

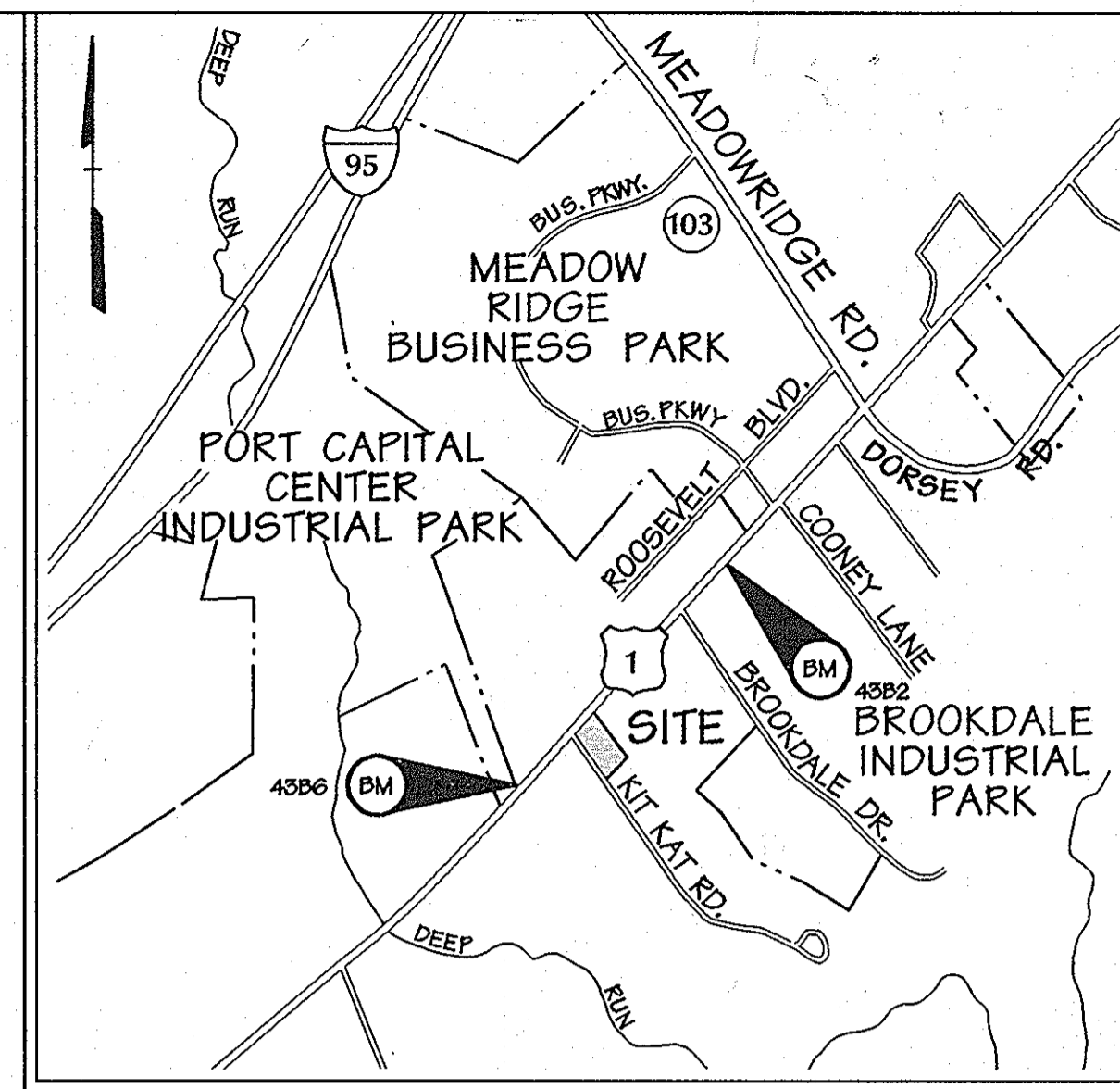
SHEET INDEX

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SITE DEVELOPMENT PLAN

FOR

ELKRIDGE SELF STORAGE FACILITY



LOCATION MAP

SCALE: 1"=1000'

BENCHMARK DESCRIPTION

Coordinates and bearings shown on this plat are referred to the system of coordinates established in the Maryland Coordinate System - NAD 85. Elevations shown hereon are referred to the North American Vertical Datum - NAVD 88 and are based on the following Howard County Survey Control Stations: (Translated meters to feet).

DESIGNATION	NORTH (eFT)	EAST (eFT)	ELEVATION (eFT)
43B6	550601.59	1376866.05	209.91
43B2	551655.01	1378176.94	208.96

DATA SOURCES:

Topography was field run by DMW in November 1997. Property boundary survey provided by DMW Inc. in December 1997.

ADDRESS CHART	
LOT NUMBERS	STREET ADDRESS
	7025 KIT KAT ROAD

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>[Signature]</i>	9/3/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>[Signature]</i>	9/4/98
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>[Signature]</i>	9/9/98
DIRECTOR	DATE

Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
Elkridge Self Storage LLC,
c/o Cooper & Associates, Ltd.
1543 Morse Road
Forest Hill, Maryland 21050

DMW

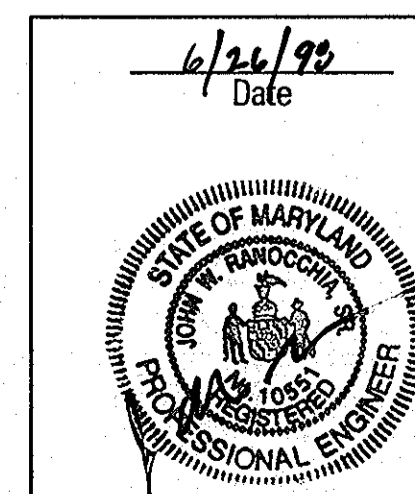
D&M McCann-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3030
Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

PROJECT NAME	N/A	SECTION	N/A	DATE	30
DATE	1546/481	SCALE	4	ZONE	M-2
WATER CODE	BC1	SEWER CODE	2370000		

COVER SHEET

Des By	ZAL	Scale	N/A	Proj. No.	97107.A
Drn By	CSC, MGG	Date	JUNE 26, 1998		
Chk By		Approved			1 OF 15

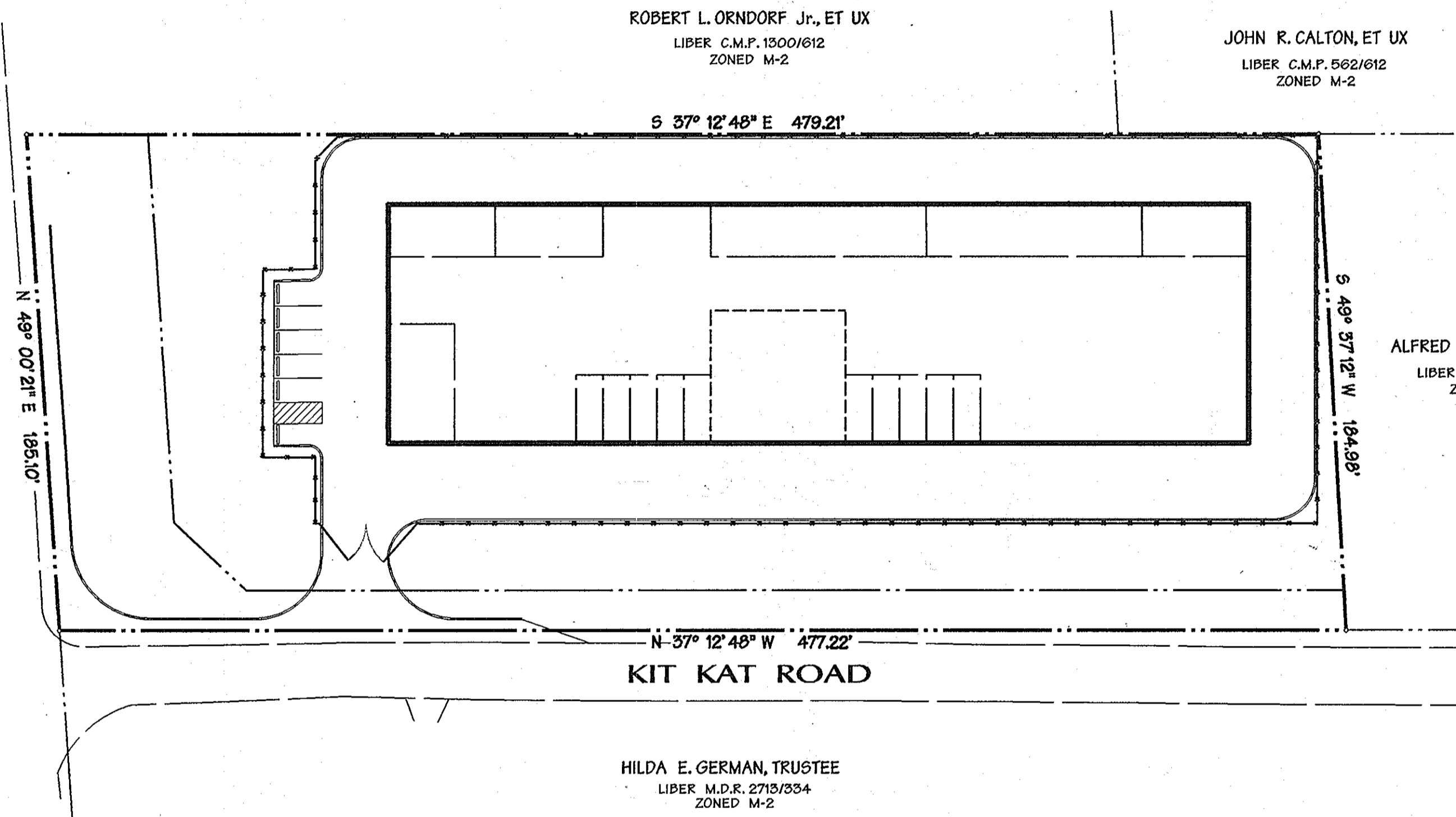


SDP-98-93

Professional Engr. No. 10551

EGSEX GENERAL PARTNERSHIP
LIBER C.M.P. 1660/639
ZONED M-2

BALTIMORE WASHINGTON BLVD.
U. S. ROUTE 1



OVERALL PROPERTY OUTLINE

NOT TO SCALE



GENERAL NOTES

- All construction shall be performed in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications if applicable or as specified.
- Approximate location of existing utilities are based solely on available records. Contractor shall verify the location of any utilities which may be impacted by the work. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired at the contractor's expense.
- The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if the location of the utilities is other than shown.
- The contractor shall notify 'Miss Utility' at 1 (800) 257-7777 at least 48 hours prior to any excavation work being done, and 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 the work.
- Traffic control devices, markings, and signing, shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs be in place prior to the placement of asphalt.
- Any damage caused by the contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be repaired at the contractor's expense.
- The existing topography was based on field run survey by DMW, Inc. in November 1997.
- All hydraulic data is for the 10-year storm unless otherwise noted.
- Subsurface exploration and geotechnical engineering analysis for this project was completed by Hillis Carnes in December 1997.
- All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-180.
- All plan dimensions are to face of curb unless otherwise noted. Numerically written dimensions take precedence over scaled dimensions.
- The coordinates shown hereon are based upon the Howard County geodetic control which is based upon the Maryland State plane coordination system.
- Storm Water Management quantity and quality is provided on site by a detention facility & stormceptor.
- Public water and public sewer to be utilized. (Contract 36 W & 5C Sewer Contract #579-S)
- There are no wetlands on this site. 100 year floodplain per study by DMW, Inc. dated April 1998.
- There are no known cemeteries or burial grounds on this site.
- No traffic study is required for this project.
- Outdoor lighting has been designed in conformance with the Howard County Zoning Regulations Section 134.
- AA 97-19 was granted on Nov. 4, 1997, permitting a reduction of the 50 foot setback to 40 feet for an office/apartment, and of the 30 foot setback to 24 feet for a fence and driveway.
- Waivers to Howard County Design Manual Volume 1, Sections 5.2.6.F.1, 5.2.6.E.1, 5.2.6.D., 5.2.7.F.3. and 5.2.7.F.2. were granted on March 19, 1998.

SITE ANALYSIS DATA CHART

- General Site Data
 - Present Zoning: M-2
 - Applicable DPZ File Reference: AA- 97-19
 - Proposed Use of Site or Structure(s): 3 Story Self Storage Facility, Manager's Office and Apartment
 - Proposed Water and Sewer Systems: Public
 - Water and Sewer Contract Number: Water Contr. #36-W&S, Sewer Contr. #579-S.
- Area Tabulation
 - Total Project Area: 2.028 Acres
 - Net Area of Site: Same as a.
 - Area of this Plan Submission: 2.028 Acres
 - Limit of Disturbed Area: 2.24 Acres
 - Building Coverage of Site: 0.66 Acres and 0.33 % of Gross Area (Proposed).
- Open Space Data: N/A
- Parking Space Data
 - Floor Space on Each Level per Building(e) per Use: 1250 sf. Mgrs. Office, 25,050 sf. Self Storage First Floor; 1250 sf. Mgrs. Apt, 27,550 sf. Self Storage Second Floor; 28,800 sf. Self Storage Third Floor
 - Number of Parking Spaces Required by Zoning Regulations: 4 per 1,000 sf. Office, 1125 sf. = 5 Parking Spaces
 - Total Number of Parking Spaces Provided On-Site: 6
 - Number of Handicapped Parking Spaces Provided: 1

SOUTH ELEVATION

NOT TO SCALE

MAX. BUILDING HEIGHT - 36'

GENERAL NOTES FOR SWM FACILITY:

1. This facility is privately owned and shall be privately maintained.
2. This facility lies within the Patapsco River watershed.
3. This facility is hazard class A.
4. Water Quality provided by Stormceptor SC-1.

INSPECTION SCHEDULE

Prior notification shall be given to the engineer so that inspections may be made at the following stages:

1. Upon completion of excavation to subfoundation and where required, installation of structural supports or reinforcement for structures, including but not limited to:
 - a) Core trenches for structural embankments
 - b) Inlet-outlet structures and anti-seep structures, watertight connectors on pipes and
 - c) Trenches for enclosed storm drainage facilities.
 2. During placement of structural fill, concrete, and installation of piping and catch basins
 3. During backfill of foundations and trenches
 4. During embankment construction and
 5. Upon completion of final grading and establishment of permanent stabilization.
- No work shall proceed until engineer inspects and approves the work previously completed.

MAINTENANCE SCHEDULE

- Routine Maintenance**
1. The facilities shall be inspected annually and after major storms. Inspections should be performed during wet weather to determine if the facility is functioning properly. The facilities shall be inspected in accordance with the checklist and requirements contained within USDA, NRCS "Standards and Specifications for Fences" (MD-378). The pond owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the facility and the continued operation, surveillance, inspection, and maintenance there of. The facility owner(s) shall promptly notify the Howard County Construction Inspection Unit of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.
 2. The top and side slopes of the facility shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be mowed as needed.
 3. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
 4. Visible signs of erosion in the facility as well as at rip rap outlet areas shall be repaired immediately.
- Non-Routine Maintenance**
1. Structural components of the ponds such as the dam, the riser, and the pipes shall be repaired upon the detection of any damage. The components should be inspected during routine maintenance operations.
 2. Sediment should be removed when its accumulation significantly reduces the design storage, interferes with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by Howard County's Department(s) of Public Works / Zoning.

DESIGN FLOW SUMMARY

Pond	2-Year	10-Year	100-Year
Proposed Inflow (cfs)	8.75	16.59	N/A
Allowable Release (cfs)	N/A	N/A	N/A
Proposed Outflow (cfs)	2.39	10.33	N/A
Water Surface Elev. (ft)	199.25	199.76	200.51
Storage Provided (AC-ft)	.18	.31	N/A

Structure Type	Detention, Dry Pond
Structure Classification	A
Structure Location	Urban
Watershed Area to Facility (Ac.)	4.17
Maximum Height of Fill (ft.)	0.0
Top of Dam Width (ft.)	5
Freeboard Provided (ft.)	-

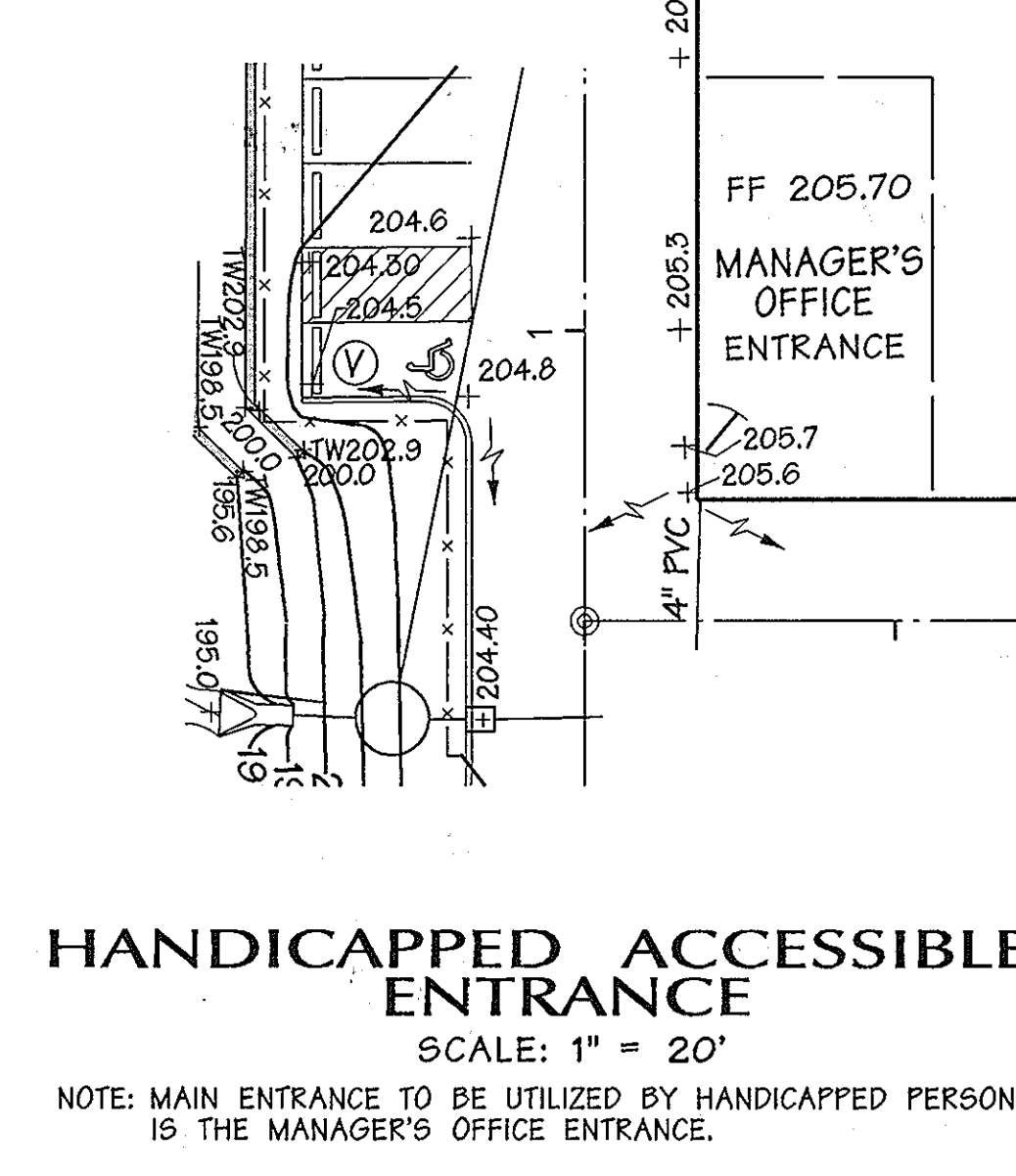
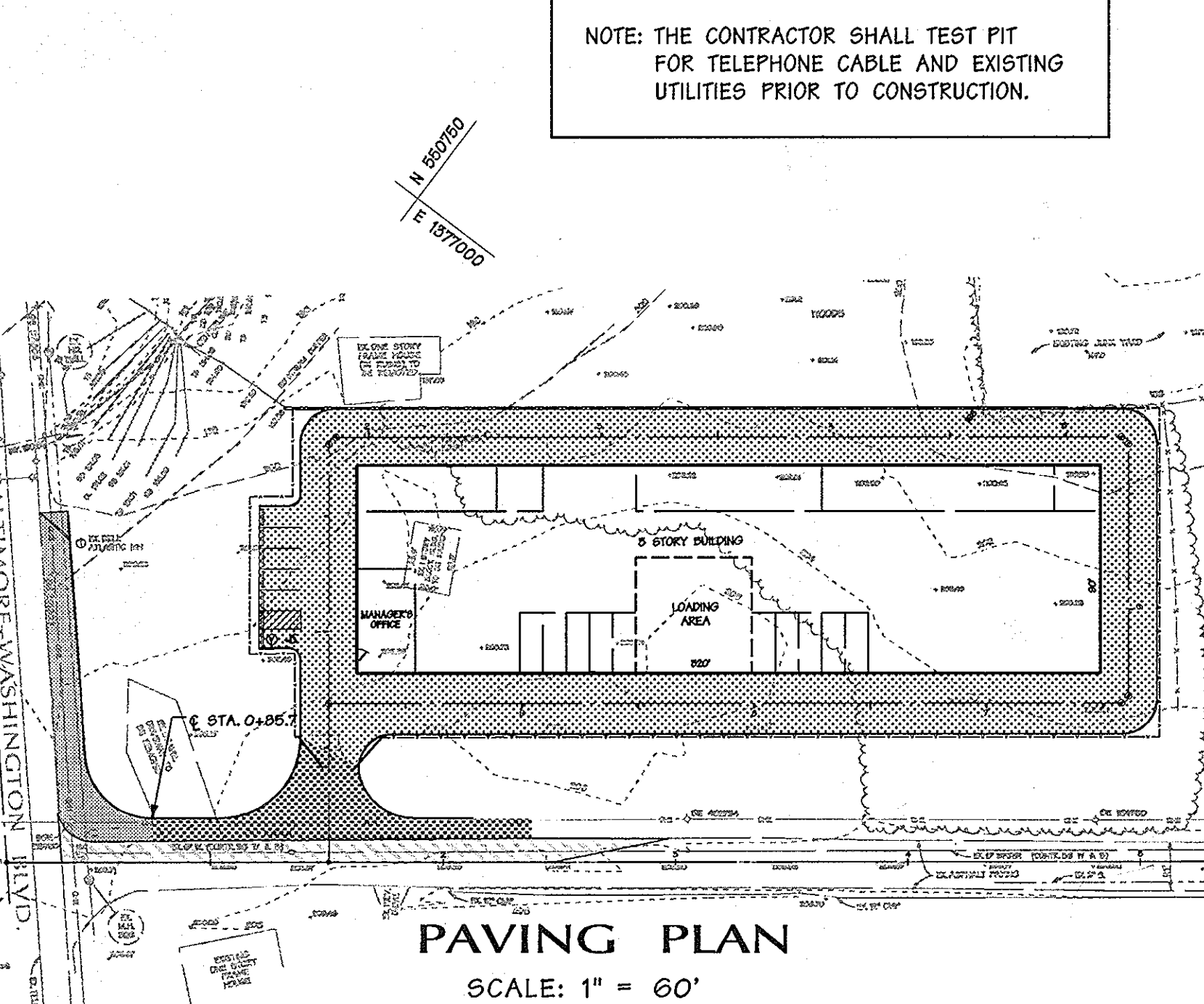
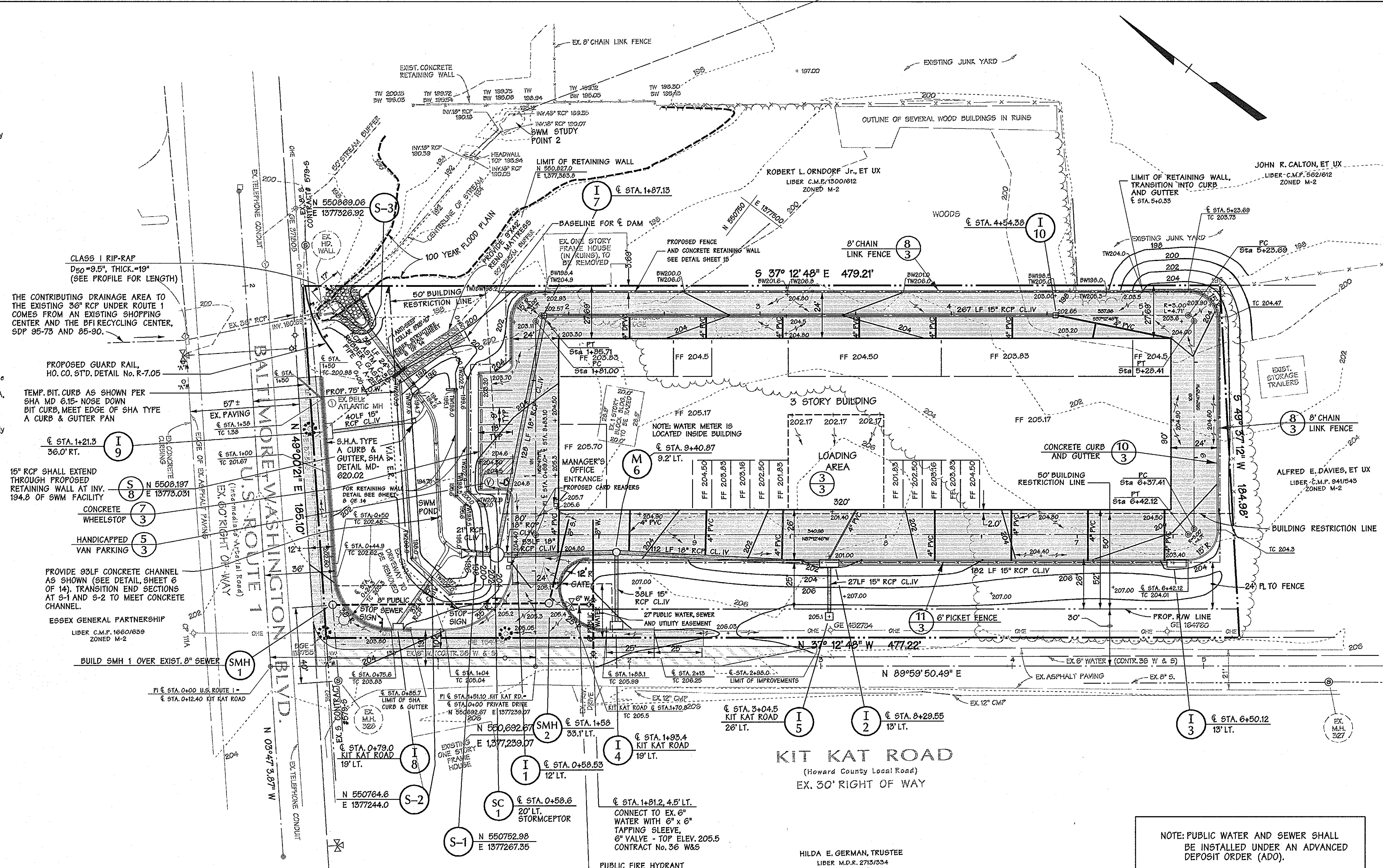
Study Point 2

	2-Year	10-Year
Existing Peak (cfs)	36.61	68.2
Proposed Peak (cfs)	36.84	68.32

LEGEND

- ON SITE PAVING
- P-3 PAVING
- SHA PAVING
- OVERLAY SECTION

NOTE: FOR PAVING SECTION DETAILS SEE SHEETS 3&4 OF 14



NOTE: MAIN ENTRANCE TO BE UTILIZED BY HANDICAPPED PERSON'S IS THE MANAGER'S OFFICE ENTRANCE.

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- SPOT ELEVATIONS
- EXISTING SEWER MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING BGE POLE TO BE RELOCATED
- SHA TYPE A COMBINATION CURB AND GUTTER
- STANDARD 7" COMBINATION CURB AND GUTTER
- REVERSE 7" COMBINATION CURB AND GUTTER
- BITUMINOUS CURB AND GUTTER
- 100 YEAR FLOOD PLAIN
- OVERLAY SECTION
- DETAIL IDENTIFIER SHEET NUMBER
- FLOW ARROW
- VEHICULAR INGRESS & EGRESS RESTRICTED

NOTE: PUBLIC WATER AND SEWER SHALL BE INSTALLED UNDER AN ADVANCED DEPOSIT ORDER (ADO).

NOTE: ALL STORM DRAINAGE TO BE ASTM C-76 PIPE WITH RUBBER GASKET JOINTS

NOTE: NO GRADING OR CLEARING PERMITTED ON ORNDORF PROPERTY. REMOVAL OF FRAME HOUSE (IN RUINS) IS PERMITTED.

WETLAND NOTES:

TO PROTECT IMPORTANT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED DURING THE PERIOD MARCH 1-JUNE 15 INCLUSIVE, DURING ANY YEAR.

TRAFFIC STRIPING NOTES:

1. PROVIDE 24" WIDE STOP BAR AT KIT KAT ROAD AND US ROUTE 1.
2. KIT KAT ROAD SHALL BE STRIPED FOR TWO OUTBOUND AND 1 INBOUND LANE.

STREET LIGHT LEGEND

250-400 WATT HG ON 30' GALVANIZED STEEL POLE. LOCATION SHALL BE COORDINATED WITH UTILITY POLE RELOCATION.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

	9/3/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
	9/9/98
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
	9/9/98
DIRECTOR	DATE

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
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c/o Cooper & Associates, Ltd.
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Forest Hill, Maryland 21050

DMW
Daft McCune Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

BOOKING NAME	BOOKING #	DATE	DATE	DATE
N/A	N/A	N/A	N/A	N/A
1546/451	4	M-2	43	1
WATER ONLY	BC1	SEWER ONLY	23Y0000	

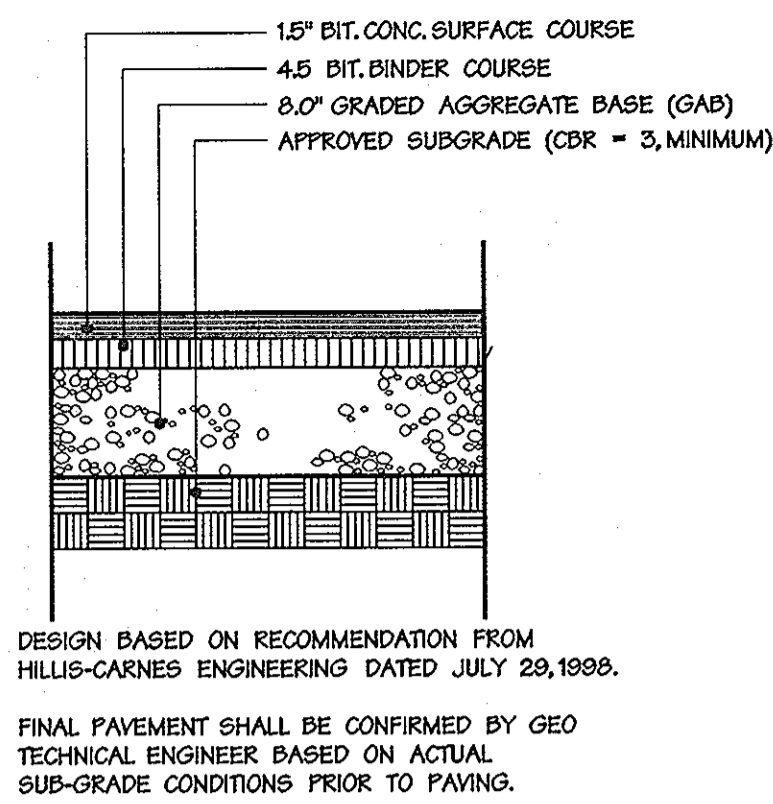
SITE PLAN

Des By	ZAL	Scale	1"=30'	Proj. No.	97107.A
Dm By	MS6	Date	JUNE 26, 1998		
Chk By	Approved				

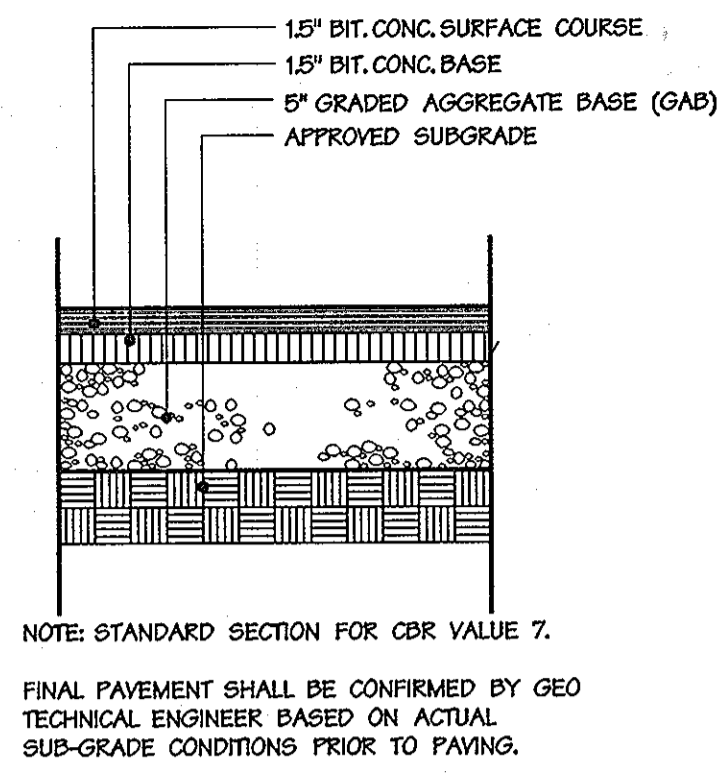
8/12/98
Date

Professional Engr. No. 10551

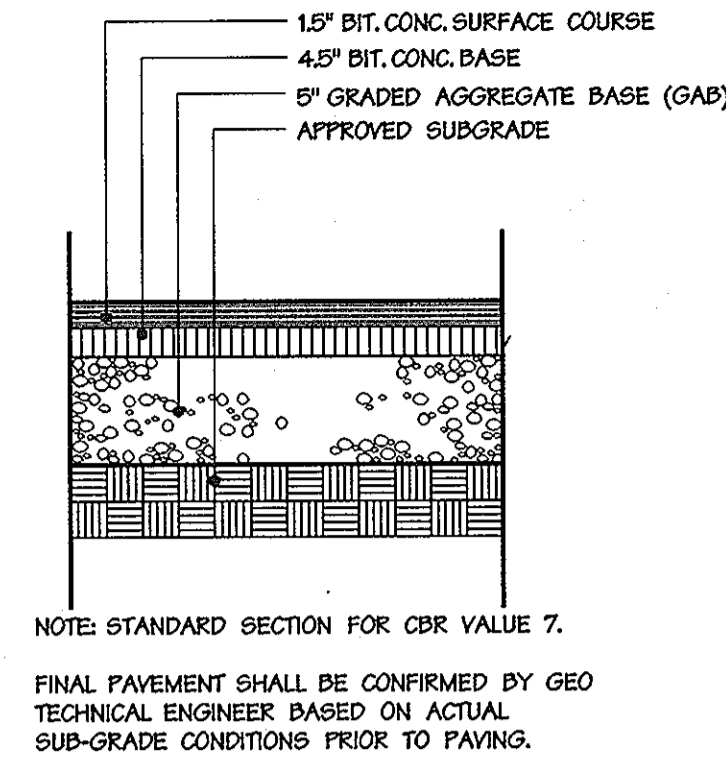
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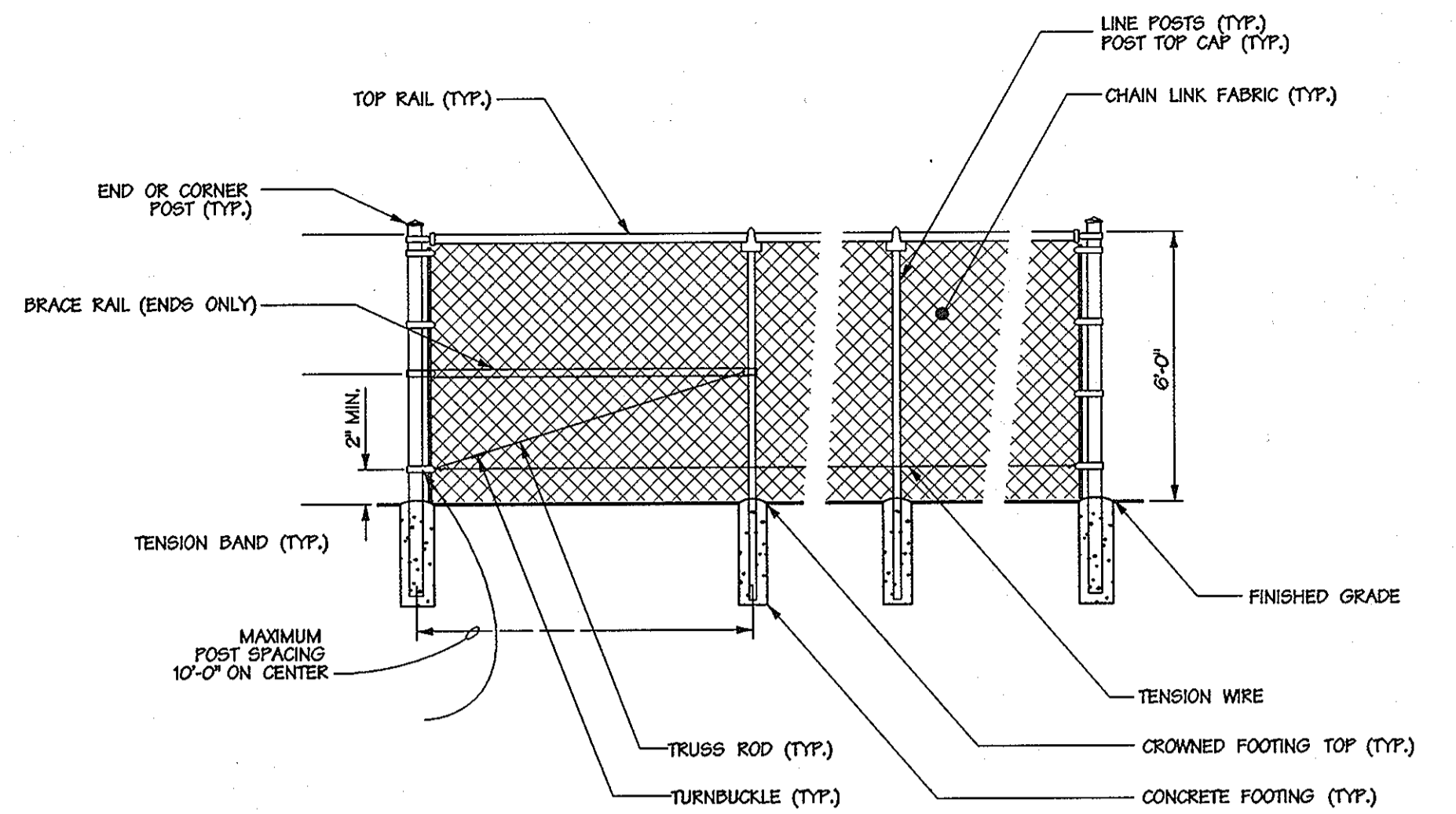
2 ON SITE PAVING
Not To Scale



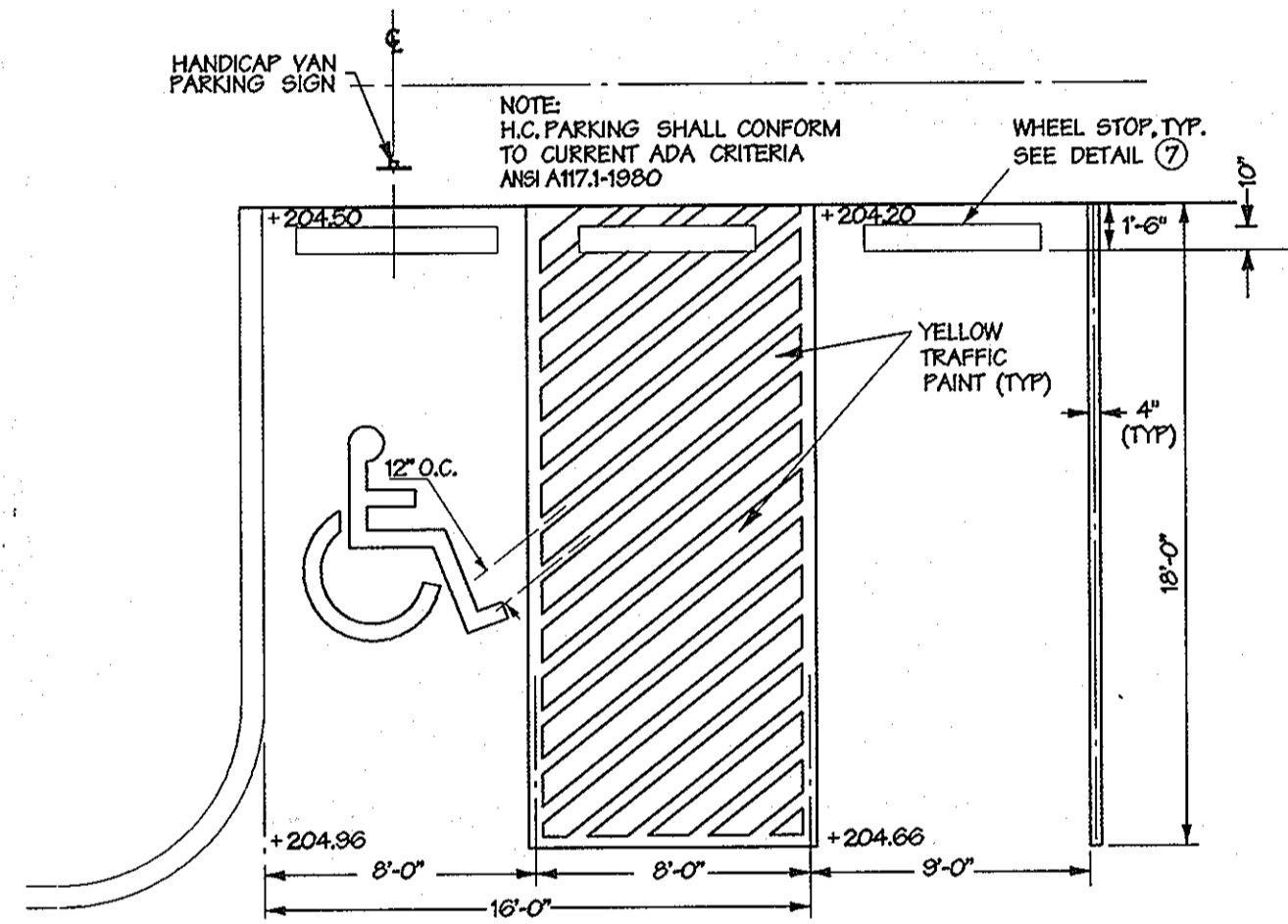
3 P3 PAVING
Not To Scale



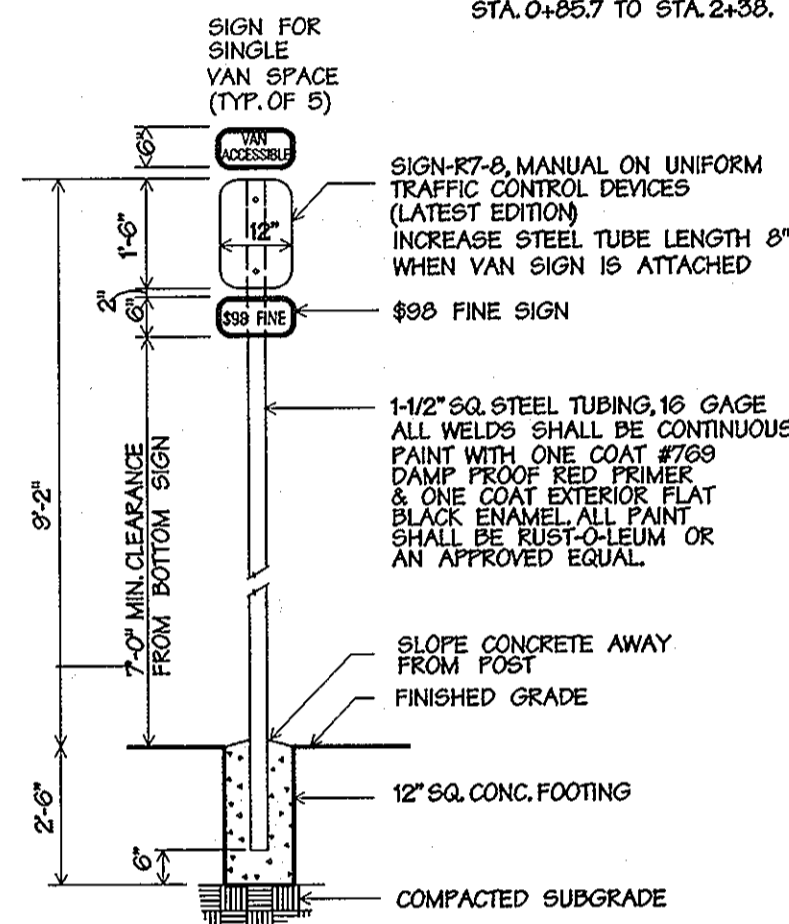
3 ALTERNATE P3 PAVING
Not To Scale



8 CHAIN LINK FENCE
Not To Scale

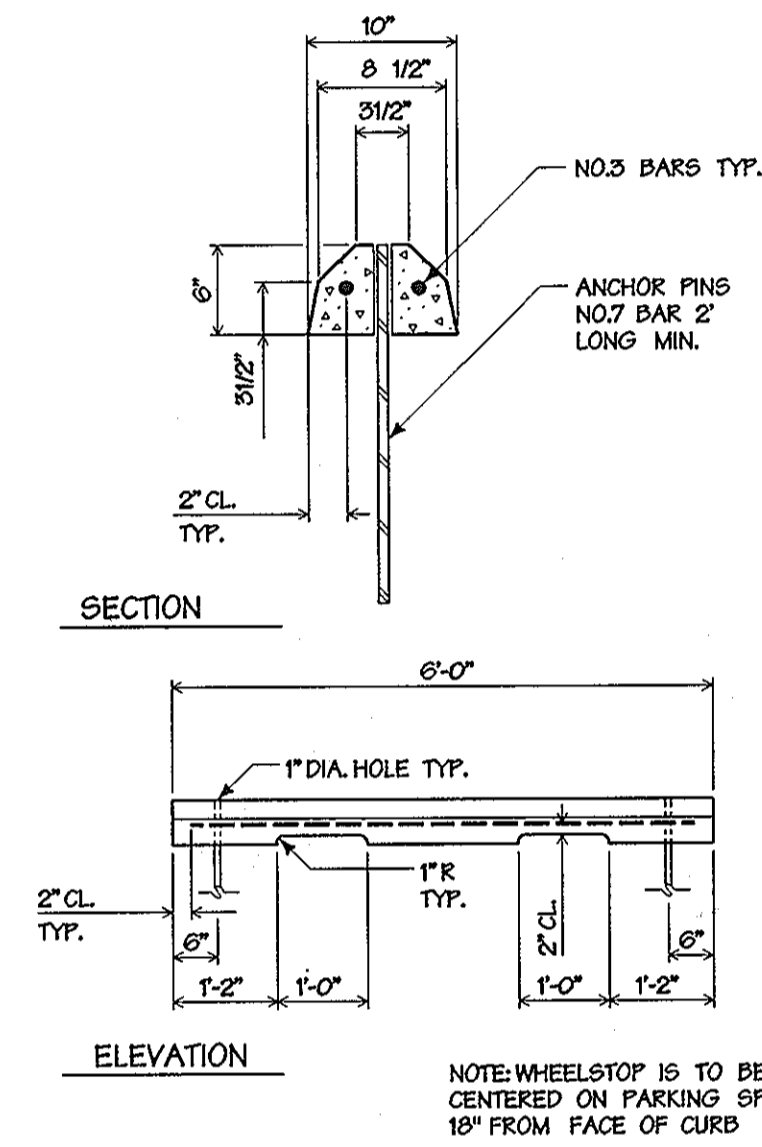


5 HANDICAPPED VAN PARKING
Not To Scale

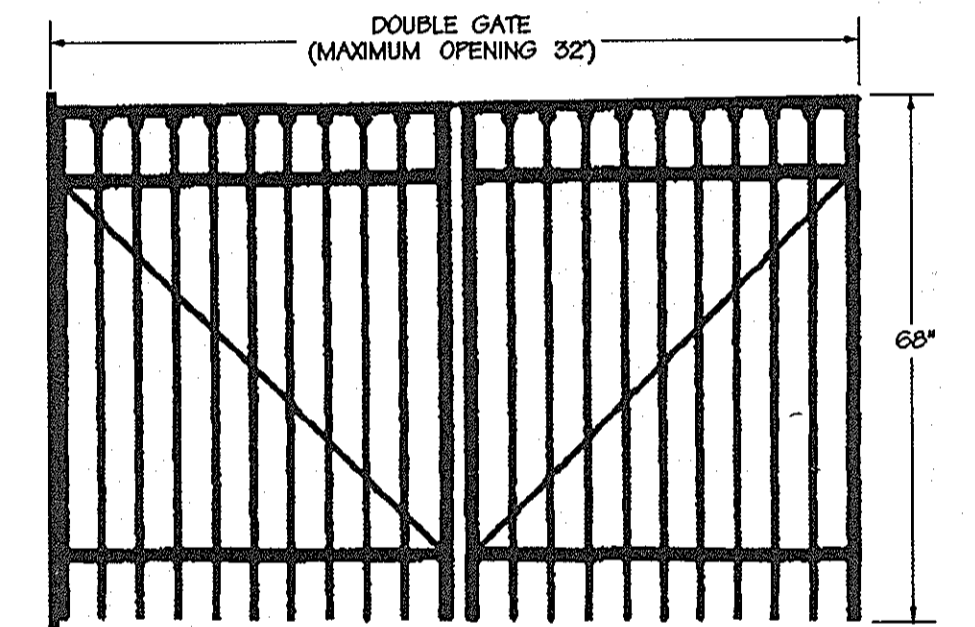


NOTES
1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7'
2. SEE HANDICAPPED PARKING SPACE DETAIL THIS SHEET FOR LOCATION OF HANDICAPPED SIGN.
3. SPACE MARKED 'V' SHALL INCLUDE 'VAN SIGN' AS REQUIRED
4. SIGNS SHALL CONFORM TO CURRENT ADA CRITERIA.
SIGN COLORS
LETTERS AND BORDER - GREEN
WHITE H.C. SYMBOLS ON BLUE BACKGROUND
BACKGROUND - WHITE

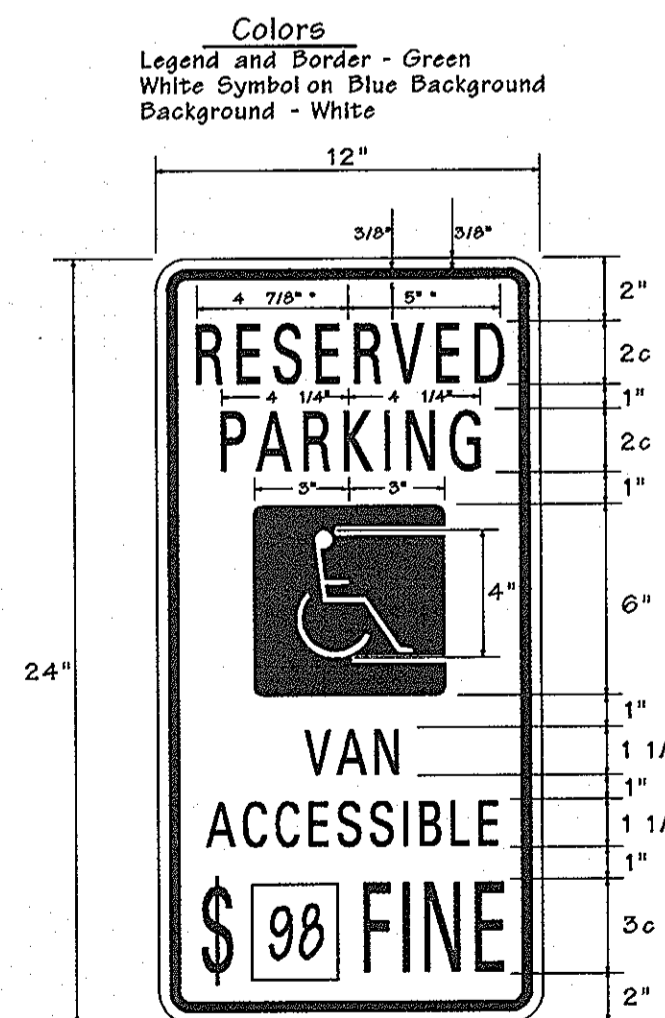
6 HANDICAPPED PARKING SIGNS
Not To Scale



7 PRECAST CONCRETE WHEELSTOP
Not To Scale

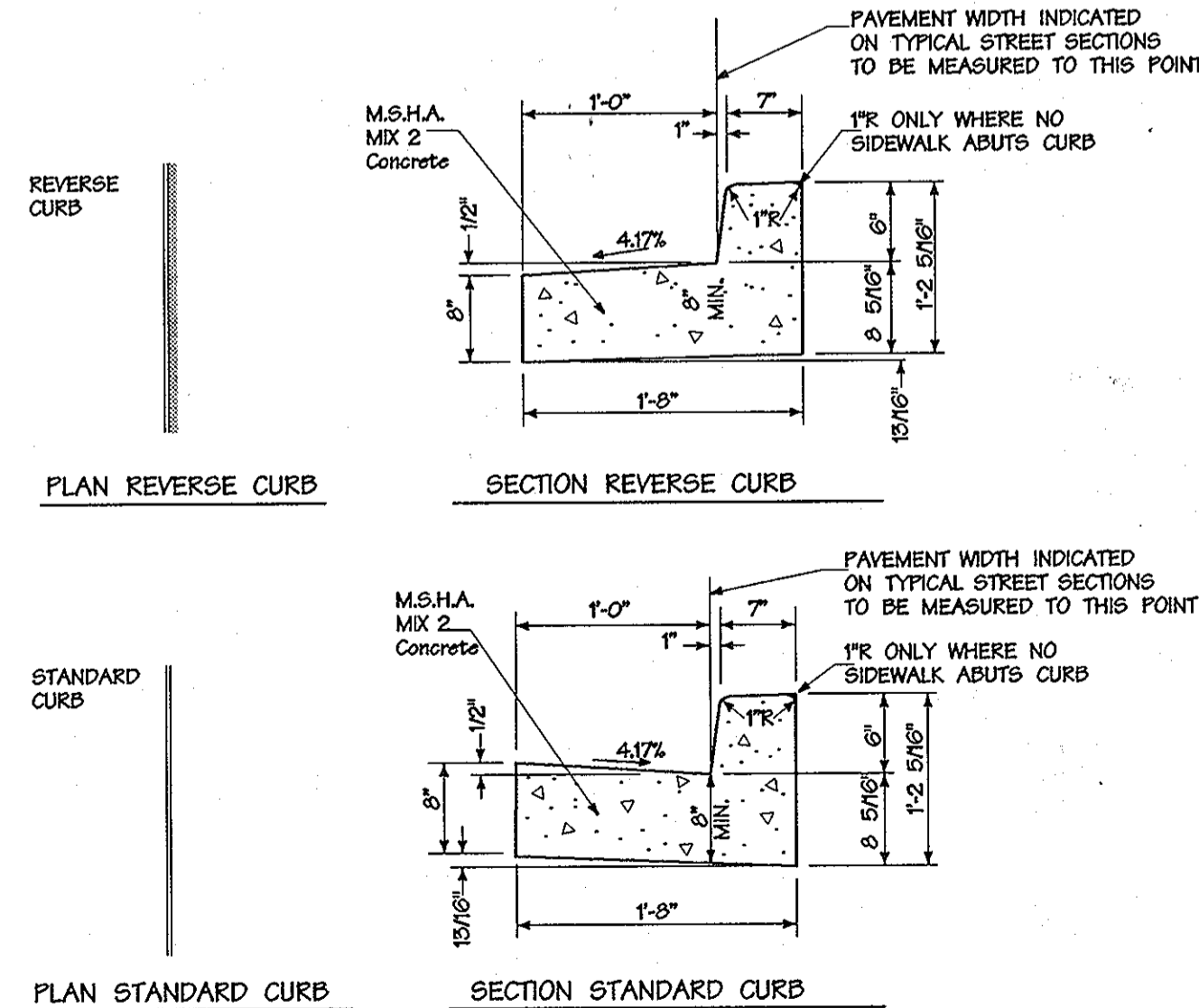


7 DRIVE GATE
Not To Scale

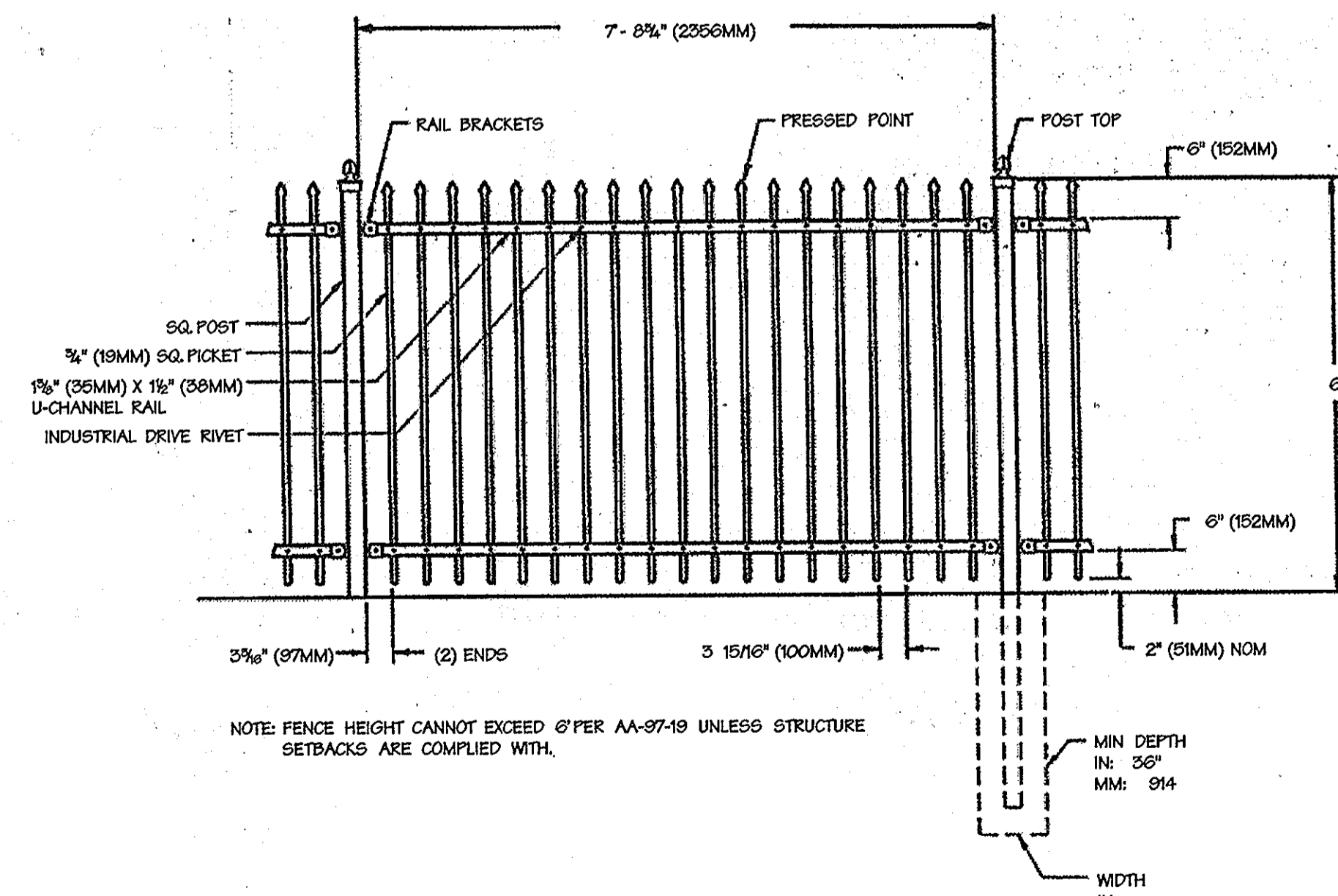


Note: Fine amount to be determined by Howard County Resolution. Contact Howard County Department of Inspection, Licenses & Permits

9 VAN HANDICAPPED PARKING RESTRICTION SIGN
Not To Scale



10 CONCRETE CURB TYPICAL
Not To Scale



11 PICKET FENCE ELEVATION OR APPROVED EQUAL
Not To Scale

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 9/3/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 9/4/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
[Signature] 9/6/98
 DIRECTOR DATE

Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
 Elkrige Self Storage LLC,
 c/o Cooper & Associates, Ltd.
 1543 Morse Road
 Forest Hill, Maryland 21050

DMW
 Dan McCune-Walker, Inc.
 3000 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

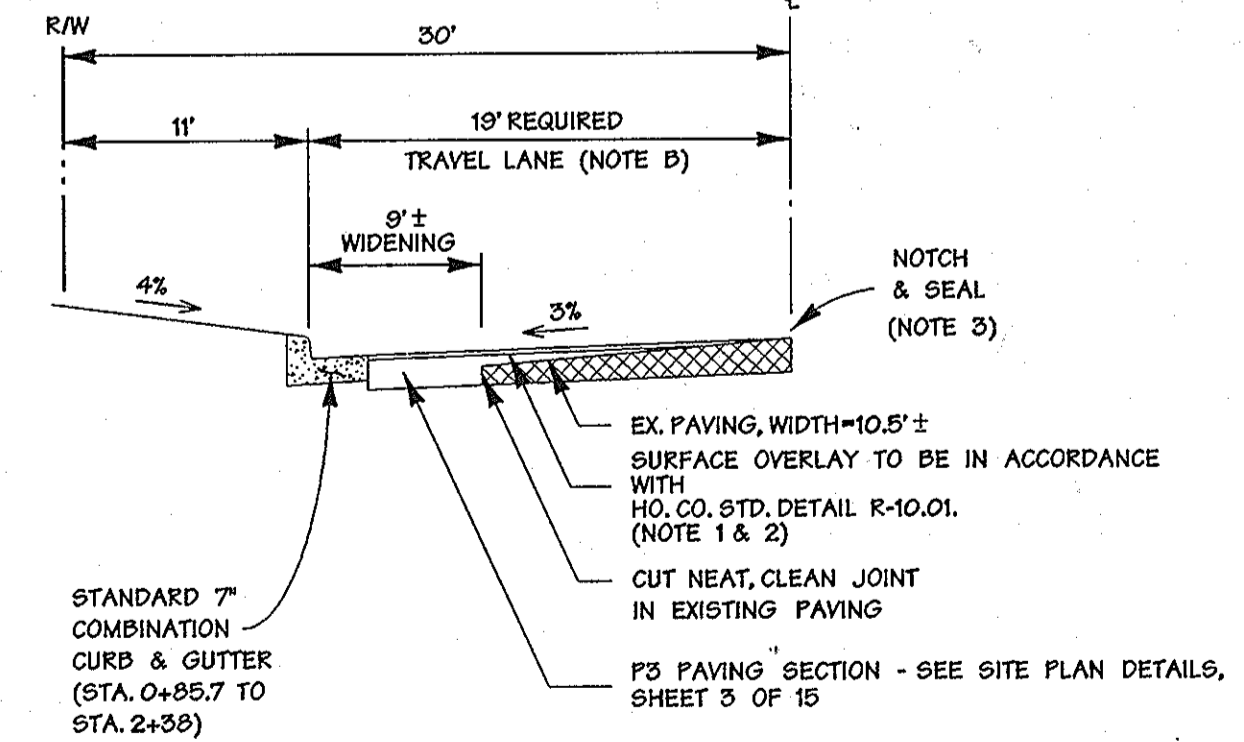
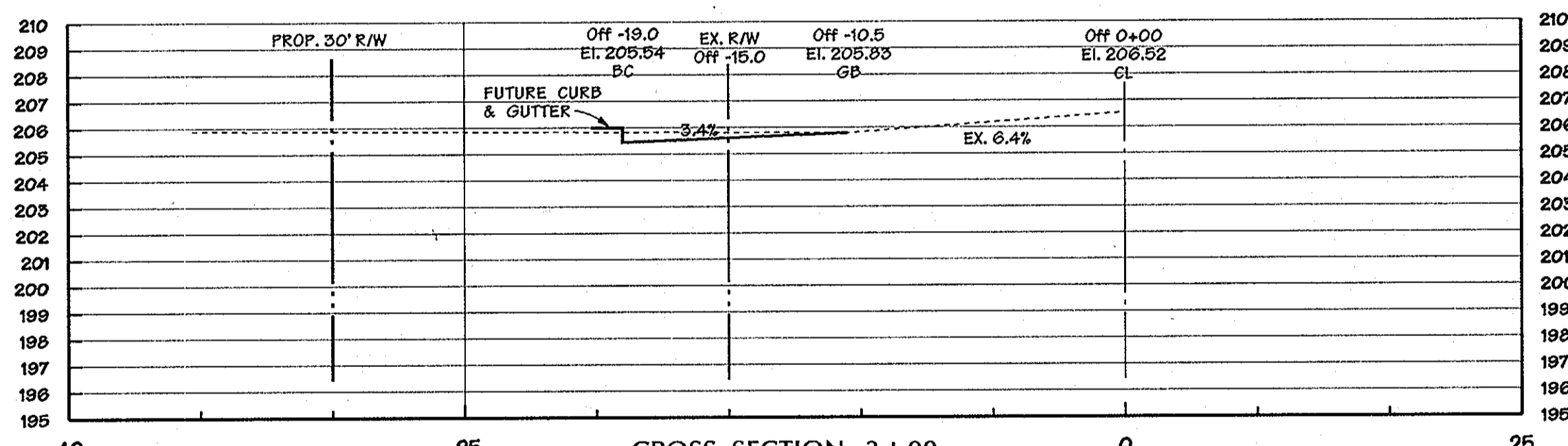
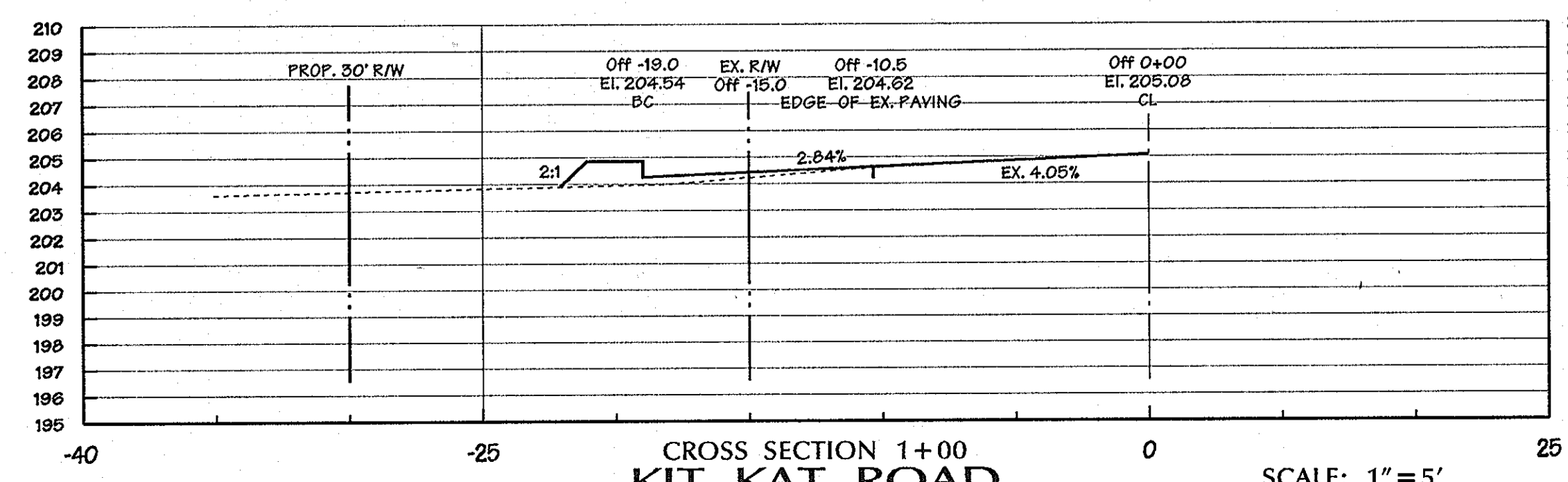
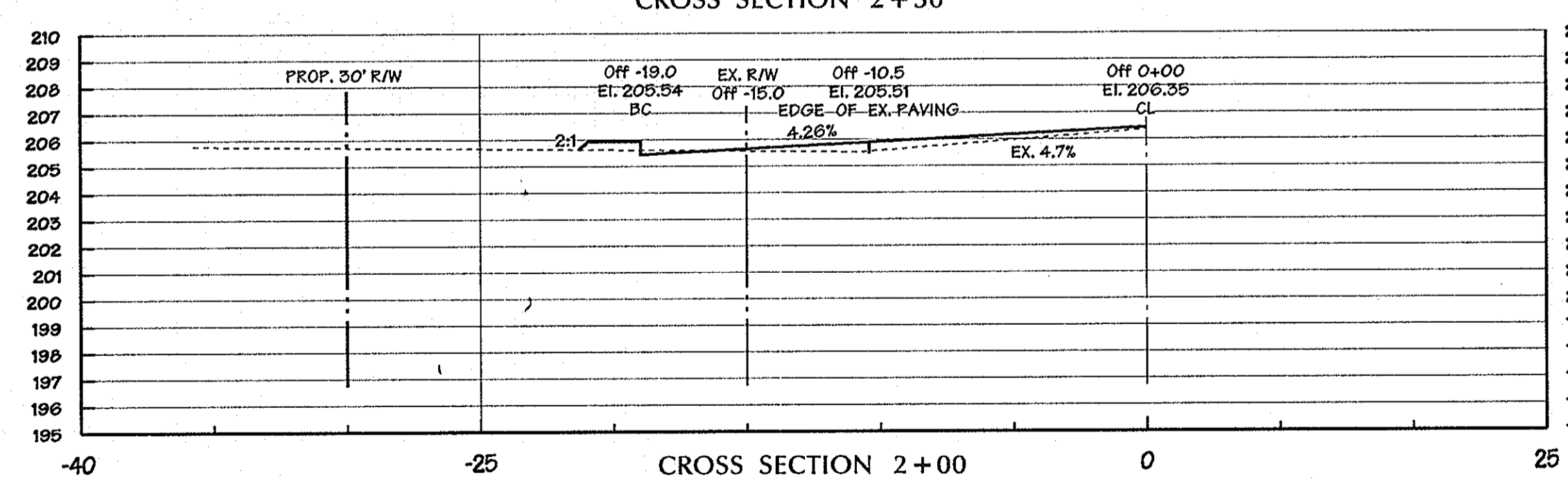
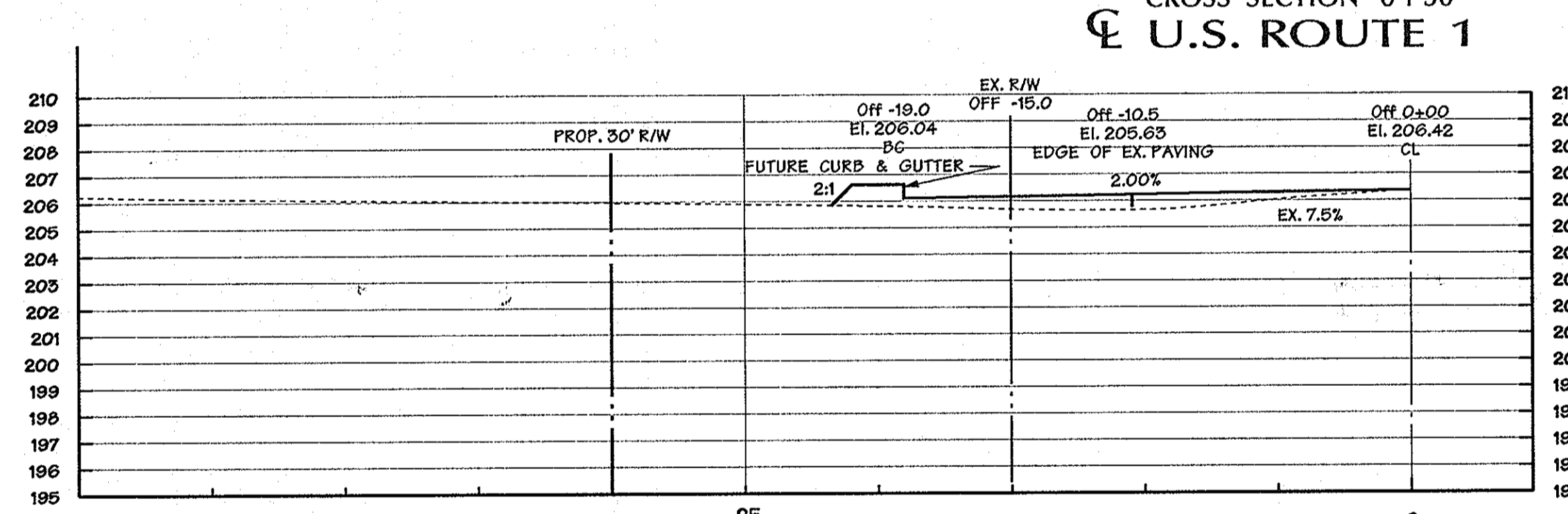
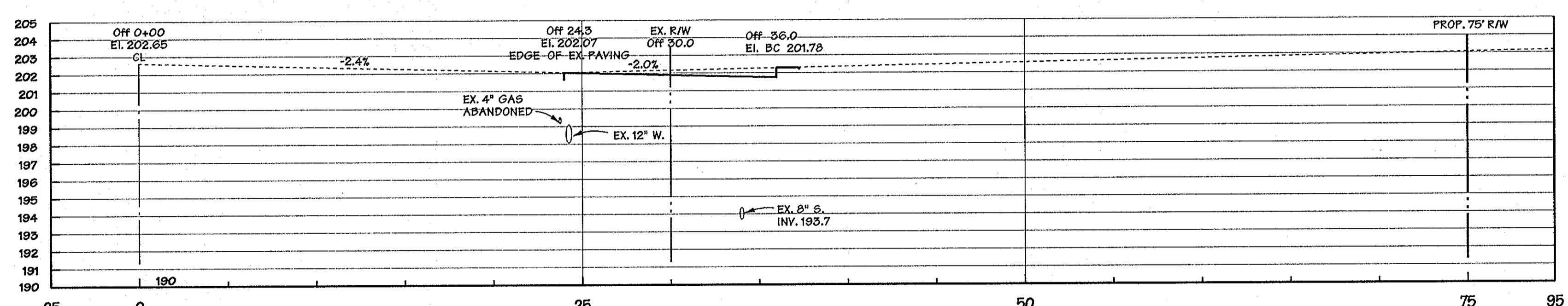
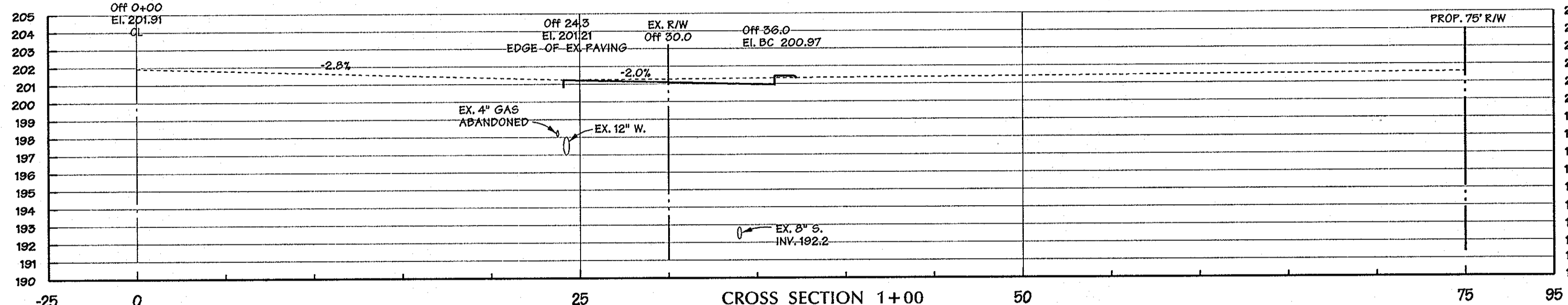
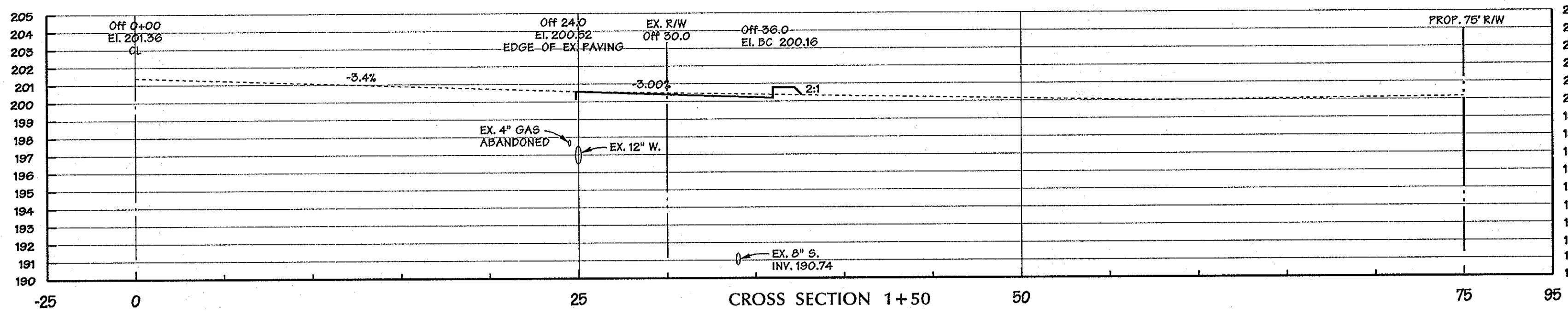
8/13/98
 Date



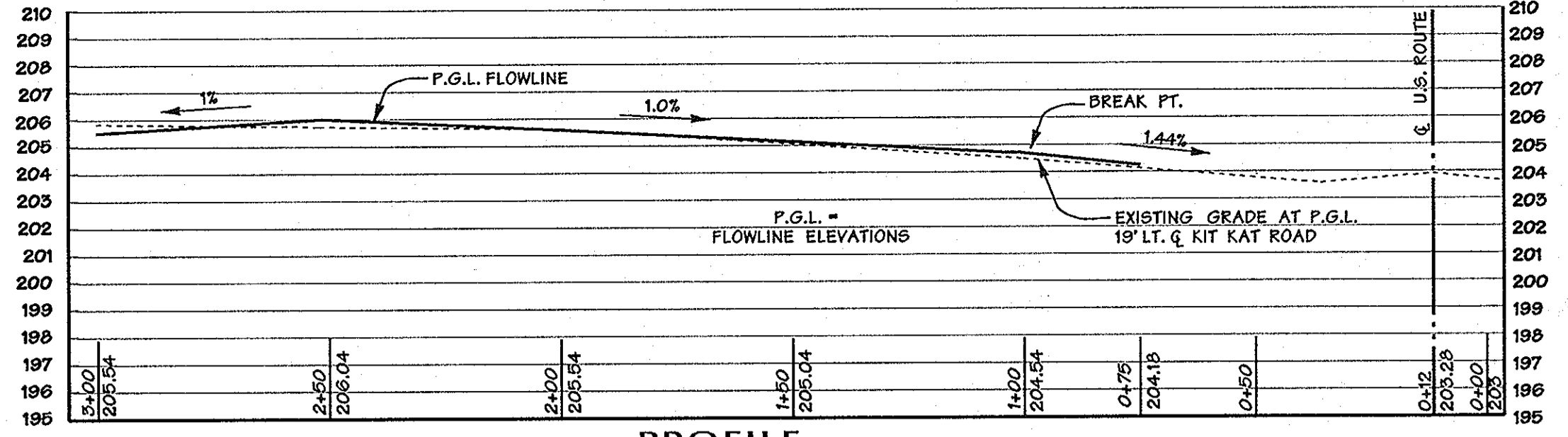
DESCRIPTION	DATE	BY	REVISION

SITE PLAN DETAILS

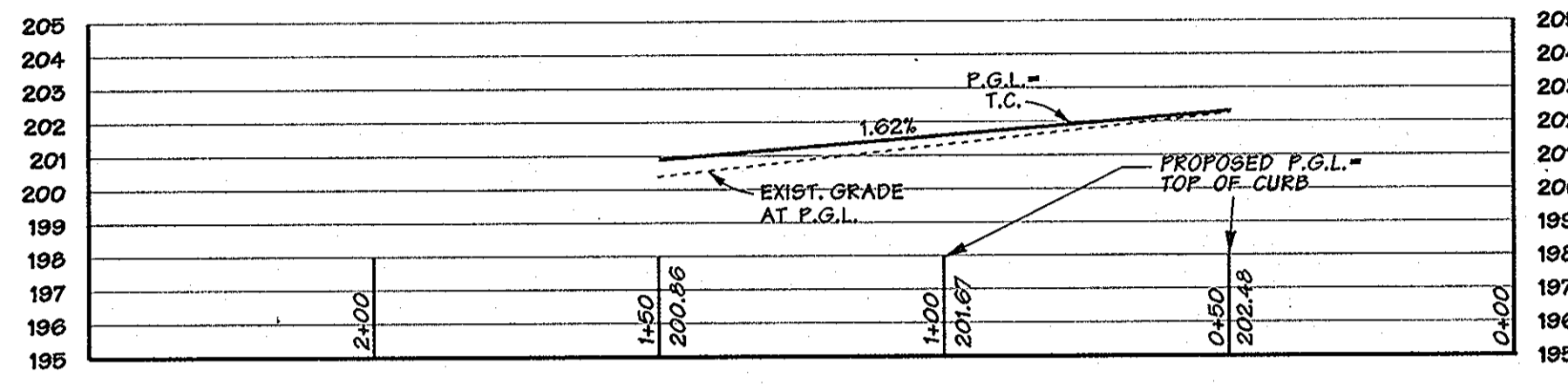
Des By	ZAL	Scale	A6 SHOWN	Proj. No.	97107.A
Dim By	CSC, MSS	Date	JUNE 26, 1998		
Chk By	Approved				



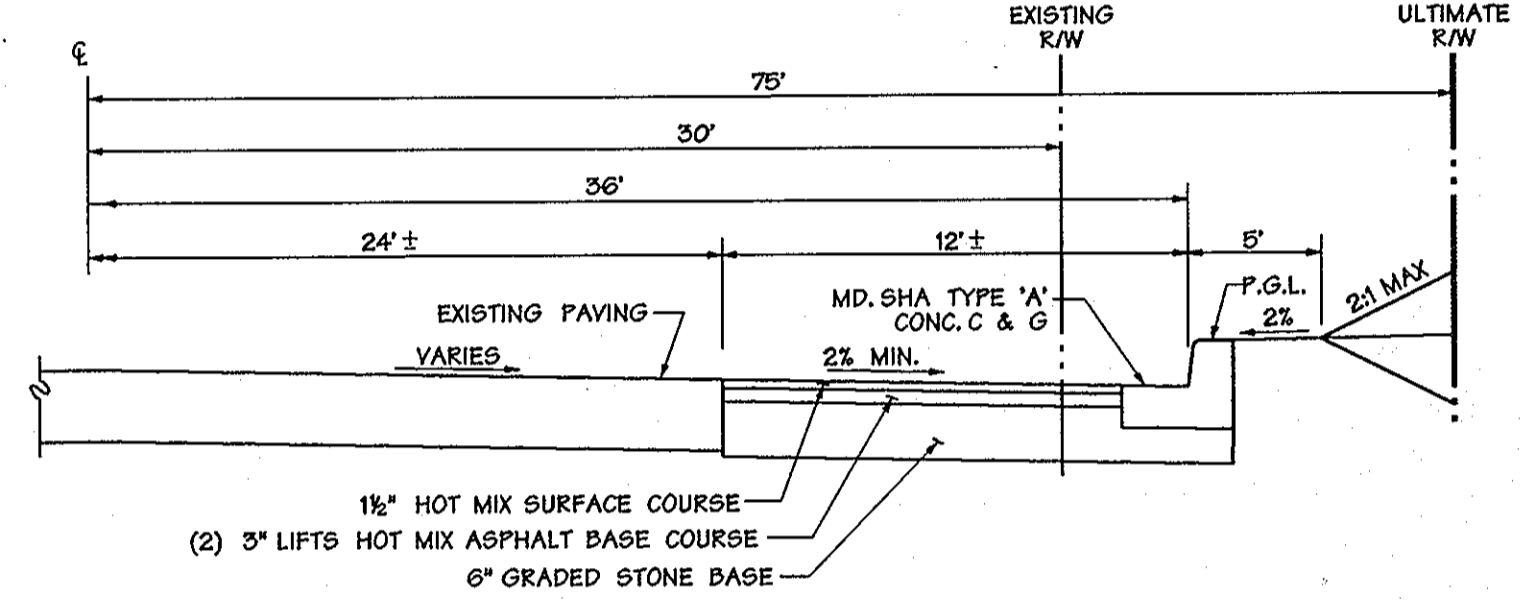
TYPICAL HALF SECTION
KIT KAT ROAD
NOT TO SCALE



PROFILE
KIT KAT ROAD
SCALE: HORIZ. 1"=30'
VERT. 1"=5'



PROFILE
U.S. ROUTE 1
SCALE: HORIZ. 1"=30'
VERT. 1"=5'



TYPICAL HALF SECTION - U.S. ROUTE 1
NOT TO SCALE

- NOTES: FOR KIT KAT ROAD WIDENING
1. THE SURFACE OVERLAY SHALL BE CARRIED TO THE CENTERLINE OF THE ROAD AND NOTCHED AND SEALED.
 2. SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL PAVING SECTION.
 3. CENTERLINE OF ROAD TO BE MILLED AT DEPTH OF 1/2" x WIDE USING A MILLING MACHINE. SEE HOWARD COUNTY STANDARD DETAIL R10.01.
 4. THE TRAFFIC MAINTENANCE PLAN SHOULD CONFORM WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION DETAIL ON THIS SHEET AS WELL AS THE GENERAL NOTES IN CHAPTER 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

John J. Williams 9/23/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cindy Hamilton 7/14/98
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James M. Smith 9/9/98
DIRECTOR DATE

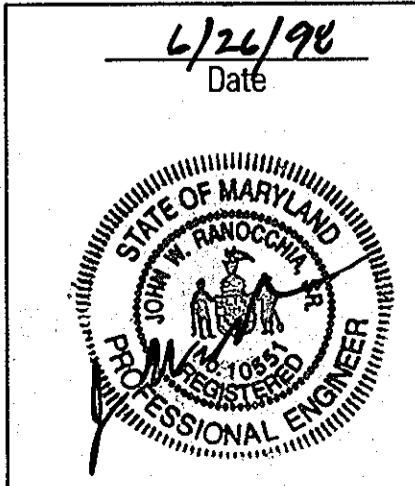
Date	No.	Revision Description

**ELKRIDGE
SELF STORAGE**

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c/o Cooper & Associates, Ltd.
1543 Morse Road
Forest Hill, Maryland 21050

DMW
Duff McCune-Walker, Inc.
200 East Pennsylvania Avenue
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(410) 296-3333
Fax 296-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals



DATE	NO.	REVISION

TITLE: ROADWAY CROSS SECTION PLAN & PROFILES

Des By: ZAL Scale: AS SHOWN Proj. No. 97107.A

Drn By: CSC, MGS Date: JUNE 26, 1998

Chk By: Approved

SDP-98-93

Professional Engr. No. 6551

4 OF 15

STRUCTURE SCHEDULE Δ

NO.	TYPE	WIDTH	INV. IN	INV. OUT	TOP ELEV.	REMARKS
1-10	TYPE 'S' INLET	---	---	198.75	202.65	HO. CO. STD. DETAIL SD 4.22
1-8	COG INLET (8")	4'	---	198.44	204.84	SHA STD. DETAIL MD-374.51
8-2	CONC. END SECTION	15"	197.80	---	---	HO. CO. STD. DETAIL SD 5.52
8-1	CONC. END SECTION	21"	---	195.00	---	HO. CO. STD. DETAIL SD 5.52
8-3	CONC. END SECTION	24"	---	193.00	---	HO. CO. STD. DETAIL SD 5.52
8-1	STORMCEPTOR	---	195.55	195.10	204.00	SEE DETAIL SHEET OF 14
1-1	TYPE 'S' COMB. INLET	---	195.62	195.42	204.09	HO. CO. STD. DETAIL SD 4.32
1-4	A-5 INLET	2.5'	---	200.50	206.07	HO. CO. STD. DETAIL SD 4.01
1-2	A-10 INLET	4'	197.75	197.80	201.50	HO. CO. STD. DETAIL SD 4.02
1-3	A-10 INLET	2.5'	---	199.00	203.9	HO. CO. STD. DETAIL SD 4.02
1-5	YARD INLET	24"	---	200.00	205.11	HO. CO. STD. DETAIL SD 4.14
1-7	TYPE 'S' INLET	---	196.75	196.60	202.57	HO. CO. STD. DETAIL SD 4.22
1-9	COG INLET (10")	4'	---	196.0	201.66/201.54	SHA STD. DETAIL MD-374.51
M-6	STANDARD PRECAST MH	4'	196.10	195.90	204.30	HO. CO. STD. DETAIL SD 5.11
8-6	CONC. END SECTION	15"	195.13	195.0	---	HO. CO. STD. DETAIL SD 5.52

Δ ALL INVERTS TO BE FULLY DEVELOPED

GENERAL NOTES FOR WATER & SEWER CONSTRUCTION

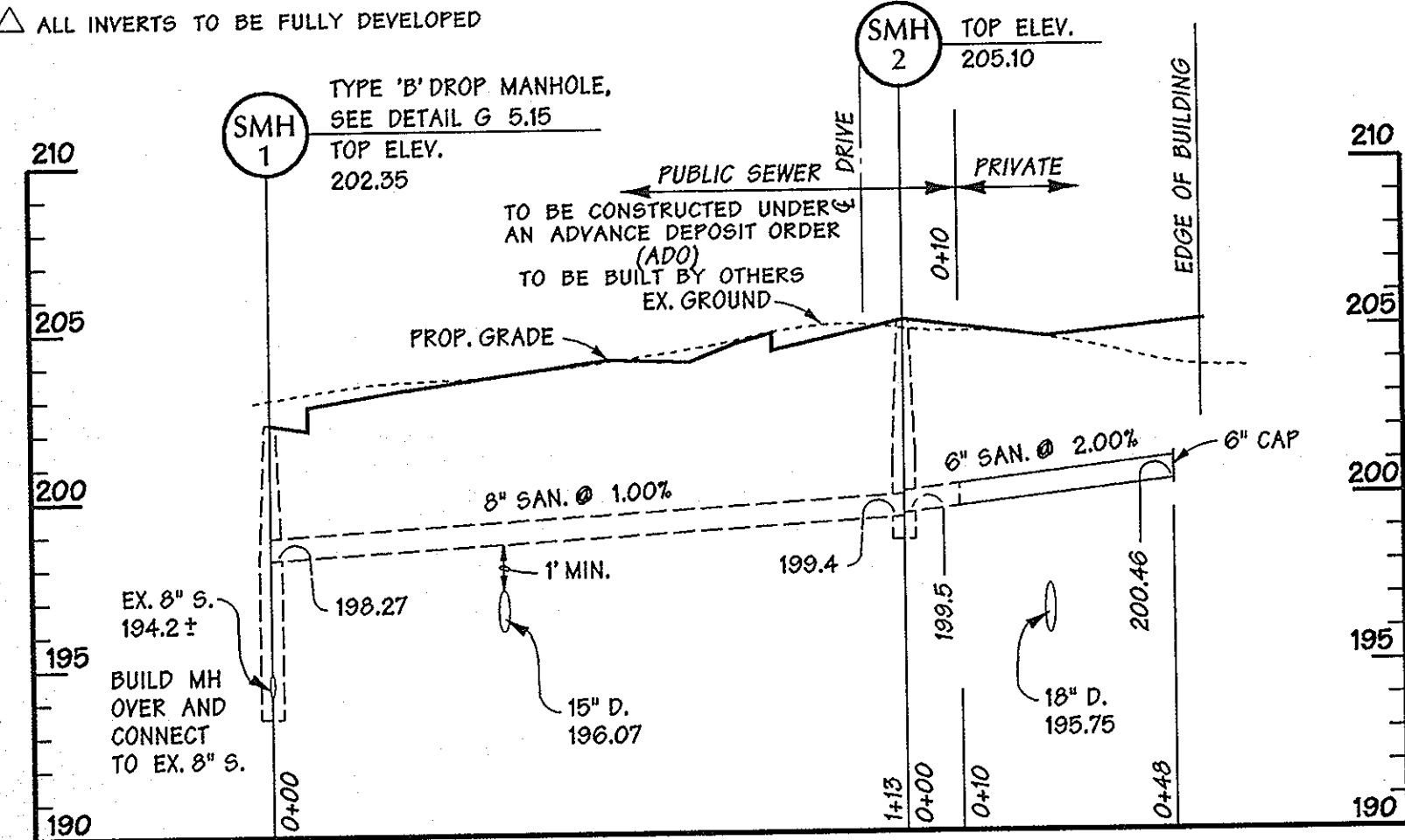
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 1'.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL \square AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - (410) 531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - (410) 850-4620
 - BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL - (410) 787-9068
 - MISS UTILITY - 1-800-257-7777
 - CHESAPEAKE AND POTOMAC TELEPHONE CO. (410) 795-1390
 - COLONIAL PIPELINE CO. - (410) 795-1390
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - (410) 313-4900

PART III - SEWER

- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.

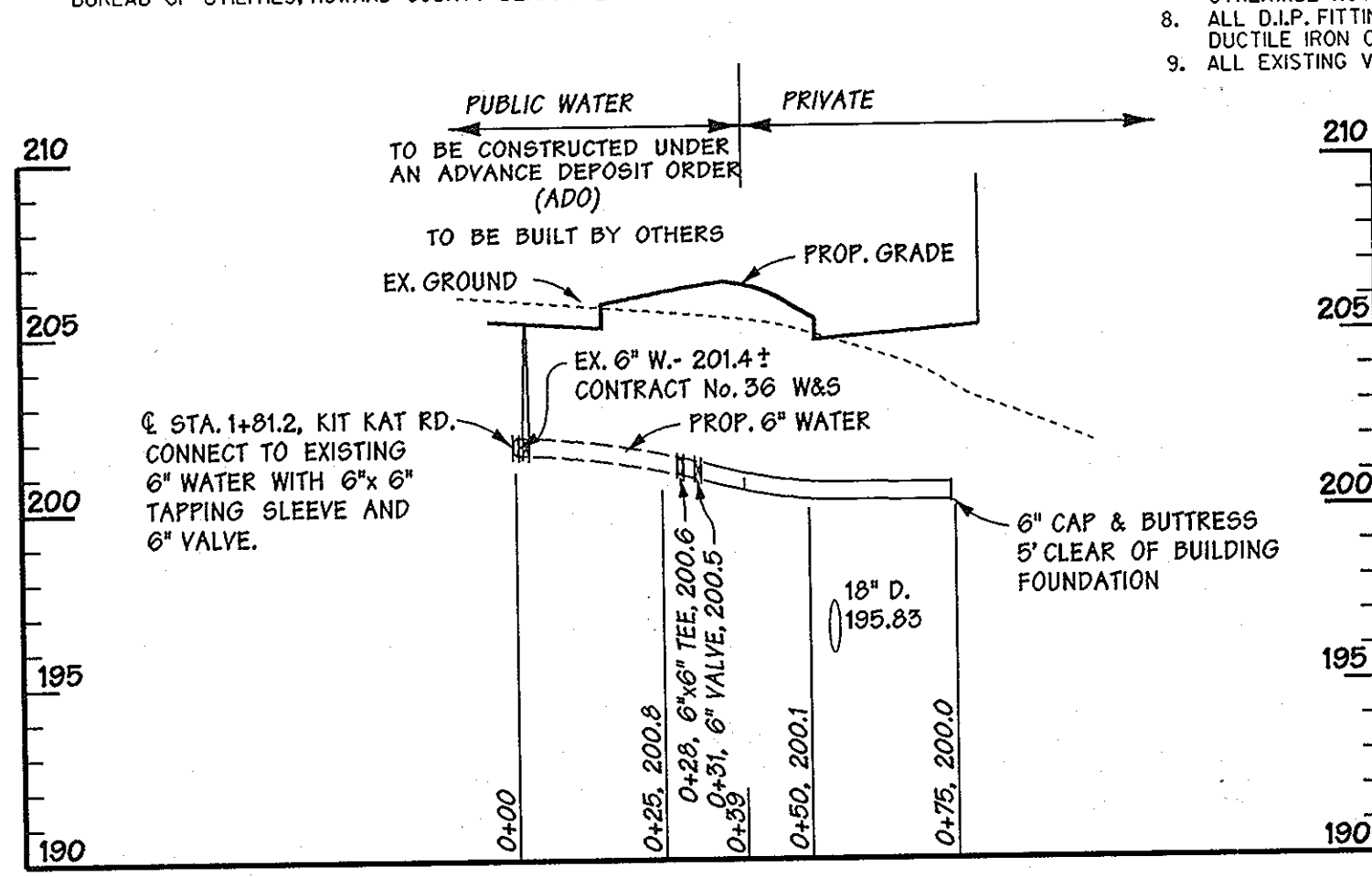
PART II - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH A.W.W.A. SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3 INCH THROUGH 12 INCH FOR WATER AND OTHER LIQUIDS.
- ALL EXISTING VALVES TO BE CLOSED WHEN CONNECTION TO THE SYSTEM IS MADE.



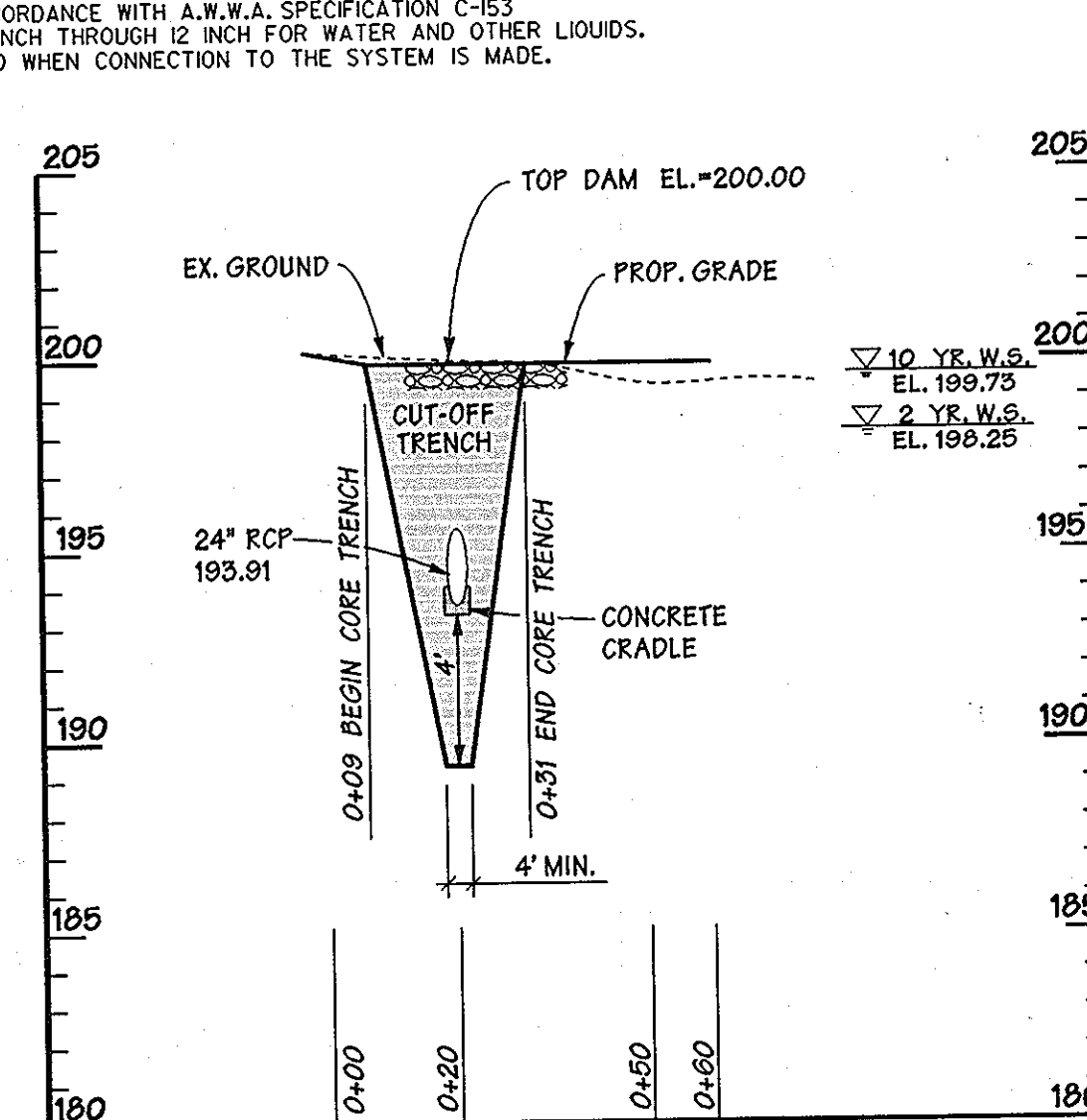
8" SANITARY SEWER PROFILE

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



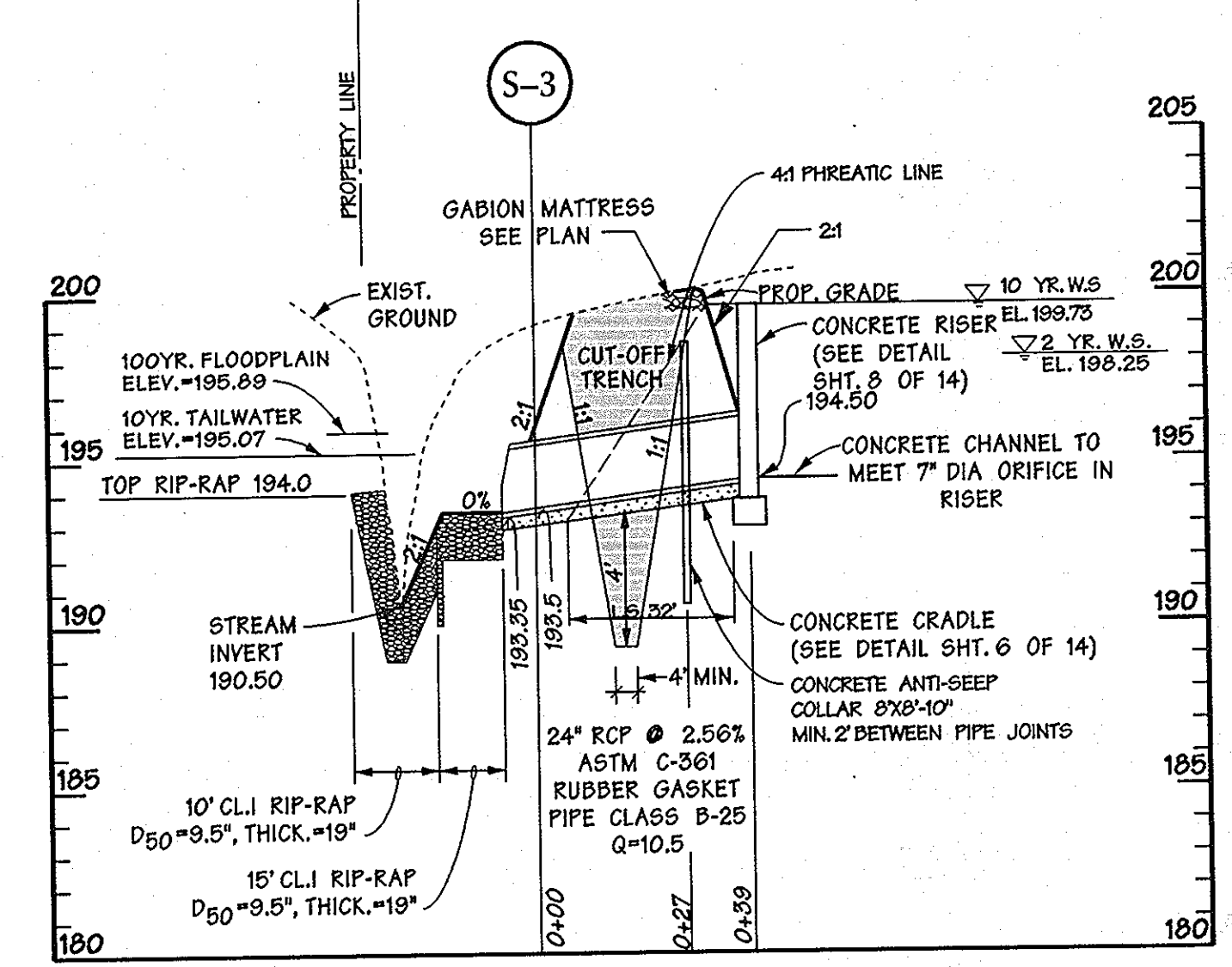
6" WATER SERVICE PROFILE

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



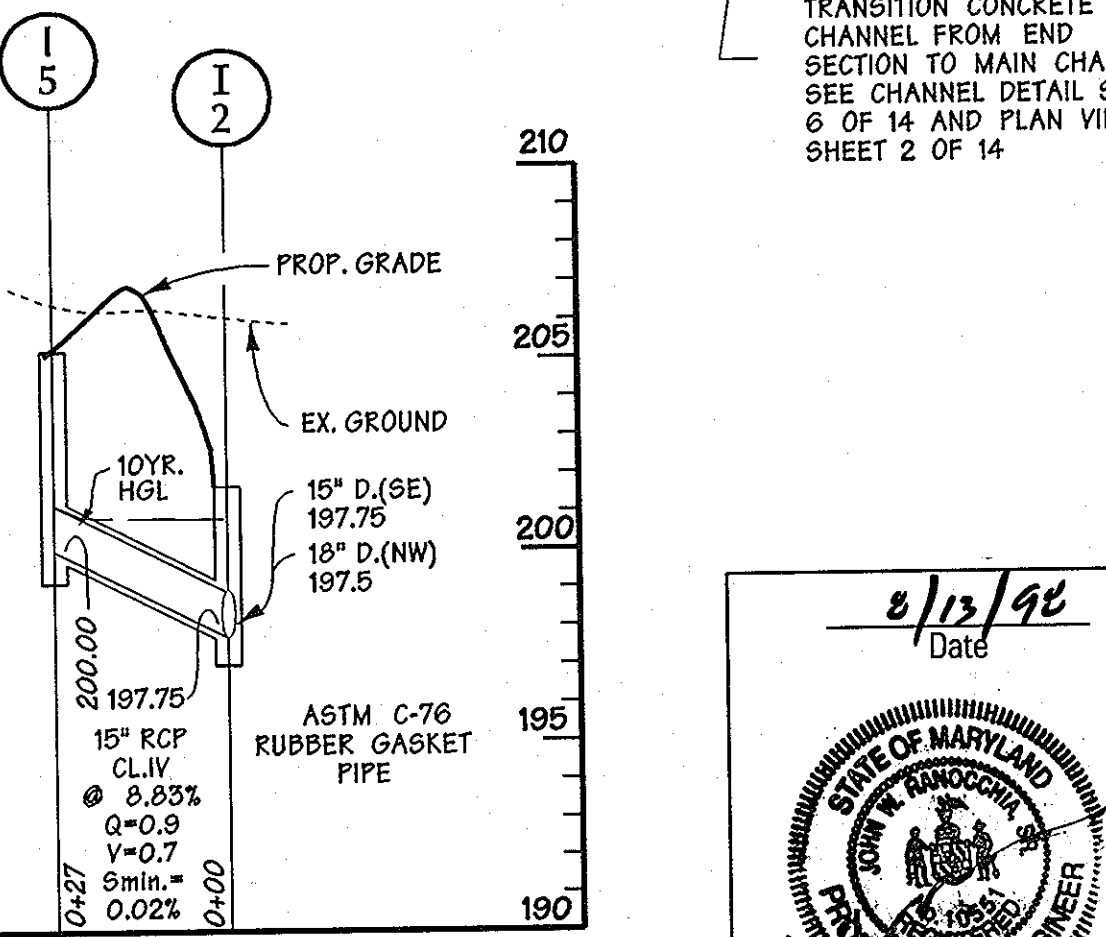
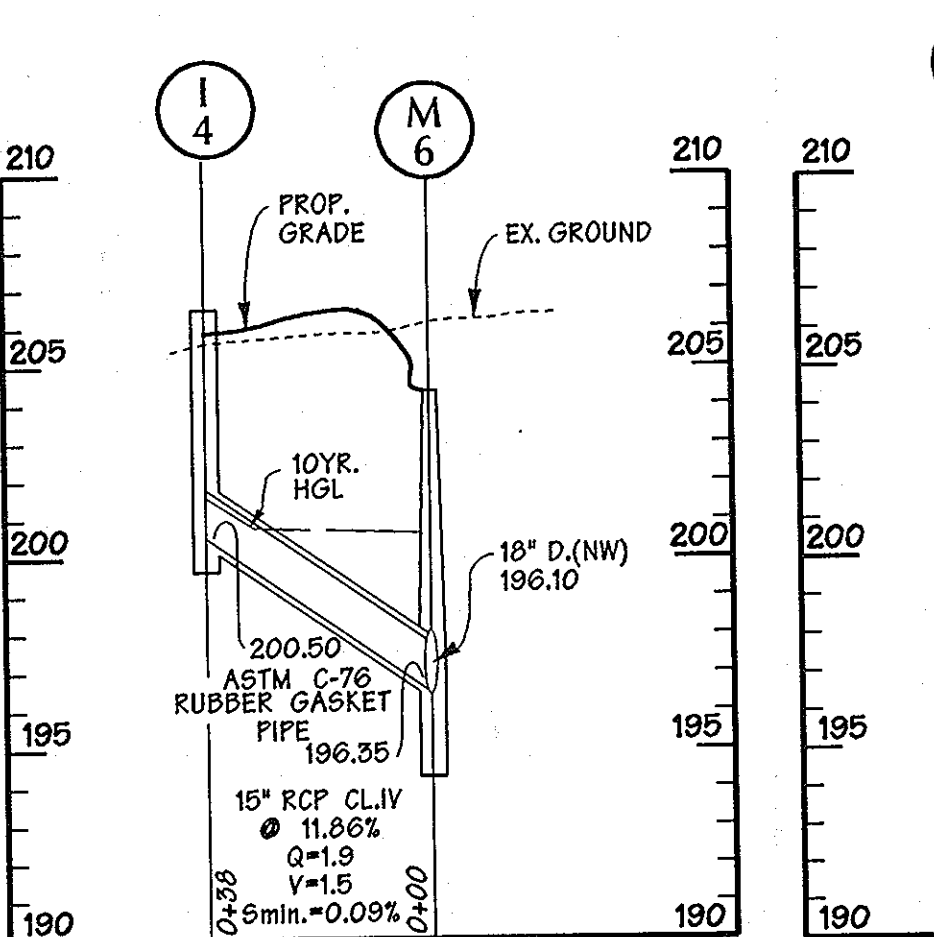
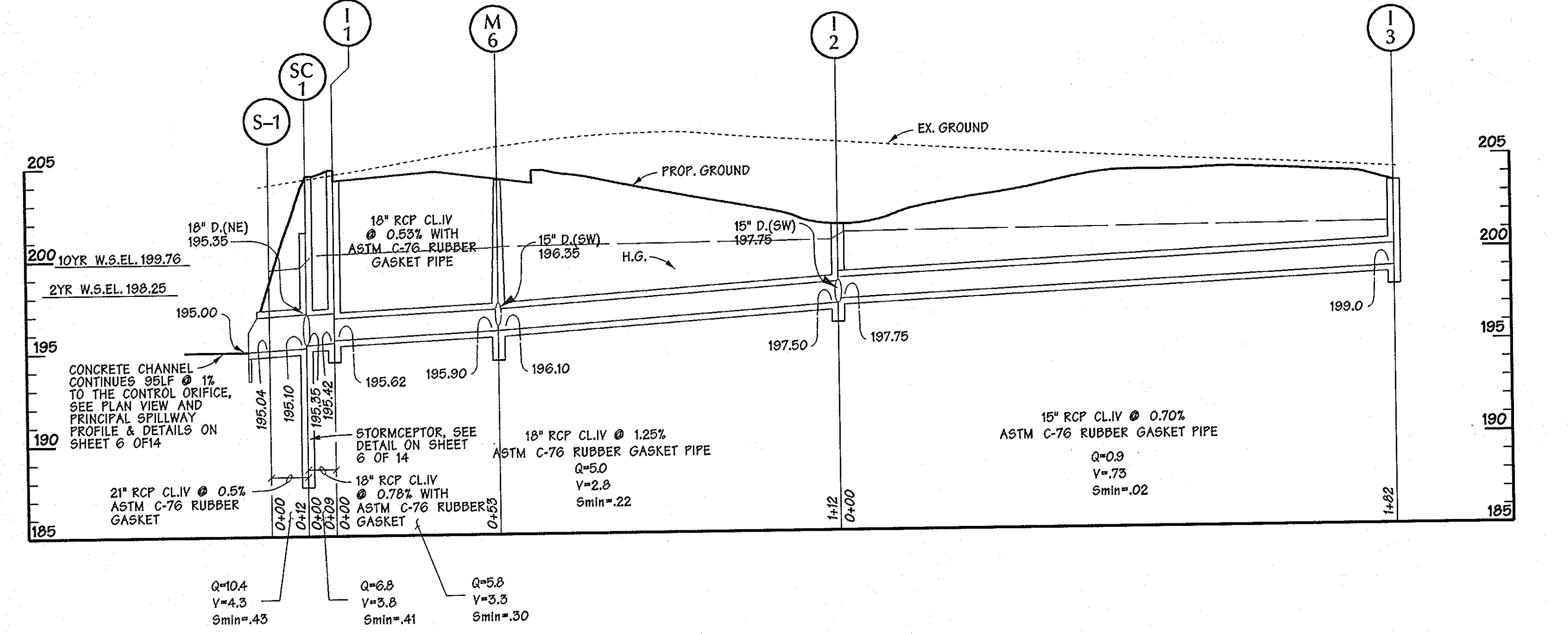
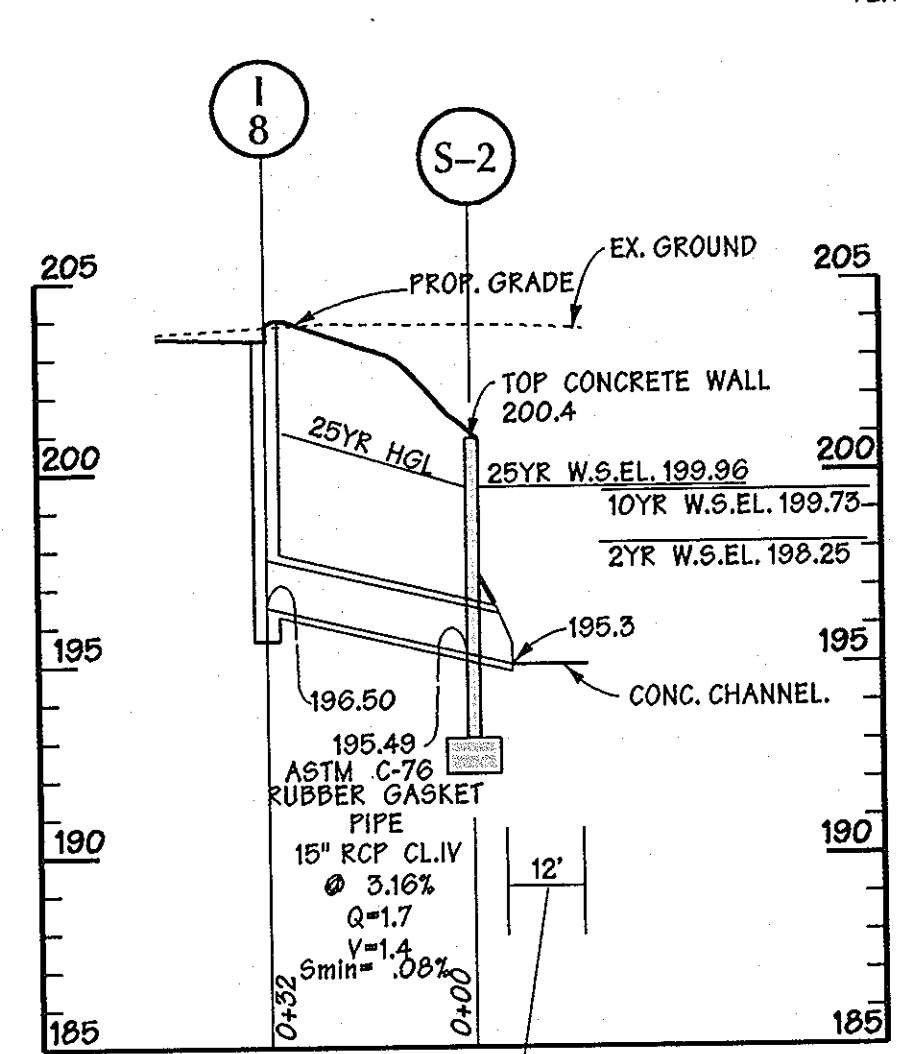
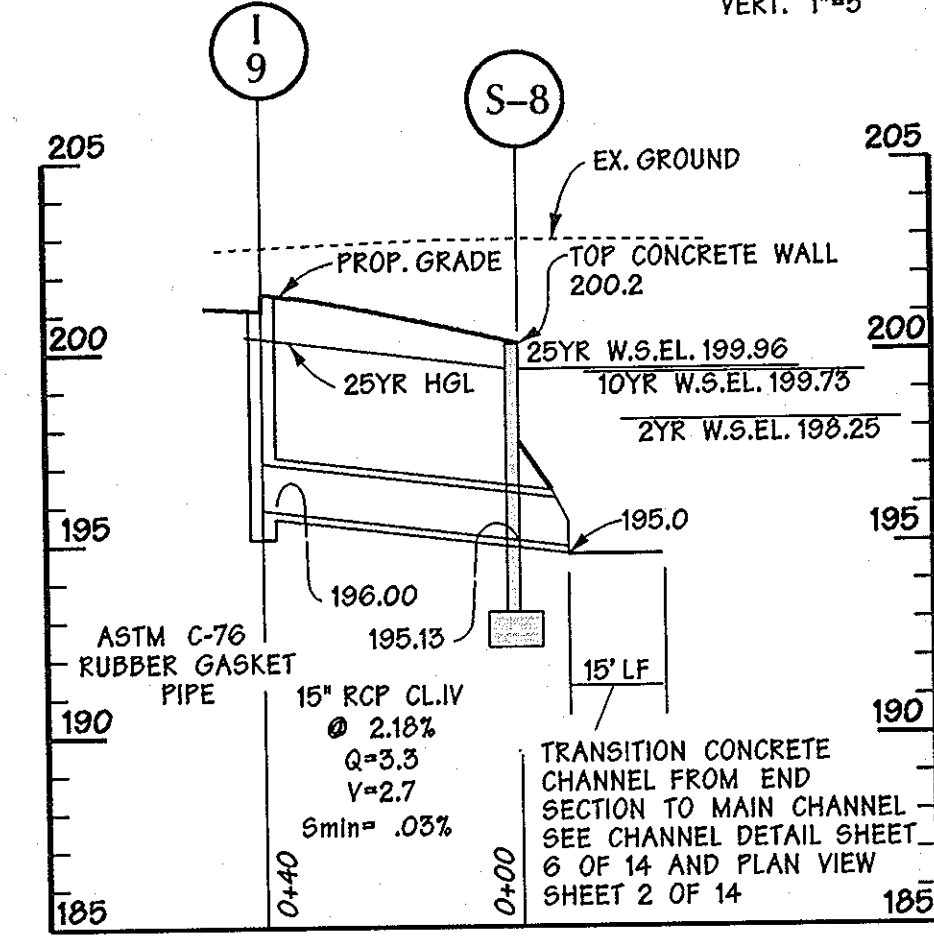
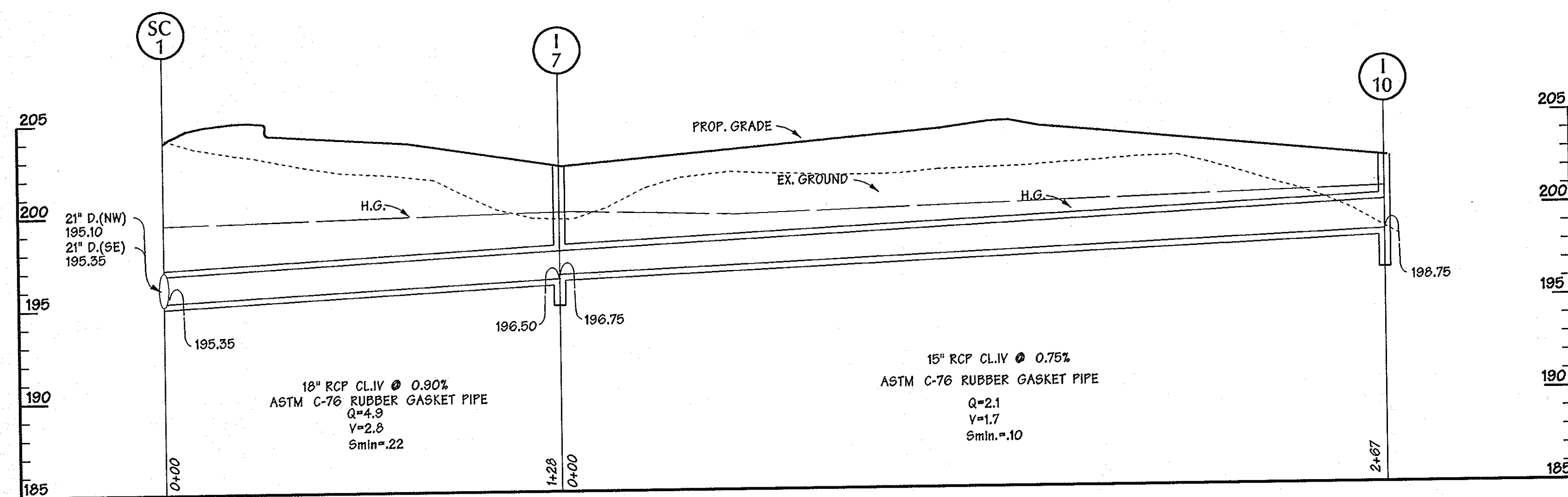
PROFILE ALONG CENTERLINE DAM

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



PRINCIPLE SPILLWAY PROFILE

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



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 9/3/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

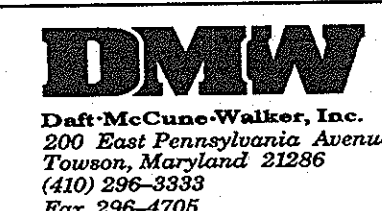
[Signature] 9/9/98
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 9/9/98
DIRECTOR DATE

Date	No.	Revision Description

ELKBRIDGE SELF STORAGE

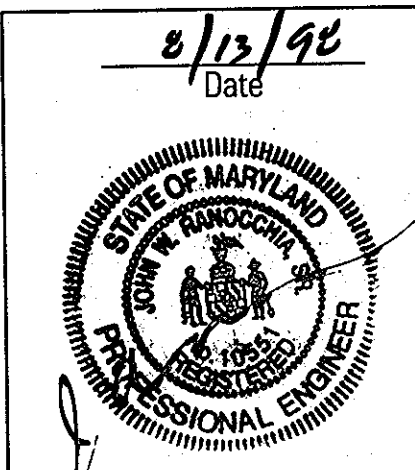
OWNER / DEVELOPER
Elkridge Self Storage LLC,
c/o Cooper & Associates, Ltd.
1643 Morse Road
Forest Hill, Maryland 21050



DRAWING NAME	N/A	SECTION	N/A	DATE	9/3/98
PLAN OR ELEV.	1546/481	BOX #	4	SHEET NO.	1
WATER CODE	801	SEWER CODE	2370000	PROJECT NO.	6012

UTILITY PROFILES

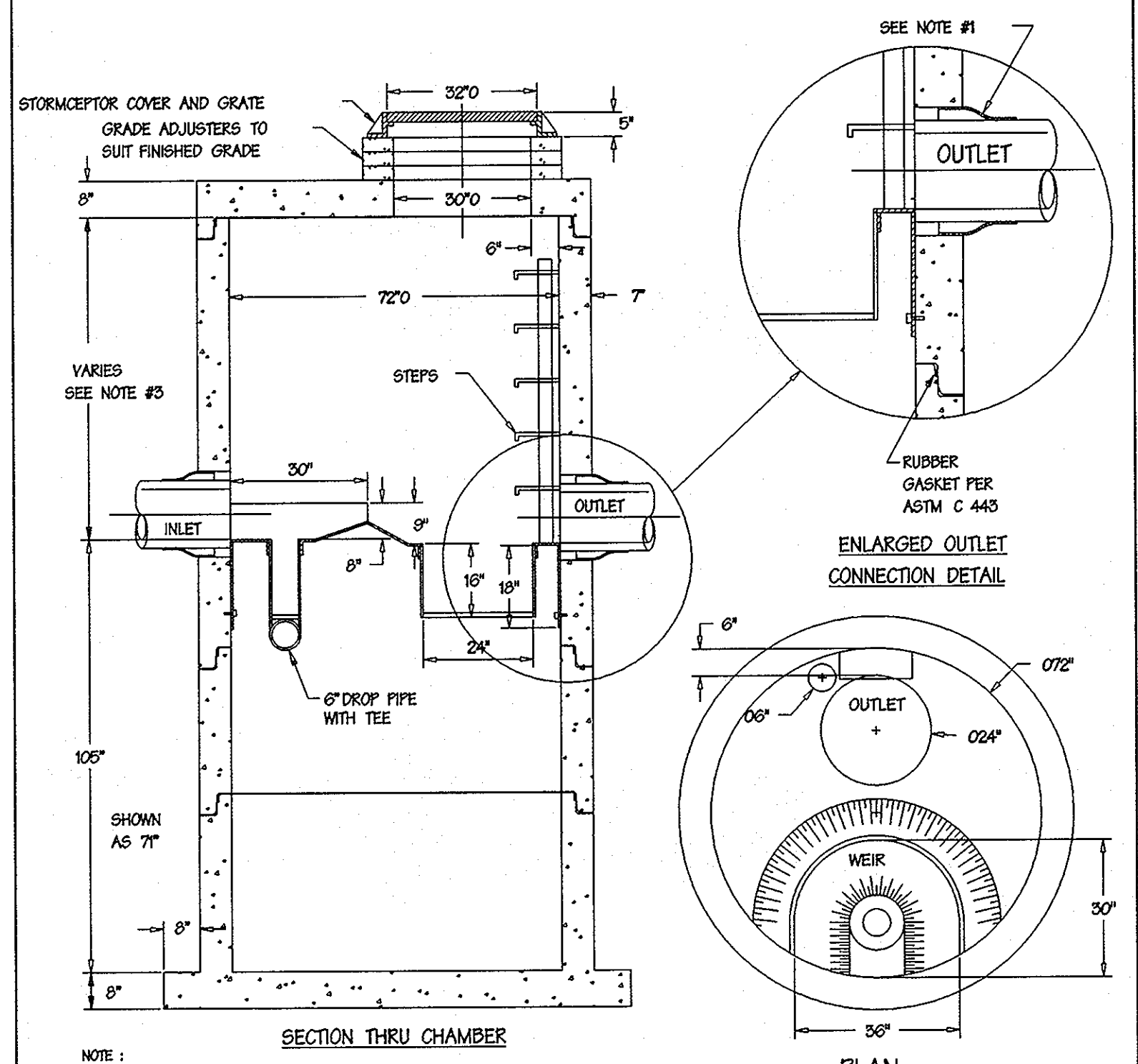
Des By ZAL Scale HORIZ. 1"=30'
Dm By CSC, MGS Date JUNE 26, 1998
Chk By Approved



SDP-98-93

Professional Engr. No. 4551

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



NOTE:
1. RUBBER CONNECTIONS ARE RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. COVER TO BE POSITIONED OVER OUTLET AND VENT PIPE.
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.
4. INLET DROP PIPE WILL BE EITHER 6" OR 8" WITH A 6" OR 8" ORIFICE PLATE.
5. ALL CONCRETE JOINTS HAVE RUBBER GASKETS THAT CONFORM TO ASTM C 443.
6. U.S. PATENT NO. 4,886,548

DESIGN SPECIFICATIONS:
LASTM C 478
2. BASE WEIGHT = 625 TONS

STC 1800
65
REVISED 12/86

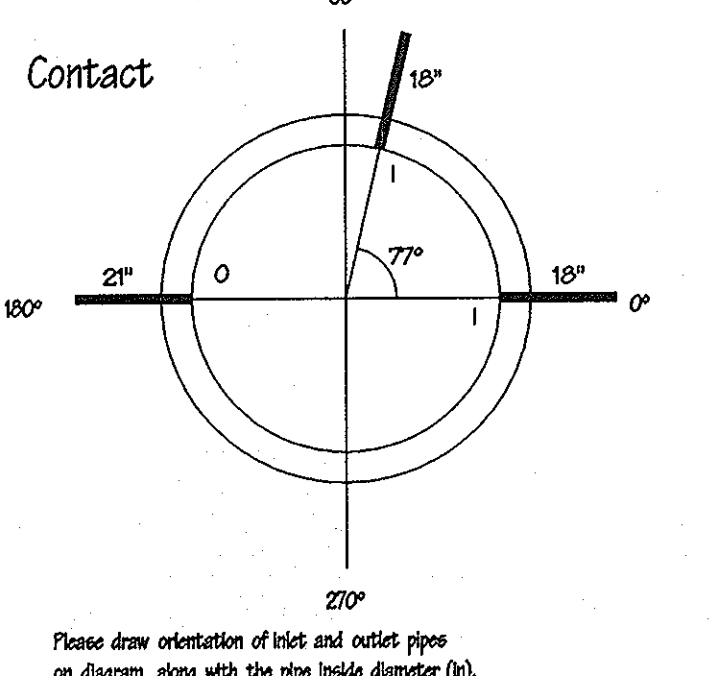
Precast Concrete Order Request Form
*TO BE FILLED OUT WITH PLAN BY ENGINEER

Contractor Information

Name _____
Address _____
City _____
State _____
Zip Code _____
Phone _____
Fax _____

Owner Information

Name _____
Phone _____
Fax _____



INTERVENEY DRAINAGE AREA FOR THIS UNIT

STC Model	Capacity	Insert Size
300	3600	22"
1200	4800	32"
1800	6000	44"
2400	7200	CUSTOM

Manhole Number	Top Elevation (ft)	Inlet Pipe Invert (ft)	Outlet Pipe Invert (ft)	Pipe Type	Inlet Pipe Inside Diameter (ID)	Inlet Pipe Outside Diameter (OD)	Outlet Pipe Inside Diameter (ID)	Outlet Pipe Outside Diameter (OD)
SC-1	204	195.25	195.1	RCP W/ WATER TIGHT JOINTS	12"	22"	18"	22"

Project Name: ELKRIDGE SELF STORAGE
Approximate time frame of delivery (weeks): _____
Delivery Address: Street _____
City _____ State _____ MD _____ Zip Code _____
Designer Company: DAFT McCUNE WALKER, INC.
Designer Contact: ZACH LEONARD Phone (410) 296-3333 Fax (410) 296-4705

PLEASE FILL OUT COMPLETELY AND FAX TO: **CSR Hydro Conduit**
ATTN: ED O'MALLEY FAX: (703)922-3659, PHONE: (703)971-1900
FOR TECHNICAL ASSISTANCE, PLEASE CALL MIKE BARG, PHONE # (703) 971-1900

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

Signature of Developer: *James Scott Cooper* DATE: 7/30/98

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

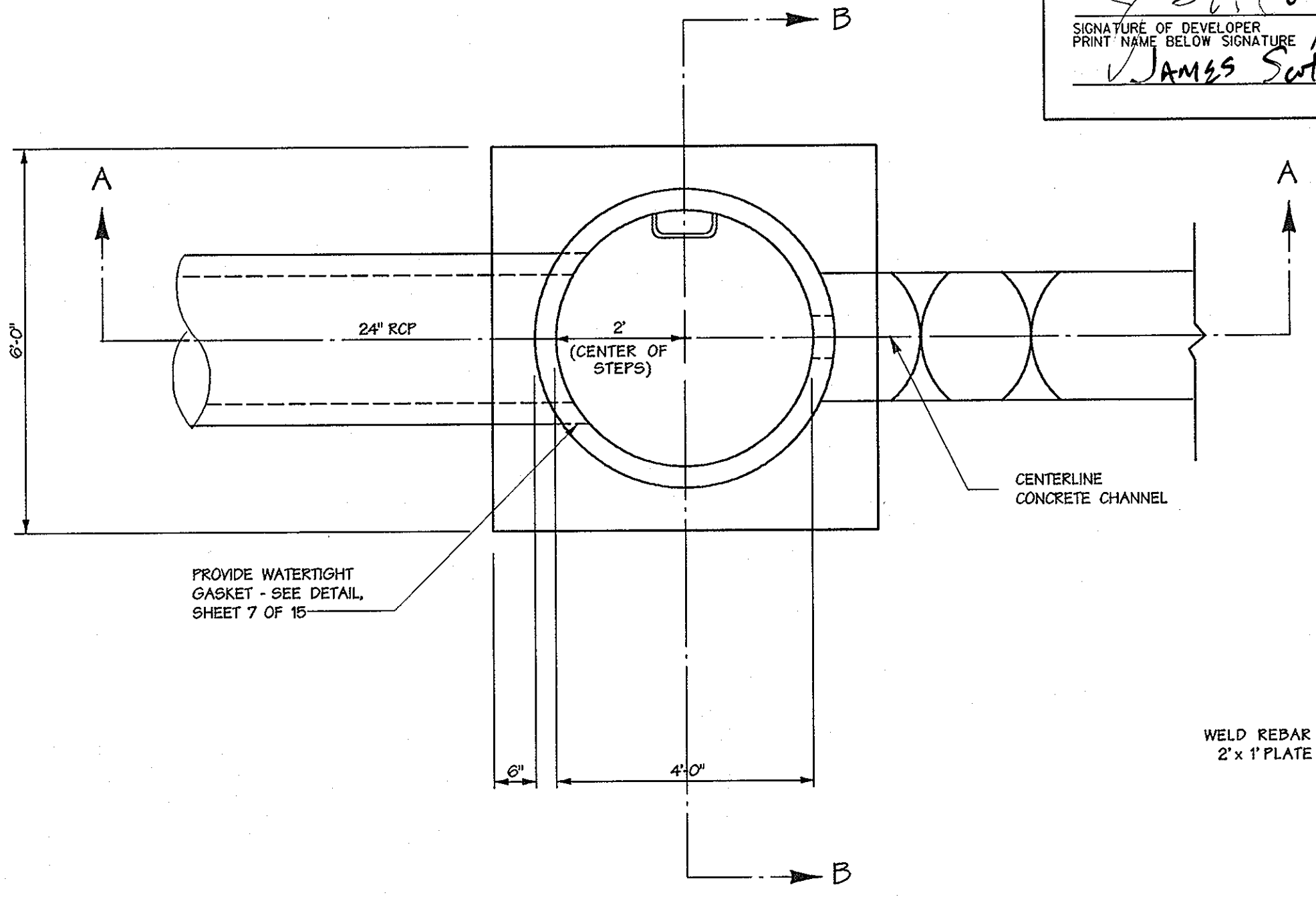
Signature of Engineer: *John R. Robinson* DATE: 8/13/98

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

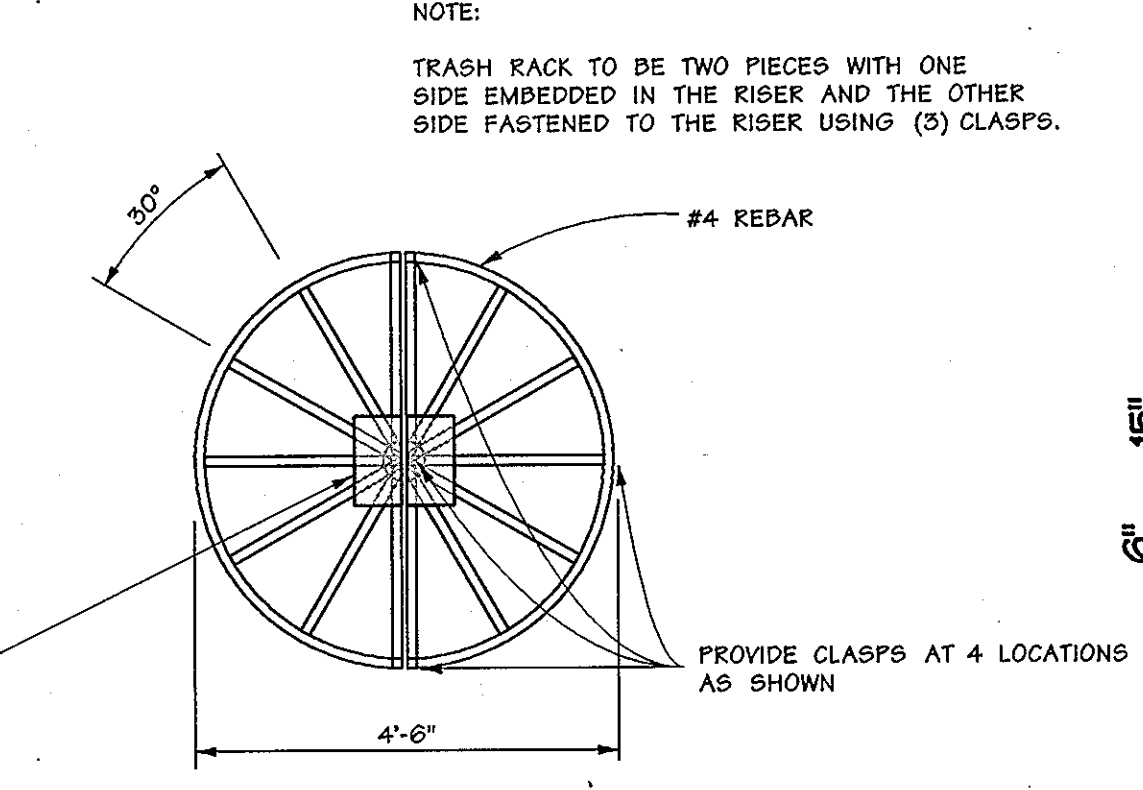
Clay Simmon 8/31/98
U.S. NATURAL RESOURCE CONSERVATION DISTRICT
DATE

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

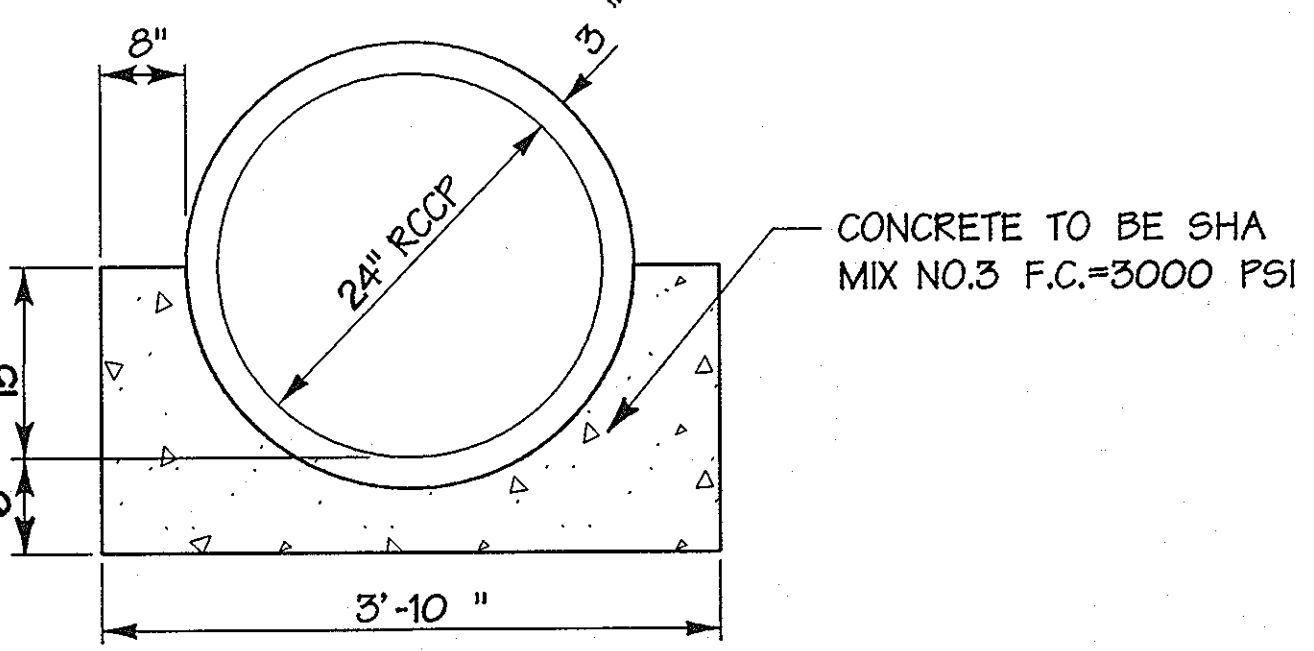
John R. Robinson 8/13/98
HOWARD S.C.D. DATE



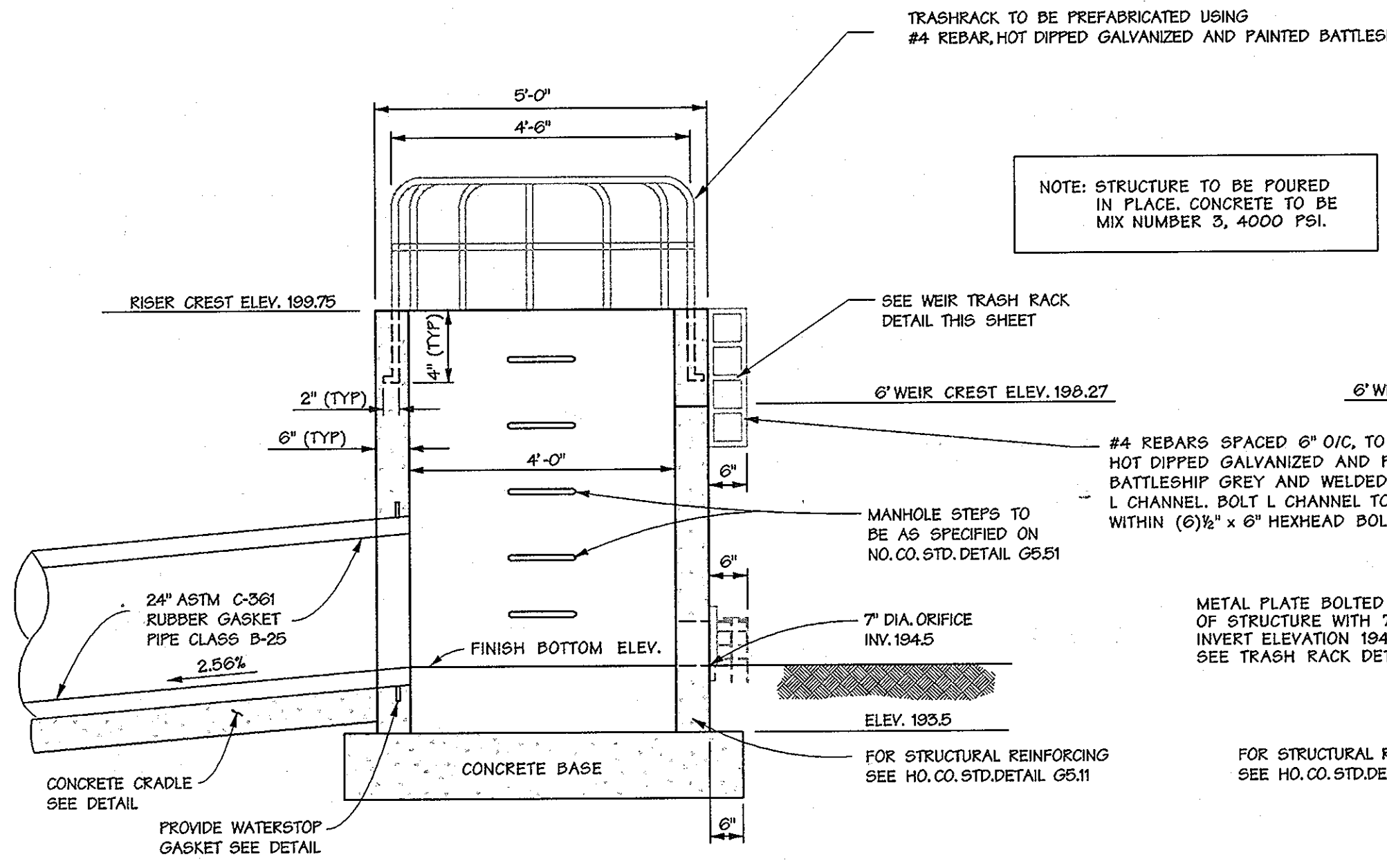
PLAN OF RISER STRUCTURE
SCALE: 1/2"=1'-0"



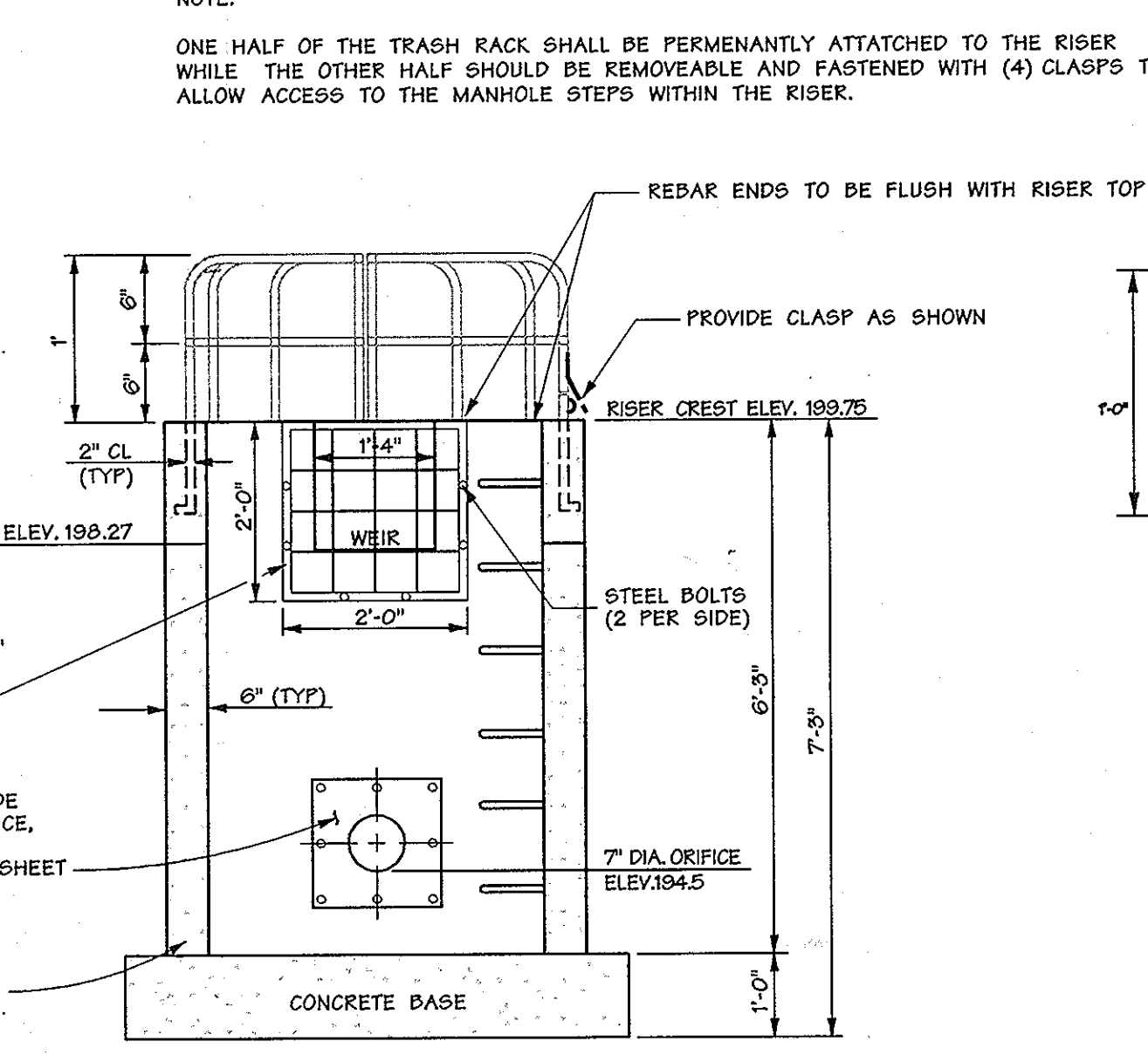
RISER TRASH RACK DETAIL
NOT TO SCALE



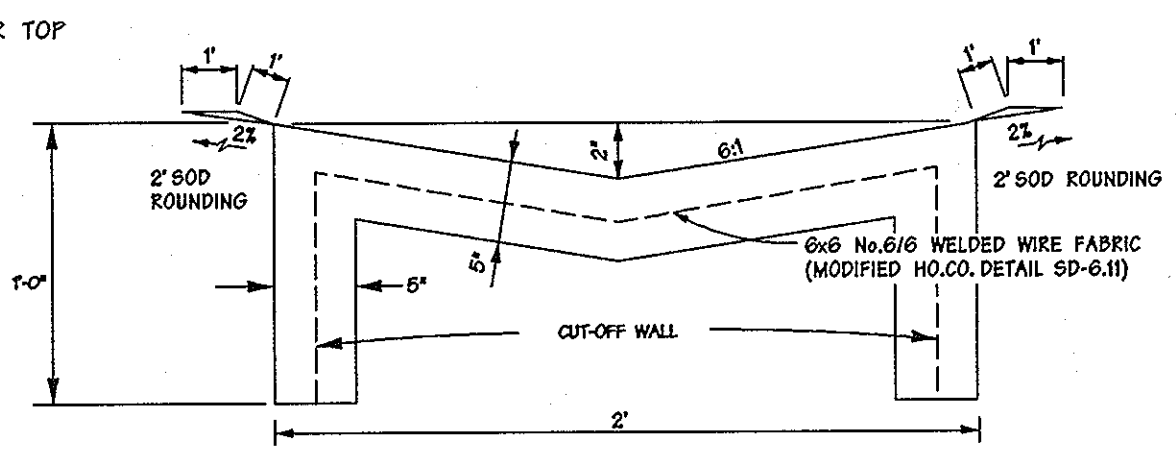
CONCRETE CRADLE
NOT TO SCALE



RISER STRUCTURE SECTION A-A
SCALE: 1/2"=1'-0"



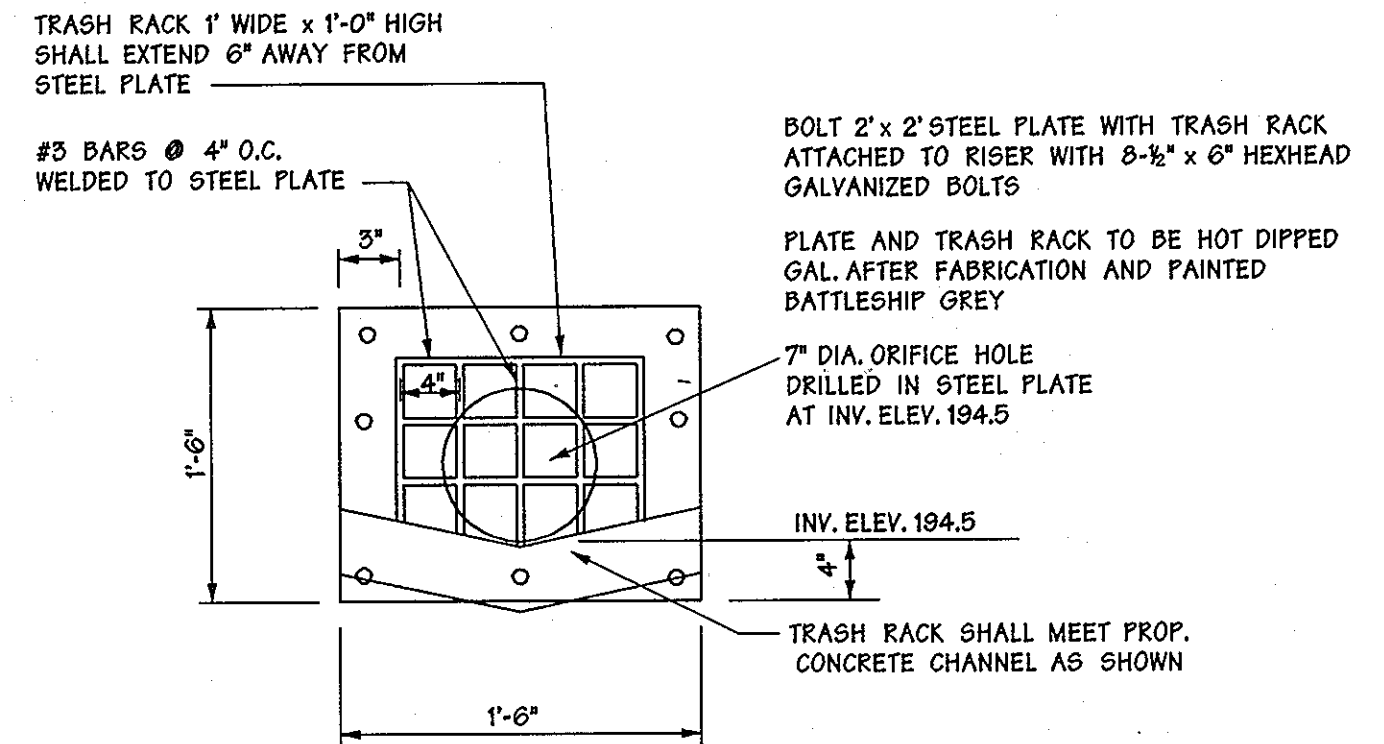
RISER STRUCTURE SECTION B-B
SCALE: 1/2"=1'-0"



CONCRETE TRIANGULAR CHANNEL
NOT TO SCALE
FROM S-1 AND S-2 TO RISER (SEE PLAN VIEW SHEET 2 OF 14)

OPERATION AND 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 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 materials 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.



7" ORIFICE TRASH RACK DETAIL
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

John Robinson 9/3/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy Hamilton 7/1/98
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

James Scott Cooper 8/13/98
DIRECTOR DATE

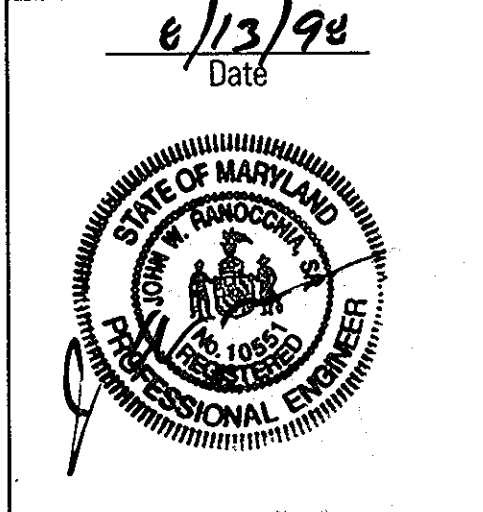
Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
Elkridge Self Storage LLC.
c/o Cooper & Associates, Ltd.
1543 Morse Road
Forest Hill, Maryland 21050

DMW
Darr McCune Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333 Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals



PROJECT NAME	SECTION	DATE
N/A	N/A	8/13/98

DATE	BY	DATE	BY
15-46/481	4	M-2	43

WATER BOOK: 601
SEWER BOOK: 2370000

TITLE: **STORMWATER MANAGEMENT & STORM DRAIN DETAILS**

Des By: ZAL Scale: AS SHOWN Proj. No.: 97107.A
Dm By: CSC, MGS Date: JUNE 26, 1998
Chk By: Approved

6 OF 15

SDP-98-93

Professional Engr. No. 10551

STORMWATER MANAGEMENT POND

GENERAL CONSTRUCTION SPECIFICATIONS

1. SITE PREPARATION

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. 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 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. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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.

2. EARTH FILL

MATERIAL. The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

PLACEMENT. Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

COMPACTION. The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

All compaction is to be not less than 95 percent of the maximum dry density as determined by AASHTO Specification T-99 (Standard Proctor) with a moisture content within 2 percent of optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction.

CUTOFF TRENCH AND IMPERVIOUS CORE. The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least 4 feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The top width of the impervious core shall be 4 feet minimum. The height of the core shall be as shown on the plans. The side slopes of the core shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

3. STRUCTURAL BACKFILL

Backfill adjacent to pipes or structures 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 4 inches in thickness and compacted by hand tampers or other manually directed 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 4 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 inches or greater over the structure or pipe.

4. REMOVAL AND REPLACEMENT OF DEFECTIVE FILL

Fill placed at densities lower than specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be reworked to meet the requirements or removed and replaced by acceptable fill. The bottoms of such excavations shall be finished flat or gently curving and at the sides of such excavations the adjacent ground fill shall be trimmed to a slope not steeper than 3 feet horizontally to 1 foot vertically extending from the

5. PIPE CONDUITS

All pipes shall be circular in cross section. All perforated pipe shall have a minimum of 3.31 square inches of opening per square foot of pipe surface (ex. 30 3/8 inch holes per square foot). Perforations are to be uniformly spaced around the full periphery of the pipe. Any holes blocked or partially blocked by bituminous coating shall be opened prior to installation.

REINFORCED CONCRETE PIPE. All of the following criteria shall apply for reinforced concrete pipe:

- Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets.
- Cradle - All reinforced concrete pipe conduits shall be laid in a concrete cradle for their entire length. This cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe to at least 50 percent of its outside diameter with a minimum thickness of 6 inches, or as shown on the drawings.
- 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 length, the cradle 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. The first joint must be located within 2 feet from the wall.
- Connections - All connections (to anti-seep collars, riser, etc.) shall be watertight.
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.
- CAST-IN-PLACE CONCRETE STRUCTURES

- Specifications: Maryland Department of Transportation, State Highway Administration (SHA) "Standard Specifications for Construction and Materials", October, 1993 edition, for materials and construction, including all interim specifications.

AASHTO "Standard Specifications for Highway Bridges", dated 1993, for design, including all interim specifications.
Concrete design by the "Service Load Design Method".

- Concrete: Shall meet the requirements of SHA Sections 414 and 802, Mix No. 3.

Contractor shall supply mix design for approval prior to application. Load and mix tickets shall be supplied for each truck delivery. No partial field mixes shall be allowed.

All concrete shall attain a minimum compressive strength of 3,500 PSI at 28 days. Design $f_c = 1,200$ PSI.

All exposed edges shall be chamfered 3/4" x 3/4". All construction keys are shown nominal size.

- Reinforcing Steel Reinforcing steel shall conform to ASTM A-615, Grade 60. Where not indicated, bar lap splices shall be in accordance with AASHTO specifications. The minimum concrete cover shall be 2 inches unless otherwise noted. Design $f_s = 24,000$ PSI.

- Foundation: Presumed soil bearing capacity = 2,500 PSF. The engineer must approve all foundations prior to concrete placement. If unsuitable material is encountered, the material shall be undercut and backfilled with structural backfill.

8. ROCK RIP-RAP

Rock rip-rap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 901.02.

The rip-rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the rip-rap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all rip-rap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09.

9. CARE OF WATER DURING CONSTRUCTION

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the area to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to pumps from which the water shall be pumped.

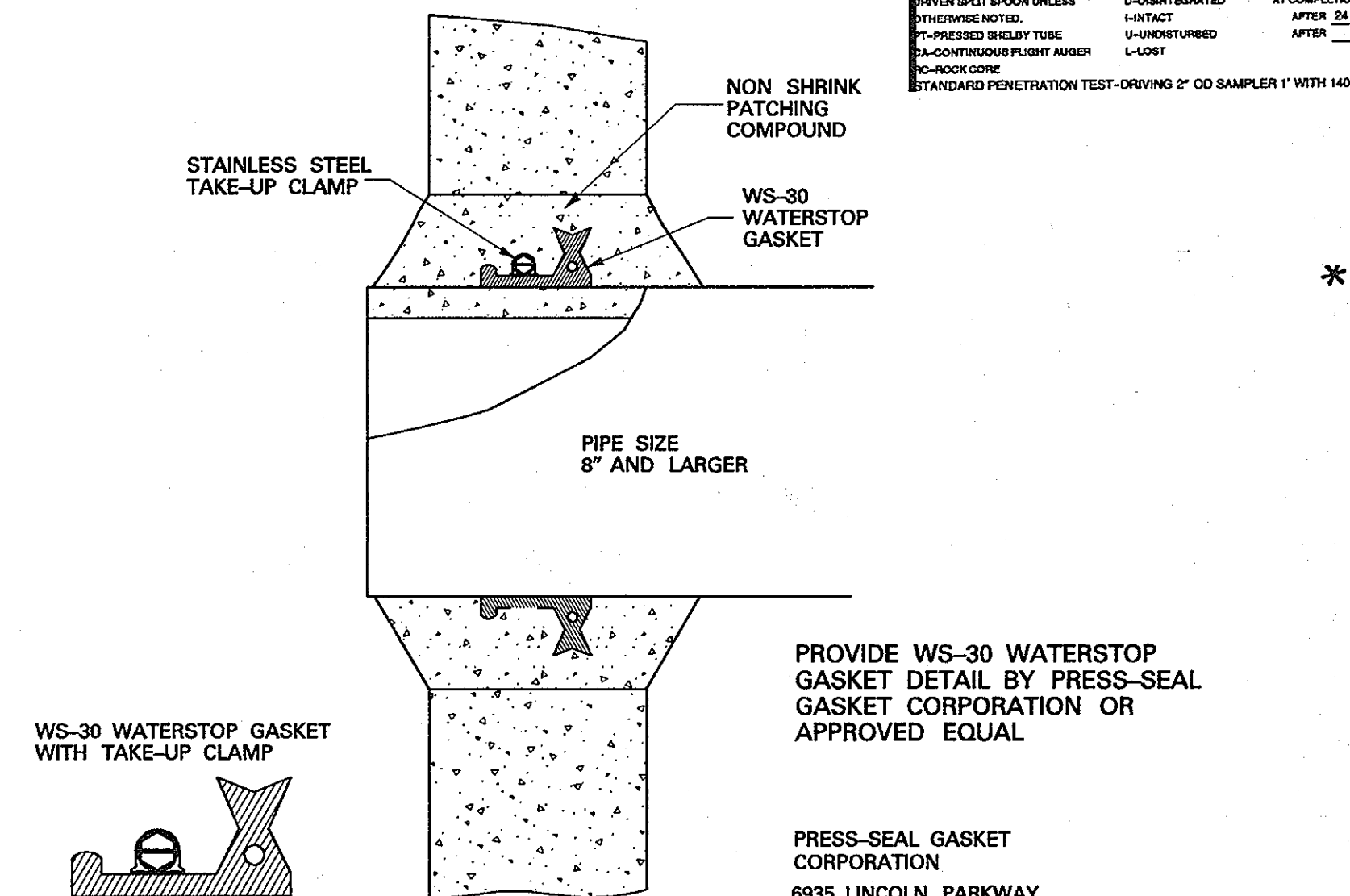
- STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a slight condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.
- EROSION AND SEDIMENT CONTROL
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.
- RECOMMENDED ADDITIONAL SERVICES
Additional soil and foundation engineering, testing, and consulting services recommended for this project are summarized below:

Site Preparation and Profileing: A Geotechnical Engineer or experienced Soils Inspector should inspect the site after it has been stripped and excavated. The Inspector should determine if any undercutting or in-place densification is necessary to prepare a subgrade for fill placement.

Fill Placement and Compaction: A Geotechnical Engineer or experienced Soils Inspector should witness any required filling operations and should take sufficient in-place density tests to verify that the specified degree of fill compaction is achieved. He should observe and approve borrow materials used and should determine if their existing moisture contents are suitable.

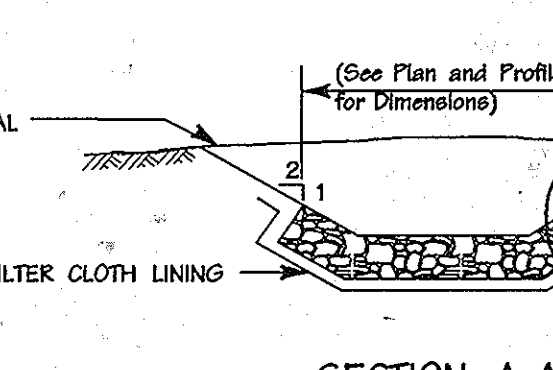
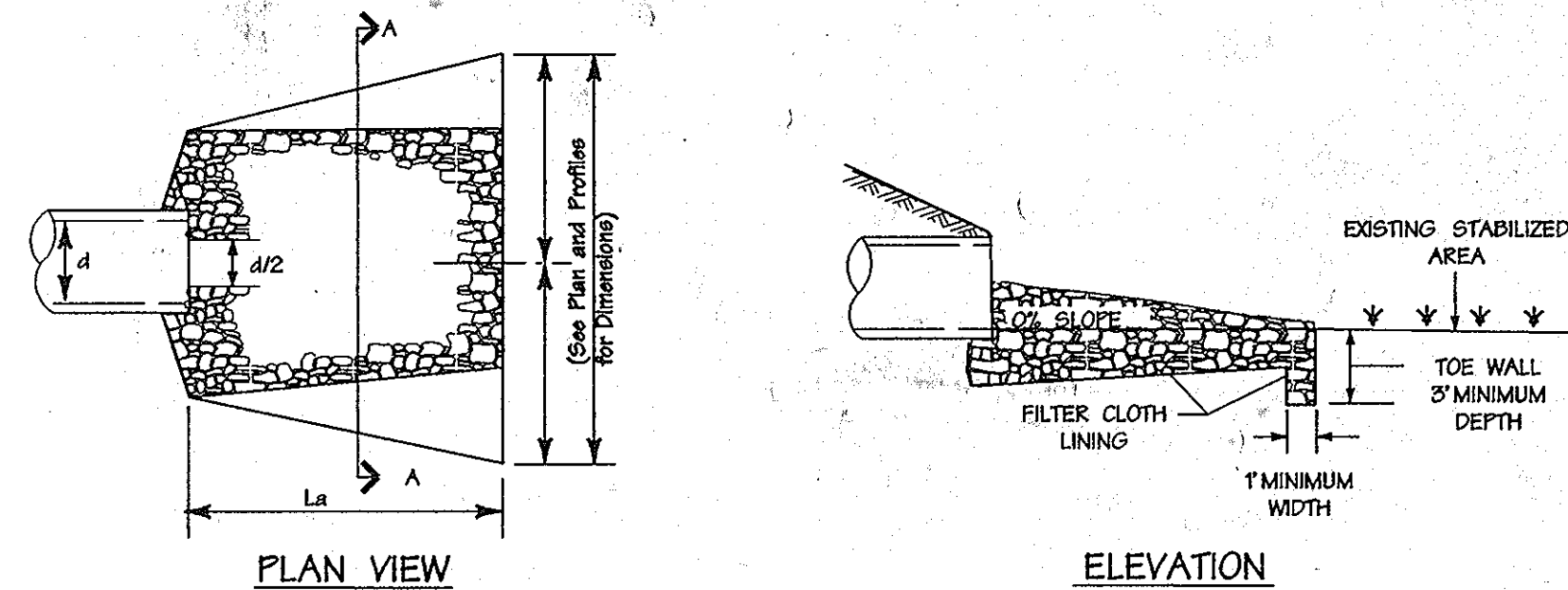
14. CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS

The construction of the pond and embankment, and certification that the pond and embankment have been built in accordance with the plans shall be under the supervision of a Registered Professional Engineer. The Engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for (1) inspection of pipe trench and bedding, (2) inspection of riser and anti-seep collars and (3) supervision of embankment construction and compaction testing. The Engineer shall direct the handling of water during construction, minor changes not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.



WATERTIGHT CONNECTION DETAIL

Not to Scale



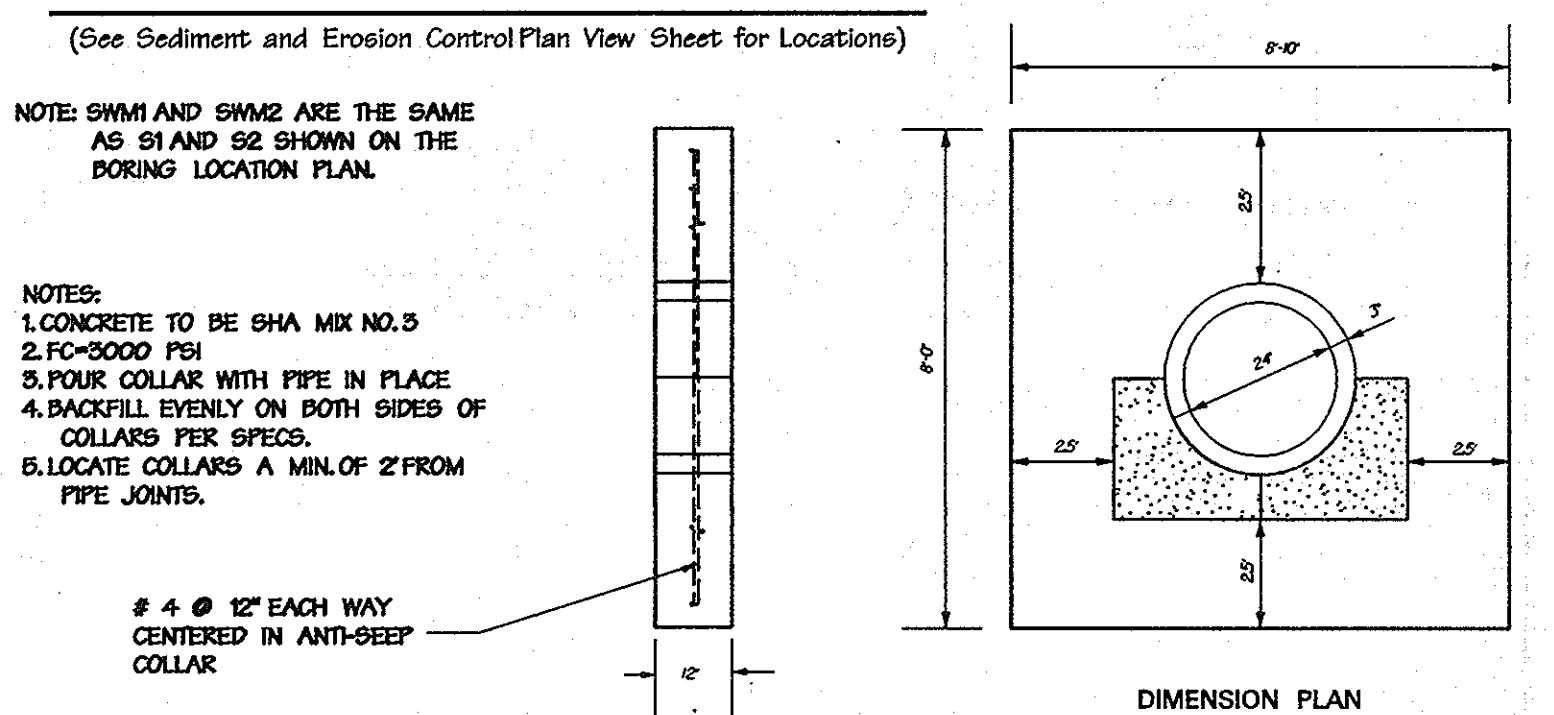
ROCK OUTLET PROTECTION III FOR S-3

Not to Scale

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION									
Project Name: Elkridge Self Storage		Location: Howard County, Maryland		Boring # SWM-1		Job # 97260A		Page 1 of 1	
DATE	BY	DEPTH (FEET)	SOIL DESCRIPTION	WATER CONTENT (%)	LIQUID LIMIT (WL)	PLASTIC LIMIT (PL)	SHRINKAGE (%)	UNSATURATED WATER CONTENT (%)	REMARKS
12-23-97	SWM-1	0.0	Surface						3" Topsoil
		1.0	Dark brown, silty, fine to medium sand with trace organic (F1)						Groundwater encountered at 15.0' while sitting
		2.0	Dark brown, silty, fine to medium sand with trace organic (F1)						Covered to 11.0' at 24 hours
		3.0	Dark brown, silty, fine to medium sand with trace organic (F1)						Covered to 11.0' after 24 hours
		4.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		5.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		6.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		7.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		8.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		9.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		10.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		11.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		12.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		13.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		14.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		15.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		16.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		17.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		18.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		19.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		20.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION									
Project Name: Elkridge Self Storage		Location: Howard County, Maryland		Boring # SWM-2		Job # 97260A		Page 1 of 1	
DATE	BY	DEPTH (FEET)	SOIL DESCRIPTION	WATER CONTENT (%)	LIQUID LIMIT (WL)	PLASTIC LIMIT (PL)	SHRINKAGE (%)	UNSATURATED WATER CONTENT (%)	REMARKS
12-23-97	SWM-2	0.0	Surface						3" Topsoil
		1.0	Dark brown, silty, fine to medium sand with trace organic (F1)						Groundwater encountered at 14.0' while sitting
		2.0	Dark brown, silty, fine to medium sand with trace organic (F1)						Covered to 11.0' at 24 hours
		3.0	Dark brown, silty, fine to medium sand with trace organic (F1)						Covered to 11.0' after 24 hours
		4.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		5.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		6.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		7.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		8.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		9.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		10.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		11.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		12.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		13.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		14.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		15.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		16.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		17.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		18.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		19.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours
		20.0	USDA - Silty Clay Loam						Covered to 11.0' after 24 hours

SOIL BORING LOGS *



* NOTE: SWM1 AND SWM2 ARE THE SAME AS 51 AND 52 SHOWN ON THE BORING LOCATION PLAN.

- NOTES:
 1. CONCRETE TO BE SHA MIX NO. 3
 2. FC=3000 PSI
 3. POUR COLLAR WITH PIPE IN PLACE
 4. BACKFILL EVENLY ON BOTH SIDES OF COLLARS PER SPECS.
 5. LOCATE COLLARS A MIN. OF 2' FROM PIPE JOINTS.

CONCRETE ANTI-SEEP COLLAR DETAIL

POURED IN PLACE
Not to Scale

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Chief, Development Engineering Division 9/13/98
 Chief, Division of Land Development 9/14/98
 Director 9/16/98

Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
 Elkridge Self Storage LLC,
 c/o Cooper & Associates, Ltd.
 1543 Morse Road
 Forest Hill, Maryland 21050

DMW
 Deft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-5833
 Fax 296-4706
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

6/26/98
 Date
 PROFESSIONAL ENGINEER

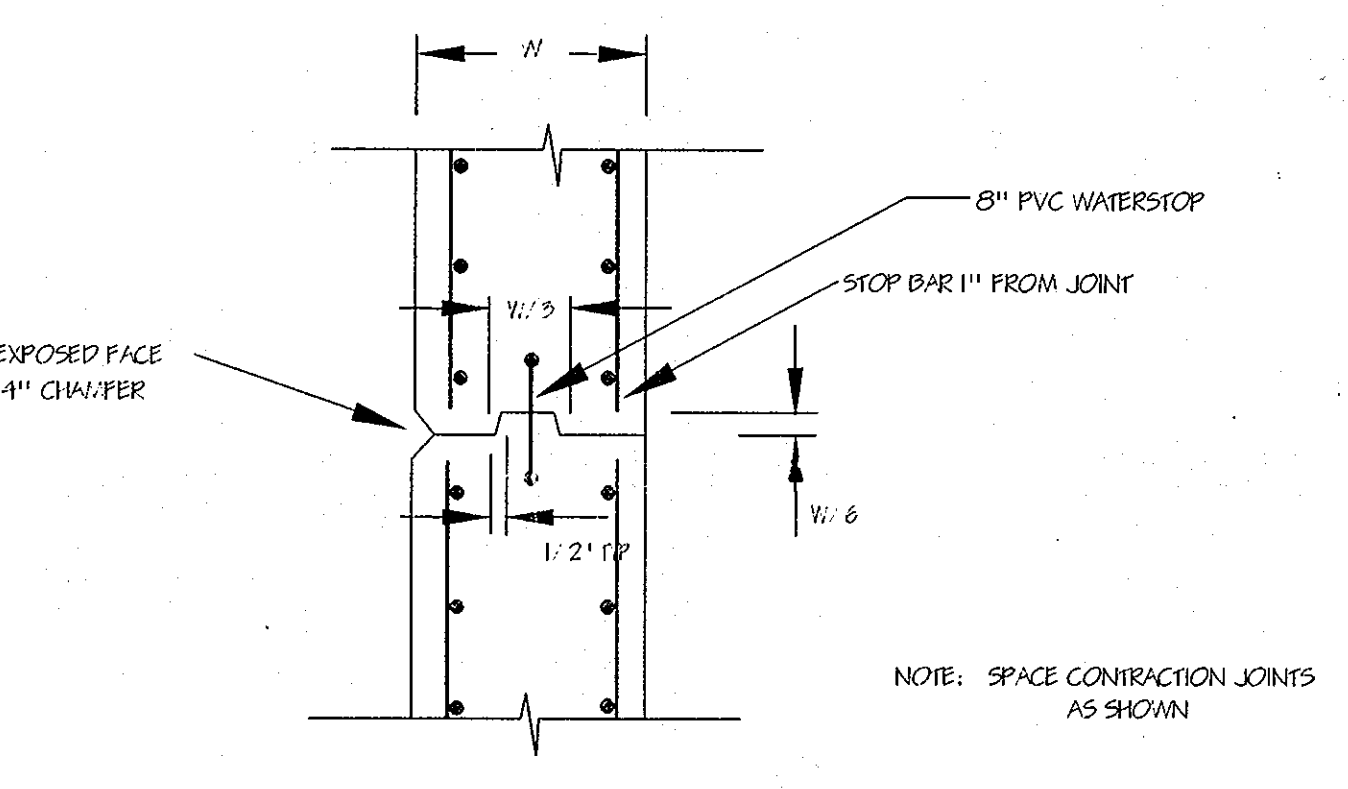
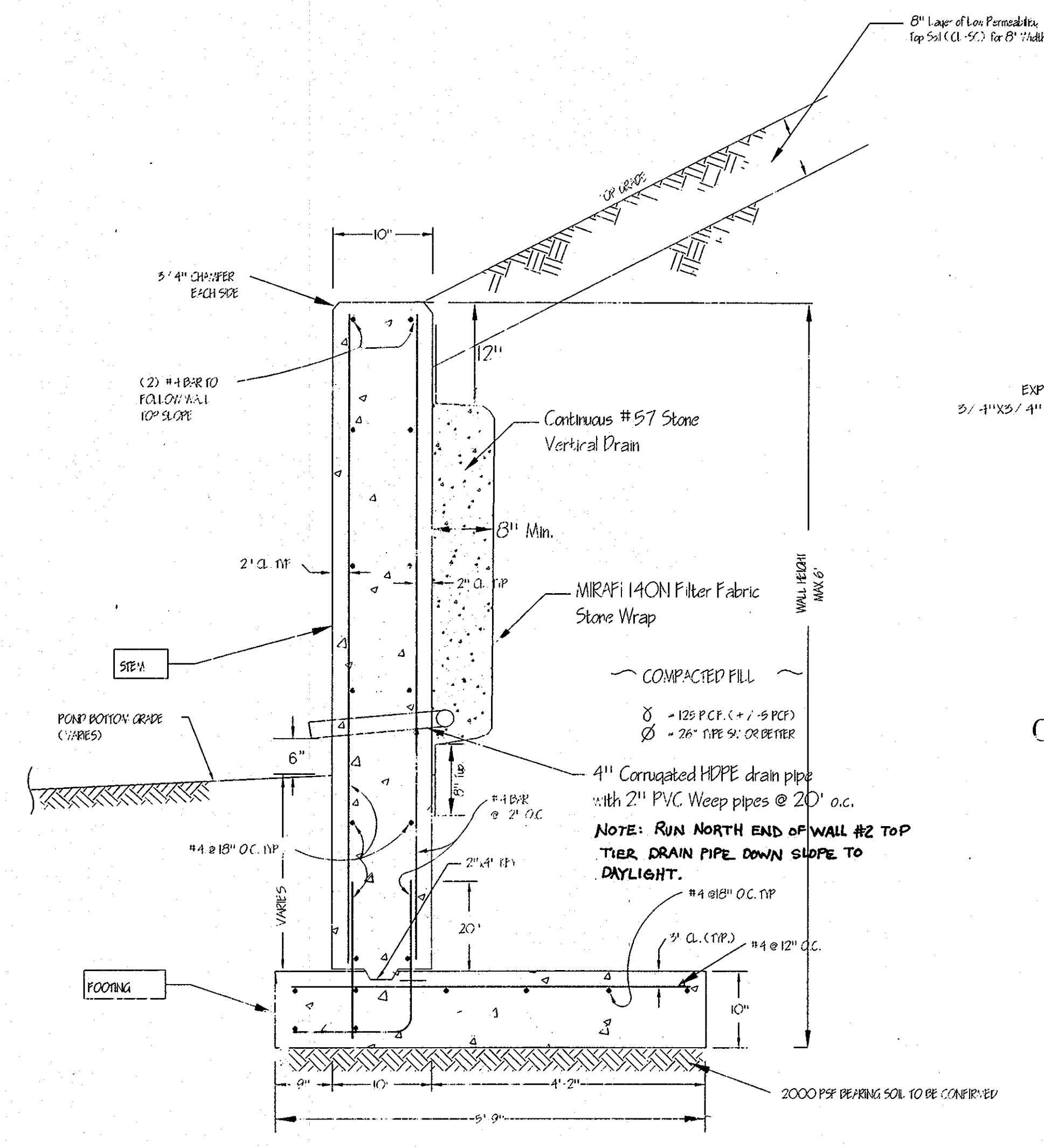
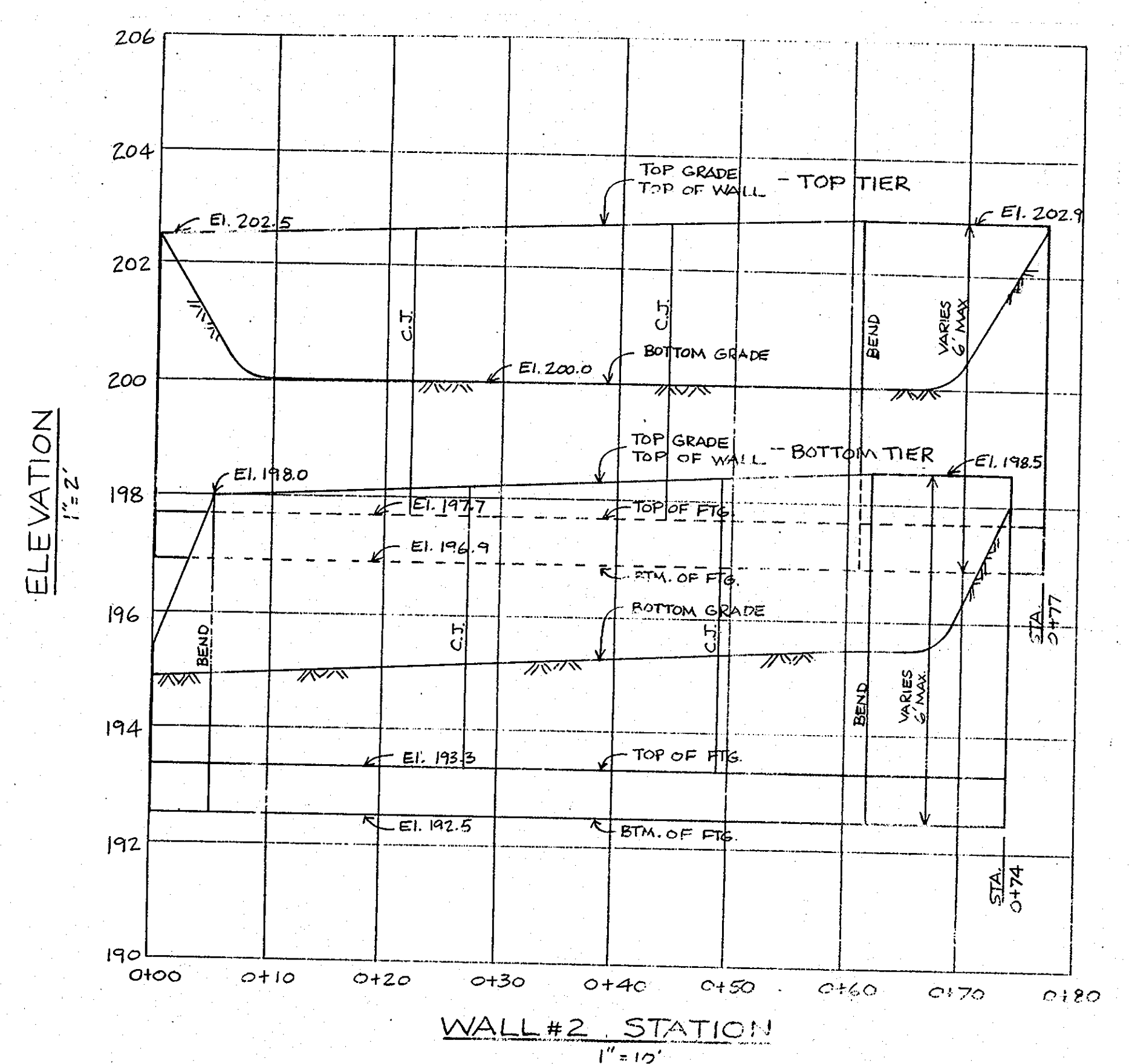
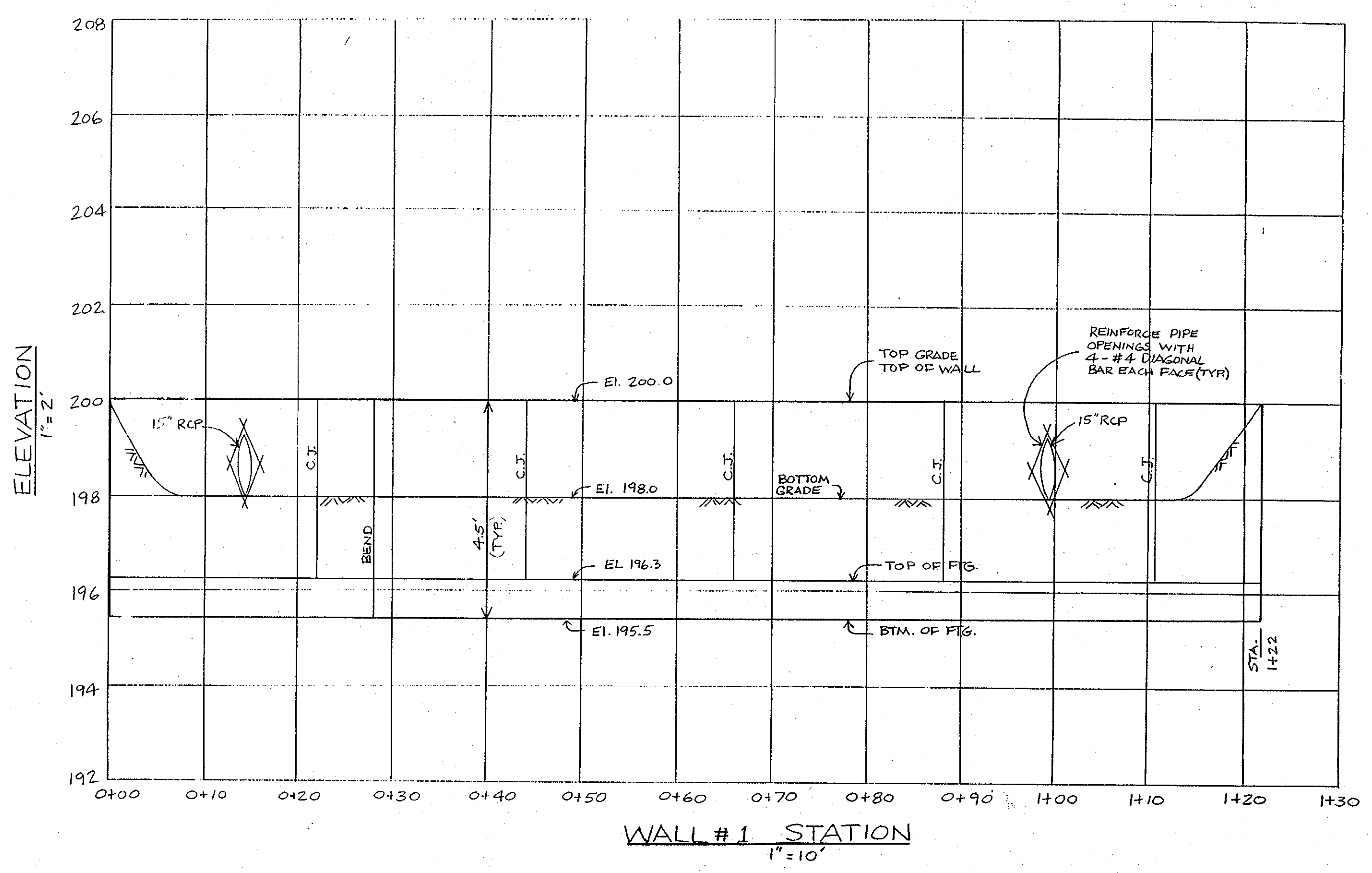
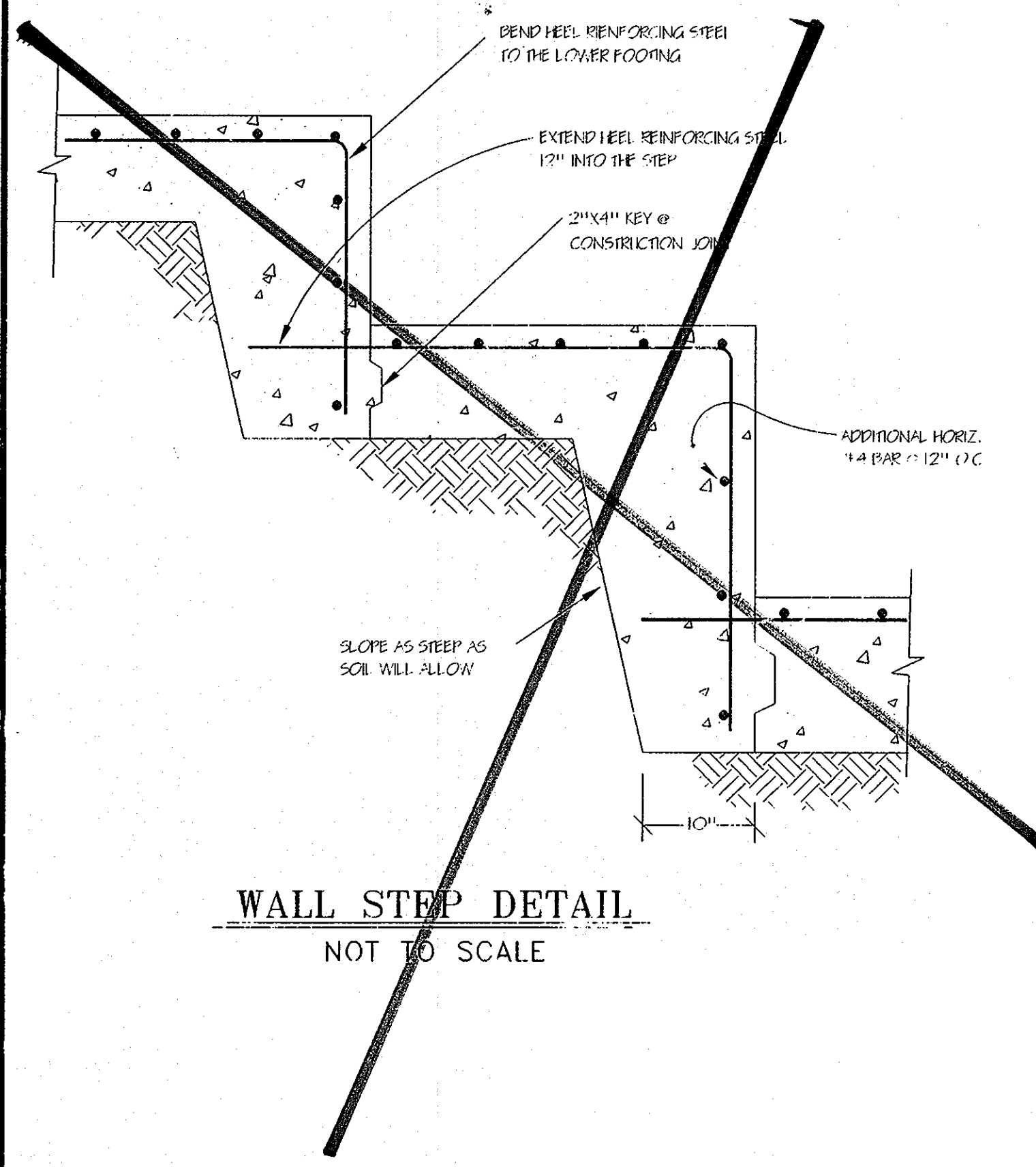
DEVELOPER'S CERTIFICATION:
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Developer: James Scott Cooper
 Date: 7/30/98

ENGINEER'S CERTIFICATION:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Engineer: John W. Ranocchia, S.
 Date: 6/24/98

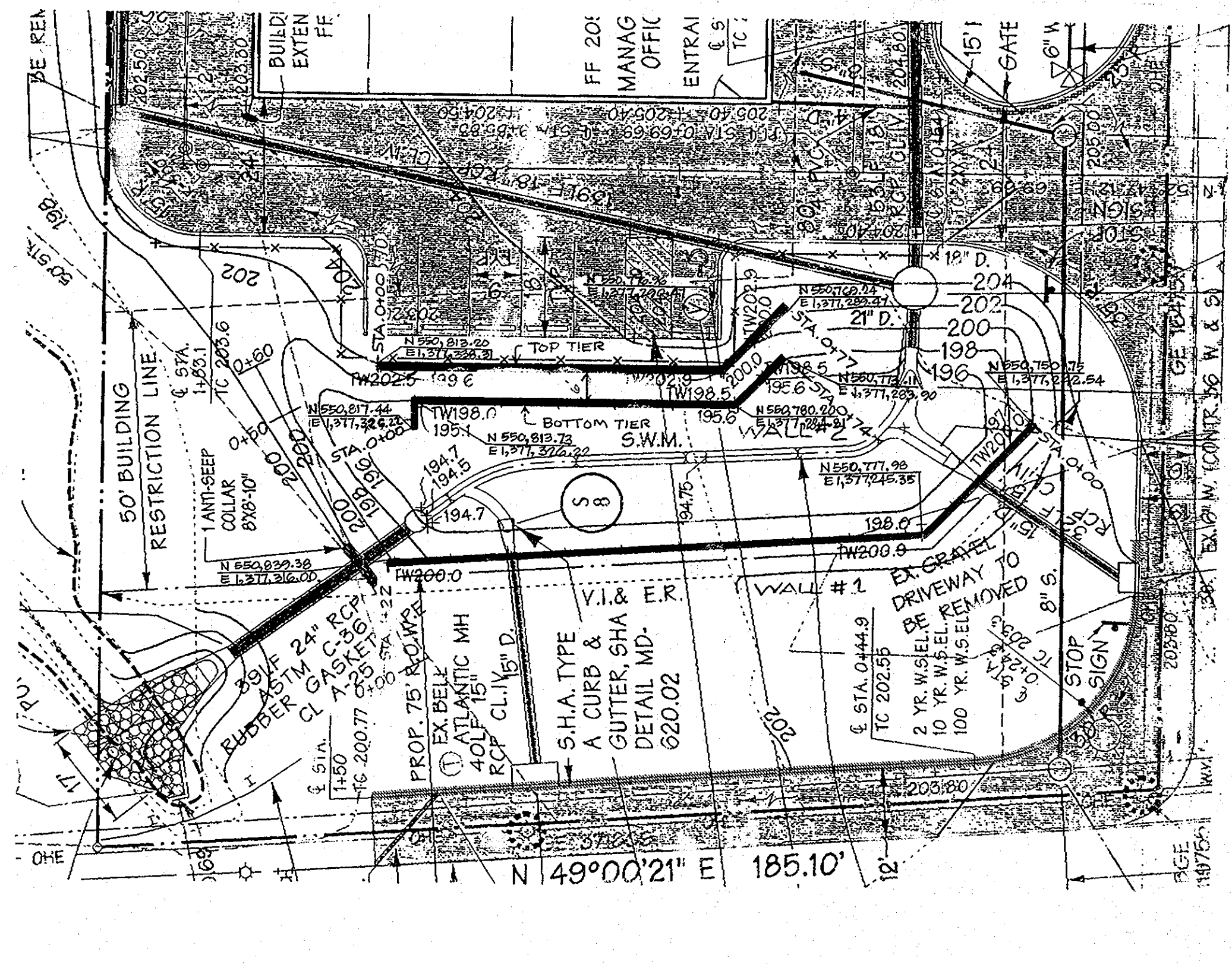
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 Signature of Reviewer: Cheryl Simmons
 Date: 8/31/98
 Signature of Reviewer: John P. Robertson
 Date: 8/31/98

THIS DEVELOPMENT PLAN IS FOR THE CONTROL OF SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D.

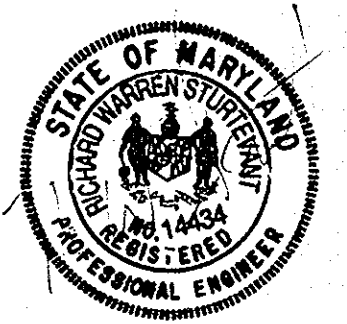
SDP-98-93



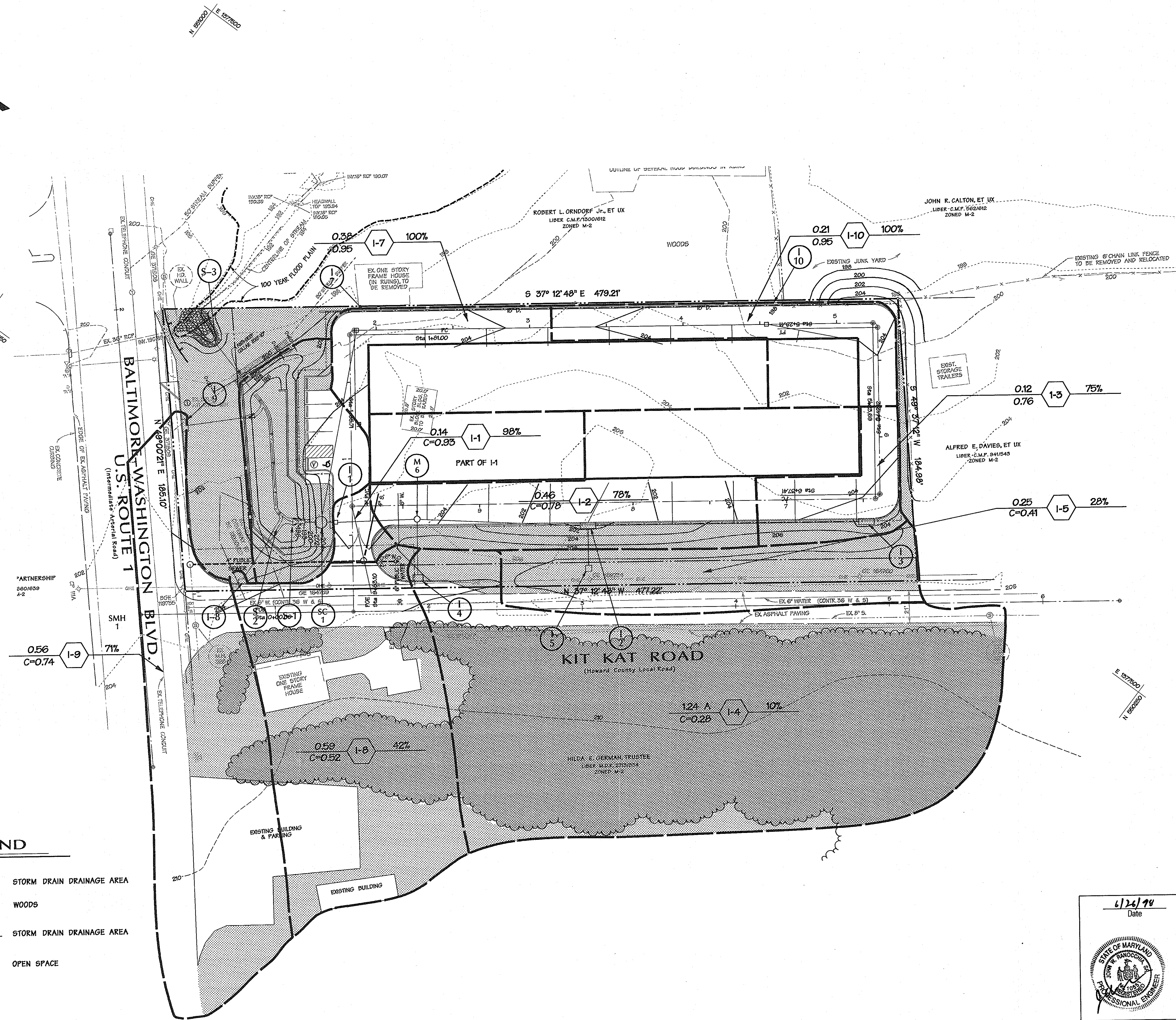
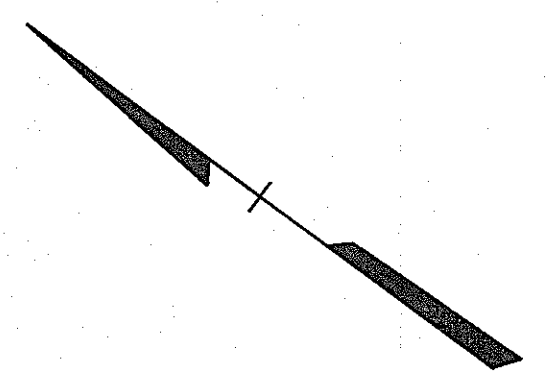
NOTE: ALL COORDINATES SHOWN ARE AT DOWN HILL FACE OF WALL.



- NOTES:
- 1.) ALL RETAINING WALL CONCRETE SHALL BE 4000 PSI WITH AIR ENTRAINMENT.
 - 2.) REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60.
 - 3.) WALL BACKFILL SHALL BE COMPACTED TO 95% OF T-99.
 - 4.) CONCRETE WORK SHALL COMPLY WITH THE LATEST ACI 318 BUILDING CODE FOR CONCRETE STRUCTURES.
 - 5.) ALL REBAR SPLICES NOT SHOWN SHALL BE A MINIMUM 40 BAR DIAM.
 - 6.) ALL WALL EXPOSED SURFACES SHALL BE MORTAR PATCHED AND SACK-RIBBED FINISHED WITH GROUT AND BURLAP.



Approved: Howard County Department of Planning & Zoning	
Chief, Development Engineering Division	9/1/98 Date
Chief, Development of Land Development	9/1/98 Date
Director	9/1/98 Date
Date No. Revision Description	
EL KRIDGE SELF STORAGE	
OWNER: Surinder S. Chandok, Tripod Chandok, 738 Sirport Blvd, Suite 5, Ann Arbor, Michigan 48108	DEVELOPER: Elkridge Self Storage LLC, c/o Cooper and Associates, LTD., 1543 Morse Road, Forest Hill, Maryland 21050
SWM Pond Retaining Wall Details	
Duff, McCune & Walker, Inc. 200 East Pennsylvania Avenue, Towson, MD 21286	
Hillis-Carnes Engineering Associates, Inc. 12011 Guilford Road, Suite 106, Annapolis Junction, Maryland 20701	
Date: 4/21/98	Drawn By: RTS
Project #: 98036A	Checked By: RMH
File Name: J/cad/hcea/98036A	BoF15



LEGEND

- STORM DRAIN DRAINAGE AREA
- WOODS
- AREA I-2 2% IMP. STORM DRAIN DRAINAGE AREA
- OPEN SPACE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County Seal
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 9/3/98 DATE

Cindy Hamilton
 CHIEF, DIVISION OF LAND DEVELOPMENT 9/4/98 DATE

James S. Smith
 DIRECTOR 9/9/98 DATE

Date	No.	Revision Description

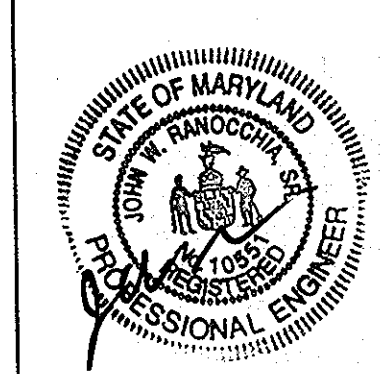
ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
 Elkrige Self Storage LLC.
 c/o Cooper & Associates, Ltd.
 1543 Morse Road
 Forest Hill, Maryland 21050

DMW
 Darr McCaskey-Walkers, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-4333
 Fax 296-4705

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

6/26/98
 Date



SECTION	NO.	DATE	BY	REVISION

TITLE: **STORM DRAIN DRAINAGE AREA MAP**

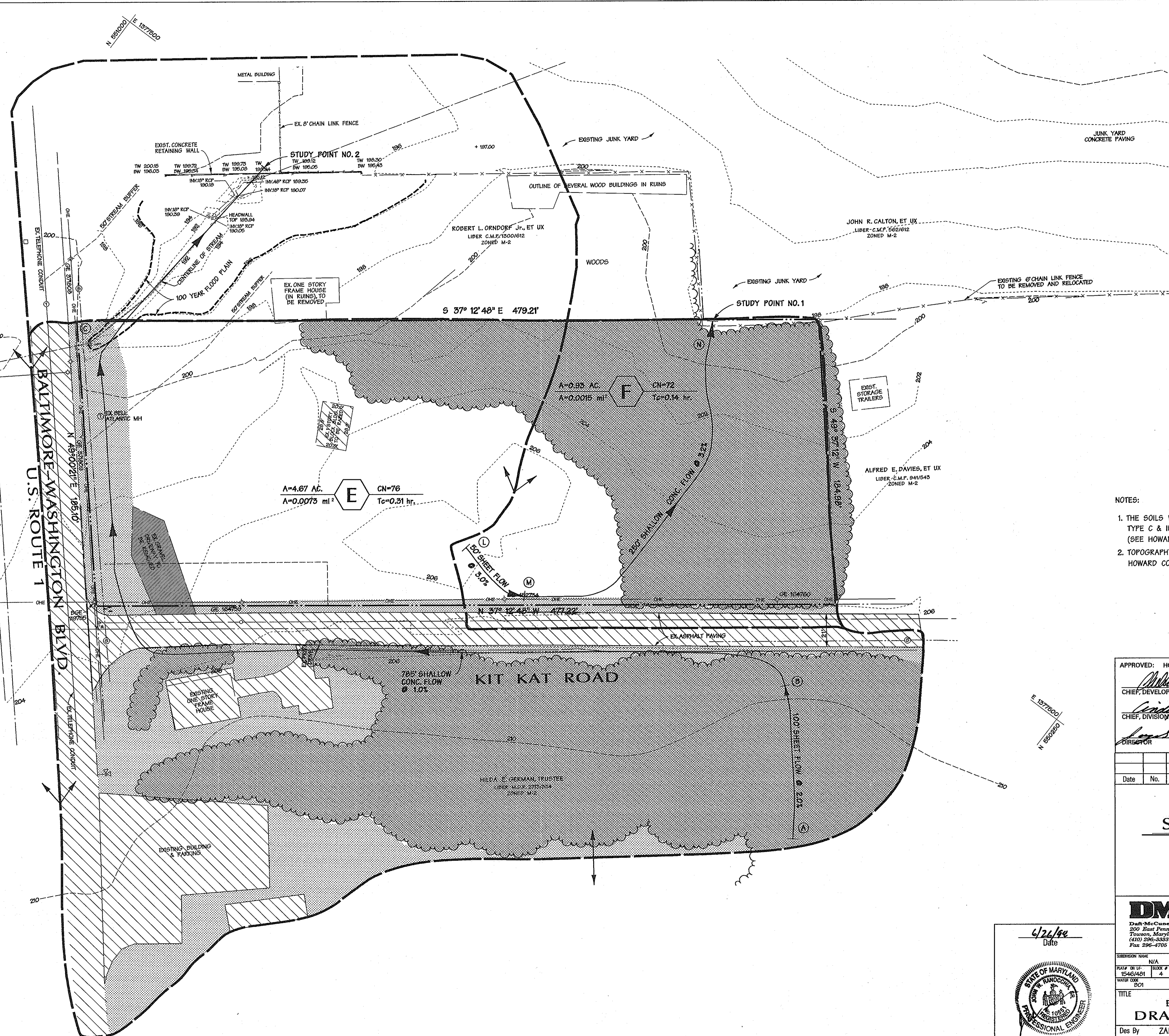
Des By: ZAL Scale: 1"=30' Proj. No. 97107.A
 Dm By: CSC, MGS Date: JUNE 26, 1998
 Chk By: Approved

9 OF 15

SDP-98-93

Professional Engr. No. 10551

THE CONTRIBUTING DRAINAGE AREA TO THE EXISTING 36" RCP UNDER ROUTE 1 COMES FROM AN EXISTING SHOPPING CENTER AND THE BFI RECYCLING CENTER, SDF 95-73 AND 85-90.



- NOTES:
- THE SOILS WITHIN THIS DRAINAGE AREA ARE BELTSVILLE, TYPE C & IUKA, TYPE C. (SEE HOWARD COUNTY SOILS MAP #30).
 - TOPOGRAPHY SOUTH OF KIT KAT ROAD WAS TAKEN FROM HOWARD COUNTY 1" = 200' TOPOGRAPHY.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 9/3/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE

[Signature] 7/1/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE R

[Signature] 9/1/98
 DIRECTOR DATE

Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
 Elkridge Self Storage LLC,
 c/o Cooper & Associates, Ltd.
 1543 Morse Road
 Forest Hill, Maryland 21050

DMW
 Daft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4706

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

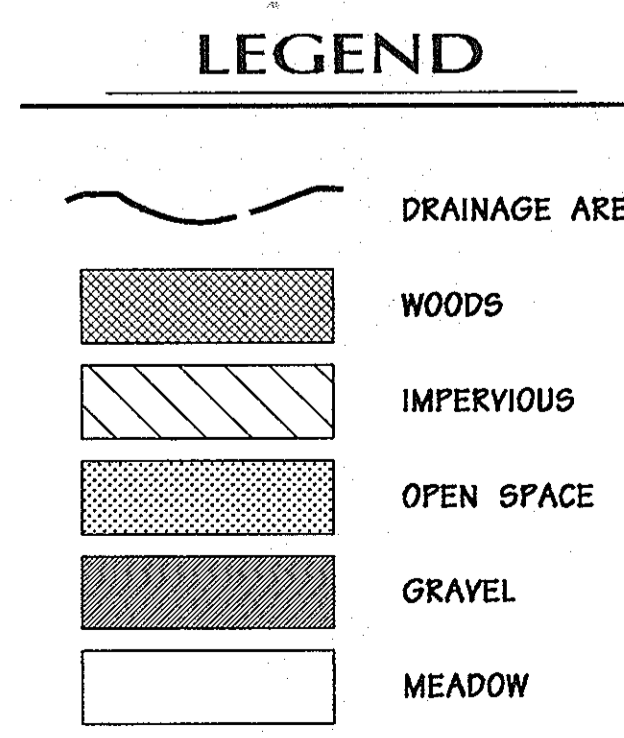
6/26/98
 Date

REVISION NAME	N/A	SECTION/AREA	N/A	OFFICIAL #	38
PLAT # OR L.P.	1546/481	BOOK #	4	DATE	4/5
WATER CODE	201	SEWER CODE	2270000	CHANG. TRACT	6012

TITLE: **EXISTING CONDITIONS DRAINAGE AREA MAP**

Des By	ZAL	Scale	1"=50'	Proj. No.	97107.A
Dm By	C&C, M&S	Date	JUNE 26, 1998		
Chk By	Approved				



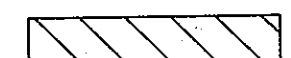

10 OF 15

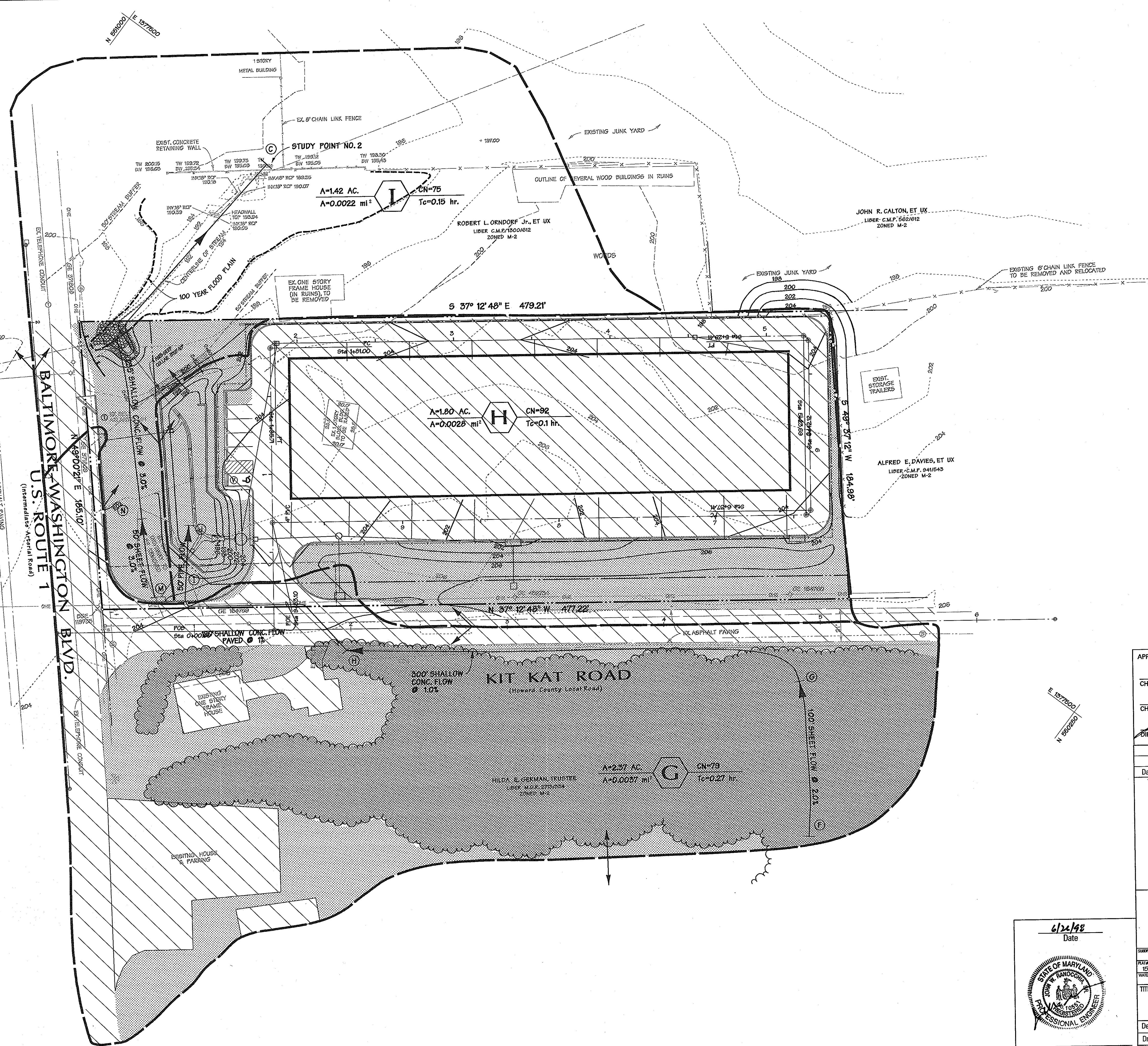


THE CONTRIBUTING DRAINAGE AREA TO THE EXISTING 36" RCP UNDER ROUTE 1 COMES FROM AN EXISTING SHOPPING CENTER AND THE BFI RECYCLING CENTER, SDF 95-73 AND 85-90.

NOTE: THE SOILS WITHIN THIS DRAINAGE AREA ARE BELTSVILLE TYPE C.

LEGEND

-  DRAINAGE AREA
-  WOODS
-  IMPERVIOUS
-  OPEN SPACE



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard Hamilton 9/25/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

John St. John 9/25/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John St. John 9/25/98
 DIRECTOR DATE

Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
 Elkridge Self Storage LLC.
 c/o Cooper & Associates, Ltd.
 1543 Morse Road
 Forest Hill, Maryland 21050

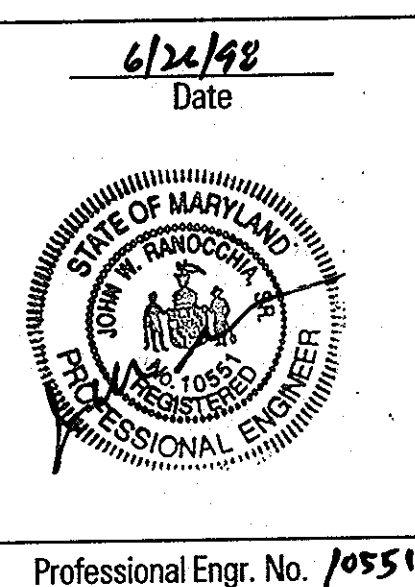
DMW
 Draft: McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3838
 Fax 296-4705

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

SECTION NAME	N/A	SECTION NUMBER	N/A	DATE	9/25/98
PROJECT OR JOB	1543/491	DATE	4	DATE	9/25/98
WATER CODE	BC1	SEWER CODE	2570000	DATE	9/25/98

DEVELOPED CONDITIONS DRAINAGE AREA MAP

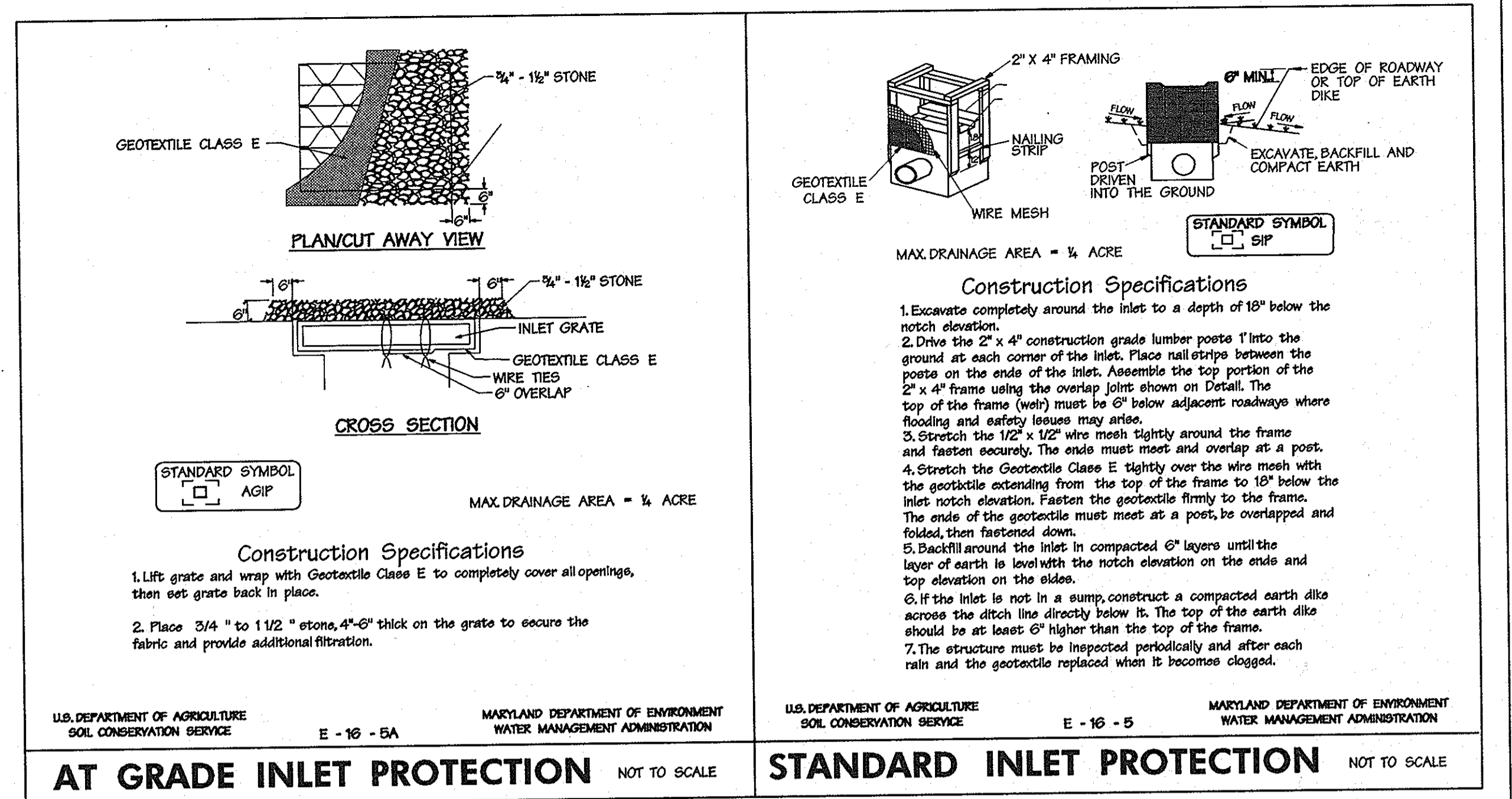
Des By ZAL Scale 1"=30' Proj. No. 97107.A
 Dm By CSC, MGG Date JUNE 26, 1998
 Ck By Approved



SDF-98-93

Professional Engr. No. 10551

ENVIRONMENTAL NOTES:
 TO PROTECT IMPORTANT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM AS FOLLOWS:
 USE 1 WATERS: IN-STREAM WORK MAY NOT BE CONDUCTED DURING THE PERIOD MARCH 1-JUNE 15 INCLUSIVE DURING ANY YEAR.



U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE E-16-5A

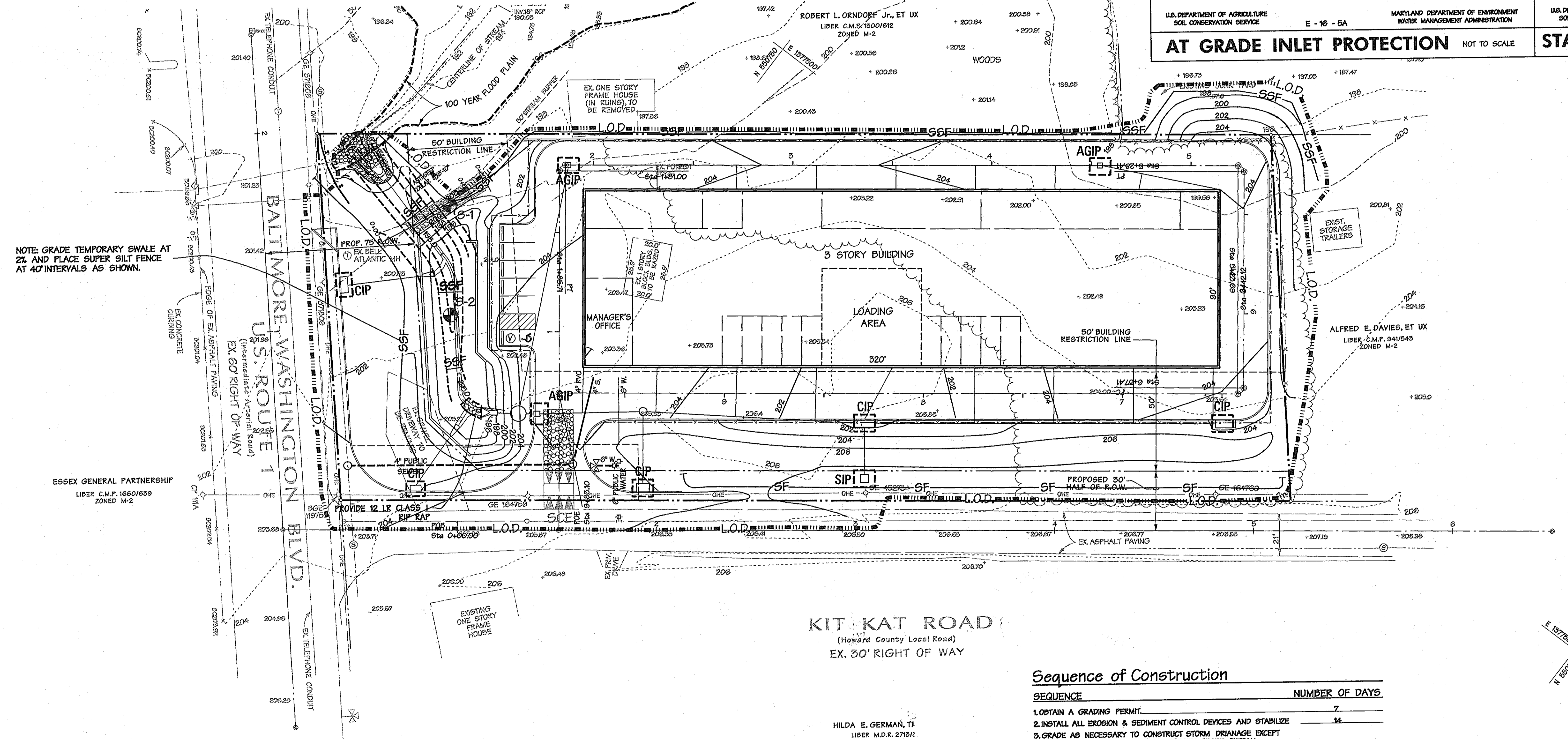
MARYLAND DEPARTMENT OF ENVIRONMENT
 WATER MANAGEMENT ADMINISTRATION

AT GRADE INLET PROTECTION NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE E-16-5

MARYLAND DEPARTMENT OF ENVIRONMENT
 WATER MANAGEMENT ADMINISTRATION

STANDARD INLET PROTECTION NOT TO SCALE



NOTE: GRADE TEMPORARY SWALE AT 2' AND PLACE SUPER SILT FENCE AT 4' INTERVALS AS SHOWN.

KIT KAT ROAD
 (Howard County Local Road)
 EX. 30' RIGHT OF WAY

HILDA E. GERMAN, TR
 LIBER. C.M.P. 27312
 ZONED M-2

Sequence of Construction

SEQUENCE	NUMBER OF DAYS
1. OBTAIN A GRADING PERMIT.	7
2. INSTALL ALL EROSION & SEDIMENT CONTROL DEVICES AND STABILIZE	14
3. GRADE AS NECESSARY TO CONSTRUCT STORM DRAINAGE EXCEPT 1-9 THRU 5-2 AND 1-9 THRU E-1 TEMPORARY GRADE OUTFALL SWALE & INSTALL SSF & STABILIZE	21
4. ROUGH GRADE SITE & EXCAVATE FOR BUILDING FOUNDATION	14
5. CONSTRUCT UTILITIES	30
6. FINE GRADE AND CONSTRUCT BUILDING AND PAVING, EXCEPT FOR THAT WHICH IS THE FUTURE S.H.A. R.O.W.	60
7. REMOVE SUPER SILT FENCE AND CONSTRUCT SWM POND & PRINCIPAL SPILLWAY OUTFALL, RETAINING WALL FOR SWM FACILITY & REMAINING STORM DRAINAGE AND PAVING & STABILIZE	21
8. UPON APPROVAL OF THE SEDIMENT & EROSION CONTROL INSPECTOR, REMOVE ALL EROSION CONTROL MEASURES & STABILIZE	7
9. PROVIDE STREET TREES & REMAINING LANDSCAPING	14

LEGEND

- 200 --- EXISTING CONTOURS
- 200 --- PROPOSED CONTOURS
- 200 --- INTERIM CONTOURS
- + 207.19 SPOT ELEVATIONS
- LIMIT OF DISTURBANCE
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- AGIP INLET PROTECTION
- CIP INLET PROTECTION
- SIP INLET PROTECTION
- SOIL BORING LOCATIONS (SEE SHEET 7)

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County 9/13/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Hamilton 9/14/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 2

David Smith 9/14/98
 DIRECTOR DATE

Date	No.	Revision Description

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
 Elkridge Self Storage LLC,
 c/o Cooper & Associates, Ltd.
 1543 Morse Road
 Forest Hill, Maryland 21050

DMW

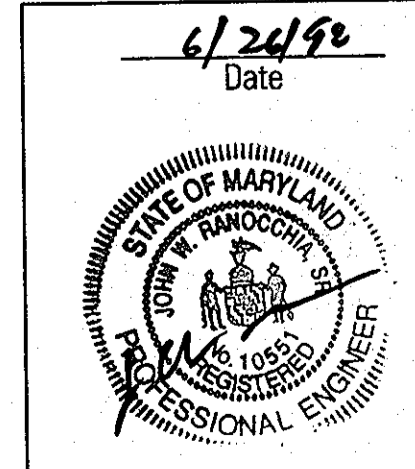
David McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax: 296-4705

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

SUBSECTION NAME	SECTION NAME	DISPATCH #
N/A	N/A	20
PLAT OR LOT 1543/401	BLOCK # 43	TOWNSHIP 1
WATER CODE 101	SEWER CODE 2270000	DEEDS TRACT 6072

SEDIMENT & EROSION CONTROL PLAN

Des By	ZAL	Scale	1"=30'	Proj. No.	97107.A
Dwn By	CSC, M66	Date	JUNE 26, 1998	12	OF 15
Chk By	Approved				



SDP-98-93

Professional Engr. No. 10551

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

James Scott Cooper 7/31/98
 SIGNATURE OF DEVELOPER DATE

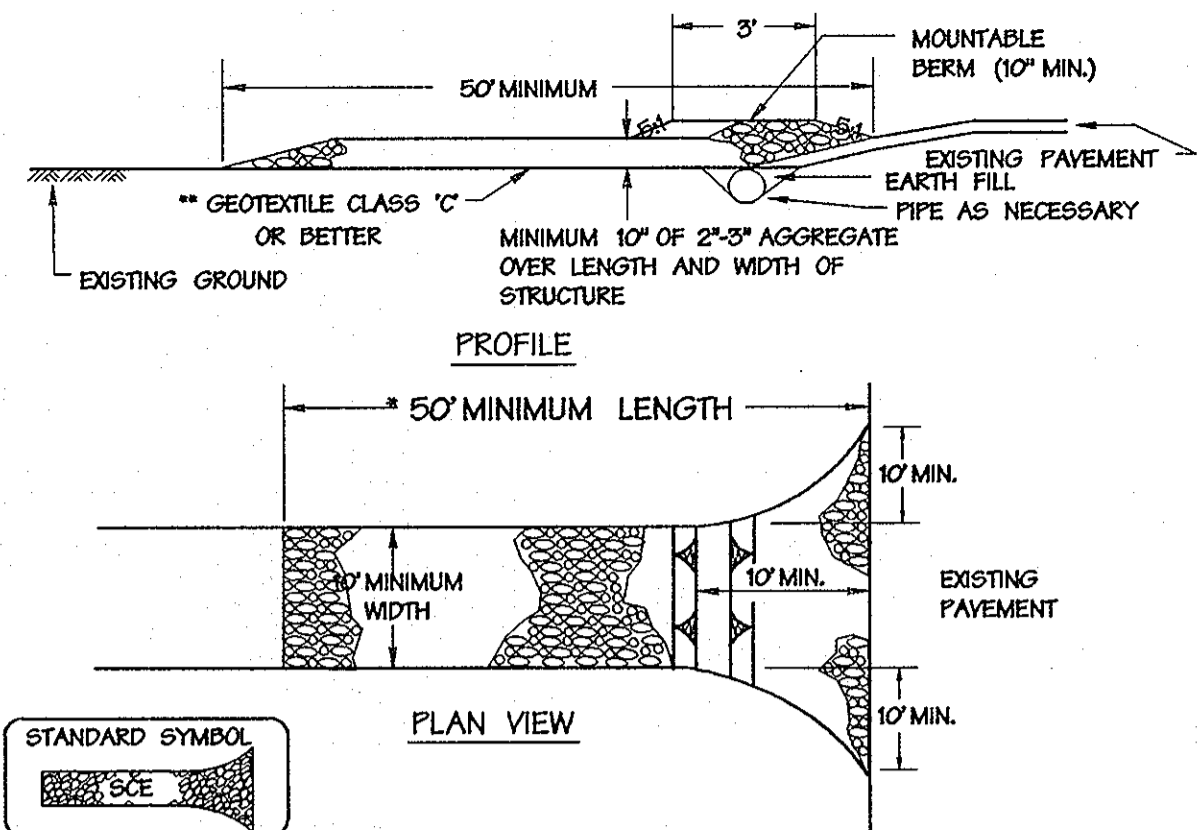
ENGINEER'S CERTIFICATION:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John W. Ramachio, Sr. 6/24/98
 SIGNATURE OF ENGINEER DATE

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

Chief Simmons 8/31/98
 U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE

John R. Robertson 8/31/98
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD S.C.D. DATE



Construction Specification

- Length - minimum of 50' (30' for single residence lots).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or recycled concrete equivalent shall be placed at least 10' deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 10' of stone over the pipe. Pipe to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every spot where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

Heavy Duty Stabilized Construction Entrance

PERMANENT SEEDING NOTES

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

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

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

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT) BEFORE SEEDING. HARKOW OR DISK 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).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT) BEFORE SEEDING. HARKOW OR DISK 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 (14 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 (0.5 LBS/1000 SQ.FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 29, 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 SOO. 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 WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 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 SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

TEMPORARY SEEDING NOTES

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

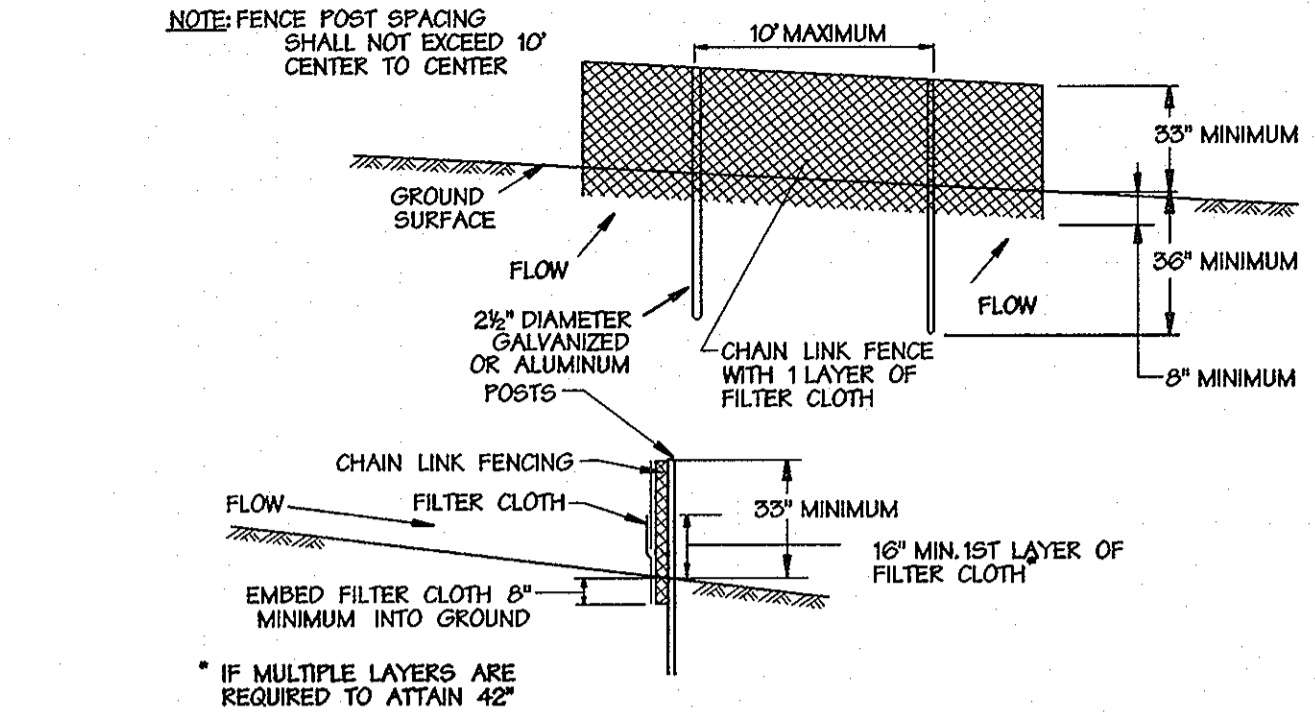
SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (32 LBS/1000 SQ.FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.7 LBS/1000 SQ.FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 29, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GAL. PER ACRE (5 GAL/1000 SQ.FT) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ.FT) FOR ANCHORING.

REFER TO THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.



Construction Specifications

- Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway (SHA) Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- The posts do not need to be set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples. The lower tension wire, brace and truss rods, drive anchors and post caps are not required except on the ends of the fence. The chain link fencing shall be 6" (6) gauge or heavier.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 8" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.

Super Silt Fence

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (982-2437).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1
 - FOURTEEN 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. I, CHAPTER 12 OF THE "HOWARD COUNTY DESIGN MANUAL," STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOO, TEMPORARY SEEDING, AND MULCHING (SECTION G). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA OF SITE	2.05 ACRES
AREA DISTURBED	2.24 ACRES
AREA TO BE ROOFED OR PAVED	2.05 ACRES
AREA TO BE VEGETATIVELY STABILIZED	13 ACRES
TOTAL CUT	1676 CUBIC YARDS
TOTAL FILL	3444 CUBIC YARDS
OFF-SITE WASTE/BORROW AREA LOCATION WASTE - N/A	
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DFW SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL, 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.

Howard County Sediment Control General Notes

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

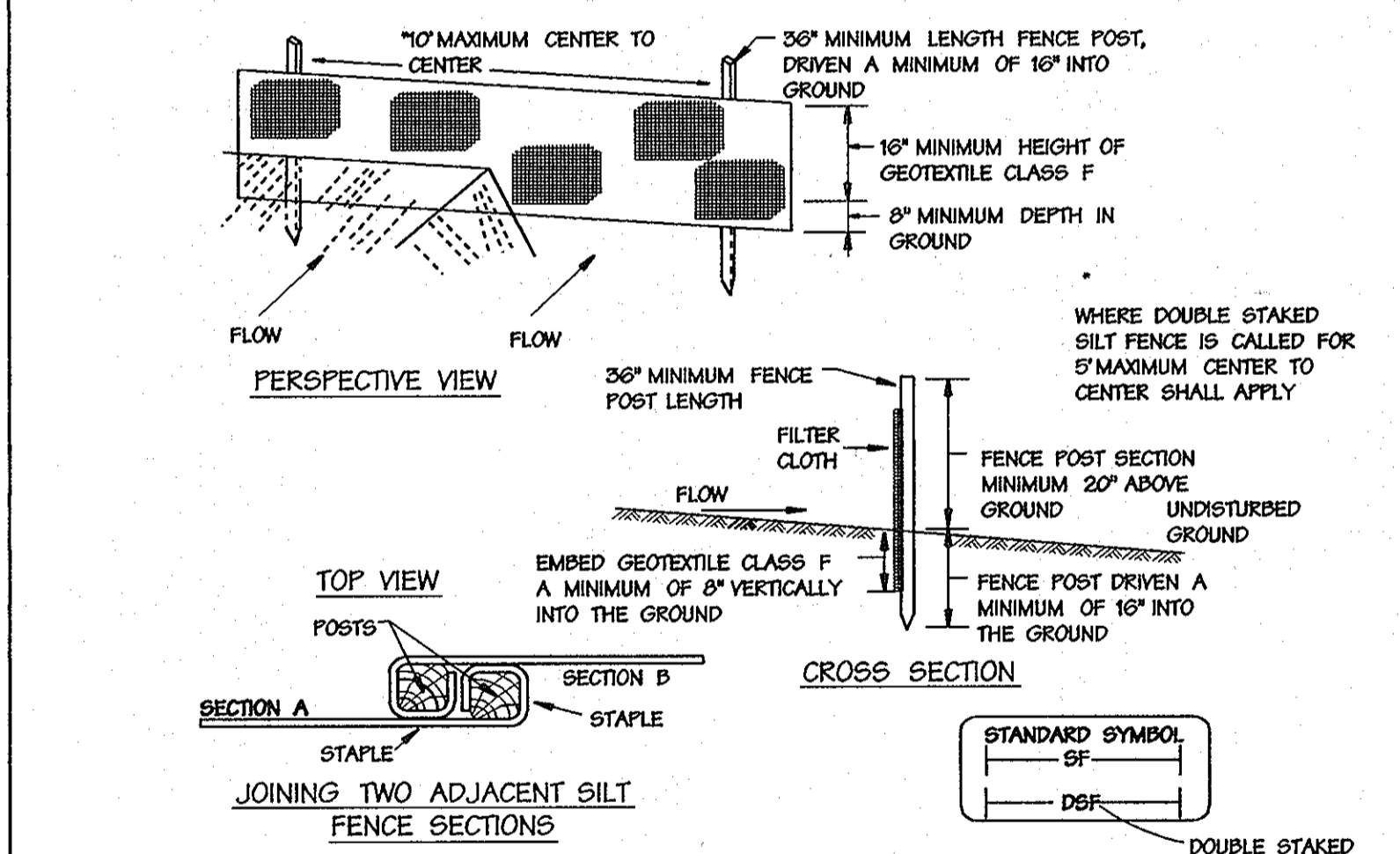
Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains materials toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purposes of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be mixture of contrasting textured subsoils and shall contain less than 5% by volume of chert, stones, clags, coarse fragments, gravel, rocks, roots, trash, and other materials larger than 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic contents of topsoil shall be not less than 15 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- Topsoil Application
 - When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

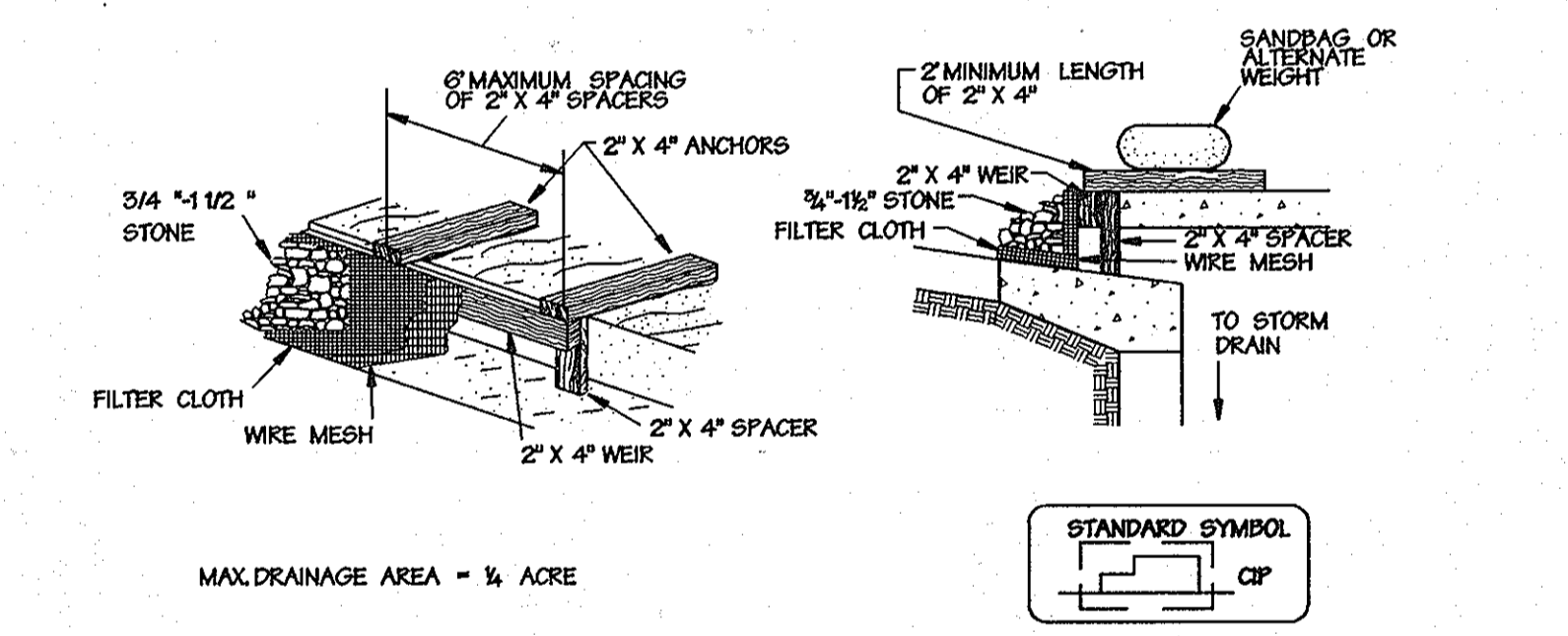


Construction Specifications

- Fence posts shall be a minimum of 36" long driven 10" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbf/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbf/in (min.)	Test: MSMT 509
Flow Rate	0.5 gal/ft/minute (max.)	Test: MSMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

Silt Fence



Construction Specifications

- Attach a continuous piece of 1/2" x 1/2" wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
- Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
- Securely nail the 2" x 4" weir to a 6" long vertical spacer to be located between the weir and the inlet face (max. 4" apart).
- 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.
- The assembly shall be placed so that the end spacers are a minimum 1" beyond both ends of the throat opening.
- Form the 12" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
- This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

Curb Inlet Protection (COG or A-5 or A-10)

Topsoil Specifications FOR SEDIMENT CONTROL / STABILIZATION PURPOSES

DEVELOPER'S CERTIFICATION:
I HAVE CERTIFIED THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT I AM RESPONSIBLE FOR THE PROVISIONS OF THIS PLAN AND THAT I AM RESPONSIBLE FOR THE PROVISIONS OF THIS PLAN AND THAT I AM RESPONSIBLE FOR THE PROVISIONS OF THIS PLAN.

DATE: 7/31/98
SIGNATURE OF DEVELOPER: James Scott Cooper

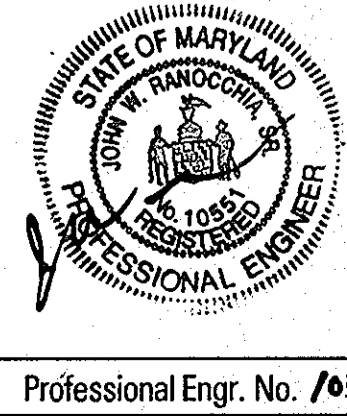
ENGINEER'S CERTIFICATION:
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

DATE: 6/26/98
SIGNATURE OF ENGINEER: John W. Rameckha, S.E.

REVIEWED FOR HOWARD G.O.D. AND MEETS TECHNICAL REQUIREMENTS

DATE: 8/31/98
SIGNATURE: Cheryl Simmons

DATE: 8/31/98
SIGNATURE: John K. Robertson



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DATE: 9/3/98
DATE: 7/19/98
DATE: 7/19/98

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
Elkridge Self Storage LLC,
c/o Cooper & Associates, Ltd.
1543 Morse Road
Forest Hill, Maryland 21050

DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4708

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

DATE: 6/26/98

DESIGNER: ZAL
SCALE: NO SCALE
PROJECT NO.: 97107.A

DATE: JUNE 26, 1998
DATE: 13 OF 15

LANDSCAPE NOTES

- The contractor shall review architectural/engineering plans to become thoroughly familiar with grading and surface utilities.
- All equipment and tools shall be placed so as not to interfere or hinder the pedestrian and vehicular traffic flow.
- The contractor shall coordinate with a lighting contractor regarding the timing of the installation of plant material.
- The contractor shall insure that his work does not interrupt established or projected drainage patterns.
- During planting operations, excess waste materials shall be promptly and frequently removed from the site.
- The contractor is advised of the existence of underground utilities on the site. Their exact location shall be verified in the field with the owner or general contractor prior to the commencement of any digging operations. In the event they are uncovered, the contractor shall be held responsible for all damage to utilities and such damage shall not result in any additional expenses to the owner.
- If utility lines are encountered in excavation of tree pits, other locations for trees shall be made by the contractor without additional compensation. No changes of location shall be made without approval of the landscape architect.
- Maintain positive drainage out of planting beds at a minimum 2% slope. All grades, dimensions, and existing conditions shall be verified by the contractor on site before construction begins. Any discrepancies shall be brought to the attention of the landscape architect or owner.
- Every possible safeguard shall be taken to protect building surfaces, equipment, and furnishings. The contractor shall be responsible for any damage or injury to person or property which may occur as a result of his negligence in the execution of the work.
- In the event of variation between quantities shown on the plant list and the plans, the plans shall control. The contractor is responsible for verifying all plant quantities prior to the commencement of work. All discrepancies shall be reported to the landscape architect, for clarification prior to bidding. The contractor shall furnish plant materials in sizes as specified in the plant list.
- The contractor shall install all materials located on the site for rework and/or adjustment by the landscape architect prior to excavation. All locations are to be approved by the landscape architect before excavation.
- Plants shall conform to current "American Standards for Nursery Stock" by American Association of Nurserymen (AAN), particularly with regard to size, growth, size of ball, and density of branch structure. Plant material shall be tagged at the source by the landscape architect unless this requirement is specifically waived.
- All plants (B & C or container) shall be properly identified by weather-proof labels securely attached thereto before delivery to project site. Labels shall identify plants by name, species, and size. Labels shall not be removed until the final inspection by the landscape architect or agent in charge.
- Any material and/or work may be rejected by the landscape architect if it does not meet the requirements of the specifications. All rejected material shall be removed from the site by the contractor.
- No substitutions shall be made without the written consent of the owner or landscape architect.
- The landscape architect or owner shall have the right at any stage of the operations, to reject any and all work and material which, in his opinion, does not meet the requirements of these plans and specifications.
- The contractor shall be wholly responsible for stability and conditions of all trees and shrubs and shall be legally liable for any damage caused by instability or any plant material.
- All proposed trees to be installed either entirely in or entirely out of planting beds. Planting beds lines are not to obstructed. All shrubs and ground cover areas shall be planted in continuous prepared beds and top dressed with 2-inch shredded hardwood mulch. Mulch shall be shredded within the last six months.

- All planting beds adjacent to law, sod, or seeded areas shall be spade edged.
- Maintenance shall begin after each plant has been installed and shall continue until 90 days after final acceptance by the architect or owner representative. Maintenance includes moving of turf, watering, pruning, weeding, fertilizing, mulching, replacement of oak or dead plants, and other care necessary for the proper growth of the plant material. The contractor must be able to provide continued maintenance if requested by the owner.
- Upon completion of all landscaping, an acceptance of the work shall be held. The contractor shall notify the landscape architect or owner for scheduling the inspection at least seven (7) days prior to the anticipated inspection date.
- All trees shall be guaranteed for 12 months from the date of acceptance. All shrubs and ground covers shall be guaranteed for 12 months from the date of acceptance.
- The contractor shall dispose of stumps and major roots of all plants to be removed. Any depression caused by the removal operations shall be refilled with fertile, friable soil placed and compacted so as to reestablish proper grade for new planting and / or lawn areas.
- The contractor shall insure adequate vertical drainage in all plant beds and planters.
- All disturbed areas on the site not planted with shrubs or ground cover shall be graded and seeded as noted on the landscape plan.
- This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual.
- Financial security for the required landscaping has been posted as part of the DFW Developers agreement in the amount of \$14,230.00.

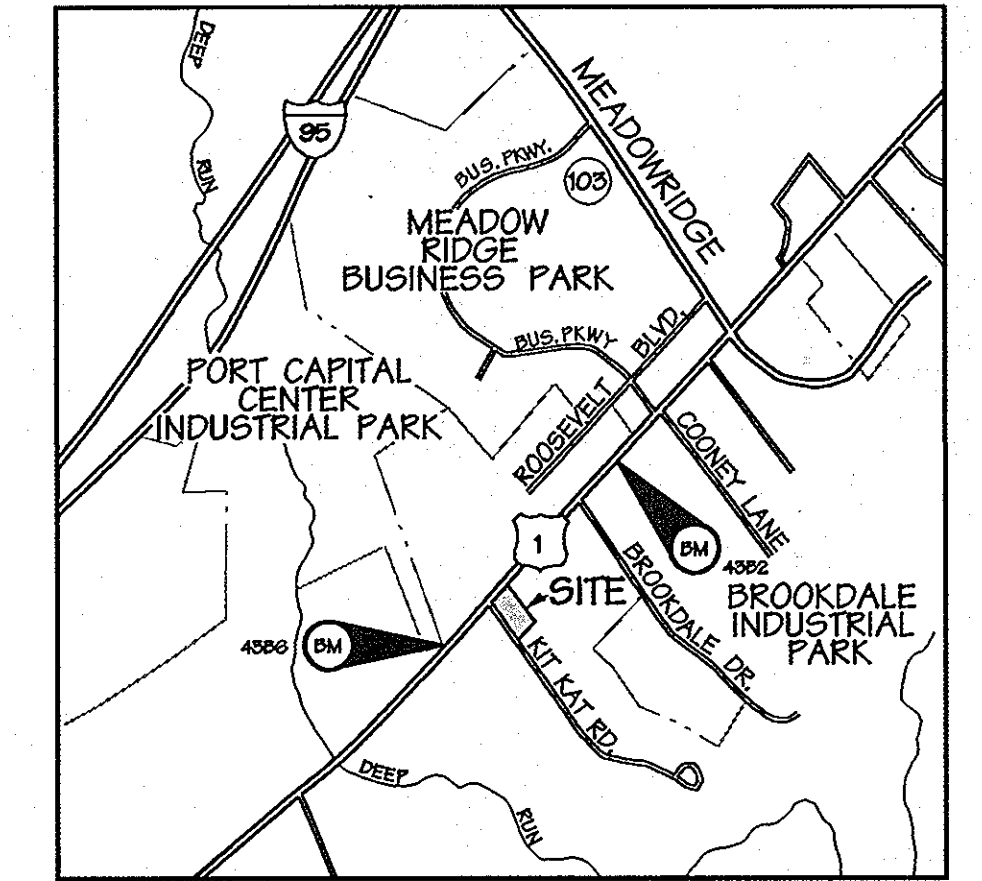
SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS	LANDSCAPE BUFFER CALCULATIONS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE			
LINEAR FEET OF ROADWAY FRONTAGE / PERIMETER	604' L.F. of Landscape Edge A	1 SHADE TREE @ 60' L.F. = 10 SHADE TREES	
	500' L.F. of Landscape Edge B (Includes 27' for S.W.M.)	1 SHADE TREE @ 50' L.F. = 10 SHADE TREES 1 EVERGREEN @ 40' L.F. = 13 EVERGREENS	
	50' L.F. of Landscape Edge D	1 SHADE TREE @ 50' L.F. = 1 SHADE TREE 1 EVERGREEN @ 10' L.F. = 5 EVERGREENS	
	62' L.F. of Landscape Edge E	1 SHADE TREE @ 40' L.F. = 2 SHADE TREES 1 SHRUB @ 4' L.F. = 16 SHRUBS	
	120' L.F. of Landscape Edge B (S.W.M. Screening)	1 SHADE TREE @ 50' L.F. = 3 SHADE TREES 1 EVERGREEN @ 40' L.F. = 3 EVERGREENS	
CREDIT FOR EXISTING VEGETATION	NO		NO
CREDIT FOR FENCE (DESCRIBE BELOW IF NEEDED)	250 L.F.		
NUMBER OF PLANTS REQUIRED			
SHADE TREES	26		
EVERGREEN TREES	21		
SHRUBS	16		
NUMBER OF PLANTS PROVIDED			
SHADE TREES	14		
EVERGREEN TREES	19		
OTHER TREES (2:1 SUBSTITUTION)	9		
SHRUBS (10:1 SUBSTITUTION)	66		
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)			

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	6
NUMBER OF TREES REQUIRED @ 1/20 PKG. SPACES	1
NUMBER OF TREES PROVIDED	1
OTHER TREES (2:1 SUBSTITUTION)	1

- COMMENTS: 1 EVERGREEN, 9 FLOWERING TREES AND 10 SHRUBS ARE CREDITED TOWARDS 6 SHADE TREES. A 6" TALL METAL PICKET FENCE AT THE SITE ENTRANCE FACING ROUTE 1 AND KIT KAT ROAD IS CREDITED TOWARDS 5 SHADE TREES.
- 40 EVERGREEN SHRUBS ARE SUBSTITUTED FOR 4 EVERGREEN TREES.



LOCATION MAP NOT TO SCALE

FOREST STAND SUMMARY

A single forest stand (0.84+) exists on this property. It is a young, early successional forest located on nearly level terrain. The canopy is dominated by Virginia Pine (*Pinus virginiana*) which seem to be at the end of their life cycle. Green Ash (*Fraxinus pennsylvanicum*), black locust (*Robinia pseudoacacia*), red maple (*Acer rubrum*), and tulip poplar (*Liriodendron tulipifera*) are beginning to exert dominance. The understorey is comprised of saplings of all of the canopy species except Virginia Pine. The average diameter at breast height (d.b.h.) of the canopy species is 10 inches. Common shrubs and vines include Japanese honeysuckle (*Lonicera japonica*) and a small amount of Virginia red cedar (*Juniperus virginiana*). Field investigation for this forest stand summary was conducted in December, therefore, herbaceous species were not noted within the stand. Exotic invasive species include Japanese honeysuckle. There are no specimen trees on the property. The replacement of mature pines with a variety of young hardwood species, as noted in this stand, indicates the natural regeneration cycle of a forest. The stand has subtle changes within it, including variations in the vegetation density and distribution. It appears that the variability within the forest stand is due to disturbed site conditions from past land use practices.

DEVELOPER'S / BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF 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.

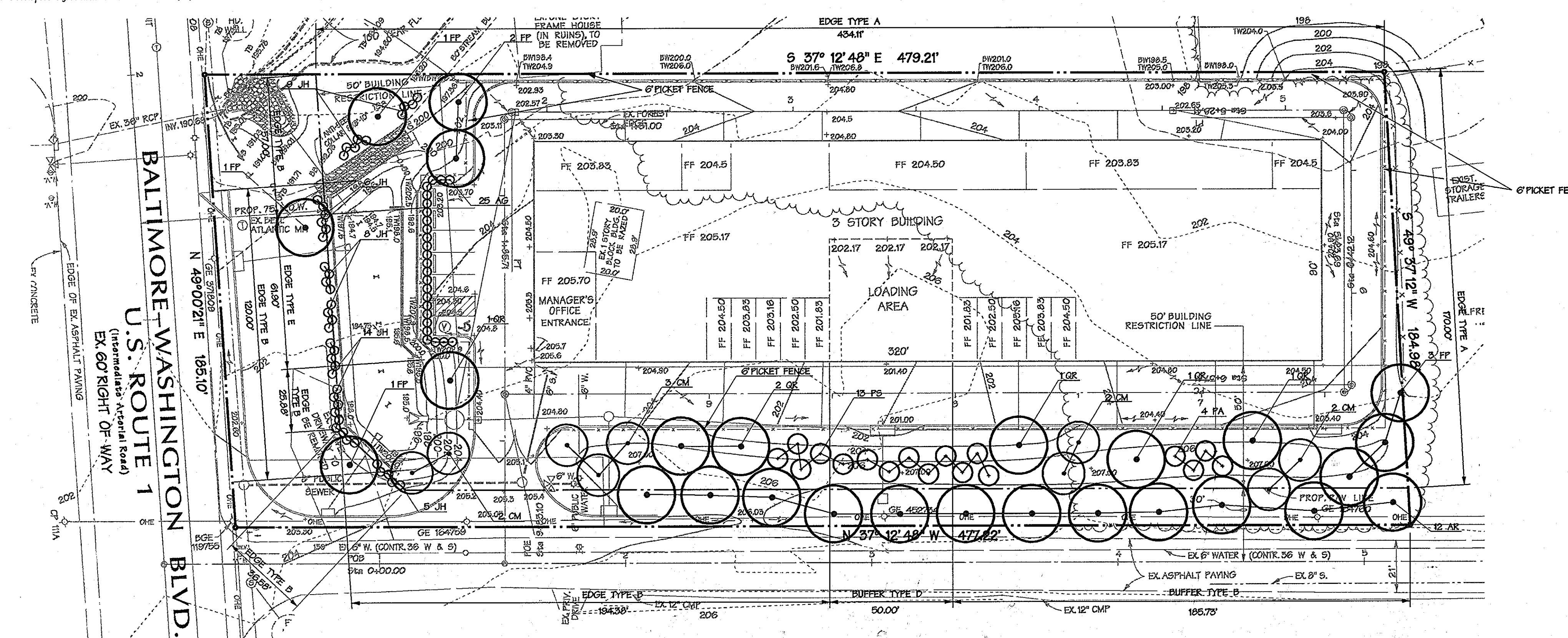
NAME: *J. S. Cooper* DATE: *7/3/98*

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: *7/3/98*

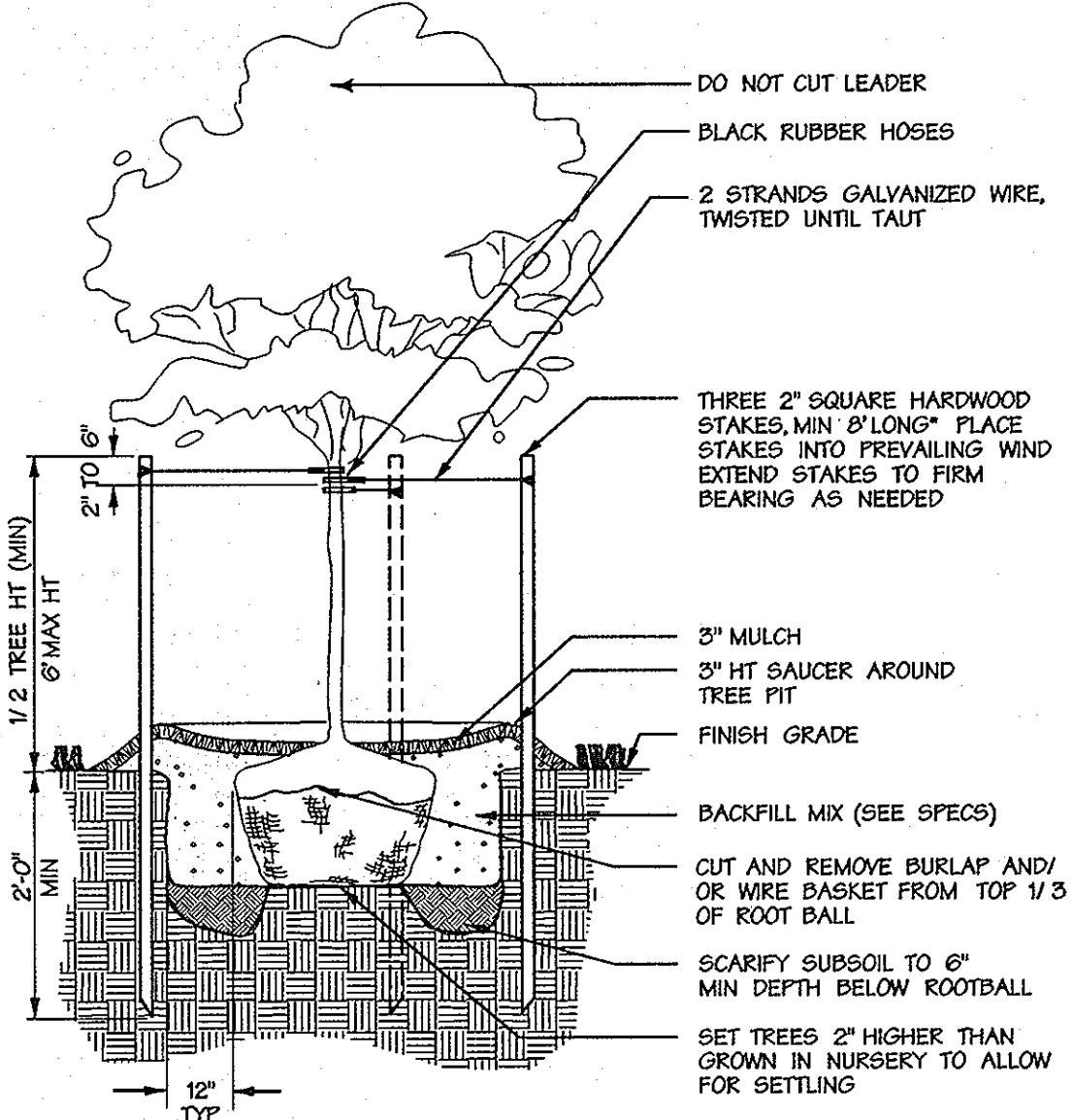
CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* DATE: *7/3/98*

DIRECTOR: *[Signature]* DATE: *7/3/98*

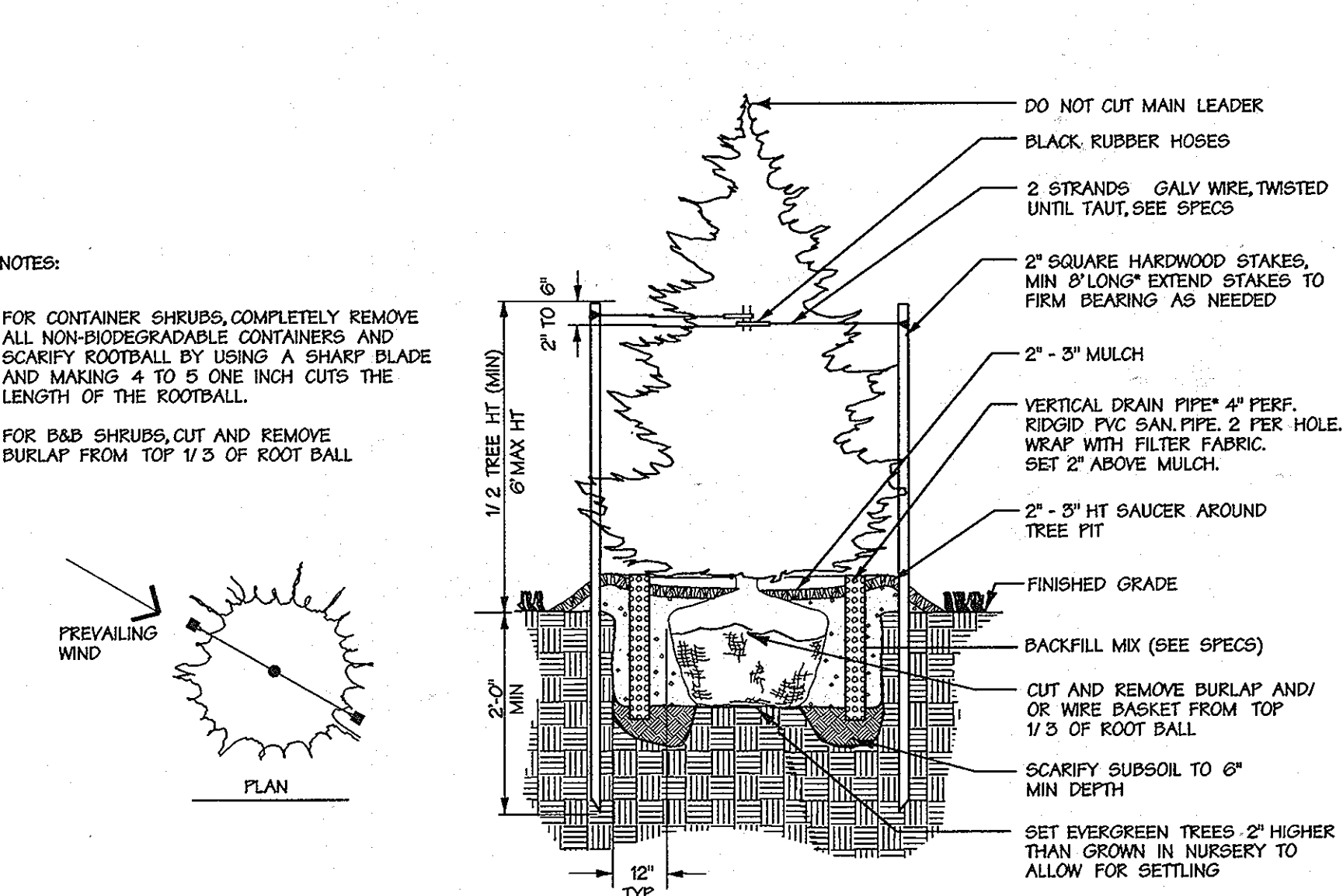


PLANT LIST

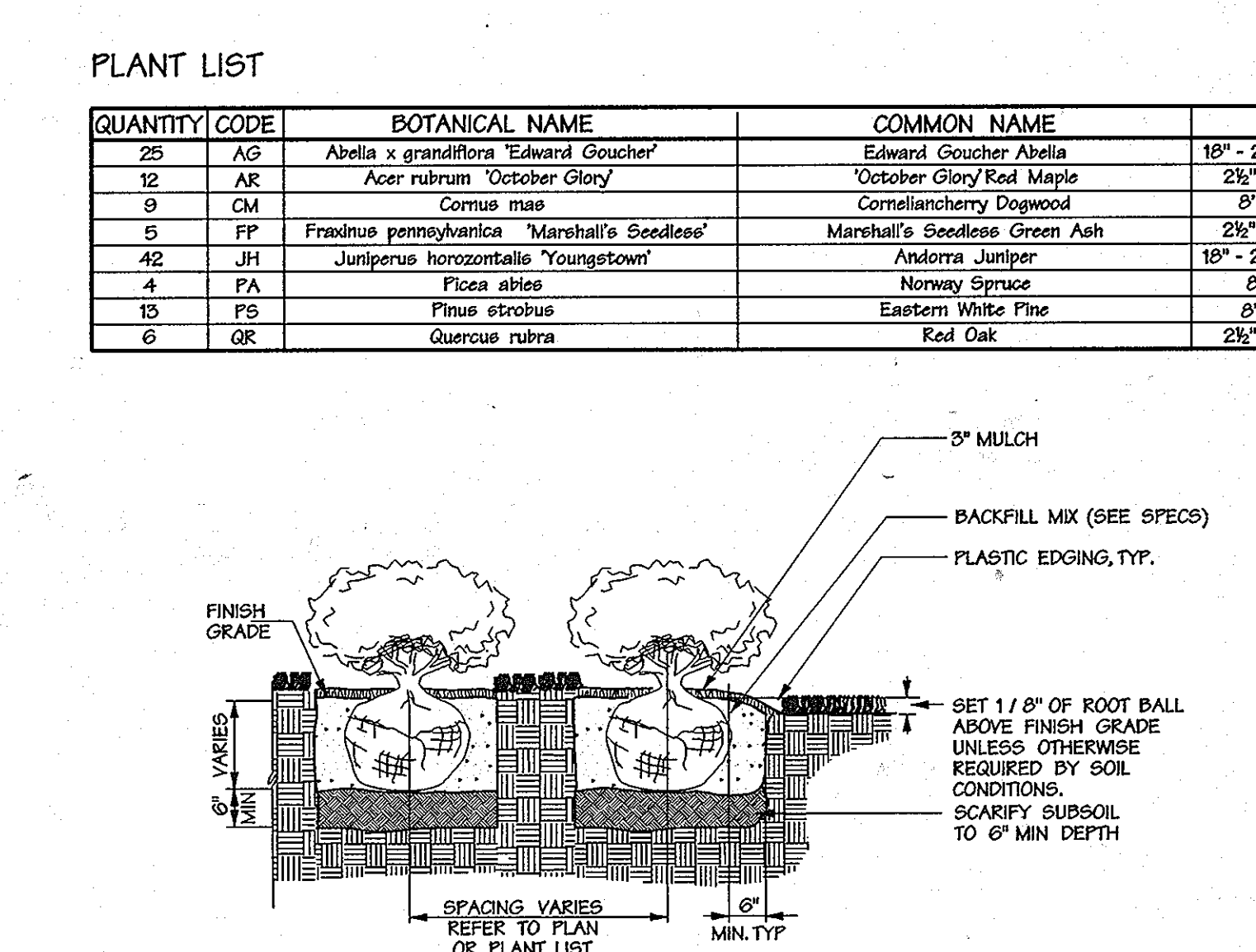
QUANTITY	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
25	A2	<i>Abelia x grandiflora</i> 'Edward Goucher'	Edward Goucher Abelia	18" - 24" SPREAD	#2 CAN
12	AR	<i>Acer rubrum</i> 'October Glory'	'October Glory' Red Maple	2 1/2" - 3" CAL.	B & B, FULL HEAD
9	CM	<i>Cornus mas</i>	Corneliancherry Dogwood	8" - 10" HT.	B & B
5	FP	<i>Fraxinus pennsylvanicum</i> 'Marshall's Seedless'	Marshall's Seedless Green Ash	2 1/2" - 3" CAL.	B & B
42	JH	<i>Juniperus horizontalis</i> 'Youngstown'	Andorra Juniper	18" - 24" SPREAD	CONTAINER
4	PA	<i>Picea abies</i>	Norway Spruce	8" - 10" HT.	B & B
10	PS	<i>Pinus strobus</i>	Eastern White Pine	8" - 10" HT.	B & B, NATURAL
6	QR	<i>Quercus rubra</i>	Red Oak	2 1/2" - 3" CAL.	B & B, FULL HEAD



TREE PLANTING 2 1/2" - 3" CALIPER NOT TO SCALE



EVERGREEN TREE PLANTING NOT TO SCALE



SHRUB BED PLANTING NOT TO SCALE

ELKRIDGE SELF STORAGE

OWNER / DEVELOPER
Elkridge Self Storage LLC,
c/o Cooper & Associates, Ltd.
1543 Morse Road
Forest Hill, Maryland 21050

DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 390-3333
Fax 396-4706

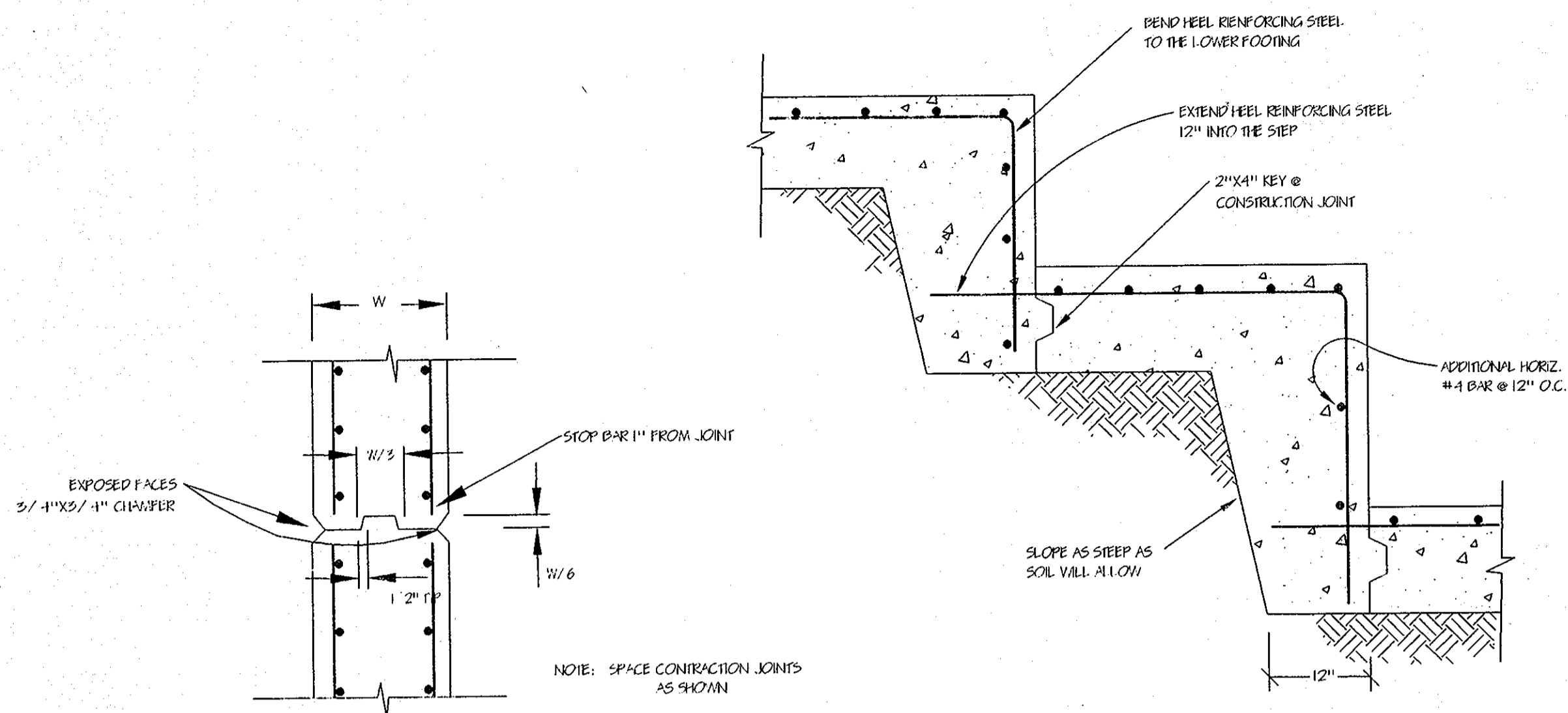
SUBDIVISION NAME	SECTION	SECTION NUMBER	DATE	DATE
N/A	N/A	N/A		
1546/481	4	M-2	43	1

LANDSCAPE PLAN

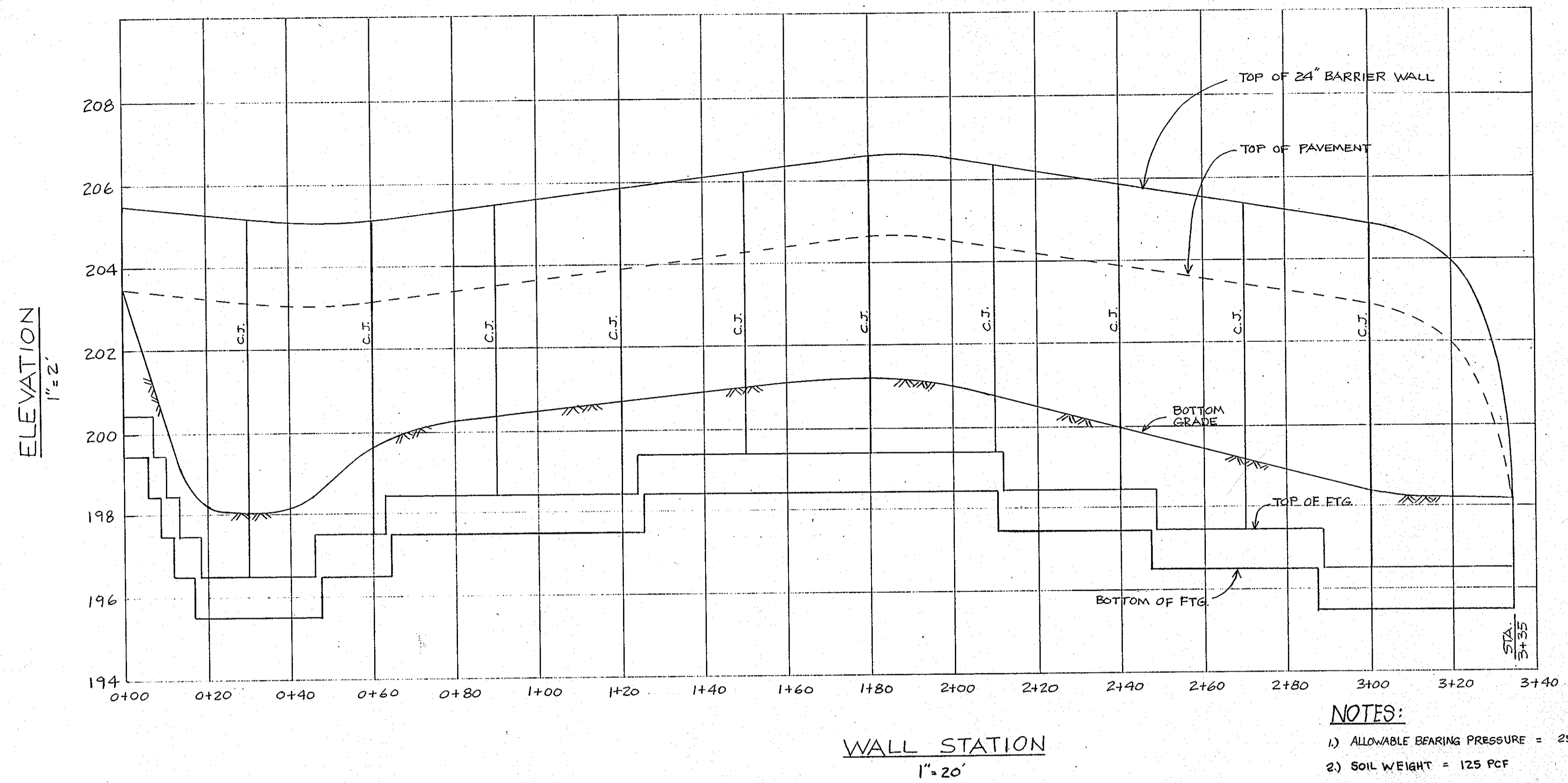
Des By	CSC	Scale	1"=30'	Proj. No.	97107.A
Dim By	CSC, M55	Date	JULY 28, 1998		
Chk By	Approved				14 OF 15

SDP-98-93

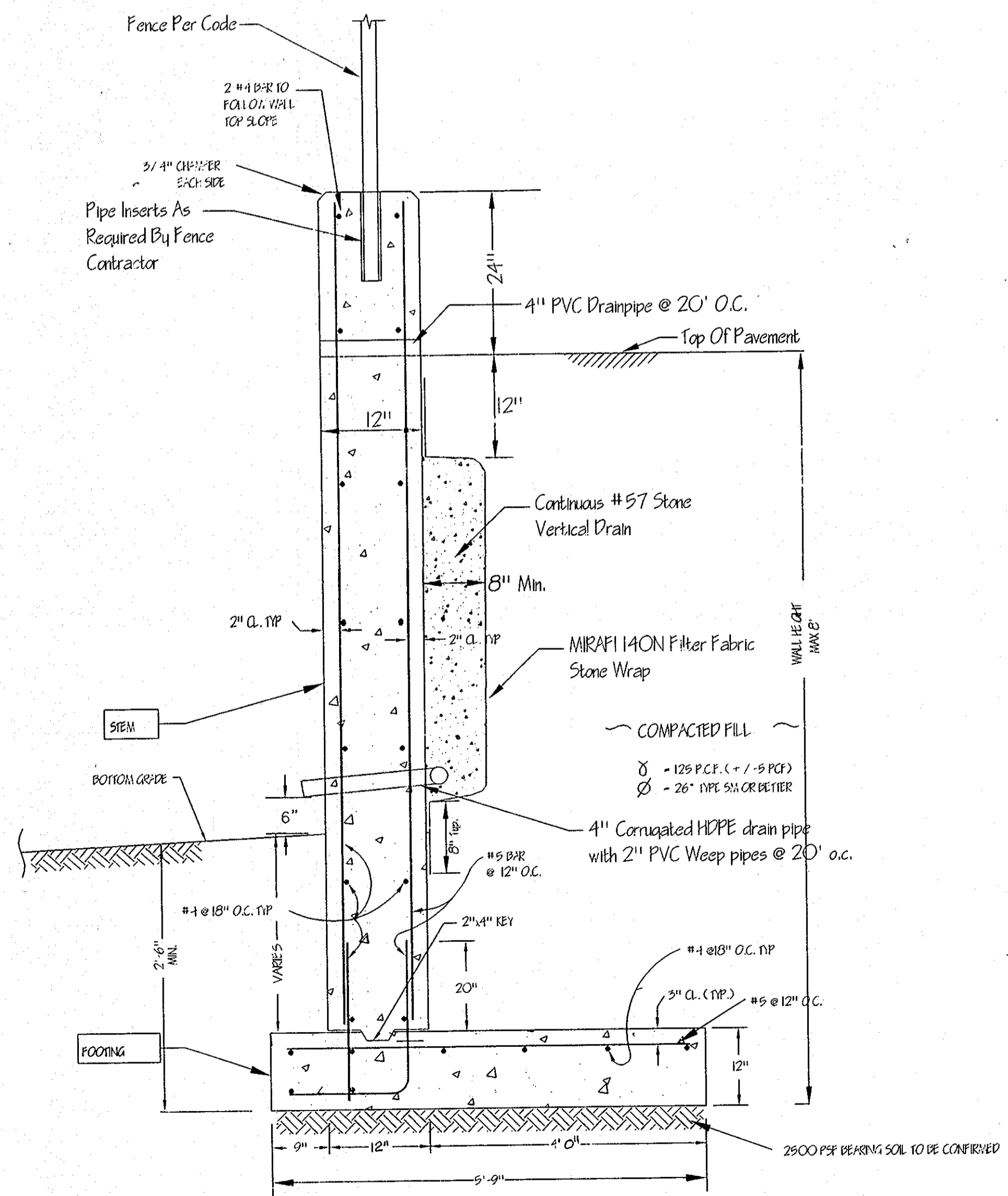
LANDSCAPE ARCHITECT #



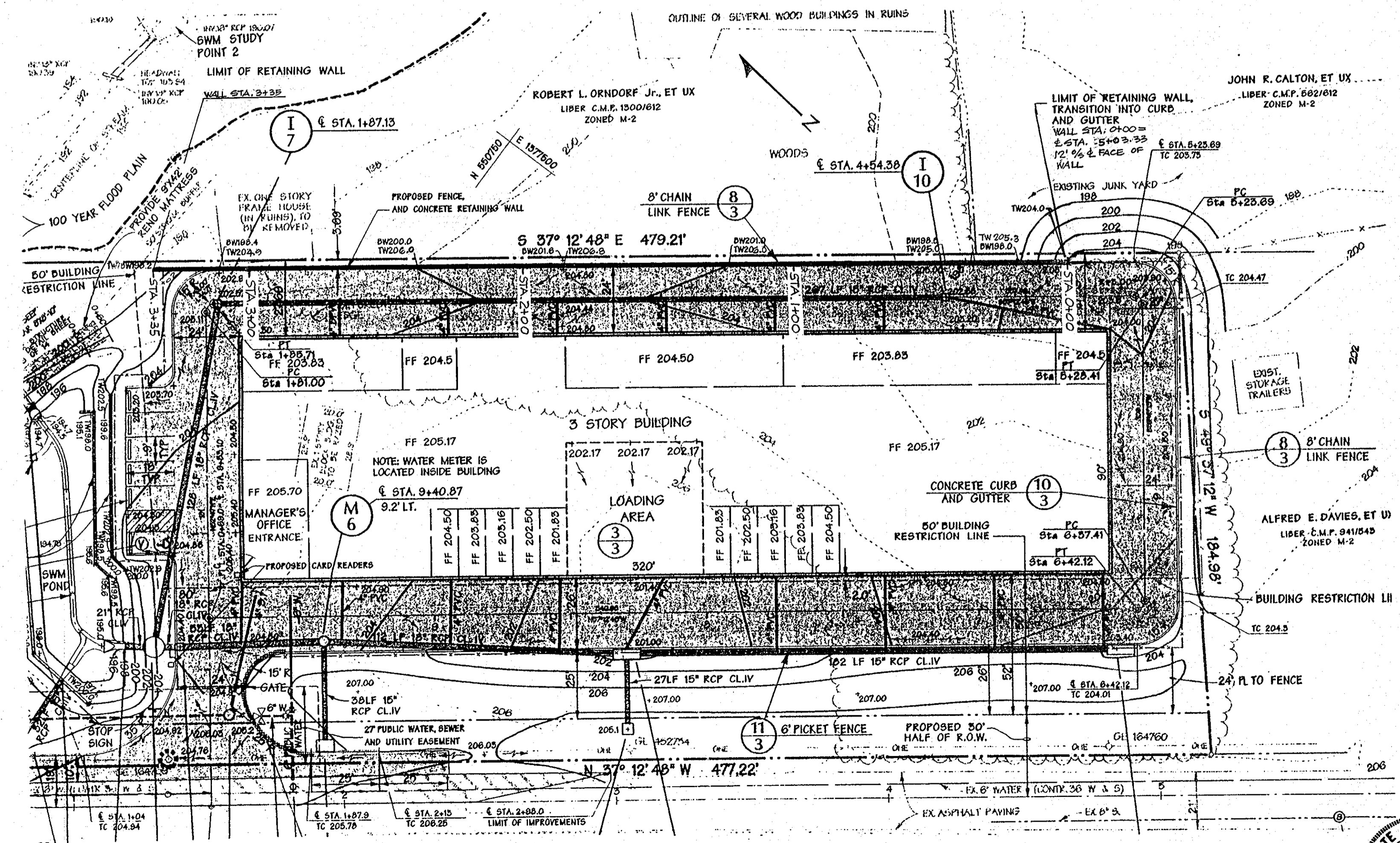
WALL STEM VERTICAL CONTRACTION JOINT C.J. DETAIL
NOT TO SCALE



- NOTES:**
- 1) ALLOWABLE BEARING PRESSURE = 2300 PSF
 - 2) SOIL WEIGHT = 125 PCF
 - 3) LIVE LOAD = 250 PSF
 - 4) SERVICE LOAD DESIGN METHOD = ULTIMATE LOAD METHOD
 - 5) MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED WITH THE EXCEPTION OF THE BARS AT THE BOTTOM OF ALL FOOTINGS WHICH SHALL HAVE A 3" MIN. COVER.
 - 6) ALL RETAINING WALL CONCRETE SHALL BE 4000 PSI WITH AIR ENTRAINMENT.
 - 7) REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60.
 - 8) WALL BACKFILL SHALL BE COMPACTED TO 95% OF T-99.
 - 9) CONCRETE WORK SHALL COMPLY WITH THE LATEST ACI 318 BUILDING CODE FOR CONCRETE STRUCTURES.
 - 10) ALL REBAR SPLICES NOT SHOWN SHALL BE A MINIMUM 40 BAR DIAM.
 - 11) ALL WALL EXPOSED SURFACES SHALL BE MORTAR PATCHED AND SACK RUBBED FINISHED WITH GROUT AND BLUE-AP.



WALL SECTION
NOT TO SCALE



WALL LOCATION PLAN
1" = 30'

Approved: <i>John R. Calton, ET UX</i> 9/5/98 Chief, Development Engineering Division	
Approved: <i>Cindy Hamilton</i> 9/5/98 Chief, Development of Land Development	
Approved: <i>Alfred E. Davies, ET UX</i> 9/9/98 Director	
Date	Revision Description
ELKRIDGE SELF STORAGE OWNER: Surinder S. Chandok DEVELOPER: ElkrIDGE Self Storage LLC, c/o Cooper and Associates, LTD. 738 Airport Blvd, Suite 515, 1513 Morse Road, Ann Arbor, Michigan 48108 Forest Hill, Maryland 21050	
Driveway Retaining Wall Details Daft, McCune & Walker, Inc. 200 East Pennsylvania Avenue, Towson, MD 21286	
Hillis-Carnes Engineering Associates, Inc. 12011 Guilford Road Suite 106, Annapolis Junction, Maryland 20701	
Date	Design By
6/15/98	RWS
Project #	Drawn By
98036A	RTS
File Name	Checked By
J/cad/hcea/98036A	RMH
15 of 15	

