



CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY THAT THE FOLLOWING ELECTRONIC RECORDS ARE TRUE AND ACCURATE REPRODUCTIONS OF THE ORIGINAL RECORDS OF JAMES CITY COUNTY GENERAL SERVICES DEPARTMENT- STORMWATER DIVISION; WERE SCANNED IN THE REGULAR COURSE OF BUSINESS PURSUANT TO GUIDELINES ESTABLISHED BY THE LIBRARY OF VIRGINIA AND ARCHIVES; AND HAVE BEEN VERIFIED IN THE CUSTODY OF THE INDIVIDUAL LISTED BELOW.

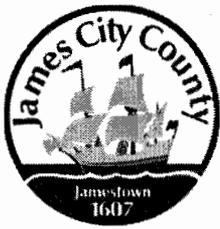
BMP NUMBER: WC038

DATE VERIFIED: October 15, 2012

QUALITY ASSURANCE TECHNICIAN: Leah Hardenbergh

Leah Hardenbergh

LOCATION: WILLIAMSBURG, VIRGINIA



Stormwater Division

MEMORANDUM

DATE: March 12, 2010
TO: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services
FROM: Tina Cantwell, Stormwater
PO: 270712
RE: Files Approved for Scanning

General File ID or BMP ID: WC038

PIN: 0530200001A

Subdivision, Tract, Business or Owner

Name (if known):

Association at Stonehouse, Inc. (The)

Property Description:

Near (East of) 9815 Turning Leaf Drive

Site Address:

Stonehouse Subdivision

(For internal use only)

Box 13

Drawer: 9

Agreements: (in file as of scan date)

N

Book or Doc#:

Page:

Comments

**James City County, Virginia
Environmental Division**

**Stormwater Management/BMP Facilities
Record Drawing/Construction Certification
*Review Tracking Form***

County Plan No.: 5-30-97
 Project Name: STONEHOUSE SEC 4A Leather Leaf ~~Basin B~~
 Stormwater Management Facility: BASIN B DRY DET 9815 LEXINGTON LEX
 Phase: I II III

Information Received. Date: 11-16-00 Transmittal
 Administrative Check.
 Record Drawing Date: LANOMARK 11/16/00
 Construction Certification Date: NOV 15 00 LANOMARK
 RD/CC Standard Forms (Required after Feb 1st 2001) N/A
 Inspection/Maint Agreement Info: 1/m # 970012857 AUG 8 1997
 Other: _____

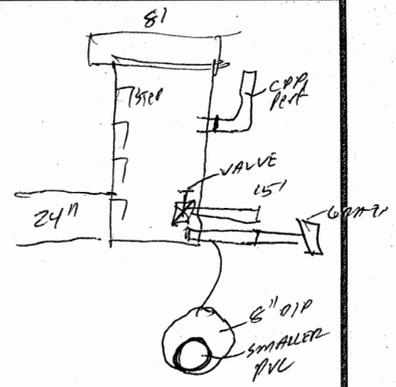
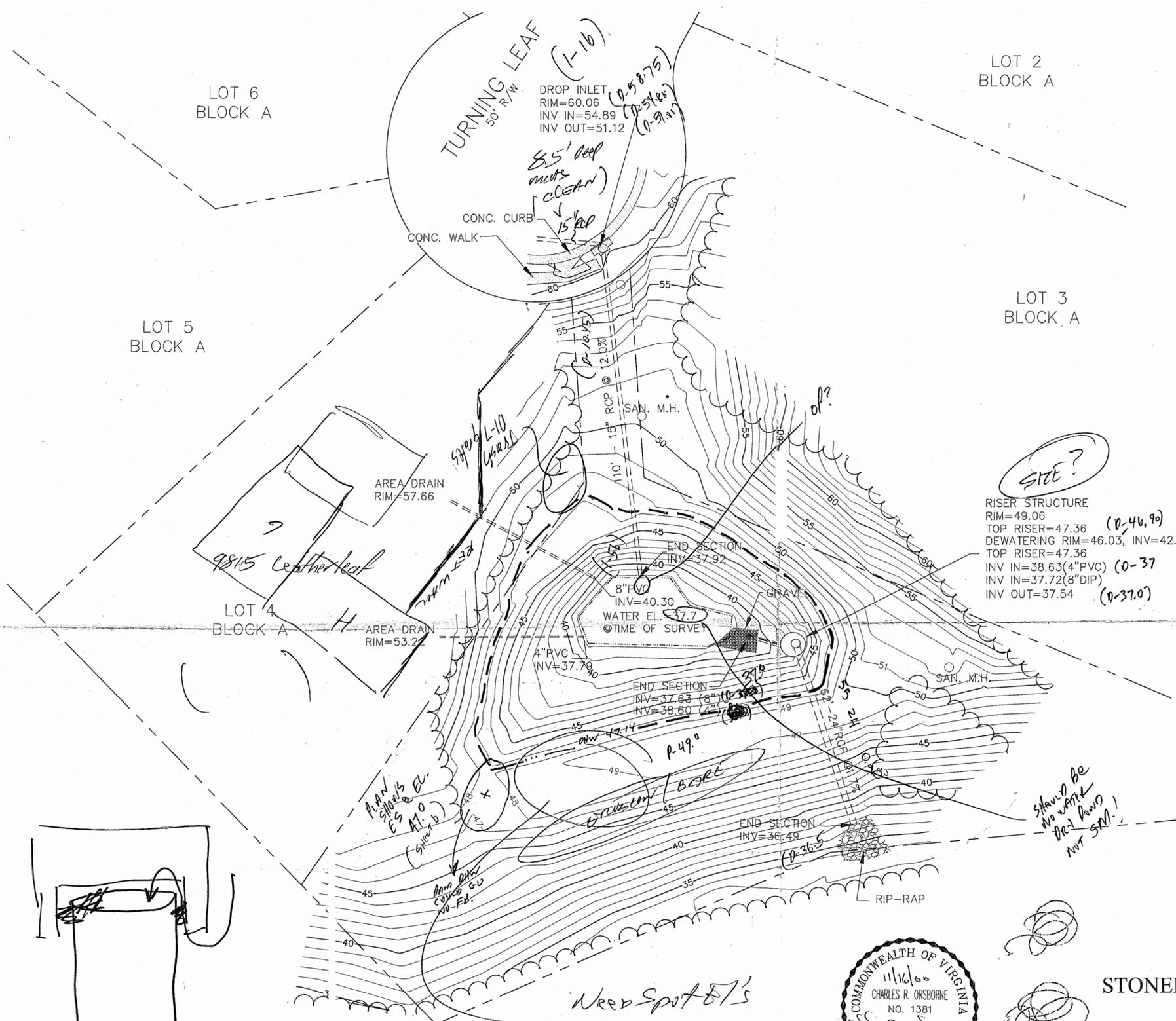
Standard E&SC Note on Approved Plan Requiring RD/CC or County comment in plan review file.
 Yes No Sheet: SHEET 12 NOTE #18
 Assign County BMP ID Code Code: WC 038
 Log into Division "As-Built" Tracking Log
 GIS Map (obtain information GPIN, Owner, Site Area, Address, etc. AND ADD TO MAP)
 Preliminary Log into BMP Database (BMP ID #, Site Plan #, GPIN, Project Name)
 Active File Review.
 Initial As-Built File setup.
 Forward Inspector Review Form. Feedback: _____
 Pre-Inspection Drawing Review (Quick look)
 Final Inspection (field observation) Date: 08/27/01
 Record Drawing Review Date: 09/06/01
 Construction Certification Review Date: 09/06/01
 Actions:
 No comments.
 Comments. Letter Forwarded. Date: Sept 10, 2001
 Record Drawing (RD)
 Construction Certification (CC)
 Construction-Related (CR)
 Site Issues (SI)
 Other: _____

Second Submission: _____
 Third Submission: _____

Approved for stormwater management facility purposes (RD/CC/CR/Other). Proceed with bond release.
 Notify Darryl & Joan of acceptability email (preferred) or verbal.
 Clean active file of all stormwater management related material and finish/establish "As-Built" file.
 Add to County BMP Inventory/Inspection schedule (Phase I, II or III). COPY FI Report to
 Add to JCC Hydrology & Hydraulic database (optional).

BMP Certification Information Acceptable

Plan Reviewer: _____ Date: _____



Show
 Plan view
 MR
 No Bench
 Present.
 Ave.?
 ES?

RISER STRUCTURE
 RIM=49.06
 TOP RISER=47.36 (0-46.90)
 DEWATERING RIM=46.03, INV=42.79 (0-42.5)
 TOP RISER=47.36
 INV IN=38.63 (4\"/>

Rounding in
 2- 4.93
 10- 463
 100- 14.91
 245
 404
 4575
 4679
 97.4

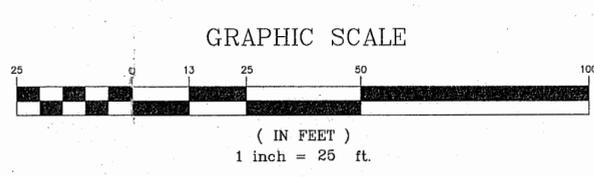
RECORD DRAWING
 OF
BASIN B
SECTION IVA
AT STONEHOUSE

STONEHOUSE DISTRICT, JAMES CITY COUNTY
 VIRGINIA

SCALE: 1"=2' 11/16/00



Need Spot E/Ls
 Contours
 not right
 TW=12' and 20'

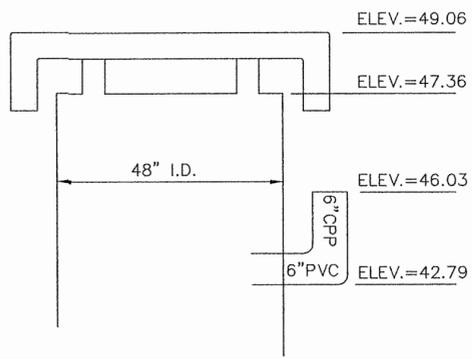


LANDMARK
DESIGN GROUP
 Engineers • Planners • Surveyors
 Landscape Architects • Environmental Consultants

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 Tel. (757) 253-2975
 Fax (757) 229-0049
 Email: lmdg@landmarkdgb.com
 5544 Greenwich Road
 Suite 200
 Virginia Beach, VA 23462
 Tel. (757) 473-2000
 Fax (757) 497-7933
 Email: lmdg@landmarkdgb.com

NOTE: THIS RECORD DRAWING IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY LANDMARK DESIGN GROUP, 06/00 AND REFLECTS CONDITIONS PRESENT AT THAT TIME.

DRAWN BY : PF	PROJ. NO. : 1990131-000.46
CHKD. BY : RSP	DWG. NO. : 11681 W



RISER STRUCTURE DETAIL
(N.T.S.)

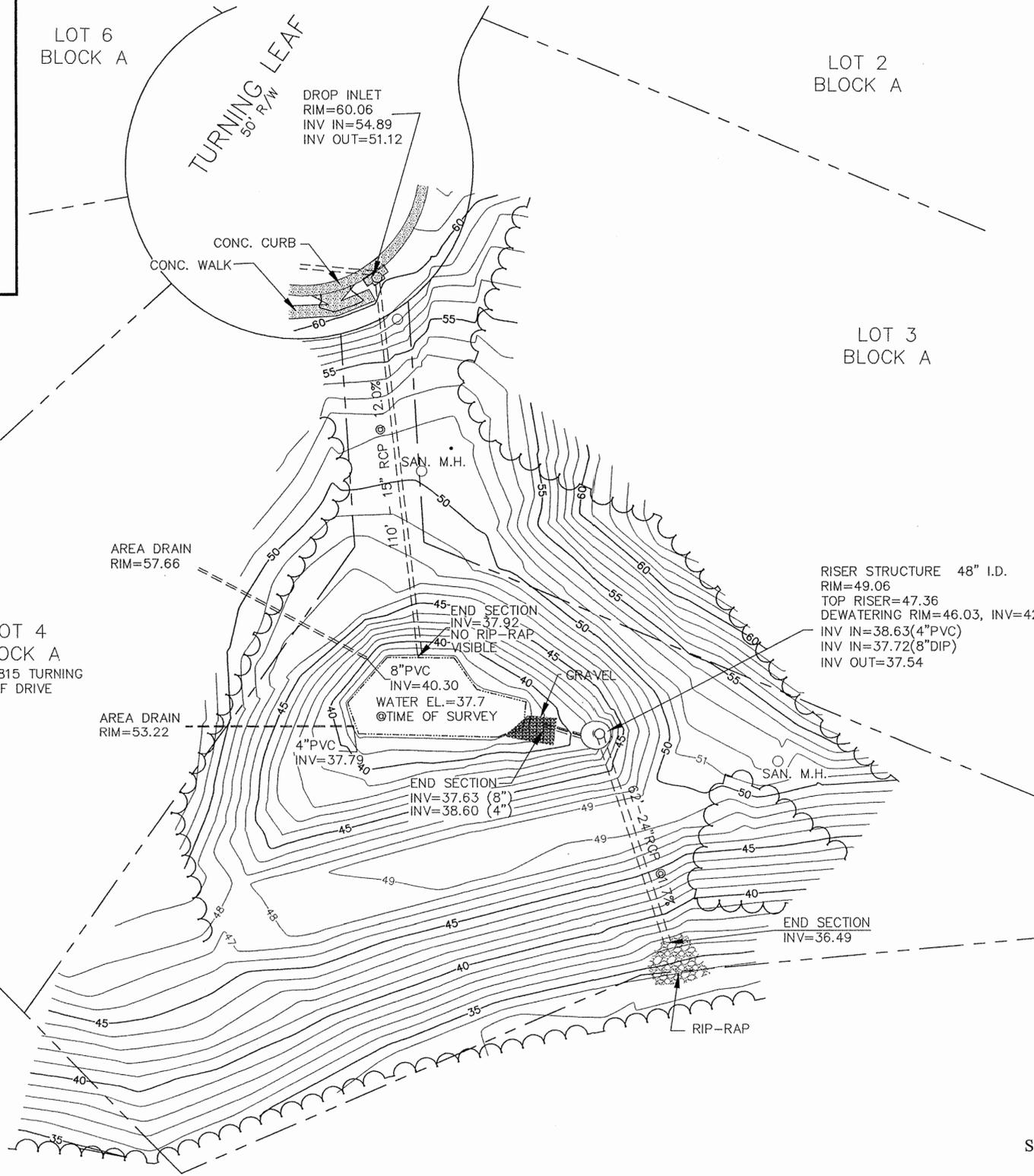
LOT 6
BLOCK A

LOT 2
BLOCK A

LOT 3
BLOCK A

LOT 5
BLOCK A

LOT 4
BLOCK A
NO. 9815 TURNING
LEAF DRIVE



APPROVED
James City County
Environmental Division
By: *[Signature]*
Date: 4-14-03



RECORD DRAWING
OF
BASIN B
SECTION IVA
AT STONEHOUSE

APPROVED
James City County
Environmental Division
By: *[Signature]*
Date: 11-27-03

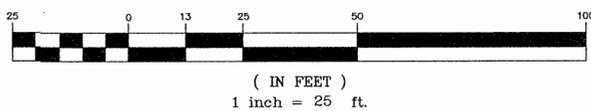
STONEHOUSE DISTRICT, JAMES CITY COUNTY, VIRGINIA

SCALE: 1"=25' 11/16/00

REVISED PER COUNTY COMMENTS: 2/25/03

NOTE: THIS RECORD DRAWING IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY LANDMARK DESIGN GROUP, 06/00 AND REFLECTS CONDITIONS PRESENT AT THAT TIME.

GRAPHIC SCALE



COUNTY PLAN NO. S-30-97
BMP ID NO. WC038

**LANDMARK
DESIGN GROUP**

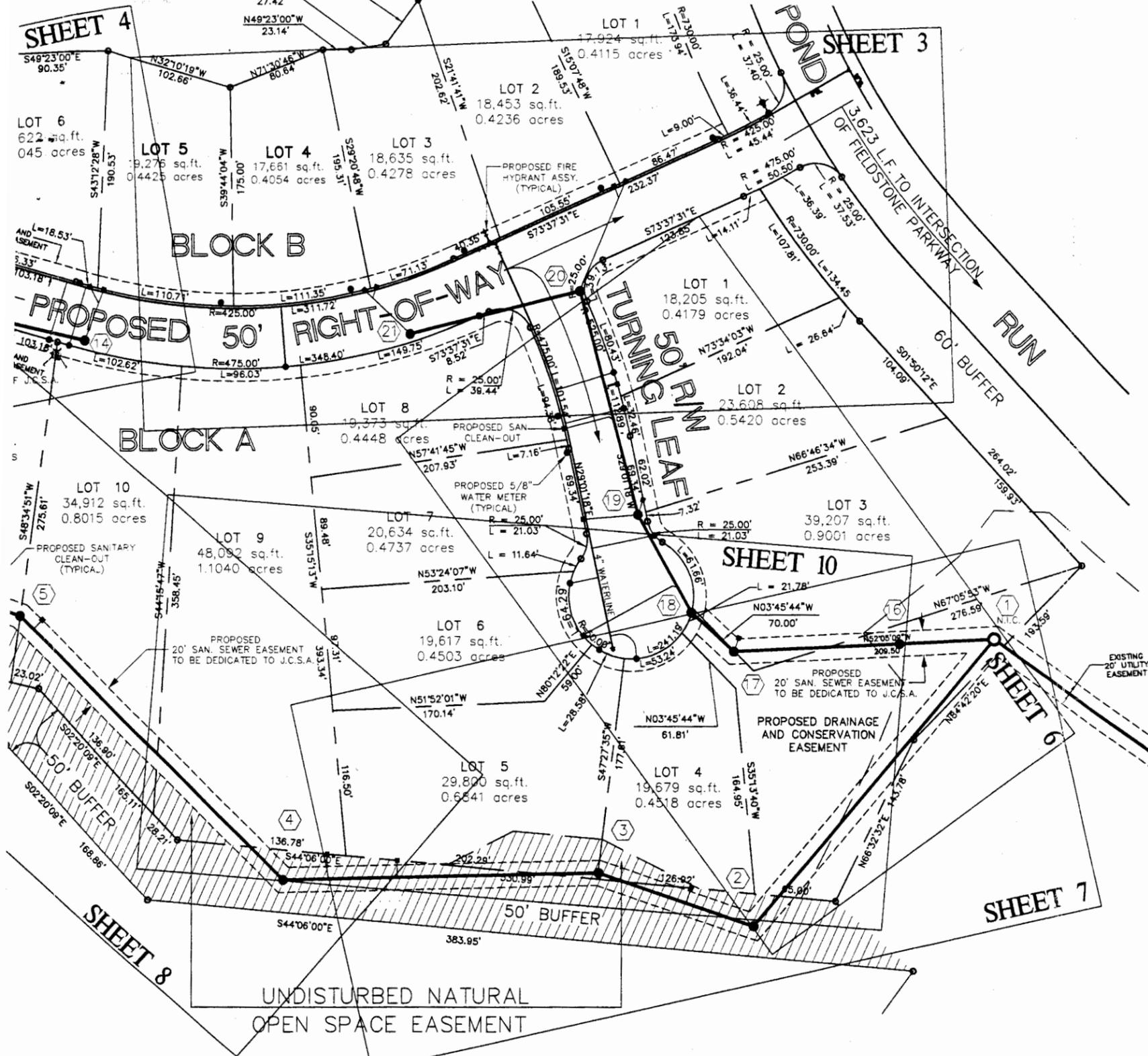
Engineers • Planners • Surveyors
Landscape Architects • Environmental Consultants

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Fax (757) 229-0049
Email: lmdg@landmarkdgb.com

5544 Greenwich Road
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Virginia Beach, VA 23462
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Email: lmdg@landmarkdgb.com

DRAWN BY : PF	PROJ. NO. : 1990131-000.46
CHKD. BY : RSP	DWG. NO. : 11681 W

WC 038



DES.	J
DWN.	J
CHK.	J

DEVELOPMENT AREA ONE, PHASE I
 SECTION IVA
 HOUSE

CTON

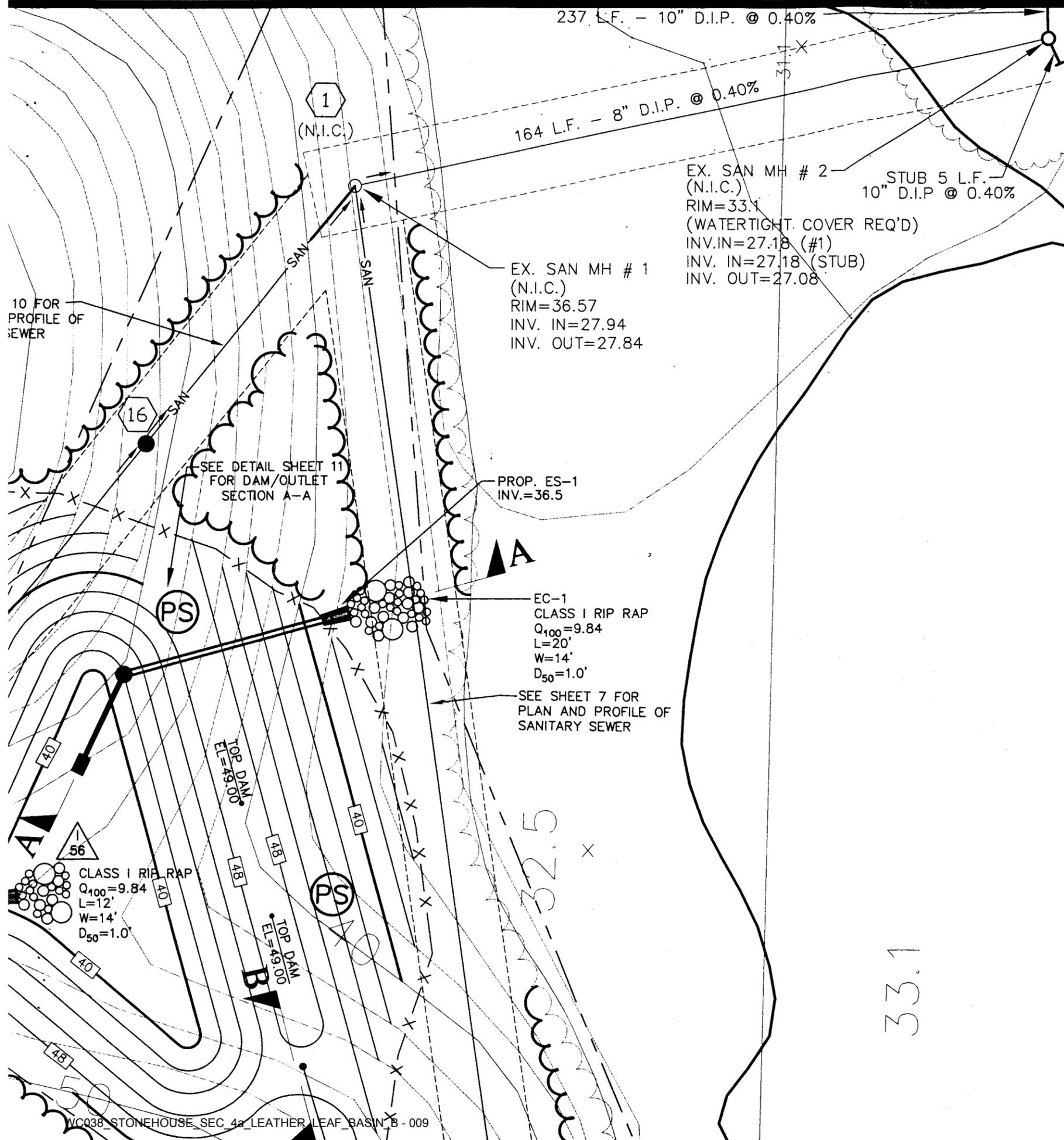
WC 038
 S-30-97
 BASIN B
 STONEHOUSE SEC 4A
 LEATHER LEAF

ROAD SPEED LIMIT = 25 M.P.H.
 TURN SPEED LIMIT = 25 M.P.H.

NOTE: IF IRRIGATION LINES AND SPRINKLERS ARE PROVIDED, UD-5 UNDERDRAIN BEHIND THE CURB IN SAG CONDITIONS FOR A DISTANCE OF 50' BEYOND THE SAG ON EACH END MUST BE PROVIDED.

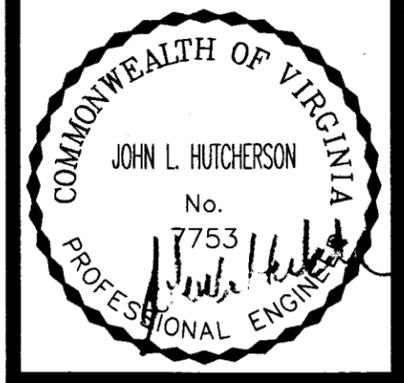
PROJ. NO.	96038
SCALE:	AS NOTE
SHEET OF	2
DWG. NO.	96038-1215.001-

REVISED: 6/13/97 PER JCC COMMENTS
 REVISED: 10/20/97 PER JCC COMMENTS



SYSTEM I

- 14 DI-3B, L=4', TOP EL=78.31, INV. OUT=74.42
- 14 15 141 LF 15' RCP @ 0.48%
- 15 DI-3B, L=4', TOP EL=82.24, INV. IN=73.74 INV. OUT=73.64
- 15 15A 96 LF 15' RCP @ 7.15%
- 15A MH-1, TOP EL=73.00, INV. IN=66.78 (I15) INV. IN=66.78 (I15B) INV. OUT=66.68
- 15A 15B 93 LF 12' RCP @ 0.50%
- 15B DI-7, TOP EL=71.00, INV.=67.25
- 15A 17 75 LF 15' RCP @ 7.25%
- 17 DI-3B, L=4', TOP EL=65.34, INV. IN =61.24 (I15A) INV. OUT=61.14
- 17 18 55 LF 15' RCP @ 7.42%
- 18 DI-3B, L=4.0', TOP=60.41 INV IN=57.06, INV OUT=56.96
- 18 16 77 LF 15' RCP @ 2.70%
- 16 DI-3C, L=6.0', TOP=58.75, INV IN=54.88, INV OUT=51.00
- 16 56 110 LF 15' RCP @ 10.45
- 56 ES-1 15' INV. OUT=39.5



Langley and McDonald, P.C.

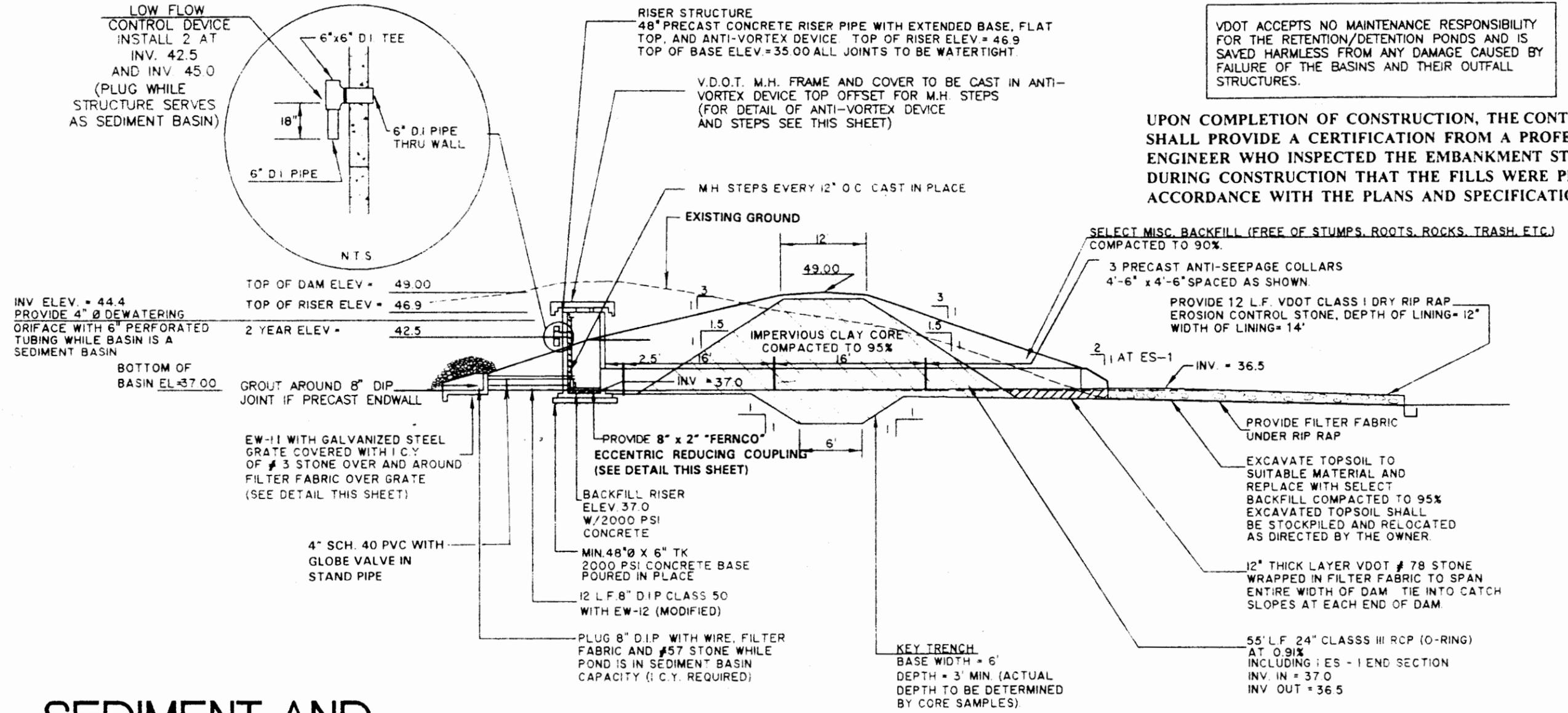
Engineers • Surveyors • Planners
Landscape Architects • Environmental Consultants

WILLIAMSBURG
VIRGINIA BEACH

NOTE: THIS BASIN WILL ALSO SERVE AS A SEDIMENT BASIN DURING CONSTRUCTION

VDOT ACCEPTS NO MAINTENANCE RESPONSIBILITY FOR THE RETENTION/DETENTION PONDS AND IS SAVED HARMLESS FROM ANY DAMAGE CAUSED BY FAILURE OF THE BASINS AND THEIR OUTFALL STRUCTURES.

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A CERTIFICATION FROM A PROFESSIONAL ENGINEER WHO INSPECTED THE EMBANKMENT STRUCTURES DURING CONSTRUCTION THAT THE FILLS WERE PLACED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.



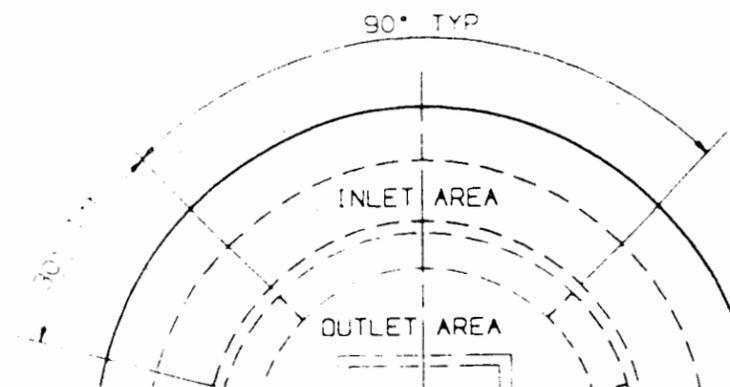
SEDIMENT AND ATTENUATION BASIN - SECTION A-A (BASIN B)

NOT TO SCALE

RECOMMENDED DEWATERING SYSTEM FOR SEDIMENT BASINS

PROVIDE ADEQUATE STRAPPING

WC038_STONEHOUSE_SEC_4a_LEATHER_LEAF_BASIN_B.1010.PLENE CAP



NOTE:

- 1 ANTI-VORTEX DEVICE (CAP AND RISER) MANUFACTURED IN ACCORDANCE WITH ASTM C478
- 2 DIMENSIONS SUBJECT TO PERMISSIBLE VARIATIONS OF ASTM C478.
- 3 INLET AREA (AREA BETWEEN DEVICE I.O. AND RISER O.O.) IS GREATER THAN OUTLET AREA (AREA OF RISER I.O.)
- 4 SLAB REINFORCEMENT TO BE ASTM A615 #4 BARS @ 8" E.W. CIRCUMFERENTIAL REINFORCEMENT TO BE A_{sc} = 1 @ 0.150 2x6 W2.5 x W2.5 WAF MINIMUM. MATERIAL PROPERTIES: f_y = 60 ksi, f_c = 4 ksi. CONCRETE COVER OVER REINFORCEMENT (CCR) = 1" UNLESS NOTED
- 5 DI-1 FRAME & GRATE IS AVAILABLE FOR

SECTION - STATION 24+15 (BASIN A)

EW-11 WITH GALVANIZED STEEL GRATE COVERED WITH 10Y OF #3 STONE OVER AND AROUND FILTER FABRIC OVER GRATE (SEE DETAIL THIS SHEET)

4" SCH. 40 PVC WITH GLOBE VALVE IN STAND PIPE

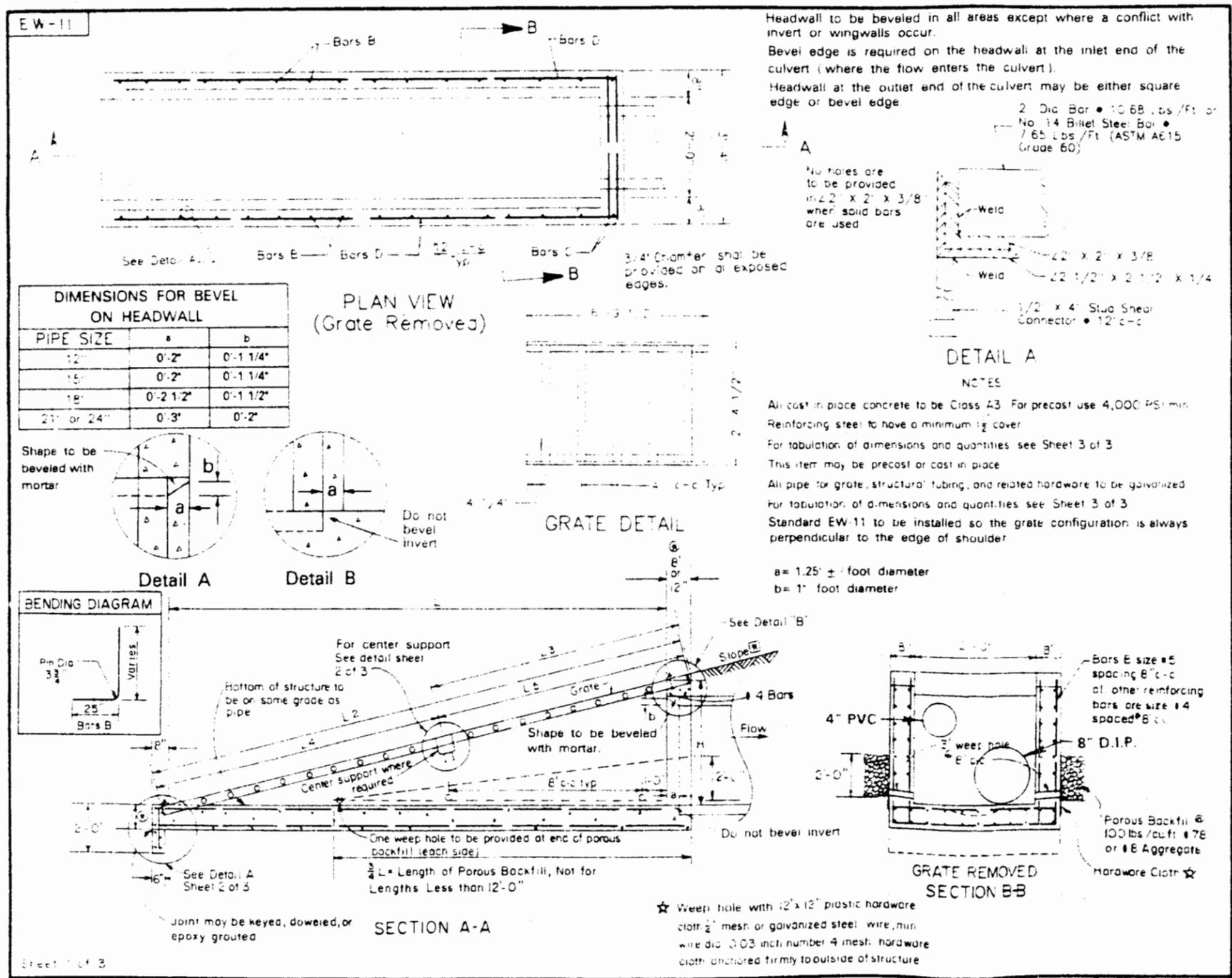
ECCENTRIC REDUCING COUPLER (SEE DETAIL THIS SHEET)
 BACKFILL RISER
 ELEV. 50.00
 W/2000 PSI CONCRETE
 MIN 48"Ø X 6" TK
 2000 PSI CONCRETE BASE
 POURED IN PLACE
 8" L.F. 8" D.I.P. CLASS 50
 (INCLUDES EW-12)

KEY TRENCH
 BASE WIDTH = 6'
 DEPTH = 3' MIN (ACTUAL DEPTH TO BE DETERMINED BY CORE SAMPLES)

EXCAVATE TOPSOIL TO SUITABLE MATERIAL AND REPLACE WITH SELECT BACKFILL COMPACTED TO 95% EXCAVATED TOPSOIL SHALL BE STOCKPILED AND RELOCATED AS DIRECTED BY THE OWNER

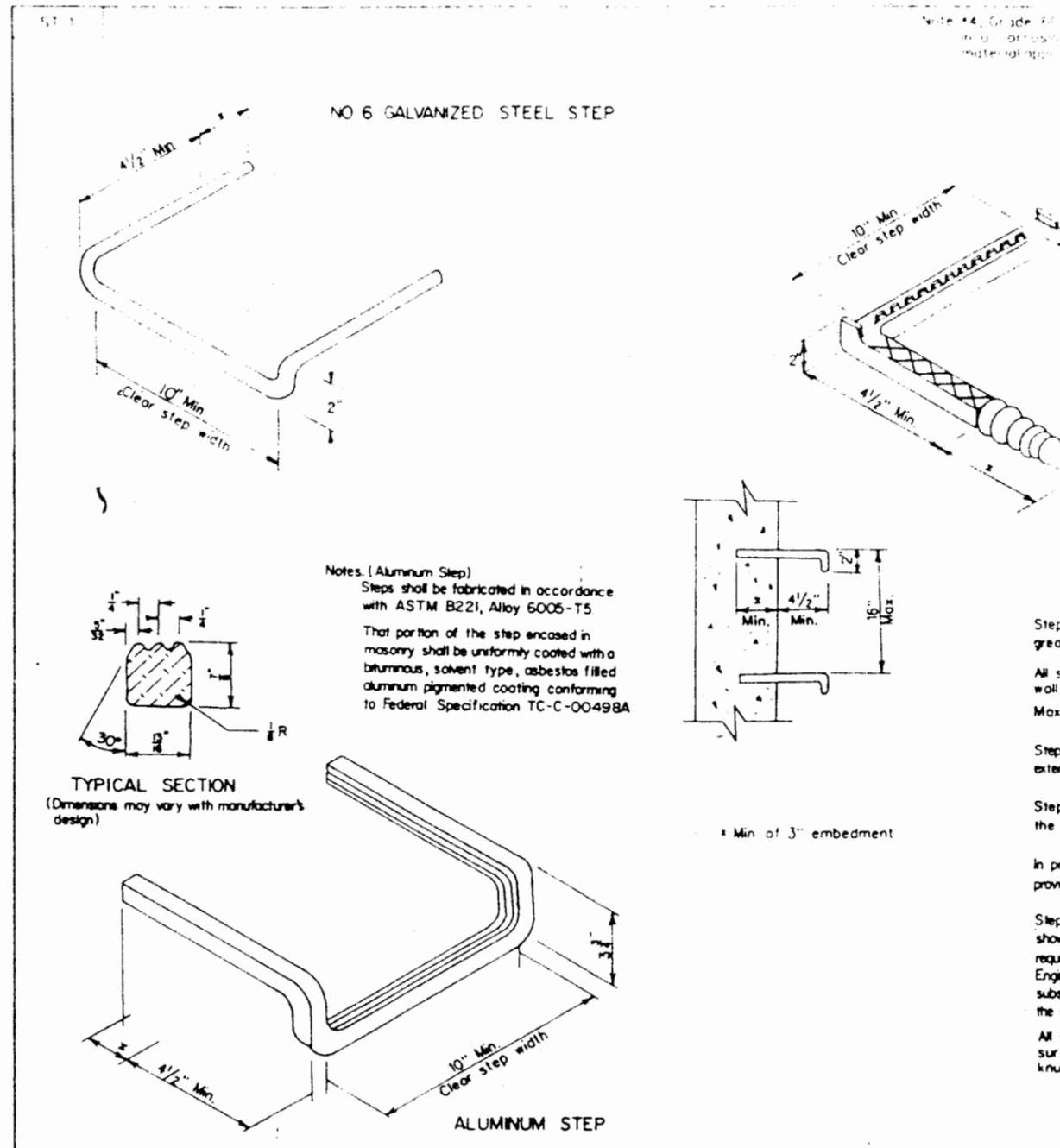
12" THICK LAYER VDOT # 78 STONE WRAPPED IN FILTER FABRIC TO SPAN ENTIRE WIDTH OF DAM. TIE INTO CATCH SLOPES AT EACH END OF DAM

160' L.F. 15" CLASS V RCP (O-RING) AT 4.38% INCLUDING 15' END SECTION
 INV. IN = 50.00
 INV. OUT = 43.00



DIMENSIONS FOR BEVEL ON HEADWALL

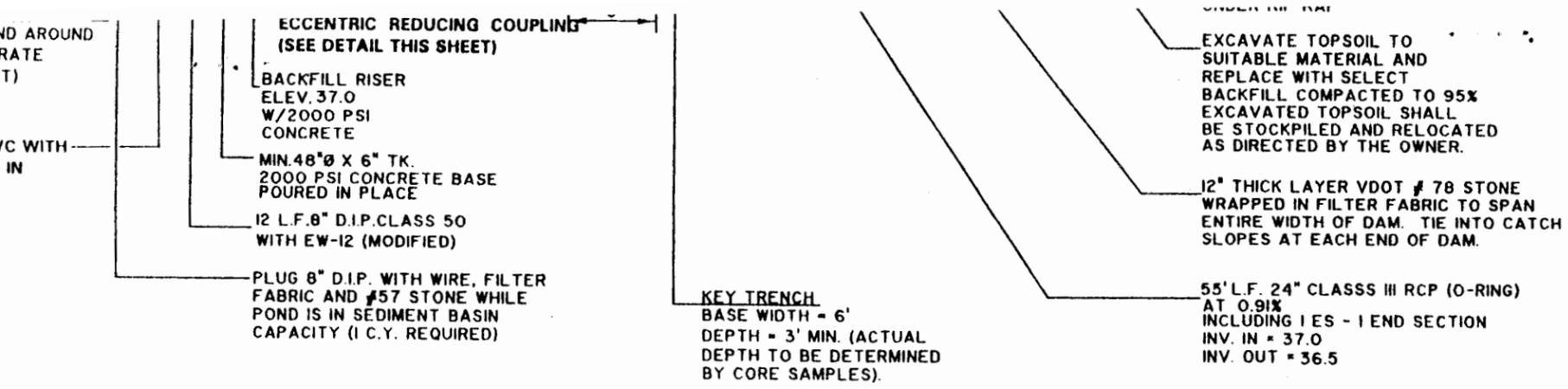
PIPE SIZE	a	b
12"	0'-2"	0'-1 1/4"
15"	0'-2"	0'-1 1/4"
18"	0'-2 1/2"	0'-1 1/2"
21" or 24"	0'-3"	0'-2"



PIPE ENDWALL WITH LOAD-CARRYING GRATE MODIFIED

SPECIFICATION REFERENCE

105.04
241
302



ASIN - SECTION A-A (BASIN B)

NOT TO SCALE

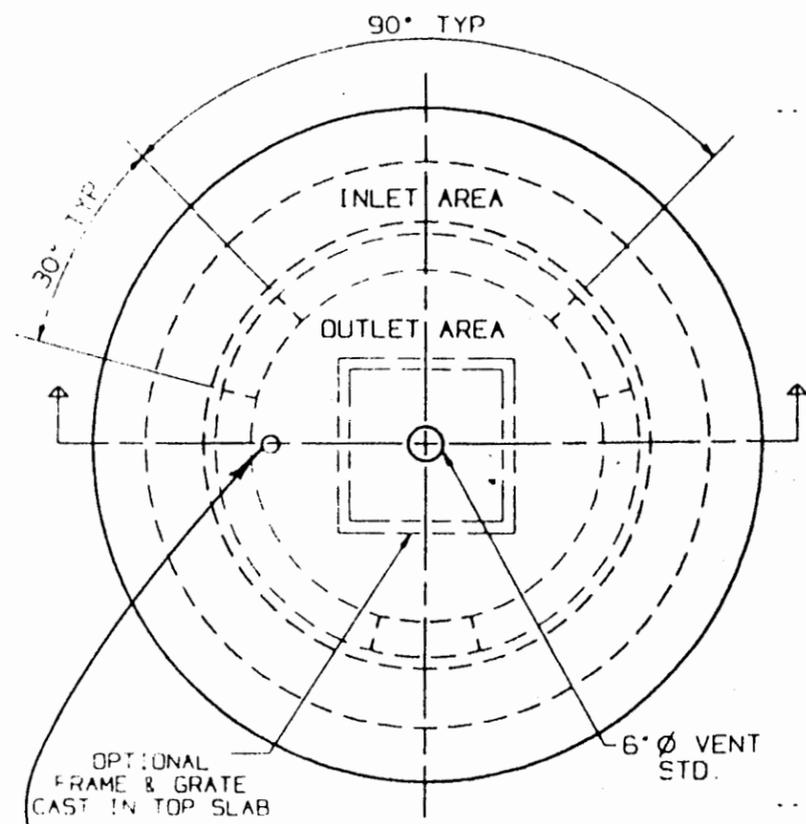
ING
T

DEPTH
VARIES AS
REQUIRED
FOR DRY
STORAGE

WET
STORAGE

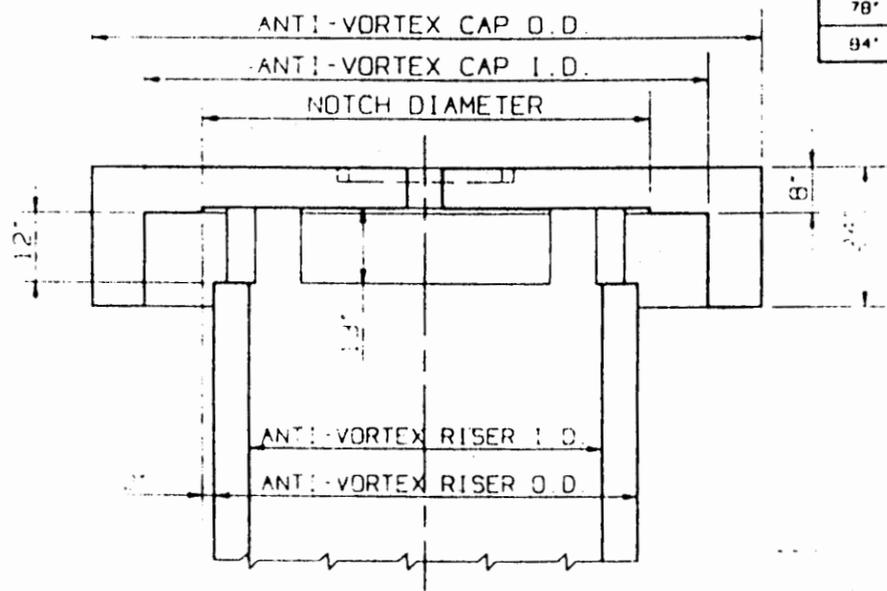
MINIMUM
1/8"

1/8"



PLAN

PROPOSED 4" Ø ORIFACE OVER
VALVE STEM EXTENSION



SECTION

ANTI-VORTEX DEVICE DETAIL

N.T.S.

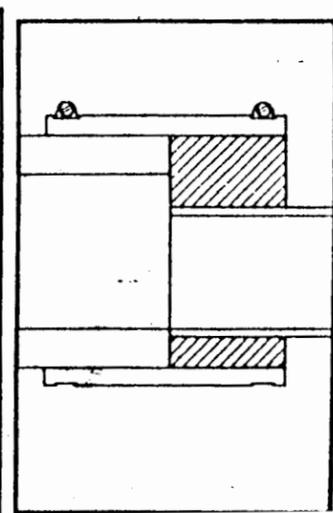
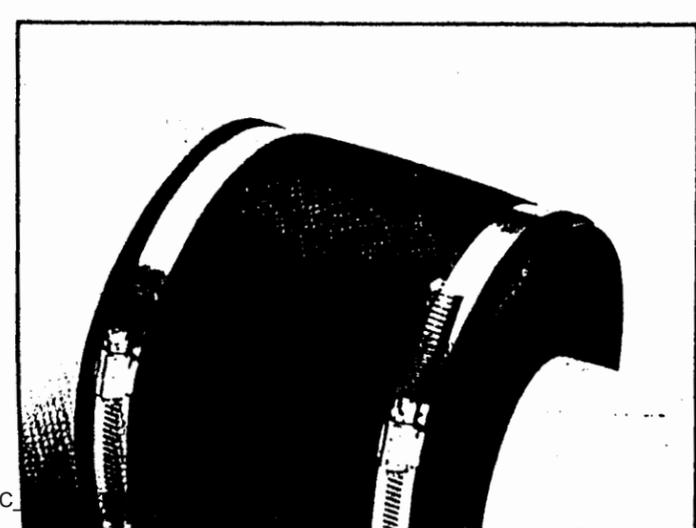
NOTE:

1. ANTI-VORTEX DEVICE (CAP AND RISER) MANUFACTURED IN ACCORDANCE WITH ASTM C478.
2. DIMENSIONS SUBJECT TO PERMISSIBLE VARIATIONS OF ASTM C478.
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5. D1-1 FRAME & GRATE IS AVAILABLE FOR 48" I.D. RISERS AND LARGER.

RISER		ANTI-VORTEX CAP		NOTCH DIAMETER	APPROX. CAP WEIGHT
I.D.	O.D.	I.D.	O.D.		
24"	30"	48"	58"	34"	1.49 T
27"	33½"	60"	70" OR 72"	37½"	2.28 T
30"	37"	60"	70" OR 72"	41"	2.26 T
36"	44"	60"	70" OR 72"	48"	2.22 T
42"	51"	72"	86"	55"	3.16 T
48"	58"	84"	100"	62"	4.27 T
54"	66½"	84"	100"	70½"	4.20 T
60"	72"	96"	114"	76"	5.48 T
66"	80½"	96"	114"	84½"	5.39 T
72"	86"	108"	128"	90"	6.83 T
78"	94½"	126"	147"	98½"	8.97 T
84"	100"	126"	147"	104"	8.90 T

ECCENTRIC COUPLINGS

Fernco Eccentric Couplings

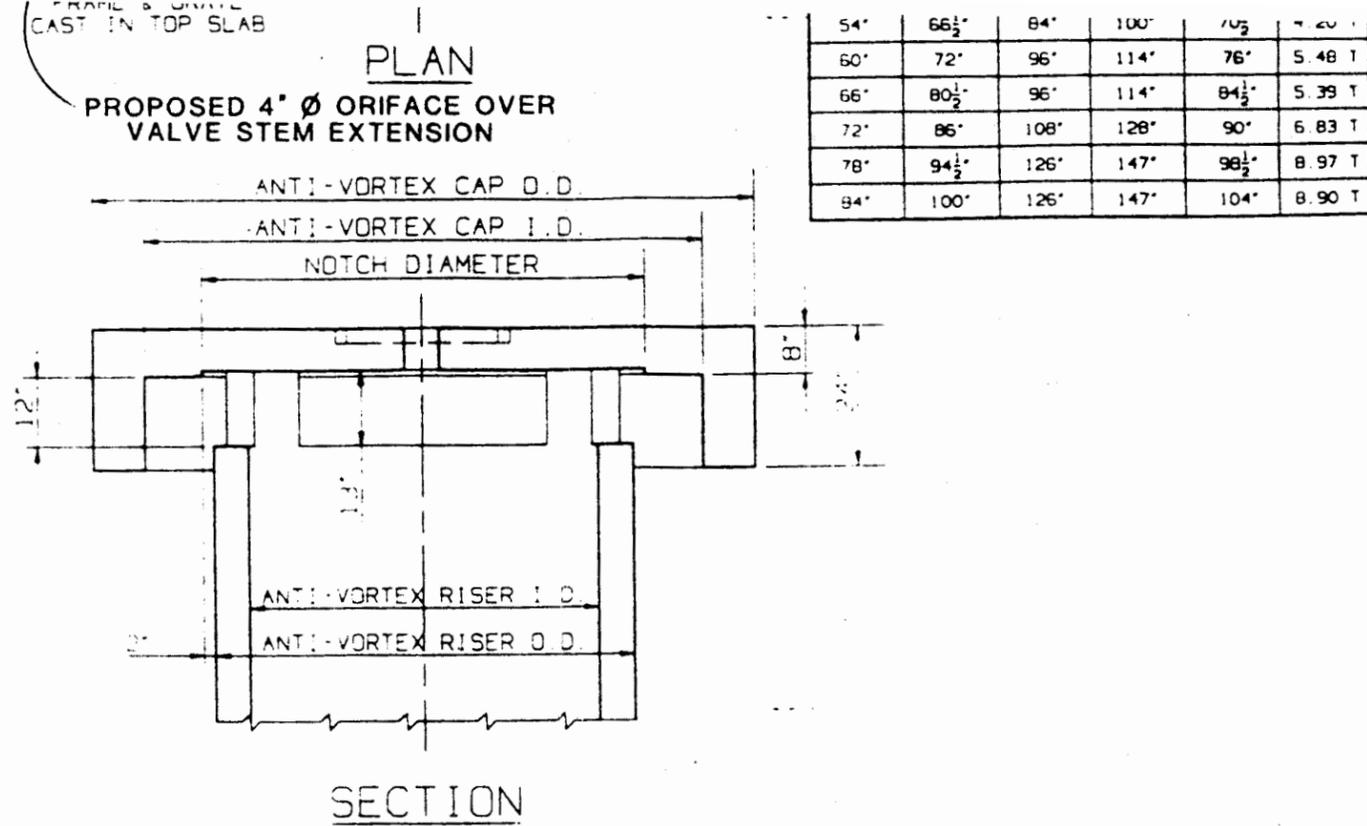


help maintain an even, continuous flowline in critical grade conditions. They're easy to install and available to fit all common sewer pipe size combinations. Made of tough, flexible elastomeric PVC, Eccentric Couplings seal reliably against infiltration and exfiltration. Eccentric bushings fit one end of Fernco Standard Flexible Couplings.

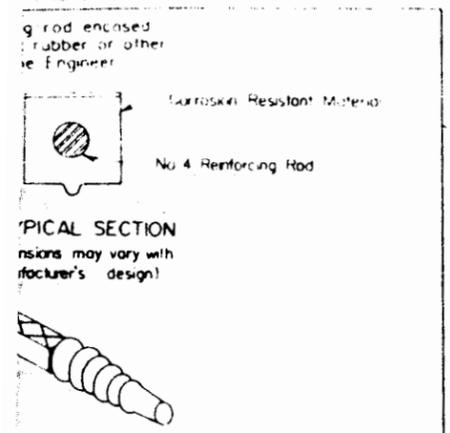
Available for all common sewer pipe materials.

CONCRETE RISER, USE PVC SCHEDULE 40 STUB FOR DEWATERING ORIFICE

TUBING SHALL COMPLY WITH ASTM F667 AND AASHTO M294



ANTI-VORTEX DEVICE DETAIL
N.T.S.



NOTES

Required in all structures with a depth of 4'-0" or otherwise noted on the plans.

Rebar shall protrude 4½" from inside face of structure.

Rebar spacing to be 16" c-c.

Rebar shall withstand a minimum load of 300 pounds when applied from the face of the support.

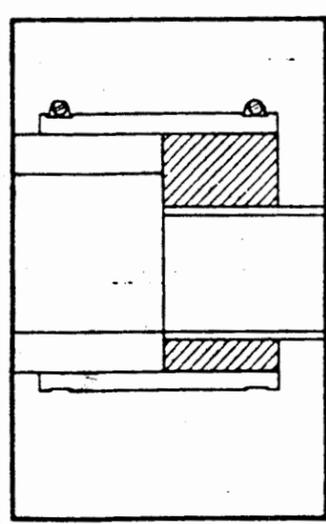
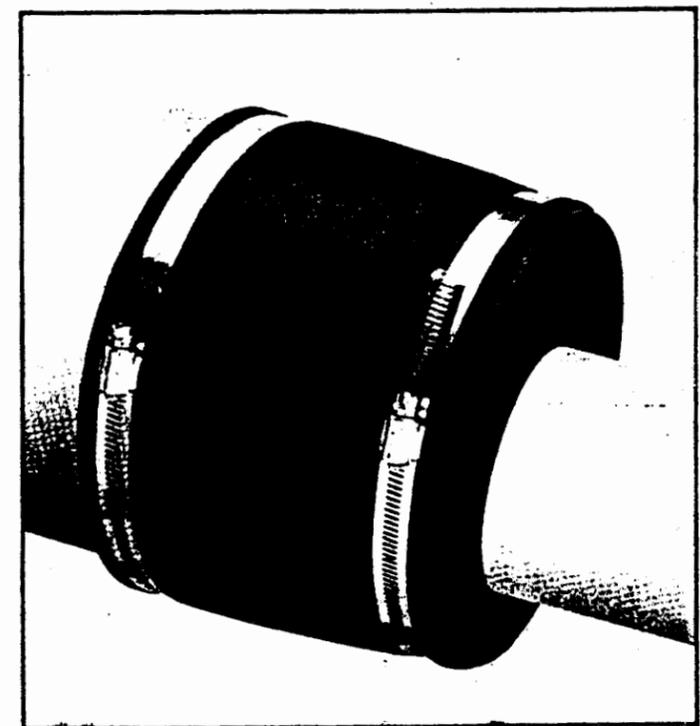
Rebar shall be vertically aligned and uniformly spaced for the depth of any structure.

Rebar steps may be cast in place, mortared into holes, or fabricated, or driven.

Rebar dimensions, configuration, or materials from those shown herein shall be used provided they meet the minimum requirements shown herein and the Contractor has furnished the details and certified test reports of the proposed rebar and has received written approval from the Engineer for the rebar.

Rebar shall be provided with slip-resistant coating as but not limited to, corrugated, or embossed surfaces.

ECCENTRIC COUPLINGS



Clay to Clay	Concrete to CI/Plastic
Clay to CI/Plastic	A-C/Ductile to CI/Plastic
Clay to A-C/Ductile	A-C/Ductile to A-C/Ductile
Concrete to Concrete	CI/Plastic to CI/Plastic

When ordering, please provide size and piping materials to be connected.

Ferco Eccentric Couplings

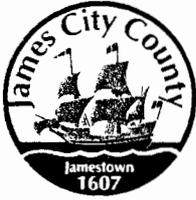
help maintain an even, continuous flowline in critical grade conditions. They're easy to install and available to fit all common sewer pipe size combinations. Made of tough, flexible elastomeric PVC, Eccentric Couplings seal reliably against infiltration and exfiltration. Eccentric bushings fit one end of Ferco Standard Flexible Couplings.

Available for all common sewer pipe materials.

DES. L&M
DWN. GSW
CHK. J.L.H.

DEVELOPMENT AREA ONE, PHASE I
SECTION IVA
AT STONEHOUSE
FOR
STONEHOUSE I I C

PROJ. NO. 96038
SCALE: AS NOTE
SHEET II OF II
DWG. NO.



DEVELOPMENT MANAGEMENT

101-E MOUNTS BAY ROAD, P.O. BOX 8784, WILLIAMSBURG, VIRGINIA 23187-8784
(757) 253-6671 Fax: (757) 253-6850 E-MAIL: devtman@james-city.va.us

CODE COMPLIANCE
(757) 253-6626
codecomp@james-city.va.us

ENVIRONMENTAL DIVISION
(757) 253-6670
environ@james-city.va.us

PLANNING
(757) 253-6685
planning@james-city.va.us

COUNTY ENGINEER
(757) 253-6678
INTEGRATED PEST MANAGEMENT
(757) 259-4116

September 10, 2001

LandMark Design Group
4029 Ironbound Road
Williamsburg, Va. 23188
Attn: Mr. Peter Farrell

Re: Stonehouse Section 4A Leather Leaf, Basin B
Dry Pond near 9815 Turning Leaf
County BMP ID Code: WC 038

✓ 4-14-03
REINSPECT
✓ SPOKE w/ B+B
WARREN 6/27/03
NO MAJOR ISSUES.

Dear Mr. Farrell:

The Environmental Division has reviewed record drawings and construction certifications as submitted to our office on November 16th 2000 for various stormwater management facilities located within Stonehouse. The record drawings and construction certifications provide as-built information for seven (7) stormwater management BMP extended dry detention facilities located within the community. For simplicity, you will receive separate correspondence relative to each of the facilities.

Based on our review of information as submitted and a concurrent field observation as performed on August 27th 2001, the following items must be addressed for **Basin B Leather Leaf (WC 038)** prior to release of the developer's surety instrument for the stormwater management/BMP facility:

Construction Certification:

1. The construction certification dated November 15th 2000 is **satisfactory**.

Record Drawing:

2. ~~Add the detention basin outlet structure detail as provided on Sheet 11 of the approved plan set to the as-built (record) drawing for the facility. This detail provides important information about the facility. Annotate the detail as necessary with field-obtained construction information.~~

2-27-03
OK ✓

Show the following additional information on the record drawing: size of riser; size of the higher level (dewatering) orifice; crest elevation/dimensions for the emergency spillway; outlet protection at the end of the 15-inch storm drain which inflows to the basin (ie. Structure 1-56); and show the street address on Lot 4 as 9815 Turning Leaf.

2-27-03
OK ✓

If possible, add the following County identifiers to the lower right hand corner of the record drawing: County Plan No. S-30-97 and BMP ID No. WC 038.

Construction-Related Items:

5. Clean and remove site construction debris present at the north end of the basin near the woods line with adjacent Lot 4 (9815 Turning Leaf). The debris is in a pile and consists of DI-7 grates, PVC pipe and other construction trash.

4-14-03
✓

6. ✓ 4-14-03 Clear and remove vegetation within 10 feet of the low flow control orifice in the bottom of the basin and around the riser structure.

7. ✓ 4-14-03 Clean and remove accumulated sediment and debris from the low flow trash rack. The low flow orifice for this structure is an 8-inch ductile iron pipe which extends out from the riser. The 8-inch pipe reduces to a smaller diameter within the riser and has an EW-11 end wall on it's upstream side to serve as a trash rack protection device. (Note: Any filter fabric or filter stone on the grate also requires removal. Fabric and stone were utilized as filters during construction when the basin functioned as a temporary sediment basin. These filters require removal for final conversion of the basin to permanent BMP mode).

8. ✓ 4-14-03 Bare soil areas are present on more than one-half of the downstream dam embankment and rill erosion is present on the middle portion of the downstream embankment. Refill eroded with soil and seed and mulch the bare soil areas.

9. ✓ 4-14-03 In general, stabilization is very sparse on the upper portions of the interior side slopes of the pond along it's entire interior perimeter. Reseed and mulch sparse vegetated areas present on all the higher level pond interior side slopes and at bare soil areas present in lower (bottom) level areas of the pond, specifically at the southwest corner (Lot 4 side) and where slope matting along the slopes east of the riser.

10. ✓ 4-14-03 Remove the perforated corrugated polyethylene pipe which served as a dewatering tube during construction (ie. temporary sediment basin mode). The final configuration of the higher level orifice must meet the requirements of Sheet 12 of the approved design plan. The final configuration for the orifice called for a 6-inch opening with a 6"x 6" ductile iron turn-down tee fitting.

11. ✓ 4-14-03 Remove the felled tree within/across the bottom of the basin.

12. ✓ 4-14-03 Clean and remove sediment accumulations (approximately 2 feet in depth) and all vegetation within 15 feet of the outfall end of the 15-inch storm drain inflow at the basin's north side. Flow into the pond must not be obstructed by sediment and vegetation.

13. ✓ 6-27-03 Clean and remove all trees, willows and brush within 10 feet of the outfall end of the 24-inch pond barrel. Flow out of the pond must not be obstructed by vegetation. *TO BE DONE NO REINSPELT NEEDED* *Remove SF*

Once this work is satisfactorily completed, contact our office appropriately. We can then proceed with final release of the surety on the project. One reproducible and one blue/black line set of the record drawings will be required once the above items are adequately addressed. Please contact me at 757-253-6639 or the assigned Environmental Division inspector, Gerry Lewis, at 757-253-6672 if you have any further comments or questions.

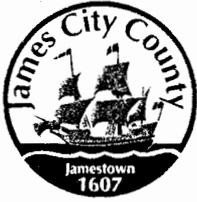
Sincerely



Scott J. Thomas, P.E.
Civil Engineer
Environmental Division

cc: James H. Bennett (fax)

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DEVELOPMENT MANAGEMENT

101-E MOUNTS BAY ROAD, P.O. BOX 8784, WILLIAMSBURG, VIRGINIA 23187-8784
(757) 253-6671 Fax: (757) 253-6850 E-MAIL: devtman@james-city.va.us

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codecomp@james-city.va.us

ENVIRONMENTAL DIVISION
(757) 253-6670
environ@james-city.va.us

PLANNING
(757) 253-6685
planning@james-city.va.us

COUNTY ENGINEER
(757) 253-6678
INTEGRATED PEST MANAGEMENT
(757) 259-4116

September 10, 2001

LandMark Design Group
4029 Ironbound Road
Williamsburg, Va. 23188
Attn: Mr. Peter Farrell

Re: Stonehouse Section 4A Leather Leaf, Basin B
Dry Pond near 9815 Turning Leaf
County BMP ID Code: WC 038

Dear Mr. Farrell:

The Environmental Division has reviewed record drawings and construction certifications as submitted to our office on November 16th 2000 for various stormwater management facilities located within Stonehouse. The record drawings and construction certifications provide as-built information for seven (7) stormwater management BMP extended dry detention facilities located within the community. For simplicity, you will receive separate correspondence relative to each of the facilities.

Based on our review of information as submitted and a concurrent field observation as performed on August 27th 2001, the following items must be addressed for **Basin B Leather Leaf (WC 038)** prior to release of the developer's surety instrument for the stormwater management/BMP facility:

Construction Certification:

1. The construction certification dated November 15th 2000 is **satisfactory**.

Record Drawing:

2. Add the detention basin outlet structure detail as provided on Sheet 11 of the approved plan set to the as-built (record) drawing for the facility. This detail provides important information about the facility. Annotate the detail as necessary with field-obtained construction information.
3. Show the following additional information on the record drawing: size of riser; size of the higher level (dewatering) orifice; crest elevation/dimensions for the emergency spillway; outlet protection at the end of the 15-inch storm drain which inflows to the basin (ie. Structure 1-56); and show the street address on Lot 4 as 9815 Turning Leaf.
4. If possible, add the following County identifiers to the lower right hand corner of the record drawing: County Plan No. S-30-97 and BMP ID No. WC 038.

Construction-Related Items:

5. Clean and remove site construction debris present at the north end of the basin near the woods line with adjacent Lot 4 (9815 Turning Leaf). The debris is in a pile and consists of DI-7 grates, PVC pipe and other construction trash.

6. Clear and remove vegetation within 10 feet of the low flow control orifice in the bottom of the basin and around the riser structure.
7. Clean and remove accumulated sediment and debris from the low flow trash rack. The low flow orifice for this structure is an 8-inch ductile iron pipe which extends out from the riser. The 8-inch pipe reduces to a smaller diameter within the riser and has an EW-11 end wall on it's upstream side to serve as a trash rack protection device. (Note: Any filter fabric or filter stone on the grate also requires removal. Fabric and stone were utilized as filters during construction when the basin functioned as a temporary sediment basin. These filters require removal for final conversion of the basin to permanent BMP mode).
8. Bare soil areas are present on more than one-half of the downstream dam embankment and rill erosion is present on the middle portion of the downstream embankment. Refill eroded with soil and seed and mulch the bare soil areas.
9. In general, stabilization is very sparse on the upper portions of the interior side slopes of the pond along it's entire interior perimeter. Reseed and mulch sparse vegetated areas present on all the higher level pond interior side slopes and at bare soil areas present in lower (bottom) level areas of the pond, specifically at the southwest corner (Lot 4 side) and where slope matting along the slopes east of the riser.
10. Remove the perforated corrugated polyethylene pipe which served as a dewatering tube during construction (ie. temporary sediment basin mode). The final configuration of the higher level orifice must meet the requirements of Sheet 12 of the approved design plan. The final configuration for the orifice called for a 6-inch opening with a 6"x 6" ductile iron turn-down tee fitting.
11. Remove the felled tree within/across the bottom of the basin.
12. Clean and remove sediment accumulations (approximately 2 feet in depth) and all vegetation within 15 feet of the outfall end of the 15-inch storm drain inflow at the basin's north side. Flow into the pond must not be obstructed by sediment and vegetation.
13. Clean and remove all trees, willows and brush within 10 feet of the outfall end of the 24-inch pond barrel. Flow out of the pond must not be obstructed by vegetation.

Once this work is satisfactorily completed, contact our office appropriately. We can then proceed with final release of the surety on the project. One reproducible and one blue/black line set of the record drawings will be required once the above items are adequately addressed. Please contact me at 757-253-6639 or the assigned Environmental Division inspector, Gerry Lewis, at 757-253-6672 if you have any further comments or questions.

Sincerely



Scott J. Thomas, P.E.
Civil Engineer
Environmental Division

cc: James H. Bennett (fax)

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Scott Thomas

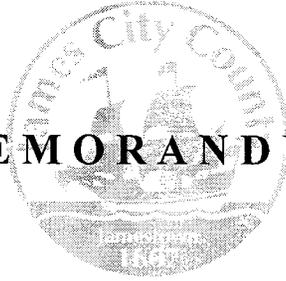
From: Jim_Bennett@dom.com
Sent: Monday, April 01, 2002 12:12 PM
To: scottt@james-city.va.us
Subject: Re: Stonehouse BMPs

Scott,

It was my understanding that all the items including soil stabilization had been completed on the Turning Leaf BMP around Thanksgiving or so. With the dry weather through Christmas and again in February, maybe the seed did not take. I will contact our contractor and have him look at the BMP and reseed as necessary. The other BMP work in Leatherleaf, Laurel Ridge, below the Reception Center, and Hollow Oak is complete. Jerry Lewis was inspecting them as they were being completed before he had back trouble. I believe most of the work was complete by late January/early February.

Let me know if you would like to reinspect any of the BMP's in the field. You can reach me at 757.880.3455. Thanks.

Jim Bennett



MEMORANDUM

Date: March 6, 2002

To: Robert Warren.

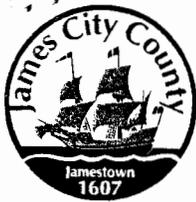
From: Scott J. Thomas, P.E. *ST*
Environmental Division
Stormwater Management Program

Subject: Request for Information
Native Plants for Stormwater Management Facilities
Stonehouse Leatherleaf - Basin B Dry Pond (BMP ID Code: WC 038)

In response to our meeting on Tuesday March 5th 2002, I am forwarding you information from reputable several sources on native plants for use at stormwater management/BMP facilities. This information should be helpful to you or others to determine types of plants that would do well, depending on the zone being planted within or around the facility. Ground covers, herbaceous plants, grasses, shrubs and small trees are suggested. If you have any further questions, please call me at 757-253-6639.

G:/SWMProg/Education/ReqForInfo.wpd

Sent
General Landscaping Tips
for BMPs
Native Plant List
Aquascape Plants
VSMH Min Std. 3.05
CBLAD Local Assist
Manual Appendix D



DEVELOPMENT MANAGEMENT

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planning@james-city.va.us

COUNTY ENGINEER
(757) 253-6678
INTEGRATED PEST MANAGEMENT
(757) 259-4116

October 3, 2001

Robert & Marilyn Warren
9815 Turning Leaf Drive
Williamsburg, Va. 23168

Re: Stonehouse Section 4A, Leather Leaf
Stormwater Management Facility, Basin B
County BMP ID Code: WC 038

Dear Mr. & Mrs. Warren:

The Environmental Division is in receipt of and has fully reviewed your certified letter as received on September 19th, 2001 and offers the following information and response.

From the contents of your letter, it appears that you are the owner of Lots 3A and 4A along Turning Leaf. These lots are situated directly adjacent to the north and west of the facility (Basin B). In addition, it appears you are specifically requesting removal or a considerable redesign/modification to the arrangement of the current facility. This is evident by a listing of several characteristics and functional aspects of the facility which you feel are undesirable including it's size/depth, hazard potential, vegetated condition and overall stormwater function.

Brief Background and Information

The basin was approved as a dry-detention stormwater management facility for the Stonehouse Development Area One, Phase I, Section IV-A plan under County review case file S-30-97. Based on our review of the proposed plan, the facility was consistent with all applicable county/state erosion and sediment control, stormwater management and Chesapeake Bay Preservation regulations in effect at the time of plan review (1997). Based on the site's soil, steeper slopes and topography and the lot/road development plan as proposed, the purpose of the facility was to serve as a perimeter temporary sediment control basin during construction. Following site work and stabilization, the basin would serve as a permanent dry-detention type stormwater management facility. A detention pond temporarily stores runoff and is normally "dry" during non-rainfall periods.

The design and construction of such facilities is intended to comply with the Code of James City County, Chapter 8 Erosion and Sediment Control and Chapter 23, Chesapeake Bay Preservation ordinances. The Chesapeake Bay Preservation ordinance strives to control and regulate runoff at the source to protect against and minimize pollution and deposition of sediments in wetlands, streams and lakes in James City County which are tributary to the Chesapeake Bay. Our current regulations are geared to not allow for direct discharge of stormwater runoff from development sites into designated wetland areas; although, some exceptions may be granted if unusual site constraints exist.

Size, Depth and Function

The size and depth (volume) of the facility are generally dependent on its topographical setting, drainage area characteristics and specific regulatory requirements it must comply with. This may include provisions for water quality, stream channel protection, water quantity (flooding) control and design parameters which ensure the long-term function and structural integrity of the facility are maintained (to minimize maintenance). At this specific location, an increased drainage area (4 acres), adjacent steep road and land slopes and lot/road development in the tributary drainage area would result in larger volumes of runoff compared to pre-development conditions. In addition, increased impervious area in the tributary area from roofs, roadways, yards and driveways would contribute to an increase in pollutant loads.

The facility serves a drainage area over 7.5 acres in size and it provides water quality control (7,000 cubic feet), maintains quantity discharge for the 2- and 10- year storm events and safely passes larger storm events up to the 100-year event through the facility without overtopping the embankment. Passing of larger flows through the facility is generally accomplished by use of the oversized riser/barrel pipes located in the southeast corner of the basin. Embankment overtopping is not allowed in order to protect the structural integrity of fill soils, which were specifically designed, engineered and constructed along the south side (wetland side) of the basin.

Hazard Potential

Over the past year, the Environmental Division has made substantial effort to evaluate access and safety and ensure non-structural measures (which complement our water quality program) are provided for stormwater management facilities rather than use of purely structural measures such as fencing. Our informal approach follows current applicable James City County zoning and BMP manual guidelines in conjunction with other established state agency criteria. Normally fencing is not required and is not used for most facilities, unless there are vertical walls involved or distinct hazards are anticipated, such as areas located directly adjacent to schools. New stormwater management facilities (January 2000 and beyond) would be required to incorporate features into the design which tend to deter unauthorized access, entry and provide for safety enhancements. These features include: better siting and configuration; screening; landscaping; pond buffering/setbacks; shoreline plantings; gentler (flatter) side slopes; and use of aquatic and safety benching. Signs and fencing are used as last resort if a substantial danger/risk is anticipated by the designer, owner or County. For this specific facility, guidelines that were in place at the time of plan review were achieved for this facility. These mainly included use of gentler interior side slopes, remote siting, placement of the basin in common area and selection of a dry detention facility rather than use of a permanent wet pond facility.

Other Remaining Issues

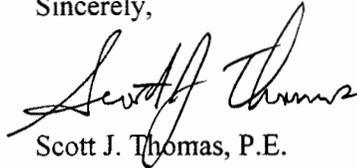
In accordance with our current stormwater management facility certification procedure, our division performed a detailed final inspection of the facility on August 27th 2001. As a note, I met you at the site and talked to you briefly while conducting this inspection. The results of this inspection prompted correspondence from our office to the owner/engineer relative to many of the issues you raised about the general "unsightly" conditions present at and around the facility and the need for cleaning and removal of waste, sediment, debris, etc.. As to not reiterate these items to you, I have attached a copy of our letter as forwarded to the owner/engineer. These punch list items are required to be resolved prior to any reduction/release of bond being held for the facility. *(Please refer to the Construction-Related Items # 5 through # 13 in our letter dated September 10th 2001.)*

As such, we are proceeding with ensuring the items as outlined in the letter are properly performed to address stabilization and cleanup conditions present at and around the basin. It would be very difficult, if not near impossible, to justify a variance to our codes, ordinances and administrative design procedures (County and State) to completely remove the basin from it's intended purpose for water quality and quantity control. However, the potential does exist to convert the facility from it's present status to a different type of acceptable facility or to enhance or upgrade current components and features of the existing dry basin to meet more recent (Year 2000 per the JCC BMP Manual) guidelines for screening, buffering, benching, plantings, etc. yet still meet water quality and quantity objectives.

This effort would have to be initiated by someone other than the County and be performed with the Owner's permission and discretion. Plans, computations and specifications would need to be prepared by a qualified professional and submitted to the County for review under the subdivision plan amendment review process.

We appreciate your concern and attention on this matter as a citizen. If you have any additional questions or comments, contact me at 253-6673 or Darryl Cook at 757-253-6673.

Sincerely,



Scott J. Thomas, P.E.
Civil Engineer
Environmental Division

cc: Darryl Cook, JCC Environmental Division
James Bennett, Stonehouse Development

SWMProg\BMP\

9815 Turning Leaf Drive
Toano, VA 23168
September 13, 2001



Mr. Jerry L. Moore, President
Dominion Lands, Inc.
P. O. Box 26532
120 Tredegar Street
Richmond, VA 23219

Mr. Darryl Cook, Director
James City County
Environmental Division
Drainage and Erosion Control
101 Mounts Bay Road
Williamsburg, VA 23185

Dear Mr. Moore and Mr. Cook:

We are owners of Lots 3A and 4A in the Leatherleaf neighborhood of Stonehouse. Lot 3A is an undeveloped lot and 4A has a home on it which we currently occupy. Between the two is an easement which was designed as a "dry pond" for surface drainage. It is our position that this dry pond is completely unsatisfactory and should be modified or filled in. Our position is based on the following:

1. The overall rough dimensions of this pond are attached but basically it is 12' depth by 148' long and in areas it is over 100' wide. The edge of Lot 3A to the maximum depth of the pond is about 65', and the elevation from the lot property line to the depth is about 30'. (Drawing attached)
2. The presence of this pond presents a significant hazard and risk to children, grandchildren, seniors and other individuals if they slipped on the slope of either of the lots. Anyone in the development could have access to this easement.
3. The easement presently is very unsightly and overgrown with weeds and a partially fallen tree. The only maintenance that has been done involves grass cutting from the street to within about eight feet of the dry pond rim. Overgrown weeds and brush are very objectionable. A small amount of water exists in this pond, and pond plants were put in to improve the appearance; however, the vegetation is extremely unsightly. (Pictures enclosed)
4. In this section of Leatherleaf, there are only four street drains that would deposit

into this pond. The size of this dry pond is an "overkill" for the area.

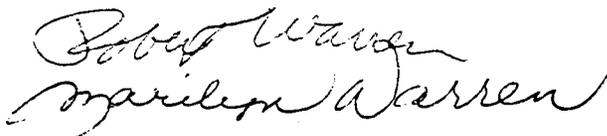
5. The large concrete drainage tower (which was meant to siphon any high residual water into the wetlands) has not been functional and would not be unless there were a 100 year flood and accumulate at least 12' of water.

All of these factors lead us to take the position that something must be done—and done in a prompt, satisfactory manner. To satisfy our mutual goal of minimizing personal risk, improving the appearance and providing adequate erosion and drainage control, we feel this easement could be improved by these options:

1. Run existing drainage pipes into the wetlands below the easement.
2. Fill in the "dry pond" area.
3. Use natural plantings and/or wildflowers to enhance the appearance of the easement.

We have met with Jim Bennett regarding the situation but feel we must get action at a higher level. If necessary, we would be glad to meet with you personally, Mr. Moore, and/or with a member of the county agency to discuss the situation. Meanwhile, we would minimally appreciate receiving a response within two weeks. Thank you.

Sincerely,



Robert and Marilyn Warren

/mjw
Attachments
Drawing
Photos

STONEHOUSE

dedicated to excellence, dedicated to you

September 28, 2001

Dwayne Cook

Mr. and Mrs. Robert Warren
9815 Turning Leaf Drive
Toano, Virginia 23168



Re: Attenuation Basin B
Leatherleaf Subdivision at Stonehouse

Dear Mr. & Mrs. Warren:

Pursuant to your letter of September 13, 2001, Jerry Moore of Stonehouse Development Company asked that I respond to your comments and concerns about the "Dry Pond" that is adjacent to your homesite and lot in the Leatherleaf subdivision at Stonehouse.

The construction drawings for Leatherleaf were approved by James City County in the summer of 1997. As is typically required by the County, several (3) stormwater attenuation facilities were required to be constructed within Leatherleaf. These facilities serve to catch sediment during construction, and during and after construction, release rainfall runoff at levels approximately the same as those levels present prior to any subdivision development.

The site and shape of the "Dry Pond" are determined by the engineer to be sized to provide the appropriate volume of stormwater storage for attenuation purposes. The drainage riser has three dewatering inlets in addition to the top of the dam having a spillway. The first inlet is at the bottom grade of the pond and is designed to dewater the pond over several days after a rainfall event. Partially up the side of the riser a second inlet allows an additional volume of water to be released for heavier rainfall events (the 2-year storm and greater). At the top of the riser, the mushroom shaped portion of the structure or anti-vortex collar releases additional runoff if a blockage has occurred or if an even heavier storm is occurring – say a 25-50 year storm.

Connected to the drainage riser is a 24 inch diameter outlet pipe that discharges stored runoff at a reduced or delayed into the marsh below the dam.

In general, the vegetation in these facilities is allowed to naturalize over time with the following exceptions: 1) around the outlet and inlet structures, vegetation should not be permitted to block the flow of water and 2) the dam should remain free of vegetation other than grasses and shrubs as tree roots could weaken the dam structure.

9701 Mill Pond Run · Toano, Virginia 23168
(757) 234-5000 · (757) 234-5091 fax · (888) 515-2300
www.stonehouseva.com

Mr. & Mrs. Robert Warren
September 28, 2001
Page 2

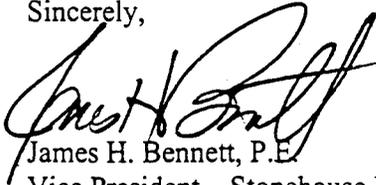
In connection with a James City County inspection of the "Dry Pond," Stonehouse will be removing vegetation around the inlets and outlet, removing the fallen tree you mentioned in your letter, and reseeding areas where the ground stabilization is sparse. Sediment around the riser will be mechanically removed as well. This work should be completed over the fall of this year.

As we previously discussed, I have discussed with a landscaping wholesaler your desire to purchase approximately 25 three or five gallon wax myrtle evergreen shrubs to install along your property line next to the "Dry Pond." I have spoke with Kevin at Messer Landscape and they would be happy to provide them to you at their cost plus delivery and handling fees. To minimize the costs of delivery, you should schedule delivery when we have other plants coming to Stonehouse. You can reach Messer Landscape at (804) 752-4900.

In closing, with the emphasis today on environmental protection, these storm water facilities are required as part of the development of new subdivisions. As a practical matter of design, these facilities are located in ravines and low areas.

I will let you know when the seeding and cleanup portions of the "Dry Pond" will begin. In the meantime, if you should have any questions, do not hesitate to contact me at 757.880.3455.

Sincerely,



James H. Bennett, P.E.
Vice President - Stonehouse Development

cc: Jerry Moore
Lawrence Myers
Darryl Cook, JCC Environmental Division



P. O. Drawer 759
Toano, Virginia
23168.0759

757.566.2300
FAX 757.566.1125

WEB:
www.stonehouseva.com

November 27, 2001

Robert and Marilyn Warren *SCOTT THOMAS*
9815 Turning Leaf Drive
Toano, Virginia 23168

Re: Stonehouse Section 4A, Leatherleaf
Stormwater Management Facility, Basin B

Dear Mr. And Mrs. Warren:

Thank you for your reminder letter concerning the referenced basin that I received on November 20, 2001. While the wheels were in motion at that time to make the necessary improvements to satisfy James City County, it may not have appeared that way as no field work was ongoing at that time. I met last week with site contractor Calvin Puryear and provided him with the County inspection "punch list" of outstanding items that needed to be completed. Calvin has begun work on these items, I believe there are 10 in all, and he should be complete with them by week's end. After a few weeks of time for grow-in to occur, we will contact the County to re-inspect the basin for approval.

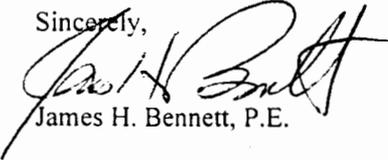
In your letter you raised six points that I would like to address individually.

1. As stated above, we are addressing the 10 maintenance type items that were provided by Scott Thomas of James City County this week and should be complete with them by week's end.
2. We understand the purpose of stormwater basins and will provide for their proper function.
3. Topsoil, soil amendments, seed mix, vegetative plugs, and matting, where necessary, are being provided on the bare soil areas to provide adequate stabilization.
4. As I stated previously, work has started and should be completed promptly.
5. As I have previously offered in person, Stonehouse can provide you access to evergreen plant material at wholesale type pricing should you desire to plant shrubs along your retaining wall or elsewhere around the basin. Stonehouse would have no objection to these plantings being placed in common area. Stonehouse does not plan to install additional plant material in the stormwater basin. Except for maintaining a clear path for drainage through the basin and out to the wetlands, it is our understanding that the basin should be allowed to naturalize. The dam will be maintained so that its integrity is not compromised over time by tree roots. The Homeowner's Association will provide long term maintenance.
6. Stonehouse has provided enhancement to the basin in the past by planting shrubs on the left side of the basin and is removing the dead tree from the basin. There are no plans to provide any additional plant material, other than the stabilization material being installed this week.

Finally, I would like to restate that the repairs will be completed this fall as I had previously promised to you at the Resident's Club. (Don't forget we made a huge commitment to complete the Resident's Club in time for your surprise party. We delivered on that promise.) With regard to the closing paragraph in your letter, I don't believe that contacting area newspapers (as suggested in your letter) will serve to enhance the value and aesthetics of your property. Negative publicity will only serve to erode your property values and our client base. Fewer clients will mean less demand, less demand will mean lower property values. The bottom line, we will complete the maintenance items on the basin as promised.

Should you have any questions regarding this response, you may contact me in Richmond at 804.819.2352 or in Williamsburg at 757.234.5000.

Sincerely,



James H. Bennett, P.E.

Cc: Lawrence Myers, President-Stonehouse Howeowners Association
Jerry Moore, Dominion Land
Scott Thomas, James City County

9815 Turning Leaf Drive
Stonehouse
Toano, VA 23168



James H. Bennett, P.E.
Vice President
Stonehouse Development
9701 Mill Pond Run
Toano, VA 23168

Dear Jim:

RE: Stonehouse Section 4A, Leatherleaf
Stormwater Management Facility, Basin B

In response to your letter of September 28 to us regarding the above-referenced Basin B and further correspondence to LandMark Design Group from Scott Thomas, P.E., and copied to you, following are some concerns of ours regarding this basin:

- In the letter from LandMark Design Group a total of 13 items were to be attended to—ten of these were construction-related to the basin. It was indicated that once this work was satisfactorily completed and the project inspected by that office, they then could proceed with the release of the surety on the project.
- We have personally spoken with Scott Thomas in detail, and he reviewed each of the 13 points in his letter with us. He has also been out here to visit the site and physically showed us the points in question. He further stated that the County demands structural integrity and stormwater function in basins. As you well know, this means that these items must be completed as outlined in order for the bond to be released.
- Regarding Scott Thomas' point #8, "bare soil areas are present on more than one-half of the . . . embankment." Scott mentioned to us that any grass seeding in that area would hardly do any good without additional fertile soil. This is true for all areas around the basin, including the front.
- In a brief conversation with you at the Residents Club Open House, you stated you would begin work on the cleanup, clearing, and seeding of this basin in the fall. It is now nearing the end of November and nothing has been done to date. For all items to be completed by winter, work needs to start immediately.
- Once these items are completed, we also request that landscaping be planted to enhance the aesthetics of this area (trees, shrubs) in front and around the dry hole perimeter. Scott Thomas also agreed with this assessment, and he had no objection to evergreen shrubs like wax myrtle being planted in this area. In fact, he stated that

even low growing evergreens could be planted within the slope of the basin without interfering with the function of the basin.

- As noted in the 2001 James City County Progress Report, page 2, a statement was made regarding the County's commitment to preservation and that stormwater management continues to be a County priority. "Stormwater management can be incorporated into landscaping to create an aesthetically pleasing stormwater detention basin." It seems unrealistic that Stonehouse development can spend so much time and money in landscaping the developed areas of Stonehouse (apart from private homes) and make them aesthetically pleasing and yet not attend to the easement and basins that are closely adjacent to properties with the same attention.

I am sure Stonehouse is anxious for this matter to be cleared up to our mutual satisfaction. The surety bond and Stonehouse's reputation is at stake in this matter. We want some progress on this basin by December 15. Further action on our part will be addressed to Dominion Resources and area newspapers.

Sincerely yours,

Handwritten signatures of Robert Warren and Marilyn Warren in cursive script.

Robert and Marilyn Warren

cc: Jerry Moore, President, Dominion Land
Scott Thomas, James City County

IMPORTANT MESSAGE

FOR

Scott -

DATE

TIME

A.M.
P.M.

WHILE YOU WERE OUT

M

Robert Warren

OF

cell phone 757-880-7440

PHONE NO.

234-0088

TELEPHONED

PLEASE CALL

CALLED TO SEE YOU

WILL CALL AGAIN

WANTS TO SEE YOU

RUSH

RETURNED YOUR CALL

MESSAGE

Wants to discuss your letter10/16/01 9:52 called cell phone.

SIGNED

HighMark™ P3-A2334

PRINTED IN U.S.A.

IMPORTANT MESSAGE

FOR Scott

DATE 10/22/01 TIME 10:20

A.M.
 P.M.

WHILE YOU WERE OUT

M Bob Warren

OF Stonehouse

PHONE NO. 757-234-0088

TELEPHONED	<input checked="" type="checkbox"/>	PLEASE CALL	<input checked="" type="checkbox"/>
CALLED TO SEE YOU	<input type="checkbox"/>	WILL CALL AGAIN	<input type="checkbox"/>
WANTS TO SEE YOU	<input type="checkbox"/>	RUSH	<input type="checkbox"/>

RETURNED YOUR CALL

MESSAGE Questions on work needed
to be done on dry pond.

ie. 9815 Turning Leaf.

SIGNED Joe Buchite

HighMark[®] P3-A2334

PRINTED IN U.S.A.

Scott - 11/20
 For Review
 Daryl

LANDMARK DESIGN GROUP TRANSMITTAL



To: DARYL COOKE
 Company: JAMES CITY CO. ENVIRONMENTAL
 From: PETER FARRELL
 Date: 11/16/00
 Subject: STORMWATER POND RECORD DRAWINGS FOR STONEHOUSE
 LMDG Job No.: 1990131-000.46

Attached please find:

- Prints
- Plans
- Specifications
- Drawings
- Report
- Letter
-

Transmitted as checked below:

- For your use
- As requested
- For review and comment
- For approval
- Approved
-

Copies	Date	Drawing No.	Description
2 EA. 12 TOTAL	11/16/00	11680-11686	RECORD DRAWINGS FOR VARIOUS STORMWATER PONDS AT STONEHOUSE
			{ WC 037, WC 038, WC 039, WC 040 WC 041, WC 042, WC 043 }

Notes: LETTERS OF CERTIFICATION FROM DICK PHILLIPS, P.E. ARE BEING SENT TO YOU SEPERATELY

- Copies
1. File: _____
 2. _____
 3. _____
 4. _____
 5. _____

- Enclosures
- -
 -
 -
 -

LandMark Design Group, Inc.

By: PF _____

Engineers ♦ Planners ♦ Surveyors ♦ Landscape Architects ♦ Environmental Consultants
 4029 Ironbound Road, Suite 100, Williamsburg, VA 23188 (757) 253-2975 FAX: (757) 229-0049 lmdg@landmarkdgwb.com

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LANDMARK DESIGN GROUP

Clayton E. Massey, P.E.
Charles R. Orsborne, L.S.
Stephen A. Romeo, L.S.
Mark W. Strickland, P.E.
A. Gary Webb, P.E.

November 15, 2000

Mr. Darryl E. Cook
Environmental Director
James City County
P.O. Box 8784
Williamsburg, VA 23187-8784



Re: Stonehouse Development Co., L. L. C.
BMP Basins A, B & G Construction Certificate
Section IVA, Leather Leaf
J. C. C. Case No. S-30-97

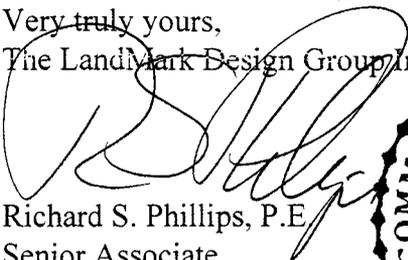
*WC 038
S-30-17*

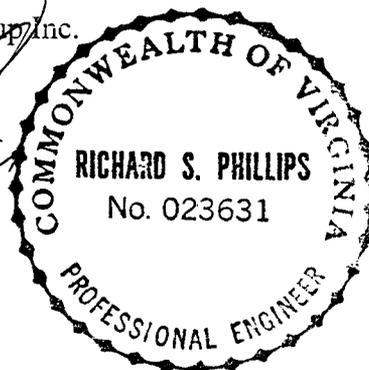
Dear Darryl:

This is to confirm that periodic inspection was provided by John L. Hutcherson, P. E., a Professional Engineer previously employed by this firm during the progress of construction of the subject storm water management basins. I, and individuals under my supervision, have reviewed the work and construction reports. To the best of my knowledge and judgment, the structure has been constructed in accordance with the approved plans and specifications.

Should you have any questions or wish to discuss this further, please call.

Very truly yours,
The Landmark Design Group, Inc.


Richard S. Phillips, P.E.
Senior Associate



RSP/cjp

Cc: Brandon Forrest
File: 1990131-000.46

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DEVELOPMENT MANAGEMENT

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COUNTY ENGINEER
(757) 253-6678
INTEGRATED PEST MANAGEMENT
(757) 259-4116

September 10, 2001

LandMark Design Group
4029 Ironbound Road
Williamsburg, Va. 23188
Attn: Mr. Peter Farrell

*Reinspect
3-5-02
w/ Bob Warriner*

Re: Stonehouse Section 4A Leather Leaf, Basin B
Dry Pond near 9815 Turning Leaf
County BMP ID Code: WC 038

Dear Mr. Farrell:

The Environmental Division has reviewed record drawings and construction certifications as submitted to our office on November 16th 2000 for various stormwater management facilities located within Stonehouse. The record drawings and construction certifications provide as-built information for seven (7) stormwater management BMP extended dry detention facilities located within the community. For simplicity, you will receive separate correspondence relative to each of the facilities.

Based on our review of information as submitted and a concurrent field observation as performed on August 27th 2001, the following items must be addressed for **Basin B Leather Leaf (WC 038)** prior to release of the developer's surety instrument for the stormwater management/BMP facility:

Construction Certification:

1. The construction certification dated November 15th 2000 is **satisfactory**.

Record Drawing:

2. Add the detention basin outlet structure detail as provided on Sheet 11 of the approved plan set to the as-built (record) drawing for the facility. This detail provides important information about the facility. Annotate the detail as necessary with field-obtained construction information.
3. Show the following additional information on the record drawing: size of riser; size of the higher level (dewatering) orifice; crest elevation/dimensions for the emergency spillway; outlet protection at the end of the 15-inch storm drain which inflows to the basin (ie. Structure 1-56); and show the street address on Lot 4 as 9815 Turning Leaf.
4. If possible, add the following County identifiers to the lower right hand corner of the record drawing: County Plan No. S-30-97 and BMP ID No. WC 038.

Construction-Related Items:

5. Clean and remove site construction debris present at the north end of the basin near the woods line with adjacent Lot 4 (9815 Turning Leaf). The debris is in a pile and consists of DI-7 grates, PVC pipe and other construction trash.

6. ✓ Clear and remove vegetation within 10 feet of the low flow control orifice in the bottom of the basin and around the riser structure.
7. ✓ Clean and remove accumulated sediment and debris from the low flow trash rack. The low flow orifice for this structure is an 8-inch ductile iron pipe which extends out from the riser. The 8-inch pipe reduces to a smaller diameter within the riser and has an EW-11 end wall on it's upstream side to serve as a trash rack protection device. (Note: Any filter fabric or filter stone on the grate also requires removal. Fabric and stone were utilized as filters during construction when the basin functioned as a temporary sediment basin. These filters require removal for final conversion of the basin to permanent BMP mode).
8. Bare soil areas are present on more than one-half of the downstream dam embankment and rill erosion is present on the middle portion of the downstream embankment. Refill eroded with soil and seed and mulch the bare soil areas. *No*
9. In general, stabilization is very sparse on the upper portions of the interior side slopes of the pond along it's entire interior perimeter. Reseed and mulch sparse vegetated areas present on all the higher level pond interior side slopes and at bare soil areas present in lower (bottom) level areas of the pond, specifically at the southwest corner (Lot 4 side) and where slope matting along the slopes east of the riser.
10. ✓ Remove the perforated corrugated polyethylene pipe which served as a dewatering tube during construction (ie. temporary sediment basin mode). The final configuration of the higher level orifice must meet the requirements of Sheet 12 of the approved design plan. The final configuration for the orifice called for a 6-inch opening with a 6"x 6" ductile iron turn-down tee fitting.
11. ✓ Remove the felled tree within/across the bottom of the basin.
12. ✓ Clean and remove sediment accumulations (approximately 2 feet in depth) and all vegetation within 15 feet of the outfall end of the 15-inch storm drain inflow at the basin's north side. Flow into the pond must not be obstructed by sediment and vegetation.
13. ✓ Clean and remove all trees, willows and brush within 10 feet of the outfall end of the 24-inch pond barrel. Flow out of the pond must not be obstructed by vegetation.

Once this work is satisfactorily completed, contact our office appropriately. We can then proceed with final release of the surety on the project. One reproducible and one blue/black line set of the record drawings will be required once the above items are adequately addressed. Please contact me at 757-253-6639 or the assigned Environmental Division inspector, Gerry Lewis, at 757-253-6672 if you have any further comments or questions.

Sincerely,



Scott J. Thomas, P.E.
Civil Engineer
Environmental Division

cc: James H. Bennett (fax)

G:\SWMPProg\AsBuilts\S3097.wcr038

① SEED + MULCH
BARE AREA WITH SLOPE - RISER
SLOPE AT OUTFLOW PIPE.
D/B EMBANK
REMOVE SF NEAR END OF PIPE BARREL OUT



JAMES CITY COUNTY ENVIRONMENTAL DIVISION
Stormwater Management / BMP Inspection Report
Detention and Retention Pond Facilities

S-30-97
 GPIN 0530200001A

Database Inventory No. (if known): WC038

Name of Facility: STONEHOUSE SEC 4A Leatherleaf Basin B BMP No.: 1 of 3 Date: 08/27/01

Location: Near (East) 9815 ^{TURNING} Leatherleaf - End of cul-de-sac.

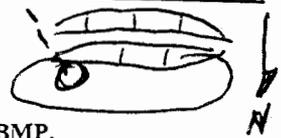
Name of Owner: Stonehouse Limited Liability

Inspector: S.J. Thomas

Type of Facility: Dry Pond

Weather Conditions: Sunny, Hot, High 70's

If an inspection item is not applicable, mark NA, otherwise mark the appropriate column.



- O.K. - The item checked is in adequate condition and the maintenance program is currently satisfactory.
- Routine - The item checked requires attention, but does not present an immediate threat to the function of the BMP.
- Urgent - The item checked requires immediate attention to keep the BMP operational and prevent damage to the facility.

Provide an explanation and details in the comment column, if routine or urgent are marked.

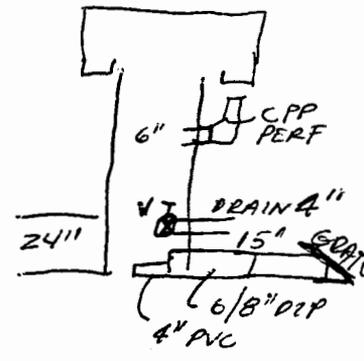
Facility Item	O.K.	Routine	Urgent	Comments
Embankments and Side Slopes:				<u>4 feet 2H:1V O/S SLOPE; 12' TW</u>
Grass Height	✓	✓	✓	<u>More than 1/2 of O/S EMB IS BARE</u>
Vegetation Condition		✓	✓	<u>AND eroding</u>
Tree Growth	✓			<u>No trees.</u>
Erosion		✓	✓	<u>Mid-section of O/S emb.</u>
Trash & Debris	✓			
Seepage	✓			<u>None observed.</u>
Fencing or Benches				
Interior Landscaping/Planted Areas: <input type="checkbox"/> None <input type="checkbox"/> Constructed Wetland/Shallow Marsh <input checked="" type="checkbox"/> Naturally Established Vegetation				
Vegetated Conditions				<u>Dry Pond w/ NICE CATTAIL</u>
Trash & Debris				<u>Purple Iris, weeds + Grass on</u>
Floating Material				<u>Higher Areas. Marsh Veg OK,</u>
Erosion	✓	✓		<u>Some erosion east bank around</u>
Sediment				<u>riser where slope matting is</u>
Dead Plant				<u>present.</u>
Aesthetics	✓			<u>Also west side near Residence.</u>
Other				<u>OK bottom, sparse upper</u>
<u>levels</u>				
<u>Services Lots + Roads Leatherleaf.</u>				

Facility Item	U.K.	Routine	Urgent	Comments
Water Pools <input type="checkbox"/> Permanent Pool (Retention Basin) <input type="checkbox"/> Shallow Marsh (Detention Basin) <input checked="" type="checkbox"/> None (Detention Basin)				
Shoreline Erosion	✓			
Algae	✓			
Trash & Debris		✓		Felled tree in basin
Sediment	✓			
Aesthetics		✓		Need gen clean & grass growth.
Other				
Inflow Structures (Describe Locations): 15" RCP from ROAD; other minor drains.				
Condition of Structure	✓			
Erosion	✓			Minor @ outfall.
Trash and Debris	✓			
Sediment	✓			
Aesthetics	✓			
Other	✓			inlet @ road is clean, functioning
Principal Flow Control Structure - Intake, Riser, etc. (Describe Location): 24" RCP Barrel; OP intact				
Condition of Structure	✓			
Corrosion	✓			
Trash and Debris	✓			
Sediment	✓	✓		CLEAN AT 15" ^{INFLOW} PIPE. 2' deep.
Aesthetics		✓	✓	Remove Trees & Willow 15' of outfall
Other				
Principal Outlet Structure - Barrel, Conduit, etc. : 8' RCP CAP, RISER 36" RCP; RISER 12' HIGH				
Condition of Structure	✓			PAINTED DARK GREEN.
Settlement	✓			
Trash & Debris	✓			
Sediment	✓			
Erosion	✓			
Other	✓			DRAIN W/ VALVE, 4" LOW FLOW CRIF + 6" DEWATERING CRIF. VALVE CLOSED
Emergency Spillway (Overflow): None.				
Vegetation				
Lining				
Erosion				
Trash & Debris				
Other				
Property owner at 9815 (west of BMP) is upset about pond deterring from marketability of his Lot 3. Lot 3. Wants removed. Discussed briefly with him.				

Barrel
↑
Riser
↓

	Criteria	Routine	Urgent	Comments
Nuisance Type Conditions:				
Mosquito Breeding	✓			
Animal Burrows	✓			
Graffiti	✓			
Other	✓			Owner expressed desire to remove basin.
Surrounding Perimeter Conditions: South-Wetland; North-Road; West 9815 residence.				
Land Uses	✓			SF Lot + Woods
Vegetation	✓			
Trash & Debris	✓			
Aesthetics	✓			
Access/Maintenance Roads or Paths				Leatherleaf to basin access corridor. Site east access.
Other				

- Remarks:
- Remove Di-7 grates, PVC pipe + Trash from BMP const from residence yard. NW of BMP near landscaping/wall area.
 - CLEAN BMP LOW FLOW ORIFICE GRATE (15' west of riser) of all leaves debris & rock. WAS nearly fully obstructed at time of insp.
 - Remove CPP perforated dewatering orifice. (POND AT FINAL CONFIG.)
 - Bare soil + erosion areas. At matted slope, east side near riser and west side of basin (near residence).
 - Bare soil areas on mid-section of o/s emb. Sandy soil + erosion gullies.
 - Remove felled tree in basin. General cleanup of higher pond areas + basin slopes. Bare and weed (not grassed).
 - Remove trees, willow brush 10' from barrel out.
 - Remove veg 10' of riser AND LOW FLOW ORIF GRATE.
 - Remove felled tree + sed/veg in vicinity of 15 storm drain pipe inflow. Sediment 2' deep. Erosion on slope near pipe.



Overall Environmental Division Internal Rating: 2 (LOW FLOW ORIF CLEANING + EMB STABIL.)

Signature: [Handwritten Signature] P.E.
 Title: Civil Engineer ENV DIV

Date: 08/27/01

Note: Also met future HOA REP. GAVE CARD. HIS HOUSE IS ON TURNING LEAF.

TURNING LEAF DR
STONEHOUSE

Wooded Lot (3A)

Lot Elevation from Bottom of Pit = ~ 30'

(X) Depth @ 12'

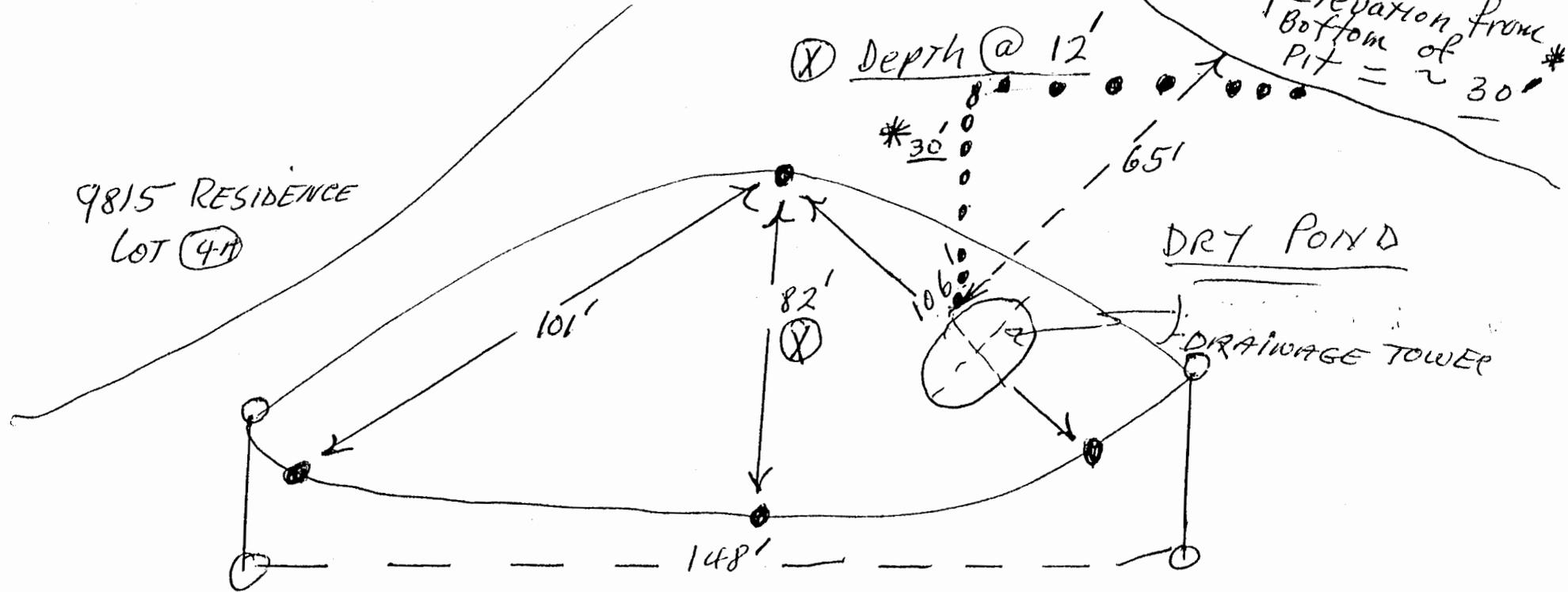
* 30'

65'

9815 RESIDENCE
LOT (4A)

DRY POND

DRAINAGE TOWER



LOCATION - END OF CUL-de-SAC
BETWEEN LOTS (4A) & (3A)

WATERSHED	WC	MAINTENANCE PLAN	No	CTRL STRUC DESC	RCP Riser
BMP ID NO	038	SITE AREA acre	20.13	CTRL STRUC SIZE inches	48
PLAN NO	S-30-97	LAND USE	Planned Res Unit D	OTLT BARRL DESC	RCP Barrel
TAX PARCEL	(05-03)(02-1A)	old BMP TYP	Dry Pond	OTLT BARRL SIZE inch	24
PIN NO	0530200001A	JCC BMP CODE			
CONSTRUCTION DATE	11/16/2000	POINT VALUE	4	EMERG SPILLWAY	No YES
PROJECT NAME	Stonehouse Sec 4A Leather Leaf			DESIGN HW ELEV	47.14
FACILITY LOCATION	Near (east of) 9815 Turning Leaf Dr			PERM POOL ELE	none
CITY-STATE	Williamsburg, Va. 23011	SVC DRAIN AREA acres	7.6	2-YR OUTFLOW cfs	2.45
CURRENT OWNER	Stonehouse Limited Liability			10-YR OUTFLOW cfs	4.04
OWNER ADDRESS	P.O. Box 759			REC DRAWING	Yes
OWNER ADDRESS 2		SERVICE AREA DESCRI	SF Lots & Roadways		
CITY-STATE-ZIP CODE	Toano, Va. 23168	IMPERV AREA acres	1.67	CONSTR CERTI	Yes
OWNER PHONE		RECV STREAM	UT of Bird Swamp WC		
MAINT AGREEMENT	Yes	EXT DET-WQ-CTRL	Yes	LAST INSP DATE	8/27/2001
EMERG ACTION PLAN	No	WTR QUAL VOL acre-ft	0.16	INTERNAL RATING	2
		CHAN PROT CTRL	No	MISC/COMMENTS	
		CHAN PROT VOL acre-ft	0	Basin B. End cul-de-sac Turning Leaf east of Lot 4 (9815 Turning Leaf).	
		SW/FLOOD CONTROL	Yes		
		GEOTECH REPORT	No		

Get Last BMP No

Return to Menu



● WC038

CPIN 0530200001A
STONEHOUSE LIMIT LIAB
PO Box 759
TANND VTA
S.62AC.

WC038
LEATHER RD

LOCATION: NEAR (EAST) 9815
Turning LEAF Drive.
(end cul-de-sac)

- send native plant list to Bob Warren + Bump Landscape Tips + Plants.

