



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- STORMW ATER DIVISION; WERE SCANNED IN THE REGULAR COURSE OF BUSINESS PURSUANT TO GUIDELINES ESTABLISHED BY THE LIBRARY OF VIRGINIA AND ARCHIVES; AND HA VE BEEN VERIFIED IN THE CUSTODY OF THE INDIVIDUAL LISTED BELOW.

BMPNUMBER: MC057

DATE VERIFIED: May 9, 2016

QUALITY ASSURANCE TECHNICIAN: Charles E. Lovett II

A handwritten signature in cursive script that reads "Charles E. Lovett II".

LOCATION: WILLIAMSBURG, VIRGINIA



Stormwater Division

MEMORANDUM

Date: March 29, 2012
To: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services
From: Leah Hardenbergh
PO: 110426
Re: Files Approved for Scanning

General File ID or BMP ID: MC057
PIN: 4710100026
Owner Name (if known): BRADY JEANETTE DESCENDANTS TRUST
Legal Property Description: J B WOODCOCK
Site Address: 3356 IRONBOUND ROAD

(For internal use only):

Box # 4

Agreements (in file as of scan date): N Book or Doc #:

050024728

 COPY
✓ SP-028-05

COUNTY OF JAMES CITY, VIRGINIA

DECLARATION OF COVENANTS

INSPECTION/MAINTENANCE OF DRAINAGE SYSTEM

THIS DECLARATION, made this 4th day of October, 2005,
between Jeanette Brady Decendants Trust, and
all successors in interest, ("COVENANTOR(S),") owner(s) of the following property:

Street Address: 3292 Ironbound Road Parcel ID #4710100024
Legal Description: Near Five Forks - 1.49 acres
Project Name: Expansion for Oaktree Office Park and Airtight Self-Storage
Document No. 040005380, Deed Book _____, Page No. _____;
Instrument No. _____, and the County of James City, Virginia ("COUNTY.")

WITNESSETH:

We, the COVENANTOR(S), with full authority to execute deeds, mortgages, other covenants, and all rights, titles and interests in the property described above, do hereby covenant with the COUNTY as follows:

1. The COVENANTOR(S) shall provide maintenance for the drainage system including any runoff control facilities, conveyance systems and associated easements, hereinafter referred to as the "SYSTEM," located on and serving the above-described property to ensure that the SYSTEM is and remains in proper working condition in accordance with approved design standards, and with the law and applicable executive regulations. The SYSTEM shall not include any elements located within any Virginia Department of Transportation rights-of-way.
2. If necessary, the COVENANTOR(S) shall levy regular or special assessments against all present or subsequent owners of property served by the SYSTEM to ensure that the SYSTEM is properly maintained.
3. The COVENANTOR(S) shall provide and maintain perpetual access from public right-of-ways to the SYSTEM for the COUNTY, its agent and its contractor.
4. The COVENANTOR(S) shall grant the COUNTY, its agent and its contractor a right of entry to the SYSTEM for the purpose of inspecting, monitoring, operating, installing, constructing, reconstructing, maintaining or repairing the SYSTEM.
5. If, after reasonable notice by the COUNTY, the COVENANTOR(S) shall fail to maintain the SYSTEM in accordance with the approved design standards and with the law and applicable executive regulations, the COUNTY may perform all necessary repair or maintenance work, and the COUNTY may assess the COVENANTOR(S) and/or all property served by the SYSTEM for the cost of the work and any applicable penalties.

6. The COVENANTOR(S) shall indemnify and save the COUNTY harmless from any and all claims for damages to persons or property arising from the installation, construction, maintenance, repair, operation or use of the SYSTEM.

7. The COVENANTOR(s) shall promptly notify the COUNTY when the COVENANTOR(S) legally transfers any of the COVENANTOR(S)' responsibilities for the SYSTEM. The COVENANTOR(S)' shall supply the COUNTY with a copy of any document of transfer, executed by both parties.

8. The covenants contained herein shall run with the land and shall bind the COVENANTOR(S) and the COVENANTOR(S)' heirs, executors, administrators, successors and assignees, and shall bind all present and subsequent owners of property served by the SYSTEM.

9. This COVENANT shall be recorded in the County Land Records.

IN WITNESS WHEREOF, the COVENANTOR(S) have executed this DECLARATION OF COVENANTS as of the date first above written.

COVENANTOR(S)

Jeanette Brady Descendants Trust

Print Name/Title *Jeanette Brady Descendants Trust*
under the Jeanette Brady
Descendants trust.

ATTEST:

COVENANTOR(S)

Print Name/Title _____

ATTEST:

COMMONWEALTH OF VIRGINIA

CITY/COUNTY OF James City

I hereby certify that on this 4th day of October, 2005, before the subscribed, a Notary Public for the Commonwealth of Virginia, personally appeared Jeanette Brady and did acknowledge the foregoing instrument to be their Act.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this 4th day of October, 2005.

Jean E. Jensen
Notary Public

My Commission expires: 10-31-08

Approved as to form:

Maureen
Asst. County Attorney

This Declaration of Covenants prepared by:

Jeanette Brady
(Print Name)

Trustee
(Title)

3356 Ironbound Road #401
(Address)

Williamsburg VA 23188
(City) (State) (Zip)

757-229-3337
(Phone Number)

VIRGINIA: CITY OF WILLIAMSBURG & COUNTY OF JAMES CITY
This document was admitted to record on 14 Oct-05
at 1:14 PM/PM. The taxes imposed by Virginia Code
Section 58.1-801, 58.1-802 & 58.1-814 have been paid.

STATE TAX LOCAL TAX ADDITIONAL TAX
\$ _____ \$ _____ \$ _____

TESTE: BETSY B. WOOLRIDGE, CLERK
BY: Betsy B. Woolridge Clerk

drainage1.pre



**James City County Environmental Division
Stormwater Management/BMP Record Drawing &
Construction Certification Review
Tracking Form**

Project Name: OAK TREE OFFICE PARK + AIRTIGHT SELF STORAGE EXPANSION

County Plan No.: SP-28-05 (Z-2-04)

Stormwater Management Facility: TIMBERWALL - DETENTION

BMP Phase #: I II III

Information Package Received. Date/By: Feb 28 2008 Mitchell Wilson

Completeness Check:
 Record Drawing Date/By: Feb 21 '08 Mitchell Wilson

Construction Certification Date/By: Feb 21 '08 Mitchell Wilson

RD/CC Standard Forms (Required for all BMPs after Feb 1st 2001 Only)

Insp/Maint Agreement # / Date: 050024723 10/04/05

BMP Maintenance Plan Location: Front of As built drawing

Other: _____

Standard E&SC Note on Approved Plan Requiring RD/CC or County comment in plan review

Yes No Location: Cover sheet

Assign County BMP ID Code #: Code: MC057

Preliminary Input/Log into Division's "As-Built Tracking Log"

Add Location to GIS Map. Obtain basic site information (GPIN, Owner, Address, etc.) (NOT IN GIS)

Preliminary Log into Access Database (BMP ID #, Plan No., GPIN, Project Name, etc.)

Active Project File Review (correspondence, H&H, design computations, etc.).

Initial As-Built File setup (File label, folder, copy plan/details/design information, etc.).

Inspector Check of RD/CC (forward to Inspector using transmittal for cursory review).

Pre-Inspection Drawing Review of Approved Plan (Quick look prior to Field Inspection).

Final Inspection (FI) Performed Date: _____

Record Drawing (RD) Review Date: 3/4/08

Construction Certification (CC) Review Date: 3/4/08

Actions:

No comments.

Comments. Letter Forwarded. Date: _____

Record Drawing (RD)

Construction Certification (CC)

Construction-Related (CR)

Site Issues (SI)

Other: _____

Second Submission: _____

Reinspection (if necessary): yes

Acceptable for SWM Purposes (RD/CC/CR/Other). Ok to proceed with bond release.

Complete "Surety Request Form".

Check/Clean active file of any remaining material and finish "As-Built" file.

Add to County BMP Inventory/Inspection schedule (Phase I, II or III).

Copy Final Inspection Report into County BMP Inspection Program file.

Obtain Digital Photographs of BMP and save into County BMP Inventory.

Request mylar/reproducible from As-Built plan preparer.

Complete "As-built Tracking Log".

Last check of BMP Access Database (County BMP Inventory).

Add BMP to JCC Hydrology & Hydraulic database (optional).

Add BMP to Municipal BMP list (if a County-owned facility)

Add BMP to PRIDE BMP ratings database.

Final Sign-Off

Inspector: [Signature]

Date: _____

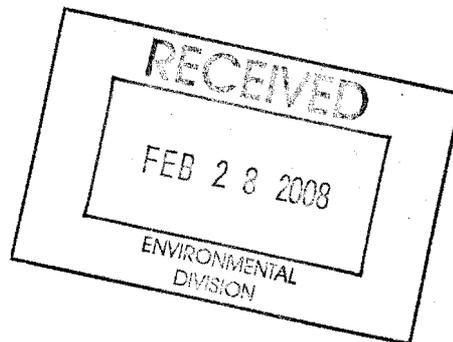
Chief Engineer: _____

Date: _____

*** See separate checklist, if needed.



James City County, Virginia
Environmental Division



Stormwater Management / BMP Facilities Record Drawing and Construction Certification

Standard Forms & Instructions

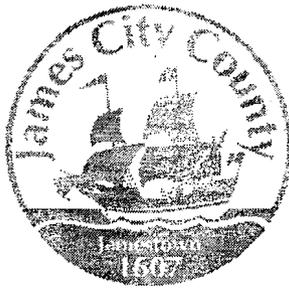
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6.98 AC
BI GEN BUS

2-2-04
SP-28-05
MC057

GPIN
4710200026
3356 Ironbound Road

Issue Date
February 1, 2001



James City County, Virginia
Environmental Division

Stormwater Management / BMP Facilities
Record Drawing and Construction Certification Forms

(Note: In accordance with the requirements of the Chesapeake Bay Preservation Ordinance, Chapter 23, Section 23-10(4), BMP's shall be designed and constructed in accordance with the manual entitled James City County Guidelines for Design and Construction of Stormwater Management BMP's. Erosion and sediment control policy and approved plans generally require that at the completion of the project and prior to release of surety, an "as-built" plan prepared by a registered Professional Engineer or Certified Land Surveyor must be provided for the drainage system for the project, including any Best Management Practice (BMP) facilities. In addition, for BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a Professional Engineer who has inspected the structure during its construction. Currently there are over 20 water quality type BMP's accepted by the County.)

Section 1 - Site Information:

Project Name: OAK TREE OFFICE PARK and AIRTIGHT SELF STORAGE
Structure/BMP Name: DRY DETENTION - TIMBER WALL
Project Location: 3292 IRONBOUND ROAD
BMP Location:
County Plan No.: SP - 28 - 05

Project Type: [] Residential [] Business [] Commercial [] Office [] Institutional [] Industrial [] Public [] Roadway [] Other
Tax Map/Parcel No.: 471010026
BMP ID Code (if known): MC 057
Zoning District: B-1
Land Use: OFFICE - WAREHOUSING
Site Area (sf or acres): 6.933 AC

Brief Description of Stormwater Management/BMP Facility: DRY SWALE BMP W/ TIMBER RETAINING WALLS

Nearest Visible Landmark to SWM/BMP Facility: NEW BUILDING "B" WAREHOUSE

Nearest Vertical Ground Control (if known):
[] JCC Geodetic Ground Control [] USGS [X] Temporary [] Arbitrary [] Other
Station Number or Name: NAIL SOT # 52
Datum or Reference Elevation: 73.01
Control Description: NAIL SOT
Control Location from Subject Facility: 20' SOUTH OF BMP TIMBER WALL

Section 2 - Stormwater Management / BMP Facility Construction Information:

PreConstruction Meeting Held for Construction of SWM/BMP Facility: Yes No Unknown
Approx. Construction Start Date for SWM/BMP Facility: 2-06
Facility Monitored by County Representative during Construction: Yes No Unknown
Name of Site Work Contractor Who Constructed Facility: BRADY CONSTRUCTION, INC
Name of Professional Firm Who Routinely Monitored Construction: Mitchell-Wilson Associates, P.C.
Date of Completion for SWM/BMP Facility: 1-21-08
Date of Record Drawing/Construction Certification Submittal: 2-21-08

(Note: Record Drawing and Construction Certifications are required within thirty (30) days of the completion of Stormwater Management and/or BMP facility construction. Record Drawings and Construction Certifications must be reviewed and approved by the James City County Environmental Division prior to final inspection, acceptance and bond or surety release.)

Section 3 - Owner / Designer / Contractor Information:

Owner/Developer: *(Note: Site Owner or Applicant responsible for development of the project.)*
Name: Jeanette Brady Descendants Trust
Mailing Address: 3256 HONOLULU ROAD, SUITE 401
Williamsburg VA 23186
Business Phone: 757-220-9960 Fax: 757-229-3431
Contact Person: Jeanette Brady Title: TRUSTEE

Design Professional: *(Note: Professional Engineer or Certified Land Surveyor responsible for the design and preparation of plans and specifications for the Stormwater Management / BMP facility.)*
Firm Name: Mitchell-Wilson Associates, P.C
Mailing Address: P.O. Box 1269
West Point, VA 23181-1269
Business Phone: 804-343-9744
Fax: 804-343-3923
Responsible Plan Preparer: Jonathan Blair Wilson, P.E.
Title: Principal
Plan Name: Oaktree Office Park and Airtight Self Storage
Firm's Project No. 1921
Plan Date: 6-13-05
Sheet No.'s Applicable to SWM/BMP Facility: C4 | C6 | 1 | 1

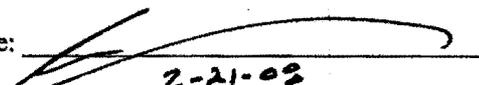
BMP Contractor: *(Note: Site Work Contractor directly responsible for construction of the Stormwater Management / BMP facility.)*
Name: BRADY CONSTRUCTION INC
Mailing Address: SAME AS OWNER ABOVE
Business Phone: 757-592-8184
Fax: _____
Contact Person: WAYNE BRADY
Site Foreman/Supervisor: " "
Specialty Subcontractors & Purpose (for BMP Construction Only): N/A

Section 4 - Professional Certifications:

Certifying Professionals: (Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a Record Drawing, sometimes referred to as an As-Built plan, for the drainage system for the project including any Stormwater Management/BMP Facilities. A Registered Professional Engineer is responsible for the inspection, monitoring and certification of Stormwater Management / BMP facilities during its construction.)

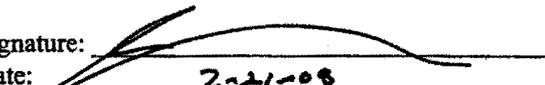
Record Drawing and Construction Certifications for Stormwater Management / BMP Facilities

Record Drawing Certification

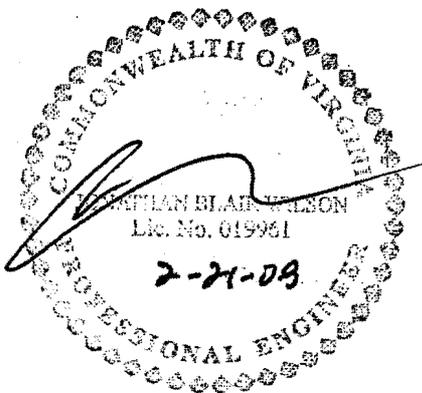
Firm Name: Mitchell-Wilson Assoc.
Mailing Address: P.O. Box 1269
West Point VA 23131
Business Phone: 804-843-9744
Fax: 804-843-3923
Name: Jonathan Blair Wilson, P.E.
Title: Principal
Signature: 
Date: 2-21-08

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the Stormwater Management / BMP facility. The facility appears to conform with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

Construction Certification

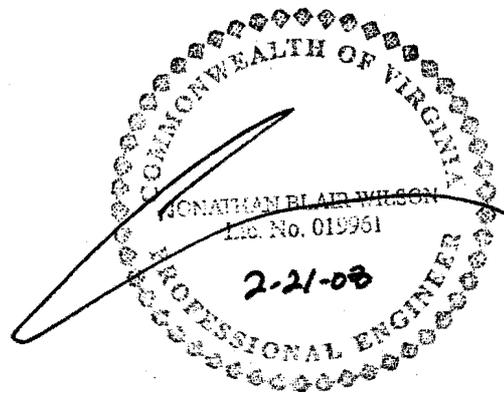
Firm Name: Mitchell-Wilson Assoc.
Mailing Address: P.O. Box 1269
West Point, VA 23131
Business Phone: 804-843-9744
Fax: 804-843-3923
Name: Jonathan Blair Wilson, P.E.
Title: Principal
Signature: 
Date: 2-21-08

I hereby certify to the best of my knowledge and belief that this Stormwater Management/BMP facility was monitored and constructed in accordance with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.



(Seal)

Virginia Registered Professional Engineer
or Certified Land Surveyor



(Seal)

Virginia Registered
Professional Engineer

Section 5 - Record Drawing and Construction Certification Requirements and Instructions:

- PreConstruction Meeting - Provides an opportunity to review SWM / BMP facility construction, maintenance and operation plans and address any questions regarding construction and/or monitoring of the structure. The design engineer, certifying professionals (if different), Owner/Applicant, Contractor and County representative(s) are encouraged to attend the preconstruction meeting. Advanced notice to the Environmental Division is requested. Usually, this requirement can be met simultaneously with Erosion and Sediment Control preconstruction meetings held for the project.
- A fully completed **STORMWATER MANAGEMENT / BMP FACILITIES, RECORD DRAWING and CONSTRUCTION CERTIFICATION FORM** and **RECORD DRAWING CHECKLIST**. All applicable sections shall be completed in their entirety and certification statements signed and sealed by the registered professional responsible for individual record drawing and/or construction certification.
- The Record Drawing shall be prepared by a Registered Professional Engineer or Certified Land Surveyor for the drainage system of the project including any Best Management Practices.
- Construction Certification. Construction of Stormwater Management / BMP facilities which contain impoundments, embankments and related engineered appurtenances including subgrade preparation, compacted soils, structural fills, liners, geosynthetics, filters, seepage controls, cutoffs, toe drains, hydraulic flow control structures, etc. shall be visually observed and monitored by a Registered Professional Engineer or his/her authorized representative. The Engineer must certify that the structure, embankment and associated appurtenances were built in accordance with the approved design plan, specifications and stormwater management plan and standard accepted construction practice and shall submit a written certification and/or drawings to the Environmental Division as required. Soil and compaction test reports, concrete test reports, inspection reports, logs and other required construction material or installation documentation may be required by the Environmental Division to substantiate the certification, if specifically requested. The Engineer shall have the authority and responsibility to make minor changes to the approved plan, in coordination with the assigned County inspector, in order to compensate for unsafe or unusual conditions encountered during construction such as those related to bedrock, soils, groundwater, topography, etc. as long as changes do not adversely affect the integrity of the structure(s). Major changes to the approved design plan or structure must be reviewed and approved by the original design professional and the James City County Environmental Division.
- Record Drawing and Construction Certifications are required within **thirty (30) days** of the completion of Stormwater Management / BMP facility construction. Submittals must be reviewed and accepted by James City County Environmental Division prior to final inspection, acceptance and bond/surety release.

Dual Purpose Facilities - Completion of construction also includes an interim stage for Stormwater Management / BMP facilities which serve dual purpose as temporary sediment basins during construction and as permanent stormwater management / BMP facilities following construction, once development and stabilization are substantially complete. For these dual purpose facilities, construction certification is required once the temporary sediment basin phase of construction is complete. Final record drawing and construction certification of additional permanent components is required once permanent facility construction is complete.

Interim Construction Certification is required for those dual purpose embankment-type facilities that are generally ten (10) feet or greater in dam height (*) and may not be converted, modified or begin function as a permanent SWM / BMP structure for a period generally ranging from six (6) to eighteen (18) months or more from issuance of a Land Disturbance permit for construction.

Interim or final record drawing and construction certifications are not required for temporary sediment basins which are designed and constructed in accordance with current minimum standards and specifications for temporary sediment basins per the Virginia Erosion and Sediment Control Handbook (VESCH); have a temporary service life of less than eighteen (18) months; and will be removed completely once associated disturbed areas are stabilized, unless a distinct hazard to the public's health, safety and welfare is determined by the Environmental Division due to the size or presence of the structure or due to evidence of improper construction.

(*Note: Dam Height as referenced above is generally defined as the vertical distance from the natural bed of the stream or waterway at the downstream toe of the embankment to the top of the embankment structure in accordance with 4VAC50-20-30, Virginia Impoundment Structure Regulations and the Virginia Dam Safety Program.)

- Record Drawings shall provide, at a minimum, all information as shown within these requirements and the attached **RECORD DRAWING CHECKLIST** specific to the type of SWM/BMP facility being constructed. Other additional record data may be formally requested by the James City County Environmental Division. (*Note: Refer to the current edition of the James City County Guidelines for Design and Construction of Stormwater Management BMP's manual for a complete list of acceptable BMP's. Currently there are over 20 acceptable water quality type BMP's accepted by the County.*)
- Record Drawings shall consist of blue/black line prints and a reproducible (mylar, sepia, diazo, etc.) set of the approved stormwater management plan including applicable plan views, profiles, sections, details, maintenance plans, etc. as related to the subject SWM / BMP facility. The set shall indicate "**RECORD DRAWING**" in large text in the lower right hand corner of each sheet with record elevations, dimensions and data drawn in a clearly annotated format and/or boxed beside design values. Approved design plan values, dimensions and data shall not be removed or erased. Drawing sheet revision blocks shall be modified as required to indicate record drawing status. Elevations to the nearest 0.1' are sufficiently accurate except where higher accuracy is needed to show positive drainage. Certification statements as shown in Section 4 of the Record Drawing and Construction Certification Form, *or similar forms thereof*, and professional signatures and seals, with dates matching that of the record drawing status in the revision or title block, are also required on all associated record drawing plans, prints or reproducibles.
- Submission Requirements. Initial and subsequent submissions for review shall consist of a minimum of one (1) blue/black line set for record drawings and one copy of the construction certification documents with appropriate transmittal. Under certain circumstances, it is understood that the record drawing and construction certification submissions may be performed by different professional firms. Therefore, record drawing submission may be in advance of construction certification or vice versa. Upon approval and prior to release of bond/surety, final submission shall include one (1) reproducible set of the record drawings, one (1) blue/black line set of the record drawings and one (1) copy of the construction certification. Also for current and/or future incorporation into the County BMP database and GIS system, it is requested that the record drawings also be submitted to the Environmental Division on a diskette or CD-ROM in an acceptable electronic file format such as *.dxf, *.dwg, etc. or in a standard scanned and readable format. The electronic file requirement can be discussed and coordinated with Environmental Division staff at the time of final submission.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

I. Methods and Presentation: (Required for all Stormwater Management / BMP facilities.)

- XX 1. All constructed facilities meet approved design plans, unless otherwise shown. Record information or deviations from approved design plan shown in clearly annotated format and/or boxed beside design values.
- XX 2. Elevations to the nearest 0.1' unless higher accuracy is needed to show positive drainage.
- XX 3. All plan sheets labeled with "RECORD DRAWING" in large text in lower right hand corner (Approved County Plan Number and BMP ID Code can be included if known).
- XX 4. All plan sheet revision blocks modified to indicate date and record drawing status.
- XX 5. All plan sheets have certification statements and certifying professional's signature and seal.

II. Minimum Standards: (Required for all Stormwater Management / BMP facilities, as applicable.)

- XX 1. All requirements of Section I (Methods and Presentation) apply to this section.
- XX 2. Plan Views: Show general location, arrangement and dimensions. Location and alignment shall generally match approved design plans.
- XX 3. Profile or elevations along top or berm of the facility. At a minimum, elevations are required at each end, at intervals not to exceed 50 feet and where low spots may be present. Top of embankment or berm elevations must be no less than design elevation plus any settlement allowances.
- N/A 4. Top widths, berm widths and embankment side slopes.
- XX 5. Show length, width and depth of facility or grading, contours or spot elevations as required to verify permanent pool and design storage volumes were met or were reasonably close to the approved design. Evaluation of as-built grading, contours, spot elevations, or cross-sections, may be necessary by the professional to ensure approved design configurations, depths and volumes were closely maintained. If grading or elevations are significantly different from the approved plan, the Environmental Division shall be contacted immediately to determine whether the variation is acceptable or whether further evidence will be required. Facilities which do not closely resemble approved plan grades, elevations or configurations may require regrading by the Contractor; check volumetric computations; and/or a check hydraulic routing to ensure approved design water surface elevations, discharges or freeboard were closely maintained.
- N/A 6. Cross-section of the embankment through the principal spillway or outlet barrel. Must extend at least 100 ft. downstream of the pipe outlet or to recorded site property line, whichever is closer. Proper correlation is required between principal spillway (control structure) crest, emergency spillway crest, orifice and weirs and the top of the dam or facility. All elevations and dimensions must reasonably match the design plan or be sequentially relative to each other and the facility must reflect the required design storage volume(s) and/or design depth.
- N/A 7. Profile or elevations along the entire centerline of the emergency spillway. Emergency spillway may be steeper, but no flatter or narrower than design.
- XX 8. Elevation of the principal spillway crest or outlet crest of the structure.

- XX 9. Primary control structure (riser) diameter or dimensions, height, type of material and base size. Indicate provisions for access that are present such as steps, ladders, etc.
- XX 10. Dimensions, locations and elevations of outlet orifices, weirs, slots and drains.
- XX 11. Type and size of anti-vortex and trash rack device. Height, diameter, dimensions, bar spacings (if applicable) and elevations relative to the principal spillway crest. Indicate if lockable hatch is present or not.
- N/A 12. Type, location, size and number of anti-seep collars or documentation of other methods utilized for seepage control. **May need to obtain this information during construction.**
- N/A 13. Top of impervious core embankment, core trench limits and elevation of cut-off trench bottom. **May need to obtain this information during construction.**
- XX 14. Elevation of the principal spillway barrel (outlet pipe) inlet and outlet invert.
- XX 15. Outlet barrel diameter, length, slope, type and thickness class of material and type of flared end sections, headwall or endwall.
- XX 16. Outfall protection dimension, type and depth of rock and if underlain filter fabric is present.
- XX 17. BMP interior and periphery landscaping zones conform with arrangements and requirements of the approved design plan.
- XX 18. Maintenance plan taken from approved design plan transposed onto record drawing set.
- XX 19. Fencing location and type, if applicable to facility.
- XX 20. BMP vicinity properly cleaned of stockpiles and construction debris.
- XX 21. No visual signs of erosion or channel degradation immediately downstream of facility.
- N/A 22. Any other information formally requested by the Environmental Division specific to the constructed SWM/BMP facility.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

III. Group A - Wet Ponds (Includes A-1 Small Wet Ponds; A-2 Wet Ponds; A-3 Wet Ext Det Ponds.)

- A1. All requirements of Section II, Minimum Standards, apply to Group A facilities.
- A2. Principal spillway consists of reinforced concrete pipe with O-Ring gaskets for watertight joint construction.
- A3. Sediment forebays or pretreatment devices provided at inlets to pond. Generally 4 to 6 ft. deep.
- A4. Access for maintenance and equipment is provided to the forebay(s). Access corridors are at least 12 ft. wide, have a maximum slope of 15 percent and are adequately stabilized to withstand heavy equipment or vehicle use.
- A5. Adequate fixed vertical sediment depth markers installed in the forebay(s) for future sediment monitoring purposes.
- A6. Pond liner (if required) provided. Either clay liners, polyliners, bentonite liners or use of chemical soil additives based on requirements of the approved plan.
- A7. Minimum 6 percent slope safety bench extending a minimum of 15 feet outward from normal pool edge and/or an aquatic bench extending a minimum of 10 feet inward from the normal shoreline with a maximum depth of 12 inches below the normal pool elevation, if applicable, per the approved design plans. (Note: Safety benches may be waived if pond side slopes are no steeper than 4H:1V).
- A8. No trees are present within a zone 15 feet around the embankment toe and 25 feet from the principal spillway structure.
- A9. Wet permanent pool, typically 3 to 6 feet deep, is provided and maintains level within facility.
- A10. Low flow orifice has a non-clogging mechanism.
- A11. A pond drain pipe with valve was provided.
- A12. Pond side slopes are not steeper than 3H:1V, unless approved plan allowed for steeper slope.
- A13. End walls above barrels (outlet pipe) greater than 48 inch in diameter are fenced to prevent a fall hazard.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

IV. Group B - Wetlands (Includes B-1 Shallow Marsh; B-2 Ext Det Shallow Wetlands; B-3 Pond Wetland System and B-4 Pocket Wetland)

- B1. Same requirements as Group A Wet Ponds.
- B2. Minimum 2:1 length to width flow path provided across the facility.
- B3. Micropool provided at or around outlet from BMP (generally 3 to 6 ft. deep).
- B4. Wetland type landscaping provided in accordance with approved plan. Includes correct pondscaping zones, plant species, planting arrangements, wetland beds, etc. Wetland plants include 5 to 7 emergent wetland species. Individual plants at 18 inches on center in clumps.
- B5. Adequate wetland buffer provided (Typically 25 ft. outward from maximum design water surface elevation and 15 ft. setback to structures).
- B6. No more than one-half (1/2) of the wetland surface area is planted.
- B7. Topsoil or wetland mulch provided to support vigorous growth of wetland plants.
- B8. Planting zones staked or flagged in field and locations subsequently established by appropriate field surveying methods for record drawing presentation.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

V. Group C - Infiltration Practices (Includes C-1 Infiltration Trench; C-2 Infiltration Trench;
C-3 Infiltration Basin; and C-4 Infiltration Basin)

- C1. All requirements of Section II, Minimum Standards, apply to Group C facilities as applicable.
- C2. Facility is not located on fill slopes or on natural ground in excess of six (6) percent.
- C3. Pretreatment devices provided prior to entry into the infiltration facility. Acceptable pretreatment devices include sediment forebays, sediment basins, sediment traps, sump pits or inlets, grass channels, plunge pools or other acceptable measures.
- C4. Three (3) or more of the following pretreatment devices provided to protect long term integrity of structure: grass channel; grass filter strip; bottom sand layer; upper filter fabric layer; use of washed bank run gravel aggregate.
- C5. Sides of infiltration practice lined with filter fabric.
- C6. Facility was not used for erosion and sediment control purposes and sediment was prevented from entering the facility to the greatest extent possible during construction.
- C7. Stabilization and acceptable vegetative cover established over contributing drainage area prior to conveyance of stormwater to the facility.
- C8. Minimum one hundred (100) foot separation horizontally from any known water supply well and minimum one hundred (100) foot separation upslope from any building.
- C9. Minimum twenty-five (25) foot separation down gradient from any structure.
- C10. Stormwater outfalls provided for overflow associated with larger design storms.
- C11. No visual signs of erosion or channel degradation immediately downstream of facility.
- C12. Facility does not currently cause any apparent surface or subsurface water problems to downgrade properties.
- C13. Observation well provided.
- C14. Adequate, direct access provided to the facility for future maintenance, operation and inspection.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

VI. Group D - Filtering Systems (Includes D-1 Bioretention Cells; D-2 Surface Sand Filters; D-3 Underground Sand Filters; D-4 Perimeter Sand Filters; D-5 Organic Filters; and D-6 Pocket Sand Filters)

- D1. All requirements of Section II, Minimum Standards, apply to Group D facilities.
- D2. Sediment pretreatment devices provided.
- D3. For D-1 BMPs (Bioretention Cells), pretreatment consisting of a grass filter strip below level spreader (deflector); a gravel diaphragm; and mulch and planting soil layers were provided.
- D4. For D-1 BMPs (Bioretention Cells), plantings consist of native plant species; vegetation provided was based on zones of hydric tolerances; trees and understory of shrubs and herbaceous materials were provided; woody vegetation is absent from inflow locations; and trees are located around facility perimeter.
- D5. Facility was not used for erosion and sediment control purposes and sediment was prevented from entering the facility to the greatest extent possible during construction.
- D6. No visible signs of accumulated silt/sediment were present in the facility following construction or alternately, accumulated silt/sediment was properly removed .
- D7. Filtering system is off-line from storm drainage conveyance system.
- D8. Overflow outlet has adequate erosion protection.
- D9. Deflector, diversion, flow splitter or regulator structure provided to divert the water quality volume to the filtering structure.
- D10. Minimum four (4) inch perforated underdrain provided in a clean aggregate envelope layer beneath the facility.
- D11. Minimum fifty (50) foot separation from any slope fifteen (15) percent or greater. Minimum one hundred (100) foot separation horizontally from any known water supply well. Minimum one hundred (100) foot separation upslope and twenty-five (25) foot separation downslope from any building.
- D12. Stabilization and acceptable vegetative cover established over contributing drainage area prior to conveyance of stormwater to the facility.
- D13. No visual signs of erosion or channel degradation immediately downstream of facility.
- D14. Adequate, direct access provided to the pretreatment area and/or filter bed for future maintenance.

**STORMWATER MANAGEMENT / BMP FACILITIES
AS-BUILT PLAN CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

VII. Group E - Open Channel Systems (Includes E-1 Wet Swales (Check Dams); E-2 Dry Swales; and E-3 Biofilters)

- XX E1. All requirements of Section II, Minimum Standards, apply to Group E facilities as applicable.
- XX E2. Open channel system has constructed longitudinal slope of less than four (4) percent.
- XX E3. No visual signs of erosion in the open channel system's soil and/or vegetative cover.
- XX E4. Open channel side slopes are no steeper than 2H:1V at any location. Preferred channel sideslope is 3H:1V or flatter.
- XX E5. No visual signs of ponding are present at any location in the open channel system, except at rock check dam locations for E-1 systems (Wet Swales).
- XX E6. For E-2 BMPs (Dry Swales), an underdrain system was provided.
- N/A E7. Treated timber or rock check dams provided as pretreatment devices for the open channel system.
- N/A E8. Gravel diaphragm provided in areas where lateral sheet flow from impervious surfaces are directly connected to the open channel system.
- XX E9. Grass cover/stabilization in the open channel system appears adaptable to the specific soils and hydric conditions for the site and along the channel system.
- XX E10. Open channel system areas with grass covers higher than four (4) to six (6) inches were properly mowed.
- XX E11. Facility was not used for erosion and sediment control purposes and sediment was prevented from entering the facility to the greatest extent possible during construction.
- XX E12. No visible signs of accumulated silt/sediment were present in the facility following construction or alternately, accumulated silt/sediment was properly removed and no adverse affects to the function of the facility are anticipated.
- N/A E13. For E-3 BMPs (Biofilters), the bottom width is six (6) feet maximum at any location.
- N/A E14. For E-3 BMPs (Biofilters), sideslopes are 3H:1V maximum at any location.
- N/A E15. For E-3 BMPs (Biofilters), the constructed channel slope is less than or equal to three (3) percent at any location.
- N/A E16. For E-3 BMPs (Biofilters), the constructed grass channel is approximately equivalent to the constructed roadway length.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

VIII. Group F - Extended Dry Detention (Includes F-1 Timber Walls; and F-2 Dry Extended Detention with Forebay)

- F1. All requirements of Section II, Minimum Standards, apply to Group F facilities.
- F2. Basin bottom has positive slope and drainage from all basin inflow points to the riser (or outflow) location.
- F3. Timber wall BMP used in intermittent stream only. (ie. Prohibited in perennial streams.)
- F4. Forebay provided approximately 20 ft. upstream of the facility. Forebays generally 4 to 6 feet in depth.
- F5. A reverse slope pipe, vertical stand pipe or mini-barrel and riser was provided to prevent clogging.
- F6. Principal spillway and outlet barrel provided consisting of reinforced concrete pipe with O-Ring gaskets for watertight joint construction.
- F7. Mini-barrel and riser, if used, contains a removable trash rack to reduce clogging.
- F8. Low flow orifice, if used, has a minimum diameter of three (3) inches or two (2) inches if internal orifice control was utilized and a small, cage type external trash rack.
- F9. Timbers properly reinforced or concrete footing provided if soil conditions were prohibitive.
- F10. Timber wall cross members extended to a minimum depth of two (2) feet below ground elevation.
- F11. Protection against erosion and scour from the low flow orifice and weir-flow trajectory provided.
- F12. Stilling basin or standard outlet protection provided at principal spillway outlet.
- F13. Adequate, direct access provided to the facility. Access corridor to facility is at least ten (10) feet wide, slope is less than twenty (20) percent and appropriate stabilization provided for equipment and vehicle use. Access extends to forebay, standpipe and timber wall, as applicable.
- F14. No visual signs of undercutting of timber walls or clogging of the low orifice were present.
- F15. No visual signs of erosion or channel degradation immediately downstream of facility.
- F16. No visible signs of accumulated silt/sediment were present in the facility following construction or alternately, accumulated silt/sediment was properly removed and no adverse affects to the function of the facility are anticipated.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

IX. Group G - Open Spaces *(Includes All Open Space Types G-1; G-2; and G-3)*

- G1. All requirements of Section II, Minimum Standards, apply to Group G facilities as applicable.

- G2. Constructed impervious areas appear to conform with locations indicated on the approved plan and appear less than sixty (60) percent impervious in accordance with the requirements of the James City County Chesapeake Bay Preservation Ordinance.

- G3. Dedicated open space areas are in undisturbed common areas, conservation easements or are protected by other enforceable instruments that ensures perpetual protection.

- G4. Provisions included to clearly specify how the natural vegetated areas utilized as dedicated open space will be managed and field identified (marked).

- G5. Adequate protection measures were implemented during construction to protect the defined dedicated open space areas.

- G6. Dedicated open space areas were not disturbed during construction (ie. cleared, grubbed or graded).

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

(Key for Checklist is as follows: XX Acceptable N/A Not Applicable Inc Incomplete)

X. Storm Drainage Systems (Associated with BMP's Only)

(Includes all incidental stormwater drainage conveyance systems associated with SWM/BMP facilities such as onsite or offsite storm drains, open channels, inlets, manholes, junctions, outlet protections, deflectors, etc. These facilities are external to the treatment function of, but are directly associated with drainage to and/or from a constructed SWM/BMP facility. The intent of this portion of the certification is to accurately identify the type and quantity of inflow or outflow points associated with the facility for future reference. The Professional may use his/her own discretion to determine inclusive facilities to meet the intent of this section. As a general rule, storm drainage systems would include incidental facilities to the nearest access structure upslope or downslope from the normal physical limits of the facility or 800 feet of storm drainage conveyance system length, whichever is less.)

- _____ SD1. All requirements of Section II, Minimum Standards, apply to Storm Drainage Systems.
- _____ SD2. Horizontal location of all pipe and structures relative to the SWM/BMP facility.
- _____ SD3. Type, top elevation and invert elevation of all access type structures (inlets, manholes, etc.).
- _____ SD4. Material type, size or diameter, class, invert elevations, lengths and slopes for all pipe segments.
- _____ SD5. Class, length, width and depth of riprap and outlet protections or dimensions of special energy dissipation structures.

XII. Other Systems

(Includes any non-typical, specialty, manufactured or innovative stormwater management/BMP practices or systems generally accepted for use as or in conjunction with other acceptable stormwater management / BMP practices. Requires evidence of prior satisfactory industry use and prior Environmental Division approval, waiver or exception .)

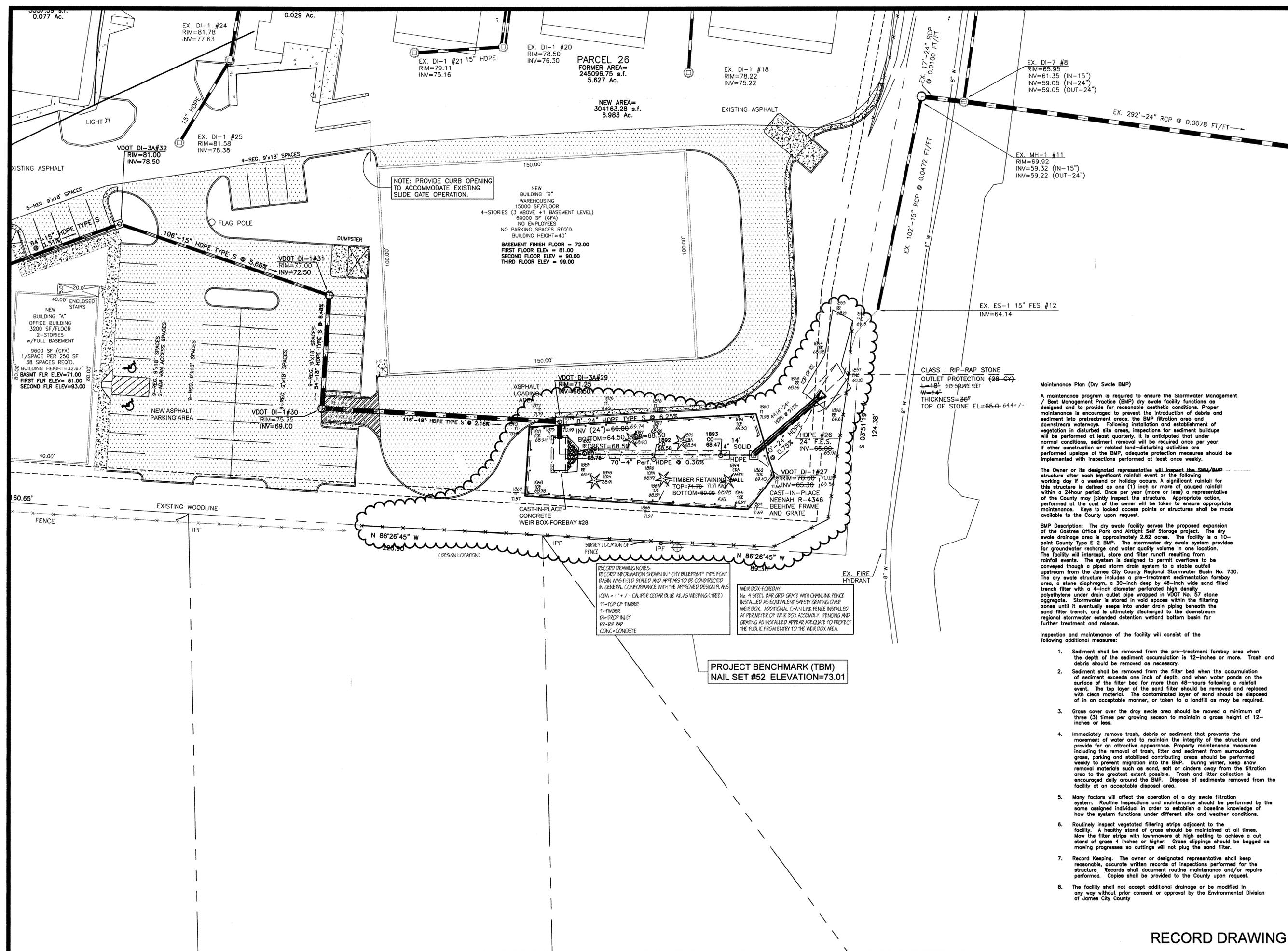
- _____ O1. All requirements of Section II, Minimum Standards, apply to this section.
- _____ O2. Certification criteria to be determined on a case-by-case basis by the Environmental Division specific to the proposed SWM/BMP facility.

**STORMWATER MANAGEMENT / BMP FACILITIES
RECORD DRAWING CHECKLIST**

XIII. References *(The James City County Record Drawing and Construction Certification Forms and Checklists for Stormwater Management / BMP facilities were developed using the following sources and references.)*

- Baltimore County, Maryland Soil Conservation District, As-Built Stormwater Management Pond Checklist.
- James City County, Virginia, Guidelines for Design and Construction of Stormwater Management BMP's (October 1999).
- James City County, Virginia, Stormwater Detention/Retention Basin Design Checklist and Erosion and Sediment Control and Stormwater Management Design Plan Checklists.
- James City County Stormwater Policy Framework, Final Report of the James City County BMP Policy Project, October 1998, The Center for Watershed Protection.
- Prince Georges County, Maryland, As-Built Requirements Retention or Detention Pond/Basin.
- Prince William County, Virginia, Stormwater Management Fact Sheet.
- Stafford County, Virginia, As-Built Plan Checklist.
- Stormwater Management Design Manual, NRCS Maryland Code No. 378, Pond Standards and Specifications.
- USEPA/Watershed Management Institute, Stormwater Management Inspection Forms.
- Virginia Impounding Structure Regulations (Dam Safety), Department of Conservation & Recreation, 1997.
- Virginia Erosion and Sediment Control Handbook, Third Edition 1992, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation.
- Virginia Stormwater Management Handbook, 1999 edition, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation.

File: Shared\SWMProg\BMP\Certi\RDCC.wpd



NOTE: PROVIDE CURB OPENING TO ACCOMMODATE EXISTING SLIDE GATE OPERATION.

NEW BUILDING 'B' WAREHOUSING 15000 SF FLOOR 4-STORIES (3 ABOVE +1 BASEMENT LEVEL) 60000 SF (GFA) NO EMPLOYEES NO PARKING SPACES REQ'D. BUILDING HEIGHT=40' BASEMENT FINISH FLOOR = 72.00 FIRST FLOOR ELEV = 81.00 SECOND FLOOR ELEV = 90.00 THIRD FLOOR ELEV = 99.00

PARCEL 26 FORMER AREA= 245096.75 s.f. 5.627 Ac.

NEW AREA= 304163.28 s.f. 6.983 Ac.

CLASS 1 RIP-RAP STONE OUTLET PROTECTION (28-64) 1'-18" 519 SQUARE FEET W=14" THICKNESS=36" TOP OF STONE EL=65.0-64.4'-

Maintenance Plan (Dry Swale BMP)
A maintenance program is required to ensure the Stormwater Management / Best Management Practice (BMP) dry swale facility functions as designed and to provide for reasonable aesthetic conditions. Proper maintenance is encouraged to prevent the introduction of debris and sediment into pretreatment areas, the BMP filtration area and downstream waterways. Following installation and establishment of vegetation in disturbed site areas, inspections for sediment buildups will be performed at least quarterly. It is anticipated that under normal conditions, sediment removal will be required once per year. If other construction or related land-disturbing activities are performed up slope of the BMP, adequate protection measures should be implemented with inspections performed at least once weekly.

The Owner or its designated representative will inspect the SWM/BMP structure after each significant rainfall event or the following working day if a weekend or holiday occurs. A significant rainfall for this structure is defined as one (1) inch or more of gauged rainfall within a 24-hour period. Once per year (more or less) a representative of the County may jointly inspect the structures. Appropriate action, performed at the cost of the owner will be taken to ensure appropriate maintenance. Keys to locked access points or structures shall be made available to the County upon request.

BMP Description: The dry swale facility serves the proposed expansion of the Oaktree Office Park and Airtight Self Storage project. The dry swale drainage area is approximately 2.82 acres. The facility is a 10-point County Type E-2 BMP. The stormwater dry swale system provides for groundwater recharge and water quality volume in one location. The facility will intercept, store and filter runoff resulting from rainfall events. The system is designed to permit overflows to be conveyed through a piped storm drain system to a stable outfall upstream from the James City County Regional Stormwater Basin No. 730. The dry swale structure includes a pre-treatment sedimentation forebay area, a stone diaphragm, a 30-inch deep by 48-inch wide sand filled trench filter with a 4-inch diameter perforated high density polyethylene under drain outlet pipe wrapped in VDOT No. 57 stone aggregate. Stormwater is stored in void spaces within the filtering zones until it eventually seeps into under drain piping beneath the sand filter trench, and is ultimately discharged to the downstream regional stormwater extended detention wetland bottom basin for further treatment and release.

Inspection and maintenance of the facility will consist of the following additional measures:

1. Sediment shall be removed from the pre-treatment forebay area when the depth of the sediment accumulation is 12-inches or more. Trash and debris should be removed as necessary.
2. Sediment shall be removed from the filter bed when the accumulation of sediment exceeds one inch of depth, and when water ponds on the surface of the filter bed for more than 48-hours following a rainfall event. The top layer of the sand filter should be removed and replaced with clean material. The contaminated layer of sand should be disposed of in an acceptable manner, or taken to a landfill as may be required.
3. Grass cover over the dry swale area should be mowed a minimum of three (3) times per growing season to maintain a grass height of 12-inches or less.
4. Immediately remove trash, debris or sediment that prevents the movement of water and to maintain the integrity of the structure and provide for an attractive appearance. Property maintenance measures including the removal of trash, litter and sediment from surrounding areas, parking and stabilized contributing areas should be performed weekly to prevent migration into the BMP. During winter, keep snow removal materials such as sand, salt or cinders away from the filtration area to the greatest extent possible. Trash and litter collection is encouraged daily around the BMP. Dispose of sediments removed from the facility at an acceptable disposal area.
5. Many factors will affect the operation of a dry swale filtration system. Routine inspections and maintenance should be performed by some assigned individual in order to establish a baseline knowledge of how the system functions under different site and weather conditions.
6. Routinely inspect vegetated filtering strips adjacent to the facility. A healthy stand of grass should be maintained at all times. Mow the filter strips with lawnmowers at high setting to achieve a cut stand of grass 4 inches or higher. Grass clippings should be bagged as mowing progresses so cuttings will not plug the sand filter.
7. Record Keeping. The owner or designated representative shall keep reasonable, accurate written records of inspections performed for the structure. Records shall document routine maintenance and/or repairs performed. Copies shall be provided to the County upon request.
8. The facility shall not accept additional drainage or be modified in any way without prior consent or approval by the Environmental Division of James City County.

RECORD DRAWING NOTES:
RECORD INFORMATION SHOWN IN "CITY BLUEPRINT" TYPE POINT BOUNDARY IS FIELD STAKED AND APPEARS TO BE CONSTRUCTED IN GENERAL CONFORMANCE WITH THE APPROVED DESIGN PLANS (ICBA - 1" = 1' - CALIPER CEDAR BLUE ATLAS WEeping (TREE)
TT-TOP OF TIMBER
T-TIMBER
DI-DROP INLET
RR-RIP RAP
CONC-CONCRETE

WEIR BOX-FORBAY:
No. 4 STEEL BAR GRID GRATE WITH CHAINLINK FENCE INSTALLED AS EQUIVALENT SAFETY GRATING OVER WEIR BOX. ADDITIONAL CHAINLINK FENCE INSTALLED AT PERIMETER OF WEIR BOX ASSEMBLY. FENCING AND GRATING AS INSTALLED APPEAR ADEQUATE TO PROTECT THE PUBLIC FROM ENTRY TO THE WEIR BOX AREA.

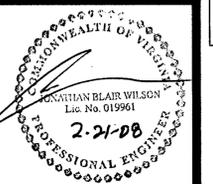
PROJECT BENCHMARK (TBM) NAIL SET #52 ELEVATION=73.01

MITCHELL-WILSON ASSOCIATES, P.C.
CIVIL ENGINEERS & LAND SURVEYORS
720 MAIN STREET, SUITE 112, 2nd FLOOR
P.O. BOX 1269
WEST POINT, VIRGINIA 23181
(804) 843-9744

OAKTREE OFFICE PARK and AIRTIGHT SELF STORAGE
SITE PLAN FOR EXPANSION
3292 and 3356 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

DRAWN: JBW
DESIGN: JBW
REVISIONS:
DATE: 02-21-08
SCALE: 1" = 20'
SHEET R1

I certify, to the best of my knowledge and belief that this record drawing represents the actual condition of the Stormwater Management / BMP Facility. The Facility appears to conform with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.



RECORD DRAWING

SP-28-05;



OWNER:
JEANETTE BRADY DESCENDANTS TRUST
3356 IRONBOUND ROAD, SUITE 401
WILLIAMSBURG, VIRGINIA 23188
(757) 220-9960

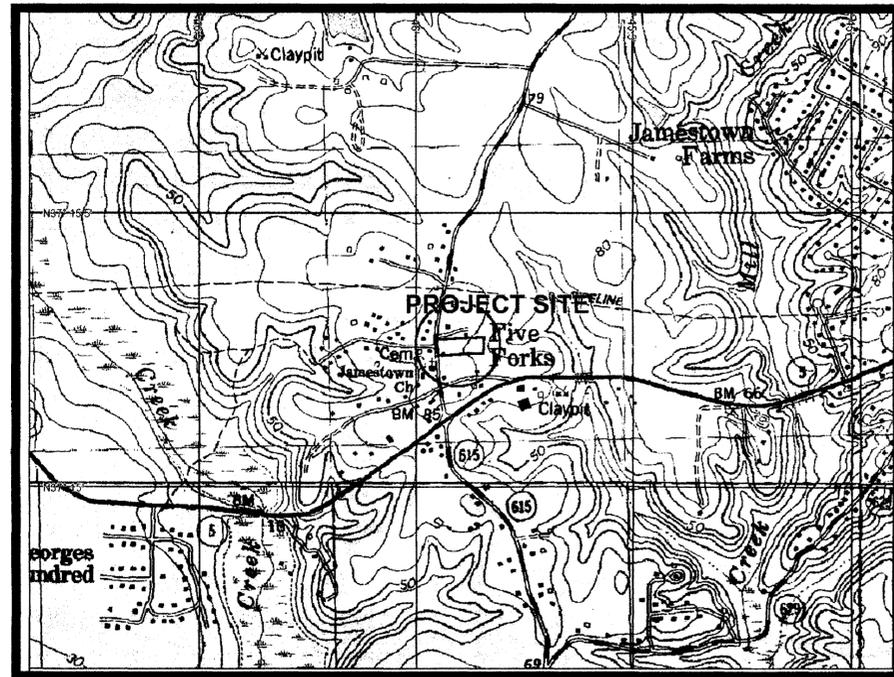
CALL "MISS UTILITY OF VIRGINIA"
 72 HOURS PRIOR TO ANY
 EXCAVATION; 1-800-552-7001

LEGEND

- EXISTING R.R. CROSSING
- EXISTING POWER POLE (PP)
- EXISTING CATV PEDESTAL
- EXISTING TELEPHONE PEDESTAL
- EXISTING SANITARY CLEANOUT (C.O.)
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM INLET (C.D.I./Y.D.)
- EXISTING R.R. CROSSING SIGNAL
- EXISTING MAILBOX/PAPERBOX
- EXISTING RIP-RAP STONE
- EXISTING SHRUB/BUSH
- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- EXISTING AREA LIGHT
- SURVEY CONTROL NAIL FOUND/SET
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING SIGN
- EXISTING WOODLINE
- PROP. TS-TV & VB
- PROP. REDUCER
- PROP. MANUAL ARV & VB
- PROP. THRUST/REACTION BLOCK
- PROP. WATER METER
- PROP. FIRE HYDRANT
- PROP. B.O.V. ASSEMBLY
- PROP. GV & VB
- PROP. 45° BEND
- PROP. 22-1/2" BEND
- PROP. TEE
- TEST PIT
- ROCK CHECK DAM, VEC 3.20
- STONE CONSTRUCTION ENTRANCE, VEC 3.02
- SILT FENCE, VEC 3.05
- TREE PROTECTION, VEC 3.38
- TOPSOILING, PERMANENT SEEDING & MULCHING VEC 3.30/3.32/3.35
- BLANKET/MATTING, VEC 3.36
- EXISTING O.H.E./TELEPHONE or CATV LINES
- EXISTING SANITARY SEWER LINE

OAKTREE OFFICE PARK AND AIRTIGHT SELF STORAGE

SITE PLAN FOR EXPANSION TAX MAP & PARCEL ID NUMBERS: 4710100024 & 471010026 BERKELEY MAGISTERIAL DISTRICT JAMES CITY COUNTY, VIRGINIA PROJECT No. 1921



VICINITY MAP
 SCALE: 1" = 1000'

- SHEET INDEX:**
- | | |
|-----------|--|
| SHEET C1 | TITLE SHEET |
| SHEET C2 | DEMOLITION PLAN |
| SHEET C3 | LAYOUT PLAN |
| SHEET C4 | GRADING, DRAINAGE AND EROSION CONTROL PLAN |
| SHEET C5 | UTILITIES PLAN |
| SHEET C6 | ILLUMINATION PLAN |
| SHEET C7 | SANITARY PROFILES |
| SHEET C8 | OVERALL SITE PLAN |
| SHEET C9 | STORM DRAIN PROFILE |
| SHEET C10 | STORM DRAIN PROFILE |
| SHEET C11 | STORM DRAIN PROFILE |
| SHEET C12 | DRAINAGE AREA MAP |
| SHEET C13 | ENVIRONMENTAL INVENTORY |
| SHEET C14 | NOTES & DETAILS |
| SHEET C15 | NOTES & DETAILS |
| SHEET C16 | NOTES & DETAILS |
| SHEET C17 | NOTES & DETAILS |
| SHEET C18 | WATERLINE PROFILES |
| SHEET C19 | LANDSCAPE PLAN |
- SEE PREVIOUSLY APPROVED SITE PLAN No. SP-23-98

NOTE:
 See "WATER CONSERVATION STANDARDS FOR THE NEW ADDITION TO OAKTREE OFFICE PARK & AIRTIGHT SELF-STORAGE" dated September 20, 2005 as executed by Jeanette Brady, Trustee for the Jeanette Brady Descendants Trust.

THE PLANNING DIRECTOR HAS GRANTED A WAIVER TO SECTION 24-96(c)(1) OF THE ZONING ORDINANCE PERTAINING TO THE 15-FOOT CONSTRUCTION ZONE SETBACK. THE WAIVER HAS BEEN GRANTED DUE TO THE REQUIRED DEDICATION OF ADDITIONAL RIGHT-OF-WAY ALONG IRONBOUND ROAD, STATE ROUTE 615, FOR THE RIGHT-TURN TAPER INSTALLATION AND THE PROVISION OF ENHANCED LANDSCAPING WITHIN THE COMMUNITY CHARACTER CORRIDOR.

THIS PROJECT IS SUBJECT TO THE ESTABLISHED PRIMARY PRINCIPLES FOR THE FIVE FORKS AREA OF JAMES CITY COUNTY.

THIS PROJECT IS LOCATED IN THE MILL CREEK WATERSHED.

RETAINING WALLS PROPOSED WITH THIS PROJECT MAY REQUIRE A BUILDING PERMIT FROM THE JAMES CITY COUNTY CODES COMPLIANCE DIVISION.

LOT COVERAGE-BUILDING FOOTPRINT-GROSS FLOOR AREA CALCULATIONS:				
EXISTING BUILDINGS	FOOTPRINT (EXTERIOR DIMENSIONS) (SQUARE FEET)	NUMBER OF FLOORS	GROSS FLOOR AREA (SQUARE FEET)	USE
3337.39		2	6674.78	OFFICE
3324.97		2	6649.94	OFFICE
3322.61		2	6645.22	OFFICE
1273.04		1	1273.04	OFFICE
SUBTOTAL=		11258.01		EXISTING OFFICE
4260.64		1	4260.64	WAREHOUSE
10529.70		1	10529.70	WAREHOUSE
10349.97		2	20699.94	WAREHOUSE
12452.93		2	24905.86	WAREHOUSE
3091.21		1	3091.21	WAREHOUSE
SUBTOTAL=		40684.45		EXISTING WAREHOUSE
NEW BUILDINGS				
	FOOTPRINT (EXTERIOR DIMENSIONS) (SQUARE FEET)	NUMBER OF FLOORS	GROSS FLOOR AREA (SQUARE FEET)	USE
	3200.00	3	9600.00	OFFICE
	15000.00	4	60000.00	WAREHOUSE
SUBTOTAL=		18200.00		
SUBTOTAL=		11258.01	21242.98	EXISTING OFFICE
SUBTOTAL=		40684.45	63487.35	EXISTING WAREHOUSE
SUBTOTAL=		18200.00	69600.00	

STATISTICAL DATA:

TAX PARCEL No. (47-1)(1-24) AND (47-1)(1-26)
 TOTAL AREA: PARCEL (47-1)(1-24) = 1.356 ACRES
 PARCEL (47-1)(1-26) = 5.627 ACRES
 TOTAL BOTH PARCELS = 6.983 ACRES
 ZONING: GENERAL BUSINESS, B-1, with PROFFERS
 SETBACKS: FRONT=50-FEET
 SIDE =20-FEET
 REAR=20-FEET
 BUILDING HEIGHT =32.67-FEET(Office Bldg.); 40.0-feet (Storage Bldg.)
 PROPOSED USE: NEW OFFICE SPACE and WAREHOUSING

TOTAL (EXISTING + NEW) OFFICE FOOTPRINT	= 14458.01 S.F.
TOTAL (EXISTING + NEW) OFFICE GFA	= 30842.98 S.F.
TOTAL (EXISTING + NEW) WAREHOUSE FOOTPRINT	= 55684.45 S.F.
TOTAL (EXISTING + NEW) WAREHOUSE GFA	= 123487.35 S.F.
TOTAL (EXISTING + NEW) BUILDING FOOTPRINT	= /0142.46 S.F. (F.A.R.=23%)
TOTAL (EXISTING + NEW) GROSS FLOOR AREA	= 154330.33 S.F. (G.F.A.R.=51%)

SIGNAGE: LOCATION SHOWN. SIGNAGE TO COMPLY WITH CODE SEC. 24-70.
 REFUSE COLLECTION FACILITIES: SCREENED DUMPSTERS

PROJECT ENTRANCE: EXISTING VDOT CG-11 ENTRANCE
 100-FOOT TAPER MODIFICATION PROPOSED
 WATER SUPPLY: PUBLIC, JCSA CENTRAL WATER SYSTEM
 WASTEWATER: PUBLIC, JCSA SANITARY SEWER COLLECTION SYSTEM

TOTAL EXISTING SITE IMPERVIOUSNESS: 131983.12 S.F. or 3.03 AC (43%)
 TOTAL NEW IMPERVIOUS AREA: 43795.77 S.F. or 1.00 AC
 TOTAL IMPERVIOUS AREA: 175778.89 S.F. or 4.03 AC (58%)
 TOTAL GREENSPACE PROVIDED: 2.953 AC (42%)
 WOODED AREA = 0.11 AC (1%)
 LAWN/LANDSCAPED = 2.843 AC (41%)
 TOTAL AREA OF LAND DISTURBANCE = 72331 S.F. or 1.66 AC

TOTAL NEW BUILDING FOOTPRINT = 18200 S.F. (6%)
 TOTAL NEW BUILDING FLOOR AREA = 69600 S.F. (23%)
 NUMBER OF FLOORS = 4-WAREHOUSE; 3-OFFICE

PARKING ANALYSIS
 REQUIRED PARKING:
 SEC. 24-59 CATEGORY B
 1 SPACE PER 250 S.F.(GFA) OFFICE SPACE
 TOTAL No. NEW PARKING SPACES (REQUIRED)= 38
 TOTAL No. NEW PARKING SPACES (PROVIDED)= 38
 TOTAL No. ADA SPACES= 2 (VAN ACCESSIBLE)

RESPONSIBLE LAND DISTURBER: JONATHAN BLAIR WILSON, P.E. (#019961)
 A VPDES PERMIT IS REQUIRED PER 9 VAC 25-180-10 et seq. FOR THIS PROJECT.

PLANNING DIVISION NOTES:

- ALL UTILITIES SHALL BE PLACED UNDERGROUND.
- ALL SIGNAGE SHALL BE IN ACCORDANCE WITH ARTICLE II, DIVISION 3 OF THE JAMES CITY COUNTY ZONING ORDINANCE.
- ANY EXTERIOR HVAC EQUIPMENT SUCH AS HEAT PUMP COILS WILL BE LOCATED AT THE REAR OF THE NEW BUILDING.

JCSA NOTES:

- ANY EXISTING UNUSED WELLS SHALL BE ABANDONED IN ACCORDANCE WITH STATE PRIVATE WELL REGULATIONS AND JAMES CITY COUNTY CODE.

VDOT NOTES:

- VDOT DOES NOT ASSUME RESPONSIBILITY FOR MAINTENANCE OF THE DETENTION/RETENTION POND OR ITS STRUCTURES, AND SHALL BE SAVED HARMLESS FROM ANY DAMAGES.

ENVIRONMENTAL DIVISION:

- A LAND DISTURBING PERMIT AND SILTATION AGREEMENT, WITH SURETY, ARE REQUIRED FOR THIS PROJECT.
- THE PROJECT PLAN NUMBER IS SP-28-05.
- A STANDARD INSPECTION/MAINTENANCE AGREEMENT IS REQUIRED TO BE EXECUTED WITH THE COUNTY DUE TO THE PROPOSED STORMWATER CONVEYANCE SYSTEMS AND STORMWATER MANAGEMENT/BMP FACILITIES ASSOCIATED WITH THIS PROJECT.
- RECORD DRAWINGS AND CONSTRUCTION CERTIFICATION. THE STORMWATER MANAGEMENT/BMP FACILITY PROPOSED FOR THIS PROJECT WILL REQUIRE SUBMISSION, REVIEW AND APPROVAL OF A RECORD DRAWING (AS-BUILT) AND CONSTRUCTION CERTIFICATION PRIOR TO THE RELEASE OF THE POSTED BOND/SURETY. CONSTRUCTION OF THE BMP FACILITY WILL REQUIRE CERTIFICATION BY A VIRGINIA LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE JAMES CITY COUNTY ENVIRONMENTAL DIVISION CONSTRUCTION CERTIFICATION REQUIREMENTS. THE PROFESSIONAL ENGINEER WILL BE REQUIRED TO CONDUCT FIELD OBSERVATIONS AND INSPECTIONS DURING THE CONSTRUCTION OF THE BMP IN ORDER TO PROVIDE THE REQUIRED CERTIFICATIONS.
- SEE THE NOTES ABOVE REGARDING THE VPDES PERMIT REQUIREMENT FOR THIS PROJECT.
- ENVIRONMENTAL INVENTORY. NO TIDAL OR NON-TIDAL WETLANDS APPEAR TO BE LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS. NO TIDAL OR NON-TIDAL WETLANDS WILL BE DISTURBED WITH THE PROPOSED DEVELOPMENT. NO CBPA FEATURES ARE INVOLVED WITH THIS PROJECT. SEE SHEET C13 OF THIS PLAN SET.

SEP 2005 RECEIVED PLANNING DEPARTMENT

SEP 2005 RECEIVED PLANNING DEPARTMENT

SP-028-05

COUNTY OF JAMES CITY
 FINAL SITE PLAN

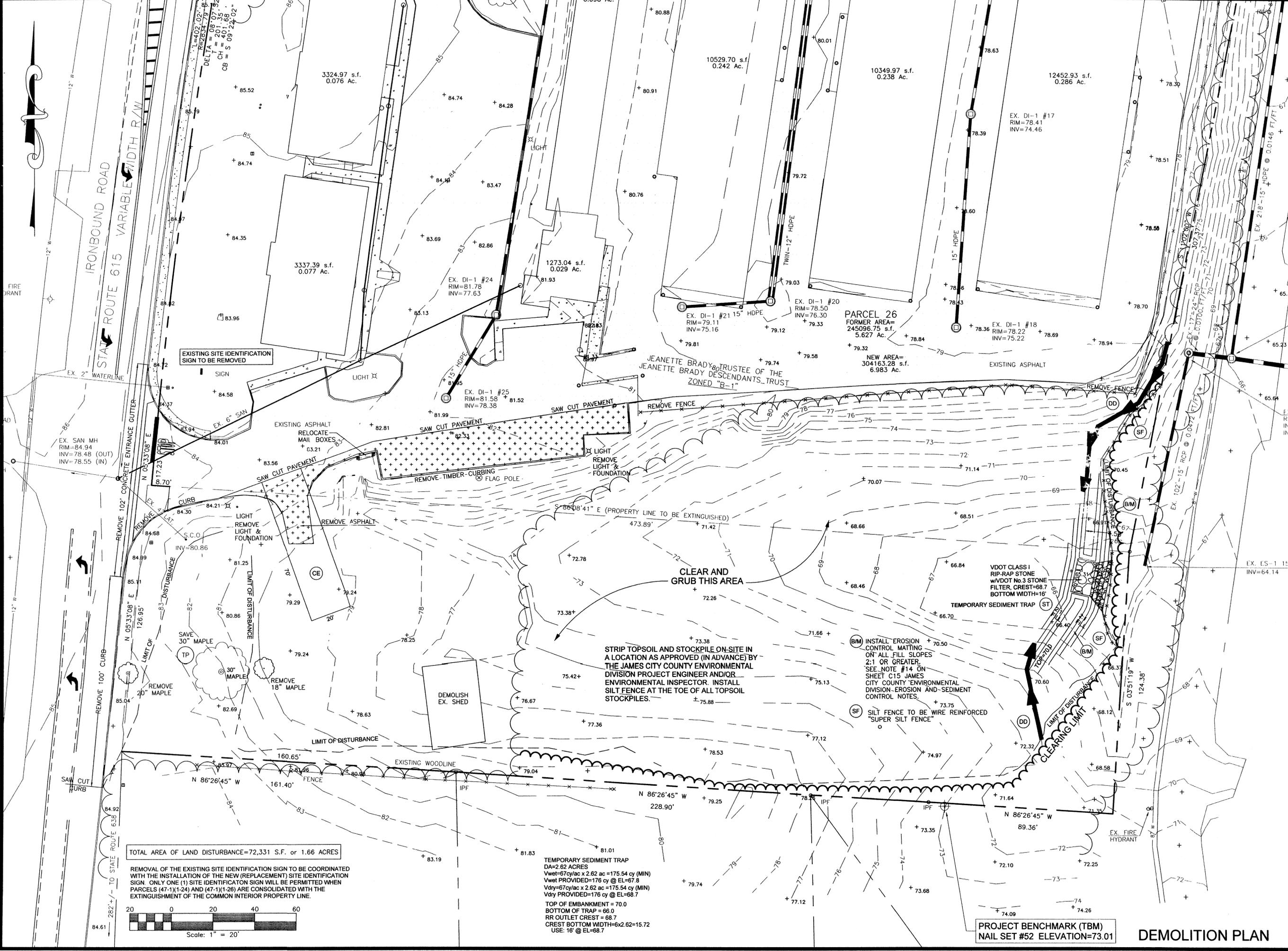
APPROVALS	DATE
Fire Dept. <i>[Signature]</i>	10/20/05
Health Dept. <i>[Signature]</i>	10/20/05
VDOT <i>[Signature]</i>	10/20/05
Planning <i>[Signature]</i>	10/20/05
Emergency <i>[Signature]</i>	10/20/05
Stormwater <i>[Signature]</i>	10/20/05
JCSA <i>[Signature]</i>	10/20/05
County Eng. <i>[Signature]</i>	10/20/05
REA	
Other	

MITCHELL-WILSON ASSOCIATES, P.C.
 CIVIL ENGINEERS & LAND SURVEYORS
 720 MAIN STREET, SUITE 112, 2nd FLOOR
 P.O. BOX 1269
 WEST POINT, VIRGINIA 23181
 (804) 843-9744

**OAKTREE OFFICE PARK
 and AIRTIGHT SELF STORAGE**
 SITE PLAN FOR EXPANSION
 3292 and 3356 IRONBOUND ROAD
 WILLIAMSBURG, VIRGINIA 23188
 JCC CASE No. SP-28-05
 JAMES CITY COUNTY, VIRGINIA

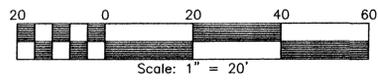
DESIGN: JBW
 DRAWN: JBW
 REVISIONS:
 1. PER JCC REVIEW 06-09-05
 2. PER JCC 04 COMMENTS 9-22-05
 DATE: 03-09-05
 SCALE: AS SHOWN
SHEET C1





TOTAL AREA OF LAND DISTURBANCE=72,331 S.F. or 1.66 ACRES

REMOVAL OF THE EXISTING SITE IDENTIFICATION SIGN TO BE COORDINATED WITH THE INSTALLATION OF THE NEW (REPLACEMENT) SITE IDENTIFICATION SIGN. ONLY ONE (1) SITE IDENTIFICATION SIGN WILL BE PERMITTED WHEN PARCELS (47-1)(1-24) AND (47-1)(1-26) ARE CONSOLIDATED WITH THE EXTINGUISHMENT OF THE COMMON INTERIOR PROPERTY LINE.



TEMPORARY SEDIMENT TRAP
DA=2.62 ACRES
Vwet=67cy/ac x 2.62 ac =175.54 cy (MIN)
Vwet PROVIDED=176 cy @ EL=67.8
Vdry=67cy/ac x 2.62 ac =175.54 cy (MIN)
Vdry PROVIDED=176 cy @ EL=68.7
TOP OF EMBANKMENT = 70.0
BOTTOM OF TRAP = 66.0
RR OUTLET CREST = 68.7
CREST BOTTOM WIDTH=6x2.62=15.72
USE: 16' @ EL=68.7

STRIP TOPSOIL AND STOCKPILE ON-SITE IN A LOCATION AS APPROVED (IN ADVANCE) BY THE JAMES CITY COUNTY ENVIRONMENTAL DIVISION PROJECT ENGINEER AND/OR ENVIRONMENTAL INSPECTOR. INSTALL SILT FENCE AT THE TOE OF ALL TOPSOIL STOCKPILES.

CLEAR AND GRUB THIS AREA

(BM) INSTALL EROSION CONTROL MATTING ON ALL FILL SLOPES 2:1 OR GREATER. SEE NOTE #14 ON SHEET C15 JAMES CITY COUNTY ENVIRONMENTAL DIVISION-EROSION AND SEDIMENT CONTROL NOTES.

(SF) SILT FENCE TO BE WIRE REINFORCED "SUPER SILT FENCE"

VDOT CLASS I RIP-RAP STONE w/VDOT No.3 STONE FILTER, CREST=68.7 BOTTOM WIDTH=16'

PROJECT BENCHMARK (TBM)
NAIL SET #52 ELEVATION=73.01

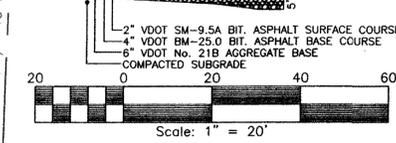
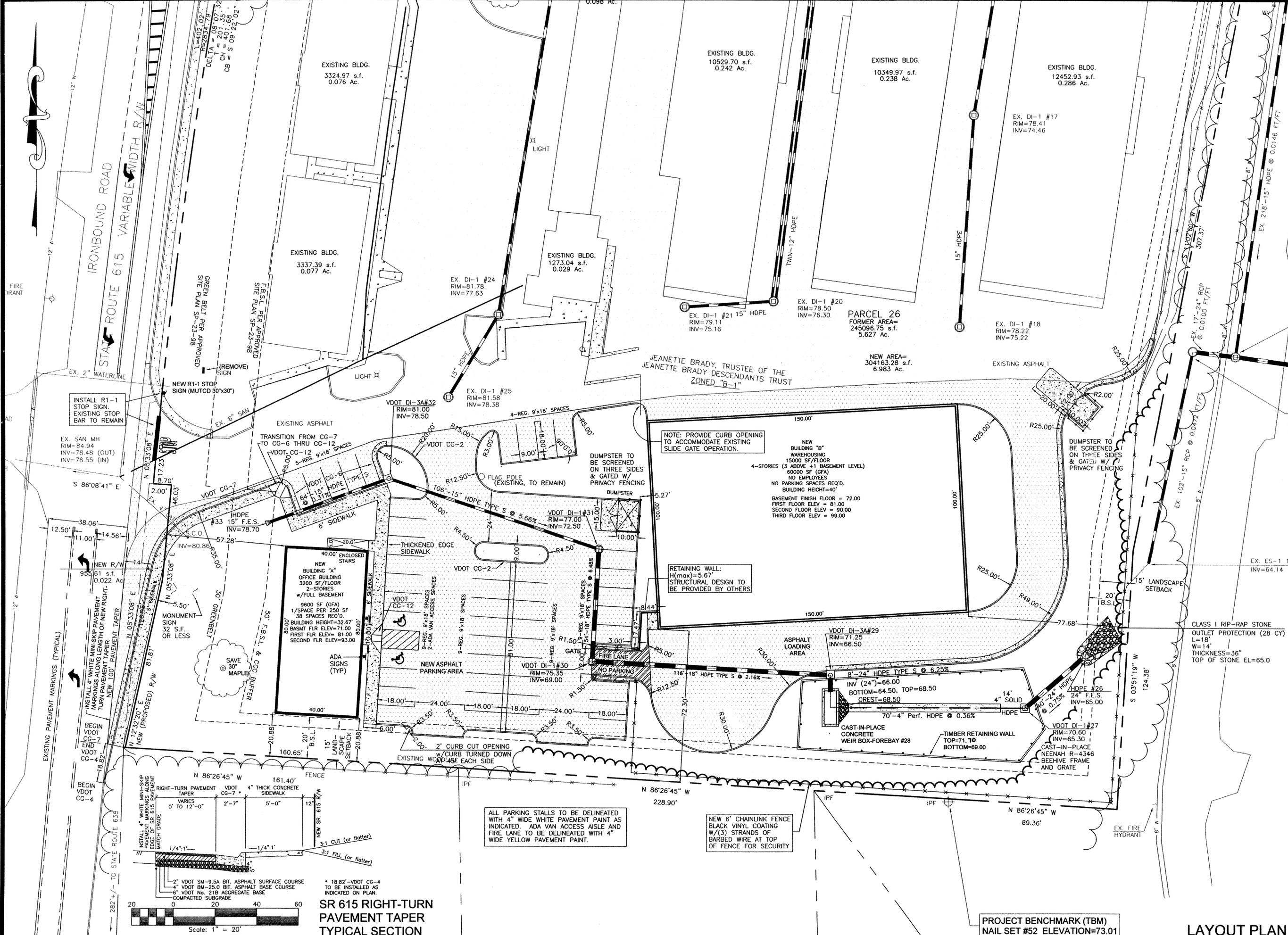
DEMOLITION PLAN

MITCHELL-WILSON ASSOCIATES, P.C.
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**OAKTREE OFFICE PARK
and AIRTIGHT SELF STORAGE**
SITE PLAN FOR EXPANSION
3292 and 3356 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW	DRAWN: JBW
REVISIONS: 1. Per County Review 05-25-05	SCALE: 1" = 20'
DATE: 03-09-05	SHEET C2





SR 615 RIGHT-TURN PAVEMENT TAPER TYPICAL SECTION

ALL PARKING STALLS TO BE DELINEATED WITH 4" WIDE WHITE PAVEMENT PAINT AS INDICATED. ADA VAN ACCESS AISLE AND FIRE LANE TO BE DELINEATED WITH 4" WIDE YELLOW PAVEMENT PAINT.

NEW 6' CHAINLINK FENCE BLACK VINYL COATING W/(3) STRANDS OF BARBED WIRE AT TOP OF FENCE FOR SECURITY

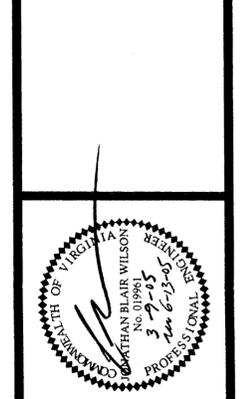
PROJECT BENCHMARK (TBM)
NAIL SET #52 ELEVATION=73.01

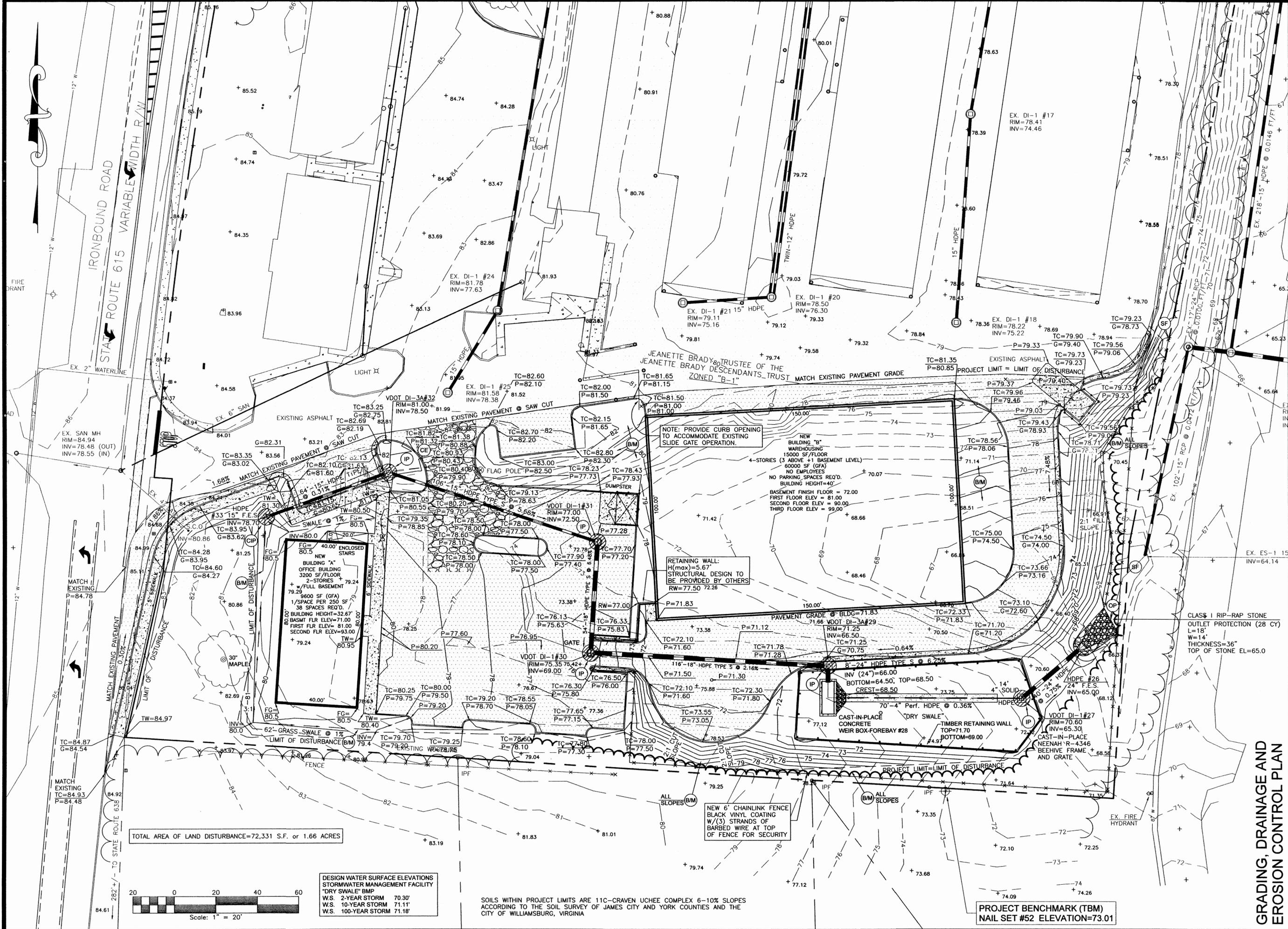
LAYOUT PLAN

MITCHELL-WILSON ASSOCIATES, P.C.
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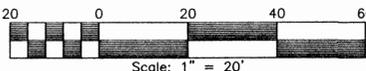
OAKTREE OFFICE PARK and AIRTIGHT SELF STORAGE
SITE PLAN FOR EXPANSION
3292 and 3356 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW	DRAWN: JBW
REVISIONS: 1. Per County Review 05-25-05	SCALE: 1" = 20'
DATE: 02-21-05	SHEET C3





TOTAL AREA OF LAND DISTURBANCE=72,331 S.F. or 1.66 ACRES



DESIGN WATER SURFACE ELEVATIONS
STORMWATER MANAGEMENT FACILITY
"DRY SWALE" BMP
W.S. 2-YEAR STORM 70.30'
W.S. 10-YEAR STORM 71.11'
W.S. 100-YEAR STORM 71.18'

SOILS WITHIN PROJECT LIMITS ARE 11C-CRAVEN UCHEE COMPLEX 6-10% SLOPES
ACCORDING TO THE SOIL SURVEY OF JAMES CITY AND YORK COUNTIES AND THE
CITY OF WILLIAMSBURG, VIRGINIA

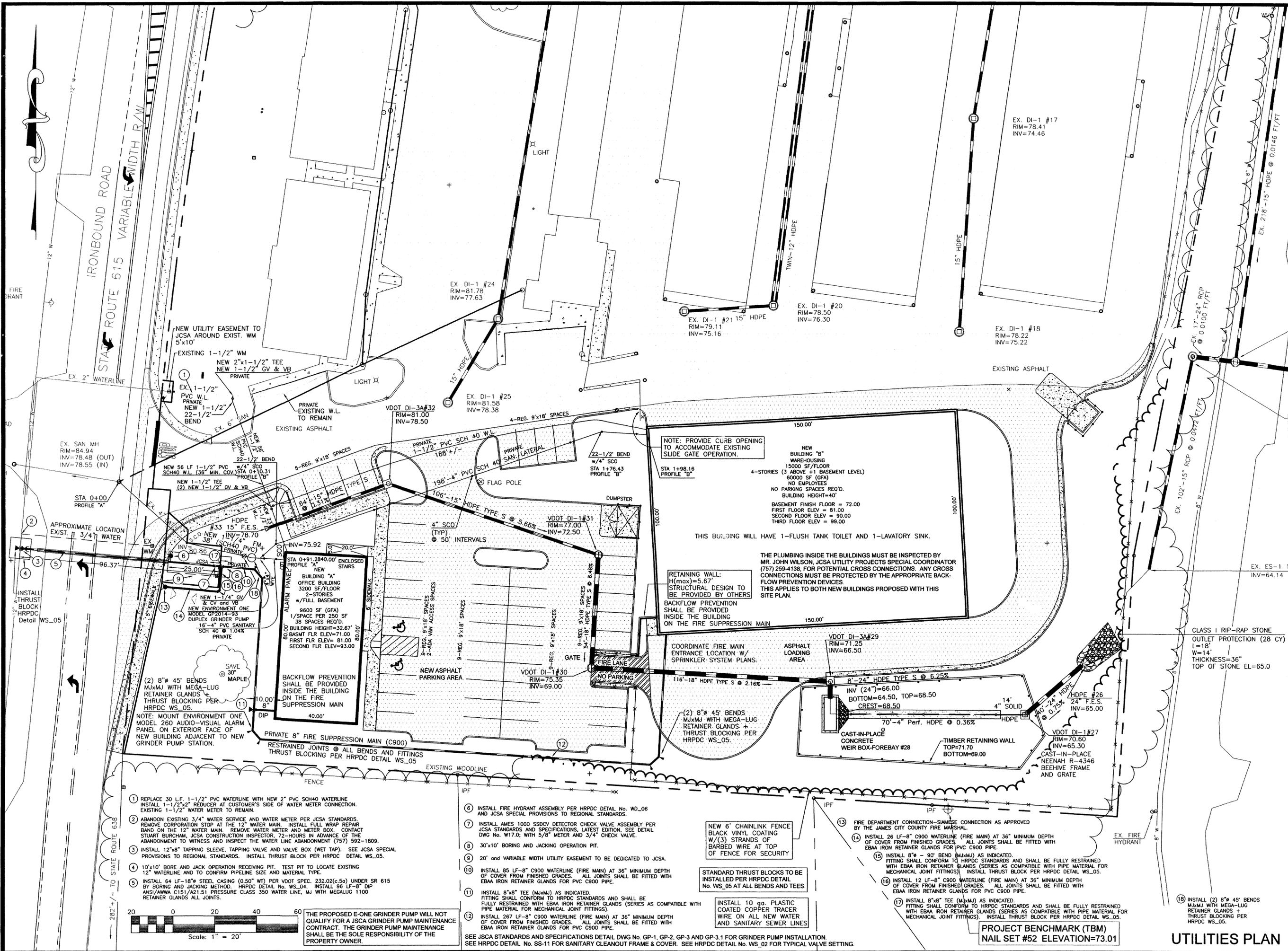
PROJECT BENCHMARK (TBM)
NAIL SET #52 ELEVATION=73.01

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SITE PLAN FOR EXPANSION
3292 and 3356 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW
DRAWN: JBW
REVISIONS:
1. Per County Review 05-25-05
DATE: 02-21-05
SCALE: 1" = 20'
SHEET C4

**GRADING, DRAINAGE AND
EROSION CONTROL PLAN**



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 SITE PLAN FOR EXPANSION
 3292 and 3356 IRONBOUND ROAD
 WILLIAMSBURG, VIRGINIA 23188
 JCC CASE No. SP-28-05
 JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW
 DRAWN: JBW
 REVISIONS:
 1. Per County Review 06-06-05
 2. Per JCSA Comments 09-22-05
 DATE: 03-08-05
 SCALE: 1" = 20'

SHEET C5

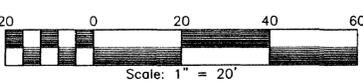
PROJECT #52 ELEVATION=73.01

UTILITIES PLAN

- REPLACE 30 LF 1-1/2" PVC WATERLINE WITH NEW 2" PVC SCH40 WATERLINE. INSTALL 1-1/2" REDUCER AT CUSTOMER'S SIDE OF WATER METER CONNECTION. EXISTING 1-1/2" WATER METER TO REMAIN.
- ABANDON EXISTING 3/4" WATER SERVICE AND WATER METER PER JCSA STANDARDS. REMOVE CORPORATION STOP AT THE 12" WATER MAIN. INSTALL FULL WRAP REPAIR BAND ON THE 12" WATER MAIN. REMOVE WATER METER AND METER BOX. CONTACT STUART BURCHAM, JCSA CONSTRUCTION INSPECTOR, 72-HOURS IN ADVANCE OF THE ABANDONMENT TO WITNESS AND INSPECT THE WATER LINE ABANDONMENT (757) 592-1809.
- INSTALL 12"x8" TAPPING SLEEVE, TAPPING VALVE AND VALVE BOX (WET TAP). SEE JCSA SPECIAL PROVISIONS TO REGIONAL STANDARDS. INSTALL THRUST BLOCK PER HRPDC DETAIL WS_05.
- 10'x10' BORE AND JACK OPERATION RECEIVING PIT. TEST PIT TO LOCATE EXISTING 12" WATERLINE AND TO CONFIRM PIPELINE SIZE AND MATERIAL TYPE.
- INSTALL 64 LF-18" STEEL CASING (0.50" WT) PER VDOT SPEC. 232.02(c.5b) UNDER SR 615 BY BORING AND JACKING METHOD. HRPDC DETAIL No. WS_04. INSTALL 96 LF-8" DIP ANSII/AWWA C151/A21.51 PRESSURE CLASS 350 WATER LINE, MJ WITH MEGALUG 1100 RETAINER GLANDS ALL JOINTS.

- INSTALL FIRE HYDRANT ASSEMBLY PER HRPDC DETAIL No. WD_06 AND JCSA SPECIAL PROVISIONS TO REGIONAL STANDARDS.
- INSTALL AMES 1000 SDDCV DETECTOR CHECK VALVE ASSEMBLY PER JCSA STANDARDS AND SPECIFICATIONS, LATEST EDITION, SEE DETAIL DWG No. W17.0; WITH 5/8" METER AND 3/4" CHECK VALVE.
- 30'x10' BORING AND JACKING OPERATION PIT.
- 20' and VARIABLE WIDTH UTILITY EASEMENT TO BE DEDICATED TO JCSA.
- INSTALL 85 LF-8" C900 WATERLINE (FIRE MAIN) AT 36" MINIMUM DEPTH OF COVER FROM FINISHED GRADES. ALL JOINTS SHALL BE FITTED WITH EBAA IRON RETAINER GLANDS FOR PVC C900 PIPE.
- INSTALL 8"x8" TEE (MJxMJ) AS INDICATED. FITTING SHALL CONFORM TO HRPDC STANDARDS AND SHALL BE FULLY RESTRAINED WITH EBAA IRON RETAINER GLANDS (SERIES AS COMPATIBLE WITH PIPE MATERIAL FOR MECHANICAL JOINT FITTINGS).
- INSTALL 267 LF-8" C900 WATERLINE (FIRE MAIN) AT 36" MINIMUM DEPTH OF COVER FROM FINISHED GRADES. ALL JOINTS SHALL BE FITTED WITH EBAA IRON RETAINER GLANDS FOR PVC C900 PIPE.

- INSTALL 10 GA. PLASTIC COATED COPPER TRACER WIRE ON ALL NEW WATER AND SANITARY SEWER LINES.
- NEW 6" CHAINLINK FENCE BLACK VINYL COATING W/(3) STRANDS OF BARBED WIRE AT TOP OF FENCE FOR SECURITY.
- FIRE DEPARTMENT CONNECTION-SIAMESE CONNECTION AS APPROVED BY THE JAMES CITY COUNTY FIRE MARSHAL.
- INSTALL 26 LF-8" C900 WATERLINE (FIRE MAIN) AT 36" MINIMUM DEPTH OF COVER FROM FINISHED GRADES. ALL JOINTS SHALL BE FITTED WITH EBAA IRON RETAINER GLANDS FOR PVC C900 PIPE.
- INSTALL 8" - 90° BEND (MJxMJ) AS INDICATED. FITTING SHALL CONFORM TO HRPDC STANDARDS AND SHALL BE FULLY RESTRAINED WITH EBAA IRON RETAINER GLANDS (SERIES AS COMPATIBLE WITH PIPE MATERIAL FOR MECHANICAL JOINT FITTINGS). INSTALL THRUST BLOCK PER HRPDC DETAIL WS_05.
- INSTALL 12 LF-8" C900 WATERLINE (FIRE MAIN) AT 36" MINIMUM DEPTH OF COVER FROM FINISHED GRADES. ALL JOINTS SHALL BE FITTED WITH EBAA IRON RETAINER GLANDS FOR PVC C900 PIPE.
- INSTALL 8"x8" TEE (MJxMJ) AS INDICATED. FITTING SHALL CONFORM TO HRPDC STANDARDS AND SHALL BE FULLY RESTRAINED WITH EBAA IRON RETAINER GLANDS (SERIES AS COMPATIBLE WITH PIPE MATERIAL FOR MECHANICAL JOINT FITTINGS). INSTALL THRUST BLOCK PER HRPDC DETAIL WS_05.
- INSTALL (2) 8" 45° BENDS MJxMJ WITH MEGA-LUG RETAINER GLANDS + THRUST BLOCKING PER HRPDC WS_05.

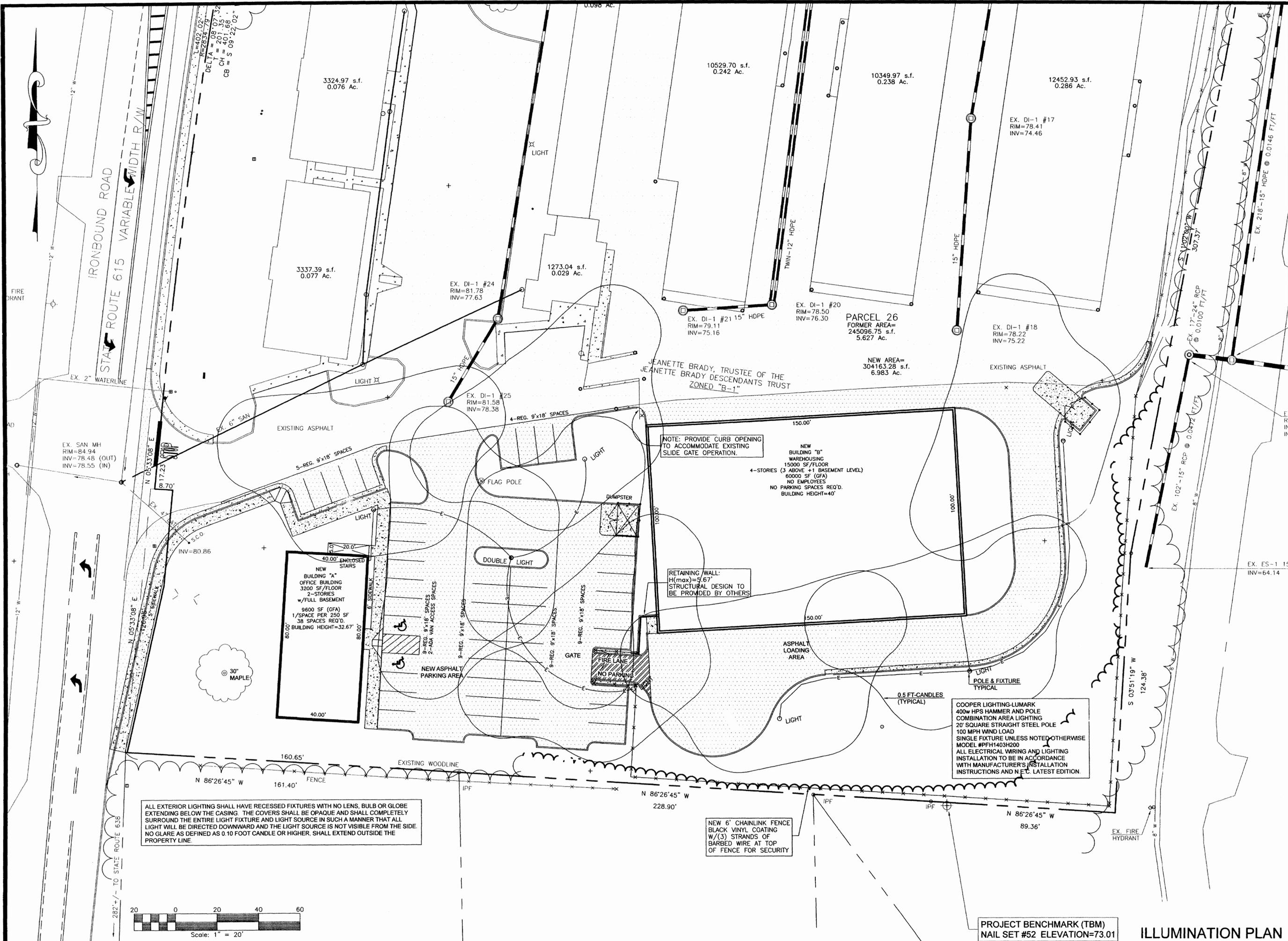


THE PROPOSED E-ONE GRINDER PUMP WILL NOT QUALIFY FOR A JCSA GRINDER PUMP MAINTENANCE CONTRACT. THE GRINDER PUMP MAINTENANCE SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER.

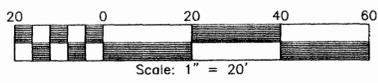
SEE JCSA STANDARDS AND SPECIFICATIONS DETAIL DWG No. GP-1, GP-2, GP-3 AND GP-3.1 FOR GRINDER PUMP INSTALLATION. SEE HRPDC DETAIL No. SS-11 FOR SANITARY CLEANOUT FRAME & COVER. SEE HRPDC DETAIL No. WS_02 FOR TYPICAL VALVE SETTING.

PROJECT #52 ELEVATION=73.01

UTILITIES PLAN



ALL EXTERIOR LIGHTING SHALL HAVE RECESSED FIXTURES WITH NO LENS, BULB OR GLOBE EXTENDING BELOW THE CASING. THE COVERS SHALL BE OPAQUE AND SHALL COMPLETELY SURROUND THE ENTIRE LIGHT FIXTURE AND LIGHT SOURCE IN SUCH A MANNER THAT ALL LIGHT WILL BE DIRECTED DOWNWARD AND THE LIGHT SOURCE IS NOT VISIBLE FROM THE SIDE. NO GLARE AS DEFINED AS 0.10 FOOT CANDLE OR HIGHER, SHALL EXTEND OUTSIDE THE PROPERTY LINE.



NOTE: PROVIDE CURB OPENING TO ACCOMMODATE EXISTING SLIDE GATE OPERATION.

RETAINING WALL: H(max)=5.67' STRUCTURAL DESIGN TO BE PROVIDED BY OTHERS

COOPER LIGHTING-LUMARK 400w HPS HAMMER AND POLE COMBINATION AREA LIGHTING 20' SQUARE STRAIGHT STEEL POLE 100 MPH WIND LOAD SINGLE FIXTURE UNLESS NOTED OTHERWISE MODEL #PHH403H200 ALL ELECTRICAL WIRING AND LIGHTING INSTALLATION TO BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND N.E.C. LATEST EDITION.

NEW 6" CHAINLINK FENCE BLACK VINYL COATING W/(3) STRANDS OF BARBED WIRE AT TOP OF FENCE FOR SECURITY

PROJECT BENCHMARK (TBM) NAIL SET #52 ELEVATION=73.01

ILLUMINATION PLAN

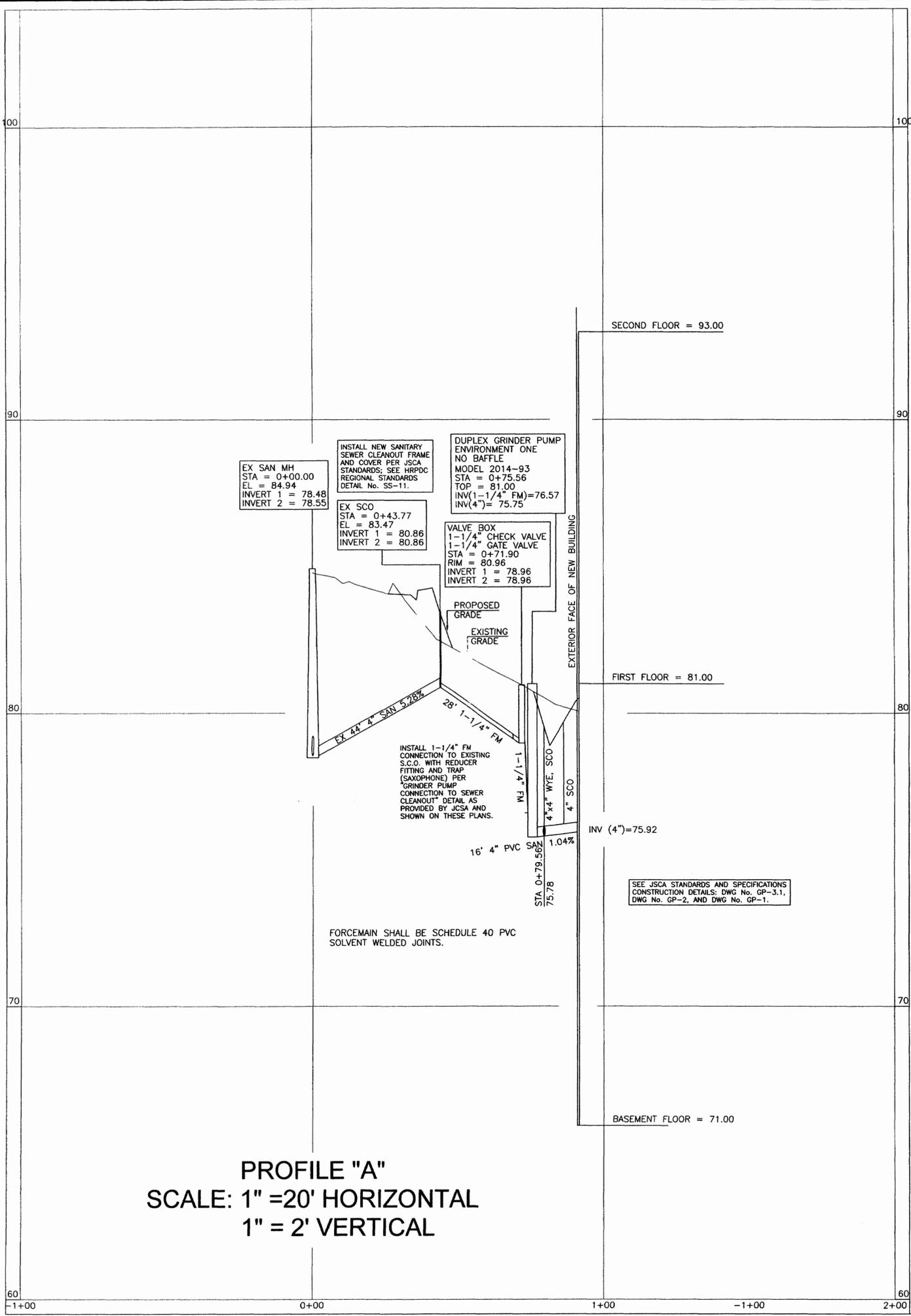
MITCHELL-WILSON ASSOCIATES, P.C.
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OAKTREE OFFICE PARK and AIRTIGHT SELF STORAGE
 SITE PLAN FOR EXPANSION
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 WILLIAMSBURG, VIRGINIA 23188
 JCC CASE NO. SP-28-05
 JAMES CITY COUNTY, VIRGINIA

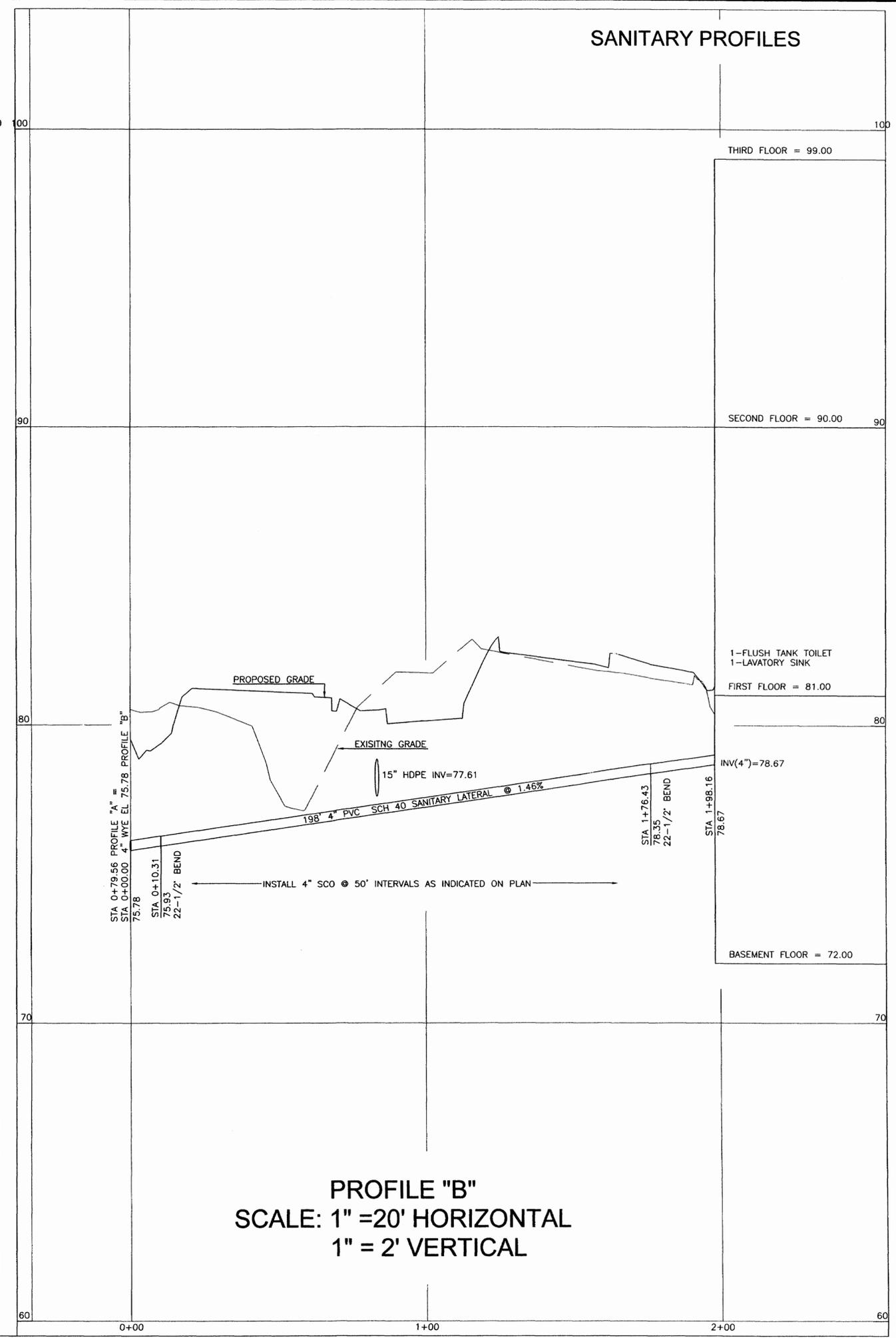
DESIGN: JBW	DRAWN: JBW
REVISIONS: 1. PER JCC REVIEW 06-06-05	SCALE: 1" = 20'
DATE: 02-21-05	SHEET C6



SANITARY PROFILES



PROFILE "A"
SCALE: 1" =20' HORIZONTAL
1" = 2' VERTICAL



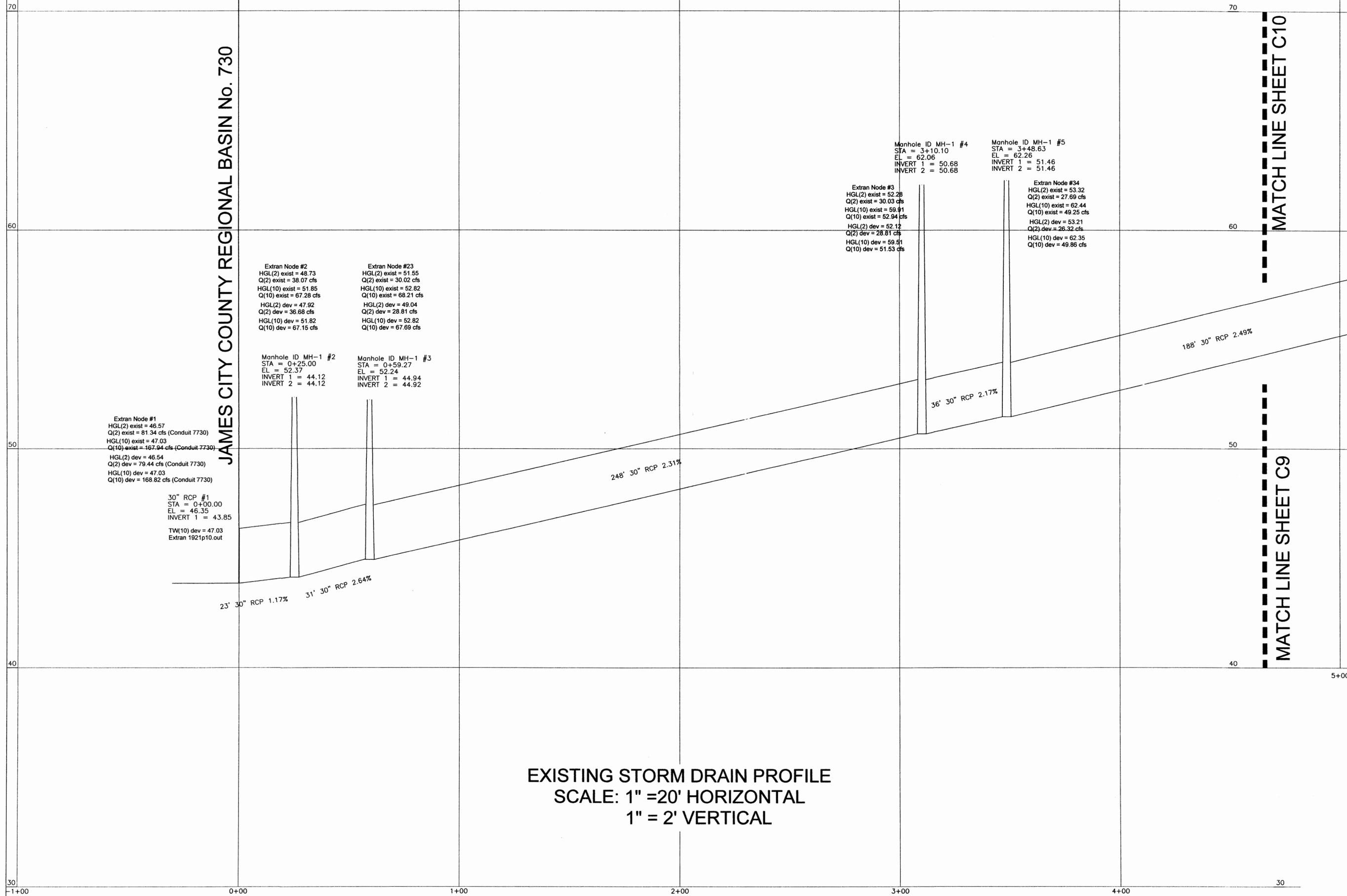
PROFILE "B"
SCALE: 1" =20' HORIZONTAL
1" = 2' VERTICAL

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JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW	DRAWN: JBW
REVISIONS:	
1. PER JCC REVIEW 06-07-05	
2. W.L. K... Profile "A" & "B" 06-07-05	
DATE: 03-08-05	SCALE: 1" = 20'
	SHEET C7

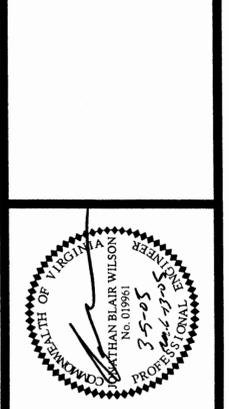




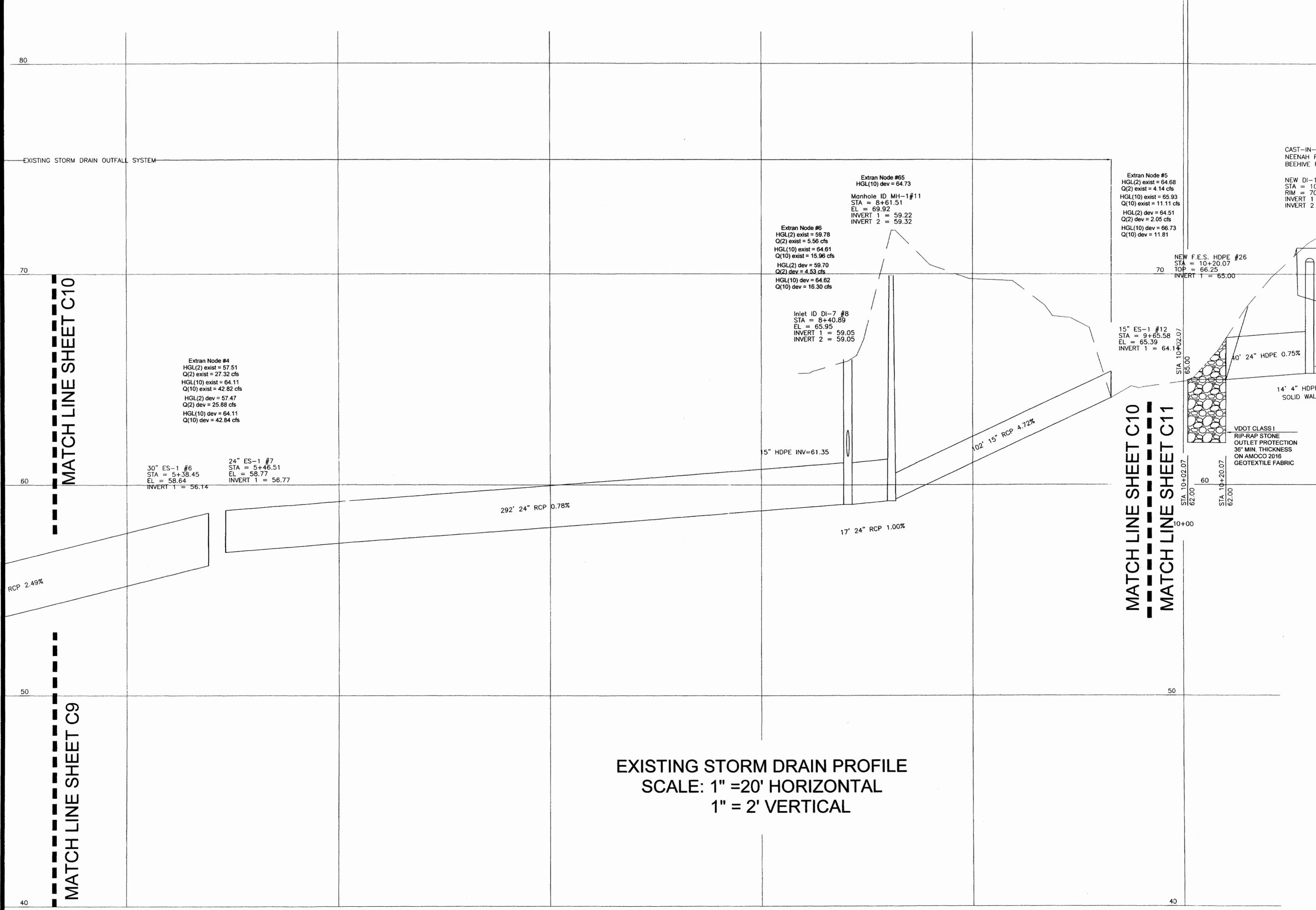
MITCHELL-WILSON ASSOCIATES, P.C.
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 WILLIAMSBURG, VIRGINIA 23188
 JCC CASE No. SP-28-05
 JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW	DRAWN: JBW
REVISIONS: 1. PER JCC REVIEW 06-07-05	SCALE: 1" = 20'
DATE: 02-24-05	SHEET C9



STORM DRAIN PROFILE



EXISTING STORM DRAIN PROFILE
 SCALE: 1" = 20' HORIZONTAL
 1" = 2' VERTICAL

EXISTING STORM DRAIN OUTFALL SYSTEM

MATCH LINE SHEET C9

MATCH LINE SHEET C10
 MATCH LINE SHEET C11

5+00

6+00

7+00

8+00

9+00

10+00

STORM DRAIN PROFILE

Extran Node #4
 HGL(2) exist = 57.51
 Q(2) exist = 27.32 cfs
 HGL(10) exist = 64.11
 Q(10) exist = 42.82 cfs
 HGL(2) dev = 57.47
 Q(2) dev = 25.88 cfs
 HGL(10) dev = 64.11
 Q(10) dev = 42.84 cfs

30" ES-1 #6
 STA = 5+38.45
 EL = 58.64
 INVERT 1 = 56.14

24" ES-1 #7
 STA = 5+46.51
 EL = 58.77
 INVERT 1 = 56.77

Extran Node #6
 HGL(2) exist = 59.78
 Q(2) exist = 5.56 cfs
 HGL(10) exist = 64.61
 Q(10) exist = 15.96 cfs
 HGL(2) dev = 59.70
 Q(2) dev = 4.53 cfs
 HGL(10) dev = 64.62
 Q(10) dev = 16.30 cfs

Inlet ID DI-7 #8
 STA = 8+40.89
 EL = 65.95
 INVERT 1 = 59.05
 INVERT 2 = 59.05

Extran Node #65
 HGL(10) dev = 64.73

Manhole ID MH-1 #11
 STA = 8+61.51
 EL = 69.92
 INVERT 1 = 59.22
 INVERT 2 = 59.32

Extran Node #5
 HGL(2) exist = 64.68
 Q(2) exist = 4.14 cfs
 HGL(10) exist = 65.93
 Q(10) exist = 11.11 cfs
 HGL(2) dev = 64.51
 Q(2) dev = 2.05 cfs
 HGL(10) dev = 66.73
 Q(10) dev = 11.81

NEW F.E.S. HDPE #26
 STA = 10+20.07
 TOP = 66.25
 INVERT 1 = 65.00

15" ES-1 #12
 STA = 9+65.58
 EL = 65.39
 INVERT 1 = 64.10

40' 24" HDPE 0.75%
 14' 4" HDPE SOLID WALL
 VDOT CLASS I
 RIP-RAP STONE
 OUTLET PROTECTION
 36" MIN. THICKNESS
 ON AMOCO 2016
 GEOTEXTILE FABRIC

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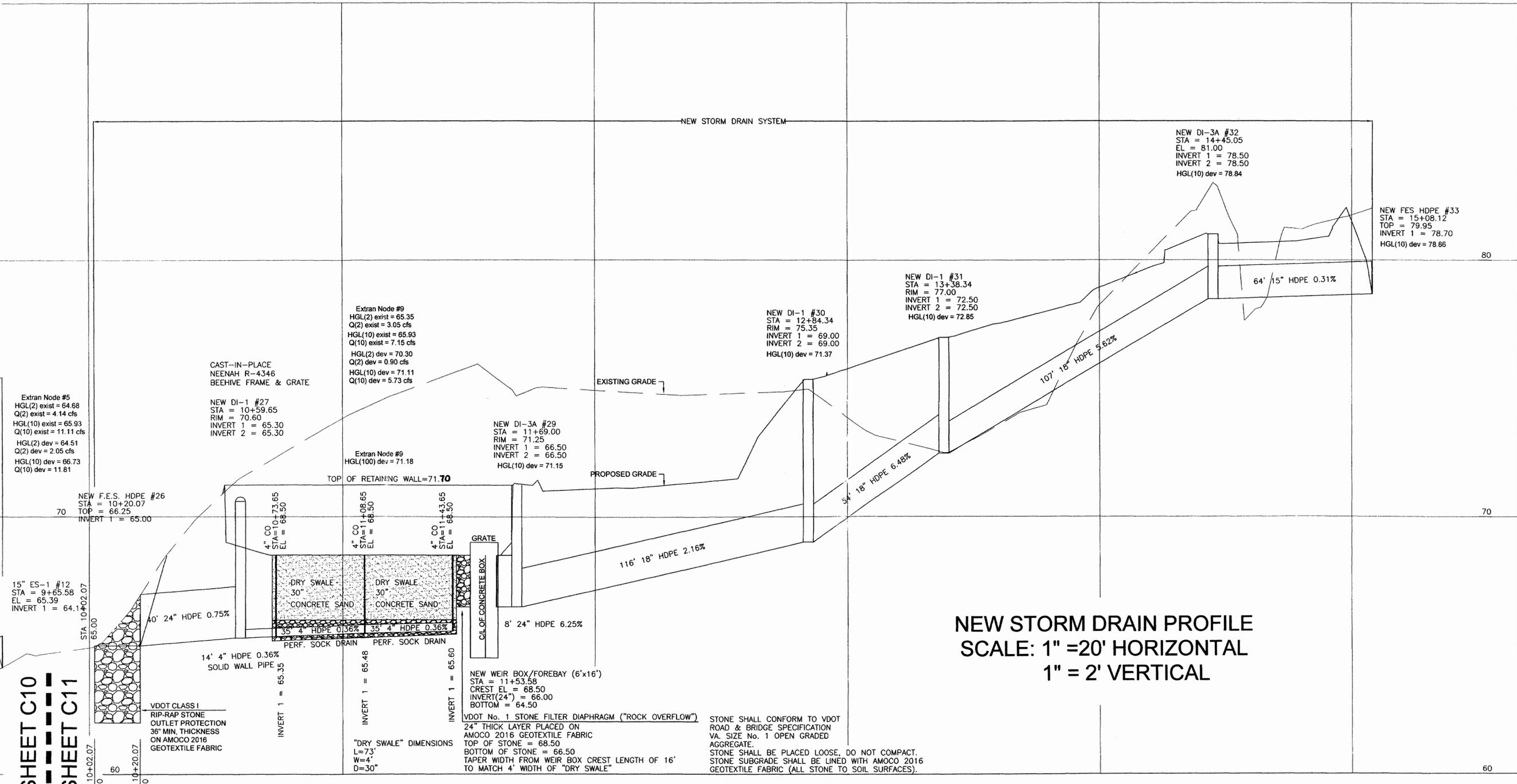
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 WILLIAMSBURG, VIRGINIA 23188
 JCC CASE No. SP-28-05
 JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW	DRAWN: JBW
REVISIONS: 1. PER JCC REVIEW 06-07-05	
DATE: 02-24-05	SCALE: 1" = 20'
SHEET C10	



MATCH LINE SHEET C10

 MATCH LINE SHEET C11



DESIGN WATER SURFACE ELEVATIONS STORMWATER MANAGEMENT FACILITY "DRY SWALE" BMP	
W.S. 2-YEAR STORM	70.30'
W.S. 10-YEAR STORM	71.11'
W.S. 100-YEAR STORM	71.18'

NOTE: ALL INLETS TO BE SHAPED IN ACCORDANCE WITH VDOT STANDARD IS-1 INLET SHAPING. ALL INLETS, MANHOLES AND OTHER DRAINAGE STRUCTURES WITH DEPTHS EXCEEDING 4- FEET SHALL HAVE VDOT STANDARD ST-1 STEPS.

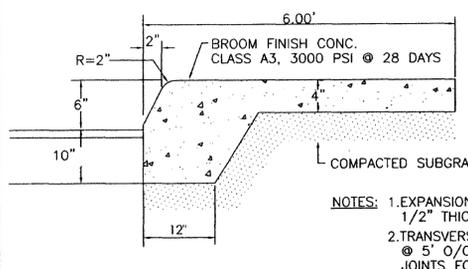
STORM DRAIN PROFILE

MITCHELL-WILSON ASSOCIATES, P.C.
 CIVIL ENGINEERS & LAND SURVEYORS
 720 MAIN STREET, SUITE 112, 2nd FLOOR
 P.O. BOX 1269
 WEST POINT, VIRGINIA 23181
 (804) 843-9744

OAKTREE OFFICE PARK
 and AIRTIGHT SELF STORAGE
 SITE PLAN FOR EXPANSION
 3292 and 3356 IRONBOUND ROAD
 WILLIAMSBURG, VIRGINIA 23188
 JCC CASE No. SP-28-05
 JAMES CITY COUNTY, VIRGINIA

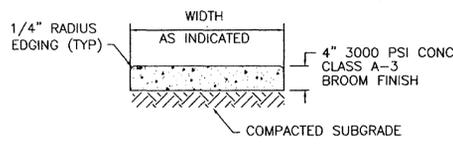
DESIGN: JBW	DRAWN: JBW
REVISIONS: 1. PER JCC REVIEW 06-07-05	DATE: 03-09-05
SCALE: 1" = 20'	SHEET C11





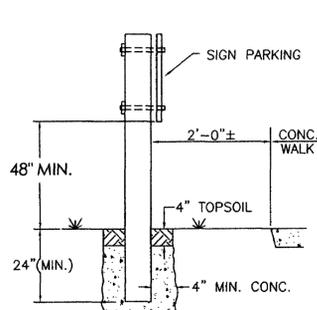
THICKENED EDGE CONCRETE WALK DETAIL
N.T.S.

ALTERNATE: VDOT CG-2 CURB MAY BE USED IN COMBINATION WITH A 5.5-FOOT WIDE 4-INCH THICK CONCRETE WALK IN LIEU OF THE THICKENED EDGE WALK.



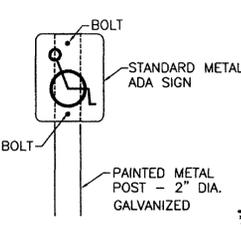
CONCRETE SIDEWALK DETAIL
N.T.S.

NOTES: 1. EXPANSION JOINTS @ 30' O/C 1/2" THICK PREFORMED
2. TRANSVERSE CONTROL JOINTS @ 5' O/C BETWEEN EXPANSION JOINTS FORMED W/JOINTING TOOL OR TROWEL
3. LONGITUDINAL CONTROL JOINT REQ'D FOR WALKS GREATER THAN 7' WIDE.
4. WALKS TO BE CONSTRUCTED IN ACCORDANCE WITH SECTION 505-SIDEWALKS, STEPS AND HANDRAILS VDOT ROAD AND BRIDGE SPECIFICATIONS, LATEST EDITION.

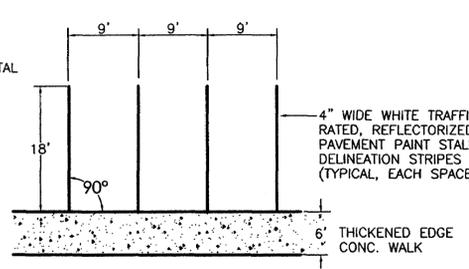


ADA PARKING SIGN DETAIL
N.T.S.

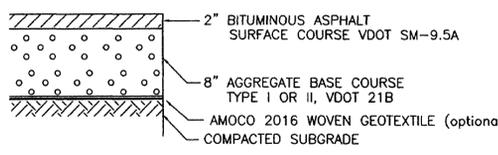
See additional notes regarding ADA signage requirements. VAN ACCESSIBLE and PENALTY/TOW AWAY ZONE signs.



STANDARD METAL ADA SIGN



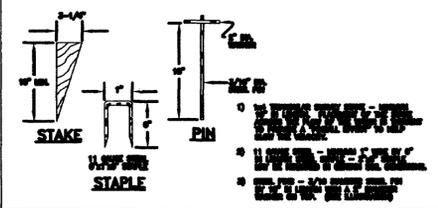
90° PARKING SPACE DIMENSION, AND STRIPING DETAIL
N.T.S.



ON-SITE PAVEMENT SECTION PARKING AREA
N.T.S.

** COMPACT SUBGRADE TO 95% MAX. DRY DENSITY @ OPTIMUM MOISTURE CONTENT STANDARD PROCTOR PER ASTM D-698; PROOF-ROLL COMPACTED SUBGRADE WITH A FULLY LOADED (16 TON) TANDEM AXLE DUMP TRUCK. AREAS THAT RUT, PUMP OR OTHERWISE DEFLECT UNDER TANDEM AXLE DUMP TRUCK LOADING SHALL BE UNDERCUT TO FIRM SUBGRADE MATERIAL AND BACKFILLED; OR REINFORCED WITH GEOTEXTILE FABRIC, AS DIRECTED BY THE ENGINEER.

STAKES, STAPLES, & PINS FOR INSTALLATION OF TREATMENT - 2 SOIL STABILIZATION MATTING



SOURCE: PRODUCT LITERATURE FROM GREENSTREAK, INC. PLATE: 3.36-3

EROSION & SEDIMENT CONTROL LEGEND:

CE	CONSTRUCTION ENTRANCE	VEC 3.02
SF	SILT FENCE	VEC 3.05
IP	INLET PROTECTION	VEC 3.07
CIP	CULVERT INLET PROTECTION	VEC 3.08
ST	SEDIMENT TRAP	VEC 3.13
SCC	STORMWATER CONVEYANCE CHANNEL	VEC 3.17
OP	OUTLET PROTECTION	VEC 3.18
RR	RIP-RAP	VEC 3.19
CD	ROCK CHECK DAM	VEC 3.20
TS	TOPSOILING	VEC 3.30
PS	PERMANENT SEEDING	VEC 3.32
MU	MULCHING	VEC 3.35
MM	BLANKETS & MATTING	VEC 3.36
TP	TREE PROTECTION	VEC 3.38
DC	DUST CONTROL	VEC 3.39

TOTAL AREA OF LAND DISTURBANCE = 72.331 s.f. (1.66 ACRES)

ALL STORM DRAINAGE PIPES TO BE BEDDED PER VDOT PB-1 STANDARD. ALL STORM INLETS TO BE SHAPED PER VDOT IS-1 STANDARD. ALL STORM INLETS AND MANHOLES EXCEEDING 4 FEET IN DEPTH SHALL BE INSTALLED WITH VDOT ST-1 STANDARD STEPS. ALL STORM STRUCTURES SHALL CONFORM WITH VDOT STANDARDS.

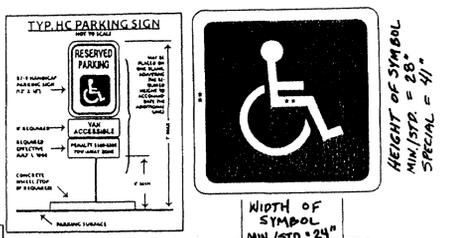
MAINTENANCE PLAN:
MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES IN ACCORDANCE WITH VESCH MINIMUM STANDARDS. PRACTICES SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND AT THE END OF EACH WORKDAY. REPAIR DAMAGED OR INOPERATIVE MEASURES IMMEDIATELY.

PERMANENT SEEDING SCHEDULE:

PERMANENT SEED TURF TYPE TALL FESCUE OR K-31 FESCUE	200 LBS/ACRE
FERTILIZER	10-20-10
LIME	AGRICULTURAL GRADE PULVERIZED LIMESTONE
MULCH	HAY or STRAW MULCH

ADA SIGNAGE:
Each space shall be headed with a sign clearly marking the space as handicapped (with the international symbol of accessibility). Such signs shall not exceed 1.5 square feet in area and shall be positioned so that the bottom edge of the sign is no less than four feet above grade and no more than seven feet above grade. All signs shall include the following language: "Penalty, \$100-\$500 Fine, TOW-AWAY ZONE". Such language may be placed on a separate sign and attached below existing above grade disabled parking signs, provided that the bottom edge of the attached sign is no lower than four feet above the parking surface.

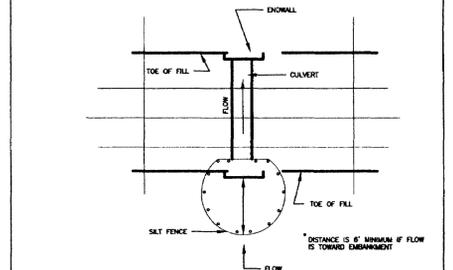
International Symbol of Accessibility Parking Space Marking with Blue Background and White Border Options



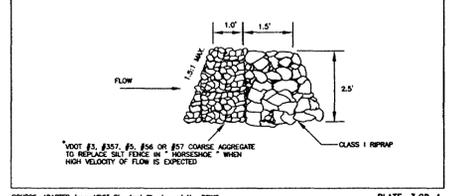
Stroke width: Minimum standard = 75 mm (3 in) Special = 100 mm (4 in)

EROSION & SEDIMENT CONTROL CHECKLIST NOTES:
1. ALL EROSION AND SEDIMENT CONTROLS SHALL CONFORM TO THE CURRENT VESCH MINIMUM STANDARDS.
2. NO OFFSITE LAND DISTURBING AREAS ARE ASSOCIATED WITH THIS PROJECT.
3. ANY TRENCH DEWATERING SHALL REQUIRE APPROPRIATE TRENCH DEWATERING FILTRATION SEE VESCH STANDARD 3.26.
4. THE PROJECT IS A SINGLE PHASE PROJECT.

SILT FENCE CULVERT INLET PROTECTION

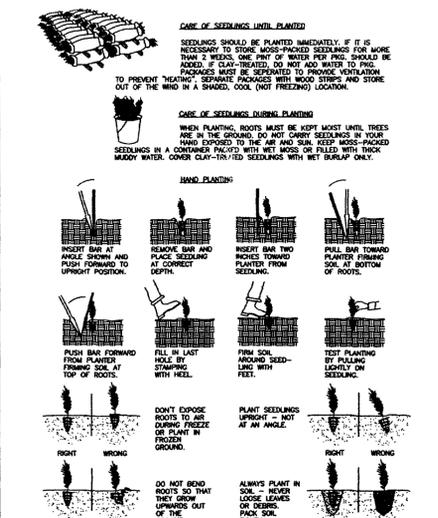


OPTIONAL STONE COMBINATION



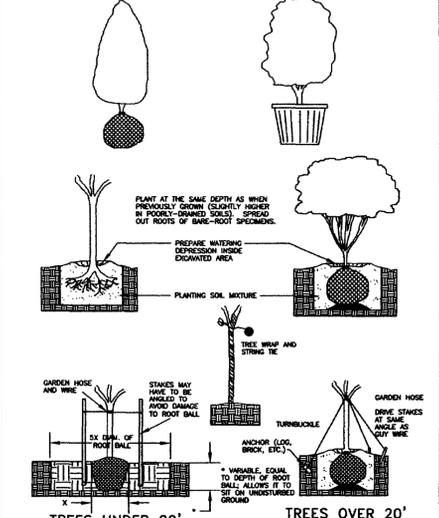
SOURCE: ADAPTED FROM VDOT Standard Sheets and Va. DSWC PLATE: 3.08-1

PLANTING BARE-ROOTED SEEDLINGS



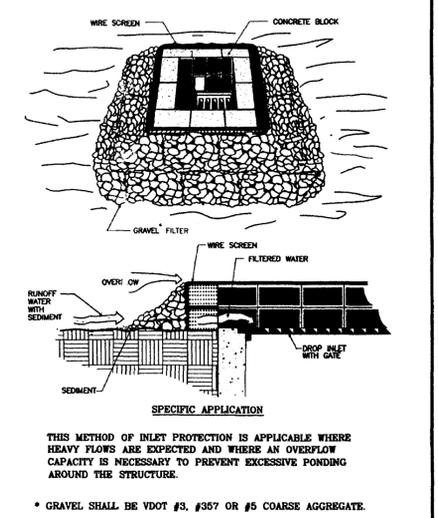
SOURCE: VA. DEPARTMENT OF FORESTRY PLATE: 3.37-4

PLANTING BALLED-&-BURLAPPED & CONTAINER-GROWN TREES



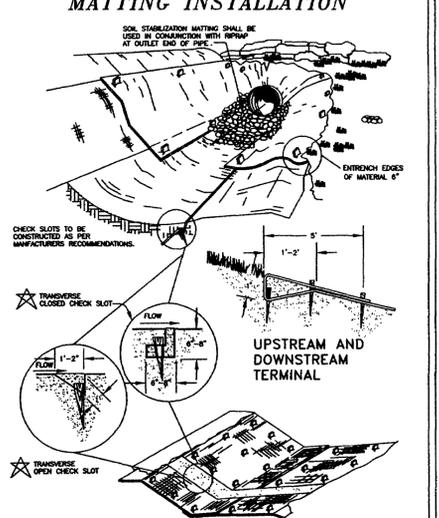
SOURCE: VA. DEPARTMENT OF FORESTRY PLATE: 3.37-5

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER



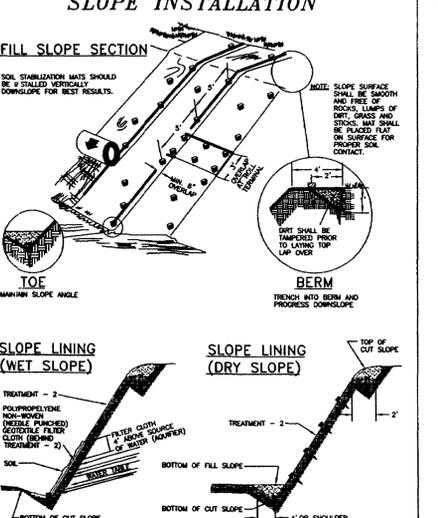
SOURCE: VA. DSWC PLATE: 3.07-3

TYPICAL TREATMENT-2 SOIL STABILIZATION MATTING INSTALLATION



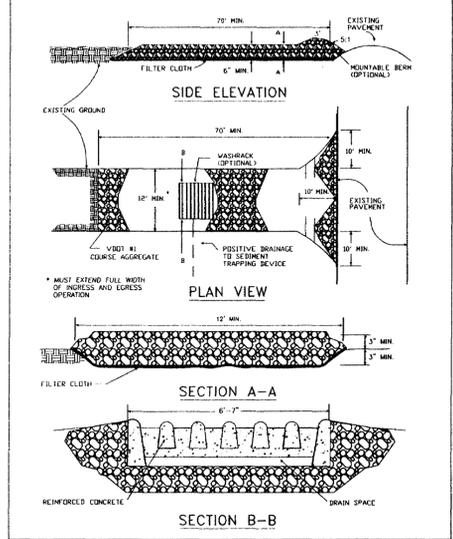
SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE: 3.36-4

TYPICAL TREATMENT - 2 SOIL STABILIZATION MATTING SLOPE INSTALLATION



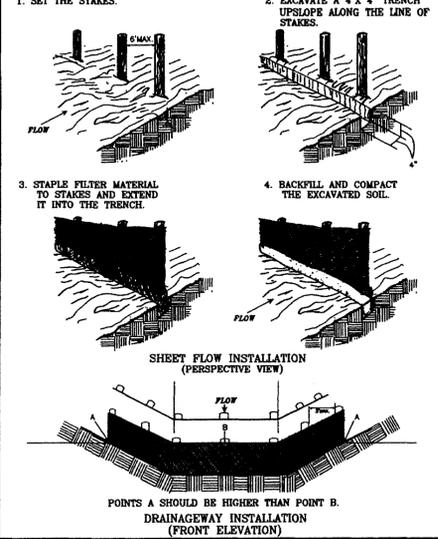
SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE: 3.36-5

STONE CONSTRUCTION ENTRANCE



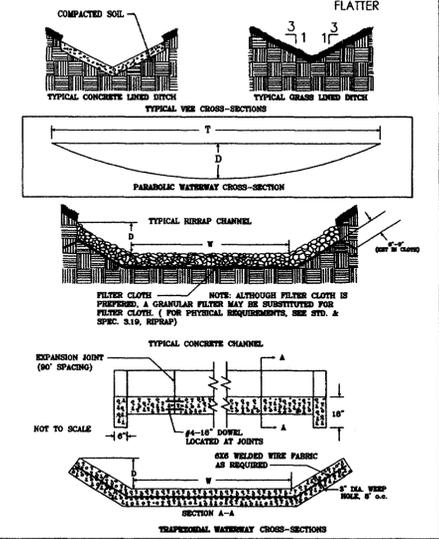
SOURCE: ADAPTED FROM 1983 Maryland Standards for Soil Erosion and Sediment Control and Va. DSWC PLATE: 3.02-1

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



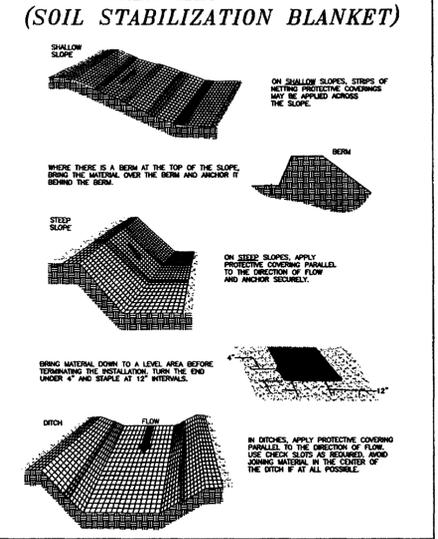
SOURCE: Adapted from Installation of Stone and Fabric Filter Barriers for Sediment Control, EIL, INC. Sherwood and Vytal PLATE: 3.16-2

TYPICAL WATERWAY CROSS-SECTIONS



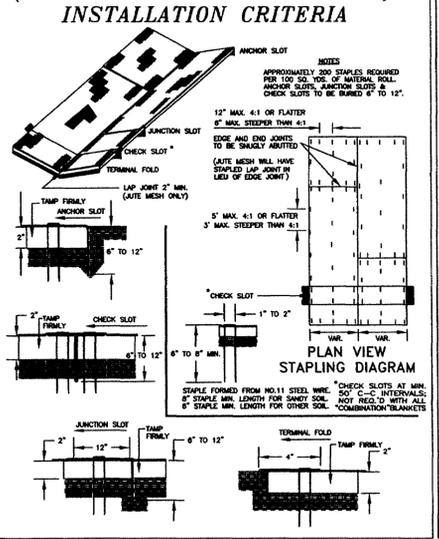
SOURCE: VA. DSWC PLATE: 3.17-1

TYPICAL ORIENTATION OF TREATMENT - 1 (SOIL STABILIZATION BLANKET)



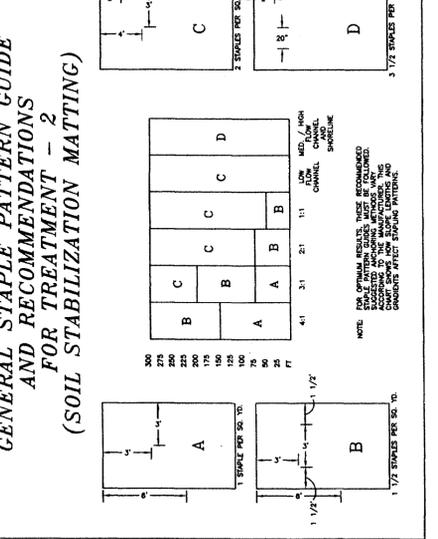
SOURCE: ADAPTED FROM LUDLOW PRODUCTS BROCHURE PLATE: 3.36-1

TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE: 3.36-2

GENERAL STAPLE PATTERN GUIDE AND RECOMMENDATIONS FOR TREATMENT - 2 (SOIL STABILIZATION MATTING)

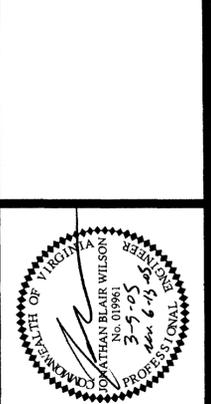


SOURCE: PRODUCT LITERATURE FROM NORTH AMERICAN GREEN PLATE: 3.36-6

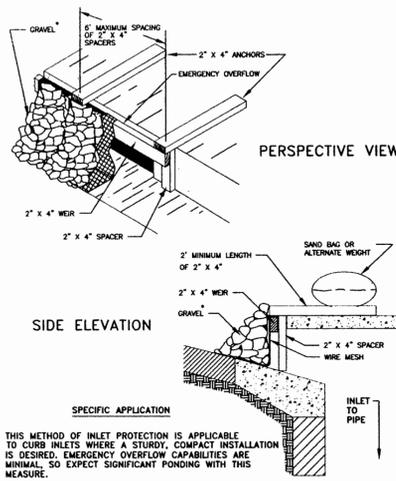
MITCHELL-WILSON ASSOCIATES, P.C.
CIVIL ENGINEERS & LAND SURVEYORS
720 MAIN STREET, SUITE 112, 2nd FLOOR
P.O. BOX 1269
WEST POINT, VIRGINIA 23181
(804) 843-9744

OAKTREE OFFICE PARK and AIRTIGHT SELF STORAGE
SITE PLAN FOR EXPANSION
3292 and 3356 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW DRAWN: JBW
REVISIONS: 1. PER JCC REVIEW 06-08-05
DATE: 03-08-05 SCALE: AS SHOWN
SHEET C14



CURB INLET PROTECTION WITH 2-INCH X 4-INCH WOODEN WEIR

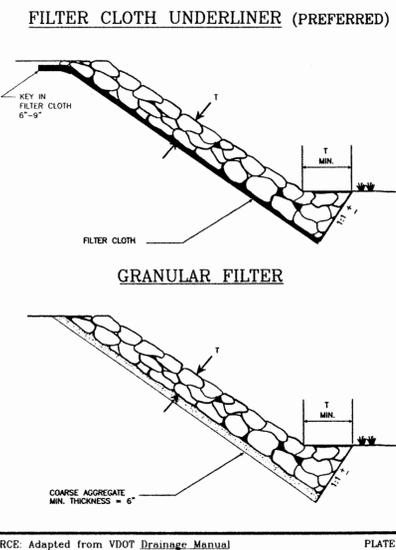


THIS METHOD OF INLET PROTECTION IS APPLICABLE TO CURB INLETS WHERE A STURDY, COMPACT INSTALLATION IS DESIRED. EMERGENCY OVERFLOW CAPABILITIES ARE MINIMAL. SO EXPECT SIGNIFICANT PONDING WITH THIS MEASURE.

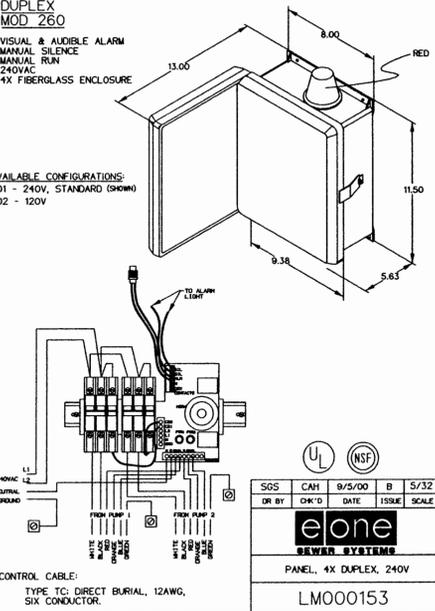
*GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, #357 OR #5

SOURCE: USDA SCS PLATE 3.07-7

TOE REQUIREMENTS FOR BANK STABILIZATION



SOURCE: Adapted from VDOT Drainage Manual PLATE 3.19-1



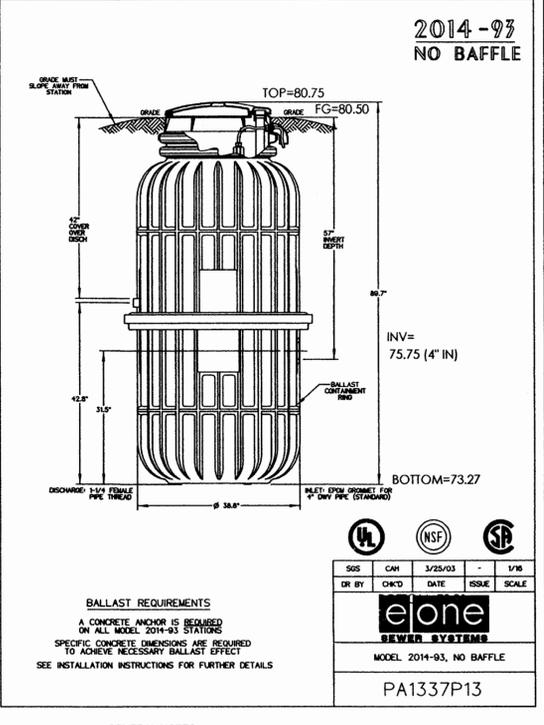
AVAILABLE CONFIGURATIONS:
G01 - 240V, STANDARD (SHOWN)
G02 - 120V

CONTROL CABLE:
TYPE TC DIRECT BURIAL, 12AWG, SIX CONDUCTOR

PANEL, 4X DUPLEX, 240V
LMO0153

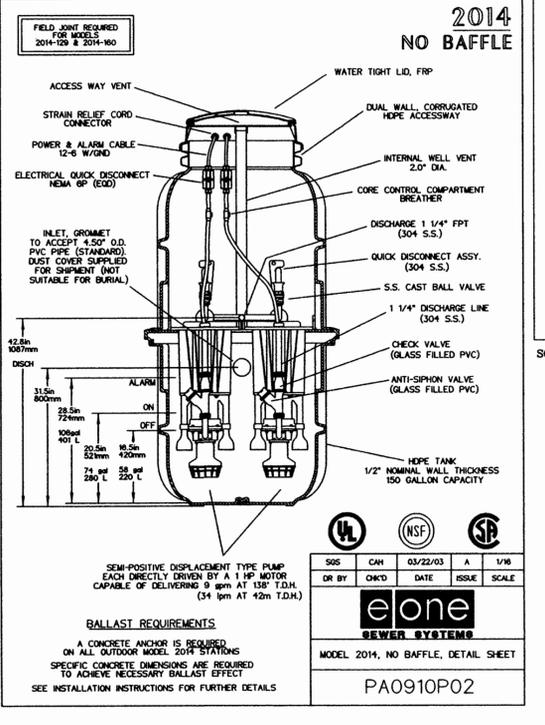
GENERAL NOTES
REVISED 08/04

1. A Land Use Permit must be obtained from VDOT before any construction is started within the existing state right of way. Contact the VDOT Residency for the permit fee and bond amount. All Land Use Permit applications must have two (2) sets of approved plans, a check for the processing fee made payable to VDOT, and surety in the required amount.
2. The developer is responsible for the relocation of any utilities or pavement markings within the existing right of way or proposed right of way required by the development of the site/subdivision.
3. The developer is responsible for the cost of a traffic signal or any modifications to an existing traffic signal that are determined to be necessary. These costs will be charged under an Operational Project (Accounts Receivable) Number. Contact the VDOT Residency for the proper procedure.
4. Prior to any construction, the contractor shall consult with the developer's engineer to verify the final approval of the plans, or any revised plans, by the various agencies (County, VDOT, etc.).
5. VDOT approval of these plans will expire in five (5) years from the date of approval.
6. VDOT is to receive written notification 48 hours prior to the start of any work. A pre-construction meeting will be required prior to any land disturbance of the site. The developer, his engineer, geotechnical (soils) engineer, and contractor shall attend the pre-construction meeting. The developer's contractor shall have a proposed progress schedule of work.
7. Any errors, conflicts, or discrepancies found on the approved plans shall be reported to the developer's engineer and VDOT for resolution before proceeding further with the work.
8. The engineer, contractor and contractor (sub-contractor) shall verify the field elevations of all points of connection of proposed work to existing curbs, sanitary sewer, storm sewer, drainage structures, waterlines, etc., prior to the construction in the field.
9. An Operational Project (accounts receivable) Number may be assigned to the site/subdivision. The developer will be responsible for this by providing the necessary information requested by VDOT.
10. All materials and construction within the proposed public right of way, to include private entrances, shall be in accordance with the current VDOT specifications and standards.
11. Any request for a change of specified materials or design from the approved plans will need to be submitted to VDOT. A letter must accompany the proposed changes and revised plan sheets and/or drainage calculations for review and approval by the VDOT Resident Engineer.
12. The developer will be responsible for providing the Geotechnical (soils) Engineer. A professional engineer or professional geologist will submit a complete report with boring data and recommendations to VDOT for approval of his proposed method of construction. This report shall include shrink swell values of the soils, moisture sensitive soils, sieve analyses, dry and wet unit weights, standard penetration test blow counts, and soil classification. The report will show the bore locations, types of soils encountered, and stabilization recommendations for soils with poor support values, high moisture, mica, and silt content. The report shall include a pavement structural design recommendation based on laboratory tests of the actual soils and approved traffic volume for the site/subdivision in accordance with the latest VDOT Pavement Design Guide for Subdivision and Secondary Roads in Virginia.
13. When soils occur that are unsuitable for foundations, embankment fill, pipe backfill, subgrade, or other roadway purposes, the developer's contractor shall excavate said material under the direction of the developer's soils engineer, by undercutting such material below the proposed grades shown on the plans. The contractor shall notify the developer's engineer and VDOT upon the discovery of the unsuitable material. Commencement of the engineer shall be obtained before additional work is undertaken.
14. All erosion and sediment control measures shall be the responsibility of the contractor. All erosion control measures will be in place and reviewed by the contractor daily and after all inclement weather to ensure compliance for the control of any erosion and siltation. Any corrections or repairs will be made immediately. In accordance with Road and Bridge Specifications, VDOT requires an individual certified by the Virginia Department of Conservation and Recreation, holding a Responsible Land Disturber Certification, to be in charge of the land disturbing activity and on the work site at all times.
15. The contractor and subcontractor(s) shall have a copy of the current VDOT Road and Bridge Specifications and the VDOT Road and Bridge Standards. The contractor shall have at least one (1) set of approved plans with all approved revisions. The Land Use Permit will be at the site at all times.
16. The contractor shall be responsible for locating and protecting all underground and overhead utilities, whether or not they are shown on the plans. The contractor will be responsible for repairs at his own expense of any utilities damaged by his construction methods. MISS UTILITY must be contacted at 1-800-552-7001 at least 72 hours prior to the commencement of construction.
17. The contractor will be responsible for replacing, with matching materials, any pavement, curb and gutter, driveway, pipe, sidewalk, etc. that are damaged during the construction of the site/subdivision.
18. Certification and source of materials are to be submitted to VDOT. All materials must meet VDOT specifications and standards.
19. The developer's Geotechnical Engineer and his certified materials technicians will perform compaction (density) tests for review by VDOT. All tests will be performed in accordance with the current VDOT specifications and standards. Backfill material for pipe, structures, and utilities located within the proposed right of way will be compacted and tested as the fill material is placed in uniform lifts. A minimum of 95% density with the soils standard proctor will be obtained with the proper moisture content on embankment and fill material. For the final 6" of the finished subgrade, 100% density will be obtained. The test results will be submitted to VDOT for review and compliance of the materials, prior to the developer's contractor requesting approval for a proof roll or the subgrade, aggregate stone, base mix (asphalt) or the placement of the surface mix.
20. All drainage easements shall be labeled as either "Drainage Easements" or "County Drainage Easements" and shall not be dedicated to VDOT or become the responsibility of VDOT. VDOT does not accept responsibility for the maintenance of the detention/retention pond or its structure, and shall be saved harmless from any damages.
21. Temporary drainage measures will be maintained by the contractor during construction to relieve areas that may cause damage to the right of way, roadway, or adjacent properties.
22. Dry gutter (rip rasp) is not allowed in the ditches on VDOT right of way.
23. All storm sewer pipes shall be reinforced concrete pipe (tongue and groove) in accordance with ASTM-C-76 or an alternative that has been approved on the plans.
24. Installation of pipe culverts, storm sewers, and drainage structures shall have bedding material placed under the pipes and structures in accordance with VDOT specifications (a minimum of 4" under pipes and a minimum of 4" under drainage structures). The bedding material shall be suitable material free of debris, silt, tree roots (organic material), and excess moisture. The fill material will be compacted in uniform lifts and tested for density.
25. All vegetation (organic material, roots, stumps) and overburden are to be removed from the shoulders prior to the construction of the road's subgrade.
26. All concrete shall be Class A3-AE (3000PSI with air entrained additive) and tested by the developer's Geotechnical Engineer for conformance to VDOT specifications and standards.
27. There shall be a minimum of 6" of compacted 2-1/8" aggregate material or stone depth shall match the existing pavement typical under the curb and gutter; this material shall extend 1' beyond the back of the curb and gutter. Daily tests shall be taken prior to a proof roll of the material and placement of the curb and gutter. Underdrains will be installed on raised curb medians in accordance with current VDOT specifications and standards.
28. All streets with curb and gutter shall have a standard CG entrance installed in accordance with the current VDOT Road and Bridge Specifications and Standards. The curb and gutter pan shall be removed prior to the installation of the entrance unless a wipe-down of the curb was made during the installation of the curb and gutter. The saw cutting and removal of only the curb portion is not allowed. It is the developer's responsibility to insure that the bidders have installed all concrete entrances in accordance with VDOT specifications and standards.
29. All underground utilities are to be in place prior to the placement of the base material and shall have a minimum covering of 30". On curb and gutter streets, the area directly behind the curb to the right of way line shall be relatively flat to the private entrance location. The developer's contractor should cut embankments to the right of way line prior to the installation of all underground utilities to insure a minimum 30" of cover.
30. The sub-base and/or base material shall have a roller pattern and a control strip with denaries performed on the material and the test results submitted to VDOT prior to the proof roll of the material and the placement of the asphalt (Hot Mix) course. The material shall be at finished grade, have the denaries as shown on the pavement typical, and have a stone depth and proof roll performed by VDOT and the developer's soils engineer. Density (compaction) tests will be performed using a roller pattern and a control strip in accordance with current VDOT specifications and standards to acquire the theoretical density of the material. Optimum moisture shall come from the supplier of the material. Any yield material must be compacted prior to the placement of the Hot Mix (asphalt). The Hot Mix shall be placed within 72 hours after the proof roll has been completed satisfactorily. Any significant rainfall prior to the placement of the prime coat and/or Hot Mix will require another proof roll to insure the material is stabilized and non-yielding.
31. In accordance with Section 311 of the VDOT Road and Bridge Specifications, a prime coat of 30 gal. /sq. yd. will be required for any pavement typical with less than 4" of Hot Mix prior to the placement of the surface course.
32. All Hot Mix (asphalt) courses shall be placed in accordance with Section 315 of the current VDOT Road and Bridge Specifications. The weather limitations of a 40° F surface temperature or 50° F and rising air temperature shall be followed. The developer's Geotechnical Engineer shall test the material to insure compliance with current VDOT specifications and the supplier's job mix design. The developer's Geotechnical Engineer shall also perform a roller pattern and a control strip for the theoretical density (compaction) of the material in conformance with the current VDOT specifications.
33. All utility cabinets, pedestals, and streetlights shall be located in accordance with clear zone requirements, as noted in the Road Design Manual. There shall not be any cabinets, pedestals, or fire hydrants located on the shoulder.
34. All storm pipe, drop inlet structures, ditches, and curb and gutter shall be cleaned of debris and silt during the last stages of construction.
35. Flowers, shrubs, and trees shall not be placed within the proposed right of way by the developer or homeowner without an approved plan and an approved planting agreement. No irrigation (sprinkler) systems shall be located within the proposed right of way. Any irrigation system found within the right of way will be removed prior to the acceptance of the streets and all costs will be borne by the owner. No brick columns, benches, and brick mailboxes will be constructed or installed in the proposed right of way. Any of the above items found in the proposed right of way will be removed, and all costs of the removal will be borne by the owner and/or developer. The developer is responsible for installing mailbox posts.
36. No assessments shall encroach upon the proposed right of way; any assessments located within the proposed right of way will be removed from the plat prior to the recordation of the plat. A Deed of Out Claim will be required on any assessments located within the proposed right of way prior to the acceptance of the streets into the State Secondary Road system.
37. Contact Mr. Sel Sibille 72 hours in advance of all pavement markings/sign installations at (757) 925-1679. Failure to do so may result in additional cost to the developer.
38. Contact Traffic Engineering at (757) 925-2683 a minimum of 48 hours in advance whenever an open cut or boring of a utility line across a road is within 400 feet of a traffic signal, so the lines can be marked. Failure to do so could be a costly repair for the developer.



GENERAL NOTES

1. Owner: JEANETTE BRADY DESCENDANTS TRUST
c/o Ms. Jeanette Brady, Trustee
3356 Ironbound Road, Suite A
Williamsburg, Virginia 23186
(757) 220-1153
2. All construction shall conform with the Hampton Roads Planning District Commission Regional Standards, latest edition; the Virginia Department of Transportation (VDOT) Road and Bridge Standards and Specifications, latest edition; the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992; BOCA National Building Code, Plumbing and Electrical Codes, ICSA Standards and Specifications Water Distribution and Sanitary Sewer Systems; and the James City County Code. Where conflicting requirements are encountered, the most stringent requirement shall apply.
3. The project's design engineer is Jonathan Blair Wilson, P.E., Mitchell-Wilson Associates, P.C., Civil Engineers & Land Surveyors, 720 Main Street, Suite 112, P.O. Box 1269 West Point, Virginia 23181, (804) 843-9744.
4. Contractor administration to be provided by the Owner.
5. Land disturbing activities shall be limited to the areas approved and as indicated on the plan.
6. Elevations shown herein are based on the Oaktree Office Park vertical datum established with the site plan dated 08-31-1998 and as referenced on the project plans. See approved Site Plan No. SP-23-98. Temporary project benchmarks (TBM) are indicated on the site plan.
7. The contractor shall call "Miss Utility of Virginia" at 1-800-552-7001, 48 hours prior to beginning any excavation, demolition or construction. "Miss Utility of Virginia" does not mark underground private utility lines. The contractor shall call the Owner to have on-site private utility lines marked.
8. This plan does not guarantee the existence or location of underground utilities. The underground utilities shown herein were established using above ground structures (valves, meters, manholes, etc.), paint marking provided by others for the underground service lines, and/or utility plans known by the contractor. Prior to any excavation or construction, the contractor shall uncover or test pipe, all utilities which are indicated on the plans, which have been marked by "Miss Utility", or as marked by the Owner or others as being in the area of excavation or construction. The contractor shall take vertical and horizontal measurements adequate to determine if any conflict will occur. If any potential conflict is found, in addition to known conflicts as indicated on the plans where utility relocation has been specified, then the contractor shall notify the Engineer and the Owner prior to beginning any excavation, demolition or construction. The contractor shall be responsible for removing and re-installing at his expense any utility which must be relocated because of a conflict which was not reported to the Engineer and the Owner prior to the beginning of any excavation, demolition or construction. Utilities that are specified to be relocated or "adjusted as required" on the plans are the contractor's responsibility and shall be considered incidental to the project construction and scope of work.
9. The contractor shall provide temporary drainage and erosion control during construction as directed by the James City County Environmental Division Engineer or Inspector, or by the Project Engineer and/or Water Distribution Systems Engineer.
10. The contractor shall use only approved material in the backfill of utility trenches. Backfill material must be approved in advance of placement. Approval of the backfill material shall be made by the Owner.
11. All utility trenches shall be compacted and backfilled to within 0.2' of final subgrade elevation and graded to drain. Excess material shall be removed at the contractor's expense. All finished slopes not subject to piping or structural stabilization shall be sloped and seeded, or sodded where specified.
12. All trench bedding and backfill shall conform with the requirements specified in the HRPDC Regional Standards.
13. All concrete to be class "A3" air entrained (3,000 P.S.I.), unless indicated otherwise in the Contract Documents.
14. A Virginia Department of Transportation CE-7 permit is required. The contractor shall be responsible for obtaining all necessary permits prior to construction. Bonding required to secure necessary permits shall be the contractor's responsibility. The contractor shall provide one (1) copy of each permit to the Owner, and one (1) copy of each permit to the Engineer, prior to initiating any construction on the project site.
15. Existing mature and healthy trees shall be preserved and protected during construction.
16. Trees which are to be preserved on site shall be protected before, during and after the construction process by the installation of a temporary fence or barrier to be located and maintained five feet (5') outside of their dripline, to the extent practical. Such a fence or barrier shall be installed prior to clearing or construction, and in no case shall materials, vehicles or equipment be stored or stockpiled within the enclosure.
17. Any discrepancy between information specified on the plans and field conditions, including subsurface soil conditions shall be brought to the Engineer's and Owner's attention prior to proceeding with any construction activity which may be affected by the discrepancy or changed condition.
18. The contractor shall make request for inspections or observations by the Owner, Engineer and/or James City County for construction requiring such inspections or observations and approvals at least 48 hours in advance of such construction.
19. All piping, structures, controls, equipment and materials shall be as specified in the Contract Documents, unless otherwise approved, in advance and in writing by the Engineer or Owner as an approved equivalent.
20. Excess spoil material from excavation activities shall be disposed of as directed by the Owner, and with approval by the James City County Environmental Division.
21. Public roadways must be swept clean at the end of each work day and as often as necessary to keep the public road clear of sediment.
22. Any sediment accumulation within storm drainage systems must be removed prior to the issuance of a Certificate of Substantial Completion.
23. The contractor shall verify all dimensions, grades and site conditions prior to commencing with any construction activity.
24. Existing topographic and physical survey provided Mitchell-Wilson Associates, P.C.



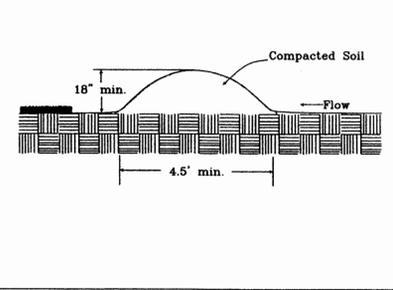
GENERAL NOTES

25. Pavement patches over open cut street sections shall be installed in accordance with the HRPDC Regional Standards. The pavement section shall consist of 1.5" VDOT SM-9.5A bituminous asphalt surface course, 6" VDOT BM-25 bituminous asphalt base course placed in two (2) lifts of 3" each, and a minimum of 10" VDOT No. 21B, Type I aggregate base. See HRPDC Regional Standard Detail No. RC_01.
26. Fences, signs, driveways and other existing facilities which must be removed or relocated temporarily to allow construction shall be reinstalled or rebuilt to their original condition or better.
27. Construction shall be confined to those areas indicated in the Contract Documents. Damage to properties, structures or facilities located outside of indicated project limits shall be repaired.
28. Construction shall be scheduled and performed to reduce or minimize obstruction of public rights-of-way. Provide appropriate traffic control signage, direction and flagging operations to maintain safe traffic and vehicular operation conditions throughout construction and work areas that impact public roadways. Compliance with all conditions and requirements of the permits issued for the project shall be mandatory.
29. Provide all equipment, materials and labor required to perform testing and inspection as stipulated in the Contract Documents. Test equipment shall be calibrated and shall conform to the specifications indicated. Materials, workmanship and/or installations that are found to be defective shall be repaired, replaced, restored and/or reconstructed.
30. The contractor shall install 10 gauge plastic covered copper tracer wire and detection/warning tape along the length of the new water and sanitary sewer lines.
31. All trenches shall be backfilled at the end of each workday.
32. Trenches located within or near street paving and road shoulders shall be restored to safe drivable conditions prior to the end of each workday and such restored trenches shall be maintained in a safe drivable condition until final completion of the project.
33. Temporary placement of trench spoil on street surfaces is discouraged; however, when such temporary spoil placement is determined to be necessary, the contractor shall spread a thin layer of sand over the pavement surface to protect the pavement from damage and to enhance the removal of the trench spoils. Trench spoils placed on pavement surfaces shall be removed prior to the end of each workday, and the pavement surface shall be swept clean with a broom, tractor or other suitable equipment. Final cleaning of the pavement surface by washing may be required by the Owner, Engineer or County. Any damage to the pavement surface shall be repaired to the satisfaction of the Owner and/or Engineer.
34. Minimum cover over the sanitary sewer lines shall be at least 36-inches.
35. All new utilities shall be installed underground.

5.1 GENERAL NOTES FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS:

- The following notes shall be provided on all Developer constructed water distribution and sanitary sewer system facility construction plans and specifications and compliance is required by the Contractor/Developer:
- A. All components of the water distribution and sanitary sewer system shall be installed and tested in accordance with the latest edition of the Authority Standards and Specifications for Water Distribution and Sanitary Sewer Systems, the HRPDC Regional Standards, and the Commonwealth of Virginia Waterworks and Sanitary Sewerage Regulations. The Contractor shall use only new materials, parts, and products on all projects. All materials shall be stored on site to assure the preservation of their quality and fitness for the work. A copy of the JCSA Standards and Regional Standards must be kept on-site by the contractor during full time of installing, testing, and conveying facilities to the JCSA.
 - B. The Developer's representative shall submit shop drawings for all materials for approval to the Authority prior to commencement of construction. All materials ordered and installed prior to the Authority's review and acceptance will be at the Contractor's/Developer's risk.
 - C. Pipe lines and services shall be installed after grading to within 6-inches of final grade and prior to placement of base material.
 - D. All approved Erosion and Sediment Control requirements shall be adhered to during construction.
 - E. All water mains shall be disinfected and pressure tested, and satisfactory bacteriological samples obtained, in accordance with the Authority standards.
 - F. After testing is complete and all components of the water and sanitary sewer system are acceptable then the record drawings shall be submitted to the Authority. No water meters will be installed until compliance with Section 3 has been found satisfactory by the Authority. Any discrepancies noted during the FINAL inspection shall be corrected by the Developer's representatives within 30 days.
 - G. Routine periodic inspections during construction will be provided by the Authority. These inspections do not relieve the Developer from his obligation and responsibility for constructing a water distribution and sanitary sewer system in strict accordance with the Standards and Specifications of the Authority.
 - H. Any changes to the final plans shall be approved by the Authority and shall be accurately indicated on the record drawings.
 - I. All lots shall be provided with water service and sanitary sewer connections. The Contractor shall extend from the main to the property line or easement line, and shall terminate with a yoke in a meter box, or at the clean out, set at final finished grade. Meters for all lots (units) shall be paid for by the Developer or builder and installed by the Authority.
 - J. The Developer is required to submit water and sanitary sewer data sheets.
 - K. The Contractor/Developer shall acquire a Certificate to Construct Water and Sewer Facilities from the James City County, Environmental Division of the office of Development Management, prior to commencement of construction.
 - L. Any required easements, permits and approvals shall be acquired by the Developer prior to commencement of water main or sanitary sewer construction.
 - M. The contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. The Contractor shall erect and maintain, as required by the conditions and progress of the work, all necessary safeguards for safety and protection. The Contractor shall also notify "Miss Utility" prior to performing any underground excavation.

TEMPORARY DIVERSION DIKE



SOURCE: VA. DSWC PLATE 3.09-1

James City County Environmental Division
Erosion and Sediment Control Notes
Revised 7/6/01

The purpose of the erosion control measures shown on these plans shall be to preclude the transport of all waterborne sediments resulting from construction activities from entering onto adjacent properties or State waters. If field inspection reveals the inadequacy of the plan to confine sediment to the project site, all appropriate modifications will be made to correct any plan deficiencies. In addition to these notes, all provisions of the Virginia Erosion and Sediment Control Regulations shall apply to this project.

1. All erosion and sediment control measures shall be installed and maintained in accordance with the Virginia Erosion and Sediment Control Handbook, 3rd Edition, 1992. The contractor shall be thoroughly familiar with all applicable measures contained therein that may be pertinent to this project, including Minimum Standards 1 through 19. If the approved Erosion and Sediment Control plan is found to be inadequate in the field, the Minimum Standards will apply in addition to the provisions of the approved plan.
2. As a prerequisite to approval of an erosion and sediment control plan for land-disturbing activities, the name of a Responsible Land-Disturber shall be provided. The Responsible Land-Disturber shall be an individual who holds a valid certificate of competence issued by the Virginia Department of Conservation and is defined as the person in charge of and responsible for carrying out the land-disturbing activity. Permits or plans without this information are deemed incomplete and will not be approved until proper notification is received. Also, if the person designated as Responsible Land-Disturber changes between the time of plan approval and the scheduled preconstruction meeting, the Environmental Division shall be informed of the change, in writing, 24-hours in advance of the preconstruction meeting.
3. A preconstruction meeting shall be held on site between the County, the Developer, the Project Engineer, the Responsible Land-Disturber and the Contractor prior to issuance of the Land Disturbing Permit. The Contractor shall submit a Sequence of Construction to the County for approval prior to the preconstruction meeting. The designated Responsible Land-Disturber is required to attend the preconstruction meeting for the project.
4. All points of construction ingress and egress shall be protected by a temporary construction entrance to prevent tracking of mud onto public right-of-ways. An entrance permit from the Virginia Department of Transportation is required prior to any construction activities within State right-of-ways. Where sediment is transported onto a public road surface, the road shall be thoroughly cleaned at the end of each day (Std & Spec 3.02).
5. Sediment basins and traps (Std & Spec 3.13 and 3.14), perimeter dikes (Std & Spec 3.09 and 3.12), sediment filter barriers (Std. & Spec 3.05) and other measures intended to trap sediment on-site must be constructed as a first step in grading and must be made functional prior to any upslope land disturbance taking place. Earth structures such as dams, dikes and diversions must be seeded and mulched immediately after installation. Periodic inspections of the erosion control measures by the owner or owner representatives shall be made to assess their condition. Any necessary maintenance of the measures shall be accomplished immediately and shall include the repair of measures damaged by any subcontractor including those of the public utility companies.
6. Surface flows over cut and fill slopes shall be controlled by either redirecting flows from traversing the slopes or by installing mechanical devices to safely lower water down slopes without causing erosion. A temporary fill diversion (Std. & Spec. 3.10) and slope drain (Std. & Spec. 3.15) shall be installed prior to the end of each working day.
7. Sediment control measures may require minor field adjustments of time of construction to insure their intended purpose is accomplished. Environmental Division approval will be required for other deviations from the approved plan.
8. The Contractor shall place soil stockpiles at the locations shown on the plan. Soil stockpiles shall be stabilized or protected with sediment trapping measures. Off-site waste or borrow areas shall be approved by the Environmental Division prior to the import of any borrow or export of any waste to or from the project site.
9. The Contractor shall complete drainage facilities within 30 days following completion of rough grading at any point within the project. The installation of drainage facilities shall take precedence over all underground utilities. Outfall ditches from drainage structures shall be stabilized immediately after construction of the same (Std & Spec 3.18). This includes installation of erosion control stone or paved ditches where required. Any drainage outfalls required for a street must be completed before street grading or utility installation begins.
10. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grading is completed on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be of final grade but will remain dormant for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
11. No more than 300 feet of sanitary sewer, storm drain, water or underground utility lines are to be open at one time. Following installation of any portion of these lines, all disturbed areas are to be immediately stabilized (i.e., the same day).
12. If disturbed area stabilization is to be accomplished during the months of December, January or February, stabilization shall consist of mulching (Std & Spec 3.35). Seeding will then take place as soon as the season permits.
13. The term Seeding, Final Vegetative Cover or Stabilization on this plan shall mean the successful germination and establishment of a stable grass cover from a properly prepared seedbed containing the specified amounts of seed, lime and fertilizer (Std & Spec 3.32). Irrigation shall be required as necessary to ensure establishment of grass cover.
14. All slopes steeper than 3H:1V shall require the use of erosion control blankets and matings to aid in the establishment of a vegetative cover. Installation shall be in accordance with Std. & Spec. 3.35, Mulching, Std. & Spec. 3.36, Soil Stabilization Blankets and Matting and Manufacturers Instructions. No slopes shall be created steeper than 3H:1V.
15. Inlet protection (Std & Spec 3.07 and 3.08) shall be provided for all storm drain and culvert inlets following construction of the same.
16. Temporary fences, such as polyethylene sheets, shall be provided for all paved ditches until the permanent concrete liner is installed.
17. Paved ditches shall be required whenever accelerated erosion is evident. Particular attention shall be paid to those areas where grades exceed 3 percent.
18. Temporary erosion control measures such as silt fence are not to be removed until all disturbed areas are stabilized. Trapped sediment shall be spread, seeded and mulched. After the project and stabilization is complete, all erosion and sediment control measures shall be removed within 30 days.
19. No sediment trap or sediment basin shall be removed until at least 75 percent of the lots within the drainage area to the trap or basin have been sold to a third party (unrelated to the developer) for the construction of homes and/or 60 percent of the single family lots within the drainage area to the trap or basin have been completed and the soil stabilized. A bulk sale of the lots to another builder does not satisfy this provision. Sediment traps and sediment basins shall not be removed without the express authorization of the James City County Environmental Division.
20. Record Drawings (As-Built) and Construction Certifications are both required for newly constructed or modified stormwater management/BMP facilities. Certification activities shall be adequately coordinated and performed before, during and following construction in accordance with the current version of the James City County Environmental Division, Stormwater Management/BMP Facilities, Record Drawing and Construction Certification, Standard Forms & Instructions.
21. Design and construction of private-type site drainage systems outside VDOT rights-of-way shall be performed in accordance with the current version of the James City County Environmental Division, Stormwater Drainage Conveyance Systems (Non-BMP related), General Design and Construction Guidelines.

MITCHELL-WILSON ASSOCIATES, P.C.
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720 MAIN STREET, SUITE 112, 2ND FLOOR
P.O. BOX 1269
WEST POINT, VIRGINIA 23181
(804) 843-9744

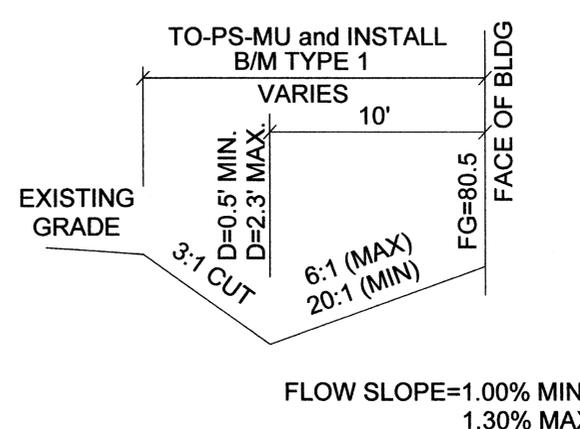
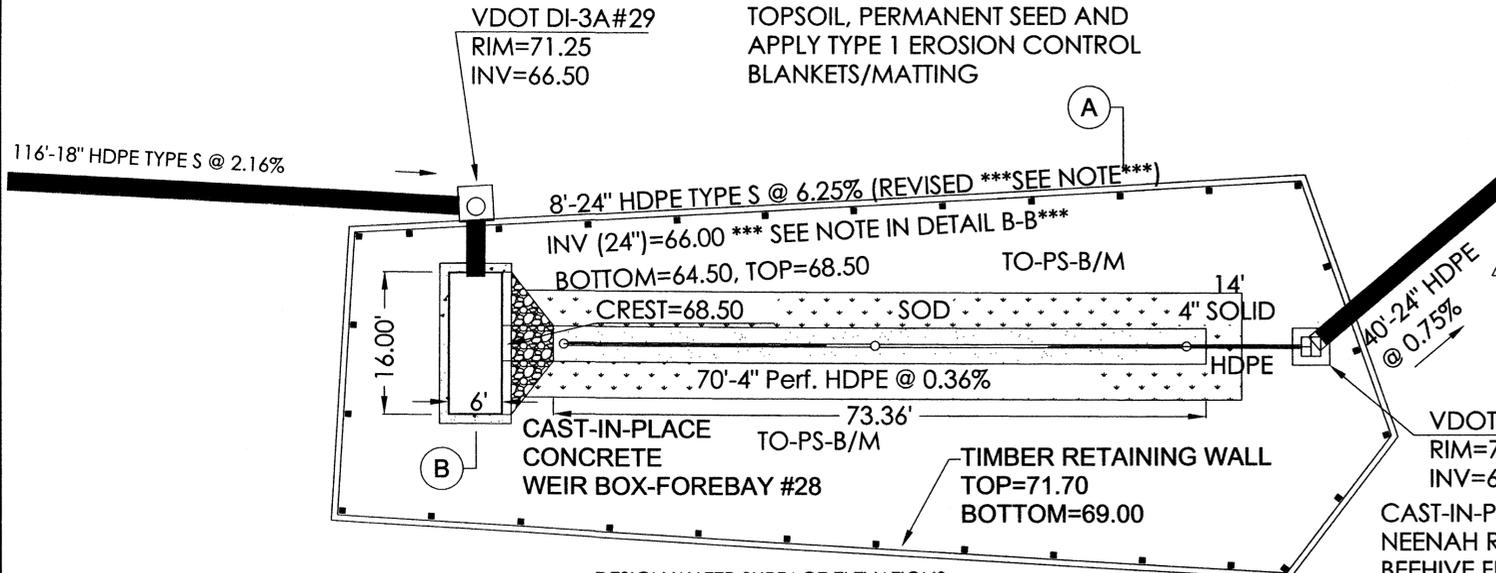
OAKTREE OFFICE PARK
and AIRTIGHT SELF STORAGE
SITE PLAN FOR EXPANSION
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW DRAWN: JBW
REVISIONS: 1. PER JCC REVIEW 6-3-05
DATE: 03-09-05 SCALE: AS SHOWN
SHEET C15

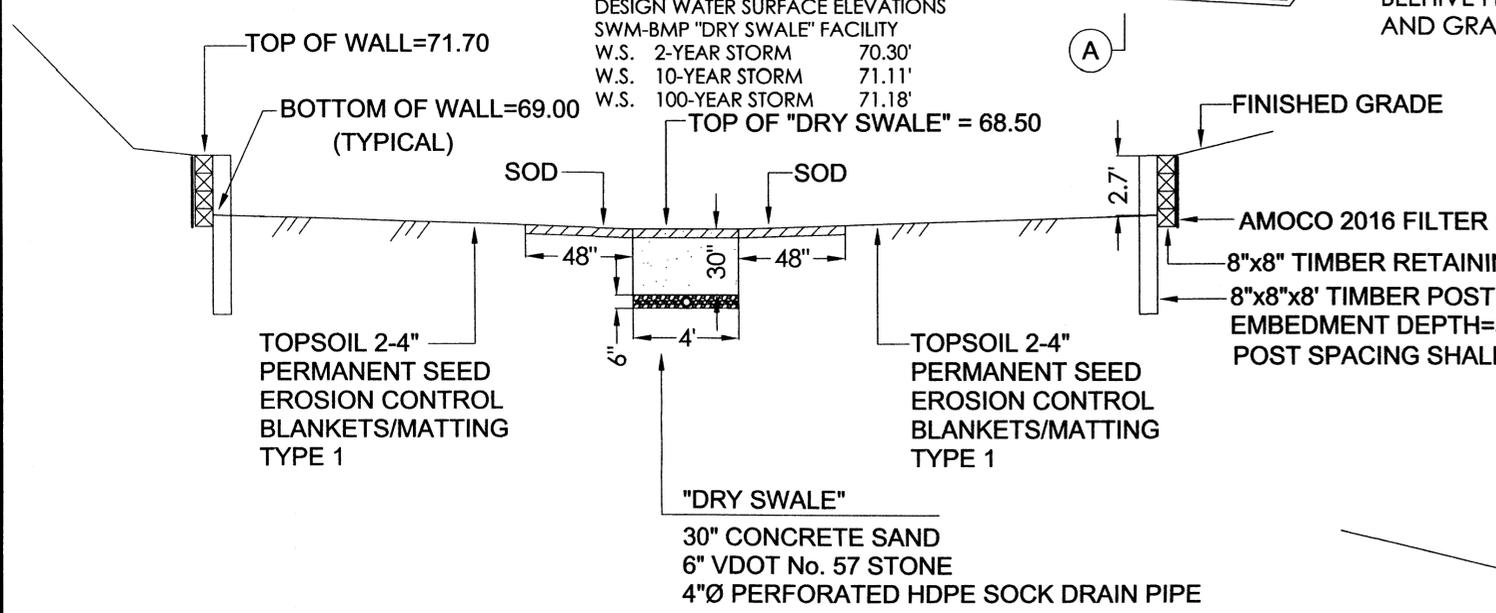


NOTES & DETAILS

"DRY SWALE" BMP FACILITY IS ENTIRELY EXCAVATED.
NO EMBANKMENT FILL IS REQUIRED.



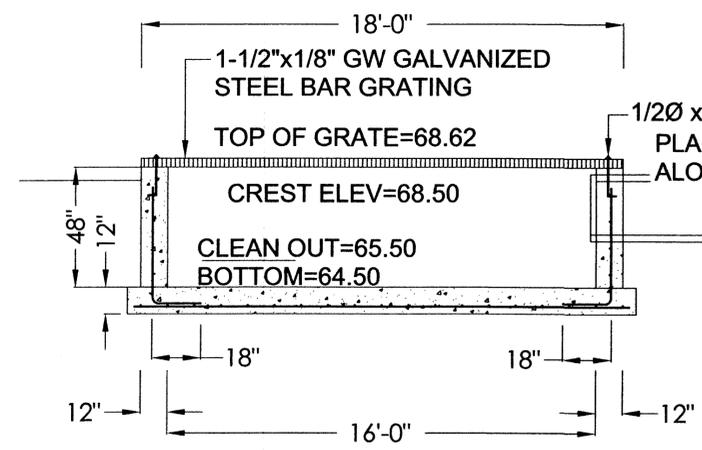
**GRASS LINED SWALE DETAIL
BUILDING "A"**
N.T.S.



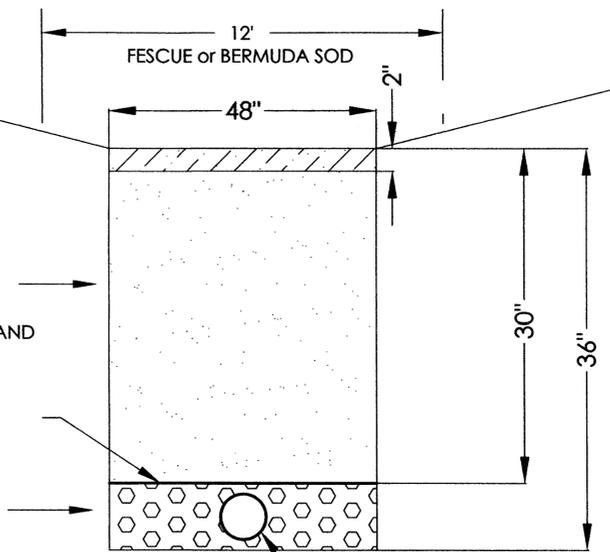
SECTION A-A DETAIL
N.T.S.

NOTE: INVERT ELEVATION OF 66.00 SHALL BE USED FOR THE PIPE ENTRANCE INTO THE FOREBAY, SHOWN ELSEWHERE ON THE PLANS AS 66.50

UNIFIED SOIL CLASSIFICATION SYSTEM SOIL CLASS SP or SW FINE AGGREGATE CONCRETE SAND CONFORMING TO ASTM C-33



SECTION B-B DETAIL
N.T.S.



DRY SWALE CROSS SECTION DETAIL
N.T.S.

Maintenance Plan (Dry Swale BMP)

A maintenance program is required to ensure the Stormwater Management / Best Management Practice (BMP) dry swale facility functions as designed and to provide for reasonable aesthetic conditions. Proper maintenance is encouraged to prevent the introduction of debris and sediment into pre-treatment areas, the BMP filtration area and downstream waterways. Following installation and establishment of vegetation in disturbed site areas, inspections for sediment buildups will be performed at least quarterly. If it is anticipated that under normal conditions, sediment removal will be required once per year. If other construction or related land-disturbing activities are performed upslope of the BMP, adequate protection measures should be implemented with inspections performed at least once weekly.

The Owner or its designated representative will inspect the SWM/BMP structure after each significant rainfall event or the following working day if a weekend or holiday occurs. A significant rainfall for this structure is defined as one (1) inch or more of gauged rainfall within a 24-hour period. Once per year (more or less) a representative of the County may jointly inspect the structure. Appropriate action, performed at the cost of the owner will be taken to ensure appropriate maintenance. Keys to locked access points or structures shall be made available to the County upon request.

BMP Description: The dry swale facility serves the proposed expansion of the Oaktree Office Park and Airtight Self Storage project. The dry swale drainage area is approximately 2.62 acres. The facility is a 10-point County Type E-2 BMP. The stormwater dry swale system provides for groundwater recharge and water quality volume in one location. The facility will intercept, store and filter runoff resulting from rainfall events. The system is designed to permit overflows to be conveyed through a piped storm drain system to a stable outfall upstream from the James City County Regional Stormwater Basin No. 730. The dry swale structure includes a pre-treatment sedimentation forebay area, a stone diaphragm, a 30-inch deep by 48-inch wide sand filled trench filter with a 4-inch diameter perforated high density polyethylene under drain outlet pipe wrapped in VDOT No. 57 stone aggregate. Stormwater is stored in void spaces within the filtering zones until it eventually seeps into under drain piping beneath the sand filter trench, and is ultimately discharged to the downstream regional stormwater extended detention wetland bottom basin for further treatment and release.

Inspection and maintenance of the facility will consist of the following additional measures:

- Sediment shall be removed from the pre-treatment forebay area when the depth of the sediment accumulation is 12-inches or more. Trash and debris should be removed as necessary.
- Sediment shall be removed from the filter bed when the accumulation of sediment exceeds one inch of depth, and when water ponds on the surface of the filter bed for more than 48-hours following a rainfall event. The top layer of the sand filter should be removed and replaced with clean material. The contaminated layer of sand should be disposed of in an acceptable manner, or taken to a landfill as may be required.
- Gross cover over the dry swale area should be mowed a minimum of three (3) times per growing season to maintain a grass height of 12-inches or less.
- Immediately remove trash, debris or sediment that prevents the movement of water and to maintain the integrity of the structure and provide for an attractive appearance. Proper maintenance measures including the removal of trash, litter and sediment from surrounding grass, parking and stabilized contributing areas should be performed weekly to prevent migration into the BMP. During winter, keep snow removal materials such as sand, salt or cinders away from the filtration area to the greatest extent possible. Trash and litter collection is encouraged daily around the BMP. Dispose of sediments removed from the facility at an acceptable disposal area.
- Many factors will affect the operation of a dry swale filtration system. Routine inspections and maintenance should be performed by the same assigned individual in order to establish a baseline knowledge of how the system functions under different site and weather conditions.
- Routinely inspect vegetated filtering strips adjacent to the facility. A healthy stand of grass should be maintained at all times. Mow the filter strips with lawnmowers at high setting to achieve a cut stand of grass 4 inches or higher. Grass clippings should be bagged as mowing progresses so cuttings will not plug the sand filter.
- Record Keeping. The owner or designated representative shall keep reasonable, accurate written records of inspections performed for the structure. Records shall document routine maintenance and/or repairs performed. Copies shall be provided to the County upon request.
- The facility shall not accept additional drainage or be modified in any way without prior consent or approval by the Environmental Division of James City County.

PLACE 2" TOPSOIL OVER PREPARED DRY SWALE SAND SURFACE, AND INSTALL TURF TYPE TALL FESCUE SOD, OR BERMUDA GRASS SOD.

PLACE SAND BACKFILL IN LOOSE LIFTS, DO NOT COMPACT.

NOTES & DETAILS

MITCHELL-WILSON ASSOCIATES, P.C.
CIVIL ENGINEERS & LAND SURVEYORS

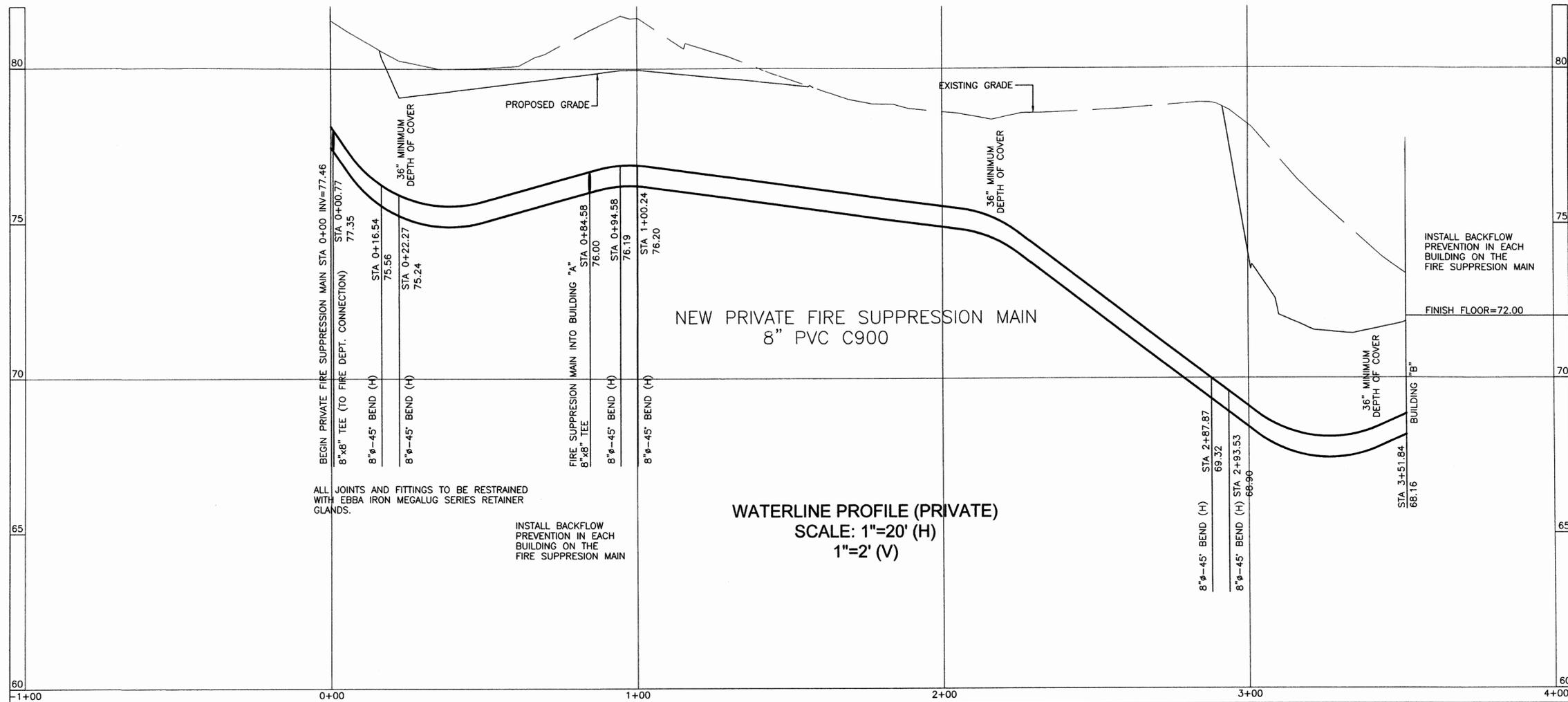
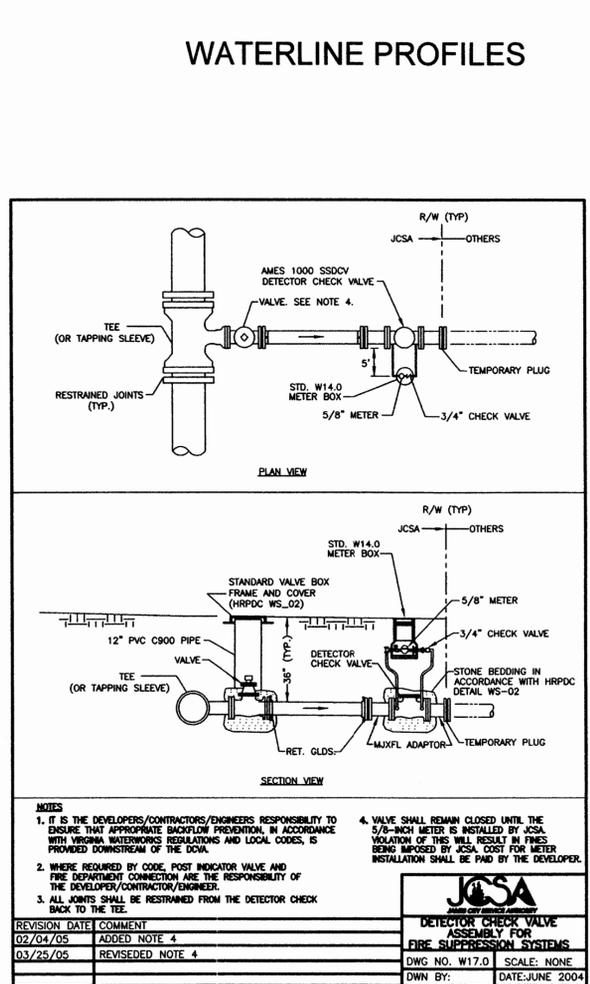
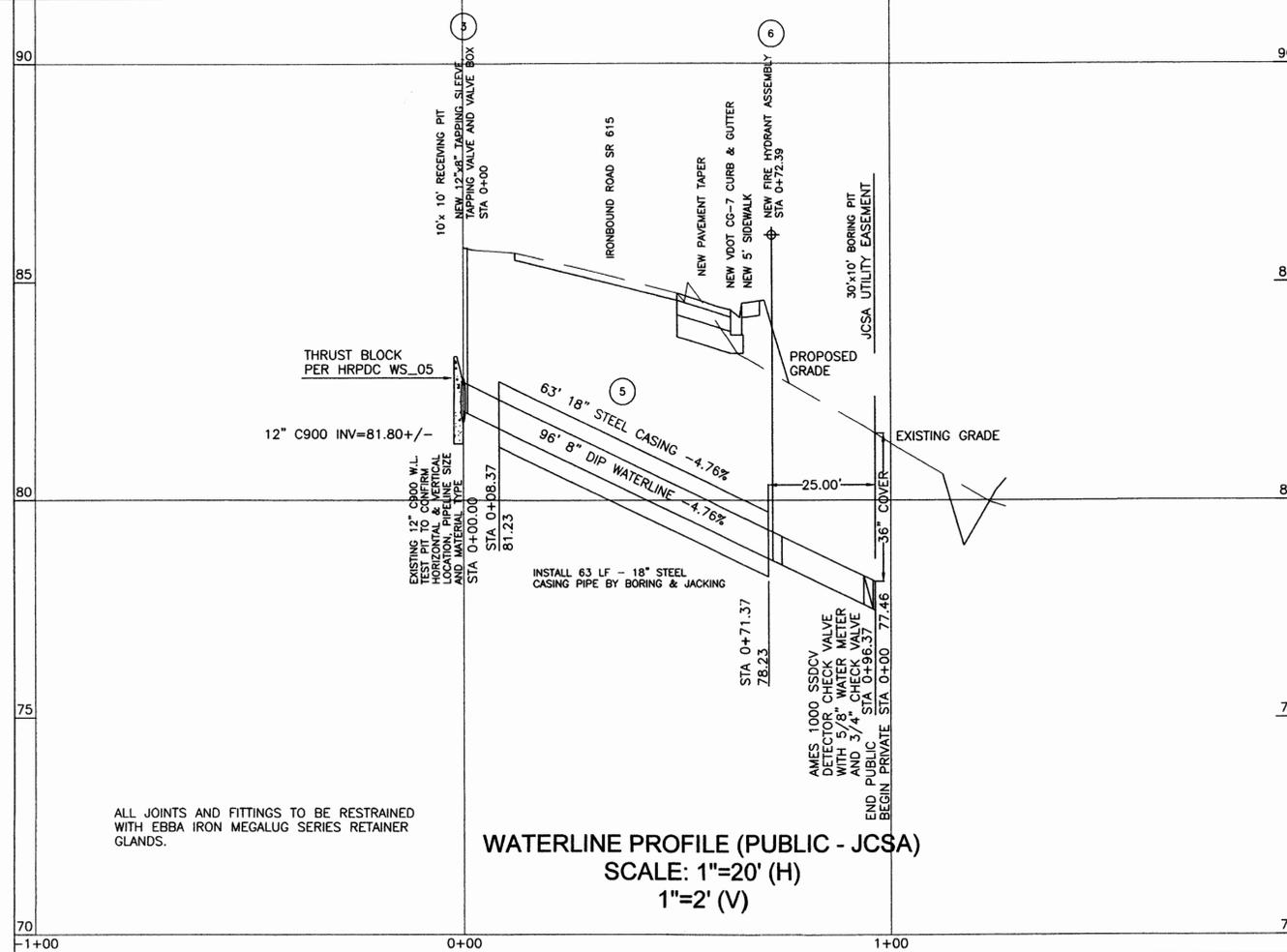
720 MAIN STREET, SUITE 112, 2nd FLOOR
P.O. BOX 1269
WEST POINT, VIRGINIA 23181
(804) 843-9744

**OAKTREE OFFICE PARK
and AIRTIGHT SELF STORAGE**
SITE PLAN FOR EXPANSION

JCC CASE No. SF-2805
JAMES CITY COUNTY, VIRGINIA

DESIGN: JBW	DRAWN: JBW
REVISIONS:	SCALE: AS SHOWN
1. PER JCC REVIEW 6-3-05	DATE: 03-08-05
	SHEET C16





MITCHELL-WILSON ASSOCIATES, P.C.
CIVIL ENGINEERS & LAND SURVEYORS

720 MAIN STREET, SUITE 112, 2nd FLOOR
P.O. BOX 1269
WEST POINT, VIRGINIA 23181
(804) 843-9744

OAKTREE OFFICE PARK and AIRTIGHT SELF STORAGE
SITE PLAN FOR EXPANSION

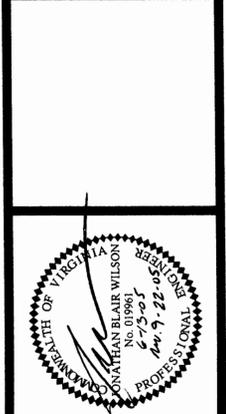
3292 and 3356 IRONBOUND ROAD
WILLIAMSBURG, VIRGINIA 23188
JCC CASE No. SP-28-05
JAMES CITY COUNTY, VIRGINIA

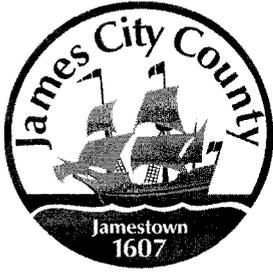
DESIGN: JBW
DRAWN: JBW

REVISIONS:
1. REV. FIRE MAIN PROFILES 9-22-05

DATE: 06-08-05
SCALE: 1"=20'

SHEET C18





JAMES CITY COUNTY
ENVIRONMENTAL DIVISION

P.O. BOX 8784
WILLIAMSBURG, VIRGINIA 23187-8784
(757) 253-6670

Jeanette Brady Descents Trust
3356 Ironbound Road
Suite 401
Williamsburg, Va 23188

April 7, 2008

Re: Oaktree Office Park and Airtight Storage (SP-028-05)
James City County BMP ID Code: MC057

Dear Sir/Madame:

The Environmental Divisions has received a record drawing (asbuilts) and construction certification for the stormwater management facility for the above referenced project. The record drawing provides as-built information for an infiltration basin situated in the east corner of the site.

Based on our review of the project and a concurrent field inspection as performed on 3/05/2008, the following items must be addressed prior to release of the developer's surety instrument for the stormwater management/BMP facility at the site and to proceed with closing out the project:

Record Drawing:

1. The record drawing set dated 2/21/2008 is **satisfactory**. Please forward one reproducible and one blue/black line set of the record drawings to our office.

Construction - Related Items:

1. Area running parallel with the street needs to be stabilized with mulch or seed and straw.
2. Remove silt fence along the perimeter of the project.
3. Outfall channel needs to be better defined in addition the rip rap needs to be installed per approved plan. There appears to be some stone at the outfall. This stone is mainly on the slope adjacent to the flared end. There is no rip rap in the channel as delineated on approved plan
4. Stabilize with, mulch or seed and straw all disturbed soil areas present on project.
5. Erosion gullies present on the slopes should be backfilled with compacted material, reseeded and mulched or matted for stabilization.
6. The inside perimeter needs to be stabilized with seeded and EC-1 matting or mulch between the sides of the timber walls and the edge of turf.

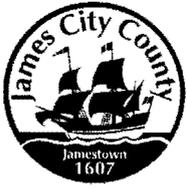
7. The installed grating and fence around the fourbay is not adequate. There presents problems with drainage and the blockage by debris with the flow into the structure. Water has already started eroding around the post for the chain link fence. Over time this will fail. The approved plan shows a 1-1/2 inch by 1/8'inch by 18 feet galvanized pipe to be installed. In addition the anchoring of the grate does not match the approved site plan.
8. Clean and remove sediment accumulations, debris, trash and inside the four bay.

Once this work is satisfactorily completed, contact our office appropriately for re-inspection. We can then proceed with final release of the surety and/or closing out 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 757-253-6683 if you have questions or need additional assistance.

Sincerely,

Gregory B. Johnson.
Inspector
Environmental Division



**James City County Environmental Division
Stormwater Management / BMP Inspection Report
Detention and Retention Pond Facilities**

County BMP ID Code (if known): MC 057

Name of Facility: OAK TREE OFFICE PARK BMP No.: 1 of 1 Date: 3/5/08

Location: 3292 Ironbound Road

Name of Owner: Mrs. Jeanette Brady

Name of Inspector: GREGORY B. JOHNSON

Type of Facility: Timberwell Detention

Weather Conditions: Sunny Type: Final Inspection County BMP Inspection Program Owner Inspection

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. No action required.
- Routine - The item checked requires attention, but does not present an immediate threat to the function/integrity of the BMP.
- Urgent - The item checked requires immediate attention to keep the BMP operational and to 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:				
Grass Height	✓			
Vegetation Condition	✓			
Tree Growth	✓			
Erosion		✓		
Trash & Debris	✓			
Seepage	✓			
Fencing or Benches		✓		
Interior Landscaping/Planted Areas: <input type="checkbox"/> None <input type="checkbox"/> Constructed Wetland/Shallow Marsh <input type="checkbox"/> Naturally Established Vegetation				
Vegetated Conditions	✓			
Trash & Debris	✓			
Floating Material	✓			
Erosion		✓		
Sediment		✓		
Dead Plant	✓			
Aesthetics		✓		
Other				
Notes:				

Facility Item	O.K.	Routine	Urgent	Comments
Water Pools: <input type="checkbox"/> Permanent Pool (Retention Basin) <input type="checkbox"/> Shallow Marsh (Detention Basin) <input type="checkbox"/> None, Dry (Detention Basin)				
Shoreline Erosion				
Algae				
Trash & Debris				
Sediment				
Aesthetics				
Other				
Inflows (Describe Types/Locations):				
Condition of Structure	✓			
Erosion		✓		
Trash and Debris	✓			
Sediment		✓		
Outlet Protection		✓		
Other				
Principal Flow Control Structure - Riser, Intake, etc. (Describe Type):				
Condition of Structure				
Corrosion				
Trash and Debris				
Sediment				
Vegetation				
Other				
Principal Outlet Structure - Barrel, Conduit, etc. :				
Condition of Structure				
Settlement				
Trash & Debris				
Erosion/Sediment				
Outlet Protection				
Other				
Emergency Spillway (Overflow):				
Vegetation	NA			
Lining				
Erosion				
Trash & Debris				
Other				
Notes:				

Facility Item	O.K.	Routine	Urgent	Comments
Nuisance Type Conditions:				
Mosquito Breeding	/			
Animal Burrows	/			
Graffiti	/			
Other	/			
Surrounding Perimeter Conditions:				
Land Uses	/			
Vegetation		/		
Trash & Debris	/			
Aesthetics		/		
Access /Maintenance Roads or Paths	/			
Other				
Remarks:				
Overall Environmental Division Internal Rating: _____				
Signature: _____ Date: _____				
Title: _____				

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