

**LOCATION MAP**  
SCALE: 1" = 2000'  
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Permitted Use No. 20199639

**BENCH MARKS(NAD83)**

HO. CO. No. 34BB Elev. 485.254  
STAMPED BRASS DISK SET ON  
TOP OF CONCRETE (3' DEEP) COLUMN.  
1.3' EAST OF THE EDGE OF PAVEMENT OF  
ROUTE 108, 87.5' NORTH OF THE SOUTHERN WALL  
NORTH OF BGE POLE #531720.  
N 562,176.459' E 1,329,641.876'

HO. CO. No. 35A2 Elev. 488.644  
STAMPED BRASS DISK SET ON  
TOP OF CONCRETE (3' DEEP) CYLINDRIC BASE  
2.8' WEST OF THE EDGE OF ROUTE 108,  
214.5' SOUTH OF THE CENTERLINE OF  
SHEPPARD LANE AND 3.9' EAST OF A FENCE.  
N 564,154.800' E 1,331,201.112'

**SHEET INDEX**

- C-1 SITE DEVELOPMENT PLAN
- C-2 DRAINAGE AREA PLAN & W/S PROFILES
- C-3 GRADING, EROSION & SEDIMENT CONTROL PLAN
- C-4 LANDSCAPE PLAN
- C-5 NOTES AND DETAILS I
- C-6 NOTES AND DETAILS II

**SWM SUMMARY TABLE**

Storm Freq.	Existing Runoff (cfs) (TR 20)	Proposed Runoff (cfs) (TR-20)	SWM WSE in Pond (ft)	SWM Storage Provided (Ac-ft)
2 Yr	2.64	7.30	450.94	0.19
10 Yr	9.21	13.18	452.73	0.33

**ADDRESS CHART**

PARCEL	STREET ADDRESS
214	12202 CLARKSVILLE PIKE

**SUBDIVISION NAME**  
FOSTER PROPERTY

PLAT	BLOCK	ZONE	TAX MAP	ELECT/DIST	CENSUS TR
34-068		B-2	34	5th	6051.01

**WATER CODE** I-10      **SEWER CODE** - 6453500

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 1/3/00  
DIRECTOR, DEPARTMENT OF PLANNING & ZONING DATE

*[Signature]* 12/23/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 12/10/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

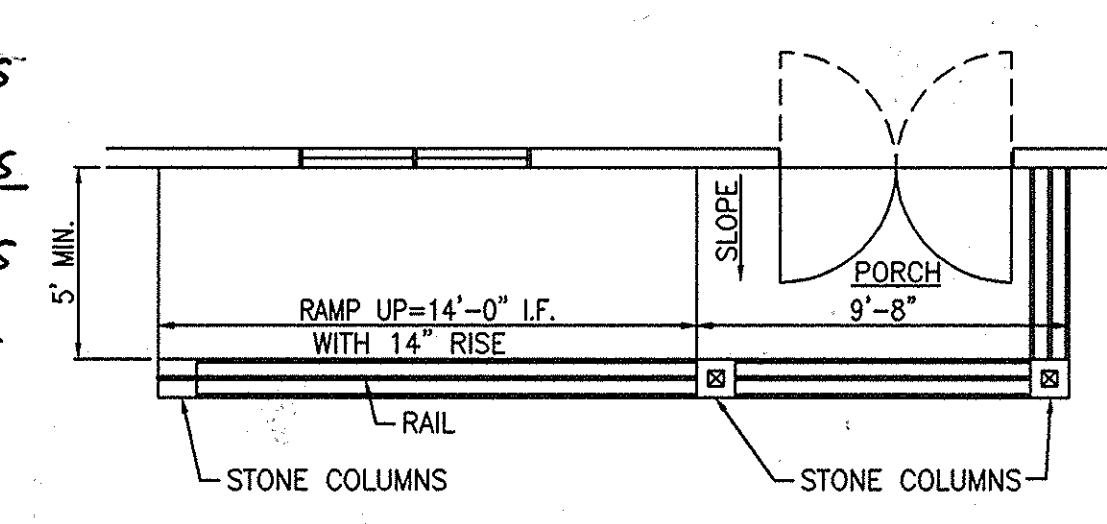
- GENERAL NOTES**
- All Construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
  - The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working day 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 device, markings and signing shall be accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
  - All plan dimensions are to face of curb unless otherwise noted.
  - The existing topography is taken from field run survey with two foot contour intervals prepared by O'Connell & Lawrence, Inc. dated August 1998.
  - 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. 34BB and 35AZ were used for this project.
  - Water is private. (will become public within one year of public system availability)
  - Sewer is private. (will become public within one year of public system availability)
  - Stormwater management is provided by an underground detention for water quantity and stormwater for water quality. These facilities are privately owned and maintained.
  - Existing utilities are based on record drawings and field locations.
  - There is no floodplain on this site.
  - There are no wetlands on this site.
  - No traffic study is required for this project.
  - Forest conservation requirements have been addressed by filing a Declaration of Intent.
  - Any exterior lighting shall be compliance with section 134 of the Zoning Regulations.
  - Cutting or processing of raw stone or other materials on site is prohibited.
  - Previous Department of Planning and Zoning reference number include: F94-113, F82-19, F00-69.
  - THE SUBJECT PROPERTY IS ZONED B-2 PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.

**SITE ANALYSIS DATA CHART**

- Total Project Area = 3.1Ac. or 135,036SF.
- Area of Plan Submission = 6.0Ac.
- Limit of Disturbed Area = 2.6Ac.
- Zoning = B-2
- Proposed Use = Retail
- SALES BUILDING AREA = 1,683SF
- VEHICLE DISPLAY AREA = 4,848 SF
- Parking Spaces Required = 25
- Common-use spaces with clarksville-square-shopping parking spaces provided = 24
- Total = 26
- Open Space On-Site = None

**K. BUILDING COVERAGE ON-SITE = 2,019 SF AND 1.5% OF GROSS AREA**

→ THERE IS A SHARED PARKING AGREEMENT WITH CLARKSVILLE SQUARE, LLC. E-4882, F-130



**HC RAMP DETAIL**  
NOT TO SCALE

**NOTE 1:** CONTRACTOR TO VERIFY EXACT LOCATION & ELEVATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF DISCREPANCY EXISTS.

**NOTE 2:** EXISTING WELL AND SEPTIC SYSTEM ARE TO BE ABANDONED AFTER INSTALLATION AND APPROVAL OF WATER AND SEWER HOUSE CONNECTIONS.

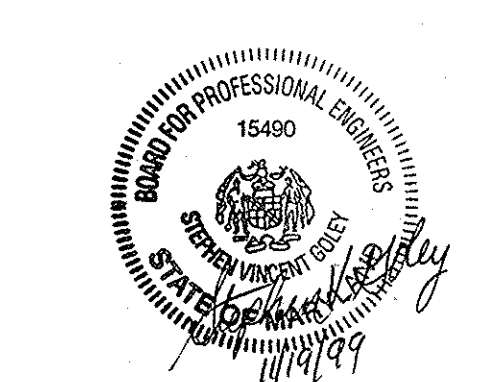
**FOR REVISION # 3 ONLY**

STATE OF MARYLAND  
ROBERT H. YOGEL  
REGISTERED PROFESSIONAL ENGINEER  
No. 12193

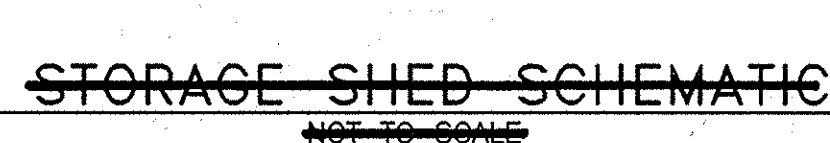
**OWNER/DEVELOPER**  
LUCKSTONE CORPORATION  
P.O. Box 29662  
Richmond, VA 23242  
(804)784-6300

**OWNER/DEVELOPER**  
CLARKSVILLE SQUARE 11 LLC  
8480 BALTIMORE NATIONAL PIKE  
PO BOX 417  
ELICOTT CITY, MD 21041

Note: The gravel pavement consists of 10" MSHA GAB(Graded Aggregate Base), treated initially with "Soil-Sement" by Midwest Industrial Supply, Inc. per their instructions. Luckstone Corporation requests use of this surface because it results in less wear and tear on the equipment and the pavement due to the heavy turning operations of the fork lifts. The surface is dressed regularly as needed to ensure a level, stable, attractive surface. Design manual waiver approved on 9-07-99.



**GRAPHIC SCALE**  
0' 50' 100' 150'



**STORAGE SHED SCHEMATIC**  
NOT TO SCALE

NO.	REVISION	DATE
1	REVISE PLAN TO SHOW PAVED VEHICLE DISPLAY AND STORAGE AREA, REMOVE STORAGE BINS	4/5/16



**OFFICE BUILDING SCHEMATIC**  
NOT TO SCALE

REV.	DATE	DESCRIPTION
1	1-10-01	AS BUILT RFS BCS
2	4-17-00	REVISED TO CONNECT WATER & SEWER, BLDG. SIZE CHANGE, MISC. GRADING & ACCESSABILITY ISSUES, FUEL TANK RELOCATION & ADDED W/S CODE #'S.

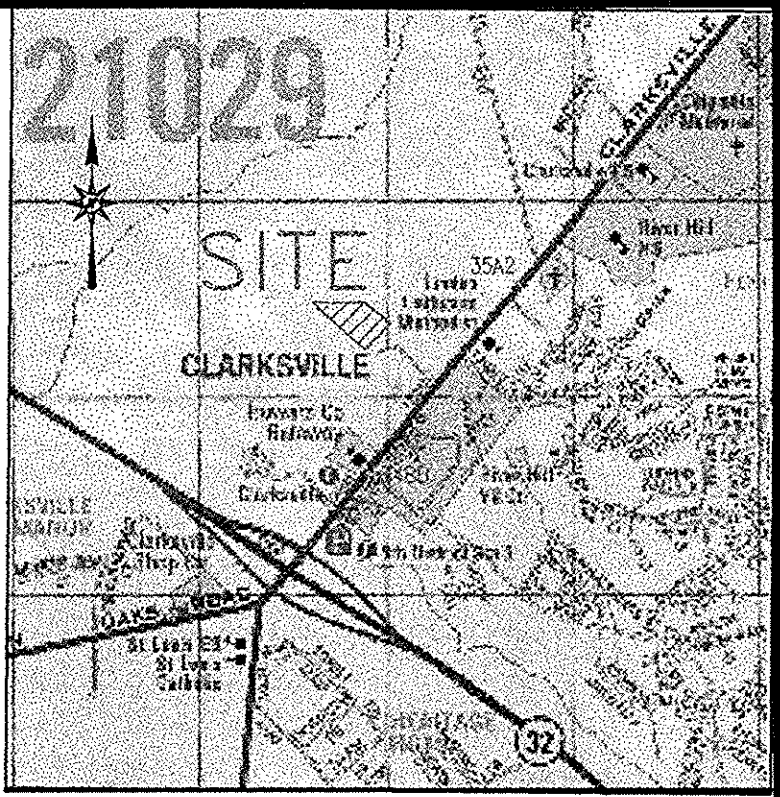
**SITE DEVELOPMENT PLAN**  
**LUCKSTONE CORPORATION**  
TAX MAP #: 34 PARCEL No. 214  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**O'CONNELL & LAWRENCE, INC.**  
SURVEYORS, ENGINEERS & LAND PLANNERS  
17904 Georgia Avenue, Suite 302, Olney, Maryland 20832  
Tel: (301) 924-4570 • Fax: (301) 924-5872

DES.	DWN.	CHK'D.	DATE:	SCALE:	PROJECT/JOB #	SHEET NO.
CKL	JJG	SVG	8/99	1"=50'	22-257	1 OF 6

SDP99-114



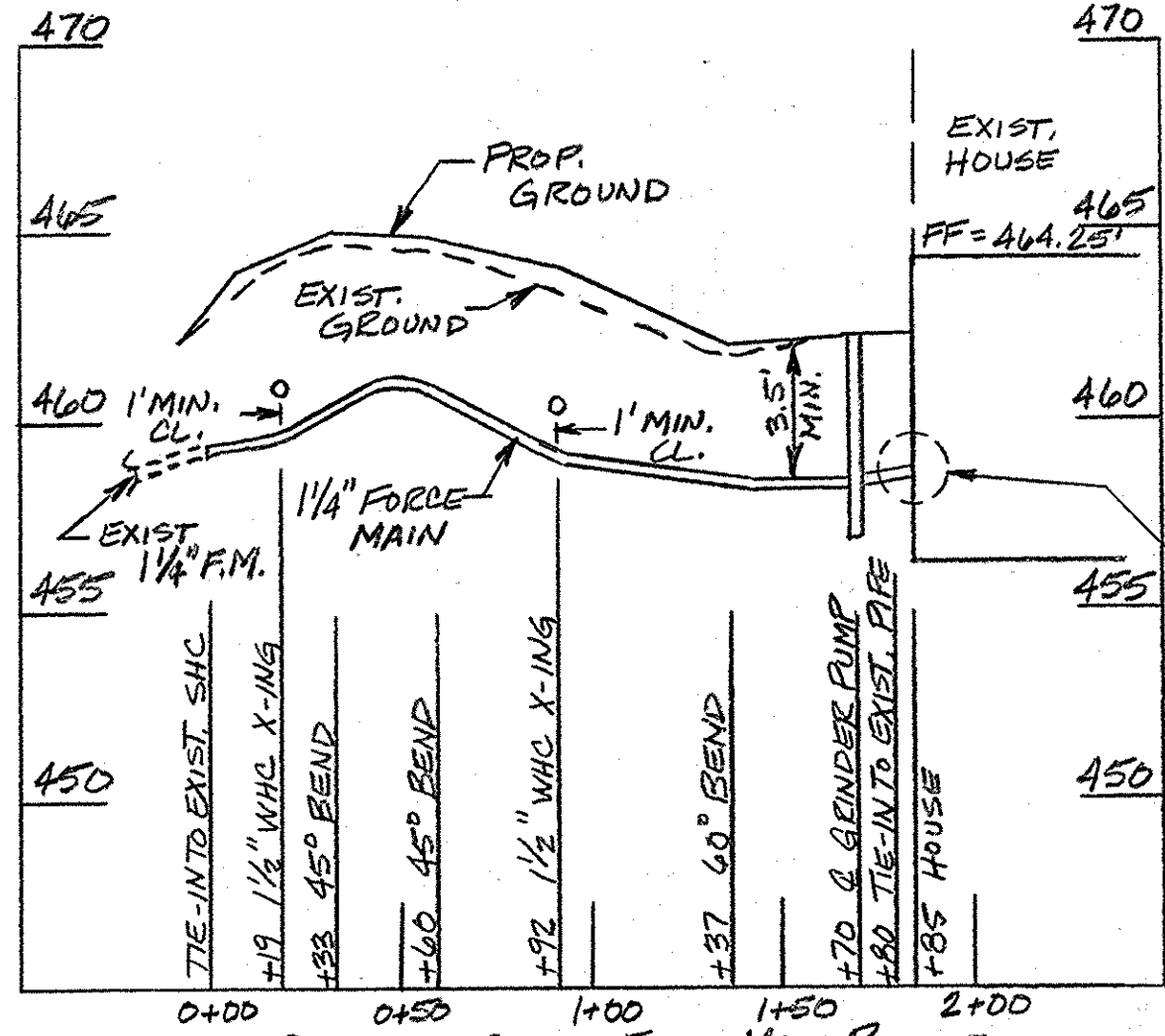
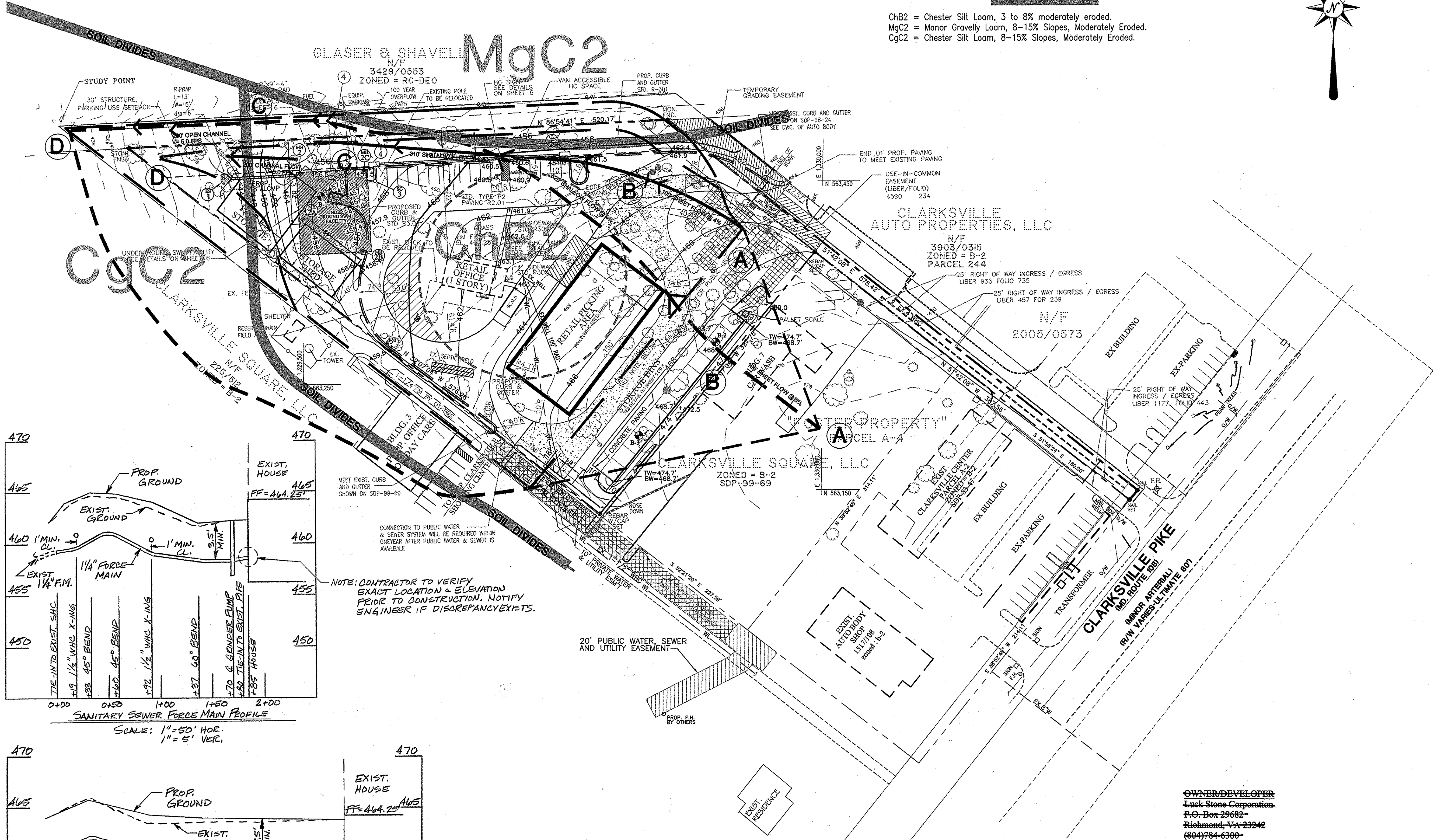
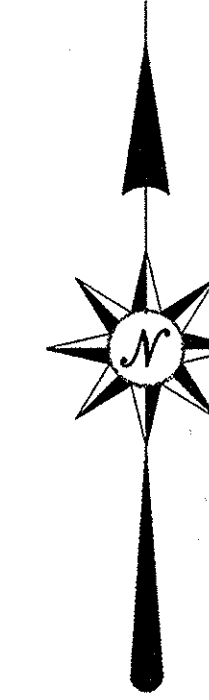


LOCATION MAP  
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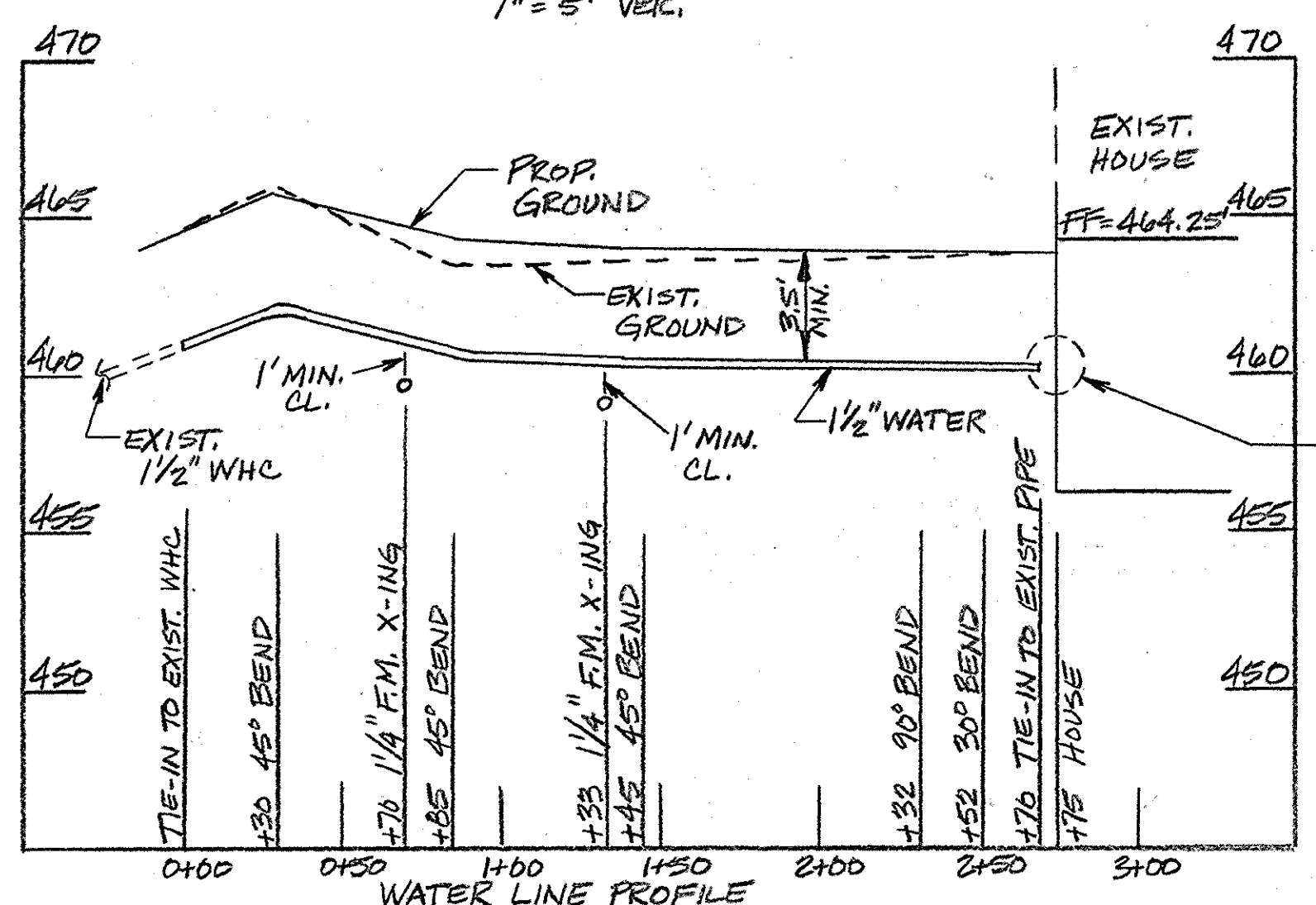
LEGEND

- Existing Drainage Area
- Proposed Drainage Area
- Existing Path
- Proposed To Path
- Hydrologic Soil Type "B" **CgC2, MgC2, ChB2**
- Soil Divide

ChB2 = Chester Silt Loam, 3 to 8% moderately eroded.  
MgC2 = Manor Gravelly Loam, 8-15% Slopes, Moderately Eroded.  
CgC2 = Chester Silt Loam, 8-15% Slopes, Moderately Eroded.



NOTE: CONTRACTOR TO VERIFY EXACT LOCATION & ELEVATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF DISCREPANCY EXISTS.



NOTE: CONTRACTOR TO VERIFY EXACT LOCATION & ELEVATION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF DISCREPANCY EXISTS.

4.50	EX	B-2
63		10%
100% "B"		
EXISTING SCHEMATIC DIAGRAM		
3.10	DEV	B-2
78		60%
100% "B"		
DEVELOPED SCHEMATIC DIAGRAM		

OWNER/DEVELOPER  
CLARKVILLE SQUARE II LLC  
8480 BALTIMORE NATIONAL PIKE  
PO BOX 417  
ELLICOTT CITY, MD 21041

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*Paul Butts* 1/3/00  
DIRECTOR, DEPARTMENT OF PLANNING & ZONING DATE  
*Cindy Hewitt* 12/23/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*David Dammann* 12/10/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNER/DEVELOPER  
LUCK STONE CORPORATION  
P.O. Box 29682  
Richmond, VA 23242  
(804) 784-6300

NOTE:  
THIS PLAN IS FOR DRAINAGE AREAS AND WATER & SEWER PROFILES ONLY. FOR ANY OTHER "ONSITE" INFORMATION, REFERENCE APPROPRIATE SHEET IN PLAN SET.



DRAINAGE AREA PLAN  
**LUCK STONE CORPORATION**  
TAX MAP : 34 PARCEL No. 214  
5<sup>TH</sup> ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**O'CONNELL & LAWRENCE, INC.**  
SURVEYORS, ENGINEERS & LAND PLANNERS  
17904 Georgia Avenue, Suite 302, Olney, Maryland 20832  
Tel: (301) 924-4570 • Fax: (301) 924-5872

DES. BY	DWN. BY	CKD. BY	DATE:	SCALE	PROJECT/JOB #	SHEET NO.
CKL	JJG	SVG	8/99	1"=50'	22-257	2 OF 6

REVISIONS  
REV. 2 4-17-00 REVISED TO ADD W+S PROFILES + NOTE. RPS SVG



3428/0553  
ZONED = RC-DEO

VEHICLE DISPLAY  
(P-1 PAVING) 4,848 SF

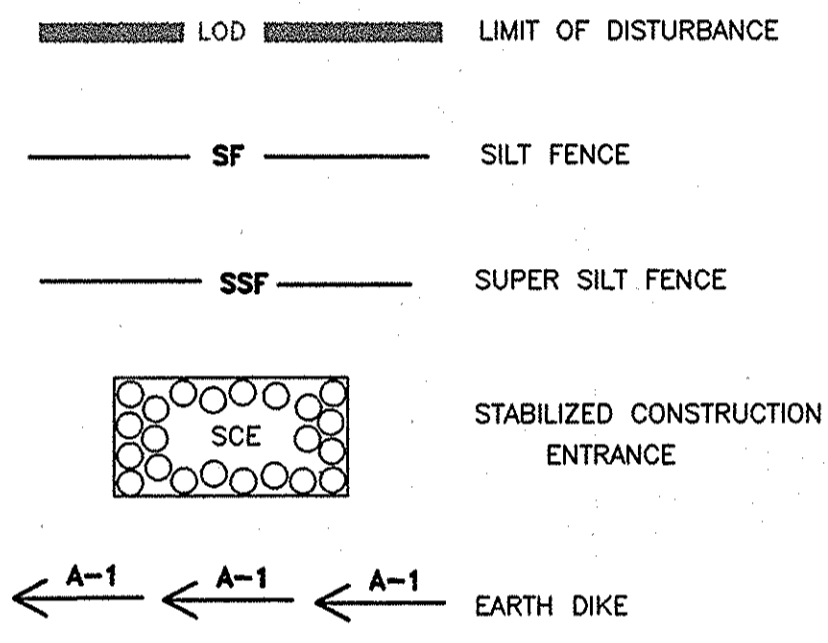
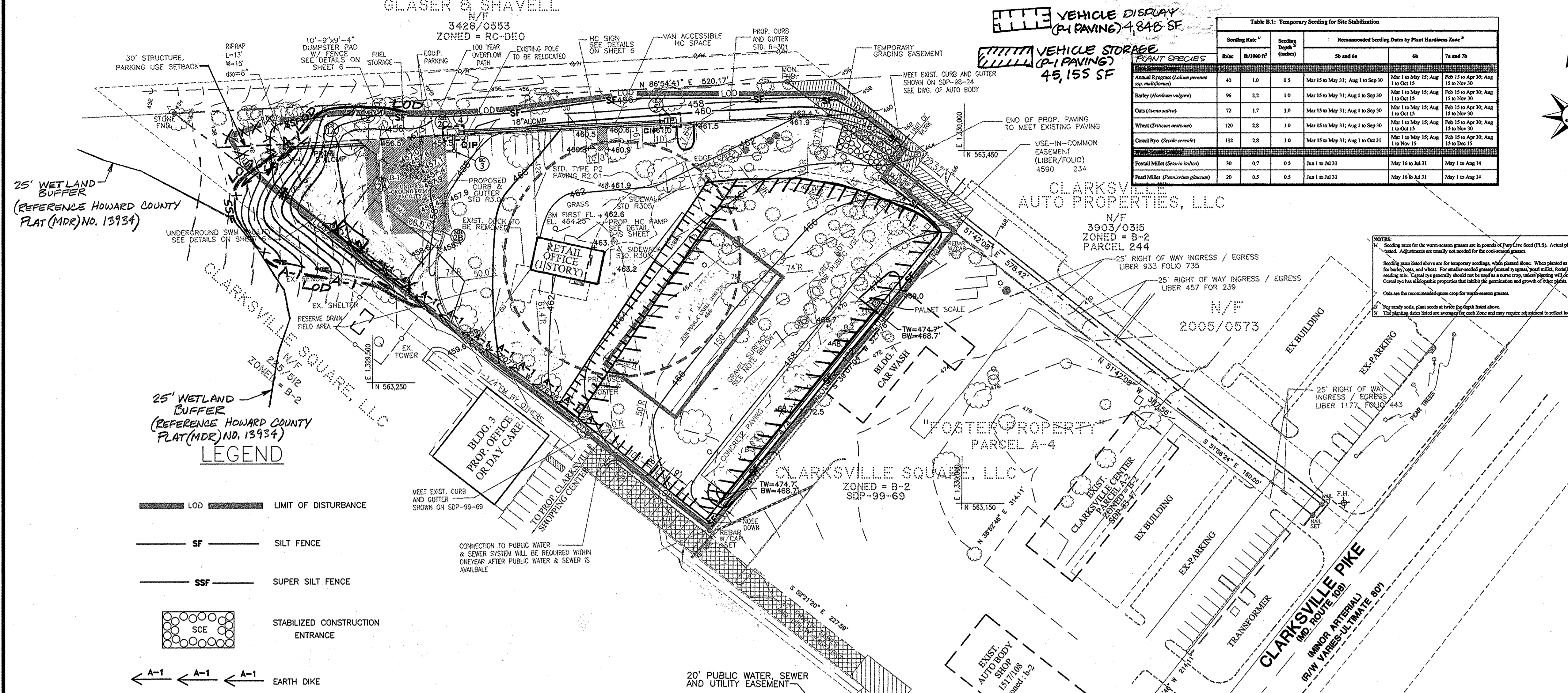
VEHICLE STORAGE  
(P-1 PAVING) 45,155 SF

Plant Species	Seeding Rate <sup>1</sup> lb/1000 ft <sup>2</sup>	Seeding Depth <sup>2</sup> (inches)	Recommended Seeding Dates by Plant Hardiness Zone <sup>3</sup>			
			2b and 4a	4b	7a and 7b	
Annual Ryegrass (Lolium perenne)	40	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Barley (Hordeum vulgare)	96	2.2	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Oats (Avena sativa)	72	1.7	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Wheat (Triticum aestivum)	120	2.8	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Coastal Ryegrass (Lolium perenne)	112	2.8	Mar 15 to May 31; Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30	
Fescue (Festuca ovina)	30	0.7	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14	
Perennial Ryegrass (Lolium perenne)	20	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14	

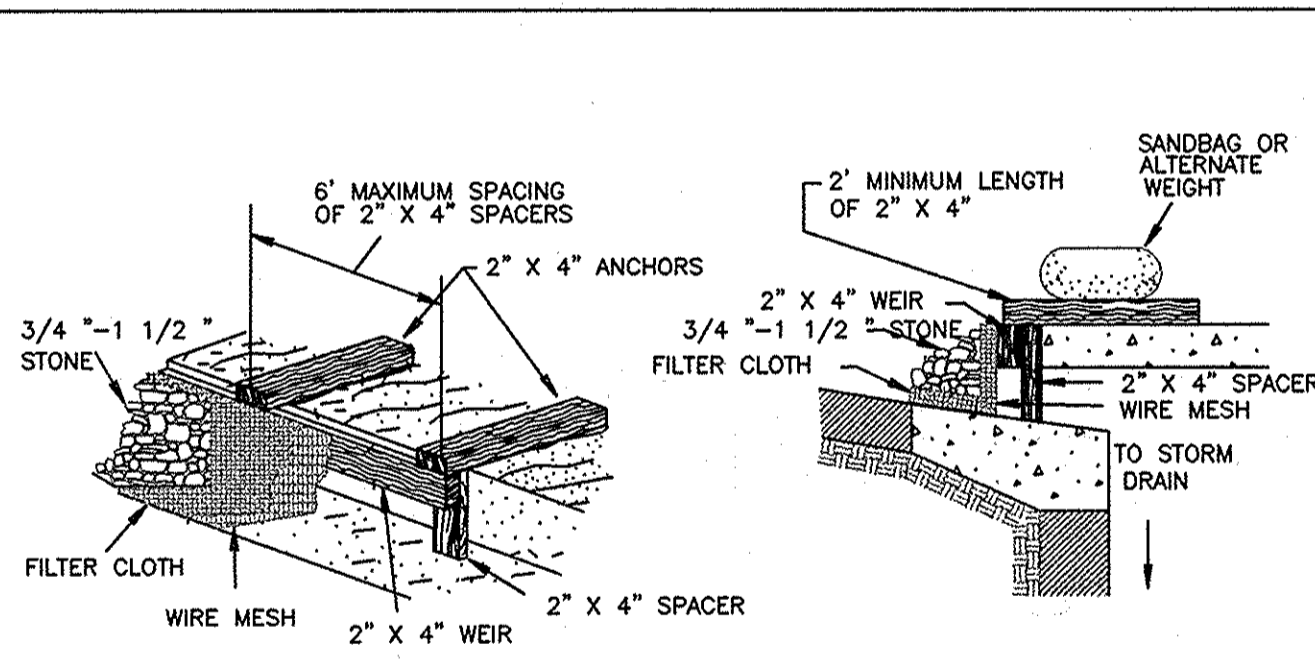
NOTES:  
1. Seeding rates for the warm-season grasses are in pounds of pure live seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as noted. Adjustments are usually not needed for the cool-season grasses.  
2. Seeding rates listed above are for temporary seedings, which should be followed by permanent seedings. When planted as a nurse crop with permanent seedings, use 1/3 of the seeding rate listed above for the nurse crop, and when the permanent seedings are established, the nurse crop should be mowed or killed. For maximum seedling emergence, seed should be planted in a row, not broadcast. For maximum seedling emergence, seed should be planted in a row, not broadcast. For maximum seedling emergence, seed should be planted in a row, not broadcast.  
3. The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES:  
WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 15 (HARDINESS ZONES 5b, 6a)  
CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES 6b)  
SOUTHERN MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES 7a, 7b)

LOCATION MAP  
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DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



MAX. DRAINAGE AREA = 1/4 ACRE  
Construction Specifications

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-16-5B MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

STANDARD SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be complete within: a) 3 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper than 3:1, b) 7 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:  
Total Area of Site = 3.1 Acres  
Area Disturbed = 2.6 Acres  
Area to be roofed or paved = 1.2 Acres  
Area to be vegetatively stabilized = 0.8 Acres  
Total Cut = 1800 Cu. Yds.  
Total Fill = 2800 Cu. Yds.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment 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.
- 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.

FOR REVISION #3 ONLY

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
ROBERT H. VOEL PE NO 16193  
4/7/14

SEQUENCE OF CONSTRUCTION

- Obtain Grading Permit. 1 WEEK
  - Notify Sediment Control Inspector for Pre-Construction Meeting. 1 DAY
  - Clear and Install Sediment Control Devices as shown. 1 WEEK
  - Site Work - Paving, etc. 2 MONTHS
  - Stabilized Site. 1 WEEK
  - Begin underground SWM facility construction. 3 WEEKS
  - After the site is stabilized and permission is granted from the Sediment Control Inspector, remove sediment controls and stabilize any remaining disturbed areas. 2 DAYS
- TOTAL 3 MONTHS 3 WEEKS

NOTE: Maintain Ingress/Egress for Auto Body Shop during construction. FOR MORE DETAILS AND NOTES, SEE SHEET 5, 6 OF 6

OWNER/DEVELOPER  
CLARKVILLE SQUARE II LLC  
8400 BALTIMORE NATIONAL PIKE  
PO BOX 417  
ELLICOTT CITY, MD 21041

OWNER/DEVELOPER  
Luck Stone Corporation  
P.O. Box 29682  
Richmond, VA 23242  
(804) 784-6300

NOTE:  
THIS PLAN IS FOR GRADING, EROSION + SEDIMENT CONTROL ONLY. FOR ANY OTHER "ON-SITE" INFORMATION, REFERENCE APPROPRIATE SHEET IN PLAN SET.

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 on-site inspection by the Howard Soil Conservation District.  
Luck Stone Corporation  
By: *[Signature]*  
Signature Vice President  
November 11, 1999  
Date

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. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District.  
*[Signature]*  
Signature  
11/19/99  
Date



APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 1/2/00  
DIRECTOR, DEPARTMENT OF PLANNING & ZONING DATE  
*[Signature]* 12/23/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*[Signature]* 12/10/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GRADING, EROSION AND SEDIMENT CONTROL PLAN  
LUCK STONE CORPORATION  
TAX MAP : 34 PARCEL No. 214  
5<sup>TH</sup> ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

O'CONNELL & LAWRENCE, INC.  
SURVEYORS, ENGINEERS & LAND PLANNERS  
17904 Georgia Avenue, Suite 302, Olney, Maryland 20832  
Tel: (301) 924-4570 • Fax: (301) 924-5872

DES. BY CKL DWN. BY JUG CKD. BY SVG DATE: 7/99 SCALE: 1"=50' PROJECT/JOB #: 22-257 SHEET NO. 3 OF 6

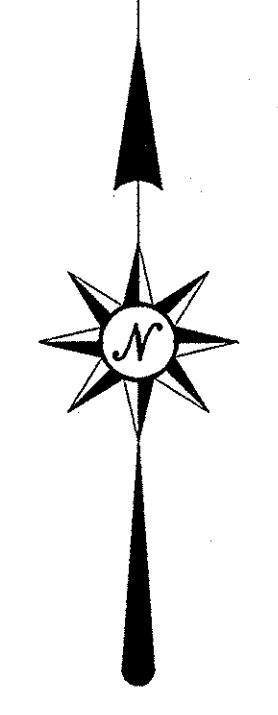
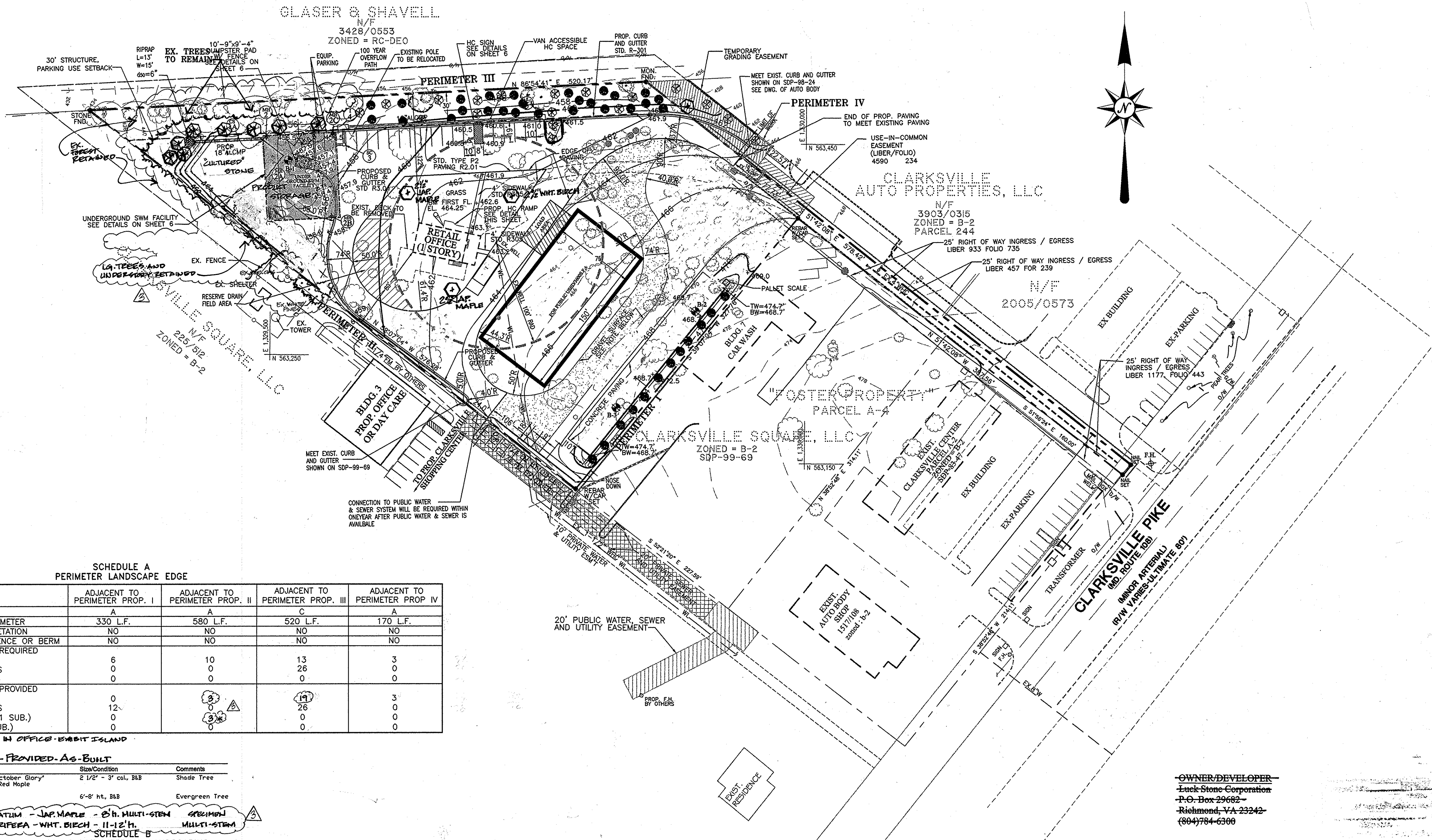
REVISION BLOCK  
3. REMOVE PLAN TO SHOW VEHICLE DISPLAY AND STORAGE AREA REMOVE AGGREGATE STORAGE BINS, UPDATE OWNER INFORMATION, ADD SEEDING SPECIFICATIONS 4/15/16

REPLINE REV. 2 4-17-00 REVISED TO SHOW ADD'L GRADING + SEC MEASURES, APPROPRIATE REF. NOTE, RPS SVG





**LOCATION MAP**  
 Scale: 1" = 2000'  
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**SCHEDULE A  
 PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO PERIMETER PROP. I	ADJACENT TO PERIMETER PROP. II	ADJACENT TO PERIMETER PROP. III	ADJACENT TO PERIMETER PROP IV
LANDSCAPE TYPE	A	A	C	A
LINEAR FEET OF PERIMETER	330 L.F.	580 L.F.	520 L.F.	170 L.F.
CREDIT FOR EX. VEGETATION	NO	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED				
SHADE TREES	6	10	13	3
EVERGREEN TREES	0	0	26	0
SHRUBS	0	0	0	0
NUMBER OF PLANTS PROVIDED				
SHADE TREES	0	3	19	3
EVERGREEN TREES	12	0	26	0
OTHER TREES (2:1 SUB.)	0	0	0	0
SHRUBS (10:1 SUB.)	0	0	0	0

**\* PLANTED IN OFFICE - EMBIT ISLAND**

**PLANT LIST - PROVIDED AS-BUILT**

Qty.	Plant Name	Size/Condition	Comments
27	Acer rubrum "October Glory"	2 1/2" - 3" col, B&B	Shade Tree
	October Glory Red Maple		
38	Cedrus deodora	5'-8' ht, B&B	Evergreen Tree
	Deodar Cedar		
2	ACER PALMATUM - JAP. MAPLE - 8" H. MULTI-STEM		SHADE TREE
1	BETULA PAPPIFERA - WHT. BIRCH - 11-12" H.		MULTI-STEM

**SCHEDULE B  
 PARKING LOT INTERNAL LANDSCAPING**

TOTAL PARKING SPACE	24
SHADE TREES REQUIRED	2
SHADE TREES PROVIDED	2

**NOTES:**

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$14,100.

**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN AND SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

**LUCK STONE CORPORATION**  
 By: *[Signature]* 11/16/99  
 NAME: VICE PRESIDENT DATE

**OWNER/DEVELOPER**  
 Luck Stone Corporation  
 P.O. Box 29682  
 Richmond, VA 23242  
 (804)784-6300

**NOTE:**

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY. FOR ANY OTHER INFORMATION, REFERENCE APPROPRIATE SHEET IN PLAN SET.

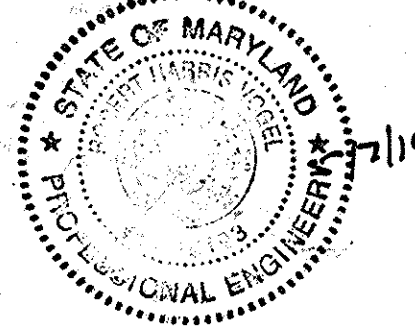
**APPROVED: DEPARTMENT OF PLANNING AND ZONING**

*[Signature]* 11/16/99  
 DIRECTOR, DEPARTMENT OF PLANNING & ZONING DATE

*[Signature]* 12/23/99  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

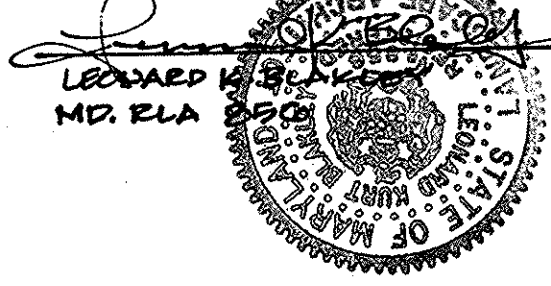
*[Signature]* 12/16/99  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FOR REVISION # 3 ONLY



ROBERT H. VOGEL PE NO 16193

REVISION 3 INDICATED HEREON REPRESENTS AS-BUILT CONDITIONS BY INSPECTION PERFORMED JUNE 26, 2001, ALL PLANT MATERIAL HEALTHY AND THRIVING



LEONARD H. BEATTY PE NO 1517108  
 9-12-01

NO.	REVISION	DATE
3	REVISE PLAN TO SHOW PAVED VEHICLE DISPLAY AND STORAGE AREA, REMOVE AGGREGATE STORAGE BINS	4/5/16



**LANDSCAPE PLAN**  
**LUCK STONE CORPORATION**  
 TAX MAP : 34 PARCEL No. 214  
 5TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

REV. 2 4-17-00 REVISED TO SHOW (2) RELOCATED TREES & ADDED REF. NOTE, RFS 5-VG

**O'CONNELL & LAWRENCE, INC.**  
 SURVEYORS, ENGINEERS & LAND PLANNERS  
 17904 Georgia Avenue, Suite 302, Olney, Maryland 20832  
 Tel: (301) 924-4570 • Fax: (301) 924-5872

DES. BY	DWN. BY	CKD. BY	DATE:	SCALE	PROJECT/JOB #	SHEET NO.
CKL	JJG	JLB	6/99	1"=50'	22-257	4 OF 6



**Permanent Seeding Notes**

Apply to graded or cleared areas not subject to immediate further disturbances where a permanent long-lived vegetative cover is needed.

**Seeded Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureiform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

**Seeding:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 80 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.5 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use seed. Option (3) Seed with 80 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

**Mulching:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

**Maintenance:** Inspect all seeded areas and make needed repairs, replacements and reseeds.

**Temporary Seeding Notes**

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

**Seeded Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

**Seeding:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 bushel per acre of annual ryegrass 3.2 lbs/1000 sq ft. For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (0.7 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use seed.

**Mulching:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

STRUCTURE SCHEDULE									
NO.	TYPE	TOP. ELEV.	INVERT	REMARKS	IN	OUT	IN	OUT	REMARKS
1	END SECTION	451.33	446.50		446.50	446.50	446.50	446.50	H.C STD 5.61
2	SWM CONTROL STR.	451.33	446.50		446.50	446.50	446.50	446.50	See Detail this Sht
3	STORMCEPTER	451.33	446.50		446.50	446.50	446.50	446.50	STC 2400
4	A-10 INLET	451.33	446.50		446.50	446.50	446.50	446.50	H.C STD 5.61
5	A-10 INLET	451.33	446.50		446.50	446.50	446.50	446.50	H.C STD 5.61

PIPE SCHEDULE			
SIZE	TYPE	GAGE	LENGTH
60"	AL C.M.P.	5"x1" TYPE 2	14
24"	AL C.M.P.	14	15'
18"	AL C.M.P.	14	239'

**Maintenance Requirements for Underground SWM Facility**

1. Removal of silt when accumulation exceeds six inches in facility.
2. Removal of accumulated paper, trash and debris as necessary.
3. Annual inspection and repair of the structure.
4. Corrective maintenance is required any time the stormceptor does not drain down completely within 60 hours (i.e., no standing water allowed).

**Maintenance Requirement for Stormceptor**

Maintenance of the Stormceptor is performed using vacuum trucks. No entry into the unit is required for maintenance. The Vacuum Service industry is a well established sector of the service industry which cleans underground tanks, sewers and catch-basins. Costs to clean the Stormceptor vary based on the size of unit and transportation distances.

1. **Maintenance Costs**  
A typical cleaning cost (equipment and personnel) is estimated to be approximately \$250 exclusive of the disposal costs. This cost is based on one Stormceptor. Economies of scale are expected where there are multiple units for a given location. The time to clean the Stormceptor is approximately 3 hours (includes transportation/disposal).
2. **Disposal costs** are estimated to be in the order of \$300 to \$500. These costs would be incurred during the maintenance of any stormwater quality structure and not just the Stormceptor.

**Maintenance Frequency**

If the Stormceptor is sized based on the guidelines provided in Section 2.4, annual maintenance is recommended. Approximately 15% of the Stormceptor total sediment capacity will be reduced each year based on the maximum impervious drainage areas recommended in Table 4.

Although it is recommended that annual maintenance be performed initially, the frequency of maintenance may need to be increased based on local conditions (i.e. if the unit is filling up with sediment more quickly than projected, maintenance may be required semi-annually; conversely once the site has stabilized maintenance may only be required once every two or three years).

**Spills**

The Stormceptor is often implemented in areas where the potential for spills is great. The Stormceptor should be cleaned immediately after a spill occurs by a licensed liquid waste hauler.

**Disposal**

Disposal options for the sediment will probably range from disposal in a works yard to disposal in a sanitary landfill site. It is not anticipated that the sediment would be classified as hazardous waste. Petroleum waste products collected in the Stormceptor (oil/chemical/fuel spills) should be removed by a licensed waste management company.

**Inspection**

The Stormceptor can be easily inspected from the surface by removing the maintenance cover. The presence of oil in the interceptor can be determined by inserting a tube dipstick in the 6" (150mm) vent tube.

Similarly, the depth of sediment can be measured from the surface without entry into the Stormceptor via a dipstick tube equipped with a ball valve (Sludge Judge). Maintenance should be performed once the sediment depth exceeds the guideline values provided in Table 6.

Model	Sediment Depth (feet)
900	0.50
1200	0.75
1500	1.00
2400	1.00
3600	1.25
4800	1.50
6000	1.50
7200	1.25

\* based on 15% of the interceptor's sediment storage

Any potential obstructions at the inlet can be observed from the surface. The inlet has been designed as a platform for maintenance personnel in the event that obstructions need to be removed, sewer flushing needs to be performed, or camera surveys are required.

**SPECIFICATIONS**

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

**Site Preparation**

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

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut to approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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

**Earth Fill**

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

**Placement** - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of fill. The material shall be compacted to a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

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

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

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

**Pipe Conduits**

All pipes shall be circular in cross section.

**Corrugated Metal Pipe** - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Neopri, Plast-Cote, Bloc-Klad, Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
2. Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
3. Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be primed with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

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

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled on adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard top band with 12" wide by 3/8" thick closed circular neoprene gasket; and a 12" wide huggard type band with O-rings gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

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

5. Backfilling shall conform to "Structure Backfill".

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

**Reinforced Concrete Pipe** - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-351.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.
4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Polyvinyl Chloride (PVC) Pipe** - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241.
2. Joints and connections to anti-seep collars shall be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Backfilling shall conform to "Structure Backfill".
5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

**Concrete**  
Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

**Rock Riprap**  
Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

**Care of Water during Construction**

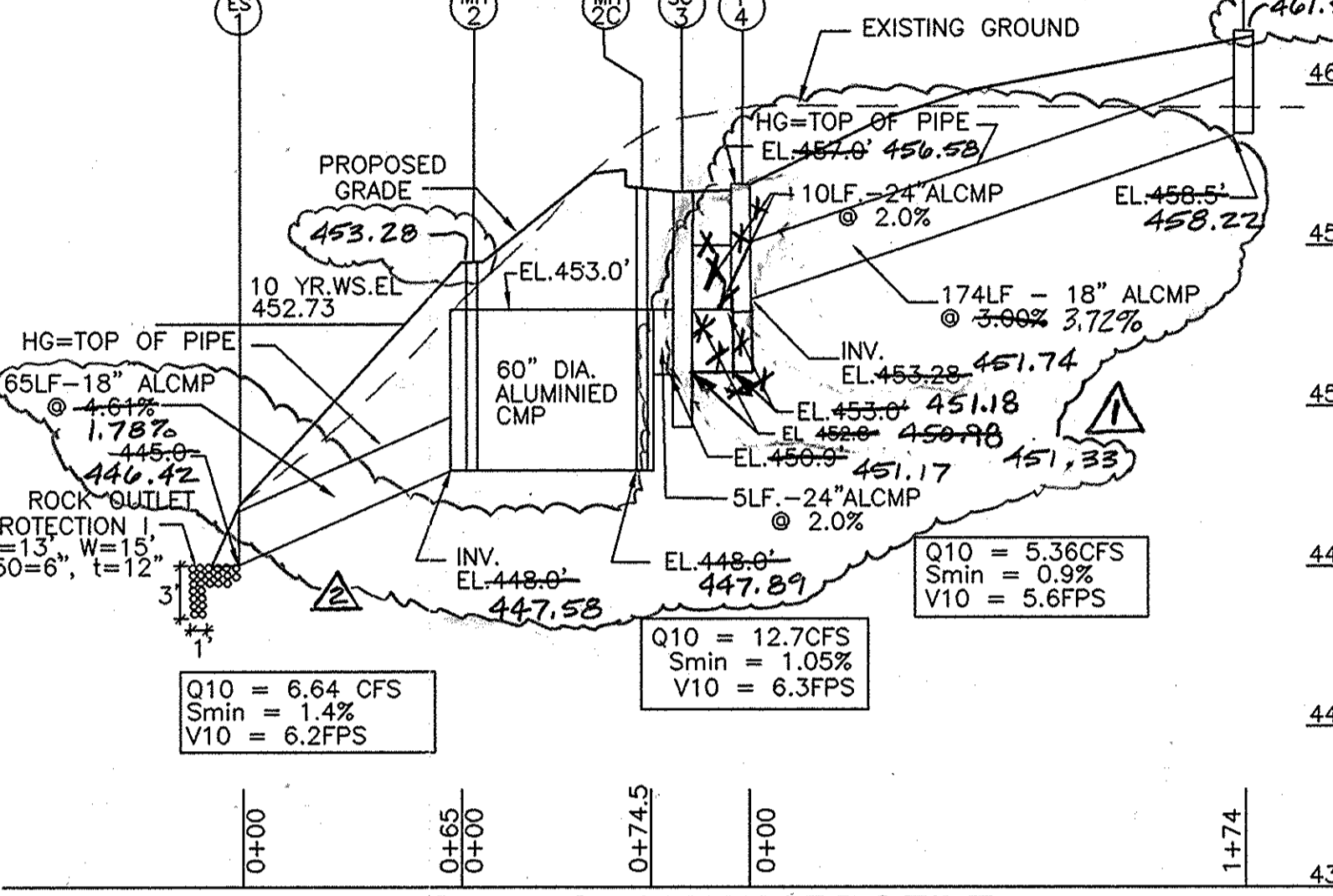
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also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

**Stabilization**

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

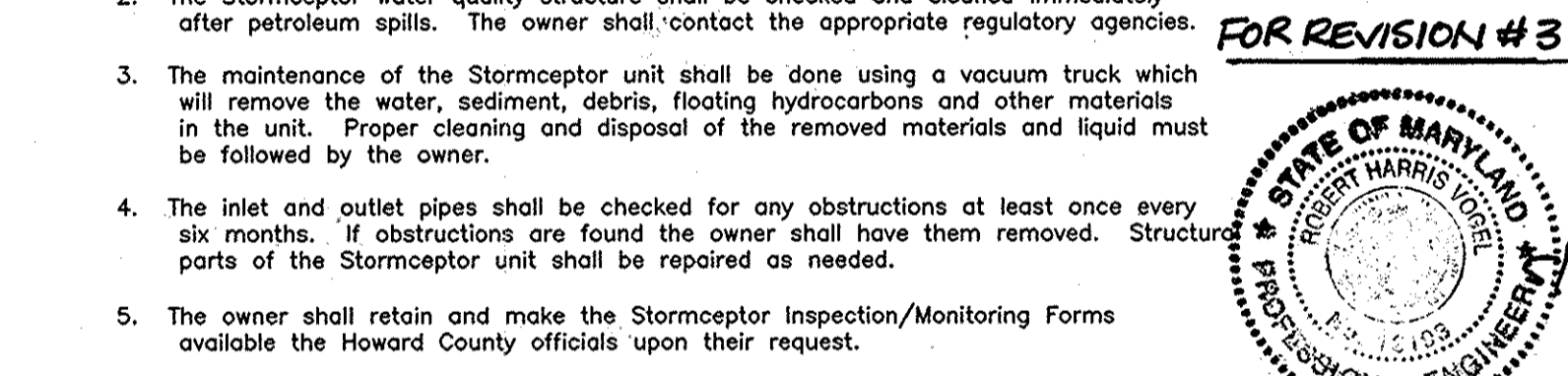
**Erosion and Sediment Control**

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.



**MATERIAL SPECIFICATION FOR STORMWATER DETENTION SYSTEM**

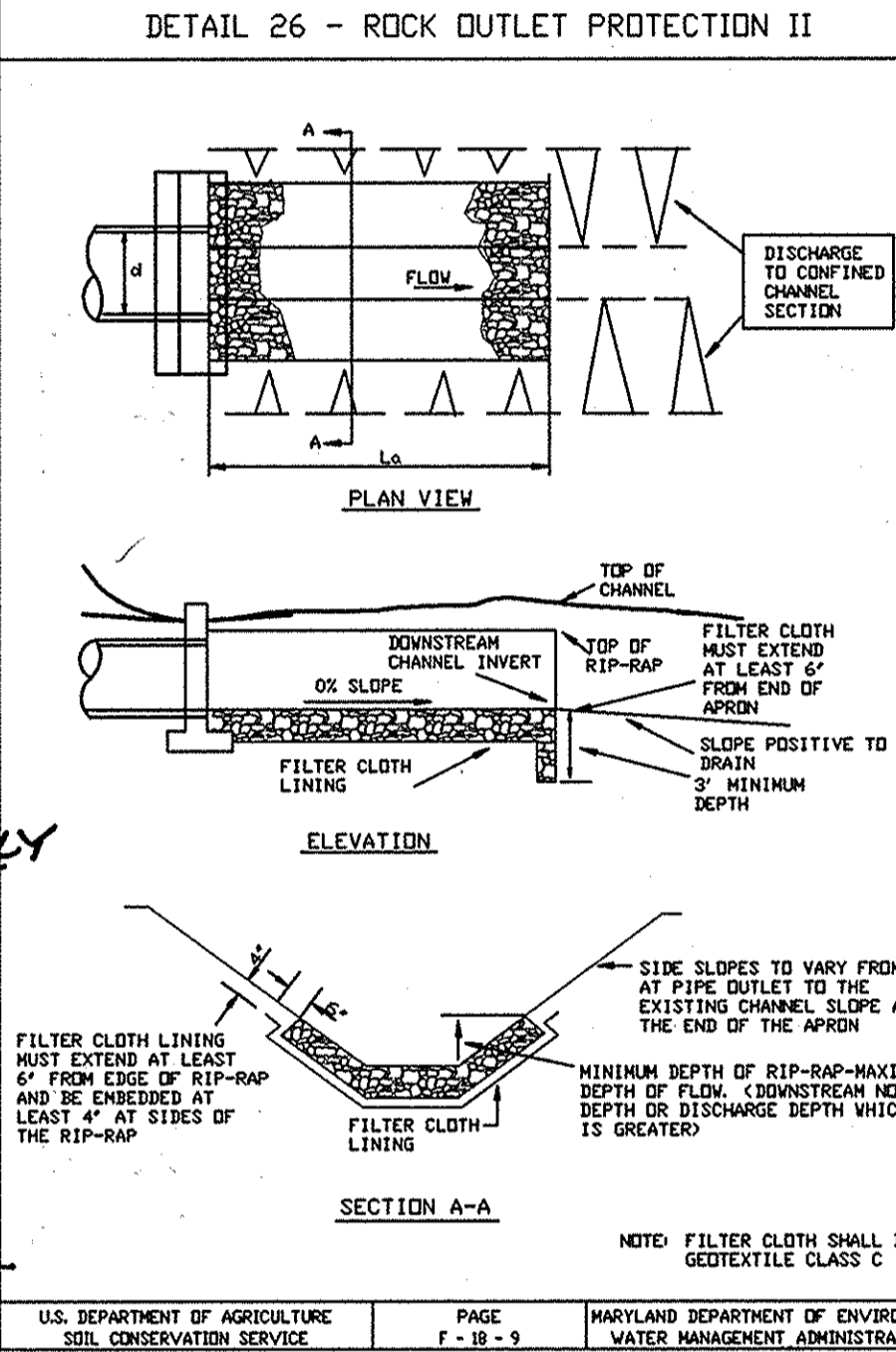
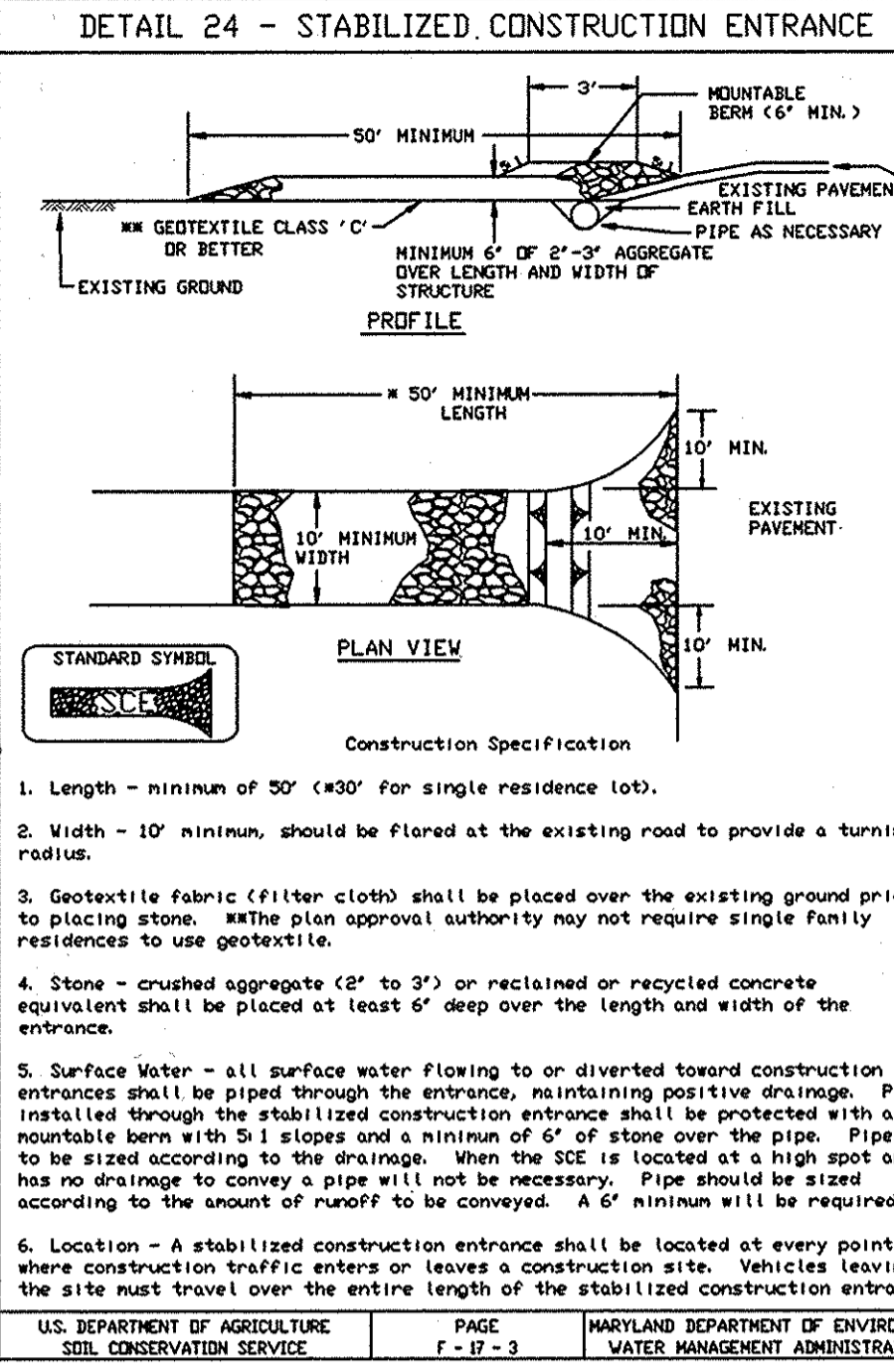
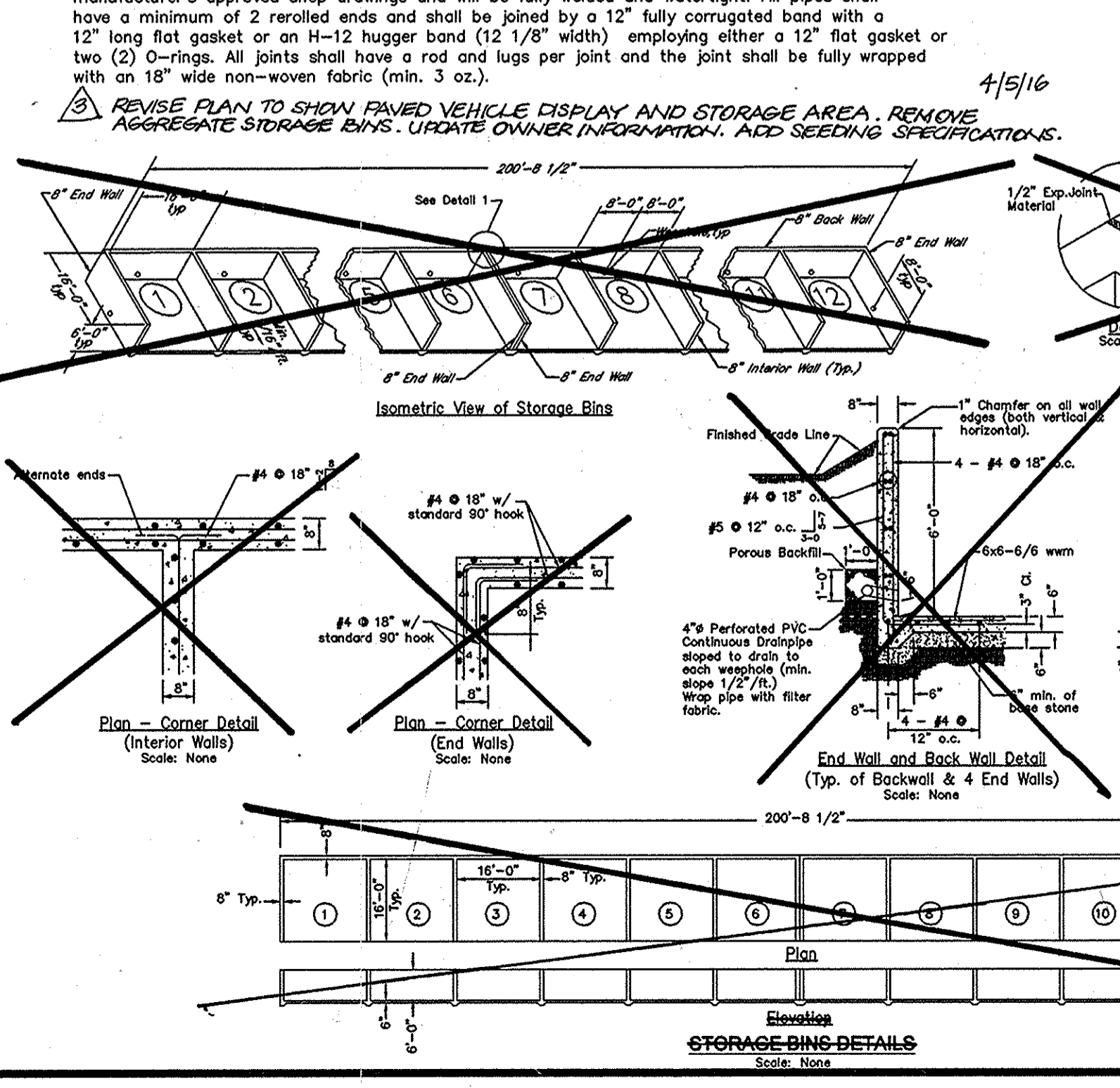
The 60" diameter pipes will be 14 gauge with 5"x1" or 3"x1" corrugations. The pipe will be cold rolled aluminum type 2 and manufactured in accordance AASHTO M36 and M274. All elbows, tees, stubs and access manholes will be as shown on the plans, profile details and manufacturer's approved shop drawings and will be fully welded and watertight. All pipes shall have a minimum of 2 rolled ends and shall be joined by a 12" long flat gasket or an H-12 huggard band (12 1/8" width) employing either a 12" flat gasket or two (2) O-rings. All joints shall have a rod and lugs per joint and the joint shall be fully wrapped with an 18" wide non-woven fabric (min. 3 oz.).



FOR REVISION #3 ONLY

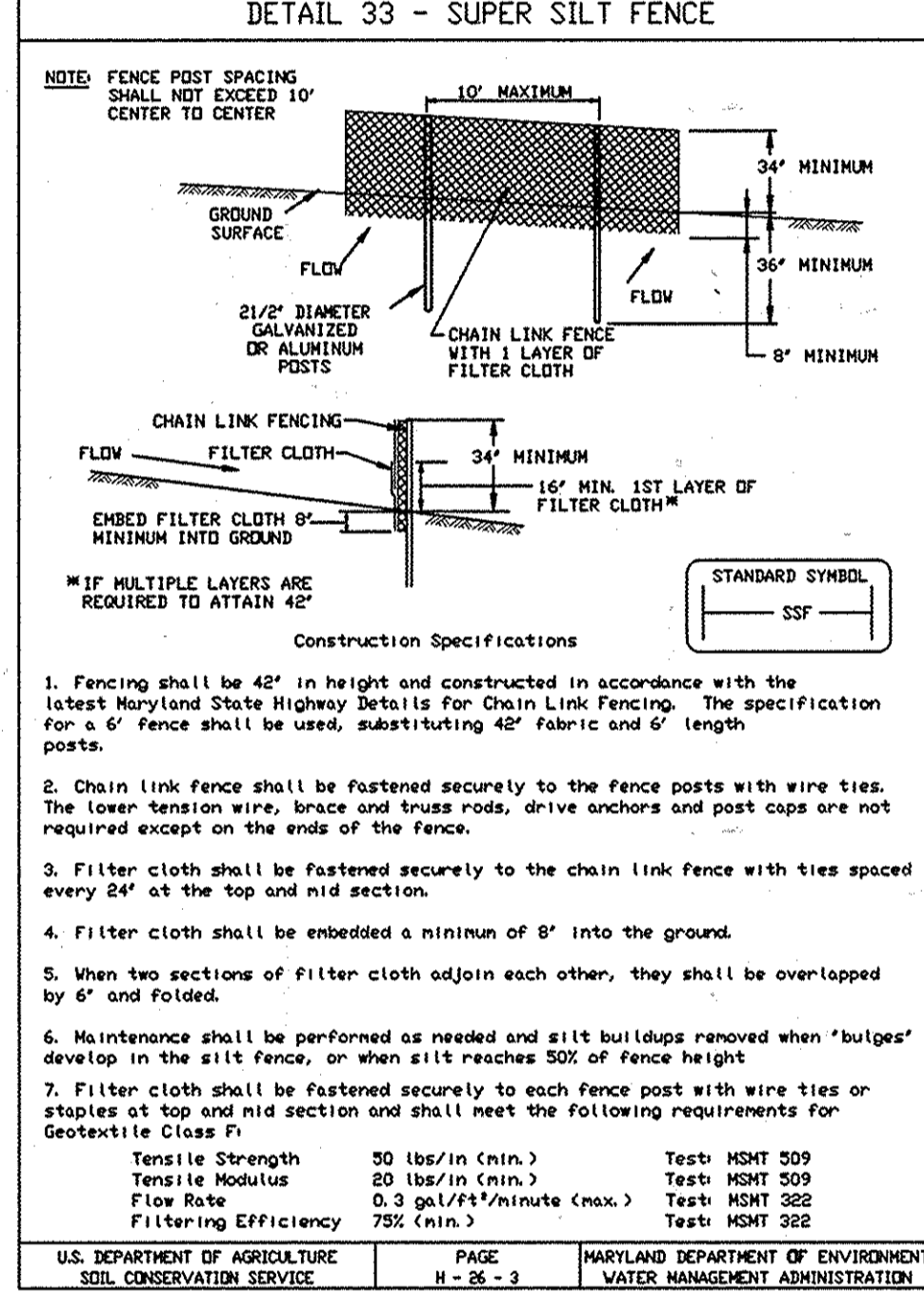
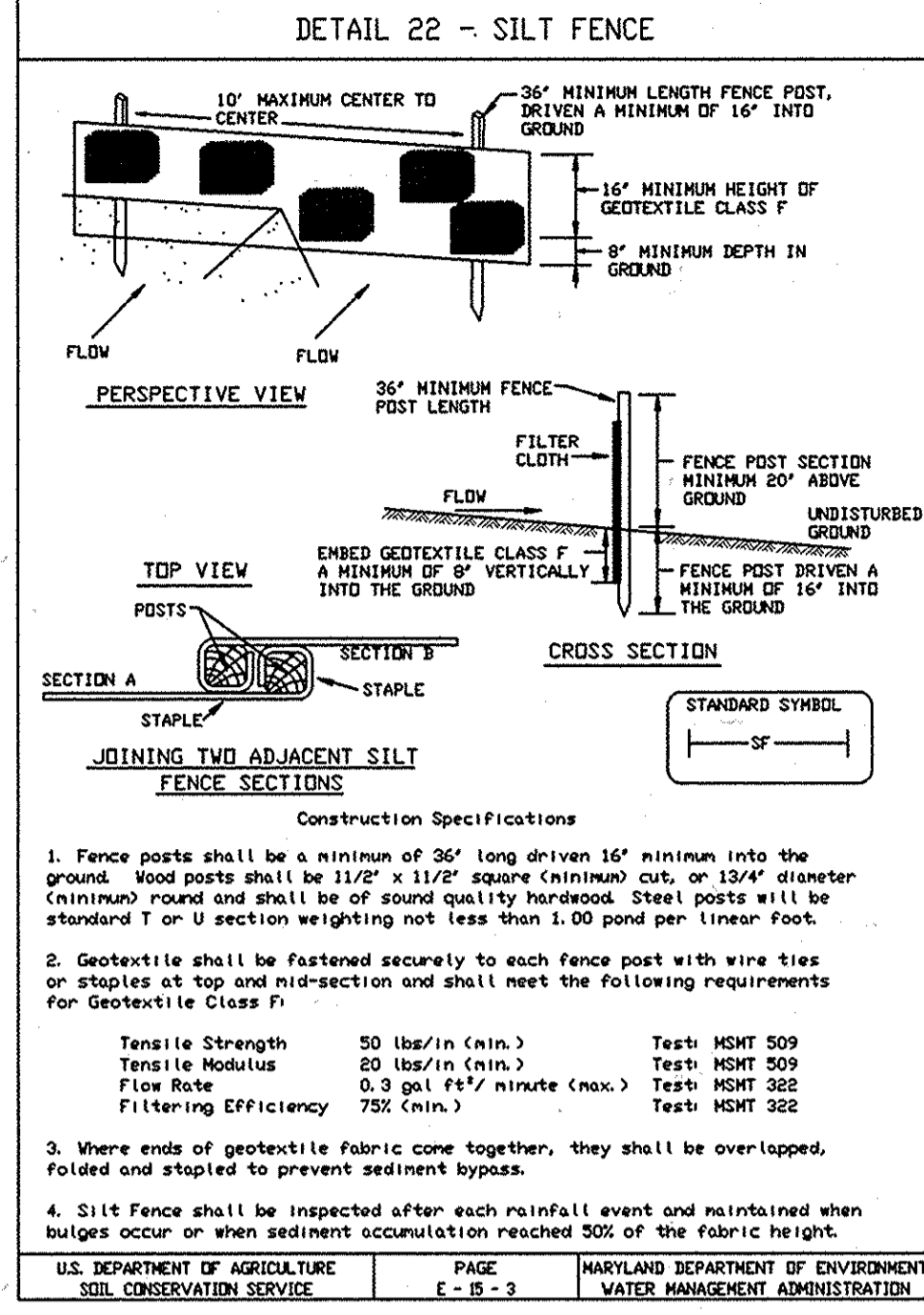
REVISION PLAN TO SHOW PAVED VEHICLE DISPLAY AND STORAGE AREA. REMOVE AGGREGATE STORAGE BINS. UPDATE OWNER INFORMATION. ADD SEEDING SPECIFICATIONS.

4/5/16



Reviewed for HOWARD S.C.D. Name: [Signature] Date: 4/17/16

USDA, NATURAL RESOURCES CONSV. SERVICE



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

APPROVED: [Signature] Date: 4/17/16

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/3/00  
DIRECTOR, DEPARTMENT OF PLANNING & ZONING DATE

[Signature] 1/23/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12/0/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

1-10-01 AS BUILT RPS BCS

NOTES AND DETAILS I

LUCK STONE CORPORATION

TAX MAP : 34 PARCEL No. 214

5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

O'CONNELL & LAWRENCE, INC.

SURVEYORS, ENGINEERS & LAND PLANNERS

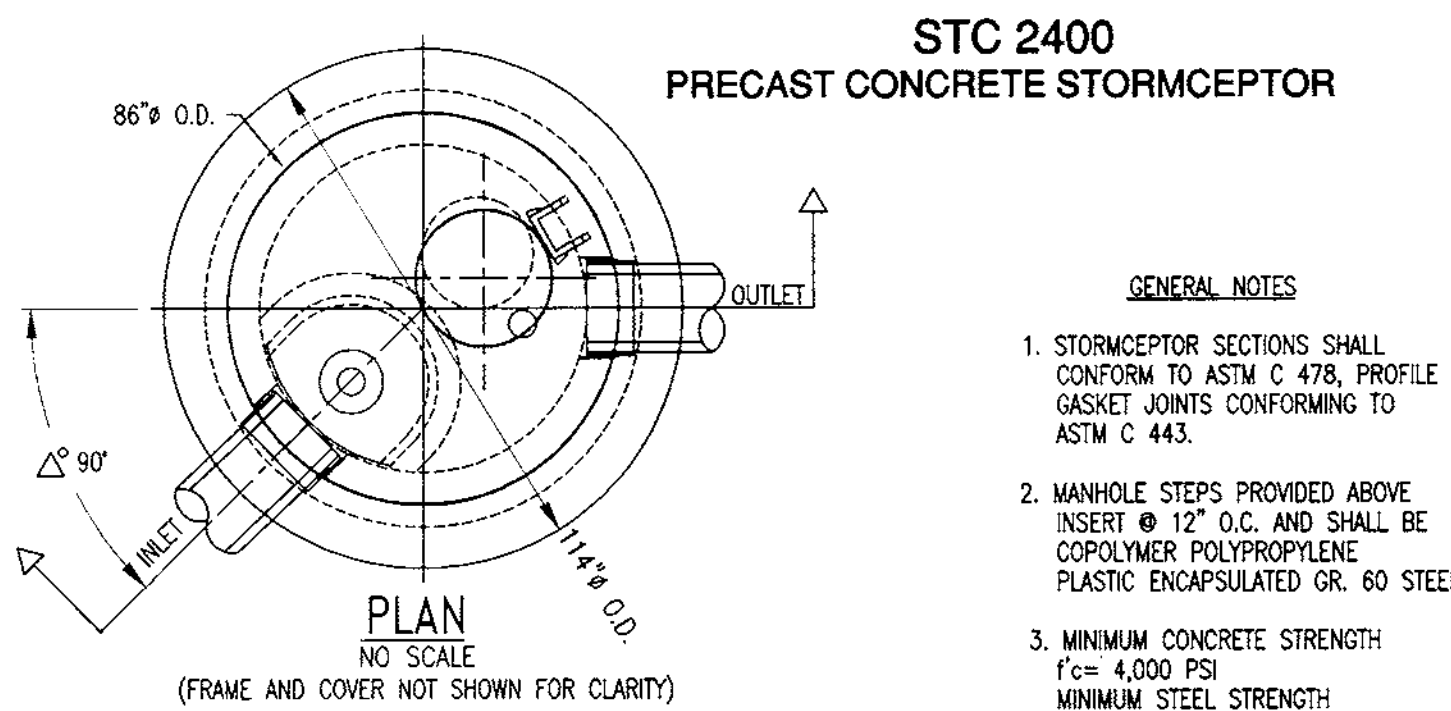
17904 Georgia Avenue, Suite 302, Olney, Maryland 20832

Tel: (301) 924-4570 • Fax: (301) 924-5872

4-10-00 REVISED STREET LIGHT INVERTS TO T-4+50-3 RPS SVG

DES. BY: DWN. BY: CKL. CHK. BY: JVG. DATE: 8/99. SCALE: 1"=50'. PROJECT/JOB #: 22-257. SHEET NO.: 5 of 6.

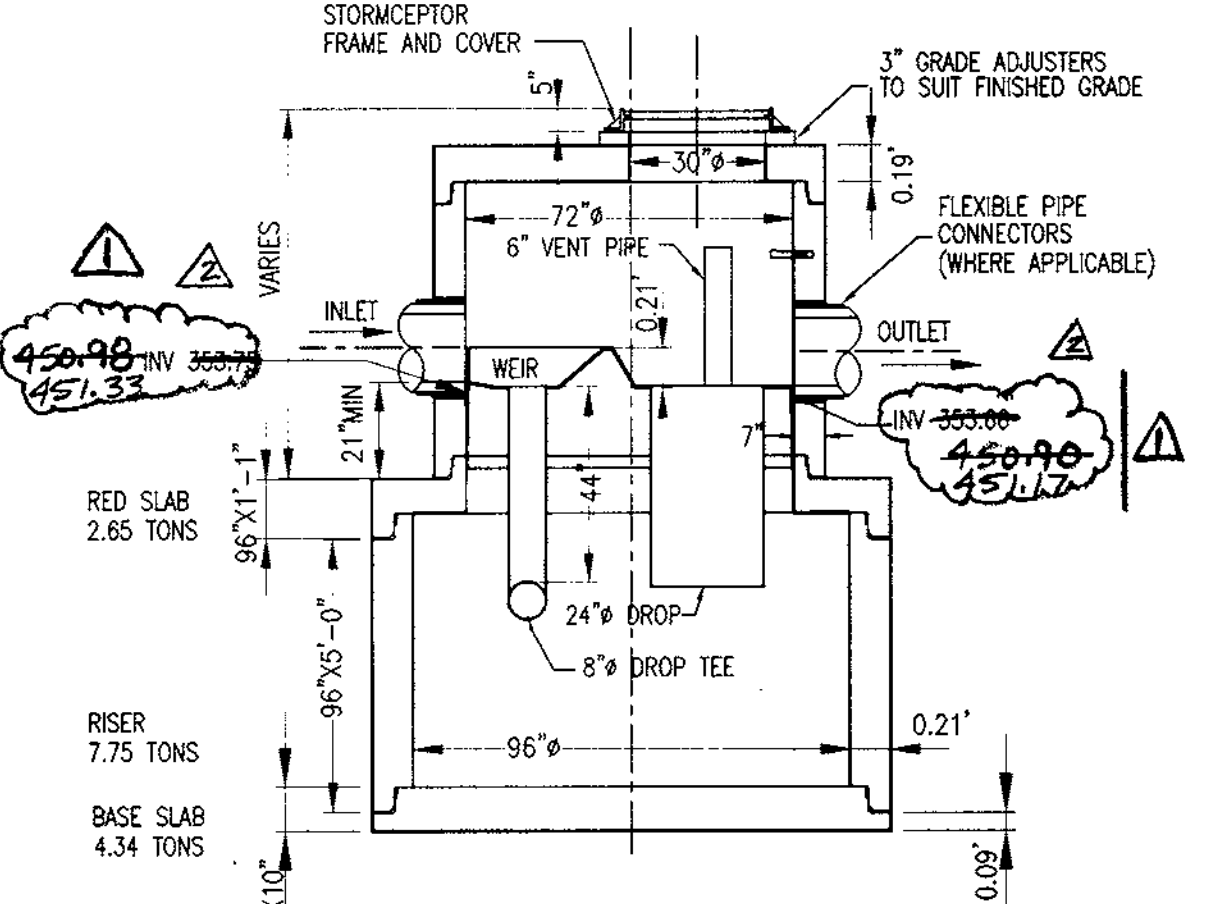




**STC 2400  
PRECAST CONCRETE STORMCEPTOR**

**GENERAL NOTES**

- STORMCEPTOR SECTIONS SHALL CONFORM TO ASTM C 478, PROFILE GASKET JOINTS CONFORMING TO ASTM C 443.
- MANHOLE STEPS PROVIDED ABOVE INSERT @ 12" O.C. AND SHALL BE COPOLYMER POLYPROPYLENE PLASTIC ENCAPSULATED GR. 60 STEEL.
- MINIMUM CONCRETE STRENGTH  $f_c = 4,000$  PSI  
MINIMUM STEEL STRENGTH  $f_y = 60,000$  PSI
- REINFORCEMENT DESIGN SHALL MEET ASTM C 478.
- FLEXIBLE PIPE CONNECTORS SHALL MEET ASTM C 923.
- HANDLING:  
A. ALL RISERS SHALL HAVE 2 EA. 1 1/2" HOLES FOR LIFTING.  
B. 1/3 WAY DOWN FROM SPOUT.  
C. ALL LG. DIAM. BASE SECTIONS FLATTOPS, AND REDUCERS TO HAVE LIFT HOOKS.
- DESIGNED FOR AASHTO H-20 LOADING.
- FIBERGLASS STORMCEPTOR INSERT REFERENCE DRAWING # CA-0225-01



**SECTION  
NO SCALE**

**Precast Concrete Stormceptor® Order Request Form**  
\* TO BE FILLED OUT ON-SITE BY DESIGNER

**CONTRACTOR INFORMATION**

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Contact \_\_\_\_\_  
Phone \_\_\_\_\_  
Fax \_\_\_\_\_

**OWNER INFORMATION**

Name LUCKSTONE CORPORATION  
Phone 804-784-5300  
Fax 804-784-6380

IMPERVIOUS DRAINAGE AREA FOR THIS UNIT \_\_\_\_\_

**Stormceptor® Model**

STC	900	3600	<input type="checkbox"/>
	1200	4800	<input type="checkbox"/>
	1800	6000	<input type="checkbox"/>
	2400	7200	<input checked="" type="checkbox"/>

**Insert Size**

SINGLE INLET DISC  
 MULTIPLE INLET DISC  
 CUSTOM

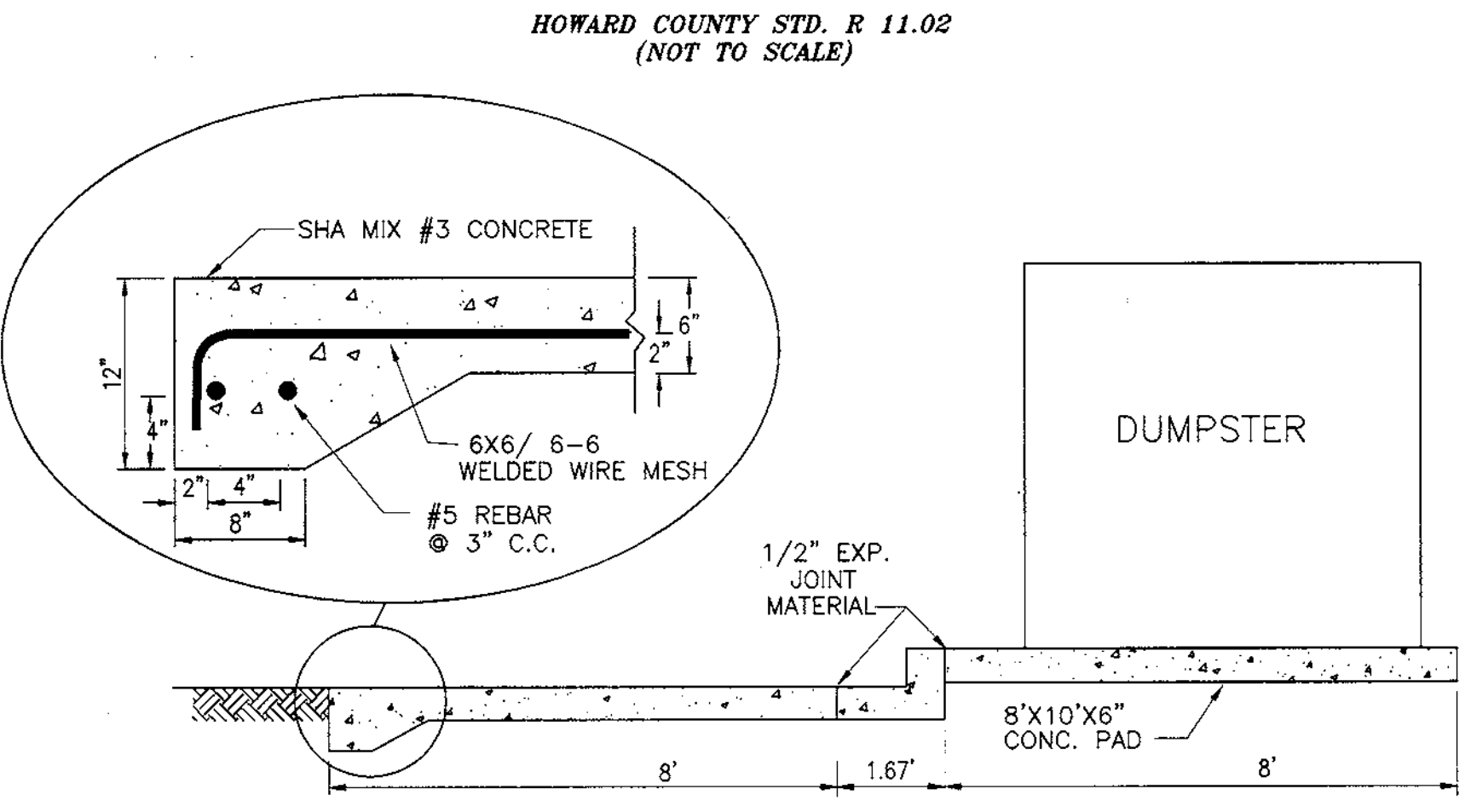
**Manhole Number** \_\_\_\_\_  
Top Elevation (ft) \_\_\_\_\_  
Inlet Pipe Invert (ft) 450.0  
Pipe Type CS  
Inlet Pipe Inside Diameter (in) 24"  
Inlet Pipe Outside Diameter (in) 24"  
Outlet Pipe Inside Diameter (in) \_\_\_\_\_  
Outlet Pipe Outside Diameter (in) \_\_\_\_\_

Project Name LUCKSTONE CORPORATION  
Approximate time frame of delivery (weeks) \_\_\_\_\_  
Delivery Address: Street 1820E CLARKSVILLE PIKE  
City CLARKSVILLE State MD Zip Code 21029  
Designer Company O'CONNELL & LAWRENCE, INC.  
Designer Contact STEVE GADLEY Phone 301-924-4570 Fax 301-924-5872

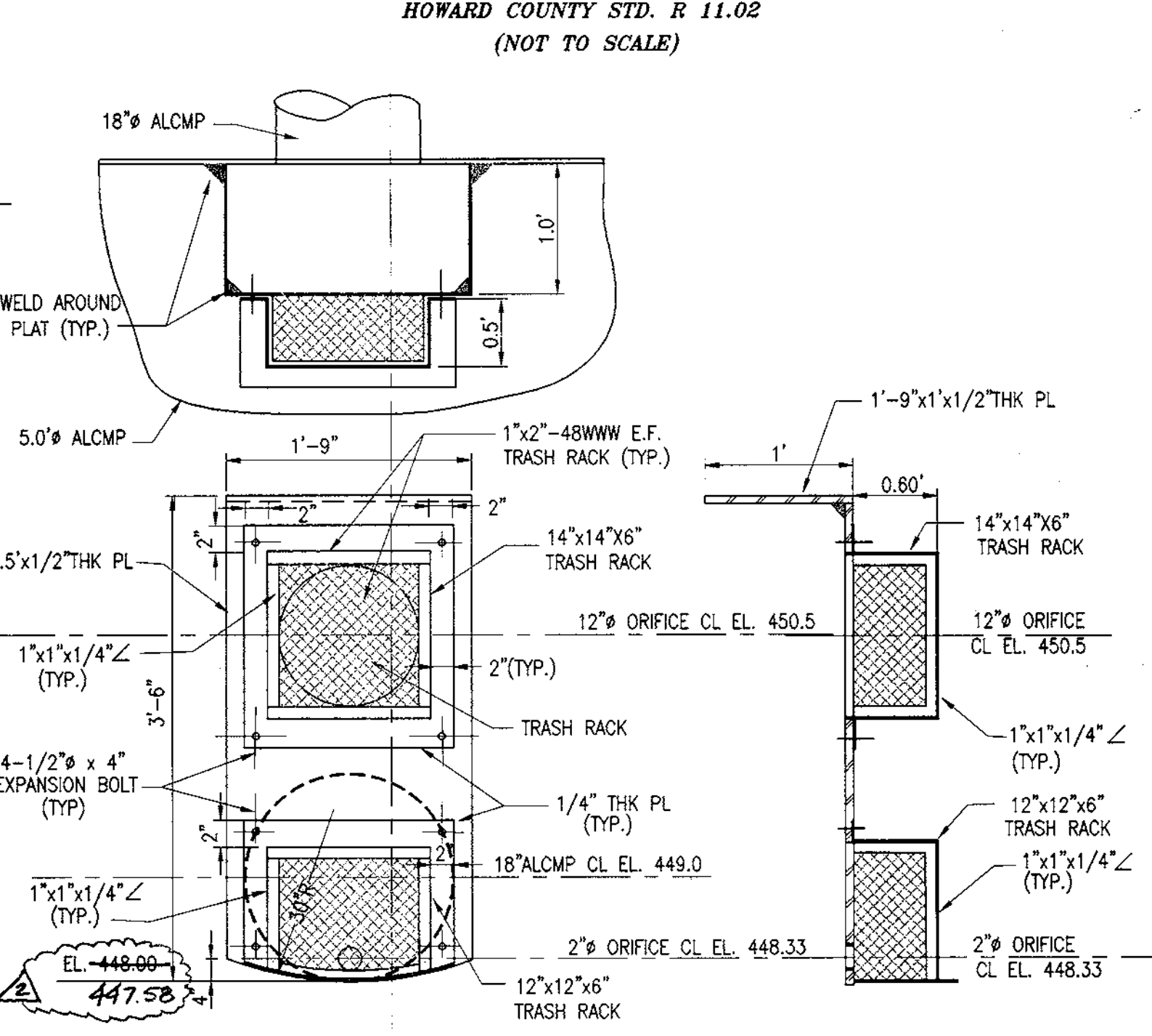
**CSR Hydro Conduit**

PLEASE FILL OUT COMPLETELY AND FAX TO:  
ATTN: ED O'MALLEY FAX: (703)922-3659, PHONE: (703)313-6389  
FOR TECHNICAL ASSISTANCE PLEASE CALL MIKE BARG, PHONE (703)313-6399

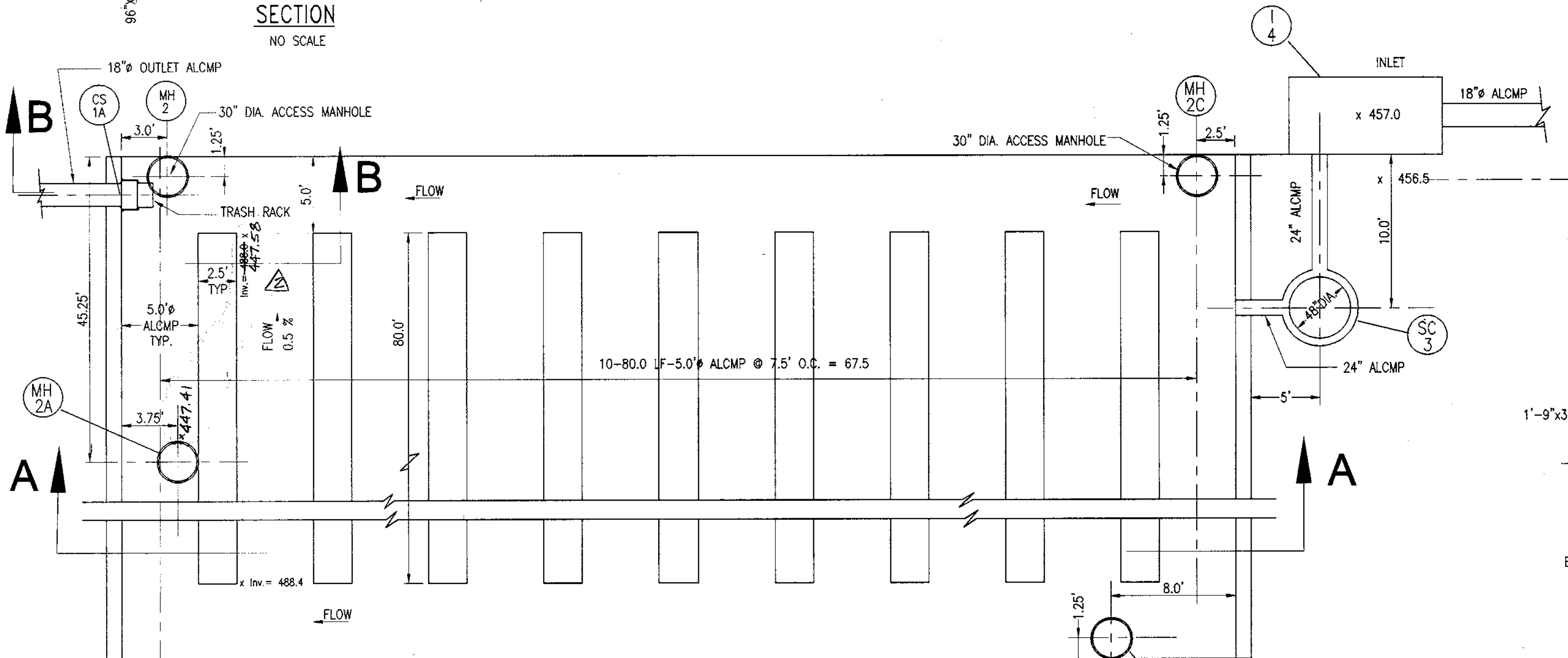
**SOLID WASTE CONTAINER ENCLOSURE (TYP.)**



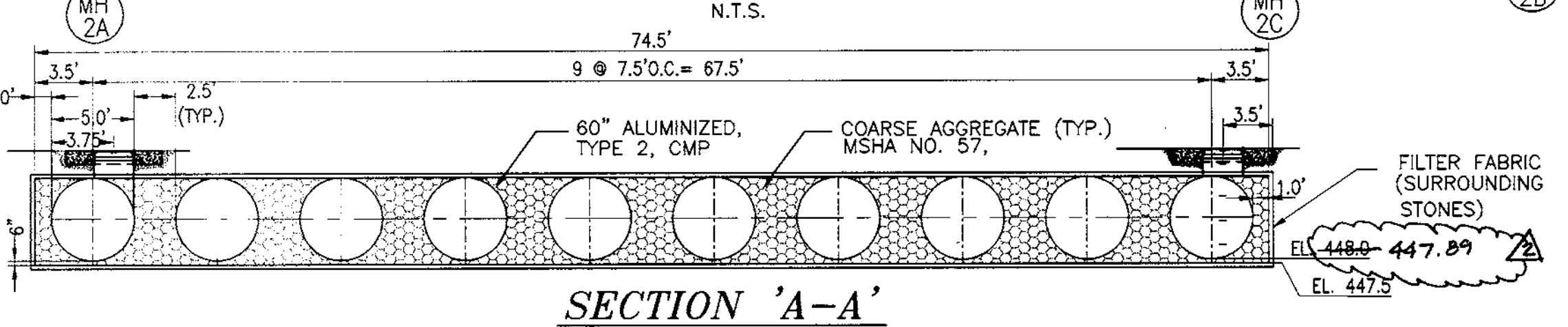
**SOLID WASTE SERVICE PAD**



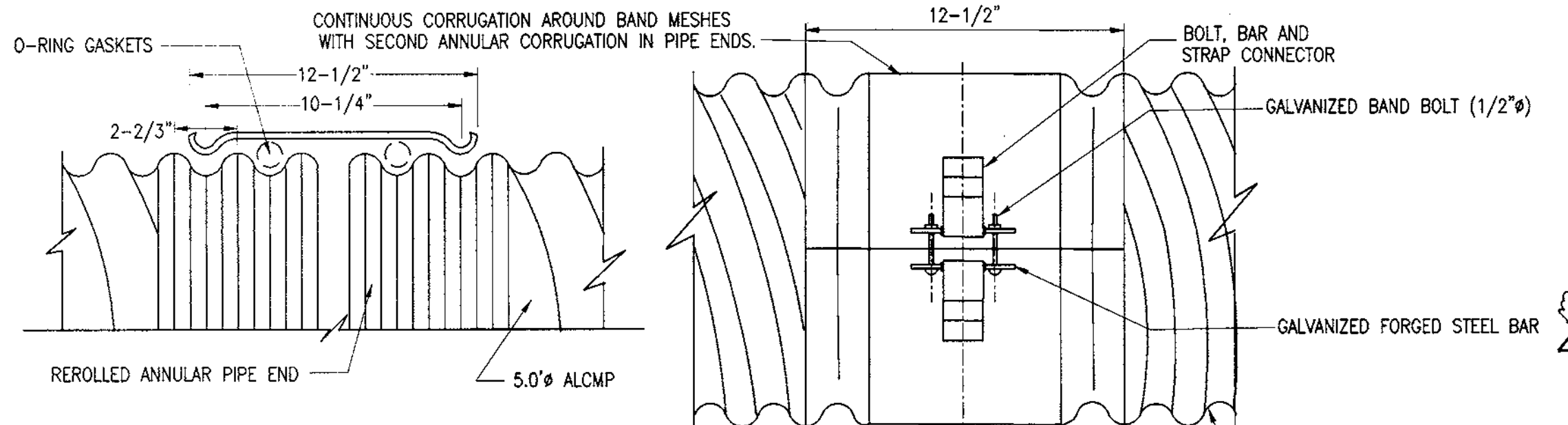
**TRASH RACK DETAIL**



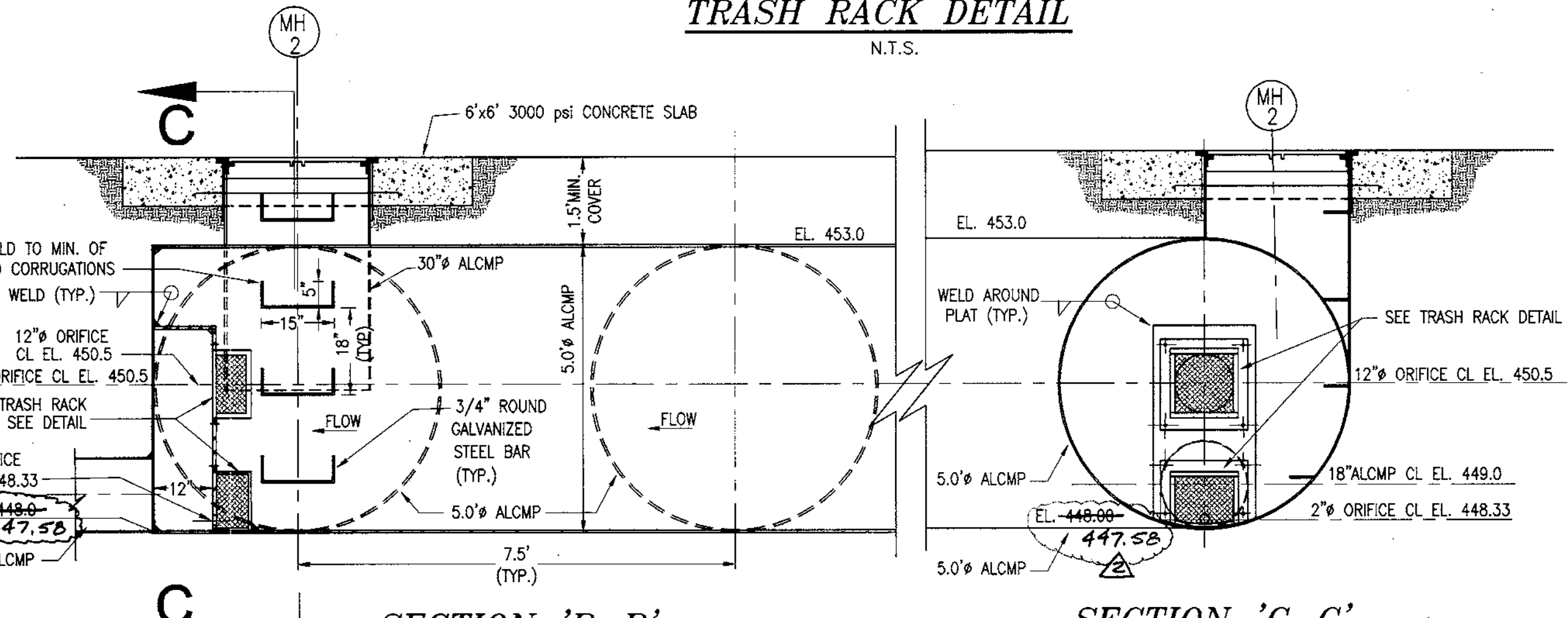
**STORMWATER MANAGEMENT FACILITY**



**SECTION 'A-A'**



**WATER TIGHT ALCMP JOINT DETAILS**



**SECTION 'B-B'**

**SECTION 'C-C'**

**OPERATION AND MAINTENANCE SCHEDULE FOR UNDERGROUND STORMWATER MANAGEMENT SYSTEM**

**MAINTENANCE REQUIREMENTS:**

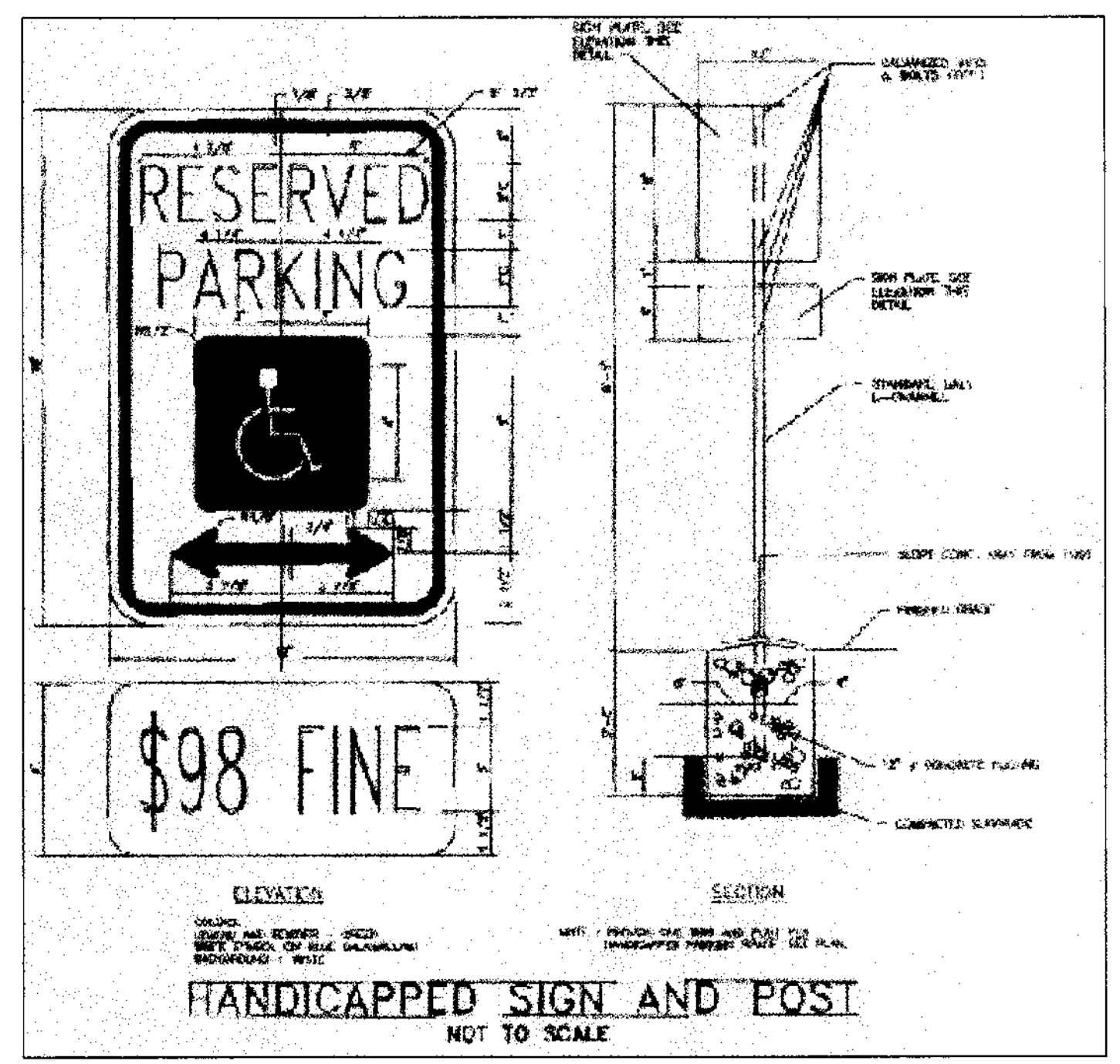
- REMOVAL OF SILT WHEN ACCUMULATION EXCEEDS SIX (6) INCHES. REMOVAL SHALL BE ACCOMPLISHED BY PRESSURE WASHING OF FACILITY.
- REMOVE ACCUMULATED PAPER AND DEBRIS, AS REQUIRED, AT ALL MANHOLES.
- INSPECT SYSTEM TO ENSURE THAT OUTLET IS FUNCTIONING AND NOT BLOCKED.

**ROUTINE MAINTENANCE:**

- FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONALLY PROPERLY.
- REMOVE ACCUMULATED PAPER, TRASH AND DEBRIS AS NECESSARY.

**NON-ROUTINE MAINTENANCE:**

- STRUCTURAL COMPONENTS OF THE FACILITY, SUCH AS THE MANHOLES, PIPES, TRASH RACKS, AND ORIFICE PLATES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE.
- SEDIMENT SHOULD BE REMOVED FROM THE FACILITY WHENEVER AN ACCUMULATION OF SIX (6) INCHES OR MORE IS OBSERVED IN THE OBSERVATION MANHOLES, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- SURFACE CONDITIONS OVER THE FACILITY SHOULD BE INSPECTED MONTHLY TO DETERMINE IF STRUCTURAL FAILURES HAVE OCCURRED. REPAIR AND REPLACE DAMAGED PIPES AND STONE AREAS AS NECESSARY.



**HANDICAPPED SIGN AND POST**

APPROVED: DEPARTMENT OF PLANNING AND ZONING

*Ed O'Malley* 11/3/00  
DIRECTOR, DEPARTMENT OF PLANNING & ZONING DATE

*Carole Hamilton* 10/28/99  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*Michael D. Lawrence* 12/18/99  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

1-10-01 As BUILT RPS BCS

**NOTES AND DETAILS II**

**LUCKSTONE CORPORATION**  
TAX MAP : 34 PARCEL No. 214  
5TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**O'CONNELL & LAWRENCE, INC.**  
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DES. BY: CKL DWN. BY: SKC CKD. BY: SVG DATE: 7/99 SCALE: 1"=50' PROJECT/JOB #: 22-257 SHEET NO.: 6 OF 6