

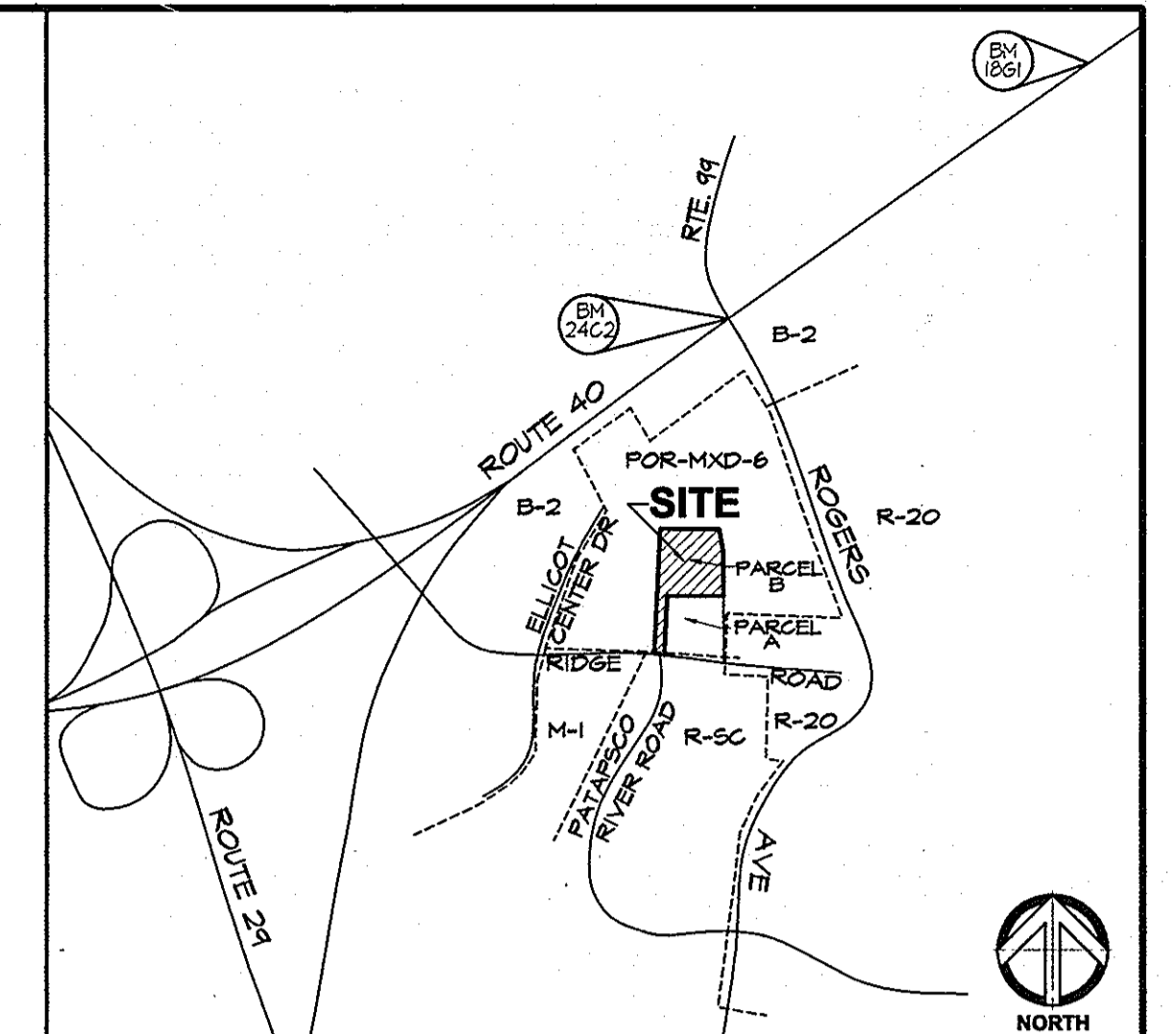
ADDRESS CHART	
LOT / PARCEL #	STREET ADDRESS
PARCEL B	8120 RIDGE ROAD
	ELLCOTT CITY, MD 21013

PERMIT INFORMATION CHART					
SUBDIVISION NAME ROGERS PROPERTY		SECTION/ AREA LOT B		LOT/ PARCEL B6	
PLAT # OR L/F 12971 F-98-55	BLOCK FOR-MXD-6	ZONING FOR-MXD-6	TAX MAP 24	ELECT DIST 2nd	CENSUS TRACT 6021
WATER CODE FO1		SEWER CODE 1452200			

SITE ANALYSIS DATA CHART	
TOTAL PROJECT AREA:	PARCEL B: 3,990 AC., 174,160 S.F.
AREA OF PLAN SUBMISSION:	PARCEL B: 3,990 AC., 174,160 S.F.
LIMIT OF DISTURBED AREA:	2.7 AC., 116,643 S.F.
PRESENT ZONING:	FOR-MXD-6
PROPOSED USES FOR SITE & STRUCTURES:	INDEPENDENT ELDERLY HOUSING
FLOOR SPACE ON EACH FLOOR OF BUILDING PER USE:	BASEMENT (STORAGE) 1,200 SF FIRST FLOOR: RESIDENCES/COMMON SPACE 17,400 SF SECOND FLOOR: RESIDENCES 17,400 SF THIRD FLOOR: RESIDENCES 17,400 SF FOURTH FLOOR: RESIDENCES 17,400 SF TOTAL 63,800 SF
TOTAL NUMBER OF UNITS ALLOWED ON SUBMISSION:	81 UNITS
TOTAL NUMBER OF UNITS PROPOSED ON SUBMISSION:	81 UNITS
MAXIMUM NUMBER OF EMPLOYEES:	NOT APPLICABLE
MAXIMUM NUMBER OF UNITS ALLOWED:	SEE SP-91-10
PARKING SPACES REQUIRED: PARKING SPACES PROVIDED:	81 UNITS @ 2 SPACES / 5 DU. = 33 SPACES 74 SPACES (INCLUDES 5 HANDICAP SPACES)
OPEN SPACE ON SITE:	0.0 AC.
AREA OF RECREATION OPEN SPACE:	REQUIRED: 0.00 AC. PROVIDED: 0.00 AC.
BUILDING COVERAGE OF SITE:	0.41 AC. 10% OF GROSS AREA
APPLICABLE DPZ FILE REFERENCES:	SP-91-10 PRELIMINARY EQUIVALENT SKETCH PLAN SEWER & WATER EXTENSION CONTRACT 14-3642 RECORD PLAT 12971 SDP-98-61 SITE DEVELOPMENT PLAN

# PARK VIEW AT ELLCOTT CITY

## SENIOR INDEPENDENT LIVING BY SHELTER DEVELOPMENT, LLC OVERVIEW AND NOTES OF SITE DEVELOPMENT PLAN PACKAGE 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND PARCEL 'B', RECORD PLAT 12971



**VICINITY MAP** SCALE: 1"=1000'

HOWARD COUNTY CONTROL STATIONS	
• CONTROL STATION 24C2 ELEVATION: 254.232 N 588.641 E 1366.040 DESCRIPTION: CONC. MONUMENT AT SURFACE 5.5' SOUTH OF LEFT TURN LANE OF ROUTE 40 WEST, 14' EAST OF EAST EDGE OF CROSSOVER TO ROUTE 44 SOUTH	• CONTROL STATION 1861 ELEVATION: 407.84 N 599.866 E 1367.752 DESCRIPTION: CONC. MONUMENT AT SURFACE 4' NORTH OF MAG. SHOULDER OF ROUTE 40 WEST, 18' WEST OF YELLOW BLINKING SIGNAL

- GENERAL NOTES**
- All construction shall be in accordance with the latest standards and specification of Howard County plus MSHA standards and specifications if applicable.
  - The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
  - The contractor shall notify "Miss Utility" at 1-800-251-TITI at least 48 hours prior to any excavation work being done.
  - Traffic control devices, marking and signing shall be in accordance with the latest edition of the manual of Uniform traffic Control devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
  - All plan dimensions are to face of curb unless otherwise noted.
  - The existing topography is taken from field run survey with a two foot contour interval prepared by Gerhold, Cross & Etzel, Ltd. dated July 18, 1997.
  - 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. 1861 and 24C2 were used for this project.
  - Water is public. Contract No. 14-1544-D, Patapsco drainage area.
  - Sewer is public. Contract No. 14-1544-D, Patapsco drainage area.
  - The underground stormwater management storage facility shall be privately owned by Shelter Development, and privately maintained by Shelter Development.
  - Existing utilities are based on: Howard County approved Water & Sewer Main drawings, contract no. 421 M&S, and contract no. 14-1544-D. Utility structures were verified by Gerhold Cross & Etzel, Ltd. dated July 18, 1997.
  - There is no floodplain on this site.
  - The wetlands delineation study for this project was prepared by Richard C. Pais, Inc. dated 4/28/1997, and was approved on 7/2/1997.
  - The traffic study for this project was prepared by The Traffic Group, dated 6/23/1997, and was approved on 7/23/1997.

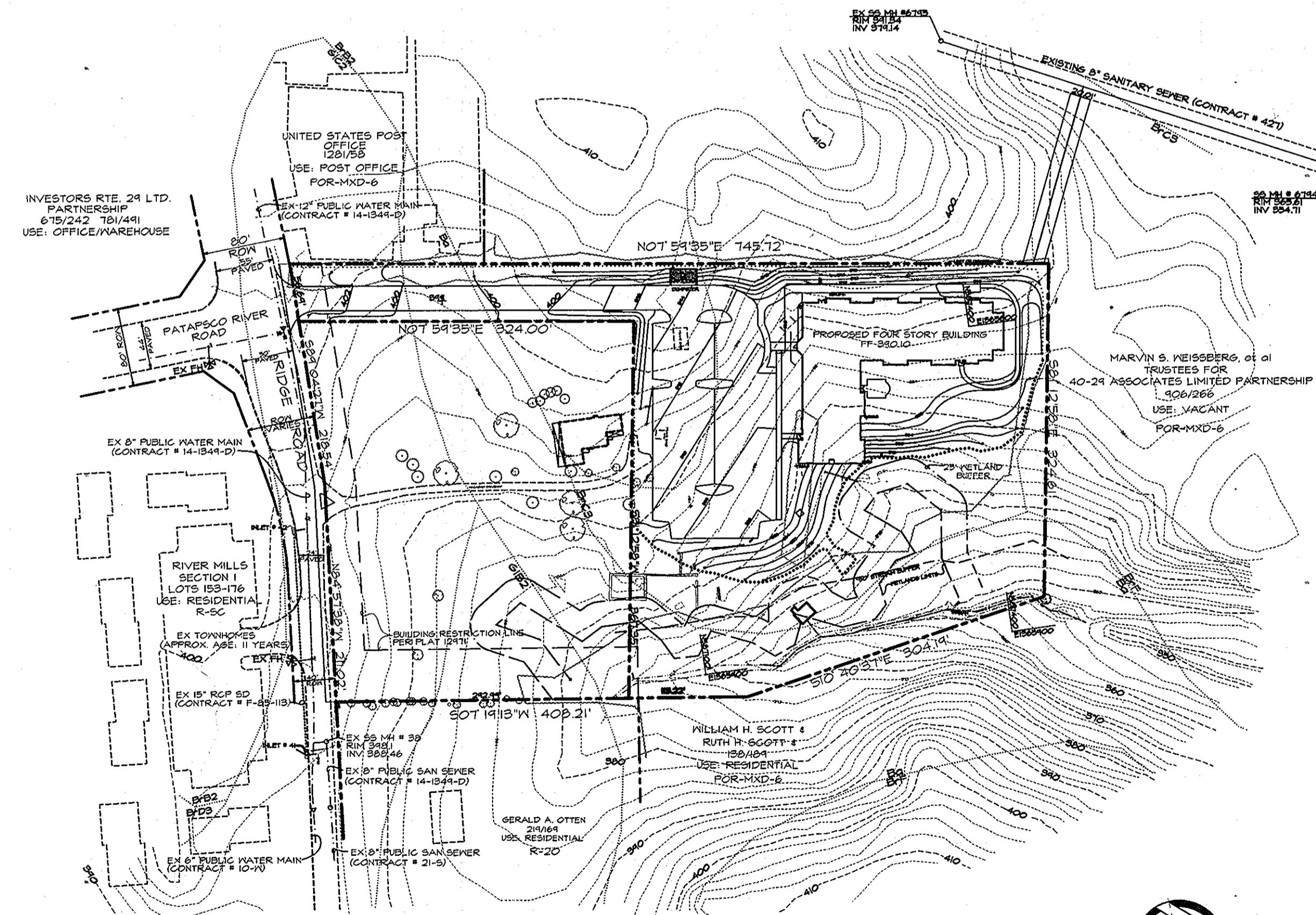
### LIST OF DRAWINGS

- SDP-1A: GENERAL NOTES AND DETAILS
- SDP-1: SDP OVERVIEW AND NOTES
- SDP-2: SITE DEVELOPMENT PLAN
- SDP-3: DRAINAGE AREA MAP
- SDP-4: UTILITY PROFILES
- SDP-5: STORMWATER MANAGEMENT PLAN
- SDP-6: STORMWATER MANAGEMENT PROFILES
- SDP-7: SEDIMENT & EROSION CONTROL PLAN
- SDP-8: SEDIMENT & EROSION CONTROL DETAILS
- SDP-9: SEDIMENT & EROSION CONTROL NOTES
- SDP-10: SITE DETAILS
- SDP-11: FOREST CONSERVATION PLAN
- SDP-12: LANDSCAPE PLAN

### PRIOR APPROVALS

THIS SDP PACKAGE INVOLVES THE DEVELOPMENT OF PARCEL 'B' OF PLAT 12971 AND IS PRECEDED BY THE FOLLOWING APPROVED PLANS:

- PRELIMINARY EQUIVALENT SKETCH PLAN SP-91-10
- WATER & SEWER EXTENSION PLANS, CONTRACT 14-3642 RECORD PLAT NO. 12971, FILE # F-98-55



SITE PLAN WITH SURROUNDING PROPERTIES

Scale: 1" = 100'

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	5/14/98 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	5/15/98 DATE
<i>[Signature]</i> DIRECTOR	5/18/98 DATE



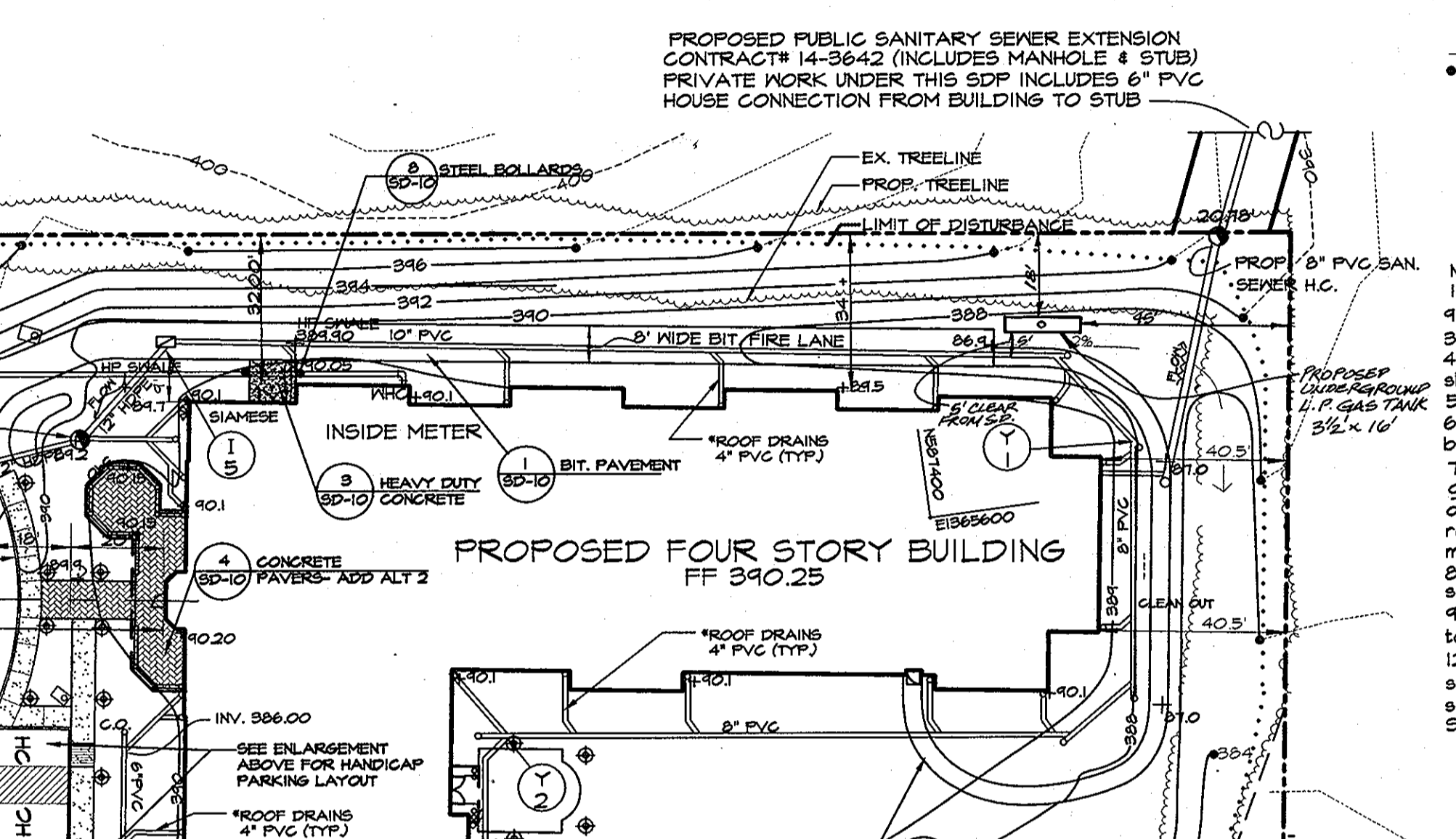
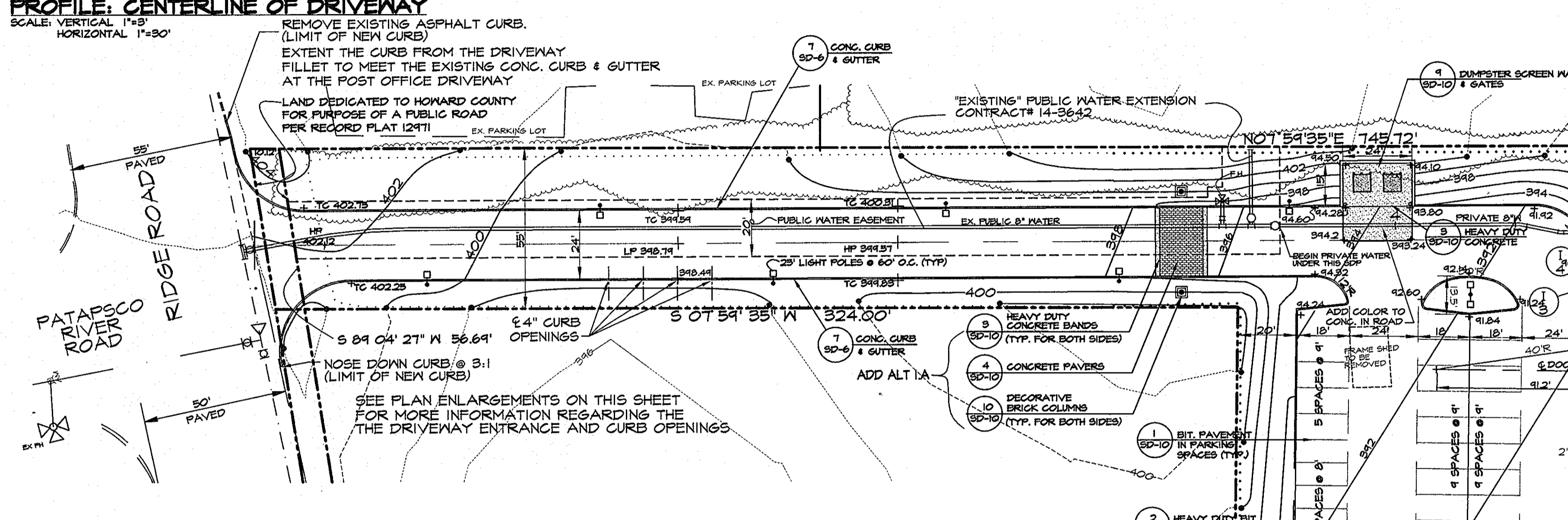
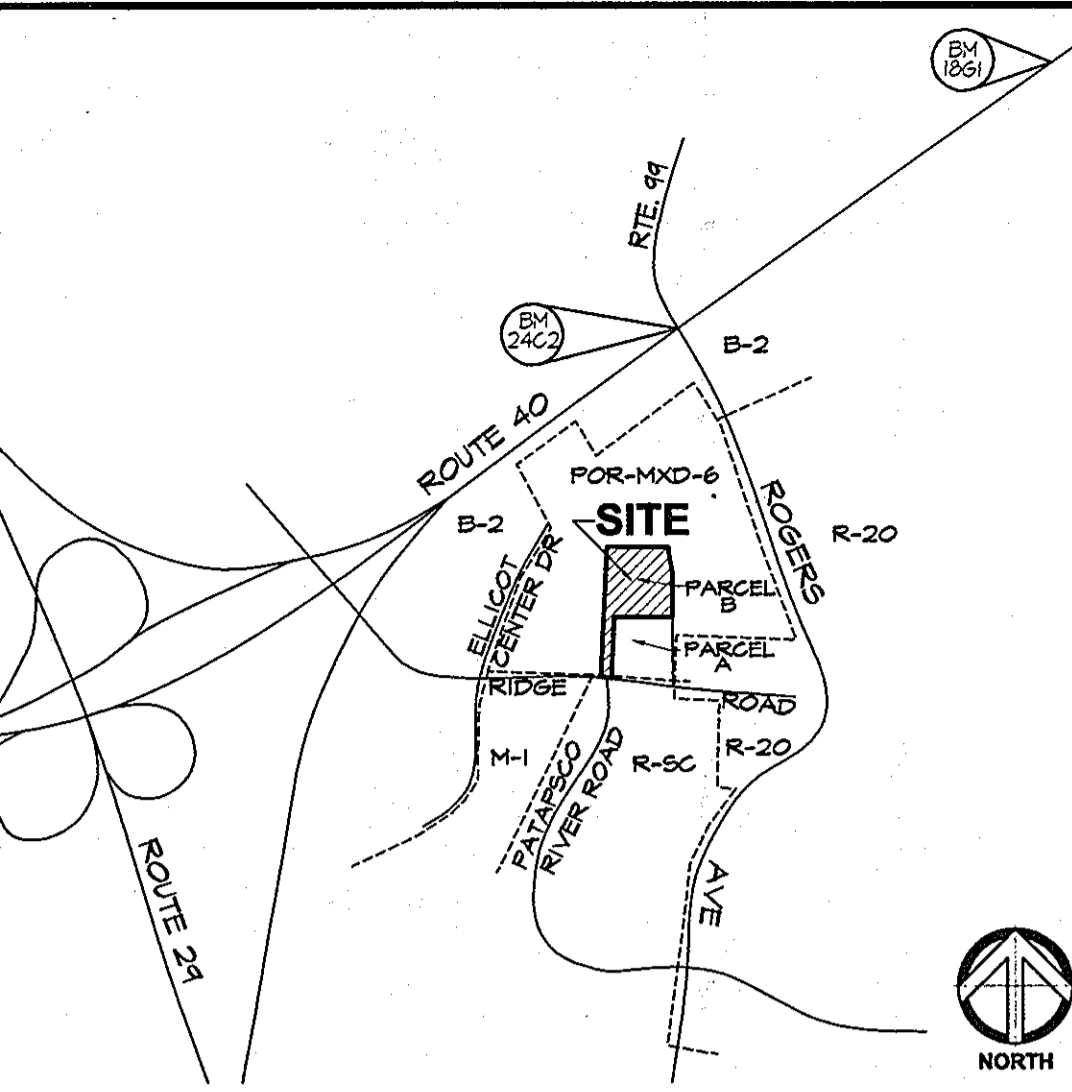
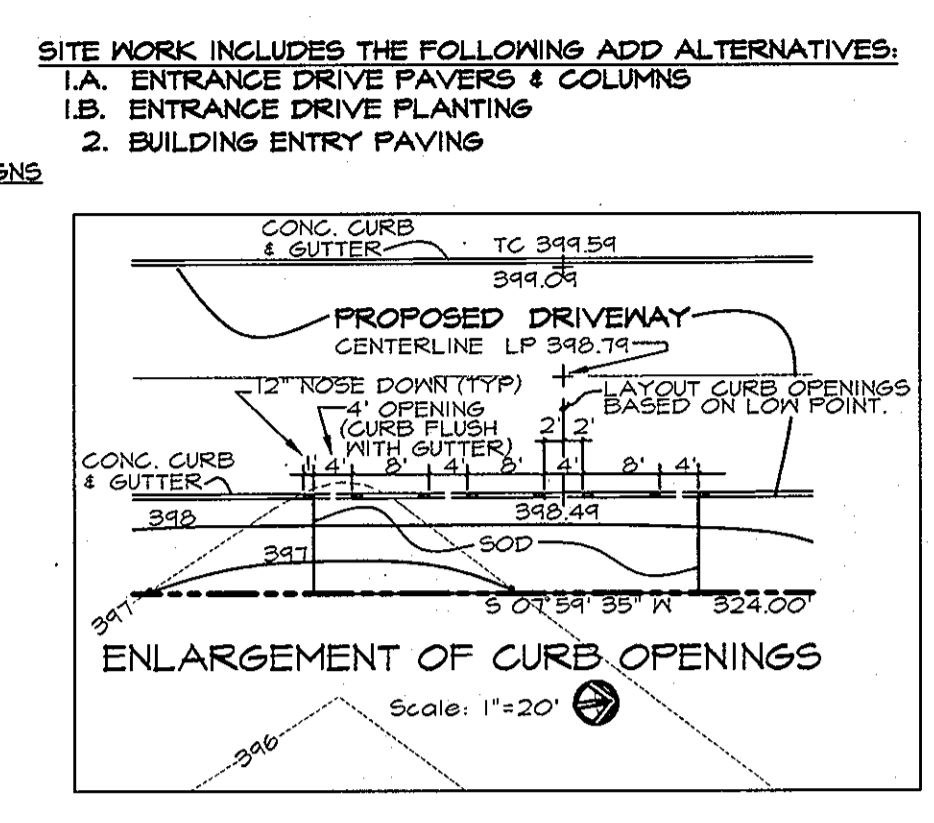
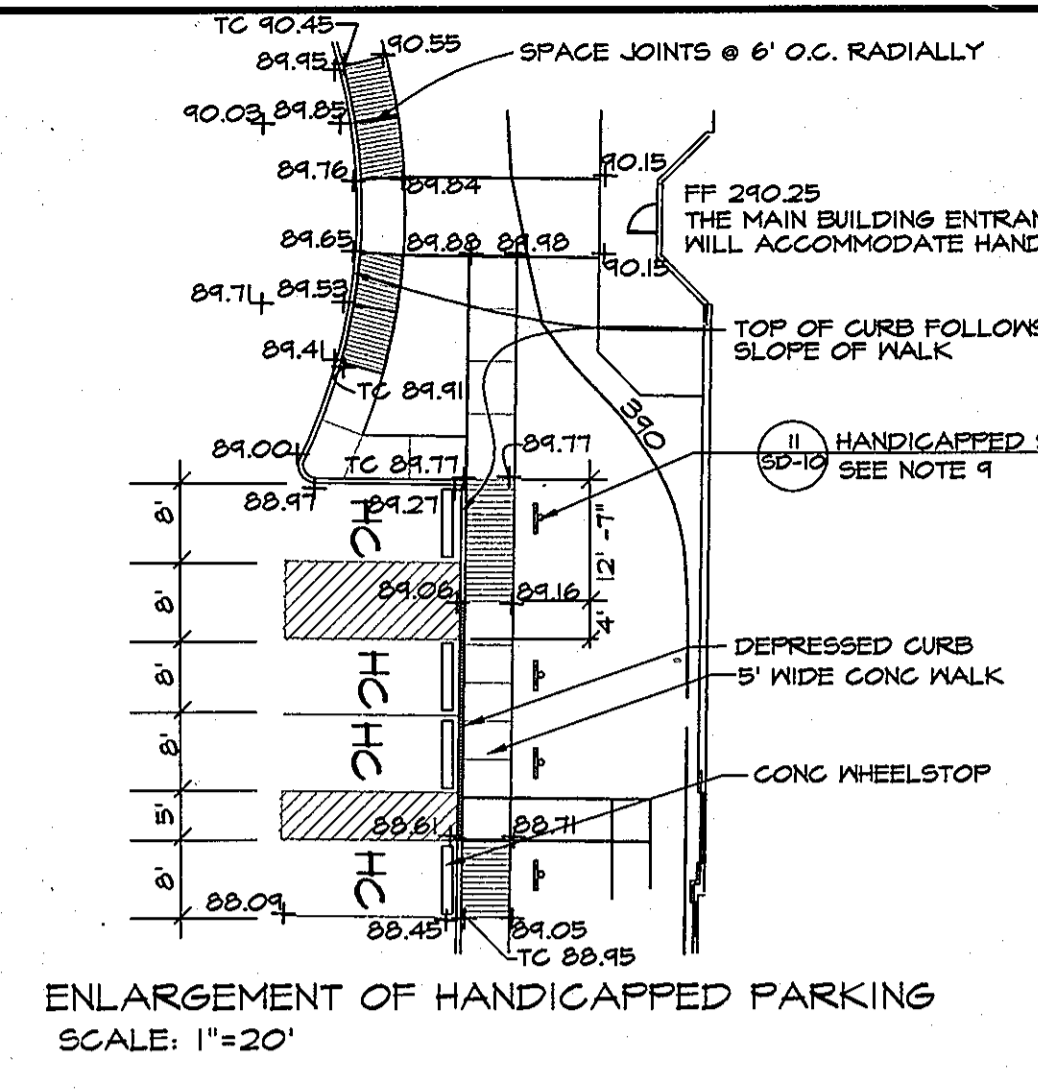
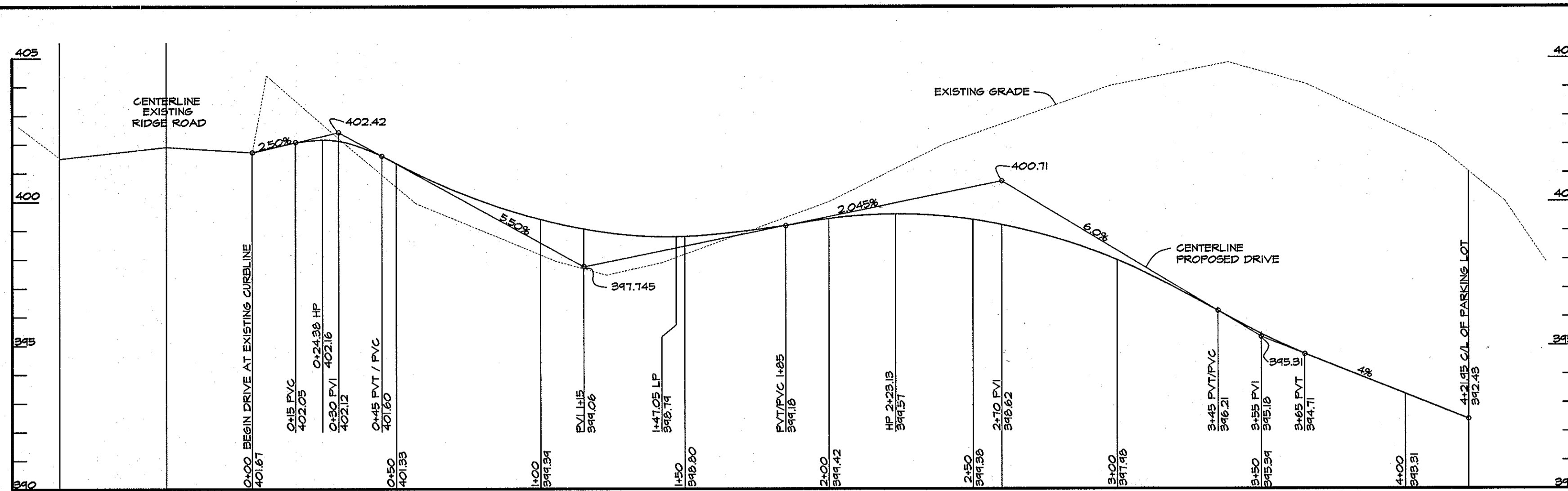
REVISIONS	
NO.	DATE

SDP-98-61

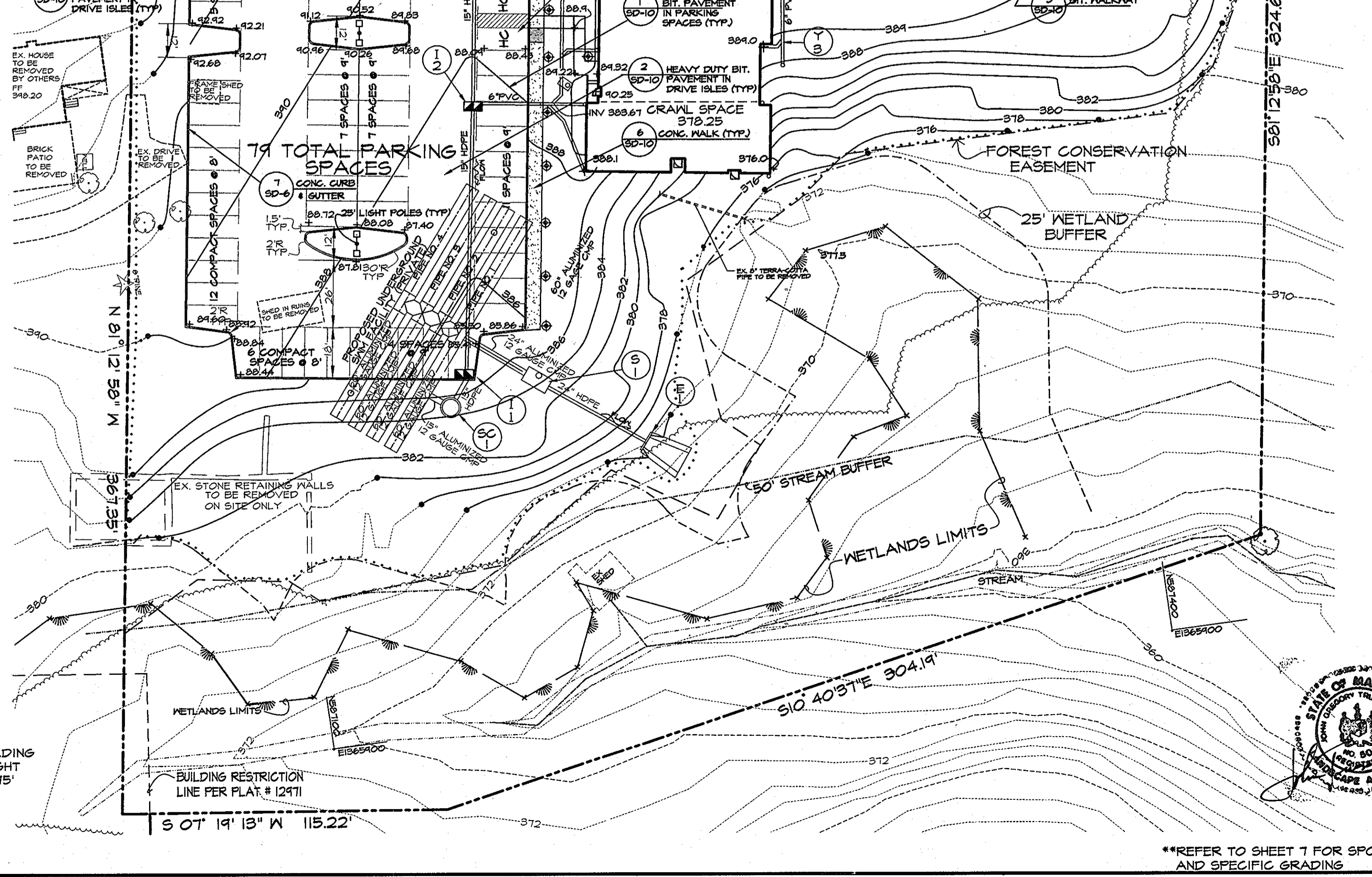
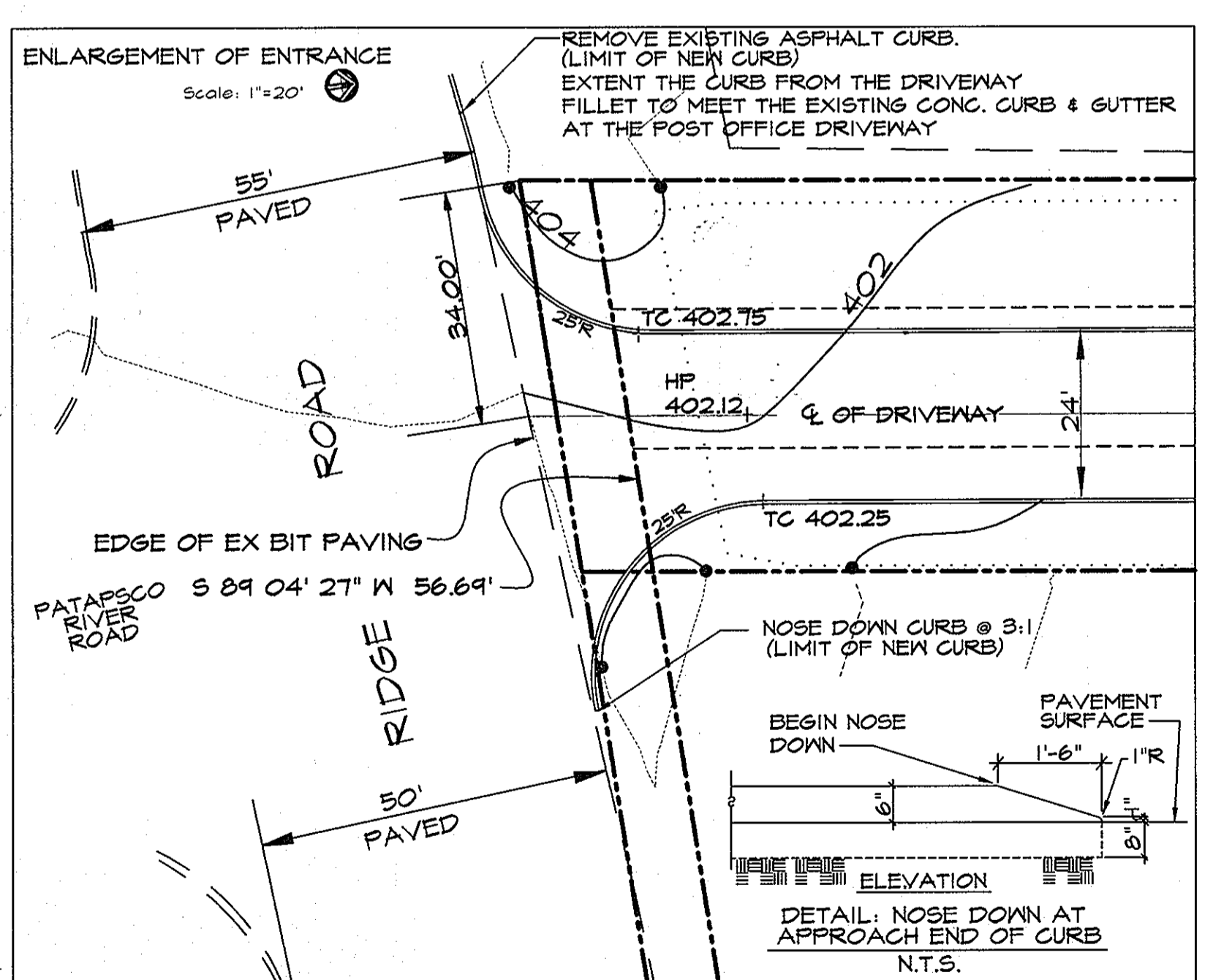
**SITE RESOURCES**  
Incorporated  
Comprehensive Land Planning & Site Design Services

14307 Jarrattville Pike • Phoenix, Maryland 21131  
(410) 683-3388 • fax (410) 683-3389

DATE: 2/16/1998
SCALE: AS SHOWN
PROJECT NO: 2796
DRAWING NO: SDP-1
SHEET 1 OF 12



- NOTES:
- All exterior lighting shall comply with section 134 of the Zoning Regulations.
  - See sheet 7 for all spot grades and specific grading.
  - The stormwater management facility shall be privately owned & maintained.
  - Unless otherwise noted or detailed on the drawings, all construction shall follow the latest Howard County standard details & specifications.
  - The private sanitary sewer house connection shall be schedule 40 PVC pipe.
  - All clean outs (sanitary sewer & storm drain) shall be 4" flush mounted bronze top with recessed keyway on 4" D.I.P. set vertically.
  - The proposed water line shall have a minimum of 42" cover from finished grade. All water lines shall be class 54 D.I.P. and all bends and fittings shall be approved by owner's representative before backfilling. Concrete bases and anchors on all water mains shall be installed in accordance with N.E.P.A. 24-1984.
  - Notify Miss Utility at 1-800-251-7111 at least 48 hours before installing sediment control measures. Maintain markings throughout construction.
  - Handicap signs shall be installed for each parking space. Pursuant to Howard County Council Bill #45-43 (Resolution 122), an aluminum sign, 6" x 12" x 0.09" thick, with text and border to match the Md. Std. RT-8 sign, and stating the amount of the fine (\$48), shall be installed underneath the RT-8 sign, the bottom of the fine sign being no less than 7 feet above ground. See Maryland Standard Highway Sign Booklet for detail of the RT-8 sign.



- LEGEND
- PROPERTY LINE
  - TREELINE
  - WETLAND DELINEATION
  - STREAM
  - 25' WETLAND BUFFER
  - 50' STREAM BUFFER
  - EXISTING 2' CONTOURS
  - PROPOSED 2' CONTOURS
  - USE SETBACK LINE
  - DOWNLIGHT / PARKING
  - UPLIGHT
  - WALKWAY / LOW LEVEL LIGHT
- NOTE: Owner reserves the right to limit construction to that required by Howard County regulations.  
SDP-98-61

NO.	DATE	ITEMS REVISED
1	3/10/98	PER 2/10/98 COUNTY COMMENTS
2	10/14/98	ADD L.P.R. GAS TANK @ N.W. CORNER OF BUILDING

**SITE RESOURCES**  
incorporated

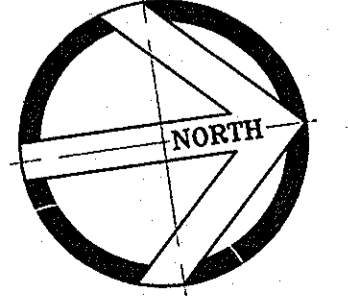
Comprehensive Land Planning & Site Design Services

14307 Jarrettsville Pike • Phoenix, Maryland 21131  
(410) 683-3388 • fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
AFFORDABLE ELDERLY HOUSING

SHELTER DEVELOPMENT LLC

**SITE DEVELOPMENT PLAN**  
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
PLAT NO. 12971



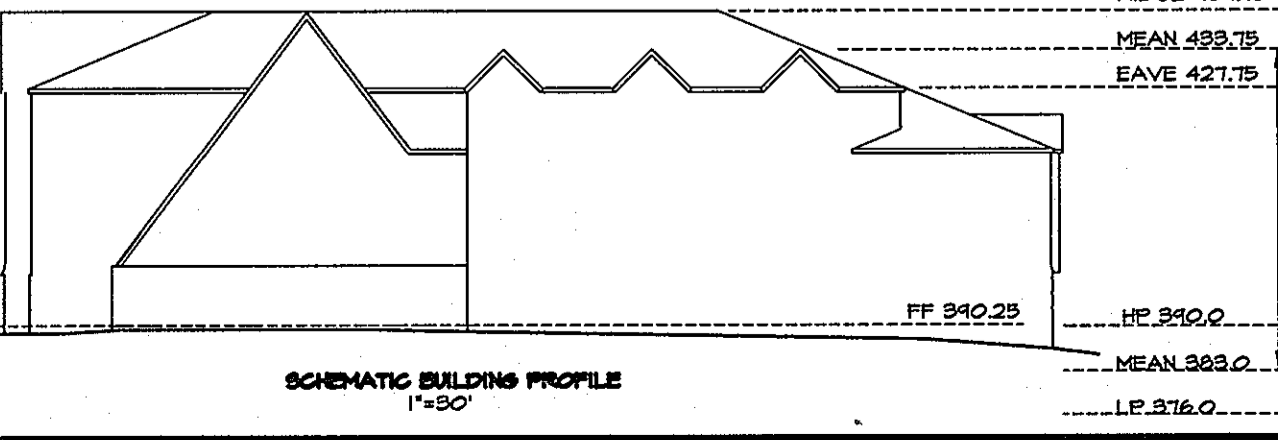
DATE: 2/16/1998  
SCALE: 1"=30'  
PROJECT NO: 2796  
DRAWING NO: SDP-2  
SHEET 2 OF 12

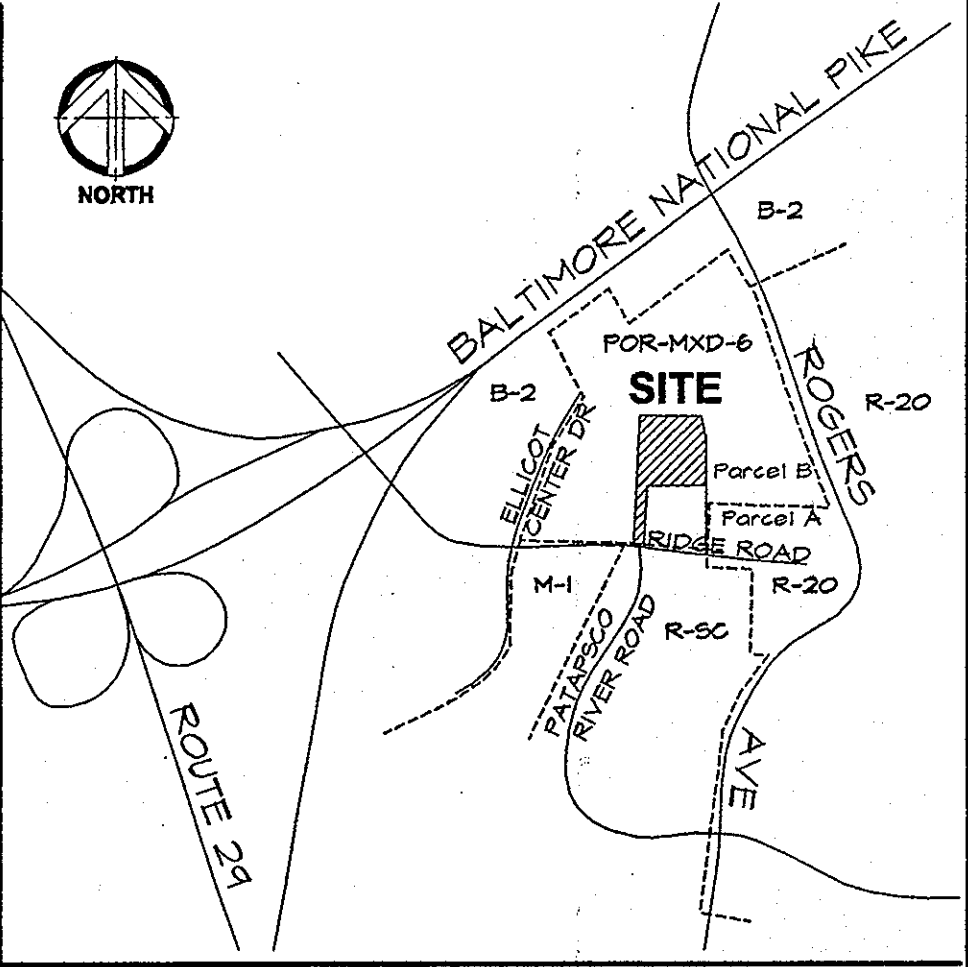
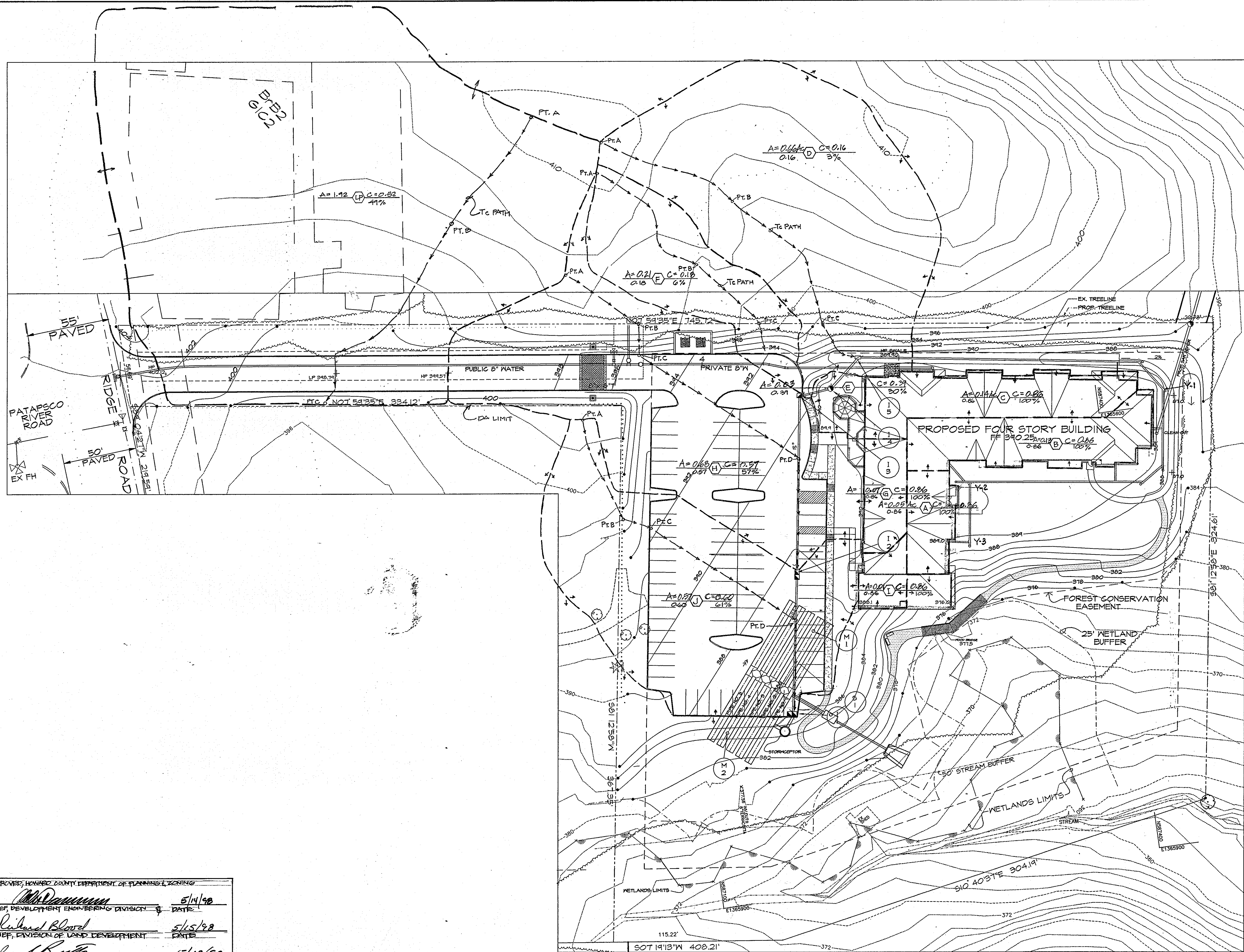
APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Richard Blazel*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/14/98

*Richard Blazel*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5/15/98

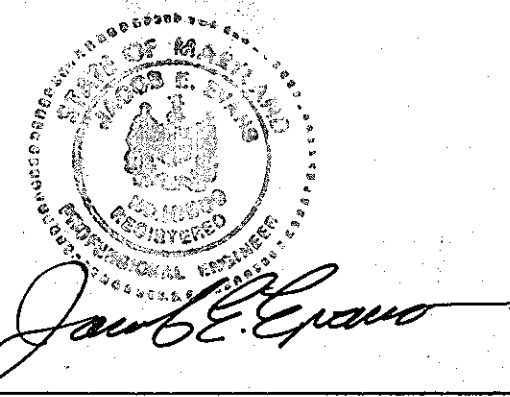
*Joseph Smith*  
DIRECTOR  
DATE: 5/18/98





VICINITY MAP SCALE: 1"=1000'

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 [Signature] 5/14/98  
 CHIEF DEVELOPMENT ENGINEERING DIVISION DATE  
 [Signature] 5/15/98  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
 [Signature] 5/18/98  
 DIRECTOR DATE

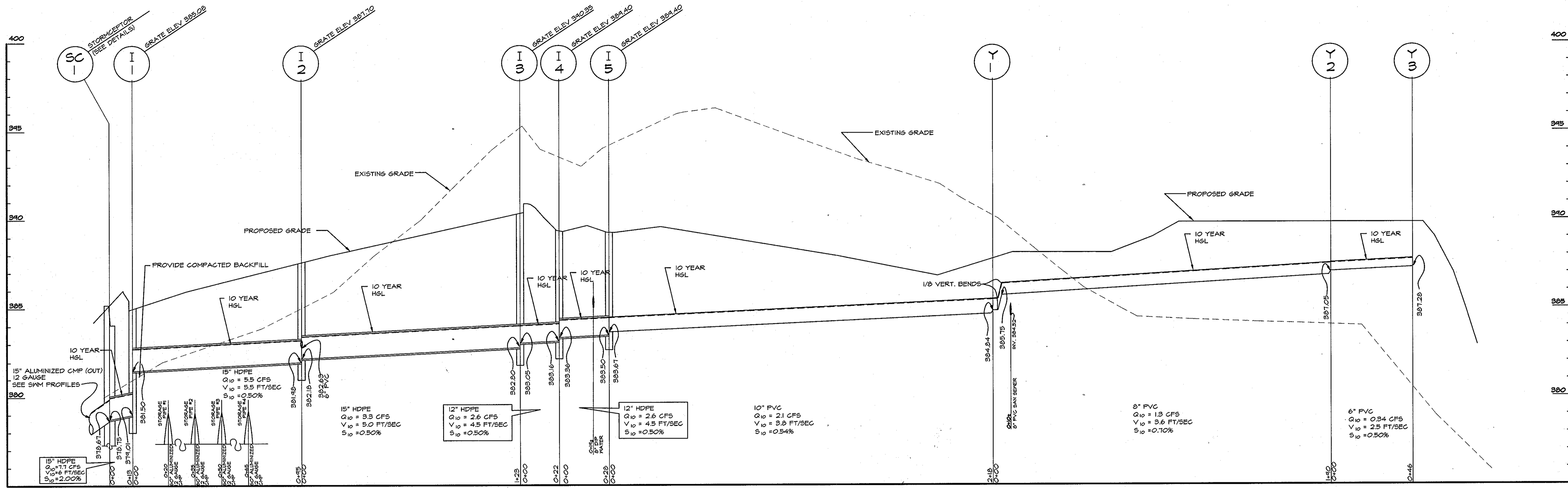


**SITE RESOURCES**  
 Incorporated  
 Comprehensive Land Planning & Site Design Services  
 1738 Roggs Road • Forest Hill, Maryland 21050  
 (410) 678-6864 • fax (410) 678-6865

**PARK VIEW AT ELICOTT CITY**  
 AFFORDABLE ELDERLY HOUSING  
 SHELTER DEVELOPMENT LLC

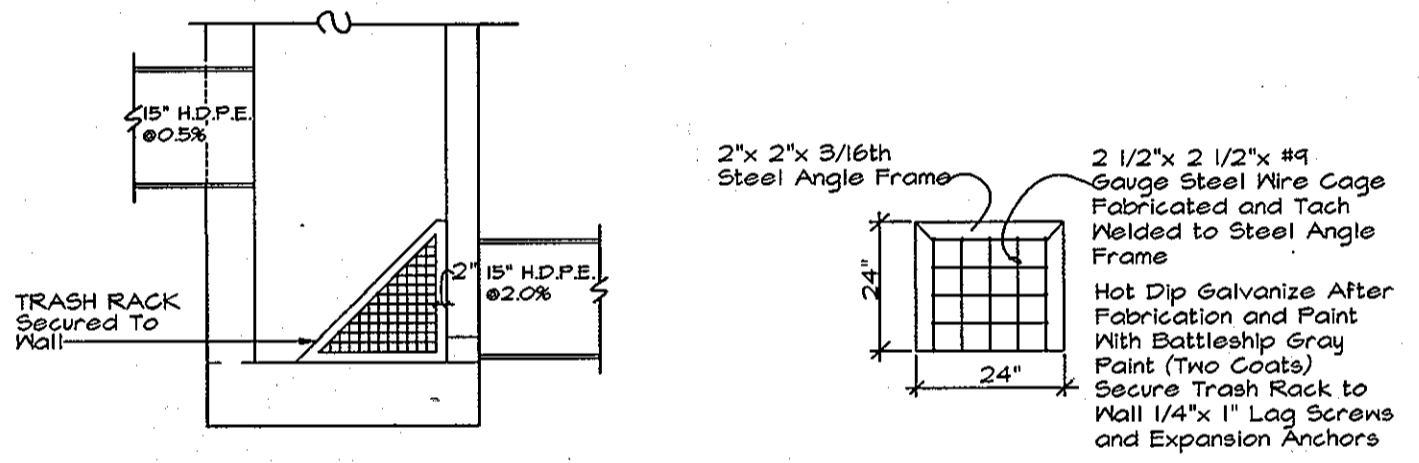
**DRAINAGE AREA MAP**  
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 TAX MAP 24 PARCEL 58

DATE: 2/16/1998  
 SCALE: 1"=30'  
 PROJECT NO: 2796  
 DRAWING NO: SDP-3  
 SHEET 3 OF 12



**STRUCTURE SCHEDULE**

Struc. No.	Type	Standard Detail #	Grate	Top Elev.	Invert In	Invert Out
I-1	Double 'S' Combination	SD-4.34	Recticular SD 4.43	385.08	381.50	379.01
I-2	Double 'S'	SD-4.23	Recticular SD 4.43	387.10	382.18	381.48
I-3	Single 'S' Combination	SD-4.32	Recticular SD 4.43	390.38	389.05	382.80
I-4	Yard Inlet	SD-4.14	As Detailed	384.40	383.36	383.16
I-5	Single 'S'	SD-4.22	Recticular SD 4.43	384.40	383.50	383.67
SC-1	Stormceptor, Mdl. 1800			385.2	378.75	378.67
S-1	Custom Weir Structure			385.6	378.88	378.38
E-1	Type 'C' Endwall	SD-5.21			371.50	



All pipe shall be laid on undisturbed subgrade, or where fill is required, compacted backfill. All backfill shall be full trench compacted, in 8' lifts.

**OPERATIONS & MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE**

- The Stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the Stormceptor unit yearly at a minimum, utilizing the Stormceptor Inspection/Monitoring Form. Inspections shall be done by using a clear Plexiglass tube ("sludge judge") to extract a water column sample. When the sediment depths exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
- The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies.
- The maintenance of the Stormceptor unit shall be done using a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons and other material in the unit. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
- The inlet and outlet pipes shall be checked for any obstructions at least once every six months. If obstructions are found the owner shall have them removed. Structural parts of the Stormceptor unit shall be repaired as needed.
- The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available to the Howard County officials upon their request.

**MAINTENANCE SCHEDULE**

- Remove the inlet grates and inspect for debris each January 2, April 1, July 1, September 30 and November 30. Remove accumulated leaves, twigs, sediment and other debris as required to keep the inlets clean.
- On a semi-annual basis, inspect structure S-1 for any accumulated debris at the trash rack. Remove any debris found during the inspection.
- On an annual basis, inspect the detention system piping for debris or sediment accumulation and for system integrity. Remove any accumulated foreign materials.
- Notify the Howard County Department of Public Works of any problems or failures observed in this system.

**Concrete Stormceptor Order Request Form**

Official Use Only  
Order # \_\_\_\_\_  
Date \_\_\_\_\_  
Internal Sale \_\_\_\_\_

**Contractor Information**  
Name: HARKING BUILDERS  
Address: 12301 OLD COLUMBIA PIKE  
City: BALTIMORE  
State: MARYLAND  
Zip Code: 21054  
Contact: LARRY KRAMER  
Phone: 301 622 9000  
Fax: 301 680 4280

**Owner Information**  
Name: SHELTER DEVELOPMENT  
Phone: 410 462 0545  
Fax: 410 688 3382

Stormceptor Model	Insert Size	Data
900	3600	22A
1200	4800	32A
1800	6000	44A
2400	7200	Disc

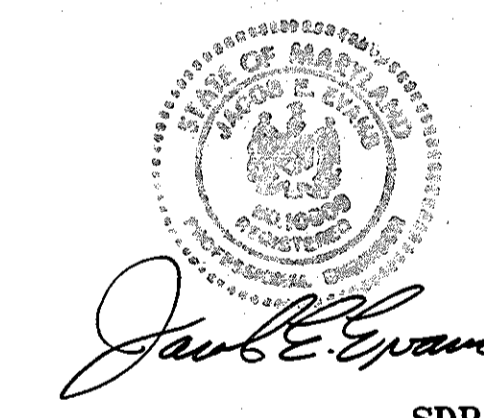
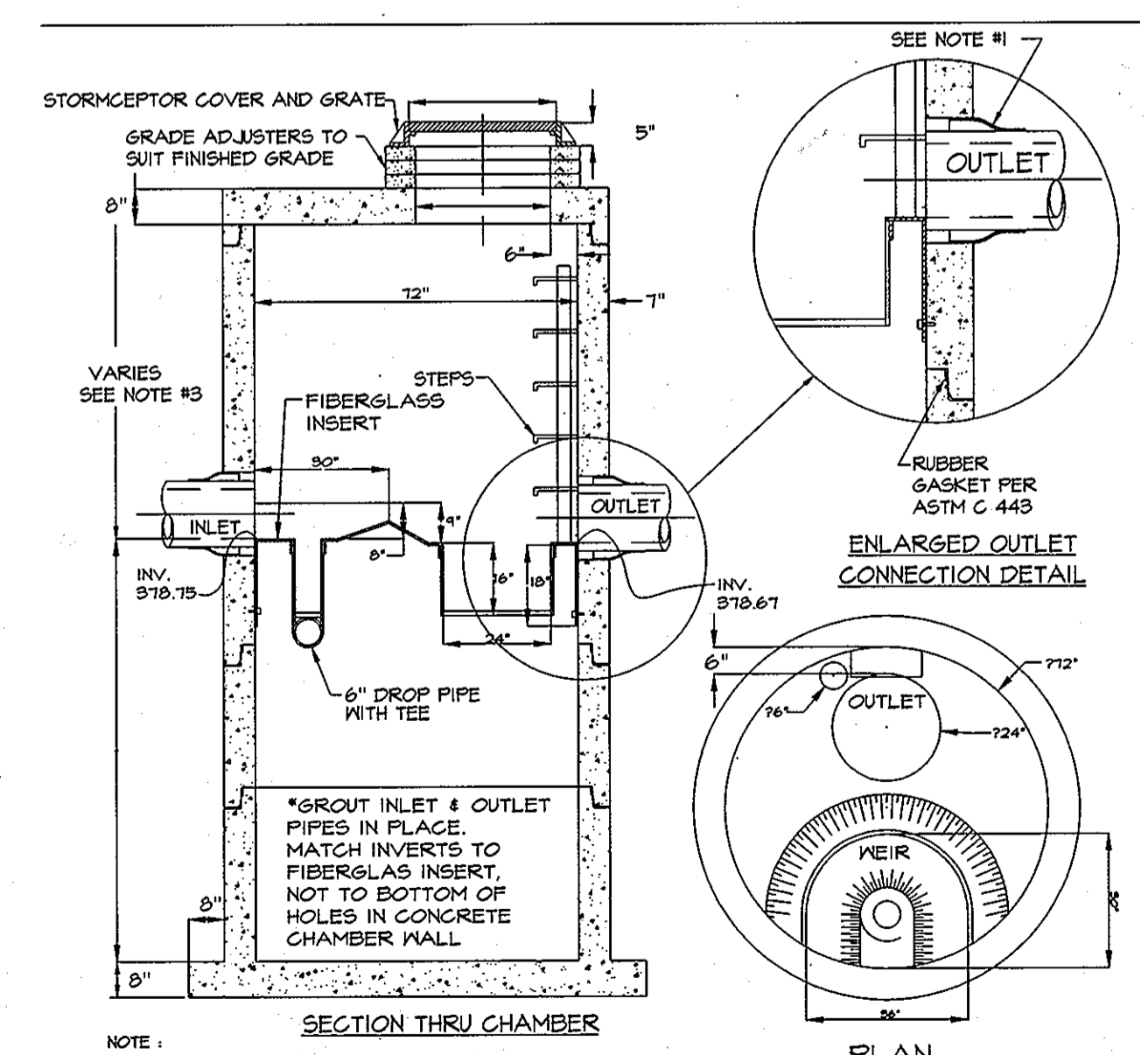
Manhole/Structure Number: SC-1  
Top Elevation (ft): 385.25  
Inlet Pipe Invert (ft): 378.75  
Outlet Pipe Invert (ft): 378.67  
Pipe Type: 15" HDPE IN, 15" AL 125 CMP OUT  
Pipe Inside Diameter (in): 14.25 HDPE, 14.4 CMP

Impervious Drainage Area (ac): .118

Project Name: PARK VIEW AT ELLICOTT CITY PARCEL B  
Approximate time frame until required delivery (weeks) to be determined.  
Exact Delivery Address: 8720 RIDGE ROAD  
City: ELLICOTT CITY State: MARYLAND Zip Code: 21015  
Designer Company: Site Resources, Inc. Designer Contact: JOHN TRUESCHLER Phone 410 688 3388 Fax 410 688 3384

Please fax this sheet to Stormceptor Corporation at (301) 762-4110  
For Technical Information Please Call Stormceptor Corporation at (301) 762-8361 or Toll Free at 1-800-762-4103

**STC 1800 Precast Concrete Stormceptor®**  
(1800 US Gallon Capacity)  
(Disc Design)



SDP-98-61

REVISIONS	NO.	DATE	ITEMS REVISED

**SITE RESOURCES**  
incorporated  
Comprehensive Land Planning & Site Design Services  
1738 Doggs Road • Forest Hill, Maryland 21050  
(410) 879-6964 • fax (410) 879-6965

**PARK VIEW AT ELLICOTT CITY**  
AFFORDABLE ELDERLY HOUSING  
SHELTER DEVELOPMENT LLC

**UTILITY PROFILES**

2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
TAX MAP 54 PARCEL 58

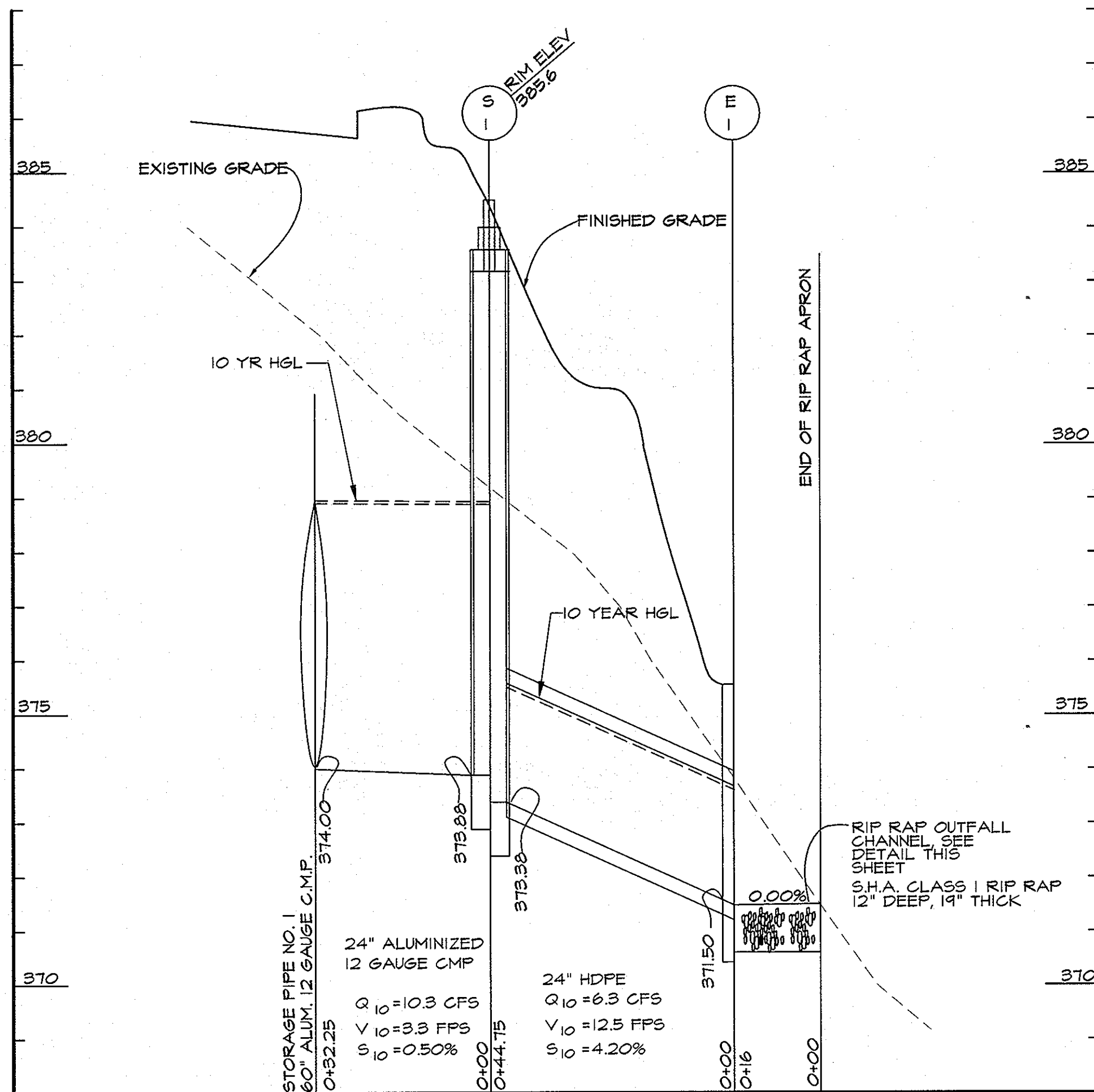
DATE: 2/16/1998
SCALE: AS SHOWN
PROJECT NO: 2796
DRAWING NO: SDP-4
SHEET 4 OF 12

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

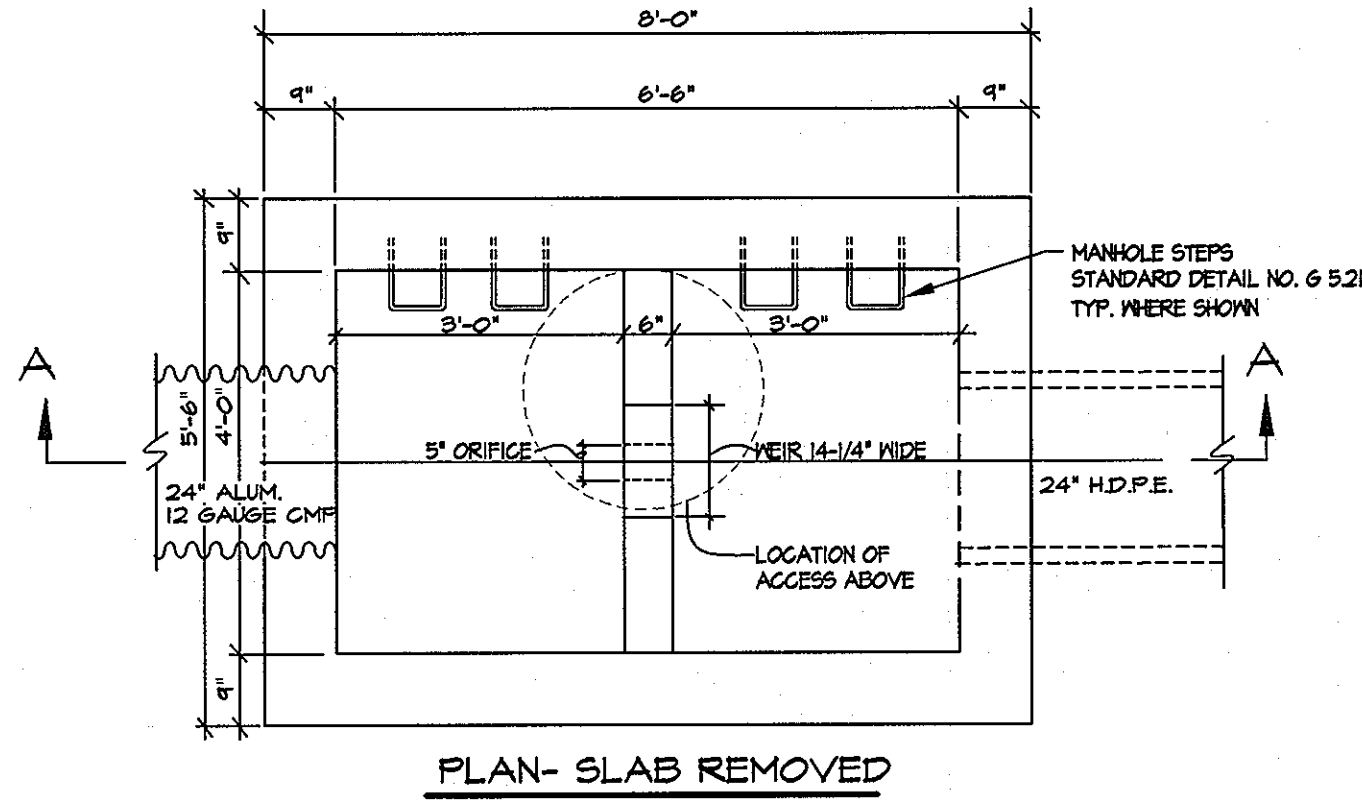
*John Trueschler*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/14/98

*Richard Blood*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5/15/98

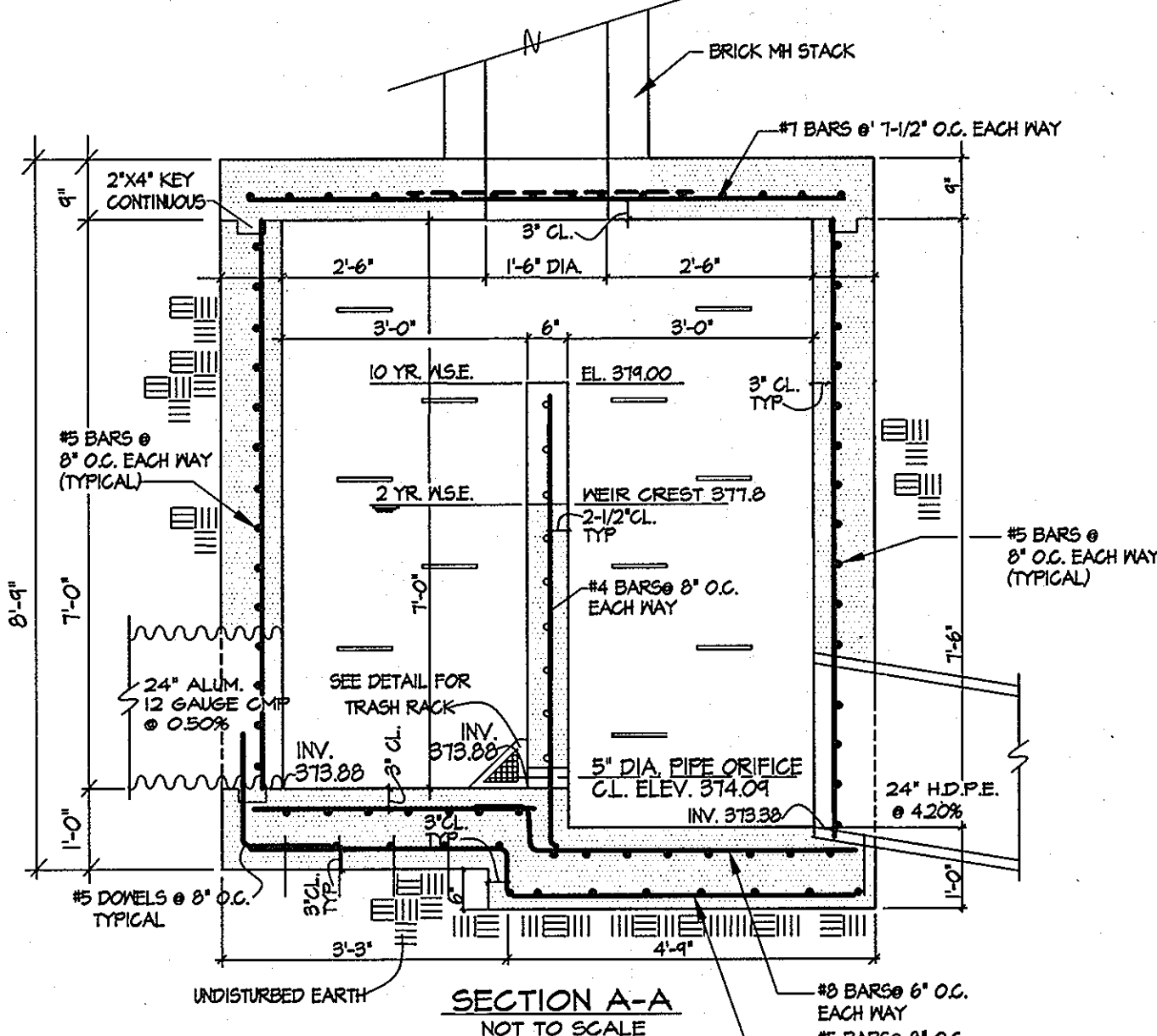
*David E. Evans*  
REGISTERED PROFESSIONAL ENGINEER  
DATE: 5/18/98



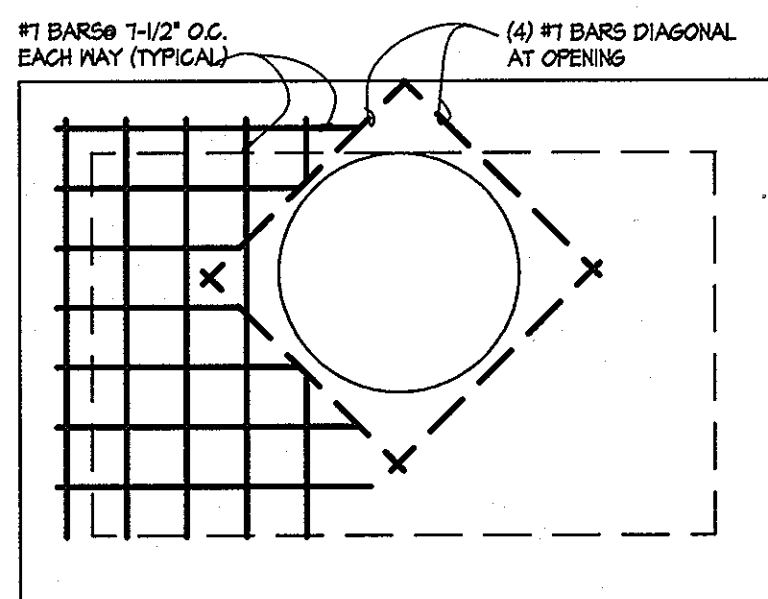
**STORMWATER MANAGEMENT PROFILE**  
SCALE: HORIZONTAL: 1"=20'  
VERTICAL: 1"=2'



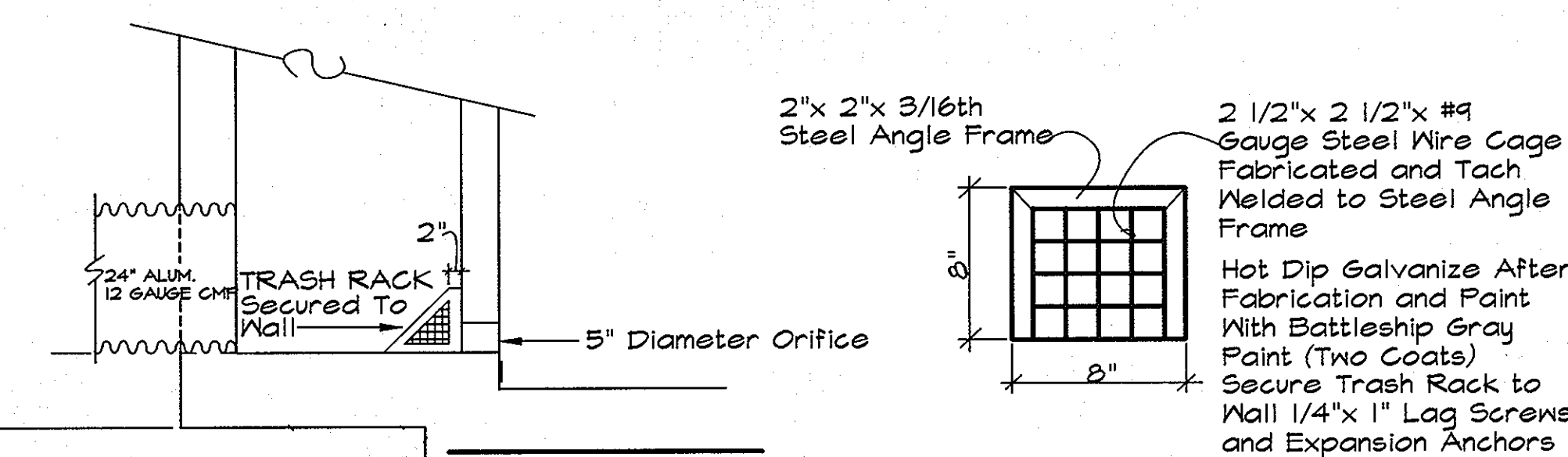
**PLAN - SLAB REMOVED**



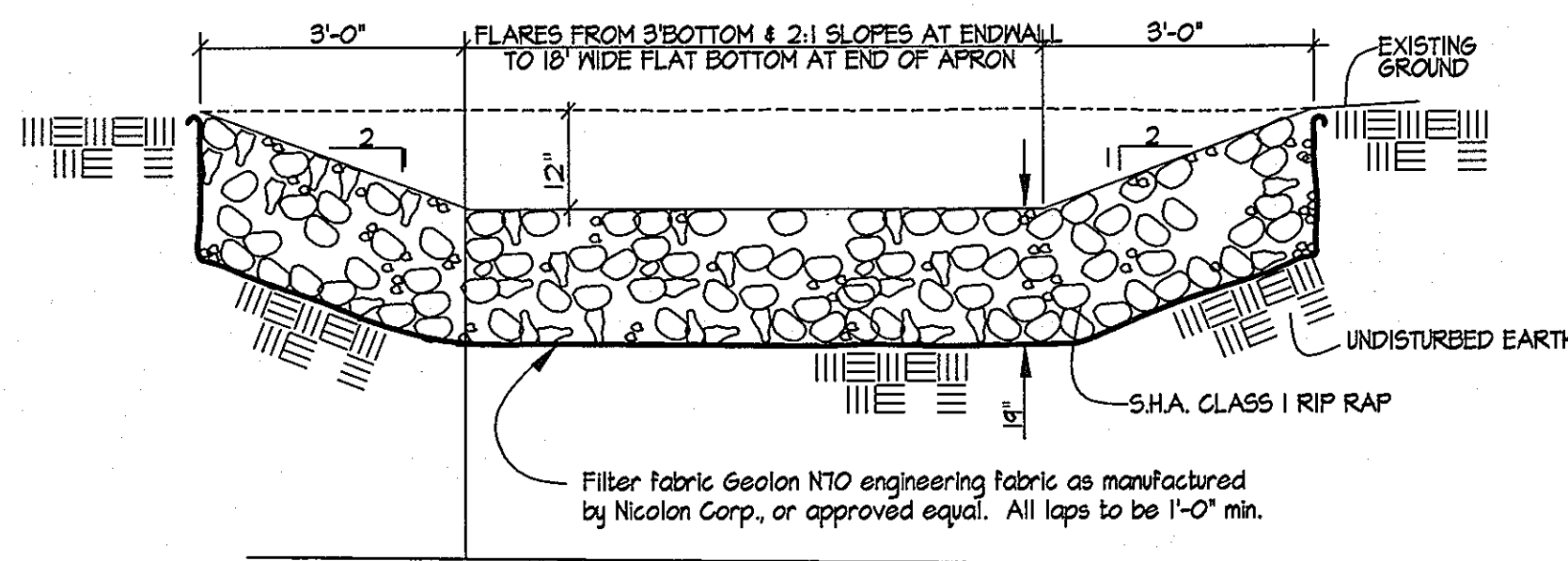
**SECTION A-A**  
NOT TO SCALE



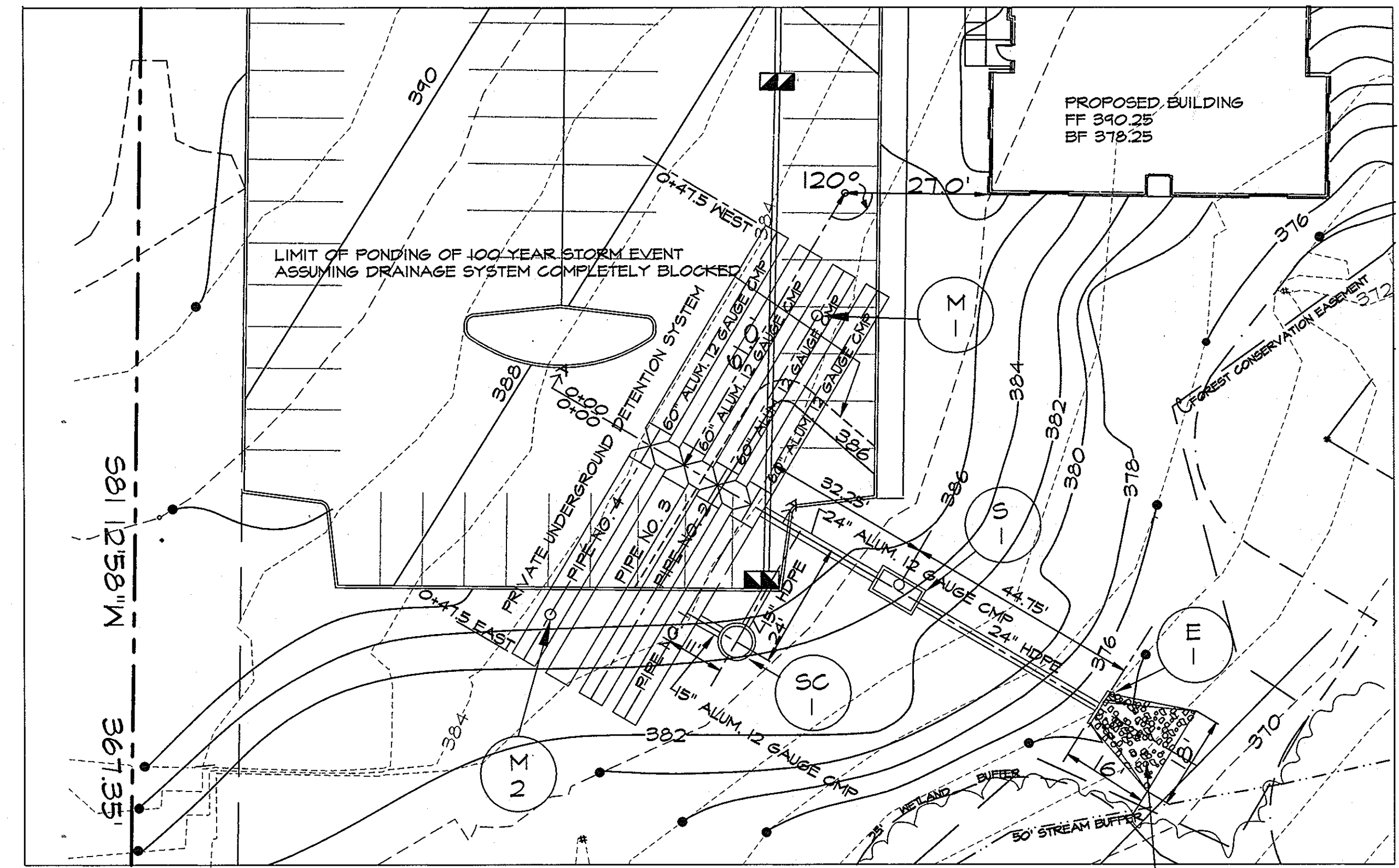
**PLAN OF TOP OF SLAB**  
**STRUCTURE S-1**  
NOT TO SCALE



**TRASH RACK**  
Not To Scale



**OUTFALL CHANNEL**  
NOT TO SCALE



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

**LAYOUT NOTES (FOR SWM FACILITIES ONLY)**

- Layout of the SWM storage pipes is based on the corner of the proposed building. Begin at the building corner and head away from the building, perpendicular as shown, a distance of 27.0'. At this new point, turn 120 degrees to establish the centerline of storage pipe 3. From the turning point, go 61.0' along the centerline of storage pipe 3 to establish the centerline of the 60" x 60" tees that connect the pipes. The centerline of the connecting tees is stationed 0+00 for the purposes of the pipe layout and profiles. The storage pipes are shown as being east or west of station 0+00.
- Align the discharge pipe, structure 1, and the endwall with the connecting tees. For the purpose of layout and profiles of these structures, the centerline of storage pipe 1 is designated station 0+00.
- Layout the stormceptor 11" north of the centerline of storage pipe 1 and 24" east of the centerline of the connecting tees & discharge pipe as shown.

**STRUCTURE NOTES**

- Reinforcement shall be deformed billet steel bars meeting the requirements of AASHTO grade 40.
- Concrete shall be mix No. 3 with a 28 day compressive strength of 3500 psi.
- Concrete shall be thoroughly vibrated to avoid any voids or honeycombed sections.
- The inside surfaces of forms shall be thoroughly wet with clean water immediately before pouring concrete.
- Vertical forms shall remain in place for a period of 48 hours, horizontal forms shall remain in place for a minimum period of seven days.

**PIPE NOTES**

- Corrugated steel pipe and shop fabricated fittings shall be 12 GAUGE ALUMINIZED CORRUGATED steel pipe with 2-2 3/8" x 1/2" corrugations. All couplings shall be Hugger type with 3/8" neoprene gaskets (Lane Band C12-1-2) or approved equal.
- Cap ends of 12 gauge aluminum 60" CMP storage pipes with 1/8" steel plate bulkheads welded circumferentially. Pipe ends are to be completely watertight. Paint welds and steel plate with anti-corrosive coating in accordance with pipe manufacturers recommendations.
- Storage pipes to be on pea gravel subgrade; carry pea gravel backfill to springline of pipes.
- 12 gauge aluminum corrugated pipe MH shall be 36" diameter with 30" access frame & cover.
- Material used for backfill above storage pipe crowns shall be approved by the soils engineer and shall be compacted in 8" loose layers to 95% of maximum dry density at optimum moisture content as determined by AASHTO T-150.
- All debris shall be kept out of the facility during and after construction.

\*STORM DRAINS & SWM SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED BY SHELTER DEVELOPMENT, LLC, SUITE 500 PARK CHARLES, 210 NORTH CHARLES STREET, BALTIMORE, MARYLAND 21201, (410) 962-0545

**MAINTENANCE SCHEDULE**

- Remove the inlet grates and inspect for debris each January 2, April 1, July 1, September 30 and November 30. Remove accumulated leaves, bricks, sediment and other debris as required to keep the inlets clean.
- On a semi-annual basis, inspect structure S-1 for any accumulated debris at the trash rack. Remove any debris found during the inspection.
- On an annual basis, inspect the detention system piping for debris or sediment accumulation and for system integrity. Remove any accumulated foreign materials.
- Notify the Howard County Department of Public Works of any problems or failures observed in this system.

**SUMMARY TABLE**

Drainage Area To Facility = 2.46 acres

	2 Year Storm	10 Year Storm	100 Year Storm
Inflow	5.2 cfs	10.3 cfs	16.4 cfs
Release Rate	1.3 cfs	6.3 cfs	16.4 cfs
Elevation	371.8	374.0	374.6
Storage	0.14 Ac.Ft.	0.17 Ac.Ft.	Storage N/A



*James E. Lewis*  
340

NO.	DATE	ITEMS REVISED
1	3/10/98	PER 2/10/1998 COUNTY COMMENTS

**SITE RESOURCES**  
incorporated  
Comprehensive Land Planning & Site Design Services  
14307 Jarrattville Pike • Phoenix, Maryland 21131  
(410) 683-3388 • fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
AFFORDABLE ELDERLY HOUSING

SHELTER DEVELOPMENT LLC  
**STORMWATER MANAGEMENT**  
PLAN AND DETAILS  
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
TAX MAP 24 PARCEL 56

DATE: 2/16/1998  
SCALE: AS SHOWN  
PROJECT NO: 2796  
DRAWING NO: SDP-5  
SHEET 5 OF 12

Copyright, Site Resources Inc. 2/15/98 9:28 PM SDP\_05\_SWM.dwg

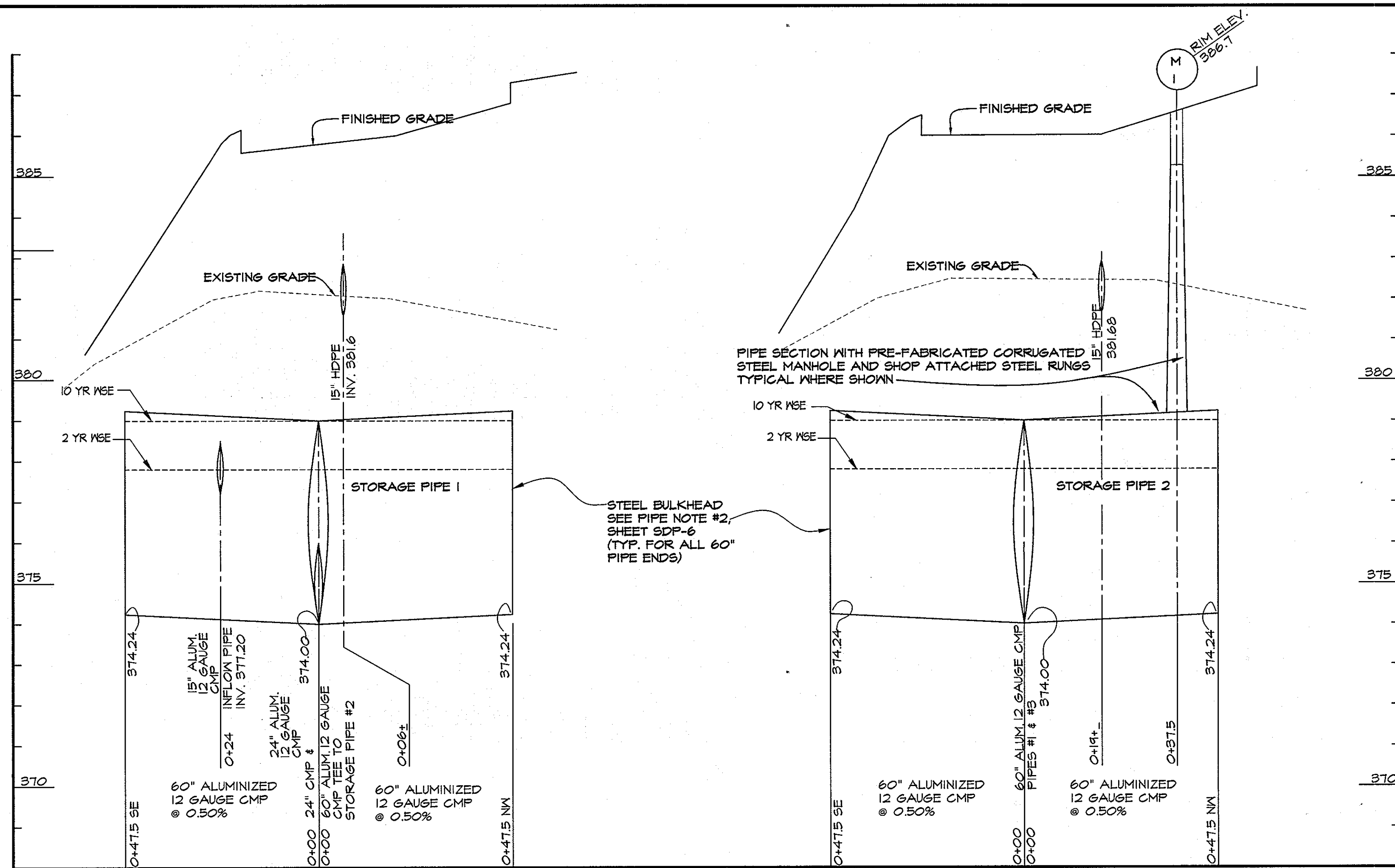
SDP-98-61

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Richard Blouel*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/14/98

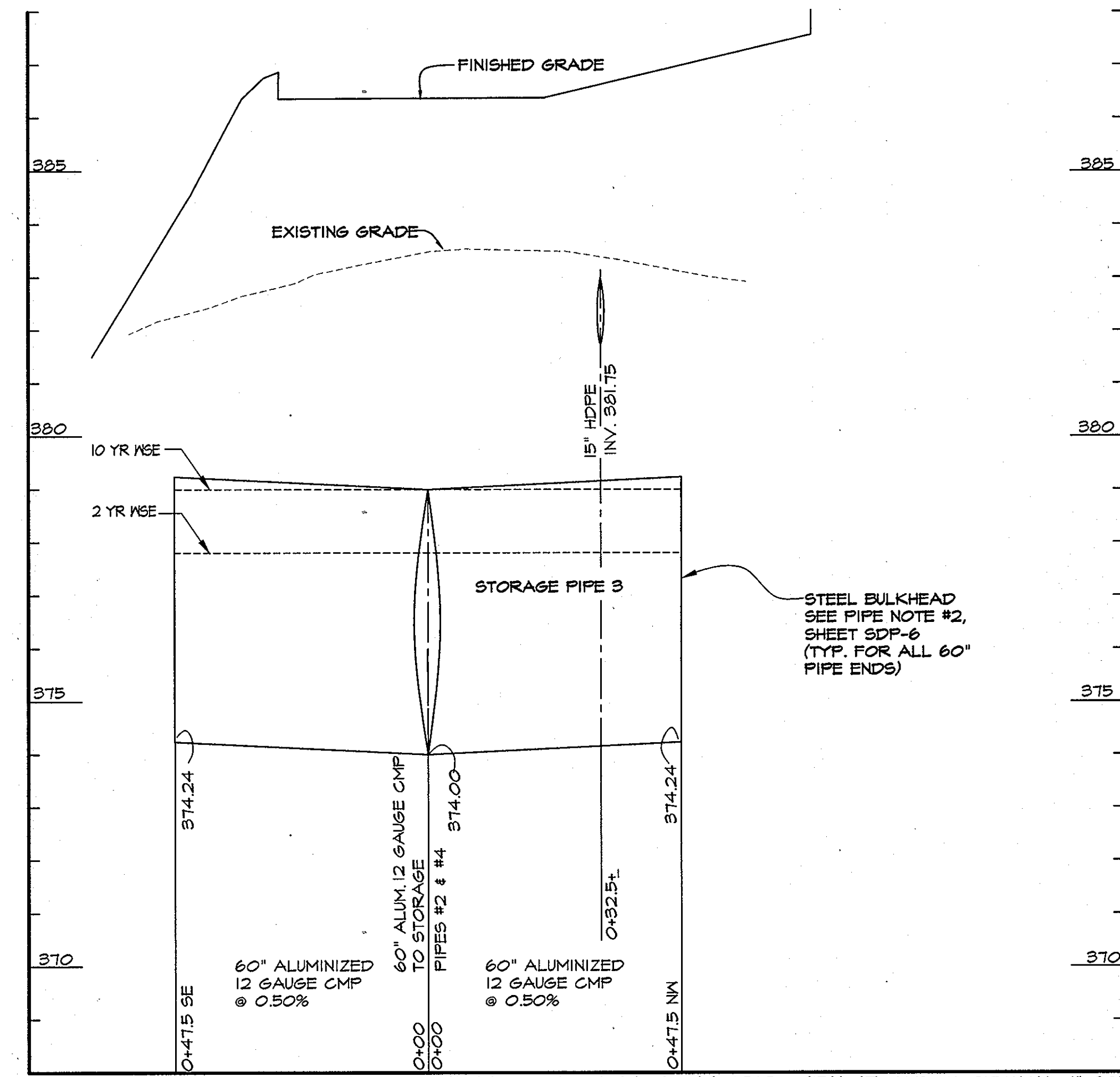
*Richard Blouel*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5/15/98

*James E. Lewis*  
DIRECTOR  
DATE: 5/18/98



STORMWATER MANAGEMENT DETENTION PROFILES

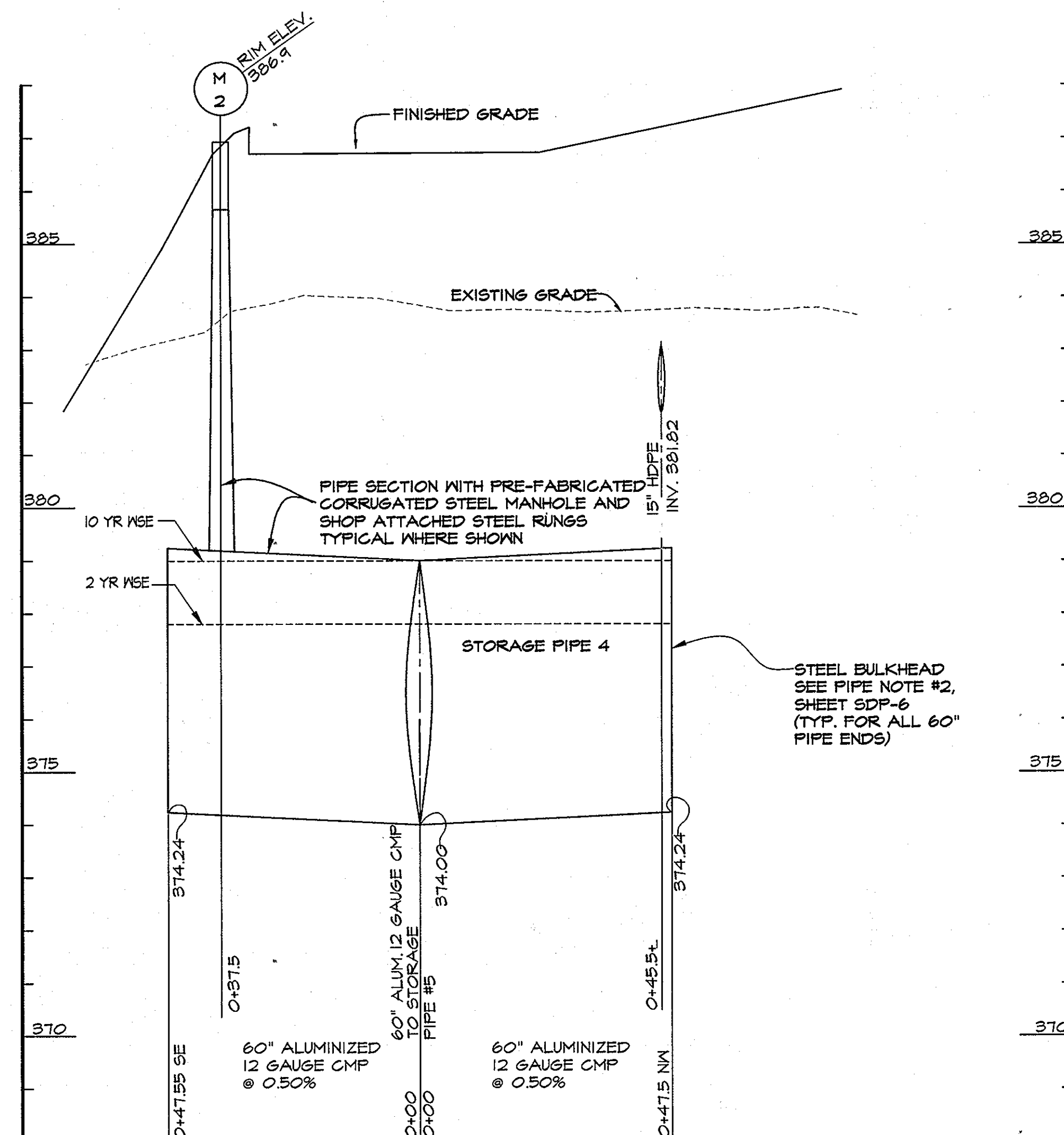
SCALE: HORIZONTAL: 1"=20'  
VERTICAL: 1"=2'



STORMWATER MANAGEMENT DETENTION PROFILE

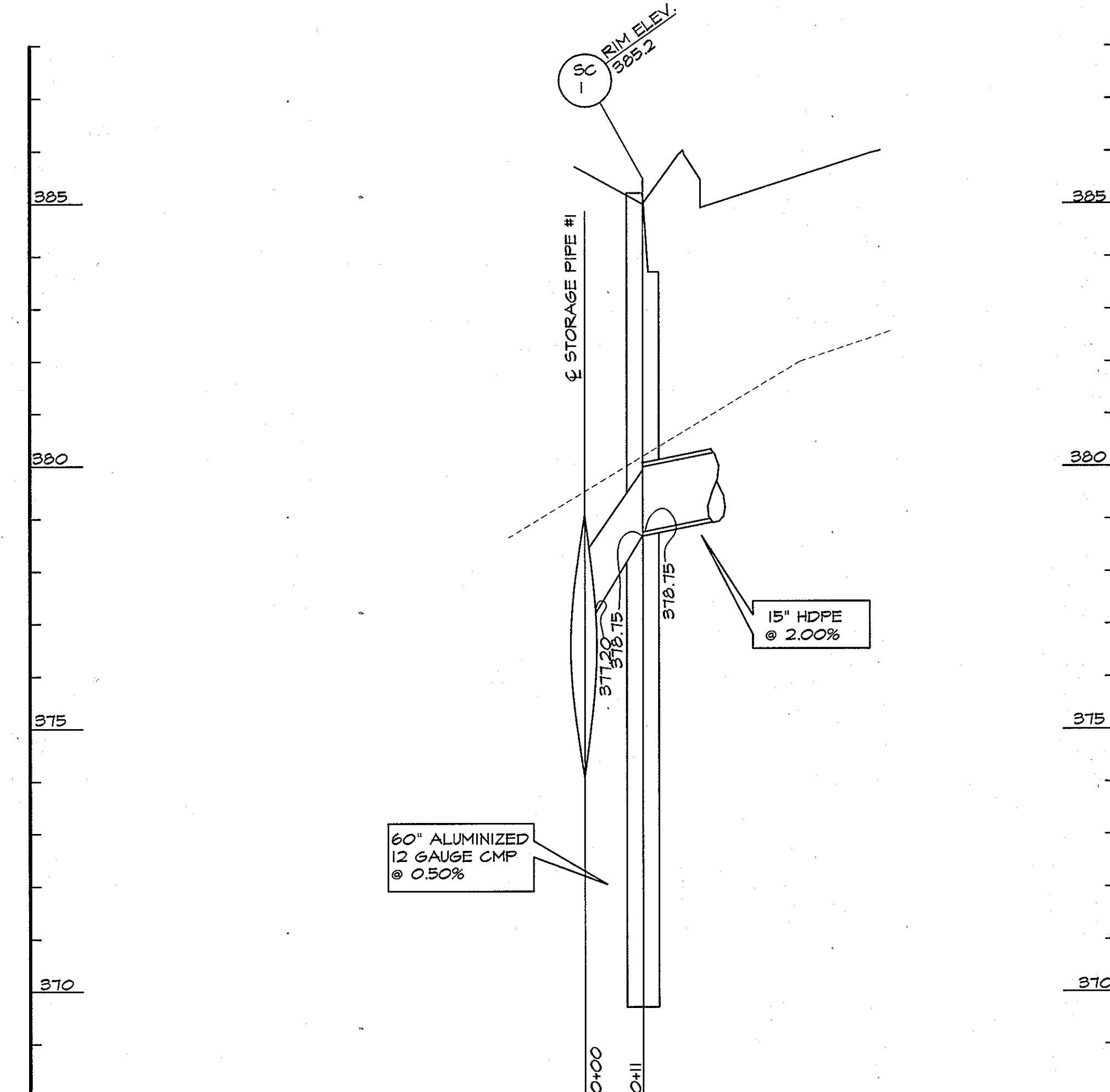
SCALE: HORIZONTAL: 1"=20'  
VERTICAL: 1"=2'

\*ALL CMP SHALL BE 12 GAUGE ALUMINIZED WITH 2-2/8" X 1/2" CORRUGATIONS



STORMWATER MANAGEMENT DETENTION PROFILES

SCALE: HORIZONTAL: 1"=20'  
VERTICAL: 1"=2'



STORMWATER MANAGEMENT DETENTION PROFILE

SCALE: HORIZONTAL: 1"=20'  
VERTICAL: 1"=2'

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 [Signature] 5/14/98  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 [Signature] 5/15/98  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 [Signature] 5/18/98  
 DIRECTOR



*James E. Evans*

SDP-98-61

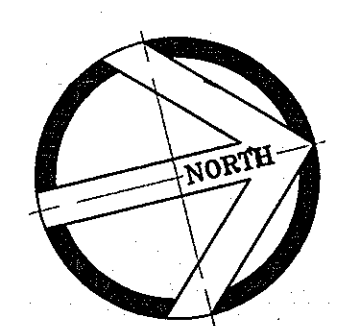
REVISIONS	NO.	DATE	ITEMS REVISED



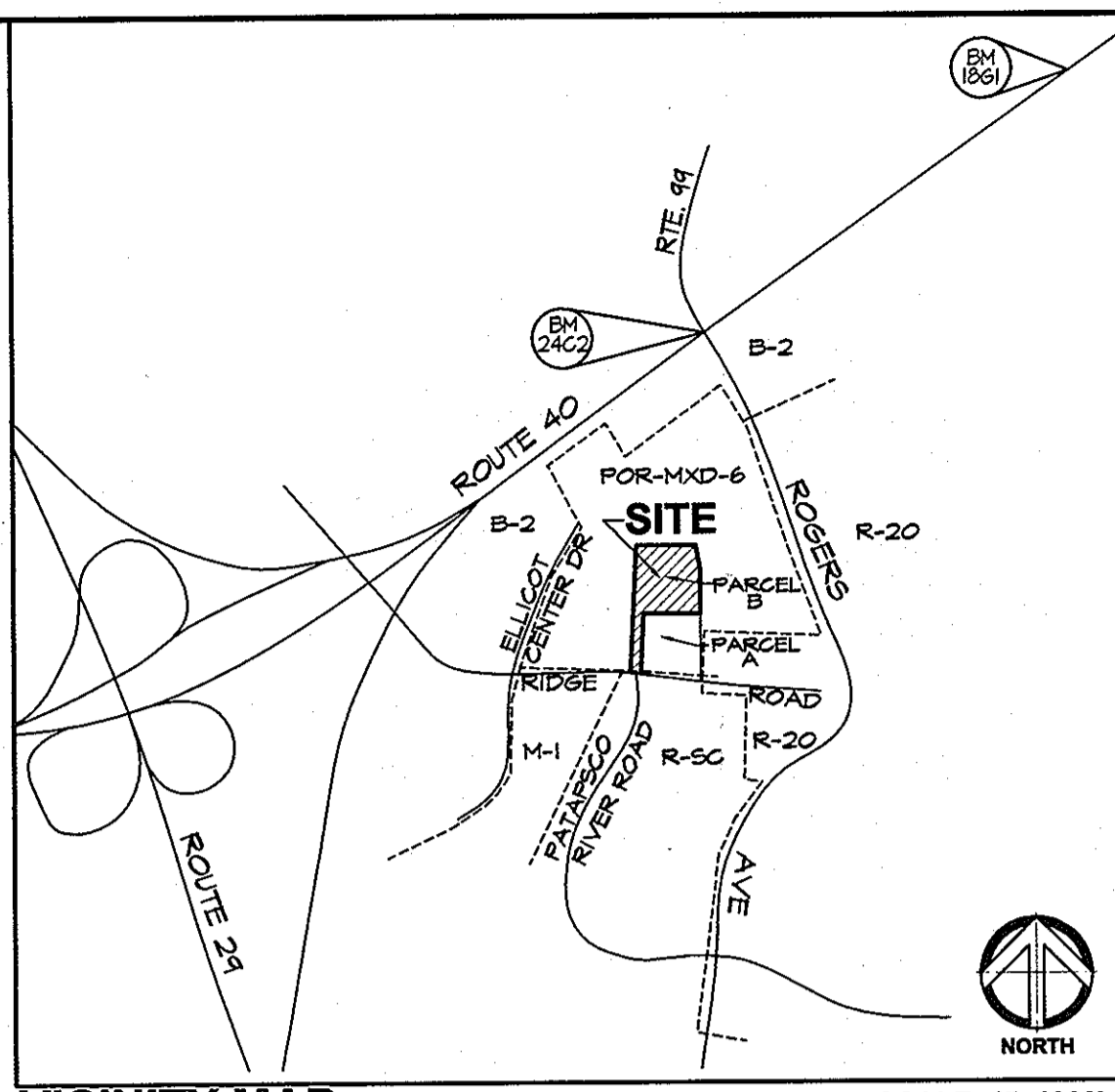
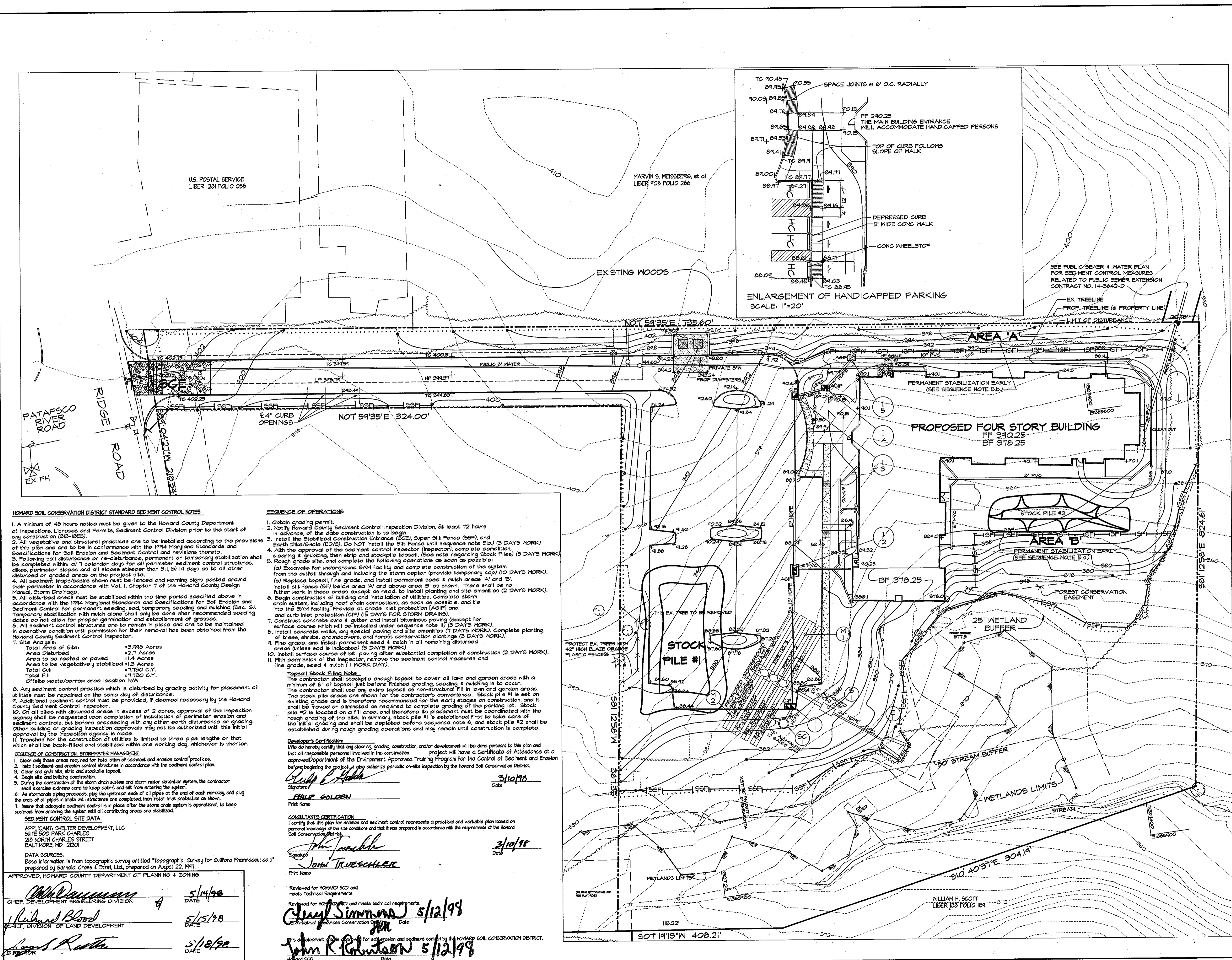
**SITE RESOURCES**  
 Incorporated  
 Comprehensive Land Planning & Site Design Services  
 14307 Jarrettsville Pike • Phoenix, Maryland 21131  
 (410) 683-3388 • fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
 AFFORDABLE ELDERLY HOUSING

SHELTER DEVELOPMENT LLC  
**STORMWATER MANAGEMENT**  
**DETENTION PROFILES**  
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 TAX MAP 24 PARCEL 56



DATE: 2/16/1998  
 SCALE: HOR: 1"=20'  
 VERT: 1"=2'  
 PROJECT NO: 2796  
 DRAWING NO: SDP-6  
 SHEET 6 OF 12



**VICINITY MAP**  
 HOWARD COUNTY CONTROL STATIONS  
 CONTROL STATION 24C2  
 ELEVATION: 354.252  
 N 55°49' E 1366.240  
 DESCRIPTION: CONC. MONUMENT AT SURFACE, 5' NORTH OF LEFT TURN LANE OF ROUTE 40 WEST, 14' EAST OF EAST EDGE OF CROSSOVER TO ROUTE 40 SOUTH. APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING.  
 CONTROL STATION 1861  
 ELEVATION: 407.84  
 N 55°49' E 1366.240  
 DESCRIPTION: CONC. MONUMENT AT SURFACE, 4' NORTH OF MAC. SHOULDER OF ROUTE 40 WEST, 18' WEST OF YELLOW BLINKING SIGNAL.

**HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (318-1022).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control and revisions thereto.
- Following soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within a 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7 of the Howard County Design Manual, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control for permanent seeding, sod, temporary seeding and mulching (Sec. 6). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

**SEQUENCE OF OPERATIONS**

- Obtain grading permit.
- Notify Howard County Sediment Control Inspection Division, at least 72 hours in advance, of the date construction is to begin.
- Install the Stabilized Construction Entrance (SCE), Super Silt Fence (SSF), and Earth Dike/Diversion (ED/D). Do NOT install the Silt Fence until sequence note 5b) (3 DAYS WORK).
- With the approval of the sediment control inspector (inspector), complete demolition, clearing & grubbing, then strip and stockpile topsoil. (See note regarding Stock Piles) (5 DAYS WORK).
- Rough grade site, and complete the following operations as soon as possible:
  - Excavate for underground S/M facility and complete construction of the system from the outfall through and including the stormceptor (provide temporary cap) (10 DAYS WORK).
  - Replace topsoil, fine grade, and install permanent seed & mulch areas 'A' and 'B'.
- Install silt fence (SF) below area 'A' and above area 'B' as shown. There shall be no further work in these areas except as req'd. to install planting and site amenities (2 DAYS WORK).
- Begin construction of building and installation of utilities. Complete storm drain system, including roof drain connections, as soon as possible, and tie into the S/M facility. Provide at grade inlet protection (AGIP) and curb inlet protection (CIP) (5 DAYS FOR STORM DRAINS).
- Construct concrete curb & gutter and install bituminous paving (except for surface course which will be installed under sequence note 11) (5 DAYS WORK).
- Install concrete walks, any special paving and site amenities (7 DAYS WORK). Complete planting of trees, shrubs, groundcovers, and forest conservation plantings (3 DAYS WORK).
- Final grade, and install permanent seed & mulch in all remaining disturbed areas (unless sod is indicated) (3 DAYS WORK).
- Install surface course of bit. paving after substantial completion of construction (2 DAYS WORK).
- With permission of the Inspector, remove the sediment control measures and fine grade, seed & mulch (1 WORK DAY).

**Topsoil Stock Piling Note**  
 The contractor shall stockpile enough topsoil to cover all lawn and garden areas with a minimum of 6" of topsoil just before finished grading, seeding & mulching is to occur. The contractor shall use any extra topsoil as non-structural fill in lawn and garden areas. Two stock pile areas are shown for the contractor's convenience. Stock pile #1 is set on existing grade and is therefore recommended for the early stages of construction, and it will be moved or eliminated as required to complete grading of the parking lot. Stock pile #2 is located on a fill area, and therefore its placement must be coordinated with the rough grading of the site. In summary, stock pile #1 is established first to take care of the initial grading and shall be depleted before sequence note 6, and stock pile #2 shall be established during rough grading operations and may remain until construction is complete.

**Developer's Certification**  
 I/We do hereby certify that any clearing, grading, construction, and/or development will be done pursuant to this plan and that all responsible personnel involved in the construction project will have a Certificate of Attendance at an approved Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. A sign authorize periodic on-site inspection by the Howard Soil Conservation District.  
 Signature: *Philip Golden* Date: 3/10/98  
 Signature: *John Trueschler* Date: 3/10/98

**CONSULTANT'S CERTIFICATION**  
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.  
 Signature: *John Trueschler* Date: 3/10/98  
 Signature: *John R. Robinson* Date: 5/12/98

**SEDIMENT CONTROL SITE DATA**  
 APPLICANT: SHELTER DEVELOPMENT, LLC  
 SUITE 500 PARK CHARLES  
 210 NORTH CHARLES STREET  
 BALTIMORE, MD 21201  
 DATA SOURCES:  
 Base information is from topographic survey entitled "Topographic Survey for Guilford Pharmaceuticals" prepared by Gerhold, Cross & Etzel, Ltd., prepared on August 22, 1997.  
 APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 5/14/98  
 DATE: 5/15/98  
 DATE: 5/18/98

Approved: *Howard S.O.D.*  
 State of Maryland  
 Seal of the State of Maryland  
 and 7 or as Technical Representative  
 Signature: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Date: \_\_\_\_\_

**LEGEND**

EXISTING CONTOURS	390
PROPOSED CONTOURS	388
LIMIT OF DISTURBANCE	.....
AT GRADE INLET PROTECTION	AGIP [ ]
CURB INLET PROTECTION	CIP [ ]
STABILIZED CONSTRUCTION ENTRANCE	[ ]
SUPER SILT FENCE	SSFF [ ]
SILT FENCE	SF [ ]

SDP-98-61

NO.	DATE	ITEMS REVISED

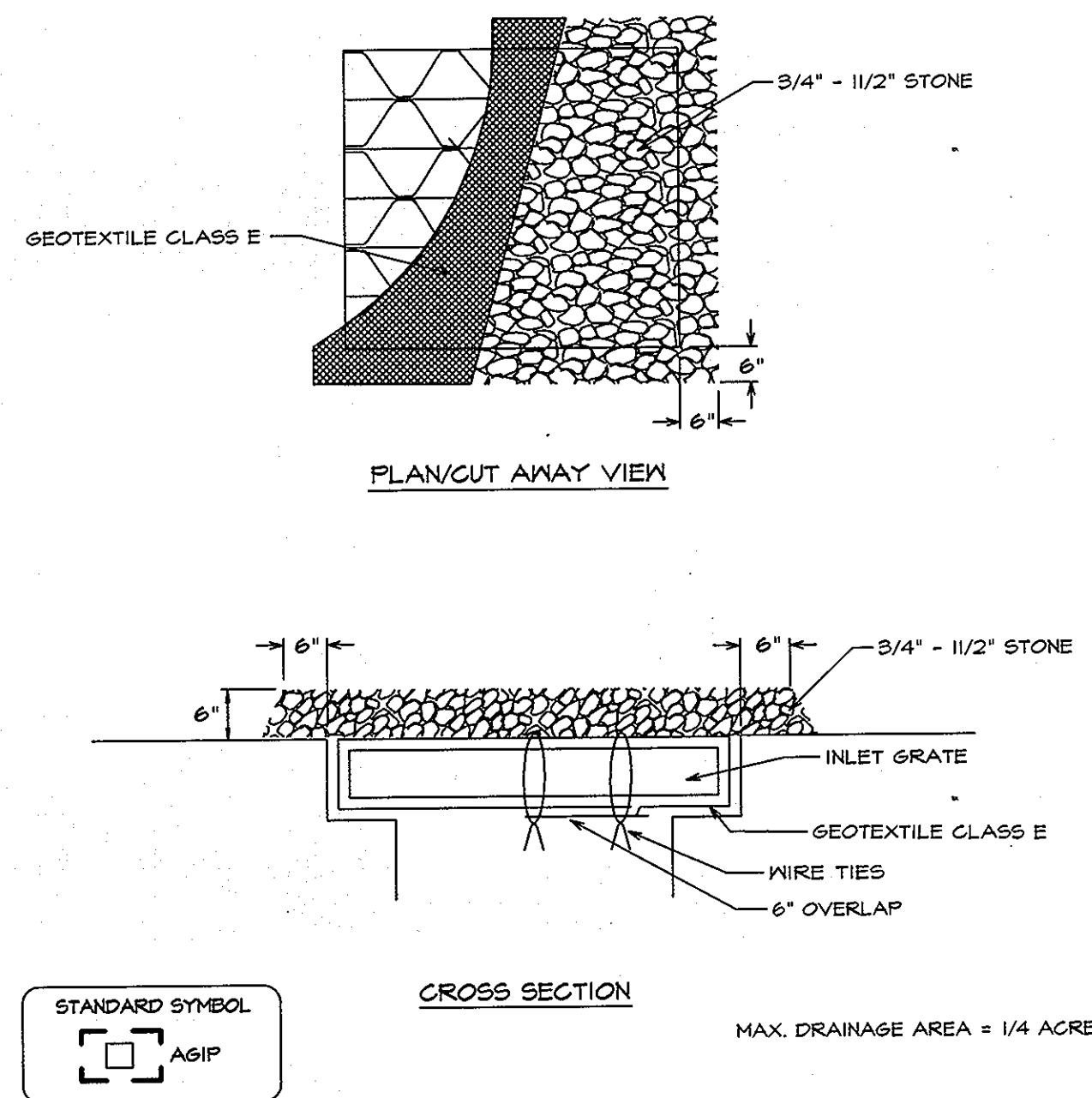
**SITE RESOURCES**  
 Incorporated  
 Comprehensive Land Planning & Site Design Services  
 14307 Jarrattsville Pike • Phoenix, Maryland 21151  
 (410) 683-3388 • Fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
 AFFORDABLE ELDERLY HOUSING  
 SHELTER DEVELOPMENT LLC  
**GRADING & SEDIMENT CONTROL PLAN**  
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 TAX MAP 24 PARCEL 56

DATE: 2/16/1998  
 SCALE: 1"=30'  
 PROJECT NO: 2796  
 DRAWING NO: SDP-7  
 SHEET 7 OF 12

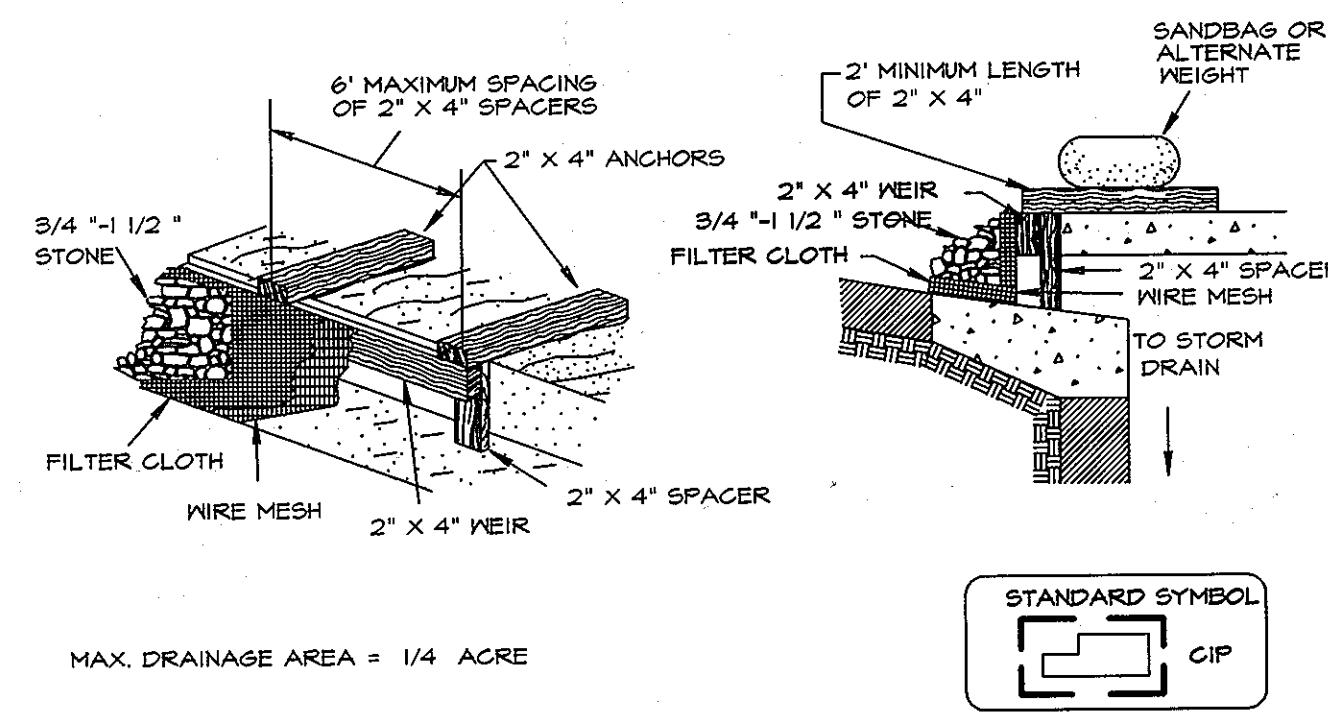
Copyright, Site Resources Inc. 2/7/98 9:52 PM SDP\_07\_SEC.dwg  
 SDP-98-61

**AT GRADE INLET PROTECTION**



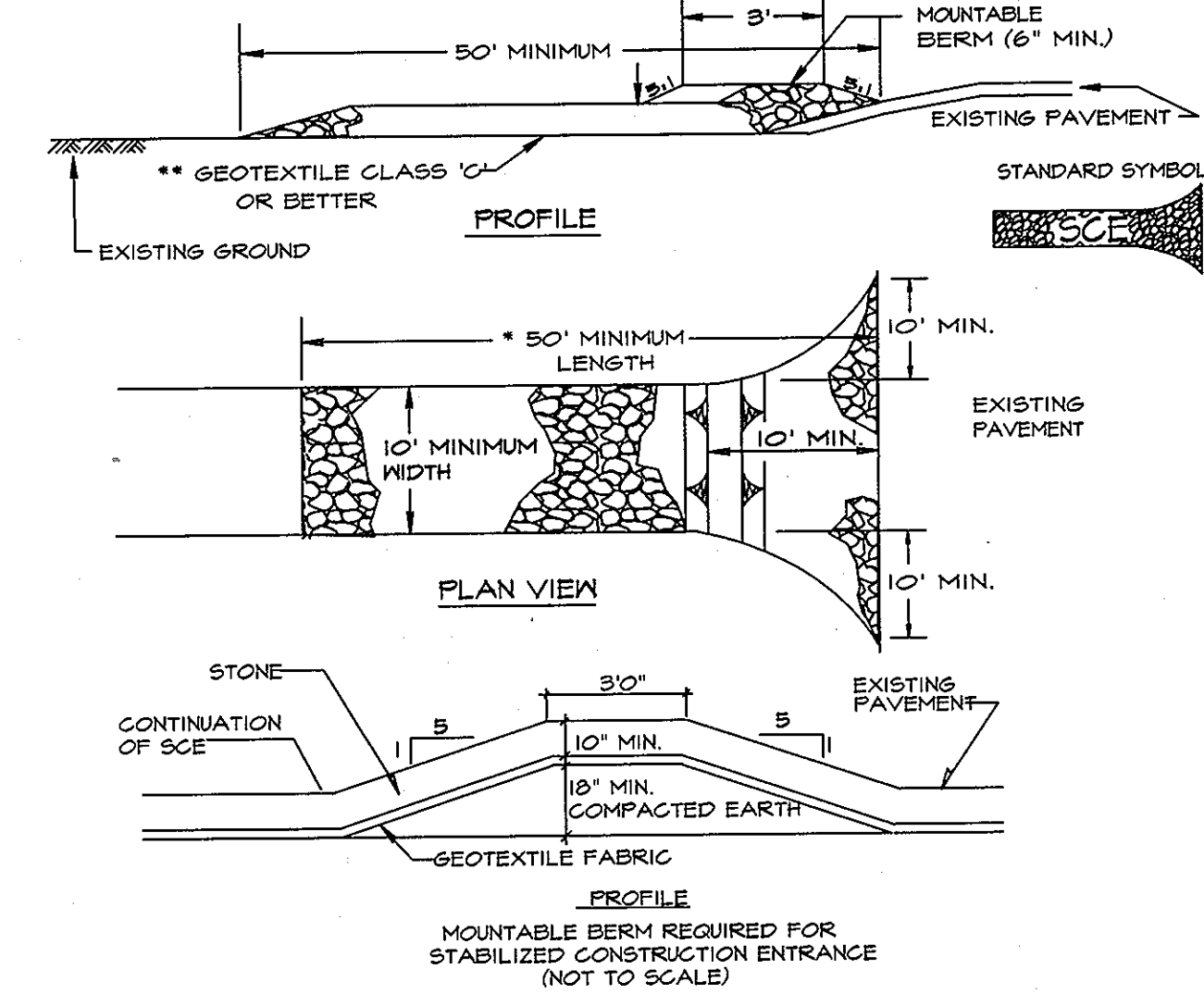
- Construction Specifications**
- Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
  - Place 3/4\"/>

**CURB INLET PROTECTION (C06 OR C05 INLETS)**



- Construction Specifications**
- Attach a continuous piece of wire mesh (30\"/>

**HEAVY DUTY STABILIZED CONSTRUCTION ENTRANCE**



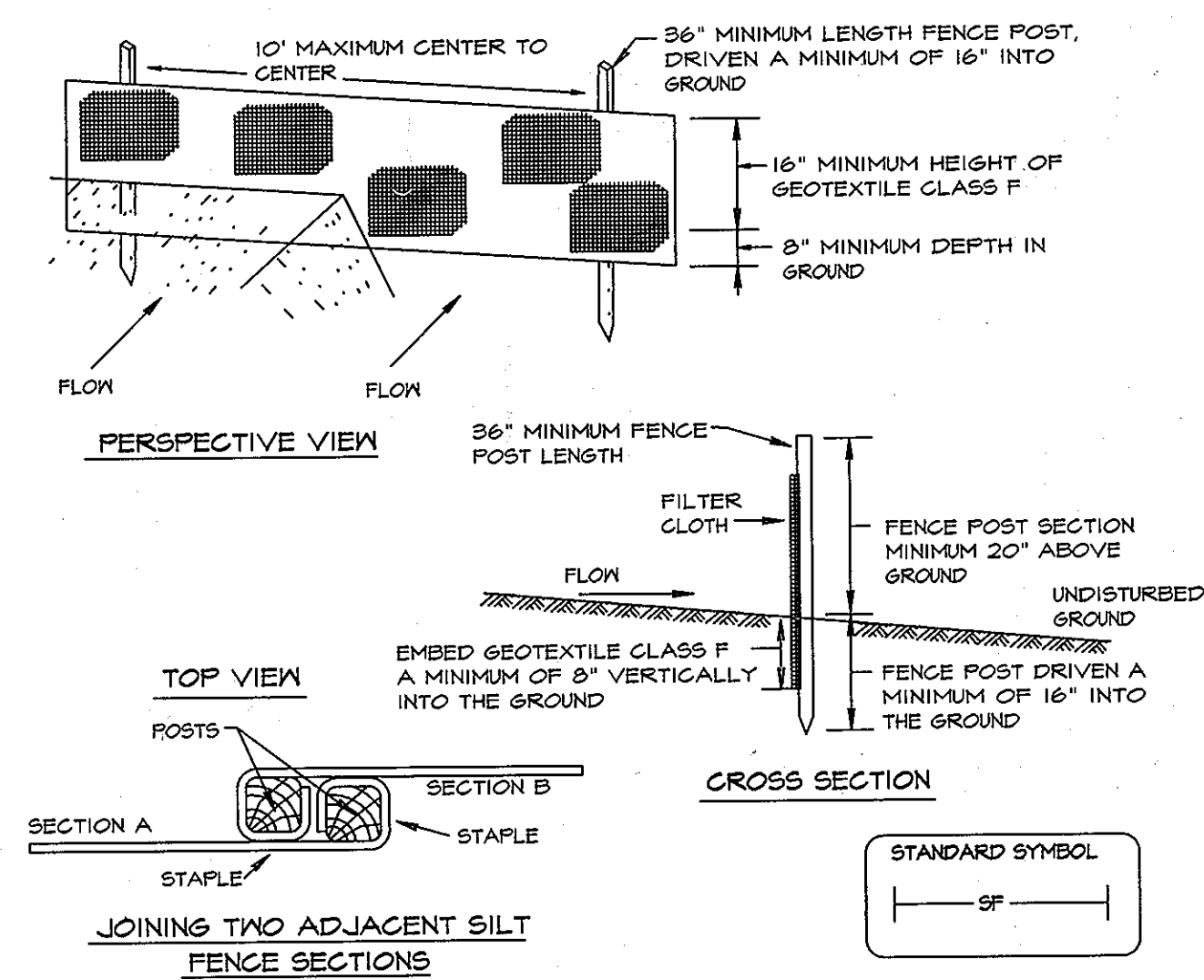
- Construction Specifications**
- Stone - crushed aggregate (2\"/>

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOUSTON COUNTY CONSERVATION ENGINEER AND SEDIMENT CONTROL ENGINEER HOWARD SOIL CONSERVATION DISTRICT  
 Approved: *Howard S.C.D.* 5/12/98  
 Approved: *Howard S.C.D.* Date

Reviewed for: *Howard S.C.D.*  
 and Technical Requirements  
 Approved: *Richard Blood* 5/12/98  
 Approved: *Howard S.C.D.* Date



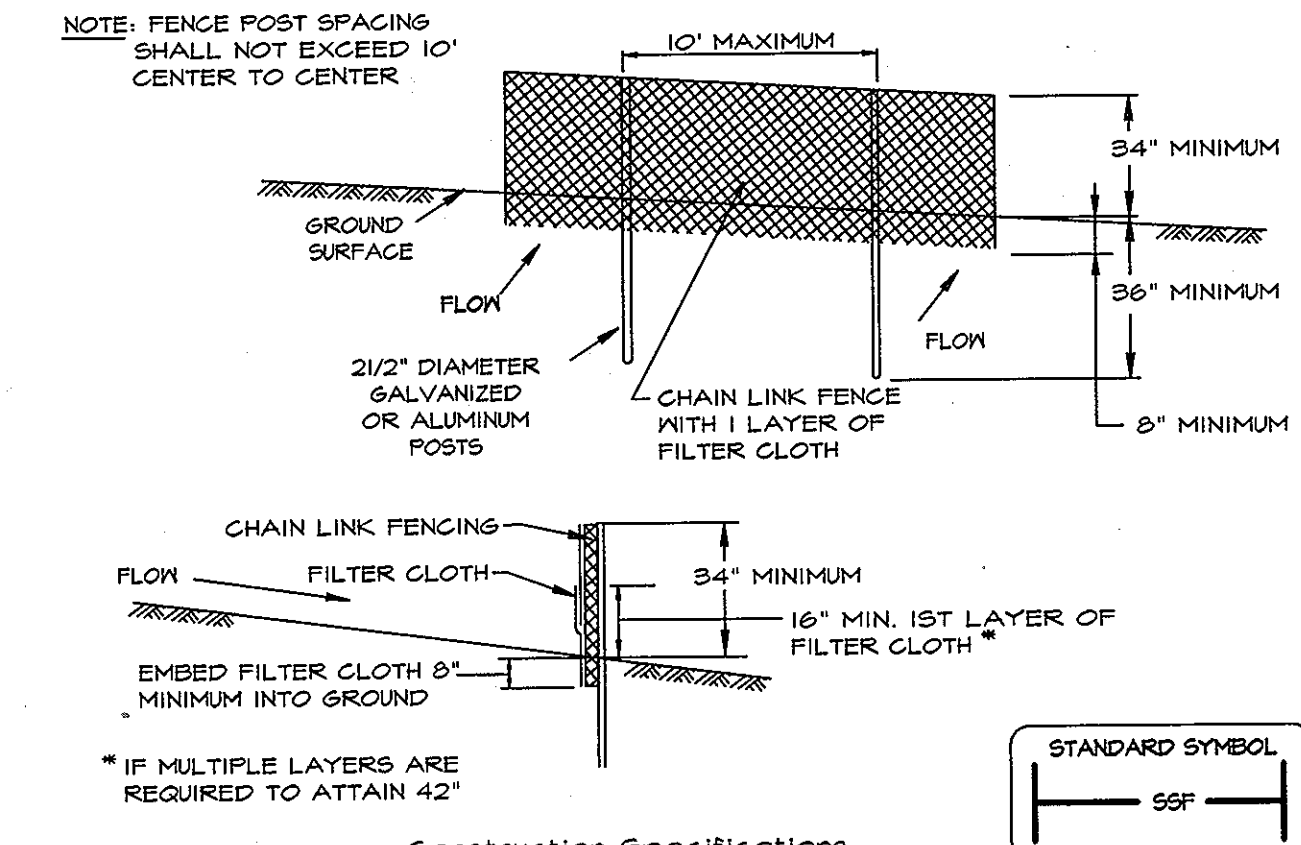
**DETAIL 22 - SILT FENCE**



- Construction Specifications**
- Fence posts shall be a minimum of 36\"/>

Tensile Strength	50 lbs/in (min.)	Test: MSMT B04
Tensile Modulus	20 lbs/in (min.)	Test: MSMT B04
Flow Rate	0.3 gal ft <sup>2</sup> /minute (max.)	Test: MSMT B22
Filtering Efficiency	75% (min.)	Test: MSMT B22

**SUPER SILT FENCE**



- Construction Specifications**
- Fencing shall be 42\"/>

Tensile Strength	50 lbs/in (min.)	Test: MSMT B04
Tensile Modulus	20 lbs/in (min.)	Test: MSMT B04
Flow Rate	0.3 gal/ft <sup>2</sup> /minute (max.)	Test: MSMT B22
Filtering Efficiency	75% (min.)	Test: MSMT B22

SDP-98-61

REVISIONS NO.	DATE	ITEMS REVISED

**SITE RESOURCES**  
 incorporated  
 Comprehensive Land Planning & Site Design Services  
 14307 Jarrettsville Pike • Phoenix, Maryland 21131  
 (410) 683-3388 • fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
 AFFORDABLE ELDERLY HOUSING  
 SHELTER DEVELOPMENT LLC

**SEDIMENT & EROSION CONTROL DETAILS**

DATE: 2/16/1998  
 SCALE: AS SHOWN  
 PROJECT NO: 2796  
 DRAWING NO: SDP-8  
 SHEET 8 OF 12

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Richard Blood* 5/14/98  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Richard Blood* 5/15/98  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Howard S.C.D.* 5/18/98  
 DIRECTOR DATE



Section I - Vegetative Stabilization Methods and Materials

- A. Site Preparation
- Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
  - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
  - Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.
- B. Soil Amendments (Fertilizer and Lime Specifications)
- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
  - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
  - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98% - 100% percent will pass through a #20 mesh sieve.
  - Incorporate lime and fertilizer into the top 3" - 5" of soil by disking or other suitable means.
- C. Seedbed Preparation
- Temporary Seeding
    - Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
    - Apply fertilizer and lime as prescribed on the plans.
    - Incorporate lime and fertilizer into the top 3" - 5" of soil by disking or other suitable means.
  - Permanent Seeding
    - Minimum soil conditions required for permanent vegetative establishment:
      - Soil pH shall be between 6.0 and 7.0.
      - Soluble salts shall be less than 500 parts per million (PPM).
      - The soil shall contain less than 40 percent clay but enough fine grained material (80 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lowgrass or serotia lespedeza is to be planted, then a sandy soil (50 percent silt plus clay) would be acceptable.
      - Soil shall contain 15 percent minimum organic matter by weight.
      - Soil must contain sufficient pore space to permit adequate root penetration.
      - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
    - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade then scarified or otherwise loosened to a depth of 3" to 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
    - Apply soil amendments as per soil test or as included on the plans.
    - Mix soil amendments into the top 3" - 5" of topsoil by disking or other suitable means. Low areas should be rolled to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.
- Seed Specifications
  - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.

  - Inoculant: The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use the lowest rate recommended when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80° F. can weaken bacteria and make the inoculant less effective.
- Methods of Seeding
  - Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.
    - If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P2O5 (phosphorous); 200 lbs./ac.; K2O (potassium); 200 lbs./ac.
    - Lime: use only ground agricultural limestone, (1p to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    - Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
  - Dry Seeding: This includes use of conventional drop or broadcast spreaders.
    - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
    - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
  - Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
    - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/2 inch of soil covering. Seedbed must be firm after planting.
    - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (In order of preference)

- Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
- Wood Cellulose Fiber Mulch (WCFFM)
  - WCFFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
  - WCFFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
  - WCFFM, including dye, shall contain no germination or growth inhibiting factors.
  - WCFFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
  - WCFFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
  - WCFFM must conform to the following physical requirements: fiber length to approximately 10 mm, diameter approximately 1 mm, pH range of 4.0 to 8.5, ash content of 16 percent maximum and water holding capacity of 90 percent minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

G. Mulching Seeded Areas: Mulch shall be applied to all seeded areas immediately after seeding.

- If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
- When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

H. Securing Straw Mulch (Mulch Anchoring): Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:

- A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
- Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lbs./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
- Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should appear uniform after binder application. Synthetic binders such as Acrylic DLR (Agro-Tack), DGA-10, Petroset, Terra Tack II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

Section II - Temporary Seeding

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

A. Seed Mixtures - Temporary Seeding

- Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary Seeding Summary below, along with application rates, seeding dates and seeding depths. If this Summary is not put on the plans and completed, the Table 26 must be put on the plans.
- For sites having soil tests performed, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

Temporary Seeding Summary

Seed Mixture (For Hardiness Zone... [A]) (From Table 26)					Fertilizer Rate (10-10-10)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth		
1	BARLEY	150	2/1 - 10/15	1"	600 lb/ac (15 lb/1000 sq ft)	2 tons/ac (100 lb/1000 sq ft)
2	RYE PLUS	150	2/1 - 10/15	1"		
3	ANN. RYEGRASS	150	2/1 - 11/1	1"		

Section III - Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

A. Seed Mixtures - Permanent Seeding

- Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-SCS Technical Field Office Guide, Section 342 ? Critical Area Planting. For special low maintenance areas, see Section IV Sod and V Turfgrass.
- For sites having disturbed area over 5 acres, the rates shown on this table shall be deleted and the rates recommended by the soil testing agency shall be written in.
- For areas receiving low maintenance, apply ureaform fertilizer (46-0-0) at 3 ? lbs./1000 sq. ft. (50 lbs./ac.), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

Permanent Seeding Summary

Seed Mixture (For Hardiness Zone... [A]) (From Table 25)					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	N	P2O5	K2O	
3	T. FESCUE PEREN. RYE KENTUCKY BLUEGRASS	125 15 10	3/1-5/15 1"-2" 8/15-11/15 1"-2" 3/15-11/15 1"-2"		90 lb/ac (20 lb/1000 sq ft)	175 lb/ac (4 lb/1000 sq ft)	175 lb/ac (4 lb/1000 sq ft)	2 tons/ac (100 lb/1000 sq ft)
1	T. FESCUE (75%) KENTUCKY BLUEGRASS (25%) PEREN. RYE (FOR ROOTS ONLY)	150	3/15-11/15 1"-2"					
5	T. FESCUE (50%) PEREN. RYE (50%) ANN. RYEGRASS (FOR FLATPA)	10 20 20	3/15-11/15 1"-2"					

Section IV - Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

A. General specifications

- Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
- Sod shall be machine cut at a uniform soil thickness of 3/4", plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers' width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
- Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
- Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

B. Sod installation

- During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately proper to laying the sod.
- The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
- Whenever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.
- Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. Sod Maintenance

- In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.
- After the first week, sod watering is required as necessary to maintain adequate moisture content.
- The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

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

Approved: *[Signature]* 5/12/98  
Howard County, MD

Reviewed by: *[Signature]* S.C.D.  
and *[Signature]* Technical Representative  
5/14/98  
USDA, NATURAL RESOURCES CONSERVATION SERVICE



REVISIONS		
NO.	DATE	ITEMS REVISED

SDP-98-61

**SITE RESOURCES**  
Incorporated  
Comprehensive Land Planning & Site Design Services  
14307 Jarrettsville Pike • Phoenix, Maryland 21131  
(410) 683-3388 • fax (410) 683-3389

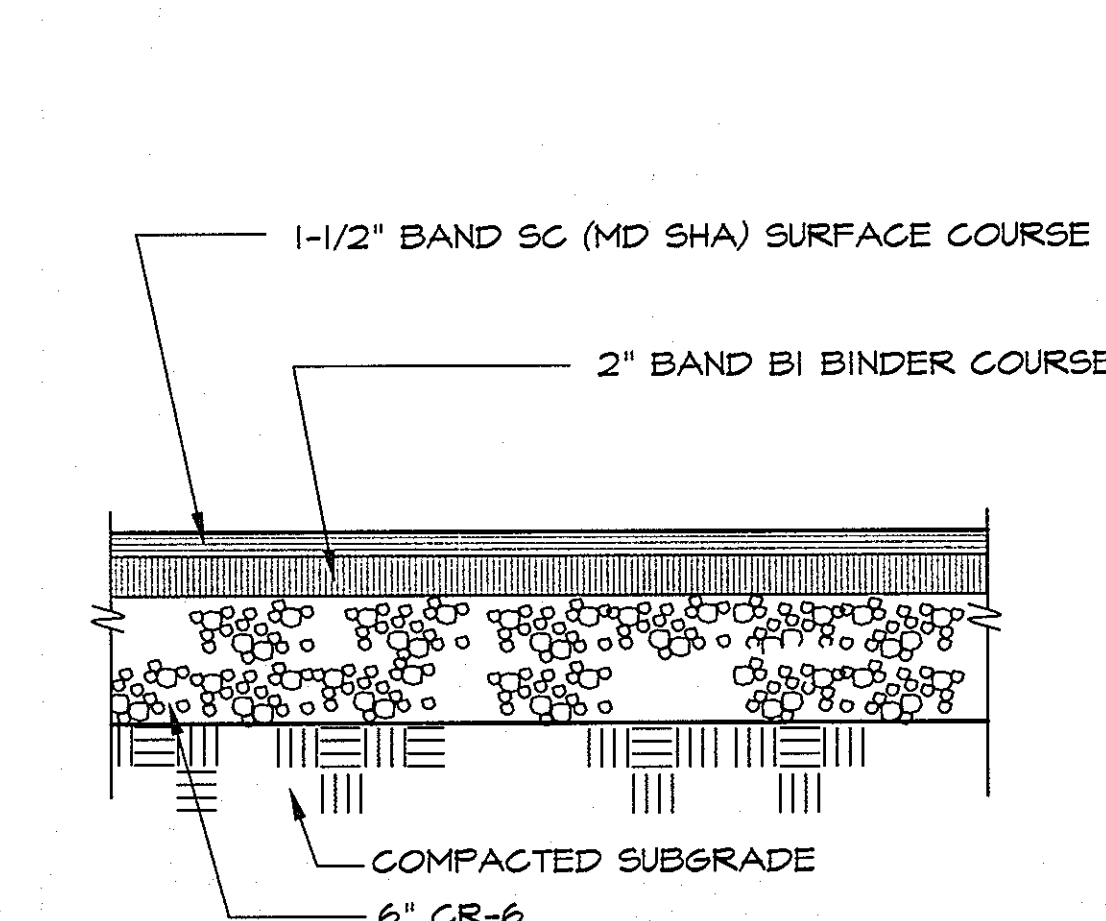
PARK VIEW AT ELLICOTT CITY  
AFFORDABLE ELDERLY HOUSING  
SHELTER DEVELOPMENT LLC

SEDIMENT & EROSION CONTROL NOTES

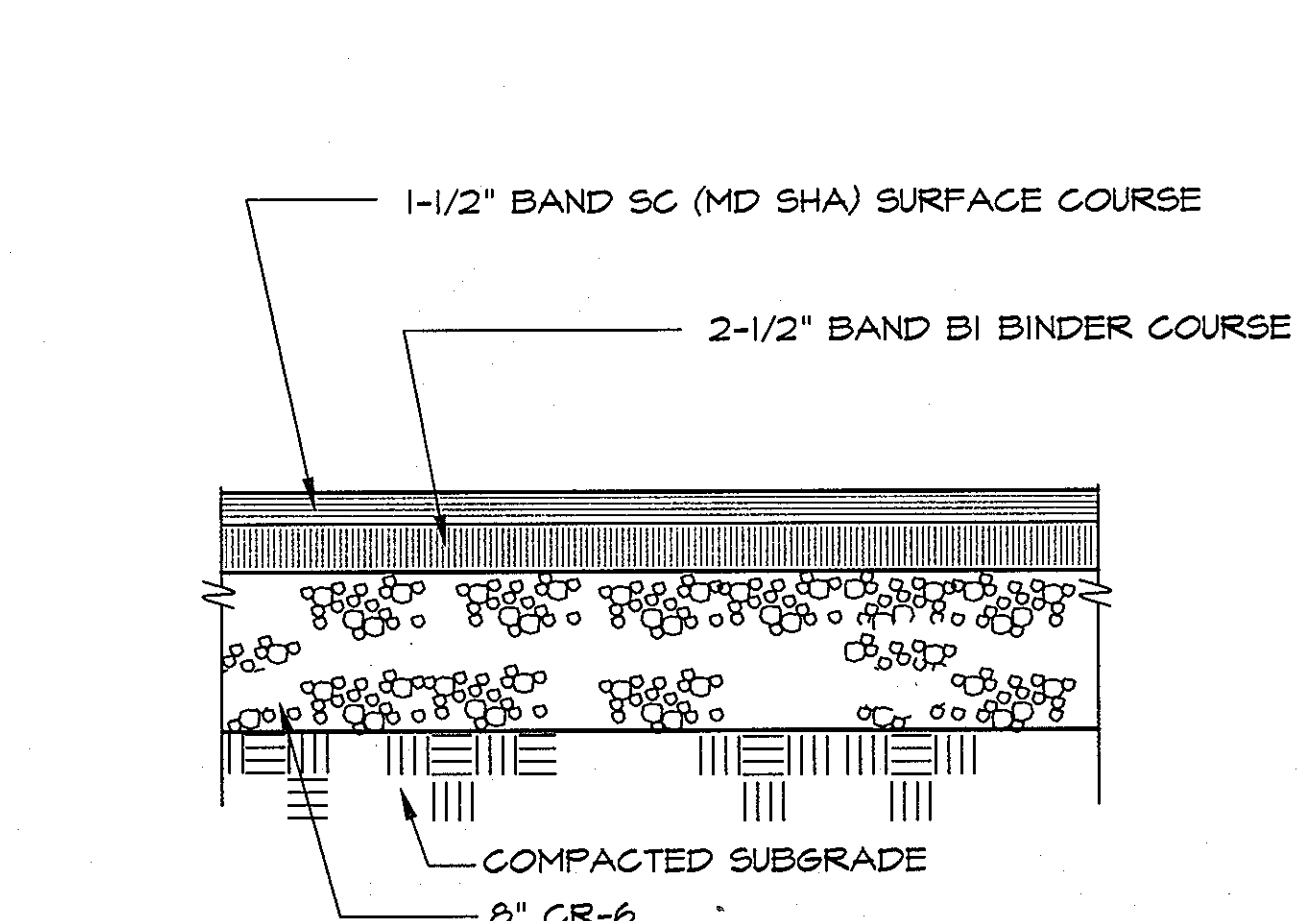
DATE: 2/16/1998
SCALE: AS SHOWN
PROJECT NO: 2796
DRAWING NO: SDP-9
SHEET 9 OF 12

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

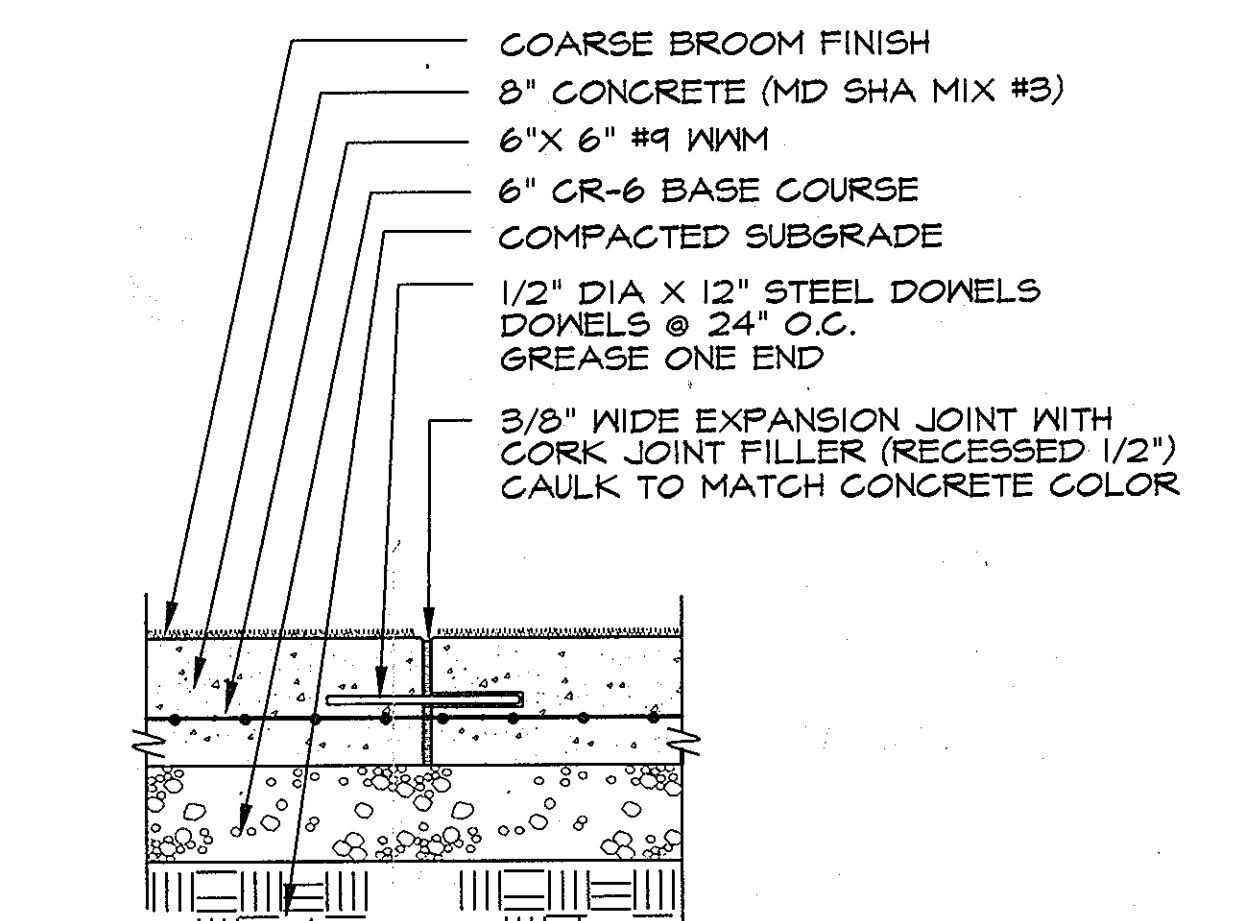
*[Signature]* 5/14/98  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 5/15/98  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 5/18/98  
DIRECTOR



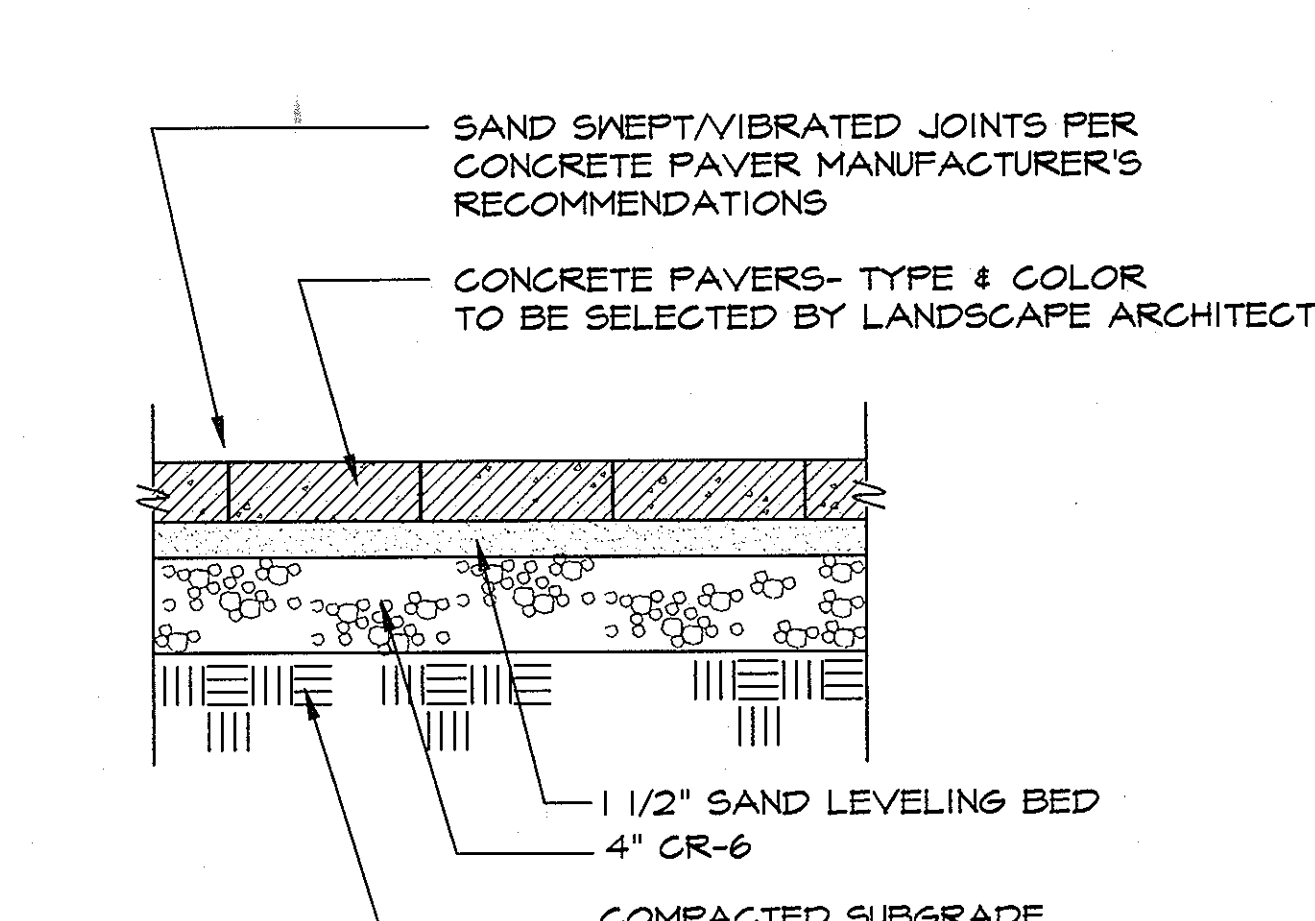
**1 BITUMINOUS PAVEMENT FULL SECTION**  
NOT TO SCALE



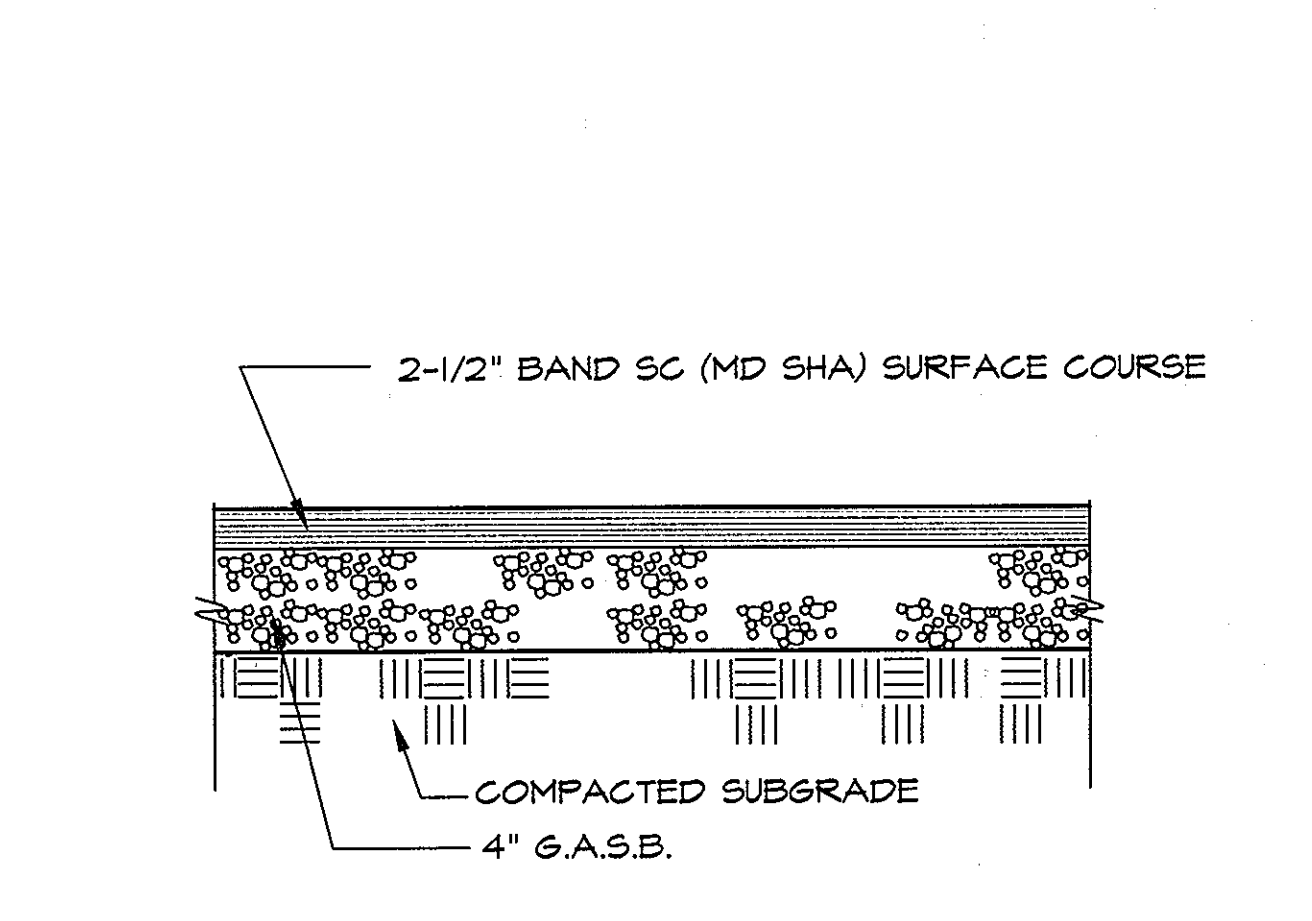
**2 HEAVY DUTY BITUMINOUS PAVEMENT FULL SECTION**  
NOT TO SCALE



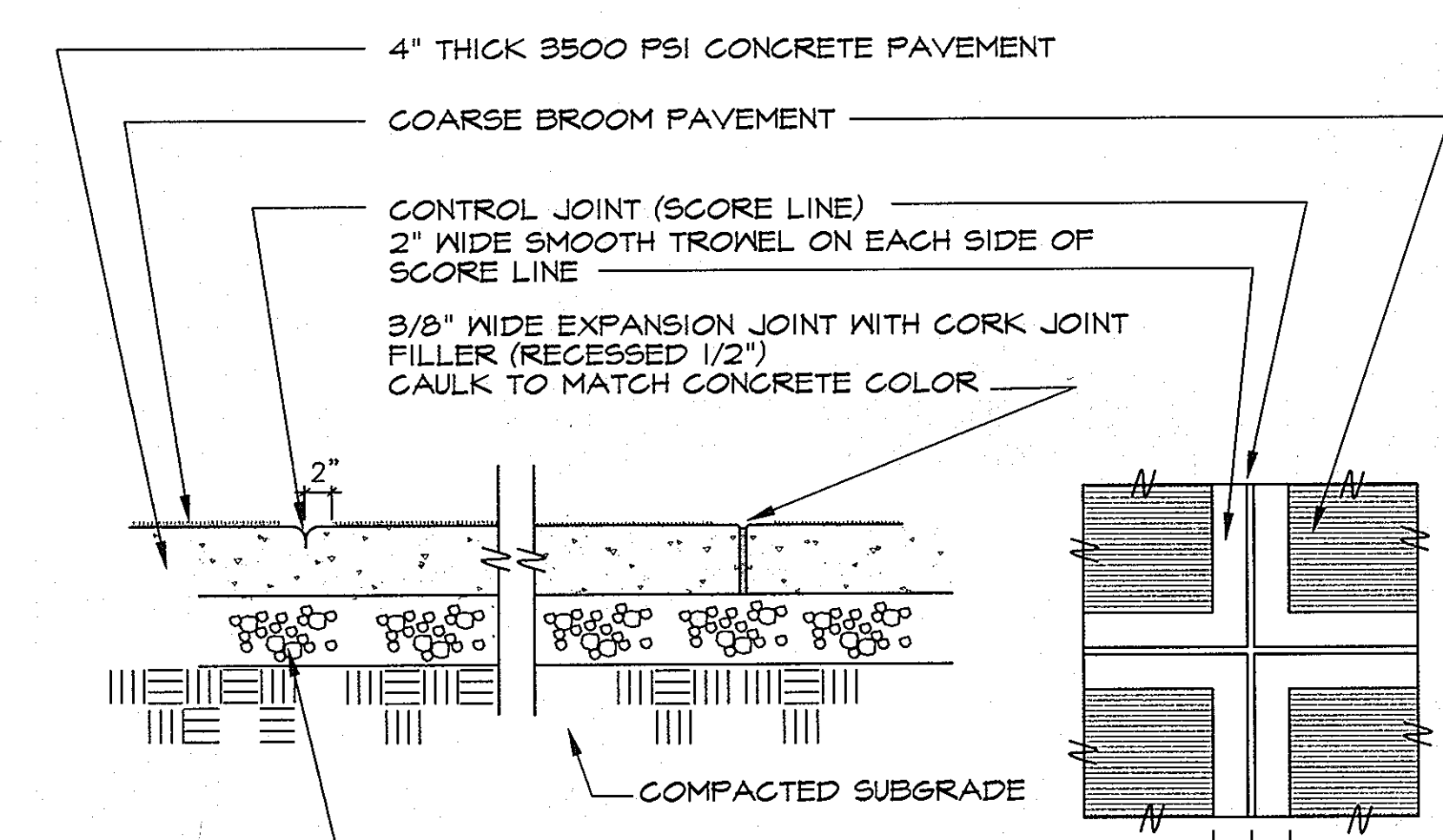
**3 HEAVY DUTY CONCRETE**  
NOT TO SCALE



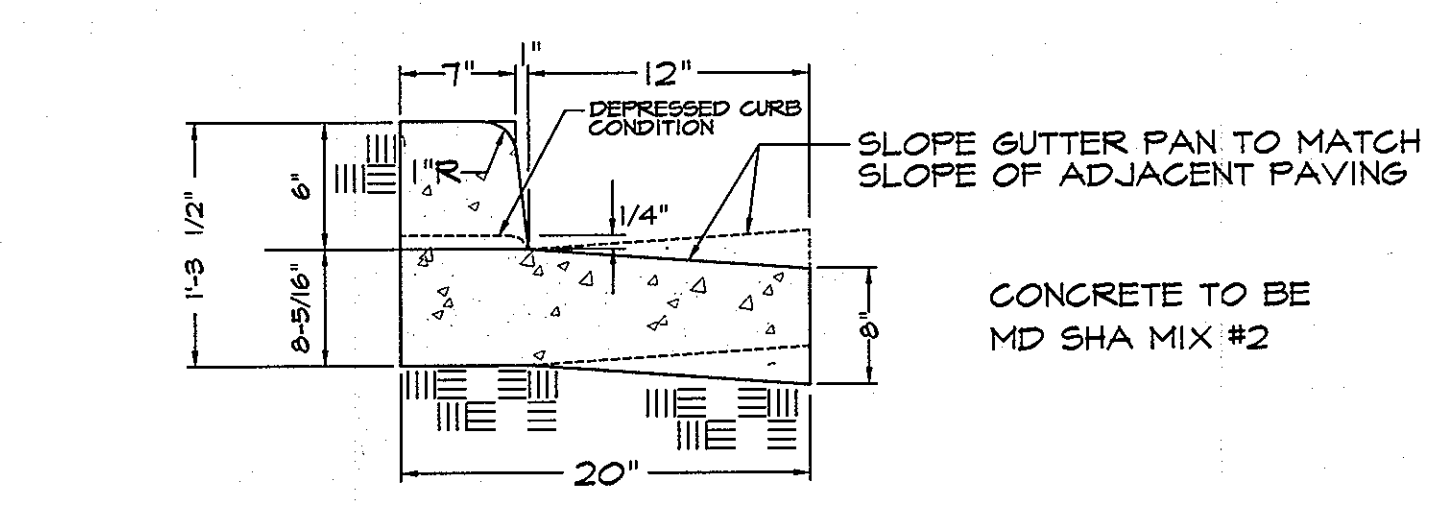
**4 CONCRETE PAVERS**  
NOT TO SCALE



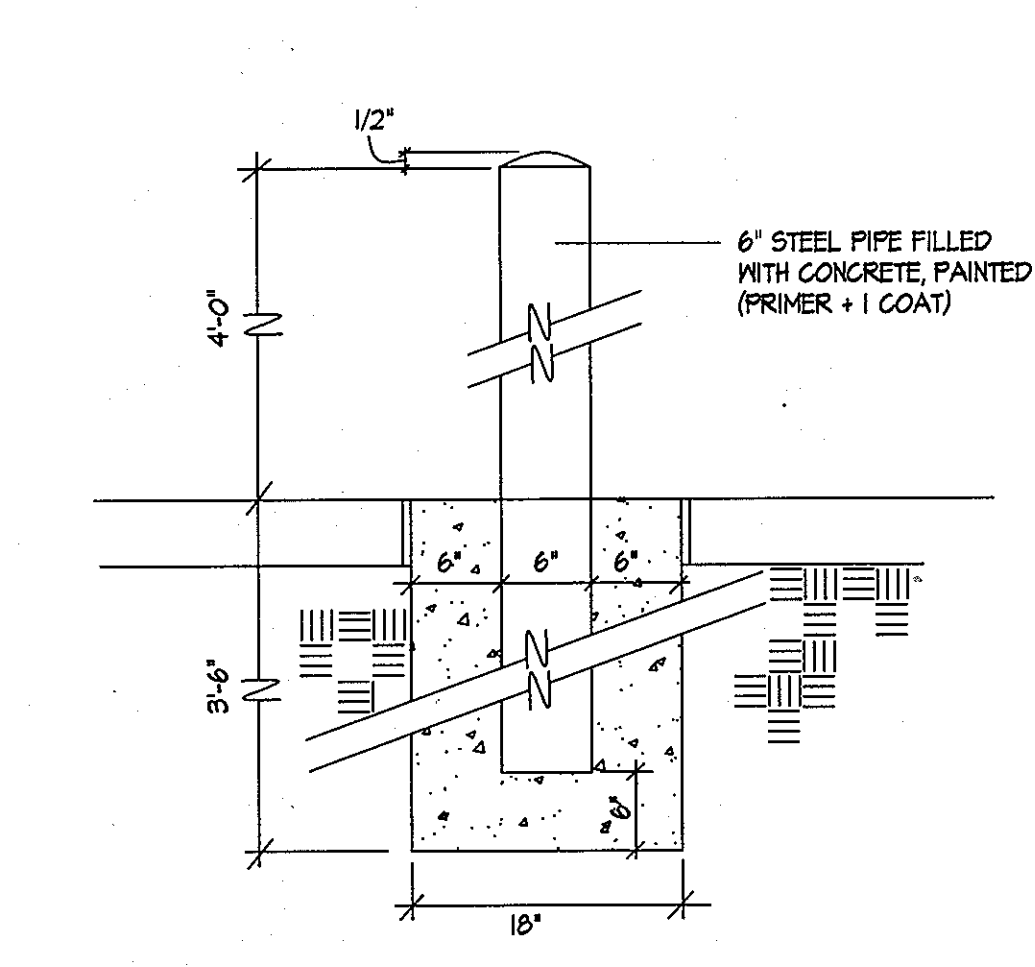
**5 BITUMINOUS WALKWAY**  
NOT TO SCALE



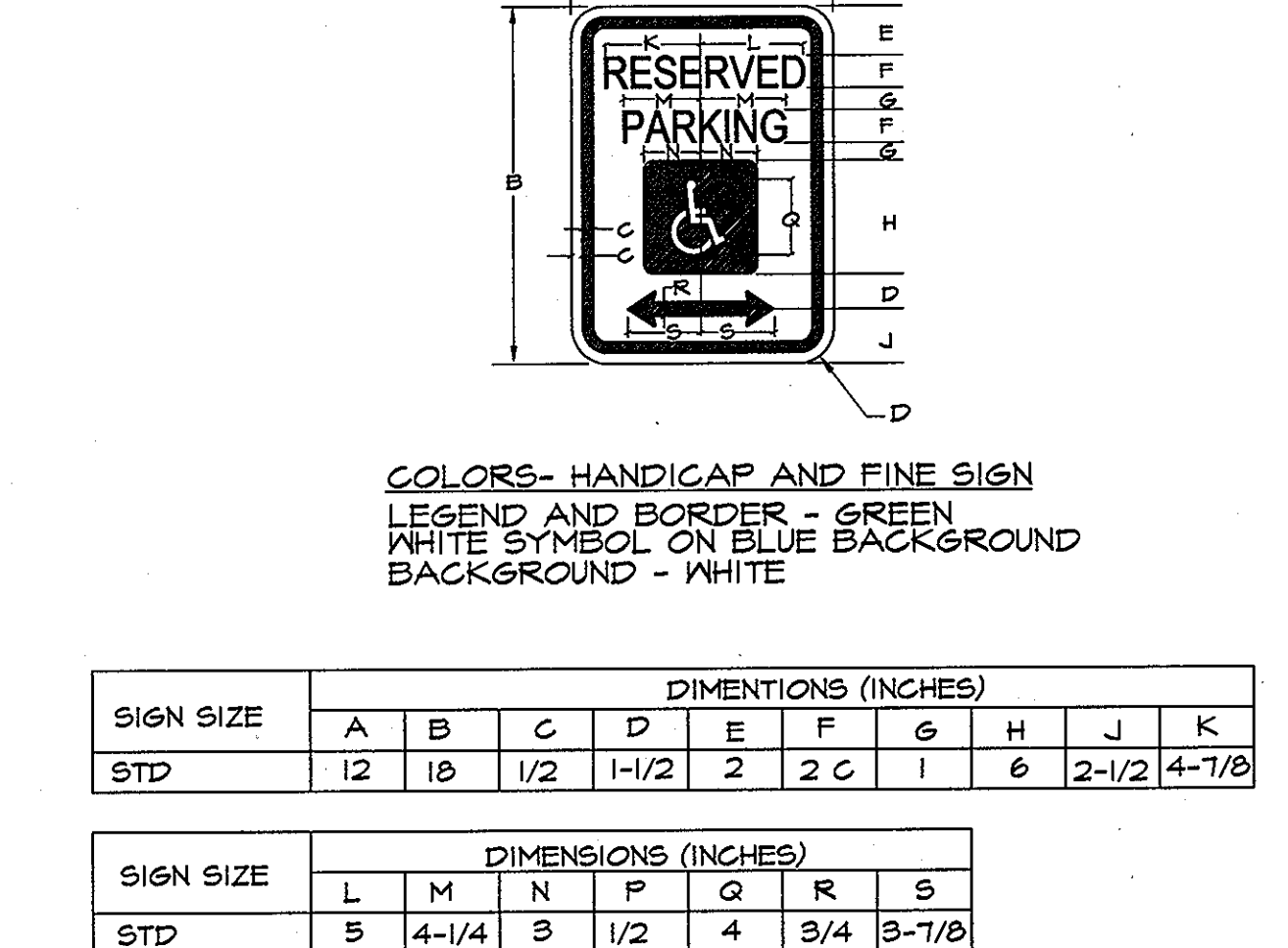
**6 CONCRETE SIDEWALK**  
NOT TO SCALE



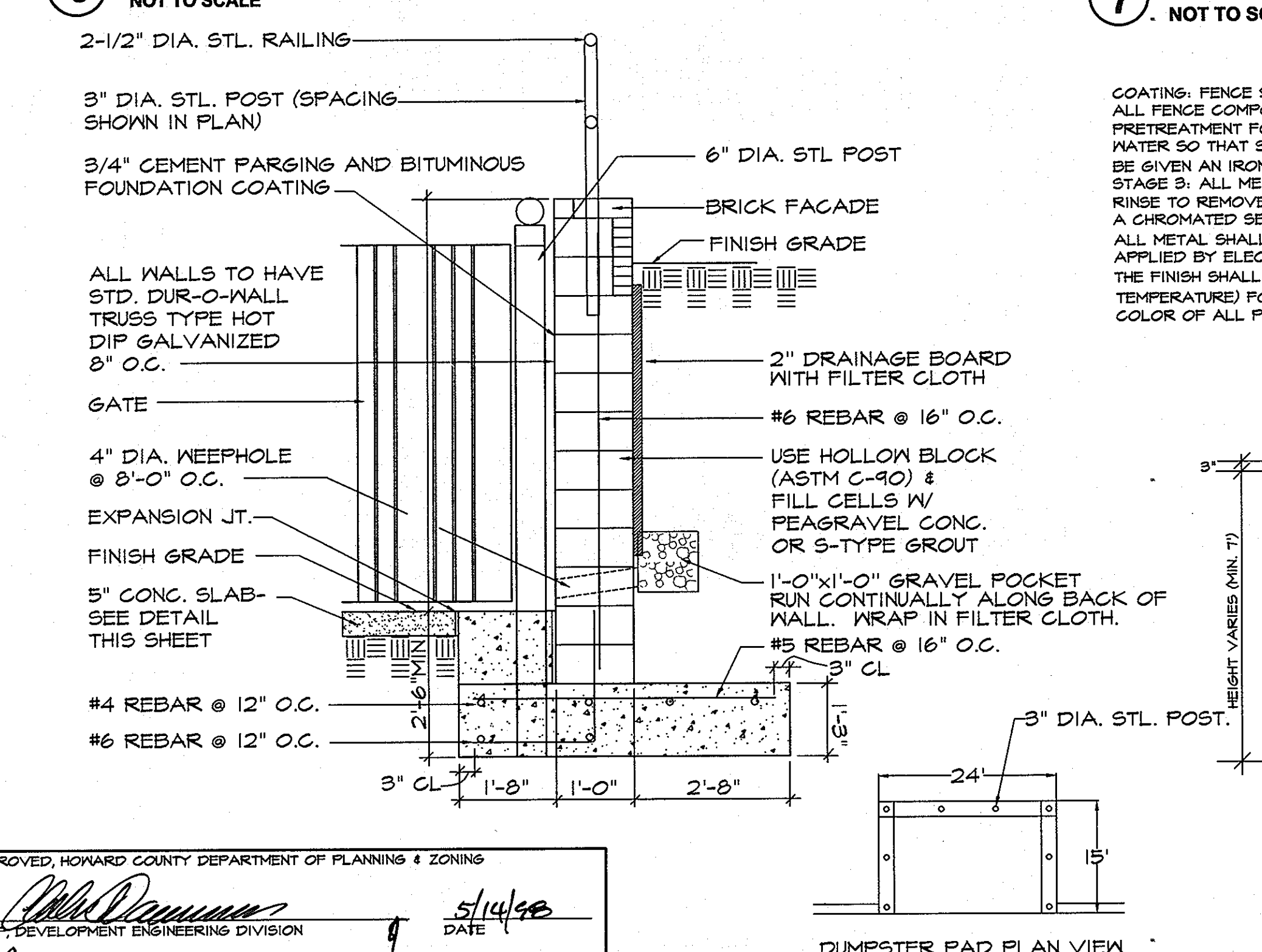
**7 CONCRETE CURB & GUTTER**  
NOT TO SCALE



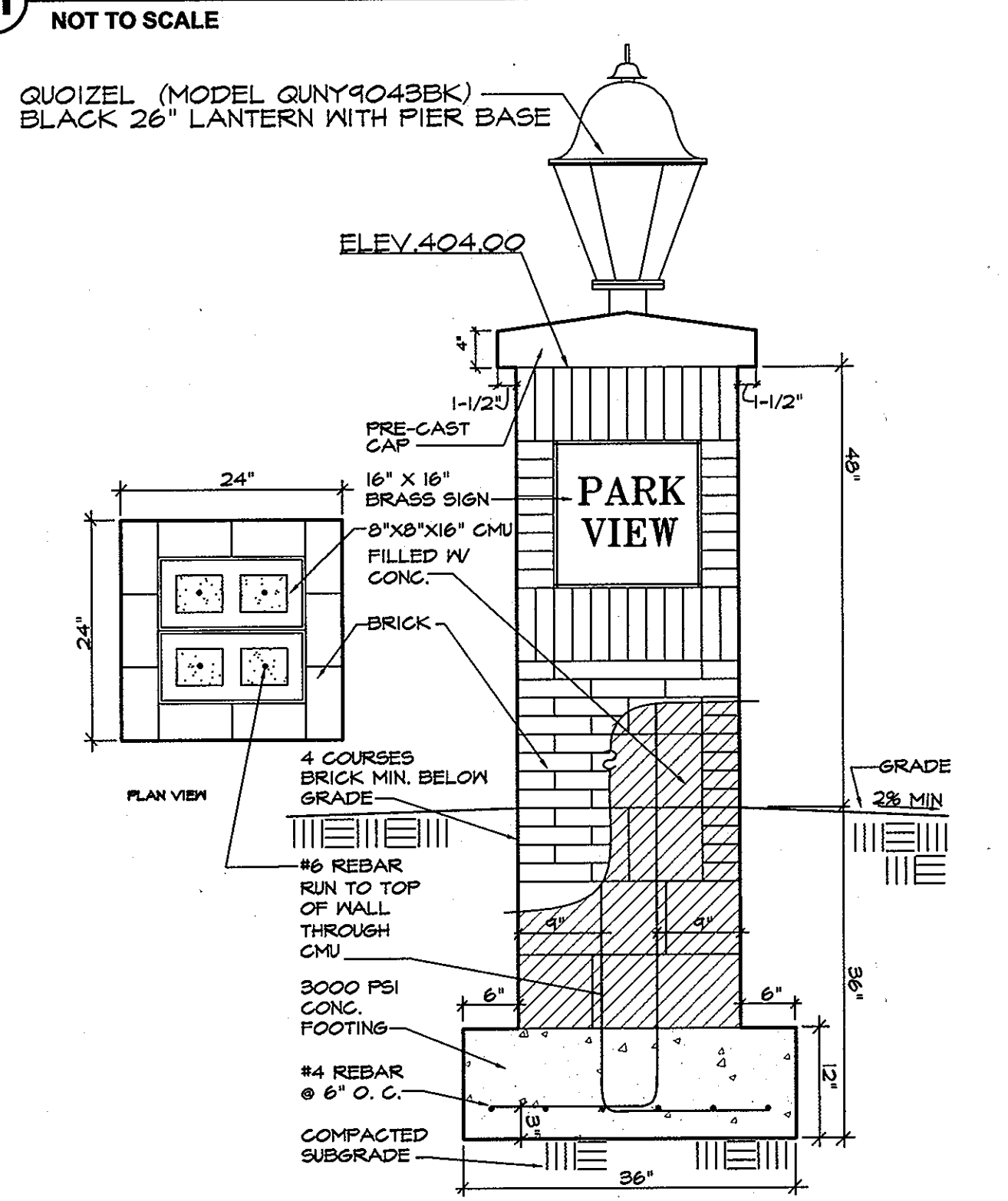
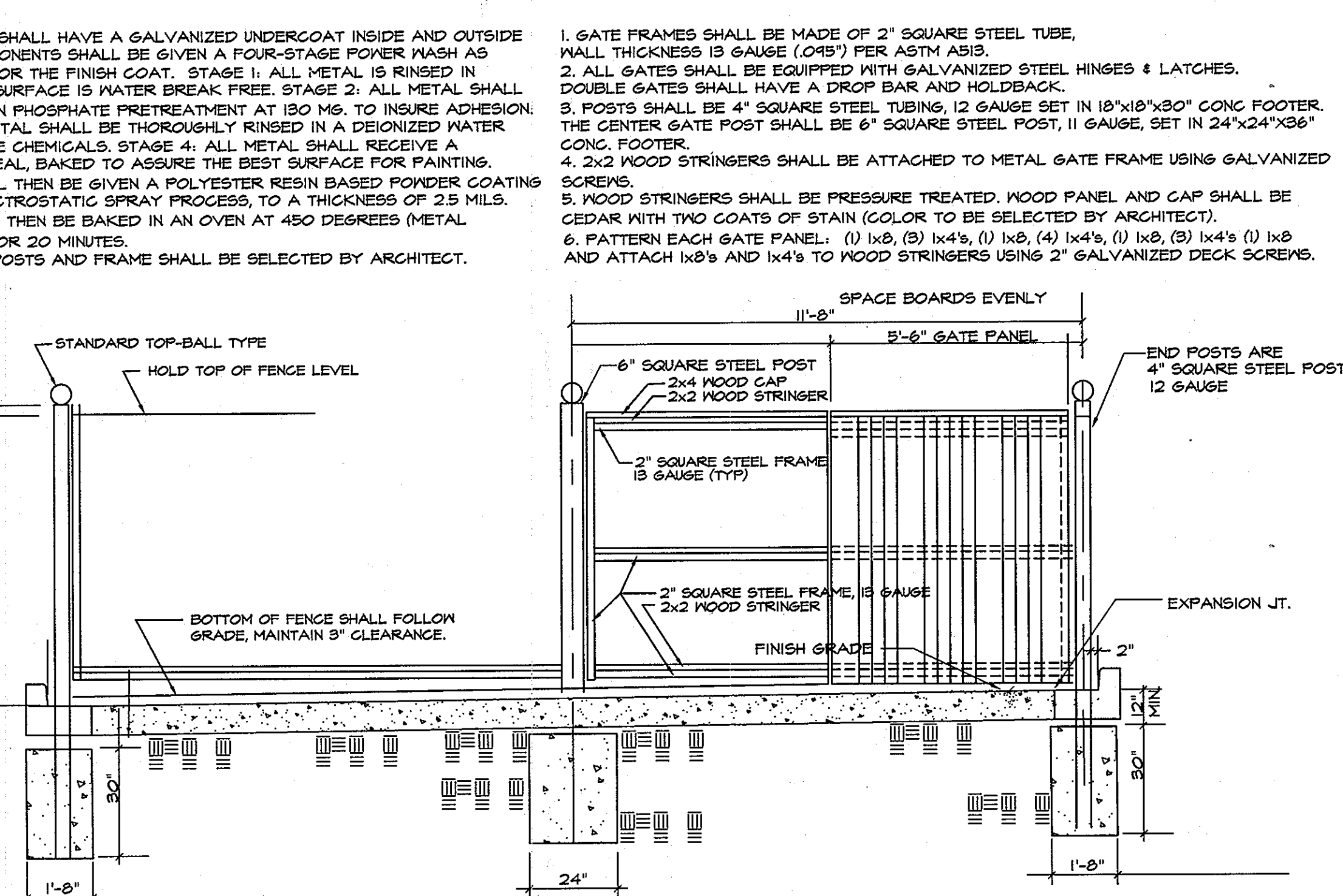
**8 STEEL BOLLARD**  
NOT TO SCALE



**11 HANDICAP SIGN DETAIL STD. NO. (R7-8)**  
NOT TO SCALE



**9 DUMPSTER SCREEN WALL & GATE**  
1/2\"/>



**10 ENTRY COLUMN**  
3/4\"/>

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Richard Blood*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/14/98

*Richard Blood*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5/15/98

*David S. Scott*  
DIRECTOR  
DATE: 5/18/98

SDP-98-61

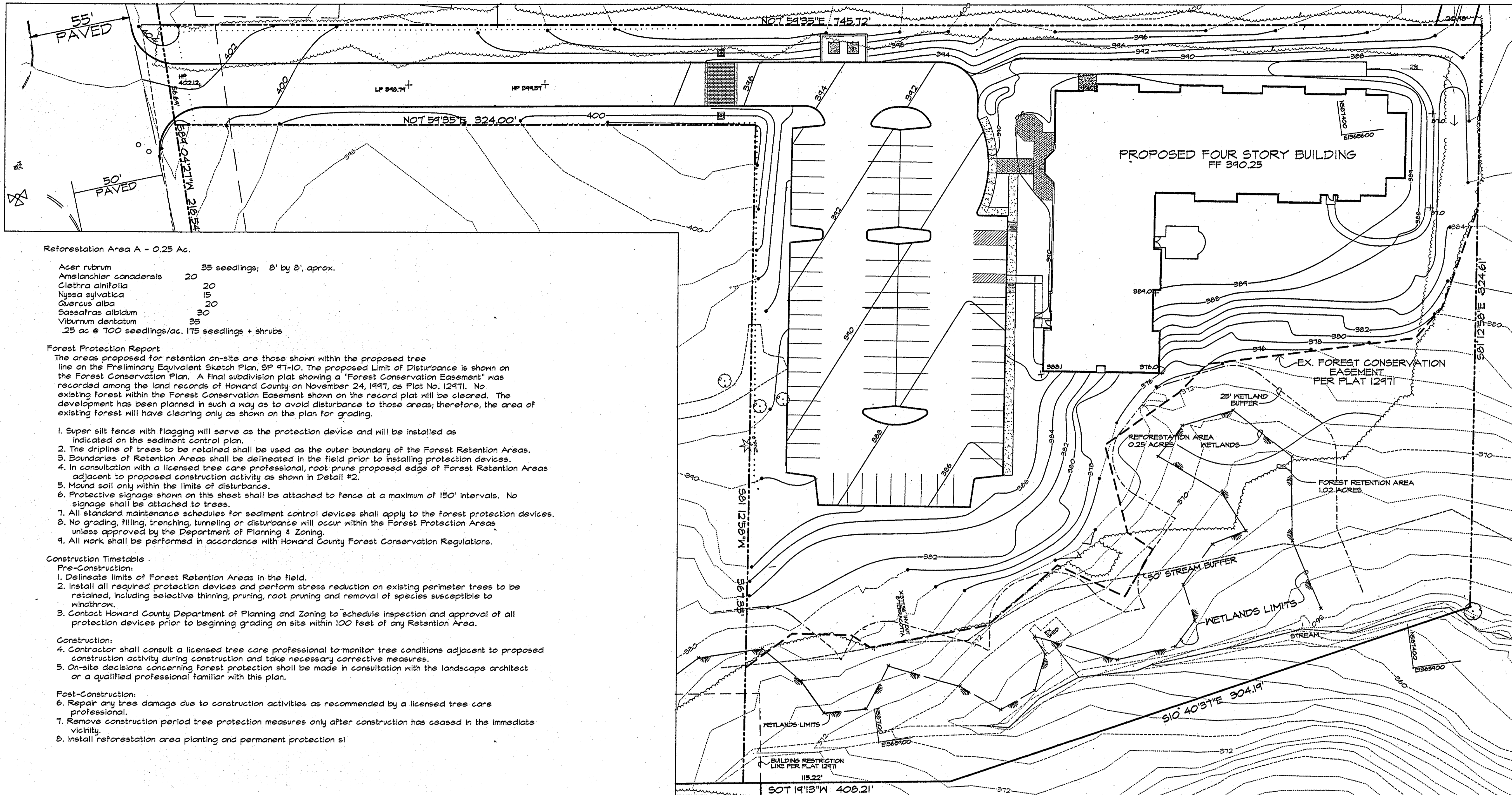
REVISIONS	NO.	DATE	ITEMS REVISED	COMMENTS
1	3/10/98		PER 2/10/1998 COUNTY COMMENTS	

**SITE RESOURCES**  
incorporated  
Comprehensive Land Planning & Site Design Services  
14307 Jarrettsville Pike • Phoenix, Maryland 21131  
(410) 683-3388 • Fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
AFFORDABLE ELDERLY HOUSING  
SHELTER DEVELOPMENT LLC

**SITE DETAILS**  
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
TAX MAP 24 PARCEL 56

DATE: 2/16/1998  
SCALE: AS SHOWN  
PROJECT NO: 2796  
DRAWING NO: SDP-10  
SHEET 10 OF 12



**Reforestation Area A - 0.25 Ac.**

Acer rubrum	35 seedlings; 8' by 8', approx.
Amelanchier canadensis	20
Clethra alnifolia	20
Nyssa sylvatica	15
Quercus alba	20
Sassafras albidum	30
Viburnum dentatum	35
.25 ac @ 100 seedlings/ac. 175 seedlings + shrubs	

**Forest Protection Report**

The areas proposed for retention on-site are those shown within the proposed tree line on the Preliminary Equivalent Sketch Plan, SP 47-10. The proposed Limit of Disturbance is shown on the Forest Conservation Plan. A final subdivision plat showing a "Forest Conservation Easement" was recorded among the land records of Howard County on November 24, 1997, as Plat No. 12471. No existing forest within the Forest Conservation Easement shown on the record plat will be cleared. The development has been planned in such a way as to avoid disturbance to those areas; therefore, the area of existing forest will have clearing only as shown on the plan for grading.

1. Super silt fence with flagging will serve as the protection device and will be installed as indicated on the sediment control plan.
2. The dripline of trees to be retained shall be used as the outer boundary of the Forest Retention Areas.
3. Boundaries of Retention Areas shall be delineated in the field prior to installing protection devices.
4. In consultation with a licensed tree care professional, root prune proposed edge of Forest Retention Areas adjacent to proposed construction activity as shown in Detail #2.
5. Mound soil only within the limits of disturbance.
6. Protective signage shown on this sheet shall be attached to fence at a maximum of 150' intervals. No signage shall be attached to trees.
7. All standard maintenance schedules for sediment control devices shall apply to the forest protection devices.
8. No grading, filling, trenching, tunneling or disturbance will occur within the Forest Protection Areas unless approved by the Department of Planning & Zoning.
9. All work shall be performed in accordance with Howard County Forest Conservation Regulations.

**Construction Timetable**

- Pre-Construction:**
1. Delineate limits of Forest Retention Areas in the field.
  2. Install all required protection devices and perform stress reduction on existing perimeter trees to be retained, including selective thinning, pruning, root pruning and removal of species susceptible to windthrow.
  3. Contact Howard County Department of Planning and Zoning to schedule inspection and approval of all protection devices prior to beginning grading on site within 100 feet of any Retention Area.
- Construction:**
4. Contractor shall consult a licensed tree care professional to monitor tree conditions adjacent to proposed construction activity during construction and take necessary corrective measures.
  5. On-site decisions concerning forest protection shall be made in consultation with the landscape architect or a qualified professional familiar with this plan.
- Post-Construction:**
6. Repair any tree damage due to construction activities as recommended by a licensed tree care professional.
  7. Remove construction period tree protection measures only after construction has ceased in the immediate vicinity.
  8. Install reforestation area planting and permanent protection signs.



SDP-98-61

REVISIONS		
NO.	DATE	ITEMS REVISED

**SITE RESOURCES**  
incorporated  
Comprehensive Land Planning & Site Design Services  
14307 Jarrettsville Pike • Phoenix, Maryland 21131  
(410) 683-3388 • fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
AFFORDABLE ELDERLY HOUSING  
SHELTER DEVELOPMENT LLC

**FOREST CONSERVATION PLAN**  
2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

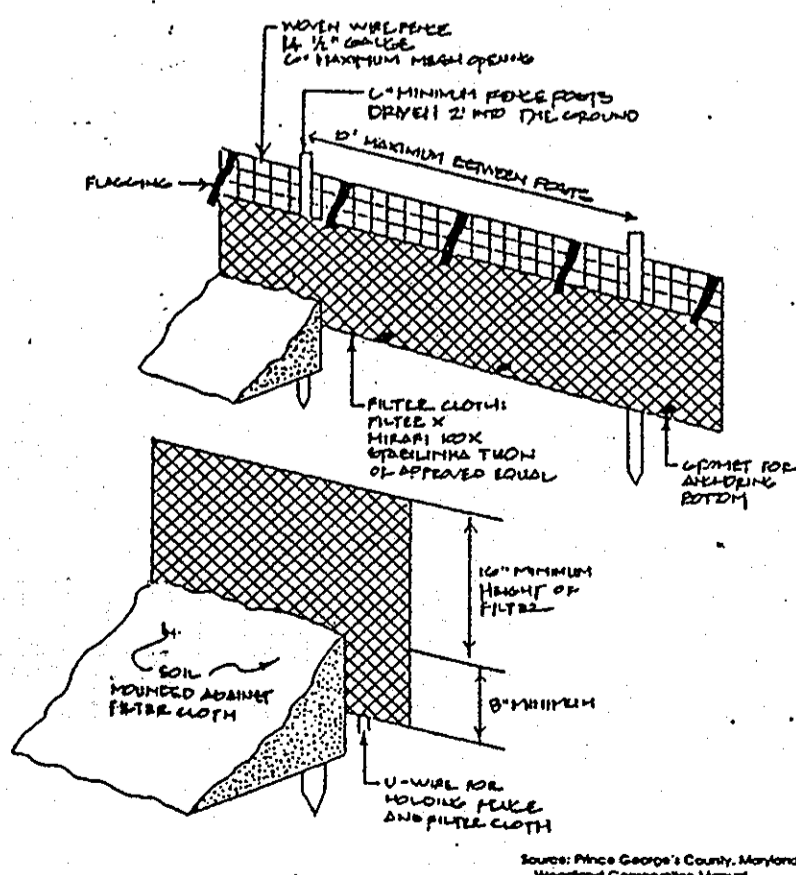
DATE: 2/16/1998  
SCALE: 1"=30'  
PROJECT NO: 2796  
DRAWING NO: SDP-11  
SHEET 11 OF 12

APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Richard Blood* 5/14/98  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

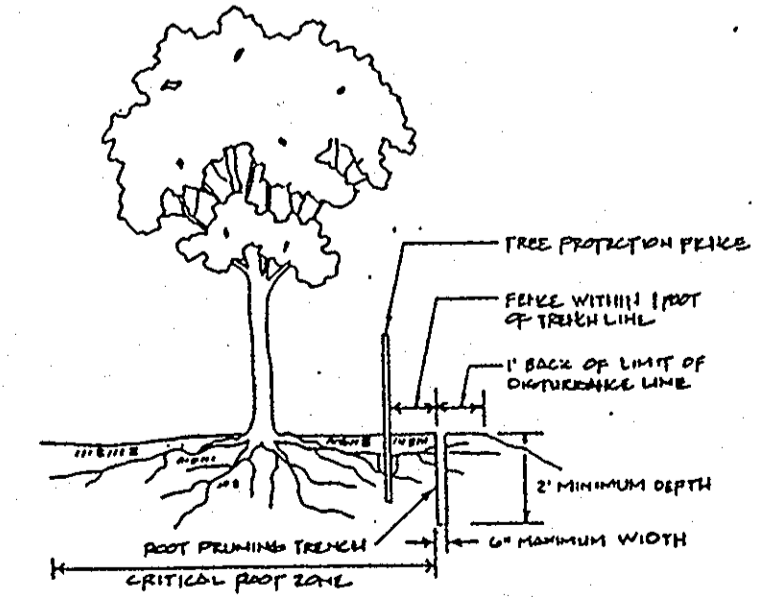
*Richard Blood* 5/15/98  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*David R. Smith* 5/18/98  
DIRECTOR DATE



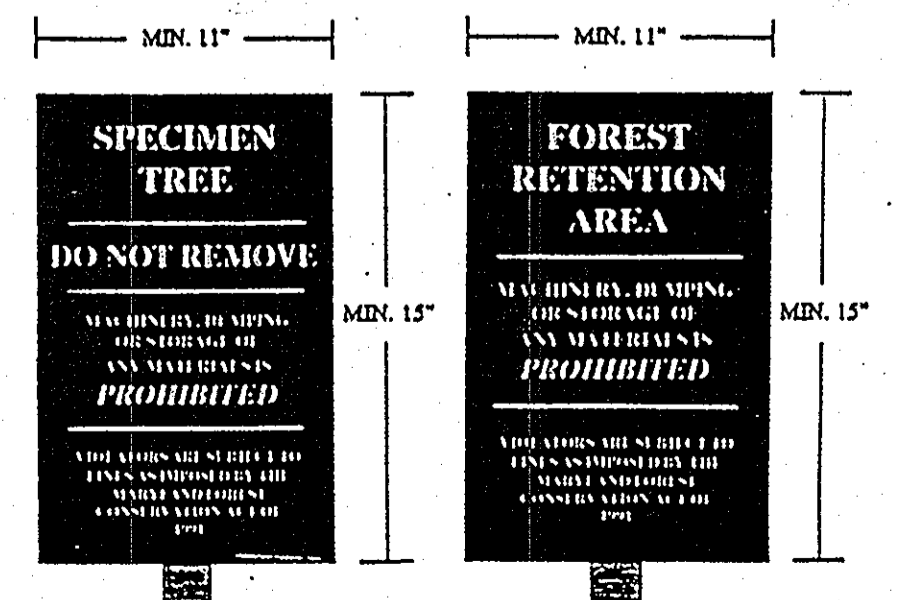
**FOREST PROTECTION DETAIL 1**

Notes:  
1. Combination sediment control and protective device  
2. Retention area will be set as part of the review process  
3. Boundaries of Retention Area should be staked prior to installing protective device  
4. Root damage should be avoided  
5. Mound soil only within the limits of disturbance  
6. Protective signage is also recommended  
7. All standard maintenance for sediment control devices apply to these details



**FOREST PROTECTION DETAIL 2**

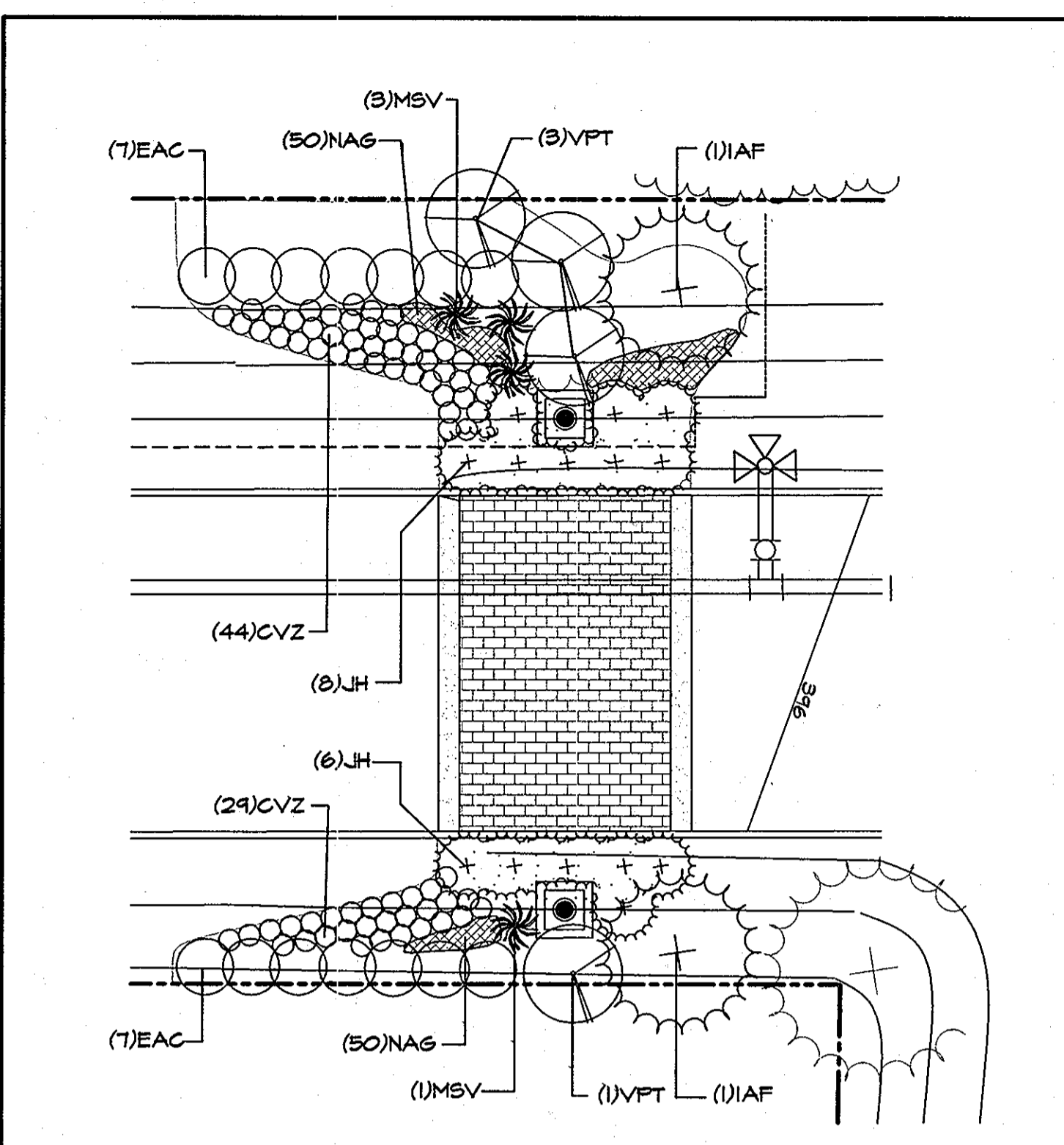
Notes:  
1. Retention Area will be set as part of the review process  
2. Boundaries of Retention Area should be staked prior to trenching  
3. Exact location of trench should be identified  
4. Trench should be immediately backfilled with soil removed or other high organic soil  
5. Roots should be clearly cut using vibratory knife or other acceptable equipment



**FOREST PROTECTION DETAIL 3/4**

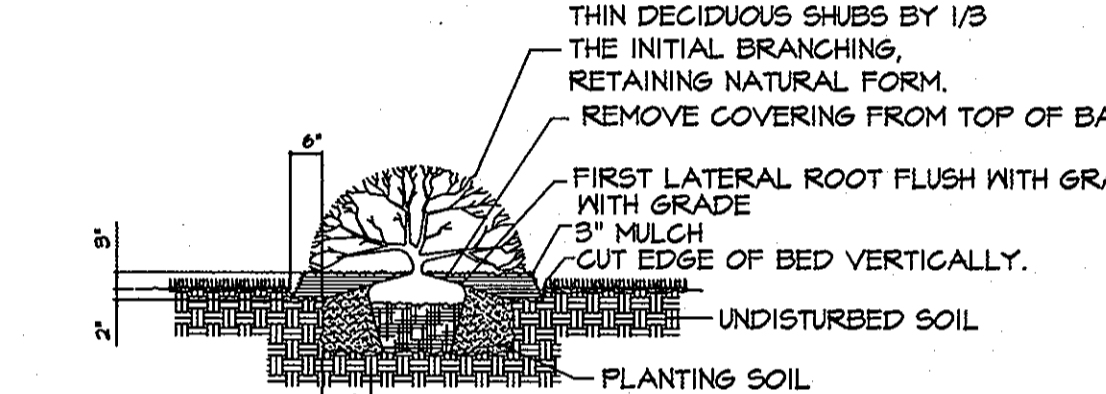
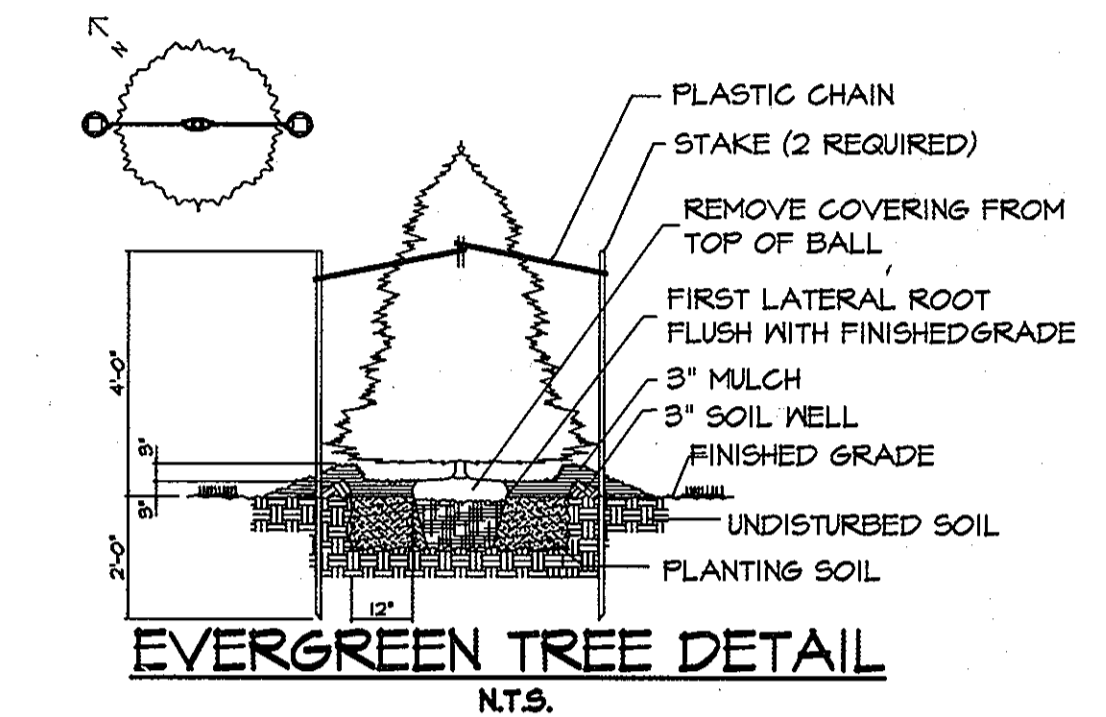
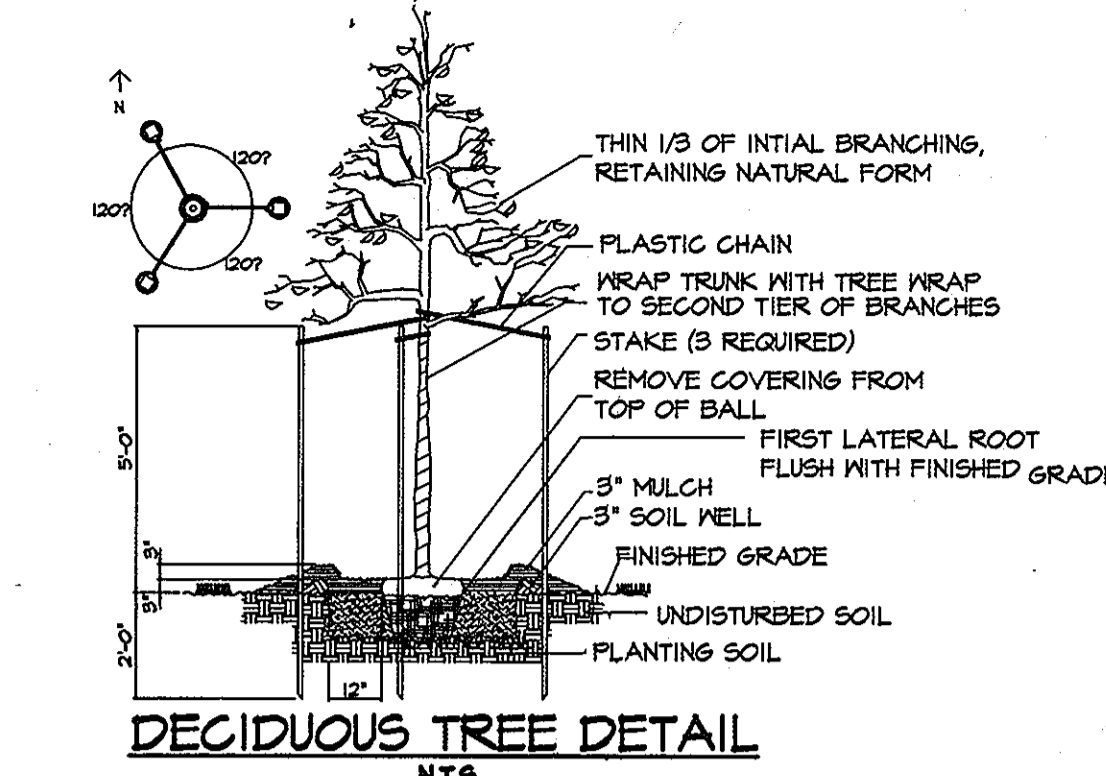
PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS	QUANTITY	BASE	ALT I-B
<b>MAJOR DECIDUOUS TREES</b>								
AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.			5		
AS	ACER SACCHARINUM 'GREEN MT.'	GREEN MT. SUGAR MAPLE	2 1/2" - 3" CAL.			5		
BN	BETULA NIGRA 'HERITAGE'	HERITAGE VEER BIRCH	1 1/2" - 2" CAL.			10		
FP	FRAXINUS PENNSYLVANIA 'SUMMIT'	SUMMIT SEEDLESS ASH	2 1/2" - 3" CAL.			10		
GA	QUERCUS ACUTISSIMA	SANTOOTH OAK	2 1/2" - 3" CAL.			10		
<b>MINOR DECIDUOUS &amp; FLOWERING TREES</b>								
AC	AMELANCHIER 'CUMULUS'	CUMULUS AMELANCHIER	1 1/2" - 2" CAL.		MULTI-STEM	2		
CC	CERCUS CANADENSIS	REDBUD	1 1/2" - 2" CAL.			1		
CK	CORNUS KOUSA	CHINESE DOGWOOD	1 1/2" - 2" CAL.			4		
FA	FRANKLINIA ALATAMANA	FRANKLIN TREE	5" - 6"			1		
MG	MAGNOLIA GRANDIFLORA	SELECT 'S' SOUTHERN MAGNOLIA	10"		SPECIMEN	1		
MSR	MAGNOLIA STELLATA 'ROYAL STAR'	ROYAL STAR MAGNOLIA	5" - 6"		MULTI-STEM	3		
ME	MAGNOLIA SOULANGIANA	SAUCER MAGNOLIA	6" - 8"			3		
MZ	MAHONIA 'ZUMI'	ZUMI CRABAPPLE	1 1/2" - 2" CAL.			3		
RY	PRUNUS x YEDOENSIS	YOSHINO CHERRY	1 1/2" - 2" CAL.			3		
<b>EVERGREEN TREES</b>								
CL	CUPRESSOCYPRIS LEYLANDI	LEYLAND CYPRESS	6" - 8" HT.	10'-12'		8		2
IAP	ILEX ATTENUATA 'FOSTERI'	FOSTERS HOLLY	6" - 8" HT.			2		
INS	ILEX x NELLIE STEVENS	NELLIE STEVENS HOLLY	15" - 18" HT.			11		
PA	PICEA ABIES	NORMAY SPRUCE	6" - 8" HT.	15'-18'		11		
PPG	PICEA PUGENS	COLORADO SPRUCE	6" - 8" HT.	15'-18'		11		
PPG	PICEA FLEXILIS 'GLUAGA'	BLUE LIMBER FINE	6" - 8" HT.	15'-18'		11		
PS	PICEA STROBUS	WHITE PINE	6" - 8" HT.	15'-18'		11		
<b>SHRUBS &amp; GRASSDOVERS</b>								
AZ	AZALEA x SARRAD & GUMPO HYBRIDS	AS SELECTED BY LANDSCAPE ARCH	8" - 24" HT.	VARIES		21		
CAE	CORNUS ALBA ELEGANTISSIMA	VARIEGATED RED TING DOGWOOD	3 GAL.	6"		6		
CSS	COTONEASTER ALICIFOLIUS 'SL.'	SCARLET LEADER COTONEASTER	3 GAL.	5"		6		
EAC	EUCONYMUS ALATUS COMPACTUS	DWARF NINGED EUCONYMUS	1 1/2" - 2 1/4" HT.	42"-48"		6		14
FS	FORSYTHIA SUSPENS	TRAILING FORSYTHIA	1 1/2" - 2 1/4" HT.	4"		39		
IGH	ILEX CRENATA 'HELLER'	HELLER HOLLY	18" SPREAD	30"		7		
ICC	ILEX CRENATA 'CONVEXA'	CONVEXA JAPANESE HOLLY	18" - 24" HT.	4"		14		
IM	ILEX x HESPERVEAE	BLUE PRINCESS & PRINCE HOLLY	4" HT.	--		4		
JH	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP CREeping JUNIPER	2 GAL.	42"		400		
FT	PACHYSANDRA TERMINALIS	PACHYSANDRA	8"	4"		6		
RC	RHODODENDRON CATAWBIENSE	AS SELECTED BY LANDSCAPE ARCH	30" - 36" HT.	3"		10		
TAX	TAXUS BACCATA 'REPANDENS'	ENGLISH KEEPING YEW	18" SPREAD	3"		10		
VSM	VIBURNUM x BURKWOODI 'MOWNAK'	'MOWNAK' FRAGRANT VIBURNUM	21" - 24" HT.	4"		14		
VON	VIBURNUM OPULIS 'NOTCUTT'	'NOTCUTT' CRANBERRYBUSH VIB.	30" - 36" HT.	5"		14		
VP	VIBURNUM FRAGENSE	MILLOLEAF VIBURNUM	30" - 36" HT.	4"		14		
VPT	VIBURNUM FLICATUM 'SHASTA'	'SHASTA' DOUBLELEAF VIBURNUM	30" - 36" HT.	8"		4		
VM	VINCA MINOR	PERINKLE	8"	8"		200		
<b>PERENNIALS &amp; GRASSES</b>								
AAR	ASTILBE ARENDI 'RHINELAND'	RHINELAND PINK ASTILBE	18"			15		75
CVZ	COREOPSIS VERTICILLATA 'ZASREB'	ZASREB COREOPSIS	18"			3		
GO	GALLIUM GORATUM	SWEET WOODRUFF	30"			3		
HS	HOSTA SIEBOLDIANA 'FRANCES M.	FRANCES WILLIAMS HOSTA	30"			3		
HSD	HEMEROCALLIS STELLA DE ORO	STELLA DE ORO DAYLILLIES	30"			4		
HS	HYACINTH	GIANT MIXED COLORS	30"			4		
MSV	MISCANTHUS SINENSIS 'VARIEGATA'	VAR. JAPANESE SILVER GRASS	42"-48"			4		
NAG	NARCISSUS 'ARCTIC GOLD'	ARCTIC GOLD DAFFODILS	6"			160		100

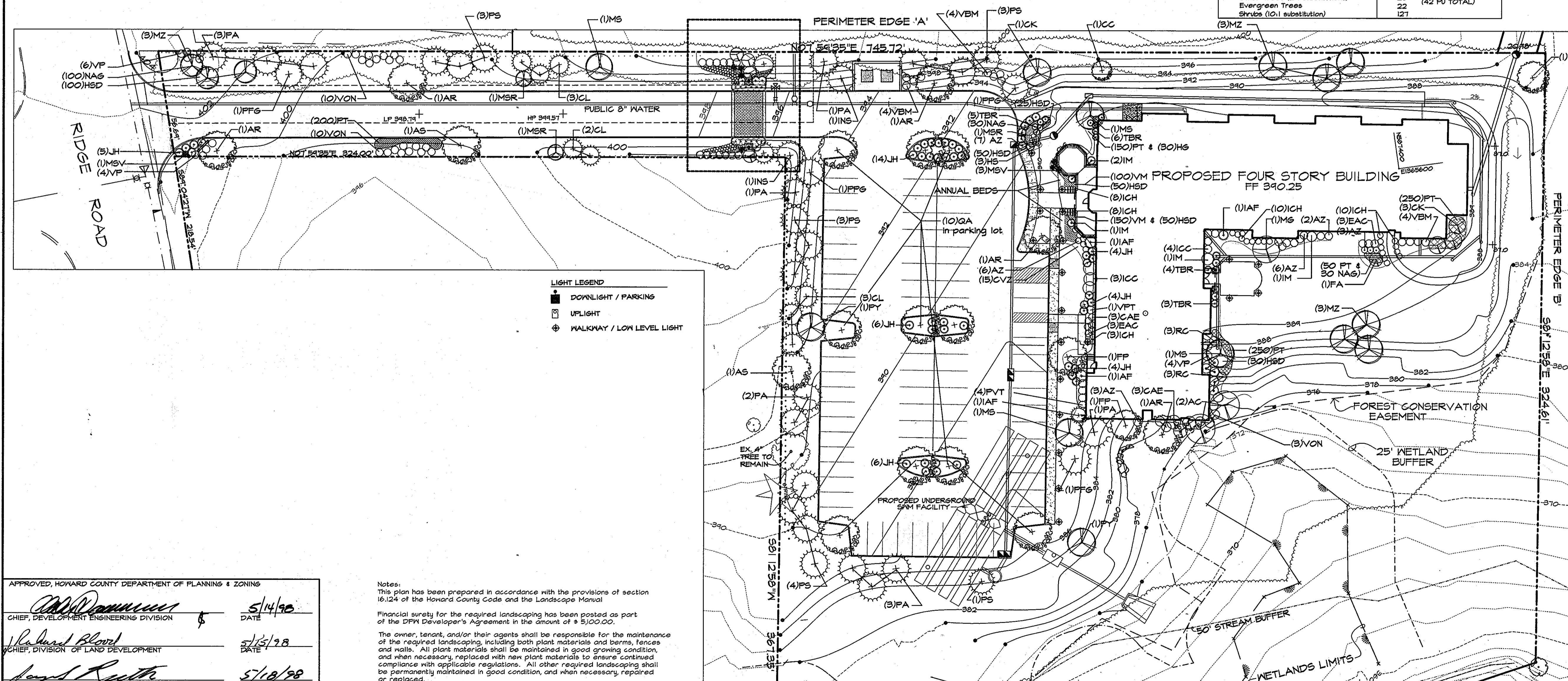


**GATEWAY PLANTING - ADD ALTERNATE I-B**  
 THESE PLANTS ARE INCLUDED IN THE PLANT SCHEDULE UNDER THE QUANTITY HEADING "ALTERNATE I-B" SCALE: 1" = 10'

Category	Adjacent to Roadway B Buffer	Adjacent to Perimeter Properties A Buffer
Linear Feet of Roadway	0	0
Frontage/Perimeter	56.61' *See note	745.42' 324.61' 419.41'
Credit for Existing Vegetation	0	0
Number of Plants Required	2 (1 FU TOTAL)	13 FU
Number of Plants Provided	2 (1 FU TOTAL)	13 (3 FU TOTAL)
Number of Parking Spaces	74	
Number of Trees Provided	5 (8 FU TOTAL)	
Number of Shrubs Provided	32	
Number of Drilling Units	82	
Number of Trees Required	27 FU (14 MAJOR)	
Number of Shrubs Required	127	



**SHRUB DETAIL**  
 \*Prior Plans: Schematic Landscape Plan for Preliminary Equivalent Sketch Plan (P-17)-10 & Record Plat 12471. Note that this plan does include only the landscape requirements for Parcel B (Lot 2) and the requirements for Parcel A (Lot 1), particularly the B Buffer Adjacent to Roadway (Ridge Road) and 375.95 feet of Adjacent Perimeter Property are not shown hereon. The fact that this plan shows quantities and sizes of plants which exceeds the Howard County requirements does not obligate the developer to plant anything more than the minimal number and size required by the Howard County Landscape Manual.  
 DEVELOPER'S/BUILDER'S CERTIFICATE  
 I/We certify that the landscaping required on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a Certification of Landscape Installation, accompanied by an executed one year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.  
 Date: 3/10/98



APPROVED, HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING  
 Chief, Development Engineering Division: 5/14/98  
 Chief, Division of Land Development: 5/15/98  
 Date: 5/19/98

Notes:  
 This plan has been prepared in accordance with the provisions of section 16.124 of the Howard County Code and the Landscape Manual.  
 Financial surety for the required landscaping has been posted as part of the DPM Developer's Agreement in the amount of \$5,000.00.  
 The owner, tenant, and/or their agents shall be responsible for the maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new plant materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

SDP-98-61

NO.	DATE	ITEMS REVISED

**SITE RESOURCES**  
 incorporated  
 Comprehensive Land Planning & Site Design Services  
 14307 Jarrettsville Pike • Phoenix, Maryland 21131  
 (410) 683-3388 • fax (410) 683-3389

**PARK VIEW AT ELLICOTT CITY**  
 AFFORDABLE ELDERLY HOUSING  
 SHELTER DEVELOPMENT LLC

**PLANTING PLAN**  
 2nd ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 TAX MAP 24 PARCEL 58

DATE: 2/16/1998  
 SCALE: 1"=30'  
 PROJECT NO: 2796  
 DRAWING NO: SDP-12  
 SHEET 12 OF 12