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9	RETAINING WALL DETAILS

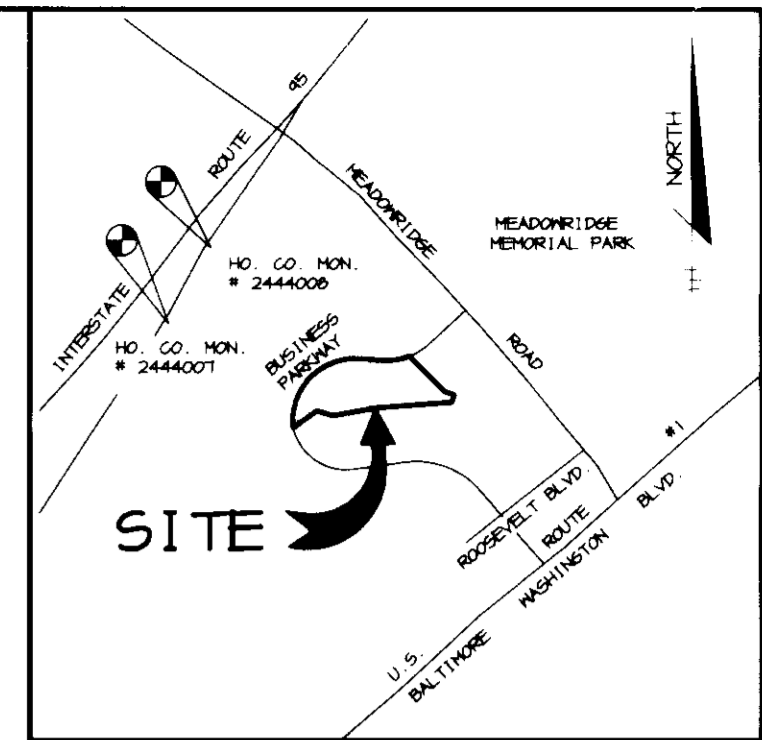
SITE DEVELOPMENT PLAN

MEADOWRIDGE BUSINESS PARK

PARCEL J-2

1st ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES

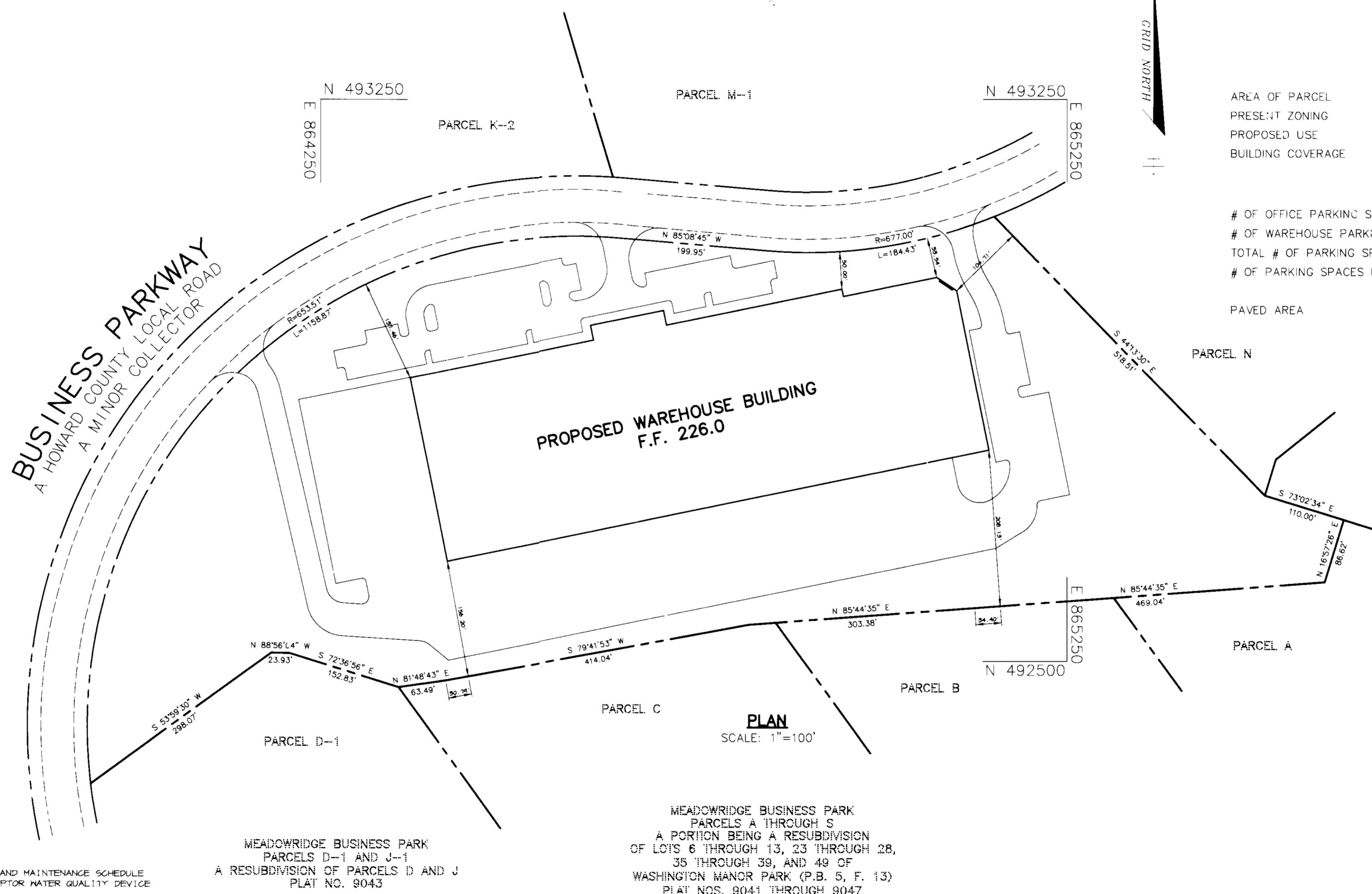
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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 SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB AND FACE OF BUILDING UNLESS OTHERWISE NOTED.
- A PORTION OF THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY WINGS, INC. DATED FEBRUARY, 1994. THE REMAINDER IS THE PROPOSED GRADING UNDER GP-96-156.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 305 AND 306 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 14-1946-D.
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATAPSCO CONTRACT NO. 14-1946-D.
- THE STORMWATER MANAGEMENT FACILITY PROPOSED FOR THIS SITE IS EXISTING UNDER F-89-163. THE FACILITY IS AN EXTENDED DETENTION POND AND IS PRIVATELY MAINTAINED. WATER QUALITY MANAGEMENT IS ALSO PROVIDED ON-SITE BY STORMCEPTORS PRIOR TO RELEASE TO EXISTING WETLANDS.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. 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 IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- A 100-YEAR FLOODPLAIN STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE WETLANDS DELINEATION FOR THIS PROJECT IS FROM RECORDED PLAT NOS. 9043 AND 9045.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS PROJECT.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- THE GEOTECHNICAL STUDY FOR THIS PROJECT WAS PREPARED BY FCS LTD DATED MAY, 1996.
- THE BOUNDARY SURVEY FOR THIS PROJECT IS BASED ON PREVIOUSLY RECORDED PLAT NOS. 9043, 9045.
- SUBJECT PROPERTY ZONED M-1 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS. WP-91-100, WP-96-108, F-89-163, GP-96-156, F-96-159, SDP-96-135.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (3) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS "C" AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T100.
- NOTES ON WP-91-100:
 - AS OF MARCH 1, 1991, THE PLANNING DIRECTOR GRANTED APPROVAL TO THE REQUEST TO WAIVE SECTION 16.116(C)(6) WHICH PROHIBITS GRADING OR REMOVAL OF VEGETATION WITHIN 25 FEET OF A WETLAND.
 - THE WAIVER APPLIES TO THE FIRST SDP'S ON CURRENTLY UNDEVELOPED SITES WITHOUT APPROVED SDP'S AND NOT TO SUBSEQUENT EXPANSIONS OF USE ON ANY PARCEL WITHIN 25 FEET OF A WETLAND.
 - THE PREVIOUS MASS GRADING PLAN FOR PARCELS J-1 AND L (GP-96-156) DID NOT CONSTITUTE A SITE DEVELOPMENT PLAN THUS ALLOWING THIS PLAN TO DISTURB THE WETLANDS BUFFER.
- NOTES ON WP-96-108:
 - AS OF MAY 1, 1996, THE PLANNING DIRECTOR GRANTED APPROVAL TO THE REQUEST TO WAIVE SECTION 16.155(A)(2) WHICH REQUIRES AN APPROVED SITE DEVELOPMENT PLAN FOR GRADING AND CONSTRUCTION OF A BUILDING ON AN INDUSTRIAL PARCEL SUBJECT TO THE FOLLOWING:
 - A SIGNATURE APPROVAL FROM THE HOWARD SOIL CONSERVATION DISTRICT IS OBTAINED, AND
 - GRADING CANNOT OCCUR IN THE WETLANDS.
- A WETLANDS PERMIT HAS BEEN OBTAINED FOR THIS PROJECT.

BENCHMARKS

BM 305	P.K. NAIL SET IN CURB
N 491,838	E 865,271
BM 306	P.K. NAIL SET IN CURB
N 491,795	E 865,607

SITE ANALYSIS

AREA OF PARCEL	16.40 ACRES
PROPOSED ZONING	M-1
PROPOSED USE	WAREHOUSE
BUILDING COVERAGE	OFFICE 5000 SF
	WAREHOUSE 180,243 SF
	TOTAL 185,243 SF (25.9% OF SITE)
# OF OFFICE PARKING SPACES REQ'D @ 3.3 SP/1000 SF	17
# OF WAREHOUSE PARKING SPACES REQ'D @ .50 SP/1000 SF	91
TOTAL # OF PARKING SPACES REQ'D	108
# OF PARKING SPACES PROVIDED	126 CARS (INCL. 5 HC)
	60 TRAILER SPACES
PAVED AREA	223,714 SF (31.3% OF SITE)

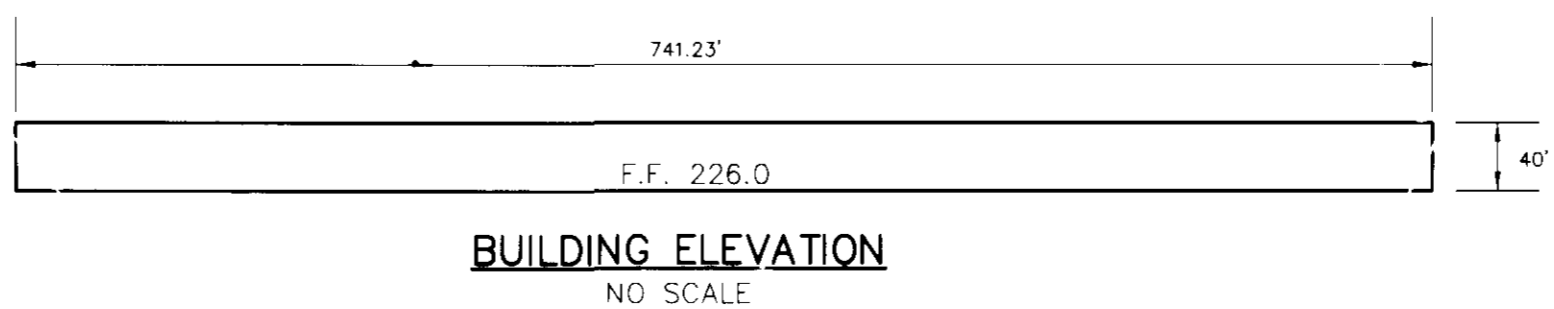


PLAN
SCALE: 1"=100'

MEADOWRIDGE BUSINESS PARK
PARCELS A THROUGH S
A PORTION BEING A RESUBDIVISION
OF LOTS 6 THROUGH 13, 23 THROUGH 28,
35 THROUGH 39, AND 49 OF
WASHINGTON MANOR PARK (P.B. S, F. 13)
PLAT NOS. 9041 THROUGH 9047

OPERATION AND MAINTENANCE SCHEDULE
FOR STORMCEPTOR WATER QUALITY DEVICE

- Stormceptor water quality structures will require periodic inspection and cleaning to maintain operation and function. Owners will have the Stormceptor unit inspected yearly or as required by Howard County, utilizing the Stormceptor Inspection/Monitoring Form. Inspections can be done by using a clear Plexiglas tube ("sludge judge") to extract a water column sample. When sediment depths exceed the specified level (Table 6 of Technical Manual) then cleaning of the unit is required.
- Stormceptor water quality structures must be checked and cleaned immediately after petroleum spills. Contact appropriate regulatory agencies.
- Maintenance of Stormceptor units should be done by a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons, and other materials in the unit. The proper cleaning and disposal of the removed materials and liquid must be followed.
- Inlet and outlet pipes must be checked for any obstructions and if any obstructions are found they must be removed. Structural parts of the Stormceptor will be repaired as needed.
- Owner shall retain and make Stormceptor Inspection/Monitoring Forms available to Howard County officials upon their request.



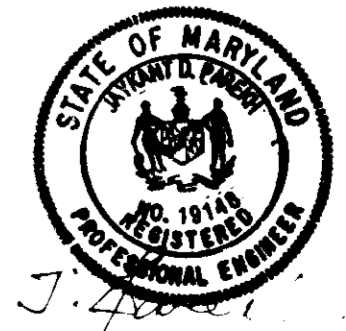
BUILDING ELEVATION
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Mark S. ...</i>	8/22/97
DIRECTOR (Acting)	DATE
<i>...</i>	8/23/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Condy Hamilton</i>	8/28/97
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DATE	NO.	REVISION
OWNER:		
SECURITY CAPITAL INDUSTRIAL TRUST 5200 EISENHOWER AVENUE, SECOND FLOOR ALEXANDRIA, VIRGINIA 22304 (703) 751-4242		
PROJECT: MEADOWRIDGE BUSINESS PARK PARCEL J-2 A WAREHOUSE BUILDING		
AREA: TAX MAP NO. 37 PARCEL J-2 1st ELECTION DISTRICT ZONED M-1 HOWARD COUNTY, MARYLAND		
TITLE: TITLE SHEET		

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282

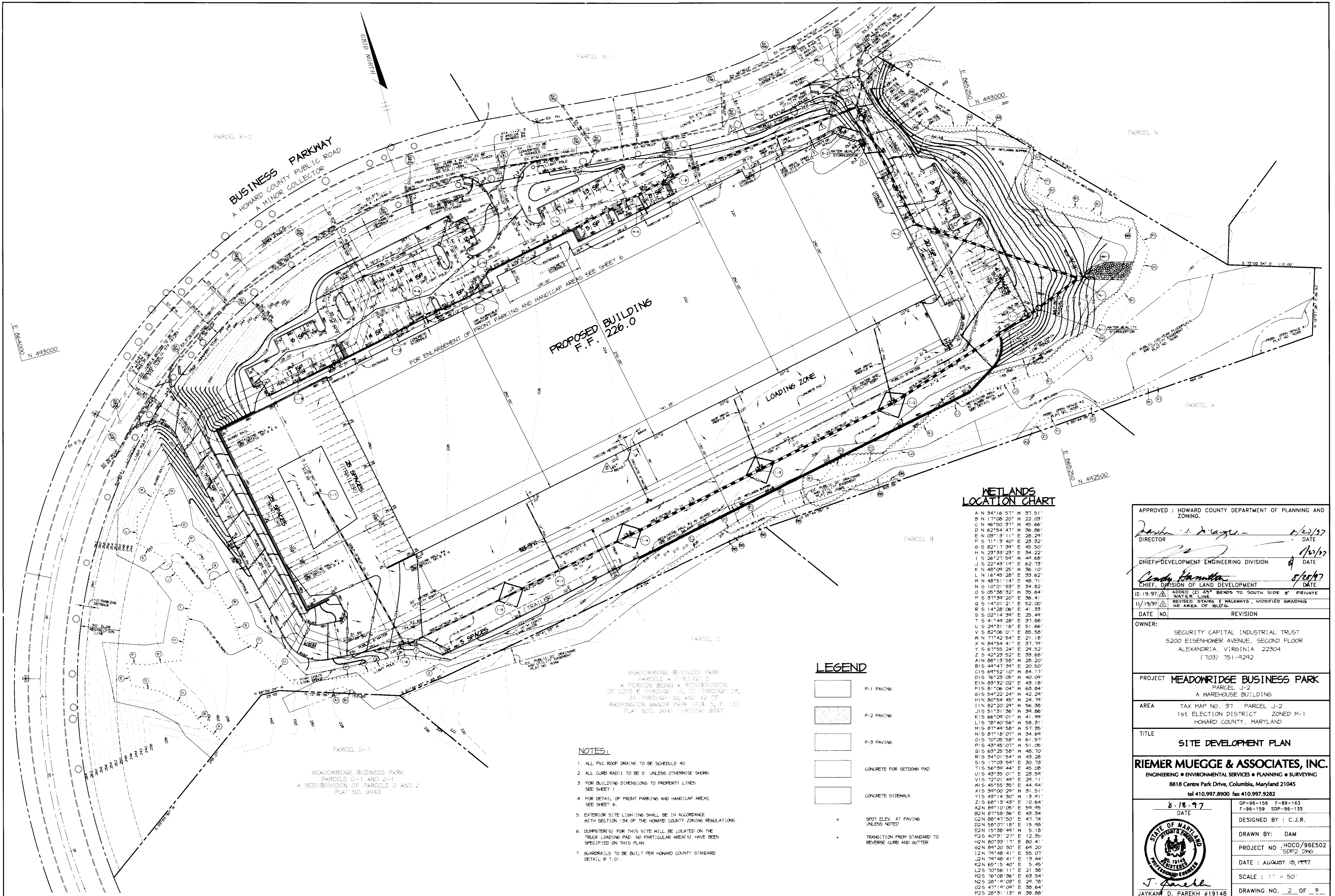
8/18/97	DATE	GP-96-156 F-89-163 F-96-159 SDP-96-135
DESIGNED BY: C.J.R.		
DRAWN BY: DAM		
PROJECT NO.: HOCO/96E502 SDP1.DWG		
DATE: AUGUST 10, 1997		
SCALE: 1" = 100'		
DRAWING NO. 1 OF 9		



JAYKANT D. PAREKH #19148

ADDRESS CHART	
PARCEL	STREET ADDRESS
J-2	6635 BUSINESS PARKWAY

SUBDIVISION NAME - MEADOWRIDGE BUSINESS PARK	SECT. AREA -	PARCEL - J-2
PLAT # - 12199	BLOCK # - 22	ZONING - M-1
TAX MAP NO. -	ELECT. DIST. - 1st	CENSUS TRACT - 6012
WATER CODE - B01	SEWER CODE -	2153000



PROPOSED BUILDING
F.F. 226.0

WETLANDS LOCATION CHART

A	N 34°16'57"	N 31°51'
B	N 17°08'20"	N 22°09'
C	N 46°50'37"	N 45°66'
D	N 62°54'47"	N 36°86'
E	N 23°13'11"	N 28°20'
F	N 71°13'40"	N 25°32'
G	N 82°17'34"	N 45°50'
H	N 29°33'23"	N 34°22'
I	N 26°12'58"	N 44°68'
J	N 22°43'14"	N 62°73'
K	N 48°04'25"	N 36°10'
L	N 16°45'28"	N 33°62'
M	N 48°51'14"	N 48°71'
N	N 10°01'53"	N 34°82'
O	N 05°38'32"	N 35°64'
P	N 37°34'20"	N 36°41'
Q	N 14°01'21"	N 52°00'
R	N 14°28'06"	N 41°33'
S	N 02°14'34"	N 25°44'
T	N 41°44'28"	N 37°88'
U	N 24°31'16"	N 51°66'
V	N 82°06'01"	N 85°58'
W	N 77°42'54"	N 21°18'
X	N 84°54'41"	N 37°74'
Y	N 61°55'24"	N 24°52'
Z	N 42°22'52"	N 39°68'
AA	N 08°13'58"	N 28°20'
AB	N 44°47'34"	N 20°50'
AC	N 64°52'10"	N 84°13'
AD	N 76°23'08"	N 40°04'
AE	N 83°32'02"	N 43°18'
AF	N 81°06'04"	N 63°84'
AG	N 54°22'24"	N 42°24'
AH	N 80°54'48"	N 24°78'
AI	N 82°20'24"	N 56°30'
AJ	N 51°31'36"	N 34°86'
AK	N 66°04'01"	N 41°44'
AL	N 78°40'50"	N 58°31'
AM	N 81°44'58"	N 57°35'
AN	N 81°18'07"	N 34°64'
AO	N 70°05'58"	N 61°57'
AP	N 43°48'07"	N 51°08'
AQ	N 63°25'58"	N 48°70'
AR	N 34°01'54"	N 43°28'
AS	N 17°03'54"	N 30°73'
AT	N 36°38'44"	N 45°08'
AU	N 43°35'01"	N 23°54'
AV	N 72°01'44"	N 24°11'
AW	N 45°55'35"	N 44°44'
AX	N 34°00'28"	N 31°51'
AY	N 43°14'30"	N 13°41'
AZ	N 68°13'43"	N 10°64'
BA	N 84°10'05"	N 54°85'
BB	N 87°58'36"	N 43°34'
BC	N 88°47'50"	N 41°74'
BD	N 58°07'18"	N 15°48'
BE	N 15°38'44"	N 5°18'
BF	N 40°31'27"	N 12°35'
BG	N 80°33'17"	N 80°41'
BH	N 84°20'30"	N 64°20'
BI	N 74°48'41"	N 55°07'
BJ	N 74°48'41"	N 13°44'
BK	N 65°15'40"	N 5°45'
BL	N 70°56'11"	N 21°38'
BM	N 76°08'36"	N 63°54'
BN	N 28°14'03"	N 24°78'
BO	N 47°14'04"	N 38°64'
BP	N 28°31'13"	N 38°88'

LEGEND

- P-1 PAVING
- P-2 PAVING
- P-3 PAVING
- CONCRETE FOR SETDOWN PAD
- CONCRETE SIDEWALK
- SPOT ELEV. AT PAVING UNLESS NOTED
- TRANSITION FROM STANDARD TO REVERSE CURB AND GUTTER

NOTES:

1. ALL PVC ROOF DRAINS TO BE SCHEDULE 40.
2. ALL CURB RADIUS TO BE 5' UNLESS OTHERWISE SHOWN.
3. FOR BUILDING DIMENSIONS TO PROPERTY LINES SEE SHEET 1.
4. FOR DETAIL OF FRONT PARKING AND HANDICAP AREAS, SEE SHEET 6.
5. EXTERIOR SITE LIGHTING SHALL BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
6. DUMPSTERS (S) FOR THIS SITE WILL BE LOCATED ON THE TRUCK LOADING PAD. NO PARTICULAR AREAS HAVE BEEN SPECIFIED ON THIS PLAN.
7. GUARDRAILS TO BE BUILT PER HOWARD COUNTY STANDARD DETAIL R T.01.

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David J. Taylor DIRECTOR DATE 8/20/97

Cathy Hamilton CHIEF, DIVISION OF LAND DEVELOPMENT DATE 8/28/97

12-19-97 ADDED (2) 45° BENDS TO SOUTH SIDE 8" PRIVATE WATER LINE. DATE

11/19/97 REVISED STAIRS & WALKWAYS, MODIFIED GRADING IN AREA OF BLDG. DATE

OWNER: SECURITY CAPITAL INDUSTRIAL TRUST
5200 EISENHOWER AVENUE, SECOND FLOOR
ALEXANDRIA, VIRGINIA 22304
(703) 751-9242

PROJECT **MEADOWRIDGE BUSINESS PARK**
PARCEL J-2
A WAREHOUSE BUILDING

AREA TAX MAP NO. 37 PARCEL J-2
1st ELECTION DISTRICT ZONED M-1
HOWARD COUNTY, MARYLAND

TITLE **SITE DEVELOPMENT PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282

8.18.97 DATE

GP-96-156 F-89-163
F-96-159 SDP-96-135

DESIGNED BY : C.J.R.

DRAWN BY: DAM

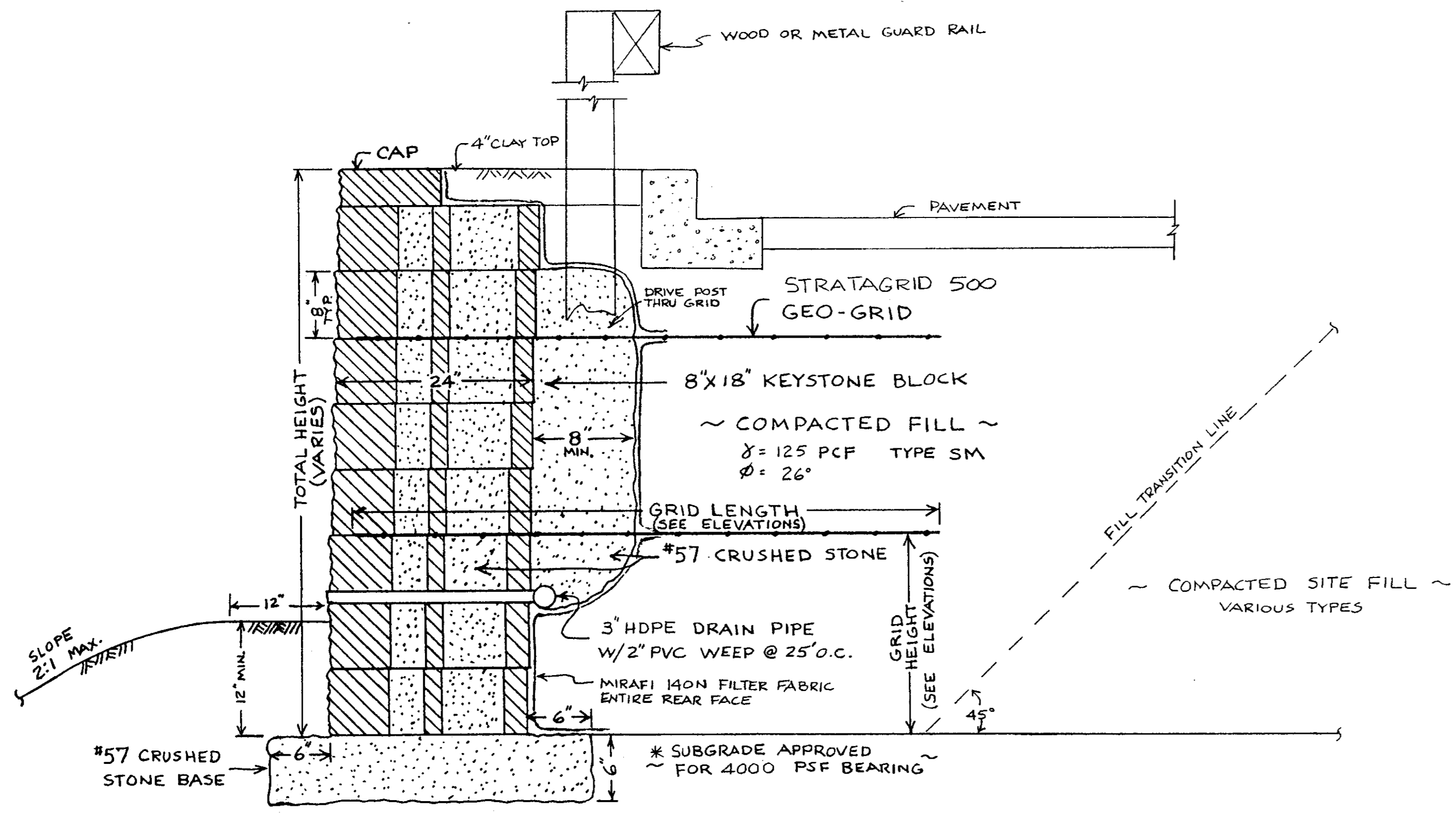
PROJECT NO. HOCO/96E502
SDP2.DWG

DATE : AUGUST 15, 1997

SCALE : 1" = 50'

DRAWING NO. 2 OF 9

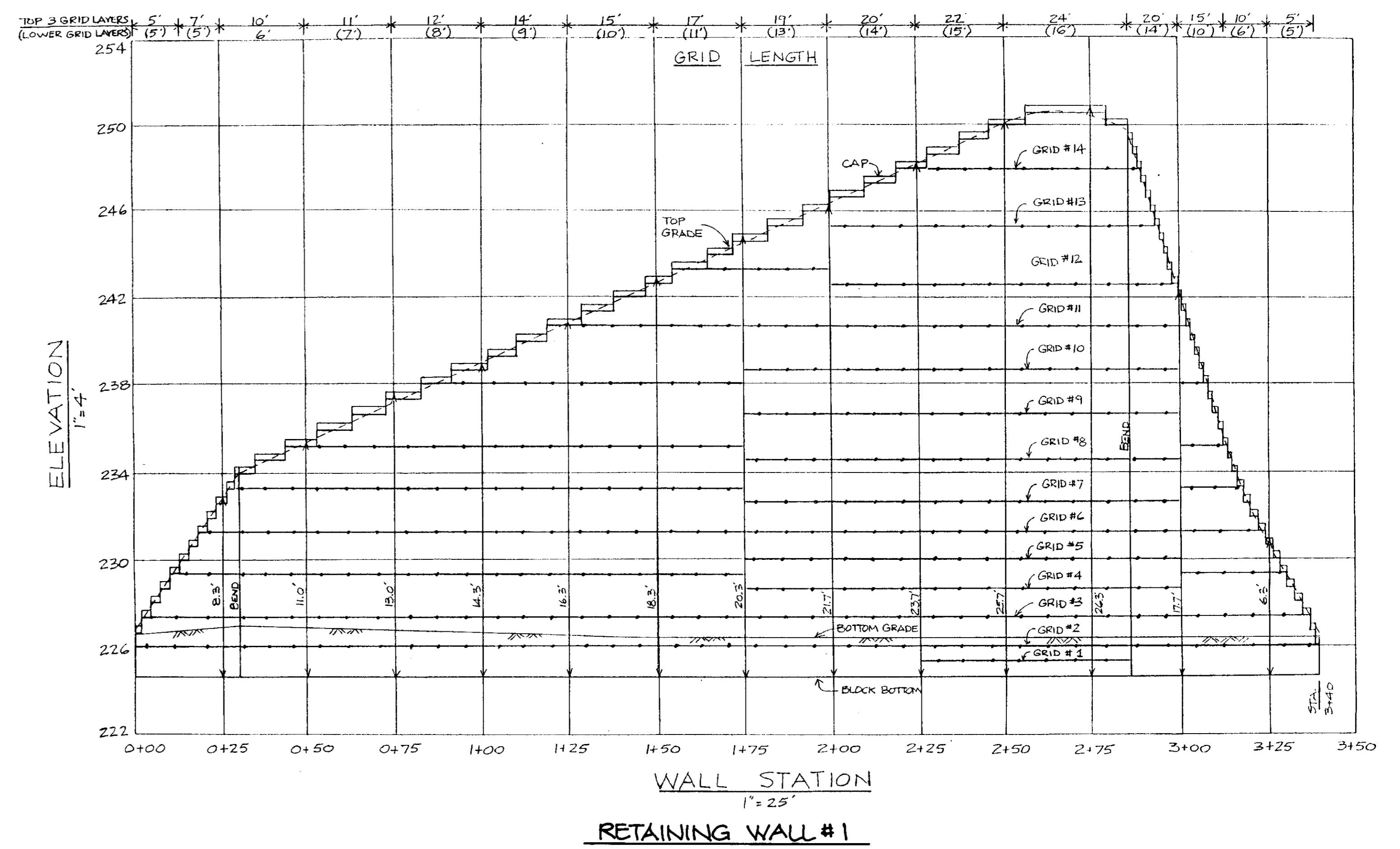
JAYKAM D. PAREKH #19148



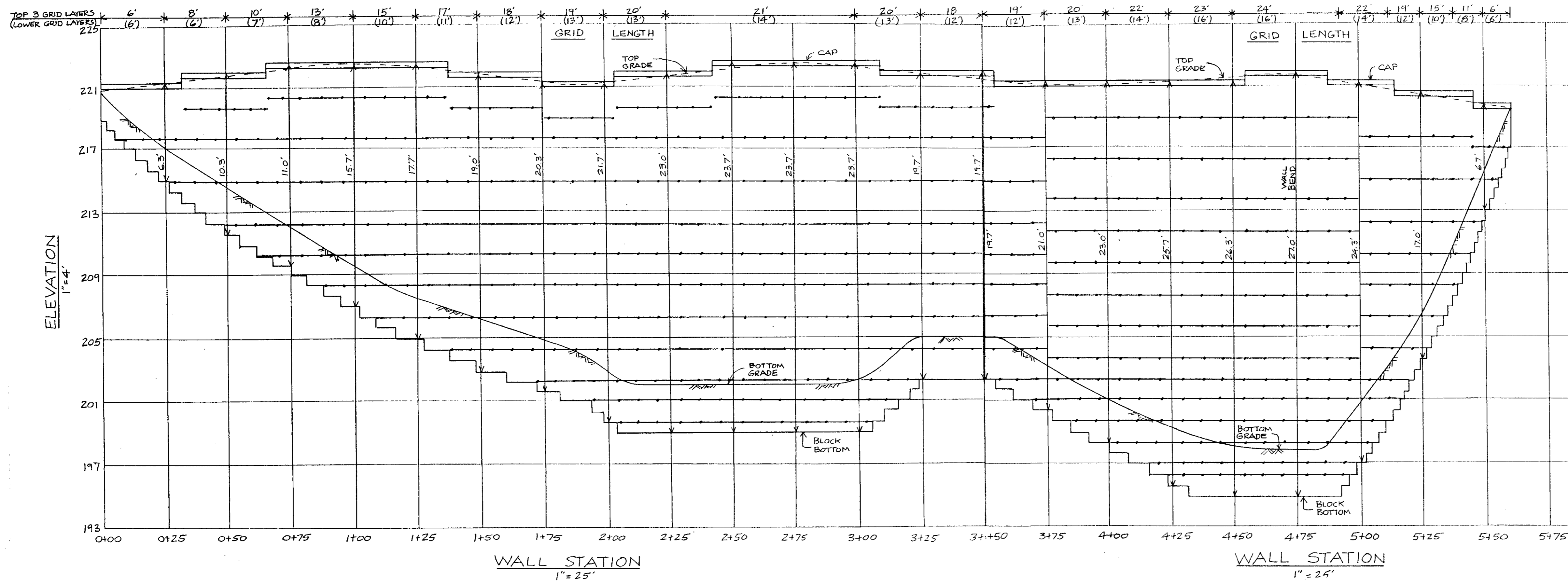
TYPICAL WALL PROFILE

N.T.S.

* NOTE: IF 4000 PSF BEARING IS NOT FOUND UPON EXCAVATION OF FOOTER, THE ON-SITE GEOTECHNICAL ENGINEER SHALL RECOMMEND UNDERCUTTING OR OTHER REMEDIAL MEASURES TO ASSURE 4000 PSF.



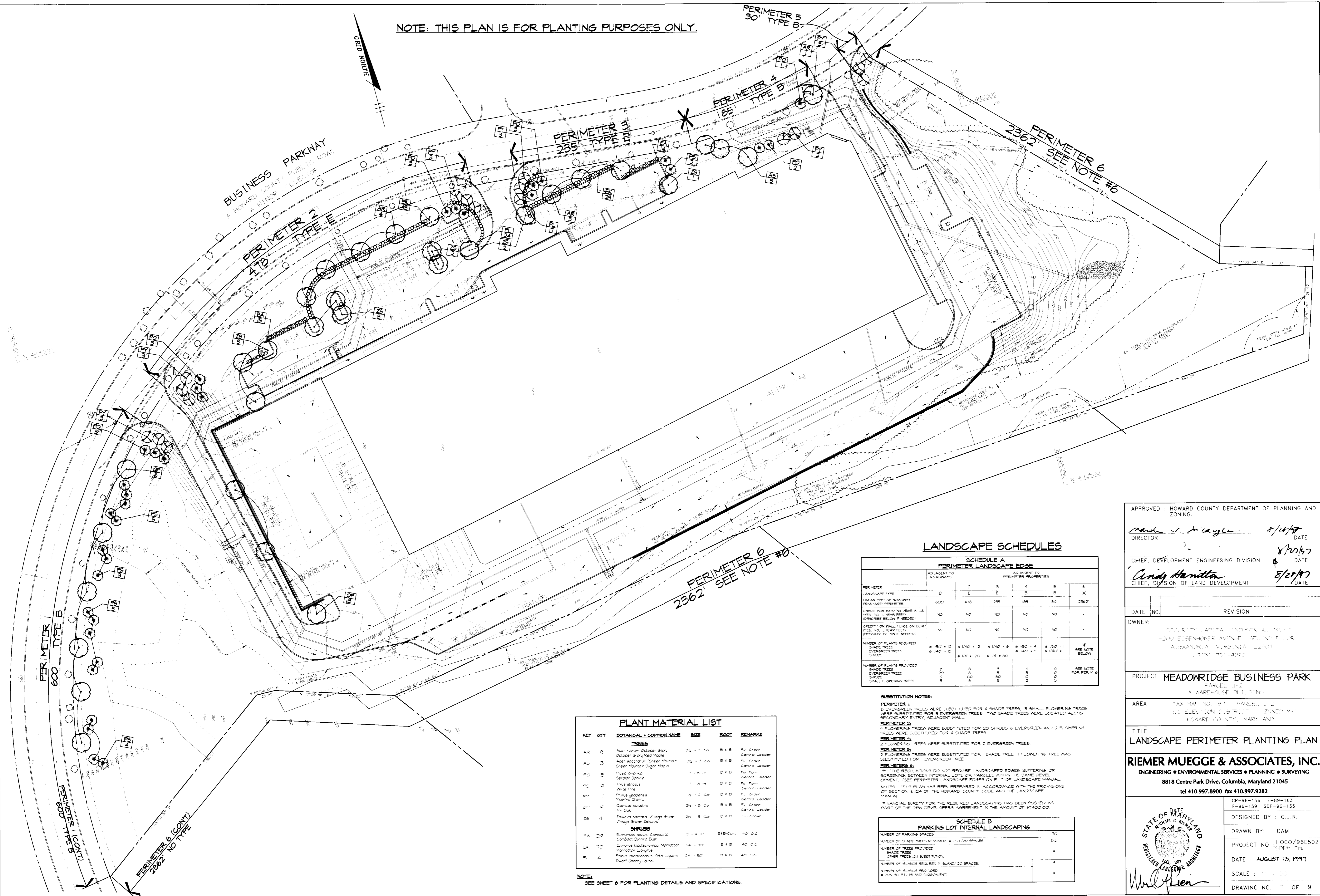
RETAINING WALL #1



RETAINING WALL #2

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James J. H. ...</i> DIRECTOR	8/20/97 DATE
<i>Cindy ...</i> CHIEF, DIVISION OF LAND DEVELOPMENT	8/20/97 DATE
DATE NO.	REVISION
OWNER: SECURITY CAPITAL INDUSTRIAL TRUST 5200 EISENHOWER AVENUE, SECOND FLOOR ALEXANDRIA, VIRGINIA 22304 (703) 751-4242	
PROJECT MEADOWRIDGE BUSINESS PARK PARCEL J-2 A WAREHOUSE BUILDING	
AREA TAX MAP NO. 37 PARCEL J-2 1st ELECTION DISTRICT ZONED M-1 HOWARD COUNTY, MARYLAND	
TITLE RETAINING WALL DETAILS	
RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282	
8/5/97 DATE	GP-96-156 F-89-163 F-96-159
	DESIGNED BY : C.J.R.
	DRAWN BY : DAM
	PROJECT NO. : HOCO/96E502 SDPT.DWG
	DATE : AUGUST 15, 1997
	SCALE : AS SHOWN
	DRAWING NO. : 8 OF 2

NOTE: THIS PLAN IS FOR PLANTING PURPOSES ONLY.



LANDSCAPE SCHEDULES

PER-METER	SCHEDULE A PERIMETER LANDSCAPE EDGE		ADJACENT TO PERIMETER PROPERTIES					
	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES	1	2	3	4	5	6
PER-METER	B	E	B	E	B	B	B	X
LANDSCAPE TYPE	B	E	B	E	B	B	B	X
LINEAR FEET OF ROADWAY FRONTAGE PER-METER	600	478	235	185	30	2362		
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO			
CREDIT FOR FENCE OR BERRY (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO			
NUMBER OF PLANTS REQUIRED								
SHADE TREES	8 1/50 x 12	8 1/40 x 12	8 1/40 x 6	8 1/30 x 4	8 1/50 x 1			SEE NOTE BELOW
EVERGREEN TREES	8 1/40 x 15	8 1/4 x 20	8 1/4 x 60	8 1/40 x 5	8 1/40 x 4			
NUMBER OF PLANTS PROVIDED	8	8	8	8	8			SEE NOTE FOR PERM 6
SHADE TREES	20	6	60	6	6			
EVERGREEN TREES	8	6	6	6	6			
SMALL FLOWERING TREES	8	6	6	6	6			

SUBSTITUTION NOTES:
 PERIMETER 1:
 5 EVERGREEN TREES WERE SUBSTITUTED FOR 4 SHADE TREES, 3 SMALL FLOWERING TREES WERE SUBSTITUTED FOR 3 EVERGREEN TREES. TWO SHADE TREES WERE LOCATED ALONG SECONDARY ENTRY ADJACENT WALL.
 PERIMETER 2:
 4 FLOWERING TREES WERE SUBSTITUTED FOR 2 SHRUBS, 6 EVERGREEN AND 2 FLOWERING TREES WERE SUBSTITUTED FOR 4 SHADE TREES.
 PERIMETER 3:
 2 FLOWERING TREES WERE SUBSTITUTED FOR 2 EVERGREEN TREES.
 PERIMETER 4:
 2 FLOWERING TREES WERE SUBSTITUTED FOR 2 SHADE TREES, 1 FLOWERING TREE WAS SUBSTITUTED FOR 1 EVERGREEN TREE.
 PERIMETER 5:
 2 FLOWERING TREES WERE SUBSTITUTED FOR 2 SHADE TREES, 1 FLOWERING TREE WAS SUBSTITUTED FOR 1 EVERGREEN TREE.
 PERIMETER 6:
 * THE REGULATIONS DO NOT REQUIRE LANDSCAPED EDGES (BUFFERING OR SCREENING) BETWEEN INTERNAL LOTS OR PARCELS WITHIN THE SAME DEVELOPMENT. (SEE PERIMETER LANDSCAPE EDGES ON P. 7 OF LANDSCAPE MANUAL.)
 NOTES: THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.24 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$1400.00

KEY	QTY	BOTANICAL - COMMON NAME	SIZE	ROOT	REMARKS
TREES					
AK	8	Acer nigrum / October Glory	26 - 30	4" B	Fully Crowned
AL	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AO	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AP	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AS	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AV	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AW	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AX	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AY	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
AZ	8	Acer saccharum / Green Mountain	26 - 30	4" B	Fully Crowned
SHRUBS					
EA	20	Eunomia alata / Compact	3 - 4	4" B	40 CC
EB	20	Eunomia alata / Compact	3 - 4	4" B	40 CC
EC	20	Eunomia alata / Compact	3 - 4	4" B	40 CC
ED	20	Eunomia alata / Compact	3 - 4	4" B	40 CC

NOTE:
 SEE SHEET 6 FOR PLANTING DETAILS AND SPECIFICATIONS.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	70
NUMBER OF SHADE TREES REQUIRED @ 1:20 SPACES	35
NUMBER OF TREES PROVIDED	35
SHADE TREES	35
OTHER TREES (2) SUBSTITUTION	0
NUMBER OF ISLANDS REQUIRED (1 ISLAND / 20 SPACES)	4
NUMBER OF ISLANDS PROVIDED	4
NUMBER OF ISLANDS PROVIDED (1 ISLAND / 20 SPACES)	4
NUMBER OF ISLANDS PROVIDED (1 ISLAND / 20 SPACES)	4

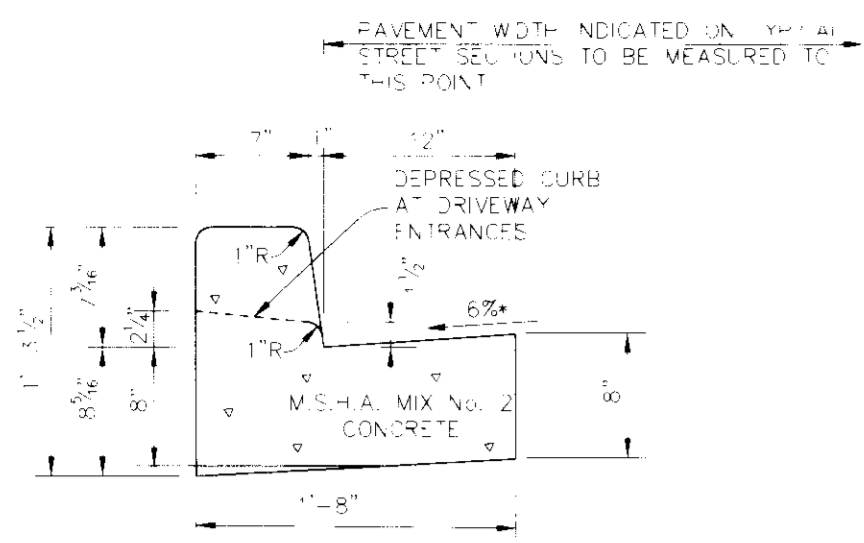
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Director: *W. M. ...* 8/15/97 DATE
 Chief, Development Engineering Division: *...* 8/20/97 DATE
 Chief, Division of Land Development: *...* 8/20/97 DATE

DATE NO. REVISION
 OWNER: SECURITY CAPITAL INDUSTRIAL TRUST
 8200 EISENHOWER AVENUE, SUITE 100
 ALEXANDRIA, VIRGINIA 22304
 (703) 751-4292

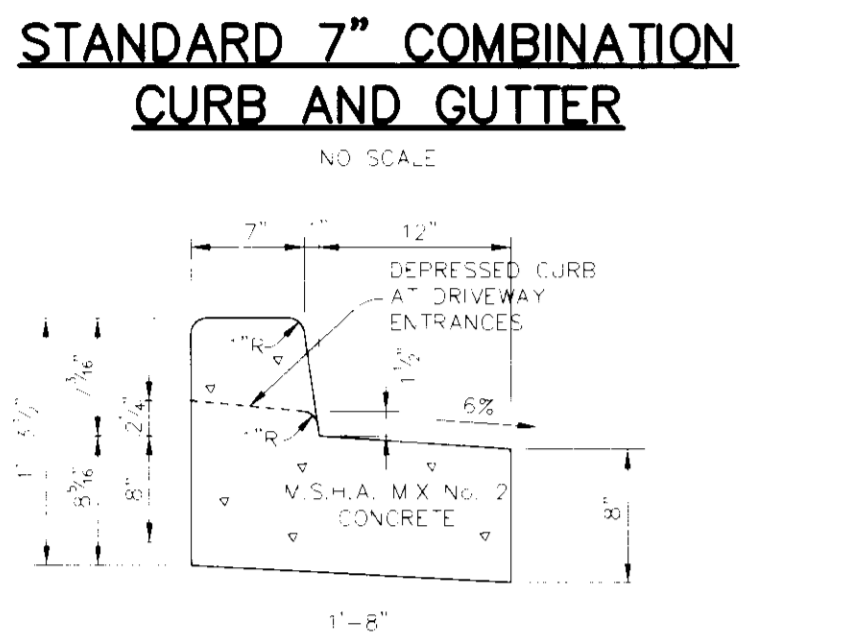
PROJECT: MEADOWRIDGE BUSINESS PARK
 A WAREHOUSE BUILDING
 AREA: TAX MAP NO. 37 PARCEL 1-2
 1ST ELECTION DISTRICT ZONED M-1
 HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE PERIMETER PLANTING PLAN
RIEMER MUEGGE & ASSOCIATES, INC.
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, Maryland 21045
 tel 410.997.8900 fax 410.997.9282

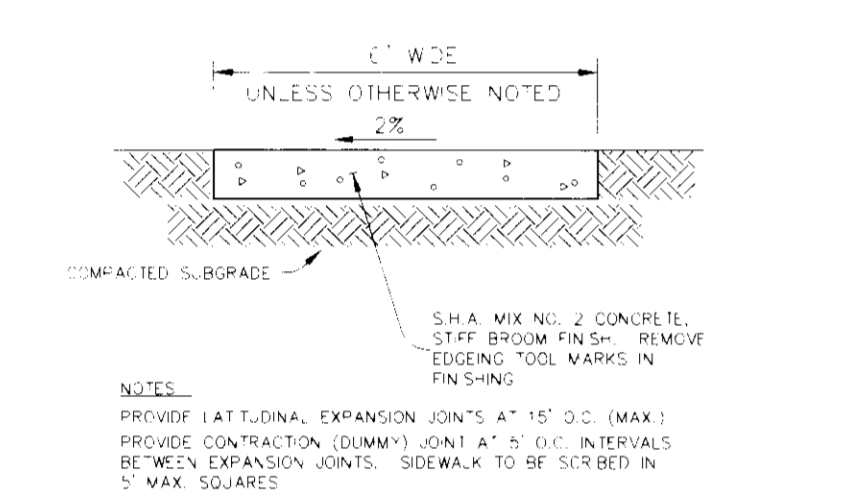
STATE OF MARYLAND
 MICHAEL G. RIEMER
 REGISTERED LANDSCAPE ARCHITECT
 NO. 201
 DATE: AUGUST 12, 1997
 SCALE: 1" = 50'
 DRAWING NO. OF 9



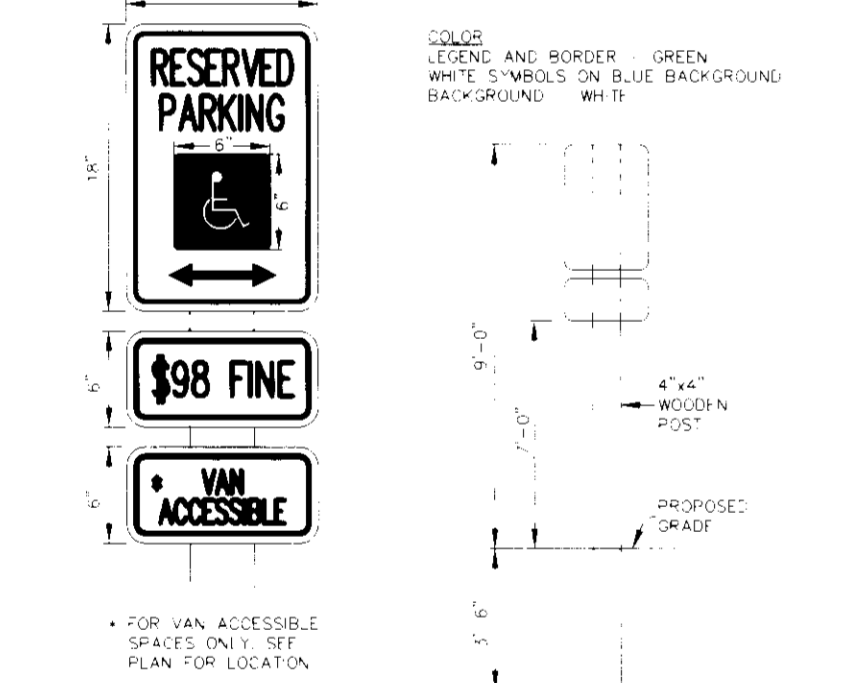
STANDARD 7" COMBINATION CURB AND GUTTER
NO SCALE



REVERSE 7" COMBINATION CURB AND GUTTER
NO SCALE

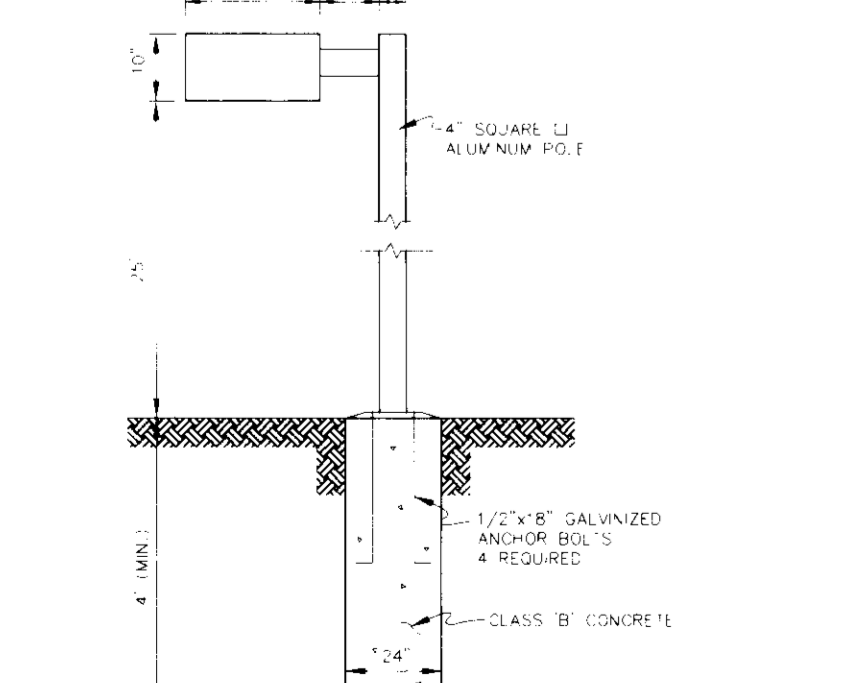


SIDEWALK DETAIL
NO SCALE

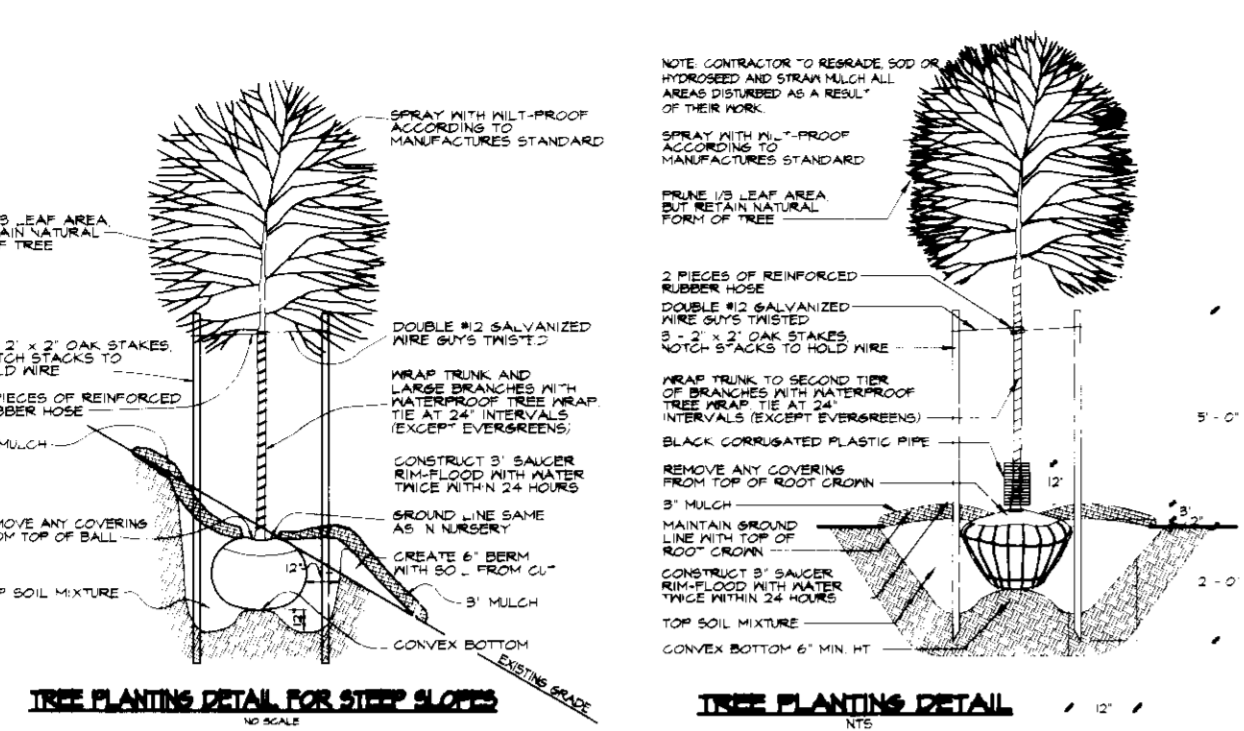
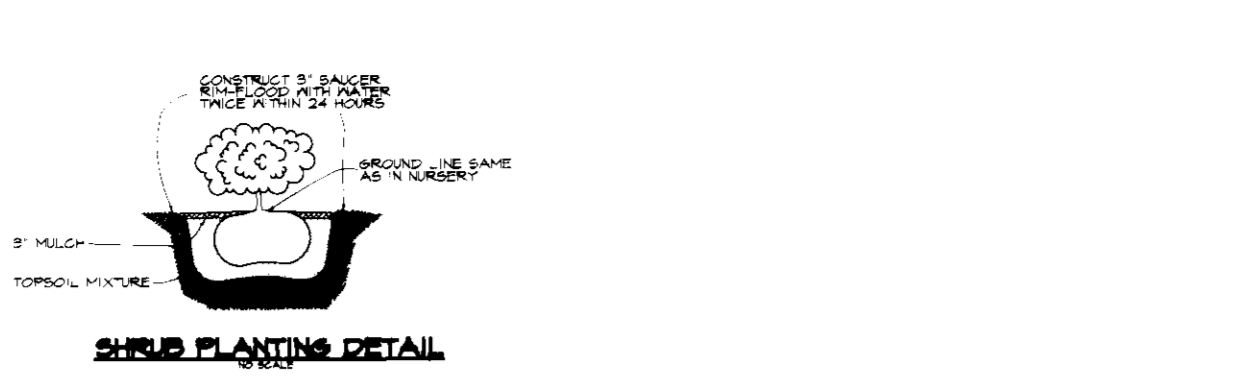


HANDICAP SIGN DETAIL
NO SCALE

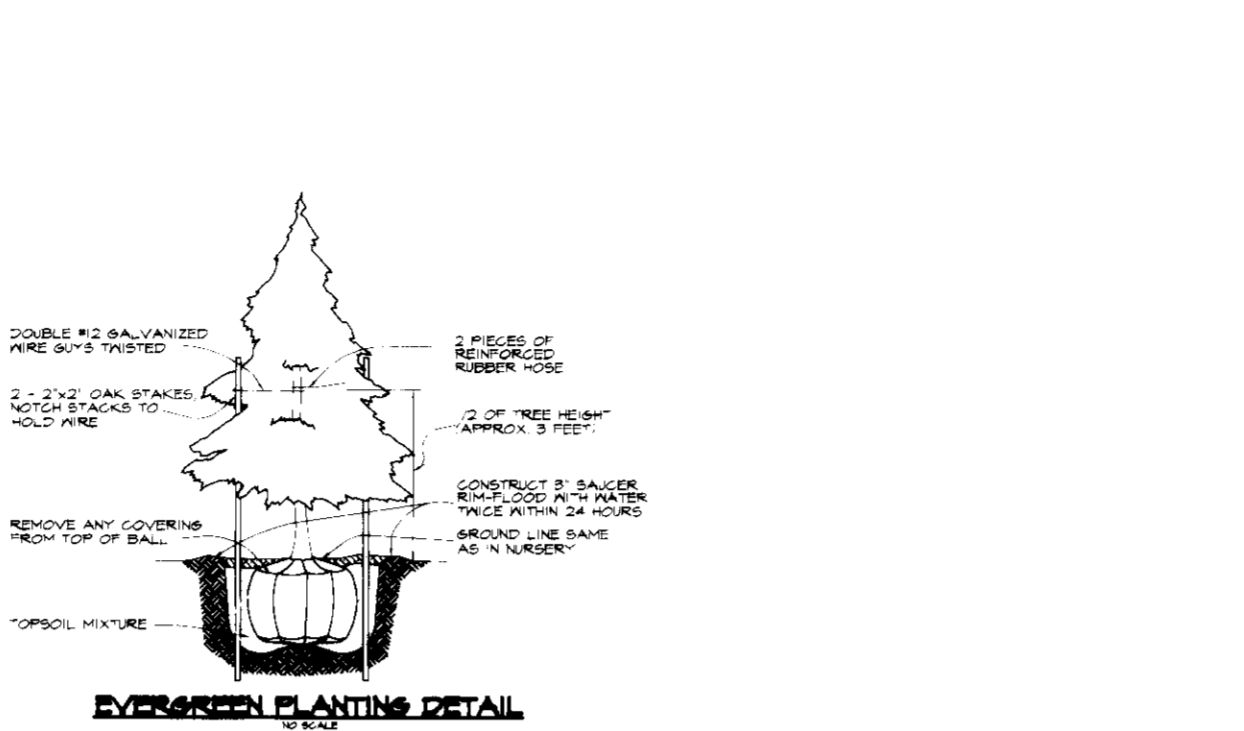
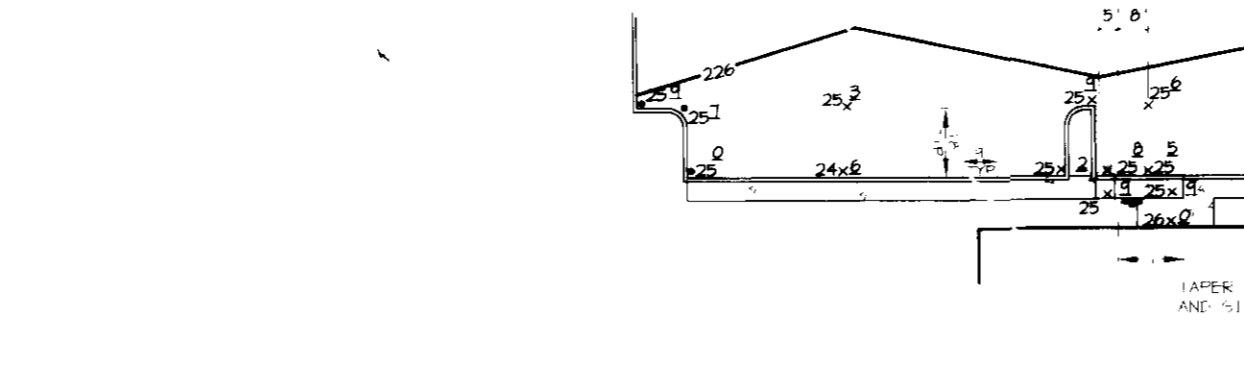
- ALL LIGHT FIXTURES TO BE SINGLE LUMINAIRE 400 WATT MERCURY VAPOR WITH METAL POLES AND DIRECTED DOWNWARD.
- LOCATIONS OF LIGHT FIXTURES ARE ON THE PLAN AND ARE SHOWN THIS WAY.
- LIGHTS TO BE MODULE TYPE AS MANUFACTURED BY MOLDCAST OR APPROVED EQUAL.
- POLE AND FIXTURE TO HAVE BLACK POLYESTER ENAMEL FINISH.
- POLE TO BE LOCATED 3" BACK FROM BACK OF CURB.



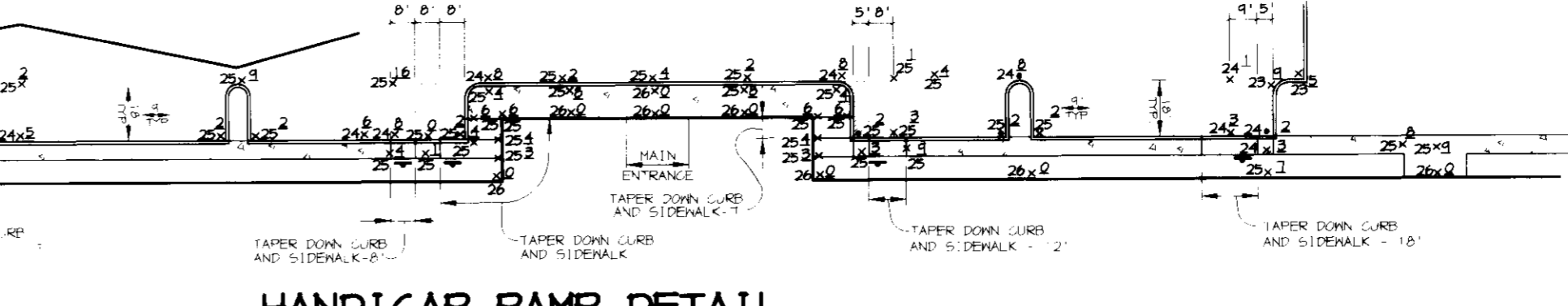
LIGHT POLE DETAIL
NO SCALE



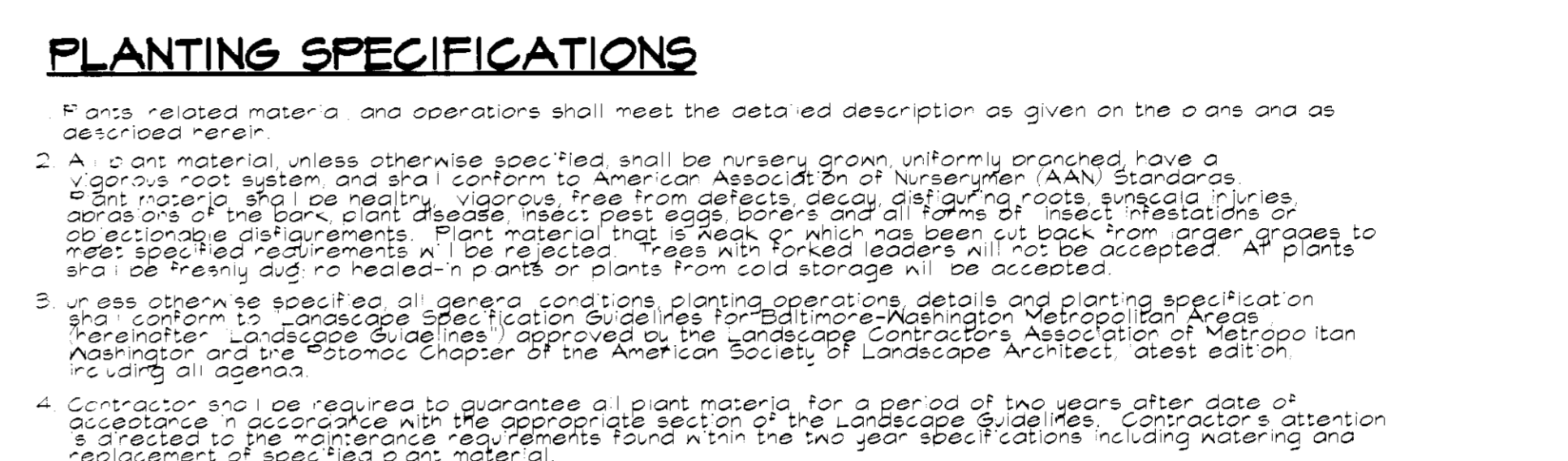
SHRUB PLANTING DETAIL
TREE PLANTING DETAIL



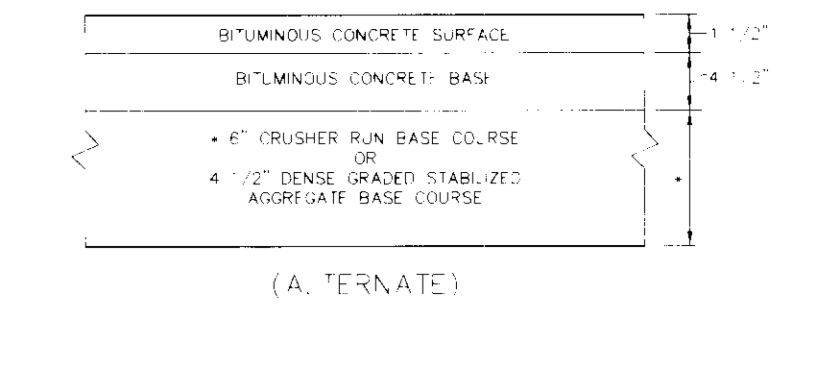
HANDICAP RAMP DETAIL
EVERGREEN PLANTING DETAIL



P-1 PAVING
NO SCALE

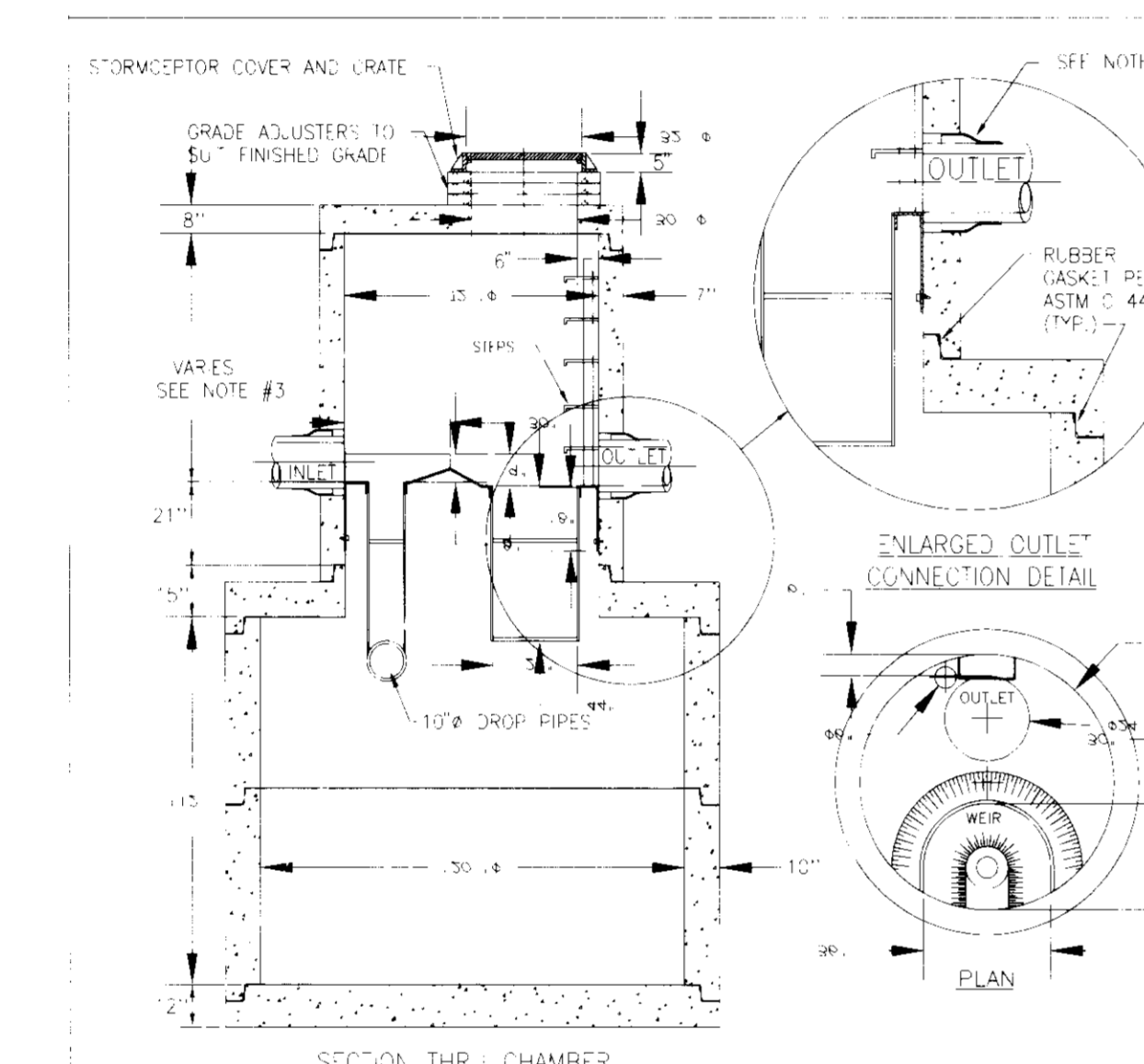


P-2 PAVING
NO SCALE



P-3 PAVING
NO SCALE

STC 6000 Precast Concrete Stormceptor®
(6000 US Gallon Capacity)
(Disc Design)



STC 6000
REVISED 10/94

Concrete Stormceptor Order Request Form

Contractor Information
Name _____ Address _____
City _____ State _____ Zip Code _____
Contact Phone _____
Fax _____

Owner Information
Name _____ Phone _____
Address _____

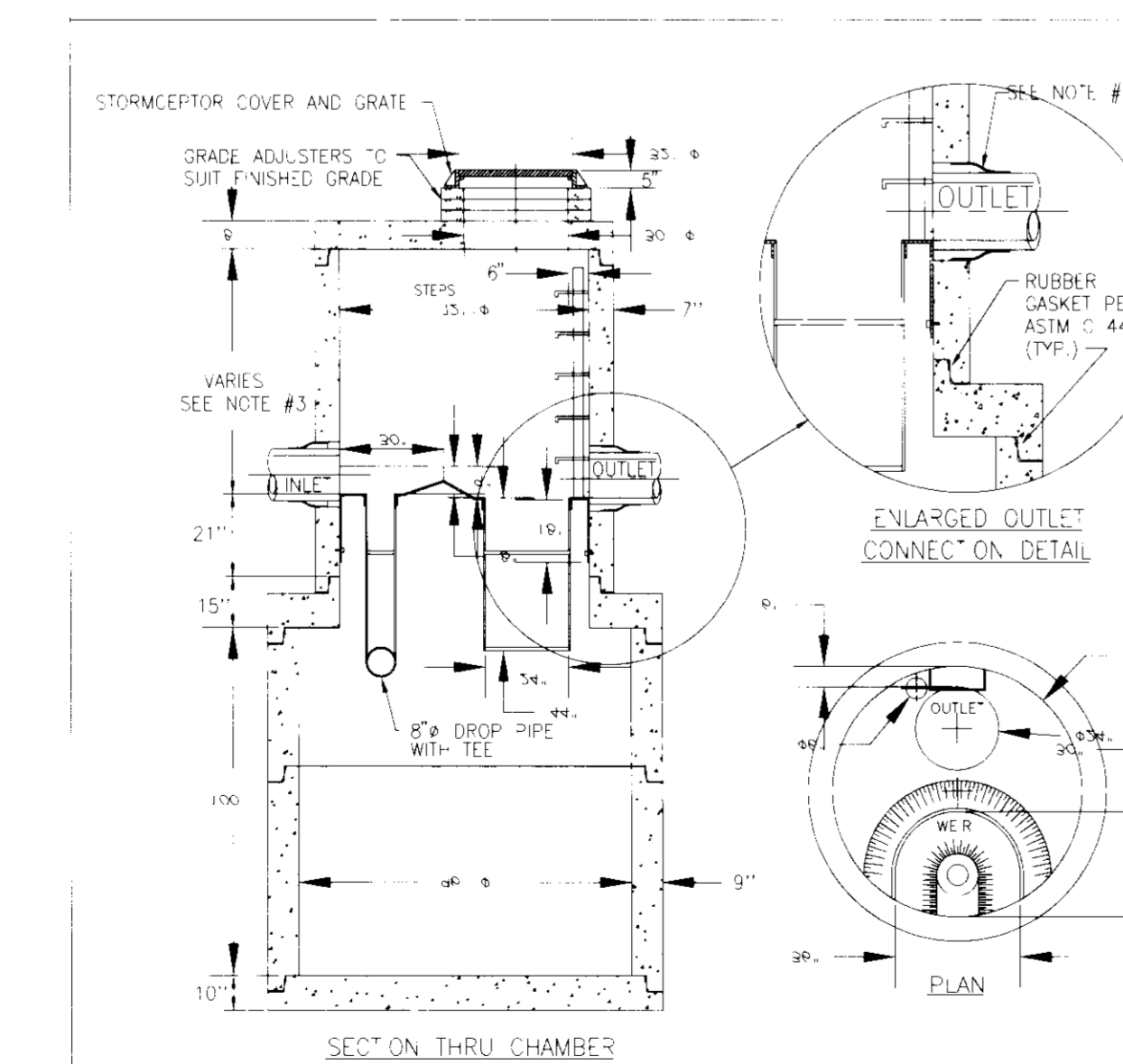
Stormceptor Model	Insert	Size	Manhole Number	Top Elevation (ft)	Outlet Pipe Invert (ft)
900	3600	DISC	22"	204.45	204.45
1200	4800	DISC	22"	204.45	204.45
1800	6000	DISC	32"	204.45	204.45
2400	7200	DISC	44"	204.45	204.45
IMPERV. D. AREA	6.2 sq.	Custom		204.45	204.45

Project Name: MEADOWRIDGE BUSINESS PARK - PARCEL #2
Approximate time from order to required delivery weeks: _____
Delivery Address: Street _____ City _____ State _____ Zip Code _____
Designer Company: RIEMER MUEGGE & ASSOCIATES, INC.
Designer Contact: CHRIS REID Phone: (410) 997-8900 Fax: (410) 997-8282

Please fax this sheet back to Hydro Conduit/Virginia Precast at (804) 798-3426
Attn: Dave Brinser/Ed O'Malley (Phone: 1-800-999-2278)

For Technical Assistance Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1-800-762-4703

STC 3600 Precast Concrete Stormceptor®
(3600 US Gallon Capacity)
(Disc Design)



STC 3600
REVISED 10/94

Concrete Stormceptor Order Request Form

Contractor Information
Name _____ Address _____
City _____ State _____ Zip Code _____
Contact Phone _____
Fax _____

Owner Information
Name _____ Phone _____
Address _____

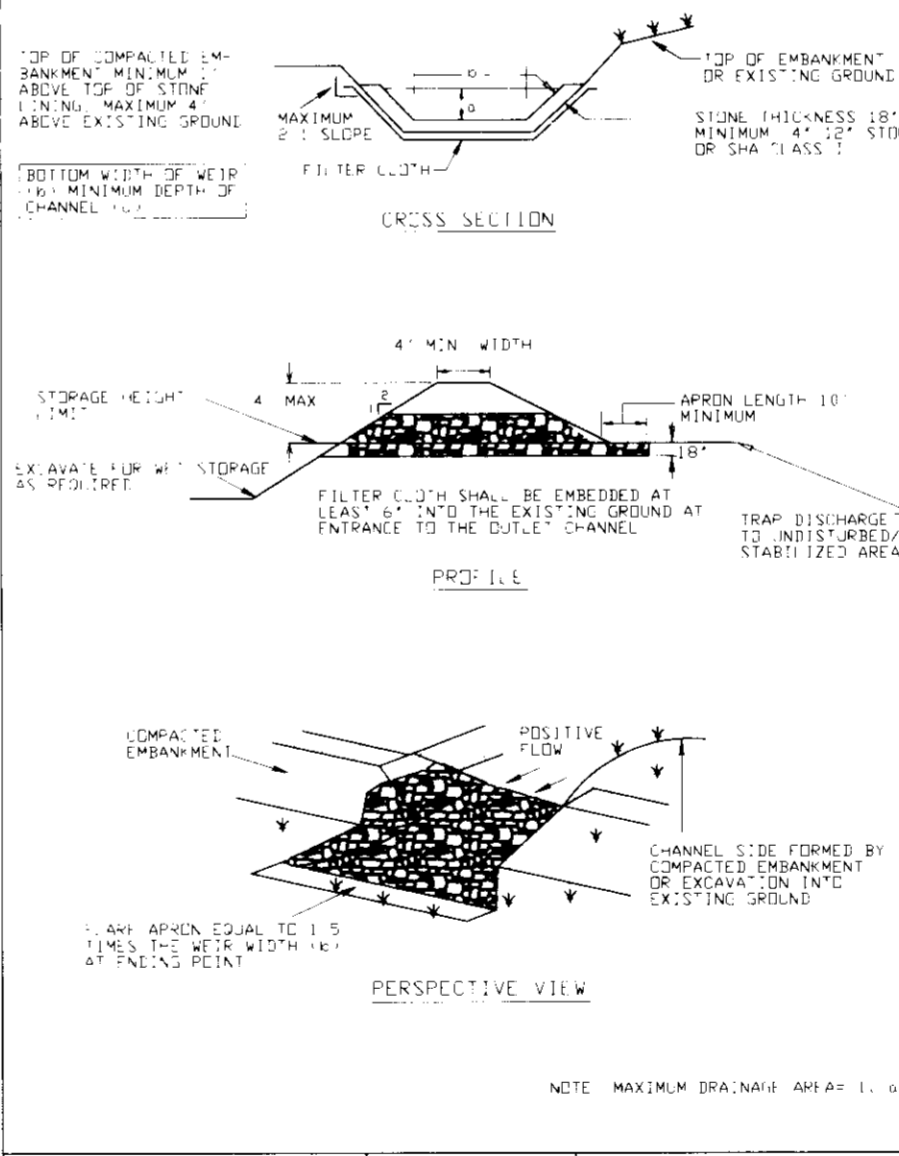
Stormceptor Model	Insert	Size	Manhole Number	Top Elevation (ft)	Outlet Pipe Invert (ft)
900	3600	DISC	22"	204.55	204.55
1200	4800	DISC	22"	204.55	204.55
1800	6000	DISC	32"	204.55	204.55
2400	7200	DISC	44"	204.55	204.55
IMPERV. D. AREA	3.0 sq.	Custom		204.55	204.55

Project Name: MEADOWRIDGE BUSINESS PARK - PARCEL #2
Approximate time from order to required delivery weeks: _____
Delivery Address: Street _____ City _____ State _____ Zip Code _____
Designer Company: RIEMER MUEGGE & ASSOCIATES, INC.
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Attn: Dave Brinser/Ed O'Malley (Phone: 1-800-999-2278)

For Technical Assistance Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1-800-762-4703

DETAIL - RIP-RAP OUTLET SEDIMENT TRAP - ST III

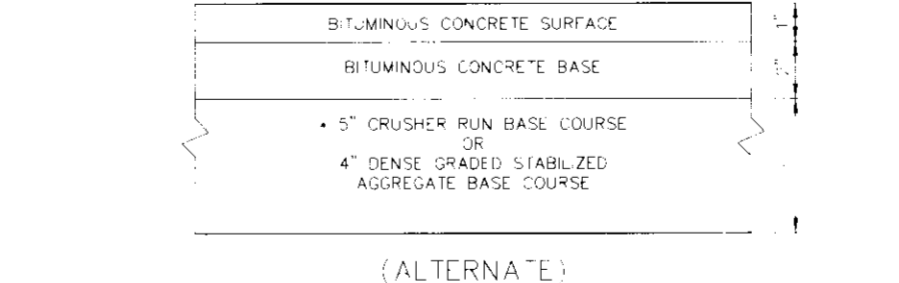


U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 1-9-10 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

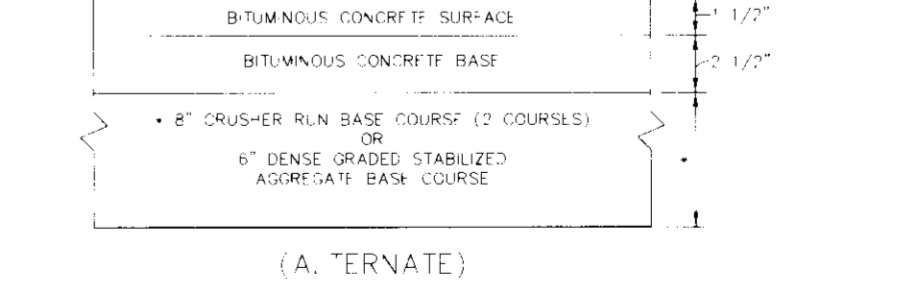
RIIP-RAP OUTLET SEDIMENT TRAP - ST III

- Construction Specifications
- The area under embankment shall be cleared, grubbed and stripped of any vegetation and rock not to be placed.
 - The rip-rap material for the embankment shall be free of roots or other woody vegetation or debris. It shall consist of stones, rocks, angular material or other detrital material. The embankment shall be compacted by layers to a minimum depth of 18 inches. Maximum height of embankment shall be 4 feet maximum (center line of embankment).
 - A 1:1 slope shall be provided on the P-1 or P-2 filter.
 - Location on the top of the slope directing water into the trap shall not exceed the height of the embankment.
 - Storage area provided shall be figured by computing the volume measured from top of excavation. For storage requirements see Table 2.
 - Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of filter cloth length of least 12 inches on nearest the entrance placed on top. Filter cloth shall be secured at least 6" into the ground at entrance of outlet channel.
 - Stone used in the outlet channel shall be 4" to 6" in diameter.
 - Outlet channel shall be provided with a check valve to prevent the discharge in an area of free motion to or a standing water channel. Protection against siltation at the discharge end shall be provided as necessary.
 - Outlet channel must have one five degree slope from the trap.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/4 of the trap storage depth or the trap (1/3) depth. Sediment removal shall be approved by the State or local authority in such a manner that it will not erode.
 - The structure shall be inspected periodically after each rain and repaired as needed.
 - Construction of trap shall be carried out in such a manner that will maintain a section. Once construction is complete, the top and sides of the embankment shall be reseeded with grass seed. Plants of concentrated type shall be provided in accordance with the Green Stormwater Infrastructure criteria. The windward side of the interior slopes shall be seeded with grass seed and shall be maintained until the trap is fully established.
 - The structure shall be maintained by approved methods, removed and the area seeded when the drainage area has been properly stabilized.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 1-9-13A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



P-1 PAVING
NO SCALE



P-2 PAVING
NO SCALE

BY THE DEVELOPER:

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

Walter P. Klotz 8/18/97
DEVELOPER DATE

BY THE ENGINEER:

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

J. Parekh 8-13-97
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSERVATION SERVICE DATE

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

HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director: [Signature] 8/28/97
Date: 8/28/97
Chief, Development Engineering Division: [Signature] 8/28/97
Date: 8/28/97
Chief, Division of Land Development: [Signature] 8/28/97
Date: 8/28/97

OWNER: SECURITY CAPITAL INDUSTRIAL TRUST
5200 EISENHOWER AVENUE, SECOND FLOOR
ALEXANDRIA, VIRGINIA 22304
(703) 751-9292

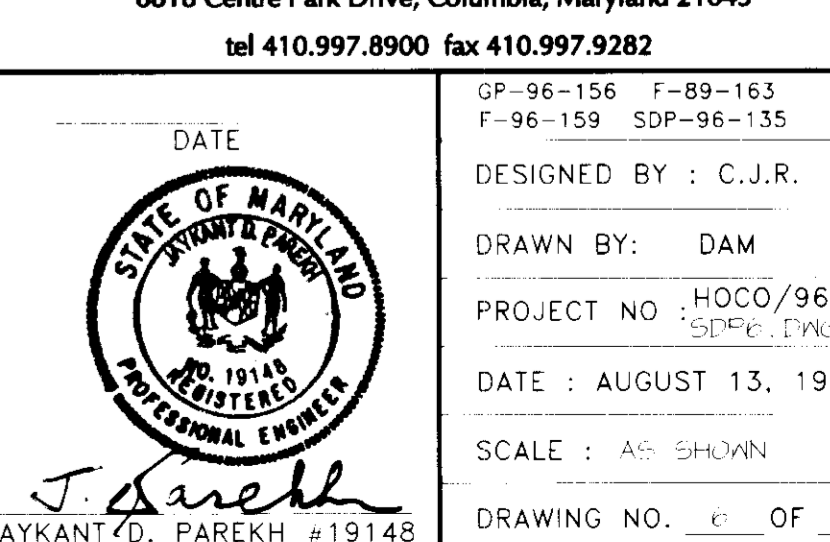
PROJECT: MEADOWRIDGE BUSINESS PARK
PARCEL #2
WAREHOUSE BUILDING

AREA: TAX MAP NO. 37 PARCEL #2
ELECTION DISTRICT: ZONED M-1
HOWARD COUNTY, MARYLAND

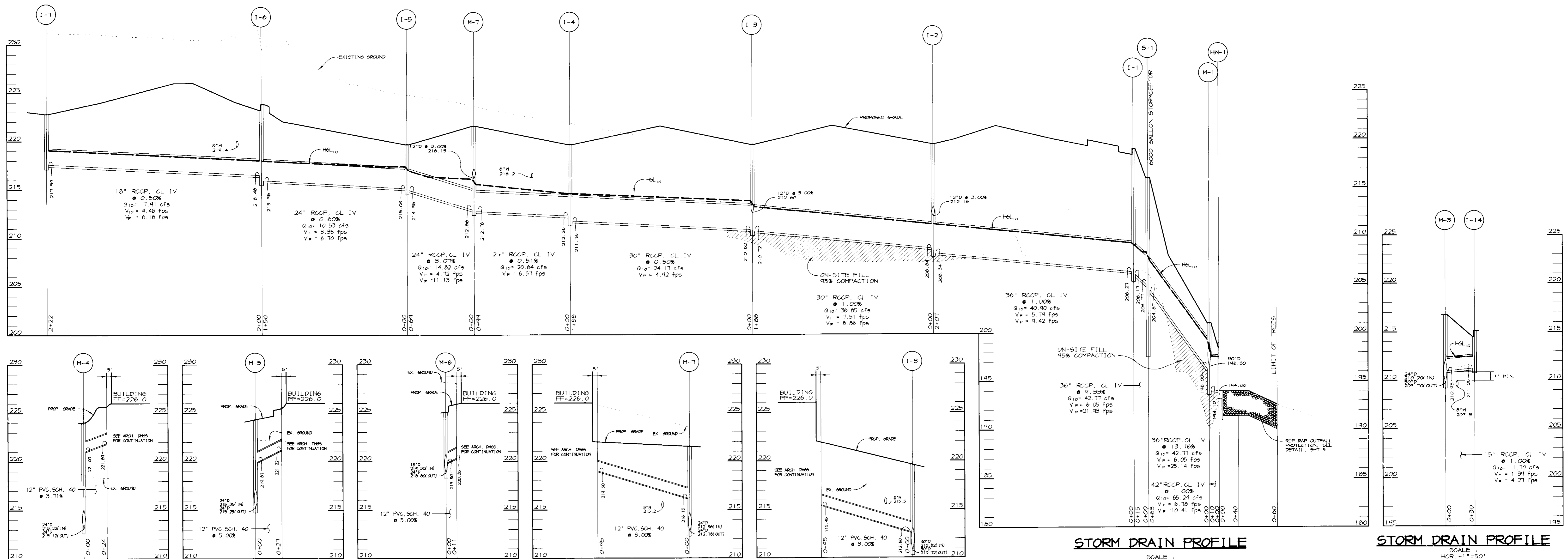
TITLE: NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282

DATE: _____
DESIGNED BY: C.J.R.
DRAWN BY: DAM
PROJECT NO: HOCO/96E502
DATE: AUGUST 13, 1997
SCALE: AS SHOWN
DRAWING NO. 6 OF 9



SDP-97-162



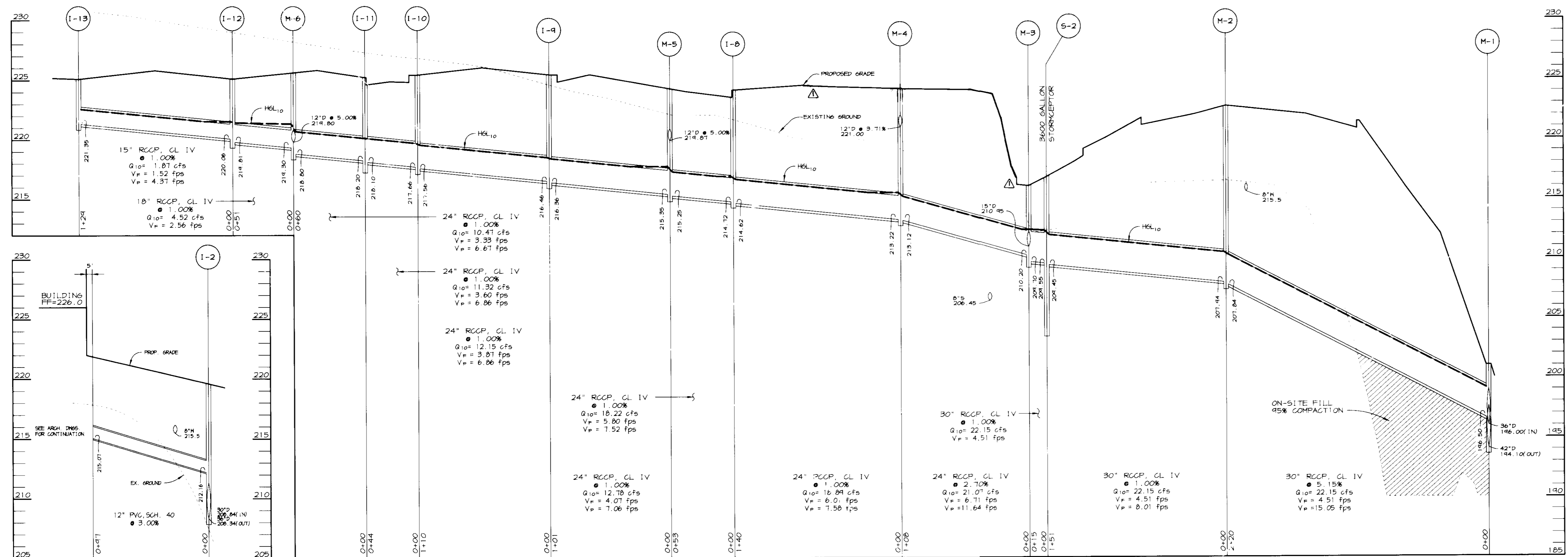
ROOF DRAIN PROF. #1 SCALE: HOR. - 1"=50', VERT. - 1"=5'

ROOF DRAIN PROF. #2 SCALE: HOR. - 1"=50', VERT. - 1"=5'

ROOF DRAIN PROF. #3 SCALE: HOR. - 1"=50', VERT. - 1"=5'

ROOF DRAIN PROF. #4 SCALE: HOR. - 1"=50', VERT. - 1"=5'

ROOF DRAIN PROF. #5 SCALE: HOR. - 1"=50', VERT. - 1"=5'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David J. Luger 8/12/97
 DIRECTOR DATE

W. E. [Signature] 8/20/97
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Cathy Hamilton 8/20/97
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

11-19-97 MODIFIED PROP. GRADE OVER SD (I-8 TO M-3) TO CONFORM TO REVISION TO SITE PLAN (SHEET E2).
 DATE NO. REVISION

OWNER: SECURITY CAPITAL INDUSTRIAL TRUST
 5200 EISENHOWER AVENUE, SECOND FLOOR
 ALEXANDRIA, VIRGINIA 22304
 (703) 751-4242

PROJECT: MEADOWRIDGE BUSINESS PARK
 PARCEL J-2
 A WAREHOUSE BUILDING

AREA: TAX MAP NO. 37 PARCEL J-2
 1st ELECTION DISTRICT ZONED M-1
 HOWARD COUNTY, MARYLAND

TITLE: STORM DRAIN PROFILES

RIEMER MUEGGE & ASSOCIATES, INC.
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, Maryland 21045
 tel 410.997.8900 fax 410.997.9282

8-18-97
 DATE

GP-96-156 F-89-163
 F-96-159 SDP-96-135
 DESIGNED BY: C.J.R.

DRAWN BY: DAM

PROJECT NO.: HOCO/96E502
 SDP4.DWG

DATE: AUGUST 15, 1997

SCALE: AS SHOWN

DRAWING NO. 4 OF 9

J. Parekh
 JAYKANT D. PAREKH #19148

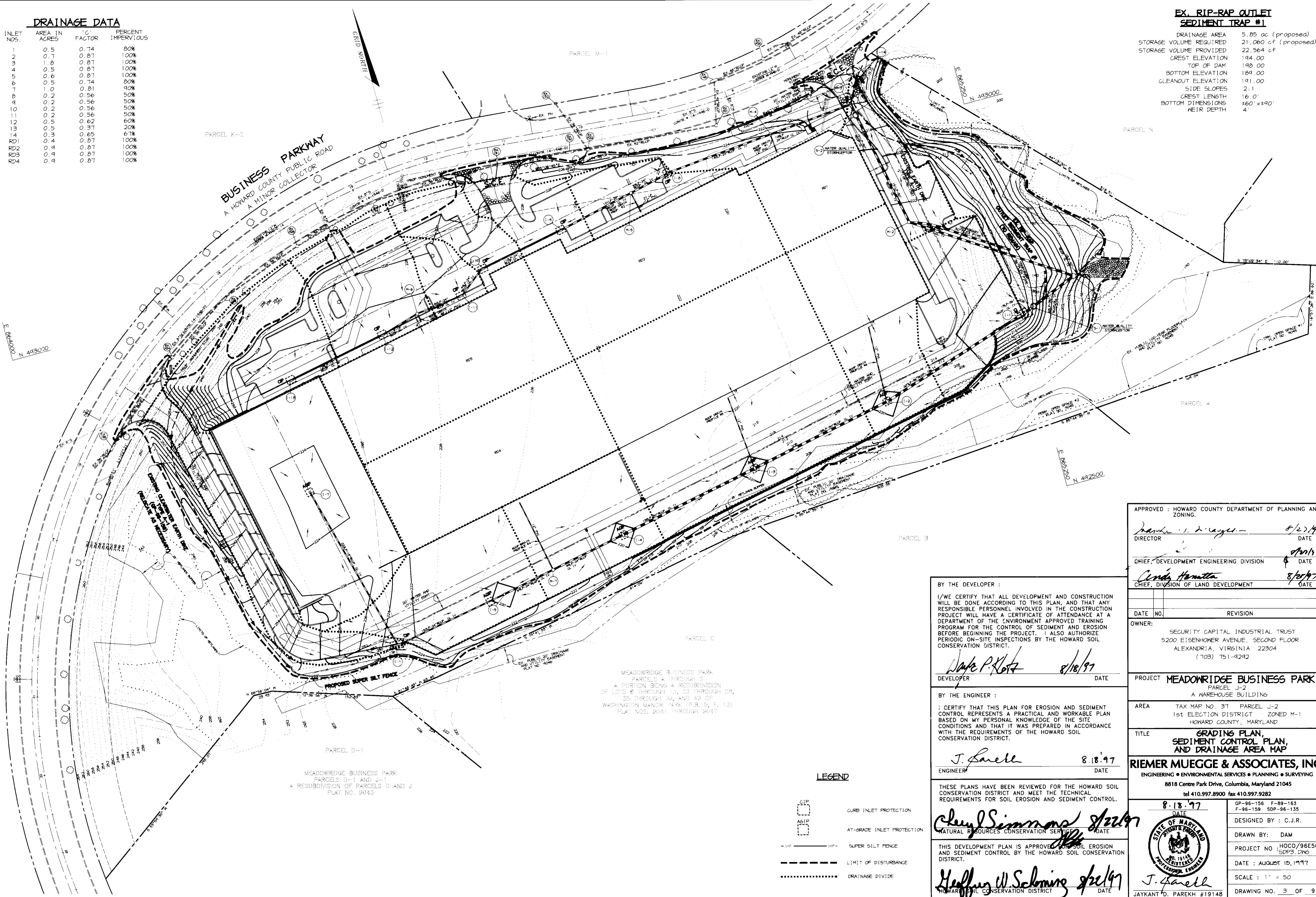
SDP-97-162

DRAINAGE DATA

INLET NOS.	AREA IN ACRES	C FACTOR	PERCENT IMPERVIOUS
1	0.5	0.74	80%
2	0.7	0.87	100%
3	1.8	0.87	100%
4	0.5	0.87	100%
5	0.6	0.87	100%
6	0.5	0.74	80%
7	1.0	0.81	90%
8	0.2	0.56	50%
9	0.2	0.56	50%
10	0.2	0.56	50%
11	0.2	0.56	50%
12	0.5	0.62	60%
13	0.3	0.31	22%
14	0.5	0.65	67%
R01	0.4	0.87	100%
R02	0.4	0.87	100%
R03	0.4	0.87	100%
R04	0.4	0.87	100%

EX. RIP-RAP OUTLET SEDIMENT TRAP #1

DRAINAGE AREA	5.85 ac (proposed)
STORAGE VOLUME REQUIRED	21,060 cf (proposed)
STORAGE VOLUME PROVIDED	22,564 cf
CREST ELEVATION	194.00
TOP OF DAM	198.00
BOTTOM ELEVATION	189.00
CLEANOUT ELEVATION	191.00
SIDE SLOPES	2:1
CREST LENGTH	16.0'
BOTTOM DIMENSIONS	±60' x ±90'
WEIR DEPTH	4'



MEADOWRIDGE BUSINESS PARK
 PARCELS 4 THROUGH 5
 A PORTION BEING A RESUBDIVISION
 OF LOTS 6 THROUGH 10, 23 THROUGH 28,
 35 THROUGH 39, AND 49 OF
 WASHINGTON MANOR PARK (P.B. S. E. 13)
 PLAT NOS. 8041 THROUGH 8047

BY THE DEVELOPER :

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

Wayne P. Klotz 8/18/97
 DEVELOPER DATE

BY THE ENGINEER :

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

J. Farrell 8.18.97
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Cheryl Simmons 8/22/97
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

Huffman W. Schomig 8/21/97
 HOWARD SOIL CONSERVATION DISTRICT DATE

- LEGEND**
- CURB INLET PROTECTION
 - AT-GRADE INLET PROTECTION
 - SUPER SILT FENCE
 - LIMIT OF DISTURBANCE
 - DRAINAGE DIVIDE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

David L. Dreyer 8/27/97
 DIRECTOR DATE

Chris Hammett 8/20/97
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Chris Hammett 8/20/97
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER:
 SECURITY CAPITAL INDUSTRIAL TRUST
 5200 EISENHOWER AVENUE, SECOND FLOOR
 ALEXANDRIA, VIRGINIA 22304
 (703) 751-9292

PROJECT **MEADOWRIDGE BUSINESS PARK**
 PARCEL J-2
 A WAREHOUSE BUILDING

AREA TAX MAP NO. 37 PARCEL J-2
 1st ELECTION DISTRICT ZONED M-1
 HOWARD COUNTY, MARYLAND

TITLE **GRADING PLAN,
 SEDIMENT CONTROL PLAN,
 AND DRAINAGE AREA MAP**

RIEMER MUEGGE & ASSOCIATES, INC.
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
 8818 Centre Park Drive, Columbia, Maryland 21045
 tel 410.997.8900 fax 410.997.9282

8.18.97 DATE

GP-96-156 F-89-163
 F-96-159 SDP-96-135

DESIGNED BY : C.J.R.

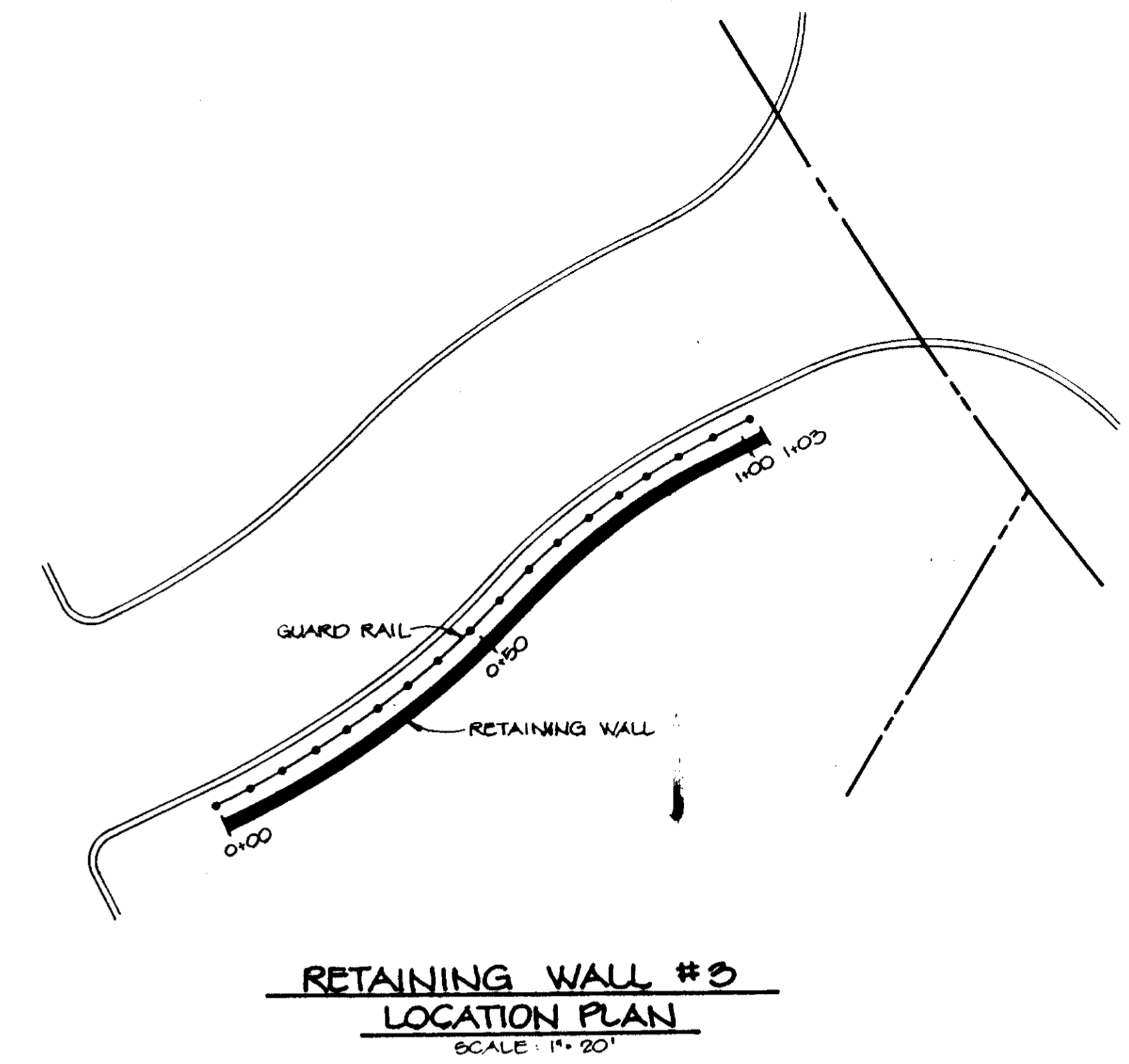
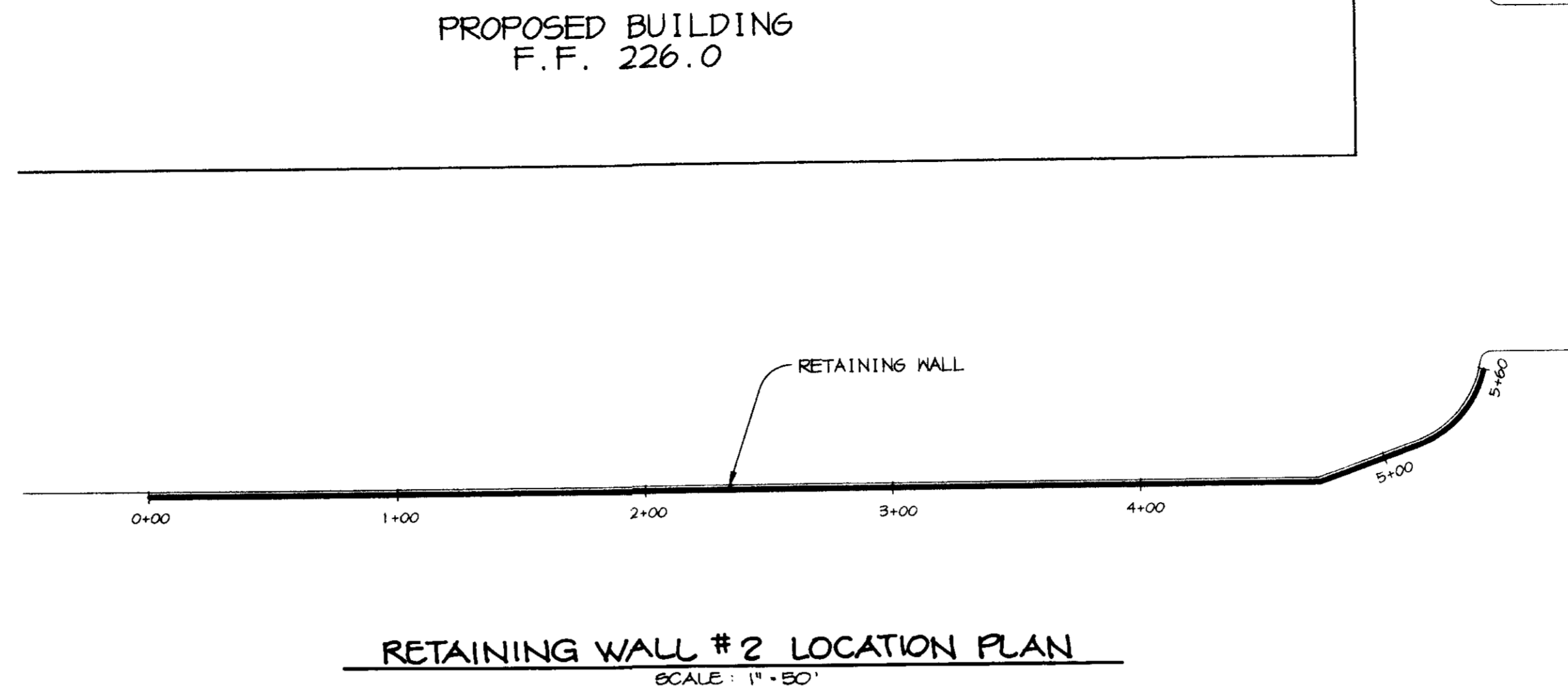
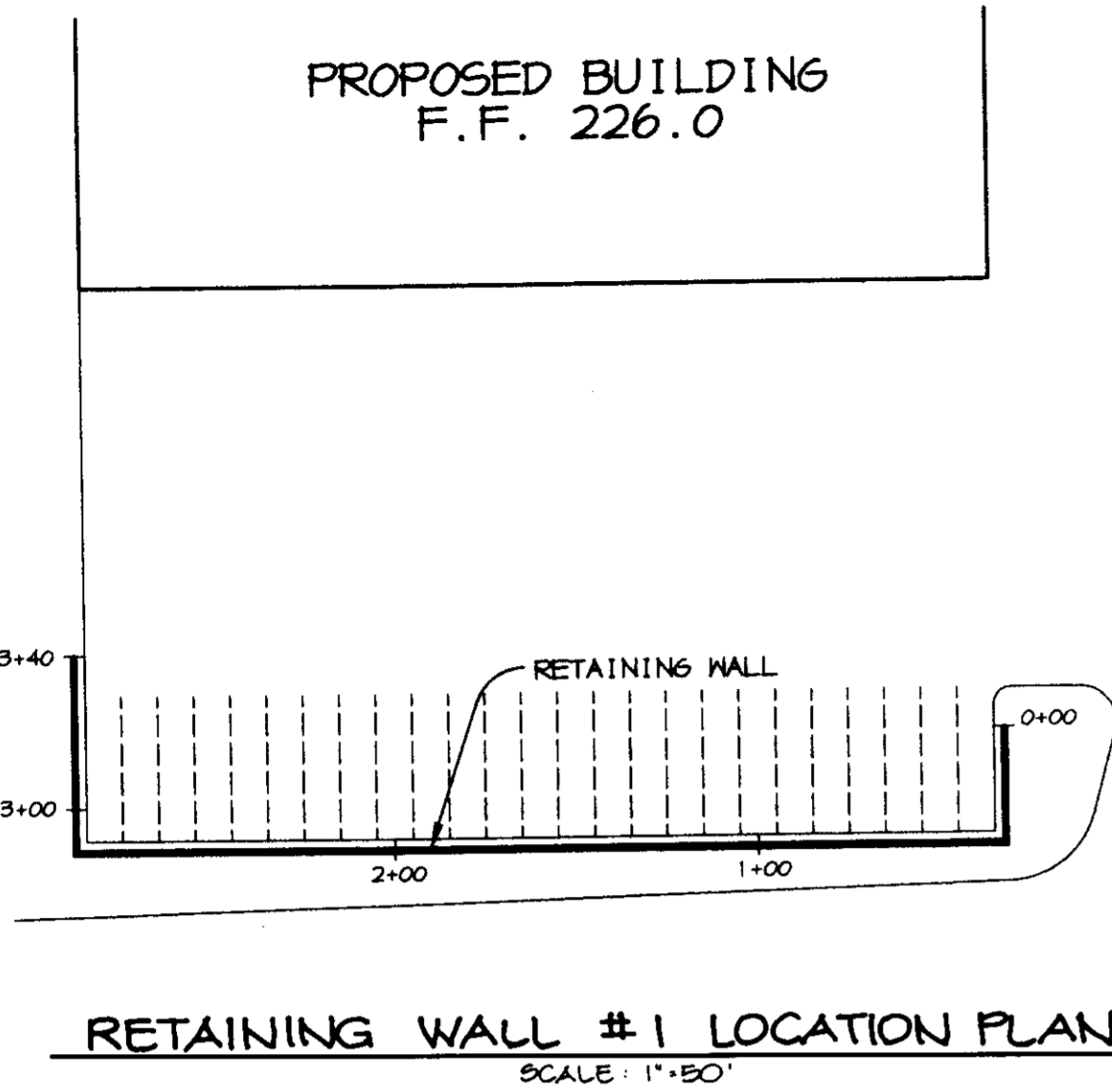
DRAWN BY : DAM

PROJECT NO. HOCO/96E502
 SDP3.DWG

DATE : AUGUST 15, 1997

SCALE : 1" = 50'

DRAWING NO. 3 OF 9



**SPECIFICATION GUIDELINES
KEYSTONE CONCRETE MODULAR RETAINING WALL**

PART 1: GENERAL

- 1.01 DESCRIPTION**
- A. Work includes furnishing and installing modular block retaining wall units to the lines and grades designated on the construction drawings and as specified herein.
 - B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit fill and backfill to the lines and grades designated on the construction drawings.
 - C. Furnishing and installing all appurtenant materials required for construction of the retaining wall as shown on the construction drawings.
- 1.02 RELATED WORK**
- A. Section 02275 - Geogrid Soil Reinforcement.
- 1.03 REFERENCE STANDARDS**
- A. ASTM C90 - 85 Hollow Load Bearing Masonry Units.
 - B. ASTM C140 - 75 Sampling and Testing Concrete Masonry Units.
 - C. ASTM C145 - 85 Solid Load Bearing Concrete Masonry Units.
- 1.04 DELIVERY, STORAGE AND HANDLING**
- A. Contractor shall check the materials upon delivery to assure that proper material has been received.
 - B. Contractor shall prevent excessive mud, wet cement, epoxy, and like materials which may affix themselves, from coming in contact with the materials.
 - C. Contractor shall protect the materials from damage. Damaged material shall not be incorporated into the retaining wall structure.
- 1.05 SUBMITTALS**
- A. Samples of all products used in the work of this section.
 - B. Latest edition of manufacturers specifications for proposed materials, method of installation and list of material proposed for use.
- 1.06 QUALITY ASSURANCE**
- A. Soil testing and inspection service for quality control testing during earthwork operations will be supplied by the owner.

PART 2: PRODUCTS

- 2.01 CONCRETE UNITS**
- A. Masonry units shall be Keystone® Retaining Wall Units as manufactured by: _____
 - B. Concrete wall units shall have a minimum net 28 day compressive strength of 3000 psi. The concrete shall have a maximum moisture absorption of 8 to 8 Bar IV.
 - C. Exterior dimensions may vary in accordance with ASTM C90 - 85. Standard and Compact units shall have a minimum of 1 square foot face area each. Mini units shall have a minimum 1/2 square foot face area each.
 - D. Keystone Standard units shall provide a minimum of 150 psf of wall face area. Fill which is contained within the dimensions of the units may be considered as 80% effective weight.

- E. Units shall have angled sides capable of concave and convex alignment curves with a minimum radius of 3.5 feet.
 - NOTE: Where applicable, for straight walls use non-angled straight side cap units.
 - F. Units shall be interlocked with non-corrosive fiberglass pins.
 - G. Units shall be interlocked as to provide a minimum 1/4 inch setback per each course of wall height.
- 2.02 FIBERGLASS CONNECTING PINS**
- A. Connecting pins shall be 1/2 inch diameter thermoset isophthalic polyester resin/pultruded fiberglass reinforcement rods.
 - B. Pins shall have a minimum flexural strength of 128,000 psi and short beam shear of 6400 psi.
- 2.03 BASE LEVELING PAD MATERIAL**
- A. Material shall consist of compacted sand, gravel, crushed rock or leveling concrete (non-reinforced) as shown on construction drawing. The compacted leveling pad shall be a minimum 6 inches thick. When using a non-reinforced leveling concrete option, 1" to 3" thick, maintain the total leveling pad thickness.
- 2.04 UNIT FILL**
- A. Fill for units shall be free draining crushed stone, 3/8" to 3/4", or coarse gravel (no more than 5% shall pass the No. 200 sieve with a maximum size of 3/4"). Gradation of the fill shall be approved by the Engineer.
 - B. Place recommended fill behind the retaining wall units.
- 2.05 BACKFILL**
- A. Material shall be insitu soils when approved by the engineer unless otherwise specified in the drawings. Unsuitable soils for backfill (heavy clays or organic soils) shall not be used in the backfill or in the reinforced soil mass.
 - B. Where additional fill is required contractor shall submit sample and specifications to the engineer to determine if acceptable.

PART 3: EXECUTION

- 3.01 EXCAVATION**
- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Over excavation shall not be paid for and replacement with compacted fill and/or watertight system components will be required at contractor expense. Contractor shall be careful not to disturb embankment materials beyond lines shown.
- 3.02 FOUNDATION SOIL PREPARATION**
- A. Foundation soil shall be excavated as required for footing dimensions shown on the construction drawings, or as directed by the Engineer.

- 3.03 BASE LEVELING PAD**
- A. Leveling pad materials shall be placed as shown on the construction drawings, upon undisturbed insitu soils, to a minimum thickness of 6 inches.
 - B. Material shall be compacted so as to provide a level hard surface on which to place the first course of units. Compaction shall be to 95% of standard proctor for sand or gravel type materials. For crushed rock, material shall be densely compacted.
 - C. Leveling pad shall be prepared to insure complete contact of retaining wall unit with base.
 - D. Leveling pad materials shall be to the depths and widths shown. Contractor may opt for using reduced depth of sands, gravel or crushed rock using a concrete topping. Concrete shall be unreinforced and a maximum of 1" to 3" thick.
- 3.04 UNIT INSTALLATION**
- A. First course of concrete wall units shall be placed on the base leveling pad. The units shall be checked for level and alignment. The first course is the most important to insure accurate and acceptable results.
 - B. Insure that units are in full contact with base.
 - C. Units are placed side by side for full length of wall alignment. Alignment may be done by means of a string line or offset from base line.
 - D. Install fiberglass connecting pins and fill all voids at units with unit fill material. Tamp fill.
 - E. Sweep all excess material from top of units and install next course. Insure each course is completely unit filled, backfilled and compacted prior to proceeding to next course.
 - F. Lay up each course insuring that pins protrude into adjoining courses above a minimum of one inch. Two pins are required per unit. Pull each unit forward, away from the embankment, against pins in the previous course and backfill as the course is completed. Repeat procedure to the extent of wall height.
 - G. As appropriate where the wall changes elevation, units can be stepped with grade or turned into the embankment with a convex return end. Provide appropriate buried units on compacted leveling pad in area of convex return end.
- 3.05 CAP INSTALLATION**
- A. Place Keystone Cap units over projecting pins from units below. Pull forward to set back position. Back fill and compact to finished grade.
 - B. As required, provide permanent mechanical connection to wall units with construction adhesive or epoxy. Apply adhesive or epoxy to bottom surface of cap units and install on units below.
- 3.06 GEOGRID INSTALLATION**
- A. Follow the requirements of Section 02275, GEOGRID SOIL REINFORCEMENT.

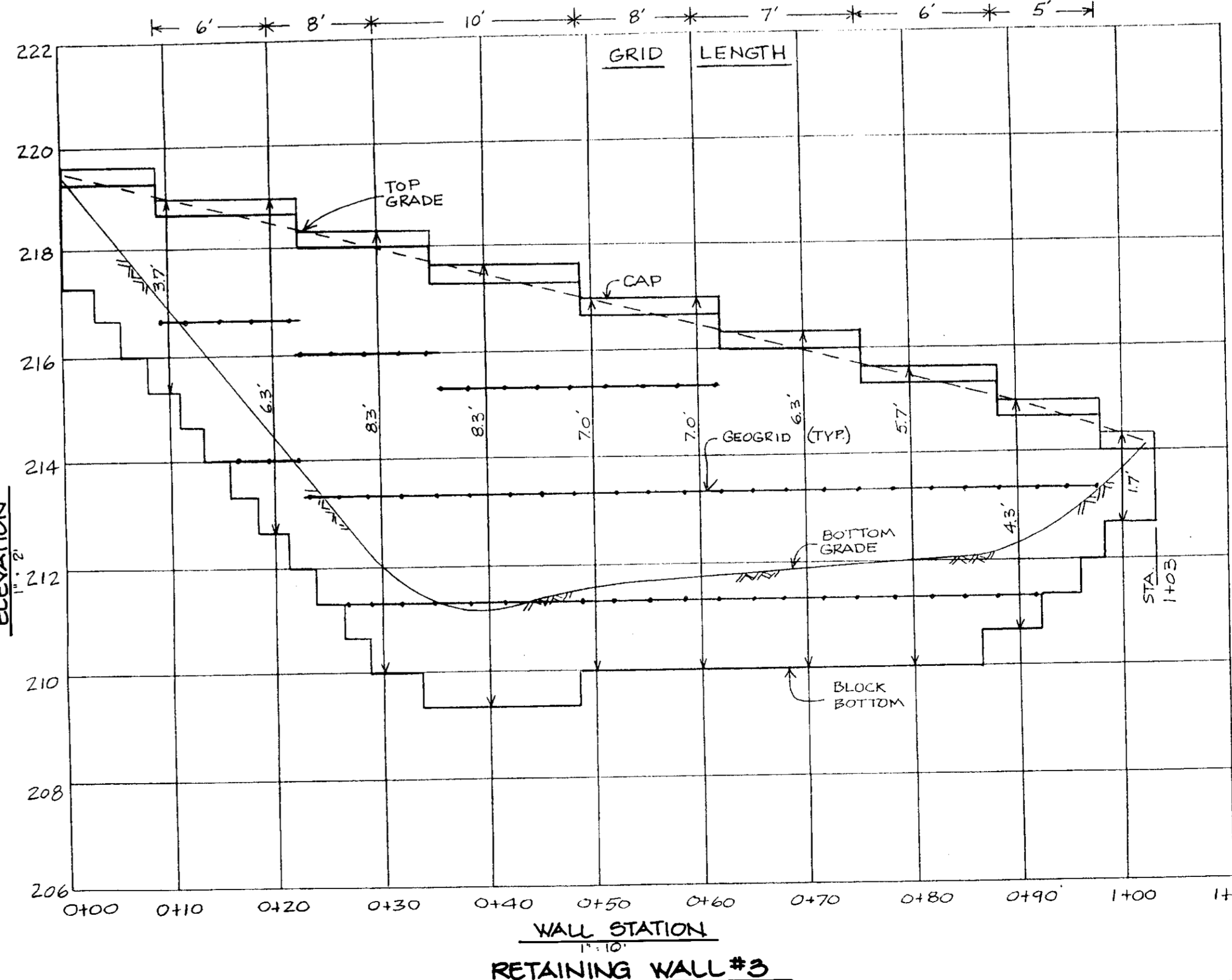
PART 1: GENERAL

- 1.01 DESCRIPTION**
- A. Work includes furnishing and installing geogrid reinforcement, wall fill, and backfill to the lines and grades designated on the construction drawings.
 - B. Work includes furnishing and installing all appurtenant materials required for construction of the geogrid reinforced soil retaining wall as shown on the construction drawings.
- 1.02 RELATED WORK**
- A. Section 02276 - KEYSTONE CONCRETE MODULAR RETAINING WALL.
- 1.03 REFERENCE STANDARDS**
- A. See specific geogrid manufacturers reference standards.
- 1.04 DELIVERY, STORAGE AND HANDLING**
- A. Contractor shall check the geogrid upon delivery to assure that the proper material has been received.
 - B. Geogrids shall be stored above -20°F.
 - C. Contractor shall prevent excessive mud, wet cement, epoxy and like materials which may affix themselves to the gridwork, from coming in contact with the geogrid material.
 - D. Rolled geogrid material may be laid flat or stood on end for storage.
- 1.05 SUBMITTALS**
- A. Samples of all products used in the work of this section.
 - B. Latest edition of manufacturers specifications for proposed materials, method of installation and list of material proposed for use.
- 1.06 QUALITY ASSURANCE**
- A. Soil testing and inspection services for quality control testing during earthwork operation will be supplied by the owner.

PART 2: PRODUCTS

- 2.01 DEFINITIONS**
- A. Geogrid products shall be high density polyethylene expanded sheet or polyester woven fiber materials, specifically fabricated for use as soil reinforcement.
 - B. Concrete retaining wall units are as detailed on the drawings and are specified under Section 02276 - KEYSTONE CONCRETE MODULAR RETAINING WALL.
 - C. Wall fill is a free draining granular material placed within the concrete units.
 - D. Backfill is the soil which is used as fill for the reinforced soil mass.
 - E. Foundation soil is the insitu soil.
- 2.02 GEOGRID**
- A. Geogrid shall be the type as shown on the drawings having the property requirements as described within the manufacturers specifications.
- 2.03 ACCEPTABLE MANUFACTURERS**
- A. A manufacturer's product shall be approved by the Engineer prior to bid opening.

GEOGRID SOIL REINFORCEMENT



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Thomas V. Lacey 8/27/97
DIRECTOR DATE

Andy Hamilton 8/27/97
CHIEF, DEVELOPMENT ENGINEERING DIVISION 4 DATE

Andy Hamilton 8/27/97
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER: SECURITY CAPITAL INDUSTRIAL TRUST
5200 EISENHOWER AVENUE, SECOND FLOOR
ALEXANDRIA, VIRGINIA 22304
(703) 751-4242

PROJECT MEADOWRIDGE BUSINESS PARK
PARCEL J-2
A WAREHOUSE BUILDING

AREA TAX MAP NO. 37 PARCEL J-2
1ST ELECTION DISTRICT ZONED M-1
HOWARD COUNTY, MARYLAND

TITLE RETAINING WALL DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING
8818 Centre Park Drive, Columbia, Maryland 21045
tel 410.997.8900 fax 410.997.9282

8/5/97
DATE

GP-96-156 F-89-163
F-96-159
DESIGNED BY: C.J.R.

DRAWN BY: DAM

PROJECT NO. HOCO/96E502
SDP-97-162

DATE: AUGUST 13, 1997

SCALE: AS SHOWN

DRAWING NO. 2 OF 2

RICHARD WARREN BURTEVAANT
SDP-97-162