRACTOR OR DEVELOPER SHALL CONTACT THE CONSTRUCTION INSPECTION/SURVEY DIVISION, 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK AT 792-7272"
8. A TRAFFIC AND PARKING ANALYSIS FOR THIS PROJECT WAS PERFORMED BY THE TRAFFIC GROUP, DATED FEBRUARY 5, 2009 WHICH CONCLUDES THAT THE PROPOSED REVISION SATISFIES HOWARD COUNTY ADEQUATE ROAD FACILITIES TEST EVALUATION REQUIREMENTS.
9. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
10. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313 1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
11. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
12. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
13. THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM 2 FOOT CONTOUR INTERVALS PREPARED BY SILL, ADCOCK & ASSOCIATES DATED JULY 2007.
14. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 35F1 AND 35FA WERE USED FOR THIS PROJECT.
15. WATER IS PUBLIC, CONTRACT #44-3048D, AND THE SEWER IS PRIVATE.
16. EXISTING UTILITIES ARE BASED ON CONTRACT #44-3048D, 24-0957-D, 44-1066-D & SDP-81-36.
17. THERE IS NO FLOOD PLAIN ON THIS SITE.
18. THERE ARE NO WETLANDS ON THIS SITE.
19. STORMWATER MANAGEMENT IS PROVIDED BY A STORMWATER MANAGEMENT POND SITUATED AT THE NORTH-EAST CORNER OF THE PROPERTY DESIGNED FOR AN ULTIMATE CONTRIBUTING DRAINAGE AREA OF 4.85 ACRES. THE POND IS PRIVATELY OWNED & MAINTAINED. STORMWATER MANAGEMENT FOR PROPOSED BUILDING ADDITION & PARKING LOTS HAS BEEN ADDRESSED IN ACCORDANCE WITH THE REDEVELOPMENT POLICY IN THE 2000 MARYLAND STORMWATER DESIGN MANUAL & HOWARD COUNTY DESIGN MANUAL VOLUME I.
20. THE OWNER/DEVELOPER SHALL MAKE APPLICATION TO THE DEPARTMENT OF INSPECTIONS, LICENCES AND PERMITS FOR A BUILDING PERMIT FOR THE PROPOSED THERAPY CENTER BUILDING WITHIN ONE YEAR (1) FROM THE DATE OF APPROVAL OF THIS RED-LINE REVISION BY DED.
23. AA-08-020 EXPIRES 10/08/2010.
24. IN ACCORDANCE WITH SECTION 128.B.10 OF THE HO.CO. ZONING REGULATIONS (SETBACKS FROM LOT LINES INTERNAL TO A DEVELOPMENT), WHEN 2 OR MORE CONTIGUOUS LOTS OR PARCELS ARE TREATED AS A SINGLE PARCEL FOR DEVELOPMENT PURPOSES, THE STRUCTURE AND USE SETBACKS FROM LOT LINES INTERNAL TO THE DEVELOPMENT SHALL NOT APPLY PROVIDED THE LOTS ARE DEVELOPED & MAINTAINED AS AN INTEGRATED DEVELOPMENT, PERIMETER SETBACKS TO ADJOINING PARCELS SHALL BE MAINTAINED.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[signature] 7/10/90
Soil Conservation Service — Date

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

Robert W. Ziehm 7/10/90
Howard Soil Conservation District — Date

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

[signature] 8/13/91
County Health Officer — Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[signature] 8.16.90
Director — Date

[signature] 8/16/90
Chief, Division of Community Planning and Land Development — Date

LKS

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

[signature] (Acting) 8/8/90
Director — Date

[signature] 7.25.90
Chief Bureau of Engineering — Date

25. A BUILDING PERMIT FOR THE TEMPORARY CONNECTOR AND PARKING SHALL BE APPLIED FOR WITHIN 1 YR MEASURED FROM THE DED APPROVAL LETTER FOR THIS REDLINE REVISION.

21. FOREST CONSERVATION NOTE: THIS SDP COMPLIES WITH THE FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE, WITH A 0.05 ACRES REFORESTATION OBLIGATION FOR NET TRACT AREA BEYOND WHAT WAS PREVIOUSLY DISTURBED UNDER THE INITIAL LIMIT OF DISTURBANCE (LOD). A FEE-IN-LIEU IN THE AMOUNT OF $1,634.00 WILL BE POSTED WITH THE COUNTY.

22. ADMINISTRATIVE ADJUSTMENT CASE NO. 08-20 WAS GRANTED ON 8TH DAY OF OCTOBER, 2008 FROM SECTION 115.D.3.a OF THE HOWARD COUNTY ZONING REGULATIONS TO REDUCE THE 75 FOOT SETBACK FROM RESIDENTIAL DISTRICTS TO 60 FEET TO CONSTRUCT AN ADDITION TO AN EXISTING NURSING HOME, SUBJECT TO THE FOLLOWING CONDITIONS:

i) THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE & COUNTY LAWS & REGULATIONS.
ii) A BUILDING PERMIT FOR THE PROPOSED DEVELOPMENT SHALL BE OBTAINED WITHIN TWO YEARS FROM THE DATE OF THIS ORDER & SUBSTANTIAL CONSTRUCTION SHALL BE COMPLETED WITHIN THREE YEARS.
iii) THE GRANTED ADMINISTRATIVE ADJUSTMENT SHALL APPLY SOLELY TO THE THERAPY CENTER BUILDING AS DEPICTED ON THE ADMINISTRATIVE ADJUSTMENT PLAN SUBMITTED BY THE PETITIONER & NOT TO ANY OTHER STRUCTURE, ADDITION BUILDING OR USE. THE PETITIONER SHALL SUBMIT A COPY OF THIS DECISION & ORDER WITH THE BUILDING PERMIT APPLICATION.
iv) THIS DECISION AND ORDER SHALL BE MAINTAINED IN THE OWNER'S PROPERTY RECORDS AND SHALL BE TRANSFERRED TO ANY SUCCEEDING OWNER OF THE PROPERTY.

FOREST CONSERVATION WORKSHEET

Lorien Nursing Home, Columbia, Howard County - POR Zoning

5-Aug-02

NET TRACT AREA:

A. Total tract area...	4.28
B. Land dedication acres (parks, county facility, etc.)...	0.00
C. Land dedication for roads or utilities (not being constructed by this plan)	0.00
D. Area to remain in commercial agricultural production/use...	0.00
E. Other deductions (specify)....(LOD under SDP-90-109)	3.92
F. Net tract area =	0.36

LAND USE CATEGORY: (From Tress Technical Manual)
Input the number "1" under the appropriate land use, limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	0	0	1

G. Afforestation Threshold....	15%	xF=	0.05
H. Conservation Threshold.....	15%	xF=	0.05

EXISTING FOREST COVER:

I. Existing forest cover..... =	0.00
J. Area of forest above afforestation threshold =	0.00
K. Area of forest above conservation threshold =	0.00

BREAKEVEN POINT:

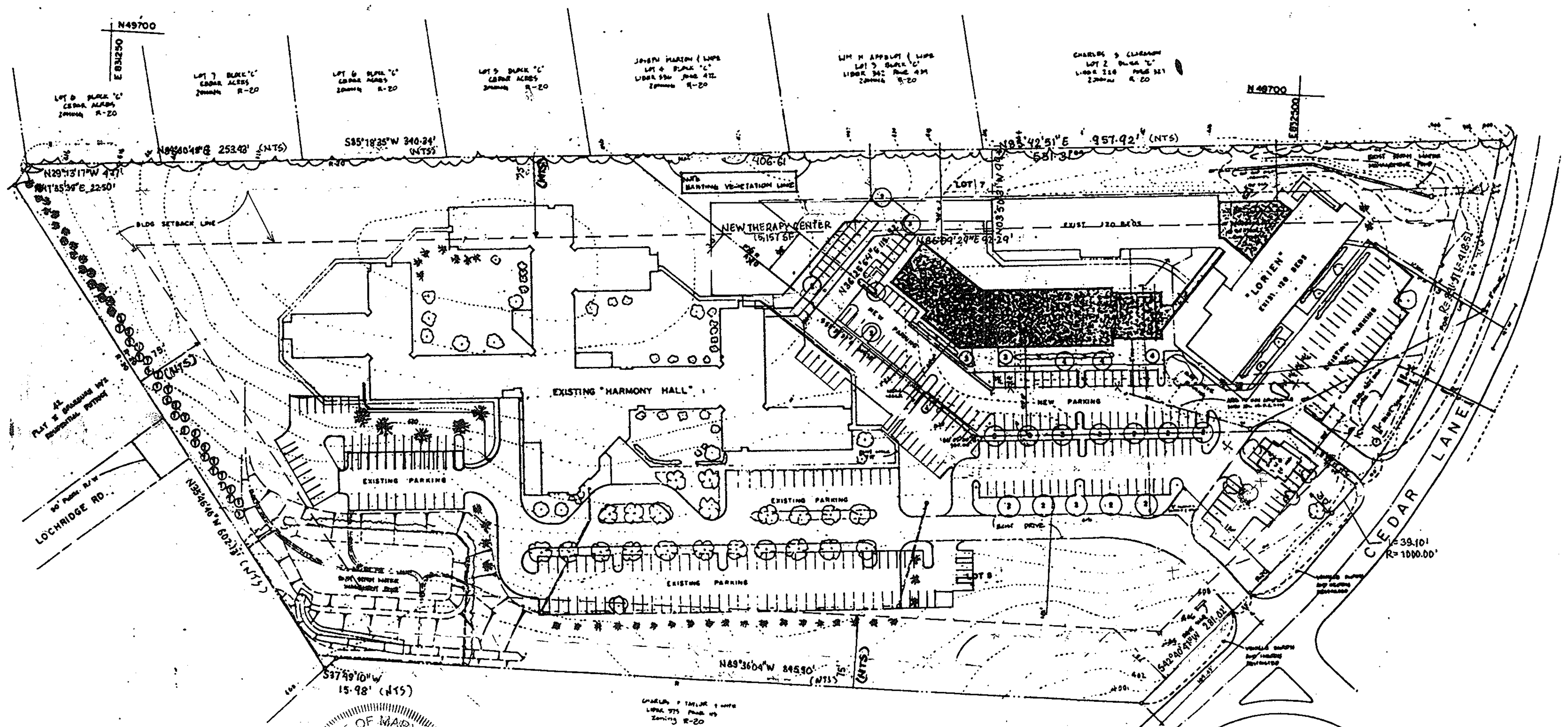
L. Forest retention above threshold with no mitigation.. =	0.00
M. Clearing permitted without mitigation..... =	0.00

PROPOSED FOREST CLEARING:

N. Total area of forest to be cleared =	0.00
O. Total area of forest to be retained =	0.00

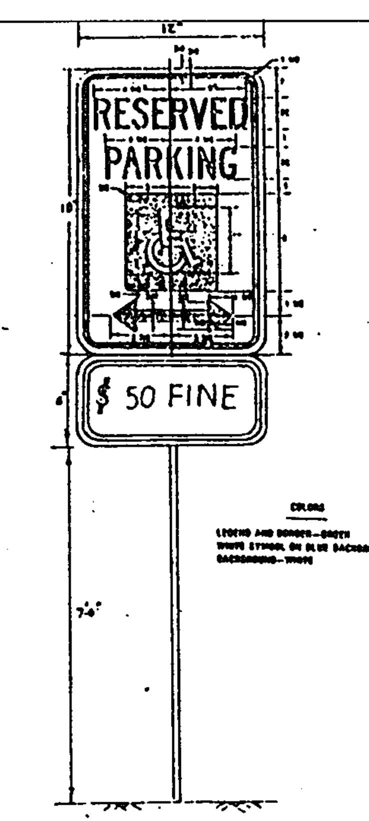
PLANTING REQUIREMENTS:

P. Reforestation for clearing above conservation threshold.. =	0.00
Q. Reforestation for clearing below conservation threshold... =	0.00
R. Credit for retention above conservation threshold.... =	0.00
S. Total reforestation required...... =	0.00
T. Total afforestation required........ =	0.05
U. Credit for Landscaping (may not exceed 20% of "S"). =	0.00
V. Total reforestation and afforestation required.... =	0.05



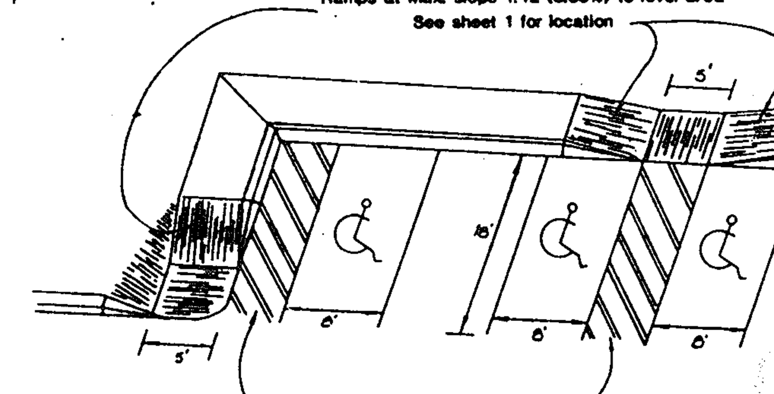
Composite Plan Lot 7 & Lot 8

Scale: 1" = 100'



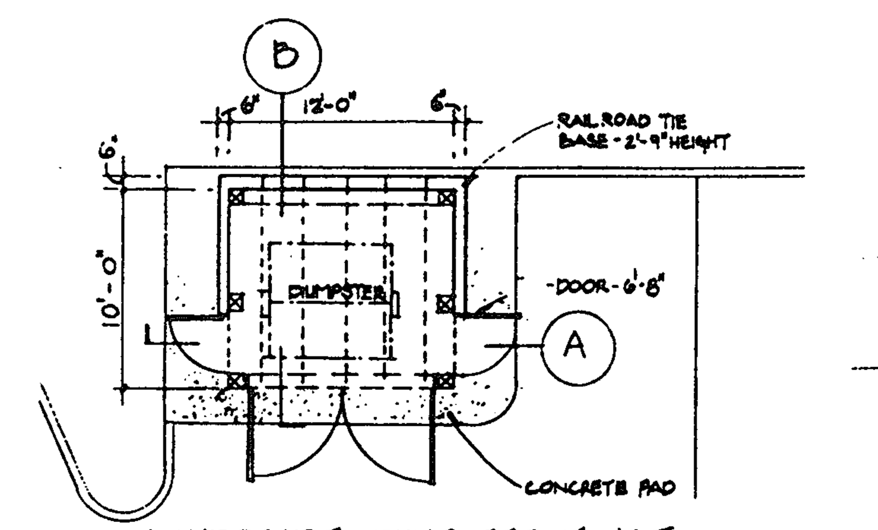
HANDICAPPED PARKING SIGN DETAIL

(NO SCALE)



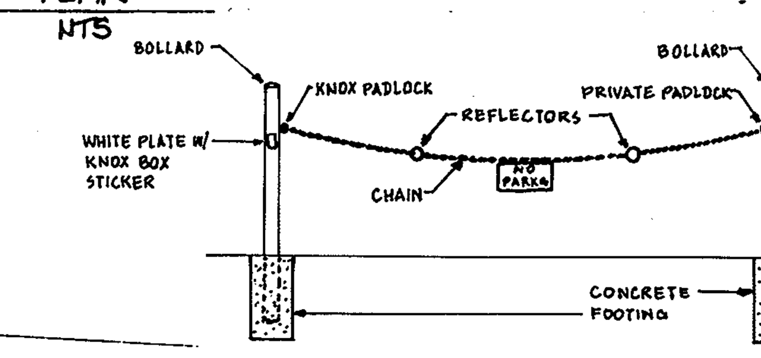
HANDICAP RAMP DETAIL

Not to Scale



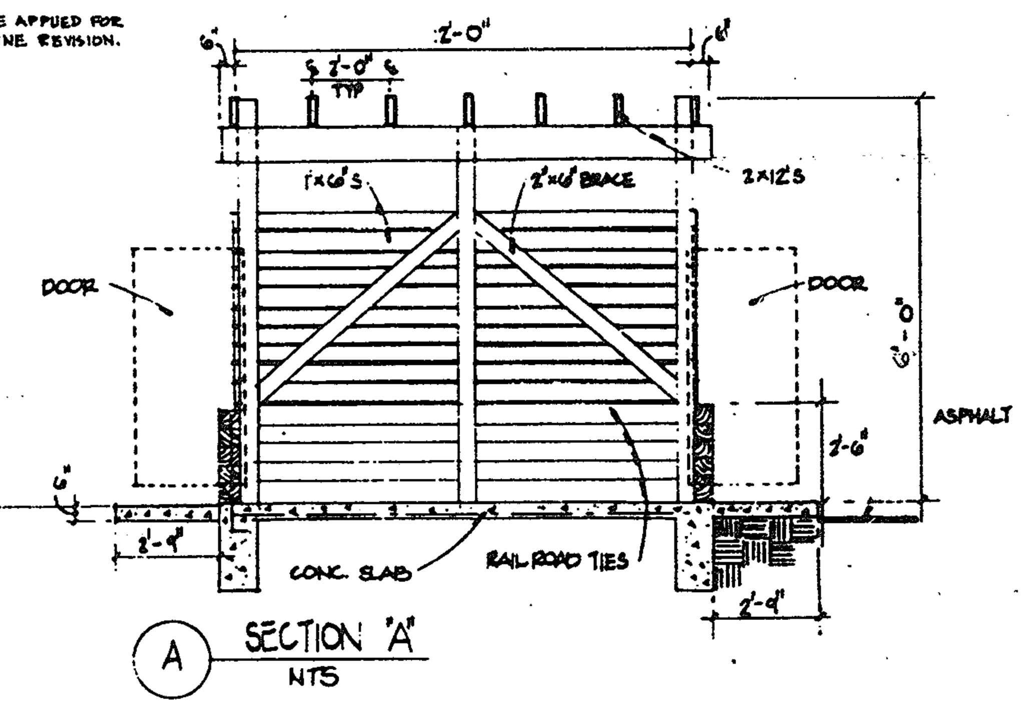
LANDSCAPE DUMPSTER FENCE PLAN

NTS



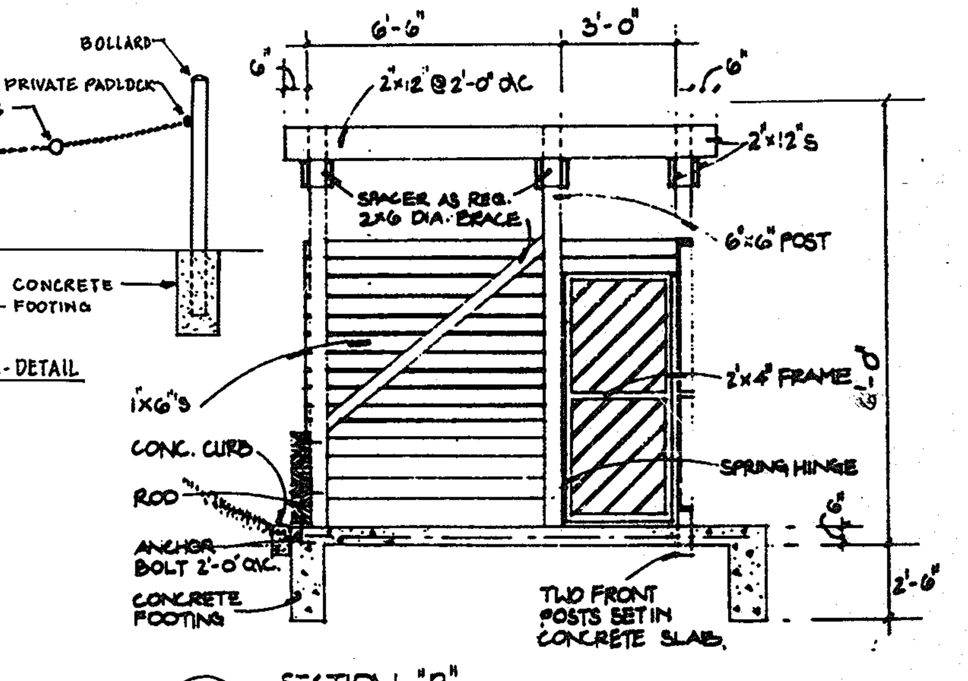
EMERGENCY VEHICLE GATE - DETAIL

NTS



SECTION "A"

NTS



SECTION "B"

NTS

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 6-20-90
LKS

DESIGNED	DATE
DRAWN	DATE
CHECKED	DATE
APPROVED	DATE

REVISIONS

DATE	BY	DESCRIPTION
4/28/10	KCE	ADDED NOTES 23, 24, 25. ADD TEMP. CONNECTOR
4/28/09	KCE	COMPOSITE PLAN CHANGED, GENERAL NOTES ADDED

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE SUITE 101
ELLICOTT CITY, MD. 21043
(301) 461 - 9920

STATE OF MARYLAND — DHARAM V. KATHURIA — NO. 8818 — REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER

NICKOLAS B. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

Site Details & Forest Conservation Plan

BUILDING AND PARKING LOT ADDITION

LORIEN NURSING HOME EXPANSION

HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOT 9 & 10
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: E28 SEWER CODE: 5520200
5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD

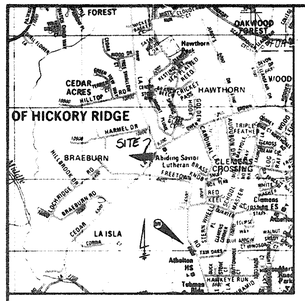
SCALE:	CONTRACT NO.	DATE: 5/90	SHEET: 2 of 10

SDP-90-109

NOTE: THIS PLAN USED FOR STORM WATER MANAGEMENT DRAINAGE AREA MAP ONLY. FOR CONSTRUCTION PLANS SEE SHEET 1 of 3.

PROPERTY LINE DATA

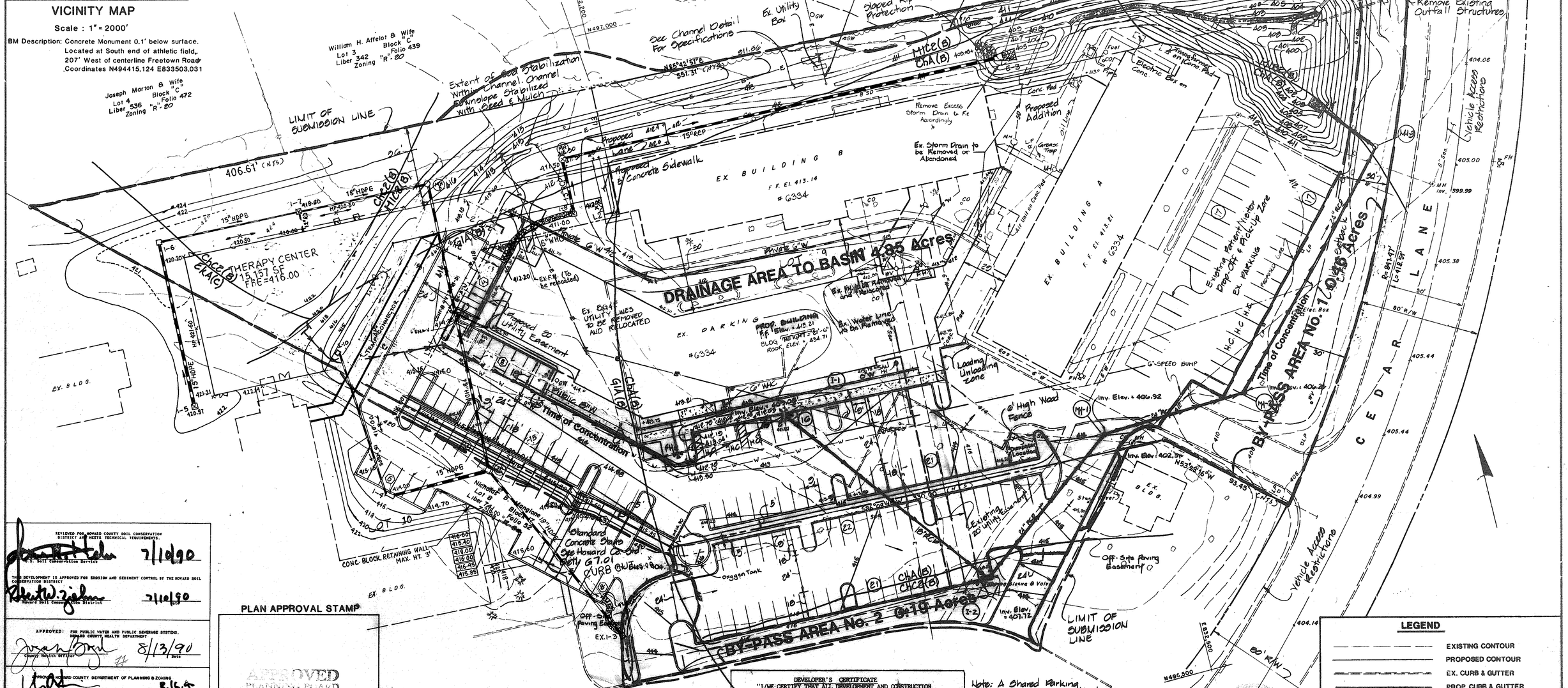
LINE	BEARING	DISTANCE
L1	N36°25'54"E	113.32'
L2	N86°09'29"E	92.29'
L3	N03°50'31"W	99.61'



VICINITY MAP

Scale : 1" = 2000'

BM Description: Concrete Monument 0.1' below surface. Located at South end of athletic field. 207' West of centerline Freetown Road. Coordinates N494415.124 E833503.031



Note: A Shared Parking Facility will be utilized for the Lorien Nursing Home (Lot 7) on the adjacent Harmony Hall Site (Lot 8) to satisfy the Parking requirement of the Howard County Zoning Regulations for the Lorien Nursing Home Facility in accordance with BA Case No. 89-08.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EX. CURB & GUTTER
- PROP. CURB & GUTTER
- FLOW DIRECTION
- DRAINAGE AREA LIMIT
- TIME OF CONCENTRATION
- ChA(B) SOILS DELINEATION

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. Soil Conservation Service — 7/10/90 Date

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

Howard Soil Conservation District — 7/10/90 Date

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

County Health Officer — 8/13/90 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — 8.16.90 Date

Chief, Division of Community Planning and Land Development — 8/16/90 Date

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

Director — 8/8/90 Date

Chief Bureau of Engineering — 7-25-90 Date

PLAN APPROVAL STAMP

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-20-90
SKS

ENGINEER'S CERTIFICATE

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

SIGNATURE OF ENGINEER — DATE 7/2/90

DEVELOPER'S CERTIFICATE

"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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — DATE 7/3/90

DESIGNED MAL.	8/89 DATE	
DRAWN SGP.	7/89 DATE	
CHECKED	DATE	
APPROVED	DATE	

REVISIONS

DATE	BY	DESCRIPTION
4-1-91	SGP	Prop. SS, Manhole is eliminated
4-20-09	KCE	ADDED THERAPY CENTER, REVISED PROPERTY LINE
4/26/10	KCE	Add Temp Connector, Oxygen Tank. Revise FH

STATE OF MARYLAND — DONALD V. RAYMUNDO — No. 6010 — REGISTERED PROFESSIONAL ENGINEER — 5/5/09

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS

3458 ELLICOTT CENTER DRIVE SUITE 101
ELLICOTT CITY, MD. 21043
(301) 461 - 9920

STATE OF MARYLAND — DONALD V. RAYMUNDO — No. 6010 — REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER

NICKOLAS B. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

Storm Water Management Drainage Area Map

BUILDING AND PARKING LOT ADDITION

LORIEN NURSING HOME EXPANSION

HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOT 9 & 10
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: 525 SEWER CODE: 6525200
5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD

SCALE: 1" = 30'	CONTRACT NO.	DATE: 5/90	SHEET: 3 of 10

SDP. 90-109

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of top soil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish, and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL

Material
The fill material shall be taken from an approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement
Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Compaction
Movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be compacted to 95% of AASHTO specification T-99. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Where a minimum required density is specified, each layer of fill shall be compacted as necessary to obtain that density and is to be certified by the Engineer.

Cutoff trench
Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be as shown on the drawings, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The sideslopes of the trench shall be 1:1 or flatter. The backfill material for the cutoff trench shall be of Unified Soil Classification SC or CL and shall be compacted with equipment or rollers to assure a density of 95% of AASHTO specification T-99 and minimum permeability.

III. STRUCTURAL BACKFILL
Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe.

Placement of structural backfill will be included as part of pipe or structure costs.

IV. PIPE CONDUITS
All pipes shall be circular in cross-section.

A. Corrugated metal pipe
1. Materials- (steel pipe)- This pipe and its appurtenances shall be galvanized and fully bituminous-coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings are commercially available: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.

2. Connections- All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.

3. Bedding- The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Laying pipe- The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.

5. Backfilling shall conform to structural backfill as shown above.

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe
1. Materials- Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.

2. Bedding- All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3", or as shown on the drawings.

3. Laying pipe- Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.

4. Backfilling shall conform to structural backfill as shown above.

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

V. CONCRETE
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications for Materials, Highways, Bridges and Incidental Structures, Article [illegible] Portland Cement Concrete Mixtures, Mix No. 3. Reinforcing steel shall be ASTM A615, Grade 60. Steel angles and anchor bars shall be ASTM A36.

Concrete, rebars and/or angles shall be paid for as part of the specific structures in which they are used.

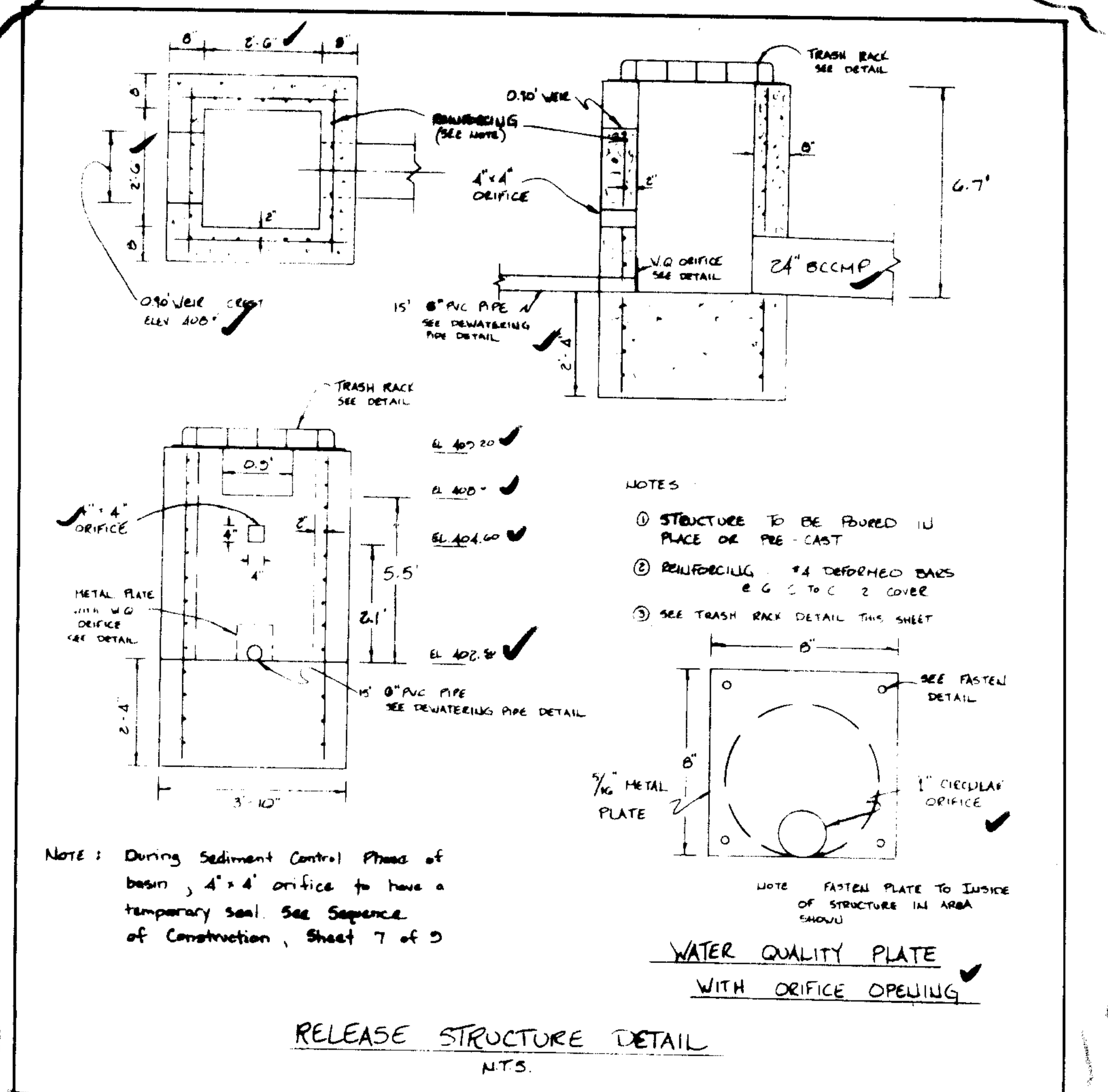
VI. GABIONS
Class 4 Stone-filled Wire Baskets (gabions) shall have PVC coated basket wire.

VII. FILTER CLOTH
Filter cloth shall meet the requirements of Baltimore County Standard Specifications Arts. 20.25-5 and 35.06. Acceptable filter cloths include Mirifi 140S, DuPont Typar #3341 or 3401, Supac 5P or equivalent.

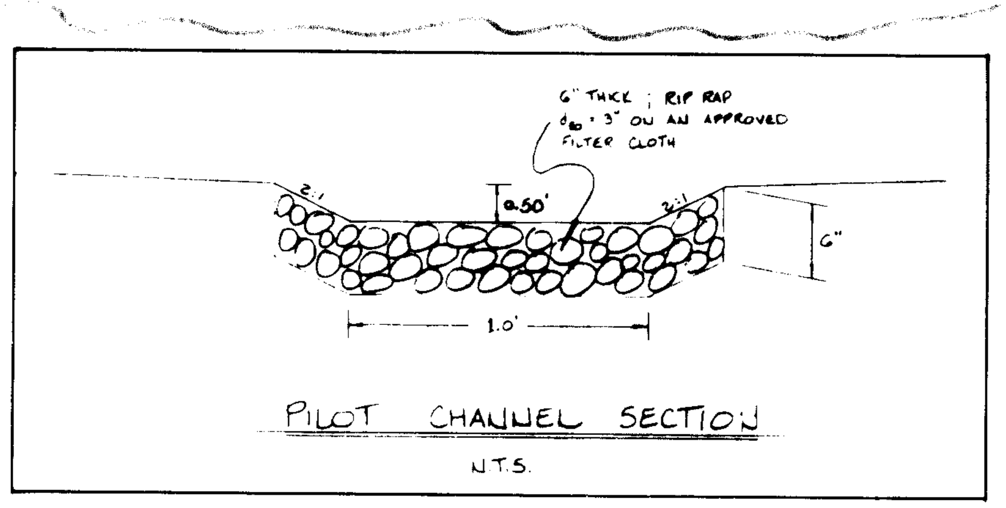
VIII. STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications or as shown on these drawings.

IX. EROSION AND SEDIMENT CONTROL
Construction operations shall be carried out in such a manner that erosion will be controlled and water and air pollution will be minimized. State and local laws concerning pollution abatement will be followed.

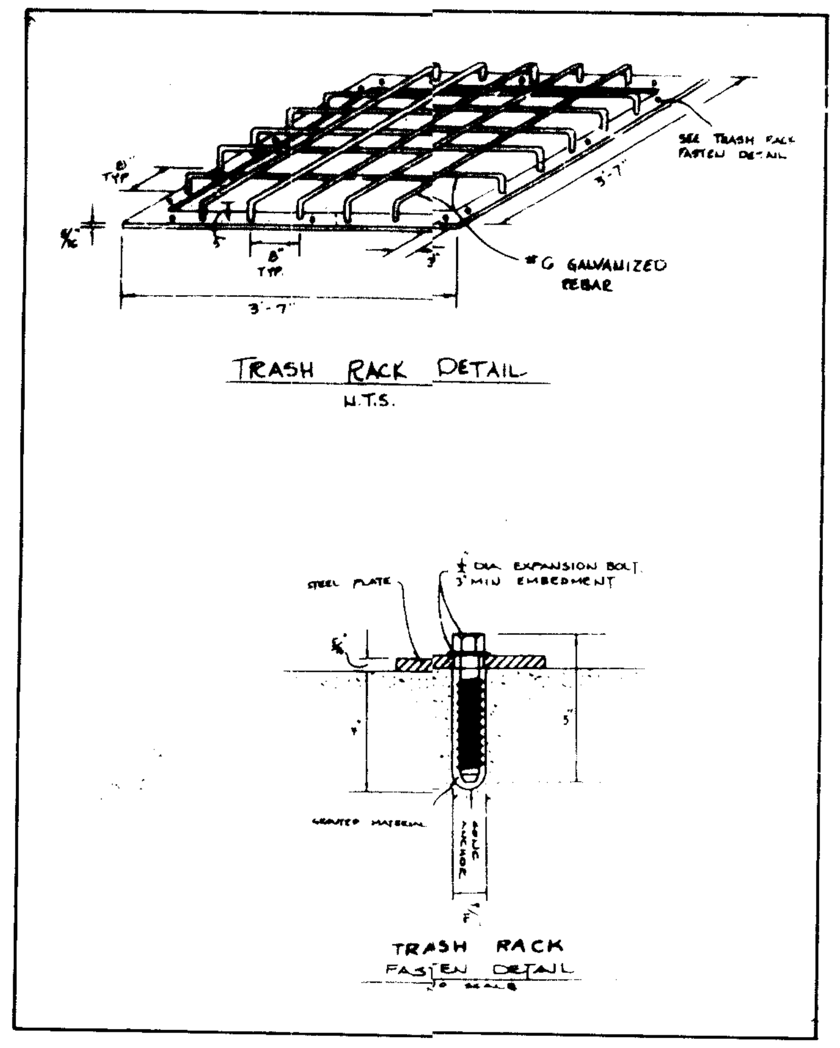
X. FENCE
Construct fencing in accordance with State Highway Administration Standard Details 690.01 and 690.02. Use specifications for a 6-foot fence, substituting 42" fabric and 6'-8" line posts. Construct the gate in accordance with MdSHA Standard Detail 692.01 with 42" fabric. The fabric used for the fence and gate must conform to AASHTO Designation M181-74.



RELEASE STRUCTURE DETAIL
N.T.S.



PILOT CHANNEL SECTION
N.T.S.



TRASH RACK DETAIL
N.T.S.

TRASH RACK
FASTEN DETAIL

PERMANENT SEEDING NOTES

Seedbed Preparation - Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding

Soil Amendments - Use one of the following schedules

1. Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 square ft.) and 600 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 urea form 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 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 reseedings.

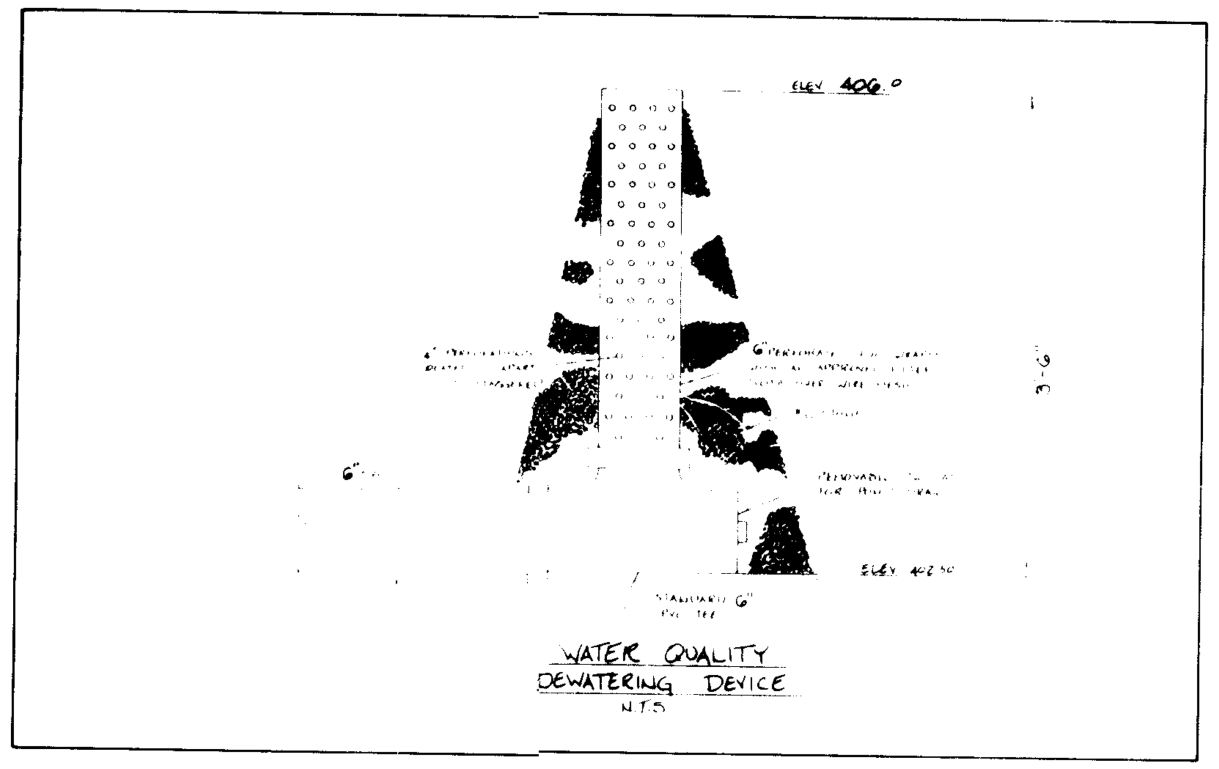
TEMPORARY SEEDING NOTES

Seedbed Preparation - Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments - Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.)

Seeding - For periods March 1 thru April 30 and from August 15 thru Nov. 15, seed with 2 1/2 bu. 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 weeping 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 (70-90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal./1000 sq. ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal. per acre (8 gal./1000 sq. ft.) for anchoring.



WATER QUALITY
DEWATERING DEVICE
N.T.S.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

7/10/90
U.S. Soil Conservation Service — Date

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

7/10/90
Howard Soil Conservation District — Date

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

8-13-90
County Health Officer — Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

8.16.90
Director — Date

8/16/9.
Chief, Division of Community Planning and Land Development — Date

JKS

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

(Acting) 8/8/90
Director — Date

Chief Bureau of Engineering — Date

SEDIMENT CONTROL & POND CONSTRUCTION

By the Developer:

"I/We certify that all development and/or construction will be done according to these plans, 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 will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

LOUIS MANGIONE 7/3/90
Signature of Developer — Date
Print name below signature

By the Engineer:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

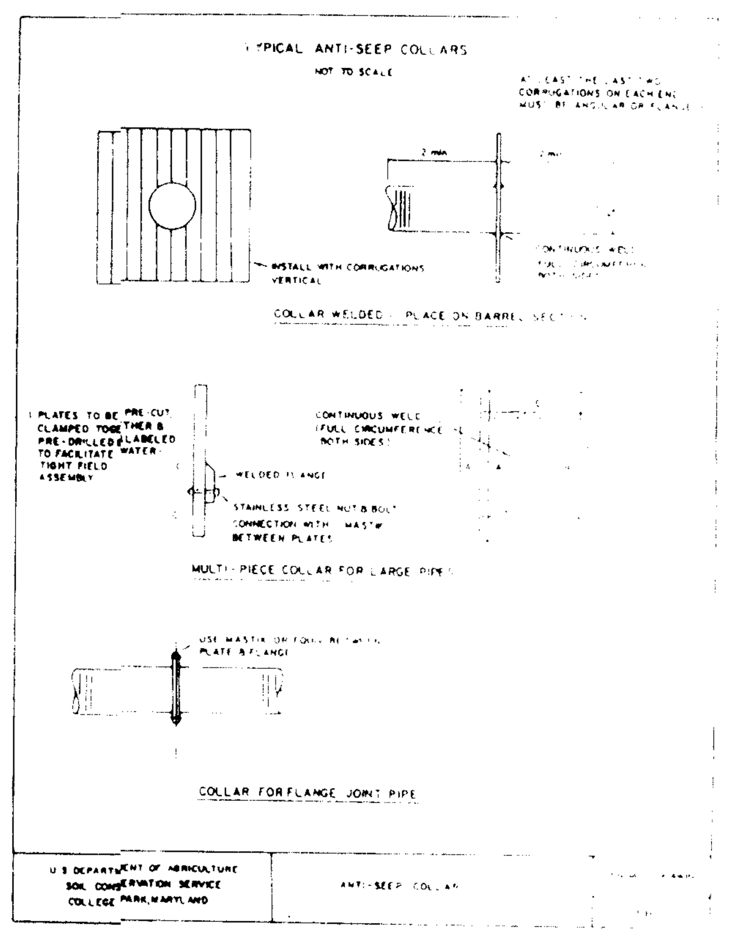
7/2/90
Signature of Engineer — Date
Print name below signature
D. VIR KATHURIA

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

7/10/90
U.S. Soil Conservation Service — Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District

7/10/90
Howard Soil Conservation District — Date



PLAN APPROVAL STAMP

APPROVED

Date 6-20-90

LKS

SWM AS BUILT

DESIGNED	DATE
DRAWN	DATE
CHECKED	DATE
APPROVED	DATE

REVISIONS

DATE	BY	DESCRIPTION

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE SUITE 101
ELLICOTT CITY, MD. 21043
(301) 461 - 9920

STATE OF MARYLAND — DHARAM V. KATHURIA — REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER

NICKOLAS B MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

SWM AS BUILT

Storm Water Management Details
BUILDING AND PARKING LOT ADDITION
LORIEN NURSING HOME EXPANSION
HERDING PROPERTY
PARCEL 365
TAX MAP 35, LIBER
WATER CODE E28 SEWER
5th ELECTION DISTRICT CENSUS TRACT NO.

SCALE As Shown CONTRACT NO. DATE 5/90

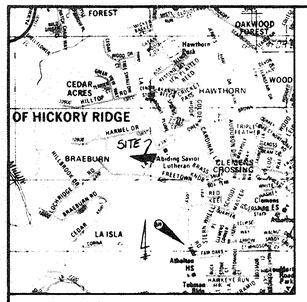
SDP-90-109

NOTE: THIS PLAN USED FOR EROSION AND SEDIMENT CONTROL ONLY. FOR CONSTRUCTION PLANS SEE SHEET 1 of 3.

NOTE: 1. INLETS I-4, I-5, I-6, I-7, I-8 AND EX.I-2 AND EX.I-3 TO BE WRAPPED AROUND WITH SUPER SILT FENCE.

2. EROSION CONTROL MATTING (ECM) TO BE PLACED IN ALL PROPOSED SWALES.

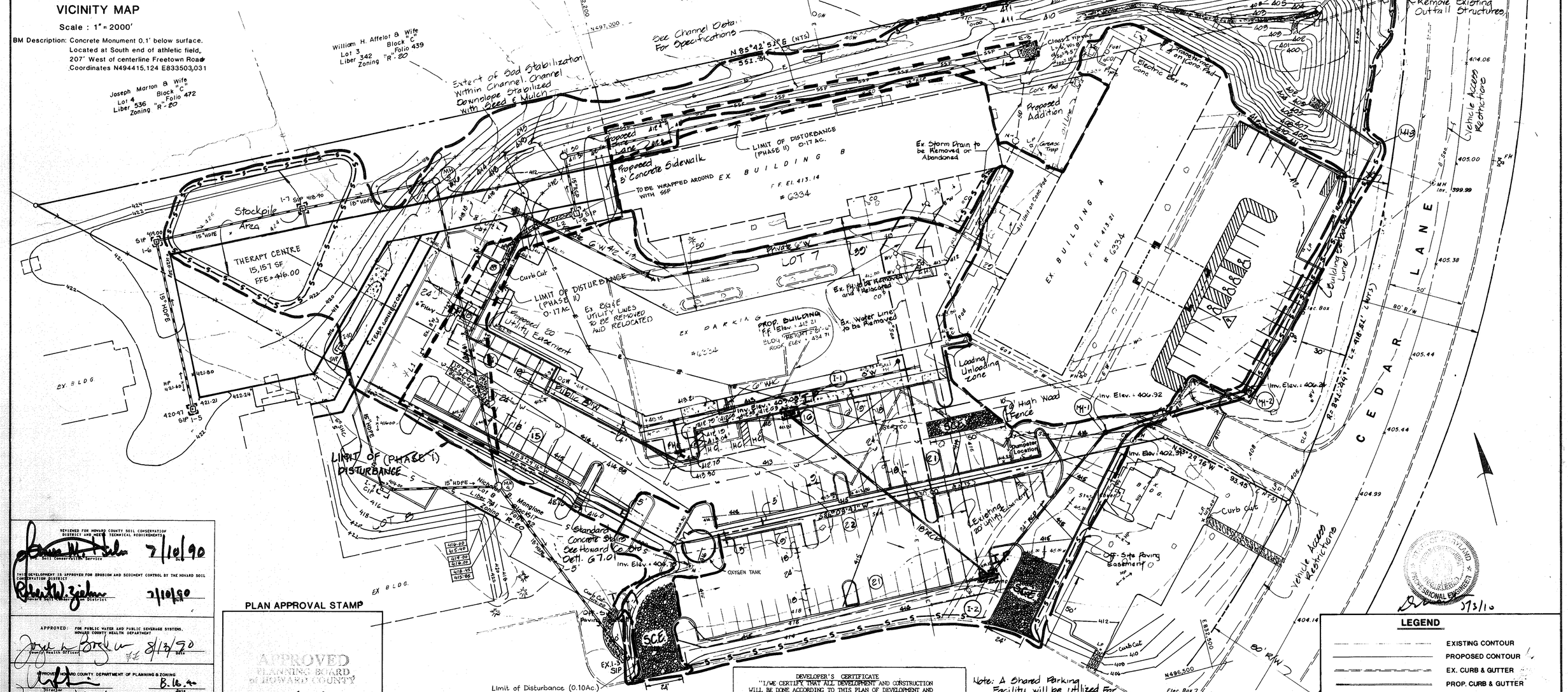
LINE	BEARING	DISTANCE
L1	N36°25'54"E	113.32'
L2	N86°09'29"E	92.29'
L3	N03°50'31"W	99.67'



VICINITY MAP

Scale : 1" = 2000'

BM Description: Concrete Monument 0.1' below surface. Located at South end of athletic field, 207' West of centerline Freetown Road. Coordinates N494415.124 E833503.031



PLAN APPROVAL STAMP

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS — For: Soil Conservation Service — 7/10/90 Date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT — Howard Soil Conservation District — 7/10/90

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT — Howard County Health Officer — 8/3/90 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING — Director — 8/16/90 Date — Chief, Division of Community Planning and Land Development

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS — Director — 8/8/90 Date — Chief, Bureau of Engineering — 7-25-90 Date

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 6-20-90
LRS

ENGINEER'S CERTIFICATE

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

SIGNATURE OF ENGINEER — DATE 7/2/90

DEVELOPER'S CERTIFICATE

"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 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — DATE 7/3/90

Note: A Shared Parking Facility will be utilized for the Lorien Nursing Home (Lot 7) on the adjacent Harmony Hall Site (Lot 8) to satisfy the Parking requirement of the Howard County Zoning Regulations for the Lorien Nursing Home Facility in accordance with BA Case No. 89-08.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EX. CURB & GUTTER
- PROP. CURB & GUTTER
- FLOW DIRECTION
- LIMIT OF DISTURBANCE
- I.P. INLET PROTECTION
- SILT FENCE
- SCE STABILIZED CONSTRUCTION ENTRANCE

DESIGNED MAL	5/89	DATE
DRAWN SDP	7/89	DATE
CHECKED		DATE
APPROVED		DATE

REVISIONS

DATE	BY	DESCRIPTION
7-31-06	KCE	NEW CANOPY & BLDG. & PARKING LOT RE-STRIPED & EXPANDED
4-28-09	KCE	ADDED THERAPY CENTER, REVISED PROPERTY LINE
4/28/10	KCE	Add Temp. Connector, Oxygen Tank

STATE OF MARYLAND — DARRAH K. KARTHIKA — NO. 6613 — REGISTERED PROFESSIONAL ENGINEER — 7/5/09

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS

3458 ELLICOTT CENTER DRIVE SUITE 101

ELLICOTT CITY, MD. 21043

(301) 461 - 9920

STATE OF MARYLAND — DARRAH K. KARTHIKA — NO. 6613 — REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER

NICKOLAS B. MANGIONE

1205 YORK ROAD

LUTHERVILLE, MARYLAND 21093

Erosion & Sediment Control Plan

BUILDING AND PARKING LOT ADDITION

LORIEN NURSING HOME EXPANSION

HEPDING PROPERTY SUBDIVISION

PARCEL 365 LOT 9 & 10

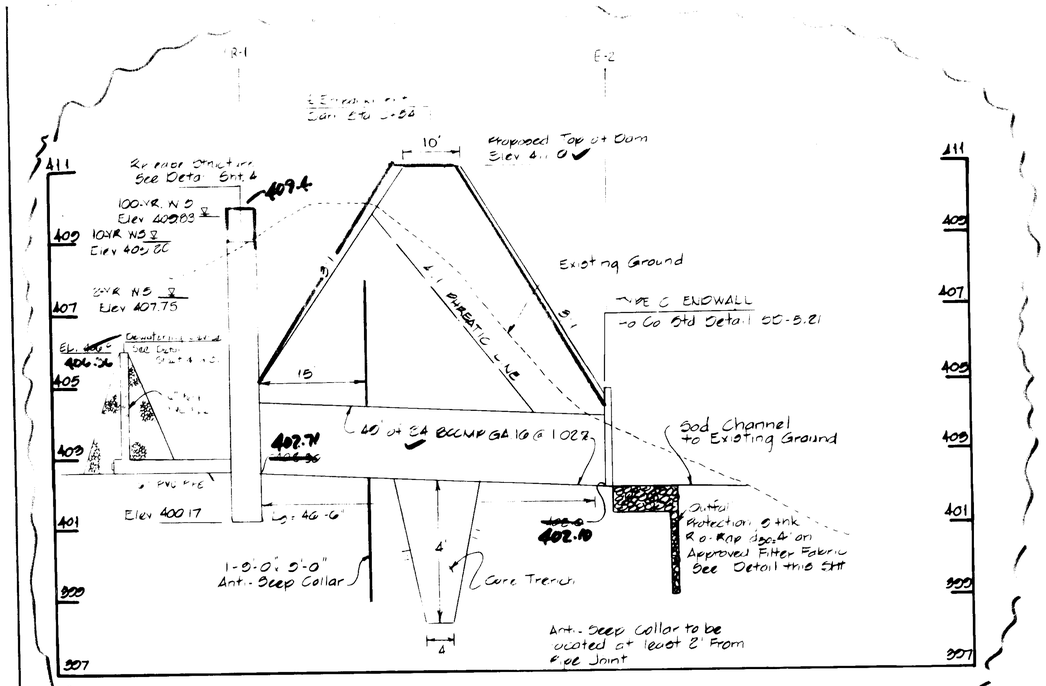
TAX MAP 35, LIBER 741 FOLIO 52

WATER CODE: E28 SEWER CODE: S326200

5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD.

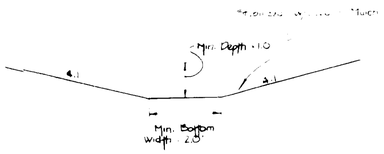
SCALE: 1" = 30'	CONTRACT NO.	DATE 5/90	SHEET: 5 of 10

SDP-90-109



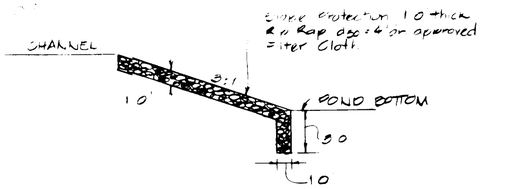
PRINCIPAL SPILLWAY PROFILE

SCALE 1" = 10' HORZ
1" = 2' VERT



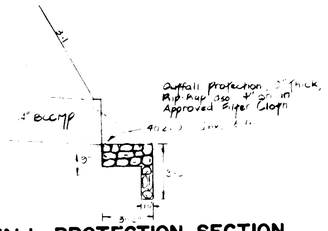
CHANNEL SECTION DETAIL

N.T.S.



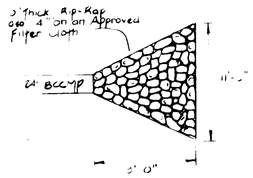
RIP-RAP SLOPE PROTECTION

NTS



OUTFALL PROTECTION SECTION

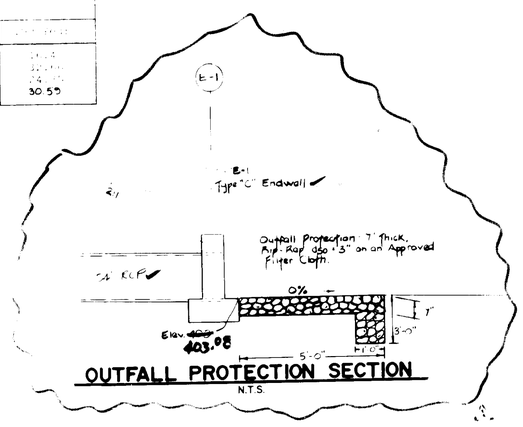
N.T.S.



PRINCIPAL SPILLWAY OUTFALL PROTECTION PLAN VIEW

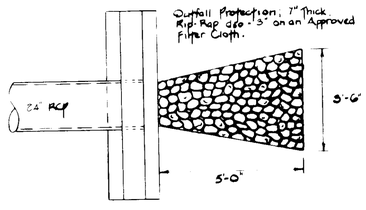
N.T.S.

	Discharge		
	2 Year	10 Year	100 Year
Existing Conditions	[illegible]	7.6	[illegible]
Proposed Conditions	11.09	21.41	[illegible]
Prop. after SWM	3.02	4.83	[illegible]
During Construction	4.03	17.27	30.55



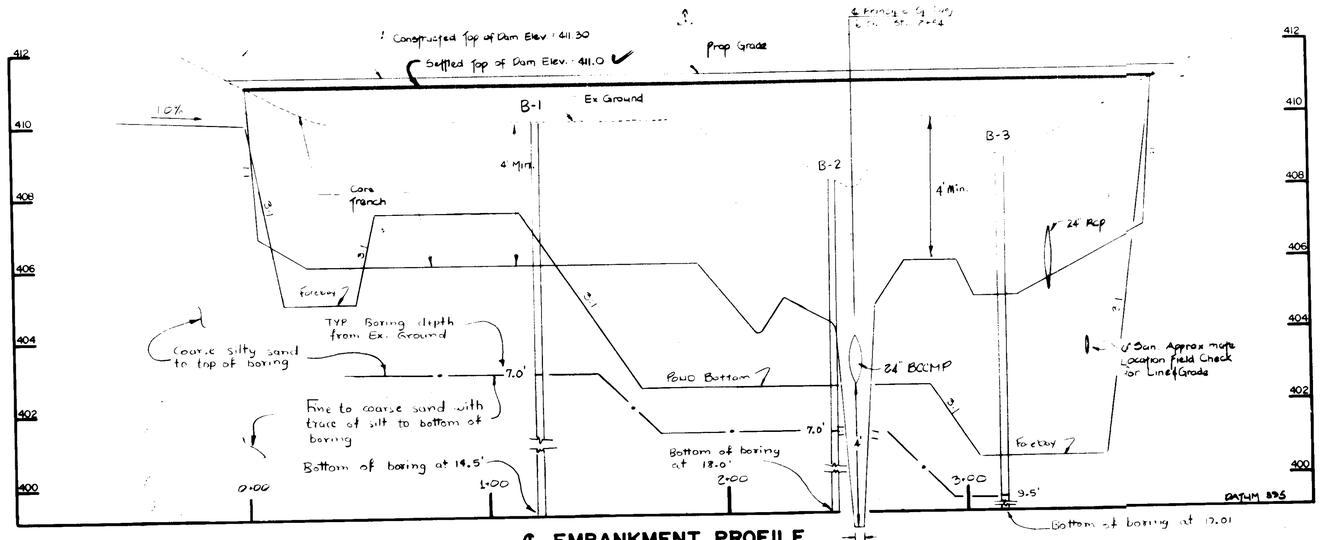
OUTFALL PROTECTION SECTION

N.T.S.



STORM DRAIN OUTFALL PROTECTION PLAN

N.T.S.



℄ EMBANKMENT PROFILE

SCALE 1" = 30' HORZ.
1" = 2' VERT.

PLAN APPROVAL STAMP

APPROVED
PLANS
FOR SWM

6-20-90
JKS

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
Howard County Conservation Service — 7/10/90

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Howard County Conservation District — 7/10/90 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
Howard County Health Officer — 8/3/90 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director — 8/16/90 Date
Chief, Division of Community Planning and Land Development — 8/15/90 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director — 8/8/90 Date
Chief Bureau of Engineering — Date

SWM AS BUILT
9-1-90

SWM AS BUILT

DESIGNED		DATE	
DRAWN	SGP	DATE	7/89
CHECKED		DATE	
APPROVED		DATE	

REVISIONS

DATE	BY	DESCRIPTION
[illegible]	[illegible]	[illegible]

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE SUITE 101
ELLICOTT CITY, MD 21043
(301) 461-9920

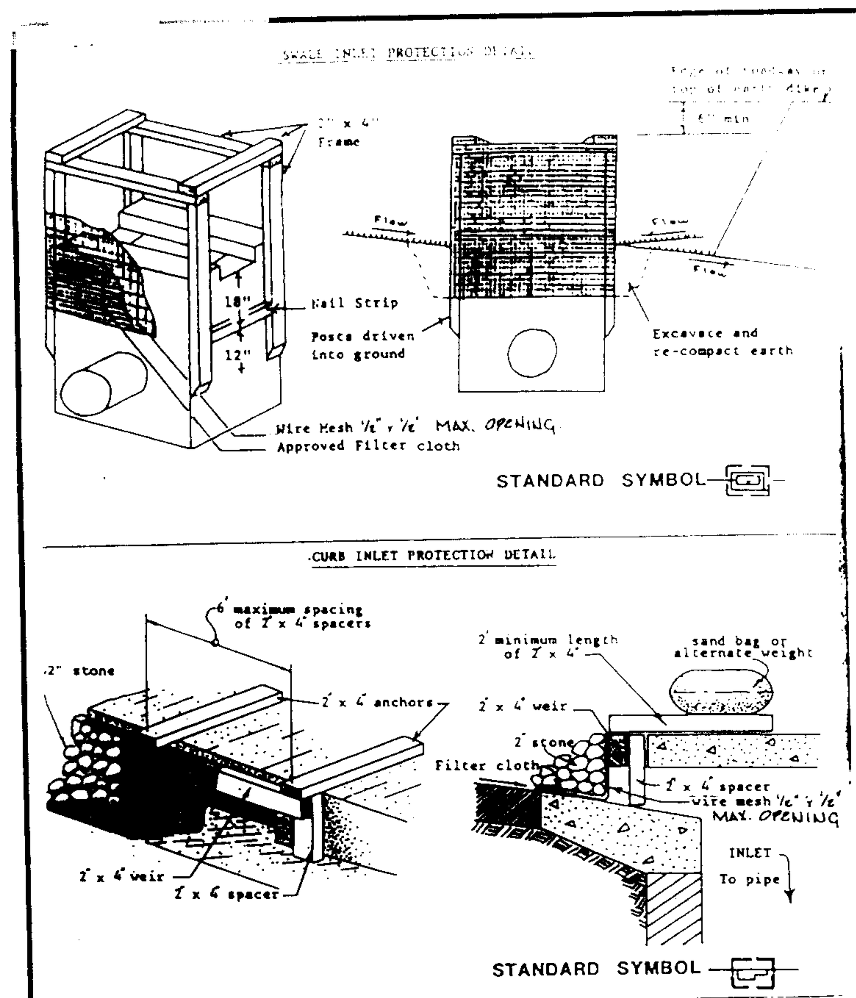
DEAN V. KAPUSNIA — MARYLAND — No. 19668 — REGISTERED PROFESSIONAL ENGINEER

NICKOLAS B. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

SWM/Sediment Control Basin Profiles & Details
BUILDING AND PARKING LOT ADDITION
LORIEN NURSING HOME EXPANSION
HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOT 7 & 8
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: E28 SEWER CODE: S328200
5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD

SCALE As Shown	CONTRACT NO	DATE: 5/90	SHEET 6 of 5

SDP-90-109



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	INLET PROTECTION DETAIL	STANDARD DRAWING IPD—1

Construction Specifications

I. Materials

A. Wooden frame is to be constructed of 2" x 4" construction grade lumber.

B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.

C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, EOS, 40-85, to allow sufficient passage of water and removal of sediment.

4. Stone is to be 2" in size and clean, since fines would clog the cloth.

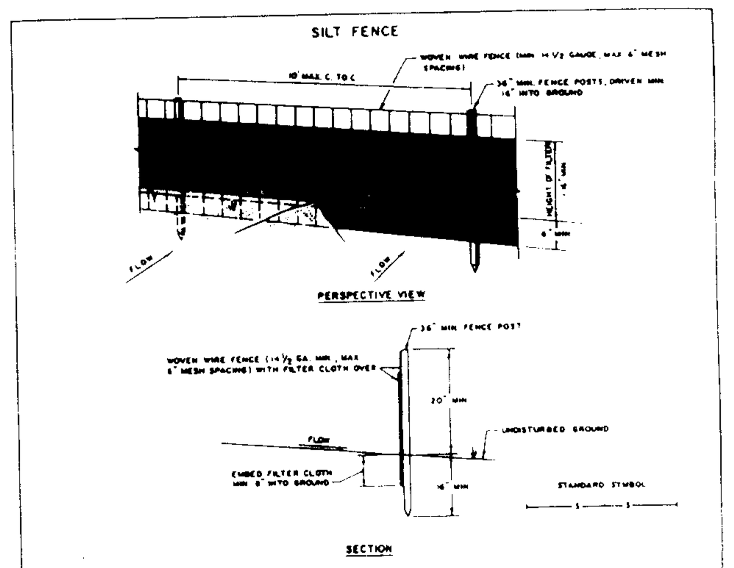
II. Procedure

A. A swale, ditchline or yard inlet protection.

1. Excavate completely around inlet to a depth of 18" below notch elevation.
2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
7. This structure must be inspected frequently and the filter fabric replaced when clogged.

B. Curb Inlet Protection.

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.



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.

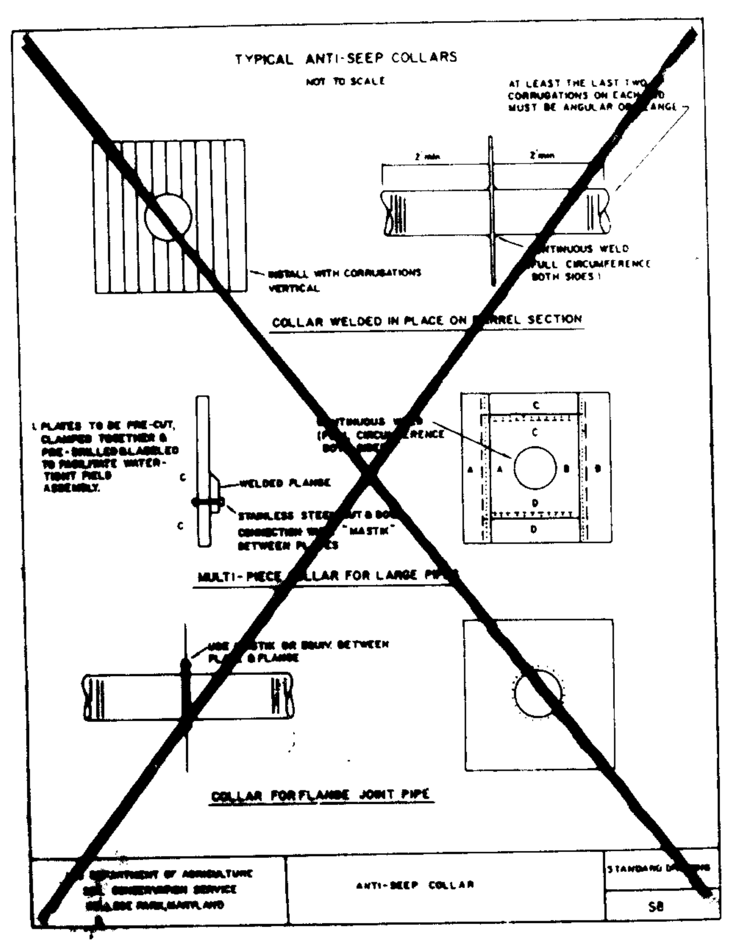
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

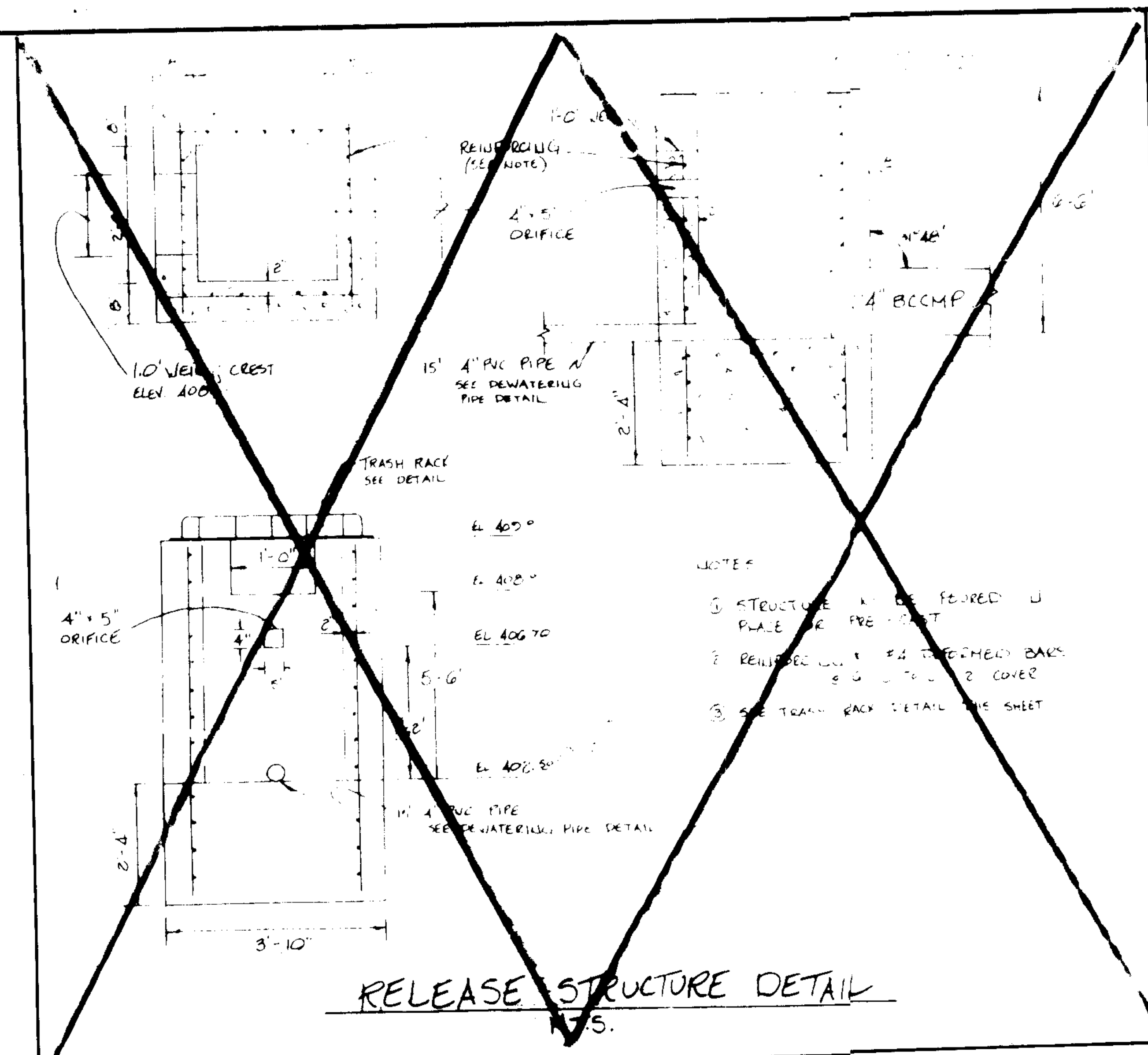
FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING

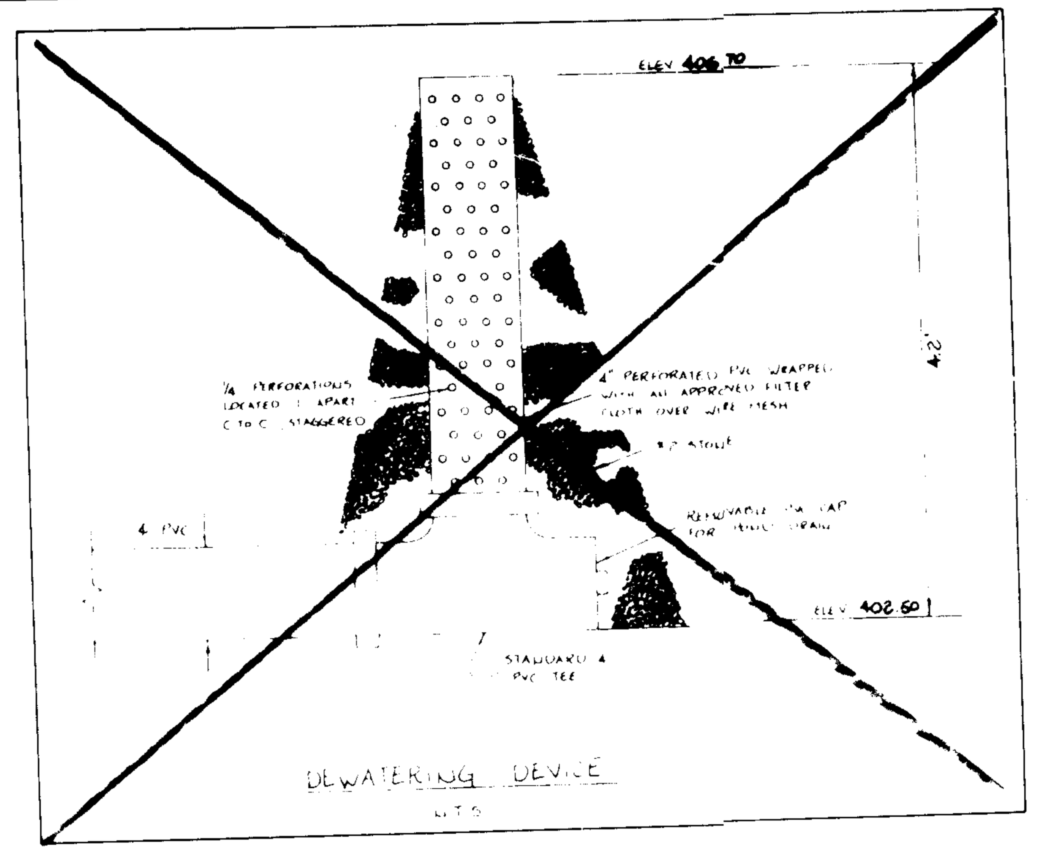
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

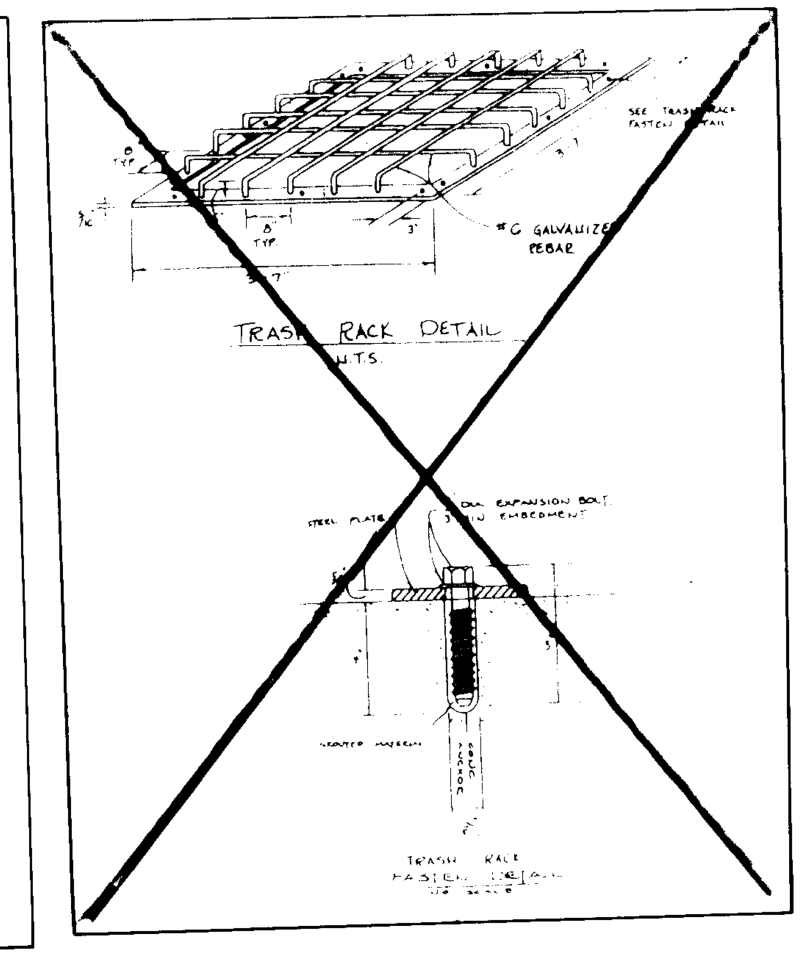
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	SILT FENCE	STANDARD DRAWING SF-1









... POND CONSTRUCTION

"I certify that all development and/or construction will be done according to these plans, 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 will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Louis Mangione 7/3/90
LOUIS MANGIONE
Signature of Developer — Date
Print name below signature

By the Engineer

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Signature of Engineer — Date
Print name below signature
DVIR KATHURIA

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

7/10/90
U.S. Soil Conservation Service — Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District

Robert W. Ziehm 7/10/90
Howard Soil Conservation District — Date

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

U.S. Soil Conservation Service — Date

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

Howard Soil Conservation District — Date

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

County Health Officer — 8/13/90 Date

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — 8.16.90 Date

Chief, Division of Community Planning and Land Development — 8/10/90 Date
LKS

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

(Acting) Director — 8/8/90 Date

Chief Bureau of Engineering — Date

PLAN APPROVAL STAMP

APP... D
PLAN...
of HO... Y
DATE 6-20-90
LKS

SEDIMENT CONTROL NOTES

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: 4.04 Acres
   - Area Disturbed: 3.26 Acres
   - Area to be roofed or paved: 1.38 Acres
   - Area to be vegetatively stabilized: 1.88 Acres
   - Total Cut: 13,890 Cu. yds
   - Total Fill: — Cu. yds
   - Offsite waste/borrow area 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 DPW 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.

PERMANENT SEEDING NOTES

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Use one of the following schedules:

1. Preferred: Apply 2 tons per acre dolomitic limestone (92 lbs./1000 square ft.) and 600 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 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 ga./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 reseedings.

TEMPORARY SEEDING NOTES

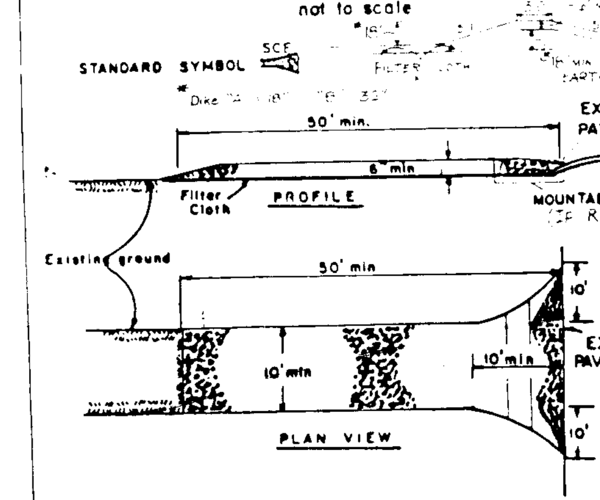
Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru Nov. 15, seed with 2 1/2 bu. 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 weeping 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 (70-90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal./1000 sq. ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal. per acre (8 gal./1000 sq. ft.) for anchoring.

STABILIZED CONSTRUCTION ENTRANCE
not to scale



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 ft. (except on a single residence lot where a 30 ft minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) ft. minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-1

SEQUENCE OF CONSTRUCTION

1. Obtain grading permit.
2. Clear minimum area required and construct sediment control/stormwater management basin in accordance with the basin plans and specifications as shown. Remove existing outfall structure. Construct proposed principal spillway structure, sediment control dewatering device, release structure with appropriate orifice seal and pilot channel. Note, western portion of stormwater management basin will not be excavated during sediment control phase of basin development.
3. Install appropriate sediment control measures for construction of Southern parking and drive areas.
4. Clear and rough grade for construction of southern parking and drive areas.
5. Fine grade above mentioned areas and relocate ex. 8" water line to locate prior to existing parking area. (See water line Profile).
6. Install proposed storm drain from I-2 to E-1. Provide inlet protection at storm drain inlets.
7. Pave and curb southern parking and drive areas.
8. Install remaining sediment control measures for site development.
9. Remove existing paving where necessary. Clear remaining areas within limits of disturbance and rough grade area.
10. Relocate BG&E utility lines.
11. Fine grade the site and remove existing storm drain system.
12. Instal utilities (remaining storm drain system, proposed water line, proposed fire hydrants and sanitary sewer manhole), pavement and appurtenances, and construct buildings and diversion channel. Provide inlet protection at storm drain inlets.
13. Upon completion of installation of utilities, pavement and building, stabilize all areas needed.
14. Upon approval from sediment control inspector, remove all sediment control measures and convert sediment basin to stormwater management basin: remove all sediment, complete pond excavation, remove orifice seal and install water quality orifice plate to structure as per specifications shown. Stabilize all affected areas immediately.

DESIGNED ______	DATE	
DRAWN ______	DATE	
CHECKED ______	DATE	
APPROVED ______	DATE	

REVISIONS

DATE	BY	DESCRIPTION

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
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ELLICOTT CITY, MD. 21043
(301) 461 - 9920

OWNER / DEVELOPER

NICKOLAS B MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

Erosion & Sediment Control Details

BUILDING AND PARKING LOT ADDITION

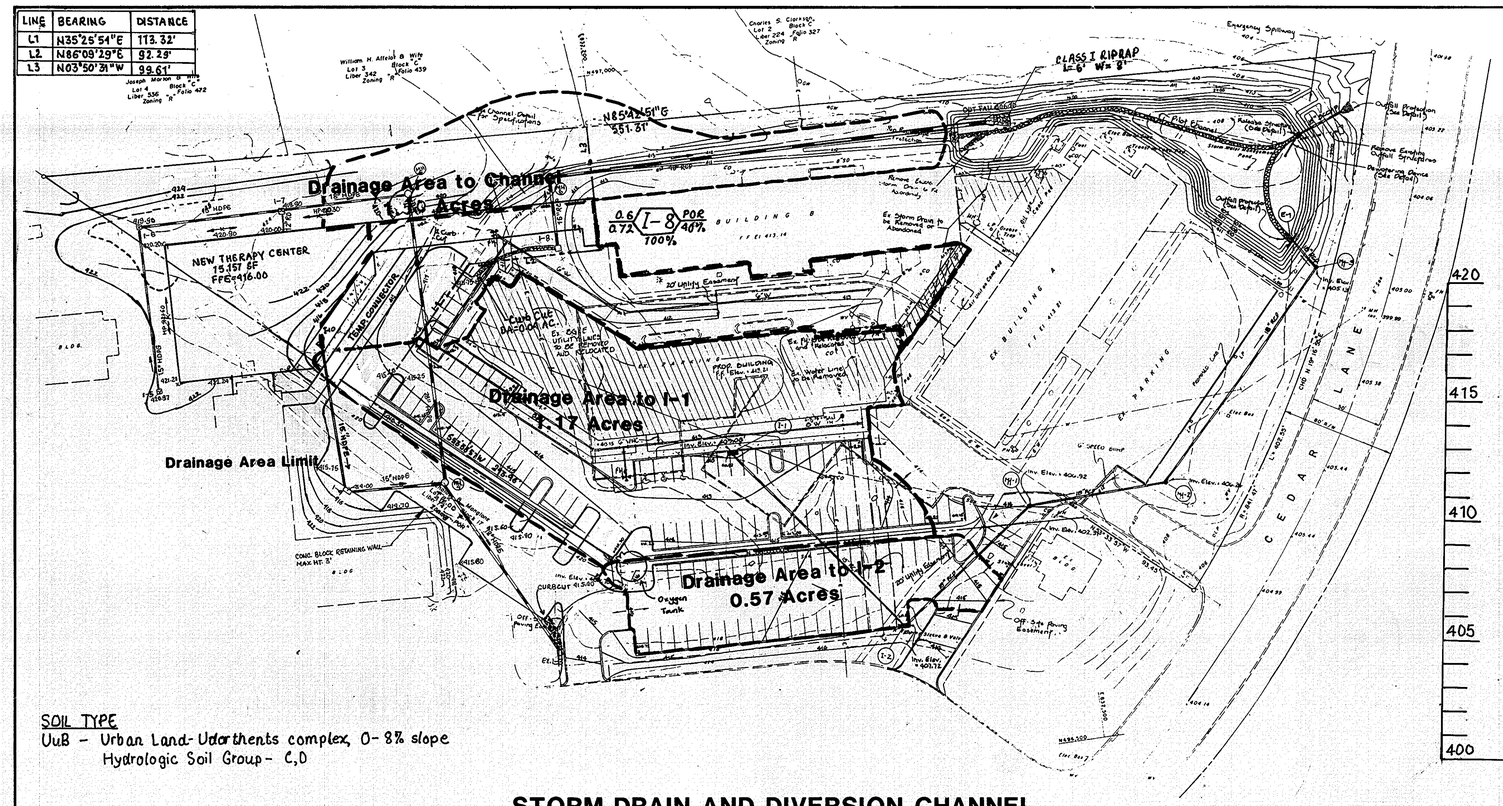
LORIEN NURSING HOME EXPANSION

HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOT 7 & 8
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: E28 SEWER CODE: 5326200
5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD

SCALE: As Shown	CONTRACT NO	DATE 5/90	SHEET 7 of 9

SDP-90-109

LINE	BEARING	DISTANCE
L1	N35°25'54"E	113.32'
L2	N86°09'29"E	92.29'
L3	N03°50'31"W	99.61'



SOIL TYPE

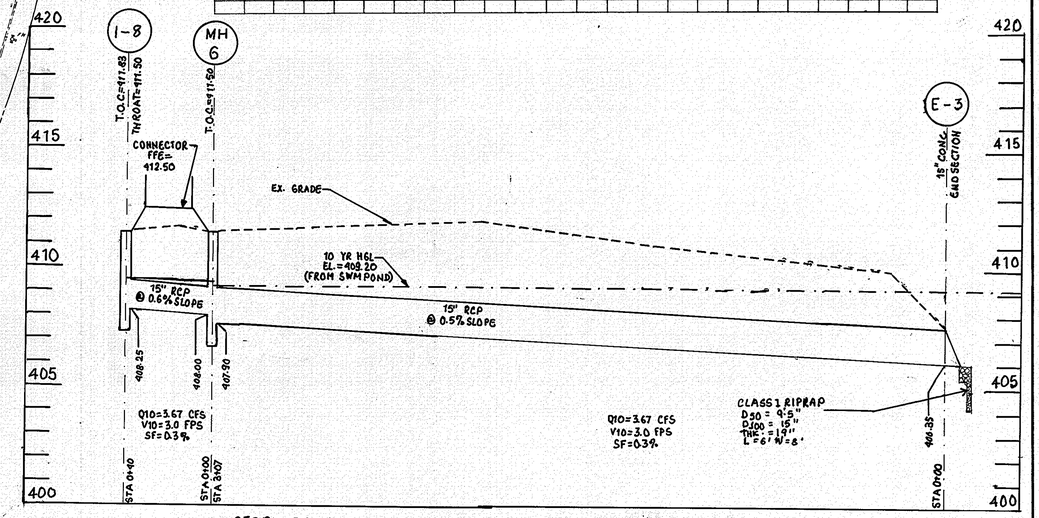
UuB - Urban Land-Udorthents complex, 0-8% slope
Hydrologic Soil Group - C,D

STORM DRAIN AND DIVERSION CHANNEL

DRAINAGE AREA MAP

Scale: 1" = 50'

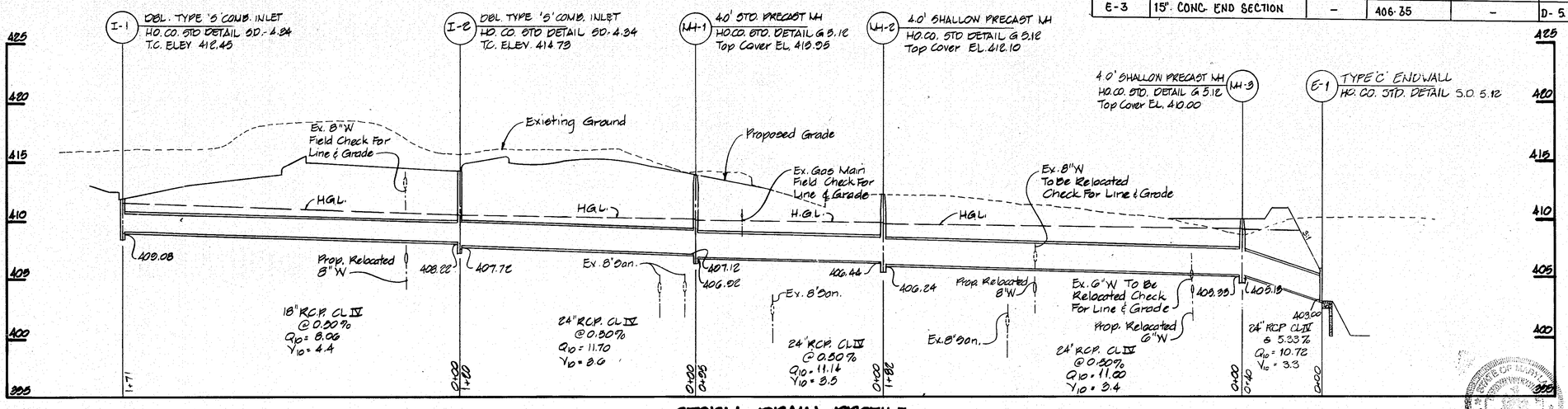
HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS																							STORM WATER DESIGN SHEET	
		A. Conduit					B. Drainage Area & Runoff							C. Full Flow			D. Structure Losses						E. Hydraulic Grade Line	
Reach (1)	Struct. (2)	Type Dia. (3)	n (4)	Ground Elev. (5)	S % (6)	Invert Elev. (7)	Σ DA Δ DA (8)	C or S Imp. (9)	Σ tc Δ tc or Σ Δt (10)	tc Δ tc (11)	F.I. I or Avb. (12)	Q₂ Q₂ (13)	A Q/S₂^½ (14)	V₂ V₂²/2g (15)	S₂ S₂ (16)	Q₁/Q₂ (17)	A Mult. (18)	B Mult. (19)	C Mult. (20)	D Mult. (21)	Total (22)	In (23)	Out (24)
I-1	END. SECTION	RCP	0.013	411.87	0.005	409.40	1.17	0.81	0.46	5.0	8.5	8.06	1.77	4.4	0.000	45							411.06
I-2	" "	18"	17.1'	414.15	0.0707	409.53	0.57	0.81	0.46	0.30		3.64	1.05.44									410.53	
I-2	" "	RCP	0.013	" "	0.005	407.72	1.74	0.81	1.41	5.3	8.3	11.70	3.14	3.6	0.0006	0	0.12	-0.10	0.05	0.06	0.13		410.46
MH-1	SHALLOW RC MH	24"	120'	415.00	0.0707	407.15	—	—	—	0.70		—	226.22				1	1	1	1		410.15	
MH-1	" "	RCP	0.013	" "	0.005	406.28	1.74	0.81	1.41	6.0	7.9	11.14	3.14	3.5	0.0005	0	0.09	-0.01	0.03	0	0.11		410.04
MH-2	SHALLOW RC MH	24"	55'	411.05	0.0707	406.44	—	—	—	0.90		—	226.22				1	1	5/8	1/2		409.80	
MH-2	" "	RCP	0.013	" "	0.005	406.24	1.74	0.81	1.41	6.3	7.8	11.00	3.14	3.4	0.0024	0	0.08	-0.01	0.03	0	0.10		409.70
MH-3	SHALLOW RC MH	24"	152'	410.0	0.0707	405.33	—	—	—	0.70		—	226.22				1	1	5/8	1/2		409.20	
MH-3	" "	RCP	0.013	"	0.0535	405.10	1.74	0.81	1.41	7.0	7.6	10.72	3.14	3.3	0.0022	0	0.07	-0.01	0.03	0	0.15		409.11
E-1	TYPE "C" ENDWALL	24"	40'	405.75	0.0500	403.00	—	—	—	0		—	226.22				1	1	3	1		401.02	



STORM DRAIN PROFILE FROM I-8 TO E-3
SCALE: 1"=5' V, 1"=50'H

PIPE SCHEDULE	
TYPE	LENGTH
15" RCP, Class IV	347'

STRUCTURE SCHEDULE					
NO.	TYPE	INV. ELEV. (IN)	INV. ELEV. (out)	TOP OF COVER /GRATE	HO. CO. STD. DETAIL
MH-6	SHALLOW BRICK MANHOLE	408.00	407.90	411.50	G-9.05
I-8	TYPE "D" INLET	-	408.25	411.83	D-4.11
E-3	15" CONC. END SECTION	-	406.35	-	D-5.51



STORM DRAIN PROFILE

SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'

PLAN APPROVAL STAMP

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 6-20-90
dks

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
U.S. SOIL CONSERVATION SERVICE — 7/10/90 DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
HOWARD SOIL CONSERVATION DISTRICT — 7/10/90 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — 8/13/90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director — 8.16.90 DATE
Chief, Division of Community Planning and Land Development — 8/6/90 DATE
dks

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director — 8/8/90 DATE
Chief, Bureau of Engineering — 7-25-90 DATE

		DATE	BY	REVISIONS DESCRIPTION
DESIGNED	DATE	4-28-09	KCE	SD PROFILE, SD STRUCTURE SCHEDULE
DRAWN	DATE	4/28/10	KCE	ADD TEMP. CONNECTOR, OXYGEN TANK
CHECKED	DATE			
APPROVED	DATE			

STATE OF MARYLAND — DRAKAN V. KAMGARIAN — NO. 8810 — REGISTERED PROFESSIONAL ENGINEER — 7/5/10

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS
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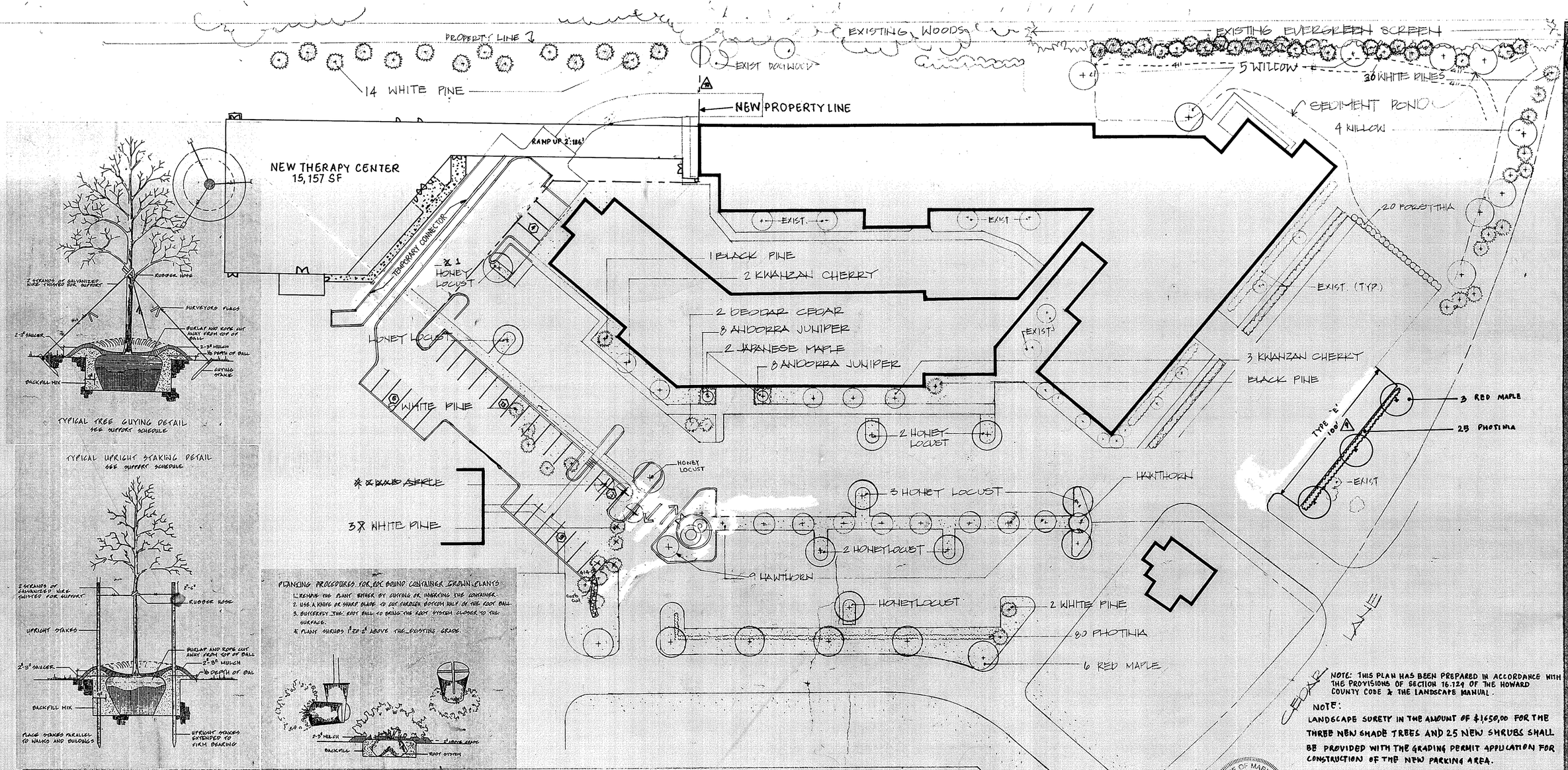
SDP-90-109



TYPICAL TREE GUYING DETAIL
SEE SUPPORT SCHEDULE

TYPICAL UPRIGHT STAKING DETAIL
SEE SUPPORT SCHEDULE

PLANTING PROCEDURES FOR B&B AND CONTAINER GROWN PLANTS

1. REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER.
2. USE A KNIFE OR SHARP BLADE TO DIG THROUGH BOTTOM HALF OF THE ROOT BALL.
3. BUTTERFLY THE ROOT BALL TO BRING THE ROOT SYSTEM CLOSER TO THE SURFACE.

* PLANT SHRUBS 1" TO 2" ABOVE THE EXISTING GRADE.

PLANT LIST

QTY.	NAME		SIZE		SPECIFICATIONS	
2	BLACK PINE	PINUS THUNBERGII	6'-7'		FULL TO BASE - WITH CHARACTER	
64	WHITE PINE	PINUS STROBUS	5'-6'		FULL TO BASE - DENSE - FULL	
12	HONEY LOCUST	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	2"-2 1/2" CAL.	12'-14' HT.	STRAIGHT TRUNK - 5' CLEAR STEM - FULL HEAVY HEAD	B&B
5	KWANZAN CHERRY	PRUNUS SERRULATA KWANZAN	6'-8' HT		STRAIGHT TRUNK - FULL - DENSELY BRANCHED HEAD	B&B
10	WASHINGTON HAWTHORN	CRATAEGUS PHAENOPYRUM	6'-8' HT		MULTI-STEM (MIN 3) CLUMP - DENSELY BRANCHED	B&B
4	CRABAPPLE	MALUS FLORIBUNDA	6'-8' HT.		FULL - WIDE - DENSELY BRANCHED HEAD	B&B
9	RED MAPLE	ACER RUBRA 'OCTOBER GLORY'	2" 2 1/2" CAL.	12'-14' HT.	STRAIGHT TRUNK - CLEAR 5' STEM - FULL HEAVY HEAD	B&B
2	DEODAR CEDAR	CEDRUS DEODARA	8'-10' HT.		FULL TO BASE - DENSE & FULL	B&B
2	JAPANESE MAPLE	ACER PALMATUM ATROPURPUREUM 'BLOODGOOD'	5'-6' HT.		SPECIMEN - MATCHED - BALANCED HEAD	B&B
16	ANDORRA JUNIPER	JUNIPERUS HOR. 'PLUMOSA COMPACTA'	15"-18" SPR.		FULL 36" O.C. CONTAINER	
9	WILLOW	SALIX BABYLONICA 'AUREA'	5'-6' HT.		STRAIGHT TRUNK	B&B
105	PHOTINIA	PHOTINIA FRAZERII	24"-30" HT.		MULTI-CANE CLUMP - FULL	B&B
20	FORSYTHIA	FORSYTHIA 'LYNWOOD GOLD'	3'-4' HT.		MULTI-CANE CLUMP - DENSE	B&B

NOTE: THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE & THE LANDSCAPE MANUAL.

NOTE:
LANDSCAPE SURETY IN THE AMOUNT OF $1,650.00 FOR THE THREE NEW SHADE TREES AND 25 NEW SHRUBS SHALL BE PROVIDED WITH THE GRADING PERMIT APPLICATION FOR CONSTRUCTION OF THE NEW PARKING AREA.

NO.	BY	REVISION	DATE
3	KCE	NEW CANOPY @ BLDG. & PARKING LOT EXPANDED	7-31-90
2	KCE	PERIMETER LANDSCAPING ADDED Revise Parking Lot Landscaping	4/26/90
1	KCE	New Therapy center & ramp	4-28-89

STATE OF MARYLAND — DAVID W. KAMINSKI — REGISTERED PROFESSIONAL ENGINEER

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Howard Soil Conservation Service — 7/10/90 Date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Howard Soil Conservation District — 7/10/90 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
County Health Officer — 8/13/90 Date

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Director — 8-16-90 Date
Chief, Division of Community Planning and Land Development — 8/16/90 Date
LKS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director — 8/8/90 Date
Chief Bureau of Engineering — 7-25-90 Date

STATE OF MARYLAND — DAVID W. KAMINSKI — REGISTERED PROFESSIONAL ENGINEER
5/31/90

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 6-20-90
LKS

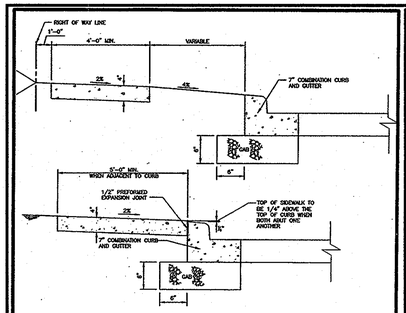
STATE OF MARYLAND — REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT

Walter Kerr Poole Design Associates, Ltd.
Landscape Architecture • Land Development Consulting
10450 Freeman Street, Columbia, Maryland 21044
Phone (301) 730-8888

LANDSCAPE PLAN
FOR THE NEW THERAPY CENTER

SHEET 2 OF 2
PROJECT NO. 89-109
DATE JUNE 29, 1990
SCALE 1" = 20'

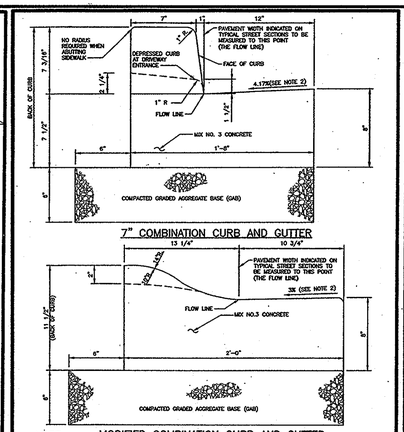
SDP-90-109



NOTES:

1. SIDEWALK TO BE SCRIBED IN 5'-0" MAXIMUM SQUARES.
2. EXPANSION JOINTS ACROSS THE SIDEWALK NOT TO BE MORE THAN 15' APART.
3. 1/2" PREFORMED EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.
4. CONCRETE TO BE MIX NO.3.
5. WHEN SIDEWALK ABUTS CURB, SIDEWALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED EXPANSION JOINT BETWEEN SIDEWALK AND CURB.
6. ON LONGITUDINAL SIDEWALK GRADES OF 5% OR GREATER, A CONCRETE HEADER, 6" THICK AND 6" DEEP BELOW THE NORMAL 4" SIDEWALK THICKNESS SHALL BE CONSTRUCTED FOR THE FULL WIDTH OF THE SIDEWALK AT INTERVALS OF 45 FEET. THE HEADERS SHALL BE PLACED AT THE EXPANSION JOINT LOCATIONS AND SHALL BE MONOLITHIC WITH THE SIDEWALK.
7. SIDEWALK WIDTH ADJACENT TO CURB SHALL BE 5'-0" MINIMUM EXCEPT SIDEWALK ADJACENT TO CURB IN CUL-DE-SAC BULBS MAY BE 4'-0" WIDE.
8. SIDEWALK LOCATED 2' OR MORE FROM CURB MAY BE 4'-0" IN WIDTH WITH A 5'x5' PAVED SECTION PLACED 200' APART.
9. 4'-0" SIDEWALK REQUIRES A PASSING AREA (SEE DETAIL R-4.01).

Revised	Howard County, Maryland Department of Public Works	Concrete Sidewalk	Detail R-3.05
Adopted 5/7/2002 Approved: Chief, Bureau of Engineering			



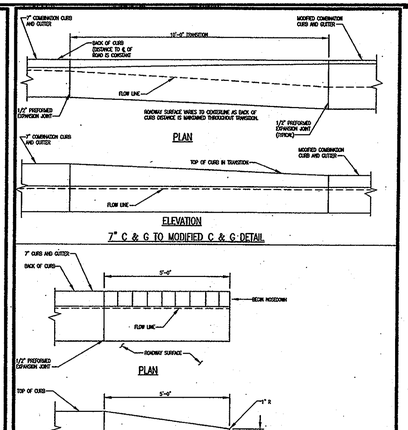
7" COMBINATION CURB AND GUTTER

MODIFIED COMBINATION CURB AND GUTTER

NOTE:

1. A BOWDISE GUTTER PAN SHALL HAVE A GUTTER SLOPE OF 4.17% AWAY FROM THE FLOW LINE, AND SHALL NOT BE USED WHERE THIS DRAINAGE CREATES A HAZARDOUS CONDITION.
2. GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AND IN THE SAME DIRECTION AS THE PAVEMENT. MATCH PAVEMENT CROSS SLOPE WHEN CURB IS LOCATED ON THE LOW SIDE OF SUPERELEVATED SECTION AND THE RATE OF SUPERELEVATION IS GREATER THAN 3% FOR MODIFIED CURB & GUTTER.
3. A MINIMUM OF TWO (2) FEET OF COMPACTED STABILIZED EARTH, OR EQUIVALENT, SHALL SUPPORT THE ENTIRE BACK OF CURB.
4. POSITIVE DRAINAGE SHALL BE PROVIDED BOTH BEHIND THE CURB AND ALONG THE GUTTER AND FLOW LINE.

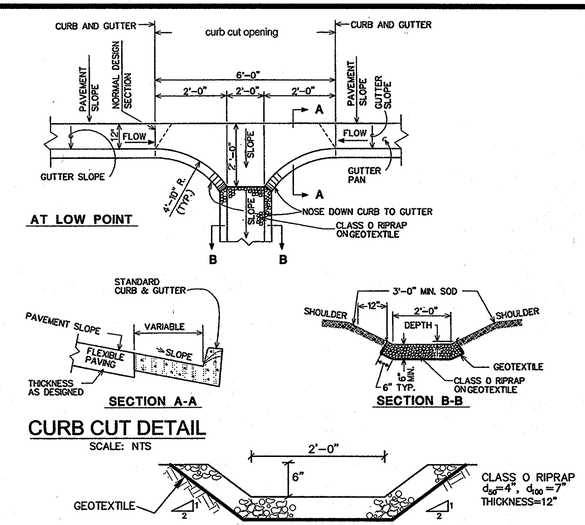
Revised	Howard County, Maryland Department of Public Works	CURB AND GUTTER 7" & Modified	Detail R-3.01
Adopted 5/7/2002 Approved: Chief, Bureau of Engineering			



7" C & G TO MODIFIED C & G DETAIL

* DIMENSION SHALL BE 6" WHEN NOSE DOWN OCCURS FOR SIDEWALK RAMP (NO LIP AT RAMP)

Revised	Howard County, Maryland Department of Public Works	CURB AND GUTTER 7" Transition to Modified & Nose Down	Detail R-3.02
Adopted 5/7/2002 Approved: Chief, Bureau of Engineering			



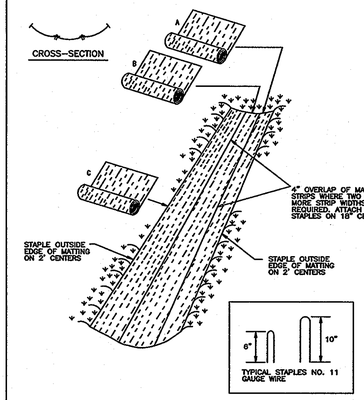
CURB CUT DETAIL

SCALE: NTS

DETAIL- RIP RAP CHANNEL BELOW CURB CUTS

SCALE: NTS

DETAIL 30 – EROSION CONTROL MATTING



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G – 22 – 2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G – 22 – 2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

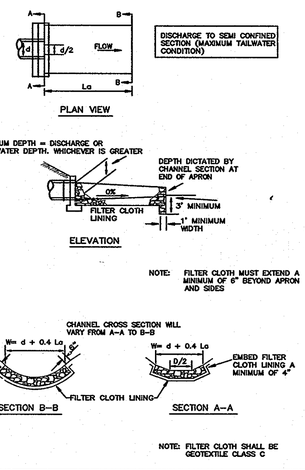
EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4', shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

DETAIL 25 – ROCK OUTLET PROTECTION I



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 18 – 8	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

ROCK OUTLET PROTECTION

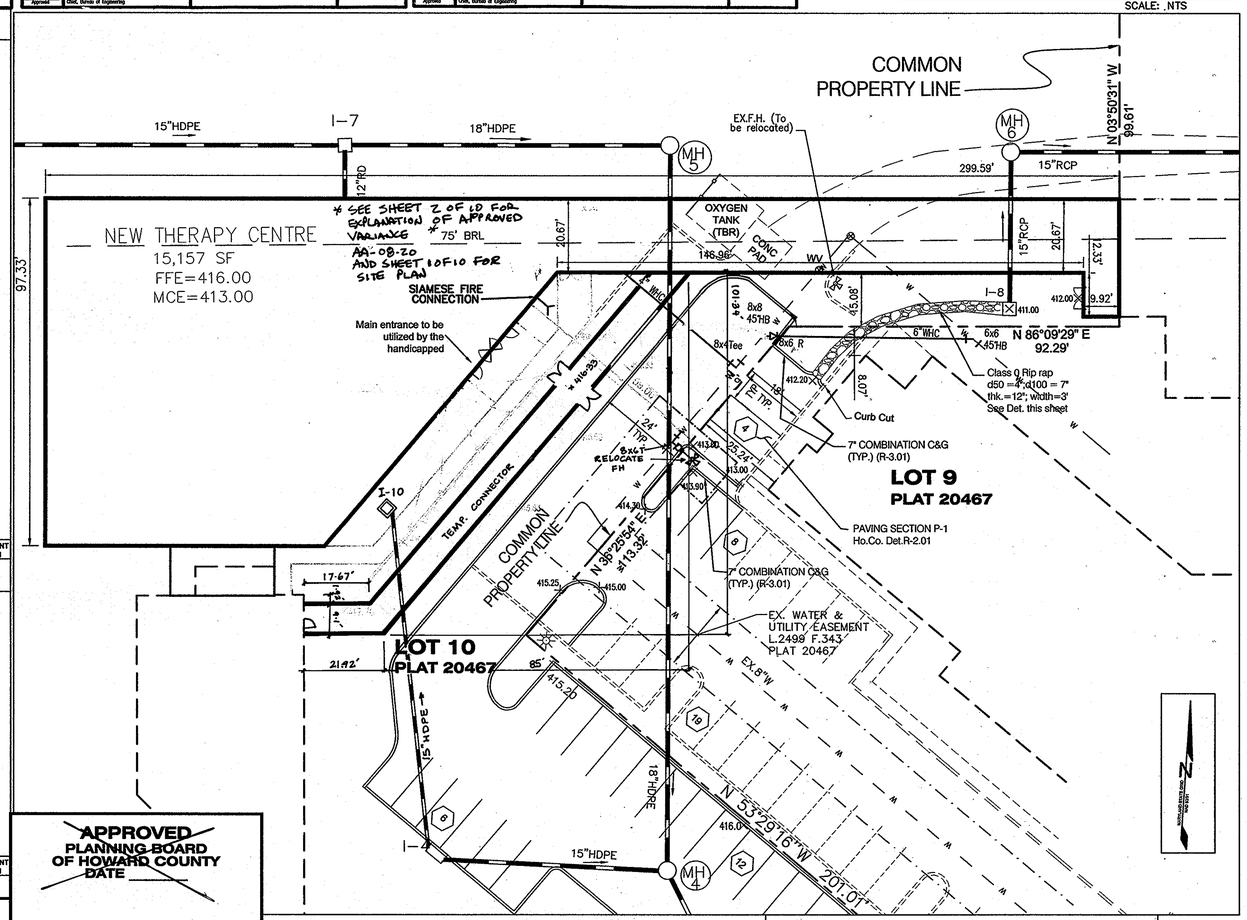
Construction Specifications

1. The subgrade for the filter, rip-rap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining two pieces of geotextile shall be a minimum of one foot.
4. Stone for the rip-rap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F – 18 – 8A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division	Date 5/21/09
Chief, Division of Land Development	Date 6/1/09
Director, DEP.	Date 6/1/09



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE

DETAIL PLAN

SCALE: 1"=20'

4/28/10	6	Revised FH, Add Temporary Connector, I-10

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 5/19/09

PAINTED CURBS USING RED TRAFFIC PAINT

WHITE STENCILED LETTERS - 3" MINIMUM IN HEIGHT

(TOP) NO PARKING FIRE LANE ← 20 Feet → NO PARKING FIRE LANE ← 20 Feet →

(VERTICAL or FACE) ← 10 Feet → NO PARKING FIRE LANE ← 20 Feet → NO PARKING FIRE LANE

NOTE:

"NO PARKING FIRE LANE" Must be on both surfaces of the curb, the TOP FACE and the VERTICAL FACE.

The TOP FACE begins at the left edge of the curb.

The VERTICAL FACE - all be given a 10' offset from the left edge to present a staggered or zig-zag effect.

FIRE LANE- MARKING METHOD

TOW AWAY SIGN

TOW AWAY ZONE — 6" × 12"

COLOR:

White reflective background.

Red letters and border.

Letters - 1".

Border - ⅜".

PLACEMENT:

Directly underneath the No Parking Fire Lane sign

R7-201 designation in Manual on Uniform Traffic Control Devices.

NO PARKING FIRE LANE SIGN

NO PARKING FIRE LANE → | NO PARKING FIRE LANE ↔ (18") | NO PARKING FIRE LANE ←

COLOR: 12"

White reflective background.

Red letters and border.

3" - NO PARKING

2" - FIRE LANE

1½" - Directional Arrow

⅜" - Red reflective border

FIRE LANE- SIGN DETAILS

Office of the Fire Marshal
Sign Specification - Automatic Sprinkler Connection

Construction:
Material = aluminum - 1/16" minimum thickness
Cover = Reflective white background with red reflective overlay.

Location:
The sign shall be posted on the building above the fire department connection at a height of 8-12 feet. It shall be visible from the street.

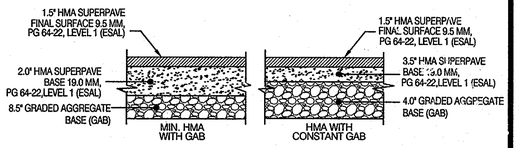
Directional Arrows:
In the event that the connection is not on the face of the building a directional arrow will be incorporated on the sign. This will identify the location in respect to the sign.

FDC symbol to be used

FDC

Size:
Width = 14"
Height = 18"

Sign shall identify whether the FDC supplies a sprinkler system, standpipe, or both in 2" letters.



PAVING SECTION P-1
N.T.S (REF. R-2.01)

ROAD CLASSIFICATION : PARKING FAYS
PARKING DRIVE AISLES
CALIFORNIA BEARING RATIO (CBR): 3

THE PURPOSE OF THIS DRAWING IS TO ADD SITE DETAILS, ERO. & SEDIMENT CONTROL DETAILS, DETAIL PLAN OF THERAPY CENTER, & FIRE LANE MARKING & SIGN DETAILS

OWNER
NICKOLAS B.MANGIONE
1205 YORK ROAD,PENTHOUSE
LUTHERVILLE,MD 21093

SITE DETAILS-II

BUILDING AND PARKING LOT ADDITION

LORIEN NURSING HOME EXPANSION

REVISED SITE DEVELOPMENT PLAN

HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOTS 9 & 10
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: E28 SEWER CODE: 5326200
5th ELECTION DISTRICT CENSUS TRACT No.6053.01 HOWARD COUNTY, MD

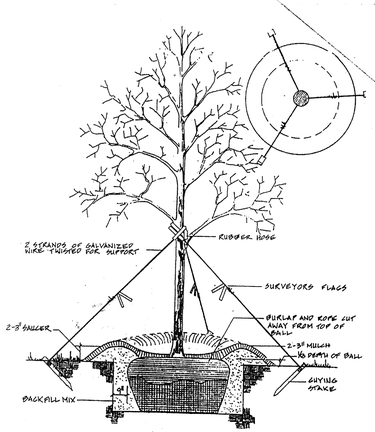
KCE ENGINEERING, INC.
EXECUTIVE CENTER
3300 NORTH RIDGE ROAD, SUITE 315
ELLICOTT CITY, MARYLAND 21043
PHONE (410) 203–9800 FAX (410) 203–9228

Professional Certification

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 8818, Expiration Date: 10/17/10.

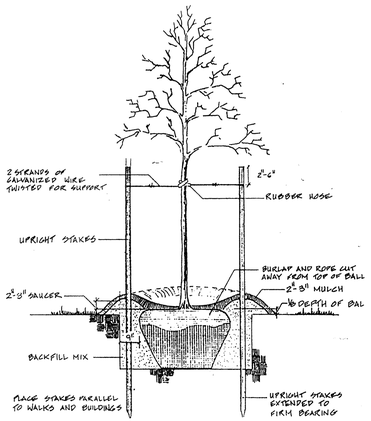
DRAWN BY: MG	SHEET: 10 OF 10
CHECKED BY: DVK	
SCALE: AS SHOWN	
DATE: 04/28/2009	

SDP-90-109



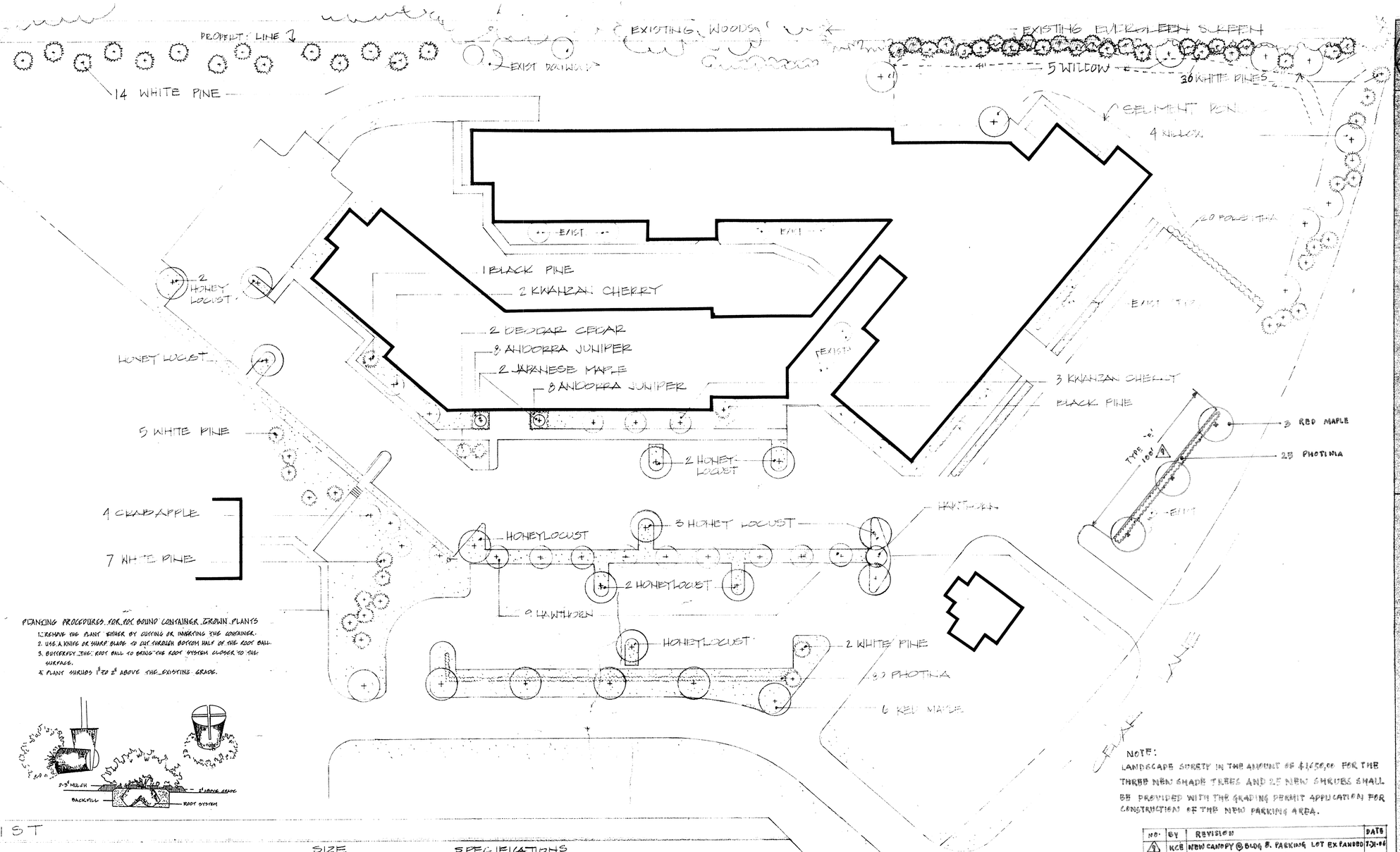
TYPICAL TREE GUYING DETAIL
SEE SUPPORT SCHEDULE

TYPICAL UPRIGHT STAKING DETAIL
SEE SUPPORT SCHEDULE



PLANTING PROCEDURES FOR ROOT BOUND CONTAINER GROWN PLANTS

1. REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER.
2. USE A KNIFE OR SHARP BLADE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL.
3. BUTTERFLY THE ROOT BALL TO BRING THE ROOT SYSTEM CLOSER TO THE SURFACE.
4. PLANT SHRUBS 1" TO 2" ABOVE THE EXISTING GRADE.



NOTE:
LANDSCAPE SURETY IN THE AMOUNT OF $1650.00 FOR THE THREE NEW SHADE TREES AND 25 NEW SHRUBS SHALL BE PROVIDED WITH THE GRADING PERMIT APPLICATION FOR CONSTRUCTION OF THE NEW PARKING AREA.

PLANT LIST

QTY.	NAME		SIZE	SPECIFICATIONS	
2	BLACK PINE	PINUS THUNBERGII	6'-7'	FULL TO BASE - WITH CHARACTER	
64	WHITE PINE	PINUS STROBUS	6'-8'	FULL TO BASE - DENSE - FULL	
12	HONEYLOCUST	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'	2"-2½" CAL. 12'-14' HT.	STRAIGHT TRUNK - 6' CLEAR STEM - FULL HEAVY HEAD	B&B
5	KWANZAN CHERRY	PRUNUS SERRULATA KWANZAN	6'-8' HT	STRAIGHT TRUNK - FULL - DENSELY BRANCHED HEAD	B&B
10	WASHINGTON HAWTHORN	CRATAEGUS PHAENOPYRUM	6'-8' HT	MULTI-STEM (MIN 3) CLUMP - DENSELY BRANCHED	B&B
4	CRAB APPLE	MALUS FLORIBUNDA	6'-8' HT.	FULL - WIDE - DENSELY BRANCHED HEAD	B&B
1	RED MAPLE	ACER RUBRUM 'BOWHALL' GREAT	2" 2½" CAL. 12'-14' HT	STRAIGHT TRUNK - CLEAR 6' STEM - FULL HEAVY HEAD	B&B
2	DEODAR CEDAR	CEDRUS DEODARA	8'-10' HT	FULL TO BASE - DENSE & FULL	B&B
2	JAPANESE MAPLE	ACER PALMATUM ATROPURPUREUM 'BLOODGOOD'	3'-6' HT.	SPECIMEN - MATCHED - BALANCED HEAD	B&B
16	ANDORRA JUNIPER	JUNIPERUS HORIZ. 'PLUMOSA COMPACTA'	18"-18" SPRD.	FULL 36" O.C. CONTAINER	
9	WILLOW	SALIX BABYLONICA 'AUREA'	5' 6' HT.	STRAIGHT TRUNK	B&B
108	PHOTINIA	PHOTINIA FRAZERI	24"-30" HT.	MULTI-CANE CLUMP - FULL	B&B
27	FORSYTHIA	FORSYTHIA 'LYNWOOD GOLD'	3'-4' HT.	MULTI-CANE CLUMP - DENSE	B&B

NO.	BY	REVISION	DATE
1	KCE	NEW CANOPY @ BLDG B. PARKING LOT EX PANDED PERIMETER LANDSCAPING ADDED	7-31-90

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-20-90
LKS

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
For Soil Conservation Service — 7/10/90 Date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Howard Soil Conservation District — 7/10/90 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
County Health Officer — 8/13/90 Date

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Director — 8-16-90 Date
Chief, Division of Community Planning and Land Development — 8/16/90 Date
LKS

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director — 8/8/90 Date
Chief Bureau of Engineering — 7-25-90 Date

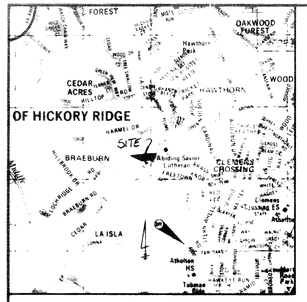
Walter Reynolds Design Associates Ltd.
Landscape Architecture/Land Use Planning
10409 Trenton Church Road
Upperco, Maryland 21155
Phone (301) 239-8881

LANDSCAPE PLAN
FOR: LORIEN NURSING HOME EXPANSION

PROJECT NO.
SCALE 1"=20'-0"
DATE JUNE 26, 1990
SHEET 3 OF 3

SDP-90-109

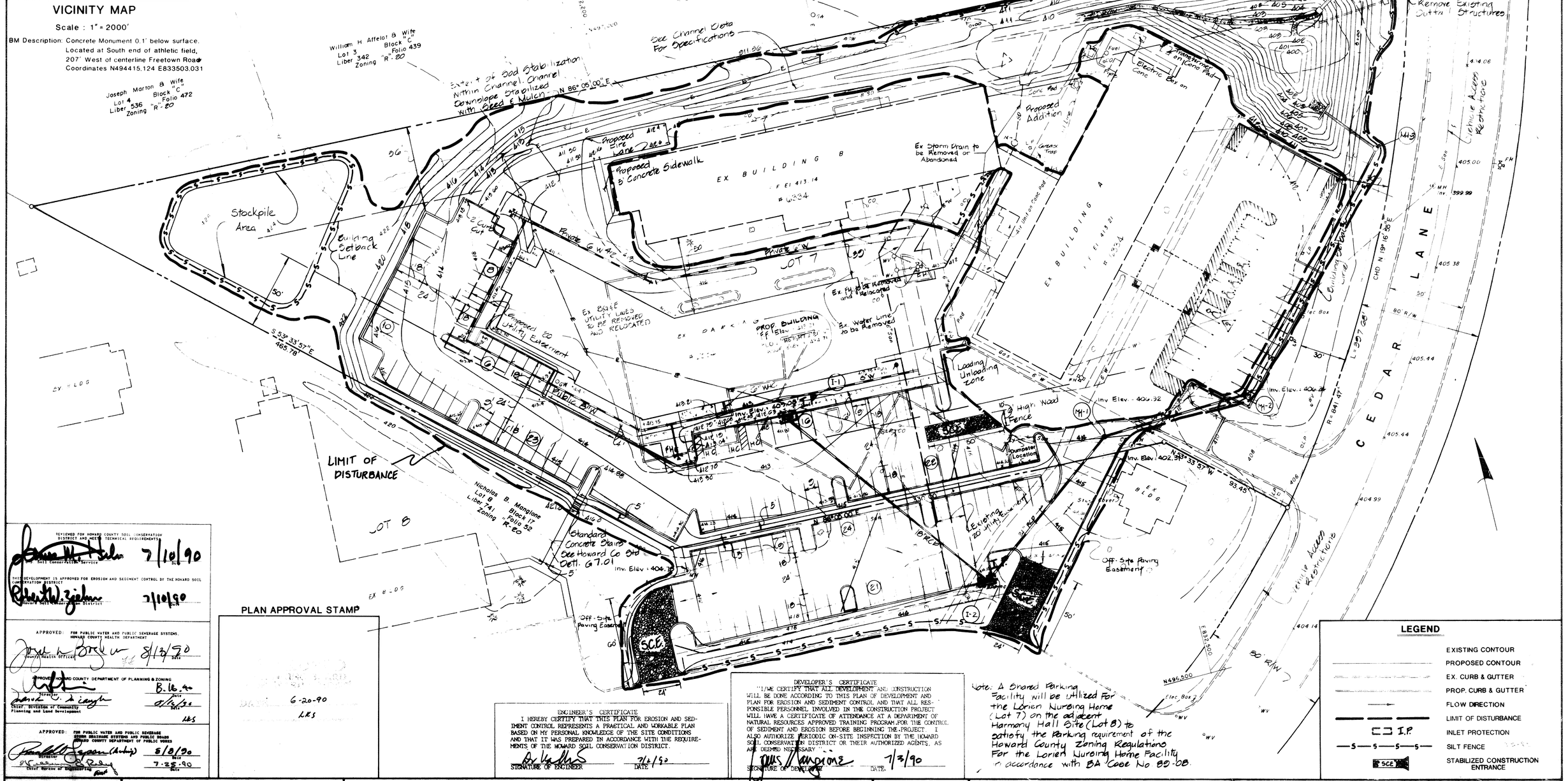
NOTE: THIS PLAN USED FOR EROSION AND SEDIMENT CONTROL ONLY. FOR CONSTRUCTION PLANS SEE SHEET 1 of 3.



VICINITY MAP

Scale : 1" = 2000'

BM Description: Concrete Monument 0.1' below surface. Located at South end of athletic field, 207' West of centerline Freetown Road. Coordinates N494415.124 E833503.031



Note: A Shared Parking Facility will be utilized for the Lorien Nursing Home (Lot 7) on the adjacent Harmony Hall Site (Lot 8) to satisfy the Parking requirement of the Howard County Zoning Regulations for the Lorien Nursing Home Facility in accordance with BA Case No 89-08.

LEGEND

	EXISTING CONTOUR
	PROPOSED CONTOUR
	EX. CURB & GUTTER
	PROP. CURB & GUTTER
	FLOW DIRECTION
	LIMIT OF DISTURBANCE
I.P.	INLET PROTECTION
—S—S—S—S—	SILT FENCE
SCE	STABILIZED CONSTRUCTION ENTRANCE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Howard Soil Conservation Service — Date 7/10/90

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

Howard Soil Conservation District — Date 7/10/90

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

County Health Officer — Date 8/13/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 8.16.90

Chief, Division of Community Planning and Land Development — Date 8/16/90

LKS

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

Director — Date 8/8/90

Chief Bureau of Engineering — Date 7-25-90

PLAN APPROVAL STAMP

6-20-90
LKS

ENGINEER'S CERTIFICATE

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

SIGNATURE OF ENGINEER — DATE 7/2/90

DEVELOPER'S CERTIFICATE

"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 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — DATE 7/3/90

DESIGNED	MAL.	6/89 DATE
DRAWN	SAP.	7/89 DATE
CHECKED		DATE
APPROVED		DATE

REVISIONS

DATE	BY	DESCRIPTION
7-31-06	KCE	NEW CANOPY @ BLDG & PARKING LOT RE-STRIPED & EXPANDED

ENGINEERING TECHNOLOGIES ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE SUITE 101
ELLICOTT CITY, MD 21043
(301) 461 - 9920

DONALD R. KALBAUGH — NO. 8610 — REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER

NICKOLAS B. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

Erosion & Sediment Control Plan

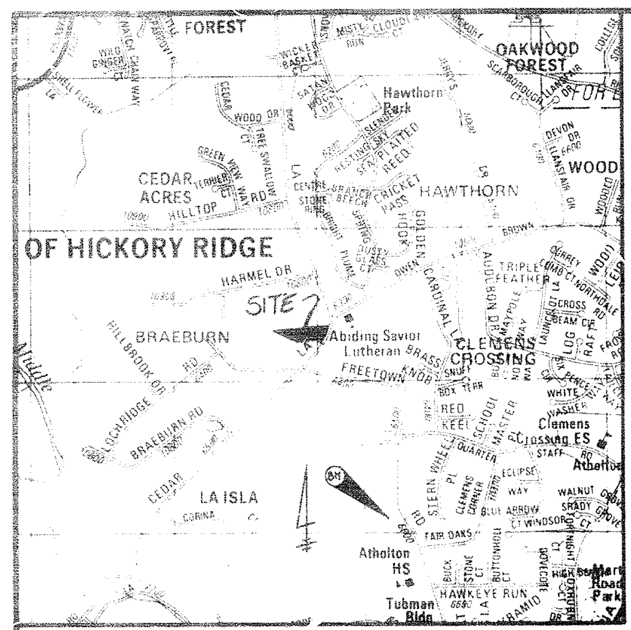
BUILDING AND PARKING LOT ADDITION

LORIEN NURSING HOME EXPANSION

HEPDING PROPERTY SUBDIVISION
PARCEL 365 LOT 7 & 8
TAX MAP 35, LIBER 741 FOLIO 52
WATER CODE: E28 SEWER CODE: 5326200
5th ELECTION DISTRICT CENSUS TRACT No. 6053.01 HOWARD COUNTY, MD

SCALE: 1" = 30'	CONTRACT NO	DATE 5/90	SHEET: 5 of 9

SDP-90-109



VICINITY MAP

Scale : 1" = 2000'

BM Description: Concrete Monument 0.1' below surface. Located at South end of athletic field. 207' West of centerline Freetown Road. Coordinates N494415.124 E833503.031

SITE ANALYSIS LOT 7

AREA OF PARCEL: (Site Area) 4.843 Ac.: 210,961 sq. ft. (Site Area + Off-site Easement) 5.50 Ac.: 239,580 sq. ft. (Disturbed Area) 3.26 Ac.:142,006 sq. ft.

PRESENT ZONING: Lot 7 POR (Planned Office Research)

PROPOSED USE OF STRUCTURE: Nursing Home

MAXIMUM No. OF EMPLOYEES: (Day shift) 79

No. OF EX. BEDS: ~~240~~ 180
No. OF PROP. BEDS: 120
TOTAL: ~~360~~ 300

No. OF PARKING SPACES REQUIRED: (site)
One space per 3 beds = ~~120~~ 100
One space per 2 employees = 40
Total required = ~~160~~ 140

No. OF PARKING SPACES PROVIDED: (site)
Regular Spaces = ~~113~~ ~~111~~ 107 (9)
Handicap Spaces = ~~8~~ 7 (8)
Total provided = ~~49~~ * ~~118~~ 114

*An additional 45 proposed parking spaces on Lot 8 will be utilized for Lot 7 required parking

PROPOSED PARKING AND LANDSCAPE ISLAND AREAS:
Proposed parking lot area = 40,071 sq ft
Area of landscaped islands = 3,452 sq ft
Percentage of landscaped islands = 8.61%

OPEN SPACE (Green Area): 2.418 Ac.: 50% of site

EXISTING Bldg A: No. of floors = 2
Square foot area(Ea. floor) = 14,012
USE: 1st floor = Admin., Dining, Maintenance & Health Care
2nd floor = Health Care

EXISTING Bldg B: No. of floors = 2
Square foot area(Ea. floor) = 14,753
USE: 1st floor = Administration & Health Care
2nd floor = Health Care

PROPOSED Bldg: No. of floors = 2
Square foot area(Ea. floor) = 18,410 (2)
USE: 1st floor = Admin., Dining, Maintenance & Health Care
2nd floor = Health Care

PROP. ADDITION: No. of floors = 1
Square foot area = ~~4,472~~ 6,258
USE: Dining & Corridor

TOTAL Bldg: COVERAGE 53,433 sq. ft. (2)
25.31% of Site Area

Proposed Parking Area		0.920 Acres
Existing Parking Area	.301 ~~0.342~~	Acres
Open Space Area	2.396 ~~2.418~~	Acres
Total Building Area	1.226 ~~1.163~~	Acres
Total Area (2)		4.843 Acres

SITE ANALYSIS LOT 8

AREA OF PARCEL: 11.316 Ac.: 492,925 sq. ft.

PRESENT ZONING: R-20 (Residential)

EXISTING USE OF STRUCTURES: Health Care & Nursing Home

No. OF EXISTING PARKING SPACES: 110

No. OF PROPOSED PARKING SPACES: 45*

*All proposed parking spaces on Lot 8 will be utilized by Lot 7.

OPEN SPACE (GREEN AREA): 344,124 sq ft (69.80% of site)

REFERENCE FILE No.: S-89-38, PB-259, BA-983, BA-89-08, SDP-81-36, F-84-26, SDP-82-82, SDP-76-93, BA-85-36, PB-143

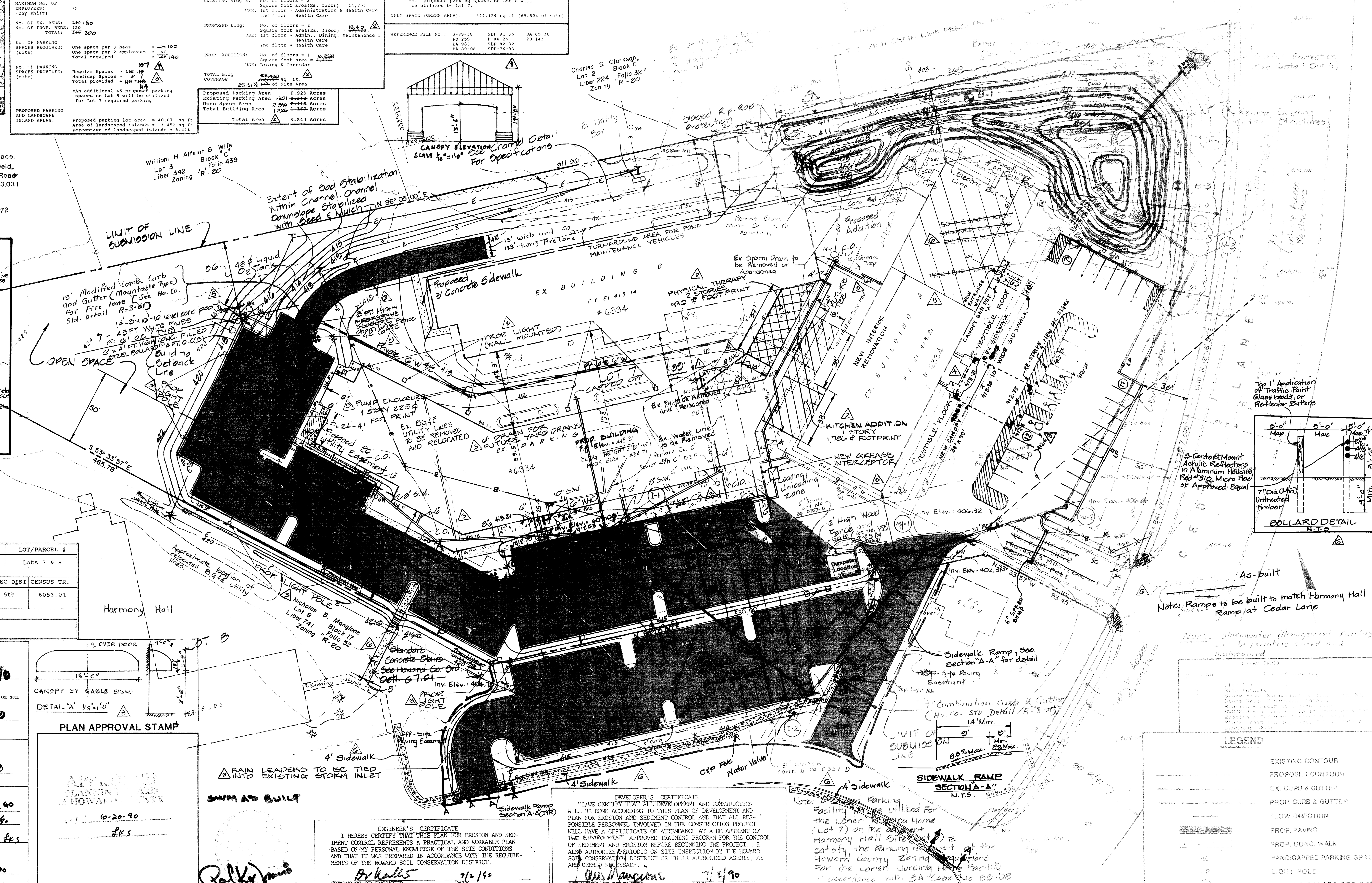
ADDRESS CHART

LOT NUMBER	STREET ADRESS
7	6334 Cedar Lane
8	6336 Cedar Lane

NOTE: Exact location of existing utilities is the responsibility of the contractor. Any damage to existing utilities during construction must be repaired at the cost of the contractor.

NOTE: (8) A BUILDING PERMIT FOR THE PROPOSED ENTRY, PARKING & SIDEWALK IMPROVEMENTS SHALL BE APPLIED FOR WITHIN 1 YEAR MEASURED FROM THE DED APPROVAL LETTER FOR THIS REDLINE REVISION.

(9) A BUILDING PERMIT FOR THE PROPOSED CANOPY SHALL BE APPLIED FOR WITHIN 1 YEAR MEASURED FROM THE DED APPROVAL LETTER FOR THIS REDLINE REVISION



SUBDIVISION NAME			SECT./AREA		LOT/PARCEL #
Lorien Nursing Home Hepding Property			N/A		Lots 7 & 8
PLAT # OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC DIST	CENSUS TR.
5583	17	POR R-20	35	5th	6053.01
WATER CODE			SEWER CODE		
E28			5326200		

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
U.S. Soil Conservation Service — 7/10/90 Date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
Howard Soil Conservation District — 7/10/90 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
County Health Officer — 8/13/90 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Director — 8.16.90 Date
Chief, Division of Community Planning and Land Development — 8/16/90 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Director (Acting) — 8/8/90 Date
Chief Bureau of Engineering — 7/24/90 Date

PLAN APPROVAL STAMP

APPROVED PLANNING BOARD OF HOWARD COUNTY 6-20-90

SWM AS BUILT 9-1-93

ENGINEER'S CERTIFICATE

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

SIGNATURE OF ENGINEER — 7/2/90 DATE

DEVELOPER'S CERTIFICATE

"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 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

SIGNATURE OF DEVELOPER — 7/3/90 DATE

LEGEND

EXISTING CONTOUR
PROPOSED CONTOUR
EX. CURB & GUTTER
PROP. CURB & GUTTER
FLOW DIRECTION
PROP. PAVING
PROP. CONC. WALK
HC — HANDICAPPED PARKING SPACE
LP — LIGHT POLE
PARKING SPACES PER ROW

DESIGNED MAL. 8/89 DATE
DRAWN SGP. 9/89 DATE
CHECKED DATE
APPROVED DATE

REVISIONS

DATE	BY	DESCRIPTION
4-1-90	SGP	(1) Prop. S.S. Manhole is eliminated
8-30-91	SGP	(2) Addition of Kitchen and Physical Therapy
9-24-91	MCR	(3) Addition of Roof Drain, Grease Interceptor & Relocation of Light Poles.
01-22-92	MCR	(4) Addition of Vestibule floor & roof, 4' SHC, prop. curb & 2' curb opening.
10-28-92	RMC	(5) ADDITION OF PUMP ENCLOSURE FLOOR, ROOF AND DETAIL

REVISIONS

DATE	BY	DESCRIPTION
11-25-92	R.M.C.	(6) Revised Sidewalk, Sidewalk Ramps, Fence.
9-1-93	PKF	SWM AS BUILT (7)
12-2-05	KCE	(8) PARKING TABULATION REVISED. NEW CANOPY, H.C. PARKING @ EX-BLDG
7-31-06	KCE	(9) NEW CANOPY @ BLDG B PARKING LOT EXPANDED & RESTRIPED

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STATE OF MARYLAND — DHARAM V. KATHURIA — NO. 8818 — REGISTERED PROFESSIONAL ENGINEER

OWNER / DEVELOPER
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1205 YORK ROAD
LUTHERVILLE, MARYLAND 21093

SWM AS BUILT

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SCALE 1" = 30' | CONTRACT NO. | DATE 5/90 | SHEET 1 of 3

SDP-90-109