

# CITY OF BOWIE

- GENERAL NOTES 1. All stormwater management, storm drain pavements and related structures shall be constructed in accordance with the latest edition of the general specification of
- the City of Bowie. 2. For types of structures, refer to the Standard Storm Drainage and Road Details
- of the City of Bowie or the Maryland State Highway Administrations book of standards unless otherwise noted and shown in the details. 3. All storm drain construction shown on this plan is to be maintained by the owner.
- 4. All information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevations of the utilities by digging test pits by hand at all utility crossings, well in advance of trenching. If clearances are less than shown on this plan or twelve (12) inches, which ever is less, contact the City of Bowie Manager before proceeding with
- 5. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted services. Any damage incurred due to contractor's operation shall be repaired immediately at contractor's expense.
- 6. The contractor shall notify the following utilities at least 72 hours before starting any work on these drawings:

Miss Utility	1-800-257-7777
	-800-495-2211
Baltimore Gas and Electric Co	301-596-1420
P.G. County Bureau of Utilities	(insert ph.)
P.G. County Construction / Inspection Survey Division	(insert ph.)
Potomac Electric Power Co	(insert ph.)
Washington Gas light Co	301-559-0100
Prime Cable	(insert ph.)
City of Bowie Construction / Inspection Division Any other Utility Co. in the area	301-809-2336 (insert ph.)

- 7. All street curb returns shall be have a radii of: 25 foot residential 50 foot commercial on local roads, 75 foot on major collector.
- 8. All backfill and any other fill within roadway and under structures shall be compacted to a minimum of 95 % compaction of modified proctor value (AASHTO T-180) in accordance with City of Bowie Standards.
- 9. Installation of traffic control devices, markings and signs shall be in accordance with the manual of uniform traffic control devices, latest edition.

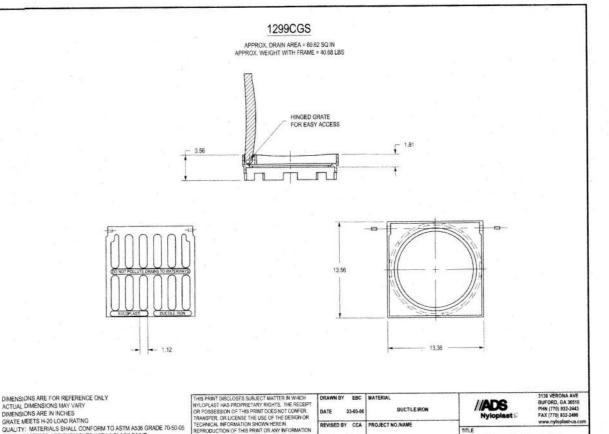
#### CITY OF BOWIE

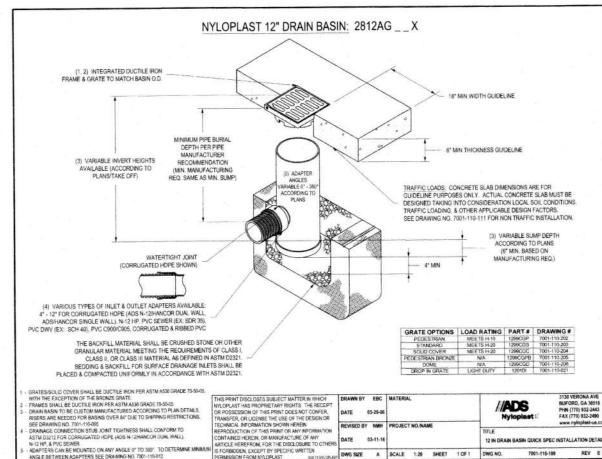
#### GENERAL NOTES FOR THE ELECTRICAL CONSTRUCTION

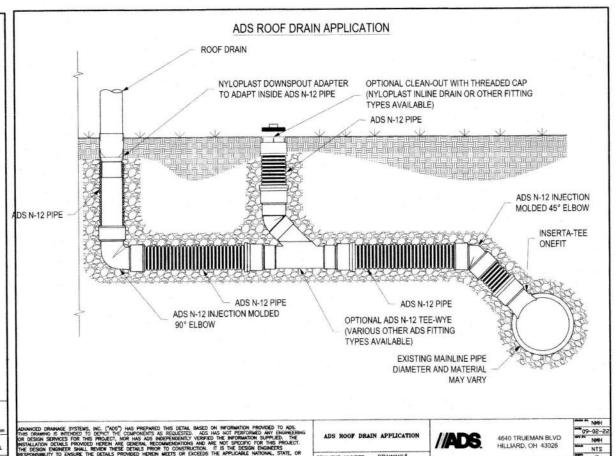
- 1. All the electrical installations and related work shall be constructed in accordance with the latest edition of the general specification of the City of Bowie.
- 2. Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevations of the utilities by digging test pits by hand at all utility crossings, well in advance of trenching. If clearances are less than shown on this plan or twelve (12) inches, which ever is less, contact the City of Bowie Manager before proceeding with
- 3. The contractor must obtain a complete set of existing and proposed site utility drawings and become completely familiar with the drawings before starting his
- 4. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted services. Any damage incurred due to contractor's operation shall be repaired immediately at contractor's expense.
- 5. The contractor shall notify the following utilities at least 72 hours before starting any work on these drawings:

Miss Utility1	-800-257-7777
Verizon Telephone1	-800-495-2211
Baltimore Gas and Electric Co	301-596-1420
P.G. County Bureau of Utilities	(current)
P.G. County Construction / Inspection Survey Division -	(current)
Potomac Electric Power Co	(current)
Washington Gas light Co	301-559-0100
Prime Cable	(current)
City of Bowie Construction / Inspection Division	301-809-2336
Any other Utility Co. in the area	(current)

- 6. All electrical trench backfill and any other fill within roadway and under structures shall be compacted to a minimum of 95% compaction of proctor value in accordance with City of Bowie standards.
- 7. Any electrical fixture or cable shall not be installed by the contractor until each material has been approved by the City inspector in the field.
- 8. All unpaved areas within the limits of disturbance shall be sodded and seeded. 9. No work in public right of way shall be done unless all the required permits are
- 10. Add all other notes pertinent to electrical codes and installation and related to any specific problem concerning the project. F:\Bowie Forms\ElectNotes.doc

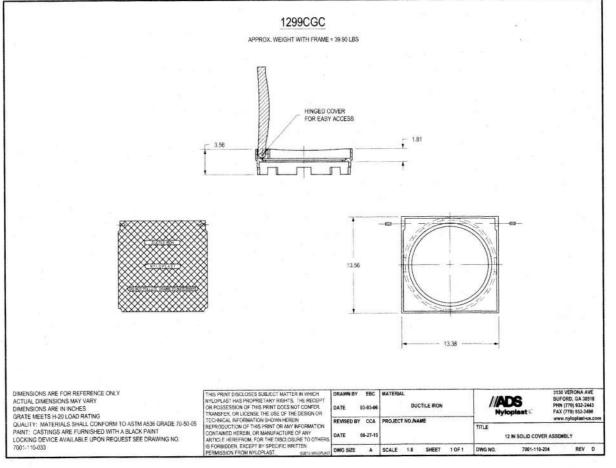






NOTES No.

TYPE



STRUCTURE SCHEDULE

STANDARD DETAIL

NYLOPLAST 7001-110-189 & 7001-110-204 OR APPROVED EQUA

PRIVATE PIPE SCHEDULE

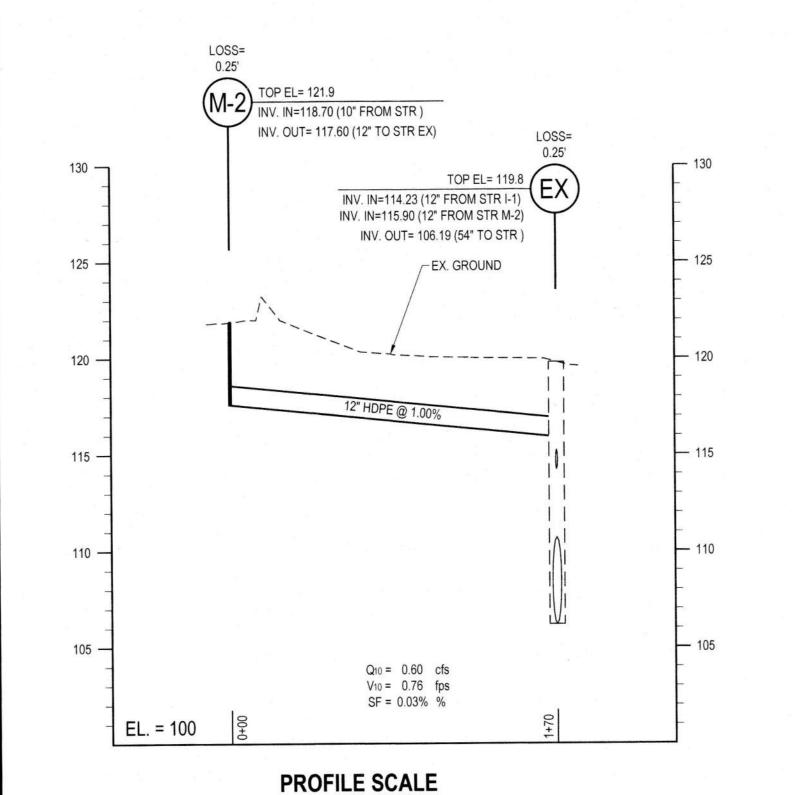
FROM TO SIZE MATERIAL LENGTH BUILT

M-2 EX 12" HDPE

TOTAL:

LENGTH

170'



HORZ: 1"=50'

VERT: 1"=5'

AS BUILT SIZE MATERIAL LENGTH LENGTH 12" HDPE 170' 170' HPDE = HIGH DENSITY POLYET HYLENE PIPE. ALL HDPE PIPE SHALL HAVE SMOOTH INTERIOR WALLS (N=0.013 OR BETTER). FOR MORE INFORMATION, CALL (1) HANCOR, INC., 1 (800) 537-9520, EXT. 256; (2) ADS, INC., 1 (800) 537-9554. ALUMINUM COATED STEEL PIPE, TYPE II (AL2CSP) WITH N=0.013 OR BETTER AND REINFORCED CONCRETE

PRIVATE PIPE SUMMARY

WIDTH / DIA. INV. ELEV. AS BUILT TOP ELEV. AS BUILT TOP ELEV. INV. ELEV. UPPER LOWER UPPER LOWER

DATE	NO.		REVISION	
	CIT	Y OF BOW	E, MARYLANI	)
THE DEVEL	OPER OF ANY	REQUIRED PRO	USIONS OF THE COL	DE OR STANDARDS  RKSDIRECTOR  NGINEER
OWNER / DE		COMMUNITY SE	VICES DIFFECTOR	
ST PUIS X 3300 MOR	(	WIE, MD 20715		

STORM DRAIN AND STORMWATER MANAGEMENT DETAIL SHEET PARCEL "C"

# ST.PIUS X CHURCH DISTRICT No. # 14

REVISIONS

PRINCE GEORGE'S COUNTY, MARYLAND

OCTOBER 2023

SHEET 2 OF 3 (FOR SHEETS 1 THRU 3, REFER TO ATWELL DWG No's REFER TO BDAI DWG No's 8.002-Y thru 8.004-Y) HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. 11721 WOODMORE RD, SUITE 200 MITCHELLVILLE, MD 20721 301.430.2000 MORGAN M. WALUBITA, PE LICENSE NO. 34788 EXPIRATION DATE: 10/23/25 NOT TO SCALE DATE DESCRIPTION

)\DWG\SWM detail.dwg, 3/1/2024 9:51:54 AM, ethomas

#### BIORETENTION MATERIAL AND CONSTRUCTION SPECIFICATIONS

#### PLANT MATERIALS:

- 1. IF PLANT MATERIALS ARE STOCKPILED ON SITE, ROOT BALLS MUST BE KEPT WET TO ENABLE PLANTS' SURVIVAL PRIOR TO INSTALLATION.
- 2. PLANT INSTALLATION SHOULD BE PLANNED TO MINIMIZE ADDITIONAL SOIL COMPACTION BY PERSONS ACCESSING THE BIORETENTION AREA.
- 3. SOD FOR SIDE SLOPES SHALL BE PLACED PRIOR TO FINAL MULCH INSTALLATION.

#### PLANTING NON-GRASS GROUND COVER:

- THE GROUND COVER PLANTING HOLES SHALL BE DUG THROUGH THE MULCH WITH ONE OF THE FOLLOWING: HAND TROWEL, SHOVEL, BULB PLANTER, OR HOE (THIS
  DOES NOT APPLY TO GRASSES OR LEGUMES.
- 2. BEFORE PLANTING, BIODEGRADABLE POTS SHALL BE SPLIT, AND NON-BIODEGRADABLE POTS SHALL BE REMOVED. ROOT SYSTEMS OF ALL POTTED PLANTS SHALL BE SPLIT OR CRUMBLED.
- 3. THE GROUND COVER SHALL BE PLANTED TO BE IN CONTACT WITH THE SUBSOIL. PLANTS SHALL BE PLANTED WITH THE ROOT BALL A MINIMUM OF 2" ABOVE THE LEVEL OF THE SOIL MIX AND SOIL MIX IS TO BE MOUNDED AROUND THE SIDES OF THE ROOT BALL TO PROTECT ROOTS FROM AIR EXPOSURE (SEE HERBACEOUS PLANTING DETAIL).
- 4. NOT MORE THAN 1" OF MULCH SHALL BE SPREAD OVER THE TOP OF THE PLANTS ROOT BALL.
- 5. TREAT THE MULCHED AND PLANTED GROUND COVER BED WITH A PRE-EMERGENT HERBICIDE.
- 6. THE ENTIRE GROUND COVER BED SHALL BE THOROUGHLY WATERED.

#### FERTILIZATION:

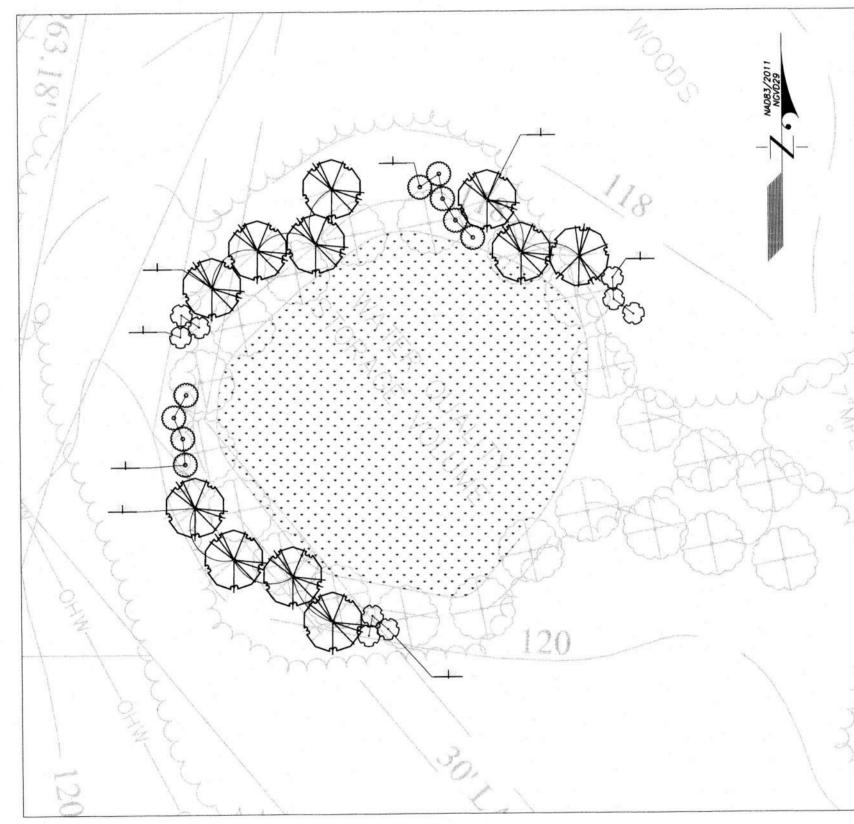
- TREE AND SHRUB FERTILIZER SHALL BE A 21 GM. TIGHTLY COMPRESSED, LONG LASTING, SLOW RELEASE (2 YEAR) FERTILIZER TABLET WITH A MINIMUM GUARANTEED ANALYSIS OF 20-10-5:
- A. TOTAL NITROGEN (N) 20%
- B. WATER SOLUBLE ORGANIC NITROGEN 7%
- C. WATER INSOLUBLE ORGANIC NITROGEN 13% D. AVAILABLE PHOSPHORIC ACID (P203) - 10%
- E. SOLUBLE POTASH (K20) 5%
- 2. FOR CONTAINERIZED TREES AND SHRUBS, PLACE THE SPECIFIED FERTILIZER TABLET(S) IN THE BOTTOM OF THE PLANTING PIT ACCORDING TO THE FOLLOWING RATES:
  - A. 1 GAL. CONTAINER 1 EA. 21 GM. TABLETS
- B. 3 GAL. CONTAINER 2 EA. 21 GM. TABLETS C. 5 GAL. CONTAINER 3 EA. 21 GM. TABLETS D. 7 GAL. CONTAINER 5 EA. 21 GM. TABLETS

## MULCH SPECIFICATIONS & INSTALLATION:

- ACCEPTABLE MULCH SHALL BE SHREDDED HARDWOOD ONLY. MULCH MUST BE WELL AGED, UNIFORM IN COLOR, AND FREE OF FOREIGN MATERIAL INCLUDING PLANT MATERIAL. WELL AGED MULCH IS DEFINED AS MULCH THAT HAS BEEN STOCKPILED OR STORED FOR AT LEAST TWELVE (12) MONTHS.
- 2. MULCH SHALL BE PLACED AFTER TREES, SHRUBS, GROUNDCOVER, SOD, ETC. HAS BEEN INSTALLED. VEGETATION SHOULD BE PROTECTED AND LIFTED TO PLACE MULCH UNDERNEATH AND BETWEEN PLANTINGS.

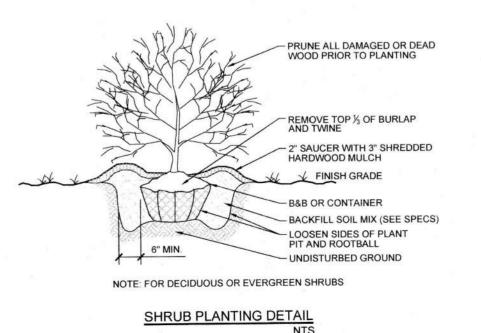
#### PLANT SCHEDULE

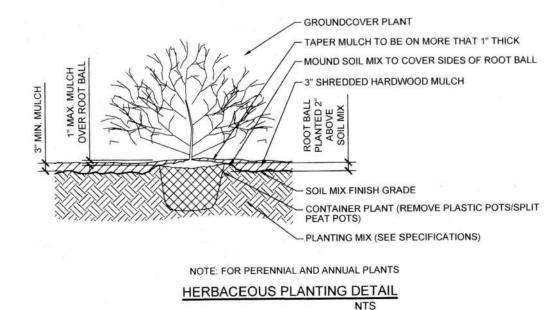
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY	REMARK S
ORNAMENT	AL TREES	<u>s</u>				
	Ac	Amelanchier canadensis	Shadblow Serviceberry		11	B&B
SHRUBS						
$\{\cdot\}$	ca	Clethra alnifolia 'Ruby Spice'	Ruby Spice Clethra	3 GAL	16	Cont.
8 + 23	ig	llex glabra `Nigra`	Nigra Inkberry	3 GAL	13	Cont.
	iv	Itea virginica 'Henry's Garnet'	Henry's Garnet Sweetspire	3 GAL	15	Cont.



# EX. WATER QUALITY POND SCALE: 1"=20'

		PLANT SCHEDULE EX. WATER QUALITY	POND		
SYM.	QUAN.	BOTANICAL/COMMON NAME	CONT.	SPACING	NOTE
	330	Panicum virgatum 'Heavy Metal'/Blue Switch Grass	1 gal	36" o.c.	Mixed planting
	335	Carex vulpinoidea/Fox Sedge	#1 cont.	12" o.c.	Mixed planting
*********	335	Juncus effusus/Soft Rush	plugs	12" o.c.	Mixed planting





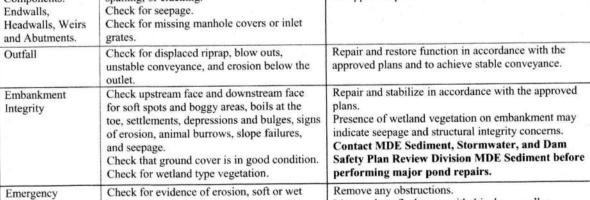
### STORMWATER MAINTENANCE SCHEDULE

MONTHLY INSPECTION				
Inspection Item	Inspection Requirements	Remedial Action		
Debris and Trash	Check for trash and debris in facility including inlets, forebay, riser, weirs, outlets, conveyance systems, and area around facility.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.		
Vegetative Cover	Check for channelizing, erosion, and bare spots. Check for vegetation blocking inlets and outlet. Check for woody growth on embankment.	Remove or cut back vegetation around inlet and outlet structures.  Mow side slopes and basin surface when grass exceeds 12 inches in height. Remove grass clippings.  Cut trees with 4 inch or smaller diameter flush to ground.  Re-seed or re-plant bare areas in accordance with approved landscaping plans.  Contact MDE Sediment, Stormwater, and Dam Safety Plan Review Division regarding removal of trees larger than 4 inch diameter.		

Inspection Item	Inspection Requirements	Remedial Action
Ponding Level/ Dewatering	Check ponding levels. The dry storage volume should dewater within 24 hours of rainfall (12 hours for Use III and IV watersheds). Check low flow device for clogging.	Refurbish low flow device if clogged.  Confirm adequate dewatering with follow up inspections.
Erosion	Check inlets, gravel diaphragm, forebay, filter bed, outlets, and side slopes for erosion, rills, gullies, and runoff channelization.	Re-grade if concentrated flow is causing rills or gullying through the facility.  Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.
Sediment Accumulation	Check for accumulated sediment in conveyance systems and forebay. Check for accumulated sediment on basin surface. Check for clogged openings.	When the forebay depth is less than half the approved design, remove sediment.  When sediment accumulation on basin surface exceeds 1 inch, remove sediment.  Remove sediment from clogged openings.  Dispose of all sediment in an acceptable location.
Blockages	Check overflow inlet (riser) and piping for blockages. Check observation wells for water level.	Clear out any blockages.

ANNUAL INSPECTION				
Inspection Item	Inspection Requirements	Remedial Action		
Maintenance Access	Check for accessibility to pond including riser and spillways.	Remove excessive vegetative growth and obstructions. Repair access way or road to stable condition.		
Woody Vegetation	Check for woody vegetation on zones of concern: the embankment, within 15 feet of the toe of embankment, within a 25 foot radius of the control structure (riser or weir), and within 15 feet of principal spillway pipe.	Mow down woody vegetation within zones of concern. Cut trees with 4 inch or smaller diameter flush to ground. Re-seed bare areas according to plan stabilization requirements. Contact MDE Sediment, Stormwater, and Dam Safety Plan Review Division regarding removal of larger trees than 4 inch diameter.		
Inlets	Check for flow blockages, erosion, rills, gullies, and displaced riprap.	Restore grades and re-seed or armor bare areas to provide stable conveyance in accordance with the approved plans.		

		larger trees than 4 inch diameter.
Inlets	Check for flow blockages, erosion, rills, gullies, and displaced riprap.	Restore grades and re-seed or armor bare areas to provide stable conveyance in accordance with the approved plans.
Trash Rack	Check that trash rack is clear of blockages and in good condition.	Remove any blockages. Repair or replace to good working condition in accordance with the approved plans.
Pond Drain	Check operation. Keep drain chained and locked.	Repair in accordance with approved plans.
Riser and Barrel	Check for evidence of cracks, spalling, and joint failures. Check connection between riser and barrel for water tightness. Check spillway pipe for water tight joints. Check for seepage around and along spillway pipe.	Repair or replace to good working condition in accordance with the approved plans.
Structural Components: Endwalls, Headwalls, Weirs and Abutments.	Check for evidence of structural deterioration, spalling, or cracking. Check for seepage. Check for missing manhole covers or inlet grates.	Repair to good condition according to specifications on the approved plans.
Outfall	Check for displaced riprap, blow outs, unstable conveyance, and erosion below the	Repair and restore function in accordance with the approved plans and to achieve stable conveyance.



Spillway Channel areas, or obstructions. Mow and cut flush trees with 4 inch or smaller Check for woody vegetation. Re-seed or armor bare areas to provide stable Check for displaced riprap. conveyance in accordance with the approved plans. Contact MDE Sediment, Stormwater, and Dam Safety Plan Review Division regarding removal of larger trees than 4 inch diameter. Repair to good condition according to specifications on Overall Function Check that practice is functioning as the approved plans. of Facility designed.

DATE NO REVISION CITY OF BOWIE, MARYLAND THIS PLAN HAS BEEN REVIEWED AND APPROVED FOR GENERAL CONFORMANCE WITH PROVISIONS OF THE CITY CODE. APPROVAL THEREOF DOES NOT RELIEVE THE DEVELOPER OF ANY REQUIRED PROVISIONS OF THE CODE OR STANDARDS. OWNER / DEVELOPER ST PIUS X 3300 MORELAND PL BOWIE, MD 20715 FATHER MICHAEL JONES (301) 262-2141

11721 WOODMORE RD, SUITE 200 MITCHELLVILLE, MD 20721 301.430.2000

STORMWATER MANAGEMENT PLANTING PLAN

PARCEL "C"

# ST.PIUS X CHURCH

DISTRICT No. # 14 PRINCE GEORGE'S COUNTY, MARYLAND

