Site Development Plans

for

Building No. 2

Baltimore - Washington Commerce Park

Howard County, Maryland

Hill Management Services, Inc.

9640 Deerco Road

Timonium, Maryland 21093

410-666-1000

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.

Civil Engineers and Land Surveyors

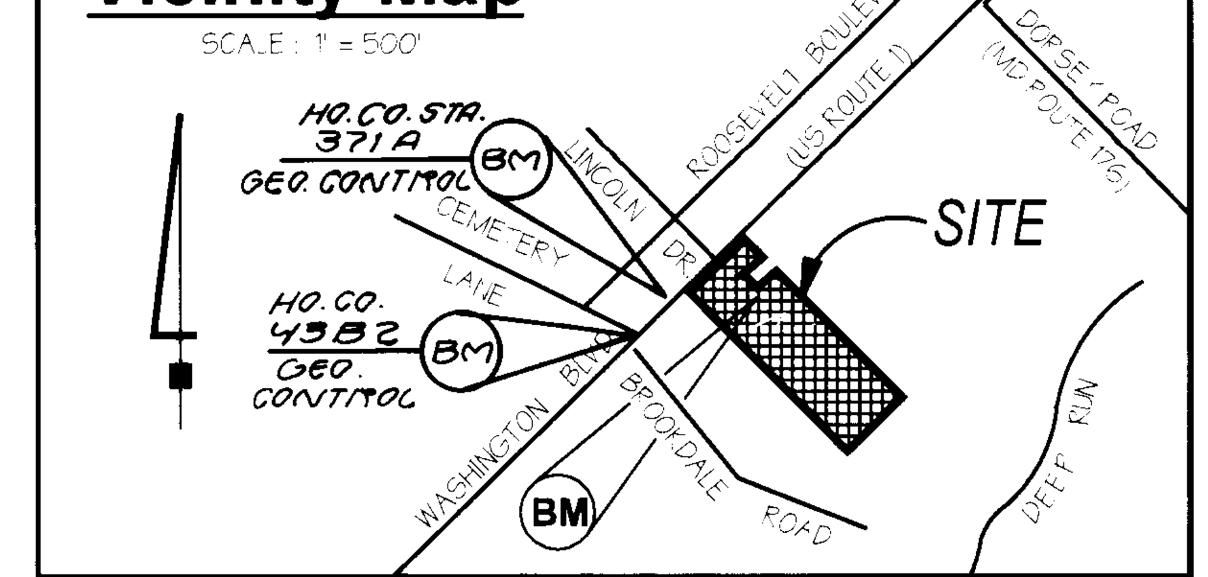
658 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

NOTE

The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building shown on this site development plan who will discharge non-domestic waste to the public sewerage system. If each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

Vicinity Map

SCALE: 1" = 500'



Benchmark :

℄ INLET (I-5) AT FACE OF CURB NORTHEAST SIDE OF ENTRANCE ROAD.

N 90924.25
E 66530.12

ELEVATION =: 193.61'

Index of Sheets :

Note on S.D.P. Approval :

OVERALL SITE WAS PREVIOUSLY APPROVED AS SDP-88-205. SDP-88-205 BECAME NULL & VOID 5/17/90. BLDG. NO 1 WAS APPROVED AS S.D.P. 96-45. THIS SITE DEVELOPMENT PLAN HAS BEEN PREPARED TO ACQUIRE SITE DEVELOPMENT APPROVAL FOR PROPOSED BUILDING NUMBER 2. PRIMARY CHANGES ON 96-45 FROM SDP 88-205 ARE NEW BUILDING LOCATION, ENLARGED LOADING AREA AND RELOCATION OF STORM DRAINS.

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 6/6/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 6/9/97

DIRECTOR — DATE 6/10/97

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL *
BALTO. WASH. COMM. PARK	BUILDING NO. 2	62

DEED *	BLOCK *	ZONE	TAX /ZONE MAP	ELECT. DIST.	CENSUS TRACT
1700 /137	5	M-2	43	1	6012

WATER CODE B01 — SEWER CODE 2153000

DATE	REVISION	BY
3·14·97	PER HO. CO.	EAS

COVER SHEET

BUILDING NO. 2

BALTIMORE - WASHINGTON COMMERCE PARK

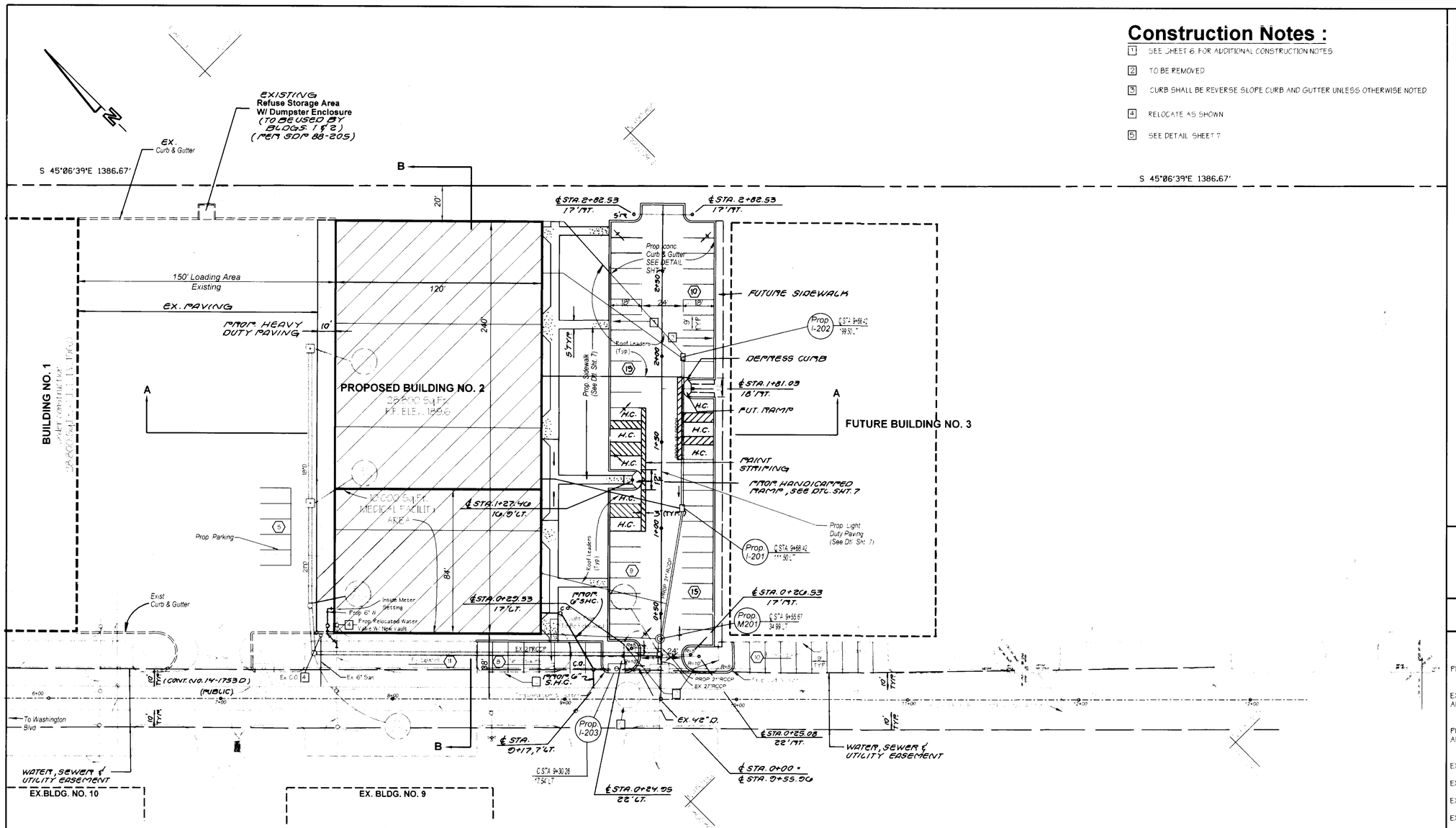
ELECTION DISTRICT : 1
HOWARD COUNTY, MARYLAND

SCALE : N/A
DATE : DEC. 26, 1996

DESIGNED : E.A.S. DRAWN : E.M.T. CHECKED : J.A.M. SHEET 1 OF 8

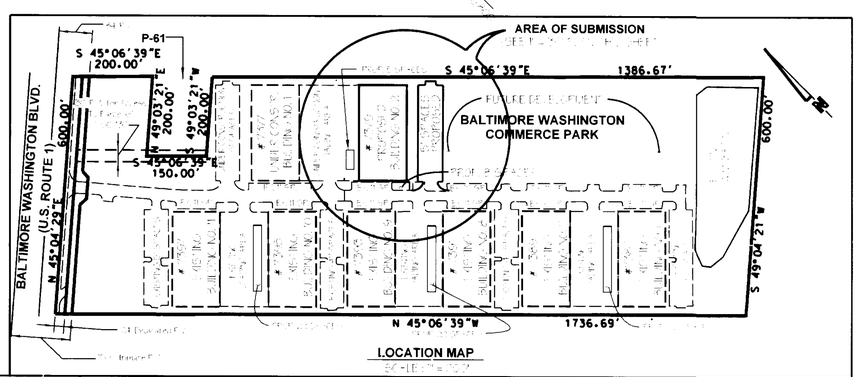
SDP-97-81

P/N : 7889 dgn name : coversheet.dgn 11-06-96 E.M.T.



Construction Notes :

1. SEE SHEET 6 FOR ADDITIONAL CONSTRUCTION NOTES
2. TO BE REMOVED
3. CURB SHALL BE REVERSE SLOPE CURB AND GUTTER UNLESS OTHERWISE NOTED
4. RELOCATE AS SHOWN
5. SEE DETAIL SHEET 7



Site Data :

AREA OF PARCEL :	26.17 Ac +/-
LIMIT OF SUBMISSION AREA :	1.67 Ac +/-
EXISTING ZONING :	M-2
PROPERTY REFERENCE :	1700 / 137
EXISTING USE :	VACANT + WAREHOUSE / OFFICE - 1 STORY (NO MEZZ. ETC)
PROPOSED USE :	WAREHOUSE / OFFICE - 1 STORY (NO MEZZANINE OR 2ND LEVEL)
FLOOR AREA :	28,800 Sq.Ft.
AREA TO BE PAVED :	
EXISTING PAVING	6.13 Ac
PROPOSED PAVING	0.48 Ac
TOTAL PAVED AREA	6.61 Ac
% BUILDING COVERAGE :	28,800 Sq.Ft. Each x 8 = 230,400 Sq.Ft. = (20 %)
% BUILDING COVERAGE W/PAVING :	511798 Sq.ft., 11.7 Ac., (45 %)(TOTAL SITE)
TOTAL AREA OF PARKING :	EXIST. 1.67Ac. (6%)(TOTAL SITE)
	PROP. .48 Ac. (1.8 %)(TOTAL SITE)
	TOTAL 2.15 Ac. (8 %)(TOTAL SITE)
AREA OF LANDSCAPED ISLANDS :	EXISTING .06 Ac
	PROPOSED .01 Ac
	TOTAL 0.7 Ac
AREA TO BE DISTURBED : (BLDG. 2)	1.67 Ac. (6%)(TOTAL SITE)
AREA TO BE VEGETATIVELY STABILIZED : (BLDG. 2)	0.5 Ac (2%)(TOTAL SITE)

PARKING :
6 EX. BLDGS @ 28,800 SF EA. = 172,800 SF

PARKING REQUIRED
EX. BLDGS. No. 6-11

OFFICE = 34,500 S.F. ÷ 250 x 0.7 =	97 SPACES
WAREHOUSE = 120900 S.F. ÷ 1000 =	121 SPACES
LT. MANUF. /ASSEMBLY = 17800 S.F. ÷ 500 =	35 SPACES
PARKING SPACES REQUIRED BLDGS. 6-11 =	253 SPACES

EX. BUILDING NO. 1
MEDICAL FACILITY : 14,400 SF @ 5/1000 SF = 72 SPACES
LT. MANUF / ASSEMBLY : 14,400 SF @ 2.5/1000 SF = 36 SPACES
PARKING SPACES REQUIRED BLDG. NO. 1 = 108 SPACES

PROP. BUILDING NO. 2
MEDICAL FACILITY : 10,000 S.F. @ 5/1000 SF. 50 SPACES
LT. MANUF / ASSEMBLY : 18,800 S.F. @ 2.5 / 1,000 S.F. 47 SPACES
PARKING SPACES REQUIRED BLDG. NO. 2 = 97 SPACES
TOTAL PARKING REQUIRED = 458 SPACES

PARKING PROVIDED

EXISTING =	364 SPACES
PROPOSED =	129 SPACES
TOTAL PARKING PROPOSED =	493 SPACES

STORMWATER MANAGEMENT IS PROVIDED IN EXISTING FACILITY
OVERALL SITE WAS PREVIOUSLY APPROVED AS SDP 88-205
BLDG. NO.1 WAS PREVIOUSLY APPROVED AS SDP 96-45

Benchmark :

FOR BENCHMARK LOCATION SEE VICINITY MAP ON COVER SHEET.
℄ INLET (I-5) AT FACE OF CURB NORTHEAST SIDE ENTRANCE ROAD.
N 90924.25
E 66530.12
ELEVATION 193.61

Legend

PROPERTY LINE		CONSTRUCTION NOTE	□
EXISTING CURB AND GUTTER	=====	SPOT ELEVATION	+
PROPOSED CURB AND GUTTER		DIRECTION OF SURFACE FLOW	
EXISTING WATER LINE		CENTERLINE OF ROAD	
EXISTING STORM DRAIN		SECTION LINE	A
EXISTING SANITARY		PARKING COUNT	⬡
EXISTING 2'CONTOURS		HEAVY DUTY PAVING	
EXISTING 10' CONTOURS		LIGHT DUTY PAVING	
EXISTING FENCE LINE	-X-X-	PROPOSED 2' CONTOURS	— 77 —
		PROPOSED 10'CONTOURS	— 100 —

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 6/6/97
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 6/5/97
DIRECTOR — DATE 6/10/97

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL #
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DEED #	BLOCK #	ZONE	TAX MAP / ZONE	ELECT. DIST.	CENSUS TRACT
1700 /137	5	M-2	43	1	6012

WATER CODE B01 SEWER CODE 2153000

PREPARED BY :
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120

STATE OF MARYLAND — No. 11990 — REGISTERED PROFESSIONAL ENGINEER

OWNER/DEVELOPER
HILL MANAGEMENT SERVICES, INC.
9640 Deereco Road
Timonium, Maryland 21093
410-666-1000

DATE	REVISION	BY
1-3-97	PER CLIENT COMMENTS	EAS

SITE DEVELOPMENT PLAN
BUILDING NO. 2
BALTIMORE - WASHINGTON COMMERCE PARK
1ST ELECTION DISTRICT — SCALE 1" = 50'
HOWARD COUNTY, MARYLAND — DATE DEC. 1996
DESIGNED : E.A.S. DRAWN : E.M.T. CHECKED : J.M.S. SHEET 1 OF 9

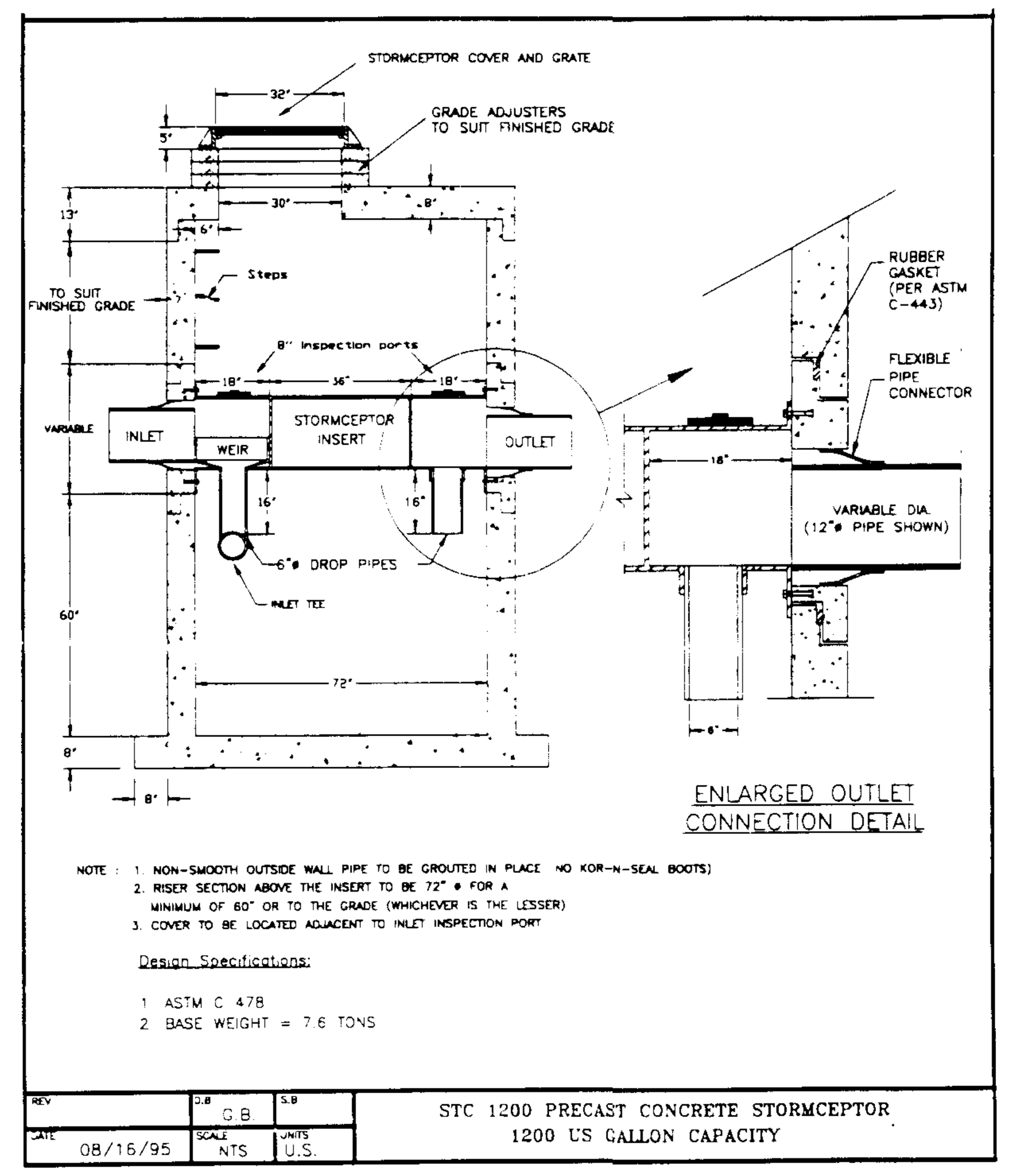
SDP-97-01

Construction Notes

1. TOPOGRAPHY AND BOUNDARY INFORMATION SHOWN HEREON IS BASED ON SURVEY PREPARED BY DUVAL & ASSOCIATES (7-96)
2. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST 24 HOURS PRIOR TO STARTING ANY OF THE WORK SHOWN HEREON.
3. ALL PLAN DIMENSIONS ARE GIVEN TO FACE OF CURB UNLESS OTHERWISE NOTED SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS.
4. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
5. CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE AND FINISH
6. ALL WORK SHOWN ON THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS AND OF THE MARYLAND STATE HIGHWAY ADMINISTRATION AND THE HOWARD COUNTY PLUMBING CODE, UNLESS OTHERWISE NOTED.
7. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
8. THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC ARE TO BE REMOVED PRIOR TO PLACING A BID ON SUCH ITEMS.
9. THE LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY THE LOCATIONS ARE TAKEN FROM EXISTING RECORDS AND DO NOT REPRESENT FIELD-VERIFIED LOCATIONS THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 A MINIMUM OF 5 WORKING DAYS PRIOR TO DIGGING THE CONTRACTOR SHALL CONFIRM TO HIS OWN SATISFACTION THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION OR PLACEMENT OF MATERIALS. IF ANY CONFLICT IS FOUND BETWEEN UNDERGROUND UTILITIES AND THE PROPOSED LOCATION OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT G W STEPHENS AND THE OWNER OF THE UTILITY IMMEDIATELY ANY DAMAGE OR DISRUPTION OF SERVICE SHALL BE AT THE EXPENSE OF THE CONTRACTOR. RELOCATION OF ANY EXISTING UTILITIES, IF NECESSARY, SHALL BE AT THE EXPENSE OF THE OWNER THE CONTRACTOR SHALL COORDINATE RELOCATION OF THESE FACILITIES, IF NECESSARY.
10. CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION.
11. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OFFSITE ROADS, RIGHTS OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY G. W STEPHENS OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM G W. STEPHENS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR
13. CONTRACTOR SHALL CONFORM TO ALL GRADES AND DIMENSIONS SHOWN WITHIN A TOLERANCE OF 0.1 FOOT
14. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE OF ALL TREES, PAVING, STRUCTURES, ETC WITHIN THE CONSTRUCTION AREA UNLESS OTHERWISE NOTED ON THE PLAN.
15. ONLY SUITABLE MATERIAL SHALL BE USED AS FILL AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ALL 2:1 SLOPES SHOWN HEREON, EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, ALL GRADING UNDER PROPOSED PAVING, AND ALL FILL AND COMPACTION SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER.
16. CONTRACTOR SHALL PROVIDE MINIMUM 4 FOOT BENCH AT EDGE OF PAVING IN FILL AREAS MAXIMUM SLOPE OF BENCH SHALL BE 4% (1/4 IN PER FOOT)
17. MAXIMUM SLOPE SHALL BE 2 HORIZONTALLY TO 1 VERTICALLY
18. CONTRACTOR SHALL PLACE 4" MINIMUM TOPSOIL IN LANDSCAPE AREAS TOPSOIL SHALL BE APPROVED BY LANDSCAPE ARCHITECT
19. CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STUBS
20. ALL UTILITIES INSTALLED SHALL RECEIVE FULL TRENCH COMPACTION.
21. CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER STORM DRAIN PIPES DURING CONSTRUCTION
22. All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
23. 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. 371A and 43B2 were used for this project.
24. Water is public. (Contract No. 14-1753-D)
25. Sewer is public. (Contract No. 14-1753-D)
26. There is no floodplain on this site.
27. There is no wetlands on this site.
28. No traffic study is required for this project.

NOTE: The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building, shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above statement shall apply to all initial and future occupants or tenants.

29. CONTRACTOR SHALL MAINTAIN TRAFFIC ON ADJACENT ROAD AT ALL TIIMES DURING CONSTRUCTION.
30. CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AND SIGNAGE FOR HANDICAP PARKING SPACES INDICATED HEREON IN ACCORDANCE WITH ALL APPLICABLE CODES. ALL PAVEMENT MARKINGS TO BE TRAFFIC WHITE.
31. ALL HANDICAPPED FACILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH THE "DESIGN OF BARRIER FREE FACILITIES" AND THE MARYLAND BUILDING CODE FOR THE HANDICAPPED AND AGED, LATEST EDITION.
32. ALL TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" ALL STREET AND REGULATORY SIGNS SHALL BE INSTALLED PRIOR TO INSTALLATION OF FINISHED PAVING.
33. THE CONTRACTOR SHALL REPLACE ANY EXISTING BITUMINOUS PAVING OR SUB-BASE WHICH IS DAMAGED OR REMOVED DURING CONSTRUCTION. ALL EXCAVATED AREAS SHALL BE BACKFILLED AND IN ACCORDANCE WITH THE SOILS REPORT AND/OR AS DIRECTED BY GEOTECHNICAL ENGINEER. ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFILLED AND COMPACTED.
34. THE CONTRACTOR SHALL PLACE PROPOSED SURFACE COURSE OVERLAY 5 FEET BEYOND LIMITS OF REPLACEMENT PAVING, UNLESS DIRECTED OTHERWISE BY THE ENGINEER IN THE FIELD. ALL OVERLAYS SHALL HAVE SMOOTH, STRAIGHT EDGES. STRIP AND RESURFACE EXISTING PAVING AS NEEDED TO PROVIDE SMOOTH TRANSITION.
35. ALL AREAS NOT BEING PAVED OR RECEIVING BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
36. SIDEWALK SHALL CONFORM TO DETAIL R 305 OF THE AFOREMENTIONED HOWARD COUNTY STANDARDS. SLOPE, WIDTH, AND LOCATION AS SHOWN HEREON. SIDEWALK SHALL PLACED ON A 4" CRUSHED STONE BASE AND IS SHALL REINFORCED WITH WIRE MESH.
37. PREFORMED ELASTOMERIC COMPRESSION JOINT MATERIAL SHALL BE INSTALLED AT ALL MEETINGS OF EXISTING AND PROPOSED CONCRETE PAVING AND SIDEWALKS
38. STORMCEPTORS SHALL BE AS MANUFACTURED BY THE STORMCEPTOR CORPORATION 600 E. JEFFERSON STREET, SUITE 304 ROCKVILLE, MARYLAND 20852 TELEPHONE : 301-762-8361
39. ALL STORMCEPTORS SHALL BE CONCRETE (TYPE STC 1200) WATER QUALITY STRUCTURE, PRIVATELY OWNED, SEE MAINTENANCE SCHEDULE THIS SHEET.

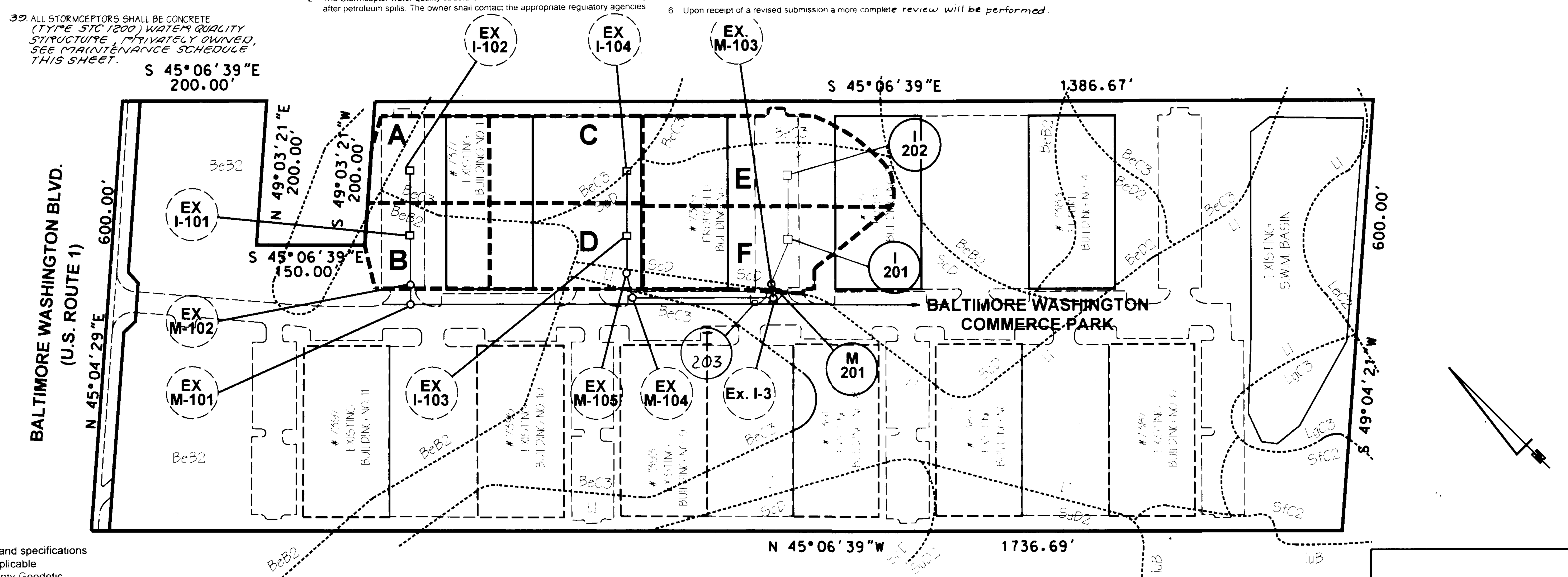


REV	D.B	S.B	
	G.B.		STC 1200 PRECAST CONCRETE STORMCEPTOR
DATE 08/16/95	SCALE NTS	UNITS U.S.	1200 US GALLON CAPACITY

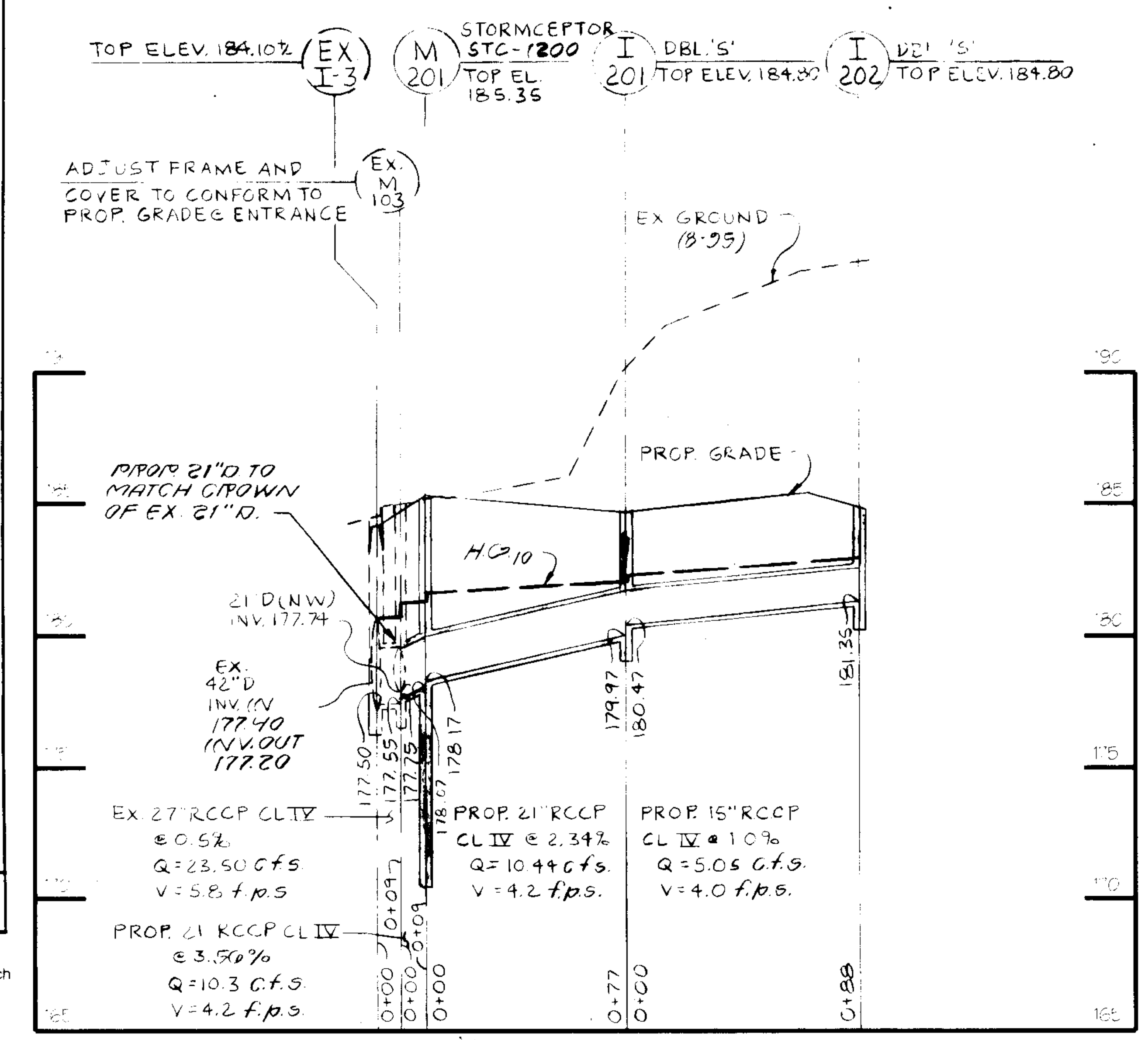
Design Specifications:
1. ASTM C 478
2. BASE WEIGHT = 7.6 TONS

OPERATIONS AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE

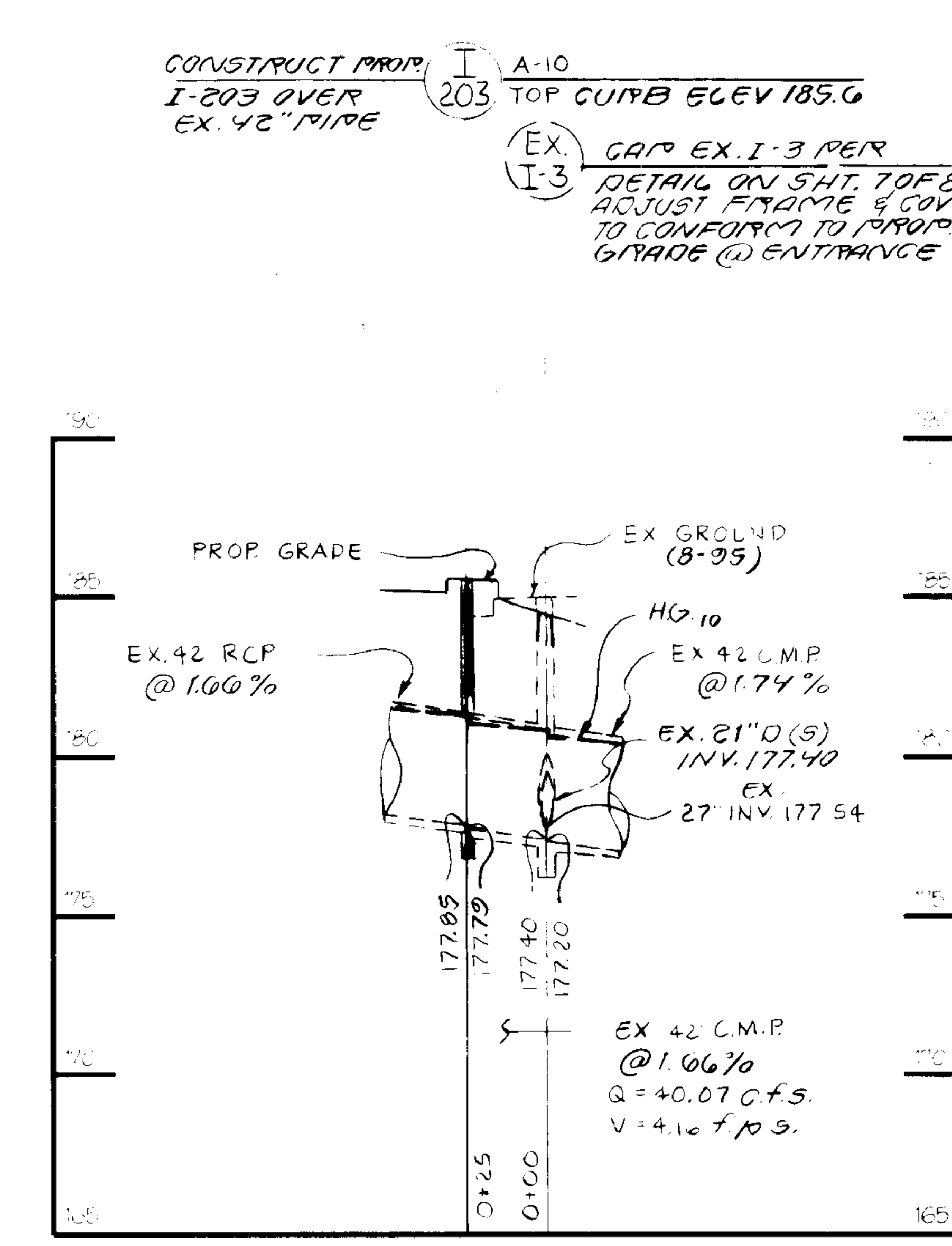
1. The stormceptor water quality structure shall be periodically inspected and cleaned to maintain operation and function. The owner shall inspect the stormceptor unit yearly at a minimum, utilizing the stormceptor inspection/monitoring form. Inspection shall be done by using a clear plexiglass tube ("sludge judge") to extract a water column sample. When the sediment depts exceed the level specified in Table 6 of the Stormceptor Technical Manual, the unit must be cleaned.
2. The Stormceptor water quality structure shall be checked and cleaned immediately after petroleum spills. The owner shall contact the appropriate regulatory agencies
3. 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
4. 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
5. The owner shall retain and make the Stormceptor Inspection/Monitoring Forms available for the Howard County officials upon their request
6. Upon receipt of a revised submission a more complete review will be performed.



Profile I-202 to Ex. I-3



Profile I-203 to Ex. I-3



Drainage Area and Soils Map

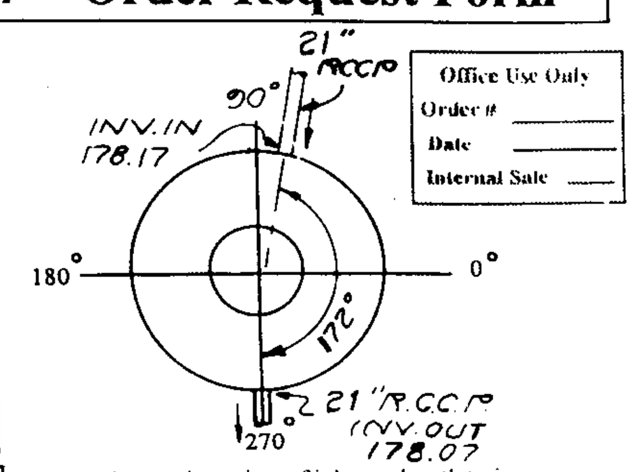
STRUCTURE SCHEDULE			
NO.	TYPE	LOCATION	HOW.CO.STD.DET.
I-201	DBL. 'S' GRATE	AS PER PLAN	SD-4.23
I-202	DBL. 'S' GRATE	AS PER PLAN	SD-4.23
I-203	A-10 (W=5')	" " "	SD-4.02
M-201	STC-1200	" " "	SEE DET. THIS SHT.
EX. I-3	-	SEE PLAN	SEE DET. SHT. 7
EX. M-103	STD. MH	" "	*

* SEE PROFILE THIS SHT. FOR NECESSARY ADJUSTMENTS

DRAINAGE AREA			
[illegible]	[illegible]	[illegible]	[illegible]
A	[illegible]	[illegible]	[illegible]
B	[illegible]	[illegible]	[illegible]
C	[illegible]	[illegible]	[illegible]
D	[illegible]	[illegible]	[illegible]
E	0.70	[illegible]	[illegible]
F	0.79	[illegible]	[illegible]

Concrete Stormceptor® Order Request Form

Contractor Information
Name
Address
City
State
Zip Code
Contact
Phone
Fax



Office Use Only
Order #
Date
Internal Sale

Owner Information
Name HILL MANAGEMENT
Phone (410) 666-1000
Fax

Please draw orientation of inlet and outlet pipes on diagram along with pipe inside diameter (in.) and invert elevation (ft). Clearly mark inlet pipes with an I and outlet pipes with an O and provide the inlet/outlet pipe angle in degrees.

Stormceptor® Model: 900 ☐ 1200 ☒ 1800 ☐ 2400 ☐ 3600 ☐ 4800 ☐ 6000 ☐ 7200 ☐

Insert Size: 22" ☐ 32" ☐ 44" ☐ Custom ___

Manhole Number	M-201
Top Elevation (ft)	189.35
Inlet Pipe Invert (ft)	178.17
Outlet Pipe Invert (ft)	178.07
Pipe Type	R.C.C.P.
Pipe Inside Diameter (in) [ID]	21"
Pipe Outside Diameter (in) [OD]	27"

Project Name B.W. COMMERCE PARK
Approximate time frame until required delivery (weeks)
Delivery Address : Street
City State Zip Code
Designer Company G.W. STEPHENS
Designer Contact T. WOOLFOLK Phone (410) 825-8120 Fax (410) 583-0288

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 6/6/97
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 6/5/97
DIRECTOR — DATE 6/10/97

ADDRESS CHART	
BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL #
BALTO. WASH. COMM. PARK	BUILDING NO. 2	62

DEED #	BLOCK #	ZONE	TAX /ZONE MAP	ELECT. DIST.	CENSUS TRACT
1700 /137	5	M-2	43	1	6012

WATER CODE B01 — SEWER CODE 2153000

DATE	REVISION	BY
3.14.97	PER HO.CO.	EAS

PREPARED BY :
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OWNER/DEVELOPER
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9640 Deereco Road
Timonium, Maryland 21093
410-666-1000

STORM DRAIN PROFILES AND CONSTRUCTION NOTES
BUILDING NO. 2
BALTIMORE - WASHINGTON COMMERCE PARK

ELECTION DISTRICT : 1 — SCALE AS SHOWN
HOWARD COUNTY, MARYLAND — DATE DEC. 26, 1996

DESIGNED : E.A.S. DRAWN : E.M.T. CHECKED : J.A.M. SHEET 3 OF 8

SDP-97-81 — P.N.: 7889 JOB NAME : sd profiles con notes

Stabilization Specifications

Section I - Vegetative Stabilization Methods and Materials

A. Site Preparation

i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.

iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

B. Soil Amendments (Fertilizer and Lime Specifications)

i. Soil tests must be performed to determine the exact rates and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analyses may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples may be taken for engineering purposes may also be used for chemical analyses.

ii. Fertilizers shall be uniform in composition, free flowing, and suitable for accurate application by approved equipment. Mixed may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranties of the producer.

iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 90 - 100% will pass through a #20 mesh sieve.

iv. Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.

v. Soil Amendments (the only one of the following schedules

i. Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. / 1000 s.f.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. / 1000 s.f.). Before seeding, harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 uniform fertilizer (9.2 lbs / 1000 s.f.).

ii. Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. / 1000 s.f.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. / 1000 s.f.) before seeding, harrow or disc upper three inches of soil.

C. Seedbed Preparation

i. Temporary Seeding

a. Seedbed preparation shall consist of loosening soil to a depth of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should not be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans.

c. Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.

ii. Permanent Seeding

a. Minimum soil conditions required for permanent vegetative establishments

1. Soil pH shall be between 6.8 and 7.8.
2. Soluble salts shall be less than 500 parts per million (ppm).
3. The soil shall contain less than 40% clay but enough fine grained material (> 30%) silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lowgrass or sericia lespedeza is to be planted, then a sandy soil (<30% silt plus clay) would be acceptable.
4. Soil shall contain 1.5% minimum organic matter by weight.
5. Soil must contain sufficient pore space to permit adequate root penetration.
6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.

b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3 - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.

c. Apply soil amendments as per soil test or as included on the plans.

d. Mix soil amendments into the top 3 - 5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment, to roughen the surface. Steep slopes steeper than 3:1 should be tracked by a dozer, leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1 - 3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

D. Seed Specifications

i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material in this job.

ii. Inoculant - The inoculant for treating legume seed in the seed mixture shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. NOTE: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 - 80 degrees F. can weaken bacteria and make inoculant less effective.

NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.

E. Methods of Seeding

i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a cultipacker seeder.

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen maximum of 1000 lbs. per acre; total soluble nitrogen: P205 (phosphorus) 200 lbs./ac.; K20 (potassium) 200 lbs./ac.

b. Lime - use only ground agricultural limestone. 4 to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

iii. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

F. Mulch Specifications (in order of preference)

i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

ii. Wood Cellulose Fiber Mulch (WCFM)

a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.

b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

c. WCFM, including dye, shall contain no germination or growth inhibiting factors.

d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

e. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic.

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.8 to 8.3, ash content of 1.6% maximum and water holding capacity of 90% minimum.

NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

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

i. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.

iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a minimum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

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

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a nominal of two (2) inches. This practice is most effective in steep areas but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.

ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a minimum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on the crests of banks. The remainder of area should appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Hydro-Tech), DCA-70, Petroset, Terra Tex II, Terra Tack AR or other approved liquid may be used at rates recommended by the manufacturer to anchor mulch.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3000 feet long.

Section II - Temporary Seeding

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

A. Seed Mixtures - Permanent Seeding

i. select one or more off the species or mixtures listed in Table 25 for the appropriate Plant Hardness Zone (from figure 9) and enter then in Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, dunes or for special purposes such as wildlife or esthetic treatment may be found in USDA-SCS Technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass.

ii. For sites having disturbed areas over 5 acres, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in.

iii. For areas receiving low maintenance, apply urea-form fertilizer (46-0-0) at 3-1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding

Section III - Permanent Seeding

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

A. Seed Mixtures - Permanent Seeding

i. select one or more off the species or mixtures listed in Table 25 for the appropriate Plant Hardness Zone (from figure 9) and enter then in Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sites such as shorelines, streambanks, dunes or for special purposes such as wildlife or esthetic treatment may be found in USDA-SCS Technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass.

ii. For sites having disturbed areas over 5 acres, the rates shown on this table shall be deleted and the rates recommended by the testing agency shall be written in.

iii. For areas receiving low maintenance, apply urea-form fertilizer (46-0-0) at 3-1/2 lbs/1000 sq. ft. (150 lbs/ac), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding

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

A. General specifications

i. Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.

ii. Sod shall be machine cut at a uniform soil thickness of 3/4", plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.

iii. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

vi. Site Preparation (Fertilizer and Lime application rates will be determined by soil test. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime may be applied in amounts shown under vi.b. below.

a. Prior to sodding, the surface will be cleared of all trash, debris, and of all roots, brush, vines, grade stakes and other objects that would interfere with planting, fertilizing, or maintenance operations.

b. Where soil is acid or composted of heavy clays, ground limestone will be spread at the rate of 2 tons per acre (92 lbs./ 1000 s.f.). In all soils 1000 lbs. per acre (25 lbs./ 1000 s.f.) of 10-10-10 fertilizer or equivalent will be uniformly applied and mixed into the top three inches of soil with the required lime.

c. All areas receiving sod will be uniformly fine graded. Hard packed earth will be scarified prior to placement of sod.

B. Sod Installation

i. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.

ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause drying of the roots.

iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.

iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

C. Sod Maintenance

i. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.

ii. After the first week, sod watering is required as necessary to maintain adequate moisture content.

iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

Section IV - Turfgrass Establishment

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

NOTE: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

A. Turfgrass Mixtures

i. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management, irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rates 1.5 to 2.5 pounds/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/ Certified Kentucky Bluegrass Seeding rates 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use on drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes certified Tall Fescue Cultivars 75 - 100%, certified Kentucky Bluegrass Cultivars 0 - 25%. Seeding rate 5 to 8 lbs./1000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue - Shady Mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality intensively managed turf areas. Mixture includes certified Kentucky Bluegrass Cultivars 30 - 40% and certified Fine Fescue and 60 - 70%. Seeding rate 1 1/2 - 3 lbs./1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

NOTE: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Memo 197, "Turfgrass Cultivar Recommendations for Maryland".

B. Ideal times of seeding

Western MD: March 15-June 1, August 1-October 1 Hardiness Zones - 5b, 6a)

Central MD: March 1-May 15, August 15-October 15 Hardiness Zones - 6b)

Southern MD, Eastern Shore: March 1-May 15, August 15-October 15 Hardiness Zones - 7a, 7b)

C. Irrigation

If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

D. Repairs and Maintenance

Inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season.

i. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.

ii. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer, seedbed preparation and seeding recommendations.

iii. If the stand provides between 40% and 90% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.

iv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 174.

Fertilizer Rates

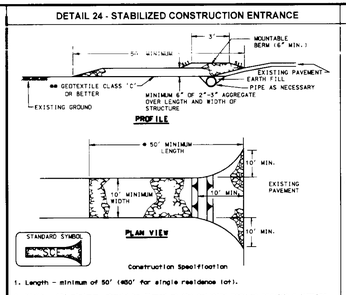
Temporary Seeding

Permanent Seeding

Table 25 - Permanent Seeding for Low Maintenance Areas

Table 26 - Temporary Seeding Rates, Depths, and Dates

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

1. Length - minimum of 50' (*80' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. 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.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. 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 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high point 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.
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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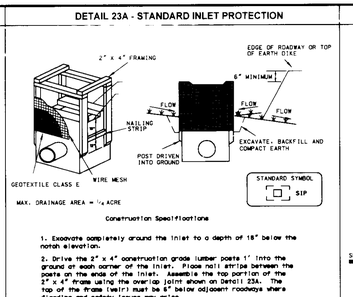
DETAIL 23A - STANDARD INLET PROTECTION



Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.
2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (sill) must be 6" below adjacent roadways where flooding and safety issues may arise.
3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.
4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded.
5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.
6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.
7. The structure must be inspected periodically and after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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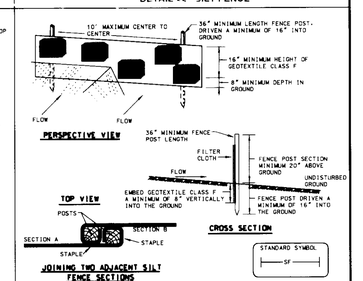
DETAIL 22 - SILT FENCE



JOINING TWO ADJACENT SILT FENCE SECTIONS

Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" into the ground. Wood posts shall be 1-1/4" x 1-1/4" square (minimum) out- or 1-3/4" diameter (minimum) round and shall be of good quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. 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 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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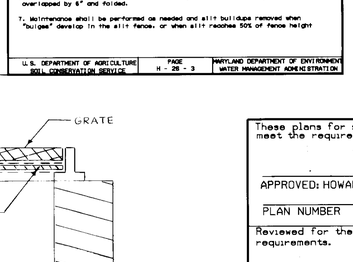
DETAIL 33 - SUPER SILT FENCE



Construction Specifications

1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The SHA specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. The posts do not need to be set in concrete.
3. Chain link fence shall be fastened securely to the fence posts with wire ties. 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 six gauge (6) or heavier
4. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" on the top and mid section.
5. Filter cloth shall be embedded a minimum of 8" into the ground.
6. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
7. 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

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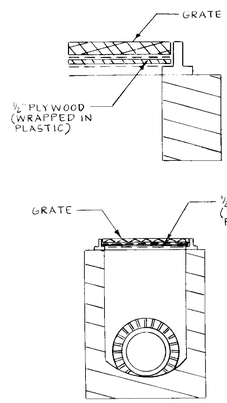
NOTE : PROJECT IS IN USDA HARDINESS ZONE 6b



STANDARD INLET BLOCKING DETAIL
NOT TO SCALE

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

APPROVED: HOWARD SOIL CONSERVATION DISTRICT

PLAN NUMBER _____ DATE _____

Reviewed for the Howard Conservation District and meets technical requirements.

NATURAL RESOURCES CONSERVATION SERVICE _____ DATE _____

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION _____ DATE 6/6/97

CHIEF, DIVISION OF LAND DEVELOPMENT _____ DATE 6/5/97

DIRECTOR _____ DATE 6/10/97

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL #
BALTO. WASH. COMM. PARK	BUILDING NO. 2	62

PLAT #	BLOCK #	ZONE	TAX /ZONE MAP	ELECT. DIST.	CENSUS TRACT
1700 / 137	5	M-2	43	1	6012

WATER CODE BO1 SEWER CODE 2153000

PREPARED BY :

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and land Surveyors
653 Kenilworth Drive, Suite 100
Towson, Maryland 21204
(410) 825-8120

DEVELOPER 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.

Developer Name Lloyd McNutt Date 1/3/97

OWNER/DEVELOPER

HILL MANAGEMENT SERVICES, INC.
9640 Deereco Road
Timonium, Maryland 21093
410-666-1000

ENGINEER 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.

Engineer _____ Date 1/24/97

Name James A. Markle PE # 11005

DATE	REVISION	BY
3-14-97	PER H.O.CO.	EAS.

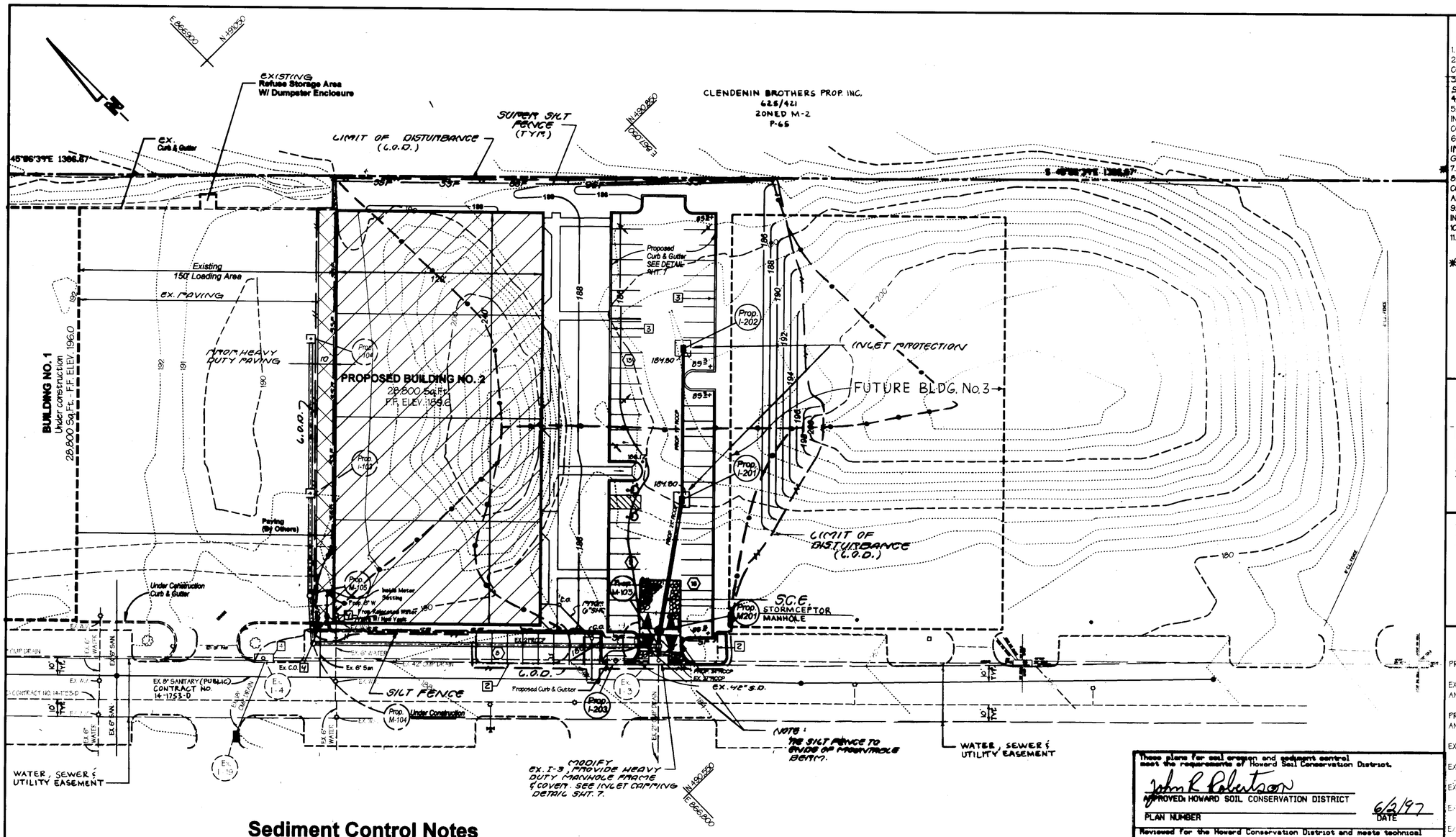
SEDIMENT CONTROL DETAILS
BUILDING NO. 2
BALTIMORE - WASHINGTON COMMERCE PARK

ELECTION DISTRICT 1 TAX MAP 43 GRID 6 PARCEL 62
HOWARD COUNTY, MARYLAND SCALE: NONE DATE: DEC. 26

DESIGNED : EAS DRAWN : EAS CHECKED : GWS SHEET 1 OF 1

SDP-97-81

105



Sequence Of Operations:

1. OBTAIN GRADING PERMIT.
2. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES, SEDIMENT CONTROL INSPECTOR, 48 HOURS BEFORE BEGINNING WORK.
3. INSTALL INLET CAPPING AT EX. I-3 PRIOR TO INSTALLING STABILIZED CONSTRUCTION ENTRANCE. (2 DAYS)
4. CLEAR AND GRUB AND INSTALL ALL SED. CONTR. DEVICES (2 DAYS)
5. AFTER NOTIFYING AND OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, BEGIN ROUGH GRADING. MAINTAIN POSITIVE DRAINAGE TO SEDIMENT CONTROL MEASURES AND DEVICES. (10 DAYS)
6. INSTALL ALL UTILITIES, STORM DRAINS, AND STORMCEPTOR DEVICES, PROVIDE INLET PROT. IMMEDIATELY UPON INSTALLATION OF EACH INLET. CONTINUE GRADING. (60 DAYS)
7. INSTALL FOOTINGS AND FOUNDATION WALL. CONTINUE BUILDING CONSTRUCTION.
8. FINE GRADE THE ENTIRE SITE. MAINTAIN POSITIVE DRAINAGE TO SEDIMENT CONTROL MEASURES AND DEVICES. INSTALL STONE SUBBASE AND CONCRETE CURB AND GUTTER. STABILIZE ALL REMAINING AREAS, REMOVE INLET PROT. (10 DAYS)
9. AFTER NOTIFYING AND OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND DEVICES. (2 DAYS)
10. FINE GRADE THOSE AREAS. INSTALL REMAINDER OF STONE SUBBASE. (3 DAYS)
11. COMPLETE PAVING AND LANDSCAPING OPERATIONS. (2 DAYS)

* ITEM 7 (60 DAYS)

Construction Notes :

1. SEE SHEET 6. FOR ADDITIONAL CONSTRUCTION NOTES.

[2] TO BE REMOVED.

[3] CURB SHALL BE REVERSE SLOPE CURB AND GUTTER UNLESS OTHERWISE NOTED.

[4] RELOCATE AS SHOWN.

LIMIT OF DISTURBANCE —#—#—
SUPER SILT FENCE —SSF—
SILT FENCE —SF—
INLET PROTECTION □
STAB. CONSTR. ENTR. SCE
EX. D.A. TO SEDIMENT DEVICE —•—•—

Legend

PROPERTY LINE		CONSTRUCTION NOTE	[2]
EXISTING CURB AND GUTTER		SPOT ELEVATION	85.6
PROPOSED CURB AND GUTTER		DIRECTION OF SURFACE FLOW	
EXISTING WATER LINE		CENTERLINE OF ROAD	
EXISTING STORM DRAIN		PARKING COUNT	(13)
EXISTING SANITARY		HEAVY DUTY PAVING	
EXISTING 2' CONTOURS	22	LIGHT DUTY PAVING	
EXISTING 10' CONTOURS		PROPOSED 2' CONTOURS	78
EXISTING FENCE LINE	-x-x-	PROPOSED 10' CONTOURS	100

Sediment Control Notes

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
   A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
   B) 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE "HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE".
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDING, SOD, TEMPORARY SEEDING AND MULCHING (SEC G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:
   TOTAL AREA OF SITE 26.17 ACRES
   AREA DISTURBED 1.67 ACRES - 72,745 S.F.
   AREA TO BE ROOFED OR PAVED 1.14 ACRES - 49020 S.F.
   AREA TO BE VEGETATIVELY STABILIZED 0.5 ACRES - 23,125 S.F.
   TOTAL CUT 10327 C.Y.
   TOTAL FILL 472 C.Y.
   OFFSITE WASTE/BORROW AREA LOCATION: EXCESS CUT SHALL BE TAKEN TO A SITE WITH AN APPROVED SEDIMENT CONTROL PLAN.
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

NOTE:
The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building shown on this site development plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. the above statement shall apply to all initial and future occupants or tenants.

These plans for soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

John R Robertson — 6/2/97
APPROVED: HOWARD SOIL CONSERVATION DISTRICT — DATE
PLAN NUMBER

Reviewed for the Howard Conservation District and meets technical requirements.

Cheryl Simmons — 6/2/97
NATURAL RESOURCES CONSERVATION SERVICE — DATE

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 6/6/97 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 6/5/97 DATE
DIRECTOR — 6/10/97 DATE

ADDRESS CHART	
BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL #
BALTO. WASH. COMM. PARK	BUILDING NO. 2	62

DEED #	BLOCK #	ZONE	TAX MAP / ZONE	ELECT. DIST.	CENSUS TRACT
1700 /137	6	M-2	43	1	6012

WATER CODE B01 — SEWER CODE 2163000

PREPARED BY :
GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120

DEVELOPER 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 also authorize periodic on-site inspection by the Howard Soil Conservation District.
Developer Name: Lloyd McNutt — Date 1/3/97

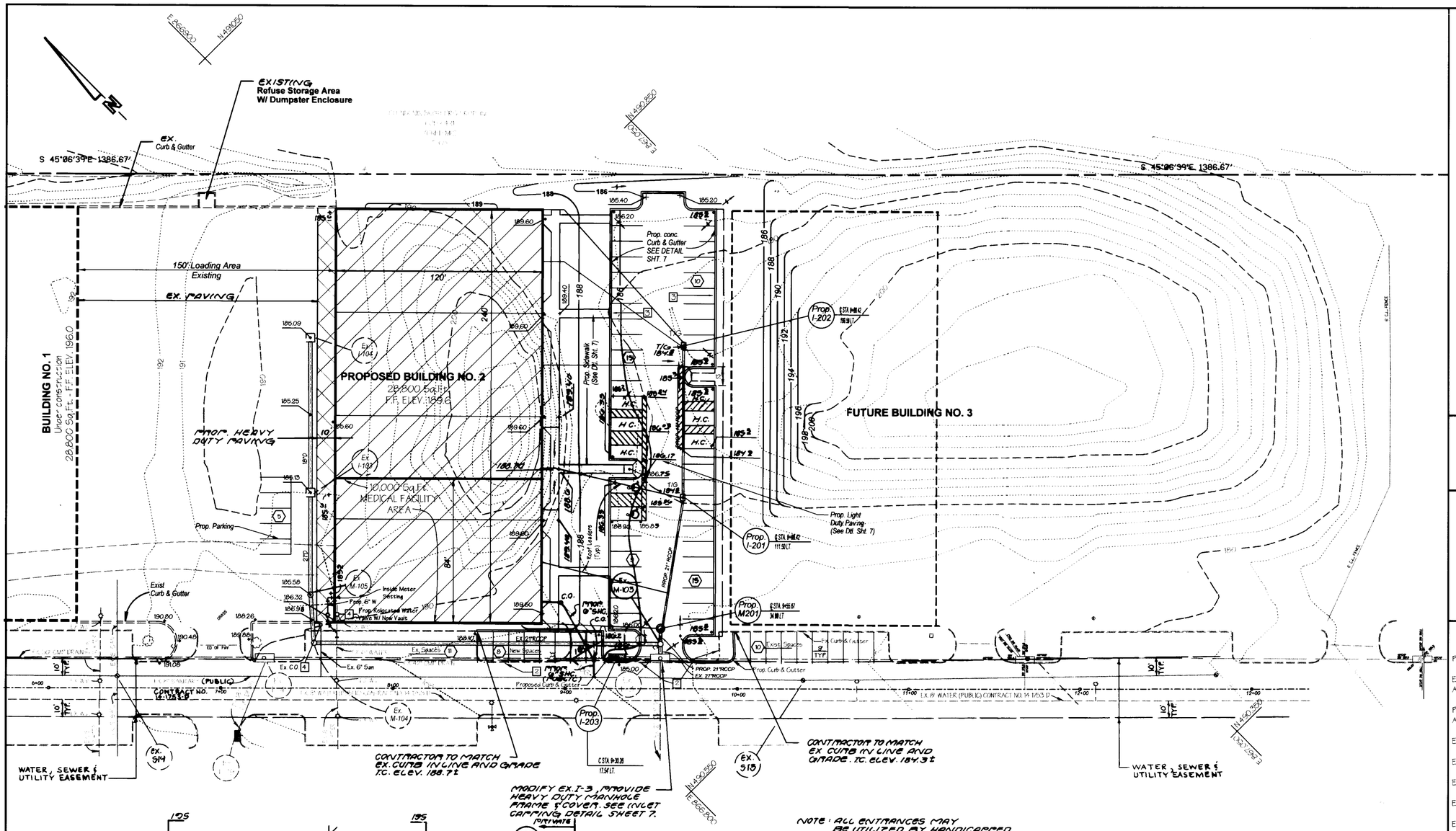
OWNER/DEVELOPER
HILL MANAGEMENT SERVICES, INC.
9648 Deereco Road
Timonium, Maryland 21093
410-666-1000

ENGINEER 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.
Signed — Date 1/24/1997
Name: JAMES A. MARKLE JR. — PE # 11005

DATE	REVISION	BY
1-3-97	PER CLIENT COMMENTS	EAS
3-14-97	PER H.CO.	EAS

SEDIMENT CONTROL PLAN
BUILDING NO. 2
BALTIMORE - WASHINGTON COMMERCE PARK
ELECTION DISTRICT : 1
HOWARD COUNTY, MARYLAND
SCALE : 1" = 30'
DATE : DEC. 26, 1996
DESIGNED : E.A.S. DRAWN : E.M.T. CHECKED : J.A.M. SHEET 4 OF 8

SDP-97-01
P/N : 7889 JOB NAME : bldg2sedcont.s01 TNW 10-25-96



NOTE:
The owner shall provide a separate and independent sewer connection for each tenant or occupant of any building shown on this site an easement plan who will discharge non-domestic waste to the public sewerage system if each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site on easement plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines, the above statement shall apply to all initial and future occupants or tenants.

Construction Notes :

1. SEE SHEET 6, FOR ADDITIONAL CONSTRUCTION NOTES.
2. TO BE REMOVED.
3. CURB SHALL BE REVERSE SLOPE CURB AND GUTTER UNLESS OTHERWISE NOTED.
4. RELOCATE AS SHOWN

Benchmark :

FOR BENCHMARK LOCATION SEE VICINITY MAP ON COVER SHEET.
℄ INLET (I-5) AT FACE OF CURB NORTHEAST SIDE ENTRANCE ROAD.
N 90924.25 ELEVATION 193.61
E 66530.12

Legend

PROPERTY LINE		CONSTRUCTION NOTE	2
EXISTING CURB AND GUTTER		SPOT ELEVATION	+86.6
PROPOSED CURB AND GUTTER		DIRECTION OF SURFACE FLOW	
EXISTING WATER LINE		CENTERLINE OF ROAD	
EXISTING STORM DRAIN		PARKING COUNT	13
EXISTING SANITARY		HEAVY DUTY PAVING	
EXISTING 2' CONTOURS	22	LIGHT DUTY PAVING	
EXISTING 10' CONTOURS	25	PROPOSED 2' CONTOURS	78
EXISTING FENCE LINE	-X-X-	PROPOSED 10' CONTOURS	100

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 6/6/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 6/5/97

DIRECTOR — DATE 6/10/97

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL #
BALTO. WASH. COMM. PARK	BUILDING NO. 2	62

DEED #	BLOCK #	ZONE	TAX MAP / ZONE	ELECT. DIST.	CENSUS TRACT
1700/137	5	M-2	43	1	6012

WATER CODE B01 SEWER CODE 2163000

PREPARED BY :

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120

OWNER/DEVELOPER

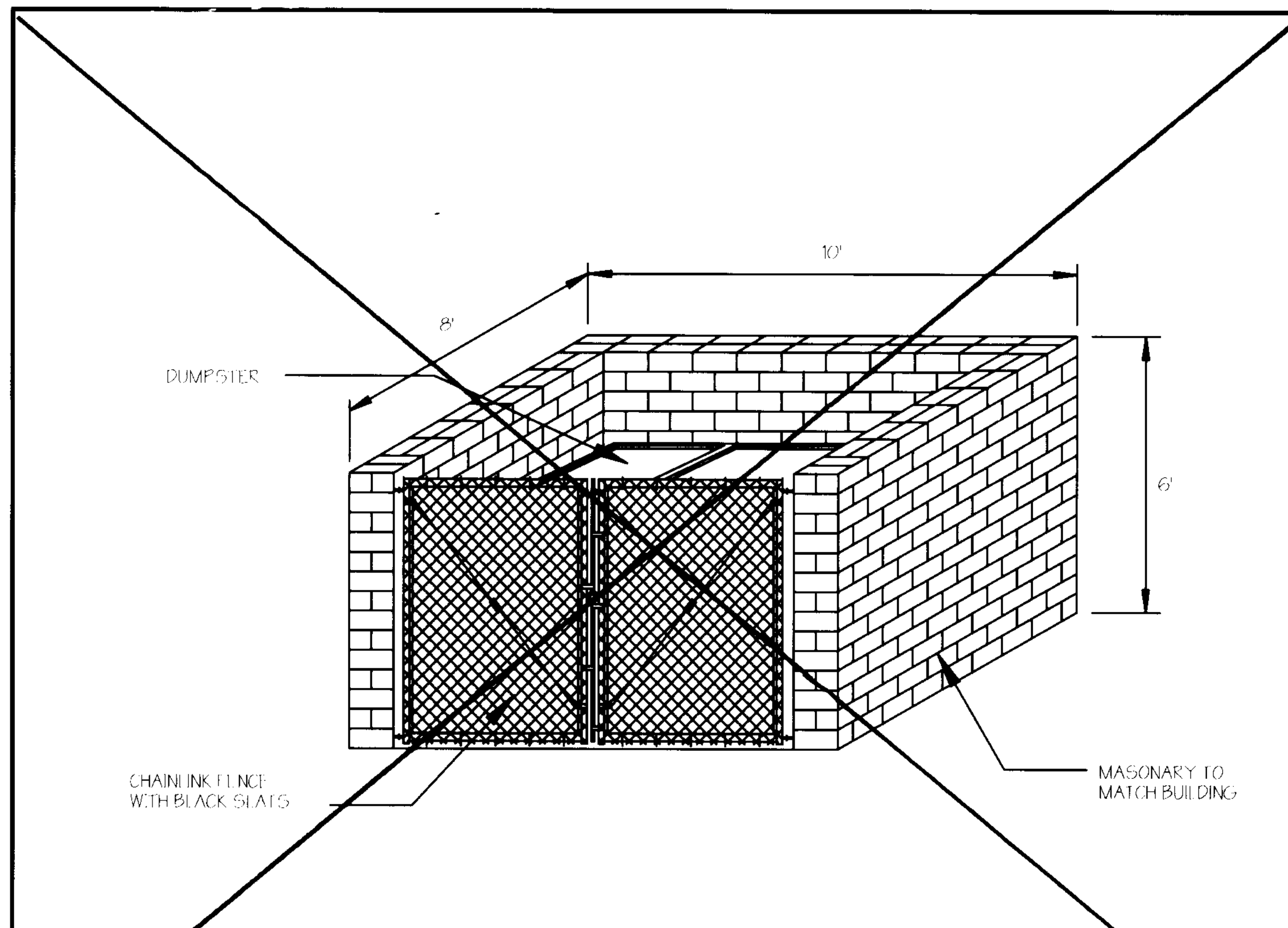
HILL MANAGEMENT SERVICES, INC.
9640 Deereco Road
Timonium, Maryland 21093
410-666-1000

DATE	REVISION	BY
1-3-97	PER CLIENT COMMENTS	EAS
3-14-97	PER H.O.CO.	EAS

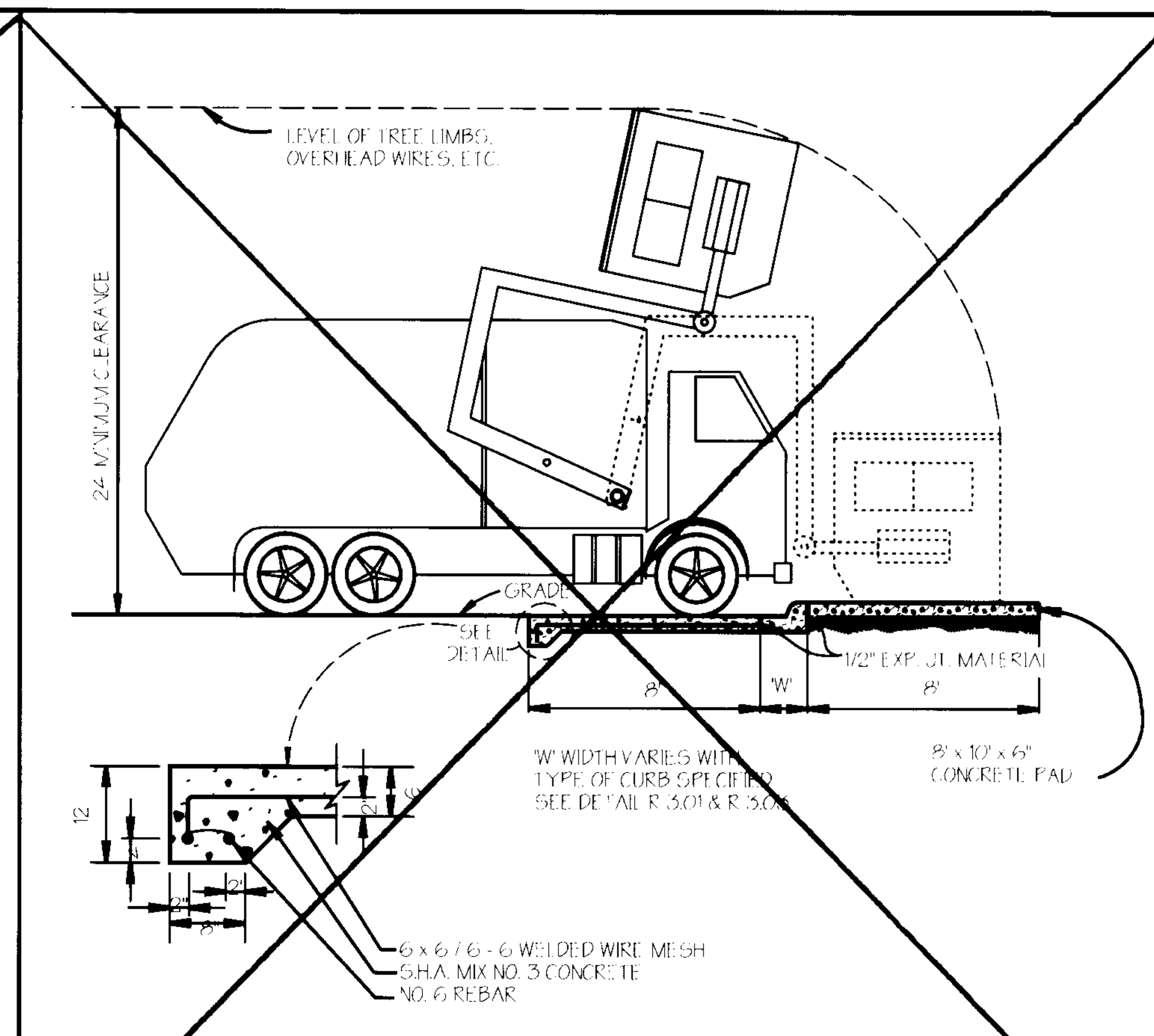
GRADING PLAN
BUILDING NO. 2
BALTIMORE - WASHINGTON COMMERCE PARK

ELECTION DISTRICT : 1 — SCALE : 1" = 30'
HOWARD COUNTY, MARYLAND — DATE : DEC. 26, 1996
DESIGNED : E.A.S. DRAWN : E.M.T. CHECKED : J.A.M. SHEET 3 OF 8

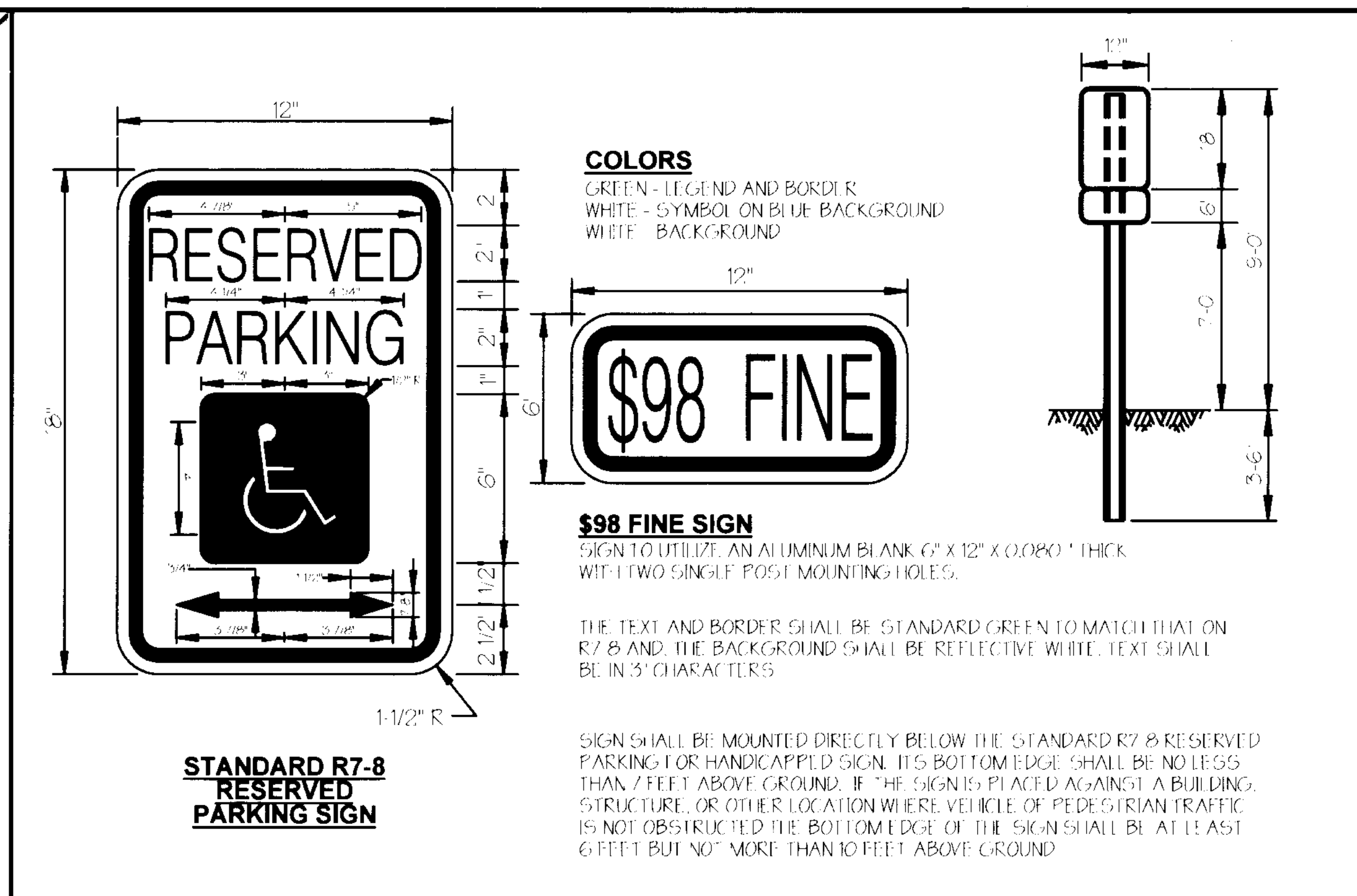
S10-97-01 — P/N : 7889J0B NAME : bldg2grade.s01 KE 1-02-97



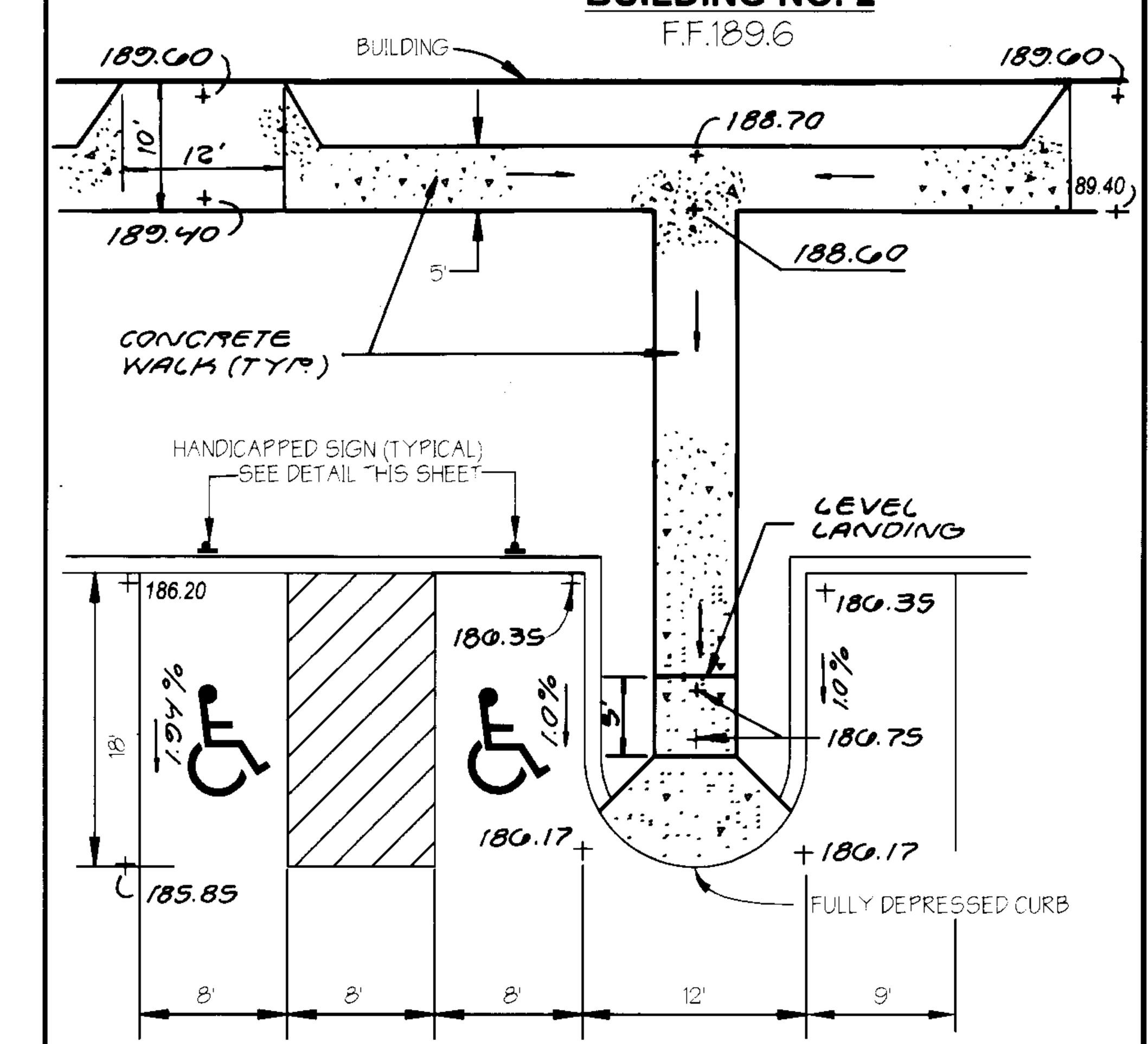
Dumpster Enclosure Detail
NOT TO SCALE



Solid Waste Service Pad
NOT TO SCALE



Handicapped Parking Sign Detail
NOT TO SCALE



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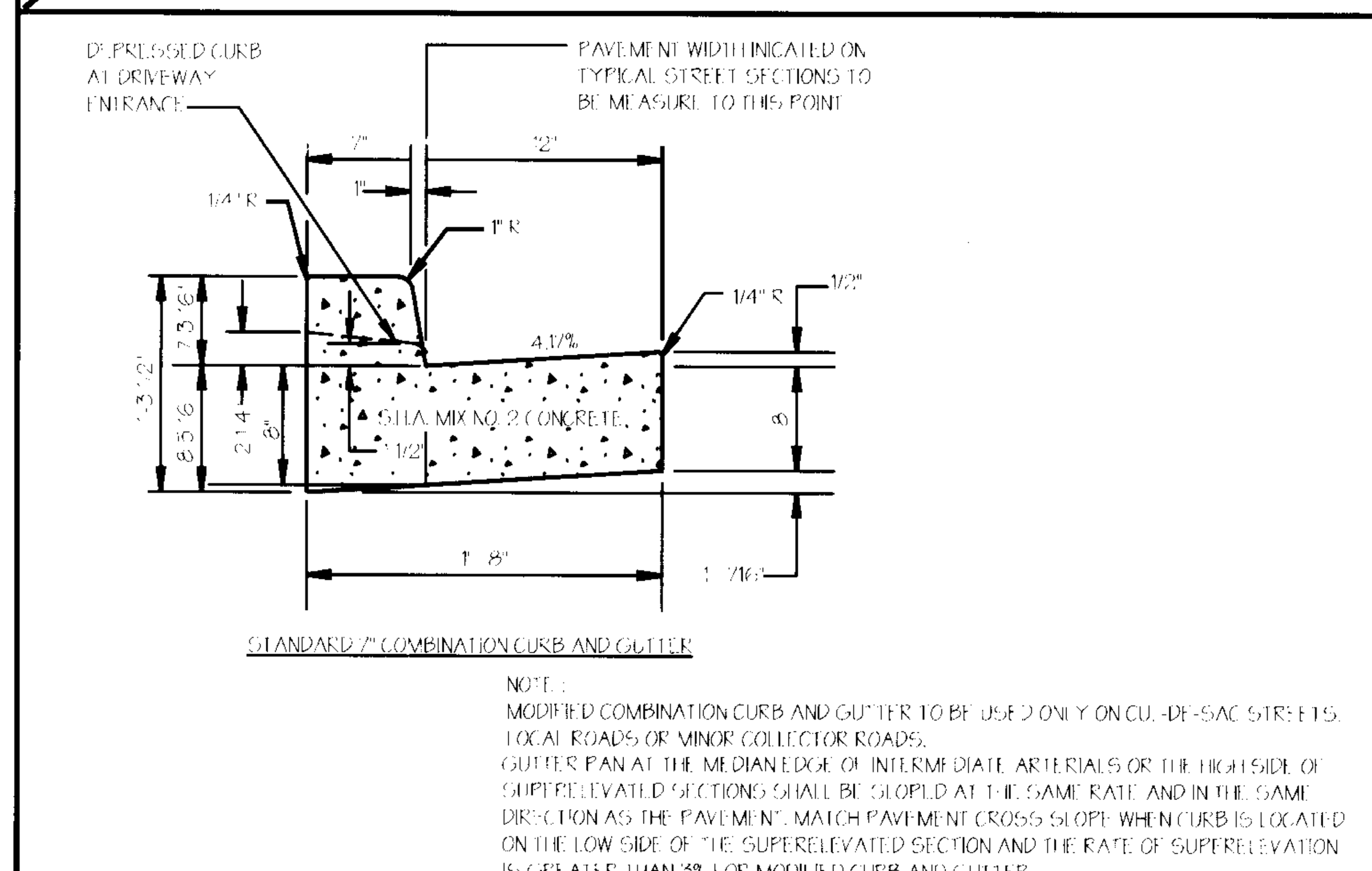
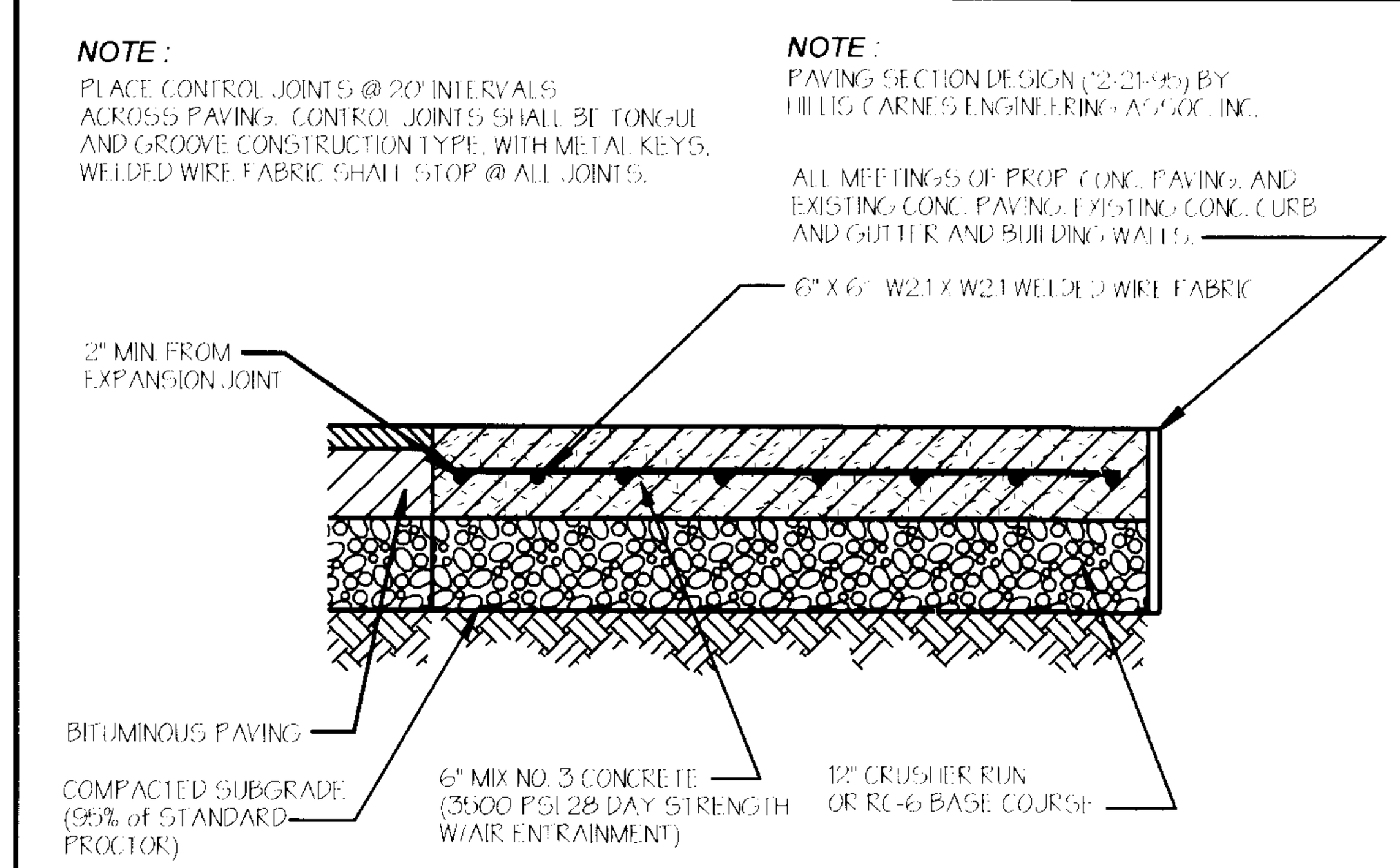
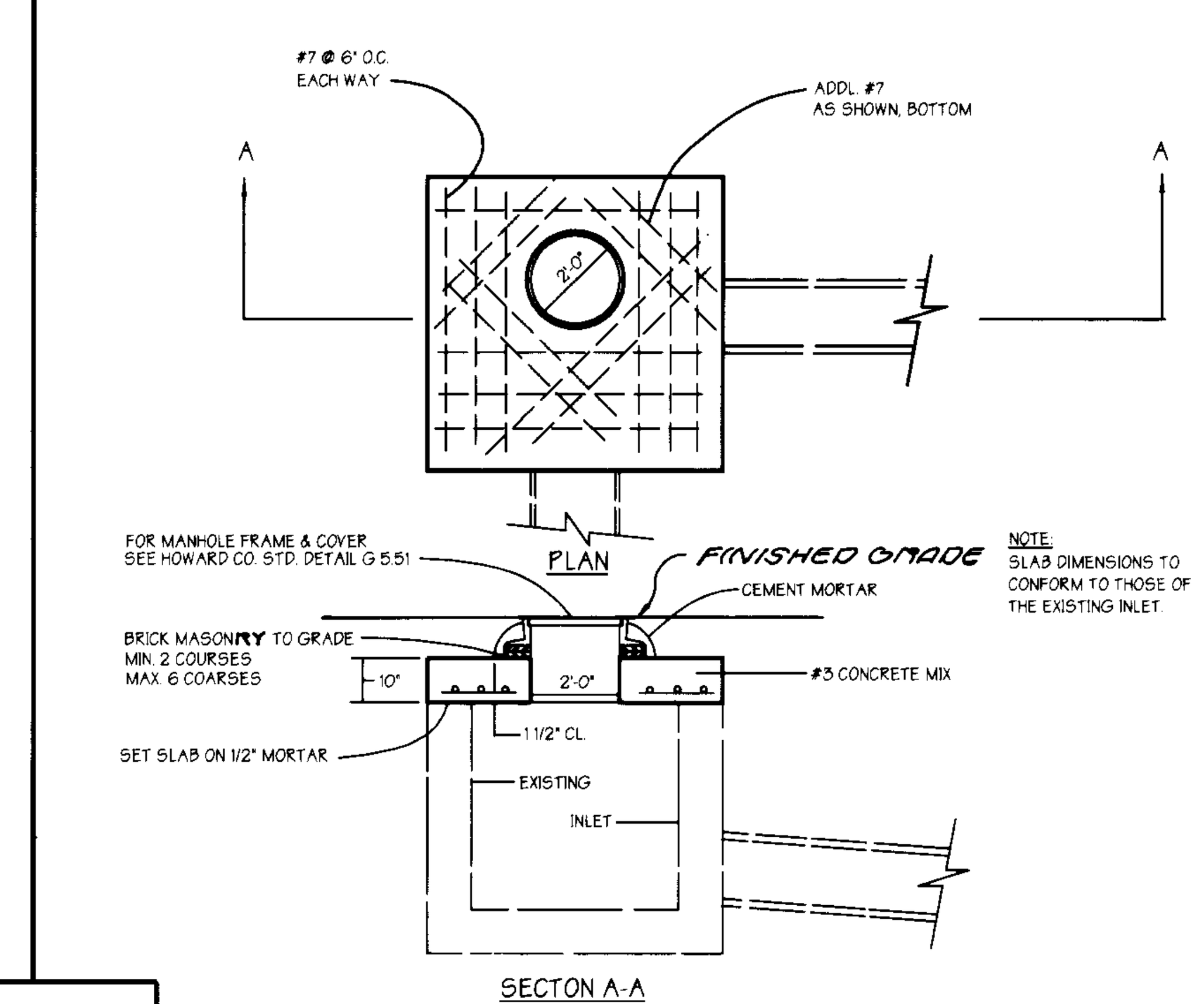


Howard County
Curb and Gutter Detail
NOT TO SCALE

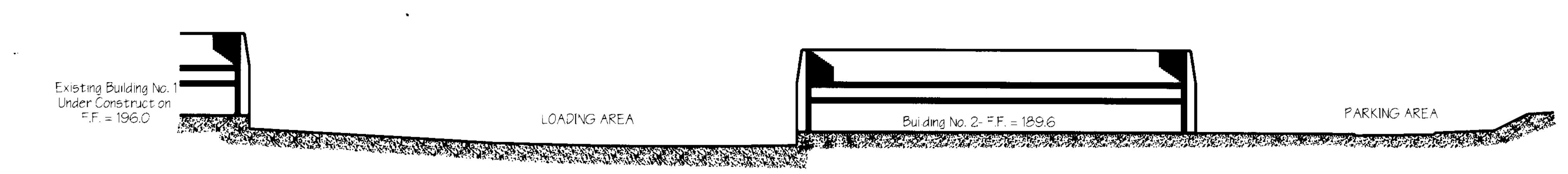


Concrete Paving Section
NOT TO SCALE

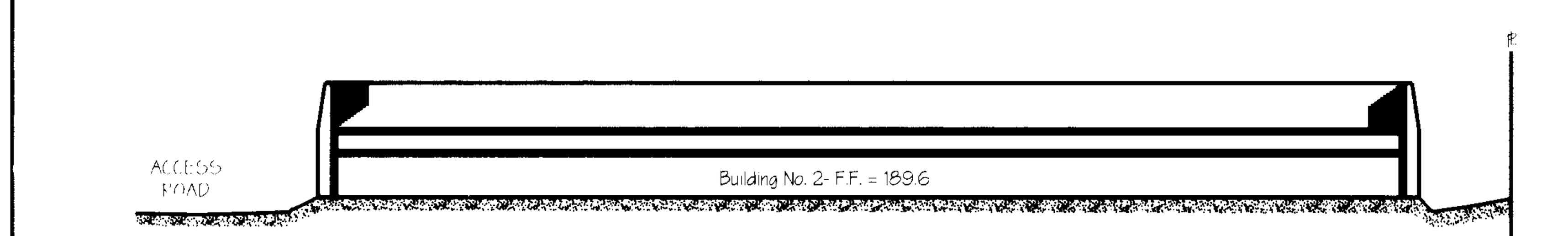


INLET CAPPING DETAIL
NOT TO SCALE

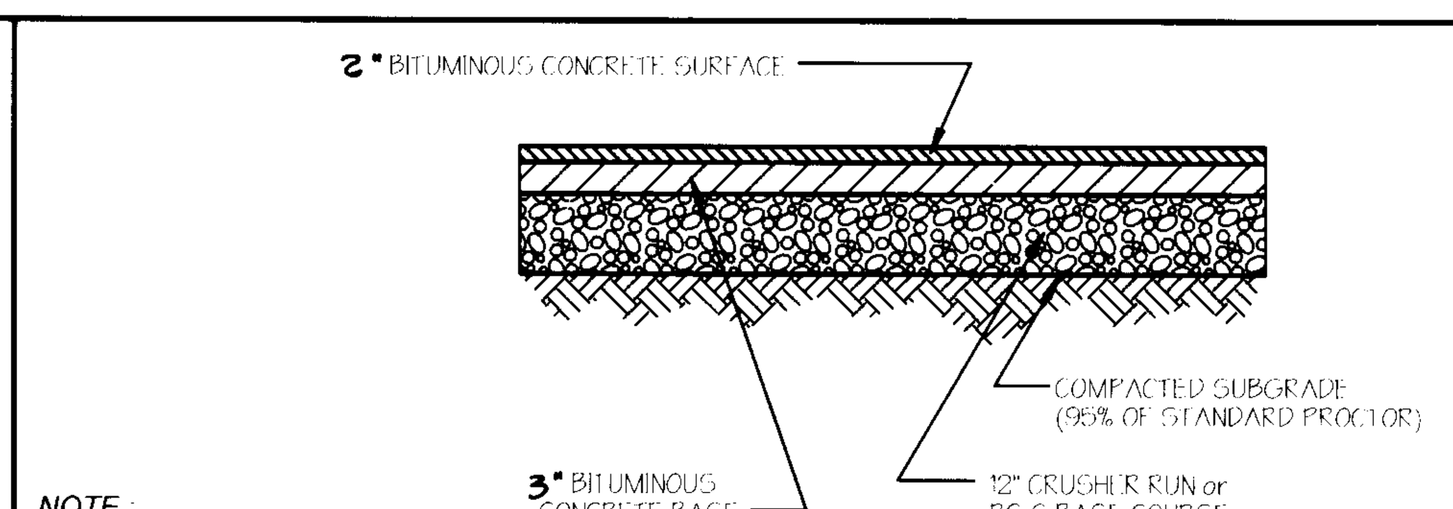
NOTE : ADJUST FRAME & COVER TO MATCH FINISHED GRADE.



Section A - A
SCALE : 1" = 30'

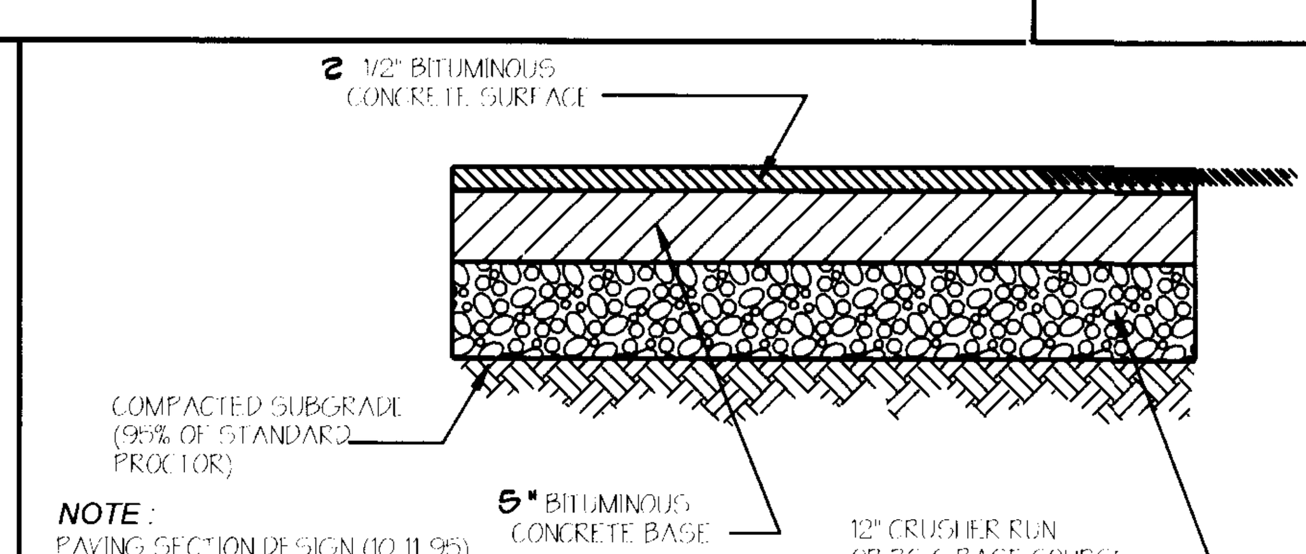


Section B - B
SCALE : 1" = 30'



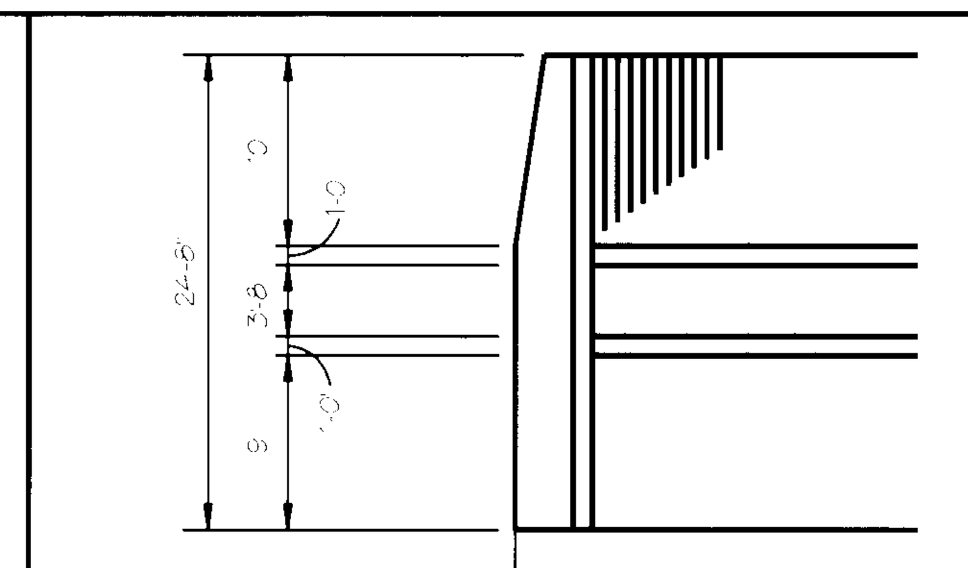
NOTE :
PAVING SECTION DESIGN (10-11-96)
BY HILLIS CARNES ENGINEERING
ASSOC. INC.

Light Duty Paving Section
NOT TO SCALE



NOTE :
PAVING SECTION DESIGN (10-11-96)
BY HILLIS CARNES ENGINEERING
ASSOC. INC.

Heavy Duty Paving Section
NOT TO SCALE



Proposed Building Height Detail
NOT TO SCALE

PREPARED BY :

GEORGE W. STEPHENS, JR. AND ASSOCIATES, INC.
Civil Engineers and Land Surveyors
658 Kenilworth Drive, Suite 100
Towson Maryland 21204
(410) 825-8120

OWNER / DEVELOPER

HILL MANAGEMENT SERVICES, INC.
9640 Deereco Road
Timonium, Maryland 21093
410-666-1000

DATE	REVISION	BY
1-3-97	PER CLIENT	EAS
	COMMENTS	
3-14-97	PER HO.CO.	EAS

APPROVED: Howard County Department of Planning and Zoning

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 6/6/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 6/9/97

DIRECTOR — DATE 6/10/97

ADDRESS CHART

BUILDING NO.	STREET ADDRESS
2	7379 BALTIMORE WASHINGTON BOULEVARD

PROJECT NAME	SECTION NAME	PARCEL #
BALTO. WASH. COMM. PARK	BUILDING NO. 2	62

DEED #	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
1700 /137	5	M-2	43	1	6012

WATER CODE B01 | SEWER CODE 2153000

SITE DETAILS / SECTIONS
BUILDING NO. 2
BALTIMORE - WASHINGTON COMMERCE PARK

ELECTION DISTRICT : 1 — SCALE : AS SHOWN
HOWARD COUNTY, MARYLAND — DATE : DEC. 26 , 1996

DESIGNED : E.A.S. DRAWN : E.M.T. CHECKED : J.A.M. SHEET 7 OF 8

SDP-97-81

P/N : 7889 JOB NAME : details.s01 KE 1-02 -97